

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TRW AUTOMOTIVE U.S. LLC,
Petitioner,

v.

MAGNA ELECTRONICS INC.,
Patent Owner.

Case IPR2015-01451
Patent 8,692,659 B2

Before PHILLIP J. KAUFFMAN, MITCHELL G. WEATHERLY, and
ROBERT J. WEINSCHENK, *Administrative Patent Judges*.

WEINSCHENK, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

TRW Automotive U.S. LLC (“Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting *inter partes* review of claims 90–97 of U.S. Patent No. 8,692,659 B2 (Ex. 1002, “the ’659 patent”). Magna Electronics Inc. (“Patent Owner”) filed a Preliminary Response (Paper 6, “Prelim. Resp.”) to the Petition. An *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a).

For the reasons set forth below, Petitioner does not demonstrate a reasonable likelihood of prevailing in showing the unpatentability of claims 90–97 of the ’659 patent. Accordingly, the Petition is denied, and no trial is instituted.

A. *Related Proceedings*

The parties indicate that the ’659 patent is at issue in the following district court case: *Magna Electronics Inc. v. TRW Automotive Holdings Corp.*, No. 1:14-cv-341 (W.D. Mich.). Pet. 4–5; Paper 5, 1. The parties also indicate that the ’659 patent is at issue in the following International Trade Commission (“ITC”) investigation: *In re Certain Vision-Based Driver Assistance System Cameras and Components Thereof*, Inv. No. 337-TA-907. Pet. 4; Paper 5, 1. Patent Owner indicates that the ’659 patent is the subject of the petitions for *inter partes* review in IPR2015-00972, IPR2015-01426, IPR2015-01427, IPR2015-01428, IPR2015-01429, IPR2015-01430, IPR2015-01431, IPR2015-01433, IPR2015-01436, and IPR2015-01450. Paper 5, 2.

B. *The '659 Patent*

The '659 patent relates to an accessory mounting system for a vehicle. Ex. 1002, col. 27, ll. 54–56. Some of the parties' arguments discussed herein focus on Figure 16B of the '659 patent. Figure 16B is reproduced below.

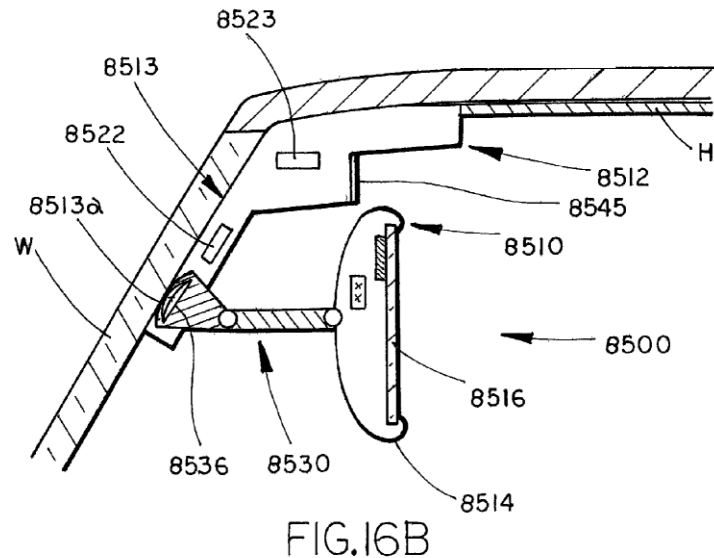


Figure 16B shows a header console and an interior rearview mirror assembly. *Id.* at col. 27, ll. 56–59. Specifically, header console 8512 includes extension 8513 that extends down along the inner surface of the windshield and behind mirror assembly 8510. *Id.* at col. 27, ll. 60–66. Header console 8512 includes ample space and mounting surfaces for one or more vehicle accessories, such as a global positioning system (“GPS”) antenna, a rain sensor, or a camera. *Id.* at col. 27, ll. 60–66, col. 28, ll. 47–54. The downward extending portion of header console 8512 may be mounted to the inner surface of the windshield by attachment members, such as rails or channels. *Id.* at col. 28, ll. 14–20. Mirror assembly 8510 includes casing 8514 and reflective element 8516 and is detachably mounted to mirror mounting button 8536. *Id.* at col. 28, ll. 30–35. Header console 8512

includes forked portion 8513a that straddles mirror mounting button 8536.

Id. at col. 28, ll. 7–13.

