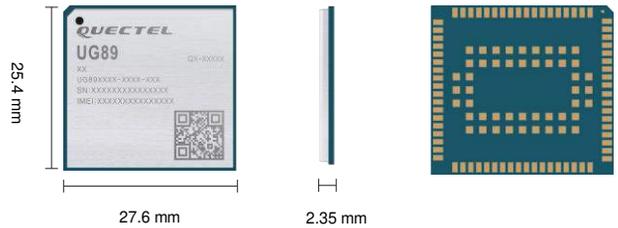


# Quectel UG89

## UMTS/HSPA+ Module



Quectel UG89 is a cost-effective and high-performance UMTS/HSPA+ module with data rates of up to 21 Mbps downlink and up to 5.76 Mbps uplink. UG89 is fully backward compatible with existing EDGE and GSM/GPRS networks.

In UMTS/HSPA+ connectivity, UG89 is suited for global networks. UG89 also adopts the laser engraving process to ensure more good-looking appearance, strong metal texture, better heat dissipation, information not easy to be erased, and more suitable for automation requirements.

A rich set of Internet protocols, industry-standard interfaces (USB/UART/PCM/ADC) and abundant drivers (USB drivers for Windows 7/8/8.1/10, Linux and Android) extend the applicability of UG89 to a wide range of M2M applications, such as automation, smart metering, tracking systems, security solutions, routers, wireless POS, mobile computing devices, PDA phones and tablet PC.



## Key Features

- ✓ Worldwide UMTS/HSPA+ and GSM/GPRS/EDGE coverage
- ✓ Low redesign cost
- ✓ High-performance and multi-feature interfaces
- ✓ High-quality data and image transmission even in harsh conditions



Multi-band for UMTS & GSM



Max. 21 Mbps (DL)  
Max. 5.76 Mbps (UL)



LGA Package



Embedded Abundant Protocols



USB 2.0 High Speed



QuecFOTA



Digital Audio



GPRS/EDGE Multi-slot Class 12

# Quectel UG89

UMTS/HSPA+	UG89
Region/Operator	Global
Dimensions (mm)	25.4 × 27.6 × 2.35
Weight (g)	Approx. 3.77
<b>Temperature Range</b>	
Operating Temperature	-35 °C to +75 °C
Extended Temperature	-40 °C to +85 °C
<b>Frequency Bands</b>	
WCDMA	B1/B2/B5/B8
GSM	B2/B3/B5/B8
<b>Certifications</b>	
Regulatory	Global: GCF
	Europe: CE
	North America: PTCRB
	America: FCC
	Canada: IC
	Brazil: Anatel
Mexico: IFETEL	
Australia/New Zealand: RCM	
<b>Data Rate</b>	
HSPA+ (Mbps)	21 (DL)/5.76 (UL)
WCDMA (kbps)	384 (DL)/384 (UL)
EDGE (kbps)	236.8 (DL)/236.8 (UL)
GPRS (kbps)	85.6 (DL)/85.6 (UL)
<b>Interfaces</b>	
USB 2.0	× 1
Digital Audio (PCM)	× 1
(U)SIM	× 1
UART	× 2
ADC	× 1
PWM	× 2
STATUS	× 1
I2C	× 1
RESET_N	× 1
PWRKEY	× 1
GPIO	× 5
Antenna	× 1
<b>Voice</b>	
Speech Codec Modes	HR/FR/EFR/AMR/AMR-WB
Echo Arithmetic	Echo Cancellation/Noise Reduction
<b>Enhanced Features</b>	
FOTA (QuecFOTA)	●
Firmware Upgrade via USB	●
QuecFile	●
(U)SIM Detection	●

Note:

●: supported

UMTS/HSPA+	UG89
<b>Software Features</b>	
<b>Protocols</b>	TCP/UDP/PPP/FTP/HTTP/NTP/PING/NITZ/CMUX/HTTPS/FTPS/SSL/FILE/MQTT/SMTP/MMS/SMTPS/CSD*
<b>USB Serial Driver</b>	Windows 7/8/8.1/10 Linux 2.6–5.12 Android 4.x–11.x
<b>RIL Driver</b>	Android 4.x–11.x
<b>USB RNDIS Driver</b>	Windows 7/8/8.1/10 Linux 2.6–5.12
<b>USB ECM Driver</b>	Linux 2.6–5.12
<b>Electrical Features</b>	
<b>Supply Voltage Range</b>	3.3–4.5 V, typ. 3.8 V
<b>Power Consumption (Typical)</b>	18 $\mu$ A @ power off

Note:

\*: under development