

Audio Test Solutions, Inc.  
RLC-DSP404 Rev. E © 2012

Serial # [REDACTED]

Top Legend Layer

Ethernet  
Autopatch / Modem Port

Temperature Power

Initialize

Radio 1

Radio 2

Radio 3

Radio 4

I/O Port

WWW Receiver

13  
25  
14

JTAG PORT  
1 2  
1314

RESET SWITCH

Boot Mode Def  
1,2=On, 3=Off

Boot Mode 1 2 3

1.2V POWER

USB Host

U19 U18 U17 U16 U15 U14 U13 U12 U11 U10

U49 U48 U47 U46 U45 U44 U43 U42 U41 U40 U39 U38 U37 U36 U35 U34 U33 U32 U31 U30 U29 U28 U27 U26 U25 U24 U23 U22 U21 U20 U19 U18 U17 U16 U15 U14 U13 U12 U11 U10 U9 U8 U7 U6 U5 U4 U3 U2 U1

C28 C27 C26 C25 C24 C23 C22 C21 C20 C19 C18 C17 C16 C15 C14 C13 C12 C11 C10 C9 C8 C7 C6 C5 C4 C3 C2 C1

R28 R27 R26 R25 R24 R23 R22 R21 R20 R19 R18 R17 R16 R15 R14 R13 R12 R11 R10 R9 R8 R7 R6 R5 R4 R3 R2 R1

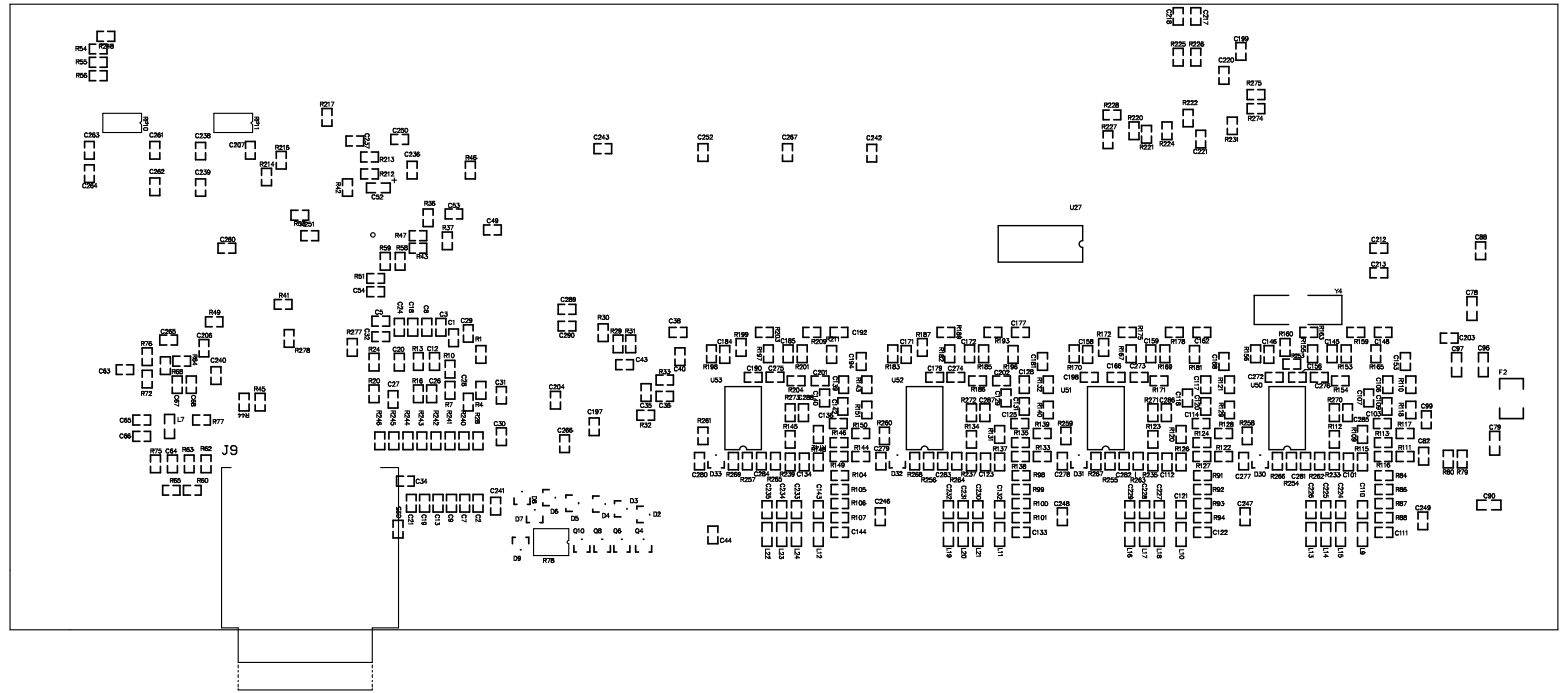
U19 U18 U17 U16 U15 U14 U13 U12 U11 U10 U9 U8 U7 U6 U5 U4 U3 U2 U1

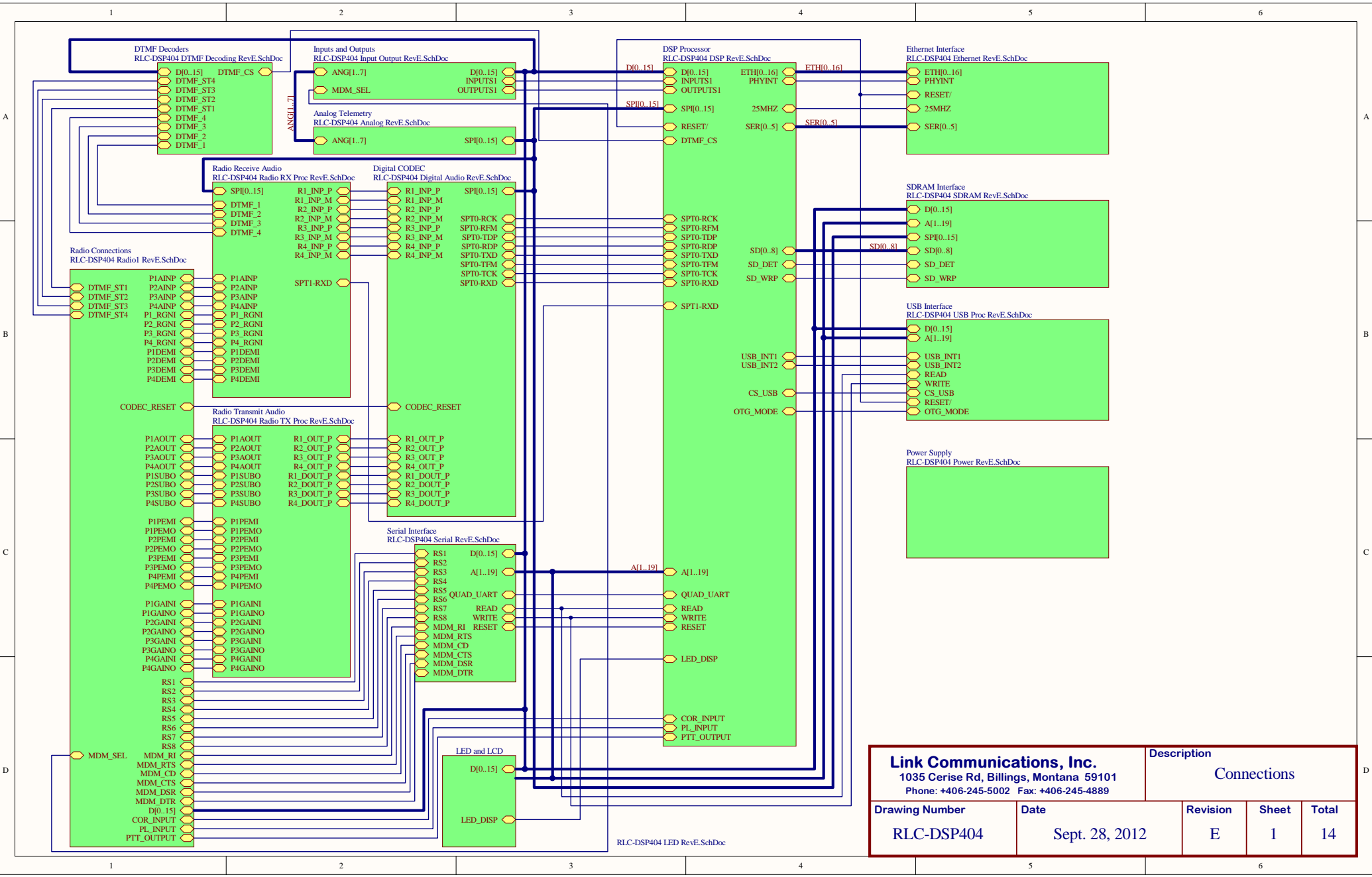
U19 U18 U17 U16 U15 U14 U13 U12 U11 U10 U9 U8 U7 U6 U5 U4 U3 U2 U1

