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10 *Attorney(s) for Plaintiff Fleet Connect Solutions, LLC*

11
 12 **IN THE UNITED STATES DISTRICT COURT**
 13 **FOR THE CENTRAL DISTRICT OF CALIFORNIA**

14
 15 FLEET CONNECT SOLUTIONS
 16 LLC,

17 Plaintiff,

18 v.

19 SCOSCHE INDUSTRIES, INC.,

20 Defendant.
 21

Case No. 2:23-cv-09324

**COMPLAINT AGAINST
 SCOSCHE INDUSTS., INC., FOR
 PATENT INFRINGEMENT**

JURY TRIAL DEMANDED

HON. _____

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1 Plaintiff Fleet Connect Solutions LLC (“FCS”) files this complaint against
 2 Scosche Industries, Inc. (“Scosche” or “Defendant”) alleging, based on its own
 3 knowledge as to itself and its own actions, and based on information and belief as to
 4 all other matters, as follows:

5 NATURE OF THE ACTION

6
 7 1. This is a patent infringement action to stop Defendant’s infringement of the
 8 following United States Patents (collectively, the “Asserted Patents”), copies of which
 9 are attached hereto as **Exhibit A, Exhibit B, Exhibit C, Exhibit D, Exhibit E, Exhibit**
 10 **F and Exhibit G**, respectively:
 11

	U.S. Patent No.	Title
A.	6,549,583 (the “’583 patent”)	Optimum Phase Error Metric for OFDM Pilot Tone Tracking in Wireless LAN
B.	6,633,616 (the “’616 patent”)	OFDM Pilot Tone Tracking for Wireless LAN
C.	7,058,040 (the “’040 patent”)	Channel Interference Reduction
D.	7,260,153 (the “’153 patent”)	Multi Input Multi Output Wireless Communication Method and Apparatus Providing Extended Range and Extended Rate Across Imperfectly Estimated Channels
E.	7,656,845 (the “’845 patent”)	Channel Interference Reduction
F.	7,742,388 (the “’388 patent”)	Packet Generation Systems and Methods
G.	8,005,053 (the “’053 patent”)	Channel Interference Reduction

1 2. Plaintiff seeks injunctive relief and monetary damages.

2
3 **PARTIES**

4 3. Plaintiff is a limited liability company formed under the laws of Texas with
5 its registered office address located in Austin, Texas.

6 4. On information and belief, Defendant is a corporation organized under the
7 laws of the State of California with its principal place of business located at 1550
8 Pacific Ave., Oxnard, CA 93033.

9
10 5. Defendant may be served through its registered agent for service in
11 California: Roger J. Alves, 1550 Pacific Ave., Oxnard, CA 93033.

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13 **JURISDICTION AND VENUE**

14
15 6. FCS repeats and re-alleges the allegations in Paragraphs above as though
16 fully set forth in their entirety.

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

20
21 8. Venue is proper against Defendant in this District pursuant to 28 U.S.C. §
22 1400(b) because it has maintained an established and regular place of business in this
23 District and has committed acts of patent infringement in this District. *See In re: Cray*
24 *Inc.*, 871 F.3d 1355, 1362- 1363 (Fed. Cir. 2017). *See* Figure 1 below.
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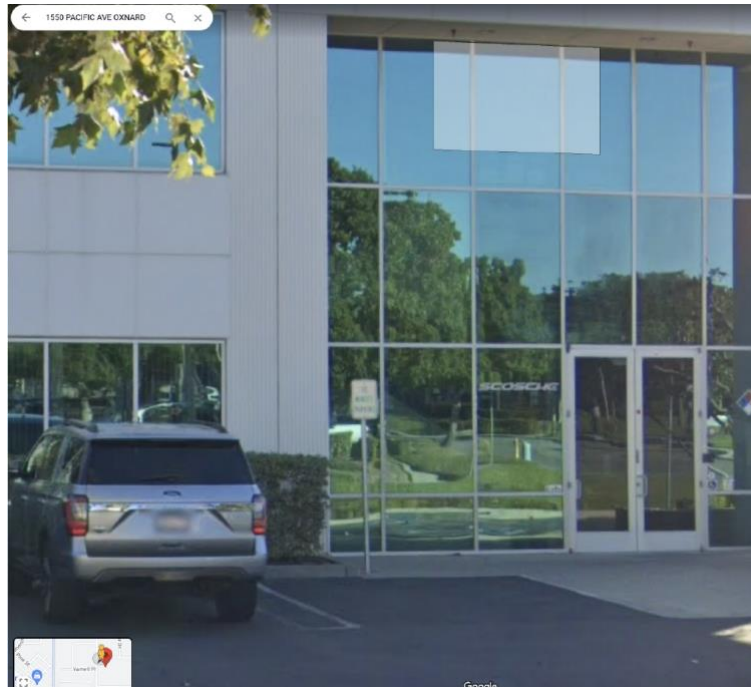


Figure 1
(Source: Google Maps)

9. 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.

10. Specifically, Defendant intends to do and do business in, has committed acts of infringement in, and continues to commit acts of infringement in this District directly, and offers its services, including those accused of infringement here, to customers and potential customers located in Texas, including in the Central District of California.

1 11. Defendant maintains a regular and established place of business in this
2 District, including, but not limited to, its corporate headquarters at the following
3 address: 1550 Pacific Ave., Oxnard, CA 93033. *See* Figure 1 above.
4

5 12. Defendant commits acts of infringement from this District, including, but
6 not limited to, use of the Accused Products and inducement of third parties to use the
7 Accused Products.
8

9 **THE ASSERTED PATENTS AND ACCUSED PRODUCTS**

10 13. FCS repeats and re-alleges the allegations in Paragraphs above as though
11 fully set forth in their entirety.
12

13 14. Defendant uses, causes to be used, provides, supplies, or distributes one or
14 more computing devices, including, but not limited to, the NEXC1, NEXC2 and
15 NEXS1 (“Computing Devices”), (collectively, the “Accused Products”).
16

17 15. On information and belief, the Accused Products perform wireless
18 communications and methods associated with performing and/or implementing
19 wireless communications including, but not limited to, wireless communications and
20 methods pursuant to various protocols and implementations, including, but not limited
21 to, Bluetooth, IEEE 802.11, and LTE protocols and various subsections thereof,
22 including, but not limited to, 802.11ac, 802.11b, and 802.11n.
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24

25 16. On information and belief, the wireless communications perform and/or
26 implemented by the Accused Products, among other things, transmit data over various
27 media, compute time slot channels, generate packets for network transmissions,
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1 perform or cause to be performed error estimation in orthogonal frequency division
2 multiplexed (“OFDM”) receivers, and various methods of processing OFDM symbols.

3
4 17. Defendant was notified that the Accused Products infringe the Asserted
5 Patents in April of 2023.

