

10.1" WXGA Display 1280 x 800 a-Si AAS FOG

Product Briefing

10.1" WXGA AAS FOG



General Specification	
Technology	a-Si
LCD type	AAS
Resolution	1280 x RGB x 800
Aspect ratio	16:10
Pixel pitch (H x V)	0.1695x 0.1695 (mm)
Color depth (bit)	8
PPI	150
Shipment type	FOG
Optical	
Transmittance % (Typ.) (Under C light)	5.33%
Viewing Angle (U/D/L/R, CR>10) (Typ.)	85/85/85/85
Surface Treatment	HC
Response Time (Ton+Toff) (Max.)	50ms
Number of colors	16.7M
Contrast ratio (Typ.) (Under C light)	800
NTSC (CEI 1931) (Under C light)	50%
White point (x,y) (Under C light)	(0.311, 0.332)
Mechanical	
Active area size (H x V)	216.96x 135.6 (mm)
FOG size (H x V x T)	223.95x 144.24x 1.07 (mm)
Electrical	
Interface	LVDS
Driver IC	Source IC : Himax HX8288 Gate IC: Himax HX8695
RAM or RAM less	RAMless
Connector Type	ZIF
Frame rate	60Hz
Reliability	
Operation Temperature	-20℃~70℃
Storage Temperature	-30℃~80℃

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1. Display Pin Assignment

Pin No.	Symbol	I/O	Function	Remark
1	VCOM	P	Common Voltage	
2	VDD	P	Power Supply	
3	VDD	P	Power Supply	
4	NC	---	No connection	
5	NC	---	No connection	
6	NC	---	No connection	
7	GND	P	Ground	
8	Rxin0-	I	-LVDS Differential Data Input	R0-R5, G0
9	Rxin0+	I	+LVDS Differential Data Input	
10	GND	P	Ground	
11	Rxin1-	I	-LVDS Differential Data Input	G1~G5, B0,B1
12	Rxin1+	I	+LVDS Differential Data Input	
13	GND	P	Ground	
14	Rxin2-	I	-LVDS Differential Data Input	B2-B5,HS,VS, DE
15	Rxin2+	I	+LVDS Differential Data Input	
16	GND	P	Ground	
17	RxCLK-	I	-LVDS Differential Clock Input	LVDS CLK
18	RxCLK+	I	+LVDS Differential Clock Input	
19	GND	P	Ground	
20	Rxin3-	I	-LVDS Differential Data Input	R6, R7, G6, G7, B6, B7
21	Rxin3+	I	+LVDS Differential Data Input	
22	GND	P	Ground	
23	NC	---	No connection	
24	NC	---	No connection	
25	GND	P	Ground	
26	NC	---	No connection	

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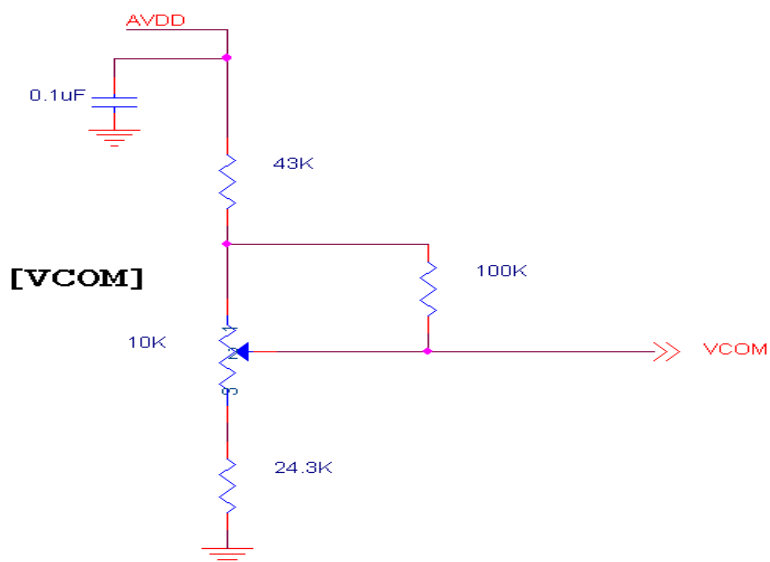
27	NC	---	No connection	
28	NC	---	No connection	
29	AVDD	P	Power for Analog Circuit	
30	GND	P	Ground	
31	LED-	P	LED Cathode	
32	LED-	P	LED Cathode	
33	NC	---	No connection	
34	NC	---	No connection	
35	VGL	P	Gate OFF Voltage	
36	NC	---	No connection	
37	NC	---	No connection	
38	VGH	P	Gate ON Voltage	
39	LED+	P	LED Anode	
40	LED+	P	LED Anode	

