Product Specifications: FMC150

Features			
	Installation	Requires installation	
	Portal	Real time tracking supported by our own tracking platform	
	Immobiliser	Remotely immobilise your vehicle in the event of a theft	
	Crash detection	Using the inbuilt accelerometer, track your vehicle and be alerted in the event of a crash	
	Eco-driving	Monitor how your efficiency with Eco-driving analysis, by measuring acceleration, braking and cornering	
	Speeding detection	Keep your vehicle safe by monitoring driver behaviour	
	Jamming detection	Disrupt thieves using GNSS jamming to steal from your vehicles (*Jamming detection supported with SLM320-E and SLM320-LA modules*)	
	GNSS Fuel Counter	Measure fuel consumption and the rate of fuel consumption	
	Excessive idling detection	Monitor your vehicles idling times and save money	
	Unplug detection	Get an alert if the tracker is removed, which stops tampering with the device and ensuring your protection	
	Towing detection	Get alerted if your vehicle is being towed	
	Geofencing	Get geofencing alerts using user-defined areas	
	CAN Data	Fuel Level (Dashboard), Total fuel consumption, Vehicle speed (wheel), Vehicle driven distance, Engine speed (RPM), Accelerator pedal position	
	Supported protocols	OEM, J1939, IES500, IES125	
	Sensors	Accelerometer	
	Sleep modes	GPS Sleep, Online Deep Sleep, Deep Sleep, Ultra Deep Sleep	
	Configuration and firmware update	FOTA WEB, FOTA, Teltonika Configurator (USB, Bluetooth®)	
	SMS	Configuration, Events, DOUT control, Debug	
	GPRS commands	Configuration, DOUT control, Debug	
	Time Synchronization	GNSS, NITZ, NTP	
	Ignition detection	Digital Input 1, Accelerometer, External Power Voltage, Engine RPM	

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Module		
	Name	FMC150-QJIBO: Quectel EG915U-EU with Teltonika TM2500 FMC150-QKIBO: Quectel EG915U-LA with Teltonika TM2500
	Technology	LTE Cat 1/GSM/GPRS/GNSS/BLUETOOTH

GNSS		
	GNSS	GPS, GLONASS, GALILEO, BEIDOU, SBAS, QZSS, DGPS, AGPS
	Receiver	33 tracking channels 99 acquisition channels
	Tracking sensitivity	-165 dBM
	Position Accuracy	< 2.5 m CEP
	Hot start	< 1 s
	Warm start	< 25 s
	Cold start	< 35 s
	Velocity Accuracy	< 0.1 m/s (within +/- 15% error)

Cellular		
	Technology	LTE Cat 1, GSM
	2G bands	FMC150-QJIBO: GSM: B2/B3/B5/B8 FMC150-QKIBO: GSM: B2/B3/B5/B8
	4G bands	FMC150-QJIBO: LTE FDD: B1/B3/B7/B8/B20/B28 FMC150-QKIBO: LTE FDD: B2/B3/B4/B5/B7/B8/B28/ B66
	Data transfer	LTE: LTE FDD : Max 10Mbps (DL)/Max 5Mbps (UL) LTE TDD: Max 85.6 Mbps (DL)/Max 85.6 Mbps (UL) GSM: GPRS: Max 85.6Kbps (DL)/ Max 85.6Kbps (UL)
	Data support	SMS (text/data)

Power		
	Input voltage range	10–30 V DC with overvoltage and reverse polarity protection
	Internal Back-up battery	170 mAh Li-Ion battery, 3.7 V (0.63 Wh)
	Power consumption	At 12V < 6mA (Ultra Deep Sleep) At 12V < 8mA (Deep Sleep) At 12V < 11mA (Online Deep Sleep) At 12V < 20mA (GPS Sleep) At 12V < 35 mA (Nominal with no load) At 12V < 250 mA Max. (with full Load / Peak)

Bluetooth technology		
	Specification	4.0 + LE
	Supported peripherals	Temperature and Humidity sensor, Inateck Barcode Scanner, Universal BLE sensors support

Interface		
	Digital Inputs	FMC150-QJIB0: 3 FMC150-QKIB0: 2
	Negative Inputs	FMC150-QJIB0: 1 (Digital Input 2) FMC150-QKIB0: –
	Impulse Inputs	FMC150-QJIB0: 2 (Digital Input 1, Digital Input 2) FMC150-QKIB0: 1 (Digital Input 1)
	Digital Outputs	FMC150-QJIB0: 2 FMC150-QKIB0: 3
	Analog Inputs	FMC150-QJIB0: 2 FMC150-QKIB0: 1
	CAN interfaces	2
	1-Wire	1
	GNSS antenna	Internal High Gain
	Cellular antenna	Internal High Gain
	USB	2.0 Micro-USB
	LED indication	3
	SIM	Micro-SIM or eSIM
	Memory	128MB internal flash memory

Physical specification		
	Weight	55 g
	Dimensions	65 x 56.6 x 20.6 mm (L x W x H)

Operating environment		
	Operating temperature (without battery)	-40 °C to +85 °C
	Storage temperature (without battery)	-40 °C to +85 °C
	Operating humidity	5% to 95% non-condensing

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Operating environment		
	Ingress Protection Rating	IP41
	Battery charge temperature	0 ℃ to +45 ℃
	Battery discharge temperature	-20 ℃ to +60 ℃
	Battery storage temperature	-20 ℃ to +45 ℃ for 1 month -20 ℃ to +35 ℃ for 6 months

Certification & approvals		
	Regulatory	CE/RED, E-Mark, RCM, RoHS, REACH