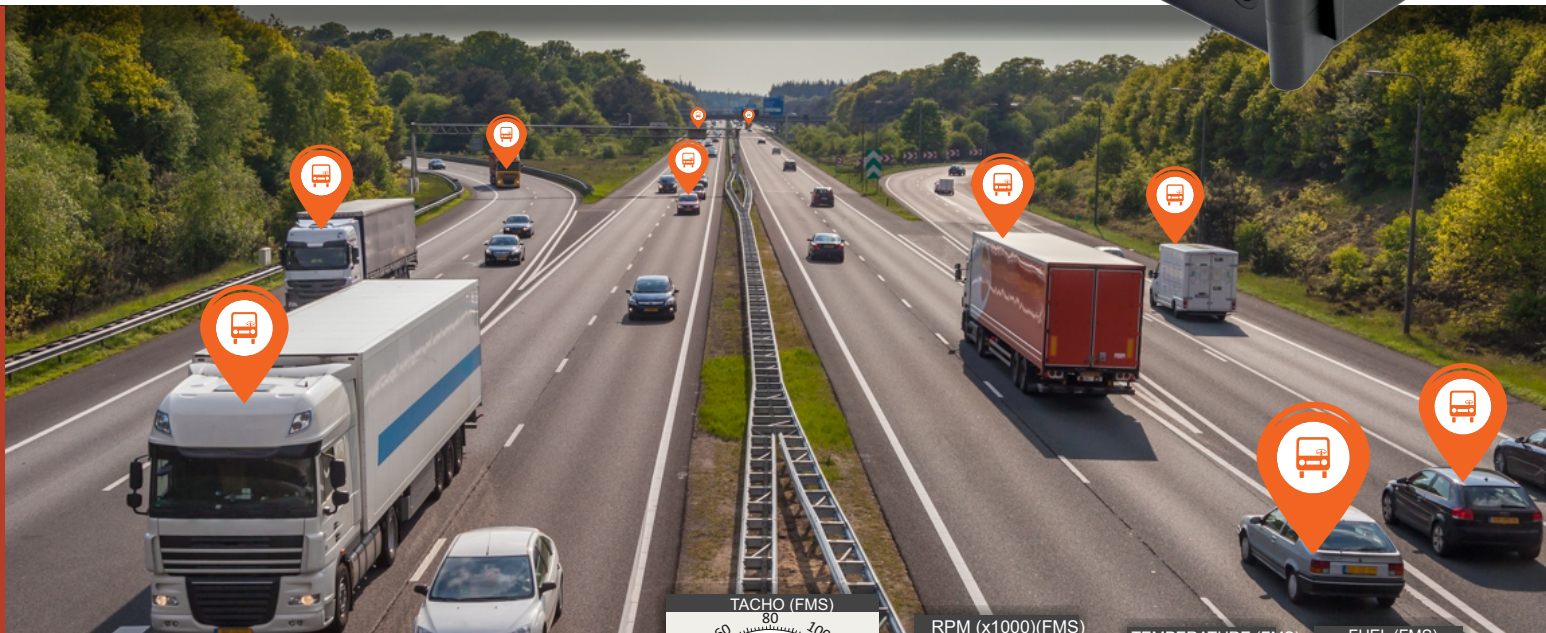
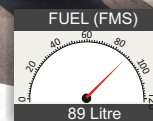
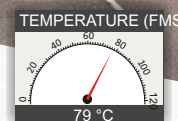
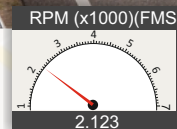


Lantronix (formerly FALCOM), a storied M2M and IoT specialist from Germany, designs, manufactures and sells world-wide state-of-the-art devices, services and solutions ideally suited to numerous applications: fleet management, car sharing, usage-based insurance, asset and workforce tracking and security, precision farming.



## FOX3-2G/3G/4G



### ADVANCED VEHICLE TELEMATICS AND DATA LOGGING SYSTEM WITH HIGH SPEED DATA CONNECTION

FOX3-2G/3G/4G Series is a compact all-in-one device combining **2G/3G/4G data connection** with the latest **GNSS technology** to completely satisfy customer's need. It is a highly **customizable vehicle telematics device** and it offers a variety of inputs and outputs to satisfy the most demanding requirements. A box (**IOBOX-MINI**, **IOBOX-CAN** or **IOBOX-WLAN**) can be used to extend the functionality of the FOX3-2G/3G/4G Series for the most flexible expansion options in the industry. FOX3-2G/3G/4G Series is designed to operate with

**internal or external antennas**. Built-in internal antennas are automatically turned off while external antennas are in use. This device will dramatically simplify your logistics as well as the installation process and the post-installation support. Newly developed LANTRONIX "**Premium-Features**" show the way to the future of mobile data logging, storing, processing and sending. FOX3-2G/3G/4G Series is an advanced and fully customizable vehicle tracking device. FOX3-2G/3G/4G Series offers new features like: Data Encryption, several History Modes, Eco-



## General

4G / 3G / 2G bands: (refer to the table below)

Internet (TCP/UDP/HTTP/SMTP)

Multi channel GNSS

(GPS/Galileo/GLONASS/BeiDou)

A-GPS (online / offline / autonomous)

Protocols: NMEA, FALCOM (binary)

Accuracy: **GPS** **GLONASS**

Position: 2.5 m 4.0 m

Acquisition / Sensitivity:

Cold Start: 29 s 30 s

Tracking: -161 dBm -158 dBm

Sensitivity: -148 dBm -145 dBm

GPS Operational limits:

Velocity: 500 m/s (972 knots)

