

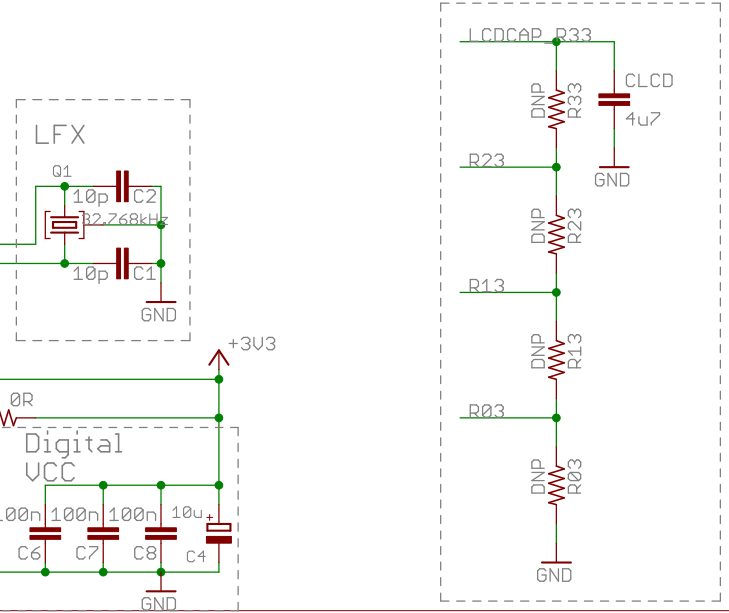
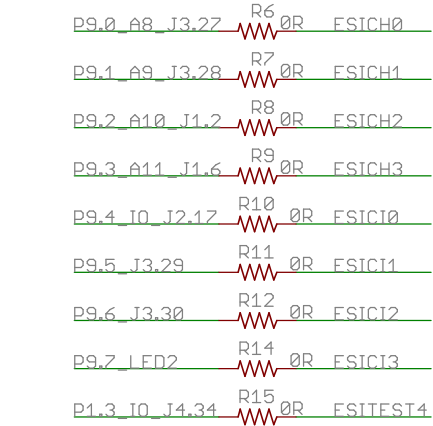
MSP1

MSP430FR6989_PZ100

P1.0	IFD1	66
P1.1	BUTTON1	65
P1.2	BUTTON2	64
P1.3	IO_J4.34	63
P1.4	SPICLK_I1.7	2
P1.5	IO_J2.18	3
P1.6	SPIMOSI_J2.15	4
P1.7	SPIMISO_J2.14	5
P2.0	IO_J1.8	51
P2.1	PWM_J2.19	50
P2.2	CAPTUREF_J4.35	49
P2.3	IO_J4.31	48
P2.4	IO_J2.12	14
P2.5	IO_J2.13	15
P2.6	PWM_J4.39	16
P2.7	PWM_J4.40	17
P3.0	IO_RIS_J4.33	23
P3.1	IO_CIS_J4.32	24
P3.2	IO_J1.5	25
P3.3	PWM_J4.38	39
P3.4	TXD	40
P3.5	RXD	41
P3.6	PWM_J4.37	42
P3.7	CAPTUREF_J4.36	43
P4.0	I2CSDA_J1.10	96
P4.1	I2CSCL_J1.9	97
P4.2	UTXD_J1.4	100
P4.3	URXD_J1.3	1
S8		91
S7		92
S6		93
P4.7	IO_J2.11	94
S38		19
S37		20
S36		21
S35		22
S12		87
S11		88
S10		89
S9		90
R23		7
R13		8
R03		9
COM0		10
COM1		11
COM2		12
COM3		13
S31		34
S17		52
S16		53
S15		54
S14		55
S13		56
S30		35
S29		36
S27		38

