TouchFly

TouchFly Product Specification

Display Driver Board

CX-2556

V1.1

1. General Description

RTD2556V3.1 is a multi-purpose LCD monitor. It is designed to support EDP panel and can support the highest resolution to 2560*1600@60Hz.

(RTD2556V3.1 is a multi-function LCD driver board. It supports EDP LCD, up to 2560*1600@60Hz.)

RTD2556V3.1 can support HDMI, DVI, VGA, PC Audio signal input and Earphone output.

(RTD2556V3.1 supports HDMI, DVI, VGA, PC Audio signal input and headphone output.)

*** Support wide voltage DC12V ~ 36V) input (Support wide voltage DC12V ~ 36V input)**

Note: The specification of the board includes the description of all functions. Therefore, our clients can select the But the specification can be introduced universally.

(Note: This specification is a full-featured specification for the board, which can be produced selectively by customers according to their needs. (This specification is universal.)

2. Products Features

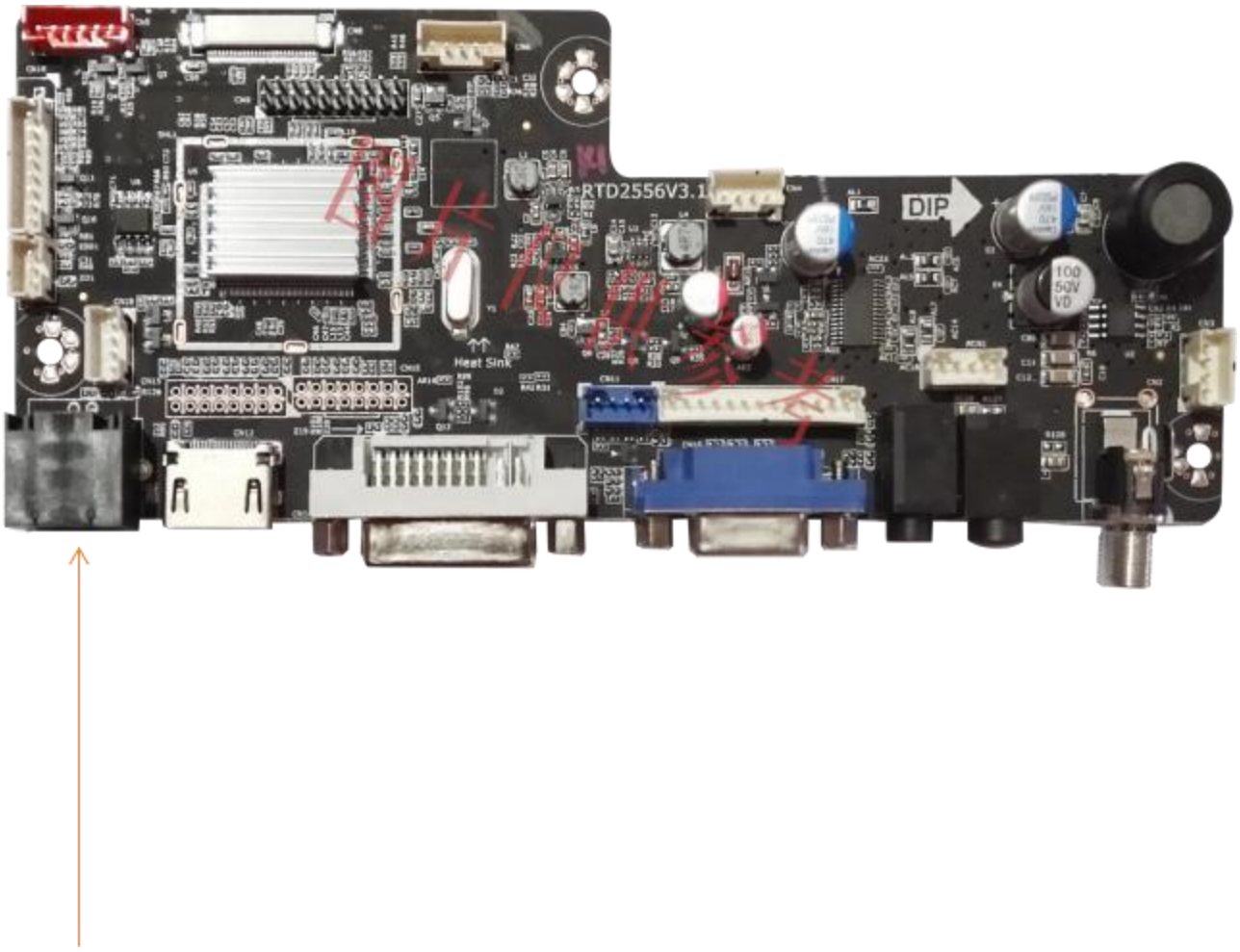
