

RUGGED+ 5.0" VGA TFT

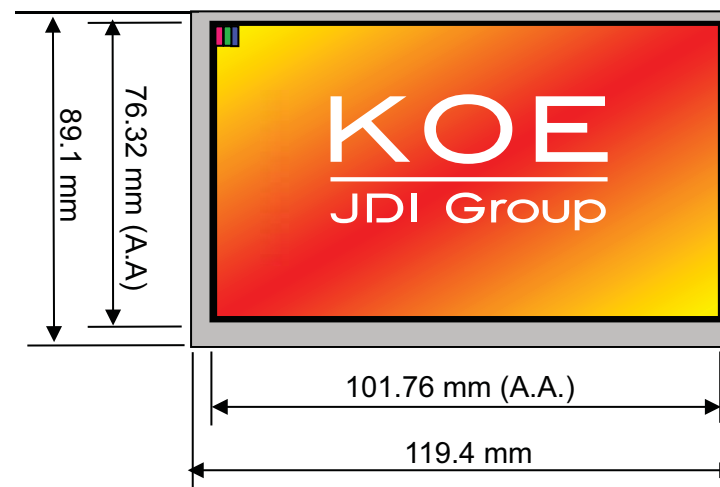
TENTATIVE

KOE
JDI Group

Production Name		TX13D200VM0BAA
Display Mode		a-Si TFT, Transmissive Normally White
Outline Dimensions(mm)		119.4(H) x 89.1(V) x 9.3(t)
Active Display Area (mm)		101.76(H) x 76.32(V)
Resolution		640(H) x 3(RGB) x 480(V)
Dot Pitch(mm)		0.053(H) x 3(RGB) x 0.159(V)
Number Of Colors		262K
Interface		CMOS (40 pin)
NTSC		60%
Brightness(cd/m ²)		600 (typ.)
Contrast		500 (typ.)
Viewing Angle	Polarizer type	Anti-Glare
	U/ D/ L/ R (K>10)	80 / 80 / 80 / 80
Power Supply		LCD:3.3V Backlight:12V
LED life-time (hrs)		70Khrs
Operating Temperature		-30°C ~ 80°C
Storage Temperature		-40°C ~ 90°C

Features:

- **RUGGED+ (Durable, high performance)**
- **IPS Like(80/80/80/80)**
- **70K hours LED Lifetime**
- **B/L Dimming function built-in**
- **Friendly design to TX13D04VM2CAA**



July, 2013

I/F Pin assignment

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The display interface connector (CN1) is FA5S040HP1R3000 (JAE), and Pin assignment is as below:

Pin No.	Symbol	Signal	Pin No.	Symbol	Signal
1	VDD	Supply Voltage	21	G4	Green data
2			22	G3	Green data
3	L/R	Horizontal Display mode Control	23	VSS	Ground
4	U/D	Vertical Display mode Control	24	G2	Green data
5	NC	No Connection	25	G1	Green data
6	DE	Data Enable	26	G0	Green data (LSB)
7	VSS	Ground	27	VSS	Ground
8	DCLK	Dot clock	28	R5	Red data (MSB)
9	VSS	Ground	29	R4	Red data
10	NC	No Connection	30	R3	Red data
11	VSS	Ground	31	VSS	Ground
12	B5	Blue data (MSB)	32	R2	Red data
13	B4	Blue data	33	R1	Red data
14	B3	Blue data	34	R0	Red data (LSB)
15	VSS	Ground	35	NC	No Connection
16	B2	Blue data	36	DIM	Note 1
17	B1	Blue data	37	VLED	Power Supply for B/L
18	B0	Blue data (LSB)	38		
19	VSS	Ground	39		
20	G5	Green data (MSB)	40		

