

5	4	3	2	1
NOTES, UNLESS OTHERWISE SPECIFIED:			SCHEMATIC CONTENTS	
1. RESISTANCE VALUES IN OHMS.			01 TITLE SHEET	
2. CAPACITANCE VALUES IN MICROFARADS.			02 MCU ADC	
3. REFERENCE DESIGNATORS USED:			03 MCU EMIF	
4. ALL 0.1 uF AND 0.01uF CAPACITORS ARE DECOUPLING CAPS UNLESS OTHERWISE NOTED. THEY ARE SHOWN ON THE PAGE WITH THE INTEGRATED CIRCUITS THEY SHOULD BE PLACED NEAR.			04 MCU SPI	
5. NHET1xx means NHET1_[xx].			05 MCU ETM	
6. OBSERVE THE LAYOUT NOTES IN SCHEMATIC.			06 MCU DCAN, FLEXRAY, and LIN	
			07 MCU JTAG and OSC	
			08 MCU NHET	
			09 MCU GPIO	
			10 MCU Power & GND	
			11 FETSwitches for 1st USB	
			12 EMIF Addr/ETM/RTP	
			13 SDRAM	
			14 Sensors, LEDs, and Pushbutton	
			15 FET Switches for 2nd USB	
			16 USB 1st OHCI Host	
			17 USB device and 2nd OHCI Host	
			18 FET Switch for RMII and DIP Switch	
			19 Ethernet PHY & Connector	
			20 CAN Transceivers	
			21 JTAG and MIPI ETM Connector	
			22 DMM and RTP Mictor Connectors	
			23 XD100V2 FTDI2232	
			24 XDS100V2 CPLD	
			25 RESET	
			26 Power Supply	
			27 Power Inut	
			28 EXP P1 and EXP P2	
			29 EXP P3	

Proprietary
&
Confidential

Texas Instruments Inc			
Title		TMS570LS12x HDK	
Size A	Document Number TITLE		Rev B
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C

C

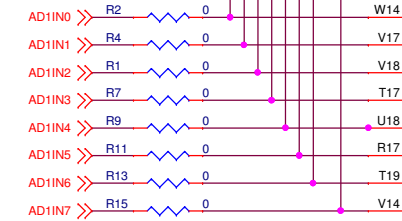
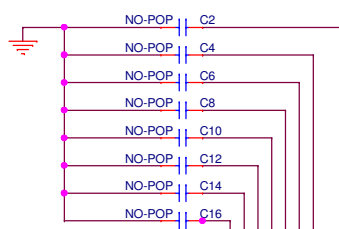
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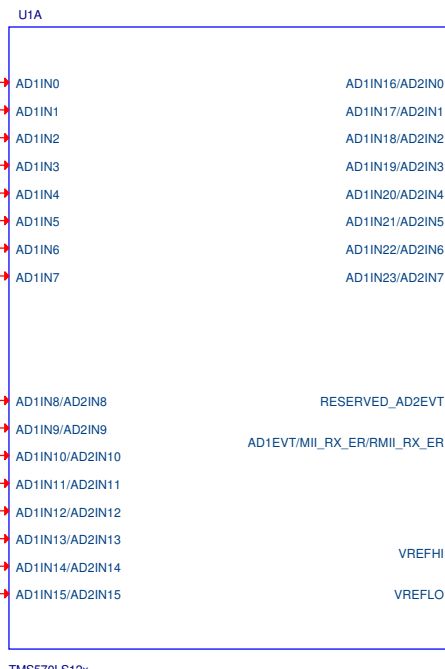
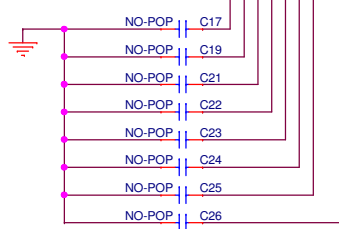
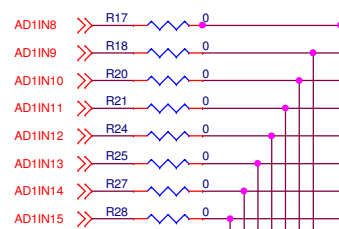
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RESERVED_AD2EVT
AD1EVT/MII_RX_ER/RMII_RX_ER

AD1IN0
AD1IN1
AD1IN2
AD1IN3
AD1IN4
AD1IN5
AD1IN6
AD1IN7

AD1IN8/AD2IN8
AD1IN9/AD2IN9
AD1IN10/AD2IN10
AD1IN11/AD2IN11
AD1IN12/AD2IN12
AD1IN13/AD2IN13
AD1IN14/AD2IN14
AD1IN15/AD2IN15

VREFHI
VREFLO

U1

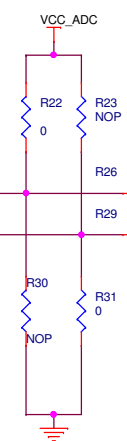
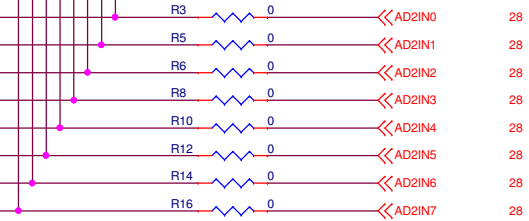
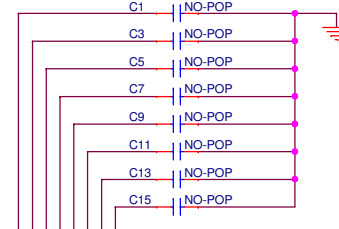
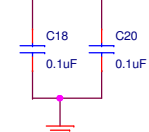
AD1IN16/AD2IN0
AD1IN17/AD2IN1
AD1IN18/AD2IN2
AD1IN19/AD2IN3
AD1IN20/AD2IN4
AD1IN21/AD2IN5
AD1IN22/AD2IN6
AD1IN23/AD2IN7

W13

N19

V15

V16



AD2IN0
AD2IN1
AD2IN2
AD2IN3
AD2IN4
AD2IN5
AD2IN6
AD2IN7

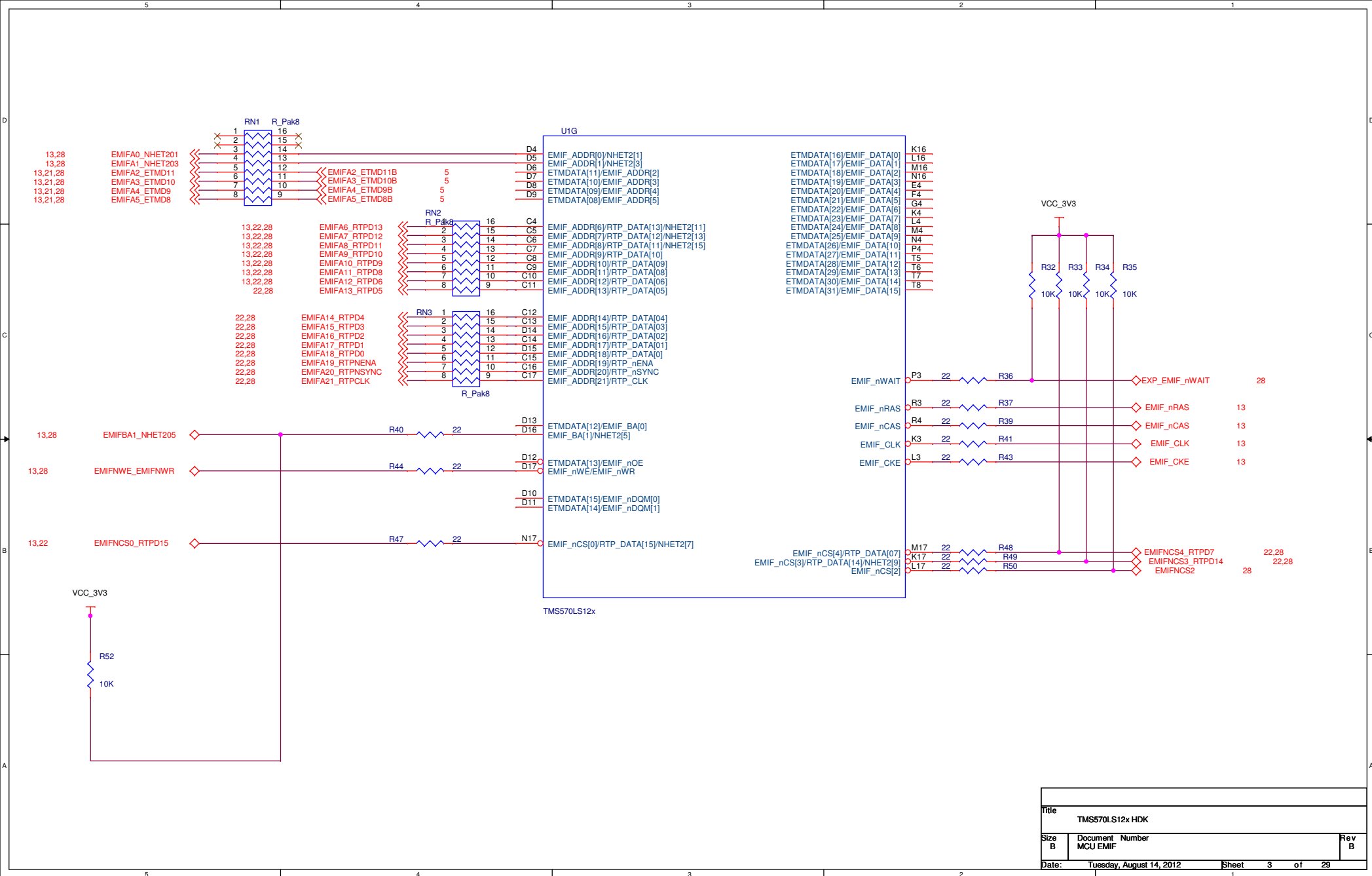
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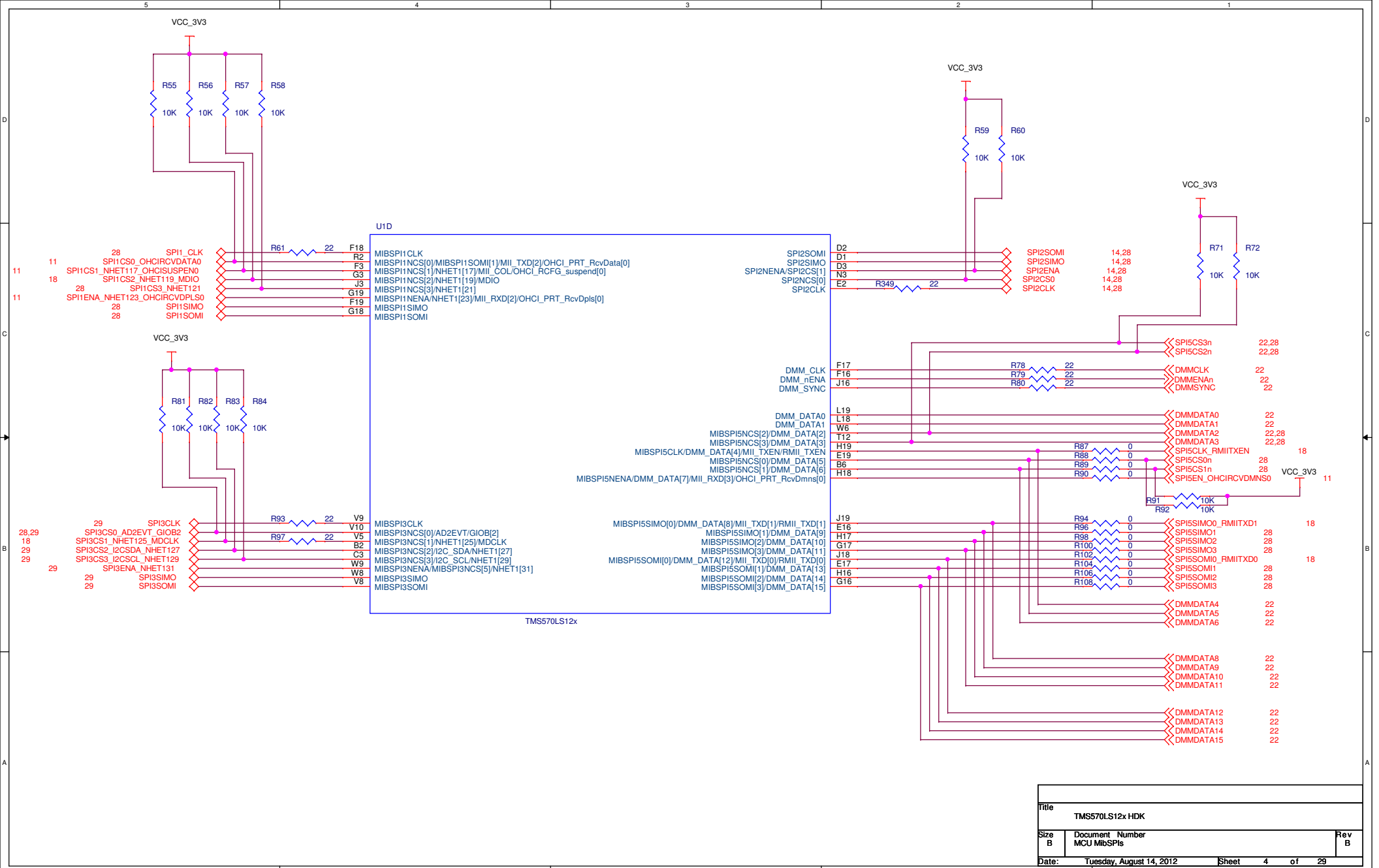
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U1

