

PMB 6952

SMARTi 3GE - One-Chip Dual Mode
W-CDMA/EDGE RF Transceiver



THE PMB 6952 SMARTi 3GE is an industry leading dual mode transceiver based on the SMARTi PM quad-band GSM/EDGE and SMARTi 3G six-band W-CDMA transceiver architecture in a laminate based PG-TFSGA-121 package. SMARTi 3GE offers significant board area reduction for creating the smallest dual-mode mobile solutions. A standard 3-wire bus programming interface, compatible with most basebands, allows easy integration into wireless devices.

Applications

- W-CDMA: multi-band operation for 3GPP bands I through VI
- Quad-band GSM/EDGE (GSM850/GSM900/GSM1800/GSM1900)
- HSDPA capable (up to category 8)

Features

- General
 - 0.13 μ m RF-CMOS transceiver
 - 3-wire bus for control and programming
 - Power down modes and integrated power up sequencer
 - Supply voltages 1.4 V ... 1.6 V and 2.7 V ... 2.95 V
 - Optional additional supply voltage from 1.71 V ... 3.0 V
 - Operating temperature range -30°C to 85°C
 - 3GPP standard compliance release 5/6 for W-CDMA part, release 4 for GSM part
 - Low external component count

- GSM/EDGE
 - Constant gain quad band direct conversion receiver
 - GPRS/EDGE class 1 to 12/type1
 - Four integrated LNAs
 - Fully integrated channel filter
 - Highly linear RF quadrature demodulator
 - Automatic DC offset compensation
 - Very low power budget
 - Digital Sigma-Delta modulator for GMSK
 - Polar modulator architecture for 8PSK
- W-CDMA
 - Direct conversion receiver, direct modulation transmitter
 - Independent Rx and Tx operation
 - Complete Rx analog baseband path including filtering
 - HSDPA capable
 - RF Tx VGA with > 85 dB gain range

Technology

- C11RF - 130 nm RF CMOS
- PG-TFSGA-121 leadless package
 - 6.0 x 6.0 mm
 - Green product (lead (Pb) and halogen free)

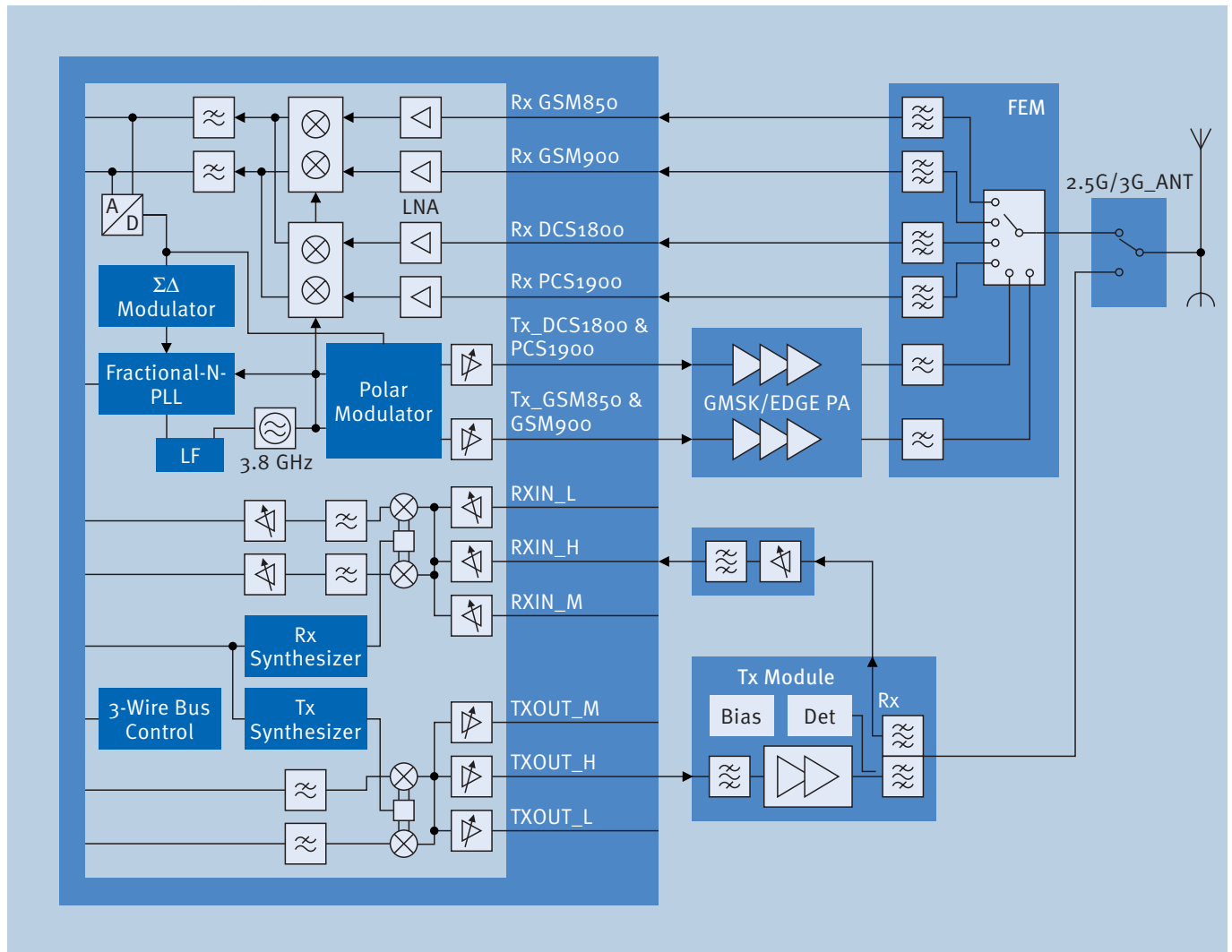
www.infineon.com/mobilesolutions

Mobile Solutions



Never stop thinking

SMARTi 3GE Application Example



How to reach us:
<http://www.infineon.com>

Published by
 Infineon Technologies AG
 81726 München, Germany

© Infineon Technologies AG 2006.
 All Rights Reserved.

Attention please!

The information herein is given to describe certain components and shall not be considered as a guarantee of characteristics. Terms of delivery and rights to technical change reserved.

We hereby disclaim any and all warranties, including but not limited to warranties of non-infringement, regarding circuits, descriptions and charts stated herein.

Information

For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office.

Warnings

Due to technical requirements components may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies Office.

Infineon Technologies Components may only be used in life-support devices or systems with the express written approval of Infineon Technologies, if a failure of such components can reasonably be expected to cause the failure of that life-support device or system, or to affect the safety or effectiveness of that device or system. Life support devices or systems are intended to be implanted in the human body, or to support and/or maintain and sustain and/or protect human life. If they fail, it is reasonable to assume that the health of the user or other persons may be endangered.