

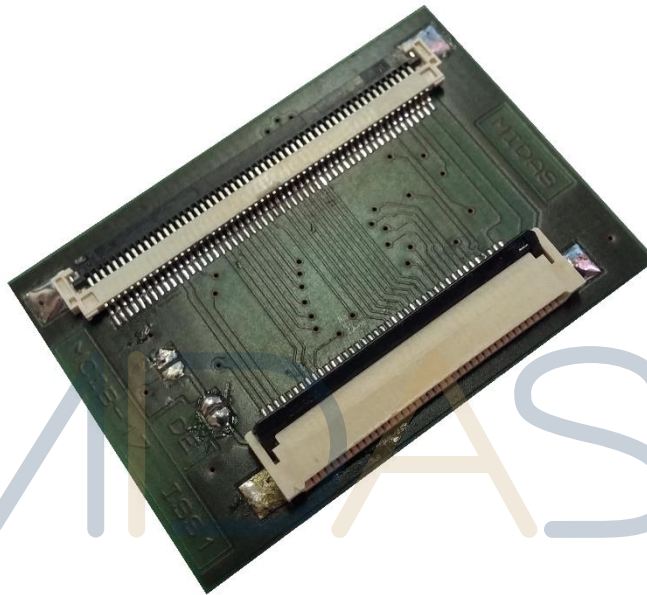
<b>54 way FFC to 40 way FFC Interface Board</b>	
Part Number:	MCIB-17
Version:	1
Date:	22/04/2016
<b>Revision History</b>	
<b>Date</b>	<b>Description of change</b>
22/04/2016	First draft



## MCIB-17 54 way FFC to 40 way FFC Interface Board

### Overview & Features

The MCIB-17 is an interface board designed to connect between a range of 54 way Midas TFT displays and the standard Midas 40 way TFT display interface.



**Figure 1.** MCIB-17.

### Features

- 54 way 0.5mm pitch FFC TFT display connector.
- 40 way 0.5mm pitch FFC TFT display connector.
- 24 bit/Pixel (RGB 8-8-8-bit Input).
- Display enable selectable.
- Mechanical dimensions 25 x 36 x 11 mm.
- Board compatible with MCIB-11 and MCIB-15.
- Pin compatible with the following Midas displays:

MCT035L	3.5"	320 x 240
MCT035S	3.5"	320 x 240
MCT035Y	3.5"	320 x 240

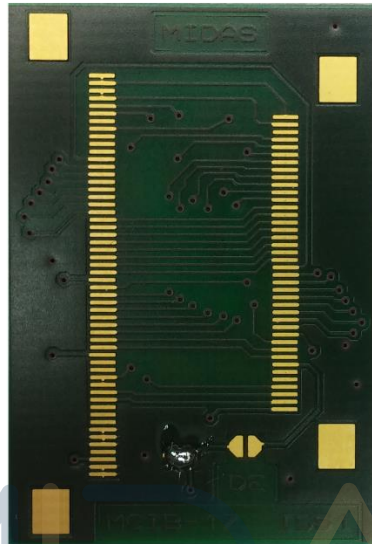
## Connections

CN1 54Pin 0.5mm pitch Display Connector	Symbol	Description
1	K	LED Backlight -
2	K	LED Backlight -
3	A	LED Backlight +
4	A	LED Backlight +
5	YT	Top Electrode
6	XR	Right Electrode
7	NC	No Connect
8	RESET	Hardware Reset
9	SPENA	SPI Interface Data Enable Signal
10	SPCLK	SPI Interface Data Clock
11	SPDAT	SPI Interface Data
12	B0	Blue Data 0
13	B1	Blue Data 1
14	B2	Blue Data 2
15	B3	Blue Data 3
16	B4	Blue Data 4
17	B5	Blue Data 5
18	B6	Blue Data 6
19	B7	Blue Data 7
20	G0	Green Data 0
21	G1	Green Data 1
22	G2	Green Data 2
23	G3	Green Data 3
24	G4	Green Data 4
25	G5	Green Data 5
26	G6	Green Data 6
27	G7	Green Data 7
28	R0	Blue Data 0
29	R1	Blue Data 1
30	R2	Blue Data 2
31	R3	Blue Data 3
32	R4	Blue Data 4
33	R5	Blue Data 5
34	R6	Blue Data 6
35	R7	Blue Data 7
36	HSYNC	Horizontal Sync
37	VSYNC	Vertical Sync
38	PCLK	Pixel Clock
39	NC	No Connect
40	NC	No Connect
41	VCC	Digital Power
42	VCC	Digital Power
43	YD	Bottom Electrode
44	XL	Left Electrode
45	NC	No Connect
46	NC	No Connect
47	NC	No Connect
48	IF2	Control the input data format
49	IF1	Control the input data format
50	IF0	Control the input data format
51	NC	No Connect
52	DE	Data Enable Input
53	GND	Ground
54	GND	Ground

