

PN1 SMA adapter F-F
Pasternack
PE9380

U3 RF Detector
Mini-Circuits
ZX47-50LN-S+

Cable1 Cable
Digi-Key
J4006-ND

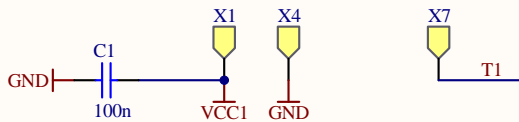
M1

RF Detector

Cable1

J1
SMA
GND

M1



H1 M2.5 screw, 8mm
H2 M2.5 lock washer
H3 M2.5 nut

H10 M2.5 screw, 8mm
H11 M2.5 lock washer
H12 M2.5 nut

H19 M2.5 screw, 8mm
H20 M2.5 lock washer
H21 M2.5 nut

PN2 SMA adapter F-F
Pasternack
PE9380

U4 RF Detector
Mini-Circuits
ZX47-50LN-S+

Cable2 Cable
Digi-Key
J4006-ND

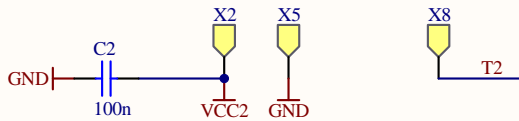
M2

RF Detector

Cable2

J2
SMA
GND

M2



H4 M2.5 screw, 8mm
H5 M2.5 lock washer
H6 M2.5 nut

H13 M2.5 screw, 8mm
H14 M2.5 lock washer
H15 M2.5 nut

H22 M2.5 screw, 8mm
H23 M2.5 lock washer
H24 M2.5 nut

PN3 SMA adapter F-F
Pasternack
PE9380

U5 RF Detector
Mini-Circuits
ZX47-50LN-S+

Cable3 Cable
Digi-Key
J4006-ND

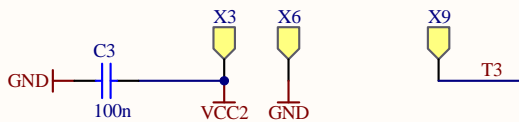
M3

RF Detector

Cable3

J3
SMA
GND

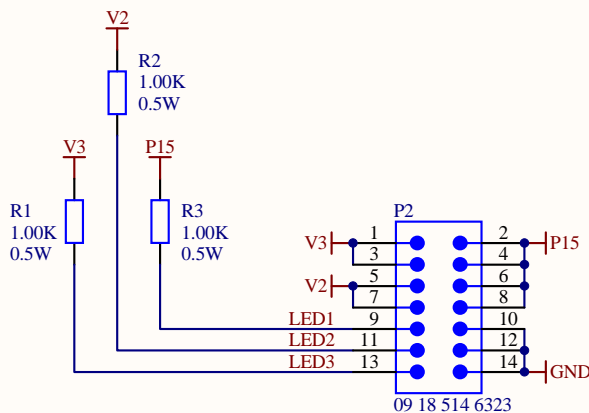
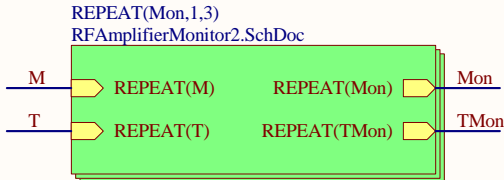
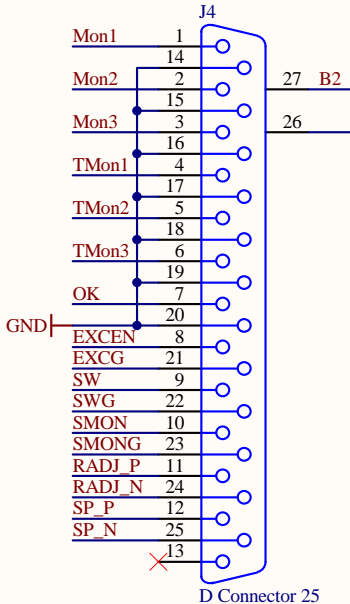
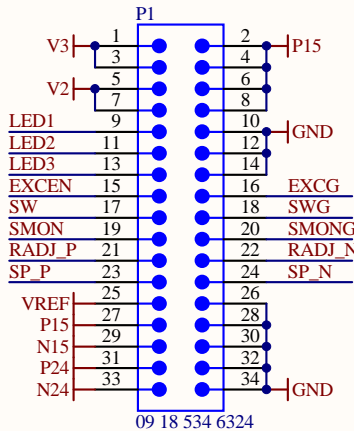
M3