Detailed feature

MARKET AREA	Global market		
OSD LANGUAGE	English /Chinese / French / Spanish / Russian /German Italian / Korean		
CHIPSET	RTD2556		
VIDEO INPUT	PC-RGB	Format	Up to 1920*1080@60Hz
		Color	16bit, 24bit, 32bit
	I2C	DDC,EDID	
POWER	Power Requiremet	DC 12V~36V	
	To panel (Drive screen voltage)	3.3V	
	Management	Low power consumable mode (only for PCB board):standby≤0.25w (PCB board standby power consumption)	
KEY FUNCTIONS	MENU,AUTO,LEFT,RIGHT,ON/OFF		

AUDIO OUTPUT	2*2W@ 8Ω		
TERMINALS	Input	HDMI Input	1 HDMI terminal
		DVI Input	1 DVI terminal
		PC-RGB Input	1D-SUB 15PIN terminal blue color
		PC Audio Input	1 Earphone terminal black color
		Light Sensor Input	1 5PIN/2.0 terminal
	Output	To Panel	FFC 30PIN or Double 20PIN/2.0jack
		Earphone Output	1 Earphone terminal black color

3. Port Configuration

All of pictures below are only for reference. Please take the actual objects as a standard.



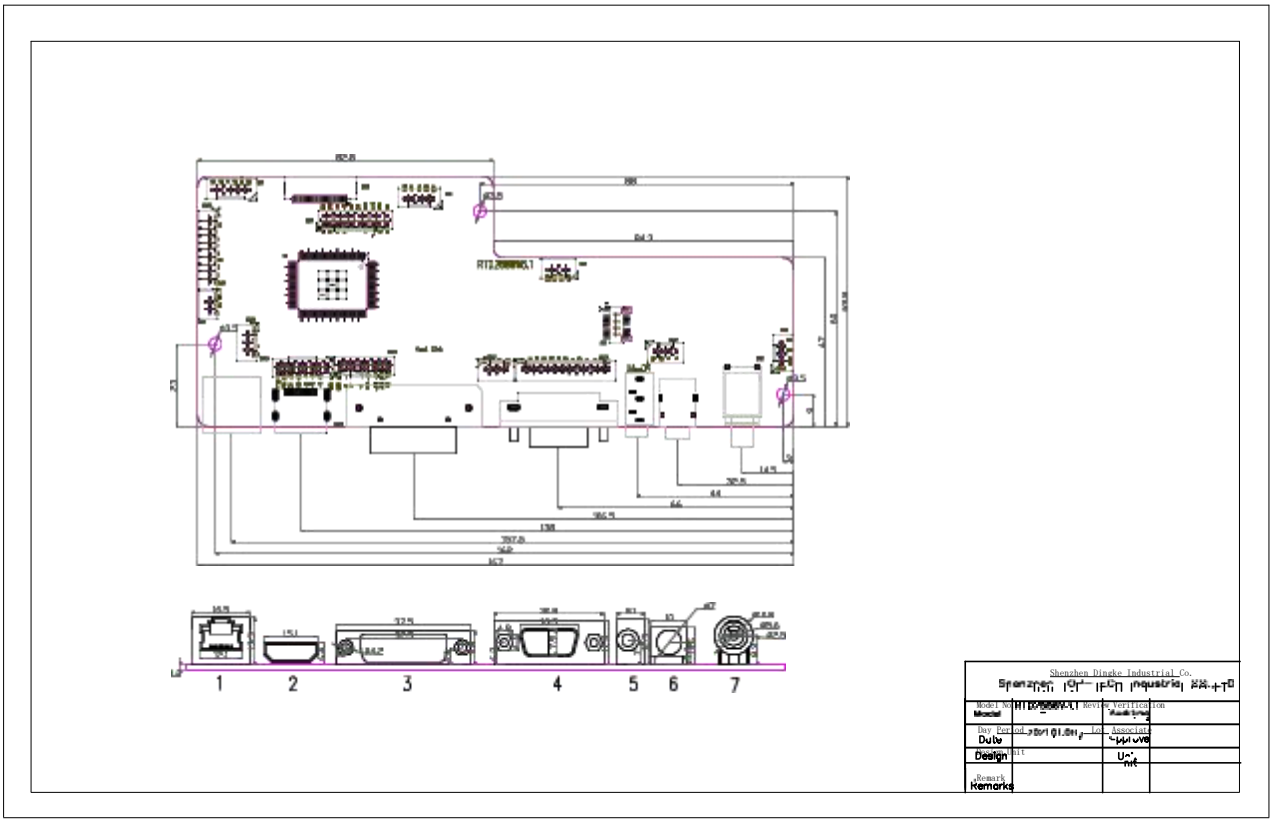
NOTE:RJ45 is only for transfer and has no network function

