

A

B

C

D

1

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2

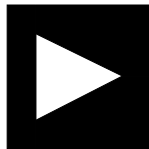
3

3

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4

# ADSP-BF518F EZ-BOARD SCHEMATIC



**ANALOG  
DEVICES**

20 Cotton Road  
Nashua, NH 03063  
PH: 1-800-ANALOGD

Title	ADSP-BF518F EZ-BOARD TITLE
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Size C	Board No. A0217-2008	Rev 1.0
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Date	5-11-2009_10:44	Sheet	1 of 16
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A

B

C

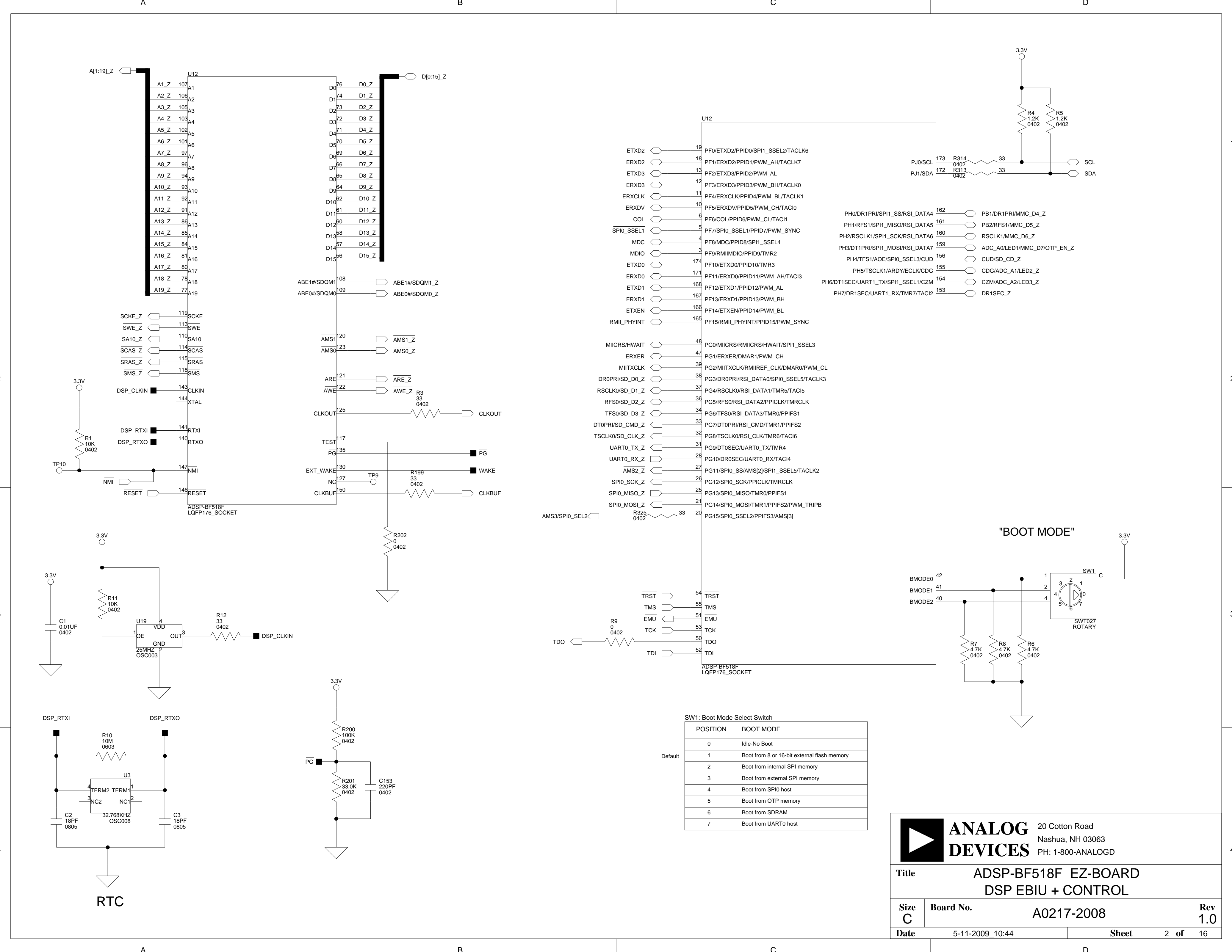
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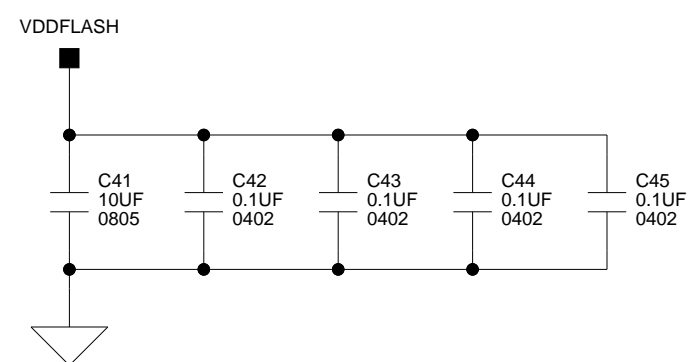
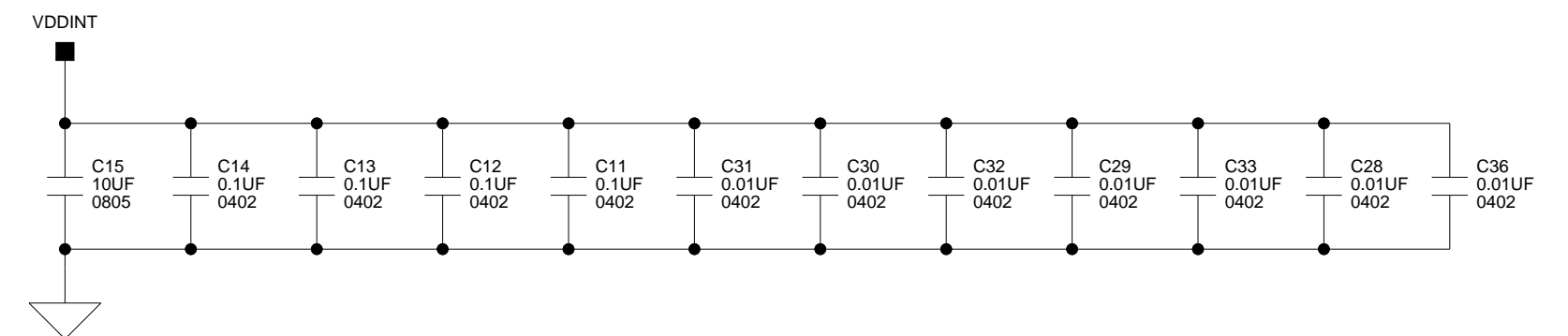
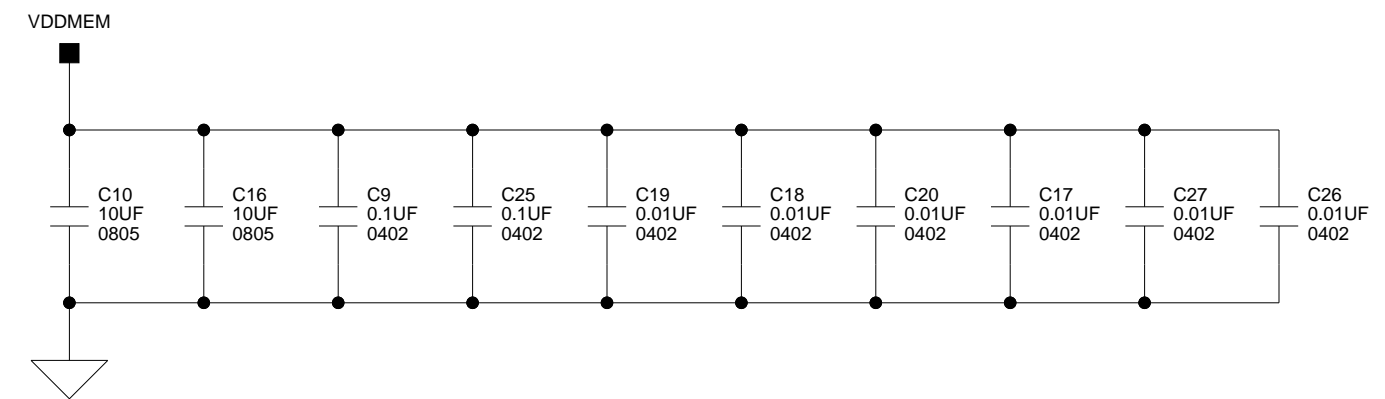
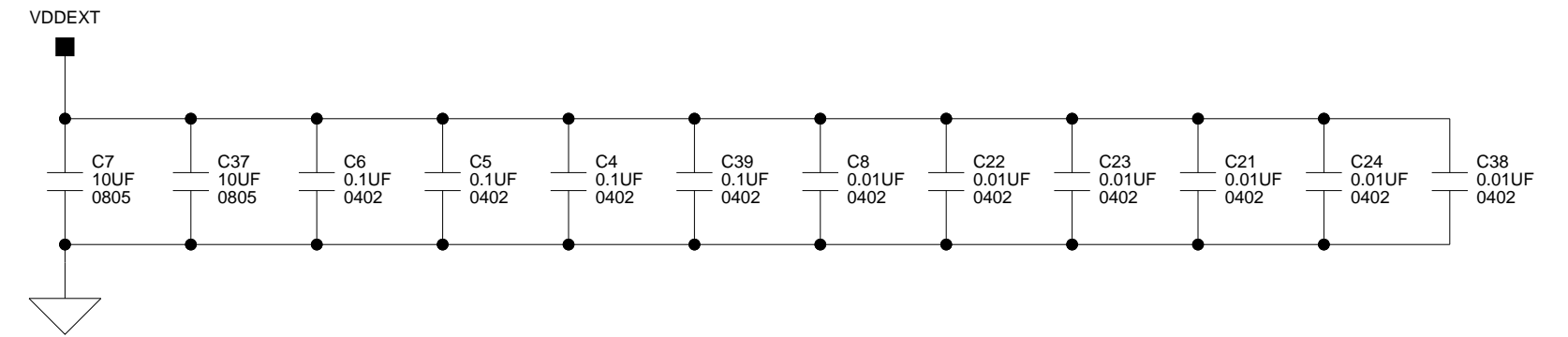
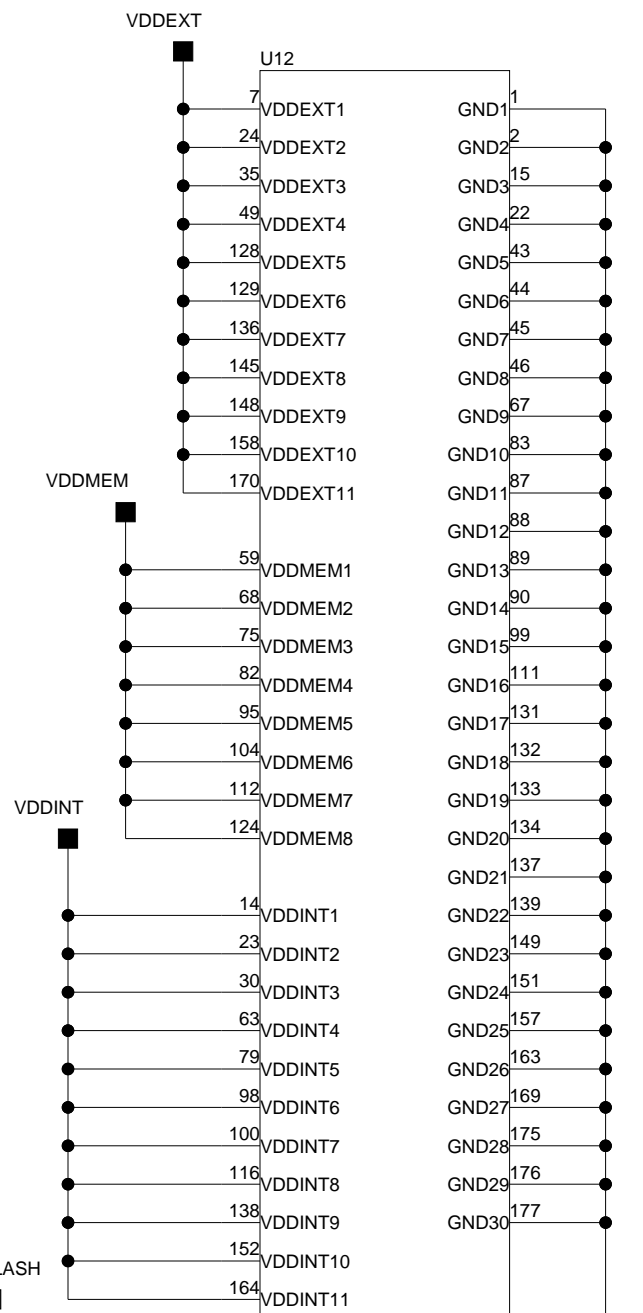
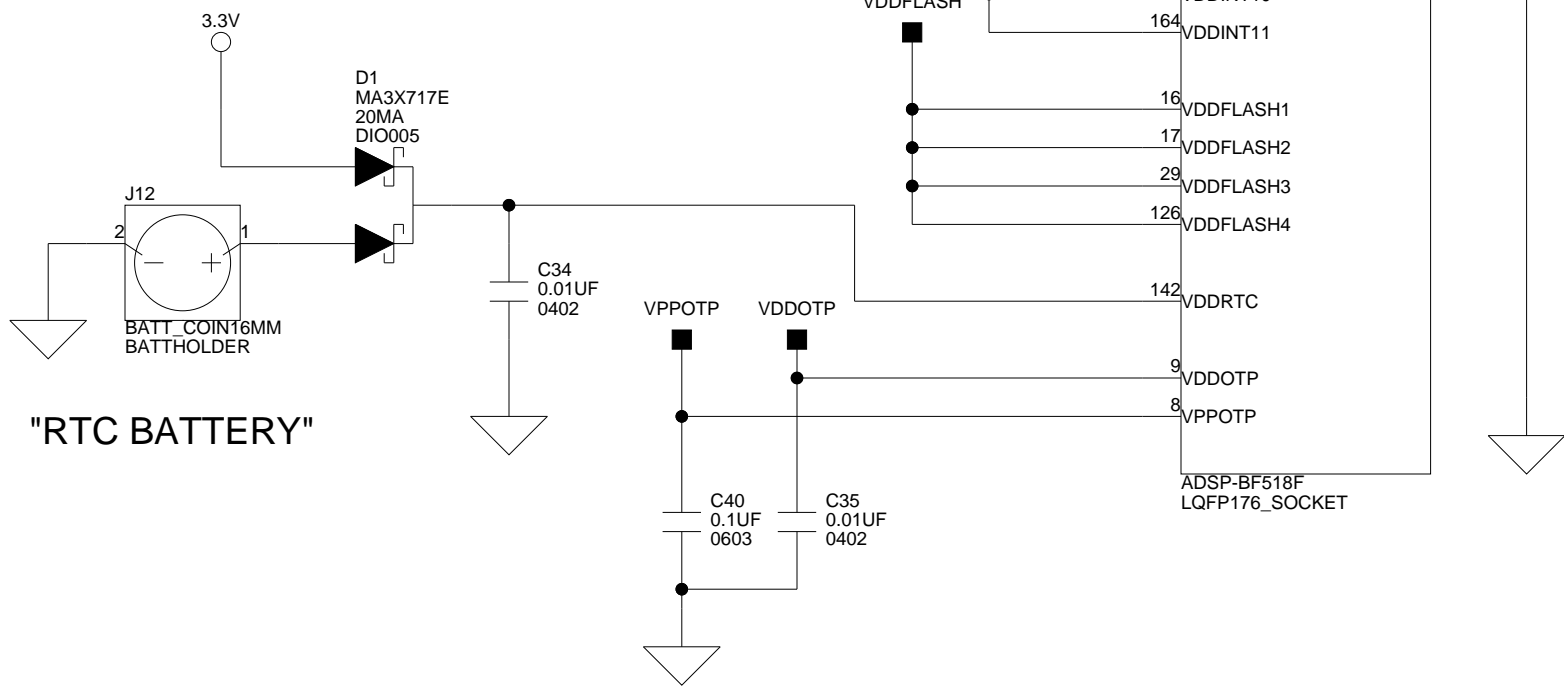
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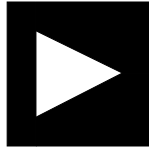
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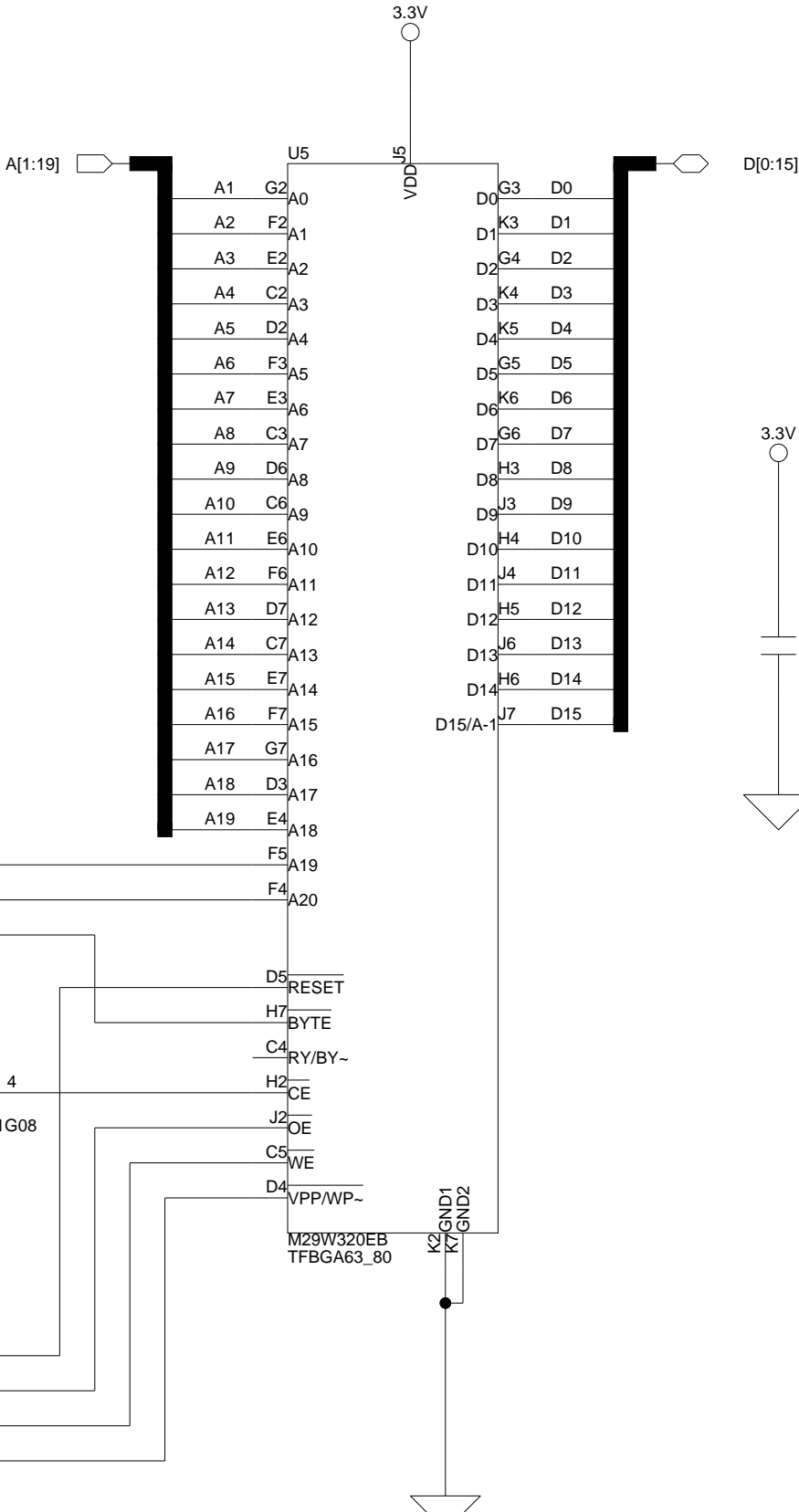


