



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
**United States Patent and Trademark Office**  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/985,934	12/31/2015	Danny L. Minikey JR.	AUTO 01753US GEN010 P800A	5288
28469	7590	11/22/2019	EXAMINER	
GENTEX CORPORATION 600 NORTH CENTENNIAL STREET ZEELAND, MI 49464			JEBARI, MOHAMMED	
			ART UNIT	PAPER NUMBER
			2482	
			NOTIFICATION DATE	DELIVERY MODE
			11/22/2019	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptomail@priceheneveld.com  
uspto@gentex.com

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

*Ex parte* DANNY L. MINIKEY JR., RICHARD T. FISH JR., and  
MICHAEL G. HENDRICKS

---

Appeal 2019-000863  
Application 14/985,934  
Technology Center 2400

---

Before ST. JOHN COURTENAY III, LARRY J. HUME, and  
PHILLIP BENNETT, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant,<sup>1</sup> appeals from the Examiner's decision rejecting claims 1–5, 8–12, 14–18, and 20–23, which constitute all the claims pending in this application. Claims 6, 7, 13, and 19 are canceled. We have jurisdiction over the pending claims under 35 U.S.C. § 6(b).

We affirm.

---

<sup>1</sup> We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as Gentex Corporation. Appeal Br. 1.

STATEMENT OF THE CASE<sup>2</sup>

Disclosed embodiments of Appellant’s invention relate “generally to a rear camera for a vehicle.” Spec. ¶ 2.

*Representative Claim*

1. A rearview camera assembly, comprising:

a lens unit including a lens barrel having a sensor lens therein;  
and

a light sensor unit, including:

a printed circuit board having a light sensor chip mounted thereon;

a rear housing supporting the printed circuit board on a first side thereof; and

a front housing defining a plurality of stepped portions, the front housing coupled with the rear housing and supporting the printed circuit board on a second side thereof on at least the stepped portions of the front housing, the front housing defining a lens holder,

the lens barrel being received within the lens holder of the front housing so as to align with the light sensor;

*wherein the rear housing includes a plurality of bosses extending inward within the rear housing and aligned with the stepped portions, the rear housing supporting the printed circuit board at least on the bosses.*

Appeal Br. 14 (Claims Appendix, disputed limitation emphasized).

---

<sup>2</sup> We herein refer to the Final Office Action, mailed March 5, 2018 (“Final Act.”); Appeal Brief, filed August 6, 2018 (“Appeal Br.”); Examiner’s Answer, mailed September 19, 2018 (“Ans.”); and the Reply Brief, filed November 15, 2018 (“Reply Br.”).

*Rejections*<sup>3</sup>

- A. Claims 1–3, 8, 9, 12, and 14 are rejected under 35 U.S.C. § 103 as being obvious over the combined teachings and suggestions of Sesti et al. (US 2014/0298642 A1; published Oct. 9, 2014; (hereinafter “Sesti”)) and Abe et al. (US 2002/0057360 A1; published May 16, 2002; (hereinafter “Abe”)). Final Act. 3.
- B. Claims 4, 10, and 21–23 are rejected under 35 U.S.C. § 103 as being obvious over the combined teachings and suggestions of Sesti, Abe and further in view of Byrne et al. (US 8,482,664 B2; published July 9, 2013; (hereinafter “Byrne”)). Final Act. 6.
- C. Claims 5, 11, 15, 16, 18, and 20 are rejected under 35 U.S.C. § 103 as being obvious over the combined teachings and suggestions of Sesti, Abe, and further in view of Nakamura (US 2011/0199485 A1; published Aug. 18, 2011). Final Act. 8.
- D. Claim 17 is rejected under 35 U.S.C. 103 as being unpatentable over Sesti, Abe, Nakamura, in further view of Byrne et al. (US 8,482,664 B2; issued Jul. 9, 2013).

---

<sup>3</sup> We note claim 8 improperly depends from canceled claim 6. Thus, claim 8 claim is incomplete and fails to particularly point out and distinctly claim the subject matter which Appellant regards as the invention. *See* 35 U.S.C. § 112(b). Therefore, in the event of further prosecution, the Examiner should consider claim 8 as being of indefinite scope, and should reject claim 8 under 35 U.S.C. § 112(b), or require appropriate correction by amendment. Although the Board is authorized to reject claims under 37 C.F.R. § 41.50(b), no inference should be drawn when the Board elects not to do so. *See* Manual of Patent Examining Procedure (MPEP) § 1213.02.

## ANALYSIS

We have considered all of Appellant’s arguments and any evidence presented. To the extent Appellant has not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv). In our analysis below, we highlight and address specific findings and arguments for emphasis.

### *Rejection A of Independent Claim 1*

**Issue:** Under 35 U.S.C. § 103, did the Examiner err by finding Sesti and Abe collectively teach or suggest the contested limitations:

wherein the rear housing includes *a plurality of bosses* extending inward within the rear housing and aligned with the stepped portions,

within the meaning of representative claim 1?<sup>4</sup> (Emphasis added).

