

TREK-753



7" Mobile Data Terminal with Intel Atom Z510PT/Z520PT

Features

- 7" WVGA LCD with 5 programmable adjustable brightness hot keys
- Windows Embedded Standard (WES) 2009, WinCE6.0 and Ubuntu Linux 10.04
- Supports analog video input & CAN2.0b with J1939 protocol
- Supports CDMA/HSDPA/GPRS, GPS, WLAN, BT communications
- 12 V/24 V option: 6 ~ 36 V input range compliant to ISO7637-2 & SAE J1113 standards
- 48 V option: 18 ~ 58 V input range for specific applications
- Fanless and ruggedized aluminum chassis, able to work under -30 ~ 60° C temperature range



Introduction

TREK-753 is a new generation, all-in-one 7" mobile data terminal with touchscreen, with a compact design for commercial vehicles. With an Intel Atom Z510PT/Z520PT processor, the system is high performing with wired connections like Gigabit Ethernet & CAN2.0b with J1939 protocol support; users can also connect to network services using easily with CDMA/ HSDPA/ GPRS/ GPS/ WiFi/ BT options. Focused on the automotive market, TREK-753 is designed with vehicle power which is compliant with ISO7637-2 & SAE J1113, ensuring the system is more stable during engine starts. Die casting and a ruggedized chassis not only provide more capabilities in a wide range of temperatures (-30 ~ 60° C), but TREK-753 is also suitable for harsh environments subject to shock (100 G, 6 ms) and vibration.

Specifications

| | | |
|----------------------|---------------------------------|---|
| Processor | OS | Windows Embedded Standard (WES) 2009, WinCE6.0 and Ubuntu Linux 10.04 |
| | CPU | Onboard Intel Atom 1.1 GHz / 1.33 GHz (optional) |
| | Chipset | Onboard Intel LE82US15EE |
| | Watch Dog | Yes |
| | RTC | Yes with one time 200mAh li-ion coin battery |
| | RAM | 1 x 200-pin SODIMM socket supports a memory module of up to 2 GB |
| | Storage | 1 x external accessible type II Compact Flash memory card (bootable device) 1 x SD card with external access for extra capacity (SD function is not available with WinCE6.0) |
| | Bus Expansion | 1 x mini-PCle slot for built-in WLAN (b/g/n) module 1 x mini-PCle slot for built-in CDMA/HSDPA (USB 2.0 interface) |
| LCD | Display Type | 7" 16:9 industrial degree TFT color TFT LCD, LED backlight |
| | Luminance | 400 cd/m2 (average with TS) |
| | Max. Resolution | WVGA 800 x 480, 10% ~ 100% brightness controlled by two hardware buttons on the front panel and a light sensor |
| Touchscreen | Type | 4-wire analog resistive type, continuous resolution, optional support for sunlight readable touchscreen |
| I/O Functions | COM | 3 x COM ports: ▪ 1 x full function RS-232 port supports high speed (up to 1Mb max.) with 12 V/2.5 A in I/O plate ▪ 1 x full function RS-232 supports high speed (up to 1 Mb max.) port via high density cable (*1) ▪ 1 x RS-485 port via high density cable (*1) |
| | Audio | 1 x built-in 2 W speaker on front panel 1 x line-in, 1 x line-out, 1 x microphone input via high density cable (*1) |
| | Function Keys | 5 x green lit, programmable function keys, 2 x for LCD back light adjustment |
| | USB | 3 x USB 2.0 ports 1 x rubber door protection at front panel, 1 x type A connector with cable clip, 1 x high density cable (*1) |
| | Video Input (Rear View Monitor) | 1 x video input for rear view camera via high density cable (*1) |
| | LAN | 1 x 100/1000T Gigabit Ethernet via RJ-45 connector |
| | Light Sensor | 1 x light sensor on front cover for auto LCD backlight adjustment |
| | DI/DO | 4 x isolated digital input & 4 x isolated digital output ports via high density cable (*1) |
| | CAN Bus | 1 x CAN 2.0b with J1939 protocol via high density cable (*1) |
| | J1708 | 1 x J1708 via high density cable (*1) |
| | RF Functions | GPS (Optional) |
| Bluetooth (Optional) | | Built-in Class 2 Bluetooth V2.0 + EDR module with internal antenna |
| WWAN (Optional) | | ▪ Built-in Quad-band 900/1800/850/1900MHz GSM/GPRS module Cinterion MC55i with SMA connector for external antenna ▪ Built-in HSDPA module Sierrawireless MC8790V with SMA connector for external antenna ▪ Built-in CDMA module Sierrawireless MC5728 with SMA connector for external antenna |
| WLAN (Optional) | | Built-in AzureWave AW-NE768 IEEE 802.11b/g/n with SMA connector for external antenna |
| Power Supply | Input Voltage | ▪ 12 V/24 V option supports 6 ~ 36 V car power design with ISO7637-2 & SAE J1113 compliance ▪ 48 V option supports 18 ~ 58 V input for specific applications |
| | Ignition On/Off | Power on delay, default 2 seconds; Power off delay, default 5 seconds; Hardware power off delay, default 30 seconds. SW configurable |
| | LED indicator | 1 x yellow LED shows system power ready (on front panel) |