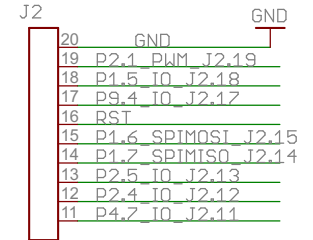
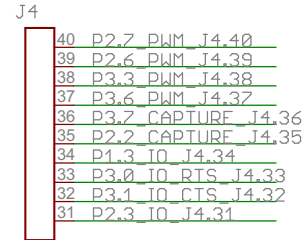
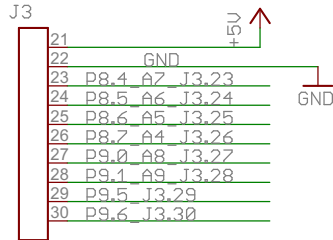
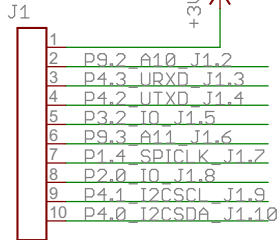
P1.0/TA0.1/DMAE0/RTCCLK/A0/C0/VREF-/VEREF-	P8.0/RTCCLK/S21
P1.1/TA0.2/TA1CLK/COUT/A1/C1/VREF+/VEREF+	P8.1/DMAE0/S20
P1.2/TA1.1/TA0CLK/COUT/A2/C2	P8.2/S19
P1.3/TA1.2/ESITEST4/A3/C3	P8.3/MCLK/S18
P1.4/UCB0CLK/UCA0STE/TA1.0/S1	P8.4/A7/C7
P1.5/UCB0STE/UCA0CLK/TA0.0/S0	P8.5/A6/C6
P1.6/UCB0SIMO/UCB0SDA/TA0.1	P8.6/A5/C5
P1.7/UCB0SOMI/UCB0SCL/TA0.2	P8.7/A4/C4
P2.0/UCA0SIMO/UCA0TXD/TB0.6/TB0CLK	P9.0/ESICH0/ESITEST0/A8/C8
P2.1/UCA0SOMI/UCA0RXD/TB0.5/DMAE0	P9.1/ESICH1/ESITEST1/A9/C9
P2.2/UCA0CLK/TB0.4/RTCCLK	P9.2/ESICH2/ESITEST2/A10/C10
P2.3/UCA0STE/TB0OUTH	P9.3/ESICH3/ESITEST3/A11/C11
P2.4/TB0.3/COM4/S43	P9.4/ESIC0/A12/C12
P2.5/TB0.4/COM5/S42	P9.5/ESIC1/A13/C13
P2.6/TB0.5/ESIC1OUT/COM6/S41	P9.6/ESIC2/A14/C14
P2.7/TB0.6/ESIC2OUT/COM7/S40	P9.7/ESIC3/A15/C15
P3.0/UCB1CLK/S34	P10.0/SMCLK/S4
P3.1/UCB1SIMO/UCB1SDA/S33	P10.1/TA0.0/S28
P3.2/UCB1SOMI/UCB1SCL/S32	P10.2/TA1.0/SMCLK/S39
P3.3/TA1.1/TB0CLK/S26	
P3.4/UCA1SIMO/UCA1TXD/TB0.0/S25	ESIVCC
P3.5/UCA1SOMI/UCA1RXD/TB0.1/S24	ESIVSS
P3.6/UCA1CLK/TB0.2/S23	ESICI
P3.7/UCA1STE/TB0.3/S22	ESICOM
P4.0/UCB1SIMO/UCB1SDA/MCLK/S3	R33/LCDCAP
P4.1/UCB1SOMI/UCB1SCL/ACLK/S2	
P4.2/UCA0SIMO/UCA0TXD/UCB1CLK	
P4.3/UCA0SOMI/UCA0RXD/UCB1STE	
P4.4/UCB1STE/TA1CLK/S8	
P4.5/UCB1CLK/TA1.0/S7	PJ.0/TDO/TB0OUTH/SMCLK/SRSCG1
P4.6/UCB1SIMO/UCB1SDA/TA1.1/S6	PJ.1/TDI/TCLK/MCLK/SRSCG
P4.7/UCB1SOMI/UCB1SCL/TA1.2/S5	PJ.2/TMS/ACLK/SROSCOFF
	PJ.3/TCK/COUT/SRCPUIOFF
P5.0/TA1.1/MCLK/S38	PJ.4/LFXIN
P5.1/TA1.2/S37	PJ.5/LFXOUT
P5.2/TA1.0/TA1CLK/ACLK/S36	
P5.3/UCB1STE/S35	PJ.6/HFXIN
P5.4/UCA1SIMO/UCA1TXD/S12	PJ.7/HFXOUT
P5.5/UCA1SOMI/UCA1RXD/S11	
P5.6/UCA1CLK/S10	DVCC1
P5.7/UCA1STE/TB0CLK/S9	DVCC2
P6.0/R23	DVCC3
P6.1/R13/LCDREF	AVCC1
P6.2/COUT/R03	
P6.3/COM0	AVSS1
P6.4/TB0.0/COM1	AVSS2
P6.5/TB0.1/COM2	AVSS3
P6.6/TB0.2/COM3	
P6.7/TA0CLK/S31	DVSS1
P7.0/TA0CLK/S17	DVSS2
P7.1/TA0.0/S16	DVSS3
P7.2/TA0.1/S15	
P7.3/TA0.2/S14	
P7.4/SMCLK/S13	
P7.5/TA0.2/S30	RST/NMI/SBWDIO
P7.6/TA0.1/S29	TEST/SBWTCK
P7.7/TA1.2/TB0OUTH/S27	

