

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

LONGHORN AUTOMOTIVE GROUP
LLC,

Plaintiff,

V.

HYUNDAI MOTOR COMPANY and KIA
CORPORATION,

Defendants.

§
§ Case No. 2:24-cv-00554-JRG-RSP
§ (LEAD CASE)

JURY TRIAL DEMANDED

LONGHORN AUTOMOTIVE GROUP
LLC,

Plaintiff,

V.

NISSAN MOTOR CO., LTD.,

Defendant.

§
§ Case No. 2:24-cv-00397-JRG-RSP
§ (MEMBER CASE)

JURY TRIAL DEMANDED

JOINT CLAIM CONSTRUCTION AND PREHEARING STATEMENT

Pursuant to P.R. 4-3 and the Second Amended Docket Control Order (Dkt. 69), Plaintiff Longhorn Automotive Group LLC (“LAG” or “Plaintiff”) and Defendants Hyundai Motor Company and Kia Corporation (collectively, “Hyundai”) and Nissan Motor Co., Ltd. (“Nissan”) (Hyundai and Nissan collectively, “Defendants”) (LAG, Hyundai, and Nissan collectively, “the Parties”) provide the following Joint Claim Construction and Prehearing Statement regarding the asserted claims of U.S. Patent Nos. 8,810,803 (“’803 patent”); U.S. Patent No. 7,987,002 (“’002 Patent”); U.S. Patent No. 7,513,238 (“’238 patent”); U.S. Patent No. 8,265,353 (“’353 patent”) (the ’803, ’002, ’238, and ’353 Patents collectively, “the Common Patents”); U.S. Patent No. RE44,331 (“’331 patent”); U.S.

Patent No. 7,089,101 (“’101 Patent”) (the ’331 and ’101 Patent collectively, “the Hyundai Patents”); U.S. Patent No. 7,634,666 (“’666 Patent” or “the Nissan Patent”). LAG asserts infringement of the following claims against Hyundai and Nissan:

- Claims 1-17 of the ’803 Patent;
- Claims 1-29 of the ’002 Patent;
- Claims 1-14 of the ’238 Patent; and
- Claims 1-11 of the ’353 Patent;

LAG asserts infringement of the following claims against Hyundai only:

- Claims 21-23, 25-27, 29-34, 36-38, and 40-43 of the ’331 Patent;
- Claims 1-14 of the ’101 Patent.

LAG asserts infringement of the following claims against Nissan only:

- Claims 1-11 of the ’666 Patent.

In accordance with Patent Rule 4-2(c), the Parties met and conferred for the purposes of narrowing the issues and finalizing preparation of this Joint Claim Construction and Prehearing Statement.

I. P.R. 4-3(a)(1) Agreed Constructions

None.

II. P.R. 4-3(a)(2) Disputed Terms

Plaintiff’s proposed constructions, and identification of intrinsic and extrinsic evidence for the Common Patents are attached hereto as Exhibit A. Plaintiff’s proposed constructions, and identification of intrinsic and extrinsic evidence for the Hyundai Patents are attached hereto as Exhibit B. Plaintiff’s proposed constructions, and identification of intrinsic and extrinsic evidence for the Nissan Patent are attached hereto as Exhibit C.

Defendants’ proposed constructions, and identification of intrinsic and extrinsic evidence for

the Common Patents are attached hereto as Exhibit D. Hyundai's proposed constructions, and identification of intrinsic and extrinsic evidence for the Hyundai Patents are attached hereto as Exhibit E. Nissan's proposed constructions, and identification of intrinsic and extrinsic evidence for the Nissan Patent are attached hereto as Exhibit F.

Each party also reserves the right to cite intrinsic and/or extrinsic evidence cited by the other party.

III. P.R. 4-3(a)(3) Anticipated Length of Time for the Claim Construction Hearing

The Parties expect that 4 hours total, 2 hours per side, will provide sufficient time to conduct the claim construction hearing.

IV. P.R. 4-3(a)(4) Anticipated Witnesses at the Claim Construction Hearing

At the present time, no party proposes to call witnesses for live testimony at the claim construction hearing.

V. P.R. 4-3(a)(5) Other Issues to be Addressed at the Claim Construction Hearing

The parties are not presently aware of any issues which might be taken up at a prehearing conference prior to the Claim Construction Hearing.

VI. P.R. 4-3(b) Service of Expert Testimony

In accordance with Patent Rule 4-3(b) the Parties will each, simultaneous with this filing, serve a disclosure of expert testimony consistent with Fed. R. Civ. P. 26(a)(2)(B)(i)-(ii) or 26(a)(2)(C) for any expert on which it intends to rely to support its proposed claim construction or indefiniteness position or to oppose any other party's proposed claim construction or indefiniteness

Dated: September 10, 2025

Respectfully submitted,

/s/ Vincent J. Rubino, III

Alfred R. Fabricant

NY Bar No. 2219392

Email: ffabricant@fabricantllp.com

Peter Lambrianakos

NY Bar No. 2894392
Email: plambrianakos@fabricantllp.com
Vincent J. Rubino, III
NY Bar No. 4557435
Email: vrubino@fabricantllp.com
FABRICANT LLP
411 Theodore Fremd Ave., Suite 206 South
Rye, NY 10580
Telephone: (212) 257-5797
Facsimile: (212) 257-5796

John Andrew Rubino
NY Bar No. 5020797
Email: jarubino@rubinoip.com
Michael Mondelli III
NY Bar No. 5805114
Email: mmondelli@rubinoip.com
RUBINO IP
51 J.F.K. Parkway
Short Hills, NJ, 07078
Telephone: (201) 341-9445
Facsimile (973) 535-0921

Justin Kurt Truelove
TX State Bar No. 24013653
Email: kurt@truelovelawfirm.com
TRUELOVE LAW FIRM, PLLC
100 West Houston
Marshall, Texas 75670
Telephone: (903) 938-8321
Facsimile: (903) 215-8510
Email: kurt@truelovelawfirm.com

ATTORNEYS FOR PLAINTIFF
LONGHORN AUTOMOTIVE GROUP LLC

/s/ Ryan K. Yagura (with permission)
Ryan K. Yagura
Email: ryagura@omm.com
O'MELVENY & MYERS LLP
400 S. Hope Street
Los Angeles, California 90071
Telephone: (213) 430-6819

Melissa R. Smith
Texas Bar No. 24001351

GILLAM & SMITH, LLP

303 South Washington Avenue
Marshall, Texas 75670
Telephone: (903) 934-8450
Facsimile: (903) 934-9257
Email: melissa@gillamsmithlaw.com

***ATTORNEYS FOR DEFENDANTS
HYUNDAI MOTOR COMPANY and
KIA CORPORATION***

/s/ Pavan K. Agarwal (with permission)

R. Spencer Montei
(IL Bar # 6313532)
Email: rmontei@foley.com

FOLEY & LARDNER LLP

321 N. Clark Street, Suite 3000
Chicago, IL 60654
Telephone: (312) 832-4354
Facsimile: (312) 832-4700

Pavan K. Agarwal
D.C. Bar No. 459614
Email: pagarwal@foley.com
FOLEY & LARDNER LLP
Washington Harbor
3000 K Street, N.W., Suite 600
Washington, D.C. 20007
Telephone: (202) 945-6162
Facsimile: (202) 672-5399

Melissa R. Smith
Texas Bar No. 24001351
GILLAM & SMITH, LLP
303 South Washington Avenue
Marshall, Texas 75670
Telephone: (903) 934-8450
Facsimile: (903) 934-9257
Email: melissa@gillamsmithlaw.com

***ATTORNEYS FOR DEFENDANT
NISSAN MOTOR CO., LTD.***

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on September 10, 2025, a true and correct copy of the above and foregoing document has been served on all counsel of record who are deemed to have consented to electronic service via the Court's CM/ECF system per Local Rule CV-5(a)(3).

