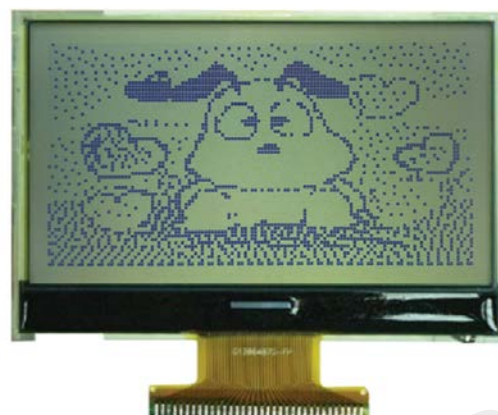# UO12864E3

優潔光科技

UJ Light Technologies

Feature

1. COG package
2. Built-in controller ST7567S
3. +3.3 V power supply
4. 1/64 duty cycle
5. On chip LCD booster
6. Option LED B/L

Mechanical Data

Item	Standard Value	Unit
Module Dimension	80.0 x 54.0 x 9.7	mm
View Area	70.7 x 38.8	mm
Dot Size	0.48 x 0.48	mm
Dot Pitch	0.52 x 0.52	mm

Pin Assignment

Pin No.	Symbol	Level	Description
1	/CS1	I	This is the chip select signal
2	/RES	I	When /RES is set to "L," the settings are initialized. The reset operation is performed by the /RES signal level.
3	A0	I	It determines whether the access is related to data or command. A0="H" : Indicates that signals on D[7:0] are display data. A0="L" : Indicates that signals on D[7:0] are command.
4	/WR (R/W)	I	Read/Write execution control pin. When PSB is "H",

For pin 4:

C86	MPU Type	RWR	Description
H	6800 series	R/W	Read/Write control input pin. R/W="H": read. R/W="L": write.
L	8080 series	/WR	Write enable input pin. Signals on D[7:0] will be latched at the rising edge of /WR signal.

WR is used to decide slave address (SA1) in I2C serial interface.
WR is not used in 3-line and 4-line SPI interface and should fix to "H" by VDD.

| 5 | /RD(E) | I | Read/Write execution control pin. When PSB is "H", |

For pin 5:

C86	MPU Type	ERD	Description
H	6800 series	E	Read/Write control input pin. R/W="H": When E is "H", D[7:0] are in output mode. R/W="L": Signals on D[7:0] are latched at the falling edge of E signal.
L	8080 series	/RD	Read enable input pin. When /RD is "L", D[7:0] are in output mode.

RD(E) is used to decide slave address (SA0) in I2C serial interface.
RD(E) is not used in 3-Line and 4-Line SPI interface and should fix to "H" by VDD.

Pin No.	Symbol	Level	Description
6~13	D0(SCL) D1(SDA) D2~D7	I/O	When using serial interface: 4-line SPI,3-line SPI or I2C serial interface D[0]=SCL: Serial clock input. D[1]=SDA_IN: Serial data input. D[2:3]=SDA_OUT: Serial data output. D[1:3] must be connected together as SDA. D[4:7]=(1,1,1,1): ID Pin. D[4:7] should fix to "H" or "L" by VDD or VSS. ID[0:3] can be read 4-bit ID only for serial interface from D[4:7].
14	VDD	3.3V	Power supply for logic
15	VSS	0V	Power supply for logic GND
16~18	NC	-	Not used.
19	V0	O	V0 is the LCD driving voltage for common circuits at negative frame.
20	XV0	O	XV0 is the LCD driving voltage for common circuits at positive frame.
21~24	NC	-	Not used.
25	VG	O	VG is the LCD driving voltage for segment circuits.
26~30	NC	-	Not used.
31	C86	I	C86 selects the microprocessor type in parallel interface mode.
32	PSB	I	PSB selects the interface type: Serial or Parallel.
33	SI2	I	SI2 selects the interface type: I2C serial interface or not

For pin 33:

SI2	PSB	C86	Selected Interface
"L"	"L"	"L"	Serial 3-Line SPI Interface
"L"	"L"	"H"	Serial 4-Line SPI Interface
"L"	"H"	"L"	Parallel 8080 Series MPU Interface
"L"	"H"	"H"	Parallel 6800 Series MPU Interface
"H"	"X"	"X"	I2C Serial Interface

Please refer to "APPLICATION NOTES" and "Microprocessor Interface" (Section 6) for detailed connection of the selected interface.

| 34 | NC | - | Not used. |

Electronic Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For Logic	Vdd-Vss	–	3.0	3.3	3.6	V
Supply Voltage For LCD	V0-XV0	Ta=25℃	9.9	10.2	10.5	V
Supply Current	Idd	Vdd=3.3V	–	0.5	–	mA
LCM Surface Luminance Ta=25℃	L	I_{LED}=40mA Display all OFF	3	4	–	cd/m^2

Dimension