

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN SOUTHERN DIVISION**

In Re Neo Wireless, LLC Patent Litigation	2:22-MD-03034-TGB Hon. Terrence G. Berg
Neo Wireless, LLC v. Ford Motor Company	2:22-CV-11402-TGB
Neo Wireless, LLC v. American Honda Motor Co., Inc., et al.	2:22-CV-11403-TGB
Neo Wireless, LLC v. Volkswagen Group of America, Inc., et al.	2:22-CV-11404-TGB
Neo Wireless, LLC v. Nissan North America Inc., et al.	2:22-CV-11405-TGB
Neo Wireless, LLC v. Toyota Motor Corporation, et al.	2:22-CV-11406-TGB
Neo Wireless, LLC v. General Motors Company, et al.	2:22-CV-11407-TGB
Neo Wireless, LLC v. Tesla Inc.	2:22-CV-11408-TGB
Neo Wireless, LLC v. Mercedes-Benz USA, LLC	2:22-CV-11769-TGB
Neo Wireless, LLC v. FCA US LLC	2:22-CV-11770-TGB

DEFENDANTS' PROPOSED INTERPRETATIONS

Defendants General Motors Co.; General Motors LLC; Ford Motor Co.; Am. Honda Motor Co., Inc., Honda Development & Mfg. of Am., LLC; Nissan N. Am. Inc.; Nissan Motor Acceptance Corp. a/k/a Nissan Motor Acceptance Co. LLC; Tesla Inc.; FCA US LLC; Mercedes-Benz USA, LLC; Toyota Motor Corp.; Toyota Motor N. Am. Inc.; Toyota Motor Sales, USA Inc.; Toyota Motor Eng. & Mfg. N. Am. Inc.; Toyota Motor Credit Corp. (together “Defendants”)¹ provide the following proposed constructions and supporting evidence to Plaintiff Neo Wireless, LLC (“Neo Wireless” or “Plaintiff”) for U.S. Patent Nos. 8,467,366 (“the ’366 patent”), 10,833,908 (“the ’908 patent”), 10,075,941 (“the ’941 patent”), 10,447,450 (“the ’450 patent”), 10,965,512 (“the ’512 patent”), and 10,771,302 (“the ’302 patent”) (collectively, the “Asserted Patents”).

Defendants’ constructions of the terms, phrases, and/or clauses, as well as the intrinsic and extrinsic evidence identified in the charts below, are based on their current knowledge, their current understanding of the preliminary infringement allegations put forth by Plaintiff, and their investigations to date. Defendants’ investigation of these terms, clauses, or phrases is preliminary, and Defendants reserve the right to supplement, revise, modify, or otherwise finalize their proposed constructions based upon information learned through the course of discovery or otherwise. Defendants also reserve the right to supplement, revise, modify, or otherwise finalize these constructions in response to Plaintiff’s proposed constructions, as well as in response to any meeting or conference regarding claim construction, or any further changes or amendments to the parties’ infringement or invalidity contentions. Defendants also reserve the right to supplement their preliminary claim constructions with evidence or expert testimony, including in rebuttal to

¹ Volkswagen Grp. of Am., Inc. and Volkswagen Grp. of Am. Chattanooga Operations, LLC, do not take a position on the initial identification of disputed terms or the construction of any disputed terms.

Plaintiff's preliminary or subsequent claim constructions. Inclusion of evidence as extrinsic below does not preclude the same evidence from being considered as intrinsic evidence.

Defendants reserve the right to modify, supplement, or amend their list of claim terms, phrases, clauses, and/or constructions set forth below. Additionally, Defendants reserve the right to separately request construction of portions of the identified claim terms, phrases, and/or clauses. For example, these proposed claim constructions are based on Plaintiff's current infringement contentions. Should Plaintiff amend its infringement contentions, or should other claims otherwise become relevant, Defendants reserve the right to propose new claim constructions as required. Should Plaintiff seek an improper interpretation of a term, phrase, and/or clause that has not been identified by the parties, Defendants reserve the right to seek the construction of that term, phrase, and/or clause. Defendants further reserve the right to identify additional extrinsic evidence to rebut the proposed constructions of Plaintiff.

The claim terms, phrases, and/or clauses are generally identified at least with respect to the patent where such terms, phrases, and/or clauses occur. Unless otherwise indicated below, any additional occurrence, including in related asserted patents, of a listed claim term, phrase, and/or clause is intended to receive the same construction as the listed term, phrase, and/or clause, regardless of whether the later occurrence is also listed below. To the extent the claim terms, phrases, and/or clauses set forth herein include particular terms, phrases, and/or clauses appropriate to be construed separately, such terms, phrases, and/or clauses are deemed part of this disclosed list. Similarly, to the extent it is appropriate to construe terms, phrases, and/or clauses listed herein in the context of additional claim language, such additional language is deemed part of this disclosure. Further, the inclusion of any claim terms, phrases, and/or clauses on this list is not intended, and should not be construed to mean, that any such terms, phrases, and/or clauses have

a special or uncommon meaning.

