

Mitsutech SMT3 Serial Controller for Capacitive

P/N MT-Excalibur

The MT-Excalibur controllers are Serial/SMT controllers, which are compact (3.5 x 2.25 x 0.3 inches), RS-232 serial controllers. The controller can be internally mounted in the monitor, or enclosed in a molded plastic case (3.75 x 2.5 x 0.9 inches) and mounted to the back or side of your monitor.

Technical Specifications:

Power : +5V Input: +5VDC (47 mA typical, 60 mA maximum),
±5% regulation, 100 mV maximum ripple and noise.
+12V Input: 8-24 VDC (47 mA typical, 60 mA maximum),
400 mV maximum ripple.

Operating Temperature : 0-55 °C

Relative Humidity : 0 – 95% non-condensing

Circuit Board Size : 3.5 x 2.25 inches, 0.3-inch clearance height.

Enclosure Size : 3.75 x 2.5 x 0.9 inches, molded plastic enclosure.

Status Light (LED) Diagnostics:

The LED status light on the Serial/SMT3 controller provides information on power-up, screen touches, and hardware problems.

Serial/SMT3 Controller Mechanical

Figure 1 shows the overall dimensions of the Serial/SMT# controller and the locations of the mounting holes and connectors.

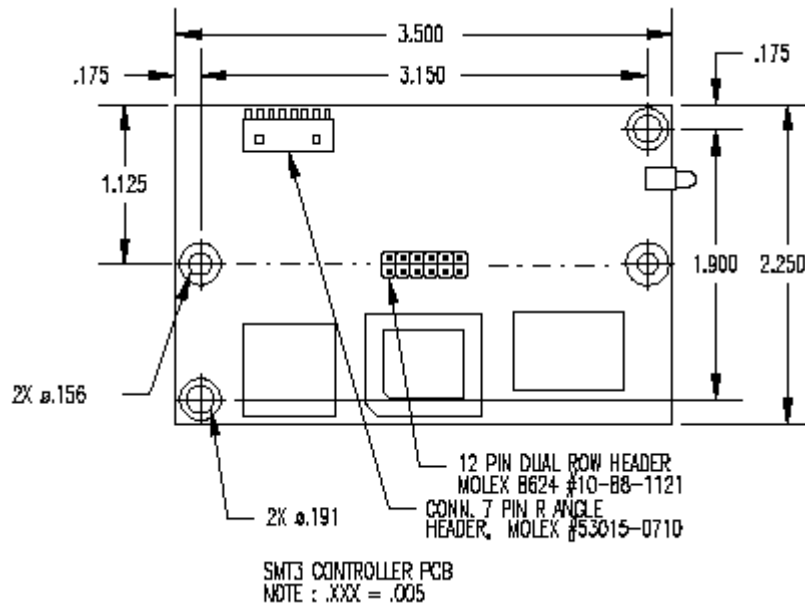


Figure 1. Serial/SMT3 Touchscreen Controller

Communication Connector

SMT3 serial controllers have an attached RS-232 communication cable with a 9-pin D female connector. Table 1 describes the pins for this cable, which connects to a serial communication (COM) ports on the PC. A 9-pin to 25-pin adapter is available.

Table 1 COM Connector (9-pinm D, RS-232) for Serial/SMT3 Controllers

9-pin D	7-pin Molex	Wire Color	Description
1	No connection	-----	Data Carrier Detect (DCD) Connected to DTR and DSR.
2	2	Brown	Transmit Data (TXD). Pin 2 is the controller's output to the host.
3	3	Red	Receive Date (RXD). Pin 3 is the controller's receive from the host.
4	No Connection	-----	Data Terminal Ready (DTR). Connected to DSR and DCD.
5	5	Blue	Power supply ground.
6	No connection	-----	Data Set Ready (DSR) Connected to DTR and DCD.
7	1	Black	Request To Send (RTS) Connected to CTS.
8	4	Green	Clear To Send (CTS). Connected to RTS.
Sleeve	6	White	DC Power jack (+5 VDC)
Pin	7	-----	Cable shield connected to ground DC power jack (ground).
Shell	7	-----	Chassis (earth) ground.

Female Connector on the Touchscreen Cable

The touchscreen (sensor) cable has a 12-pin (2x6) dual row female connector that plugs into the controller. Table 2 describes the pins on this connector.

Table 2. Touchscreen Cable Connector (2 x 6) for Serial/SMT3 Controllers

Pin	Wire Color	Description
1	-----	Factory test point, no connect
2	-----	Serial/SMT3: Factory test point, no connect
3	-----	Factory test point, no connect
4	-----	+5 VDC
5	Gray	Power supply ground
6	Green	Chassis (earth) ground
7	Orange	+12V input
8	Brown	Serial/SMT3: Connects to the sensor shield, which must be grounded.
9	White	Upper right (UR) corner
10	Red	Lower right (LR) corner
11	Black	Upper left (UL) corner
12	Blue	Lower left (LL) corner