



PART NO.: AG150H-CTP-MULTI-COF-V1

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SPECIFICATION REVISION RECORD

規格變更紀錄

Customer [客戶名稱]：萬達標品

Date [發行日期]：Mar.18.2021

Model [型式]：AG150H-CTP-MULTI-COF-V1

NO. [項次]	Version. [版本]	Date [變更發行日期]	Summary of Changes [變更內容摘要]	Page [變更頁碼]
< Remarks > [備註欄]				

- 01. Circumscription** The specification is for Projected Capacitive Touch Panel.
[範圍] [此規格適用於投射電容式觸控面板]

- 02. Features**
[特性]

Item [項目]		Specifications [規格]
(1)	Type [型式]	Glass/Film/Film [投射電容式觸控面板-GFF]
(2)	Input Mode [操作模式]	Finger [手觸]
(3)	Connector [連接方式]	Ref. Dimension Drawing [參考 DIM 圖]

- 03. General Specification**
[規格總則]

Item [項目]		Specifications [規格]
(1)	Frame Size [外框尺寸]	Ref. Dimension Drawing [參考 DIM 圖]
(2)	View Area [可視區]	
(3)	Active/Precision Area [動作區]	
(4)	Total Thickness [總厚度]	
(5)	Tail Length [出線長度]	
(6)	I/O Channel [出線 pin 腳數]	

- 04. Environmental Characteristics**
[環境特性]

Item [項目]		Specifications [規格]	
		Temperature [溫度]	Humidity [濕度] (Non Condensing) [不可結露]
(1)	Operation [操作]	-20°C ~ +70°C	20%RH ~ 85%RH
(2)	Storage [儲存]	-40°C ~ +80°C	20%RH ~ 90%RH

Note : Test environment is under normal atmospheric pressure.
[註：於正常的 1 大氣壓下]

※ When the ambient temperature is above 65°C , the humidity is allowed to be below 50%RH.
[65°C 以上高溫環境時，濕度允許在 50%RH 以下。]

05. Optical Characteristics

[光學特性]

Item [項目]		Specifications [規格]
(1)	Transparency [透光度]	≥87%
(2)	Haze [霧化度]	<2%

※ Measured by BYK-Gardner

06. Electrical Characteristics

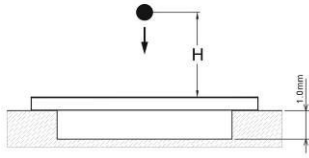
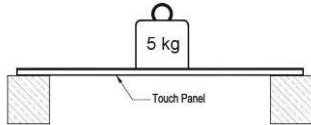
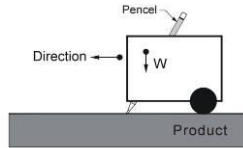
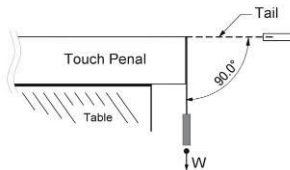
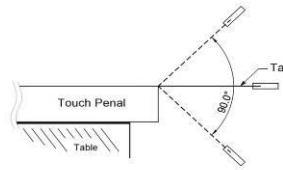
[電子特性]

Item [項目]		Specifications [規格]
(1)	Response [作動時間]	According to Integration Time of Controller
(2)	Accuracy [準確度]	Line Drawing: 1pt +/- 1mm offset / 10mm 2pt +/- 2mm offset / 10mm Touch Point: 1pt +/- 2.5mm 2pt +/- 5.0mm Refer to Windows 7 Logo Regulation [參照 Windows 7 Logo 規範]
(3)	Multi-Touch Fingers Pitch [多指觸碰間距]	Between the Fingers Pitch > 10mm . (Note)

*Note : Channel Pitch Should be 5mm~7mm.

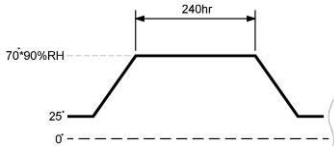
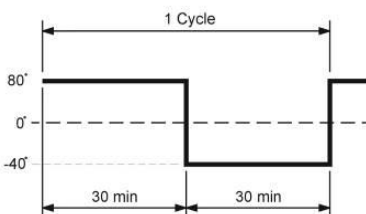
07. Mechanical Characteristics

[機械特性]

Item [項目]		Condition [條件]	Specification [規格]
(1)	Impact [撞擊]	25.0 ϕ DIA . Steel Ball/67g Height=30cm / 1 time , Impact at center area [25 ϕ /67g 不銹鋼球 ; 高度=30cm /中央區域撞擊 1 次]	Satisfy- 1.Optical Characteristics. 2.Electrical Characteristics. Appearance- 1.Ignore test area. 2.No mechanical damage.
			
(2)	Static Load [靜態承重]	5000g within 10cm ϕ area for 30sec [5000g 置於 10cm ϕ 內 · 靜置 30 秒]	
			
(3)	Hardness [硬度]	7H pencil · pressure 750g/45° [鉛筆 7H · 壓力 750g/45°(ASTM D3363)]	
			
(4)	Tail Peeling [剝離]	800g by vertical 90° for 30sec [800g · 垂直 90° · 靜置 30 秒]	
			
(5)	Tail Bending [繞折]	90° 10 times left & right [90°角 · 左右來回 10 次]	
			

08. Reliability

[信賴性]

Item [項目]		Condition [條件]	Specification [規格]
(1)	Constant Temperature / Humidity [恆溫恆濕]	70°C x 90%RH , 240 hrs and normalized for 4 hrs [70°CX90%RH · 240 小時 · 回常溫 4 小時後始可測試]	Satisfy- 1.Electrical Characteristics.
			
(2)	High Temperature storage [高溫儲存]	80°C / 240 hrs and normalized for 4 hrs [80°C / 240 小時 · 回常溫 4 小時後始可測試]	
(3)	Low Temperature storage [低溫儲存]	-40°C / 240 hrs and normalized for 4 hrs [-40°C / 240 小時 · 回常溫 4 小時後始可測試]	
(4)	Thermal Cycle [冷熱循環]	-40°C ~ 80°C [60 min. / cycle] *50 cycles and normalized for 4 hrs [-40°C ~ 80°C · 每循環 60 分鐘 · 共 50 次循環 · 回常溫 4 小時後始可測試]	
			
(5)	Daylight Exposure [日照實驗]	UV Sensor : 340nm UV Filter : Daylight-Q or B/B Black Panel : Insulated Applicable Models : Xe-3-HS/HSC/HDS/HBS 50%RH, 0.51w/m2 Irrad, 65°C BP temp, 38°C Air temp, Duration 1,000 hours [50%RH · 輻照度 0.51 w/m2 · 黑標溫度 65°C · 空氣溫度 38°C · 累計時數 1,000 小時]	Comply with ISO 4892-2 Cycle 1 (Spray test is excluded for the product which only contains touch panel) [通過 ISO 4892-2 Cycle 1 (單 TP 無防水功能 · 排除噴淋測試)]

09. Windows 7 Logo Regulation :

[Win7 Logo 規範]

(1)	Multi touch digitizers appear to the operating system as HID Digitizers , and not as a mouse or other proprietary device . [多點模式下顯示數位游標而非滑鼠游標或其他種類示意模式]
(2)	Sample Rate : At least 50 Hz per finger . [報點採樣率單指至少須達50 Hz]
(3)	Resolution : At least 25 ppi and at least display resolution. [解析度最低要求達25 ppi]
(4)	Jitter : For all fingers , if a contact is stationary , the reported position data must not change. [當觸控位置固定時相對其報點區域不能改變]
(5)	No data must be reported for locations where contact is not made. [無觸控的區域不能回報任何資料]
(6)	The test must be met on all corners of the screen and at least 95% of points and patterns tested. [準確度與偏差測試區域涵蓋整個觸控面板且測試合格率須達95%]
(7)	For a single touch on a stationary contact point , the contact position reported must be within 2.5mm of the target point. For a single touch that traces a line , circle or other pre-determined pattern , the contact data reported must be within 2.5mm of the target pattern , with an offset from the pattern that varies no more than 1mm for every 10mm of travel , and without interruption to the pattern. [單點觸控，報點位置須位於目標點2.5mm範圍內。對於劃線，劃圓或特定圖案，報點位置須位於目標圖案2.5mm範圍內；劃圖形偏差與抖動，每10mm劃線不得超過1mm抖動，且圖形不能中斷。]
(8)	For additional touch on a stationary contact point , the contact position reported must be within 5mm of the target point. For additional touch that traces a line , circle or other pre-determined pattern , the contact data reported must be within 5mm of the target pattern , with an offset from the pattern that varies no more than 2mm for every 10mm of travel , and without interruption to the pattern. [多點觸控，報點位置須位於目標點5mm範圍內。對於劃線，劃圓或特定圖案，報點位置須位於目標圖案5mm範圍內；劃圖形偏差與抖動，每10mm劃線不得超過2mm抖動，且圖形不能中斷。]

10. Appearance Inspection

[外觀檢查]

(1)

The inspection was performed with two 20W(1800±500 LUX) fluorescent lamps lighting from above.

