

TREK-572

Compact In-vehicle Computing Box for Fleet Management



Features

- Single-cable connection to pair with TREK In-Vehicle Smart Display (TREK-303/306)
- Intel IDP 3.x (MoonIsland) compliant
- Vehicle diagnostic interface with configurable protocols support: CAN (J1939, OBD-II/ISO 15765) and J1708 (J1587)
- Built-in GNSS, WLAN, Bluetooth and WWAN (with Single SIM card) modules
- Intelligent Vehicle Power Management: Ignition on/off delay, wake up event controls and system health monitoring and diagnostic
- Wide working temperature (-30° C ~ 70° C), 12/24V Car power system compliant (ISO 7637-2) and Anti-shock/vibration (MIL-STD-810G & 5M3)

Introduction

TREK-572 is a compact and economical vehicle-grade, Intel® Atom™ E3815 SOC powered computing box mainly designed for the fleet management market. It can work in extreme environments with wide working temperature range (-30° C ~ 70° C) and anti-shock/vibration that passes the MIL-STD-810G and 5M3 standard. Its special power protection (ISO 7637-2/SAE J1455/ SAE J1113) and intelligent vehicle power management (e.g. Ignition delay on/off, low battery monitor), prevents abnormal electrical noise and surges from impacting the system, guarding against damage from transient car power.

TREK-572 combined with variety of I/O connectors can be connected to devices like TPMS (Tire Pressure Monitoring Systems), and CAN Bus devices. It has dual CAN Bus ports and supports several kinds of vehicle protocols (e.g. J1939, OBD-II/ISO 15765) for vehicle diagnostics and driver behavior management. Built-in wireless communications (WWAN, WLAN, BT) enable TREK-572 to send important driver/vehicle/location/cargo information back to the control center.

Specifications

Core	Processor	Intel Atom E3815 (Single Core, 1.46 GHz)
	Memory	1 x SO-DIMM socket Up to 8GB DDR3L-1066 Non-ECC memory module; (Default configuration: 2GB)
	Graphic	Integrated 2D/3D Graphic Engine
	O.S	WES7, Linux Ubuntu 14.04 Lite (32-bit) Intel IDP 3.x (MoonIsland) compliant, by project-based
Storage	mSATA	1 x mSATA slot, support system boot up Default configuration: 16GB, UMLC, SQFLASH mSATA
Display	Smart Display Port ^{(*)1}	12V/2A power output for TREK-30x 1 x 18-bits LVDS (Resolution: 800 x 480 or 1024 x 768, auto-detection) 1 x Line-Out ^{(*)2} (For Speakers on TREK-30x) 2 x UART (TX/RX, TX/RX/RTS) (For T/S, Hot keys, brightness, light sensor control) 1 x USB 2.0 Type A 1 x PWR Button 1 x Reset Button
	VGA	N/A
	HDMI	N/A
	Vehicle I/O Port	2 x CAN Bus (Support Raw CAN, J1939, OBD-II/ISO 15765; FW configurable) 1 x J1708 (Support J1587) 1 x 4-wire RS-232 (RX/TS/CTS/RTS)
I/O	Generic I/O Port	N/A
	Standard I/O Port	1 x USB 2.0 Type A (Rear side) 1 x Giga LAN, With standard RJ45 connector 1 x Line-Out ^{(*)2} 1 x Mic-In
	LED	1 x LED (Power (Red))
	Power Button	Via TREK-30x (In-Vehicle Smart Display); System is powered on by Ignition in default
	Reset Button	1 x Reset button (Rear side)
	RF	WLAN + Bluetooth
WWAN		4G (LTE, HSPA+, GSM/GPRS/EDGE, EV-DO Rev a1, 1xRTT): Sierra Wireless MC73xx via Full Mini-PCIe Slot (Default: MC7354 for US/ MC7304 for EU) 1 x Internal Mini-SIM card socket
GNSS		Built-in u-blox MAX-7Q GPS/GLONASS module, support AGPS (Optional: GPS/Glonass/Beidou 3-in-1 module, by project-based)
Antenna		3 x SMA type antenna hole for GPS, WiFi+ BT MIMO, WWAN/LTE MIMO. ^{(*)3}

