TREK-773

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



Features

- Intel Atom® E3827 SOC with support for WES8, WES7, Win10, and Ubuntu operating systems
- 7" WVGA wide-angle LCD resistive touchscreen
- Rugged platform with 5M3 shock and vibration tolerance, -30 ~ 60°C wide temperature w/o airflow
- Vehicle diagnostics interface with CAN (J1939, OBD-II/ISO 15765) and J1708 (J1587) protocols
- Built-in GNSS & NFC, optional WLAN, Bluetooth, LTE WWAN

Introduction

Introducing the TREK-773, an advanced All-in-One 7" mobile data terminal representing the next generation in mobile data terminal technology. Powered by an Intel Atom® E3827 SoC, the TREK-773 delivers high-performance computing capabilities, establishing a wired connection through Gigabit Ethernet, CAN2.0B (J1939, OBD-II/ISO 15765), and J1708 (J1587). Its integrated LTE, compatible with CDMA/HSDPA, GPS, WLAN, and Bluetooth communication interfaces ensure seamless connectivity and real-time data transmissions.

Designed for the automotive market, the TREK-773 is compatible with 12/24 V vehicle power and adheres to ISO 7637-2 and SAE J1113 standards, guaranteeing stable operation during engine starts. Boasting a ruggedized chassis, a wide operating temperature range (-30 ~ 60°C/-22 ~ 140°F), and impressive shock (100G, 6ms) and vibration tolerance, the TREK-773 is the optimal terminal for industrial applications in harsh challenging environments.

Specifications

Core	Processor	Intel Atom® E3827 dual-core, 1.75 GHz
	Memory	1 x SODIMM socket Up to 8 GB DDR3L 1066/1333 non-ECC memory (4 GB default for full configuration)
	Graphics	Integrated 2D/3D graphics engine
	Operating System	Windows 10 IoT Enterprise 2019 LTSC (64-bit) default, with Ubuntu 18.04 LTSB (64-bit) available upon request
Storage	CFast	1 x externally accessible CFast slot with cover and boot up support (32 GB default for full configuration)
	SD Card	1 x externally accessible push-push-type SD slot with cover for convenient expansion
Display	Type	7" automotive-grade TFT LCD
	Resolution	WVGA (800 x 480)
	Brightness (cd/m²)	1000 nits (typical)
	Viewing Angle (H/V)	170°/170°
	Contrast Ratio	1000:1 (typical)
	Backlight Type	LED
	Backlight Life (Hrs)	30K
Touchscreen	Type	4-wire analog resistive touchscreen with 3H surface hardness and IK06 (510 g steel ball drop @300 mm) support (Optional sunlight readable touchscreen available upon request)
	Transparency	84% ±3%
Sensor	Sensor	Light sensor, G-sensor
I/O	Function Keys	5 x programmable function keys with green LED indicators
	Standard I/O	1 x SIM card slot (left) 1 x High-speed full RS-232 (rear) (RS232 RI pin can be configured to 12 V_{DC} output) 1 x USB 3.0 host Type-A (rear) 1 x Giga LAN with RJ45 connector (rear)
	Extended I/O	1 x Mic-In/1 x stereo Line-In/1 x 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, driven by replay) 1 x CAN bus (supports raw CAN, J1939, OBD-II/ISO 15765) 1 x J1708 (supports J1587) 1 x 12 V_{DC}/1.5A continuous current output (shared with standard I/O full RS-232 DB9)
Miscellaneous	Power Button/LED Indicators	1 x Power button; 1 x Power LED indicator (yellow)
RF	WLAN + Bluetooth	IEEE 802.11a/b/g/n/ac + Bluetooth V5.0 combo module via full-size mini-PCIe slot
	WWAN	1 x Sierra Wireless WP76xx via full-size mini PCIe slot for 4G (LTE Cat-4, HSPA+, GSM/GPRS/EDGE, EV-DO Rev a1, 1xRTT)
	GNSS	Built-in u-blox MAX-M8Q GPS/GLONASS/BeiDou module and A-GPS support
	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	Input Voltage	12/24 V vehicle power (ISO 7637-2 and SAE J1113 compliant)
	Intelligent Vehicle Power Management (iVPM 2.0)	System power on/off management (e.g., programmable ignition on/off/delay), system monitoring and diagnostics, system power protection (vehicle battery low voltage protection), and wake-on-alarm (RTC), wake-on-call/SMS, and wake-on-G-sensor events
Mechanical	Dimensions (W x H x D)	Standalone unit: 255.7 x 161 x 56 mm/10.06 x 6.33 x 2.20 in With IP65-rated I/O Cover: 255.7 × 237.7 × 56 mm/10.06 × 9.35 × 2.20 in
	Weight	Standalone unit: 2.2 kg/4.8 lb With IP65-rated I/O Cover: 2.64 kg/ 5.82 lb
Environment	IP Rating	IP54 (excluding I/O); optional IP65 protection for entire system 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 12/24 V system, SAE J1455 class C, ISO 7637-2, SAE J1113
	Railway	EN50155 (available upon request)
	RF Regulation	CE (R&TTE), FCC ID
	Operating Temperature	-30 ~ 60°C/-22 ~ 140°F w/o airflow[1]
	Storage Temperature	-40 ~ 85 °C/-40 ~ 185 °F

