

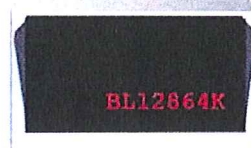
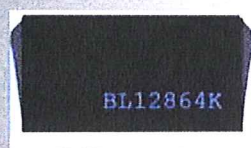
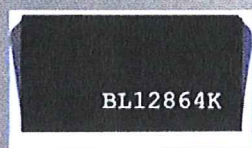
09-BL7232A
10-BL12832C
11-BL12832D
12-BL128128C3

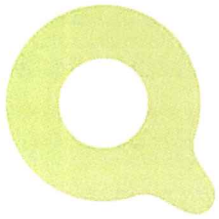
13-BL12864G
14-BL12864G2
15-BL12864H
16-BL12864J

17-BL12864K
18-BL12896A
19-BL160128A
20-BL25664B
21-BL9664

OLED - Graphic Type

- (BL Series)





Q-NITTO

BL7232A



Feature

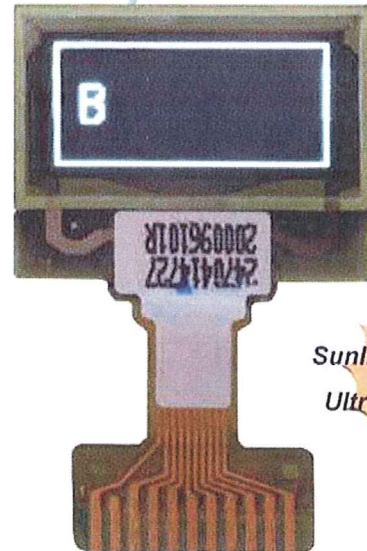
1. OLED display 72 x 32 dots
2. Built-in controller SPD0301
3. +2.8V power supply
4. 1/32 duty cycle
5. Color: white

Mechanical Data

Item	Standard Value	Unit
Module Dimension	14.9 x 22.29	mm
Viewing Area	12.46 x 6.146	mm
Dot Size	0.136 x 0.136	mm
Dot Pitch	0.156 x 0.156	mm

Pin Assignment

Pin	Symbol	Function
1	VCC	Power supply for panel driving voltage
2	NC	This is dummy pin.
3	VSS	Ground pin.
4	CS#	This pin is the chip select input connecting to the MCU. (active low)
5	RST#	This pin is reset signal input. (active low)
6	D/C#	This is data/command control pin connecting to the MCU.
7	SCLK	The serial clock input.
8	SDIN	The serial data input.
9	VDD	Power supply for logic circuit.
10	VSS	Ground pin.
11	VCC	Power supply for panel driving voltage.



BL-9

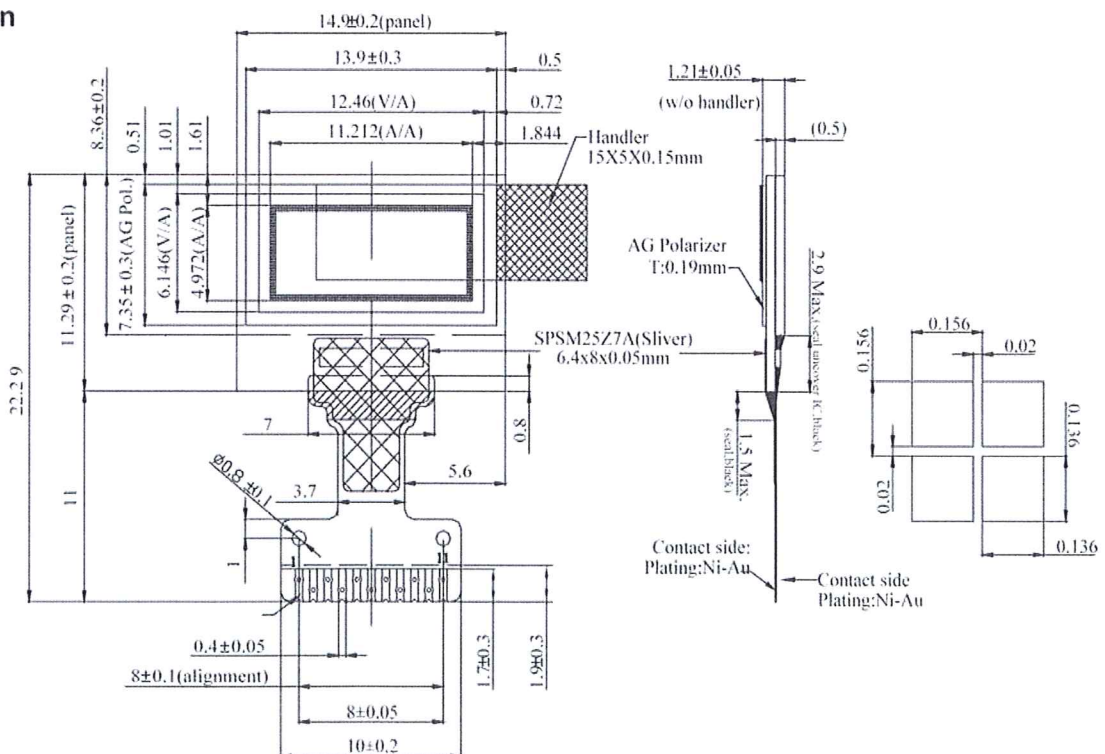
Sunlight Readable & Ultra Brightness

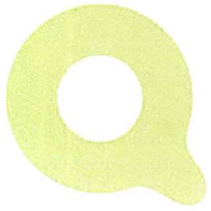
Electronic Characteristics

Item	Symbol	Condition	Typical Value	Unit
Input Voltage	Vdd	Vdd = +2.8V	2.8(Typ.)	V
Supply Current	Idd	Vdd = +2.8V	8.5(Max.)	mA
Pixel Brightness	Lu	Vdd = +2.8V	400	cd/m ²

