# **TSM232**

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This Product is started transition to EOL and will be discontinued by 2022.01.01:

• Last Order date: 2021.10.01

End Of Production date: 2022.01.01
End of Bug-Fixing date: 2023.07.01
End Of Support date: 2024.01.01

Teltonika TSM232 is the Iridium SATELLITE terminal with a backup battery. The full solution combines Teltonika TSM232 with Teltonika FM63XY, FMB630, or FMB640 connected via RS232. This solution allows transferring data to a server via the Iridium satellite network when other terrestrial networks are unavailable. High capacity internal Ni-MH battery ensures long autonomous working hours when the main power source is disconnected. Such a solution meets the demand for high-security logistics, marine transport, construction & mining transport, oil/gas industry, public safety, government/defense, and more.

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# **Basic characteristics**

### Features:

- Data transferring via Iridium satellite network when GSM network is unavailable
- Smart RS232 communication algorithm
- One FM63XY/FMB630/FMB640 message size forwarded to TSM232 is only 14bytes
- Message contains: Time/Coordinates/Speed/DIN1-4/DOUT1-2/Event ID
- Data sending can be initiated by periodic time interval or by panic priority event Specification:
- Iridium satellite transceiver 9603

#### • CPU STM32F103VDH6

#### Interface:

- RS232
- External Iridium antenna
- Internal Ni-MH backup rechargeable battery 7.2V 400mAh
- External power input DC 10-30V
- USB
- Digital input
- Analog input
- Digital output

# **Technical Information about internal battery**

| Internal<br>backup<br>battery         |           | Nominal<br>capacity<br>(mAh) | Power(Wh)(mAh) | Charging<br>temperature<br>(°C) | Standard<br>discharge<br>temperature<br>(°C) |
|---------------------------------------|-----------|------------------------------|----------------|---------------------------------|--|
| Ni-MH<br>Prismatic<br>Battery<br>pack | 7,2 🛮 7,5 | 400                          | 2,95 - 3,07    | Ambient<br>Temperature:<br>20±5 | Ambient<br>Temperature:<br>20±5              |

 $\stackrel{\textstyle \searrow}{}$  CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

Battery should not be disposed of into general household waste.

Bring damaged or worn-out batteries to your local recycling center or dispose them into a battery recycle bin commonly found in supermarkets.

## **Technical characteristics**

|  | VALUE       |             |             |      |
|--|-------------|-------------|-------------|------|
| PARAMETER  | Mini<br>mum | Typic<br>al | Maxi<br>mum | Unit |
| <b>Supply Voltage</b>                                      |             |             |             |      |
| Supply Voltage<br>(Recommended<br>Operating<br>Conditions) | +10         |             | +30         | V    |
| Digital Output (O)   | oen Dra     | in gra      | de)         |      |
| Drain current<br>(Digital Output<br>OFF)                   |             |             | 120         | μA   |

| (Digital Output<br>ON,<br>Recommended<br>Operating<br>Conditions)    |     |      |     |    |
|--|-----|------|-----|----|
| Static Drain-<br>Source resistance<br>(Digital Output<br>ON)         |     |      | 120 | mΩ |
| Digital Input  |     |      |     |    |
| Input resistance (DIN1)  |     | 59,9 |     | kΩ |
| Input Voltage<br>(Recommended<br>Operating<br>Conditions)            | 0   |      | 60  | V  |
| Input Voltage<br>threshold (DIN1)                                    | 7,5 | 7,7  | 8   | V  |
| <b>Analog Input</b>  |     |      |     |    |
| Input Voltage<br>(Recommended<br>Operating<br>Conditions),<br>Range1 | 0   |      | 10  | V  |
| Input resistance,<br>Range1  |     | 120  |     | kΩ |

500

mA

### Additional specifications:

**Drain current** 

- Input current/power specification 1 A Max.
- Use 3A, 125V external fuse.
- Internal fuse specifications: Quick-acting; Rated current: 3A; Rated Breaking Capacity: 50A @ AC/DC 125V.
- $\bullet$  The device uses SELV limited power source. The nominal voltage is 12 V DC. The allowed range of voltage is 10 V...30 V DC.

# TSM232 Current consumption from battery

| Mode/Voltage battery                          | 12 V   | 7.2 V  |
|---|--------|--------|
| Disconnected RS232                            | 23.575 | 37.736 |
| Connected RS232 (0 min send) with SIM (sleep) | 8.246  | 14.994 |
| Connected RS232 (1 min send)                  | 19.808 | 30.473 |

# **Certification & Approvals**

• TSM232 CE / RED

## **FAQ**

TSM232 and FMB6

### YouTube

Teltonika TSM232 and FMB630 quick start guide

## **Product Change Notifications**

### 2020.06.29: TSM232 END OF LIFE Announcement

The product End of Life (EOL) announcement signifies that a product has entered the final phase of Teltonika Product Life Cycle. Announcement serves as an advance notice of product termination in accordance with Teltonika EOL policy. Nevertheless, there is still enough time for you to order and get support that you need for the products that will be discontinued. Please contact your sales manager for more information.

#### **EOL Plan:**

• Last Order date: 2021.10.01

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## 2019.12.13: Top Sticker/Tampography Changes

We would like to inform you, that sticker changed to tampography of TSM232 Satellite terminals and was updated in the factory on the 13th of December.

Change description

Change type External/visual

Top Sticker/Tampography design changed

Detailed description Old Sticker Version:

New Tampography Version:

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1. The Sticker was changed to Tampography 2. Added Teltonika address label Saltoniskiu st. 9B-1

3. Added WEEE label. (WEEE - Waste from Electrical and Electronic Equipment)

4. Added EAC label. (EAC - Eurasian Conformity mark)

 $5. \ Added \ E25 \ label. \ (E25 - E-Mark \ is \ the \ regulations \ is sued \ by \ the \ Economic \ Commission \ for \ Europe)$ 

6. Added CE label. (CE - certification mark that indicates conformity with health, safety, and environmental protection standards)

Product release date Updated tampography will be used from the time when the stock will be sold all leftovers.

Affected products

Change reasons

Model Affected order codes Order code changes
TSM232 TSM232\*\*\*\*\*\*\*\* No changes

Change impact

Risk assessment No risk factors encountered with this change

Suggested implementation plan No implementation plan needed

#### Acknowledgement of PCN receipt

If no feedback is received within two weeks after the issue date of this notification - Teltonika may accept that this change has been tacitly accepted and can implement the change as indicated above

To download the pdf version of this notification, click here.

## **2019.07.10:** new eco friendly box

Effective July 2019 week 28, TSM232 Satellite terminals will be packed with a **new eco-friendly** 

### box.

Change description

Change type Packaging

Improved and more environmentally friendly packaging box

Detailed description Old version:

Change reasons The new box is better for the environment

July 2019, week 28 Product release date

# **External Links**

https://teltonika-gps.com/product/tsm232

New version: