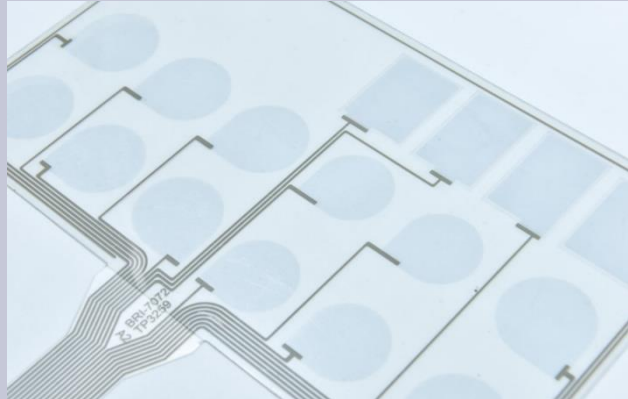# Dignity Electronics Capacitive Touch Switch

Projected Capacitive Switch
Foils & Modules

Product Size Range
As per customer requirements

Customization Options
Full range of cover lens, touch functionality, form factor and display options

Product Support
Firmware tuning and software support provided

Product Overview

Dignity manufactures a range of capacitive touch sensors (or switches) that provide the attractive modern look and feel, as well as the flexible UI of a touchscreen at a portion of the cost of a custom LCD touch module. Fully sealed behind a glass or plastic cover lens, with no moving components, and waterproofing, hard coating and other options available, capacitive touch sensors offer a reliable, durable, flexible and responsive alternative to traditional push button or membrane switches. Due to its resistance to scratching, chemicals, impacts and dust/debris, and its modern aesthetic, capacitive switching is achieving widespread use in industrial, medical, automotive and other industries.

Product Applications

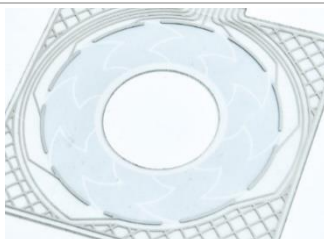| Home & Office Automation	AV & Lighting Controls	Home Appliance	Industrial & Instrumentation	Medical Equipment	In-Vehicle

Product Features

- Unparalleled UI flexibility – the sensor can be adhered to 3D/curved glass or plastic control panels, use a variety of touch layouts and methods, backlighting, etc.
- A variety of input and interface methods: buttons, touch pads, sliders and wheels for enhanced control functionality and upgraded interfaces.
- A range of cover glass materials can be used (glass, acrylic, plastics) up to and exceeding a thickness of 6mm
- Can be combined with touch screens, LCDs, LEDs and OLEDs for a variety of display / touch module layouts
- Significant cost advantages to PCAP touch screens and ITO film
- No mechanical components and a sealed system allow for easy cleaning

Product Customization

Parameter	Options & Notes
Product Dimensions	As specified
Integration	Optical Bonding
Cover Lens	
Cover Lens Thickness	0.55mm – 7mm
Cover Lens Material	CS Glass, Polyester, Polycarbonate, Acrylic, etc.
Additional Options	Silk screening, logos, cut outs, colored glass, etc.
Touch Controller & Interface	
Controller Location	COB / COF
Controller Type	Hetai / Cypress / As Specified
Interface	I2C, USB, RS232, UART
Operating System	Windows XP, 7-10, Linux, iOS, Android
Performance Options	Touch "panel", touch buttons, touch "slide", touch "wheel" and other options
Product Enhancements	
Optical	Anti-Glare / Anti-Reflection / Mirror Finish / Dead Front
Others	Anti-Fingerprint / Anti-Shatter Film / Hard Coat
EMI Resistance	Metal Mesh / Firmware Tuning / EMI Filters

Interface Type	Overview	Image
Buttons	Low-cost, simple solution for integrating up to 46 buttons Calibrate buttons individually with firmware parameters	

Sliders	Useful in applications requiring precise multi-level sensing - Volume control - Brightness control - Temperature control	
Wheels	Used for a variety of one-touch control needs: - Volume control - Brightness control - Temperature control	

Form Factor	Overview	Image
Touch Foil / Sensor	- Low-cost, simple solution for integrating up to 46 buttons - Calibrate buttons individually with firmware parameters	
Touch Sensor & IC	Dignity provides the touch IC attached in modular form - Touch firmware, design support and tuning provided by Dignity - Patent pending modular attachment allows for easy rework - Facilitates IC standardization across multiple product platforms	
Touch Module (Cover Lens)	Dignity provides the product bonded to a glass or plastic cover lens - Range of materials and finishes available (PMMA, PET, Glass) - Multi-color silk screening and design features available	
Capacitive Switch Module w/ Integrated Display	Dignity can provide a range of touch modules with integrated display and control elements for a complete solution. - VA (color, black & white) LCDs, LED numeric displays, TFT, etc. - Cost down compared to touch modules and resistive	

Product Specifications - Touch

Item	Specifications
General	
Type	Mutual Capacitive Touch Sensor
Input Method	Finger, Active Stylus, Gloved Touch
Hardness	≥ 7H / ≥ 3H (Plastic Cover Lens)
Durability	
Warranty	Standard Products: 1.5 years / Custom: As per application
Tapping	5 Million
Sliding	1 Million
Optical	
Transmittance	≥80% (Dependent on product structure)
Haze	≤5%
Environmental	
Storage Temp	-30°C ~ +80°C
Operating Temp	-30°C ~ +70°C
Relative Humidity	10 – 90% RH Non-Condensing

To find out more about our range of standard and custom touch solutions, or to consult on a project, please visit www.dignity.com.cn or contact the sales office nearest you.

	North America	Europe	Asia-Pacific	China
Tel				+86 757 2668 7241
Fax				+86 757 2668 1196

Nasales@dignity.com.cn   eusales@dignity.com.cn   asiasales@dignity.com.cn   cnsales@dignity.com.cn

DIGNITY
德怡