* Contrast setting: 0X66, Color: white, Pixel all on

Dimension





Q-NITTO

BL12832C



BL-10

Feature

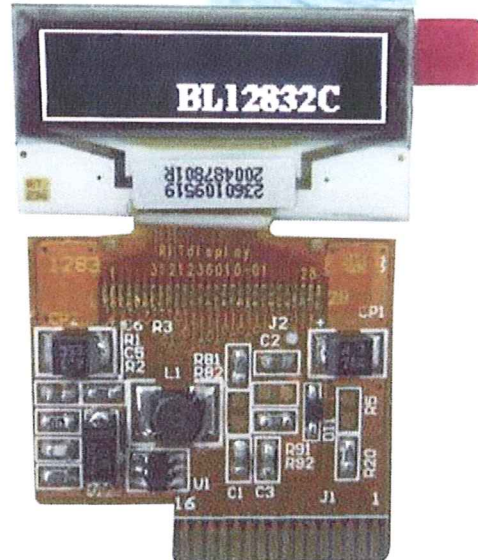
- 1.OLED Display 128*32 dots
- 2.Built-in controller LD7032 IC
- 3.+3.3V single power supply
- 4.1/32 duty cycle
- 5.Color: white

Mechanical Data

Item	Standard Value	Unit
Module Dimension	29.8 x 15.4	mm
Active Area	27.58 x 8.38	mm
Dot Size	0.18 x 0.18	mm
Dot Pitch	0.2 x 0.2	mm

Pin Assignment

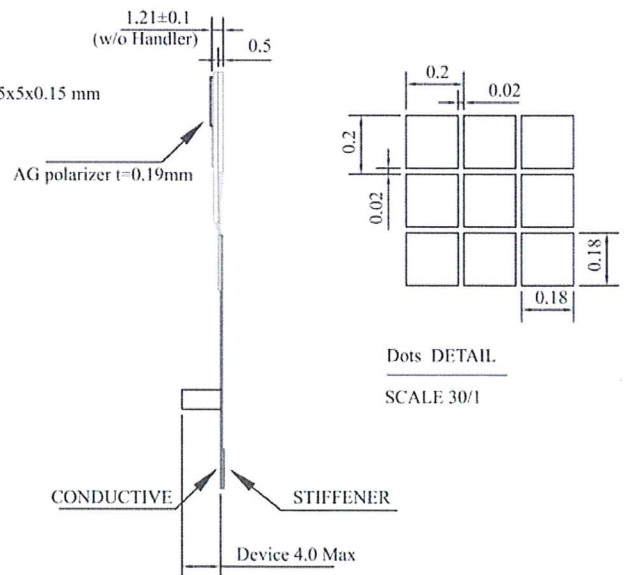
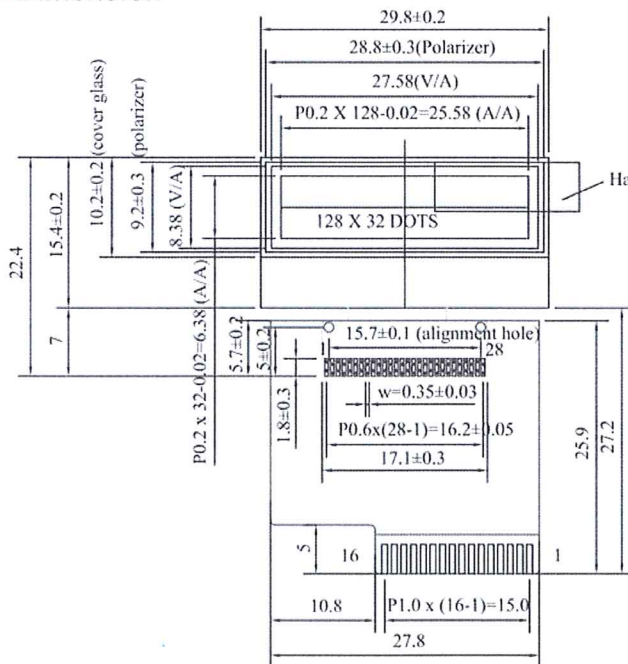
Pin	Symbol	Function
1	Vss	Ground
2	Vdd	Supply voltage for logic
3	CS	Chip select pin
4	/RES	Hardware Reset pin
5	RS	H: Data; L: Command.
6	WR	8080: data write enable pin 6800: Read/Write select pin
7	RD	8080: data read enable pin 6800: Read/Write enable pin
8~15	DB0~DB7	Data bus line
16	Dispoff/ VCC	Display off / Supply Voltage For OLED

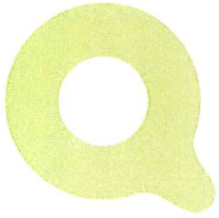


Electronic Characteristics

Item	Symbol	Condition	Typical Value	Unit
Input Voltage	Vdd	Vdd=+3.3V	3.3	V
Supply Current	Idd	Vdd=+3.3V	40	mA
Life Time		100 cd/m ²	30,000	hrs

Dimension





Q-NITTO

BL12832D



Sunlight Readable & Ultra Brightness

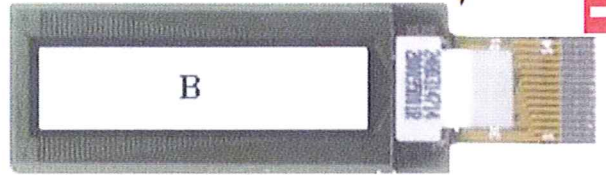
BL-11

Feature

1. OLED display 128 x 32 dots
2. Built-in controller SPD1307
3. +3.3 V power supply
4. 1/32 duty cycle
5. Color: white
6. Interface: SPI, I²C

Mechanical Data

Item	Standard Value	Unit
Module Dimension	40 x 11.5	mm
Viewing Area	24.38 x 7.58	mm
Dot Size	0.155 x 0.155	mm
Dot Pitch	0.175 x 0.175	mm



