UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA

CASE NO. 8:11-cv-62591

ACR ELECTRONICS, INC.,
A Florida Corporation,

Plaintiff

v.

DME CORPORATION, a Florida Corporation, CCK ELECTRONICS LLC, a Florida Limited Liability Company, CHUNG T. TONG, CLAUDIO CASSINA, AND KAIYU WU,

Defendants.

DME'S [PROPOSED] FINDINGS OF FACT AND CONCLUSIONS OF LAW

HODGSON RUSS LLP
Attorneys for DME Corporation
Robert J. Lane, Jr. (admitted pro hac vice)
Jodyann Galvin (admitted pro hac vice)
Stephen W. Kelkenberg (admitted pro hac vice)
Melissa N. Subjeck (admitted pro hac vice)
The Guaranty Building
140 Pearl Street, Suite 100
Buffalo, New York 14202-4040

Findings of Fact

I. THE PARTIES

A. ACR Electronics, Inc. ("ACR")

1. ACR designs and develops safety products and safety equipment for the aviation and marine industries. *See* Declaration of Michael Wilkerson for Preliminary Injunction Hearing, sworn to March 14, 2012 ("Wilkerson DT") ¶ 1.

2. One piece of portable emergency equipment designed and manufactured by ACR is a 406 MHz Personal Locator Beacon ("PLB"). Wilkerson DT ¶ 2.

3. A PLB is a life-saving device that is used to transmit a distress signal to search and rescue organizations to aid in tracking and quickly locating ships or individuals in jeopardy. Wilkerson DT ¶ 2.

4. ACR has introduced two PLB devices to the market since approximately July 2011 under its ResQLink trade name These are the PLB-375 and the PLB-375+ (the principal difference in the latter being that it floats).

5. As discussed below, this case is based on ACR's claims that the defendants have misappropriated ACR's trade secrets and violated certain copyrights that ACR holds, and which are related to its PLB devices.

B. Astronics DME Corporation ("DME")

6. DME specializes in emergency, safety, and search and rescue products. *See* Declaration of Frank Cassandra in Opposition to ACR's Motion for Preliminary Injunction, sworn to March 14, 2012 ("Cassandra DT") ¶ 2.

7. DME has over thirty-five years of experience in the Emergency Locator

Transmitter beacon ("ELT") industry. ELTs are satellite beacon radio transmitters that are used mainly in the transport/commercial aviation industry to assist search and rescue teams in locating downed or missing aircraft by broadcasting a distress signal and message, and a homing signal. Cassandra DT ¶ 2.

8. ELTs may be affixed to an aircraft, or may be portable or survival ELTs which are attached to life boats or rescue slides. ELTs are designed and tested by manufacturers for compliance with regulations issued by the Federal Aviation Administration ("FAA"), Radio Technical Commission for Aeronautics ("RTCA"), and the Federal Communications Commission ("FCC"), as well as standards issued by COSPAS-SARSAT, an international satellite communications regulator. Cassandra DT ¶ 2.

9. PLBs and ELTs are similar, but ELTs are more sophisticated and undergo more rigorous testing prior to being approved for sale.[1] ACR and DME are competitors in the ELT market. Cassandra DT ¶ 2.

10. Over the past 20 months, however, DME has designed and developed a new PLB device, the SATRO PLB-110 ("SATRO"), which will allow it to compete with ACR and others in the PLB market. DME is in the final stages of obtaining the necessary approvals to sell the SATRO to the United States market.

11. DME's SATRO is at the center of the parties' dispute.

---

[1] As noted below, a PLB is a simplified version of an ELT; it is a satellite beacon radio transmitter and it performs a similar function (assisting search and rescue teams in locating a target). Cassandra DT ¶ 4.

C. CCK Electronics, LLC ("CCK") and the Individual Defendants

12. CCK was formed in July 2010 and was originally owned by three engineers formerly employed by ACR, Chung Tong, Claudio Cassina, and Kaiyu Wu (the "Individual Defendants").[2]

13. CCK was hired by DME in September 2010 to review, analyze, and assist with DME's product definition for a PLB — the result of this project was the SATRO.

Chung Tong

14. From January 2005 to July 2010, Tong was the Principal Engineer for ACR, serving as the company's Beacon Team Leader. *See* Declaration and Direct Testimony of Chung Tong, sworn to March 14, 2012 ("Tong DT") [Docket No. 99] ¶ 5. In this role, Tong was responsible for all ACR beacon activities including the conceptualization, design, approval, and testing of ACR's beacon products. Tong DT ¶ 7.

15. Prior to joining ACR, Tong was a member of the technical staff at Motorola, in Boynton Beach, Florida, where he worked for nearly 20 years. His principal responsibilities for Motorola included new product development for devices such as pagers and cellphones. Tong DT ¶ 1.

16. Tong holds a Bachelor's degree in electrical engineering from the University of Florida, and a Master's degree from Florida Atlantic University. Tong DT ¶ 2.

Kaiyu Wu

17. Wu worked for ACR from November 2006 to July 2010. His principal role

---

[2] Wu has had some significant health problems and withdrew as an owner of CCK in October 2011. *See* Declaration and Direct Testimony of Kaiyu Wu, sworn to March 14, 2012 ("Wu DT") [Docket No. 100] ¶¶ 18-19.

at ACR consisted of designing firmware for ACR's PLB and EPIRB products,[3] developing and writing beacon testing software, and providing production support (such as training, system setup, and troubleshooting). Wu DT ¶ 1.

18. Wu has 18 years of experience in writing and developing computer code and software. Wu DT ¶ 2.

Claudio Cassina

19. Cassina joined ACR in July 2005 to work on developing new products in beacon design. *See* Declaration and Direct Testimony of Claudio Cassina, sworn to March 14, 2012 ("Cassina DT") [Docket No. 98] ¶ 1.

20. Cassina is an electrical engineer, and holds a degree in process control and digital technics from O.R.T., in Argentina. He has spent nearly 23 years developing new technology in areas such as high frequency synthesizers, voltage controlled oscillators ("VCOs"), phase lock loops ("PLLs"), frequency modulation ("FM") transmitters and receivers, digital control systems, high efficiency switching power supplies, and radio frequency printed circuit board ("PCB") designs. Cassina DT ¶ 2.

D. The Expert Witnesses

21. Dr. fredric j harris testified on behalf of DME and the Individual Defendants.[4] Dr. Harris has a doctorate in electrical engineering. His area of expertise is digital signal processing for communication systems. He has been a Professor in the Department of

---

[3] "Firmware" refers to the instructions or data that are embedded in a particular hardware device. *Phillip M. Adams & Assocs , LLC v. Dell, Inc.*, 2010 WL 2733319, at *15 (D. Utah July 9, 2010).

[4] The direct testimony of Dr. Harris was submitted by declaration on March 12, 2012 ("Harris DT").

Electrical and Computer Engineering at San Diego State University since 1980, where he has been on the faculty since 1967. Dr. Harris consults with aerospace and communication companies and federal agencies on advanced digital signal processing techniques for satellite, cable, and terrestrial communication as well as surveillance, radar, sonar, instrumentation, and electronic warfare systems.[5]

22. ACR offered Dr. Heppe as an expert witness. Dr. Heppe obtained a doctorate from George Washington University and has worked in the satellite-based navigation and telecommunications industries. Dr. Heppe's credentials are attached to his direct testimony as Exhibit A. *See* Declaration of Dr. Stephen B. Heppe for Preliminary Injunction Hearing, sworn to March 13, 2012 ("Heppe DT") ¶ 3. Dr. Heppe has no experience designing PLBs. Tr. at 6.

II. ACR's CLAIMS AND REQUEST FOR INJUNCTIVE RELIEF AGAINST DME

23. ACR's First Amended Complaint ("Complaint") asserts only three causes of action against DME: (1) copyright infringement (Count I), based on alleged copying of ACR's 39 Burst Test Code, its 39 Burst Technical Drawings, and its PLB-375 and PLB-350 schematics; (2) a Lanham Act claim (Count III) based on the allegation that DME improperly advertised its SATRO product without indicating that it was awaiting FCC approval; and (3) an unfair competition claim (Count XI) based on the allegation that DME misappropriated ACR's trade secret/confidential information. *See* Complaint [Docket No. 5] ¶¶ 46-58, 67-74, 108-112.[6]

24. ACR's copyright claim is limited to its PLB-375 and PLB-350 electrical schematics. Although, as discussed below, ACR has pleaded an unfair competition claim against

---

[5] Dr. Harris's qualifications and list of publications appear in the record at Docket No. 2.

[6] ACR has not pleaded a claim of trade secret misappropriation against DME under Florida's Uniform Trade Secrets Act, Fla. Stat. Ch. 688 *See* Complaint ¶¶ 75-79.

DME based on the alleged misappropriation of its PLB-350 source code; it has not pleaded a copyright claim against any of the defendants based on that code. *See* Complaint ¶ 50 (defining "Copyrighted Works" to include the 39 Burst Test Code, the 39 Burst Technical Drawings, and the ACR PLB Reference Schematics – PLB-350 and PLB-375). After filing its motion, ACR abandoned its copyright claim for the 39 Burst Test Code and 39 Burst Technical Drawings (which originally formed the basis of its complaint and motion for preliminary injunction).[7]

25. ACR's Lanham Act claim is based on the allegation that DME advertised that its SATRO PLB would be available for sale in December 2011 without advising consumers that the SATRO has not yet been approved by the FCC. *See* Complaint ¶¶ 67-74.

26. ACR's unfair competition claim is based on DME's alleged misappropriation of ACR's confidential information and trade secrets and its purported violations of the Lanham Act. *See* Complaint ¶¶ 108-112.

27. With respect to DME, ACR seeks a preliminary injunction restraining: (1) DME's alleged infringement of ACR's copyrighted works; (2) the use and disclosure of ACR's alleged trade secrets and confidential or proprietary information; (3) DME's launch of its sale of the SATRO PLB-110; and (4) DME's alleged false advertising of its SATRO PLB-110. *See* Plaintiff ACR Electronics, Inc.'s Preliminary Injunction Hearing Brief, dated March 14, 2012 ("ACR Brief") at 30.[8]

---

7 ACR initially alleged that DME could not possibly have developed its own PLB product if it had not misappropriated the 39 Burst test information because it would have taken more than two years of work by a full engineering team just to develop the drawings and test code. *See* Complaint ¶ 38. But, as noted above, ACR has given up on these claims for purposes of the preliminary injunction proceeding.

8 This document was filed under seal and has no docket entry number.

III. ACR'S PLB DESIGNS

A. The Individual Defendants' Work on ACR's PLBs

Claudio Cassina

28. After joining ACR in July 2005 as an engineer, Cassina began working in the area of new product design. Cassina DT ¶ 18.

29. One of the first projects that Cassina worked on at ACR was the hardware design for ACR's PLB-300. Cassina DT ¶¶ 3, 18. This included drafting the schematic for ACR's PLB-300. Tr. at 436. Cassina was the only engineer responsible for the hardware design of the PLB-300. Cassina DT ¶¶ 3, 23.

30. Cassina testified that ACR did not give him any guidelines on how to draw schematics; and he used his own template and his own style of drawing. Cassina's style evolved from his years of experience as an engineer. Tr. at 438; Cassina DT ¶¶ 41, 55.

31. During the design process for the PLB-300, Cassina used his own printed circuit board layouts and his own library of components that he compiled from his prior experience and previous jobs. Cassina DT ¶¶ 8, 55. Cassina used the sample circuits in his library as references on how to draw the circuits. Cassina DT ¶¶ 8-9. Cassina never used any ACR library for schematic designs. Cassina DT ¶ 55.

32. Cassina utilized ACR's PLB-200 to familiarize himself with the beacon technology. He ultimately changed most of the design of that product. Cassina DT ¶ 3. Only a small portion of the PLB-200 design was used for the design of the PLB-300. Cassina DT ¶ 23.

33. As part of Cassina's design effort, he introduced a completely new concept to ACR, a phase lock loop system (or "PLL," as noted previously), based on the ADF7012 chip. He

created the PLL technology prior to joining ACR for his own product, the Docking Master. Cassina DT ¶ 3.

34. The Docking Master is a wireless docking system for boats. Cassina DT ¶¶ 3, 19. (Cassina's Docking Master product is listed in his non-disclosure agreement with ACR as pre-existing technology that Cassina brought to ACR. This PLL technology was not assigned to ACR.) Cassina DT ¶¶ 4, 19-20.

35. Cassina's PLL was incorporated into ACR's PLB-300, as well as other ACR product designs. Tong DT ¶¶ 21, 24.

36. Cassina spent approximately 9-11 months working on the hardware design for the PLB-300. Tr. at 434. The PLB-300 was first introduced to the market in January 2007. Cassina DT ¶¶ 5, 27.

37. ACR's PLB-350 product followed its PLB-300. Carlos Lizandro was the principal engineer on ACR's PLB-350 schematic design. Cassina DT ¶ 28.

38. Cassina did little engineering work on the PLB-350. Cassina DT ¶ 28; Tr. at 454. But because Lizandro had no prior experience designing or drawing schematics for beacon products, Cassina spent time educating him about the base design for the PLB-300 Cassina DT ¶ 28.

39. And as part of the PLB-350 project, Cassina was instructed by Tong to reverse engineer a beacon product of one of ACR's competitors, McMurdo's FastFind PLB Tong DT ¶ 21; Tr. at 486. Cassina was also asked to do a dye cut and chemical analysis of the McMurdo antenna in order to determine its materials. Tong DT ¶ 25.

40. In connection with his reverse engineering efforts of the McMurdo FastFind,

Cassina created a very detailed drawing of the McMurdo's 406 output amplifier and the antenna matching network. Lizandro used the drawings created by Cassina in his design of the PLB-350. Cassina DT ¶¶ 24-25; Tong DT ¶ 24. And ACR used materials similar to those used in the McMurdo antenna in the PLB-350. Tong DT ¶ 24.

41. ACR used Cassina's design and style from the PLB-300 schematic in the PLB-350. Cassina DT ¶ 56. Rather than create a whole new schematic for the PLB-350, Lizandro merely made changes to the schematic previously drawn by Cassina. Cassina DT ¶ 56.

42. The PLB-350 is nearly identical to the PLB-300, except for an OLED display and a redesign of the power amplifier circuit based on Cassina's drawing of the McMurdo circuit. Cassina DT ¶ 29.

43. The PLB-350 was introduced to the market in late 2009. Cassina DT ¶ 32.

44. Like the PLB-350, Lizandro was the principal engineer of ACR's PLB-375 product. *See* Declaration of Thomas Pack for Preliminary Injunction Hearing, sworn to March 14, 2012 ("Pack DT") ¶ 5. Cassina did not work directly on the PLB-375. Cassina DT ¶ 33.

Kaiyu Wu

45. At ACR, Wu wrote the RLB-36 code.[9] Wu DT ¶ 13. He was the only person who worked on that code. Wu DT ¶ 14.

46. Wu used the PLB-300 code as a reference when drafting the RLB-36 code. Wu DT ¶¶ 13-14.

47. The RLB-36 code was different than the PLB-300 code. It was the first

[9] The RLB-36 is what is known as an "EPIRB." An EPIRB is similar to a PLB, except that it has additional features and functions, and is usually used in the marine industry. Tr. at 418.

code at ACR that used an interrupt. Wu DT ¶¶ 13-14.

48. Wu also wrote the code for the PLB-350. Wu DT ¶ 14. The PLB-350 code was based in large part on the RLB-36 code that he previously created. Wu DT ¶ 14. At least 80-90 percent of the RLB-36 code was used in the PLB-350 code. Wu DT ¶ 14.

49. Wu testified that it would take approximately three months to develop software for a PLB. Wu DT ¶ 25.

50. The software used in a PLB is simple. Wu DT ¶¶ 3, 25. There is not much flexibility in writing the code. Wu DT ¶ 37. The features and algorithms embedded in a PLB are very limited because the PLB's behavior is strictly controlled by COSPAS-SARSAT. Wu DT ¶ 3. The PLB-350 code was based on regulations that are now obsolete. Wu DT ¶ 24.

51. Wu was involved in early discussions about the code for ACR's PLB-375, but he did not work on any programming for that device. Wu DT ¶ 15

Chung Tong

52. Tong was responsible for ACR's beacon product line. Tong DT ¶ 7. He oversaw both the ACR legacy beacon products and ACR's new beacon product development activities. Tong DT ¶ 7

53. While at ACR, Tong supervised the development and introduction to the market of the PLB-300 and PLB-350 products. Tong DT ¶ 9; Tr. at 430.

54. Tong was also responsible for the early development of the PLB-375. Tong DT ¶ 10. The PLB-375 was still in the development phase when Tong left ACR in July 2010. Tong DT ¶ 10.

55. Prior to his resignation, Tong transferred the tasks of his unfinished

programs, including the PLB-375, to Thomas Pack, ACR's Director of New Product Development. Tong DT ¶ 11.

56. ACR's PLB-375 was introduced to the market in July 2011, approximately one year after the Individual Defendants resigned from ACR. Tr. at 188-89.

B. The Parties Dispute The Extent of Carlos Lizandro's Work on the Power Amplifier Design for ACR's PLB Devices

57. As noted above, Carlos Lizandro was the principal engineer of ACR's PLB-350 and PLB-375 devices. Cassina DT ¶ 28. Lizandro appears to have been hired specifically to work on the design of the power amplifier in ACR's PLB units. Tr. at 682

58. The Court notes that Lizandro is still employed by ACR. Tr. at 744. Despite that fact — and despite having submitted an affidavit as recently as February 21 in connection with this case — ACR did not submit direct testimony from Lizandro at the hearing of this motion, and thus did not allow him to be subject to cross-examination by defendants' counsel.[10]

59. ACR attempted, instead, to elicit testimony about Lizandro's work on the power amplifier from other witnesses, including ACR's own expert, Dr. Stephen Heppe. Tr. at 486, 683, 694, 747-48, 752-54.

60. But that testimony either lacked foundation, or otherwise failed to support ACR's position (or both).

61. For instance, while Dr. Heppe described the changes to the McMurdo design as "substantial," the Court is unable to glean from his testimony any facts to support this assertion,

---

10 The Court instructed the parties that all direct testimony was to be presented by declaration but that the Court would not consider, as part of its decision, testimony from any witness who was not tendered for cross-examination at hearing.

let alone a description of the actual modifications made. Tr. at 747-48, 753-54. *See also* Tr. at 752 (Dr. Heppe, testifying that the harmonic filter utilized for the power amplifier was "not exactly" the same as what was used in the McMurdo, but stating that he could not recall how it was different).

62. And on cross-examination, Cassina disagreed that Lizandro made "substantial modifications" to the McMurdo power amplifier following Cassina's reverse engineering efforts. Tr. at 486; Tr. at 683.

63. In fact, Cassina testified that significant aspects of the power amplifier in ACR's PLB devices were "identical" to McMurdo's — such as "the topology [of the] circuit" and the "framework of the 406 power amplifier." Tr. at 682-83. *See also* Cassina DT ¶ 21 (stating that ACR used the McMurdo power amplifier design to develop its PLB products); Tr. at 694 (Tong, testifying that he didn't consider the design efforts around the McMurdo design to be "very hard, because it was — originally it was McMurdo design. Modification around the original design I don't consider hard").

64. The only difference between the power amplifier for the McMurdo product and the PLB-375 noted by Cassina was that the PLB-375 used a higher frequency than the McMurdo which required "some tweaking" of certain component values. Tr. at 683.

65. The finding of this Court is that these differences are insignificant. This is especially so given ACR's ability, and decision, to not produce Lizandro for hearing — the one individual that could have credibly testified about the actual engineering effort that went into the power amplifier designs for ACR's PLBs.

IV. THE INDIVIDUAL DEFENDANTS' DEPARTURE FROM ACR

66. In spring 2010, ACR's President, Paul Frank, retired. Tr. at 721-22. Frank was replaced by Joseph Mentz, who assumed the role of General Manager. Tr. at 721.

67. The testimony in this case reveals that things took a dramatic turn for the worse at ACR following Mentz's hiring. Wu DT ¶ 16; Tong DT ¶ 15; Cassina DT ¶ 36. According to Tong, for instance, Mentz changed the culture within ACR, and he shifted the company's focus from new product development to "bottom line improvement," with an emphasis on "cost reduction [and] lean process." Tr. at 723; Wu DT ¶ 16; Tong DT ¶ 15; Cassina DT ¶ 36. *See also* Declaration of Stephen W. Kelkenberg in Opposition to ACR's Motion for Preliminary Injunction, dated March 14, 2012 ("Kelkenberg Dec.") ¶ 4(a) and Ex. B (Pack Dep.) at 18-19 (describing the lean transformation initiative that was implemented by ACR around the time Pack joined the company in May 2010).

68. There was significant upheaval within the executive ranks of ACR after Mentz took over. This included the resignations of ACR's Vice President of Sales and Marketing (Paul Hardin), its Vice President of Manufacturing and Operations (Ed Wolfe), its Director of Quality Control (Joe Menasi), its Directors of Purchasing (David Wand) and Sales (Ron Crowder), its bridge group manager (Alan Preuse), its chief mechanical engineer (Steve Hurley), and its marketing manager (Jackie Lyman). Tr. at 721-23; Cassina DT ¶ 36. *See* Kelkenberg Dec., Ex. B (Pack Dep.) at 173-86 (acknowledging that the financial performance of ACR was declining from 2009 to 2010, and identifying several ACR management-level personnel that left ACR following his arrival in May 2010).

69. In late June and early July 2010, each of the Individual Defendants advised

ACR that they too were leaving the company. Tong DT ¶ 15; Wu DT ¶ 16-17; Cassina DT ¶ 36. Tong was the last to quit (on July 9). Tr. at 160. His last day of work for ACR was July 23, 2010. Tr. at 160.

70. Significantly, none of the Individual Defendants is subject to a non-compete agreement with ACR. Tong DT ¶ 20; Wu DT ¶ 3; Cassina DT ¶ 4 Each was free to compete with ACR in the beacon business after leaving ACR's employment. Tr. at 157 (ACR's Director of Human Resources, Richard Horn, agreeing in response to ACR's counsel's question that Tong was not precluded from competing with ACR in the beacon business after he left the company).

71. And on July 19, 2010, following their resignations, the Individual Defendants formed CCK. Cassina DT ¶ 37. At that time, they were uncertain of the initial direction that CCK would take — other than that it would provide engineering consulting services for all types of electronic devices, such as PLBs, EPIRBs, wireless systems, and home movie systems. Wu DT ¶¶ 18, 20; Tong DT ¶¶ 12-13; Cassina DT ¶ 37.

V. DME'S DEVELOPMENT OF A PLB

A. DME's Research and Development of Personal Emergency Beacons

72. DME first considered the possibility of developing a personal-sized emergency beacon for use by an individual in 2005. Cassandra DT ¶ 3. Over the succeeding years, that idea developed into a plan for introducing a PLB of the type at issue in this case.

73. In approximately 2007, DME evaluated the possibility of a new product line called a "personal ELT." The personal ELT was intended to comply with rigorous aviation standards but would be smaller than regular ELTs and shaped more like a PLB. Cassandra DT ¶ 4.

74. DME's analysis of a possible personal ELT offering continued into 2008.

DME determined, however, that a personal ELT was not practical for product development because there were no regulatory standards governing personal ELTs and it appeared any such regulations could be years in the future. Cassandra DT ¶ 5.

75. Because of the close relationship of their technology and end uses, DME identified the PLB product line as a natural extension of its ELT business. Cassandra DT ¶ 6. Between 2008 and 2009, the focus of DME's development efforts shifted to development of a PLB for both consumer and commercial markets. Cassandra DT ¶ 6. During this timeframe, DME developed a plan for a GPS-capable PLB product. The plan included an analysis of the PLB market, product milestone timelines, technical feasibility and regulatory analyses, and target product characteristics. Cassandra DT ¶ 6.

76. As noted above, the PLB is a simplified version of an ELT. Tong DT ¶ 14. Like an ELT, it is a satellite beacon radio transmitter. It fulfills a similar function (assisting search and rescue teams in locating a target), but the PLB standards are lower than the standards for ELTs, which are used primarily in aviation. Cassandra DT ¶ 4. For example, a 406 MHz ELT must transmit a signal for a longer duration and must withstand more severe environmental conditions than a PLB. An ELT also requires more regulatory agency approvals than a PLB. Cassandra DT ¶ 4. PLBs were originally designed as lightweight emergency beacons for use in extreme recreational activities like the exploration of remote areas, and are also used in boating, hiking, and in general or recreational aviation. Cassandra DT ¶ 4.

