SCHEMATIC CONTENTS

SHEET01 - TITLE
SHEET02 - BLOCK DIAGRAM
SHEET03 - DSP CLKS/RST/EMU
SHEET04 - EMULATION
SHEET05 - DSP Serial/CAN/I2C
SHEET06 - DSP VP/EMIF/PCI/ENET
SHEET07 - DSP DDR Interface
SHEET08 - DSP DACS/GND-pins
SHEET09 - DSP Power Pins

SHEET10 - Boot DIP Switches
SHEET11 - VIC
SHEET12 - I2C Expanders
SHEET13 - I2C Expanders 2
SHEET14 - DDR2 Memories
SHEET15 - EMIF Muxing
SHEET16 - NAND-Flash/SRAM
SHEET17 - NOR-Flash/EEPROM
SHEET18 - ENET Muxing
SHEET19 - ENET

SHEET20 - CAN
SHEET21 - RS232
SHEET22 - PCI-Mux
SHEET23 - PCI-Mux II
SHEET24 - PCI-Connector
SHEET25 - VLYNQ
SHEET26 - AIC33
SHEET27 - SPDIF/TVP5146-Switch
SHEET28 - TVP5146
SHEET29 - Video Out

SHEET30 - VIDEO DC Conn.
SHEET31 - EMAC/MCBSP DC Conn.
SHEET32 - VLYNQ/EMIF DC Conn.
SHEET33 - RESET SUPERVISOR
SHEET34 - POWER

I2C Address Table			
ADDRESS HEX	BINARY	DEVICE	FUNCTION
0x38	00111000B	PCF8574	USER INPUT Expander - 0111(A2)(A1)(A0)
0x39	00111001B	PCF8574	LED Expander - 0111(A2)(A1)(A0)
0x3A	00111010B	PCF8574	VIC PLL Expander - 0111(A2)(A1)(A0)
0x3B	00111011B	PCF8574	VLYNQ IO Expander - 0111(A2)(A1)(A0)
0x50	01010000B	CAT24C256	EEPROM - 1010(A2)(A1)(A0)
0x1B	00011011B	AIC33	AUDIO CODEC - 00110(MFP1)(MFP0)
0x5D	01011101B	TVP5146	VIDEO DECODER - 101110(I2CA)

REVISION STATUS OF SHEETS

	D	D	D	D								
	31	32	33	34								
REV	D	D	D	D	D	D	D	D	D	D		
SH	21	22	23	24	25	26	27	28	29	30		
REV	D	D	D	D	D	D	D	D	D	D		
SH	11	12	13	14	15	16	17	18	19	20		
REV	D	D	D	D	D	D	D	D	D	D	NEXT ASSY	USED ON
SH	1	2	3	4	5	6	7	8	9	10	APPLICATION	

DWN	R.R.P.	DATE 06/01/2006
CHK	T.W.K.	DATE 06/01/2006
ENGR	R.R.P.	DATE 06/01/2006
ENGR-MGR	R.R.P.	DATE 06/01/2006
QA	C.M.D.	DATE 06/01/2006
MFG	R.R.P.	DATE 06/01/2006
RLSE	R.R.P.	DATE 06/01/2006

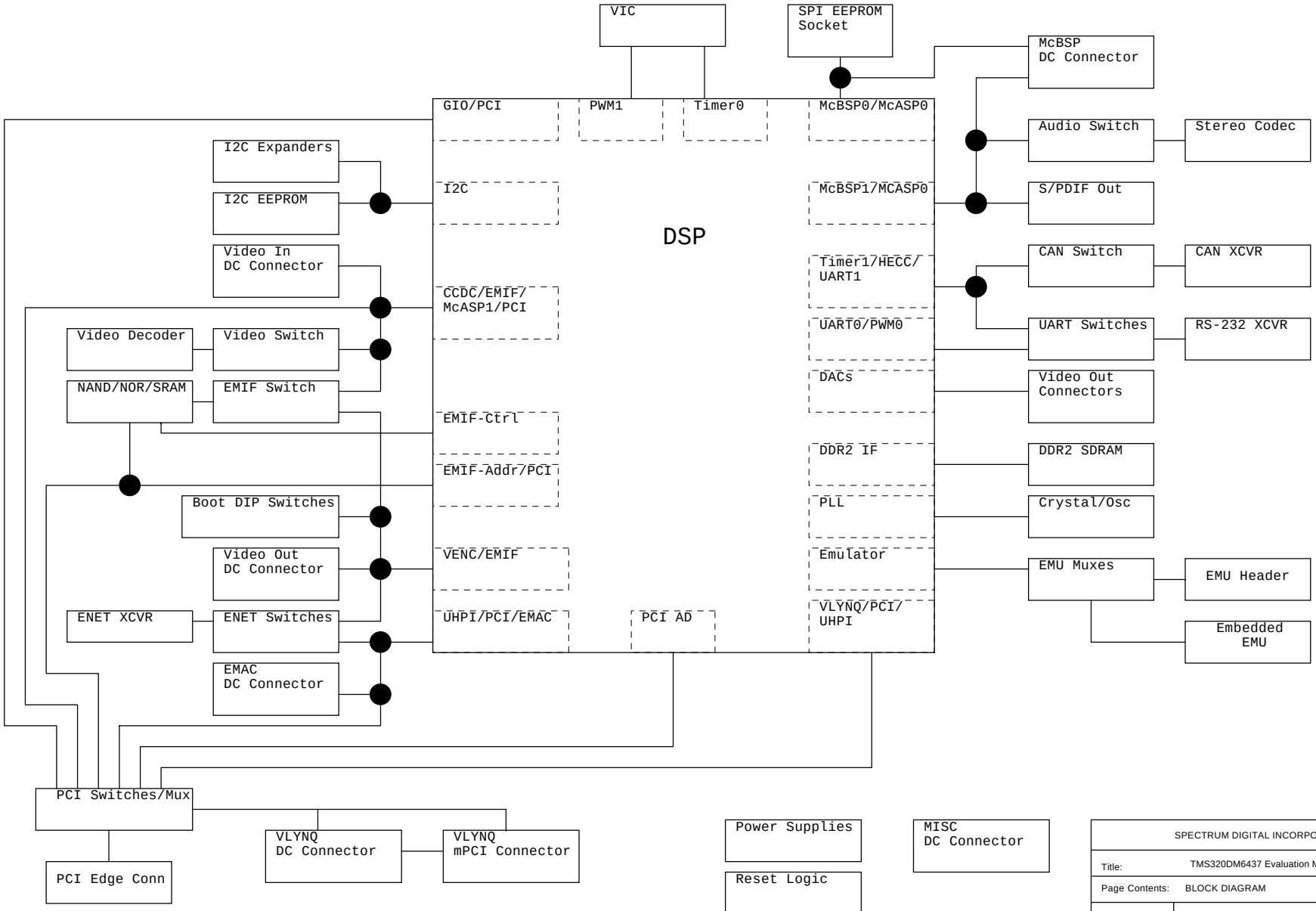
SPECTRUM DIGITAL INCORPORATED

Title: TMS320DM6437 Evaluation Module

Page Contents: TITLE SHEET

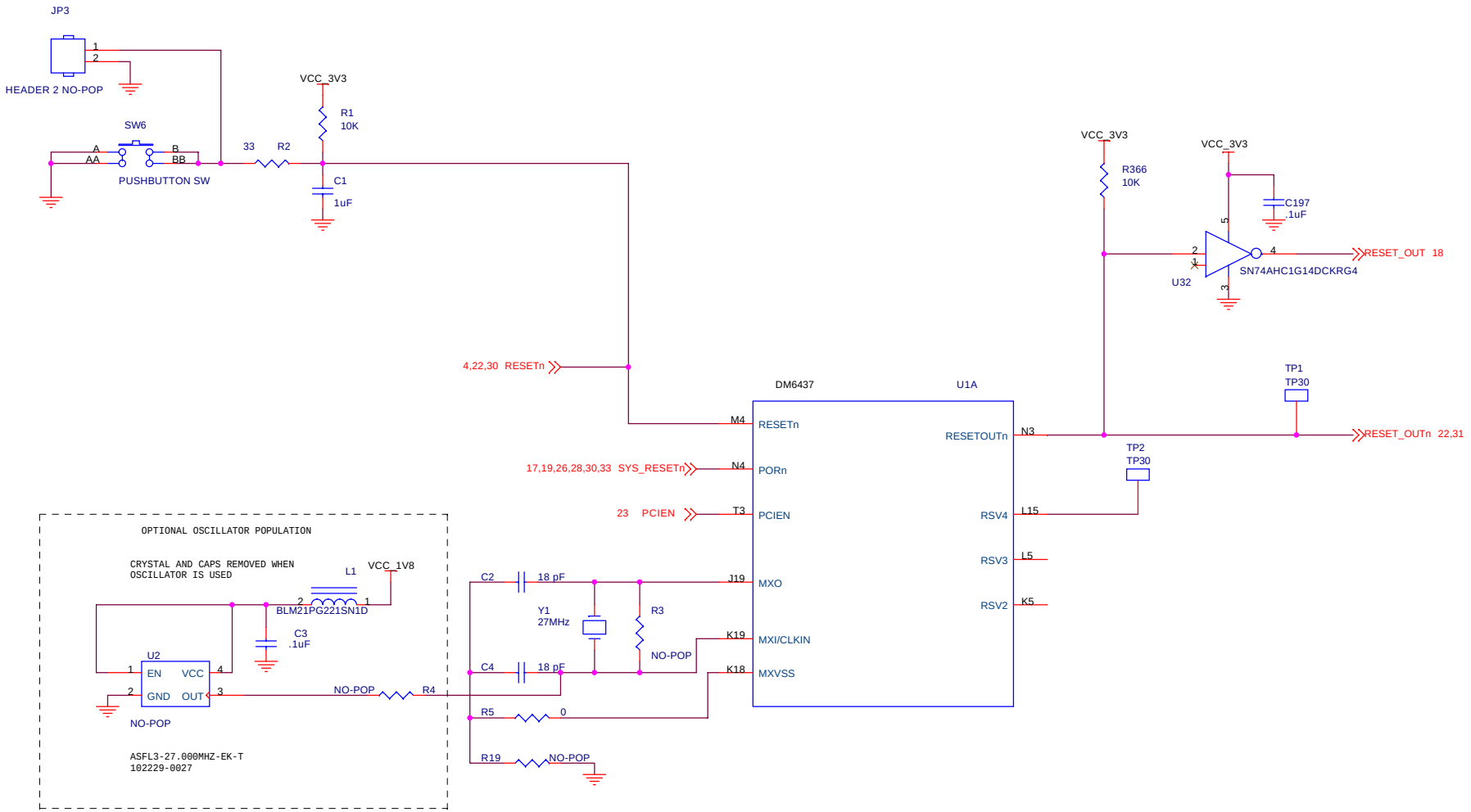
Size:B | DWG NO 509102-0001 | Revision: D

Date: Monday, March 19, 2007 | Sheet 1 of 34

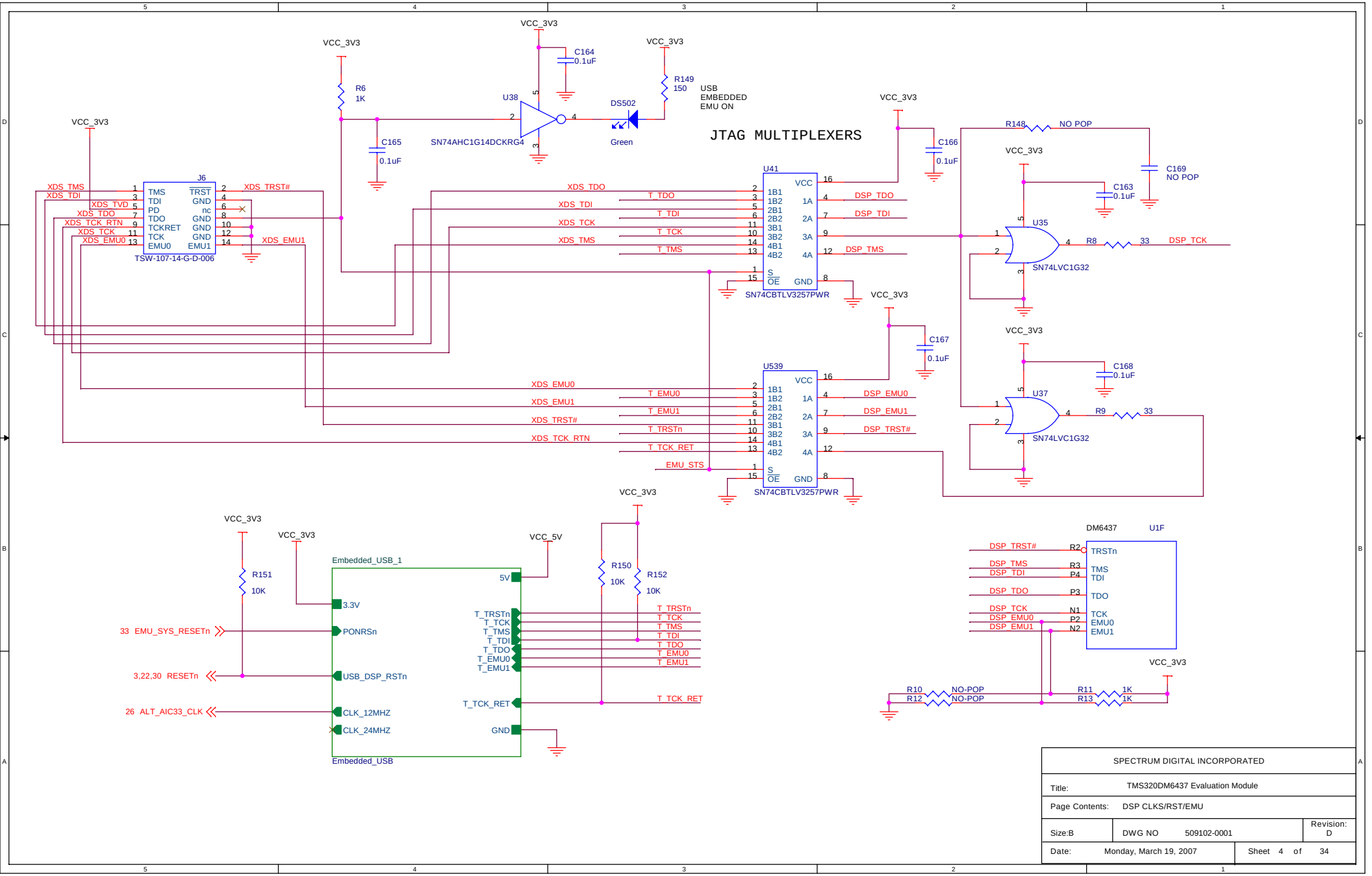


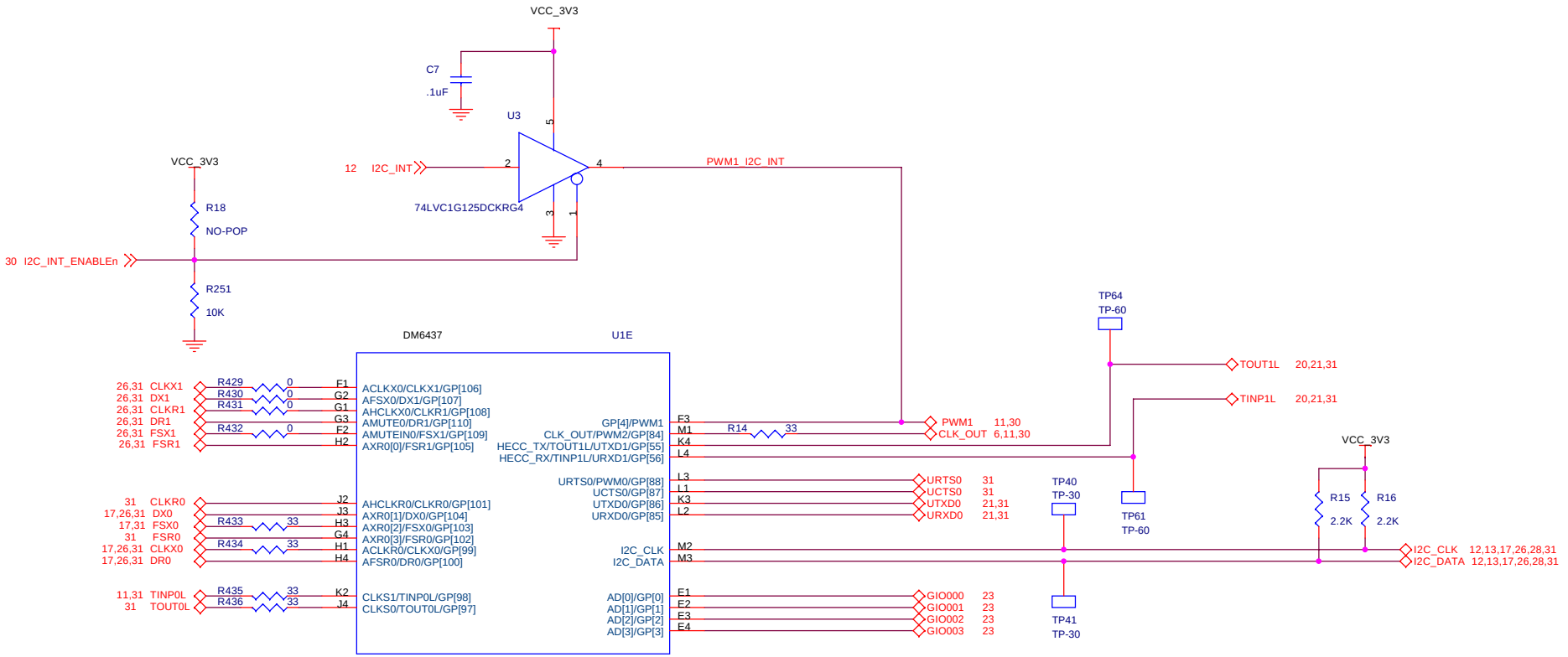
SPECTRUM DIGITAL INCORPORATED

Title:	TMS320DM6437 Evaluation Module	
Page Contents:	BLOCK DIAGRAM	
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 2 of 34	



SPECTRUM DIGITAL INCORPORATED		
Title: TMS320DM6437 Evaluation Module		
Page Contents: DSP CLKS/RST/EMU		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 3 of 34	


JTAG MULTIPLEXERS
VCC_3V3
R6
1K
C164
0.1uF
U38
SN74AHC1G14DCKRG4
DS502
Green
R149
150
USB
EMBEDDED
EMU ON
C165
0.1uF
J6
TSW-107-14-G-D-006
XDS_TMS
XDS_TDI
XDS_TVD
XDS_TDO
XDS_TCK_RTN
XDS_TCK
XDS_EMU0
XDS_TRST#
XDS_EMU1
U41
SN74CBTLV3257PWR
T_TDO
T_TDI
T_TCK
T_TMS
DSP_TDO
DSP_TDI
DSP_TMS
C166
0.1uF
R148
NO POP
C169
NO POP
C163
0.1uF
U35
SN74LVC1G32
R8
33
DSP_TCK
U539
SN74CBTLV3257PWR
T_EMU0
T_EMU1
T_TRSTn
T_TCK_RET
EMU_STS
DSP_EMU0
DSP_EMU1
DSP_TRST#
C167
0.1uF
C168
0.1uF
U37
SN74LVC1G32
R9
33
VCC_5V
R151
10K
R150
10K
R152
10K
Embedded_USB_1
Embedded_USB
5V
3.3V
PONRSn
USB_DSP_RSTn
CLK_12MHZ
CLK_24MHZ
GND
T_TRSTn
T_TCK
T_TMS
T_TDI
T_TDO
T_EMU0
T_EMU1
T_TCK_RET
33 EMU_SYS_RESETn
3,22,30 RESETn
26 ALT_AIC33_CLK
DM6437
U1F
DSP_TRST#
DSP_TMS
DSP_TDI
DSP_TDO
DSP_TCK
DSP_EMU0
DSP_EMU1
TRSTn
TMS
TDI
TDO
TCK
EMU0
EMU1
R10
R12
NO-POP
R11
R13
1K
SPECTRUM DIGITAL INCORPORATED
Title: TMS320DM6437 Evaluation Module
Page Contents: DSP CLKS/RST/EMU
Size:B
DWG NO 509102-0001
Revision: D
Date: Monday, March 19, 2007
Sheet 4 of 34



