

DATA SHEET QUECTEL BG96 WIRELESS MODULE

KEY BENEFITS

LTE Cat M1/Cat NB1/EGPRS multimode module with ultra-low power consumption
Provides pin-to-pin compatibility for easy migration from with Quectel LTE module EG91/EG95, Cat NB1 (NB-IoT) module BC95, UMTS/HSPA module UG95/UG96 and GSM/GPRS module M95
Compact SMT form factor of 26.5mm × 22.5mm × 2.3mm is ideal for size-constrained applications with tight space
Super slim profile in LGA package allows fully automated manufacturing for high-volume applications
Industry-standard interfaces, including: USB, UART, I2C, Status Indicator
Fast time-to-market: reference designs, evaluation tools and timely technical support minimize design-in time and development efforts
Robust mounting and interfaces

NETWORK

3GPP Protocol Stack Compliancy	Release 13
Support for TS.34 IoT Communication Efficiency	None
Wireless Protocol Support	Wireless Protocol Support
2G/GPRS	Supported
3G/UMTS	None
4G/LTE	None
LTE-M	Supported *
NB-IoT	Supported
Frequency Band Support	
2G Bands (MHz)	850, 900, 1800, 1900MHz
3G Bands (MHz)	None
4G Bands (MHz)	None
LTE-M Bands (MHz)	B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B26, B28, B39 (TDD only) *
NB-IoT Bands (MHz)	B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B26, B28
3GPP Classes / Categories	
CSD	None
GPRS Multislot Class (DL/UL)	33
EDGE Class (DL/UL)	33
HSDPA Category (DL)	None
HSUPA Category (UL)	None
LTE Category	None

LTE-M Category	M1 *
NB-IoT Category	NB1
Short Message Service (SMS) **	Text, PDU
Speech Codecs	None
Protocol Support ***	PPP, UDP, SSL, TLS, FTP(S), HTTP(S), NITZ, PING, MQTT, TCP
Firmware Updates	USB, Delta Firmware Upgrade Over the Air
Integrated Positioning Technology	Integrated Positioning Technology
GPS	Supported
GLONASS	Supported
Control Plane A-GPS Support	None
SUPL A-GPS Support	None
Regulatory	Regulatory
eCall	None
Standalone / Assisted GNSS	GPS, GLONASS, BeiDou/Compass, Galileo, QZSS
TTY	None

HARDWARE

Dimensions (L x W x H, mm)	26.5 × 22.5 × 2.3
Weight (g)	3.1
On-board Memory	None
Operating Temperature – Extended Operation (°C)	-40 °C to +85 °C
Supply Voltage Range (V)	3.1 - 4.2
Interfaces	
USB 2.0 (480 Mbps)	None
ASC0 HS Serial Modem	None
GPIO Lines	Supported, 5x
UICC and U/SIM (1.8 V/3 V)	1.8 V
Module ON/Reset	Supported
ADC and I2C	ADC, I2C Supported
4-Wire HS Serial Interfaces SCA1	None
Analog Audio	None
Digital Audio	None

*Device not certified by Deutsche Telekom for LTE-M (LTE Cat-M1) deployment

** Note: SMS is not supported on the Deutsche Telekom NB1 network.

*** Not all protocols have been verified during the certification testing



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CERTIFICATION DETAILS

GMA Certification	None
Deutsche Telekom Certification Date (Initial Firmware)	BG96MAR02A07M1G (10.07.2018)
Certified Deutsche Telekom Affiliates	AT, CZ, DE, NL, PL, SK
Certifying Entity	DTAG IDU-TIV
DT Certification Type (Conditions)	Limited certification (AT, CZ, DE, NL, PL, SK) for pilot usage (technical issues to be addressed)
Deutsche Telekom Affiliate Country Codes	
AL	Telekom Albania
AT	T-Mobile Austria GmbH
CZ	T-Mobile Czech Republic a.s.
DE	Telekom Deutschland GmbH
GR	COSMOTE Mobile Telecommunications S.A.
HR	Hrvatski Telekom d.d.
HU	Magyar Telekom Telecommunications plc
ME	Comorgski Telekom a.d. Podgorica
MK	Makedonski Telekom AD - Skopje
NL	T-Mobile Netherlands B.B.
PL	T-Mobile Polska S.A.
RO	Telekom Romania Mobile Communications S.A.
SK	Slovak Telekom, a.s.



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