77. The PLB project remained part of DME's business plans in 2009 through 2010 with the recognition that DME already possessed the engineering skills and resources to develop a PLB, including the ability to work on technical features, technical processes, and identify sources of supply, manufacturing tools, and equipment. Cassandra DT ¶ 7.

B. DME's SATRO PLB-110

78. In 2010, DME made a decision to begin development work on a PLB. Because its engineering staff was fully engaged on other projects, including the development and modification of existing ELTs and related products, DME decided to look for outside engineering assistance. Cassandra DT ¶ 7.

79. In August 2010, Chung Tong contacted DME's Eric Hiner to discuss the possibility of doing design work for DME on a PLB. The two knew each other previously through their affiliation with the Radio Technical Commission for Maritime Services ("RTCM"). Tong DT ¶ 13.

80. Later that month, Frank Cassandra, Vice President and General Manager of DME, held a preliminary meeting with Tong, Cassina, and Wu to discuss the possibility of retaining CCK to assist in development of a PLB. Cassandra DT ¶ 8.

81. Cassandra instructed CCK not to disclose any ACR confidential information or any patented intellectual property. Cassandra DT ¶ 8; Tong DT ¶ 29; Cassina DT ¶ 39.

82. Tong, CCK's President, confirmed to Cassandra that they would not disclose any such information to DME. Cassandra DT ¶ 8; Tong DT ¶ 29.

83. In August 2010, DME prepared a Marketing Specification for Personal Locator Beacon without any input or contribution from CCK. Cassandra DT ¶ 9. The Marketing Specification included the specific features of PLBs that DME believed were desirable from a competitive or functional perspective, as well as an overview of competitors' units. Cassandra DT ¶ 8, Ex. B.

84. On September 27, 2010, DME issued to CCK a Subcontractor Statement of

Work for Personal Locator Beacon Product Development, Phase I - Concept Development. Cassandra DT ¶ 9, Ex. A.

85. The first work CCK did for DME was in early fall 2010. Cassandra DT ¶ 9. Because Cassina was not busy with any other projects in September and October 2010, he began working on a schematic for a new PLB that would be substantially improved and different from prior PLBs. Tr. at 514. Cassina continued his work developing the schematic throughout the remainder of 2010 and into 2011. Tr. at 500, 514, 574.

86. Wu began working on the source code for a new PLB in January or February 2011. Tr. at 619.

87. In early October 2010, DME personnel met with Tong, Cassina, and Wu to refine the product definition. Cassandra DT ¶ 11; Tr. at 391. DME and CCK reviewed DME's independent product definition together. Cassandra DT ¶ 11. DME instructed CCK that DME's goal was to make a PLB that was better than the McMurdo FastFind PLB, the smallest available PLB at that time. Cassandra DT ¶ 11, Ex. C (FastFind User Manual).

88. In late 2010, Tong identified a number of GPS units, including the GlobalTop PA6B, for potential use in a new PLB. In December 2010, Cassina conducted testing on three of those GPS units over a period of 3 days. That testing included writing software to determine and evaluate the speed and reliability with which each unit was able to lock on to a satellite signal, and hundreds of individual tests of that capability. Tr. at 562-67, 704, 707; Cassina DT ¶ 48, Ex. D.

89 DME and CCK entered into a second subcontractor Statement of Work in January 2011. Cassandra DT ¶ 12. This Statement of Work related to Phase 2. Engineering Development and Test. The DME Product Definition for Personal Locator Beacon was finalized on

January 13, 2011. Cassandra DT ¶ 8, Ex. D.

90. In February 2011, DME and CCK conducted a product review meeting, finalizing the specifications for the PLB under development. Tr. at 393.

91. Wu continued to work on the source code during spring and summer 2011. And he provided a preliminary version of the source code to DME in August 2011. Tr. at 619, 634-35. This was not the final version of the source code. Cassandra DT ¶ 16. In fact, Wu continued working on the source code and developed a final version of the source code, intended for the production version of the SATRO, in November 2011. Tr. at 635-36.

92. As of late April 2012, 18 months have passed since active engineering work began on the SATRO design and the product is still not ready for market. This does not include the several years of independent work DME did on personal ELTs.

93. COSPAS-SARSAT, the regulatory agency that sets standards for PLBs, requires that any new PLB undergo independent laboratory testing before it can be approved. DME has received COSPAS-SARSAT approval for its SATRO product. DME has successfully completed the required testing for various agencies through TUV, a testing laboratory. DME submitted the COSPAS-SARSAT approval along with its independent test results to the FCC for final approval in April 2012. FCC approval is required before DME can sell its SATRO PLB. Tr. at 409, 794-96. DME has advised the Court that it expects FCC approval, after which the SATRO is ready for public sale, some time in May 2012. Tr. at 794-96.

94. Cassina testified that the timeline for the development of ACR's PLB-300 was substantially shorter than the timeline for development of the SATRO. Cassina began working on the schematic for the PLB-300 in December 2005. Tr. at 499. The PLB-300 was nearly entirely

new, with only 10%-15% of its design being based on a prior PLB product. Tr. at 431-32; Cassina DT ¶ 3. Cassina also testified that the first sale of a PLB-300 unit occurred in January 2007 — 13 months after he began work on the schematic. Tr. at 435.

95. ACR has contended in this case that the timeline for development of the SATRO has been "so short" that the only explanation is that DME and CCK made use of ACR's proprietary information. Complaint ¶ 45; Pack DT ¶¶ 18-20.

96. But as the foregoing timeline demonstrates, this appears not to be the case. Measured from the beginning of work on the schematic, the timeline for the development of the SATRO will be approximately 50% longer than the timeline for the development of the ACR PLB-300.[11] Measured from beginning work on a product idea, the SATRO development timeline exceeds the PLB-375 timeline by even more.

C. DME's Investment in the SATRO PLB-110

97. DME has expended over a million dollars developing its SATRO product. Cassandra DT ¶ 33.

98. DME's Frank Cassandra testified that CCK has been paid approximately $400,000 for its work. Cassandra DT ¶ 33. DME has also incurred: (1) additional research and development costs of approximately $250,000 for internal personnel time and testing; (2) $400,000 on materials; (3) $60,000 on tooling; and (4) $60,000 on test equipment and workbenches. In addition to this, DME has invested about 3,500 hours in marketing research and marketing, and an

[11] As noted above, while DME has not introduced a PLB prior to the SATRO, it has been in the business of designing and manufacturing ELTs for many years. ELTs perform the same function as PLBs, but are required to be more robust and are more heavily regulated. Cassandra DT ¶ 4.

unquantified number of hours for engineering, manufacturing engineering, and administrative time. Cassandra DT ¶ 33.

VI. THE TIME BETWEEN ACR FIRST LEARNING THAT ITS ALLEGED TRADE SECRET INFORMATION WAS STOLEN AND ITS EFFORTS TO SECURE ITS RETURN

99. Thomas Pack is ACR's Director of New Product Development. *See* Pack DT ¶ 1. He began working for ACR on May 24, 2010, just a few weeks before the Individual Defendants resigned. Tr. at 158.

100. As Director of New Product Development, Pack is responsible for ACR's beacons and navigation groups. Tr. at 159. His duties, among other things, consist of developing radio beacon products including PLBs, EPIRBs, ELTs, and lighting and signaling products. Pack DT ¶ 1. And he is responsible for identifying new product opportunities (Tr. at 159), and ensuring products under development are brought to the market. Tr. at 158-59.

101. As principal engineer and the head of ACR's beacons group (until July 2010), Tong reported directly to Pack. Tr. at 159.

102. In August 2010, following the Individual Defendants' departure from ACR, Pack spent nearly 10 hours reviewing their ACR email accounts to determine the status of the various projects that they were working on for ACR. Tr. at 160-61; Pack DT ¶ 15

103 Based on his August 2010 review, Pack observed that, between June and July 2010, Tong had sent emails with attachments — either to his personal email account or to the ACR email accounts of Wu and Cassina — which contained information regarding: (1) schematics and layouts of the test fixtures used for all of ACR's beacon products, including the PLB-375 (Complaint ¶ 1; Tr. at 161); (2) platform technology documents, such as ACR's Core Technology Beacon Program, concerning the development plan for ACR's PLB, ELT, and EPIRB products

(Tr. at 162, 175-76; Complaint ¶ 33); (3) a copyrighted and trade secret computer program developed exclusively by ACR's employees which is used to test PLBs (identified as the 39 Burst Test Code) (Tr. at 166; Pack DT ¶ 15(b); Complaint ¶ 25); (4) technical drawings for the power amplification system in ACR's PLB-375 (Complaint ¶ 31); (5) a list of anticipated customers for a new ACR product that was still under development at the time (Pack DT ¶ 15(a); Complaint ¶ 24); and (6) vendor data sheets and pricing information for PLB components (Pack DT ¶ 15(d); Complaint ¶¶ 27-28).[12]

104. Pack (and ACR) considered the information that Tong sent to himself and to Wu and Cassina to be highly confidential and proprietary information belonging to ACR. Pack DT ¶ 15 ("As I reviewed these emails [in August 2010] I discovered that immediately before he resigned, Chung [Tong] sent a flurry of e-mails containing ACR's confidential and trade secret information from his ACR e-mail account to his personal e-mail account and to Claudio [Cassina's] and Kaiyu [Wu's] ACR e-mail accounts . . . ."). *See also* Tr. at 162-63; Kelkenberg Dec., ¶ 4(j) and Ex. B (Pack Dep.) at 74-75; Complaint ¶¶ 24-34.

105. Pack reported Tong's activities — and his concern that ACR's confidential information and trade secrets had been stolen — to ACR's General Manager, Joseph Mentz. Tr at 162. Mentz's response was to simply direct Pack to report it to ACR's Director of Human Resources, Richard Horn. Tr. at 162-63.

106. Pack did as he was told; and also conveyed to Horn that he was "concerned

[12] The Court notes that there is no evidence in the record to suggest any inappropriate email activity by Cassina or Wu. For instance, there is nothing to suggest that either of these gentlemen sent emails containing ACR's information to their personal or home email accounts, or that they received emails at their personal or home email addresses containing such information. Tr. at 154. In addition, there is no evidence to suggest that Tong ever disclosed to DME any of the information that he admittedly sent to himself in June and July 2010. Cassandra DT ¶ 15; Tong DT ¶ 32; Cassina DT ¶ 14.

that Mr. Tong had sent to himself . . . ACR's confidential and proprietary information . . . ." Tr. at 163.

107. ACR's only response came on September 15, 2010, when Horn dispatched identical form letters to each of the Individual Defendants reminding them of their obligations under ACR's employee confidential information and assignment of invention agreement. Tr. at 147-48; Declaration of Richard Horn for Preliminary Injunction Hearing, sworn to March 14, 2012 ("Horn DT"), Exs. J-L.[13]

108. These letters did not, however, advise any of the Individual Defendants — including Tong — that ACR had become aware that they (or even one) of them had stolen or misappropriated what ACR considered to be its highly confidential, proprietary information and trade secrets. Tr. at 148; Horn DT, Exs. J-L.

109. Nor did ACR demand that the Individual Defendants return and not use the information and trade secrets that ACR knew had been stolen. Tr. at 146 (Horn, admitting that at no time did he recommend that ACR take action to secure the return of its confidential trade secret information); Tr. at 149 (Horn, agreeing that no one at ACR did anything to "obtain the return of trade secrets that [ACR] believed were in the possession" of the Individual Defendants); Tr. at 169-70 (Pack, agreeing that no one from ACR reached out to the Individual Defendants to demand the

---

13 ACR claims in its complaint that it put the "three Individual Defendants on notice that if ACR becomes aware of a violation of their agreements, ACR will seek any and all remedies available to it." Complaint ¶ 35; Horn DT, Exs. J-L. The problem is that ACR's witnesses admitted that they considered Tong's actions in July 2010 — which ACR was aware of by August 2010 — to actually be violations of ACR's policies. Tr. at 145 (Horn, agreeing that when Pack reported Tong's actions to him in August 2010, he "understood that it implicated [a] violation of ACR's confidential and trade secret information policies")). Yet ACR did not take action to get its "trade secrets" back, and it did not seek any remedies that were available to it at that time — even to the extent of simply asking that the information be returned and not used. Horn DT, Exs. J-L.

return of ACR's trade secret information).[14]

110. In fact, ACR did not take any action to determine whether it was the Individual Defendants' intention to go out and compete with ACR in the beacon industry — despite knowing that Tong had taken what ACR considered to be proprietary and trade secret information concerning the platform technology for ACR's line of future products — including its PLBs. Tr. at 151. *See also* Kelkenberg Dec., ¶¶ 4(i)-4(j), 4(ee), and Ex. B (Pack Dep.) at 72-75, 197.

111. The Court finds this to be particularly important because Pack admitted he knew — as early as August or September 2010 — that the Individual Defendants had formed their own business, CCK ***Electronics*** (Tr. at 168-69); while Horn admitted in response to his own counsel's questioning that he did not find it "surprising that when [Tong] left ACR he went into the beacon business." Tr. at 157 (Horn, stating in response to ACR's counsel's question, that he "absolutely" did not find it "surprising that when [Tong] left ACR he went into the beacon business," since Tong had been the "lead beacon engineer at ACR").

112. But there were still other indications that ACR ignored or simply failed to act on. For example, in May 2011, one of ACR's employees, Dwayne Quiring, was on a speaker phone call with Eric Hiner at DME and overheard someone to inquire as to whether Chung Tong was in DME's offices *See* Complaint ¶ 39; Tr. at 179-80 And as a result of this exchange, in May 2011, Pack began "wondering [if] Chung might be consulting and doing something for DME." *See* Kelkenberg Dec., Ex. B (Pack Dep.) at 158-59; Tr. at 179-80.

---

[14] ACR also admitted that when Tong sent these emails to his personal email account — with what it considers to be its highly confidential and trade secret information — that this information was removed from ACR's secured computer environment to one that was completely unprotected. Tr. at 177.

113. Similarly, on June 10, 2011, Pack had lunch with Tong and Cassina to discuss the possibility of CCK working for ACR on a consulting basis. Tr. at 180. At that lunch, Tong (who refused to sign the ACR non-disclosure agreement which Pack presented to him), handed Pack a card containing the legend ***"Future of Beacon Technology."*** Tr. at 181 (emphasis added). When asked whether he drew any conclusions about what Tong was doing for a living, Pack testified: "I, at face value, took his word that he was working on the future of beacon technology through his consulting." *See* Kelkenberg Dec., Ex. B (Pack Dep.) at 155-56.[15]

114. And ACR's affirmative allegations in this case show that at least as of August 2011, ACR was aware that Tong was working with DME on the design and development of a PLB device:

> On or about August 9, 2011, one of ACR's vendors advised that ***Defendant Tong was working at Astronics DME***, most likely as a contractor. Upon information and belief, Defendant Tong submitted a bill of materials to one of ACR's vendors, ***which had many parts in common with ACR proprietary beacon design***. In fact, the part numbers on the bill of materials are in the exact same numbering format used by ACR at all times relevant through the present date.

See Complaint ¶ 42 (emphasis added). *See also* Tr. at 183-85 (stating that when the vendor referenced in paragraph 42 of the complaint, AVNET, told Pack in August 2011 that Tong had submitted a bill of materials with the exact same numbering format as that used by ACR, neither he nor anyone else from ACR contacted Tong or demanded the return of ACR's trade secret and confidential information).

---

[15] At no point while he was sitting across the table from him during this lunch did Pack tell Tong that he was aware that Tong had stolen ACR's trade secret information before he left ACR; nor did he demand that Tong return this information to ACR. Tr. at 185. The Court also finds it strange that ACR would be interested in rehiring Tong, knowing that Tong had absconded with the company's allegedly confidential and trade secret information prior to leaving his position.

115. Pack further admitted that by August 2011 he and others within ACR learned from this vendor that DME had a PLB product at the FCC for approval. Tr. at 182-83. *See also* Complaint ¶ 40 ("On August 2, 2011, ACR's Sales Manager [Ron Crowder] later learned through a Bass Pro representative that a South Florida manufacturer of ELT's [had] a PLB at the [FCC] for approval."); Tr. at 151-52.

116. Yet the testimony and evidence before this Court demonstrates that ACR took no action to secure the return of its alleged trade secret and confidential information at any time between August 2010 (when it learned the information had been taken) and December 6, 2011 (the date ACR commenced this lawsuit). Tr. at 146-50, 151-52, 170, 184-85.

117. Even more troubling, in this Court's view, is that ACR's witnesses admitted that the type of access to ACR's confidential and proprietary information that ACR is complaining of in this case is precisely the type of unauthorized access that ACR was aware Tong had gained and made use of prior to quitting his job with ACR in July 2010.[16]

118. These complaints, coupled with the extensive information that ACR was aware of concerning Tong's conduct just weeks after he left ACR and the relationship between CCK and DME that developed between 2010 and 2011, leads this Court to find that had ACR acted more quickly to protect against the threat it now perceives (*i e* , the theft and use of its trade secrets

---

[16] Tr. at 178 ("Q. And so the type of access that ACR's complaining of in this litigation that would give its competitors an unfair competitive advantage is the type of access which you [Mr. Pack] believed the individual defendants prevailed on in July and June of 2010, correct? A. That's correct."). *See also* Complaint ¶¶ 16-17 (noting that as part of its substantial investment in time and resources in the development of PLBs, ACR maintains a secured database, including confidential and proprietary information, providing examples, and then stating that if its competitors knew of and used ACR's information it would provide them with an unfair competitive advantage).

and copyrighted information), this entire litigation may have been avoided.[17]

VII. ADVERTISING AND SALE OF DME'S SATRO PRODUCT

119. As noted above, ACR claims that DME has engaged in false advertising under the Lanham Act by promoting its SATRO device for sale without the required FCC disclaimer. Complaint ¶¶ 41, 43, 69-70.

120. The Court finds, however, that DME affirmatively acted to discontinue this practice (and sought the discontinuance of this practice by third-party vendors) almost immediately upon learning of the issue, and that these efforts were successful. Cassandra DT ¶¶ 22-23, 25. *See* also Tr. at 240.[18]

121. Additionally, the Court notes that the practice of advertising products in the industry and accepting "preliminary orders" prior to obtaining FCC approval is both commonplace, and something that ACR has done in the past. Cassandra DT ¶¶ 21-30, Exhibits N-O. *See also* Tr.

---

17 Cassandra DT ¶ 37 (DME's Frank Cassandra, testifying that: "[i]f ACR had taken action in 2010 after learning of Tong's activities (such as filing a lawsuit), [DME] would have never hired CCK and would have avoided the expense and damage to goodwill and reputation that will occur if DME is unable to sell its SATRO device (after having announced in October 2011 its impending release). This [decision would have been made] not because DME credits in any regard ACR's claims that CCK has taken its trade secret or confidential information — [it does] not. Rather, DME would have avoided becoming involved in a dispute between ACR and ACR's former employees if it had been aware that such a dispute existed. Thus, ACR's delay in asserting its alleged rights regarding purportedly confidential/trade secret information in CCK's possession has exposed DME to the possibility of serious damage that could have been avoided"). Cassandra DT ¶ 36 (Cassandra, testifying that "[a]t no time prior to filing this action did ACR express [to DME] any concern regarding DME's SATRO PLB, nor did it express concern about DME's work with CCK Electronics").

18 The one exception appears to be the 2012 Bass Pro catalog which was published in November 2011 prior to the commencement of this suit. Cassandra DT ¶ 26. The Court notes, however, that ACR had a similar issue with the publication of the 2011 West Marine catalog. Cassandra DT ¶¶ 28-29; Tr. at 235, 238-39.

at 235, 238-39 (ACR's General Manager Michael Wilkerson, agreeing that ACR's PLB-375 was advertised in the 2011 West Marine catalog prior to FCC approval without the required disclaimer that such approval had not been obtained).

VIII. ANALYSIS OF ACR'S EXPERT'S OPINIONS

A. Summary of Heppe Opinions

122. Dr. Heppe, ACR's expert witness, presented the following summary opinion: "significant proprietary data, documents and source code of [ACR] was wrongfully used by [CCK] and the Individual Defendants in the development of the SATRO." Heppe DT ¶ 6.

123. Dr. Heppe further opines that the SATRO schematic diagrams "bear telltale indications that they were initially copied from the schematics for the PLB-350 and PLB-375, which comprised proprietary data of ACR, then modified." He has "identified many aspects of the schematics for the SATRO that are identical to or very similar to the schematics for the ACR products, including in the overall design, the layout of various blocks of circuitry and numerous individual components." Heppe DT ¶ 7. According to Dr. Heppe, "[t]he ACR schematics would be valuable to a competitor of ACR and are not generally known or readily ascertainable." Heppe DT ¶ 7.

124. With regard to the source code, Dr. Heppe opines:

> "The source code for the SATRO was initially copied from a set of confidential ACR source code files and subsequently modified to a limited extent. The overall hierarchy, or structure, for both sets of code is essentially the same, and even sub-functions are arranged in a very similar manner. Also, significant portions of the original ACR source code for its PLB-350 product appear, in unmodified form, in the source code for the SATRO that CCK and DME provided in discovery . . . ."

Heppe DT ¶ 8.

125. Dr. Heppe admits that because the ACR and DME PLBs "all behave in substantially the same way [they] therefore have many electrical features in common." Heppe DT ¶ 17. He also agrees that the 406 power amplifier circuit is based "loosely" on the McMurdo design, but contends that the PLB-375 "at least, incorporated improvements in the circuit design and board layout which contribute to its overall efficiency." Heppe DT ¶ 17.

B. Findings of Fact: Schematics

126. The Court notes that Dr. Heppe made sweeping admissions at the preliminary injunction hearing that the schematics at issue and the physical circuit boards incorporating the electrical design of the schematics are each fundamentally ***different*** and not, as ACR alleges, substantially similar.

127. In comparing the PLB-375 schematic with the accused CCK SATRO schematic, for instance, Dr. Heppe testified as follows:

> "***[C]learly these are different schematics.*** No question these are different schematics. So you're going to find some differences. You are also going to find some similarities."

Tr. at 87 (emphasis added).

128. Similarly, Dr. Heppe acknowledged that the PLB-375 circuit board is entirely different from the SATRO circuit board.[19]

> "I've recognized that, clearly, the circuit boards — the board layouts are different. They are different shapes. The parts are laid out in a different way — on the circuit boards, and in none of my reports have I ever stated that the circuit boards were identical or even similar."

[19] The circuit boards, of course, reflect the circuit designs shown in the schematics.

Kelkenberg Dec., Ex. A (Heppe Dep.) at 54. *See also id.*, Ex. A (Heppe Dep.) at 55 ("There's no question that the circuit boards are different"); Tr. at 15 (Heppe is not claiming the circuit boards are similar); Tr. at 9-11 (the PLB-375 was designed with a six-layer board to address certain RF interference and other design issues; Heppe does not know how the SATRO addressed those issues with its four-layer board); Harris DT at 37-39 (noting differences in boards).[20]

129. Dr. Heppe further testified that the PLB-300, PLB-350, and the SATRO have "different solutions," "slightly different design requirements," "different parts," and "different supply voltages." Tr. at 776.

130. These admissions are sufficient standing alone to reject ACR's claims as they relate to the schematics. Nevertheless, for completeness, the Court will make findings of fact on the specific issues raised by the parties.

131 Dr. Heppe acknowledges that the SATRO and ACR PLBs "have the same fundamental function and would be expected to have many components and design characteristics in common." Heppe DT ¶ 23(b).

132 Dr. Heppe states that "the schematics [for the SATRO, the PLB-375, the PLB-350, and the PLB-300] would not be expected to be identical since they rely on (at least) different microcontrollers and GPS modules, and in the normal course of events (absent wrong-doing), they would be expected to exhibit differences in layout and annotation." Heppe DT ¶ 23(a).

---

20 *See* Kelkenberg Dec. Ex. A (Heppe Dep.) at 53-62, 66 (collecting Heppe admissions that: (1) the SATRO has a different printed circuit board and a different layout than the ACR products; (2) the SATRO is a 4-layer circuit board, while the PLB-375 is a 6-layer board; (3) the SATRO populates only one side of the board with components, while the PLB-375 populates both sides; and (4) admitting that he did not consider any of these differences in rendering his opinion). *See also id.* (citing Heppe testimony admitting that the SATRO has a different power supply than the ACR units and admitting that Heppe has never made a list of differences between the SATRO and ACR products).

This is wrong for three reasons:

(i) Dr. Heppe is apparently discounting these major differences between the schematics and according them no weight. It is not proper in determining whether substantial similarity exists for purposes of a copyright analysis to discount and not to consider the differences in microcontrollers, GPS modules, etc., simply because he would "expect" that these would lead to other differences in the schematic. Heppe DT ¶ 23(a).

