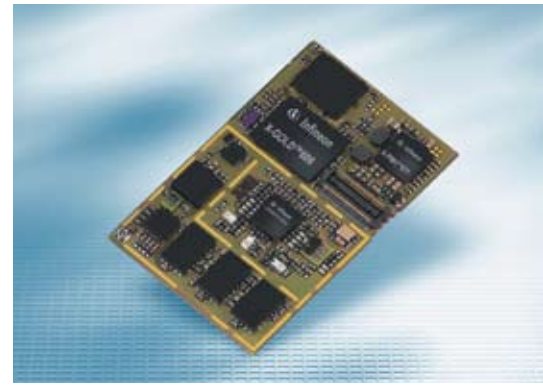


## X-GOLD™608/XMM™6080

### X-GOLD™608 - the Heart of Infineon's 7.2Mbit/s HSDPA Platform XMM™6080



WITH THE XMM™6080 Infineon offers the world's smallest HSDPA 7.2Mbit/s HSDPA solution to the mobile phone industry. The XMM™6080 is a complete platform offering including all HW components (baseband, power management, transceiver) and an in-house 3GPP compliant Release 5 dual mode protocol stack. The highly integrated dual-mode HSDPA/WCDMA/E-GPRS modem, together with high speed multimedia hardware accelerators and the advanced connectivity options enable the XMM™6080 to fulfil the requirements of tomorrow's mobile phones.

Infineon is one of the early platform vendors to support HSDPA category 8 (7.2 Mbit/s). The implementation of equalizer based advanced receiver technology improves the data throughput, especially at high data rates, by up to 40%. 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 Application Features

- ARM 926 based modem and application processor
- Hardware security - DRM 2.0, E-fuse, Boot Code Protection
- Display interface supporting buffered and unbuffered color displays up to HVGA resolution
- High-speed serial display interface for cost efficient clamshell mechanics
- 3 MPixel camera interface
- HW accelerators for 2D graphics, colour code conversion, motion estimation
- MP3, AAC, AAC+, enhanced AAC+ capable
- Support for video telephony, streaming, recording and playback
- Multimedia extension interface for support of high end video and graphic accelerators
- 2 x SDIO interfaces, 2 I<sup>2</sup>S, Fast IRDA
- USB 2.0 on-the-go, full speed
- NAND flash controller supporting burst mode and error detection
- Support of DDR-SDRAM devices

#### Key Modem Features

- 3GPP Release 5 compliant dual mode protocol stack (EDGE/HSDPA)
- 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
- EDGE multislot class 12
- GPRS/GSM
- FR, HR, EFR, AMR codecs
- SAIC/DARP integrated
- DTM class 11
- 64 voices polyphonic ringing
- Echo cancellation/noise reduction
- GTT/TTY

#### Key Benefits

- Less than 1000 mm<sup>2</sup> for a dual mode HSDPA (triband) and EDGE (quadband) modem solution
- High integration level of key multimedia features allows minimum cost of system solutions for tomorrow's mobile phones
- High overall system performance with high speed ARM subsystem and DDR 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.

