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For Plaintiff FLEET CONNECT SOLUTIONS LLC

UNITED STATES DISTRICT COURT

FOR THE CENTRAL DISTRICT OF CALIFORNIA

FLEET CONNECT SOLUTIONS LLC,

Plaintiff,

v.

C.R. ENGLAND, INC.,

Defendant.

Case No. _____

COMPLAINT AGAINST C.R. ENGLAND, INC. FOR PATENT INFRINGEMENT

JURY TRIAL DEMANDED

Plaintiff Fleet Connect Solutions LLC ("FCS" or "Plaintiff") files this Complaint against C.R. England, Inc. ("Defendant") alleging, based on its own knowledge as to itself and its own actions, and based on information and belief as to all other matters, as follows:

NATURE OF THE ACTION

1. This is a patent infringement action to stop Defendant's infringement of the following United States Patents (collectively, the "Asserted Patents"):

U.S. Patent No.	Title	Available At:
1. 6,429,810	Integrated Air Logistics System	https://image-ppubs.uspto.gov/dirsearch-public/print/downloadPdf/6429810 https://patentimages.storage.googleapis.com/58/e0/e4/b2d9d7c23e0cfc/US6429810.pdf
2. 7,058,040	Channel Interference Reduction	https://image-ppubs.uspto.gov/dirsearch-public/print/downloadPdf/7058040 https://patentimages.storage.googleapis.com/fc/bf/89/0b41ddffc31091/US7058040.pdf
3. 7,260,153	Multi Input Multi Output Wireless Communication Method and Apparatus Providing Extended Range and Extended Rate Across Imperfectly Estimated Channels	https://image-ppubs.uspto.gov/dirsearch-public/print/downloadPdf/7260153 https://patentimages.storage.googleapis.com/6e/c6/0a/a31c81abd31a94/US7260153B2.pdf
4. 7,596,391	System and Method for Wireless Communication Between a Vehicle and a Mobile Unit	https://image-ppubs.uspto.gov/dirsearch-public/print/downloadPdf/7596391 https://patentimages.storage.googleapis.com/54/84/c7/4c623f3cfde876/US7596391.pdf
5. 7,656,845	Channel Interference Reduction	https://image-ppubs.uspto.gov/dirsearch-public/print/downloadPdf/7656845 https://patentimages.storage.googleapis.com/75/e5/58/a3b9dbb61c1558/US7656845.pdf
6. 7,742,388	Packet Generation Systems and Methods	https://image-ppubs.uspto.gov/dirsearch-public/print/downloadPdf/7742388 https://patentimages.storage.googleapis.com/d6/71/bf/490092e646e7fa/US7742388.pdf

2. Plaintiff seeks injunctive relief and monetary damages.

PARTIES

3. Plaintiff is a limited liability company formed under the laws of Texas with its registered office address located in Austin, Texas (Travis County).

4. On information and belief, Defendant is a corporation organized under the laws of the State of Utah with its principal place of business located at 4701 W 2100 S., Salt Lake City, Utah 84120 (Salt Lake County).

5. Defendant also maintains places of business in this District, including at least 2250 S. Riverside Avenue, Colton, California 92324 (San Bernardino County).

6. Defendant may be served through its registered agent for service in California: CSC – Lawyers Incorporating Service, 2710 Gateway Oaks Drive, Sacramento, California, 95833.

7. Defendant may also be served through its registered agent for service in Utah: Corporation Service Company, 15 West South Temple, Suite 600, Salt Lake City, Utah 84101.

JURISDICTION AND VENUE

8. FCS repeats and re-alleges the allegations in the Paragraphs above as though fully set forth in their entirety.

9. This is an action for infringement of a United States patent arising under 35 U.S.C. §§ 271, 281, and 284–85, among others. This Court has subject matter jurisdiction of the action under 28 U.S.C. § 1331 and § 1338(a).

10. Venue is proper against Defendant in this District pursuant to 28 U.S.C. § 1400(b) and 1391(c) because it has maintained established and regular places of business in this District and has committed acts of patent infringement in the District. See In re: Cray Inc., 871 F.3d 1355, 1362-1363 (Fed. Cir. 2017).

11. Defendant is subject to this Court's specific and general personal jurisdiction under due process and/or the California Long Arm Statute due at least to Defendant's substantial business in this judicial district, including: (i) at least a portion of the infringements alleged herein; and (ii) regularly doing or soliciting business, engaging

in other persistent courses of conduct, or deriving substantial revenue from goods and services provided to individuals in California and in this district.

12. Specifically, Defendant intends to do and does business in, and has committed acts of infringement in this District directly and through intermediaries, and offered its products or services, including those accused of infringement here, to customers and potential customers located in California, including in this District.

13. Defendant maintains a regular and established place of business in this District, including, but not limited to, a maintenance location and C.R. England Premier Trucking School located at the following address: 2250 S. Riverside Avenue, Colton, California 92324.

14. Defendant has committed acts of infringement from this district, including, but not limited to, use of the Accused Products.

THE ACCUSED PRODUCTS

15. FCS repeats and re-alleges the allegations in the Paragraphs above as though fully set forth in their entirety.

16. Based upon public information, Defendant owns, operates, advertises, and/or controls products and services that provide and/or utilize Accused Products manufactured by ORBCOMM.

17. Based upon public information, Defendant uses, causes to be used, provides, supplies, or distributes one or more fleet management platform and tracking solutions utilizing infringing systems and/or methods manufactured by ORBCOMM, including, but not limited to, including (1) trailer tracking devices such as the GT1200 Series, CT3000, PT6000, PT7000, and GT1020; (2) the BT 500 / ORBCOMM ELD; and (3) the PRO-400 (collectively, the "Accused Products").[1]

18. Defendant uses the Accused Products to perform wireless communications and methods associated with performing and/or implementing wireless

[1] *See, e.g.*, https://blog.orbcomm.com/c-r-england-keeps-its-cool-with-state-of-the-art-trailer-tracking/ and https://www.orbcomm.com/PDF/casestudies/cr_england_cs.pdf, both last accessed February 8, 2024.

communications including, but not limited to, wireless communications and methods pursuant to various protocols and implementations, including, but not limited to, Bluetooth, IEEE 802.11, and LTE protocols and various subsections thereof, including, but not limited to, 802.11ac, 802.11b, and 802.11n.

19. The wireless communications perform and/or implemented by the Accused Products, among other things, transmit data over various media, compute time slot channels, generate packets for network transmissions, perform or cause to be performed error estimation in orthogonal frequency division multiplexed ("OFDM") receivers, and various methods of processing OFDM symbols.

