



TVC 4000 Specification



CPU:	1.6 GHz Intel ATOM™ N2600
Chipset:	Intel PCH NM10 Express
Memory:	2GB DDR3 [4GB OPTIONAL]
Storage:	2.5" SSD [3Gb/s]
	60GB [optional larger sizes available]
	eSATAp [optional external expansion]
Operating System:	Windows-7
Dimension:	240 x 185 x 65 mm
Weight:	2.5 Kg
Cooling:	Fanless passive cooling
Temperature:	
Operating:	0 to +60°C
Storage:	-20 to +85 °C
Internal Battery:	2.4 Ah [Re-chargeable 3-cell Li-ION]
Power Management:	Automotive protection Engine cranking protection Programmable Ignition Control 2x mini-PCIe slots
Internal expansion:	
Communications:	
Cellular:	1
WI-FI [optional]:	via mini-PCIe slots
Bluetooth [optional]:	via mini-PCIe slots
External Interfaces:	
Display:	1x Integrated Display [HSD Automotive] 1x Display Port 1x Gigabit
Ethernet:	1x Gigabit
USB:	2x USB2.0
COM:	2x RS232
Audio:	1x Line-Out [Stereo] 1x Line-In [Stereo] 1x Mic-In [Stereo] 1x Speaker-Out [2W Stereo] 1x Cellular [see Cellular modem]
I/O:	4x Inputs [Opto-Isolated] 4x Outputs [Opto-Isolated]
CAN:	1x Host or Slave Bus [s/w dependent]
Power Consumption[@12v]:	
Active:	TBD (W)
Standby:	TBD (mW)

Navigation Engine:	
GNSS compatibility:	GPS [L1 C/A][USA] GALILEO [OPEN SERVICE][EUROPE] GLONASS [opt. extra][FDMA][Russia] up to 50 EGNOS, WAAS, MSAS
Channels:	
SBAS:	
Accuracy:	
Position:	<2.5m [CEP, 50%, -130dBm]
Velocity:	0.1m/s [50%@30 m/s]
Heading:	0.5 degree
Dynamic Capability:	
Max. velocity:	515 m/s
Max. acceleration:	4g
Time To First Fix:	
Hot Start:	<1 sec.
Warm Start:	26 secs
Cold Start:	26 secs, <1 sec. aided
Aided Start:	<1 sec.
Antenna Supply:	+3.3Vdc, 30mA
Sensitivity:	-148 [cold], -162 [tracking] dBm
Cellular modem:	
Technology:	HSPA+/3G/GPRS/GSM
Frequency Band:	
HSPA/3G:	800/850/1900/2100 MHz
GPRS/GSM:	850/900/1800/1900 MHz
Max. Transmit Power:	
HSPA/3G:	Class 3 (0.25W)
GPRS/GSM:	Class 4 (2W) at 850/900 MHz Class 1 (1W) at 1800/1900 MHz
Max. Data Rates:	
HSPA/3G:	5.76 Mb/s (HSUPA) 7.2 Mb/s (HSDPA) 384 Kb/s (3G)
SIM Card slots:	2
Audio:	1x Line-Out [Mono] 1x Mic-In [Mono]



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Antenna:

GSM/GPRS/3G/HSPA: FME
GPS: SMA
Mini-PCle (x2): Reverse-SMA

Remote Display:

Available Panel Sizes: 8.4", 10.4"
LCD technology: TFT with LED backlight
8.4" screen:
Resolution: 800 x 600
Brightness: 450 [cd/m²]
Contrast Ratio: 600:1
Viewing Angle: 160 (H)/ 120 (V) degrees
10.4" screen:
Resolution: 1024 x 768
Brightness: 500 [cd/m²]
Contrast Ratio: 1000:1
Viewing Angle: 176 (H)/ 176 (V) degrees
Integrated Audio: 2W Stereo
Touchscreen:
Technology: PCAP [Projected Capacitive]
Cover Lens: Polycarbonate
Multi-Touch: Maximum 4 touches
Gesture support: Yes [s/w dependent]
Interface: HSD automotive
Power LED: x1
Dimension:
8.4" 255 x 190 x 40 mm
10.4" 275 x 225 x 40 mm

