

Quectel U10

UMTS/HSPA Module

UMTS/HSPA



Dual-mode & Multi-band
WCDMA & GSM



HSDPA 7.2M
HSUPA 5.76M



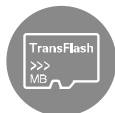
Camera Interface



Embedded Abundant
Protocols



100-pin B2B
Connector



SD Card



USB 2.0 High Speed
Compliant Interface



Multimedia Streaming



Quectel Enhanced
AT Commands



U10 is a Multi-band UMTS/HSPA module with HSDPA 7.2 Mbps downlink speed and HSUPA 5.76 Mbps uplink speed, which is available in a compact form factor, supports a rich set of internet protocols and offers almost a worldwide coverage with a different bands combination (850/1900/2100MHz @WCDMA and 850/900/1800/1900MHz @GSM).

By adopting ARM11+DSP structure, U10's Kernel possesses strong capability of multimedia processing. Built-in hardwarebased JPEG codec, MPEG-4 codec, H.263 and H.264 codec can easily enable the module to realize real-time recording of high-quality images and videos. Equipped with high pixel camera, U10 can implement video call and multimedia streaming, particularly suitable for security equipments like video surveillance terminal.

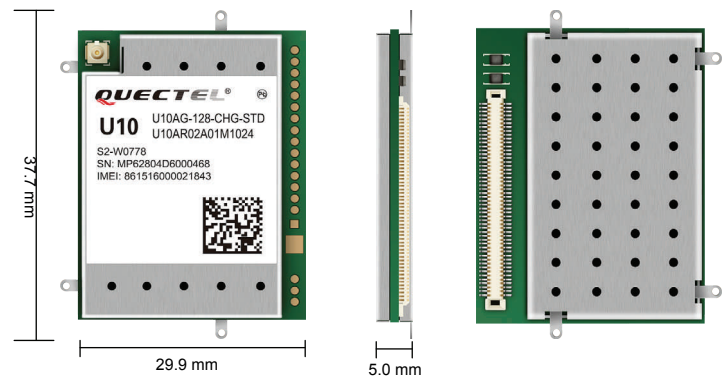
With industry-standard interfaces and abundant functions such as camera/USB/SD card/PCM/analog audio, U10 is your ultimate choice for security, VTS, smart metering, wireless POS, connected navigation systems, internet gateways and many other M2M applications.

Key benefits

- ☛ Dual-mode & Multi-band for WCDMA and GSM
- ☛ HSPA, up to 7.2Mbps (DL) and 5.76Mbps (UL)
- ☛ GPRS & EDGE, multi-class 12
- ☛ Enhanced multimedia capability for video surveillance
- ☛ Robust mounting and interfaces
- ☛ Camera interface

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UMTS/HSPA Module



General Features

UMTS/ HSPA	850/ 1900/ 2100 MHz
GSM	850/ 900/ 1800/ 1900 MHz
EDGE	Multi-slot Class 12
GPRS	Multi-slot Class 12
HSPA	Release 6 (DL category 7/8, UL category 6)
WCDMA	Release 99
GSM	Release 4
Supply Voltage Range	3.4 ~ 4.5V 4.0V nominal
Operation Temperature	-40 °C ~ +80 °C
Dimensions	37.7 x 29.9 x 5.0 mm
Weight	Approx. 8.7g
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
Video Call	3G-324M Over 64kbps CSD H.245 Control Protocol MPEG-4/H.263 @ QCIF 15 fps
HSPA	Max.7.2 Mbps (DL)/ Max.5.76 Mbps (UL)
UMTS	Max.384 Kbps (DL)/ Max.384 Kbps (UL)
EDGE	Max.236.8 Kbps (DL)/ Max.236.8 Kbps (UL)
GPRS	Max.85.6 Kbps (DL)/ Max.85.6 Kbps (UL)
CSD	14.4 Kbps
Protocols	PPP/ TCP/ UDP/ FTP/ HTTP/ SMTP/ MMS/RTP*/ RTSP* * On request
Speech Codec Modes	HR, FR, EFR, AMR
Echo Arithmetic	Echo Cancellation Echo Suppression Noise Reduction
Handset, Headset Modes	

Additional Features

USB Driver	WinCE 6.0, WinXP/Win7, Linux 2.6.x
Firmware Update	Through SD Card

Electrical Characteristics

Output Power	Class 3 (+24 dBm +1/-3 dB) for UMTS bands Class E2 (+27 dBm ±3 dB) for EDGE 850/ 900 Class E2 (+26 dBm +3/-4 dB) for EDGE 1800/ 1900 Class 4 (33 dBm ±3 dB) for GSM 850/ 900 Class 1 (30 dBm ±2 dB) for GSM 1800/ 1900
Power	Power Off < 80 µA
Consumption	Sleep (GSM/ UMTS) < 4 mA GSM voice < 290 mA UMTS voice < 500 mA GPRS data < 550 mA EDGE data < 400 mA HSDPA < 540 mA HSUPA < 570 mA
Sensitivity	-110.5 dBm @ WCDMA 2100 MHz -110 dBm @ WCDMA 1900 MHz -110 dBm @ WCDMA 850/ 900 MHz -108.5 dBm @ GSM 850/ 900 MHz -108 dBm @ GSM 1800/ 1900 MHz

Interfaces

Audio	2 Analog Channels
Camera	CMOS
USB	2.0 High Speed
UART	X3, Up to 921600bps
USIM	1.8V/ 3V
SD Card	Up to 32G Bytes
PCM	Linear
PWM	
ADC	X2
RTC Backup	
GPIO	X3
Antenna	Connector