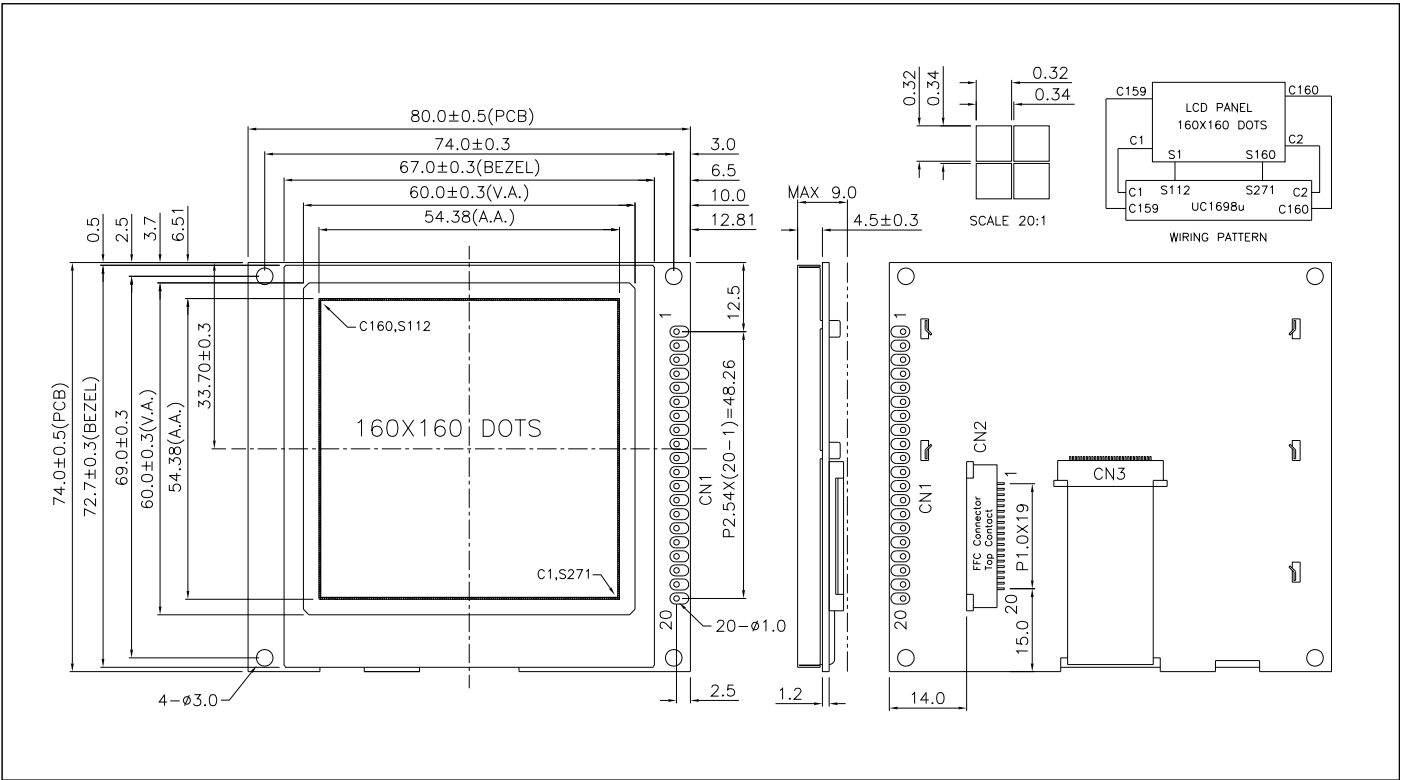


# VS1601605-DW

160 x 160 dots + white led backlight, 8-bit parallel, 3.3V to 5.5V



## ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	V <sub>DD</sub> - V <sub>SS</sub>	-0.3	6.0	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> + 0.5	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 )	80.0 x 74.0 x 9.0	mm
Viewing Area ( W x H )	60.0 x 60.0	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. 50	g

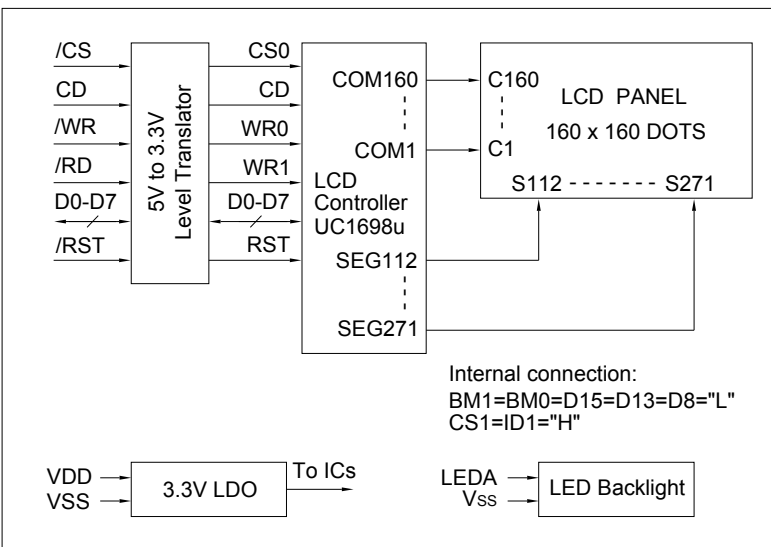
## ELECTRICAL CHARACTERISTICS ( V<sub>DD</sub>=3.3V to 5.5V)

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input High Voltage	V <sub>IH</sub>	--	2.0	--	V <sub>DD</sub>	V
Input Low Voltage	V <sub>IL</sub>	--	0	--	0.8	V
Output High Voltage	V <sub>OH</sub>	I <sub>OH</sub> = - 0.1mA	V <sub>DD</sub> -0.3	--	V <sub>DD</sub>	V
Output Low Voltage	V <sub>OL</sub>	I <sub>OL</sub> = 0.1mA	0	--	0.3	V
Supply Current	I <sub>DD</sub>	V <sub>DD</sub> = 5.0V	--	1.2	2.0	mA
LCD Driving Voltage	V <sub>LCD</sub> -V <sub>SS</sub>	T <sub>a</sub> =25°C	--	16.8	--	V

## PIN CONNECTIONS

Pin	Symbol	Level	Function
1	V <sub>SS</sub>	0V	GND
2	V <sub>DD</sub>	3.3 to 5.5V	Power supply for logic
3	LEDA	5V	Power supply for LED backlight LEDK 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	D7	H/L	Data bus
8	D6	H/L	
9	D5	H/L	
10	D4	H/L	
11	D3	H/L	
12	D2	H/L	
13	D1	H/L	
14	D0	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>	3.1	3.3	V
Forward Current	I <sub>f</sub>	75	--	mA
LED Color		White		