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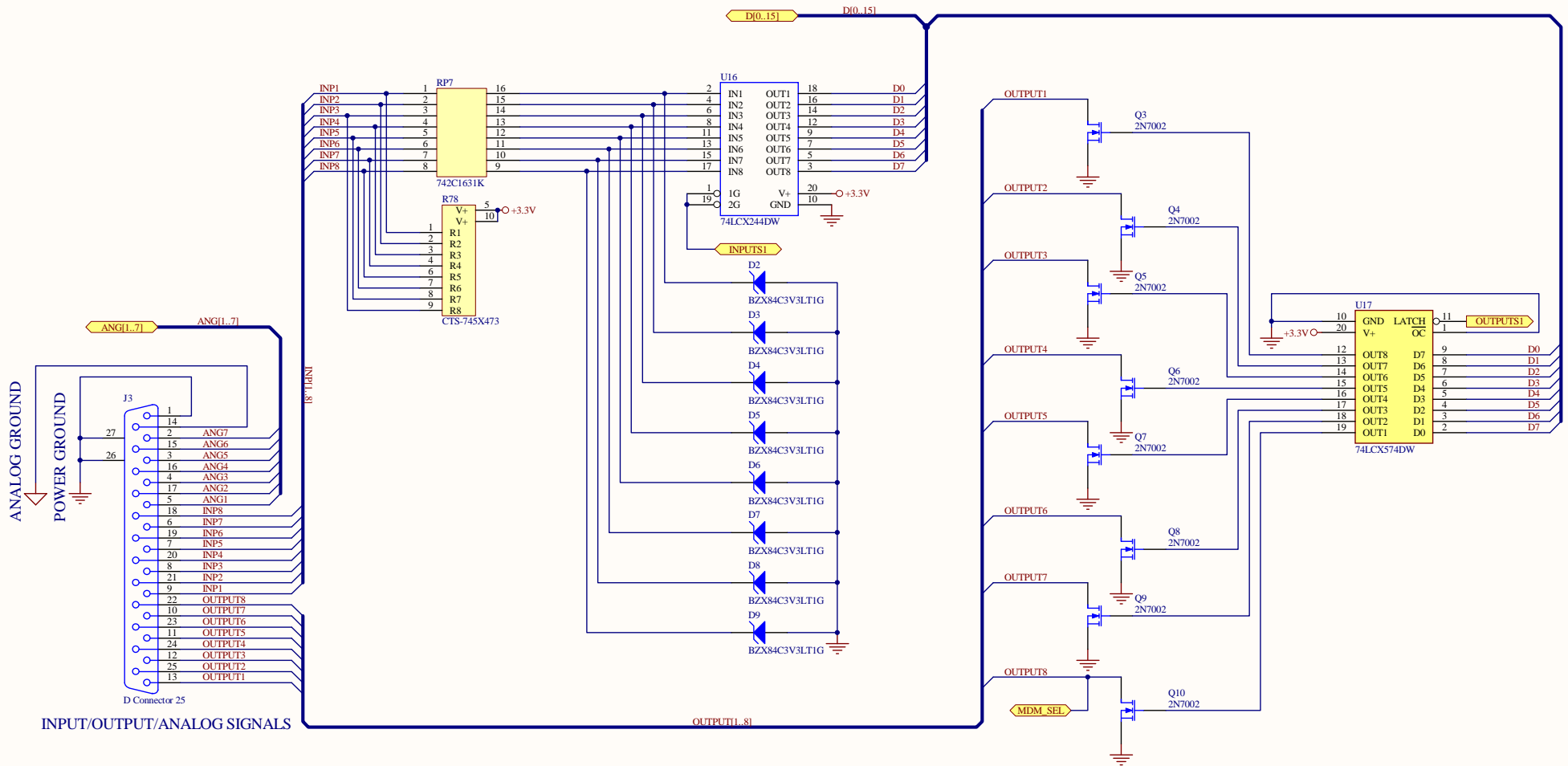
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Bottom Legend Layer:

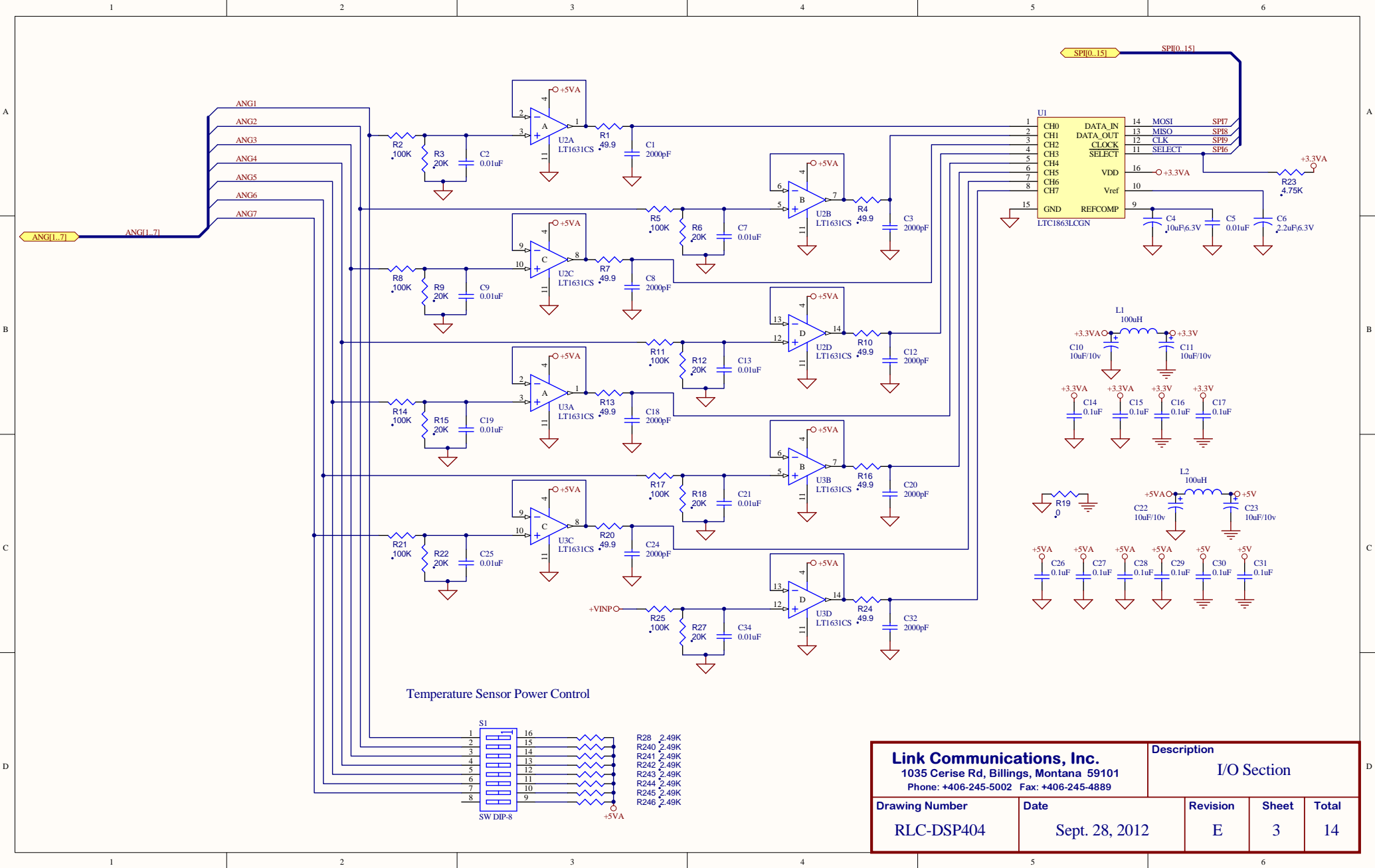




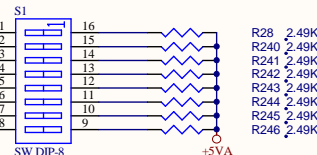
<b>Link Communications, Inc.</b> 1035 Cerise Rd, Billings, Montana 59101 Phone: +406-245-5002 Fax: +406-245-4889		<b>Description</b> Connections		
<b>Drawing Number</b> RLC-DSP404	<b>Date</b> Sept. 28, 2012	<b>Revision</b> E	<b>Sheet</b> 1	<b>Total</b> 14