20. Defendant, using the Accused Products, also tracks, analyzes, and reports vehicle maintenance needs and driver warnings associated with a vehicle, tracks or causes to be tracked vehicle locations, and allows for communication between a system administrator and a remote unit to communicate, *e.g.*, advisory notifications.

21. For these reasons and the additional reasons detailed below, the Accused Products practice at least one claim of each of the Asserted Patents.

COUNT I: INFRINGEMENT OF U.S. PATENT NO. 6,429,810

22. FCS repeats and re-alleges the allegations in Paragraphs 1-21 above as though fully set forth in their entirety.

23. The USPTO duly issued U.S. Patent No. 6,429,810 (hereinafter, the "'810 patent") on August 6, 2002 after full and fair examination of Application No. 09/774,547 which was filed January 31, 2001.

24. FCS owns all substantial rights, interest, and title in and to the '810 patent, including the sole and exclusive right to prosecute this action and enforce said patent against infringers and to collect damages for all relevant times.

25. The claims of the '810 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that improve upon the function and operation of logistics and tracking systems.

26. The written description of the '810 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

27. FCS or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '810 patent.

28. Defendant has directly infringed and continues to directly infringe the '810 patent by importing, manufacturing, providing, supplying, using, distributing, selling, or offering to sell the Accused Products.

29. Defendant has directly infringed, either literally or under the doctrine of equivalents, at least claim 1 of the '810 patent. For example, Defendant performed a method of providing container status information to a user. The method included attaching an electronic communications unit to a shipping container; generating a transaction identification code, wherein said transaction identification code is specific to said shipping container and specific to at least one user transaction; initiating a status inquiry utilizing said transaction identification code, wherein said user performs said initiating step; receiving said status inquiry by a ground communications system; transmitting said status inquiry to said electronic communications unit by said ground communications system; obtaining a status information response by said electronic communication unit; transmitting said status information response to said ground communications system by said electronic communications unit; and forwarding said status information response to said user by said ground communications system.

30. FCS has been damaged as a result of the infringing conduct by Defendant alleged above. Thus, Defendant is liable to FCS in an amount that compensates it for such infringements, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT II: INFRINGEMENT OF U.S. PATENT NO. 7,058,040

31. FCS repeats and re-alleges the allegations in in Paragraphs 1-21 above as though fully set forth in their entirety.

32. The USPTO duly issued U.S. Patent No. 7,058,040 (hereinafter, the "'040 patent") on June 6, 2006, after full and fair examination of Application No. 09/962,718, which was filed September 21, 2001.

33. FCS owns all substantial rights, interest, and title in and to the '040 patent, including the sole and exclusive right to prosecute this action and enforce said patent against infringers and to collect damages for all relevant times.

34. The claims of the '040 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that improve upon the function and operation of preexisting data transmission methods.

35. The written description of the '040 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

36. FCS or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '040 patent.

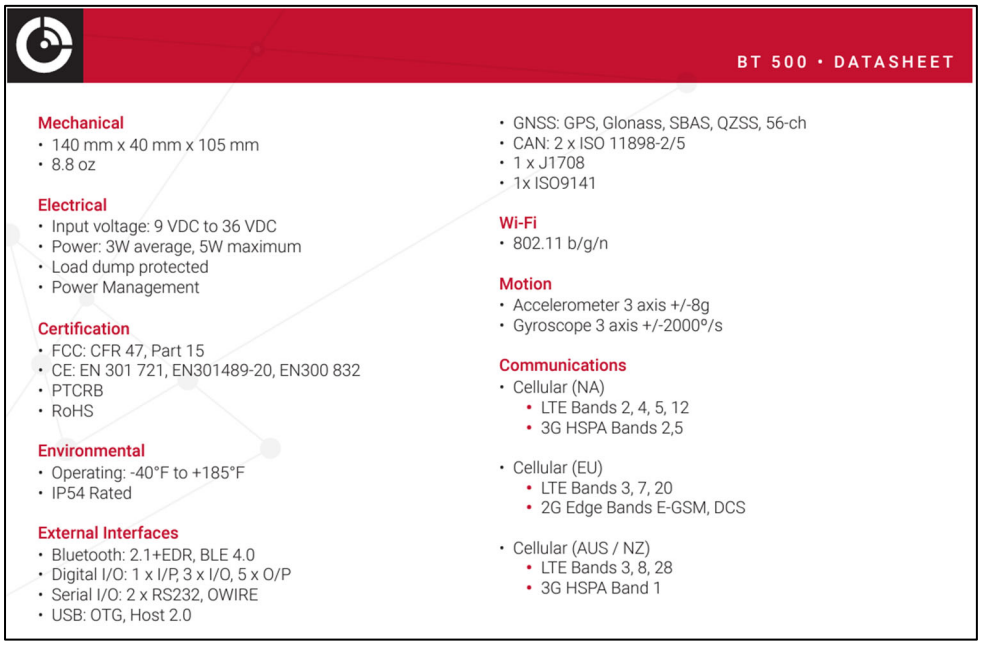
37. Defendant has directly infringed and continues to directly infringe the '040 patent by importing, manufacturing, providing, supplying, using, distributing, selling, or offering to sell the Accused Products.

38. Defendant has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least claim 1 of the '040 patent. For example, Defendant, using the Accused Products, performs a method for data transmission over first and second media that overlap in frequency. The method

includes computing one or more time division multiple access ("TDMA") time-slot channels to be shared between the first and second media for data transmission; allocating one or more time-slot channels to the first medium for data transmission; allocating one or more of the remaining time-slot channels to the second medium for data transmission; and dynamically adjusting a number of timeslot channels assigned to one of the first and second media during the data transmission to remain within limits of a desired level of service.

