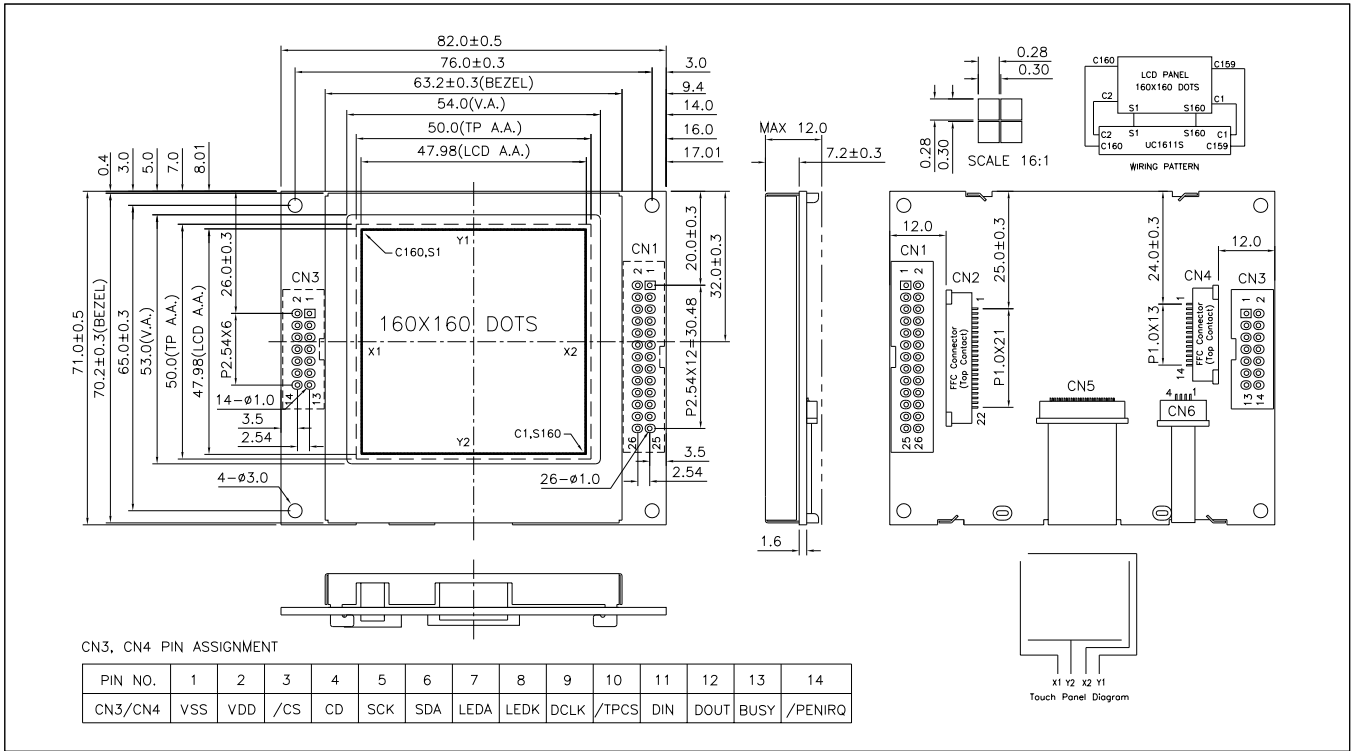


VS1601602-DW-33TPC

160 x 160 dots + white led backlight + TP & TP controller, 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)	82.0 x 71.0 x 12.0	mm
Viewing Area (W x H)	54.0 x 53.0	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. 70	g

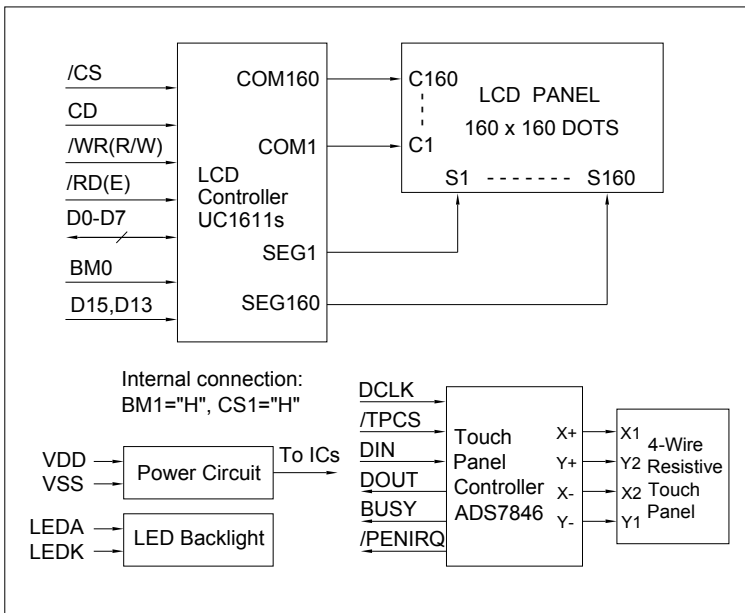
ELECTRICAL CHARACTERISTICS (V_{DD}=3V to 3.6V)

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	2.3	mA
LCD Driving Voltage	V _{LCD} -V _{SS}	T _a =25°C	--	16.8	--	V

PIN CONNECTIONS(CN1/CN2)

Pin	Symbol	Level	Function
1	V _{SS}	0V	GND
2	V _{DD}	3 to 3.6V	Power supply for logic
3	/CS	L	Chip selection signal. Active "L".
4	CD	H/L	H:Display data L:Instruction code
5	/WR(R/W)	H/L	/WR for 80 MPU, R/W for 68 MPU
6	/RD(E)	H/L	/RD for 80 MPU, E for 68 MPU
7	D0	H/L	Data bus
8	D1	H/L	
9	D2	H/L	
10	D3	H/L	
11	D4	H/L	
12	D5	H/L	
13	D6	H/L	
14	D7	H/L	Power supply for LED backlight
15	LEDA	3.3V	
16	LEDK	0V	
17	DCLK	--	DCLK signal of ADS7846
18	/TPCS	--	/CS signal of ADS7846
19	DIN	--	DIN signal of ADS7846
20	DOUT	--	DOUT signal of ADS7846
21	BUSY	--	BUSY signal of ADS7846
22	/PENIRQ	--	/PENIRQ signal of ADS7846
23-26	NC	--	No connection

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		