Paper No. _____

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TRW AUTOMOTIVE U.S. LLC
Petitioner

v.

MAGNA ELECTRONICS INCORPORATED
Patent Owner

Case IPR2014-00262

U.S. Patent No. 7,655,894

PETITIONER TRW'S NOTICE OF APPEAL

Director of the United States Patent and Trademark Office
c/o Office of the General Counsel
Madison Building East, 10B20
600 Dulaney Street
Alexandria, VA 22314-5793

Notice is hereby given, pursuant to 37 C.F.R. § 90.2(a), that Petitioner, TRW Automotive U.S. LLC ("TRW") hereby appeals to the United States Court of Appeals for the Federal Circuit from the Final Written Decision entered on June 25, 2015 (Paper 37) (the "Final Written Decision"; a copy of which is attached hereto), and from all underlying orders, decisions, rulings and opinions.

In accordance with 37 C.F.R. § 90.2(a)(3)(ii), TRW further indicates that the issues on appeal include, but are not limited to, the Patent Trial and Appeal Board's application and use of the broadest reasonable interpretation standard, claim construction and applications thereof, and finding of claims 1-3, 5, 10, 13-16, 25, 26, and 28 of the '894 Patent to "have not been shown to be unpatentable" (Final Written Decision at p. 15), and any finding or determination supporting or relating to those issues, as well as all other issues decided adversely to TRW in any orders, decisions, rulings and opinions.

Simultaneously with this submission, a copy of this Notice of Appeal is being filed with the Patent Trial and Appeal Board. In addition, three copies of this Notice of Appeal, along with the required docketing fees, are being filed with the Clerk's Office for the United States Court of Appeals for the Federal Circuit.

Date: August 24, 2015

Respectfully submitted,

/Timothy Sendek/

_____

Timothy Sendek, 64,542
Lathrop & Gage LLP
155 North Wacker Dr, Suite 3050
Chicago, IL 60606
Phone: 312.920.3300
Fax: 312.920.3301
patent@lathropgage.com

Trials@uspto.gov
Tel: 571-272-7822

Paper 37
Entered: June 25, 2015

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TRW AUTOMOTIVE US LLC,
Petitioner,

v.

MAGNA ELECTRONICS INC.,
Patent Owner.

Case IPR2014-00262
Patent 7,655,894 B2

Before JUSTIN T. ARBES, BENJAMIN D. M. WOOD, and NEIL T. POWELL, *Administrative Patent Judges.*

WOOD, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

A. Background

TRW Automotive US LLC ("TRW") filed a Petition (Paper 1, "Pet.") to institute an *inter partes* review of claims 1–5, 9, 10, 12–21, and 24–28 of U.S. Patent No. 7,655,894 B2 (Ex. 1002, "the '894 patent"). Magna Electronics Inc. ("Magna") filed a Preliminary Response. Paper 7. We instituted an *inter partes* review of claims 1–3, 5, 10, 13–16, 25, 26, and 28 based on the following proposed grounds of unpatentability:

Reference[s]	Basis	Claims Challenged
Yanagawa,[1] Vellacott,[2] and Koshizawa[3]	§ 103(a)	1–3, 5, and 10
Yanagawa, Vellacott, Koshizawa, and Bottesch[4]	§ 103(a)	16
Yanagawa, Vellacott, Koshizawa, and Aurora[5]	§ 103(a)	13 and 14
Yanagawa, Vellacott, Koshizawa, and Kawahara[6]	§ 103(a)	15, 25, 26, and 28

After the Board instituted trial, Magna filed a Patent Owner Response (Paper 23, "PO Resp."), to which TRW replied (Paper 27, "Pet. Reply").

[1] JP S62-131837 to Yanagawa (June 15, 1987) (Ex. 1005).

[2] Oliver Vellacott, *CMOS in Camera*, IEE REVIEW (May 1994) (Ex. 1007).

[3] US 5,177,606 to Koshizawa (Jan. 5, 1993) (Ex. 1008).

