NOTES, UNLESS OTHERWISE SPECIFIED:

1. RESISTANCE VALUES IN OHMS.
2. CAPACTITANCE VALUES IN MICROFARADS.
3. REFERENCE DESIGNATORS USED:
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.

REVISION TRACKING - FOR SPECIFIC CHANGES SEE REVISION PAGE AT BACK OF SCHEMATIC

Assembly	PWB	Schematic	TI Marking	Spectrum Revision	DATE
510540-0001A	510541-0001A	510542-0001A	Version 1.0	A	01/08/08
510880-0001A	510881-0001A	510881-0001B	Version 1.1	A	02/18/08
510880-0001B	510881-0001B	510881-0001B	Version 1.2	B	03/09/08
510880-0001C	510881-0001B	510881-0001B	Version 1.2	C	12/09/08
510880-0001D	510881-0001D	510881-0001D	Removed	D	05/15/09

C5505 Schematic Contents

REVISION STATUS OF SHEETS

REV												
SHEET												
REV												
SHEET												
REV	D	D	D	D	D	D						
SHEET	11	12	13	14	15	16						
REV	D	D	D	D	D	D	D	D	D	D	NEXT ASSY	USED ON
SHEET	1	2	3	4	5	6	7	8	9	10	APPLICATION	

DWN	R.R.P.	DATE 05/15/2009
CHK	T.W.K.	DATE 05/15/2009
ENGR	R.R.P.	DATE 05/15/2009
ENGR-MGR	R.R.P.	DATE 05/15/2009
QA	C.M.D.	DATE 05/15/2009
MFG	R.R.P.	DATE 05/15/2009
RLSE	R.R.P.	DATE 05/15/2009