39. More specifically, and as just one example of infringement, Defendant's conduct has comprised using the Accused Products to perform a method for data transmission over first and second media that overlap in frequency because the Accused Products communicate according to either the 3GPP TS 136.101, et seq. LTE protocol or the 802.11b and Bluetooth protocols, which involve transmission over first and second media that overlap in frequency when using the Accused Products. The Accused Products also communicate according to LTE (*e.g.*, 3 GPP LTE) using different media, including a first and second media, which overlap in frequency when using the Accused Products. 3GPP TS 36.211 sets forth a resource grid structure for allocating transmission resources to 3G LTE systems. According to this two-dimensional time and frequency grid structure, frequency channels are shared between different transceivers in time domain, by using time division ("TDM") slot channels. A unit time slot spanning a group of subcarriers (*e.g.*, 12 adjacent subcarriers equivalent to 180KHz frequency) is referred to as a Resource Block ("RB") or Physical Resource Block ("PRB"). A resource block (a time and frequency unit) is the smallest bandwidth or unit of transmission resource that can be allocated to a user equipment ("UE") or transceiver. Further, each radio time frame (10ms in case of LTE) is divided into multiple sub-frames (1ms each), and each such sub-frame includes two time slots. 3GPP LTE follows OFDMA based multiplexing in resource allocation. Each media or UE/transceiver is allocated one or more (a group of) RBs/PRBs for data communication in uplink and/or downlink, i.e., each transceiver is

allocated a fixed set of subcarriers over a period of time. A first transceiver communicates using its allocated frequency subcarriers (first medium), while a second transceiver uses its allocated subcarriers to communicate (second medium). A first and second media that are allocated RBs along the same time frame or sub-frame overlap in frequency. As just one example, the method includes (a) computing one or more time division multiple access ("TDMA") time-slot channels to be shared between the first and second media for data transmission, *e.g.*, 802.15.2-2003 sets forth the mechanism for Alternating Wireless Medium Access ("AWMA") to reduce interference between 802.11 and 802.15 signals. In AWMA, the beacon period of an 802.11b frame is shared between first media (WLAN) and second media (WPAN) for data transmission; (b) allocating one or more time-slot channels to the first medium for data transmission, *e.g.*, the Accused Products allocate a time-slot channel (WLAN interval to the first medium (802.11b) for data transmission); (c) allocating one or more of the remaining time-slot channels to the second medium for data transmission, *e.g.*, the Accused Products allocate a time-slot channel (WPAN interval) to the second medium (802.15) for data transmission; and (d) dynamically adjusting a number of time-slot channels assigned to one of the first and second media during the data transmission to remain within limits of a desired level of service, *e.g.*, the 802.11b beacon frame includes a Medium Sharing Element ("MSE") that defines the length of the time-slot channels (WLAN, WPAN, and Guard). The Offset, Length, and Guard intervals can be dynamically adjusted to modify the number of time-slot channels assigned to WLAN and WPAN data transmission to remain within limits of a desired level of service.



BT 500 • DATASHEET

Mechanical
- 140 mm x 40 mm x 105 mm
- 8.8 oz

Electrical
- Input voltage: 9 VDC to 36 VDC
- Power: 3W average, 5W maximum
- Load dump protected
- Power Management

Certification
- FCC: CFR 47, Part 15
- CE: EN 301 721, EN301489-20, EN300 832
- PTCRB
- RoHS

Environmental
- Operating: -40°F to +185°F
- IP54 Rated

External Interfaces
- Bluetooth: 2.1+EDR, BLE 4.0
- Digital I/O: 1 x I/P, 3 x I/O, 5 x O/P
- Serial I/O: 2 x RS232, OWIRE
- USB: OTG, Host 2.0
- GNSS: GPS, Glonass, SBAS, QZSS, 56-ch
- CAN: 2 x ISO 11898-2/5
- 1 x J1708
- 1x ISO9141

Wi-Fi
- 802.11 b/g/n

Motion
- Accelerometer 3 axis +/-8g
- Gyroscope 3 axis +/-2000°/s

Communications
- Cellular (NA)
  - LTE Bands 2, 4, 5, 12
  - 3G HSPA Bands 2,5
- Cellular (EU)
  - LTE Bands 3, 7, 20
  - 2G Edge Bands E-GSM, DCS
- Cellular (AUS / NZ)
  - LTE Bands 3, 8, 28
  - 3G HSPA Band 1

See **Exhibit A** at A-2 (ORBCOMM Datasheet for BT 500).

40. Defendant had knowledge of the ’040 patent at least as of the date when it was notified of the filing of this action.

41. Defendant has also indirectly infringed and continues to indirectly infringe the ’040 patent by inducing others to directly infringe the ’040 patent. Defendant has induced and continues to induce customers and end-users, including, but not limited to, Defendant’s customers, employees, partners, or contractors, to directly infringe, either literally or under the doctrine of equivalents, the ’040 patent by providing or requiring use of the Accused Products. Defendant has taken active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Accused Products in a manner that infringes one or more claims of the ’040 patent, including, for example, claim 1. Such steps by Defendant have included, among other things, advising or directing customers, personnel, contractors, or end-users to use the Accused Products in an infringing manner; advertising and promoting the use of the Accused Products in an infringing manner; or distributing instructions that guide users to use the Accused Products in an infringing manner. Defendant has been performing these steps, which constitute induced infringement with the

knowledge of the '040 patent and with the knowledge that the induced acts constitute infringement. Defendant has been aware that the normal and customary use of the Accused Products by others would infringe the '040 patent. Defendant's inducement is ongoing.

42. Defendant has also indirectly infringed and continues to indirectly infringe by contributing to the infringement of the '040 patent. Defendant has contributed and continues to contribute to the direct infringement of the '040 patent by its customers, personnel, and contractors. The Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the '040 patent, including, for example, claim 1. The special features constitute a material part of the invention of one or more of the claims of the '040 patent and are not staple articles of commerce suitable for substantial non-infringing use. Defendant's contributory infringement is ongoing.

43. Furthermore, on information and belief, Defendant has a policy or practice of not reviewing the patents of others, including instructing its employees to not review the patents of others, and thus have been willfully blind of FCS's patent rights.

44. Defendant's actions are at least objectively reckless as to the risk of infringing a valid patent and this objective risk was either known or should have been known by Defendant.

45. Defendant's direct infringement of the '040 patent is, has been, and continues to be willful, intentional, deliberate, or in conscious disregard of FCS's rights under the patent.

46. FCS has been damaged as a result of the infringing conduct by Defendant alleged above. Thus, Defendant is liable to FCS in an amount that compensates it for such infringements, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

47. FCS has suffered irreparable harm, through its loss of market share and goodwill, for which there is no adequate remedy at law. FCS has and will continue to suffer this harm by virtue of Defendant's infringement of the '040 patent. Defendant's actions have interfered with and will interfere with FCS's ability to license technology. The balance of hardships favors FCS's ability to commercialize its own ideas and technology. The public interest in allowing FCS to enforce its right to exclude outweighs other public interests, which supports injunctive relief in this case.

COUNT III: INFRINGEMENT OF U.S. PATENT NO. 7,260,153

48. FCS repeats and re-alleges the allegations in in Paragraphs 1-21 above as though fully set forth in their entirety.

49. The USPTO duly issued U.S. Patent No. 7,260,153 (hereinafter, the "'153 patent") on August 21, 2007, after full and fair examination of Application No. 10/423,447, which was filed April 28, 2003..

