

PenMount PM1201A PCI Controller Board Data Sheet

1.0 Product

PenMount 1201A 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 1201A 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 1201A 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 five connectors on this board: 20PIN & 30PIN ZIF connectors for PCI touch screen FPC cable, one USB connector for 4-pin USB cable (optional) , and one RS232 connector for 5-pin RS232 cable (optional) , and one 7-pin connector.

2.0 Specifications

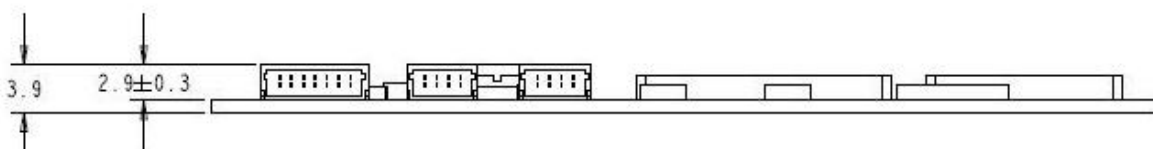
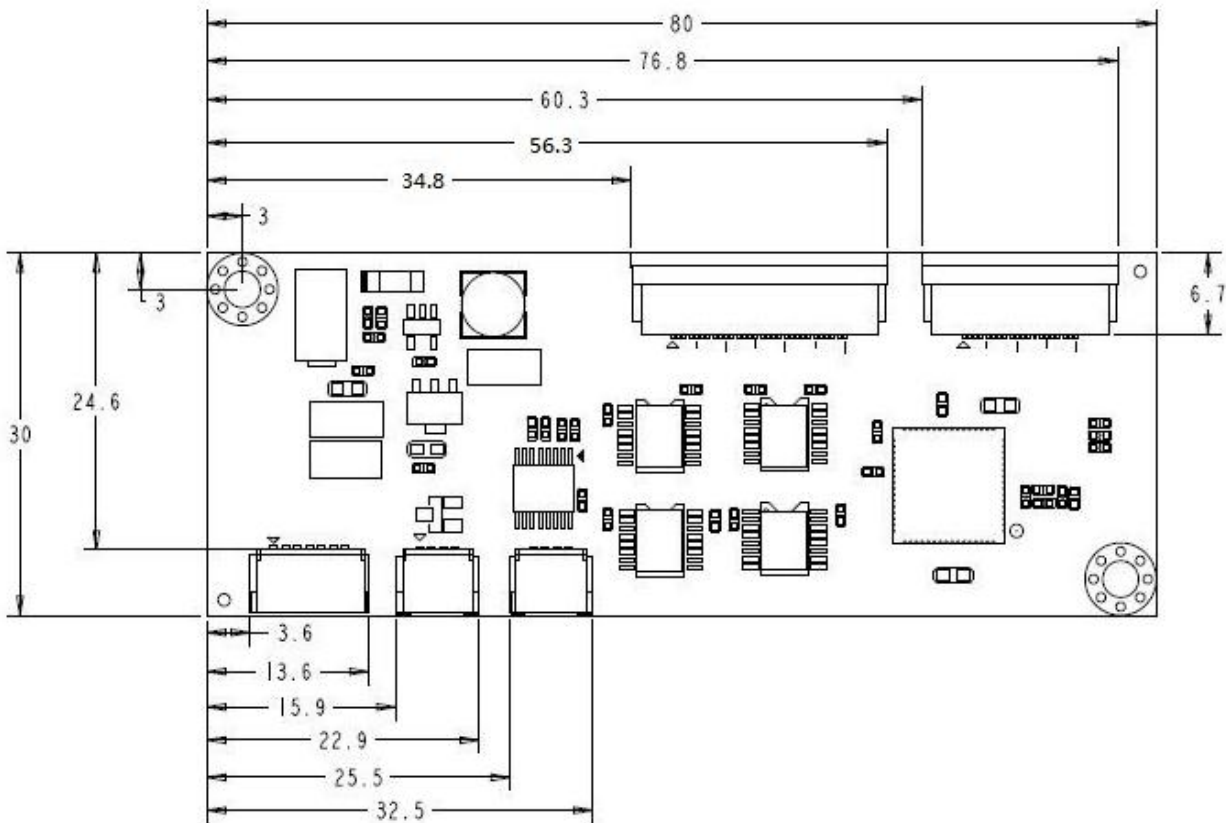
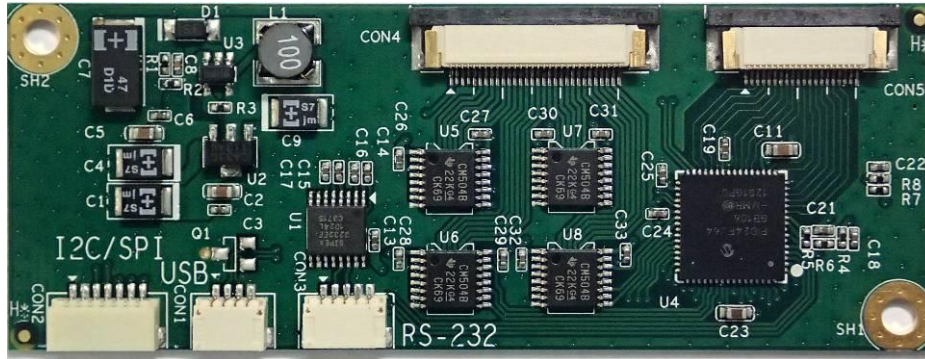
- 2.1 Controller part no : P2-03
- 2.2 Supporting Projected Capacitive touch panel size:
Projected capacitive type, size is 5.0" to 7.9"
- 2.3 Interface: USB, RS-232
USB: Full-speed, 12Mbps
RS-232 Interface 38400 baud rate / 8bit data / non parity / one stop bit / non-PnP
- 2.4 ADC resolution: 10bits
- 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 : 37mA
Idle Mode : 19mA
Sleep Mode : 3.75mA
- 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