2. Electrical Specification

Item	Symbol	Values			Unit	Remark
		Min.	Typ.	Max.		
Power voltage	VDD	2.3	2.5	2.7	V	
	AVDD	8.0	8.2	8.4	V	
	V _{GH}	21.7	22	22.3	V	
	V _{GL}	-7.3	-7	-6.7	V	
Input signal voltage	VCOM	2.7	3.0	3.3	V	Note
Input logic high voltage	V _{IH}	0.8 VDD	/	3.6	V	
Input logic low voltage	V _{IL}	0	/	0.2 DV _{DD}	V	

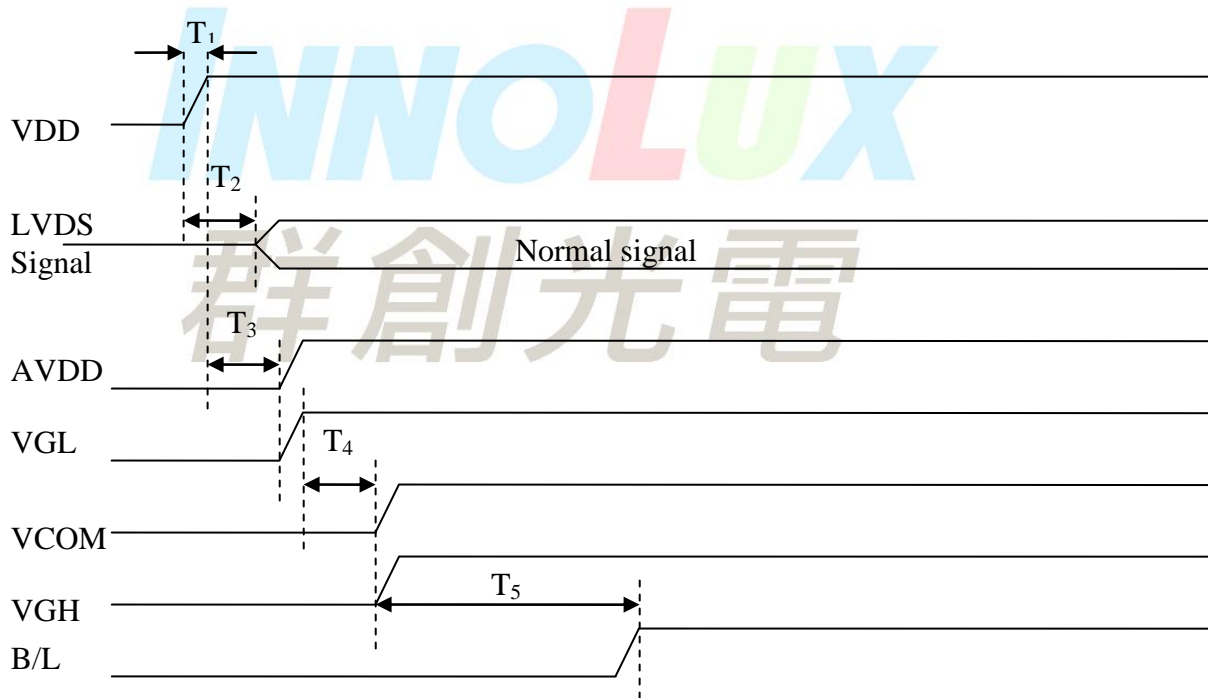
Note : Typical VCOM is only a reference value, it must be optimized according to each LCM. Be sure to use VR.