Defendants' claim constructions shall not act as a waiver of any defense of noninfringement, invalidity, or unenforceability of any of Plaintiff's Asserted Patents. Notwithstanding the claim constructions contained herein of any term, phrase, and/or clause, Defendants expressly reserve the right to challenge the validity of any or all claims in Plaintiff's Asserted Patents on all possible grounds.

Defendants' identification of a claim term, phrase, or clause should not be interpreted as an admission that any associated claim satisfies the written description, enablement, or definiteness requirements pursuant to 35 U.S.C. § 112. Defendants thus reserve all rights to assert that terms or phrases in the patents-in-suit are invalid under 35 U.S.C. § 112, including without limitation the term and phrases listed in this identification disclosure. Defendants reserve the right to contest any such terms and the validity of any claim of the patents-in-suit.

Any supplement and/or amendment that adds or removes any proposed construction does not constitute an admission that Defendants believe those claim terms have, or do not have, a specialized meaning separate from each term's plain and ordinary meaning to one of ordinary skill in the art. Defendants reserve the right to contend that one or more discrete terms, phrases, or clauses within or surrounding any phrase or clause listed below should be construed rather than or in addition to the entire phrase or clause identified below. Similarly, Defendants reserve the right to contend that a phrase or clause should be construed rather than discrete term listed below that appears within or surrounding that phrase or clause.

Subject to the above reservations, Defendants construe the following claim terms, phrases, and/or clauses, as follows:

I. APPLICABLE TO MULTIPLE PATENTS

Term	Patent(s) & Claim(s)	Construction	Supporting Evidence
Entire preamble of independent claims ²	'302 pat., cl. 23 '366 pat., cl. 1 & 17 '450 pat., cl. 7 '512 pat., cls. 15 & 23 '908 pat., cl. 1 '941 pat., cls. 8 & 13	The entire preambles of the independent claims are limiting	<u>'450 Patent</u> <i>Neo Wireless LLC v. Dell Techs. Inc.</i>, Case No. 6:21-cv-0024, Dkt. No. 56, Exhibit A at, <i>e.g.</i>, p. 2. '450 pat. at, <i>e.g.</i>, claims 7, 11, FIG. 1, FIG. 3, 3:35-4:15, 4:16-5:22, 5:24-7:54, 9:51-67 <u>'941 Patent</u> '941 pat. at, <i>e.g.</i>, claims 8, 10, 12-14, FIG. 2, FIG. 3, 1:34-43, 1:56-2:3, 2:12-29, 2:50-55, 3:12-22, 3:27-4:38, 4:39-5:27, 6:50-7:38, 7:59-8:3 <i>Neo Wireless LLC v. Dell Techs. Inc.</i>, Case No. 6:21-cv-0024, Dkt. No. 56, Exhibit A at, <i>e.g.</i>, pp. 2-3. <u>'908 Patent</u> '908 pat. at, <i>e.g.</i>, claims 1-10, 5:36, 5:64, 5:67, 6:26-31, 6:38, 6:48, 7:8-23, 8:35, 8:39, 8:41, 8:43, 8:46, 8:48, 8:49, 8:55, 8:57, 8:65, 9:1, 9:5, 9:11, 9:25, 9:30, 9:36, 9:38, 10:14, 10:18, 10:20, 10:59, 10:61-62, 10:63, 10:67, 11:43-44 <i>Neo Wireless LLC v. Dell Techs. Inc.</i>, Case No. 6:21-cv-0024, Dkt. No. 45 at, <i>e.g.</i>, pp. 27-28 (citing '908 Patent, 5:36, 5:64, 5:67, 6:26-

² This term covers terms nos. 1, 2, 3, 5, 9, 12, 16, 17, 19 in Plaintiff's December 7, 2022 Initial Identification of Claim Terms.

