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- (81) **Designated States (unless otherwise indicated, for every kind of national protection available):** AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
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(54) **Title:** FIELD-PLATED TRANSISTOR INCLUDING FEEDBACK RESISTOR

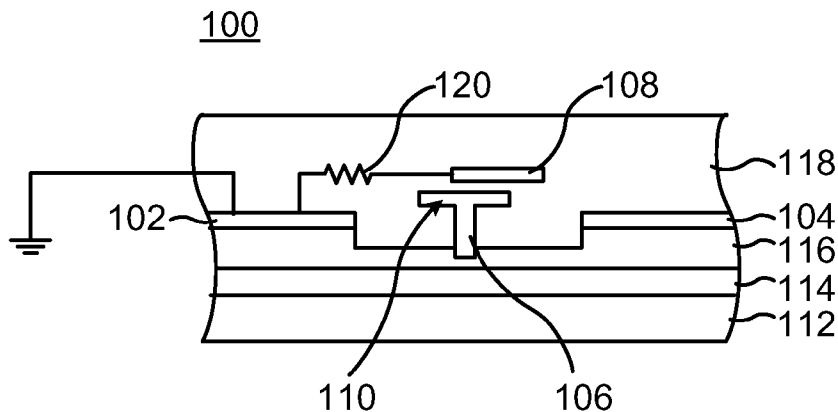


Figure 1

(57) **Abstract:** Embodiments include but are not limited to apparatuses and systems including a unit cell having a source electrode, a gate electrode to receive an input radio frequency (RF) signal, and a drain electrode to output an amplified RF signal. A field plate may be coupled with the source electrode, and a feedback resistor may be coupled between the field plate and the source electrode.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2010/030946

A. CLASSIFICATION OF SUBJECT MATTER

H01L 29/772(2006.01)i, H01L 29/778(2006.01)i, H01L 29/78(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)

H01L 29/772; H01L 21/8232; H01L 21/338; H01L 29/808; H01L 21/337

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
Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: semiconductor, field plate, transistor, resistor, amplifier

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2008-069074 A1 (KABUSHIKI KAISHA TOSHIBA et al.) 12 June 2008 See abstract, [0030]-[0034] and figure 4.	1-20
Y	JP 2009-032724 A (SONY CORP) 12 February 2009 See abstract, [0053] and figure 6.	1-20

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:

"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
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"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
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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


Date of the actual completion of the international search

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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
WO 2008-069074 A1	12.06.2008	EP 2015353 A1 JP W020-080690 74A1 KR 10-2009-0013191 A TW 200840045 A US 2009-256210 A1	14.01.2009 12.06.2008 04.02.2009 01.10.2008 15.10.2009
JP 2009-032724 A	12.02.2009	None	