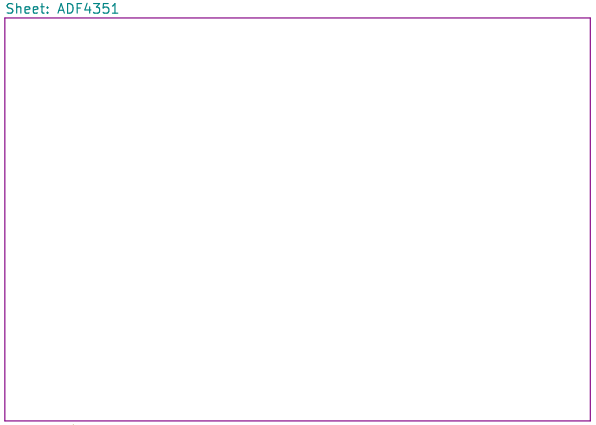
Sheet: IF-mixer

File: IF-mixer.sch

Sheet: ADF4351



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Title:

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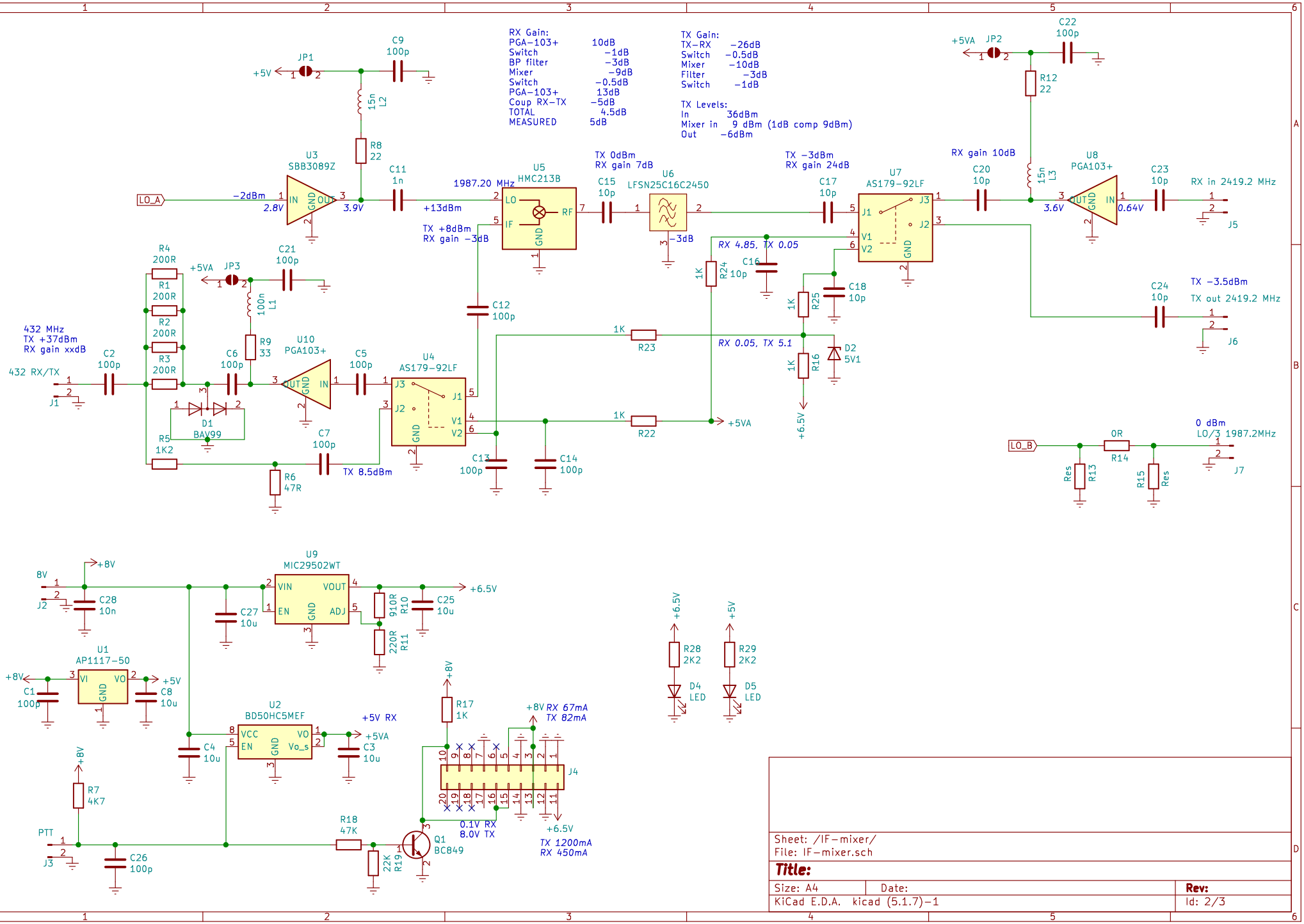
RX Gain:
PGA-103+ 10dB
Switch -1dB
BP filter -3dB
Mixer -9dB
Switch -0.5dB
PGA-103+ 13dB
Coup RX-TX -5dB
TOTAL 4.5dB
MEASURED 5dB
TX Gain:
TX-RX -26dB
Switch -0.5dB
Mixer -10dB
Filter -3dB
Switch -1dB
TX Levels:
In 36dBm
Mixer in 9 dBm (1dB comp 9dBm)
Out -6dBm
JP1
+5V
C9
100p
15n
L2
R8
22
U3
SBB3089Z
LO_A
-2dBm
2.8V
IN
GND
OUT
3.9V
C11
1n
+13dBm
U5
HMC213B
1987.20 MHz
LO
IF
RF
GND
TX 0dBm
RX gain 7dB
C15
10p
U6
LFSN25C16C2450
-3dB
TX -3dBm
RX gain 24dB
C17
10p
U7
AS179-92LF
J1
J2
J3
V1
V2
GND
RX gain 10dB
C20
10p
15n
L3
U8
PGA103+
3.6V
0.64V
C23
10p
RX in 2419.2 MHz
J5