(ii) Dr. Heppe's statement that "differences in layout and annotation" would also be expected is similarly incorrect. The schematics for the PLB-300 and the SATRO were both drafted by Claudio Cassina. Cassina DT ¶¶ 3, 23, 44, 60; Tr. at 430. The schematic for the PLB-350 was almost identical to the PLB-300 schematic that was drafted by Cassina. Cassina DT ¶ 29, 42. Cassina would be expected to utilize his own personal predilections in "layout and annotation." Similarly, while the PLB-375 schematic was principally drafted by ACR employee Carlos Lizandro, Lizandro worked under Cassina's supervision on the PLB-350 schematic and used the PLB-300 schematic as a starting point, modifying it to create the PLB-350 and PLB-375 schematics. Cassina DT ¶ 56. Accordingly, similarities, not differences, in layout and annotation would be expected.

(iii) The SATRO and ACR schematics were all drafted using the same schematic design software package. Harris DT at 42, Tr. at 567-68. That would necessarily cause them to have similar features and a similar overall "look and feel."

133. It must also be noted that Dr. Heppe's discussion of the SATRO's electrical schematic is incomplete. Dr. Heppe specifically addresses only one small section of the PLB-375 schematic comprising less than five percent of the overall schematic.[21] The portion of the circuitry discussed by Dr. Heppe in his direct testimony is found in the circuit block designated with a red "300" on the first page of Heppe Exhibit 1. He discusses that portion of the circuit beginning with the XOR gate (identified by "U303" and directly to the right of the designation "TP5") and

[21] Dr. Heppe's discussion of the schematics extends from pages 9-19 of his direct testimony. Much of that is devoted to figures. Moreover, approximately half of that discussion relates to the use of "TP4" to designate a test point in the schematic and the use of "121 5 MHz" as an annotation designating the 121.5 MHz oscillator circuit. ACR does not claim that the use of either annotation constituted a use of trade secret or confidential information.

continuing to the right boundary of the 300 block. In total, this constitutes approximately five percent and certainly less than ten percent of the overall schematic. Dr. Heppe never in his direct testimony discusses ***any*** of the remaining 90 percent of the circuitry in the PLB-375 schematic or the PLB-350 schematic.[22] In view of the very small portion of the PLB-375/PLB-350 circuitry discussed by Dr. Heppe, ACR has failed to meet its burden of showing substantial similarity (or any similarity) of the SATRO schematic.

134. Dr. Heppe's discussion of the few segments of the schematic he analyzes is limited to an opinion of an undefined level of similarity between those portions of the SATRO, the PLB-375, and the PLB-350 schematics. Dr. Heppe does not indicate that any of these purportedly similar features represent trade secret/confidential information of ACR. The specifics of Dr. Heppe's analysis are discussed below.

135. **TP4 Designator.** Heppe contends in his direct testimony (at ¶ 26) that the presence of the TP4 designator in the SATRO schematic in "the same location as the PLB-375 schematic (in the upper left of the diagram)" is an indication of copying, because the TP4 designation does not indicate a test point in the SATRO schematic. Heppe DT ¶ 26(a). Notably, Dr. Heppe does not contend that the TP4 designation itself is proprietary or confidential information.

136. Dr. Heppe admitted that TP4 appears in the same location as the SATRO ***only*** in the September 2010 version of the PLB-375 schematic — which is dated two months after the Individual Defendants left ACR's employment. Tr. at 29. The June 2010 PLB-375 schematic, which was the only one in existence at the time the Individual Defendants were employed by ACR,

---

22 Dr. Heppe lists other circuits as purportedly "similar" in Exhibit C to his direct testimony, but he provides no discussion or analysis of those circuits whatsoever.

shows the TP4 designation in an ***entirely different location***. Tr. at 29-30; Heppe Ex. 1. *See also* Harris DT at 44. Dr. Heppe had no explanation for this. Tr. at 30. The Court notes, in assessing Dr. Heppe's credibility, that he did not make clear to the Court that he was relying on a PLB-375 schematic that was not in existence during the time when the Individual Defendants were employed by ACR.

137. In any event, Cassina testified that TP4 appears over the power supply or battery portion of the SATRO schematic because he had habitually used it to identify that circuit in prior PLB drawings. Tr. at 554-55, 571-72. *See also* Tr. at 309. Dr. Heppe, Cassina, and Dr. Harris all agreed that the power supply circuit in the SATRO schematic (in the area of the TP4 designation) is substantially different than the power supply circuit in the PLB-375 schematic. Thus, the use of TP4 does not indicate or reflect copying of the specific circuit it designates, nor does Heppe claim that it does. *See* Kelkenberg Dec., Ex. A (Heppe Dep.) at 51-53, 56 (Heppe admits power supply circuits in the SATRO and ACR PLBs are different); Harris DT at 22, 27 (Harris, describing how the power supply circuit in the SATRO is "very different" and "more efficient"). *See also* Tr. at 555-57 (Cassina, describing how the power supply circuit in the PLB-350 is substantially different from the SATRO).

138. **121.5 MHz Annotation.** Heppe's reliance on the location of the 121.5 MHz annotation is even less compelling. On cross-examination, he agreed that it accurately describes the source of the 121.5 MHz signal and that, in both schematics, it is placed in the closest open space above that source and where it "makes logical sense." Kelkenberg Dec., Ex. A (Heppe Dep.) at 110. Dr. Heppe agreed that this was a logical location to choose. Tr. at 28. *See* also Harris DT at 1-2 (noting annotation is in best and most logical place). Thus, this similarity has no probative value.

139. Moreover, Dr. Heppe did not assert that the 121.5 MHz notation is itself proprietary or confidential information of ACR. Rather, it is "well-known in general" and any reasonably competent RF engineer could have arrived at the solution. Tr. at 32.

140. **406 MHz Phase Lock Loop Design.** Dr. Heppe discusses this portion of the electrical schematics (together with the low-pass filter and the 406 MHz phase modulator circuit, both of which are components of the phase lock loop circuit) at paragraph 26(c)-(f) of his direct testimony. Notably, Heppe starts out his analysis by admitting that "an external phase comparator based on a XOR Gate ***is well-known in the field***."[23] Heppe DT ¶ 26(c) (emphasis added).[24] In essence, Dr. Heppe is acknowledging that there is nothing protectable about the use of a phase lock loop with an XOR Gate as an external phase detector. His only opinion is that he finds it unlikely that Cassina would have used this well-known circuit if he had not previously had experience with it with the PLB-350.[25]

---

[23] This is a description of the phase lock loop circuit

[24] *See also* Kelkenberg Dec., Ex. A (Heppe Dep.), at 76-77 (Heppe admitting that the phase lock loop and the XOR phase detector are both functional); *id* at 77 (Heppe admitting that he would expect to see a phase lock loop in any PLB); *id.* at 78 (Heppe admitting that a phase lock loop is "well-known"); *id.* at 80 (agreeing that there is nothing about the phase lock loop in the PLB schematics that is not publicly known); *id.* at 82-83 (agreeing that an average person with a college degree in engineering could design a phase lock loop); *id.* at 85-86 (declining to say that the use of an XOR phase detector and the phase lock loop was unique and indicating only that "ACR believes that" it was unique); *id.* at 87 ("Phase lock loops are very common. They are used ubiquitously in — in the industry for stabilizing transmitters and also for tracking signals. . . I believe that the use of an external phase detector even one including an XOR Gate is known in — in — in the industry"); *id* at 87-90 (agreeing that everything about the phase lock loop and XOR Gate is known in the industry and that a reasonably experienced engineer could design this circuit); *id.* at 93-94 (agreeing that the ADF chip used in the SATRO and ACR PLBs was actually designed so that it could be used with an external phase detector).

[25] Since Dr. Heppe acknowledges that there is nothing protectable about the use of this well-known circuit, his conclusion in this respect is without probative value. *See also* Harris DT at 48-49 (stating that the use of a phase lock loop with an external phase detector was well-

141. One of the components of the phase lock loop is a "low-pass filter." In the PLBs at issue, a circuit known as a "Chebyshev filter," comprising a series of three capacitors and two inductors, was used as a low-pass filter. The purpose of this portion of the circuitry is to filter out that portion of the signal which strays from the desired 406 MHz frequency. Harris DT at 9. The use of a Chebyshev low-pass filter is well-known in the electrical engineering field. Harris DT at 2, 4-6 (pointing out that the ADF chip component manual recommended use of a Chebyshev filter).[26] *See also* Kelkenberg Dec., Ex. A (Heppe Dep.) at 128-29 (Heppe would expect to see a low-pass filter in any PLB and the general concept of a low-pass filter is well-known in the electrical engineering industry); *id.* at 132-33 (the process of designing a low-pass filter for a PLB is "a process that [he] would expect a typical, competent engineer skilled in electrical engineering would be able to accomplish").

142. Dr. Harris testified both in his direct examination and on cross-examination that the use of a Chebyshev filter was an obvious choice, because it was the best-suited filter for this purpose. In his direct testimony and on cross-examination, Dr. Harris described why that was true and addressed why alternative filters would not have been suitable. Harris DT at 51; Tr. at 324-27. On rebuttal, Dr. Heppe disputed this testimony from Dr. Harris. Tr. at 763. At most, this is an issue of sharp dispute, which cannot be determined on a preliminary injunction motion. Moreover, because Dr. Heppe acknowledges that the use of a Chebyshev filter was well-known and that it is a suitable choice for a PLB design, it does not appear that he is making any claim that this constituted

---

known in the field and also pointing out that the phase lock loop in the PLB-350, as well as the SATRO, is essentially the same as the phase lock loop Cassina had used in his Docking Master design, prior to his employment at ACR).

[26] Indeed, the mere fact that it has a specific name (*i.e.*, a "Chebyshev" filter) shows that it was a pre-existing, known filter and not something ACR has any right to claim. *See also* Tr. at 125 (Heppe referring to a Chebyshev filter as a "style of filter").

a use of non-public or confidential information.

143. Finally, Dr. Heppe disagrees with Dr. Harris's conclusion that the phase lock loop design used in the SATRO is essentially the same as the phase lock loop design that Cassina employed in his Docking Master schematic, which he developed prior to his employment at ACR. Heppe DT ¶ 26(e). Heppe opines that the fact that the Docking Master was designed for a 900 MHz frequency (rather than the 406 MHz frequency of the PLBs) and that it did not use an external phase detector substantially distinguishes Cassina's Docking Master work from his PLB work so that he cannot be presumed to have designed this circuit prior to working at ACR. Heppe DT ¶ 26(e).

144. Dr. Harris disagrees with this conclusion, testifying that: (1) any reasonably skilled engineer who designed a circuit for one frequency would know how to adapt that circuit for another frequency based on his general knowledge; and (2) that the addition of an external phase detector was both obvious and the sort of modification that would have been expected from any reasonably skilled engineer. Harris DT at 11-12, 48; Kelkenberg Dec., Ex. A (Heppe Dep.) at 87-90 (Heppe agreeing that a phase lock loop is well-known and could be designed by any reasonably skilled engineer).

145. Again, this presents, at most, a dispute between experts that cannot be determined on a motion for preliminary injunction. But given that Dr. Heppe has not testified that there was anything confidential, non-public, or otherwise protectable about the phase lock loop design, the Court need not resolve this dispute because any alleged similarity is without probative value.

146. In any event, Dr. Heppe agrees that the phase lock loop circuit was included in the PLB-350, which has been on sale since 2009. That circuit design has therefore been in the public domain since that time. Heppe DT ¶ 26(c); Cassina DT ¶ 29

C. Dr. Heppe's Exhibit C

147. Dr. Heppe attaches to his direct testimony as Exhibit C a list entitled: "Similarities in PLB-350, PLB-375 and SATRO Schematics."[27] Exhibit C is divided into three categories: (1) Layout; (2) Circuits; and (3) Components. Dr. Heppe lists a total of 21 alleged similarities: 3 relating to the "layout," 10 relating to the "circuits," and 8 relating to the "components." Remarkably, he discusses in the text of his direct testimony only two alleged similarities in layout, both involving notation (the use of TP4 and the location of 121.5 MHz), one similar circuit (the phase lock loop),[28] and three similar components (the microcontroller, the GPS unit, and the three cell battery pack). Heppe DT ¶¶ 17, 22, 26(a)-(f).

148. **Layout.** Dr. Heppe lists "overall templates; proprietary data notice; revisions block" as "similarities" between the ACR PLBs and the SATRO schematics. Exhibit C ¶ 1(a). Notably, Dr. Heppe never addressed the fact that the schematics were all drafted using the same Altium design software, which is responsible for the overall "Look" of the schematic. Tr. at 567-68 (Cassina testimony); Harris DT at 42. He provided no analysis in his direct testimony supporting these alleged similarities. He did not describe how he found the overall templates of the SATRO and ACR schematics to be similar, nor does he conduct any direct comparison of the elements of the overall templates.

149. Dr. Heppe testified that neither the title block nor the revision block used in the SATRO and ACR schematics were proprietary to ACR and that the locations were "typical" and

---

27 Notably, while the text of Dr. Heppe's direct testimony refers to the PLB-300 as being similar to the SATRO, he did not include it in his list of similarities. *See* Heppe DT, Exhibit C.

28 Dr. Heppe also discusses the low-pass filter, the phase modulator circuit, and the Chebyshev filter. As noted above, these are all parts of the phase lock loop.

"not surprising." Tr. at 16. Yet he listed the revisions block as a similarity in Exhibit C, implying that he accorded it some significance. In addition, Cassina testified that he created the PLB-300 schematic using his own personal template and style. Cassina assisted and trained Carlos Lizandro with the PLB-350 schematic, which was at least 80 percent the same as the PLB-300. Cassina DT ¶¶ 8, 28-29, 41, 55; Tr. at 438. Lizandro used Cassina's personal style and conventions in the PLB-350 and PLB-375 schematics. Tr. at 567-68; Cassina DT ¶¶ 42, 56. Thus, it would not be surprising if there was some similarity in style or layout between the SATRO and ACR schematics. In any event, Dr. Heppe offered little proof that there were any similarities in the overall template between the schematics at issue, and no evidence that any such similarities that did exist were wrongful.

150. Exhibit C ¶ 1(b) identifies the "general layout of major sections as they appear on the page relative to one another" as a similarity. Again, Dr. Heppe provided no direct testimony on this issue. He failed to establish that the major sections among the schematics were, in fact, similarly situated. He failed to address whether any similarity was the result of the logical flow of the schematic or was otherwise functional in nature.[29]

151. On cross-examination, Dr. Heppe acknowledged a wide variety in differences between the SATRO schematic and the PLB-375 schematic.[30] These include:

- It is common to organize electrical drawings so that they flow from top left to right in the direction of the signal path. Tr. at 20-21 The SATRO is organized this way. But in the PLB-375 schematic, the signal originates in

[29] Dr. Harris specifically testified that it is standard practice in the electrical engineering field for schematics to be organized starting at the top left-hand corner and following the flow/direction of the signal in a rightward direction and then downward toward the bottom of the schematic. *See* Harris DT at 40. Dr. Heppe admitted that this was true. Tr. at 21-22.

[30] As Dr. Heppe's Exhibit C makes clear, the PLB-350 schematic was even more different from the SATRO than the PLB-375 schematic.

the upper ***right*** corner. Tr. at 21-22.

- The PLB-375 is centered around the microcontroller, while the SATRO is not. Tr. at 21-24. *See also* Harris DT at 43.

- Heppe agreed that there was a different approach to numbering the circuits between the PLB and SATRO schematics. Tr. at 17.

- Heppe agreed that the CCK schematic designated four groups of circuits, while the PLB-375 schematic designated nine such groups. Tr. at 17.

- The power source on the PLB-375 schematic (designator 1) is split in half, with part in the upper left and part in the upper right. On the SATRO schematic, it remains unified (designator 100) in the upper right. Tr. at 24.

- The 121.5 MHz detect on the PLB-375 schematic (designator 800) is separate from the 121.5 circuit and is over to the far right. On the SATRO schematic, it is unified with the 121.5 MHz circuit, as it should be. Tr. at 24-25.

- The strobe circuit on the PLB-375 schematic (designator 700) is disconnected from the microcontroller circuit (designator 100), and is located in the upper right of the schematic. In the SATRO schematic, the strobe is directly connected to the microcontroller and is found in the bottom right portion of the schematic. Tr. at 25.

- The GPS circuit (designator 600) in the PLB-375 schematic is shown as connected to the microcontroller and is located in the top center portion of the schematic. In the SATRO schematic, the GPS circuit (designator 400) is shown as connected to the power supply. Tr. at 22-23.

- The red and green LED lights on the PLB-375 schematic are shown as a stand-alone circuit immediately under designator 1 on the right hand side of the schematic. In the SATRO schematic, the red and green LED lights are shown as directly connected to the upper right portion of the microcontroller (designator 100) in the center bottom portion of the schematic. Tr. at 26.

- The PLB-375 schematic contains a green box labeled "Hardware Revision" and "TP11" immediately above the microcontroller, as well as a blue box labeled "Board Rev for Factory Test Fixture." These are entirely absent from the SATRO schematic. Tr. at 26.

- Immediately under the microcontroller in the center of the PLB-375 schematic is a drawing section labeled "Test Pins." This is entirely absent from the SATRO schematic. Tr. at 27.

- In the bottom right hand corner of the PLB-375 schematic, immediately above the title block, is some artwork reflecting the six different layers of the

PLB-375 board. Again, this is entirely absent from the SATRO schematic. Tr. at 26.

- The antenna in the PLB-375 schematic is located in the center of the schematic, slightly over to the right. The antenna in the CCK SATRO drawing is located on the top, far right margin of the schematic. Tr. at 27.

152. In addition, the Court notes that on the PLB-375 schematic in the power source block (designator 1) on the right side of the schematic, near the TP16 designation, the drawing indicates that the PLB-375 will operate on either "9V or 12V." This indicates that the PLB-375 could operate on either 3 or 4 batteries or that the designers had not yet made that decision as of the date of the drawing (9/15/2010). In contrast, the SATRO schematic reflects in the upper right portion of the schematic that it operates on only 9V, reflecting a three battery design. *See* Heppe Ex. 1.

153. **Circuits.** In section 2 of Exhibit C, Dr. Heppe lists ten SATRO circuits he finds to be similar to the ACR schematics. Importantly, Dr. Heppe admitted that all of the circuit blocks in the ACR and SATRO schematics (with the possible exception of the strobe circuit, designated as "700" in the PLB-375 schematic) were functionally required and necessary for the PLB to operate as required. Tr. at 17-18.

154. Dr. Heppe also acknowledged that each of the circuits making up the PLB-375 was "well known" in the RF engineering design field. Tr. at 19, 131-35.[31] He also agreed that

[31] At these pages, Dr. Heppe admitted that "the circuits that make up the ACR PLB-375 are . . . well known in the electrical design industry" (Tr. at 19); the hysteretic buck controller is "a common and well known circuit" (Tr. at 31); both the 121.5 megahertz gate oscillator circuit and the "12 megahertz oscillator divided down by two" are well known circuits in the RF design industry (Tr. at 32-33); the XOR gate is a "common component in electrical design" and the phase lock loop is "a common circuit in electrical design" (Tr. at 34); "the use of an external phase detector, including an XOR gate" is well-known and "could have been designed by any reasonably skilled RF engineer" (Tr. at 34), and the "phase modulation circuit, the harmonic filter, the output power divider, and the power amplifier" in the PLB-375 are all "well known in the industry" and "within the skill of a reasonably

examples of these circuits are publicly available in sources like text books, component manuals, and RF design software. Tr. at 19.

155. Dr. Heppe also agreed that any reasonably skilled RF engineer would have been able to design the various "well-known" circuits he identified as similar between the PLB-375 and the SATRO. Tr. at 32-36. Dr. Heppe never identified any of these circuits as novel, non-public, or proprietary to ACR. To the contrary, he agreed that to the extent the circuits in the PLB-375 varied from similar publicly-available reference circuits, those variations were "within the skill of an ordinarily skilled RF engineer." Tr. at 37-38.

156. **Power Amplifier Circuit.** In his direct testimony, Dr. Heppe makes only a passing reference to the 406 MHz power amplifier circuit, indicating that, in all of the PLBs at issue, it is based on a design found in the McMurdo PLB, which pre-dated the ACR and SATRO PLBs at issue here. Heppe DT ¶ 17. *See also* Kelkenberg Dec., Ex. A (Heppe Dep.) at 263 (stating that the power amplifier circuit was based on the McMurdo design).[32] Dr. Heppe states that the PLB-375 incorporates improvements in the power amplifier design which contribute to overall efficiency. Notably, he does ***not*** indicate that the SATRO incorporated or used any such improvements. Heppe DT ¶ 17. Moreover, nowhere in his direct testimony does Dr. Heppe describe the purported power amplifier "improvements," nor does he indicate that either the original McMurdo design or the alleged "improvements" present non-public, proprietary, confidential, or

---

skilled RF engineer" (Tr. at 35-36). *See also* Kelkenberg Dec., Ex. A (Heppe Dep.) 87-90 (Heppe, admitting that "phase lock loops are very common" and everything about the phase lock loop design in the PLB-375 is known in the industry and a reasonably skilled RF engineer could design this circuit).

32 Cassina testified that the power amplifier design in the PLB-375 was taken directly from a reverse engineering effort by him, in which he disassembled, examined, and copied the power amplifier in a competitive PLB that was on sale to the public by a competitor of ACR's known as "McMurdo." Cassina DT ¶¶ 24-25; Tong DT ¶ 21, 24-25.

trade secret information. To the contrary, on cross-examination, Dr. Heppe testified that the PLB-375 power amplifier circuit is "well known in the industry" and "within the skill of a reasonably skilled RF engineer." Tr. at 35-36.

157. Dr. Heppe again addressed the power amplifier circuit in his rebuttal testimony. There, he again asserted that the PLB-375 power amplifier circuit was not simply a copy of the prior art McMurdo circuit, but that it had been "improved" as a result of "substantial engineering activity" by ACR's Carlos Lizandro. Tr. at 747-48. Dr. Heppe did not explain the nature of those "improvements" nor did he explain the purported "substantial engineering activity" by Lizandro.[33] Tr. at 747-54.

158. Dr. Heppe never indicated that any of the purported improvements to the power amplifier circuit made by ACR were not well-known, were proprietary to ACR, or were confidential. *See* Tr. at 747-55. Simply stating that something resulted from "substantial engineering activity" does not satisfy a party's burden of showing that the result was non-public and proprietary. Finally, Dr. Heppe never testified that the purported "substantial improvements" made by Lizandro were used in the SATRO power amplifier design. Tr. at 756-57 (Heppe not permitted to testify as to whether the unidentified "improvements" to the power amplifier in the PLB-375 were used in the SATRO because any such opinion should have been in his direct testimony).

---

[33] Dr. Heppe was not permitted to testify about Lizandro's supposed "substantial engineering activity" because it is inappropriate to allow an expert to give hearsay testimony about historical facts. Tr. at 743-47, 749. That is especially true in this case. ACR apparently chose for tactical reasons not to present Lizandro, a current ACR employee, as a witness. This issue is discussed below in the context of the Court's determination that a negative inference should be drawn against ACR because of its failure to call Lizandro.

Thus, Dr. Heppe's testimony regarding the power amplifier is without probative value.[34]

159. **Size of battery pack.** Dr. Heppe contends that the PLB-375 "is the first PLB to rely on only three '2/3A' size lithium cells . . . . The mere fact that such a feat is possible . . . would, in my opinion, represent valuable proprietary data that was not generally known." Heppe DT ¶ 21.

160. This is not supported by the record. Thomas Pack admitted that ACR's plans to market the PLB-375 with a 3-battery design became public in ***March 2011***, when it published a material safety data sheet for the PLB-375 (which was distributed publicly), reflecting that it used only three lithium batteries. Tr. at 194-95; Pack Ex. 5.

161. The history of ACR's PLBs is clear that each succeeding product introduced to the market used fewer batteries and that this was a commonly known goal because it reduced weight, expense, and power consumption. Pack agreed that reducing the number of batteries was "one of the most obvious design choices" for achieving a smaller-sized, lighter PLB. Tr. at 192-93. And he acknowledged that there was, historically, a "natural progression" in PLB development to reduce the number of batteries used. Tr. at 192.