6 18. For these reasons and the additional reasons detailed below, the Accused
7 Products practice at least one claim of each of the Asserted Patents.
8

9 **COUNT I**

10 **(Infringement of United States Patent No. 6,549,583)**

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

13
14 20. FCS owns all substantial rights, interest, and title in and to the ’583 patent,
15 including the sole and exclusive right to prosecute this action and enforce the ’583
16 patent against infringers and to collect damages for all relevant times.
17

18 21. The United States Patent and Trademark Office duly issued the ’583 patent
19 on April 15, 2003, after full and fair examination of Application No. 09/790,429 which
20 was filed February 21, 2001. A true and correct copy of the ’583 patent is attached as
21

22 **Ex. A.**

23
24 22. The claims of the ’583 patent are not directed to an abstract idea and are not
25 limited to well-understood, routine, or conventional activity. Rather, the claimed
26 inventions include inventive components that improve upon the function and operation
27 of preexisting error estimation methods.
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1 23. The written description of the '583 patent describes in technical detail each
2 limitation of the claims, allowing a skilled artisan to understand the scope of the claims
3 and how the non-conventional and non-generic combination of claim limitations is
4 patently distinct from and improved upon what may have been considered conventional
5 or generic in the art at the time of the invention.
6

7
8 24. FCS or its predecessors-in-interest have satisfied all statutory obligations
9 required to collect pre-filing damages for the full period allowed by law for
10 infringement of the '583 patent.
11

12 25. Defendant has directly infringed one or more claims of the '583 patent by
13 manufacturing, providing, supplying, using, distributing, selling, or offering to sell the
14 Accused Products.
15

16 26. Defendant has directly infringed, either literally or under the doctrine of
17 equivalents, at least claim 1 of the '583 patent. For example, Defendant, using the
18 Accused Products, performs a method of pilot phase error estimation in an orthogonal
19 frequency division multiplexed (OFDM) receiver. The method includes determining
20 pilot reference points corresponding to a plurality of pilots of an OFDM preamble
21 waveform; and estimating an aggregate phase error of a subsequent OFDM data
22 symbol relative to the pilot reference points using complex signal measurements
23 corresponding to each of the plurality of pilots of the subsequent OFDM data symbol
24 and the pilot reference points; wherein the estimating step comprises performing a
25 maximum likelihood-based estimation using the complex signal measurements
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1 corresponding to each of the plurality of pilots of the subsequent OFDM data symbol
2 and the pilot reference points.

3
4 27. More specifically, and as just one example of infringement, Defendant's
5 conduct has comprised using the Accused Products to perform wireless communication
6 according to techniques for modern OFDM-based receivers when utilizing one or both
7 of the IEEE 802.11ac protocol and the ETSI 3GPP TS 136.101, *et. seq.* protocol. IEEE
8 802.11ac is a very high throughput (VHT) orthogonal frequency division multiplexing
9 (OFDM) system. IEEE 802.11ac performs pilot phase error estimation. Similarly, the
10 3GPP's Long Term Evolution ("LTE") standards (e.g., ETSI 3GPP TS 136.101, *et.*
11 *seq.*) comprise a very high throughput (VHT) orthogonal frequency division
12 multiplexing (OFDM) system. Defendant perform wireless communication according
13 to the 802.11ac and/or LTE protocol when using the Accused Products. 802.11ac
14 determines pilot reference points corresponding to a plurality of pilots of a VHLTF
15 field which is in the preamble of an OFDM waveform, and LTE uses CSI reference
16 signals (CSI-RS) of an OFDM waveform. The 802.11ac receiver equalizer of the
17 Accused Products estimates the aggregate phase error across all streams and the LTE
18 receiver equalizer of the Accused Products estimates the aggregate phase error across
19 all streams.
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1	WIFI 5GWLAN Band 1	:	
2	Frequency Range	:	5180MHz-5240MHz
3	Channel Number	:	4 channels for 20MHz bandwidth (5180-5240MHz) 2 channels for 40MHz bandwidth (5190~5230MHz) 1 channels for 80MHz bandwidth (5210MHz)
4	Modulation Type	:	802.11a/n/ac: OFDM (64QAM, 16QAM, QPSK, BPSK)
5	WIFI5GWLAN Band 3	:	
6	Frequency Range	:	5745MHz-5825MHz
7	Channel Number	:	5 channels for 20MHz bandwidth (5745-5825MHz) 2 channels for 40MHz bandwidth (5755~5795MHz) 1 channels for 80MHz bandwidth (5775MHz)
8	Modulation Type	:	IEEE 802.11a/n/ac: OFDM (64QAM, 16QAM, QPSK, BPSK)
9	Antenna Description	:	The WIFI and BT shares the same PIFA antenna and 2.6dBi (Max.) for 2.4G Band; 3.5dBi (Max.) for 5G Band
10	Exposure category	:	General population/uncontrolled environment
11	EUT Type	:	Production Unit
12	Device Type	:	Mobile Device

13 *See Exhibit H* at H-1 (Maximum Permissible Exposure Report, NEXC1)

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

18 **COUNT II**

19 **(Infringement of United States Patent No. 6,633,616)**

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

22 30. FCS owns all substantial rights, interest, and title in and to the '616 patent,
 23 including the sole and exclusive right to prosecute this action and enforce the '616
 24 patent against infringers and to collect damages for all relevant times.

25 31. The United States Patent and Trademark Office duly issued the '616 patent
 26 on October 14, 2003, after full and fair examination of Application No. 09/935,081
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1 which was filed August 21, 2001. A true and correct copy of the '616 patent is attached
2 as **Ex. B.**

3
4 32. The claims of the '616 patent are not directed to an abstract idea and are not
5 limited to well-understood, routine, or conventional activity. Rather, the claimed
6 inventions include inventive components that improve upon the function and operation
7
8 of preexisting error estimation methods.

9 33. The written description of the '616 patent describes in technical detail each
10 limitation of the claims, allowing a skilled artisan to understand the scope of the claims
11 and how the non-conventional and non-generic combination of claim limitations is
12 patently distinct from and improved upon what may have been considered conventional
13 or generic in the art at the time of the invention.
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15
16 34. FCS or its predecessors-in-interest have satisfied all statutory obligations
17 required to collect pre-filing damages for the full period allowed by law for
18 infringement of the '616 patent.
19

20 35. Defendant has directly infringed one or more claims of the '616 patent by
21 manufacturing, providing, supplying, using, distributing, selling, or offering to sell the
22 Accused Products.
23

24 36. Defendant has directly infringed, either literally or under the doctrine of
25 equivalents, at least claim 12 of the '616 patent. For example, Defendant, using the
26 Accused Products, performs a method of pilot phase error estimation in an orthogonal
27 frequency division multiplexed (OFDM) receiver. The method includes determining
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1 pilot reference points corresponding to a plurality of pilots of an OFDM preamble
2 waveform; processing, in a parallel path to the determining step, the OFDM preamble
3 waveform with a fast Fourier transform; determining a phase error estimate of a
4 subsequent OFDM symbol relative to the pilot reference points; and processing, in the
5 parallel path to the determining step, the subsequent OFDM symbol with the fast
6 Fourier transform; wherein the determining the phase error estimate step is completed
7 prior to the completion of the processing the subsequent OFDM symbol with the fast
8 Fourier transform in the parallel path.

