

Title: UHF Communication Board - ADF7030-1

Size	Number	Revision
A4		
Date: 06-10-2021	Sheet of	
File: D:\NanoSat\..\ADF7030_1_UHF_RFIC_Schematic		Drawn By: Dhruva Anantha Datta - SC18B095

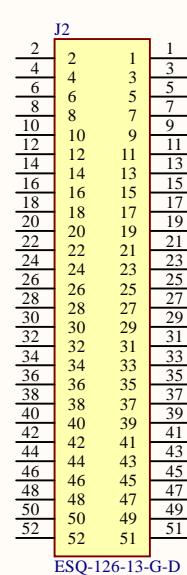
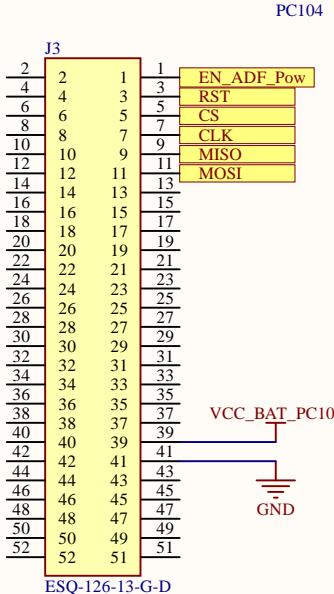
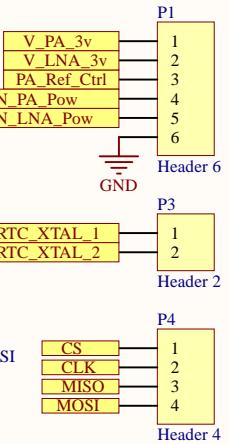
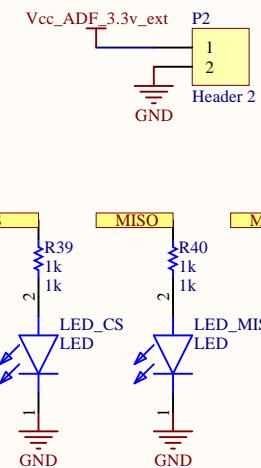
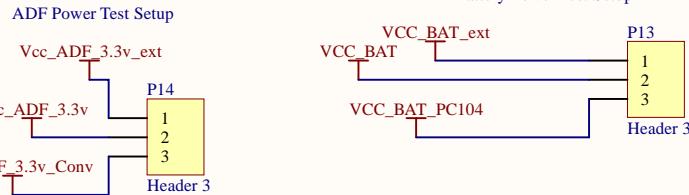
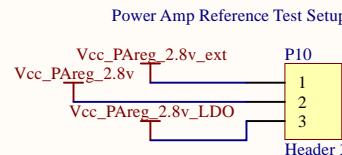
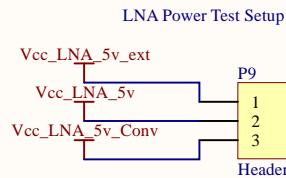
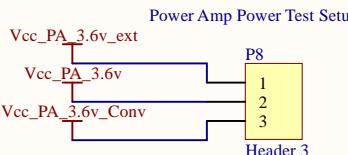
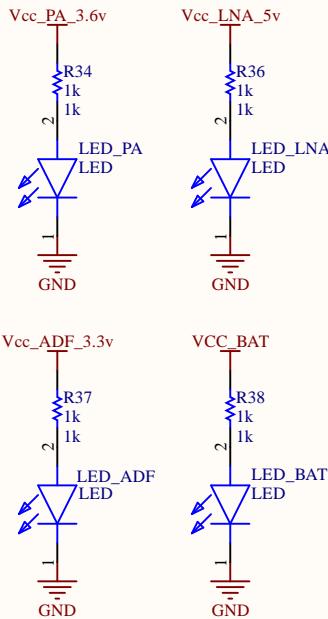
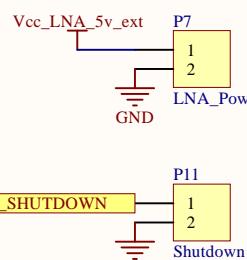
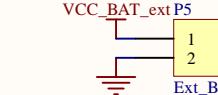
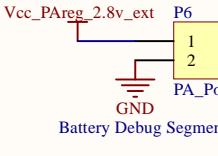
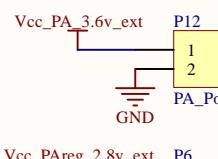
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**ADF7030-1 Debug Segment****Jumper For Alternative Power****LED For Power up Confirmation****LNA Debug Segment****Power Amplifier Debug Segment**

Title		
Size	Number	Revision
A4	5	1
