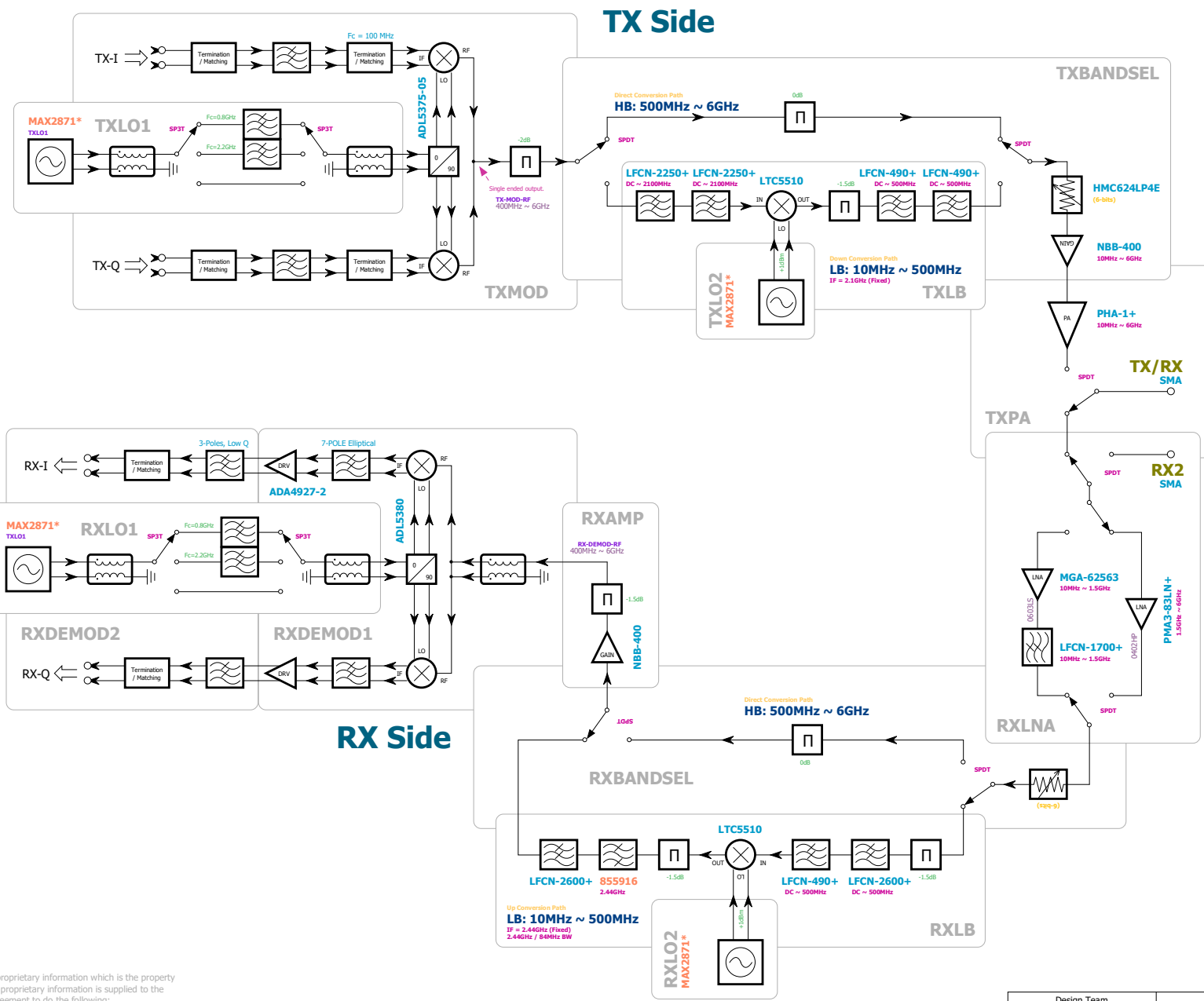


Revisions	
REV	Description
1	INITIAL PRODUCTION VERSION
2	1.50 Pinning Change, ONLY System Revision Compliance Update
3	Removed D7 and S24 to make U6 permanently "ON"
4	Relocated J1 / J2 to avoid conflict to the stand screw / Feed Effus Logo Size
5	Replaced VDDPA LNA with PMA3 LNA, High Isolation, IFS Spdt.
6	Forked to TDD Variant, replaced I/R switch with faster HMC7992

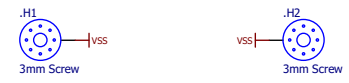
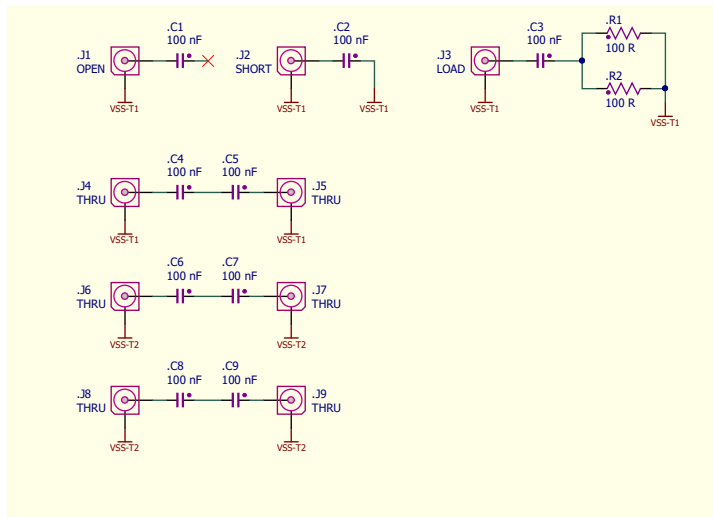


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Design Team		Etthus		Research		4600 Patrick Henry Drive Santa Clara, CA 95054 USA	
DRAWN BY	DATE	SCH_TDD_COMMS_OPT_UBX_USRP_DB_160MHz_BW_10MHz-6GHz		DOC CODE		DRAWING PROJECT NO	
REVIEWED BY	DATE	D		7U296		REV	
VERIFIED BY	DATE	D		7U296		1	
TECHNICIAN	DATE	D		7U296		1	
ENGINEER	DATE	D		7U296		1	
FILE NAME: 160_8000design_500Hz				DATE: 11-Dec-17 1 SHEET 1 OF 11			



