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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte LAVIE GOLENBERG and PREM SIVAKUMAR¹

Appeal 2019-006207
Application 14/411,877
Technology Center 2400

Before JOHN A. EVANS, JAMES W. DEJMEK, and RUSSELL E. CASS,
Administrative Patent Judges.

EVANS, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

This is a decision on appeal under 35 U.S.C. § 134(a) from the Examiner’s final rejection of claims 1–8, 10, and 12–22. Appeal Br. 2. Claims 9 and 11 have been canceled. *Id.* An oral hearing was scheduled for August 11, 2020, but Appellant waived the hearing. *See* Resp. to Notice of Hearing (filed August 10, 2020). We have jurisdiction over the pending claims under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word “Appellant” to refer to “Applicants” as defined in 37 C.F.R. § 1.42(a) (2018). The Appeal Brief identifies co-inventor, Lavie Golenberg, as the real party in interest. Appeal Br. 2.

INVENTION

The invention is directed to an endoscope. *See* Spec., Abstr., Claim 1, reproduced below, is the sole independent claim and is representative of the invention.

1. An endoscope integrating functionality of an optical tower comprising:
 - an enclosure integrating the functionality of the optical tower, said enclosure containing;
 - an elongated endoscope tube;
 - a camera;
 - an image processor, said camera in electrical communication with said image processor and supplies images and video to said image processor obtained via said elongated endoscope tube for display on a head mounted display, heads up display (HUD), TV if the images are broadcasted on a specific frequency, video display monitor, mobile computing devices, cellular phone, tablet, or mobile communication and entertainment devices;
 - a light source, illuminating a viewing field of said endoscope via said elongated tube;
 - a transmitter module having user selectable transmission frequencies and video channels, said transmitter module engaging in frequency switching to account for interfering signals, and for overlay of images onto a video feed from said camera that are from another source or piece of medical equipment or monitoring device via a wired or wireless connection to the transmitter module;
 - a communication interface;
 - a control interface; and
 - one or more of a power source, said one or more of said power source supplies powering said camera, said image processor, said light source, and said transmitter module.

PRIOR ART

Name	Reference	Date
Tien	US 2005/0085690 A1	Apr. 21, 2005
Ito	US 2005/0148854 A1	July 7, 2005
Kato	US 2009/0058997 A1	Mar. 5, 2009
Phillips	US 2013/0034825 A1	Priority Aug. 2, 2011
Melder	US 2012/0162401 A1	Filed Oct. 20, 2011

REJECTIONS AT ISSUE²

1. Claims 1–3, 6, 7, 10, 12, 14, 16, 17, 20, and 21 stand rejected under pre-AIA 35 U.S.C. § 103(a) as unpatentable over Tien, Phillips, and Ito. Final Act. 4–8.
2. Claims 4, 5, 8, and 15 stand rejected under pre-AIA 35 U.S.C. § 103(a) as unpatentable over Tien, Phillips, Ito, and Melder. Final Act. 9–10.
3. Claims 13, 18, and 19 stand rejected under pre-AIA 35 U.S.C. § 103(a) as unpatentable over Tien, Phillips, Ito, and Kato. Final Act. 10–11.
4. Claim 22 stands rejected under pre-AIA 35 U.S.C. § 103(a) as unpatentable over Tien, Phillips, Ito, and Applicant’s Admitted Prior Art (AAPA). Final Act. 11.

ANALYSIS

We have reviewed the rejections of claims 1–8, 10, and 12–22 in light of Appellant’s arguments that the Examiner erred. We have considered in

² Throughout this Decision, we refer to the Appeal Brief (“Appeal Br.”) filed February 18, 2019, the Reply Brief (“Reply Br.”) filed August 21, 2019, the Final Office Action (“Final Act.”) mailed June 1, 2018, the Examiner’s Answer mailed June 21, 2019, and the Specification (“Spec.”) filed March 7, 2017.

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this decision only those arguments Appellant actually raised in the Briefs. Any other arguments which Appellant could have made but chose not to make in the Briefs are deemed to be waived. *See* 37 C.F.R.

§ 41.37(c)(1)(iv). We are not persuaded that Appellant identifies reversible error. Upon consideration of the arguments presented in the Appeal Brief and Reply Brief, we agree with the Examiner that all the pending claims are unpatentable. We adopt as our own the findings and reasons set forth in the rejection from which this appeal is taken and in the Examiner's Answer, to the extent consistent with our analysis below. We provide the following explanation to highlight and address specific arguments and findings primarily for emphasis.

CLAIMS 1–3, 6, 7, 10, 12, 14, 16, 17, 20, AND 21: OBVIOUSNESS OVER
TIEN, PHILLIPS, AND ITO.

Frequency switching.

Claim 1, the sole independent claim, recites, *inter alia*, “a transmitter module having user selectable transmission frequencies and video channels, said transmitter module engaging in frequency switching to account for interfering signals.”

The Examiner finds Tien substantially discloses the invention of claim 1, including a data transmission module, except Tien fails to disclose where said data transmission module engages in frequency switching. Final Act. 5. The Examiner finds Phillips teaches a transmitter module having user selectable transmission frequencies and video channels where said transmitter engages in frequency switching. *Id.* (citing Phillips, ¶ 45).

The cited passage of Phillips discloses:

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Using the integrated channel selector contained in the main controls 21, a user/operator may cycle through the available channels—for example, eight—to match the device 1 frequency to the pre-set frequency of the receiver module 4 in the current operatory, allowing the same device 1 to be used in multiple operatories.

