



FTM308

Compact 4G LTE Cat M1 e-mobility tracker with dead reckoning and robust IP67-rated casing



2-wheeler & 3-wheeler monitoring



Industrial machinery



City utility services



Recreational vehicles monitoring

RELIABLE POSITIONING WHEN GPS IS FAILING

Dead reckoning supports precise tracking and fleet visibility when GPS is weak or jammed in dense city streets, tunnels, and underground parking

PERFECT FOR HIGH-VOLTAGE TRANSPORT AND MACHINERY

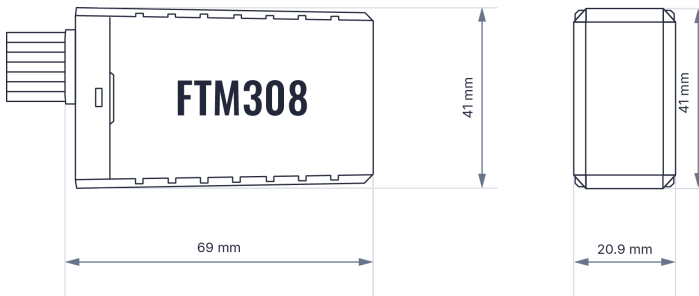
Solid 10-97 V power supply allows device integration in e-bikes, forklifts, shuttle cars, utility machinery, and other electric equipment

PROTECTION AGAINST DUST AND WATER

Robust yet small IP67-rated casing provides trusted protection against dust and resistance to water

HIGHER GNSS ACCURACY

More precise GNSS with up to 41 visible satellites, enabling considerably higher tracking quality for location-based services



Product

Model name	FTM308-Q2AB0 FTM308-Q3AB0 FTM308-Q5AB0
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Module

Name	FTM308-Q2AB0: Quectel BG95-M1, internal antennas, casing version FTM308-Q3AB0: Quectel BG95-M3, internal antennas, casing version FTM308-Q5AB0: Quectel BG95-M6, internal antennas, casing version
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Technology	LTE CAT M1/NB-IoT/GSM/GPRS/GNSS/BLUETOOTH® LE
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GNSS

GNSS	GPS, GLONASS, GALILEO, BEIDOU
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Receiver	L1: 75 channel
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Tracking sensitivity	-165dBm
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Position Accuracy	< 1.8 m CEP
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Velocity Accuracy	< 0.1 m/s (within +/- 15% error)
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Hot start	< 1 s
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Warm start	< 25 s
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Cellular

Technology	LTE CAT M1/NB-IoT/GSM
2G bands	GSM: B2/B3/B5/B8
4G LTE Cat M1 bands	<p>FTM308-Q2AB0 BG95-M1: LTE FDD (CAT M1 Only): B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/ B25/B26/B27/B28/B66/B85</p> <p>FTM308-Q3AB0 BG95-M3: LTE FDD (CAT M1): B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/ B25/B26/B27/B28/B66/B85</p> <p>LTE FDD (CAT NB2): B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/ B25/B28/B66/B71/B85</p> <p>FTM308-Q5AB0 BG95-M6: LTE FDD (CAT M1): B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/ B20/B25/B26/B27/B28/B66/B85</p> <p>LTE FDD (CAT NB2): B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/ B25/B28/B66/B71/B85</p>
Data transfer	<p>FTM308-Q2AB0 BG95-M1: LTE (CAT M1): Max. 588 kbps (DL) / Max. 1119 kbps (UL)</p> <p>FTM308-Q3AB0 BG95-M3: LTE (CAT M1): Max. 588 kbps (DL) / Max. 1119 kbps (UL) LTE (CAT NB2): Max. 127 kbps (DL) / Max. 158.5 kbps (UL) GPRS: Max. 107 kbps (DL) / Max. 85.6 kbps (UL)</p> <p>FTM308-Q5AB0 BG95-M6: LTE (CAT M1): Max. 588 kbps (DL) / Max. 1119 kbps (UL) LTE (CAT NB2): Max. 127 kbps (DL) / Max. 158.5 kbps (UL)</p>
Transmit power	<p>Class 4 for GSM850/900: 23±2dBm Class 1 for GSM1800/1900: 20±2dBm Class 3 for LTE-TDD: 23±2.7dBm Class 3 for LTE-FDD: 23±2.7dBm</p>
Data support	SMS (TEXT, PDU), Network protocols (TCP, UDP)

Power

Input voltage range	10 - 97 V DC
Internal Back-up battery	380 mAh Li-ion battery 3.7 V (1.41 Wh)
Internal fuse	3 A
Power consumption	<p>At 12V < 38 mA (Nominal with no load) At 12V < 0.25 A Max (with full Load/Peak)</p>

Bluetooth® Technology

Specification	<p>5.3 + LE*</p> <p>*EYE sensors and EYE beacons support</p>
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Physical specification

Dimensions	69 x 41 x 20.9 mm (L x W x H)
Weight	75 g

Operating environment

Operating temperature	-30 °C to +85 °C
Storage temperature	-30 °C to +85 °C
Operating humidity	65 ± 20% non-condensing
Ingress Protection Rating	IP67
Battery charge temperature	0 °C to +45 °C
Battery discharge temperature	-20 °C to +60 °C
Battery storage conditions	-10 °C to +25 °C for 3 or more months

Interface

Digital Inputs	2
Digital Outputs	3
Analog Inputs	2
1-Wire	1
GNSS antenna	Internal High Gain
Cellular antenna	Internal High Gain
USB	2.0 USB Type-C
LED indication	2 status LED lights
SIM	Nano-SIM or eSIM*
	*eSIM soldering is available upon specific request
Memory	128MB internal flash memory

Data codec

Codec support	Codec 8 Extended
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Features

Sensors	Accelerometer and Gyroscope
Scenarios	Green Driving, Over Speeding detection, Network Jamming detection, Unplug detection, Crash detection, Private/Business mode, Trip, Odometer, Excessive idling, Immobilizer, Auto Geofence, Manual Geofence, Towing detection, Fall Down detection, Static navigation, Custom scenarios, Ignition ON counter
Sleep modes	Online sleep, Deep sleep, Power off sleep
Configuration and firmware update	FOTA WEB, Telematics Configuration Tool (TCT)
Time Synchronization	GNSS, NITZ, NTP
Ignition detection	Digital Input 1, Accelerometer, External Power Voltage