[4] US 5,166,681 to Bottesch et al. (Nov. 24, 1992) (Ex. 1010).

[5] Mai Chen, *AURORA: A Vision-Based Roadway Departure Warning System*, 1995 IEEE/RSJ INT'L CONG. ON INTELLIGENT ROBOTS AND SYS. (Aug. 9, 1995) (Ex. 1012).

[6] US 4,758,883 to Kawahara (Jul. 19, 1988) (Ex. 1013).

Oral Hearing was held on February 19, 2015, and the Hearing Transcript (Paper 36, "Tr.") has been entered in the record.

We have jurisdiction under 35 U.S.C. § 6(c). This Final Decision is entered pursuant to 35 U.S.C. § 318(a). We determine that TRW has not shown by a preponderance of the evidence that the challenged claims are unpatentable.

B. Related Proceedings

TRW discloses that the '894 patent has been asserted in *Magna Electronics, Inc. v. TRW Automotive Holdings Corp*., Case No. 1:12-cv-00654-PLM (W.D. Mich. 2012). Pet. 6.

C. The '894 Patent (Ex. 1002)

The '894 patent, titled "Vehicular Image Sensing System," describes a system for controlling a vehicle—e.g., dimming the vehicle's headlights—in response to detecting "objects of interest" in front of the vehicle—e.g., the headlights of oncoming vehicles and the taillights of leading vehicles. Ex. 1002, 1:19–24. The system uses an image sensor that divides the scene in front of the vehicle into "a plurality of spatially separated sensing regions." *Id*. at 2:9–12. A control circuit with a processor receives image data from the image sensor and determines if individual regions include light sources having a particular characteristic, such as a "spectral characteristic" (color), or intensity. *Id*. at 1:60–66, 5:48–56. By comparing the lights' characteristics with the "distribution" of the lights across the spatially separated sensing regions, such as the lights' proximity to each other and to the vehicle's central axis, the system can distinguish oncoming headlights and leading taillights from streetlights and other lights that are not of interest to the system. *Id*. at 2:38–49.

D. Illustrative Claims

Of the claims at issue in this proceeding, claims 1 and 25 are independent, and each is drawn to an image sensing system for a vehicle. Ex. 1002, 12:18–15:37. Claims 2, 3, 5, 10, and 13–16 depend directly or indirectly from claim 1, and claims 26 and 28 depend directly or indirectly from claim 25. *Id*. at12:18–16:9.

The independent claims share at least three common limitations: (1) an imaging sensor comprising a two-dimensional array of light-sensing photosensor elements; (2) the imaging sensor being inside the vehicle on which it is mounted, having a forward field of view through the vehicle's windshield; and (3) a logic and control circuit comprising a processor that processes the image data to identify objects of interest. Ex. 1002, 12:18–32, 13:55–67, 14: 31–42, 15:11–24. Independent claim 1 is illustrative and is reproduced below:

> 1. An image sensing system for a vehicle, said image sensing system comprising:
>
> an imaging sensor comprising a two-dimensional array of light sensing photosensor elements formed on a semiconductor substrate;
>
> wherein said imaging sensor is disposed at an interior portion of the vehicle proximate the windshield of the vehicle and wherein said interior portion is at or proximate to an interior rearview mirror assembly of the vehicle and wherein said imaging sensor has a forward field of view to the exterior of the vehicle through the windshield;
>
> a logic and control circuit comprising an image processor for processing image data derived from said imaging sensor;
>
> wherein said image sensing system identifies objects of interest by processing said image data to identify objects of interest based at least on spectral differentiation; and

> wherein identification of objects of interest is enhanced by comparing over successive frames image data associated with objects in said forward field of view of said image sensor.

