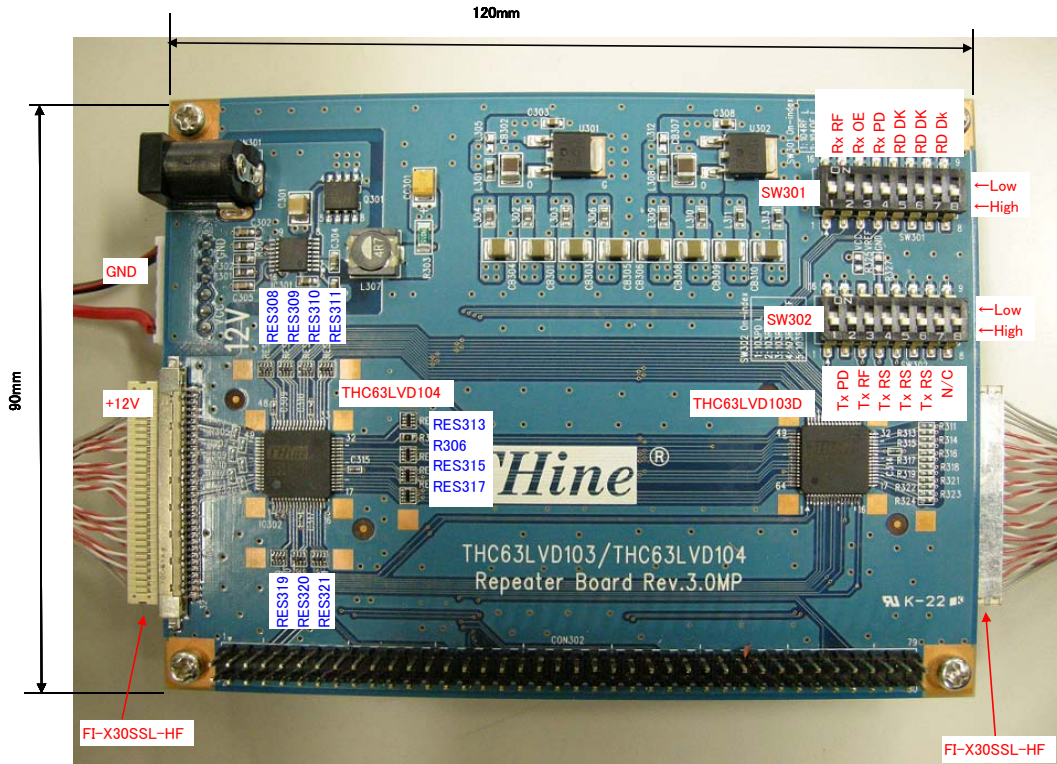


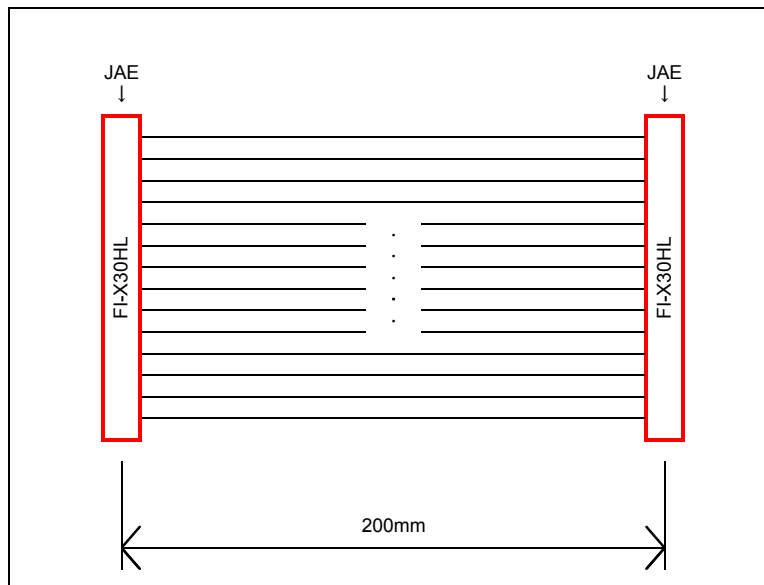
## To Our Customers

Continuing its rich tradition of partnering with high quality Japanese semiconductor suppliers, CEL is now partnering with THine from May of 2015 onwards.

Description



LVDS-Cable Type.



**SW301 Setting**

\* Def. : Default Setting

THC63LVD104S																										
SW Pin#	* Def.	NodeName	IC Pin#	PinName	Description																					
1	H	Rx RF	5	R/F	Output Clock Triggering Edge Select. H : Rising Edge L : Falling Edge																					
2	H	Rx OE	4	OE	Output Enable. H : Output enable. L : Output disable.																					
3	H	Rx PD	3	PD	Power down and Output Control. H : Normal operation L : Power down																					
4	H	Rx DK	2	DK	Output Clock Delay Timing Select. tRCP=Output Clock Cycle																					
5	H				<table border="1"> <thead> <tr> <th colspan="3">SW-Pin#</th> <th rowspan="2">Offset[nsec]</th> </tr> <tr> <th>4</th> <th>5</th> <th>6</th> </tr> </thead> <tbody> <tr> <td>L</td> <td>H(open)</td> <td>H(open)</td> <td><math>3 \frac{tRCP}{14}</math></td> </tr> <tr> <td>H(open)</td> <td>L</td> <td>H(open)</td> <td><math>-3 \frac{tRCP}{14}</math></td> </tr> <tr> <td>H(open)</td> <td>H(open)</td> <td>L</td> <td>0</td> </tr> </tbody> </table>			SW-Pin#			Offset[nsec]	4	5	6	L	H(open)	H(open)	$3 \frac{tRCP}{14}$	H(open)	L	H(open)	$-3 \frac{tRCP}{14}$	H(open)	H(open)	L	0
SW-Pin#					Offset[nsec]																					
4	5	6																								
L	H(open)	H(open)	$3 \frac{tRCP}{14}$																							
H(open)	L	H(open)	$-3 \frac{tRCP}{14}$																							
H(open)	H(open)	L	0																							
6	L																									
7	H	N/C	-	-	Non Connected																					
8	H																									