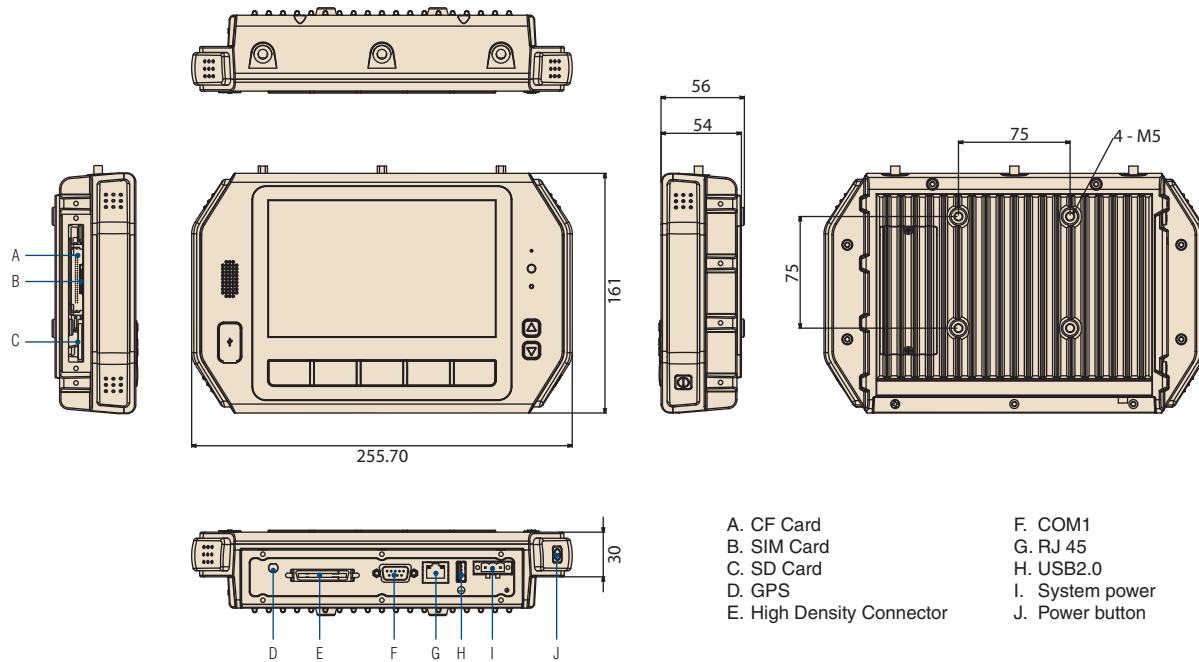
*1. High density cable is an optional item for ordering.

TREK-753

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|------------------------------|------------------------|---|
| Mechanical Design | Material | Aluminum |
| | Protection | IP54 (except I/O plate), option to support entire system IP54 with additional I/O cover (9668TREK37E) |
| | Weight | 2.2 kg (-4.85 lbs) |
| | Dimensions (W x H x D) | 255.7 x 161 x 56 mm (10.04" x 6.30" x 2.20") |
| Environmental Specifications | Operating Temperature | -30 - 60° C |
| | Relative Humidity | Compliant to 10 - 90% @ 40° C (non-condensing) |
| | Vibration Shock | MIL-STD-810G (US highway truck), Method 516.5, SAE J1455, Class 5M3 in accordance with DIN EN 60721-3-5 |
| | Certifications | CE, FCC, UL/cUL, CB, CCC, E-mark, PTCRB, EN50155 |

Dimensions

Unit: mm



Ordering Information

| Part Number | Description |
|--------------------|---|
| TREK-753R-0A0E | TREK-753R Bare bone with Z510 1.1 G CPU |
| TREK-753R-1A0E | TREK-753R Bare bone with Z520 1.3 G CPU |
| TREK-753S-0A0E | TREK-753R Bare bone with 1.1 G CPU/SR T/S* |
| TREK-753R-CWBXPA0E | TREK-753R w/CDMA/GPS/WLAN/BT/1 GB RAM/4 G CF/WES |
| TREK-753R-HWBXPA0E | TREK-753R w/HSDPA/GPS/WLAN/BT/1 GB RAM/4 G CF/WES |
| TREK-753R-GWBXPA0E | TREK-753R w/GPRS/GPS/WLAN/BT/1 GB RAM/4 G CF/WES |

*Note: SR T/S stands for Sunlight Readable TouchScreen.

Optional items

| Part Number | Description |
|---------------|--|
| 1700019307 | High density cable (2 meters) |
| 1700019611 | Cigarette lighter cable for testing purpose (30cm) |
| RAM-MOUNT-01 | VESA RAM mount w/clamp base 1.5" ball |
| RAM-MOUNT-06E | VESA RAM mount w/VESA base, 1.5" ball |
| 9668TREK37E | IP54 I/O housing cover for TREK-753 |

TREK-753 CTOS Kit

| Part Number | Description |
|-------------|--------------------------------------|
| 9668TREK30E | TREK-753R RevA0 GPS kit |
| 9668TREK31E | TREK-753R RevA0 WiFi (Azurewave) kit |
| 9668TREK32E | TREK-753R RevA0 HSDPA kit |
| 9668TREK34E | TREK-753R RevA0 GPRS kit |
| 9668TREK35E | TREK-753R RevA0 AC/DC power kit |
| 9668TREK36E | TREK-753R RevA0 BT module kit |