

J19 M50-35020 2x20pin 100mil

PC8	1	2	PC9
PC10	3	4	PC11
PC12	5	6	PC13
PC14	7	8	PC15
PD0	9	10	PD1
PD2	11	12	PD3
PD4	13	14	PD5
PD6	15	16	PD7
PD8	17	18	PD9
PD10	19	20	PD11
PD12	21	22	PD13
PD14	23	24	PD15
PE0	25	26	PE1
PE2	27	28	PE3
PE4	29	30	PE5
PE6	31	32	PE7
PE8	33	34	PE9
PE10	35	36	PE11
PE12	37	38	PE13
	39	40	

SWD Connection

J500 FTSH-105-01-F-DV-K 2x5pin 50mil Cortex Debug

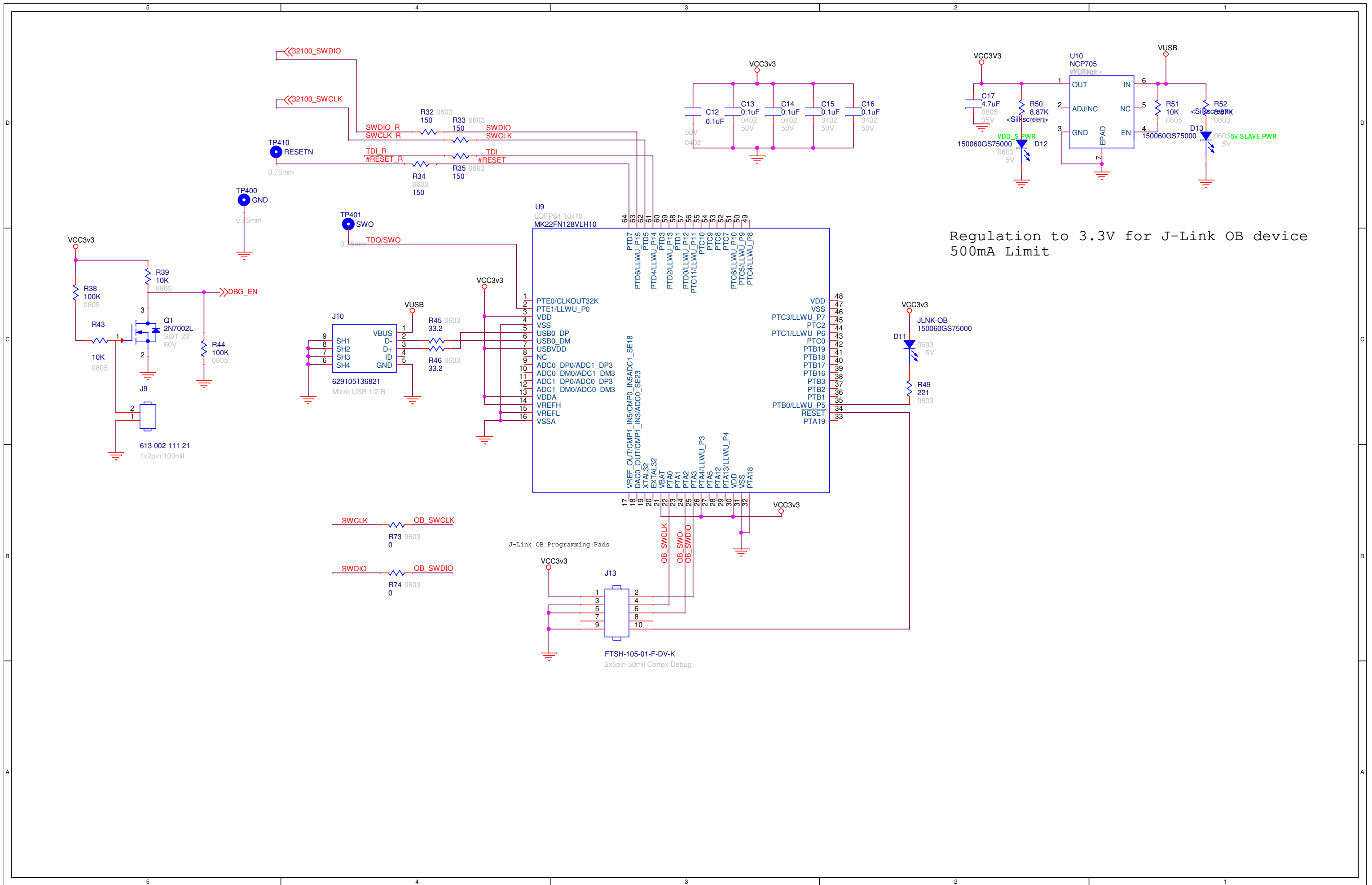
VDD_M	1	2	MASTER_SWIO
	3	4	MASTER_SWCLK
	5	6	
	7	8	
	9	10	MASTER_NRST