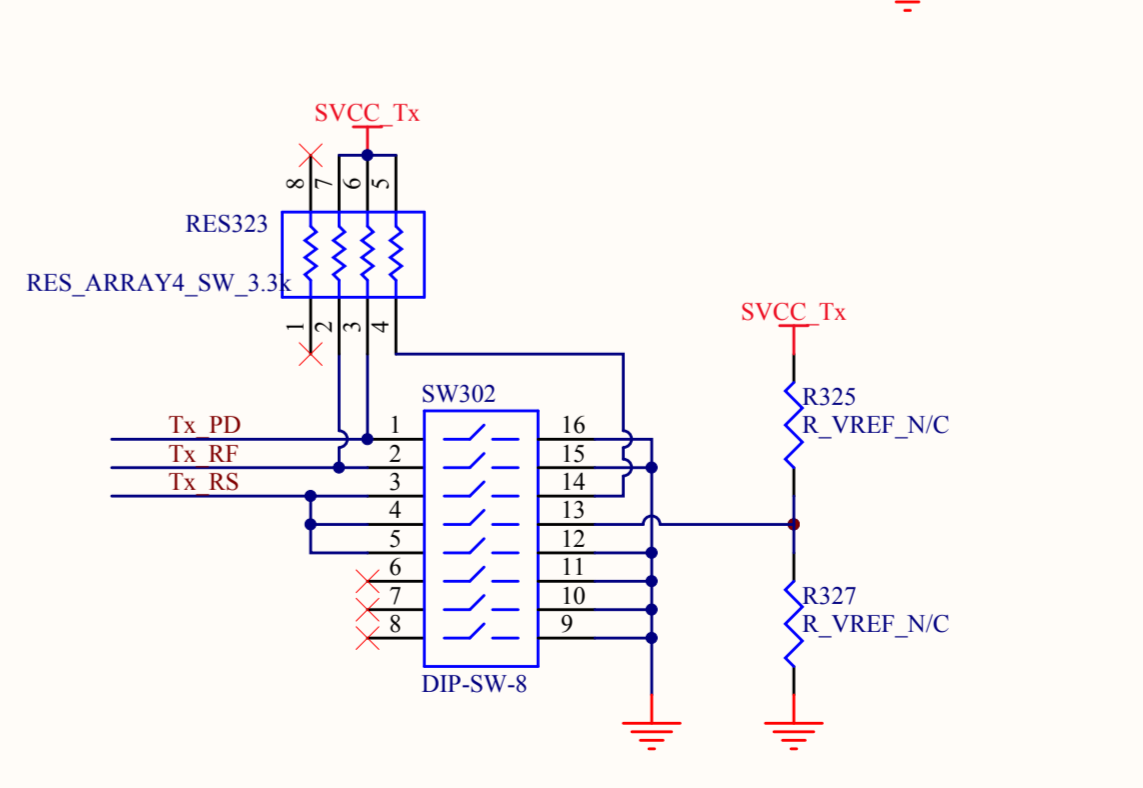
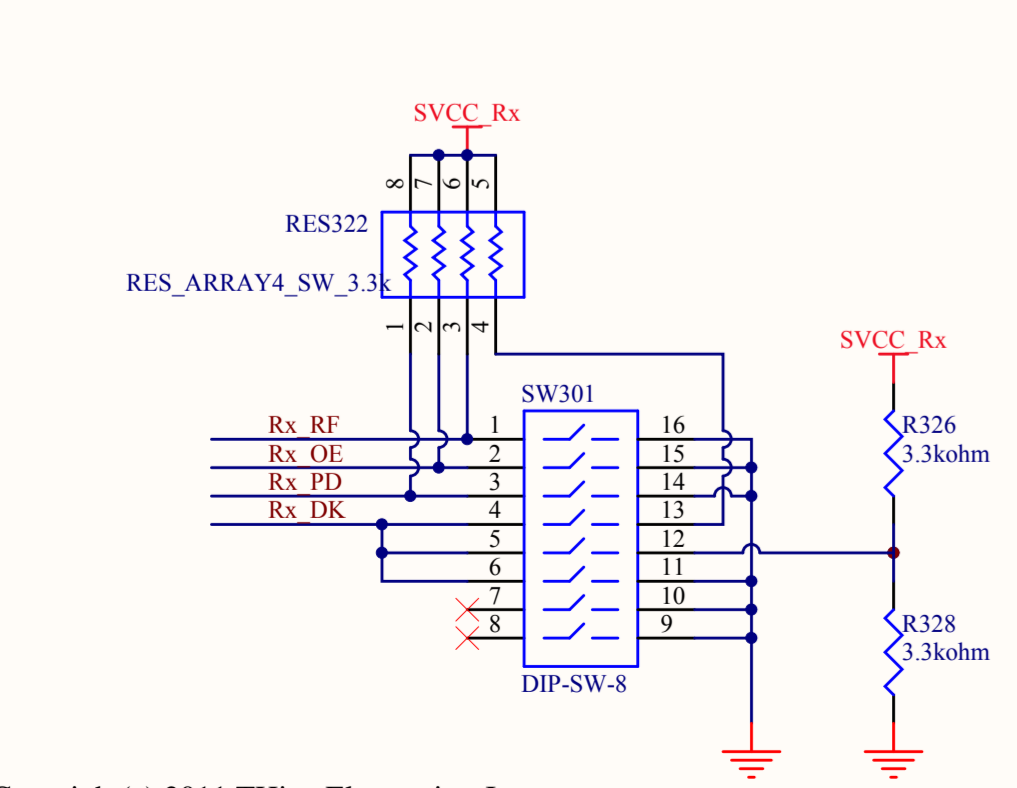
