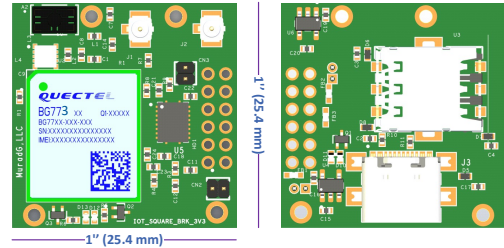




10 yrs/500 MB
250 SMS
Data Plan
included

IoT²BRK3V3iSIM

BG773A LTE-M/NB1/2 Breakout Board



IoT²BRK3V3iSIM is the simplest way to add cellular connectivity and GNSS to your application. It is based on the ultra-compact LTE cat M1/cat NB1/NB2 bands and integrated SIM (iSIM) BG773A module. This 1-inch square board comes with an on-board GNSS low-noise amplifier front-end with integrated pre and post SAW filters and a GNSS ceramic antenna. External active and passive GNSS antennas can be used via the U.FL connector. The BG773A is an ultra-compact LPWA module supporting LTE Cat M1, LTE Cat NB1/NB2 and integrated GNSS. It is fully compliant with 3GPP Rel-14 specification and provides maximum data rates of 588 kbps downlink and 1119 kbps uplink. It features ultra-low power consumption implemented by the MIPS 5150 processor and integrated RAM and flash, which help reduce current consumption to low levels in various modes, including PSM, eDRX etc.

Key

Benefits

- ✓ SWAP (Size, Weight, and Power) IoT solution
- ✓ iSIM and uSIM/eSIM support
- ✓ Robust mounting and interface
- ✓ 3 GNSS antenna options
- ✓ On-Board USIM Holder
- ✓ LTE antenna U.FL connector
- ✓ USB-C interface
- ✓ Module and Network status LEDs

Applications

- ✓ Asset Management
- ✓ Logistics
- ✓ Tracking
- ✓ Geo-Fence
- ✓ Wearables
- ✓ Smart Energy
- ✓ Medical Devices
- ✓ PPPoS/Hotspot

Key

Features

Cellular Technology	Cat M1: LTE-FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B27/B28/B66 Cat NB1/NB2: LTE-FDD: B1/B2/B3/B4/B5/B8/B12/B13/B17/B18/B19/B20/B25/B28/B66
Data	Cat M1: Max. 588 kbps (DL)/1119 kbps (UL) Cat NB1: Max. 27.2 kbps (DL)/62.5 kbps (UL) Cat NB2: Max. 127 kbps (DL)/158.5 kbps (UL)
SMS	Point-to-point MO and MT SMS Cell Broadcast Text and PDU Mode
Interface	USB-C UART GPIO NET_STATUS STATUS Antennas
GNSS	GPS/GLONASS/BeiDou/Galileo/QZSS QuecLocator (Cell ID Positioning)
GNSS SAW/LNA/SAW	Signal gain: 17 dB Out-of-band rejection: +80 dBc, 1627 to 1660 MHz Low current consumption: 3.1 mA
Firmware Upgrade	Via USB-C interface DFOTA (Delta Firmware Upgrade Over-the-Air)
Power Supply	1- USB-C Receptacle 2- 2.7 V – 3.6 V (typ. 3.3 V), 1 A at the header
I/O Voltage	2.7 V – 3.6 V
Electrical Characteristics	Output Power: 23 dBm (Max.) Consumption @ LTE CAT M1 (typical): Power Saving Mode: 3.2 μ A Idle State: TBD

	<p>Sleep State: 1.63 mA @ DRX = 1.28 s 0.76 mA @ e-I-DRX = 81.92 s, PTW = 20.48 s LTE Connected Mode: 228 mA @ 21dBm, GNSS off</p> <p>Consumption @ LTE CAT NB2 (typical): Power Saving Mode: 3.2 μA Idle State: TBD Sleep State: 1.5 mA @ DRX = 1.28 s 0.79 mA @ e-I-DRX = 81.92 s, PTW = 20.48 s</p> <p>LTE Connected Mode: 165 mA @ 21dBm, GNSS off</p> <p>GNSS: TBD</p>
Protocols	PPP/TCP/UDP/SSL/TLS/FTP(S)/HTTP(S)/NITZ/PING/MQTT/LwM2M/CoAP/IPv6*
Operating Temperature	-35 °C to +75 °C
Dimensions	1 inch x 1 inch (25.4 mm x 25.4 mm)
Approvals	<p>Carrier: Vodafone* (Global) More to be added soon</p> <p>Regulatory: GCF* (Global) CE (Europe) FCC/PTCRB* (North America)</p>

* Means development/on-going/plannin