11 37. More specifically, and as just one example of infringement, Defendant's
12 conduct has comprised using the Accused Products to perform wireless communication
13 according to techniques for modern OFDM-based receivers when utilizing one or both
14 of the IEEE 802.11ac protocol and the ETSI 3GPP TS 136.101, *et. seq.* protocol. IEEE
15 802.11ac is a very high throughput (VHT) orthogonal frequency division multiplexing
16 (OFDM) system. IEEE 802.11ac performs pilot phase error estimation. Similarly, the
17 3GPP's Long Term Evolution ("LTE") standards (e.g., ETSI 3GPP TS 136.101, *et.*
18 *seq.*) comprise a very high throughput (VHT) orthogonal frequency division
19 multiplexing (OFDM) system. Defendant perform wireless communication according
20 to the 802.11ac and/or LTE protocol when using the Accused Products. 802.11ac
21 determines pilot reference points corresponding to a plurality of pilots of a VHLTF
22 field which is in the preamble of an OFDM waveform, and LTE uses CSI reference
23 signals (CSI-RS) of an OFDM waveform. The 802.11ac receiver equalizer of the
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1 Accused Products estimates the aggregate phase error across all streams and the LTE
 2 receiver equalizer of the Accused Products estimates the aggregate phase error across
 3 all streams. In parallel with determining pilot reference points, the OFDM preamble
 4 waveform is processed. The 802.11ac receiver architecture processes OFDM
 5 preambles with FFT in parallel with determining pilot reference points (e.g., for MIMO
 6 channel estimation). The pilot reference points are identical on all streams, thereby
 7 allowing the receiver to estimate phase error on the channel for the subsequent OFDM
 8 symbols. The LTE receiver equalizer estimates the aggregate phase error across all
 9 streams. The phase error estimation is completed prior to completion of the processing
 10 subsequent OFDM symbol with FFT, because the phase error estimation is used to
 11 correct errors in the transmission. The 802.11ac architecture performs MIMO channel
 12 estimation (phase error estimation) prior to completion of the OFDM symbol
 13 processing. The LTE architecture uses FFT prior to the completion of the processing
 14 the subsequent OFDM symbol.

WIFI 5GWLAN Band 1	:	
Frequency Range	:	5180MHz-5240MHz 4 channels for 20MHz bandwidth (5180-5240MHz)
Channel Number	:	2 channels for 40MHz bandwidth (5190~5230MHz) 1 channels for 80MHz bandwidth (5210MHz)
Modulation Type	:	802.11a/n/ac: OFDM (64QAM, 16QAM, QPSK, BPSK)
WIFI5GWLAN Band 3	:	
Frequency Range	:	5745MHz-5825MHz 5 channels for 20MHz bandwidth (5745-5825MHz)
Channel Number	:	2 channels for 40MHz bandwidth (5755~5795MHz) 1 channels for 80MHz bandwidth (5775MHz)
Modulation Type	:	IEEE 802.11a/n/ac: OFDM (64QAM, 16QAM, QPSK, BPSK)
Antenna Description	:	The WIFI and BT shares the same PIFA antenna and 2.6dBi (Max.) for 2.4G Band; 3.5dBi (Max.) for 5G Band
Exposure category	:	General population/uncontrolled environment
EUT Type	:	Production Unit
Device Type	:	Mobile Device

27 See **Exhibit H** at H-1 (Maximum Permissible Exposure Report, NEXC1)

1 38. FCS has been damaged as a result of the infringing conduct by Defendant
2 alleged above. Thus, Defendant is liable to FCS in an amount that compensates it for
3 such infringements, which by law cannot be less than a reasonable royalty, together
4 with interest and costs as fixed by this Court under 35 U.S.C. § 284.
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6
7 **COUNT III**

8 **(Infringement of United States Patent No. 7,058,040)**

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

11 40. FCS owns all substantial rights, interest, and title in and to the '040 patent,
12 including the sole and exclusive right to prosecute this action and enforce the '040
13 patent against infringers and to collect damages for all relevant times.
14

15 41. The United States Patent and Trademark Office duly issued the '040 patent
16 on June 6, 2006, after full and fair examination of Application No. 09/962,718 which
17 was filed September 21, 2001. A true and correct copy of the '040 patent is attached
18 as **Ex. C**.
19

20 42. The claims of the '040 patent are not directed to an abstract idea and are not
21 limited to well-understood, routine, or conventional activity. Rather, the claimed
22 inventions include inventive components that improve upon the function and operation
23 of preexisting data transmission methods.
24

25 43. The written description of the '040 patent describes in technical detail each
26 limitation of the claims, allowing a skilled artisan to understand the scope of the claims
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1 and how the non-conventional and non-generic combination of claim limitations is
2 patently distinct from and improved upon what may have been considered conventional
3 or generic in the art at the time of the invention.
4

5 44. FCS or its predecessors-in-interest have satisfied all statutory obligations
6 required to collect pre-filing damages for the full period allowed by law for
7 infringement of the '040 patent.
8

9 45. Defendant has directly infringed and continue to directly infringe the '040
10 patent by manufacturing, providing, supplying, using, distributing, selling, or offering
11 to sell the Accused Products.
12

13 46. Defendant has directly infringed and continues to directly infringe, either
14 literally or under the doctrine of equivalents, at least claim 1 of the '040 patent. For
15 example, Defendant, using the Accused Products, performs a method for data
16 transmission over first and second media that overlap in frequency. The method
17 includes computing one or more time division multiple access (TDMA) time-slot
18 channels to be shared between the first and second media for data transmission;
19 allocating one or more time-slot channels to the first medium for data transmission;
20 allocating one or more of the remaining time-slot channels to the second medium for
21 data transmission; and dynamically adjusting a number of timeslot channels assigned
22 to one of the first and second media during the data transmission to remain within limits
23 of a desired level of service.
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1 47. More specifically, and as just one example of infringement, Defendant's
2 conduct has comprised using the Accused Products to perform a method for data
3 transmission over first and second media that overlap in frequency because the
4 Accused Products communicate according to either the 3GPP TS 136.101, *et. seq.* LTE
5 protocol or the 802.11b and Bluetooth protocols which involve transmission over first
6 and second media that overlap in frequency when using the Accused Products. The
7 Accused Products also communicate according to LTE (*e.g.*, 3GPP LTE) using
8 different media, including a first and second media, which overlap in frequency when
9 using the Accused Products. 3GPP TS 36.211 sets forth a resource grid structure for
10 allocating transmission resources to 4G LTE systems. According to this two-
11 dimensional time and frequency grid structure, frequency channels are shared between
12 different transceivers in time domain, by using time division (TDM) slot channels. A
13 unit time slot spanning a group of subcarriers (*e.g.*, 12 adjacent subcarriers equivalent
14 to 180KHz frequency) is referred to as a Resource Block (RB) or Physical Resource
15 Block (PRB). A resource block (a time and frequency unit) is the smallest bandwidth
16 or unit of transmission resource that can be allocated to a user equipment (UE) or
17 transceiver. Further, each radio time frame (10ms in case of LTE) is divided into
18 multiple sub-frames (1ms each) and each such sub-frame includes two time slots.
19 3GPP LTE follows OFDMA based multiplexing in resource allocation. Each media
20 or UE/transceiver is allocated one or more (a group of) RBs/PRBs for data
21 communication in uplink and/or downlink, *i.e.*, each transceiver is allocated a fixed set
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1 of subcarriers over period of time. A first transceiver communicates using its allocated
2 frequency subcarriers (first medium), while a second transceiver uses its allocated
3 subcarriers to communicate (second medium). A first and second media that are
4 allocated RBs along the same time frame or sub-frame overlap in frequency. As just
5 one example, the method includes (a) computing one or more time division multiple
6 access (TDMA) time-slot channels to be shared between the first and second media for
7 data transmission, *e.g.*, 802.15.2-2003 sets forth the mechanism for Alternating
8 Wireless Medium Access (AWMA) to reduce interference between 802.11 and 802.15
9 signals. In AWMA, the beacon period of an 802.11b frame is shared between first
10 media (WLAN) and second media (WPAN) for data transmission; (b) allocating one
11 or more time-slot channels to the first medium for data transmission, *e.g.*, the Accused
12 Products allocate a time-slot channel (WLAN interval to the first medium (802.11b)
13 for data transmission); (c) allocating one or more of the remaining time-slot channels
14 to the second medium for data transmission, *e.g.*, the Accused Products allocate a time-
15 slot channel (WPAN interval) to the second medium (802.15) for data transmission;
16 and (d) dynamically adjusting a number of time-slot channels assigned to one of the
17 first and second media during the data transmission to remain within limits of a desired
18 level of service, *e.g.*, the 802.11b beacon frame includes a Medium Sharing Element
19 (MSE) which defines the length of the time-slot channels (WLAN, WPAN, and
20 Guard). The Offset, Length and Guard intervals can be dynamically adjusted to modify
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1 the number of time-slot channels assigned to WLAN and WPAN data transmission to
 2 remain within limits of a desired level of service.

