

Title (en)

FEED-FORWARD AMPLIFIER LOOP CONTROL UTILIZING IF SIGNAL PROCESSING

Title (de)

VORWÄRTSKOPPLUNGS-VERSTÄRKERREGELSCHLEIFE MIT ZF-SIGNALVERARBEITUNG

Title (fr)

COMMANDE DE BOUCLE D'AMPLIFICATEUR A CORRECTION AVAL FAISANT INTERVENIR LE TRAITEMENT DE SIGNAL A FREQUENCE INTERMEDIAIRE

Publication

**EP 1346473 A4 20040804 (EN)**

Application

**EP 01991548 A 20011221**

Priority

- US 0150336 W 20011221
- US 25766100 P 20001222

Abstract (en)

[origin: WO02052718A2] An amplifier arrangement including a main amplifier to which feed-forward cancellation is applied, where the amplifier arrangement comprises an input for receiving signals to be amplified, an output for providing an amplified input signal, a pilot signal modulation circuit to generate a CW frequency shifted pilot signal, a mixer down for converting the pilot signal to an IF signal, and a sampling circuit for digitally sampling the IF signal. The amplifier arrangement includes a signal cancellation loop and a distortion cancellation loop each acting as an independent control function for minimizing pilot signal. The signal cancellation loop utilizes a Cartesian loop method for controlling the signal cancellation loop for sensing both phase and amplitude information simultaneously. The Cartesian loop uses a high frequency active mixer, which is a dual cross coupled differential pairs of devices capable of operating with input signals from near DC to 2.4 GHz, for control of the signal cancellation loop.

IPC 1-7

**H03F 3/66**; H03F 1/26; H03F 1/00; H03F 1/32

IPC 8 full level

**H03F 1/32** (2006.01)

CPC (source: EP KR)

**H03F 1/26** (2013.01 - KR); **H03F 1/3229** (2013.01 - EP)

Citation (search report)

- [X] EP 0982850 A1 20000301 - LUCENT TECHNOLOGIES INC [US]
- [X] US 5999048 A 19991207 - ZHOU WILLIAM WEI [US]
- See references of WO 02052717A2

Designated contracting state (EPC)

DE GB

DOCDB simple family (publication)

**WO 02052718 A2 20020704**; CN 1483242 A 20040317; EP 1346473 A2 20030924; EP 1346473 A4 20040804; KR 20030090616 A 20031128; TW 525344 B 20030321; WO 02052717 A2 20020704; WO 02052717 A3 20030403

DOCDB simple family (application)

**US 0150560 W 20011222**; CN 01821146 A 20011221; EP 01991548 A 20011221; KR 20037008378 A 20030620; TW 90132096 A 20011221; US 0150336 W 20011221