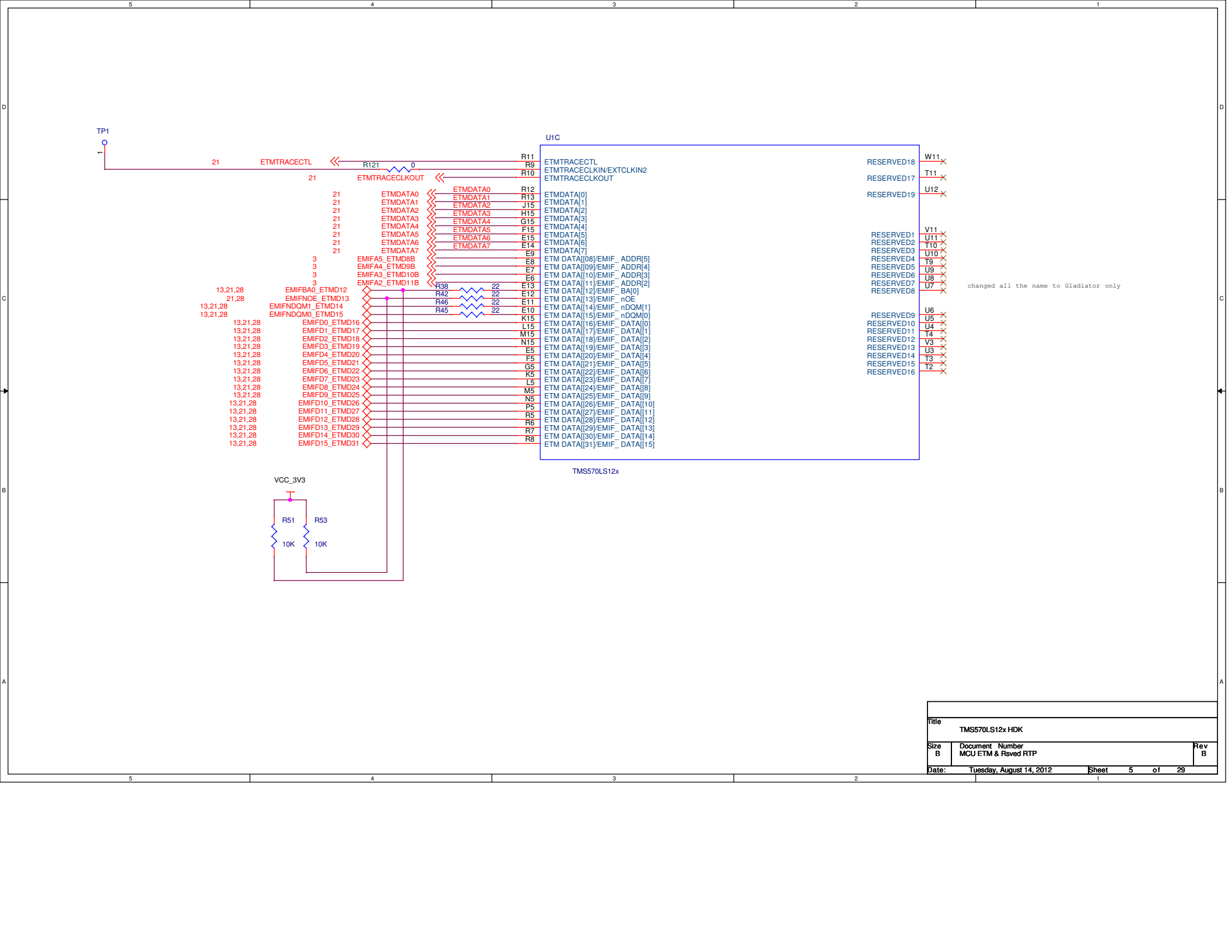
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AD2IN1
AD2IN2
AD2IN3
AD2IN4
AD2IN5
AD2IN6
AD2IN7

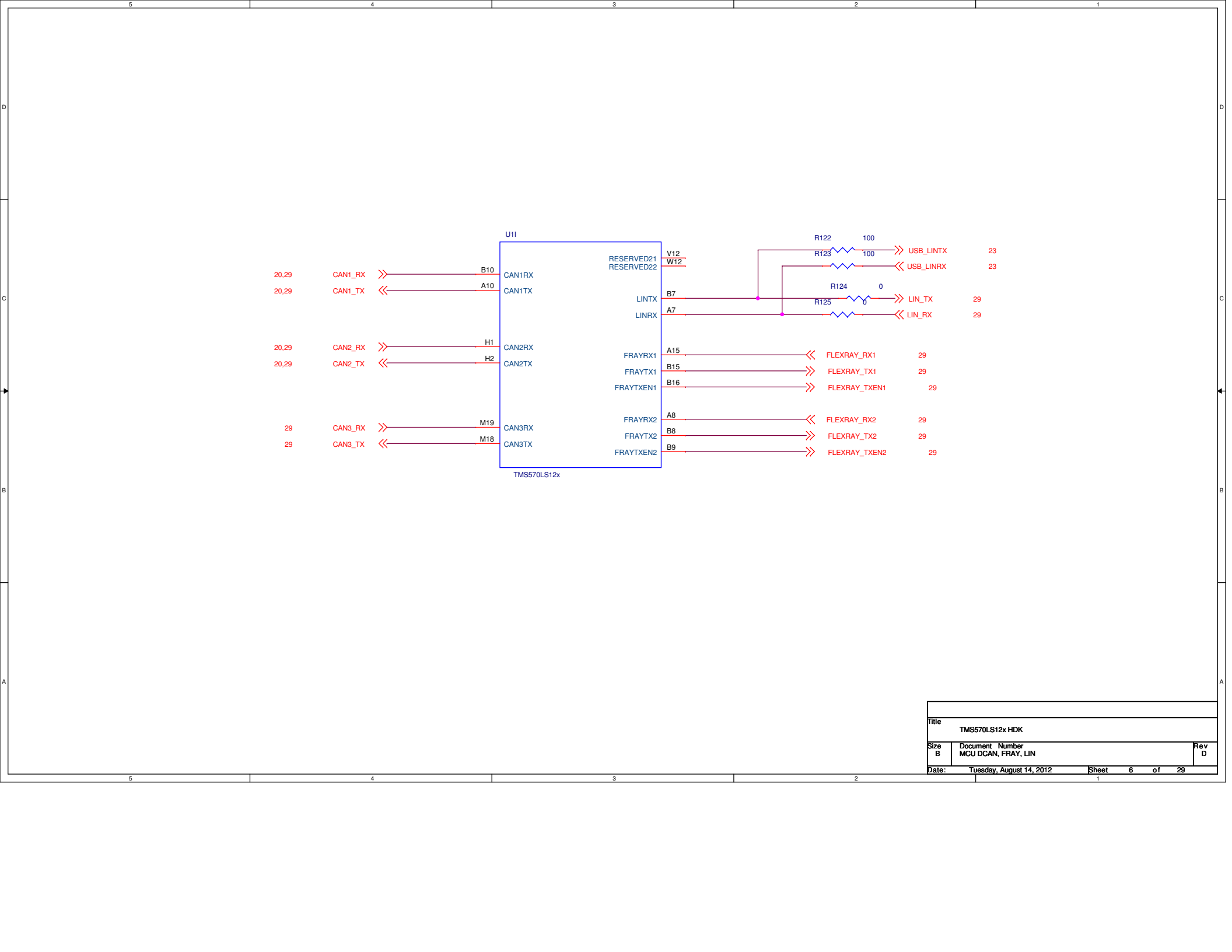
Title			
TMS570LS12x HDK			
Size	Document	Number	Rev
B	MCU ADC		B
Date:		Tuesday, August 14, 2012	Sheet 2 of 29



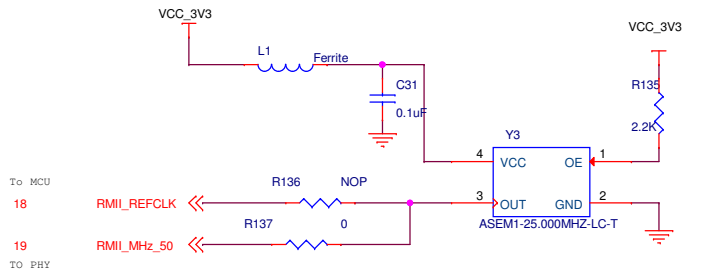


Title			TMS570LS12x HDK		
Size	Document	Number	Rev		
B	MCU MibSPis		B		
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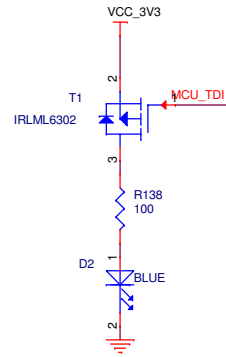




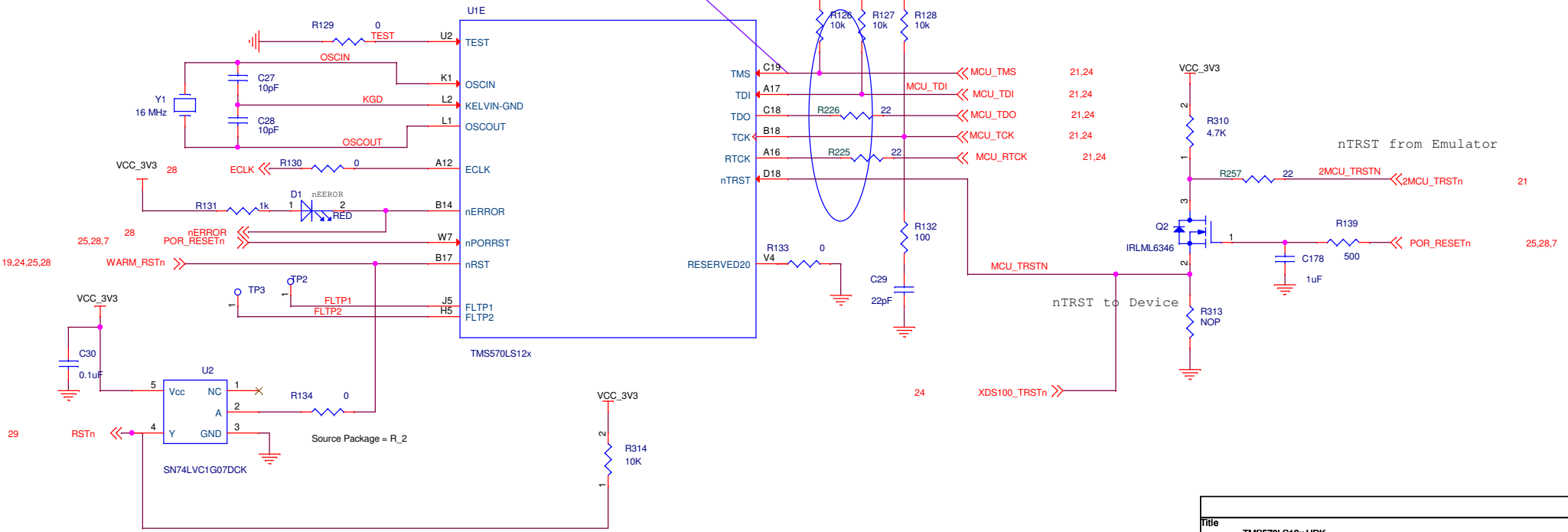
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TMS570LS12x HDK			
Size	Document	Number	Rev
B	MCU DCAN, FRAY, LIN		D
Date:	Tuesday, August 14, 2012	Sheet	6 of 29