Term	Patent(s) & Claim(s)	Construction	Supporting Evidence
			31, 6:38, 6:48, 7:8-23, 8:35, 8:39, 8:41, 8:43, 8:46, 8:48, 8:49, 8:55, 8:57, 8:65, 9:1, 9:5, 9:11, 9:25, 9:30, 9:36, 9:38, 10:14, 10:18, 10:20, 10:59, 10:61-62, 10:63, 10:67) • <i>Neo Wireless LLC v. Dell Techs. Inc.</i>, Case No. 6:21-cv-0024, Dkt. No. 45, Exhibit at, <i>e.g.</i>, ¶¶55-57 (Declaration of William Alberth) • <i>Neo Wireless LLC v. Dell Techs. Inc.</i>, Case No. 6:21-cv-0024, Dkt. No. 54 at, <i>e.g.</i>, pp. 14-15 • <i>Neo Wireless LLC v. Dell Techs. Inc.</i>, Case No. 6:21-cv-0024, Dkt. No. 56, Exhibit B at, <i>e.g.</i>, p. 4 <u>'366 Patent</u> • '366 pat. at, <i>e.g.</i>, claims 1-5, 17, 21, 1:24-32, 1:47-53, 2:40-44, 3:17-26, 4:45-47, 7:6, 7:8-12, 7:19-21, 7:52, 8:43-46, 8:51-54, 8:67, FIG. 3 • <i>Neo Wireless LLC v. Dell Techs. Inc.</i>, Case No. 6:21-cv-0024, Dkt. No. 56, Exhibit A at, <i>e.g.</i>, pp. 1-2 <u>'302 Patent</u> • '302 pat. at, <i>e.g.</i>, claims 23, 24, 26-29, abstract, 2:10-15, 2:29-31, 3:6-11, 3:63-65, 4:6-14, 4:50-5:8, 6:15-20, 8:13-41, 9:5-17, 9:39-52 12:28-64, FIGs. 8, 10, 11, 17 <u>'512 Patent</u>

Term	Patent(s) & Claim(s)	Construction	Supporting Evidence
			'512 pat. at, <i>e.g.</i>, claims 15, 20, 21, 23, 28, 29, 3:55-65, 3:66-4:30, 4:48-63, 8:11-24, 10:64-12:45, FIGs. 3, 10 <u>Applicable to all patents</u> - Declaration may be submitted by claim construction expert
“configured to”	'302 pat., cl. 23 '366 pat., cl. 1 & 5 '450 pat., cl. 7 '512 pat., cl. 15 '908 cls. 1, 2, 3, & 9 '941 pat., cls. 13 & 14	“designed to”	'366 pat. at, <i>e.g.</i>, Abstract, 2:40-46, 3:52-56, 4:33-48; Figs. 3, 7; cls. 1, 5, 9, 12, 15, 16 '941 pat. at, <i>e.g.</i>, 1:44-2:7, 2:33-49, 3:62-4:4, 6:50-53, 7:10-24; Figs. 1, 4, 5, 8; cls. 6, 7, 13, 14 '450 pat. at, <i>e.g.</i>, 5:6-22, 8:20-26, 8:55-9:3; Figs. 1, 2, 6, 9, 10A-10C; cls. 7, 13 '302 pat. at, <i>e.g.</i>, Abstract, 2:55-3:5, 3:63-4:14, 5:55-67, 6:21-35, 7:8-8:11, 8:51-64, 9:27-38; Figs. 2, 4, 5, 9, 11, 12-15; cls. 1, 15, 23, 25, 30, 31 '908 pat. at, <i>e.g.</i>, Abstract, 2:57-3:8, 4:6-24, 6:1-12, 6:33-48, 7:25-8:29, 9:5-19, 9:50-61; Figs. 2, 4, 5, 9, 11, 12-15; cls. 1, 2, 3, 9, 21, 22, 23, 29 '512 pat. at, <i>e.g.</i>, Abstract, 3:4-45, 5:33-67, 8:25-55, 8:57-64; Figs. 1, 4-5, 6, 8-12; cls. 1, 15, 22 - Provisional application No. 60/544,521, filed on Feb. 13, 2004, at, <i>e.g.</i>, 1-2 - Provisional application No. 60/721,451, filed on Sep. 28, 2005, at, <i>e.g.</i>, 1-3, 5-7, 10 - Provisional application No. 60/540,586, filed on Jan. 30, 2004, at, <i>e.g.</i>, 1-2, 6-8 - Provisional application No. 60/540,032, filed on Jan. 29, 2004, at, <i>e.g.</i>, 1-3, 6, 9

Term	Patent(s) & Claim(s)	Construction	Supporting Evidence
			• '302 pat. prosecution file history at Nov. 7, 2019 Response to Office Action, at, <i>e.g.</i>, 7-9 • Thomas' Concise Telecom & Networking Dictionary, at 57 (2000) • Modern Dictionary of Electronics, at, <i>e.g.</i>, 146 (7th ed. 1999) • Bloomsbury English Dictionary, at, <i>e.g.</i>, 396 (2nd ed. 2004) • Newton's Telecom Dictionary, at, <i>e.g.</i>, 210 (20th ed. 2005) • The American Heritage Dictionary of the English Language, at 386 (4th ed. 2000) • Declaration may be submitted by claim construction expert
“uplink control signals”	'302 pat., cl. 23 and 29 '908 pat. cl. 7	For '908 patent: “control signals transmitted from the mobile station to the base station” For '302 patent: “control signals transmitted from the mobile device to the base station”	• '908 pat. at, <i>e.g.</i>, 2:17-18, 6:26-31, 8:15-9:4, FIGS. 10, 11, 15, 16 • '302 pat. at, <i>e.g.</i>, Abstract, 2:25-28, 7:61-8:11, 8:13-50, 10:50-64, 11:9-33, 11:46-50, 11:56-12:3, 12:21-42, 12:55-13:11, 14:6-16, FIGs. 10-11, 15-16 • NEO-MDL_PA003633-4326 at, <i>e.g.</i>, -4048 and -4085 (Gibson) • NEO-AUTO_PA004101-4154 at, <i>e.g.</i>, -4106 (Huang) • Declaration may be submitted by claim construction expert