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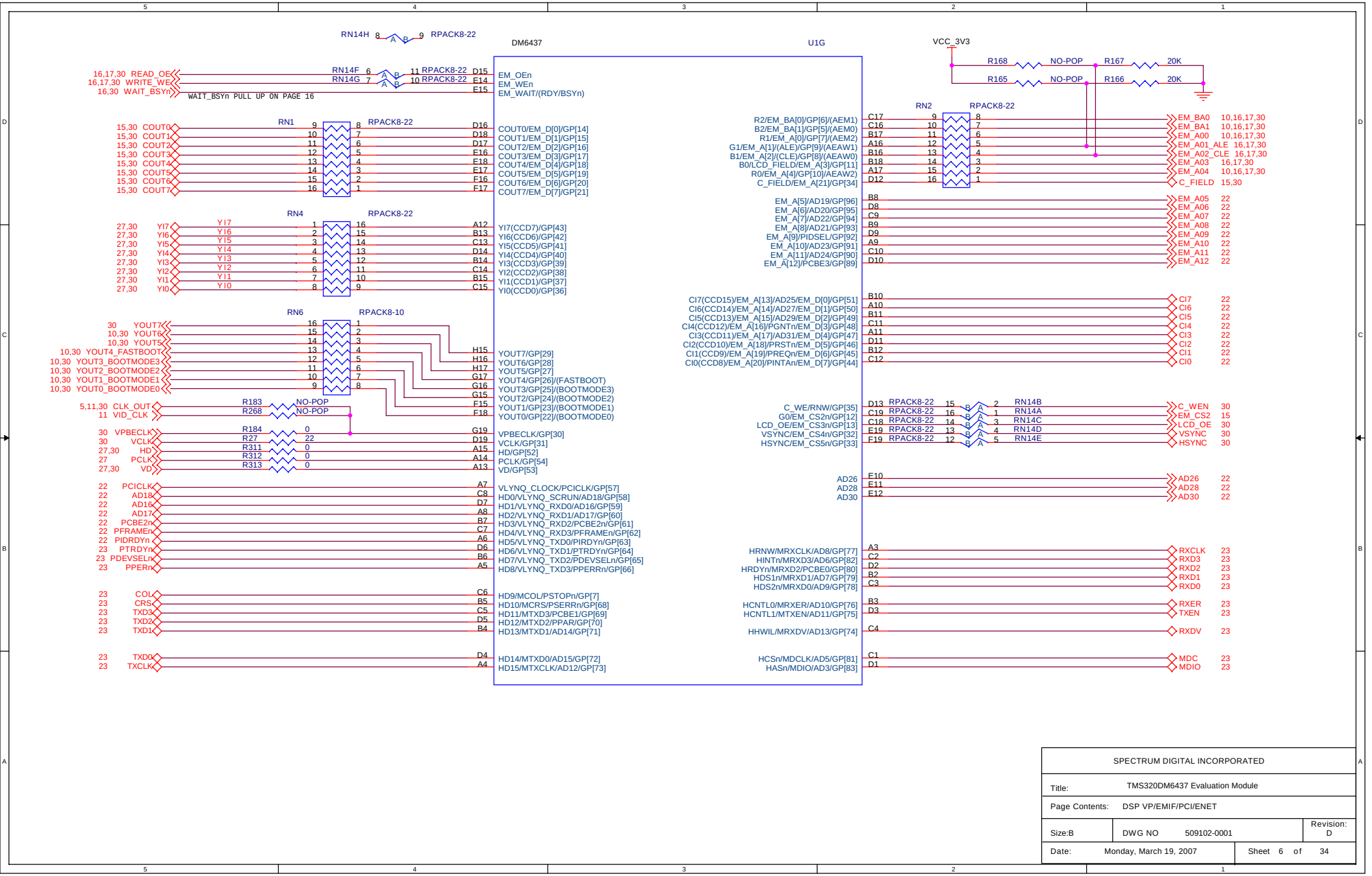
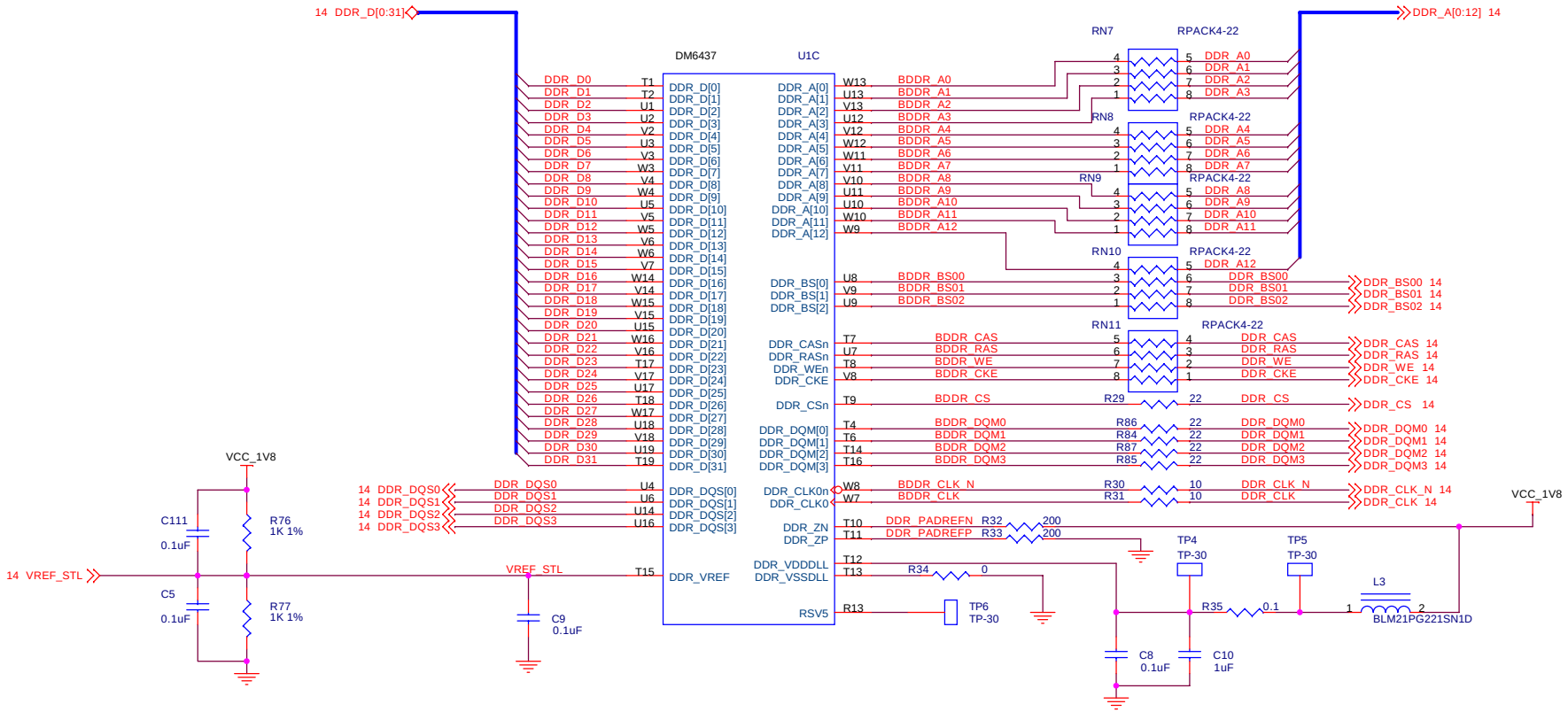
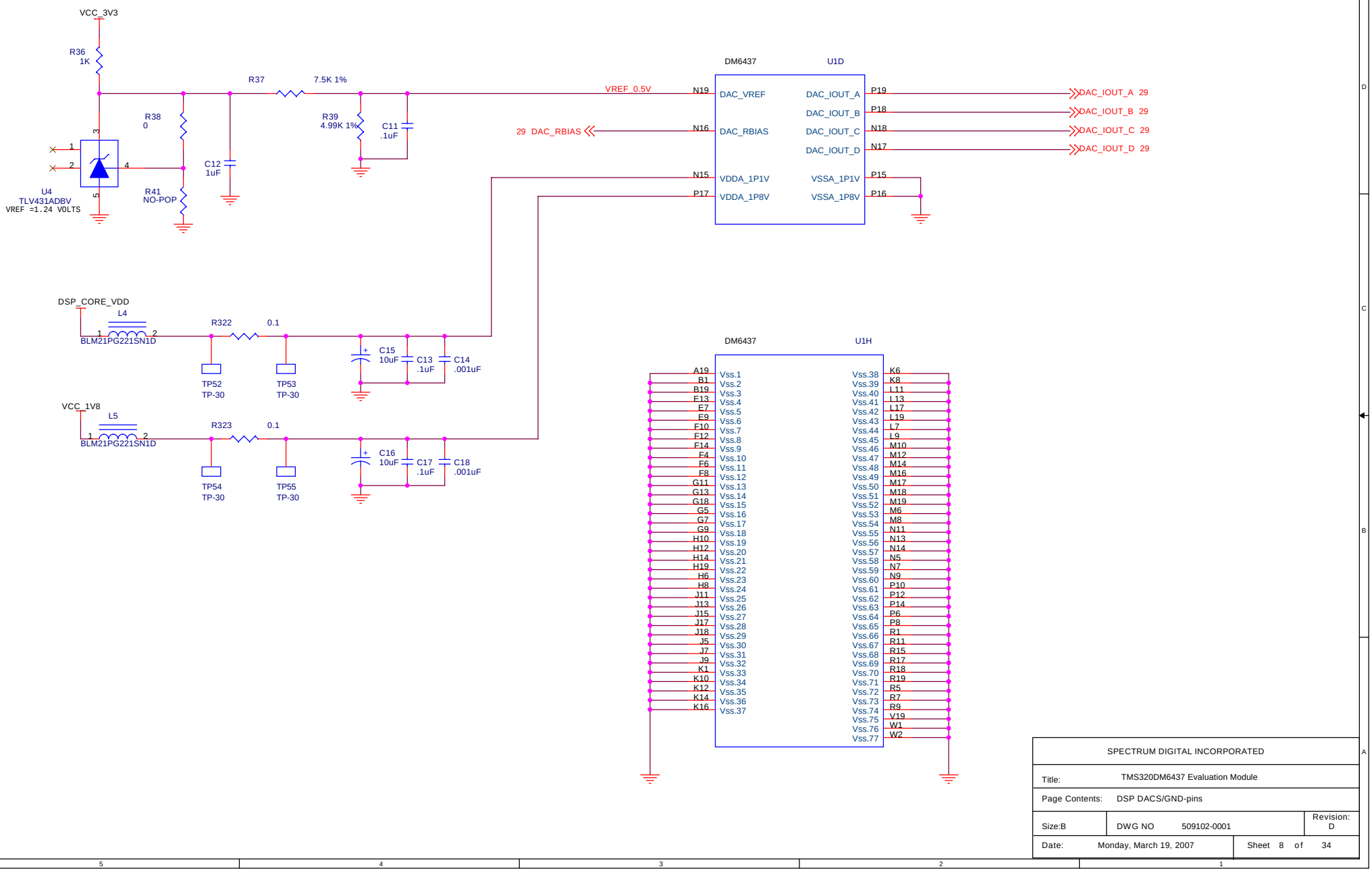
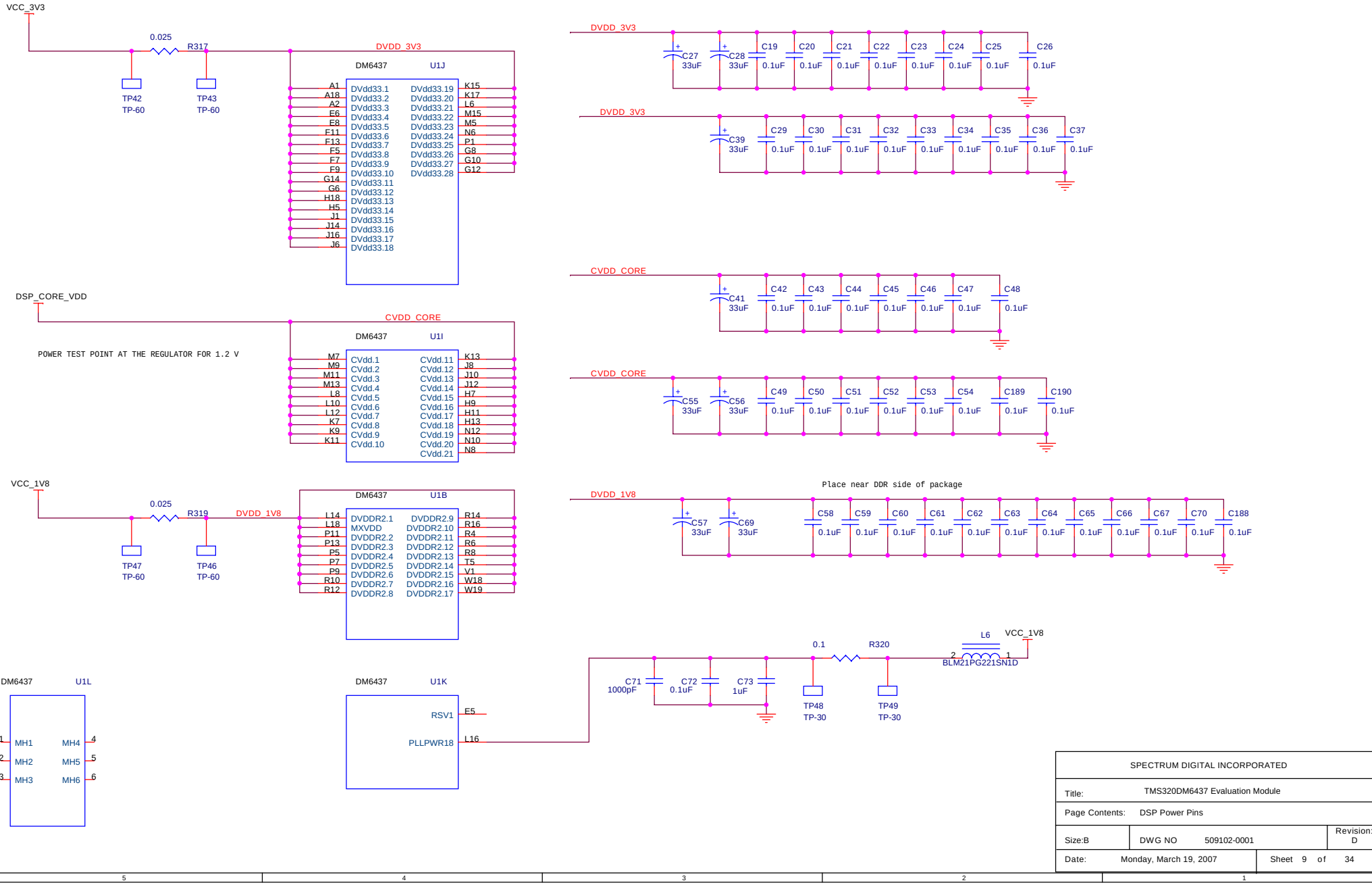
Title: TMS320DM6437 Evaluation Module		
Page Contents: DSP Serial/CAN/I2C		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 5 of 34	


DM6437
U1G
RN14H 8 A B 9 RPACK8-22
RN14F 6 A B 11 RPACK8-22
RN14G 7 A B 10 RPACK8-22
16,17,30 READ_OE
16,17,30 WRITE_WE
16,30 WAIT_BSYn
WAIT_BSYn PULL UP ON PAGE 16
EM_OEn
EM_WEn
EM_WAIT/(RDY/BSYn)
RN1 RPACK8-22
15,30 COUT0
15,30 COUT1
15,30 COUT2
15,30 COUT3
15,30 COUT4
15,30 COUT5
15,30 COUT6
15,30 COUT7
COUT0/EM_D[0]/GP[14]
COUT1/EM_D[1]/GP[15]
COUT2/EM_D[2]/GP[16]
COUT3/EM_D[3]/GP[17]
COUT4/EM_D[4]/GP[18]
COUT5/EM_D[5]/GP[19]
COUT6/EM_D[6]/GP[20]
COUT7/EM_D[7]/GP[21]
RN4 RPACK8-22
27,30 YI7
27,30 YI6
27,30 YI5
27,30 YI4
27,30 YI3
27,30 YI2
27,30 YI1
27,30 YI0
YI7(CCD7)/GP[43]
YI6(CCD6)/GP[42]
YI5(CCD5)/GP[41]
YI4(CCD4)/GP[40]
YI3(CCD3)/GP[39]
YI2(CCD2)/GP[38]
YI1(CCD1)/GP[37]
YI0(CCD0)/GP[36]
RN6 RPACK8-10
30 YOUT7
10,30 YOUT6
10,30 YOUT5
10,30 YOUT4_FASTBOOT
10,30 YOUT3_BOOTMODE3
10,30 YOUT2_BOOTMODE2
10,30 YOUT1_BOOTMODE1
10,30 YOUT0_BOOTMODE0
YOUT7/GP[29]
YOUT6/GP[28]
YOUT5/GP[27]
YOUT4/GP[26]/(FASTBOOT)
YOUT3/GP[25]/(BOOTMODE3)
YOUT2/GP[24]/(BOOTMODE2)
YOUT1/GP[23]/(BOOTMODE1)
YOUT0/GP[22]/(BOOTMODE0)
5,11,30 CLK_OUT
11 VID_CLK
R183 NO-POP
R268 NO-POP
30 VPBECLK
30 VCLK
27,30 HD
27 PCLK
27,30 VD
R184 0
R27 22
R311 0
R312 0
R313 0
VPBECLK/GP[30]
VCLK/GP[31]
HD/GP[52]
PCLK/GP[54]
VD/GP[53]
22 PCICLK
22 AD18
22 AD16
22 AD17
22 PCBE2n
22 PFRAMEn
22 PIDRDYn
23 PTRDYn
23 PDEVSELn
23 PPERn
VLYNQ_CLOCK/PCICLK/GP[57]
HD0/VLYNQ_SCRUN/AD18/GP[58]
HD1/VLYNQ_RXD0/AD16/GP[59]
HD2/VLYNQ_RXD1/AD17/GP[60]
HD3/VLYNQ_RXD2/PCBE2n/GP[61]
HD4/VLYNQ_RXD3/PFRAMEn/GP[62]
HD5/VLYNQ_TXD0/PIRDYn/GP[63]
HD6/VLYNQ_TXD1/PTRDYn/GP[64]
HD7/VLYNQ_TXD2/PDEVSELn/GP[65]
HD8/VLYNQ_TXD3/PPERRn/GP[66]
23 COL
23 CRS
23 TXD3
23 TXD2
23 TXD1
HD9/MCOL/PSTOPn/GP[7]
HD10/MCRS/PSERRn/GP[68]
HD11/MTXD3/PCBE1/GP[69]
HD12/MTXD2/PPAR/GP[70]
HD13/MTXD1/AD14/GP[71]
23 TXD0
23 TXCLK
HD14/MTXD0/AD15/GP[72]
HD15/MTXCLK/AD12/GP[73]
R2/EM_BA[0]/GP[6]/(AEM1)
B2/EM_BA[1]/GP[5]/(AEM0)
R1/EM_A[0]/GP[7]/(AEM2)
G1/EM_A[1]/(ALE)/GP[9]/(AEAW1)
B1/EM_A[2]/(CLE)/GP[8]/(AEAW0)
B0/LCD_FIELD/EM_A[3]/GP[11]
R0/EM_A[4]/GP[10]/(AEAW2)
C_FIELD/EM_A[21]/GP[34]
EM_A[5]/AD19/GP[96]
EM_A[6]/AD20/GP[95]
EM_A[7]/AD22/GP[94]
EM_A[8]/AD21/GP[93]
EM_A[9]/PIDSEL/GP[92]
EM_A[10]/AD23/GP[91]
EM_A[11]/AD24/GP[90]
EM_A[12]/PCBE3/GP[89]
CI7(CCD15)/EM_A[13]/AD25/EM_D[0]/GP[51]
CI6(CCD14)/EM_A[14]/AD27/EM_D[1]/GP[50]
CI5(CCD13)/EM_A[15]/AD29/EM_D[2]/GP[49]
CI4(CCD12)/EM_A[16]/PGNTn/EM_D[3]/GP[48]
CI3(CCD11)/EM_A[17]/AD31/EM_D[4]/GP[47]
CI2(CCD10)/EM_A[18]/PRSTn/EM_D[5]/GP[46]
CI1(CCD9)/EM_A[19]/PREQn/EM_D[6]/GP[45]
CI0(CCD8)/EM_A[20]/PINTAn/EM_D[7]/GP[44]
C_WE/RNW/GP[35]
G0/EM_CS2n/GP[12]
LCD_OE/EM_CS3n/GP[13]
VSYNC/EM_CS4n/GP[32]
HSYNC/EM_CS5n/GP[33]
AD26
AD28
AD30
HRNW/MRXCLK/AD8/GP[77]
HINTn/MRXD3/AD6/GP[82]
HRDYn/MRXD2/PCBE0/GP[80]
HDS1n/MRXD1/AD7/GP[79]
HDS2n/MRXD0/AD9/GP[78]
HCNTL0/MRXER/AD10/GP[76]
HCNTL1/MTXEN/AD11/GP[75]
HHWIL/MRXDV/AD13/GP[74]
HCSn/MDCLK/AD5/GP[81]
HASn/MDIO/AD3/GP[83]
VCC_3V3
R168 NO-POP
R167 20K
R165 NO-POP
R166 20K
RN2 RPACK8-22
EM_BA0 10,16,17,30
EM_BA1 10,16,17,30
EM_A00 10,16,17,30
EM_A01_ALE 16,17,30
EM_A02_CLE 16,17,30
EM_A03 16,17,30
EM_A04 10,16,17,30
C_FIELD 15,30
EM_A05 22
EM_A06 22
EM_A07 22
EM_A08 22
EM_A09 22
EM_A10 22
EM_A11 22
EM_A12 22
CI7 22
CI6 22
CI5 22
CI4 22
CI3 22
CI2 22
CI1 22
CI0 22
D13 RPACK8-22 RN14B
C19 RPACK8-22 RN14A
C18 RPACK8-22 RN14C
E19 RPACK8-22 RN14D
F19 RPACK8-22 RN14E
C_WEN 30
EM_CS2 15
LCD_OE 30
VSYNC 30
HSYNC 30
AD26 22
AD28 22
AD30 22
RXCLK 23
RXD3 23
RXD2 23
RXD1 23
RXD0 23
RXER 23
TXEN 23
RXDV 23
MDC 23
MDIO 23
SPECTRUM DIGITAL INCORPORATED
Title: TMS320DM6437 Evaluation Module
Page Contents: DSP VP/EMIF/PCI/ENET
Size:B
DWG NO 509102-0001
Revision: D
Date: Monday, March 19, 2007
Sheet 6 of 34