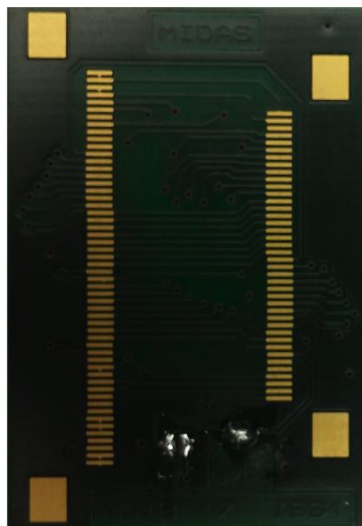
CN2 40Pin 0.5mm pitch Display Connector	Symbol	Description
1	K	LED Backlight -
2	A	LED Backlight +
3	CS	Chip Select
4	VDD	+3.3V
5	R0	Red Data 0
6	R1	Red Data 1
7	R2	Red Data 2
8	R3	Red Data 3
9	R4	Red Data 4
10	R5	Red Data 5
11	R6	Red Data 6
12	R7	Red Data 7
13	G0	Green Data 0
14	G1	Green Data 1
15	G2	Green Data 2
16	G3	Green Data 3
17	G4	Green Data 4
18	G5	Green Data 5
19	G6	Green Data 6
20	G7	Green Data 7
21	B0	Blue Data 0
22	B1	Blue Data 1
23	B2	Blue Data 2
24	B3	Blue Data 3
25	B4	Blue Data 4
26	B5	Blue Data 5
27	B6	Blue Data 6
28	B7	Blue Data 7
29	GND	Ground
30	PCLK	Pixel Clock
31	DISP	Display On
32	HSYNC	Horizontal Sync
33	VSYNC	Vertical Sync
34	DEN	Display Enable
35	SCL	Serial Clock
36	SDA	Serial Data
37	XR	Touch XR
38	YD	Touch YD
39	XL	Touch XL
40	YU	Touch YU

## Solder Links

There are two solder links in this PCB to configure the display enable signal (DE).

