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Control Board Product Specification

對象客戶 Customer	
產品簡述 Product Description	19 INCH PROJECTED CAPACITIVE TOUCH PANEL CONTROL BOARD
規格書適用級別 Application Level	<input type="checkbox"/> Preliminary Reference Only. <input type="checkbox"/> Sample Used Only. <input checked="" type="checkbox"/> Mass-Production Used.
申請日期 Apply Date	2011-04-15
規格書版次別 Spec. Version	1.0
產品型號 Part Number	MT9C19003EU01
韌體版本 F/W version	V1.000
客戶確認 Approved By Customer	
客戶料號 Customer Part No.	
審核人員 Checked By	
核准人員 Approved By	

核准窗口 Approved By	審核窗口 Checked By	制定窗口 Prepared By
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修正履歷
 REVISION HISTORY

項次 Item	版次 Version	修正日期 Date	摘要敘述 Description	頁數 Page
1	1.0	2011-04-15	1. Initial Release.	09
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1. 一般說明 GENERAL DESCRIPTION

1.1 產品摘要 OVERVIEW

這是一款被設計應用於投射式電容觸控面板的控制器，透過玻璃的接觸感應來滿足全平面需求的產品；在 WINDOWS 7 作業平台支援下，控制器可驅動觸控面板達到兩指的觸控功能。

It is designed for Projected Capacitive Touch Panel (PCAP) application; through glass touch sensing is ready for products that require a complete flat surface. It also can drive the touch panel to get two fingers touch function that based on the Windows 7 support.

1.2 產品優點 BENEFITS

- 高準確度並且不必較正。
Excellent accuracy support and Non-calibration.
- 極高靈敏度並且觸控點擊力度小。
Higher sensibility and poor touch force.
- 系統重啟模式可支援韌體更新作業。
Boot loaded support Firmware update.

1.3 產品特徵 FEATURES

項次 ITEMS	規格 SPECIFICATIONS
連接器介面 Interface (Host/Master)	USB Standard 1.1 Full Speed Compliant
作業條件 Operation Conditions	-10°C ~ +60°C at Min 20% to Max 90% RH
儲存條件 Storage Conditions	-15°C ~ +65°C at Min 10% to Max 90% RH
控制器外觀尺寸 Control Board Dimensions	L_84 mm * W_53 mm * H_6.6mm ± 0.5 mm

備註 1：為確保觸控模組可有效發揮其功能，請務必於作業時將控制器作有效的接地動作。

Note 2 : In order to make a touch panel operate normally, please make sure that the host device is grounded.

備註 2：假設觸控模組沒有被有效的執行接地動作時，觸控面板可能有功能性受損或不穩定等現象發生。

Note 2 : The touch panel may be damaged functionally or unstable if the panel does not be grounded through your system to earth.

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2. 控制器規格 CONTROL BOARD SPECIFICATION

2.1 電氣特性 ELECTRICAL CHARACTERISTICS

項次 ITEMS	規格 SPECIFICATIONS	備註 NOTE
連接器介面 Interface (Host/Master)	USB	Standard 1.1 Full Speed Compliant
電源供給 Power Supply	5V	DC
功率消耗 Power Consumption	40mA (Typical)	60mA (Max.)
報點率 Report rate	120Hz (Dual Points)	60Hz(min) that definition by Windows 7

備註 1：USB 為本控制器標準連接器介面，針對其他連接器，若需求仍可採以客製化，諸如 I2C 或 RS-232 連接器介面。

Note1 : USB interface is for standard application, but for other application could be optional such as the I2C or RS232 interfaces.

