



ORIENT DISPLAY

Your Total LCD Solution Provider

Specification for TFT

AFY800480A0-5.0INTH-C-HDMI

Revision V1.0



A	Orient Display
FY	TFT Type
800480	Resolution 800 x 480
A0	Serial A0
5.0	5.0", Module Dimension 120.7 x 92.0 x 9.70 mm
I	IPS Display
N	Top: -20~+70°C; Tstr: -30~+80°C
T	Transmissive
H	High Brightness 900 cd/m2
C	Capacitive Touch Panel
HDMI	With HDMI Port and USB Port Board
/	IC Controller RTD2662



Table of Contents

1. General Specifications.....	4
2. HDMI Specification.....	4
3. HDMI+LCM Drawing.....	5
4. Interface.....	7
5. Working Environmental.....	10
6. Power Supply.....	10
7. Electrical Characteristics.....	11

1.General Specifications

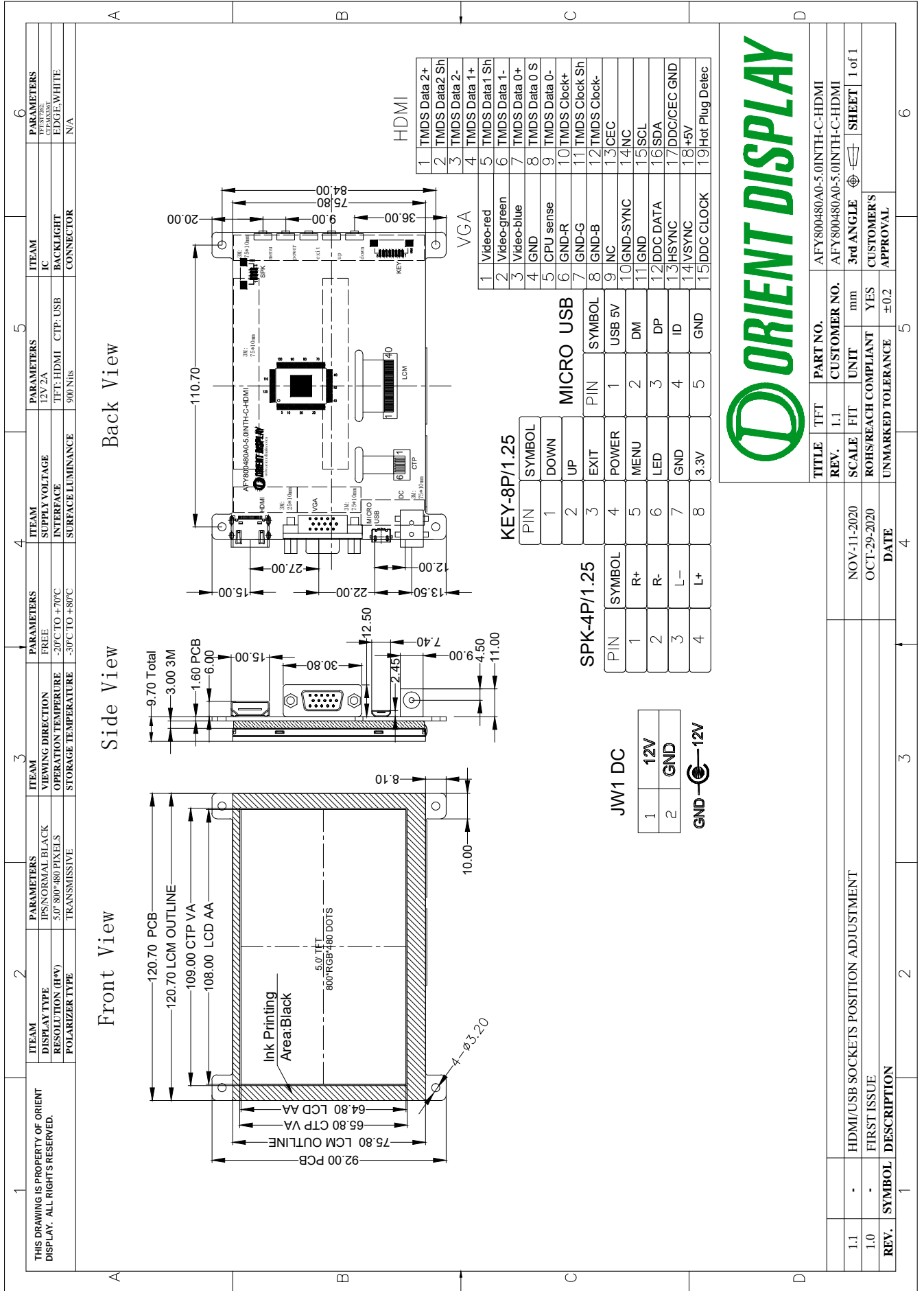
AFY800480A0-5.0INTH-C-HDMI applies to HDMI & VGA interface, 800x480 resolution, compatible for 5.0 " RGB interface LCM driver board, which integrated the LCD display、 key menu、 Audio output, adjustable backlight. Used RTD2662 controller chip, the USB can used for CTP driver and software updated.

