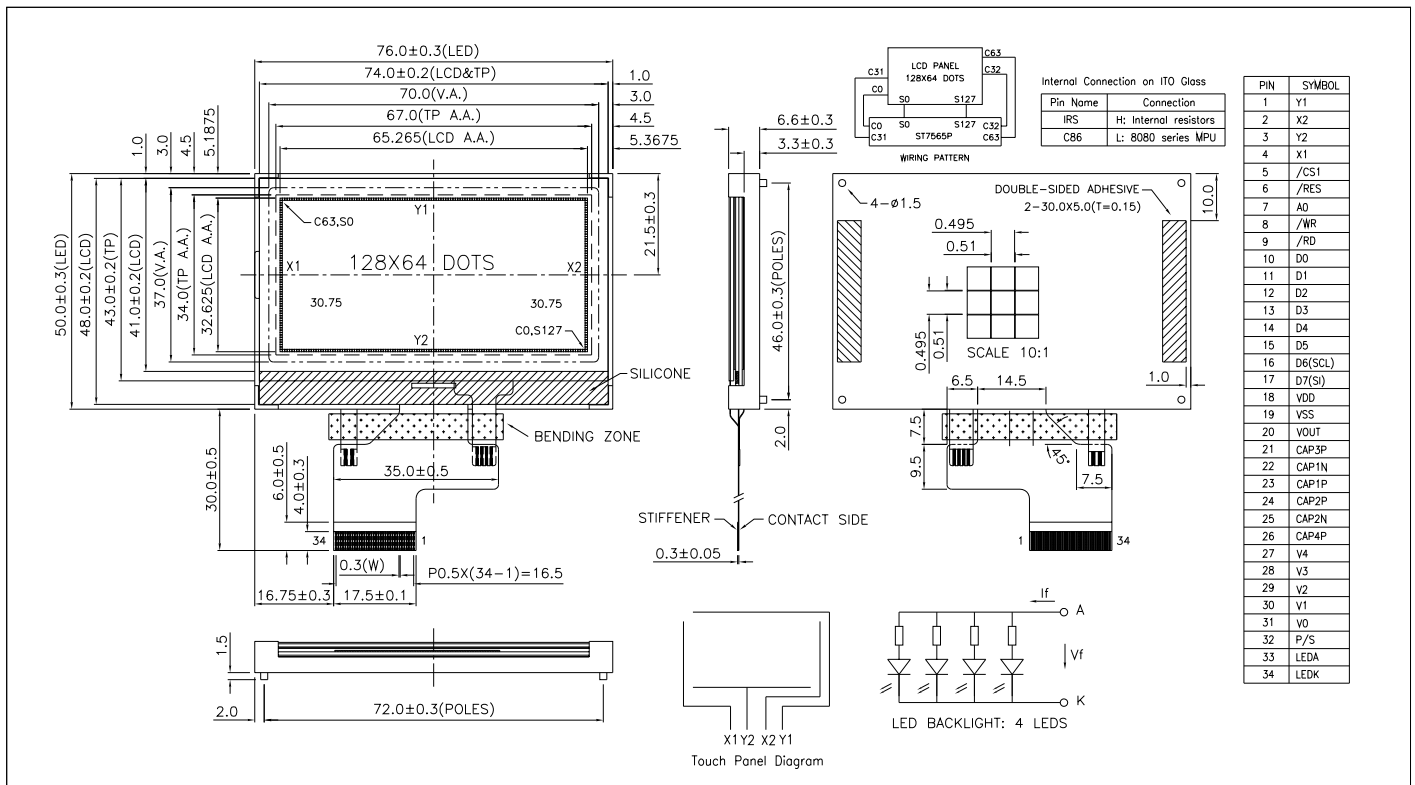


VS12864L-DW-TP

128 x 64 dots + white led backlight + touch panel, 8-bit parallel or SPI, 3.3V



ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	V _{DD} - V _{SS}	-0.3	3.6	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)	76.0 x 50.0 x 8.1	mm
Viewing Area (W x H)	70.0 x 37.0	mm
Dot Pitch (W x H)	0.51 x 0.51	mm
Dot Size (W x H)	0.495 x 0.495	mm
Weight	Approx. 34	g

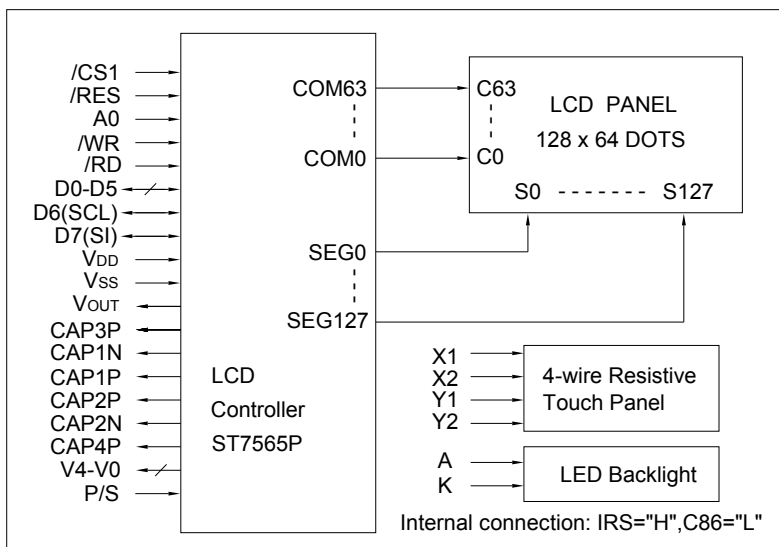
ELECTRICAL CHARACTERISTICS (V_{DD}=2.9V to 3.3V)

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}	I _{OH} = -0.1mA	0.8V _{DD}	--	V _{DD}	V
Output Low Voltage	V _{OL}	I _{OL} = 0.1mA	0	--	0.2V _{DD}	V
Supply Current	I _{DD}	V _{DD} = 3.3V	--	0.5	1.2	mA
LCD Driving Voltage	V ₀ - V _{SS}	T _a =25°C	--	10.3	--	V

PIN CONNECTIONS

Pin	Symbol	Level	Function
1-4	Y1,X2,Y2,X1	--	Touch panel terminals
5	/CS1	L	Chip selection signal. Active "L".
6	/RES	L	Reset signal. Active "L".
7	A0	H/L	H:Display data L:Instruction code
8	/WR	L	Write signal. Active "L"
9	/RD	L	Read signal. Active "L"
10-17	D0-D7	H/L	Data bus
18	V _{DD}	2.9 to 3.3V	Power supply for logic and booster
19	V _{SS}	0V	GND
20	V _{OUT}	--	DC/DC voltage converter output
21	CAP3P	--	Capacitor 3 positive connection
22	CAP1N	--	Capacitor 1 negative connection
23	CAP1P	--	Capacitor 1 positive connection
24	CAP2P	--	Capacitor 2 positive connection
25	CAP2N	--	Capacitor 2 negative connection
26	CAP4P	--	Capacitor 4 positive connection
27-31	V4-V0	--	Power supply for LCD drive
32	P/S	H/L	H: Parallel mode L: Serial mode
33	LEDA	3V	LED backlight anode
34	LEDK	0V	LED backlight cathode

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		