

# MSM6255A™ Chipset Solution

## Mainstream wireless multimedia expands globally with industry's first single-chipset solution

The QUALCOMM® Multimedia Platform has been specifically designed to drive the rapid development and adoption of high-speed wireless data applications. It offers a system and software solution that enables video, audio, gaming and location-based products and services for today's handsets.

The industry's first-ever single-chip multimedia solution enables sleek, must-have devices that drive consumer desire through smart design, yet make no sacrifices when it comes to power and functionality. The Multimedia Platform contains chipset solutions optimized for 3G networks throughout the world—including solutions for global roaming across standards.

The Multimedia Platform is the industry's best solution for accelerating mainstream adoption of wireless multimedia in 3G. Manufacturers and operators can now deliver compelling wireless multimedia with up to 3.0 megapixel camera resolution for album-quality snapshots, easy-to-use portable MP3 tunes and more—solutions designed to increase revenue, drive airtime usage and capitalize on 3G investments.



THE QUALCOMM MULTIMEDIA PLATFORM HAS BEEN SPECIFICALLY DESIGNED TO DRIVE THE RAPID DEVELOPMENT AND ADOPTION OF HIGH-SPEED WIRELESS DATA APPLICATIONS.

**6255A**  
MULTIMEDIA PLATFORM


### PERFORMANCE

#### Maximize design and development potential

- Air interfaces supported:
  - WCDMA (UMTS) R99
  - GSM Release 4
  - GPRS/EGPRS Multislot Class 12, Release 4
  - DTM Multislot Class 11
  - GPS
- High-performance 225 MHz ARM926EJ-S™ micro-processor core with memory management unit (MMU)
- QDSP4000™ high-performance digital signal processors (DSP)
- QVM™ Java® environment platform with multitasking virtual machine (MVM) and ARM's Jazelle™ Java acceleration speeds execution of multiple concurrent, games and applets
- Enhanced memory support for NAND, NOR and SDRAM
- Advanced 409-pin CSP packaging (14 mm x 14 mm), 432-pin NSP packaging (11 mm x 11 mm) and Package-on-Package options
- Integrated secure boot, secure software and secure storage
- OpenBREWapi™ software to run uiOne™ and BREW® applications
- Support for uiOne Handset Development Kit (HDK). uiOne HDK is a fully customizable reference user interface and engine framework

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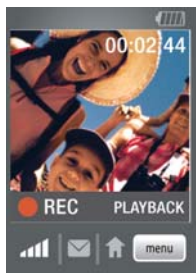
The Mobile Station Modem™ (MSM™) MSM6255A™ solution for WCDMA (UMTS) and GSM/GPRS/EDGE networks is a single-chip solution that will take wireless multimedia mainstream. Depend on the MSM6255A solution to develop sleek, sophisticated 3G devices that boast incredibly high-quality multimedia features and can be produced at attractive price points to drive mass-market appeal.



## GRAPHICS

### True 3D graphics for advanced wireless gaming and rich GUIs

- Advanced 2D/3D graphics support with up to 50,000 3D triangles per second, and 400,000 3D textured pixels per second fill rate
- Q3Dimension™ rendering engine with OpenGL® ES-compliant 3D graphics
- Supported by leading third-party game titles
- Up to 176 pixels x 220 pixels resolution



## VIDEO

### Wireless video solutions for fast-action infotainment

#### Qtv™ Decoder

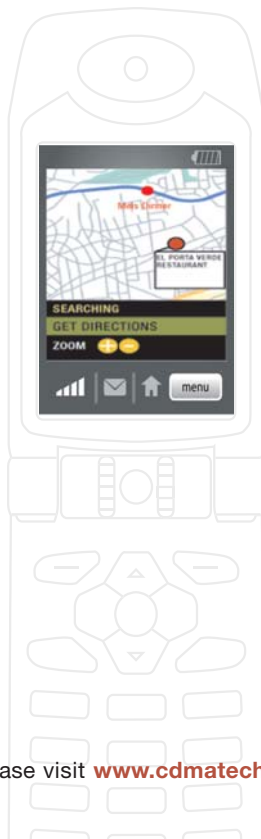
- High-performance video player powers streaming video- and audio-on-demand plus video messaging at 15 fps QCIF
- Video Codecs: MPEG-4, H.263, H.264, Windows Media® and RealNetworks®
- Audio Codecs: AMR-NB, AMR-WB, AMR-WB+, AAC, aacPlus™ and Enhanced aacPlus, Windows Media and RealNetworks