2.2 連接器腳位定義 PIN ASSIGNMENT

腳位 PIN #	符號 SYMBOL	型式 TYPE	說明 DESCRIPTION
1	EGND		Earth Ground
2	VCC	Power	Supply Voltage
3	GND	Power	Ground Connection
	D+	Signal	USB Signal
5	D-	Signal	USB Signal

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2.3 適用之作業系統 OS COMPLIABLE

系統分類 PLATFORM CLASSIFICATION	觸控點數 TOUCH POINTS		USB 驅動程式 USB DRIVER		座標校正 CALIBRATION	備註 NOTE
	SINGLE	DULE	SINGLE TOUCH	MULTI-TOUCH		
Windows Series	Windows 7	V	V	Non-Driver	Non-Driver	Non-Calibration
	Windows Vista	V		Non-Driver	Non-Support	Non-Calibration
	Windows XP	V		Non-Driver	Non-Support	Non-Calibration
	Windows 2000	V		Non-Driver	Non-Support	Non-Calibration
	Windows ME	V		Non-Driver	Non-Support	Non-Calibration
	Windows 98	V		Non-Driver	Non-Support	Non-Calibration
Linux Series	Ubuntu Linux 10.10	V		Needed		Needed Kernel 2.6.35
	Knoppix 6.2	V		Needed		Needed Kernel 2.6.32

3. 可靠度測試報告與規範 RELIABILITY TEST REPORT AND SPECIFICATIONS

3.1 可靠度規格 RELIABILITY SPECIFICATIONS

環境測試條件列表如下所示。

Environment test conditions are listed as follows.

項次 ITEMS	規格 SPECIFICATIONS
溫濕循環測試 Temperature Cycling	The product should be allowed to stand at 0°C to +60°C with 90% RH for 240hrs un-load condition and allowed to be normalized for 4hrs.
冷熱衝擊測試 Thermal Shock	The product should be allowed to stand at -40°C to +85°C for 30min/cycle with totally 50cycles and allowed to be normalized for 4hrs.
高溫儲存測試 High Temp. Storage	The sample should be allowed to stand at +85°C for 240hrs un-load condition and allowed to be normalized for 4hrs.
低溫儲存測試 Low Temp. Storage	The sample should be allowed to stand at -40°C for 240hrs un-load condition and allowed to be normalized for 4hrs.

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4. 標籤釋義 PRODUCT LABEL EXPLANATION

