

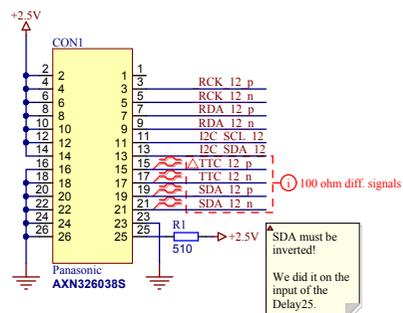
I2C Addresses:

I2C_1	A6	A5	A4	A3	
mDOH -Laser Driver	1	1	1	0	(14)
DOH MB -PLL25	1	0	0	0	(8)
DOH MB -DELAY25	1	1	0	0	(12)

I2C_3	A6	A5	A4	A3	
mDOH -Laser Driver	1	1	1	0	(14)
DOH MB -PLL25	1	0	0	0	(8)
DOH MB -DELAY25	1	1	0	0	(12)

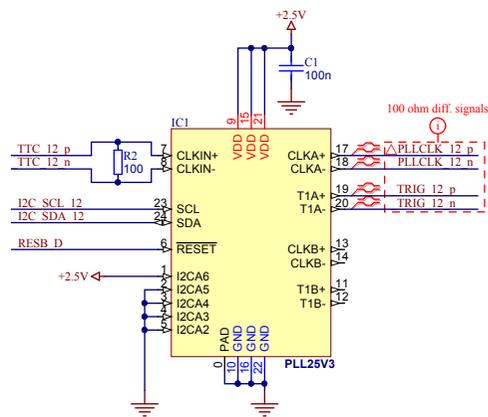
<b>Wigner FK</b> Budapest, Hungary <a href="http://www.wigner.hu">www.wigner.hu</a>	Title <b>DOH MB v2.1.1.PrjPCB</b> <b>DOM Motherboard Top</b>			
	Size <b>A3</b>	Scale <b>-</b>	Document Number	Revision <b>1.1</b>
Designer: <b>T. Tolyhi</b>	Modified: 2015.03.19.		Printed: 2015.06.15.	Sheet 1 of 6
Drawn by:	File: DOH MB v2.1.SchDoc			Approved:

### mDOH Connector

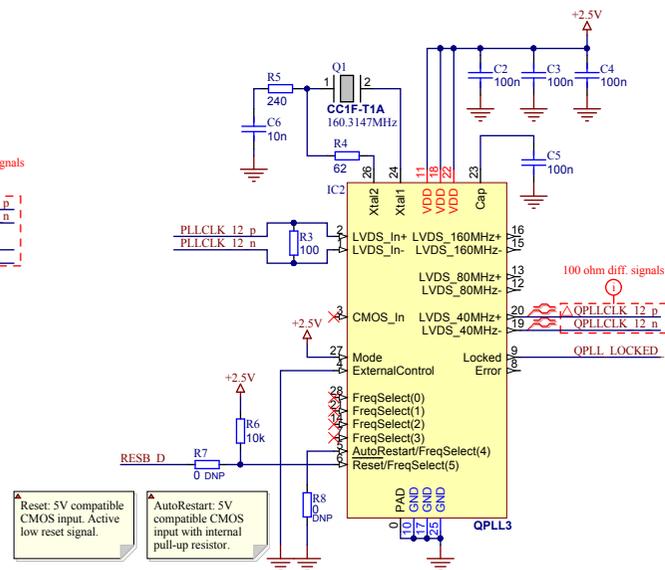


### TPLL

I2C\_Address: 1000 (8)



### QPLL



Reset: 5V compatible CMOS input. Active low reset signal.

AutoRestart: 5V compatible CMOS input with internal pull-up resistor.

QPLL Configuration:  
 ExternalControl = "0" and AutoRestart = "0":  
 Automatic restart of the PLL is disabled. A frequency calibration cycle will only occur after a reset.  
 ExternalControl = "0" and AutoRestart = "1":  
 Automatic restart is enabled. A frequency calibration cycle will occur each time the PLL is detected to be unlocked or after a reset.