The panel was placed 30&45cm away from eyes.

(Figure 10-1 & Figure 10-2).

[檢測使用之燈光為二盞 20W(1800±500 LUX)白熾燈光，並於面板上側照射，檢測時須放置在離眼睛 30&45cm 處。] (圖示 10-1 & 圖示 10-2)

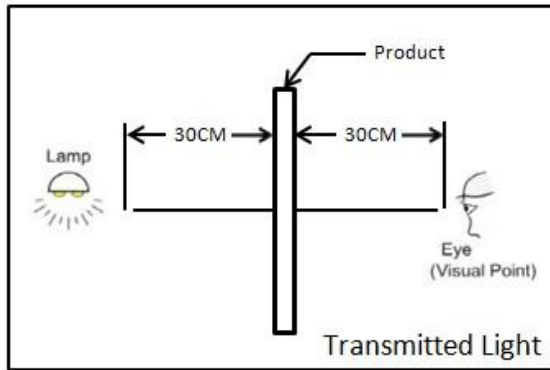


Figure 10-1

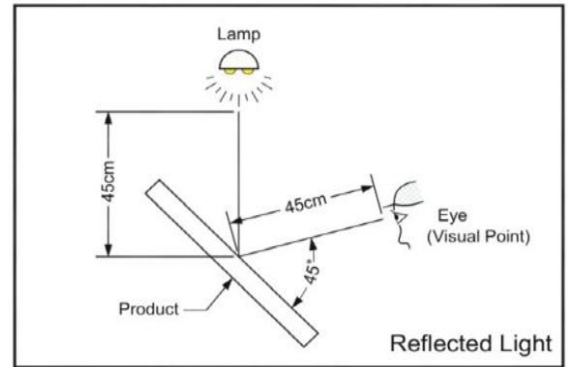


Figure 10-2

(2) Glass Flaw [玻璃瑕疵]

Item [項目]	Picture [圖示]	Specification [規格]
Corner Flaw [角瑕疵]		(1) $X \leq 3.0\text{mm}$ and $Y \leq 3.0\text{mm}$ and $Z \leq 1/2T \rightarrow \text{OK}$ (2) $X > 3.0\text{mm}$ or $Y > 1.0\text{mm}$ or $Z > 1/2T \rightarrow \text{NG}$ Note : T=Glass thickness
Edge Flaw [邊緣瑕疵]		(1) $X \leq 3.0\text{mm}$ and $Y \leq 3.0\text{mm}$ and $Z \leq 1/2T \rightarrow \text{OK}$ (2) $X > 3.0\text{mm}$ or $Y > 1.0\text{mm}$ or $Z > 1/2T \rightarrow \text{NG}$ Note : T=Glass thickness
Progressive Flaw [裂縫瑕疵]		Not Allowed [不允許]

(3) Please refer to Appendix II : Appearance Specification.

[外觀規格請詳見(附註二)]

11. Attention for Mounting Condition

[裝機注意事項]

(1)	The gasket support of touch panel must be designed on the outside of viewable area , as well as to avoid pressing on touch panel accidentally , the enclosure must be designed with enough clearance to panel surface. To avoid pressing error on touch panel accidentally , please remain space between the surface of panel and the Bezel. (Figure 11-1) [請將固定觸控屏用的支撐體(support)設計於可視區(Viewable area)之外。為避免不小心碰到觸控屏而產生動作，請預留空間於面板與機體外殼之間。] (圖示 11-1)
(2)	We recommend elastic material made support. [建議使用彈性物質製成的支撐體]
(3)	The edge of touch panel is conductive. Don't touch it with metal after mounting. [觸控屏面板四周有可能會導電，安裝時後請勿與其他金屬物質接觸。]
(4)	Please take notice of the grounding of power while mounting the touchScreen , otherwise interference may cause unstable performance. [電容式觸控螢幕的組裝必須注意電源的接地，可能因外界干擾會有作動不穩定的情況發生。]
(5)	Please do not pull on flex tail during assembly. Do not bend at 90°and each bend angle should be no less than R:2mm. [組裝時不可拉扯 TAIL 訊號線，且不可直接彎折 90°度每處彎曲處都需保持最小 R 角(R=2mm)。]
(6)	During assembly , the touch panel must be securely affixed onto the LCD Panel to prevent displacement of the touch panel due to outside force pressing on touch screen or bezel/case. [電容式觸控面板與 LCD Panel 組裝時，必須確實黏貼固定，不可因外力按壓觸控面板或機殼，而造成觸控面板晃動偏移。]