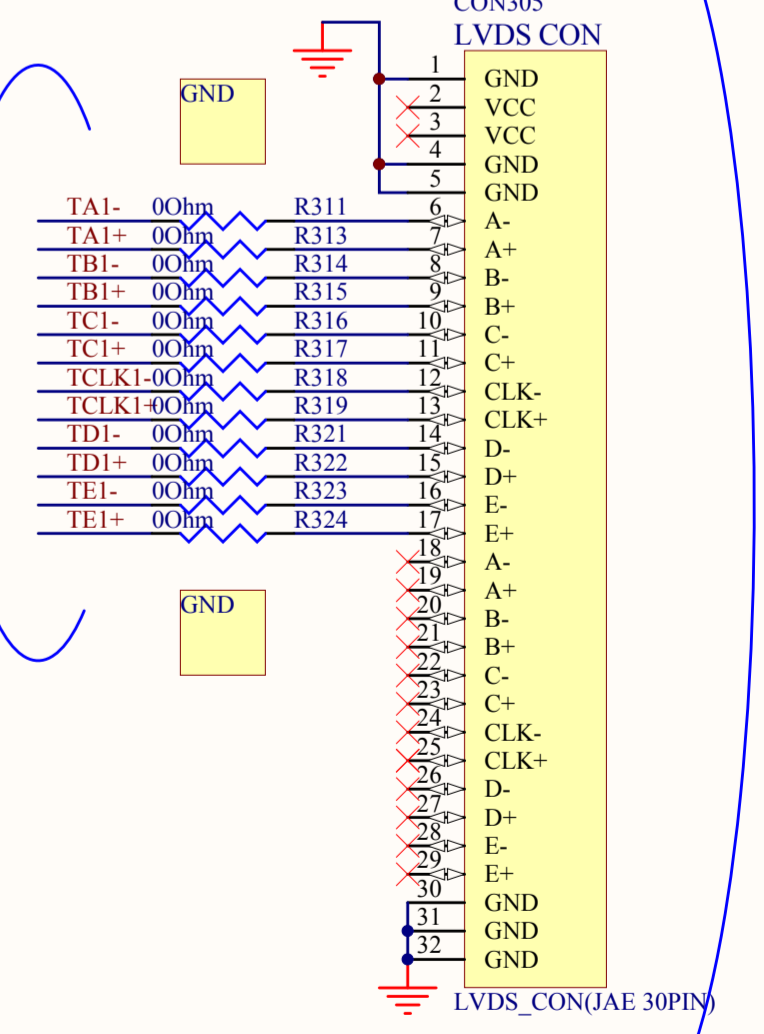
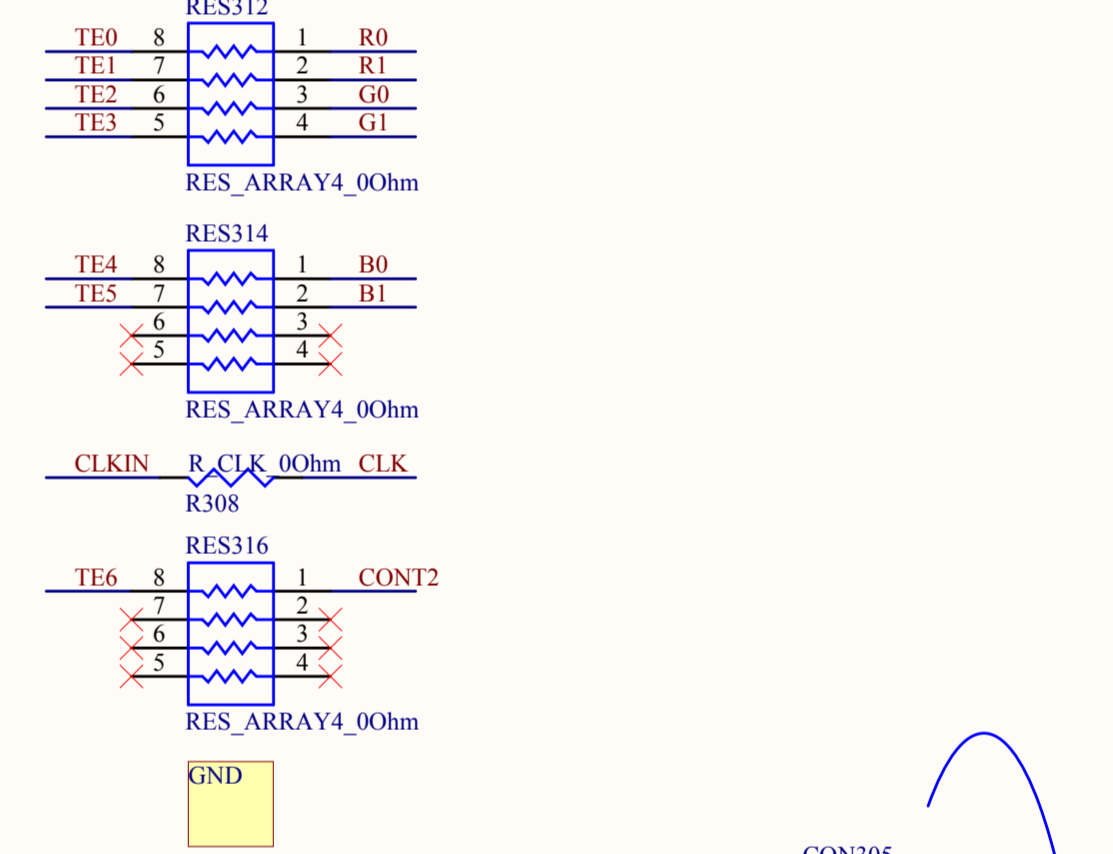
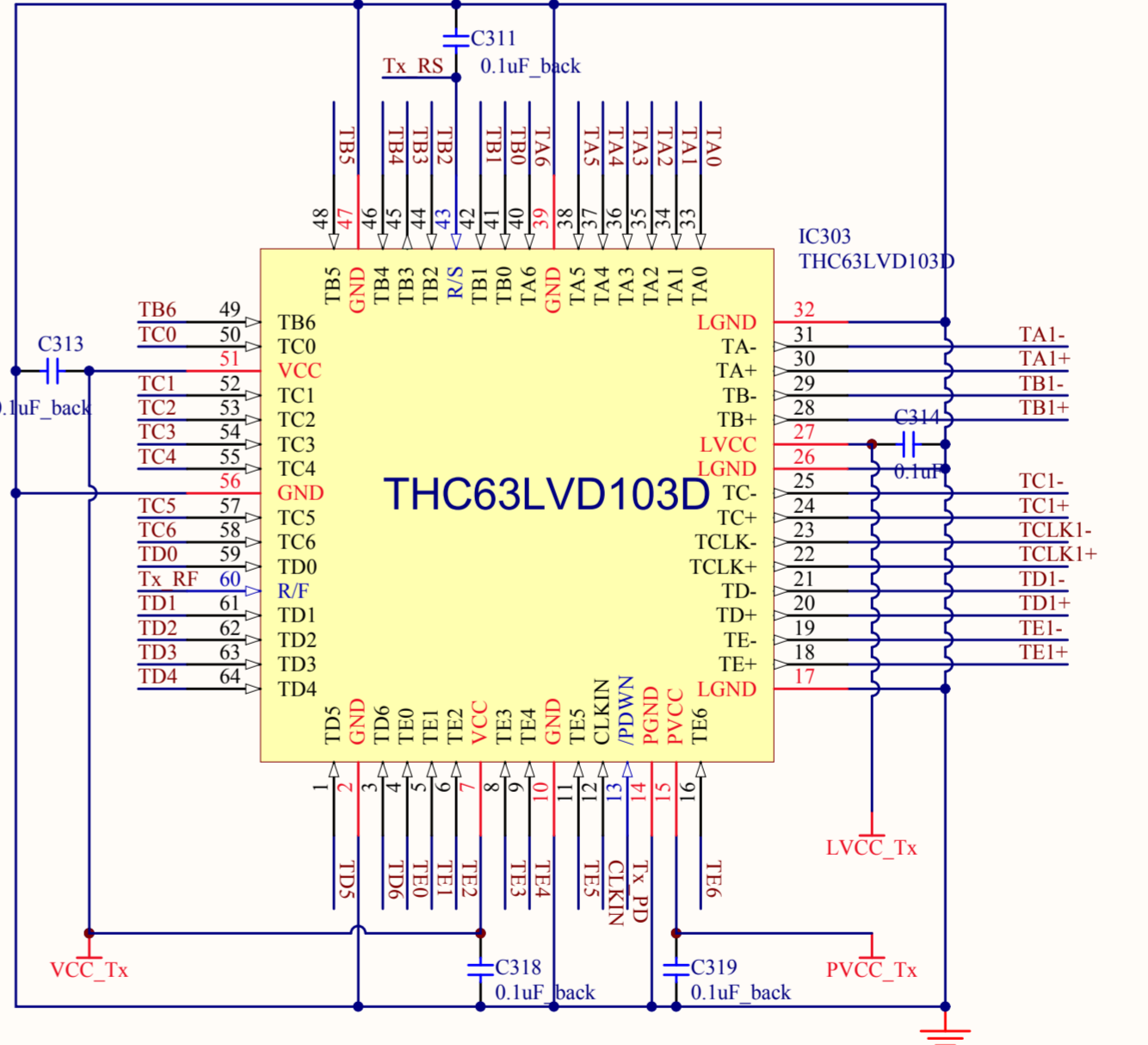