 <b>ANALOG DEVICES</b> 20 Cotton Road Nashua, NH 03063 PH: 1-800-ANALOGD			
Title ADSP-BF518F EZ-BOARD DSP POWER, BYPASS CAPS			
Size C	Board No. A0217-2008		Rev 1.0
Date	5-11-2009_10:44		Sheet 3 of 16

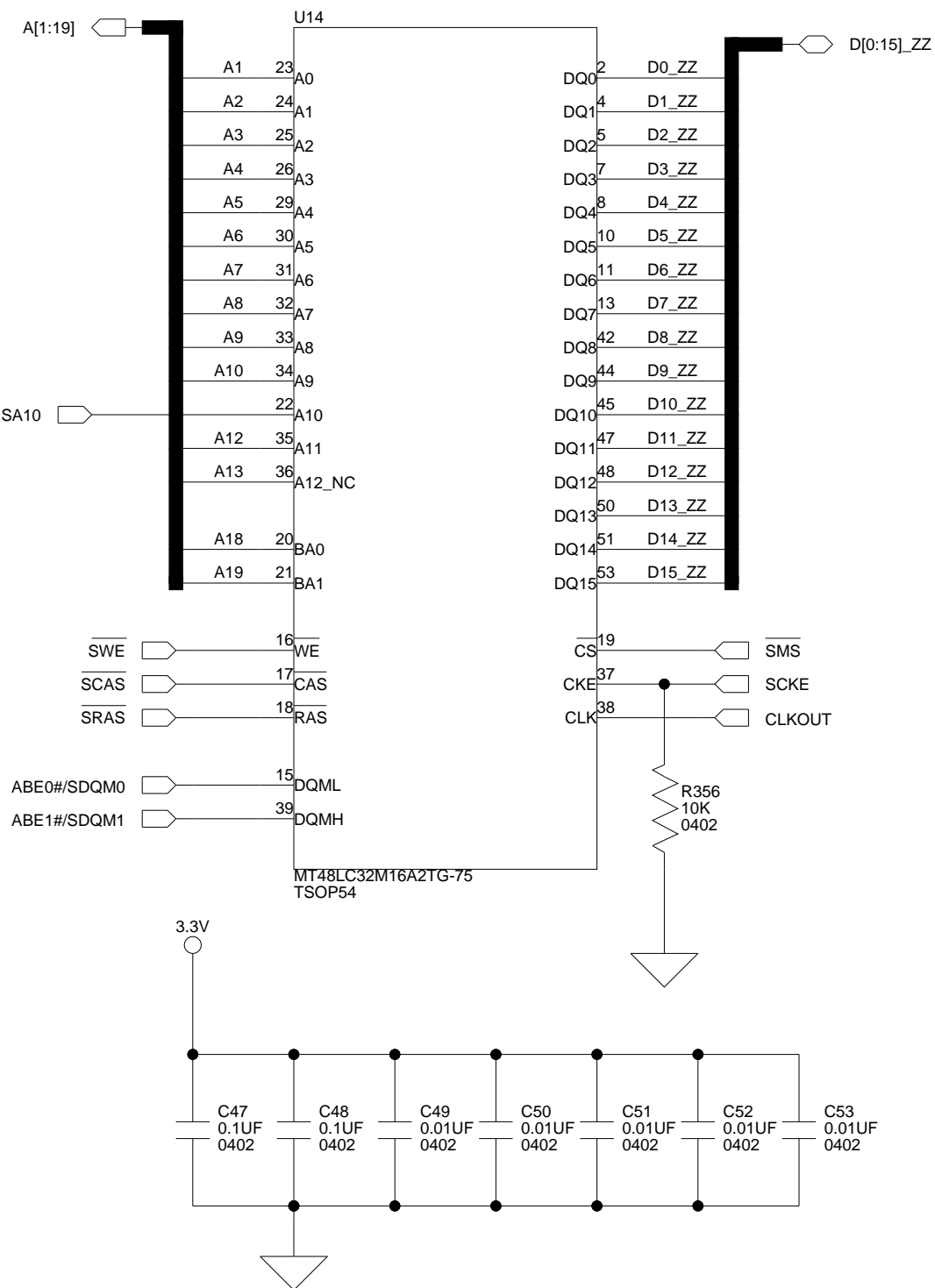
SW3: FLASH ENABLE

POS.	FROM	TO	DEFAULT	ALTERNATE FUNCTION / OFF MODE
1	DSP (U12)	FLASH (U5)	ON	Expansion Interface
2	DSP (U12)	FLASH (U5)	ON	Expansion Interface
3	DSP (U12)	FLASH (U5)	ON	Expansion Interface
4	DSP (U12)	FLASH (U5)	ON	Expansion Interface, SPI FLASH CS

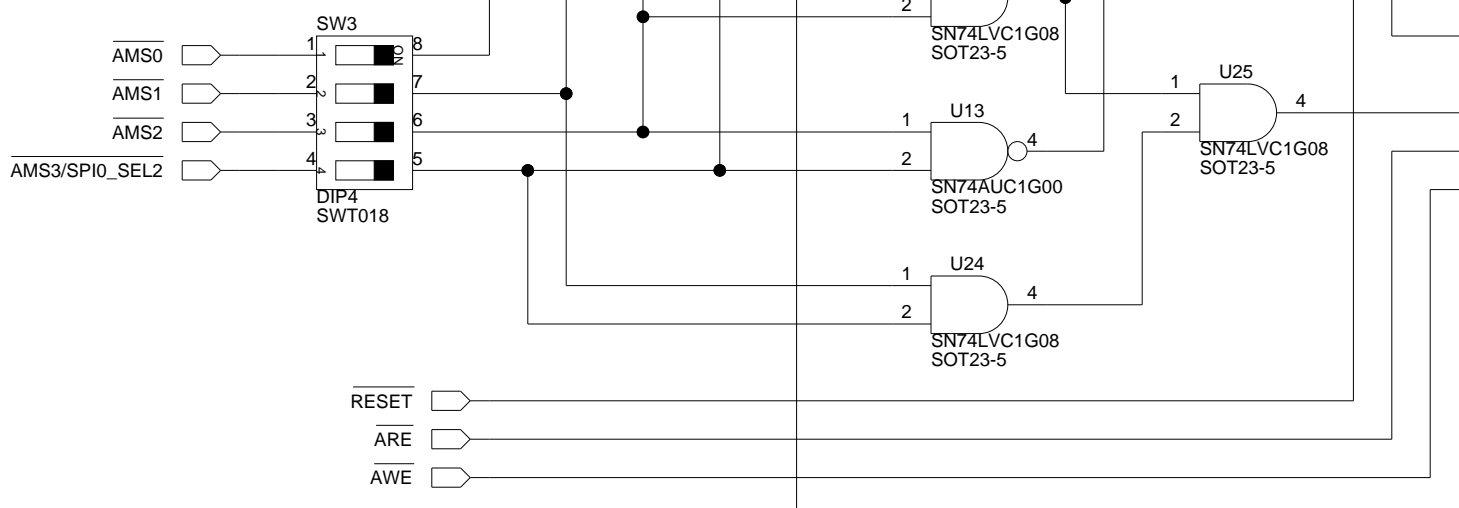
4 MB FLASH  
(2M x 16)



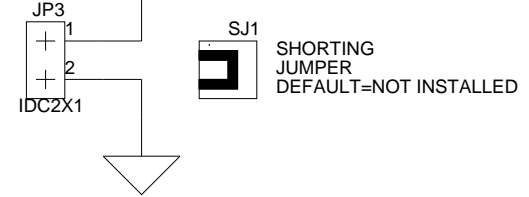
64MB SDRAM (32M x 16)



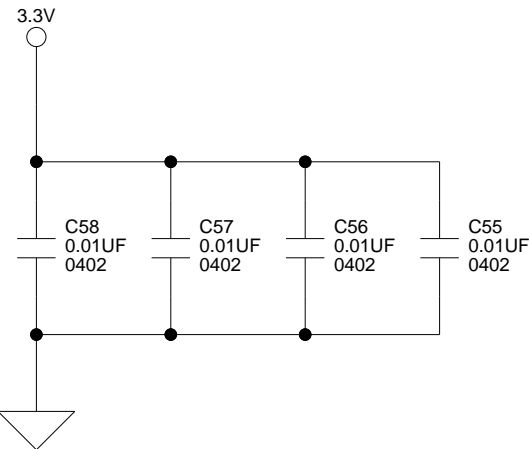
"FLASH ENBL"



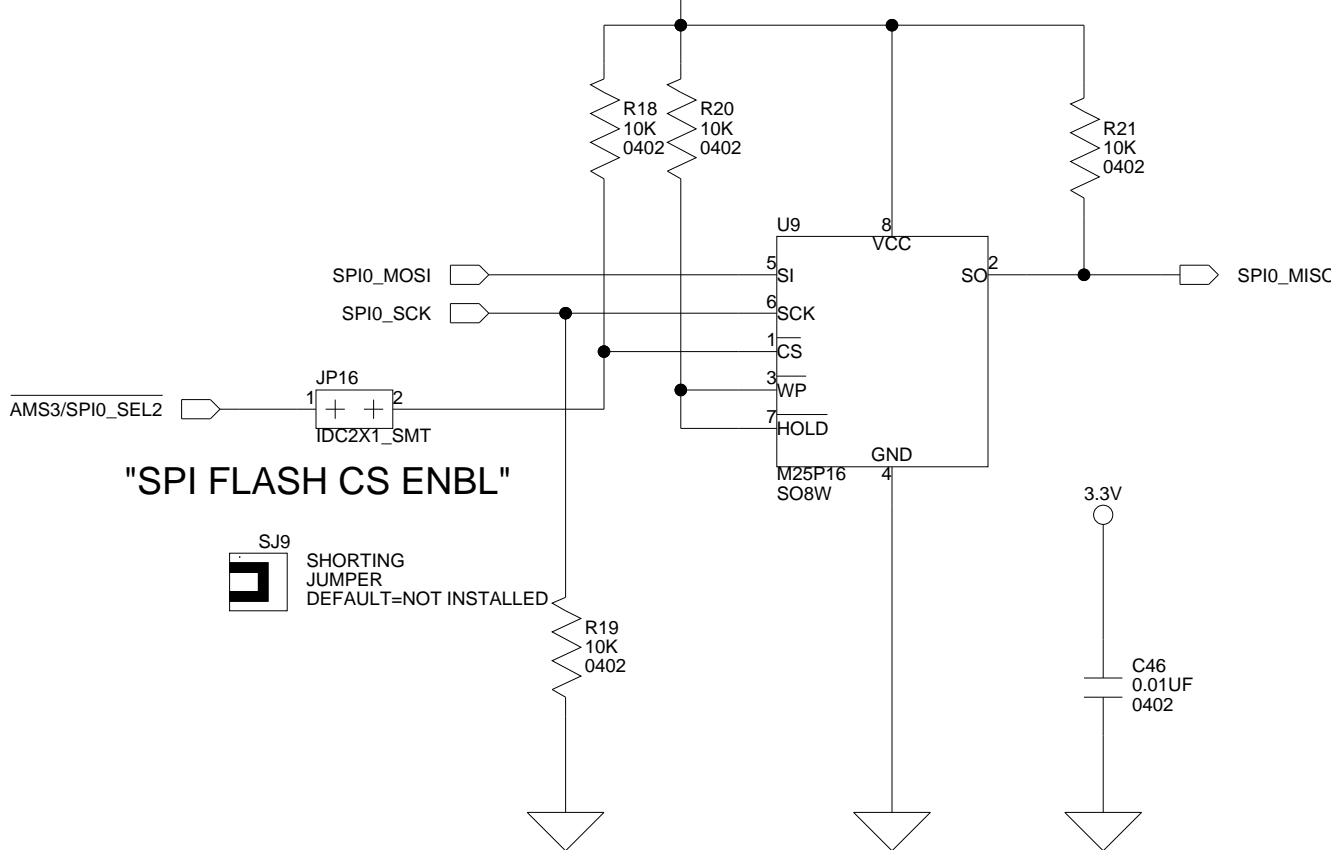
"FLASH WP"



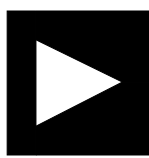
MEMORY MAP		
ADDRESS RANGE	SELECT LINE	TYPE
0x2030 0000 - 0x203F FFFF	ASYNC BANK 3	FLASH
0x2020 0000 - 0x202F FFFF	ASYNC BANK 2	FLASH
0x2010 0000 - 0x201F FFFF	ASYNC BANK 1	FLASH
0x2000 0000 - 0x200F FFFF	ASYNC BANK 0	FLASH
0x0000 0000 - 0x03FF FFFF	NONE	SDRAM



