DATASHEET

3/23/2016

Fema Part Number

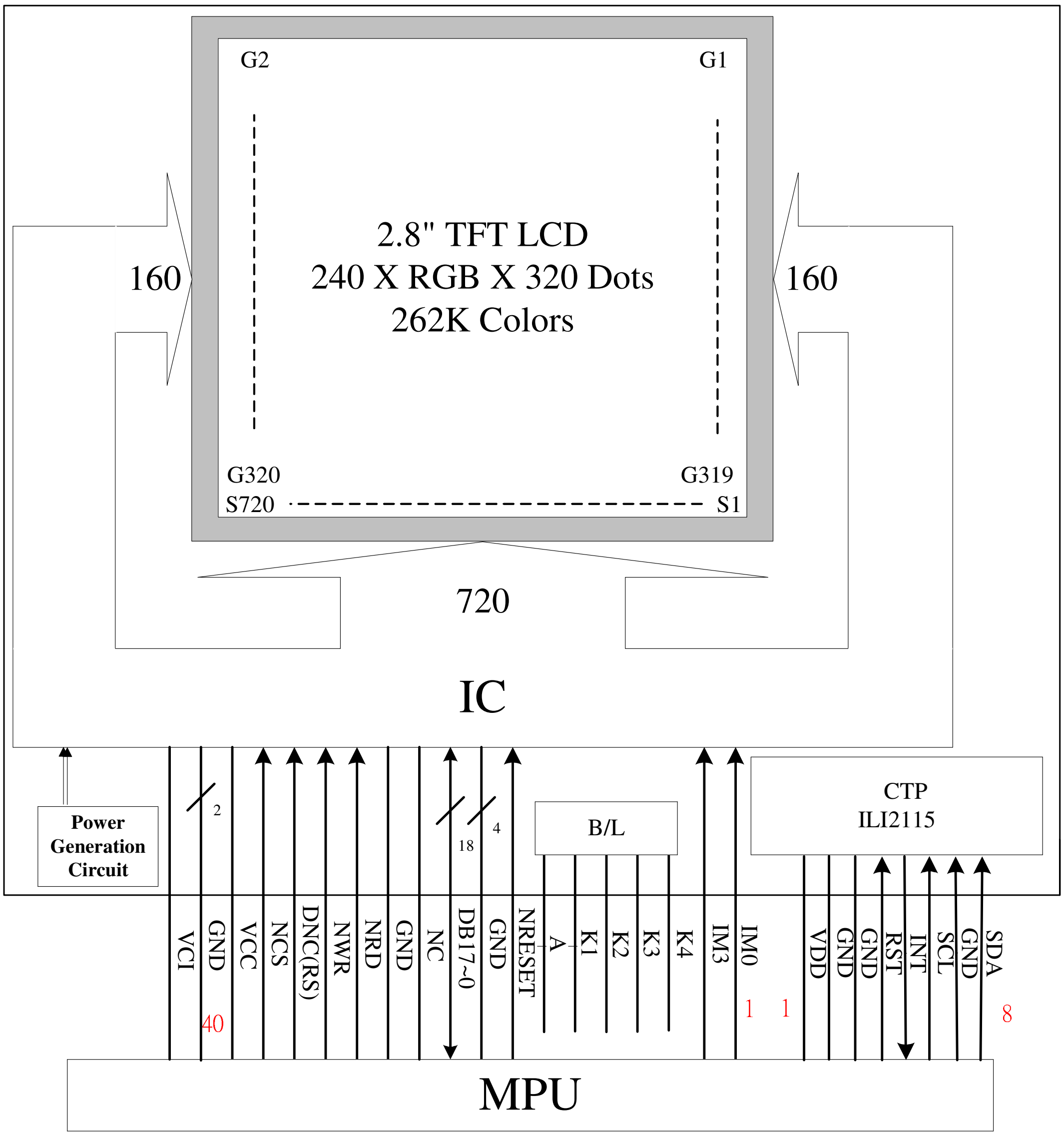
GM240320U-28-TVX2NLW-TGG	
Description	2.8” Full Color TFT, MVA Type
	240x320 Resolution
	80 Degrees Viewing All Directions
	Brightness = 180 nits (Typical)
	Integrated Projected Capacitive Touch Panel

