



Shorter Time-To-Money™

- Highly Integrated 3-Chip System Solution for Baseband and RF Functions
- Type-Approved Phase-2 Protocol Software
- Integrated Data Services
- Comprehensive Development Environment
 - Evaluation Boards and Reference Designs
 - Reference MMI Software
 - User-Friendly Customization Tools
- System Integration and Test Support
- Production Test System



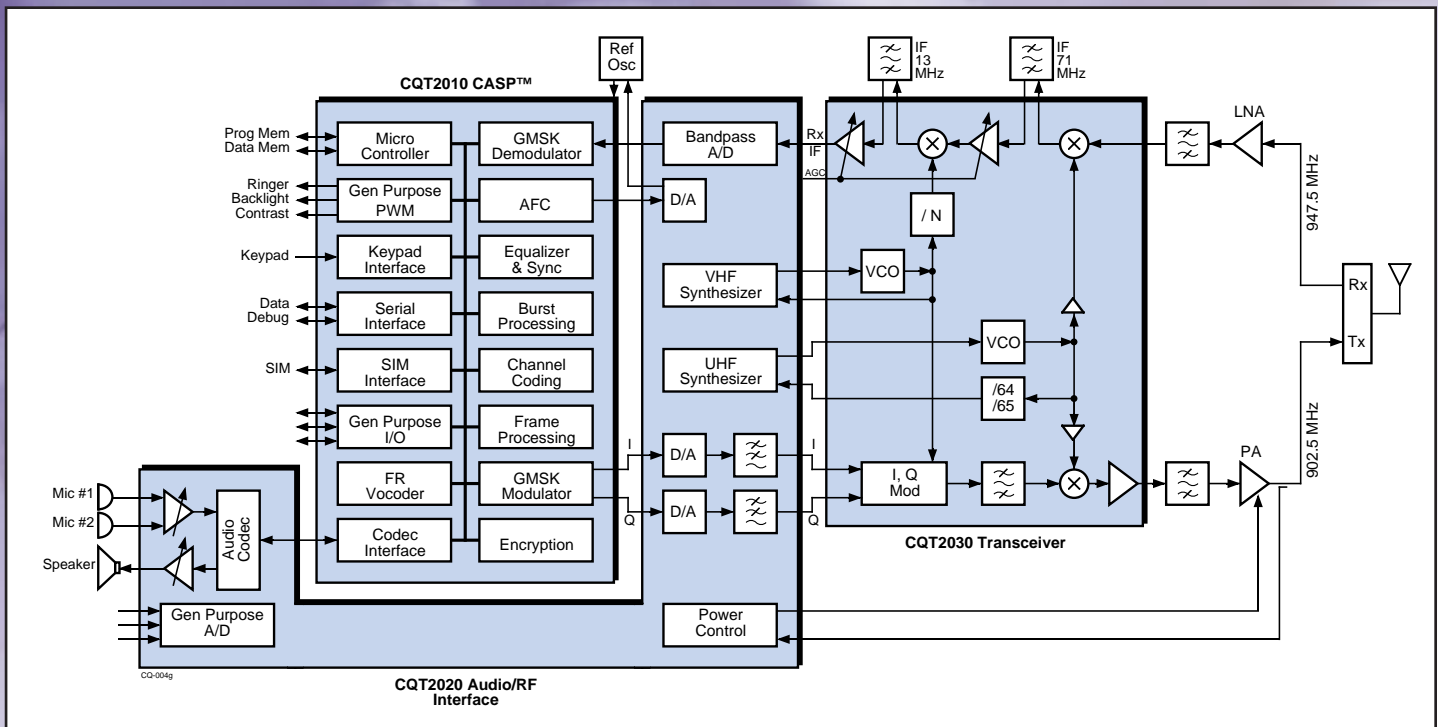
Features Summary

- Supports Operation in the GSM 900 MHz Frequency Band
- Low Power Consumption for Longer Talk and Standby Times
- Fully Compliant with ETSI GSM Phase-2 Specifications: Voice, Data, Fax, Short Message Service, Supplementary Services
- LMS Equalizer Provided for Superior Performance
- No External Microprocessor or Power Amplifier Control Required
- On-Chip Hardware Interface Drivers Eliminate the Need for External Components
- Manufacturing Tolerance and Temperature Compensation are Digitally Calibrated

CommQuest's Type-Approved GSM-XL *Total System Solution*™ provides wireless equipment manufacturers with the lowest system component costs by offering the highest level of system integration and optimization. The GSM-XL *Total System Solution* consists of three highly integrated circuits performing the functions from the audio I/O to the radio output. These circuits include a single CASP® (Communication Applications Specific Processor), Audio/RF Interface, and Transceiver. In addition to the chipsets, the GSM-XL *Total System Solution* includes Type-Approved Protocol Software, Data Services Software and a comprehensive development environment to enable manufacturers to differentiate their products.

The chipsets, based on the patented CASP architecture, minimize power consumption in speech, data, and idle modes, thus enabling longer talk and standby times. The design utilizes IF sampling and bandpass Σ - Δ conversion, which minimizes system complexity and eliminates the need for the I/Q demodulation stage.

GSM-XL Functional Block Diagram



GSM-XL Functional Block Diagram

CQ2010 CASP Features

- Integrated MIPS R3000 Processor
- On-chip RAM and ROM
- Layers 1, 2, and 3 Processing
- Integrated Full-Rate Vocoder
- Modulation/Demodulation
- Frame and Burst Processing
- Equalization
- Encryption/Decryption

Software

- Phase-2 Protocol Software
 - L1, L2 and L3
- Fully Type-Approved

CQ2020 Audio/RF Features

- Speaker/Microphone Buffering and Amplification Control
- Single-Bit IF Sampling and Digitization
- Σ - Δ Bandpass Filtering
- UHF and VHF Synthesizers
- PA Output Level Control
- Dual Synthesizer Programmability
- Hands-Free Interface
- I/Q Modulator DC Offset Control
- AGC Integrator and Sample/hold
- RSSI, Temperature, and Battery Level ADC

CQ2030 Transceiver Features

- Receive and Transmit RF Functions
- Low Noise Figure
- Integrated Pre-Scaler
- UHF and VHF VCOs
- Upconverter Mixer
- PA Driver