16 Mb SPI FLASH



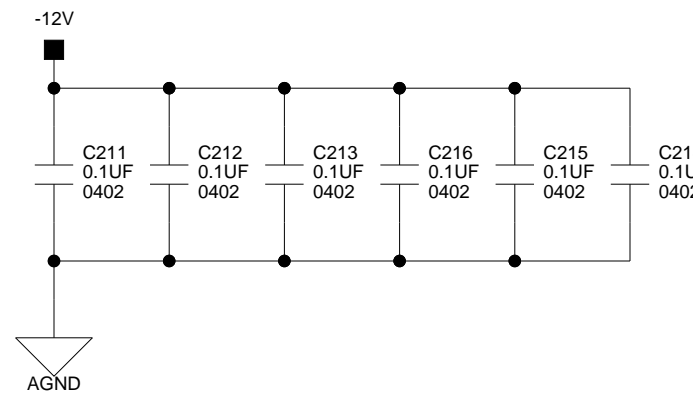
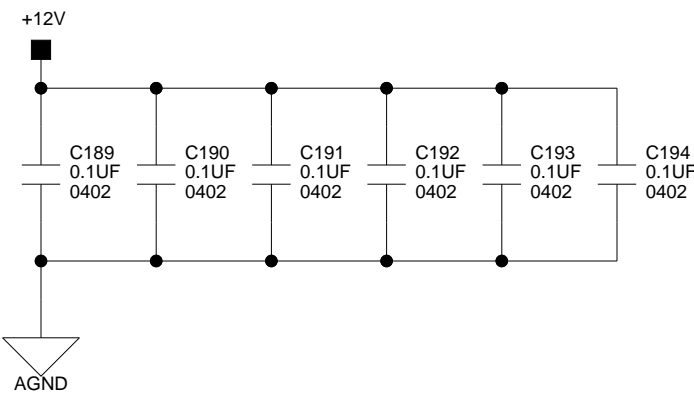
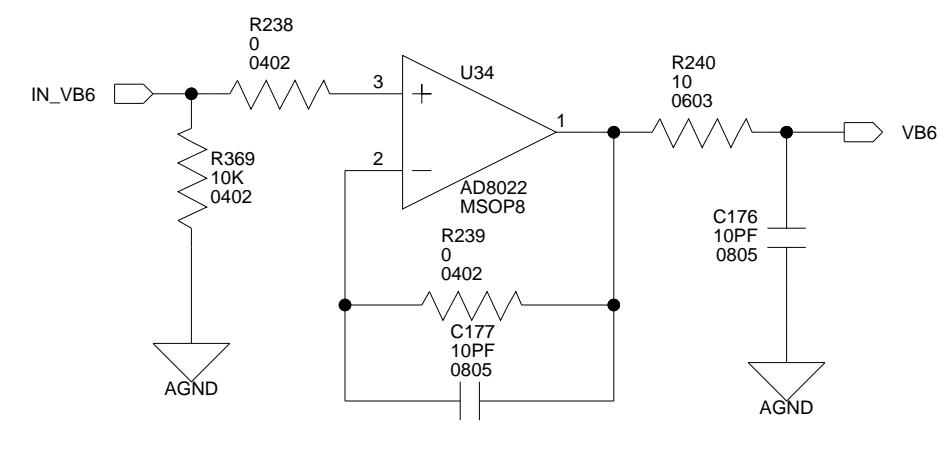
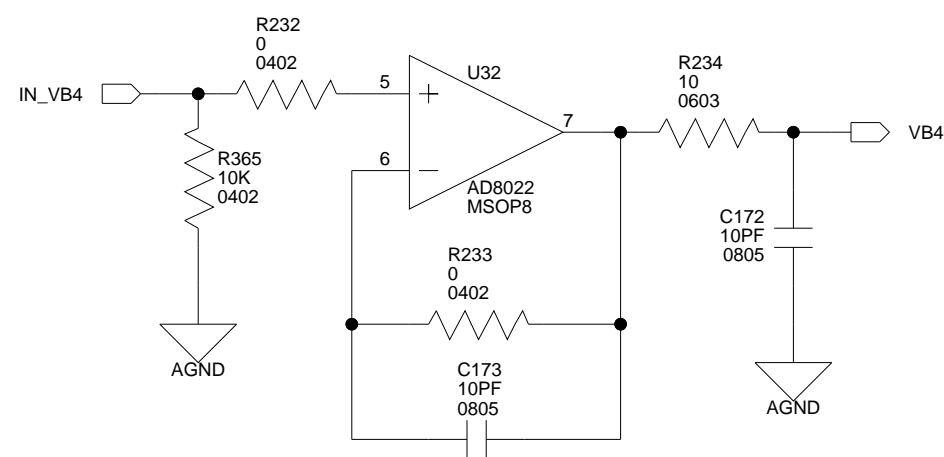
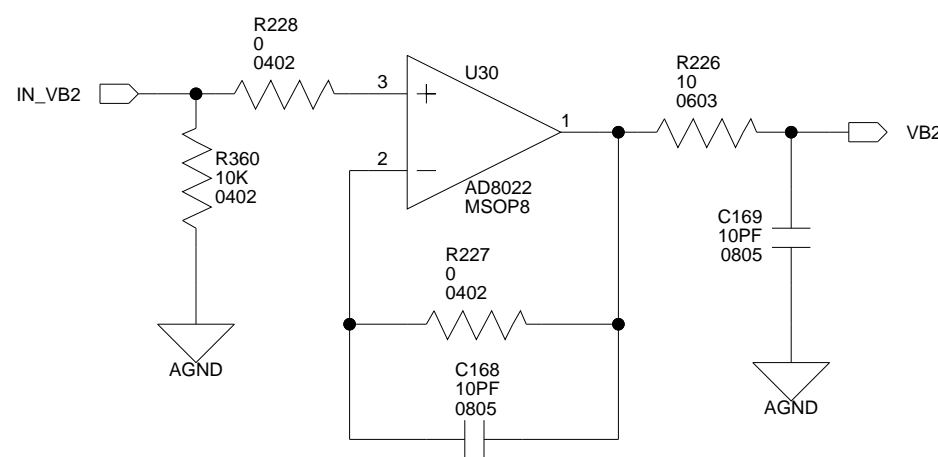
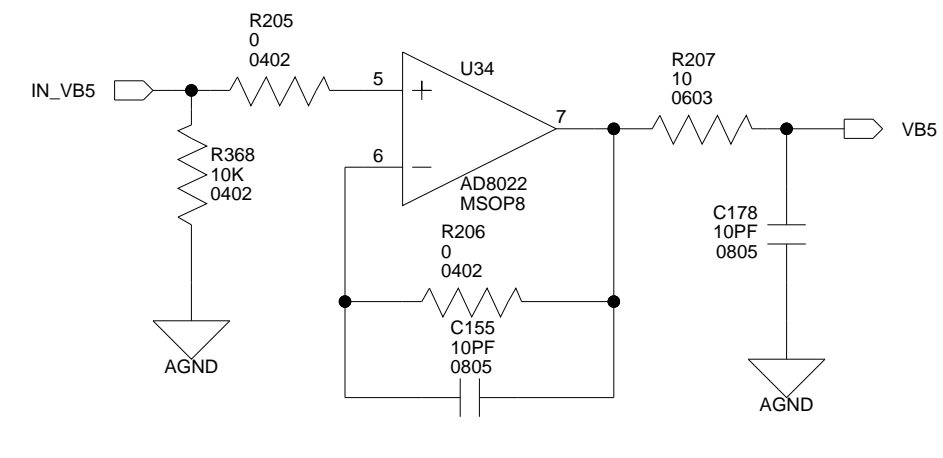
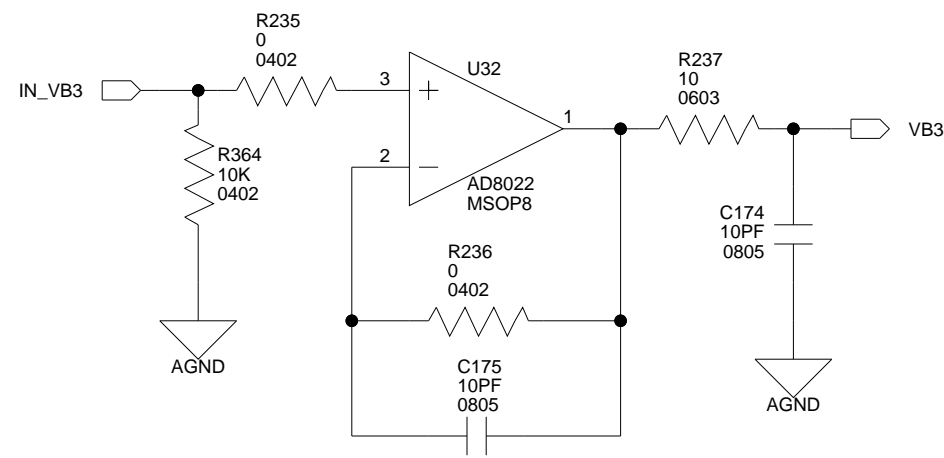
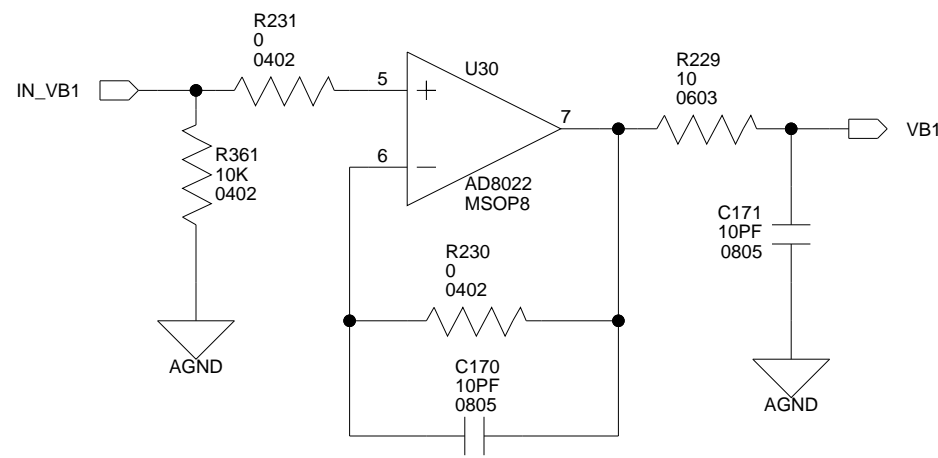
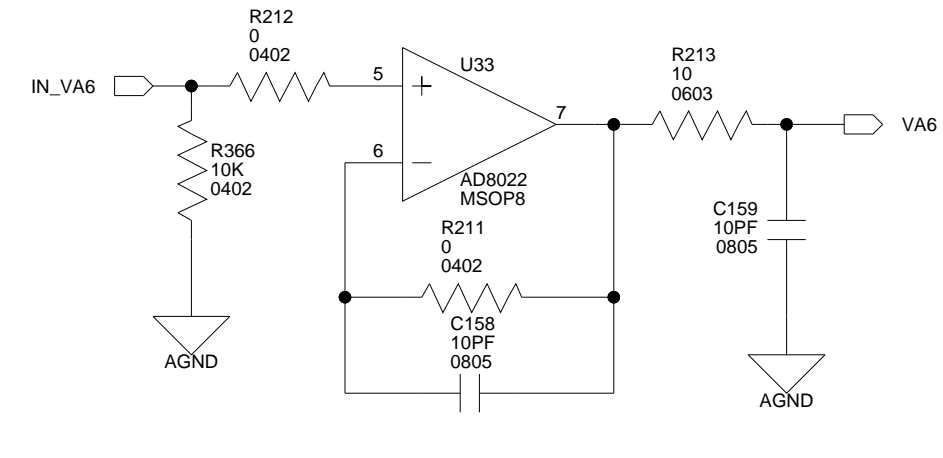
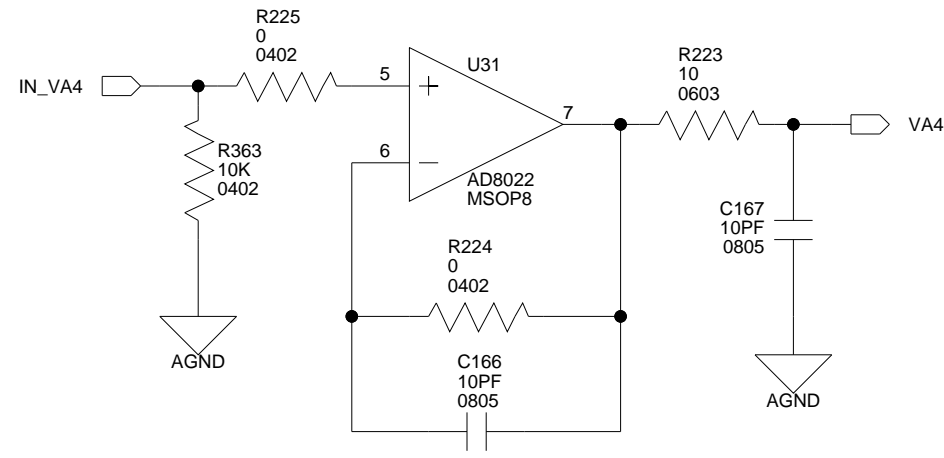
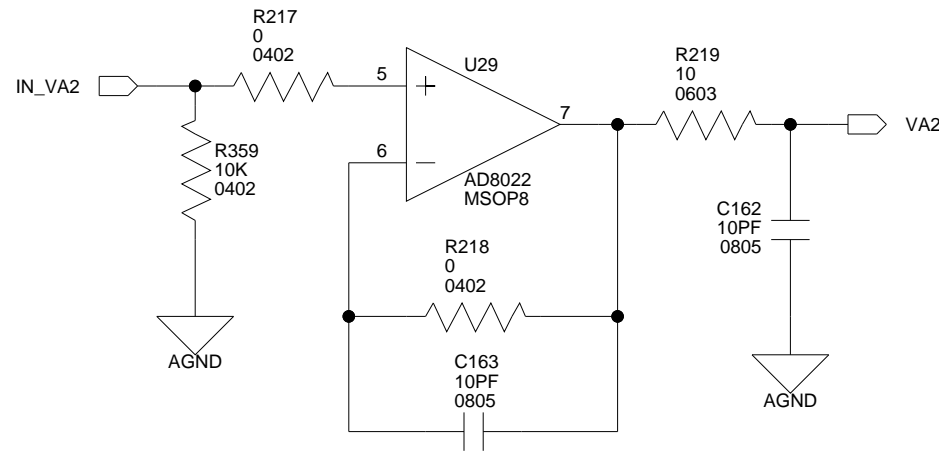
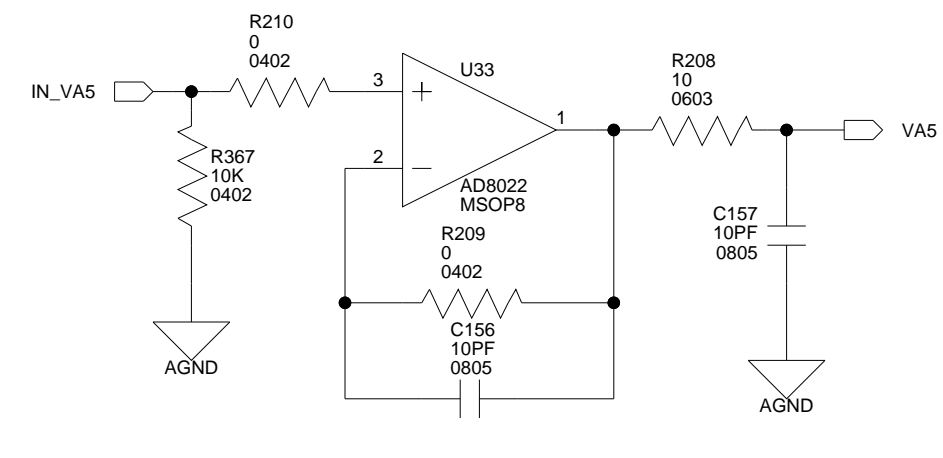
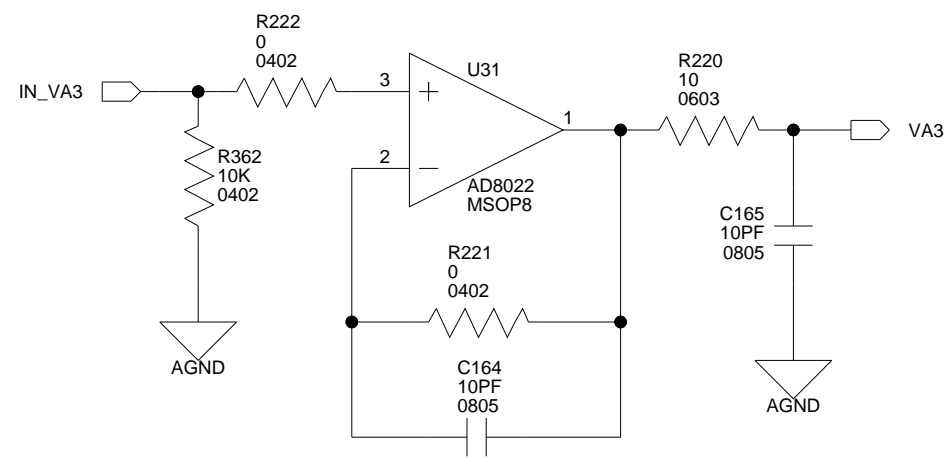
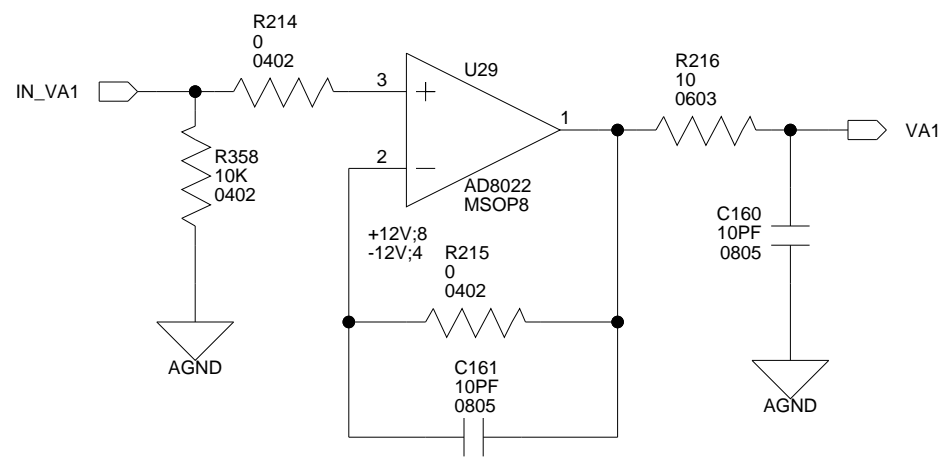
"SPI FLASH CS ENBL"

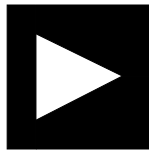


**ANALOG  
DEVICES**

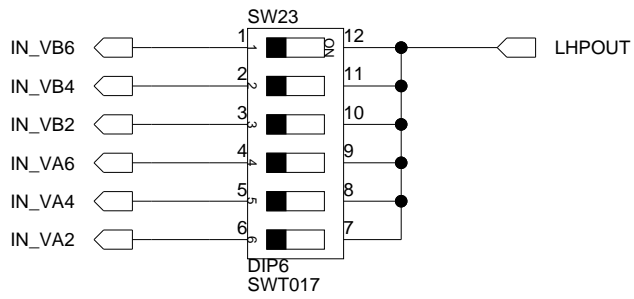
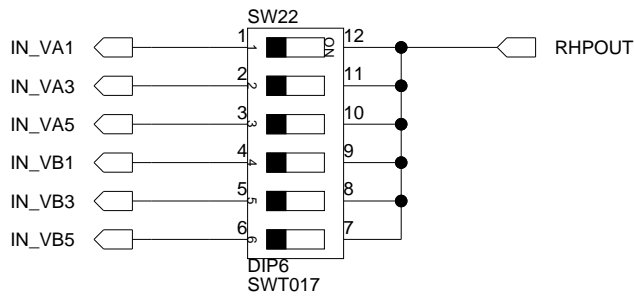
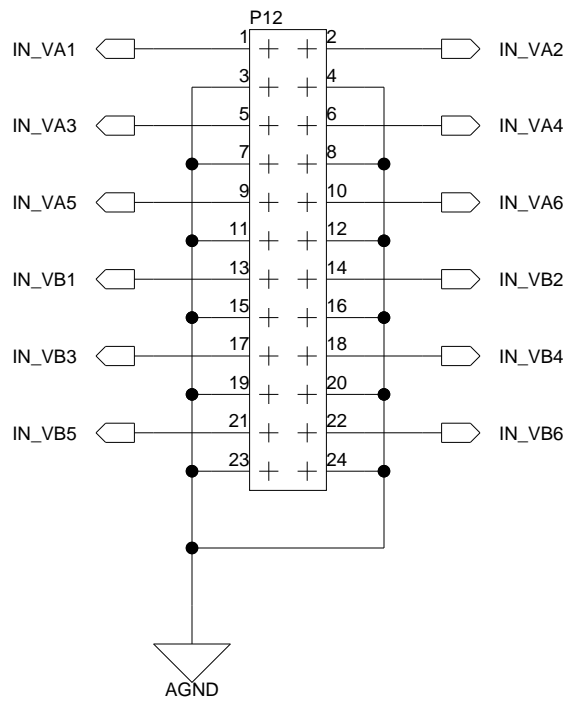
20 Cotton Road  
Nashua, NH 03063  
PH: 1-800-ANALOGD

Title			ADSP-BF518F EZ-BOARD EXTERNAL MEMORY		
Size C	Board No.		A0217-2008		Rev 1.0
Date	5-11-2009_10:44		Sheet	4 of	16

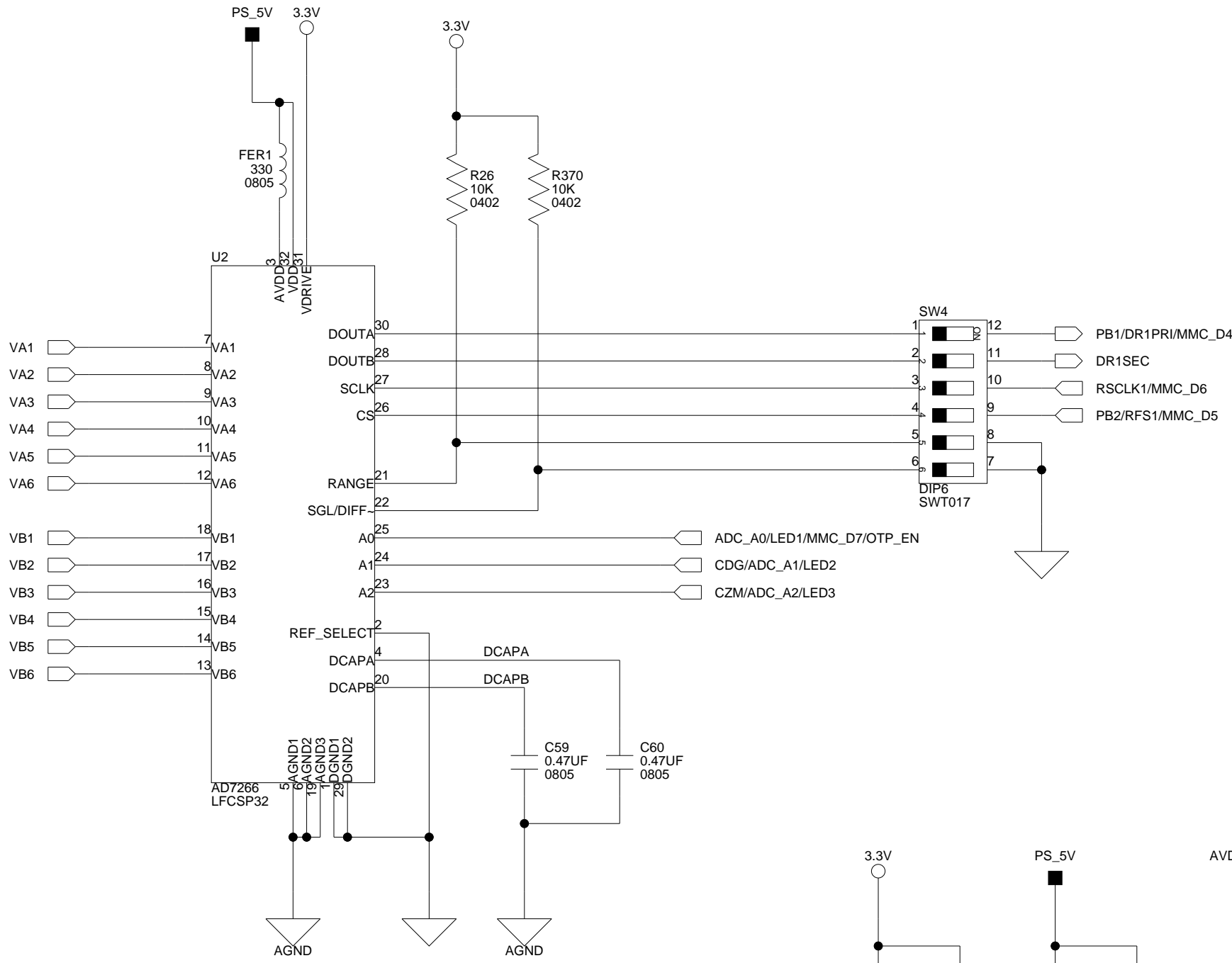


 <b>ANALOG DEVICES</b>		20 Cotton Road Nashua, NH 03063 PH: 1-800-ANALOGD	
		<b>Title</b> ADSP-BF518F EZ-BOARD ADC INPUTS	
<b>Size C</b>	<b>Board No.</b> A0217-2008	<b>Rev</b> 1.0	
<b>Date</b> 5-11-2009_10:44	<b>Sheet</b> 5 of 16		