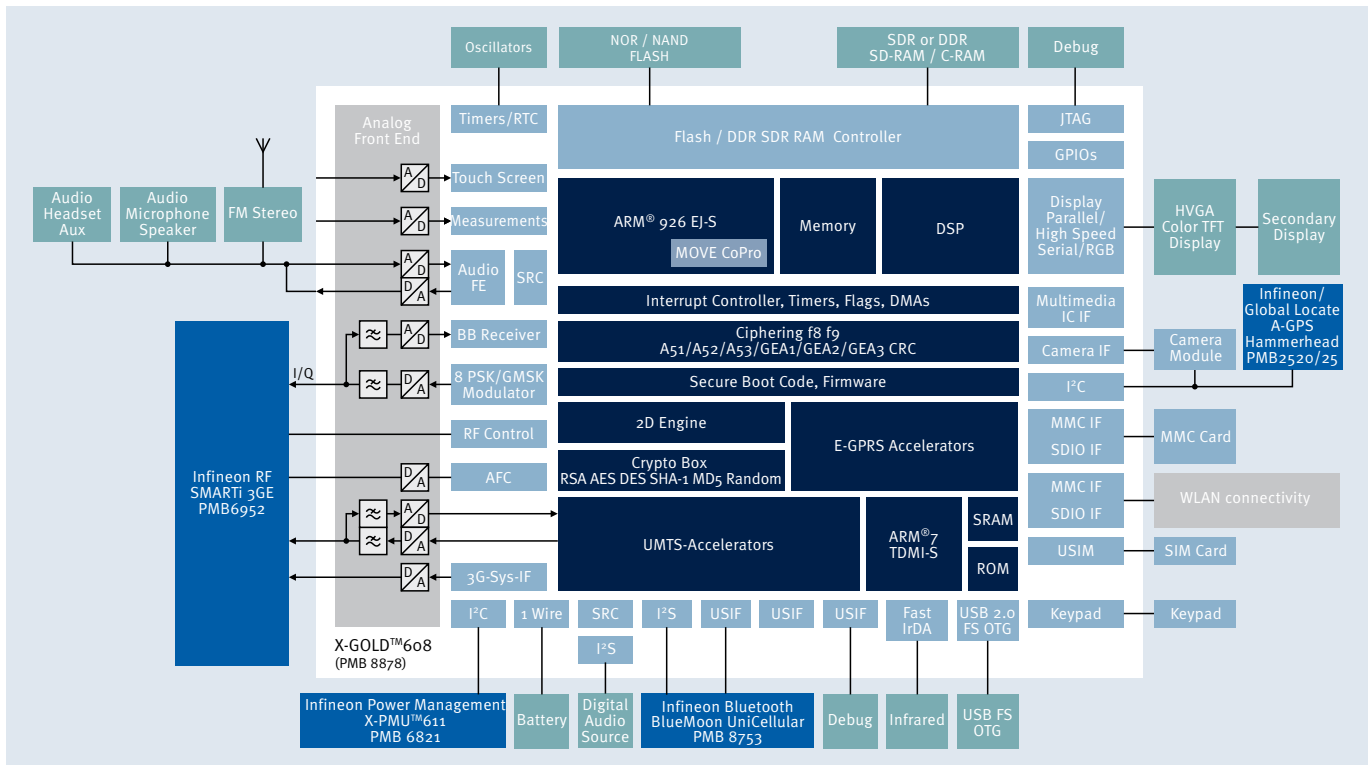
[www.infineon.com/wireless](http://www.infineon.com/wireless)

## Communication Solutions

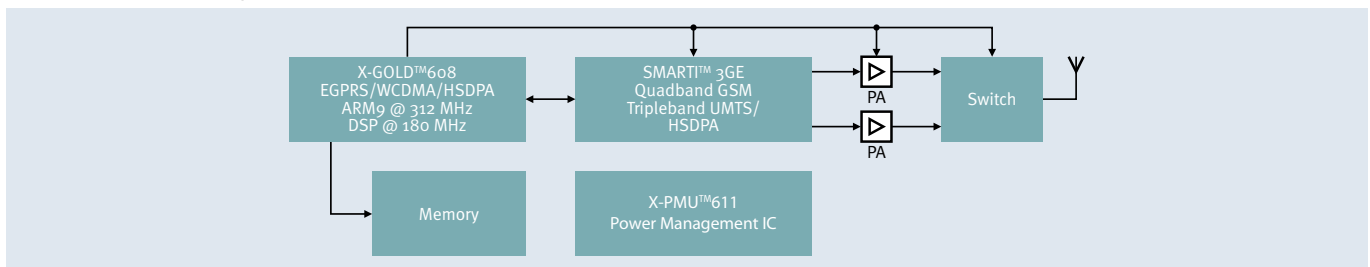


Never stop thinking

## X-GOLD™6o8 Block Diagram



## XMM™6o8o Block Diagram



X-GOLD™6o8 with its 312 MHz ARM 926 CPU 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 7.2 Mbit/s.

The XMM™6o8o platform enables handsets to provide consumer electronic quality such as camera support of 3 MPixel as well as video telephony, streaming, recording and playback with up to 30 frames per second. Video codecs like MPEG4, H.264, or Windows and Real video formats and advanced audio codecs, like enhanced AAC+, MP3, Windows or Real audio can be processed on the baseband controller directly.

The optimized X-GOLD™6o8 architecture makes it possible for the users to run several applications simultaneously; e. g. surf the internet, download emails or data to an SD-card with HSDPA category 8 (7.2Mbit/s) while listening to MP3 music over a stereo Bluetooth headset.

*Note: ARM® is a registered trademark of ARM, Ltd.*

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