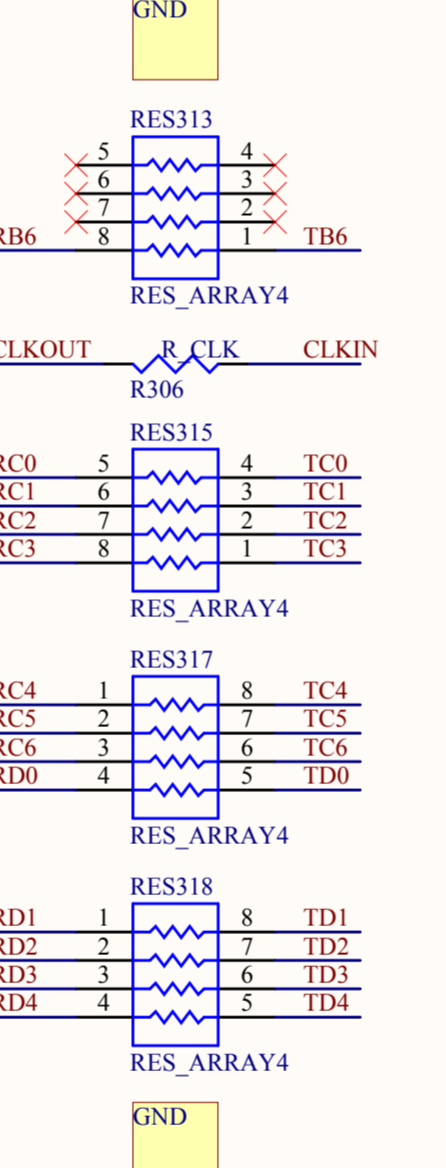
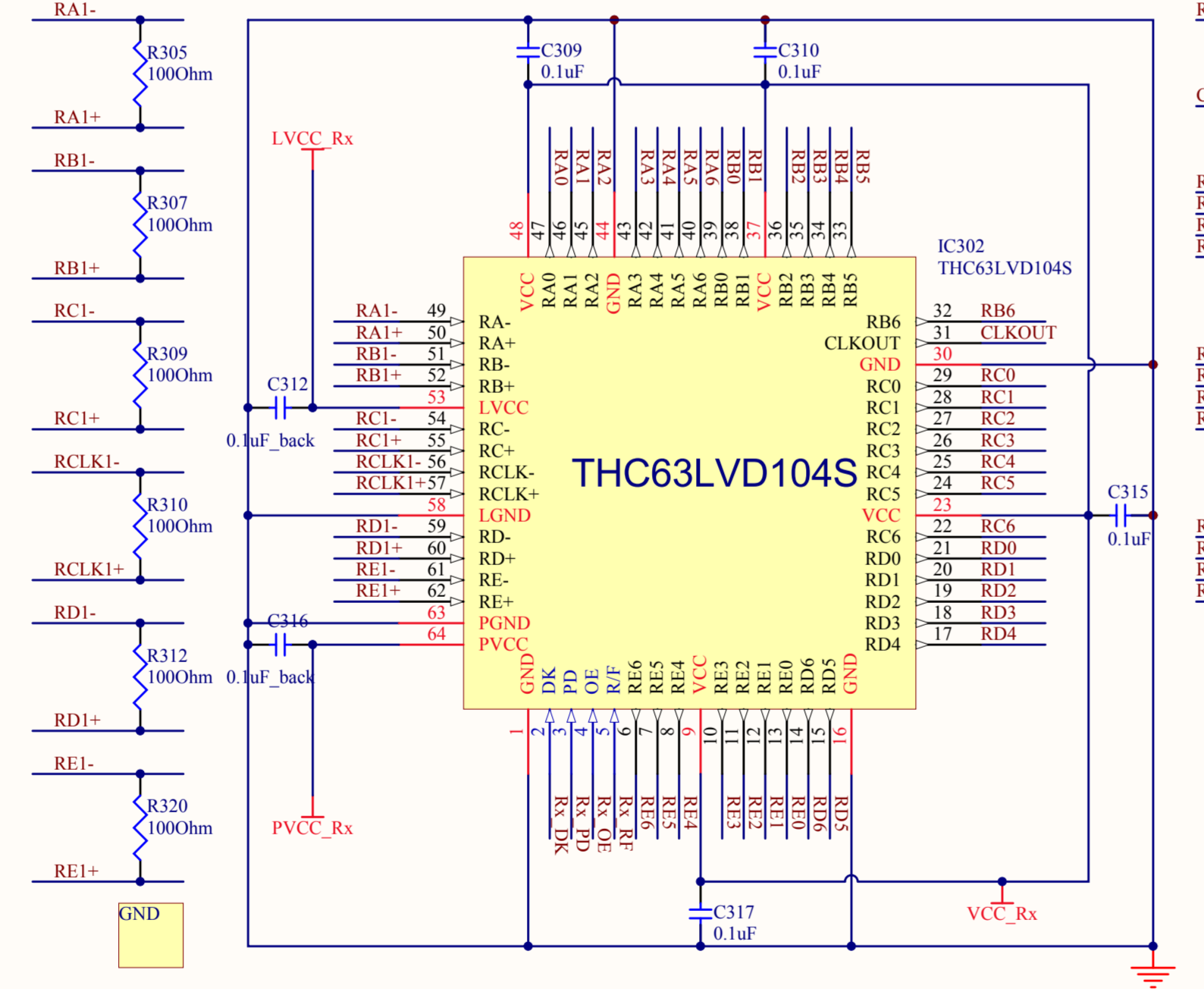
