

Quectel M08-R

Ultra-compact Quad-band GSM/GPRS Module



Quectel M08-R is a cost-effective and ultra-compact quad-band GSM/GPRS module. The module measures just 17.6mm × 15.7mm × 2.4mm, which is perfectly suited for applications with demanding size, cost and quality requirements.

Available in industry standard form factor in leadless chip carrier (LCC) package, M08-R is easy to solder and its SMT pads allow fully automated assembly with standard pick & place and reflow soldering, which enable cost-efficient and high-volume production as well as fast time-to-market.

The comprehensive set of interfaces, compact form factor, ultra-low power consumption and wide temperature range extend the applicability of M08-R to a wide range of M2M applications such as wearable devices, industrial PDA, personal tracking, wireless POS, smart metering, telematics, etc.



Key Benefits

- Ultra-compact quad-band GSM/GPRS module
- Easy to solder with LCC form factor
- Power consumption as low as 1.3mA
- Support voice, QuecFOTA[®], DFOTA and QuecLocator[®]
- Embedded powerful Internet service protocols, multiple sockets & IP addresses
- Fast time-to-market: simple product design, evaluation tools and timely technical support to minimize design-in time and development efforts









Extended Temperature Range: -40°C ~ +85°C

LCC Package

LCC



GPRS Multi-slot Class 12

ot Ultra-compact Size





Quectel Enhanced AT Commands

Audio Function

Embedded Internet Services Protocols





Quectel M08-R

GSM/GPRS	M08-R
Frequency Bands	850/900/1800/1900MHz
Dimensions (mm)	(17.6±0.15) × (15.7±0.15) × (2.4±0.20)
Temperature Range	
Operation Temperature	-35°C ~ +75°C
Extended Temperature	-40°C ~ +85°C
Certifications	
Regulatory	CE*
Others	RoHS Compliant
Data	
GPRS Class 12	Max. 85.6kbps (Downlink) Max. 85.6kbps (Uplink)
Coding Schemes	CS-1, CS-2, CS-3, CS-4
USSD	•
Non-transparent Mode	•
SMS	
Point-to-point MO and MT	•
Text and PDU Mode	•
Interfaces	
(U)SIM	× 1, 1.8V/3.0V
UART	× 3, Main Port, Debug Port and Auxiliary Port
Analog Audio	× 2, 1 Output Channel and 1 Input Channel
RTC	×1
Antenna Pad	× 1 GSM Antenna Pad
voice	
Speech Codec Modes	HR/ FR/ EFR/ AMR
Echo Arithmetic	Echo Cancellation/ Echo Suppression/ Noise Reduction
Enhanced Features	
QuecFOTA®	•
DFOTA QuecCell	•
QuecFile	•
OpenCPU	•
QuecLocator®	•
CMUX	•
Audio Play/Audio Recording	•
General Features	
GPRS Multi-slot Class	Class 12
GPRS Mobile Station	Class B
Weight	Approx. 1.18g
Package	LCC
Software Features	
Protocols	TCP/ UDP/ PPP/ HTTP/ NTP/ PING/ TTS/ FTP/ SSL/ MQTT/ HTTPS/ IPv6*
AT commands Electrical & Sensitivity	GSM 07.07, 07.05 and other Enhanced AT commands
Output Power	Class 4 (2W) @GSM850/EGSM900MHz Class 1 (1W) @DCS1800/PCS1900MHz
Consumption	1.3mA ⁽¹⁾ @DRX=5 1.2mA ⁽¹⁾ @DRX=9
Sensitivity	GSM850: -108dBm EGSM900: -108dBm DCS1800: -107dBm PCS1900: -107dBm
Supply Voltage	3.45V~4.25V, Typ. 4.0V

Notes: 1. * means under development 2. ● means supported. 3. ^① means average value, for reference only.

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