



Quectel Wireless Solutions

Wireless Module Expert



M10 GSM Module Presentation

2011-3-12

- Tracking and Tracing
- Smart Metering
- Wireless POS
- Security
- Connected PND
- Health Care
- Remote Maintenance & Control

Extremely Low Standby Current Consumption

1.1mA @ DRX=5

Quad-band High Data Speed

GPRS Multi-slot Class 12

Compact Size

29mmx29mmx3.6mm

Industry-standard Interface

+8KV/-6KV ESD

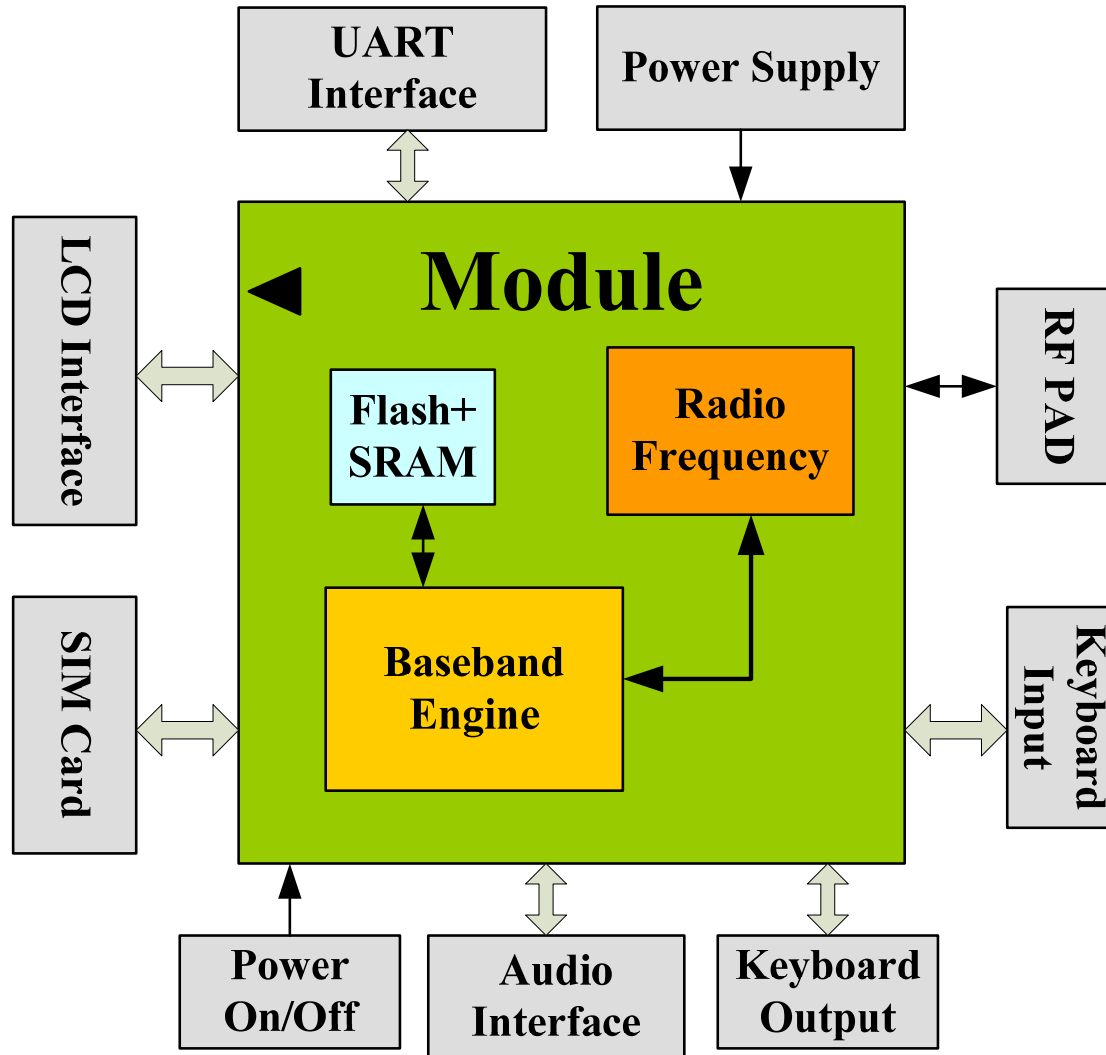
Wide Working Temperature Range

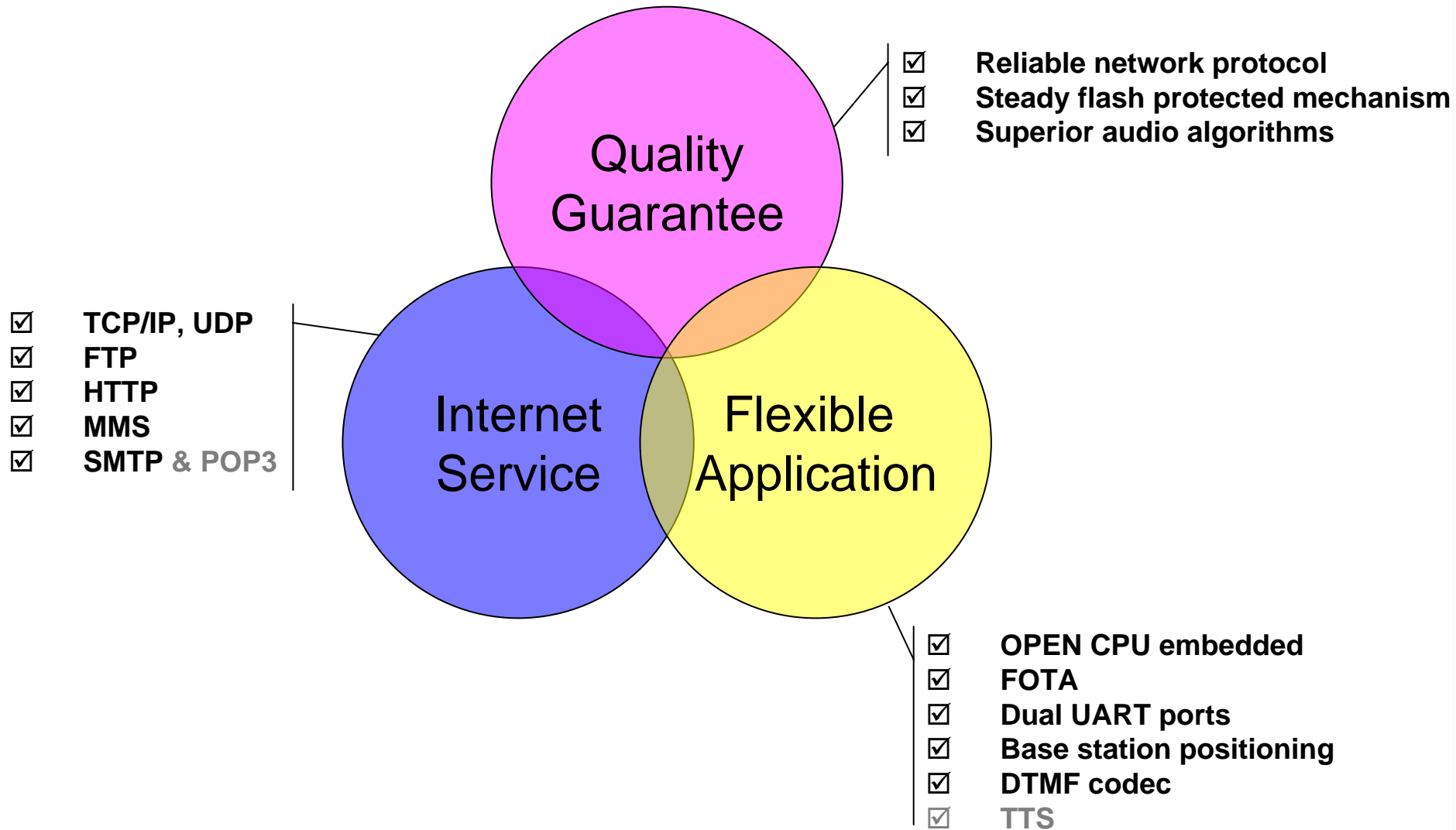
-45 ° C to +85 ° C

Extremely Strong PCB

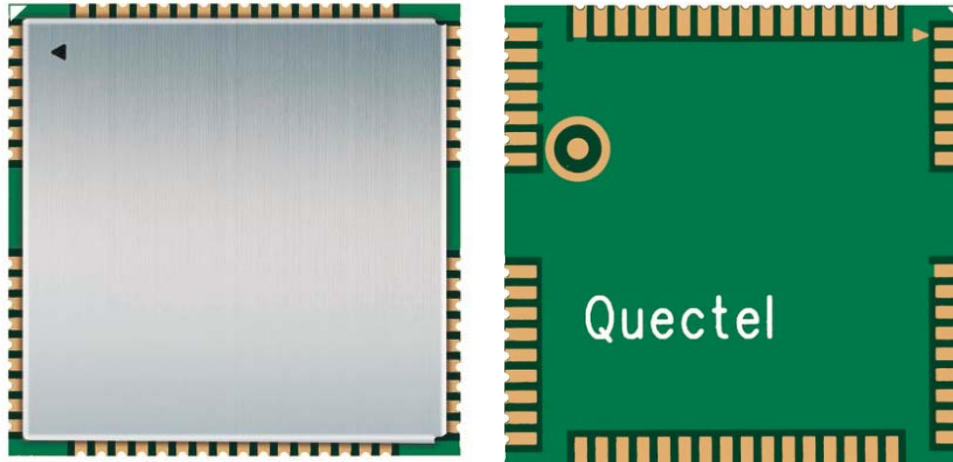