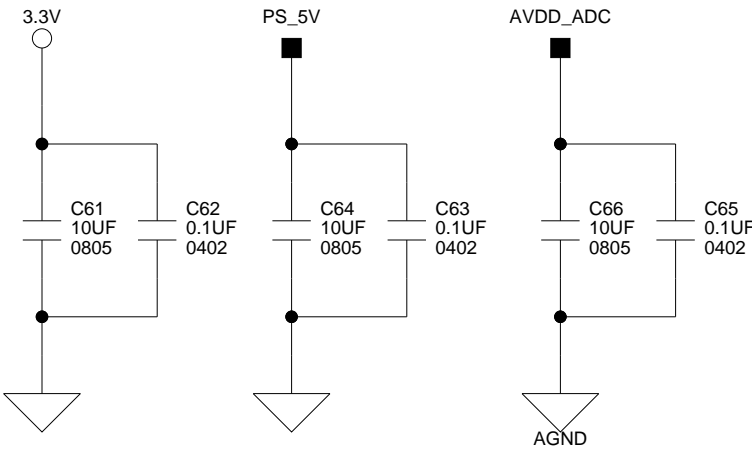
"ADC INPUTS"



SW22 & 23 are only used for POST



SW4 disconnects DSP from ADC  
"SPORT1 ENBL"



**ANALOG  
DEVICES**

20 Cotton Road  
Nashua, NH 03063  
PH: 1-800-ANALOGD

Title **ADSP-BF518F EZ-BOARD  
ADC**

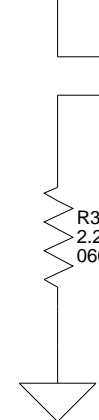
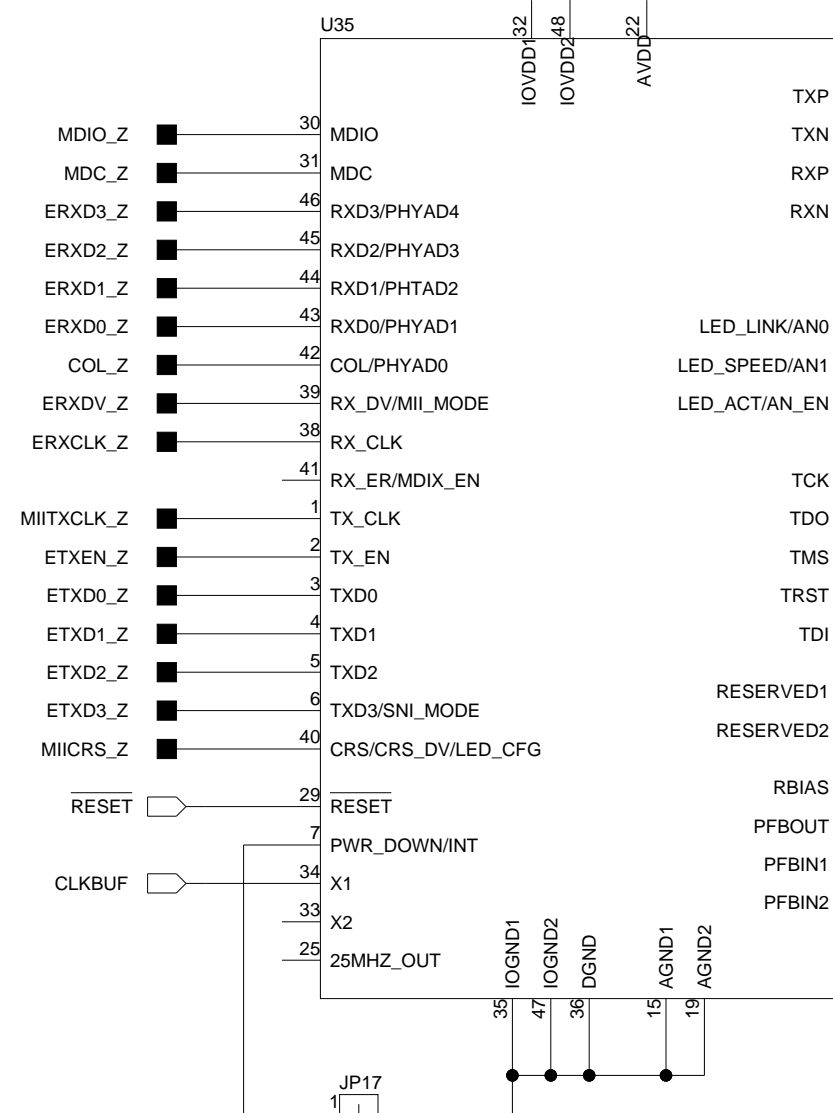
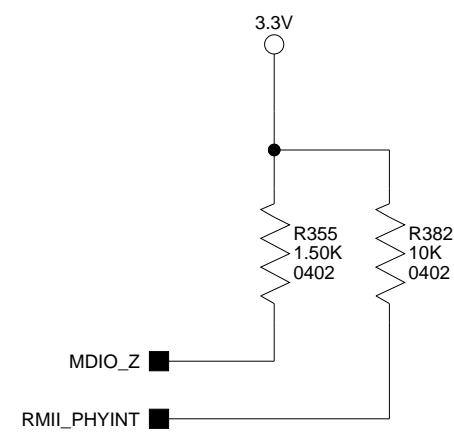
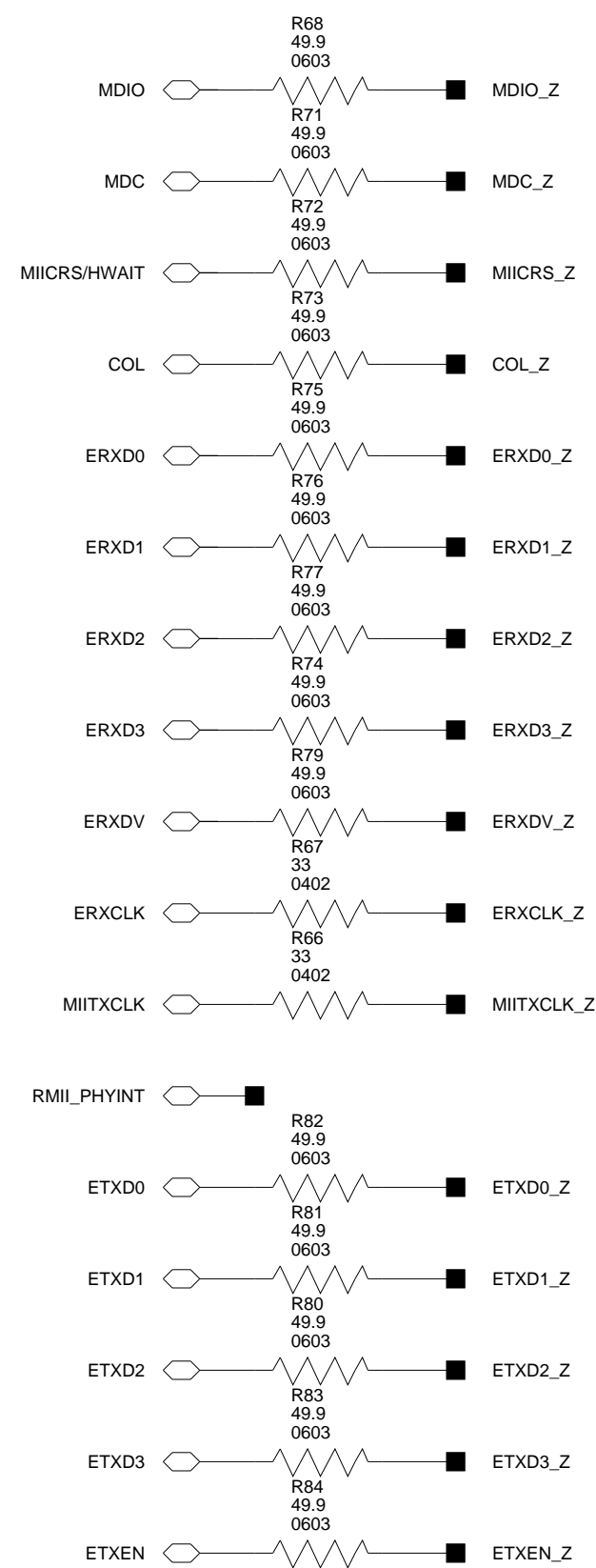
Size **C** Board No. **A0217-2008**

Rev **1.0**

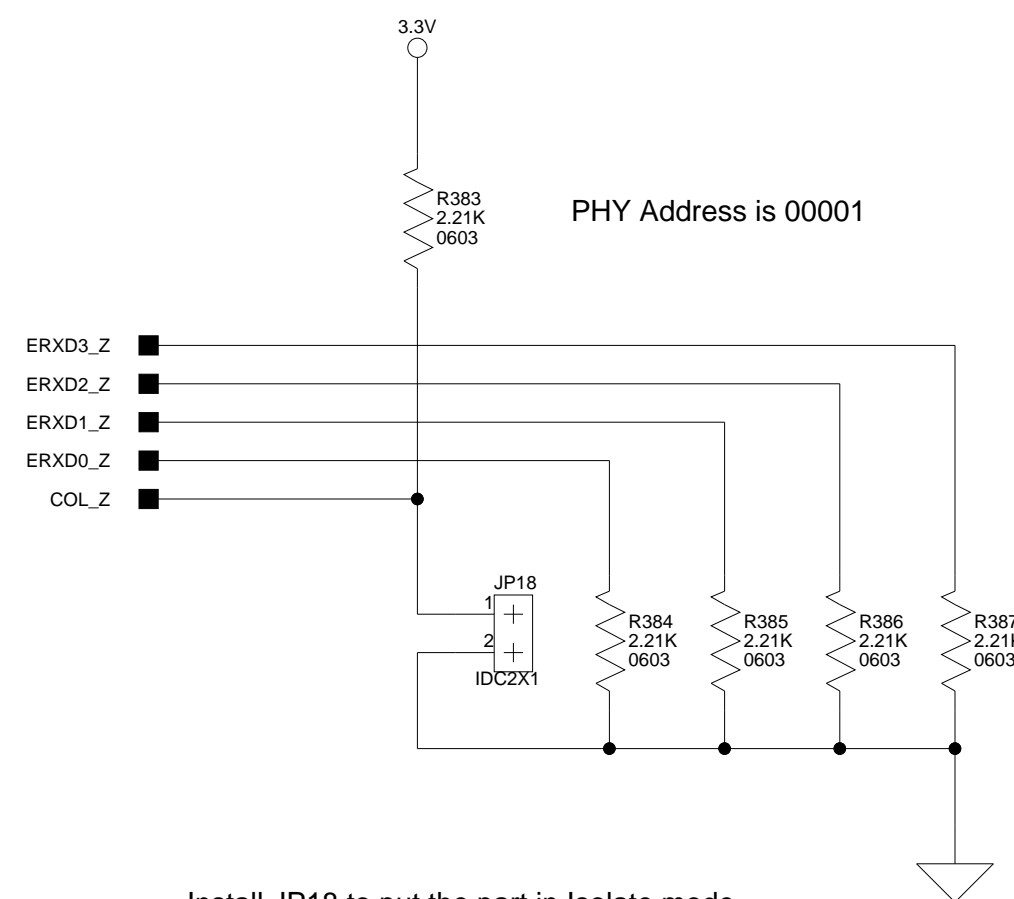
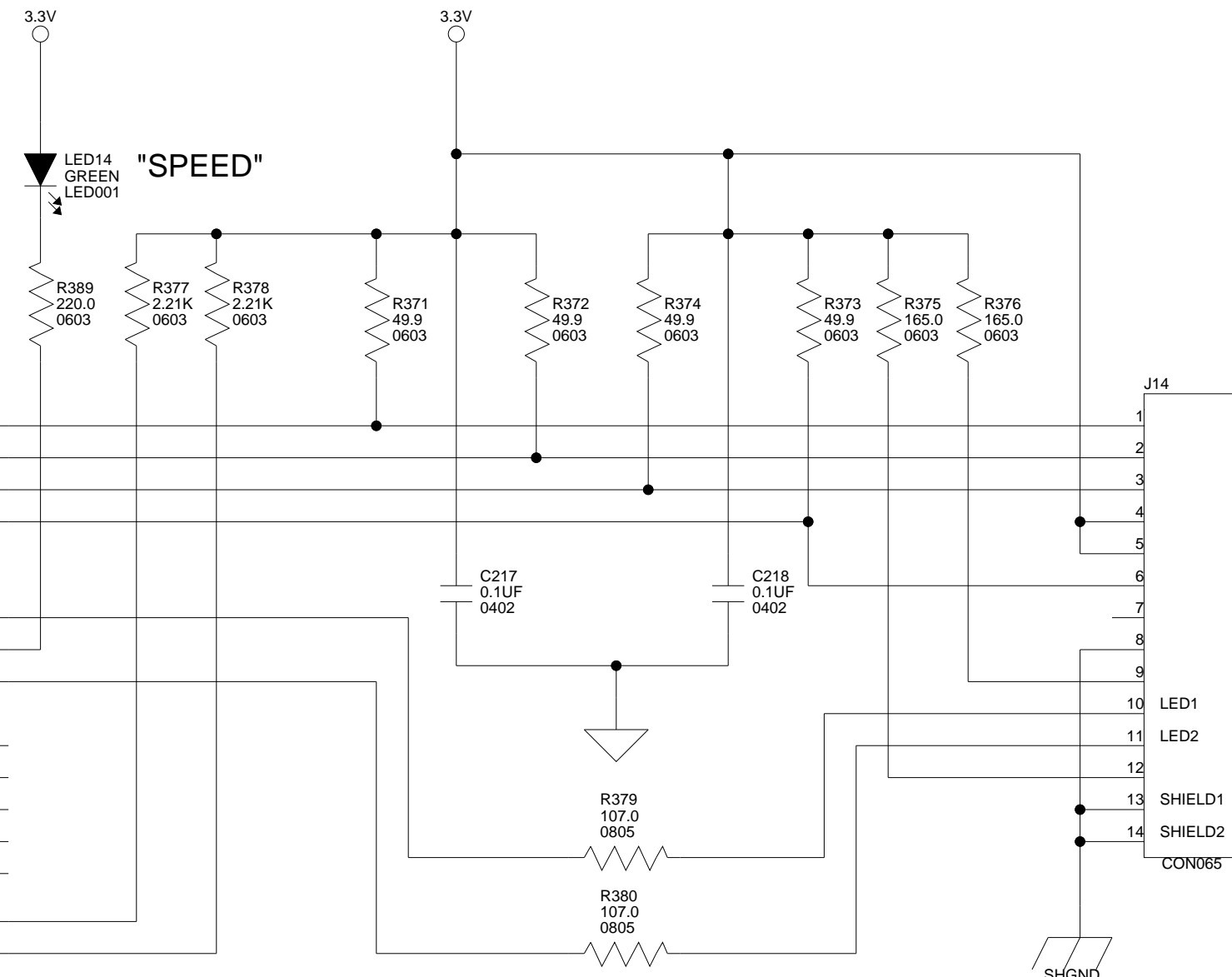
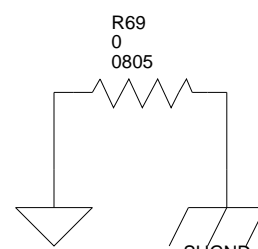
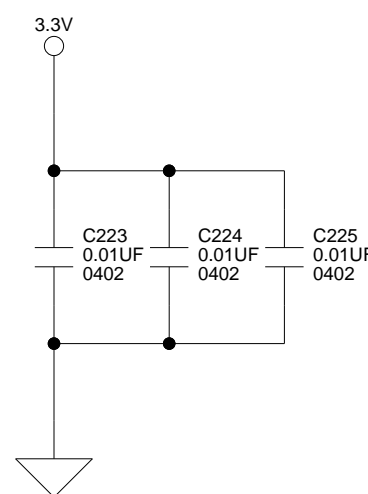
Date 5-11-2009\_10:44