Phillips ¶ 45.

Appellant contends the cited passage of Phillips discloses a transmitter having multiple channels among which a user may manually switch. Appeal Br. 19. Appellant argues:

A fair reading of this language is that a user picks a frequency matched to the receiver module and in an optionally mode to only provide options from among the presets (e.g. 8 channels) to pair with a receiver module. It is submitted that it is an improper reading of this reference as being adaptive to interfering signals.

Appeal Br. 20

The Examiner finds the “claim merely discloses that ‘interfering signals’ are taken in account and Phillips allows the user to switch between channels which allows the system 200 to take into account for interfering signals.” Ans. 5.

Appellant’s Specification discloses: “In some inventive embodiments, a user selects transmission frequencies and video channels for the endoscope to account for interfering signals.” Spec. ¶ 13. In other inventive embodiments, a user has the option of providing selectable transmission frequencies and video channels for the endoscope to account for interfering signals. Spec. ¶ 14. The Specification further discloses that, in certain inventive embodiments, the transmitter module 110 may also allow for user selectable transmission frequencies and video channels for the endoscope to account for interfering signals. Spec. ¶ 18; *see also* Reply

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Br. 4 (citing Spec. ¶¶ 13, 14, 18) (“the specification of the present application describes the ‘interfering signals’ language of claim 1 at least three separate times all in the context of data transmission frequencies.”).

The question is how to interpret the claimed requirement that the transmitter module engages in frequency switching “to account for interfering signals,” in view of the Specification? We find both Phillips and claim 1 allow a user to pre-select, or pre-designate, frequencies for use by an endoscope. We find no written description support for a construction where the device itself automatically switches frequencies to account for “interfering signals,” nor has Appellant so directed our attention. Therefore, we find that the claim language “said transmitter module engaging in frequency switching to account for interfering signals” encompasses allowing the user to pre-select, or pre-designate, frequencies for use by the transmitter module. We are loath to construe the claims to require that the device itself must automatically switch frequencies, as Appellant suggests, because doing so is not disclosed in the Specification and would render the claims invalid under 35 U.S.C. § 112, as lacking written description support and/or enablement. As we construe the claims, we agree with the Examiner the limitation is taught by Phillips.

Overlay of video images.

Claim 1 recites, *inter alia*, “a transmitter module having user selectable transmission frequencies and video channels, . . . for overlay of images onto a video feed from said camera that are from another source.”

Appellant contends Ito teaches overlay of still images, but fails to teach overlay of video images. Appeal Br. 20.

The Examiner finds Ito discloses a “diagnosis supporting device for

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displaying a composite image, which is created by superimposing a perspective image of a body captured by a tomography scanner . . . over an endoscopic image inside a body taken by a video endoscope device.” Ans. 5 (quoting Ito ¶ 1).

Appellant’s Reply Brief does not respond to this aspect of the Answer. We are not persuaded the Examiner errs.

CLAIM 10: OBVIOUSNESS OVER TIEN, PHILLIPS, AND ITO.

Claim 10 recites, *inter alia*, “endoscope of claim 1 wherein said transmitter module is switchable between two or more video channels.”

Appellant argues claim 10 separately. Appeal Br. 21–22. We adopt the Examiner’s findings set forth in the Final Office Action and the Answer. Appellant’s Reply Brief does not respond to the Examiner’s findings in the Answer. We are not persuaded the Examiner errs.

CLAIM 16: OBVIOUSNESS OVER TIEN, PHILLIPS, AND ITO.

Claim 16 recites, *inter alia*, “said endoscope is in wired or wireless contact with one or more personal viewers configured with a heads up display (HUD).”

Appellant argues claim 16 separately. Appeal Br. 22–23. We adopt the Examiner’s findings set forth in the Final Office Action and the Answer. Appellant’s Reply Brief does not respond to the Examiner’s findings in the Answer. We are not persuaded the Examiner errs.

CLAIM 20: OBVIOUSNESS OVER TIEN, PHILLIPS, AND ITO.

Claim 20 recites, *inter alia*, “wherein said transmitter module is

switchable between two or more video channels to access shared views between two or more additional users operating additional endoscopes via said image processor.”

Appellant argues claim 20 separately. Appeal Br. 23–24. We adopt the Examiner’s findings set forth in the Final Office Action and the Answer. Appellant’s Reply Brief does not respond to the Examiner’s findings in the Answer. We are not persuaded the Examiner errs.

CLAIMS 5, 8, 15, 18, AND 19: OBVIOUSNESS OVER
 TIEN, PHILLIPS, ITO, MELDER, AND KATO.

With respect to these claims, Appellant argues generally there is no motivation to combine the references. Appeal Br. 24–25. We adopt the Examiner’s findings set forth in the Final Office Action and the Answer. Appellant’s Reply Brief does not respond to the Examiner’s findings in the Answer. We are not persuaded the Examiner errs.

CONCLUSION

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–3, 6, 7, 10, 12, 14, 16, 17, 20, 21	103	Tien, Phillips, Ito	1–3, 6, 7, 10, 12, 14, 16, 17, 20, 21	
4, 5, 8, 15	103	Tien, Phillips, Ito, Melder	4, 5, 8, 15	
13, 18, 19	103	Tien, Phillips, Ito, Kato	13, 18, 19	
22	103	Tien, Phillips, Ito, AAPA	22	
Overall 1–8, 10, 12–22			1–8, 10, 12–22	

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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). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED