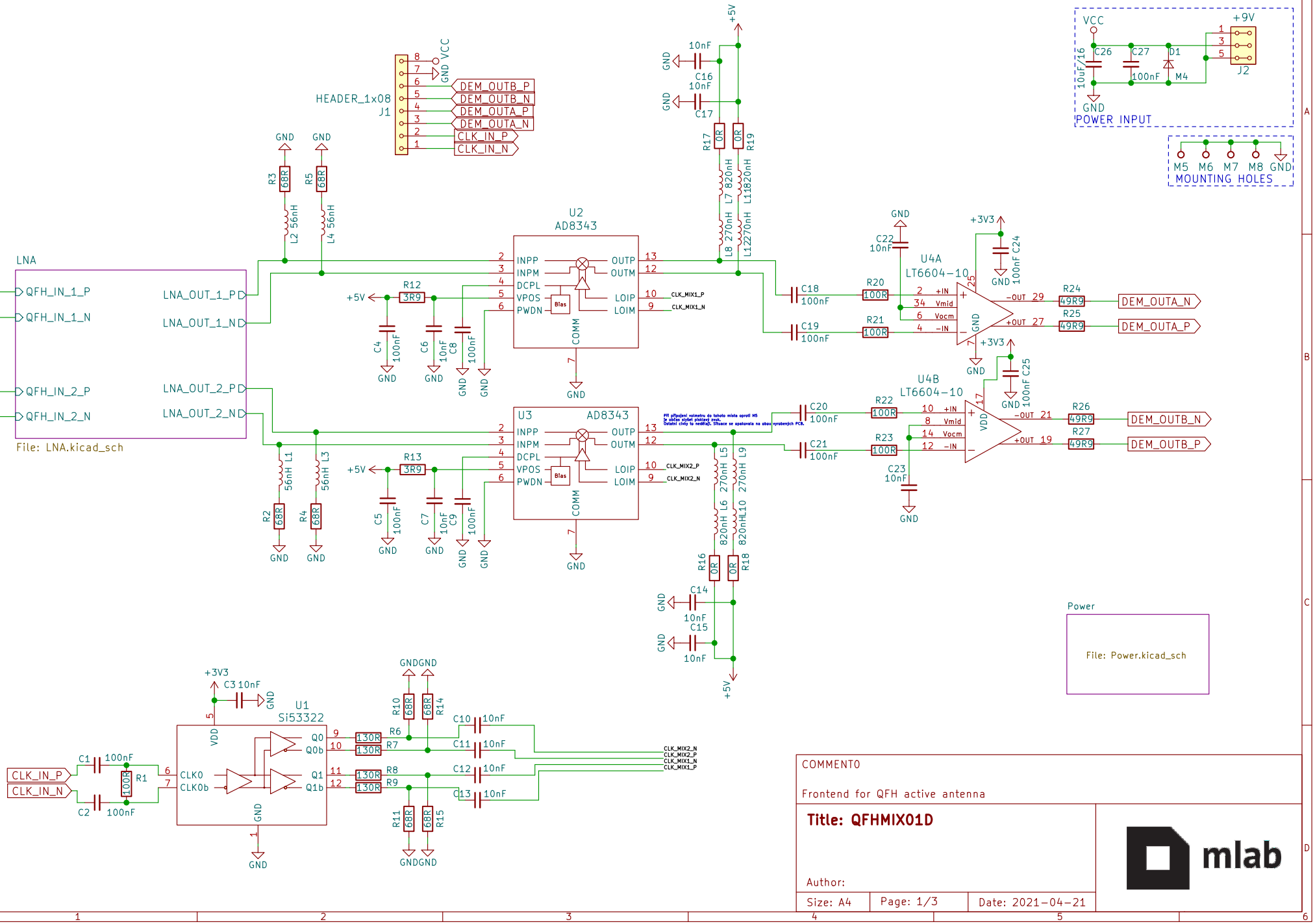
HEADER_1x08
J1
GND VCC
DEM_OUTB_P
DEM_OUTB_N
DEM_OUTA_P
DEM_OUTA_N
CLK_IN_P
CLK_IN_N
VCC
+9V
J2
D1
M4
C26
C27
100nF
10uF/16
GND
POWER INPUT
M5 M6 M7 M8 GND
MOUNTING HOLES
LNA
QFH_IN_1_P
QFH_IN_1_N
QFH_IN_2_P
QFH_IN_2_N
LNA_OUT_1_P
LNA_OUT_1_N
LNA_OUT_2_P
LNA_OUT_2_N
File: LNA.kicad_sch
U2
AD8343
INPP
INPM
DCPL
VPOS
PWDN
OUTP
OUTM
LOIP
LOIM
COMM
Bias
CLK_MIX1_P
CLK_MIX1_N
U3
AD8343
CLK_MIX2_P
CLK_MIX2_N
U4A
LT6604-10
U4B
LT6604-10
+IN
-IN
Vmid
Vocm
-OUT
+OUT
VDD
GND
+3V3
+5V
DEM_OUTA_N
DEM_OUTA_P
DEM_OUTB_N
DEM_OUTB_P
U1
Si53322
CLK0
CLK0b
Q0
Q0b
Q1
Q1b
VDD
CLK_IN_P
CLK_IN_N
Power
File: Power.kicad_sch
COMMENTO
Frontend for QFH active antenna
Title: QFHMIX01D
Author:
Size: A4
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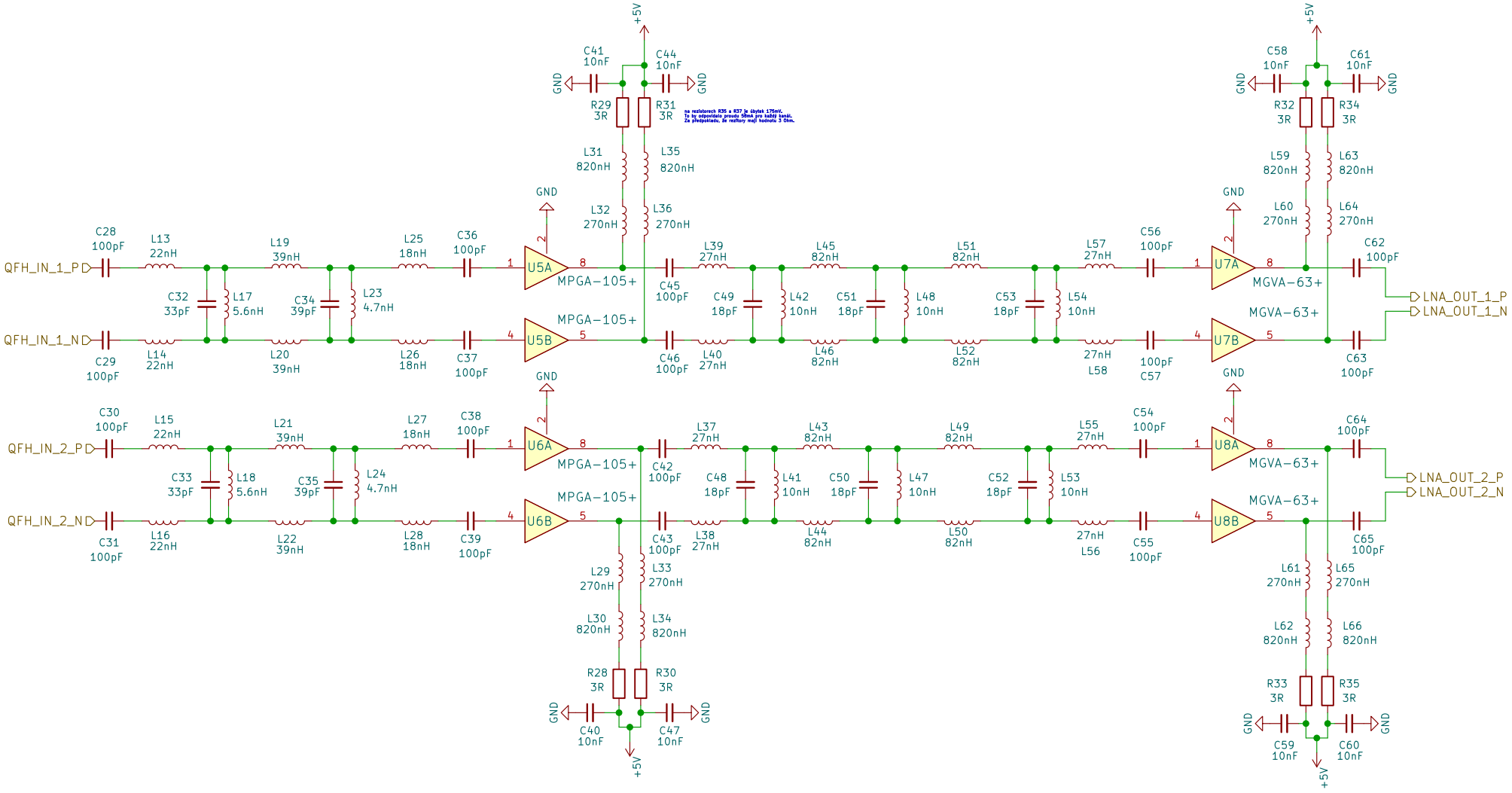
Date: 2021-04-21
mlab



