



FTM305

Compact 4G LTE Cat M1 e-mobility tracker with CAN data reading and robust IP67-rated casing



Logistics & delivery services



E-mobility management



Utility & emergency transport

CAN DATA FOR E-MOBILITY EFFICIENCY

Get crucial CAN parameters and create a custom parameter database to enhance the operational efficiency of your e-mobility fleet

PERFECT FOR HIGH-VOLTAGE TRANSPORT AND MACHINERY

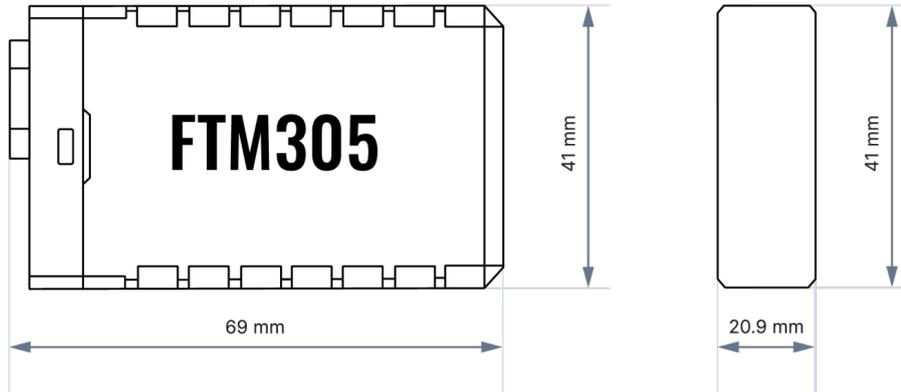
Solid 10-97 V power supply allows device integration in e-bikes, forklifts, shuttle cars, utility machinery, and other electric equipment

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	FTM305-Q2AB0 FTM305-Q3AB0 FTM305-Q5AB0
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Module

Name	FTM305-Q2AB0 : Quectel BG95-M1, internal antennas, casing version FTM305-Q3AB0 : Quectel BG95-M3, internal antennas, casing version FTM305-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	-165 dBm
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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>FTM305-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>FTM305-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>FTM305-Q5AB0 BG95-M6: LTE FDD (CAT M1): B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B2/ 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>FTM305-Q2AB0 BG95-M1: LTE (CAT M1): Max. 588 kbps (DL) / Max. 1119 kbps (UL)</p> <p>FTM305-Q3AB0 BG95-M3: LTE (CAT M1): Max. 588 kbps (DL) / Max. 1119 kbps (UL)</p> <p>LTE (CAT NB2): Max. 127 kbps (DL) / Max. 158.5 kbps (UL)</p> <p>GPRS: Max. 107 kbps (DL) / Max. 85.6 kbps (UL)</p> <p>FTM305-Q5AB0 BG95-M6: LTE (CAT M1): Max. 588 kbps (DL) / Max. 1119 kbps (UL)</p> <p>LTE (CAT NB2): Max. 127 kbps (DL) / Max. 158.5 kbps (UL)</p>
Transmit power	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
Data support	SMS (TEXT, PDU), Network protocols (TCP)

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	At 12V 45 mA (Nominal with no load) At 12V 0.25 A (with full Load/Peak)

Bluetooth® Technology

Specification	5.3 + LE* available in future firmware releases
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Physical specification

Dimensions	69 x 41 x 20.9 mm (L x W x H)
Weight	76.8 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	1
Digital Outputs	2
Analog Inputs	1* available in future firmware releases
1-Wire	1* available in future firmware releases
CAN	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
Memory	128MB internal flash memory

Data codec

Codec support	Codec 8 Extended
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Features

Sensors	Accelerometer
Scenarios	Green Driving, Over Speeding detection, Jamming detection, Unplug detection, Crash detection, Manual CAN data reading
Sleep modes	Online sleep, Deep sleep, Power off sleep* available in future firmware releases
Configuration and firmware update	FOTA Web, Telematics Configurator (TCT)
Time Synchronization	GNSS, NITZ, NTP
Ignition detection	Digital Input 1, Accelerometer, External Power Voltage