

## ZR34530 Product Brief

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### Description

The APPROACH 5C is a pin compatible family of mobile multimedia processors designed to meet the highest quality and performance, as well as lowest cost and power, required for next generation multimedia Feature Phones.

The APPROACH 5C is Zoran's fifth generation application processor for handheld and mobile multimedia phones.

The APPROACH 5C integrates Zoran's leading DSC Image Signal Processing (ISP) providing the highest available quality stills in resolution of 5MP and VGA resolution video capture.

The APPROACH 5C family provides innovative features such as digital mobile TV support, 3D-Graphics accelerator for gaming applications, VGA LCD support and full interface of PAL/NTSC composite TV out.

The APPROACH 5C is a complete solution including software applications enabling handset manufacturers and design houses to differentiate high performance multimedia products with a variety of features and long battery life.

### Benefits Overview

- APPROACH 5C delivers leading class digital still and video for higher value handsets
- High integration delivers low cost BOM and saves PCB space
- Superior multimedia performance extends longevity of customer's products
- Pin compatible family provides multiple handset designs using one platform, saving design and production investments
- Integrated applications and SDK tools enable fast time-to-market and reduce development efforts and risks
- Low power process and SOC design maximize battery life
- Package selected for lowest PCB and assembly cost
- Fast integration using co-processor architecture (Baseband accelerator)

### Features List

#### DVD Quality Video

- HW based CODECs for low power and high performance
- Capture and playback - VGA 30fps MPEG4/DivX
- CIF 30fps H.264 and WMV9 decoding
- PAL/NTSC composite TV out

#### High End 5MP DSC

- High quality ISP, supports 5MP CCD and CMOS sensors
- DSC-like performance and user experience: Fastest click-to-click, burst mode, high frame rate
- Signal Processing supports AWB, AE, AF, lens shading and bad pixel correction
- Engines control for optical zoom, AF, shutter and flash

#### Audio CODECs

- MIDI player, 64 poly, multiple standard
- AMR NB/WB
- MP3, AAC, AAC+
- 3D surround audio

#### 2D/3D HW accelerator

- Low power and high quality gaming accelerator
- Rendering: 700k polygon per sec
- Fill rate: 100 Mpixel per sec
- Open GL ES 1.1 and JSR184 standard API

#### Mobile Digital TV

- DVB-H, S/T-DMB mobile TV application including player, time-shift and recorder functions
- Need only external tuner/demodulator
- DRM Crypto accelerators for low power deciphering

#### Peripheral Interfaces

- UART, I2C
- USB 2.0 and OTG
- PCM, AC97, SPI, I2S

#### Boot memory options

- ROM on chip for fast and safe boot
- Bootable NAND flash
- Bootable SPI Flash
- Boot from Baseband
- Boot from UART (hostless testing and development)

#### Mass storage

- SD/MMC, MMC V4/dual voltage
- Large NAND (no size limitation)

#### Technology

- ARM9, up to 270MHz
- 1V (Core) 1.8-3.3V (I/O)
- 90nm CMOS

#### Power

- Sleep (no clock, LCD bypass) less than 100uW
- Very low active power due to HW engines and advanced process

## Mobile Multimedia Application Processor

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#### Software and Applications

##### Integrated firmware

- Board Support Package: drivers for LCD, camera sensor, NAND, SD/MMC and common HW
- Video: MPEG4, DivX, H264, WMV9, H263, JPEG, GIF, PNG
- Audio: AMR, MP3, AAC, AAC+, MIDI
- Graphics: Open GL ES 1.1 API
- Applications: video player, audio player, digital still camera, thumbnail viewer, video & photo editing

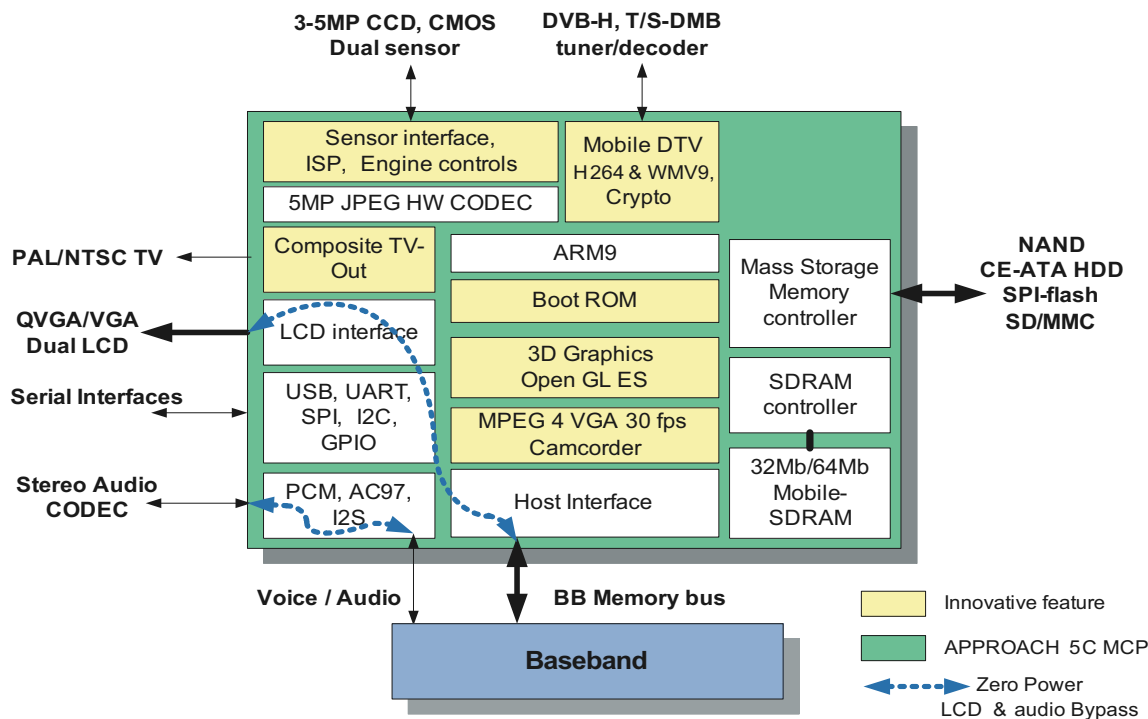
##### Optional applications

- 3D surround rendering engine
- Third party games
- Mobile TV Applications
- DRM
- Webcam
- PictBridge

#### APPROACH 5C Packaging

- Family of pin compatible models
- Package size: 8mm x 8mm x 1.2mm
- 32Mb or 64Mb embedded mobile SDRAM
- Different memory configurations suit different embedded applications

#### APPROACH 5C System



#### For more information, contact Zoran's Sunnyvale office or the office nearest you:

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