Projective Capacitive Touch Panel Assembly Guide + Touch Windows

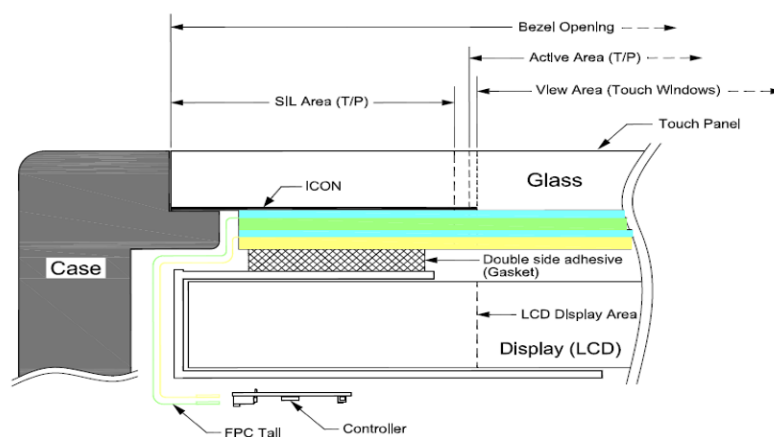


Figure 11-1

12. Caution

[注意事項]

Storage [儲存]	(1) Store panel under the pre-specified temperature and humidity range. Avoid direct sunlight exposure and stacking. [儲存要注意溫/濕度條件，且不可直接暴露於陽光下，或堆疊造成直接加壓面板。] (2) Ship Method : (a) must use legal couriers to transport products. (b) fragile products ; beware of vibration and dropping during transit. [搬運方法：(a)需雇用合法搬運公司進行貨物搬置 (b)產品為易碎品，搬運時需注意震動、掉落] (3) Stacking Method : (a) based on standard air/ocean freight regulation. (b) pallet use recommended for stacking. (c) monitor stack weight and height to prevent damage to bottom stack. [堆疊方法：(a)依空運或海運堆放標準 (b)建議利用棧板進行堆疊作業 (c)注意堆疊重量及高度，不可造成最下層包裝箱發生變形或破損。]
Unpack [拆裝]	(1) Unpack the box with the printed red arrow pointing up. [注意檢查包裝箱已發現來貨外箱已有嚴重變形或破損時，應立即拍照佐證，以避免損壞。]
Handing [握持]	(1) Use clean cloth or gloves to prevent fingerprints and/or stains left on the panel. Extra attention and carefulness should be taken while handling the glass edge. [配戴清潔的指套、手套、口罩，以避免造成指紋、髒污或不小心中玻璃邊緣割傷。] (2) Avoid touching the viewing area before installation/ integration. [安裝組合時，避免直接接觸可視區。] (3) At all times , hold the panel instead pulling on the tail. [拿取面板時，不可直接拿取 tail 部份。]
Cleaning [清潔]	(1) Use neutral detergent or methyl alcohol (CH₃OH) on a clean soft cloth to clean the panel surface. [使用乾淨且柔軟的布，沾中性清潔劑或酒精進行清潔。] (2) Prevent using any kind of chemical solvent , acidic or alkali solution. [不能使用化學溶劑或酸鹼液進行清潔] (3) Foreign objects and imprints that can be wiped off are not regulated under the specifications , and can be ignored. [表面可擦拭及排除的異物及異紋並不列入判定規範內，可被忽略。]