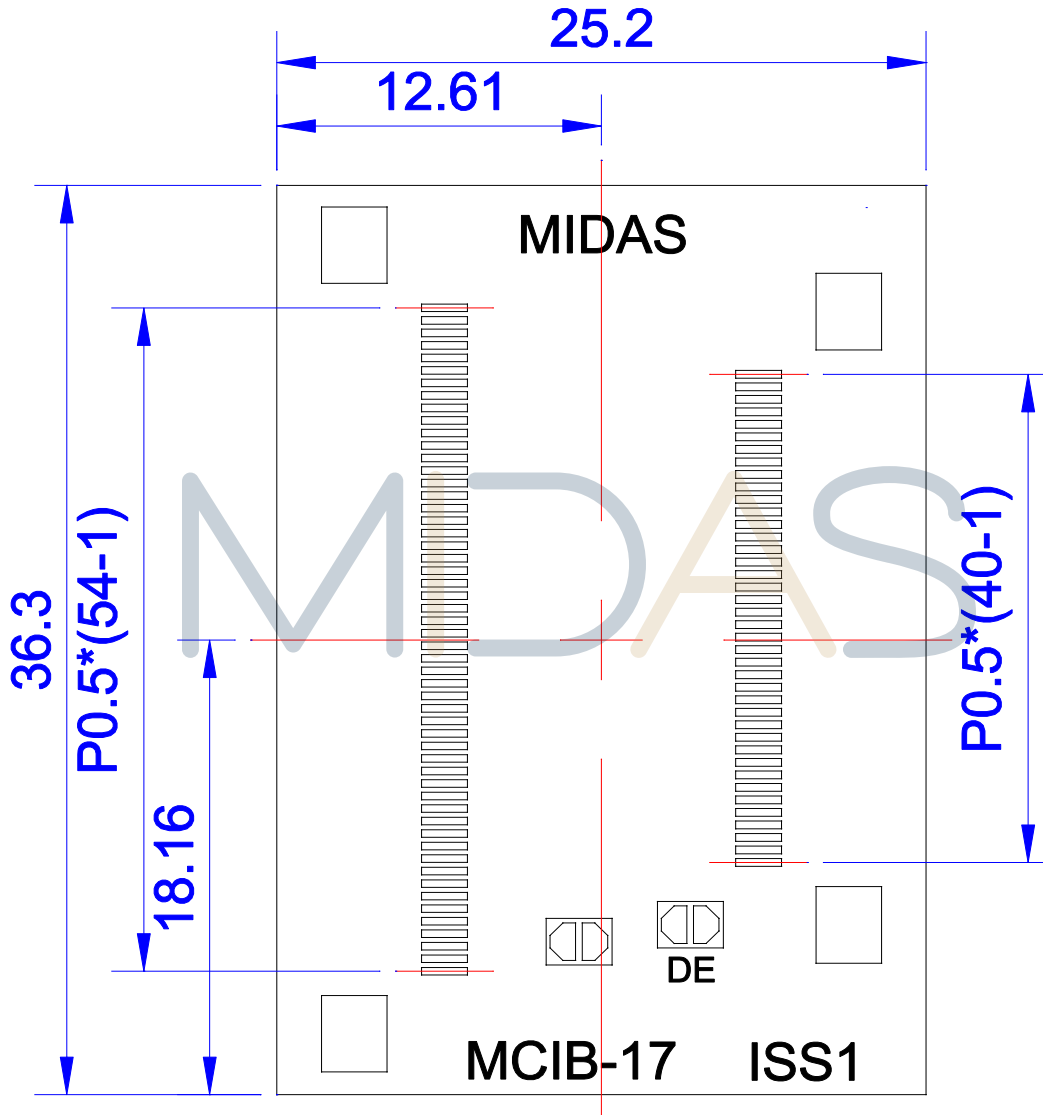


**Figure 2.** Link 1 Ground.



**Figure 3.** Link 2 DE Enable.

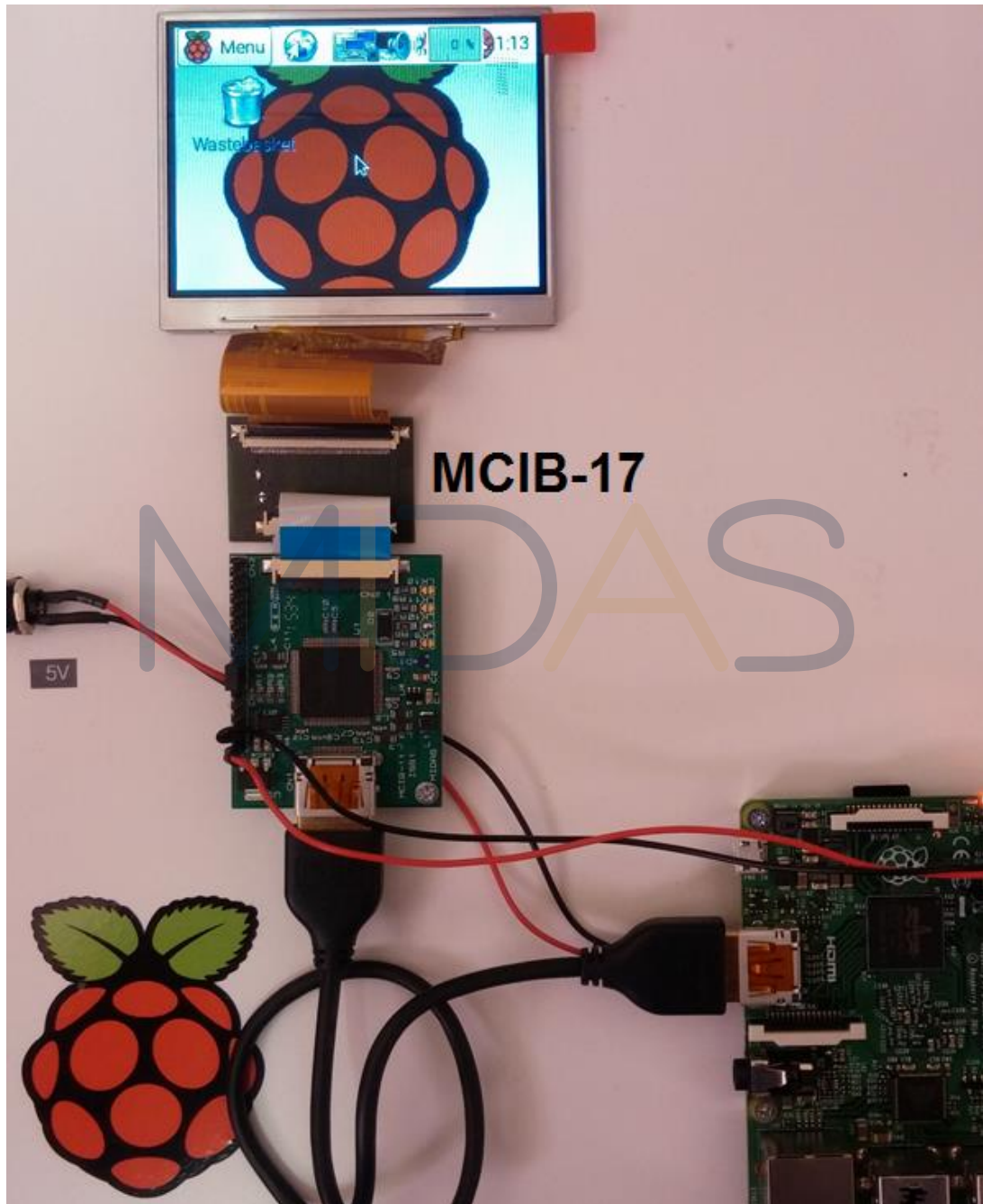
**Mechanical Drawing**



**Figure 4.** Mechanical drawing.

