

# PenMount PM1200 PCI Controller Board Data Sheet

## 1.0 Product

PenMount 1200 control board is one of the cutting-edge innovations from PenMount. A collectively integrated feature with USB / RS232 interface supporting 5" to 7.9" projected capacitive touch screens; complemented by the superbly developed PenMount drivers which can be used directly in Windows 8.

PenMount 1200 Control Board uses Microcontroller, which is a capacitive sensing IC designed for AMT Projected Capacitive Input (PCI) touch panel and other projected capacitive touch panel. It is designed for PCI touch screen size up to 7.9". PenMount 1200 Control Board has the programmable filter, gain amplifier; with the functions of single, dual touch; and the gestures of one and two fingers. There are three connectors on this board: 40 Pins ZIF connectors for PCI touch screen FPC cable, one USB connector for 4-pin USB cable (optional) , and one RS232 connector for 6-pin RS232 cable (optional)..

## 2.0 Specifications

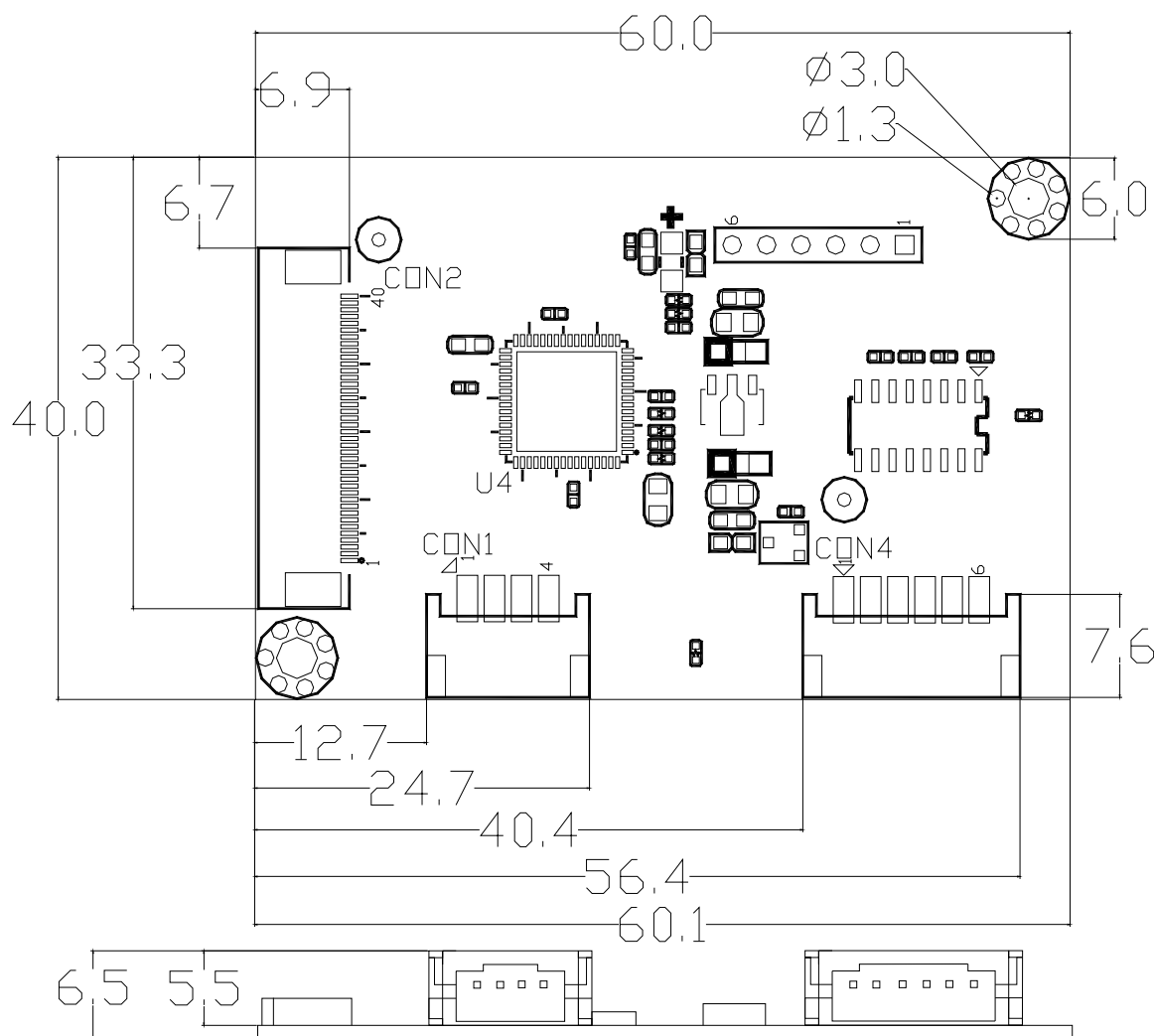
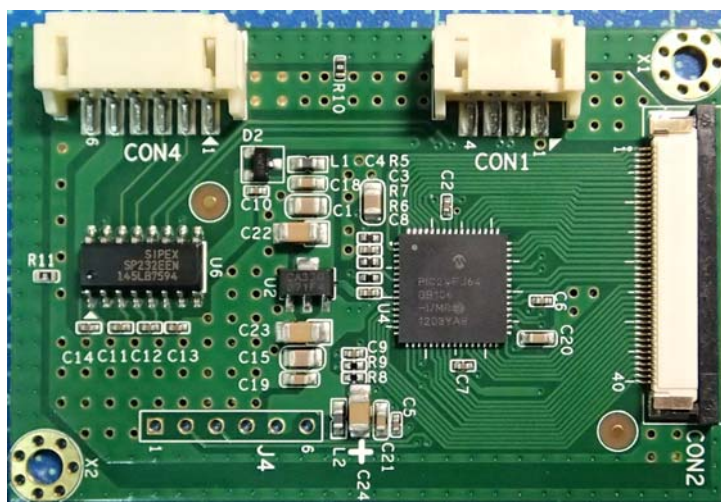
- 2.1 Controller part no : P2-03
- 2.2 Supporting Projected Capacitive touch panel size:  
Projected capacitive type, size is 5" to 7.9"
- 2.3 Interface: USB, RS-232  
USB: Full-speed, 12Mbps  
RS-232 Interface 38400 baud rate / 8bit data / non parity / one stop bit / non-PnP
- 2.4 ADC resolution: 10bits
- 2.5 Max Touch Line : 24 Driving lines, 15 Sensing line
- 2.6 Sampling rate:>100sps
- 2.7 Operating Voltage: +5V DC
- 2.8 Power Consumption : Typical -- Working Mode : 30mA  
Idle Mode : 16.4mA  
Sleep Mode : 6.2mA
- 2.9 RS specification: IEC61000-4-3 Level 2 , Criteria A
- 2.10 CS specification: IEC61000-4-6 Level 2 , Criteria A
- 2.11 Operating temperature: -20°C ~ +70°C
- 2.12 Storage temperature: -40°C ~ +85°C