II. ANALYSIS

A. Claim Construction

"A claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears." 37 C.F.R. § 42.100(b); *see In re Cuozzo Speed Tech., LLC*, 778 F.3d 1271, 1281 (Fed. Cir. 2015) ("We conclude that Congress implicitly adopted the broadest reasonable interpretation standard in enacting the AIA."). Under that standard, the claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Suitco Surface, Inc.*, 603 F.3d 1255, 1260 (Fed. Cir. 2010). Thus, we generally give claim terms their ordinary and customary meaning. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007) ("The ordinary and customary meaning is the meaning that the term would have to a person of ordinary skill in the art in question.") (internal quotation marks omitted).

We construe the following term in claim 1: "wherein identification of objects of interest is enhanced by comparing over successive frames image data associated with objects in said forward field of view of said image sensor" ("the *enhanced* limitation"). No other terms require express construction for purposes of this decision.

> "*wherein identification of objects of interest is enhanced by comparing over successive frames image data associated with objects in said forward field of view of said image sensor*"

The parties dispute the meaning of this term, and in particular the meaning of the phrase "the identification of objects of interest is enhanced." Magna argues that this phrase means "the quality of the identification of objects [of interest] is improved." PO Resp. 6. According to Magna,

> The ordinary and customary meaning of the term "enhanced" is "to increase or improve in value, quality, desirability, or attractiveness." (Merriam-Webster definition of "enhance," Ex. 2034). The phrase "is enhanced" directly follows "identification of objects of interest." Accordingly, the plain language of claim 1 is clear that the quality of the identification of objects is improved.

Id. Magna asserts that the '894 patent Specification "is consistent with this construction," as it explains that "using a plurality of frames [of image data] guards against erroneous object detection due to noise and eliminates headlamp toggling when sources are at the fringe of the detection range." *Id*. at 6–7 (quoting Ex. 1002, 7:28–37). Thus, Magna asserts that "the recited enhancement is part of the object-identification process, not separate from it." *Id*. at 7.

TRW's position, however, is that the construction of "identification of objects of interest is enhanced" in claim 1 "includes identifying a further characteristic of an object of interest." Pet. Reply 3. Like Magna, TRW finds support for its proposed interpretation in the dictionary definition of "enhanced" set forth in Ex. 2034. *Id*. at 2; *see* Tr. 8:23–9:14 (agreeing with Magna that "enhanced" means "to increase or improve value [or] the quality,

desirability or attractiveness"). And, again like Magna, TRW finds support for its proposed construction in the Specification. TRW states:

> [T]he '894 Patent describes (i) obtaining information on object motion, (ii) by comparing objects over successive frames, (iii) to enhance object recognition. While the '894 Patent does use hysteresis, it is clear that the '894 Patent also initially *identifies* a headlight or taillight spectral signature in a *single frame*. *See* 1002 at 6:32–7:17. The hysteresis is used to determine when to send a signal to switch the headbeam state, not to identify an object. *See* 1002 at 7:28–35.

Id. at 2–3 (emphasis in original).

The claim language at issue recites that the "*identification* of objects of interest is enhanced" (emphasis added). It does not, as TRW's arguments suggest, recite that the knowledge of various aspects of the object of interest is enhanced. Further, using the definition of "enhance" on which the parties apparently agree (PO Resp. 6 (quoting Ex. 2034); Pet. Reply 2 (same)), the plain meaning of "identification of objects of interest is enhanced" is that the identification of objects of interest is improved, e.g., in quality, as Magna proposes. That is, the quality of the identification of objects of interest is better than it would have been if the identification had not been based on processing multiple frames of image data.

The Specification supports this interpretation in two ways. First, the Specification uses the term "enhance" in the context of describing processing techniques that improve the quality of an identification of an object of interest—i.e., that improve the likelihood of correctly identifying, or "recognizing," objects of interest, and ignoring objects not of interest. For example, the Specification teaches that

> The present invention is capable of utilizing spatial filtering to even further *enhance* the ability to identify light sources. . . . For example, it can be concluded that very closely adjacent red and white light sources are *not of interest* as oncoming headlights or taillights . . . [because they] can be identified as a streetlight.

