

Pi – Tek

OLED Module SPECIFICATIONS

MODEL NO. : PG12864GW
PRODUCT TYPE: STANDARD

This specification may be changed without any notices in order improve performance or quality etc.

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History of versions and modifications

Revision	Date	Description	Changed By
1.0		Preliminary specification	

Coding system

P G 12864 G W

P: PI-TEK INC.

G: Graphic

12864: 128 x 64

G: Model

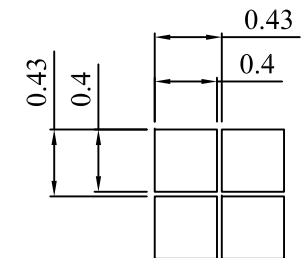
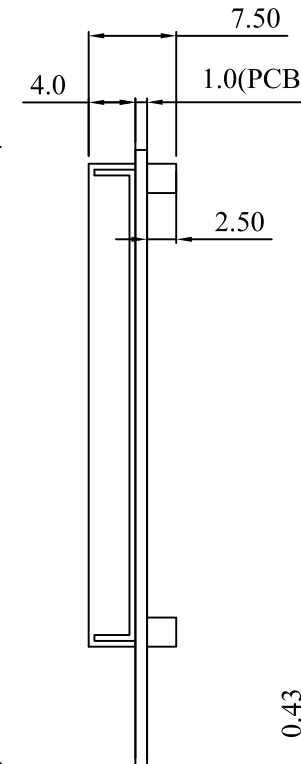
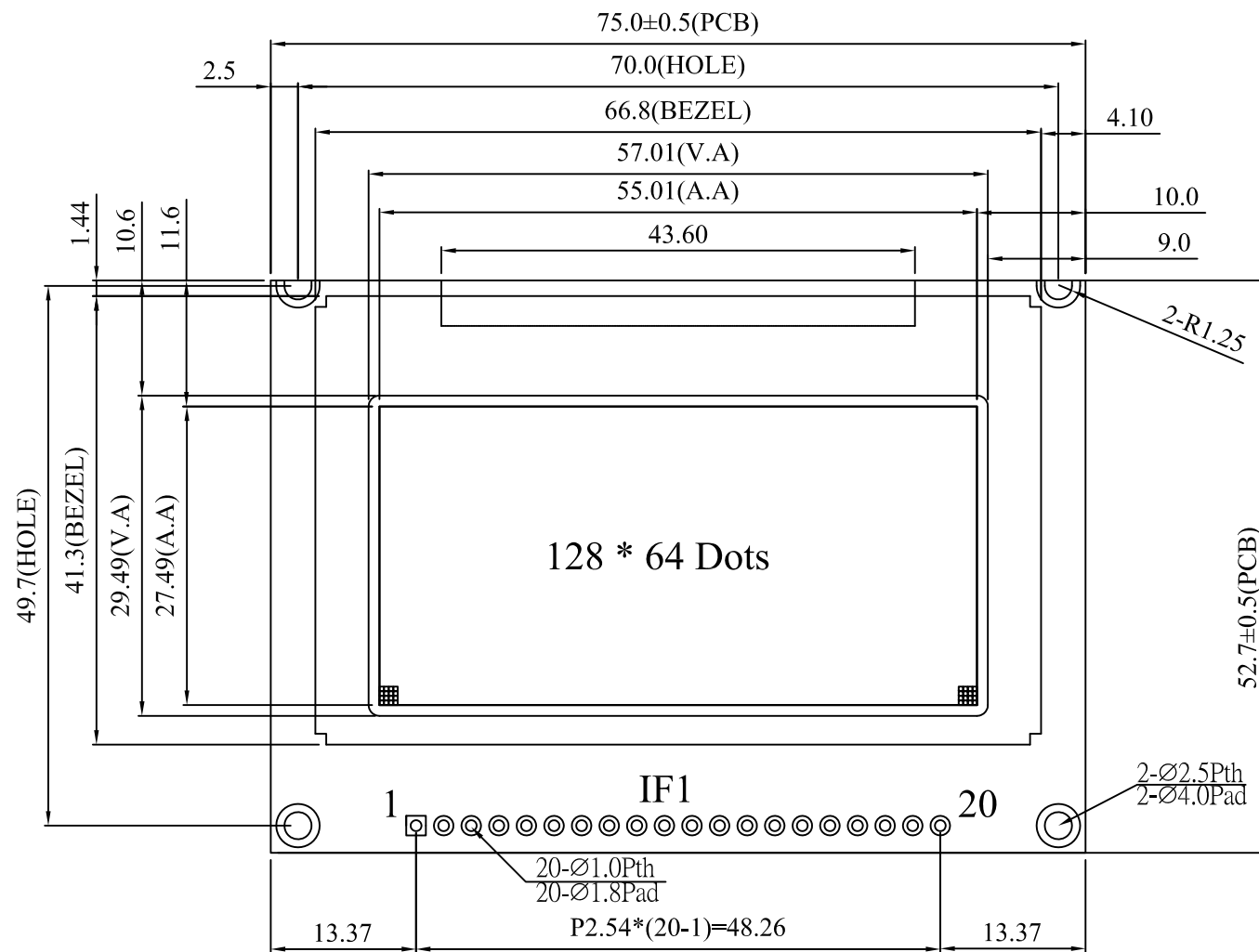
W: White

