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Regulatory Notice

Legal Information

Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice. We are not liable for any injury or loss that results from the use of this equipment.

Safety Instructions

■ Unplug equipment before cleaning. Don't use liquid or spray detergent; use a moist cloth.

■ Keep equipment away from excessive humidity and heat. Preferably, keep it in an air-conditioned environment with temperatures not exceeding 40º Celsius (104º Fahrenheit).

■ When installing, place the equipment on a sturdy, level surface to prevent it from accidentally falling and causing damage to other equipment or injury to persons nearby.

■ When the drawer is in an open position, do not cover, block or in any way obstruct the gap between it and the power supply. Proper air convection is necessary to keep it from overheating.

■ Arrange the equipment's power cord in such a way that others won't trip or fall over it.

■ If you are using a power cord that didn't ship with the equipment, ensure that it is rated for the voltage and current labeled on the equipment's electrical ratings label. The voltage rating on the cord should be higher than the one listed on the equipment's ratings label.

■ Observe all precautions and warnings attached to the equipment.

■ If you don't intend on using the equipment for a long time, disconnect it from the power outlet to prevent being damaged by transient over-voltage.

■ Keep all liquids away from the equipment to minimize the risk of accidental spillage. Liquid spilled on to the power supply or on other hardware may cause damage, fire or electrical shock.

■ Only qualified service personnel should open the chassis. Opening it yourself could damage the equipment and invalidate its warranty.

■ If any part of the equipment becomes damaged or stops functioning, have it checked by qualified service personnel.

Before Installation

■ It is very important to locate the KVM in a suitable environment.
■ The surface for placing and fixing the KVM should be stable and level or mounted into a suitable cabinet.
■ Make sure the place has good ventilation, is out of direct sunlight, away from sources of excessive dust, dirt, heat, water, moisture and vibration.
■ Position LCD Keyboard Drawer with respect to related facilities.

Unpacking

The KVM comes with the standard parts shown in Package Content. Check and make sure they are included and in good condition. If anything is missing, or damage, contact the supplier immediately.

GENERAL SPECIFICATION

No.	Item	Description			
1	Model name	Panel	1280 x 1024(SXGA)	SX1	Note 1)
2	LCD Module	SVGA, XGA, SXGA			
3	Signal Input	Analog RGB(R, G, B Separate H, V Sync), DVI-D(TMDS)			
4	Resolution Support	H: 31 80kHz			
		V: 55 76Hz			
5	OSD Control	Menu, Exit, Up, Down, Power			5 keys
	Plug & Play	VESA DDC 2B Ver1.3			
6	Power Consumption	Supply Voltage	12Vdc		
		Max Power	TBD		
7	Signal Connector	Analog	DSUB 15P(R, G, B Separate H, V Sync)		
		Digital	DVI-D 24P(TMDS)		
		Video	MINIDIN-4P(SVHS, RCA(CVBS)		
8	Board Size	W x H x D(mm)	140 x 90 x 20		

Notes 1) Depends On Panel Resolution

Model No.	Resolution	RGB Input	DVI Input	Video Input	Remarks
SX1	1280 x 1024	Yes	Yes	No	
SX2	1280 x 1024	Yes	Yes	Yes	

ELECTRICAL SPECIFICATION

1 Input characteristic

Description	Signal	Unit	Min	Typical	Max	Remarks
Power In (12Vdc)						
	Input	12VDC	11.4	12	12.6	
	Consumption	Watt		TBD		
RGB Input						
	Analog RGB	VPP	0	0.7	-	
	Sync	VDC	0	5	5.5	
	H Frequency	KHz	31		80	Depends on Mode
	V Frequency	Hz	55	75	77	Depends on Mode
DVI Input						
	TMDS	mVp-p	450	500	900	
NTSC/PAL						
	Y/CVBS	Vp-p	0.7	1.0	1.4	
	C	Vp-p	0.6	0.8	1.0	

2 Output Characteristics

Description	Signal	Unit	Min	Typical	Max	Remarks
Panel Power						
	LCD Power (12V)	VDC	11.4	12	12.6	Jumper option
	LCD Power (5V)	VDC	4.5	5	5.5	Jumper option
	LCD Power (3.3V)	VDC	3.16	3.3	3.5	Jumper option
LVDS Interface						
	Differential output	Vp-p (mV)	250	350	450	Differential +/-
TTL LCD Interface						
	RGB Data	Vp-p		3.3		
	DE, Sync, Clock	Vp-p		3.3		
	Clock Freq.	V(MHz)	25		80	
Inverter Interface						
	Power	V	11.4	12	12.6	Depends on Power
	On/Off control	V	0		3.3	L=off, H=on
	Brightness control	V	3.3		0	Option(1)
			0		4.0	

(1)Default setting: S/W dimming control(0V), If you want to use Analog dimming control, Please contact our company.