/s/ Vincent J. Rubino, III
Vincent J. Rubino, III

CERTIFICATE OF CONFERENCE

The undersigned hereby certifies that Plaintiff's and Defendants' counsel have met and conferred in accordance with P.R. 4-2(c), and the Parties have agreed to the submission of the P.R. 4-3 Claim Construction and Prehearing Statement submitted herewith.

/s/ Vincent J. Rubino, III
Vincent J. Rubino, III

**EXHIBIT A – PLAINTIFF LAG’S PROPOSED CONSTRUCTIONS AND IDENTIFICATION OF EVIDENCE TO
HYUNDAI-NISSAN FOR COMMON TERMS**

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>LAG’s Proposed Construction</u>	<u>LAG’s Identification of Intrinsic and Extrinsic Evidence</u>
U.S. Patent No. 8,810,803 (“’803 patent”)				
1	“cluster lenses” of	’803 Patent Claim(s) 1, 8, 15	“lens cluster”	<u>Intrinsic evidence:</u> ’803 Patent at FIGs 1, 4, 5; 2:51-4:6; 4:20-28; 4:41-51; 5:24-6:41 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
2	“lens” / “lenses”	’803 Patent Claim(s) 1, 8, 15	Plain and ordinary meaning.	<u>Intrinsic evidence:</u> ’803 Patent at FIGs 1, 3, 4, 5; 1:39-4:6; 4:20-28; 4:41-51; 5:24-6:41 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
3	“focus” (claim 1) / “focusing” (claim 8)	’803 Patent Claim(s) 1, 8	Plain and ordinary meaning.	<u>Intrinsic evidence:</u> ’803 Patent at FIG 4; 1:39-50; 1:60-2:5; 2:50-3:10; 3:18-4:40; 4:52-61; 5:58-63; 6:5-41 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.

No.	Term	Patent(s)/Claims(s)	LAG's Proposed Construction	LAG's Identification of Intrinsic and Extrinsic Evidence
U.S. Patent No. 7,987,002 ("’002 Patent")				
4	“simulated measurement signals configured to replace input data”	’002 Patent Claim(s) 1	Plain and ordinary meaning	<u>Intrinsic evidence:</u> ’002 Patent at FIGs 1, 2, 3, 5; 1:24-30; 1:40-3:9; 4:27-5:53; 6:25-7-67; 8:39-49; 9:35-67; 10:54-12:41; 13:1-8 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
5	“generate programmatic instructions”	’002 Patent Claim(s) 7-9, 12, 15, 25	Plain and ordinary meaning	<u>Intrinsic evidence:</u> ’002 Patent at FIGs 1-7; 1:40-47; 7:40-52; 8:9-25; 9:25-10:1-16; 11:20-26; 14:30-41 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
6	“the measurement signals”	’002 Patent Claim(s) 7-9, 11	Plain and ordinary meaning	<u>Intrinsic evidence:</u> ’002 Patent at FIGs 1-7; 1:24-47; 2:13-33; 4:56-5:2 5:23-39; 6:39-47; 8:1-25; 10:1-16; 12:10-26; 12:57-67; 13:9-36 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>LAG's Proposed Construction</u>	<u>LAG's Identification of Intrinsic and Extrinsic Evidence</u>
7	“wherein the at least one complex monitoring unit is configured to receive a plurality of data values from the at least one interface unit using the first protocol ... wherein the at least one basic monitoring unit is configured to receive ... data values from the at least one interface unit using the first protocol”	'002 Patent Claim(s) 15	Plain and ordinary meaning	<u>Intrinsic evidence:</u> '002 Patent at FIGs 1-7; 1:40-5:2; 6:10-24; 8:39-48; 10:33-12:41; 13:1-14:64 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>LAG's Proposed Construction</u>	<u>LAG's Identification of Intrinsic and Extrinsic Evidence</u>
8	“wherein the at least one complex monitoring unit is configured to receive a plurality of data values from the at least one interface unit using the first protocol and to generate programmatic instructions for the at least one basic monitoring unit;”	'002 Patent Claim(s) 15	Plain and ordinary meaning	<u>Intrinsic evidence:</u> '002 Patent at FIGs 1-7; 1:40-5:2; 6:10-24; 7:40-52; 8:9-48; 9:25-10:1-12:41; 13:1-14:64 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
9	“basic monitoring unit is configured to receive the programmatic instructions and in response thereto to receive a subset of the plurality of data values from the at least one interface unit using the first protocol”	'002 Patent Claim(s) 5	Plain and ordinary meaning	<u>Intrinsic evidence:</u> '002 Patent at FIGs 1-7; 1:40-5:2; 6:10-24; 7:40-52; 8:9-48; 9:25-10:1-12:41; 13:1-14:64 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>LAG's Proposed Construction</u>	<u>LAG's Identification of Intrinsic and Extrinsic Evidence</u>
10	“the programmatic instructions will cause a basic monitoring unit running the programmatic instructions to collect a corresponding subset of data values in response to connecting to a second distributed control system having similar architecture as the first distributed control system”	'002 Patent Claim(s) 25	Plain and ordinary meaning	<u>Intrinsic evidence:</u> '002 Patent at FIGs 1-7; 1:40-5:2; 6:10-24; 7:40-52; 8:9-48; 9:25-10:1-12:41; 13:1-14:64 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.

No.	Term	Patent(s)/Claims(s)	LAG's Proposed Construction	LAG's Identification of Intrinsic and Extrinsic Evidence
11	"connecting the basic monitoring unit through a first data connection using a first protocol to an interface unit connected to the second distributed control system"	'002 Patent Claim(s) 26	Plain and ordinary meaning	<u>Intrinsic evidence:</u> '002 Patent at FIGs 1-7; 1:40-5:2; 6:10-24; 7:40-52; 8:9-48; 9:25-10:1-12:41; 13:1-14:64 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
U.S. Patent No. 7,513,238 ("238 patent")				
12	"a piston recess"	'238 Patent Claim(s) 1	"a physical depression on the top side facing the cylinder head"	<u>Intrinsic evidence:</u> '238 Patent at FIGs 1-10; 1:16-2:6; 2:42-4:30 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
13	"a piston recess, which, in a central region thereof, has an elevation extending in a cylinder head direction"	'238 Patent Claim(s) 1	Plain and ordinary meaning	<u>Intrinsic evidence:</u> '238 Patent at FIGs 1-10; 1:16-2:6; 2:42-4:30 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>LAG's Proposed Construction</u>	<u>LAG's Identification of Intrinsic and Extrinsic Evidence</u>
14	“surface is substantially planar”	'238 Patent Claim(s) 1	Plain and ordinary meaning	<u>Intrinsic evidence:</u> '238 Patent at FIGs 1-10; 1:16-2:6; 2:42-4:30 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
15	“injection jet impinging the surface” / “an injection jet injected ... impinges onto the surface”	'238 Patent Claim(s) 1	Plain and ordinary meaning	<u>Intrinsic evidence:</u> '238 Patent at FIGs 1-10; 1:16-2:6; 2:42-4:30 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>LAG's Proposed Construction</u>	<u>LAG's Identification of Intrinsic and Extrinsic Evidence</u>
16	“an injection jet . . . injected as early as possible is distributed both in a elevation direction and in the recess edge direction” / “an injection jet injected as late as possible . . . being distributed both in the elevation direction and in the recess edge direction”	'238 Patent Claim(s) 1	Plain and ordinary meaning	<u>Intrinsic evidence:</u> '238 Patent at FIGs 1-10; 1:16-2:6; 2:42-4:30 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
U.S. Patent No. 8,265,353 (“’353 patent”)				
17	“the first imaging technique is different from the second imaging technique”	'353 Patent Claim(s) 1	Plain and ordinary meaning	<u>Intrinsic evidence:</u> '353 Patent at FIGs 1, 2; 1:5-2:33; 2:53-7:63 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>LAG's Proposed Construction</u>	<u>LAG's Identification of Intrinsic and Extrinsic Evidence</u>
18	"movement states"	'353 Patent Claim(s) 1	"states of displacement at given times"	<u>Intrinsic evidence:</u> '353 Patent at FIGs 1, 2; 1:5-2:33; 2:53-7:63 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.

