

# Rigid-350

Robust Vehicle Computer with Intel® Atom™ D525 Platform

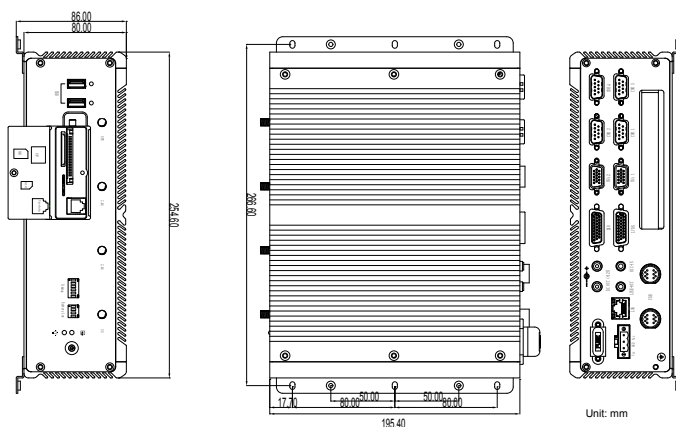


## Features

- Ultra Low Power and Fanless Design
- 2 x RS-232 and 2 x RS-232/422/485 Serial Ports with 12V Power Output
- Smarter Ignition Power on/off, Delay-time and Battery Low Voltage Protection
- Over-voltage and Reversed Power Input Protection
- Isolated Digital I/O with +12/+5V Power Output
- Multiple Connectivities (WiFi, HSUPA, GPS)
- Wide Range DC Power Input (6~32V)
- Rugged Design for Shock/Vibration Protection
- Intel® SSD Compatible

| System         |                                                                                                               | Environmental          |                                                               |
|----------------|---------------------------------------------------------------------------------------------------------------|------------------------|---------------------------------------------------------------|
| CPU            | Soldered onboard Intel® Atom™ Processor D525 1.8GHz                                                           | Operating Temp.        | -40 ~ 70°C (-40 ~ 158°F), ambient w/ air flow                 |
| Memory         | 2 x 204-pin dual channel DDR3 SO-DIMM sockets up to 4GB at 800MHz                                             | Storage Temp.          | -40 ~ 85°C (-40 ~ 185°F)                                      |
| Chipset        | ICH8M                                                                                                         | Relative Humidity      | 10 ~ 95% @ 40°C (non-condensing)                              |
| Graphics       | Integrated Intel® GMA3150                                                                                     | Vibration              | EN61373: 1999 Class B standard compliant                      |
| SATA           | 2 x Serial ATA ports with 300MB/s HDD transfer rate                                                           | Shock                  | EN61373: 1999 Class B standard compliant                      |
| Connectivity   | GPS module (u-blox solution) (optional)                                                                       | Qualification          |                                                               |
|                | 802.11 b/g/n Wireless LAN Mini-card (optional)                                                                | Certification          | CE, FCC Class A, e1 Mark                                      |
|                | HSUPA (3.75G) Mini-card (optional)                                                                            | Power Requirement      |                                                               |
| Watchdog Timer | 1~255 levels reset                                                                                            | Power Input            | DC input 6~32V w/ 3-pin terminal block                        |
| I/O            |                                                                                                               | Power Output           | 2 x 1-pin lockable jack for 12V/1A power output               |
| Serial Port    | 2 x RS-232 and 2 x RS-232/422/485 ports                                                                       | FUSE                   | 1 x FUSE receptacle w/ cover (outside accessible)             |
| USB Port       | 6 x USB2.0 ports<br>(2 x lockable connectors for 4 x USB 2.0 ports)                                           | Power Consumption      | Max. 35W (w/o DC output and I/O card)                         |
| LAN            | 1 x RJ-45 for Gigabit Ethernet                                                                                | Storage                |                                                               |
| Video Port     | 2 x DB-15 female connectors for Analog RGB (Clone mode)                                                       | Type                   | 1 x 2.5" SATA drive bay for HDD (with 9.5mm height limit)/SSD |
|                | 1 x DB-26 male connector for single/dual channel 18/24-bit LVDS output                                        |                        | 1 x CompactFlash Type II socket (outside accessible)          |
| Digital I/O    | 1 x 16-bit digital I/O (8-in / 8-out)                                                                         |                        | 1 x SD socket (outside accessible)                            |
|                | 1 x DB-26 female connector for 8-in/ 8-out isolated I/O and +12/+5V power output (rating 1A, PTC FUSE 2~2.5A) | Mechanical             |                                                               |
| Antenna        | 4 x SMA female connectors' holes for external antennas, two for WiFi, one for HSUPA, one for GPS              | Construction           | Aluminum alloy                                                |
| Audio          | Mic-in/Line-out (6W pre-amplified)                                                                            | Mounting               | Wall-mount                                                    |
|                |                                                                                                               | Weight                 | 3.76 kg (8.27 lb)                                             |
| Expansion Bus  | 1 x PCIe x1 slot                                                                                              | Dimensions (W x D x H) | 254 x 195 x 80 mm (10" x 7.68" x 3.15")                       |
|                | 1 x Mini-card slot for optional WiFi module                                                                   | Ordering Information   |                                                               |
|                | 1 x Mini-card slot interconnected with SIM card socket for HSUPA module                                       | Rigid-350              | Fanless vehicle computer                                      |
|                | 1 x SIM card socket (outside accessible)                                                                      |                        |                                                               |

