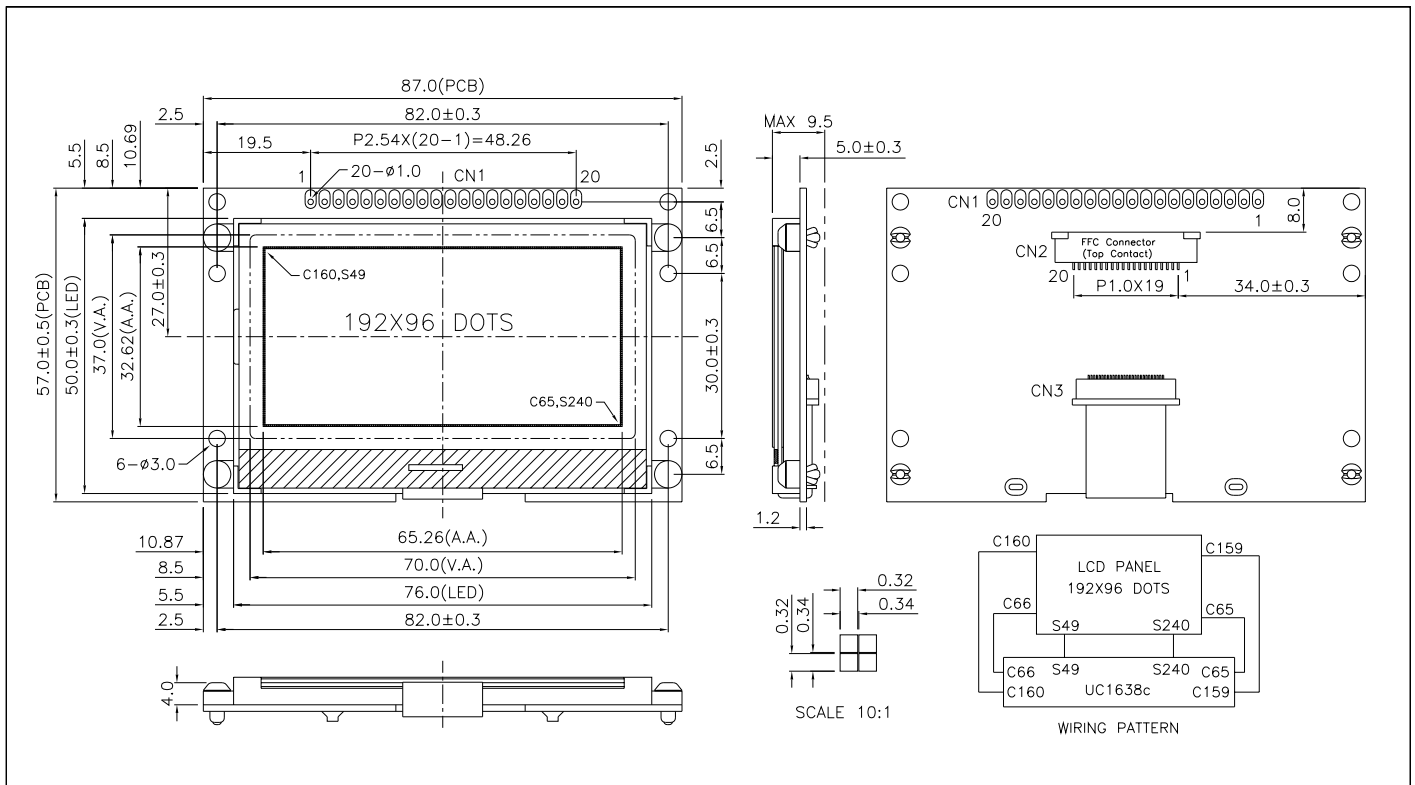


# LG192962-DW-V33 192 x 96 dots + white led backlight, 8-bit parallel, SPI or I<sup>2</sup>C, 3.3V



## ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	V <sub>DD</sub> - V <sub>SS</sub>	-0.3	4.0	V
Supply Voltage(LCD)	V <sub>LCD</sub> - V <sub>SS</sub>	-0.3	19.8	V
Input Voltage	V <sub>I</sub>	-0.3	V <sub>DD</sub> + 0.3	V
Operating Temp.	T <sub>opr</sub>	-20	70	°C
Storage Temp.	T <sub>stg</sub>	-30	80	°C