44	S21
45	S20
46	S19
47	S18
59	P8.4_A7_I3.23
60	P8.5_A6_I3.24
61	P8.6_A5_I3.25
62	P8.7_A4_I3.26
67	P9.0_A8_I3.27
68	P9.1_A9_I3.28
69	P9.2_A10_I1.2
70	P9.3_A11_I1.6
71	P9.4_I0_J2.17
72	P9.5_I3.29
73	P9.6_I3.30
74	P9.7_IFD2
95	S4
37	S28
18	S39
75	FSTVCC
76	FSTIUS
77	FSICI
78	FSICOM
6	LCDCAP_R33
30	
31	
32	
33	
84	
85	
82	
81	
27	
58	+3V3
99	
79	
83	
86	
80	
26	
57	
98	
29	RST
28	TEST



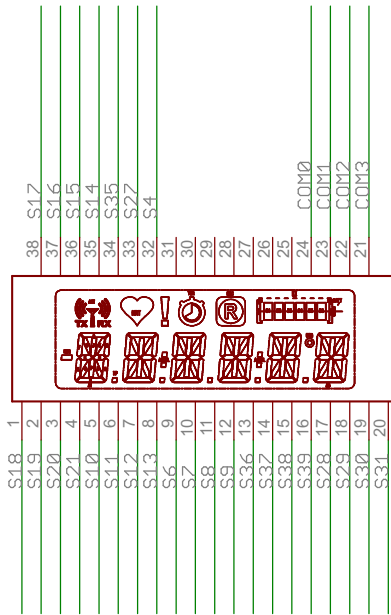
COMPANY: Texas Instruments		
TITLE: MSP-EXP430FR6989		
DRAWN: Jeff Pettyjohn	CHECKED:	APPROVED:
2/17/2015 4:34:02 PM	Rev: 1.0	Sheet: 1/6

BoosterPack Headers

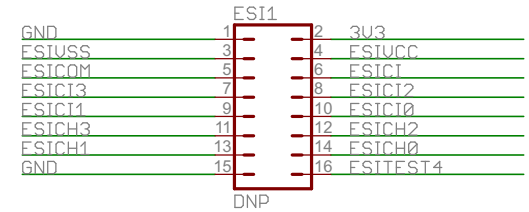


LCD

LCD1



eSIF Connector



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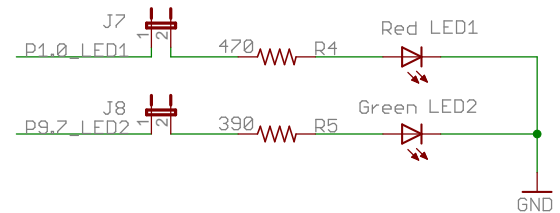
A

