ORIENT DISPLAY
Your Total LCD Solution Provider

Specification for TFT



AFY1024600A0-7.0INTH-C-HDMI

Revision V1.0

A	Orient Display
FY	TFT Type
1024600	Resolution 1024 x 600
A0	Serial A0
7.0	7.0”, Module Dimension 164.80 x 99.80 x 7.50 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
/	IC Controller RTD2662

Version

Version	Date	Recording	Engineer
V1.0	2020.12.16	First version	K.M

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1. General Specifications

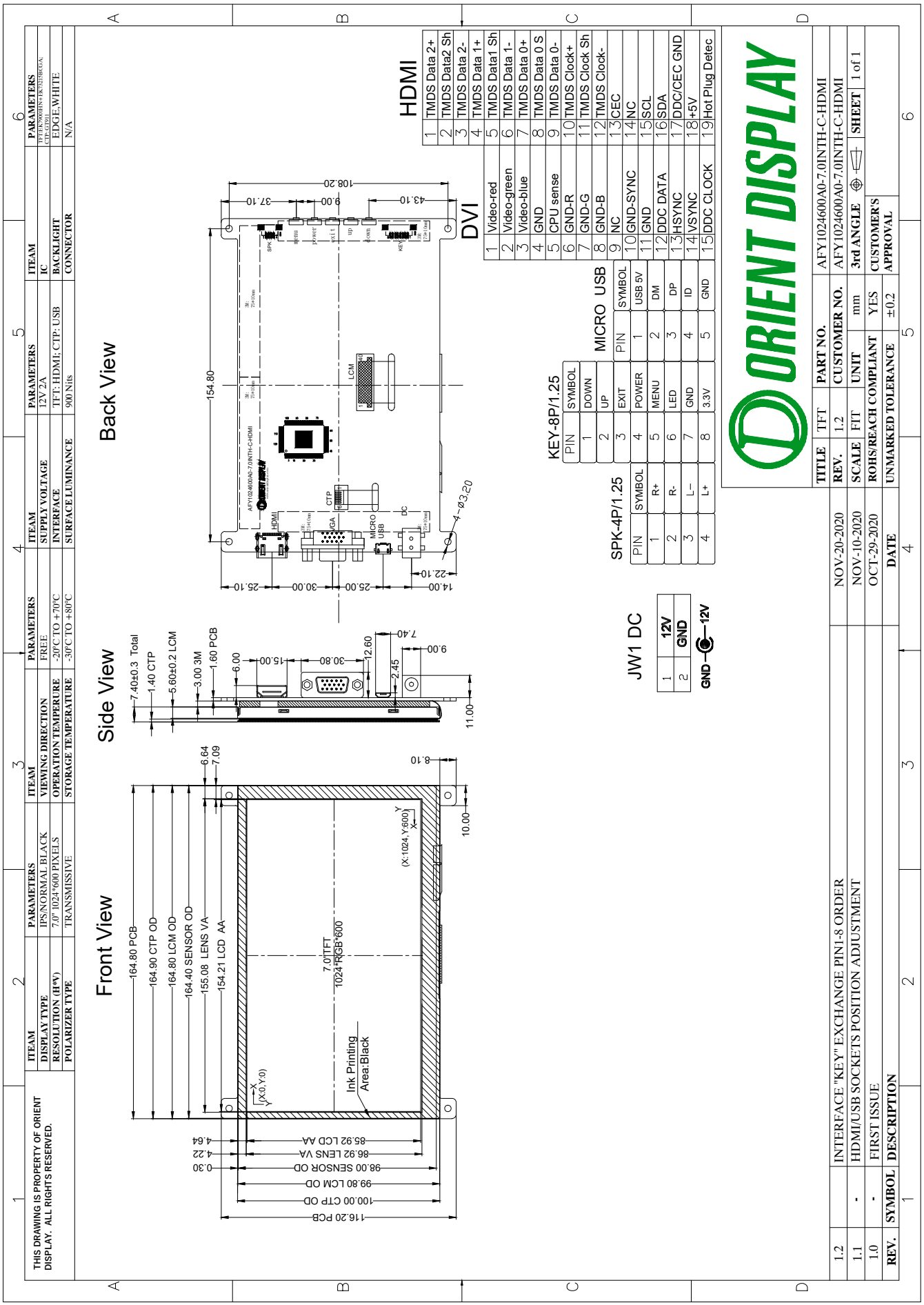
AFY1024600A0-7.0INTH-C-HDMI applies to HDMI&VGA interface, 1024x600 resolution, compatible for 7.0 " LVDS interface LCM driver board, which integrated the LCD display, key menu, Audio output, adjustable backlight. Used RTD2662 controller chip, the USB can use for CTP driver and software updated.

