

PenMount 1400 Control Board Data Sheet

PenMount PM1400 PCI Control Board

PenMount 1400 control board is one of the cutting-edge innovations from PenMount. A collectively integrated feature with USB / RS232 / I²C interface supporting 11.0" to 15.0" projected capacitive touch screens; complemented by the superbly developed PenMount drivers which can be used directly in Windows 7.

PenMount 1400 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 15.0". PenMount 1400 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 four connectors on this board: 40Pin & two 30 Pins 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 I²C connector for 7-pin I²C cable (optional).

Specifications

Touch Screen Size	11.0" to 15.0"
Interface	USB, Full-speed, 12Mbps
	RS-232 Interface 19200- 38400 baud rate / non-PnP
	I ² C, Slave, support 400 kHz specifications
Touch Screen Controller	PIC18F45K22 & PIC24FJ128GB210
Mechanical Size	30X1250 mm
Resolution	2048X2048
Operating Voltage	+5V DC
Storage Temperature	-40°C ~ +85°C
Operating Temperature	-20°C ~ +70°C
Power Consumption	Typical 25mA
Max. Sensing Line	35
Max. Driving Line	46
Sample rate / per second	> 100 sps

Driver Software:

RS232 & USB interface :

Windows XP / Vista / 7 *

Windows Embedded CE 6.0

Linux (provide the source code for Linux and Android)

*USB interface support Windows Vista and 7 inbox driver

Utility:

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

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Page 1 of 4

Version: 1.00

Release Date: 2011.10.02

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Pin Assignment

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	GND	12	Cap Drive X6	22	Cap Drive X16		
3	Shield	13	Cap Drive X7	23	Cap Drive X17		
4	NC	14	Cap Drive X8	24	Cap Drive X18		
5	NC	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	NC		
10	Cap Drive X4	20	Cap Drive X14	30	GND		
CON5 30Pin ZIF , PH 0.5mm ; ACES 88707-3001							
PIN	Description	PIN	Description	PIN	Description		
1	GND	11	Cap Drive X30	21	Cap Drive X40		
2	NC	12	Cap Drive X31	22	Cap Drive X41		
3	NC	13	Cap Drive X32	23	Cap Drive X42		
4	Cap Drive X23	14	Cap Drive X33	24	Cap Drive X43		
5	Cap Drive X24	15	Cap Drive X34	25	Cap Drive X44		
6	Cap Drive X25	16	Cap Drive X35	26	Cap Drive X45		
7	Cap Drive X26	17	Cap Drive X36	27	NC		
8	Cap Drive X27	18	Cap Drive X37	28	NC		
9	Cap Drive X28	19	Cap Drive X38	29	GND		
10	Cap Drive X29	20	Cap Drive X39	30	GND		
CON6 40Pin ZIF , PH 0.5mm ; ACES 88707-4001							
PIN	Description	PIN	Description	PIN	Description	PIN	Description
1	GND	11	Cap Sense Y9	21	Cap Sense Y19	31	Cap Sense Y29
2	NC	12	Cap Sense Y10	22	Cap Sense Y20	32	Cap Sense Y30
3	Cap Sense Y1	13	Cap Sense Y11	23	Cap Sense Y21	33	Cap Sense Y31
4	Cap Sense Y2	14	Cap Sense Y12	24	Cap Sense Y22	34	Cap Sense Y32
5	Cap Sense Y3	15	Cap Sense Y13	25	Cap Sense Y23	35	Cap Sense Y33
6	Cap Sense Y4	16	Cap Sense Y14	26	Cap Sense Y24	36	Cap Sense Y34
7	Cap Sense Y5	17	Cap Sense Y15	27	Cap Sense Y25	37	Cap Sense Y35
8	Cap Sense Y6	18	Cap Sense Y16	28	Cap Sense Y26	38	NC
9	Cap Sense Y7	19	Cap Sense Y17	29	Cap Sense Y27	39	GND
10	Cap Sense Y8	20	Cap Sense Y18	30	Cap Sense Y28	40	GND

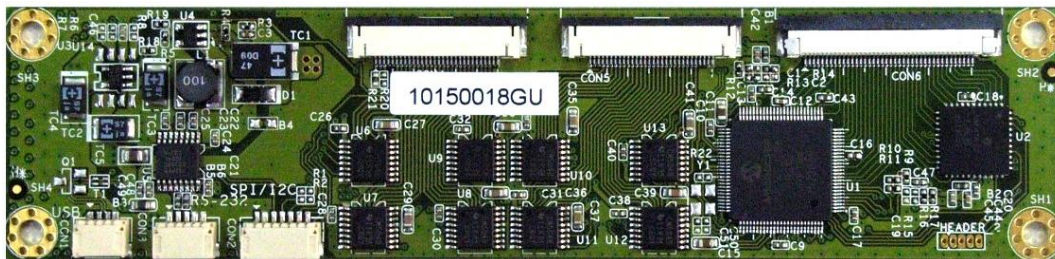
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CON1 4Pin WIRE , PH 1.0mm ASEC 87213-0400G				CON3 4Pin WIRE , PH 1.0mm ASEC 87213-0500G			
<i>PIN</i>	<i>Description</i>	<i>PIN</i>	<i>Description</i>	<i>PIN</i>	<i>Description</i>	<i>PIN</i>	<i>Description</i>
1	5V IN	3	D+	1	5V IN	4	GND
2	D-	4	GND	2	RXD0	5	GND
				3	TXD0		
CON2 7Pin WIRE , PH 1.0mm ASEC 87231-0700G							
1	5V IN	3	SCL / RXD / SDI	5	SCK	7	INTHM
2	GND	4	SDA / TXD / SDO	6	CS		