<b>Link Communications, Inc.</b> 1035 Cerise Rd, Billings, Montana 59101 Phone: +406-245-5002 Fax: +406-245-4889		<b>Description</b> I/O Section		
<b>Drawing Number</b> RLC-DSP404	<b>Date</b> Sept. 28, 2012	<b>Revision</b> E	<b>Sheet</b> 2	<b>Total</b> 14

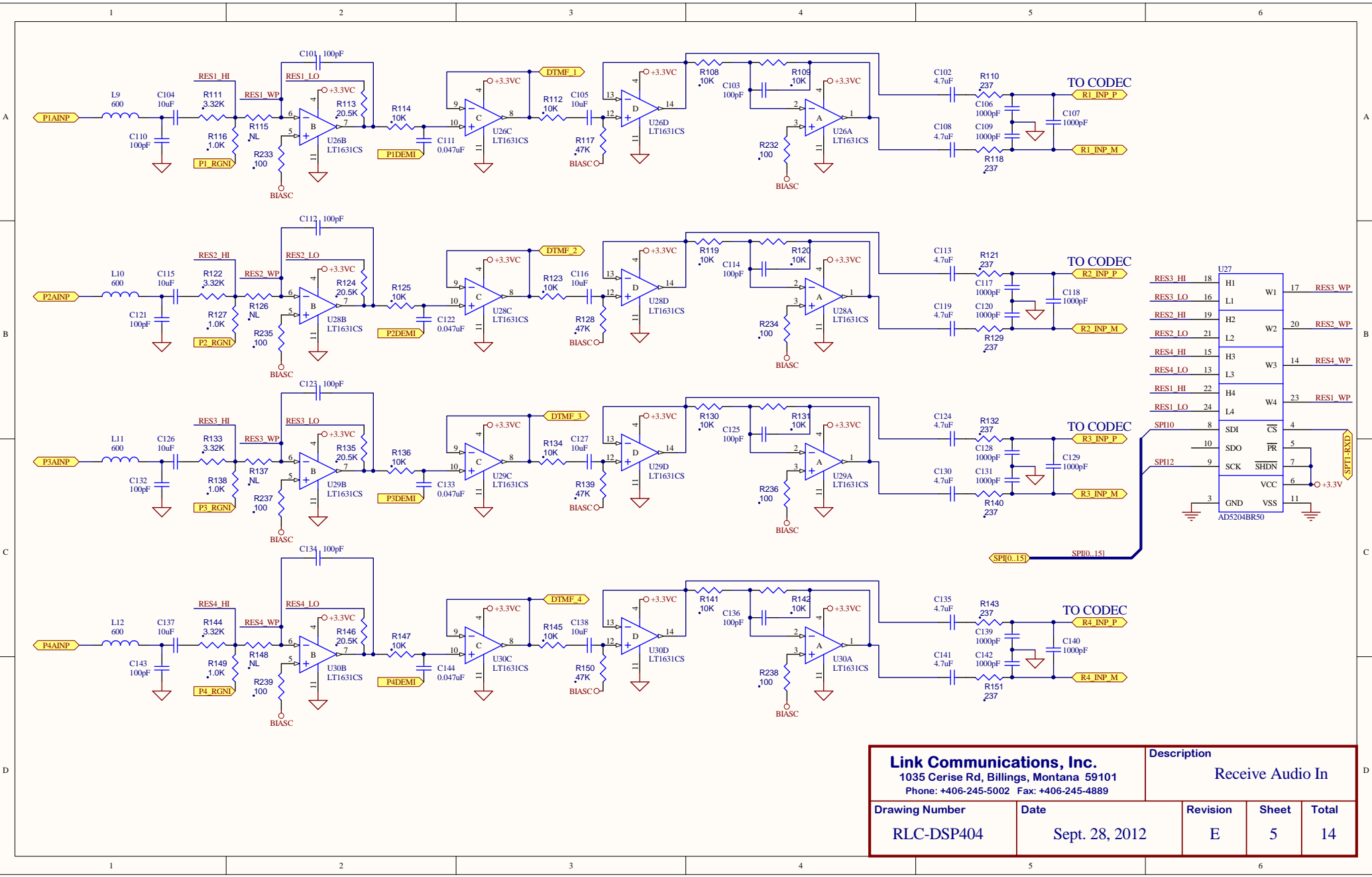


Temperature Sensor Power Control

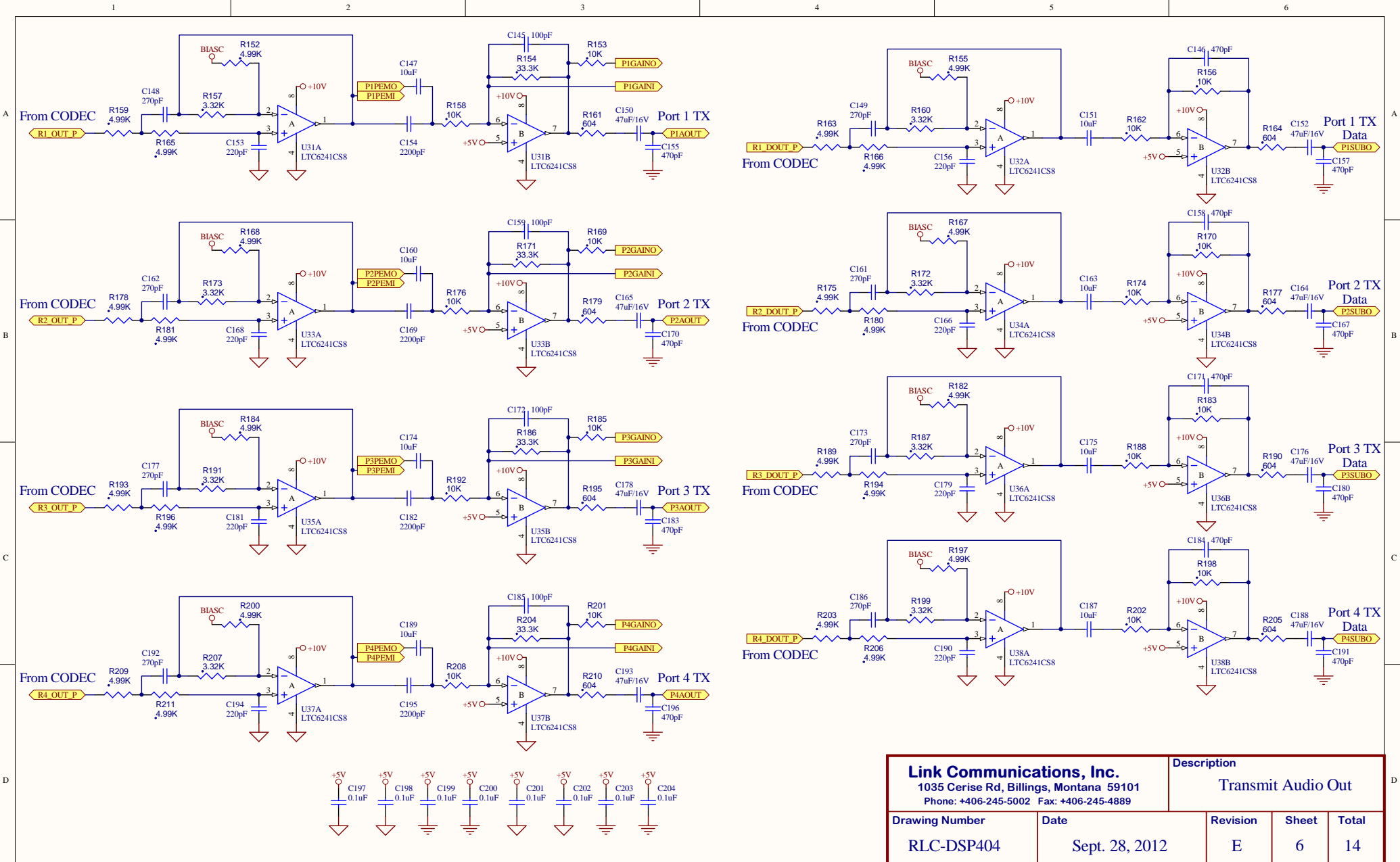


<b>Link Communications, Inc.</b> 1035 Cerise Rd, Billings, Montana 59101 Phone: +406-245-5002 Fax: +406-245-4889		<b>Description</b> I/O Section		
<b>Drawing Number</b> RLC-DSP404	<b>Date</b> Sept. 28, 2012	<b>Revision</b> E	<b>Sheet</b> 3	<b>Total</b> 14



