

MSP430F67791A

XIN	1	XIN	102	DRESET
XOUT	2	XOUT	101	DTCK
AUXVCC3	3	AUXVCC3	100	DTMS
BTN3	4	RTCCAP1	99	DTDI
BTN4	5	RTCCAP0	98	DTDO
SMCLK	6	P1.5/SMCLK/CB0/A5	97	TEST/SBWTCK
MCLK	7	P1.4/MCLK/CB1/A4	96	RF_GPI01
ACLK	8	P1.3/ADC10CLK/A3	95	RF_GPI02
BTN2	9	P1.2/ACLK/A2	94	RF_CS
BTN1	10	P1.1/TA2.1/VEREF+/A1	93	RF_SFD
SDA	11	P1.0/TA1.1/VEREF-/A0	92	RTCCCLK
LED6	12	P2.4/PM_TA2.0	91	CBOUT
LED5	13	P2.5/PM_UCB0S0M/PM_UCB0SCL	90	TA2.1/P11.3
LED4	14	P2.6/PM_UCB0S0M/PM_UCB0SDA	89	TA1.1/P11.2
RS232_RXD	15	P3.0/PM_UCA0RXD/PM_UCA0SOMI	88	RF_RESETCC
RS232_TXD	16	P3.1/PM_UCA1TXD/PM_UCA0SOMO	87	RF_VREG_EN
IR_RXD	17	P3.2/PM_UCA0CLK	86	S0
IR_TXD	18	P3.3/PM_UCA1CLK	85	S1
COM0	19	P3.4/PM_UCA1RXD/PM_UCA1SOMI	84	S2
COM1	20	P3.5/PM_UCA1TXD/PM_UCA1SOMO	83	S3
COM2	21	COM0	82	S4
COM3	22	COM1	81	S5
LED3	23	COM2	80	S6
LED2	24	COM3	79	S7
LED1	25	P1.6/COM2	78	S8
ACT	26	P1.7/COM3	77	S9
R33	27	P5.0/COM4	76	S10
R23	28	P5.1/COM5	75	S11
R13	29	P5.2/COM6	74	S12
DGND	30	P5.3/COM7	73	S13
VMON	31	P6.0/SD3DIO	72	S14
EZ-RF_RXD	32	P6.1/SD2DIO/SB	71	S15
EZ-RF_TXD	33	P6.2/SD3DIO	70	S16
R45	34	P6.3/SD2DIO/S37	69	DVS32
R44	35	P6.4/S36	68	S17
R43	36	P6.5/S35	67	S18
R42	37	P6.6/S34	66	S19
R41	38	P6.7/S33	65	S20
R40	39	P6.8/S32	64	S21
R39	40	P6.9/S31	63	S22
R38	41	P6.10/S30	62	S23
R37	42	P6.11/S29	61	S24
R36	43	P6.12/S28	60	S25
R35	44	P6.13/S27	59	S26
R34	45	P6.14/S26	58	S27
R33	46	P6.15/S25	57	S28
R32	47	P6.16/S24	56	S29
R31	48	P6.17/S23	55	S30
R30	49	P6.18/S22	54	S31
R29	50	P6.19/S21	53	S32
R28	51	P6.20/S20	52	S33
R27	52	P6.21/S19	51	S34
R26	53	P6.22/S18	50	S35
R25	54	P6.23/S17	49	S36
R24	55	P6.24/S16	48	S37
R23	56	P6.25/S15	47	S38
R22	57	P6.26/S14	46	S39
R21	58	P6.27/S13	45	S40
R20	59	P6.28/S12	44	S41
R19	60	P6.29/S11	43	S42
R18	61	P6.30/S10	42	S43
R17	62	P6.31/S9	41	S44
R16	63	P6.32/S8	40	S45
R15	64	P6.33/S7	39	S46
R14	65	P6.34/S6	38	S47
R13	66	P6.35/S5	37	S48
R12	67	P6.36/S4	36	S49
R11	68	P6.37/S3	35	S50
R10	69	P6.38/S2	34	S51
R9	70	P6.39/S1	33	S52
R8	71	P6.40/S0	32	S53
R7	72	P6.41/S57	31	S54
R6	73	P6.42/S56	30	S55
R5	74	P6.43/S55	29	S56
R4	75	P6.44/S54	28	S57
R3	76	P6.45/S53	27	S58
R2	77	P6.46/S52	26	S59
R1	78	P6.47/S51	25	S60
0	79	P6.48/S50	24	S61
0	80	P6.49/S49	23	S62
0	81	P6.50/S48	22	S63
0	82	P6.51/S47	21	S64
0	83	P6.52/S46	20	S65
0	84	P6.53/S45	19	S66
0	85	P6.54/S44	18	S67
0	86	P6.55/S43	17	S68
0	87	P6.56/S42	16	S69
0	88	P6.57/S41	15	S70
0	89	P6.58/S40	14	S71
0	90	P6.59/S39	13	S72
0	91	P6.60/S38	12	S73
0	92	P6.61/S37	11	S74
0	93	P6.62/S36	10	S75
0	94	P6.63/S35	9	S76
0	95	P6.64/S34	8	S77
0	96	P6.65/S33	7	S78
0	97	P6.66/S32	6	S79
0	98	P6.67/S31	5	S80
0	99	P6.68/S30	4	S81
0	100	P6.69/S29	3	S82
0	101	P6.70/S28	2	S83
0	102	P6.71/S27	1	S84
0	103	P6.72/S26	0	S85
0	104	P6.73/S25	0	S86
0	105	P6.74/S24	0	S87
0	106	P6.75/S23	0	S88
0	107	P6.76/S22	0	S89
0	108	P6.77/S21	0	S90
0	109	P6.78/S20	0	S91
