

Dear Winstar News Readers:

Welcome to our July 2011 edition newsletter. In this issue we will showcase our new standard COG character 16x2 devices and also our exciting new "Touch Key" product.

## Photonics Festival 2011 Taiwan

Winstar Display was honored to demonstrate our product of Taiwan Excellence 2011 Award - OLED Display in Taichung Industrial Park booth at Photonics Festival 2011 Taipei, Taiwan which was held from June 14 to June 16.

Thanks for the Taiwan President Ma Ying-jeou and customers to visit WINSTAR booth at Photonics Festival 2011. Winstar will continue our effort on PM OLED displays.



*President Ma Ying-jeou Visited the booth*



*OLED Demo Box*

## New Product– COG Character 16 x 02 Series

Winstar Display releases a new series of 16 characters with 2 lines COG standard LCD modules; WO1602G, WO1602H and WO1602I. This series is built in with ST7032I driver and the interface is I2C.

This series of module can be operating at temperatures from -20°C to +70°C; its storage temperatures range from -30°C to +80°C.

Below is the mechanical information and specification as reference –

### WO1602G

Outline Size: 74.2x 25.2 mm

VA Size: 61.0 x 15.1 mm

AA Size: 56.2 x 11.5 mm

Dot Size: 0.55 x 0.65 mm

Dot Pitch: 0.60 x 0.70 mm

LCD Type: FSTN / Transflective / Positive

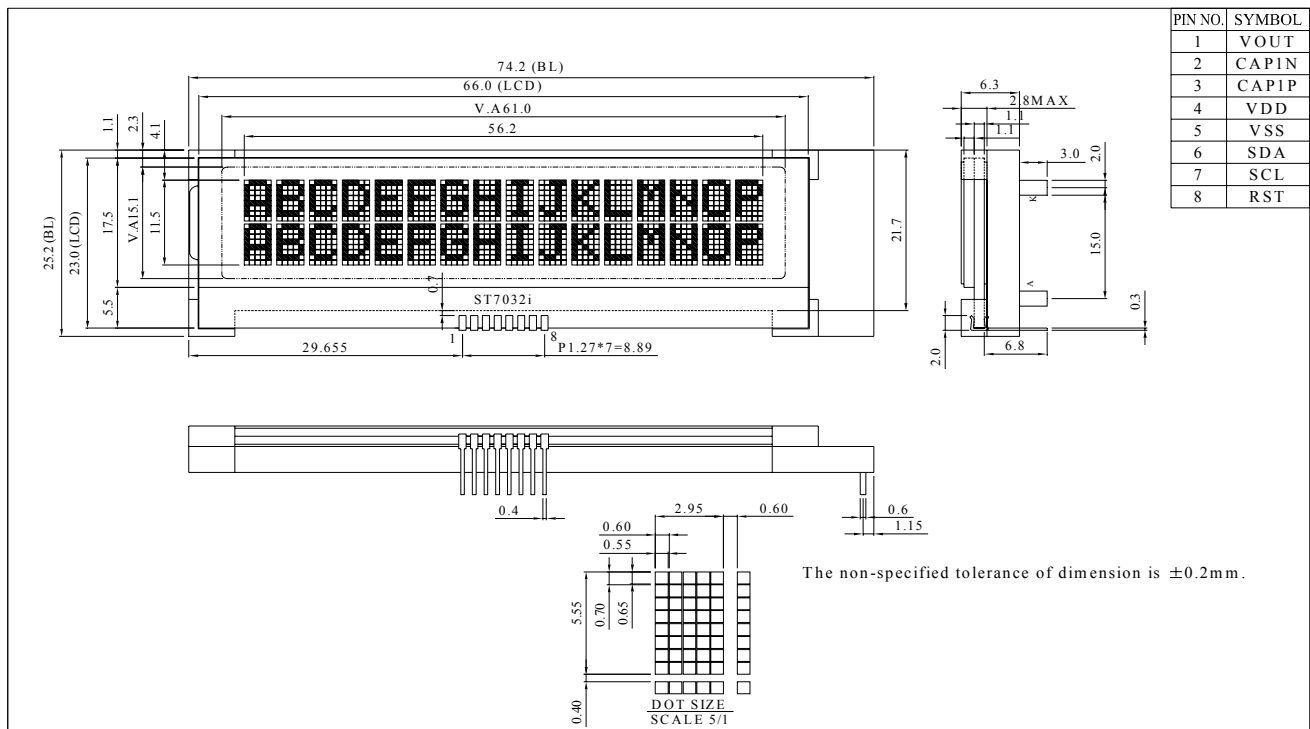
Driver: ST7032i

Driver Method: 1/16 Duty, 1/5 Bias

Power supply: 3V and 5 V

Interface: I2C

Backlight: LED White 2 Dices



### Contour Drawing

► Link to Winstar Website COG Product page --

## New Product– COG Character WO1602H

This COG display has the outline dimension 62.8 x 23.0 mm and VA size of 51.5 x 12.2 mm Below is the mechanical information and specification as reference –

### WO1602H

Outline Size: 62.8x 23.0 mm

VA Size: 51.5 x 12.2 mm

AA Size: 47.6 x 9.7 mm

Dot Size: 0.48 x 0.54 mm

Dot Pitch: 0.53 x 0.59 mm

LCD Type: FSTN / Transflective / Positive

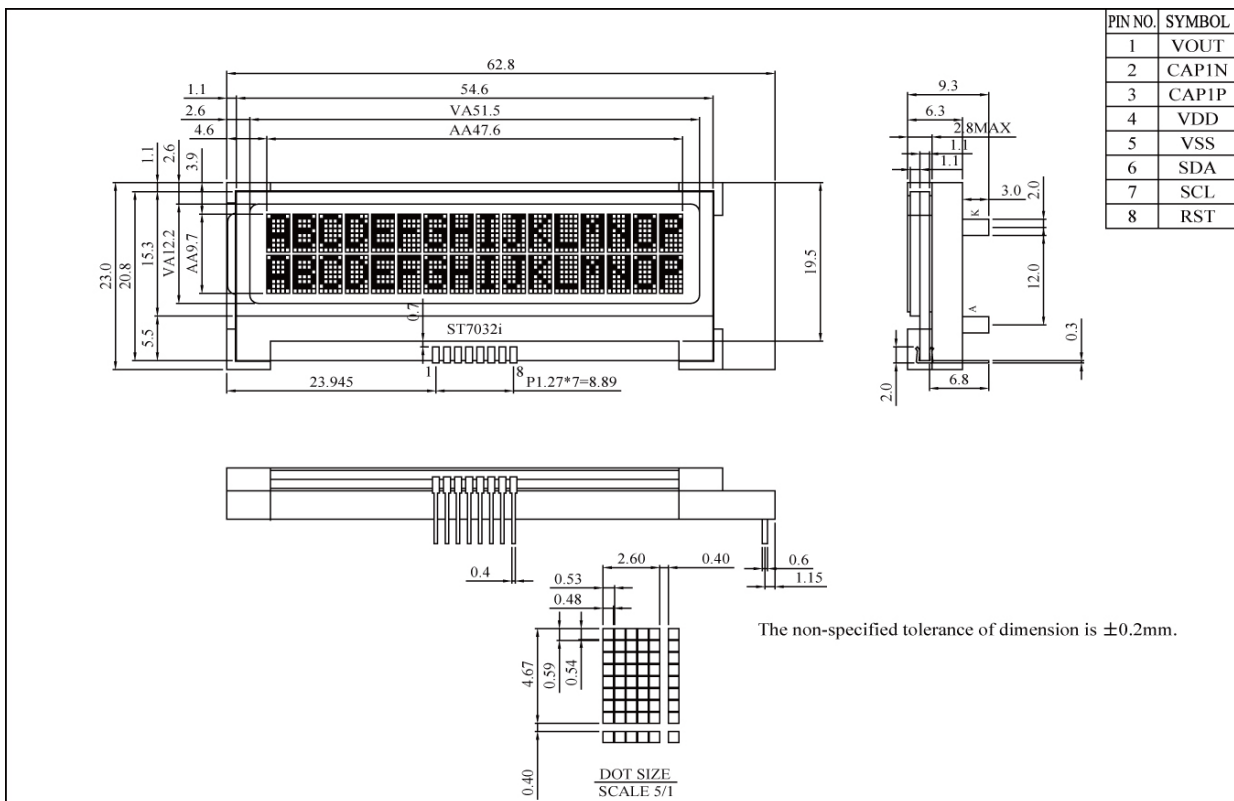
Driver: ST7032i

Driver Method: 1/16 Duty, 1/5 Bias

Power supply: 3V and 5 V

Interface: I2C

Backlight: LED White 2 Dices



### Contour Drawing

► Link to Winstar Website COG Product page --

## New Product– COG Character WO1602I

This COG display has the outline dimension 51.2 x 20.7 mm and VA size of 40.0 x 10.0 mm. Below is the mechanical information and specification as reference –

### WO1602I

Outline Size: 51.2x 20.7 mm

VA Size: 40.0 x 10.0 mm

AA Size: 38.0 x 8.0 mm

Dot Size: 0.36 x 0.43 mm

Dot Pitch: 0.41 x 0.48 mm

LCD Type: FSTN / Transflective / Positive

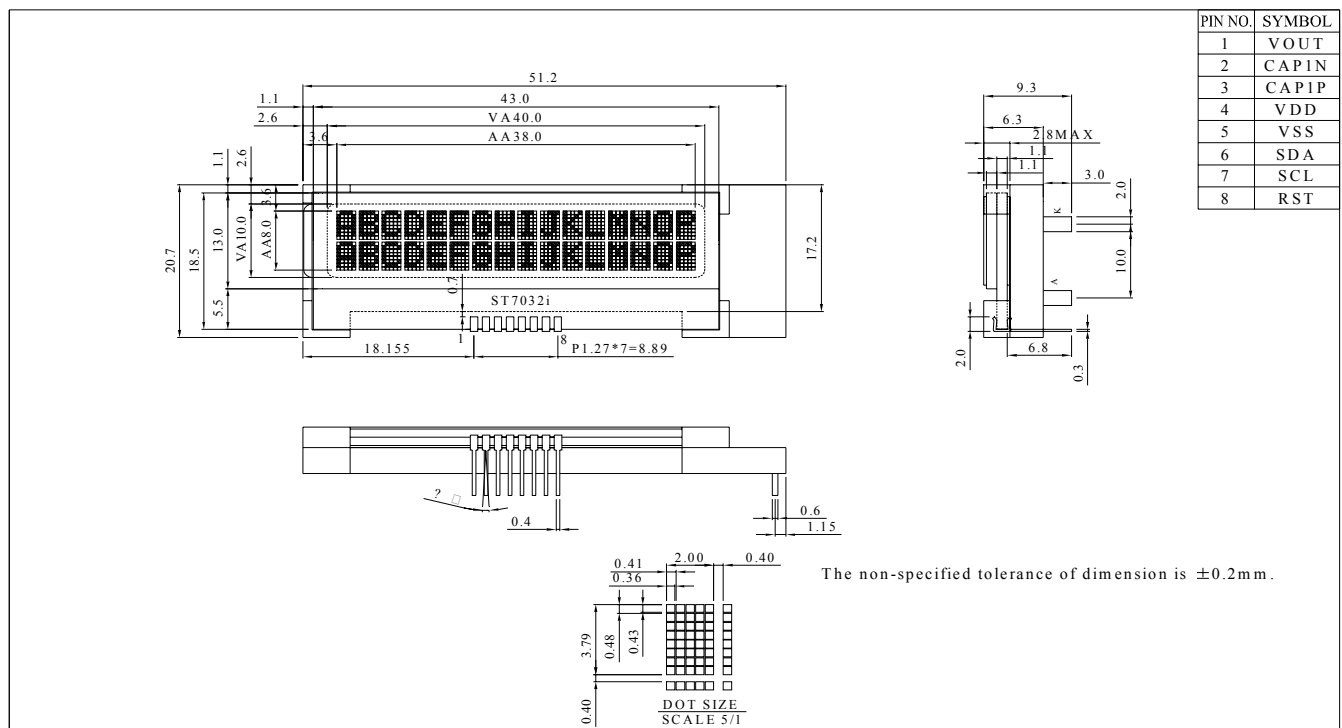
Driver: ST7032i

Driver Method: 1/16 Duty, 1/5 Bias

Power supply: 3V and 5 V

Interface: I2C

Backlight: LED White 2 Dices



### Contour Drawing

► Link to Winstar Website COG Product page --

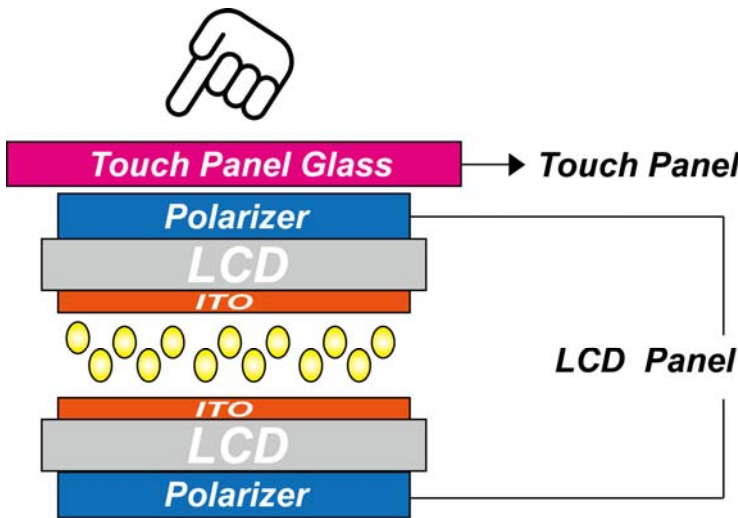
**Product Introduction – Touch Key Display**

Winstar Display introduces a new custom design icon-type touch key display solution. The touch key display is built upon cutting-edge capacitive sensing technology which does not require a touch panel on top of the LCD panel. Winstar offers a cost-effective Single Layer ITO solution and a feature-rich Double Layer ITO solution.