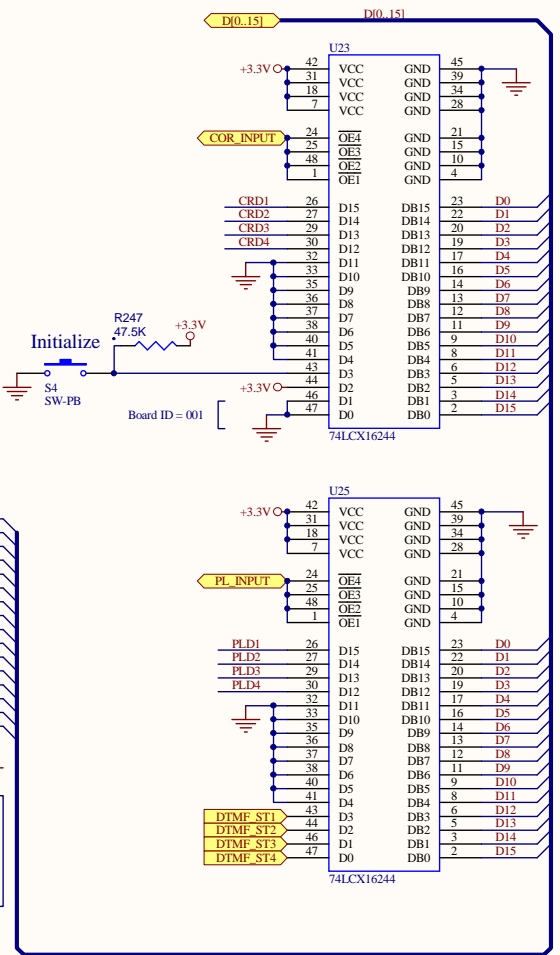
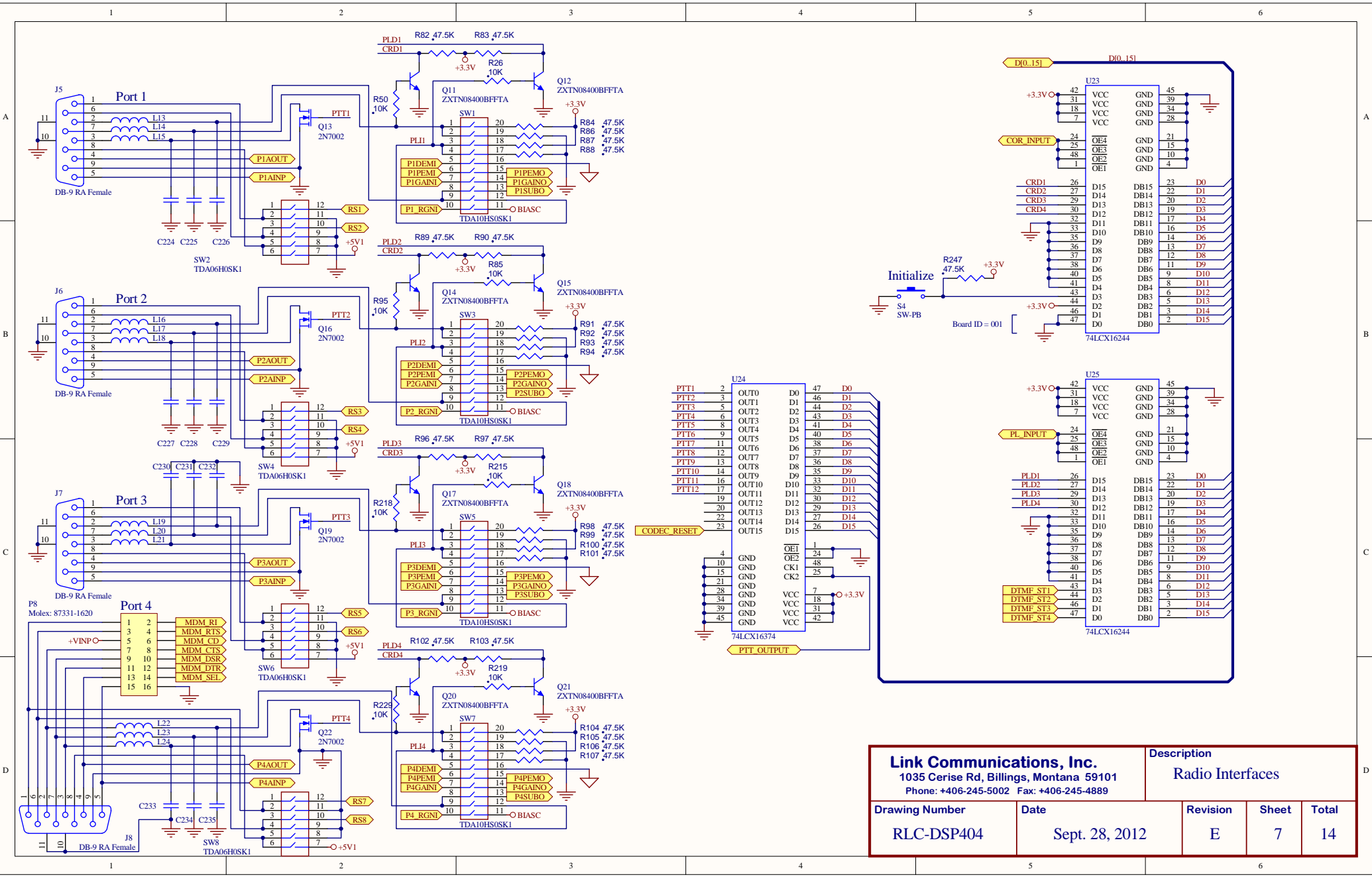


<b>Link Communications, Inc.</b> 1035 Cerise Rd, Billings, Montana 59101 Phone: +406-245-5002 Fax: +406-245-4889		<b>Description</b> Receive Audio In		
<b>Drawing Number</b> RLC-DSP404	<b>Date</b> Sept. 28, 2012	<b>Revision</b> E	<b>Sheet</b> 5	<b>Total</b> 14

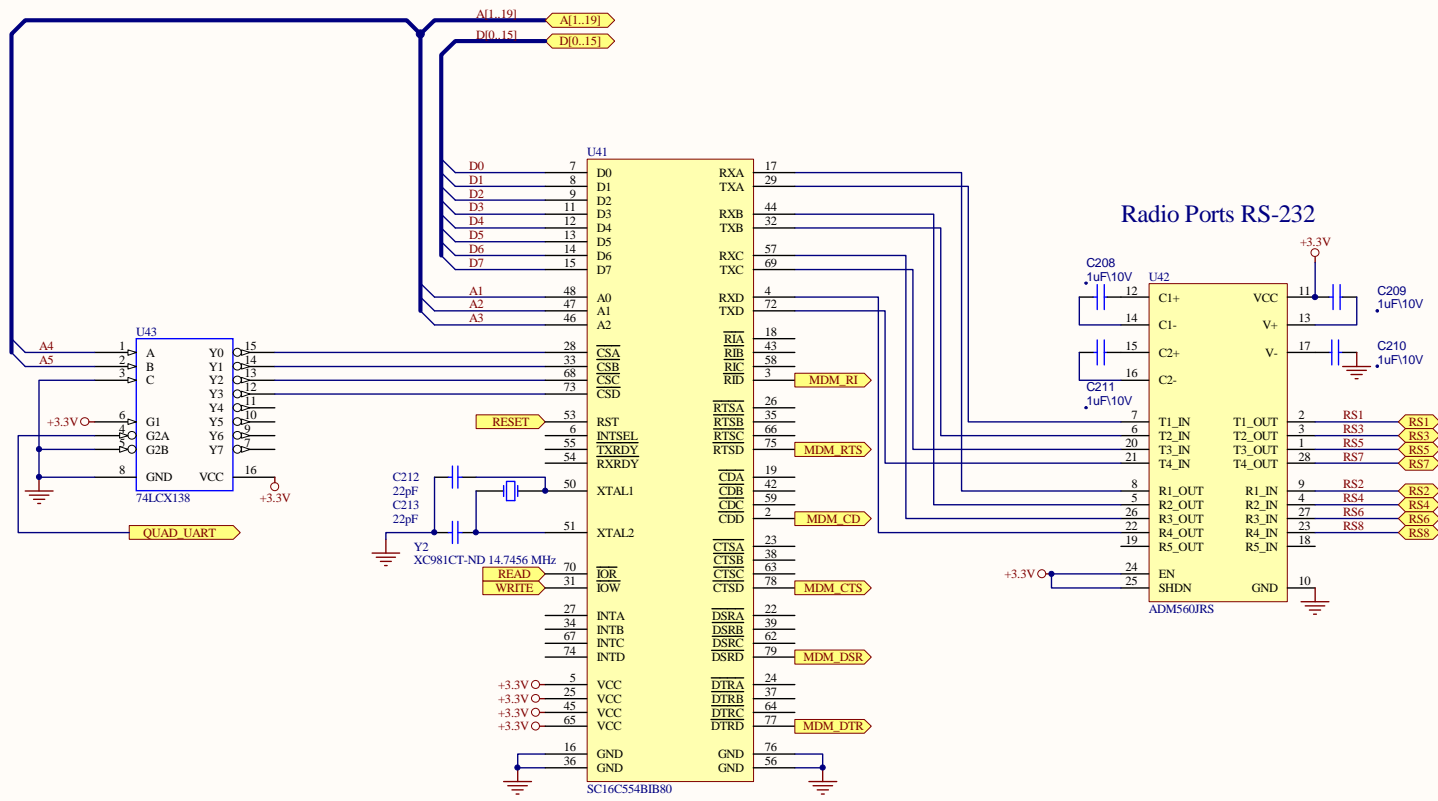


<b>Link Communications, Inc.</b> 1035 Cerise Rd, Billings, Montana 59101 Phone: +406-245-5002 Fax: +406-245-4889		<b>Description</b> Transmit Audio Out		
<b>Drawing Number</b> RLC-DSP404	<b>Date</b> Sept. 28, 2012	<b>Revision</b> E	<b>Sheet</b> 6	<b>Total</b> 14



