NetDCU/ADP-TCG057-L

NetDCUx

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1 Description

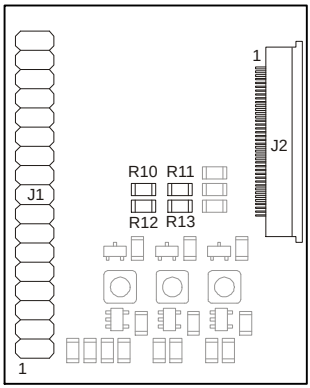
The NetDCU/ADP-TCG057-L is used to connect the Kyocera TCG057 display series with LED backlight to the starterkit of NetDCU and PicoMOD family.

This display Adapter to support TCG057QVLBA and TCG057VGLBA from Kyocera.

It has three software adjustable 15mA current sources for the LED backlight. The current is adjusted with the VEEK output from the NetDCU.
The backlight is enabled by the VCFL output from the NetDCU. You have to connect the VCFL input on the NetDCU to a voltage less than 8V.
With the jumpers R10-R13 you can set the up/down and right/left configuration pins of the display to high and low level.

2 Connectors and Configuration

Figure 2.1: Top View



3 Connectors

3.1 J1 NetDCU Interface

J3 Display Interface		
Pin	Signal	Function
1	GND	Signal Ground
2	R1	Red Bit 1
3	R0	Red Bit 0 (LSB)
4	G5	Green Bit 5 (MSB)
5	G4	Green Bit 4
6	G3	Green Bit 3
7	G2	Green Bit 2
8	GND	Signal Ground
9	B3	Blue Bit 3
10	B2	Blue Bit 2
11	B1	Blue Bit 1
12	B0	Blue Bit 0 (LSB)
13	G1	Green Bit 1
14	G0	Green Bit 0 (LSB)
15	B5	Blue Bit 5 (MSB)
16	B4	Blue Bit 4
17	GND	Signal Ground
18	V_{EEK}	Backlight brightness(*)
19	CLP	Data clock pulse

J3 Display Interface		
Pin	Signal	Function
20	FRP	Frame Impulse
21	M	Display data valid signal
22	LIP	Line Impulse
23	DEN	Display ON
24	GND	Signal Ground
25	V_{LCD}	Power supply LCD 3.3V
26	--	NC
27	--	NC
28	GND	Signal Ground
29	--	NC
30	V_{CFL}	Max. +8V for backlight switching
31	R2	Red Bit 2
32	R3	Red Bit 3
33	R4	Red Bit 4
34	R5	Red Bit 5 (MSB)

(*) ð software adjustable output voltage 0V...+3,3V.

3.2 J2 Display Interface

J3 Display Interface		
Pin	Signal	Function
1	GND	Signal Ground
2	CLP	Data clock pulse
3	LIP	Line Impulse
4	FRP	Frame Impulse
5	GND	Signal Ground
6	R0	Red Bit 0 (LSB)
7	R1	Red Bit 1
8	R2	Red Bit 2
9	R3	Red Bit 3
10	R4	Red Bit 4
11	R5	Red Bit 5 (MSB)
12	GND	Signal Ground
13	G0	Green Bit 0 (LSB)
14	G1	Green Bit 1
15	G2	Green Bit 2
16	G3	Green Bit 3
17	G4	Green Bit 4
18	G5	Green Bit 5 (MSB)
19	GND	Signal Ground
20	B0	Blue Bit 0 (LSB)
21	B1	Blue Bit 1

J3 Display Interface		
Pin	Signal	Function
22	B2	Blue Bit 2
23	B3	Blue Bit 3
24	B4	Blue Bit 4
25	B5	Blue Bit 5 (MSB)
26	GND	Signal Ground
27	M	Display data valid signal
28	V_{LCD}	Power supply LCD 3.3V
29	V_{LCD}	Power supply LCD 3.3V
30	CFG1	Configuration Pin
31	CFG2	Configuration Pin
32	--	NC
33	C1	Backlight 1 Cathode
34	C2	Backlight 2 Cathode
35	C3	Backlight 3 Cathode
36	--	NC
37	A1	Backlight 1 Anode
38	A2	Backlight 1 Anode
39	A3	Backlight 1 Anode
40	--	NC

4 Configuration NetDCU/ADP-TCG057-L

4.1 Configuration Display Interface Pin 30

Configuration	R10	R11
High Level (VCC)	x	
Low Level (GND)		x

Rxx Jumper, 0Ω Resistor Type 1206

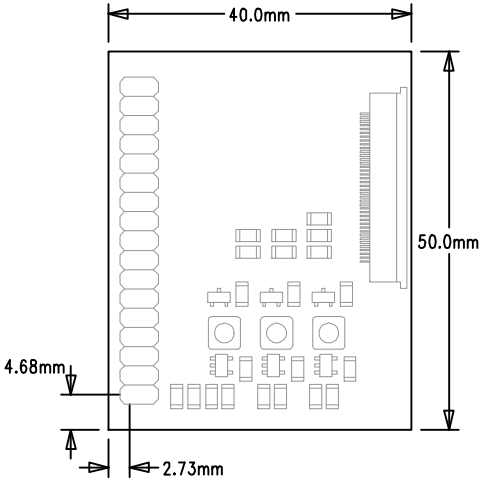
4.2 Configuration Display Interface Pin 31

Configuration	R12	R13
High Level (VCC)	x	
Low Level (GND)		x

Rxx Jumper, 0Ω Resistor Type 1206

5 Dimensions NetDCU/ADP-TCG057-L

Figure 5.1 Top View



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