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3. Power Sequence

a. Power on:

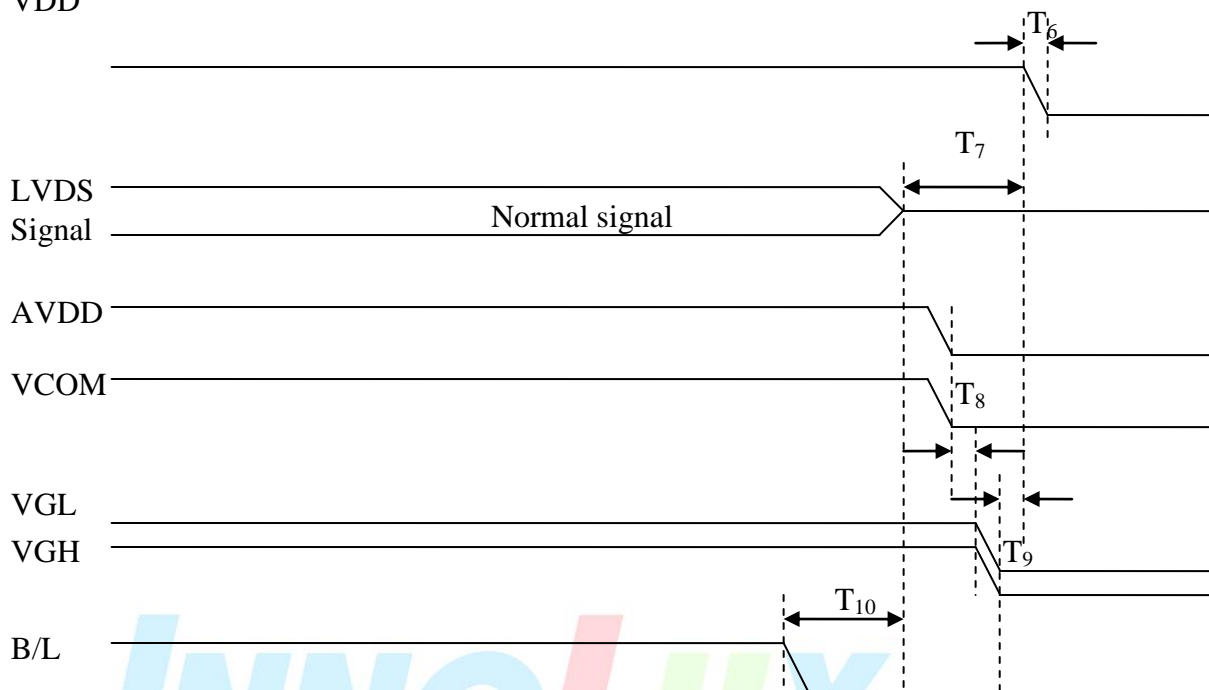


Symbol	Value			Unit Min.
	Min.	Typ.	Max.	
T1	0.5	2	10	ms
T2	0	5	50	ms
T3	0	5	50	ms
T4	0	6	100	ms
T5	120	130	200	ms

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b. Power off:

VDD



Symbol	Value			Unit
	Min.	Typ.	Max.	
T6	0.5	2	10	ms
T7	0	7	50	ms
T8	0	5	10	ms
T9	0	1	10	ms
T10	0	2	100	ms