**EXHIBIT B – PLAINTIFF LAG’S PROPOSED CONSTRUCTIONS AND IDENTIFICATION OF EVIDENCE TO
HYUNDAI-KIA INDIVIDUAL TERMS**

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>LAG’s Proposed Construction</u>	<u>LAG’s Identification of Intrinsic and Extrinsic Evidence</u>
U.S. Patent No. RE44,331 (“’331 patent”)				
1	“a [first / second / third / forth / fifth / sixth] message in a the [first / second / third / forth / fifth / sixth] beam”	’331 Patent Claim(s) 21, 23, 33, 34	Plain and ordinary meaning	<u>Intrinsic evidence:</u> ’331 Patent at FIGs 3, 4, 5, 6, 8; 4:34-46; 5:13-6:57; 7:10-8:10 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
2	“bits” (Claims 21, 33) / “bit” (Claims 31, 42)	’331 Patent Claim(s) 21, 31, 33, 42	Plain and ordinary meaning	<u>Intrinsic evidence:</u> ’331 Patent at FIGs 4, 5; 5:62-64; 6:28-37 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
U.S. Patent No. 7,089,101 (“’101 Patent”)				
3	“performing a driving maneuver formed by a parking or shunting maneuver”	’101 Patent Claim(s) 1, 13	Plain and ordinary meaning	<u>Intrinsic evidence:</u> ’101 Patent at Abstract; FIGs 1-7; 1:4-2:67; 3:41-4:63; 6:30-10:39 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.

**EXHIBIT C – PLAINTIFF LAG’S PROPOSED CONSTRUCTIONS AND IDENTIFICATION OF EVIDENCE TO NISSAN
INDIVIDUAL TERMS**

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>LAG’s Proposed Construction</u>	<u>LAG’s Identification of Intrinsic and Extrinsic Evidence</u>
U.S. Patent No. 7,634,666 (“’666 Patent”)				
1	“A crypto-engine for cryptographic processing of data comprising”	’666 Patent Claim(s) 1, 4 Preambles	Non-limiting preamble. Plain and ordinary meaning	<u>Intrinsic evidence:</u> ’666 Patent at 11:4-28; 11:43-12:9 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
2	“host processor”	’666 Patent Claim(s) 1, 4	Plain and ordinary meaning	<u>Intrinsic evidence:</u> ’666 Patent at Abstract; FIGs 1, 3, 6; 1:37-2:19; 2:64-3:10; 3:40-4:3; 5:39-10:28 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
3	“input-interim data”	’666 Patent Claim(s) 1	Plain and ordinary meaning	<u>Intrinsic evidence:</u> ’666 Patent at <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>LAG's Proposed Construction</u>	<u>LAG's Identification of Intrinsic and Extrinsic Evidence</u>
4	“output switches”	'666 Patent Claim(s) 1	Plain and ordinary meaning	<u>Intrinsic evidence:</u> '666 Patent at FIGs 1, 3, 4, 5; 1:37-2:19; 2:64-3:10; 3:40-10:28 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
5	“multiplication unit”	'666 Patent Claim(s) 1, 4	Plain and ordinary meaning	<u>Intrinsic evidence:</u> '666 Patent at FIG 2, 4, 5, 6; 1:37-2:19; 3:11-39; 4:4-10:27 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
6	“addition unit”	'666 Patent Claim(s) 1, 4	Plain and ordinary meaning	<u>Intrinsic evidence:</u> '666 Patent at FIGs 2, 5; 1:37-2:19; 3:11-39; 4:62-5:38 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>LAG's Proposed Construction</u>	<u>LAG's Identification of Intrinsic and Extrinsic Evidence</u>
7	“sign inversion unit”	'666 Patent Claim(s) 1, 4	Plain and ordinary meaning	<u>Intrinsic evidence:</u> '666 Patent at FIGs 2, 5; 1:37-2:19; 3:11-39; 4:62-5:38 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
8	“the multiplication unit, the addition unit and the sign inversion unit each having an output”	'666 Patent Claim(s) 1, 4	Plain and ordinary meaning	<u>Intrinsic evidence:</u> FIGs 1, 3, 4, 5; 1:37-2:19; 2:64-10:28 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
9	“arithmetic controller”	'666 Patent Claim(s) 1, 4	Plain and ordinary meaning	<u>Intrinsic evidence:</u> '666 Patent at Abstract; FIGs 1, 2; 1:37-2:19; 2:64-10:28 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
10	“wherein the outputs of the multiplication unit, the addition unit and the sign inversion unit are feedback to the arithmetic controller”	'666 Patent Claim(s) 1, 4	Plain and ordinary meaning	<u>Intrinsic evidence:</u> '666 Patent at Abstract; FIGs 1, 3, 4, 5; 1:37-2:19; 2:64-10:28 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>LAG's Proposed Construction</u>	<u>LAG's Identification of Intrinsic and Extrinsic Evidence</u>
11	“op-code signal”	'666 Patent Claim(s) 4	Plain and ordinary meaning	<u>Intrinsic evidence:</u> '666 Patent at Abstract; FIGs 1-8; 1:37-2:19; 2:64-10:28 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.
12	“a cryptographic controller”	'666 Patent Claim(s) 1, 4	Plain and ordinary meaning	<u>Intrinsic evidence:</u> '666 Patent at Abstract; FIGs 1-8; 1:37-2:19; 2:64-10:28 <u>Extrinsic evidence:</u> Plaintiff may rely on the expert testimony of Joseph C. McAlexander, regarding the proper construction of this term.

**EXHIBIT D – DEFENDANTS’ PROPOSED CONSTRUCTIONS AND IDENTIFICATION OF EVIDENCE TO LAG FOR
COMMON TERMS**

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>Defendants’ Proposed Construction</u>	<u>Defendants’ Identification of Intrinsic and Extrinsic Evidence</u>
U.S. Patent No. 8,810,803 (“’803 patent”)				
1	“cluster of lenses”	’803 Patent Claim(s) 1, 8, 15	“multiple individual lenses positioned together”	<u>Intrinsic evidence:</u> ’803 Patent, at 3:18-30, 3:42-67, 4:1-6; 4:25-28, 4:41-48, 5:24-37, 5:38-48, 6:30-41, Fig. 1, Fig. 3, Fig. 4, Claims 1-17. ’803 Patent File History: April 16, 2012 Amendment, pp. 1-13, Aug. 7, 2012 Non-final Office Action, pp. 2-16, June 24, 2013 Non-final Office Action, pp. 2-4, September 23, 2013 Amendment, pp. 2-7, March 14, 2014 Amendment, April 3, 2014 Interview Summary Record. U.S. Patent No. 8,159,682 File History: Nov. 12, 2010 Non-final Office Action, pp. 2-10, Feb. 11, 2011 Amendment, pp 6-13, May 12, 2011 Final Office Action, pp. 4-15, July 13, 2011 Amendment for RCE, pp. 6-8. <u>Extrinsic evidence:</u> The American Heritage College Dictionary 2004: “Cluster” Webster’s II New College Dictionary 1999: “Cluster”