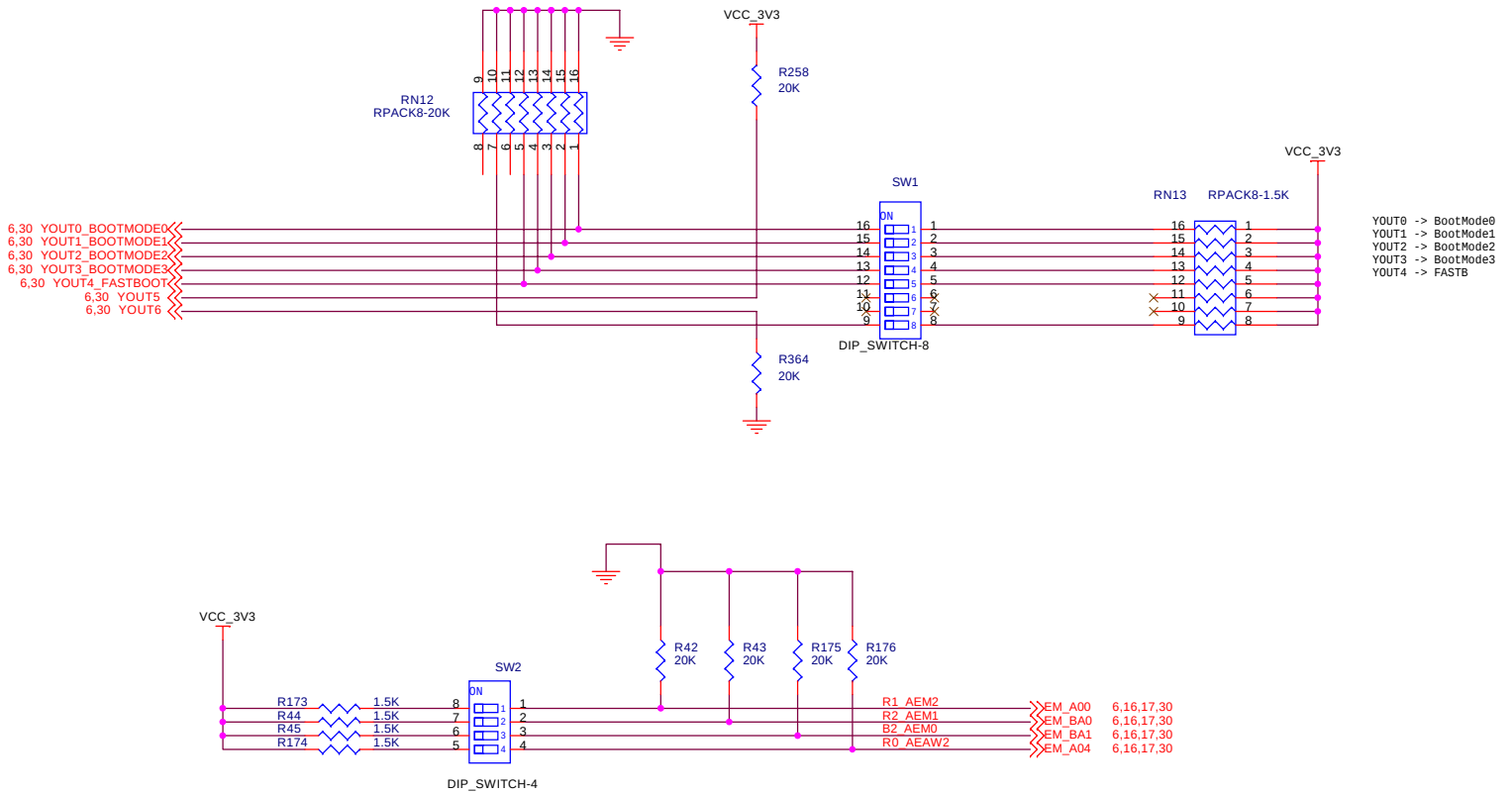

14 DDR_D[0:31]
DDR_A[0:12] 14
DM6437
U1C
DDR_D0 T1
DDR_D1 T2
DDR_D2 U1
DDR_D3 U2
DDR_D4 V2
DDR_D5 U3
DDR_D6 V3
DDR_D7 W3
DDR_D8 V4
DDR_D9 W4
DDR_D10 U5
DDR_D11 V5
DDR_D12 W5
DDR_D13 V6
DDR_D14 W6
DDR_D15 V7
DDR_D16 W14
DDR_D17 V14
DDR_D18 W15
DDR_D19 V15
DDR_D20 U15
DDR_D21 W16
DDR_D22 V16
DDR_D23 T17
DDR_D24 V17
DDR_D25 U17
DDR_D26 T18
DDR_D27 W17
DDR_D28 U18
DDR_D29 V18
DDR_D30 U19
DDR_D31 T19
DDR_A[0] W13
DDR_A[1] U13
DDR_A[2] V13
DDR_A[3] U12
DDR_A[4] V12
DDR_A[5] W12
DDR_A[6] W11
DDR_A[7] V11
DDR_A[8] V10
DDR_A[9] U11
DDR_A[10] U10
DDR_A[11] W10
DDR_A[12] W9
DDR_BS[0] U8
DDR_BS[1] V9
DDR_BS[2] U9
DDR_CASn T7
DDR_RASn U7
DDR_WEn T8
DDR_CKE V8
DDR_CSn T9
DDR_DQM[0] T4
DDR_DQM[1] T6
DDR_DQM[2] T14
DDR_DQM[3] T16
DDR_CLK0n W8
DDR_CLK0 W7
DDR_ZN T10
DDR_ZP T11
DDR_VDDDLL T12
DDR_VSSDLL T13
RSV5 R13
DDR_VREF T15
DDR_DQS[0] U4
DDR_DQS[1] U6
DDR_DQS[2] U14
DDR_DQS[3] U16
14 DDR_DQS0
14 DDR_DQS1
14 DDR_DQS2
14 DDR_DQS3
RN7 RPACK4-22
RN8 RPACK4-22
RN9 RPACK4-22
RN10 RPACK4-22
RN11 RPACK4-22
BDDR_A0
BDDR_A1
BDDR_A2
BDDR_A3
BDDR_A4
BDDR_A5
BDDR_A6
BDDR_A7
BDDR_A8
BDDR_A9
BDDR_A10
BDDR_A11
BDDR_A12
BDDR_BS00
BDDR_BS01
BDDR_BS02
BDDR_CAS
BDDR_RAS
BDDR_WE
BDDR_CKE
BDDR_CS
BDDR_DQM0
BDDR_DQM1
BDDR_DQM2
BDDR_DQM3
BDDR_CLK_N
BDDR_CLK
DDR_PADREFN R32 200
DDR_PADREFP R33 200
R34 0
R29 22
R86 22
R84 22
R87 22
R85 22
R30 10
R31 10
DDR_A0
DDR_A1
DDR_A2
DDR_A3
DDR_A4
DDR_A5
DDR_A6
DDR_A7
DDR_A8
DDR_A9
DDR_A10
DDR_A11
DDR_A12
DDR_BS00
DDR_BS01
DDR_BS02
DDR_CAS
DDR_RAS
DDR_WE
DDR_CKE
DDR_CS
DDR_DQM0
DDR_DQM1
DDR_DQM2
DDR_DQM3
DDR_CLK_N
DDR_CLK
DDR_BS00 14
DDR_BS01 14
DDR_BS02 14
DDR_CAS 14
DDR_RAS 14
DDR_WE 14
DDR_CKE 14
DDR_CS 14
DDR_DQM0 14
DDR_DQM1 14
DDR_DQM2 14
DDR_DQM3 14
DDR_CLK_N 14
DDR_CLK 14
VCC_1V8
VCC_1V8
C111 0.1uF
R76 1K 1%
C5 0.1uF
R77 1K 1%
14 VREF_STL
VREF_STL
C9 0.1uF
TP4 TP-30
TP5 TP-30
TP6 TP-30
R35 0.1
L3 BLM21PG221SN1D
C8 0.1uF
C10 1uF
Designers must use routing techniques from
DDR2 PCB
Layout Application Note
TP7 TP-60
TP8 TP-60
TP9 TP-60
TP10 TP-60
SPECTRUM DIGITAL INCORPORATED
Title: TMS320DM6437 Evaluation Module
Page Contents: DSP DDR Interface
Size:B
DWG NO 509102-0001
Revision: D
Date: Monday, March 19, 2007
Sheet 7 of 34



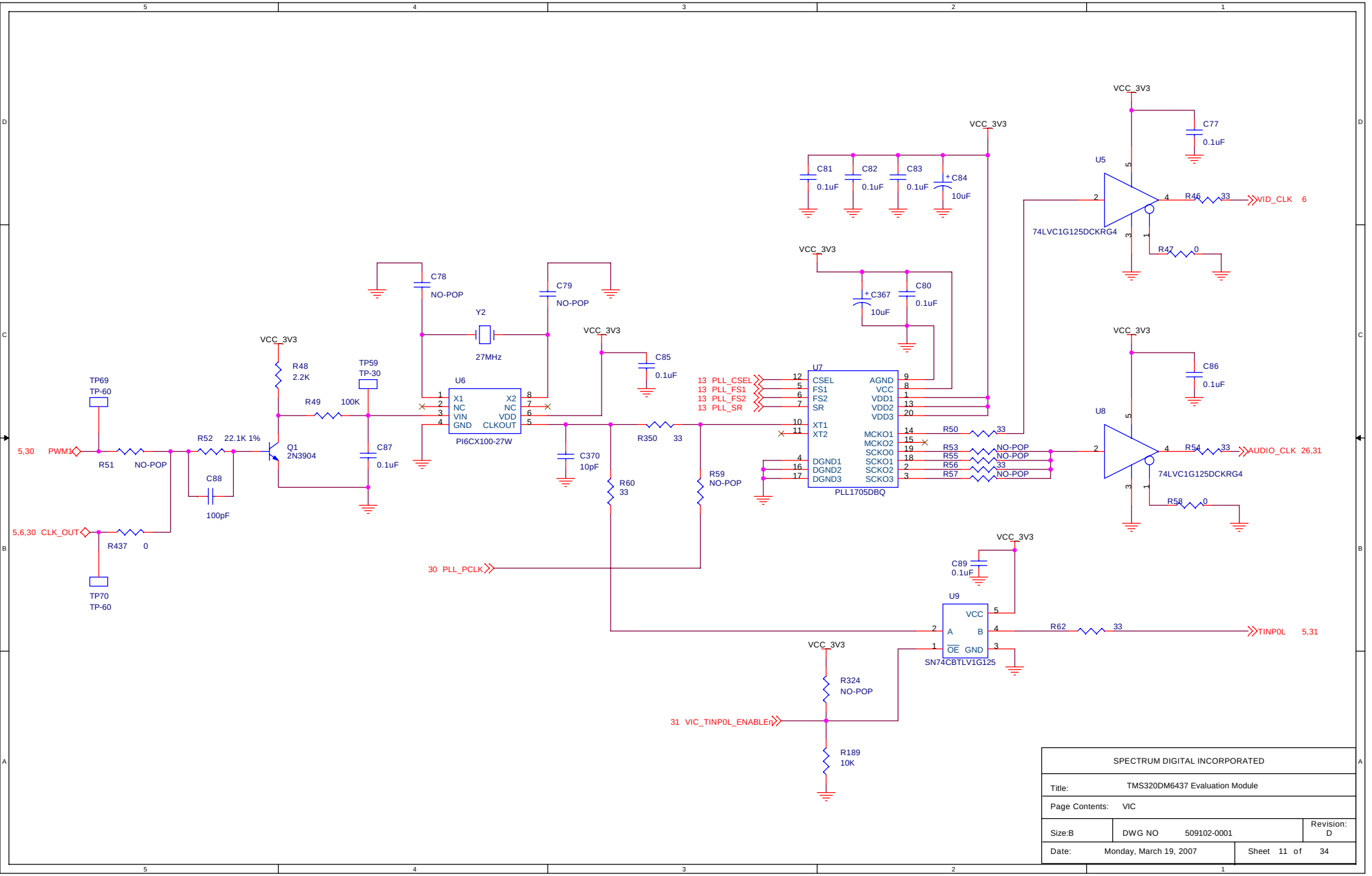
SPECTRUM DIGITAL INCORPORATED		
Title: TMS320DM6437 Evaluation Module		
Page Contents: DSP DACS/GND-pins		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 8 of 34	



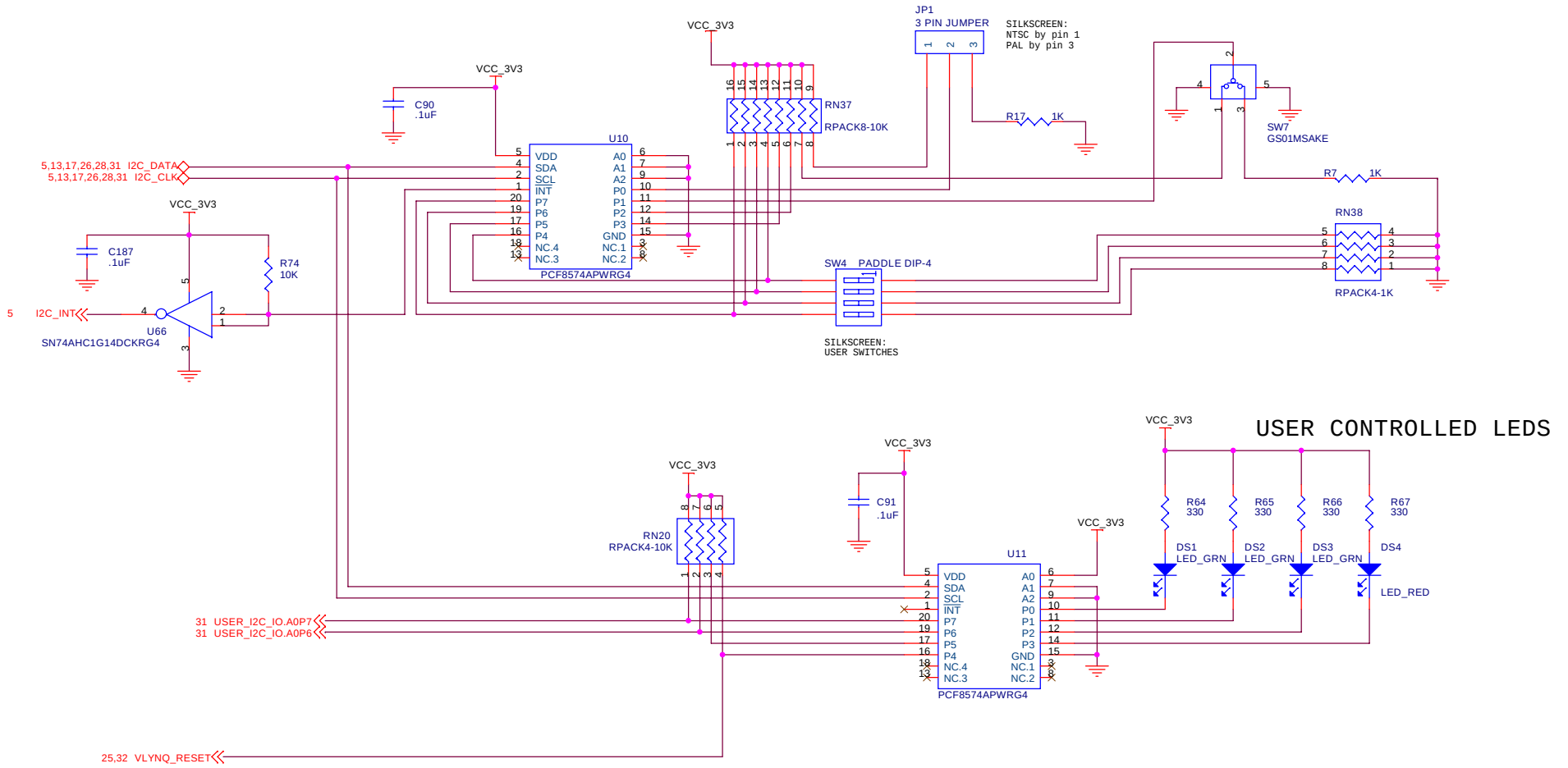
SPECTRUM DIGITAL INCORPORATED		
Title: TMS320DM6437 Evaluation Module		
Page Contents: DSP Power Pins		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 9 of 34	