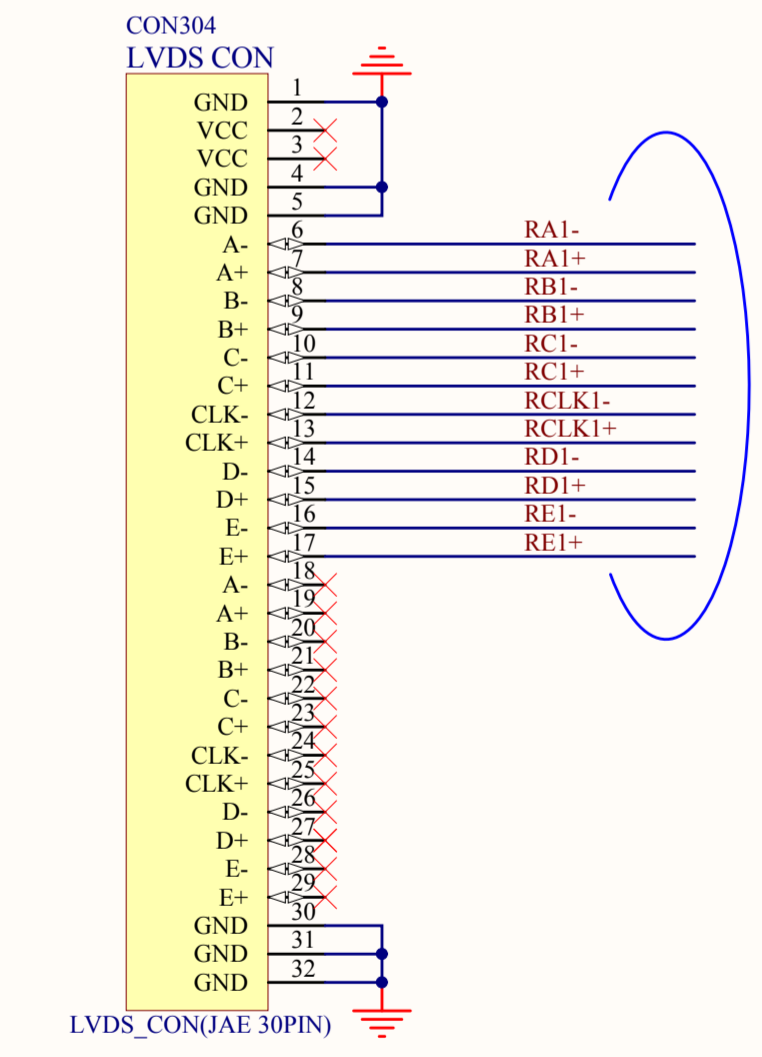
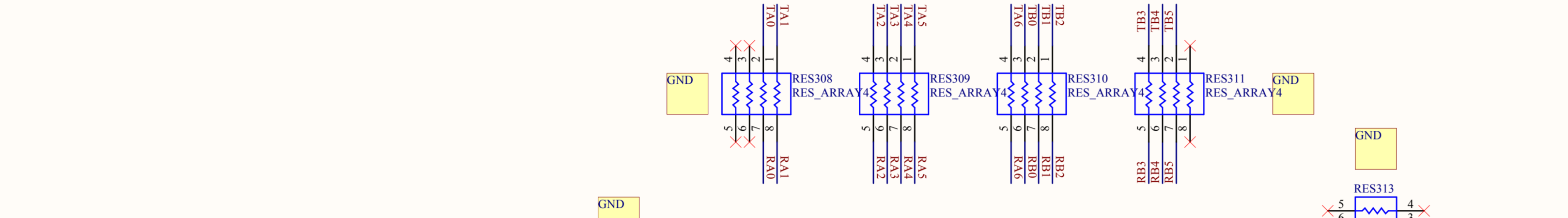
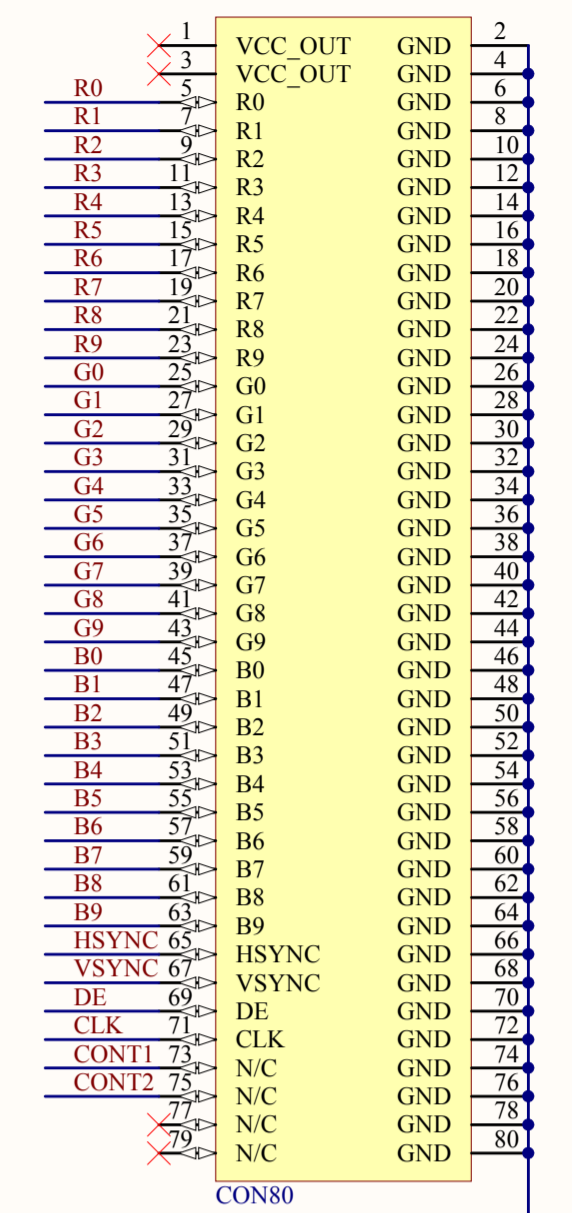
