

<b>HDMI to LVDS converter.</b>	
Part Number:	MCIB-14
Version:	1
Date:	20/10/2015
<b>Revision History</b>	
<b>Date</b>	<b>Description of change</b>
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

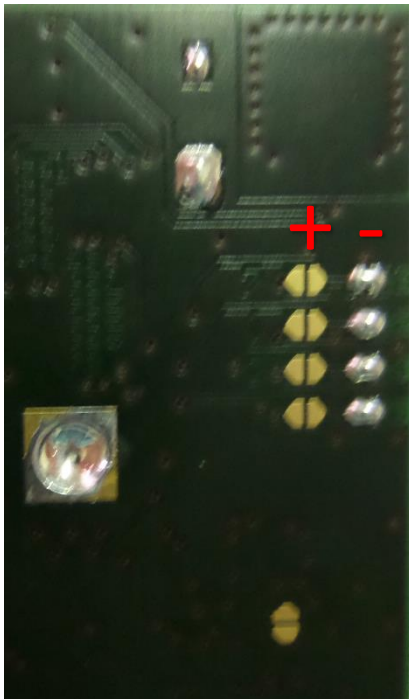
## Electrical Specifications

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.



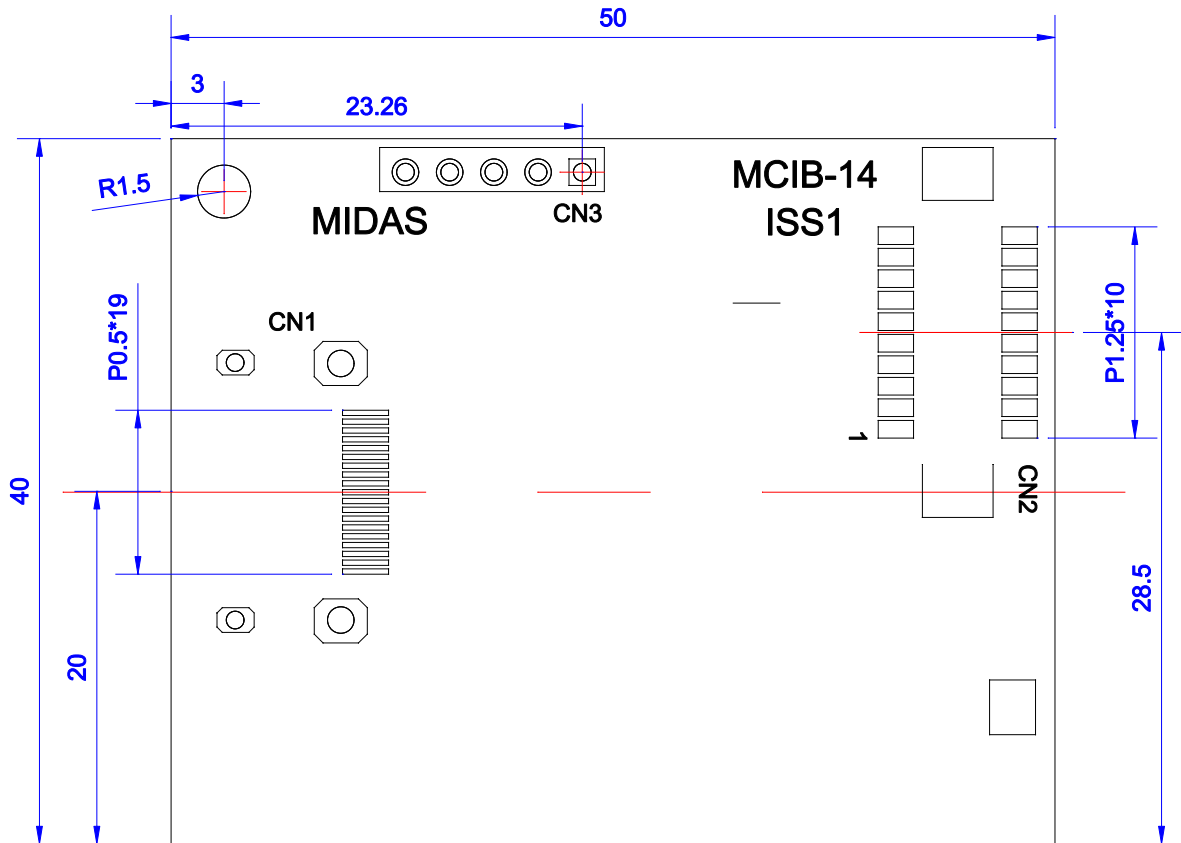
(HDMI to RGB IC)

Link	+	- (Default)
<b>Pixel Clock</b>	RGB Data clocked on +Ve edge	RGB Data clocked on -Ve edge
<b>ST</b>	High RGB Data drive strength	Low RGB Data drive strength
<b>PIX</b>	Two pixels per clock	One pixel per clock
<u><b>STAG</b></u>	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.**

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