162. The direct testimony of Claudio Cassina bears out this progression. The following reflects the number of batteries, battery life, and year of introduction for the four most recent ACR PLBs and the SATRO, as discussed by Cassina:

(i) PLB-200: 8 batteries; 35 hours of battery life; 2004.
(ii) PLB-300: 6 batteries; 57 hours of battery life; 2007.
(iii) PLB-350: 4 batteries; 33 hours of battery life; 2009.

---

[34] Dr. Harris, in his direct testimony, provided a detailed analysis showing ***specifically*** how the power amplifier design in the SATRO was substantially different from the power amplifier design in the PLB-375. Harris DT at 52. *See also* Harris DT at 21-23, 26-27.

(iv) PLB-375: 3 batteries; 28 hours of battery life; 2011.

(v) SATRO: 3 batteries; 26.7 hours of battery life; 2012.

Cassina DT ¶ 31. The governing COSPAS-SARSAT regulations require that a PLB have sufficient battery life to last for 24 hours of operation. Tr. at 777; Harris DT at 21 (Table 3); Cassina DT ¶ 31. As a result, it was obvious that 3 batteries was an achievable result as early as 2007, when the PLB-300 was introduced. That product contained 6 batteries, but had a battery life of 57 hours — more than twice as long as required by the COSPAS-SARSAT regulations. Dr. Harris testified that the ability to achieve a 3-battery design was obvious when the PLB-300 was introduced in 2007. Harris DT at 21, 26. *See also* Tr. at 780-81 (Heppe, agreeing that the battery life in the PLB-300 was "overdesigned by approximately a factor of two"). Similarly, the PLB-350 utilized a 4-battery design, with 33 hours of battery life, again reflecting that there was more than enough excess capacity for reducing the number of batteries by one to achieve a 3-battery design.[35]

163. Dr. Heppe acknowledged under oath that he was ***not*** claiming that the SATRO utilized the same design approach to achieving a 3-battery result as that used in the PLB-375. Tr. at 38; Kelkenberg Dec. (Heppe Dep.), Ex. A at 157-59 (stating that he is not claiming that the SATRO used the same design approach as the PLB-375 to achieve a 3-battery design and agreeing that he does not know how the SATRO approaches that problem). He admitted that the SATRO achieved that result, in part, by using a more efficient power supply design that was not similar to the PLB-375 design, as well as by introducing other efficiencies that were not present in the PLB-375. Tr. at 38 *See also* Kelkenberg Dec., Ex. A (Heppe Dep.) at 51-52 (agreeing that the

[35] Assuming that eliminating one of four batteries (25%) resulted in a 25% decrease in battery life, a 3-battery design would have had 24.75 hours of battery life — requiring no improvements at all to the PLB-350's efficiency. *See* Harris DT at 21. In view of this, ACR's position that the potential capability of achieving a 3-battery design was not obvious in 2010 is not credible.

power supplies in the PLB-375 and the SATRO are different); *id.* at 157-58 (acknowledging that he hasn't "sorted out" how DME's different design creates "potential improvements or benefits in efficiency . . . so there are definitely differences between the two systems"); *id.* at 158-59 (Heppe, acknowledging that he cannot give an opinion as to how the SATRO achieves the result of using less power and running on 3 batteries); Harris DT at 26-27 (testifying that the SATRO uses an entirely different approach than the PLB-375 to achieve a 3-battery design).

164. Finally, Dr. Heppe failed to provide any analysis establishing that the design of any specific circuit in the ACR schematics: (1) was not publicly known; (2) was confidential or proprietary in any respect; ***or*** (3) was used in the SATRO. Dr. Heppe never at any time during his direct or rebuttal testimony provided this required information for any of the layout features or circuits referenced on his Exhibit C.

165. **Components.** In Exhibit C, section 3, Dr. Heppe lists seven specific components he found to be "similar" between the SATRO and at least one of the ACR PLBs. He only discussed two of these (the GlobalTop PA6B GPS receiver and the Microchip microcontroller (items 3(a) and (b)) in his direct testimony. He did not discuss in any respect the five components listed in Exhibit C, items 3(c) through (g). On cross-examination, he admitted that all seven of the components listed on Exhibit C are well-known in the electrical engineering field, that they were all commercially-available, and that finding them in a PLB "is not a surprise." Tr. at 45, 128. Dr. Heppe never contends that the components themselves were confidential or proprietary to ACR. Accordingly, the use of allegedly similar components is without probative value.[36]

[36] As discussed below, the use of similar components is relevant only to ACR's unfair competition/confidential information claim. It cannot be relevant to its copyright claim because the components are by definition functional and they have no expressive impact on the schematic.

166. Item 3(h) in Dr. Heppe's list of allegedly similar components reads: "Many discrete components have the same or similar values." Dr. Heppe never identified or discussed any of the specific values that were allegedly the same or similar. He never demonstrated that any particular alleged similarity between values was the result of copying, that the values were not public knowledge, or that the allegedly similar values constituted ACR confidential or proprietary information. Thus, Dr. Heppe's conclusory statement on Exhibit C that the ACR and SATRO schematics included instances of "the same or similar values" is without probative value.

167. Moreover, it appears that Dr. Heppe contends that in some instances the SATRO schematic's values were "the same or similar" to values in the PLB-350, while in other instances they may have been "the same or similar" to values in the PLB-375. He never identifies which. This "mixing and matching" approach, without describing the significance of any similarity or demonstrating that it constitutes the use of confidential or proprietary information belonging to ACR, is without evidentiary value and is entitled to no weight.

168. **GlobalTop GPS.** The GlobalTop PA6B GPS receiver is one of only two components Dr. Heppe discussed specifically in his direct testimony. Heppe DT ¶¶ 19-20. Heppe contends that "[p]rior to commercial introduction of the PLB-375 on July 22, 2011, the suitability of GlobalTop's GPS receiver for a PLB, and the associated analysis and test results would have been the proprietary information of ACR." Heppe DT ¶ 19. Dr. Heppe points out that one of CCK's schematics is dated April 2011 and it incorporates the same GlobalTop GPS as the PLB-375. He concludes "that CCK relied on ACR proprietary data in selecting its GPS module." *Id.*

169. Notably, Dr. Heppe acknowledged on cross-examination that the ACR test results for the GlobalTop unit reflected a 35 percent failure rate. Tr. at 43. Dr Heppe admitted that he did not "know exactly what these failures mean" or "what the failure was." Tr. at 44. He was

unable to explain how ACR arrived at the conclusion that the GlobalTop PA6B was suitable for use in a PLB given its 35 percent failure rate. Tr. at 43-44. Accordingly, Dr. Heppe's view that ACR's conclusion that the GlobalTop unit was suitable for a PLB constituted proprietary information is without foundation. This is especially true given that ACR could have presented a witness with first-hand knowledge of the testing and suitability determination, but chose not to do so.

170. Dr. Heppe failed to give weight to the fact that GlobalTop extensively advertised its PA6B GPS module as suitable for use in PLBs. Heppe DT at 18-20, Ex. B (four GlobalTop advertisements from 2010 and early 2011). *See also* Tr. at 40 (Heppe admissions on cross-examination that GlobalTop advertised the PA6B for use in PLBs in 2010); Harris DT at 18-19 (discussing GlobalTop's advertisements).

171. Dr. Heppe states that "I am not aware of any GPS module testing performed by CCK prior to April 2011 that would [have] allowed CCK to independently confirm the suitability of this GPS module for its purpose." Heppe DT ¶ 19. In fact, Claudio Cassina and Chung Tong both testified directly to the contrary, and submitted test reports reflecting extensive CCK testing of the GlobalTop PA6B unit in December 2011. Tr. at 562-67; Cassina DT ¶ 48, Ex. D; Tong DT ¶ 37; Tr. at 467-80, 562-67. Dr. Heppe testified that he did not review the CCK test reports because he was "travelling." Tr. at 41. Accordingly, he was not in a position to dispute that CCK conducted independent GPS testing sufficient to support its selection of the GlobalTop PA6B GPS receiver for use in the SATRO.

172 Dr. Heppe argued that "there are dozens of GPS vendors . . . and scores of GPS products that could be integrated into a PLB . . . . Because of the wide variety of available products, it is extremely unlikely that two engineering teams, working independently of one another, would both select the same device — particularly one that was not previously known (in

the public record) to be suitable." Heppe DT ¶ 19. The Court rejects this conclusion. As stated above, the GlobalTop GPS receiver was not only publicly known, it was advertised for use in PLBs. In addition, beginning in 2009, ACR sold to the public its PLB-350 which offered a GPS manufactured by Wonde Proud which contained the same underlying chip set as the GlobalTop PA6B (the Media Tek 3329 chip set). Tr. at 696. This Media Tek chip set was small, power efficient, and inexpensive; and it was well-suited for use in a PLB. Its suitability for a PLB was public knowledge, because the PLB-350 had been on sale since 2009. Tr. at 696.

173. Dr. Heppe acknowledged that because ACR's PLB-350 and PLB-375 included a GPS with 66 channels, it was rational that competitors like DME would, for legitimate marketing purposes, also seek to offer a unit that included 66 GPS channels. Tr. at 77, 773. Dr. Heppe did not testify that he was aware of any other 66-channel units that were available in the marketplace that would be of a size suitable for a PLB. Tr. at 773. Thus, Chung Tong's testimony that there was only one such unit available — the GlobalTop PA6B — was undisputed. Tr. at 725.

174. Dr. Heppe agreed that GlobalTop had publicly announced the suitability of its GPS for use in PLBs and that "the underlying receiver (the MT 3329) had previously received high marks." Heppe DT ¶ 20. *See also* Harris DT at 18 (noting that the MT 3329 was "well known for use in PLBs . . . and was held in high regard by the PLB community . . ."). Dr. Heppe quibbled with whether an engineer would have selected the unit based on these facts, without additional testing. First, as discussed above, CCK ***did*** conduct extensive additional testing itself. Second, there is no evidence to support Dr. Heppe's apparent assumption that the selection of the GlobalTop PA6B for the SATRO had become "final" prior to July 2011, when the suitability of the PA6B for this purpose became public knowledge with the introduction of ACR's PLB-375.

175. The final design of the SATRO was not submitted for regulatory testing to

TUV until August 2011, at which time it is undisputed that the suitability of the GlobalTop PA6B for use in a PLB had been made public by ACR. Tr. at 40, 397.

176. Finally, Dr. Heppe's belief that CCK "relied on" ACR's testing of the GlobalTop PA6B makes no sense in view of the ACR test reports in the record. ACR's test reports show that the PA6B repeatedly ***failed*** its testing and fell below its minimum performance requirements. At the hearing, Dr. Heppe was entirely unable to explain why ACR chose a GPS unit that appeared to have failed its testing. Tr. at 43-44.

177. **Microchip microcontroller.** Dr. Heppe notes that the SATRO incorporates a commercially available Microchip microcontroller from the same family and similar to the one used in the PLB-350. He does not claim that the Microchip microcontroller is confidential or proprietary information of ACR or that CCK was restricted from using it for any reason. Heppe DT ¶ 18.

178. **Reverse engineering the PLB-375 schematic.** Dr. Harris testified that the ACR schematics were both subject to reverse engineering immediately upon sale of the associated PLB products to the public. Dr. Harris described in detail the methodology for such reverse engineering, providing a step-by-step guide for what would be required. Harris DT at 12. Dr. Harris concluded that he had "absolutely no doubt" that the process would not take more than a week. Harris DT at 12, 18. In addition, Dr. Harris provided examples of products that he has personally reverse engineered in the past, as well as references to public information about how to reverse engineer schematics and descriptions of specific historical instances where schematics have been reverse engineered. Harris DT at 13-18. Dr Harris confirmed his conclusions on cross-examination. Tr. at 300-02

179. Dr. Heppe does not dispute that the ACR PLB could be reverse engineered. Tr. at 133-34 (agreeing when questioned by the Court that reverse engineering was feasible).

Instead, he disagrees with Dr. Harris as to the difficulty and time required for such a project. Tr. 134-38; Heppe DT ¶ 49(c)-(d).

180. First, to the extent that this can be characterized as a closely contested issue between two expert witnesses, it should not be determined on a preliminary injunction motion, which requires the plaintiff to show a clear right to relief. *See, e g., Tyco Healthcare Group LP v. Mutual Pharm. Co., Inc.*, 2009 WL 2422382 (D.N.J. Aug. 4, 2009) (preliminary injunction denied where defendant's expert raised substantial questions about strength of plaintiff's patent infringement allegations).

181. **Dr. Heppe failed to analyze differences.** Dr. Heppe did not consider or give weight to the differences between the SATRO and ACR schematics or between the CCK source code and the PLB-350 source code. He essentially acknowledged this in his direct testimony, chastising Dr. Harris for considering differences and indicating that the only relevant consideration was a comparison of similarities. Heppe DT ¶ 33; Tr. at 118-19, 203.

182. As discussed below in the Conclusions of Law, differences in the schematics and products at issue are not simply relevant, they ***must*** be analyzed for an opinion to be probative or admissible. *See* ¶ 290, *infra* There were a number of differences between the schematics at issue, many of which Dr. Heppe admitted on cross-examination. In addition, there were gaps in Dr. Heppe's opinions which are fairly interpreted as acknowledging differences — or at least an inability to find similarity.

(i) The differences in the layout of the schematics and the absolute and relative location of the circuits is discussed above at paragraph 151.

(ii) Dr. Heppe admitted that there were differences in the power supply and also indicated that he had not fully analyzed the power supply sufficiently to understand exactly how it was designed in the SATRO. Tr. at 12, 14 (the SATRO's different design for the power supply

eliminated a number of parts); Kelkenberg Dec., Ex. A (Heppe Dep.) at 51-52, 66. *See also* Heppe DT, Exhibit C (Heppe does not list the power supply circuit as "similar").

(iii) Dr. Heppe never discussed the power amplifier circuit in the SATRO and never found it to have used any part of the PLB-375 power amplifier design. When he attempted to give an opinion on this topic on rebuttal, it was excluded as not proper rebuttal. Tr. at 756-57.

(iv) Dr. Heppe acknowledged that he was unable to say whether the electrical design approaches used in the SATRO to achieve a power efficient, 3-battery design were the same as or different from the approach used in the ACR PLBs. Tr. at 38; Kelkenberg Dec., Ex. A (Heppe Dep.) at 157-59. *See* Harris DT at 22-23, 27 (SATRO takes an entirely different approach to achieving power efficiency for a 3-battery design).

(v) Dr. Heppe argued that the modulator circuit in Cassina's prior Docking Master schematic was different from the modulator circuit of the SATRO and the ACR PLBs. Heppe DT ¶ 26(e). But he never analyzed whether the SATRO used the PLB-375 modulator circuit, nor did he conclude that the circuit was not publicly known or was proprietary to ACR.

(vi) Dr. Heppe acknowledged that the physical SATRO and PLB-375 circuit boards which were constructed based on the schematics at issue in this case were "clearly different," and that he was not taking the position that they were the same or even similar. Kelkenberg Dec., Ex. A (Heppe Dep.) at 54-55; Tr. at 15. Dr. Heppe acknowledged that the PLB-375 circuit board had 6-layers, while the SATRO circuit board had only 4-layers. Dr. Heppe agreed that the 6-layer circuit board was a design approach taken by ACR to deal with thermal isolation and RF interference issues which resulted from the PLB-375 board being smaller than the predecessor PLB-350 board. Tr. at 9-10. While Dr. Heppe indicated that he could not disagree with Dr. Harris's conclusion that the SATRO board was even smaller in terms of surface area (Tr. at 10),[37] he was nevertheless unable to identify what different design approach allowed the SATRO to achieve an even smaller circuit board with only 4 layers, rather than the 6-layer design that was required for the PLB-375. Tr. at 10-11. Dr. Heppe did, however, acknowledge that there must be some change in design approach to permit this. Tr. at 10-11. And he agreed that a six-layer board was more complex and expensive than a four-layer board. Tr. at 9.

(vii) Dr. Heppe acknowledged that the SATRO was constructed with

[37] Dr. Harris found the SATRO circuit board to be 4.3 square inches, while the PLB-375 circuit board was 4.8 square inches. Harris DT at 49.

electrical components populating only one side of its circuit board, while the PLB-375 populated both the top and bottom of the board with components. *See also* Harris DT at 37. Dr. Heppe was unable to explain or identify the difference in design approach that allowed the SATRO to populate only one side of its circuit board with components. Kelkenberg Dec., Ex. A (Heppe Dep.) at 55-62.

(viii) Dr. Heppe acknowledged that the SATRO used 20 percent fewer components than the PLB-375. Tr. at 11-12.[38] Dr. Heppe identified a number of differences in circuit design that allowed the SATRO to function with 20% fewer components. Tr. at 12. Moreover, he acknowledged that it was a benefit to construct the board with fewer components because it was cheaper and less complex from a manufacturing point of view. Tr. at 9.

(ix) Dr. Harris found the SATRO and ACR PLB-375 circuit boards to be entirely different, reflecting a very different overall design approach. He cited the difference in the number of board layers, the difference in the number of components and how the boards were populated, and the size of the boards (4.3 square inches for the SATRO and 4.8 square inches for the PLB-375). Harris DT at 37-40, 49. Dr. Harris pointed out that those physical differences reflect fundamentally different design approaches. Dr. Heppe never disagreed or provided any alternative explanation.

D. Findings of Fact: Source Code

183. Dr. Heppe provided a conclusory opinion that the SATRO source code was copied from the source code in the ACR PLB-350. He reproduced lines of code he identifies as "similar" or "identical," but failed to analyze the code at issue from either a quantitative or qualitative point of view. In fact, Dr. Heppe admitted that there are "definitely differences" between the codes, that no one is "alleging that there are no differences," and "yes, the code stacks are different." Tr. at 58.

184. There are two versions of the source code for the SATRO. Both were written by Kaiyu Wu. The first version (which was produced in discovery by DME and Bates labeled with

[38] Dr. Harris found that the SATRO used approximately 20% fewer components than the PLB-375 Harris DT at 37.

a "DME" prefix) is referred to as the "DME code." That was a preliminary version of the code which was delivered to DME in August 2011. Tr. at 619, 634-35. The second version was produced in discovery by CCK and Bates labeled with a "CCK" prefix. It is referred to as the "CCK code" and is intended to be the final version of the source code for the SATRO commercial product. It was finalized in November 2011 and has not yet been delivered to DME. Tr. at 635-36.

185. Because it appears to be undisputed that the CCK version of the source code is the code DME intends to include in its SATRO commercial product, the Court will focus its analysis on the CCK code.

186. **Failure to take reasonable measures to protect.** As an initial matter, the parties agree that the source code for the PLB-350 is located in the Microchip controller, which governs the operation of the device. Tr. at 50. The Microchip controller includes a feature known as a "security bit" or a "protection bit" which allows the user to protect any source code loaded onto the microcontroller from downloading or copying. Tr. at 50. This security feature operates by destroying or deleting the source code if an attempt is made to download or copy it. Dr. Heppe testified that enabling the security protection bits was a "very simple measure." Tr. at 51. It is customary and expected that a user who wishes to protect its source code will enable the security features. Tr. at 51. ACR's internal manufacturing procedures require that these security features for its PLB source code be enabled. Tr. at 51, 198.

187. Dr. Heppe's investigation determined that, although the PLB-350 has been on sale to the public since 2009, ACR had ***not*** enabled the security protection bits for its PLB-350 source code until ***after*** this lawsuit was commenced. Tr. at 51. Dr. Heppe could not dispute that, as a result, the PLB-350 source code could be downloaded, read, and copied without restriction. Tr. at 52. He performed no investigation to determine the scope of ACR's failure to protect its source

code. Tr. at 52.

188. Dr. Harris described that he confirmed that the "protection bits were not set" and it took "less than 15 minutes" to access and download the PLB-350 code. Harris DT at 29-30. Dr. Harris confirmed the usability of the code he downloaded by re-loading it onto the PLB-350 and operating the device without adverse effect Harris DT at 30.

189. Dr. Harris testified that, while he downloaded the PLB-350 code in machine language,[39] he was able to recompile it to Assembly Language,[40] which is readily readable and modifiable by any reasonably skilled programmer. Harris DT at 29-30. He further testified that there are commercially available software products that would have allowed the code to be further "re-compiled" to its original source code format. Harris DT at 30.

190. Based on the foregoing undisputed facts, the Court finds as a factual matter that the PLB-350 code was made openly available to the public by ACR when it first began selling its PLB-350 device in 2009 and that, because ACR failed to take the simple precaution of enabling the security protection bits to guard its source code, it failed to take reasonable and customary measures to maintain the confidentiality of that code.[41]

191. The Court also notes that Dr Heppe agreed that reverse engineering the PLB-350 code "could be done," while indicating it would not be easy. Tr. at 134. He also acknowledged

---

39 Machine language is the programming language designed for use in a computer. It is expressed as letters and numbers. Tr. 109, 340.

40 Assembly language is a low level programming language. It provides instructions to the microcontroller. Tr. 340, 667.

41 ACR seems to argue that its source code was not accessible in usable form — even with the protection bits disabled. But this fails to account for ACR's admission that it has a protocol requiring the protection bits to be enabled and that it cured this defect when it learned of it. Tr. at 51, 198.

that it would be possible to attribute a cost in man hours and dollars to such a task. Tr. at 137. This indicates that any damage to ACR could be compensated by money damages.

192. **Analysis of alleged copying.** In his direct testimony, Dr. Heppe reproduced the lines of CCK code that he found to be "identical to" the PLB-350 code. He also reproduced lines of code he considered to be "similar to" the PLB-350 code. Heppe DT ¶¶ 35-46, Ex. D. The three categories of code lines that Dr. Heppe found to be identical or similar are: "definitions," "comments," and "C code."[42] Heppe DT ¶ 33, Ex. D.

193. On cross-examination, Dr. Heppe was unable to answer any questions about the quantity or relative proportion of the code he found to be at issue. Tr. at 53. He was unable to answer how many lines of SATRO code he found to be "identical" to the PLB-350 code. He was unable to answer how many lines of the SATRO code he found to be "similar" to the PLB-350 code. He was unable to answer the percentage of SATRO code he found to be either identical or similar to the PLB-350 code. And he was unable to identify the volume (either in lines of code or by any other measure) of the PLB-350 code that he claims was copied. Tr. at 53-55.

194. The Court asked Dr. Heppe to take a break and calculate the answers to those questions. Tr. at 54-55. When Dr. Heppe returned to the stand, he advised the Court that the source code for the PLB-350 comprised 7,274 lines, while the source code for the SATRO comprised only approximately 3,600 lines. Tr. at 56. Dr. Heppe had no explanation for this massive dissimilarity in the codes he had opined were similar. Tr. at 56-57. The fact that Dr. Heppe was willing to provide an opinion on the similarity of these codes without this information calls his credibility into

[42] "Definitions" are names assigned to particular values. The values could be coded into the program without the names and would accomplish the same purpose Tr. at 115, 360, 660-61. "Comments" are simply notes describing the code. The "C code" is programming language for the programmer to understand. It is compiled to generate the machine code that can be executed Tr. at 638.

question.

195. Dr. Heppe agreed that the fact that the PLB-350 code was more than 100% longer than the SATRO code reflected "differences between the approach that these two codes take to the problem of running a PLB," admitting that ***"the code stacks are different."*** Tr. at 57-58 (emphasis added). He acknowledged that he had not analyzed "the type of the difference and its impact on performance, memory and speed," indicating "we'd have to look at that." TR. at 58.

196. Dr. Heppe was also able, after the break, to provide a rough quantification of the lines of code he had found to be "similar" or "identical." He indicated that he had identified approximately 350 to 400 lines of CCK code that was either identical or similar to the PLB-350 code. Tr. at 60-61. Dr. Heppe never identified how many lines of code he had found to be "identical" as opposed to how many he had found to be "similar." Dr. Heppe admitted that his findings were, in essence, that 5% of the PLB-350 code was present, in either identical or similar form, in the SATRO code. Dr. Heppe was unable to answer how many of the lines that he found to be similar or identical were comments.[43] Tr. at 61-62. Dr. Heppe never analyzed the number of definition lines or C code lines he found to be similar or identical.

197. The Court has counted the lines of code identified by Dr. Heppe in Exhibit D to his direct testimony and has determined the following:

(i) Dr. Heppe identified 176 lines of the CCK code to be identical to code in the PLB-350.

(ii) He identified 191 lines of the CCK code to be similar to the lines in the PLB-350.

(iii) In total, he identified 367 lines in the CCK code as being identical or similar to the PLB-350 code.

[43] Dr. Heppe admitted that "comment lines are not important for the computer." They are merely references to the programmer. Tr. at 360.