Fema Electronics Corporation:

17815 Newhope Street, Suite H, Fountain Valley, CA 92708 Tel: 714-825-0140

Please visit our website www.femaelectronics.com or email us at tft@femacorp.com

BLOCK DIAGRAM :



REV.	DATE	MODEL: GM240320U-28-TVX2NLW-TGG		
0	Sep/04/15'	TITLE: BLOCK DIAGRAM		
1		APPROVE	CHECK	DESIGN
2		Zi Xin Ou	Hugh Ko Naoki Tsai	Ted Chen
3				
4				
5				

INTERFACE PIN:

<table>
<tr><th>Pin No.</th><th>Pin Symbol</th><th>I/O</th><th colspan="4">Description</th></tr>
<tr><td rowspan="6">1</td><td rowspan="6">IM0</td><td rowspan="11">I</td><td colspan="4">Select the MPU system interface mode</td></tr>
<tr><td>IM3</td><td>IM0</td><td>MPU-Interface Mode</td><td>DB Pin in use</td></tr>
<tr><td>0</td><td>0</td><td>i80-system 16-bit interface</td><td>DB[17:10], DB[8:1]</td></tr>
<tr><td>0</td><td>1</td><td>i80-system 8-bit interface</td><td>DB[17:10]</td></tr>
<tr><td>1</td><td>0</td><td>i80-system 18-bit interface</td><td>DB[17:0]</td></tr>
<tr><td>1</td><td>1</td><td>i80-system 9-bit interface</td><td>DB[17:9]</td></tr>
</table>

(Pin 2, IM3, I — shares the mode selection above.)

Pin No.	Pin Symbol	I/O	Description
3	K4	P	Cathode4 input for LED backlight.
4	K3	P	Cathode3 input for LED backlight.
5	K2	P	Cathode2 input for LED backlight.
6	K1	P	Cathode1 input for LED backlight.
7	A	P	Anode input for LED backlight.
8	NRESET	I	Reset pin. Setting either pin low initializes the LSI. Must be reset after power is supplied
9~12	GND	P	Power Supply for Ground(0V).
13~30	DB17~DB0	I/O	18-bit bi-directional data bus. The unused pins let to open.
31	NC	-	No connection.
32	GND	P	Power Supply for Ground(0V).
33	NRD	I	Read enable pin I80 parallel bus system interface.
34	NWR	I	Write enable pin I80 parallel bus system interface.
35	DNC(RS)	I	Command / parameter or display data selection pin.
36	NCS	I	Chip select signal. Low: chip can be accessed; High: chip cannot be accessed.
37	VCC	P	Digital IO Pad power supply. (+2.8V)
38~39	GND	P	Power Supply for Ground(0V).
40	VCI	P	Analog power supply. (+2.8V)