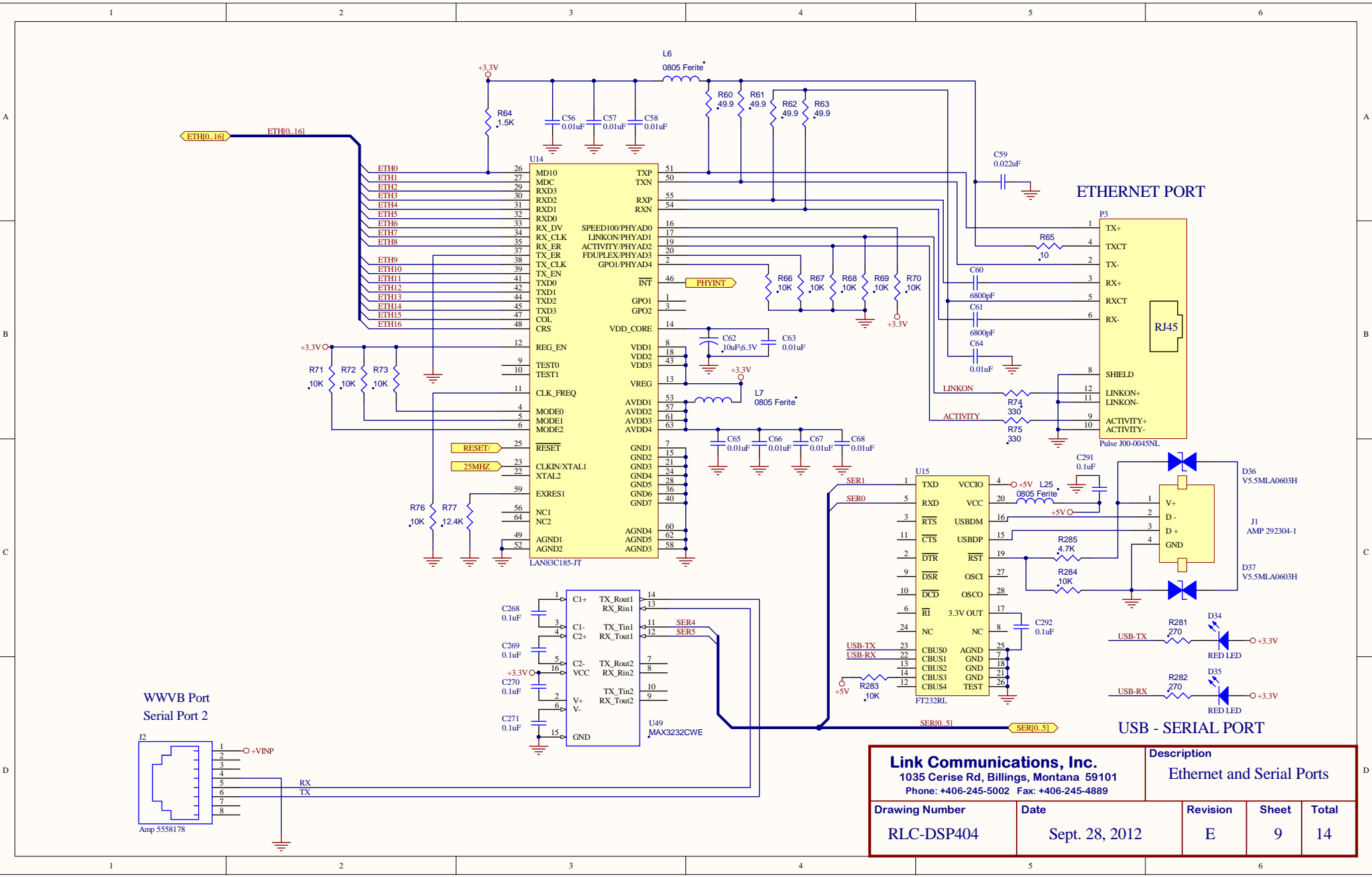


<b>Link Communications, Inc.</b> 1035 Cerise Rd, Billings, Montana 59101 Phone: +406-245-5002 Fax: +406-245-4889		<b>Description</b> Radio Interfaces		
<b>Drawing Number</b> RLC-DSP404	<b>Date</b> Sept. 28, 2012	<b>Revision</b> E	<b>Sheet</b> 7	<b>Total</b> 14

