MSM6150™ Chipset Solution

Maximize market share with a power-efficient, single-chipset solution for high-intensity wireless multimedia

The QUALCOMM Enhanced Multimedia Platform of chipsets takes the true multimedia handset from concept to reality. These chipsets make a leap in processing power to deliver the quality of video, graphics and audio that will amaze users today and define the multimedia experience for years to come. This enormous performance gain is backed by power efficiency and chip design that make the most sophisticated wireless multimedia both possible and profitable.

By deploying a single-chip design, this platform enables sleek, sophisticated media devices with large, high-resolution screens that deliver rich multimedia features such as 4.0 megapixel camera compability, video-on-demand, 3D gaming and video telephony. Picture quality is so crisp, games are so realistic and video streams are so fast that users are compelled to seek out more and more exciting content, driving demand for airtime and additional services.

The QUALCOMM Enhanced Multimedia Platform is the industry's best solution for extending the capabilities of true wireless multimedia in 3G. It has a chipset solution for all major air interfaces and the power, speed and efficiency to run high-end multimedia that will revolutionize what people can do on a handset.

THE QUALCOMM ENHANCED MULTIMEDIA PLATFORM OF CHIPSETS TAKES THE TRUE MULTIMEDIA HANDSET FROM CONCEPT TO REALITY.

PERFORMANCE

Integrated architecture ensures designs that minimize development time and expense and accelerate return on investment

- Air interfaces supported:
    - CDMA2000® 1X (Revision 0 and A)
- High-performance ARM926EJ-S™ microprocessor core with memory management unit (MMU)
- Two QDSP4000™ high-performance digital signal processors (DSP)

- 225 MHz ARM9™ Jazelle™ Java® hardware acceleration for faster Java-based games and other applets
- Enhanced memory support for NAND, burst mode NOR, SDRAM and burst mode PSRAM
- Advanced 409-pin 0.5 mm pitch CSP package (14 mm x 14 mm)
- Support for popular third-party operating systems
- Open BREWapi™ for developing BREW® and Java® applications

QUALCOMM®
CDMA Technologies

MSM6150™ Chipset Solution

The Mobile Station Modem™ (MSM™) MSM6150™ solution for CDMA2000 1X networks powers the blazing-fast speeds required to run the high-impact, multimedia applications that maximize profitability and drive revenue. Deliver high resolution, data-enabled devices designed for demanding consumers with the MSM6150 chipset.

GRAPHICS

Game quality rivaling home consoles
- Advanced 2D/3D graphics support with up to 100,000 3D triangles per second, and 7 million depth-tested, textured and 7 million depth-tested, shaded 3D pixels per second fill rate
- Q3Dimension™ for OpenGL® ES-compliant 3D graphics
- Dedicated hardware support for 3D rendering
- Supported by leading third-party game titles
- Up to Quarter Video Graphics Array (QVGA) resolution

VIDEO

Television-like clarity and camcorder-like recording
Qtv™:
- High-performance video player powers streaming video- and audio-on-demand plus video messaging at 30 fps QVGA
- Supports MPEG-4, H.263 and H.264 video codecs and QCELP®, AMR-NB, EVRC, AAC and aacPlus™ audio codecs

Qcamcorder™:
- A real-time wireless video recording solution that captures movies at 15 fps QVGA
- Supports MPEG-4, H.263 and H.264 video codecs and QCELP®, AMR-NB, EVRC and AAC audio codecs
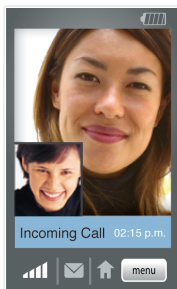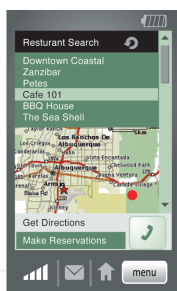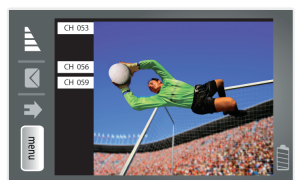
POSITION LOCATION

Highly accurate positioning for location-based services (LBS)
- gpsOne® position-location hybrid A-GPS solution
- Support for commercially deployed consumer LBS applications
- High-availability, all-terrain solution
- Support for MS-Assisted, MS-Based and Standalone GPS, which enables off-network support

CONNECTIVITY

Connection with indispensable consumer electronics
- Supports QUALCOMM's high-speed serial interconnection technology, Mobile Digital Display Interface (MDDI), for increased reliability in clamshell phones
- Integrated Bluetooth® 1.2 baseband processor for wireless connectivity to peripherals
- Universal serial bus (USB) on-the-go (OTG) functionality
- SecureMSM™ v1.0: supports subsidy protection and device-identifier integrity, including ESN

Please visit **www.cdmatech.com/enhancedplatform** to view the chipset comparison tool that details specific chipset features.