198. Of the 367 lines that Dr. Heppe found to be identical or similar, 310 were either comments or definitions. The parties agree that the comments and definitions, while potentially useful to those desiring to modify or update the code, are not actually used when the code runs. There are 155 lines of C code (the code that actually operates the PLB) which Dr. Heppe contends are present in the CCK code and are either similar or identical to the PLB-350 code. This equals approximately 2% of the PLB-350 code.

199. Dr. Heppe not only failed to provide in his direct testimony any quantitative analysis of the alleged similarities between the CCK code and the PLB-350 code, he also failed to provide any qualitative analysis. Dr. Heppe never explained the meaning of his finding that a line of CCK code was "similar" to a line of the PLB-350 code. He never described what, if any, standard he applied in determining that two lines of code were "similar." With the exception of the sequence of certain definitions and typographical errors (Heppe DT ¶ 35-38), Dr. Heppe never indicated that any particular similarity he identified was unexpected. This is particularly problematic in view of his candid admission that similarities in the code would be expected in view of the fact that the PLBs performed the same function and use similar Microchip microcontrollers. Tr. at 111.

200. Dr. Heppe described the function of definitions and indicated that it would be common for definitions to be assigned names reflecting their function and that therefore similarities in definition names were to be expected. Tr. at 115-16. He also described the function of the comment lines in general terms. But, Dr. Heppe never provided any individual analysis of any of the definitions, comments, or lines of C code (the code that actually operates the PLB). He did not indicate whether any particular line or group of lines of definitions, comments, or C code would

have been expected to be similar or why, whether they were functional in nature, what function they performed, or what specific value those lines added to the overall source code. He never provided analysis of whether any purportedly misappropriated portion of the code was unique, not publicly known, confidential, or proprietary in any respect. This sort of testimony was necessary to determine whether any "similarity" is legally significant.

201. This constitutes a failure of proof rendering Dr. Heppe's opinions with respect to the source code without probative value.

202. Kaiyu Wu testified that he wrote the PLB-350 source code, basing it on source code he had written for an earlier ACR EPIRB product, the RLB-36. Wu DT ¶¶ 13-14. Wu indicated that 80 to 90 percent of the PLB-350 code came from the RLB-36 code. Wu DT ¶ 14-15. Wu noted that some similarities between the SATRO and PLB-350 codes would be expected because he wrote both. Wu DT ¶ 28.

203. Dr. Heppe appeared to question whether Wu wrote the PLB-350 code on his own. Tr. at 47-49. However, he has no personal knowledge on this topic and ACR chose not to present a witness with personal knowledge. It is not an expert's function to testify regarding historical facts. Thus, Wu's testimony that he wrote the PLB-350 code stands undisputed.

204. Wu testified that, for the most part, any similarities between the PLB-350 and the SATRO codes were due to the fact that they used related Microchip microcontrollers, which required certain programming instructions, register names, and definitions, as well as programming syntax. Wu DT ¶¶ 28, 34-58; Tr. at 657-60. Dr. Heppe agreed that the Microchip programming manual set forth required register names and instructions. Tr. at 64. He acknowledged that many of the lines he had included in his report as "similar" or "identical" consisted of or included mandatory register names or instructions. Tr. at 72. *See also* Tr. at 64-75 (Heppe testimony that much of the

nomenclature he found to be similar or identical is required by the Microchip manual and not discretionary to the programmer). Dr. Heppe acknowledged that many of the elements in lines he found to be similar or identical were required by the Microchip manual. Tr. at 73. *See also* Tr. at 349 (Dr. Harris attributes "almost all of the similarities" in the codes to the microcontroller programming instructions).[44]

205. Wu acknowledged that, after he left ACR, he maintained a copy of the definitions he used in creating the PLB-350 code. He had maintained a file of all of the definitions he had used in his programming career, including during the years he was employed prior to ACR. He accessed those definitions in creating the CCK code, although many fewer definitions were needed because the CCK code was substantially different than the PLB-350 code and was written in a vastly more efficient manner. Tr. at 662, 671-72. Dr. Heppe did not provide any testimony that those definitions were confidential or proprietary in any respect or that they were unique or provided any special advantage or value to ACR. Wu testified that it would have taken him only two hours to re-write the definitions with different names and in a different sequence. Tr. at 669-70.

206. **Dr. Heppe failed to consider differences.** Dr. Heppe failed to analyze or accord any weight to the differences between the SATRO source code and the PLB-350 code. As discussed above, he acknowledged that he was unaware when rendering his opinions that the PLB-350 source code was 7,274 lines long, while the SATRO source code was only 3,600 lines. He acknowledged that this reflected differences in the source code, but admitted that he had not

---

[44] ACR's counsel pointed out that the Microchip instructions, register names, etc. were in Assembly language and that Wu programmed in C code. Tr. at 612-13. The Court notes that the instructions were nevertheless identifiable and that Wu testified that he used exact C code translations of the required Microchip Assembly instructions. Tr. at 626, 667-69.

analyzed them and did not know what they were. Tr. at 56-57.

207. Moreover, Dr. Heppe testified that, due to regulatory changes, the portion of the SATRO source code devoted to operating the GPS would necessarily have to be different than the GPS-related code in the PLB-350. Tr. at 770. He agreed that the GPS portion of the source codes was the single largest module in either code. Tr. at 770-71. However, he never analyzed or reviewed the differences in those modules.

208. Because Dr. Heppe identified only 367 lines in the SATRO code that were allegedly similar or identical to the PLB-350 code, the Court finds that none of the remaining 6,907 lines in the PLB-350 code were similar or identical to lines in the SATRO code. Further, Dr. Heppe never analyzed, either quantitatively or qualitatively, the nature of the differences in the SATRO code which allowed it to operate without any similarity in the vast portions of the codes that were different.

209. Finally, the Court notes that ACR did not introduce into evidence a copy of the PLB-350 source code or copies of the DME or CCK codes. Accordingly, the Court is not able to review the code in its entirety or to compare Dr. Heppe's list of alleged similarities to the original code. *See, e g., Idearc Media Corp. v Kimsey & Assocs. P.A.*, 2011 WL 1560653, at *4 (M.D. Fla. Apr 25, 2011) (excluding affidavits which addressed misprinted phonebooks because phonebooks themselves were not introduced). In this case, ACR's failure to offer the complete source codes being compared deprives this Court of the chance to do an independent analysis of Dr. Heppe's conclusions. *See id.* (noting that it is critical for the fact finder to see the best evidence in order to evaluation the claims). Nevertheless, the Court need not reach this issue because Dr. Heppe's opinions were insufficient for the reasons described above.

210. **Control Flow Chart.** There was testimony that Wu included in a January 2011 presentation to DME a control flow chart demonstrating the operation of a PLB, including the sequence and interactions between the PLB's functions. That control flow chart had been taken by Wu from ACR. Tr. at 644, 647-49. Wu testified that the flow chart did not assist him in writing the SATRO source code. Tr. at 673-74.

211. There was no testimony by anyone with personal knowledge about the source of the flow chart. *See* Tr. at 78-79 (Dr. Heppe stating that he does not know who drafted the flow chart, where it came from, or whether it was based on publicly available information); Tr. at 200, 204-05 (Pack, admitting that he has no personal knowledge of the creation of the flow chart, which occurred six years before he was employed at ACR).

212. The flow chart was labeled as relating to the PLB-200, not the PLB-350 or the PLB-375. Tr. at 78. The PLB-200 flow chart was released in 2004. Tr. at 204. Wu testified that the flow chart does not reflect the content or structure of the PLB-200's source code; it reflects only the sequence of operations of the PLB-200 device, which is set forth in the publicly available PLB-200 User's Manual. Tr. at 648-50. ACR introduced no testimony to the contrary.

213. **Overall physical characteristics.** The SATRO and PLB-375 differ in their physical characteristics in many significant respects. The SATRO is built with 20% fewer components than the PLB-375. Harris DT at 39. The SATRO is also built with four layers and the PLB-375 is built with six layers. The SATRO is also lighter and smaller than the PLB-375. With respect to weight and size, Dr. Heppe's comparison of the SATRO to the PLB-375 is not credited because he compares the floating SATRO to the non-floating PLB-375. Heppe DT at 48. The differences in the boards, board layouts, and dimensions and weight represent material differences between the SATRO and the PLB-375.

Conclusions of Law

I. ACR'S BURDEN ON THIS MOTION

214. Preliminary injunctive relief is an "extraordinary and drastic remedy." *Siegel v. LePore*, 234 F.3d 1163, 1176 (11th Cir. 2000). *See also Miller's Ale House, Inc. v. Boynton Carolina Ale House, LLC*, 2009 WL 6812111, at *22 (S.D. Fla. Oct 13, 2009), *R&R adopted by*, 2009 WL 6812112 (S.D. Fla. Nov. 30, 2009) (Marra, J.). It is the exception rather than the rule. *Siegel*, 234 F.3d at 1176.

215. A district court may grant injunctive relief only if the moving party shows: "(1) a substantial likelihood of success on the merits of the underlying case, (2) the movant will suffer irreparable harm in the absence of an injunction, (3) the harm suffered by the movant in the absence of an injunction would exceed the harm suffered by the opposing party if the injunction issued, and (4) an injunction would not disserve the public interest." *Johnson & Johnson Vision Care, Inc v 1-800 Contacts, Inc.*, 299 F 3d 1242, 1246-47 (11th Cir. 2002). *See also Siegel*, 234 F.3d at 1176.

216. The movant "must clearly establish[] the 'burden of persuasion' as to each of the four prerequisites." *Siegel*, 234 F.3d at 1176. *See also Miller's Ale House, Inc.*, 2009 WL 6812111, at *22. "Failure to prove one of the factors for a preliminary injunction is fatal." *Magazine Publishers' Serv., Inc. v. Nam Mktg. of FL Gulf Coast, Inc* , 2011 WL 4902968, at *2 (M.D. Fla. Oct. 13, 2011).

217. "Speculation is not a sufficient grounds for invoking the extraordinary remedy of a temporary injunction." *Thompson v. Windsor*, 2009 WL 3029336 (N.D. Fla. Sept. 17, 2009). Likewise, "[i]nference[s] based on speculation and conjecture [are] not reasonable." *CBS Broadcasting, Inc. v. Echostar Communs. Corp.*, 265 F 3d 1193, 1205 (11th Cir. 2001). *See also*

Estetique, Inc. USA v. Xpamed LLC, 2011 WL 4102340, *7 (S.D. Fla. Sept. 15, 2011) (denying preliminary injunction where there was no evidence supporting false advertising claim other than a "large inference"); *Destin v BP, PLC*, 2010 WL 2508951, at *3 (N.D. Fla. June 17, 2010) (court is powerless to grant injunction based on plaintiff's speculation as to the defendants' likely future motives and conduct).

II. ACR HAS *NOT* ESTABLISHED IRREPARABLE HARM IN THE ABSENCE OF AN INJUNCTION

218. It is well-established that "proof of irreparable harm is an indispensable prerequisite to a preliminary injunction." *Siegel*, 234 F.3d at 1179. Even if the movant establishes a substantial likelihood of success on the merits, "the absence of a substantial likelihood of irreparable injury would, standing alone, make preliminary injunctive relief improper." *Id.* at 1176.

219. "In the context of a preliminary injunction, the asserted irreparable harm must be actual and imminent rather than remote or speculative." *GPS Indus., LLC v. Lewis*, 691 F. Supp. 2d 1327, 1338 (M.D. Fla. 2010) (quoting *Siegel*, 234 F 3d at 1176). *See also Miller's Ale House, Inc.*, 2009 WL 6812111, at *21.

220. Irreparable harm cannot be presumed. *See eBay Inc. v. MercExchange, LLC*, 547 U.S. 388, 392 (2006) (rejecting "invitations to replace traditional equitable considerations with a rule that an injunction automatically follows a determination that a copyright has been infringed"); *Winter v NRDC*, 55 U.S. 7 (2008) (eBay standard applied to preliminary injunction); *Flexible Lifeline Sys., Inc. v. Precision Lift, Inc.*, 654 F.3d 989, 996 (9th Cir. 2011) ("[P]resumption of irreparable harm is equally improper in a case based on copyright infringement as it is in a case based on patent infringement."). *See also Sharn, Inc. v. Wolfe Tory Med., Inc.*, 2009 WL 3416503, at *9 (M.D. Fla. Oct. 19, 2009) (denying motion for preliminary injunction on false advertising

claim; "[p]roof of falsity is generally only sufficient to sustain a finding of irreparable injury when the false statement is made in the context of comparative advertising between the plaintiff's and defendant's products").

221. ACR claims that it will suffer irreparable harm as a result of: (1) the defendants' purported copying, distribution, use, or disclosure of ACR's copyrighted materials, trade secrets and confidential information; and (2) the promotion of the SATRO PLB prior to FCC approval. *See* Complaint ¶¶ 113-117.

222. In this Court's view, ACR's allegations of irreparable injury are conclusory and speculative, and fall far short of that required to demonstrate the need for injunctive relief.

223. The Court further concludes that any alleged harm to ACR can be remedied by monetary damages.

224. Most importantly, however, ACR's claim of irreparable injury fails because of ACR's extraordinary delay in requesting preliminary injunctive relief from the Court. These issues are discussed below.

A. ACR's Delay Bars Its Claims

225. "Preliminary injunctions are generally granted under the theory that there is an urgent need for speedy action to protect the plaintiffs' rights." *Structural Tenting , Corp. v. The Termite Doctor*, 2010 U S. Dist. LEXIS 80034, at *4 (S.D. Fla. 2010).

226. A plaintiff's failure to act with expediency thus "undercuts any sense of urgency" that must accompany a motion for preliminary injunctive relief. *Seiko Kabushiki Kaisha v. Swiss Watch Int'l, Inc.*, 188 F. Supp. 2d 1350, 1355 (S.D. Fla. 2002) (three-month delay in moving for preliminary injunction "undercuts any sense of urgency and, therefore, plaintiff has

failed to demonstrate sufficient need for a preliminary injunction").

227. "It is well-established that a pattern of delay is fundamentally inconsistent with . . . allegations of irreparable injury." *Burger v. Hartley*, 2011 WL 6826645, at *2 (S.D. Fla. Dec. 28, 2011). Delay in seeking a preliminary injunction ***standing alone*** precludes preliminary injunctive relief. *Burger*, 2011 WL 6826645, at *2 (emphasis added).

228. A party's delay is measured from the time it learned of the unlawful activity underlying its claims. *See, e.g , Seiko Kabushiki Kaisha*, 188 F. Supp. 2d at 1356 (near one-year delay after acquiring knowledge of defendants' activities, and three-month delay between plaintiff's and defendants' last contact and filing suit "vitiates the notion of irreparable harm"); *Hodgdon Powder Co., Inc. v Alliant Techsystems, Inc.*, 2006 WL 2092391, at *3 (D. Kan. July 26, 2006) (plaintiff's seven-month delay in filing suit after it became aware of wrongful conduct negated irreparable harm); *Burger*, 2011 WL 6826645, at *2 (denying preliminary injunction because plaintiff delayed in seeking relief for more than one year after learning of defendants' conduct); *Citibank, N A. v. Citytrust*, 756 F.2d 273, 276 (2d Cir. 1985) (plaintiff's 10-week delay in seeking preliminary injunction after receiving actual notice of defendant's conduct refuted assertion of irreparable harm).

229. The proof — including ACR's pleadings and motion papers — shows that the "unlawful activity" underlying ACR's claims is the alleged theft of its trade secret information in the summer of 2010, which ACR learned of in August 2010 — ***17 months*** before this motion was filed.

230. Courts have found delay in similar circumstances fatal to a preliminary injunction request. *See Burger*, 2011 WL 6826645, at *2; *Lawler Mfg. Co , v Bradley Corp.*, 2000 WL 1456336, at *13 (S.D. Ind. 2000) (denying injunctive relief to plaintiff on its trade secret claim

because it delayed seeking relief after suspecting its former employee had taken drawings and parts upon leaving for a new job); *Wentworth Labs , Inc. v. Probe 2000, Inc.*, 2002 WL 31758350, at *7 (Conn. Super. Ct. 2002).

231. In addition to refuting allegations of irreparable harm, delay in seeking a preliminary injunction negates two additional elements of a trade secret plaintiff's claims.

232. First, a party who claims to own trade secret or confidential information has a duty to act diligently to safeguard the secrecy of that information; otherwise, any protectable rights are forfeited. *See GPS Indus., LLC*, 691 F. Supp. 2d at 1335 (denying preliminary injunction because plaintiff failed to show that it undertook reasonable efforts to maintain the secrecy of its alleged trade secrets); *Greenberg v. Miami Children's Hosp. Research Inst., Inc.*, 264 F. Supp. 2d 1064, 1076 (S.D. Fla. 2003).

233. Second, delay in filing suit to protect alleged confidential or trade secret information gives rise to the strong inference that the information is not confidential or secret at all — otherwise why would the party delay? *See In re Maxxim Med. Grp., Inc.*, 434 B.R. 690, 692 (M.D. Fla. 2010) (where plaintiff "took no measures to protect [its] alleged trade secret, [this] demonstrates that [it] never . . . considered [the] information to be 'secret'").

The unlawful activity occurred in the summer 2010.

234. The allegations in the Complaint, and ACR's subsequent filings, are substantially based on allegations that defendant Tong downloaded and stole ACR's trade secret information prior to his departure from ACR in July 2010. *See* Complaint ¶¶ 24-34; Kelkenberg Dec., Ex B (Pack Dep.) at 66-67. ACR has carefully detailed the specific emails and documents ACR claims contain its trade secret information and which Tong allegedly stole, and ACR admits that it knew that this activity occurred in the summer 2010:

- Complaint: ¶¶ 24-34 (describing the Individual Defendants' wrongful downloading of ACR's trade secret information); ¶¶ 60-61 (charging the Individual Defendants with violation of the Computer Fraud and Abuse Act based on their summer 2010 downloading and theft in "obtaining ACR's valuable business information, including confidential, proprietary, and trade secret information" — with specific reference to the Individual Defendants' conduct in June and July of 2010); ¶¶ 76-77 (charging the Individual Defendants with misappropriation of "confidential, trade secret and proprietary information" based entirely on their wrongful downloading of information in summer, 2010).

- Wilkerson DT: ¶ 16 ("In the weeks immediately before they left ACR's employment, [the Individual Defendants] accessed and used ACR's Confidential Information, copyrighted materials and trade secrets in a manner that was unauthorized or exceeded the scope of the authority granted to them by ACR and for the benefit of themselves . . . ." and further describing the downloading of information that occurred in June and July of 2010); ¶ 19 (charging that the downloading of information in summer 2010 constituted a "misappropriation of ACR's Confidential Information, copyrighted materials and trade secrets").

- Pack DT: ¶ 15 ("I discovered that immediately before he resigned, Chung sent a flurry of e-mails containing ACR's confidential and trade secret information from his ACR e-mail account to his personal e-mail account and to Claudio's and Kaiyu's ACR e-mail accounts [and then listing a number of e-mails in June and July 2010]); ¶ 17 ("sending these e-mails [in June/July 2010] violated ACR's policies applicable to Chung, Claudio, and Kaiyu, as well as their Employee Confidential & Assignment of Invention Agreements").

ACR learned of the alleged unlawful conduct in early August 2010 — 17 months before it filed this motion.

235. Importantly, while ACR's Complaint and subsequent filings contain specific dates as to most allegations, these documents do not identify for the Court the date that ACR first learned that Tong had allegedly stolen its trade secrets.

236. But the proof makes clear that ACR — specifically Thomas Pack who then reported it — first learned about Tong's alleged theft of ACR trade secrets ***in early August 2010*** — ***more than 17 months*** before this motion was filed. *See* Tr. at 160-62, 228; Pack DT ¶¶ 15(a),

15(b), 15(d); Kelkenberg Dec., Ex. B (Pack Dep.) at 66-67.

237. The allegedly stolen information included ACR's customer list, its "trade secret computer program developed exclusively by ACR's employees which is used to test PLBs," confidential vendor and supplier information, copyrighted drawings, confidential bills of materials, confidential technical drawings of the power amplification system for ACR's new PLB-375, and "confidential and trade secret information consisting of ACR's April 1, 2010 'Next Generation Beacon Core Technology and Product Development Plan.'" Tr. at 175-76; Pack DT ¶ 15(b); Complaint ¶¶ 25, 33.

238. Pack immediately (in August 2010) reported the misappropriation of ACR's trade secret/confidential information to ACR's ***General Manager***, Joseph Mentz. But Mentz did nothing; he simply asked Pack to report it to Richard Horn, ACR's Vice President of Human Resources. *See* Kelkenberg Dec., Ex. B (Pack Dep.) at 64-65. Pack did so and showed Horn the emails by which the Individual Defendants allegedly stole ACR's trade secret information. *Id.* Horn did essentially nothing. He wrote a generic two-line letter to the Individual Defendants reminding them that they had confidentiality agreements with ACR and should comply with those agreements. ***Inexplicably, Horn did not advise the Individual Defendants that they had stolen or were wrongfully in possession of ACR trade secret/confidential information, nor did he ask them to return the information he knew they had taken.*** Horn DT ¶ 11, Exs. J-L, Tr at 146, 148.

239. Pack testified that there were no conversations at ACR about contacting the Individual Defendants and demanding the return of ACR's trade secret information. Tr. at 169-70. He never recommended that ACR do so — even though he believed the Individual Defendants "had taken ACR confidential proprietary information." *See* Kelkenberg Dec., Ex. B (Pack Dep.) at 74-75; Tr. at 169-70.

240. ACR took no action to protect itself against the misappropriation of its proprietary information by the Individual Defendants, other than Horn's two-sentence letter reminding them that they had entered into an employee confidentiality agreement (but not notifying them that they had stolen or should return ACR trade secret/confidential information). Tr. at 146-49, 151, 169-70; Horn DT ¶ 11, Exs. J-L.

241. When asked why he did not recommend that ACR contact Tong and demand that he return its trade secret/confidential information, Pack responded only that it was "[his] responsibility [as] a Manager to report back to my superiors and it was their responsibility to act upon that." *See* Kelkenberg Dec., Ex. B (Pack Dep.) at 75. *See also* Tr. at 164.

242. The Court finds ACR's response to be particularly insufficient given Pack's admission at hearing that he knew by August or September 2010 that the Individual Defendants had formed their own company — CCK Electronics. Tr. at 168-69.

243. Indeed, ACR has consistently alleged, as part of this case, that actionable theft of its trade secret information occurred in June and July of 2010. *See* Complaint ¶¶ 24-34. However, ACR was careful ***not*** to disclose the date on which Pack learned that ACR's confidential/trade secret information had allegedly been taken. The Court concludes that this omission, in the context of motion papers that provide specific dates with regard to every other allegation, reflects ACR's awareness that its delay in seeking to protect its allegedly trade secret information was fatal to its motion.

ACR has long been on notice that CCK was competing in the beacon industry.

244 Separate and apart from Pack's August 2010 discovery that ACR's alleged trade secret information had been stolen, ACR's pleadings and motion papers reflect that it has long been on notice of other facts that required it to file any preliminary injunction motion sooner:

- In May 2011, after ACR employee Dwayne Quiring reported overhearing a reference to Chung Tong in a phone call with DME, Pack began "wondering [if] Chung might be consulting and doing something for DME." *See* Kelkenberg Dec., Ex. B (Pack Dep.) at 158-59. He took no action to follow-up and did not ask Chung about it when he saw him in June 2011 for lunch. Tr. at 180.

- On June 10, 2011, Pack met Chung Tong for lunch. Tong handed him a CCK business card containing the legend ***"Future of Beacon Technology."*** When asked whether he drew any conclusions about what Tong was doing for a living, Pack testified: "I, at face value, took his word that he was working on the future of beacon technology through his consulting." Kelkenberg Dec., Ex. B (Pack Dep.) at 155-56. Thus, Pack was aware that the person he believed had stolen ACR's trade secrets was ***actively competing*** with ACR.

- In August 2011, Pack learned from one of ACR's salesmen that an ACR competitor "had a PLB at the FCC for approval." Kelkenberg Dec., Ex. B (Pack Dep.) at 156-57. At that time, Pack speculated that the competitor was DME. Because the salesman told him that the competitor was "a South Florida ELT manufacturer," Pack "quickly shortened the list" of potential competitors to DME. Kelkenberg Dec., Ex. B (Pack Dep.) at 157-58; Tr. at 182-84.

245. As this timeline reflects, in addition to its knowledge that the Individual Defendants had taken its alleged trade secret information in the summer 2010 and had, at the same time, formed CCK, ACR was placed on notice of the alleged violation of its rights by separate information it received in May 2011, June 2011 and August 2011.