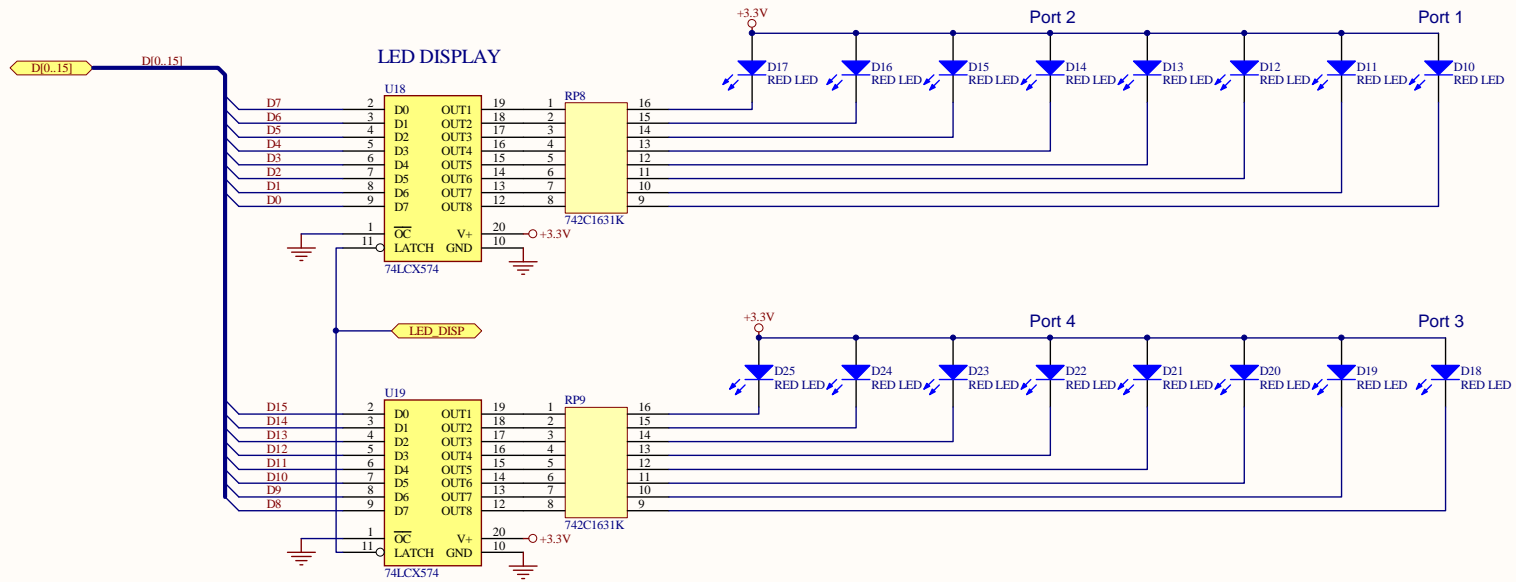


**Radio Ports RS-232**

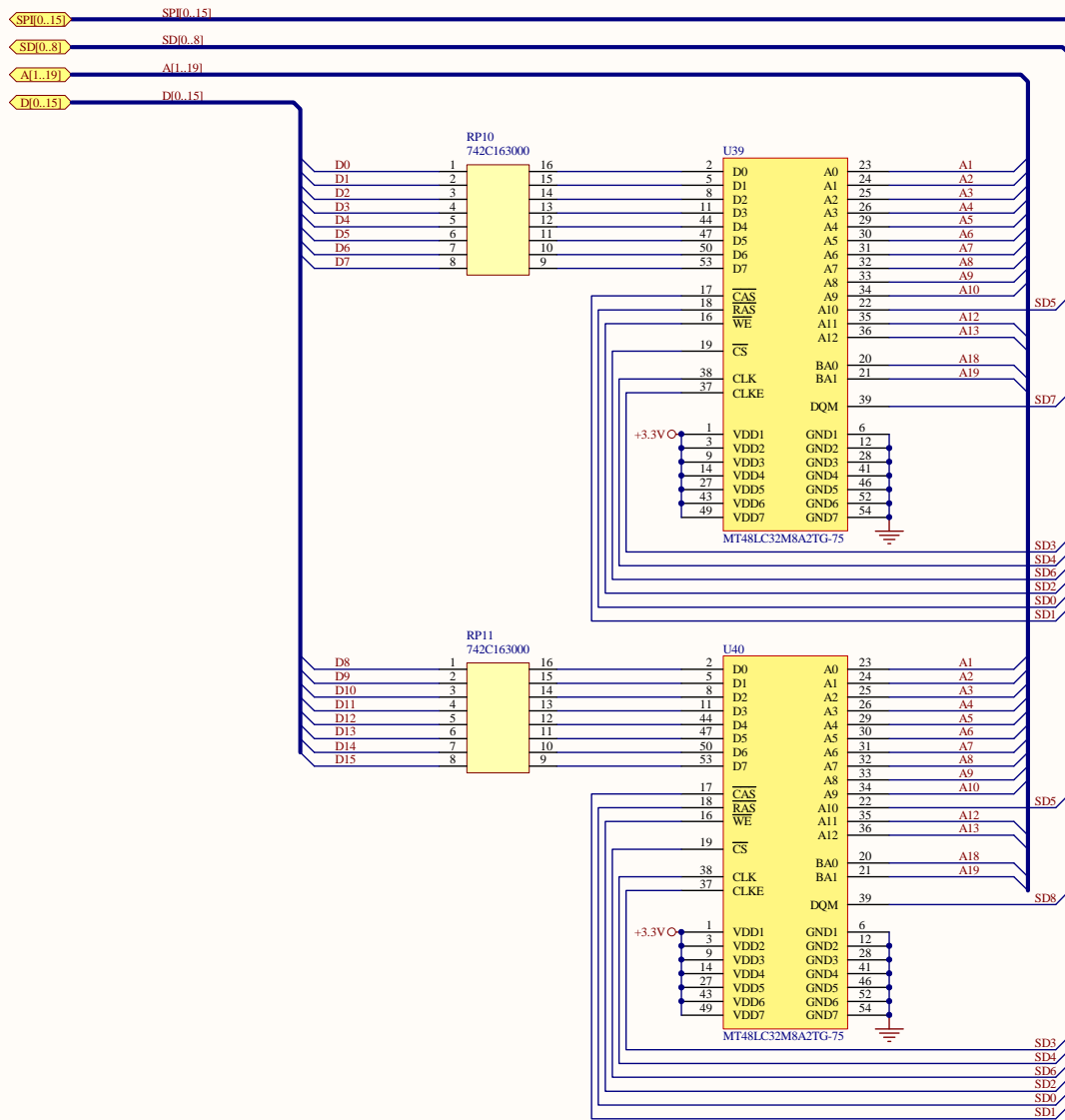
<b>Link Communications, Inc.</b> 1035 Cerise Rd, Billings, Montana 59101 Phone: +406-245-5002 Fax: +406-245-4889		<b>Description</b> RS-232 SERIAL PORTS		
<b>Drawing Number</b> RLC-DSP404	<b>Date</b> Sept. 28, 2012	<b>Revision</b> E	<b>Sheet</b> 8	<b>Total</b> 14



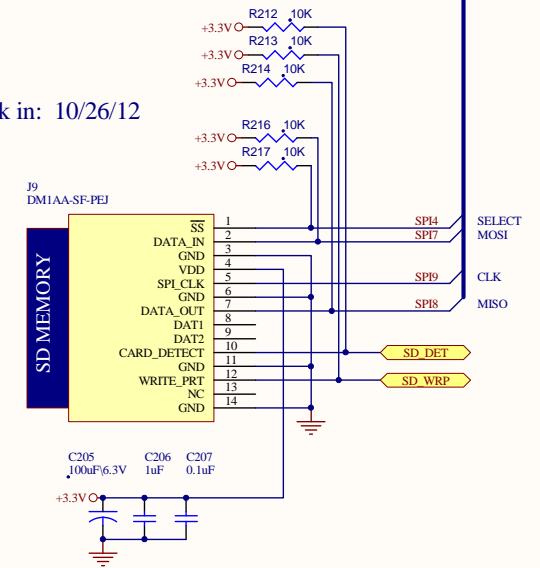
<b>Link Communications, Inc.</b> 1035 Cerise Rd, Billings, Montana 59101 Phone: +406-245-5002 Fax: +406-245-4889		<b>Description</b> Ethernet and Serial Ports		
<b>Drawing Number</b> RLC-DSP404	<b>Date</b> Sept. 28, 2012	<b>Revision</b> E	<b>Sheet</b> 9	<b>Total</b> 14



<b>Link Communications, Inc.</b> 1035 Cerise Rd, Billings, Montana 59101 Phone: +406-245-5002 Fax: +406-245-4889		Description <b>LED and LCD Parts</b>		
Drawing Number <b>RLC-DSP404</b>	Date Sept. 28, 2012	Revision E	Sheet 10	Total 14



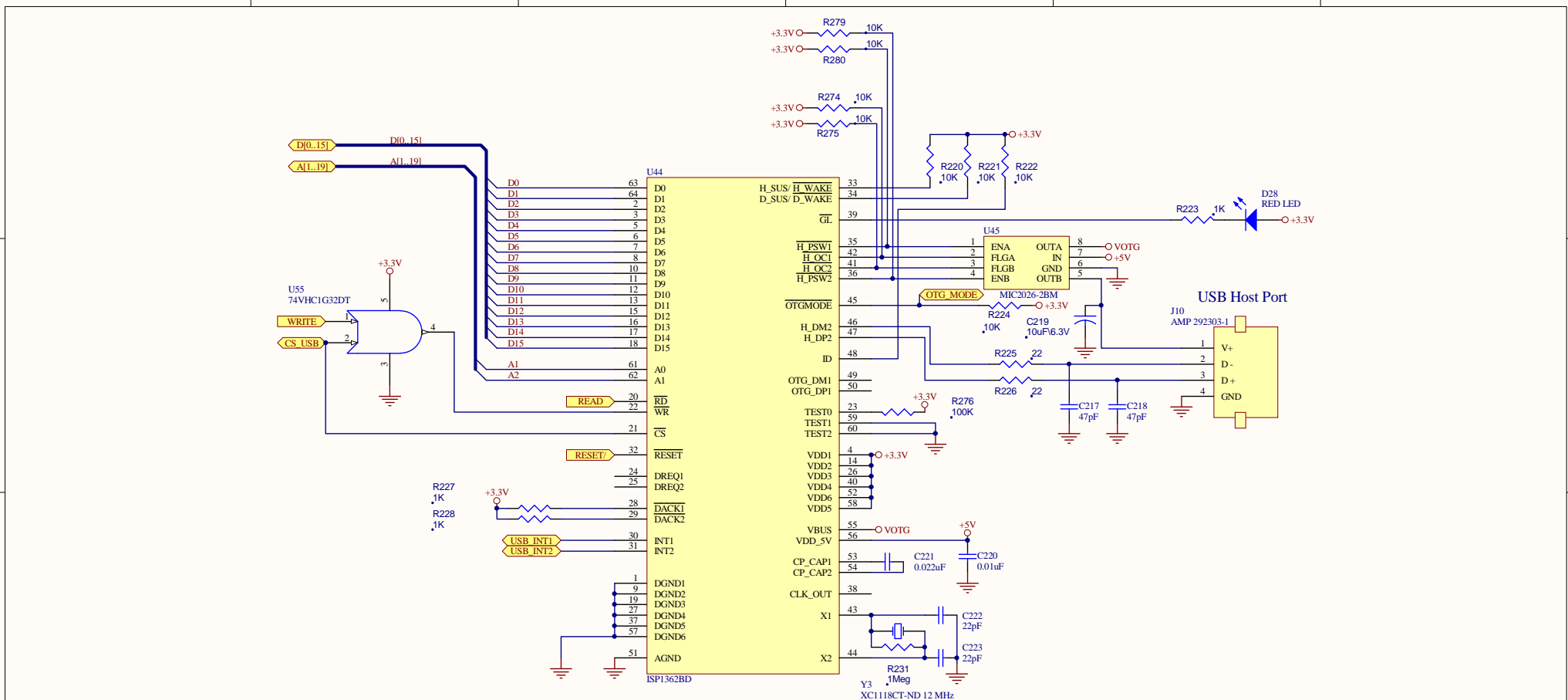
Add the 10K pull-up back in: 10/26/12 on SPI1



