

QSC6270™ Single-Chip Solution

Mainstream mobile broadband expands globally with industry's first single-chip solution for HSDPA and WCDMA (UMTS) networks

The QSC6270™ solution will help drive the rapid adoption of high-speed mobile broadband around the world as the world's first single-chip solution supporting HSDPA/WCDMA (UMTS) and GSM/GPRS/EDGE networks. A complete system solution with integrated video, audio, graphics and multimedia capabilities, the QSC6270 solution enables sleek, must-have devices that reflect smart design without compromising on power and functionality.

As part of the QUALCOMM Single-Chip (QSC) family, the QSC6270 solution integrates four functions that typically require separate ICs—baseband modem, RF transceiver, power management, and multimedia processor—into a single chip. This unsurpassed level of integration offers device manufacturers the benefits of lower bill-of-material (BOM) costs, significant board-area savings, and simplified design for shorter time-to-market. Manufacturers who use QSC solutions can offer devices with smaller, sleeker form-factors that offer a wide range of in-demand features at lower price points—all with significant power savings. Stylish designs with broadband data rates and compelling wireless multimedia capabilities ranging from 3.0 megapixel camera for album-quality snapshots, easy-to-use MP3 tunes and more, can now be available in the mass-market tier.



MOBILE BROADBAND SPEEDS IN A SINGLE-CHIP SOLUTION TO DRIVE THE RAPID DEVELOPMENT AND ADOPTION OF HIGH-SPEED WIRELESS DATA AND MULTIMEDIA APPLICATIONS

PERFORMANCE

Maximize design and development potential

- Air interfaces supported:
 - HSDPA 3.6 Mbps peak rate category 5/6 + Equalizer
 - WCDMA (UMTS) R99
 - GSM Release 4
 - GPRS/EGPRS Multislot Class 12, Release 4
 - DTM Multislot Class 11
 - GPS
- High-performance 184 MHz ARM926EJ-S™ microprocessor 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 and SDRAM
- Advanced 0.5 mm pitch CSP packaging technology
- Integrated secure boot, secure software and secure storage
- Open BREWapi™ software to run uiOne™ and BREW applications

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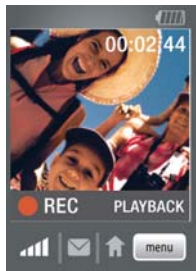
The QSC6270 single-chip solution for HSDPA/WCDMA (UMTS) and GSM/GPRS/EDGE networks will take mobile broadband mainstream. Depend on the QSC6270 solution to develop sleek, sophisticated 3G devices that boast blazing data speeds, high-quality multimedia features and attractive price points to drive mass-market adoption.



GRAPHICS

True 3D graphics for rich wireless gaming and advanced 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

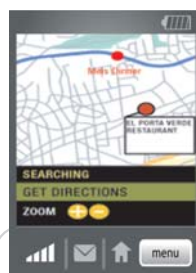
- High-performance video player powers streaming video- and audio-on-demand plus video messaging at 15 fps QVGA streaming and 30fps playback
- Video Codecs: MPEG-4, H.263, H.264, Windows Media® and RealNetworks®
- Audio Codecs: AMR-NB, AMR-WB, AMR-WB+, AAC, aacPlus™ and Enhanced aacPlus, Windows Media 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 QVGA
- 3GPP/2 standards compliant
- Video Codecs: MPEG-4, H.263, and H.264
- 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

Seamless operation in today's constantly connected world

- Bluetooth® 2.0 processor for wireless connectivity to peripherals
- Universal serial bus (USB 2.0) 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
- WLAN through external SoC

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 128 polyphony)
 - Playback support for compact MIDI, General MIDI, SMAF™ (audio only), SP-MIDI, XMF/DLS, and MFi
 - Scaleable Vector Graphics (SVG) Tiny 1.2
- QConcert™ surround-sound engine and QAudioFX™ enhanced gaming audio for positional sound
- QUALCOMM Audio Post Processing Functionality
- Enhanced Echo Cancellation for Full-Duplex Calls



OPTIMIZED RF AND PMIC SOLUTIONS

The QSC family of chips includes QUALCOMM's radioOne® zero-IF radio frequency and powerOne™ power management solutions, which are optimized for high-efficiency, price-competitive wireless devices. The complete power management functionality includes better management, voltage regulation, general housekeeping and user-interface components. This level of integration sets a new standard in enabling handset manufacturers to realize significant Printed Circuit Board (PCB) area reduction to enable lower cost and smaller handset form factors. With our innovative RF CMOS processing technology 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.

