



RAYSTAR

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SPECIFICATION

Model No :

RX12864A1-YHY

General Specification

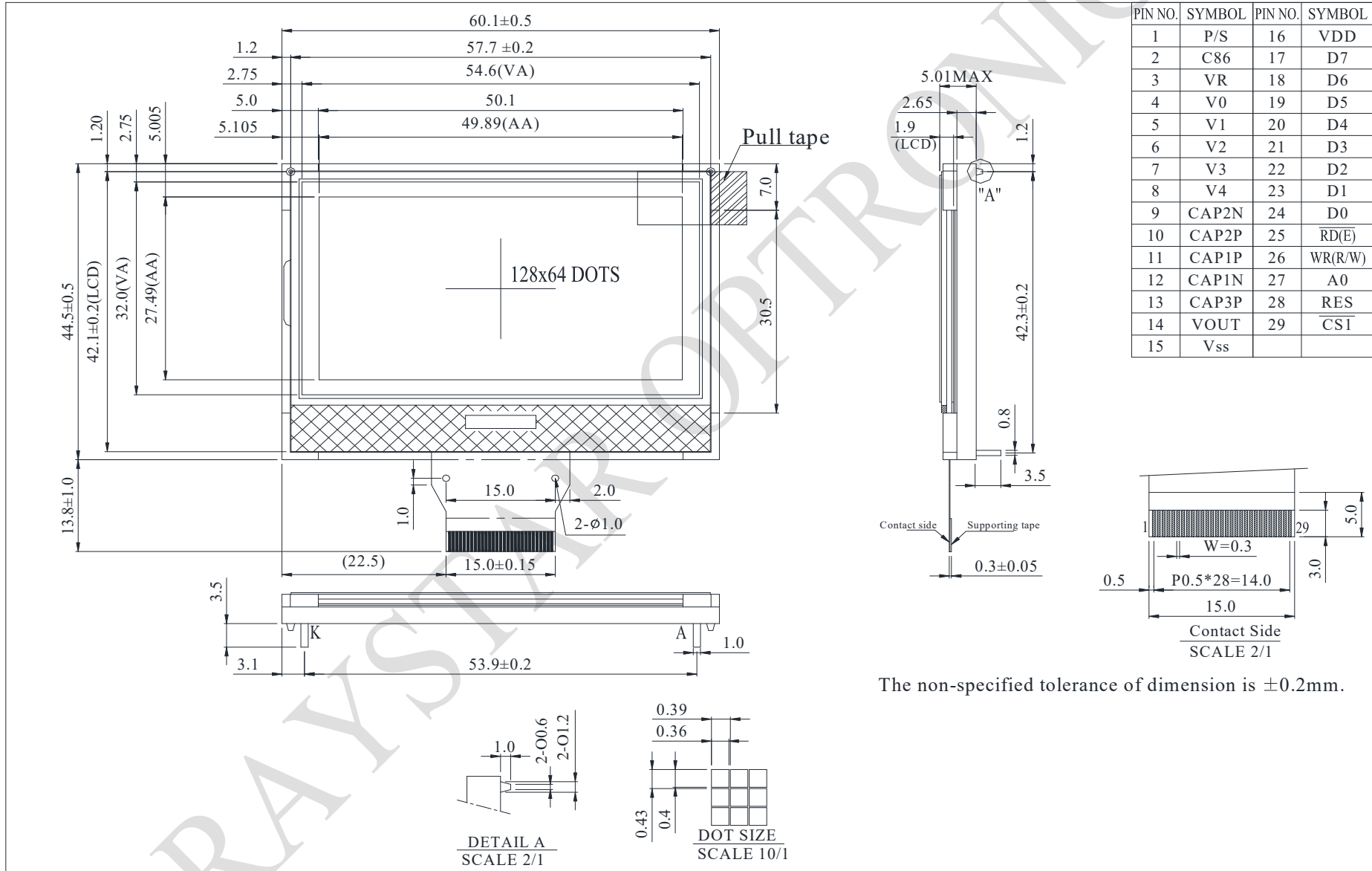
The Features of the Module is description as follow :

- Module dimension: 60.1x 44.5 x5.01(MAX) mm
- View area: 54.6 x 32.0 mm
- Active area: 49.89 x27.49 mm
- Number of Dots: 128 x 64
- Dot size: 0.36 x0.4 mm
- Dot pitch: 0.39 x 0.43 mm
- LCD type: STN Positive, Yellow Green Transflective
- Duty: 1/65 , 1/9 Bias
- Backlight Type: LED
- IC: ST7565P
- Interface: 6800/8080/4-Line SPI

Interface Pin Function

Pin No.	Symbol	Level	Description
1	P/S	I	This is the parallel data input/serial data input switch terminal.
2	C86	I	This is the MPU interface switch terminal.
3	VR	I	Output voltage regulator terminal. Provides the voltage between VSS and V0 through a resistive voltage divider.
4~8	V0~V4	Power supply	This is a multi-level power supply for the liquid crystal drive.
9	CAP2N	O	DC/DC voltage converter. Connect a capacitor between this terminal and the CAP2P terminal.
10	CAP2P	O	DC/DC voltage converter. Connect a capacitor between this terminal and the CAP2N terminal.
11	CAP1P	O	DC/DC voltage converter. Connect a capacitor between this terminal and the CAP1N terminal.
12	CAP1N	O	DC/DC voltage converter. Connect a capacitor between this terminal and the CAP1P terminal.
13	CAP3P	O	DC/DC voltage converter. Connect a capacitor between this terminal and the CAP1N terminal.
14	VOUT	O	DC/DC voltage converter. Connect a capacitor between this terminal and vss or VDD
15	VSS	Power supply	Ground
16	VDD	Power supply	Power supply
17~24	D7~ D0	I/O	This is an 8-bit bi-directional data bus that connects to an 8-bit or 16-bit standard MPU data bus.
25	/RD(E)	I	The data bus is in output status when this signal is "L"
26	/WR(R/W)	I	The data bus are latched at the rising edge of the WR signal
27	A0	I	This is connect to the least significant bit of the Norman MPU address bus, and it determines whether the data bits are data or a command.
28	/RES	I	When RES is set to "L", the setting are initialized.
29	/CS1	I	This is the chip select signal.

Contour Drawing & Block Diagram



The non-specified tolerance of dimension is $\pm 0.2\text{mm}$.

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	T _{OP}	-20	—	+70	°C
Storage Temperature	T _{ST}	-30	—	+80	°C
Power Supply Voltage	V _{DD}	-0.3	—	3.6	V
Power supply voltage (V _{DD} standard)	V _O , V _{OUT}	-0.3	—	14.5	V
Power supply voltage (V _{DD} standard)	V ₁ , V ₂ , V ₃ , V ₄	-0.3	—	V _O +0.3	V

Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For Logic	V _{DD} -V _{SS}	—	2.7	3.0	3.3	V
Supply Voltage For LCM	V _O -V _{SS}	T _a =-20°C	—	—	—	V
		T _a =25°C	9.2	9.5	9.8	V
		T _a =70°C	—	—	—	V
Input High Volt.	V _{IH}	—	0.8 V _{DD}	—	V _{DD}	V
Input Low Volt.	V _{IL}	—	V _{SS}	—	0.2 V _{DD}	V
Output High Volt.	V _{OH}	I _{OUT} =-0.5mA	0.8 V _{DD}	—	V _{DD}	V
Output Low Volt.	V _{OL}	I _{OUT} =0.5mA	V _{SS}	—	0.2V _{DD}	V
Supply Current(No include LED Backlight)	I _{DD}	V _{DD} =3.0V	—	0.10	2.0	mA