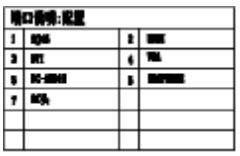
Configuration I.

Front View Of RTD2556V3. 1

1	2	3	4	5	6	7
RJ45	HDMI	DVI	VGA IN	PC AUDIO	EARPHONE	DC IN

CAD DIMENSIONS





4. Interface Definition

CN9(20PIN/2.0)EDP INTERFACE

NOTE:1. The public mold opening, please take the red hole position as the standard.

NO.	SYMBOL	DESCRIPTION
1	HDP	Hot Plug Detect Signal
2	VCC	LCD logic and driver power

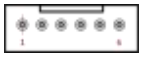
3	GND	Ground
4	GND	Ground
5	D0+	True Signal for Main Link 0
6	D0-	Component Signal for Main Link 0
7	D1+	True Signal for Main Link 1
8	D1-	Component Signal for Main Link 1
9	NC	NC
10	NC	NC
11	NC	NC
12	NC	NC
13	GND	Ground
14	GND	Ground
15	CH_P	True Signal for Auxiliary Channel
16	CH_N	Component Signal for Auxiliary Channel
17	GND	Ground
18	GND	Ground
19	VCC	LCD logic and driver power
20	VCC	LCD logic and driver power

CN8 (30PIN/0.5)EDP FFC INTERFACE

NO.	DESCRIPTION
1	NC
2	Ground
3	True Signal for Main Link 1
4	Component Signal for Main Link 1
5	Ground
6	True Signal for Main Link 0
7	Component Signal for Main Link 0
8	Ground
9	True Signal for Auxiliary Channel
10	Component Signal for Auxiliary Channel
11	Ground
12	LCD logic and driver power
13	LCD logic and driver power
14	NC
15	Ground
16	Ground
17	Hot Plug Detect Signal
18	Ground
19	Ground
20	Ground

21	Ground
22	BACKLIGHT ON/OFF
23	BRI_ADJ (backlight brightness adjustment)
24	NC
25	NC
26	BACKLIGHT POWER
27	BACKLIGHT POWER
28	BACKLIGHT POWER
29	BACKLIGHT POWER
30	NC

CN5 (6PIN/2.0) BACKLIGHT INTERFACE

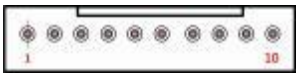


NO.	SYMBOL	DESCRIPTION
1	GND	Ground
2	GND	Ground
3	ADJ	BRI_ADJ (backlight brightness adjustment)
4	BK	BACKLIGHT ON/OFF
5	BVCC	+11.2V±5% DC power supply, Max 25W
6	BVCC	+11.2V±5% DC power supply, Max 25W