246. For these reasons, ACR has clearly failed to satisfy the requirement of Eleventh Circuit case law that it move promptly to protect its purported trade secret information and has thereby waived any right to equitable relief. *See Hi-Tech Pharm., Inc. v. Herbal Health Prods , Inc.*, 311 F. Supp. 2d 1353 (N.D. Ga. 2004) (plaintiff's three-month delay precludes a preliminary injunction); *Badillo v Playboy Entm't Grp , Inc* , 2004 WL 1013372 (M.D. Fla. April 16, 2004) (denying preliminary injunction where plaintiff delayed nine months in seeking preliminary injunction after learning of defendant's conduct); *Seiko Kabushiki Kaisha v. Swiss Watch Int'l, Inc.*,

188 F. Supp. 2d 1350, 1356 (S.D. Fla. 2002) (one-year delay after acquiring knowledge of defendants' activities "vitiates the notion of irreparable harm").[45]

247. And ACR's delay of 17 months after learning its trade secrets had allegedly been stolen requires denial of its preliminary injunction motion.

B. ACR Seeks Injunctive Relief After Any Head Start Period Expired

248. ACR's claim of irreparable harm also fails because any "head start" period has already expired. It is well-settled that a court may deny injunctive relief where the plaintiff's "head start" period has expired.[46]

249. An injunction should continue only for a period of time reasonable to eliminate any commercial advantage derived from the violation, and "should not ordinarily extend beyond the time when the defendant could have properly acquired and implemented the information through reverse engineering or independent discovery." RESTATEMENT (THIRD) UNFAIR COMPETITION § 44 cmt. c (1995).[47]

---

45 *Gidatex, SrL v. Campaniello Imp., Ltd* , 13 F. Supp. 2d 417, 419 (S.D.N.Y. 1998) ("Courts typically decline to grant preliminary injunctions in the face of unexplained delays of more than two months."); *Citibank, N.A. v. Citytrust,* 756 F.2d 273, 276 (2d Cir. 1985), (reversing preliminary injunction and holding that 10-week delay in moving for such relief following actual notice of misconduct refuted plaintiff's claim of irreparable harm).

46 *See* FLA. STAT. ANN. § 688.003(1) (West 1988) (injunction should be terminated when trade secret ceases to exist, or after period of commercial advantage expires); 4 MILGRIM ON TRADE SECRETS § 15.02[1][d] at 15-264 n.20 (2011) ("Indeed, the 'headstart' concept is determinative as to whether an injunction should be granted at all. The purpose of an injunction is not to punish but rather to protect the plaintiff's legitimate interest. Where relief is sought after the period of time that was required for independent development it can be denied."); § 15.02[1][d] at 15-24 ("[T]he period of time that would be required for independent development is the most commonly employed standard.").

47 *See* RESTATEMENT (THIRD) UNFAIR COMPETITION § 39(f) (information readily ascertainable through proper means is not a trade secret); *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.,* 489 U.S. 141, 160 (1989) (trade secret law does not protect against discovery by reverse

250. ACR's PLB-350 and PLB-375 products (and their respective source code and components) became publicly available when the products entered the market in late 2009 and July 2011, respectively. *See* Kelkenberg Dec., Ex. B (Pack Dep.) at 48; Kelkenberg Dec., Ex. C (Wilkerson Dep.) at 9.

251. At that time, the electrical designs of these products became public knowledge, as did their source code.[48] As discussed in the Harris Declaration (at 12-18, 29-32), the electrical design of the ACR products could be reverse engineered within a few days; the software could be downloaded, copied, and accessed in a matter of minutes. This process could be conducted in as little as one week. *Id.* at 18. Thus, the period of independent development has long since expired.

252. Even under ACR's version of how long it would take to conceptualize, design, certification test, and obtain product approval by appropriate government agencies for a PLB — "up to" or "approximately two years" — DME's head-start period has expired. Pack DT ¶ 20. At the earliest, DME began to "conceptualize" the product between 2005 and 2007 (5 to 7 years ago) when it began discussing use of the personal ELT, meaning that the head start period expired

---

engineering). *See 3M v. Pribyl*, 259 F.3d 587, 609 (7th Cir. 2001); *Syntex Opthalmics, Inc. v Novicky*, 745 F.2d 1423 (Fed. Cir. 1984), *reinstated on remand*, 767 F.2d 901 (Fed. Cir. 1985) (District Court abused its discretion in granting a 20-year injunction, which would have extended 12 years beyond the time when the defendant could have independently developed the secret on his own, because that would have provided plaintiff with "a windfall protection and would subvert the public interest in fostering competition and in allowing [individuals] to make full use of their knowledge and ability") (internal quotation marks and citations omitted); *Concept, Inc. v. Thermotemp, Inc.*, 553 So. 2d 1325, 1328 (Fla. 2d Dist. Ct. App. 1989) (entry of a plaintiff's alleged trade secret or confidential information into the public domain is a factor in determining the appropriate length of an injunction).

48 As discussed in Dr. Harris' direct testimony at 29-30, ACR made no efforts to protect its source code, failing to use or enable the protection features that could have prevented copying and leaving its code open to the public Tr. at 51, 198.

long ago. Cassandra DT ¶¶ 3-4. At the latest, DME began to "conceptulalize" the product in August 2010 when DME and the Individual Defendants held their preliminary meeting to discuss the PLB product. Cassandra DT ¶ 8. In that case, DME has already expended 20 months on its development effort without reaching completion — and any head start period will expire in the very near future.

C. ACR's Request for Monetary Relief Negates Any Alleged Irreparable Harm

253. ACR's claim for irreparable harm fails for the third reason that any alleged harm to ACR can be remedied by a monetary award. "An injury is 'irreparable' only if it cannot be undone through monetary remedies." *Cunningham v. Adams*, 808 F.2d 815, 821 (11th Cir. 1987). ACR's complaint is styled a Complaint for Injunctive Relief ***and Damages*** and Demand for Jury Trial. ACR includes a "statement of irreparable injury" pleading that the harm "cannot adequately be remedied by an award of monetary damages." Complaint ¶¶ 113-17.

254. But it also, just five paragraphs later, seeks damages, attorneys' fees, and interest. Complaint ¶ 122. The inclusion of monetary damages in the complaint is an admission that monetary remedies would suffice. *See GPS Indus., LLC v. Lewis*, 691 F. Supp. 2d 1327, 1338 (M.D. Fla. 2010) (denying injunctive relief where plaintiff requested an injunction and damages).

255. Moreover, in its motion for preliminary injunction, ACR expressly stated that the irreparable harm it would suffer absent an injunction included substantial financial and reputational injury.

256. At least one court in this circuit has recognized that software is not appropriately the subject of an injunction unless it is "unique." *See Liberty Am. Ins. Grp , Inc v. Westpoint Underwriters, LLC* , 199 F. Supp. 2d 1271, 1291 (M.D. Fla. 2001) ("Plaintiffs' software

is not so unique that money damages are inadequate.") (adopted in its entirety by the district court). ACR introduced no evidence that its source code was "unique." Accordingly, monetary damages are presumptively adequate. Similarly, ACR introduced no testimony that its schematics were in any respect unique. Thus, any alleged harm relating to ACR's schematics is presumptively compensable by money damages, as well.

257. The Court finds that the harm to ACR, if any, can be remedied by a monetary award. And injunctive relief is not appropriate under such circumstances.

D. ACR Has Not Shown That It Suffered Any Other Irreparable Harm

258. Because Dr. Heppe has acknowledged that the ACR schematics were accessible by reverse engineering ACR's commercial PLB products, ACR is unable to show irreparable harm. Even if Dr. Heppe is correct in his assessment that it would take substantially more time, effort, and expense to conduct the reverse engineering Dr. Harris describes, this simply provides evidence that ACR could properly be compensated by money damages, measured by the expense that DME allegedly avoided (if ACR is able, at a trial on the merits, to establish there was any wrongdoing by DME, which the Court need not decide at this time).

259. ACR's other contentions of irreparable harm are also insufficient. A claim of irreparable harm due to the potential loss of customers is remote and speculative at best. *See GPS Indus., LLC*, 691 F. Supp 2d. at 1338. So is a claim based on loss of competitive edge for something done in the industry for years. *See Liberty Am. Ins. Grp., Inc* , 199 F. Supp. 2d at 1291.

260. ACR has submitted no evidence of lost sales or relationships.[49] *See* Tr. at

[49] Even if ACR demonstrated lost sales, lost sales is "an injury which can easily be compensated with money damages." *Miller's Ale House, Inc.*, 2009 WL 6812111, at *22.

240 (Wilkerson, "Q. As you sit here today, sir, you do not know whether DME has sold a single SATRO device, do you? A. I do not know. Q. And by the same token, you can't identify a single lost sale – excuse me, a single ACR lost sale to the DME product, the SATRO? A. Not at the moment"). Where, as here, the record does not indicate the actual loss of customers or disclosure of trade secret information, an injunction is simply not warranted. *See GPS Indus., LLC*, 691 F. Supp. 2d. at 1338.

III. ACR HAS NOT SHOWN A SUBSTANTIAL LIKELIHOOD OF SUCCESS ON THE MERITS OF ITS CLAIMS AGAINST DME

261. In order to establish proof of a likelihood of success on the merits, a movant is required to demonstrate a clear right to relief — inferences based on "speculation and conjecture" are not sufficient. *CBS Broadcasting, Inc. v. Echostar Communs Corp.*, 265 F.3d 1193, 1205 (11th Cir. 2001), 265 F.3d. If the movant cannot demonstrate a likelihood of success on the merits of its claims, a court need not consider the remaining requirements for a preliminary injunction. *Johnson & Johnson Vision Care*, 299 F.3d at 1247; *Global Tel*Link Corp. v Scott*, 652 F. Supp. 2d 1240, 1251 (M.D. Fla. 2009).

262. As noted above, DME is accused of just three of the 11 counts in ACR's complaint: (1) copyright infringement (Count I), based on alleged copying of the PLB-375 and PLB-350 schematics; (2) a Lanham Act claim (Count III) based on the allegation that DME improperly advertised its SATRO product without indicating that it was awaiting FCC approval; and (3) an unfair competition claim (Count XI) based on the allegation that DME misappropriated ACR's trade secret/confidential information.

A. The Court Draws an Adverse Inference from ACR's Decision Not to Call Carlos Lizandro

263. "It is well settled that the production of weak evidence when strong is available can lead only to the conclusion that the strong would have been adverse." *Raley, Inc v. Kleppe*, 867 F.2d 1326, 1329 (11th Cir. 1989).

264. "If a party knows the existence of an available witness on a material issue and such witness is within his control and if without satisfactory explanation he fails to call him, an inference may be drawn that the testimony of the witness would not have been favorable to such party." *Matter of Pal Transp., Inc.*, 13 B.R. 935, 939 (M.D. Fla. 1981). *See also Jones v. Otis Elevator Co* , 861 F.2d 655, 659 n.4 (11th Cir. 1988) (affirming district court's application of missing witness inference against defendant-employer who failed to produce employee witness with personal knowledge of relevant and noncumulative information).

265. Lizandro was the principal engineer on the PLB-350 and PLB-375. Cassina DT ¶ 28; Pack DT ¶ 5.

266. As such, this Court concludes that he would have been the best witness to testify as to the design and development of the PLB-350 and PLB-375 schematics, and whether "substantial changes" were made to the McMurdo power amplifier for the PLB-375 (as ACR contends on this motion). ACR attempted to elicit second-hand, hearsay testimony of the facts regarding Lizandro's design of the PLB-375 schematic, the challenges he faced, the solutions he developed and, in particular, the changes he allegedly made to the McMurdo power amplifier circuit. This testimony was excluded, because an expert "may not be offered in lieu of factual witnesses to convey the events that took place." *See, e.g., Tyco Healthcare Group LP v. Mutual Pharm. Co., Inc* , 2009 WL 2422382 (D.N.J. Aug. 4, 2009) (preliminary injunction denied where

defendant's expert raised substantial questions about strength of plaintiff's patent infringement allegations); *Barrueto v. Larios,* 2003 WL 257 82075, at *3 (S.D. Fla. Sept. 18, 2003) (rejecting expert's "factual testimony under the guise of expert testimony"). Tr. at 744.

267. The Court notes that Lizandro is still employed by ACR, and as recently as February 21, 2012, submitted an affidavit in this case. Tr. at 744. The fact that ACR could have called Lizandro as a witness in its direct case, but elected not to, leads this Court to conclude that his testimony would have been adverse to ACR's position.

B. ACR Has Not Established a Likelihood of Success on Its Copyright Infringement Claims

268. For purposes of its preliminary injunction motion, ACR's copyright claim is limited to its PLB-375 and PLB-350 electrical schematics. ACR has not alleged a copyright claim for its PLB-350 source code.

ACR's burden on this claim.

269. To prevail on a claim for copyright infringement, a plaintiff must prove: "(1) ownership of a valid copyright, and (2) copying of constituent elements of the work that are original." *Warren Publ'g, Inc. v Microdos Data Corp* , 115 F.3d 1509, 1515-16 (11th Cir. 1997). *See also Green Bullion Fin Servs , LLC v. Money4Gold Holdings, Inc.*, 639 F. Supp. 2d 1356, 1361 (S.D. Fla. 2009).

270. "To show the first element, a plaintiff must prove that the work . . . is original ***and*** that the plaintiff complied with applicable statutory formalities." *Bateman v. Mnemonics, Inc.*, 79 F.3d 1532, 1541 (11th Cir. 1996) (emphasis added). "Material that is not original cannot be copyrighted." *Beal v. Paramount Pictures Corp* , 20 F.3d 454, 459 (11th Cir. 1994).

271. With respect to the second element, "the plaintiff must first establish, as a

factual matter, that the alleged infringer 'actually used the copyrighted material to create his own work.'" *Bateman*, 79 F.3d at 1541. "If a plaintiff does not have direct proof of copying, the plaintiff may show copying by demonstrating that the defendant had access to the copyrighted work and that the works are substantially similar." *Cornerstone Home Builders, Inc. v. Lemanski*, 2005 WL 1863387, at *2 (M.D. Fla. Aug. 5, 2005). *See also MiTek Holdings, Inc. v. Arc Eng'g Co.*, 89 F.3d 1548, 1554 (11th Cir. 1996); *Green Bullion Fin. Servs.*, 639 F. Supp. 2d at 1361.

272. In order to determine whether the elements of an infringer's work are "substantially similar" to the protectable elements of the plaintiff's program, courts look to the relative importance of the copied elements to the overall copyrighted work. *Liberty Am. Ins. Grp., Inc.*, 199 F. Supp. 2d at 1300 (denying plaintiff's motion for preliminary injunction where plaintiff failed to present the court with a meaningful analysis of the protectability of its source code, filtering, and non-protectable elements).

273. "'Substantial similarity' in the copyright context refers to appropriation by the putative infringer of the 'fundamental essence or structure' of a protected work." *MiTek Holdings, Inc.*, 89 F.3d at 1551 n.5 (defendant's program did not infringe on plaintiff's copyright, although four of its five protected elements were substantially similar to defendants', because the elements lacked significance in the program as a whole, substantial similarity was lacking).

274. "'Substantial similarity' refers to the [work] ***as a whole***, not constituent elements of the [work]." *Liberty Am Ins Grp., Inc.*, 199 F. Supp. 2d at 1300 (emphasis added) *See also MiTek Holdings, Inc.*, 89 F.3d at 1560 n. 26; *Lil' Joe Wein Music, Inc. v. Jackson*, 2008 WL 2688117, at *5 (S.D. Fla. July 1, 2008). Thus, to support a copyright infringement claim, a party must show that the allegedly infringing ***"work"*** on an overall basis is "substantially similar" to the copyrighted ***"work"*** viewed as a whole. *Green Bullion Fin. Servs., LLC*, 639 F. Supp. 2d at

1361; *MiTek Holdings, Inc.*, 89 F.3d at 1554.

275. "[W]hile there may be evidence of copying, not all copying is legally actionable." *Bateman*, 79 F.3d at 1542. Moreover, "[t]he mere fact that a work is copyrighted does not mean that every element of the work may be protected." *Baby Buddies, Inc. v. Toys "R" Us, Inc.*, 611 F.3d 1308, 1316 (11th Cir. 2010). "It is only the protected portion of Plaintiff's work that is relevant in an infringement action, not the unprotected portions of the work." *Green Bullion Fin. Servs., LLC*, 639 F. Supp. 2d at 1361. Thus, "[o]nly the copying of original things that 'owe their origin' to the plaintiff are actionable." *Home Design Servs., Inc. v David Weekley Homes, LLC*, 548 F. Supp. 2d 1306, 1312 (M.D. Fla. 2008).

276. The court "must apply the substantial similarity test to only those elements of the copyrighted work that are actually subject to copyright protection — that is, elements of original expression in the copyrighted work." *Baby Buddies, Inc*, 611 F.3d at 1316. Accordingly, courts will "filter out the unoriginal, unprotectable elements — elements that were not independently created by the inventor, and that possess no minimal degree of creativity — through a variety of analyses." *Home Design Servs., Inc*, 548 F. Supp 2d at 1312.

277. Elements that must be filtered out before analyzing substantial similarity include: (1) elements that are in the public domain;[50] (2) functional elements;[51] and (3) elements dictated by external constraints such as regulatory requirements or common design or engineering

---

50 *Feist Publ'ns, Inc. v. Rural Tel. Serv*, 499 U.S. 340, 350 (1991).

51 *See Bateman*, 79 F.3d at 1548 nn. 28, 29, & 33; *Baby Buddies, Inc.*, 611 F.3d at 1317 (copyright protection did not extend to ribbon tether serving the utilitarian function of connecting pacifier to baby doll's clothes, since removing tether rendered the article useless); *Peter R Gaito Architecture, LLC v. Simone Dev Corp*, 602 F.3d 57, 68-69 (2d Cir. 2010) (dismissing plaintiff's copyright claim on grounds that its "generalized notions of where to place functional elements" are explicitly unprotectable).

practice. *Bateman*, 79 F.3d at 1547; *Liberty Am. Ins. Grp.*, 199 F. Supp. 2d at 1290.

278. Moreover, the availability of alternatives is not relevant to the exclusion of functional material from copyright protection. *See Bateman*, 79 F.3d at 1546 ("The availability of alternatives should not be determinative in distinguishing between elements . . . that are expressive and those that are unprotectable under 17 U.S.C. § 102(b). Generally, there is more than one method of operation or process that can be used to perform a particular . . . function.").

279. To complete the substantial similarity analysis, the court compares the protectable material to the alleged infringing material. *Liberty Am. Ins. Grp.*, 199 F. Supp. 2d at 1301. In order to establish a likelihood of success on the merits, the plaintiff has the burden of presenting the court with a meaningful analysis of protectability of the copyrighted work, filtering out the non-protectable elements and analyzing substantial similarity solely on the basis of the protectable elements. *Id.*

280. An expert affidavit that fails to do this ***must be excluded***. *Corwin v. Walt Disney Co* , 475 F.3d 1239, 1250-51 (11th Cir. 2007) (expert reports were properly excluded because they did not focus on protectable elements of expression). *See also Liberty Am. Ins. Grp.*, 199 F. Supp. 2d at 1301; *Bateman*, 79 F.3d at 1543-48; *MiTek Holdings, Inc.*, 89 F.3d at 1551 (plaintiff who fails to filter out non-protectable information fails in its burden of proof).

281. Finally, copyright protection of technical drawings such as schematics has been characterized as "thin" because they "exhibit a relatively low degree of expressive content" — meaning that most aspects of the drawings are not protectable. *Nat'l Med. Care v. Espiritu*, 284 F. Supp. 2d 424, 436-37 (S.D. W. Va 2003) (noting that a standard of "'super substantial' similarity must pertain when dealing with 'thin' works").

282. In addition, the protection afforded to technical drawings "does not extend to as-built structures, regardless of whether those structures have been built with reference to infringing copies." *Nat'l Med. Care, Inc.*, 284 F. Supp. 2d at 435-36. *See Niemi v. Am. Axle Mfg. & Holding Inc* , 2006 WL 2077590, at *3 (E.D. Mich. July 24, 2006) ("[T]he manufacture of a machine from a copyrighted technical drawing is clearly not copyright infringement.").

283. "Copyright law protects an author's original expression, but does not give the author the exclusive right to use the ideas expressed in the author's work. An author may only obtain protection for the ideas expressed by obtaining a patent." *Nat'l Med. Care, Inc* , 284 F. Supp. 2d at 435.

Dr. Heppe's testimony is insufficient as a matter of law and does not provide an admissible or competent opinion in support of ACR's copyright claim.

284. Dr. Heppe has not set forth competent evidence establishing ACR's likelihood to succeed on its copyright claim.[52]

285. First, Dr. Heppe has made no effort to filter out non-protectable elements. He has not eliminated public or functional elements, or those dictated by external constraints, such as regulatory requirements or good engineering practice. *See Liberty Am. Ins Grp.*, 199 F Supp. 2d at 1301; *Bateman*, 79 F.3d at 1543-48; *MiTek Holdings, Inc.*, 89 F.3d at 1551. Dr. Heppe did, on occasion, admit that certain elements were functional, "well-known" or otherwise in the public domain, but his testimony is clear that he continued to give weight to those elements in judging the

[52] Notably, Dr. Heppe has made several attempts to support ACR's arguments in this case — an expert affidavit dated January 20, 2012, a second affidavit dated February 13, and a second "supplemented" affidavit dated February 21. But even after these many attempts and extensive discovery, Dr. Heppe's conclusions at hearing were without merit.

similarity.[53] *See* Tr. at 45, 128; Kelkenberg Dec., Ex. D (1/20/12 Heppe Aff.) ¶¶ 14-30; *id.* Ex. F (2/21/12 Heppe Aff.) ¶¶ 7-10, 15-17, 19-22.

286. Indeed, with respect to the few similarities that Dr. Heppe does find, he acknowledges that they are the result of the function of the SATRO PLB or are already publicly known. *See* FOF ¶¶ 140-42, 156, 170, 172, 177 above. *See also* Kelkenberg Dec., Ex. D (1/20/12 Heppe Aff.) ¶ 21 ("while an external phase comparator based on an XOR Gate is well-known in the field. . . ."); *id* ¶ 22(b) ("[T]he two devices [the SATRO and the PLB-375] have the same fundamental function and would be expected to have many components and design characteristics in common.").

287. Material available in the public domain or which is dictated by function cannot be considered in performing a substantial similarity analysis of copyright infringement. *Bateman*, 79 F.3d at 1546, 1548; *Liberty Am Ins Grp., Inc* , 199 F. Supp. 2d at 1290. Dr. Heppe's failure to provide a proper analysis is perhaps most fully demonstrated by his purported list of "similarities" in the ACR and DME schematics. *See* Kelkenberg Dec., Ex. F (2/21/12 Heppe Aff.) ¶ 20. A review of the list of similarities shows that they are simply that: alleged similarities between the schematics. He makes no effort to identify those similarities that are: (1) functional; (2) well-known or in the public domain; (3) required by regulations or standards; or (4) the result of good engineering practice. *Bateman*, 79 F.3d at 1546-47; *Liberty Am. Ins. Grp.*, 199 F. Supp. 2d at 1289-90.

---

[53] It is well-established, of course, that standard techniques are not protectable, either under copyright law or as trade secrets. *Liberty Am Ins Grp., Inc.*, 199 F. Supp. 2d at 1301 (standard techniques not protectable under copyright law); MILGRIM ON TRADE SECRETS § 1.07[1], at 1-468.52 (2011) ("Matters which are generally known or are commonly known to the trade . . cannot be viewed as trade secrets.").

288. Second, Dr. Heppe has not even attempted to identify or analyze the protectable elements (if any) of the PLB-350 and PLB-375 schematics. While he has identified a very small number of alleged similarities in the SATRO and ACR schematics, and opined that these individual elements of the SATRO schematic are "similar" to the PLB-375 schematic, he never opines that the SATRO schematic as a whole is substantially similar to the PLB-375 schematic as a whole. Thus, he has not found substantial similarity between the allegedly infringing work and the copyrighted work. FOF ¶ 133.

289. And the Court concludes that he could not have done so on this record. The elements of the SATRO schematic analyzed by Dr. Heppe constitute an extremely small portion of the schematic as a whole — far less than 10 percent. FOF ¶ 133. No credible opinion of substantial similarity could be based on such an incomplete and partial analysis. *Lil' Joe Wein Music, Inc*, 2008 WL 2688117, at *5 ("Plaintiffs' expert witness only looked for similarities among the songs and never analyzed the songs' dissimilarities" and thus failed to assess the work as a whole).