2.HDMI Specification

2.1 Description

Item	Signal	Interface	Description
Electrical Characteristics	Input Signal	HDMI	Multimedia play
		VGA	Video
		Micro-USB	driver CTP
		Power	DC +12V
	Output Signal	Audio	Audio signal output
		Display	LCM interface
		CTP	CTP interface
Outline structure	120.7mm*92.0mm		
Keyboard	MENU Power EXIT UP DOWN		

3. HDMI PCBA DRAWING



1		2		3		4		5		6	
THIS DRAWING IS PROPERTY OF ORIENT DISPLAY. ALL RIGHTS RESERVED.		ITEM	PARAMETERS	ITEM	PARAMETERS	ITEM	PARAMETERS	ITEM	PARAMETERS	ITEM	PARAMETERS
DISPLAY TYPE	IPS/NORMAL BLACK	VIEWING DIRECTION	FREE	SUPPLY VOLTAGE	12V 2A	INTERFACE	TFT-HDMI CTP-USB	BACKLIGHT	IC	EDGE COLOR	WHITE
RESOLUTION (H*V)	5.0" 800*480 PIXELS	OPERATION TEMPERATURE	-20°C TO +70°C	SURFACE LUMINANCE	900 NITS			CONNECTOR			
POLARIZER TYPE	TRANSMISSIVE	STORAGE TEMPERATURE	-50°C TO +80°C								

Front View Side View Back View

1		2		3		4		5		6	
HDMI		VGA		MICRO USB		KEY-8P/1.25		SPK-4P/1.25		JW1 DC	
1	TMDS Data 2+	1	Video-red	1	DOWN	1	POWER	1	12V	1	1
2	TMDS Data 2 Sh	2	Video-green	2	UP	2	R+	2	GND	2	2
3	TMDS Data 2-	3	Video-blue	3	EXIT	3	R-	3		3	3
4	TMDS Data 1+	4	GND	4	POWER	4	L-	4		4	4
5	TMDS Data 1 Sh	5	CPU sense	5	MENU	5	L+	5		5	5
6	TMDS Data 1-	6	GND-R	6	LED	6		6		6	6
7	TMDS Data 0+	7	GND	7	GND	7		7		7	7
8	TMDS Data 0 S	8	GND-R	8	3.3V	8		8		8	8
9	TMDS Data 0-	9	GND-B	9		9		9		9	9
10	TMDS Data 0+	10	NC	10		10		10		10	10
11	TMDS Data 0 Sh	11	GND-SYNC	11		11		11		11	11
12	TMDS Clock	12	DM	12		12		12		12	12
13	TMDS Clock-	13	DP	13		13		13		13	13
14	CEC	14	ID	14		14		14		14	14
15	CEC	15	GND	15		15		15		15	15
16	NC	16		16		16		16		16	16
17	NC	17		17		17		17		17	17
18	NC	18		18		18		18		18	18
19	Hot Plug Detec	19		19		19		19		19	19



TITLE	TFT	PART NO.	AFY800480A0-5.0IN1H-C-HDMI
REV.	L.1	CUSTOMER NO.	AFY800480A0-5.0IN1H-C-HDMI
SCALE	FIT	UNIT	3rd ANGLE
ROHS/REACH COMPLIANT	YES	CUSTOMER'S APPROVAL	SHEET 1 of 1
UNMARKED TOLERANCE	±0.2		

4. Interface

4.1 LCM PINOUT

Pin	Pin out	Description
1	LED-K	Backlight LED Cathode
2	LED-A	Backlight LED Anode
3	GND	System Ground
4	VDD	Power supply for logic operation
5	R0-R7	Data bus
6	G0-G7	Data bus
7	B0-B7	Data bus
29	GND	System Ground
30	DCLK	Pixel clock signal
31	DISP	Display on/off control
32	HSYNC	Horizontal Sync signal
33	VSNC	Vertical Sync signal
34	DE	Data Enable
35	NC	No connect
36	GND	System Ground
37	NC	No connect
38	NC	No connect
39	NC	No connect
40	NC	No connect

4.2 HDMI PIN(HDMI)

Pin	Pin out	Decription
1	RX2+	TMDS Data2+
2	GND	TMDS Data2 Shield
3	RX2-	TMDS Data2-
4	RX1+	TMDS Data1+
5	GND	TMDS Data1 Shield
6	RX1-	TMDS Data1-
7	RX0+	TMDS Data0+
8	GND	TMDS Data0 Shield
9	RX0-	TMDS Data0-
10	RXC+	TMDS Data-Clock+
11	GND	TMDS Data-Clock Shield
12	RXC-	TMDS Data-Clock-
13	CEC	CEC
14	NC	NC
15	DSCL	I2C-Colk,+5V level
16	DSDA	2C-Data,+5V level
17	GND	DDC/CEC -GND
18	HDMIHOT	+5V power
19	HOTPLUG	Hot Plug Detect Signal

