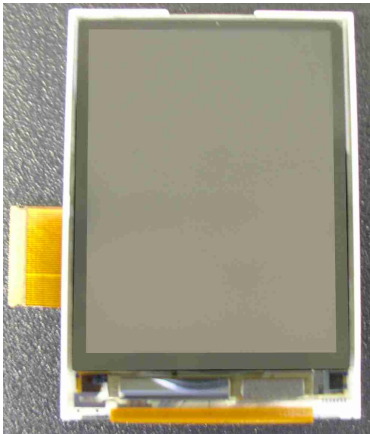


P8893

2.2" QVGA, 240 x RGB x 320,
Transflective TFT LTPS Display Module

The P8893 features a high performance QVGA TFT display module that offers ultra bright and rich colours in an attractive compact module. The P8893 can be customized and offers various interconnect options, as well as transflective properties which offer good outdoor readability. The model includes LCD panel, driver ICs, peripheral circuit, and backlight unit. The module has two driver ICs, COG mounted. The gate driver and the RGB multiplexing function are integrated on the glass.

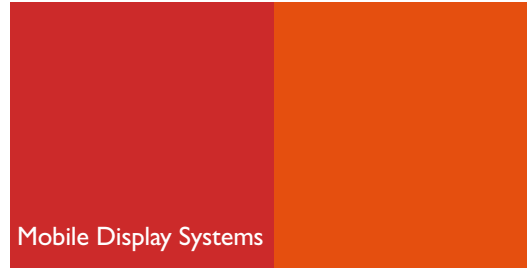


APPLICATION INFORMATION

- Mobile phones/Audio-Video players

PRODUCT ADVANTAGES

- High brightness and contrast
- Superior colour reproduction with 262k colours
- Excellent reflective performance in direct sunlight
- Low power consumption
- Compact module



SPECIFICATIONS

Mechanical

Width	39.08 mm
Height	58.4 mm
Module Thickness	3.04 mm
Weight	12.5 grams
Active Area	33.12 x 44.16 mm
Dot Pitch	0.138
Resolution	240 x RGB x 320
Pixel Configuration	RGB Vertical Stripe
Diagonal	2.17"

Electrical

Technology	LTPS Active Matrix LCD
Supply Voltage	Logic 1.7 - 3.3 V Analog 2.5 - 3.3 V
Power Supply / consumption LED	220 mW (serial), typ. 14.4V
Gate IC / Source IC	T6K65/T6K66

Temperature Conditions

Operating	-20°C to +70°C
Storage	-30°C to +80°C

Interface

8/16/18 parallel, serial, 18bit RGB

Optical

Image Mode	Normally white
Illumination Mode	Transflective
Backlight	4 LEDs (white)
Viewing direction	6 o'clock
Color	262k
Response Time	25ms (Ton + Toff)

Backlight ON

Contrast Ratio	100:1
NTSC (u',v')	45
Viewing Direction 180°, CR >= 2	65°
Viewing Direction 0°, CR >= 2	65°
Viewing Angle V, CR >=2	130°
Luminance (module)	120Cd/m ²
Uniformity	1.3
BL Power Consumption	15mA @ 14.4V (typ)

Backlight OFF

Reflectance Diffuse	3.5%
Contrast Ratio Diffuse	11:1
NTSC (u',v')	10
Viewing Direction 180°, CR >= 2	65°
Viewing Direction 0°, CR >= 2	65°
Viewing Angle V, CR >=2	130°

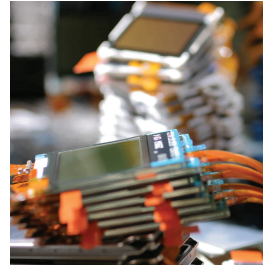
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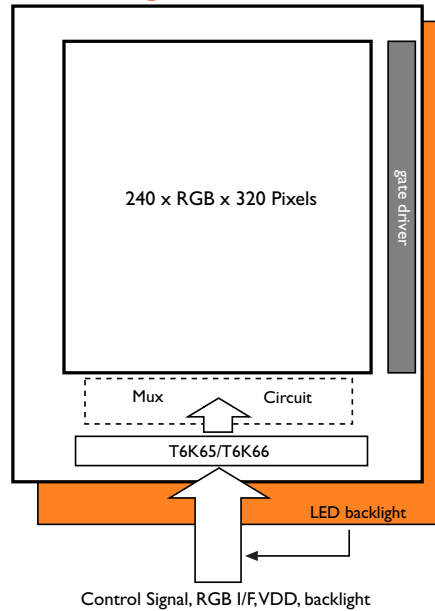
Pinning

PIN	SYMBOL	FUNCTION	I/O
1	BL-	LED cathode	LED
2	BL-	LED cathode	LED
3	BL+	LED anode	LED
4	BL+	LED anode	LED
5	GND	Ground	P
6	/RESET	Reset	I
7	SDI	Serial Data In	I
8	SDO	Serial Data Out	O
9	GND	Ground	P
10	SCL	Serial Clock	I
11	GND	Ground	P
12	/CS	Serial Chip Select	I
13	ID	Serial Address ID	I
14	VDD	Digital Voltage Supply	P
15	VDD	Digital Voltage Supply	P
16	VSYNC	Vertical Sync for RGB interface	I
17	HSYNC	Horizontal Sync for RGB interface	I
18	GND	Ground	P
19	DOTCLK	Dot Clock for RGB interface	I
20	GND	Ground	P
21	ENABLE	Enable for RGB interface	I
22	PD17	Red data bit 5	I
23	PD16	Red data bit 4	I
24	PD15	Red data bit 3	I
25	PD14	Red data bit 2	I
26	PD13	Red data bit 1	I
27	PD12	Red data bit 0	I
28	GND	Ground	P
29	PD11	Green data bit 5	I
30	PD10	Green data bit 4	I
31	PD9	Green data bit 3	I
32	PD8	Green data bit 2	I
33	PD7	Green data bit 1	I
34	PD6	Green data bit 0	I
35	GND	Ground	P
36	PD5	Blue data bit 5	I
37	PD4	Blue data bit 4	I
38	PD3	Blue data bit 3	I
39	PD2	Blue data bit 2	I
40	PD1	Blue data bit 1	I
41	PD0	Blue data bit 0	I
42	GND	Ground	P
43	VLD	RAM write enable	I
44	VCC	Analog Voltage Supply	P
45	VCC	Analog Voltage Supply	P



www.mds.philips.com

Block Diagram



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