

Title (en)
ADJUSTABLE BALANCED MODULATOR

Title (de)
EINSTELLBARER GEGENTAKTMODULATOR

Title (fr)
MODULATEUR EQUILIBRE REGLABLE

Publication
EP 1145422 A4 20021002 (EN)

Application
EP 99958825 A 19991109

Priority
• US 9926306 W 19991109
• US 18821698 A 19981109

Abstract (en)
[origin: WO0028657A1] A first non-linear device (410) receives an RF input signal and an in-phase LO signal to produce a first mixed signal. A second non-linear device (412) receives an RF input signal and an out-of-phase LO signal to produce a second mixed signal. A summer (450) sums the two mixed signals to produce an output signal including sum and difference product terms and a suppressed RF input term. An adjustable phase corrector (414) can be used to adjust the RF input signals to the non-linear devices (410, 412) to be substantially in-phase to more effectively suppress an original RF input signal in the output signal.

IPC 1-7
H03C 1/00; **H03C 3/00**; **H03D 1/00**; **H03D 3/00**; **H04B 1/26**

IPC 8 full level
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CPC (source: EP)
H03D 7/1441 (2013.01); **H03D 7/1458** (2013.01); **H03D 7/1491** (2013.01); **H04B 1/26** (2013.01); **H03D 2200/0023** (2013.01); **H03D 2200/0043** (2013.01)

Citation (search report)
• [X] US 4658440 A 19870414 - PAVIO ANTHONY M [US], et al
• [X] US 4308473 A 19811229 - CARNES IRVEN S
• [A] US 5826183 A 19981020 - APEL THOMAS R [US]
• [A] US 5153469 A 19921006 - PETTED BRIAN E [US], et al
• [X] PATENT ABSTRACTS OF JAPAN vol. 8, no. 250 (E - 279)<1687> 16 November 1984 (1984-11-16)
• [PX] J. CARR: "RF MIXERS", ELECTRONICS WORLD RF DESIGN, 1 May 1999 (1999-05-01), pages 379 - 384, XP000913263
• See references of WO 0028657A1

Designated contracting state (EPC)
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WO 0028657 A1 20000518; **WO 0028657 A9 20000928**; AU 1611100 A 20000529; EP 1145422 A1 20011017; EP 1145422 A4 20021002

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