0	110	P6.79/S19	0	S92
0	111	P6.80/S18	0	S93
0	112	P6.81/S17	0	S94
0	113	P6.82/S16	0	S95
0	114	P6.83/S15	0	S96
0	115	P6.84/S14	0	S97
0	116	P6.85/S13	0	S98
0	117	P6.86/S12	0	S99
0	118	P6.87/S11	0	S100
0	119	P6.88/S10	0	S101
0	120	P6.89/S9	0	S102
0	121	P6.90/S8	0	S103
0	122	P6.91/S7	0	S104
0	123	P6.92/S6	0	S105
0	124	P6.93/S5	0	S106
0	125	P6.94/S4	0	S107
0	126	P6.95/S3	0	S108
0	127	P6.96/S2	0	S109
0	128	P6.97/S1	0	S110
0	129	P6.98/S0	0	S111
0	130	P6.99/S57	0	S112
0	131	P6.100/S56	0	S113
0	132	P6.101/S55	0	S114
0	133	P6.102/S54	0	S115
0	134	P6.103/S53	0	S116
0	135	P6.104/S52	0	S117
0	136	P6.105/S51	0	S118
0	137	P6.106/S50	0	S119
0	138	P6.107/S49	0	S120
0	139	P6.108/S48	0	S121
0	140	P6.109/S47	0	S122
0	141	P6.110/S46	0	S123
0	142	P6.111/S45	0	S124
0	143	P6.112/S44	0	S125
0	144	P6.113/S43	0	S126
0	145	P6.114/S42	0	S127
0	146	P6.115/S41	0	S128
0	147	P6.116/S40	0	S129
0	148	P6.117/S39	0	S130
0	149	P6.118/S38	0	S131
0	150	P6.119/S37	0	S132
0	151	P6.120/S36	0	S133
0	152	P6.121/S35	0	S134
0	153	P6.122/S34	0	S135
0	154	P6.123/S33	0	S136
0	155	P6.124/S32	0	S137
0	156	P6.125/S31	0	S138
0	157	P6.126/S30	0	S139
0	158	P6.127/S29	0	S140
0	159	P6.128/S28	0	S141
0	160	P6.129/S27	0	S142
0	161	P6.130/S26	0	S143
0	162	P6.131/S25	0	S144
0	163	P6.132/S24	0	S145
0	164	P6.133/S23	0	S146
0	165	P6.134/S22	0	S147
0	166	P6.135/S21	0	S148
0	167	P6.136/S20	0	S149
0	168	P6.137/S19	0	S150
0	169	P6.138/S18	0	S151
0	170	P6.139/S17	0	S152
0	171	P6.140/S16	0	S153
0	172	P6.141/S15	0	S154
0	173	P6.142/S14	0	S155
0	174	P6.143/S13	0	S156
0	175	P6.144/S12	0	S157
0	176	P6.145/S11	0	S158
0	177	P6.146/S10	0	S159
0	178	P6.147/S9	0	S160
0	179	P6.148/S8	0	S161
0	180	P6.149/S7	0	S162
0	181	P6.150/S6	0	S163
0	182	P6.151/S5	0	S164
0	183	P6.152/S4	0	S165
0	184	P6.153/S3	0	S166
0	185	P6.154/S2	0	S167
0	186	P6.155/S1	0	S168
0	187	P6.156/S0	0	S169
0	188	P6.157/S57	0	S170
0	189	P6.158/S56	0	S171
0	190	P6.159/S55	0	S172
0	191	P6.160/S54	0	S173
0	192	P6.161/S53	0	S174
0	193	P6.162/S52	0	S175
0	194	P6.163/S51	0	S176
0	195	P6.164/S50	0	S177
0	196	P6.165/S49	0	S178
0	197	P6.166/S48	0	S179
0	198	P6.167/S47	0	S180
0	199	P6.168/S46	0	S181
0	200	P6.169/S45	0	S182
0	201	P6.170/S44	0	S183
0	202	P6.171/S43	0	S184
0	203	P6.172/S42	0	S185
0	204	P6.173/S41	0	S186
0	205	P6.174/S40	0	S187
0	206	P6.175/S39	0	S188
0	207	P6.176/S38	0	S189
0	208	P6.177/S37	0	S190
0	209	P6.178/S36	0	S191
0	210	P6.179/S35	0	S192
0	211	P6.180/S34	0	S193
0	212	P6.181/S33	0	S194
0	213	P6.182/S32	0	S195
0	214	P6.183/S31	0	S196
0	215	P6.184/S30	0	S197
0	216	P6.185/S29	0	S198
0	217	P6.186/S28	0	S199
0	218	P6.187/S27	0	S200
0	219	P6.188/S26	0	S201
0	220	P6.189/S25	0	S202
0	221	P6.190/S24	0	S203
0	222	P6.191/S23	0	S204
0	223	P6.192/S22	0	S205
0	224	P6.193/S21	0	S206
0	225	P6.194/S20	0	S207
0	226	P6.195/S19	0	S208
0	227	P6.196/S18	0	S209
0				