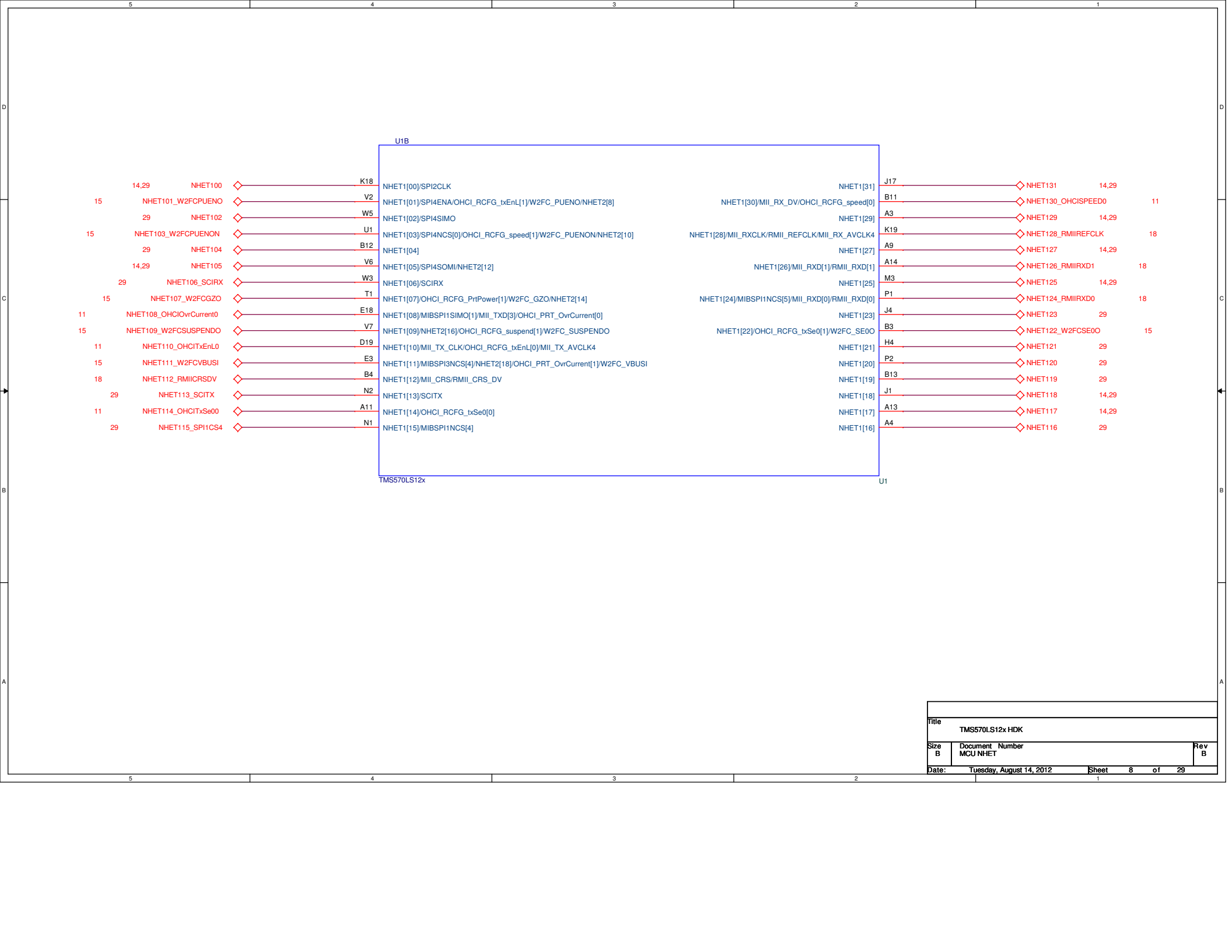


When using RMII, the OSC will be 50MHz



place R225, R226, R132, and C29 close to U1

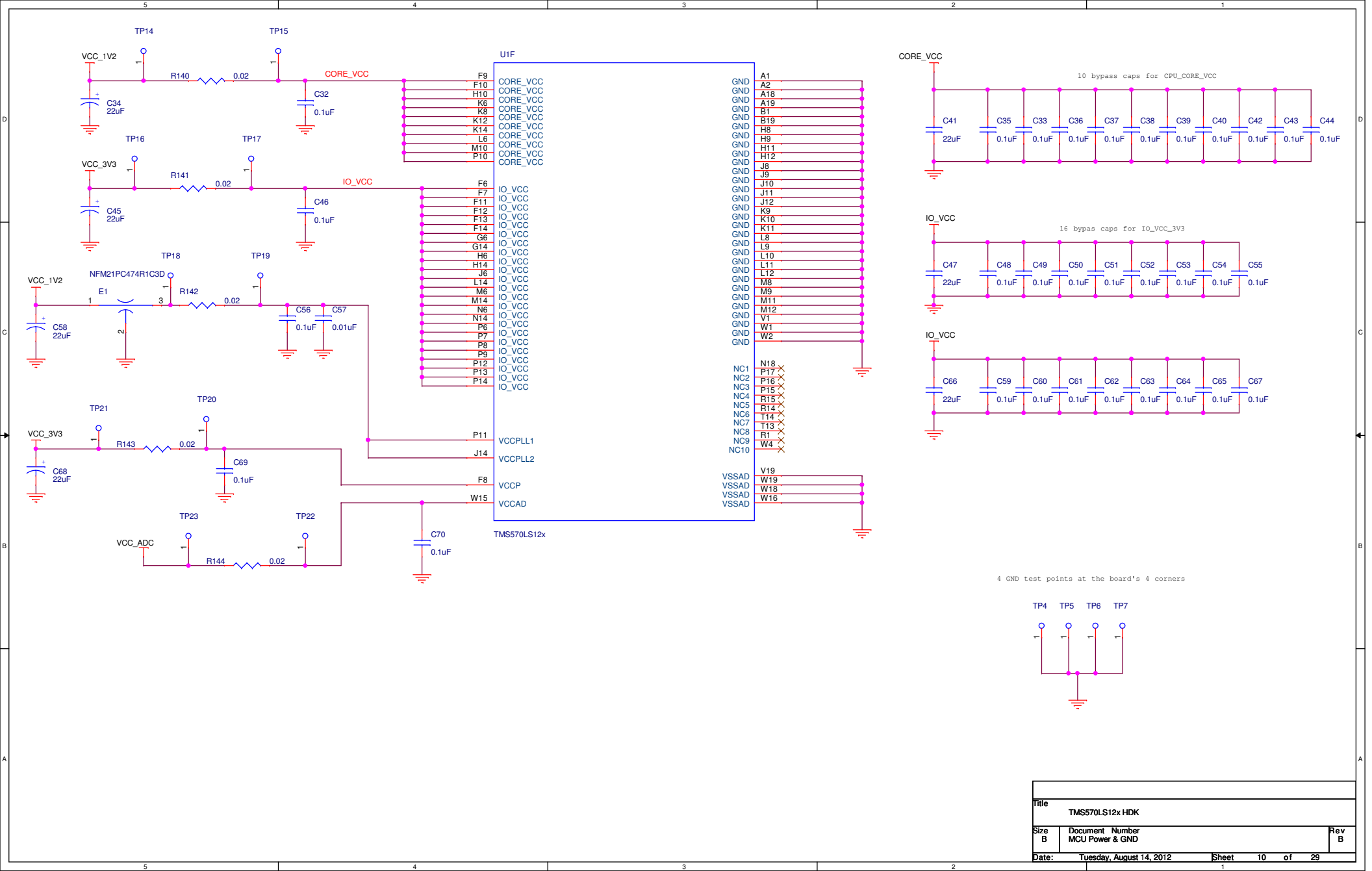




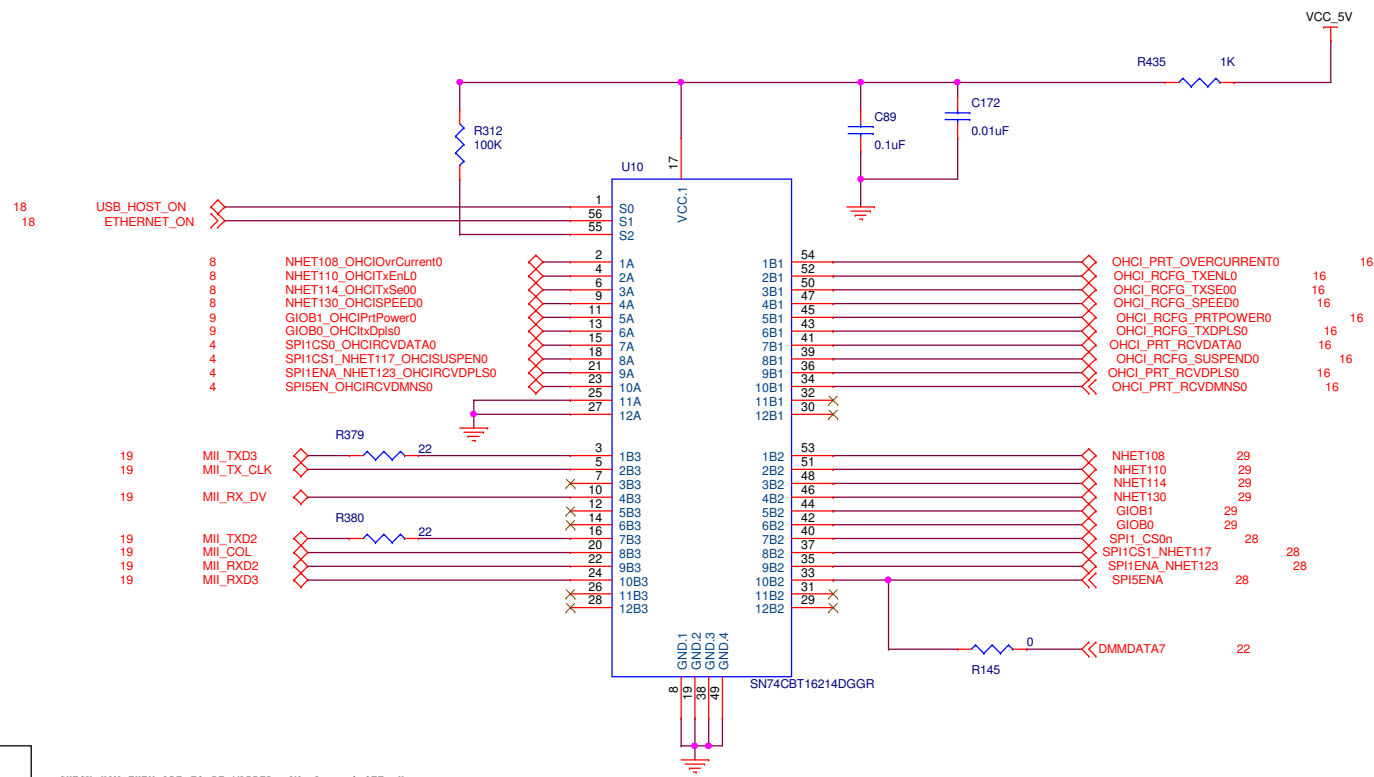
Title			
TMS570LS12x HDK			
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Title			
TMS570LS12x HDK			
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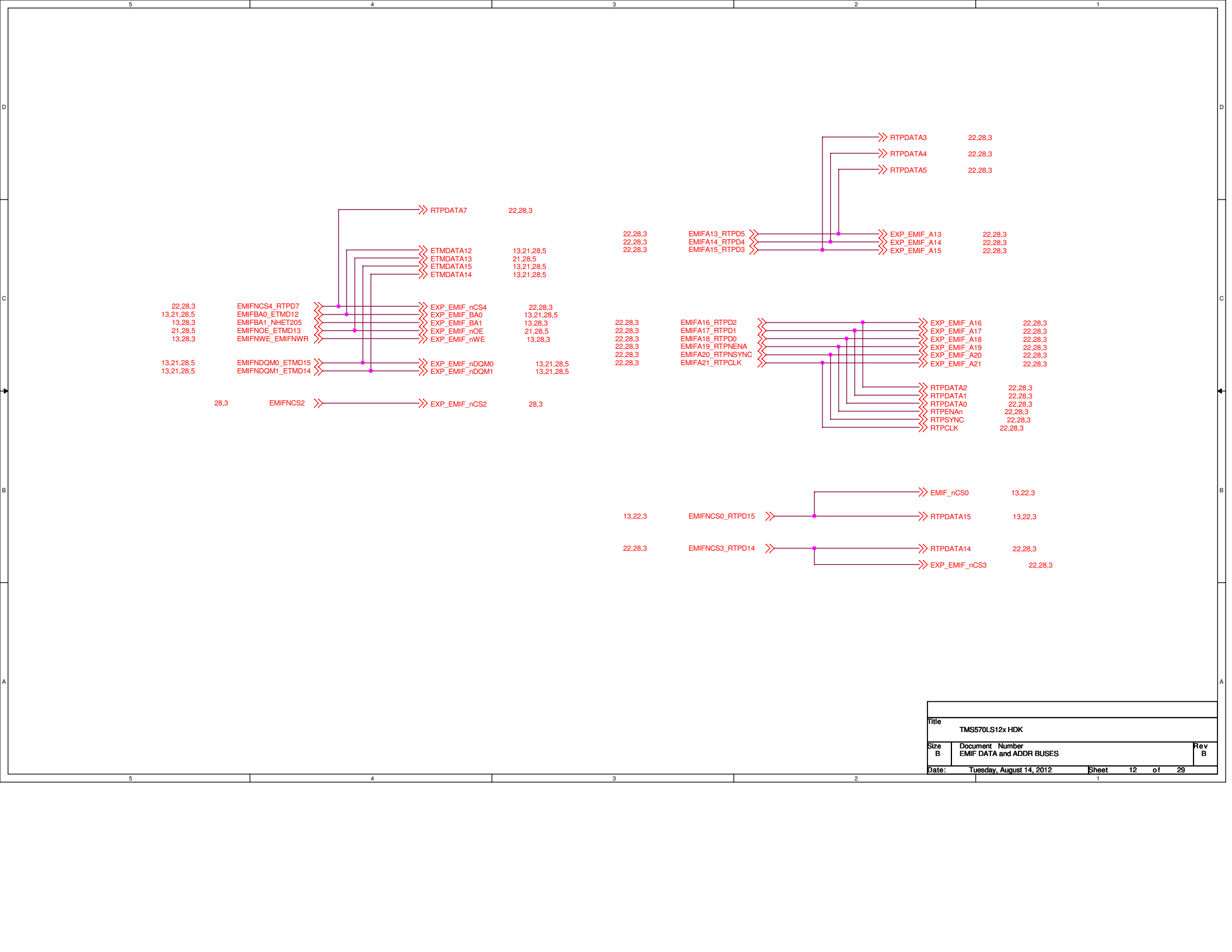
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TMS570LS12x HDK		
Size	Document Number	Rev
B	MCU Power & GND	B
Date:	Tuesday, August 14, 2012	Sheet 10 of 29

