



Japan Display Inc.

6.2"

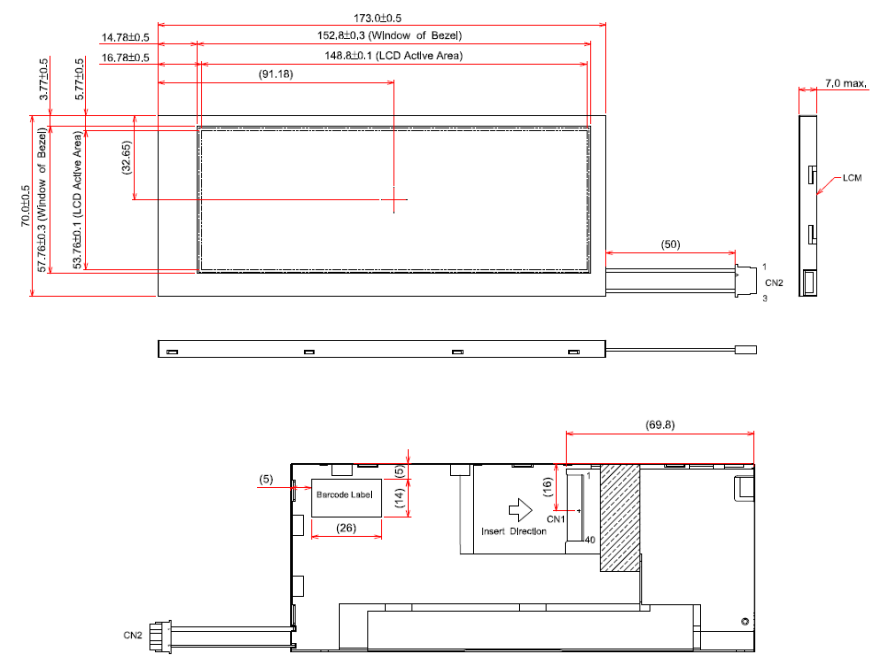
IPS-like vs. IPS comparison

31st Mar. 2021

SPEC comparison – CMOS interface

Items	TX16D20VM5BAA	TX16D206VM0BAA
Display Mode	a-Si TFT, Transmissive, Normally White	a-Si TFT, Transmissive, Normally Black
Outline Dimensions(mm)	173.0(W) x 70.0(H) x 8.6(D)	←
Active Display Area (mm)	148.8(W) x 53.76(H)	←
Resolution	640(W) x 3(RGB) x 240(H)	←
Pixel Pitch(mm)	0.224(W) x 0.224(H)	←
Number Of Colors	262K Colors (6-bit RGB)	←
Interface	CN1: CMOS_40 pins (FA5S040HP1R3000) CN2: 3 pins (BHR-03VS-1)	←
NTSC	60%	←
Brightness(nits)	400	←
Contrast Ratio	400 : 1	1200 : 1
Viewing Angle (U/D/L/R, CR>10)	80/80/80/80	85/85/85/85
Weight	140g	←
Top./Tst. (°C)	-20~70 / -30~80	←
Input voltage (V)	LCD: 3.3 / Backlight: 12	←
LED lifetime (hrs)	40K	50K
Timing	DE mode	←
Touch panel	Available	←

TX16D206VM0BAA drawing



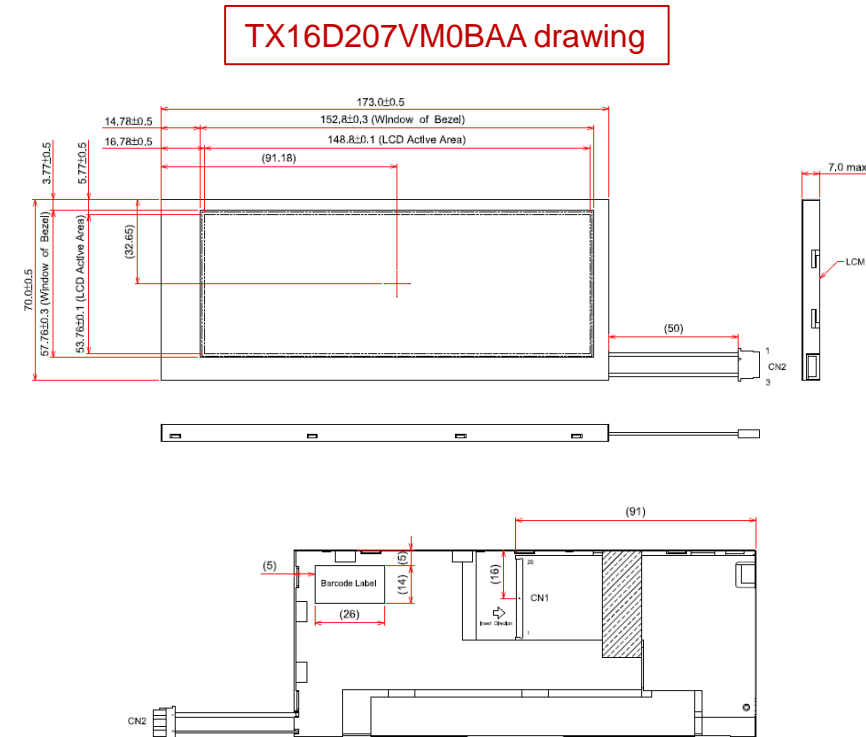
Note

In addition to the comparison table,

- ① Mechanical wise, TX16D20 and TX16D206 are identical.
- ② Electrical wise, TX16D20 and TX16D206 are identical.
- ③ Timing for driving the display, TX16D20 and TX16D206 are identical.

