

0.42 inch OLED module



PROFILE

- Type: Passive graphic
- Display Color: Monochrome (White/Yellow/Blue)
- Display format: 72 x 40 dots
- Duty cycle: 1/40
- +2.8V power supply
- Controller IC: SSD1315
- Interface: 4-wire SPI, I²C

FEATURES

NO.	ITEM	SPECIFICATION	UNIT
1	Panel Size	0.42	inch
2	Outline Dimension	12.0(W) x 11.0(H) x 1.25(T)	mm
3	Viewing Area	10.196 x 6.18	mm
4	Active Area	9.196 x 5.18	mm
5	Number of Dots	72 × 40	pixels
6	Dot Size	0.108(W) × 0.11(H)	mm
7	Dot Pitch	0.128(W) × 0.13(H)	mm
8	Display Mode	Passive graphic	-
9	Viewing Direction	All	
10	Display Color	White	-
11	Luminance(cd/m ²)	430(TYP.) (Internal DC/DC Enable)	cd/m ²
12	Contrast Ratio	2000(TYP. In Dark Room)	-
13	Interface	4-wire SPI, I ² C	-
14	Drive IC	SSD1315	-
15	Operation Temperature	-40~70	°C
16	Storage Temperature	-40~85	°C



Display Zone

ABSOLUTE MAXIMUM RATINGS				
ITEM	SYMBOL	MIN	MAX	UNIT
Supply Voltage for Logic	V _{DD}	-0.3	4	V
Supply Voltage for Display	V _{CC}	0	16	V
Supply Voltage for DC/DC (Internal DC/DC Enable)	V _{BAT}	-0.3	5	V
Operating Temperature	T _{OP}	-40	85	°C
Storage Temperature	T _{STG}	-40	85	°C
Life Time (430 cd/m ²)		10,000	-	hour
Life Time (360 cd/m ²)		30,000	-	hour
Life Time (300 cd/m ²)		50,000	-	hour

ELECTRICAL CHARACTERISTICS						
ITEM	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Supply Voltage for Logic	V _{DD}		1.65	2.8	3.3	V
Supply Voltage for Display (Supplied Externally)	V _{CC}	Internal DC/DC Disable	8.5	9	9.5	V
Supply Voltage for DC/DC	V _{BAT}	Internal DC/DC Enable	3.5	-	4.2	V
Supply Voltage for Display (Generated by Internal DC/DC)	V _{CC}	Internal DC/DC Enable	-	9	-	V
High Level Input	V _{IH}	I _{OUT} =100μA, 3.3MHz	0.8xV _{DD}	-	V _{DD}	V
Low Level Input	V _{IL}	I _{OUT} =100μA, 3.3MHz	0	-	0.2xV _{DD}	V
High Level Output	V _{OH}	I _{OUT} =100μA, 3.3MHz	0.9xV _{DD}	-	V _{DD}	V
Low Level Output	V _{OL}	I _{OUT} =100μA, 3.3MHz	0	-	0.1xV _{DD}	V
Operating Current for V _{DD}	I _{DD}		-	180	300	μA
Operating Current for V _{CC} (V _{CC} Supplied Externally)	I _{CC}		-	5	10	mA
Operating Current for V _{BAT} (V _{CC} Generated by Internal DC/DC)	I _{BAT}		-	22	25	mA
Sleep Mode Current for V _{DD}	I _{DD, SLEEP}		-	1	10	μA
Sleep Mode Current for V _{PP}	I _{CC, SLEEP}		-	2	10	μA

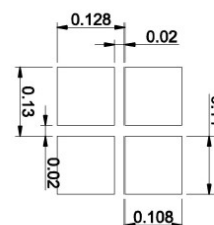
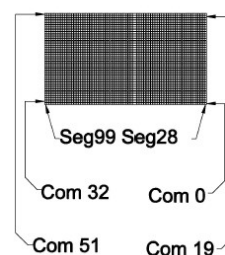
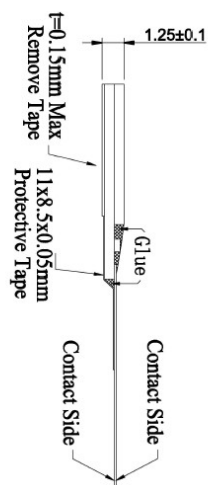
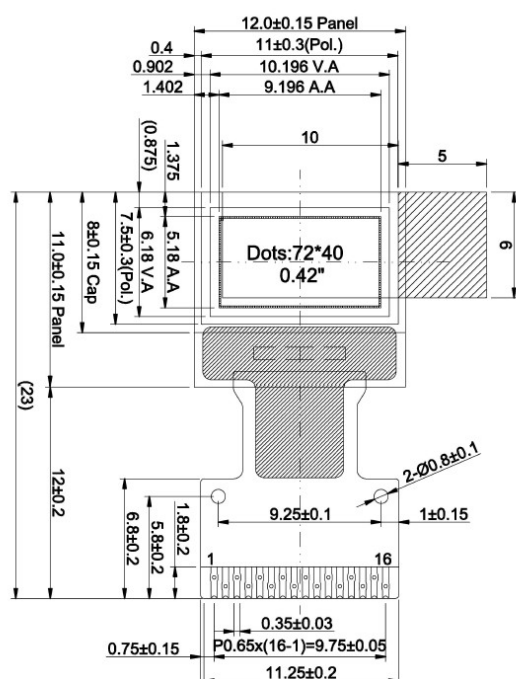
For detailed information, please refer to the “Product Numbering System” document.

PIN DESCRIPTION FOR OLED MODULE			
NO.	SYMBOL	I/O	FUNCTION
1	C2P	I	Positive Terminal of the Flying Inverting Capacitor
2	C2N	I	Negative Terminal of the Flying Boost Capacitor
3	C1P	I	Positive Terminal of the Flying Inverting Capacitor
4	C1N	I	Negative Terminal of the Flying Boost Capacitor
5	V _{BAT}	P	Power Supply for DC/DC Converter Circuit
6	V _{SS}	P	Ground of Logic Circuit

7	VDD	P	Power Supply for Logic		
8	BS1	I	Communicating Protocol Select		
			These pins are MCU interface selection input. See the following table:		
				BS1	
			I ² C	0	
			4-wire SPI	0	
9	CS	I	Chip Select		
10	RES	I	Power Reset for Controller and Driver		
11	DC	I	Data/Command Control		
12	D0	I/O	Host data input/output bus		
13	D1	I/O	Host data input/output bus		
14	D2	I/O	Host data input/output bus		
15	VCOMH	O	Voltage Output High Level for COM Signal		
16	Vcc	P	Power Supply for OEL Panel		

I/O: I: input, O: output, P: power

DIMENSIONS in millimeters



Scale 30:1

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