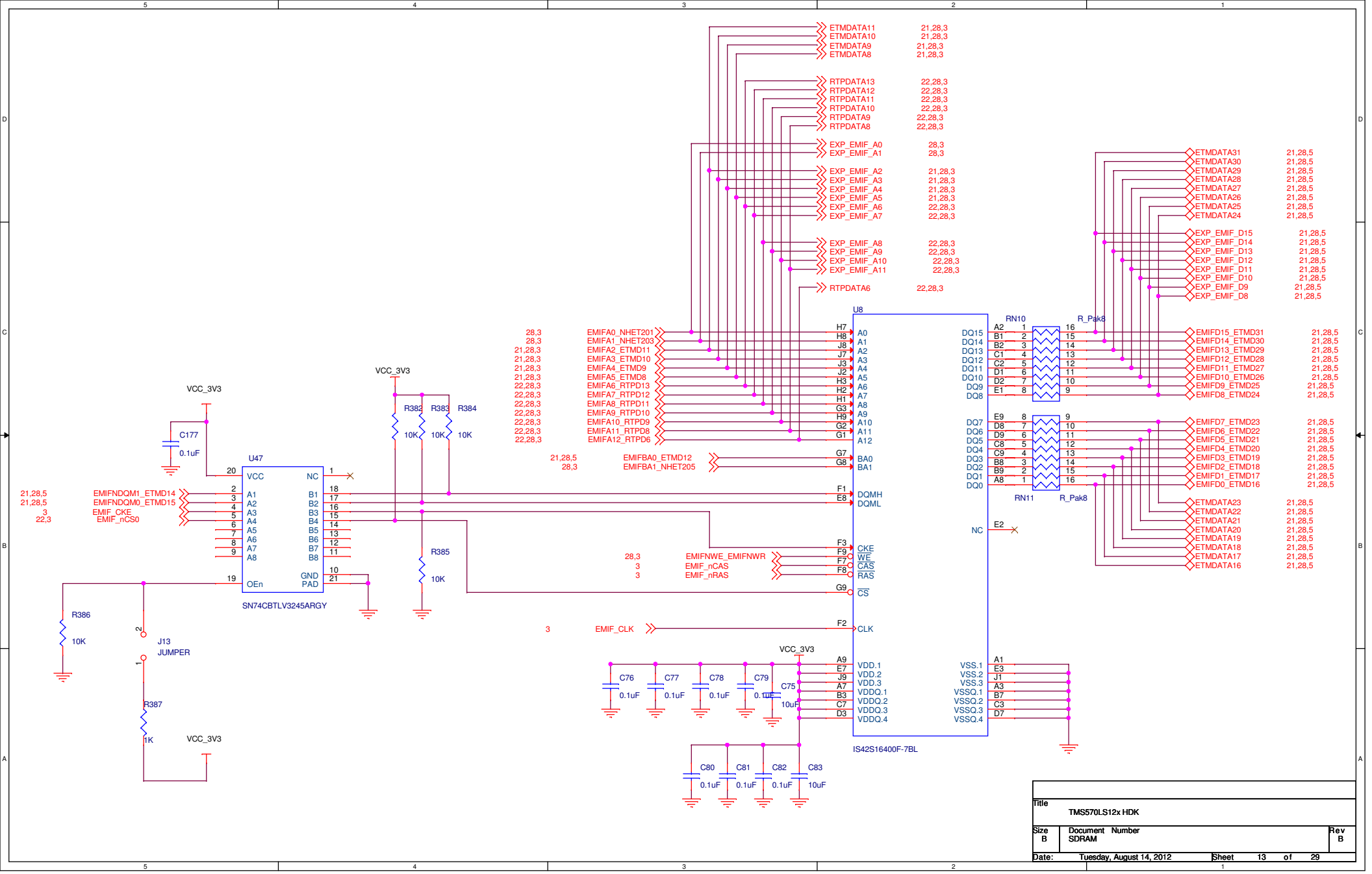


S2	S1	S0	A
1	0	0	Z
1	0	1	B3**
1	1	0	B1 **
1	1	1	B2 **

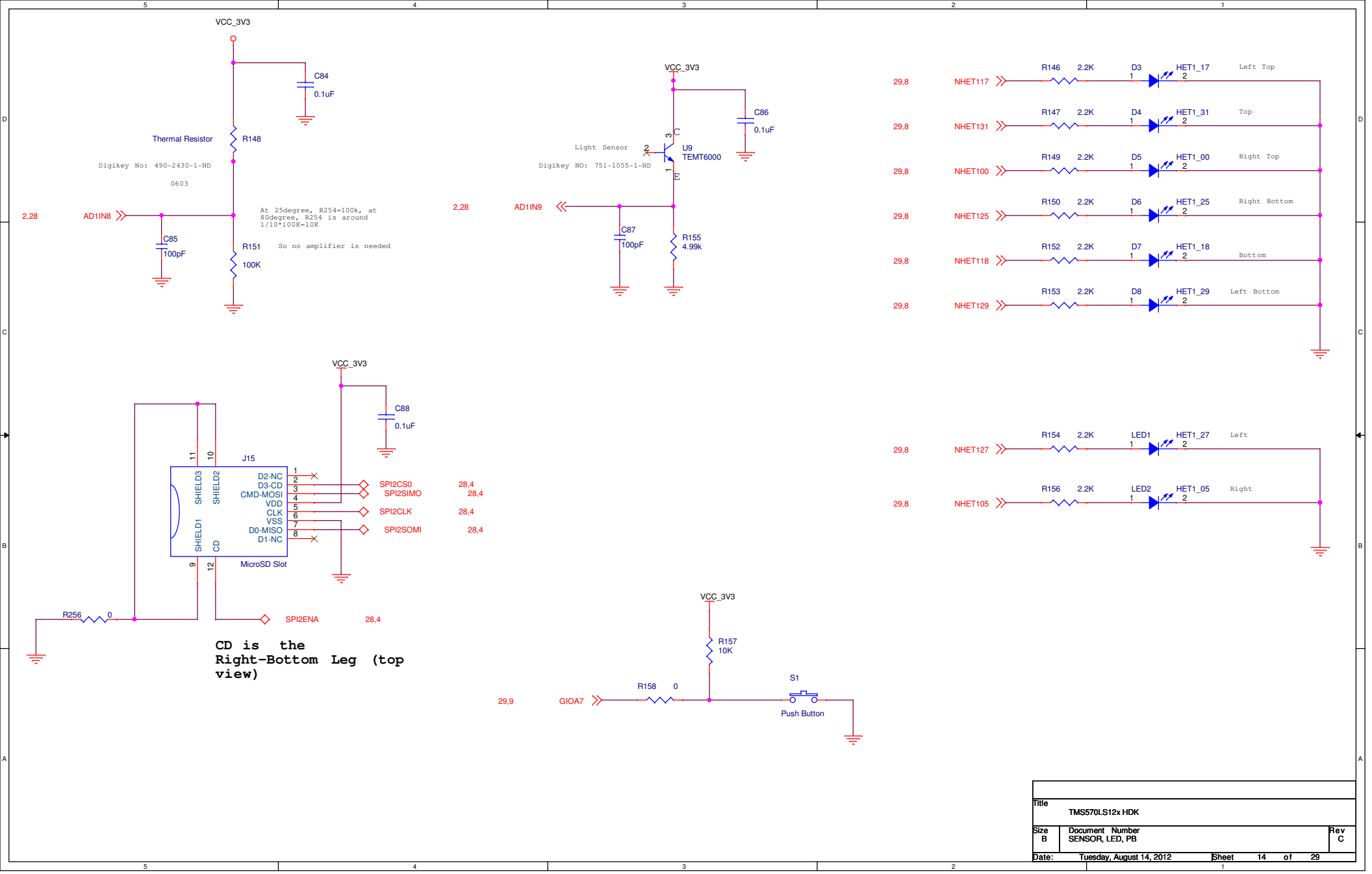
CHECK HOW THEY ARE TO BE MAPPED. ON--L, and OFF--H

Title			TMS570LS12x HDK		
Size	Document	Number	Rev		
B	FET SWs FOR 1st USB HOST		B		
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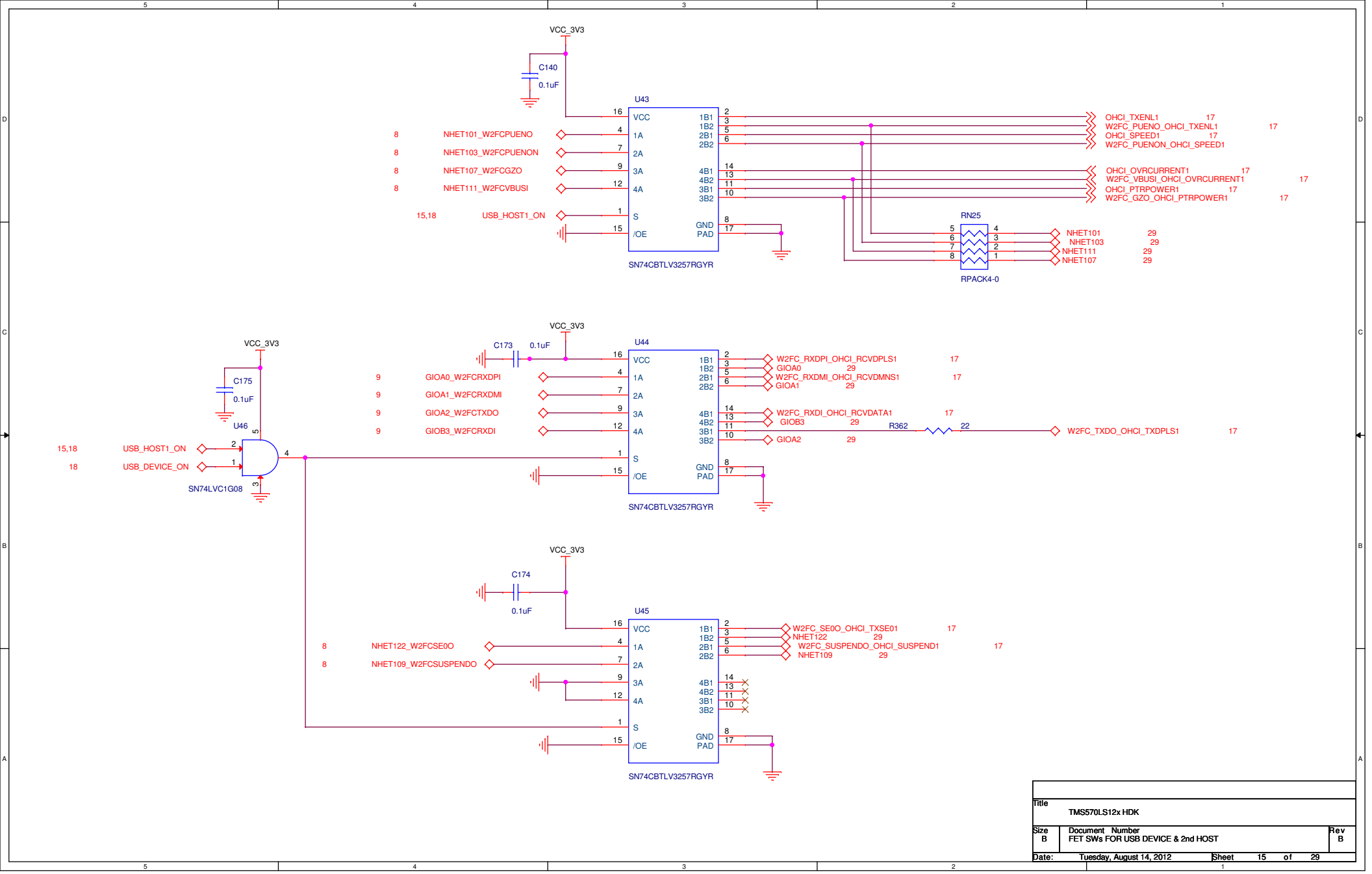