Date:	06-10-2021	Sheet of
File:	D:\NanoSat\..\Debug_connectors.SchDoc	Drawn By: Dhruva Anantha Datta - SC18B095

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A

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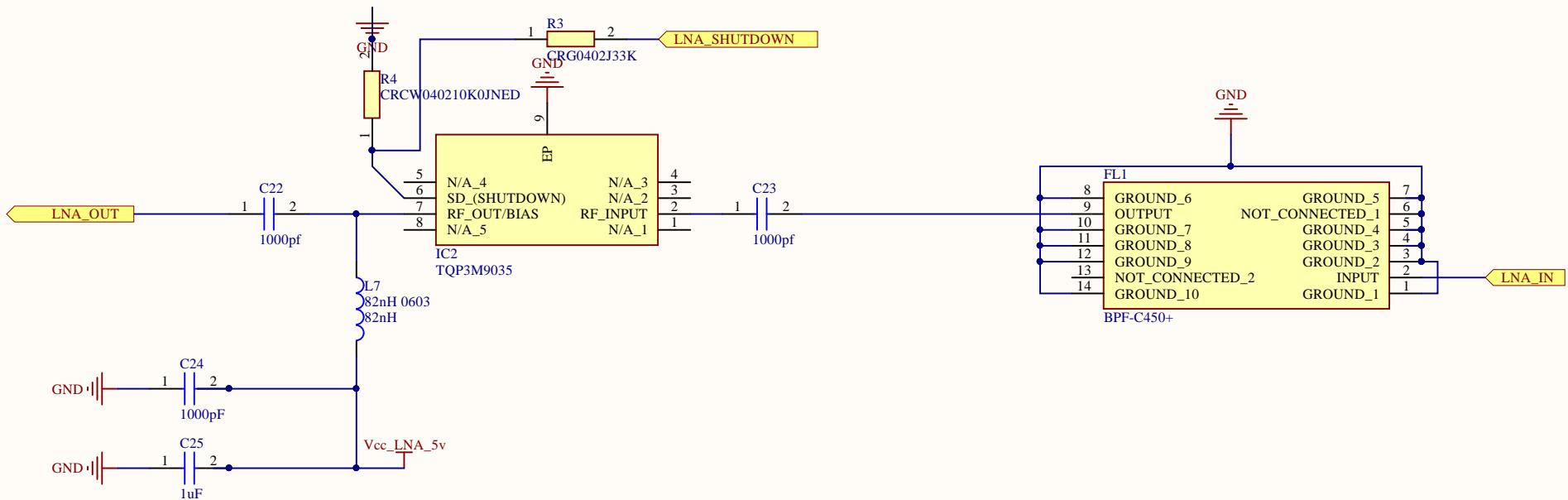
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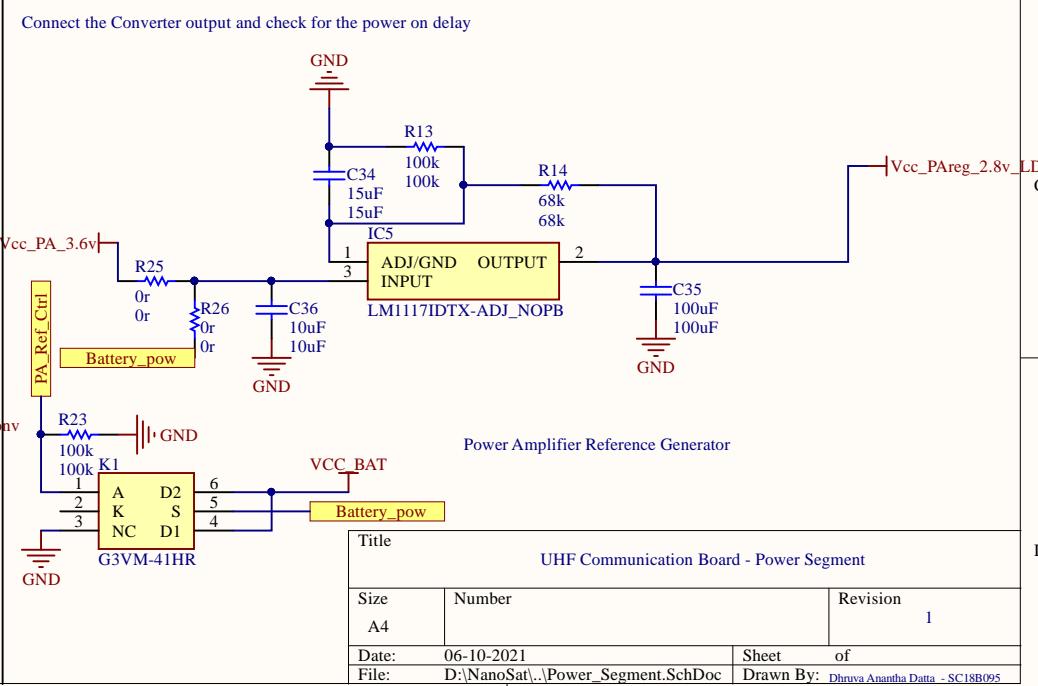
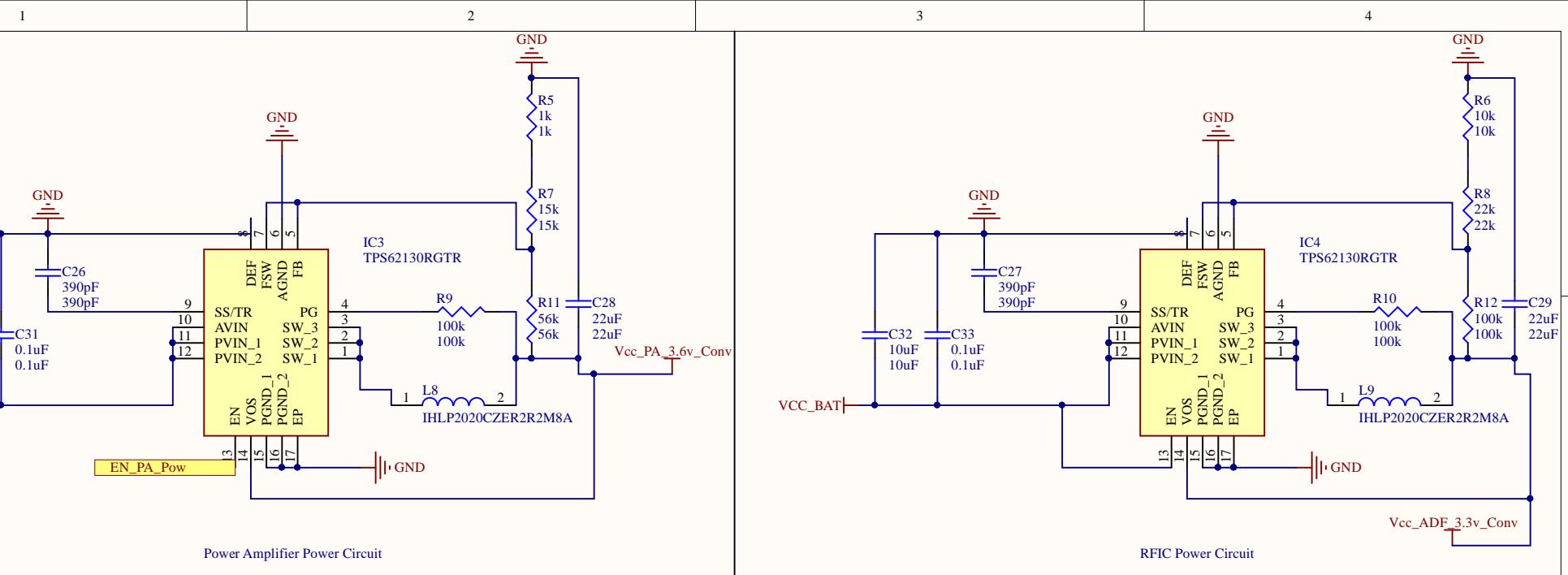
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Title: UHF Communication Board - LNA and BPF

Size	Number	Revision
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Date:	06-10-2021	Sheet of
File:	D:\NanoSat...\LNA_TQP3M9035_and_BPF_SchB.xsc	Dhruva Anantha Datta - SC18B095



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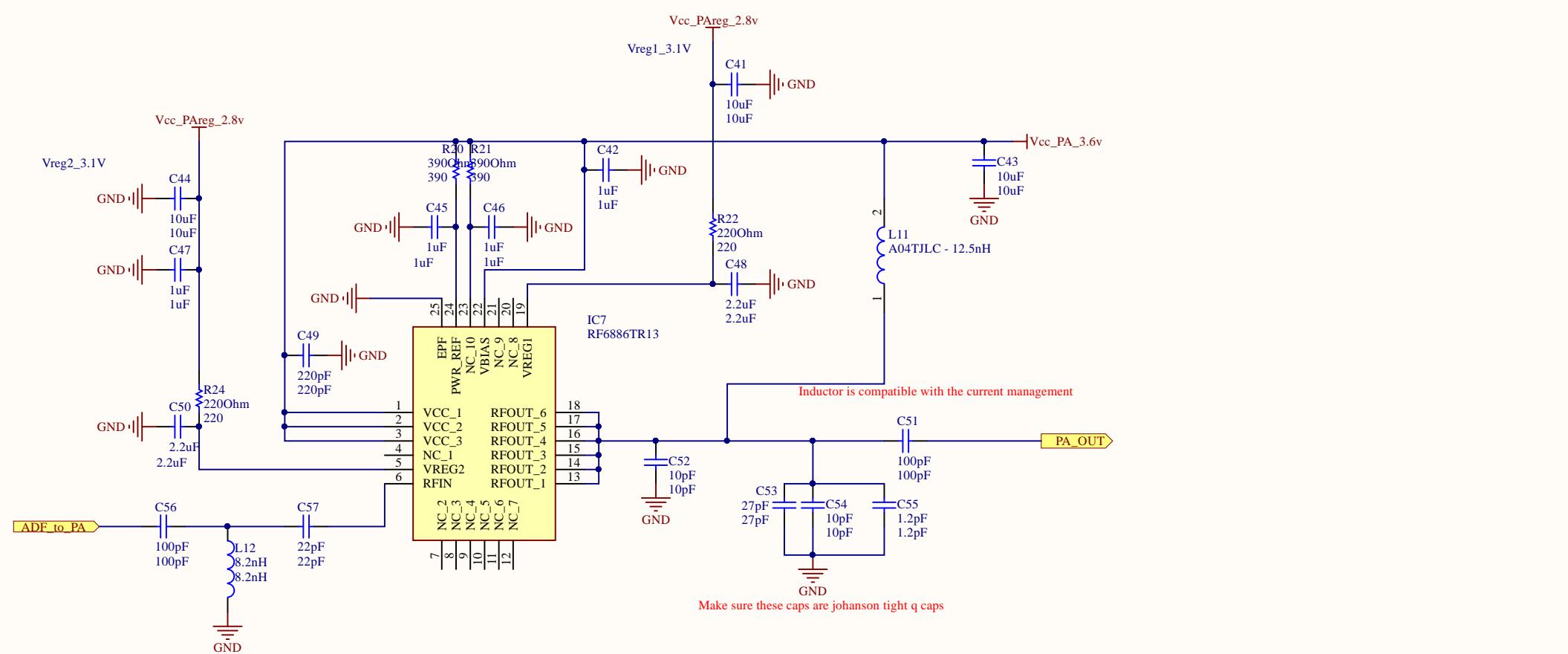
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Title		
UHF Communication Board - Power Amplifiers		
Size	Number	Revision
A4		
Date:	06-10-2021	Sheet of