Ex. 1002, 10:18–31 (emphasis added). Likewise, the Specification teaches that

> Pattern recognition may be used to further assist in the detection of headlights, taillights, and other objects of interest. . . . By looking for a triad pattern, including the center high-mounted stoplight required on the rear of vehicles, stoplight *recognition* can be *enhanced*. Furthermore, "object *recognition* can be *enhanced* by comparing identified objects over successive frames. This temporal processing can yield information on object motion and can be used to assist in *qualifying or disqualifying objects of interest*.

Id. at 10:33–45.

Second, the Specification teaches that processing image data over several frames does, in fact, improve the quality of the identification of objects of interest. In particular, the Specification teaches a control routine that "requir[es] that a headlight spectral signature or a taillight spectral signature [to] be detected for a number of frames prior to switching the headlights to a low-beam state." *Id*. at 7:28–31. Doing so "guards against erroneous detection due to noise in a given frame." *Id*. at 7:33–36. That is, this control routine improves the quality of the identification of objects of interest by reducing the chance that noise in a single frame will cause the system to erroneously detect an object of interest when none is present.

We do not find persuasive TRW's argument that Magna's interpretation "reads out embodiments where an object of interest is

recognized in a single frame." Pet. Reply 2. The interpretation does not require that the identification of objects of interest always requires processing of multiple frames of image data; rather, it means that an identification based on processing multiple frames of image data is less likely to be erroneous than an identification based on the processing of a single frame of image data. To summarize, we agree with Magna that the broadest reasonable interpretation of "identification of objects of interest is enhanced" is that the quality of the identification of objects of interest is improved. Further, the quality of such identification is improved when the possibility of error is reduced.[7]

B. Claims 1–3, 5, and 10—Obviousness—Yanagawa, Vellacott, and Koshizawa

A claim is unpatentable under 35 U.S.C. § 103 if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 406 (2007). In the Decision to Institute, we adopted Petitioner's proposed definition of a person having ordinary skill in the art of the '894 patent at the time of the invention, which was supported by Dr. Miller's testimony.

[7] We note that our construction is consistent with the court's construction of the same term in *Magna Elec., Inc. v. TRW Automotive Holdings Corp.*, Civ. No. 1:12-cv-654, slip op. at 22 (W.D. Mich. Apr. 28, 2015p). There, the court adopted Magna's construction of the term, i.e., that "identification of objects if interest is improved." *Id*. The court explained that "the specification and claims describe a system that operates better after comparing successive frames than it would if it captured only one frame." *Id*. at 23.

Dec. 12–13. The parties have not disputed this definition, and we see no reason to modify it in light of the record developed during trial. Therefore, we conclude that a person of ordinary skill in the art would have had at least the qualifications of or equivalent to either (1) a master's degree in electrical engineering or computer science, with course work or research in vision systems, or (2) an undergraduate degree in electrical engineering or computer science with at least two years of work making optical vision systems. Id. (citing Pet. 22, Ex. 1014 ¶ 19).

1. Claim 1

TRW relies on Yanagawa as teaching most of the limitations of independent claim 1. Pet. 21–22. Yanagawa describes a vehicle-mounted imaging apparatus that detects the high beams of oncoming vehicles and taillights of leading vehicles based on the "color features" of the lights and whether the lights are at the same height. Ex. 1005, 002–003. Yanagawa's system dims the vehicle's headlights in response to such detection. *Id*. at 001.

TRW relies on the following excerpt from Yanagawa to teach the *enhanced* limitation:

> The distance between vehicles is calculated in this way every 0.05 second as the image data are stored, and the speed of the device vehicle relative to a vehicle traveling ahead is calculated from the distance between vehicles obtained every 0.05 second. Specifically, 0.05 second after a taillight image such as shown in Fig. 5(A) has been obtained, the same taillight image is shown in Fig. 5(B), and the distance between taillights 52 and 53 changes from r1 to r2.

Pet. 27 (quoting Ex. 1005, 4).