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>Defendants' Proposed Construction</u>	<u>Defendants' Identification of Intrinsic and Extrinsic Evidence</u>
2	“lens” / “lenses”	’803 Patent Claim(s) 1, 8, 15	“a transparent material with opposite sides either or both of which are curved, by means of which light rays are refracted so that they converge or diverge”	<u>Intrinsic evidence:</u> ’803 Patent, at 1:55-58, 3:42-43, 3:51-58, 5:24-37, 5:38-48, 6:4-13, 6:30-41, Fig. 1, Fig. 3, Fig. 4, Claims 1-17. ’803 Patent File History: April 16, 2012 Amendment, pp. 1-13, Aug. 7, 2012 Non-final Office Action, pp. 2-16, June 24, 2013 Non-final Office Action, pp. 2-4, September 23, 2013 Amendment, pp. 2-7, March 14, 2014 Amendment, April 3, 2014 Interview Summary Record. U.S. Patent No. 8,159,682 File History: Nov. 12, 2010 Non-final Office Action, pp. 2-10, Feb. 11, 2011 Amendment, pp 6-13, May 12, 2011 Final Office Action, pp. 4-15, July 13, 2011 Amendment for RCE, pp. 6-8. U.S. Patent No. 7,619,824: 9:53-57. U.S. Patent App. Pub. No. US2005/0110964A1: [0215]-[0216]. U.S. Patent No. 5,978,136: 1:20-30. U.S. Patent App. Pub. No. US2005/0195598A1: [0088].

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>Defendants' Proposed Construction</u>	<u>Defendants' Identification of Intrinsic and Extrinsic Evidence</u>
				<u>Extrinsic evidence:</u> RAYMOND A. SERWAY, PHYSICS: FOR SCIENTISTS AND ENGINEERS 1982 The American Heritage College Dictionary 2004: "Lens" Webster's II New College Dictionary 1999: "Lens"
3	"focus" (claim 1) / "focusing" (claim 8)	'803 Patent Claim(s) 1, 8	"converge light to a focal point" / "converging light to a focal point"	<u>Intrinsic evidence:</u> '803 Patent, at 3:51-58, Fig. 4. '803 Patent File History: Aug. 7, 2012 Non-final Office Action, pp 2-16, June 24, 2013 Non-final Office Action, pp. 2-4, August 8, 2013 Applicant Initiated Interview, September 23, 2013 Amendment, pp. 2-7, March 14, 2014 Amendment, April 3, 2014 Interview Summary Record, April 16, 2014 Notice of Allowance. U.S. Patent No. 8,159,682 File History: Nov. 12, 2010 Non-final Office Action, pp. 2-10, Feb. 11, 2011 Amendment, pp 6-13, May 12, 2011 Final Office Action, pp. 4-15, July 13, 2011 Amendment for RCE, pp. 6-8. <u>Extrinsic evidence:</u> The American Heritage College Dictionary 2004: "Focus"

No.	Term	Patent(s)/Claims(s)	Defendants' Proposed Construction	Defendants' Identification of Intrinsic and Extrinsic Evidence
U.S. Patent No. 7,987,002 ("’002 Patent")				
4	"simulated measurement signals configured to replace input data"	’002 Patent Claim(s) 1	"measurement signals determined by simulation that are configured to replace input data"	<u>Intrinsic evidence:</u> ’002 Patent at Title, 1:50-58; 2:5-3:36; 5:3-16, 5:24-39, 7:53-67, 9:52-10:16; 10:54-11:3, 11:29-49; 12:27-49, 13:1-36; 13:52-14:5; 14:44-64; Figs. 5, 6. ’002 Patent File History: Response dated 12-02-2009, pp. 11-17, 20-22; Office Action mailed 04-28-2010, pp. 2-13; Response dated 06-21-2010, pp. 2-15; Examiner interview summary mailed 10-14-2010; Office Action mailed 10-14-2010, pp. 2-13; Response dated 01-11-2011, pp. 2-13. <u>Extrinsic evidence:</u> New Penguin Dictionary of Computing 2001: "Simulation" Oxford American College Dictionary 2002: "Simulate"
5	"generate programmatic instructions"	’002 Patent Claim(s) 7-9, 12, 15, 25	"create computer code to be executed by a computer"	<u>Intrinsic evidence:</u> ’002 Patent at 2:5-3:36; 4:9-55; 7:26-52; 11:9-26; 13:37-14:64; Fig. 7 ’002 Patent File History: Response dated 12-02-2009, pp. 11-17, 20-22; Office Action mailed 04-28-2010, pp. 2-13; Response dated 06-21-2010, pp. 2-15; Examiner interview summary mailed 10-14-2010; Office Action mailed 10-14-2010, pp. 2-13; Response dated 01-11-2011, pp. 2-13.

No.	Term	Patent(s)/Claims(s)	Defendants' Proposed Construction	Defendants' Identification of Intrinsic and Extrinsic Evidence
				<u>Extrinsic evidence:</u> New Penguin Dictionary of Computing 2001: "Program"; "Instruction"; "Compile"
6	"the measurement signals"	'002 Patent Claim(s) 7-9, 11	Indefinite under § 112, ¶ 2	<u>Intrinsic evidence:</u> '002 Patent, claim 1 (15:3-24). <u>Extrinsic evidence:</u>
7	"wherein the at least one complex monitoring unit is configured to receive a plurality of data values from the at least one interface unit using the first protocol ... wherein the at least one basic monitoring unit is configured to receive ... data values from the at least one interface unit using the first protocol"	'002 Patent Claim(s) 15	The at least one basic monitoring unit and at least one complex monitoring unit are configured to interchangeably communicate with at least one interface unit using a first protocol.	<u>Intrinsic evidence:</u> '002 Patent at 2:5-3:36; 7:40-52; 11:29-60; Fig. 5. '002 Patent File History: Response dated 12-02-2009, pp. 11-17, 20-22; Office Action mailed 04-28-2010, pp. 2-13; Response dated 06-21-2010, pp. 2-15; Examiner interview summary mailed 10-14-2010; Office Action mailed 10-14-2010, pp. 2-13; Response dated 01-11-2011, pp. 2-13. <u>Extrinsic evidence:</u>
8	"wherein the at least one complex monitoring unit is configured to	'002 Patent Claim(s) 15	§ 112, ¶ 6 applies; two functions = receive data values from the interface using the first protocol and generate programmatic instructions for the basic monitoring unit.	<u>Intrinsic evidence:</u> '002 Patent at 1:63-2:2; 2:5-3:36; 4:9-55; 7:26-52; 11:9-60; 13:37-14:64, Figs. 5, 7.

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>Defendants' Proposed Construction</u>	<u>Defendants' Identification of Intrinsic and Extrinsic Evidence</u>
	receive a plurality of data values from the at least one interface unit using the first protocol and to generate programmatic instructions for the at least one basic monitoring unit;"		Structure for receiving data values from the interface using the first protocol = wired or wireless connection; Structure for generating programmatic instructions = programming tool that generates rules for how the analysis can be repeated automatically in order for a correct diagnosis to be made, the analysis including which messages are to be watched, sequences of messages on both sides of a given message with given content that are to be saved for further analysis, which messages are to be saved upon the appearance of error messages, active transmission of messages in given situations, etc. These rules are saved in the form of a data file to be downloaded. In addition, the rules define a partial database adapted for the basic monitoring unit and rules for how collected information and the analysis result are to be presented in the basic monitoring unit. These rules are compiled in one or several files that can be interpreted by the basic monitoring unit.	'002 Patent File History: Response dated 12-02-2009, pp. 11-17, 20-22; Office Action mailed 04-28-2010, pp. 2-13; Response dated 06-21-2010, pp. 2-15; Examiner interview summary mailed 10-14-2010; Office Action mailed 10-14-2010, pp. 2-13; Response dated 01-11-2011, pp. 2-13. <u>Extrinsic evidence:</u>
9	"basic monitoring unit is configured to receive the programmatic instructions and in response thereto to receive	'002 Patent Claim(s) 15	"basic monitoring unit is configured to receive a subset of the plurality of data values directly from the at least one interface unit using the first protocol after receiving the programmatic instructions"	<u>Intrinsic evidence:</u> '002 Patent at 2:5-3:36; 4:27-5:2; 6:25-47; 9:52-67; 11:29-60; 12:11-56; 13:1-66; 14:5-64; Figs. 2, 5-7.