**ESD**  
.LOG01

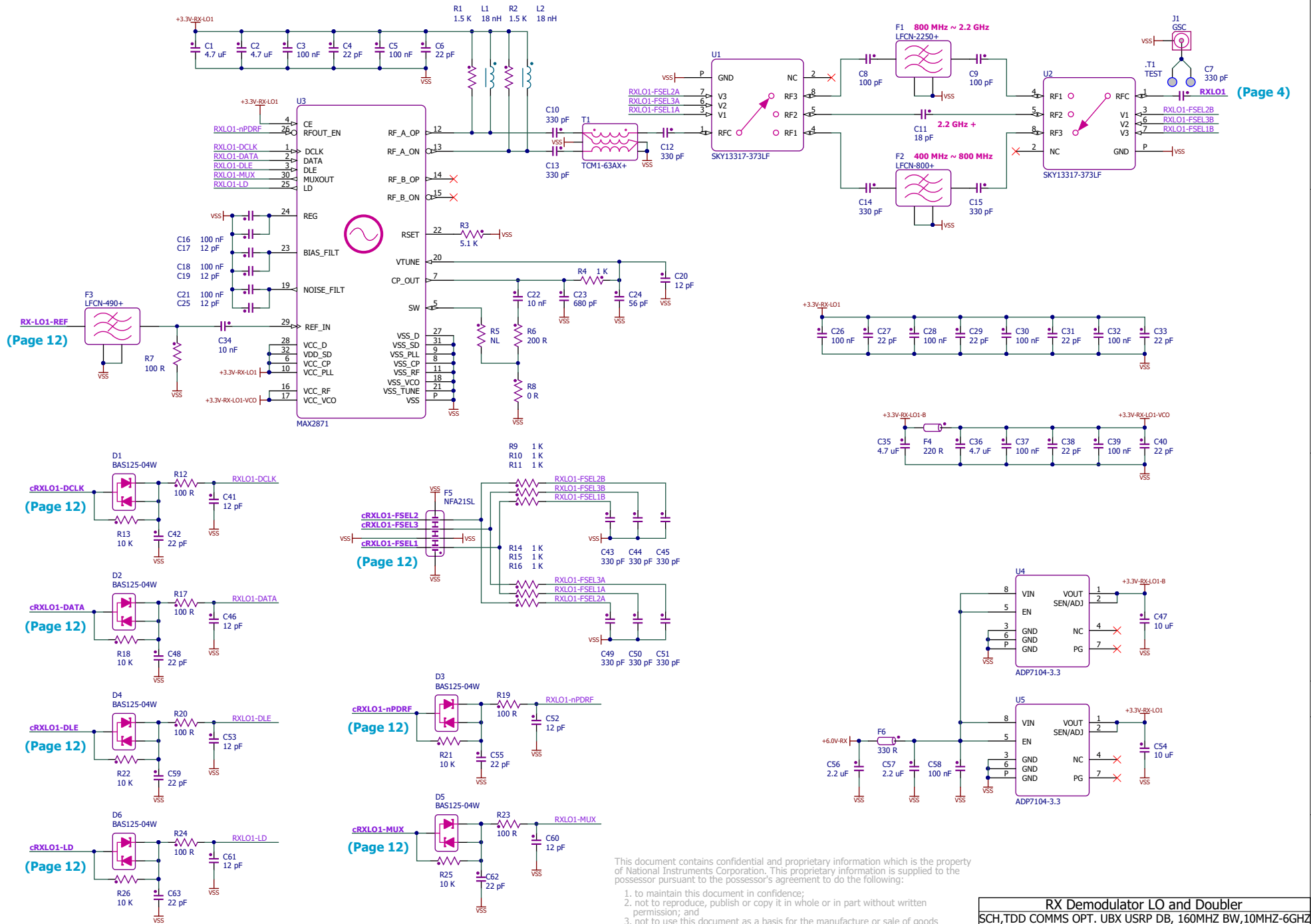
**WEEE**  
.LOG02

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Essential Hardware Elements			
SCH,TDD COMMS OPT. UBX USRP DB, 160MHZ BW,10MHZ-6GHZ			
SIZE	DOC CODE	DRAWING PROJECT NO.	REV
C	7U296		1
FILE NAME	02_EssentialElements.SchDoc	DATE 11-Dec-17	SHEET 2 OF 13



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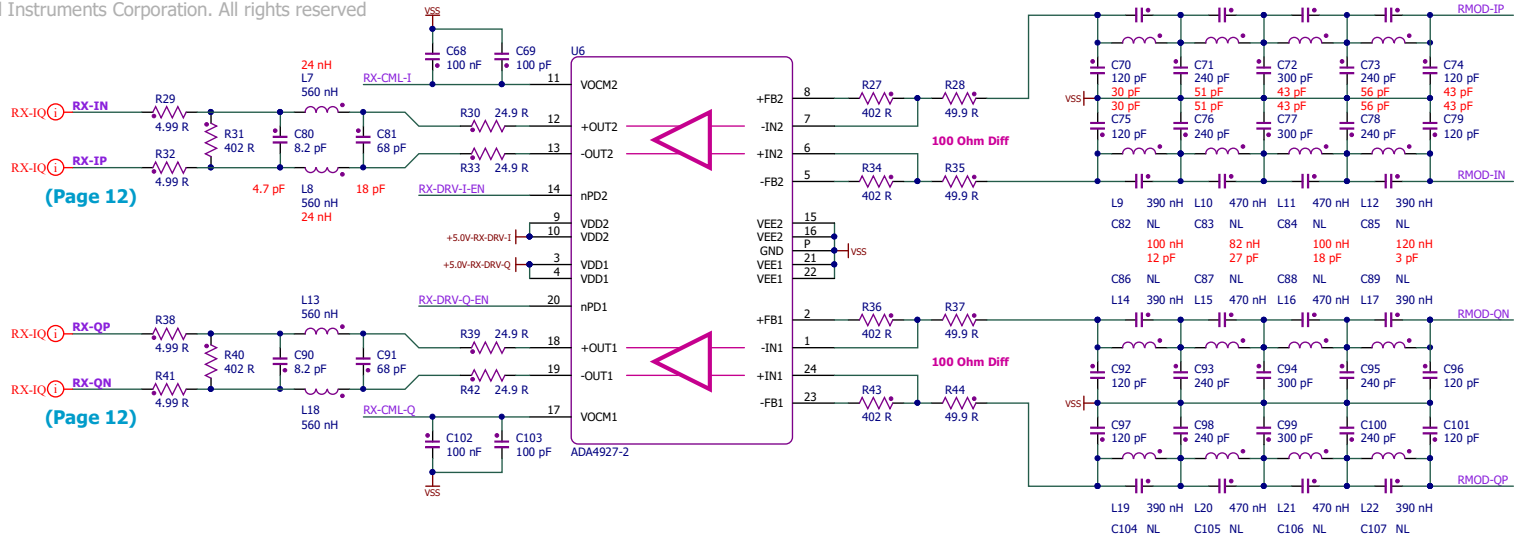
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RX Demodulator LO and Doubler			
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C	7U296		1
FILE NAME	03_RX_LO1.SchDoc		DATE 11-Dec-17 SHEET 3 OF 13