50. FCS owns all substantial rights, interest, and title in and to the '153 patent, including the sole and exclusive right to prosecute this action and enforce said patent against infringers and to collect damages for all relevant times.

51. The claims of the '153 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that improve upon the function and operation of voice and data communications systems.

52. The written description of the '153 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

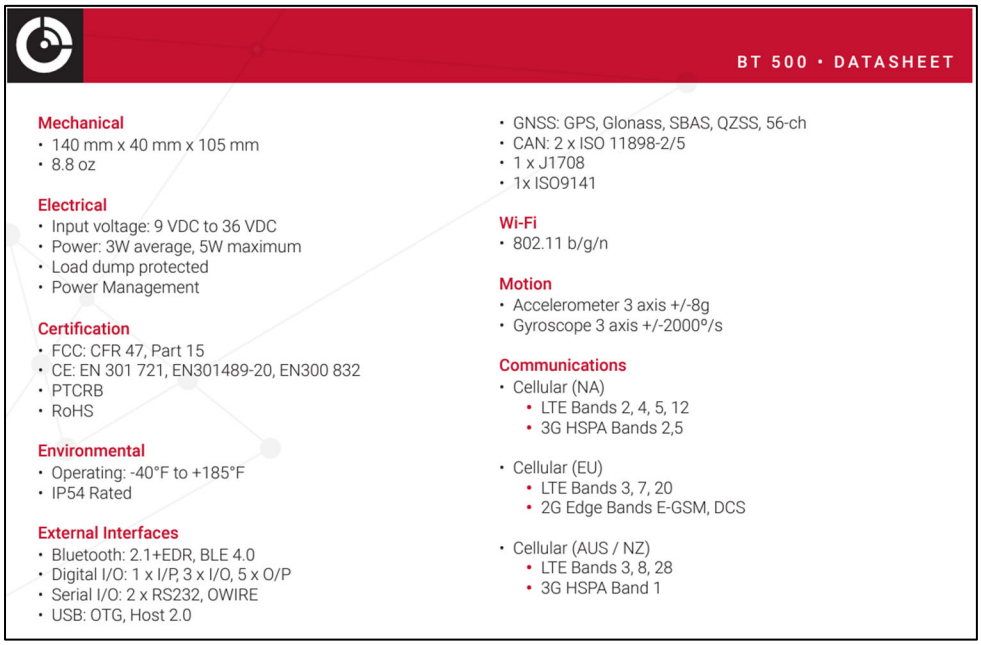
53. FCS or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '153 patent.

54. Defendant has directly infringed and continues to directly infringe the '153 patent by importing, manufacturing, providing, supplying, using, distributing, selling, or offering to sell the Accused Products.

55. Defendant has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least claim 1 of the '153 patent. For example, Defendant, using the Accused Products, performs a method for evaluating a channel of a multiple-input multiple-output ("MIMO") wireless communication system allowing two or more communication devices with multiple radiating elements to transmit parallel data sub-streams which defines a channel matrix metric of cross-talk signal-to-noise ("SNR") for the subs-streams, estimates the channel matrix metric, performs a singular value decomposition ("SVD") of the channel matrix metric estimate to calculate estimated channel singular values, and using the channel matrix metric and estimated channel singular values to calculate a crosstalk measure for the sub-streams.

56. More specifically, and as just one example of infringement, Defendant's conduct has comprised using the Accused Products, which are adapted by Defendant for wireless communications using multiple communication protocols, including LTE and/or 802.11n. 802.11n implements beamforming in a MIMO system. LTE supports single and multi-user MIMO transmissions. A MIMO communication system comprises at least two communication devices (*e.g.*, STA A, STA B, BS and/or UE) having a plurality of radiating elements (antennas) for the parallel transmission of data sub-streams. 802.11n implements beamforming that defines a channel matrix metric (Hk) that comprises a predefined function (equation 20-62) of channel matrix singular values for each of the data sub-streams. MIMO systems utilized within the context of LTE transmission can define a channel matrix metric that comprises a predefined function of channel matrix singular values for each of the data sub-streams. Each of the predefined functions provides a measure of cross-talk SNR ratio for sub-streams. To implement implicit beamforming, the beamformer obtains an estimated channel

matrix. As part of the LTE standards, reporting of channel information further consists of a channel quality indicator ("CQI"). To estimate channel singular values, an SVD is performed of the baseband-to-baseband channel matrix metric. The SVD comprises a left-hand unitary weighting matrix, *e.g.,* BRX,K, a diagonal matrix of said estimated channel singular values, and a right-hand unitary weighting matrix ATX,K. Various algorithms can be implemented within an LTE MIMO system, including an SVD comprising a left-hand unitary weighting matrix, a diagonal matrix of said estimated channel singular values, and a right-hand unitary weighting matrix. A cross-talk measure (*e.g.*, KA,k) is calculated for each sub-stream k (*e.g.*, sub-band) from the channel matrix metric (*e.g.*, HAB,k) and the estimated channel singular values.



BT 500 • DATASHEET

Mechanical
- 140 mm x 40 mm x 105 mm
- 8.8 oz

Electrical
- Input voltage: 9 VDC to 36 VDC
- Power: 3W average, 5W maximum
- Load dump protected
- Power Management

Certification
- FCC: CFR 47, Part 15
- CE: EN 301 721, EN301489-20, EN300 832
- PTCRB
- RoHS

Environmental
- Operating: -40°F to +185°F
- IP54 Rated

External Interfaces
- Bluetooth: 2.1+EDR, BLE 4.0
- Digital I/O: 1 x I/P, 3 x I/O, 5 x O/P
- Serial I/O: 2 x RS232, OWIRE
- USB: OTG, Host 2.0
- GNSS: GPS, Glonass, SBAS, QZSS, 56-ch
- CAN: 2 x ISO 11898-2/5
- 1 x J1708
- 1x ISO9141

Wi-Fi
- 802.11 b/g/n

Motion
- Accelerometer 3 axis +/-8g
- Gyroscope 3 axis +/-2000°/s

Communications
- Cellular (NA)
  - LTE Bands 2, 4, 5, 12
  - 3G HSPA Bands 2,5
- Cellular (EU)
  - LTE Bands 3, 7, 20
  - 2G Edge Bands E-GSM, DCS
- Cellular (AUS / NZ)
  - LTE Bands 3, 8, 28
  - 3G HSPA Band 1

See **Exhibit A** at A-2 (ORBCOMM Datasheet for BT 500).