## MECHANICAL DATA

Item	Nominal Dimensions	Unit
Module Size (W x H x T)	87.0 x 57.0 x 9.5	mm
Viewing Area (W x H)	70.0 x 37.0	mm
Dot Pitch (W x H)	0.34 x 0.34	mm
Dot Size (W x H)	0.32 x 0.32	mm
Weight	Approx. 42	g

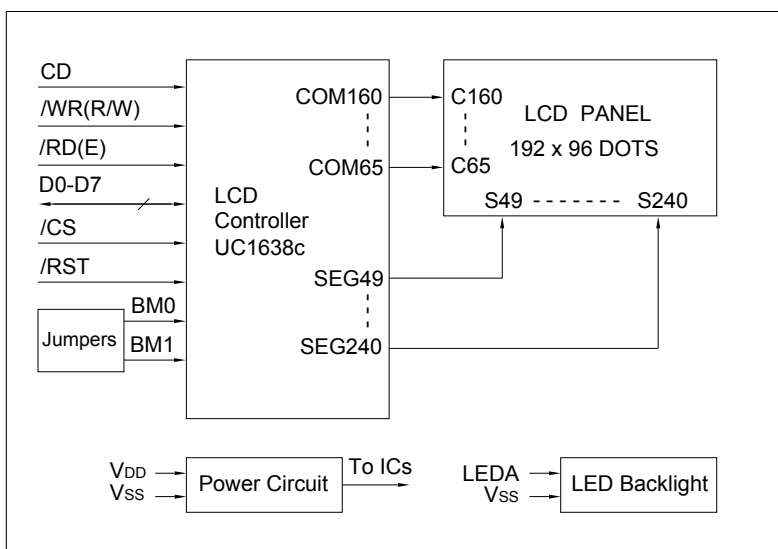
## ELECTRICAL CHARACTERISTICS (V<sub>DD</sub>=3.3V±0.3V)

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input High Voltage	V <sub>IH</sub>	--	0.8V <sub>DD</sub>	--	V <sub>DD</sub>	V
Input Low Voltage	V <sub>IL</sub>	--	0	--	0.2V <sub>DD</sub>	V
Output High Voltage	V <sub>OH</sub>	--	0.8V <sub>DD</sub>	--	V <sub>DD</sub>	V
Output Low Voltage	V <sub>OL</sub>	--	0	--	0.2V <sub>DD</sub>	V
Supply Current	I <sub>DD</sub>	V <sub>DD</sub> = 3.3V	--	0.9	1.4	mA
LCD Driving Voltage	V <sub>LCD</sub> -V <sub>SS</sub>	T <sub>a</sub> =25°C	--	13.5	--	V

## PIN CONNECTIONS (CN1/CN2)

Pin	Symbol	Level	Function
1	V <sub>SS</sub>	0V	GND
2	V <sub>DD</sub>	3.3V	Power supply for logic
3	LEDA	3.3V	Power supply for LED backlight LEDA is connected to V <sub>SS</sub> on PCB
4	CD	H/L	CD="H": Display data CD="L": Instruction code
5	/CS	L	Chip selection signal. Active "L".
6	/RST	L	Reset signal. Active "L".
7	D0(SCK)	H/L	For parallel mode: D0 to D7 are 8-bit bidirectional data bus.
8	D1	H/L	
9	D2	H/L	
10	D3(SDAI)	H/L	For serial mode: D0 is serial clock input (SCK). D3 is serial data input (SDAI). D4, D5 is serial data output (SDAO).
11	D4(SDAO)	H/L	
12	D5(SDAO)	H/L	
13	D6	H/L	
14	D7	H/L	
15	/WR	L	Write signal. Active "L"
16	/RD	L	Read signal. Active "L"
17-20	NC	--	No connection

## BLOCK DIAGRAM



## LED BACKLIGHT SPECIFICATIONS (T<sub>a</sub>=25°C)

Item	Symbol	Typ.	Max.	Unit
Forward Voltage	V <sub>f</sub>	3.0	3.2	V
Forward Current	I <sub>f</sub>	40	--	mA
LED Color		White		