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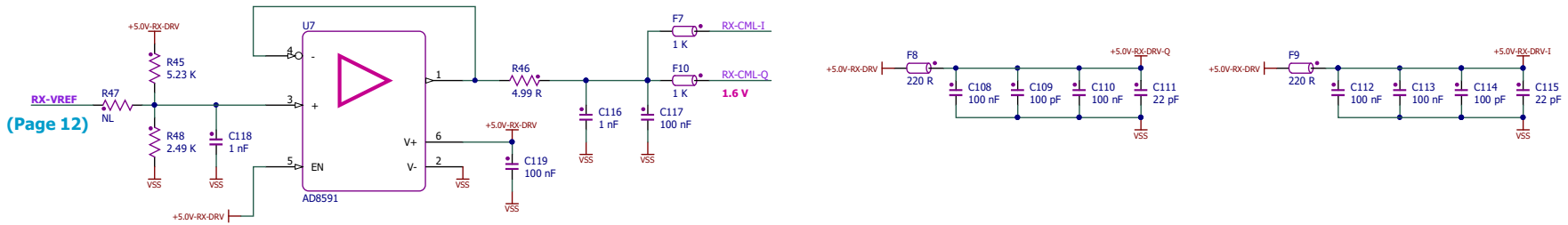
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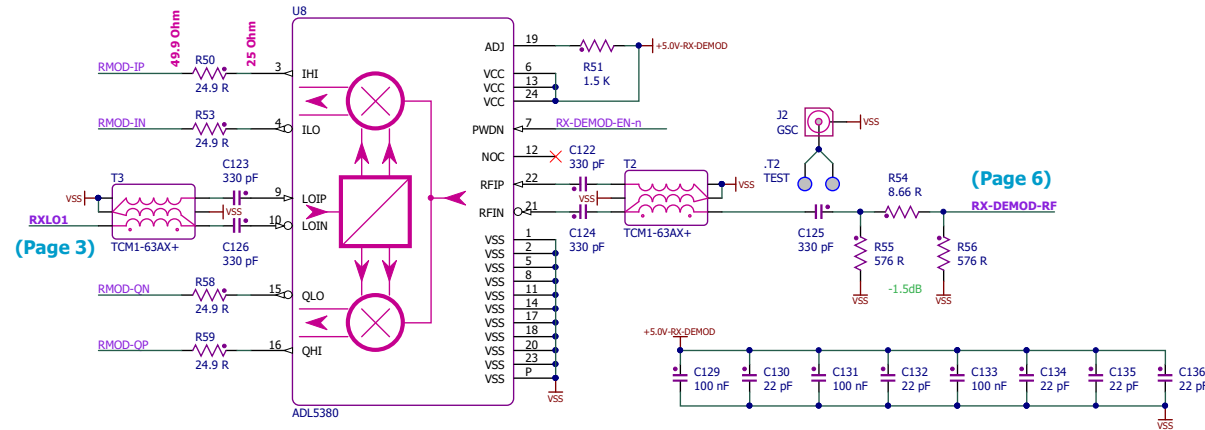


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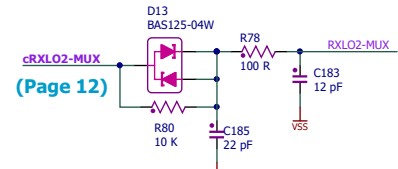
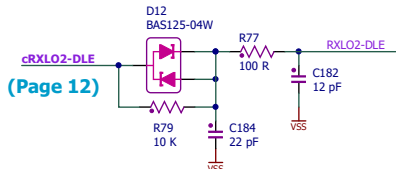
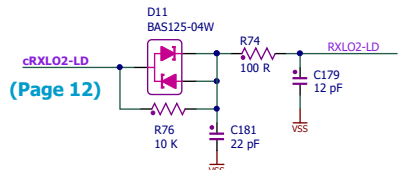
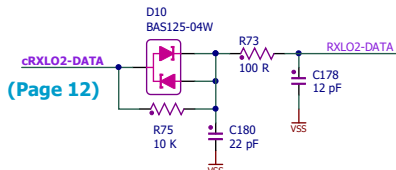
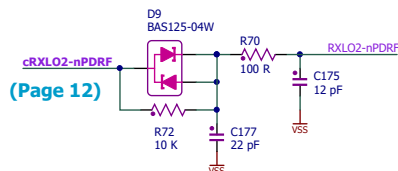
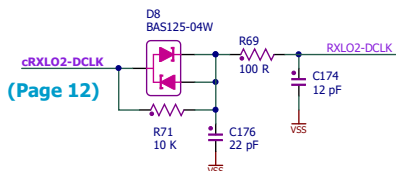
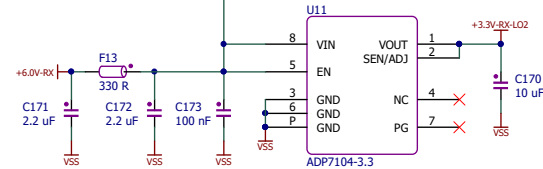
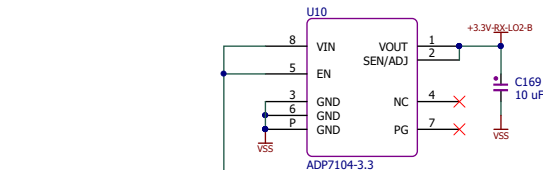
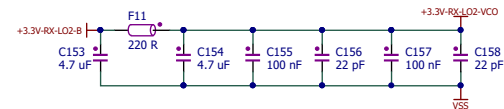
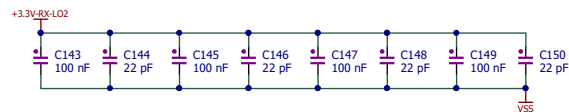
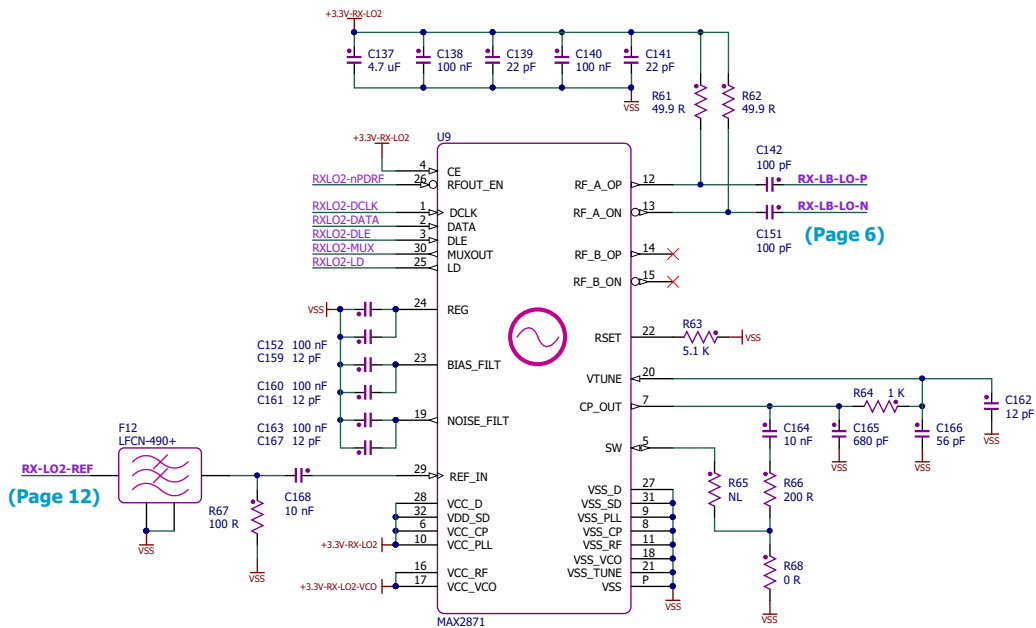


RX Demodulator and ADC Driver			
SCH	TDD	COMMS	OPT. UBX USRP DB, 160MHZ BW, 10MHZ-6GHZ
SIZE	DOC CODE	DRAWING PROJECT NO	REV
C	7U296		1
FILE NAME	04_RX_DEMOD.SchDoc	DATE	11-Dec-17
		SHEET	4 OF 13

