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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/343,830	01/05/2012	James S. Rutledge	RPS920110057USNP(710.184)	6085

58127 7590 12/01/2016
FERENCE & ASSOCIATES LLC
409 BROAD STREET
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EXAMINER

SHIUE, DONG-CHANG

ART UNIT	PAPER NUMBER
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2648

MAIL DATE	DELIVERY MODE
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12/01/2016

PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JAMES S. RUTLEDGE, STEVEN R. PERRIN,
KAZUO FUJII, MITSUHIRO YAMAZAKI, and
TAKAYUKI KATOH

Appeal 2015-008238
Application 13/343,830
Technology Center 2600

Before JOSEPH L. DIXON, JAMES R. HUGHES, and ERIC S. FRAHM,
Administrative Patent Judges.

HUGHES, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from a rejection of claims 1–4, 7–10, and 13–18. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

The invention relates to “utilizing a standard bus slot disposed within an information handling device configured to support a multiplicity of device interface modules and wireless communication technologies associated therewith” (Spec. ¶ 21). Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. An information handling device comprising:

one or more processors;

one or more memories storing program instructions accessible by the one or more processors;

one or more wireless antennas; and

a standard system bus slot for connecting a wireless wide area network (WAN) card and comprising one or more pins not connected when said wireless WAN card is inserted to said standard system bus slot;

said one or more pins configured to tune the one or more wireless antennas via a tuning interface to operate within a wireless local area network (LAN) frequency band based on one or more connections between said one or more pins and one or more wireless communication pins of a wireless LAN capable card inserted to said standard system bus slot.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

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Pan	US 7,551,146	June 23, 2009
Parks	US 7,925,900	Apr. 12, 2011
Poilasne	US 2009/0316612 A1	Dec. 24, 2009

REJECTIONS

The Examiner made the following rejections:

Claim 1–4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Pan and Poilasne.

Claims 7–10 and 13–18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pan, Poilasne, and Parks.

ANALYSIS

Claims 1–4

Appellants contend Poilasne fails to teach “a standard system bus slot for connecting a wireless wide area network (WAN) card and comprising one or more pins not connected when said wireless WAN card is inserted to said standard system bus slot” (App. Br. 14). Appellants also contend Poilasne fails to teach “said one or more pins configured to tune the one or more wireless antennas via a tuning interface to operate within a wireless local area network (LAN) frequency band based on one or more connections between said one or more pins and one or more wireless communication pins of a wireless LAN capable card inserted to said standard system bus slot” (App. Br. 15). Specifically, Appellants argue Poilasne’s signal router is not a “tuning interface” (App. Br. 15–16). Lastly, Appellants contend there is no support for the Examiner’s finding that “it is well known in the art that a PCI is a standard system bus having certain pins reserved or non connect for being designed in to control/tune disparate cards that are plugged

into PCI bus” (App. Br. 16). We are not persuaded by Appellants’ arguments.

We first note that Appellants’ arguments focus on a single claim 1 structural feature: “a standard system bus slot” (*see* App. Br. 14–16). The functional limitations “for connecting a wireless wide area network (WAN) card and comprising one or more pins not connected when said wireless WAN card is inserted to said standard system bus slot” and “said one or more pins configured to tune the one or more wireless antennas via a tuning interface to operate within a wireless local area network (LAN) frequency band based on one or more connections between said one or more pins and one or more wireless communication pins of a wireless LAN capable card inserted to said standard system bus slot” merely define the required capabilities of the “standard system bus slot,” but do not further define it structurally. *See In re Schreiber*, 128 F.3d 1473, 1478 (1997) (“A patent applicant is free to recite features of an apparatus either structurally or functionally . . . Yet, choosing to define an element functionally, *i.e.*, by what it does, carries with it a risk.” (citation omitted)). That is, to establish a *prima facie* case, the Examiner need only show “a standard system bus slot” that is capable of performing the recited functions. We find the Examiner has met this burden.