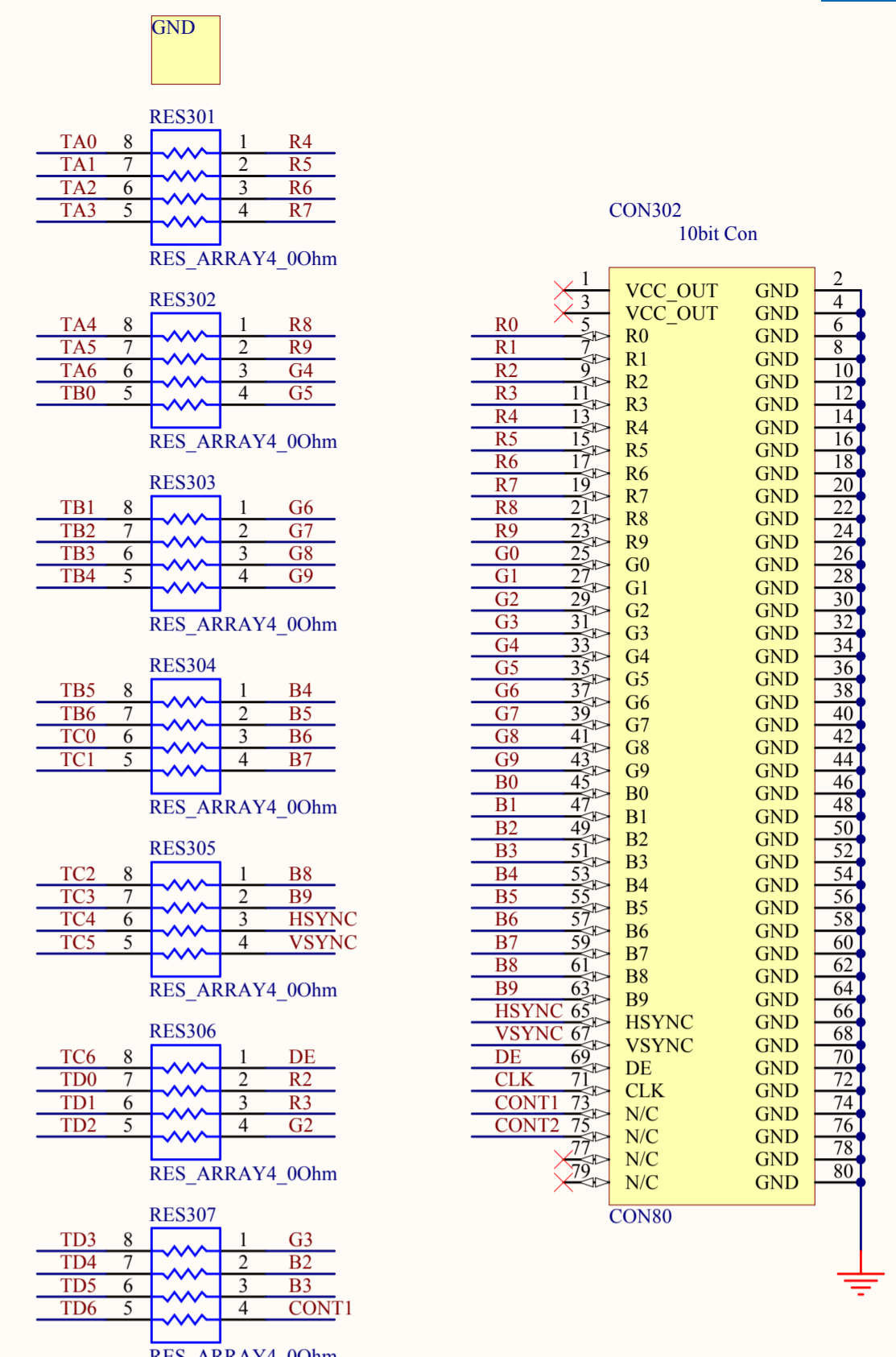
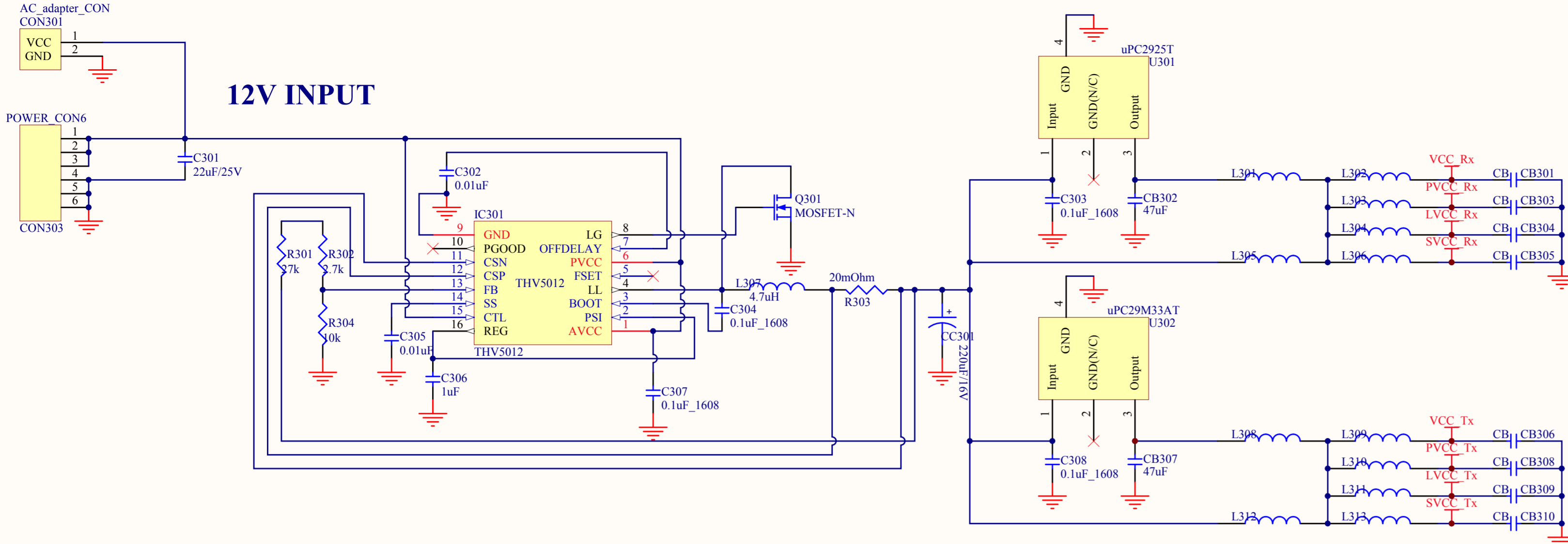
**SW302 Setting**

