



# FTM164

Next-generation waterproof 4G LTE Cat M1 tracker with high-capacity battery



Trailer security and tracking



Construction vehicles solutions



Agriculture transport solutions



Cold chain monitoring



Water transport monitoring

## IP69K WATERPROOF CASING

The ultimate protection against dust, high pressure water, and steam

## PROLONGED AUTONOMOUS USAGE

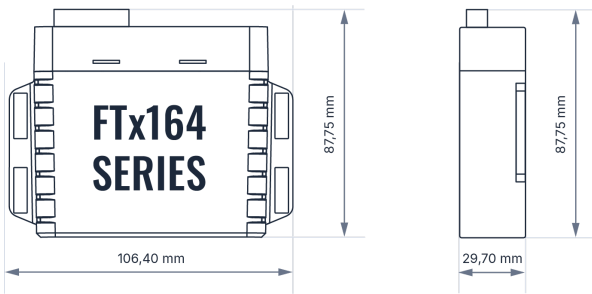
Large-capacity 2,600 mAh internal backup battery for extended device operation time

## LONGER PERFORMANCE, SLOWER DRAINAGE

Optimised sleep modes allow the device to operate on its own for an extended period of time and significantly reduce vehicle battery drainage

## EXTENDED PRODUCT USAGE SCENARIOS

Bluetooth® 5.4 ensures stable and reliable coverage for precise sensor detection



## Product

Model name	<b>FTM164-Q2AB0</b> <b>FTM164-Q3AB0</b> <b>FTM164-Q5AB0</b>
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## Module

Name	<b>FTM164-Q2AB0:</b> Quectel BG95-M1 <b>FTM164-Q3AB0:</b> Quectel BG95-M3 <b>FTM164-Q5AB0:</b> Quectel BG95-M6
Technology	LTE CAT M1/GSM/GPRS/GNSS/BLUETOOTH® LE

## GNSS

GNSS	GPS, GLONASS, GALILEO, BEIDOU
Receive type	135 tracking/acquisition channels
Tracking sensitivity	-165 dBm
Position Accuracy	< 1.8 m CEP
Velocity Accuracy	< 0.1 m/s (within +/- 15% error)
Hot start	< 1 s
Warm start	< 25 s

**Cellular**

Technology	LTE CAT M1/GSM
2G bands	<b>FTM164-Q3ABO</b> : GSM (GPRS): B2/B3/B5/B8
4G LTE bands	<p><b>FTM164-Q2ABO</b>: LTE-FDD (CAT M1): B1/B2/B3/B4/B5/B8/ B12/B13/B18/B19/B20/B25/B26/B27/B28/ B66/B85</p> <p><b>FTM164-Q3ABO</b>: LTE-FDD (CAT M1): B1/B2/B3/B4/B5/B8/ B12/B13/B18/B19/B20/B25/B26/B27/B28/ B66/B85 LTE-FDD (CAT NB2): B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/ B25/B28/B66/B71/B85</p> <p><b>FTM164-Q5ABO</b>: LTE-FDD (CAT M1): B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/ B25/B26/B27/B28/B66/B85 LTE-FDD (CAT NB2): B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/ B25/B28/B66/B71/B85</p>
Data transfer	<p><b>FTM164-Q2ABO</b>: LTE FDD (CAT M1): Max. 588Kbps (DL)/ Max.1119Kbps (UL)</p> <p><b>FTM164-Q3ABO</b>: LTE FDD (CAT M1): Max. 588Kbps (DL)/ Max.1119Kbps (UL) LTE FDD (CAT NB2): Max. 127Kbps (DL)/ Max.158.5Kbps (UL) GSM (GPRS): Max. 107Kbps (DL)/Max. 85.6Kbps (UL)</p> <p><b>FTM164-Q5ABO</b>: LTE FDD (CAT M1): Max. 588Kbps (DL)/ Max.1119Kbps (UL) LTE FDD (CAT NB2): Max. 127Kbps (DL)/ Max.158.5Kbps (UL)</p>
Transmit power	<p><b>FTM164-Q2ABO</b>: Class 5 for LTE FDD: 21 dBm<math>\pm</math>1.7/-3dB</p> <p><b>FTM164-Q3ABO</b>: Class 5 for LTE FDD: 21dBm <math>\pm</math>1.7/-3dB Class 4 for GSM850/900: 33dBm <math>\pm</math>2dB Class 1 for GSM1800/1900: 30dBm <math>\pm</math>2dB</p> <p><b>FTM164-Q5ABO</b>: Class 3 for LTE FDD: 23dBm <math>\pm</math>2.7dB</p>
Data support	SMS (TEXT, PDU), Network protocols (TCP, UDP)

**Data codec**

Codec support	Codec 8 Extended
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**Power**

Input voltage range	8-32 V DC
Internal Back-up battery	2600mAh Li-Ion battery, 3.7V (9.620 Wh)
Internal fuse	3A, 125V
Power consumption	<p>At 12V &lt; 27 mA (nominal with no load)</p> <p>At 12V &lt; 0.25A Max (with full Load/Peak)</p> <p>At 12V Online deep sleep &lt; 5.01 mA</p> <p>At 12V Deep sleep &lt; 2.32</p> <p>At 12V power off sleep &lt; 0.285 mA</p> <p>At 4V Online deep sleep &lt; 12.66 mA</p> <p>At 4V Deep sleep &lt; 5.89</p> <p>At 4V Power off sleep &lt; 0.195 mA</p>

**Bluetooth® Technology**

Specification	BLE 5.4 + LE
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**Physical specification**

Dimensions	87.75 x 106.40 x 29.70 mm (L x W x H)
Weight	147g

## Operating environment

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Operating temperature (without battery)	-30°C to +85°C
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Storage temperature (without battery)	-30°C to +85°C
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Operating temperature (with battery)	-20°C to +60°C
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Storage temperature (with battery)	-10°C to +25°C
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Operating humidity	5% to 95% non-condensing
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Ingress Protection Rating	IP69K
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Battery charge temperature	0°C to +45°C
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Battery discharge temperature	-20°C to +60°C
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Battery storage conditions	-10°C to +50°C - 1 month -10°C to +35°C - 3 months 0°C to +30°C - 12 months
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## Interface

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Digital Inputs	5
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Negative Inputs	1
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Digital Outputs	4
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Analog Inputs	5
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1-Wire	1
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GNSS antenna	Internal High Gain
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Cellular antenna	Internal High Gain
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USB	USB 2.0 USB Type-C
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LED indication	2 status LED lights
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SIM	Nano-SIM
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Memory	128MB internal flash memory
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**Features**

Sensors	Accelerometer
Scenarios	Eco Driving, Over Speeding, Idling Detection, Immobilizer, Unplug Detection, Jamming Detection, Crash Detection, Dallas Sensor Support, Towing Detection
Sleep modes	Online Deep Sleep, Deep Sleep, Power Off Sleep
Configuration and firmware update	FOTA WEB, Telematics Configuration Tool (TCT)
SMS	Configuration, DOUT control, Debug
GPRS commands	Configuration, DOUT control, Debug
Time Synchronization	GNSS, NTP, NITZ
Ignition detection	Digital Input 1, Accelerometer, External Power Voltage

**Certification & approvals**

Regulatory	<i>TBD</i>
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