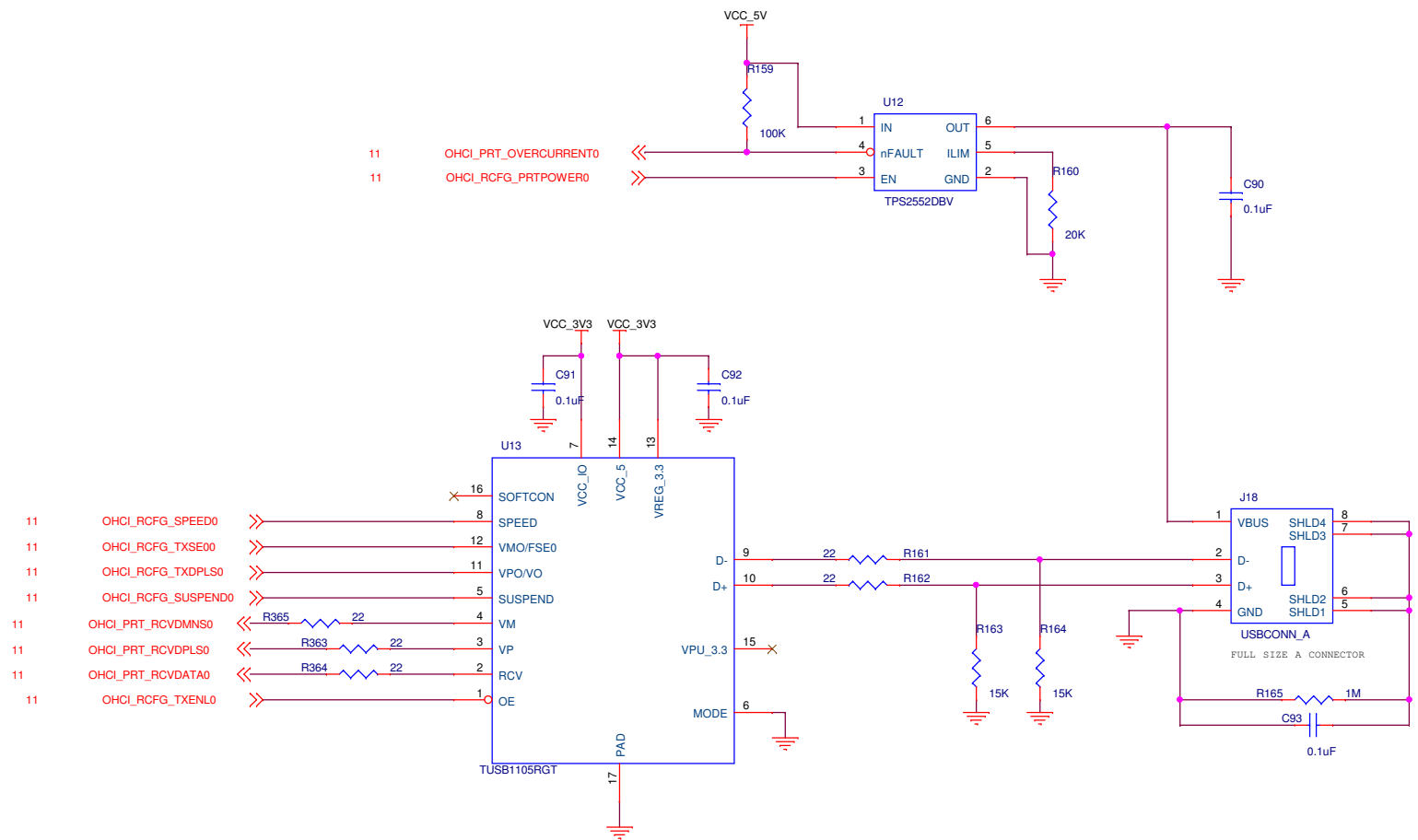


Title			
TMS570LS12x HDK			
Size	Document	Number	Rev
B	SDRAM		B
Date:		Tuesday, August 14, 2012	Sheet 13 of 29

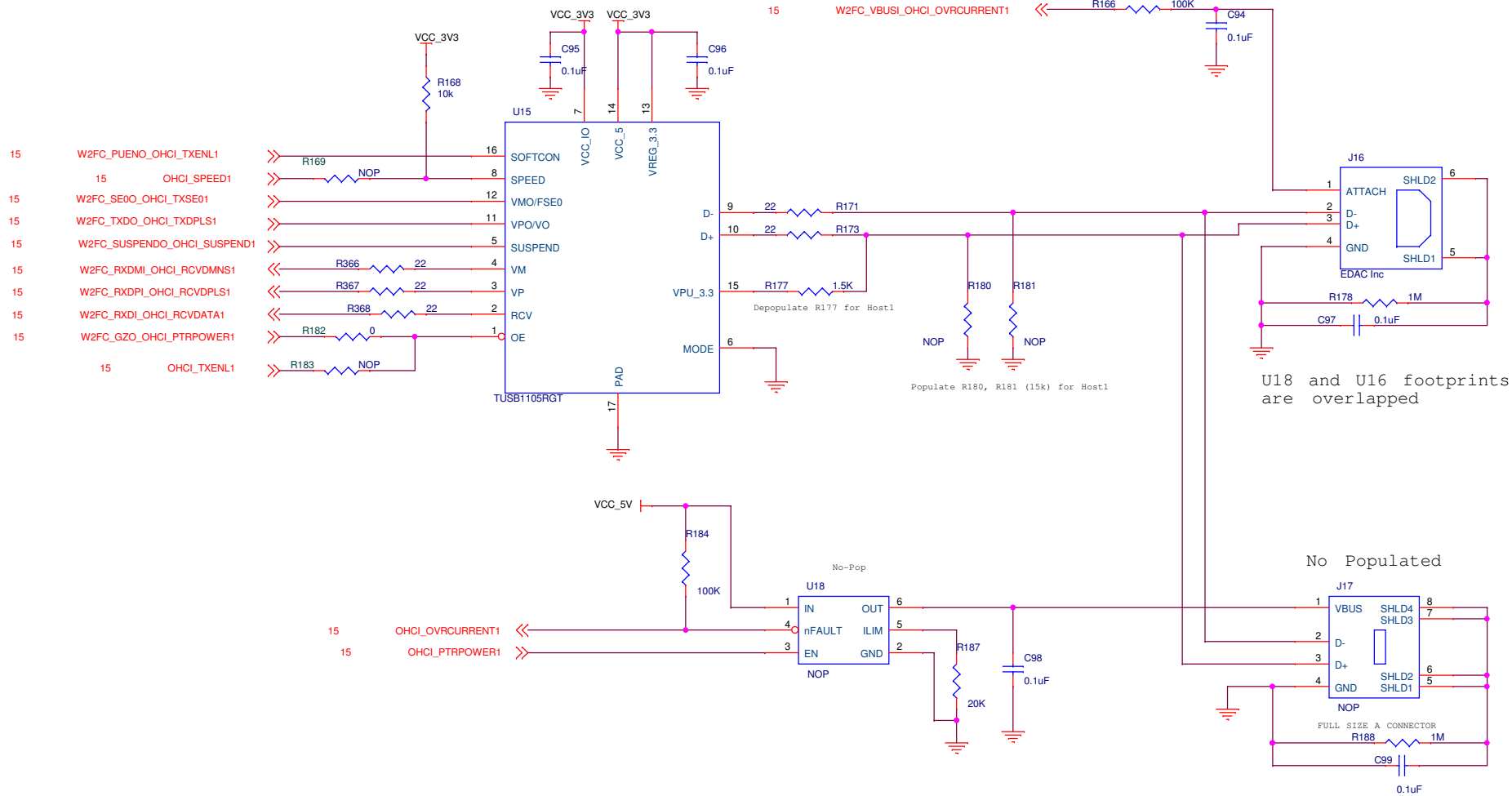


Title		
TMS570LS12x HDK		
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B	SENSOR, LED, PB	
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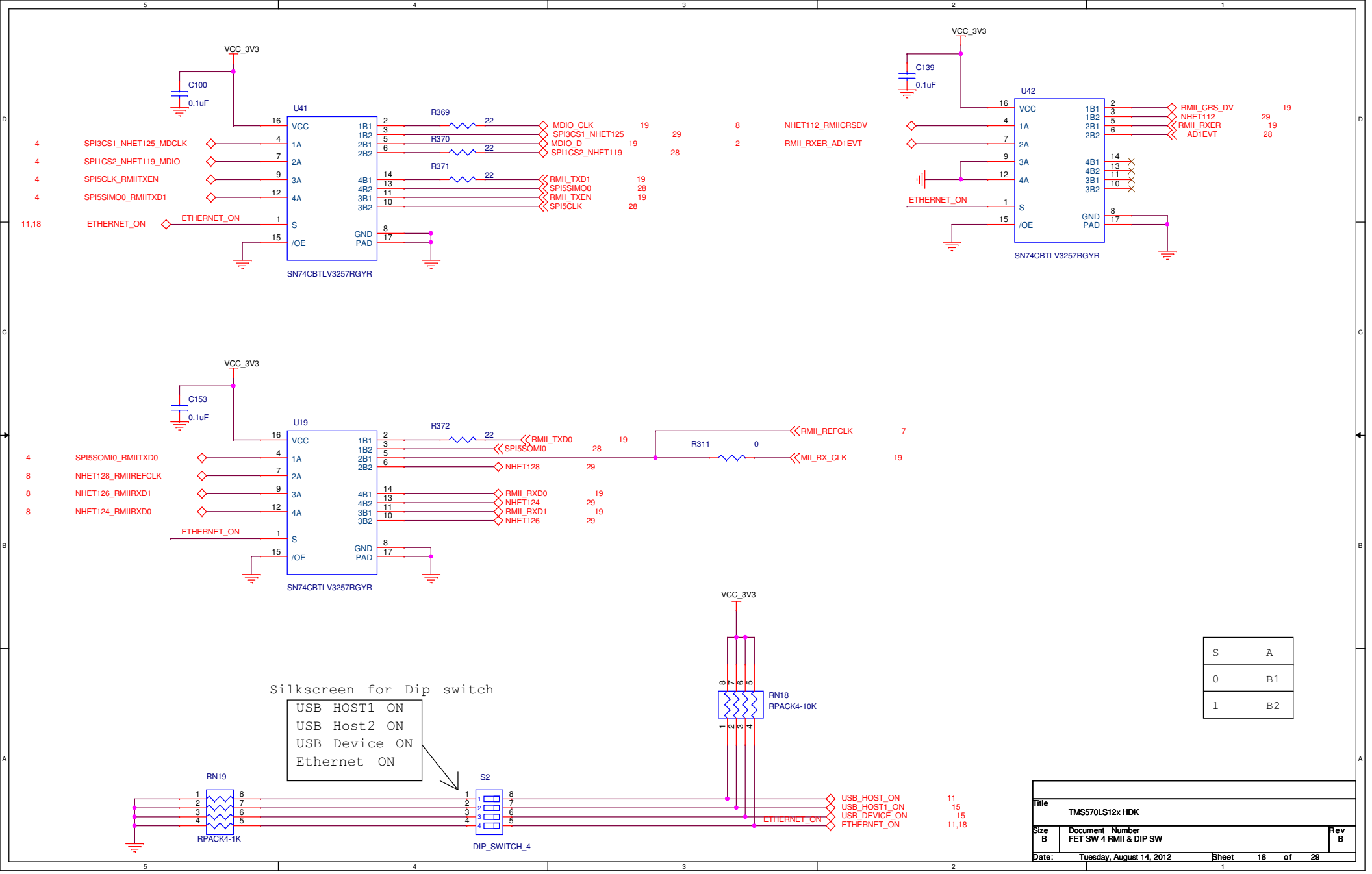