#### Qvideophone™ Video Conferencing Application

- Two-way mobile videoconferencing solution that delivers 15 fps quality
- 3GPP/2 standards compliant
- Video Codecs: MPEG-4 and H.263
- Audio Codecs: AMR-NB

#### Qcamcorder™ Encoder

- A real-time wireless video recording solution that captures movies at 15 fps QCIF
- 3GPP/2 standards compliant
- Video Codecs: MPEG-4 and H.263
- Audio Codecs: AMR-NB



## POSITION LOCATION

### Highly accurate positioning for location-based services (LBS)

- Next-generation gpsOne® Assisted-GPS solution, with an enhanced GPS engine for greater sensitivity and faster start times
- Enhanced filtering software optimizes GPS accuracy and availability for tracking and satellite navigation applications
- Full integration with JAVA and BREW-based development environments to support commercially deployed location services
- Support for MS-Assisted and MS-Based modes, and Standalone GPS mode which enables off-network support
- Support for UMTS Control Plane, GSM Control Plane and OMA SUPL 1.0 User Plane Assisted-GPS protocols



## CONNECTIVITY

### Connection with indispensable consumer electronics

- Integrated Bluetooth® baseband processor for wireless connectivity to peripherals
- Universal serial bus (USB) on-the-go (OTG) functionality
- SecureMSM™ security suite v2.0: includes support for Open Mobile Alliance™ (OMA) DRM v2.0, SIM-lock and IMEI integrity

## IMAGING

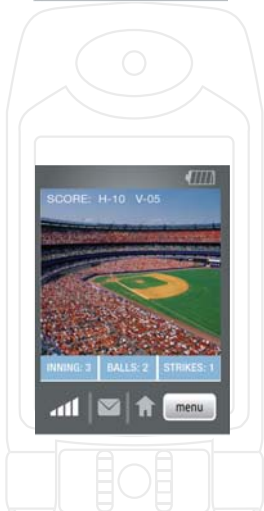
### Integrated digital-still camera interface:

- Qcamera™ software with 30 fps QCIF viewfinder resolution
- Support for up to 3.0 megapixel camera sensors
- Hardware-based Image Signal Processor and JPEG encoder
- Full image processing capabilities, including color correction, crop, resize, rotation, image blurring and sharpening, image overlay, picture frame support and visual noise reduction

## AUDIO

### Outstanding audio performance with support of industry-wide codecs:

- Support for stereo output up to 48 kHz
- PureVoice® Audio AGC (automatic gain control) for better calls under noisy conditions
- Digital audio support for MP3, AAC, aacPlus, Enhanced aacPlus, Windows Media Audio and RealNetworks Audio
- CMX™ multimedia software for customized ringtones, screensavers and greeting cards:
  - MIDI-based voice (up to 72 polyphony)
  - Playback support for compact MIDI, General MIDI, SMAF™ (audio only), SP-MIDI, XMF/DLS, and MFi
  - Scalable Vector Graphics (SVG) Tiny
- QConcert™ surround-sound engine and QAudioFX™ enhanced gaming audio for positional sound
- QUALCOMM Audio Post Processing Functionality
- Enhanced Echo Cancellation for Full-Duplex Calls
- BT SCO/A2DP Support for all voice/audio codecs (including RealAudio and WMA)
- QAudioFX/3D Graphics concurrency (with A2DP) and In-call MP3 support