File:	D:\NanoSat\RF6886_Power_Amp.Sch	Drawn By: Dhruva Anantha Datta - SC18B095

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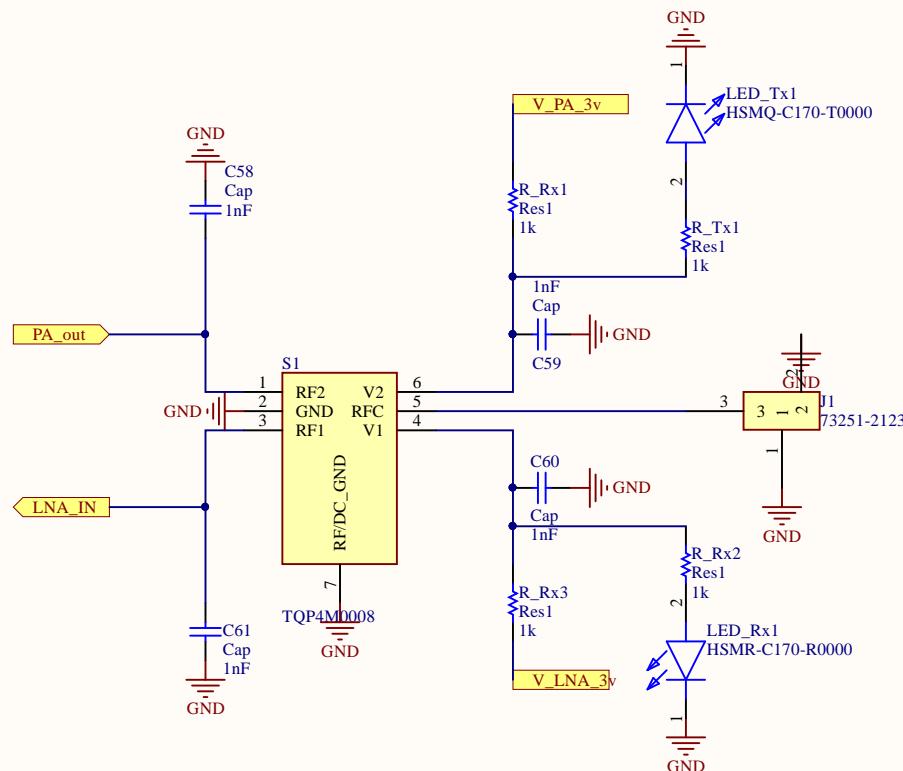
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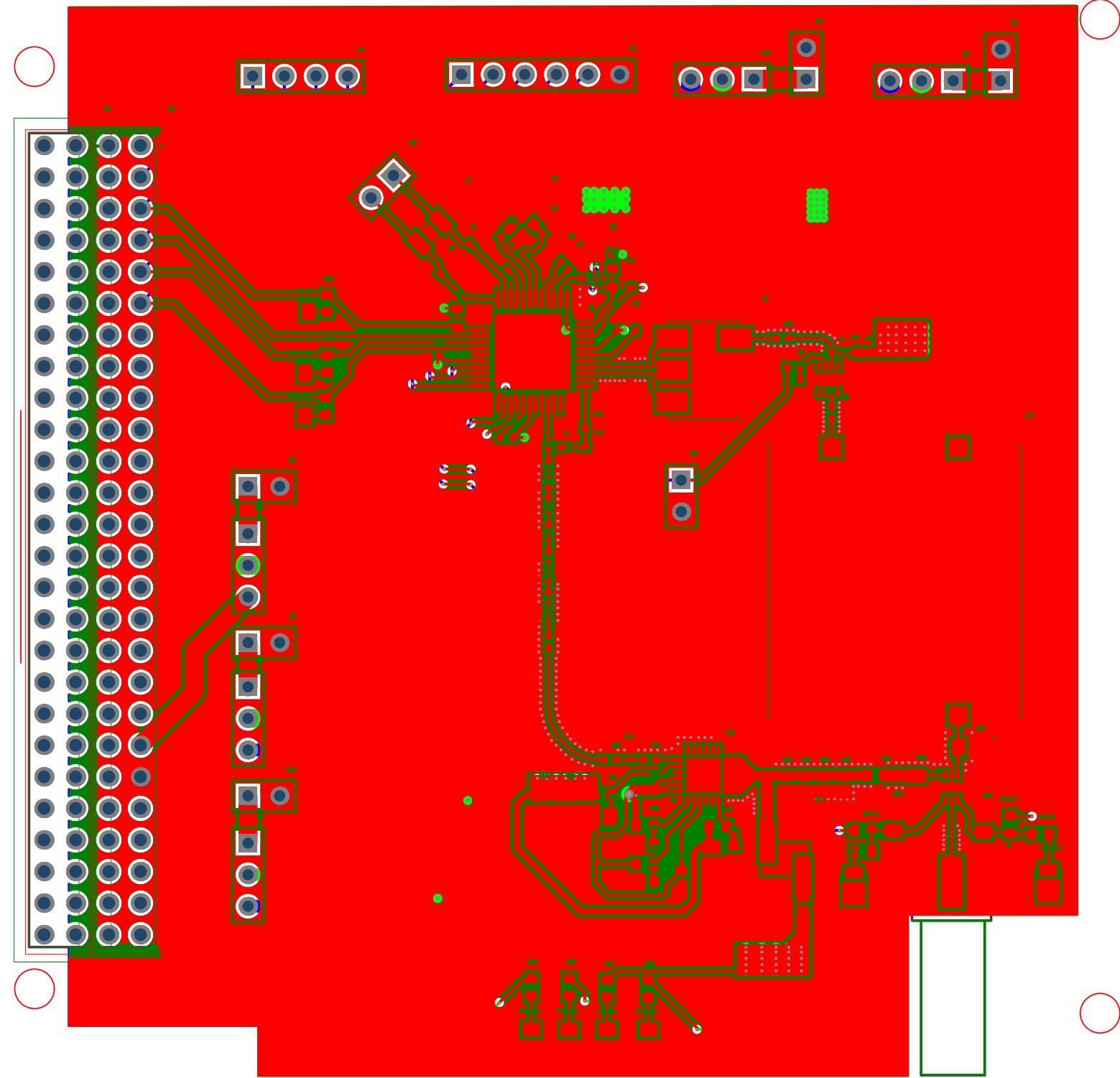
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Title		
UHF Communication Board -TxRx switch		
Size	Number	Revision
A4		
Date:	06-10-2021	Sheet of
File:	D:\NanoSat\UVTxRx_Switch.SchDoc	Drawn By: Dhivya Anantha Datta - SC18R095



Item #	Designator	Description	Name	Quantity	Manufacturer 1	Manufacturer PartNo 1	Footprint	LibRef	Note
1	C1, C3	Capacitor	5.6pF	2			0402	Cap	
2	C2, C6	Capacitor, low temp coeff	11pF	2			0402	Cap	
3	C4, C5, C7, C11, C12, C20	Capacitor	220nF	6			0402	Cap	
4	C8	Capacitor	1.2nF	1			0402	Cap	
5	C9, C10, C15, C19	Capacitor	100nF	4			0402	Cap	
6	C13	Capacitor	47pF	1			0402	Cap	
7	C14, C49	Capacitor	220pF	2		1608[0603]	1608[0603]	Cap	
8	C16	Capacitor	270pF	1			0402	Cap	