### Note :

Power consumption and sample rate will vary according to different firmware versions.

### 3.0 Mechanical Drawing

#### 3.1 Mechanical size

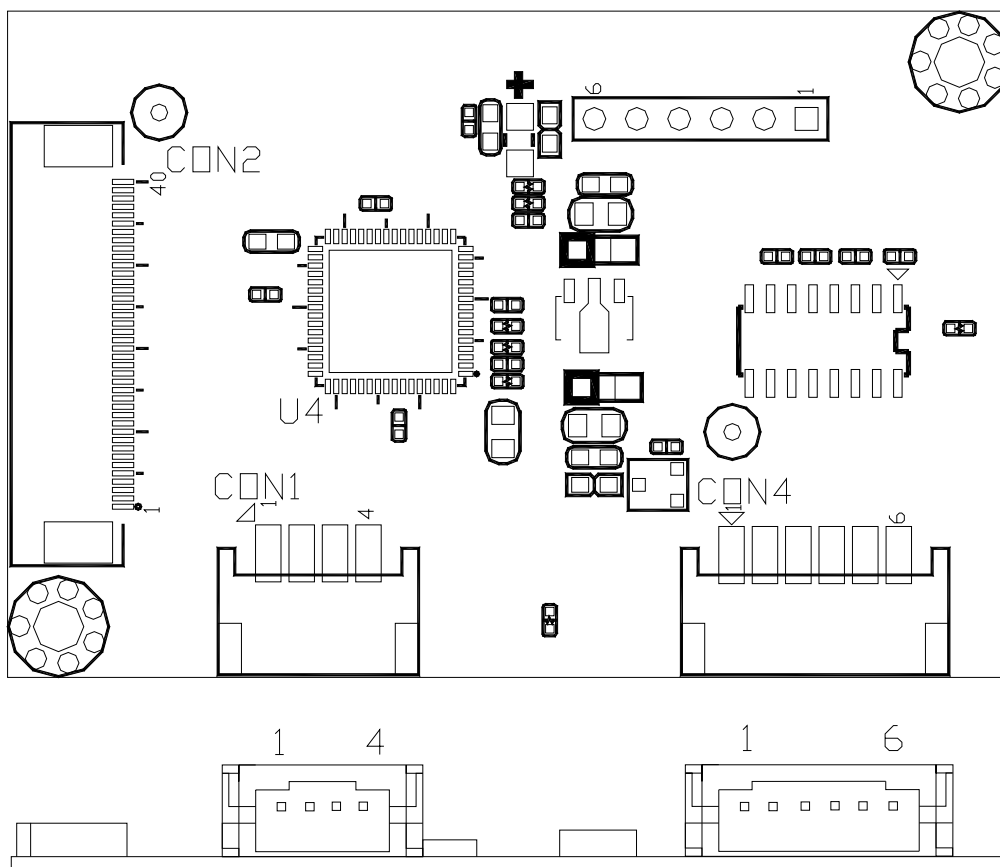


Unit:mm

### 3.2 Touch line pin definition

CON2 40Pin ZIF , PH 0.5mm ; ACES 88707-4001							
PIN	PIN	PIN	PIN	PIN	PIN	PIN	PIN
1	Shield	1	Cap Drive X9	1	Cap Drive X19	1	Cap Sense Y5
2	Cap Drive X0	2	Cap Drive X10	2	Cap Drive X20	2	Cap Sense Y6
3	Cap Drive X1	3	Cap Drive X11	3	Cap Drive X21	3	Cap Sense Y7
4	Cap Drive X2	4	Cap Drive X12	4	Cap Drive X22	4	Cap Sense Y8
5	Cap Drive X3	5	Cap Drive X13	5	Cap Drive X23	5	Cap Sense Y9
6	Cap Drive X4	6	Cap Drive X14	6	Cap Sense Y0	6	Cap Sense Y10
7	Cap Drive X5	7	Cap Drive X15	7	Cap Sense Y1	7	Cap Sense Y11
8	Cap Drive X6	8	Cap Drive X16	8	Cap Sense Y2	8	Cap Sense Y12
9	Cap Drive X7	9	Cap Drive X17	9	Cap Sense Y3	9	Cap Sense Y13
10	Cap Drive X8	10	Cap Drive X18	10	Cap Sense Y4	10	Cap Sense Y14

### 3.3 Interface pin definition

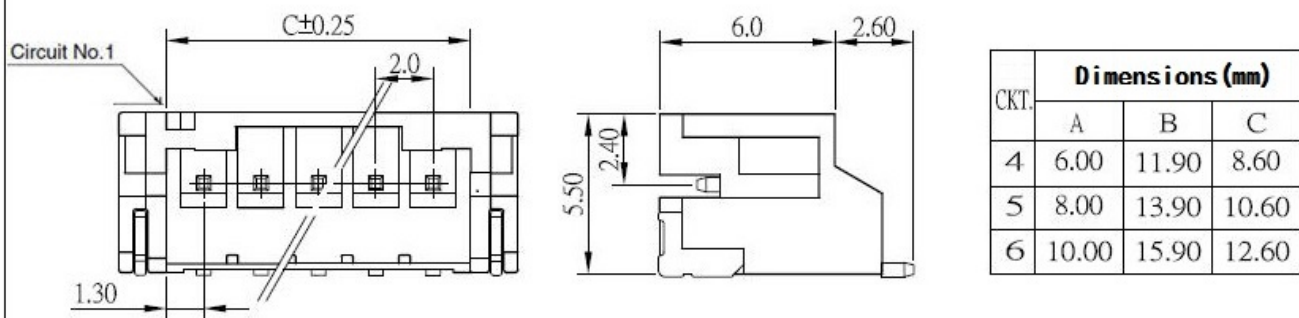


CON1 / 4PIN / USB	
PIN NO.	DESIGNATION
1	5VIN
2	D-
3	D+
4	Ground

CON4 / 6PIN / RS-232	
PIN NO.	DESIGNATION
1	GND
2	RX
3	TX
4	N/A
5	5V VDD
6	GND

## 3.4 Connector specification

### 2.00 pitch/Disconnectable Crimp style connectors



## 4.0 Drivers, Utilities

### 4.1 Drivers:

For USB / RS-232

Windows 2000, XP, 2003: single touch, mouse driver.

Windows Vista: single touch, inbox driver.

Windows 7,8: dual touch, Inbox driver.

Linux: Ubuntu, Android, other Linux distributions under development.

### 4.2 Utility:

Firmware adjustment utility is ready for user to fine tune the touch panel sensitivity.

### Note :

Drivers, Utilities : all the drivers are available in AMT and PenMount website. The PenMount utilities is also available, contact us

## 5.0 Others

5.1 ROHS compliance: This control board is met ROHS compliance

5.2 For EMC protection recommendations please refer to the AMT touch screen integration guides.

*Remark: Specification is subject to change without notice*