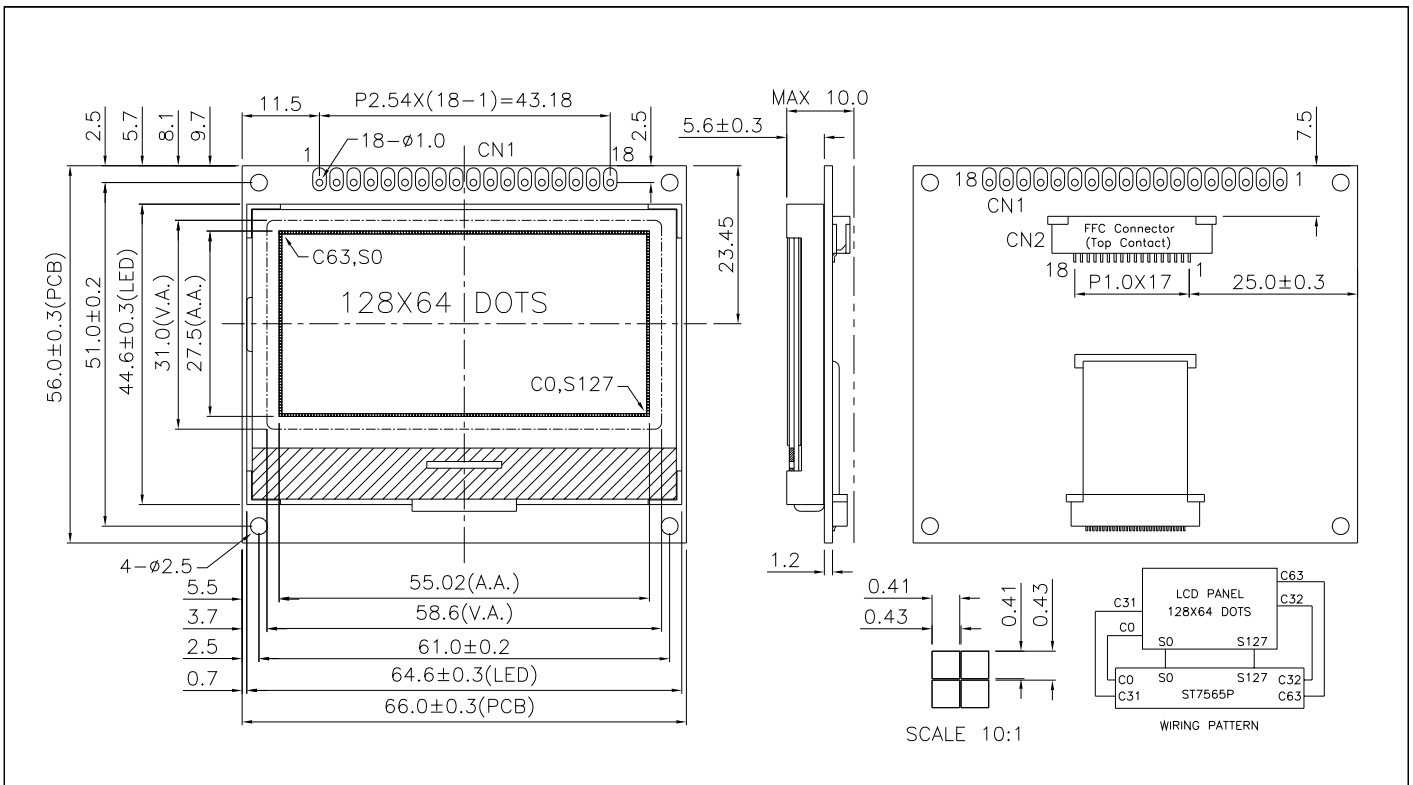


VS12864T-DW 128 x 64 dots + white led backlight, 8-bit parallel or SPI, 3.3V to 5.5V



ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	$V_{DD} - V_{SS}$	-0.3	6.0	V
Supply Voltage(LCD)	$V_{OUT} - V_{SS}$	-0.3	14.5	V
Input Voltage	V_I	-0.3	$V_{DD} + 0.3$	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)	66.0 x 56.0 x 10.0	mm
Viewing Area (W x H)	58.6 x 31.0	mm
Dot Pitch (W x H)	0.43 x 0.43	mm
Dot Size (W x H)	0.41 x 0.41	mm
Weight	Approx. 32	g

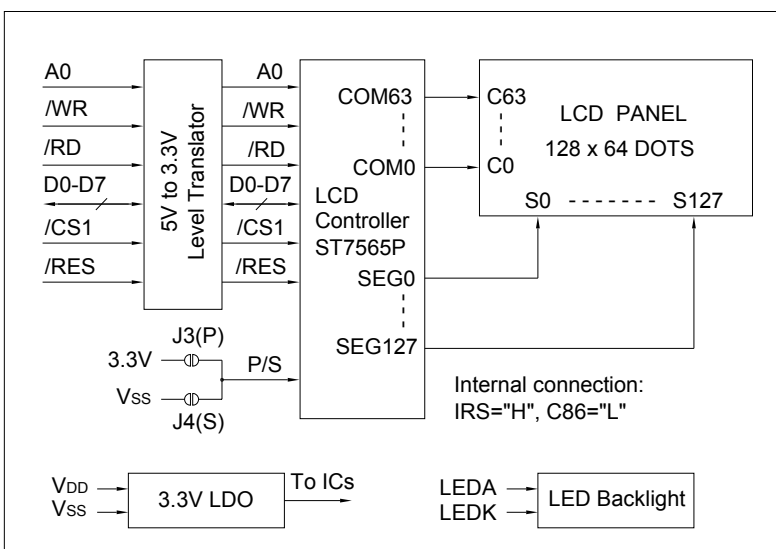
ELECTRICAL CHARACTERISTICS ($V_{DD}=3.3V$ to 5.5V)

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input High Voltage	V_{IH}	--	2.0	--	V_{DD}	V
Input Low Voltage	V_{IL}	--	0	--	0.8	V
Output High Voltage	V_{OH}	$I_{OH} = -0.1mA$	$V_{DD}-0.2$	--	V_{DD}	V
Output Low Voltage	V_{OL}	$I_{OL} = 0.1mA$	0	--	0.2	V
Supply Current	I_{DD}	$V_{DD} = 5.0V$	--	0.5	1.2	mA
LCD Driving Voltage	$V_0 - V_{SS}$	$T_a=25^\circ C$	--	9.0	--	V

PIN CONNECTIONS (CN1/CN2)

Pin	Symbol	Level	Function
1	V_{SS}	0V	GND
2	V_{DD}	3.3 to 5.5V	Power supply for logic
3	NC	--	No connection
4	A0	H/L	A0="H": Display data A0="L": Instruction code
5	/WR	L	Write signal. Active "L"
6	/RD	L	Read signal. Active "L"
7	D0	H/L	When P/S="H" (Parallel mode): D0 to D7 are 8-bit bidirectional data bus.
8	D1	H/L	
9	D2	H/L	
10	D3	H/L	
11	D4	H/L	When P/S="L" (Serial mode): D7 is serial data input (SI). D6 is serial colck input (SCL).
12	D5	H/L	
13	D6	H/L	
14	D7	H/L	
15	/CS1	L	Chip selection signal. Active "L".
16	/RES	L	Reset signal. Active "L".
17	LEDA	5V	Power supply for LED backlight
18	LEDK	0V	

BLOCK DIAGRAM



LED BACKLIGHT SPECIFICATIONS ($T_a=25^\circ C$)

Item	Symbol	Typ.	Max.	Unit
Forward Voltage	V_f	2.9	3.1	V
Forward Current	I_f	30	--	mA
LED Color		White		