The Single Layer ITO touch key has touch patterns and LCD cells share the same ITO layer. Top half of the glass is display and bottom half is touch key buttons. The Double Layer ITO solution allows the display icons be touch buttons as LCD cells and touch patterns are in different ITO layers.

The touch key sensitivity of both solutions are adjustable. Maximum of eight touch buttons are supported for both solutions. The Single Layer ITO solution is currently in production while the Double Layer ITO solution will be available later. Winstar offers custom design support to meet every customer’s need.

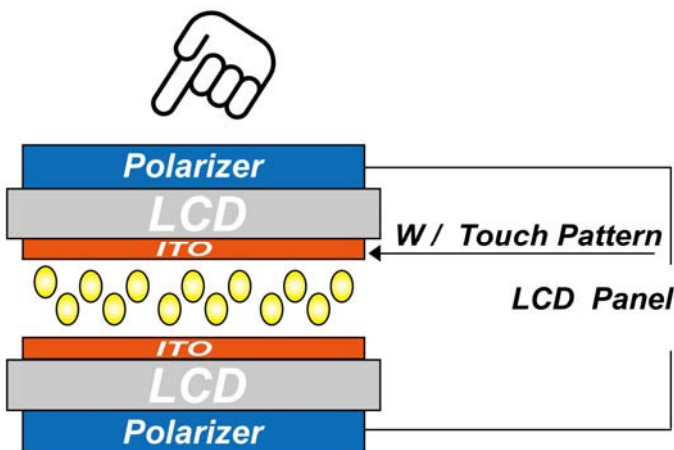
Below are the comparison drawings for reference --



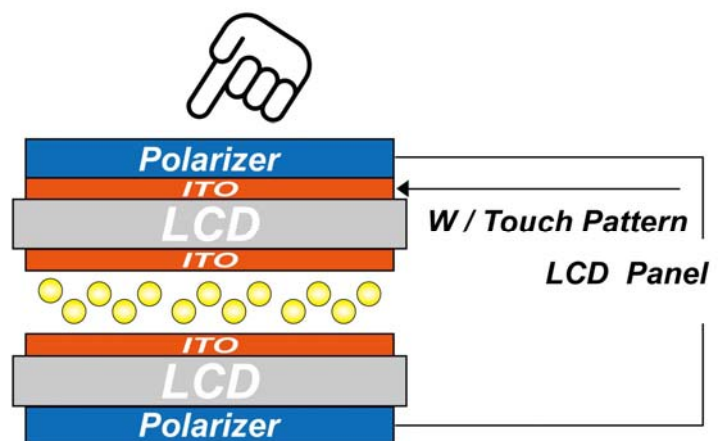
**Conventional LCD with Touch Panel**



**Winstar Single-layer Touch Key module with silk ink**



**LCD with single-layer Touch Key**



**LCD with double-layer Touch Key**