Quectel M89

Quad-band GSM/GPRS Module with LGA Package

M89 is a compact quad-band GSM/GRPS module utilizing LGA form factor on the market. Based on the latest 2G chipset, it offers the optimal performance in SMS & data transmission and audio service even in harsh environment. The compact 18.8mm × 27.6mm × 2.3mm profile makes it a perfect platform for low bandwidth M2M applications that needs reliable network connectivity.

M89 adopts LGA surface mounting technology which enables reliable and durable soldering process, and provides a flexible choice for durable and rugged designs. Its minimal footprint and small size design concept make sure M89 can be easily embedded into size-constrained applications. This kind of package is ideally suited for large-scale manufacturing which has strict requirements for cost and efficiency.

The compact form factor, low power consumption and extended temperature make M89 a best choice for M2M applications such as smart metering, wearable devices, vehicle and personal tracking, industrial PDA, security, wireless POS, remote maintenance & control, telematics, and so on.

Key Benefits

✓ Quad-band GSM/GPRS module: 850/900/1800/1900MHz

✓ Reliable and flexible soldering process with LGA package

✓ Support voice and QuecFOTA™ functions

✓ Embedded powerful Internet service protocols, multiple sockets & IP addresses

✓ Fast time-to-market: reference designs, evaluation tools and timely technical support minimize design-in time and development efforts

Quad-band

GPRS Multi-slot Class 12

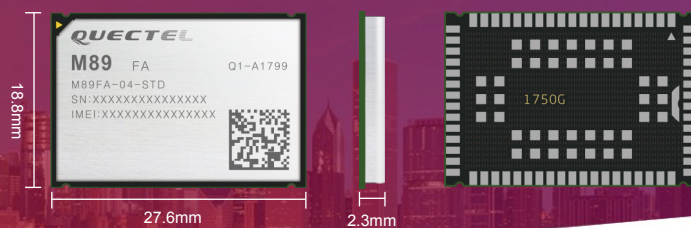Extended Temperature Range: -40°C ~ +85°C

Compact Size

LGA Package

Embedded Internet Services Protocols

Quectel Enhanced AT Commands

Rev.: V1.1 | Status: Released

Quectel M89

Quad-band GSM/GPRS Module with LGA Package

18.8mm
27.6mm
2.3mm

Frequency Band

Quad-band:

850MHz/ 900MHz/ 1800MHz/ 1900MHz

Data

GPRS Class 12:

Max. 85.6kbps (DL)

Max. 85.6kbps (UL)

Coding Schemes:

CS-1, CS-2, CS-3, CS-4

USSD

Non-transparent Mode

SMS

Point-to-point MO and MT

SMS Cell Broadcast

Text and PDU Mode

Voice

Speech Codec Modes:

Half Rate (HR)

Full Rate (FR)

Enhanced Full Rate (EFR)

Adaptive Multi-Rate (AMR)

Echo Arithmetic:

Echo Cancellation

Echo Suppression

Noise Reduction

Interfaces

(U)SIM Interface:

1.8V/ 3.0V

UART × 2

Analog Audio Channel:

1 Output Channel and 1 Input Channel

ADC × 1

RTC × 1

GPIO × 10

PWM* × 2

Antenna Pad:

× 1 (GSM Antenna Pad)

Enhanced Features

eCall

Jamming Detection

DTMF

Audio Play/ Audio Record

QuecFOTA^TM

QuecFile

CMUX

SSL

Electrical & Sensitivity

Output Power:

Class 4 (2W @GSM850/ EGSM900)

Class 1 (1W @DCS1800/ PCS1900)

Consumption:

TBD @DRX=5, sleep mode

TBD @DRX=9, sleep mode

Sensitivity:

GSM850: -109dBm

EGSM900: -109dBm

DCS1800: -109dBm

PCS1900: -109dBm

Supply Voltage:

3.3V~4.6V, 4.0V Typ.

Software Features

Protocols: TCP/ UDP/ PPP/ FTP/ HTTP(S)/ POP3/ SMTP(S)/ USSD/ QNTP/ QPING/ SSL

General Features

GPRS Multi-slot Class: Class 12

GPRS Mobile Station: Class B

Temperature Range: -40°C ~ +85°C

Dimensions: 18.8mm × 27.6mm × 2.3mm

LGA Package

Weight: Approx. 2.15g

GSM 07.07, 07.05 and other Enhanced AT Commands

Approvals

TBD

* Under Development

QUECTEL®