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Sinotronics Inc.
思诺泰科创电子

Multi-Purpose LCD TV
Control Board Specification
Model: LVDS-EDPV2.0

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CONTENTS(目录)-----	2
RECORD OF REVISIONS(修改记录)-----	3
GENERAL DESCRIPTION(整体概述) -----	4
PRODUCTS FEATURES(产品特性) -----	5
INTERFACE DEFINITION(接口定义) -----	6
FUNCTION LAYOUT(产品外观图) -----	12
CONTROLLER DIMENSIONS(板卡结构图)-----	12
ENVIRONMENTAL REQUIREMENT & NOTICE (环境要求和注意事项)-----	13

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RECORD OF REVISIONS (修改记录)				
REVISION NO. (修订号)	PAGE (页码)	Modify content (修改内容)	Amendments (修订者)	DATE (日期)
A1	ALL	First edition	林少杰	2017.09.04



GENERAL DESCRIPTION(整体概述)

LVDS-EDPV2.0 Conversion board is mainly used for video / image transmission in the receiving part, the realization of the function of is the high speed serial LVDS signal decoding for data parallel DP/EDP, data decoding function. The board may 8 to serial LVDS differential signal is converted to a DisplayPort output data.

LVDS-EDPV2.0 转换板主要用于视频/图像传输中的接收部分，实现的功能是将高速串行 LVDS 信号解码为并行 DP/EDP 数据，完成数据的解码功能。该板可将 8 对串行 LVDS 差分信号转换为 DisplayPort 数据输出。

LVDS-EDPV2.0 can support resolution up to 1080P and UXGA and 10-bit deep colors.

LVDS-EDPV2.0 可支持分辨率高达 1080p 和 UXGA 10 位深的颜色。

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PRODUCTS FEATURES(产品特性)

Below you will find the detailed feature. (以下是详细特性)

电源电压	4.75V ~ 5.25
通道解压比	4 : 28
输入信号	满足 EIA/TIA-644 标准的 8 路 LVDS 数据流和 1 路 LVDS 时钟信号
输出信号	DisplayPort 信号
输入时钟频率	10MHz ~ 90MHz
总数据率	2520Mbps
分辨率	适合 VGA · SVGA · SXGA (dual pixel) , UXGA (dual pixel) , 1080p 等格式的数据传输



INTERFACE DEFINITION(接口定义)

CN1(2*15PIN/2.0) LVDS PANEL INTERFACE (LVDS 接口)

NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)
1	5V	Power for panel
2	5V	
3	GND	Ground
4	5V	Power for panel
5	GND	Ground
6	NC	NC
7	AO0+	LVDS ODD 0+ Signal
8	AO0-	LVDS ODD 0- Signal
9	AO1+	LVDS ODD 1+ Signal
10	AO1-	LVDS ODD 1- Signal
11	AO2+	LVDS ODD 2+ Signal
12	AO2-	LVDS ODD 2- Signal
13	GND	Ground
14	GND	
15	AC+	LVDS EVEN Clock+ Signal
16	AC-	LVDS EVEN Clock- Signal
17	A3+	LVDS ODD 3+ Signal



18	A3-	LVDS ODD 3- Signal
19	B0+	LVDS EVEN 0+ Signal
20	B0-	LVDS EVEN 0- Signal
21	B1+	LVDS EVEN 1+ Signal
22	B1-	LVDS EVEN 1- Signal
23	B2+	LVDS EVEN 2+ Signal
24	B2-	LVDS EVEN 2- Signal
25	GND	Ground
26	GND	
27	NC	NC
28	NC	NC
29	B3+	LVDS EVEN 3+ Signal
30	B3-	LVDS EVEN 3- Signal

CN7(2*10PIN/2.0) DP OUTPUT INTERFACE (DP 输出接口)

NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)
1	HDP	Hot Plug Detect Signal
2	3.3V	3V3 power output
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	XP	True Signal for Auxiliary Channel
16	XN	Component Signal for Auxiliary Channel
17	GND	Ground
18	GND	Ground
19	3.3V	LCD power output
20	3.3V	LCD power output

CN2 (30PIN/1.25) DP OUTPUT INTERFACE (DP 输出接口 FFC)

NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)
1		NC
2		GND



3		LANE1_N
4		LANE1_P
5		GND
6		LANE0_N
7		LANE0_P
8		GND
9		AUX_P
10		AUX_N
11		GND
12		VDD33
13		VDD33
14		NC
15		GND
16		GND
17		HPD
18		GND
19		GND
20		GND
21		GND
22		BL_EN
23		ADJ

24		NC
25		NC
26		BL_POWER
27		BL_POWER
28		BL_POWER
29		BL_POWER
30		NC

CN4(6PIN/2.0)Backlight OUTPUT INTERFACE (背光输出接口)

NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)
1	12V	+12V Backlight Power IN
2	12V	+12V Backlight Power IN
3	EN	BI Enable
4	ADJ	ADJ
5	GND	Ground
6	GND	Ground

CN3(4PIN/2.0) DOWNLOAD INTERFACE (下载接口)

NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)

