



HIGHNESSTM

One of a kind

HM565UH111QY

56.5" Stretch Color TFT-LCD

Release Date

23rd Sep 2025

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HIGHNESS MICROELECTRONICS LTD.

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1. Display Characteristics Summery

Item	Specification	Unit
Screen Diagonal	56.5"	[Inch]
Active Area	1428.48(H) x 130 (V)	[mm]
Outline Dimension	1500(H) x 160(V)	[mm]
Pixels	3840(H) x 349(V)	-
Pixel Pitch	0.372(H) x 0.372(V)	[mm]
White Luminance	600(Typ)	[cd/m ²]
Uniformity	≥80	[%]
Color Temp.	>6500K	[K]
Power Consumption	<40	[W]
Contrast Ratio	1300:1	[CR]
Aspect Ratio	16:4.5	-
Viewing Angle	178(H) 178(V)	[Deg.]
Response Time	9	[ms]
Mean Excepted Lifetime	100,000 @25°C	[Hrs]
Display Colors	1.07B	[colors]
Backlight Type	Edge Light	-
Weight	<5	[Kg]
LCD Input Voltage	12(typ)	[V]
LCD Input Current	0.5(typ)	[A]
LCD Inrush Current	≤3	[A]
Operating Temp.	-0°C ~ +50°C	[°C]
Storage Temp.	-20°C ~ +60°C	[°C]
Humidity	5-90	[%]

Note:

- Active Area Dimensions: Horizontal=HA, Vertical=VA
- Uniformity measurement: (5points)/Max (5 points) X 100% Measurement Set up according to Figure 1

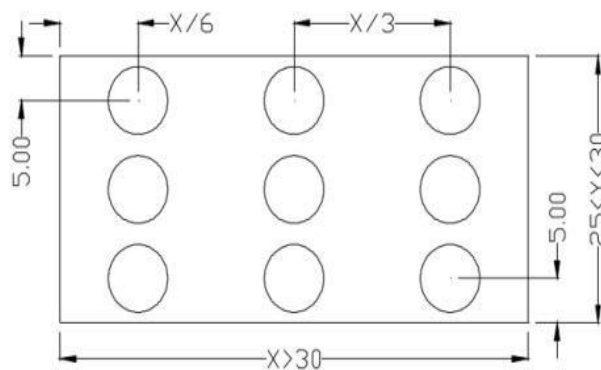


Figure (1) Uniformity Measurement

- Valid for LED backlight unit.

2. LCD Interface Connection

LCD Connector: FI-RE51S-HF Or GT05P-51S-H38

Matching: FI-RE51HL (JAE) or Compatible

Pin	Symbol	Description
1	N.C.	No Connection
2	N.C.	No Connection
3	N.C.	No Connection
4	N.C.	No Connection
5	N.C.	No Connection
6	N.C.	No Connection
7	LVDS_SELECT	H = JEIDA, L or NC = VESA
8	N.C.	No Connection
9	N.C.	No Connection
10	N.C.	No Connection
11	GND	Ground
12	R1AN	First LVDS Receiver Signal (A-)
13	R1AP	First LVDS Receiver Signal (A+)
14	R1BN	First LVDS Receiver Signal (B-)
15	R1BP	First LVDS Receiver Signal (B+)
16	R1CN	First LVDS Receiver Signal (C-)
17	R1CP	First LVDS Receiver Signal (C+)
18	GND	Ground
19	R1CLKN	First LVDS Receiver Clock Signal (-)
20	R1CLKP	First LVDS Receiver Clock Signal (+)
21	GND	Ground
22	R1DN	First LVDS Receiver Signal (D-)
23	R1DP	First LVDS Receiver Signal (D+)
26	N.C.	No Connection
27	N.C.	No Connection
28	R2AN	Second LVDS Receiver Signal (A-)
29	R2AP	Second LVDS Receiver Signal (A+)
30	R2BN	Second LVDS Receiver Signal (B-)
31	R2BP	Second LVDS Receiver Signal (B+)
32	R2CN	Second LVDS Receiver Signal (C-)
33	R2CP	Second LVDS Receiver Signal (C+)
34	GND	Ground
35	R2CLKN	Second LVDS Receiver Clock Signal (-)
36	R2CLKP	Second LVDS Receiver Clock Signal (+)
37	GND	Ground
38	R2DN	Second LVDS Receiver Clock Signal (D-)
39	R2DP	Second LVDS Receiver Clock Signal (D+)
40	NC	No Connection
41	NC	No Connection
42	N.C.	No Connection
43	N.C.	No Connection
44	GND	Ground
45	GND	Ground