IMPORTANT NOTICE FOR TI REFERENCE DESIGNS

Texas Instruments Incorporated ("TI") reference designs are solely intended to assist designers ("Buyers") who are developing systems that incorporate TI semiconductor products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products.

TI reference designs have been created using standard laboratory conditions and engineering practices. **TI has not conducted any testing other than that specifically described in the published documentation for a particular reference design.** TI may make corrections, enhancements, improvements and other changes to its reference designs.

Buyers are authorized to use TI reference designs with the TI component(s) identified in each particular reference design and to modify the reference design in the development of their end products. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER TI INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN, including but not limited to any patent right, copyright, mask work right, or other intellectual property right relating to any combination, machine, or process in which TI components or services are used. Information published by TI regarding third-party products or services does not constitute a license to use such products or services, or a warranty or endorsement thereof. Use of such information may require a license from a third party under the patents or other intellectual property of the third party, or a license from TI under the patents or other intellectual property of TI.

TI REFERENCE DESIGNS ARE PROVIDED "AS IS". TI MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE REFERENCE DESIGNS OR USE OF THE REFERENCE DESIGNS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. TI DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO TI REFERENCE DESIGNS OR USE THEREOF. TI SHALL NOT BE LIABLE FOR AND SHALL NOT DEFEND OR INDEMNIFY BUYERS AGAINST ANY THIRD PARTY INFRINGEMENT CLAIM THAT RELATES TO OR IS BASED ON A COMBINATION OF COMPONENTS PROVIDED IN A TI REFERENCE DESIGN. IN NO EVENT SHALL TI BE LIABLE FOR ANY ACTUAL, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES, HOWEVER CAUSED, ON ANY THEORY OF LIABILITY AND WHETHER OR NOT TI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, ARISING IN ANY WAY OUT OF TI REFERENCE DESIGNS OR BUYER'S USE OF TI REFERENCE DESIGNS.

TI reserves the right to make corrections, enhancements, improvements and other changes to its semiconductor products and services per JESD46, latest issue, and to discontinue any product or service per JESD48, latest issue. Buyers should obtain the latest relevant information before placing orders and should verify that such information is current and complete. All semiconductor products are sold subject to TI's terms and conditions of sale supplied at the time of order acknowledgment.

TI warrants performance of its components to the specifications applicable at the time of sale, in accordance with the warranty in TI's terms and conditions of sale of semiconductor products. Testing and other quality control techniques for TI components are used to the extent TI deems necessary to support this warranty. Except where mandated by applicable law, testing of all parameters of each component is not necessarily performed.