Functions and Features

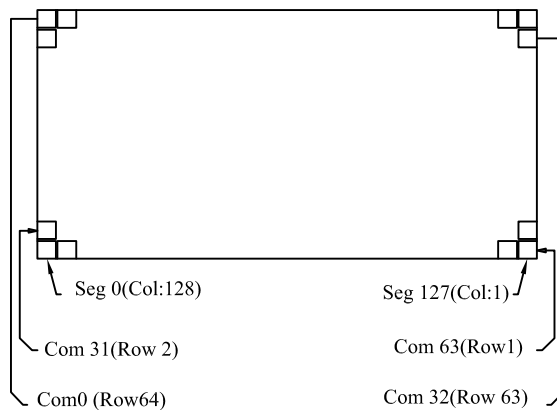
- 128X64 Graphic
- Built-in controller
- viewing angle Free
- Wide Temperature -40°C ~ +80°C (Operating)
- RoHS compliant

Mechanical Specification

Item	Description	
Product No.	PG12864GW	
Inch	2.42"	
Color	White	
Active Area	55.01(W)×27.49(H)	mm
Module Size	75.00(W)×52.70(H)×7.50(D)	mm
Dot Size	0.40(W)×0.40(H)	mm
Dot Pitch	0.43(W)×0.43(H)	mm
Display Format	128×64	
Duty Ratio	1/64 Duty	Duty
Controller	SSD1309 or Equivalent	
Operation Temperature	-40~80	°C
Storage Temperature	-40~85	°C
Response Time	≤10	us



DOT SIZE
SCALE 20/1



IF1	SYMBOL
1	VDD
2	VSS
3	NC
4-11	DB0-7
12	CS#
13	NC
14	RES#
15	R/W#
16	D/C#
17	E/RD#
18	NC
19	DISP
20	NC

Pi-Tek Pro Technology Inc.					Drawing Number		Rev.
							A
Projection Type			Tolerance		MODEL		
			Dimension	±0.3	PG12864G		
			Unit	mm	TITLE		
	Drawn	Checked	Approved	PM	OLED Module Drawing		
By	Eco-2048	Eco-1500	Eco-0150	Eco-0097	Scale	Sheet	Size
Note	2048.00	1500.00	0150.00	0097.00	3/2	1 of 1	A4

Pin Description

Power Supply

Pin No.	Symbol	Level	Description
1	VDD	3~5V	Supply voltage for logic
2	VSS	0V	Ground
3	NC	-	No connection
4~11	DB0~DB7	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	8080: data write enable pin 6800: Read/Write select pin
16	RS	H/L	H: Data; L: Command.
17	RD	H/L	8080: data read enable pin 6800: Read/Write enable pin
18	NC	-	No connection
19	DISP	H/L or NC	L:OLEDM display off H or NC: display on
20	NC	-	No connection

※80 Series Interface is Default (6800.SERIAL.I2C interface is option)

Table: MCU Bus Interface Pin Selection

Pin Name.	I2C Interface	6800- parallel interface	8080- parallel interface	Serial interface
JB1	1(H)	0(L)	1(H)	0(L)
JB2	0(L)	1(H)	1(H)	0(L)