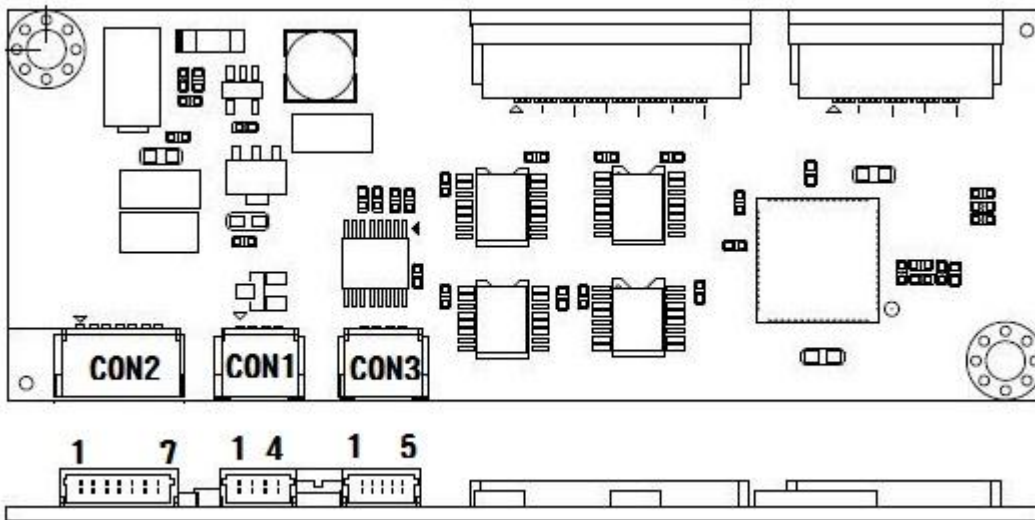


Unit: mm

3.2 Touch line pin definition

CON4 30Pin ZIF , PH 0.5mm ; ACES 88707-3001							
PIN	Description	PIN	Description	PIN	Description	PIN	Description
1	Shield	11	Cap Drive X5	21	Cap Drive X15		
2	NC	12	Cap Drive X6	22	Cap Drive X16		
3	GND	13	Cap Drive X7	23	Cap Drive X17		
4	Shield	14	Cap Drive X8	24	Cap Drive X18		
5	GND	15	Cap Drive X9	25	Cap Drive X19		
6	Cap Drive X0	16	Cap Drive X10	26	Cap Drive X20		
7	Cap Drive X1	17	Cap Drive X11	27	Cap Drive X21		
8	Cap Drive X2	18	Cap Drive X12	28	Cap Drive X22		
9	Cap Drive X3	19	Cap Drive X13	29	Cap Drive X23		
10	Cap Drive X4	20	Cap Drive X14	30	GND		
CON5 20Pin ZIF , PH 0.5mm ; ACES 88707-2001							
