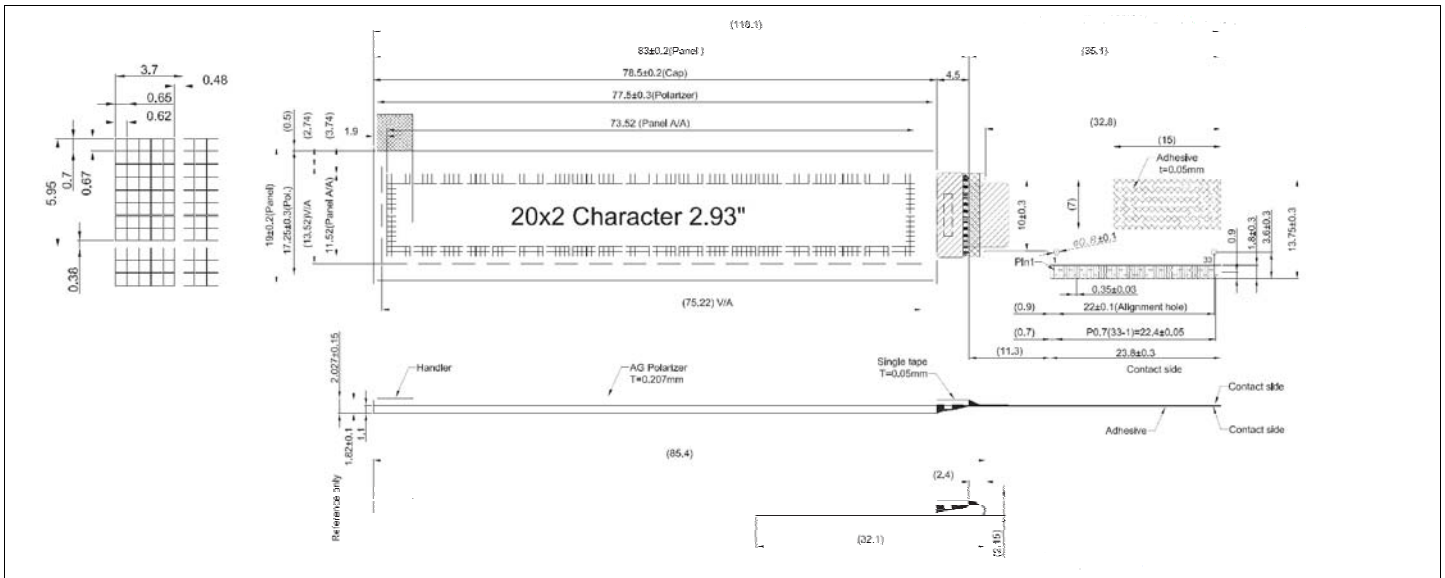


# HDR202-1

## Dimensional Drawing

## 20 Characters x 2 Lines, White OLED Display



### Features

- Viewing Angle.....Wide (160 degrees)
- High Contrast.....2000:1
- Fast Response Time.....10 usec
- Built-in DC-DC Converter
- Built-in Controller.....SSD1311

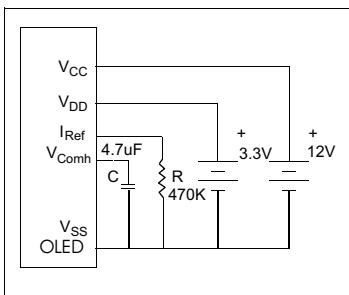
### Physical Data

- Module Size.....118.1W x 19.0H x 2.027T mm
- Panel Size.....83.0W x 19.0H mm
- Active Area Size.....73.52W x 11.52H mm
- Weight.....6.77 gm

### Electrical Characteristics (VCC = 12 ± 5% 25°C)

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
OPERATING VOLTAGE	VDD	-	2.4	3.3	3.6	V
OPERATING VOLTAGE	VCC	-	11.5	12	12.5	V
INPUT HIGH VOLTAGE	V <sub>IH</sub>	-	0.8*V <sub>DD</sub>	-	V <sub>DD</sub>	V
INPUT LOW VOLTAGE	V <sub>IL</sub>	-	0	-	0.2*V <sub>DD</sub>	V
OPERATING CURRENT	I <sub>DD</sub>	All pixels on	-	90	110	uA
OPERATING CURRENT	I <sub>CC</sub>	All pixels on	-	TBD	-	mA
POWER CONSUMPTION	P <sub>D</sub>	All pixels on	-	TBD	-	mW
BRIGHTNESS	L	Average	100	120	-	cd/m <sup>2</sup>
DRIVE METHOD	1/20 Duty					

### Power Supply



### Pin Connections

PIN NO.	SYMBOL	FUNCTION
1	NC	No Connection
2	VSL	Segment Voltage Reference Input
3	VSS	Ground
4	REGVDD	Enable/Disable Internal VDD Regulator
5	SHLC	Scan Direction . Normal/Reverse
6	SHLS	Mapping Disp. Dat. Col. Add.-Seg. Drw.
7	VDD	Power Supply for Core Logic
8	VDDIO	Power Supply for Interface Logic
9-11	BS0-2	CPU Interface Selection
12	GPIO	GPIO Input/Output
13	CS#	Chip Select - active low
14	RES#	Hardware reset input
15	D/C#	Data-Command Control Input
16	R/WR#	Write Data Input
17	E/RD#	Read Data Input
18-25	D0-D7	Bi-directional Data Bus
26	IREF	Seg. Out. Current Ref. Input
27-28	ROM0-1	Character ROM Selection
29-30	OPR0-1	Character Generator Selection
31	VCOMH	COM Output (connect Reg. Capacitor)
32	VCC	Panel Power Supply
33	N/C	No Connection

### Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	VDD	-0.3	6	V
SUPPLY VOLTAGE	VCC	10	16	V
INPUT VOLTAGE	V <sub>IN</sub>	-0.3	V <sub>DD</sub> + 0.3	V
OPERATING TEMPERATURE	T <sub>OP</sub>	-40	70	°C
STORAGE TEMPERATURE	T <sub>STG</sub>	-40	85	°C
LIFE TIME (100/140 Cd/m <sup>2</sup> )		54/38k	-	Hrs