

## PCM-3365

# Intel® Atom™ E3825 / E3845 & Celeron® N2930, PC/104-Plus SBC, ISA, VGA, HDMI/DVI, LVDS, 6 USB, mSATA or Onboard Flash Startup Manual

### Packing List

Before you begin installing your card, please make sure that the following items have been shipped:

1. 1 PCM-3365 SBC
2. 1 Startup Manual
3. 1 RS-232 2 ports cable p/n: 1701200220
4. 1 SATA power cable p/n: 1700022749-11
5. 1 RS-232/422/485 cable p/n: 1700019414
6. 3 USB Cable p/n: 1703100260
7. 1 SATA Cable p/n: 1700071000
8. 1 ATX power cable p/n: 1700002332
9. 1 AT power cable p/n: 1700003491
10. 1 LAN RJ45 cable p/n: 1700017863
11. 1 VGA cable p/n: 1700000898
12. 1 Heatsink for E3845 CPU p/n: 1960073365T001
13. 1 Heatsink for E3825/N2930 CPU p/n: 1960071977T001
14. 1 Mini jumper pack p/n: 9689000002

If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

**Note 1:** For detailed contents of PCM-3365, please refer to Advantech website for detailed information.

**Note 2:** Acrobat Reader is required to view any PDF file. Acrobat Reader can be downloaded at: <http://get.adobe.com/reader/> (Acrobat is a trademark of Adobe)

For more information on this and other Advantech products, please visit our website at:

<http://www.advantech.com>

For technical support and service, please visit our support website at:

<http://support.advantech.com>

This manual is for the PCM-3365 Series Rev. A1

Part No. 2006M33600  
Printed in China

1st Edition  
April 2016

### Specifications

#### General

- **CPU:** Intel® Celeron® N2930 Quad Core 1.83 GHz, burst frequency 2.16GHz/ Atom™ E3825 Dual Core 1.33 GHz / Atom™ E3845 Quad Core 1.91 GHz
- **System Memory:** 204-Pin SODIMM, up to 8GB DDR3L, N2930/E3845 with 1333MHz, E3825 with 1066MHz
- **L2 Cache:** 2 MB (N2930/E3845) / 1 MB (E3825)
- **BIOS:** AMI uEFI 64 Mbit
- **Watchdog Timer:** 255 levels timer interval, programmable by software. Multi-level WDT
- **Battery:** Lithium 3 V/210 mAh

#### Expansion Interface

- 1 x Full-size Mini PCIe
- 1 x PC/104
- 1 x PCI-104

#### Display

- **Controller:** Intel® Gen 7 graphics and media encode/decode engine
- **Maximum Resolution:**
  - VGA: 2560 x 1600 @ 60 Hz
  - HDMI/DVI:
    - \* HDMI 1.4a with audio, 1920x1080
    - \* DVI 1.0 (DVI-D), up to 1920x1080
  - LVDS:
    - \* 24-bit LVDS up to WUXGA 1920 x 1200 at 60Hz
    - Supports 3.3/5 for VDD power, 1A@5V/12V for inverter
  - Dual Display: VGA + LVDS, VGA + HDMI/DVI, HDMI/DVI + LVDS

#### Ethernet Interface

- **Speed:** 10/100/1000 BASE-T
- **Controller:** Intel I210

#### Mechanical and Environmental

- **Dimensions:** 96 x 90 mm (3.8" x 3.5")
- **Power Supply Type:** AT/ATX
- **Power Requirement:** 5V ± 5%
- **Power Consumption:**
  - Typical:
    - E3825: 0.877A@+5V, 0.006A@+12V, 0.003A@+5VSB (4.472W)
    - E3845: 0.923@+5V, 0.007A@+12V, 0.004A@+5VSB (4.719W)
    - N2930: 0.866A@+5V, 0.006A@+12V, 0.003A@+5VSB (4.417W)
  - Max in HCT:
    - E3825: 1.107A@+5V, 0.008A@+12V, 0.008A@+5VSB (5.671W)
    - E3845: 1.493@+5V, 0.008A@+12V, 0.025A@+5VSB (7.686W)
    - N2930: 1.331A@+5V, 0.009A@+12V, 0.016A@+5VSB (6.843W)
- **Operating Temperature:** 0 ~ 60 °C (32 ~ 140 °F)
- **Weight:** 0.735 kg (1.62 lb), (reference total weight)

## Jumpers and Connectors

The board has a number of jumpers that allow you to configure your system to suit your application. The table below lists the function of each of the jumpers and connectors.

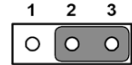
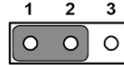
Jumpers	
Label	Function
J1	Clear CMOS
J2	PCI VIO Setting
J4	LVDS Panel Power Select
J6	LVDS JEIDA/VESA Selection Pin

Connectors	
Label	Function
CN1	Power In Connector
CN2	ATX Power In Connector
CN3	HD Audio Connector
CN4	Battery
CN5	SO-DIMM
CN6	GPIO
CN7	VGA
CN8	HDMI
CN9	-5V/-12V power connector
CN10	Front Panel Connector
CN11	Mini PCIe
CN13	Internal USB
CN16	Internal USB
CN17	Internal USB
CN18	COM1
CN19	COM2/COM3
CN20	LAN
CN21	LAN_LED
CN23	Inverter Power Output
CN24	24 bits LVDS Panel
CN26	SSD debug port
CN27	PCI-104
CN28	PC/104 32x2 pin
CN29	PC/104 20x2 pin
CN30	Buzzer
CN32	SMBus
CN34	SATA

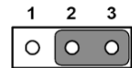
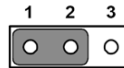
## Jumpers and Connectors (Cont.)