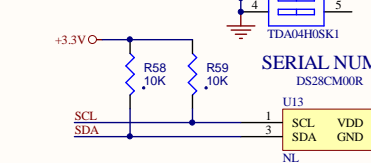
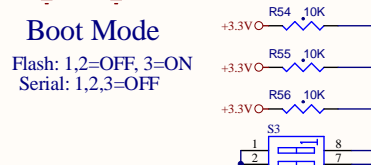
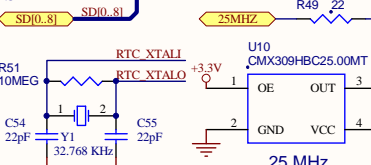
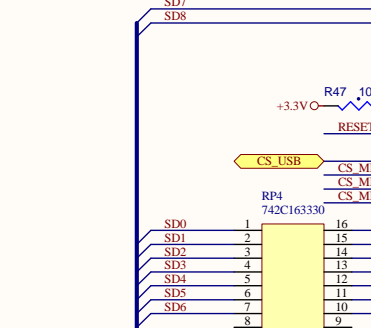
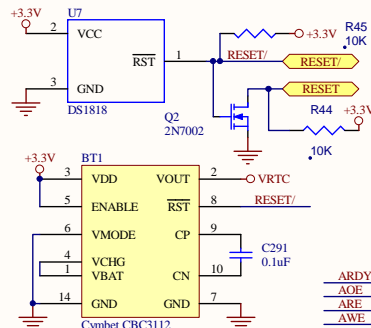
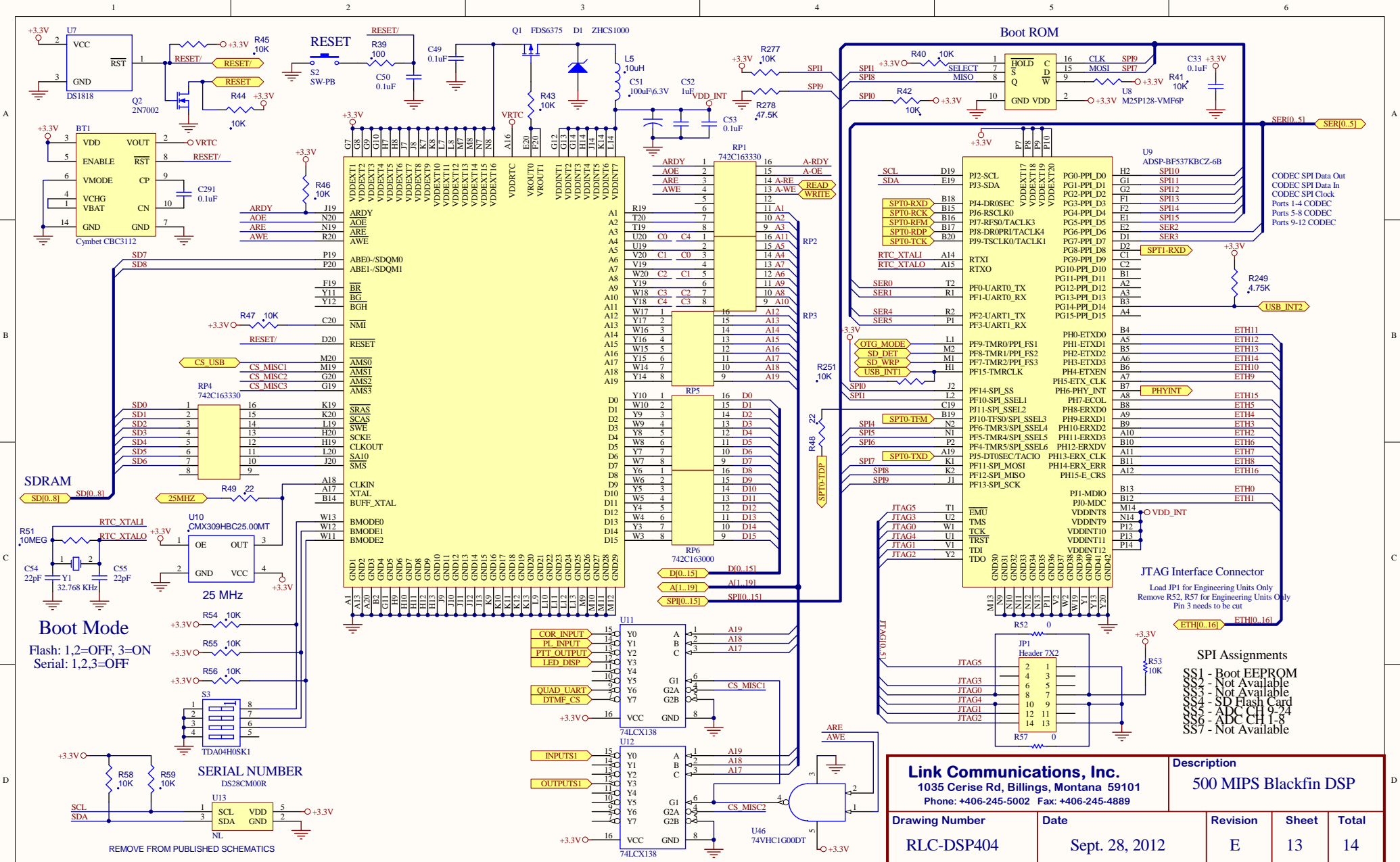
**Link Communications, Inc.**  
 1035 Cerise Rd, Billings, Montana 59101  
 Phone: +406-245-5002 Fax: +406-245-4889

**Description**  
 64MB SDRAM and SD Flash

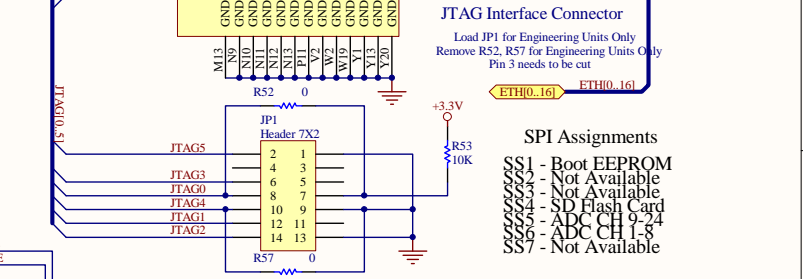
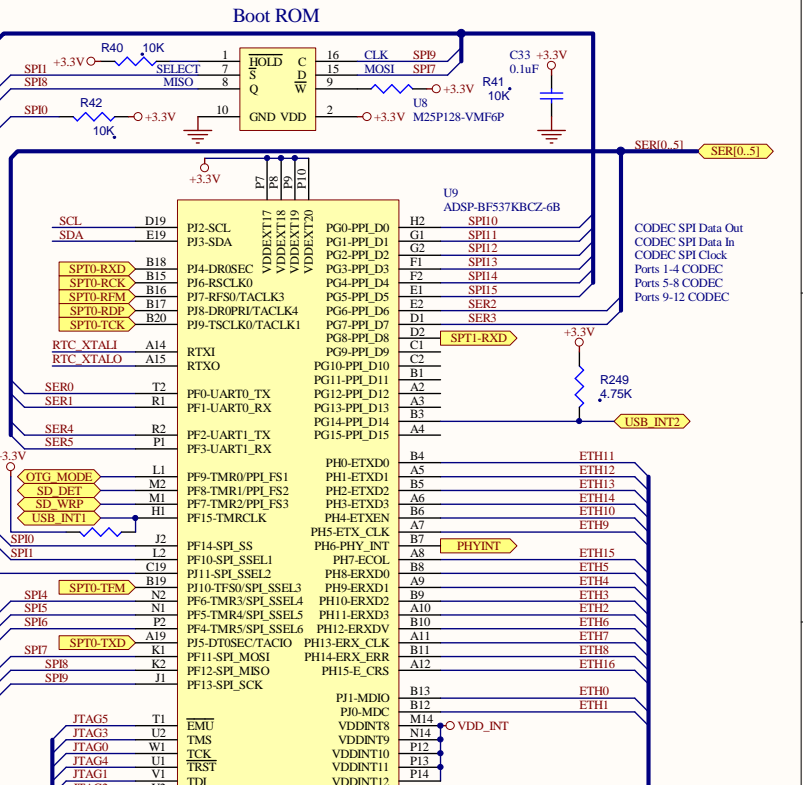
Drawing Number	Date	Revision	Sheet	Total
RLC-DSP404	Sept. 28, 2012	E	11	14