C. *Illustrative Claim*

Claim 90 is independent and is reproduced below.

90. An accessory mounting system for a vehicle, said accessory mounting system comprising:

an attachment element adhesively attached at an in-cabin surface of a vehicle windshield of a vehicle equipped with said accessory mounting system;

said attachment element comprising a mirror mounting button;

a plurality of attachment members adhesively attached at the in-cabin surface of the vehicle windshield local to said attachment element;

an interior rearview mirror assembly comprising a mirror head and a mirror support;

wherein said mirror head comprises a mirror reflective element and a mirror casing;

wherein said mirror support comprises a mirror mount that is configured to mount said interior rearview mirror assembly to said mirror mounting button of said attachment element;

a structure configured for mounting to said plurality of attachment members attached at the in-cabin surface of the vehicle windshield;

said structure configured to receive and be supported by said plurality of attachment members that are adhesively attached at the in-cabin surface of the vehicle windshield;

wherein said structure is configured to accommodate a forward facing camera;

wherein, with said structure received by and supported by said attachment members and when said structure is accommodating said forward facing camera, said forward facing camera has a field of view through the vehicle windshield;

wherein said forward facing camera comprises a CMOS imaging device;

wherein said interior rearview mirror assembly comprise a double-ball interior rearview mirror assembly; and

wherein, with said structure received by and supported by said attachment members, said mirror mount can be mounted to said mirror mounting button of said attachment element and can be demounted from said mirror mounting button of said attachment element without demounting said structure from said attachment members.

Ex. 1002, col. 54, l. 61–col. 55, l. 36.

D. *Evidence of Record*

Petitioner relies on the following references and declaration (*see* Pet. 2–3):

Reference or Declaration	Exhibit No.
U.S. Patent No. 5,576,687 (“Blank”)	Ex. 1006
U.S. Patent No. 5,796,094 (“Schofield”)	Ex. 1007
U.S. Patent No. 5,667,896 (“Carter”)	Ex. 1008
U.S. Patent No. 5,710,633 (“Klappenbach”)	Ex. 1010
U.S. Patent No. 6,445,287 B1 (“the ’287 patent”)	Ex. 1012
Parag H. Batavia, <i>Driver-Adaptive Lane Departure Warning Systems</i> , The Robotics Institute, Carnegie Mellon University (Sept. 20, 1999) (“Batavia”)	Ex. 1016
Declaration of Homayoon Kazerooni, Ph.D.	Ex. 2013

E. *Asserted Grounds of Unpatentability*

Petitioner asserts that the challenged claims are unpatentable on the following grounds (*see* Pet. 2–3):

Claim(s) Challenged	Basis	References(s)
90–97	35 U.S.C. § 103(a)	The ’287 patent
90–92 and 94–96	35 U.S.C. § 103(a)	Blank, Schofield, Klappenbach, and Carter
93	35 U.S.C. § 103(a)	Blank, Schofield, Klappenbach,

Claim(s) Challenged	Basis	References(s)
		Carter, and optionally Batavia
97	35 U.S.C. § 103(a)	Blank, Schofield, Klappenbach, Carter, and Admitted Prior Art

II. ANALYSIS

A. *Claim Construction*

The claims of an unexpired patent are interpreted using the broadest reasonable interpretation in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); see *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1278–79 (Fed. Cir. 2015). On this record and for purposes of this decision, we determine that no claim terms require express construction.

B. *Asserted Grounds of Unpatentability*

1. *Obviousness of Claims 90–97 over the '287 Patent*

Petitioner argues that claims 90–97 would have been obvious over the '287 patent. Pet. 2–3. The '659 patent is a continuation of the '287 patent. *Id.* at 17; Ex. 1002, col. 1, ll. 7–23. Petitioner argues that the '287 patent is prior art to the '659 patent because the '287 patent does not satisfy the written description requirement with respect to the challenged claims of the '659 patent. Pet. 11–15. Patent Owner argues that the '287 patent satisfies the written description requirement, and, thus, is not prior art with respect to the challenged claims of the '659 patent. Prelim. Resp. 5–19. We have reviewed the parties' assertions and supporting evidence, and, for the reasons discussed below, Petitioner does not demonstrate a reasonable likelihood of prevailing in showing that the '287 patent is prior art.