CN6(5PIN/2.0MM) LIGHT SENSING INTERFACE

NO.	SYMBOL	DESCRIPTION
1	VCC	Power for panel
2	GND	Ground
3	ADC	ADC key value output
4	SCL	CLOCK
5	SDA	Data

CN10(10PIN/2.0mm) KEY & IR BOARD INTERFACE



NO.	SYMBOL	DESCRIPTION
1	S	SOURCE Key
2	EXIT	EXIT
3	M	MENU Key

4	AU	AUTO =
5	V-	VOL- Key =
6	V+	VOL+ Key =
7	GND	Ground=
8	G	Green indicator =
9	R	Red indicator
10	ON/OFF	ON/OFF Key =

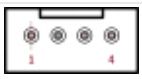
ACN1(4PIN/2.0mm) SPEAKER INTERFACE

NO.	SYMBOL	DESCRIPTION
1	RP	Positive right audio channel out
2	RN	Negative right audio channel out
3	LN	Negative left audio channel out
4	LP	Positive left audio channel out

CN19(4PIN/2.0mm) USB Touch Screen Interface

NO.	SYMBOL	DESCRIPTION
1	5V	Power for touch screen
2	D-	Touch screen data-
3	D+	Touch screen data+
4	GND	Ground

CN11(4PIN/2.0MM) Debug INTERFACE

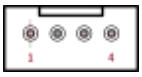


NO.	SYMBOL	DESCRIPTION
1	GND	Ground
2	TX	Transmit Data
3	RX	Receive Data
4	5VS	+5V Power Supply

CN7(3PIN/2.0mm) IR INTERFACE

NO.	SYMBOL	DESCRIPTION
1	VCC	+5V DC power supply
2	GND	Ground
3	IR	Remote receiver

CN3(4PIN/2.0MM) BUILT-IN POWER SUPPLY INTERFACE

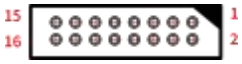


NO.	SYMBOL	DESCRIPTION
1	PVCC	Reserve for Power Supply
2	PVCC	Reserve for Power Supply
3	GND	Ground
4	GND	Ground

CN4 (4PIN/2.0MM) POWER SUPPLY REJECTION INTERFACE

NO.	SYMBOL	DESCRIPTION
1	5VS	+5V DC Power supply
2	5VS	+5V DC Power supply
3	GND	Ground
4	GND	Ground

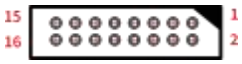
CN13 (16PIN/2.0MM) EXTERNAL HDMI INTERFACE



NO.	SYMBOL	DESCRIPTION
1	GND	Ground
2	GND	Ground
3	RX2P	HDMI Data 2+
4	RX2N	HDMI Data 2-
5	RX1P	HDMI Data 1+
6	RX1N	HDMI Data 1-
7	RX0P	HDMI Data 0+

8	RX0N	HDMI Data 0-
9	CLKP	HDMI Clock+
10	CLKN	HDMI Clock-
11	NC	NC
12	SCL	I2C Clock signal
13	SDA	I2C Data signal
14	HPD	Hot Plug Detect Signal
15	5V	+5V from external HDMI model supply
16	DET	HDMI INSET DETECT

CN15 (16PIN/2.0MM) EXTERNAL DVI INTERFACE



NO.	SYMBOL	DESCRIPTION
1	GND	Ground
2	GND	Ground
3	RX2P	DVI Data 2+
4	RX2N	DVI Data 2-
5	RX1P	DVI Data 1+
6	RX1N	DVI Data 1-
7	RX0P	DVI Data 0+
8	RX0N	DVI Data 0-
9	CLKP	DVI Clock+
10	CLKN	DVI Clock-
11	NC	NC
12	SCL	I2C Clock signal
13	SDA	I2C Data signal
14	PLUG	DVI Hot Plug
15	5V	+5V from external DVI model supply
16	DET	DVI INSET DETECT