Magna responds that TRW is "[u]sing an incorrect construction of '*identification of objects* of interest is enhanced'" to support its unpatentability argument. PO Resp. 9. Magna asserts that the quoted passage explains how Yanagawa's system calculates the distance between the equipped vehicle and a vehicle traveling ahead, and the relative speed of the vehicle traveling ahead, but does not describe identifying objects of interest or enhancing such identification. *Id*. at 9–10. According to Magna, the described distance and speed calculations are unrelated to and separate from the step of recognizing headlights and taillights in Yanagawa, and, in fact, are carried out after Yanagawa's system already has recognized the leading vehicle's taillights. *Id*. at 10 (citing Ex. 1005, Fig. 3).

TRW does not dispute that the portion of Yanagawa on which it relies to teach this limitation does not involve the actual identification of objects of interest. Instead, TRW argues that this portion "expressly determines at least two further characteristics of identified taillights and vehicles thereof," i.e. speed of the vehicle and distance to the device vehicle. Pet. Reply 3 (emphasis omitted). Further, TRW argues that Yanagawa teaches this limitation even under Magna's interpretation, because "Yanagawa utilizes speed and distance calculation . . . to enhance identification of objects by identifying detected objects as potential rear-end collision objects." *Id*. at 4.

As an initial matter, there is no dispute that the portion of Yanagawa on which TRW relies teaches "comparing over successive frames image data associated with objects in said forward field of view of said image sensor." Further, there does not seem to be any dispute that the portion of Yanagawa on which TRW relies describes calculating the relative speed and distance of an object of interest that has already been identified as such. Therefore, the

dispute is whether that teaching corresponds to "enhanc[ing]" "identification of objects of interest" as claim 1 requires. We determine that it does not. As discussed above, we construe "identification of objects of interest is enhanced" to mean that the quality of the identification of objects of interest is improved; i.e., that the identification is less likely to be erroneous. But, as Magna correctly points out, Yanagawa's speed and distance calculations of a leading vehicle are independent of its identification of the leading vehicle as an object of interest; nor does Yanagawa teach that such calculations reduce the possibility of error in an identification of an object of interest. *See* PO Resp. 9–10; Ex. 2032 ¶¶ 27–36 (supporting testimony of Matthew A. Turk, Ph.D.).

In its Reply, TRW argues that even under Magna's construction, Yanagawa teaches the "enhanced" limitation. Pet. Reply 4. According to TRW, "Yanagawa utilizes speed and distance calculation . . . to enhance identification of objects by identifying detected objects as potential rear-end collision objects." *Id*. TRW refers to Yanagawa's teaching that "because the distance between vehicles and relative speed have been calculated in this case, these data can be used to predict a potential rear-end collision." *Id*. (quoting Ex. 1005, 005) (emphasis omitted).

As an initial matter, this argument is newly raised in the Reply, and is based on a portion of Yanagawa that TRW alleges, for the first time, corresponds to the *enhanced* limitation. Although the argument is based on Magna's proposed claim construction rather than the construction that TRW proposes in its Reply,[8] we consider the dispute over the proper construction

[8] TRW did not propose a construction for the *enhanced* limitation in the Petition.

of this term to be sufficiently foreseeable so that TRW should have presented the argument and evidence in the Petition. TRW's failure to do so at that time has deprived Magna of the opportunity to respond to it, as Magna could not respond to TRW's Reply. For this reason, we decline to consider it. *See* Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,767 (Aug. 14, 2012) (stating that a reply that belatedly presents evidence will not be considered, and that one indication that a new issue has been raised in a reply is where the petitioner submits "new evidence necessary to make out a *prima facie* case" of unpatentability of an original claim).

Even if we were to consider this argument, however, we would find it unpersuasive. TRW does not point us to anything in Yanagawa that suggests that a previously identified vehicle becomes a new "collision object" when it becomes a collision hazard. Nor do we find any such teaching in the reference. Instead, the vehicle remains a known (i.e., identified) object regardless of its speed and distance relative to the equipped vehicle.

