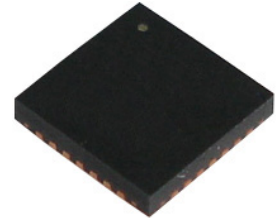


PenMount 6000 Controller IC Data Sheet

PenMount 6000 touch screen controller is the best performing touch screen controller, it is designed to have PnP features to meet the new systems trend. It is also a very good performance of RS-232 and USB interface on the touch screen. PenMount 6000 has been designed for those who may like all-in-one solution with A/D converter built-in to make the total printed circuit board denser.



(PenMount 6000 controller is designed with Silicon Lab. C8051F321)

PenMount 6000 Specifications

RoHS Compliance

Touch Screen:	4, 5 , 8-wire
Package:	28-pin QFN
Communications:	RS-232 19200 / 9600 baud rate USB Full-speed, 12Mbps
Feature:	<ul style="list-style-type: none"> - High-speed pipelined 8051-compatible microcontroller core - ADC with analog multiplexer - 12 MHz internal oscillator - On-chip FLASH memory - USB, UART interfaces implemented in hardware - Firmware field update support with USB & RS232 interface. <p>(Important Note : Need Firmware 6000.8.0.0 or later)</p>
Sample Rate	160 points per second (minimal)
Resolution	2048x2048
Resistance Range :	50~1.3K ohm
Operating Voltage:	+3.3V ~ +5V DC \pm 5%
Electro Static Discharge (ESD)	Air Discharge 15KV , Contact Discharge 8KV (Also it depends on the machine design, the machine casing block out part of the static energy ,by the circuit layout vent out the static energy to the ground.)
Operating Temperature:	-40° C to +85° C (-104° F to +185° F)
Storage Temperature:	-65° C to +150° C (-149° F to +302° F)
Power Consumption (Base on PM6300 board)	Standby Mode : 13.4 mA ; Active Mode : 21.5 mA (VCC=+5V, Top sheet Panel Resistance: 365 ohm ;

	<p>Bottom sheet Panel Resistance: 660 ohm)</p> <p>Note. Actual current will be different by touch panel's resistance.</p>
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Driver Software

RS232 interface : DOS, Windows XP/ XPE/ 2003/ 2008/Vista/ 7 /8 /10 /11, WinCE 4.2/ 5.0/ 6.0/7.0, Linux (Kernel 2.6 and X-Window mode), QNX 6.2/ 6.3/ 6.4/ 6.5

USB interface : Windows XP/ XPE/ 2003/ 2008/ Vista/ 7 /8 /10 /11, WinCE 4.2/ 5.0/ 6.0/7.0, Linux OS (Kernel 2.6 and X-Window mode), QNX 6.4.1/ 6.5 (Inbox support)
QNX6.2/ 6.3/ 6.4/ 6.5

Packaging Information

The following diagram depicts the pinout of chip:

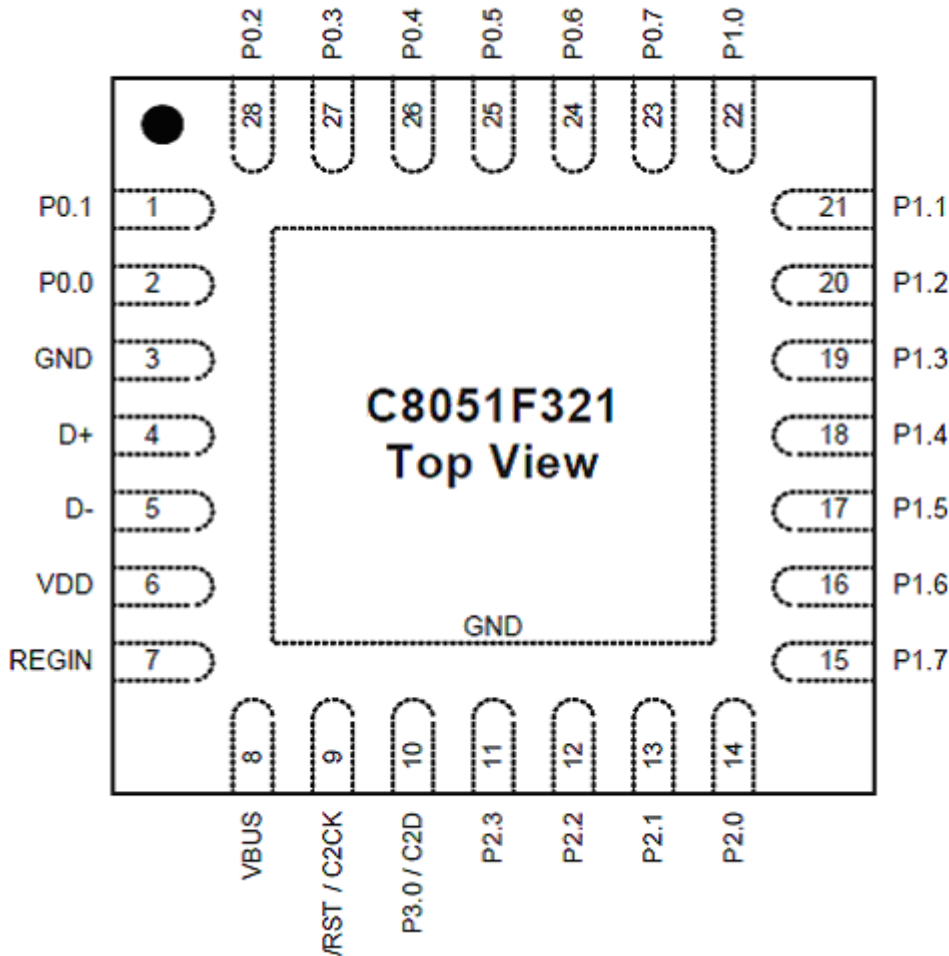


Fig. 1: QFN-28 Pinout Diagram (Top View)