II. '908 PATENT

'908 Pat. Term	Claim(s)	Construction	Supporting Evidence
"associated with"	Cl. 1, 2, 9	"identifying"	'908 pat. at, <i>e.g.</i>, 8:45-55, claims 1, 2, 9, 11, 12, 19, 21, 22, 29; <i>Dell Inc. v. Neo Wireless LLC</i>, IPR2022-00277, Paper No. 10, Dec. Denying <i>Inter Partes</i> Review, at, <i>e.g.</i>, 29-34 (P.T.A.B. Jun. 21, 2022); - Pat. Owner's Prelim. Resp. at, <i>e.g.</i>, 31-38, <i>Dell Inc. v. Neo Wireless LLC</i>, IPR2022-00277; - Ex. 2001 to Pat. Owner's Prelim. Resp. (Decl. of William P. Alberth, Jr.) at, <i>e.g.</i>, ¶ 33, <i>Dell Inc. v. Neo Wireless LLC</i>, IPR2022-00277. - Declaration may be submitted by claim construction expert
"random access signal"	Cls. 1, 2, 4, 6-9	"direct sequence spread spectrum signal"	'908 pat. at, <i>e.g.</i>, 2:5-38, 2:42-57, 2:61-64, 4:16-24, 4:41-5:1, 6:1-37, 7:1-3, 7:8-10, 7:45-53, 7:54-56, 7:66-8:7, 8:15-20, 8:34-35, 8:37-44, 9:17-18, 9:23-24, 9:29-32, 9:62-64, 10:4-8; 10:13-14 - U.S. Pat. 10,826,740 prosecution file history at Office Action Response dated Sept. 11, 2020 at, <i>e.g.</i>, 11-13 - Patil et al, IP in Wireless Networks, at, <i>e.g.</i>, 56-67 (Pearson ed. 2003) - Stephens et al., Direct-Sequence Spread Spectrum System, IEEE, at, <i>e.g.</i>, 462-63 (May 1991)

'908 Pat. Term	Claim(s)	Construction	Supporting Evidence
			- Pursley, <i>Direct-Sequence Spread-Spectrum Communications for Multipath Channels</i>, 50 IEEE Transactions on Microwave Theory & Techniques, at, <i>e.g.</i>, 653-55 (Mar. 2002) - Martin et al., Efficient Modulation Methods Study at NASA/JPL, Space Freq. Coordination Grp., at, <i>e.g.</i>, 30-31 (Sept. 1999) - Macleod, Coding, <i>in</i> Telecommunications Engineer's Reference Book ch. 14 (1993) - Declaration may be submitted by claim construction expert
"wherein the portion of the frequency band used for transmission of the random access signal does not include control channels"	Cl. 4	"wherein the portion of the frequency band used for transmission of the random access signal does not include channels carrying control information"	'908 pat. at, <i>e.g.</i>, 8:12-14, 8:16-29, 8:34-44, 8:56-58, Figs. 10, 15, claims 4, 7. - Declaration may be submitted by claim construction expert

III. '302 PATENT

'302 Pat. Term	Claim(s)	Construction	Supporting Evidence
"a receiver configured to receive a request for a probing signal from a base station in the system"	Cl. 23	"a receiver configured to receive a request for a probing signal from a base station in the Orthogonal Frequency Division Multiplexing (OFDM) communication system"	'302 pat. at, <i>e.g.</i>, FIGs. 3-4, 1:39-44, 3:6-8, 3:63-66, 4:6-13, 10:50-64, 11:19-34, 11:56-12:3, 12:28-42. 12:65-13:12. - Declaration may be submitted by claim construction expert