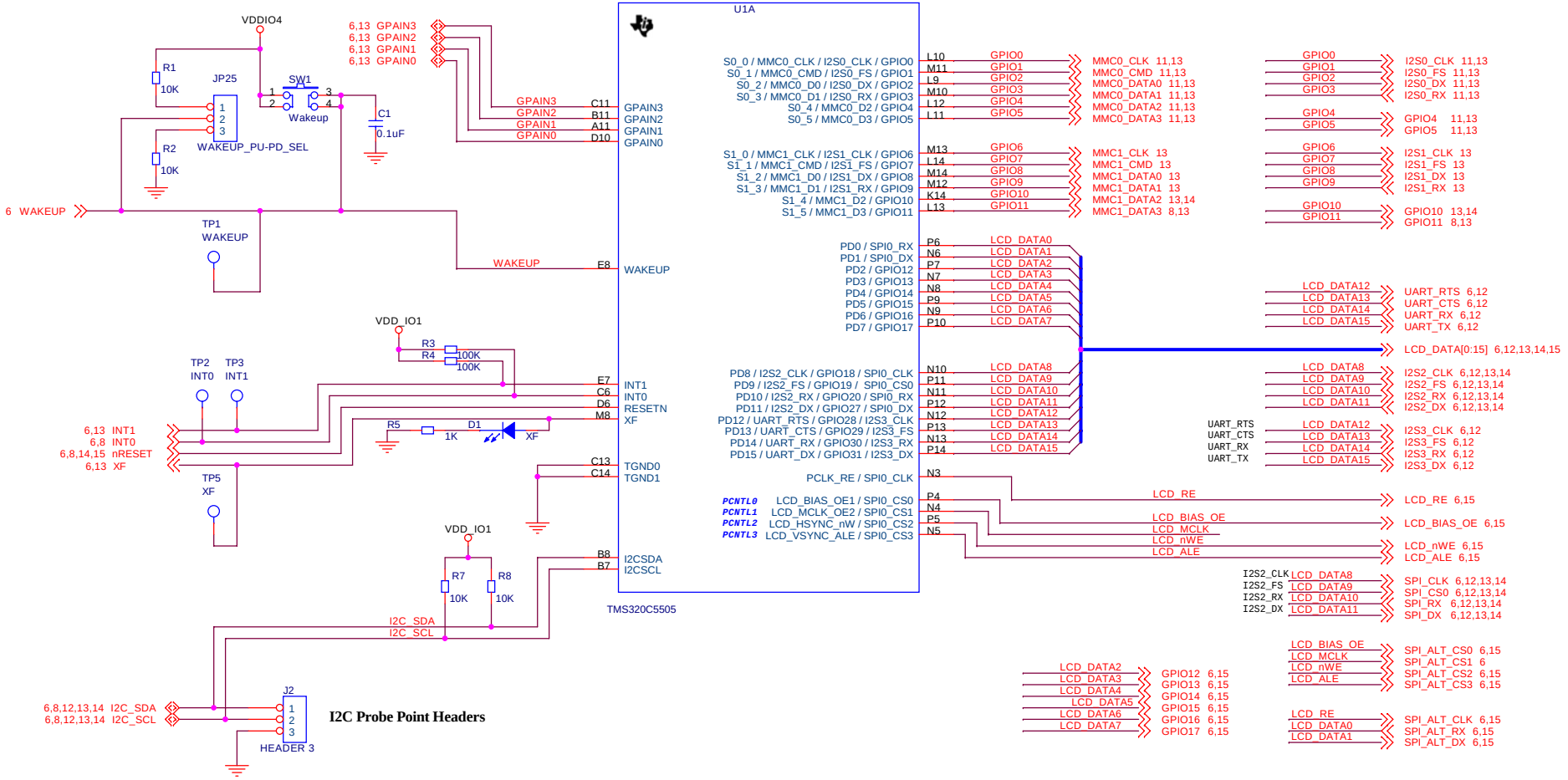
SPECTRUM DIGITAL INCORPORATED

Title: TMS320VC5505 EVALUATION MODULE

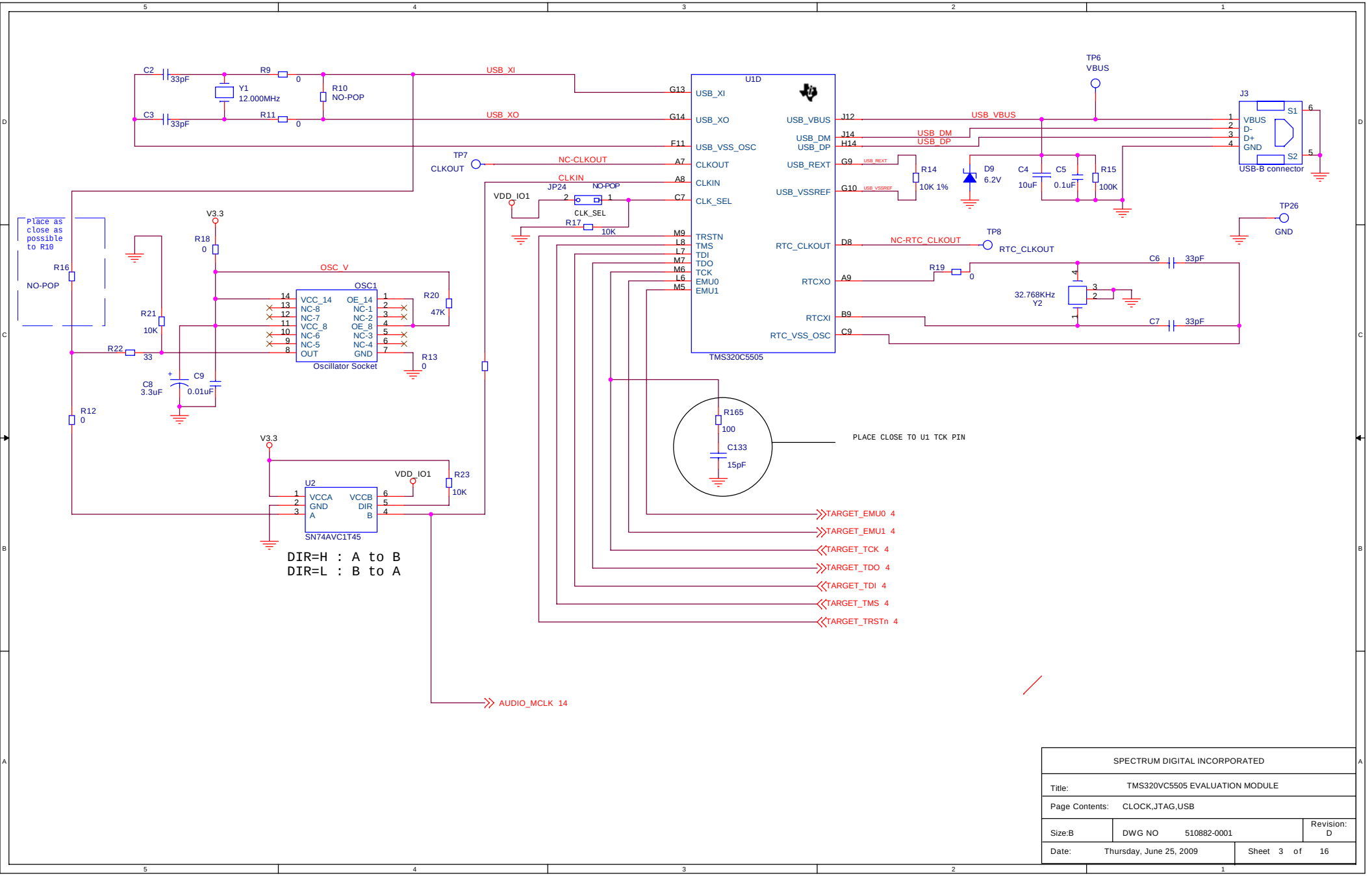
Page Contents: TITLE SHEET

Size:B | DWG NO 510882-0001 | Revision: D

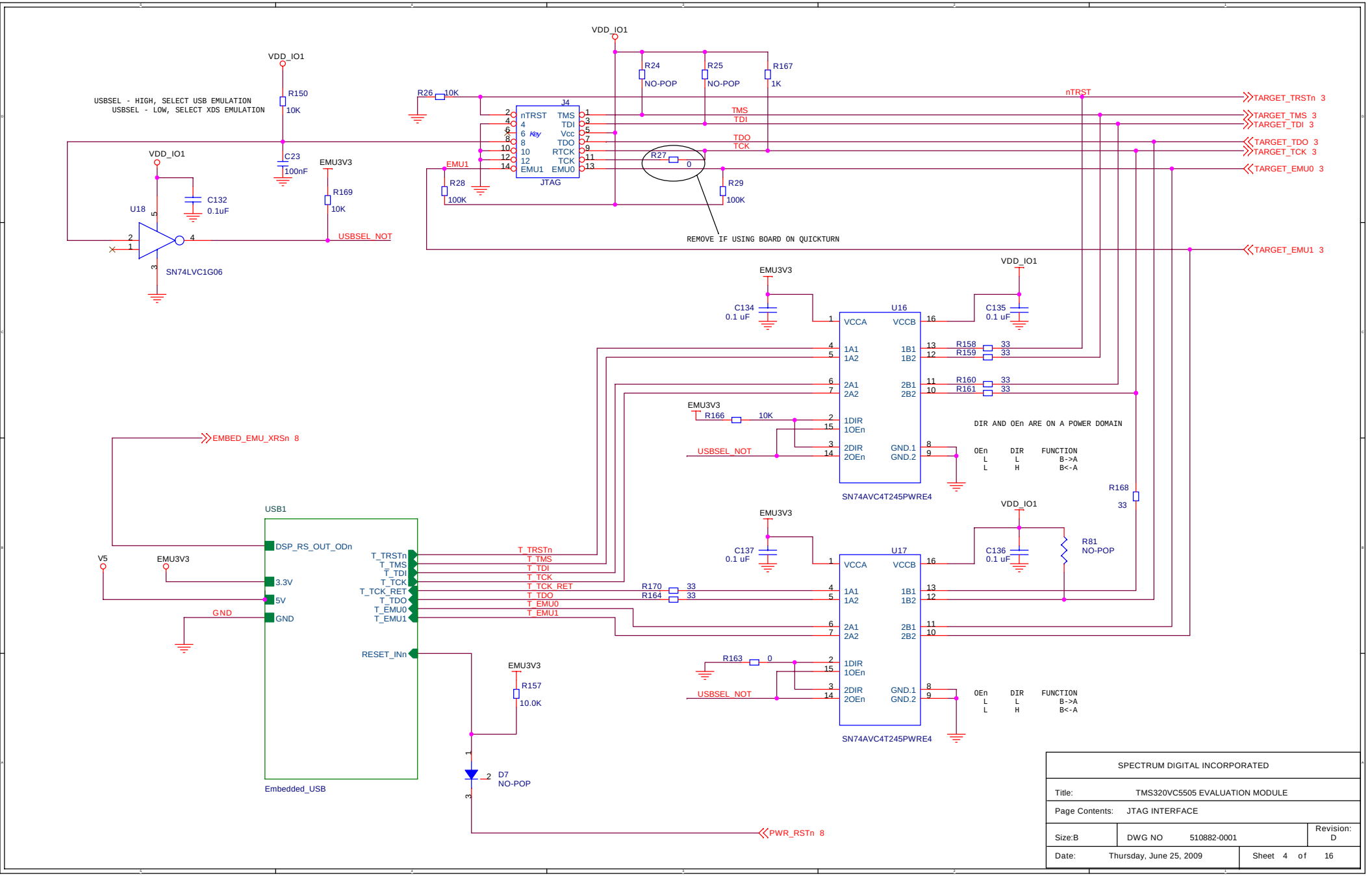
Date: Thursday, June 25, 2009 | Sheet 1 of 16

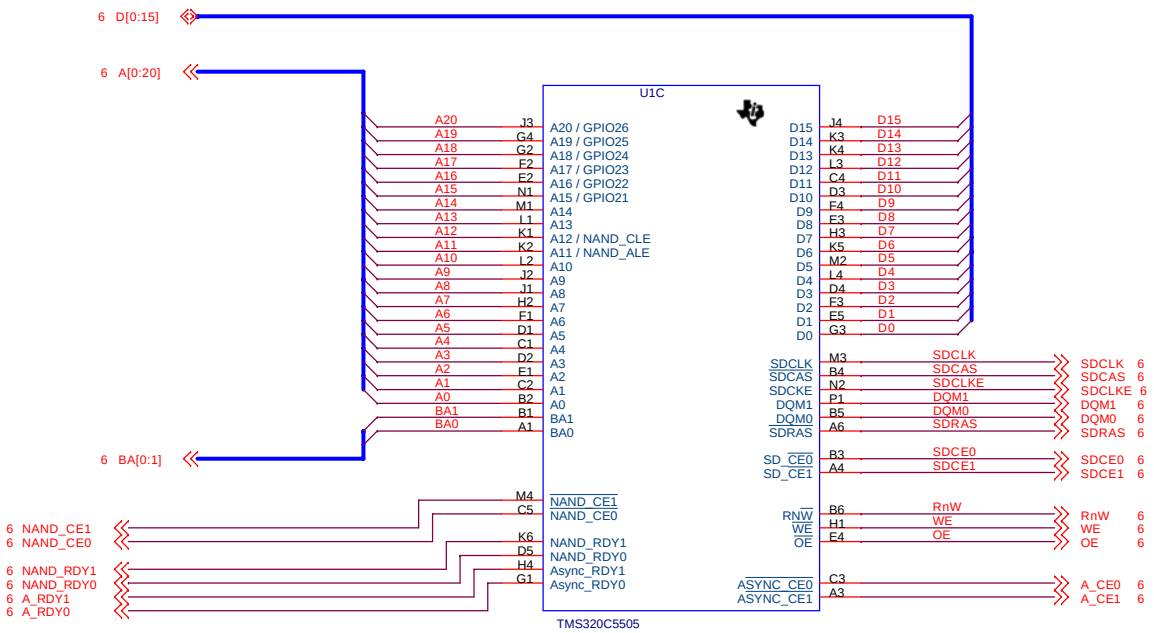


SPECTRUM DIGITAL INCORPORATED		
Title: TMS320VC5505 EVALUATION MODULE		
Page Contents: GPIO,MMC-SD,SPI,I2C,I2S		
Size:B	DWG NO 510882-0001	Revision: D
Date: Thursday, June 25, 2009	Sheet 2 of 16	

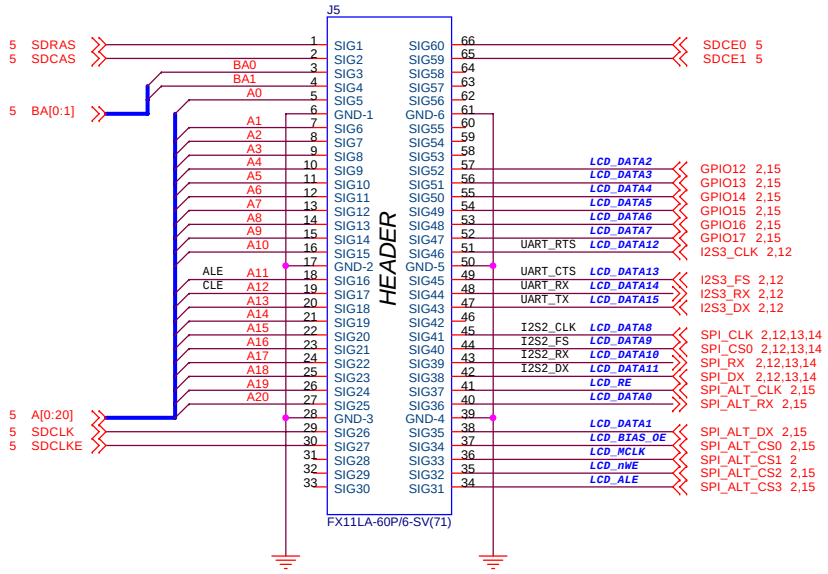


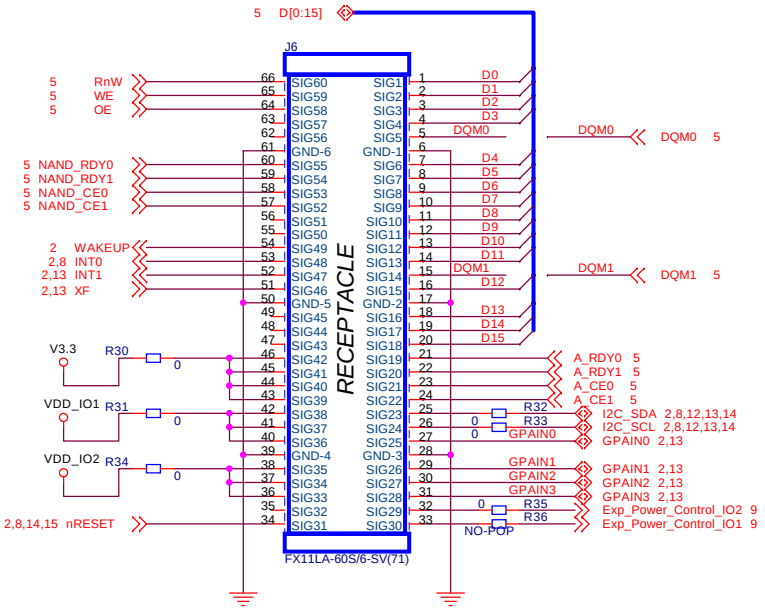
SPECTRUM DIGITAL INCORPORATED		
Title: TMS320VC5505 EVALUATION MODULE		
Page Contents: CLOCK,JTAG,USB		
Size:B	DWG NO 510882-0001	Revision: D
Date: Thursday, June 25, 2009	Sheet 3 of 16	


USBSEL - HIGH, SELECT USB EMULATION
USBSEL - LOW, SELECT XDS EMULATION
VDD_IO1
R150
10K
C23
100nF
EMU3V3
R169
10K
U18
C132
0.1uF
SN74LVC1G06
USBSEL_NOT
R26 10K
J4
nTRST
TMS
TDI
Vcc
TDO
RTCK
TCK
EMU1
EMU0
JTAG
R24
NO-POP
R25
NO-POP
R167
1K
R27
0
R28
100K
R29
100K
REMOVE IF USING BOARD ON QUICKTURN
TARGET_TRSTn 3
TARGET_TMS 3
TARGET_TDI 3
TARGET_TDO 3
TARGET_TCK 3
TARGET_EMU0 3
TARGET_EMU1 3
C134
0.1 uF
U16
VCCA
VCCB
C135
0.1 uF
1A1
1A2
2A1
2A2
1B1
1B2
2B1
2B2
R158
R159
R160
R161
33
1DIR
1OEn
2DIR
2OEn
GND.1
GND.2
R166
10K
DIR AND OEn ARE ON A POWER DOMAIN
OEn DIR FUNCTION
L L B->A
L H B<-A
SN74AVC4T245PWRE4
EMBED_EMU_XRSn 8
USB1
DSP_RS_OUT_ODn
3.3V
5V
GND
V5
T_TRSTn
T_TMS
T_TDI
T_TCK
T_TCK_RET
T_TDO
T_EMU0
T_EMU1
RESET_INn
R170
R164
C137
0.1 uF
U17
C136
0.1 uF
R81
NO-POP
R168
33
R163
0
R157
10.0K
D7
NO-POP
PWR_RSTn 8
Embedded_USB
SPECTRUM DIGITAL INCORPORATED
Title: TMS320VC5505 EVALUATION MODULE
Page Contents: JTAG INTERFACE
Size:B
DWG NO 510882-0001
Revision: D
Date: Thursday, June 25, 2009
Sheet 4 of 16

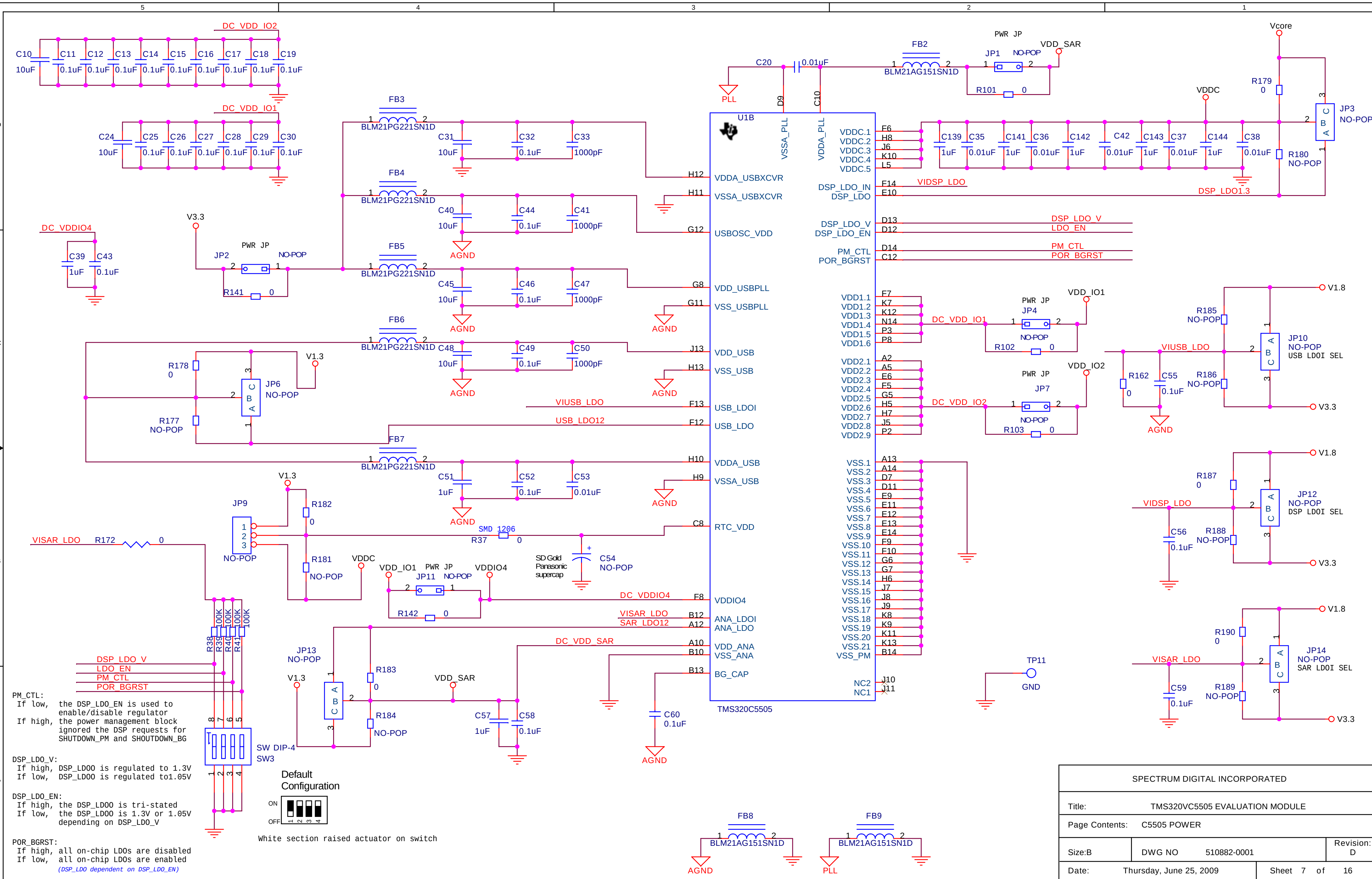


SPECTRUM DIGITAL INCORPORATED		
Title: TMS320VC5505 EVALUATION MODULE		
Page Contents: C5505 EMIF		
Size:B	DWG NO 510882-0001	Revision: B
Date: Thursday, June 25, 2009	Sheet 5 of 16	





SPECTRUM DIGITAL INCORPORATED		
Title: TMS320VC5505 EVALUATION MODULE		
Page Contents: EMIF EXPANSION CONNECTORS		
Size:B	DWG NO 510882-0001	Revision: B
Date: Thursday, June 25, 2009	Sheet 6 of 16	



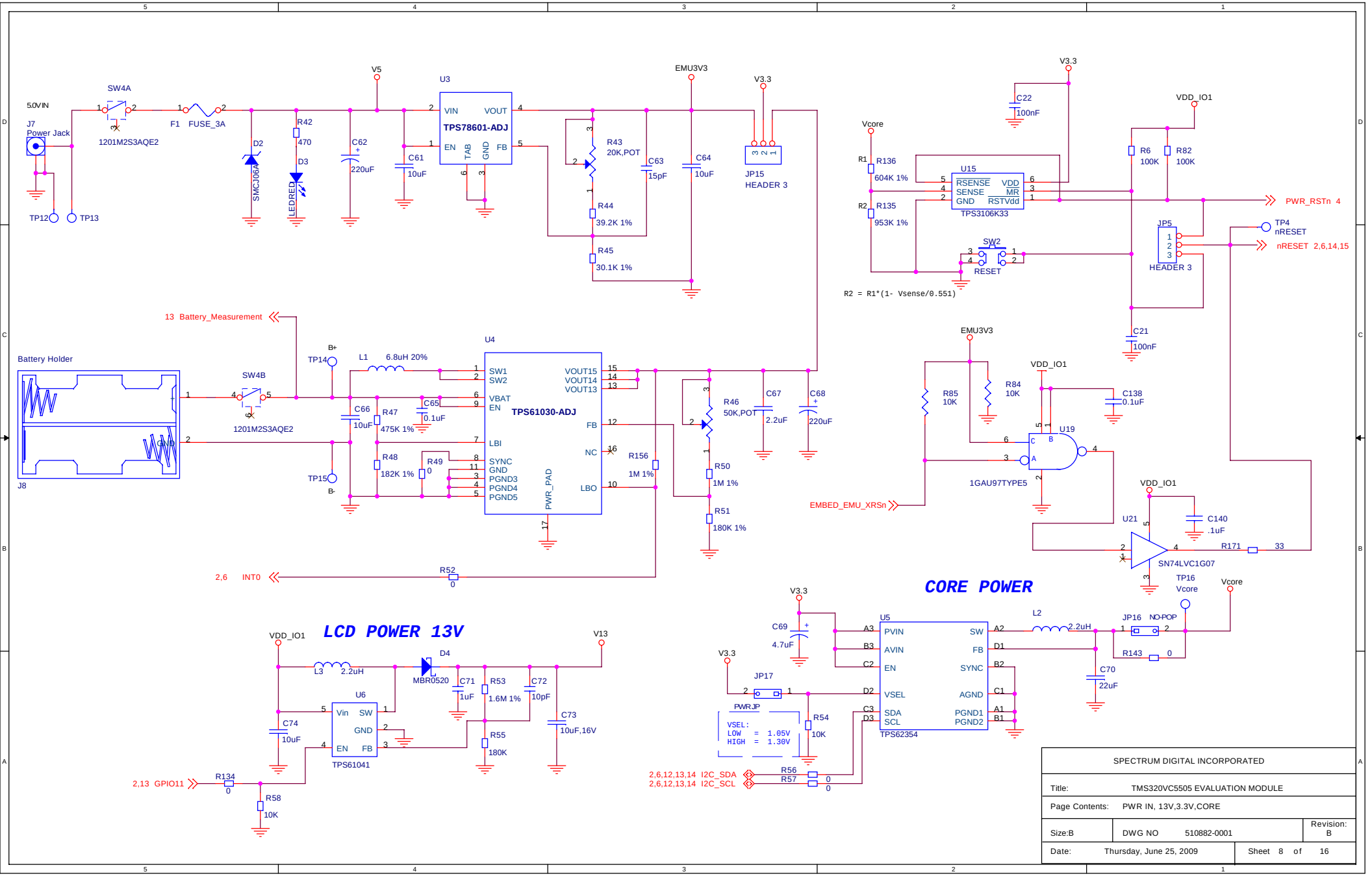
PM_CTL:
If low, the DSP_LDO_EN is used to enable/disable regulator
If high, the power management block ignored the DSP requests for SHUTDOWN_PM and SHUTDOWN_BG