PCB Thickness:1.6mm







- Standard V.25ter AT commands
- GSM 07.07
- GSM 07.05 (SMS)
- GPRS AT commands in accordance to GSM 07.07
- TCP/IP stack AT commands
- STK (SIM Application Toolkit)
- Quectel defined AT commands (enhanced functions)



Length: 29 mm ($\pm 0.15\text{mm}$)
Width: 29 mm ($\pm 0.15\text{mm}$)
Height: 3.6 mm ($\pm 0.3\text{mm}$)
Weight: 6g

Product Features		M10	Telxx XX865
Power consumption	Idle registered	<12mA @ DRX=9	< 24 mA @ DRX=9
	Idle registered, slow clocking mode	1.1mA @ DRX=5 0.7mA @ DRX=9	2 mA @ DRX=9
GPRS		Class 12: max. 85.6 kbps(uplink & downlink)	Class 10: max. 42.8 kbps(uplink), 85.6kbps(downlink)
Package		CLCC SMD	BGA (fragile on soldering)
PCB thickness		1.6mm (stonger PCB, no bending problem)	1.0mm
Temperature Range	Normal operation	-35° C ~ +80° C	-20° C ~ +55° C
	Restricted operation	-45° C ~ -35° C and +80° C ~ +85° C	-40° C ~ -20° C and +55° C ~ +85° C
	Storage	-45° C ~ +90° C	-40° C ~ +85° C
ESD	VBAT, RF,GND	Air discharge ±10KV, contact discharge ±5KV	Unknown
	Other pins	Air discharge +8KV/-6KV	Unknown
Multi-media		64 midi ringtones	16 midi ringtones
		Provide superior audio features, e.g. MP3 ring tone	Not support MP3 ring tone