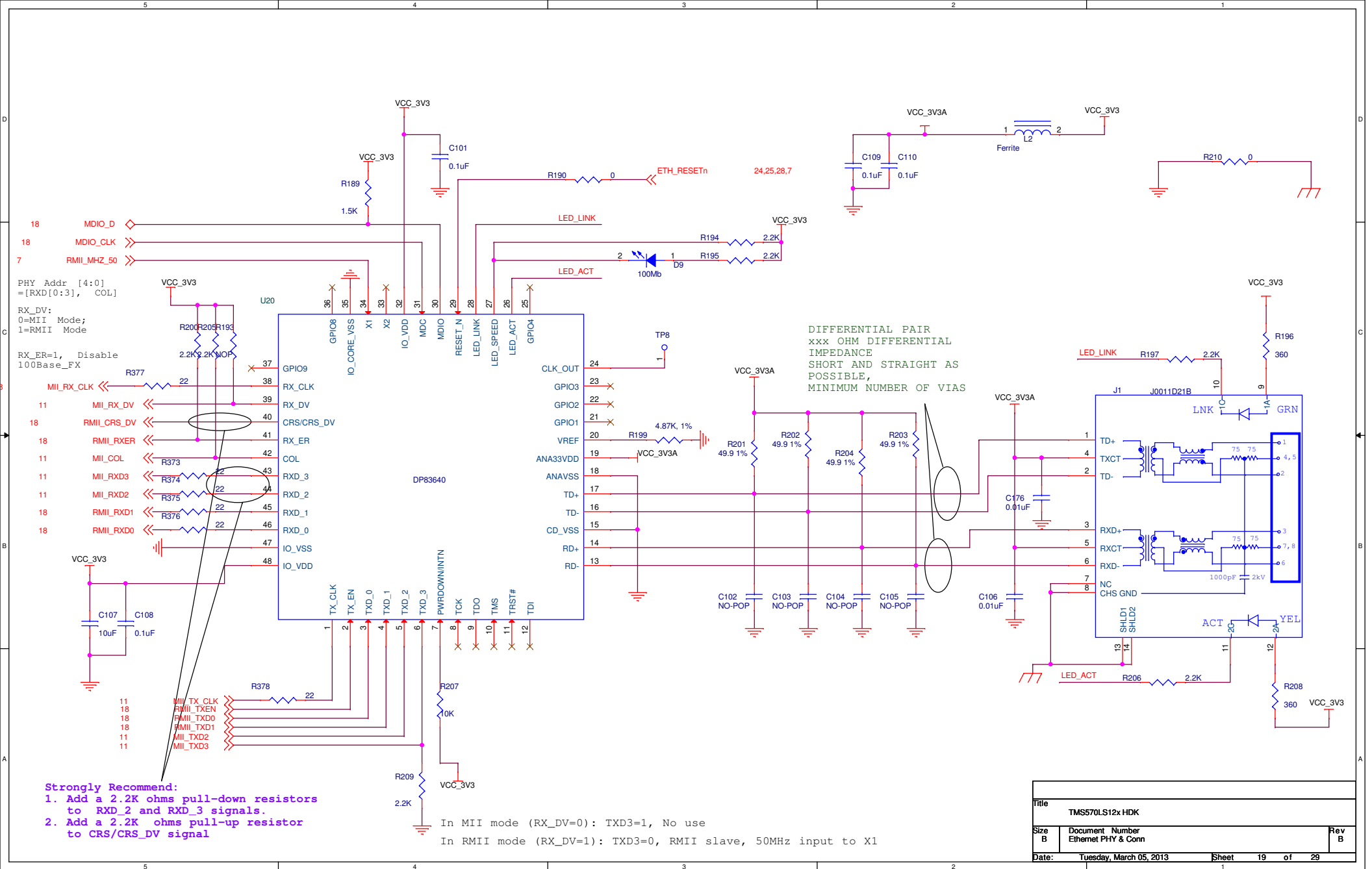
Title		
TMS570LS12x HDK		
Size	Document	Number
B	USB 1st OHCI Host	Rev B
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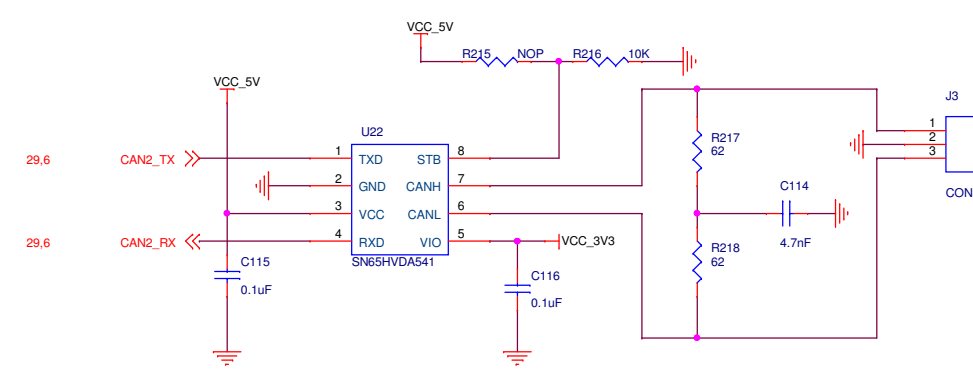
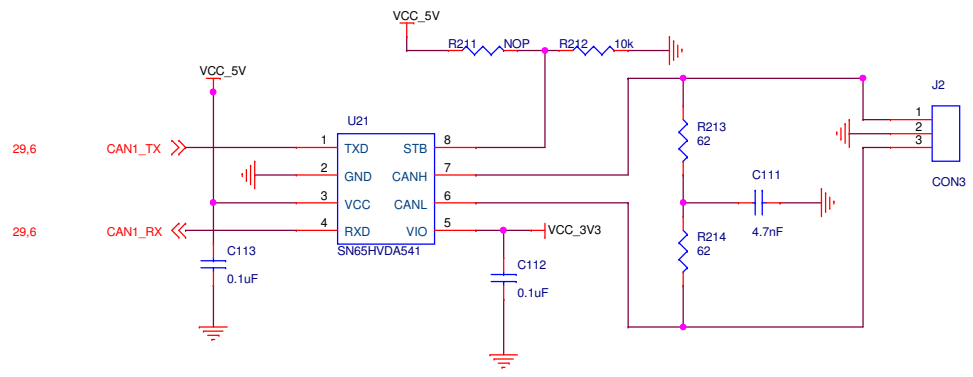
Title		
TMS570LS12x HDK		
Size B	Document Number	Rev B
USB Device & 2nd HOST		
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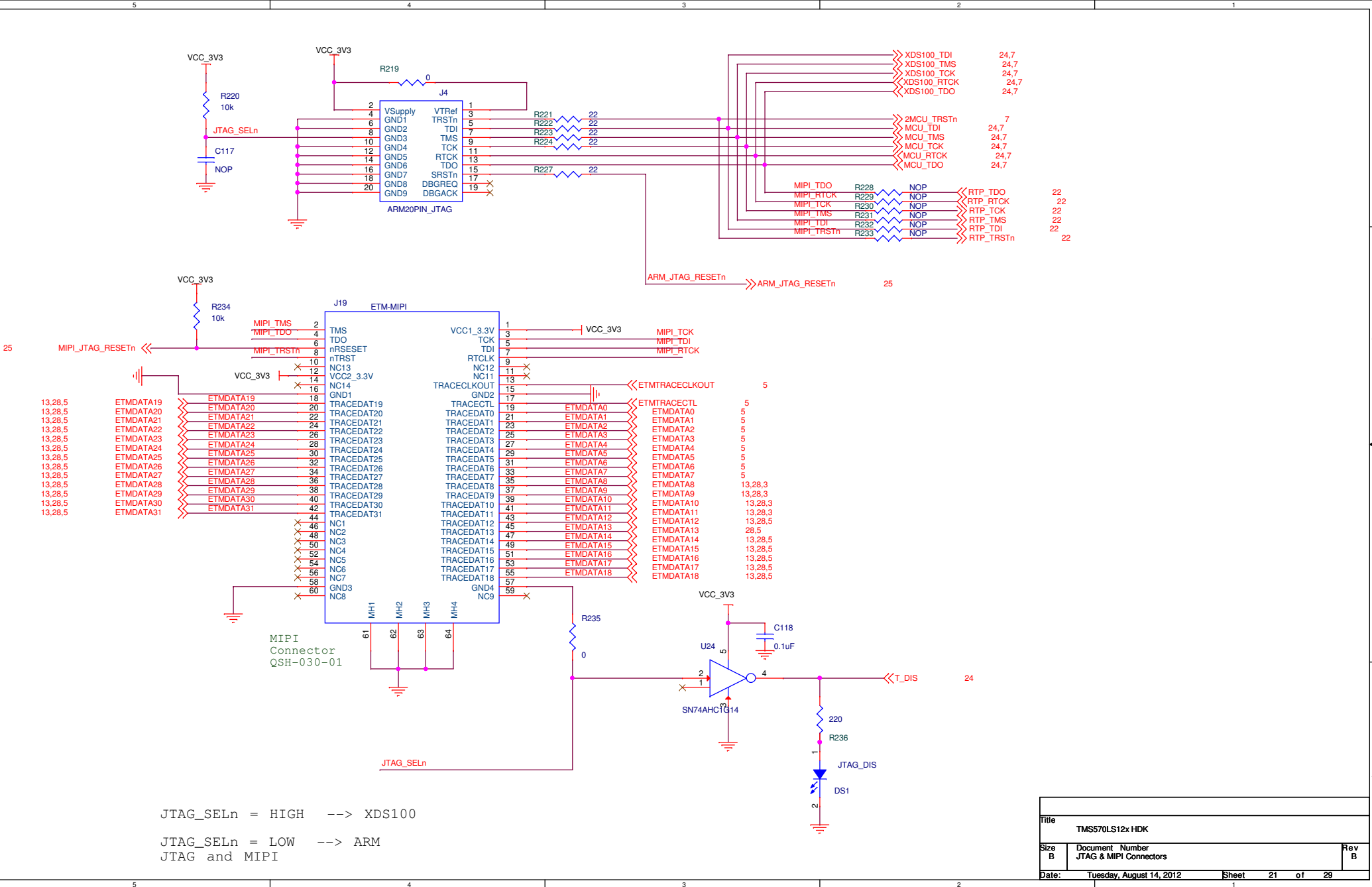
Title		
TMS570LS12x HDK		
Size B	Document Number	Rev B
FET SW 4 RMII & DIP SW		
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Title		
TMS570LS12x HDK		
Size B	Document Number Ethernet PHY & Conn	Rev B
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Title			TMS570LS12x HDK		
Size B	Document	Number	DCAN Transceivers		
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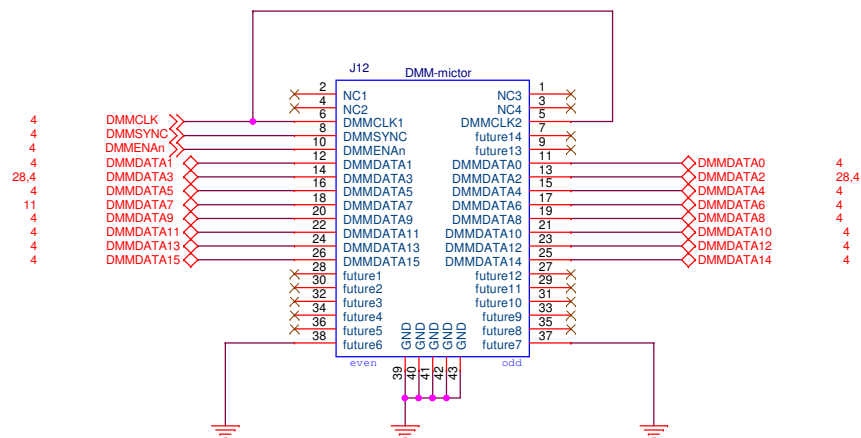