DSP_LDO_V:
If high, DSP_LDOO is regulated to 1.3V
If low, DSP_LDOO is regulated to1.05V

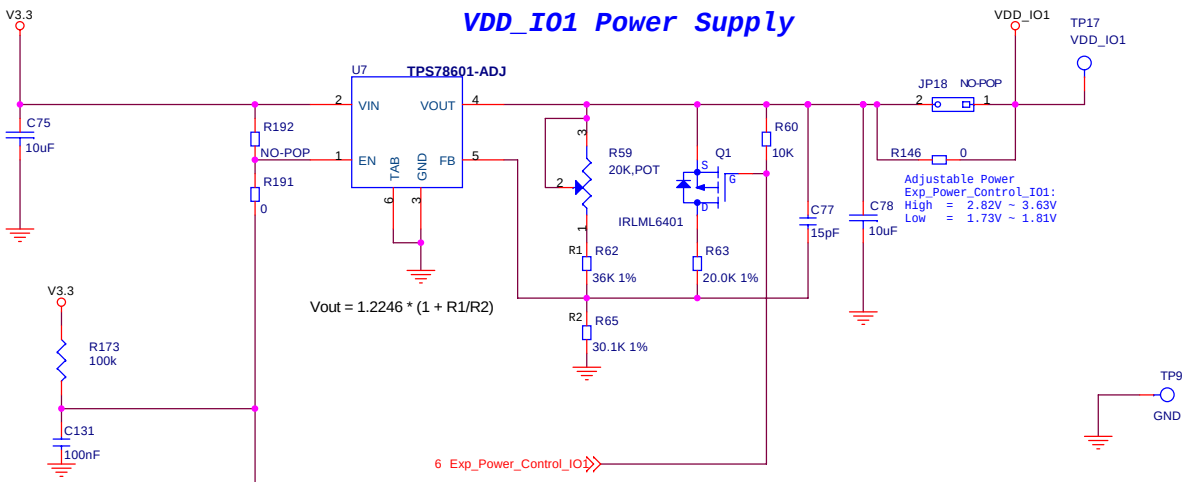
DSP_LDO_EN:
If high, the DSP_LDOO is tri-stated
If low, the DSP_LDOO is 1.3V or 1.05V depending on DSP_LDO_V

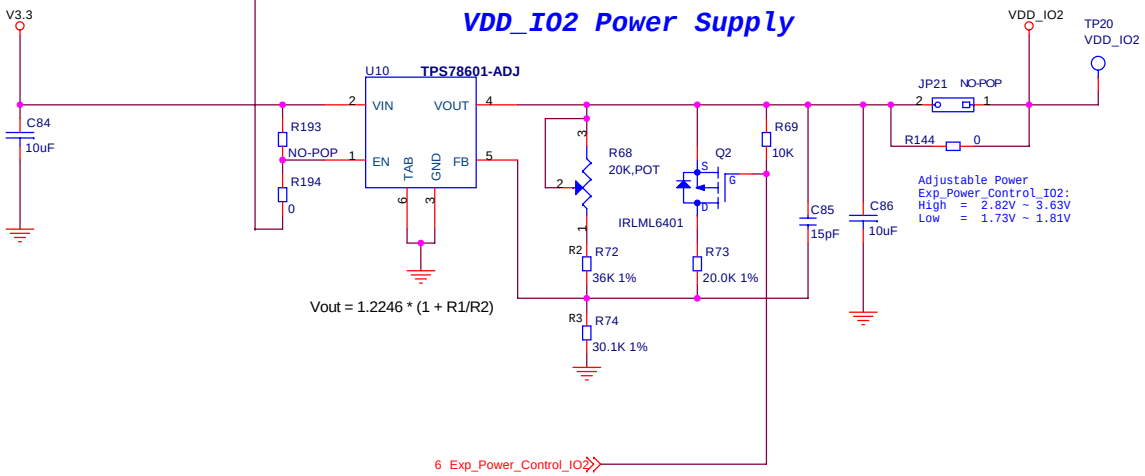
POR_BGRST:
If high, all on-chip LDOs are disabled
If low, all on-chip LDOs are enabled
(DSP_LDO dependent on DSP_LDO_EN)

SPECTRUM DIGITAL INCORPORATED		
Title: TMS320VC5505 EVALUATION MODULE		
Page Contents: C5505 POWER		
Size:B	DWG NO 510882-0001	Revision: D
Date: Thursday, June 25, 2009	Sheet 7 of 16	



SPECTRUM DIGITAL INCORPORATED		
Title: TMS320VC5505 EVALUATION MODULE		
Page Contents: PWR IN, 13V,3.3V,CORE		
Size:B	DWG NO 510882-0001	Revision: B
Date: Thursday, June 25, 2009	Sheet 8 of 16	





SPECTRUM DIGITAL INCORPORATED		
Title: TMS320VC5505 EVALUATION MODULE		
Page Contents: VDD_IO1, VDD_IO2		
Size:B	DWG NO 510882-0001	Revision: D
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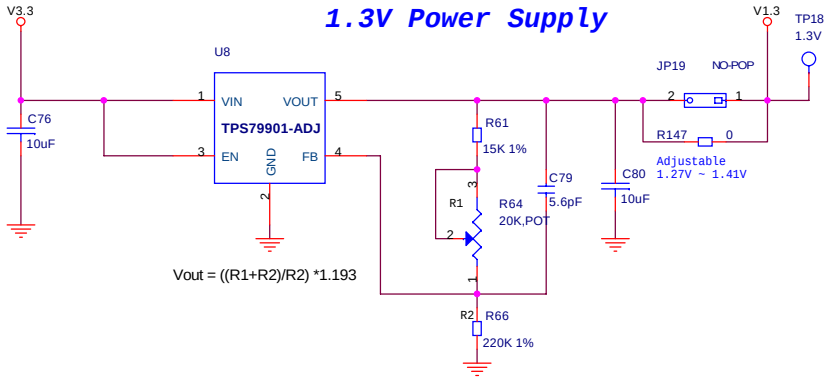
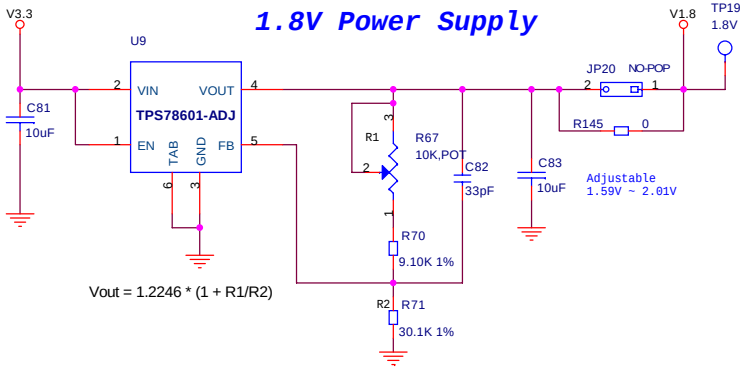
1.3V Power Supply