### Jumper Settings

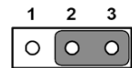
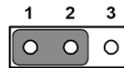
J1	Clear CMOS
Setting	Function
1-2 (default)	Normal
2-3	Clear CMOS



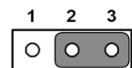
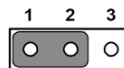
J2	PCI VIO Setting
Setting	Function
1-2	+5V
2-3 (default)	+3.3V



J4	LVDS Panel Power Select
Setting	Function
1-2	+5V
2-3 (default)	+3.3V



J6	LVDS JEIDA/VESA Selection Pin
Setting	Function
1-2	Pull-High to +V3.3(JEIDA or VESA base on panel definition)
2-3 (default)	Pull-Low to GND (JEIDA or VESA base on panel definition)



**Caution!** The computer is provided with a battery-powered real-time clock circuit. There is a danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer. Discard used batteries according to manufacturer's instructions.



# PCM-3365 Connector Locations Mechanical Drawing

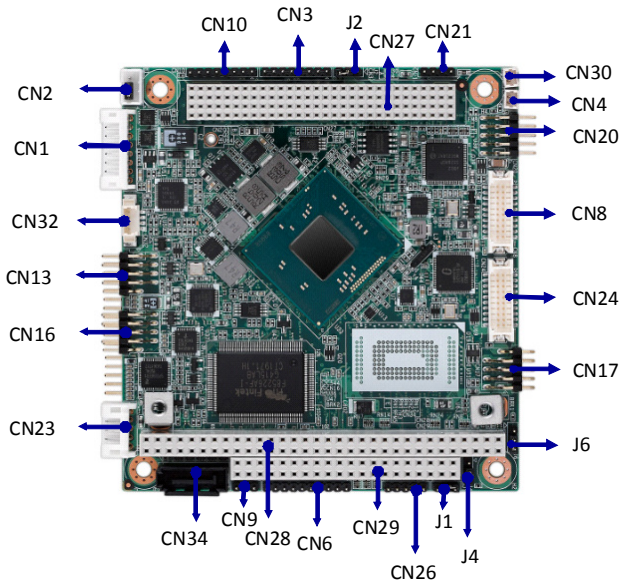


Figure 1: PCM-3365 Connector Location (Top Side)

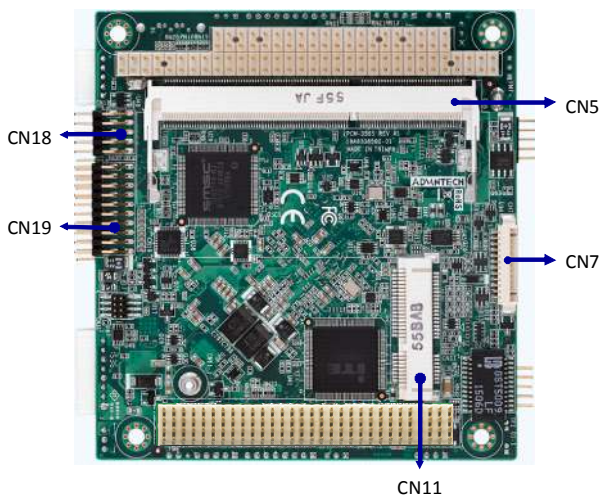


Figure 2: PCM-3365 Connector Location (Bottom Side)

# PCM-3365 Mechanical Drawing

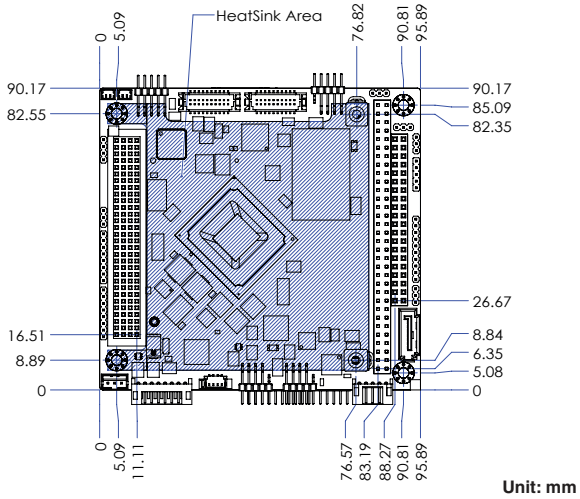


Figure 3: PCM-3365 Mechanical Drawing (Top Side)

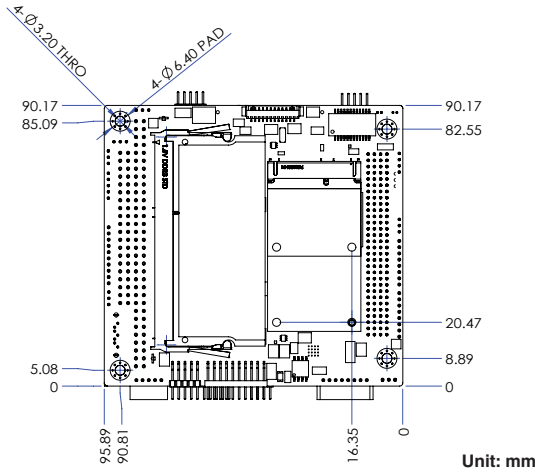


Figure 4: PCM-3365 Mechanical Drawing (Bottom Side)

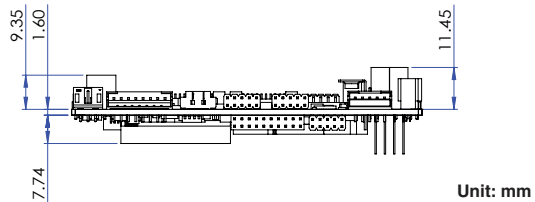


Figure 5: PCM-3365 Mechanical Drawing (Side View, W/O heatsink)