

TTConnect Pro 3651

Description

TTConnect Pro 3651 is a robust telematics control unit for mobile machines for on-edge CAN processing and global bidirectional communication in combination with the Cloud platform. The TTConnect Pro 3651 has one CAN interface. It provides 4G mobile connection with an external antenna interface. The TTConnect Pro Telematics Control Unit (TCU) 3651, combined with an advanced cloud platform, delivers a seamless, end-to-end IoT solution for OEMs in the off-highway sector.

Mechanical Specifications

Dimensions	86,6 +/- 1 mm x 123 +/- 1 mm x 36 +/- 1 mm
Weight	<= 0,190 kg
Ingress Protection	IP6K7 (with mounted conn.)

Electrical Specifications

DC power supply	12 V / 24 V +/-50%
Current Consumption at 24 V / 25° C (av. operating)	<= 250 mA
Current Consumption at 24 V (Sleep Mode)	<= 500 µA
Status LEDs	2 (RGB)

Temperature Rating

Operating temperature	-40 to +80 °C
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Sensors

Temperature (not calibrated)	-40° to +85 °C
Acceleration (not calibrated)	3 axes, +/- 16 g, 16 bit
Angular rate (not calibrated)	3 axes, +/- 250° / s, 16 bit

Connector

Main connector	Micro Timer II, 14 contacts
GSM / UMTS / LTE Cat 4	Fakra D



System Components

- ARM® Cortex® M4 based STM32 (168 MHz)
- 1 MB Program Flash
- 128 MB Data Flash
- 32 KB FRAM
- 1280 KB SRAM
- Real-time clock

Interfaces

- 1 x CAN 10 kbit/s to 1 Mbit/s
- eSIM
- 1 x analog IN 12 bit (Terminal 15)
- 3 x analog IN 12 bit, 0 – 15 V
- 1 x digital OUT up to 500 mA, high side
- Service interface: Micro USB 2.0 Full Speed Type AB self-powered device

Wireless Connectivity

- 4G / LTE Cat 4 (MHz): 700 (B12, B17) / 750 (B13, B28) / 800 (B20) / 850 (B5) / 900 (B8) / 1700 (B4) / 1800 (B3) / 1900 (B2) / 295 (B1) / 2600 (B7)
- 3G / UMTS / HSPA (MHz): 850 (B5) / 900 (B8) / 1700 (B4) / 1900 (B2) / 295 (B1)
- 2G / GSM / GPRS / EDGE (MHz): 850 / 900 / 1800 / 1900

Positioning

- GPS / GLONASS / Beidou / Galileo: <= 5m / 1 Hz (CEP 50%, 24 h static, -130 dBm, >6 satellites in view)
- GNSS fix: cold start <= 30 s / warm start <= 1 s

Security

- Encrypted data transmission according to TLS
- Trusted Platform Module
- Bidirectional authentication

[illegible]