A

External Power and Battery Connector



LEDs



B

B

Mounting Holes: 125 mil for 4-40/M2.5/M3 screws



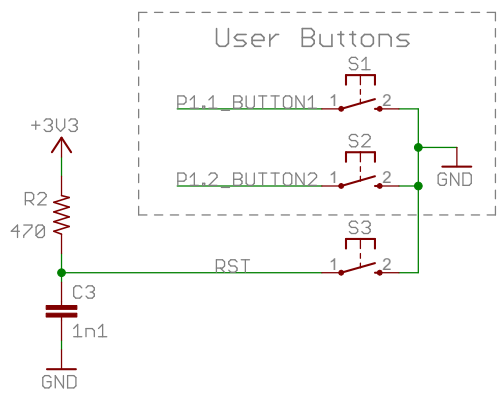
Silkscreen



C

C

User Buttons



D

D

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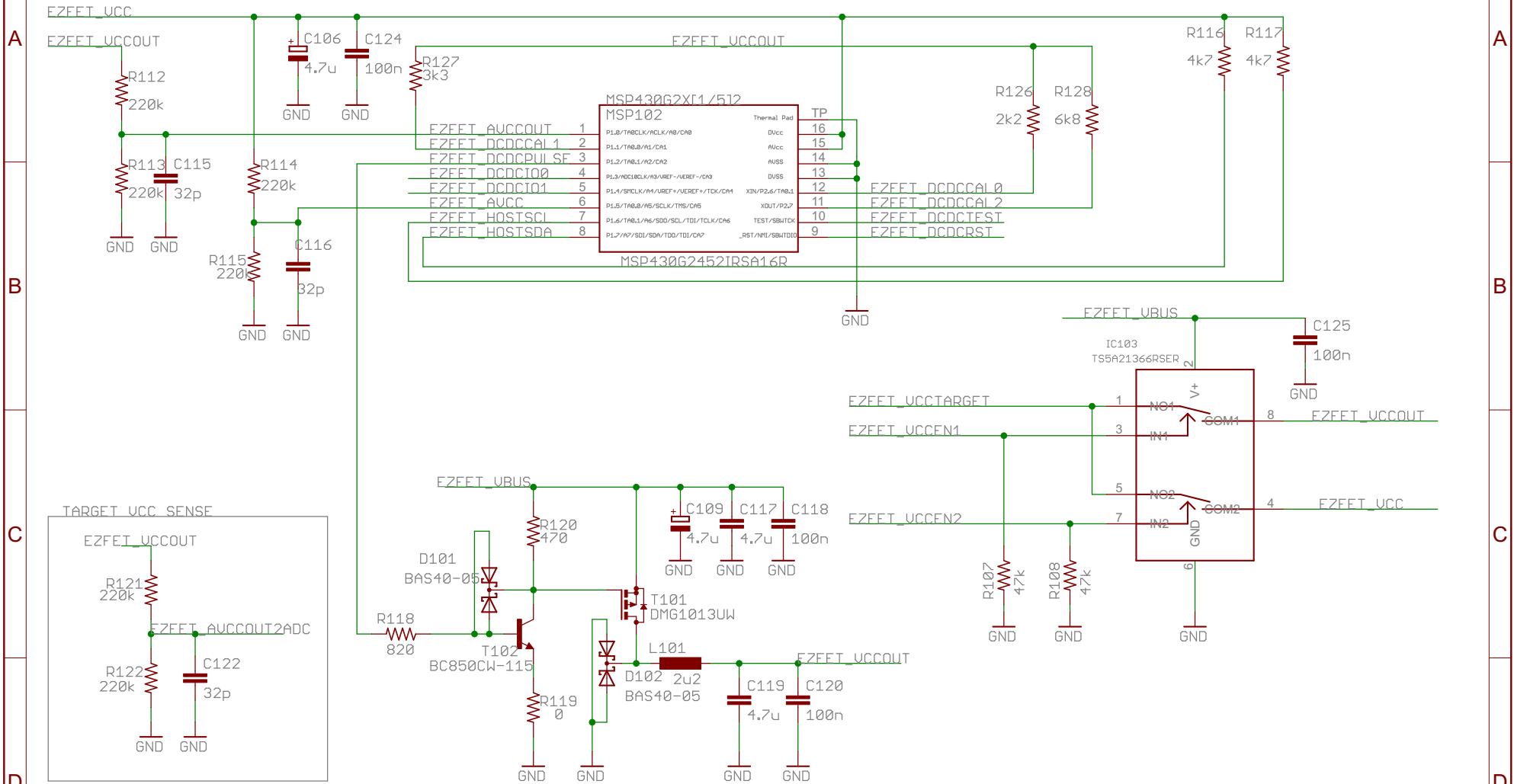