Pin Assignment

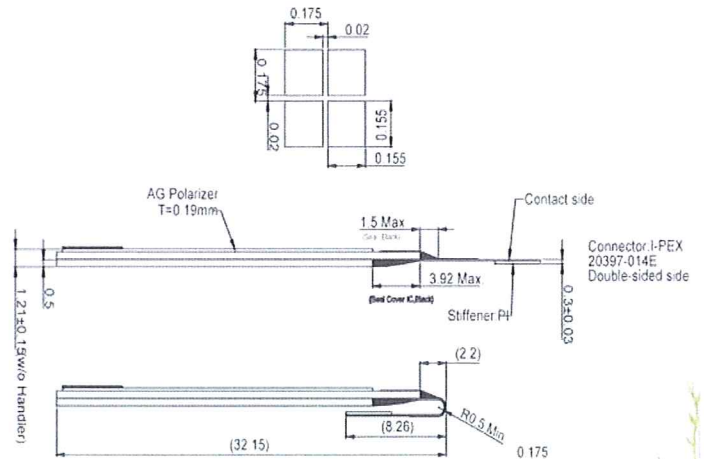
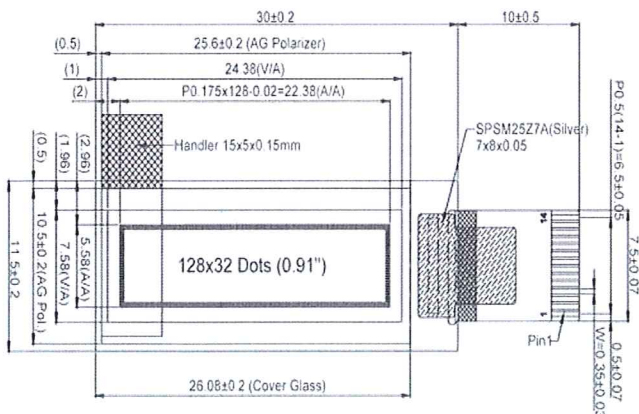
Pin	Symbol	Function
1	VCC	Power supply for panel driving voltage
2	VLSS	Ground pin. It should be connected to VSS externally.
3	VDD	Power supply for logic circuit.
4	CS#	Chip select input.
5	RES#	Reset signal input.
6	D/C#	This is Data/Command control pin. In I ² C mode, this pin acts as SA0 for slave address selection.
7	D0	SPI: Serial clock input (SCLK). I ² C: NC
8	D1	SPI: Serial data input (SDIN). I ² C: Data input/output (SDA)
9	D2	SPI: NC. I ² C: Clock input (SCL)
10	IREF	Reference current input pin. A resistor should be connected between this pin and VSS.
11	VCOMH	Com Voltage Output. A capacitor should be connected between this pin and VSS.
12	VCC	Power supply for panel driving voltage.
13	BS1	MCU bus interface selection pin.
14	VSS	Ground pin.

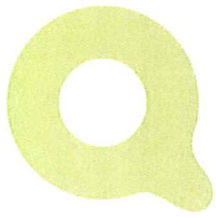
Electronic Characteristics

Item	Symbol	Condition	Typical Value	Unit
Input Voltage	Vdd	Vdd = +3.3V	3.3(Typ.)	V
Supply Current	Idd	Vdd = +3.3V	12.5(Max.)	mA
Pixel Brightness	Lu	Vdd = +3.3V	300	cd/m ²

* Contrast setting: 0X75, Color: white, Pixel all on

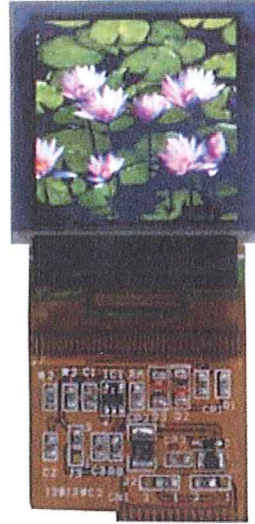
Dimension





Q-NITTO

BL128128C3



BL-12

Feature

- 1.OLED Display 128*128 dots
- 2.Built-in controller SSD1351
- 3.+3.3V single power supply
- 4.1/128 duty cycle
- 5.Option: positive voltage for LCD
- 6.Color: RGB 262k color

Mechanical Data

Item	Standard Value	Unit
Module Dimension	33.5 x 33.5	mm
Viewing Area	28 x 28	mm
Dot Size	0.0435 x 0.1855	mm
Dot Pitch	0.0685 x 0.2055	mm

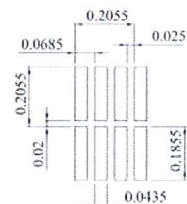
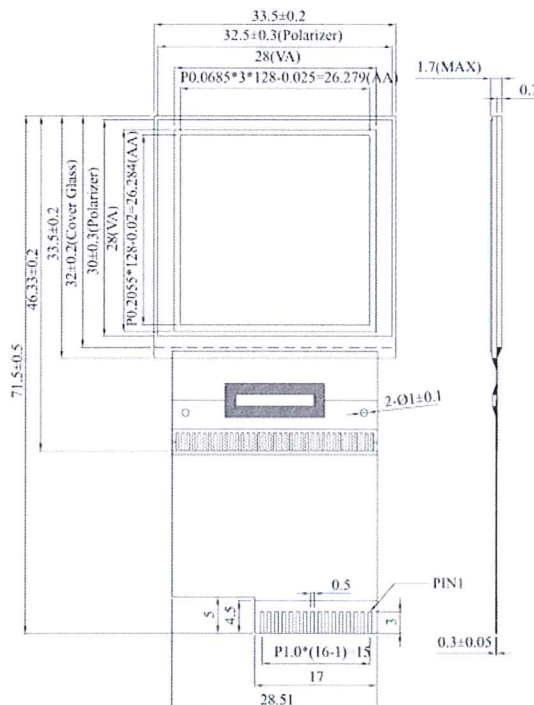
Pin Assignment

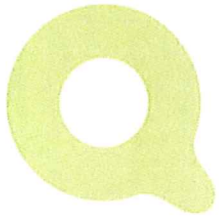
Pin	Symbol	Function
1	Vss	Ground
2	Vdd	Supply voltage for logic
3	CS	Chip select pin
4	/RES	Hardware Reset pin
5	D/C	H: Data; L: Command.
6	RW	8080: data write enable pin 6800: Read/Write select pin
7	E	8080: data read enable pin 6800: Read/Write enable pin
8~15	DB0~DB7	Data bus line
16	DISPOFF/ VCC	DISPOFF: Active L VCC: Analog power control (DC 17V)

Electronic Characteristics

Item	Symbol	Condition	Typical Value	Unit
Input Voltage	Vdd	Vdd = +3.3V	3.3	V
Supply Current	Idd	Vdd = +3.3V	220	mA
Life Time		70 cd/m ²	14,000	hrs