JP2
+5VA
C22
100p
R12
22
C24
10p
TX -3.5dBm
TX out 2419.2 MHz
J6
RX 4.85, TX 0.05
R24
1K
C16
10p
C18
10p
R25
1K
RX 0.05, TX 5.1
D2
5V1
R16
1K
+6.5V
R23
1K
R22
1K
+5VA
C12
100p
C13
100p
C14
100p
R4
200R
R1
200R
R2
200R
R3
200R
JP3
+5VA
C21
100p
100n
L1
R9
33
U10
PGA103+
C5
100p
U4
AS179-92LF
C6
100p
C7
100p
TX 8.5dBm
R5
1K2
R6
47R
D1
BAV99
432 MHz
TX +37dBm
RX gain xxdB
432 RX/TX
C2
100p
J1
LO_B
0 dBm
LO/3 1987.2MHz
J7
R14
0R
R13
Res
R15
Res
U9
MIC29502WT
VIN
VOUT
EN
GND
ADJ
8V
J2
C28
10n
C27
10u
910R
R10
C25
10u
220R
R11
+6.5V
U1
AP1117-50
VI
VO
GND
C1
100p
C8
10u
+5V
U2
BD50HC5MEF
VCC
EN
GND
VO
Vo_s
C4
10u
C3
10u
+5V RX
R17
1K
+8V RX 67mA
TX 82mA
J4
0.1V RX
8.0V TX
+6.5V
TX 1200mA
RX 450mA
R7
4K7
PTT
J3
C26
100p
R18
47K
Q1
BC849
22K
R19
R28
2K2
D4
LED
R29
2K2
D5
LED
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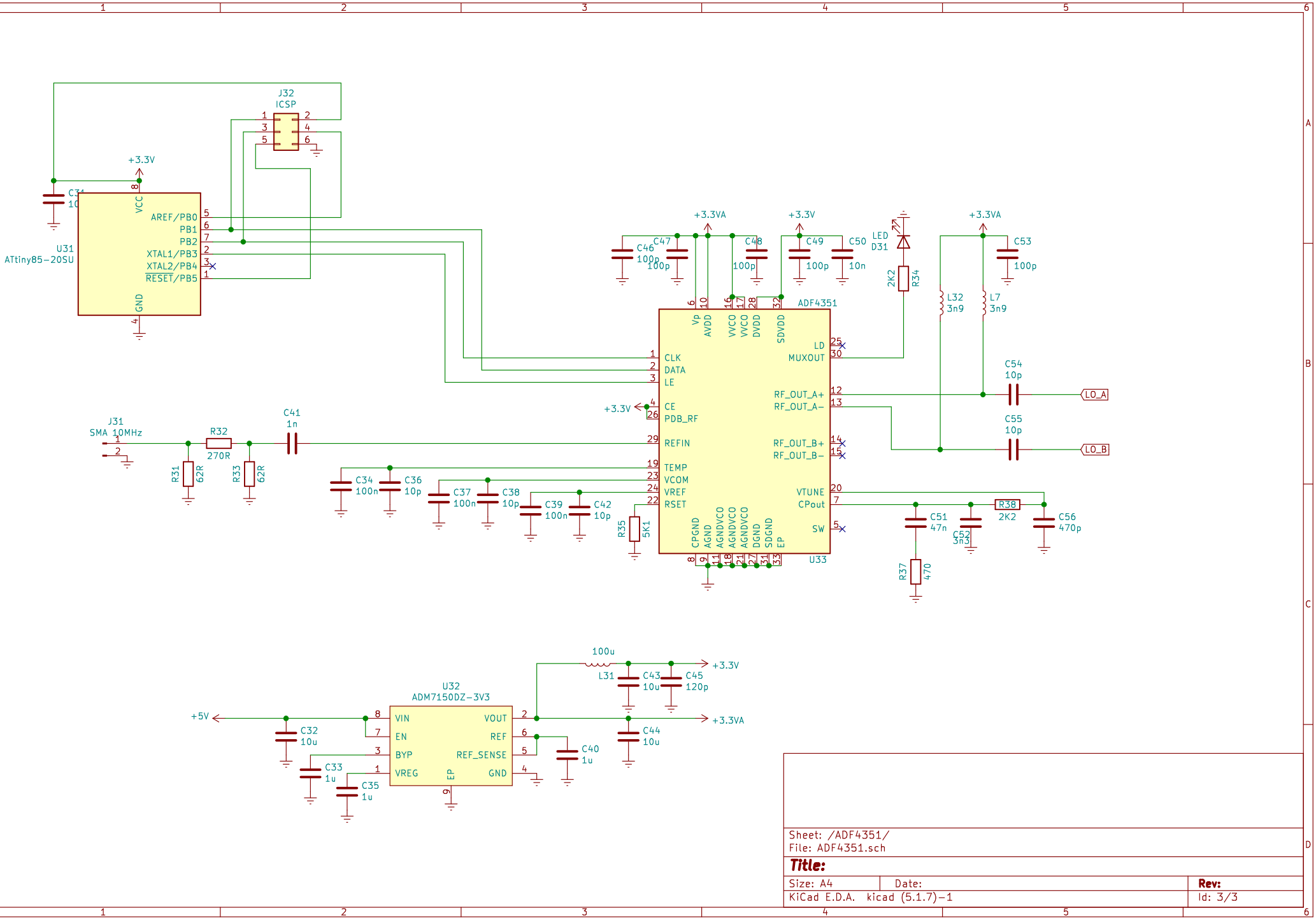
