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
- Supports 12V/24V (default) car power system by ISO7637-2 & SAE J1113 (6 ~ 36V wide DC input)
- Supports 48V (project base) car power system (18 ~ 58V wide DC input)
- Fanless and ruggedized aluminum chassis, able to work under -30 ~ 60° C temperature range

IP54

Introduction

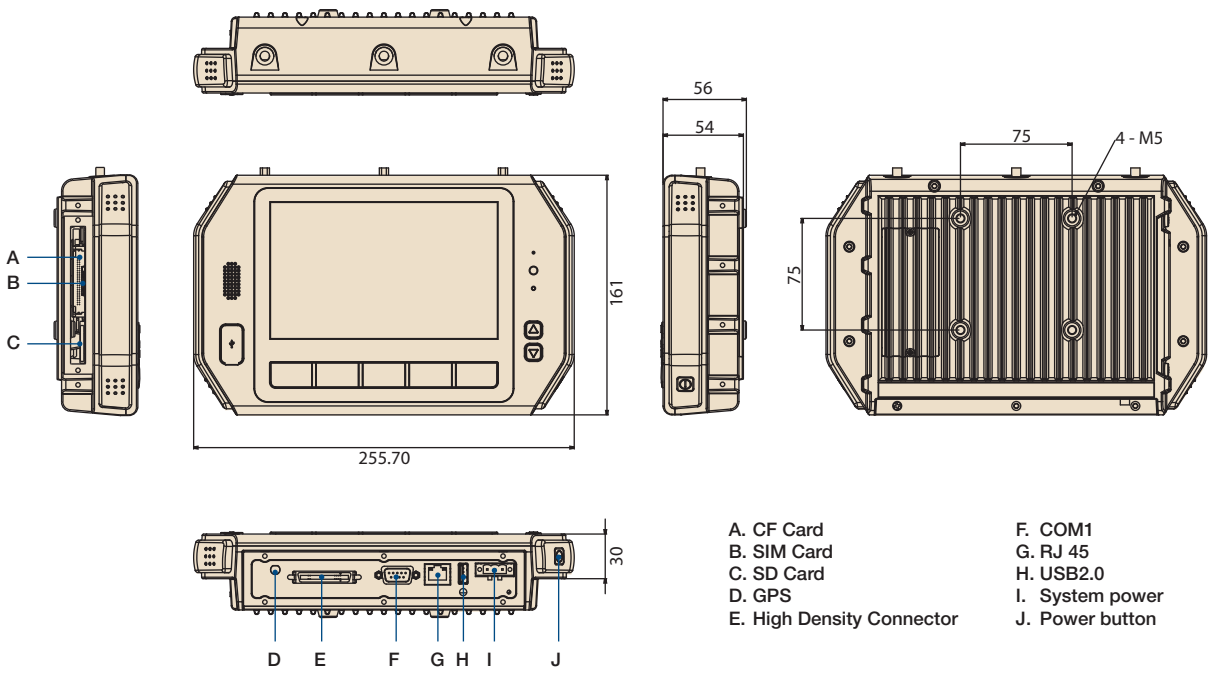
TREK-753 is a new generation, all-in-one 7" mobile data terminal with touchscreen, with a compact design for commercial vehicles. With an Intel Atom Z510PT/Z520PT processor, the system is high performing with wired connections like Gigabit Ethernet & CAN2.0b with J1939 protocol support; users can also 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-PCIe slot for built-in WLAN (b/g/n) module 1 x mini-PCIe 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)	Built-in 50 channel GPS uBlox LEA-5S with SMA connector for external antenna
	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	▪ Supports 12V/24V (default) car power system by ISO7637-2 & SAE J1113 (6 ~ 36V wide DC input) ▪ Supports 48V (project base) car power system (18 ~ 58V wide DC input)
	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)

Dimensions

Unit: mm



A. CF Card
B. SIM Card
C. SD Card
D. GPS
E. High Density Connector
F. COM1
G. RJ 45
H. USB2.0
I. System power
J. Power button

Specifications Cont.

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

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.

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

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