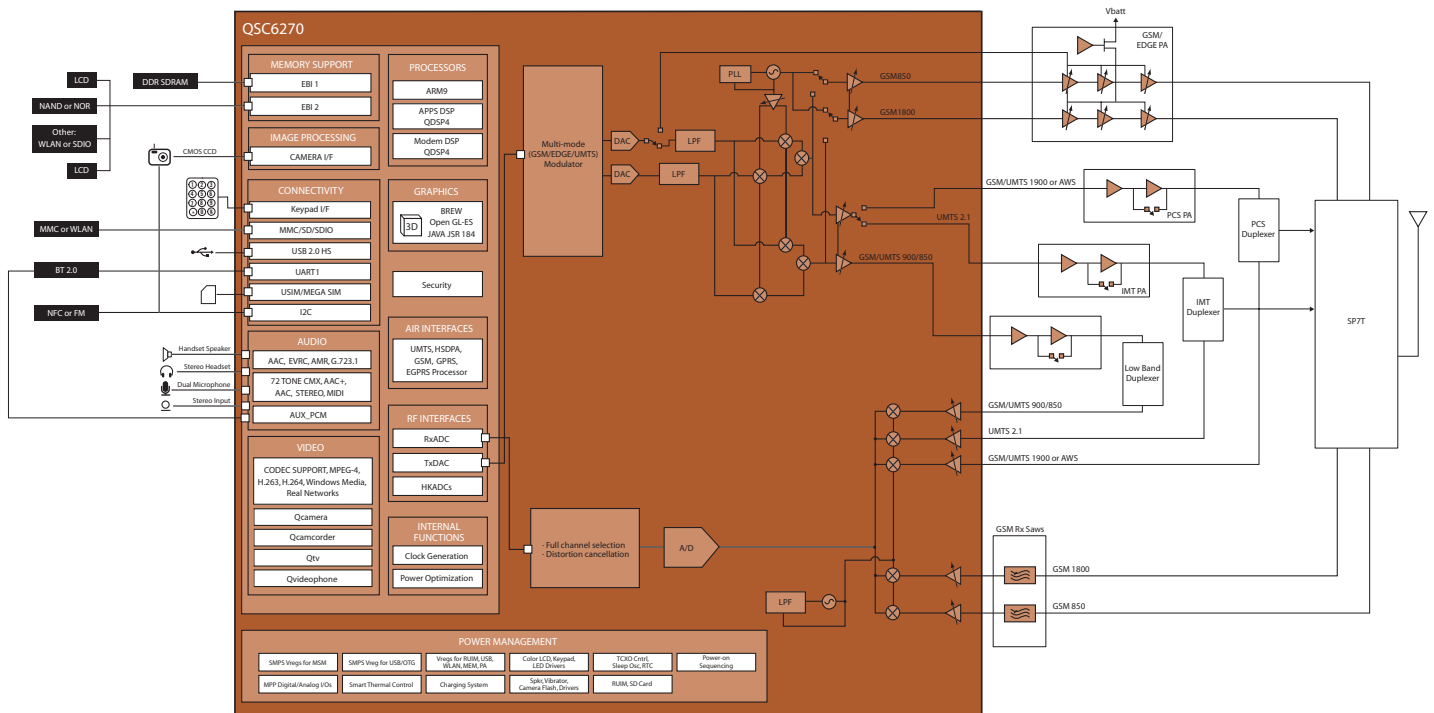
Expect a higher return on investment with our integrated solution—fewer discrete parts means lower development costs, lower BOM costs and ultimately lower handset costs.



QSC6270 | AVAILABLE RF BANDS

WCDMA (UMTS)	TRI-BAND SUPPORT	
	One band	800/850/900 MHz
	Two band	1700/1800/1900/2100 MHz
GSM/GPRS/EDGE	QUAD-BAND SUPPORT	
	All bands	850/900/1800/1900 MHz

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Go Online

CHIPSET COMPARISON ONLINE TOOL

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

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