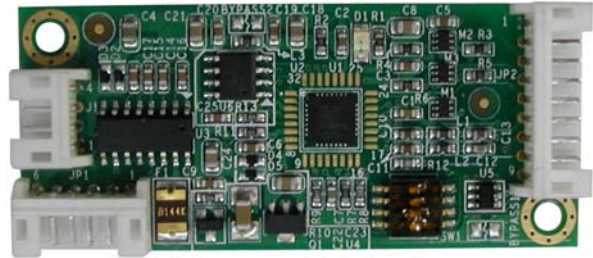


PenMount 6500 combo board, USB and RS232 Interface

PenMount 6500, one of PenMount's newest innovation, the ultimate combo board. A collectively integrated features and functions of auto detecting USB and RS232 serial interfaces supporting 4, 5 & 8 wire resistive touch screens; complemented by the superbly developed PenMount drivers with auto installation driver capability.

PenMount 6500 control board using PenMount 6000 controller that has been designed for those who may like and all-in-one solution with 10-bit A/D converter built-in to make the total printed circuit board denser, circuit diagram also designed for 12-bit ADC for optional. There are two connectors on this board, one connector is for 4, 5, 8-wire touch screen cable (optional), and another is for 4-pin USB A type cable.



Electrical Specifications

Touch Screen:	For 4-, 5-, 8-wire analog resistive type
Communications:	USB, full speed, 12MHz RS232, 19200 / 9600 baud rate
Touch Screen Controller:	PenMount 6000 microcontroller
Resolution:	2048x2048 (optional up to 4096 x 4096)
Size:	60x26 mm, two 3mm Ø screw holes
Portrait:	Support 90° 180° and 270° screen rotation
Calibration data:	data saved into Chip and also into register file
Diagnostic:	LED on board
Operating Voltage	+5V DC for USB / +5V~12V DC for RS232 (4/8-wire touch panel use for 5V to 12V DC 5-wire touch panel only use for 5V DC)
Storage Temperature Range	-40°C ~ 85°C
Operating Temperature	-20°C ~ 70°C

Changes that contribute to technical improvement are subject to alternations

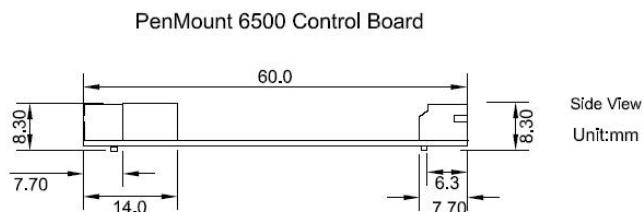
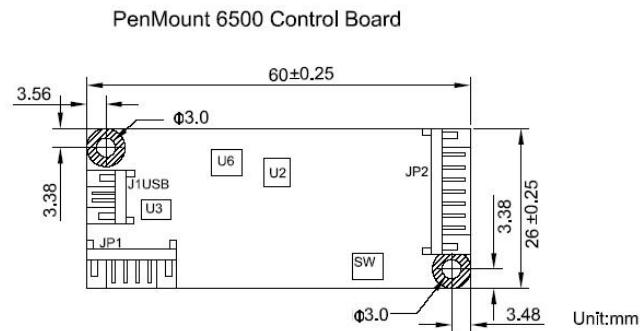
				2007	Datum	Name	Touch Controller Board USB & RS232 4-, 5-, 8-wire SPEZIFICATIONS PenMount 6500 combo Manufactured by Apex Material Technology Corp.
				Bearb.	05.04.	Maurer	
				Gepr.	05.04.	Maurer	
				Vert.			
				EDV-Datasheet			
				don't change manually			
				 ELECTRONIC COMPONENTS			H 1070,0048.01-.04
Zu	Änd.	Datum	Name	D 79346 Endingen			page 1 of 3 Index:

Driver Software

Windows 2000/XPE/2003 and newest released version, Windows XP (WHQL), WinCE 4.2/5.0 (for X86, Armv4, Armv4i, MIPS, SH3, SH4 Platform), Linux OS (supported X-Windows mode and up to kernel 2.6)

Actual driver overview and download: <http://www.amtouch.com.tw/downloads/drivers.htm>
http://www.penmount.com.tw/down_2_1.php

Mechanical Size



DIP Switch & Connector Definition

DIP Switch and Pin definitions for the two connectors on the PenMount 6500 control board:

DIP Switch Setting

Switch	Definition	ON	OFF
S1	Touch screen type	4-, 8-wire	5-wire
S2	PnP enable or disable	Enable*	Disable
S3	Baud Rate Adjustment	9600	19200*
S4	Reserved	Reserved	Reserved

***Default**

Changes that contribute to technical improvement are subject to alternations

				2007	Datum	Name	Touch Controller Board USB & RS232 4-, 5-, 8-wire SPEZIFIKATIONS PenMount 6500 combo Manufactured by Apex Material Technology Corp.
				Bearb.	05.04.	Maurer	
				Gepr.	05.04.	Maurer	
				Vert.			
				EDV-Datasheet			don't change manually
							H 1070,0048.01-.04 page 2 of 3 Index:
Zu	Änd.	Datum	Name	D 79346 Endingen			

Connector Pin Definitions for Touch Screen

Pin Definition / wires	4-wire touch screen	5-wire touch screen	8-wire touch screen
PIN 1	Ground	Ground	Ground
PIN 2	Top	UL	Top
PIN 3	Bottom	UR	Bottom
PIN 4	Left	LL	Left
PIN 5	Right	LR	Right
PIN 6	---	Sense	Top Sense
PIN 7	---	---	Bottom Sense
PIN 8	---	---	Left Sense
PIN 9	---	---	Right Sense

Connector Pin Definitions for USB

USB Interface				
Pin #	PIN 1	PIN 2	PIN 3	PIN 4
Definition	Ground	D+	D-	Vcc

Connector Pin Definitions for Power and RS-232

Power Lines			RS-232 Interface			
Pin #	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6
Definition	Ground	5V~12V power	RTS	TXD	RXD	Ground

Item Number

1070. 0048.01	cable set 4-wire ZIF	USB cable 1500mm
1070. 0048.02	cable set 4-wire AMPC	USB cable 1500mm
1070. 0048.03	cable set 8-wire AMPC	USB cable 1500mm
1070. 0048.04	cable set 5-wire AMPC	USB cable 1500mm
1070. 0048.11	cable set 4-wire ZIF	RS232 cable 450mm
1070. 0048.12	cable set 4-wire AMPC	RS232 cable 450mm
1070. 0048.13	cable set 8-wire AMPC	RS232 cable 450mm
1070. 0048.14	cable set 5-wire AMPC	RS232 cable 450mm

Changes that contribute to technical improvement are subject to alternations

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				 ELECTRONIC COMPONENTS D 79346 Endingen			
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