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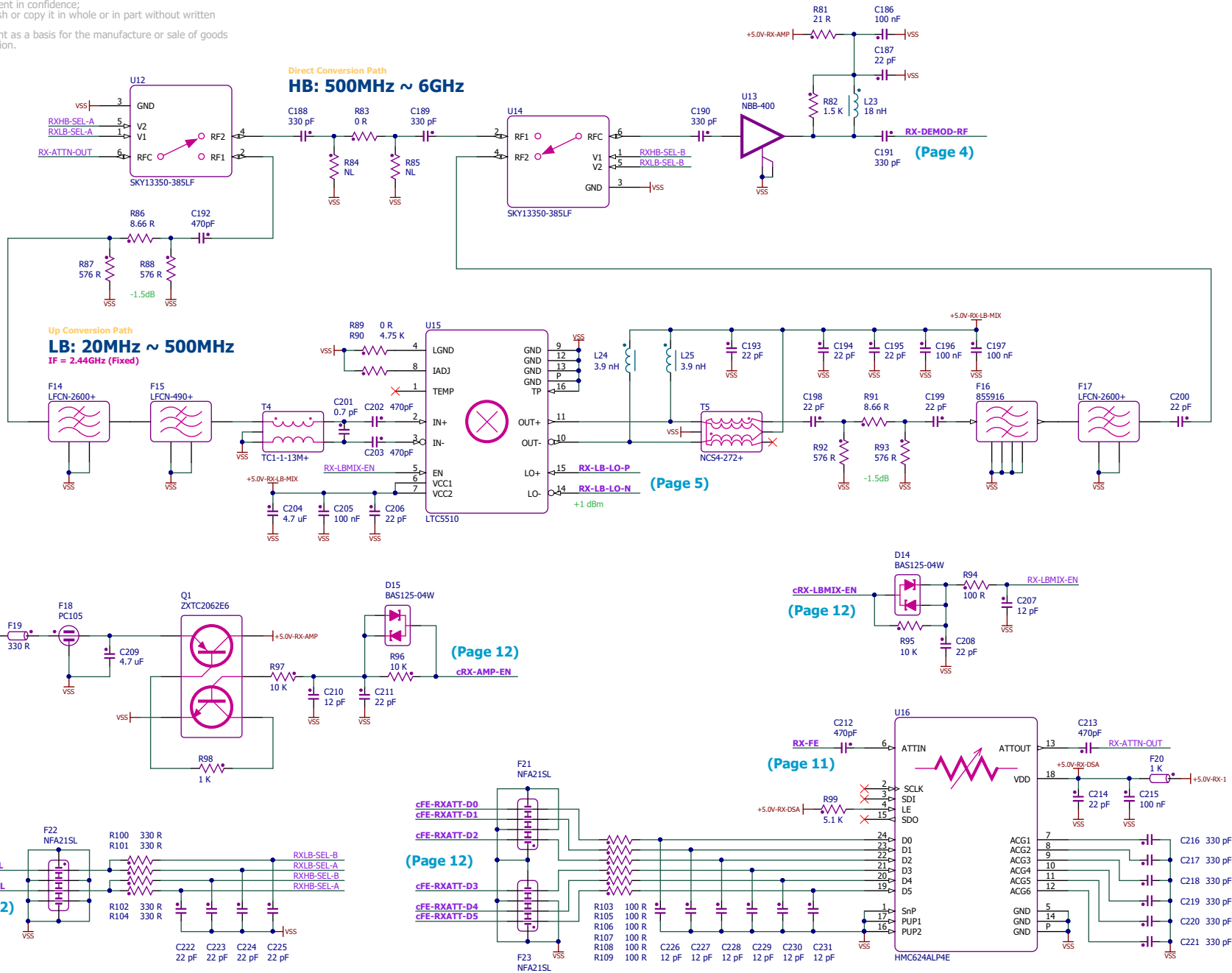
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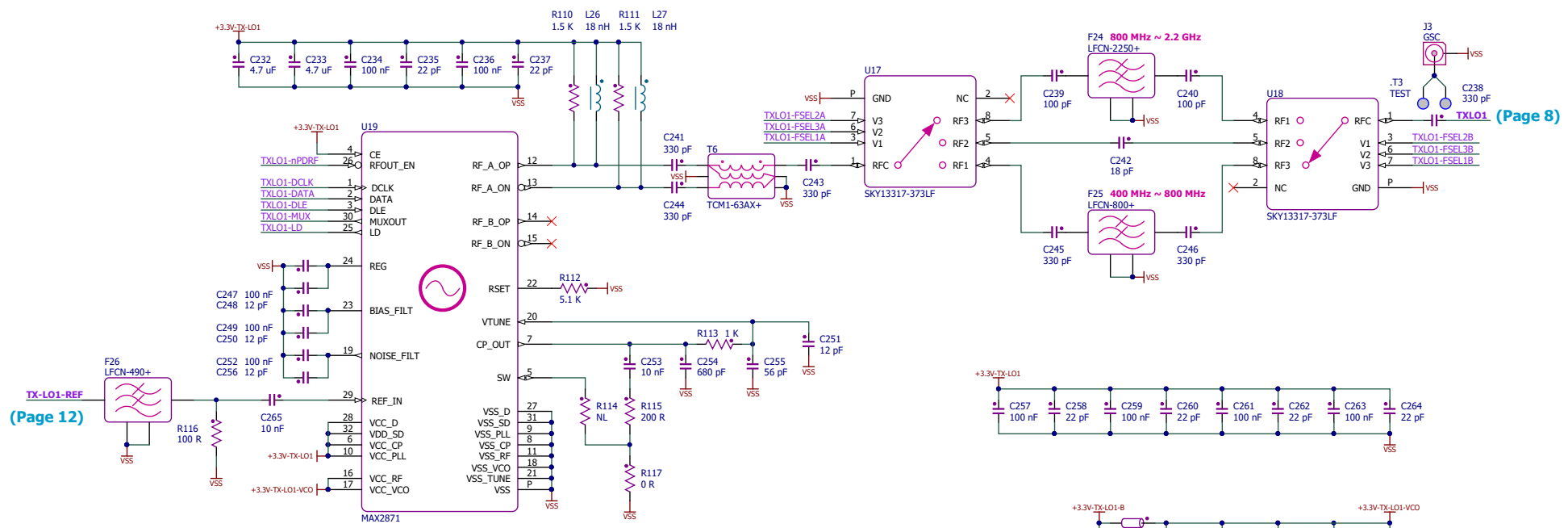
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RX Low Band LO PLL and Mixer Driver			
SCH	TDD	COMMS	OPT. UBX USRP DB, 160MHZ BW, 10MHZ-6GHZ
SIZE	DOC CODE	DRAWING PROJECT NO.	
C	7U296		
FILE NAME	05_RX_LO2_SchDoc	DATE	11-Dec-17
		SHEET	5 OF 13

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TX-LO1-REF  
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cTXLO1-DCLK  
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cTXLO1-DATA  
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cTXLO1-DLE  
(Page 12)

cTXLO1-LD  
(Page 12)