Altitude: 50.000 m

Update rate: 1 Hz

## GSM / GNSS Antennas

Internal and external <sup>2)</sup> with automatic/manual

## Electrical characteristics

Power supply: +10,8 V to +32,0 V DC

Internal 1000 mAh rechargeable battery<sup>1)</sup>

## Average Power Consumption

Normal operation: 50mA @ 12 VDC

Sleep mode: &lt; 1mA @ 12 VDC

## Environmental data

Operating temp.: -40 °C to +85 °C

Storage temp.: -40 °C to +85 °C

GSM<sup>3)</sup>: -40 °C to +85 °CBattery<sup>4)</sup> Discharging temp.: -20 °C to +60 °C

Charging temp.: 0 °C to +45 °C

## Physical characteristics

Dimensions (LxWxH): 105 mm x 83 mm x 28

## Interfaces

3 x Digital/analog IO ports (user-configurable)

1 x Predefined digital input (Ignition)

3 x LED indicators (user-configurable)

2 x RS-232 Ports (1xV.24 level; 1xRS-232/RS-485<sup>2)3)</sup>)1 x 10pin Mini-USB connector (for IOBOX-MINI<sup>1)</sup>, IOBOX-CAN<sup>1)</sup> or IOBOX-WLAN<sup>1)</sup>)

1 x 1-Wire interface (incl. 5V Phantom Power)

1 x I<sup>2</sup>C interface1 x 4pin audio jack interface (2.5mm)<sup>6)</sup>1 x CAN-Bus Interface<sup>2)5)</sup> (uses 2 of 3 I/Os)

1 x Inside SIM card holder for 1,8/3 V SIM cards

1 x USB 2.0 interface

## Sensor / Measurement range

3-axis Acceleration/Temperature

- **3DG**: ± 8g (programmable)- **Temperature**: - 50 to + 120 °C (programmable)

## Processor core

RTC<sup>7)</sup>

8 MB Flash(History / Firmware / Configuration)

1) Optional / Accessory

2) Activation with PFAL-Command.

3) The GSM/GPRS module is fully functional (-20 °C to + 55 °C meets the 3GPP specifications) Storage and using conditions of the device with battery option are limited to the battery temperature range.

4) Applicable with backup battery

5) Hardware Premium Features: CAN-interface

6) Available on FOX3-3G-AU and FOX3-2G only

3000 programmable Geofences

2000 programmable Waypoints

250 programmable Alarms

ECO-Drive-GPS functions

Customizable firmware configuration

Passive/active RFID based applications

NFC based applications

Internal GSM/GNSS antennas & connectors for optional external antennas<sup>1)</sup>Hardware expandable via IOBOX-MINI<sup>1)</sup>, IOBOX-CAN<sup>1)</sup> or IOBOX-WLAN<sup>1)</sup>

PROMOTION KIT providing all necessary hardware, software, documentation, SIM Card and 3 month access to the D2Sphere tracking platform including 8h technical training support

D2SPHERE™ device management services to monitor, diagnose, control and update your FALCOM devices

- Real time online tracking
- Fleet management / monitoring
- Car sharing
- Waste management
- Theft protection

- Public transportation
- Real time satellite navigation
- Territory management
- Route verification
- Trip management / distance calculations

- Driving behaviour / Eco-Drive monitoring
- Security / Emergency / Insurance services (UBI)
- Toll collection / Pay-As-You-Drive (PAYD)
- Compatible with D2SPHERE™ tracking platform and easily adaptable to other tracking servers.



FOX3-2G/3G/4G APPLICATION AREA

COMMUNICATION NETWORK

WEB SERVER

USER-INTERFACE (e.g. D2SPHERE™)

PRODUCT	4G <sup>a)</sup> BAND	3G <sup>b)</sup>	2G	CERTIFICATIO	FEATURES	REGIONS
FOX3-2G	-	-	Quad	CE, E1	Standard (with	World
FOX3-3G Std.	-	1/2/5/8/19	Quad	E-Mark, (CE,ISED,FCC,B T) <sup>d)</sup>	Standard (no audio)	World
FOX3-3G-BLE	-	1/2/5/8/19	Quad		Bluetooth Low	World
FOX3-3G-AU	-	1/2/5/8/19	Quad		Audio (Spk. +	World
FOX3-3G-DR	-	1/2/5/8/19	Quad		Dead-Reckoning	World
FOX3-3G-BID	-	1/2/5/8/19	Quad		BlueID Technology	World
FOX3-4G-C4-	Cat 4: 2/4/5/7/17	1/2/4/8/5 <sup>c)</sup>	Quad	CE,E1,ISED,FCC	Standard (no audio)	4G North America, 3G/2G World
FOX3-4G-C4-	Cat 4: 1/3/5/7/8/20	1/2/4/8/5 <sup>c)</sup>	Quad	(CE,E-Mark) <sup>d)</sup>	Standard (no audio)	4G Europa, 3G/2G World
FOX3-4G-C1-	Cat 1: 3/7/20	-	900/1800	CE,E-Mark	Standard (no audio)	4G Europa, 2G Dual-band
FOX3-4G-M1	M1/NB1: 2/3/4/5/8/12/13/20/26*/28*	-	Quad	(CE,E-Mark) <sup>d)</sup>	Standard (no audio)	North America (M1), Multiregion (M1/NB, 2G)

a) Cat 4: 150 Mb/s DL, 50 Mb/s UL; Cat 1: 10 Mb/s DL, 5 Mb/s UL; Cat M1: 300 kbit/s DL, 375 kbit/s UL; Cat NB1: 27.2 kbit/s DL, 62.5 kbit/s UL b) 5.76 Mb/s UL, 7.2 Mb/s DL

c) 42 Mb/s DL, 5.76 Mb/s UL d) Planned / In progress \* =Roaming bands \*\* Please consult us this model, which is subject to MOQ and other considerations

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