'302 Pat. Term	Claim(s)	Construction	Supporting Evidence
“the probing signal is configured to overlap, in the time domain, with uplink signals transmitted over an uplink frequency band by other mobile devices in the system”	Cl. 23	“the probing signal is configured to overlap, in the time domain, with uplink signals transmitted over an uplink frequency band by other mobile devices in the Orthogonal Frequency Division Multiplexing (OFDM) communication system”	• '302 pat. at, <i>e.g.</i>, FIGs. 3-4, 1:39-44, 3:6-8, 3:63-66, 4:6-13, 10:50-64, 11:19-34, 11:56-12:3, 12:28-42. 12:65-13:12. • Declaration may be submitted by claim construction expert
“the probing signal is configured to occupy a portion of spectrum in the uplink frequency band not designated for transmission of uplink control signals in the system”	Cl. 23	“the probing signal is configured to occupy a portion of spectrum in the uplink frequency band not overlapping for transmission of uplink control signals in the Orthogonal Frequency Division Multiplexing (OFDM) communication system”	• '302 pat. at, <i>e.g.</i>, FIGs. 3-4, 1:39-44, 3:6-8, 3:63-66, 4:6-13, 10:50-64, 11:19-34, 11:56-12:3, 12:28-42. 12:65-13:12. • Declaration may be submitted by claim construction expert
“a transmitter configured to form and transmit, in response to the received request, the probing signal with a code	Cl. 23	Subject to 35 U.S.C. § 112, ¶ 6 Function: “form and transmit, in response to the received request, the probing signal with a code sequence modulated in the frequency domain”	• '302 pat. at, <i>e.g.</i>, Abstract, 1:28-38, 2:6-7, 2:39-67, 3:1-5, 4:9-7:60, 8:12-23, 8:65-9:52, Figures 5-14, 17-18, claim 23 • '302 pat. prosecution file history at, <i>e.g.</i>, Office Action dated Nov. 20, 2019 at 2-3; Office Action Response dated Nov. 7, 2019 at 7-9; Office Action dated May 7, 2019 at, <i>e.g.</i>, 2 • Newnes Dictionary of Electronics, at, <i>e.g.</i>, 329 (4th ed. 2002)

'302 Pat. Term	Claim(s)	Construction	Supporting Evidence
sequence modulated in the frequency domain” ³		Structure: A special-purpose computer configured to perform at least the following algorithm: 1. apply a spreading function to a code sequence to generate a direct sequence spread spectrum (DSSS) signal, wherein the DSSS signal is the probing signal 2. apply pulse-shape filtering to the DSSS signal so that the DSSS signal meets predetermined criteria 3. adjust the transmitted signal level of the DSSS signal 4. modulate a characteristic of the DSSS signal in the frequency domain	• IEEE Standard Dictionary of Electrical and Electronics Terms, at, <i>e.g.</i>, 1140 (6th ed. 1996) • Merriam-Webster’s Collegiate Dictionary, at, <i>e.g.</i>, 1251 (10th ed. 2001) • Declaration may be submitted by claim construction expert

³ Mercedes-Benz USA, LLC, General Motors Co., General Motors LLC, Tesla Inc., FCA US LLC, Am. Honda Motor Co., Inc., Honda Development & Mfg. of Am., LLC, Nissan N. Am. Inc., and Nissan Motor Acceptance Corp. a/k/a Nissan Motor Acceptance Co. LLC, do not take a position on the proposed construction of this term.

'302 Pat. Term	Claim(s)	Construction	Supporting Evidence
		5. transmit the modulated DSSS signal in response to the received request	
“probing signal”	Cls. 23, 24, 26, and 28	“direct sequence spread spectrum signal”	• '302 pat. at, <i>e.g.</i>, 1:28-33, 2:1:35, 2:39-67, 4:9-14, 4:28-42, 4:45-55, 4:61-5:11, 5:18-43, 5:55-67, 6:1-24, 6:41-57, 6:59-7:17, 7:26-60, 7:64-8:46, 8:51-64, 8:66-9:17, 9:22-26, 9:35-67 • '302 pat. prosecution file history at Office Action Response dated Nov. 7, 2019 at, <i>e.g.</i>, 7-10 • U.S. Pat. 9,948,488 prosecution file history at Office Action Response dated Aug. 4, 2015 at, <i>e.g.</i>, 8-15 • '488 pat. prosecution file history at Final Office Action Response dated Mar. 18, 2016 at, <i>e.g.</i>, 7-9 • Patil et al, IP in Wireless Networks, at, <i>e.g.</i>, 56-67 (Pearson ed. 2003) • Stephens et al., Direct-Sequence Spread Spectrum System, IEEE, at, <i>e.g.</i>, 462-63 (May 1991) • Pursley, <i>Direct-Sequence Spread-Spectrum Communications for Multipath Channels</i>, 50 IEEE Transactions on Microwave Theory & Techniques, at, <i>e.g.</i>, 653-55 (Mar. 2002) • Martin et al., Efficient Modulation Methods Study at NASA/JPL, Space Freq. Coordination Grp., at, <i>e.g.</i>, 30-31 (Sept. 1999)

'302 Pat. Term	Claim(s)	Construction	Supporting Evidence
			• Macleod, Coding, <i>in</i> Telecommunications Engineer's Reference Book ch. 14 (1993) • Declaration may be submitted by claim construction expert