3
 4 **1. Product Information**

FCC ID:	IKQ-NEXS1
Product name	NEXS1 Single channel Camera
Model number	NEXS1
Power supply	Input: DC 12-24V Output: 5V/2.4A DC 3.7V By lithium ion polymer battery(400mAh)
Operation frequency	IEEE 802.11b:2412-2462MHz IEEE 802.11g:2412-2462MHz IEEE 802.11n HT20:2412-2462MHz Bluetooth: 2402MHz-2480MHz 5.2GHz Band:5180~5240MHz

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 10 *See Exhibit I* at I-1 (FCC RF Exposure Evaluation for NEXS1 Single Channel
 11 Camera)
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13 48. Defendant had knowledge of the '040 patent at least as of April of 2023.

14 49. Since at least April of 2023, Defendant has also indirectly infringed and
 15 continues to indirectly infringe the '040 patent by inducing others to directly infringe
 16 the '040 patent. Defendant has induced and continue to induce customers and end-
 17 users, including, but not limited to, Defendant's customers, employees, partners, or
 18 contractors, to directly infringe, either literally or under the doctrine of equivalents, the
 19 '040 patent by providing or requiring use of the Accused Products. Defendant has
 20 taken active steps, directly or through contractual relationships with others, with the
 21 specific intent to cause them to use the Accused Products in a manner that infringes
 22 one or more claims of the '040 patent, including, for example, claim 1. Such steps by
 23 Defendant has included, among other things, advising or directing customers,
 24 personnel, contractors, or end-users to use the Accused Products in an infringing
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1 manner; advertising and promoting the use of the Accused Products in an infringing
2 manner; or distributing instructions that guide users to use the Accused Products in an
3 infringing manner. Defendant has been performing these steps, which constitute
4 induced infringement with the knowledge of the '040 patent and with the knowledge
5 that the induced acts constitute infringement. Defendant has been aware that the
6 normal and customary use of the Accused Products by others would infringe the '040
7 patent. Defendant's inducement is ongoing.

10 50. Since at least April of 2023, Defendant has also indirectly infringed and
11 continues to indirectly infringe by contributing to the infringement of the '040 patent.
12 Defendant has contributed and continue to contribute to the direct infringement of the
13 '040 patent by its customers, personnel, and contractors. The Accused Products have
14 special features that are specially designed to be used in an infringing way and that
15 have no substantial uses other than ones that infringe one or more claims of the '040
16 patent, including, for example, claim 1. The special features constitute a material part
17 of the invention of one or more of the claims of the '040 patent and are not staple
18 articles of commerce suitable for substantial non-infringing use. Defendant's
19 contributory infringement is ongoing.

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

1 52. Defendant's actions are at least objectively reckless as to the risk of
2 infringing a valid patent and this objective risk was either known or should have been
3 known by Defendant.
4

5 53. Defendant's infringement of the '040 patent is, has been, and continues to
6 be willful, intentional, deliberate, or in conscious disregard of FCS's rights under the
7 patent.
8

9 54. FCS has been damaged as a result of the infringing conduct by Defendant
10 alleged above. Thus, Defendant is liable to FCS in an amount that compensates it for
11 such infringements, which by law cannot be less than a reasonable royalty, together
12 with interest and costs as fixed by this Court under 35 U.S.C. § 284.
13

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

25 **(Infringement of United States Patent No. 7,260,153)**

26 56. FCS repeats and re-alleges the allegations in the Paragraphs above as though
27 fully set forth in their entirety.
28

1 57. The United States Patent and Trademark Office (“USPTO”) duly issued the
2 ’153 patent on August 21, 2007, after full and fair examination of Application No.
3 10/423,447, which was filed on April 28, 2003. *See Ex. D.*

4
5 58. FCS owns all substantial rights, interest, and title in and to the ’153 patent,
6 including the sole and exclusive right to prosecute this action and enforce the ’153
7 patent against infringers and to collect damages for all relevant times.

8
9 59. The claims of the ’153 patent are not directed to an abstract idea and are not
10 limited to well-understood, routine, or conventional activity. Rather, the claimed
11 inventions include inventive components that improve upon the function and operation
12 of voice and data communications systems.

13
14 60. The written description of the ’153 patent describes in technical detail each
15 limitation of the claims, allowing a skilled artisan to understand the scope of the claims
16 and how the non-conventional and non-generic combination of claim limitations is
17 patently distinct from and improved upon what may have been considered conventional
18 or generic in the art at the time of the invention.

19
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21 61. Defendant has directly infringed the ’153 patent by importing, selling,
22 manufacturing, offering to sell, using, providing, supplying, or distributing the
23 Accused Products.

24
25 62. Defendant has directly infringed and continues to directly infringe, either
26 literally or under the doctrine of equivalents, at least claim 1 of the ’153 patent. For
27 example, Defendant, using the Accused Products, performs a method for evaluating a
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1 channel of a multiple-input multiple-output (“MIMO”) wireless communication
2 system allowing two or more communication devices with multiple radiating elements
3 to transmit parallel data sub-streams which defines a channel matrix metric of cross-
4 talk signal-to-noise (“SNR”) for the subs-streams, estimates the channel matrix metric,
5 performs a singular value decomposition (“SVD”) of the channel matrix metric
6 estimate to calculate estimated channel singular values, and using the channel matrix
7 metric and estimated channel singular values to calculate a crosstalk measure for the
8 sub-streams.
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11 63. More specifically, and as just one example of infringement, Defendant’s
12 conduct has comprised using the Accused Products, which are adapted by Defendant
13 for wireless communications using multiple communication protocols, including LTE
14 and/or 802.11n. 802.11n implements beamforming in a MIMO system. LTE supports
15 single and multi-user MIMO transmissions. A MIMO communication system
16 comprises at least two communication devices (*e.g.*, STA A, STA B, BS and/or UE)
17 having a plurality of radiating elements (antennas) for the parallel transmission of data
18 sub-streams. 802.11n implements beamforming that defines a channel matrix metric
19 (H_k) that comprises a predefined function (equation 20-62) of channel matrix singular
20 values for each of the data sub-streams. MIMO systems utilized within the context of
21 LTE transmission can define a channel matrix metric that comprises a predefined
22 function of channel matrix singular values for each of the data sub-streams. Each of
23 the predefined functions provides a measure of cross-talk signal to noise ratio (SNR)
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1 for sub-streams. To implement implicit beamforming, the beamformer obtains an
 2 estimated channel matrix. As part of the LTE standards, reporting of channel
 3 information further consists of a channel quality indicator (CQI). To estimate channel
 4 singular values, a singular value decomposition (SVD) is performed of the baseband-
 5 to-baseband channel matrix metric. The SVD comprises a left-hand unitary weighting
 6 matrix, *e.g.*, BRX,k , a diagonal matrix of said estimated channel singular values, and
 7 a right-hand unitary weighting matrix $A_{TX,k}$. Various algorithms can be implemented
 8 within an LTE MIMO system, including a singular value decomposition (SVD)
 9 comprising a left-hand unitary weighting matrix, a diagonal matrix of said estimated
 10 channel singular values, and a right-hand unitary weighting matrix. A crosstalk
 11 measure (*e.g.*, $K_{A,k}$) is calculated for each sub-stream k (*e.g.*, sub-band) from the
 12 channel matrix metric (*e.g.*, $H_{AB,k}$) and the estimated channel singular values.
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1. Product Information	
FCC ID:	IKQ-NEXS1
Product name	NEXS1 Single channel Camera
Model number	NEXS1
Power supply	Input: DC 12-24V Output: 5V/2.4A DC 3.7V By lithium ion polymer battery(400mAh)
Operation frequency	IEEE 802.11b:2412-2462MHz IEEE 802.11g:2412-2462MHz IEEE 802.11n HT20:2412-2462MHz Bluetooth: 2402MHz-2480MHz 5.2GHz Band:5180~5240MHz