The Examiner finds Sesti teaches the claim 1 limitation “wherein the rear housing includes a plurality of bosses . . . the rear housing supporting the printed circuit board at least on the bosses,” as follows:

---

<sup>4</sup> Throughout this opinion, we give the claim limitations the broadest reasonable interpretation consistent with the Specification. *See In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

[F]ig. 11 shows that the PCB is placed on bosses of the rear housing 13[2]; paragraph [0051], a printed circuit board (PCB) 138 with imager 140 is mounted in the housing defined by the front and back housing parts 130, 132. Screws 134 are used for this purpose; therefore, the bosses, which are the thread portions where the screws placed are under the (PCB) and support the (PCB) since the screws are mounted inside the bosses to hold the (PCB) in its place.

Final Act. 4.

Appellant does not address the Examiner’s specific findings, but instead argues: “the arrangement of embodiment five, shown in Exhibit 2 . . . . See Sesti, ¶ [0069] . . . clearly precludes any finding that Sesti teaches any arrangement that supports both sides of a printed circuit board respectively with front and rear housings, as shown in FIG 12 of the present application . . . .” Appeal Br. 8–9.

Contrary to Appellant’s argument, we find a preponderance of the evidence supports the Examiner’s findings, because Sesti’s front housing 130 (Fig. 3) is coupled with back housing 132 in supporting printed circuit board (PCP) 138. *See Sesti*, Fig. 3, ¶ 51. *See Ans.* 11–12. Similarly, we find a preponderance of the evidence supports the Examiner’s finding that Sesti’s threaded portion where screws 134 (¶ 51) are placed teaches or at least suggests “a plurality of bosses” (claim 1), when Sesti is considered in combination with Abe.<sup>5</sup>

---

<sup>5</sup> *See Sesti* ¶ 51: “FIG. 3 shows a variant 100 of the rear view camera 10. This embodiment incorporates a lens 112, a front housing/lens holder 130, a back housing 132 and an imager 140. . . . A printed circuit board (PCB) 138 with imager 140 is mounted in the housing defined by the front and back housing parts 130, 132. Screws 134 are used for this purpose.”

The Examiner finds Abe's inward bosses 3a (Fig. 1 — "Each screw fixing body 3a, 3a' is provided with a female tapped hole 3b" ¶ 131), which are aligned with holes 1b, 2b for screws 13a (Fig. 1), teaches or at least suggests "bosses extending inward within the rear housing and aligned with the stepped portions," as recited in claim 1. Final Act. 5, *see* Abe, Figs. 1, 2, ¶ 131.

We disagree with Appellant's contentions and find the Examiner (Final Act. 3–5) sets forth sufficient "articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Further, obviousness does not depend on "whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference." *In re Keller*, 642 F.2d 413, 425 (CCPA 1981).

Moreover, Appellant provides no persuasive evidence that combining the teachings of Sesti and Abe in the manner proffered by the Examiner (Final Act. 3–5) would have been "uniquely challenging or difficult for one of ordinary skill in the art," *Leapfrog Enterprises, Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007), or would have realized more than a predictable result.

Therefore, based upon a preponderance of the evidence, we sustain the Examiner's § 103 rejection A of representative independent claim 1, and the additional grouped claims also rejected under rejection A. *See* 37 C.F.R. § 41.37(c)(1)(iv). We note rejection A includes grouped independent claim 9, which Appellant argues for the same reasons as that argued for claim 1, and which falls with representative independent claim 1. *See* Appeal Br. 11.

*Rejection B of Dependent Claims 4, 10, and 21–23*

Appellant advances no separate, substantive arguments regarding Rejection B of dependent claims 4, 10, and 21–23. Arguments not made are waived. 37 C.F.R. § 41.37(c)(1)(iv).

*Rejection C of Claims 5, 11, 15, 16, 18, and 20*

Appellant advances arguments regarding independent claim 15 that are essentially identical to those presented regarding claim 1, and addressed above. Appeal Br. 12–13. Appellant advances no separate substantive arguments regarding dependent claims 5, 11, 16, 18, and 20. Arguments not made are waived. 37 C.F.R. § 41.37(c)(1)(iv).

*Rejection D of Claim 17*

Appellant advances no separate substantive arguments regarding Rejection D of dependent claim 17. Arguments not made are waived. 37 C.F.R. § 41.37(c)(1)(iv).

*Reply Brief*

To the extent Appellant *may* advance new arguments in the Reply Brief (Reply Br. 1–6) not in response to a shift in the Examiner’s position in the Answer, arguments raised in a Reply Brief that were not raised in the Appeal Brief or are not responsive to arguments raised in the Examiner’s Answer will not be considered except for good cause (*see* 37 C.F.R. § 41.41(b)(2)), which Appellant has not shown.

### CONCLUSION

The Examiner did not err with respect to Rejections A, B, C, and D of claims 1–5, 8–12, 14–18, and 20–23 under 35 U.S.C. § 103, over the cited prior art combinations of record, and we sustain the rejections.

### DECISION SUMMARY

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Basis/References</b>	<b>Affirmed</b>	<b>Reversed</b>
1–3, 8, 9, 12, 14	103	Obviousness Sesti, Abe	1–3, 8, 9, 12, 14	
4, 10, 21–23	103	Obviousness Sesti, Abe, Byrne	4, 10, 21–23	
5, 11, 15, 16, 18, 20	103	Obviousness Sesti, Abe, Nakamura	5, 11, 15, 16, 18, 20	
17	103	Obviousness Sesti, Abe, Nakamura, Byrne	17	
<b>Overall Outcome</b>			1–5, 8–12, 14–18, 20–23	

### FINALITY AND RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv). *See* 37 C.F.R. § 41.50(f).

**AFFIRMED**