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>Defendants' Proposed Construction</u>	<u>Defendants' Identification of Intrinsic and Extrinsic Evidence</u>
	a subset of the plurality of data values from the at least one interface unit using the first protocol”			’002 Patent File History: Office Action mailed 10-14-2010, pp. 2-13; Response dated 01-11-2011, pp. 9-13. ’002 EPR, Office Action dated 08-06-2025 at 15-19. <u>Extrinsic evidence:</u>
10	“the programmatic instructions will cause a basic monitoring unit running the programmatic instructions to collect a corresponding subset of data values in response to connecting to a second distributed control system having similar architecture as the first distributed control system”	’002 Patent Claim(s) 25	“the basic monitoring unit connects to a second distributed control system through the interface unit and directly collects a corresponding subset of data values based on the programmatic instructions, similar to the way the complex monitoring unit is connected to the first distributed control system through the interface unit”	<u>Intrinsic evidence:</u> ’002 Patent at 2:5-3:36; 4:27-5:2; 6:25-47; 7:26-52; 9:52-67; 11:29-60; 12:11-56; 13:1-66; 14:5-64; Figs. 2, 5-7. ’002 Patent File History: Response dated 06-21-2010, pp. 2-15; Response dated 01-11-2011, pp. 2-13. ’002 EPR, Office Action dated 08-06-2025 at 20. <u>Extrinsic evidence:</u>

No.	Term	Patent(s)/Claims(s)	Defendants' Proposed Construction	Defendants' Identification of Intrinsic and Extrinsic Evidence
11	"connecting the basic monitoring unit through a first data connection using a first protocol to an interface unit connected to the second distributed control system"	'002 Patent Claim(s) 26	"connecting the basic monitoring unit through [the] first data connection using [the] first protocol to an interface unit connected to the second distributed control system"	<u>Intrinsic evidence:</u> '002 Patent at 2:5-3:36; 7:40-67; 10:54-11:3; 11:40-49; 12:42-49; 13:52-14:5; 14:54-64; claim 25 (17:1-20); Figs. 5, 7. '002 Patent File History: Response dated 12-02-2009, pp. 11-17, 20-22; Response dated 06-21-2010, pp. 2-15; Examiner interview summary mailed 10-14-2010; Response dated 01-11-2011, pp. 2-13. <u>Extrinsic evidence:</u>
U.S. Patent No. 7,513,238 ("238 patent")				
12	"a piston recess"	'238 Patent Claim(s) 1	"a unitary depression in the piston surface"	<u>Intrinsic evidence:</u> '238 Patent, at Abstract, 1:12-2:12, 2:42-67, 3:1-44, 4:8-19, Figs. 1-10. <u>Extrinsic evidence:</u> Declaration of Nigel Clark, Ph.D.
13	"a piston recess, which, in a central region thereof, has an elevation extending in a cylinder head direction"	'238 Patent Claim(s) 1	"a piston recess, which has an elevation located around a center axis that is equally distant from the recess edge of the piston recess"	<u>Intrinsic evidence:</u> '238 Patent, at Abstract, 1:12-2:12, 2:42-67, 3:1-44, 4:8-19, Figs. 1-10. '238 Patent File History (Appl. No. 10/577,797), IDS and Foreign References (Apr. 29, 2006); Non-Final Rejection (Sept. 19, 2008) at 2-3; Amendment and Remarks (Dec. 19, 2008) at 1-5.

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>Defendants' Proposed Construction</u>	<u>Defendants' Identification of Intrinsic and Extrinsic Evidence</u>
				<u>Extrinsic evidence:</u> Declaration of Nigel Clark, Ph.D. The American Heritage College Dictionary 2004: "Central" and "Region" Webster's II New College Dictionary 1999: "Central" JOHN B. HEYWOOD, INTERNAL COMBUSTION ENGINE FUNDAMENTALS 1988
14	"a surface is substantially planar"	'238 Patent Claim(s) 1	"surface that forms a substantially flat plane"	<u>Intrinsic evidence:</u> '238 Patent, at Abstract, 1:12-2:12, 2:42-67, 3:1-4:19, Figs. 1-10. '238 Patent File History (Appl. No. 10/577,797), Amendment and Remarks (Dec. 19, 2008) at 2-6. <u>Extrinsic evidence:</u> Declaration of Nigel Clark, Ph.D. The American Heritage College Dictionary 2004: "Planar" Modern Dictionary of Electronics 1999: "Planar" McGraw-Hill Dictionary of Scientific and Technical Terms 2003: "Planar"

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>Defendants' Proposed Construction</u>	<u>Defendants' Identification of Intrinsic and Extrinsic Evidence</u>
				Webster's II New College Dictionary 1999: "Planar" JOHN B. HEYWOOD, INTERNAL COMBUSTION ENGINE FUNDAMENTALS 1988
15	"injection jet impinging the surface" / "an injection jet injected ... impinges onto the surface"	'238 Patent Claim(s) 1	"fuel is injected directly onto the surface of the piston recess"	<u>Intrinsic evidence:</u> '238 Patent, at Abstract, 2: 42-53, 2:61-67, 3:1-4:19, Figs. 1-12. <u>Extrinsic evidence:</u> Declaration of Nigel Clark, Ph.D. The American Heritage College Dictionary 2004: "Impinge" JOHN B. HEYWOOD, INTERNAL COMBUSTION ENGINE FUNDAMENTALS 1988
16	"an injection jet . . . injected as early as possible is distributed both in a elevation direction and in the recess edge direction" / "an injection jet injected as late as possible . . . being distributed both in the elevation direction and in	'238 Patent Claim(s) 1	Indefinite under § 112, ¶ 2	<u>Intrinsic evidence:</u> '238 Patent, at Abstract, 1:24-27, 1:49-61, 2:54-60, 3:11-13, 3:62-4:7, Fig. 1, Fig. 2, Claim 1. <u>Extrinsic evidence:</u> Declaration of Nigel Clark, Ph.D. JOHN B. HEYWOOD, INTERNAL COMBUSTION ENGINE FUNDAMENTALS 1988

No.	Term	Patent(s)/Claims(s)	Defendants' Proposed Construction	Defendants' Identification of Intrinsic and Extrinsic Evidence
	the recess edge direction"			
U.S. Patent No. 8,265,353 ("353 patent")				
17	"the first imaging technique is different from the second imaging technique"	'353 Patent Claim(s) 1	"the first imaging technique and the second imaging technique are different types of imaging techniques"	<u>Intrinsic evidence:</u> '353 Patent, at 1:8-35, 2:8-17, 2:26-33, 2:53-3:20, 3:27-30, 4:15-27, 4:42-47, 5:28-35, 5:43-44, 7:9-15, 7:34-58, Fig. 1. '353 Patent File History: Response dated 07-10-2007, pp. 6-7, 11-12, 14-16; Office Action mailed 09-13-2007, pp. 3-5; Response dated 03-07-2008, pp. 3-9; Office Action mailed 05-29-2008, pp. 2-4; Response dated 07-30-2008, pp. 3-4; Office Action mailed 11-14-2008, pp. 2-3, 5-7; Response dated 02-13-2009, pp. 2-6, 9-12; Office Action mailed 04-28-2009, pp. 3-5; Response dated 07-27-2009, pp. 2-10; Office Action mailed 11-27-2009, pp. 2-6; Examiner Interview Summary mailed 01-19-2010; Response dated 02-19-2010, pp. 2-10; Office Action mailed 07-12-2010, pp. 3-4; Response dated 11-10-2010, pp. 2-6, 8-11; Office Action mailed 01-13-2011, pp. 3-5; Response dated 03-08-2011, pp. 2-9; Examiner Interview Summary mailed 03-09-2011; Office Action mailed 07-07-2011, pp. 2-5; Response dated 09-27-2011, pp. 2-9; Office Action mailed 11-09-2011, pp. 2-7; Appeal Brief dated 04-04-2012, pp. 2-5, 7-10; Notice of Allowance mailed 05-07-2012, Reasons for Allowance.