Note

(1) 0 (L) is connected to VSS

(2) 1 (H) is connected to VDD

DC Characteristics

Item	Symbol	Condition	Min.	Type	Max.	Unit
Supply Voltage for Logic	VDD - VSS	-	1.65	3~5	5.3	Volt
Input High Volt.	VIH	-	0.8 VDD	-	-	Volt
Input Low Volt.	VIL	-	-	-	0.2 VDD	Volt
Output High Volt.	VOH	-	0.9 VDD	-	-	Volt
Output Low Volt.	VOL	-	-	-	0.1 VDD	Volt
Supply Current	IDD	-	-	120	-	mA

Optical Characteristics

Item	Symbol	Conditions	Min.	Typ	Max.	Unit
Brightness(White)	Lbr	Note 5		80	-	cd/m ²
C.I.E. (White)	(X)	C.I.E 1931	0.25	0.29	0.33	
	(Y)		0.27	0.31	0.35	
Dark Room Contrast	CR	-	-	>10000:1	-	
Viewing angle range	-	-	-	Free	-	Degree

Absolute Maximum rating

Item	Symbol	Min.	Typ.	Max.	Unit	Notes
Supply Voltage for Logic	VDD	-0.3	-	5.5	Volt	1,2
Life Time (60 cd/m ²)		---	70,000	---	Hour	3

