

Title (en)  
LOW-NOISE AMPLIFYING CIRCUIT

Title (de)  
RAUSCHARME VERSTÄRKERSCHALTUNG

Title (fr)  
CIRCUIT D'AMPLIFICATION A FAIBLE BRUIT

Publication  
**EP 1407541 A2 20040414 (DE)**

Application  
**EP 02782431 A 20020619**

Priority  
• DE 0202233 W 20020619  
• DE 10132800 A 20010706

Abstract (en)  
[origin: WO03005566A2] The invention relates to a low-noise amplifying circuit having an invertible amplification ratio. To this end, a parallel connection comprised of a first and of a second current path (3, 4) is provided between a high-frequency signal input and signal output (1, 2). The first current path (3) for amplifying signals comprises a transistor in a common base, and the second current path (4) for amplifying signals comprises a transistor in the common emitter (7) provided with an input impedance matching (25, 27). Due to the good noise characteristics and to the good linearity characteristics, the described low-noise amplifying circuit is suited for use in high-frequency receivers in which, due to a large dynamic range of the input signal, such as in the case of UMTS, an adaptive pre-amplification is still required before a frequency converter, i.e. in the high-frequency level.

IPC 1-7  
**H03F 3/72**

IPC 8 full level  
**H03F 1/26** (2006.01); **H03F 3/19** (2006.01); **H03F 3/45** (2006.01)

CPC (source: EP US)  
**H03F 3/45188** (2013.01 - EP US); **H03F 2200/294** (2013.01 - EP US); **H03F 2200/372** (2013.01 - EP US); **H03F 2203/45386** (2013.01 - EP US); **H03F 2203/45394** (2013.01 - EP US); **H03F 2203/45396** (2013.01 - EP US); **H03F 2203/45616** (2013.01 - EP US); **H03F 2203/7236** (2013.01 - EP US)

Citation (search report)  
See references of WO 03005566A2

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)  
**WO 03005566 A2 20030116**; **WO 03005566 A3 20040122**; DE 10132800 C1 20030130; EP 1407541 A2 20040414; JP 2004534470 A 20041111; US 2005068106 A1 20050331; US 7057457 B2 20060606

DOCDB simple family (application)  
**DE 0202233 W 20020619**; DE 10132800 A 20010706; EP 02782431 A 20020619; JP 2003511410 A 20020619; US 48265104 A 20040319