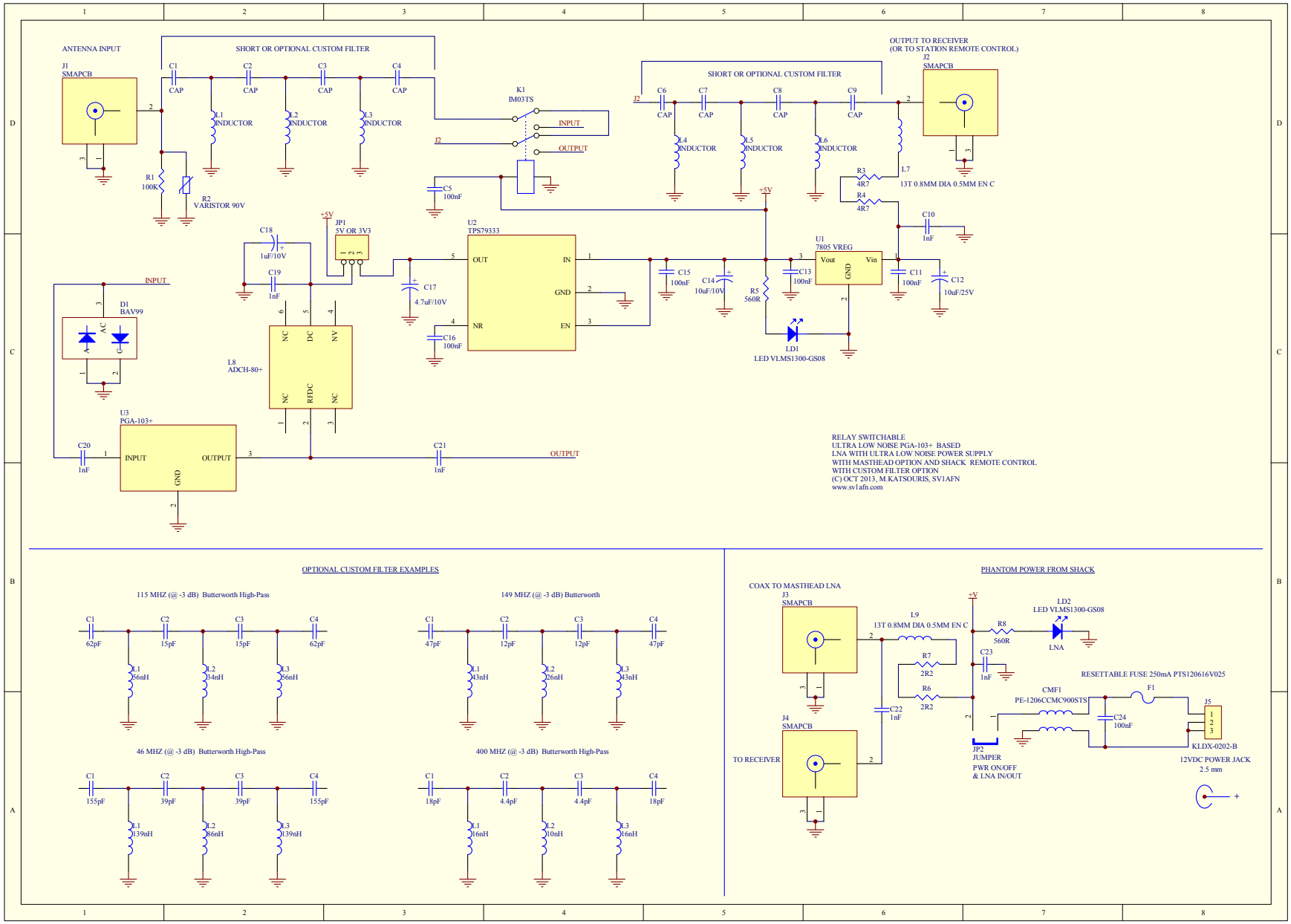
ANTENNA INPUT
J1
SMAPCB
SHORT OR OPTIONAL CUSTOM FILTER
C1
CAP
C2
CAP
C3
CAP
C4
CAP
L1
INDUCTOR
L2
INDUCTOR
L3
INDUCTOR
R1
100K
R2
VARISTOR 90V
K1
IM03TS
INPUT
OUTPUT
J2
C5
100nF
OUTPUT TO RECEIVER
(OR TO STATION REMOTE CONTROL)
J2
SMAPCB
SHORT OR OPTIONAL CUSTOM FILTER
C6
CAP
C7
CAP
C8
CAP
C9
CAP
L4
INDUCTOR
L5
INDUCTOR
L6
INDUCTOR
L7
13T 0.8MM DIA 0.5MM EN C
R3
4R7
R4
4R7
C10
1nF
+5V
JP1
5V OR 3V3
C18
1uF/10V
C19
1nF
U2
TPS79333
OUT
IN
GND
NR
EN
C17
4.7uF/10V
C16
100nF
C15
100nF
C14
10uF/10V
R5
560R
C13
100nF
U1
7805 VREG
Vout
Vin
GND
C11
100nF
C12
10uF/25V
LD1
LED VLMS1300-GS08
INPUT
D1
BAV99
A
AC
C
L8
ADCH-80+
NC
DC
NV
RFDC
U3
PGA-103+
INPUT
OUTPUT
GND
C20
1nF
C21
1nF
OUTPUT
RELAY SWITCHABLE
ULTRA LOW NOISE PGA-103+ BASED
LNA WITH ULTRA LOW NOISE POWER SUPPLY
WITH MASTHEAD OPTION AND SHACK REMOTE CONTROL
WITH CUSTOM FILTER OPTION
(C) OCT 2013, M.KATSOURIS, SV1AFN
www.sv1afn.com
OPTIONAL CUSTOM FILTER EXAMPLES
115 MHZ (@ -3 dB) Butterworth High-Pass
C1 62pF
C2 15pF
C3 15pF
C4 62pF
L1 56nH
L2 34nH
L3 56nH
149 MHZ (@ -3 dB) Butterworth
C1 47pF
C2 12pF
C3 12pF
C4 47pF
L1 43nH
L2 26nH
L3 43nH
46 MHZ (@ -3 dB) Butterworth High-Pass
C1 155pF
C2 39pF
C3 39pF
C4 155pF
L1 139nH
L2 86nH
L3 139nH
400 MHZ (@ -3 dB) Butterworth High-Pass
C1 18pF
C2 4.4pF
C3 4.4pF
C4 18pF
L1 16nH
L2 10nH
L3 16nH
PHANTOM POWER FROM SHACK
COAX TO MASTHEAD LNA
J3
SMAPCB
L9
13T 0.8MM DIA 0.5MM EN C
+V
R8
560R
LD2
LED VLMS1300-GS08
LNA
C23
1nF
R7
2R2
R6
2R2
C22
1nF
RESETTABLE FUSE 250mA PTS120616V025
F1
CMF1
PE-1206CCMC900STS
C24
100nF
J5
KLDX-0202-B
12VDC POWER JACK
2.5 mm
J4
SMAPCB
TO RECEIVER
JP2
JUMPER
PWR ON/OFF
& LNA IN/OUT