



Dignity Touch Solutions

Replacement Touch Panel Product Specification

21.5" PCAP Touch Panel w/ Easy Install Frame

Customer Name 客户名称	Dignity Europe	Dignity Model No. 德怡型号	DYRP2152W01
Product Category 产品品种	Replacement	Design Engineer 设计	CYJ
Product Description 产品描述	21.5" w/ Frame	Reviewed By 核准	CYJ
Customer Model No. 客户型号	TBD	Revision Date: 修改日期	2019.12.19

Europe

DIGNITY EUROPE, S.L.

Ctra. Masia del Juez n27, Km.1, 46909

Torrent (Valencia), Spain

Tel: +34 960 640 073

Email: info@dignity-eu.com

China

Guangdong Dignity Electronic Technology Co., Ltd

No.8, Chaoguang Mid-Road, Xiao Huangpu

Ronggui, Shunde, Foshan, Guangdong, China

Tel: +86 757 2290 8916

Fax: +86 757 2668 1196

<http://www.dignity.com.cn>

IMPORTANT USER NOTICE

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There are a wide range of factors that can affect the performance and use of Dignity Electronics' touch panels. Due to this fact, it is essential that the end user evaluate the touch panel and accompanying software to determine its suitability for the user's intended application.

Dignity Electronics' products are produced to meet the following specifications from the date of shipment and for the duration of the period specified. The user assumes sole responsibility for determining whether Dignity's products are suitable for the application and the user's method of production. Please speak to your sales representative to receive the most updated relevant product specification.

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1.0 Description

Dignity’s line of Projected Capacitive (PCAP) touch panels utilize a type of capacitive touch technology that delivers a sensitive, adaptive and seamless multi-touch experience to customers, backed by strong hardware and software customization capabilities to engineer application and customer-specific solutions. It responds to touch and gestures and offers zero-bezel integration for modern enclosure design.

2.0 Limited Warranty

The warranty specified applies to Dignity's line of projected capacitive touch screens. The period of this warranty is defined as three [3] years from the date of shipment of the product. The warranty covers failure due to material defect or workmanship during the course of normal use. The warranty is considered to be null and void in case of the following:

- Failure to follow the use, storage, handling, operation or other aspects as outlined by this document and leading to product failure are not covered under warranty.
- Failures due to accessories or products not supplied by Dignity Electronics.
- External or physical damage to the touch screen (breakage, cracking, etc.) that occurs during or after the shipment of the product.
- Accidental or Intentional Vandalism, Neglect or Force Majeure.
- Damage resulting from misapplication, improperly conducted installation, secondary manufacturing activities or assembly.
- All non-conforming or defective products should be reported in writing as per standard RMA procedure.

This warranty is only limited to the products provided by Dignity; Dignity makes no additional warranty, and are not responsible for any other direct or indirect, incidental or consequential loss caused by our product's failure, including, but not limited to, downtime, loss of profits, goodwill, etc.

Additional information on our warranty and return policies may be found at www.dignity.com.cn

3.0 Application

This product is a projected capacitive touch panel and is generally used as an input device for a variety of standard electrical appliances, devices and OA equipment. This panel is not certified for use in medical devices. In the case of questions as to application suitability, please direct questions to your sales representative.

4.0 Product Structure

Structure	Materials	Description
Frame	ABS + PC	
Cover Lens	Soda Lime	Heat Strengthened 1.8mm
Touch Sensor	ITO Glass	1.1mm
Adhesive Layer	Optical Adhesive	
Connector	Polyamide + Copper	Flexible Flat Circuit

5.0 Product Characteristics

5.1 Mechanical Specifications

Item	Specification	Unit	Comments
Dimensional Outline	516.0 (L) × 311.0 (W) × 3.6 (T)	mm	
Viewing Area	477.64 (L) × 269.11 (W)	mm	
FPC Length	175.75	mm	
Operation force	≤10g		Finger input

Surface Hardness	≥7H	Pressure 500gf test
Impact Resistance	IK06	No breakage
Cable Pull Test	1. X: 180° 1kg * 25mm/min 2. Y: 90° 0.5kg * 25mm/min 3. Z: 0.15kg * 25mm/min	

5.2 Electrical Specifications

Item	Specification	Comments
Touch points	4-Points	The number of touch points able to be simultaneously detected
Input method	Finger or specified stylus	
Max voltage	5.5V	3.3V (I2C); 5V (USB and UART)
Interface	USB/RS232	
OS	Android, Linux, Win 7, Win 8, Win 10, XP	
IC	SW4101C	

Remark: Regarding the IC specification, please refer the IC data sheet from the IC manufacturer.