Specifically, the Examiner cites Poilasne, which discloses the following: “Laptop computers and other mobile devices can use a mini peripheral component interface (mini PCI) card which is configured to operate at 32 MHz with a 32 bit bus. Laptop computers may include two types of mini PCIs: WLAN mini PCI and WWAN mini PCI.” (Poilasne, ¶ 41). Accordingly, Poilasne teaches a mini PCI bus interface that we find meets the structural limitation of “a standard system bus slot.” Moreover,

Poilasne teaches the mini PCI bus interface can accept either a WWAN card or a WLAN card (*see* Poilasne, ¶ 41). Further, the Examiner finds one of ordinary skill in the art would have known that a mini PCI bus interface could be connected to a WWAN card using less than all the pins or could be connected to a WLAN card using a pin that is not necessary for connection with a WWAN card (*see* Final Act. 4; Ans. 3–4). In the Answer, the Examiner supported this finding by citing to the non-patent literature by Hewlett-Packard titled “PCI Express Form Factors: Card, Mini Card and ExpressCard” (hereinafter “Hewlett-Packard”), which shows a pin arrangement diagram with pins 42 and 44 respectively labeled LED_WWAN# and LED_WLAN# (Hewlett-Packard, p. 35). We find this pin arrangement diagram would have suggested that a pin—the “LED_WLAN#” pin—would not need to be used when a WWAN card was inserted, but could be used when a WLAN was inserted into a mini PCI Express Mini Card slot. Further, although Appellants argue that other non-patent literature cited by the Examiner has not been established as prior art (*see* Reply Br. 16), Appellants do not specifically contest the Examiner’s reliance on the Hewlett-Packard art. Accordingly, we are not persuaded the Examiner erred in finding Poilasne teaches the claimed functionality of a standard system bus slot to connect to either a WWAN card or WLAN card as claimed.

We are also not persuaded the Examiner erred in finding Poilasne teaches the functional limitation “said one or more pins configured to tune the one or more wireless antennas via a tuning interface to operate within a wireless local area network (LAN) frequency band.” Poilasne’s Figure 4 shows a WLAN mini PC card 413 connected to an antenna 401 via a signal router 409 (Poilasne, ¶ 48). The antenna 401 operates in a universal

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frequency range that includes WWAN and WLAN frequency ranges (*id.*). The signal router 409 routes WLAN frequency signals from the WLAN card 413 to the antenna 401, and routes signals in the WLAN frequency range from the antenna 401 to the WLAN card 413 (*id.*). We agree with the Examiner (*see* Ans. 2–3) and find Poilasne’s signal router meets the limitation of a tuning interface. Specifically, claim 1 does not define what it means to “tune” the antenna, and based on the broadest reasonable interpretation, we find the word “tune” encompasses using a universal frequency range antenna to operate within a particular frequency range, for example, the WLAN frequency range. As Poilasne’s signal router 409 is placed between the WLAN card 413 and the antenna 401, we find the signal router is a “tuning interface” through which WLAN card pins are used to “tune” the antenna.

We are, therefore, not persuaded the Examiner erred in rejecting claim 1, and claims 2–4 not specifically argued separately.

Claims 7 and 15

Appellants contend the combination of Pan, Poilasne, and Park fails to teach the claim 7 limitation “responsive to the execution of program instructions accessible to the second processor, the second processor is configured to execute wireless communications for information handling device utilizing the one or more wireless antenna operating with the wireless LAN frequency band” (App. Br. 17). We disagree with Appellants.

Parks teaches a system for switching between two different processors to control certain peripherals (Parks, Abstract). We agree with the Examiner (Ans. 6) and find that combining Parks with Pan and Poilasne would have resulted in a system capable of using a second processor to execute wireless

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communications in the wireless LAN frequency band. Appellants' arguments that Parks fails to teach "the SE [secondary environment] platform may be comprised of the system depicted in FIG. 6 configured in a SOC [system on a chip] form factor, for example, as a Mini PCIe adapter" and that "a PE [primary environment] could be 'a WINDOWS operating environment or state, and a SE in which a user experiences an ANDROID operating environment or state'" (App. Br. 18) are not persuasive because they are not commensurate with the scope of the claim, but rather rely on importing portions of the Specification into the claim limitations.

We are, therefore, not persuaded the Examiner erred in rejecting claim 7, and claims 8–10 and 13–18 not specifically argued separately.

CONCLUSION

The Examiner did not err in rejecting claims 1–4, 7–10, and 13–18 under 35 U.S.C. § 103(a).

DECISION

For the above reasons, the Examiner's rejection of claims 1–4, 7–10, and 13–18 is affirmed.

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).

AFFIRMED