9	C17, C18, C21	Capacitor	6.8pF	3			0402	Cap	
10	C22, C23	Capacitor	1000pf	2			CGA2B2NP01H101J050BA		
11	C24	Capacitor	1000pF	1			0402	CGA2B2NP01H101J050BA	
12	C25	Capacitor	1uF	1			0402	CGA2B2NP01H101J050BA	
13	C26, C27, C37	Capacitor	390pF	3		1608[0603]		Cap	
14	C28, C29, C38	Capacitor	22uF	3		1608[0603]		Cap	
15	C30, C32, C36, C39, C41, C43	Capacitor	10uF	6		1608[0603], C0805		Cap	
16	C31, C33, C40	Capacitor	0.1uF	3		1608[0603]		Cap	
17	C34	Capacitor	150F	1		1608[0603]		Cap	
18	C35	Capacitor	100uF	1		1608[0603]		Cap	
19	C42, C45, C46, C47	Capacitor	1uF	4		1608[0603], C0805		Cap	
20	C44	Capacitor - C0805C106J9RACAU	10uF	1		C0805		Cap	
21	C48, C50	Capacitor	2.2uF	2		1608[0603], C0805		Cap	
22	C51, C56	Capacitor	100pF	2		1608[0603], 0402		Cap	
23	C52, C54	Capacitor	10pF	2		1608[0603]		Cap	
24	C53	Capacitor	27pF	1		1608[0603]		Cap	
25	C55	Capacitor	1.2pF	1		1608[0603]		Cap	
26	C57	Capacitor	22pF	1		0402		Cap	
27	C58, C59, C60, C61	Capacitor	Cap	4		C0805		Cap	