IV. '941 PATENT

'941 Pat. Term	Claim(s)	Construction	Supporting Evidence
"the antenna transmission scheme comprising a transmission diversity scheme or a multiple-input multiple-output (MIMO) scheme"	Cls. 8 and 13	"the mobile-station specific transmission parameters alternatively indicate an antenna transmission scheme that comprises a MIMO scheme or an antenna transmission scheme comprising a transmission diversity scheme other than MIMO, wherein the antenna transmission scheme is capable of comprising either a MIMO scheme or a transmission diversity scheme other than MIMO. To avoid any doubt, this requires supporting both MIMO and non-MIMO transmission diversity systems."	• '941 pat. at, <i>e.g.</i>, 6:60-67, 7:33-38 • U.S. Patent Application No. 15/082,878, Response to Non-Final Office Action dated October 12, 2017 at, <i>e.g.</i>, 2-6, 8-9 • U.S. Patent No. 7,436,757 (Wilson) at, <i>e.g.</i>, 1:13-16, 3:41-54, 6:4-15, Fig. 2 • IPR2021-01468 Paper 9 at 1-2, Ex. 2015 • Case No. 6:21-cv-00024-ADA, Dkt. 54 at 11 • U.S. Patent No. 6,802,035 (Catreux) at, <i>e.g.</i>, 1:47-51, 4:28-38; 4:65-5:4, 5:66-6:31, Figs. 1-3 • U.S. Patent No. 6,952,454 (Jalali) at, <i>e.g.</i>, 5:20-26, 7:47-8:7, 9:39-10:45, Fig. 1 • Declaration may be submitted by claim construction expert

'941 Pat. Term	Claim(s)	Construction	Supporting Evidence
“the mobile station-specific transmission parameters indicate ... a corresponding subchannel configuration ... the corresponding subchannel configuration characterized by distributed subcarriers or localized subcarriers in the frequency domain” ⁴	Cls. 8 and 13	“the mobile station-specific transmission parameter alternatively indicates either distributed subcarriers or localized subcarriers in the frequency domain as subchannel configurations”	• '941 pat. at, <i>e.g.</i>, 3:51-53, 3:66-4:4, 6:50-53, 7:1-24 • U.S. Patent Application No. 15/082,878, Response to Non-Final Office Action dated October 12, 2017 at, <i>e.g.</i>, 2-6, 8-9 • IPR2021-01468 Paper 12 at, <i>e.g.</i>, 10-19; Ex. 2011 at, <i>e.g.</i>, 16-17; Ex. 2014 at, <i>e.g.</i>, 23-25; Ex. 2016 at, <i>e.g.</i>, 13-14 • IPR2021-01468 at Paper 9 • Case No. 6:21-cv-00024-ADA, Dkt. 44 at, <i>e.g.</i>, 16-17; Dkt. 45 at, <i>e.g.</i>, 23-25; Dkt. 48 at, <i>e.g.</i>, 13-14; Dkt. 54 at, <i>e.g.</i>, 11-13; Dkt. 83 at, <i>e.g.</i>, 3-7; Dkt. 92 at, <i>e.g.</i>, 3-8 • Declaration may be submitted by claim construction expert

V. '366 PATENT

'366 Pat. Term	Claim(s)	Construction	Supporting Evidence
“the ranging signal exhibits a low peak-to-average power ratio in the time domain”	Cls. 1 and 17	indefinite	• '366 pat. at, <i>e.g.</i>, 4:24-38 • Prosecution History of U.S. Patent Application No. 16/544,201, at December 21, 2020 Office Action at, <i>e.g.</i>, p. 2; March 22, 2021 Response at, <i>e.g.</i>, pp. 2-11, 14-15

⁴ This term corresponds to terms nos. 11 and 14 in Plaintiff’s December 7, 2022 Initial Identification of Claim Terms.

'366 Pat. Term	Claim(s)	Construction	Supporting Evidence
			• Prosecution History of U.S. Patent Application No. 13/246,677: April 19, 2013 Office Action at, <i>e.g.</i>, pp. 4-5; October 21, 2013 Response at, <i>e.g.</i>, p. 16; October 31, 2013 Office Action at, <i>e.g.</i>, pp. 4-7; April 30, 2014 Response at, <i>e.g.</i>, pp. 13-16; May 12, 2014 Office Action at, <i>e.g.</i>, pp. 4-9; December 15, 2014 Notice of Abandonment • Richard van Nee & Ramjee Prasad, OFDM for Wireless Multimedia Communications (2000) • Ye Li & Gordon Stüber, Orthogonal Frequency Division Multiplexing for Wireless Communications (2006) • <i>Neo Wireless LLC v. Dell Techs. Inc.</i>, Case No. 6:21-cv-0024, Dkt. No. 44, Exhibit D at, <i>e.g.</i>, ¶¶23-29 (Declaration of James Proctor) • <i>Neo Wireless LLC v. Dell Techs. Inc.</i>, Case No. 6:21-cv-0024, Dkt. No. 48, Exhibit A at, <i>e.g.</i>, ¶¶8-12 (Declaration of James Proctor) • Declaration may be submitted by claim construction expert
“a ranging sequence selected from a set of ranging sequences”	Cls. 1 and 17	“a ranging sequence selected by the mobile station from a set of ranging sequences”	• '366 pat. at, <i>e.g.</i>, 1:24-35, 1:40-42, 1:52-56, 2:33-38, 2:42-44, 3:43-47, 3:57-4:5, 5:10-18, 5:19-26, 7:6-7, 7:16-17, 8:40-41, 8:49-50, Figs. 3, 5, 6, claims 1, 3, 17 • Declaration may be submitted by claim construction expert

