

Industrial Circular Form Factor Display Solutions

Densitron's new range of high resolution IPS TFT modules in a cicular form factor, is ideally suited to enhancing the rapidly evolving HMI space within multiple market sectors.

Applications where this innovative form factor is most suitable include; portable devices, broadcast, home appliances, smart building, smart metering, gauges, automotive products, industry controllers and instrumentation panels.

The displays come in various sizes from 1.3" with a resolution of 240 x 240, 2.47" with 480 x 480 and a 5" 1080 x 1080 resolution. All of the displays can be fully customised to suit your own requirements.

Product Features

- Sizes available: 1.3", 2.47" and 5"
- High resolutions: 1.3" 240x240, 2.47" 480x480, 5" 1080x1080
- True 24-bit colour depth which provides a 16.4 Million colour depth
- IPS technology which offer an **80/80/80** symmetric viewing angles
- The TFT module is designed to operate continuously with a backlight half-life of **50,000** hours and an operating temperature range of -10° C to $+60^{\circ}$ C
- All modules offer long term availability of 5 years plus
- It offers 10-finger **Projected Capacitive Touch** (PCT) as an option
- 300~450cd/m2 peak luminance as a typical brightness level
- Multiple interface: MPU/RGB/SPI/MIPI



	Item		Contents	
	Screen Size	1.3"	2.47"	5.0"
	Display Format	240 x 240	480 x 480	1080 x 1080
	Colour	262K	16.7M	16.7M
	Active Area	32.4 x 32.4mm	62.64 x 62.64mm	127 x 127mm
ر	Outline Dimensions	35.9 x 35.7 x 1.29 mm	69.19 x 71.74 x 2.5, mm	136.5 x 132.2 x 1.98 mm
101	Viewing Angle	80/80/80/80 Degrees	85/85/85/85 Degrees	80/80/80/80 Degrees
Description	Contrast Ratio	600:1 (Typ.)	1000:1 (Typ.)	1200:1 (Typ.)
	Peak Luminance	450cd/m ^ 2	430cd/m ^ 2	300cd/m ^ 2
es	LED Backlight Lifetime	50,000 hour half-life	50,000 hour half-life	30,000 hour half-life
	I/O	MPU/SPI/SPI+RGB	2 lane MIPI	4 lane MIPI
Product	Power	VCI 3.3V; IOVCC 1.8V	VCI 3.3V; IOVCC 1.8V	VDD 5.0V; IOVCC 1.8V
ηp	Power Consumption	128mW for backlight	372mW for backlight	744mW for backlight
ro	Operating Temperature	-20°C ∼ 70°C	-10°C ∼ 60°C	-20°C ∼ 60°C
А	Storage Temperature	-30°C ∼ +80°C	-20°C ∼ +70°C	-30°C ∼ +75°C
	Response Time	35mS	30mS	35mS
	Touch	Optional	Optional	Optional
	Tape Bonding	Optional	Optional	Optional
	Weight	4.0 g	20 g	70 g

Circular Display Range



Size	Part Number	Description
1.3"	DMT013QVNXNT0-1A	1.3" 240x240 round IPS display
2.47''	DMT024QBNMNT0-1A	2.47'' 480x480 round IPS display
5.0''	DMT050H7NMNT0-1A	5.0'' 1080x1080 round IPS display

