



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ :

H03G 3/30, H03D 3/00

A1

(11) International Publication Number:

WO 95/30275

(43) International Publication Date:

9 November 1995 (09.11.95)

(21) International Application Number:

PCT/US95/05257

(22) International Filing Date:

28 April 1995 (28.04.95)

(30) Priority Data:

235,812

28 April 1994 (28.04.94)

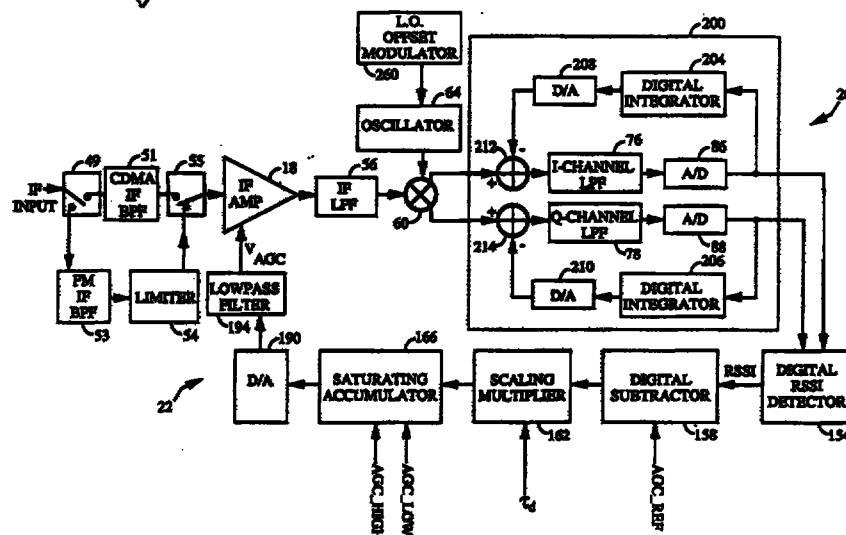
US

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Lusk Boulevard, San Diego, CA 92121 (US).(81) Designated States: AM, AT, AU, BB, BG, BR, BY, CA, CH,
CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE,
KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN,
MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
TJ, TT, UA, UZ, VN, European patent (AT, BE, CH, DE,
DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI
patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE,
SN, TD, TG), ARIPO patent (KE, MW, SD, SZ, UG).

Published

With international search report.

RTMP

(54) Title: METHOD AND APPARATUS FOR AUTOMATIC GAIN CONTROL AND DC OFFSET CANCELLATION IN QUADRA-
TURE RECEIVER

(57) Abstract

An automatic gain control (AGC) and D.C. offset correction method and apparatus for controlling signal power of a received RF signal within a dual mode quadrature receiver is disclosed herein. The AGC apparatus includes an adjustable gain amplifier (18). A quadrature downconverter (20) coupled to the amplifier (18) serves to translate the frequency of the output signal to a baseband frequency which is offset by a predetermined margin from D.C. Two high gain active lowpass filters (76 and 78) provide out-of-band signal rejection for the baseband signals. A D.C. feedthrough suppression loop suppresses D.C. offsets produced by a downconverter (20) and the lowpass filters (76 and 78). The AGC apparatus also generates a received power signal based on the power of the output signal. A saturating integrator compares the received power signal to a reference signal and produces the gain control signal by integrating or by refraining from integration based on values of the reference, received power signal, and gain control signals.

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