57. Defendant had knowledge of the '153 patent at least as of the date when it was notified of the filing of this action.

58. Defendant has also indirectly infringed and continues to indirectly infringe the '153 patent by inducing others to directly infringe the '153 patent. Defendant has induced and continues to induce customers and end-users, including, but not limited to, Defendant's customers, employees, partners, or contractors, to directly infringe,

either literally or under the doctrine of equivalents, the '153 patent by providing or requiring use of the Accused Products. Defendant has taken active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Accused Products in a manner that infringes one or more claims of the '153 patent, including, for example, claim 1. Such steps by Defendant have included, among other things, advising or directing customers, personnel, contractors, or end-users to use the Accused Products in an infringing manner; advertising and promoting the use of the Accused Products in an infringing manner; or distributing instructions that guide users to use the Accused Products in an infringing manner. Defendant has been performing these steps, which constitute induced infringement with the knowledge of the '153 patent and with the knowledge that the induced acts constitute infringement. Defendant has been aware that the normal and customary use of the Accused Products by others would infringe the '153 patent. Defendant's inducement is ongoing.

59. Defendant has also indirectly infringed and continues to indirectly infringe by contributing to the infringement of the '153 patent. Defendant has contributed and continues to contribute to the direct infringement of the '153 patent by its customers, personnel, and contractors. The Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the '153 patent, including, for example, claim 1. The special features constitute a material part of the invention of one or more of the claims of the '153 patent and are not staple articles of commerce suitable for substantial non-infringing use. Defendant's contributory infringement is ongoing.

60. Furthermore, on information and belief, Defendant has a policy or practice of not reviewing the patents of others, including instructing its employees to not review the patents of others, and thus have been willfully blind of FCS's patent rights.

61. Defendant's actions are at least objectively reckless as to the risk of infringing a valid patent and this objective risk was either known or should have been known by Defendant.

62. Defendant's direct infringement of the '153 patent is, has been, and continues to be willful, intentional, deliberate, or in conscious disregard of FCS's rights under the patent.

63. FCS has been damaged as a result of the infringing conduct by Defendant alleged above. Thus, Defendant is liable to FCS in an amount that compensates it for such infringements, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

64. FCS has suffered irreparable harm, through its loss of market share and goodwill, for which there is no adequate remedy at law. FCS has and will continue to suffer this harm by virtue of Defendant's infringement of the '153 patent. Defendant's actions have interfered with and will interfere with FCS's ability to license technology. The balance of hardships favors FCS's ability to commercialize its own ideas and technology. The public interest in allowing FCS to enforce its right to exclude outweighs other public interests, which supports injunctive relief in this case.

COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 7,596,391

65. FCS repeats and re-alleges the allegations in in Paragraphs 1-21 above as though fully set forth in their entirety.

66. The USPTO duly issued U.S. Patent No. 7,596,391 (hereinafter, the "'391 patent") on September 29, 2009, after full and fair examination of Application No. 12/389,252, which was filed February 19, 2009.

67. FCS owns all substantial rights, interest, and title in and to the ' 391 patent, including the sole and exclusive right to prosecute this action and enforce said patent against infringers and to collect damages for all relevant times.

68. The claims of the '391 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed

inventions include inventive components that improve upon the function and operation of preexisting methods and systems for wireless communications between mobile units and vehicles.

69. The written description of the '391 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

70. FCS or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '391 patent.

71. Defendant has directly infringed the '391 patent by importing, manufacturing, providing, supplying, using, distributing, selling, or offering to sell the Accused Products.

72. Defendant has directly infringed, either literally or under the doctrine of equivalents, at least claim 1 of the '391 patent. For example, Defendant performed a method of wireless communication between a mobile unit and a vehicle comprising a transceiver. The method included receiving a signal by the mobile unit comprising a microprocessor, the signal transmitted from the vehicle comprising the transceiver, the signal comprising a security field and a unique identifier; advising that the mobile unit is within range of the vehicle; determining by the microprocessor if the signal is authorized, the determining comprising parsing the signal to determine the security field and the unique identifier; inputting a voice-activated input and/or a manual input from a user of the mobile unit via an audio-visual interface associated with the mobile unit, the voice-activated input and/or the manual input is associated with a control instruction; assembling, by the microprocessor, at least one packet of a communication comprising the control instruction; transmitting the at least one packet to the vehicle

comprising the transceiver; displaying that the control instruction was input by the user; and storing the communication in a communication log.

73. FCS has been damaged as a result of the infringing conduct by Defendant alleged above. Thus, Defendant is liable to FCS in an amount that compensates it for such infringements, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT V: INFRINGEMENT OF U.S. PATENT NO. 7,656,845

74. FCS repeats and re-alleges the allegations in in Paragraphs 1-21 above as though fully set forth in their entirety.

75. The USPTO duly issued U.S. Patent No. 7,656,845 (the "'845 patent") on February 2, 2010, after full and fair examination of Application No. 11/402,172, which was filed April 11, 2006. A Certificate of Correction was issued on November 30, 2010.

76. FCS owns all substantial rights, interest, and title in and to the ' 845 patent, including the sole and exclusive right to prosecute this action and enforce said patent against infringers and to collect damages for all relevant times.

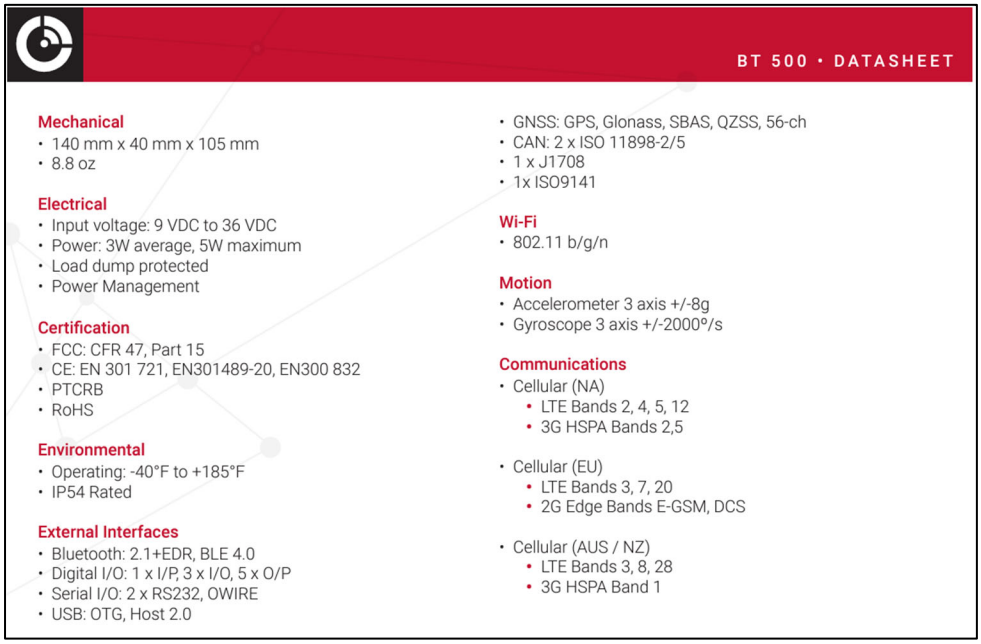
77. The claims of the '845 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that improve upon the function and operation of preexisting systems and methods of wireless communication with a mobile unit.

