DisplayModule

DM-OLEDC070-661

0.7" 1920 × 1080 AMOLED DISPLAY PANEL -LVDS

Contents

1 Revision History

2 Main Features

3 Pin Description

- 3.1 Pin Assignment
- 3.2 Pin Description

4 Mechanical Drawing

- 4.1 Panel Mechanical Drawing

5 Optics & Electrical Characteristics

- 5.1 Optical Characteristics
- 5.2 Absolute Maximum Ratings
- 5.3 DC Characteristics

6 Reliability

7 Warranty and Conditions

1 Revision History

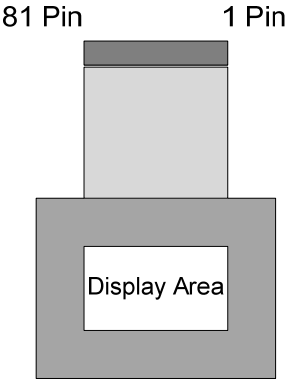
Date	Changes
2019-12-05	First release

2 Main Features

Item	Specification	Unit
Diagonal Size	0.7	inch
Display Mode	Active Matrix color OLED	-
Number of colors	24bit (16.7M)	Colors
Interface	LVDS	pixel
Frame Rate	60	Hz
Resolution	1920(RGB) × 1080	-
Active Area	15.8 × 8.99	mm
Panel Dimension	21.443 × 15.623 × 1.5	mm
Weight	TBD	g

