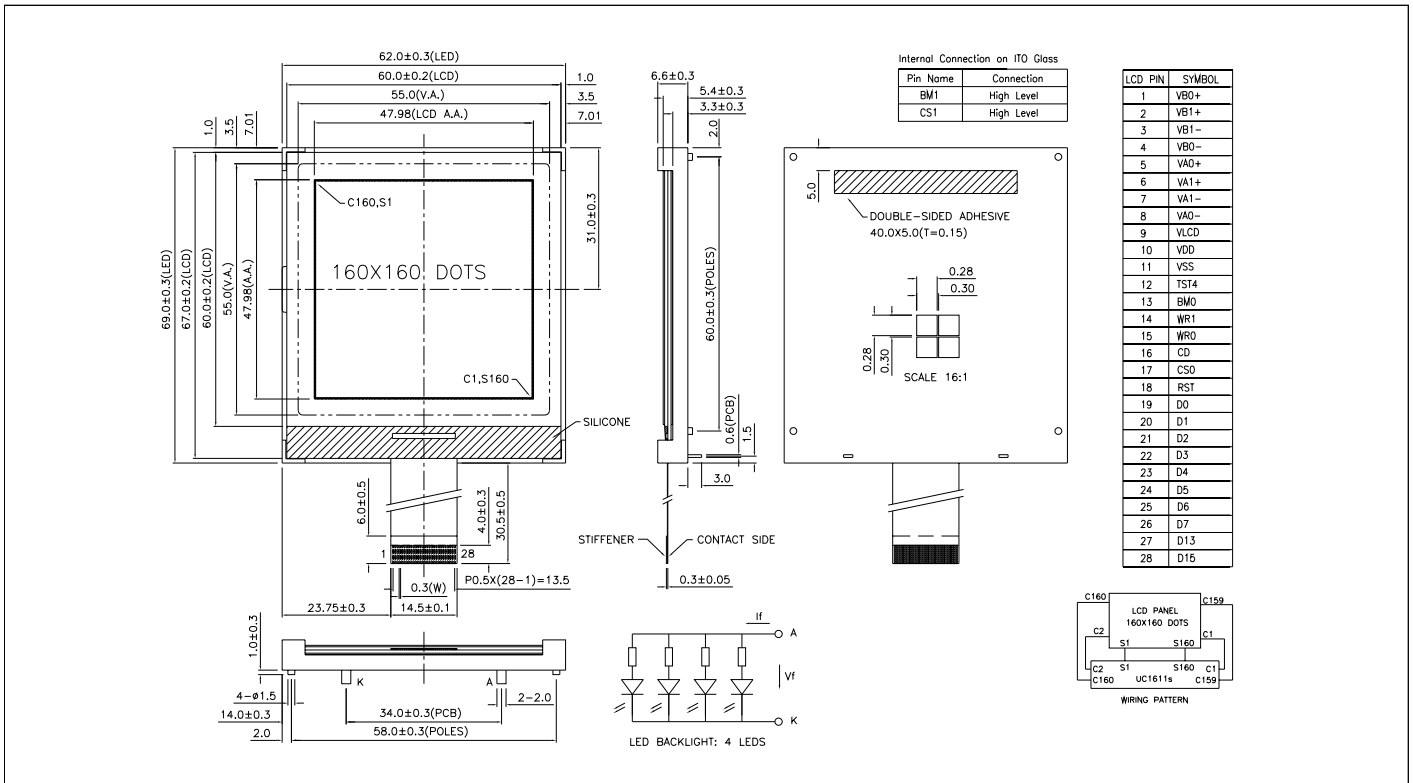


VS1601601-DW 160 x 160 dots + white led backlight, 4/8-bit parallel, SPI or I²C, 3.3V



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	-0.3	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)	62.0 x 69.0 x 9.6	mm
Viewing Area (W x H)	55.0 x 55.0	mm
Dot Pitch (W x H)	0.30 x 0.30	mm
Dot Size (W x H)	0.28 x 0.28	mm
Weight	Approx. 33	g

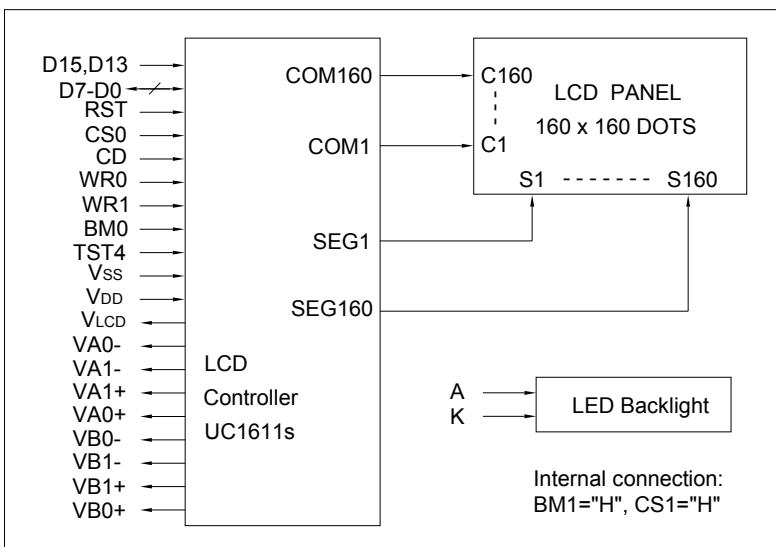
ELECTRICAL CHARACTERISTICS (V_{DD}=2.7V to 3.6V)

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	--	1.0	1.5	mA
LCD Driving Voltage	V _{LCD} -V _{SS}	T _a =25°C	--	16.8	--	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	V _{DD}	2.7 to 3.6V	Power supply for logic and booster
11	V _{SS}	0V	GND
12	TST4	--	No connection
13	BM0	H/L	Bus mode selection
14	WR1	H/L	/RD for 80 MPU, E for 68 MPU
15	WR0	H/L	/WR for 80 MPU, R/W for 68 MPU
16	CD	H/L	H:Display data L:Instruction code
17	CS0	L	Chip selection signal. Active "L".
18	RST	L	Reset signal. Active "L".
19-26	D0-D7	H/L	Data bus
27-28	D13,D15	H/L	Bus mode selection

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		