24 See **Exhibit I** at I-1 (FCC RF Exposure Evaluation for NEXS1 Single Channel
 25 Camera)

26 64. Defendant had knowledge of the '153 patent at least as of April of 2023.

27 65. Since at least April of 2023, Defendant has also indirectly infringed and
 28

1 continues to indirectly infringe the '153 patent by inducing others to directly infringe
2 the '153 patent. Defendant has induced distributors and end-users, including, but not
3 limited to, Defendant's employees, partners, contractors, or customers, to directly
4 infringe, either literally or under the doctrine of equivalents, the '153 patent by
5 providing or requiring use of the Accused Products. Defendant took active steps,
6 directly or through contractual relationships with others, with the specific intent to
7 cause them to use the Accused Products in a manner that infringes one or more claims
8 of the '153 patent, including, for example, claim 1 of the '153 patent. Such steps by
9 Defendant include, among other things, advising or directing personnel, contractors, or
10 end-users to use the Accused Products in an infringing manner; advertising and
11 promoting the use of the Accused Products in an infringing manner; or distributing
12 instructions that guide users to use the Accused Products in an infringing manner.
13 Defendant is performing these steps, which constitute induced infringement with the
14 knowledge of the '153 patent and with the knowledge that the induced acts constitute
15 infringement. Defendant is aware that the normal and customary use of the Accused
16 Products by others would infringe the '153 patent. Defendant's inducement is ongoing.

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22 66. Since at least April of 2023, Defendant has also indirectly infringed and
23 continues to indirectly infringe by contributing to the infringement of the '153 patent.
24 Defendant has contributed to the direct infringement of the '153 patent by its personnel,
25 contractors, distributors, and customers. The Accused Products have special features
26 that are specially designed to be used in an infringing way and that have no substantial
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1 uses other than ones that infringe one or more claims of the '153 patent, including, for
2 example, claim 1 of the '153 patent. The special features constitute a material part of
3 the invention of one or more of the claims of the '153 patent and are not staple articles
4 of commerce suitable for substantial non-infringing use. Defendant's contributory
5 infringement is ongoing.
6

7
8 67. Furthermore, on information and belief, Defendant has a policy or practice
9 of not reviewing the patents of others, including instructing its employees to not review
10 the patents of others, and thus has been willfully blind of FCS's patent rights.
11

12 68. Defendant's actions are at least objectively reckless as to the risk of
13 infringing a valid patent and this objective risk was either known or should have been
14 known by Defendant.
15

16 69. Defendant's direct infringement of the '153 patent is, has been, and
17 continues to be willful, intentional, deliberate, or in conscious disregard of FCS's rights
18 under the patent.
19

20 70. FCS or its predecessors-in-interest have satisfied all statutory obligations
21 required to collect pre-filing damages for the full period allowed by law for
22 infringement of the '153 patent.
23

24 71. FCS has been damaged as a result of the infringing conduct by Defendant
25 alleged above. Thus, Defendant is liable to FCS in an amount that compensates it for
26 such infringements, which by law cannot be less than a reasonable royalty, together
27 with interest and costs as fixed by this Court under 35 U.S.C. § 284.
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1 72. FCS has suffered irreparable harm, through its loss of market share and
2 goodwill, for which there is no adequate remedy at law. FCS has and will continue to
3 suffer this harm by virtue of Defendant's infringement of the '153 patent. Defendant's
4 actions have interfered with and will interfere with FCS's ability to license technology.
5 The balance of hardships favors FCS's ability to commercialize its own ideas and
6 technology. The public interest in allowing FCS to enforce its right to exclude
7 outweighs other public interests, which supports injunctive relief in this case.
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9

10 **COUNT V**

11 **(Infringement of United States Patent No. 7,656,845)**

12
13 73. FCS repeats and re-alleges the allegations in the Paragraphs above as though
14 fully set forth in their entirety.

15 74. The USPTO duly issued the '845 patent on February 2, 2010 after full and
16 fair examination of Application No. 11/402,172 which was filed on April 11, 2006.
17 *See Ex. E.* A Certificate of Correction was issued on November 30, 2010. *See id.*

18
19 75. FCS owns all substantial rights, interest, and title in and to the '845 patent,
20 including the sole and exclusive right to prosecute this action and enforce the '845
21 patent against infringers and to collect damages for all relevant times.
22

23 76. The claims of the '845 patent are not directed to an abstract idea and are not
24 limited to well-understood, routine, or conventional activity. Rather, the claimed
25 inventions include inventive components that improve upon the function and operation
26 of preexisting systems and methods of wireless communication with a mobile unit.
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1 77. The written description of the '845 patent describes in technical detail each
2 limitation of the claims, allowing a skilled artisan to understand the scope of the claims
3 and how the non-conventional and non-generic combination of claim limitations is
4 patently distinct from and improved upon what may have been considered conventional
5 or generic in the art at the time of the invention.
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7
8 78. Defendant has directly infringed the '845 patent by importing, selling,
9 manufacturing, offering to sell, using, providing, supplying, or distributing the
10 Accused Products.
11

12 79. Defendant has directly infringed and continues to directly infringe, either
13 literally or under the doctrine of equivalents, at least claim 12 of the '845 patent. For
14 example, the Accused Products used by Defendant provide a system comprising a
15 processor, a first transceiver configured to communicate *via* a first medium, a second
16 transceiver configured to communicate *via* a second medium, wherein at least one of
17 the first transceiver and the second transceiver is configured to retry transmission of a
18 packet at a lower rate if a prior transmission of the packet is not acknowledged, an
19 allocation unit configured to dynamically allocate data channels to one of the first
20 medium and the second medium based upon a desired level of service.
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(Source: <https://fccid.io/IKQ-NEXS1/Internal-Photos/Internal-photos-4666093>)

1. Product Information

FCC ID:	IKQ-NEXS1
Product name	NEXS1 Single channel Camera
Model number	NEXS1
Power supply	Input: DC 12-24V Output: 5V/2.4A DC 3.7V By lithium ion polymer battery(400mAh)
Operation frequency	IEEE 802.11b:2412-2462MHz IEEE 802.11g:2412-2462MHz IEEE 802.11n HT20:2412-2462MHz Bluetooth: 2402MHz-2480MHz 5.2GHz Band:5180~5240MHz

