

# Quectel UC15

## Quad-band UMTS/HSDPA Module



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

### 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

UMTS/HSDPA



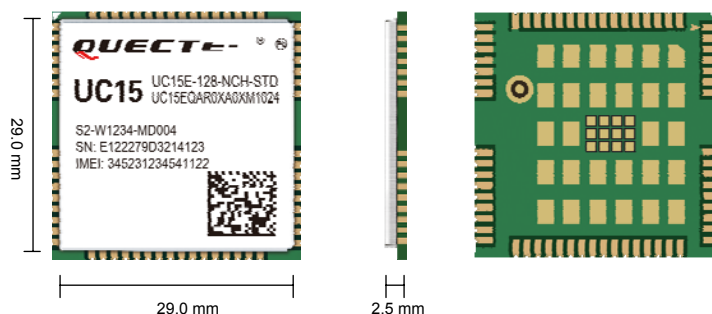
UC15 is a cost effective UMTS/HSDPA module featuring a maximum data rate of 3.6Mbps downlink and 384Kbps uplink. Designed to be compatible with Quectel GSM/GPRS M10 module in the compact and unified form factor, it provides a flexible and scalable platform for migrating from GSM/GPRS/EDGE to UMTS/HSDPA. 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/Analog Audio/ADC/Status Indicator/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.

# Quectel UC15

## UMTS/HSDPA Module



### General Features

<b>Frequency Bands</b>	<b>UC15-E</b> UMTS/HSDPA: 900/2100MHz GSM/GPRS: 900/1800MHz <b>UC15-A</b> UMTS/HSDPA: 850/1900MHz GSM/GPRS: 850/900/1800/1900MHz
<b>HSDPA</b>	Release 5 (category 6)
<b>EDGE</b>	DL only
<b>GPRS</b>	Multi-slot Class 12
<b>UMTS</b>	Release 99/5
<b>GSM</b>	Release 99/4
<b>Supply Voltage Range</b>	3.3V ~ 4.4V
<b>Operation Temperature</b>	-40 °C ~ +80 °C
<b>Dimensions</b>	29mm x 29mm x 2.5mm
<b>Weight</b>	Approx. 4.0g
<b>Control via AT commands</b>	3GPP TS27.007, 27.005 and other enhanced AT Commands

### Specifications

<b>SMS</b>	Point-to-point MO and MT SMS Cell Broadcast Text and PDU Mode
<b>HSDPA</b>	Max.3.6Mbps
<b>UMTS</b>	Max.384 Kbps (DL)/Max.384 Kbps (UL)
<b>DATA EDGE</b>	Max.236.8 Kbps (DL)
<b>GPRS</b>	Max.85.6 Kbps (DL)/Max.85.6 Kbps (UL)
<b>CSD</b>	14.4 Kbps
<b>Voice Speech Codec Modes</b>	HR, FR, EFR, AMR, AMR-WB
<b>Echo Arithmetic</b>	Echo Cancellation Noise Reduction
<b>Protocols</b>	TCP/IP/UDP/PPP

### Special Features

<b>USB Drivers (TBD)</b>	Windows XP, Windows Vista, Windows 7, Windows 8, Windows CE5.0/ 6.0, Linux 2.6/ 3.0, Android 2.3/4.0
<b>RIL Driver (TBD)</b>	Android & WinCE
<b>QuecFOTA</b>	Firmware Update via UART or USB Interface
<b>QuecFile</b>	File System Access and Management
<b>eCall</b>	Accident, Emergency Services



### Electrical Characteristics

<b>Output Power</b>	Class 3 (24 dBm +1/-3 dB) for UMTS bands Class 4 (33 dBm ±2 dB) for GSM 850/900 Class 1 (30 dBm ±2 dB) for GSM 1800/1900
<b>Consumption (TBD)</b>	75 µA@Power off 3.1mA@Sleep, typ. 280 mA@GSM voice, max power 570 mA@UMTS voice, max power 530 mA@GPRS data, max power 750 mA@UMTS data, max power 705 mA@HSDPA, max power 700 mA@HSPA, max power
<b>Sensitivity (TBD)</b>	-110 dBm@UMTS 2100 MHz -109 dBm@UMTS 1900 MHz -110 dBm@UMTS 850/900 MHz -108.5 dBm@GSM 850/900 MHz -108.5 dBm@GSM 1800/1900 MHz

### Interfaces

<b>USB</b>	Full Speed
<b>Audio Analog</b>	2 Analog Input and Output Channels
<b>Audio Digital</b>	PCM
<b>UART</b>	1x Full Functions
<b>USIM</b>	1.8V/ 3V
<b>ADC</b>	2 Channels
<b>NETLIGHT</b>	
<b>STATUS</b>	Indication for Power On and Off Status

### Certification

<b>Plan</b>	CE/GCF/FCC/PTCRB
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