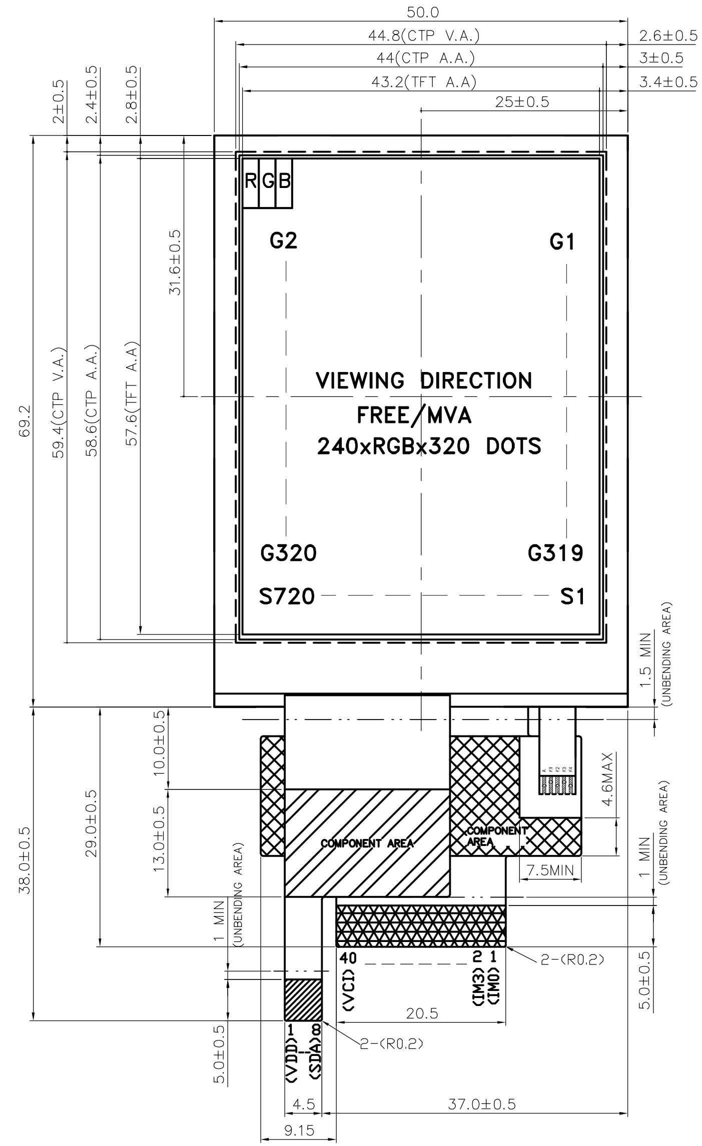
<table>
<tr><td>REV.</td><td>DATE</td><td colspan="3">MODEL: GM240320U-28-TVX2NLW-TGG</td></tr>
<tr><td>0</td><td>Sep/04/15’</td><td colspan="3">TITLE: INTERFACE PIN</td></tr>
<tr><td>1</td><td></td><td>APPROVE</td><td>CHECK</td><td>DESIGN</td></tr>
<tr><td>2</td><td></td><td rowspan="4">Zi Xin Ou</td><td rowspan="4">Hugh Ko
Naoki Tsai</td><td rowspan="4">Ted Chen</td></tr>
<tr><td>3</td><td></td></tr>
<tr><td>4</td><td></td></tr>
<tr><td>5</td><td></td></tr>
</table>

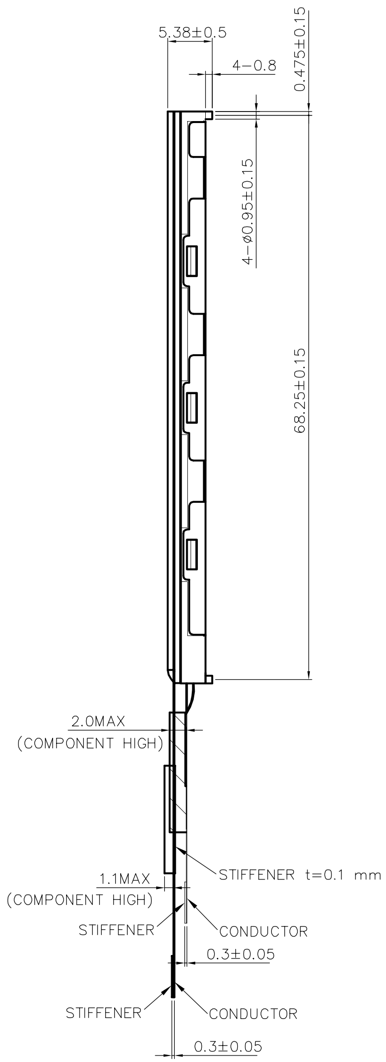
INTERFACE PIN:

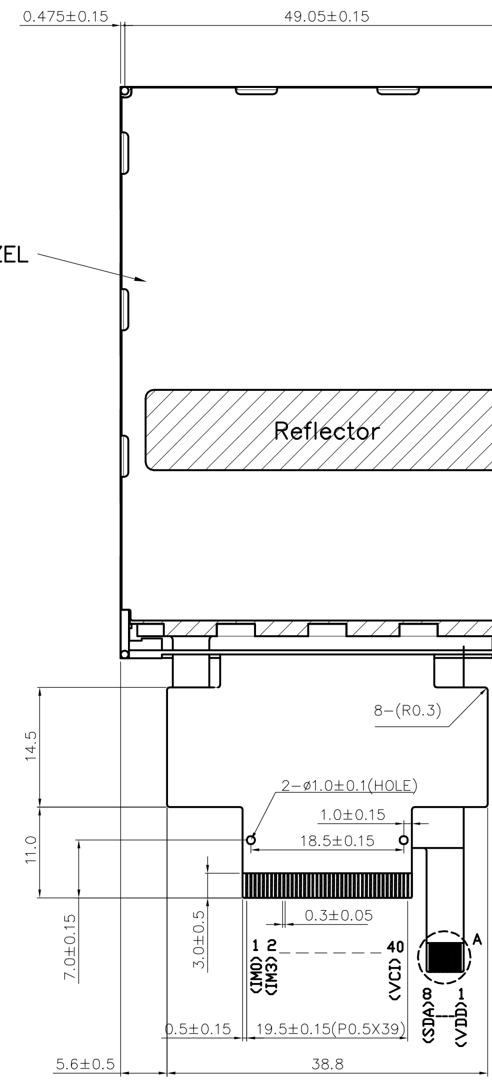
Capacitive Touch Panel interface pin:

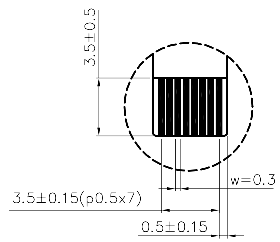
Pin No.	Pin Symbol	I/O	Description
1	VDD	P	Power supply voltage.(+3.3V)
2	GND	P	Analog and digital ground.
3	GND	P	Analog and digital ground.
4	RST	I	Hardware reset pin. Active low.
5	INT	O	External interrupt pin to host.
6	SCL	I	A serial clock pin for IIC interface.
7	GND	P	Analog and digital ground.
8	SDA	I/O	A serial data pin for IIC interface.

REV.	DATE	MODEL: GM240320U-28-TVX2NLW-TGG		
0	Sep/04/15’	TITLE: INTERFACE PIN		
1		APPROVE	CHECK	DESIGN
2		Zi Xin Ou	Hugh Ko Naoki Tsai	Ted Chen
3				
4				
5				

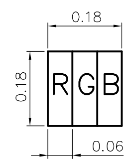








DETAIL A



DOT DETAIL

NOTE:
1.LCD: TFT TYPE
 TRANSMISSIVE MODE, NORMAL BLACK
2.VIEWING DIRECTION: MVA
3.Top: −20°C~70°C; Tst: −30°C~80°C
4.TFT IC: HX8347−D
5.TOLERANCE FOR NOT ASSIGNED: ±0.2mm
6.LED: WHITE 4 PCS ,Vled = 3.5V(TYP) , IF= 80.0 mA(CONSTANT CURRENT)
7.CTP DRIVER IC: ILI2115
8.THE MINIMUM BENDING RADIUS(INNER) OF THE FPC IS 0.5mm
9.COMPONENT AREA AND SOLDER AREA CAN NOT BENDING

REV	DATE	GM240320U-28-TVX2NLW-TGG
0	Sep.07,15'	TITLE: OUTLINE DRAWING
1		DESIGN: Hugh Ko
2		CHECK: Ted Chen , Johnny W
3		APPROVAL: C.K.T Chen