\* Def. : Default Setting

THC63LVD103D																																			
SW Pin#	* Def.	Node Name	IC Pin#	PinName	Description																														
1	H	Tx PD	13	/PDWN	H : Normal operation, L : Power down (all outputs are Hi-Z)																														
2	H	Tx RF	60	R/F	Input Clock Triggering Edge Select. H : Rising edge, L : Falling edge																														
3	H	Tx RS	43	RS	LVDS swing mode, VREF select.																														
4	H				<table border="1"> <thead> <tr> <th colspan="3">SW-Pin#</th> <th rowspan="2">RS</th> <th rowspan="2">LVDS Swing</th> <th rowspan="2">Small Swing Input Support</th> </tr> <tr> <th>3</th> <th>4</th> <th>5</th> </tr> </thead> <tbody> <tr> <td>L</td> <td>H(open)</td> <td>H(open)</td> <td>VCC</td> <td>350mV</td> <td>N/A</td> </tr> <tr> <td>H(open)</td> <td>L</td> <td>H(open)</td> <td>0.6 ~ 1.4V</td> <td>350mV</td> <td>RS=VREF<sup>a</sup></td> </tr> <tr> <td>H(open)</td> <td>H(open)</td> <td>L</td> <td>GND</td> <td>200mV</td> <td>N/A</td> </tr> </tbody> </table>				SW-Pin#			RS	LVDS Swing	Small Swing Input Support	3	4	5	L	H(open)	H(open)	VCC	350mV	N/A	H(open)	L	H(open)	0.6 ~ 1.4V	350mV	RS=VREF <sup>a</sup>	H(open)	H(open)	L	GND	200mV	N/A
SW-Pin#					RS	LVDS Swing	Small Swing Input Support																												
3	4	5																																	
L	H(open)	H(open)	VCC	350mV	N/A																														
H(open)	L	H(open)	0.6 ~ 1.4V	350mV	RS=VREF <sup>a</sup>																														
H(open)	H(open)	L	GND	200mV	N/A																														
5	L	a.) VREF is Input Reference Voltage.																																	
6	H	N/C	-	-	Non Connected																														
7	H																																		
8	H																																		

