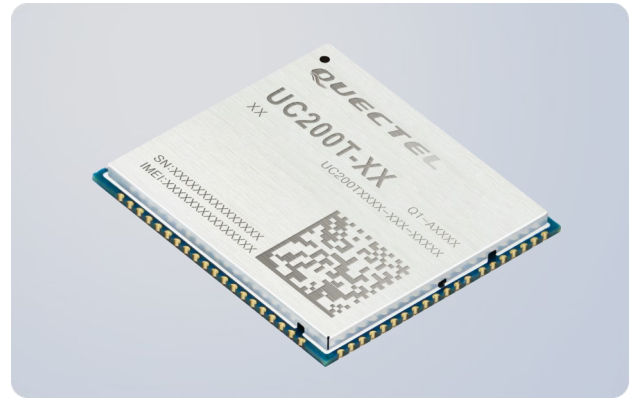# Quectel UC200T

## UMTS/HSPA+ Module

Quectel UC200T is a cost effective and high-performance UMTS/HSPA+ module offering a maximum data rate of 21Mbps downlink and 5.76Mbps uplink. UC200T is available in UC200T-EM and UC200T-GL. In terms of UMTS/HSPA+ connectivity, UC200T-EM is designed to provide customers with European and Asia-Pacific network coverage while UC200T-GL supports global coverage. UC200T is also fully backward compatible with existing EDGE and GSM/GPRS networks.

The compact profile of 29.0mm × 32.0mm × 2.4mm in cost-optimized SMT form factor and high integration level enable integrators and developers to easily design their applications and truly benefit from the module's multi-feature, low power consumption and mechanical intensity. Its advanced LCC package allows fully automated manufacturing for high-volume applications.UC200T is compatible with Quectel UMTS/HSPA+ UC20 Series and LTE EC2x and EG2x-G modules (EC25, EC21, EC20 R2.0, EC20 R2.1 and EG25-G), providing smooth transition from 3G to 4G networks.

With improved heat dissipation and indelible markings，the laser-engraved label makes UC200T more suitable for automated manufacturing process.

A rich set of internet protocols, industry-standard interfaces (USB/UART/PCM/ADC/NETLIGHT/SD*) as well as abundant USB-serial drivers (based on Windows 7/8/8.1/10, Linux and Android), extend the applicability of the module to a wide range of M2M applications such as automotive, smart metering, tracking systems, security solutions, routers, wireless POS, mobile computing devices, PDA, and tablet PC.
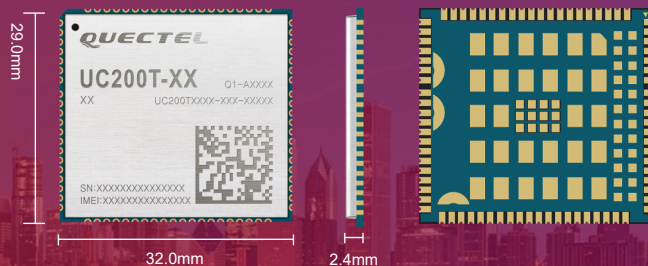
## Key Benefits

✔ Worldwide UMTS/HSPA+ and GSM/GPRS/EDGE coverage

✔ Cost-efficient design with high performance and feature-rich interfaces

✔ High-quality data and image transmission even in harsh environment

✔ Compatible with UMTS/HSPA+ UC20 Series and LTE EC2x modules in package

✔ Reference designs, evaluation tools and timely technical support are provided to help customers get products to market faster

| | | |
|---|---|---|
| Dual-mode & Multi-band for UMTS | Max. 21Mbps (DL) Max. 5.76Mbps (UL) | LCC Package |
| Embedded Abundant Protocols | USB 2.0 High Speed | QuecFOTA |
| Digital Audio | GPRS/EDGE Multi-slot Class 12 | |

# Quectel UC200T

## UMTS/HSPA+ Module



29.0mm
32.0mm
2.4mm

### Variant for Europe/Asia Pacific Region

UC200T-EM

UMTS：B1/B8

GSM：900/1800MHz

### Variant for the Global

UC200T-GL

UMTS: B1/B2/B5/B8

GSM: 850/900/1800/1900MHz

### Data

HSPA+: Max.21Mbps (DL)/Max.5.76Mbps (UL)

UMTS: Max.384Kbps (DL)/Max.384Kbps (UL)

EDGE: Max.236.8Kbps (DL)/Max.236.8Kbps (UL)

GPRS: Max. 85.6Kbps (DL)/ Max. 85.6Kbps (UL)

### Voice

Speech Codec Modes:

HR, FR, EFR, AMR, AMR-WB

Echo Arithmetic:

Echo Cancellation, Noise Reduction

### SMS

Point-to-point MO and MT

SMS Cell Broadcast

Text and PDU Mode

### Interfaces

USB 2.0 : × 1 (High Speed up to 480Mbps)

Digital Audio  PCM: × 1 (Optional)

(U)SIM: × 1 (1.8V/ 3.0V)

NETLIGHT: × 2 (NET_STATUS and NET_MODE)

UART:  × 2 (Master and Debug ）

ADC (12 bits): × 2

SDIO*: × 1 (Used for connecting SD card)

STATUS: × 1 (ON/OFF Status Indication)

I2C: × 1

RESET_N

PWRKEY

### Enhanced Features

(U)SIM Card Detection

Firmware Upgrade via USB or UART

QuecFile: File System Access and Management

FOTA: QuecFOTA

### Electrical Characteristics

Output Power:

Class 3 (24dBm+1/-3dB) @WCDMA bands

Class E2 (27dBm±3dB) @GSM850 EGSM900 8-PSK

Class E2 (26dBm±3dB) @DCS1800 PCS1900 8-PSK

Class 4 (33dBm±2dB) @EGSM900 GSM850

Class 1 (30dBm±2dB) @DCS1800 PCS1900

Consumption :

17µA @Power Off

1.8mA @GSM Sleep, DRX=5

3.0mA @WCDMA Sleep,PF=128

35mA @Idle

Sensitivity:

-109.5dBm @GSM850/GSM900

-108.5dBm @DCS1800

-108dBm @PCS1900

-109.5dBm @WCDMA B1/B2

-110dBm @WCDMA B5/B8

### Software Features

USB-Serial Driver:

Windows 7/8/8.1/10

Linux 2.6/3.x/4.1~4.15

Android 4.x/5.x/6.x/7.x/8.x/9.x

RIL Driver:  Android 4.x/5.x/6.0/7.x/8.x/9.x

RNDIS Driver: Windows 7/8/8.1/10

ECM Driver: Linux 2.6/3.x/4.1~4.15

Protocols:

TCP/UDP/PPP/FTP/HTTP/NTP/PING/NITZ/CMUX/
HTTPS/FTPS/SSL/FILE／SMTP*/MMS*/SMTPS*

### General Features

Extended Temperature: -40°C ~ +85°C

Dimensions: 29.0mm × 32.0mm × 2.4mm

Weight: Approx. 4.3g

Supply Voltage: 3.4V~4.5V, 3.8V Typ.

HSPA+: Release 7 (DL Cat 14, UL Cat 6)

GPRS/EDGE: Multi-slot Class 12 (Class 10 by default)

WCDMA: Release 7

GSM: Release 99

3GPP TS 27.007, 3GPP TS 27.005

Quectel Enhanced AT Commands

### Approvals

Regulatory:

CE (Europe)

Anatel*(Brazil)

RCM（Australia/New Zealand)

Others:

RoHS/REACH Compliant

* Under Planning

QUECTEL®