TREK-773

7" All-in-One Ultra Rugged Mobile Data Terminal

Features

- Intel® Atom™ E3827 SOC; supports WES8, WES7, Win10 & ubuntu
- 7" WVGA wide-angle LCD resistive touchscreen
- Vehicle diagnostics interface with CAN (J1939, OBD-II/ISO 15765) and J1708 (J1587) protocols
- Built-in GNSS, WLAN, Bluetooth, NFC, and LTE WWAN modules
- Intelligent vehicle power management system supports ignition on/off/ delay functions, wake-up event control, and system health monitoring and diagnostics
- Wide working temperature (-30° C ~ 60° C), supports 12/24 V vehicle power (ISO 7637-2), and certified for shock and vibration tolerance (MIL-STD-810G and 5M3)
- Supports "Voice Recognition" & "Intelligent Video Analytics"

Introduction

TREK-773 is a new generation all-in-one 7" mobile data terminal. With an Intel® Atom™ E3827 SOC processor, the system provides high performance with wired connections such as Gigabit Ethernet, CAN2.0B (J1939, OBD-II/ISO 15765) and J1708 (J1587). Users can also connect to network services via LTE (backward compatible to CDMA/HSDPA), GPS, WLAN and Bluetooth options. Focused on the automotive market, TREK-773 is designed for vehicle power which is compliant with ISO7637-2 & SAE J1113, ensuring the system is stable during engine starts. The ruggedized chassis provides more capabilities not only in a wide range of temperatures (-30 ~ 60 °C), but also in harsh environments subject to shock (100G, 6ms) and vibration.
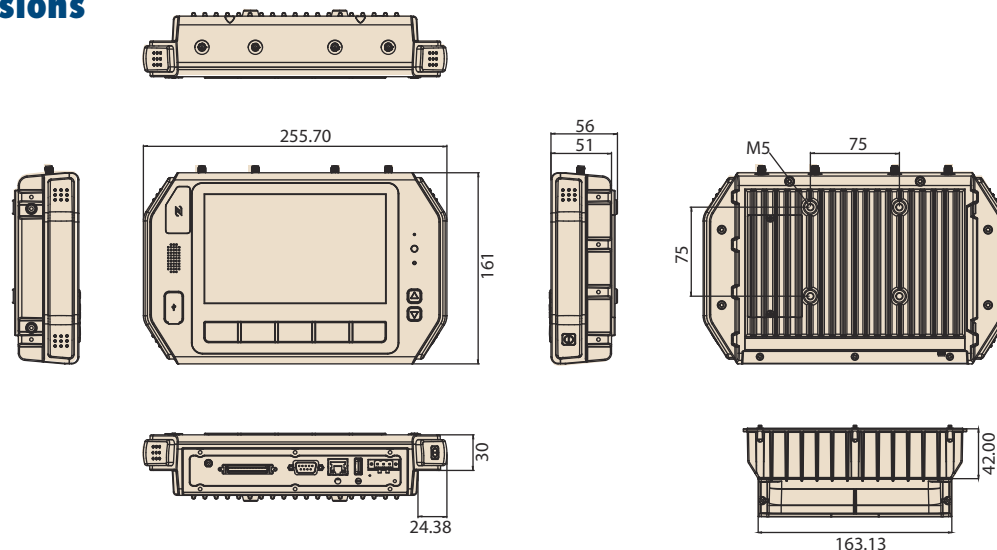
Specifications