4.Timing Table

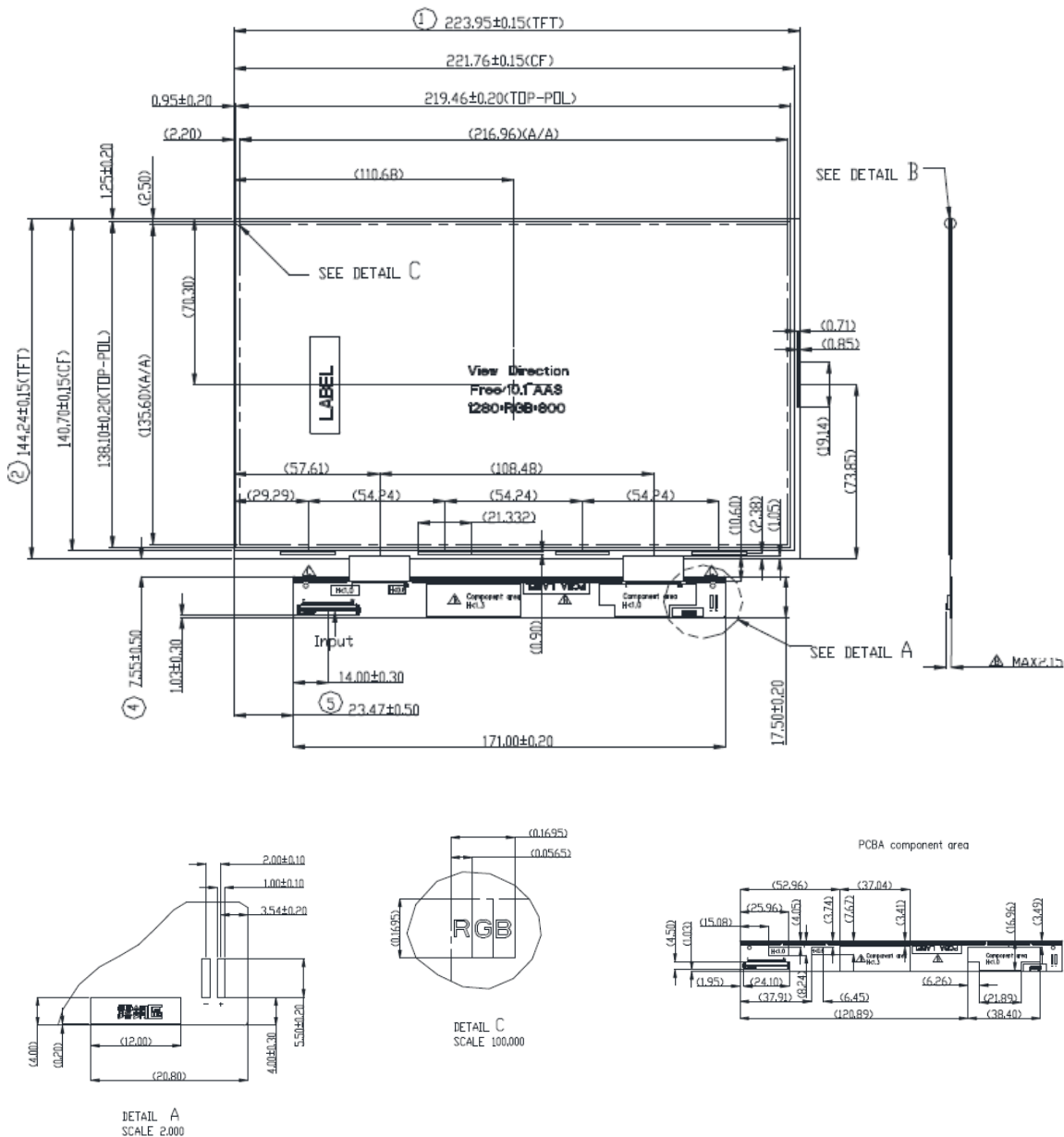
Item	Symbol	Values			Unit	Remark
		Min.	Typ.	Max.		
Clock Frequency	1/Tc	68.9	71.1	73.4	MHz	Frame rate =60Hz
Horizontal display area	tHD	1280			Tc	
HS period time	tH	1410	1440	1470	Tc	
HS Width +Back Porch +Front Porch	tHW+ tHBP +tHFP	130	160	190	Tc	
Vertical display area	tVD	800			tH	

