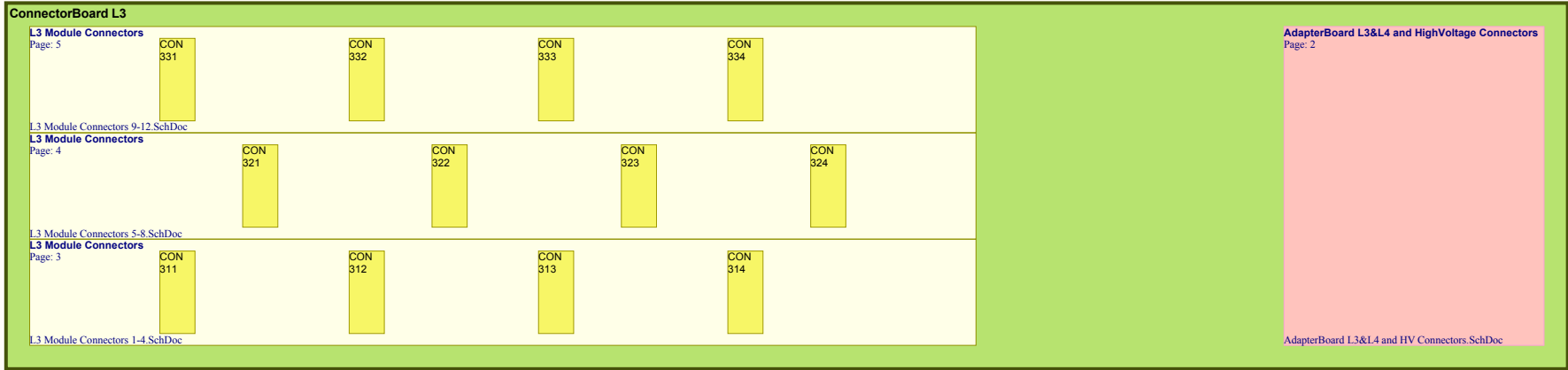
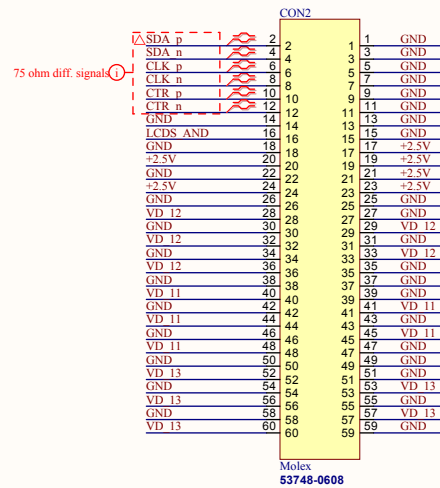
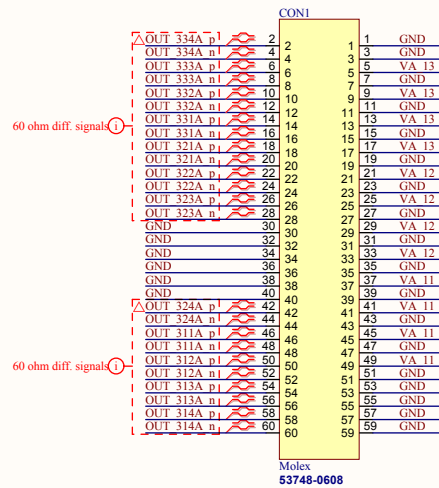


