

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

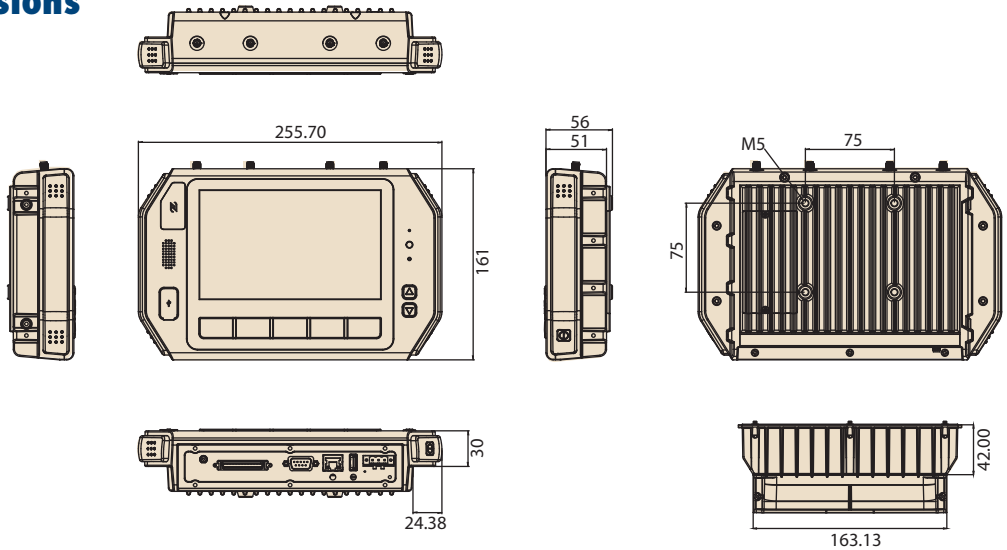
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|--|--|---|
| Core | Processor | Intel Atom E3827 (Dual Core, 1.75GHz) |
| | Memory | Support up to 4GB DDR3L-1066 memory module (Default configuration: 2GB) |
| | Graphic | Integrated 2D/3D Graphic Engine |
| | O.S | Windows Embedded 8 Standard (32-bit); Windows Embedded 7 Standard by project-based; Ubuntu 14.04 (32-bit) |
| Storage | CFast | 1 x external accessible CFast slot with cover, support system 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/m ²) | 500 cd/m ² (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 ^(*) (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) ^(*) | |
| 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

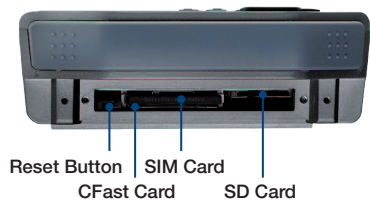
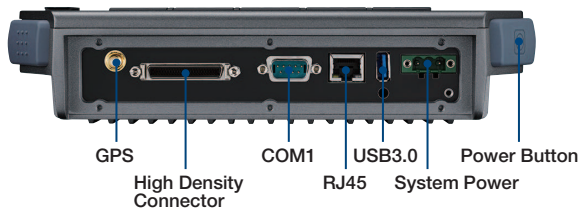
Unit: mm



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



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 |

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 |

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 |