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11/769,565	06/27/2007	Mark T. Montgomery	SCS-003US	5042

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EXAMINER

PHAN, THO GIA

ART UNIT	PAPER NUMBER
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2821

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PAPER

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.

DETAILED ACTION

Allowable Subject Matter

The indicated allowability of claims 3-4, 7-10, 15-17, 22 and 27 are withdrawn in view of the newly discovered reference(s). Rejections based on the newly cited reference(s) follow.

Drawings

Figures 1A-1G should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims

Art Unit: 2821

are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-2, 5-6, 11, 23 and 28-29 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 17-19, 21 and 26-27 of copending Application No. 12/099,320. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending Application No. 12/099,320 anticipated the instant claims invention.

Art Unit: 2821

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-10, 15-17 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Bell (5,189,434) [cited by applicant].

Bell discloses a multimode antenna structure for transmitting and receiving electromagnetic signals in a communications device, the communications device including circuitry for processing signals communicated to and from the antenna structure, the antenna structure comprising: a plurality of antenna ports operatively coupled to the circuitry (col 12, ln 17-20); a plurality of antenna elements (col 3, ln 27-29), each operatively coupled to a different one of the antenna ports [terminal] (col 2, ln 32-37); one or more connecting elements electrically connecting the antenna elements such that electrical currents on one antenna element flow to a connected neighboring antenna element and generally bypass the antenna port coupled to the neighboring antenna element, the electrical currents flowing through the one antenna element and the neighboring antenna element being generally equal in magnitude (Fig. 6-9), such that an antenna mode excited by one antenna port is generally electrically isolated

Art Unit: 2821

from a mode excited by another antenna port at a given desired signal frequency range and the antenna elements generate diverse antenna patterns (abstract); wherein the antenna elements comprise dipoles (col 1, lines 11-15); wherein the antenna elements comprise monopoles (col 11, lines 25-40); a matching network to provide an input impedance match for the antenna elements at the desired signal frequency range (col 5, lines 45-54).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, 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 said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 11 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell in view of Ho et al (US 2006/0050009 A1) [cited by applicant].

Bell has been discussed above, but is silent with respect to the communications device is a cellular handset, PDA, wireless networking device, or a data card for PC; and the multimode antenna structure comprises a planar structure fabricated on a printed circuit board substrate. However, Ho discloses the communications device is a cellular handset, PDA, wireless networking device, or a data card for PC (Para [0004]) and a multimode antenna structure comprises a structure fabricated on a printed circuit board substrate (Para [0025]). It would have been obvious to one of ordinary skill in the art to provide a multimode antenna structure for transmitting and receiving

Art Unit: 2821

electromagnetic signals as taught by Bell and to provide a structure fabricated on a printed circuit board because it would permit the antenna structure to be connected within a plurality of electronic devices through use of various conductive pathways located on the printed circuit board.

6. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell in view of Ho et al in further view of Elkobi (US 2005/0200535 A1) [cited by applicant].

Neither Bell nor Ho explicitly disclose the stamped metal part includes a pickup feature at the center of mass of the part for use in an automated pick and place assembly process; and the structure comprises a flexible printed circuit mounted on a plastic carrier. However, Elkobi discloses the stamped metal part includes a pickup feature at the center of mass of the part for use in an automated pick and place assembly process (Para [0020] and [0037]) and the structure comprises a flexible printed circuit mounted on a plastic carrier (Para [0036]). It would have been obvious to one of ordinary skill in the art to provide a multimode antenna structure as taught by Bell and Ho and to mount a printed circuit on a plastic carrier as taught by Elkobi because the plastic carrier would permit the printed circuit to be insulated from various electric fields that may be in proximity with the printed circuit.

Allowable Subject Matter

7. Claim 29 is allowed.

Art Unit: 2821

8. Claims 12-14, 18-21 and 24-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho G. Phan whose telephone number is 571-272-1826. The examiner can normally be reached on M-F, 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Owens can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tho G Phan/
Primary Examiner, Art Unit 2821

Application/Control Number: 11/769,565
Art Unit: 2821

Page 8