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>Defendants' Proposed Construction</u>	<u>Defendants' Identification of Intrinsic and Extrinsic Evidence</u>
				<u>Extrinsic evidence:</u> The American Heritage Dictionary of the English Language 1992: "Different"
18	"movement states"	'353 Patent Claim(s) 1	"cyclical positions of the mobile object"	<u>Intrinsic evidence:</u> '353 Patent, at 1:45-52, 2:42-48, 2:53-3:2, 3:27-30, 3:49-53, 4:61-5:10; 7:34-48, Figs. 1, 2. '353 Patent File History: Response dated 07-10-2007, pp. 6-7, 14-16; Office Action mailed 09-13-2007, pp. 3-5; Response dated 03-07-2008, pp. 3-9; Office Action mailed 05-29-2008, pp. 2-4; Response dated 07-30-2008, pp. 3-4; Office Action mailed 11-14-2008, pp. 2-3, 5-7; Response dated 02-13-2009, pp. 2-6, 9-11; Office Action mailed 04-28-2009, pp. 3-5; Response dated 07-27-2009, pp. 2-10; ; Office Action mailed 11-27-2009, pp. 2-6; Examiner Interview Summary mailed 01-19-2010; Response dated 02-19-2010, pp. 2-5, 7-9; Office Action mailed 07-12-2010, pp. 3-4; Response dated 11-10-2010, pp. 2-6, 8-9; Office Action mailed 01-13-2011, pp. 3-5; Response dated 03-08-2011, pp. 2-9; Examiner Interview Summary mailed 03-09-2011; Office Action mailed 07-07-2011, pp. 2-5; Response dated 09-27-2011, pp. 2-9; Office Action mailed 11-09-2011, pp. 2-7; Appeal Brief dated 04-04-2012, pp. 2-5, 7-10; Notice of Allowance mailed 05-07-2012, Reasons for Allowance. <u>Extrinsic evidence:</u>

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>Defendants' Proposed Construction</u>	<u>Defendants' Identification of Intrinsic and Extrinsic Evidence</u>

**EXHIBIT E – HYUNDAI-KIA DEFENDANTS’ PROPOSED CONSTRUCTIONS AND IDENTIFICATION OF EVIDENCE
TO LAG FOR HYUNDAI-KIA INDIVIDUAL TERMS**

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>Defendants’ Proposed Construction</u>	<u>Defendants’ Identification of Intrinsic and Extrinsic Evidence</u>
U.S. Patent No. RE44,331 (“331 patent”)				
1	“a [first / second / third / forth / fifth / sixth] message in a the [first / second / third / forth / fifth / sixth] beam”	’331 Patent Claim(s) 21, 23, 33, 34	A “message” should be construed as “4 bits, where each bit comprises two emissions as exemplified by Figure 5.” A “message” is not a light or energy source modulated at a specific frequency.	<u>Intrinsic evidence:</u> ’331 Patent Specification: Abstract; 1:25-26; 2:51-53; 3:39-42; 4:19-23; 5:16-22; 5:62-6:57; 7:51-60; Figs. 5, 6; Claims 21, 23, 31, 32, 33, 34, 42, 43. File History of Application No. 10/588,242: U.S. Provisional Application 60/541,412 at 2:6-29 (Block 4 (microprocessor)); 4-5, ¶1.2 (Block 2: Control model (μC’s and logic)); 40-41 (Emission Protocol); 42-43 (Claims 1, 10); Figure 1. File History of Application No. 12/827,346: Reissue Preliminary Amendment (June 30, 2010) at 2, 4-10; Reissue Application Declaration by the Assignee (Dec. 14, 2010) at “Additional Sheet”; Non-Final Office Action (Aug 3, 2011) at 4-10 (citing WO 01/45067 A1, USPN 5,463,384, USPN 5,122,796, USPN 6,150,956); Reply Under 37 CFR 1.111, Remarks (Nov. 3, 2011) at 8-14; Reply Under 37 CFR 1.111, Remarks (Dec. 7, 2011) at 9-15; Final Office Action (Mar. 4, 2012) at 2-13; Amendment and Reply Under 37 CFR 1.116 and 37 CFR 1.173, Remarks (May 9, 2012) at 4-7, 8-13; Request for

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>Defendants' Proposed Construction</u>	<u>Defendants' Identification of Intrinsic and Extrinsic Evidence</u>
				Continued Examination (RCE) Transmittal (June 11, 2012) at 2-7, 8-13; Non-Final Office Action (Aug. 28, 2012) at 3-10 (citing USPN 5,902,998); Amendment and Reply Under 37 CFR 1.116 and 37 CFR 1.173, Remarks (Nov. 27, 2012) at 3-9; Notice of Allowability (Jan. 29, 2013) at 2-6. <u>Extrinsic evidence:</u>
2	“bits” (Claims 21, 33) / “bit” (Claims 31, 42)	’331 Patent Claim(s) 21, 31, 33, 42	“digital data”	<u>Intrinsic evidence:</u> ’331 Patent Specification: Abstract; 1:25-26; 2:51-53; 3:39-42; 4:19-23; 5:16-22; 5:62-6:57; 7:51-60; Figs. 5, 6; Claims 21, 23, 31, 32, 33, 34, 42, 43. File History of Application No. 10/588,242: U.S. Provisional Application 60/541,412 at 2:6-29 (Block 4 (microprocessor)); 4-5, ¶1.2 (Block 2: Control model (μC’s and logic)); 40-41 (Emission Protocol); 42-43 (Claims 1, 10); Figure 1. File History of Application No. 12/827,346: Reissue Preliminary Amendment (June 30, 2010) at 2, 4-10; Reissue Application Declaration by the Assignee (Dec. 14, 2010) at “Additional Sheet”; Non-Final Office Action (Aug 3, 2011) at 4-10 (citing WO 01/45067 A1, USPN 5,463,384, USPN 5,122,796, USPN 6,150,956); Reply Under 37 CFR 1.111, Remarks (Nov. 3,