Core	Processor	Intel Atom E3827 (Dual Core, 1.75GHz)
	Memory	Support up to 4GB DDR3L-1066 memory module (Default configuration: 2GB)
	Graphic	Integrated 2D/3D Graphic Engine
	O.S	Windows Embedded 8 Standard (32-bit); Windows Embedded 7 Standard by project-based; Ubuntu 14.04 (32-bit)
Storage	CFast	1 x external accessible CFast slot with cover, support systm boot up, Default configuration is 16GB
	SD Card	1 x external accessible push-push type SD card slot with cover for extra capacity expansion
Display	Type	7" industrial grade TFT LCD
	Resolution	WVGA (800 x 480)
	Brightness (cd/m²)	500 cd/m² (typical)
	View Angle (H/V)	170/170 Full Viewing Angle
Touchscreen	Type	4-wire analog resistive, with 3H and IK06 (drop ball 510g @300mm) supported; optional support for sunlight readable touchscreen
	Transparency	84% ±3%
Sensor	Sensor	Light sensor, G-sensor
I/O	Function Key	5 x programmable function keys with green LED
	Standard I/O Port	1 x SIM Card Slot (Left side) 1 x High Speed Full RS-232 (Bottom side) (RS232 RI pin is able to config. into 12VDC output.) 1 x USB 3.0 Host Type A (Bottom side) 1 x Giga LAN, RJ45 connector (Bottom side)
	Extended I/O Port[*2] (P/N:1700019307)	1 x MIC in/ 1x Stereo Line in/ 1x Stereo Line out, 1 x CVBS Input, 1 x USB 2.0 Host 1 x High Speed Full RS-232, 1 x RS-485 with auto flow control 4 x Isolated DI (Dry contact), 4 x Isolated DO (Open collector output, driving by replay) 1 x CAN Bus (Support Raw CAN, J1939, OBD-II/ISO 15765) 1 x J1708 (Support J1587) 1 x 12V_{DC}/1.5A continuous current output (shared with standard I/O Full RS-232 DB9)[*1]
I/O	Power Button/ LED	1 x Power Button; 1 x LED (Yellow for Power)
RF	WLAN + Bluetooth	IEEE 802.11a/b/g/n + Bluetooth (V4.0 LE, V3.0+HS, V2.1+EDR) combo module via Full Size Mini-PCIe Slot (Optional: High power WLAN for Roaming by project-based)
	WWAN	4G (LTE / HSPA+ / CDMA EV-DO Rev.A): Sierra Wireless MC73xx
	GNSS	Built-in u-blox MAX-M8 module, supports AGPS, Glonass, and BeiDou
	Antenna	1 x GPS, 2 x WWAN (LTE), 2 x WLAN/Bluetooth
	NFC	ISO/IEC 14443A, 14443B, 15693; MIFARE 1K/4K, Ultralight; NFC-IP2 protocol
Power	Voltage Input	Supports 12/24V car power system. (9 ~ 32V wide DC input, ISO 7637-2 & SAE J1113 compliant.) 48V option: 18~58V input by project-based
	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 Call/SMS System power protection (e.g.Car Battery Low Voltage Protection), System monitoring and diagnostic

*1 The total power output is 12 V_{DC}/1.5A, shared with Std. RS232 DB9.
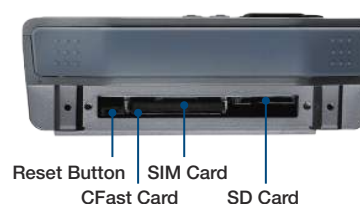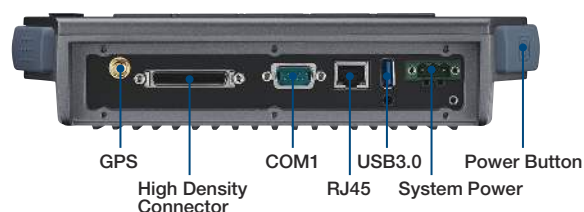*2 High density cable is an optional item for ordering.

Dimensions

Unit: mm

255.70

56
51

M5   75

161

75

30
24.38

42.00
163.13

Specifications Cont.

Mechanical	Dimensions (W x H x D)	255.7 x 161 x 56 mm
	Weight	2.2 kg
Environment	IP Rating	IP54 (except I/O plate). Option to support entire system IP54 with additional I/O cover
	Vibration/Shock	MIL-STD-810G, EN60721-3(5M3)
	EMC/Safety	CE, FCC, CCC; UL/cUL, CB
	Vehicle Regulation	E-Mark (E13) for 12/24V System, SAE J1455 class C, ISO 7637-2, SAE J1113
	Railway	EN50155
	RF Regulation/Operating Temperature	CE (R&TTE), FCC ID; -30 to 60° C
	Storage Temperature	-40° C ~ 80° C

I/O Connectors

GPS   COM1   USB3.0   Power Button
High Density Connector   RJ45   System Power

Reset Button   SIM Card
CFast Card   SD Card

Ordering Information

Part Number	Description
TREK-773R-00A0E	TREK-773R Intel BYT E3827 (2C, 1.75GHz) Barebone w/ NFC
TREK-773R-LWB8A0E	TREK-773R w/LTE (EU)/GPS/WLAN/BT/NFC/CFast/WES8
TREK-773R-LWB8B0E	TREK-773R w/LTE (US)/GPS/WLAN/BT/NFC/CFast/WES8

TREK-773 CTOS KIT

Part Number	Description
9668T77300E	TREK-773 WLAN kit (802.11a/b/g/n BT combo)
9668T77301E	TREK-773 LTE module kit for USA market (MC7354)
9668T77302E	TREK-773 LTE moduel kit (MC7304)
9668T77303E	TREK-773 GPS KIT

Option items

Part Number	Description
1700020128	A Cable 1*3P-5.08+G-TEM/32V FUSE 500cm
1700019908	A Cable 1*3P-5.08+G-TEM/58V FUSE 500cm
1700019307	A Cable MDR 50P/BNC+Audio Jack*3+USB-A+D-SUB 9P
RAM-MOUNT-01	VESA RAM mount w/clamp base,1.5" ball
RAM-MOUNT-06E	VESA RAM mount w/VESA base, 1.5" ball
9668TREK35E	TREK-773 RevA0 AC/DC power kit
9668TREK37E	IP54 I/O housing cover for TREK-773