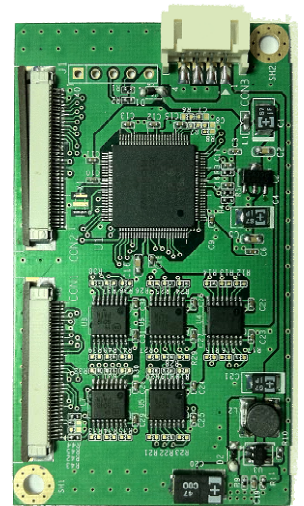


## PenMount 1300 USB / I<sup>2</sup>C Interface Control Board

PenMount 1300 control board is one of the cutting-edge innovations from PenMount. A collectively integrated feature with USB / I<sup>2</sup>C interface supporting 8" to 10.9" projected capacitive touch screens; complemented by the superbly developed PenMount drivers which can be used directly in Windows 7.

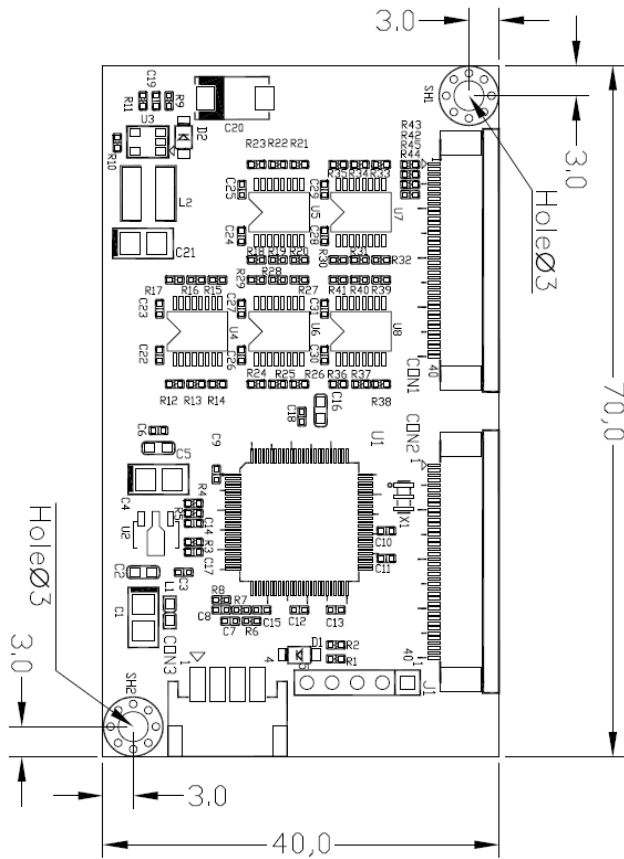
PenMount 1300 Control Board uses P2-04 Series controller, which is a capacitive sensing IC designed for AMT Projected Capacitive Input (PCI) touch panel and other projected capacitive touch panel. It is designed for PCI touch screen size up to 10.9". PenMount 1300 Control Board has the programmable filter, gain amplifier; with the functions of single, dual touch; and the gestures of one and two fingers. There are four connectors on this board: two 40 Pins ZIF connectors for PCI touch screen FPC tail, one USB connector for 4-pin USB cable (optional).



### Specifications

|                                   |                                                                                       |
|-----------------------------------|---------------------------------------------------------------------------------------|
| <b>Touch Screen:</b>              | Projected capacitive type, size is 8" to 10.9"                                        |
| <b>Host interface:</b>            | USB : Full-speed, 12Mbps<br>I <sup>2</sup> C : Slave , support 400 kHz specifications |
| <b>Touch Screen Controller:</b>   | PenMount P2-04 series                                                                 |
| <b>Size:</b>                      | 40X70 mm , two 3φscrew holes                                                          |
| <b>ADC resolution:</b>            | 10 bits                                                                               |
| <b>Operating Voltage:</b>         | +5V DC for USB & I <sup>2</sup> C                                                     |
| <b>Storage Temperature Range:</b> | -40°C ~ +85°C                                                                         |
| <b>Operating Temperature:</b>     | -10°C ~ +70°C                                                                         |
| <b>Power Consumption:</b>         | Typical 25mA                                                                          |
| <b>Max. touch line:</b>           | 23 sensing lines<br>30 driving lines                                                  |
| <b>Sample rate:</b>               | > 100 sps (sample per second)                                                         |