Installing and Assembling [組合與裝配]	(1)Excessive force or strain to the panel or tail is prohibited. [注意避免加壓或拉扯面板及 tail] (2)Retain at least 3.0 mm clearance between panel and display module. [最少保留 3.0mm 的空間於面板及顯示器之間] (3)Gasket or cushion pads around the edge of the panel may segregate water and/or dust contamination. [在設計機構時，注意四周邊緣需有緩衝墊，以避免滲水或聚集灰塵。] (4)Maintain a minimal 2R when bending tail to prevent dead fold or fold mark. [組裝時應保持最小 2 R 的折彎尺寸，並避免死折或有折痕現象。] (5)Flaws in customer module design may cause functionality issues after assembly. [客戶端設計模組若有疏失時，會造成觸控屏組裝後，產生變形或破損現象會影響正常觸控功能。]
Operating [操作]	(1)Touch the panel with your finger or stylus only to assure normal operation. Any sharp edged or hard objects are prohibited. [應用手指或專用觸控工具，不能使用尖銳、堅硬的物體書寫輸入。] (2)Operate the panel in a steady environment. Abrupt variation on temperature and humidity may cause malfunction of the panel. [急遽的溫/濕度變化會有結露現象，易造成面板功能失效，所以穩定的環境條件是必要的。] (3)Avoid applying excessive activation force or sudden impact on the panel surface. [避免應用過大觸動力或瞬間衝擊面板表面] (4)Avoid high voltage and/or static charge. [避免高壓與靜電]
Test [測試]	(1)During the measurement , the brass finger(8 ϕ)must connect to ground. [使用黃銅手指(8 ϕ)測量時必須接地] (2)The whole brass finger (8 ϕ)footprint must be inside the active area. [使用黃銅手指(8 ϕ)測量需於 A.A.區內部有效的區域]
Others [其他]	(1)Keep the panel surface clean. Prevent any kind of adhesive or tape applied onto the touch surface. [請保持表面清潔，不要貼膠帶於面板上。] (2)AGDisplays reserves the right to change the materials and/ or specifications. [萬達光電保有變更規格及材料的權利]

13. Warranty

[保固]

(1)	Product warranty [產品保固] AGDisplays offers a 2-year function warranty on all AGDisplays products. AGDisplays guaranty provide for repair and replacement without any charge during this period. AGDisplays reserves the right in its sole discretion to determine the defects received , and will take the responsibility if there is any defect or damage. [萬達光電所生產製造的產品保固期限為 2 年，若判定為萬達光電之責任，則產品更換。萬達光電保留判定責任歸屬之權益。] Limited warranty does not cover the following situations : [有限度保固，不包括下列幾點：] 【Notice】 AGDisplays is not responsible for the following situations, such as during shipping or assembly/manufacturing processes at customer site. [在客戶的製程或運輸中，因客戶自身疏忽所造成對產品的傷害及破損。] 2. Damages caused by either natural disaster or human factors after receiving the products. [在客戶收到萬達光電之產品後，因為天災人禍所造成的傷害及破損。] 3. Damage caused by self-repairs , and modifications or disassembling of AGDisplays products from clients without prior notice. [沒有知會萬達光電共同討論，而自行變更、維修、拆卸產品所造成的傷害及破損。] 4. Damage caused by user error ; failing to follow normal operation procedures or using proper tools. [客戶端於觸控屏使用操作上，該使用正確的動作及工具操作觸控屏，因客戶未依正確操作使用造成 產品傷害及破損。] 5. Product serial numbers and/or labels must remain intact or clearly visible for tracking purpose ; otherwise , warranty is voided. [產品條碼需保留完整清晰以利追溯，其不完整時故無法保固。]
(2)	Appearance warranty [外觀保固] 1. Cosmetic defects should be reported to AGDisplays within 6 months after delivery. Should there be any discrepancy , AGDisplays is to perform inspection , upon product return , based on the mutually recognized specifications and determine which party is accountable. [外觀缺陷請於 6 個月內提出，由萬達依據雙方協議之規範書規格進行覆判，判定責任歸屬。] 2. Cosmetic defects caused by improper handling from clients will not be covered under standard warranty. [外觀缺陷經討論判定後，若為客戶疏失造成外觀瑕疵，亦不在保固範圍內。]