0.1%	R56	47.5	0603	0.1%
	R57	47.5	0603	0.1%
	R63	47.5	0603	0.1%
	R62	47.5	0603	0.1%

PA0	34	PA0	56
PA1	35	PA1	57
PA2	36	PA2	58
PA3	37	PA3	59
PA4	40	PA4	60
PA5	41	PA5	61
PA6	42	PA6	62
PA7	43	PA7	63
PA8	100	PA8	64
PA9	101	PA9	65
PA10	102	PA10	66
PA11	103	PA11	67
PA12	104	PA12	68
PA13	105	PA13	69
PA14	109	PA14	70
PA15	110	PA15	71
PB0	46	PB0	114
PB1	47	PB1	115
PB2	48	PB2	116
PB3	133	PB3	117
PB4	134	PB4	118
PB5	135	PB5	119
PB6	136	PB6	120
PB7	137	PB7	121
PB8	139	PB8	122
PB9	140	PB9	123
PB10	69	PB10	124
PB11	70	PB11	125
PB12	73	PB12	126
PB13	74	PB13	127
PB14	75	PB14	128
PB15	76	PB15	129
PC0	26	PC0	141
PC1	27	PC1	142
PC2	28	PC2	143
PC3	29	PC3	144
PC4	44	PC4	145
PC5	45	PC5	146
PC6	96	PC6	147
PC7	97	PC7	148
PC8	98	PC8	149
PC9	99	PC9	150
PC10	111	PC10	151
PC11	112	PC11	152
PC12	113	PC12	153
PC13	7	PC13	154
PC14	8	PC14	155
PC15	9	PC15	156
PD0	114	PD0	114
PD1	115	PD1	115
PD2	116	PD2	116
PD3	117	PD3	117
PD4	118	PD4	118
PD5	119	PD5	119
PD6	122	PD6	122
PD7	123	PD7	123
PD8	77	PD8	77
PD9	78	PD9	78
PD10	79	PD10	79
PD11	80	PD11	80
PD12	81	PD12	81
PD13	82	PD13	82
PD14	85	PD14	85
PD15	86	PD15	86

PC0	26	PC0	141	PE0	141
PC1	27	PC1	142	PE1	142
PC2	28	PC2	143	PE2	143
PC3	29	PC3	144	PE3	144
PC4	44	PC4	145	PE4	145
PC5	45	PC5	146	PE5	146
PC6	96	PC6	147	PE6	147
PC7	97	PC7	148	PE7	148
PC8	98	PC8	149	PE8	149
PC9	99	PC9	150	PE9	150
PC10	111	PC10	151	PE10	151
PC11	112	PC11	152	PE11	152
PC12	113	PC12	153	PE12	153
PC13	7	PC13	154	PE13	154
PC14	8	PC14	155	PE14	155
PC15	9	PC15	156	PE15	156
PF0	10	PF0	10	PF0	10
PF1	11	PF1	11	PF1	11
PF2	12	PF2	12	PF2	12
PF3	13	PF3	13	PF3	13
PF4	14	PF4	14	PF4	14
PF5	15	PF5	15	PF5	15
PF6	18	PF6	18	PF6	18
PF7	19	PF7	19	PF7	19
PF8	20	PF8	20	PF8	20
PF9	21	PF9	21	PF9	21
PF10	22	PF10	22	PF10	22
PF11	49	PF11	49	PF11	49
PF12	50	PF12	50	PF12	50
PF13	53	PF13	53	PF13	53
PF14	54	PF14	54	PF14	54
PF15	55	PF15	55	PF15	55
PH0-OSC_IN	143	PH0-OSC_IN	143	PH0-OSC_IN	143
PH0-OSC_OUT	23	PH0-OSC_OUT	23	PH0-OSC_OUT	23
PH1-OSC_IN	24	PH1-OSC_IN	24	PH1-OSC_IN	24
PH1-OSC_OUT	24	PH1-OSC_OUT	24	PH1-OSC_OUT	24
NRST	25	NRST	25	NRST	25
BOOT0	138	BOOT0	138	BOOT0	138
PDR_ON	143	PDR_ON	143	PDR_ON	143