28	FL1	Filter	BPF-C450+	1		BPFC450	BPFC450+		
29	IC1	Integrated Circuit	AD7030-1BSTZN	1		QFP50P900X900X160-48N	QFP50P900X900X160-48N	AD7030-1BSTZN	
30	IC2	Integrated Circuit	TQP3M9035	1		SON50P200X200X90-9N-D	TQP3M9035		
31	IC3, IC4, IC6	Integrated Circuit	TPS62130RGTR	3		QFN50P300X300X100-17N-D	TPS62130RGTR		
32	IC5	Integrated Circuit	LM1117IDTX-ADJ_NOPB	1		LM1117IDTXADJN0PB	LM1117IDTX-ADJ_NOPB		
33	IC7	Integrated Circuit	RF6886TR13	1		QFN50P400X400X90-25N-D	RF6886TR13		
34	J1	Connector	73251-2123	1		73251-2123	73251-2123		
35	J2, J3	Connector	ESQ-126-13-G-D	2		ESQ-126-Y-X-D	ESQ-126-13-G-D		
36	K1	Relay or Contactor	G3VM-41HR	1		SOP254P700X210-6N	G3VM-41HR		
37	L1	Inductor	82nH	1		0402-A	Inductor		
38	L2, L4	Inductor	20nH	2		0402-A	Inductor		
39	L3	Inductor	40nH	1		0402-A	Inductor		
40	L5	Inductor	11nH	1		0402-A	Inductor		
41	L6	Inductor	18nH	1		0402-A	Inductor		
42	L7	Inductor	82nH 0603	1		0603	Inductor		
43	L8, L9, L10	Inductor	IHL2020CZER2R2 M8A	3		INDPM5552X300N	IHL2020CZER2R2M8A		
