

# ***2 Bit Micro, LLC***

## **SPECIFICATION**

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**PART NUMBER: 2BM-10004-TS**

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<b>SALES BY</b>	<b>APPROVED BY</b>	<b>CHECKED BY</b>	<b>PREPARED BY</b>

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# Contents

1. Module Classification Information
2. Precautions in use of LCD Modules
3. General Specification
4. Absolute Maximum Ratings
5. Electrical Characteristics
6. Interface Description
7. Contour Drawing & Block Diagram
8. Functional Description

## **2.Precautions in use of LCD Modules**

- (1) Avoid applying excessive shock to the module or making any alterations or modifications to it.
- (2) Don't make extra holes on the printed circuit board, modify its shape or change the components of LCD module.
- (3) Don't disassemble the LCM.
- (4) Don't operate it above the absolute maximum rating.
- (5) Don't drop, bend or twist LCM.
- (6) Storage: please storage in anti-static electricity container and clean environment.

## **3.General Specification**

Item	Dimension	Unit
Logical Dimensions	320 x RGB x 240 pixels	—
Module dimension	77.6 x 64.4 x 16.0(MAX)	mm
Active area	53.64 x 15.64	mm
Dot size	0.063 (W) x 0.209 (H)	mm
Dot pitch	0.219 (W) x 0.219 (H)	mm
LCD type	TFT, Crystalfontz part number CFAF320240F-035T-TS	
View direction	12 o'clock	
Backlight Type	LED White	

## **4.Absolute Maximum Ratings**

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	T <sub>OP</sub>	-20	—	+70	°C
Storage Temperature	T <sub>ST</sub>	-30	—	+80	°C
Input Voltage	V <sub>I</sub>	0	—	V <sub>DD</sub>	V
Supply Voltage For Logic	V <sub>DD</sub>	0	—	3.5	V