[1] This product is qualified for operation from -35°C to 65°C as 5°C Guard Band. The product also passed the ±10°C thermal shock test.

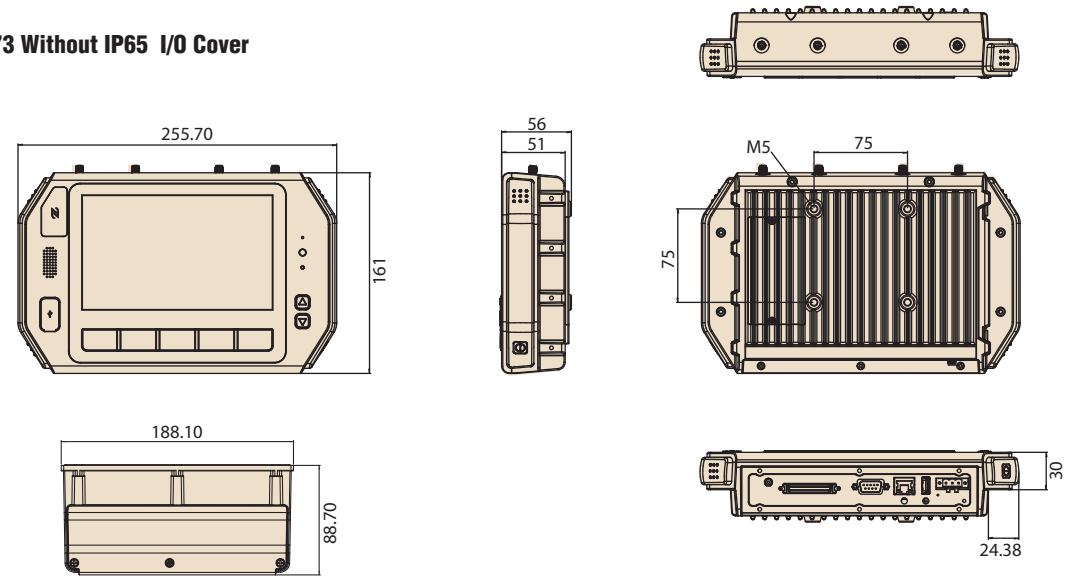
All product specifications are subject to change without notice.