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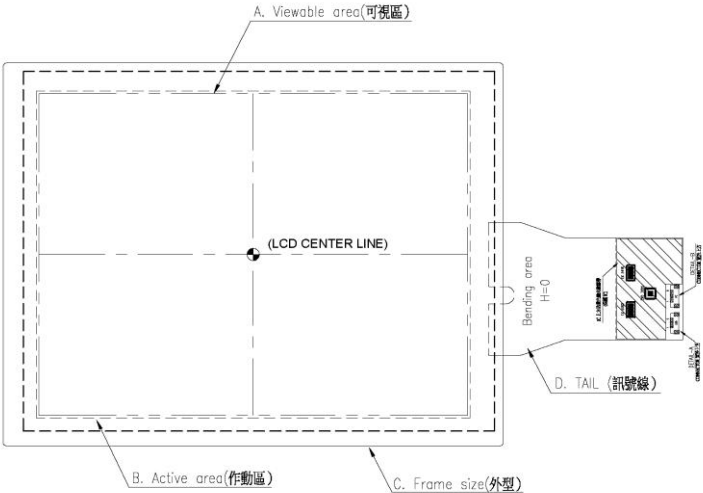
14. Appendices

[附註]

Item [項目]	Content [內容]
Appendix I [附註一]	Design Guide [設計指南]
Appendix II [附註二]	Appearance Specification [外觀檢查規格]

Appendix I [附註一]

Design Guide [設計指南]

(1)	Projected capacitive [投射式電容]	Using a matrix type electrode pattern and matching software / hardware & IC to measure the change in capacitance for determining a touch actuation in single-and multiple-touch multi-functioning applications. [設計藉由矩陣式的電極圖案及搭配軟、硬體、IC 等，並主要利用電容量的變化，來判斷觸控動作的產生，以展現單點及多點觸控多功能的應用。]
(2)	Product area definition [產品區域定義]	 The diagram illustrates the various regions of an LCD panel. It shows a central 'LCD CENTER LINE' and four defined areas: 'A. Viewable area (可視區)' (the innermost rectangle), 'B. Active area (作動區)' (the area surrounding the viewable area), 'C. Frame size (外型)' (the outermost rectangle), and 'D. TAIL (訊號線)' (the area at the bottom right). A cross-section view on the right shows the 'Bending area H=0' and the 'TAIL' region with internal components like 'ELECTRODE' and 'SIGNAL LINE'. A. Viewable Area [可視區：與 LCD 搭配時約為鐵框內緣，且為設計銀線路最小範圍，此區域無觸控功能] B. Active Area [該區域內可執行觸控動作之範圍] C. Frame Size [產品外型尺寸] D. Tail [傳輸電壓及電容訊號用]

(3)	Silver trace layout area [銀線設計區]	As shown in the illustration , the tail side marked ① is where the traces converge , thus requiring more width. [依上圖所示，將產品 4 邊各編上號碼，其 Tail 端為編號①其他各邊則為②③④，因①邊需匯集所有訊號線，故其邊寬尺寸會需較大空間，其所需尺寸會依實際線數而定，若有任何設計上需求可與萬達討論後提供最佳方案。]
(4)	Material selection [材料選擇]	1. ITO Glass Thickness : 0.7t / 1.1t / 1.6t / 1.8t / 2.5t / 2.8t (mm) , it is recommended to use thicker glass for larger size panels ; chemical strengthening optional. ITO resistance setting and selection is based on product design. [厚度為 0.7t / 1.1t / 1.6t / 1.8t / 2.5t / 2.8t(mm) · 建議大尺寸面板其選用較厚 Glass 亦可依特殊需求增加化學強化] [ITO 阻抗設定及選用，依萬達設計為主。] 2. ITO Film Thickness : 0.125t / 0.188t (mm) ,surface hardness 2-3H. ITO resistance setting and selection is based on product design. [厚度為0.125t / 0.188t(mm) · 表面硬度為2~3H。] [ITO 阻抗設定及選用，依萬達設計為主。] 3. Tail FFC and FPC types : copper inlay allow high conductivity ; can add Housing or ZIF component. FFC can withstand up to 105°C and FPC up to 200°C ; FPC material allows a smaller bending angle. FFC signal count is 2-50pins , less capable to change shape /form but cost less. FPC has unlimited signal count ; can be versatile in shape to conform to structural design. [種類分為 FFC/FPC 兩種，兩者都為銅導線其導電系數都非常良好，皆可於前端部份增加 Housing 或 ZIF 原件，因材料關係 FFC 可耐溫 105 度而 FPC 可耐溫約 200 度，FPC 材料較薄可提供較小的繞折角度。] [FFC 訊號數為 2~50pin，外型較無法依結構需求變化，但單價較經濟。] [FPC 訊號數為無限制，外型較可依結構需求變化，但單價較昂貴。]
(5)	Other sub-material [其他附屬材]	For special requirements such as gasket , Poron, polarizer and Insulation , etc. AGDisplays can offer optimum solution upon request.
(6)	Suitable applications [產品適用範圍]	[如有特殊需求，例如需增加 Gasket、Poron 或偏光材及絕緣材等等，可與萬達討論後提供最佳方案。] Suitable for all applications. Not recommended for use in high EM interference environment. [全方位均可適用，但需注意不建議使用於環境為高電磁干擾區域。]