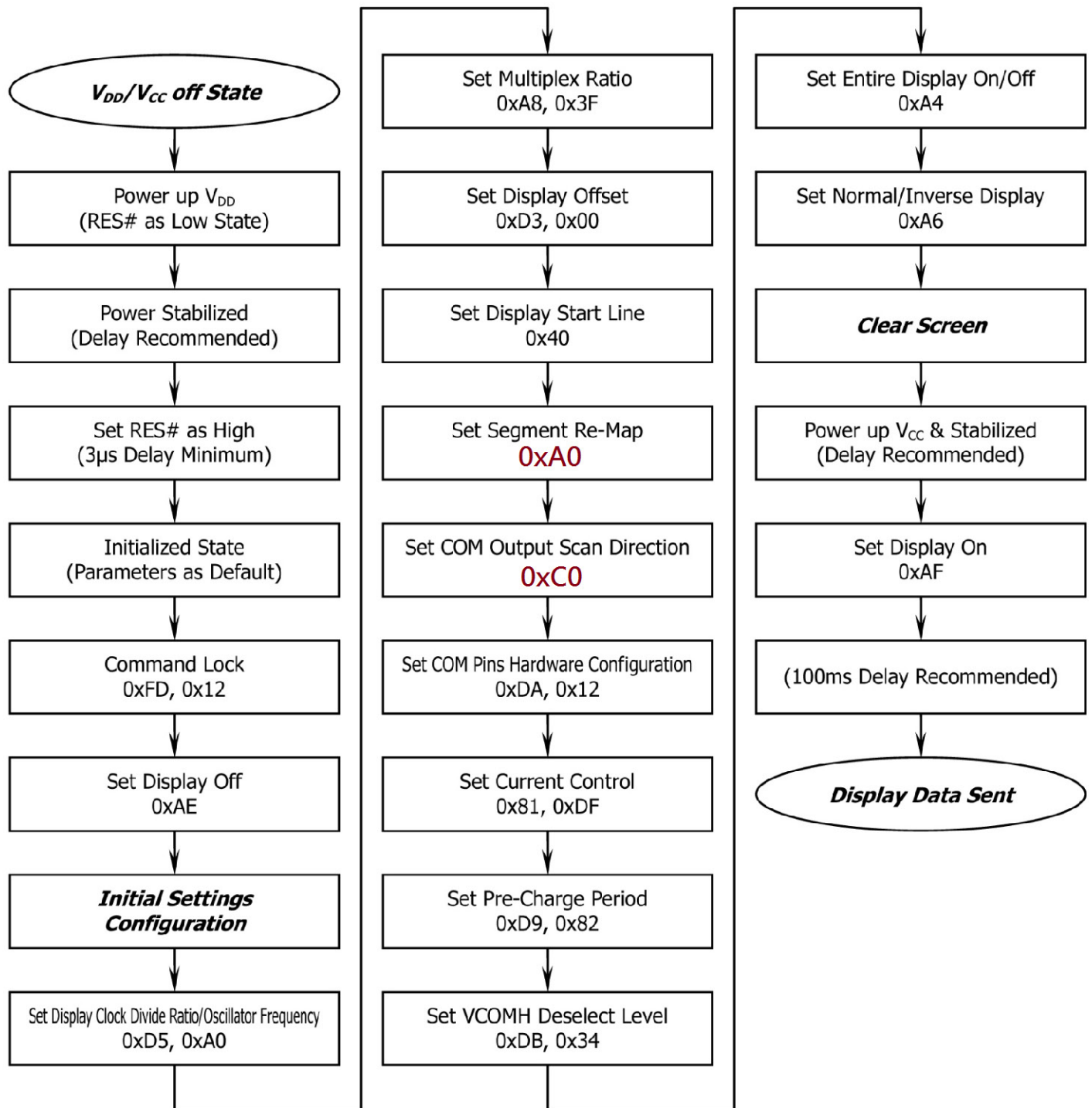
AC Characteristics

Please refer "SSD1309 specification.

Actual Application Example

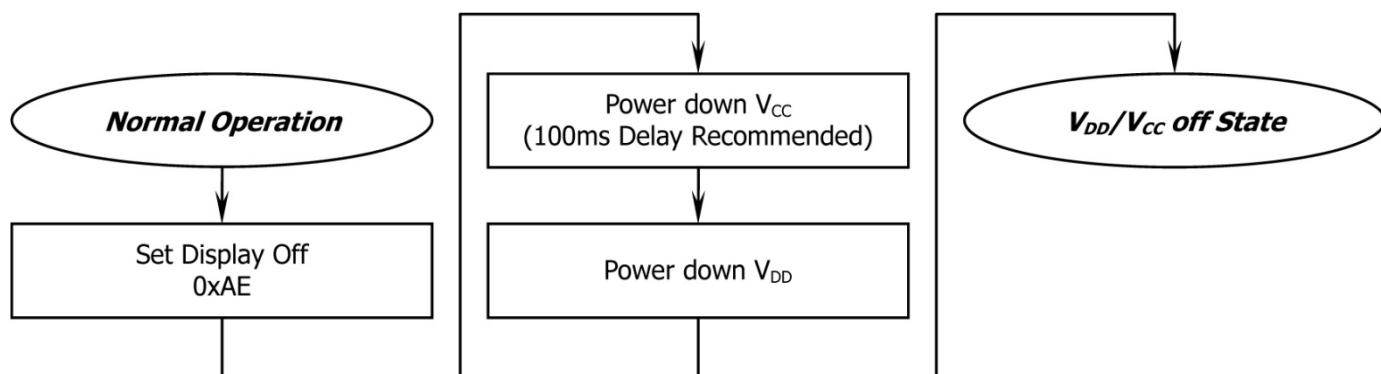
Command usage and explanation of an actual example

<Power up Sequence>

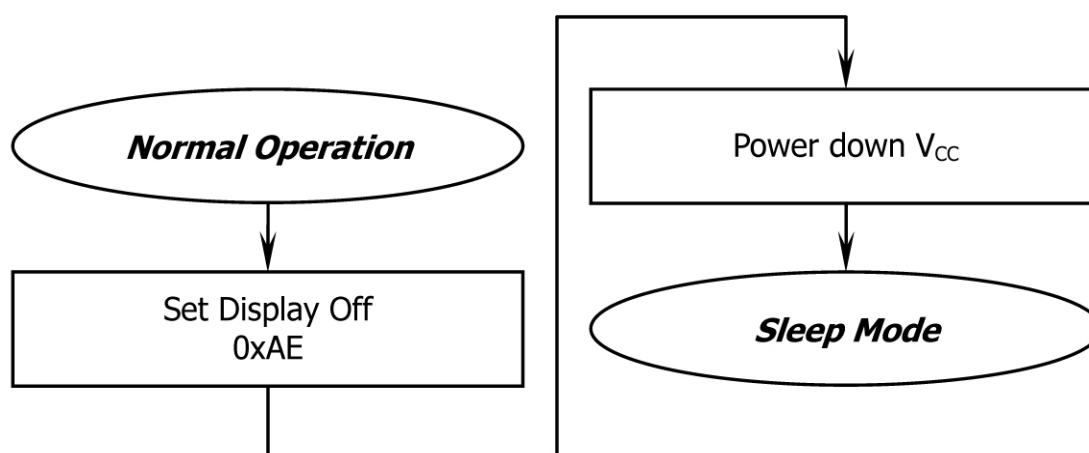


If the noise is accidentally occurred at the displaying window during the operation, please reset the display in order to recover the display function.

<Power down Sequence>



<Entering Sleep Mode>



<Exiting Sleep Mode>