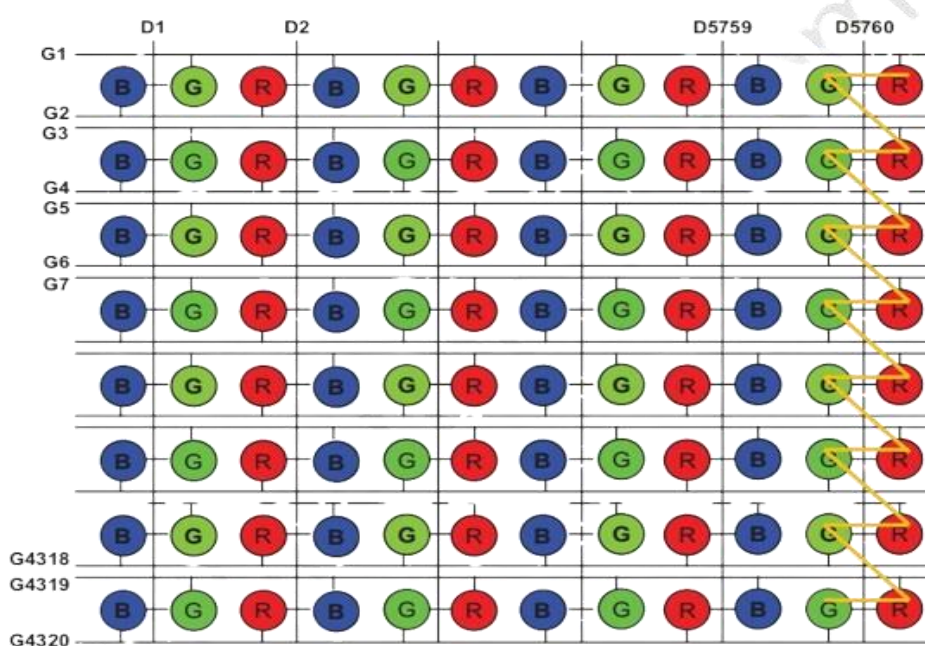
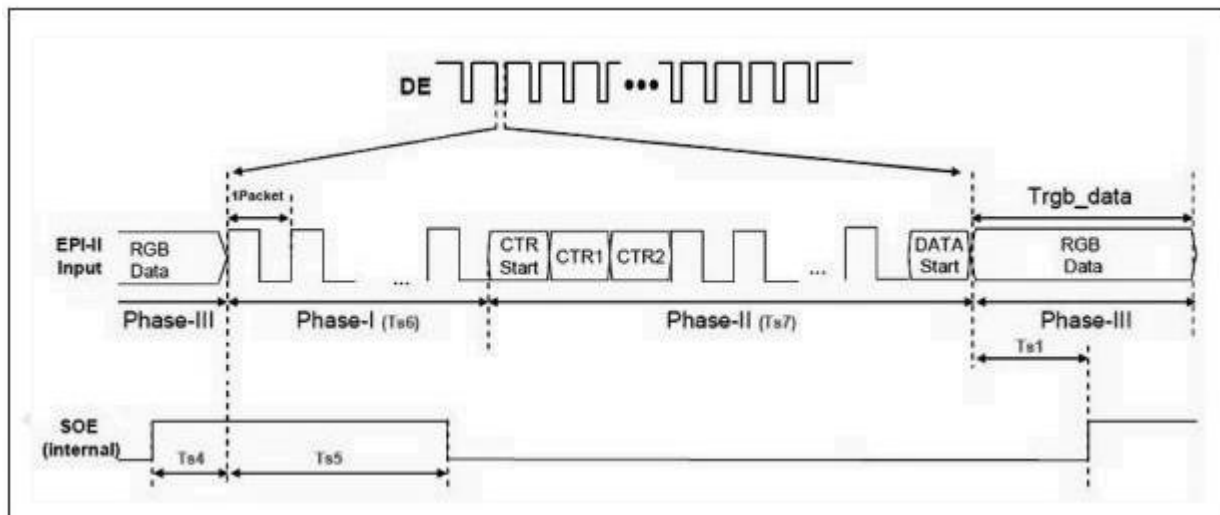
46	GND	Ground
47	N.C	No Connection
48	VLCD	Power Supply, +12V DC Regulated
49	VLCD	Power Supply, +12V DC Regulated
50	VLCD	Power Supply, +12V DC Regulated
51	VLCD	Power Supply, +12V DC Regulated

Note: Please leave this pin unoccupied. It can not be Connected by any signal (LOW/GND/HIGH).