(Page 12)

cTXLO1-nPDRF  
(Page 12)

cTXLO1-MUX  
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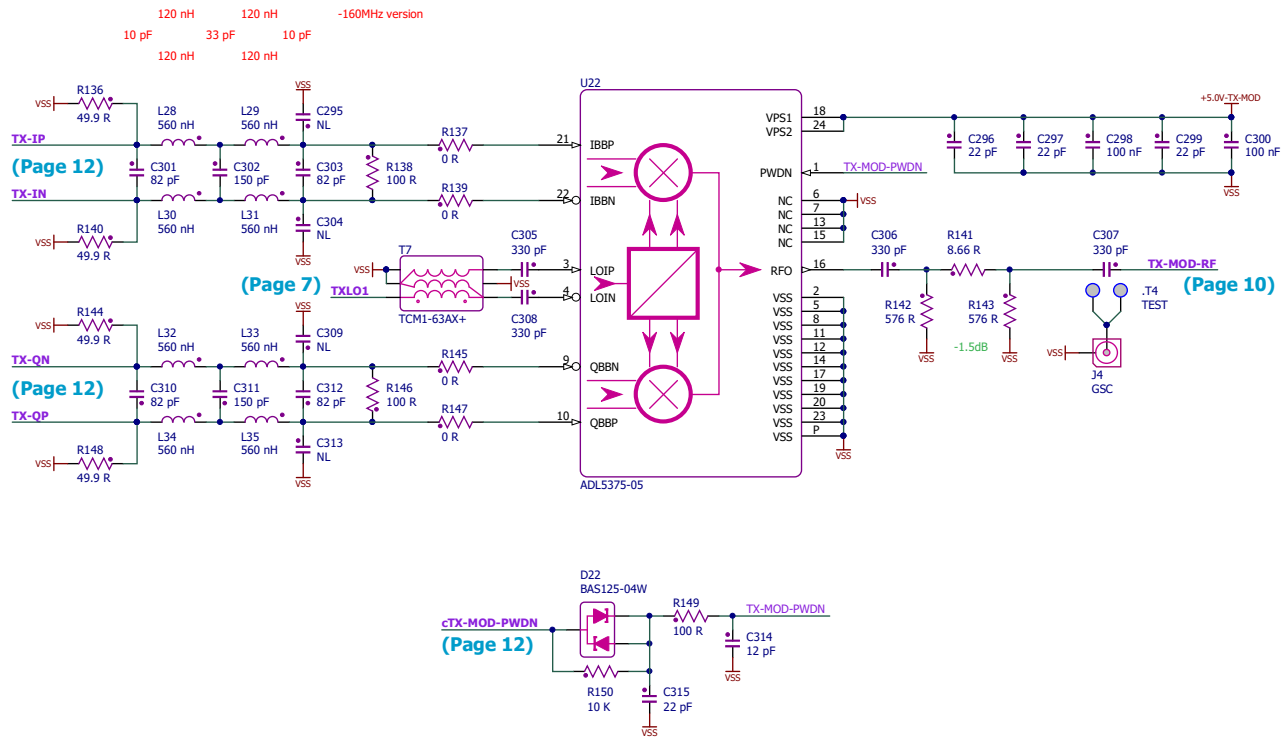
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TX Modulator LO and Doubler			
SCH	TDD	COMMS	OPT. UBX USRP DB, 160MHZ BW, 10MHZ-6GHZ
SIZE	DOC CODE	DRAWING PROJECT NO	
C	7U296		
FILE NAME	07_TX_LO1.SchDoc	DATE	11-Dec-17
		SHEET	7 OF 13

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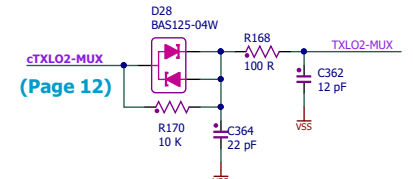
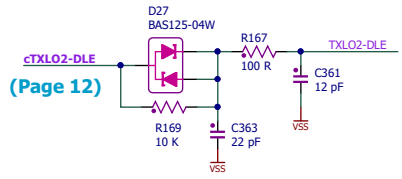
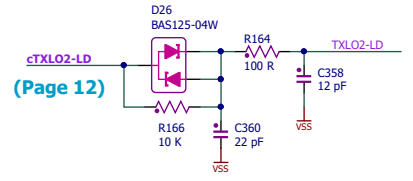
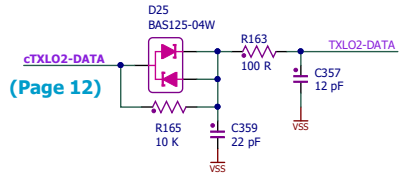
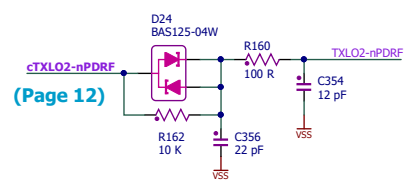
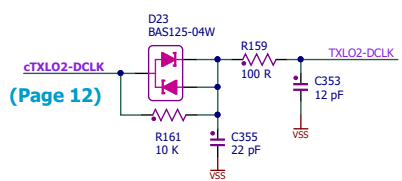
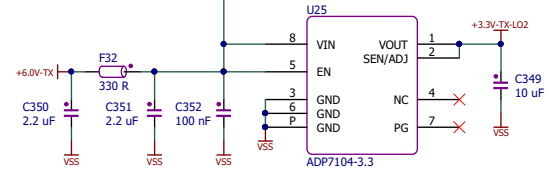
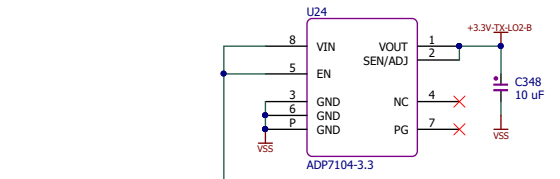
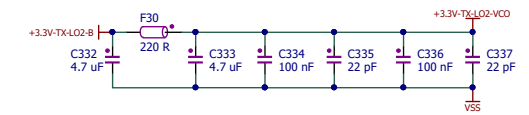
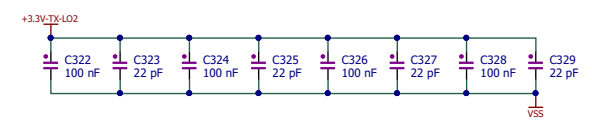
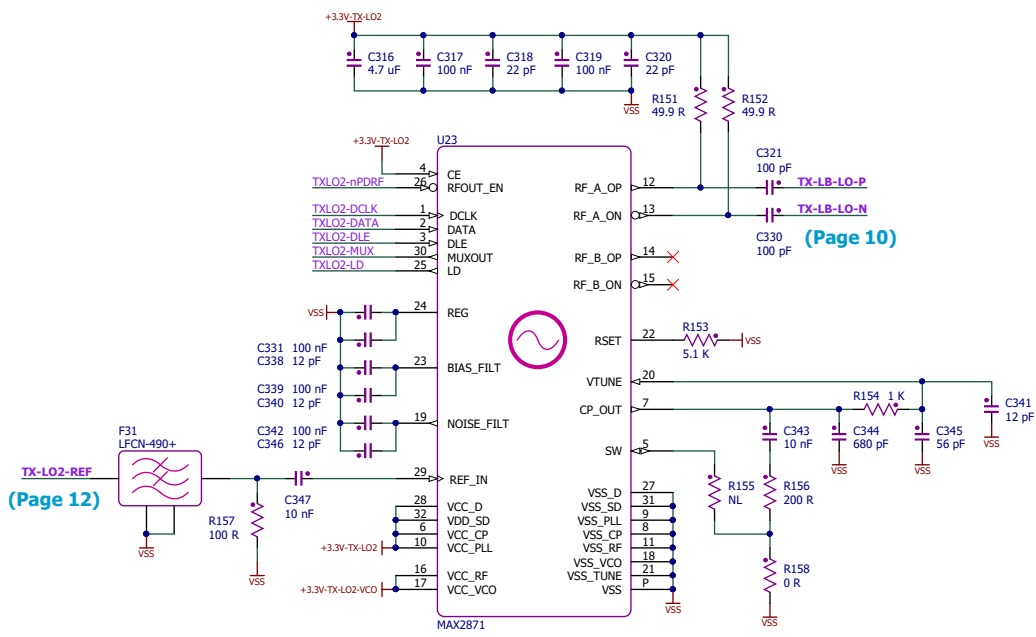
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TX Modulator			
SCH_TDD COMMS OPT. UBX USRP DB, 160MHZ BW, 10MHZ-6GHZ			
SIZE	DOC CODE	DRAWING PROJECT NO.	REV
C	7U296		1
FILE NAME	08_TX_MOD_SchDoc	DATE 11-Dec-17	SHEET 8 OF 13