Sheet 6 of 15





Install JP17 to put the part in power-down mode



Install JP18 to put the part in Isolate mode



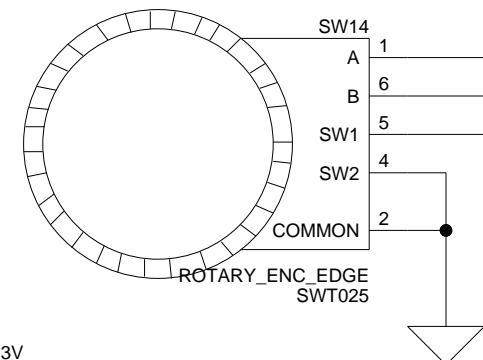
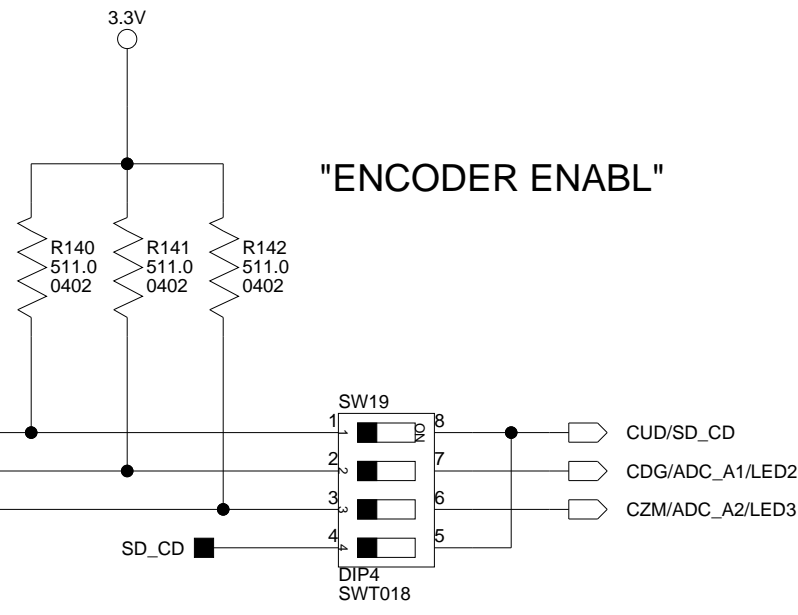
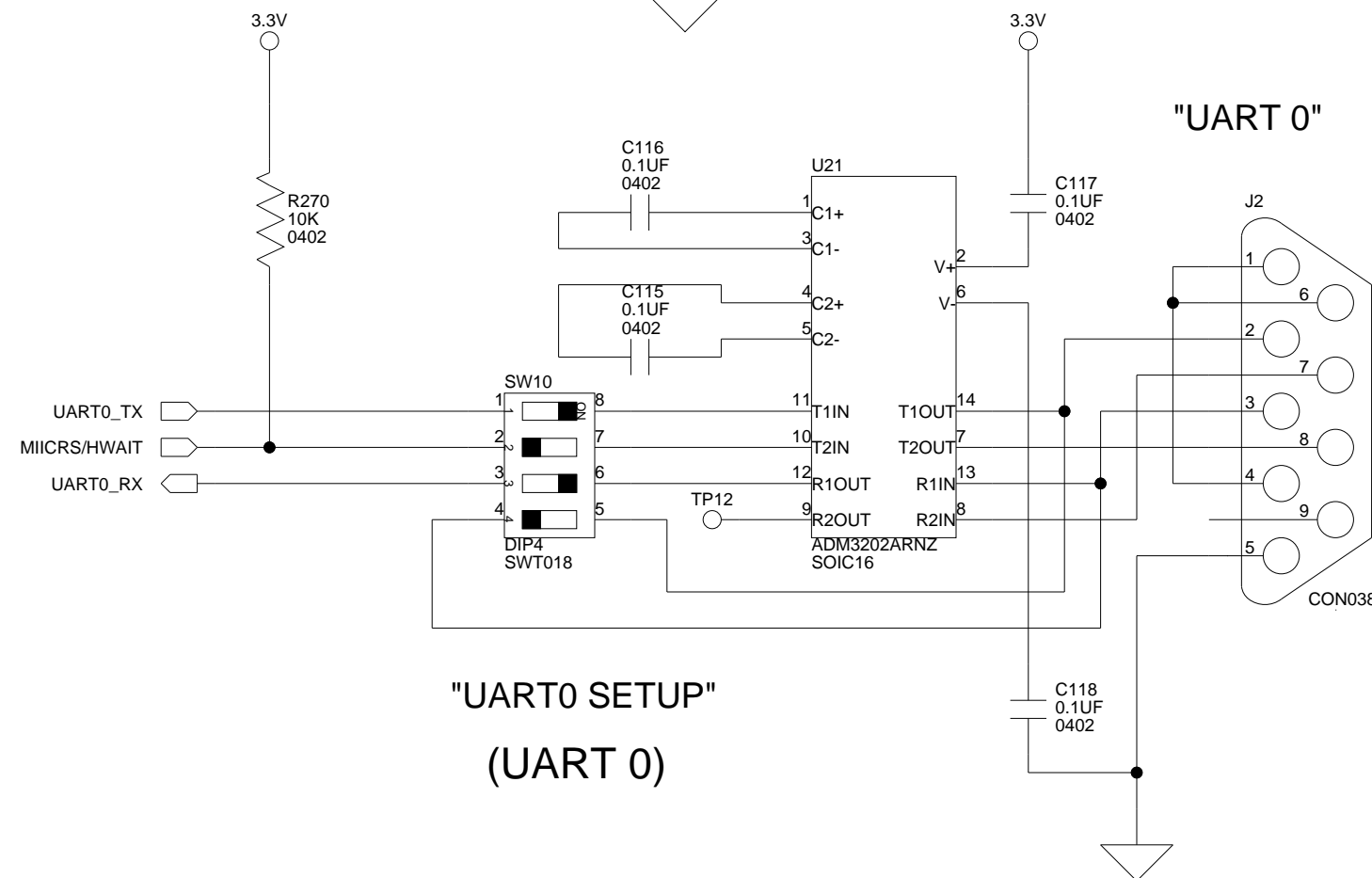
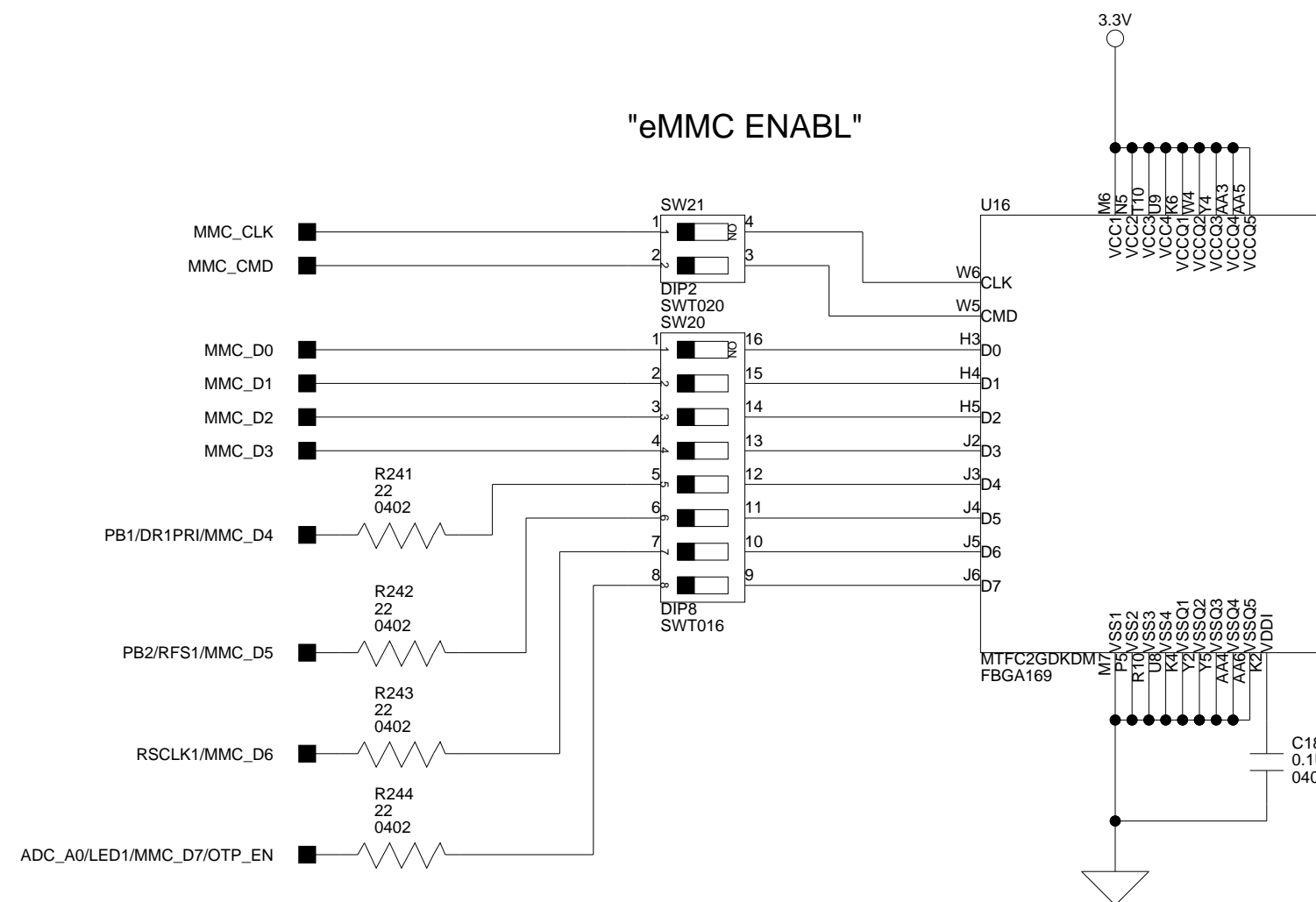
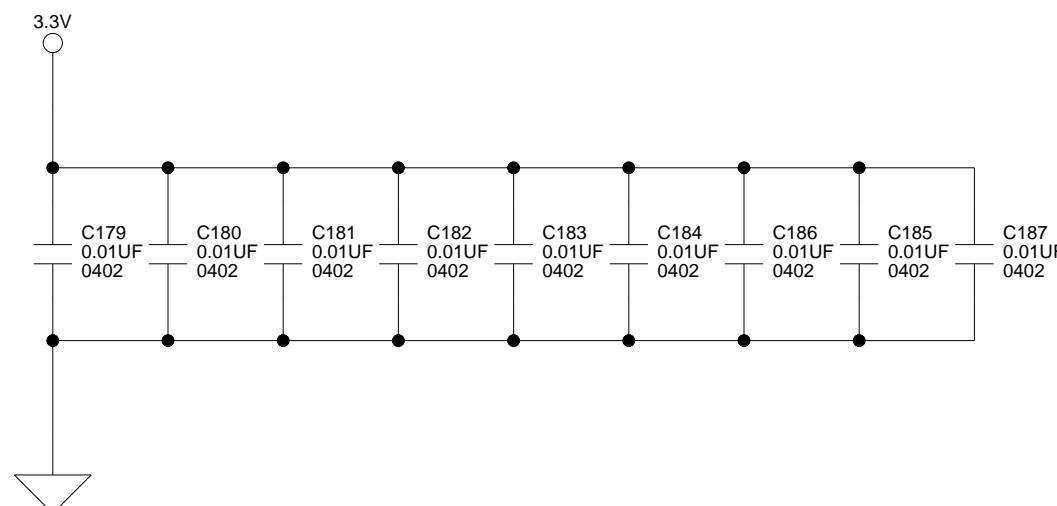
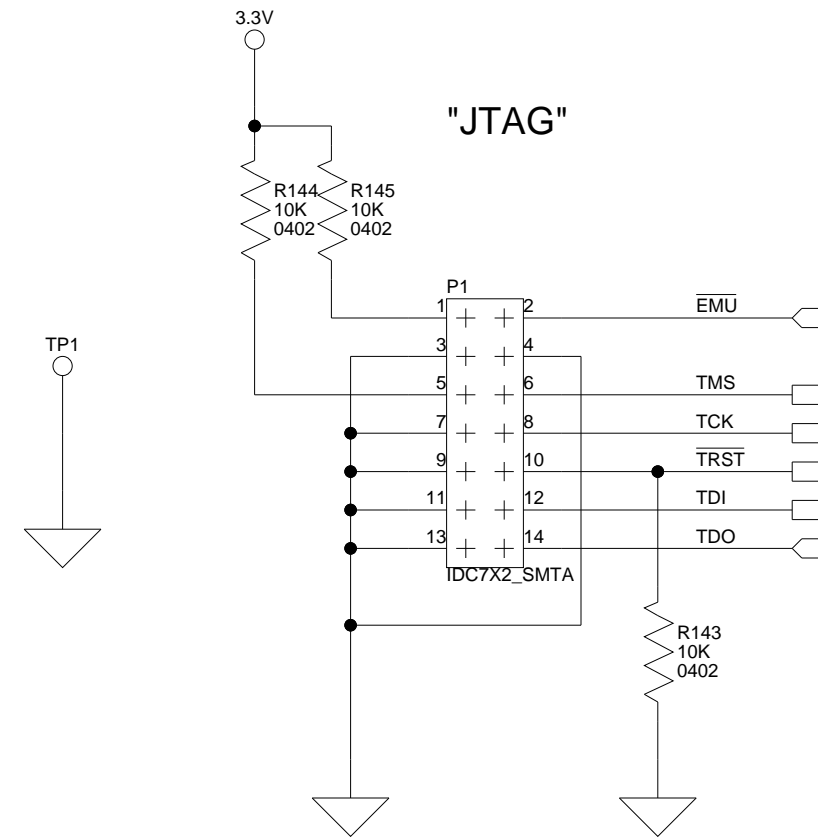
**ANALOG  
DEVICES**

20 Cotton Road  
Nashua, NH 03063  
PH: 1-800-ANALOGD

Title **ADSP-BF518F EZ-BOARD  
ETHERNET PHY**

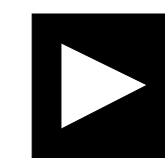
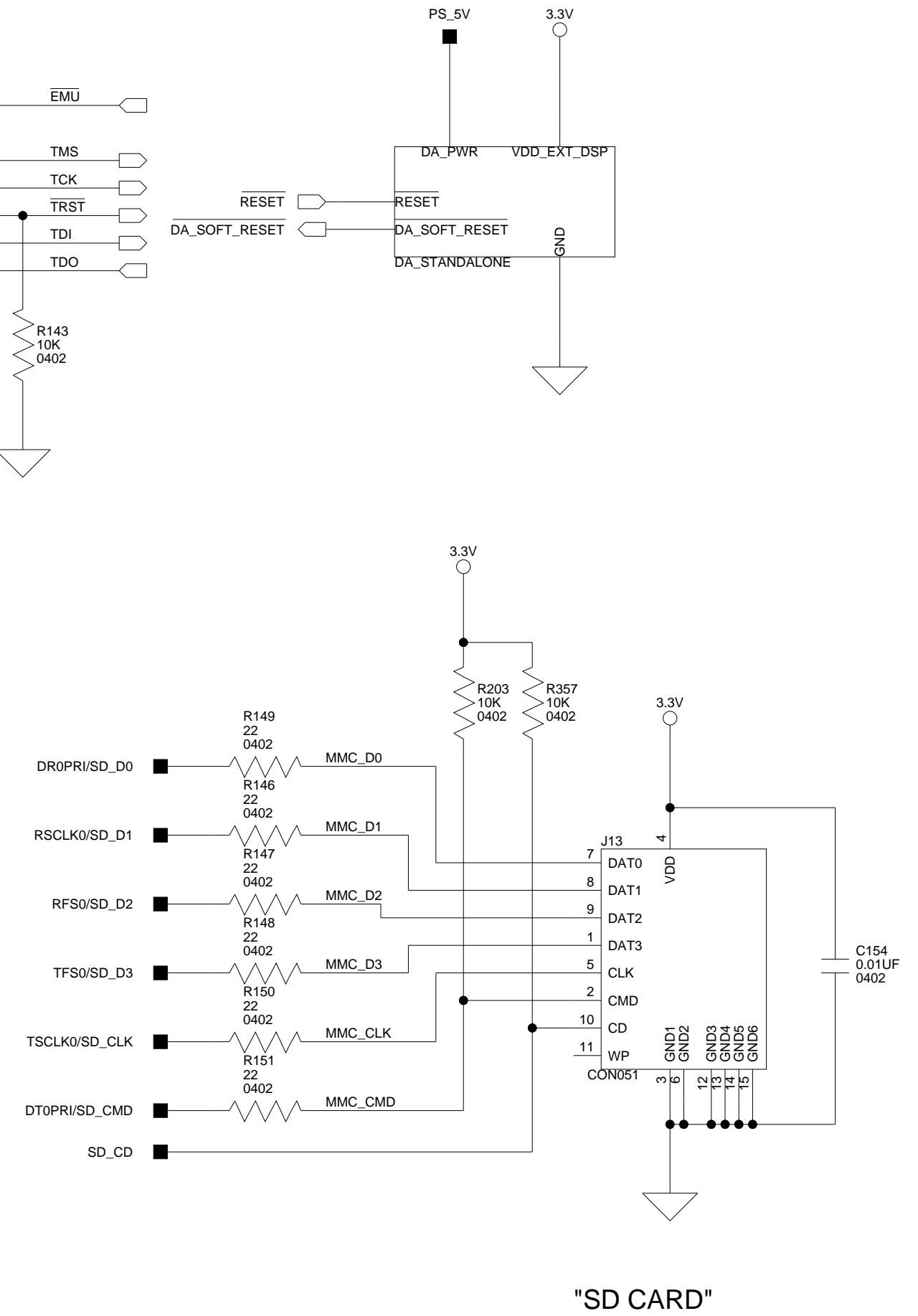
Size C	Board No. A0217-2008	Rev 1.0
Date 5-13-2009_15:06	Sheet 8 of 15	



**"ENCODER"****"ENCODER ENABL"****"UART 0"****"UART0 SETUP"**  
**(UART 0)****"eMMC ENABL"****2GB eMMC****"JTAG"**

All USB interface circuitry is considered proprietary and has been omitted from this schematic.