ConnectorBoard L3

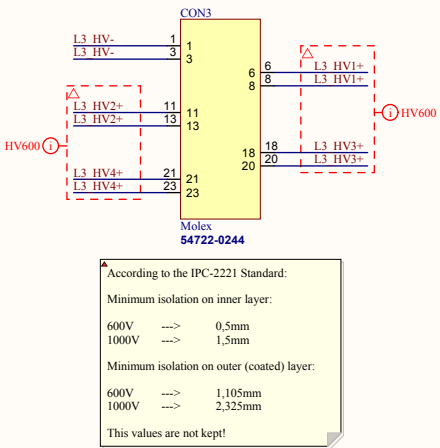


Wigner FK. Budapest, Hungary www.wigner.hu	Title: ConnectorBoard L3 v1.3.1.PrjPCB ConnectorBoard L3			
	Size: A3	Scale: -	Document Number	Revision: 1.3
	Designer: Tólyhi T.			
Drawn by:	Modified: 2015.12.21.		Printed: 2015.12.21.	Sheet 1 of 5
Approved:	File: ConnectorBoard L3 v1.3.SchDoc			

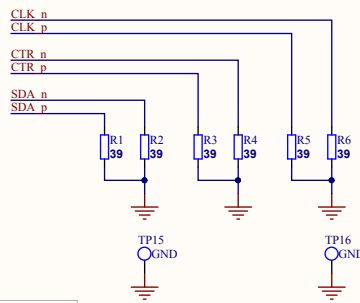
AdapterBoard L3&L4 Connectors



HV L3 Connector



Signal Termination

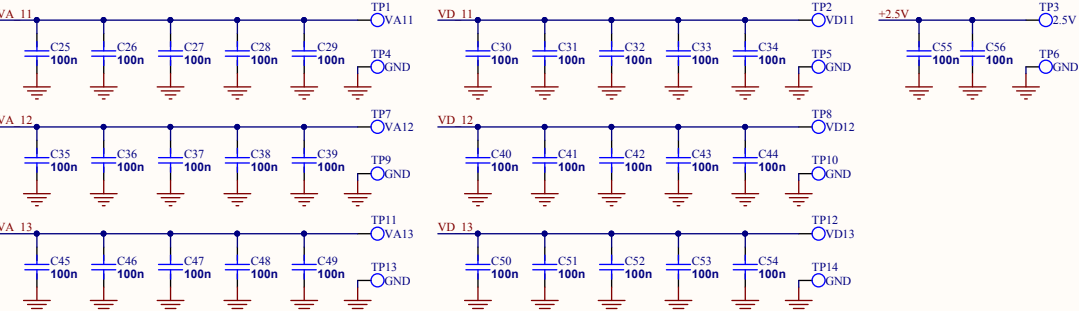


36 ohms to GND required on each pin. (Gatekeeper 05 Chip Documentation, page:3)

(On the old End-Ring Schematic these resistors were 43 ohm.)

Final resistor values will be determined by waveform measurements on the prototypes.

Low Voltage Polygons Decoupling Capacitors



Low Voltage Conversion Table			
Cable1	Conv0	-->	VA_1, VD_1
	Conv1	-->	VA_2, VD_2
	Conv2	-->	VA_3, VD_3
	Conv3	-->	VA_4, VD_4
Cable2	Conv4	-->	VA_5, VD_5
	Conv5	-->	VA_6, VD_6
	Conv6	-->	VA_7, VD_7
	Conv7	-->	VA_8, VD_8
Cable3	Conv8	-->	VA_9, VD_9
	Conv9	-->	VA_10, VD_10
	Conv10	-->	VA_11, VD_11
	Conv11	-->	VA_12, VD_12
Cable4	Conv12	-->	VA_13, VD_13

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Designer: Tolyhi T.	Size: A3	Scale: -	Document Number	Revision: 1.3
Drawn by:	Modified: 2015.12.21.	Printed: 2015.12.21.	Sheet 2 of 5	
Approved:	File: AdapterBoard L3&L4 and HV Connectors.SchDoc			

