



## VMS-BYT

### Intel® Atom™ SoC Processor E3845 Fanless Vehicle Telematics System

- > Onboard Intel® Atom™ SoC E3845 Processors
- > One 204-pin SODIMM Socket Up to 8GB DDR3L 1333MHz SDRAM
- > Rich I/O, 1 VGA, 1 LVDS, 1 DC-Out, 1 8-bit GPIO, 1 CFast, 1 2.5" Swappable Drive by, 2 Line-out, 2 Mic-in, 2 LAN, 2 COM, 3 USB, 5 Antenna Mounting
- > Power Management and Low Voltage Protection Design
- > Rugged Fanless Design Compliant with MIL Standard
- > Wake on RTC/SMS Via WWAN Module
- > Optional CAN modules support SAE J1939 or J1708
- > Wide Range DC Power Input from 9 ~ 36V
- > Fanless Operating from -40 ~ 75°C

#### + Spec

| System                       |   |
|------------------------------|---|
| <b>Processor</b>             | Intel® Atom™ E3845 4-Core 1.91GHz processor   |
| <b>System Memory</b>         | 1 x 204-Pin DDR3L 1333MHz SO-DIMM up to 8 GB  |
| <b>Watchdog Timer</b>        | H/W Reset, 1sec. ~ 65535sec.  |
| <b>H/W Status Monitor</b>    | Monitoring CPU & System Temperature and Voltage   |
| <b>Board</b>                 | EBM-BYTV  |
| Expansion                    |   |
| <b>Expansion</b>             | 1 x Avalue 80-Pin IET Interface<br>1 x Bluetooth Interface<br>1 x CAN module Interface<br>2 x Mini PCIe   |
| Storage                      |   |
| <b>Storage</b>               | 1 x 2.5" Drive Bay<br>1 x CFast™ or mSATA   |
| I/O                          |   |
| <b>USB</b>                   | 2 x USB 2.0<br>1 x USB 3.0  |
| <b>COM Port</b>              | 2 x RS-232/422/485 (BIOS)   |
| <b>Other</b>                 | 1 x DC-Out (12V/4A)<br>5 x Knockouts for Antenna Mounting   |
| <b>DIO</b>                   | 1 x 8-Bit GPIO<br>(Digital Input)<br>Input Voltage (Internal Type): 5VDC TTL (default)<br>Input Voltage (Source Type): 0~30 VDC<br>(Digital Output)<br>Digital Output (Sink Type): 5VDC TTL (default), max current: 20mA<br>Digital Output (Source Type): 0~30VDC, max current: 250mA |
| Display                      |   |
| <b>Chipset</b>               | Intel® Valleyview SoC integrated Graphics<br>Supports dual display  |
| <b>Resolution</b>            | VGA:Max. resolution 2560x1080@ 60Hz<br>LVDS:Max. resolution 1600x1200@ 60Hz   |
| Audio                        |   |
| <b>Chipset</b>               | Realtek ALC892<br>supports 5.1-CH   |
| <b>Audio Interface</b>       | 2 x Mic-In and 2 x Line-Out   |
| Ethernet                     |   |
| <b>Chipset</b>               | 2 x Intel® I211AT   |
| <b>Ethernet Interface</b>    | 10/100/1000 Base-Tx GbE compatible  |
| <b>LAN Port</b>              | 2 x RJ-45   |
| Mechanical & Environmental   |   |
| <b>Operating Temp</b>        | (w/SSD, mSATA, CFast), ambient w/ air flow<br>-40°C ~ 75°C (-40°F ~ 167°F)  |
| <b>Storage Temp</b>          | -40°C ~ 85°C (-40°F ~ 185°F)  |
| <b>Operating Humidity</b>    | 0% ~ 90% Relative Humidity, Non-condensing  |
| <b>Construction</b>          | Aluminum + Metal  |
| <b>Mounting Kit</b>          | Wall Mount kit (Standard)   |
| <b>Dimension (L x W x H)</b> | 9.45" x 7.3" x 2.36" (240mm x 186mm x 60mm)   |
| <b>Vibration Test</b>        | Operating with SSD/CFast/mSATA : MIL-STD-810G, Method 514.6, Category 4, common carrier US highway truck vibration exposure<br>Storage with SSD/CFast/mSATA : MIL-STD-810G, Method 514.6, Category 24, minimum integrity test   |
| <b>Shock Test</b>            | Operating with SSD/CFast/mSATA : MIL-STD-810G, Method 516.6, Procedure I, functional shock=20G<br>Non-Operating with SSD/CFast/mSATA: MIL-STD-810G, Method 516.6, Procedure V, crash hazard shock test=75G  |
| Certifications               |   |



|                                  |   |
|----------------------------------|---|
| <b>Certification Information</b> | CE<br>FCC Class A<br>e13 Mark                                 |
| <b>Software Support</b>          |   |
| <b>OS Information</b>            | Win 7<br>Win 8<br>Linux                                       |
| <b>Power Requirement</b>         |   |
| <b>Power Connector</b>           | Phoenix Connector   |
| <b>Power Requirement</b>         | +9V ~ +36V  |
| <b>ACPI</b>                      | Single Power ATX Support S0, S3, S4, S5<br>ACPI 5.0 Compliant |
| <b>Power Mode</b>                | AT/ATX (Industrial PC Power Mode)                             |

**+ Ordering**

VMS-BYT-3845-A1-1R  
Intel® Atom™ SoC Processor E3845 Fanless Vehicle Telematics System

VMS-BYT-3845-A1-2R  
Intel® Atom™ SoC Processor E3845 Fanless Vehicle Telematics System with Isolation IET module