In sum, we determine that TRW has not shown by a preponderance of the evidence that claim 1 would have been obvious over Yanagawa, Vellacott, and Koshizawa.

2. Claims 2, 3, 5, and 10

Claims 2, 3, 5, and 10 depend from claim 1, and, therefore, necessarily contain the *enhanced* limitation. TRW relies on its discussion of claim 1 with respect to this limitation in the dependent claims. Pet. 30–34. Therefore, for the reasons set forth above, we determine that TRW has not shown by a preponderance of the evidence that claims 2, 3, 5, and 10 would have been obvious over Yanagawa, Vellacott, and Koshizawa.

C. Claims 13–16—Obviousness—Yanagawa, Vellacott, Koshizawa, and Bottesch (Claim 16), Aurora (Claims 13 and 14), or Kawahara (Claim 15)

Claims 13–16 depend from claim 1, and, therefore, necessarily contain the *enhanced* limitation. TRW relies on its discussion of claim 1 with respect to this limitation in these dependent claims. Pet. 38, 40–44. Therefore, for the reasons set forth above, we determine that TRW has not shown by a preponderance of the evidence that claims 13–16 would have been obvious over Yanagawa, Vellacott, Koshizawa, and Bottesch (claim 16), Aurora (claims 13 and 14), or Kawahara (claim 15).

D. Claims 25, 26, and 28—Obviousness—Yanagawa, Vellacott, Koshizawa, and Kawahara

Claim 25 is independent. It does not contain the *enhanced* limitation, but instead recites "wherein a comparison is made by said logic and control circuit of a frame comprising image data to a successor frame in order to identify, at least in part, an object of interest." Claims 26 and 28 depend from claim 25. TRW asserts that the following portion of Yanagawa teaches this limitation:

> The distance between vehicles is calculated in this way every 0.05 second as the image data are stored, and the speed of the device vehicle relative to a vehicle traveling ahead is calculated from the distance between vehicles obtained every 0.05 second. Specifically, 0.05 second after a taillight image such as shown in Fig. 5(A) has been obtained, the same taillight image is shown in Fig. 5(B), and the distance between taillights 52 and 53 changes from r1 to r2.

Pet. 47, 50, 57 (quoting Ex. 1005, 004). This is the same passage on which TRW relies in the Petition as teaching the *enhanced* limitation of claim 1.

Magna disputes that this portion of Yanagawa teaches this limitation. As it argued with respect to the *enhanced* limitation in claim 1, and based on the same reasoning, Magna argues that this passage "is unrelated to the identification of objects." PO Resp. 21. TRW likewise counters with the same arguments it raised with respect to claim 1. Pet. Reply 5.

Claim 25 expressly requires that the comparison of a frame of image data with a successor frame be for the purpose of "identify[ing], at least in part, an object of interest." For the reasons discussed above in Section II.B.1, we determine that the passage on which TRW relies is not directed to the identification of objects of interest; instead, it describes calculating the relative speed and distance of a previously identified object of interest. Accordingly, for the reasons discuss above, we determine that TRW has not shown by a preponderance of the evidence that claims 25, 26, and 28 would have been obvious over Yanagawa, Vellacott, Koshizawa, and Kawahara.

III. CONCLUSION

For the foregoing reasons, we determine that TRW has not shown by a preponderance of the evidence that claims 1–3, 5, 10, 13–16, 25, 26, and 28 of the '894 patent are unpatentable under 35 U.S.C. § 103(a).

IV. ORDER

For the reasons given, it is

ORDERED that claims 1–3, 5, 10, 13–16, 25, 26, and 28 of the '894 patent have not been shown to be unpatentable.