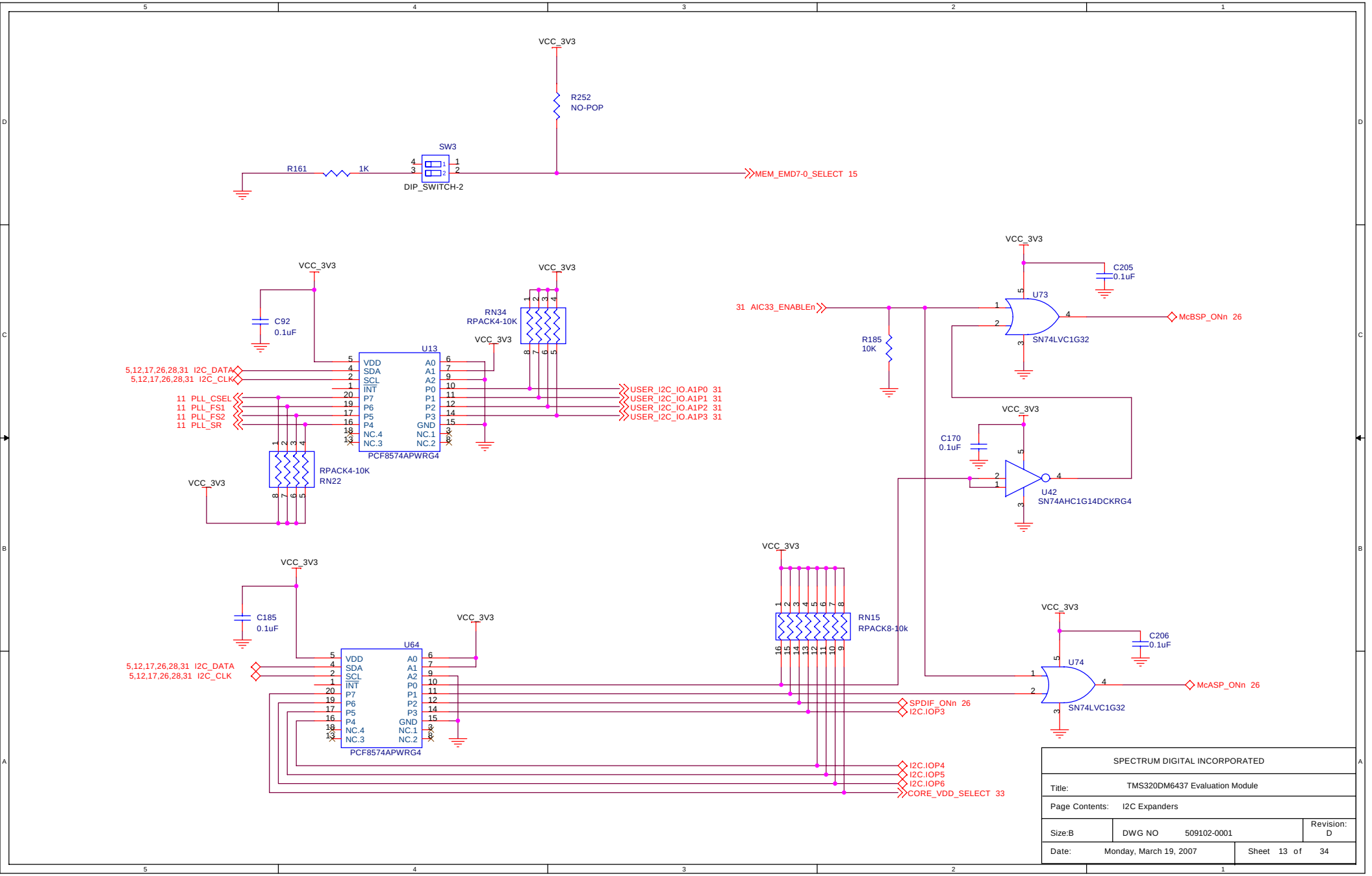
SPECTRUM DIGITAL INCORPORATED			
Title:	TMS320DM6437 Evaluation Module		
Page Contents:	Boot DIP Switches		
Size:B	DWG NO 509102-0001		Revision: D
Date:	Monday, March 19, 2007	Sheet 10 of 34	



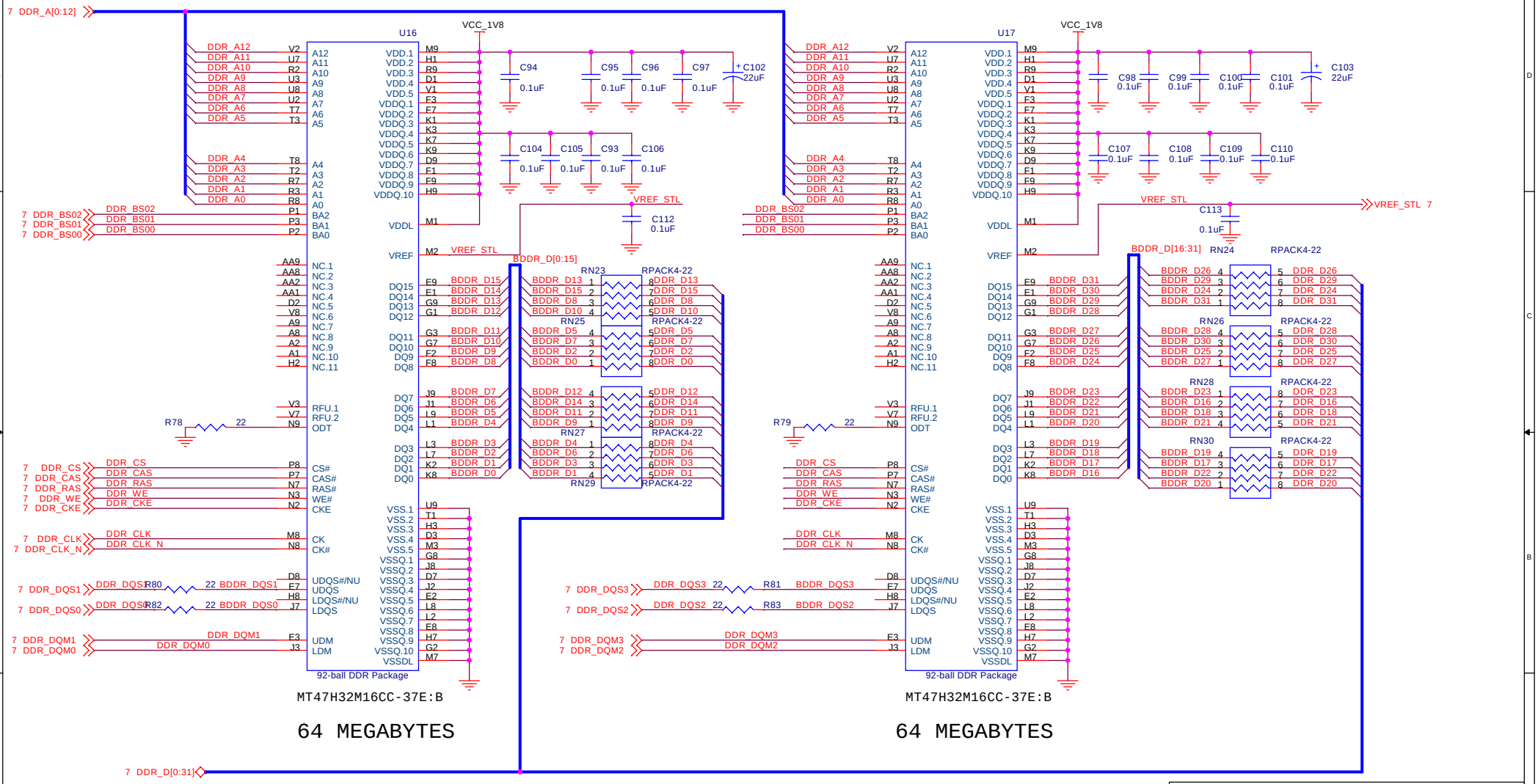
SPECTRUM DIGITAL INCORPORATED		
Title: TMS320DM6437 Evaluation Module		
Page Contents: VIC		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 11 of 34	



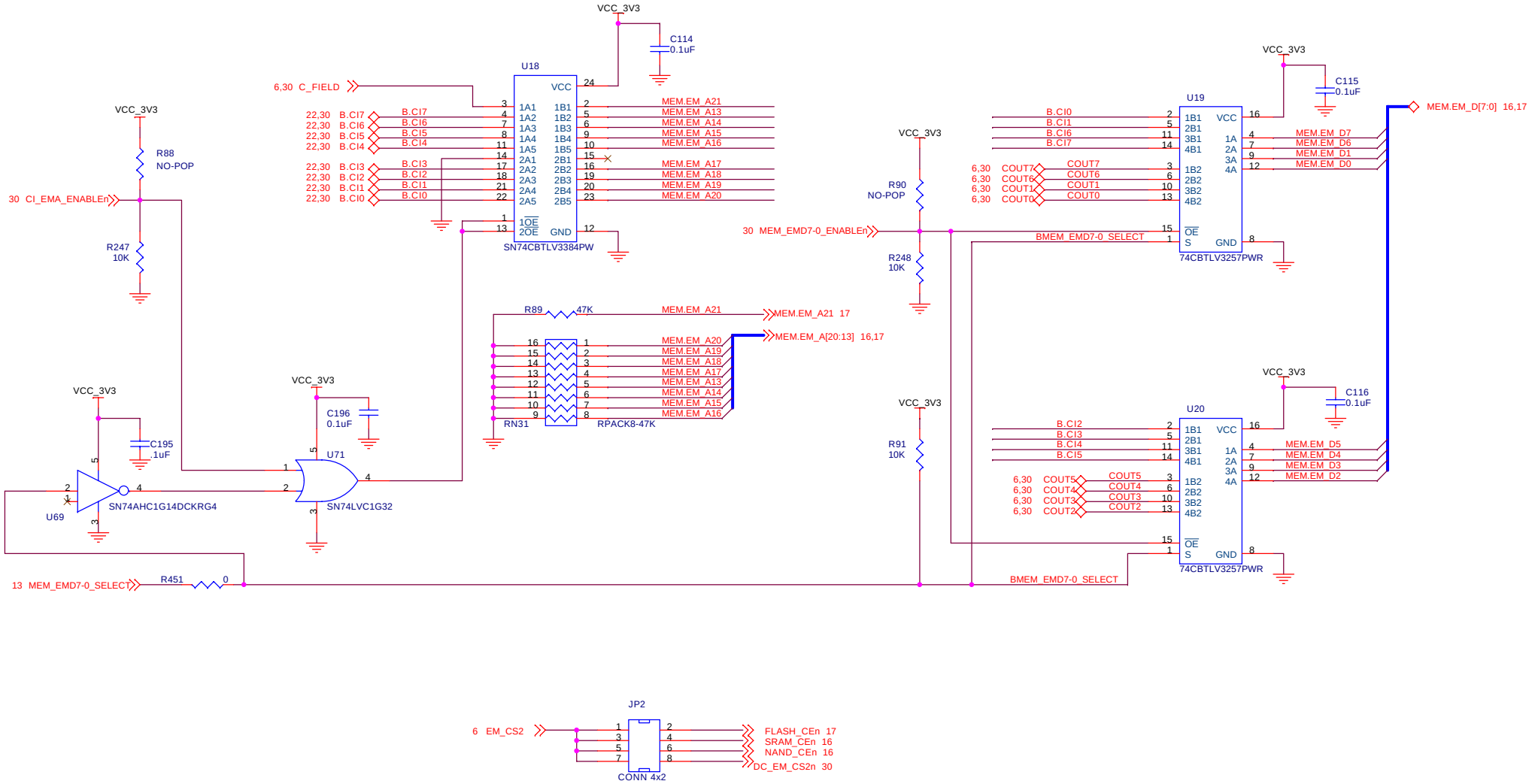
SPECTRUM DIGITAL INCORPORATED		
Title: TMS320DM6437 Evaluation Module		
Page Contents: I2C Expanders		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 12 of 34	



SPECTRUM DIGITAL INCORPORATED		
Title:	TMS320DM6437 Evaluation Module	
Page Contents:	I2C Expanders	
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 13 of 34	



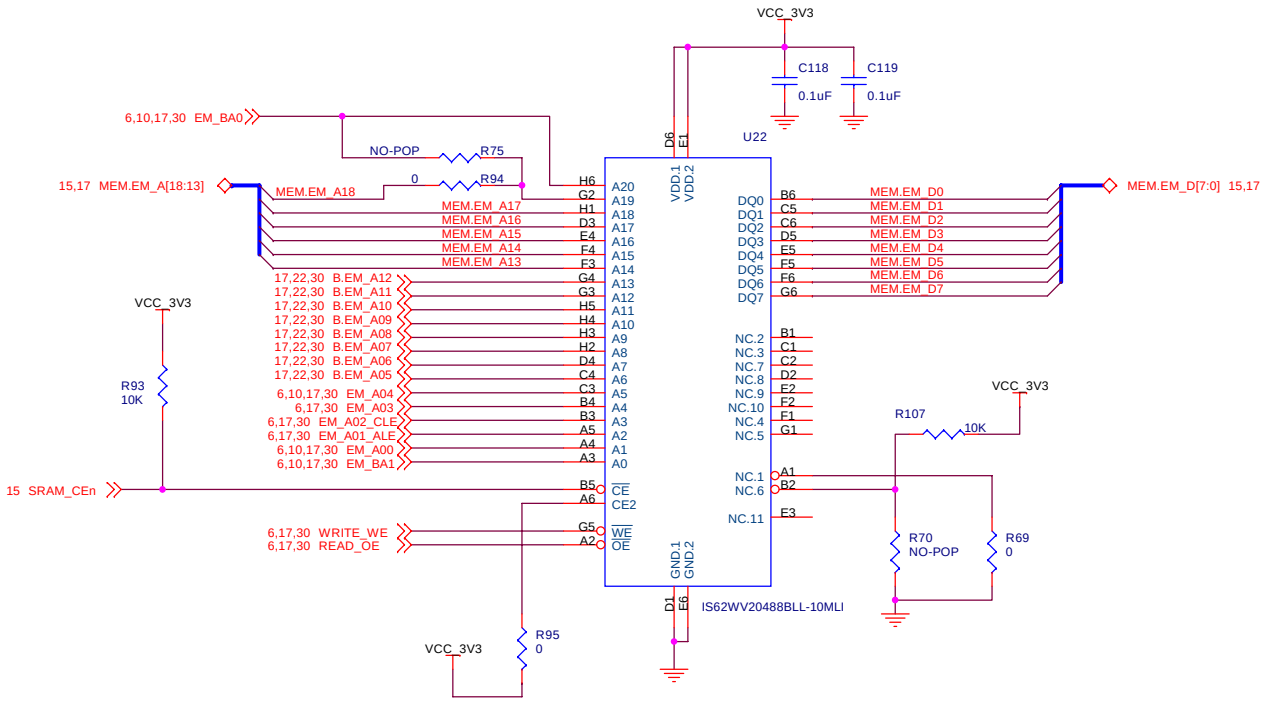
SPECTRUM DIGITAL INCORPORATED		
Title: TMS320DM6437 Evaluation Module		
Page Contents: DDR2 Memories		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 14 of 34	

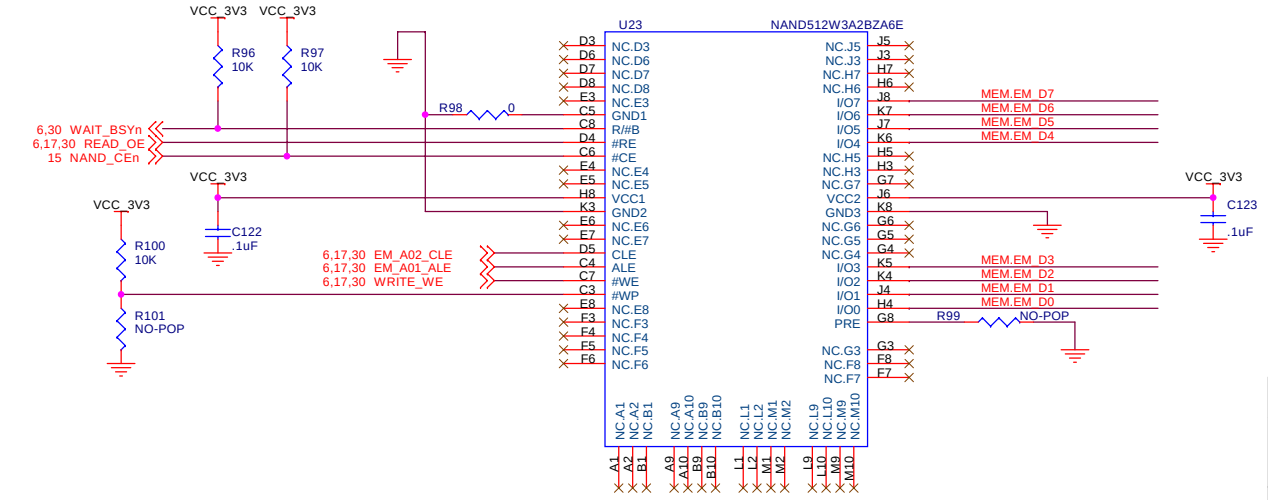


EM_CS2 SELECT

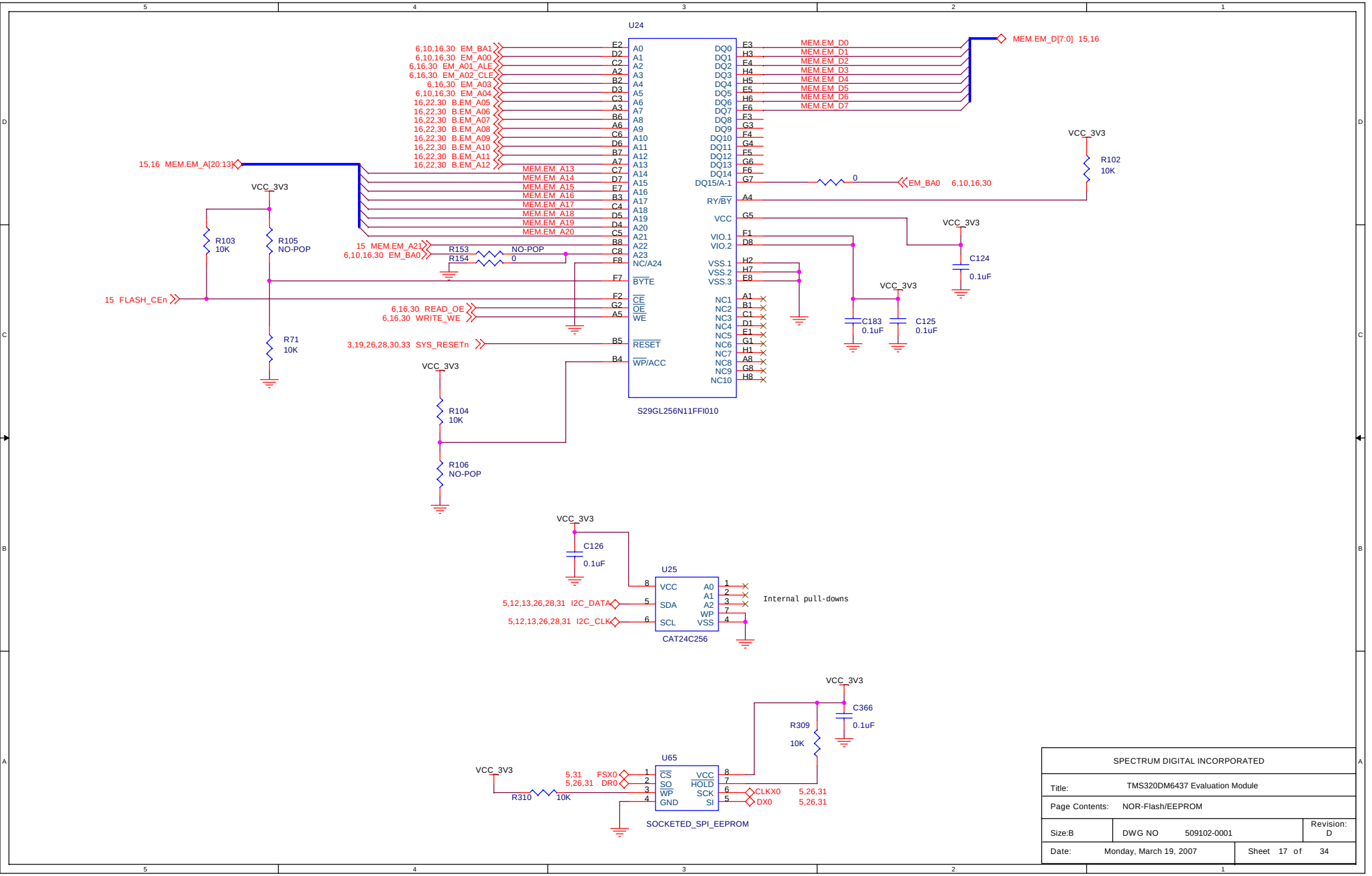
PIN 1 TO 2 FLASH
PIN 3 TO 4 SRAM
PIN 5 TO 6 NAND FLASH
PIN 7 TO 8 DAUGHTERCARD

SPECTRUM DIGITAL INCORPORATED		
Title: TMS320DM6437 Evaluation Module		
Page Contents: EMIF Muxing		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 15 of 34	