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	164.8mm*116.2mm		
Keyboard	MENU Power EXIT UP DOWN		

3. HDMI PCBA DRAWING



4. Interface

4.1 LCM PINOUT

Pin	Pin out	Description
1	NC	No connect
2	VDD	Power supply for digital
3	VDD	Power supply for digital
4	VDD	Power supply for logic operation
5	REST	Global reset pin. Active Low. Normally pull high.
6	STBYB	Display on/off swich,”H” display off
7	GND	Ground
8	RXIN0-	LVDS data lane 0-
9	RXIN0+	LVDS data lane 0+
10	GND	Ground
11	RXIN1-	LVDS data lane 1-
12	RXIN1+	LVDS data lane 1+
13	GND	Ground
14	RXIN2-	LVDS data lane 2-
15	RXIN2+	LVDS data lane 2+
16	GND	Ground
17	RXCLKIN-	LVDS clk lane -
18	RXCLKIN+	LVDS clk lane +
19	GND	Ground
20	RXIN3-	LVDS data lane 3-
21	RXIN3+	LVDS data lane 3+
22	GND	Ground
23	NC	No connect
24	BIST	Normal Operation/BIST PATTERN SELECT.normally pull low BIST=H:BIST(DCLK input is not needed)BIST=L:Normal Operation
25	IFSEL	IFSEL=L:TTL interface IFSEL=H:LVDS interface
26	NC	No connect
27	GND	Ground
28	NC	No connect
29	L/R	L/R="L" Scan direction from right to left; L/R="H" Scan direction from left to right;
30	U/D	U/D="L" Scan direction from down to up; U/D="H" Scan direction from up to down;
31	NC	No connect
32-33	LEDK	LED Cathode for BL
34	NC	No connect
35-36	LEDA	LED ANODE for BL
37-40	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	VSYNC
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

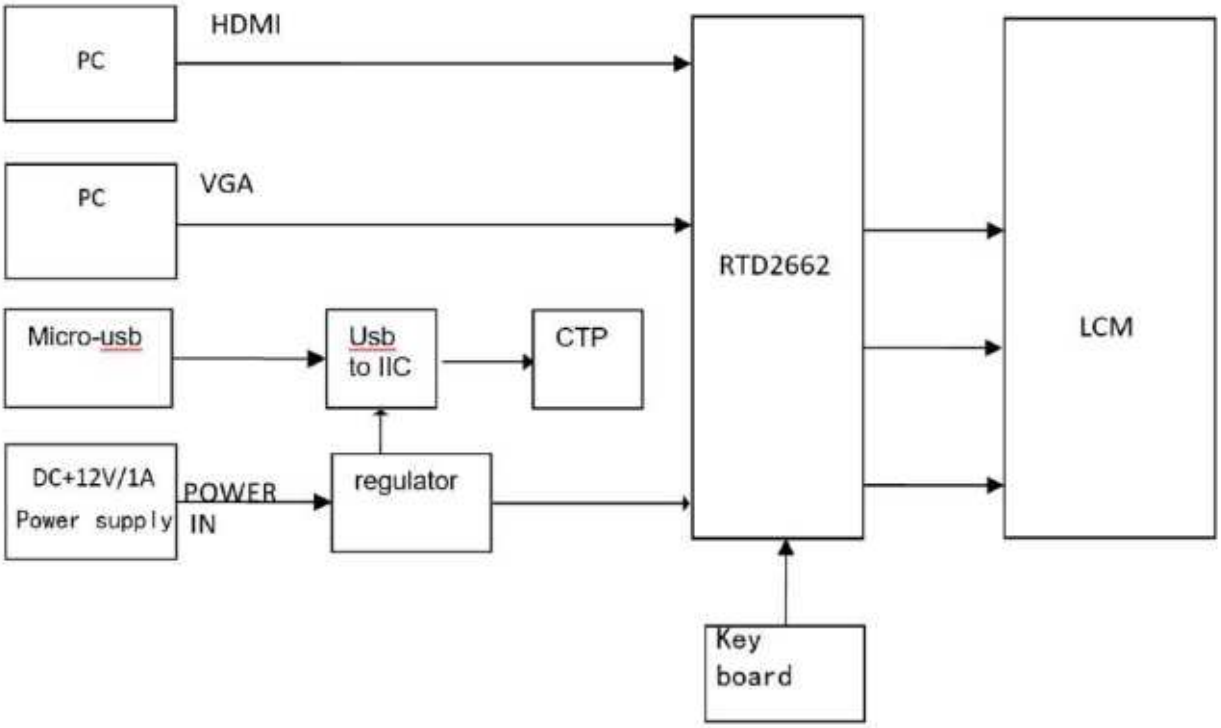
4.8 Keypad definition

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

5. Working Environment

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

6. Power supply



7. Electrical Circuit

