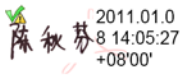
V1.0

FRAME RATE CONVERSION BOARD SPECIFICATION

MODEL: PL.MS6M30.1X

Part Number: PL-11010808

AUTHOR: 

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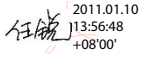
APPROVED BY: 

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REVISION HISTORY

VERSION	DATE	BOARD ID	PAGE	DISCRIPTION	AUTHOR
V1.0	2010.11.18	PL.MS6M30.1A 10446	All	First issued	Fanny
V1.0	2011.01.08	PL.MS6M30.1B 10512	2	Modify the board picture in part 3;	Fanny

1. GENERAL DESCRIPTION

PL.MS6M30.1X doubles the frames (50Hz → 100Hz conversion, 60Hz → 120Hz conversion, 24Hz → 120Hz conversion, frame interpolation) of the video signal output (Full-HD signal by LVDS interface) from a TV control board and then supplies the frame-doubled video signal to a panel provided with LVDS input.

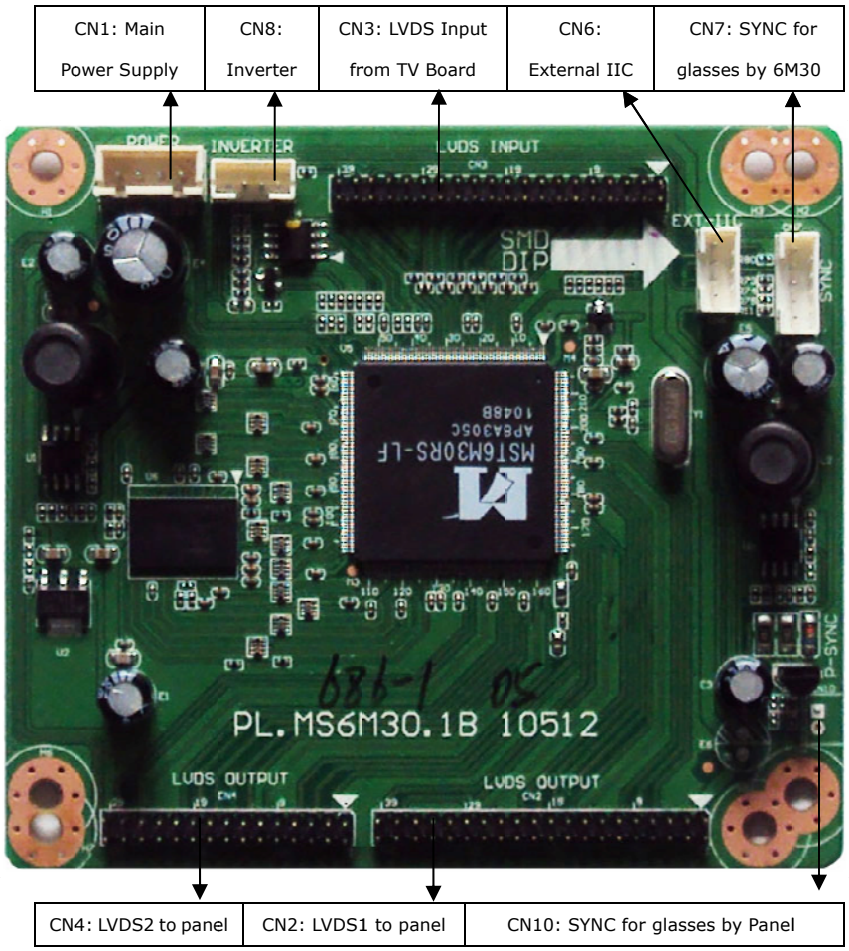
2. FEATURES

CHIPSET	MST6M30QS
POWER REQUIREMENT	12V
MAX POWER CONSUMPTION	4W

	INPUT(50Hz/60Hz)	→	**OUTPUT(100Hz/120Hz)**
FREQUENCY	1 phase, Max 83MHz	→	2 phase, Max 83MHz
	2 phase, Max 74.25MHz	→	4 Phase, Max 74.25MHz
VIDEO SIGNAL	WXGA 768p (1366x768)	→	WXGA 768p (1366x768)
	Full-HD 1080p (1920x1080)	→	Full-HD 1080p (1920x1080)

