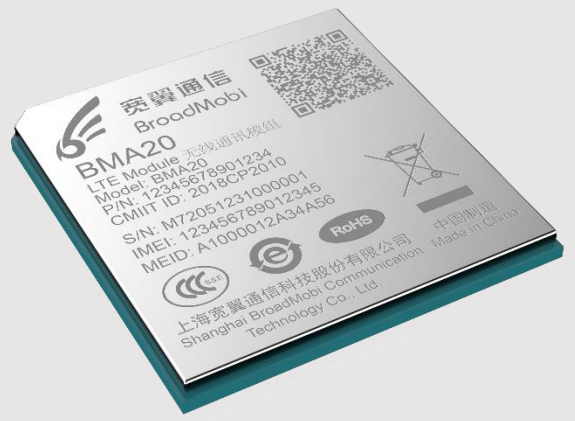


BMA20

LTE Cat.4 Module

for Automotive Application



BMA20 provide abundant network protocols and drivers, As well as high speed access. And strictly follow the automotive level product research and development, production, quality standards, IATF 16949 Compliant. It is widely used in automotive terminal equipment.



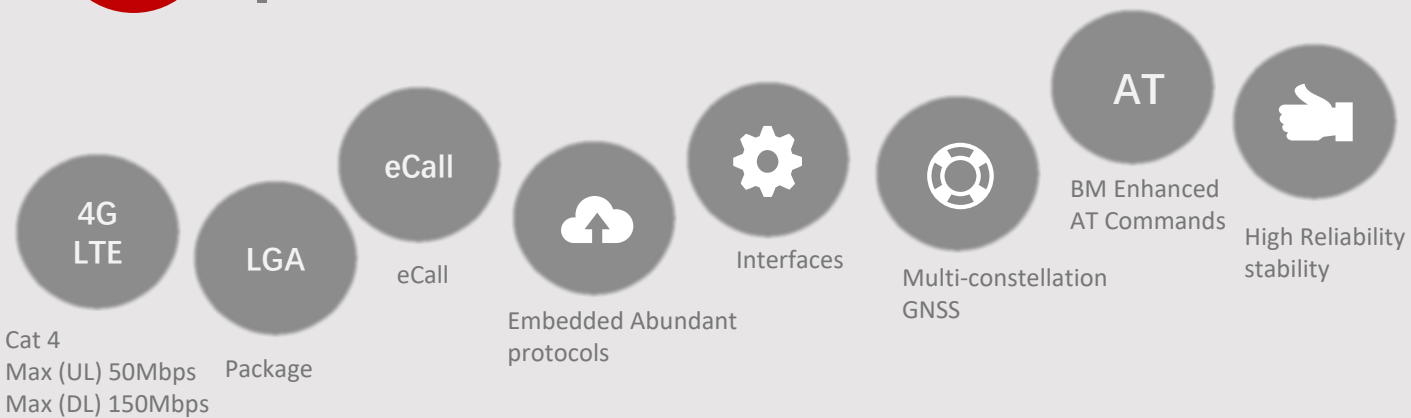
BroadMobi presents a reliable wireless module BMA20 which is based on Qualcomm MDM9628 multi mode LTE platform.



BMA20 is a complete multi-band TDD-LTE/FDD-LTE/WCDMA/EVDO/CDMA1x/GSM LGA module.



It has strong extension capability with rich interfaces including UART, USB2.0, SPI, I2C, PCM,SDIO,SGMII, ADC, RESET, GPIO, etc.



BMA20

LTE Cat.4 Module for Automotive Application



General Features

- Variant:
 - FDD-LTE B1/B3/B5/B8
 - TDD-LTE B34/B38/B39/B40/B41(100M)
 - HSPA+/WCDMA B1/B5/B8
 - GSM/GPRS/EDGE B3/B8
 - EVDO/CDMA1x:BC0
- 3GPP E-UTRA Release 10
- Supply voltage range: 3.3V~ 4.2V
- Operation temperature: -40°C to +85°C
- Dimension: 35.8*37.8*2.8mm
- Weight: 8.0g
- LGA
- Voice
 - Speech codec (HR,FR,EFR,AMR,AMR-WB)
 - Echo Cancellation, Noise Reduction
 - VoLTE, Digital Audio and VoLTE
- SMS
 - Point-to-Point MO and MT
 - SMS cell Broadcast
 - Text and PDU Mode
- Control Via AT Commands

Software Feature

- USB Driver for Windows 7/8/10, Linux
- PC Suite for Windows OS
- NDIS Driver for Linux
- ECM Driver for Linux
- Gobinet Driver for Linux
- RIL supporting for Android
- Support 3 APN
- QMI_WWAN Driver
- Protocols
 - TCP/UDP/PPP/FTP/HTTP/SMTP/SSL/POP3/DNS/MMS

Enhanced Features

- eCall;
- Open Linux;
- FOTA;
- DTMF;
- SDIO Interface for Wi-Fi Function;
- UART Interface for BT Function;
- DoubleProtect-backup for Software and APP
- ESD/EMI Protection, Internal Circuits and Components;
- Temperature Management;
- GNSS: GPS, GLONASS, BeiDou, Galileo;

Data

- LTE CAT.4
 - Uplink up to 50Mbps,
 - Downlink up to 150Mbps
- HSPA+
 - Uplink up to 5.76 Mbps,
 - Downlink up to 42 Mbps
- UMTS
 - Uplink/Downlink up to 384Kbps
- CDMA 1x EV-DO
 - Max. 14.7Mbps(DL), Max. 5.4Mbps(UL)
- EDGE
 - Max. 236.8Kbps(DL),Max. 236.8Kbps(UL)
- GPRS
 - Max. 85.6Kbps(DL), Max. 85.6Kbps(UL)



BMA20

LTE Cat.4 Module for Automotive Application



Electrical Characteristics

Output Power:

- Class 3 (23dBm+2/-2dB) for LTE
- Class 3 (24dBm+1/-3dB) for WCDMA
- Class 3 (24dBm+3/-1dB) for CDMA BC0
- Class E2 (27dBm±3dB) for EDGE 900MHz
- Class E2 (26dBm±3dB) for EDGE 1800MHz
- Class 4 (33dBm±2dB) for GSM 900MHz
- Class 1 (30dBm±2dB) for GSM 1800MHz

Consumption:

Power off <20uA

Idle <25mA

Sleep <2mA

Sensitivity:

- FDD B1: -101dBm (10M)
- FDD B3: -100dBm (10M)
- FDD B5: -101dBm (10M)
- FDD B8: -101dBm (10M)
- TDD B34: -101dBm (10M)
- TDD B38: -100dBm (10M)
- TDD B39: -100dBm (10M)
- TDD B40: -99dBm (10M)
- TDD B41: -99dBm (10M)
- WCDMA B1: -110dBm
- WCDMA B5: -110dBm
- WCDMA B8: -110dBm
- CDMA BC0: -109dBm
- GSM 900: -110dBm
- GSM 1800: -109dBm

Electrical Characteristics

GNSS:

- Cold start sensitivity -145dBm
- Tracking sensitivity standalone or MSB -161dBm
- Accuracy in open sky <2 m CEP -50
- Standalone TTFF (super hot/warm/cold) 1sec/29sec/32sec

Interface

- USB2.0
- UART
- SIM card
- PCM/I2S
- GPIO
- ADC
- I2C
- SDIO
- SGMII
- Main, Diversity ,GNSS Antenna Interfaces;

Certifications

- ROHS
- CCC
- CTA