Petitioner argues that the '287 patent does not contain sufficient written description of the attachment members attached to a vehicle windshield and local to a mirror mounting button, as recited in the challenged claims. Pet. 11–13 (citing Ex. 2013 ¶¶ 31–33, 40, 44–46). Petitioner's argument is not persuasive. The '287 patent discloses the following:

As best understood from FIG. **16B**, extension **8513** of *header console 8512* extends downwardly behind the upper portion of windshield W (such portion of windshield W which typically includes a shadeband element as known in the art) and *includes a forked portion 8513a*, such as an inverted V-shaped or U-shaped portion, *which straddles a mirror mounting button 8536* that is mounted to windshield W. Optionally, the downwardly extending portion of *header/header console 8512* may be mounted to the inner surface of windshield W, such as by an adhesive or may be releasably, mechanically attached such as by being received by and/or supported by *one or more attaching members adhered to the inner surface of the windshield*, such as by attachment members, including rails, channels, or the like.

Ex. 1012, col. 28, ll. 15–28 (emphasis added). The above disclosure in the '287 patent describes a console that straddles (and thus is local to) a mirror mounting button and is mounted to a vehicle windshield using attachment members, such as rails or channels. *Id.* As such, the above disclosure in the '287 patent is sufficient to show that the inventors had possession of the claimed attachment members. *See Ariad Pharm., Inc. v. Eli Lilly and Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010).

Petitioner argues that the '287 patent does not contain sufficient written description of “how the ‘rails, channels or the like’ would adhere to the windshield to permit co-engagement as the inverted U or V-shaped portion 8513a engages the mirror mounting button 8536.” Pet. 13 (citing

Ex. 2013 ¶¶ 33, 40). Petitioner’s argument is not persuasive because the challenged claims of the ’659 patent do not recite that the attachment members or structure supported by the attachment members engage the mirror mounting button. *See Ariad*, 598 F.3d at 1351 (“[T]he test for sufficiency is whether the disclosure . . . reasonably conveys to those skilled in the art that the inventor had possession of the *claimed* subject matter.”) (emphasis added). Further, as discussed above, the ’287 patent explains that the console supported by the attachment members straddles the mirror mounting button. Ex. 1012, col. 28, ll. 15–28.

Petitioner argues that, although the ’287 patent discloses that the structure supported by the attachment members may include a camera, the ’287 patent does not specify that the camera is forward facing. Pet. 15 (citing Ex. 2013 ¶ 39). Petitioner’s argument is not persuasive. The ’287 patent discloses that the console supported by the attachment members in Figure 16B provides mounting surfaces for various vehicle accessories, including those described in previous embodiments in the ’287 patent and in the referenced copending applications. Ex. 1012, col. 28, ll. 1–7. Previous embodiments in the ’287 patent indicate that the vehicle accessories mounted on the console may include a rain sensor that uses a forward facing camera. *Id.* at col. 24, ll. 1–8, col. 37, ll. 27–32. Further, referenced copending Application No. 09/433,467 (now U.S. Patent No. 6,326,613) indicates that the vehicle accessories mounted on the console may include a forward facing camera. *Id.* at col. 26, l. 63–col. 27, l. 12 (incorporating by reference copending Application No. 09/433,467); Ex. 3001, col. 5, ll. 8–12.

For at least the foregoing reasons, Petitioner does not show sufficiently that the ’287 patent is prior art to the ’659 patent, and, therefore,

does not demonstrate a reasonable likelihood of prevailing in showing that claims 90–97 would have been obvious over the '287 patent.

2. *Obviousness of Claims 90–92 and 94–96 over Blank, Schofield, Klappenbach, and Carter*

Petitioner argues that claims 90–92 and 94–96 would have been obvious over Blank, Schofield, Klappenbach, and Carter. Pet. 2–3. We have reviewed Petitioner's assertions and supporting evidence, and, for the reasons discussed below, Petitioner does not demonstrate a reasonable likelihood of prevailing in showing that claims 90–92 and 94–96 would have been obvious over Blank, Schofield, Klappenbach, and Carter.

Petitioner relies on Blank as teaching the claimed mirror mounting button attached to a vehicle windshield. *Id.* at 35–36. Petitioner relies on the fastening device and housing in Klappenbach as teaching the claimed attachment members and the claimed structure configured for mounting to the attachment members, respectively. *Id.* at 36, 40–41. Petitioner relies on the vehicle headlight dimming control in Schofield as teaching the claimed forward facing camera. *Id.* at 41.