L3 Module Connectors

Module: LYR3-LDR1-MOD1

CON311	1	L3 HV1+
	2	
	3	
	4	L3 HV-
	5	VA 11
	6	VA 11
	7	VA 11
	8	GND
	9	GND
	10	GND
	11	GND
	12	
	13	
	14	GND
	15	GND
	16	CLK 311 n
	17	CLK 311 p
	18	CTR 311 n
	19	CTR 311 p
	20	SDA 311 n
	21	SDA 311 p
	22	RDA 311 n
	23	RDA 311 p
	24	OUT 311A n
	25	OUT 311A p
	26	GND
	27	GND
	28	VD 11
	29	VD 11
	30	VD 11
	31	VD 11
	32	VD 11
	33	VD 11

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Module: LYR3-LDR1-MOD2

CON312	1	L3 HV2+
	2	
	3	
	4	L3 HV-
	5	VA 11
	6	VA 11
	7	VA 11
	8	GND
	9	GND
	10	GND
	11	GND
	12	
	13	
	14	GND
	15	GND
	16	CLK 312 n
	17	CLK 312 p
	18	CTR 312 n
	19	CTR 312 p
	20	SDA 312 n
	21	SDA 312 p
	22	RDA 312 n
	23	RDA 312 p
	24	OUT 312A n
	25	OUT 312A p
	26	GND
	27	GND
	28	VD 11
	29	VD 11
	30	VD 11
	31	VD 11
	32	VD 11
	33	VD 11

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Module: LYR3-LDR1-MOD3

CON313	1	L3 HV3+
	2	
	3	
	4	L3 HV-
	5	VA 11
	6	VA 11
	7	VA 11
	8	GND
	9	GND
	10	GND
	11	GND
	12	
	13	
	14	GND
	15	GND
	16	CLK 313 n
	17	CLK 313 p
	18	CTR 313 n
	19	CTR 313 p
	20	SDA 313 n
	21	SDA 313 p
	22	RDA 313 n
	23	RDA 313 p
	24	OUT 313A n
	25	OUT 313A p
	26	GND
	27	GND
	28	VD 11
	29	VD 11
	30	VD 11
	31	VD 11
	32	VD 11
	33	VD 11

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Module: LYR3-LDR1-MOD4

CON314	1	L3 HV4+
	2	
	3	
	4	L3 HV-
	5	VA 11
	6	VA 11
	7	VA 11
	8	GND
	9	GND
	10	GND
	11	GND
	12	
	13	
	14	GND
	15	GND
	16	CLK 314 n
	17	CLK 314 p
	18	CTR 314 n
	19	CTR 314 p
	20	SDA 314 n
	21	SDA 314 p
	22	RDA 314 n
	23	RDA 314 p
	24	OUT 314A n
	25	OUT 314A p
	26	GND
	27	GND
	28	VD 11
	29	VD 11
	30	VD 11
	31	VD 11
	32	VD 11
	33	VD 11