'366 Pat. Term	Claim(s)	Construction	Supporting Evidence
“the communication channel”	Cls. 1 and 17	“the communication channel in the OFDMA wireless communication system used by a mobile station to communicate with the serving base station”	• '366 pat. at, <i>e.g.</i>, Abstract, 1:24–47, 1:59–2:4, 2:11–13, 2:47–3:26, 3:39–4:5, 4:60–6:20, Figs. 1–4, 5, 8, claims 1–3, 9–11, 17, 22; • Prosecution History of US Pat. App. No. 13/205,579: March 6, 2013 Notice of Allowance at, <i>e.g.</i>, 2; • Prosecution History of US Pat. App. No. 17/678,562: May 13, 2022 Office Action Summary at, <i>e.g.</i>, 1–10; • Prosecution History of US Pat. App. No. 15/425,735: Jan. 8, 2018 Preliminary Amendment at, <i>e.g.</i>, 1–10; Dec. 28, 2018 Amendment and Response to Non-Final Office Action at, <i>e.g.</i>, 1–10; • <i>Dell Inc. v. Neo Wireless LLC</i>, IPR2021-01480, Paper No. 11, Dec. Denying <i>Inter Partes Review</i>, at, <i>e.g.</i>, 3–6 (P.T.A.B. Mar. 16, 2022); • Pat. Owner’s Prelim. Resp. at, <i>e.g.</i>, 3, 5–6, 13–17, <i>Dell Inc. v. Neo Wireless LLC</i>, IPR2021-01480. • <i>Neo Wireless LLC v. Dell Techs. Inc.</i>, Case No. 6:21-cv-0024, Dkt. No. 45 at 9–14.

VI. '450 PATENT

'450 Pat. Term	Claim(s)	Construction	Supporting Evidence
"time-frequency coordinate"	Cl. 7	"one-dimensional time-frequency coordinate"	'450 pat. at, e.g., 1:59-2:10, 5:34-41, 5:54-6:29, 6:56-58, 7:7-39, 8:15-19, 10:8-26, Fig. 6, Fig. 9, Figs. 10A-10C, claims 7, 11; <i>Dell Inc. v. Neo Wireless LLC</i>, IPR2021-01486, Paper No. 10, Dec. Denying <i>Inter Partes</i> Review, at, e.g., 26-29 (P.T.A.B. Mar. 16, 2022); - Pat. Owner's Prelim. Resp. at, e.g., 3-29, <i>Dell Inc. v. Neo Wireless LLC</i>, IPR2021-01486; - Ex. 2001 to Pat. Owner's Prelim. Resp. (Decl. of William P. Alberth, Jr.) at, e.g., ¶¶ 33-55, <i>Dell Inc. v. Neo Wireless LLC</i>, IPR2021-01486; - Ex. 2014 to Pat. Owner's Prelim. Resp. (Plaintiff Neo Wireless LLC's Responsive Claim Construction Brief, Case No. 6:21-cv-00024 (W.D. Tex. Filed Nov. 18, 2021) at, e.g., 25-26. - Declaration may be submitted by claim construction expert
"the segment having a starting time-frequency coordinate"	Cl. 7	"the segment having a starting one-dimensional time-frequency coordinate"	'450 pat. at, e.g., 1:59-2:10, 5:34-41, 5:54-6:29, 6:56-58, 7:7-39, 8:15-19, 10:8-26, Fig. 6, Fig. 9, Figs. 10A-10C, claims 7, 11; <i>Dell Inc. v. Neo Wireless LLC</i>, IPR2021-01486, Paper No. 10, Dec. Denying <i>Inter Partes</i> Review, at, e.g., 26-29 (P.T.A.B. Mar. 16, 2022);

