QUECTEL

Wireless Module Expert

M12
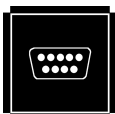## Dual-Band GSM/GPRS Module

Dual Band

GPRS Multi-slot Class 12

SMD Type

Embedded TCP,PPP, UDP,FTP Protocols

RoHS Compliant

Serial Port Multiplexer (GSM0710)

Quectel Enhanced AT Commands

M12 is a dual-band GSM/GPRS wireless module in SMD type. It is pin-to-pin compatible with the M10 quad-band module. M12 can be embedded in customer's applications, offering good reliability and robustness.

Featuring an industry-standard interface and extremely low power consumption, M12 delivers GSM/GPRS 900/1800MHz performance for Data, SMS, Fax and Voice in a small form factor. M12 can fit into almost all M2M applications, including VTS, Smart Metering, Wireless POS, Security, etc.

- Dual-band GSM/GPRS module with a size of 29mmx29mmx3.6mm
- SMD type for easier and cheaper SMT production
- Embedded powerful internet service protocols, multiple Sockets & IP addresses
- Based on mature and field-proven platform

M12
Dual-Band GSM/GPRS Module

29mm

29mm   3.6mm

General Features

Dual-Band	900/ 1800MHz
GPRS Multi-slot Class	12, 1~12 configurable
GPRS Mobile Station	Class B
Compliant to GSM Phase 2/2+	Class 4 (2W @ 900 MHz)
	Class 1 (1W @1800MHz)
Supply Voltage Range	3.3~4.6 V 4.0V nominal
Low Power Consumption	1.1mA @ DRX=5
	0.95mA @ DRX=9
Operation Temperature	-40 °C to + 80 °C
Dimensions	29mm × 29mm × 3.6mm
Weight	Approx. 6g

Control via AT commands (GSM 07.07 ,07.05 and other enhanced AT Commands)
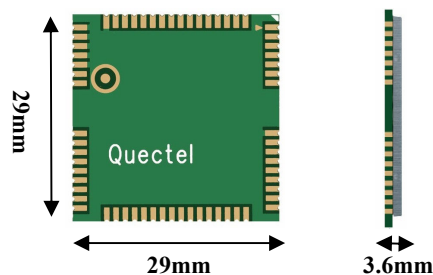
SIM Application Toolkit

Specifications for Fax
Group 3, Class 1& 2

Specifications for Data

GPRS Class 12	Max. 85.6 kbps (uplink & downlink)
PBCCH Support	
Coding Schemes	CS 1, 2, 3, 4
CSD	Up to 14.4 kbps
USSD	
Non Transparent Mode Protocols	PPP
	TCP/UDP
	HTTP
	FTP
	MMS
	SMTP

Specifications for SMS via GSM / GPRS
Point-to-point MO and MT
SMS Cell Broadcast

Specifications for Voice

Speech Codec Modes	Half Rate (HR)
	Full Rate (FR)
	Enhanced Full Rate (EFR)
	AMR Half Rate
	AMR Full Rate
Echo Arithmetic	Echo Cancellation
	Echo Suppression
	Noise Reduction
Hands-free Operation	

Interfaces

External SIM	3V/ 1.8V
Analog Audio Interfaces	Two channels
RTC Backup	
Keypad Interface	
SD Card Interface	
Serial Port and Debug Port	
Antenna Pad	
GPIOs	

Drivers
MUX Driver

Compatibility
AT Cellular Command Interface