## Mechanical size



Unit : mm

## Connector Definition

| CON1 40Pin ZIF , PH 0.5mm |              |     |               |     |               |     |               |
|---------------------------|--------------|-----|---------------|-----|---------------|-----|---------------|
| Pin                       | Description  | Pin | Description   | Pin | Description   | Pin | Description   |
| 1                         | Shield       | 11  | Cap Drive X3  | 21  | Cap Drive X13 | 31  | Cap Drive X23 |
| 2                         | NC           | 12  | Cap Drive X4  | 22  | Cap Drive X14 | 32  | Cap Drive X24 |
| 3                         | NC           | 13  | Cap Drive X5  | 23  | Cap Drive X15 | 33  | Cap Drive X25 |
| 4                         | Ground       | 14  | Cap Drive X6  | 24  | Cap Drive X16 | 34  | Cap Drive X26 |
| 5                         | NC           | 15  | Cap Drive X7  | 25  | Cap Drive X17 | 35  | Cap Drive X27 |
| 6                         | Shield       | 16  | Cap Drive X8  | 26  | Cap Drive X18 | 36  | Cap Drive X28 |
| 7                         | NC           | 17  | Cap Drive X9  | 27  | Cap Drive X19 | 37  | Cap Drive X29 |
| 8                         | Cap Drive X0 | 18  | Cap Drive X10 | 28  | Cap Drive X20 | 38  | NC            |
| 9                         | Cap Drive X1 | 19  | Cap Drive X11 | 29  | Cap Drive X21 | 39  | NC            |
| 10                        | Cap Drive X2 | 20  | Cap Drive X12 | 30  | Cap Drive X22 | 40  | Ground        |

| CON2 40Pin ZIF , PH 0.5mm |             |     |              |     |               |     |               |
|---------------------------|-------------|-----|--------------|-----|---------------|-----|---------------|
| Pin                       | Description | Pin | Description  | Pin | Description   | Pin | Description   |
| 1                         | NC          | 11  | NC           | 21  | Cap Sense Y7  | 31  | Cap Sense Y17 |
| 2                         | NC          | 12  | Ground       | 22  | Cap Sense Y8  | 32  | Cap Sense Y18 |
| 3                         | NC          | 13  | NC           | 23  | Cap Sense Y9  | 33  | Cap Sense Y19 |
| 4                         | NC          | 14  | Cap Sense Y0 | 24  | Cap Sense Y10 | 34  | Cap Sense Y20 |
| 5                         | NC          | 15  | Cap Sense Y1 | 25  | Cap Sense Y11 | 35  | Cap Sense Y21 |
| 6                         | NC          | 16  | Cap Sense Y2 | 26  | Cap Sense Y12 | 36  | Cap Sense Y22 |
| 7                         | NC          | 17  | Cap Sense Y3 | 27  | Cap Sense Y13 | 37  | NC            |
| 8                         | NC          | 18  | Cap Sense Y4 | 28  | Cap Sense Y14 | 38  | Ground        |
| 9                         | NC          | 19  | Cap Sense Y5 | 29  | Cap Sense Y15 | 39  | NC            |
| 10                        | NC          | 20  | Cap Sense Y6 | 30  | Cap Sense Y16 | 40  | Ground        |

| CON3 |             |     |             | J1 |  |  |  |
|------|-------------|-----|-------------|----|--|--|--|
| Pin  | Description | Pin | Description |    |  |  |  |
| 1    | 5VIN        | 1   | Ground      |    |  |  |  |
| 2    | D-          | 2   | INT         |    |  |  |  |
| 3    | D+          | 3   | SDA         |    |  |  |  |
| 4    | Ground      | 4   | SCL         |    |  |  |  |
|      |             | 5   | VCC12C      |    |  |  |  |

## Driver Software:

Windows XP & Vista: single touch, mouse driver for USB Interface.

Windows 7 : dual touch, Inbox driver for USB interface

Linux: driver by request

## Utility:

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

Remark: Specification is subject to change without prior notice