



FTC305

Compact 4G LTE Cat 1 e-mobility tracker with CAN data reading and flexible installation options



2-wheeler &
3-wheeler
monitoring



Industrial
machinery



City utility
services



Recreational
vehicles
monitoring

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

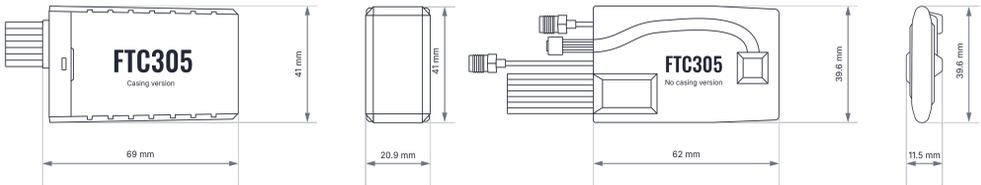
Solid 10-97 V power supply allows device integration in e-bikes, forklifts, shuttle cars, utility machinery, and other electric equipment

PROTECTION AGAINST DUST AND WATER

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

TAILORED FOR FACTORY INSTALLATION

Unique no-casing version of FTC305 with external antenna and larger battery capacity for mounting inside e-bike and e-bicycle frames



Product

Name	FTC305-QJAB0 FTC305-QKAB0 FTC305-QJXB0 FTC305-QKXB0
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Module

Name	FTC305-QJAB0 : Quectel EG915U-EU, internal antennas, casing version FTC305-QKAB0 : Quectel EG915U-LA, internal antennas, casing version FTC305-QJXB0 : Quectel EG915U-EU, external antennas, external battery, no casing version FTC305-QKXB0 : Quectel EG915U-LA, external antennas, external battery, no casing version
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Technology	LTE CAT 1/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 1/GSM
2G bands	GSM: B2/B3/B5/B8
4G LTE bands	FTC305-QJABO: LTE FDD (EG915U-EU): B1/B3/B5/B7/B8/B20/B28 FTC305-QJXBO: LTE FDD (EG915U-EU): B1/B3/B5/B7/B8/B20/B28 FTC305-QKABO: LTE FDD (EG915U-LA): B2/B3/B4/B5/B7/B8/B28/B66 FTC305-QKXBO: LTE FDD (EG915U-LA): B2/B3/B4/B5/B7/B8/B28/B66
Data transfer	LTE FDD (CAT 1): Max. 10 Mbps (DL) / Max. 5 Mbps (UL) GSM (GPRS): Max. 85.6 Kbps (DL) / Max. 85.6 Kbps (UL)
Transmit power	Class 4 for GSM900: 33 dBm ± 2 dB Class 1 for DCS1800: 30 dBm ± 2 dB Class 3 for LTE-FDD: 23 dBm ± 2 dB
Data support	SMS (TEXT, PDU), Network protocols (TCP, UDP)

Power

Input voltage range	10 - 97 V DC
Internal Back-up battery	Casing version: 380 mAh Li-ion battery 3.7 V (1.41 Wh) No casing version: 1200 mAh Li-ion battery 3.7 V (4.44 Wh) (External)
Internal fuse	3 A
Power consumption	At 12V < 40 mA (Nominal with no load) At 12V < 0.25 A Max (with full Load/Peak)

Bluetooth® Technology

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

Dimensions	Casing version: 69 x 41 x 20.9 mm (L x W x H) No casing version: 62 x 39.6 x 11.5 mm (L x W x H)
Weight	Casing version: 76.8 g No casing version (with accessories): 126.1 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	Casing version: IP67 No casing version: N/A
Battery charge temperature	0 °C to +45 °C
Battery discharge temperature	-20 °C to +60 °C
Battery storage temperature	Casing version: -10 °C to +25 °C for 3 or more months No casing version: -20 °C to +45 °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	Casing version: Internal High Gain No casing version: External (SMA female connector)
Cellular antenna	Casing version: Internal High Gain No casing version: External (RP SMA female connector)
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, Manual CAN commands
Sleep modes	Online sleep, Deep sleep, Power off sleep* <small>available in future firmware releases</small>
Configuration and firmware update	FOTA WEB, Telematics Configuration Tool (TCT)
Time Synchronization	GNSS, NITZ, NTP
Ignition detection	Digital Input 1, Accelerometer, External Power Voltage