**\*Note all dimensions are in millimetres (mm).**

**Example**



**Figure 5. MCIB-17 with MCIB-11 and Raspberry Pi.**

## Block Diagram

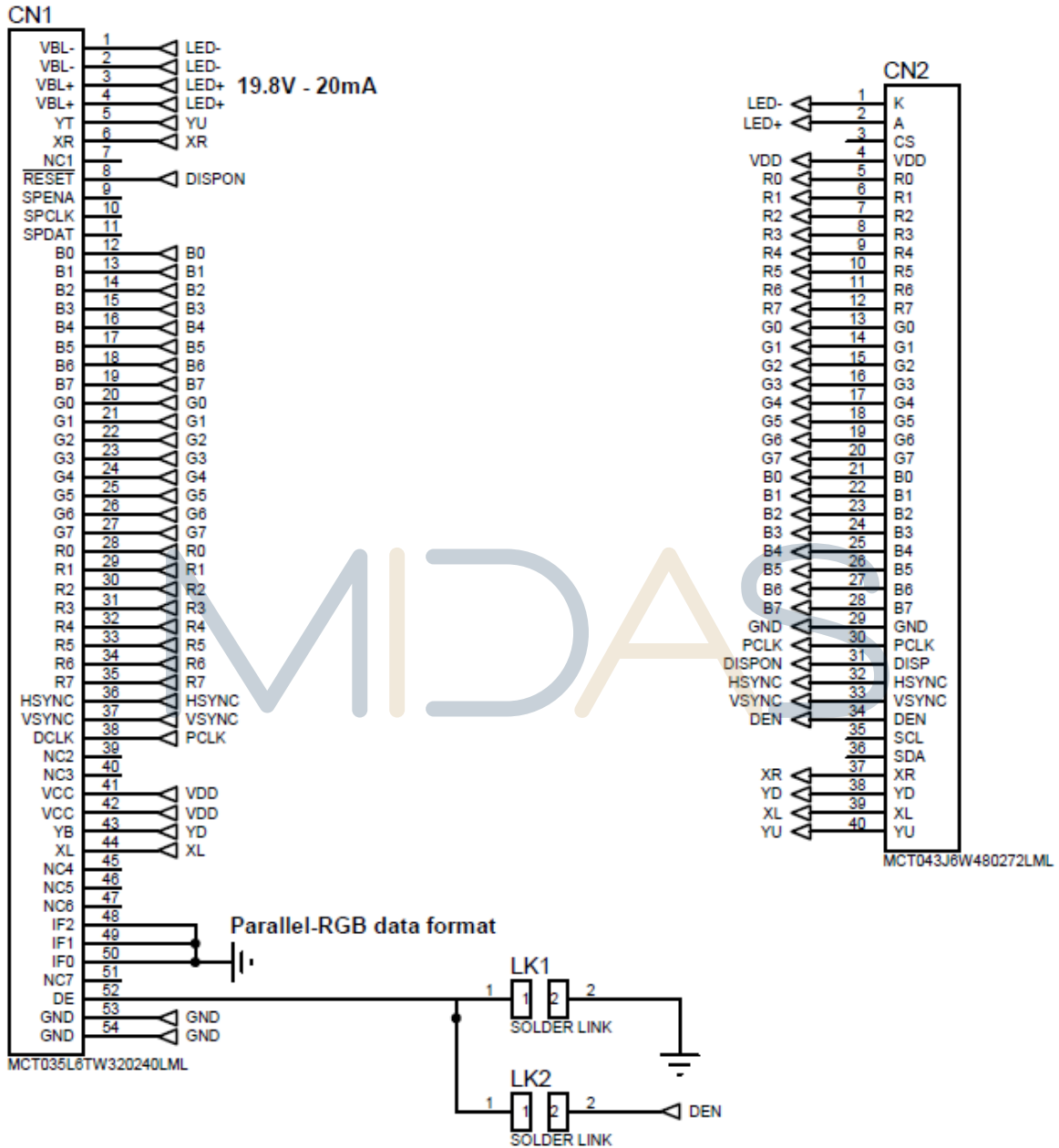


Figure 6. Block Diagram.