Dimension





Q-NITTO

BL12864G

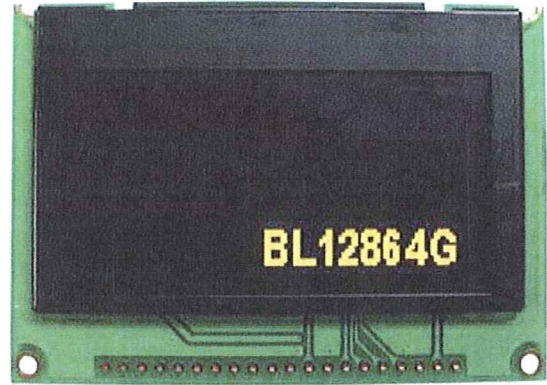


Feature

1. OLED display 128 x 64 dots
2. Built-in controller SSD1303
3. +3.3V power supply
4. 1/64 duty
5. TAB with metal frame

Mechanical Data

Item	Standard Value	Unit
Module Dimension	75.0 x 52.7	mm
Viewing Area	60.0 x 30.0	mm
Dot Size	0.40 x 0.40	mm
Dot Pitch	0.43 x 0.43	mm



BL-13

Pin Assignment

Pin	Symbol	Function
1	Vdd	Logic supply voltage(3.3V)
2	Vss	Ground
3	NC	No connection
4-11	DB0-7	Data bus line
12	CS1	L:Chip select for IC1
13	NC	No connection
14	/RST	L:Reset signal
15	R/W	H: Read(-->MPU);L:Write(-->LCM)
16	D/I	H:Data; L:Instruction
17	E	H:Enable signal
18	NC	No connection
19	DISP	L: LCM display off
20	NC	No connection

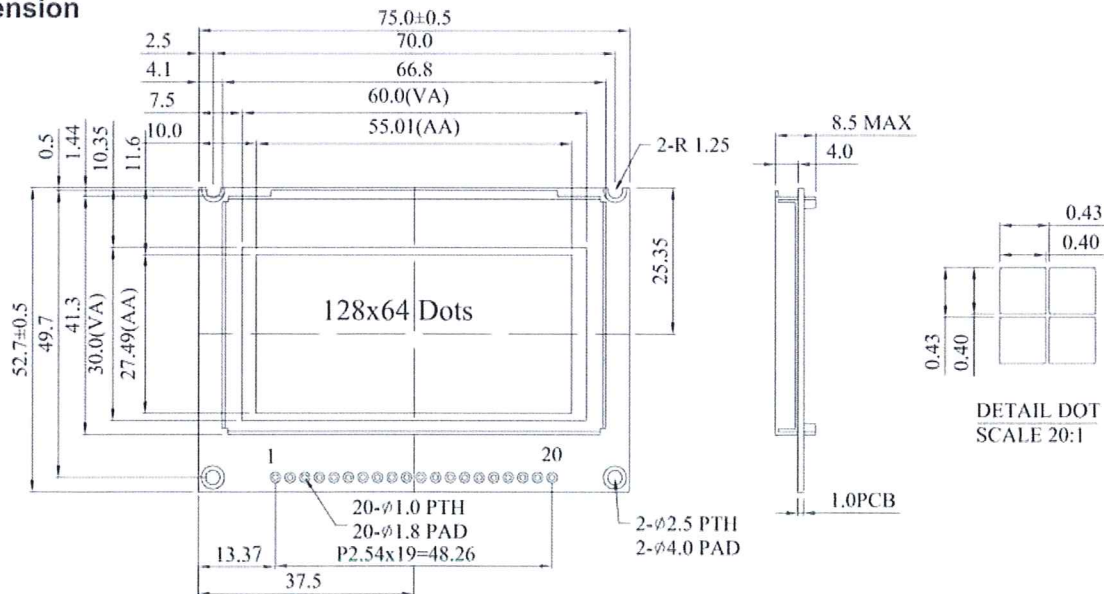


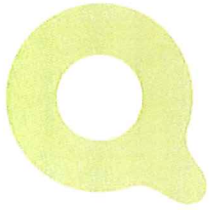
(Offer sealed housing: humidity-proof)

Electronic Characteristics

Item	Symbol	Condition	Typical Value	Unit
Input Voltage	Vdd	Vdd = +3.3V	3.3	V
Supply Current	Idd	Vdd = +3.3V	200	mA
Pixel Brightness	Lu	Vdd = +3.3V	60	cd/m ²

Dimension





Q-NITTO

BL12864G2



BL-14

Feature

1. OLED display 128 x 64 dots
2. Built-in controller SPD0301
3. +3.3V power supply
4. 1/64 duty cycle
5. Color: white or yellow
6. Option: 6800, SPI, I²C interface



Mechanical Data

Item	Standard Value	Unit
Module Dimension	75.0 x 52.7	mm
Viewing Area	60.0 x 30.0	mm
Dot Size	0.40 x 0.40	mm
Dot Pitch	0.43 x 0.43	mm

Pin Assignment

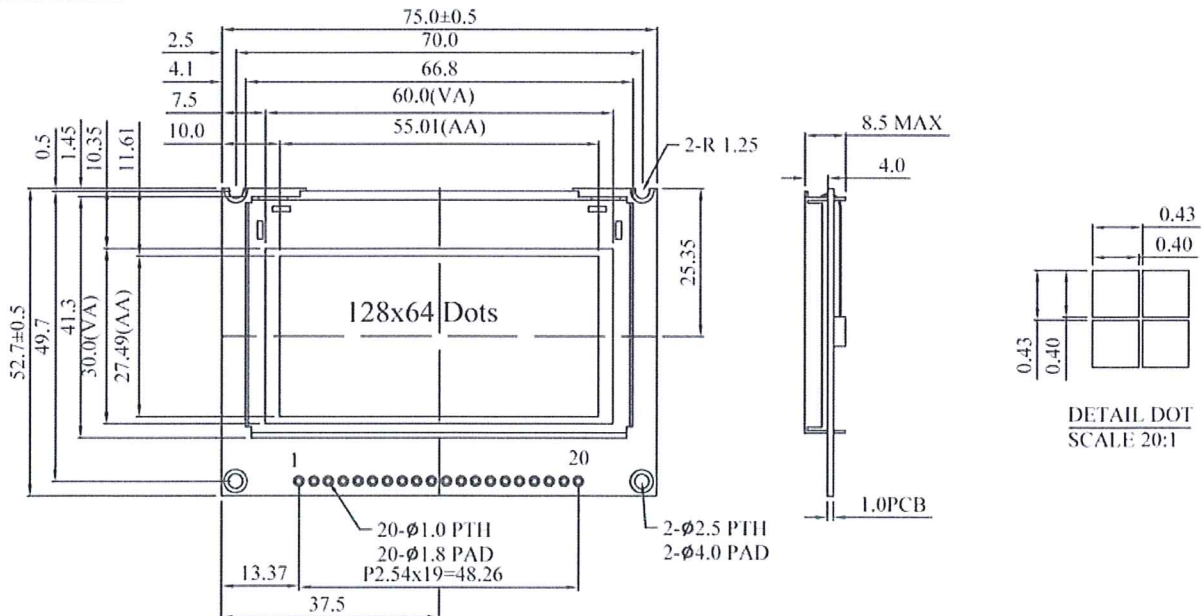
Pin	Symbol	Level	Function
1	Vdd	3.3V	Supply voltage for logic
2	Vss	0V	Ground
3	NC	...	No connection
4-11	DB0-7	H/L	Data bus line
12	CS	H/L	Chip select pin
13	NC	...	No connection
14	/RES	H/L	Hardware Reset pin
15	WR	H/L	Data write enable pin
16	RS	H/L	H: Data, L: Command
17	RD	H/L	Data read enable pin
18	NC	...	No connection
19	DISF VCC	H/L H	DISF: VCC Voltage ON/OFF VCC: Supply Voltage for OLED
20	NC	No connection

