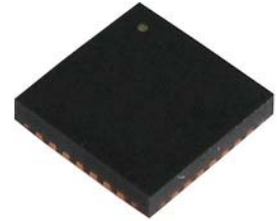## PenMount 6000 Touch Screen Controller IC

**PenMount**
TOUCH SCREEN SOLUTIONS

PenMount 6000 touch screen controller is the best performance 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 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.

### Electrical Specifications

| | |
|---|---|
| Touch Screen: | For 4-, 5-, 8-wire analog resistive type |
| Package: | 28pin - QFN |
| Communications: | RS232  19200 / 9600 baud rate;  USB full speed, 12MHz |
| Features: | High-speed pipelined 8051-compatible microcontroller core (up to 25MIPS) |
| | True 10-bit, 17-channel single-ended/differential ADC, analog multiplexer |
| | On-chip Voltage Reference and Temperature Sensor |
| | On-chip Voltage Comparators |
| | On-chip Power-On Reset, VDD Monitor, and Missing Clock Detector |
| | On-chip FLASH memory |
| | USB, UART, SPI interfaces implemented in hardware |
| | Programmable Counter / Timer Array / compare modules / Watchdog Timer |
| | On-chip Power-On Reset, VDD Monitor, and Missing Clock Detector |
| Sample rate: | Maximal 200 points / second |
| Calibration data: | Calibration data saved into Chip and also into register file |
| Resistance range: | 50 – 1300 Ohm |
| Resolution: | 2048 x 2048 (up to 4096 x 4096 optional) |
| Operating Voltage: | +5V DC ± 5% |
| Operating Temperature: | -40$^o$ C to +85$^o$ C |
| Storage Temperature: | -65$^o$ C to +150$^o$ C |

*Changes that contribute to technical improvement are subject to alternations*

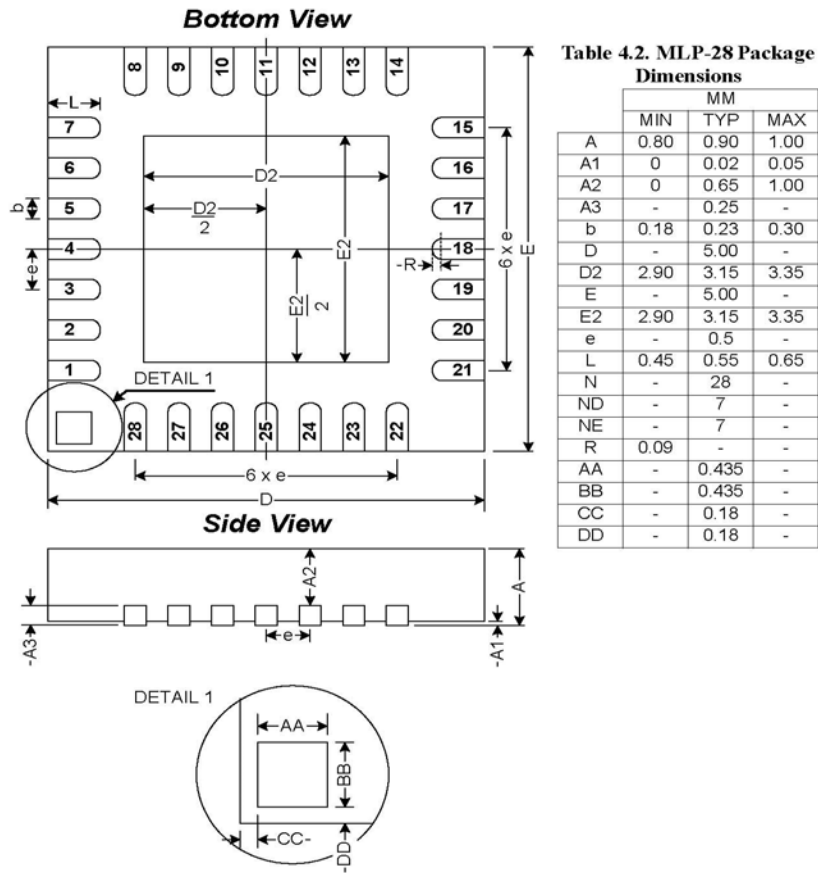| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | 2007 | Datum | Name | |
| | | | | Bearb. | 05.04. | Maurer | **Touch Controller Chip** |
| | | | | Gepr. | 05.04. | Maurer | *Combo, RS232 / USB* |
| | | | | Vert. | | | *4-, 5-, 8-wire* |
| | | | | EDV-Datasheet | | | SPEZIFICATIONS |
| | | | | | | | **PenMount DMC6000** |
| | | | | don't change manually | | | Manufactured by Apex Material Technology Corp. |
| | | | | **⊡.SCHURTER** | | | **H   1070,0049** |
| | | | | ELECTRONIC COMPONENTS | | | |
| Zu | Änd. | Datum | Name | D 79346 Endingen | | | page  1 of  2     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

## Packaging Information:

Figure 4.4. MLP-28 Package Drawing



**Table 4.2. MLP-28 Package Dimensions**

| | MIN | TYP | MAX |
|---|---|---|---|
| | | MM | |
| A | 0.80 | 0.90 | 1.00 |
| A1 | 0 | 0.02 | 0.05 |
| A2 | 0 | 0.65 | 1.00 |
| A3 | - | 0.25 | - |
| b | 0.18 | 0.23 | 0.30 |
| D | - | 5.00 | - |
| D2 | 2.90 | 3.15 | 3.35 |
| E | - | 5.00 | - |
| E2 | 2.90 | 3.15 | 3.35 |
| e | - | 0.5 | - |
| L | 0.45 | 0.55 | 0.65 |
| N | - | 28 | - |
| ND | - | 7 | - |
| NE | - | 7 | - |
| R | 0.09 | - | - |
| AA | - | 0.435 | - |
| BB | - | 0.435 | - |
| CC | - | 0.18 | - |
| DD | - | 0.18 | - |