

HDMI to LVDS converter.	
Part Number:	MCIB-14
Version:	1
Date:	20/10/2015
Revision History	
Date	Description of change
20/10/2015	First draft
26/2/2016	Updated solder link information

MCIB-14 HDMI to LVDS

Overview & Features

The MCIB-14 is an HDMI to LVDS converter. Ideal for connecting a range of Midas TFT displays to a Single Board Computer such as the Raspberry Pi.



Features

- Standard High Definition Multimedia Interface (HDMI) connector.
- 20 way 1.25mm pitch DF13A-20DP-1.25V(25) LVDS connector.
- Connections for 5V power and EDID programming.
- Single 5V power supply requirement.
- EEprom (24C02) for Extended Display Identification Data (EDID) storage.
- Mechanical dimensions 50 x 40 x 12 mm.
- Compatible with many LVDS interface TFTs including the following :
 (Cable required).

MCT101BOCIW1280800LML

MCT101BOCUW1280800LML

MCT101AOS1280800LMLIPS

MCT104D6W800600LML

MCT121FOCIW1024768LML

MCT121FOW1024768LML

MCT121GOS1280800LML

MCT121HOW1024768LMLIPS

MCT150BOX1024768LML

MCT150BOCUX1024768LML

Connections

CN1 19PIN HDMI AMP 1747981-1	Symbol	Description
1	D2+	TDMS Data 2+
2	D2S	TDMS Data 2 Shield
3	D2-	TDMS Data 2-
4	D1+	TDMS Data 1+
5	D1S	TDMS Data 1 Shield
6	D1-	TDMS Data 1-
7	D0+	TDMS Data 0+
8	D0S	TDMS Data 0 Shield
9	D0-	TDMS Data 0-
10	DC+	TDMS Clock+
11	DCS	TDMS Clock Shield
12	DC-	TDMS Clock-
13	CEC	Consumer Electronic Control
14	NC	Not Connected
15	SCL	Display Data Channel Clock
16	SDA	Display Data Channel Data
17	GND	Ground
18	+5V	+5V power From HDMI
19	HPD	Hot Plug Detect

CN2 20 way 1.25mm pitch DF13A-20DP- 1.25V(25) LVDS Display connector	Symbol	Description
1	LVDS 5V	LVDS 5V
2	LVDS 3.3V	LVDS 3.3V
3	GND	GND
4	GND	GND
5	LVDS-0-N	Channel 0 -ve
6	GND	GND
7	LVDS-0-P	Channel 0 +ve
8	LVDS-1-N	Channel 1 -ve
9	GND	GND
10	LVDS-1-P	Channel 1 +ve
11	LVDS-2-N	Channel 2 -ve
12	GND	GND
13	LVDS-2-P	Channel 2 +ve
14	LVDS-CLK-N	Clock -ve
15	GND	GND
16	LVDS-CLK-P	Clock +ve
17	LVDS-3-N	Channel 3 -ve
18	GND	GND
19	LVDS-3-P	Channel 3 +ve
20	LVDS 3.3V	LVDS 3.3V

CN3 5 PIN 0.1" pitch header	Symbol	Description
1	+5V	+5V power From HDMI (EEPROM only)
2	SCK	EDID I2C clock
3	SDA	EDID I2C data
4	GND	Ground
5	VIN	+5V Supply to Board

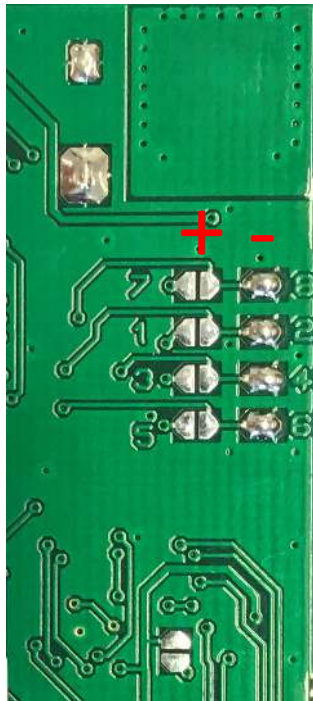
Electrical Specifications

Absolute Maximum Ratings		
Operating temperature	0 to +70	°C
Storage temperature	-40 to +125	°C
ViN	6.0	V
CN1,2 inputs and outputs w.r.t VSS	-0.3 to +3.6	V
CN3 inputs and outputs w.r.t VSS	-0.3 to ViN+0.3	V

Typical Electrical Characteristics				
Parameter	Min	Typ	Max	Unit
Supply Voltage ViN	4.75	5.0	5.5	V
Supply Current IiN (Board only no HDMI signal)	-	12	-	mA

Solder Links on back of PCB

There are 5 solder links on the back of the PCB to set various options for the IC.



