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[Continued on next page]

(54) Title: RF POWER AMPLIFIERS WITH LINEARIZATION

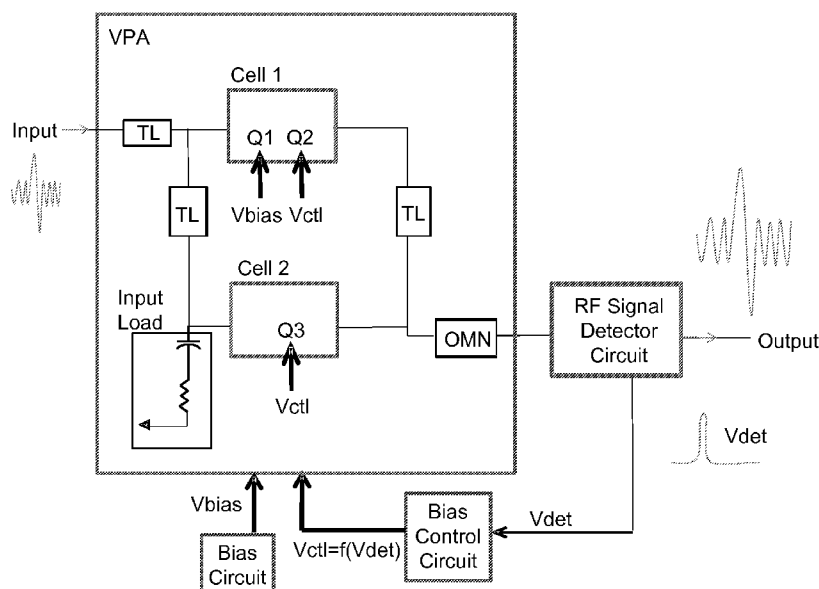


FIG. 12

(57) Abstract: Designs and techniques associated with power amplifiers for amplifying RF signals to provide variable power amplification and improved linearity in various RF amplification circuits, including power amplifiers operated under the power back-off conditions.



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A. CLASSIFICATION OF SUBJECT MATTER***H03F 1/30(2006.01)i, H03F 1/32(2006.01)i***

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 8 : H03F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Utility models and applications for Utility models since 1975

Japanese Utility models and applications for Utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) "power amplifier", "bias circuit", "RF signal detector", "a bias control circuit", "composite right left handed transmission lines"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US07023278 B1(Michael R. Vagher et al) Apr. 4, 2006 See Fig.3, Claims 1-20	1-37
A	WO 2007/136983 A2(DUPUY, Alexandre et al) Nov. 29, 2007 See Fig.1-3, Claims 1-56	1-37
A	Microwave and Optical technology letters, Vol.49, No.11, pp2784-2788 "Design strategies for dual-band class E power amplifier using composite right/left handed transmission lines"(Mury Thian et al) Nov. 30, 2007 See Fig.1-9, Abstracts	1-37
A	IEEE transactions on Microwave theory and techniques, Vol.52, No.12, pp2670-2677 "Adaptive digital/RF predistortion using a nonuniform LUT indexing function with built-in dependence on the amplifier non-linearity" (Slim Boumaiza et al) Dec. 31, 2004 See Fig.1-11, Abstracts	1-37



Further documents are listed in the continuation of Box C.



See patent family annex.

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"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 07023278 B1	04.04.2006	None	
WO 2007-136983 A3	08.05.2008	CN 101438456 A	20.05.2009
		EP 2020049 A2	04.02.2009
		KR 10-2009-0020560 A	26.02.2009
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