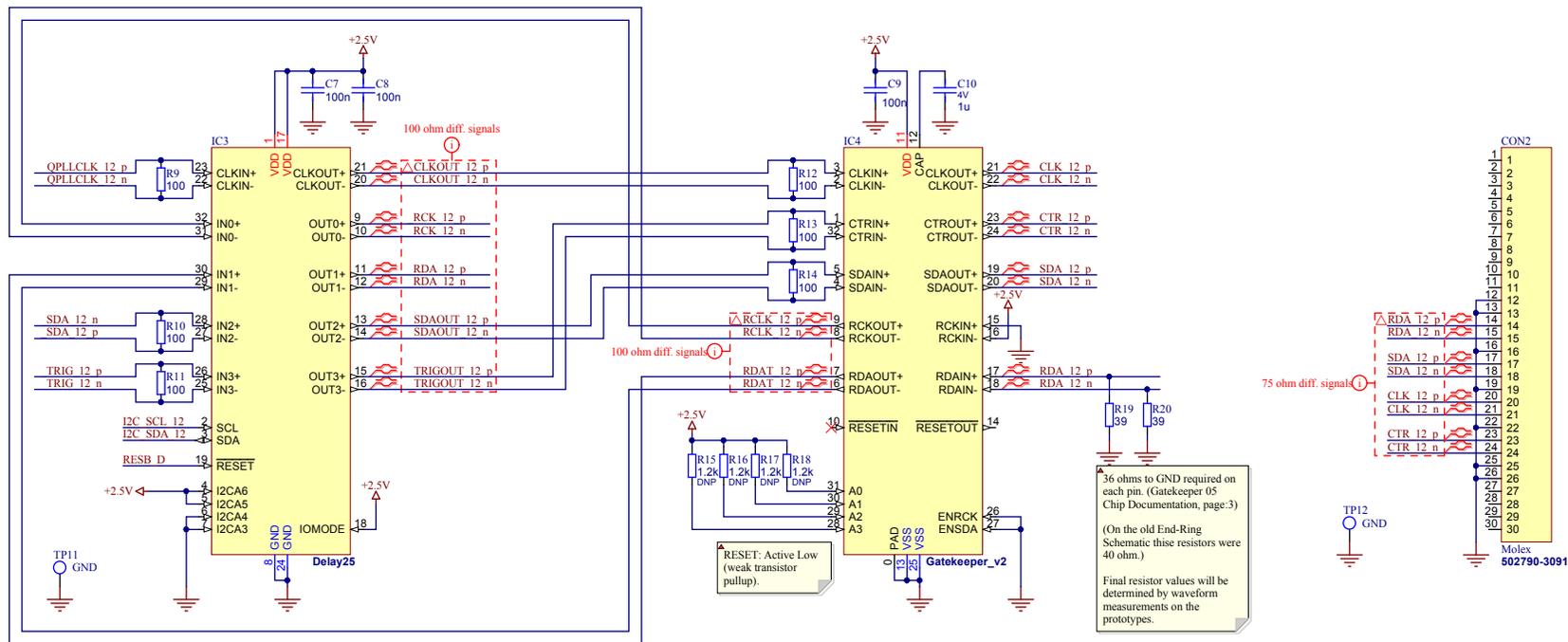
<b>Wigner FK</b> Budapest, Hungary www.wigner.hu		Title <b>DOH MB v2.1.1.PrjPCB</b> <b>Layer1&amp;2 PLL25 and QPLL</b>	
Designer: T. Tolyhi	Size <b>A3</b>	Scale <b>-</b>	Revision <b>1.1</b>
Drawn by:	Modified: 2015.06.15.	Document Number	Printed: 2015.06.15.
Approved:	File: L1&L2 PLL25 and QPLL.SchDoc	Sheet <b>2</b> of <b>6</b>	

### Delay25

I2C\_Address: 1100 (12)

### GateKeeper

### AdapterBoard L1&L2 Connector

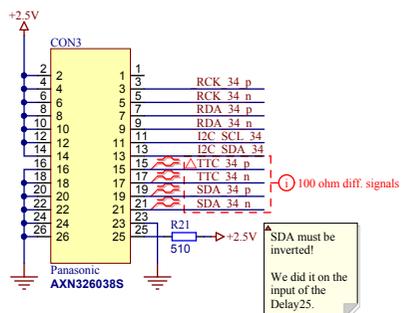


36 ohms to GND required on each pin. (Gatekeeper 05 Chip Documentation, page:3)  
(On the old End-Ring Schematic these resistors were 40 ohm.)  
Final resistor values will be determined by waveform measurements on the prototypes.

RESET: Active Low (weak transistor pullup).

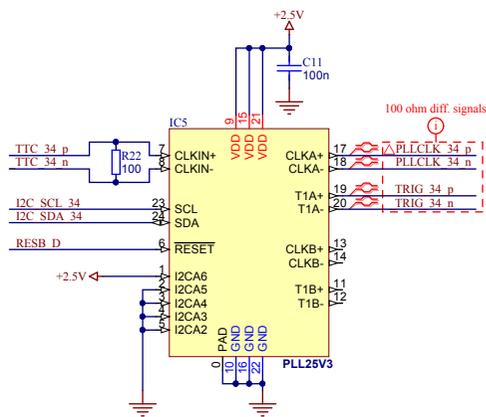
<b>Wigner FK</b> Budapest, Hungary www.wigner.hu		Title <b>DOH MB v2.1.1.PjPCB</b> <b>Layer1&amp;2 Delay25 and GateKeeper</b>		
Designer: T. Tolyhi	Size <b>A3</b>	Scale <b>-</b>	Document Number	Revision <b>1.1</b>
Drawn by:	Modified: 2015.06.15.	Printed: 2015.06.15.	Sheet 3 of 6	
Approved:	File: L1&L2 Delay25 and GateKeeper.SchDoc			

