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KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR CHARACTERIZED PRE-DISTORTION CALIBRATION OF A POWER AMPLIFIER

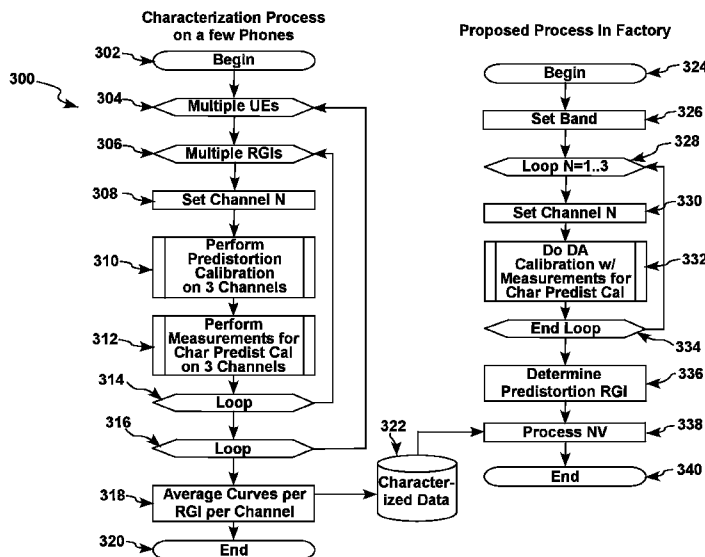


FIG. 3

(57) Abstract: A method and apparatus for characterized pre-distortion calibration is provided. The method begins with the selection of a number of devices to be characterized. The number of devices selected may be a subset of a larger group of devices. The selected number of devices is then characterized. The method avoids characterizing the large group of devices. The calibration of the group of devices is then based on the characterization of the selected number of devices.

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TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

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Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:

15 May 2014

INTERNATIONAL SEARCH REPORT

International application No PCT/US2013/050953
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A. CLASSIFICATION OF SUBJECT MATTER INV. H03F1/32 H04B1/04 ADD.				
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) H03F H04B				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPO-Internal, WPI Data				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
X	US 2005/156662 A1 (RAGHUPATHY ARUN [US] ET AL) 21 July 2005 (2005-07-21) paragraph [0024] -----	1-6,8-17		
A	EP 1 394 954 A2 (NTT DOCOMO INC [JP]) 3 March 2004 (2004-03-03) paragraph [0032] - paragraph [0033]; figure 9 paragraph [0022] -----	2,9,14		
A	US 2008/151974 A1 (JENSEN HENRIK T [US] ET AL) 26 June 2008 (2008-06-26) paragraph [0060] -----	3-5, 10-12, 15-17		
A	US 2008/238544 A1 (MORRIS BRADLEY JOHN [CA] ET AL) 2 October 2008 (2008-10-02) paragraph [0038] - paragraph [0047]; figures 6, 7 -----	1-6,8-17		
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.				
* Special categories of cited documents : <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top; padding: 2px;"> "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed </td> <td style="width: 50%; vertical-align: top; padding: 2px;"> "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "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 </td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "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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Date of the actual completion of the international search	Date of mailing of the international search report			
17 January 2014	02/04/2014			
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Lorenzo, Carlos			

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/050953

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

see annex

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-6, 8-17

A method for characterized pre-distortion calibration, comprising: selecting a number of devices for characterizing, wherein the number of devices selected is a subset of a group of devices; characterizing the selected number of devices; and calibrating the group of devices based on the characterization of the selected number of devices.

2. claim: 7

An apparatus for characterized pre-distortion calibration, comprising: a processor for performing pre-distortion calibration; a processor for averaging curves for each RF gain index on each channel; and a non-volatile memory.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2013/050953
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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