TI assumes no liability for applications assistance or the design of Buyers' products. Buyers are responsible for their products and applications using TI components. To minimize the risks associated with Buyers' products and applications, Buyers should provide adequate design and operating safeguards.

Reproduction of significant portions of TI information in TI data books, data sheets or reference designs is permissible only if reproduction is without alteration and is accompanied by all associated warranties, conditions, limitations, and notices. TI is not responsible or liable for such altered documentation. Information of third parties may be subject to additional restrictions.

Buyer acknowledges and agrees that it is solely responsible for compliance with all legal, regulatory and safety-related requirements concerning its products, and any use of TI components in its applications, notwithstanding any applications-related information or support that may be provided by TI. Buyer represents and agrees that it has all the necessary expertise to create and implement safeguards that anticipate dangerous failures, monitor failures and their consequences, lessen the likelihood of dangerous failures and take appropriate remedial actions. Buyer will fully indemnify TI and its representatives against any damages arising out of the use of any TI components in Buyer's safety-critical applications.

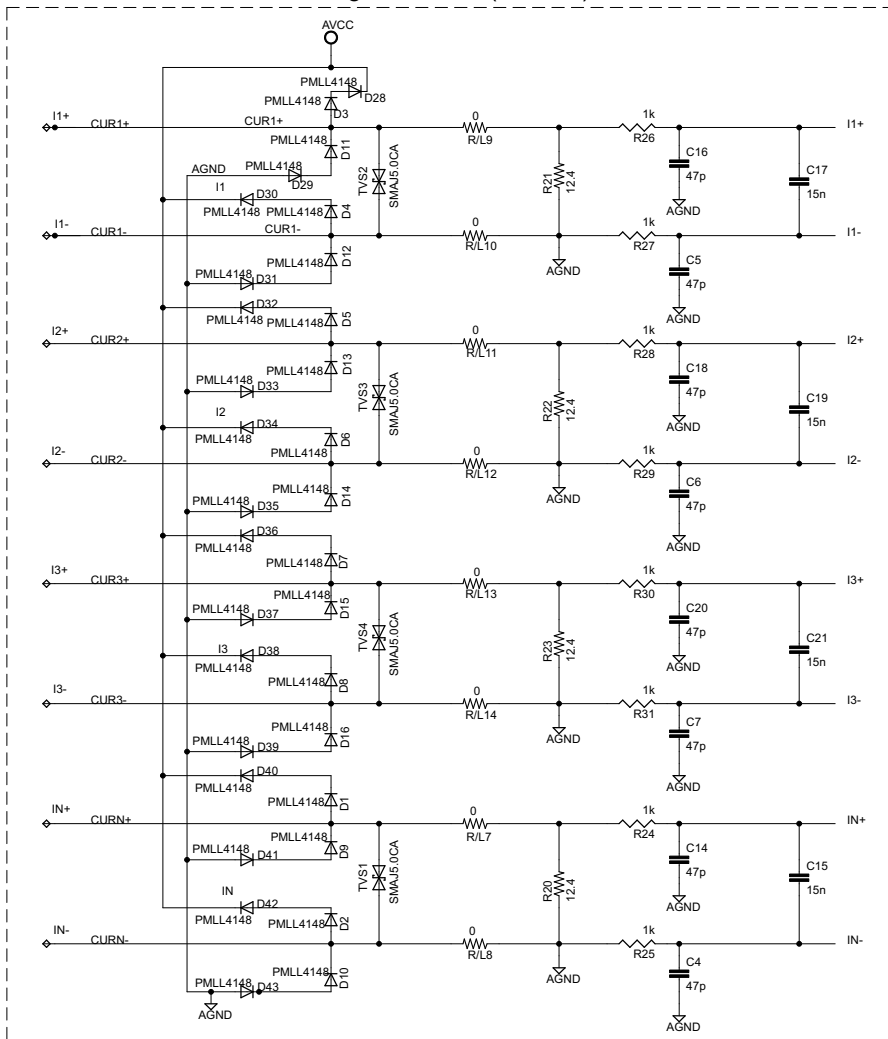
In some cases, TI components may be promoted specifically to facilitate safety-related applications. With such components, TI's goal is to help enable customers to design and create their own end-product solutions that meet applicable functional safety standards and requirements. Nonetheless, such components are subject to these terms.