1	3.3V	Power for panel
2	SW	SWIM(Single wire interface module)
3	GND	Ground
4	RESET	Reset MCU PIN

CN6(3PIN/2.0)I2C INTERFACE(I2C 接口)

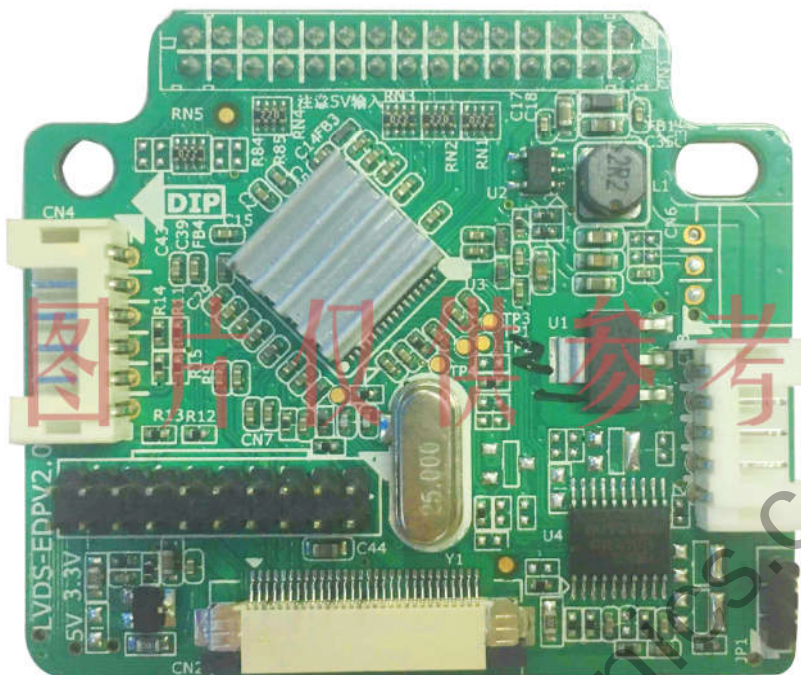
NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)
1	SDA	SERIAL DATA
2	SCL	SERIAL CLOCK
3	GND	Ground

CN5 (4PIN/2.0mm) DEBUGGING INTERFACE (调试接口)

NO. (管脚)	SYMBOL (板上丝印)	DESCRIPTION (描述)
1	GND	Ground (地)
2	TX	Transmit Data (发送数据)
3	RX	Receive Data (接收数据)
4	NC	NC



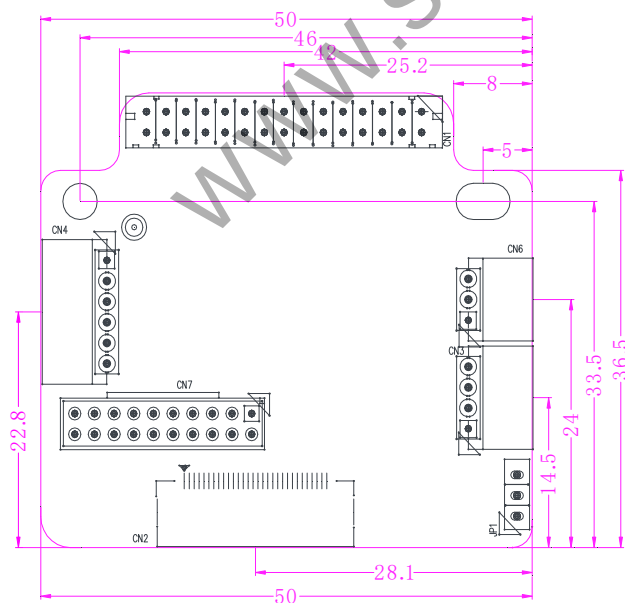
FUNCTION LAYOUT(产品外观图)



(The color of actual item may vary and the image is only for reference.)

实物颜色可能与此图有出入，此图仅供参考。

CONTROLLER DIMENSIONS(板卡结构图)



PCB Tolerance		
PCB size	$\pm 0.15\text{mm}$	
PCB thickness	$\leq 1.0\text{mm}$	$\pm 0.1\text{mm}$
	$> 1.0\text{mm}$	$\pm 10\%$
Connector Tolerance (Unless Otherwise Stated)		
$\pm 0.3\text{mm}$		



ENVIRONMENTAL REQUIREMENT & NOTICE(环境要求和注意事项)

1. Do not pressed and distorted. (禁止挤压和弯曲)
2. Keep away from static and water. (远离静电和水)
3. Relative humidity : 10% ~ 90%. (相对湿度 : 10% ~ 90%)
4. Storage humidity : 5% ~ 95%. (储存湿度 : 5% ~ 95%)
5. Storage temperature: -10~ +60°C. (储存温度 : -10~ +60°C)
6. Operation temperature: 0~ +40°C. (操作温度 : 0~ +40°C)
7. Cooling Method: Ventilation cooling. (冷却方式 : 通风)
8. The production shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on it.
(该产品不能遭到水滴或水溅 , 而且设备上不能放置诸如花瓶一类装满液体的物品)
9. Please use it under the condition of good aeration.
(该产品使用时需有良好通风)

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