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Control Board Product Specification

對象客戶 Customer	
產品簡述 Product Description	15.6 INCH PROJECTED CAPACITIVE TOUCH PANEL CONTROL BOARD
規格書適用級別 Application Level	<input type="checkbox"/> Preliminary Reference Only. <input checked="" type="checkbox"/> Sample Used Only. <input type="checkbox"/> Mass-Production Used.
申請日期 Apply Date	2017-07-31
規格書版次別 Spec. Version	1.0
產品型號 Part Number	MT9C15658EU00
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
Jeffrey Chou	Alex Lin /Milton Hong	Lance Lu



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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	V1.0	2017-07-31	First release.	P01~P09
2				
3				
4				
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10				
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1. 一般說明 GENERAL DESCRIPTION

1.1 產品摘要 OVERVIEW

這是一款採用 USB 介面並支援 WIN8 作業系統已達到可以十指觸控作業的投射式電容觸控面板。

It is a Projected Capacitive Touch Panel with USB interface to support and compatible with WIN8 O/S system for multi-touch application.

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 sensitivity and light 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 ± 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，觸控面板可能會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	130mA (Typical)	150mA (Max.)
報點率 Report rate	60Hz Min. at dual Points	Based on Windows 8

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
4	D+	Signal	USB Signal
5	D-	Signal	USB Signal

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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
高溫高濕測試 Temperature Cycling	The product should be allowed to stand at $60\pm 2^{\circ}\text{C}$ with 90% RH for 240hrs un-load condition and started after leaving RA chamber 24 hrs and then can turn on the system .Water in TP surface need to be wipe down.
冷熱衝擊測試 Thermal Shock	The product should be allowed to stand at -40°C to $+85^{\circ}\text{C}$ for 30min/cycle with totally 50cycles and started after leaving RA chamber 24 hrs and then can turn on the system .Water in TP surface need to be wipe down.
高溫儲存測試 High Temp. Storage	The sample should be allowed to stand at $+85^{\circ}\text{C}$ for 240hrs un-load condition and started after leaving RA chamber 24 hrs and then can turn on the system .Water in TP surface need to be wipe down..
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 started after leaving RA chamber 24 hrs and then can turn on the system .Water in TP surface need to be wipe down.

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4. 標籤釋義 PRODUCT LABEL EXPLANATION

4.1 條碼定義 BARCODE DEFINITION

4.1.1 控制器編碼原則 Coding rule for control board level used

Serial ID: MT-A-B-CCC-D-E-F-G-HH

CODE	MEANING	DESCRIPTION
MT	MT	internal use for account code
A	Numbers	internal use for material level classification
B	Letters	internal use for sub-category definition
CCC	Number	internal use for touch screen size definition
D	Number & Letters	internal use for pattern structure classification
E	Number	internal use for cover lens thickness classification
F	Number	internal use for touch sensor thickness classification
G	Letters	internal use for color of the cover lens classification
HH	Serial No.	internal use for manufacture sequence of product

Remark: Code "B" means "P" for Finished Goods (TP + C/B + FFC), "D" for Sub-Finished Goods (TP only), "C" for Control Board, etc...

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

Serial ID: A-B-C-D-E-FFFFF-G-H-II-JJJJ

CODE	MEANING	DESCRIPTION
A	Letter	Vendor internal use for production level classification
B	Letter	Vendor internal use for manufacture side classification
C	By year	Changed by 1~X
D	By month	Changed by 1~C
E	By day	Changed by 1~X
FFFFF	Letter	Vendor internal use for project code
G	Letter	Vendor internal use for project version No.
H	Letters	Vendor internal use for sub-category definition
II	Letters	Vendor internal use for WO No.
JJJJ	Serial No.	Vendor internal use for manufacture sequence of product



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4.1.3 供應商集團內部管控編碼原則 Vender internal control rule for group used

TN ID: MS(MM)-A-B-CCC-D-E-F-G-HH- S(M)

CODE	MEANING	DESCRIPTION
MS/MM	MS/MM	Vender group internal use control for production level classification
A	Numbers	Vender internal use for material level classification
B	Letters	Vender internal use for sub-category definition
CCC	Number	Vender internal use for touch screen size definition
D	Number & Letters	Vender internal use for pattern structure classification
E	Number	Vender internal use for cover lens thickness classification
F	Number	Vender internal use for touch sensor thickness classification
G	Letters	Vender internal use for color of the cover lens classification
HH	Serial No.	Vender internal use for manufacture sequence of product
S/M	S/M	Vender group internal use control for production level classification

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5. 控制器圖面 CONTROL BOARD DRAWING

The information contained herein is the sole property of TPK Touch solutions Inc. and reproduced with out an explicit written permission from the company.

Front View Dimensions:
 (SPC1) 84±0.5
 (SPC2) 53±0.5
 (SPC3) 7.45±0.5
 (SPC4) 32±0.5
 (SPC5) 8±0.5
 (SPC6) 24.85±0.5
 (SPC7) 5.3±0.5
 (SPC8) 42±0.5
 (SPC9) 4-23, 5-0.1

Rear View Dimensions:
 (SPC10) 4.55±0.5
 (SPC11) 3.5±0.3
 (SPC12) 4±0.3
 (SPC13) 3.8±0.3
 (SPC14) 3.5±0.3
 (SPC15) 3.8±0.3
 (SPC16) 3.8±0.3
 (SPC17) 4±0.3
 (SPC18) 3.8±0.3

Component Labels: Chip, Barcode, J1, J2, JP2, JP1

Notes:
 1. Barcode: 維條碼(10*8mm)
 a. MTSPI8525E101 : 5階料號(共13碼);
 字體:Tahoma 高度:1.3mm 寬度:6mm
 b. 類型:DATAMATRIX
 字體:Tahoma 高度:1.3mm 寬度:6mm
 c. XVID:000001 : YMD
 年月日 廠商碼 ?
 流水號 (5位0進制流水碼)
 00001
 字體:Datamax CG Triumvirate(Cond)
 高度:1.2 mm 寬度:6.7mm

Pin Number	Pin Name	Part Number/Spec	Qty	Notes
For USB Connector				
1	EGND			
2	VCC			
3	GND			
4	D+			
5	D-			
For 68 pin Connector				
1	GND			
2	Shielding_RX2			
3~66	RX64~RX1			
67	Shielding_RX1			
68	GND			
For 40 pin Connector				
1	Shielding_TX1			
2~39	TX1~TX38			
40	Shielding_TX2			

NO.	NAME	Part Number/Spec	Qty	Notes
1.	J1	50501-04001-001	1	OR EQUIVALENT
2.	J2	50520-06801-001	1	OR EQUIVALENT
3.	JP2	50224-00501-001	1	OR EQUIVALENT

DESIGNER: Kwei Hung	CHECKED: Kwei Hung	DATE: 17/07/14	SCALE: 1:1	PROJECT NAME: Controller
DRAWN: Chin Lin	DATE: 17/07/14	MATERIAL: mm	VERSION: A	TPK Solutions Inc.