Klappenbach relates to a particular type of optical sensor that detects foreign bodies, such as raindrops, on a vehicle windshield. Ex. 1010, col. 1, ll. 8–14. Klappenbach explains that, in order for this particular sensor to function properly, it must be optically coupled directly to the windshield. *Id.* at col. 1, ll. 35–39. Klappenbach accomplishes this by enclosing the sensor in a housing that engages with a fastening device glued to the windshield. *Id.* at col. 1, ll. 51–59. Figure 1 of Klappenbach is reproduced below.

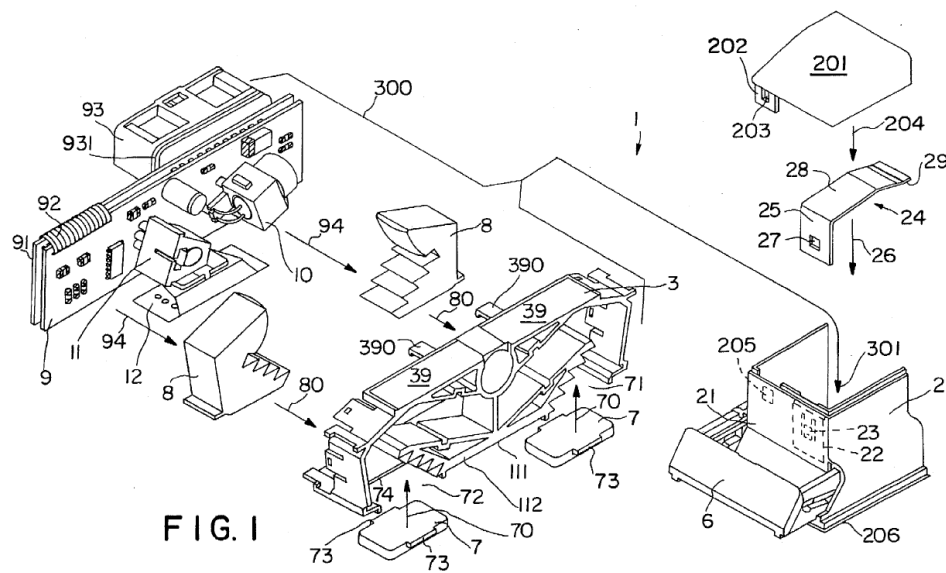


Figure 1 of Klappenbach shows sensor 1 with outer housing 2 and inner housing 3 that can be mounted to a fastening device glued to the windshield. *Id.* at col. 3, ll. 3–10. Schofield relates to a vehicle headlight dimming control that includes an image sensor. Ex. 1007, col. 3, ll. 36–41. Figure 1 of Schofield is reproduced below.

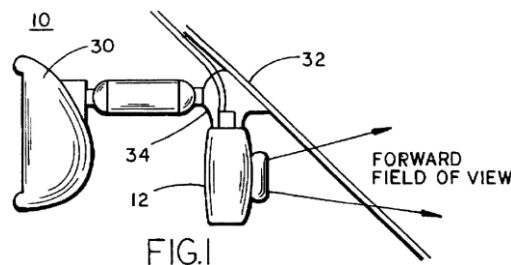


Figure 1 of Schofield shows vehicle headlight dimming control 12 that includes an imaging sensor module for sensing light from a scene forward of vehicle 10. *Id.* at col. 3, ll. 36–40.

We are not persuaded, on this record, that the proposed combination of Blank, Schofield, Klappenbach, and Carter teaches or suggests all the limitations of the challenged claims. Independent claim 90 recites “a structure configured for mounting to said plurality of attachment members . . . wherein said structure is configured to accommodate a forward facing camera.”

Ex. 1002, col. 55, ll. 12–20. Petitioner argues that the housing in Klappenbach corresponds to the claimed structure configured to accommodate a forward facing camera, and that the vehicle headlight dimming control in Schofield includes the claimed forward facing camera. Pet. 41–44. The housing in Klappenbach is designed specifically to accommodate transmitter 10 and receiver 11, as shown in Figure 1. Ex. 1010, col. 3, ll. 46–67, Fig. 1. Petitioner does not provide a specific explanation or identify specific evidence showing that the housing in Figures 1 and 2 of Klappenbach also is configured to accommodate a forward facing camera. Pet. 41–44. Therefore, on this record, Petitioner has not shown sufficiently that the combined teachings of Blank, Schofield, Klappenbach, and Carter would have taught or suggested the limitation “said structure is configured to accommodate a forward facing camera” to one of ordinary skill in the art.