J32
ICSP
+3.3V
C31
10
U31
ATtiny85-20SU
VCC
GND
AREF/PB0
PB1
PB2
XTAL1/PB3
XTAL2/PB4
RESET/PB5
+3.3VA
+3.3V
C46
100p
C47
C48
100p
C49
100p
C50
10n
LED
D31
2K2
R34
C53
100p
L32
3n9
L7
3n9
ADF4351
Vp
AVDD
VVCO
VVCO
DVDD
SDVDD
CLK
DATA
LE
CE
PDB_RF
REFIN
TEMP
VCOM
VREF
RSET
LD
MUXOUT
RF_OUT_A+
RF_OUT_A-
RF_OUT_B+
RF_OUT_B-
VTUNE
CPout
SW
CPGND
AGND
AGNDVCO
AGNDVCO
AGNDVCO
DGND
SDGND
EP
U33
C54
10p
C55
10p
LO_A
LO_B
J31
SMA 10MHz
R32
270R
C41
1n
R31
62R
R33
62R
C34
100n
C36
10p
C37
100n
C38
10p
C39
100n
C42
10p
R35
5K1
C51
47n
C52
3n3
R38
2K2
C56
470p
R37
470
U32
ADM7150DZ-3V3
+5V
VIN
EN
BYP
VREG
VOUT
REF
REF_SENSE
GND
EP
C32
10u
C33
1u
C35
1u
C40
1u
100u
L31
C43
10u
C45
120p
C44
10u
+3.3V
+3.3VA
Sheet: /ADF4351/
File: ADF4351.sch
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