## OPTIMIZED RF AND PMIC SOLUTIONS

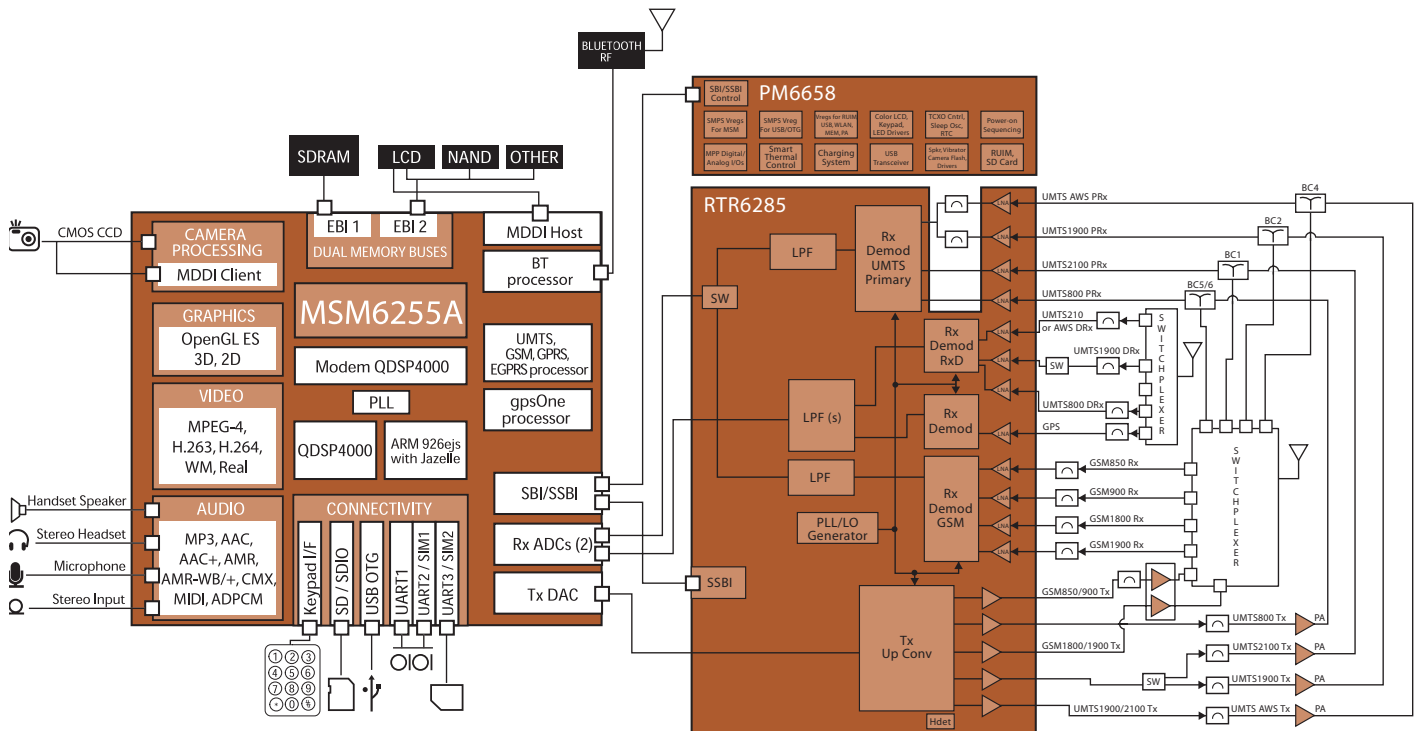
QUALCOMM's radioOne® zero-IF radio frequency and powerOne™ power management solutions are optimized for our MSM chipsets for high-efficiency, price-competitive wireless devices. Expect a higher return on investment with our integrated solution—fewer discrete parts means lower development costs, lower BOM costs and ultimately lower handset costs. With our innovative RF CMOS processing technology on select chipsets and lead-free packaging solutions, handset manufacturers can be confident that wireless devices based on our complete solutions will be power efficient, dependable and cost competitive.



## MSM6255A | AVAILABLE RF & PM CHIPSET COMBINATIONS

RF Chipset Configurations		RFR6275™ RTR6275™	RTR6275™	RTR6285™
Power Management IC		PM6650™	PM6650™	PM6658™
GSM	900/1800 MHz	■	■	■
	850/900/1800/1900 MHz	■	■	■
UMTS	2100 MHz	■	■	■
	2100 + 800 MHz	■		■
	1900 + 850 MHz	■		■
	2100 + 1900 + 850 MHz	■		■
	AWS	■		■
	AWS + 2100 MHz	■		■
GPS		■		■

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Go Online **CHIPSET COMPARISON ONLINE TOOL**

Please visit [www.cdmatech.com/chipcompare](http://www.cdmatech.com/chipcompare) to view the chipset comparison tool that details specific chipset features.

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