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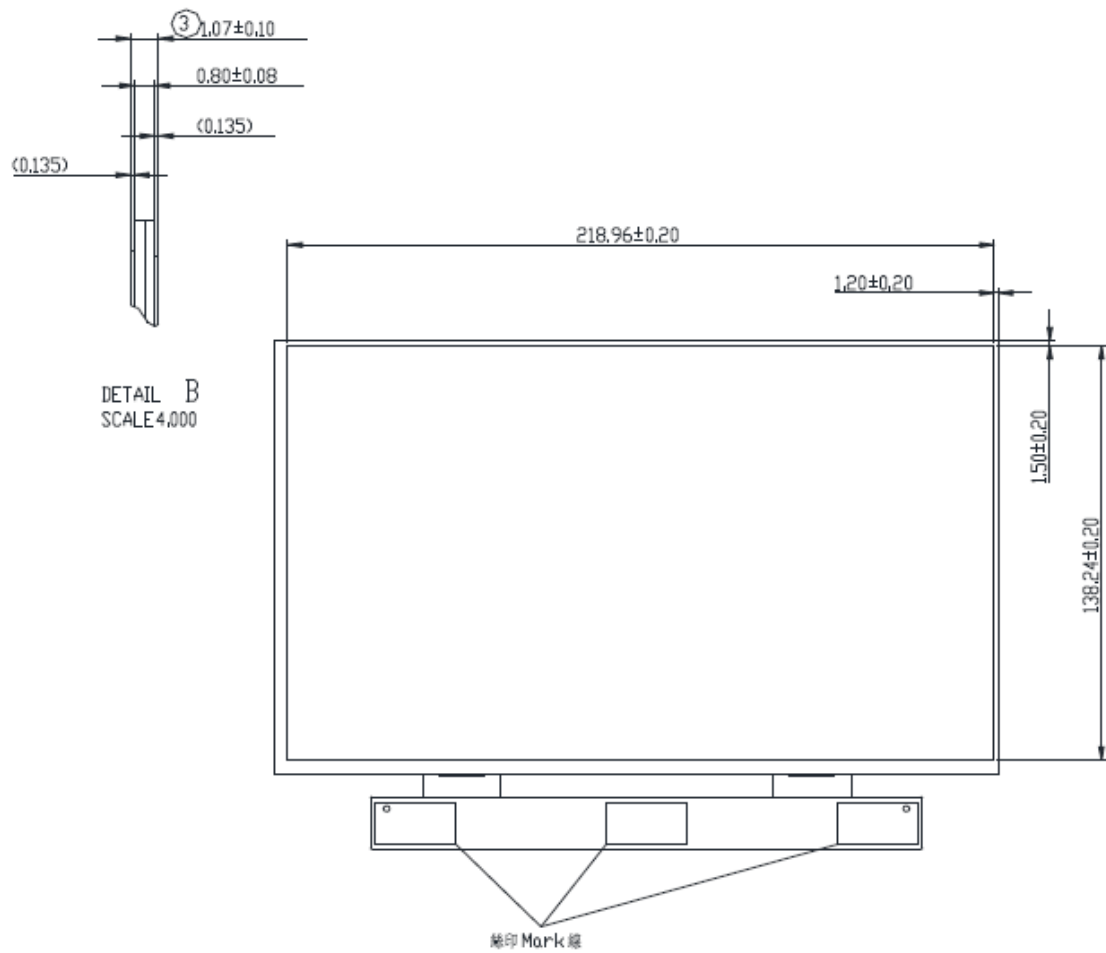
VS period time	tv	815	823	833	th	
VS Width +Back Porch +Front Porch	tvw+ tvBP +tvFP	15	23	33	th	

Note: Frame rate is 60±5Hz, PCLK=Vtotal*Htotal*Frame Rate

5.Mechanical Drawing



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HT / AJ / U / B