

BQ20

CAT-1&2G Advanced Waterproof Tracker

BQ20 is an advanced 20-wire IP68 GPS tracker tailored to meet the most demanding applications for service providers, enterprise customers and integrators. It offers comprehensive real-time location tracking, advanced engine detection, driver behavior analysis, fuel efficiency tracking and crash reconstruction. BQ20's enhanced features and robust performance are designed to improve dispatch systems and streamline operations. Its versatility and reliability make it an ideal solution for optimizing fleet operations and supporting complex enterprise requirements, ensuring improved operational efficiency and safety.



Features



4G CAT-1 with 2G fallback



Multiple I/Os



Driving Behavior
Detection



RS232&485



Crash data



BLE 5.0

SPECIFICATIONS

NETWORK

Data Support	TCP, UDP,SMS
LTE CAT-1	EMEA Version: B1/B3/B5/B7/B8/B20 America Version: B1/B2/B3/B4/B5/B7/B8/B28/B66
LTE Power	Class3 (23dBm+/- 2dB)
LTE Data	CAT-1: DL: 10Mbps, UL: 5Mbps EMEA: 900/1800 Mhz
GSM	South America:850/900/1800/1900MHz
GPRS Power	Class 1
SIM Card	1.8/3.0V

GNSS

Location Technology	GPS Engine GPS/Glonass/Galileo/BeiDou GPS/QZSS L1 C/A, Glonass L10F BeiDou B1, Galileo E1 B/C SBAS L1 C/A: WAAS, EGNOS, MSAS, GAGAN
Concurrent GNSS	3
Update Rate	1 Hz
Channels	66
Tracking sensitivity	-165dBm
Cold Start Open Sky	32S Open Sky
Aided Start	2S Open Sky
Reacquisition	1S Open Sky
Assisted GPS	Supported
Antenna	Patch Internal

ELECTRICAL

Operating Voltage	8-40V DC operational for 12V & 24V Vehicle support per SAE J1455 2mA 12V (Sleep)
Power Consumption	50mA 12V (Power Save) 110mA 12V (Active Tracking)
Backup Battery	LI-PO 220mAh Battery Recharging Range is 0 to +45°C

MEMORY

CPU	ARM Cortex M4
Flash Memory	8Mbit
3D Accelerometer	On Board

INTERFACES

Digital Inputs	4 Digital inputs
Ignition Sense	One dedicated wire for Ignition
Programmable Input	One configurable input to negative trigger digital input or analog input
Analog Input	One dedicated analog input
Digital Output	Two digital outputs, open drain, 300mA drive current max
Latched Digital O/P	One digital output with internal latch circuit,open drain, 150mA drive max
Two-way Audio	2 differential outputs; 1 audio input
Serial Port	RS232&485 port for external devices
1-Wire Solution	1 wire interface (Driver ID/Fuel Sensor)
Status LEDs	GNSS, Network, Power
BLE 5.0	for Wireless Sensor

CONNECTORS

Connector Type	20 Wire Pigtail
Mini USB	1 Mini USB (configuration/debug)
Power Switch	Device Power ON/Off Switch
GPS Antenna	Internal
GSM Antenna	Internal
SIM Card	Internal (4FF) or Embedded eSIM (MFF2)

PHYSICAL

Dimensions	110(L) x 554(W) x 22(H)mm
Weight	130g

ENVIRONMENTAL

IP Rating	IP68
Operating Temperature	-40 ~ +85° C (without Backup Battery) -10 ~ +50° C (with Backup Battery)
Humidity	95%RH @ 50° C non-condensing
Shock & Vibration	U.S. Military Standards 202G and 810F, SAE J1455
EMC/EMI	SAE J1113; FCC-Part 15B
RoHS	Compliant

GENERAL

Communication Mode	LTE/GPRS and TCP/UDP/SMS
Location Technology	66 Channels GNSS
Operating Voltage	12 and 24 Volt Vehicle Systems