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>Defendants' Proposed Construction</u>	<u>Defendants' Identification of Intrinsic and Extrinsic Evidence</u>
				2011) at 8-14; Reply Under 37 CFR 1.111, Remarks (Dec. 7, 2011) at 9-15; Final Office Action (Mar. 4, 2012) at 2-13; Amendment and Reply Under 37 CFR 1.116 and 37 CFR 1.173, Remarks (May 9, 2012) at 4-7, 8-13; Request for Continued Examination (RCE) Transmittal (June 11, 2012) at 2-7, 8-13; Non-Final Office Action (Aug. 28, 2012) at 3-10 (citing USPN 5,902,998); Amendment and Reply Under 37 CFR 1.116 and 37 CFR 1.173, Remarks (Nov. 27, 2012) at 3-9; Notice of Allowability (Jan. 29, 2013) at 2-6. <u>Extrinsic evidence:</u> The American Heritage Dictionary of the English Language 1992: "Bit" The Oxford American College Dictionary 2001: "Bit" The Illustrated Dictionary of Electronics 2001: "Bit" Dictionary of Electrical Engineering 2000: "Bit"
U.S. Patent No. 7,089,101 ("101 Patent")				
3	"performing a driving maneuver formed by a parking or	'331 Patent Claim(s) 1, 13	The preamble is limiting.	<u>Intrinsic evidence:</u> '101 Patent at Abstract, 1:4-6, 2:58-67, 3:41-48, 4:18-34, Claim 1, Claim 13, Fig. 1. <u>Extrinsic evidence:</u>

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>Defendants' Proposed Construction</u>	<u>Defendants' Identification of Intrinsic and Extrinsic Evidence</u>
	shunting maneuver”			

EXHIBIT F – DEFENDANT NML’S PROPOSED CONSTRUCTIONS AND IDENTIFICATION OF EVIDENCE TO LAG FOR INDIVIDUAL TERMS

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>NML’s Proposed Construction</u>	<u>NML’s Identification of Intrinsic and Extrinsic Evidence</u>
U.S. Patent No. 7,634,666 (“’666 patent”)				
1	“A crypto-engine for cryptographic processing of data comprising”	’666 Patent Claim(s) 1	Preamble is limiting	<u>Intrinsic evidence:</u> ’666 Patent at Figs. 1-8; 1:5-2:20; 2:59-4:6; 4:26-5:37; 6:54-7:40; Title, Abstract. ’666 Patent File History: Response dated 04-21-2008, pp. 5-6; Response dated 8-15-2007, pp. 2-5; Response dated 04-21-2008, pp. 2-7; Office Action dated 02-13-2007, pp. 3-6; Office Action dated 10-17-2007, pp. 2-9; Office Action dated 08-21-2008, pp. 2-7. IPR2014-00180: Patent Owner Response dated 07-16-2014, pp. 3-7; Patent Owner Response dated 07-16-2014, pp. 36-37; Patent Owner Response dated 07-16-2014, pp. 39-42; Patent Owner Response dated 07-16-2014, pp. 43-46. <i>IBM v. Intellectual Ventures II LLC</i> CAFC-15-1837: Appellee Brief, Dkt. 28 at p. 5. <u>Extrinsic evidence:</u>

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>NML's Proposed Construction</u>	<u>NML's Identification of Intrinsic and Extrinsic Evidence</u>
2	"host processor"	'666 Patent Claim(s) 1, 4	"a processor, such as a network or personal computer, that delivers signals or information to the cryptographic coprocessor for accelerated encryption or decryption"	<u>Intrinsic evidence:</u> '666 Patent at Figs. 1-6; 1:5-2:20; 2:49-3:10; 3:40-4:3; 7:65-8:3. '666 Patent File History: Response dated 04-21-2008, pp. 5-6; Response dated 8-15-2007, pp. 2-5; Response dated 04-21-2008, pp. 2-7; Office Action dated 02-13-2007, pp. 3-6; Office Action dated 10-17-2007, pp. 2-9; Office Action dated 08-21-2008, pp. 2-7. IPR2014-00180: Patent Owner Response dated 07-16-2014, pp. 49-50. <u>Extrinsic evidence:</u> <i>Intellectual Ventures I LLC., v. CitiGroup, Inc.</i>, 1:14-cv-04638-AKH, Dkt. No. 90 (Jun. 30, 2015).

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>NML's Proposed Construction</u>	<u>NML's Identification of Intrinsic and Extrinsic Evidence</u>
3	"input-interim data"	'666 Patent Claim(s) 1	"non-final data that is in the process of more than one iteration of a cryptographic operation"	<u>Intrinsic evidence:</u> '666 Patent at Figs. 1-8; 1:5-2:20; 4:4-21; 5:9-21. '666 Patent File History: Response dated 04-21-2008, pp. 5-6; Response dated 8-15-2007, pp. 2-5; Response dated 04-21-2008, pp. 2-7; Office Action dated 02-13-2007, pp. 3-6; Office Action dated 10-17-2007, pp. 2-9; Office Action dated 08-21-2008, pp. 2-7. <u>Extrinsic evidence:</u>

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>NML's Proposed Construction</u>	<u>NML's Identification of Intrinsic and Extrinsic Evidence</u>
4	"output switches"	'666 Patent Claim(s) 1	"a device that routes output data to one of a plurality of independent paths"	<u>Intrinsic evidence:</u> '666 Patent at Figs. 1-6; 1:5-2:20; 4:4-14; 4:26-36. '666 Patent File History: Response dated 04-21-2008, pp. 5-6; Response dated 8-15-2007, pp. 2-5; Response dated 04-21-2008, pp. 2-7; Office Action dated 02-13-2007, pp. 3-6; Office Action dated 10-17-2007, pp. 2-9; Office Action dated 08-21-2008, pp. 2-7. IPR2014-00180: Patent Owner Response dated 07-16-2014, pp. 49-50. <u>Extrinsic evidence:</u> Oxford Dictionary of Computing 4th Edition (1997): "switch"

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>NML's Proposed Construction</u>	<u>NML's Identification of Intrinsic and Extrinsic Evidence</u>
5	"multiplication unit"	'666 Patent Claim(s) 1, 4	"a unit that performs multiplication"	<u>Intrinsic evidence:</u> '666 Patent at Figs. 1-6; 1:5-2:20; 2:49-53; 3:10-39; 4:26-36; 4:57-5:37; 5:39-41. '666 Patent File History: Response dated 04-21-2008, pp. 5-6; Response dated 8-15-2007, pp. 2-5; Response dated 04-21-2008, pp. 2-7; Office Action dated 02-13-2007, pp. 3-6; Office Action dated 10-17-2007, pp. 2-9; Office Action dated 08-21-2008, pp. 2-7. IPR2014-00180: Patent Owner Response dated 07-16-2014, pp. 49-50. <i>IBM v. Intellectual Ventures II LLC</i> CAFC-15-1837: Appellee Brief, Dkt. 28 at pp. 5, 8-12. <u>Extrinsic evidence:</u> <i>Intellectual Ventures I LLC, v. CitiGroup, Inc.</i>, 1:14-cv-04638-AKH, Dkt. No. 90 (Jun. 30, 2015).

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>NML's Proposed Construction</u>	<u>NML's Identification of Intrinsic and Extrinsic Evidence</u>
6	"addition unit"	'666 Patent Claim(s) 1, 4	"a unit that performs addition"	<u>Intrinsic evidence:</u> '666 Patent at Figs. 1-6; 1:5-2:20; 3:10-39; 5:39-41. '666 Patent File History: Response dated 04-21-2008, pp. 5-6; Response dated 8-15-2007, pp. 2-5; Response dated 04-21-2008, pp. 2-7; Office Action dated 02-13-2007, pp. 3-6; Office Action dated 10-17-2007, pp. 2-9; Office Action dated 08-21-2008, pp. 2-7. IPR2014-00180: Patent Owner Response dated 07-16-2014, pp. 49-50. <i>IBM v. Intellectual Ventures II LLC</i> CAFC-15-1837: Appellee Brief, Dkt. 28 at pp. 5, 8-12. <u>Extrinsic evidence:</u> <i>Intellectual Ventures I LLC., v. CitiGroup, Inc.</i>, 1:14-cv-04638-AKH, Dkt. No. 90 (Jun. 30, 2015).