SPEC comparison – LVDS interface

Items	TX16D21VM5BAA	TX16D207VM0BAA
Display Mode	a-Si TFT, Transmissive, Normally White	a-Si TFT, Transmissive, Normally Black
Outline Dimensions(mm)	173.0(W) x 70.0(H) x 8.6(D)	←
Active Display Area (mm)	148.8(W) x 53.76(H)	←
Resolution	640(W) x 3(RGB) x 240(H)	←
Pixel Pitch(mm)	0.224(W) x 0.224(H)	←
Number Of Colors	262K Colors (6-bit RGB)	←
Interface	CN1: LVDS_20 pins (FI-SEB20P-HF13E-E1500) CN2: 3 pins (BHR-03VS-1)	←
NTSC	60%	←
Brightness(nits)	400	←
Contrast Ratio	400 : 1	1200 : 1
Viewing Angle (U/D/L/R, CR>10)	80/80/80/80	85/85/85/85
Weight	140g	←
Top./Tst. (°C)	-20~70 / -30~80	←
Input voltage (V)	LCD: 3.3 / Backlight: 12	←
LED lifetime (hrs)	40K	50K
Timing	DE mode	←
Touch panel	Available	←



Note

In addition to the comparison table,

- ① Mechanical wise, TX16D21 and TX16D207 are identical.
- ② Electrical wise, TX16D21 and TX16D207 are identical.
- ③ Timing for driving the display, TX16D21 and TX16D207 are identical.

TX16D20 and TX16D206 are identical

9.1 INTERFACE PIN CONNECTIONS

The display interface connector is FA5B040HP1R3000 made by JAE (Thickness: $0.3 \pm 0.05\text{mm}$; Pitch: $0.5 \pm 0.05\text{mm}$) and more details of the connector are shown in the section of outline dimension.

Pin assignment of LCD interface is as below:

Pin No.	Signal	Function	Pin No.	Signal	Function
1	V _{DD}	Power Supply for Logic	21	G4	Green Data
2	V _{DD}		22	G3	
3	V _{DD}		23	V _{SS}	
4	V _{DD}		24	G2	Green Data
5	NC	No Connection	25	G1	
6	DE	Data Enable	26	G0	GND
7	V _{SS}	GND	27	V _{SS}	
8	DCLK	Dot Clock	28	R5	Red Data
9	V _{SS}	GND	29	R4	
10	NC	No Connection	30	R3	
11	V _{SS}	GND	31	V _{SS}	GND
12	B5	Blue Data	32	R2	Red Data
13	B4		33	R1	
14	B3		34	R0	
15	V _{SS}	GND	35	V _{com}	Common Voltage (Generated by LCM)
16	B2	Blue Data	36	V _{SS}	GND
17	B1		37	NC	No Connection
18	B0		38	NC	No Connection
19	V _{SS}	GND	39	NC	No Connection
20	G5	Green Data	40	NC	No Connection

The backlight interface connector is BHR-03VS-1 made by JST, and pin assignment of backlight is as below:

Pin No.	Signal	Level	Function
1	V _{LED+}	-	Power Supply for LED
2	NC	-	No connection
3	V _{LED-}	-	GND

TX16D21 and TX16D207 are identical

9.1 INTERFACE PIN CONNECTIONS

The display interface connector (CN1) is FI-SEB20P-HF13E-E1500 made by JAE and pin assignment is as below:

Pin No.	Signal	Signal	Pin No.	Signal	Signal
1	V _{DD}	Power Supply for Logic	11	IN2-	B2~B5, DE
2	V _{DD}		12	IN2+	
3	V _{SS}	GND	13	V _{SS}	GND
4	V _{SS}		14	CLK IN-	Pixel Clock
5	IN0-	R0~R5, G0	15	CLK IN+	
6	IN0+		16	V _{SS}	GND
7	V _{SS}	GND	17	NC	No Connection
8	IN1-	G1~G5, B0~B1	18	NC	No Connection
9	IN1+		19	NC	No Connection
10	V _{SS}	GND	20	NC	No Connection

Note 1: IN n- and IN n+ (n=0, 1, 2), CLK IN- and CLK IN+ should be wired by twist-pairs or side-by-side FPC patterns, respectively.

The backlight interface connector (CN2) is BHR-03VS-1 made by JST, and pin assignment is as below:

Pin No.	Signal	Level	Function
1	V _{LED+}	-	Power Supply for LED
2	NC	-	No Connection
3	V _{LED-}	-	GND