Product Features		M10	Mx55i
Power consumption: idle registered & slow clocking		1.1mA @ DRX=5 0.7mA @ DRX=9	3mA @ DRX=5 2.5mA@DRX=9
GPRS		Class 12: max. 85.6 kbps (uplink & downlink)	Class 10: max. 42.8kbps(uplink), 85.6kbps(downlink)
Package		CLCC SMD for easier production	B2B connector
Dimension		29mm x 29mm x 3.6mm	35mm x 32.5mm x 2.95mm
MMS		Support	None
Switch-off method		By PWRKEY pin or AT command	Only by AT command
Temperature Range	Normal operation	-35°C ~ +80°C	-20°C ~ +55°C
	Restricted operation	-45°C ~ -35°C and +80°C ~ +85°C (industrial standard)	-40°C ~ -20°C and 55°C ~ -70°C
	Storage	-45°C ~ +90°C	-40°C ~ +85°C
ESD		VBAT, RF,GND : air discharge $\pm 10KV$, contact discharge $\pm 5KV$ Other pins : air discharge $+8KV/-6KV$	Antenna and SIM card interface: air discharge $\pm 8KV$ contact discharge $\pm 4KV$ Other pins: contact discharge $\pm 1KV$
Embedded Application		Open CPU technology is more efficient than Java.	Java application



Expertise

Expert Opinion of the Notified Body on the Conformity Assessment according to Article 10.5 of R&TTE Directive 1999/5/EC

PHOENIX TESTLAB
EU Identification Number 0700

Recreated by

INRA-09-0291-05
09-112059b

Expertise No. 09-112059b
Certificate Holder Quectel Wireless Solutions Co., Ltd
Address

Product Description
Brand Name / Model Name
Frequency Range
Transmitted Power
Opinion on the Essential Requirements
Article 3.1a): Health and Safety
Article 3.1b): Electromagnetic Compatibility
Article 3.2: Effective Use of the Radio Spectrum
CE-marking
Marking Example (Class 1)

This certificate is issued in accordance with the Directive 11 equipment and telecommunications terminal equipment and is only valid in conjunction with the following annex (2) page

Blomberg, 25 August 2009
Place, Date of Issue

Phone: +49(0)2339-9500-24
Fax: +49(0)2339-9500-28
notifiedbody@phoenix-testlab.de

CERTIFICATE

Issue Date: 02/12/2009

Product: GSM/GPRS 850-900/1800/1900
Model: M10
Applicant: Quectel Wireless Solutions Co., Ltd
Address: Room B01, Building E, No. 1618 Yishan Road, Shanghai, China

has successfully performed selected tests of which are included in 3GPP TS 51.010-1 version 9.2.0 GCF-CC version 1.0.0
A detailed list of tests is included in the report No. SH090700

Signed for and on behalf of ShenZhen Electronic Product Testing Center Morlab

Su Feng (Responsible for Accreditation Scope)
Zhang Jun (Project Manager)

OFTA GCF TAF PATA

Bluetooth CMA Authorized Test Lab
LAB CODE 30061223-06

TCB

GRANT OF EQUIPMENT AUTHORIZATION
Certification
Issued Under the Authority of the Federal Communications Commission
By:

TCB

PHOENIX TESTLAB GmbH
Koenigsweinkel 10
D-52855 Blomberg,
Germany

Date of Grant: 08/31/2009
Application Dated: 08/31/2009

Quectel Wireless Solutions Company Limited
Room 801, Building E,
No.1618 Yishan Road P.O. Box 201103,
Shanghai, 8821
China

Attention: Wei Peng

NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

FCC IDENTIFIER: XMR-16182009002
Name of Grantee: Quectel Wireless Solutions Company Limited
Equipment Class: PCB Licensed Transmitter
Notes: GSM/GPRS Module
Modular Type: Limited Single Modular

Grant Notes:

ECC Rule Parts
22H
24E

Frequency Range (MHz)	Output Power (Watt)	Frequency Tolerance (Hz)	Emission Designator
824.2 - 848.8	2.106	±2.5 PM	300K0XW
1860.2 - 1908.8	0.996	±2.6 PM	300K0XW

Licensed Modular Transmitter. Power Output listed is conducted. The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. A separate approval is required for portable operating configurations, as defined in 2.1093 of the rules. The final product operating with this transmitter must include operating instructions and applicable warnings for endusers and installers to satisfy RF exposure compliance requirements. OEM/Integrators must be informed of these specific requirements. This Grant is valid only when the device is sold to OEM integrators and the OEM integrators are instructed to ensure that the end user has no manual instructions to remove or install the device.