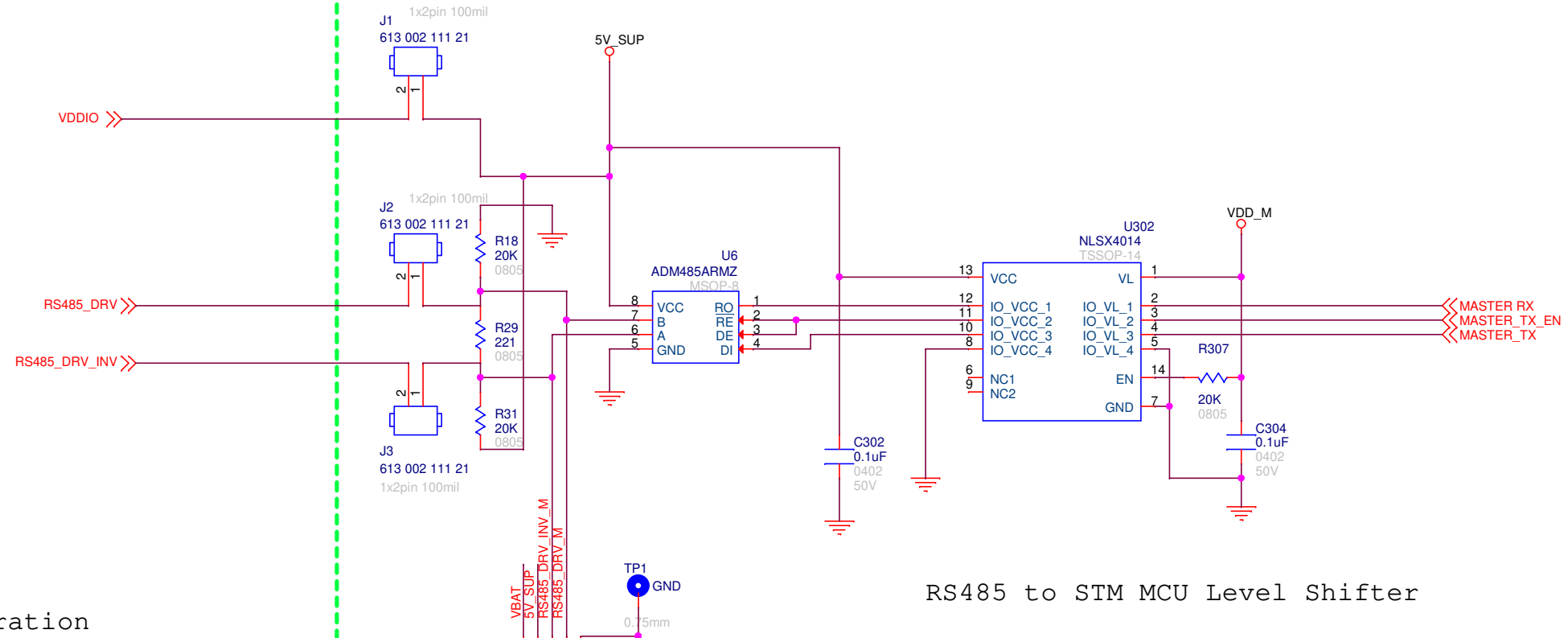
R66	0603	DNP	0.1%	PA4	<<DATA1_3P3
R67	0603	DNP	0.1%	PA5	<<DATA0_3P3
R68	0603	DNP	0.1%	PA6	<<DATA2_3P3
R69	0603	DNP	0.1%	PA7	<<DATA3_3P3