COMMENTO

Title: Input RF filter

Author:

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mlab

České popisky vyřešit a smazat!
Anglické zachvat – popisují konfiguraci

L69
BLM21PG331SN1D

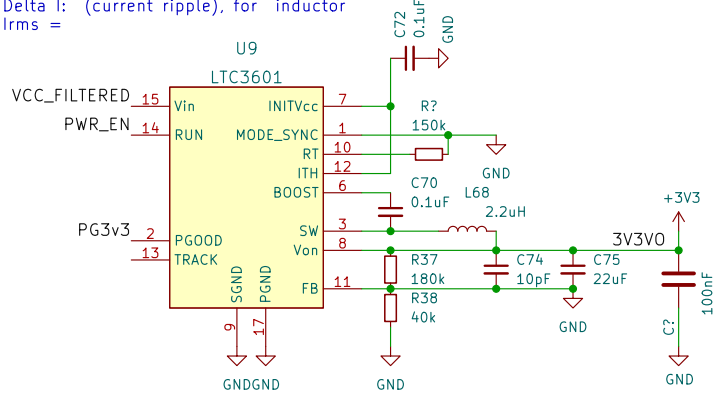
L73
BLM21PG331SN1D

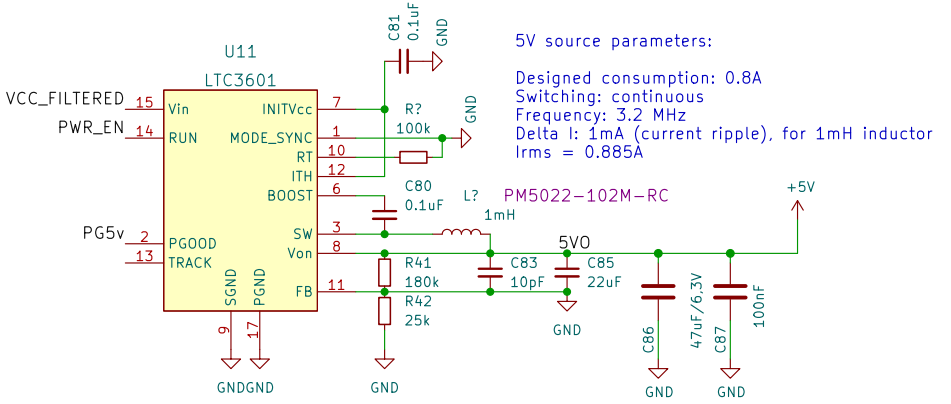
Booth step-down are forced to continuous operation to enforce minimal voltage-ripple and fixed switching frequency.

Frequency is set by external resistor, because according to documentation, it is more accurate and less affected by for example temperature changes then using default frequency by tingting pin to VCC. Switching freq is 2300kHz.

3.3V source parameters:

Designed consumption: 0.05A
Switching: continuous
Frequency: 3.2 MHz (same as 5V source)
Delta I: (current ripple), for inductor
Irms =

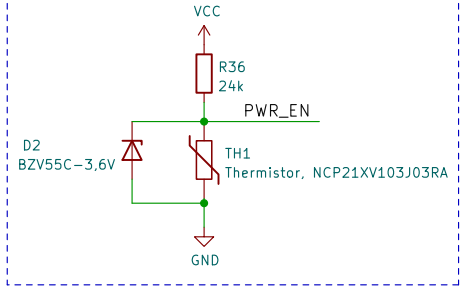




5V source parameters:

Designed consumption: 0.8A
Switching: continuous
Frequency: 3.2 MHz
Delta I: 1mA (current ripple), for 1mH inductor
Irms = 0.885A

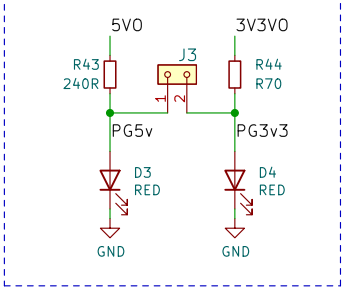
Over-temperature fuse



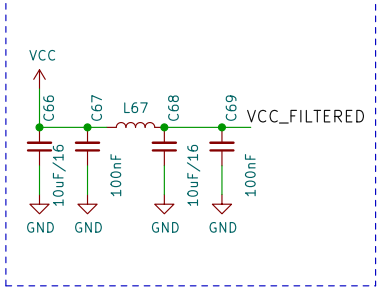
PWR_EN enables power regulation by voltage above 1.25V. Voltage below 1V turn off internal power source.

Thermistor NCP21XV103J03RA with 24k resistor is designed to disconnect electronic at 75C.

Power status LED and header output



LED is powered by 10 mA to ensure that maximum current trough power source PG pin is the same.



Ensures that switching frequency is not "transmited" by incoming cable and incomming power wires.

COMMENT0

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Author:

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