3 Pin Description

3.1 Pin Assignment



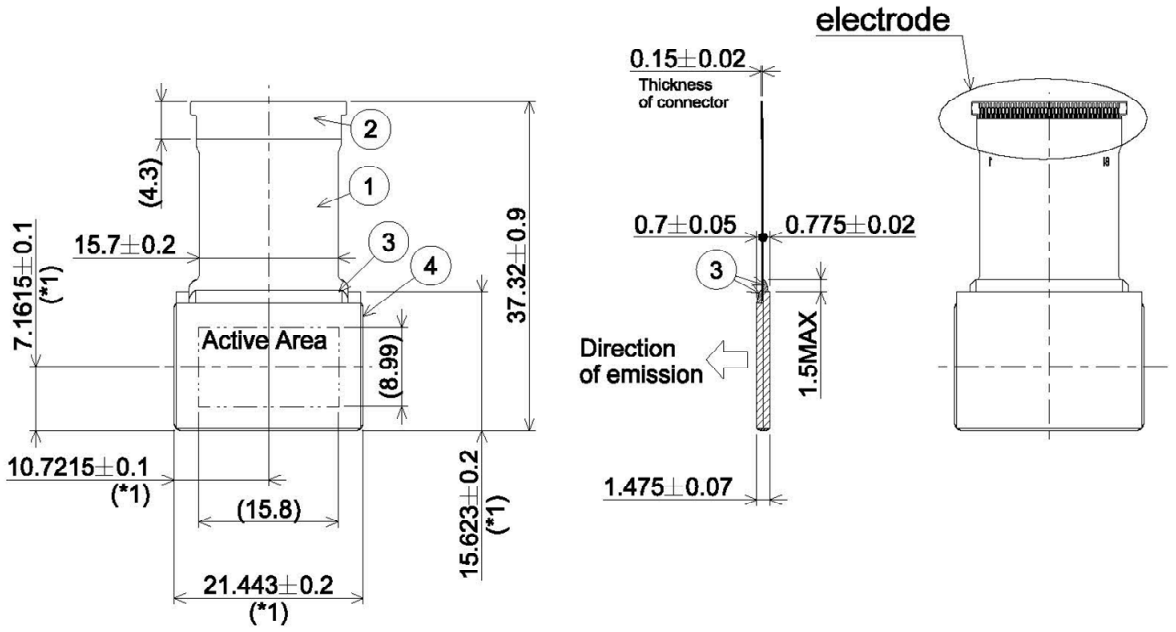
3.2 Pin Description

Pin No.	Symbol	Type	Function Description
1	VCATH	Power Supply	EL cathode power supply
2	VCATH	Power Supply	EL cathode power supply
3	VCCP_O	Power Supply	VCCP power supply
4	VCCP_I	Power Supply	VCCP power supply
5	VCCP_I	Power Supply	VCCP power supply
6	VDD2	Power Supply	10V power supply
7	VDD2	Power Supply	10V power supply
8	VSS	Power Supply	GND
9	VSS	Power Supply	GND
10	VSS	Power Supply	GND
11	VSS	Power Supply	GND
12	VDD1	Power Supply	1.8V power supply
13	VDD1	Power Supply	1.8V power supply
14	XCS	Input	Serial communication Chip select
15	XSCK	Input	Serial communication Serial clock
16	SI	Input	Serial communication Data input
17	SO	Output	Serial communication Data output
18	PSCNT	Input	Power save communication enable Connect to GND
19	XCLR	Input	System reset
20	TEST	Output	Test pin (no connect)
21	TEST	-	Test pin (connect to GND)
22	TEST	Input	Test pin (connect to GND)
23	TEST	Input	Test pin (connect to GND)
24	TEST	Input	Test pin (connect to GND)
25	TEST	Input / Output	Test pin (connect to GND)
26	TEST	Output	Test pin（no connect）
27	VDD1IF	Power Supply	1.8V power supply for LVDS
28	VSSIF	Power Supply	GND for LVDS
29	TEST	Input	Test pin (connect to GND)
30	TEST	Input	Test pin (connect to GND)
31	LV1A	Input	LVDS clock

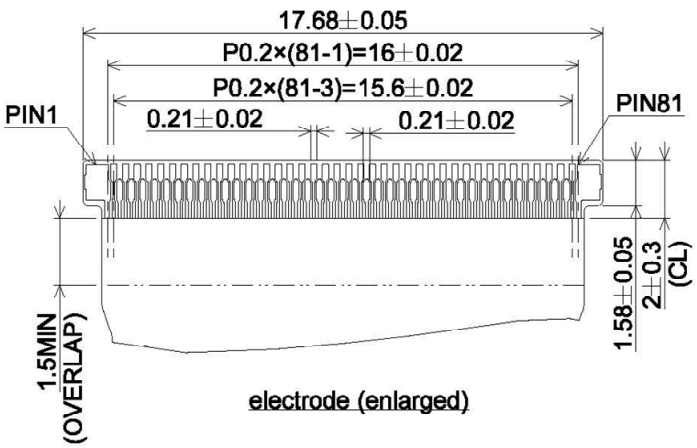
Pin No.	Symbol	Type	Function Description
32	LV1B	Input	LVDS clock
33	LV2A	Input	LVDS data input
34	LV2B	Input	LVDS data input
35	LV3A	Input	LVDS data input
36	LV3B	Input	LVDS data input
37	LV4A	Input	LVDS data input
38	LV4B	Input	LVDS data input
39	LV5A	Input	LVDS data input
40	LV5B	Input	LVDS data input
41	VDD1IF	Power Supply	1.8V power supply for LVDS
42	VSSIF	Power Supply	GND for LVDS
43	TEST	Input	Test pin (connect to GND)
44	TEST	Input	Test pin (connect to GND)
45	VSSIF	Power Supply	GND for LVDS
46	VDD1IF	Power Supply	1.8V power supply for LVDS
47	LV9A	Input	LVDS data input
48	LV9B	Input	LVDS data input
49	LV8A	Input	LVDS data input
50	LV8B	Input	LVDS data input
51	LV7A	Input	LVDS data input
52	LV7B	Input	LVDS data input
53	LV6A	Input	LVDS data input
54	LV6B	Input	LVDS data input
55	LV10A	Input	LVDS clock
56	LV10B	Input	LVDS clock
57	TEST	Input	Test pin (connect to GND)
58	TEST	Input	Test pin (connect to GND)
59	VSSIF	Power Supply	GND for LVDS
60	VDD1IF	Power Supply	1.8V power supply for LVDS
61	TEST	Output	Test pin (no connect)
62	IFSW	Input	Interface select pin (connect to GND）
63	VDD1	Power Supply	1.8V power supply
64	VDD1	Power Supply	1.8V power supply
65	VSS	Power Supply	GND
66	VSS	Power Supply	GND
67	TEST	Input	Test pin (connect to GND)
68	VCAL	Output	Output of temperature sensing circuit
69	R_IB	Input / Output	Bias current adjustment resistance connect pin
70	VREF	Output	VREF voltage
71	VG255	Output	Gamma top voltage
72	VG0	Output	Gamma bottom voltage
73	VOFS	Output	Vofs voltage
74	VSS	Power Supply	GND
75	VSS	Power Supply	GND
76	VDD2	Power Supply	10V power supply
77	VDD2	Power Supply	10V power supply
78	VCCP_I	Power Supply	VCCP power supply
79	VCCP_I	Power Supply	VCCP power supply
80	VCATH	Power Supply	EL cathode power supply
81	VCATH	Power Supply	EL cathode power supply