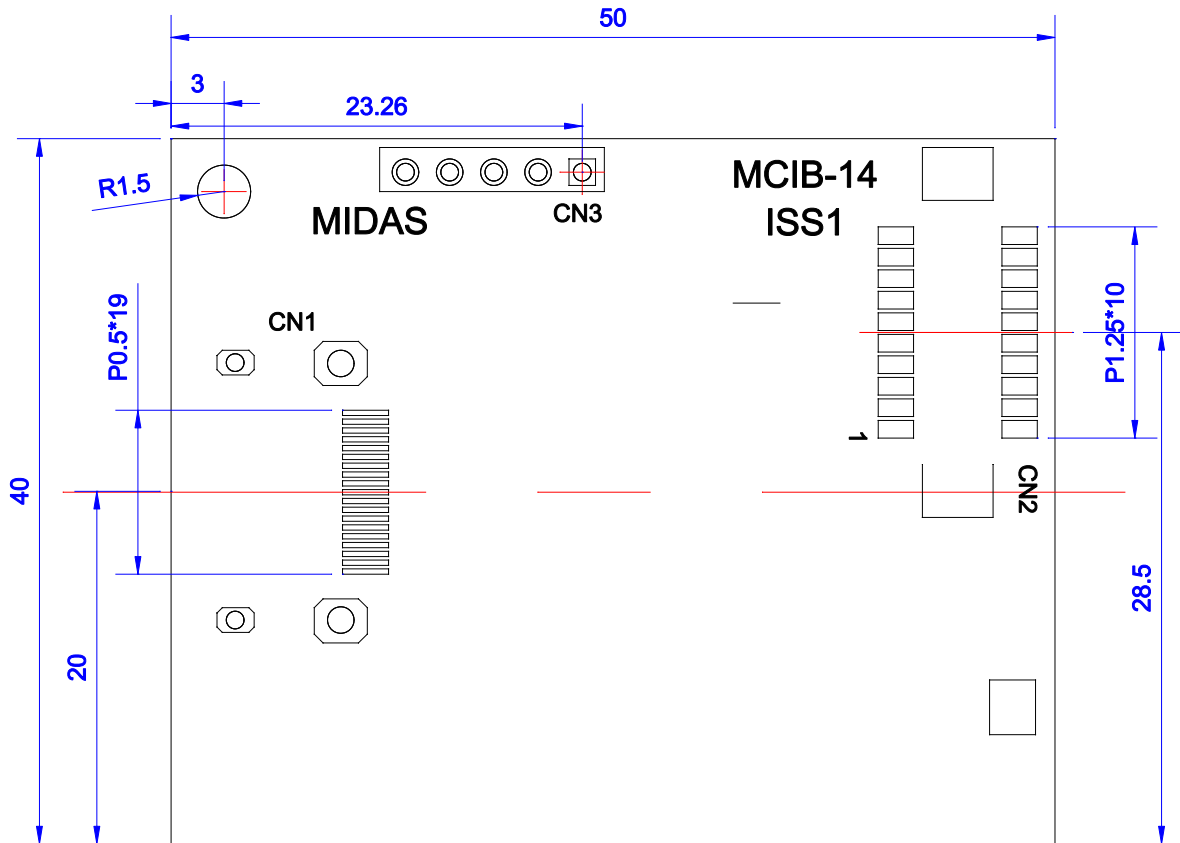
(HDMI to RGB IC)

Link	+	- (Default)
Pixel Clock	RGB Data clocked on +Ve edge	RGB Data clocked on -Ve edge
ST	High RGB Data drive strength	Low RGB Data drive strength
PIX	Two pixels per clock	One pixel per clock
STAG	Simultaneous pixel output	Staggered pixel output

(RGB to LVDS IC)

R-FB OPEN= Falling edge clock (default).
 SHORT= Rising edge Clock.

Mechanical Drawing



***Note all measurements are in mm
unless stated otherwise.**