Appendix II [附註二]

Appearance Specification [外觀檢查規格]

Item[項目]		Specification[規格]
(1)	Scratch / Linear Defect [刮傷/線狀缺陷]	(1) $W \leq 0.05\text{mm} \rightarrow \text{OK}$ (2) $0.05\text{mm} < W \leq 0.1\text{mm}$, $L \leq 10\text{mm}$, $N \leq 5 \rightarrow \text{OK}$ (3) $0.1\text{mm} < W \leq 0.15\text{mm}$, $L \leq 5.0\text{mm}$, $N \leq 3$ (between 2 defects $\geq 20\text{mm}$) $\rightarrow \text{OK}$ (4) $W > 0.15\text{mm} \rightarrow \text{NG}$
(2)	Foreign object / Dot defects [雜質/點狀缺點]	(1) $D \leq 0.4\text{mm} \rightarrow \text{OK}$ (2) $0.4\text{mm} < D \leq 0.6\text{mm}$, $N \leq 5$ (between 2 defects $\geq 20\text{mm}$) $\rightarrow \text{OK}$ (3) $0.6\text{mm} < D \leq 0.8\text{mm}$, $N \leq 3$ (between 2 defects $\geq 30\text{mm}$) $\rightarrow \text{OK}$ (4) $D > 0.8\text{mm} \rightarrow \text{NG}$
(3)	Other Defect [異紋/鍍膜不均]	Not allowed , if visible upon inspection under set condition : 45cm distance / 45° or 90° angle. [光源下・檢視距離 45cm/角度 45 或 90・任一角度可見・不允收。]
(4)	Saw edge on printing [印刷鋸齒]	(1) View Area : $S \leq 0.2\text{mm} \rightarrow \text{OK}$ (2) Frame Size 邊緣油墨未滿版 $S \leq 0.3 \text{ mm} \rightarrow \text{OK}$
(5)	Pin hole on printing [印刷針孔]	(1) $D \leq 0.2\text{mm} \rightarrow \text{OK}$ (2) $0.2\text{mm} < D \leq 0.4\text{mm}$, $N \leq 3$ (between 2 defects $\geq 15\text{mm}$) $\rightarrow \text{OK}$ (3) $D > 0.4\text{mm} \rightarrow \text{NG}$
(6)	Bubble [氣泡]	(1) $D \leq 0.3\text{mm}$, $N \leq 5$ (between 2 defects $\geq 10\text{mm}$) $\rightarrow \text{OK}$ (2) $D > 0.3\text{mm} \rightarrow \text{NG}$
(7)	IR Hole [IR 孔]	(1) Flaw printing is not allowed. [缺墨不允許] Note : Optional if item does not apply. [如無此項處理・可以忽略]
(8)	Button [按鍵]	(1) Translucent ink defects should be compared with a limit or golden sample. [半透油墨需比對上/下限度樣品] Note : Optional if item does not apply. [如無此項處理・可以忽略]
(9)	Coating Peeling [鍍剝]	(1) $D \leq 0.4\text{mm} \rightarrow \text{OK}$ (2) $0.4\text{mm} < D \leq 0.5\text{mm}$, $N \leq 5$ (between 2 defects $\geq 10\text{mm}$) $\rightarrow \text{OK}$ (3) $D > 0.5\text{mm} \rightarrow \text{NG}$ Note : Optional if item does not apply. [如無此項處理・可以忽略]

<Endorse>[備註欄]

1.Finished appearance of the edge of broken glass, according to test specifications for testing.

[玻璃邊緣破損依成品外觀檢驗規範進行檢驗。]

2.Outlet hole edge damage is negligible.

[出線孔邊緣破損忽略不計。]

3.Reference to the figure within the sub-AA standards.

[參照上圖 AA 內規範]

4.AA back outside appearance flaws can be ignored.

[背面 AA 以外的外觀瑕疵皆可忽略。]

5.D=Diameter / W=Width / L=Length / S=Spacing.

[直徑/寬/長度/間距]