**mDOH Connector**

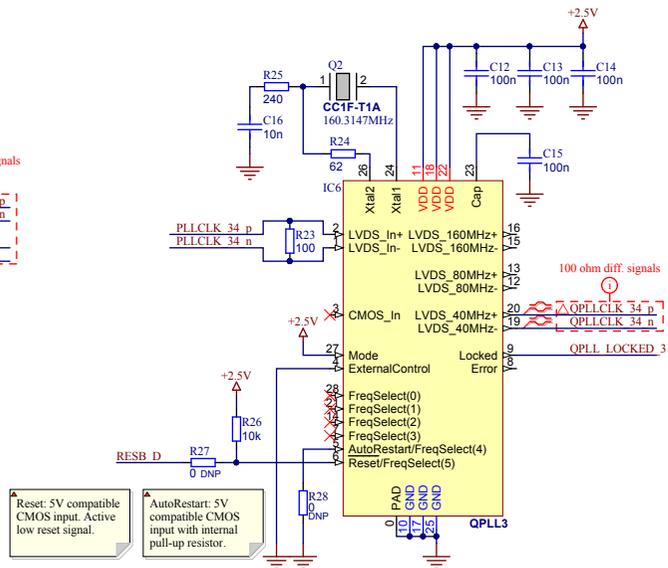


**TPLL**

I2C\_Address: 1000 (8)



