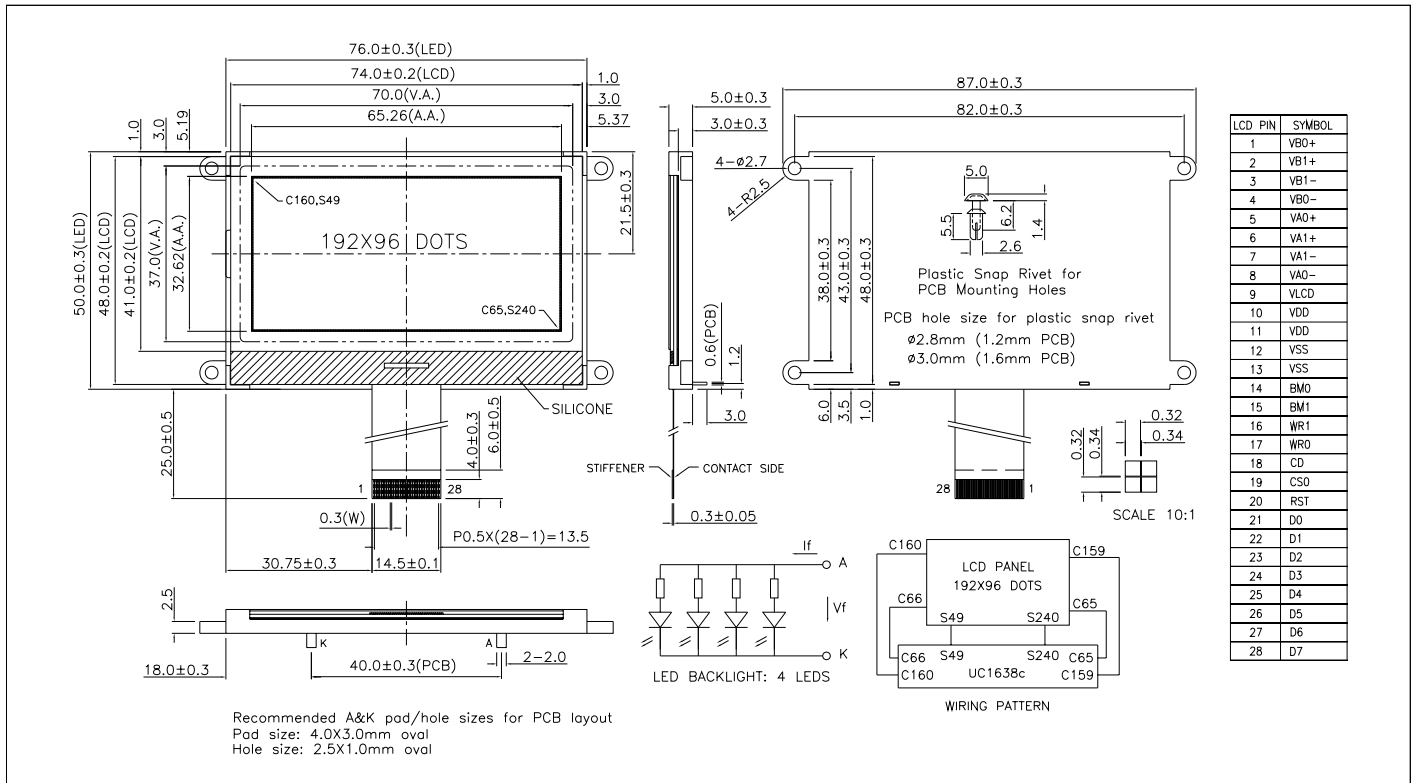


LG192961-DW

192 x 96 dots + white led backlight, 8-bit parallel, SPI or I²C, 3.3V



ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	V _{DD} - V _{SS}	-0.3	4.0	V
Supply Voltage(LCD)	V _{LCD} - V _{SS}	-0.3	19.8	V
Input Voltage	V _I	-0.4	V _{DD} + 0.5	V
Operating Temp.	T _{opr}	-20	70	°C
Storage Temp.	T _{stg}	-30	80	°C

MECHANICAL DATA

Item	Nominal Dimensions	Unit
Module Size (W x H x T)	87.0 x 50.0 x 8.0	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. 28	g

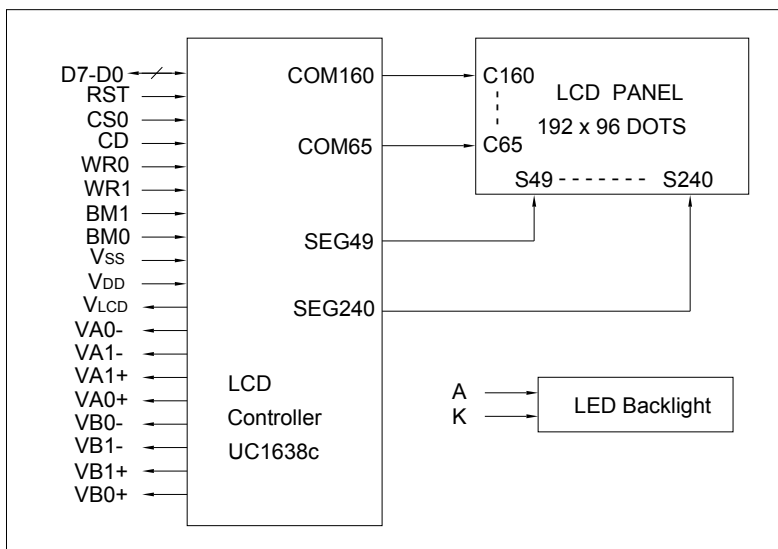
ELECTRICAL CHARACTERISTICS (V_{DD}=3.3V±0.3V)

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

PIN CONNECTIONS

Pin	Symbol	Level	Function
1	VB0+	--	LCD bias voltage
2	VB1+	--	LCD bias voltage
3	VB1-	--	LCD bias voltage
4	VB0-	--	LCD bias voltage
5	VA0+	--	LCD bias voltage
6	VA1+	--	LCD bias voltage
7	VA1-	--	LCD bias voltage
8	VA0-	--	LCD bias voltage
9	V _{LCD}	--	LCD driving voltage
10-11	V _{DD}	3.3V	Power supply for logic and booster
12-13	V _{SS}	0V	GND
14	BM0	H/L	Bus mode selection
15	BM1	H/L	Bus mode selection
16	WR1	H/L	/RD for 80 MPU, E for 68 MPU
17	WR0	H/L	/WR for 80 MPU, R/W for 68 MPU
18	CD	H/L	H:Display data L:Instruction code
19	CS0	L	Chip selection signal. Active "L".
20	RST	L	Reset signal. Active "L".
21-28	D0-D7	H/L	Data bus

BLOCK DIAGRAM



LED BACKLIGHT SPECIFICATIONS (T_a=25°C)

Item	Symbol	Typ.	Max.	Unit
Forward Voltage	V _f	3.0	3.2	V
Forward Current	I _f	40	--	mA
LED Color		White		