TREK-668

ADVANTECH DLOG
Competence in Mobile Computing

NEW

In-vehicle Surveillance with Fleet Management Computing Box

Features

- Automotive grade working temperature range (-30° C to 60° C)
- Rich I/O including CAN, RS-232, RS-485, J1708, 8DI/4DO (isolated), Line out, Mic in, USB.
- 4/8/12 channel analog video input, one PSE for IP Camera supports (Supports up to 16 channels for half DI resolution)
- Built-in including GPRS/HSDPA/CDMA, WLAN & Bluetooth (supports dual SIM cards and dual WWAN module mechanism)
- GPS with AGPS and dead reckoning technology (Gyro & speed line)
- Certifications: CE/FCC/E-mark, MIL-STD-810G, ISO 7637-2, SAEJ1455, SAE J1113 regulations, EN50155
- Ignition on/off delay; software centrollable for car power management

E 13 FC CE RoHS

Introduction

TREK-668 is an industrial-grade, dual-core computing box designed to provide high-quality video surveillance and fleet management for police car, ambulance, fire engine, buses and trains. TREK-668 delivers tracking and positioning and also supports dead-reckoning, which allows a truck to be traced even if the driver is in a tunnel. It supports the J1939 protocol for vehicle diagnostics and driver behavior management, and it supports high-quality, MPEG-4, MJPEG, H.264 recording, and transmission for up to 12 camera inputs. It has one PSE for an IP camera, and dual display/dual audio interfaces which support different resolutions. Each camera input provides motion detection capabilities; there are 8 audio inputs. The TREK-668 provides reliable on-board recording and can transmit images or alarms for remote monitoring over a wireless, GPRS, 3G, or HSDPA network connection.

Specifications

Core	CPU	Intel Atom N2600 1.6 GHz (Dual core)
	System Memory	DDR 3 800MHz , up to 2GB
	Chipset	Intel NM10 Express Chipset
	Graphics	Integrated 2D/3D Graphics Engine Supports Directx* 10.1 compliant Pixel Shader* v2.0 and OGL 3.0
	Video Encoder Engine	Stretch S7
	OS	Windows WES7/Win7
Video/Audio	LVDS out	18-bit LVDS interface (Paired with TREK-303, 800 x480 resolution)
	VGA	1 x via DB15
	Video in for Surveillance	4/8/12 Video inputs, with 12V/2A power supply for camera Dedicate H/W video encoding engine
	Video Compression	MJPEG, H.264, MPEG4, by D1 resolution 30 frames per channel per second
	Video/Audio Input Connector and Format	DVI-I connector, (NTSC, PAL), with 12V/2A power supply
	Audio in	Up to 8 mono audio inputs
	Audio Compression	Audio format G.711
	Mic in	1x via extended I/O port
	Line out	1x via extended I/O port
Storage	Storage	2 x optional SSD/ SATA 2.5" MHDDs, external accessible with key protection 1 x Type I/II CompactFlash card
I/O	RS-232	2 x RS-232 full function; one via extended I/O port; one with 12V / 0.5A via DB9 2 x 2-wire RS-232 (via smart display port)
	RS-485	2 x RS-485 (one with auto flow control via extended I/O port, one via DVI-I port for PTZ camera
	CAN/ J1708	1x CAN Bus (J1939 protocol is ready) via DB15 female connector, integrated with CN bus in single one connector
	USB	4 x USB (2 on rear I/O panel, 1 on front panel, one for TREK-303)
	DI/DO	8 in, 4 out 4 x isolated DI and 4 x relay DO via extended I/O ports 4 x isolated DI via DB15 connectors
	LAN (PSE)	1 x Giga LAN 10/100/1000 Mbps Ethernet controller, supports POE IP camera, IEEE 802.3af compliant, and provides up to 15.4 watts power output
	LED	1. Power (red) 2. CF (green) 3. WiFi (Green) 4. WWAN (Green) 5. GPS (blue) 6. HDD/SSD (amber)
RF	WWAN	HSDPA/CDMA: Sierra Wireless MC809X/MC5728V via miniPCIe card GPRS: Cinterion MC55i (GSM/GPRS, class10) (Note: Option supports dual SIM, dual HSDPA or GPRS, 3.5G, in this case, doesn't support WLAN)
	WLAN	802.11a/b/g/n (by MiniPCIe)
	Bluetooth	Bluetooth Class II, version 2.0 + EDR, antenna built in
GPS	GPS	Default LEA-6S, option ublox LEA-6R (Gyro on board) for dead reckoning (Note: Must connect with direction and speed line)
	Channels	50 channels (Supports GPS and Galileo system)
	Cold/ Warm Start	29 s
	Hot Start	< 1 s