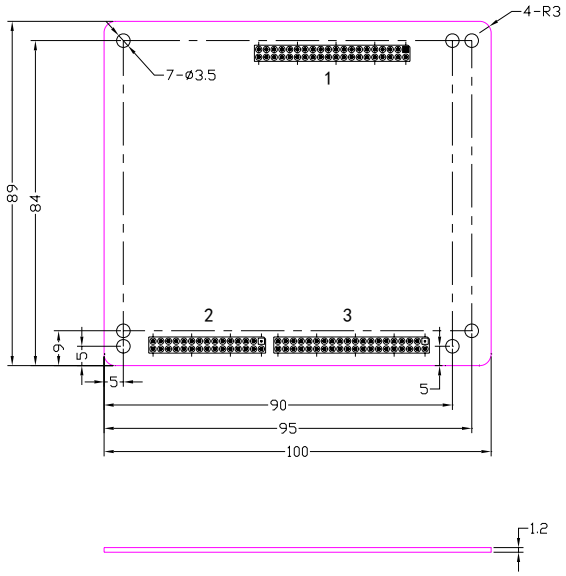
3. FUNCTION LAYOUT

TOP VIEW OF PL.MS6M30.1X



4. PCB DIMENSIONS

The overall height of PL.MS6M30.1X is 16 mm.



5. INTERFACE DEFINITION

The optional connectors are marked with "*".

◆ CN1(4PIN/2.54): MAIN POWER INPUT CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	12V	+12V Power Input
2	12V	
3	GND	Ground
4	GND	

◆ CN2(2x20PIN/2.0): LVDS1 TO PANEL

NO.	SYMBOL	DESCRIPTION
1	VCC-PANEL	Power for Panel
2	VCC-PANEL	
3	VCC-PANEL	
4	GND	Ground
5	GND	
6	GND	
7	A0M	LVDS 0 A- Signal
8	A0P	LVDS 0 A+ Signal

9	A1M	LVDS 1 A- Signal
10	A1P	LVDS 1 A+ Signal
11	A2M	LVDS 2 A- Signal
12	A2P	LVDS 2 A+ Signal
13	GND	Ground
14	GND	
15	ACKM	LVDS Clock A- Signal
16	ACKP	LVDS Clock A+ Signal
17	A3M	LVDS 3 A- Signal
18	A3P	LVDS 3 A+ Signal
19	B0M	LVDS 0 B- Signal
20	B0P	LVDS 0 B+ Signal
21	B1M	LVDS 1 B- Signal
22	B1P	LVDS 1 B+ Signal
23	B2M	LVDS 2 B- Signal
24	B2P	LVDS 2 B+ Signal
25	GND	Ground
26	GND	
27	BCKM	LVDS Clock B- Signal
28	BCKP	LVDS Clock B+ Signal
29	B3M	LVDS 3 B- Signal
30	B3P	LVDS 3 B+ Signal
31	GND	Ground
32	GND	
33	CON1’	JEDIA/VESA format selection
34	L/R Sycn	Input signal for left/right eye frame synchronous
35	2D/3D	Input signal for 2D/3D mode selection
36	LD_EN	Local dimming enable selection
37	A4M	TX LVDS 4 A- Signal
38	A4P	TX LVDS 4 A+ Signal
39	B4M	TX LVDS 4 B- Signal
40	B4P	TX LVDS 4 B+ Signal

