WITH ITS NEW X-GOLD 608 BASEBAND, Infineon Technologies extends its well known X-GOLD baseband family to support the 3.5G mobile phone generation. The integrated dual-mode HSDPA/WCDMA/E-GPRS modem technology, together with high speed multimedia hardware accelerators and the advanced connectivity options enable X-GOLD 608 to fulfill the requirements of tomorrow's mobile phones.

INFINEON is one of the early platform vendors to support HSDPA category 8 (7.2Mbit/s). The implementation of equalizer based advanced receiver technology improves the data throughput, especially at high data rates, by up to 40%. In addition, the software programmable slot processing in the HSDPA Rx path provides further flexibility for performance enhancements. The HSDPA performance of X-GOLD 608 meets and exceeds all test cases as specified in the 3GPP standard.

INFINEON'S 3.5 G physical layer architecture is future-proof and designed for an easy upgrade to higher HSDPA data rates, HSUPA and also Rx-diversity.

Key Modem Features
- HSDPA - category 8 (7.2Mbit/s)
  - Implementation of fractional chip rate equalizer
  - Configurable to lower categories / data rates
  - Option to switch off HSDPA to save power
- WCDMA
  - 384kbit/s class for uplink and downlink
  - 640kbit/s peak data rates for uplink and downlink independently
- EDGE multislots class 12
- GPRS/GSM
- FR, HR, EFR, AMR
- SAIC
- Tx diversity
- DTM class 11
- Polyphonic Ringer support for up to 64 voices at up to 48 kHz sampling rate
- Echo cancellation/noise reduction
- GTT/TTY

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**PMB8878**

X-GOLD 608-Broadband Mobile Experience with HSDPA 7.2 Mbit/s and Multimedia Engine

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**Key Benefits:**

- High integration level of key multimedia features allows minimum cost of system solutions for tomorrow's feature phones
- High overall system performance with high speed ARM subsystem and double-data rate memory access
- Proven leading-edge modem technology with WCDMA, HSDPA Cat. 8 as well as third generation E-GPRS evolution
- Feature upgrade flexibility through optional companion/multimedia chips via standardized interface
- Support of connectivity modules such as Bluetooth, WLAN, A-GPS, DVB-H, FM Radio, etc.

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**X-GOLD 608**

With its ARM 926 CPU, capable of processing speeds of up to 312MHz, is extending the capabilities of wireless multimedia without the need for a dedicated Application Processor. The powerful multimedia engine integrated with the advanced dual-mode HSDPA/WCDMA/ E-GPRS modem technology enables a wide spectrum of multimedia functionalities, mobile entertainment and office applications with high data rates of up to 7.2Mbit/s. X-GOLD 608 based platforms enable handsets to provide consumer electronic quality such as camera support of up to 5 MPixel as well as video telephony, streaming, recording and playback with up to 30 frames per second and a resolution of up to 320 x 480 pixels (HVGA) in MPEG4, H.264 or Real video formats and advanced audio codecs, like enhanced AAC+. The OPTIMIZED X-GOLD 608 architecture makes it possible for the users to run several applications simultaneously; e.g. surf the internet, download emails or data to a SD-card with HSDPA category 8 (7.2Mbit/s) while listening to MP3 music over a stereo Bluetooth headset.

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**Legal Disclaimer:** The information given in this Product Brief shall in no event be regarded as a guarantee of conditions or characteristics. With respect to any examples or hints given herein, any typical values stated herein and/or any information regarding the application of the device, Infineon Technologies hereby disclaims any and all warranties and liabilities of any kind, including without limitation, warran-

**Warnings** Due to technical requirements, components may contain dangerous substances. For information on the types

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