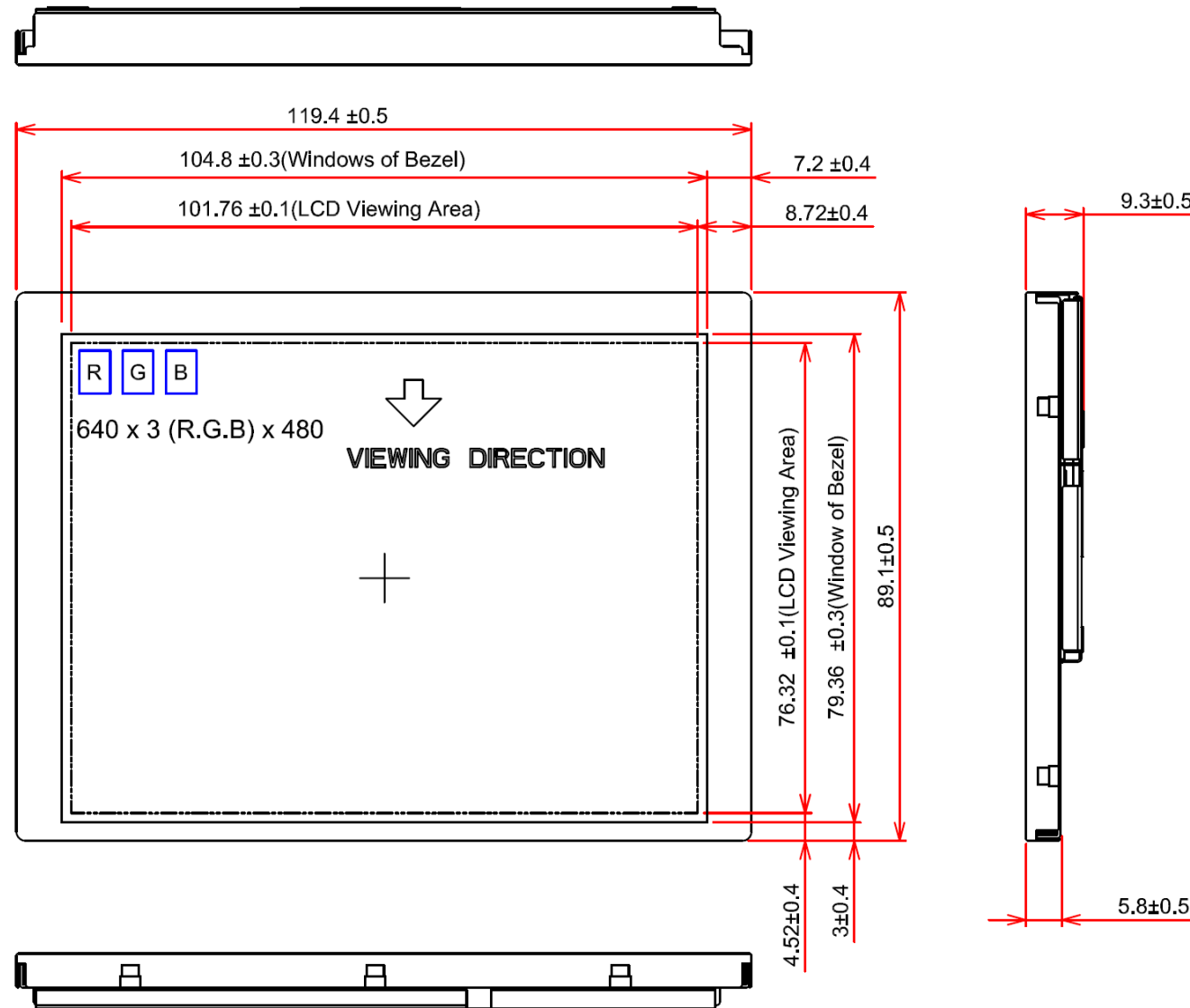
Note 1: Normal brightness: 0V or 0% PWM duty; Brightness control: 0V to 3.3V DC or 0% to 100% PWM duty.

Outline Dimensions

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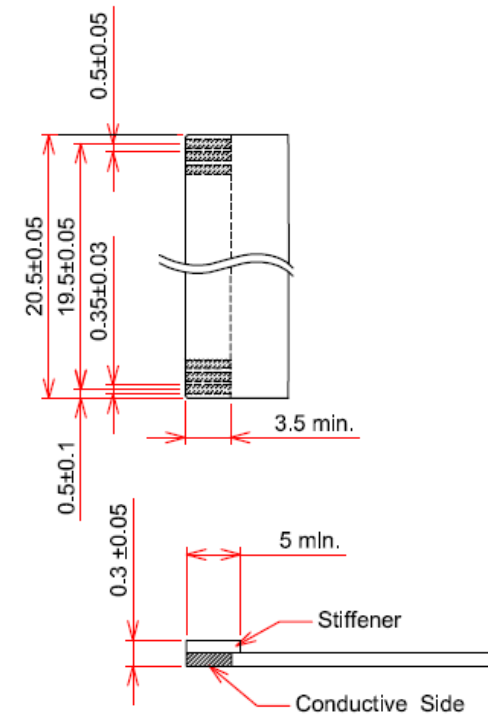
Front view



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Bottom view of the PCB showing dimensions in mm:

- Overall width: 109.9
- Overall height: 50.3
- Distance from left edge to the start of the cutout: 5.84
- Distance from the start of the cutout to the right edge: 69.96
- Distance from the bottom edge to the start of the cutout: 29.2
- Distance from the start of the cutout to the bottom edge: 32
- Distance from the right edge to the center of the connector: 3.16
- Connector pin 1 is located 1 mm from the bottom edge.
- Connector pin 40 is located 40 mm from the top edge.



Recommended design rule for CN1 FPC

Current vs. New 5.0" VGA

Part Number		KOE	
		TX13D04VM2CAA	TX13D200VM2BAA
Display Mode		a-Si TFT, Transmissive	←
Outline Dimensions		119.4(W) x 89.1(H) x 9.3(D)	←
Active Display Area		101.76(W) x 76.32(H)	←
Resolution		640 x 480	←
Dot Pitch(mm)		0.159(W) x 0.159(H)	←
Number Of Colors		262K	←
Interface		CMOS, 40 pins	←
Viewing direction		12 o'clock	IPS-like
Brightness(cd/m ²)		600	←
Contrast		500	←
Viewing Angle	Polarizer	Anti-Glare	←
	U/ D/ L/ R (K>10)	60/60/70/70	80/80/80/80
Power Supply		LCD:3.3V B/L: 12V	←
LED life-time (hrs)		70Khrs@ 25 °C	←
Top.		-30°C ~ 80°C	←
Tst.		-40°C ~ 90°C	←