## Dimensions



Unit: mm

### Standard Accessories

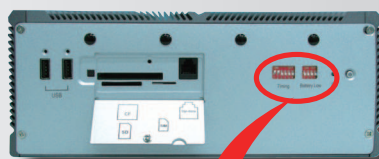
|               |                                    |                                                                                     |
|---------------|------------------------------------|-------------------------------------------------------------------------------------|
| PAC-B065W-35X | 19V/3.4A 65W AC/DC adapter kit     |  |
| WMK-5000      | Wall-mount kit for FPC-35XX Series |  |

### Optional Configuration (CTOS\* Kit)

|              |                                                    |                                                                                                                       |
|--------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| MM-3C-2G     | DDR3-1333 2GB SDRAM                                |                                    |
| 80G SSD      | Intel® 2.5" 80GB SATAIII SSD kit                   |  |
| CBL-3500-USB | 2-port IP67 USB cable                              |                                  |
| HSPA-SI1400  | HSUPA 3.75G module kit & internal wiring           |                                  |
| WIFI-AT2300  | Atheros AR9462 WiFi module w/ 20cm internal wiring |                                  |
| GPS-UART-kit | u-blox GPS kit                                     |                                  |
| ANT-H11      | 2dBi HSUPA antenna                                 |                                  |
| ANT-D11      | WiFi Dual-band 2.4G/5G antenna                     |                                                                                                                       |

\*CTOS means Configure-to-Order Service.

### » Front Panel



Timing



Battery Low

### System On/Off Timing Setting Jumper

| Pin   | DIP SW Auto Car Key on Detection | Description                                                            |
|-------|----------------------------------|------------------------------------------------------------------------|
| 1     | On, Off (default)                | Auto Power On (1 - Auto / 0 - Manual)                                  |
| 2     | On, Off (default)                | Auto Power Off (1 - Auto / 0 - Manual)                                 |
| 3 & 4 | On, Off (default)                | Power-on Waiting Time – Setup Timing (00-4s)(01-8s)(10-12s)(11-16s)    |
| 5 & 6 | On, Off (default)                | Power-off Waiting Time – Setup Timing (00-30s)(01-45s)(10-60s)(11-90s) |

### Battery Low Setting Jumper

| Pin | Battery Low       | Description                               |
|-----|-------------------|-------------------------------------------|
| 1   | On, Off (default) | BUS Low Voltage Detection (24V)           |
| 2   | On (default), Off | CAR Low Voltage Detection (12V)           |
| 3   | On, Off (default) | Normally Low Voltage Detection (9V above) |
| 4   | On, Off (default) | Car Engine Ignition Detection             |