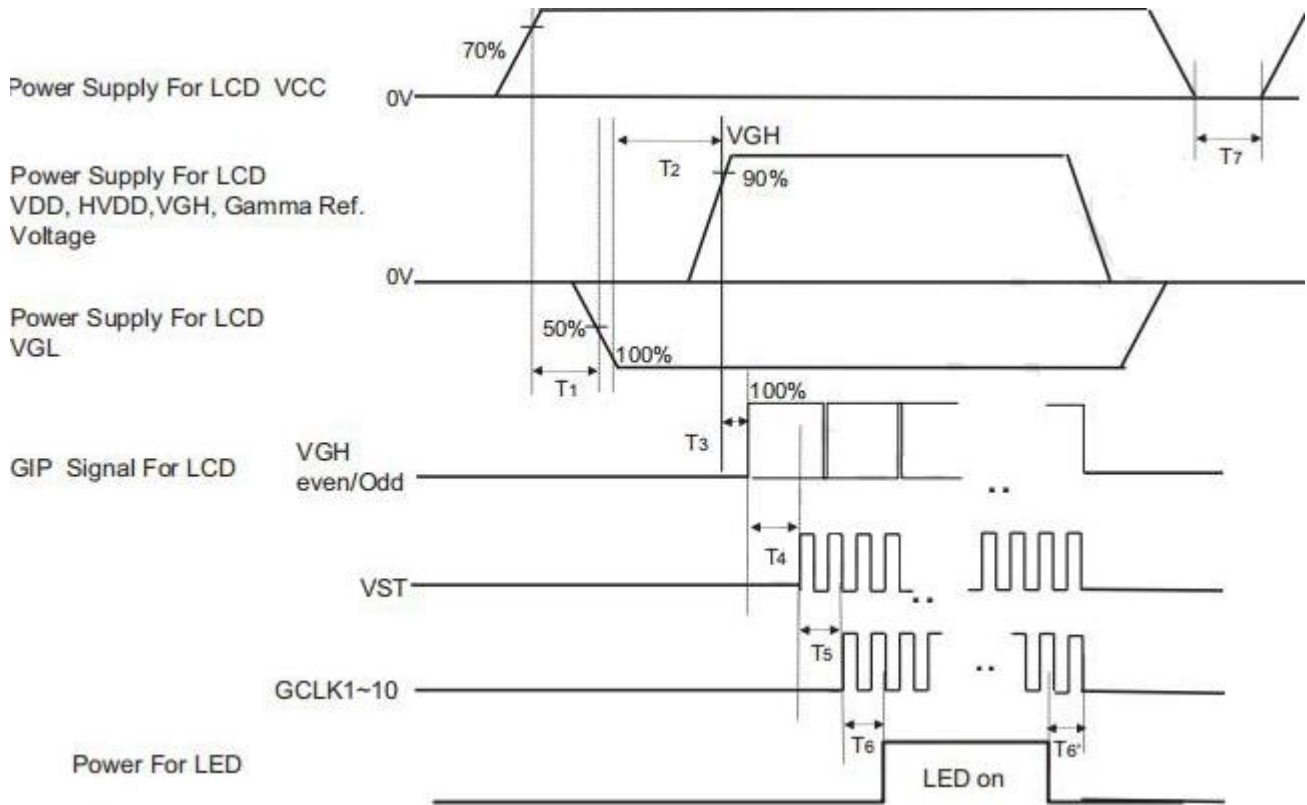
1. All GND (Ground) pins should be connected together and should also be connected to the LCD's metal frame.
2. All Power input pins should be connected together.
3. All NC (No Connection) pins should be open without voltage input.