FUNCTIONAL BLOCK DIAGRAM
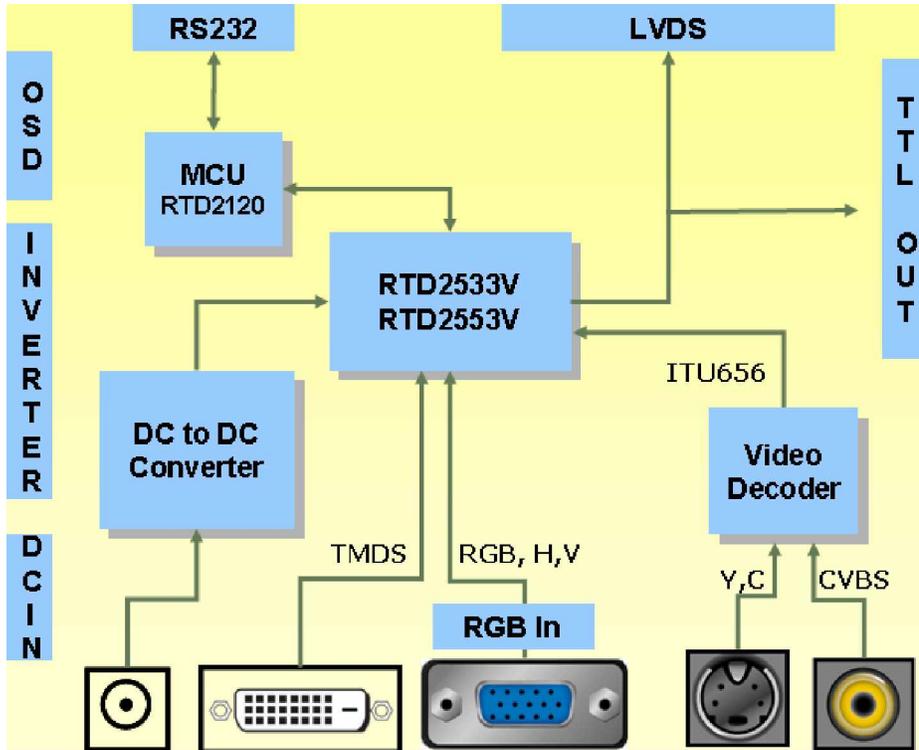
OSD Control Board

The OSD (On Screen Display) provides certain functions to have clear image and others. This board supports 5 buttons OSD operation as a standard. The control functions defined on OSD operation are as below.

Button	Function	Status	HOT Key
LED	Indicates operation status	Green/ Red/ Amber	On: Green Off: Red No Signal: Amber
POWER	Power on/off	On/Off	
MENU	Activate menu / Select Function		
EXIT	Menu Exit / Auto / Source(option)		
DOWN	Cursor control Down		
UP	Cursor control Up		

OSD FUNCTION

A. Main Menu

Ø   Color: Contrast/Brightness/Color Adjust/Color Temp
  - Contrast : Contrast level Control
  - Brightness: Brightness level Control
  - Color Adjust: R,G,B color level Control
  - Color Temp: Color temperature Select

Ø   Image Setting: Clock, Phase, Gamma, Sharpness
  - Clock: Fine tune the number of sampled data
  - Phase: Fine tune the position of sampled data
  - Gamma: Gamma value Select
  - Sharpness: Scaling performance Select

Ø   Position: H, V position Control
  - H/V position: Image H, V position Control

Ø   OSD Menu: OSD H, V position, OSD Off timer Control
  - OSD H/V position: OSD H,V position Control
  - OSD Off timer: OSD Off timer Control

Ø   Language: OSD language Select

Ø   Misc: Input Source/Reset
  - Input Source : Input signal select (Analog, DVI)
  - Reset: Restore to default Value

Ø   Exit / Back:

B. Operation Message

	Execute 'Auto Adjust' Function.
	Execute 'Color Adjust' Function.
	Input Signal is over the supporting range
	Input Signal is not present and disconnected cable. This message is not disappeared before power off or activity of input signal.
	Input Signal is not present. This message is disappeared after 5 seconds.
	Execute 'INITIALIZE' Function

APPLICABLE GRAPHIC MODE

The microprocessor measures the, H – sync V – sync and polarity for RGB Inputs, and uses this timing information to control all of the display operation to get the proper image on a screen. This board can detect all VESA standard Graphic modes shown on the table below and Provide mare clear and stable image on a screen

RGB input format

Spec Mode	Pixel Freq.	Horizontal Timing			Vertical Timing		
		Sync Polar	Freq.	Active	Sync Polar	Freq.	Active
	MHz		KHz	Pixel		Hz	Lind
640*350@70Hz	25.144	P	31.430	640	N	70.000	350
640*400@70Hz	28.287	N	31.430	640	P	70.000	400
720*400@ 70Hz	28.287	N	31.430	720	P	70.000	400
640*480@60Hz	28.175	N	31.469	640	N	59.940	480
640*480@72Hz	31.500	N	37.861	640	N	72.809	480
640*480@75Hz	31.500	N	37.500	640	N	75.000	480
800*600@56 Hz	36.000	P	35.156	800	P	56.250	600
800*600@60Hz	40.000	P	37.879	800	P	60.317	600
800*600@72Hz	50.000	P	48.077	800	P	72.188	600
800*600@75Hz	49.500	P	46.875	800	P	75.000	600
1024*768@60Hz	65.000	N	48.363	1024	N	60.005	768
1024*768@ 70Hz	75.000	N	56.476	1024	P	70.070	768
1024*768@75Hz	78.750	P	60.023	1024	P	75.030	768
1280*720@60Hz	74.500	P	44.772	1280	P	59.855	720
1360*768@60Hz	84.75	P	47.72	1360	P	59.799	768
1280*1024@60Hz	108.000	P	63.981	1280	P	60.020	1024
1280*1024@75Hz	135.000	P	79.976	1280	P	75.035	1024
1600*1200@60Hz	162.000	P	75.000	1600	P	60.00	1200