

# VBOX-3140

## Intel Apollo Lake E3940 Atom CPU In-Vehicle Computer with 9~36V DC Input



Power Ignition



Wide Range



Wireless



Battery Backup

### Features

- Intel E3940 Atom CPU up to 1.8GHz
- Wireless support LTE, 3.5G, WLAN, GPS, GSM /GPRS, Bluetooth
- 9V - 36V DC Power Input
- Smarter Vehicle Power Ignition for Variety Vehicle
- 3 x RS-232 (COM1 & COM2 with 232/422/485)
- 2 x DI / 2 x DO (12V / 100mA)

Taiwan Patent No. M447854

### System

<b>CPU</b>	Intel E3950 Quad Core Atom CPU up to 2.0GHz Intel E3940 Quad Core Atom CPU up to 1.8GHz Intel E3930 Dual Core Atom CPU up to 1.8GHz
<b>Memory</b>	1 x DDR3L-1600 SO-DIMM up to 8GB
<b>Graphics</b>	Intel HD Graphics
<b>ATA</b>	2 x Serial ATA 2.0 Ports with 6Gb/s HDD transfer Rate
<b>LAN Chipset</b>	2 x Intel i210-AT Gigabit Ethernet
<b>Watchdog</b>	1 ~ 255 Level Reset
<b>Resolution</b>	3840 x 2160 @ 30Hz max.

### I/O

<b>Serial Port</b>	3 x RS-232 (COM1 & COM2 with RS-232/422/485)
<b>USB Port</b>	2 x USB 3.0, 1 x USB 2.0
<b>LAN</b>	2 x RJ45 Ports for 10/100/1000 Mbps LAN
<b>Video Port</b>	1 x HDMI and 1 x DVI-I*
<b>GPIO Port</b>	2 In and 2 Out (12V / 100mA)
<b>Audio</b>	Mic-in/Line-out
<b>Expansion Bus</b>	3 x Mini-card Slots
<b>Antenna</b>	4 x SMA-type External Antenna Connectors for LTE / WLAN / UMTS / GSM / GPRS / GPS / Bluetooth
<b>SIM Card Socket</b>	2 x SIM Card Sockets Supported Onboard with eject

\* Use only with Single Link DVI Cables.

### Power Requirement

<b>Power Input</b>	9V - 36V DC Power Input
<b>Power Management</b>	Vehicle Power Ignition for Variety Vehicle
<b>Power Off Control</b>	Power off Delay Time Setting by Software, Default is 5 Mins
<b>Backup Battery</b>	Internal Battery Kit for 10 Mins Operating (Optional) <b>Patent No.:M447854 - Build-in Battery</b>

### Qualification

<b>Certifications</b>	CE, FCC Class A, EMark Compliance
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### Storage

<b>Type</b>	1 x 2.5" Drive Bay for SATA Type Hard Disk Drive / SSD 1 x SATA DOM
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### Software

<b>Operating System</b>	Windows 10, Ubuntu 14.04 above
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### Environmental

<b>Operating Temp.</b>	-40 ~ 70°C (SSD), ambient w/ air
<b>Storage Temp.</b>	-40 ~ 80°C
<b>Relative Humidity</b>	10 ~ 90% (non-condensing)
<b>Vibration(random)</b>	2.5g@5~500 Hz with SSD
<b>Vibration Operating</b>	MIL-STD-810G, Method 514.5, Category 20, Ground Vehicle-Highway
<b>Truck Storage</b>	MIL-STD-810G, Method 514.5, Category 24, Integrity Test
<b>Shock</b>	Operating: MIL-STD-810G, Method 516.5, Procedure I, Trucks and semi-trailers=15G (11ms) with SSD
<b>Crash Hazard</b>	MIL-STD-810G, Method 516.5, Procedure V, Ground equipment=100g

### Mechanical

<b>Construction</b>	Aluminum Alloy
<b>Mounting</b>	Wall-mount, VESA-mount, Din Rail Mounting Kit
<b>Weight</b>	1406 g
<b>Dimensions</b>	182(L) x 167.6(W) x 54(H) mm

### Ordering Information

<b>Part Number</b>	VBOX-3140-000
<b>Description</b>	Intel Apollo Lake Atom CPU In-Vehicle Computer with 9~36V DC Input