When designing your JTAG interface please refer to the Engineer to Engineer Note EE-68 which can be found at <http://www.analog.com>

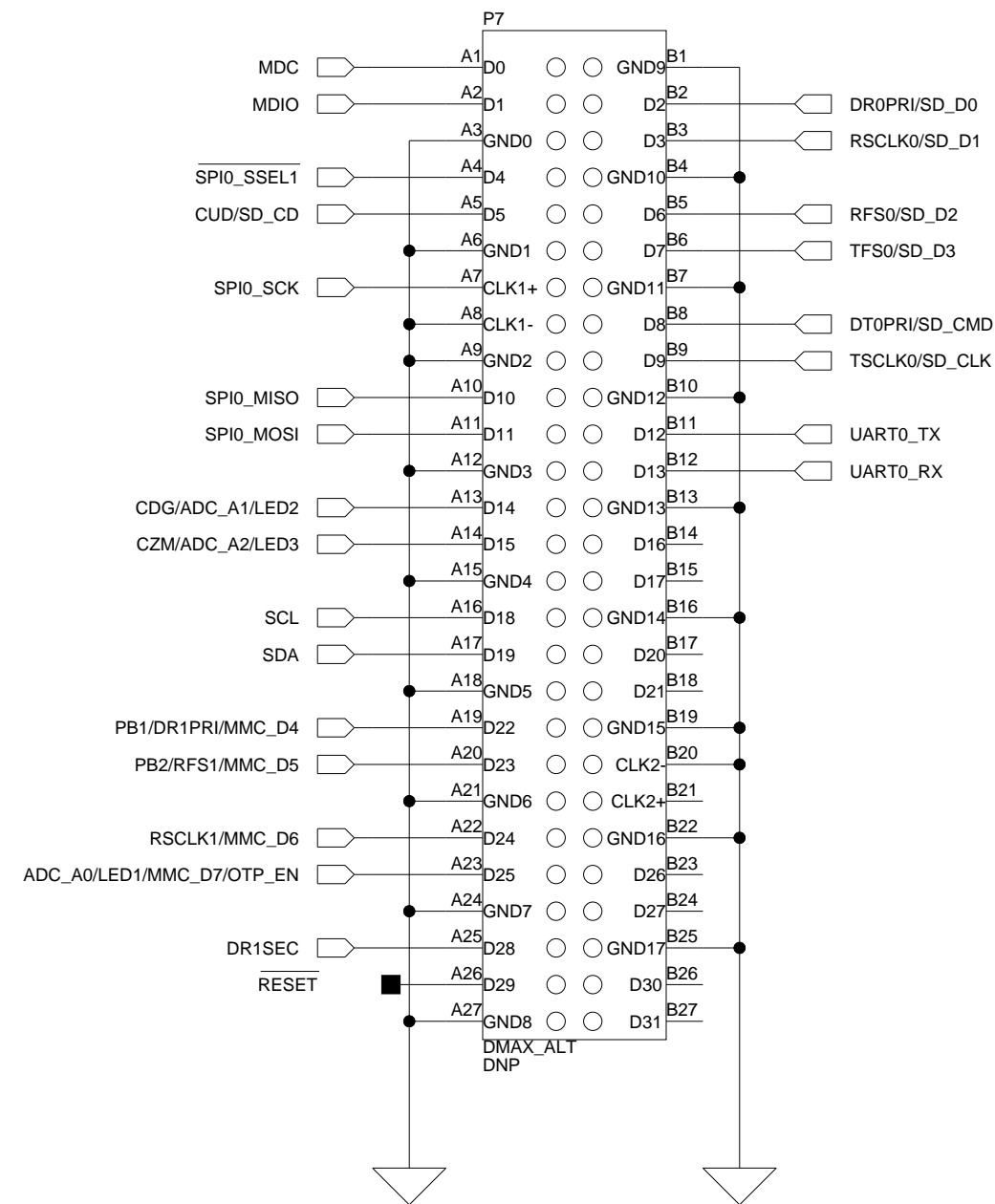
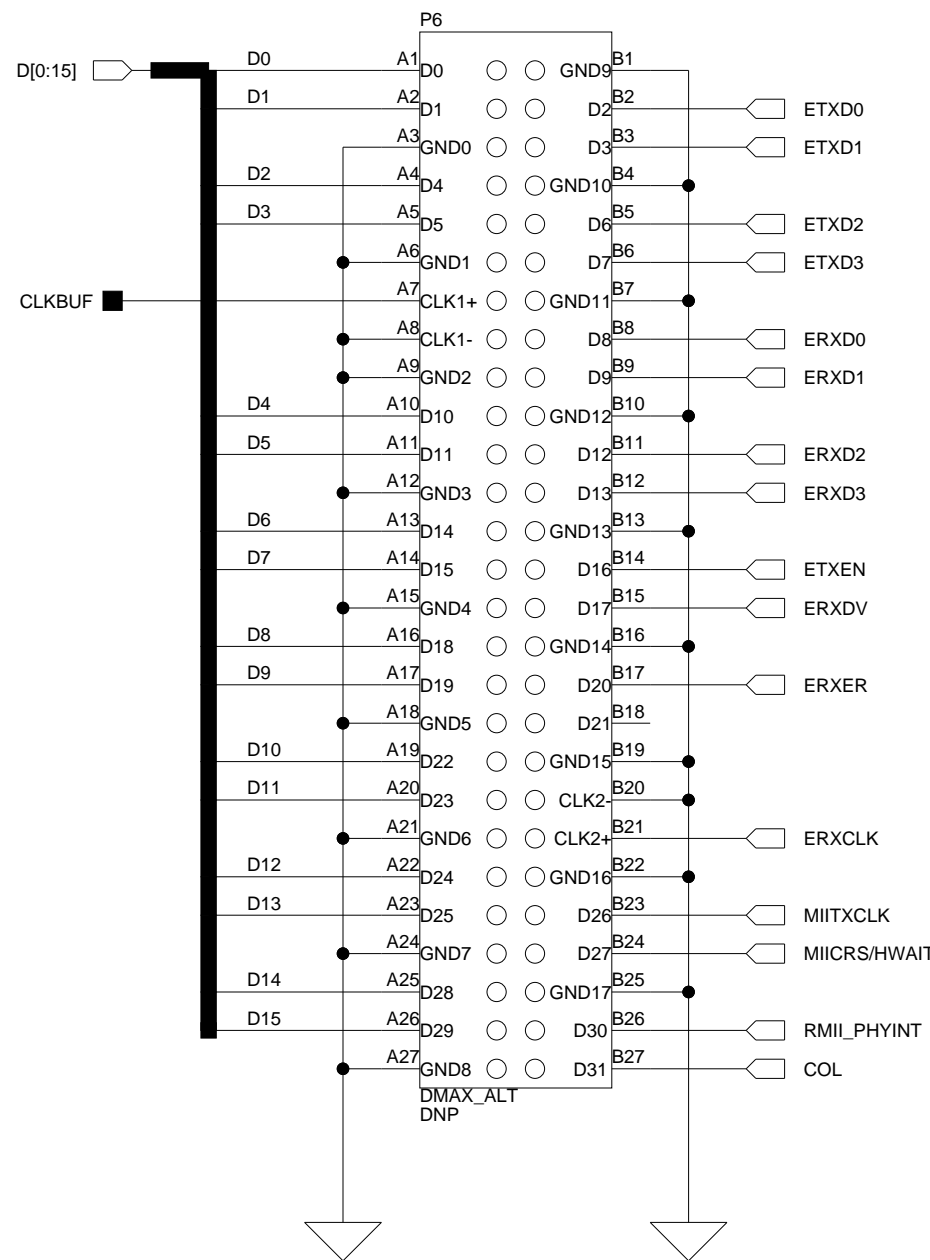
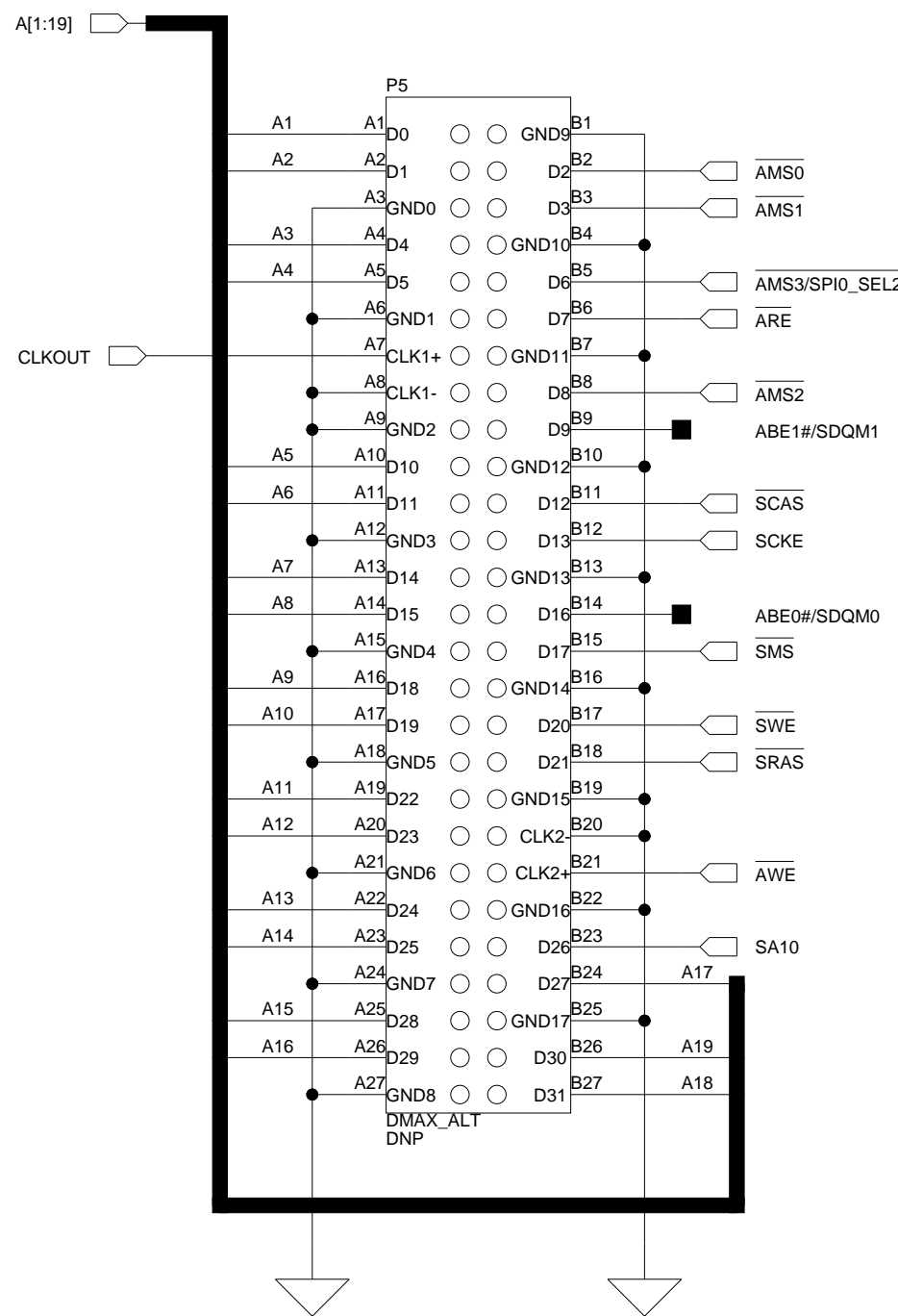


**ANALOG  
DEVICES**

20 Cotton Road  
Nashua, NH 03063  
PH: 1-800-ANALOGD

Title				ADSP-BF518F EZ-BOARD			
				ROTARY ENCODER, JTAG, RS232, EMMC, SD			
Size		Board No.		A0217-2008		Rev	
C						1.0	
Date		5-13-2009_16:18		Sheet		9 of 16	

LOGIC ANALYZER COMPRESSION LAND GRID ARRAY



1

2

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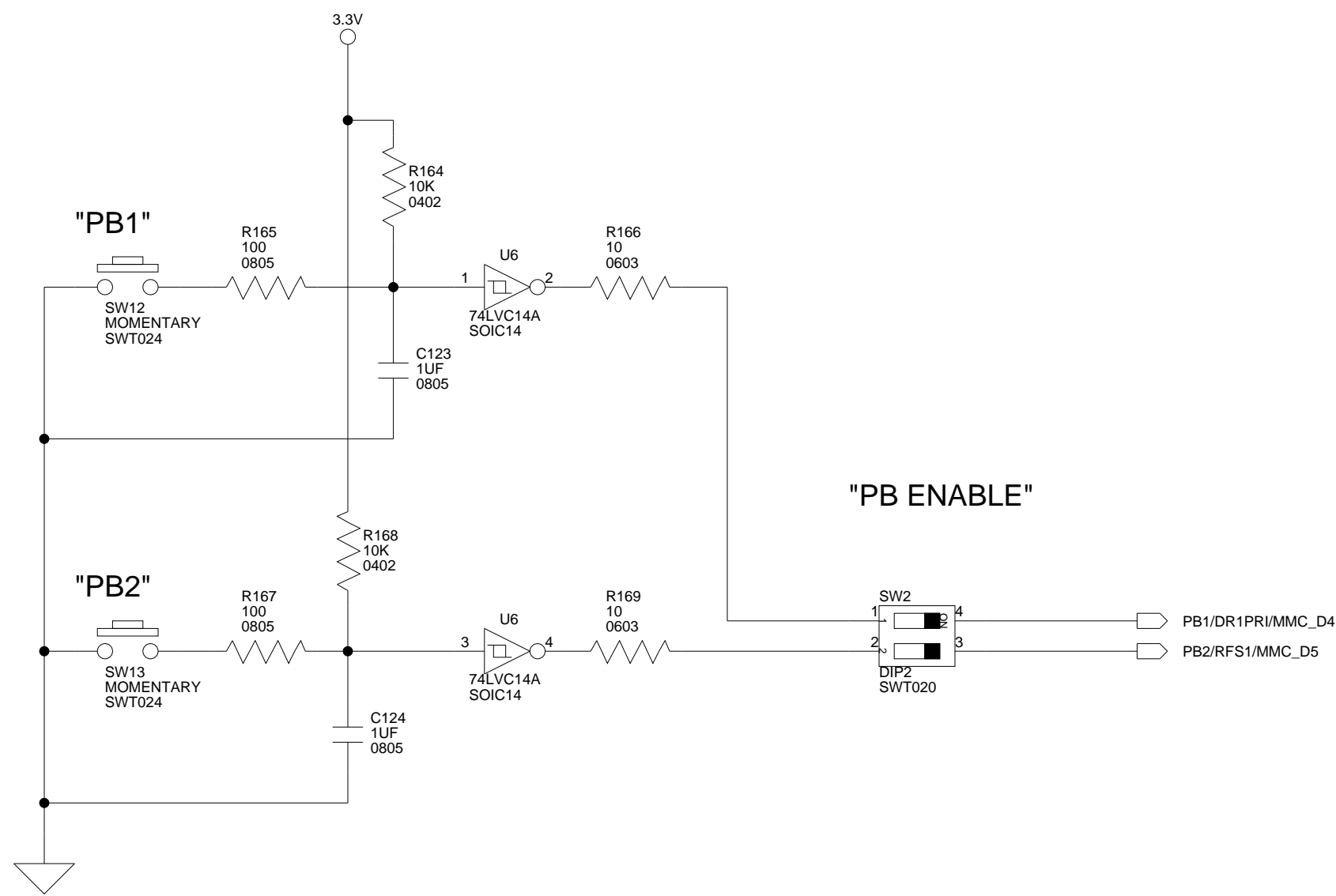
4

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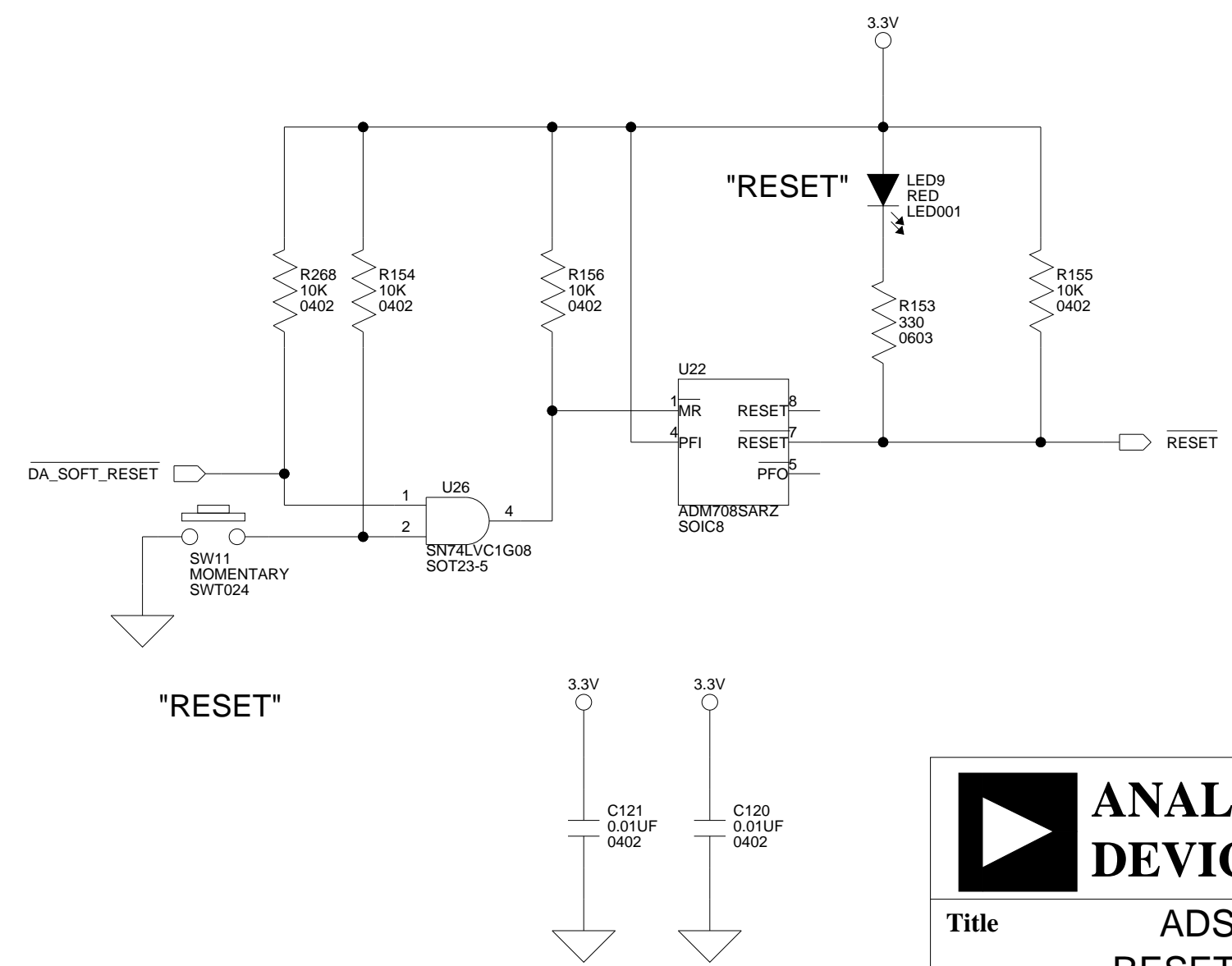
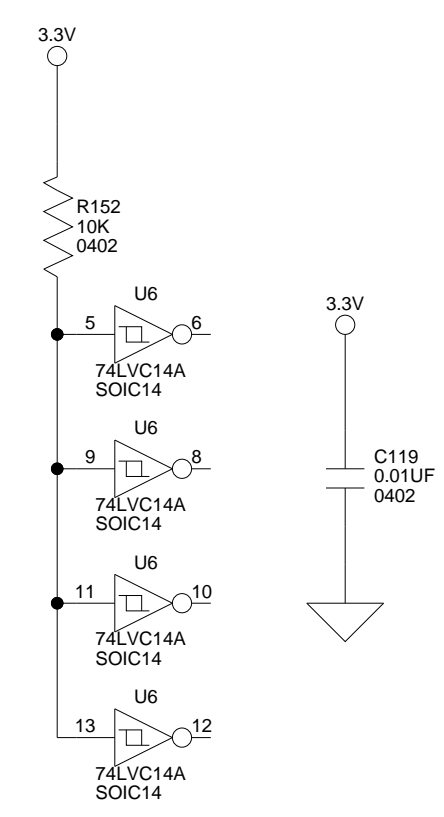
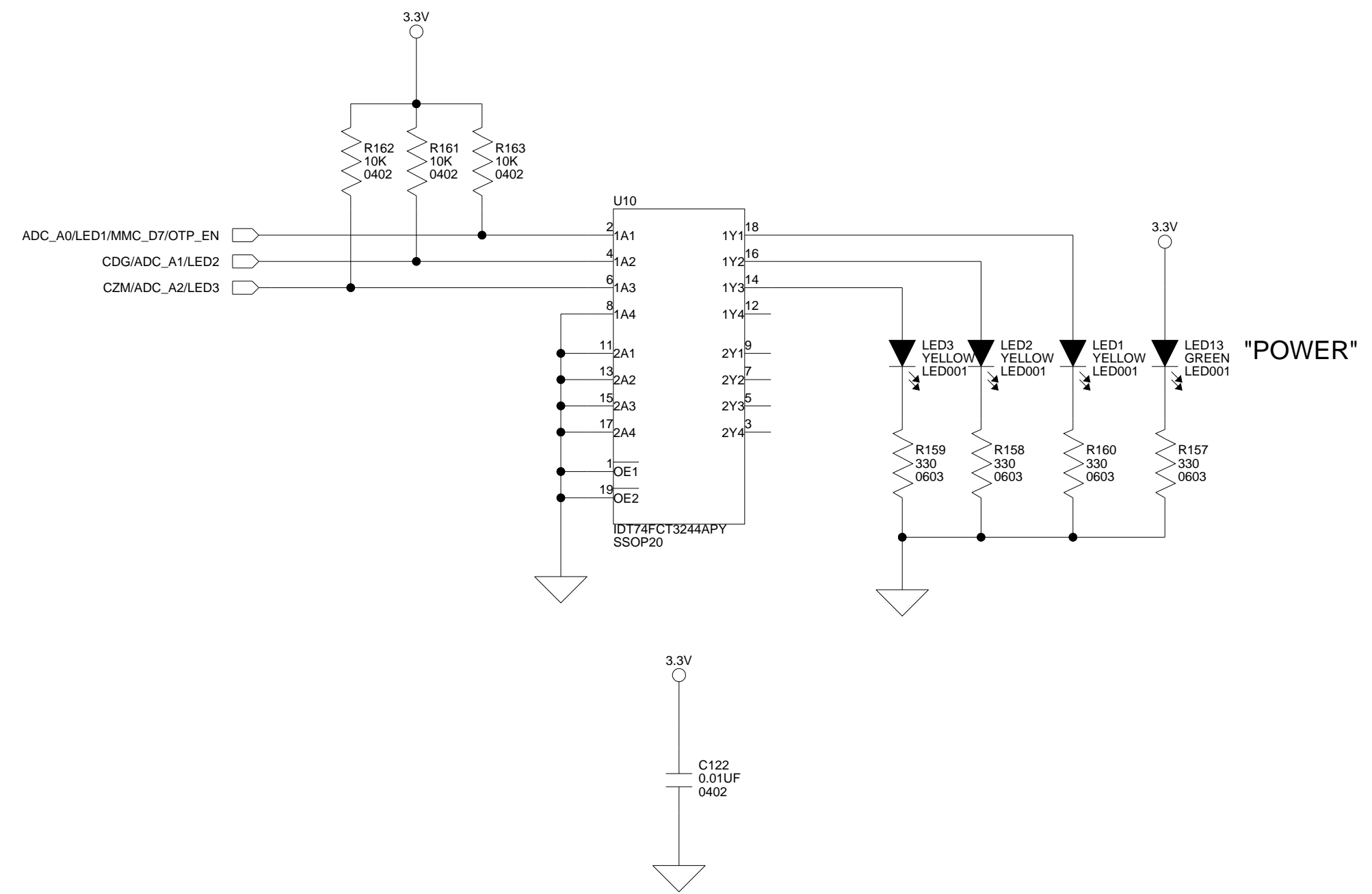
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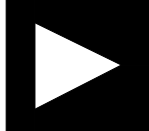
4