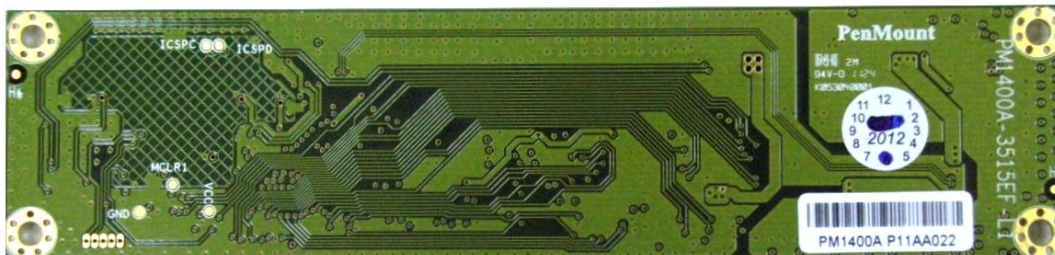
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Mechanical Drawing

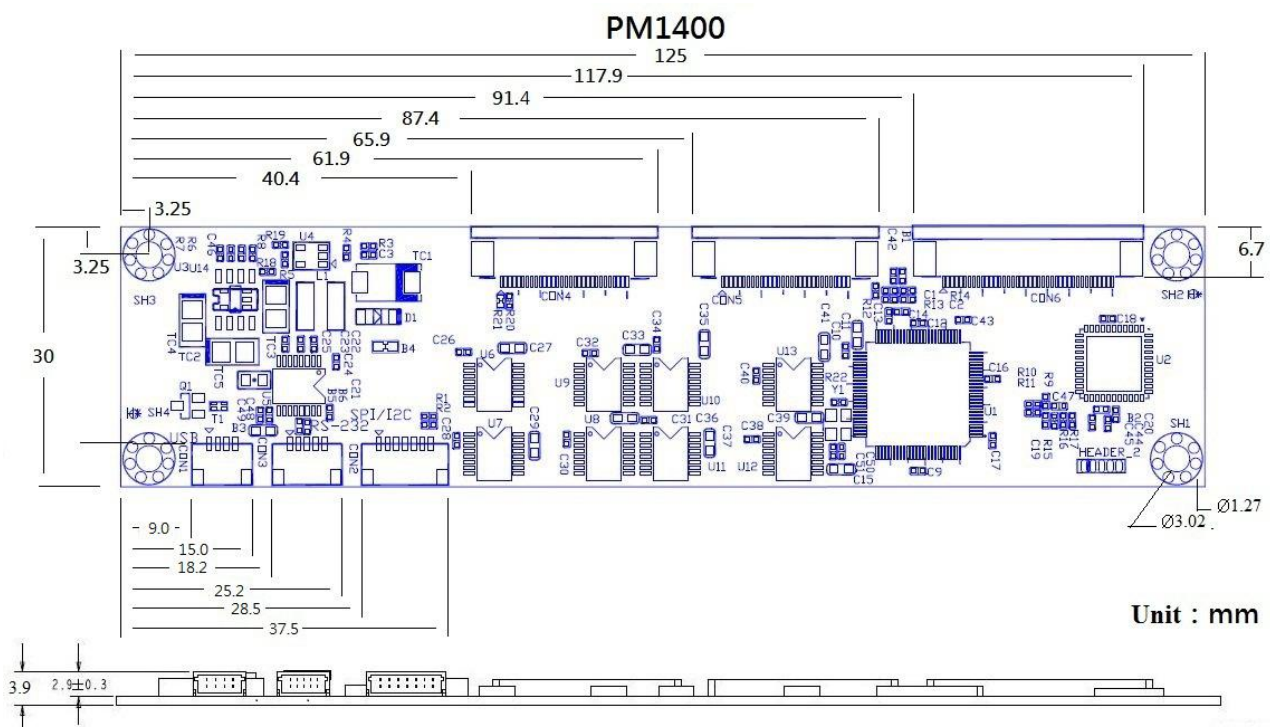
TOP View



Bottom View



Mechanical size



Remark: Specification is subject to change without notice