3. Signal Timing Specification

Parmeter	Symbol	Condition	Min	Typ	Max	Unit
Unit Interval	UI	-	0.33	-	0.67	Ns
Effective V eye with time	B1 & B2	-	0.25	-	-	UI
Modulation Ratio of SSC	V spread	@100KHz	-	-	2	%
1 st Data to SOE rising time	Ts1	-	3	-	-	Packet
SOE rising to last data	Ts4	-	0	-	-	Packet
Last data to SOE Falling	Ts5	-	10	-	-	Packet
EPI Bandwidth	BW	-	2.0	-	3.05	GBPS



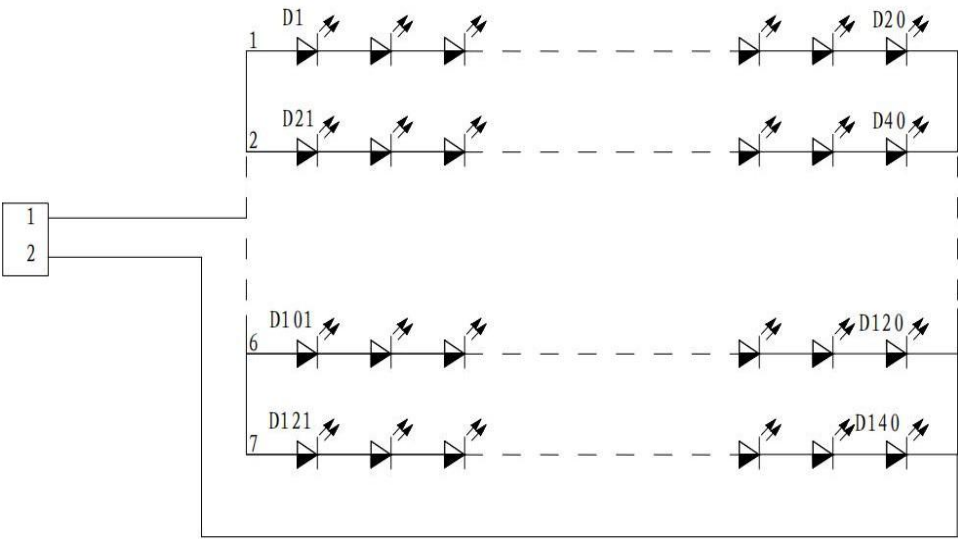
4. Power Sequence



Parameter	Value			Unit	Note
	Min	Typ	Max		
T1	0.5	-	-	ms	
T2	0.5	-	-	ms	
T3	0	-	-	ms	
T4	10	-	-	ms	
T5	0	-	-	ms	
T6	20	-	-	ms	
T7	2	-	-	s	

5. Backlight Specifications

5.1. Backlight lightbar info



Item	Unit	Typ	Remark
Brightness	Cd/m ²	600	
BLU Current	A	0.690	
BLU Voltage	V	55	
Power Consumption	W	38	± 10%
Temperature	°	35	Lightbar side

5.2 Reproduction of Color

Parameter		Symbol	Condition	Min	Typ	Max
Reproduction of color	White	Wx	$\Theta = 0$ (Center) Normal Viewing Angle	TYP. - 0.03	0.313	TYP. + 0.03
		Wy			0.329	
	Red	Rx			0.661	
		Ry			0.326	
	Green	Gx			0.279	
		Gy			0.590	
	Blue	Bx			0.134	
		By			0.122	
Color Gamut				68%	72%	-

6. Reliability Test

The Reliability test items and its conditions are shown in below.

Item		Test condition
High temperature storage		Ta = 60 °C, 240 hrs
Low temperature storage		Ta = 20 °C, 240 hrs
High temperature & high humidity operation		Ta = 50 °C, 80%RH, 240 hrs
High temperature operation		Ta = 50 °C, 240 hrs
Low temperature operation		Ta = 0 °C, 240 hrs
Thermal shock		Ta = -20 °C ↔ 60 °C (0.5 hrs), 100 cycles
Vibration test	Frequency	5 ~ 300 Hz, Random
	Gravity	1.49 G
	Period	±X, ±Y, ±Z 3 0 min, Z 60 min
ESD	Air	150 pF, 330Ω, 15KV
	Contact	150 pF, 330Ω, 8KV

7. Mechanism dimensions