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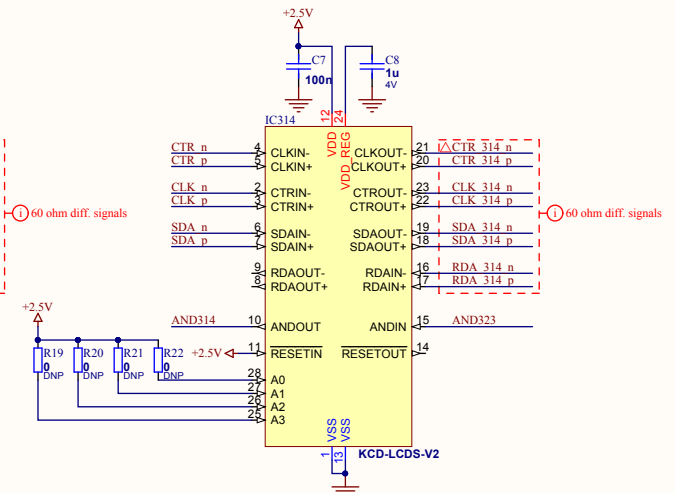
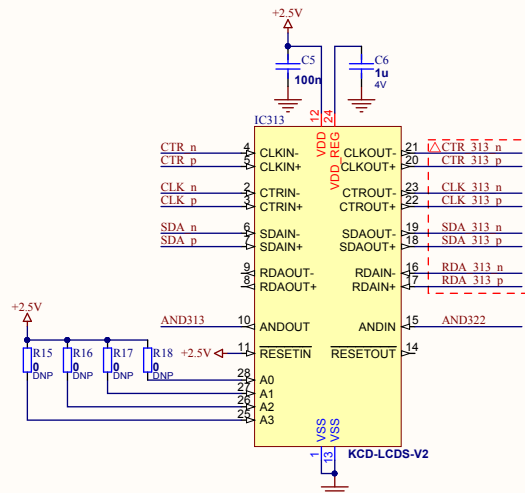
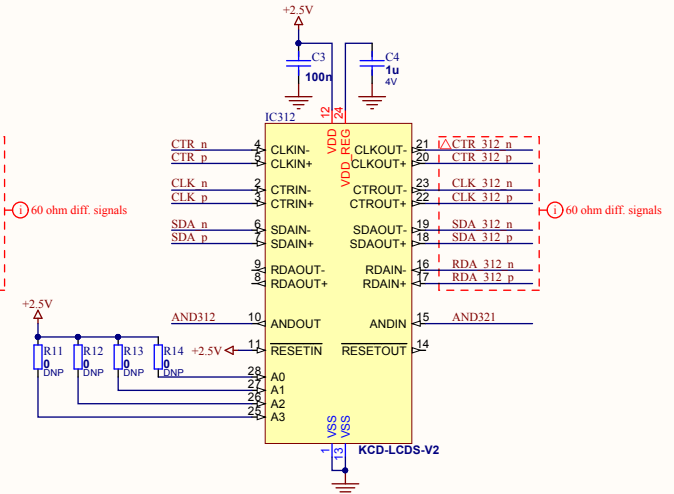
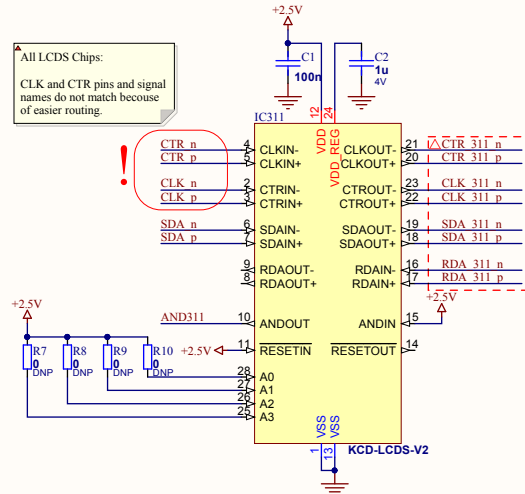
Net Numbering: SignalName_LayerLadderModuleTBM

Net number example:

OUT 313A -> Out signal from Layer3, Ladder1, Module4, TBM1

L3 Module LCDS Drivers

All LCDS Chips:
CLK and CTR pins and signal names do not match because of easier routing.



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Designer: Tolyhi T.	Size: A3	Scale: -	Document Number: 1.3
Drawn by:	Modified: 2015.12.21.	Printed: 2015.12.21.	Sheet: 3 of 5
Approved:	File: L3 Module Connectors 1-4.SchDoc		

L3 Module Connectors

Module: LYR3-LDR2-MOD1

CON321	1	L3 HV1+
2	2	
3	3	
4	4	L3 HV-
5	5	VA 12
6	6	VA 12
7	7	VA 12
8	8	GND
9	9	GND
10	10	GND
11	11	GND
12	12	
13	13	
14	14	GND
15	15	GND
16	16	CLK 321 n
17	17	CLK 321 p
18	18	CTR 321 n
19	19	CTR 321 p
20	20	SDA 321 n
21	21	SDA 321 p
22	22	RDA 321 n
23	23	RDA 321 p
24	24	OUT 321A n
25	25	OUT 321A p
26	26	GND
27	27	GND
28	28	VD 12
29	29	VD 12
30	30	VD 12
31	31	VD 12
32	32	VD 12
33	33	VD 12