PIN	Description	PIN	Description	PIN	Description	PIN	Description
1	GND	6	Cap Sense Y11	11	Cap Sense Y6	16	Cap Sense Y1
2	GND	7	Cap Sense Y10	12	Cap Sense Y5	17	Cap Sense Y0
3	Cap Sense Y14	8	Cap Sense Y9	13	Cap Sense Y4	18	GND
4	Cap Sense Y13	9	Cap Sense Y8	14	Cap Sense Y3	19	GND
5	Cap Sense Y12	10	Cap Sense Y7	15	Cap Sense Y2	20	GND

3.3 Interface pin definition

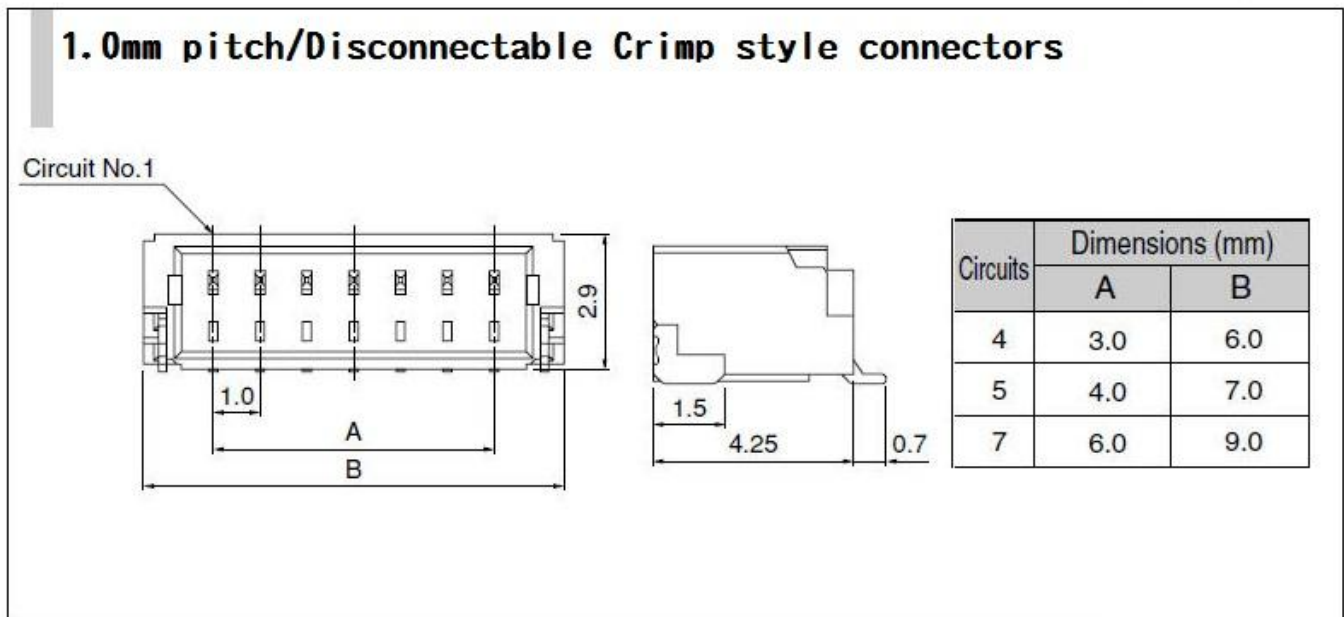


CON1 / 4PIN / USB	
PIN NO.	DESIGNATION
1	5VIN
2	D-
3	D+
4	Ground

CON3 / 5PIN / RS-232	
PIN NO.	DESIGNATION
1	5VIN
2	RXD
3	TXD
4	Ground
5	Ground

CON2 / 7PIN	
PIN NO.	DESIGNATION
1	N/A
2	N/A
3	N/A
4	N/A
5	N/A
6	N/A
7	N/A

3.4 Connector specification



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.

5.3 Warranty: one year