

# COMPLETE SOLUTION FOR TD-HSDPA/EDGE WITH DUAL-MODE AUTOMATIC HANDOVER

T7210/T7211 best-in-class system solution for feature phones and modems

The T7210 / T7211 dual-mode TD-HSDPA/EDGE solution brings 3G functionality to the China market. It is a state-of-the-art design that offers best-in-class multimedia applications, including video and connectivity. It places ST-Ericsson's mature, market-proven EDGE functionality alongside type-approved, field-tested TD-HSDPA capability developed by our affiliate T3G Technologies. The solution is capable of receiving data at the industry's highest downlink speed, yet offers ultra-low power consumption.

Available in two formats: a modem reference design giving customers a full kit for designing smartphones and data cards, and a feature-phone reference design that provides a complete solution for multimedia-rich feature phones.



## KEY FEATURES

- Dual-mode GSM/GPRS/EDGE/TD-HSDPA system solution
- 208 MHz ARM926EJ baseband processor

## Telecom

- Telecom performance
  - Quad-band EDGE Rel. 99, class 10
  - Dual-band TD-SCDMA 3GPP Rel. 5 (June 2005)
  - HSDPA 2.8 Mbit/s DL (cat. 15)
  - PS data 384 Kbit/s UL/DL; CS data 64 Kbit/s UL/DL
  - TD-MBMS support H.264 @ 256 Kbit/s
- Support of AT commands (multi-TA) and USAT (USIM application toolkit)/SAT
- Compliant with latest GCF, PTCRB and China NAL test

## Connectivity

- Integrated connectivity
  - USB 2.0 FS device
  - MMC/SD/T-Flash card support
- Proven extensions available for Bluetooth™ V2.1 EDR, AGPS and FM radio

## Multimedia

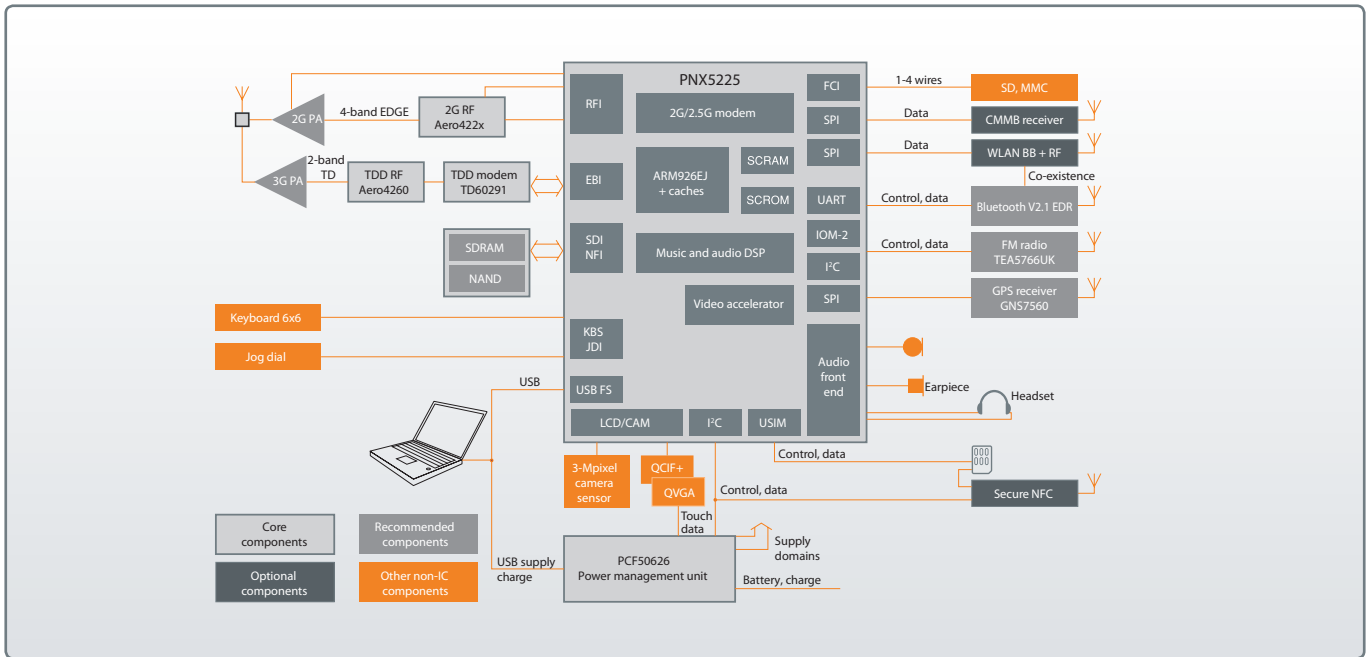
- Integrated multimedia accelerators
  - MP3 decoding @ 30 mA
  - Decode H.263/H.264 CIF 30 fps to support CMMB mobile TV
  - Encoding/decoding for video telephony
- 3-Mpixel YUV/JPEG camera interface

## KEY BENEFITS

- Mature and stable dual handover TD/EDGE telecom solution for high-quality handsets and data cards
- Best-in-class power consumption
- State-of-the-art TD-SCDMA telecom (dual band, 2.8 Mbit/s HSDPA and TD-MBMS)
- Longer video and music play times, higher quality recording, video telephony

## TARGETED APPLICATIONS

- Feature phones
- Smartphones
- Data cards



T7210/ T7211 hardware architecture

The T7210/T7211 solution is built around an ARM926-based platform. The core chipset includes a powerful digital baseband processor, a market-proven EDGE transceiver and a high-end power management unit (PMU).

The chipset is extended with a TD-SCDMA modem IC and a TD-SCDMA RF transceiver. The embedded audio and video accelerators eliminate the need for an external coprocessor to support video telephony, media streaming or mobile TV.

### ADVANCED MULTIMEDIA PERFORMANCE

The T7210/T7211's powerful baseband runs high-end multimedia functions for use in the value added service (VAS) market. The phone can preview, capture, store and manipulate still images and video clips. It has a 3-Mpixel YUV camera interface plus an MPEG-4/H.263 and H.264 video player and encoder. It also has an MP3 player and can easily be extended with a low-power FM radio IC. It supports video telephony and has a display driver that works with displays of up to 262k colors and a resolution up to QVGA.

Type	Function	Package	Package size
<b>PNX5225</b>	Dual-mode digital baseband processor	LFBGA340	12 x 12 mm
<b>PCF50626</b>	Power management unit	HVQFN112	7 x 7 mm
<b>AERO422x</b>	2G transceiver	Version-dependent	
<b>AERO4260</b>	3G transceiver	TFBGA105	6 x 6 mm
<b>TD60291</b>	TD-SCDMA modem	LFBGA240	10 x 10 mm

### PCB FOOTPRINT IMPROVEMENT OPTION

To allow even more attractive handset designs, the T7210/T7211 solution offers a smaller PCB footprint by repacking some of the components.

LET'S CREATE IT

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