We also are not persuaded, on this record, that it would have been obvious to combine the cited teachings of Schofield and Klappenbach. Petitioner argues that it would have been obvious to use the vehicle headlight dimming control in Schofield rather than the rain sensor in Klappenbach because the vehicle headlight dimming control in Schofield provides more functionality. *Id.* at 42–44 (citing Ex. 2013 ¶ 56). Petitioner’s argument explains why one of ordinary skill in the art would select the vehicle headlight dimming control in Schofield rather than the rain sensor in Klappenbach, but does not explain why it would have been obvious to mount the vehicle headlight dimming control in Schofield using the fastening device and housing in Klappenbach.

Petitioner argues that the housing in Klappenbach would advantageously seal the components of the camera in Schofield to prevent intrusion of elements from the environment. Pet. 43–44 (citing Ex. 2013 ¶ 58). Petitioner’s argument is not persuasive because Schofield teaches that the imaging sensor module disclosed therein already is protected from such intrusions. Ex. 1007, col. 3, l. 67–col. 4, l. 4. Further, the housing in Klappenbach is not just a protective housing for sensor components, but, rather, a structure designed specifically to accommodate transmitter 10 and receiver 11, as shown in Figure 1. Ex. 1010, col. 3, ll. 46–67, Fig. 1. Petitioner also argues that the fastening device in Klappenbach can be preinstalled. Pet. 44 (citing Ex. 2013 ¶ 58). Petitioner does not explain, though, why that would have made it obvious to use the fastening device and housing in Klappenbach with the vehicle headlight dimming control in Schofield. Moreover, Petitioner does not provide a specific explanation or identify specific evidence showing that it would have been obvious to one of ordinary skill in the art that the housing in Figures 1 and 2 of Klappenbach is, or can be, configured to accommodate a forward facing camera generally or the vehicle headlight dimming control in Figure 1 of Schofield particularly. Pet. 41–44. Therefore, on this record, Petitioner has not shown sufficiently that it would have been obvious to one of ordinary skill in the art to combine the cited teachings of Blank, Schofield, Klappenbach, and Carter in the manner proposed by Petitioner.

For at least the foregoing reasons, Petitioner does not demonstrate a reasonable likelihood of prevailing in showing that claims 90–92 and 94–96 would have been obvious over Blank, Schofield, Klappenbach, and Carter.

3. *Obviousness of Claim 93 over Blank, Schofield, Klappenbach, Carter, and Optionally Batavia*

Petitioner argues that claim 93 would have been obvious over Blank, Schofield, Klappenbach, Carter, and optionally Batavia. Pet. 2–3. Claim 93 depends from claim 92. *Id.* at 51. Petitioner relies on the same arguments and evidence discussed above as to why it would have been obvious to combine the cited teachings of Schofield and Klappenbach. *Id.* at 51–54. For the reasons discussed above, we are not persuaded, on this record, that it would have been obvious to combine the cited teachings of Schofield and Klappenbach. *See supra* Section II.B.2. Therefore, Petitioner does not demonstrate a reasonable likelihood of prevailing in showing that claim 93 would have been obvious over Blank, Schofield, Klappenbach, Carter, and optionally Batavia.

4. *Obviousness of Claim 97 over Blank, Schofield, Klappenbach, Carter, and Admitted Prior Art*

Petitioner argues that claim 97 would have been obvious over Blank, Schofield, Klappenbach, Carter, and Admitted Prior Art. Pet. 3. Claim 97 depends from claim 92. *Id.* at 54. Petitioner relies on the same arguments and evidence discussed above as to why it would have been obvious to combine the cited teachings of Schofield and Klappenbach. *Id.* at 54–55. For the reasons discussed above, we are not persuaded, on this record, that it would have been obvious to combine the cited teachings of Schofield and Klappenbach. *See supra* Section II.B.2. Therefore, Petitioner does not demonstrate a reasonable likelihood of prevailing in showing that claim 97 would have been obvious over Blank, Schofield, Klappenbach, Carter, and Admitted Prior Art.

III. CONCLUSION

Petitioner does not demonstrate a reasonable likelihood of prevailing on its challenge to the patentability of claims 90–97 of the '659 patent as unpatentable under 35 U.S.C. § 103.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is denied, and no trial is instituted.

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