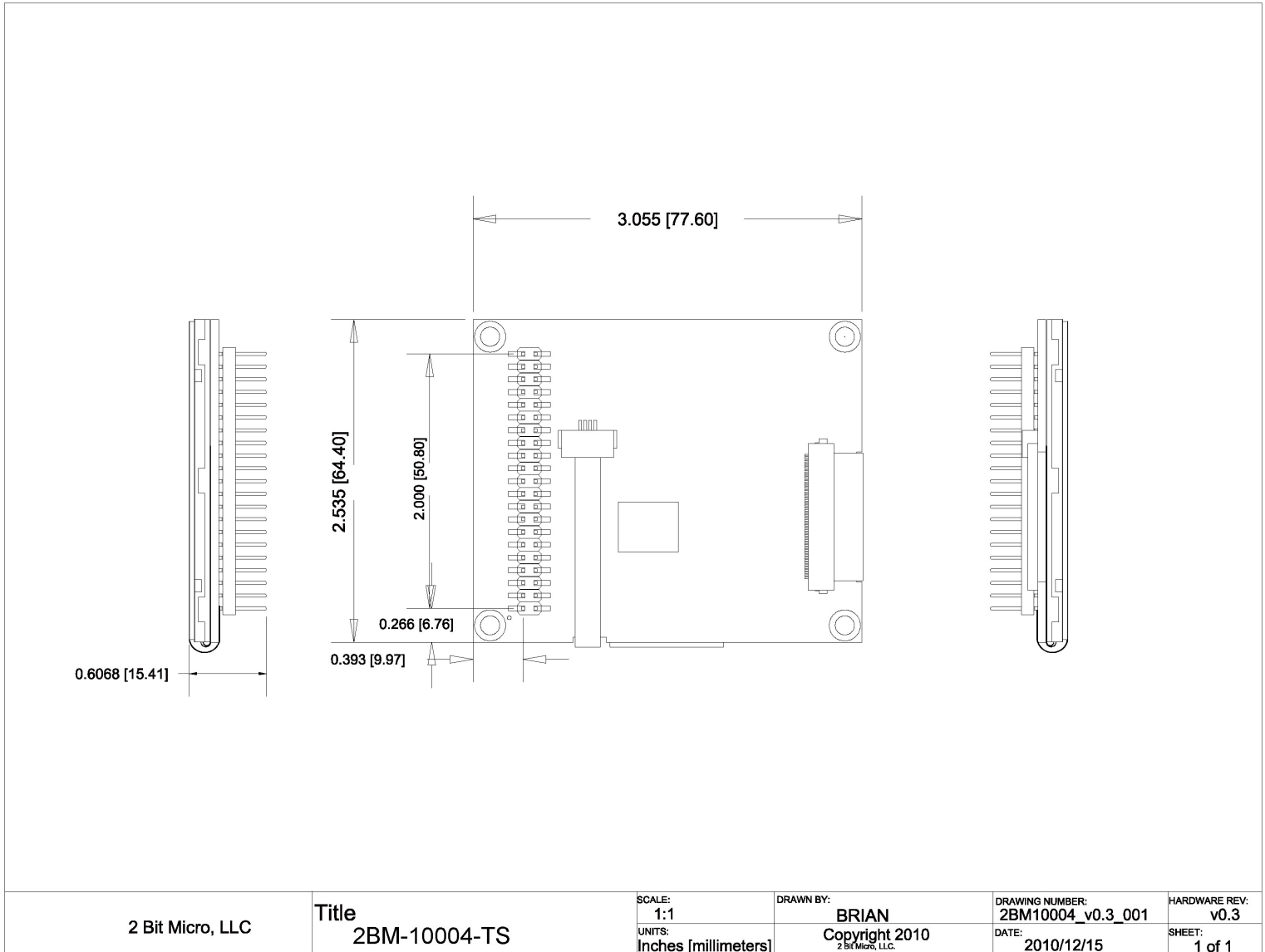
## **5.Electrical Characteristics**

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For Logic	V <sub>DD</sub>	—	3	3.3	3.5	V
Input High Volt.	V <sub>IH</sub>	—	0.7V <sub>DD</sub>	—	V <sub>DD</sub>	V
Input Low Volt.	V <sub>IL</sub>	—	0	—	0.3V <sub>DD</sub>	V
Output High Volt.	V <sub>OH</sub>	—	2.4	—	—	V
Output Low Volt.	V <sub>OL</sub>	—	—	—	0.4	V
Supply Current	I <sub>DD</sub>	V <sub>DD</sub> =3.3V	—	90	—	mA

## **6.Interface Description**

Pin No.	Symbol	Level	Description
1	V <sub>dd</sub>	3.3V	Power supply for logic
2	V <sub>ss</sub>	0V	Ground
3	BL_EN	H/L	High → Backlight Enabled, Low → Backlight Disabled
4	/RESET	H/L	Low → Reset
5	/RD	H/L	Low → Read strobe signal, active low
6	/CS	H/L	Chip select, active low, serial and parallel interfaces
7	SDO	H/L	Serial data out, for serial interface
8	SCL	H/L	Serial clock input
9	RS	H/L	High → Data, Low → Command
10	SDI	H/L	Serial data in, for serial interface
11	/WR	H/L	Low → Write Strobe signal, active low
12	PS3	H/L	Interface select pin
13	PS2	H/L	Interface select pin
14	PS1	H/L	Interface select pin
15	PS0	H/L	Interface select pin
16	DB17	H/L	Data bus
17	DB16	H/L	Data bus
18	DB15	H/L	Data bus
19	DB14	H/L	Data bus
20	DB13	H/L	Data bus
21	DB12	H/L	Data bus
22	DB11	H/L	Data bus
23	DB10	H/L	Data bus
24	DB09	H/L	Data bus
25	DB08	H/L	Data bus
26	DB07	H/L	Data bus
27	DB06	H/L	Data bus
28	DB05	H/L	Data bus
29	DB04	H/L	Data bus
30	DB03	H/L	Data bus
31	DB02	H/L	Data bus
32	DB01	H/L	Data bus
33	DB00	H/L	Data bus
34	D_EN	H/L	Display enable pin from controller
35	HSYNC	H/L	Line synchronization input
36	VSYNC	H/L	Frame/RAM write synchronization input
37	DCLK	H/L	Dot clock signal and oscillator source
38	Y+	H/L	Touch panel right
39	X+	H/L	Touch panel bottom
40	Y-	H/L	Touch panel left
41	X-	H/L	Touch panel top
42	NC	–	No connect

## 7. Outline Drawing



## 8. Functional Description

See <http://www.crystalfontz.com/product/CFAF320240F035TTS#docs> for the full functional details for the display and display controller.