78. The written description of the '845 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

79. FCS or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '845 patent.

80. Defendant has directly infringed and continues to directly infringe the '845 patent by importing, manufacturing, providing, supplying, using, distributing, selling, or offering to sell the Accused Products.

81. Defendant has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least claim 12 of the '845 patent. For example, the Accused Products used by Defendant provide a system comprising a processor, a first transceiver configured to communicate via a first medium, a second transceiver configured to communicate via a second medium, wherein at least one of the first transceiver and the second transceiver is configured to retry transmission of a packet at a lower rate if a prior transmission of the packet is not acknowledged, an allocation unit configured to dynamically allocate data channels to one of the first medium and the second medium based upon a desired level of service.



BT 500 • DATASHEET

Mechanical
- 140 mm x 40 mm x 105 mm
- 8.8 oz

Electrical
- Input voltage: 9 VDC to 36 VDC
- Power: 3W average, 5W maximum
- Load dump protected
- Power Management

Certification
- FCC: CFR 47, Part 15
- CE: EN 301 721, EN301489-20, EN300 832
- PTCRB
- RoHS

Environmental
- Operating: -40°F to +185°F
- IP54 Rated

External Interfaces
- Bluetooth: 2.1+EDR, BLE 4.0
- Digital I/O: 1 x I/P, 3 x I/O, 5 x O/P
- Serial I/O: 2 x RS232, OWIRE
- USB: OTG, Host 2.0

- GNSS: GPS, Glonass, SBAS, QZSS, 56-ch
- CAN: 2 x ISO 11898-2/5
- 1 x J1708
- 1x ISO9141

Wi-Fi
- 802.11 b/g/n

Motion
- Accelerometer 3 axis +/-8g
- Gyroscope 3 axis +/-2000°/s

Communications
- Cellular (NA)
  - LTE Bands 2, 4, 5, 12
  - 3G HSPA Bands 2,5
- Cellular (EU)
  - LTE Bands 3, 7, 20
  - 2G Edge Bands E-GSM, DCS
- Cellular (AUS / NZ)
  - LTE Bands 3, 8, 28
  - 3G HSPA Band 1

See **Exhibit A** at A-2 (ORBCOMM Datasheet for BT 500).

82. More specifically, and as just one example of infringement, Defendant's conduct has comprised using the Accused Products to allocate at least one of a plurality of data channels to a first medium for data transmission via a wireless device and allocates at least one remaining data channel of the plurality of data channels to a

second medium for data transmission via the wireless device. 3GPP TS 36.211 sets forth a resource grid structure for a base station, *e.g.*, eNB, for allocating transmission resources to 3G LTE systems. According to this two-dimensional time and frequency grid structure, frequency channels are shared between different transceivers in time domain, by using TDM slot channels. A unit time slot spanning a group of subcarriers (*e.g.*, 12 adjacent subcarriers equivalent to 180KHz frequency) is referred to as an RB or PRB. A resource block (a time and frequency unit) is the smallest bandwidth or unit of transmission resource that a base station can allocate to a transceiver. Further, each radio time frame (10ms in case of LTE) is divided into multiple sub-frames (1ms each), and each such sub-frame includes two time slots. 3GPP LTE base stations follow OFDMA based multiplexing in resource allocation. Each media or transceiver is allocated one or more (a group of) RBs/PRBs for data communication in uplink and/or downlink, i.e., each transceiver is allocated a fixed set of subcarriers over a period of time. A first transceiver communicates using its allocated frequency subcarriers (first medium), while a second transceiver uses its allocated subcarriers to communicate (second medium). A first and second media that are allocated RBs along the same time frame or sub-frame overlap in frequency. More specifically, and as just one example of infringement, the base station dynamically adjusts, during data transmission, a number of the data channels assigned to one of the first and second media to remain within the limits of a desired level of service. 3GPP TS 36.211, 36.212, 36.213, and 36.300 specify that 3GPP LTE base stations (eNBs) implement resource scheduling and allocation of one or more time slots or PRBs or RBs, i.e., a group of subcarriers for a predetermined time period, to a first transceiver to use as a transmission medium (first medium), and the remaining time slots or PRBs or RBs to a second transceiver to use as a transmission medium (second medium). Further, the time slot channels allocation is dynamic, and can be dynamically adjusted during the data transmission based on various criteria, such as data traffic volume, QoS requirements, etc. to remain within the limits of a desired level of service. 802.15.2-

2003 defines a Collaborative Coexistence Mechanism ("allocation unit") with an AWMA Medium Free Generation that is configured to dynamically allocate data channels to one of the 802.11 Device and the 802.15.1 Device based upon a desired level of service. The Accused Products allocate a time-slot channel (WLAN interval) to the first medium (802.11b) for data transmission and a different time-slot channel (WPAN interval) to the second medium (802.15.1). The 802.11b beacon frame includes a Medium Sharing Element ("MSE"), which defines the length of the time-slot channels (WLAN, WPAN, and Guard). The Offset, Length, and Guard intervals can be dynamically adjusted to modify the number of time-slot channels assigned to WLAN and WPAN data transmission to remain within the limits of a desired level of service.

83. Defendant had knowledge of the '845 patent at least as of the date when it was notified of the filing of this action.

84. Defendant has also indirectly infringed and continues to indirectly infringe the '845 patent by inducing others to directly infringe the ' 845 patent. Defendant has induced and continues to induce customers and end-users, including, but not limited to, Defendant's customers, employees, partners, or contractors, to directly infringe, either literally or under the doctrine of equivalents, the '845 patent by providing or requiring use of the Accused Products. Defendant has taken active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Accused Products in a manner that infringes one or more claims of the '845 patent, including, for example, claim 12. Such steps by Defendant have included, among other things, advising or directing customers, personnel, contractors, or end-users to use the Accused Products in an infringing manner; advertising and promoting the use of the Accused Products in an infringing manner; or distributing instructions that guide users to use the Accused Products in an infringing manner. Defendant has been performing these steps, which constitute induced infringement with the knowledge of the '845 patent and with the knowledge that the induced acts constitute

infringement. Defendant has been aware that the normal and customary use of the Accused Products by others would infringe the '845 patent. Defendant's inducement is ongoing.