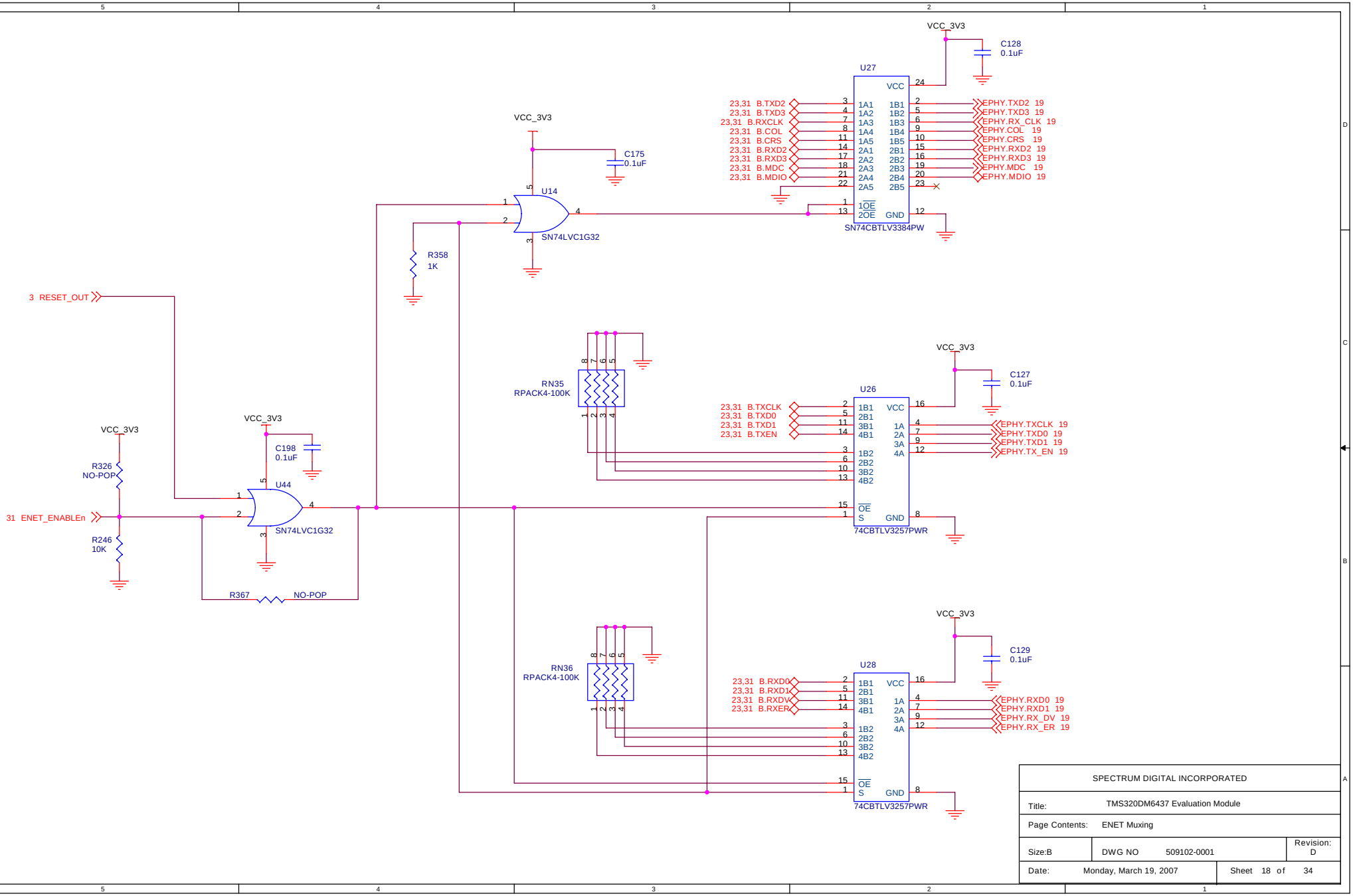


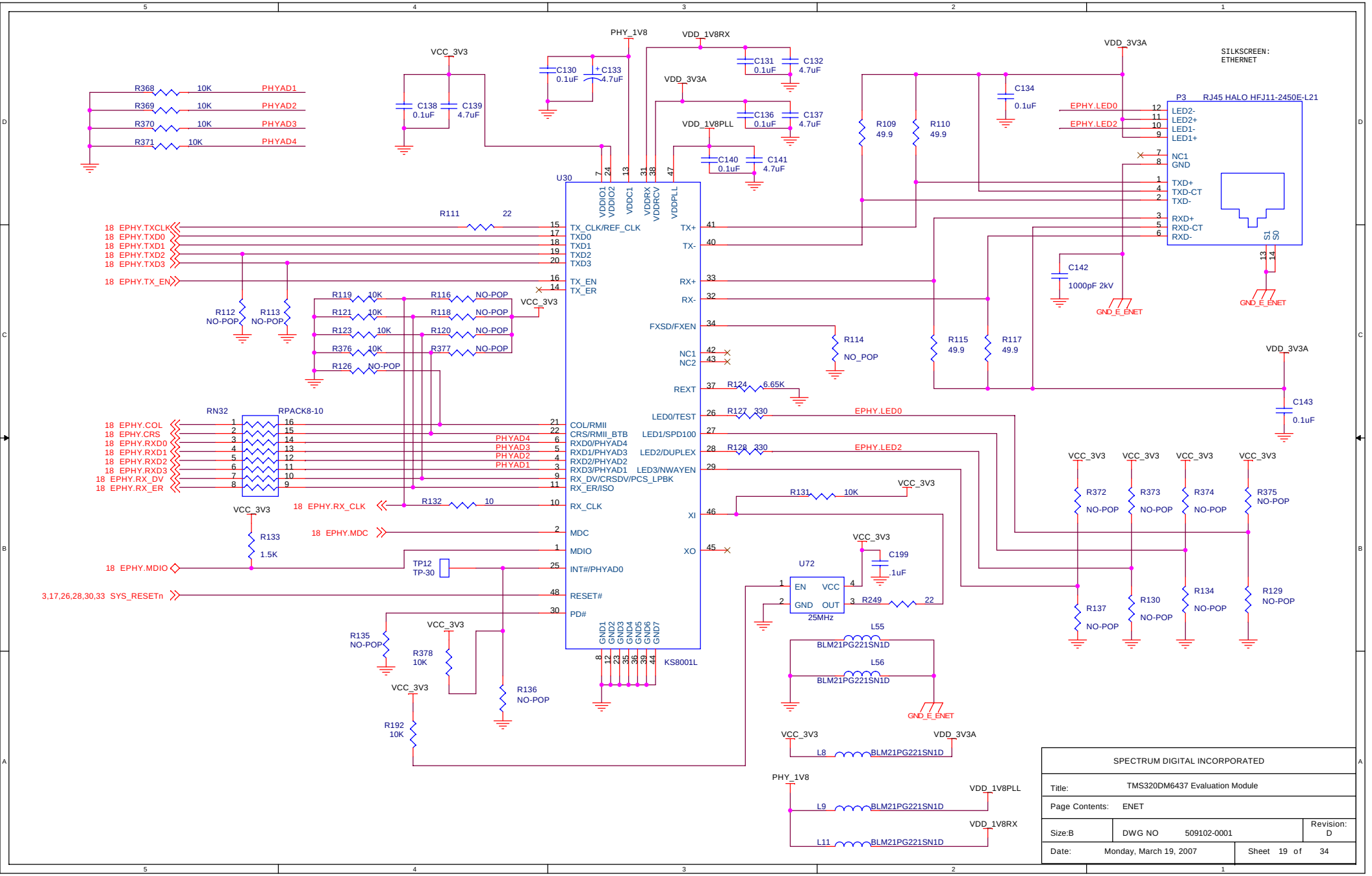


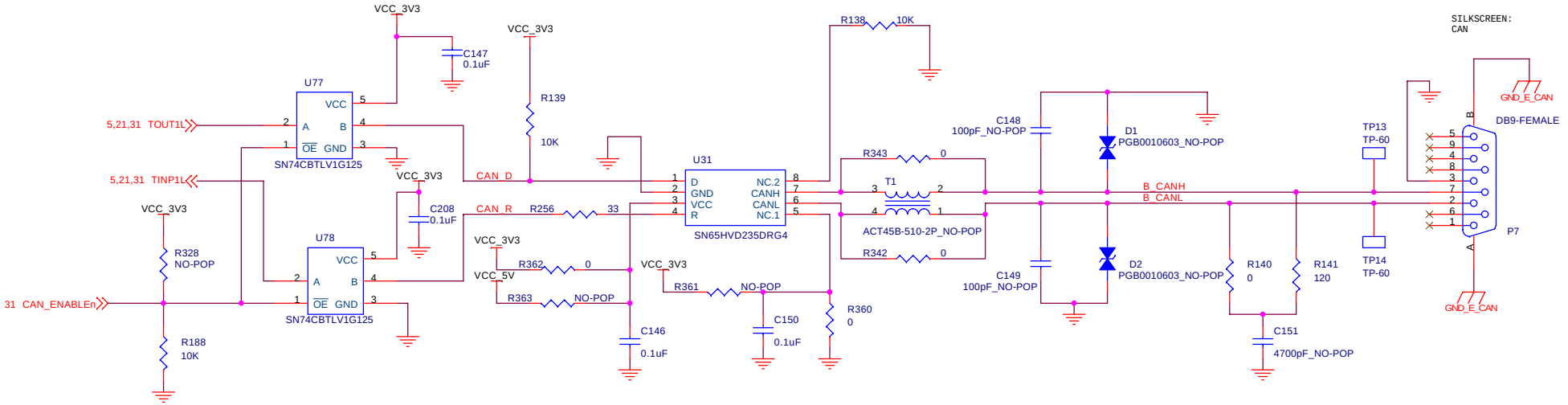
SPECTRUM DIGITAL INCORPORATED		
Title: TMS320DM6437 Evaluation Module		
Page Contents: NAND-Flash/SRAM		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 16 of 34	



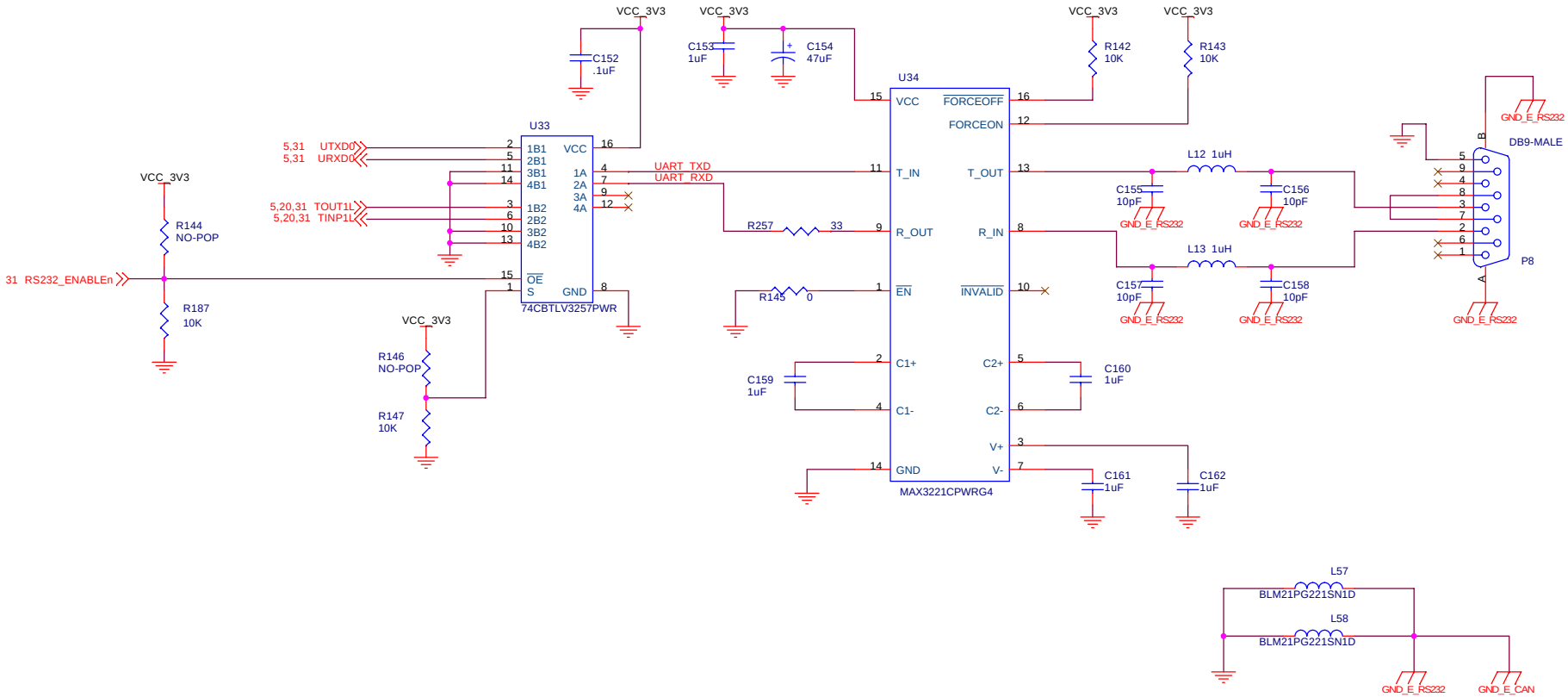
SPECTRUM DIGITAL INCORPORATED		
Title: TMS320DM6437 Evaluation Module		
Page Contents: NOR-Flash/EEPROM		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 17 of 34	


VCC_3V3
C128
0.1uF
U27
VCC
24
23,31 B.TXD2
23,31 B.TXD3
23,31 B.RXCLK
23,31 B.COL
23,31 B.CRS
23,31 B.RXD2
23,31 B.RXD3
23,31 B.MDC
23,31 B.MDIO
EPHY.TXD2 19
EPHY.TXD3 19
EPHY.RX_CLK 19
EPHY.COL 19
EPHY.CRS 19
EPHY.RXD2 19
EPHY.RXD3 19
EPHY.MDC 19
EPHY.MDIO 19
1OE
2OE
GND
12
SN74CBTLV3384PW
VCC_3V3
C175
0.1uF
U14
SN74LVC1G32
R358
1K
3 RESET_OUT
RN35
RPACK4-100K
VCC_3V3
C127
0.1uF
U26
23,31 B.TXCLK
23,31 B.TXD0
23,31 B.TXD1
23,31 B.TXEN
EPHY.TXCLK 19
EPHY.TXD0 19
EPHY.TXD1 19
EPHY.TX_EN 19
74CBTLV3257PWR
VCC_3V3
R326
NO-POP
C198
0.1uF
U44
31 ENET_ENABLEn
R246
10K
SN74LVC1G32
R367
NO-POP
RN36
RPACK4-100K
VCC_3V3
C129
0.1uF
U28
23,31 B.RXD0
23,31 B.RXD1
23,31 B.RXDV
23,31 B.RXER
EPHY.RXD0 19
EPHY.RXD1 19
EPHY.RX_DV 19
EPHY.RX_ER 19
74CBTLV3257PWR
SPECTRUM DIGITAL INCORPORATED
Title: TMS320DM6437 Evaluation Module
Page Contents: ENET Muxing
Size:B
DWG NO 509102-0001
Revision: D
Date: Monday, March 19, 2007
Sheet 18 of 34

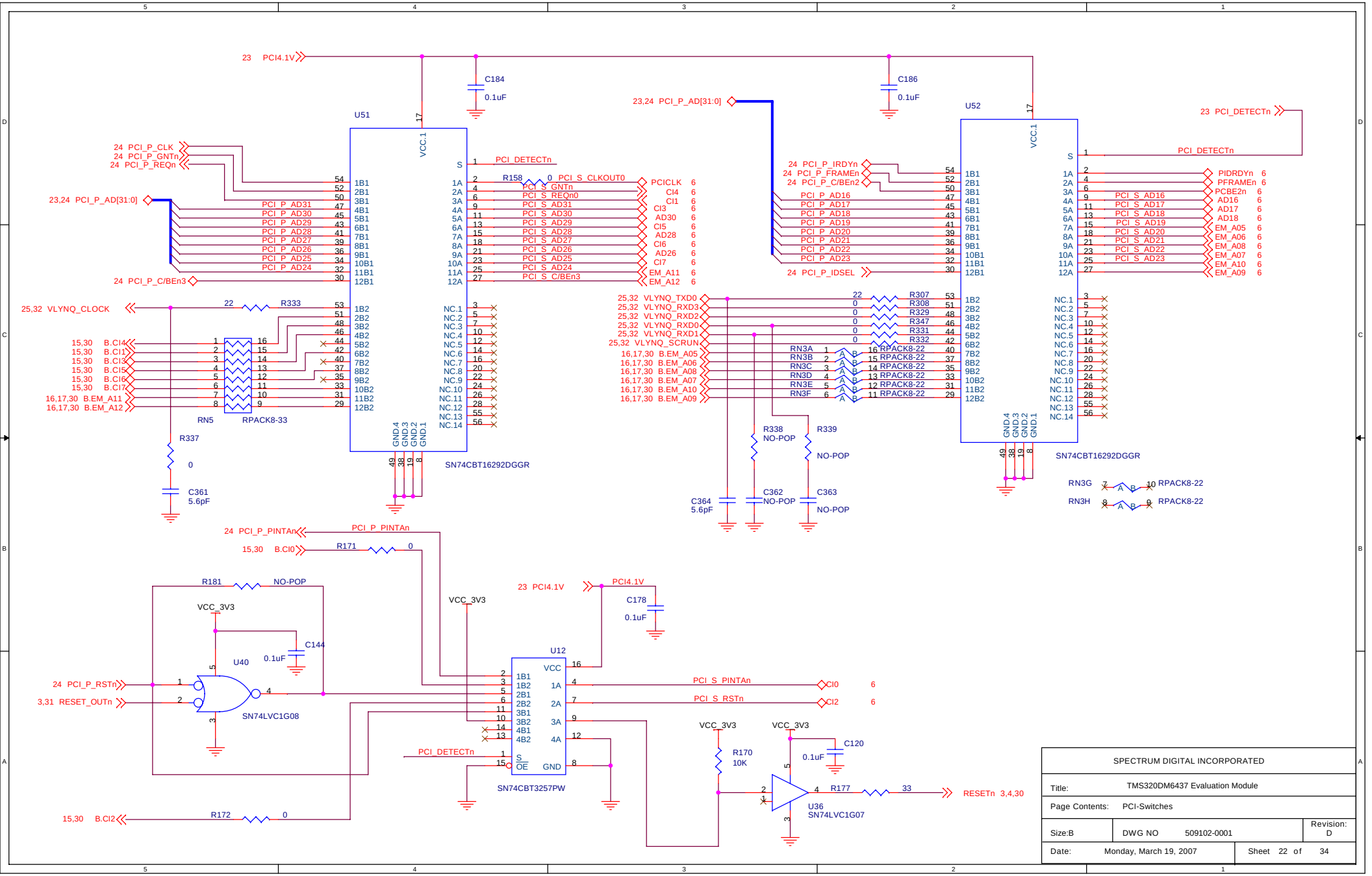

SILKSCREEN: ETHERNET
U30
KS8001L
U72
P3 RJ45 HALO HFJ11-2450E-L21
PHY_1V8
VDD_1V8RX
VDD_1V8PLL
VDD_3V3A
VCC_3V3
TX_CLK/REF_CLK
TXD0
TXD1
TXD2
TXD3
TX_EN
TX_ER
COL/RMII
CRS/RMII_BTB
RXD0/PHYAD4
RXD1/PHYAD3
RXD2/PHYAD2
RXD3/PHYAD1
RX_DV/CRSDV/PCS_LPBK
RX_ER/ISO
RX_CLK
MDC
MDIO
INT#/PHYAD0
RESET#
PD#
TX+
TX-
RX+
RX-
FXSD/FXEN
NC1
NC2
REXT
LED0/TEST
LED1/SPD100
LED2/DUPLEX
LED3/NWAYEN
XI
XO
EPHY.LED0
EPHY.LED2
SYS_RESETn
GND_E_ENET
25MHz
SPECTRUM DIGITAL INCORPORATED
Title: TMS320DM6437 Evaluation Module
Page Contents: ENET
Size:B
DWG NO 509102-0001
Revision: D
Date: Monday, March 19, 2007
Sheet 19 of 34