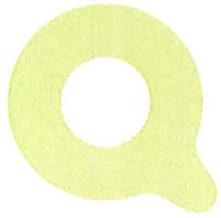
Electronic Characteristics

Item	Symbol	Condition	Value	Unit
Input Voltage	Vdd	Vdd = +3.3V	3.3 (Typ.)	V
Supply Current	Idd	Vdd = +3.3V	220 (Max.)	mA
Pixel Brightness	Lu	Vdd = +3.3V	70	cd /m

* Contrast setting:0Xa0,Color: white ,Pixel all on

Dimension





Q-NITTO

BL12864H

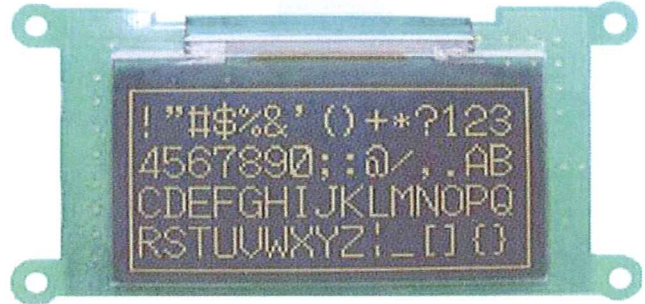


Feature

1. OLED display 128x64 dots
2. Built-in Controller SSD1303
3. +3.3V power supply
4. 1/64 duty

Mechanical Data

Item	Standard Value	Unit
Module Dimension	89.7 x 47.2	mm
Viewing Area	57.01 x 29.4	mm
Dot Size	0.40 x 0.40	mm
Dot Pitch	0.43 x 0.43	mm



BL-15

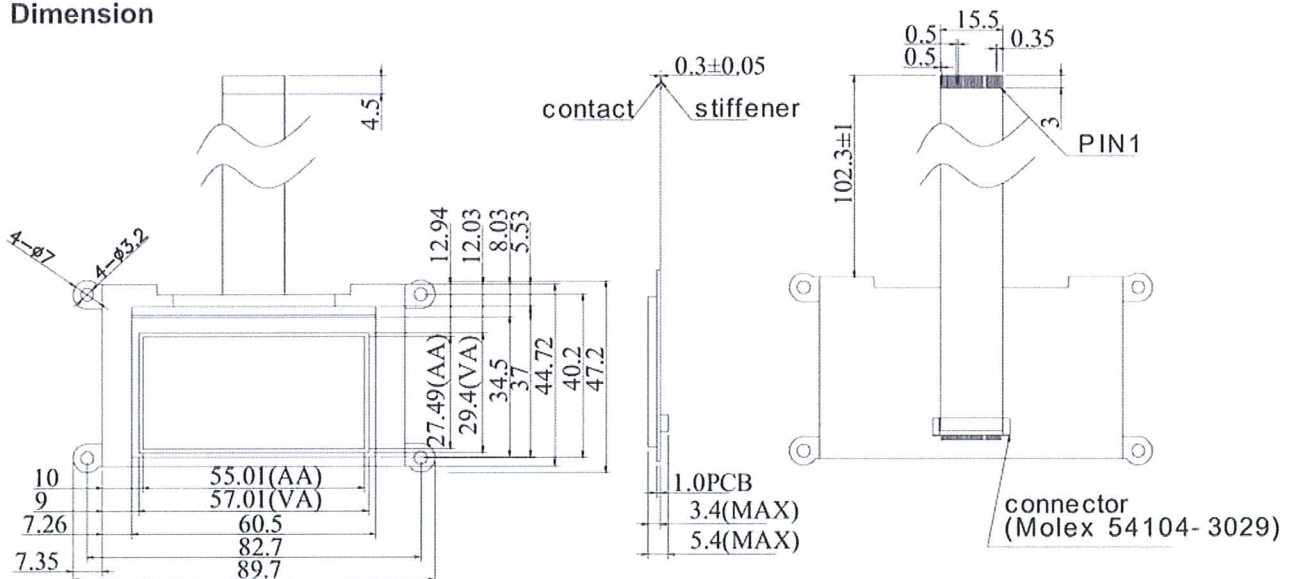
Pin Assignment

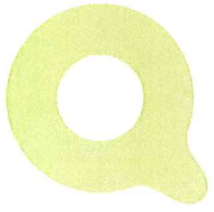
Pin	Symbol	Function
1	NC	No connection
2	VCC	Analog power supply input
3	VCOMH	The Com voltage reference input
4	IREF	The Current voltage reference input
5~12	D7~D0	Data bus line
13	RD(E)	80:read signal 68:enable signal
14	WR(R/W)	80:write signal 68:R/W signal
15	D/C	H:Data input L:Command input
16	RES	Hardware reset
17	CS	Chip select control
18	NC	No connection
19	BS2	MCU interface selection
20	BS1	MCU interface selection
21	VDD	Voltage power supply for logic
22~28	NC	No connection
29	VSS	Power supply (GND)
30	NC	No connection