85. Defendant has also indirectly infringed and continues to indirectly infringe by contributing to the infringement of the '845 patent. Defendant has contributed and continues to contribute to the direct infringement of the '845 patent by its customers, personnel, and contractors. The Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the '845 patent, including, for example, claim 12. The special features constitute a material part of the invention of one or more of the claims of the '845 patent and are not staple articles of commerce suitable for substantial non-infringing use. Defendant's contributory infringement is ongoing.

86. Furthermore, on information and belief, Defendant has a policy or practice of not reviewing the patents of others, including instructing its employees to not review the patents of others, and thus have been willfully blind of FCS's patent rights.

87. Defendant's actions are at least objectively reckless as to the risk of infringing a valid patent and this objective risk was either known or should have been known by Defendant.

88. Defendant's direct infringement of the '845 patent is, has been, and continues to be willful, intentional, deliberate, or in conscious disregard of FCS's rights under the patent.

89. FCS has been damaged as a result of the infringing conduct by Defendant alleged above. Thus, Defendant is liable to FCS in an amount that compensates it for such infringements, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

90. FCS has suffered irreparable harm, through its loss of market share and goodwill, for which there is no adequate remedy at law. FCS has and will continue to

suffer this harm by virtue of Defendant's infringement of the '845 patent. Defendant's actions have interfered with and will interfere with FCS's ability to license technology. The balance of hardships favors FCS's ability to commercialize its own ideas and technology. The public interest in allowing FCS to enforce its right to exclude outweighs other public interests, which supports injunctive relief in this case.

COUNT VI: INFRINGEMENT OF U.S. PATENT NO. 7,742,388

91. FCS repeats and re-alleges the allegations in t in Paragraphs 1-21 above as though fully set forth in their entirety.

92. The USPTO duly issued U.S. Patent No. 7,742,388 (hereinafter, the "'388 patent") on June 22, 2010, after full and fair examination of Application No. 11/185,665, which was filed July 20, 2005.

93. FCS owns all substantial rights, interest, and title in and to the '388 patent, including the sole and exclusive right to prosecute this action and enforce said patent against infringers and to collect damages for all relevant times.

94. The claims of the '388 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that improve upon the function and operation of preexisting systems and methods of generating packets in a digital communications system.

95. The written description of the '388 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

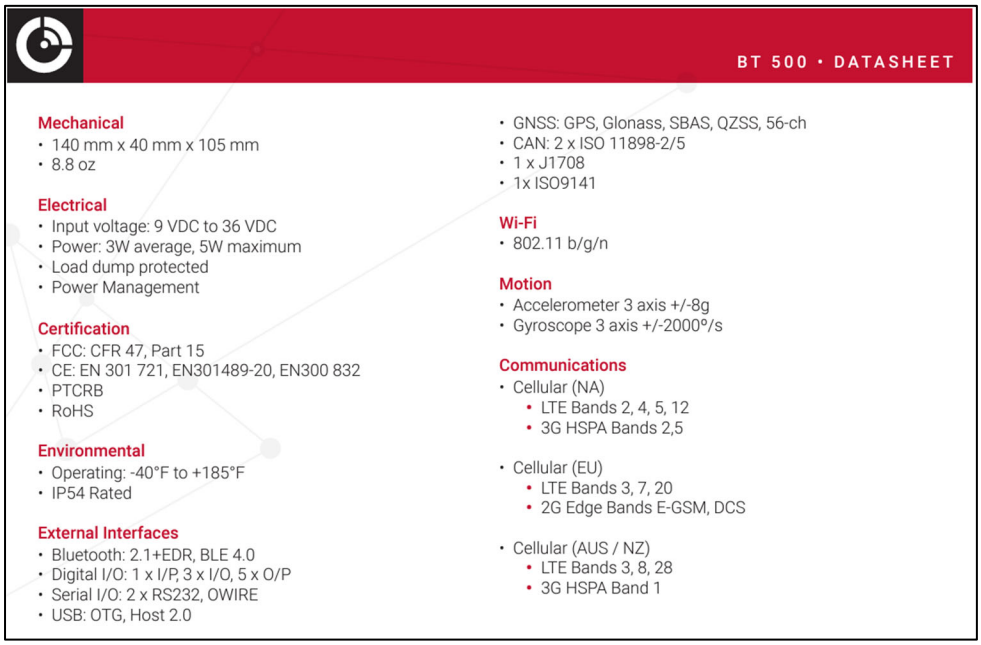
96. FCS or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '388 patent.

97. Defendant has directly infringed and continues to directly infringe the '388 patent by importing, manufacturing, providing, supplying, using, distributing, selling, or offering to sell the Accused Products.

98. Defendant has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least claim 1 of the '388 patent. For example, Defendant performs a method including generating a packet with a size corresponding to a protocol used for a network transmission, wherein the packet comprises a preamble having a first training symbol and a second training symbol. The method further includes increasing the size of the packet by adding subcarriers to the second training symbol of the packet to produce an extended packet, wherein a quantity of subcarriers of the second training symbol is greater than a quantity of subcarriers of the first training symbol; and transmitting the extended packet from an antenna.

99. More specifically, and as just one example of infringement, Defendant's conduct has comprised using the Accused Products, which are adapted for wireless communications using 80.211n and/or the 3GPP Long Term Evolution cellular standard ("LTE"). The Accused Products receive the generated packet (or "frame") with a size ("Tf") corresponding to a protocol (LTE) used for network transmission. Each packet (or "frame") comprises 10 subframes, each sub frame equals 1ms duration. Further, each subframe includes two slots each 0.5ms long. An LTE frame structure (for example frame structure Type 1) is defined using a resource grid that includes multiple subcarriers and OFDM symbols. The resource grid represents various subframes/slots that can include multiple signals such as synchronization signals and reference signals. The synchronization signals PSS and SSS (first training symbols) are used for time and frequency synchronization steps to identify where the frame begins and ends. Also, the reference signals/symbols (second training symbols) are used for the channel estimation. Similarly, the Accused Products generate a packet (or "frame") with a size ("LENGTH") corresponding to a protocol (*e.g.*, 802.11n) used

for network transmission. The packet (or "frame") comprises a preamble ("PLCP Preamble") having a first training symbol ("Short Training Sequence" or "STS") in HT-STF field and a second training symbol ("Long Training Sequence" or "LTS") in HT-LTF fields. The Accused Products increase the size of the packet by adding subcarriers to the second training symbol ("Reference Signal") to produce an extended packet. The quantity of subcarriers of the second training symbol ("Reference Signal") is greater than a quantity of subcarriers of the first training symbol ("Synchronization Signals"). Likewise, when utilizing the 802.11 protocols, the Accused Products increase the size of the packet by adding subcarriers to the second training symbol ("LTS") to produce an extended packet. The quantity of subcarriers of the second training symbol ("LTS") is greater than a quantity of subcarriers of the first training symbol ("STS"). The Accused Products receive the extended packet transmitted via network and include antennas for transmitting the extended packet.