'450 Pat. Term	Claim(s)	Construction	Supporting Evidence
			- Pat. Owner's Prelim. Resp. at, e.g., 3-29, <i>Dell Inc. v. Neo Wireless LLC</i>, IPR2021-01486; - Ex. 2001 to Pat. Owner's Prelim. Resp. (Decl. of William P. Alberth, Jr.) at, e.g., ¶¶ 33-55, <i>Dell Inc. v. Neo Wireless LLC</i>, IPR2021-01486; - Ex. 2014 to Pat. Owner's Prelim. Resp. (Plaintiff Neo Wireless LLC's Responsive Claim Construction Brief, Case No. 6:21-cv-00024 (W.D. Tex. Filed Nov. 18, 2021) at, e.g., 25-26. - Declaration may be submitted by claim construction expert
"time-frequency resource unit"	Cls. 7 and 11	"a combination of time and frequency units designed according to the application requirements of the application that is being grouped"	'450 pat. at, e.g., Abstract, 1:34-42, 1:42-45, 1:66-2:2, 2:47-54, 3:14-18, 4:23-26, 5:32-6:30, 6:63-67, 7:7-39, 8:52-60, 8:67-9:22, 10:35-58, Fig. 6, Fig. 7, Fig. 8A-8B, Fig. 9, Figs. 10A-10C, claims 7, 11; <i>Dell Inc. v. Neo Wireless LLC</i>, IPR2021-01486, Paper No. 10, Dec. Denying <i>Inter Partes</i> Review, at, e.g., 24-26 (P.T.A.B. Mar. 16, 2022); - Pat. Owner's Prelim. Resp. at, e.g., 4-10, 21-25, <i>Dell Inc. v. Neo Wireless LLC</i>, IPR2021-01486; - Ex. 2001 to Pat. Owner's Prelim. Resp. (Decl. of William P. Alberth, Jr.) at, e.g., ¶¶ 27-38, <i>Dell Inc. v. Neo Wireless LLC</i>, IPR2021-01486; - Declaration may be submitted by claim construction expert

'450 Pat. Term	Claim(s)	Construction	Supporting Evidence
“wherein modular coding is applied to the time-frequency resource units in the segment of time-frequency resource”	Cl. 11	Plain and ordinary meaning	• '450 pat. at, <i>e.g.</i>, Abstract, 2:54-57, Fig. 2, 3:59-66, 6:31-7:54, 10:8-20, 10:56-11:7, 11:61-12:3, claim 11; • Pat. Owner’s Prelim. Resp. at, <i>e.g.</i>, 7, <i>Dell Inc. v. Neo Wireless LLC</i>, IPR2021-01486; • <i>Dell Inc. v. Neo Wireless LLC</i>, IPR2021-01486, at Ex. 2001 to Pat. Owner’s Prelim. Resp. (Decl. of William P. Alberth, Jr.) at, <i>e.g.</i>, ¶¶ 32, • Declaration may be submitted by claim construction expert

VII. '512 PATENT

'512 Pat. Term	Claim(s)	Construction	Supporting Evidence
“second pilots of a second type”	Cls. 15 and 23	Pilots possessing a set of characteristics common to all base stations of the system	• '512 pat. at, <i>e.g.</i>, title, abstract, 1:49-53, 2:16-17, 2:22-23, 2:37-44, 3:17-36, 3:37-40, 5:33-7:23, 7:31, 7:58-8:55, 8:39-9:5, Figs. 5, 7, 12, 13. • Declaration may be submitted by claim construction expert
“wherein the first plurality of subcarriers and the second plurality of subcarriers are received in at least one of the time slots”	Cls. 15 and 23	plain and ordinary meaning	• '512 pat. at, <i>e.g.</i>, 4:23-30, 5:33-47, Fig. 5, 3 • Declaration may be submitted by claim construction expert

'512 Pat. Term	Claim(s)	Construction	Supporting Evidence
“receiver is further configured to [] recover the data using channel estimates from at least the second pilots”; “further configured to ... recover cell-specific information using the cell-specific pilots”⁵	Cl. 15	Subject to 35 U.S.C. § 112, ¶ 6, indefinite	• '512 pat. at, <i>e.g.</i>, Abstract, 2:6-7, 3:4-6, 3:17-40, 4:8-11, 4:31-46, 5:33-48; 9:1-4, Fig. 1. • Declaration may be submitted by claim construction expert

⁵ Mercedes-Benz USA, LLC, General Motors Co., General Motors LLC, Tesla Inc., FCA US LLC, Am. Honda Motor Co., Inc., Honda Development & Mfg. of Am., LLC, Nissan N. Am. Inc., and Nissan Motor Acceptance Corp. a/k/a Nissan Motor Acceptance Co. LLC, do not take a position on this proposed construction.

Dated: December 30, 2022

Respectfully submitted,

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I hereby certify that on December 30, 2022, I served the foregoing ***Defendants' Proposed Interpretations*** on counsel of record for Neo and all Defendants.

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