5.3 Environmental Specifications

Items	Specification
Operating Temp Range	-20°C to +70°C (Non-condensing)
Storage Temp Range	-30°C to +80°C (Non-condensing)
High Temp Storage	70°C for 240 hours
Low Temp Storage	-30°C for 240 hours
High Temp / Humidity	60°C at 90% RH for 240 hours
Thermal Cycling	-20°C to +70°C (1 hour) for 10 cycles
Chemical Resistance	Resistant to standard cleaning chemicals

5.4 Optical Specifications

Item	Specification	Remark
Transparency	≥83%	1. Visible light at 550nm 2. Assumes Clear Treatment, No Anti-Glare
Haze	≤2%	1. Assumes No Anti-Glare Treatment 2. Assumes Standard Glass Cover Lens

6.0 Product Handling and Usage Instructions

6.1 Storage

We recommend storing the touch screen in its original shipping container between 0°C and 50°C, and humidity of 40% to 70%. Never store touch screens in an environment where condensation can form.

Touch screens should be kept no longer than 6 months in normal conditions (room temperature). Do not

store touch panels in direct sunlight or stack them out of the original packaging.

6.2 Cleaning

When cleaning the touch panel, refrain from using any kind of strongly acidic, alkaline or organic chemical solvent. The use of neutral detergent or isopropyl alcohol is suggested, as is a soft cloth to avoid abrasions. Solvents other than those mentioned above may damage the product.

6.3 Handling and Assembly

Projected capacitive touch screens are composed primarily of glass and as such should be handled with care during all stages of storage, assembly, cleaning, etc. The product should not be dropped or handled roughly; all work surfaces should be kept clean and free of dust and dirt to prevent scratching. To avoid product damage or malfunction, please adhere to the directions below:

CAUTION

To avoid the risk of glass breakage, which may result in injury:

- Gloves are recommended both to avoid fingerprints, dirt or particles from adhering to the glass and also to avoid injury to the handler from sharp edges.
- Handle the touch screens with care to avoid breaking the glass. Be aware of cracked or broken touch screens as they may possess sharp edges.
- Do not drop or bump the touch screen – this may result in breakage.
- If service is required, do not attempt to manually remove the touch screen without specialized tools; this may result in glass breakage and injury.

1. When handling the panel, hold it by the edge of the glass with the sensor facing upwards, and contact with the viewing area should be avoided in order to avoid the sensor becoming scratched or dirty.
2. When assembling the glass panel, do not use excessive force to bend or twist the panel; this may result in the panel becoming deformed.
3. When handling the FPC or cable area, excessive pulling force, strain or tension must be avoided in order to prevent damage or product defects. This is the most fragile portion of the panel.
4. Once removed from the original package, touch screens are not to be stacked. The edges may cause scratching.
5. Do not stack heavy objects on the touch screen.
6. Remove any contaminants, dust or dirt from the surface of the panel with de-ionized air.

6.4 Operation

The panel must be operated in a stable environment; abrupt change in the environmental conditions may cause touch panel malfunction. In order to guarantee stable performance of all functions of a touch panel, please make sure that system is grounded or a power adapter is connected correctly to ground loop (connection to earth ground is suggested). Do not insert or remove the interface connector while the touch panel is operating.