4 Mechanical Drawing

4.1 Panel Mechanical Drawing



*1: including End-face coating



No	Description
1	FPC
2	Stiffener
3	Reinforcing material
4	End-face coating

Mass: 1.3g

5 Optics & Electrical Characteristics

5.1 Optical Characteristics

Item	Symbol	Min	Typ	Max	Unit
Luminance	L	-	3000	-	cd/m²
Contrast	CR	10,000	-	-	-

5.2 Absolute Maximum Ratings

Item	Symbol	Min	Max	Unit	Remark
1.8V power supply	VDD1	-0.3	2.0	V	
1.8V power supply (IF)	VDD1IF	-0.3	2.5	V	
10 V power supply	VDD2	-0.3	12.0	V	
EL cathode voltage	Vcath	-0.3	0.3	V	
Logic input voltage	Vi	-0.3	VDD1+0.3	V	Note 1
IF input voltage	ViIF	-0.3	VDD1IF+0.3	V	Note 2
Storage temperature	Tpnl	-30	+80	℃	

Note 1: Pin no. 14,15,16,18,19,22,23,24 & 62.

Note 2: Pin no. 29 to 40,43,44 & 47 to 58.

5.3 DC Characteristics

Item	Symbol	Min	Typ	Max	Unit
1.8V power supply	VDD1	1.62	1.8	1.98	V
1.8V power supply (IF)	VDD1IF	1.62	1.8	1.98	V
10 V power supply	VDD2	9.7	10.0	10.3	V
EL cathode voltage	Vcath	-0.3	0	0.3	V
Operating temperature range	Tpnl	-20	-	+70	℃

6 Reliability

Test Item	Content of Test	Test Condition	Note
High Temperature Storage	Endurance test applying the high storage temperature for a long time.	85℃ 1000hrs	2
Low Temperature Storage	Endurance test applying the high storage temperature for a long time.	-30℃ 1000hrs	1,2
High Temperature Operation	Endurance test applying the electric stress (Voltage & Current) and the thermal stress to the element for a long time.	70℃ 500hrs	-
Low Temperature Operation	Endurance test applying the electric stress under low temperature for a long time.	-10 ℃ 500hrs	1
High Temperature/ Humidity Operation	The module should be allowed to stand at 60℃,90%RH max, for 96hrs under no-load condition excluding the polarizer. Then taking it out and drying it at normal temperature.	40℃,95%RH 500hrs	1,2
Thermal Shock Resistance	The sample should be allowed stand the following 10 cycles of operation	-30℃/85℃ 100 cycles	-

Note1: No dew condensation to be observed.

Note2: The function test shall be conducted after 4 hours storage at the normal. Temperature and humidity after remove from the rest chamber.

7 Warranty and Conditions

http://www.displaymodule.com/pages/faq HYPERLINK "http://www.displaymodule.com/pages/faq"