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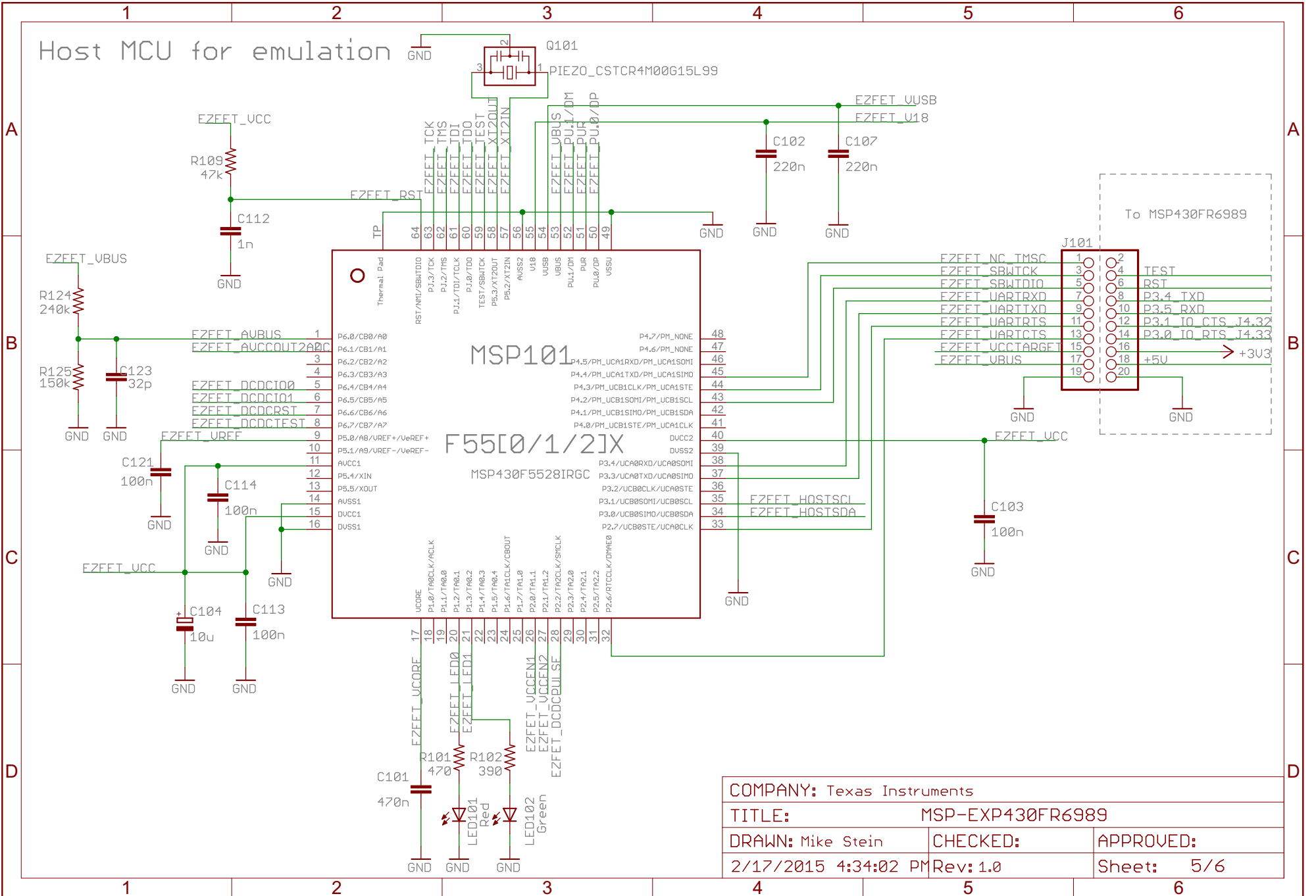
Software-controlled DCDC converter

Energy measurement method protected under U.S. Patent Application 13/329,073 and subsequent patent applications