CN17 (13PIN/2.0MM) EXTERNAL VGA INTERFACE

NO.	SYMBOL	DESCRIPTION
1	SCL	I2C Clock signal

2	SDA	I2C Data signal
3	GND	Ground
4	BIN	Blue Channel
5	GND	Ground
6	GIN	Green Channel
7	GND	Ground
8	RIN	Red Channel
9	GND	Ground
10	HS	HSYNC
11	VS	VSYNC
12	GND	Ground
13	5V	+5V from external VGA model supply

5. International Standard

The power supply shall comply with the following Criterion.

◆ UL60950/UL60065

◆ EN60950/EN60065

◆ GB4943-2011/GB8898-2011

◆ IEC60950/IEC60065

Isolation

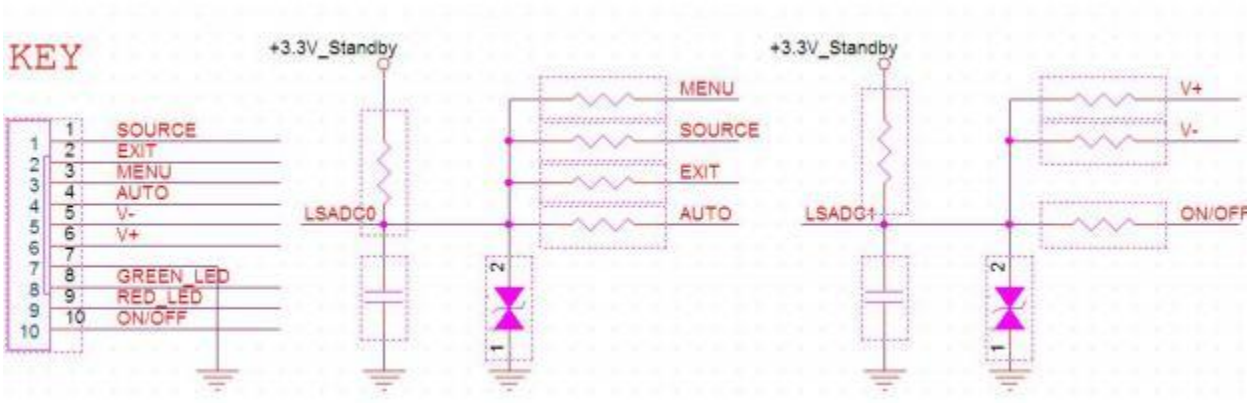
◆ HI-POT (withstand voltage test)

Input to Output: 3000Vac 50Hz 1minute≤10mA

◆ Isolation Resistance

Input to Output: DC 500V 50MΩ min (at room temperature)

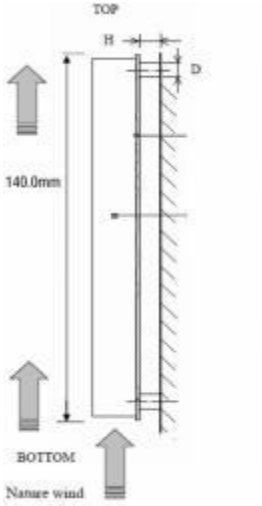
6. Key & IR Board System Schematic



7. Matters Need Attention

Mount Matters Need Attention:

D	≤5.5mm
H	≥7.0mm



Note.

The maximum value of the tightening torque is 0.4N/M. The

The insertion depth of the screw should be less 5.5mm.

If H≤7.0mm .Add Mylar under PCB bottom.

Environmental Requirement:

◆ Do not pressed and distorted.

◆ Keep away from static and water.

◆ Relative humidity : 10% ~ 90%.

◆ Storage humidity : 5% ~ 95%.

◆ Storage temperature: -10~ +60℃.

◆ Operation temperature: -20~ +80℃.

◆ Cooling Method: Ventilation cooling.

◆ The production s hall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on it. and that no objects filled with liquids, such as vases, shall be placed on it.)

◆ Please use it under the condition of good aeration.