Electronic Characteristics

Item	Symbol	Condition	Typical Value	Unit
Input Voltage	Vdd	Vdd = +3.3V	3.3	V
Supply Current	Idd	Vdd = +3.3V	200	mA
Pixel Brightness	Lu	Vdd = +3.3V	60	cd/m ²

Dimension





Q-NITTO

BL12864J



BL-16

Feature

1. OLED Display 128 x 64 dots
2. Built-in controller SSD1325
3. +2.4~ +3.5V power supply
4. 1/64 duty cycle
5. Color: yellow
6. 16 Gray Scale

Mechanical Data

Item	Standard Value	Unit
Module Dimension	41.9 x 28.0	mm
Viewing Area	38.45 x 20.1	mm
Dot Size	0.255 x 0.255	mm
Dot Pitch	0.285 x 0.285	mm



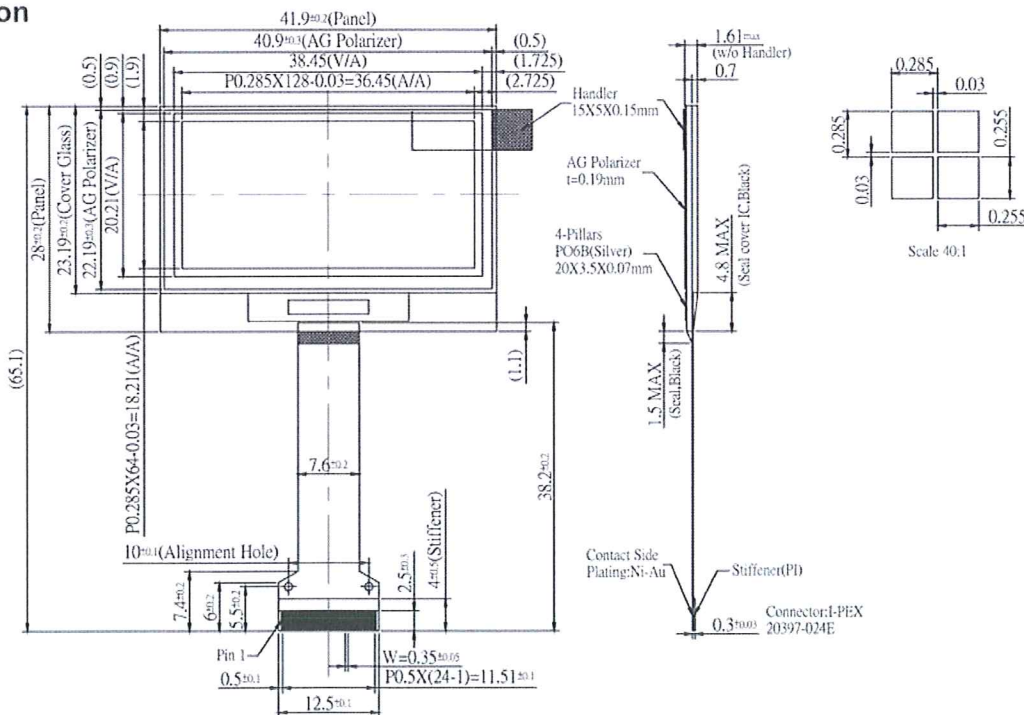
Pin Assignment

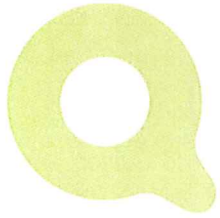
Pin	Symbol	Function
1	Vss	Ground
2	VSL	The voltage output low level for SEG signals
3	Vcc	Positive OLED high voltage power supply
4	VCOMH	The COM voltage reference pin
5	VDD	Voltage power supply for logic
6	BS1	Interface select pin
7	BS2	Interface select pin
8	CS#	Chip select pin
9	RES#	Hardware reset signal
10	D/C#	This is data/command control pin
11	R/W#	Data read
12	E(RD)	Data write
13-20	DB0-DB7	Data bus line
21	IREF	The current reference input pin
22	Vcc	Positive OLED high voltage power supply
23	NC	No connection
24	Vss	Ground

Electronic Characteristics

Item	Symbol	Condition	Typical Value	Unit
Input Voltage	Vdd	Vdd = +3.3V	3.3	V
Supply Current	Idd	Vdd = +3.3V	20	mA
Life Time	Lu	60cd/m ²	60,000	hrs

Dimension





Q-NITTO

BL12864K



BL-17

Feature

1. OLED Display 128 x 64 dots
2. Built-in controller SSD1305
3. +2.4~ +3.5V power supply
4. 1/64 duty cycle
5. Color: yellow

Mechanical Data

Item	Standard Value	Unit
Module Dimension	70.9 x 41.86	mm
Viewing Area	63.41 x 32.69	mm
Dot Size	0.45 x 0.45	mm
Dot Pitch	0.48 x 0.48	mm