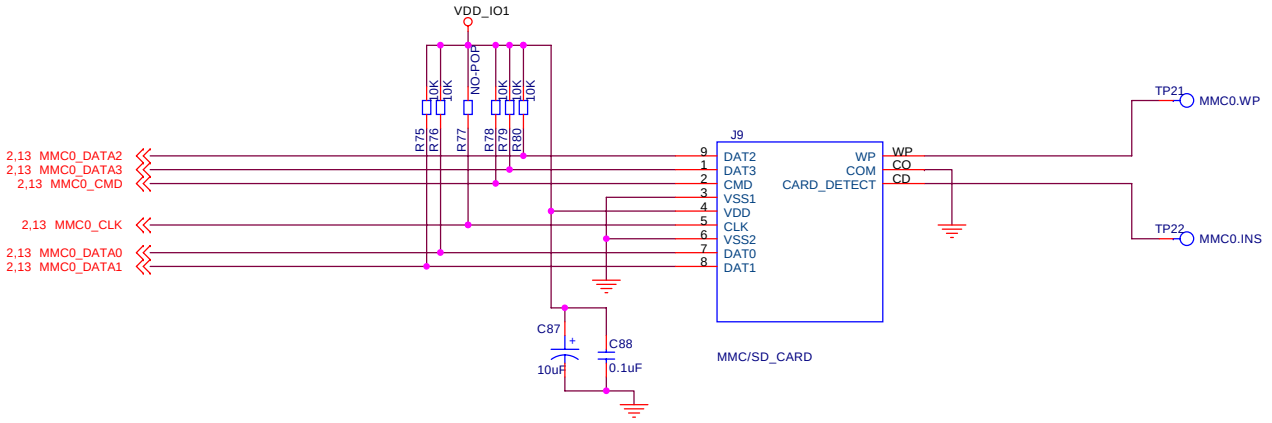
Vout = ((R1+R2)/R2) *1.193

1.8V Power Supply

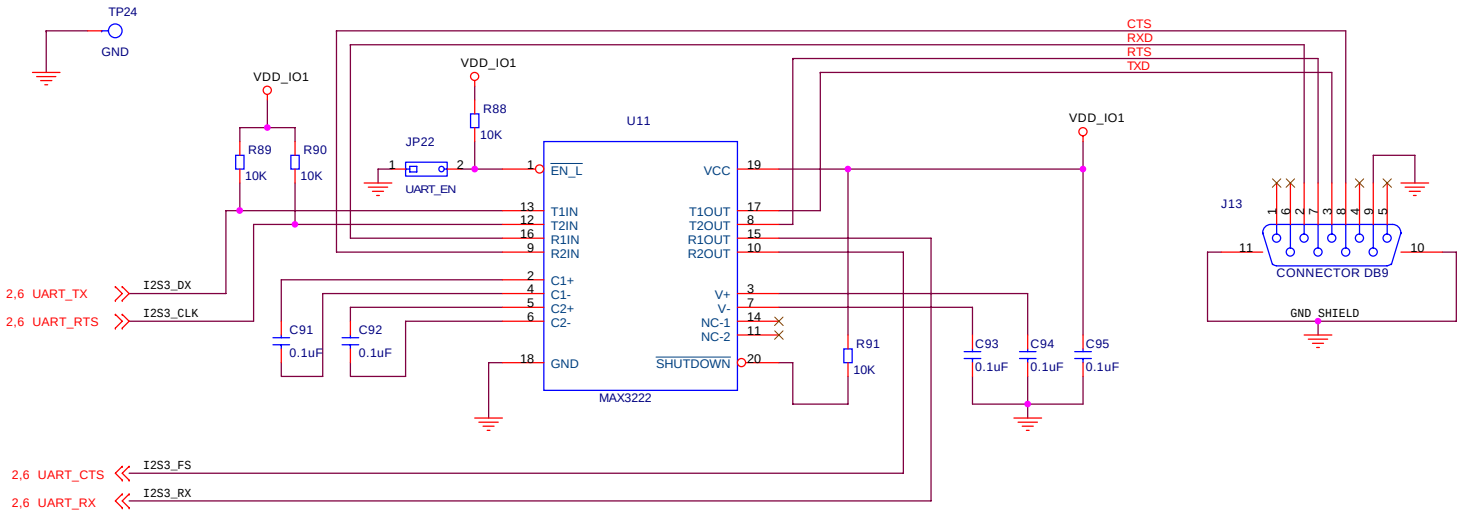


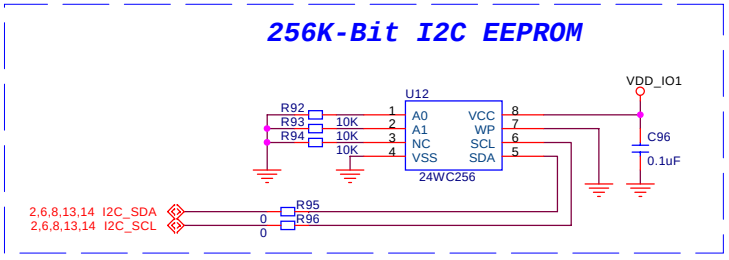
Vout = 1.2246 * (1 + R1/R2)

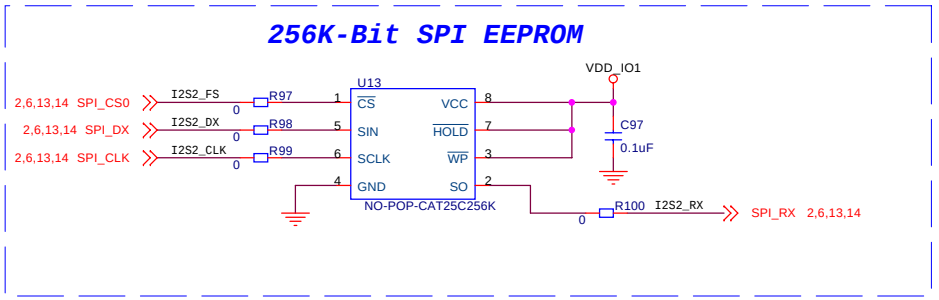
SPECTRUM DIGITAL INCORPORATED		
Title: TMS320VC5505 EVALUATION MODULE		
Page Contents: PWR IN, 1.3V,1.8V,VDDIO		
Size:B	DWG NO 510882-0001	Revision: B
Date: Thursday, June 25, 2009	Sheet 10 of 16	



SPECTRUM DIGITAL INCORPORATED		
Title: TMS320VC5505 EVALUATION MODULE		
Page Contents: MMC/SD SOCKETS		
Size:B	DWG NO 510882-0001	Revision: B
Date: Thursday, June 25, 2009	Sheet 11 of 16	