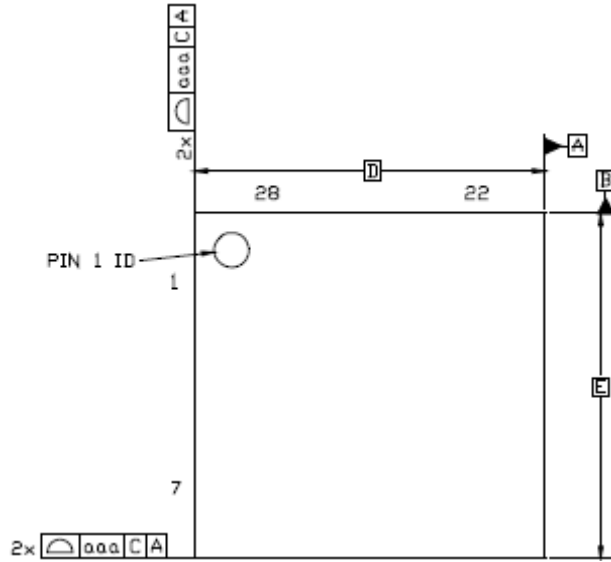


Fig. 2: QFN-28 Package Drawings - Top View

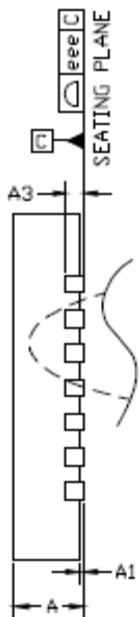


Fig. 3: QFN-28 Package Drawings – Side View

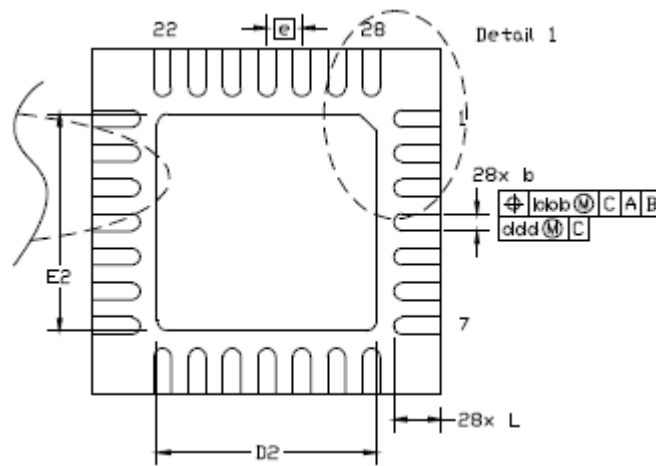
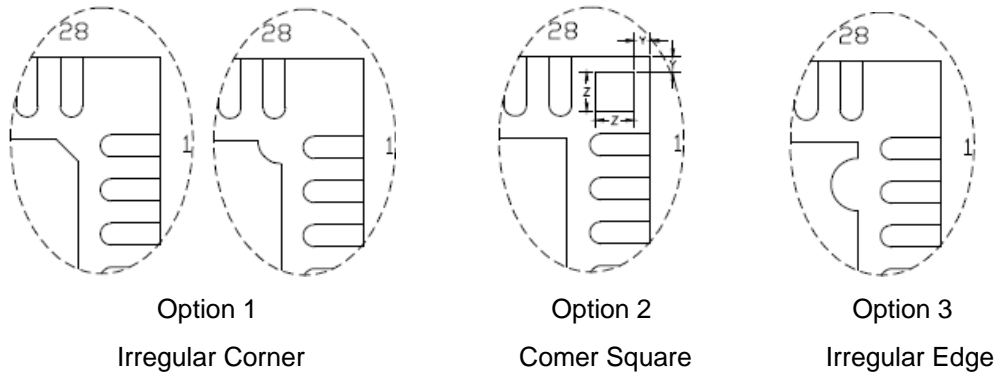


Fig. 4: QFN-28 Package Drawings - Bottom View

PenMount 6000 Controller IC Data Sheet

Detail 1

Pin – 1 Identifier



Detail 2

Perimeter Lead Form

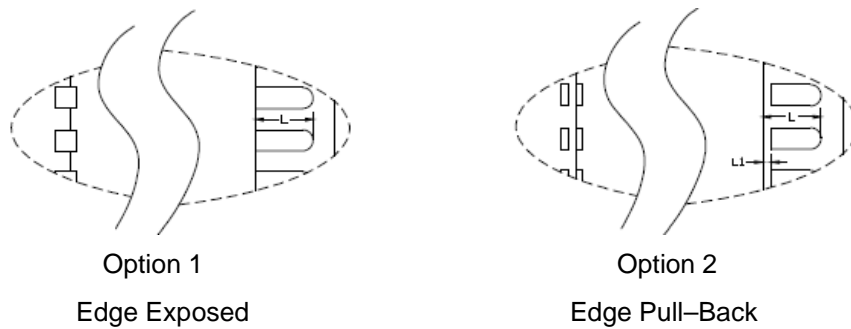


Fig. 5 QFN-28 Package Drawing

Dimension	Min	Typ	Max
A	0.80	0.90	1.00
A1	0.00	0.02	0.05
A3	0.25 REF		
b	0.18	0.23	0.30
D	5.00 BSC.		
D2	2.90	3.15	3.35
e	0.50 BSC.		
E	5.00 BSC.		
E2	2.90	3.15	3.35
Dimension	Min	Typ	Max
L	0.35	0.55	0.65
L1	0.00	—	0.15
aaa	0.15		
bbb	0.10		
ddd	0.05		
eee	0.08		
Z	0.44		
Y	0.18		

Notes:

- All dimensions shown are in millimeters (mm) unless otherwise noted.
- Dimensioning and Tolerancing per ANSI Y14.5M-1994.
- This drawing conforms to the JEDEC Solid State Outline MO-220, variation VHHD except for custom features D2, E2, Z, Y, and L which are toleranced per supplier designation.
- Recommended card reflow profile is per the JEDEC/IPC J-STD-020 specification for Small Body Components.

Table 1 QFN-28 Package Dimensions