Regulation to 3.3V for J-Link OB device
500mA Limit

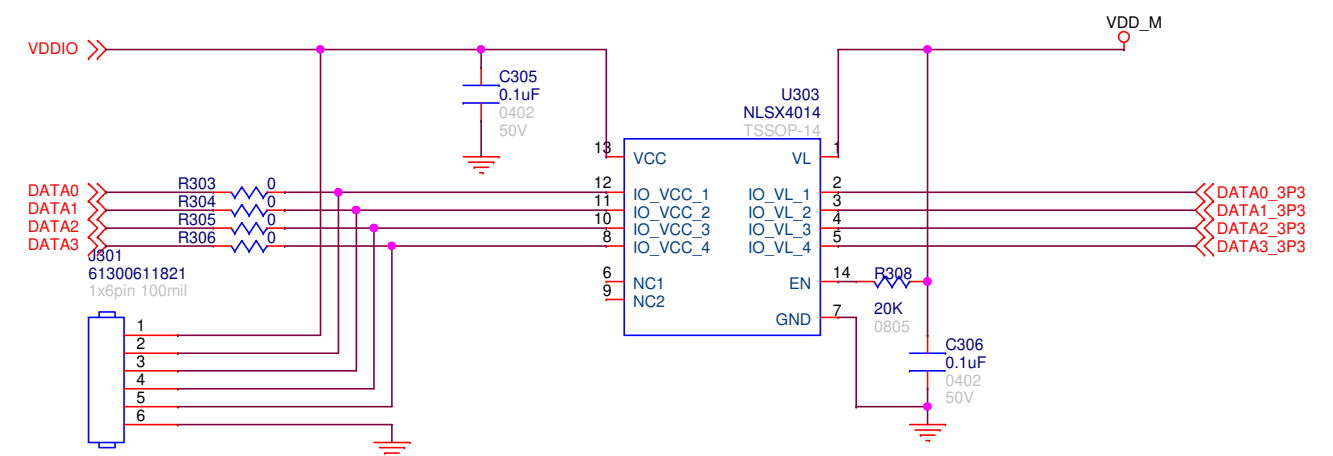
Sensor Side of RS485 Interface

Master Side of RS485 Interface



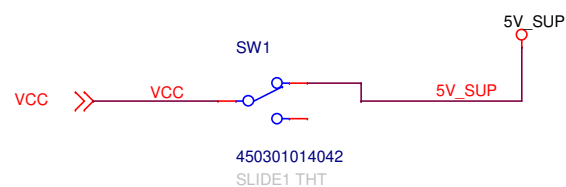
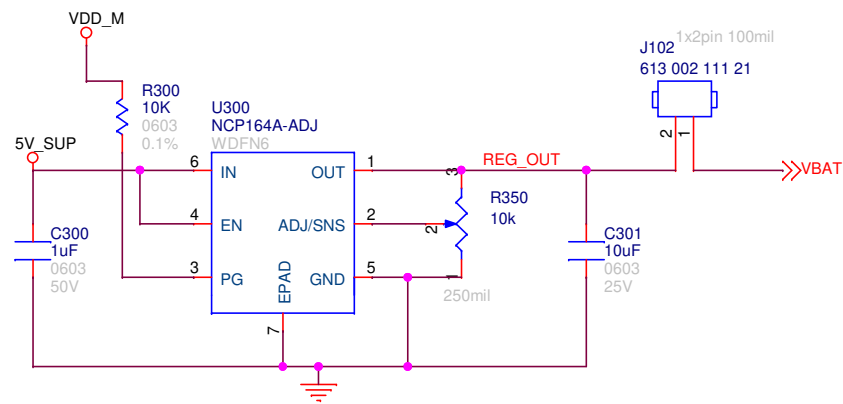
RS485 to STM MCU Level Shifter