JTAG_SELn = HIGH --> XDS100

JTAG_SELn = LOW --> ARM

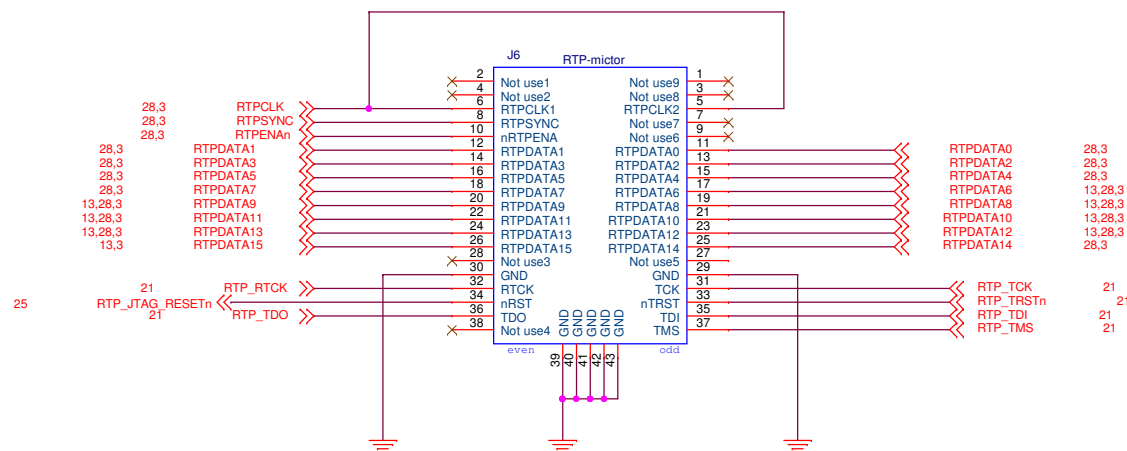
JTAG and MIPI

Title			TMS570LS12x HDK		
Size	Document	Number	JTAG & MIPI Connectors		
B			Rev B		
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Foot Print Only

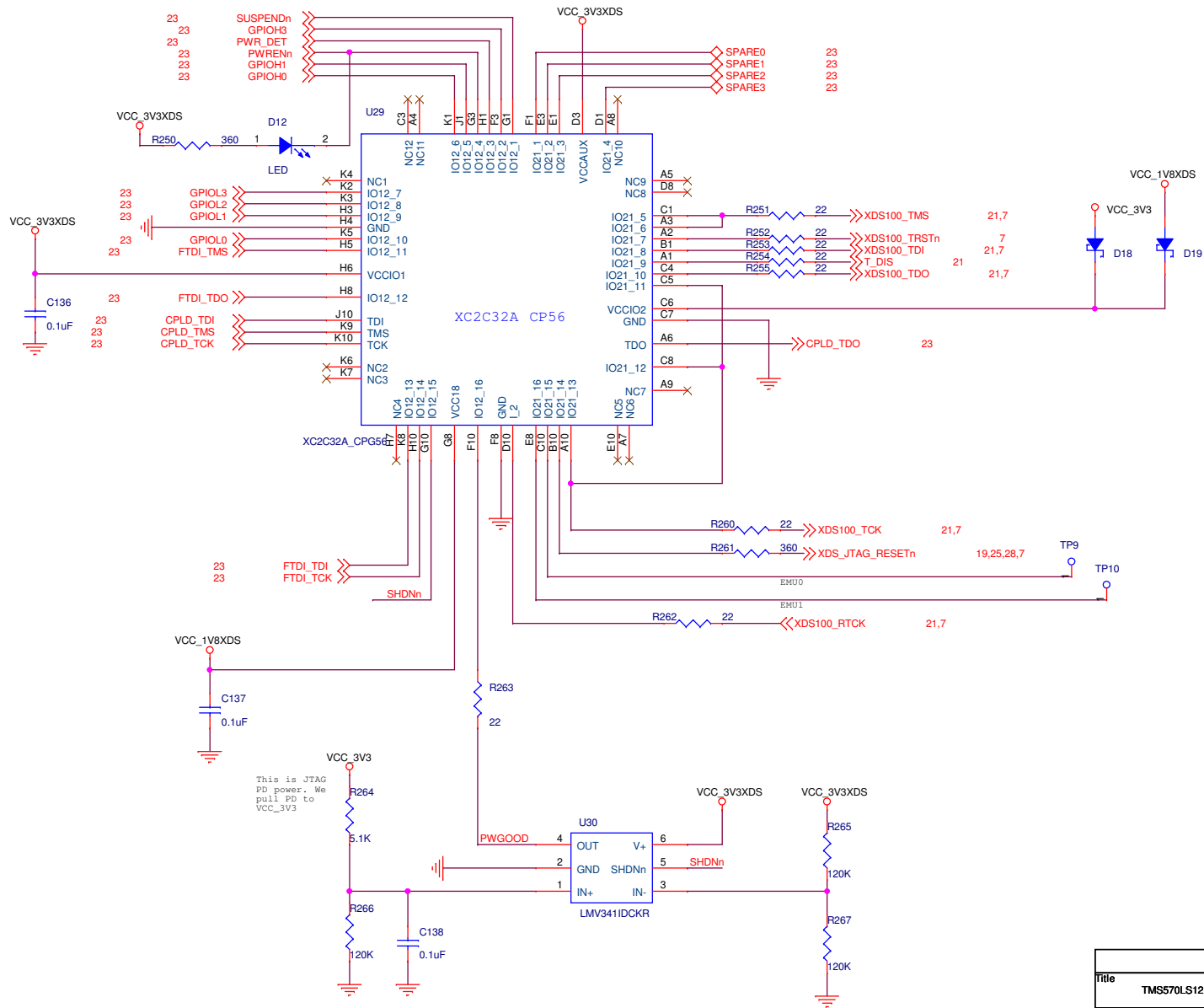
Pin39/40/41/42/43 are the central GND



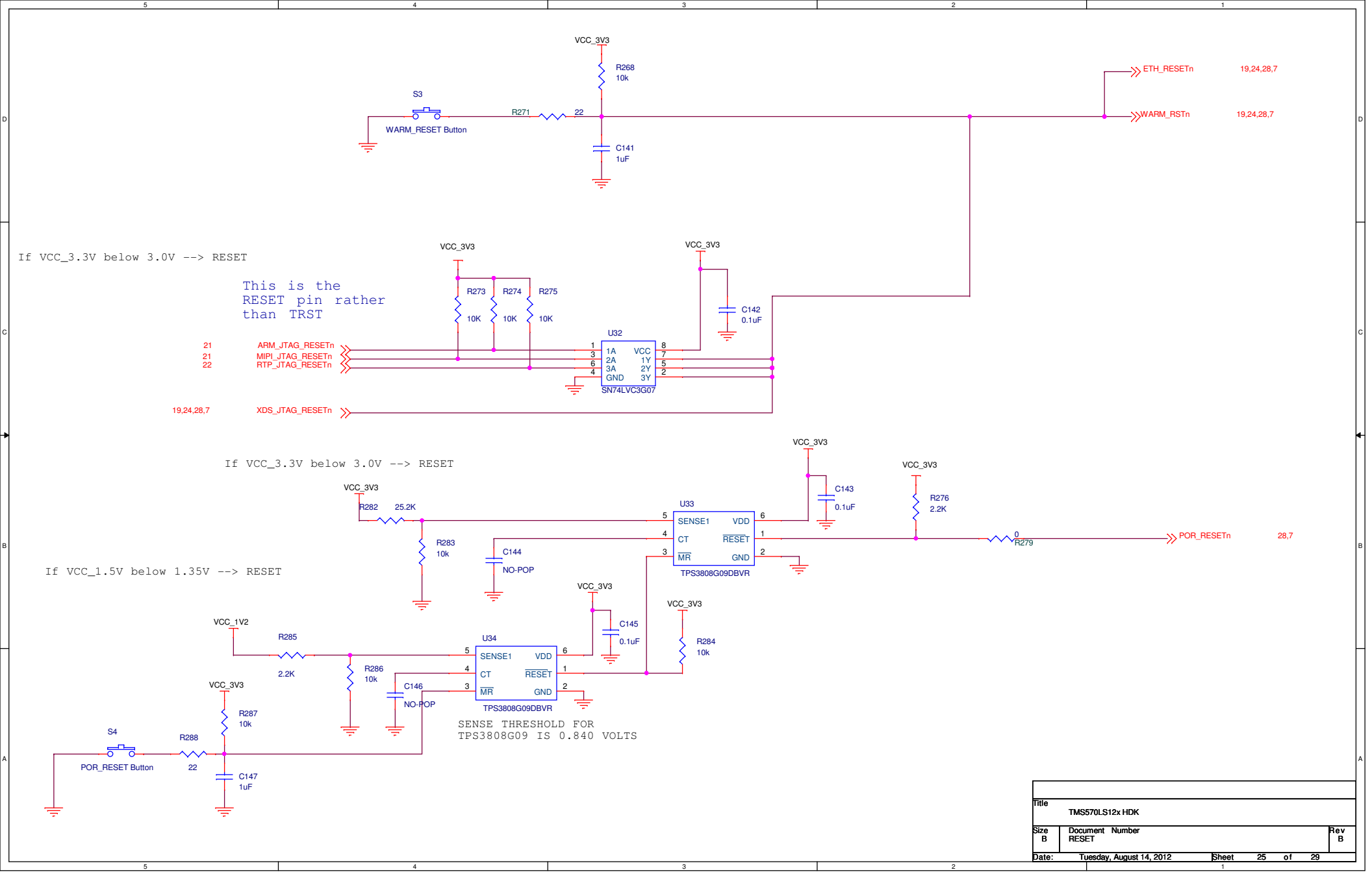
AMP 2-5767004-2
Receptacle, Center Strip Contacts

Foot Print Only

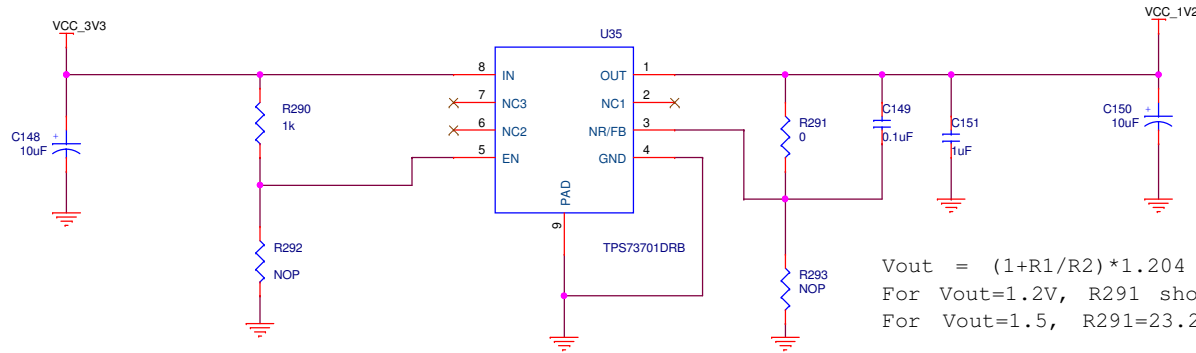
Title			
TMS570LS12x HDK			
Size B	Document Number DMM and RTP Connectors	Rev B	
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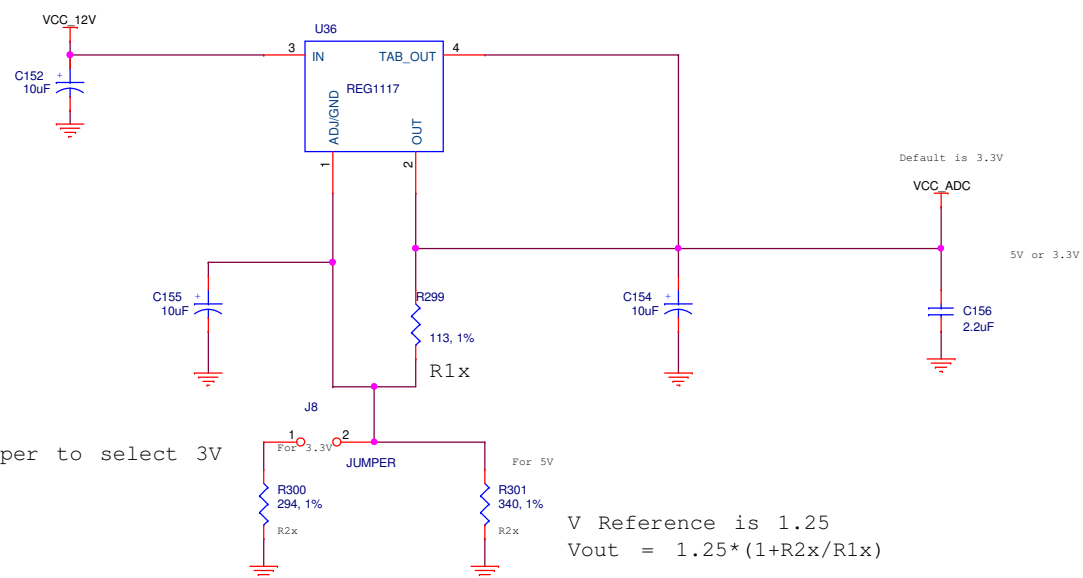
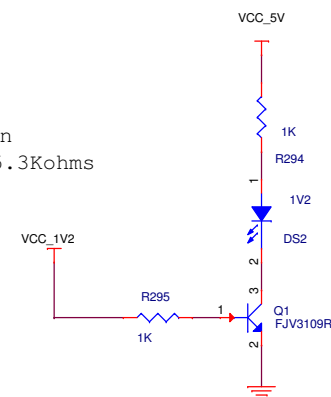
Title		
TMS570LS12x HDK		
Size	Document Number	Rev
B	XDS100V2 CPLD	B
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Title			TMS570LS12x HDK		
Size	Document	Number	Rev		
B	RESET		B		
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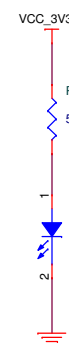