BT 500 • DATASHEET

Mechanical
- 140 mm x 40 mm x 105 mm
- 8.8 oz

Electrical
- Input voltage: 9 VDC to 36 VDC
- Power: 3W average, 5W maximum
- Load dump protected
- Power Management

Certification
- FCC: CFR 47, Part 15
- CE: EN 301 721, EN301489-20, EN300 832
- PTCRB
- RoHS

Environmental
- Operating: -40°F to +185°F
- IP54 Rated

External Interfaces
- Bluetooth: 2.1+EDR, BLE 4.0
- Digital I/O: 1 x I/P, 3 x I/O, 5 x O/P
- Serial I/O: 2 x RS232, OWIRE
- USB: OTG, Host 2.0
- GNSS: GPS, Glonass, SBAS, QZSS, 56-ch
- CAN: 2 x ISO 11898-2/5
- 1 x J1708
- 1x ISO9141

Wi-Fi
- 802.11 b/g/n

Motion
- Accelerometer 3 axis +/-8g
- Gyroscope 3 axis +/-2000°/s

Communications
- Cellular (NA)
  - LTE Bands 2, 4, 5, 12
  - 3G HSPA Bands 2,5
- Cellular (EU)
  - LTE Bands 3, 7, 20
  - 2G Edge Bands E-GSM, DCS
- Cellular (AUS / NZ)
  - LTE Bands 3, 8, 28
  - 3G HSPA Band 1

See **Exhibit A** at A-2 (ORBCOMM Datasheet for BT 500).

100. Defendant had knowledge of the '388 patent at least as of the date when it was notified of the filing of this action.

101. Defendant has also indirectly infringed and continues to indirectly infringe the '388 patent by inducing others to directly infringe the '388 patent. Defendant has induced and continues to induce customers and end-users, including, but not limited to, Defendant's customers, employees, partners, or contractors, to directly infringe, either literally or under the doctrine of equivalents, the '388 patent by providing or requiring use of the Accused Products. Defendant has taken active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Accused Products in a manner that infringes one or more claims of the '388 patent, including, for example, claim 1. Such steps by Defendant have included, among other things, advising or directing customers, personnel, contractors, or end-users to use the Accused Products in an infringing manner; advertising and promoting the use of the Accused Products in an infringing manner; or distributing instructions that guide users to use the Accused Products in an infringing manner. Defendant has been performing these steps, which constitute induced infringement with the knowledge of the '388 patent and with the knowledge that the induced acts constitute infringement. Defendant has been aware that the normal and customary use of the Accused Products by others would infringe the '388 patent. Defendant's inducement is ongoing.

102. Defendant has also indirectly infringed and continues to indirectly infringe by contributing to the infringement of the '388 patent. Defendant has contributed and continues to contribute to the direct infringement of the '388 patent by its customers, personnel, and contractors. The Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the '388 patent, including, for example, claim 1. The special features constitute a material part of the invention of one or more of the claims of the '388 patent and are not staple articles of commerce suitable for substantial non-infringing use. Defendant's contributory infringement is ongoing.

103. Furthermore, on information and belief, Defendant has a policy or practice of not reviewing the patents of others, including instructing its employees to not review the patents of others, and thus have been willfully blind of FCS's patent rights.

104. Defendant's actions are at least objectively reckless as to the risk of infringing a valid patent and this objective risk was either known or should have been known by Defendant.

105. Defendant's direct infringement of the '388 patent is, has been, and continues to be willful, intentional, deliberate, or in conscious disregard of FCS's rights under the patent.

106. FCS has been damaged as a result of the infringing conduct by Defendant alleged above. Thus, Defendant is liable to FCS in an amount that compensates it for such infringements, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

107. FCS has suffered irreparable harm, through its loss of market share and goodwill, for which there is no adequate remedy at law. FCS has and will continue to suffer this harm by virtue of Defendant's infringement of the '388 patent. Defendant's actions have interfered with and will interfere with FCS's ability to license technology. The balance of hardships favors FCS's ability to commercialize its own ideas and technology. The public interest in allowing FCS to enforce its right to exclude outweighs other public interests, which supports injunctive relief in this case.

JURY DEMAND

108. FCS hereby requests a trial by jury on all issues so triable by right.

PRAYER FOR RELIEF

109. FCS requests that the Court find in its favor and against Defendant, and that the Court grant FCS the following relief:

a. Judgment that one or more claims of each of the Asserted Patents has been infringed, either literally or under the doctrine of equivalents, by Defendant or others acting in concert therewith;

b. An award of a reasonable royalty for infringement Asserted Patents;

c. A permanent injunction enjoining Defendant and its officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in concert therewith from infringement of the '040 patent, the '153 patent, the '845 patent, and the '388 patent; or, in the alternative, an award of a reasonable ongoing royalty for future infringement of the Asserted Patents by such entities;

d. Judgment that Defendant accounts for and pays to FCS all damages to and costs incurred by FCS because of Defendant's infringing activities and other conduct complained of herein;

e. Judgment that Defendant's infringements be found willful as to the '968 patent and that the Court award treble damages for the period of such willful infringement pursuant to 35 U.S.C. § 284;

f. Pre-judgment and post-judgment interest on the damages caused by Defendant's infringing activities and other conduct complained of herein;

g. That this Court declare this an exceptional case and award FCS its reasonable attorneys' fees and costs in accordance with 35 U.S.C. § 285; and

h. All other and further relief as the Court may deem just and proper under the circumstances.

Dated: February 15, 2024

Respectfully submitted,

/s/ Steven W. Ritcheson

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Attorneys For Plaintiff FLEET CONNECT SOLUTIONS LLC

* admitted to Central District of California

List of Exhibits

A. ORBCOMM Datasheet for BT 500