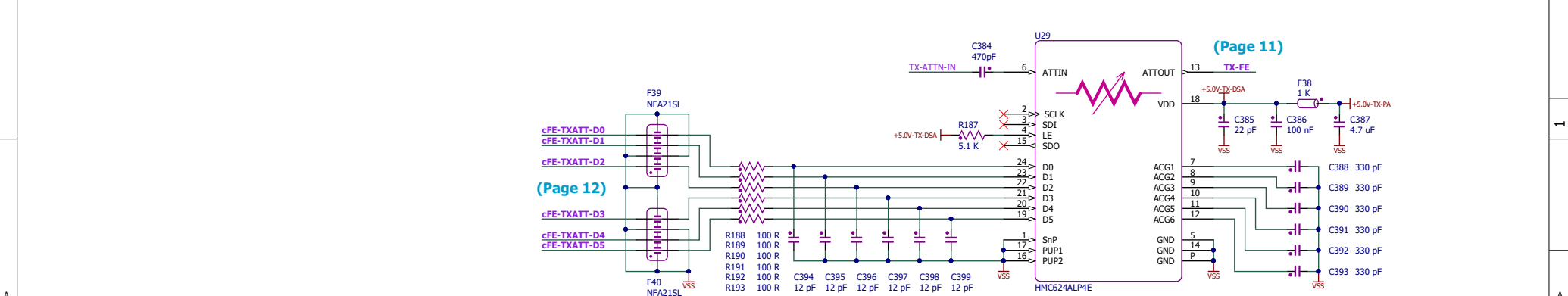
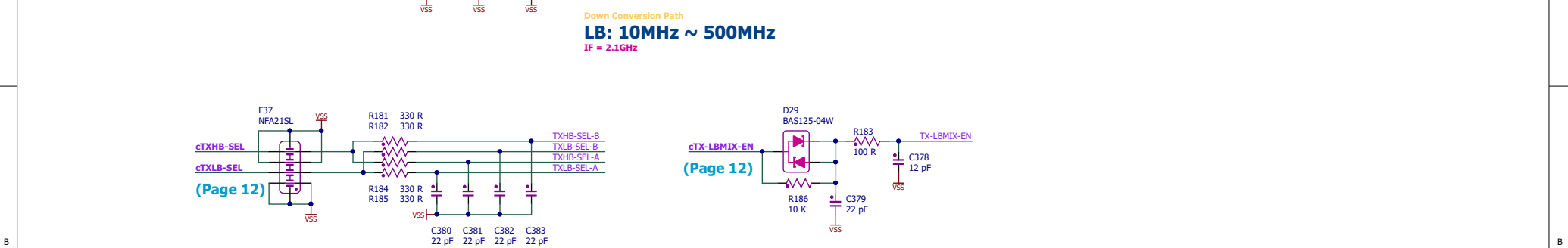
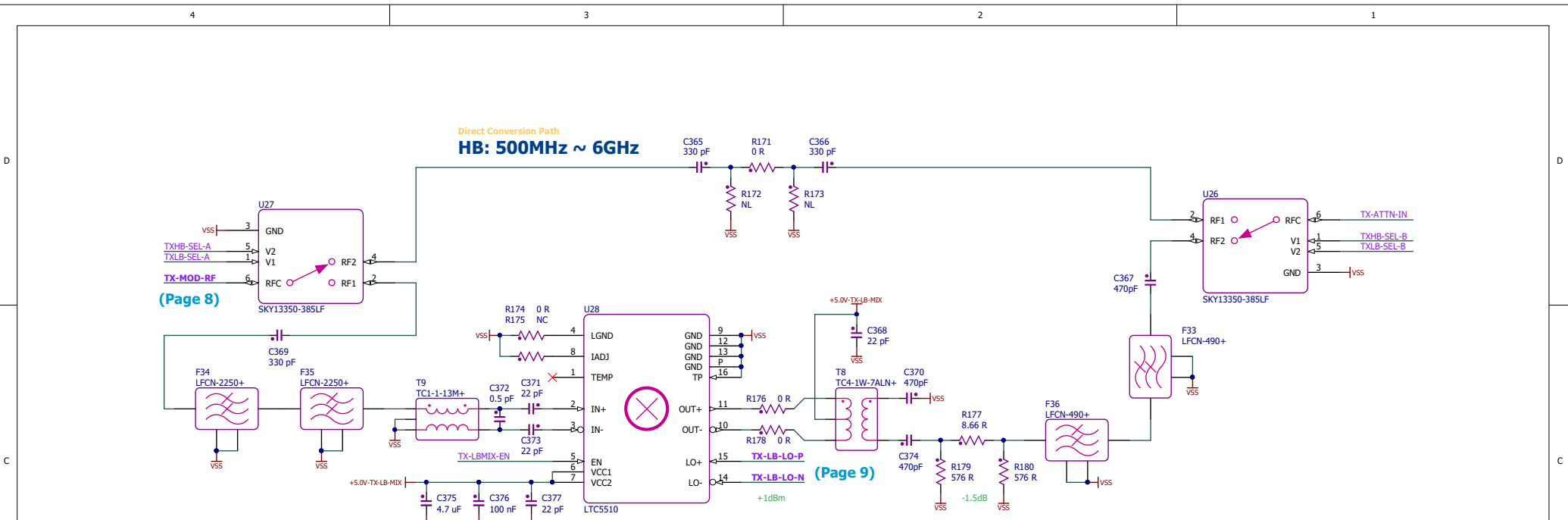


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RX Low Band LO PLL and Mixer Driver			
SCH,TDD COMMS OPT. UBX USRP DB, 160MHZ BW,10MHZ-6GHZ			
SIZE	DOC CODE	DRAWING PROJECT NO	REV
C	7U296		1
FILE NAME	09_TX_LO2_SchDoc	DATE 11-Dec-17	SHEET 9 OF 13