Integrated digital-still camera interface

- Qcamera™ with 30 fps QVGA viewfinder resolution
- Support for up to 4.0 megapixel camera sensors with a flexible, integrated interface to CCD and CMOS sensors
- Integrated JPEG for camera-based applications
- Full image processing capabilities, including color correction, crop, resize, rotation, image blurring and sharpening, image overlay, picture frame support and visual noise reduction

AUDIO

Audio that's on par with popular portable music players

- PureVoice Audio AGC™ (automatic gain control) for better calls, especially under noisy conditions
- Digital audio support for MP3, AAC, aacPlus™ and Enhanced aacPlus
- CMX™ for customized ringtones, screensavers and greeting cards:
    - MIDI-based voice (up to 72 polyphony)
    - Time-synchronization capabilities for MIDI-based content
    - Playback support for compact MIDI, level one and two compliant general MIDI, SMAF™ (audio only), SP-MIDI and XMF/DLS
- QConcert™ surround sound and QAudioFX™ enhanced gaming audio
- Integrated stereo (44.1 kHz and 48 kHz) wideband codec capable of CD-quality playback
- QUALCOMM Audio Post Processor (QAPP)

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.

MSM6150 | AVAILABLE RF & PM CHIPSET COMBINATIONS

RF Chipset Configurations		RFL6000™ RFR6000™ RFT6100™	RFR6125™ RFT6120™	RFL6000™(2) RFR6000™(2) RFT6100™	RFR6125™ RFR6120™ RFT6120™	RFR6500™ RFT6150™	RFR6525™ RFT6150™
Power Management IC		PM6650™	PM6650™	PM6650™	PM6650™	PM6650™	PM6650™
CDMA2000	450 MHz						
	CELL 850 MHz	■	■	■	■	■	■
	JCDMA 800 MHz	■	■	■	■	■	■
	KPCS 1800 MHz	■		■		■	
	PCS 1900 MHz	■		■		■	
	IMT 2100 MHz	■		■			■
GSM	900 / 1800 MHz						
GPS	SH = Shared SI = Simultaneous	SH	SH	SH	SH	SI	SI
Receive Diversity				■	■	■	■

MSM6150™ Chipset Solution
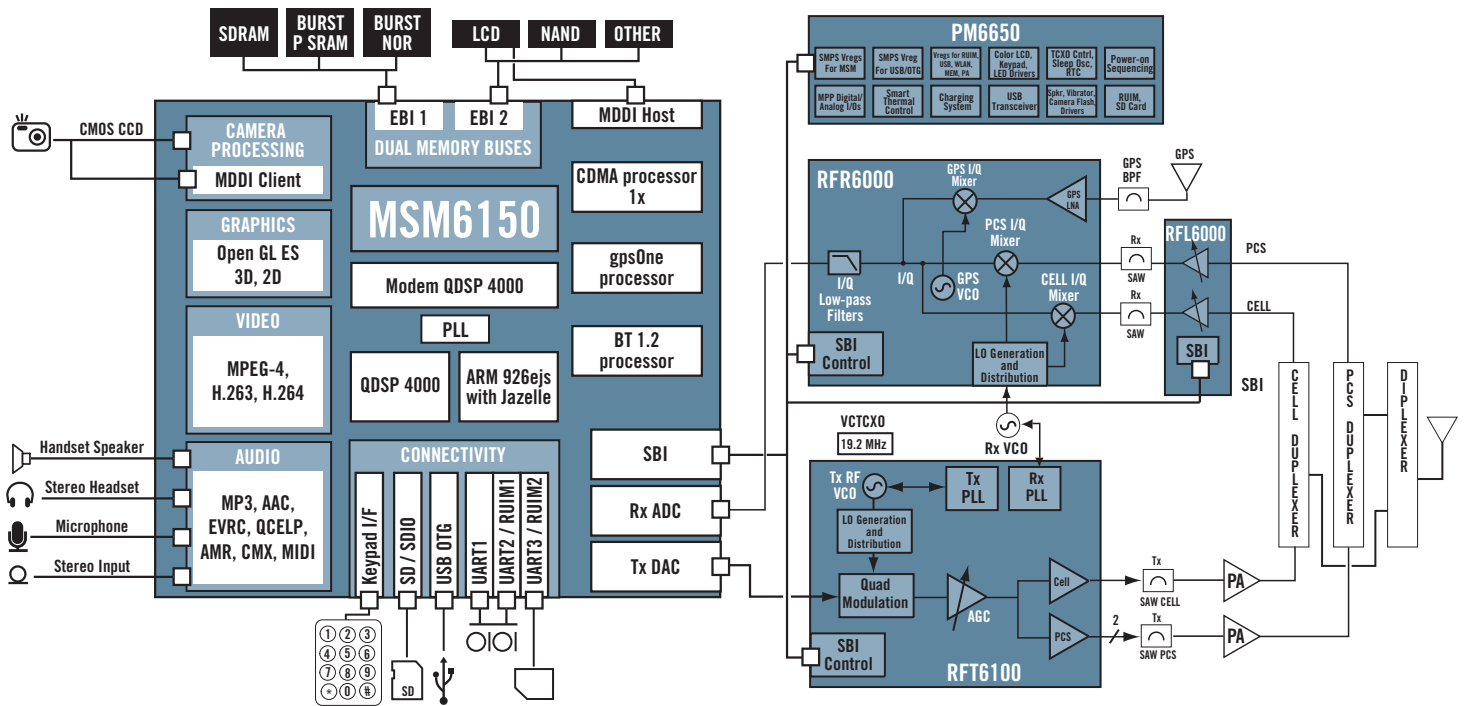
Go Online   CHIPSET COMPARISON ONLINE TOOL

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