290. In addition, he does not identify differences between the schematics that he compares. *See* Kelkenberg Dec., Ex. D (1/20/12 Heppe Aff.) ¶¶ 14-30; *id.* (2/21/12 Heppe Aff.) ¶¶ 7-10, 15-17, 19-22; *id.* Ex. A (Heppe Dep.) at 51, 53, 63-65. Dr Heppe admitted that there were differences between the schematics, with regard to components, layout, and the individual circuits. FOF ¶ 151; Tr. at 17, 20-26; Heppe DT ¶ 43. He never identified specific differences, analyzed them, or provided the Court with guidance as to what weight they should be accorded. Dr. Heppe's opinion is defective for this reason as well. *Corwin*, 475 F.3d at 1250-51 (expert reports excluded where they did not identify protectable elements or filter out non-protectable elements); *Liberty Am. Ins. Grp. Inc*, 199 F. Supp. 2d at 1250, 1301 (same)

291. By failing to conduct a quantitative analysis comparing the allegedly similar

material to the overall work, Dr. Heppe failed to show that any alleged copying was "so extensive [that] it rendered the offending and copyrighted works substantially similar." *Bateman*, 79 F.3d at 1546-47. Likewise, Dr. Heppe failed entirely to analyze differences in the schematics. *Lil' Joe Wein Music, Inc.*, 2008 WL 2688117, at *5. This makes his opinion defective as a matter of law. *See MiTek Holdings, Inc* , 89 F.3d at 1560 & n.26; *Liberty Am. Ins. Grp* , 199 F. Supp. 2d at 1301.

292. ACR has thus failed to carry its burden of showing that it has a substantial likelihood of succeeding on the merits of its copyright claim.

ACR Has Not Established a Likelihood of Success
on Its Unfair Competition and Trade Secret Claims

293. ACR's unfair competition claim is based on the defendants': (1) alleged misappropriation of ACR's confidential information and trade secrets; and (2) purported violations of the Lanham Act. *See* Complaint ¶¶ 67-74. In order to prove a likelihood of success on the merits of the portion of its unfair competition claim relating to the Lanham Act, a plaintiff "must establish (1) deceptive or fraudulent conduct of a competitor and (2) likelihood of consumer confusion." *Global Tel*Link Corp* , 652 F. Supp. 2d at 1250. *See also M.G.B. Homes, Inc v Ameron Homes, Inc.*, 903 F.2d 1486, 1493 (11th Cir. 1990).

294. Mere conclusory allegations, without factual support, are insufficient to maintain such a claim. *Global Tel*Link Corp* , 652 F. Supp. 2d at 1250.

295. Moreover, the plaintiff must show a risk of harm to its business resulting from defendant's conduct. *Universal City Studios, Inc. v. Casey & Casey, Inc* , 622 F. Supp. 201, 206 (D.C. Fla. 1985) (denying preliminary injunction on grounds of unfair competition, holding that plaintiff failed to show that its reputation was injured).

296. To the extent that ACR bases its unfair competition claim on the alleged

misappropriation of trade secrets, ACR must demonstrate that it: (1) possessed secret information and took reasonable steps to protect its secrecy; and (2) the secret(s) it possessed were misappropriated. FLA. STAT. ANN. § 688.002(2) (West 1997); *Border Collie Rescue, Inc. v. Ryan*, 418 F. Supp. 2d 1330, 1338 (M.D. Fla. 2006).

297. To the extent that ACR's unfair competition claim is based on violations of the Lanham Act, as discussed in paragraphs 348-56 below, ACR's Lanham Act claim (and any associated unfair competition claim) is moot. *See Intertape Polymer Corp. v Inspired Tech., Inc.*, 725 F. Supp. 2d 1319, 1335 (M.D. Fla. 2010) ("Inasmuch as [defendant's] Lanham Act claims for trademark infringement, unfair competition and false advertising fail, as a matter of law, [defendant's] state law claims necessarily fail as well."); *Miller's Ale House, Inc.*, 2009 WL 6812111, at *19 (same); *Natural Answers, Inc. v. Smithkline Beecham Corp.*, 529 F.3d 1325, 1333 (11th Cir. 2008).

a. ACR's unfair competition claim is preempted to the extent it is based on alleged misappropriation of trade secrets.

298. Florida's Uniform Trade Secrets Act ("FUTSA") "displaces conflicting tort, restitutionary, and other state law providing civil remedies for misappropriation of a trade secret." FLA. STAT. ANN. § 688.008(1) (West 1991). *See also Allegiance Healthcare Corp v Coleman*, 232 F. Supp. 2d 1329, 1335 (S.D. Fla. 2002). The appropriate test for determining if a claim is displaced by FUTSA considers whether the "allegations of unfair competition are distinguishable from the allegations of trade secret misappropriation." *See Allegiance Healthcare Corp.*, 232 F. Supp. 2d at 1335. And caselaw makes clear that a party's claim for unfair competition is preempted ***to the extent that*** it is based on — and thus indistinguishable from — its allegations of trade secret

misappropriation.[54]

299. Applying the required analysis to the allegations in ACR's complaint leads this Court to conclude that ACR's "unfair competition" allegations are indistinguishable from its allegations of trade secret misappropriation. *See* Complaint ¶¶ 1, 17, 37, 38, 45 (all charging misappropriation of ACR trade secret information).[55]

300. ACR's claim is thus preempted and provides no basis for preliminary injunctive relief.

b. ACR's expert did not provide an admissible or competent opinion that the SATRO incorporates any trade secrets.

301. Even if ACR's claim was not preempted, ACR's unfair competition claim, based upon the alleged misappropriation of its trade secrets and confidential information, cannot prevail as a matter of law because ACR has failed to show that its alleged trade secrets and confidential information are protectable To prevail on a motion for preliminary injunction, a plaintiff must, as a threshold matter, establish that a trade secret exists. *See Revello Med. Mgmt, Inc. v. Med-Data Infotech USA, Inc.*, 50 So. 3d 678, 679 (Fla. 2d Dist. Ct. App. 2010); *Am. Red Cross v Palm Beach Blood Bank, Inc* , 143 F.3d 1407, 1410 (11th Cir. 1998); *GPS Indus., Inc.*, 691 F. Supp. 2d at 1336.

302. Courts will not issue a preliminary injunction unless a plaintiff can establish

---

54 *Allure Jewelers, Inc v. Ulu*, 2012 WL 367719, at *3 (S.D. Ohio Feb. 3, 2012) (denying temporary injunction and holding that "[t]o the extent that Plaintiff's [unfair competition] claim is based upon the misappropriation of confidential information, that claim is preempted by the [OTSA]"); *Cardionet, Inc v. LifeWatch Corp.*, 2008 WL 567223, at *3-5 (N.D Ill Feb. 28, 2008) (dismissing unfair competition claim as preempted).

55 *See* Complaint ¶ 108 (stating that "ACR incorporates by reference paragraphs 1 through 45 and 68 through 73 of the Amended Complaint . . . "). ACR's FUTSA cause of action was asserted only against the Individual Defendants, not DME. Complaint ¶ 77.

trade secret status. *See, e.g., Am Red Cross*, 143 F.3d at 1410 (vacating grant of preliminary injunction for plaintiff, holding that plaintiff was not likely to succeed on the merits, since it failed to present any evidence that donor lists were trade secrets); *GPS Indus., Inc.*, 691 F. Supp. 2d at 1336.

303. To qualify for trade secret protection in Florida, ACR was required to show that its alleged trade secrets: (1) are not generally known by others who might profit from their use or disclosure; (2) are not readily ascertainable by proper means by the same class of persons; and (3) were subject to reasonable efforts to maintain their secrecy. FLA STAT. ANN. § 688.002(4) (West 1997); *Am. Red Cross*, 143 F.3d at 1410; *GPS Indus , Inc.*, 691 F. Supp. 2d at 1335-36.

304. Information that is "readily ascertainable" through proper means is not protectable as a trade secret. *See* RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 43 cmt. b (1995) ("[O]thers remain free to analyze products publicly marketed by the trade secret owner, absent protection under a patent or copyright, to exploit any information acquired through such 'reverse engineering.'"); MILGRIM ON TRADE SECRETS § 1.05[2], at 1-314.54 (2011) ("When a 'secret' is embodied in a product, whether or not that 'secret' is protectable becomes a function of whether it can be discovered by reverse engineering, or a comparable investigatory method").

305. The mere ability to reverse engineer is cited by the courts as negating the element that a trade secret not be "readily ascertainable" to be protectable. *See Levenger Co. v. Feldman*, 516 F. Supp. 2d 1272, 1287 (S.D. Fla. 2007) (dismissing defendant's trade secret claim on grounds that court was "not convinced that some of these alleged trade secrets are not readily ascertainable by others through reverse engineering"); *Walker Mfg , Inc v Hoffman, Inc* , 261 F. Supp. 2d 1054, 1081 (N.D. Iowa 2003) (a defendant may properly assert that certain matters are not trade secrets if they can be discovered by reverse engineering, even if the defendant does not assert,

as a defense to the misappropriation claim, that in fact he obtained the matters through reverse engineering).[56]

306. Notably, it is the ***plaintiff's*** burden to establish that its purported trade secret information is not known or readily ascertainable by others, whether through reverse engineering or otherwise. *Pepper v. Intern. Gaming Sys., LLC*, 312 F. Supp. 2d 853, 862 (N.D. Miss. 2004) (plaintiff failed to establish that its software was "not readily ascertainable by proper means by other persons by reverse engineering," and thus failed to prove that its software was a trade secret).

307. Similarly, information generally known to the public is not afforded trade secret protection. *See Bonito Boats, Inc* , 489 U.S. at 156 (trade secret law does not protect against discovery by reverse engineering).

308. Trade secret protection also does not attach to information learned through an employer's expenditure of substantial effort, or time and resources, where other indicia of trade secret status are not met. *See Liberty Am. Ins. Grp., Inc.,* 199 F. Supp. 2d at 1287 (District Court

---

[56] *See Bateman*, 79 F.3d at 1539 n.18; *Levenger Co* , 516 F. Supp. 2d at 1287; *Potucek v. Taylor*, 738 F. Supp. 466, 470 (M.D. Fla. 1990) ("Trade secret laws do not prohibit copying or use of information that has been gained by proper means such as reverse engineering, independent development, or copying or use of information within the public domain."). *See also Bonito Boats, Inc.*, 489 U.S. at 155 (noting that trade secret law provides weaker protection than patent law, because "[t]he public at large remain[s] free to discover and exploit the trade secret through reverse engineering of products in the public domain or by independent creation"); *Coenco, Inc. v Coenco Sales, Inc* , 940 F 2d 1176, 1178-79 (8th Cir. 1991) (plaintiff's machine was not trade secret because its components are either generally known or readily ascertainable through reverse engineering); *Analog Devices, Inc. v. Michalski*, 579 S.E.2d 449, 469-70 (N.C. Ct. App. 2003) (denying trade secret protection to circuit chips that were either generally known in the industry, are process dependent, or readily ascertainable through reverse engineering); *Marshall v. Gipson Steel, Inc* , 806 So. 2d 266, 271-72 (Miss. 2002) (chancery court erred in holding that information contained in software was a trade secret, because expert testimony established that it could be readily ascertainable through reverse engineering); *Jacono v. Invacare Corp.*, 2006 WL 832451, at *5 (Ohio Ct. App. Mar. 30, 2006) (any trade secrets that former employee may have been privy to were no longer secret once the product was released and subject to reverse engineering).

opinion) ("Although the list took considerable time to compile, Liberty American has not shown a reasonable likelihood that the park file and park data file contain information not readily available to the public and thus meet the definition of trade secret under Florida law."); *Greenberg,* 264 F. Supp. at 1066 (dismissing trade secret claim, holding that although alleged trade secret was product of time, money, and other efforts, plaintiff's complaint failed to plead other required indicia of a trade secret, including that information derived economic value from not being generally known, and that plaintiff took steps to protect its secrecy); *SimplexGrinnell, L.P. v. Ghiran*, 2008 WL 2704421, at *2 (M.D. Fla. July 9, 2008) (denying motion for preliminary injunction on trade secret claim and holding that information is only deemed a trade secret if it is both the product of great expense and effort *and* shown to be confidential).

309. Moreover, a former employee cannot be precluded from "using, in competition with his former employer, methods of doing business and processes which are but skillful variations of general processes known to the particular trade." *Lee v Cercoa, Inc* , 433 So. 2d 1, 2 n.1 (Fla. 4th Dist. Ct. App. 1983).[57]

310. General knowledge about the "best" way to accomplish something cannot attain trade secret status. *Levenger Co.*, 516 F. Supp. 2d 1272 (defendant's knowledge about the "best" components or "best" suppliers did not constitute plaintiff's trade secrets). Neither can

---

[57] *See* RESTATEMENT (FIRST) OF AGENCY § 396 (after leaving employment, "[t]he agent may use general information concerning the method of business of the principal and the names of the customers retained in his memory, if not acquired in violation of his duty as agent"); *id.* ("[A] former agent/employee 'is privileged to use, in competition with the principal, the names of customers retained in his memory as a result of his work for the principal, ***and methods of doing business and processes which are but skillful variations of general processes known to the particular trade***.'") (emphasis added); *Agency Solutions.com, LLC v. TriZetto Grp., Inc.*, 2011 WL 4084702, at *16 (E.D. Cal. Sept. 13, 2011) (rejecting plaintiff's "this is the way we do it" argument, holding that "information that is very likely to be in the nature of information generally known to other persons skilled in the same field [are] not trade secrets.").

background information comprising the features and functions, the business requirements, and the high level design specifications that are incorporated into and evident in the operation of software. *Agency Solutions com, LLC*, 2011 WL 4084702, at *11 (denying preliminary injunction where plaintiff sought to prevent software developer from marketing product).

311. Trade secret protection similarly cannot attach to an employer's processes used to determine which efforts will lead to successful developments versus those constituting a waste of time and resources. *Analog Devices, Inc v. Michalski*, 579 S.E.2d 449, 469-70 (N.C. Ct. App. 2003) (denying trade secret protection to circuit chips that were either generally known in the industry, were process dependent, or readily ascertainable through reverse engineering, "otherwise, any process by any former . . . employee to develop new, different, or superior technologies, in the field of [analog-to-digital converters], would be precluded as a trade secret belonging solely to [the employer]").

312. Finally, this Court is aware that the Fifth Circuit Court of Appeal of Florida just recently reversed the entry of a temporary injunction under circumstances nearly identical to those here, and finds that case to be worthy of discussion.

313. In *DuCharme v. Tissuenet Distrib Servs , LLC*, 2012 WL 1231049, at *1 (Fla. App. 5 Dist. Apr. 13, 2012), TissueNet hired Mr. Huynh to develop a chemical cleaning protocol to be used prior to sterilization of tissue from human cadavers to be transplanted into living persons. Like the Individual Defendants, Huynh was asked to sign an employment and confidentiality agreement, but was not asked to sign a non-compete agreement. After developing the chemical cleaning protocol for TissueNet, Huynh resigned and began to develop a chemical cleaning formula for his own company, Allograft Innovations, LLC. TissueNet commenced an action against Allograft and Huynh claiming that Huynh had breached his employment and

confidentiality agreements and that Allograft misappropriated TissueNet's chemical cleaning protocol. *Id.* at 1.

314. The Fifth Circuit Court of Appeal reversed the trial court's temporary injunction for the following reasons:

> 1) although TissueNet alleged that its trade secrets consist of the times, temperatures, and concentrations of the chemicals used in its protocol, TissueNet ***did not prove that Allograft Innovations uses the same times, temperatures, and concentrations of chemicals in its protocol***; 2) at most TissueNet may have succeeded in establishing that Allograft Innovations' cleaning process includes the same chemicals used by TissueNet in its cleaning process, ***but the identity of those chemicals are well known in the industry*** and TissueNet conceded in the trial court that they do not form a part of TissueNet's trade secrets; 3) TissueNet failed to prove that Allograft Innovations is using a protocol that is materially the same as the protocol that Mr. Huynh developed for TissueNet; 4) the protocol Mr. Huynh developed for Allograft Innovations was modeled from the protocol provided by Nova Sterillis, which is a company Mr. Huynh worked with to develop the protocol for Allograft Innovations; 5) Mr. Huynh ***used his education, knowledge, skill, and experience*** in conjunction with Nova Sterillis and its protocol to develop the protocol for Allograft Innovations; 6) Mr. Huynh did not breach his employment and confidentiality agreements with TissueNet ***and, if TissueNet wanted to prevent Mr. Huynh from working for a competitor, TissueNet should have obtained a non-compete agreement from Mr. Huynh, and it did not do so***; and 7) TissueNet failed to demonstrate a substantial likelihood of success on the merits.

DuCharme v, 2012 WL 1231049, at *1 (emphasis added).

315. The findings in *DuCharme* are particularly instructive and square with the findings and conclusions of this Court: (1) here, ACR did not prove that DME used any of ACR's alleged trade secret information in the development of the SATRO; (2) the features of the electrical schematic that ACR claims are evidence of copying are "well known in the industry," and the component parts are similarly "well known in the industry"; (3) ACR failed to prove that the electrical schematic and source code are "materially the same" as ACR's and the products the

Individual Defendants worked on while employed at ACR; (4) the Individual Defendants "used [their] knowledge, skill, and experience to develop the SATRO; and (5) the Individual Defendants do not have non-compete agreements with ACR, and if ACR wanted to prevent them from competing, it "should have obtained a non-compete agreement [from each of them] and it did not do so."

316. And for the following reasons, the Court determines that ACR has not demonstrated that any of its alleged confidential or proprietary information constitutes a trade secret under Florida law, or that ACR has established a basis for the injunction it seeks.

317. ***The Electrical Schematic (and Associated Components).*** With respect to the SATRO's electrical schematic, the features discussed by Dr. Heppe together comprise only a very small portion of the electrical schematic for the SATRO. *See* Kelkenberg Dec., Ex. D (1/20/12 Heppe Aff.) ¶¶ 16-23. The portion of the SATRO schematic discussed by Dr. Heppe appears to be less than five percent of the schematic. He acknowledges, by his silence, that the remaining 90-plus percent of the schematic does not reflect any ACR trade secret or confidential information.

318. Even more important, Dr. Heppe's discussion of the few segments of the schematic he does analyze was limited to a finding of an undefined level of similarity between those portions of the SATRO, and the PLB-375 and the PLB-350 schematics. Dr. Heppe does not indicate that any of these purportedly similar features represent trade secret/confidential information of ACR. The specifics of Dr. Heppe's analysis are discussed below.

319. ***406 MHz Phase Lock Loop Design.*** Dr. Heppe discusses this aspect of the SATRO schematic at paragraph 26(c) of his direct testimony. Heppe DT ¶ 26(c). He admits that "an external phase comparator based on an XOR gate is well-known in the field." Heppe DT ¶ 26(c); Kelkenberg Dec., Ex. A. (Heppe Dep.) at 77-81, 87. He then goes on to find that the

"analog circuitry to the right of the XOR gate" in the SATRO and in the PLB-350 and PLB-375 have "a functionally similar electrical structure." Heppe DT ¶ 26(c). Functional similarity, of course, is not protected. *Bateman*, 79 F.3d at 1546 n.29. Moreover, to the extent that this portion of the schematic is found in the PLB-350 (and Dr. Heppe states that it is), it has been in the public domain since 2009 and could not possibly form the basis for any claim of misappropriation of confidential information.

320. Most important, Dr. Heppe never indicates that there is anything about the phase lock loop design or the "analog circuitry following the XOR gate" which is not publicly known or which is a trade secret or confidential to ACR. Heppe DT ¶ 26(c).

321. Without such allegations, his assertions of similarity are legally irrelevant and do not support any misappropriation claim. *See Colucci v. Kar Kare Auto.*, 918 So. 2d 431, 439 (Fla. 4th Dist. Ct. App. 2006); *In re Maxxim Med. Grp., Inc* , 434 B.R. at 685 ("[I]nformation that is commonly known in the industry and not unique to the allegedly injured party is not confidential and is not entitled to protection."); *Clark v. Florida*, 670 So. 2d 1056, 1057 (Fla. 2d Dist. Ct. App. 1996) (reversing trade secret theft conviction because the facts of the case failed to show that the material in question provided either a business or competitive advantage, and thus was not secret or confidential); *Anich Indus , Inc. v. Raney*, 751 So 2d 767, 771 (Fla. 5th Dist. Ct. App 2000) (affirming denial of preliminary injunction for former employer, holding that its alleged confidential information was not protectable because the information was commonly known).

322. "Information that is generally known or readily ascertainable to third parties cannot qualify for trade secret protection." *Am. Red Cross*, 143 F.3d at 1410. *See also In re Maxxim Med. Grp., Inc.*, 434 B.R. at 685.

323. ***TP4 Test Point and 121.5 MHz Annotation.*** Dr. Heppe notes that the SATRO and PLB-375 schematics both contain the annotations "TP4" and "121.5 MHz" in similar locations. Heppe DT ¶ 26(a)-(b). He does not contend that either annotation is trade secret or confidential information and argues only that these may indicate some sort of "copying." But, as the Eleventh Circuit noted in *Bateman*, 79 F.3d at 1542, "while there may be evidence of copying, not all copying is legally actionable." Nor does Dr. Heppe contend that use of the TP4 designation confers a competitive advantage. *See Myerburg, M.D. v Medtronic, Inc.*, 2004 WL 5622263, at *5 (S.D. Fla. Sept. 28, 2004) (a trade secret must give its holder "an opportunity to obtain an advantage over competitors who do not know or use it"). Dr. Heppe does not opine that any of the circuitry in the area of the TP4 designation is confidential or not publicly known.

324. Notably, Dr. Heppe admitted that TP4 appears in the same location as the SATRO only in the September 2010 version of the PLB-375 schematic — which is dated two months after the Individual Defendants left ACR's employment. Tr. at 29. The June 2010 PLB-375 schematic, which was the only one in existence at the time the Individual Defendants were employed by ACR, shows the TP4 designation in an entirely different location. Tr. at 29-30; Heppe Ex. 1. *See also* Harris DT ¶ 44. Dr. Heppe had no explanation for this. Tr. at 30.

325. Moreover, Cassina testified that TP4 appears over the power supply or battery portion of the SATRO schematic. Tr. at 554-55, 571-72. *See also* Tr. at 309. Dr. Heppe, Mr. Cassina, and Dr. Harris all agreed that the power supply circuit in the SATRO schematic (in the area of the TP4 designation) is substantially different than the power supply circuit in the PLB-375 schematic. Thus, the use of TP4 does not indicate or reflect copying of the specific circuit it designates, nor does Heppe claim that it does. *See* Kelkenberg Dec., Ex A (Heppe Dep.) at 51-52, 53, 56 (Heppe admits power supply circuits in the SATRO and ACR PLBs are different).

326. ***Low-Pass Filter.*** Dr. Heppe indicates that the PLB-350, PLB-375, and SATRO "all have a 406 MHz transmitter, and all incorporate a low-pass filter . . . at the output of the transmitter and prior to the power amplification." Heppe DT ¶ 26(a). First, as discussed above, the PLB-350 has been in the public domain since 2009 and nothing about it could possibly be confidential. Second, Dr. Heppe admits that the process of designing a low-pass filter for a PLB is "a process that [he] would expect a typical, competent engineer skilled in electrical engineering would be able to accomplish." Kelkenberg Dec., Ex. A at 132-33. Finally, and most important, Dr. Heppe never opines that any of the alleged similarities he identifies reflect confidential, non-public, or proprietary information of ACR. *See* FOF ¶¶ 144-49.

327. ***Component Parts.*** In his initial analysis, Dr. Heppe notes three similarities in components used in the SATRO PLB which were also used in either the PLB-350 or the PLB-375.

328. ***Microcontroller.*** Dr. Heppe states that the SATRO uses a microcontroller part manufactured by Microchip Company, which is "similar [but not identical] to" the microcontroller in the PLB-350. *See* Heppe DT ¶ 18. As discussed above, the PLB-350 has been on the market since 2009 and, accordingly, its components are publicly known. In addition, Dr. Heppe agrees that this publicly-advertised Microchip product is not itself proprietary or confidential in any respect. *See* Kelkenberg Dec., Ex. A (Heppe Dep.) at 156.

