


# Product Specifications



<b>System Preferences</b>	CPU I/O Chip System Memory Watchdog Timer H/W Status Monitor  Touch screen	Intel® Atom™ E3845 4-Core 1.91GHz processor EC ITE IT8528E 1 x 204-Pin DDR3L 1333MHz SO-DIMM up to 8 GB H/W Reset, 1 sec. ~65535sec./1sec.step Monitoring SYSTEM Temperature and Voltage with Auto Throttling Control 5 Wires resistive (USB Penmount)
<b>I/O Connectors</b>	Internal I/O HDD PCIe  HDD Expansion  Rear I/O USB  Serial  Ethernet Audio Display  Antenna Power	1 x 2.5" Drive Bay (7mm HDD Restricted) 1 x Mini PCI Express slots (support mSATA) 1 x Additional mini pcie available on request. 1 x SATA II 1 x Optional 80-pin internal expansion module (only 1 of bellow options) (4 x USB 3.0), (1 x HDMI + Audio), (1 x HDMI + mPCIe with SIM slot)  1 x USB 3.0 3 x USB 2.0 1 x RS-232  1 x RS-232/422/485 (factory configured) 1 x RS-232  2 x RJ45 (Intel® I211AT, Intel® I219LM) 2 x Speaker out 1W (Line out via expansion) 1 x HDMI (via expansion) Resolutions Up to 1920 x 1200 @ 60 24bpp Dual display support (LVDS + HDMI) 2 x RP-TNC / TNC (optional) 1 x RP-SMA in bottom side for external antenna config. (optional) 1 x DC screw type locking connector
<b>Wireless Communication</b>	WLAN WWAN	802.11 ac/a/b/g/n (optional) TNC/SMA connectors LTE & GPS options
<b>Power</b>	System Power  AC Adaptor Input Output	+12 — 26 VDC  110V ~ 250V (50 ~ 63Hz) +12 VDC/5A (60W)
<b>Environment</b>	Operation Temperature Storage Temperature Operation Humidity IP Proof Chassi Vibration Test  Shock Test	Operating: -30 ~ 60C Storage: -30 ~ 70C 0% ~ 90% Relative Humidity, Non-condensing IP65 Front Panel, IP41 back panel Aluminium Alloy Chassi With SSD/mSATA : 5Grms, IEC 60068-2-64, Random, 5 ~ 500Hz, 1hr/axis Operating with SSD/CFast/mSATA : MIL-STD-810G, Method 516.6, Procedure I, functional shock=20G
<b>Mounting</b>	VESA	100mm x 100mm 75mm x 75mm



IO ports




**Size**  
Resolution  
Brightness

**Contrast Ratio**  
Viewing Angle  
Response Time  
Backlight  
Backlight control  
Dimmer  
Touch glass

12.1" 4:3  
1024x768  
600 NIT cd/m2  
1000 NIT (optional / HB model)  
700  
80 (U), 80 (D), 80 (L), 80 (R)  
16 ms  
LED  
PWM  
Turnable Knob, 0 ~ 100 % (factory optional)  
3.2 mm glass

**VMR12A (HB)**

<b>Dimensions</b>	Height	222 mm
	Width	283 mm
	Depth	49 mm
	Weight	2.4 kg



**Size**  
Resolution  
Brightness

**Contrast Ratio**  
Viewing Angle  
Response Time  
Backlight  
Backlight control  
Dimmer  
Touch glass

15" 4:3  
XGA (1024x768)  
400 NIT cd/m2  
1000 NIT (optional / HB model)  
700  
70 (U), 70 (D), 80 (L), 80 (R)  
16 ms  
LED  
PWM  
Turnable Knob, 0 ~ 100 % (factory optional)  
3.2 mm glass

**VMR15A (HB)**

<b>Dimensions</b>	Height	274 mm
	Width	350 mm
	Depth	53 mm
	Weight	3.7 kg