4.3 HDMIVGA PIN(VGA)

Pin	Pin out	Decription
1	RED	Video-red
2	GREEN	Video-green
3	BLUE	Video-blue
4	N/C	Not use
5	GND	GND
6	GND-R	GND-R
7	GND-G	GND-G
8	GND-B	GND-B
9	VDD5V	DC5V OUTPUT
10	GND	GND-SYNC
11	GND	GND
12	DDC DATA	DDC DATA
13	HS	HSYNC
14	VS	VSNC
15	DDC CLOCK	DDC CLOCK

4.4 USB PIN (Micro-USB)

Pin	Pin out	Description
1	VCC	+5V power
2	D-	Data-
3	D+	Data+
4	GND	Ground

4.5 Power supply +12V 3PIN (DC)

Pin	Pin out	Description
1	VIN	+12V
2	GND	Ground

4.6 Audio output

Pin	Pin out	Description
1	LF+	Left Sound Channel Positive and Negative Audio Output
2	LF-	
3	RF+	Right channel positive and negative audio output
4	RF-	

4.7 CTP- PIN

Pin	Pin out	Description
1	GND	Ground
2	INT	Interrupt request to the host
3	RST	Reset Pin for CTP
4	VDD	Power supply for CTP
5	SCL	I2C clock input
6	SDA	I2C data input and output

4.8 Keypad definition

Pin	Pin out	Description
1	VCC (3.3V)	5v power supply
2	GND	Ground
3	LED	Power Indicator
4	POWER	Off/on
5	MENU	Menu
6	EXIT	Return / Exit
7	UP	Add key
8	DOWN	Reduce key

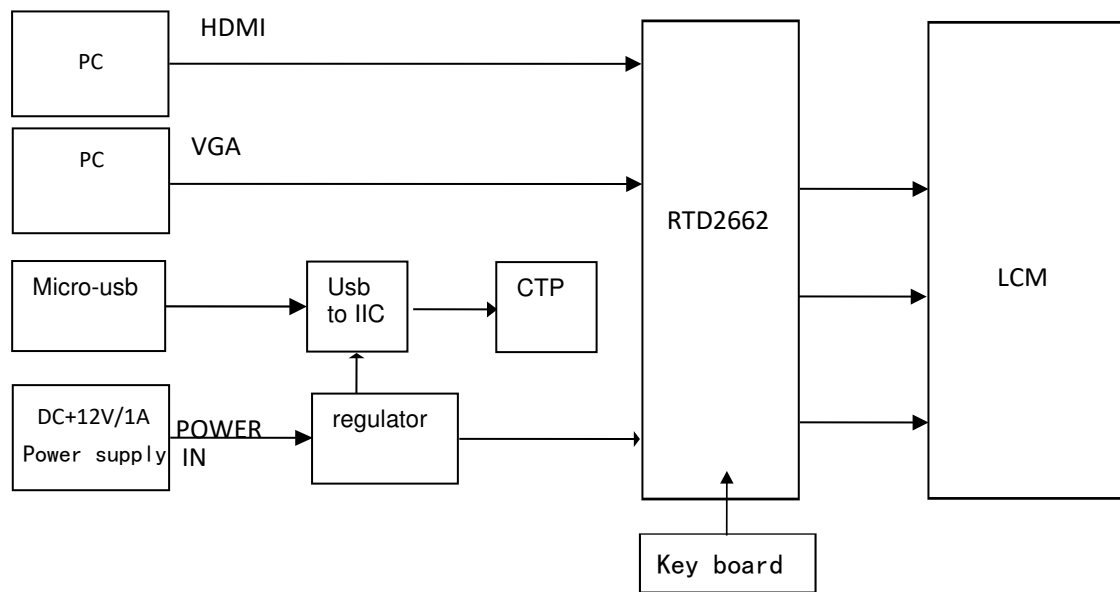
4.9 Keypad definition

Pin	Pin out	Description
1	VCC (3.3V)	5v power supply
2	GND	Ground
3	LED	Power Indicator
4	POWER	Off/on
5	MENU	Menu
6	EXIT	Return / Exit
7	UP	Add key
8	DOWN	Reduce key

5. Working Environment

Item	Condition	Min	Max	Unit
Operation Temp	12V , 60%RH	-20	+70	°C
Storage Temp	-	-30	+80	°C
Humidity	25°C	10%	90%	RH
ESD	touch±4KV, air±8K			

6. Power supply



7. Electrical Circuit