No TI components are authorized for use in FDA Class III (or similar life-critical medical equipment) unless authorized officers of the parties have executed an agreement specifically governing such use.

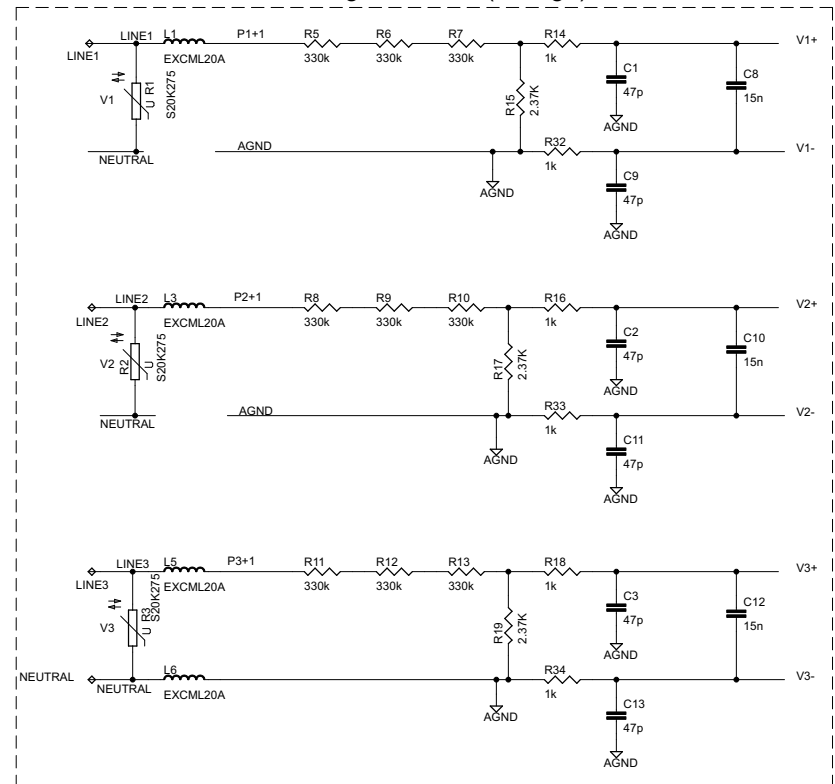
Only those TI components that TI has specifically designated as military grade or "enhanced plastic" are designed and intended for use in military/aerospace applications or environments. Buyer acknowledges and agrees that any military or aerospace use of TI components that have **not** been so designated is solely at Buyer's risk, and Buyer is solely responsible for compliance with all legal and regulatory requirements in connection with such use.

TI has specifically designated certain components as meeting ISO/TS16949 requirements, mainly for automotive use. In any case of use of non-designated products, TI will not be responsible for any failure to meet ISO/TS16949.

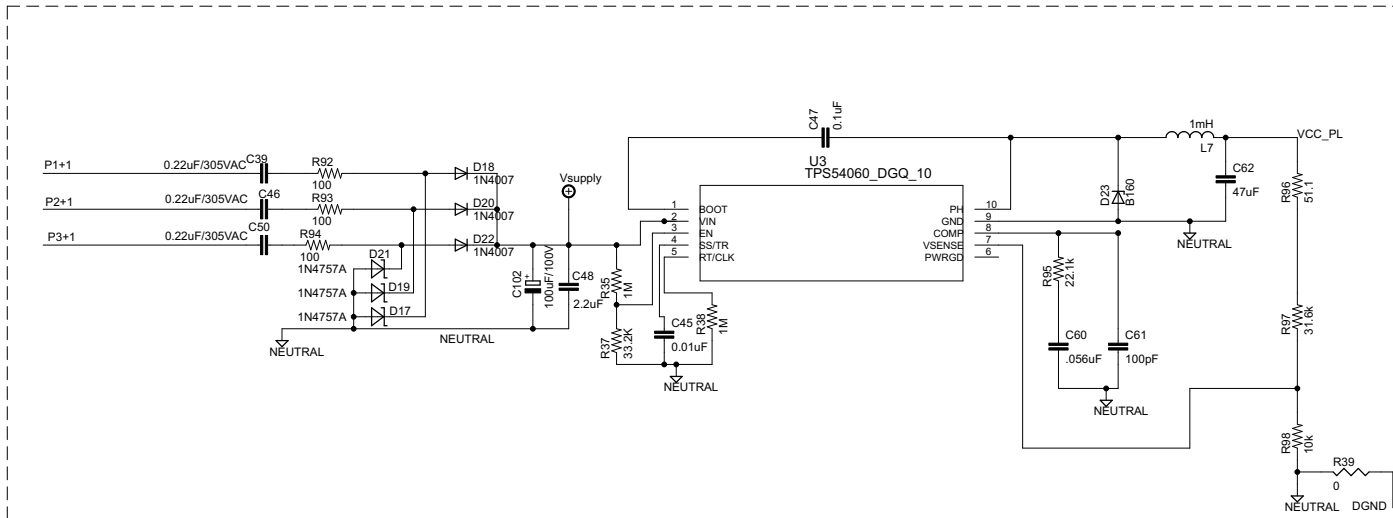
Analog Front-End (Current)