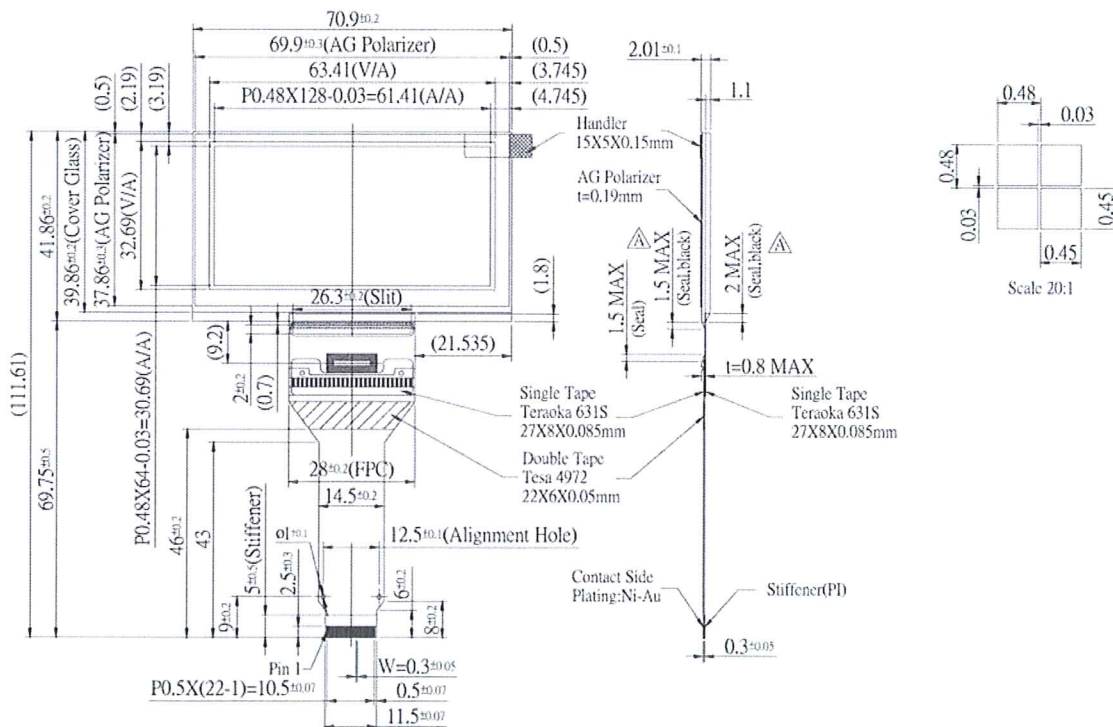
Pin Assignment

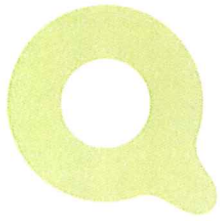
Pin	Symbol	Function
1	Vcc	Positive OLED high voltage power supply
2	VCOMH	The COM voltage reference pin
3	IREF	The current reference input pin
4~11	DB7~DB0	Data bus
12	E(RD)	Data read
13	R/W#	Data write
14	D/C#	This is data/command control pin
15	RES#	Hardware reset signal
16	CS#	Chip select pin.
17	BS2	Interface select pin
18	BS1	Interface select pin
19	VDD	Voltage power supply for logic
20	NC	No connection
21	Vss	Ground
22	Vss	Ground

Electronic Characteristics

Item	Symbol	Condition	Typical Value	Unit
Input Voltage	Vdd	Vdd = +3.3V	3.3	V
Supply Current	Idd	Vdd = +3.3V	30	mA
Life Time	Lu	80 cd/m ²	60,000	hrs

Dimension





Q-NITTO

BL160128A

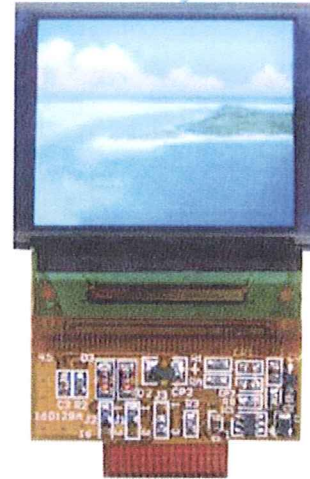


Feature

1. OLED Display 160 x 128 dots
2. Built-in controller SSD1353
3. +3.3V single power supply, with Built-in positive voltage
4. 1/128 duty cycle
5. Color: 262K color
6. Option: external positive voltage for LCD
7. Option: SPI interface

Mechanical Data

Item	Standard Value	Unit
Module Dimension	42.7 x 33.4	mm
Viewing Area	37.015 x 30.012	mm
Dot Size	0.048 x 0.199	mm
Dot Pitch	0.073 x 0.219	mm



BL-19

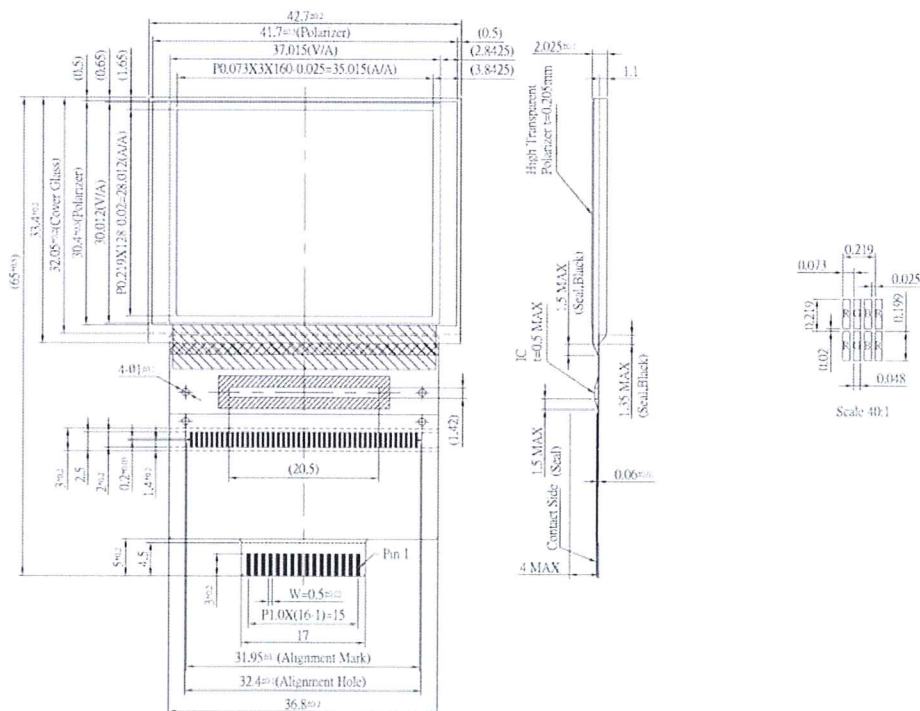
Pin Assignment

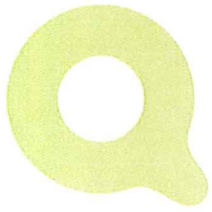
Pin	Symbol	Function
1	Vss	Ground
2	Vdd	Power supply for logic
3	CS	Chip select input
4	RES	Reset signal
5	D/C	Data/Command select
6	WR	Write signal
7	RD	Read signal
8~15	DB0~DB7	Data bus
16	DISPOFF/Vcc	Display OFF/power supply for LCD

Electronic Characteristics

Item	Symbol	Condition	Typical Value	Unit
Input Voltage	Vdd	Vdd = +3.3V	3.3	V
Supply Current	Idd	Vdd = +3.3V	280	mA
Life Time		80 cd/m ²	12,000	hrs