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Module: LYR3-LDR2-MOD2

CON322	1	L3 HV2+
2	2	
3	3	
4	4	L3 HV-
5	5	VA 12
6	6	VA 12
7	7	VA 12
8	8	GND
9	9	GND
10	10	GND
11	11	GND
12	12	
13	13	
14	14	GND
15	15	GND
16	16	CLK 322 n
17	17	CLK 322 p
18	18	CTR 322 n
19	19	CTR 322 p
20	20	SDA 322 n
21	21	SDA 322 p
22	22	RDA 322 n
23	23	RDA 322 p
24	24	OUT 322A n
25	25	OUT 322A p
26	26	GND
27	27	GND
28	28	VD 12
29	29	VD 12
30	30	VD 12
31	31	VD 12
32	32	VD 12
33	33	VD 12

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Module: LYR3-LDR2-MOD3

CON323	1	L3 HV3+
2	2	
3	3	
4	4	L3 HV-
5	5	VA 12
6	6	VA 12
7	7	VA 12
8	8	GND
9	9	GND
10	10	GND
11	11	GND
12	12	
13	13	
14	14	GND
15	15	GND
16	16	CLK 323 n
17	17	CLK 323 p
18	18	CTR 323 n
19	19	CTR 323 p
20	20	SDA 323 n
21	21	SDA 323 p
22	22	RDA 323 n
23	23	RDA 323 p
24	24	OUT 323A n
25	25	OUT 323A p
26	26	GND
27	27	GND
28	28	VD 12
29	29	VD 12
30	30	VD 12
31	31	VD 12
32	32	VD 12
33	33	VD 12

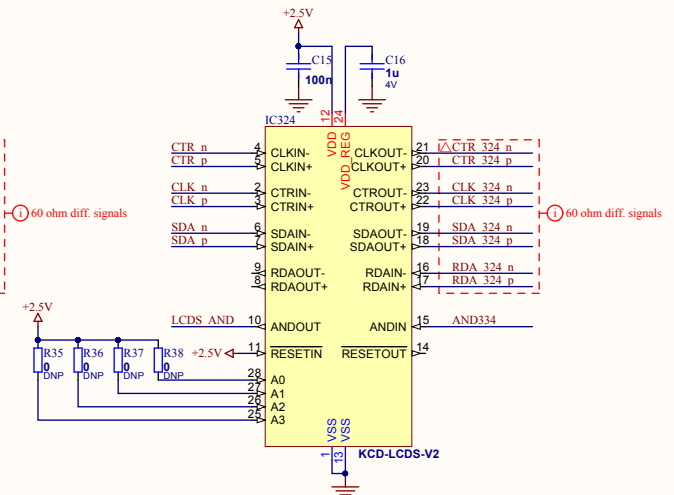
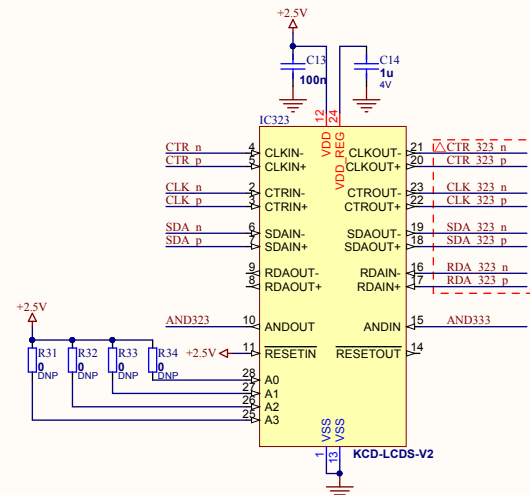
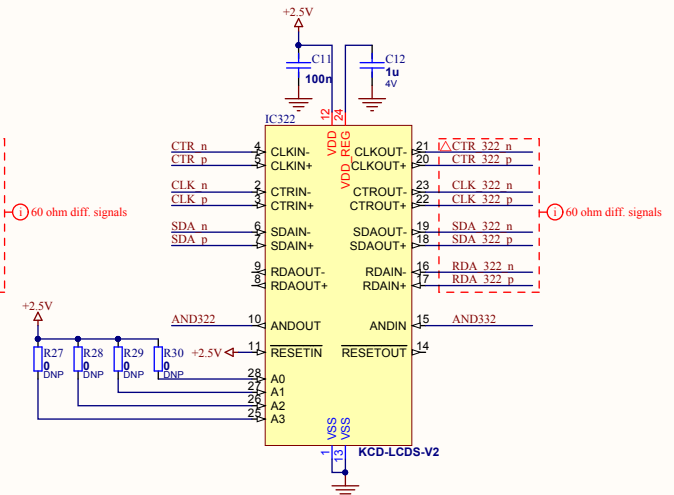
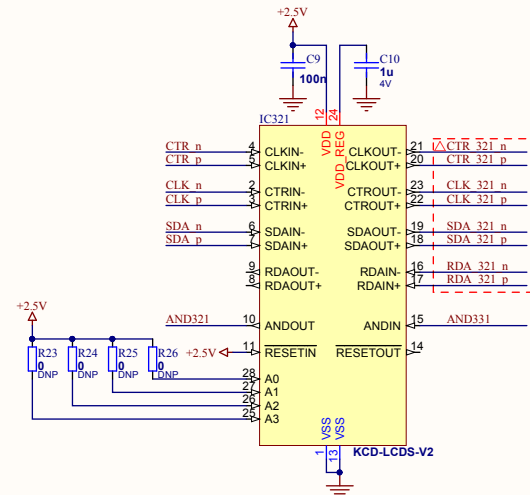
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Module: LYR3-LDR2-MOD4

