



Military Display

5 inch LCD Module Open Frame Specification

Model No. : SLM-MR050M-E

Date : 2021/3/30

Revision : 0.3

ACT Power GM Approve	ACT Power PM Approve



Military Display

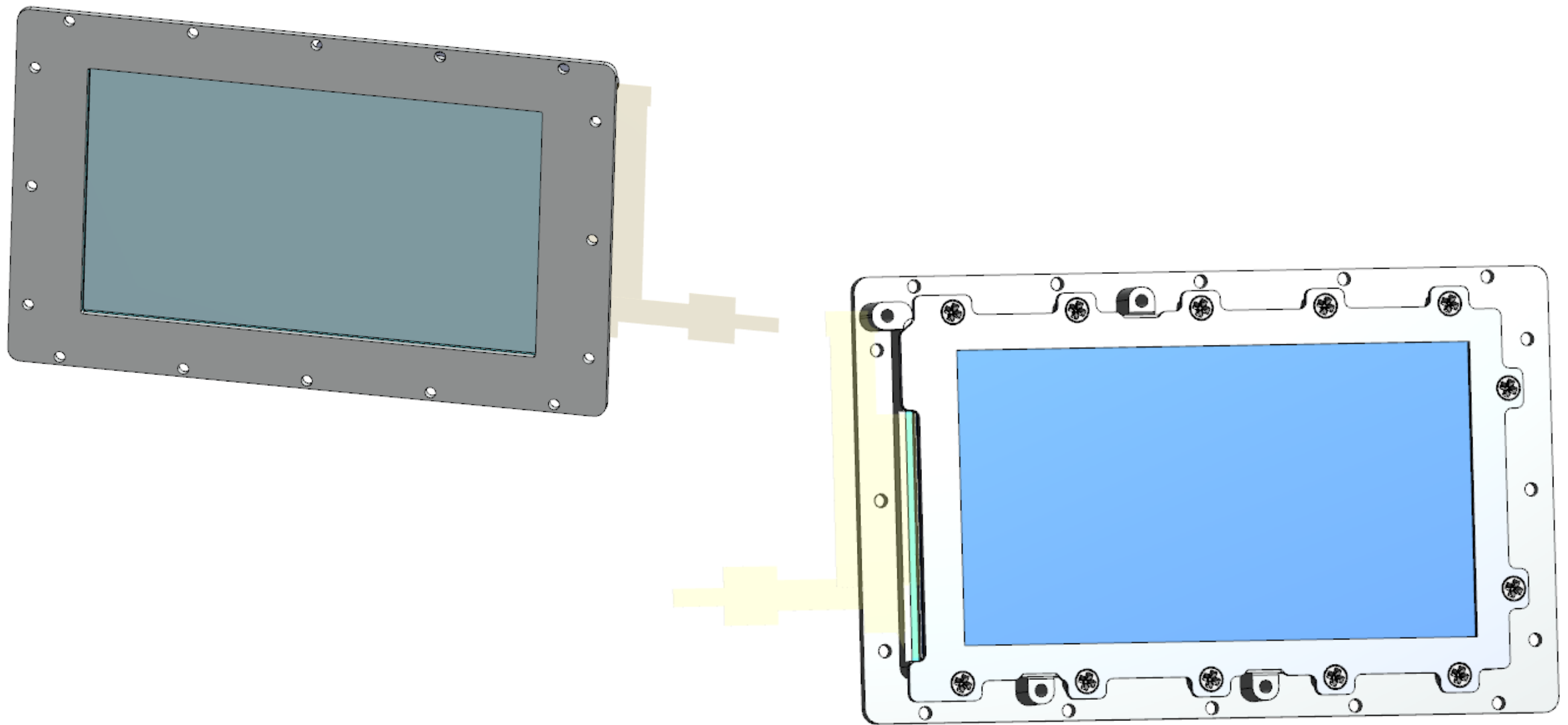
SLM-MR050M-E

Revision List

Date	Revision	Amendment	By
2021/3/30	0.1	Basic	Dennis
2023/5/4	0.2	Updated Design Drawings [Turn into Openframe, client requires to stay the same Model Name]	Dennis
2023/8/27	0.3	Revise Datasheet Layout	Dennis

SLM-MR050M-E

Appearance



MIPI Pin Assignment

Pin No.	Symbol	I/O	Function	Remark
1	GND	P	Ground	
2	GND	P	Ground	
3	VDD	P	Analogy Power Supply	
4	D3-	I	MIPI Data Lane 3-	
5	GND	P	Ground	
6	D3+	I	MIPI Data Lane 3+	
7	MTP	P	Programing Power	
8	GND	P	Ground	
9	GND	P	Ground	
10	D0-	I	MIPI Data Lane 0-	
11	LED-	P	Cathode 1 of LED	
12	D0+	I	MIPI Data Lane 0+	
13	GND	P	Ground	
14	GND	P	Ground	
15	LED+	P	Anode of LED	
16	CK-	I	MIPI Clock Lane-	
17	GND	P	Ground	
18	CK+	I	MIPI Clock Lane+	
19	LED2-	P	Cathode 2 of LED	
20	GND	P	Ground	
21	GND	P	Ground	
22	D1-	I	MIPI Data Lane 1-	
23	VDDIO	P	Digital Power Supply	
24	D1+	I	MIPI Data Lane 1+	
25	GND	P	Ground	
26	GND	P	Ground	
27	TE	I	Tearing Effect	
28	D2-	I	MIPI Data Lane 2-	
29	GND	P	Ground	
30	D2+	I	MIPI Data Lane 2+	
31	LED_PWM	P	Backlight Control PWM Signal	
32	GND	P	Ground	
33	GND	P	Ground	
34	RESX	I	Reset Signal	

Specifications

LCD Module	
LCD Size	5 TFT LCD
Backlight	LED
Resolution	720 x 1280
View Angle	± 80° (H), ±80° (V)
Luminance	700 cd/m2 (after bonding)
Contrast Ratio	800:1
Aspect Ratio	16:9
Response Time	30 ms
No. of Color	16.7M
Active area	62.10 x 110.40 mm
Pixel Pitch	0.08625 (H) x 0.08625 (V)
LED Life Time	50,000 Hrs (Min)
Touch Screen	
Touch Type	Capacitive Multi Touch
Viewable Area	110.25 x 62.23 mm
Active Area	110.25 x 62.10 mm
Touch Interface	I2C
Touch Glass	AR Coating, Strengthen Glass
Optical Bonding	EMI mesh with optical bonding
Touch Drivers	Support Windows, Linux, etc.
Environmental	
Operating Temperature	-20°C to +70°C (*)
Storage Temperature	-30°C to +80°C (*)
Humidity	Ta≤40°C, 95%RH, non-condensing
EMI/EMC	The LCD Kit is designed to meet ML-STD-461E/F for a whole display unit (*)
Shock	The LCD Kit is designed to meet MIL-STD-810D for a whole display unit (*)
Vibration	The LCD Kit is designed to meet MIL-STD-810E for a whole display unit (*)
Altitude above sea level	0~9144 M (30000 feet)(Note)

* : LCD kit has to be properly packed with bezel and back cover with required EMI-EMC and IP Gaskets to meet EMI/EMC and Environmental specifications

Order information

Model Name	Description	Qty
SLM-MR050M-E	5 inch LCD Module Open Frame	1