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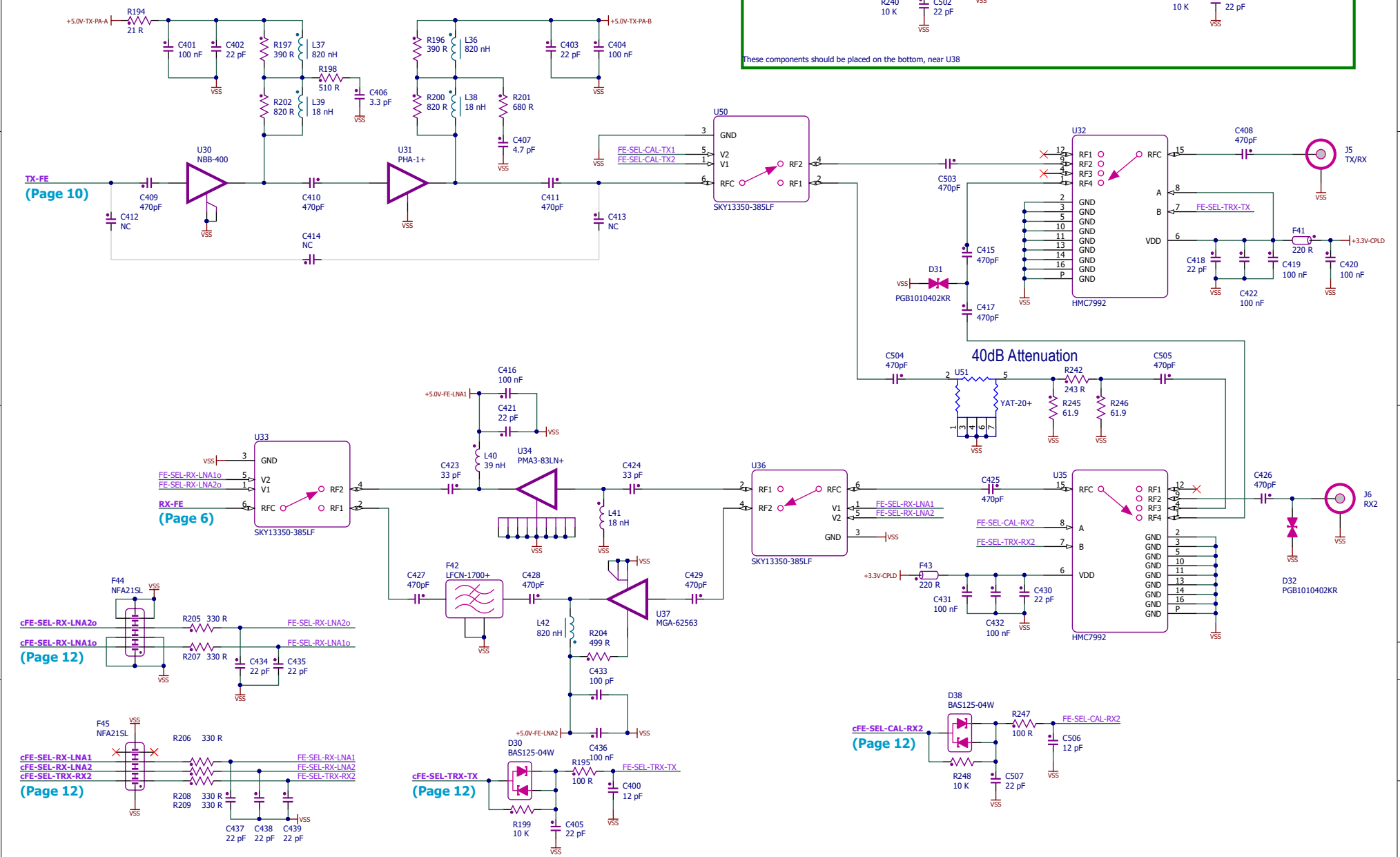
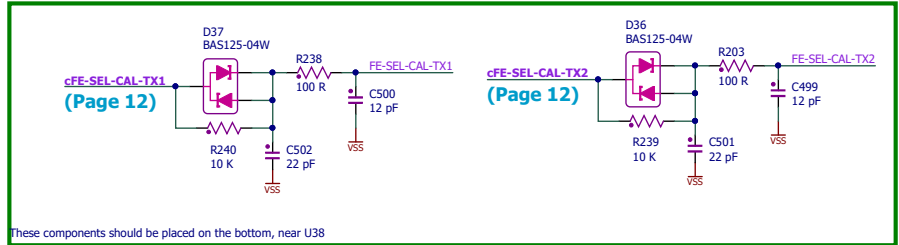
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<b>TX Band Selector and Low Band Mixer</b>			
SCH,TDD COMMS OPT. UBX USRP DB, 160MHZ BW, 10MHZ-6GHZ			
SIZE	DOC CODE	DRAWING PROJECT NO	REV
C	7U296		1
FILE NAME	10_TX_BANDSEL_SchDoc		DATE 11-Dec-17 SHEET 10 OF 13

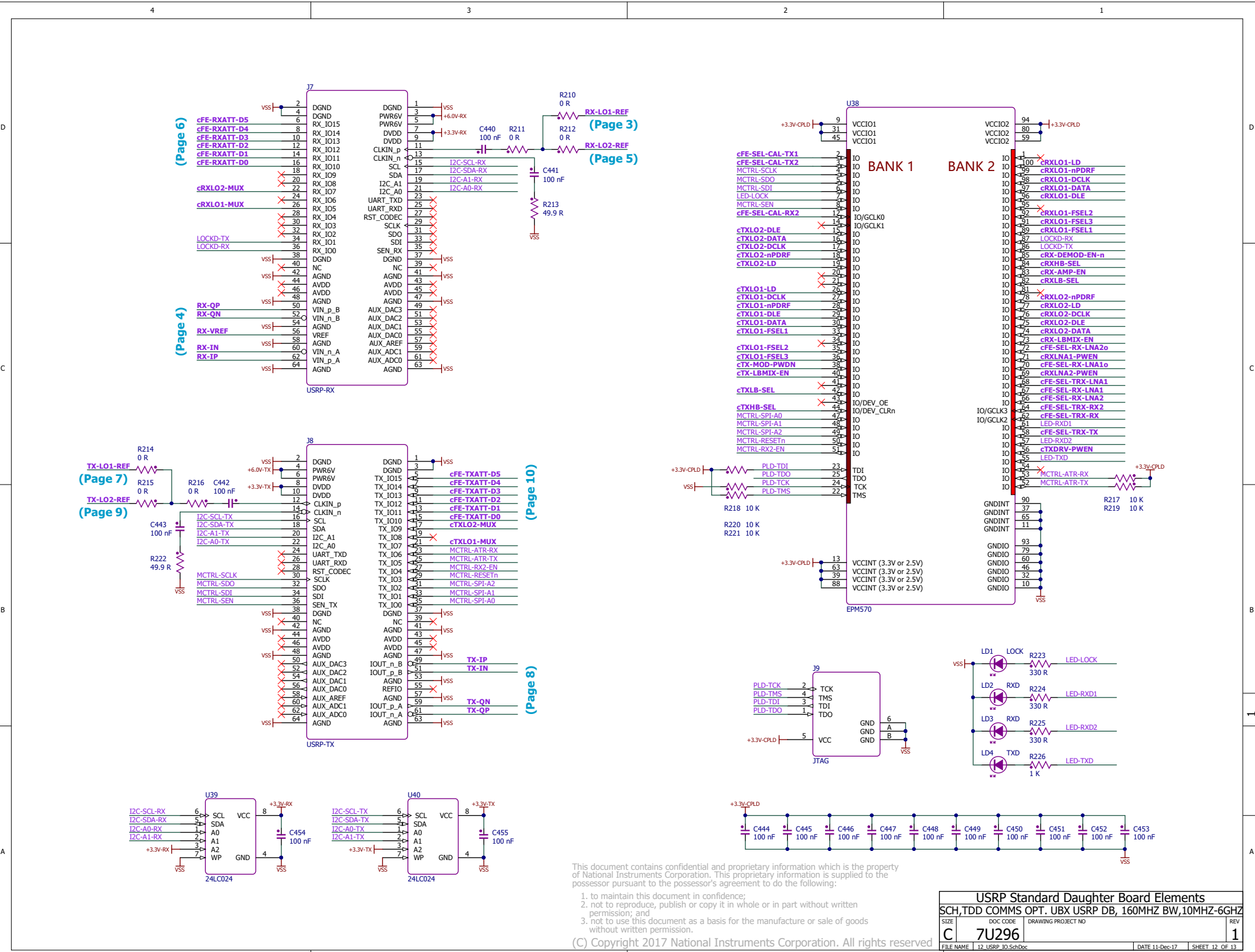
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RF Frontend			
SCH, TDD COMMS OPT. UBX USRP DB, 160MHZ BW, 10MHZ-6GHZ	DOC CODE	DRAWING PROJECT NO	REV
C	7U296		1
FILE NAME	11_FrontEndSchDoc	DATE	11-Dec-17
		SHEET	11 OF 13