CON324	1	L3 HV4+
2	2	
3	3	
4	4	L3 HV-
5	5	VA 12
6	6	VA 12
7	7	VA 12
8	8	GND
9	9	GND
10	10	GND
11	11	GND
12	12	
13	13	
14	14	GND
15	15	GND
16	16	CLK 324 n
17	17	CLK 324 p
18	18	CTR 324 n
19	19	CTR 324 p
20	20	SDA 324 n
21	21	SDA 324 p
22	22	RDA 324 n
23	23	RDA 324 p
24	24	OUT 324A n
25	25	OUT 324A p
26	26	GND
27	27	GND
28	28	VD 12
29	29	VD 12
30	30	VD 12
31	31	VD 12
32	32	VD 12
33	33	VD 12

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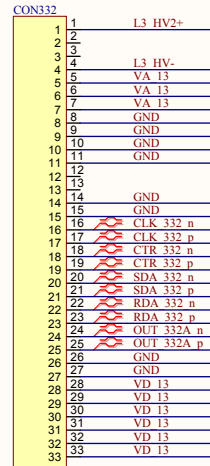
L3 Module LCDS Drivers



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	Size: A3	Scale: -	Document Number	Revision: 1.3
Designer: Tolyhi T.	Modified: 2015.12.21. Printed: 2015.12.21. Sheet: 4 of 5			
Approved:	File: L3 Module Connectors 5-8.SchDoc			

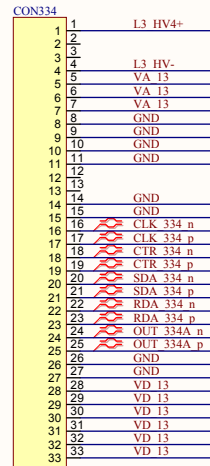
L3 Module LCDS Drivers

Module: LYR3-LDR3-MOD2



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Module: LYR3-LDR3-MOD4



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