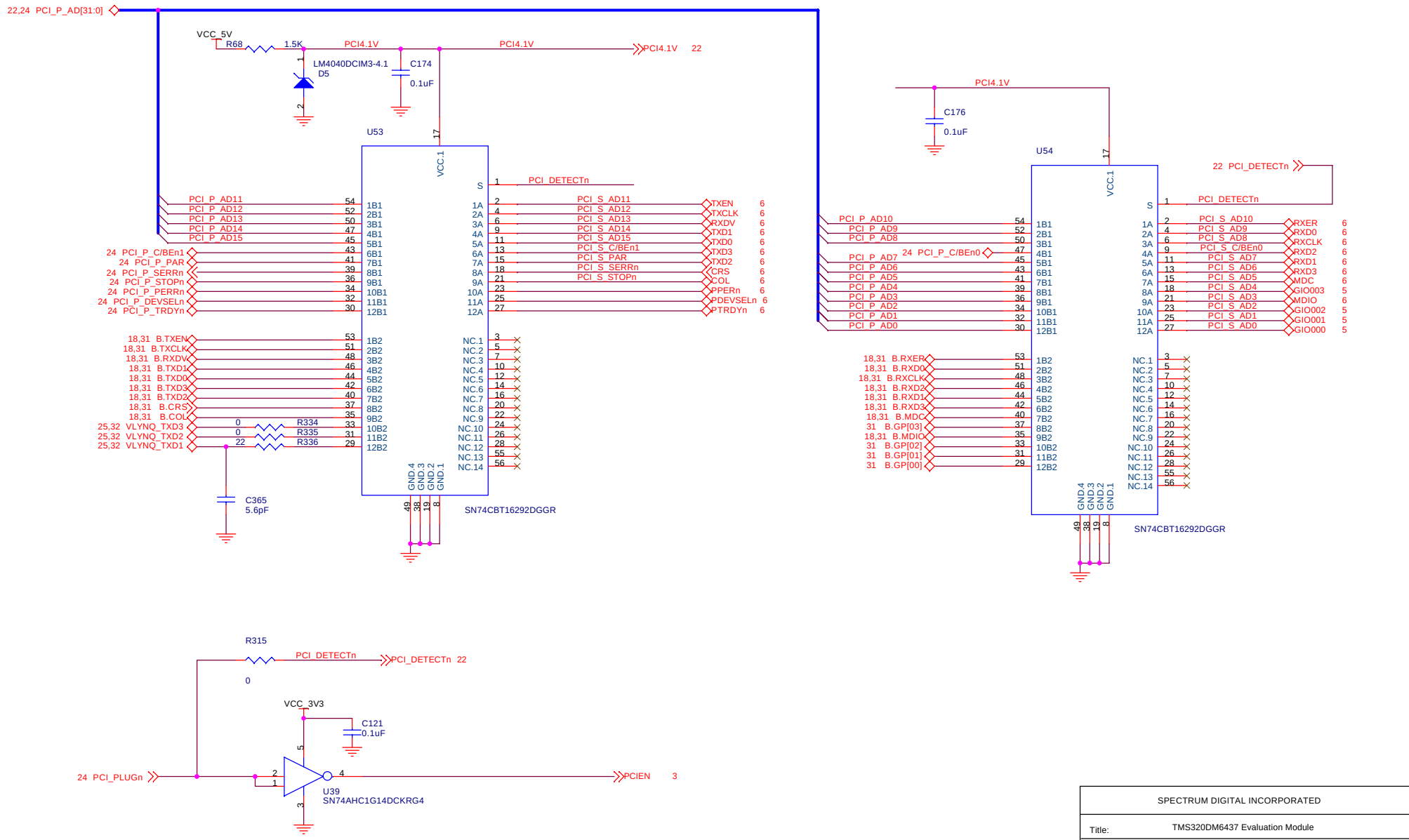


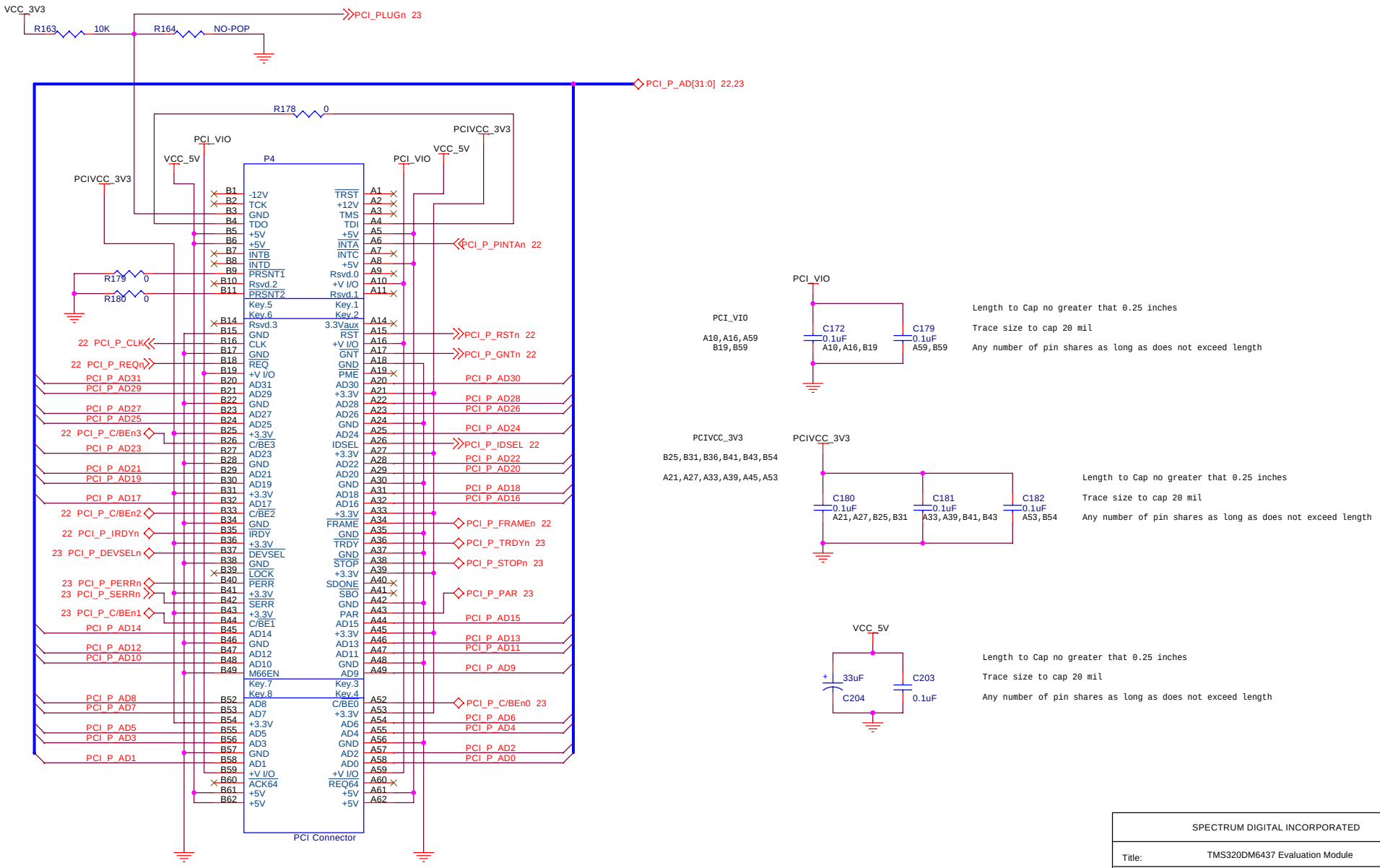
Texas Instruments		
Title: TMS320DM6437 Evaluation Module		
Page Contents: CAN		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 20 of 34	



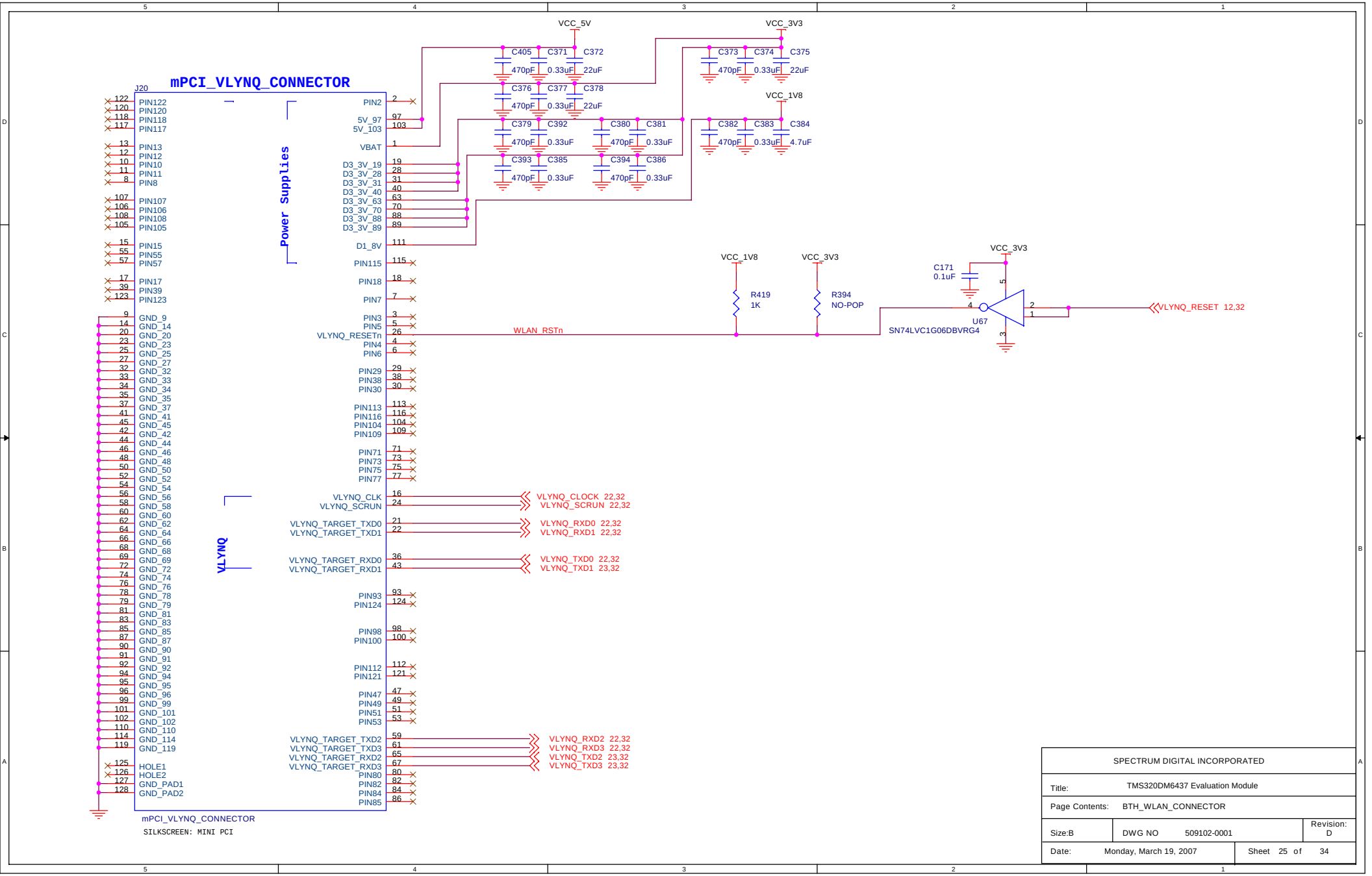
SPECTRUM DIGITAL INCORPORATED		
Title: TMS320DM6437 Evaluation Module		
Page Contents: RS232		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 21 of 34	


23 PCI4.1V
C184
0.1uF
U51
VCC.1
17
24 PCI_P_CLK
24 PCI_P_GNTn
24 PCI_P_REQn
23,24 PCI_P_AD[31:0]
PCI_P_AD31
PCI_P_AD30
PCI_P_AD29
PCI_P_AD28
PCI_P_AD27
PCI_P_AD26
PCI_P_AD25
PCI_P_AD24
24 PCI_P_C/BEn3
25,32 VLYNQ_CLOCK
R333
22
15,30 B.CI4
15,30 B.CI1
15,30 B.CI3
15,30 B.CI5
15,30 B.CI6
15,30 B.CI7
16,17,30 B.EM_A11
16,17,30 B.EM_A12
RN5
RPACK8-33
R337
0
C361
5.6pF
S
PCI_DETECTn
R158
0
PCI_S_CLKOUT0
PCI_S_GNTn
PCI_S_REQn0
PCI_S_AD31
PCI_S_AD30
PCI_S_AD29
PCI_S_AD28
PCI_S_AD27
PCI_S_AD26
PCI_S_AD25
PCI_S_AD24
PCI_S_C/BEn3
PCICLK
CI4
CI1
CI3
AD30
CI5
AD28
CI6
AD26
CI7
EM_A11
EM_A12
NC.1
NC.2
NC.3
NC.4
NC.5
NC.6
NC.7
NC.8
NC.9
NC.10
NC.11
NC.12
NC.13
NC.14
GND.4
GND.3
GND.2
GND.1
SN74CBT16292DGGR
C186
0.1uF
23,24 PCI_P_AD[31:0]
U52
VCC.1
17
24 PCI_P_IRDYn
24 PCI_P_FRAMEn
24 PCI_P_C/BEn2
PCI_P_AD16
PCI_P_AD17
PCI_P_AD18
PCI_P_AD19
PCI_P_AD20
PCI_P_AD21
PCI_P_AD22
PCI_P_AD23
24 PCI_P_IDSEL
25,32 VLYNQ_TXD0
25,32 VLYNQ_RXD3
25,32 VLYNQ_RXD2
25,32 VLYNQ_RXD0
25,32 VLYNQ_RXD1
25,32 VLYNQ_SCRUN
16,17,30 B.EM_A05
16,17,30 B.EM_A06
16,17,30 B.EM_A08
16,17,30 B.EM_A07
16,17,30 B.EM_A10
16,17,30 B.EM_A09
R307
R308
R329
R347
R331
R332
RN3A
RN3B
RN3C
RN3D
RN3E
RN3F
RPACK8-22
R338
NO-POP
R339
NO-POP
C364
5.6pF
C362
NO-POP
C363
NO-POP
S
PCI_DETECTn
PIDRDYn
PFRAMEn
PCBE2n
AD16
AD17
AD18
EM_A05
EM_A06
EM_A08
EM_A07
EM_A10
EM_A09
PCI_S_AD16
PCI_S_AD17
PCI_S_AD18
PCI_S_AD19
PCI_S_AD20
PCI_S_AD21
PCI_S_AD22
PCI_S_AD23
NC.1
NC.2
NC.3
NC.4
NC.5
NC.6
NC.7
NC.8
NC.9
NC.10
NC.11
NC.12
NC.13
NC.14
GND.4
GND.3
GND.2
GND.1
SN74CBT16292DGGR
RN3G
RN3H
RPACK8-22
23 PCI_DETECTn
24 PCI_P_PINTAn
PCI_P_PINTAn
15,30 B.CI0
R171
0
R181
NO-POP
VCC_3V3
C144
0.1uF
U40
24 PCI_P_RSTn
3,31 RESET_OUTn
SN74LVC1G08
23 PCI4.1V
PCI4.1V
C178
0.1uF
VCC_3V3
U12
VCC
PCI_S_PINTAn
PCI_S_RSTn
CI0
CI2
PCI_DETECTn
S
OE
GND
SN74CBT3257PW
VCC_3V3
VCC_3V3
R170
10K
C120
0.1uF
U36
SN74LVC1G07
R177
33
RESETn 3,4,30
15,30 B.CI2
R172
0
SPECTRUM DIGITAL INCORPORATED
Title: TMS320DM6437 Evaluation Module
Page Contents: PCI-Switches
Size:B
DWG NO 509102-0001
Revision: D
Date: Monday, March 19, 2007
Sheet 22 of 34

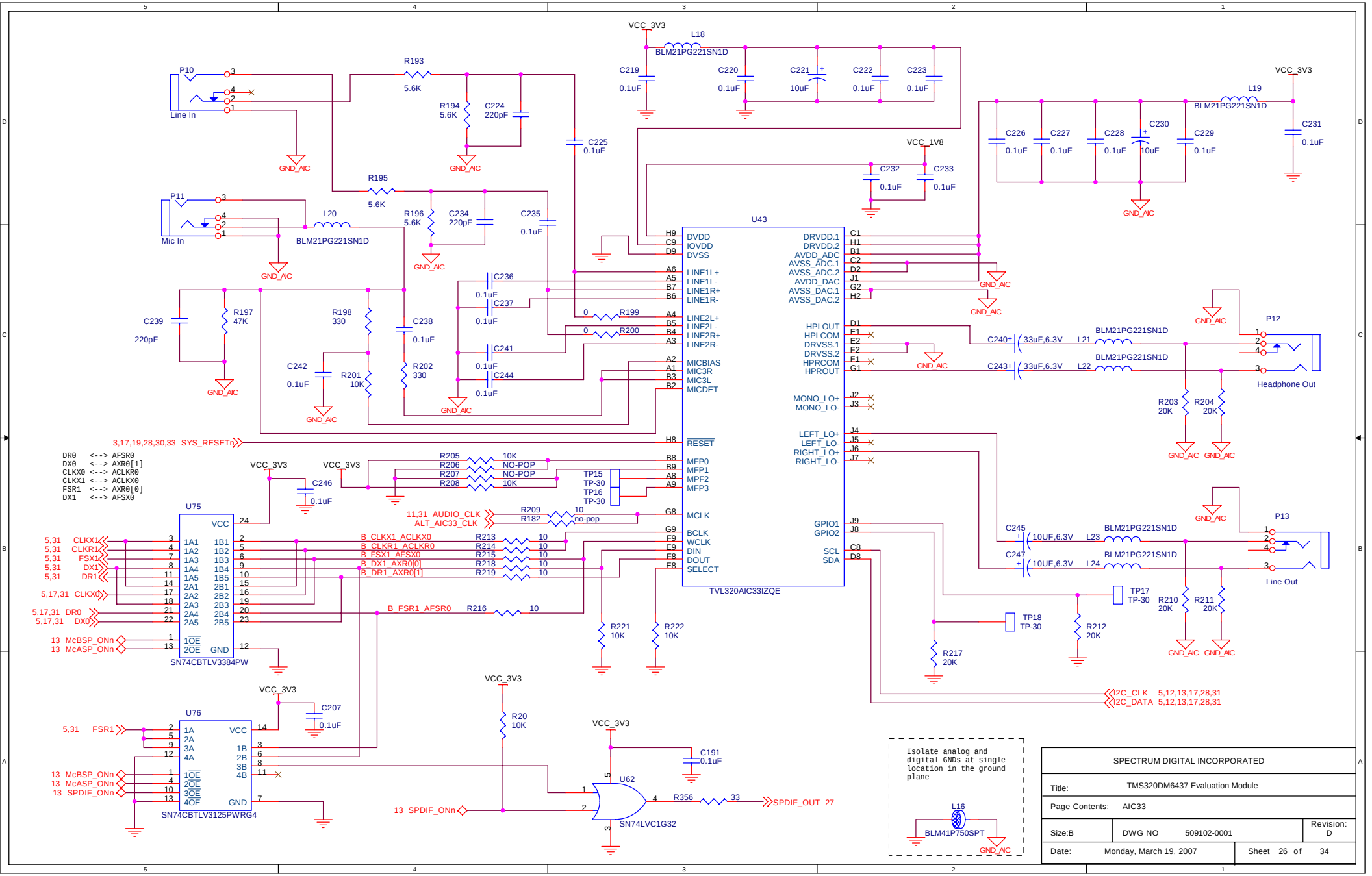

22,24 PCI_P_AD[31:0]
VCC_5V
R68
1.5K
PCI4.1V
LM4040DCIM3-4.1
D5
C174
0.1uF
PCI4.1V 22
U53
SN74CBT16292DGGR
PCI_DETECTn
PCI_P_AD11
PCI_P_AD12
PCI_P_AD13
PCI_P_AD14
PCI_P_AD15
24 PCI_P_C/BEn1
24 PCI_P_PAR
24 PCI_P_SERRn
24 PCI_P_STOPn
24 PCI_P_PERRn
24 PCI_P_DEVSELn
24 PCI_P_TRDYn
PCI_S_AD11
PCI_S_AD12
PCI_S_AD13
PCI_S_AD14
PCI_S_AD15
PCI_S_C/BEn1
PCI_S_PAR
PCI_S_SERRn
PCI_S_STOPn
TXEN
TXCLK
RXDV
TXD1
TXD0
TXD3
TXD2
CRS
COL
PPERn
PDEVSELn
PTRDYn
18,31 B.TXEN
18,31 B.TXCLK
18,31 B.RXDV
18,31 B.TXD1
18,31 B.TXD0
18,31 B.TXD3
18,31 B.TXD2
18,31 B.CRS
18,31 B.COL
25,32 VLYNQ_TXD3
25,32 VLYNQ_TXD2
25,32 VLYNQ_TXD1
R334
R335
R336
C365
5.6pF
PCI4.1V
C176
0.1uF
U54
SN74CBT16292DGGR
22 PCI_DETECTn
PCI_S_AD10
PCI_S_AD9
PCI_S_AD8
PCI_S_C/BEn0
PCI_S_AD7
PCI_S_AD6
PCI_S_AD5
PCI_S_AD4
PCI_S_AD3
PCI_S_AD2
PCI_S_AD1
PCI_S_AD0
RXER
RXD0
RXCLK
RXD2
RXD1
RXD3
MDC
GIO003
MDIO
GIO002
GIO001
GIO000
18,31 B.RXER
18,31 B.RXD0
18,31 B.RXCLK
18,31 B.RXD2
18,31 B.RXD1
18,31 B.RXD3
18,31 B.MDC
31 B.GP[03]
18,31 B.MDIO
31 B.GP[02]
31 B.GP[01]
31 B.GP[00]
R315
PCI_DETECTn
PCI_DETECTn 22
VCC_3V3
C121
0.1uF
24 PCI_PLUGn
U39
SN74AHC1G14DCKRG4
PCIEN 3
SPECTRUM DIGITAL INCORPORATED
Title: TMS320DM6437 Evaluation Module
Page Contents: PCI-Muxing
Size:B
DWG NO 509102-0001
Revision: D
Date: Monday, March 19, 2007
Sheet 23 of 34