<b>Link Communications, Inc.</b> 1035 Cerise Rd, Billings, Montana 59101 Phone: +406-245-5002 Fax: +406-245-4889		Description <b>USB Interface</b>		
Drawing Number	Date	Revision	Sheet	Total
RLC-DSP404	Sept. 28, 2012	E	12	14



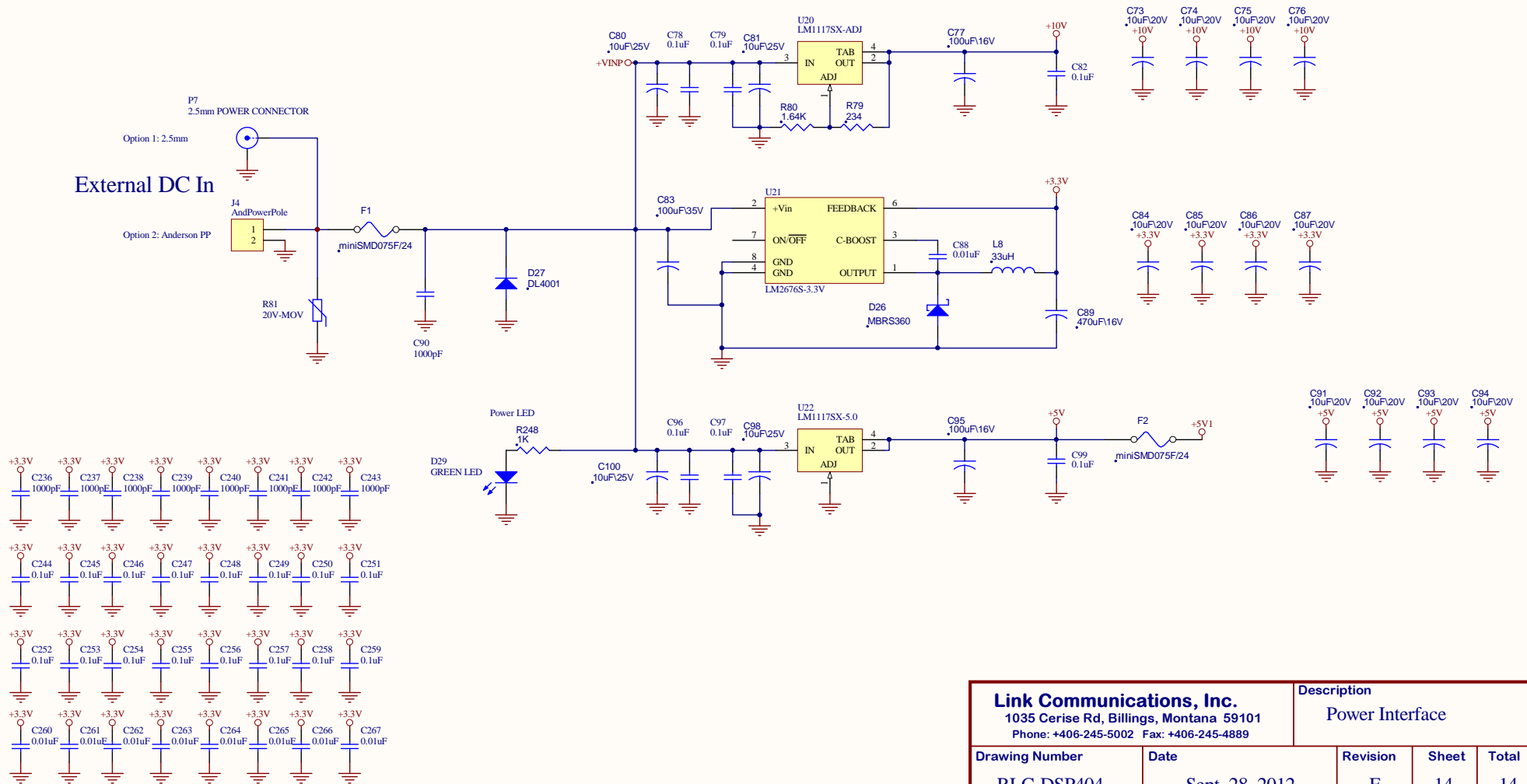
REMOVE FROM PUBLISHED SCHEMATICS



<b>Link Communications, Inc.</b> 1035 Cerise Rd, Billings, Montana 59101 Phone: +406-245-5002 Fax: +406-245-4889		<b>Description</b> 500 MIPS Blackfin DSP	
<b>Drawing Number</b> RLC-DSP404	<b>Date</b> Sept. 28, 2012	<b>Revision</b> E	<b>Sheet</b> 13
		<b>Total</b> 14	

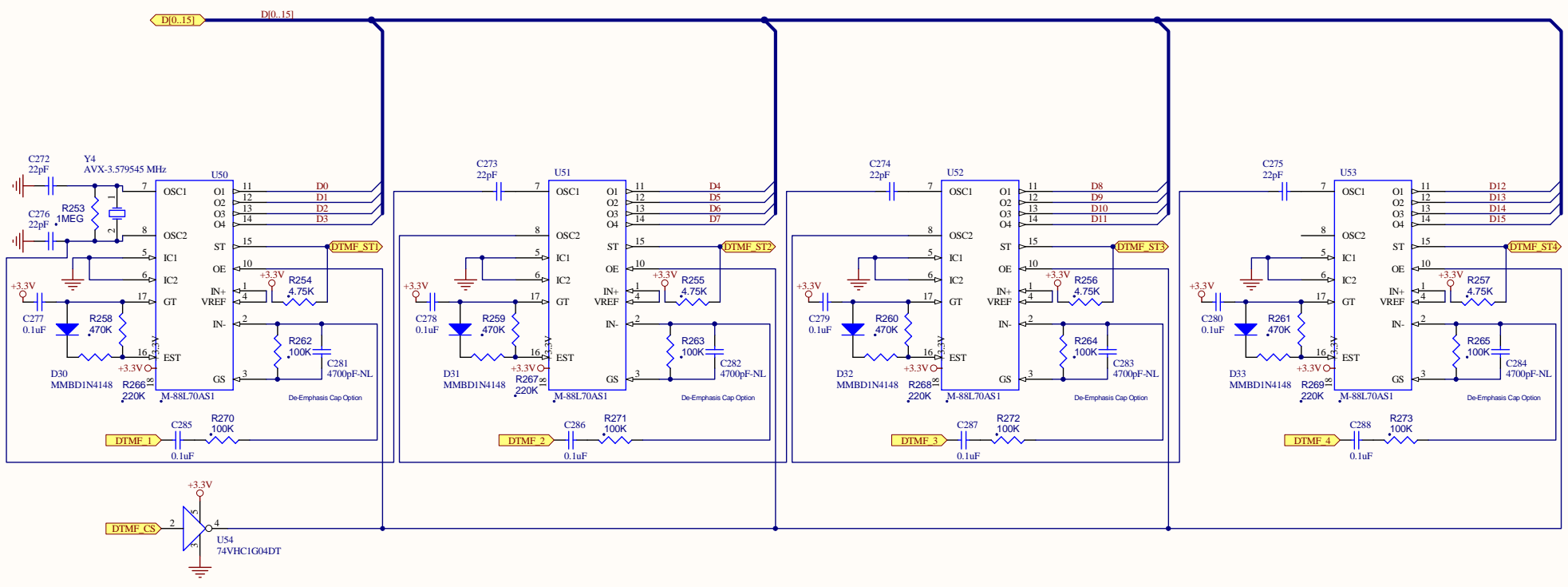
- SPI Assignments**
- SS1 - Boot EEPROM
  - SS2 - Not Available
  - SS3 - Not Available
  - SS4 - SD Flash Card
  - SS5 - ADC CH 0-24
  - SS6 - ADC CH 1-8
  - SS7 - Not Available

# External DC In



<b>Link Communications, Inc.</b> 1035 Cerise Rd, Billings, Montana 59101 Phone: +406-245-5002 Fax: +406-245-4889			<b>Description</b> Power Interface		
<b>Drawing Number</b>	<b>Date</b>	<b>Revision</b>	<b>Sheet</b>	<b>Total</b>	
RLC-DSP404	Sept. 28, 2012	E	14	14	





<b>Link Communications, Inc.</b> 1035 Cerise Rd, Billings, Montana 59101 Phone: +406-245-5002 Fax: +406-245-4889		<b>Description</b> DTMF Decoding		
<b>Drawing Number</b> RLC-DSP404	<b>Date</b> Sept. 28, 2012	<b>Revision</b> E	<b>Sheet</b> 15	<b>Total</b> 15