无线电发射设备 Radio Transmission Equipment 型号核准证 Type Approval Certificate

上海移为通信技术有限公司:



certifies that the

S Terminal Equipment

M10

of

Quectel Wireless Solutions CO., LTD
No.1618 Yishan Road, Shanghai, China
formed selected test cases of section 4.1-46 which are included in 3GPP V9.0.0 and applicable according to IAPRD.03 v5.1.
tests is included in the related report No. 4-rc059a-2009.

无线电管理
ons on the Radio
电发射设备
China, the following
电管理规定和
mination, conforms
CMIIT ID: 2010CP0248

Sealed by issuing authority
2010年01月18日
Year Month Date



Beijing, P.R. China, 24th Dec. 2009

Yao Bin
(Responsible for Accreditation Scope)

Zhu Lin
(Project Manager)

➤ **Technical materials package**

- Hardware, software, specification
- Application notes package
- Debug tool, download tool, test tool, EVB package
- Approvals & test report package

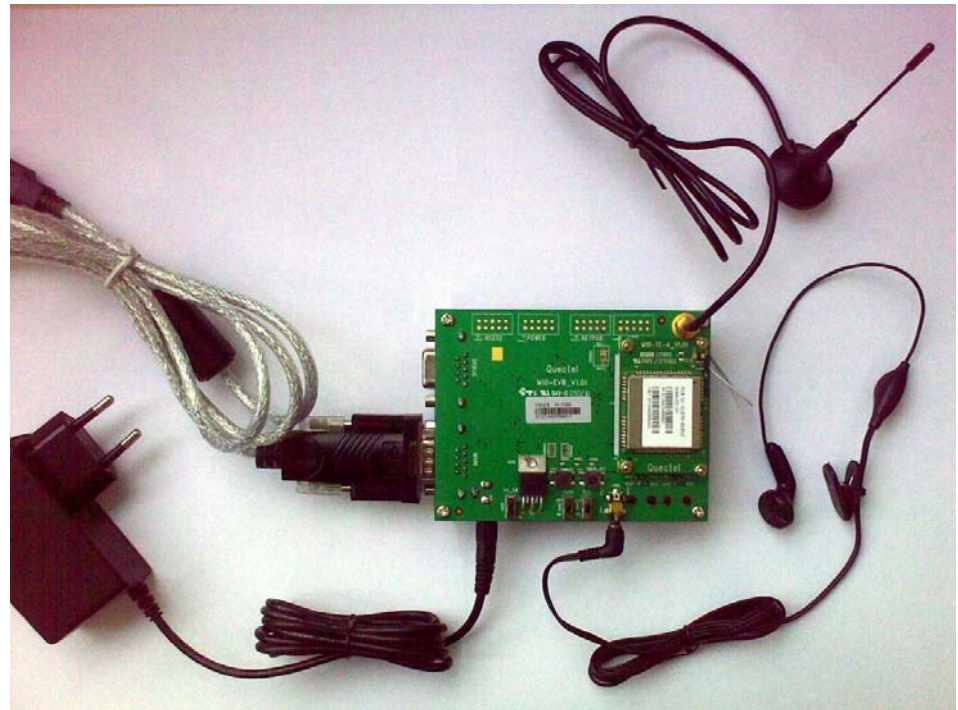
➤ **Development Tool**

• **Interfaces**

- ✓ RS-232 interface
- ✓ Power supply
- ✓ Antenna interface
- ✓ Debug UART interface
- ✓ Earphone interface

• **Features**

- ✓ Network status LED
- ✓ Power key
- ✓ Emergency off key
- ✓ Charging (optional)



M10 EVB KIT



Thank You!