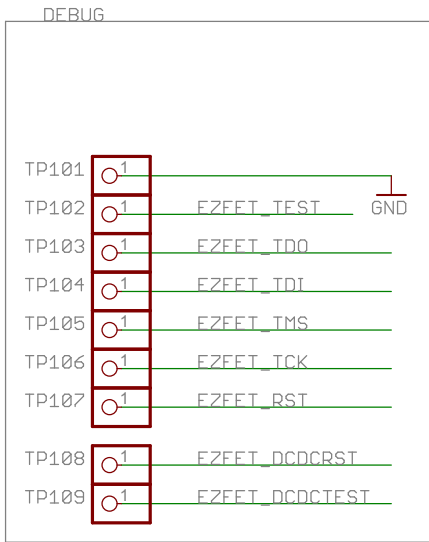
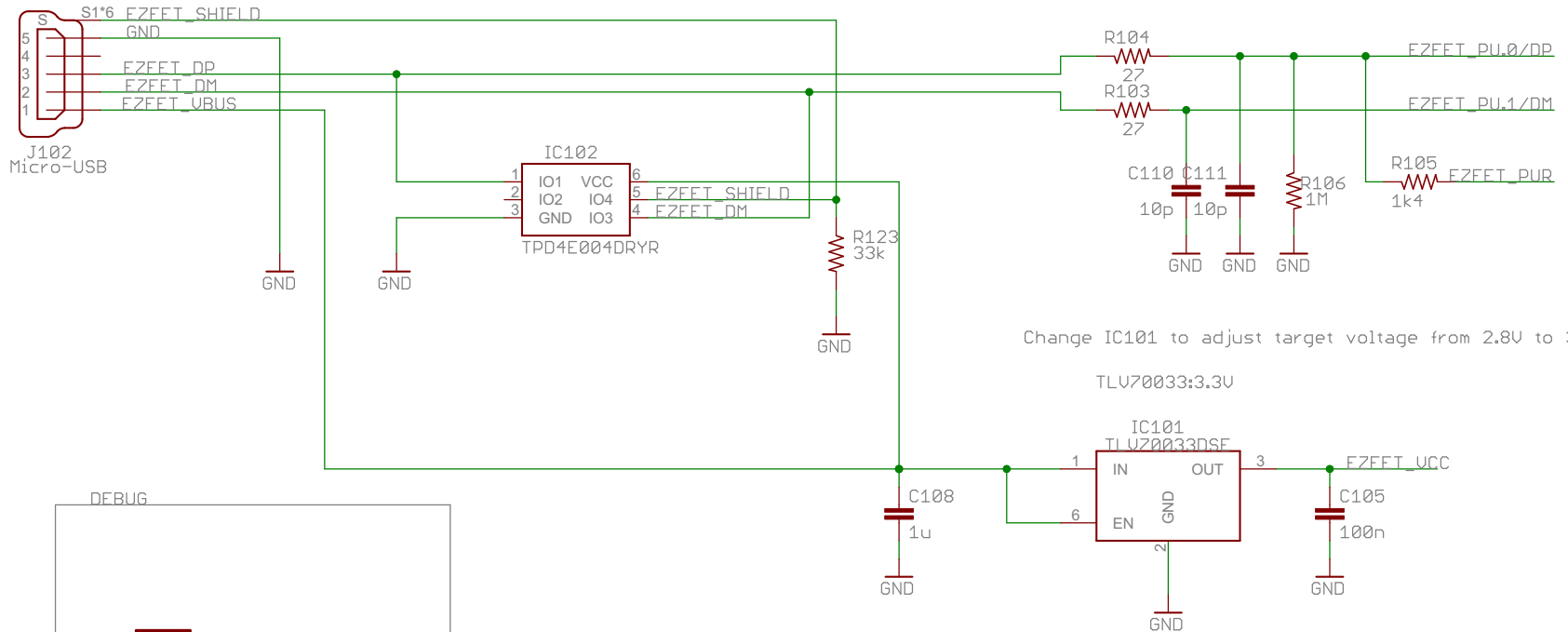
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Host MCU for emulation



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USB interface and power supply



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