This is a Final Decision. Parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

PETITIONER:

Josh Snider
A. Justin Poplin
Timothy Sendek
LATHROP & GAGE LLP
patent@lathropgage.com
jpoplin@lathropgage.com
tsendek@lathropgage.com

PATENT OWNER:

David K.S. Cornwell
Jason Eisenberg
Robert Sterne
STERNE, KESSLER, GOLDSTEIN & FOX PLLC
Davidc-PTAB@skgf.com
jasone-PTAB@skgf.com
rsterne-PTAB@skgf.com

Timothy A. Flory
Terence J. Linn
GARDNER, LINN, BURKHART & FLORY, LLP
Flory@glbf.com
linn@glbf.com

LATHROP & GAGE LLP

JON R. TREMBATH
DIRECT LINE: 720.931.3238
EMAIL: JTREMBATH@LATHROPGAGE.COM
WWW.LATHROPGAGE.COM

950 SEVENTEENTH STREET, SUITE 2400
DENVER, COLORADO 80202
PHONE: 720.931.3200
FAX: 720.931.3201

August 24, 2015

Clerk of Court
United States Court of Appeals for the Federal Circuit
717 Madison Place, N.W.
Washington, DC 20439

RE: Appeal of Patent Trial and Appeal Board Decision in Case IPR2014-00262 Concerning U.S. Patent No. 7,655,894

Dear Clerk of Court:

TRW Automotive U.S. LLC ("TRW") is appealing a Decision of the Board as outlined in the Notice of Appeal accompanying this communication. The Notice of Appeal has been timely filed with the Patent Office in the manner provided in 35 U.S.C. 142, 37 C.F.R. §90.2, and 37 C.F.R. §90.3. This communication provides you with three copies of the Notice as required per Federal Circuit Rule 15(a)(1).

Very truly yours,

LATHROP & GAGE LLP

By: /s/ Jon R. Trembath
Jon R. Trembath

CERTIFICATE OF SERVICE

The undersigned hereby certifies that, in addition to being filed electronically through the Patent Trial and Appeal Board's Patent Review Processing System (PRPS), the original version of the foregoing, PETITIONER TRW'S NOTICE OF APPEAL and attached FINAL WRITTEN DECISION (Paper 37), was filed by Express Mail on August 24, 2015, with the Director of the United States Patent and Trademark Office, at the following address:

Director of the United States Patent and Trademark Office
c/o Office of the General Counsel
Madison Building East, Room 10B20
600 Dulaney Street
Alexandria, VA 22313-1450

The undersigned hereby further certifies that three (3) true and correct copies of the foregoing, PETITIONER TRW'S NOTICE OF APPEAL and attached FINAL WRITTEN DECISION (Paper 37) with accompanying letter by Jon Trembath, were served by Express Mail on August 24, 2015, and one true and correct copy filed electronically on the CM/ECF system, with the Clerk's Office of the United States Court of Appeals for the Federal Circuit, at the following address:

Clerk of Court
United States Court of Appeals for the Federal Circuit
717 Madison Place, N.W.
Washington, DC 20439

The undersigned hereby further certifies that a true and correct copy of the foregoing, PETITIONER TRW'S NOTICE OF APPEAL and attached FINAL WRITTEN DECISION (Paper 37), was served on Patent Owner on August 24, 2015 via email pursuant to the agreement of counsel of record for Patent Owner Magna Electronics, Inc. to the attorneys of record at the following address:

Davidc-PTAB@skgf.com
Jasone-PTAB@skgf.com
Rsterne-PTAB@skgf.com
Flory@glbf.com
linn@glbf.com

David K.S. Cornwell
Jason D. Eisenberg
Robert Green Sterne
Sterne, Kessler, Goldstein & Fox PLLC
1100 New York Avenue NW
Washington, D.C. 20005

Timothy A. Flory
Terence J. Linn
Van Dyke, Gardner, Linn & Burkhart, LLP
2851 Charlevoix Drive, S.E., Suite 207
Grand Rapids Michigan 49546

/Timothy Sendek/

_____

Timothy Sendek, 64,542
Lathrop & Gage LLP
155 North Wacker Dr, Suite 3050
Chicago, IL 60606
Phone: 312.920.3300
Fax: 312.920.3301
patent@lathropgage.com