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>NML's Proposed Construction</u>	<u>NML's Identification of Intrinsic and Extrinsic Evidence</u>
7	"sign inversion unit"	'666 Patent Claim(s) 1, 4	"a unit that changes positive numbers to negative numbers and changes negative numbers to positive numbers"	<u>Intrinsic evidence:</u> '666 Patent at Figs. 1-6; 1:5-2:20; 3:10-39; 4:26-36; 4:57-5:8; 5:39-49. '666 Patent File History: Response dated 04-21-2008, pp. 5-6; Response dated 8-15-2007, pp. 2-5; Response dated 04-21-2008, pp. 2-7; Office Action dated 02-13-2007, pp. 3-6; Office Action dated 10-17-2007, pp. 2-9; Office Action dated 08-21-2008, pp. 2-7. IPR2014-00180: Patent Owner Response dated 07-16-2014, pp. 49-50. <i>IBM v. Intellectual Ventures II LLC</i> CAFC-15-1837: Appellee Brief, Dkt. 28 at pp. 5, 8-12. <u>Extrinsic evidence:</u> <i>Intellectual Ventures I LLC, v. CitiGroup, Inc.</i>, 1:14-cv-04638-AKH, Dkt. No. 90 (Jun. 30, 2015).

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>NML's Proposed Construction</u>	<u>NML's Identification of Intrinsic and Extrinsic Evidence</u>
8	“the multiplication unit, the addition unit and the sign inversion unit each having an output”	'666 Patent Claim(s) 1, 4	“individual outputs for each of the addition unit, multiplication unit, and sign inversion unit”	<u>Intrinsic evidence:</u> '666 Patent at Figs. 1-6; 1:5-2:20; 3:10-39; 4:26-36; 4:57-5:8; 4:26-5:37; 6:54-7:40. '666 Patent File History: Response dated 04-21-2008, pp. 5-6; Response dated 8-15-2007, pp. 2-5; Response dated 04-21-2008, pp. 2-7; Office Action dated 02-13-2007, pp. 3-6; Office Action dated 10-17-2007, pp. 2-9; Office Action dated 08-21-2008, pp. 2-7. IPR2014-00180: Patent Owner Response dated 07-16-2014, pp. 15-21; Patent Owner Response dated 07-16-2014, pp. 49-50. <i>IBM v. Intellectual Ventures II LLC</i> CAFC-15-1837: Appellee Brief, Dkt. 28 at pp. 5, 8-12. <u>Extrinsic evidence:</u>

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>NML's Proposed Construction</u>	<u>NML's Identification of Intrinsic and Extrinsic Evidence</u>
9	"arithmetic controller"	'666 Patent Claim(s) 1, 4	"a device that controls the storing and loading of data as well as the arithmetic operations performed by the multiplication unit, addition unit, and sign inversion unit"	<u>Intrinsic evidence:</u> '666 Patent at Figs. 1-8; 1:5-2:20; 3:10-4:6; 4:26-5:37; 6:54-7:40. '666 Patent File History: Response dated 04-21-2008, pp. 5-6; Response dated 8-15-2007, pp. 2-5; Response dated 04-21-2008, pp. 2-7; Response dated 3-16-2009, pp. 3-7; Office Action dated 02-13-2007, pp. 3-6; Office Action dated 10-17-2007, pp. 2-9; Office Action dated 08-21-2008, pp. 2-7. IPR2014-00180: Patent Owner Response dated 07-16-2014, pp. 15-21; Patent Owner Response dated 07-16-2014, pp. 49-50. <u>Extrinsic evidence:</u> Oxford Dictionary of Computing 4th Edition (1997): "controller" IEEE 100, The Authoritative Dictionary of IEEE Standards Terms, 7th Edition (2000): "controller" Modern Dictionary of Electronics, 7th Ed., 1999: "controller"

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>NML's Proposed Construction</u>	<u>NML's Identification of Intrinsic and Extrinsic Evidence</u>
10	“wherein the outputs of the multiplication unit, the addition unit and the sign inversion unit are feedback to the arithmetic controller”	'666 Patent Claim(s) 1, 4	“individual outputs of each of the multiplication unit, addition unit, and sign inversion unit are fed back to an input of the arithmetic controller”	<u>Intrinsic evidence:</u> '666 Patent at Figs. 1-6; 1:5-2:20; 3:10-39; 4:26-36; 4:57-5:8; 4:26-5:37; 6:54-7:40. '666 Patent File History: Response dated 04-21-2008, pp. 5-6; Response dated 8-15-2007, pp. 2-5; Response dated 04-21-2008, pp. 2-7; Response dated 3-16-2009, pp. 3-7; Office Action dated 02-13-2007, pp. 3-6; Office Action dated 10-17-2007, pp. 2-9; Office Action dated 08-21-2008, pp. 2-7. IPR2014-00180: Patent Owner Response dated 07-16-2014, pp. 15-21; Patent Owner Response dated 07-16-2014, pp. 49-50. <i>IBM v. Intellectual Ventures II LLC</i> CAFC-15-1837: Appellee Brief, Dkt. 28 at pp. 5, 8-12. <u>Extrinsic evidence:</u> IEEE 100, The Authoritative Dictionary of IEEE Standards Terms, 7th Edition (2000): “feedback” McGraw-Hill Electronics Dictionary, 6th Ed., 1997: “feedback”

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>NML's Proposed Construction</u>	<u>NML's Identification of Intrinsic and Extrinsic Evidence</u>
11	"op-code signal"	'666 Patent Claim(s) 4	"signal capable of indicating an RSA operation when it has one characteristic and an ECC operation when it has a different characteristic. RSA and ECC are two protocols for encryption"	<u>Intrinsic evidence:</u> '666 Patent at Figs. 1-8; 1:5-2:20; 2:43-4:3; 8:29-10:65. '666 Patent File History: Response dated 04-21-2008, pp. 5-6; Response dated 8-15-2007, pp. 2-5; Response dated 04-21-2008, pp. 2-7; Response dated 3-16-2009, pp. 3-7; Office Action dated 02-13-2007, pp. 3-6; Office Action dated 10-17-2007, pp. 2-9; Office Action dated 08-21-2008, pp. 2-7. IPR2014-00180: Patent Owner Response dated 07-16-2014, pp. 29-30. <u>Extrinsic evidence:</u> <i>Intellectual Ventures II LLC, v. JP Morgan Chase & Co., et. al.</i>, 1:13-cv-03777-AKH, Dkt. No. 82 (Mar. 18, 2014).

No.	<u>Term</u>	<u>Patent(s)/Claims(s)</u>	<u>NML's Proposed Construction</u>	<u>NML's Identification of Intrinsic and Extrinsic Evidence</u>
12	“a cryptographic controller”	'666 Patent Claim(s) 1, 4	“a device programmed to control cryptographic functions”	<u>Intrinsic evidence:</u> '666 Patent at Figs. 1-8; 1:5-2:20; 3:10-4:6; 4:26-5:37; 6:54-7:40. '666 Patent File History: Response dated 04-21-2008, pp. 5-6; Response dated 8-15-2007, pp. 2-5; Response dated 04-21-2008, pp. 2-7; Response dated 3-16-2009, pp. 3-7; Office Action dated 02-13-2007, pp. 3-6; Office Action dated 10-17-2007, pp. 2-9; Office Action dated 08-21-2008, pp. 2-7. IPR2014-00180: Patent Owner Response dated 07-16-2014, pp. 15-21; Patent Owner Response dated 07-16-2014, pp. 49-50. <u>Extrinsic evidence:</u> Oxford Dictionary of Computing 4th Edition (1997): “controller” IEEE 100, The Authoritative Dictionary of IEEE Standards Terms, 7th Edition (2000): “controller” Modern Dictionary of Electronics, 7th Ed., 1999: “controller”