



# 23" LCD Module Specification

Model No. : SLM-MR230M-E

Date : \_\_\_\_\_

Customer	ACT Power GM





# Military Display

**Figure 1: Plan and cross-sectional views of the LCD module.**

**Plan View Dimensions (mm):**

- Overall width: 532,80±1,30 (Outline)
- Viewable area width: 513,80±1,20 (Viewable area)
- Active area width: 509,76±1,20 (Active area)
- Overall height: 301,96±1,30 (Outline)
- Viewable area height: 295,02±1,20 (Viewable area)
- Active area height: 290,74±1,20 (Active area)
- Left margin: 10,14
- Right margin: 10,20
- Top margin: 10,14
- Bottom margin: 10,20
- UL (Upper Left) and UR (Upper Right) corners
- LL (Lower Left) and LR (Lower Right) corners
- Heater pad dimensions: 143,00 (width) x 135,45 (height)
- Pin pitch: PIN1(Pitch2.54)
- Pin dimensions: 12,73±0,20 (width) x 305,02±1,20 (length)

**Cross-sectional View:**

- Components: Cover Glass, LCM (Liquid Crystal Module), and Heater Pad.
- Heater pad dimensions: 185,00 (width) x 135,45 (height).
- Detail A: A circular callout indicating a specific detail of the module.

PIN #	SIGNAL NAME	DESCRIPTION
1	RxOIN0-	Negative LVDS differential data input (Odd data)
2	RxOIN0+	Positive LVDS differential data input (Odd data)
3	RxOIN1-	Negative LVDS differential data input (Odd data)
4	RxOIN1+	Positive LVDS differential data input (Odd data)
5	RxOIN2-	Negative LVDS differential data input (Odd data, H-Sync,V-Sync,DSP TMG)
6	RxOIN2+	Positive LVDS differential data input (Odd data, H-Sync,V-Sync,DSP TMG)
7	VSS	Power Ground
8	RxOCLKIN-	Negative LVDS differential clock input (Odd clock)
9	RxOCLKIN+	Positive LVDS differential clock input (Odd clock)
10	RxOIN3-	Negative LVDS differential data input (Odd data)
11	RxOIN3+	Positive LVDS differential data input (Odd data)
12	RxEIN0-	Negative LVDS differential data input (Even data)
13	RxEIN0+	Positive LVDS differential data input (Even data)
14	VSS	Power Ground
15	RxEIN1-	Negative LVDS differential data input (Even data)
16	RxEIN1+	Positive LVDS differential data input (Even data)

17	VSS	Power Ground
18	RxEIN2-	Negative LVDS differential data input (Even data)
19	RxEIN2+	Positive LVDS differential data input (Even data)
20	RxECLKIN-	Negative LVDS differential clock input (Even clock)
21	RxECLKIN+	Positive LVDS differential clock input (Even clock)
22	RxEIN3-	Negative LVDS differential data input (Even data)
23	RxEIN3+	Positive LVDS differential data input (Even data)
24	VSS	Power GND
25	NC	NC
26	NC	NC
27	PWM_OUT	PWM_OUT
28	VCC	+5.0V Power Supply
29	VCC	+5.0V Power Supply
30	VCC	+5.0V Power Supply



## Specifications

### LCD Module

LCD Size	23 TFT LCD
Backlight	LED
Resolution	1920 x 1080
View Angle	± 89° (H), ±89° (V)
Luminance	700 cd/m2 (After Bonding)
Contrast Ratio	1000:1
Aspect Ratio	16:9
Response Time	14 ms
No. of Color	16.7M (True 8 Bit)
Active area	509.184(H) x 286.416(V) mm
Pixel Pitch	0.2652 (Per One Triad) x 0.2652 mm
LED Life Time	50,000 Hrs

### Touch Screen

Touch Type	5-Wire Resistive Touch
Viewable Area	513.80 x 219.02 mm
Active Area	509.76 x 286.74 mm
Touch Interface	USB
Touch Glass	AG/AR Strengthen Glass
Optical Bonding	EMI Mesh with Optical Bonding
Touch Drivers	Support Windows, Linux, Mac, etc.

### Environmental

Operating Temperature	-20°C to +55°C (Note)
Storage Temperature	-20°C to +60°C (Note)
Humidity	95%, @ 40°C, Non-Condensing (Note)
EMI/EMC	The LCD Kit is designed to meet ML-STD-461E/F for a whole display unit (Note)
Shock	The LCD Kit is designed to meet MIL-STD-810D for a whole display unit (Note)
Vibration	The LCD Kit is designed to meet MIL-STD-810E for a whole display unit (Note)
Altitude above sea level	0~9144 M (30000 feet) (Note)

**Note: To work with mentioned certifications, this LCD Kit has offered the potential to be designed in to gain such certification however it is still depends on the final design of the full unit to pass the test and validation of such certification.**

## Order information

### Model Name

SLM-MR230M-E

### Description

23" Military LCD Module

### Qty

1