Dimension





Q-NITTO

BL25664B



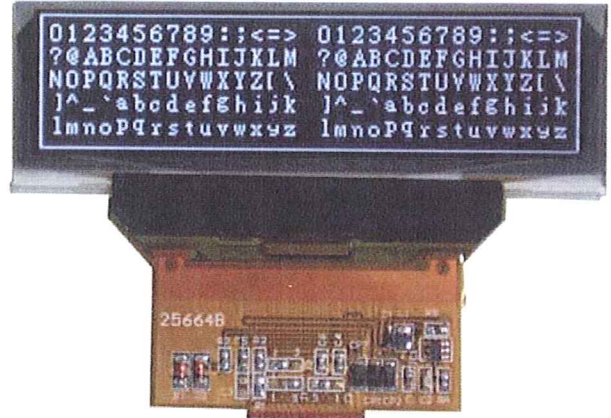
BL-20

Feature

1. OLED Display 256 x 64 dots
2. Built-in controller SSD1322
3. +3.3V single power supply, with Built-in positive voltage
4. 1/64 duty cycle
5. Serial or Parallel interface
6. Color: white
7. Option: external positive voltage for LCD
8. 16 Gray Scale

Mechanical Data

Item	Standard Value	Unit
Module Dimension	87.4 x 28.5	mm
Viewing Area	81.08 x 21.75	mm
Dot Size	0.289 x 0.289	mm
Dot Pitch	0.309 x 0.309	mm



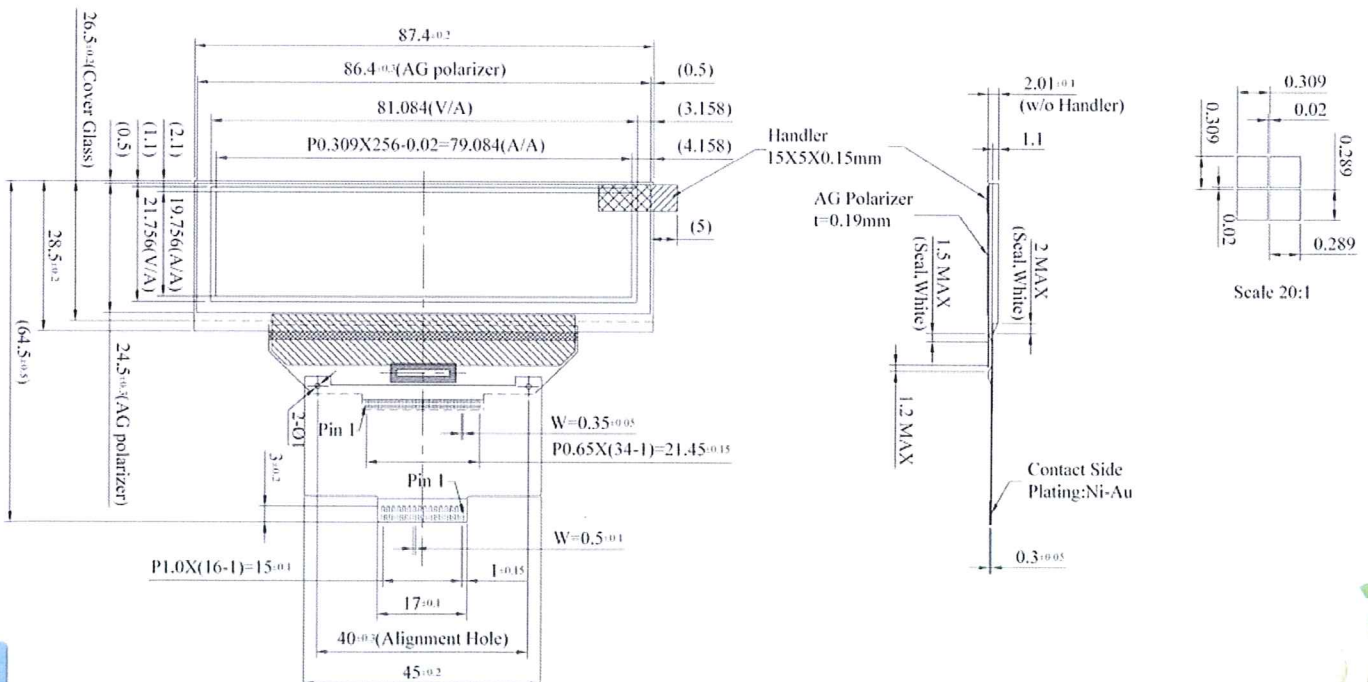
Pin Assignment

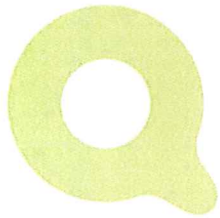
Pin	Symbol	Function
1	Vss	Ground
2	Vdd	Power supply for logic
3	CS	Chip select input
4	RES	Reset signal
5	D/C	Data/Command select
6	WR	Write signal
7	RD	Read signal
8~15	DB0~DB7	Data bus
16	DISPOFF/Vcc	Display OFF/power supply for LCD

Electronic Characteristics

Item	Symbol	Condition	Typical Value	Unit
Input Voltage	Vdd	Vdd = +3.3V	3.3	V
Supply Current	Idd	Vdd = +3.3V	270	mA
Life Time		60 cd/m ²	19,000	hrs

Dimension





Q-NITTO

BL9664A



BL-21

Feature

1. OLED Display 96 x 64 dots
2. Built-in controller SSD1325
3. +3.3V single power supply, with Built-in positive voltage
4. 1/64 duty cycle
5. Color: yellow
6. Option: external positive voltage for LCD
7. Option: SPI interface
8. 16 Gray Scale



Mechanical Data

Item	Standard Value	Unit
Module Dimension	29.0 x 21.0	mm
Viewing Area	25.49 x 17.65	mm
Dot Size	0.215 x 0.215	mm
Dot Pitch	0.245 x 0.245	mm

Pin Assignment

Pin	Symbol	Function
1	Vss	Ground
2	Vdd	Power supply for logic
3	CS	Chip select input
4	RES	Reset signal
5	D/C	Data/Command select
6	WR	Write signal
7	RD	Read signal
8~15	DB0~DB7	Data bus
16	DISPOFF/Vcc	Display OFF/power supply for LCD

Electronic Characteristics

Item	Symbol	Condition	Typical Value	Unit
Input Voltage	Vdd	Vdd = +3.3V	3.3	V
Supply Current	Idd	Vdd = +3.3V	40	mA
Life Time		80 cd/m ²	50,000	hrs

Dimension