See **Exhibit I** at I-1 (FCC RF Exposure Evaluation for NEXS1 Single Channel Camera)

80. More specifically, and as just one example of infringement, Defendant’s conduct has comprised using the Accused Products allocates 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 4G LTE systems. According to this two-dimensional time and frequency

1 grid structure, frequency channels are shared between different transceivers in time
2 domain, by using TDM slot channels. A unit time slot spanning a group of subcarriers
3 (*e.g.*, 12 adjacent subcarriers equivalent to 180KHz frequency) is referred to as a RB
4 or PRB. A resource block (a time and frequency unit) is the smallest bandwidth or unit
5 of transmission resource that a base station can allocate to a transceiver. Further, each
6 radio time frame (10ms in case of LTE) is divided into multiple sub-frames (1ms each)
7 and each such sub-frame includes two time slots. 3GPP LTE base stations follow
8 OFDMA based multiplexing in resource allocation. Each media or transceiver is
9 allocated one or more (a group of) RBs/PRBs for data communication in uplink and/or
10 downlink, *i.e.* each transceiver is allocated a fixed set of subcarriers over period of
11 time. A first transceiver communicates using its allocated frequency subcarriers (first
12 medium), while a second transceiver uses its allocated subcarriers to communicate
13 (second medium). A first and second media that are allocated RBs along the same time
14 frame or sub-frame. overlap in frequency. More specifically, and as just one example
15 of infringement, the base station dynamically adjusts, during data transmission, a
16 number of the data channels assigned to one of the first and second media to remain
17 within limits of a desired level of service. 3GPP TS 36.211, 36.212, 36.213, 36.300
18 specify that 3GPP LTE base stations (eNBs) implement resource scheduling and
19 allocation of one or more time slots or PRBs or RBs, *i.e.*, a group of subcarriers for a
20 predetermined time period, to a first transceiver to use as a transmission medium (first
21 medium), and the remaining time slots or PRBs or RBs to a second transceiver to use

1 as a transmission medium (second medium). Further, the time slot channels allocation
2 is dynamic, and can be dynamically adjusted during the data transmission based on
3 various criteria, such as data traffic volume, QoS requirements, etc. to remain within
4 limits of a desired level of service. 802.15.2-2003 defines a Collaborative Coexistence
5 Mechanism (“allocation unit”) with an AWMA Medium Free Generation that is
6 configured to dynamically allocate data channels to one of the 802.11 Device and the
7 802.15.1 Device based upon a desired level of service. The Accused Products allocate
8 a time-slot channel (WLAN interval) to the first medium (802.11b) for data
9 transmission and a different time-slot channel (WPAN interval) to the second medium
10 (802.15.1). The 802.11b beacon frame includes a Medium Sharing Element (MSE)
11 which defines the length of the time-slot channels (WLAN, WPAN, and Guard). The
12 Offset, Length and Guard intervals can be dynamically adjusted to modify the number
13 of time-slot channels assigned to WLAN and WPAN data transmission to remain
14 within limits of a desired level of service.

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20 81. Defendant had knowledge of the '845 patent at least as of April of 2023.

21 82. Since at least April of 2023, Defendant has also indirectly infringed and
22 continues to indirectly infringe the '845 patent by inducing others to directly infringe
23 the '845 patent. Defendant has induced distributors and end-users, including, but not
24 limited to, Defendant's employees, partners, contractors, or customers, to directly
25 infringe, either literally or under the doctrine of equivalents, the '845 patent by
26 providing or requiring use of the Accused Products. Defendant took active steps,
27
28

1 directly or through contractual relationships with others, with the specific intent to
2 cause them to use the Accused Products in a manner that infringes one or more claims
3 of the '845 patent, including, for example, claim 12 of the '845 patent. Such steps by
4 Defendant include, among other things, advising or directing personnel, contractors, or
5 end-users to use the Accused Products in an infringing manner; advertising and
6 promoting the use of the Accused Products in an infringing manner; or distributing
7 instructions that guide users to use the Accused Products in an infringing manner.
8 Defendant is performing these steps, which constitute induced infringement with the
9 knowledge of the '845 patent and with the knowledge that the induced acts constitute
10 infringement. Defendant is aware that the normal and customary use of the Accused
11 Products by others would infringe the '845 patent. Defendant's inducement is ongoing.

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16 83. Since at least April of 2023, Defendant has also indirectly infringed and
17 continues to indirectly infringe by contributing to the infringement of the '845 patent.
18 Defendant has contributed to the direct infringement of the '845 patent by its personnel,
19 contractors, distributors, and customers. The Accused Products have special features
20 that are specially designed to be used in an infringing way and that have no substantial
21 uses other than ones that infringe one or more claims of the '845 patent, including, for
22 example, claim 12 of the '845 patent. The special features constitute a material part of
23 the invention of one or more of the claims of the '845 patent and are not staple articles
24 of commerce suitable for substantial non-infringing use. Defendant's contributory
25 infringement is ongoing.
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1 84. Furthermore, on information and belief, Defendant has a policy or practice
2 of not reviewing the patents of others, including instructing its employees to not review
3 the patents of others, and thus has been willfully blind of FCS's patent rights.
4

5 85. Defendant's actions are at least objectively reckless as to the risk of
6 infringing a valid patent and this objective risk was either known or should have been
7 known by Defendant.
8

9 86. Defendant's direct infringement of the '845 patent is, has been, and
10 continues to be willful, intentional, deliberate, or in conscious disregard of FCS's rights
11 under the patent.
12

13 87. FCS or its predecessors-in-interest have satisfied all statutory obligations
14 required to collect pre-filing damages for the full period allowed by law for
15 infringement of the '845 patent.
16

17 88. FCS has been damaged as a result of the infringing conduct by Defendant
18 alleged above. Thus, Defendant is liable to FCS in an amount that compensates it for
19 such infringements, which by law cannot be less than a reasonable royalty, together
20 with interest and costs as fixed by this Court under 35 U.S.C. § 284.
21

22 89. FCS has suffered irreparable harm, through its loss of market share and
23 goodwill, for which there is no adequate remedy at law. FCS has and will continue to
24 suffer this harm by virtue of Defendant's infringement of the '845 patent. Defendant's
25 actions have interfered with and will interfere with FCS's ability to license technology.
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28 The balance of hardships favors FCS's ability to commercialize its own ideas and

1 technology. The public interest in allowing FCS to enforce its right to exclude
2 outweighs other public interests, which supports injunctive relief in this case.
3

4 **COUNT VI**

5 **(Infringement of United States Patent No. 7,742,388)**

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

9 91. FCS owns all substantial rights, interest, and title in and to the '388 patent,
10 including the sole and exclusive right to prosecute this action and enforce the '388
11 patent against infringers and to collect damages for all relevant times.
12

13 92. The USPTO duly issued the '388 patent on June 22, 2010, after full and fair
14 examination of Application No. 11/185,665 which was filed July 20, 2005. A true and
15 correct copy of the '388 patent is attached as **Ex. F**.
16

17 93. The claims of the '388 patent are not directed to an abstract idea and are not
18 limited to well-understood, routine, or conventional activity. Rather, the claimed
19 inventions include inventive components that improve upon the function and operation
20 of preexisting systems and methods of generating packets in a digital communications
21 system.
22

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

3
4 95. FCS or its predecessors-in-interest have satisfied all statutory obligations
5 required to collect pre-filing damages for the full period allowed by law for
6 infringement of the '388 patent.