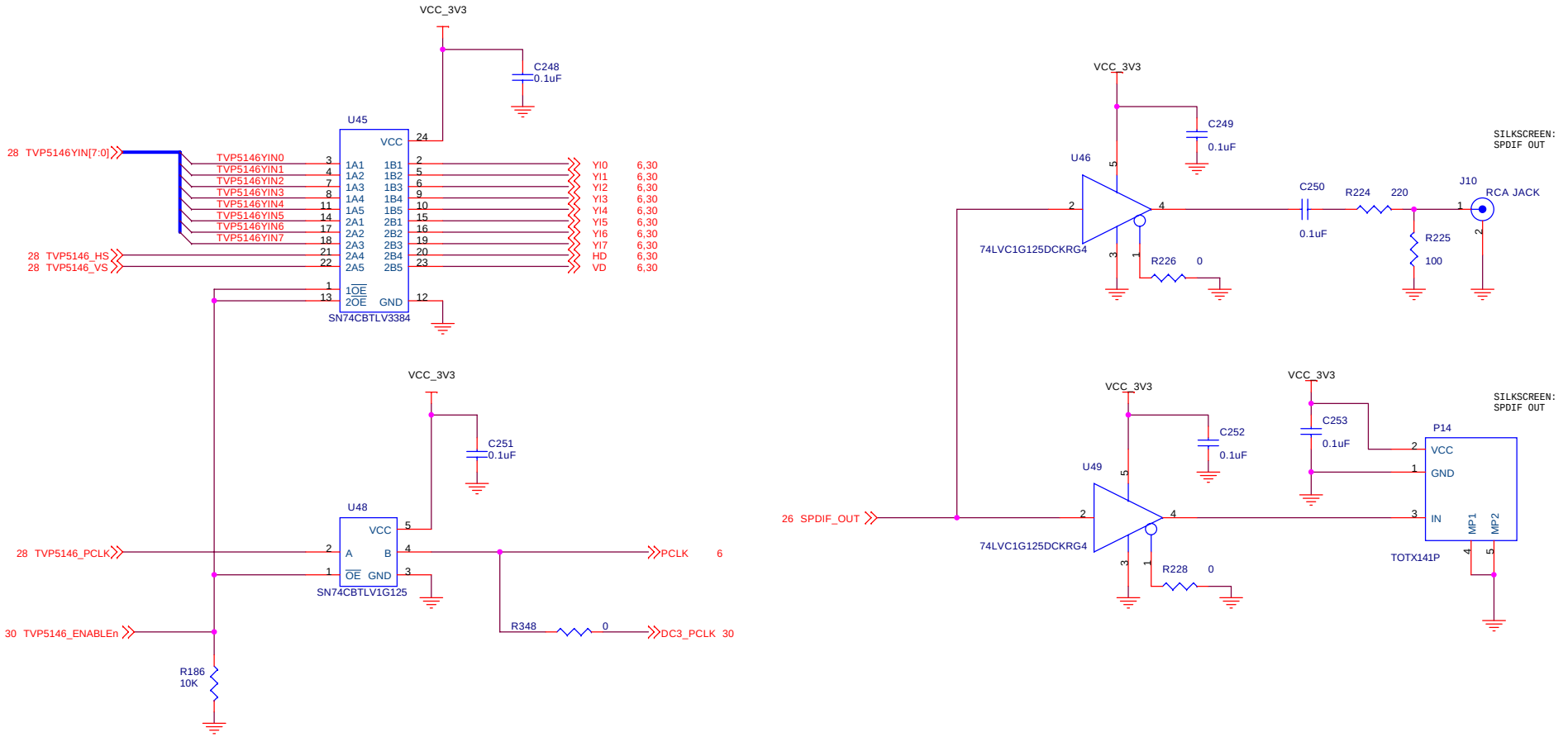


SPECTRUM DIGITAL INCORPORATED		
Title: TMS320DM6437 Evaluation Module		
Page Contents: PCI-Connector		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 24 of 34	

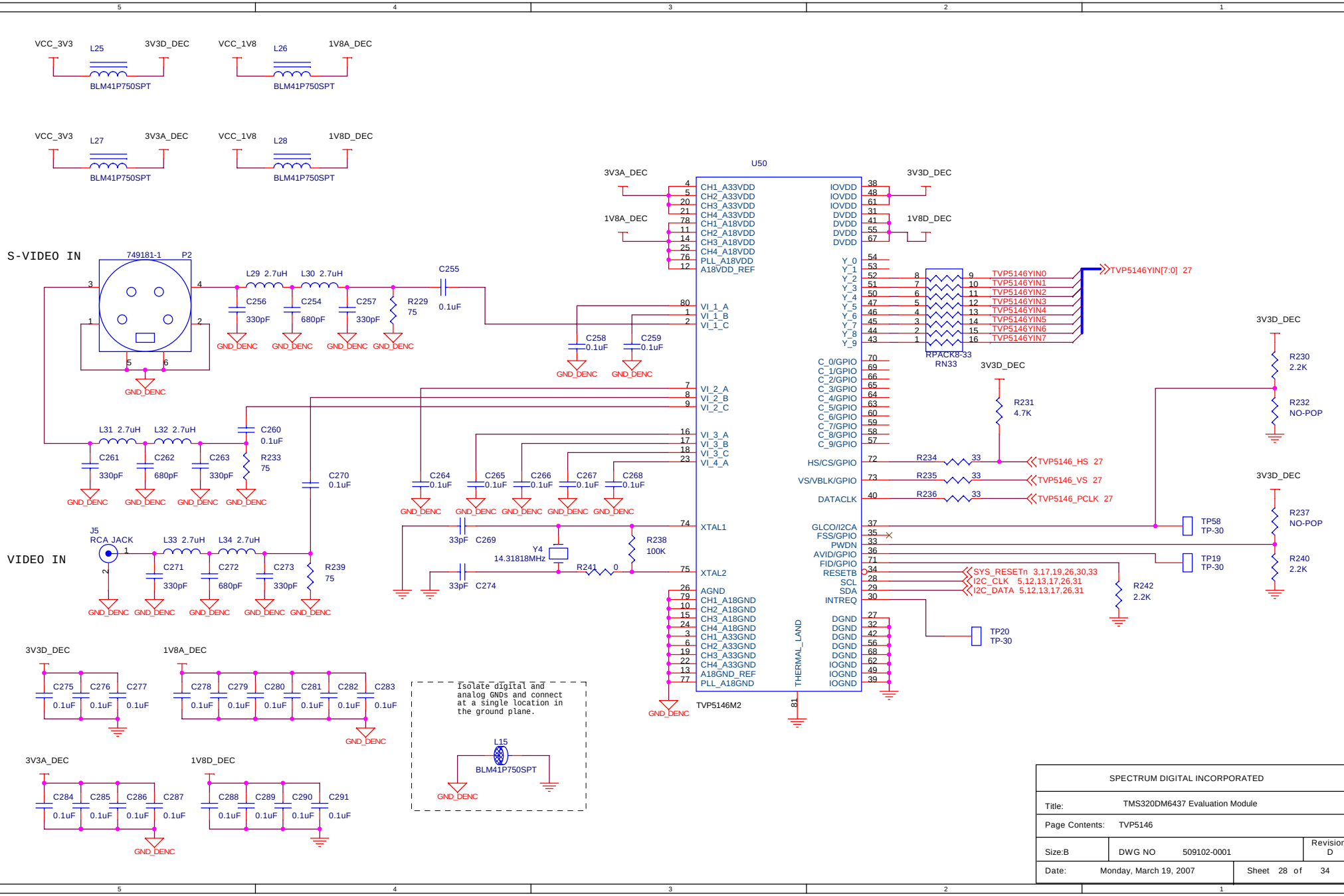


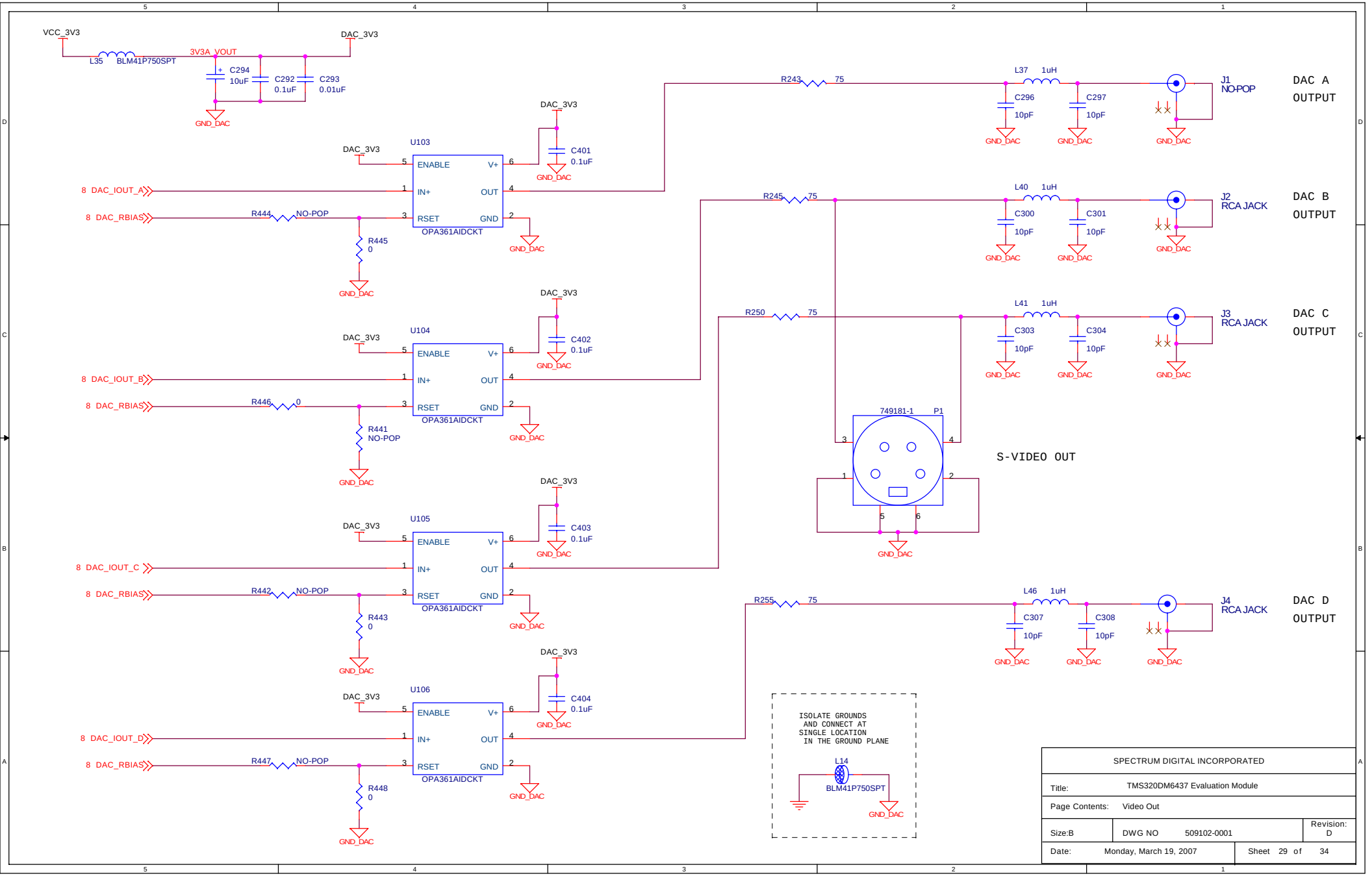
SPECTRUM DIGITAL INCORPORATED		
Title:	TMS320DM6437 Evaluation Module	
Page Contents:	BTH_WLAN_CONNECTOR	
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 25 of 34	


VCC_3V3
L18
BLM21PG221SN1D
C219 0.1uF
C220 0.1uF
C221 10uF
C222 0.1uF
C223 0.1uF
VCC_1V8
C232 0.1uF
C233 0.1uF
L19
BLM21PG221SN1D
C226 0.1uF
C227 0.1uF
C228 0.1uF
C230 10uF
C229 0.1uF
C231 0.1uF
P10
Line In
R193 5.6K
R194 5.6K
C224 220pF
C225 0.1uF
P11
Mic In
L20
BLM21PG221SN1D
R195 5.6K
R196 5.6K
C234 220pF
C235 0.1uF
C239 220pF
R197 47K
R198 330
C238 0.1uF
R202 330
C242 0.1uF
R201 10K
C236 0.1uF
C237 0.1uF
C241 0.1uF
C244 0.1uF
R199 0
R200 0
U43
TVL320AIC33IZQE
DVDD
IOVDD
DVSS
LINE1L+
LINE1L-
LINE1R+
LINE1R-
LINE2L+
LINE2L-
LINE2R+
LINE2R-
MICBIAS
MIC3R
MIC3L
MICDET
RESET
MFP0
MFP1
MPF2
MFP3
MCLK
BCLK
WCLK
DIN
DOUT
SELECT
DRVDD.1
DRVDD.2
AVDD_ADC
AVSS_ADC.1
AVSS_ADC.2
AVDD_DAC
AVSS_DAC.1
AVSS_DAC.2
HPLOUT
HPLCOM
DRVSS.1
DRVSS.2
HPRCOM
HPROUT
MONO_LO+
MONO_LO-
LEFT_LO+
LEFT_LO-
RIGHT_LO+
RIGHT_LO-
GPIO1
GPIO2
SCL
SDA
GND_AIC
P12
Headphone Out
C240+ 33uF,6.3V
C243+ 33uF,6.3V
BLM21PG221SN1D
L21
L22
R203 20K
R204 20K
P13
Line Out
C245 10UF,6.3V
C247 10UF,6.3V
L23
L24
R210 20K
R211 20K
R212 20K
R217 20K
TP17 TP-30
TP18 TP-30
3,17,19,28,30,33 SYS_RESETn
DR0 <--> AFSR0
DX0 <--> AXR0[1]
CLKX0 <--> ACLKR0
CLKX1 <--> ACLKX0
FSR1 <--> AXR0[0]
DX1 <--> AFSX0
R205 10K
R206 NO-POP
R207 NO-POP
R208 10K
TP15 TP-30
TP16 TP-30
C246 0.1uF
11,31 AUDIO_CLK
ALT_AIC33_CLK
R209 10
R182 no-pop
U75
SN74CBTLV3384PW
5,31 CLKX1
5,31 CLKR1
5,31 FSX1
5,31 DX1
5,31 DR1
5,17,31 CLKX0
5,17,31 DR0
5,17,31 DX0
13 McBSP_ONn
13 McASP_ONn
B_CLKX1_ACLKX0
B_CLKR1_ACLKR0
B_FSX1_AFSX0
B_DX1_AXR0[0]
B_DR1_AXR0[1]
B_FSR1_AFSR0
R213 10
R214 10
R215 10
R218 10
R219 10
R216 10
R221 10K
R222 10K
U76
SN74CBTLV3125PWRG4
5,31 FSR1
13 McBSP_ONn
13 McASP_ONn
13 SPDIF_ONn
C207 0.1uF
R20 10K
U62
SN74LVC1G32
C191 0.1uF
R356 33
SPDIF_OUT 27
I2C_CLK 5,12,13,17,28,31
I2C_DATA 5,12,13,17,28,31
Isolate analog and digital GNDs at single location in the ground plane
L16
BLM41P750SPT
SPECTRUM DIGITAL INCORPORATED
Title: TMS320DM6437 Evaluation Module
Page Contents: AIC33
Size:B
DWG NO 509102-0001
Revision: D
Date: Monday, March 19, 2007
Sheet 26 of 34

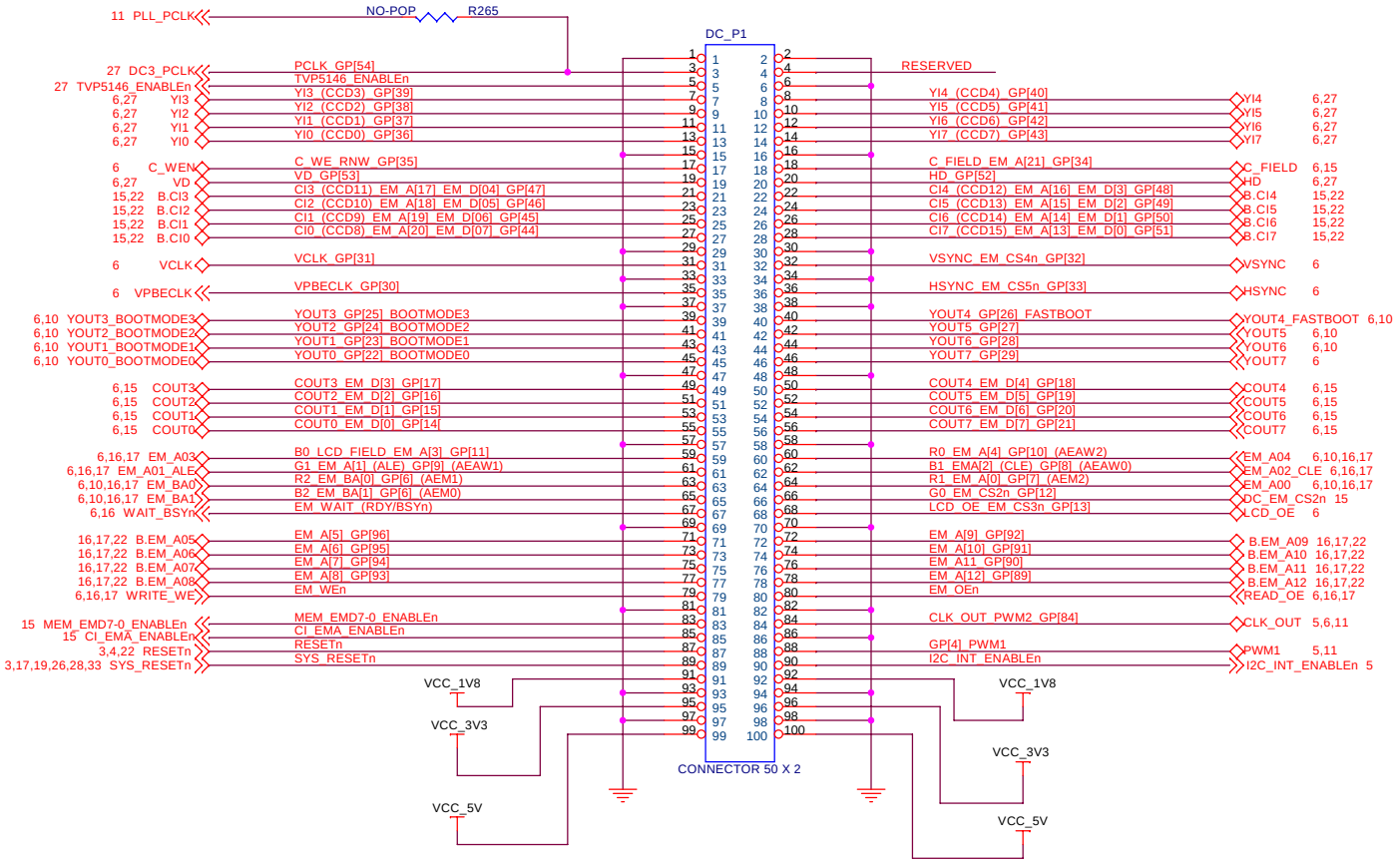


SPECTRUM DIGITAL INCORPORATED		
Title: TMS320DM6437 Evaluation Module		
Page Contents: SPDIF/TVP5146-Switch		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 27 of 34	