329. ***Size of Battery Pack.*** Dr. Heppe notes that the PLB-375 relies on three 2/3 size A lithium batteries. Heppe DT ¶ 21 As with all of the other features he discusses, Dr. Heppe never states that the use of three 2/3 size A batteries is in any respect a trade secret, confidential, or not publicly known. In fact, Dr. Heppe admits this became public in July 2011 (at the latest) when the PLB-375 was first sold. ACR's Thomas Pack admitted on cross-examination that the three

battery design became public in ***March*** 2011, when ACR publicly released a Material Safety Data Sheet for the PLB-375 disclosing that it contained three batteries. Tr. at 194-95, and Ex. Pack 5. Nor does he dispute that reducing the number of batteries is an "obvious design choice?" If you are trying to reduce the size of a product. Tr. at 192-93.

330. ***GPS Module.*** Dr. Heppe indicates that, to his knowledge, ACR "was the first manufacturer to incorporate a GlobalTop GPS receiver . . . in a PLB." Heppe DT ¶ 19. Notably, he does not indicate that the GlobalTop GPS receiver is confidential or proprietary to ACR. Obviously, it could not be — it is a publicly available product that is advertised for sale by its manufacturer. And obviously it would not be in GlobalTop's interest to keep the availability of its GPS modules a secret. Dr. Heppe's opinion as to this publicly available component is based on his belief that "prior to the commercial introduction of the PLB-375 on July 22, 2011, the suitability of GlobalTop's GPS receiver for a PLB" would not have been publicly known and would have been confidential to ACR. *Id.* But, the evidence showed that at least as early as October 2010, GlobalTop specifically advertised its GPS units as suitable, appropriate, and "perfect" for use in "personal locator beacons." Harris DT, Ex B; Tr. at 40. Dr. Heppe was apparently unaware of this. Regardless, it strains credulity to believe that use of a publicly available and highly advertised product could be itself confidential information.

331. In any event, Dr. Heppe's view that ACR's conclusion that the GlobalTop unit was suitable for a PLB constituted proprietary information is without foundation. Heppe acknowledged on cross-examination that the ACR test results for the GlobalTop unit reflected a 35 percent failure rate But he was unable to explain how ACR arrived at the conclusion that the GlobalTop PA6B was suitable for use in a PLB given its 35 percent failure rate. Tr. at 43-44; FOF ¶ 169.

332. ***Source Code.*** In his direct testimony, Dr. Heppe discusses some similarities between the software in the SATRO and software in the PLB-350. First, as discussed above, the PLB-350 was placed on sale to the public in 2009. Accordingly, there was nothing barring a competitor from reverse engineering the PLB-350 software. Dr. Harris indicated that this was easily accomplished. Harris DT at 2(f); *see* FOF ¶¶ 186-91. This makes it publicly available, non-protectable, and non-confidential.

333. Second, while Dr. Heppe finds some similarities in the source code, he fails to point out that he has analyzed only a tiny portion of the SATRO's source code. *See generally* Kelkenberg Dec. ¶ 1.

334. As discussed above (FOF ¶ 193-96), Dr. Heppe acknowledged that, in forming his opinions, he had not calculated the total number of lines in the PLB-350 code or the CCK code, nor had he calculated the number of lines he found to be similar or identical among the two codes. As a result, he was not able to answer what portion or percentage of the PLB-350 code had been allegedly copied. Tr. at 53-55. After he was given a break to perform those calculations, Dr. Heppe advised the Court that the PLB-350 code he contended had been copied consisted of 7,274 lines, while the accused CCK code consisted of only 3,600 lines. FOF ¶ 194. He was unable to account for the massive difference between the two codes, to describe what caused that difference, or to explain how a code consisting of 7,274 lines had been "copied" in only 3,600 lines. FOF ¶ 195.

335. Dr. Heppe acknowledged on cross-examination that he was then aware (he had not been when he rendered his opinion) that he had identified only approximately 2 percent of the PLB-350 code as represented by similar or identical lines in the CCK code. FOF ¶ 198. Dr.

Heppe never provided any explanation of how the alleged use of 2 percent of the PLB-350 code constituted a misappropriation or use of ACR's confidential or trade secret information.[58]

336. Finally, Dr. Heppe never testified that any particular portion of the PLB-350 source code was not publicly-known or was confidential or trade secret. Obviously, this alone renders his opinion without probative value. FLA. STAT. ANN. §§ 688.002(2) and (4); *Border Collie Rescue, Inc.*, 418 F. Supp. 2d at 1338; *Revello Med. Mgmt, Inc.*, 50 So. 3d at 679; *Am. Red Cross*, 143 F.3d at 1410; *GPS Indus., Inc.*, 691 F. Supp. 2d at 1336; *Bonito Boats, Inc.*, 489 U.S. at 156. Moreover, he never provided any qualitative discussion or analysis of the portions of code he found to be allegedly identical or similar to the PLB-350 code. He did not analyze the importance of any particular lines or groups of lines of code, or establish that they were of value to a competitor. This also renders his opinion non-competent.

337. Thus, there is no way for the Court to determine if any meaningful trade secret/confidential information that would provide a competitive advantage is involved. *Bateman*, 79 F.3d at 1542-44, *MiTek Holdings, Inc.*, 89 F.3d at 1560.

338. Finally, with respect to the limited number of lines of software code that Dr. Heppe finds are similar or identical between the SATRO and PLB-350, he never indicates that any of them were confidential, not publicly known, or anything other than software code that would be written the same way for the same purpose by any reasonably skilled engineer. Indeed, his opinion actually reflects the opposite. For the most part, the similarities he identifies are clearly unprotectable elements such as the sequence in which functions that are mandated "by the required

---

[58] In that respect, Dr. Heppe never provided any explanation for how he determined that two lines of code were "similar." This renders his opinion as to use not admissible because the Court has not been provided with an analysis sufficient to determine whether the alleged "similarity" provides probative evidence of use.

behavior of a PLB" occur. Heppe DT ¶ 31. Dr. Heppe acknowledges that the sequence is "completely immaterial to the performance of the program." *See id* This is essentially an acknowledgment that it is not confidential or protectable. *See Colucci*, 918 So. 2d at 439.

339. Dr. Heppe notes similarity "in naming conventions, . . . overall functionality, and comments." Heppe DT ¶ 29.

340. Similarity of overall functionality is unprotectable as a matter of law. *Bateman*, 79 F.3d at 1547, 1548. Courts have also recognized that software comments are not protectable. *See UNIX Sys. Labs., Inc. v. Berkeley Software Design, Inc.*, 1993 WL 414724, at *17 (D.N.J. Mar. 3, 1993) (denying injunctive relief to plaintiff on copyright infringement and trade secret misappropriation claims, noting that "the non-functional elements of the code, such as comments, cannot be trade secrets because these elements are minimal and confer no competitive advantage on Defendants").

341. There is no support for the idea that naming conventions or sequence of operations are protectable. The names of variables within a file merely reflect its "meaning" or a "standard definition." Tr. at 640. Dr. Heppe has focused on these items because he cannot proffer an opinion that the substance of the software code is in any respect confidential or not publicly known. Heppe DT ¶ 33; Kelkenberg Dec., Ex. A (Heppe Dep.) at 191-99, 205-10, 230-31.[59]

342. Accordingly, Dr. Heppe's opinion as to the software code is insufficient as a matter of law.

---

[59] *See also* Heppe DT ¶ 30 (referring to identity in "the overall functionality" of the code under discussion); *id.* ¶ 31 (acknowledging that "the aggregate functionality of these modules [under discussion] is generally dictated by the required behavior of a PLB"); *id.* ¶ 33 (stating that "one would expect the overall functionality [of the code] to be similar or identical (due to the nature of the device)").

343. ***Overall Physical Characteristics.*** Dr. Heppe analyzes the overall physical characteristics of the SATRO and the PLB-375 at paragraph 48 of his direct testimony. He claims to find some similarities in size, weight, and dimensions. Dr. Heppe does not claim in any respect that these similarities relate to confidential or otherwise protectable information. So it is difficult to understand why ACR offers this testimony at all.

344. In fact, Dr. Harris's direct testimony included a discussion of the differences in the boards, the board layouts, and dimensions of the SATRO compared to the PLB-375. Harris DT at 39. *See also* FOF ¶ 182 (1X). The Court finds that the SATRO and PLB-375 are different in material and significant respects.

c. ACR's purported trade secrets are in the public domain

345. Dr. Heppe failed to give effect to his own acknowledgment that the claimed trade secrets were in the public domain.

346. All of the circuits and all of the components identified by Dr. Heppe are admitted in the public domain. Dr. Heppe admitted that all seven of the components designated on Exhibit C (Heppe's list entitled "Similarities in PLB-350, PLB-375 and SATRO Schematics") are well-known in the electrical engineering field, that they were all commercially available, and that finding them in a PLB "is not a surprise." Tr. at 45, 128. Dr. Heppe never contends that the components themselves were confidential or proprietary to ACR. Accordingly, the use of allegedly similar components is without probative value.

347. For all these reasons, ACR has not established any protectable trade secrets, and ACR's claim for unfair competition based on misappropriation of trade secrets is not likely to

succeed on the merits.[60]

d. ACR's Lanham Act claim is moot

348. "The purpose of injunctive relief is [to] prevent future harm; an injunction does not redress past harm." *Maxxim Med., Inc. v. Prof'l Hosp Supply, Inc* , 2011 U.S. Dist. LEXIS 107655, at *86 (M.D. Fla. Sept. 21, 2011). Past conduct does not furnish a basis for injunctive relief when it has been discontinued. *Custom Mfg. & Eng'g, Inc. v. Midway Servs., Inc.*, 2005 WL 1313829, at *6 (M.D. Fla. May 31, 2005) ("Past acts and practices furnish no basis for injunctive relief when they have been effectively discontinued.").

349. Courts generally hold that when the offending conduct has been abandoned, and there is nothing to indicate a probability that such acts will be resumed, the claim is moot and injunctive relief is not proper. *See, e.g., id.* ("[W]here there is no evidence in the record that casts any doubt upon the good faith abandonment of the practices which constituted an infringement of a trademark and none to indicate a probability that such acts would be resumed, an injunction is

---

60 The Court notes that there is precedent for doubting (if not entirely rejecting) the opinions of Dr. Heppe. In *SiRF Technology, Inc. v. Orrick, Herrington, & Sutcliffe LLP*, No. C 09-04013 (N.D. Cal. June 21, 2010), SiRF alleged professional negligence claims against Orrick relating to its representation of SiRF in a patent dispute before the International Trade Commission. In the course of the patent dispute, Orrick retained Dr. Heppe as an expert witness for SiRF. Dr. Heppe submitted four expert reports (an initial expert report, a rebuttal report, and two supplemental reports that were untimely and ultimately rejected by the ALJ) relating to invalidity and non-infringement of the patents at issue. Dr. Heppe's inconsistent statements and analyses were "flatly discounted" by the ALJ and "given little weight by [the] court." *Id.* at 11. The Court stated that Dr. "Heppe's analysis would have been 'much more useful' had it 'set forth from the beginning a proposed construction that he believed to be accurate, and upon which [SiRF] could have constructed a sound, reliable and consistent set of argument [sic] that could be used throughout their case." *Id.* The Court notes a similar pattern in this case, in that Dr. Heppe submitted a first affidavit on January 20, 2012, a second affidavit on February 13, 2012, a second supplemental affidavit on February 21, 2012, and a Declaration for Preliminary Injunction Hearing on March 13, 2012. In each case, Dr. Heppe's analysis and conclusions were modified, amended, and/or supplemented.

rightly denied."). *See also Hendrickson v. eBay, Inc.*, 165 F. Supp. 2d 1082, 1095 (C.D. Col. 2001).

350. Here, ACR alleges in its complaint that DME has violated the Lanham Act by advertising that the SATRO PLB would be available for sale in December 2011 without advising consumers that the SATRO has not yet been approved by the FCC. *See* Complaint ¶¶ 67-74. But the complained-of acts of alleged "false advertising" have been mooted because the website pages ACR complains of were removed more than three months ago. Tr. at 240-41.

351. Indeed, ACR admits in its complaint that the SATRO PLB is no longer advertised on the Bass Pro, Aircraft Spruce, or Pilotshop.com websites. Complaint ¶ 41. This fact is further acknowledged by ACR's counsel in her declaration in support of ACR's original motion. *See* Oakley Dec. [Docket No. 7-10] ¶ 4 (stating that "[i]t appears that these three retailers have removed the SATRO PLB-110 product from their websites").

352. In a later submission to this Court, ACR argued that DME has further violated the Lanham Act because Bass Pro recently accepted an order by ACR's Director of New Product Development, Thomas Pack, for a SATRO device from a "current" catalog. ACR Opp. Memo. at 19-21. But ACR's portrayal of the "purchase" is misleading and, in any event, this conduct cannot form the basis of an injunction against DME. The "current" Bass Pro catalog that ACR complains of was printed in ***November 2011*** (at the latest) [1] before ACR even filed this lawsuit. Cassandra DT ¶ 26; Tr. at 417-18.

353. In early December, DME remedied the issue by specifically instructing Bass Pro that the product could not be sold until FCC approval was obtained, and that a disclaimer was required by the FCC rules. Cassandra DT, ¶¶ 23-24, Ex. L. This is not new or continuing conduct by DME. ACR cannot base its request for injunctive relief against DME on the past conduct of an independent, third party.

354. More importantly, Pack did not ***purchase*** a SATRO device, nor did he pay for a SATRO device. Second Pack DT, ¶ 20 ("when the product came in, they would charge the credit card"). He merely placed a preliminary order for a product that would be shipped to him when it was "restocked." *Id.* In other words, Pack will not be charged for, and will not receive, a SATRO device until DME delivers the product to Bass Pro — ***after FCC approval is obtained***. Pack was made fully aware by Bass Pro that the SATRO was currently unavailable, and that the product was not expected to be in stock until "early April 2012." Pack DT ¶ 23.

355. Indeed, Pack's "purchase" of a SATRO device followed customary industry practice. ACR is well aware of this practice as ACR itself has offered products for sale prior to FCC approval. *See* Cassandra DT ¶¶ 28-32. For example, in October 2010, ***ACR advertised that it was "accepting preliminary orders [] contingent on FCC approval"*** for its ResQLink product. Cassandra DT, Ex. O at 6, 10 (emphasis added). That same product was offered in the 2011 West Marine Annual Catalog prior to the time ACR received its FCC approval in July 2011. Cassandra DT, Ex. N; Tr. at 235-37.

356. Thus, ACR itself practices the alleged wrongful conduct that forms the basis of its Lanham Act claim. ACR cannot pursue an injunction under such circumstances.[61] And because DME's alleged offending advertisements have been removed, ACR's Lanham Act claim is moot, and injunctive relief is not proper.

---

[61] *Precision Instrument Mfg. Co v. Auto. Maint. Mach Co.*, 324 U.S. 806, 814-15 (1945) ("The guiding doctrine in this case is the equitable maxim that 'he who comes into equity must come with clean hands.' This maxim is far more than a mere banality. It is a self-imposed ordinance that closes the doors of a court of equity to one tainted with inequitableness or bad faith relative to the matter in which he seeks relief, however improper may have been the behavior of the defendant.") (citations omitted).

IV. THE PUBLIC INTEREST AND BALANCE OF THE HARDSHIPS FAVOR DME

357. In order to establish a right to preliminary injunctive relief, ACR must demonstrate that the balance of equities fall in its favor. In balancing the equities, the court must weigh the harm suffered by the plaintiff if the injunction were denied against the harm suffered by the defendant if the injunction were granted. *See GPS Indus, Inc.*, 691 F. Supp. 2d 1327. *See also Cornerstone Home Builders, Inc.*, 2005 WL 1863387, at *3.

358. ACR claims it will suffer "substantial financial and reputational injury." Injunction Motion [Docket No. 6 at 21]. But it is well established that the prospect of lost sales cannot satisfy ACR's burden *See Miller's Ale House, Inc.*, 2009 WL 6812111, at *22 (balance of harms favored defendant, especially since plaintiff's potential injury, the prospect of lost sales, could "easily be compensated with money damages."); *Cornerstone Home Builders, Inc.*, 2005 WL 1863387, at *3 (balance of hardships weighed in defendant's favor because plaintiff could collect money damages for any established copyright infringement should it ultimately prevail).

359. ACR has similarly failed to demonstrate how its reputation and goodwill has been or will be damaged. *See Mercedes-Benz U.S. Intern , Inc. v Cobasys, LLC*, 605 F. Supp 2d 1189, 1207 (N.D. Ala. 2009) (plaintiff failed to make a specific showing that it would suffer significant loss of goodwill and reputation in absence of injunction, especially since products like plaintiff's were already on the market)

360. Moreover, in the Court's opinion, an injunction would ***not*** serve to "simply restore the status quo" as ACR urges, but would instead result in substantial harm ***to DME***, as DME would be precluded entirely from offering its product on the market — a product that DME to date has expended approximately $1.2 million and well in excess of one thousand man hours to develop.

Cassandra DT ¶¶ 33-34.

361. An injunction precluding DME from launching its sale of the SATRO PLB-110 (a life-saving device) clearly weighs against the public interest. *See ICU Med. Inc. v. Alaris Med. Sys , Inc.*, 2004 WL 1874992, at *26 (C.D. Cal. 2004) ("[P]lacing the public health in jeopardy, by removing potentially life-saving medical devices . . . from the marketplace, is a legitimate factor supporting denial of a preliminary injunction."); *Aquifer Guardians in Urban Areas v Fed Highway Admin.*, 779 F. Supp. 2d 542, 576-577 (W.D. Tex. 2011) (in light of public safety concerns, enjoining construction would not serve the public interest).

362. Moreover, in the "absence of a clear-cut case of infringement, the public interest lies with allowing continued competition between the products until after a full adjudication of the issues involved." *Miller's Ale House, Inc.*, 2009 WL 6812111, at *22. Injunctions are not available to stifle competition. *Id*

363. Any potential harm to ACR if the injunction were denied — merely eliminating delay of its inevitable competition with DME — is substantially outweighed by the potential harm to DME (which would be precluded from entering the market altogether) and to the public interest (removal from the market of a potentially life-saving device). This factor weighs heavily in favor of denying an injunction.

V. EVEN IF ACR PREVAILS AGAINST CCK AND THE INDIVIDUAL DEFENDANTS, ITS CLAIMS SHOULD FAIL AGAINST DME

364. The main focus of ACR's complaint is the actions by the Individual Defendants prior to leaving ACR's employment.

365. The Court concludes that, rather than proving any wrongful conduct by DME, ACR simply lumps DME in with the conduct of the Individual Defendants and CCK.

366. But DME's conduct is very different than that of the Individual Defendants (indeed, DME instructed CCK not to use any ACR confidential information in designing the SATRO. *See* Cassandra DT ¶ 8; Tong DT ¶ 29), and ACR's allegations ***against CCK and the Individual Defendants*** are simply not enough to enjoin DME. *See Liberty Am. Ins Grp., Inc.*, 199 F. Supp. 2d at 1302 (denying preliminary injunction against defendant corporation, holding that although plaintiff demonstrated likelihood of success in its misappropriation of source code claim against individual defendant, it failed to demonstrate a likelihood of success on its claim that the corporation also misappropriated the source code, or induced the individual defendant to use plaintiff's source code in developing its own).

367. ACR's sole effort to attribute any wrongdoing to DME is its contention that the timeline for engineering the SATRO was so short that DME "should have known" that the Individual Defendants were using proprietary ACR information. Complaint ¶ 38. As discussed above, this is simply inaccurate as a factual matter; DME's timeline for engineering the SATRO was substantially longer than ACR's timeline to develop similar products. *See* FOF ¶ 72-96.

368. The Court thus concludes that ACR has failed to show that DME knew or should have known that any ACR trade secrets/confidential information were used or misappropriated in creating the SATRO design. *Liberty Am Ins. Grp , Inc.*, 199 F. Supp. 2d at 1302 (denying preliminary injunction against defendant corporation where the plaintiff failed to demonstrate a likelihood of success on its claim that the corporation misappropriated the source code or induced the individual defendant to use the plaintiff's source code in developing its own).

VI. THE SCOPE OF ANY INJUNCTION MUST BE NARROWLY TAILORED

369. DME notes that, for the reasons stated above, an injunction is not appropriate

under the circumstances of this case. But if this Court were to enter an injunction (which it will not), the injunction must be narrowly tailored to fit specific legal violations. *Am. Red. Cross*, 143 F.3d at 1412 (vacating district court's issuance of preliminary injunction, holding that it was impermissibly vague, not narrowly tailored, and based on an incomplete record).

370. An injunction must be narrowly tailored to fit specific legal violations. *Am. Red. Cross*, 143 F.3d at 1412. *See also Keener v. Convergys Corp.*, 342 F.3d 1264, 1269 (11th Cir. 2003) ("Injunctive relief should be narrowly tailored to fit the specific legal violations adjudged.").

371. Thus, any injunction must be limited to protectable material.[62] Moreover, if the infringing portion can be removed from DME's work, the whole work should not be enjoined. *See* NIMMER § 14.06[C][1][a], at 14-169.

372. Any copyright protection afforded to ACR's technical drawings cannot extend to preclude DME from manufacturing or selling its SATRO product.[63]

373. ACR is not entitled to any injunction on its copyright or unfair competition claims that would grant patent-like protection. *See id.* ("Copyright law protects an author's original expression, but does not give the author the exclusive right to use the ideas expressed in the author's work. An author may only obtain protection for the ideas expressed by obtaining a patent").

VII. ACR MUST POST A BOND

374. Under Fed. R. Civ P. 65(c), "[t]he court may issue a preliminary injunction or a temporary restraining order only if the movant gives security in an amount that the court considers

---

62 *Id.*, *Lipton v Nature Co.*, 71 F.3d 464, 475 (2d Cir. 1995); *Kepner-Tregoe, Inc. v Leadership Software, Inc* , 12 F.3d 527, 538 (5th Cir. 1994).

63 *See Nat'l Med Care, Inc* , 284 F. Supp. 2d at 433, 438-39 (holding that defendant was enjoined from copying technical drawings, but not enjoined from manufacturing as-built structures, on grounds that copyright protection does not extend so far).

proper to pay the costs and damages sustained by any party found to have been wrongfully enjoined or restrained."

375. Courts regularly require that plaintiffs post security pursuant to a preliminary injunction based on copyright, trade secret misappropriation, and false advertising claims.

376. Here, the Court determines that, given the amount of DME's investment in the design and development of its SATRO, ACR must post a $1,500,000 bond prior to the issuance of a preliminary injunction. Cassandra DT ¶¶ 33-34 (noting that DME's total investment, without calculating the total marketing, engineering, and personnel time, is currently $1.2 million dollars).

Dated: April 20, 2012

TRIPP SCOTT, P.A.

By s/Paul O. Lopez
Paul O. Lopez (Bar No. 983314)
110 S.E. 6th Street
Suite 1500
Fort Lauderdale, Florida 33301
Telephone: (954) 760-4927

and

HODGSON RUSS LLP
Robert J. Lane, Jr. (admitted pro hac vice)
Jodyann Galvin (admitted pro hac vice)
Stephen W. Kelkenberg (admitted pro hac vice)
Melissa N. Subjeck (admitted pro hac vice)
The Guaranty Building
140 Pearl Street
Buffalo, New York 14202-4040
Telephone: (716) 856-4000

Attorneys for DME Corporation

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing DME'S [PROPOSED] FINDINGS OF FACT AND CONCLUSIONS OF LAW was served by email and mail on all parties of record on the service list below on April 20, 2012.

s/Paul O. Lopez
Paul O. Lopez, Esquire

SERVICE LIST
CASE #11-cv-62591-KAM

Mark E. Zelek, Esq. (667773)
mzelek@morganlewis.com
Carol A. Field (987166)
cfield@morganlewis.com
MORGAN, LEWIS & BOCKIUS, LLP
200 South Biscayne Boulevard
Suite #5300
Miami, Florida 33131-2339
Telephone: (305) 415-3409
Facsimile: (877) 432-9652
Attorneys for Plaintiff

Jodyann Galvin, Esq. (admitted pro hac vice)
Robert J. Lane, Jr., Esq. (admitted pro hac vice)
Stephen W. Kelkenberg, Esq. (admitted pro hac vice)
Melissa N. Subjeck, Esq. (admitted pro hac vice)
HODGSON RUSS LLP
The Guaranty Building
140 Pearl Street, Suite 100
Buffalo, New York 14202
Telephone: (716) 856-4000
Attorneys for DME Corporation

Louis R. Gigliotti, Esq.
Of Counsel
lgigliotti@bellsouth.net
ALCOBA & ASSOCIATES, P.A.
3399 NW 72 Avenue
Suite 211
Miami, Florida 33122
Telephone: (305) 362-8118
Facsimile. (305) 436-7429
Attorneys for CCK Electronics LLC, Chung T. Tong, Claudio Cassina, and Kaiyu Wu