SW2: GPIO enable

POS.	FROM	TO	DEFAULT	FUNCTIONS
1	push button 1	DSP (U12, PH0)	ON	ON (PB1), OFF eMMC, ADC, Expansion Interface)
2	push button 2	DSP (U12, PH1)	ON	ON ( PB2), OFF eMMC, ADC, Expansion Interface)





**ANALOG  
DEVICES**

20 Cotton Road  
Nashua, NH 03063  
PH: 1-800-ANALOGD

Title <b>ADSP-BF518F EZ-BOARD RESET, LEDS, PUSH BUTTONS</b>		
Size <b>C</b>	Board No. <b>A0217-2008</b>	Rev <b>1.0</b>
Date <b>5-13-2009_16:18</b>	Sheet <b>11</b>	of <b>16</b>

1

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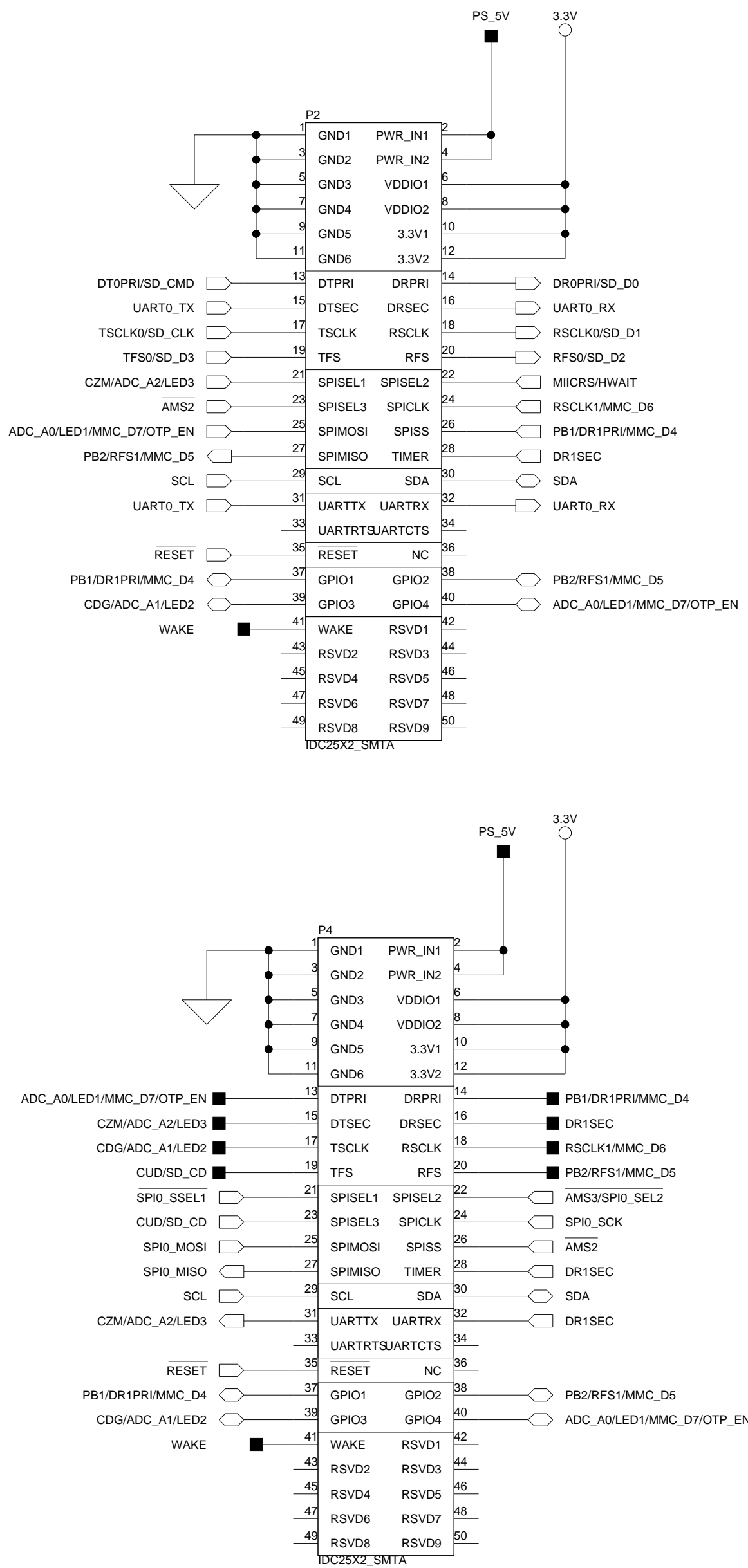
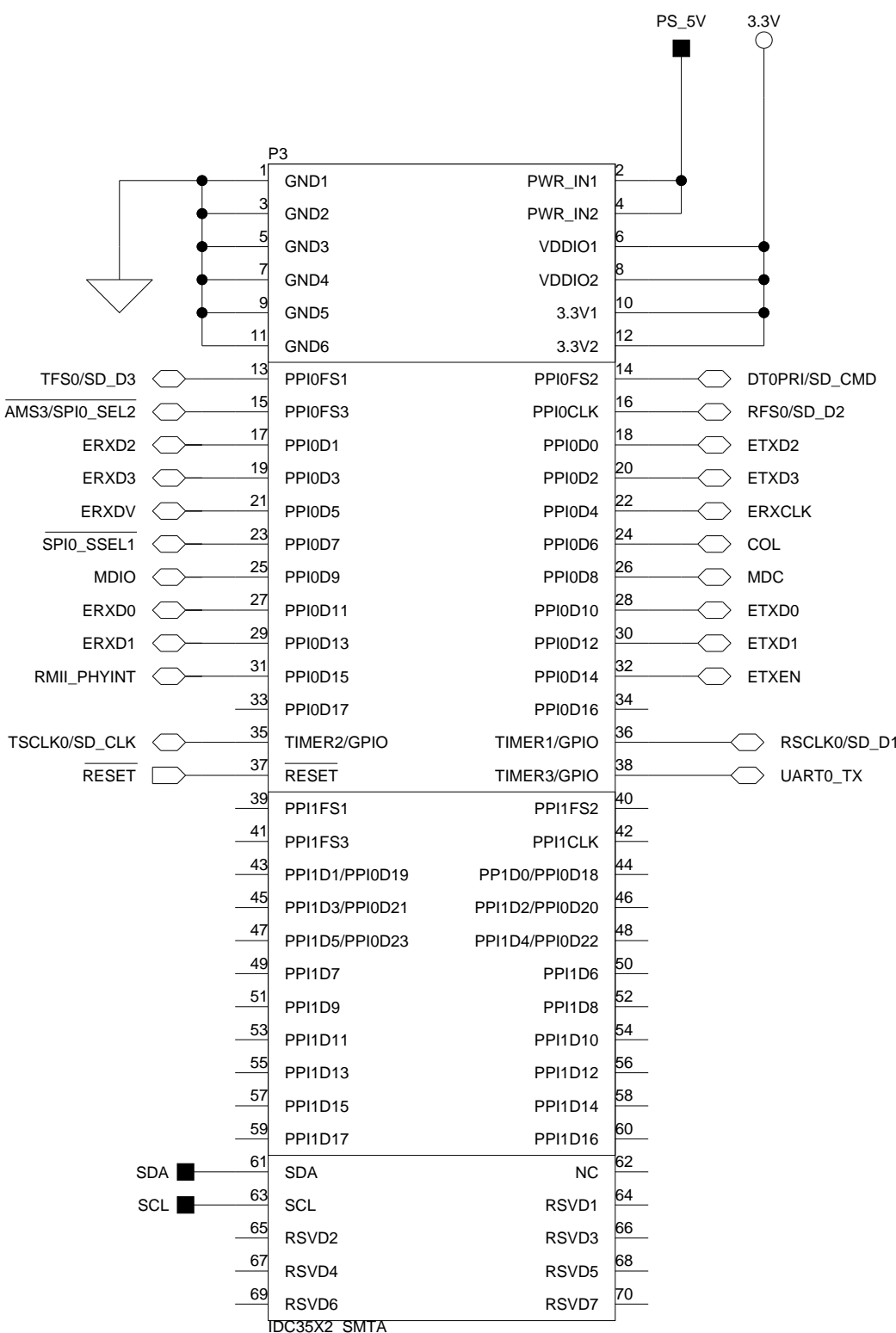
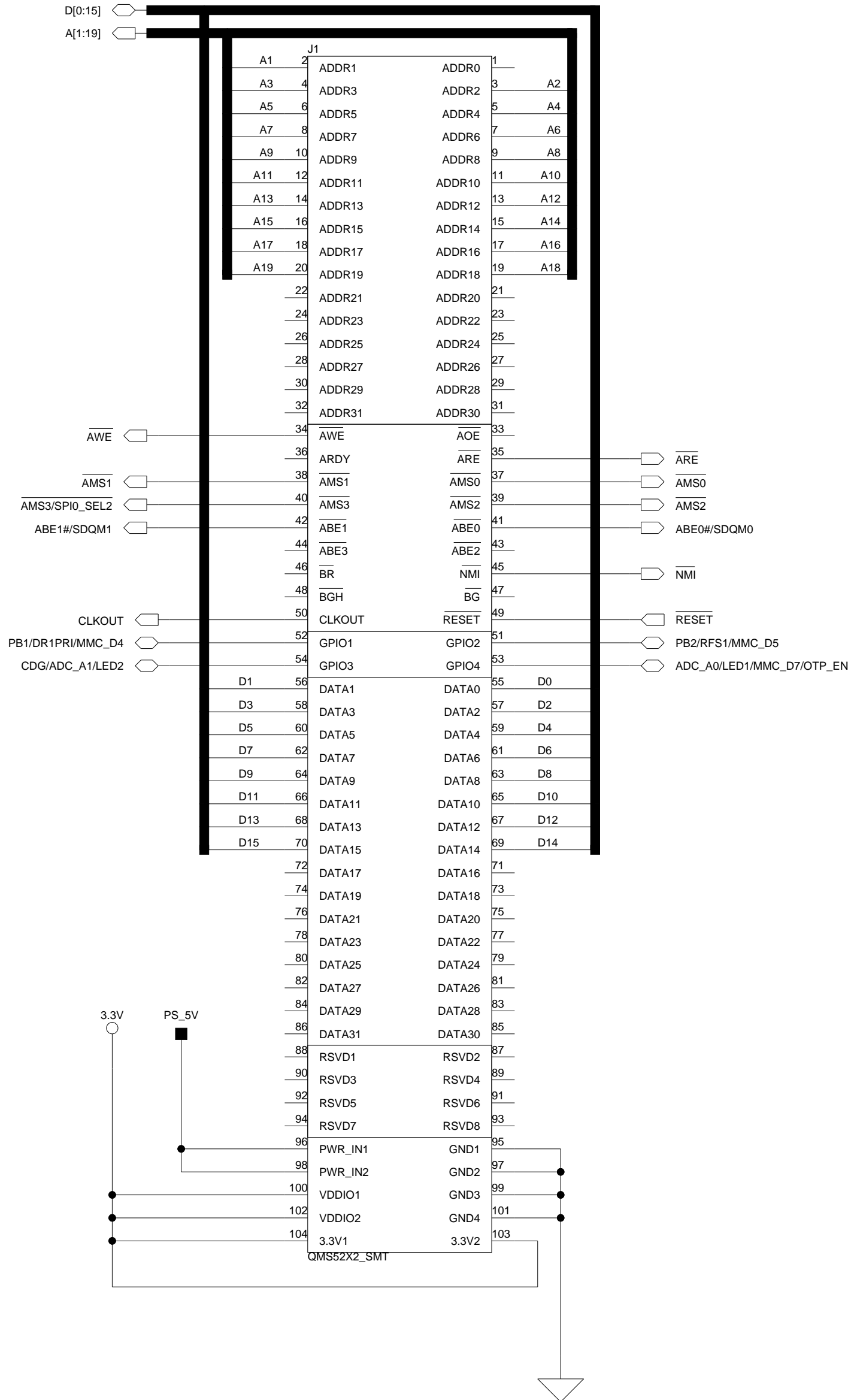
4