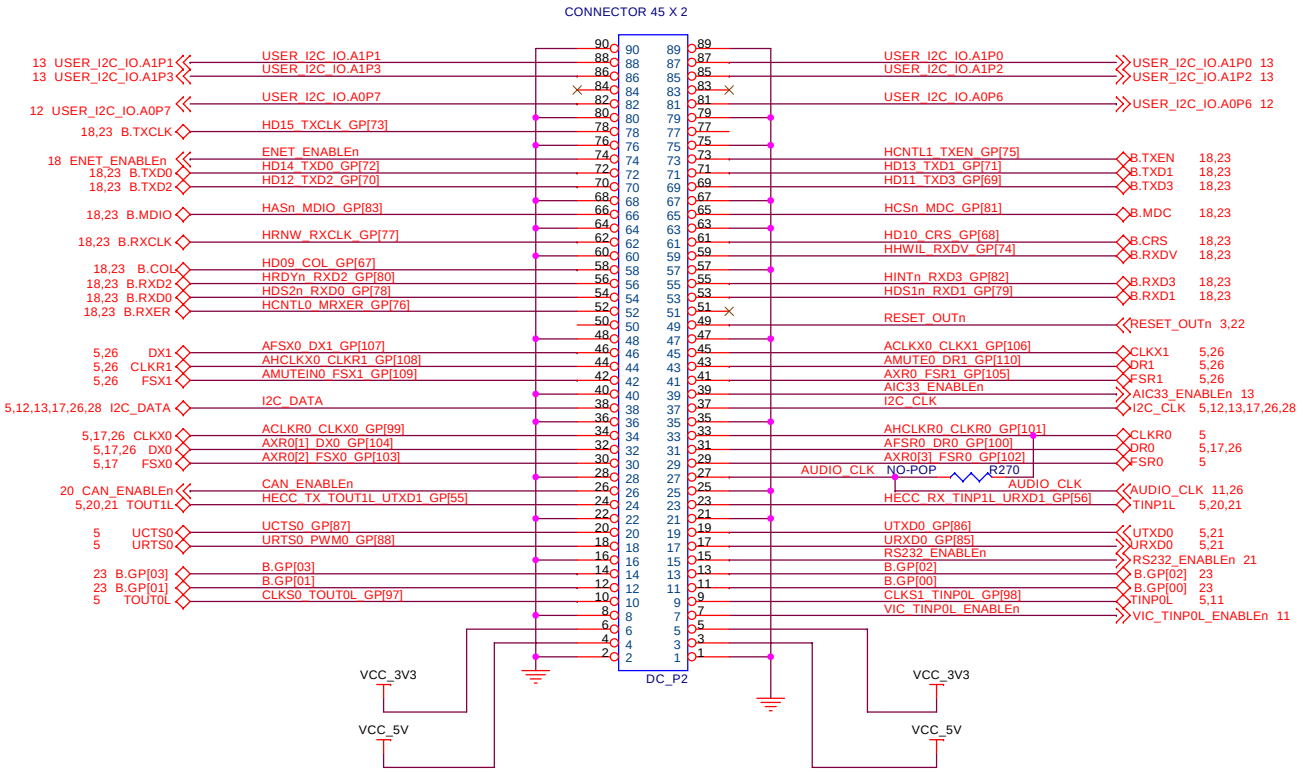

VCC_3V3
L25
3V3D_DEC
BLM41P750SPT
VCC_1V8
L26
1V8A_DEC
BLM41P750SPT
VCC_3V3
L27
3V3A_DEC
BLM41P750SPT
VCC_1V8
L28
1V8D_DEC
BLM41P750SPT
S-VIDEO IN
749181-1
P2
L29 2.7uH
L30 2.7uH
C255
0.1uF
C256
330pF
C254
680pF
C257
330pF
R229
75
GND_DENC
C258
0.1uF
C259
0.1uF
L31 2.7uH
L32 2.7uH
C260
0.1uF
C261
330pF
C262
680pF
C263
330pF
R233
75
C270
0.1uF
VIDEO IN
J5
RCA JACK
L33 2.7uH
L34 2.7uH
C271
330pF
C272
680pF
C273
330pF
R239
75
C264
0.1uF
C265
0.1uF
C266
0.1uF
C267
0.1uF
C268
0.1uF
33pF C269
Y4
14.31818MHz
R241 0
R238
100K
33pF C274
U50
3V3A_DEC
1V8A_DEC
3V3D_DEC
1V8D_DEC
CH1_A33VDD
CH2_A33VDD
CH3_A33VDD
CH4_A33VDD
CH1_A18VDD
CH2_A18VDD
CH3_A18VDD
CH4_A18VDD
PLL_A18VDD
A18VDD_REF
IOVDD
DVDD
VI_1_A
VI_1_B
VI_1_C
VI_2_A
VI_2_B
VI_2_C
VI_3_A
VI_3_B
VI_3_C
VI_4_A
XTAL1
XTAL2
AGND
CH1_A18GND
CH2_A18GND
CH3_A18GND
CH4_A18GND
CH1_A33GND
CH2_A33GND
CH3_A33GND
CH4_A33GND
A18GND_REF
PLL_A18GND
THERMAL_LAND
Y_0
Y_1
Y_2
Y_3
Y_4
Y_5
Y_6
Y_7
Y_8
Y_9
C_0/GPIO
C_1/GPIO
C_2/GPIO
C_3/GPIO
C_4/GPIO
C_5/GPIO
C_6/GPIO
C_7/GPIO
C_8/GPIO
C_9/GPIO
HS/CS/GPIO
VS/VBLK/GPIO
DATACLK
GLCO/I2CA
FSS/GPIO
PWDN
AVID/GPIO
FID/GPIO
RESETB
SCL
SDA
INTREQ
DGND
IOGND
TVP5146M2
TVP5146YIN[7:0] 27
TVP5146YIN0
TVP5146YIN1
TVP5146YIN2
TVP5146YIN3
TVP5146YIN4
TVP5146YIN5
TVP5146YIN6
TVP5146YIN7
RPACK8-33
RN33
R231
4.7K
R234 33
R235 33
R236 33
TVP5146_HS 27
TVP5146_VS 27
TVP5146_PCLK 27
SYS_RESETn 3,17,19,26,30,33
I2C_CLK 5,12,13,17,26,31
I2C_DATA 5,12,13,17,26,31
R242
2.2K
TP58
TP-30
TP19
TP-30
TP20
TP-30
R230
2.2K
R232
NO-POP
R237
NO-POP
R240
2.2K
C275
C276
C277
C278
C279
C280
C281
C282
C283
0.1uF
Isolate digital and analog GNDs and connect at a single location in the ground plane.
L15
BLM41P750SPT
C284
C285
C286
C287
C288
C289
C290
C291
SPECTRUM DIGITAL INCORPORATED
Title: TMS320DM6437 Evaluation Module
Page Contents: TVP5146
Size:B
DWG NO 509102-0001
Revision: D
Date: Monday, March 19, 2007
Sheet 28 of 34



SPECTRUM DIGITAL INCORPORATED		
Title: TMS320DM6437 Evaluation Module		
Page Contents: Video Out		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 29 of 34	



SPECTRUM DIGITAL INCORPORATED		
Title: TMS320DM6437 Evaluation Module		
Page Contents: VIDEO DC Conn.		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 30 of 34	



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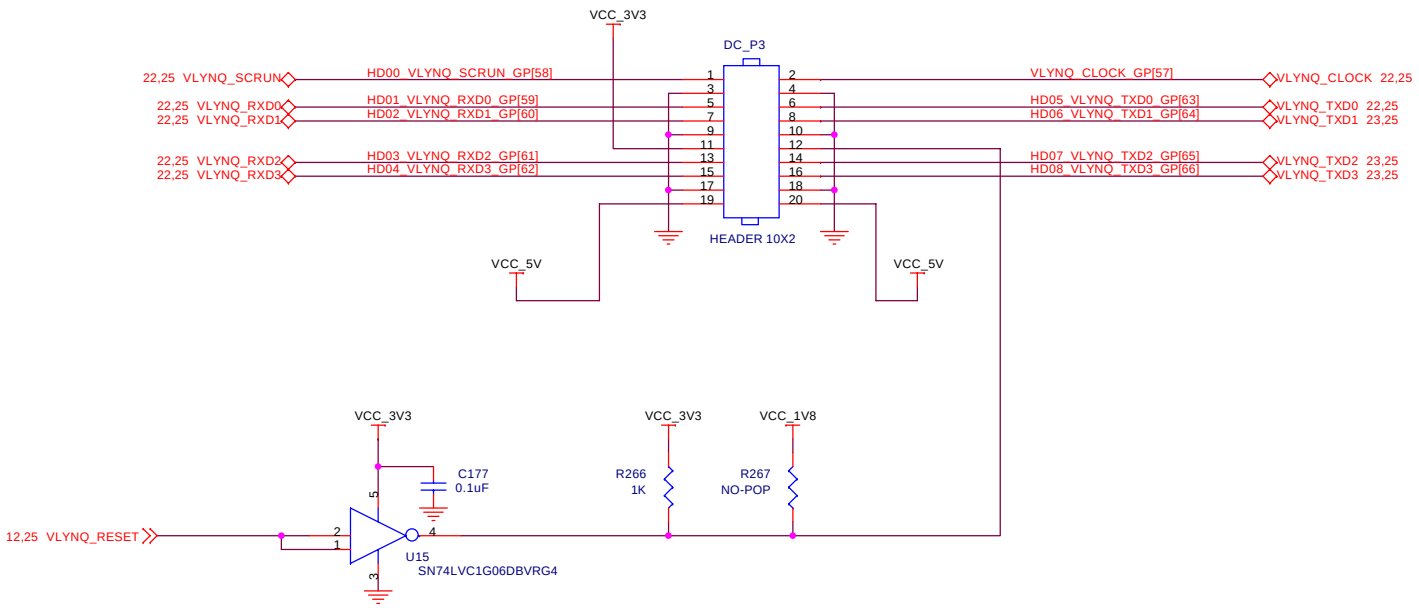
Title: TMS320DM6437 Evaluation Module		
Page Contents: EMAC/MCBSP DC Conn.		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 31 of 34	



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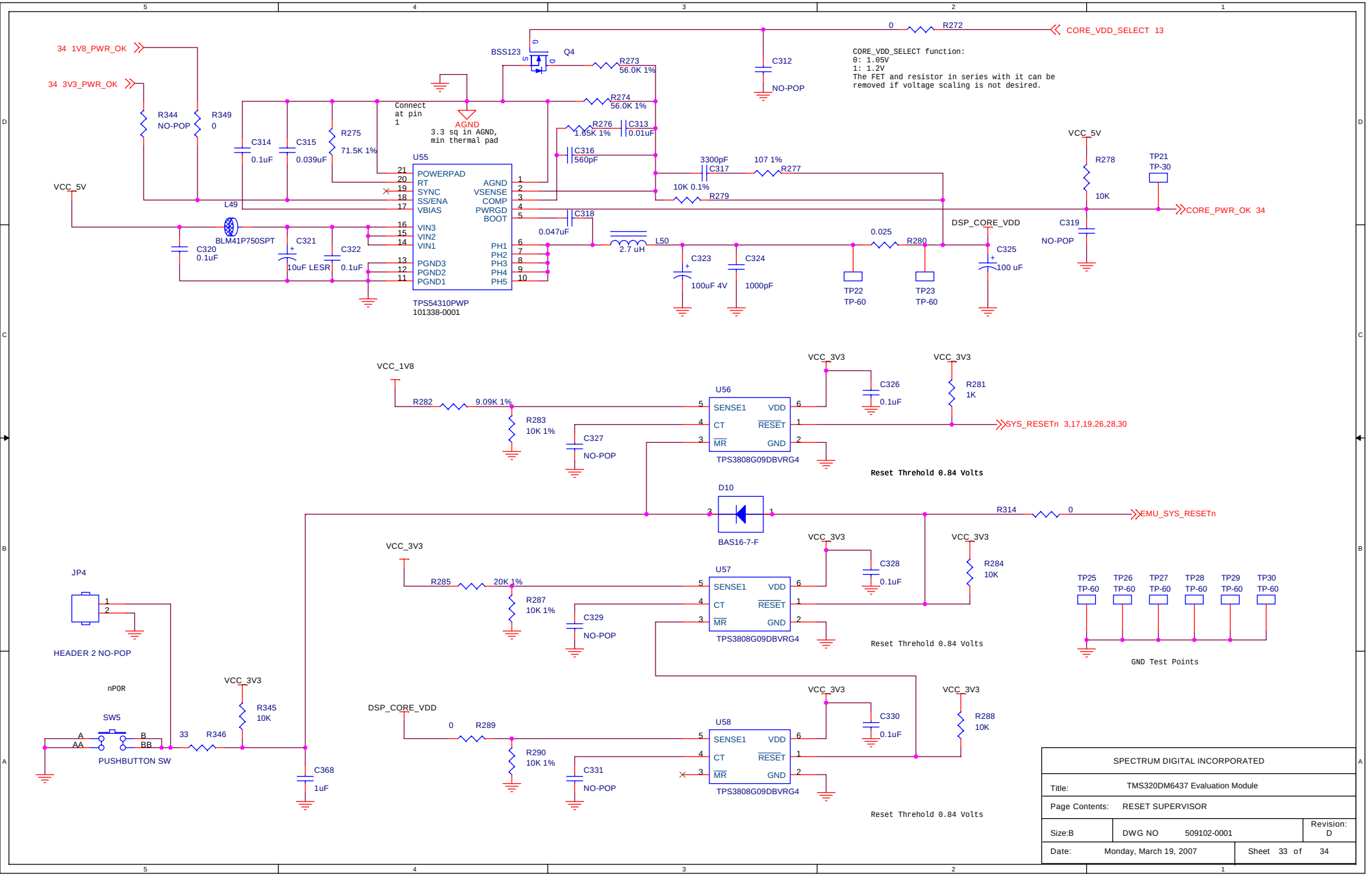
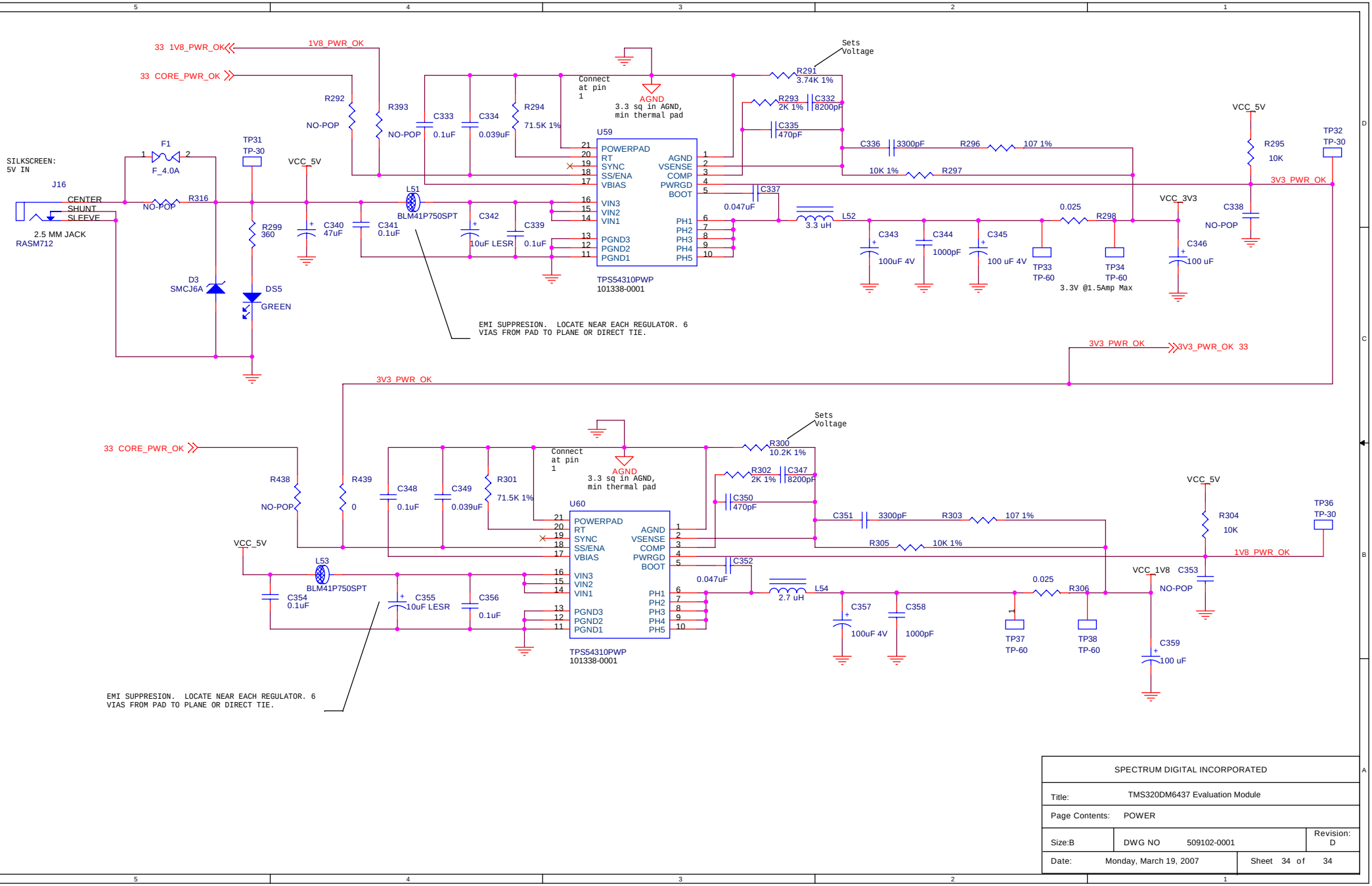
Title:	TMS320DM6437 Evaluation Module		
Page Contents:	VLYNQ/EMIF DC Conn.		
Size:B	DWG NO 509102-0001		Revision: D
Date:	Monday, March 19, 2007	Sheet 32 of 34	



SPECTRUM DIGITAL INCORPORATED		
Title: TMS320DM6437 Evaluation Module		
Page Contents: RESET SUPERVISOR		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 33 of 34	



SPECTRUM DIGITAL INCORPORATED		
Title: TMS320DM6437 Evaluation Module		
Page Contents: POWER		
Size:B	DWG NO 509102-0001	Revision: D
Date: Monday, March 19, 2007	Sheet 34 of 34	