SPECTRUM DIGITAL INCORPORATED		
Title: TMS320VC5505 EVALUATION MODULE		
Page Contents: RS232(UART)/EEPROM		
Size:B	DWG NO 510882-0001	Revision: B
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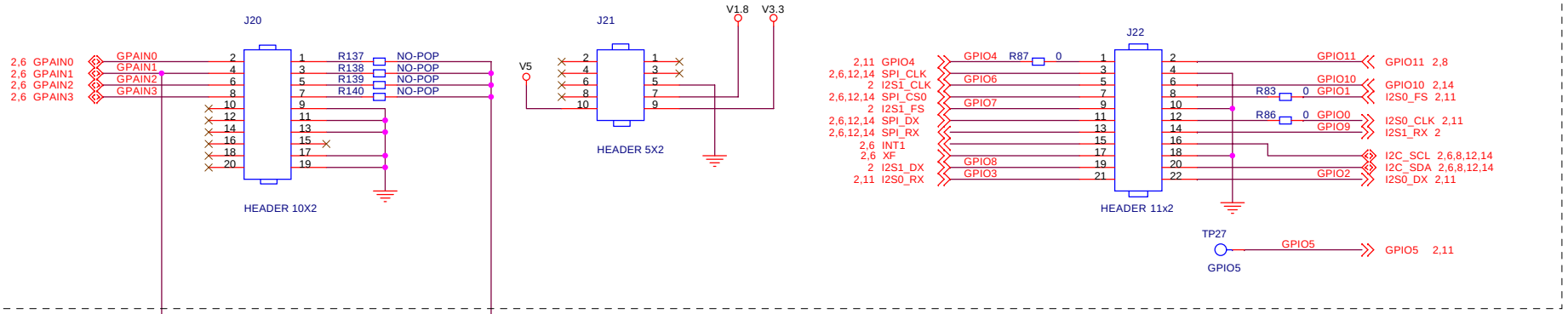
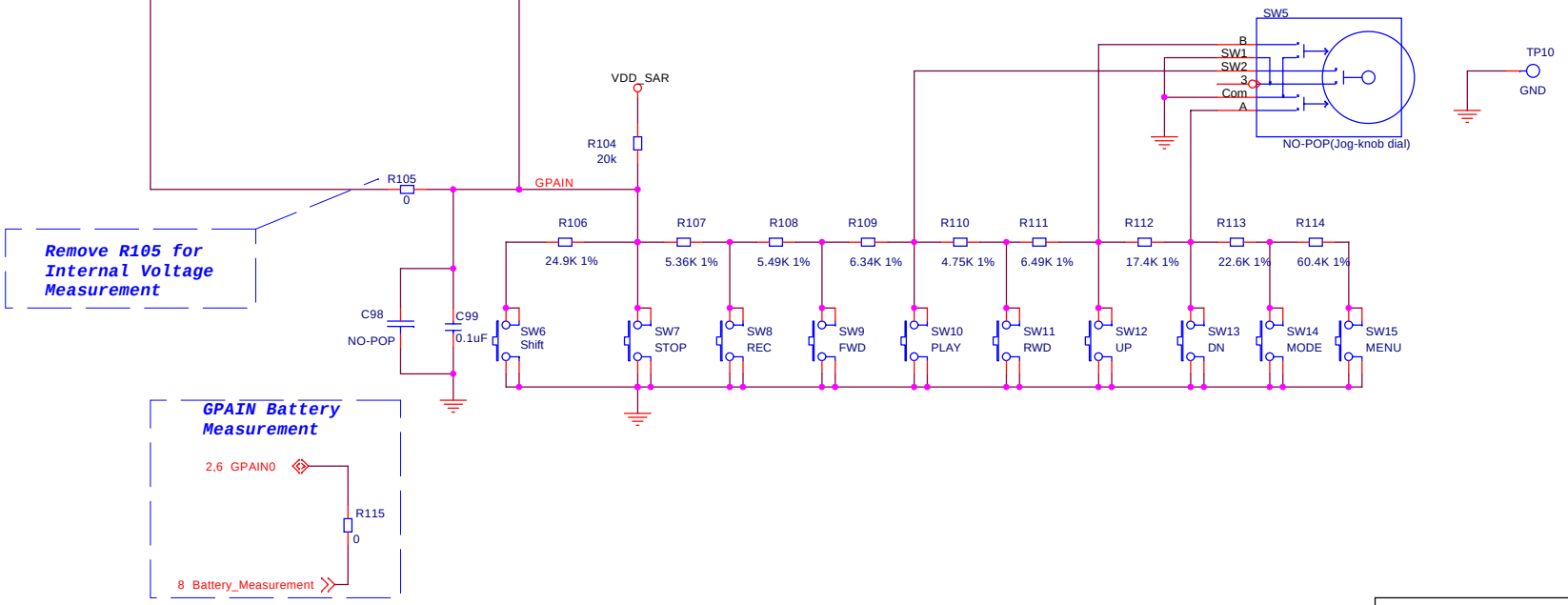
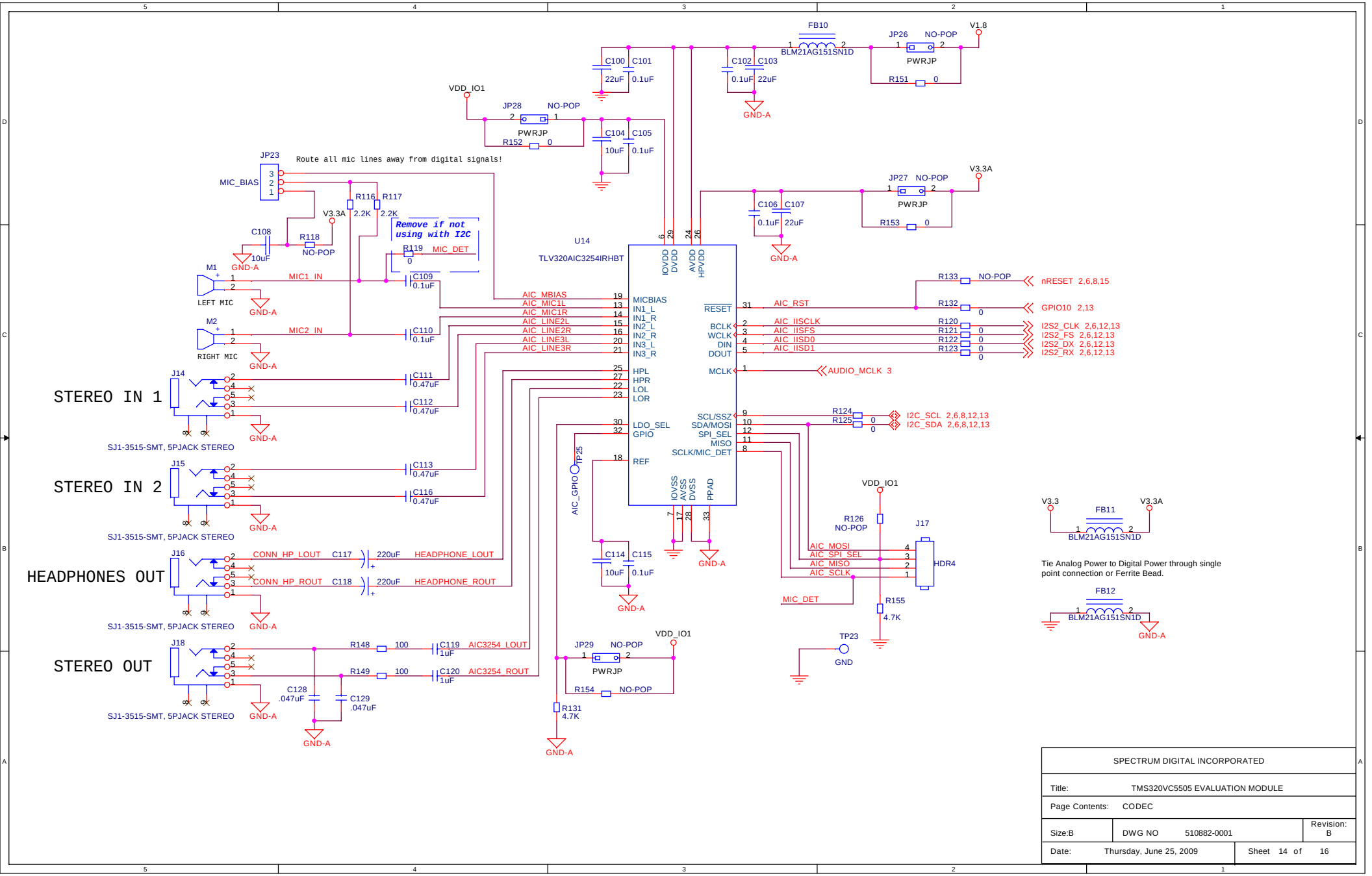
LAYOUT NOTE:
These 3 connectors need to be placed
in specific coordinates to allow for Interfacing
to the ADS Codec Daughter Card





