U10 *Series*

UMTS/HSPA Modules

QUECTEL

Wireless Module Expert

EDDY WIRELESS ®

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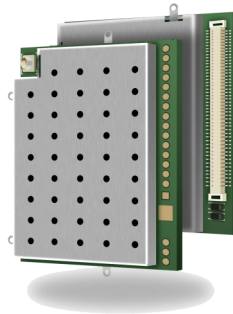
	Dual Mode & Multi-Band WCDMA & GSM
3G HSPA	HSDPA 7.2M HSUPA 5.76M
	Camera Interface, up to 8M
	Embedded Abundant Protocols
100 PIN	100-pin B2B Connector
TransFlash	SD Card
	USB 2.0 High Speed Compliant Interface
	Dual SIM Interfaces
AT	Quectel Enhanced AT Commands
Android / Windows Mobile	RIL Driver

U10 series are Multi-band WCDMA / GSM modules with HSDPA 7.2 Mbps downlink speed and HSUPA 5.76 Mbps uplink speed, which are available in a compact form factor, support a rich set of internet protocols and offer a complete worldwide coverage of all the different bands.

Featuring board-to-board type, full shielding, extremely low power consumption and compact size, U10 series bring the benefits of utmost flexibility and robustness to almost all customer's applications.

By adopting ARM11+DSP structure, U10's Kernel possesses strong capability of multimedia processing. Built-in hardware-based JPEG codec, Fcore4-based 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/BT2.1/PCM, U10 series are your ultimate choice for security, VTS, smart metering, wireless POS, connected navigation systems, internet gateways and many other M2M applications.

- 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, up to 8M pixels

U10 *Series*
UMTS/HSPA Modules

37.7mm

29.9mm

5.0mm

General Features

UMTS/HSPA	850/1900/2100 MHz (U10-G)
	900/2100 MHz (U10-E)
	850/1900 MHz (U10-A)
	2100 MHz (U10-S)
GSM	850/900/1800/1900 MHz (U10-G/U10-A)
	900/1800 MHz (U10-E/U10-S)
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 ~ +85 °C
Dimensions	37.7 mm×29.9 mm×5.0 mm
Weight	Approx. 7g

Control via AT commands (3GPP TS27.007, 27.005 and other enhanced AT Commands)
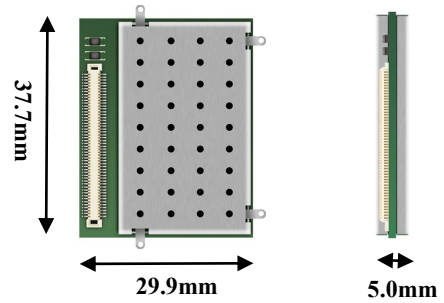
Specifications for Data

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
PBCCH Support	
Protocols	PPP, TCP, UDP, FTP, HTTP, SMTP*
	MMS*
	RTP*, RTSP*

Specifications for SMS

Point-to-point MO and MT
SMS Cell Broadcast

Specifications for Video Call

3G-324M Over 64kbps CSD
H.245 Control Protocol
MPEG-4/H.263 @ QCIF 15 fps

Specifications for Voice

Speech Codec Modes	HR, FR, EFR, AMR
Echo Arithmetic	Echo Cancellation
	Echo Suppression
	Noise Reduction
Handset, Headset modes	

Specifications for Fax

Group 3, class 1 & 2

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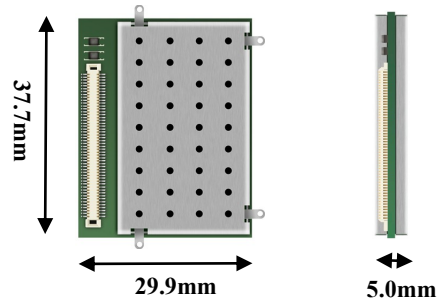
Additional Features

RIL Driver	WinCE 6.0
USB Driver	WinCE 6.0, WinXP/Win7, Linux 2.6
Jamming Detection*	
FOTA*	
TTS*	
Position Location*	

Interfaces

Dual SIM*	3V/ 1.8V, W+G & G+G
Audio	2 analog channels
Camera	CMOS, up to 8M
USB	2.0 high speed
UART	Up to 921600bps
SD Card	Up to 32G bytes
PCM*	For digital audio
PWM	
ADC	2 channels
RTC Backup	
Charge	Li-ion battery
GPIO*	
Antenna	Connector & BT pad
Bluetooth*	2.1+EDR

∗ Supported later

Electrical Characteristics

Output Power	Class E2 (0.5 W) for EDGE 850/900
	Class E2 (0.4 W) for EDGE 1800/1900
	Class 4 (2 W) for GSM 850/900
	Class 1 (1 W) for GSM 1800/1900
Power	Power Off < 80 µA
Consumption	Sleep (GSM/UMTS) < 4 mA
	GSM voice < 272 mA
	UMTS voice < 570 mA
	GPRS data < 557 mA
	EDGE data < 376 mA
	HSDPA < 540 mA
	HSUPA < 560 mA
Sensitivity	-110.5 dBm @ WCDMA 2100 MHz
	-110 dBm @ WCDMA 1900 MHz
	-109 dBm @ WCDMA 850/900 MHz
	-108.5 dBm @ GSM850/900 MHz
	-108.5 dBm @ GSM1800/1900 MHz

Contact Us

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