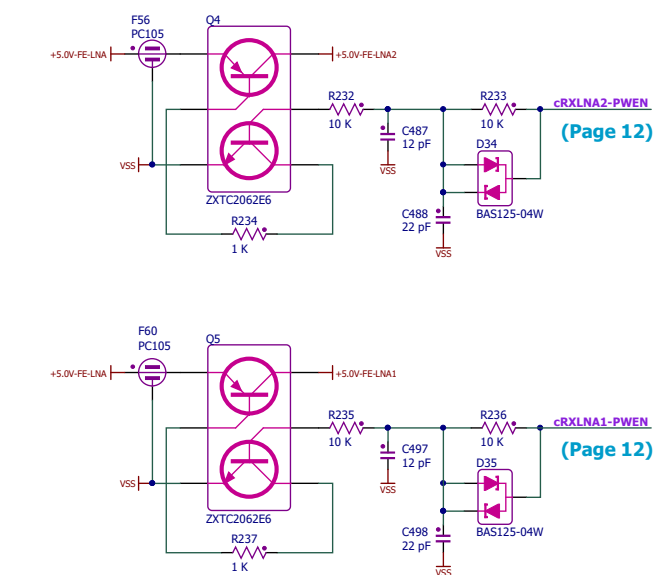
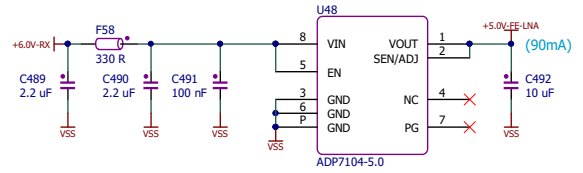
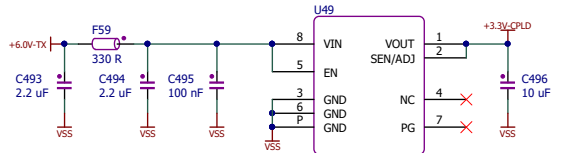
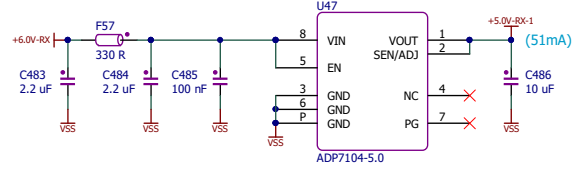
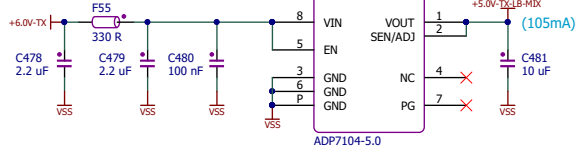
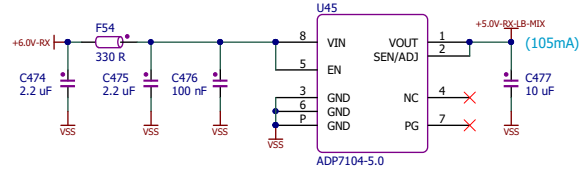
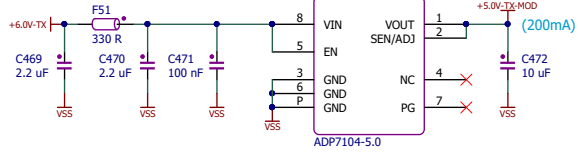
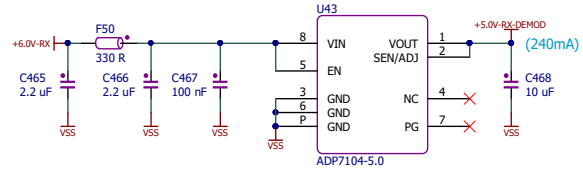
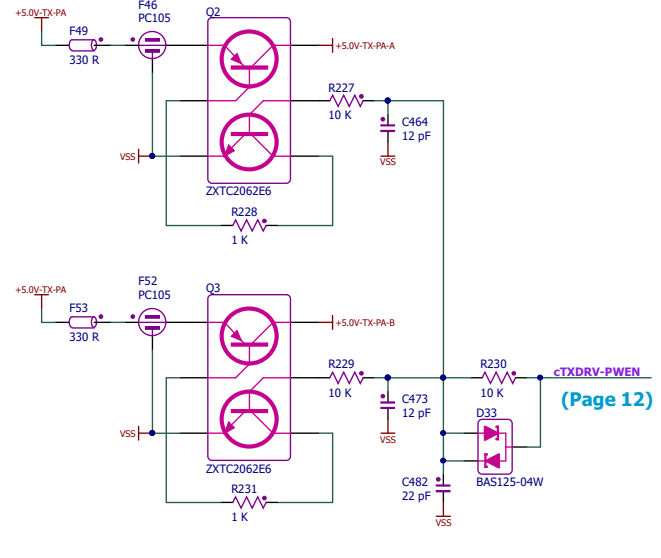
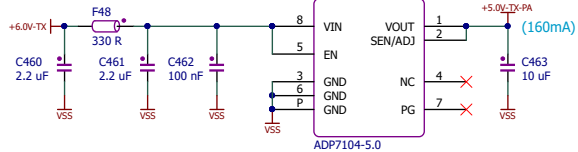
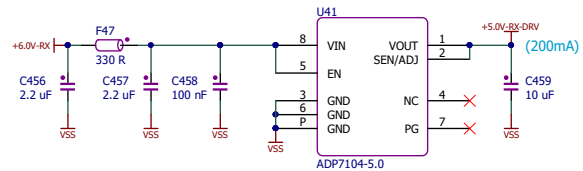


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USRP Standard Daughter Board Elements			
SCH	TDD	COMMS	OPT. UBX USRP DB, 160MHZ BW, 10MHZ-6GHZ
SIZE	DOC CODE	DRAWING PROJECT NO	REV
C	7U296		1
FILE NAME	12_USRP_IO_SchDoc	DATE	11-Dec-17
		SHEET	12 OF 13



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Power Supply			
SCH,TDD COMMS OPT. UBX USRP DB, 160MHZ BW,10MHZ-6GHZ			
SIZE	DOC CODE	DRAWING PROJECT NO	REV
C	7U296		1
FILE NAME	13 PowerSupply_SchDoc	DATE 11-Dec-17	SHEET 13 OF 13