6.5 ESD Precautions

Touch panels are vulnerable to electrical static discharge, an electrical shock that is delivered by an ungrounded person in contact with unprotected electronics. ESD can damage the touch panel, particularly its

electronic components and care should be taken to prevent it by maintaining a static-free work and assembly environment:

- Any work or assembly of touch panels shall take place in an environmentally-controlled environment; the proper humidity (50-60%) should be maintained to avoid excess generation of static electricity.
- Care should be taken when touching the exposed printed circuit board or terminal electrodes.
- Ensure that workers are properly grounded and clothed when handling the panels.
- Tools required for assembly, such as soldering irons, must be properly grounded.
- Touch screens are covered with a film to protect the display surface. Take care to be properly grounded and to slowly remove this film from the surface, as static electricity may be generated.

7.0 Module Product Markings

<u>DY</u>	<u>XXX</u>	<u>X</u>	<u>X</u>	<u>XXXX</u>
A	B	C	D	E

Notes:

A: Dignity Company Descriptor

B: Product Type (KT = Kit; RP = Replacement Panel; MO = Monitor)

C: Product Size (In Diagonal Inches)

D: Product Structure (PG=1 / GG=2)

E: Product Viewing Area Proportion (S = Standard / W = Wide Format)

F: Product Series Number (01, 02...)

For Example: “DYKT2382W01” is a Dignity-produced 23.8-inch widescreen format projected capacitive GG touch display kit, series number 01.