7
8 96. Defendant has directly infringed and continue to directly infringe one or
9 more claims of the '388 patent by manufacturing, providing, supplying, using,
10 distributing, selling, or offering to sell the Accused Products.

11
12 97. Defendant has directly infringed and continues to directly infringe, either
13 literally or under the doctrine of equivalents, at least claim 1 of the '388 patent. For
14 example, Defendant performs a method including generating a packet with a size
15 corresponding to a protocol used for a network transmission, wherein the packet
16 comprises a preamble having a first training symbol and a second training symbol. The
17 method further includes increasing the size of the packet by adding subcarriers to the
18 second training symbol of the packet to produce an extended packet, wherein a quantity
19 of subcarriers of the second training symbol is greater than a quantity of subcarriers of
20 the first training symbol; and transmitting the extended packet from an antenna.

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24 98. More specifically, and as just one example of infringement, Defendant's
25 conduct has comprised using the Accused Products, which are adapted for wireless
26 communications using 802.11n and/or the 3GPP Long Term Evolution cellular
27 standard ("LTE"). The Accused Products receive the generated packet (or "frame")
28

1 with a size (“Tf”) corresponding to a protocol (LTE) used for network transmission.
2 Each packet (or “frame) comprises 10 subframes, each sub frame equals 1ms duration.
3
4 Further each subframe includes two slots each 0.5 ms long. An LTE frame structure
5 (for example frame structure Type 1) is defined using a resource grid that include
6 multiple subcarriers and OFDM symbols. The resource grid represents various
7
8 subframes/slots that can include multiple signals such as synchronization signals and
9 reference signals. The synchronization signals PSS and SSS (first training symbols)
10 are used for time and frequency synchronization steps to identify where the frame
11 begins and ends. Also, the reference signals/symbols (second training symbols) are
12 used for the channel estimation. Similarly, the Accused Products generate a packet (or
13 “frame”) with a size (“LENGTH”) corresponding to a protocol (e.g., 802.11n) used for
14 network transmission. The packet (or “frame”) comprises a preamble (“PLCP
15 Preamble”) having a first training symbol (“Short Training Sequence” or “STS”) in
16 HT-STF field and a second training symbol (“Long Training Sequence” or “LTS”) in
17 HT-LTF fields. The Accused Products increase the size of the packet by adding
18 subcarriers to the second training symbol (“Reference Signal”) to produce an extended
19 packet. The quantity of subcarriers of the second training symbol (“Reference Signal”)
20 is greater than a quantity of subcarriers of the first training symbol (“Synchronization
21 Signals”). Likewise, when utilizing the 802.11 protocols, the Accused Products
22 increase the size of the packet by adding subcarriers to the second training symbol
23 (“LTS”) to produce an extended packet. The quantity of subcarriers of the second
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1 training symbol (“LTS”) is greater than a quantity of subcarriers of the first training
 2 symbol (“STS”). The Accused Products receive the extended packet transmitted via
 3 network and include antennas for transmitting the extended packet.
 4

5 **1. Product Information**

FCC ID:	IKQ-NEXS1
Product name	NEXS1 Single channel Camera
Model number	NEXS1
Power supply	Input: DC 12-24V Output: 5V/2.4A DC 3.7V By lithium ion polymer battery(400mAh)
Operation frequency	IEEE 802.11b:2412-2462MHz IEEE 802.11g:2412-2462MHz IEEE 802.11n HT20:2412-2462MHz Bluetooth: 2402MHz-2480MHz 5.2GHz Band:5180~5240MHz

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10
11 *See Exhibit I* at I-1 (FCC RF Exposure Evaluation for NEXS1 Single Channel
 12 Camera)
 13

14 99. Defendant had knowledge of the '388 patent at least as of April of 2023.

15 100. Since at least April of 2023, Defendant has also indirectly infringed and
 16 continues to indirectly infringe the '388 patent by inducing others to directly infringe
 17 the '388 patent. Defendant has induced and continue to induce customers and end-
 18 users, including, but not limited to, Defendant's customers, employees, partners, or
 19 contractors, to directly infringe, either literally or under the doctrine of equivalents, the
 20 '388 patent by providing or requiring use of the Accused Products. Defendant has
 21 taken active steps, directly or through contractual relationships with others, with the
 22 specific intent to cause them to use the Accused Products in a manner that infringes
 23 one or more claims of the '388 patent, including, for example, claim 1. Such steps by
 24 Defendant has included, among other things, advising or directing customers,
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1 personnel, contractors, or end-users to use the Accused Products in an infringing
2 manner; advertising and promoting the use of the Accused Products in an infringing
3 manner; or distributing instructions that guide users to use the Accused Products in an
4 infringing manner. Defendant has been performing these steps, which constitute
5 induced infringement with the knowledge of the '388 patent and with the knowledge
6 that the induced acts constitute infringement. Defendant has been aware that the
7 normal and customary use of the Accused Products by others would infringe the '388
8 patent. Defendant's inducement is ongoing.

11
12 101. Since at least April of 2023, Defendant has also indirectly infringed and
13 continues to indirectly infringe by contributing to the infringement of the '388 patent.
14 Defendant has contributed and continue to contribute to the direct infringement of the
15 '388 patent by its customers, personnel, and contractors. The Accused Products have
16 special features that are specially designed to be used in an infringing way and that
17 have no substantial uses other than ones that infringe one or more claims of the '388
18 patent, including, for example, claim 1. The special features constitute a material part
19 of the invention of one or more of the claims of the '388 patent and are not staple
20 articles of commerce suitable for substantial non-infringing use. Defendant's
21 contributory infringement is ongoing.

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25 102. Furthermore, on information and belief, Defendant has a policy or practice
26 of not reviewing the patents of others, including instructing its employees to not review
27 the patents of others, and thus have been willfully blind of FCS's patent rights.
28

1 103. Defendant's actions are at least objectively reckless as to the risk of
2 infringing a valid patent and this objective risk was either known or should have been
3 known by Defendant.
4

5 104. Defendant's infringement of the '388 patent is, has been, and continues to
6 be willful, intentional, deliberate, or in conscious disregard of FCS's rights under the
7 patent.
8

9 105. FCS has been damaged as a result of the infringing conduct by Defendant
10 alleged above. Thus, Defendant is liable to FCS in an amount that compensates it for
11 such infringements, which by law cannot be less than a reasonable royalty, together
12 with interest and costs as fixed by this Court under 35 U.S.C. § 284.
13

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

25 **(Infringement of United States Patent No. 8,005,053)**

26 107. FCS repeats and re-alleges the allegations in Paragraphs 1-46 as though fully
27 set forth in their entirety.
28

1 108. The United States Patent and Trademark Office (“USPTO”) duly issued the
2 ’053 patent on August 23, 2011, after full and fair examination of Application No.
3 12/696,760, which was filed on January 29, 2010. *See Ex. G.*

4
5 109. FCS owns all substantial rights, interest, and title in and to the ’053 patent,
6 including the sole and exclusive right to prosecute this action and enforce the ’053
7 patent against infringers and to collect damages for all relevant times.

8
9 110. The claims of the ’053 patent are not directed to an abstract idea and are not
10 limited to well-understood, routine, or conventional activity. Rather, the claimed
11 inventions include inventive components that improve upon the function and operation
12 of voice and data communications systems.

