

FPC-3502

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

CPU	Soldered onboard Intel® Atom™ D525 1.8GHz processor
Memory	2 x 204-pin dual channel DDR3 SO-DIMM sockets up to 4GB at 800MHz
Chipset	ICH8M
Graphics	Integrated Intel® GMA3150
SATA	2 x Serial ATA ports with 300MB/s HDD transfer rate
	GPS module (u-blox solution) (optional)
Connectivity	802.11 b/g/n Wireless LAN Mini-card (optional)
	HSUPA (3.75G) Mini-card (optional)
Watchdog Timer	1~255 levels reset

I/O

Serial Port	2 x RS-232 and 2 x RS-232/422/485 ports
USB Port	6 x USB2.0 ports (2 x lockable connectors for 4 x USB 2.0 ports)
LAN	1 x RJ-45 for Gigabit Ethernet
Video Port	2 x DB-15 female connectors for Analog RGB (Clone mode) 1 x DB-26 male connector for single/dual channel 18/24-bit LVDS output
Digital I/O	1 x 16-bit digital I/O (8-in / 8-out) 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)
Antenna	4 x SMA female connectors' holes for external antennas, two for WiFi, one for HSUPA, one for GPS
Audio	Mic-in/Line-out (6W pre-amplified)
	1 x PCIe x1 slot, 1 x PCI slot
	1 x Mini-card slot for optional WiFi module
Expansion Bus	1 x Mini-card slot interconnected with SIM card socket for HSUPA module
	1 x SIM card socket (outside accessible)

Environmental

Operating Temp.	-25 ~ 55°C (-13 ~ 131°F), ambient w/ air flow
Storage Temp.	-40 ~ 85°C (-40 ~ 185°F)
Relative Humidity	10 ~ 95% @ 40°C (non-condensing)
Vibration	EN61373: 1999 Class B standard compliant
Shock	EN61373: 1999 Class B standard compliant

Qualification

Certification	CE, FCC Class A, e1 Mark
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Power Requirement

Power Input	DC input 6~32V w/ 3-pin terminal block
Power Output	2 x 1-pin lockable jack for 12V/1A power output
FUSE	1 x FUSE receptacle w/ cover (outside accessible)
Power Consumption	Max. 35W (w/o DC output and I/O card)

Storage

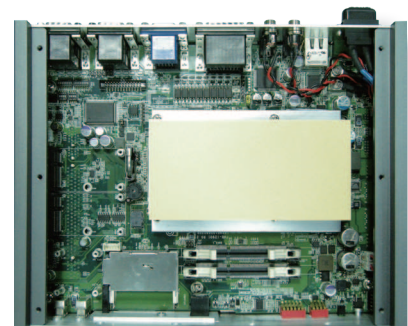
	2 x 2.5" SATA drive bays for HDD (with 9.5mm height limit)/SSD
Type	1 x CompactFlash Type II socket (outside accessible)
	1 x SD socket (outside accessible)

Mechanical

Construction	Aluminum alloy
Mounting	Wall-mount
Weight	4.06 kg (8.94 lb)
Dimensions (W x D x H)	254 x 195 x 100 mm (10" x 7.68" x 3.94")

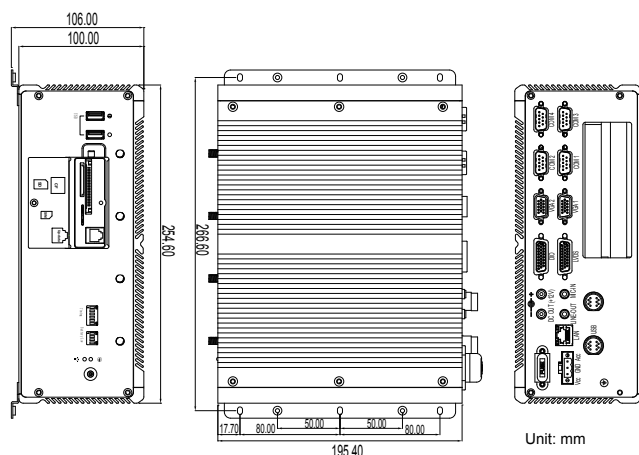
Ordering Information

FPC-3502B	Vehicle Box Barebone w/o memory & storage with one PCIe x1 slot and one PCI slot
FPC-3502A	FPC-3502B with HSUPA, GPS and WiFi



» Fanless Design

Dimensions



Standard Accessories

PAC-B065W-35X

19V/3.4A 65W AC/DC adapter kit



WMK-5000

Wall-mount kit for FPC-35XX Series



CBL-3500-USB

2-port IP67 USB cable



Optional Configuration (CTOS* Kit)

MM-3C-2G

DDR3-1333 2GB SDRAM



SSD-25040

Intel® 2.5" 40GB SATAII SSD kit



HSPA-SI1400

HSUPA 3.75G module kit & internal wiring



WIFI-IN1300

Intel® Centrino® Advanced-N 6205 WiFi module w/ 20cm internal wiring



GPS-UART-kit

u-blox GPS kit



ANT-H11

2dBi HSUPA antenna

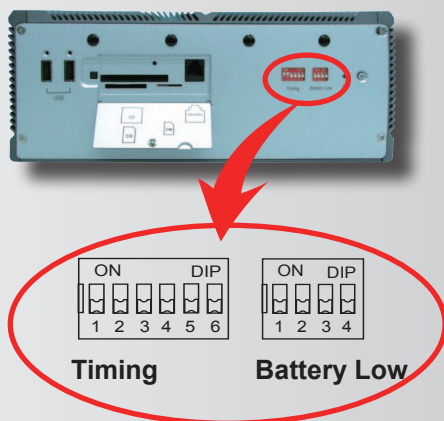


ANT-D11

WiFi Dual-band 2.4G/5G antenna

*CTOS means Configure-to-Order Service.

» Front Panel



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