44	L11	Inductor	A04TJLC - 12.5nH	1		A04TJLC	A04TJLC		
45	L12	Inductor	8.2nH	1		0603	Inductor		
46	LED_ADF, LED_BAT, LED_CS, LED_LNA, LED_MISO, LED_MOSI, LED_PA	LED	LED	7		C0805	HSMR-C170-R0000		
47	LED_Rx1	LED	HSMR-C170-R0000	1		LEDC2012X90N	HSMR-C170-R0000		
48	LED_Tx1	LED	HSMQ-C170-T0000	1		LEDC2012X90N	HSMQ-C170-T0000		
49	P1	Header, 6-Pin	Header 6	1		HDR1X6	Header 6		
50	P2, P3	Header, 2-Pin	Header 2	2		HDR1X2	Header 2		
51	P4	Header, 4-Pin	Header 4	1		HDR1X4	Header 4		
52	P5	Header, 2-Pin	Ext Bat	1		HDR1X2	Header 2		
53	P6, P12	Header, 2-Pin	PA_Pow	2		HDR1X2	Header 2		
54	P7	Header, 2-Pin	LNA_Pow	1		HDR1X2	Header 2		
55	P8, P9, P10, P13, P14	Header, 3-Pin	Header 3	5		HDR1X3	Header 3		
56	P11	Header, 2-Pin	Shutdown	1		HDR1X2	Header 2		
57	R1, R2, R9, R10, R12, R18	Resistor	100k	6		J1-0603	Res3		
58	R3	Resistor	CRG0402J33K	1		0402	CRG0402J33K		
59	R4	Resistor	CRCW040210K0JNED	1		0402	CRCW040210K0JNED		
