

Quectel UC15

UMTS/HSDPA Module

UMTS/HSDPA



Dual-mode&Multi-band
for UMTS&GSM



HSDPA 3.6Mbps



LCC Package



Embedded Abundant
Protocols



eCall



Compact Size



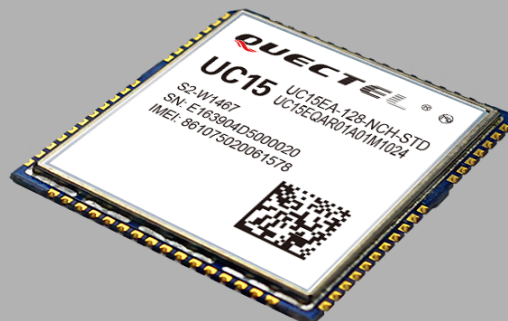
USB 2.0 High Speed
Compliant Interface



USB Drivers



Quectel Enhanced
AT Commands



UC15 is a cost effective UMTS/HSDPA module featuring a maximum data rate of 3.6Mbps downlink and 384Kbps uplink. Designed to be compatible with Quectel GSM/GPRS M10 module in the compact and unified form factor, it provides a flexible and scalable platform for migrating from GSM/GPRS/EDGE to UMTS/HSDPA. This enables integrators and developers to design their applications once and take advantage of true worldwide coverage and service flexibility afforded by the combination of the two most prevalent cellular technologies worldwide.

Its advanced LCC package allows fully automated manufacturing for high volume applications and copper-surfaced bottom design optimizes heat dissipation. The tiny profile in cost optimized SMT form factor and highly integration level enable integrators and developers to easily design their applications and truly benefit from the module's small size, low power consumption and mechanical intensity.

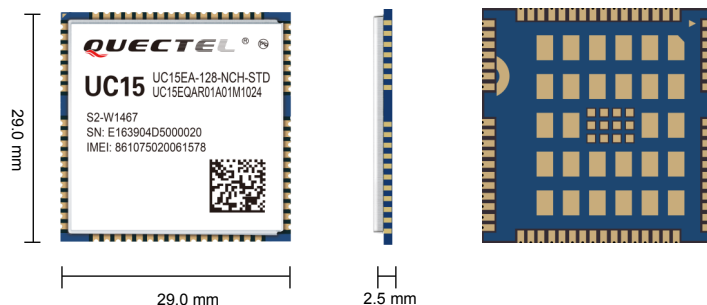
A rich set of Internet protocols, industry-standard interfaces (USB/UART/ADC/NETLIGHT/PCM) and abundant functionalities (USB drivers for Windows XP, Windows Vista, Windows 7, Windows 8, Windows CE, Linux, Android/eCall) extend the applicability of the module to a wide range of M2M applications such as automotive, metering, security, CPE and wireless POS.

Key Benefits

- ☛ Worldwide UMTS/HSDPA and GSM/GPRS/EDGE coverage
- ☛ Minimal SMT form factor ideal for small end products with tight space
- ☛ High-quality data and image transmission even in hazard conditions and dark environment
- ☛ Fast time-to-market:
Reference designs, evaluation tools and timely technical support minimize design-in time and development efforts
- ☛ Robust mounting and interfaces

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UMTS/HSDPA Module



General Features

Frequency Bands	UC15-E 900/2100MHz@UMTS 900/1800MHz@GSM
	UC15-A 850/1900MHz@UMTS 850/900/1800/1900MHz@GSM
	UC15-T 850/2100MHz@UMTS 850/900/1800/1900MHz@GSM
HSDPA	Release 5 (category 6)
EDGE	Downlink only
GPRS	Multi-slot Class 12
UMTS	Release 99/5
GSM	Release 99/4
Supply Voltage Range	3.3V ~ 4.3V, 3.8V typ.
Operation Temperature	-40 °C ~ +85 °C
Dimensions	29.0mm×29.0mm×2.5mm
Weight	Approx. 4.3g
Control via AT commands	3GPP TS27.007, 27.005 and other enhanced AT Commands

Specifications

SMS	Point-to-point MO and MT SMS Cell Broadcast Text and PDU Mode
DATA	HSDPA Max.3.6Mbps (DL)
	UMTS Max.384Kbps (DL)/Max.384Kbps (UL)
	EDGE Max.236.8Kbps (DL)
	GPRS Max.85.6Kbps (DL)/Max.85.6Kbps (UL)
	CSD GSM: 14.4 Kbps (DL)/14.4 Kbps (UL) WCDMA: 64 Kbps (DL)/64 Kbps (UL)
Voice	Speech Codec Modes HR, FR, EFR, AMR, AMR-WB
	Echo Arithmetic Echo Cancellation Noise Reduction
Protocols	TCP/UDP/PPP/FTP/HTTP/SMTP/MMS/SSL/ PING/NITZ/NTP/HTTPS/SMTPS

Special Features

Drivers	USB Serial Windows XP, Windows Vista, Windows 7, Windows 8, Windows CE5.0/ 6.0/7.0, Windows Mobile 6.1/6.5*, Linux 2.6 or later, Android 2.3 or later
	RIL Windows CE6.0*, Windows Mobile 6.1/6.5*, Android 2.3/4.0
	MUX Linux 2.6 or later, Android 2.3 or later
eCall	Accident, Emergency Services
Firmware Update	Firmware Update via USB and UART Interface
QuecFile	File System Access and Management
FOTA	QuecFOTA, DFOTA
QuecLocator	

Electrical Characteristics

Output Power	Class 3 (24dBm +1/-3dB) for UMTS bands Class 4 (33dBm ±2dB) for GSM 850/900MHz Class 1 (30dBm ±2dB) for GSM 1800/1900MHz
Consumption	65µA@Power off 1.8mA@GSM Sleep,DRX=9 1.7mA@UMTS Sleep,DRX=9 260mA@GSM voice, max power 480mA@UMTS voice, max power 480mA@GPRS data, max power 475mA@HSDPA, max power
Sensitivity	-110dBm@UMTS Bands -108.5dBm@GSM 900MHz -108.5dBm@GSM 1800MHz

Interfaces

USB	2.0 High Speed
Audio Analog	2 Analog Input and Output Channels (Optional)
Audio Digital	Digital Audio through PCM Interface (Optional)
UART	1×Full Functions
USIM	1.8V/ 3V
ADC	×2, 12bits
NETLIGHT	Indication for network activity status
STATUS	Indication for Power On and Off Status

Certification

Approval	CE/GCF/IC/FCC/PTCRB/NBTC/AT&T/Rogers/ NCC/OFCA/RCM
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* Under development