$V_{out} = (1 + R1/R2) * 1.204$
 For $V_{out}=1.2V$, R291 shorted, and R293 Open
 For $V_{out}=1.5$, R291=23.2Kohms, and R293=95.3Kohms
 R281: ERJ-2RKF2322X

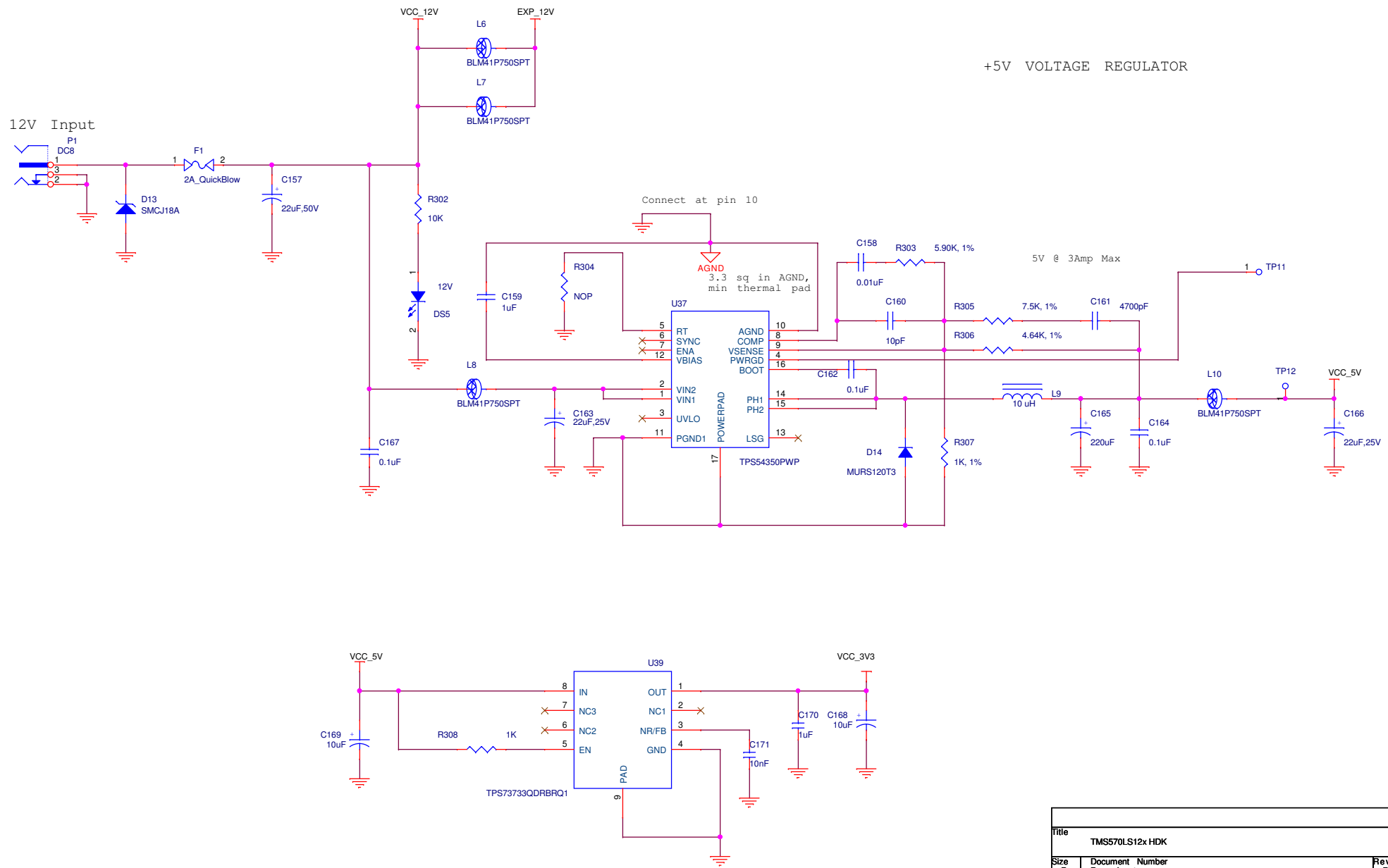


use jumper to select 3V

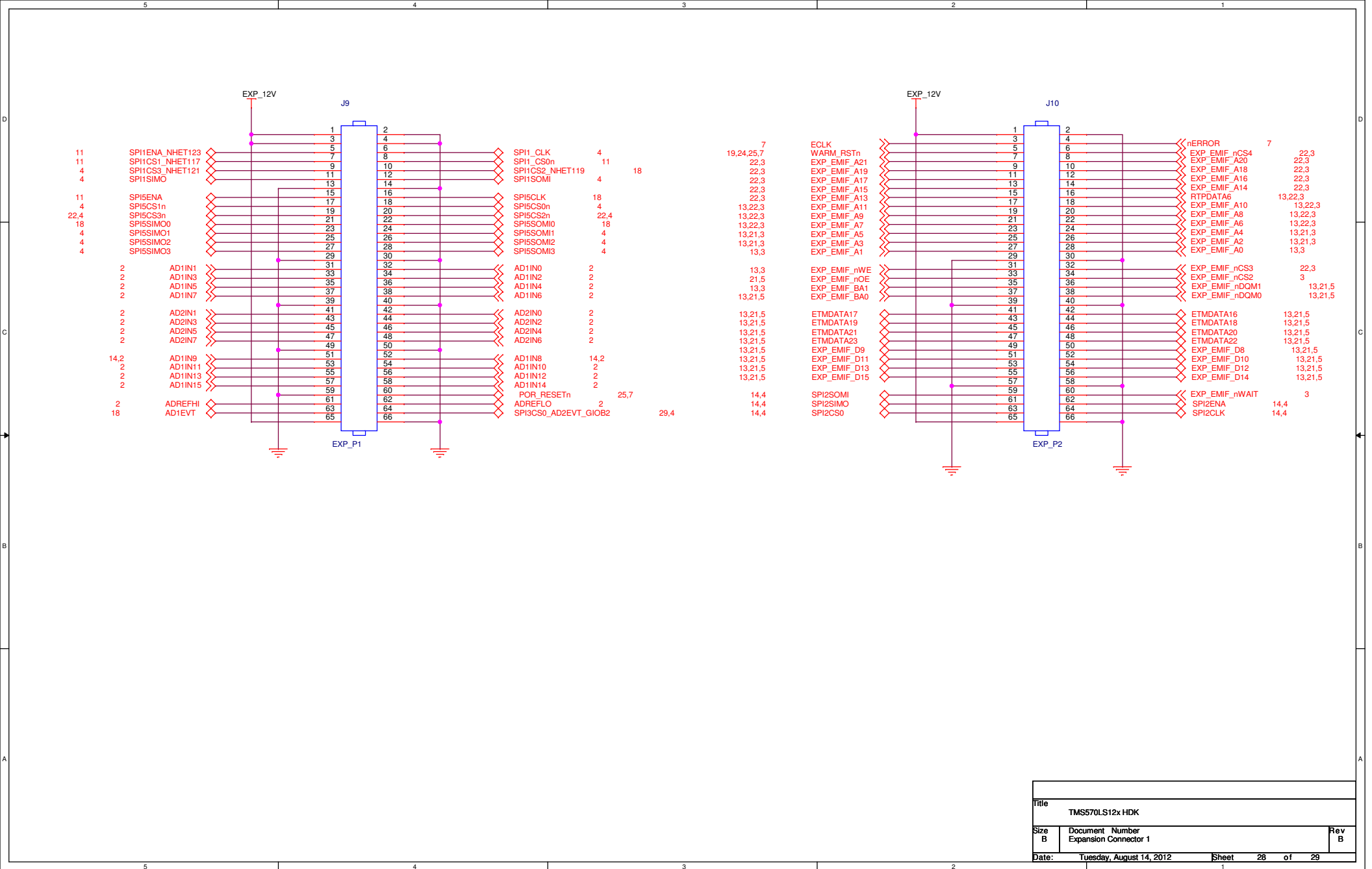
V Reference is 1.25
 $V_{out} = 1.25 * (1 + R2x/R1x)$

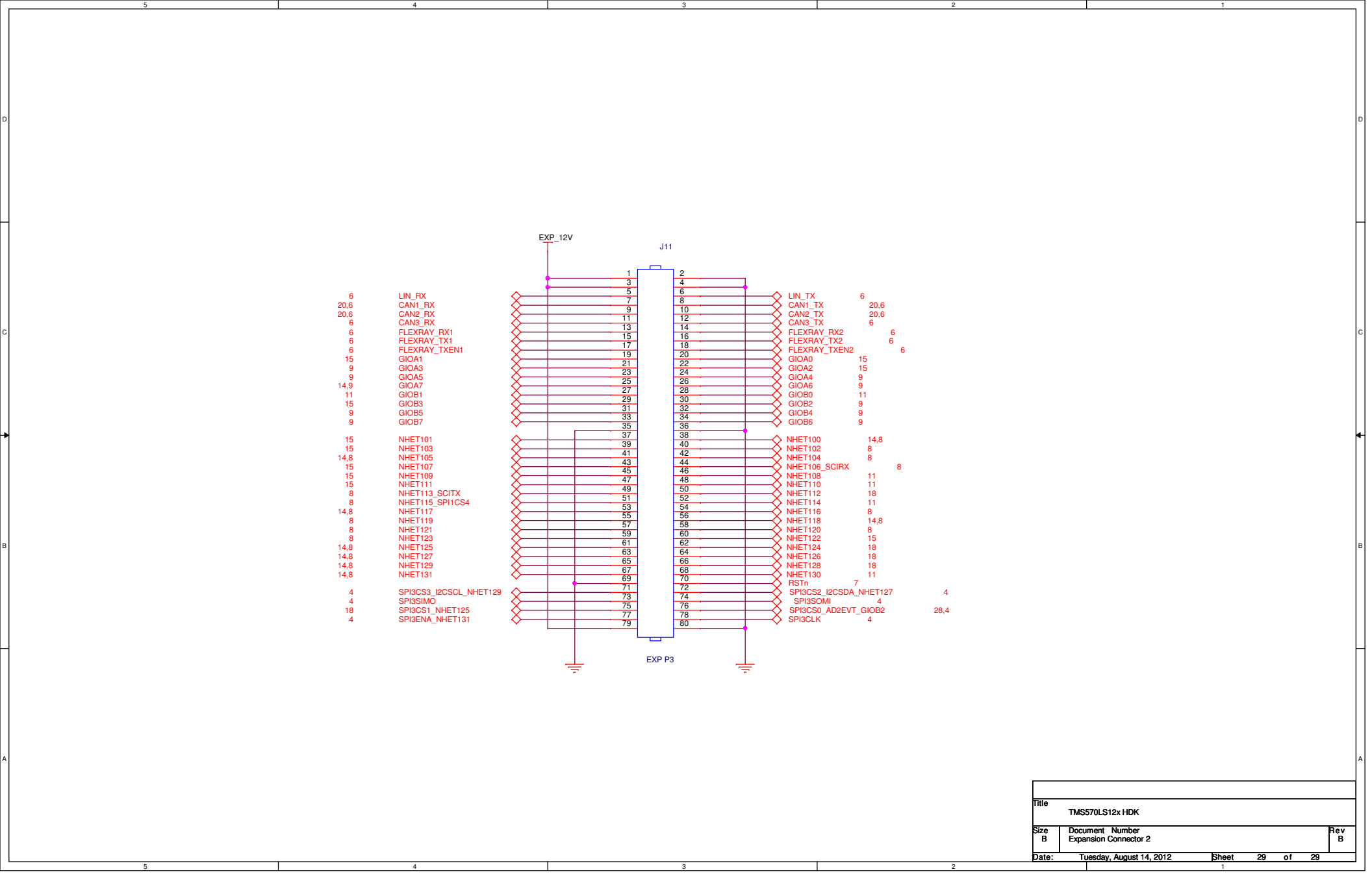


Title		
TMS570LS12x HDK		
Size	Document Number	Rev
B	Power Supply	C
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Title		
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B	Power Input	B
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Title			
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B	Expansion	Connector 2	B
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