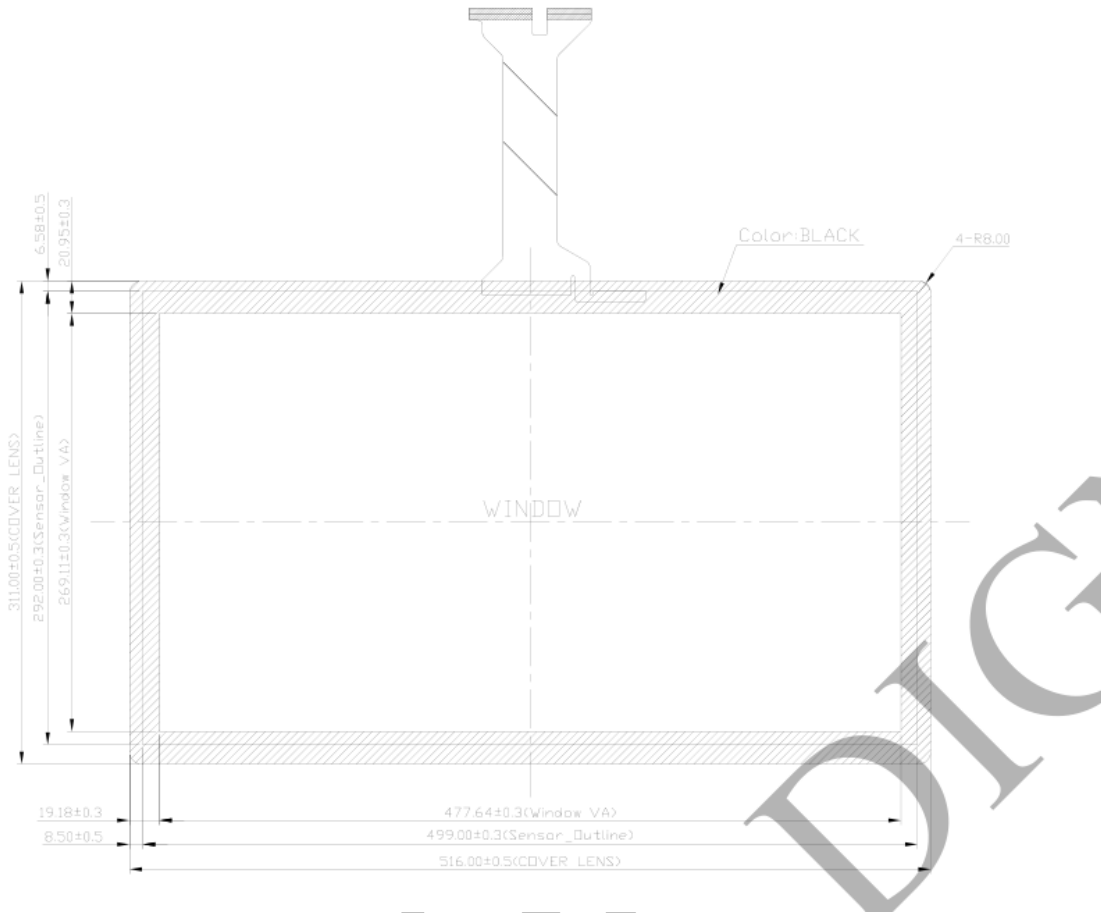
8.0 Additional Information

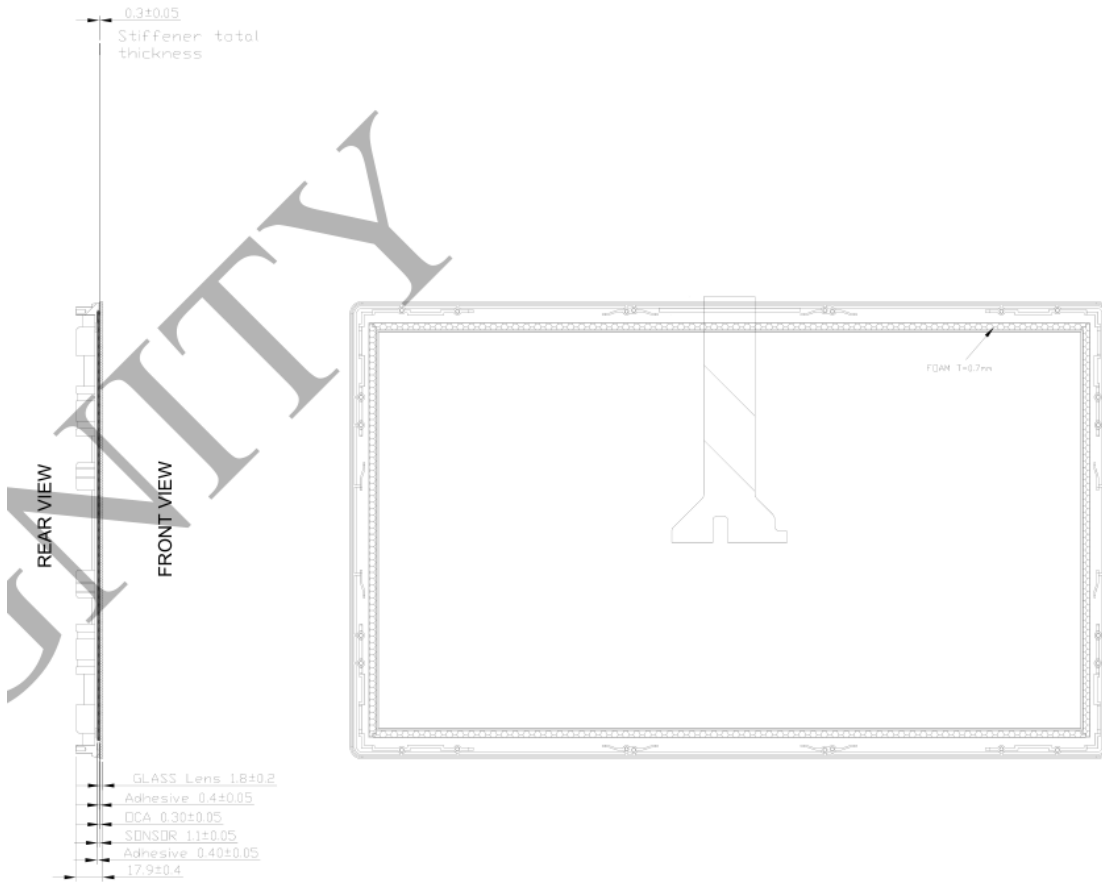
For additional information, please contact us via our website or your Dignity sales representative for help, or check our website at www.dignity.com.cn for

- Product datasheets & catalogs
- FAQs
- Troubleshooting guides
- Software drivers
- News & events
- Specifications and more

9.0 Attachments

9.1 Touch Panel Drawing





9.2 Panel Frame Drawing