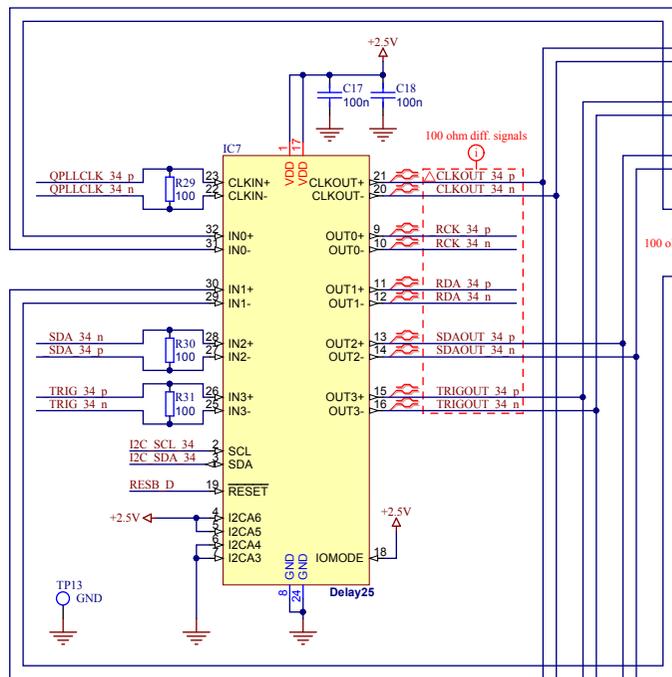
**QPLL**



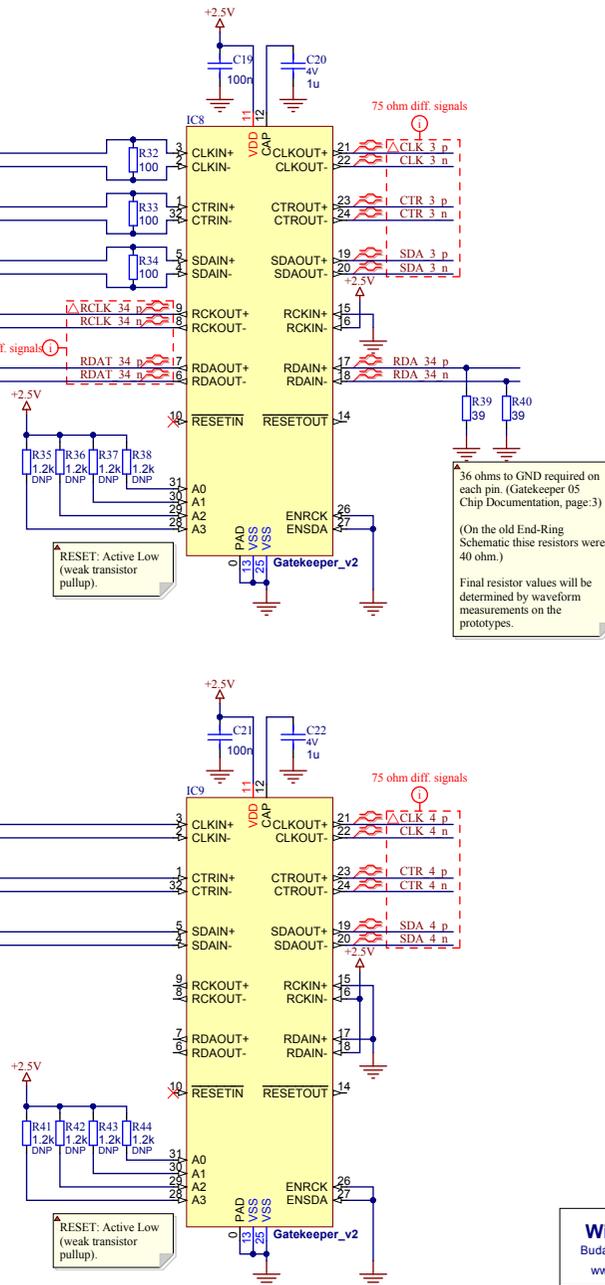
<b>Wigner FK</b> Budapest, Hungary www.wigner.hu		Title <b>DOH MB v2.1.1.PrjPCB</b> <b>Layer3&amp;4 PLL25 and QPLL</b>	
Designer: T. Tolyhi	Size <b>A3</b>	Scale <b>-</b>	Revision <b>1.1</b>
Drawn by:	Modified: 2015.06.15.	Printed: 2015.06.15.	Sheet 4 of 6
Approved:	File: L3&L4 PLL25 and QPLL.SchDoc		

### Delay25

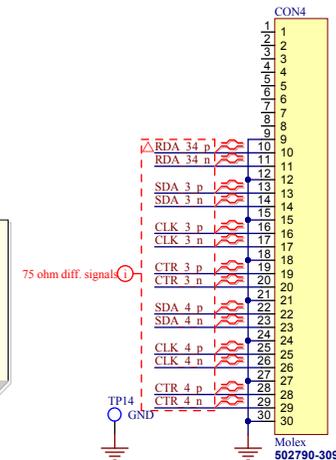
I2C\_Address: 1100 (12)



### GateKeeper



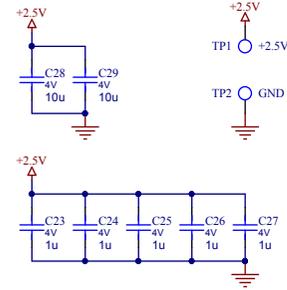
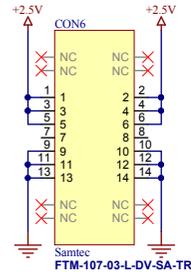
### AdapterBoard L3&L4 Connector



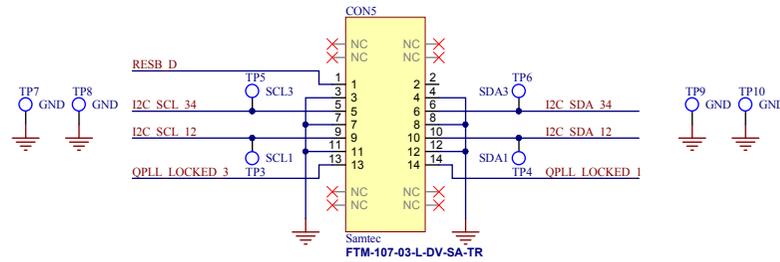
36 ohms to GND required on each pin. (Gatekeeper 05 Chip Documentation, page:3)  
 (On the old End-Ring Schematic these resistors were 40 ohm.)  
 Final resistor values will be determined by waveform measurements on the prototypes.

<b>Wigner FK</b> Budapest, Hungary www.wigner.hu		Title <b>DOH MB v2.1.1.PrjPCB</b> <b>Layer3&amp;4 Delay25 and GateKeeper</b>		
Designer: T. Tolyhi	Size <b>A3</b>	Scale <b>-</b>	Document Number	Revision <b>1.1</b>
Drawn by:	Modified: 2015.06.15.	Printed: 2015.06.15.	Sheet 5 of 6	
Approved:	File: L3&L4 Delay25 and GateKeeper.SchDoc			

**Power from POH MB**



**Control from POH MB**



<b>Wigner FK</b> Budapest, Hungary www.wigner.hu		Title <b>DOH MB v2.1.1.PrjPCB</b> Power and Control Connectors		
Designer: T. Tolyhi	Size <b>A3</b>	Scale <b>-</b>	Document Number	Revision <b>1.1</b>
Drawn by:	Modified: 2015.03.30.	Printed: 2015.06.15.	Sheet <b>6 of 6</b>	
Approved:	File: Power and Control.SchDoc			