**Measures Type**

#	Type	Un-Mount	0Ω-Mount	33Ω-Mount
1		RES301 RES302 RES303 RES304 RES305 RES306 RES307 RES312 RES314 RES316 R308	/	RES308 RES309 RES310 RES311 RES313 RES315 RES317 RES318 RES319 RES320 RES321 R306
2		/	RES301 RES302 RES303 RES304 RES305 RES306 RES307 RES312 RES314 RES316 R308	RES308 RES309 RES310 RES311 RES313 RES315 RES317 RES318 RES319 RES320 RES321 R306
3		THC63LVD103D	RES301 RES302 RES303 RES304 RES305 RES306 RES307 RES312 RES314 RES316 R308	RES308 RES309 RES310 RES311 RES313 RES315 RES317 RES318 RES319 RES320 RES321 R306
4		RES308 RES309 RES310 RES311 RES313 RES315 RES317 RES318 RES319 RES320 RES321 R306	RES301 RES302 RES303 RES304 RES305 RES306 RES307 RES312 RES314 RES316 R308	/



Comment	Designator	Description	Package	Manufacturer	Quantity
22uF/25V	C301	Capacitor	SMT3225		1
0.01uF	C302, C305	Capacitor	SMT1608		2
0.1uF_1608	C303, C304, C307,	Capacitor	SMT1608		4
1uF	C306	Capacitor	SMT1608		1
0.1uF	C309, C310, C314, C315, C317	Capacitor	SMT0603		5
0.1uF_back	C311, C312, C313, C316, C318, C319	Capacitor	SMT1608		6
CB	CB301, CB303, CB304, CB305, CB306, CB308, CB309, CB310	GRM32EB11A106KC01	SMT3225	murata	8
47uF	CB302, CB307	Capacitor	SMT3225		2
220uF/16V	CC301	T520B157M006ATE045	SMT3528	KEMET	1
AC_adapter_CON	CON301	MJ-179P	DC Jack : Mating Plug 5.5x2.1	Marushin	1
CON80	CON302	2x40 Pin Header	2.54mm pitch (2x40pin)		1
POWER_CON6	CON303	S 6B-EH	2.5mm pitch 6pin	JST	1
LVDS_CON(JAE 30PIN)	CON304, CON305	FI-X30SSL-HF	FI-X30SSL-HF	JAE	2
THV5012	IC301	THV5012	TSSOP16 Pins	THine	1
THC63LVD104S	IC302	THC63LVD104S	TQFP 64pin	THine	1
THC63LVD103D	IC303	THC63LVD103D	TQFP 64pin	THine	1
L	L301, L302, L303, L304, L305, L306, L308, L309, L310, L311, L312, L313	MPZ1608B471A	SMT1608	TDK	12
4.7uH	L307	RLF7030T-4R7M3R4	RLF Series	TDK	1
MOSFET-N	Q301	uPA2706	Power HSOP	NEC	1
27k	R301	Resistance	SMT1608		1
2.7k	R302	Resistance	SMT1608		1
20mOhm	R303	RL1632T-R015-G	SMT3216	Susumu	1
10k	R304	Resistance	SMT1608		1
1000hm	R305, R307, R309, R310, R312, R320	Resistor	SMT1005		6
R_CLK	R306	Resistor 33ohm	SMT1005		1
R_CLK_00hm	R308	Resistor	SMT1005		1
00hm	R311, R313, R314, R315, R316, R317, R318, R319, R321, R322, R323, R324	Resistor	SMT1005		12
R_VREF_N/C	R325, R327	Resistance	SMT1608		2
3.3kohm	R326, R328	Resistance	SMT1608		2
RES_ARRAY4_00hm	RES301, RES302, RES303, RES304, RES305, RES306, RES307, RES312, RES314, RES316	Resistor Array	SMT 2010		10
RES_ARRAY4	RES308, RES309, RES310, RES311, RES313, RES315, RES317, RES318, RES319, RES320, RES321	Resistor Array 33ohm	SMT 2010		11
RES_ARRAY4_SW_3.3k	RES322, RES323	Resistor Array	SMT 2010		2
DIP-SW-8	SW301, SW302	A6S-8104	A6S-8104	omron	2
uPC2925T	U301	uPC2925T	SC-63	NEC	1
uPC29M33AT	U302	uPC2933AT-AZ	SC-63	NEC	1

## **Notices and Requests**

1. The product specifications described in this material are subject to change without prior notice.
2. The circuit diagrams described in this material are examples of the application which may not always apply to the customer's design. We are not responsible for possible errors and omissions in this material. Please note if errors or omissions should be found in this material, we may not be able to correct them.
3. This material contains our copy right, know-how or other proprietary. Copying or disclosing to third parties the contents of this material without our prior permission is prohibited.
4. Note that if infringement of any third party's industrial ownership should occur by using this product, we will be exempted from the responsibility unless it directly relates to the production process or functions of the product.
5. This product is presumed to be used for general electric equipment, not for the applications which require very high reliability (including medical equipment directly concerning people's life, aerospace equipment, or nuclear control equipment). Also, when using this product for the equipment concerned with the control and safety of the transportation means, the traffic signal equipment, or various Types of safety equipment, please do it after applying appropriate measures to the product.
6. Despite our utmost efforts to improve the quality and reliability of the product, faults will occur with a certain small probability, which is inevitable to a semi-conductor product. Therefore, you are encouraged to have sufficient redundant or error preventive design applied to the use of the product so as not to have our product cause any social or public damage.
7. Please note that this product is not designed to be radiation-proof.
8. Customers are asked, if required, to judge by themselves if this product falls under the category of strategic goods under the Foreign Exchange and Foreign Trade Control Law.

***THine Electronics, Inc.***

**[sales@thine.co.jp](mailto:sales@thine.co.jp)**