



EM2.2P – 2.2” TFT LCD MODULE

Description

EM2.2P is a-Si TFT LCD module with QCIF resolution and portrait orientation, with integrated DDRAM. It is designed to display 262K colours supporting a wide choice of interfaces, from Serial to Parallel and RGB video interface, enabling moving picture display at an arbitrary position determined by window address setting.

The EM2.2P's power management functions such as 8-color display, deep standby and partial display make this module ideal for small sized portable products such as DECT phones and remote controls.

Optional Components:

- EM2.2P integrates a dedicated white LED driver that generates the appropriate current for each led with an excellent current matching (0.3%typ). By applying a PWM signal to the PWM pin, the user has the ability to independently control the brightness of each led, to optimize brightness and uniformity on the display.
- The module also integrates a capacitive TP (touch panel) and the controller IC (EM6420). The TP has 12 sensors covering all display active area. It can be controlled via serial SPI interface and it has very low power consumption.

Key Specifications

Parameter	Characteristics
Display technology	a-Si TFT
Display type	Transmissive
Mode	Positive (normally white)
Viewing direction	6 o'clock
LCD Driver	R61503U
Resolution	176RGBx220 Dots
Colour	65K, 262K
Module structure	LCD panel + back-light + capacitive touch panel + Interface FPC
Module dimensions (mm)	41.4(L) x 54.4(W) x 3.88(T)
Active Area (mm)	34.85(L) x 43.56(W)
LCD Driver Interface	- System interface via 8-, 9-, 16-, 18-bit parallel 80-system - Serial Interface - RGB interface
LCD Driver power supply	2.5 V to 3.6 V
TP Controller power supply	2.2V to 3.6V
TP Controller interface	4-wire SPI
LED driver power supply	2.7V to 5.5V
Brightness regulation	PWM
Module current consumption (with back-light off)	Typical: 1.5 mA
Back-light forward current	60mA Typ. at 3.3V
Operating temperature range	-20°C to +70°C
Storage temperature range	-30°C to +80°C

Ordering Information

EM2.2P – I – TP – BD

I is interface selection digit

1	80-system 8-bit
2	80-system 9-bit
3	80-system 16-bit
4	80-system 18-bit
5	Serial Interface
6	RGB Interface

TP is touch panel selection digit. TP = 1 for the module with touch panel. TP = 0 for the module without touch panel

BD is back-light driver selection digit. BD = 1 for the module with Led driver. BD = 0 for the module without Led driver

Please contact EM for detailed schematics and specification.