◆ CN4(2x15PIN/2.0): LVDS2 TO PANEL

NO.	SYMBOL	DESCRIPTION
1	GND	Ground
2	GND	
3	C0M	LVDS 0 C- Signal

4	C0P	LVDS 0 C+ Signal
5	C1M	LVDS 1 C- Signal
6	C1P	LVDS 1 C+ Signal
7	C2M	LVDS 2 C- Signal
8	C2P	LVDS 2 C+ Signal
9	GND	Ground
10	GND	
11	CCKM	LVDS Clock C- Signal
12	CCKP	LVDS Clock C+ Signal
13	C3M	LVDS 3 C- Signal
14	C3P	LVDS 3 C+ Signal
15	C4M	LVDS 4 C- Signal
16	C4P	LVDS 4 C+ Signal
17	D0M	LVDS 0 D- Signal
18	D0P	LVDS 0 D+ Signal
19	D1M	LVDS 1 D- Signal
20	D1P	LVDS 1 D+ Signal
21	D2M	LVDS 2 D- Signal
22	D2P	LVDS 2 D+ Signal
23	GND	Ground
24	GND	
25	DCKM	LVDS Clock D- Signal
26	DCKP	LVDS Clock D+ Signal
27	D3M	LVDS 3 D- Signal
28	D3P	LVDS 3 D+ Signal
29	D4M	LVDS 4 D- Signal
30	D4P	LVDS 4 D+ Signal

◆ CN3(2x20PIN/2.0): LVDS FROM LCD BOARD

NO.	SYMBOL	DESCRIPTION
1	VCC-PANEL	Power for Panel
2	VCC-PANEL	
3	VCC-PANEL	
4	GND	Ground
5	GND	
6	GND	
7	RXO0-	LVDS ODD 0- Signal
8	RXO0+	LVDS ODD 0+ Signal

9	RXO1-	LVDS ODD 1- Signal
10	RXO1+	LVDS ODD 1+ Signal
11	RXO2-	LVDS ODD 2- Signal
12	RXO2+	LVDS ODD 2+ Signal
13	GND	Ground
14	GND	
15	RXOC-	LVDS ODD Clock- Signal
16	RXOC+	LVDS ODD Clock+ Signal
17	RXO3-	LVDS ODD 3- Signal
18	RXO3+	LVDS ODD 3+ Signal
19	RXE0-	LVDS EVEN 0- Signal
20	RXE0+	LVDS EVEN 0+ Signal
21	RXE1-	LVDS EVEN 1- Signal
22	RXE1+	LVDS EVEN 1+ Signal
23	RXE2-	LVDS EVEN 2- Signal
24	RXE2+	LVDS EVEN 2+ Signal
25	GND	Ground
26	GND	
27	RXEC-	LVDS EVEN Clock- Signal
28	RXEC+	LVDS EVEN Clock+ Signal
29	RXE3-	LVDS EVEN 3- Signal
30	RXE3+	LVDS EVEN 3+ Signal
31	GND	Ground
32	GND	
33	CON1’	JEDIA/VESA format selection
34	3D_Flag	The left or right image flag for 6M30
35	I2CS-SCL	Reserved Power or I^2C SCL
36	12CS-SDA	Reserved Power or I^2C SDA
37	RXO4-	LVDS ODD4- Signal
38	RXO4+	LVDS ODD4+ Signal
39	RXE4-	LVDS EVEN 4- Signal
40	RXE4+	LVDS EVEN 4+ Signal

◆ CN7(5PIN/2.0): SYNC FOR GLASSES BY 6M30 CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	GND	Ground
2	SG_SYNC	Sync for glasses by 6M30

3	EYE_IN	GPIO for glasses
4	EYE_OUT	GPIO for glasses
5	VCC	VCC Power Supply

◆ *CN6(4PIN/2.0): EXTERNAL IIC CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	3V3	+3.3V Power Input
2	SCL	DDC CLOCK
3	SDA	DDC DATA
4	GND	Ground

◆ CN8(4PIN/2.0): INVERTER CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	3V3	+3.3V Power Supply
2	ADJ	Brightness Adjustment for Panel
3	GND	Ground
4	GND	

◆ CN10(2PIN/2.0): SYNC FOR GLASSES BY PANEL CONNECTOR

NO.	SYMBOL	DESCRIPTION
1	P-SYNC	sync for glasses by panel
2	GND	Ground

6. CONFIGURATION & GENERAL PRECAUTIONS

- **Relative humidity: ≤ 80%.**
- **Storage temperature: -10~60°C.**
- **Operation temperature: 0~40°C.**
- **Protect the control board from static, it may cause damage to the IC.**
- **Disconnect the TV before the power supply of panel is connected correctly.**
- **Do not drop any metal on the control board when it is working.**
- **Do not push or pull the connector when the control board is working.**
- **Do not disassemble the module.**
- **If the surface or the control board is dirty, clean it with soft dry cloth.**
- **Can't be pressed and distorted.**