13
14 111. The written description of the ’053 patent describes in technical detail each
15 limitation of the claims, allowing a skilled artisan to understand the scope of the claims
16 and how the non-conventional and non-generic combination of claim limitations is
17 patently distinct from and improved upon what may have been considered conventional
18 or generic in the art at the time of the invention.

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21 112. Defendant has directly infringed the ’053 patent by importing, selling,
22 manufacturing, offering to sell, using, providing, supplying, or distributing the
23 Accused Products.

24
25 113. Defendant has directly infringed, either literally or under the doctrine of
26 equivalents, at least claim 10 of the ’053 patent. For example, Defendant performs a
27 method comprising a communication device storing data encoded for a plurality of
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1 different wireless protocols, the communication device including a plurality of wireless
2 transceivers, each of which is configured to transmit data according to a corresponding
3 one of the plurality of different wireless protocols where the communication device
4 selects one of the plurality of different wireless protocols and encodes data of an
5 unselected one of the plurality of different wireless protocols into the selected wireless
6 protocol, and transmits the encoded data using the one of the plurality of wireless
7 transceivers corresponding to the selected wireless protocol.
8
9

10 114. More specifically, and as just one example of infringement, Defendant's
11 conduct has comprised using the Accused Products, which are adapted for wireless
12 communications using Wi-Fi and/or LTE and/or Bluetooth. 3GPP Technical Report
13 (TR) 36.816 v1.0.0 (2010-11), Release 10 and 3GPP Technical Specification (TS)
14 36.300 V11.4.0 (2012-12) sets forth the mechanism of in-device coexistence within
15 the same user equipment (UE). The Accused Products ("communication device") are
16 equipped with multiple radio transceivers. The multiple radio transceivers include
17 LTE, Wi-Fi/Bluetooth transceiver ("plurality of wireless transceivers"). The UE
18 including the Wi-Fi/Bluetooth transceiver communicates data using the 802.11
19 protocol or 802.15.1 ("wireless protocols"). Further, 3GPP Technical Specification
20 (TS) 36.300 V11.4.0 (2012-12), Release 11 shows that the UE including the LTE
21 transceiver communicates data using the E-UTRAN protocol stack ("wireless
22 protocols"). Also, the UE stores data encoded for a plurality of different wireless
23 protocols. Further, 3GPP Technical Specification (TS) 36.331 V11.2.0 (2012-12),
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1 Release 11 and 3GPP Technical Specification (TS) 23.402 V11.8.0 (2013-12), Release
2 11 shows that UE and E-UTRAN exchange assistance parameters via dedicated RRC
3 signaling. The UE uses the RAN suggested assistance parameters/policies for data
4 traffic steering decisions between E-UTRAN and WLAN. The access network
5 selection and traffic steering between 3GPP access and non-3GPP access such as
6 WLAN is provided using a network element such as ‘Access Network Discovery and
7 Selection Function (ANDSF)’. The ANDSF provides various types of information to
8 the UE such as inter-system mobility policy, inter-system routing policy, network
9 access discovery information, etc. For example, the ANDSF assist the UE to use
10 operator defined inter-system routing policies or rules to discover and select the most
11 preferable access technology such as cellular or WLAN (“selecting one of the plurality
12 of different wireless protocols”) for data communication. When using Wi-Fi and
13 Bluetooth, the Accused Products are configured to encode data for the unselected
14 protocol (e.g., Bluetooth) into data for the selected protocol (e.g., the WLAN or the
15 cellular). When using LTE cellular and another standard protocol such as Wi-Fi or non-
16 LTE cellular, the Accused Products are configured to encode data for the unselected
17 protocol (e.g., cellular) into data for the selected protocol (e.g., the WLAN). Before
18 data transmission, the UE would encode the data of the wireless protocol for the
19 unselected transceiver (i.e., Wi-Fi or LTE) into data of the wireless protocol for the
20 selected transceiver (i.e., Wi-Fi or LTE). 3GPP Technical Report (TR) 36.816 v1.0.0
21 (2010-11), Release 10 shows that when UE (“communication device”) transmits data
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1 using Wi-Fi protocol, UE would encode the data of the LTE or cellular protocol into
 2 data of the Wi-Fi protocol.



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10 (Source: <https://fccid.io/IKQ-NEXS1/Internal-Photos/Internal-photos-4666093>)

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12 **1. Product Information**

FCC ID:	IKQ-NEXS1
Product name	NEXS1 Single channel Camera
Model number	NEXS1
Power supply	Input: DC 12-24V Output: 5V/2.4A DC 3.7V By lithium ion polymer battery(400mAh)
Operation frequency	IEEE 802.11b:2412-2462MHz IEEE 802.11g:2412-2462MHz IEEE 802.11n HT20:2412-2462MHz Bluetooth: 2402MHz-2480MHz 5.2GHz Band:5180~5240MHz

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18 See **Exhibit I** at I-1 (FCC RF Exposure Evaluation for NEXS1 Single Channel
 19 Camera)

20
 21 115. FCS or its predecessors-in-interest have satisfied all statutory obligations
 22 required to collect pre-filing damages for the full period allowed by law for
 23 infringement of the '053 patent.

24
 25 116. FCS has been damaged as a result of the infringing conduct by Defendant
 26 alleged above. Thus, Defendant is liable to FCS in an amount that compensates it for
 27 such infringements, which by law cannot be less than a reasonable royalty, together
 28

1 with interest and costs as fixed by this Court under 35 U.S.C. § 284.
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3

4 **DEMAND FOR JURY TRIAL**

5 117. FCS hereby requests a trial by jury on all issues so triable by right.
6

7 **PRAYER FOR RELIEF**

8 118. WHEREFORE, FCS requests that the Court find in its favor and against
9 Defendant, and that the Court grant FCS the following relief:

- 10 a. Judgment that one or more claims of each of the Asserted Patents has been
11 infringed, either literally or under the doctrine of equivalents, by Defendant
12 or others acting in concert therewith;
13
14 b. A permanent injunction enjoining Defendant and its officers, directors,
15 agents, servants, affiliates, employees, divisions, branches, subsidiaries,
16 parents, and all others acting in concert therewith from infringement of the
17 '040 patent, the '153 patent, the '845 patent, and the '388 patent; or, in the
18 alternative, an award of a reasonable ongoing royalty for future infringement
19 of the Asserted Patents by such entities;
20
21 c. Judgment that Defendant account for and pay to FCS all damages to and
22 costs incurred by FCS because of Defendant's infringing activities and other
23 conduct complained of herein;
24
25 d. Judgment that Defendant's infringements of the '040 patent, the '153 patent,
26 the '845 patent, and the '388 patent be found willful, and that the Court
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1 award treble damages for the period of such willful infringement pursuant to
2 35 U.S.C. § 284;

3
4 e. Pre-judgment and post-judgment interest on the damages caused by
5 Defendant's infringing activities and other conduct complained of herein;

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

8
9 g. All other and further relief as the Court may deem just and proper under the
10 circumstances.

1 Dated: November 3, 2023

Respectfully submitted,

3 By: /s/ Travis E. Lynch

4 Travis E. Lynch (SBN 335684)

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10 *Attorneys for Plaintiff Fleet Connect
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11 **List of Exhibits**

- 12 A. US Patent 6,549,583
13 B. US Patent 6,633,616
14 C. US Patent 7,058,040
15 D. US Patent 7,260,153
16 E. US Patent 7,656,845
17 F. US Patent 7,742,388
18 G. US Patent 8,005,053
19 H. NEXC1 - 80211 and BT
20 I. NEXS1 - 80211 and BT
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