Last updated : 14-Sep-2013

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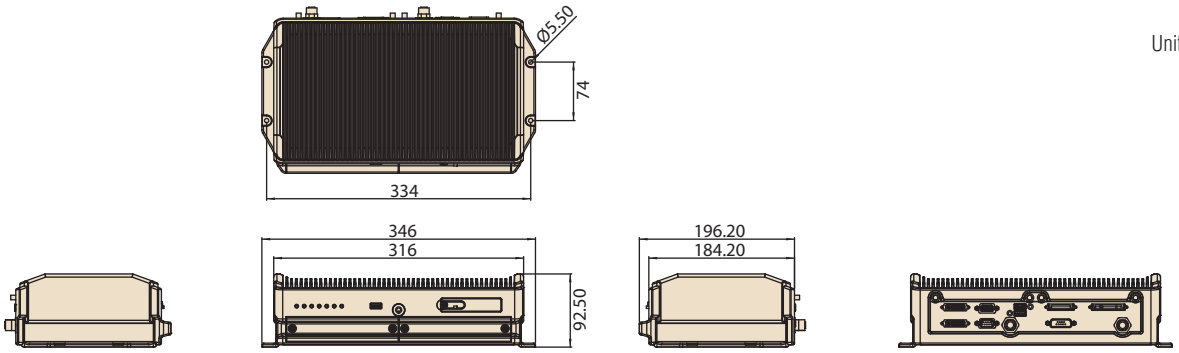
Specifications Cont.

GPS	Aided Start	< 5 s
	Reacquisition	-160 dBm
Security	G-sensor	For auto SOS
Power	Reset Button	Supported
	Power Out	+12 V / 2 A via DVI-I per port; +12V / 1.5A and 5V/1.1A via extended I/O port; DB9 9-Pin (optional with 5 V / 0.5 A jumper selected); +12 V / 1.5 A via smart display port (Default for TREK-303)
	DC Input	9~32 V_{DC} (12/24V) car power compliant with SAE J1113, ISO7637-2 level IV
Environment	Dimensions (W/D/H)	346 x 97 x 196.2 mm
	Weight	5.7 kg (including 2 HDD)
	Operating Temp.	-30°C to 60°C
	Storage Temp.	-40°C to 85°C
	Humidity	95% ±5%
	Vibration	Compliant with SAE J1455, MIL-STD-810G, Method 516.5, EN50155
Certifications	RF Certifications	Part 22/24E certified whole system PTCRB
	Safety	CE/FCC, E-Mark

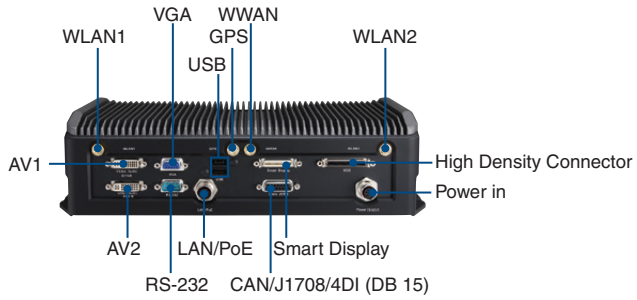
Dimensions

Unit: mm

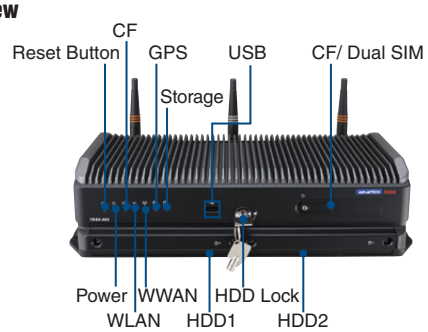


I/O Connectors

Rear View



Front View



Remark: RS-485 x1 (Either AV1 or AV2)

Ordering Information

Part Number	Description
TREK-668-00A0E	TREK-668 barebone
TREK-668-GHB7A0E	System,W/2G, GPS, 3.5G,16G CF,BT,Win7
TREK-668-GWB7A0E	System,W/2G, GPS,GPRS,16G CF,WLAN,BT,Win7
9668TREK58E	WLAN Kit w/antenna for TREK-668
9668TREK59E	GPRS Kit w/antenna for TREK-668
9668TREK60E	HSXPA Kit w/antenna for TREK-668
9668TREK61E	GPS (LEA-6S) Kit w/antenna for TREK-668
9668TREK62E	GPS (LEA-6R) Kit w/antenna for TREK-668
9668TREK70E	HSXPA kit w/antenna for TREK-668 (USA)