60	R5	Resistor	1k	1		J1-0603	Res3		
61	R6	Resistor	10k	1		J1-0603	Res3		
62	R7	Resistor	15k	1		J1-0603	Res3		
63	R8	Resistor	22k	1		J1-0603	Res3		
64	R11	Resistor	56k	1		J1-0603	Res3		
65	R13, R23	Resistor	100k	2		1608[0603]	Res1		
66	R14	Resistor	68k	1		1608[0603]	Res1		
67	R16	Resistor	27k	1		J1-0603	Res3		
68	R17	Resistor	8k	1		J1-0603	Res3		
69	R19	Resistor	33k	1		J1-0603	Res3		
70	R20, R21	Resistor	390Ohm	2		1608[0603]	Res1		
71	R22, R24	Resistor	220Ohm	2		1608[0603]	Res1		
72	R25, R26	Resistor	0r	2		1608[0603]	Res1		
73	R34, R36, R37, R38, R39, R40, R41	Resistor	1k	7		1608[0603]	Res1		
74	R_Rx1, R_Rx2, R_Rx3, R_Tx1	Resistor	Res1	4		1608[0603]	Res1		
75	S1	Switch	TQP4M0008	1		SON50P200X200X90-7N-D	TQP4M0008		
76	T1	Transformer	ADT1.5-1+	1		ADT151	ADT1.5-1+		
77	Y1	Crystal or Oscillator	ABS07-120-32.768KHZ-T	1		ABS0712032768KHZ-T	ABS07-120-32.768KHZ-T		
78	Y2	Crystal or Oscillator	FA-128_26.0000MF10Z-W5	1		FA128260000MF10Z-W5	FA-128_26.0000MF10Z-W5		

