# 4 / 5-Wire USB Touch Panel Controller

eGalax_eMPIA launched touch control board to meet latest Restriction of Hazardous Substances (RoHS) Directive. This touch panel controller provides the optimistic performance of your analog resistive touch panels for 4 or 5 wire models. It communicates with PC system directly through USB connector. You can see how superior the design is in sensitivity 、accuracy and friendly operation. The touch panel driver emulates mouse left and right button function and supports operation systems as following.

OS	Version	Interfaces
Windows	Windows Vista, XP/2000, 9x/ME Windows CE 2.12/3.0/.net/5.0/6.0 Windows Embedded Windows XP Tablet PC edition Windows Vista Windows 7	RS232/USB/ PS2
Windows	Windows NT4	RS232/PS2
Linux	Mandrake (Mandrake 9.1/9.2/10, Mandriva 2005, Mandriva 2006), Red Hat (7.3/8.0/9.0), Fedora (Core I/II/III/IV/V/VI), Yellow Dog (3.X) , SuSE (9.2/9.3/10/10.1), Ubuntu (5.1/6.06), Debian (3.1, Kernel 2.4.x/2.6.x)	RS232/USB/ PS2 (up to Kernel 2.6.x)
	Android 1.5 – Google Moblin V2 - Intel	RS232/USB
DOS	DOS	RS232/PS2
Mac	Mac OS9, Mac OS X (IBM, intel CPU)	USB
QNX	QNX RTOS v6.3	RS232/USB

Controller:
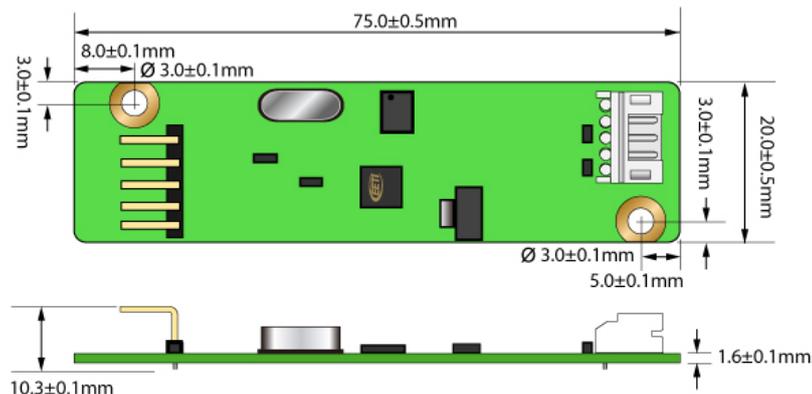
ETP-R4500UPCG-02

Specifications:

| USB Type Controller	
Circuit Board Dimension	20mm x 75mm (0.79inches x 2.95inches)
Power Requirements	D.C.+5V (100mA typical,50mV peak to peak
	maximum ripple and noise)
Operating Temperature	-25 to 80 ℃
Storage Temperature	-55 to 150 ℃
Relative Humidity	95% at 60 ℃, RH Non-condensing
Interface	USB: 1.1 Full Speed
Resolution	2048×2048 resolution
Report rate	USB: Max. 200 points/sec
Response time	Max. 20 ms
Attached Cable	180cm shielded cable with USB-A connector
Regulatory Approvals	FCC-B , CE, Unaffected by EMI from other nearly CRTs and other display devices CRTs
EMI	Unaffected by environmental EMI
Panel resistance	4 wire resistive model: 200 ~ 900 ohm 5 wire resistive model: 50 ~ 200 ohm

Product Package:

(1) ETP-MB-R4500UPCG (4 / 5 wire USB control board)

(2) ETP-CB-SXU00 (USB cable)

(3) ETP-CB-4XN00 (4 pin Flat cable) or

   ETP-CB-5XN00 (5 pin Flat cable)

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Controller Panel Pin Assignment:

For 4-Wire Resistive Touch Panel

Pin-Out as below figure is automatically detected

NC	X+	Y+	X-	Y-

NC	X+	X-	Y+	Y-
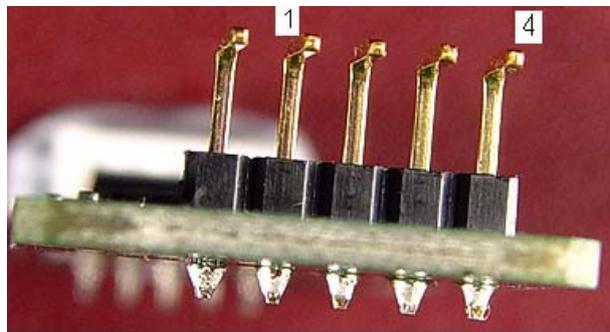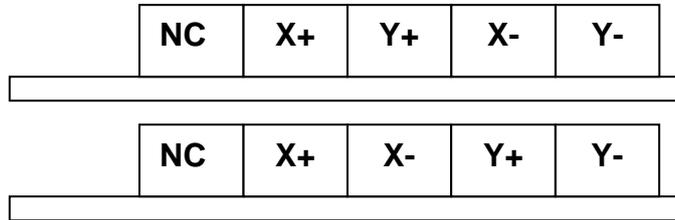
For 5-Wire Resistive Touch Panel

ELO or 3M type Pin-Out is automatically detected

UL	UR	COM	LL	LR	ELO PIN-OUT

UL	UR	COM	LR	LL	3M PIN-OUT
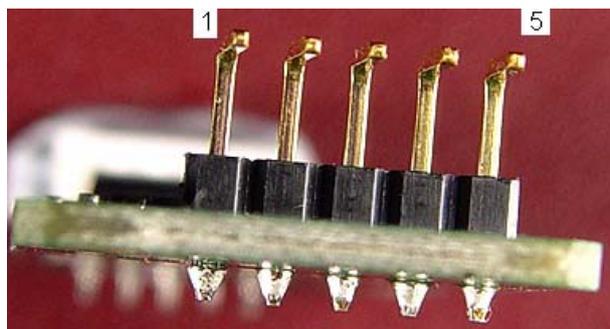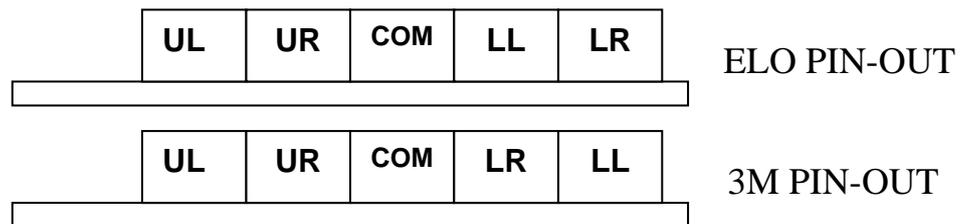
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Controller Wafer Pin Assignment:

USB Interface

G V G D+ D-

1   5