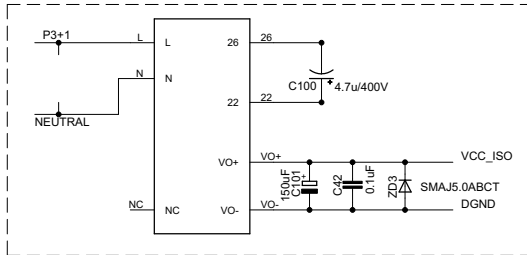
Analog Front-End (Voltage)



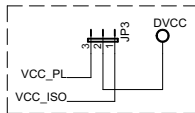
Un-isolated VCC from AC Mains



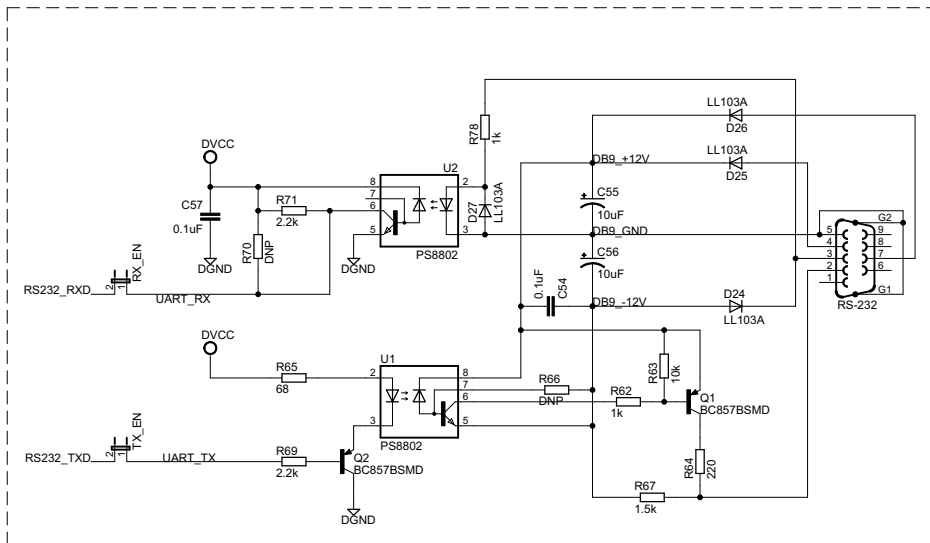
Isolated VCC from AC Mains



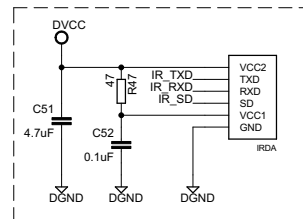
VCC Select



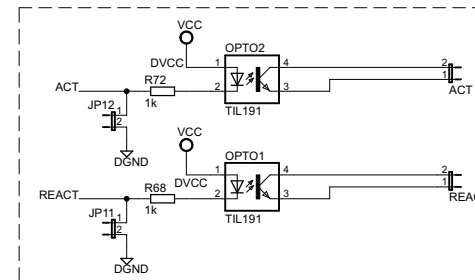
Isolated RS232 Communication



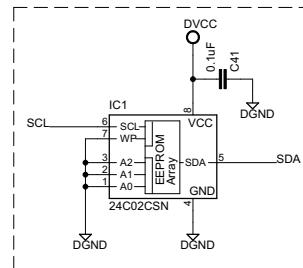
IR Pulse In/Out



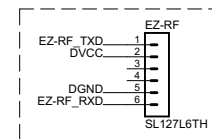
Act / React



EEPROM



EZ-RF Connect



RF Daughter Card

