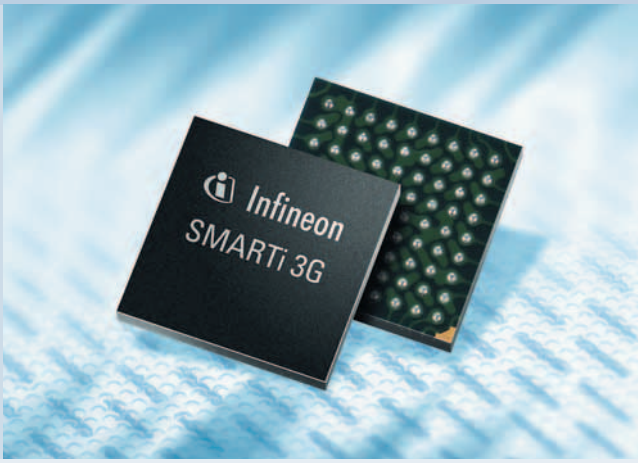

PMB 5701

SMARTi 3G - The First Single-Chip 6-Band CMOS Radio Frequency (RF) UMTS Transceiver

SMARTi 3G is the latest member of Infineon's successful UMTS transceivers family. It is designed to be used in mobile applications complying with the W-CDMA UTRA FDD system requirements. Supporting currently specified UMTS bands I through VI it fully covers the worldwide demand with its different regional frequency requirements in Europe, Asia, North America and Japan.

Applications

- UMTS standard compliant
- Low area, and low power UMTS/ W-CDMA solution

Features

- General
  - Direct conversion receiver
  - Direct modulation transmitter
  - Integrated VCOs
  - Integrated PLL
  - Supporting GSM dual-receive
  - Supporting compressed mode
  - Flexible 3-wire bus configuration
- Tx Section
  - RF VGA's with >85 dB gain range
  - High-linearity mode for HSDPA
- Rx Section
  - Complete analog baseband path without external components
  - Separate Rx PGC 3-wire bus operation possible
  - HSDPA capability (up to category 8)

Technology

- Based on Infineon's C11 130 nm RF-CMOS technology
- PG-WFSGA-81 leadless package
  - 5.0 x 5.0 mm
  - Green product (lead (Pb) and halogen free)
- Supply voltage range from 2.7 V to 3.0 V

Operating Frequency Bands

The transceiver is capable to operate in the following paired frequency bands:

Band	Tx Band [MHz]	Rx Band [MHz]
Band I	1920 – 1980	2110 – 2170
Band II	1850 – 1910	1930 – 1990
Band III	1710 – 1785	1805 – 1880
Band IV	1710 – 1770	2110 – 2170
Band V	824 – 849	869 – 894
Band VI	830 – 855	875 – 900

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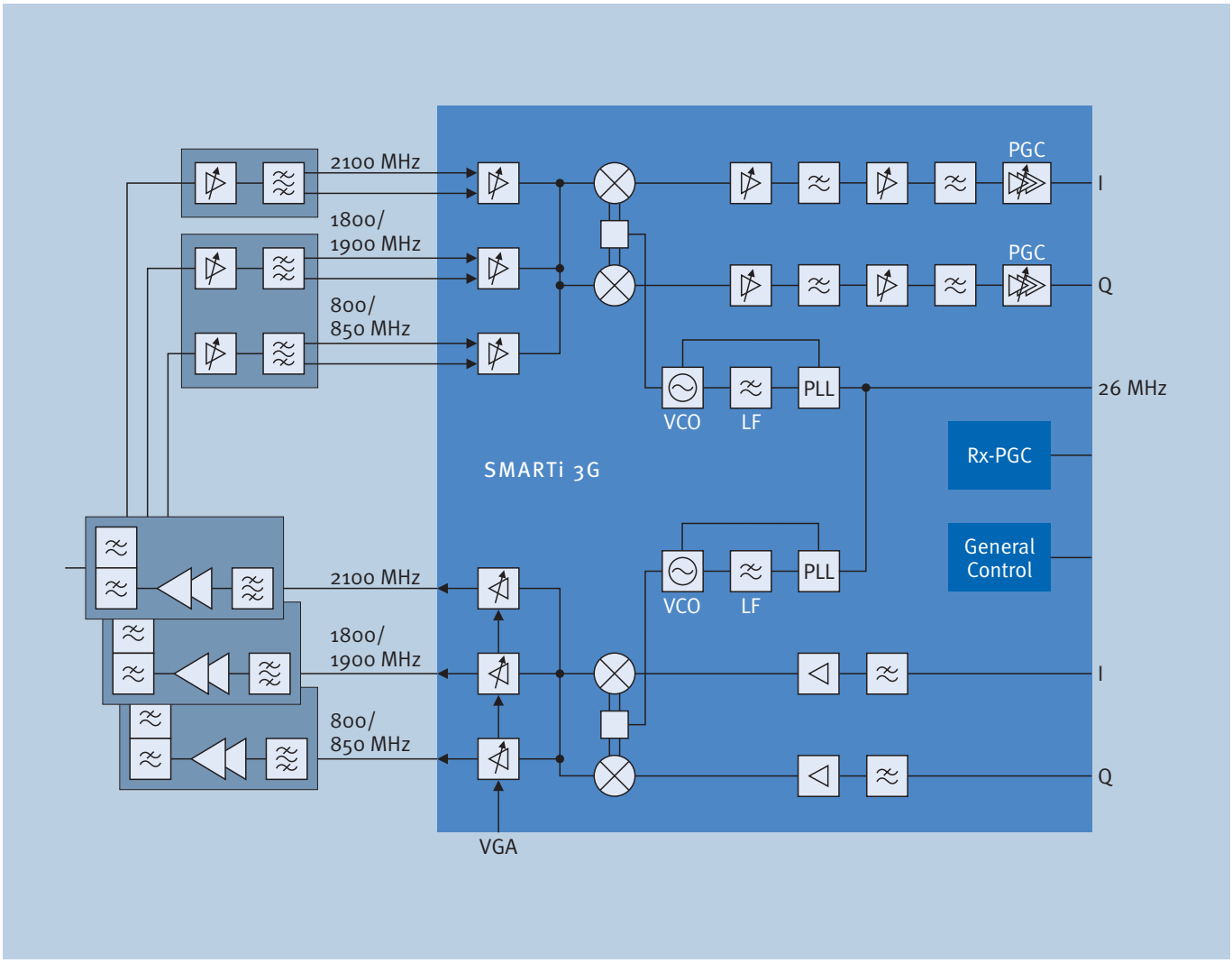
Mobile Solutions

Never stop thinking

SMARTi 3G Triple Band Application Example



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