SPECTRUM DIGITAL INCORPORATED		
Title: TMS320VC5505 EVALUATION MODULE		
Page Contents: SAR RESISTOR NETWORK		
Size:B	DWG NO 510882-0001	Revision: B
Date: Thursday, June 25, 2009	Sheet 13 of 16	


STEREO IN 1
STEREO IN 2
HEADPHONES OUT
STEREO OUT
SJ1-3515-SMT, 5PJACK STEREO
LEFT MIC
RIGHT MIC
Route all mic lines away from digital signals!
Remove if not using with I2C
U14
TLV320AIC3254IRHBT
VDD_IO1
V1.8
V3.3A
V3.3
GND-A
GND
FB10
BLM21AG151SN1D
FB11
FB12
JP23
JP26
JP27
JP28
JP29
NO-POP
PWRJP
MIC_BIAS
MIC1_IN
MIC2_IN
MIC_DET
AIC_MBIAS
AIC_MIC1L
AIC_MIC1R
AIC_LINE2L
AIC_LINE2R
AIC_LINE3L
AIC_LINE3R
AIC_RST
AIC_IISCLK
AIC_IISFS
AIC_IISD0
AIC_IISD1
AUDIO_MCLK 3
nRESET 2,6,8,15
GPIO10 2,13
I2S2_CLK 2,6,12,13
I2S2_FS 2,6,12,13
I2S2_DX 2,6,12,13
I2S2_RX 2,6,12,13
I2C_SCL 2,6,8,12,13
I2C_SDA 2,6,8,12,13
CONN_HP_LOUT
CONN_HP_ROUT
HEADPHONE_LOUT
HEADPHONE_ROUT
AIC3254_LOUT
AIC3254_ROUT
AIC_GPIO
AIC_MOSI
AIC_SPI_SEL
AIC_MISO
AIC_SCLK
HDR4
Tie Analog Power to Digital Power through single point connection or Ferrite Bead.
SPECTRUM DIGITAL INCORPORATED
Title: TMS320VC5505 EVALUATION MODULE
Page Contents: CODEC
Size:B
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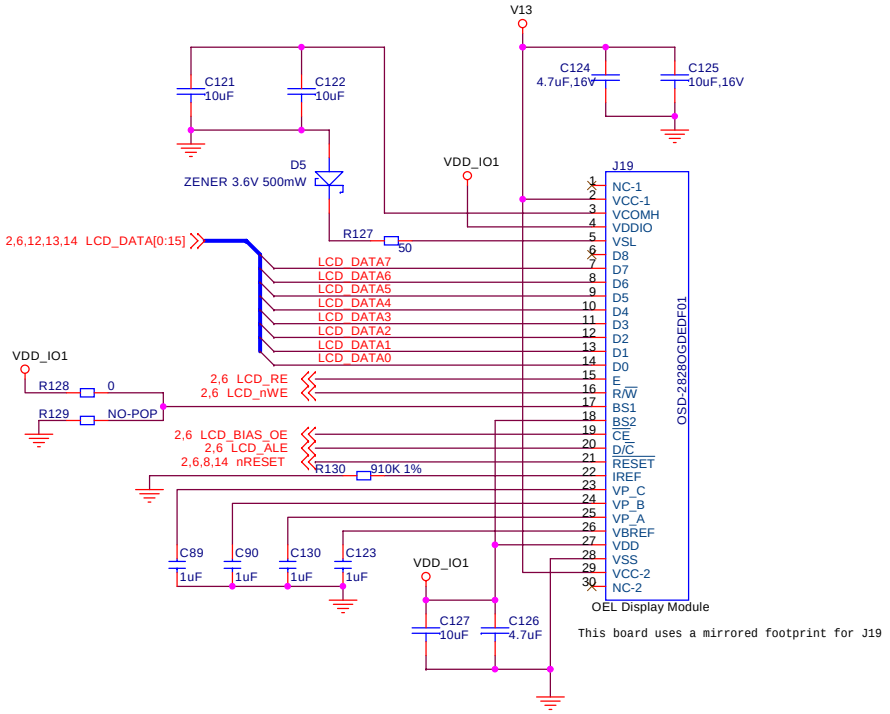

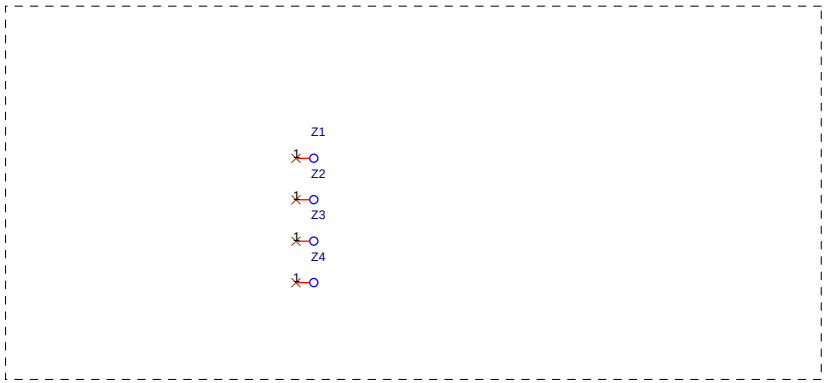

SPECTRUM DIGITAL INCORPORATED		
Title: TMS320VC5505 EVALUATION MODULE		
Page Contents: COLOR LCD INTERFACE		
Size:B	DWG NO 510882-0001	Revision: D
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Revision	DESCRIPTION	DATE
510540-0001B	Initial Release. Updated Known bugs and notes on pages 2 and 6	12/26/07 01/08/08
510880-0001A	1. Change R50 to 1M 2. Fix power on LCD connector. Swap 3.3V with 13V 3. Fix ball F8 to be used as VSS_OSC 4. Fix INIT0 and INIT1 (swapped) 5. Fix CODEC so that I2C is selected by defualt 6. Changed connection to R16 to USB_XO instead of USB_XI 7. Replaced J22 with 11x2 (same xy on pin 1) 8. Replaced I2S on J22 with SPI 9. Added test pin to GPIO5 10. Changed value of R62, R72 to 36K 11. Added Embedded USB emulation option	02/18/08
510880-0001B	1. Fixed Jog-Dial so that common dial switches ties to gnd 2. Fixed pull-up resistor net connected to DSP_LDO_V and LDO_EN	03/09/08
510880-0001C	1. NEW CPU REVISION 2. ECN ON R21 3. R13 CHANGED TO 0 OHM 4. C54 NOT POPULATED 5. C60 CHANGED TO 0.1uF	12/09/08
510880-0001D	1. NEW CPU REVISION 2. MODIFIED POWER SEQUENCING	

SPECTRUM DIGITAL INCORPORATED		
Title: TMS320VC5505 EVALUATION MODULE		
Page Contents: REVISION SUMMARY		
Size:B	DWG NO 510882-0001	Revision: D
Date: Thursday, June 25, 2009	Sheet 16 of 16	