4.1 條碼定義 BARCODE DEFINITION

4.1.1 控制器料號編碼原則 Coding rule for control board part number used

Serial ID: AA-B-C-DDDDD-E-F-GG

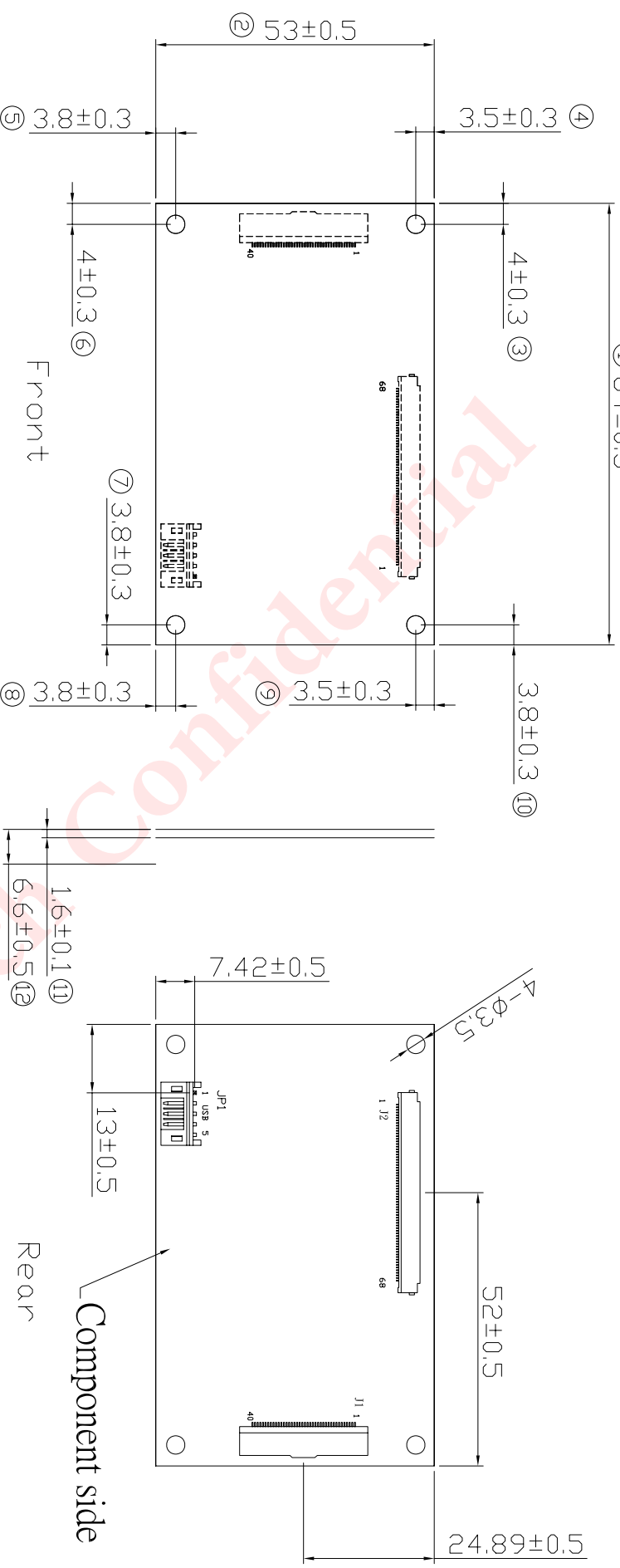
CODE	MEANING	DESCRIPTION
AA	MT	用以表示 MasTouch 的半完成品或成品之料號定義表頭
B	Number	用以表示 Finished Goods 的次分類項次的定義碼
C	Letter	用以表示 Finished Goods 的次分類定義碼
DDDDD	Number	用以表示 Control Board 所對應使用的產品機種專案名稱之定義
E	Letter	用以表示 Control Board 所搭配的 Solution 定義
F	Letter	用以表示 Control Board 所搭配的 Interface 定義
GG	Serial No.	用以表示產品機種專案名稱的版次序號定義

4.1.2 生產序號編碼原則 Coding rule for manufacturing serial used

Serial ID: A-B-CC-DD-EE-FFFF

CODE	MEANING	DESCRIPTION
A	Letter	用以表示產品狀態之定義碼
B	Letter	用以表示生產工廠別之定義碼
CC	Number	用以表示生產西元年份後二碼之定義碼
DD	Number	用以表示生產週別之定義碼
EE	Number	用以表示成品工單號碼後二碼之定義碼
FFFF	Number	用以表示成品的編碼序號定義碼

Date	Rev	Description
10'-10-13	1.0	First Release
11'-04-14	2.0	Modify PART ND<SE4-3150020550901_ND



NO.	NAME	Part Number/Spec	Qty	Notes
1.	J1	MW/PC05L-40-T-A-L	1	DR EQUIVALENT
2.	J2	FH31H-68S-0.5SH	1	DR EQUIVALENT
3.	JP1	W2000-R2051221	1	DR EQUIVALENT

For 68 pin Connector	
Pin Number	Pin Name
1	NC
2	Dummy X
3~66	X0~X63
67	Dummy X
68	NC

For 40 pin Connector	
Pin Number	Pin Name
1	NC
2	Dummy Y
3~38	Y0~Y35
39	Dummy Y
40	NC

For USB Connector	
Pin Number	Pin Name
1	EGND
2	VCC
3	GND
4	D+
5	D-

MasTouch™ MasTouch Optoelectronics Technologies Co., LTD.

CUSTOMER NAME		PROJECTION		PART NAME	
CUSTOMER'S APPROVAL		DRWN Chin Lin		Controller	
CHK Kawa Huang		DATE 11'-04-14		PART NO. MTSP15002E101	
APVD Jeffrey Chou		DATE 11'-04-14		UNIT: mm	
				SCALE 1/1	
				Rev. 2.0	

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6. 成品照片 PRODUCT PICTURES

控制器成品正面照片(Front view of control board)



控制器成品背面照片(Bottom view of control board)



控制器 Barcode label 正面照片(Front view of barcode label)