A

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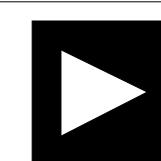
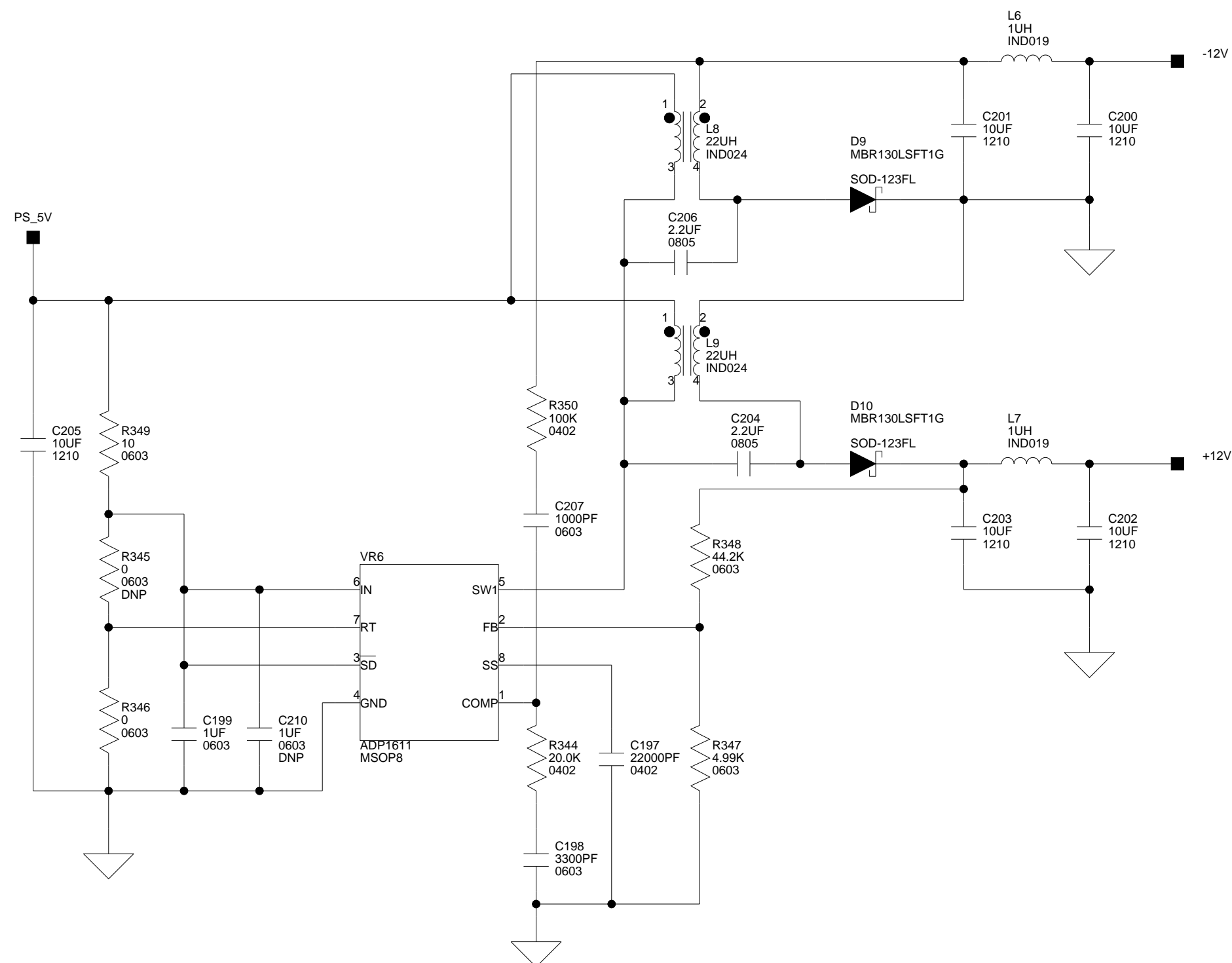
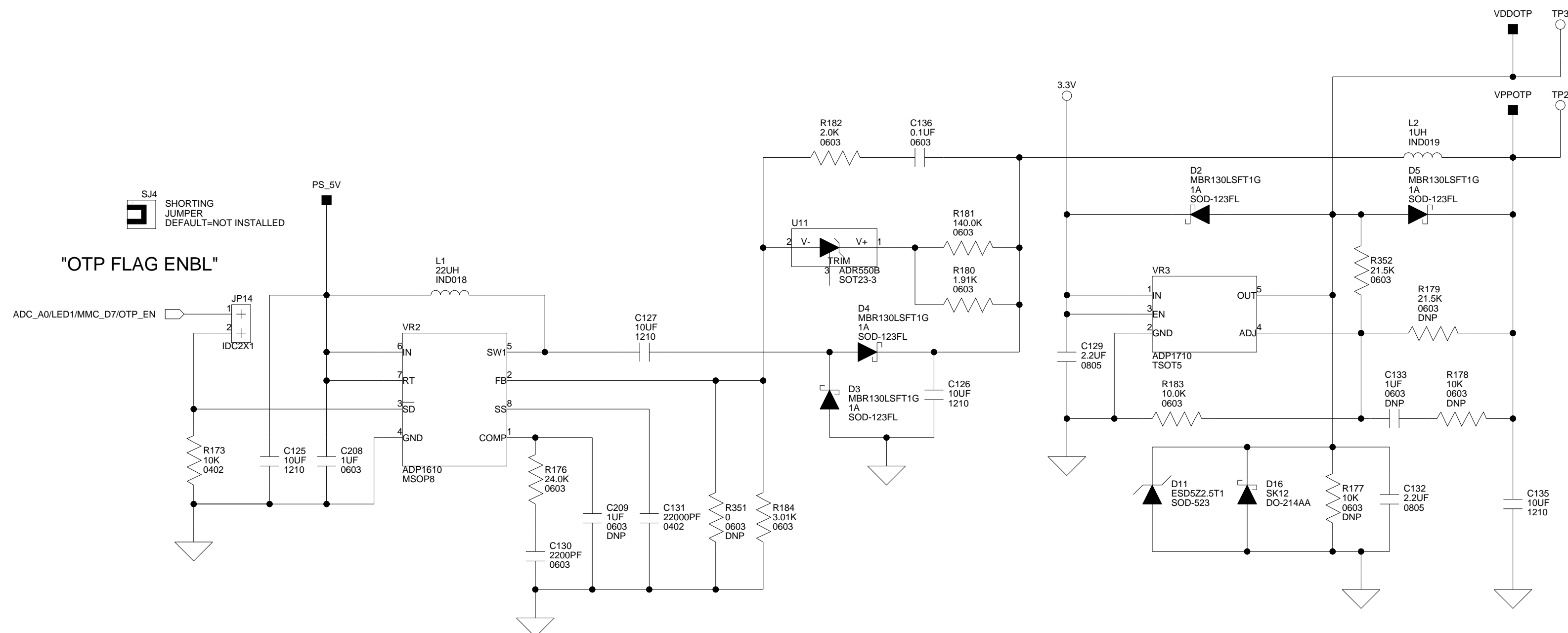
**ANALOG  
DEVICES**

20 Cotton Road  
Nashua, NH 03063  
PH: 1-800-ANALOGD

Title **ADSP-BF518F EZ-BOARD  
EXPANSION INTERFACE**

Size <b>C</b>	Board No. <b>A0217-2008</b>	Rev <b>1.0</b>
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Date <b>5-11-2009_10:44</b>	Sheet <b>12 of 16</b>
--------------------------------	--------------------------



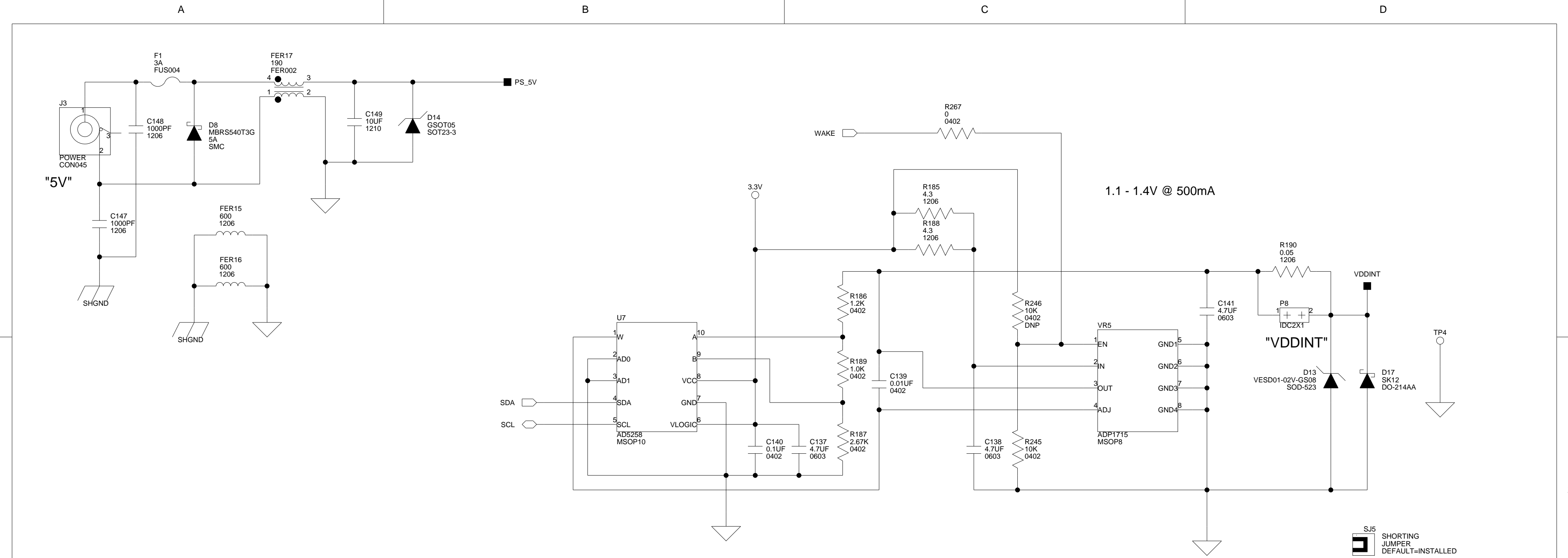
**ANALOG  
DEVICES**

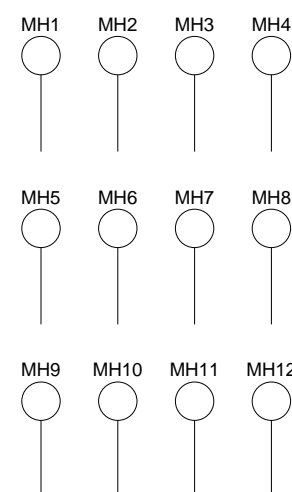
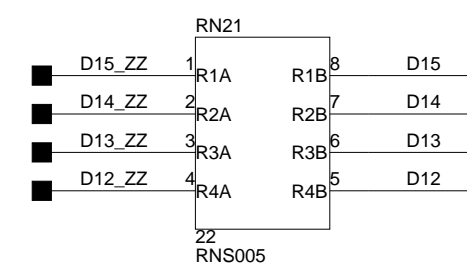
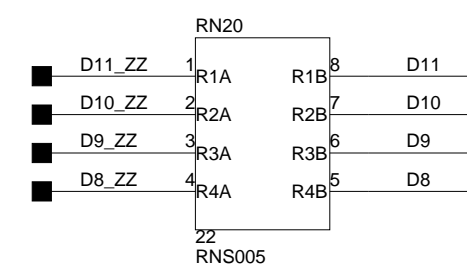
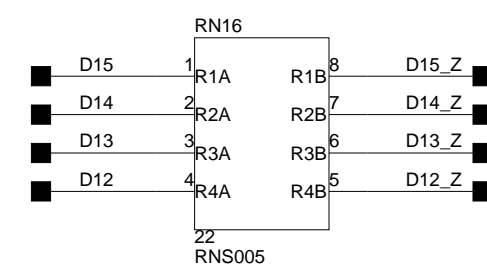
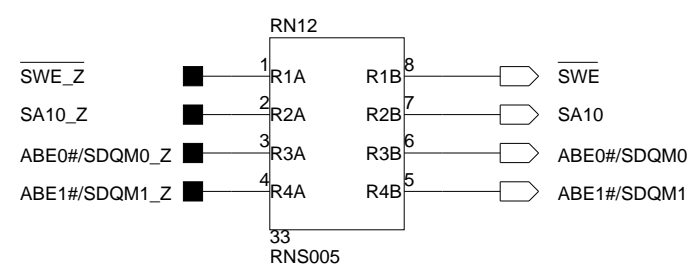
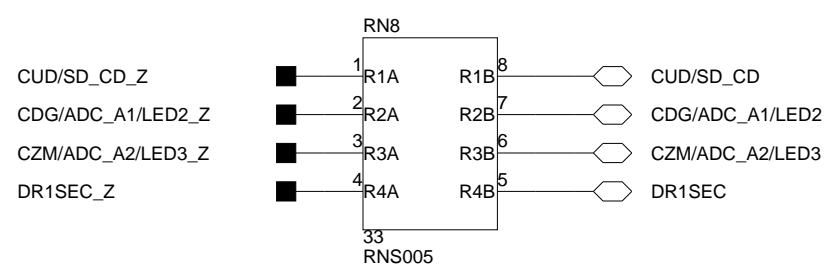
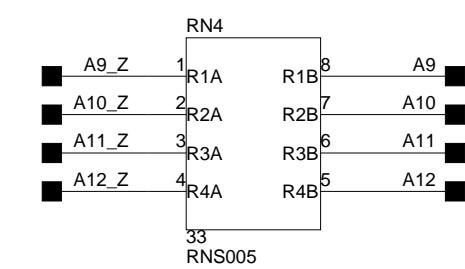
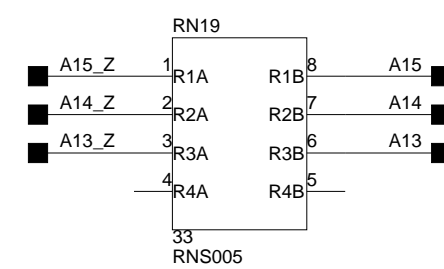
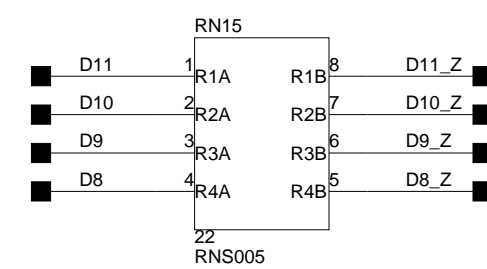
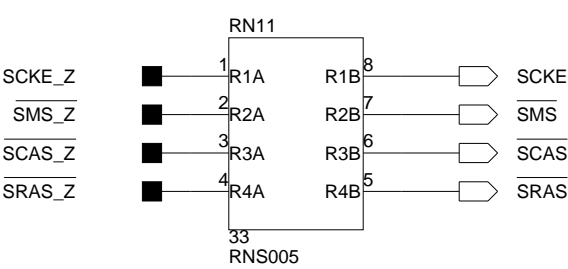
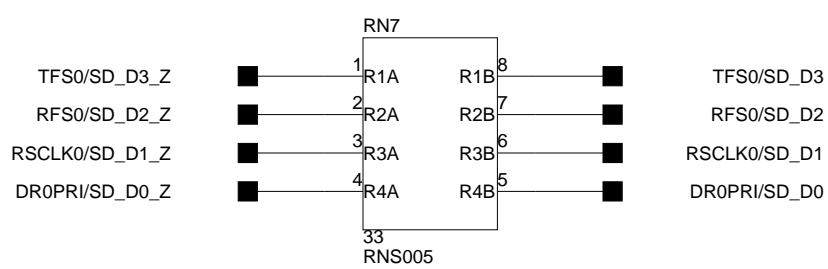
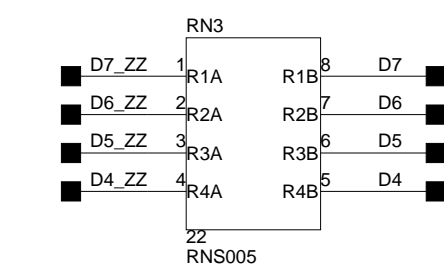
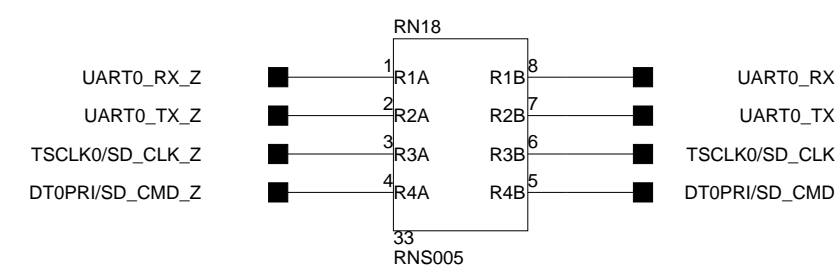
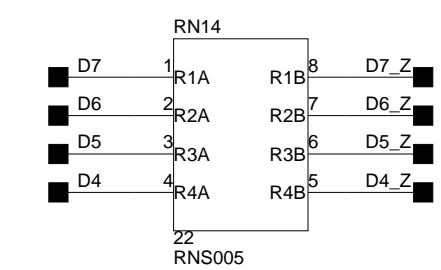
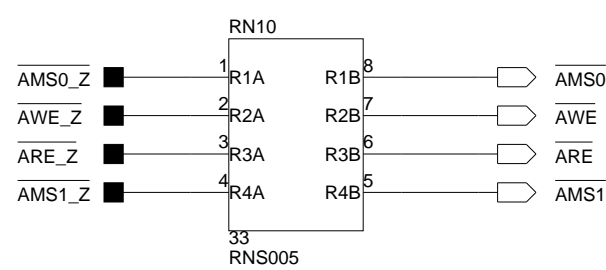
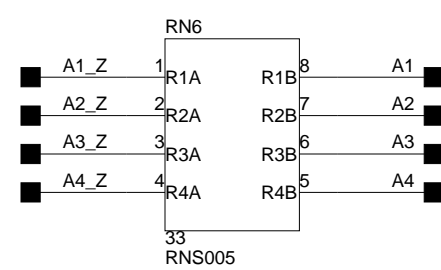
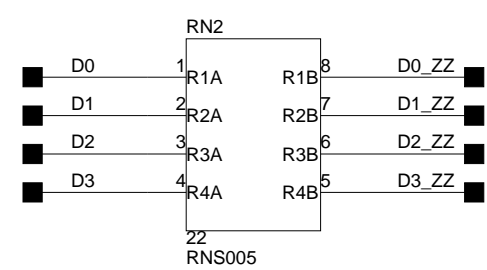
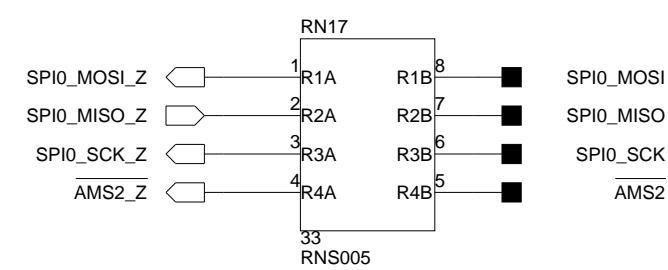
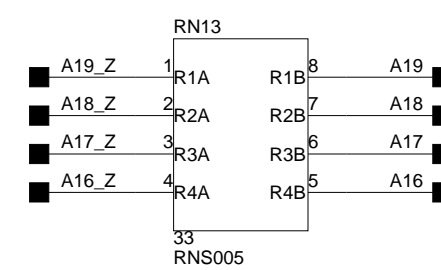
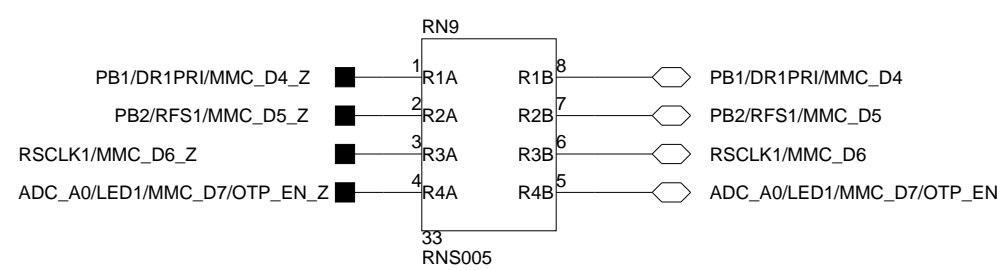
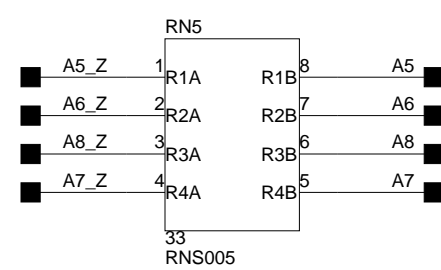
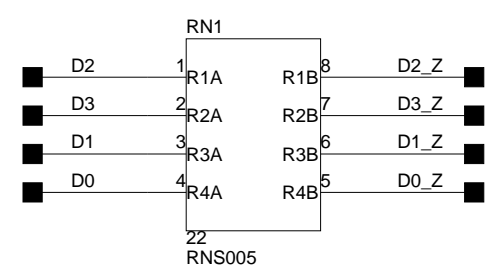
20 Cotton Road  
Nashua, NH 03063  
PH: 1-800-ANALOGD


Title **ADSP-BF518F EZ-BOARD  
OTP AND DUAL POWER**

Size <b>C</b>	Board No. <b>A0217-2008</b>	Rev <b>1.0</b>
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 <b>ANALOG DEVICES</b>		20 Cotton Road Nashua, NH 03063 PH: 1-800-ANALOGD	
<b>Title</b> <b>ADSP-BF518F EZ-BOARD SERIES TERMINATORS</b>			
<b>Size</b> <b>C</b>	<b>Board No.</b> <b>A0217-2008</b>		<b>Rev</b> <b>1.0</b>
<b>Date</b> 5-11-2009 10:44	<b>Sheet</b> 15		<b>of</b> 15