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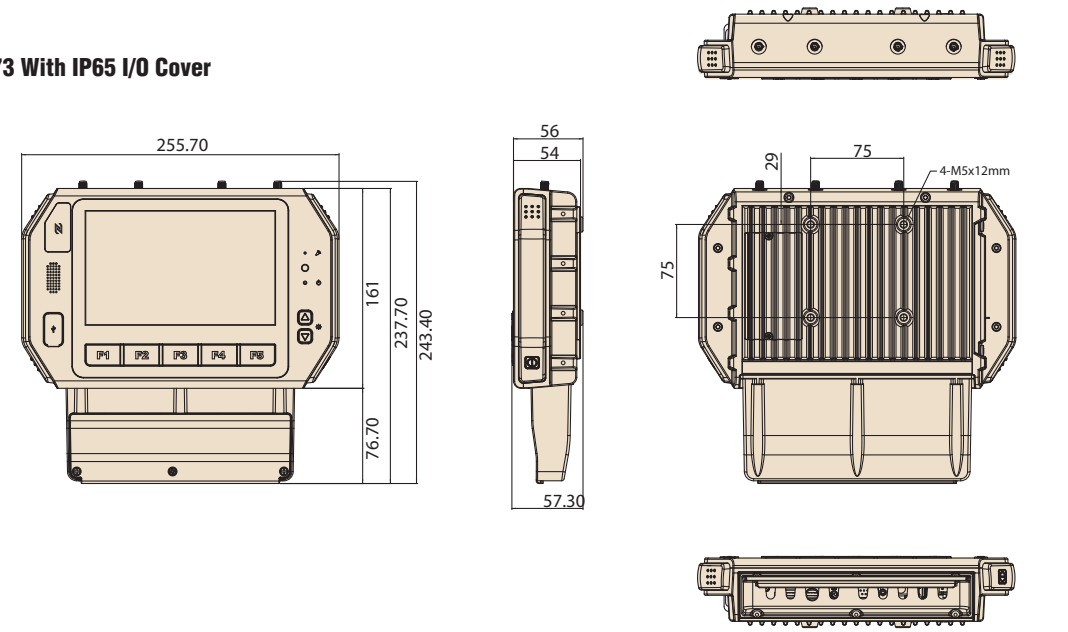
Dimensions

Unit: mm

TREK-773 Without IP65 I/O Cover



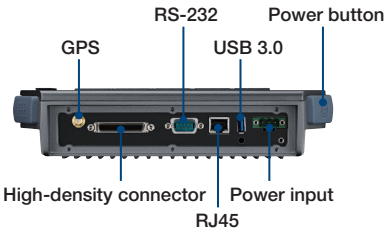
TREK-773 With IP65 I/O Cover

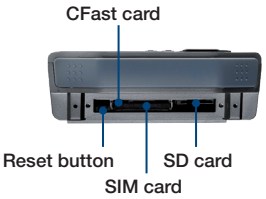


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I/O Connectors







Ordering Information

Part Number	Description
TREK-773R-00A1E	TREK-773R w/GPS/NFC barebones unit*
TREK-773R-LWBXA1E	TREK-773R w/LTE(EU)/GPS/WLAN/BT/NFC/CFast/W10
TREK-773R-LWBXB1E	TREK-773R w/LTE(US)/GPS/WLAN/BT/NFC/CFast/W10

* The barebones does not include RAM or CFast.
Note: TREK-773 can be equipped with the Linux OS upon request.

Packing List

Part Number	Description	QTY
1700019031	12/24V 2M power cable	1
1750007909-01	Outdoor dipole Wi-Fi antennas	2
1750007924-01	Outdoor LTE/GPS combo antenna, 3M	1
1750007926-01	Outdoor LTE antenna, 3M	1
1990018848T000	USB/LAN cable clips	2

* Power cable, combo antenna and cable clips are included in all part numbers in the ordering information
* Wi-Fi antennas and LTE antenna are included in both full sku units

Optional Items

Part Number	Description
1700020128	12/24V power cable, 5M
1700034040-01	High-density cable (MDR 50P/BNC + 3 x audio jack + 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	AC/DC power kit
98R8T77310E	IP65-rated I/O cover

TREK-773 CTOS KIT

Part Number	Description
98R8T77304E	TREK-773 WLAN kit (802.11a/b/g/n/ac BT combo) with antenna 1750007909-01
98R8T77305E	TREK-773 LTE module kit for US (WP7611) with antenna 1750007924-01/1750007926-01
98R8T77306E	TREK-773 LTE module kit for EU (WP7607) with antenna 1750007924-01/1750007926-01

*The WLAN module used in 98R8T77304E is WPEQ-261ACN (BT)

Embedded OS

Part Number	Description
20708WX6ES0043	Img WIN10 LTSB-6(Atom) TREK-773 V1.02 7MUI x64

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