Terminal block for external cabling option



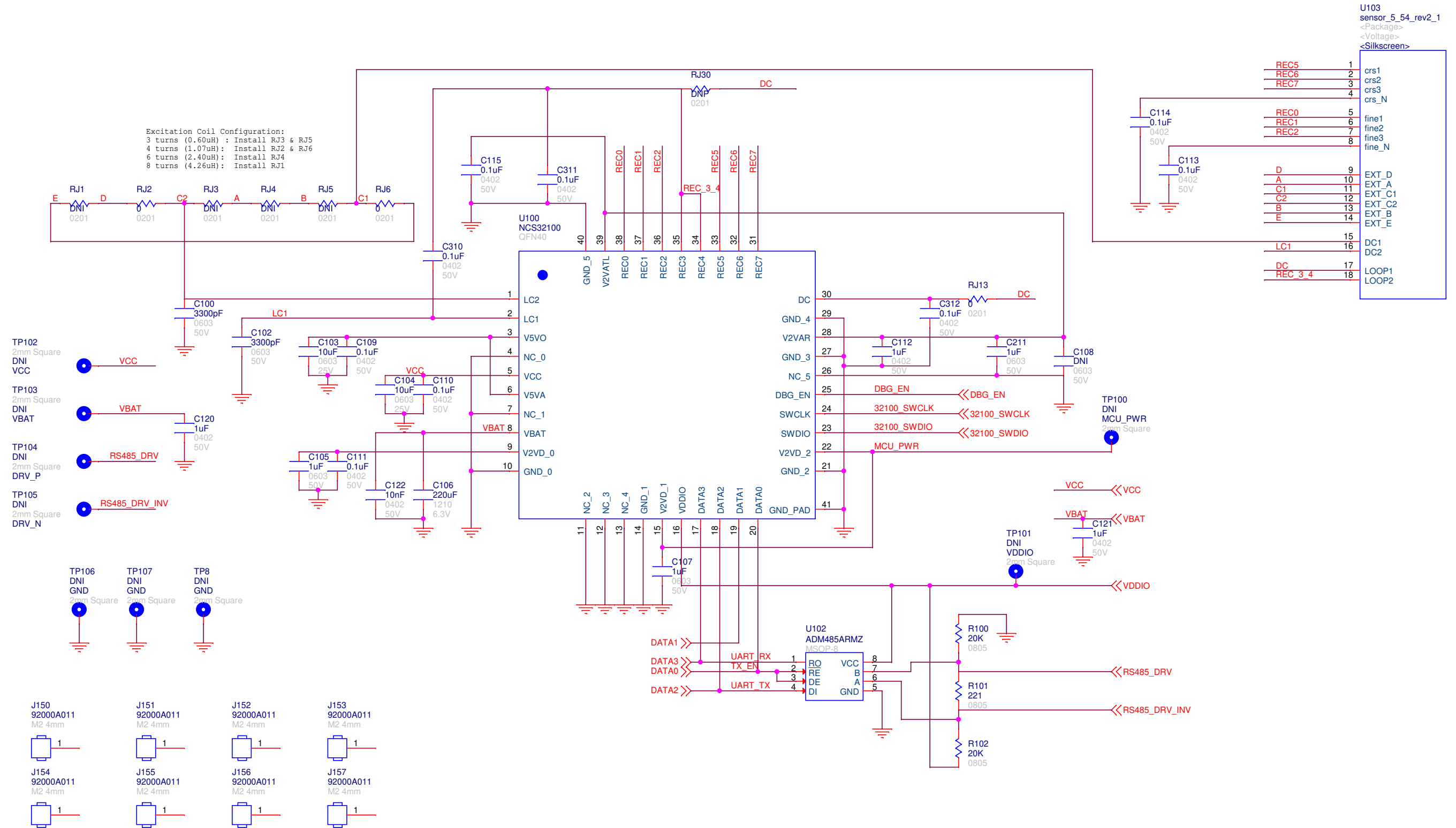
CONNECTION FOR EXTERNAL SENSOR TO STM32

Battery Voltage Generation



NCS32100 Sensor Interface

Excitation Coil Configuration:
 3 turns (0.60uH) : Install RJ3 & RJ5
 4 turns (1.07uH) : Install RJ2 & RJ6
 6 turns (2.40uH) : Install RJ4
 8 turns (4.26uH) : Install RJ1





NCS32100 - Inductive Sensor Evaluation and Development Board