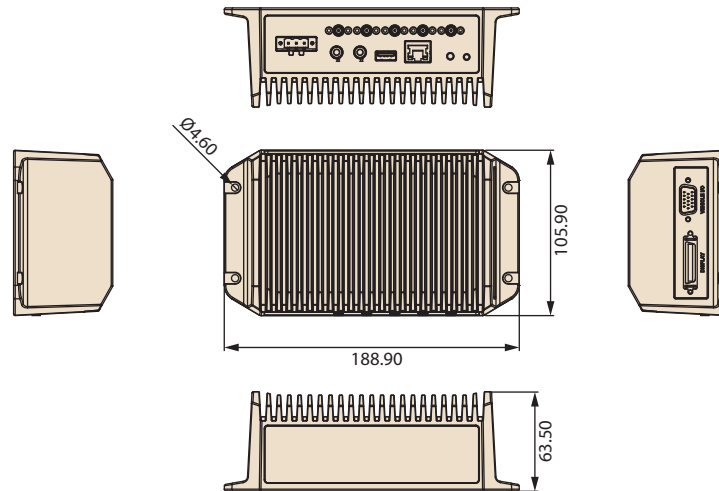
*1: To be paired with TREK-303/306 directly. (Single-cable connection)

*2: Both Line out interface are sharing the same audio stream. (i.e. single audio codec inside)

*3: The connector type on box side is Female RP-SMA connector. (i.e. Female connector body (outside threads) with a male inner pin contact.)

Dimensions

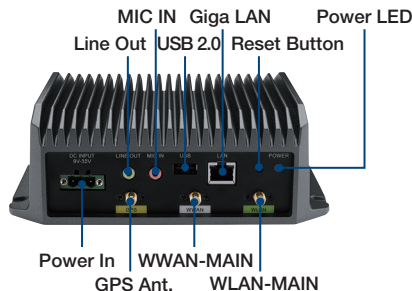
Unit: mm



Specifications Cont.

Power	Voltage input	Supports 12/24 V car power system. (9V – 32V wide DC input, ISO 7637-2 & SAE J1113 compliant.)
	Intelligent Vehicle Power Management (iVPM 2.0)	System power on/off/hibernate management (e.g. Programmable Ignition On/Off Time delay) Support Wake up Events: - Alarm (RTC) Wake up - Wake up by G-sensor System power protection (e.g. Car Battery Low Voltage Protection) System monitoring and diagnostic
Mechanical	Dimensions (W x H x D)	188.9 mm x 63.5 mm x 105.9 mm
	Weight	1.15 kg
Environment	IP Rating	IP30
	Vibration/Shock	MIL-STD-810G
	EMC	CE, FCC Class B
	Safety	UL/cUL, CB
	Vehicle Regulation	SAE J1455, ISO 7637-2, SAE J1113
	RF Regulation	CE (R&TTE), FCC ID, PTCRB
	Operating Temperature	-30° C – 70° C
Storage Temperature	-40° C – 80° C	

I/O Connectors



Ordering Information

Part Number	Description
TREK-572-LWB7B0E	TREK-572 w/LTE(US)/GPS/WLAN/BT/WES7
TREK-572-LWB7A0E	TREK-572 w/LTE(EU)/GPS/WLAN/BT/WES7

Remark: WE8S and Linux O.S. image are by project-based.

*Europe SKU will be coming soon.

*Note: TREK-572 only supports Smart display output, so please order TREK-30x and its cable too if you need a display unit as driver console.

Optional Accessories

Function	P/N	Description
Smart Display	TREK-303R-HA0E	TREK-303, 7" WVGA Smart display
	TREK-306D-HA0E	TREK-306DH, 10.4" XVGA in-vehicle Smart Display
Smart Display cable 2M	1700020007	M Cable SCSI-36P(M)/SCSI-36P(M) 2M for TREK-303
Smart Display cable 5M	1700020008	M Cable SCSI-36P(M)/SCSI-36P(M) 5M TREK-303
Power cable (for in-house Test)	1700019464	A Cable 1*3P-5.08/DC Jack
Adaptor (for in-house Test)	1757003995	ADAPTER AC100-240V 60W 12V 5A W/O PFC FSP060-DBA