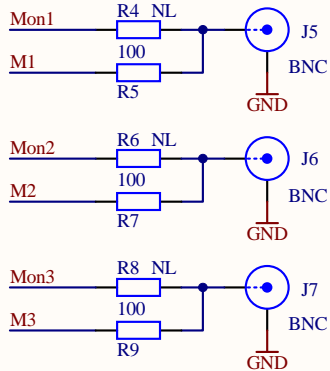
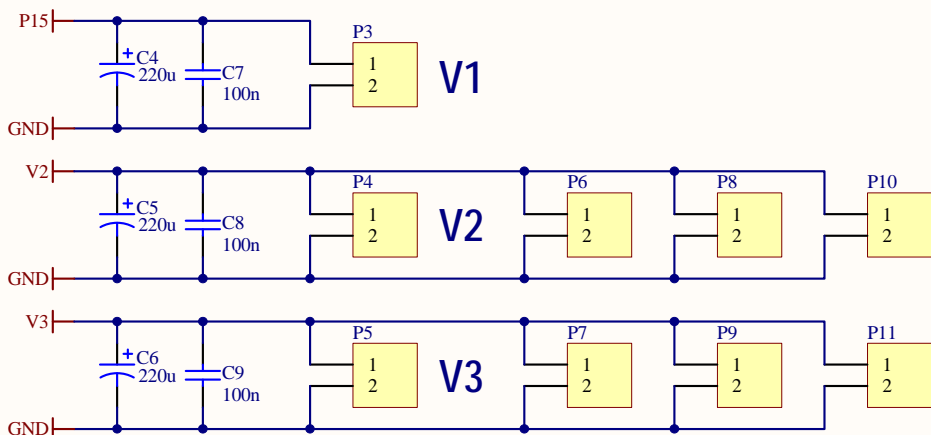
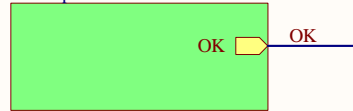
H7 M2.5 screw, 8mm
H8 M2.5 lock washer
H9 M2.5 nut

H16 M2.5 screw, 8mm
H17 M2.5 lock washer
H18 M2.5 nut

H25 M2.5 screw, 8mm
H26 M2.5 lock washer
H27 M2.5 nut



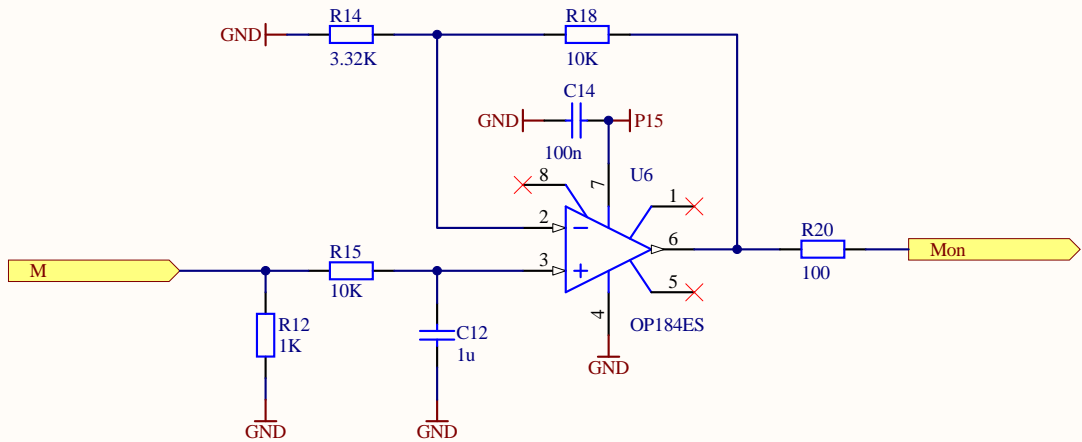
Power
RF Amplifier Monitor 3.SchDoc



To make the BNC outputs slow monitors:
Move R6, R8 and R10 to R5, R7 and R9, respectively.

The fast monitors have 4x less gain than the slow ones.

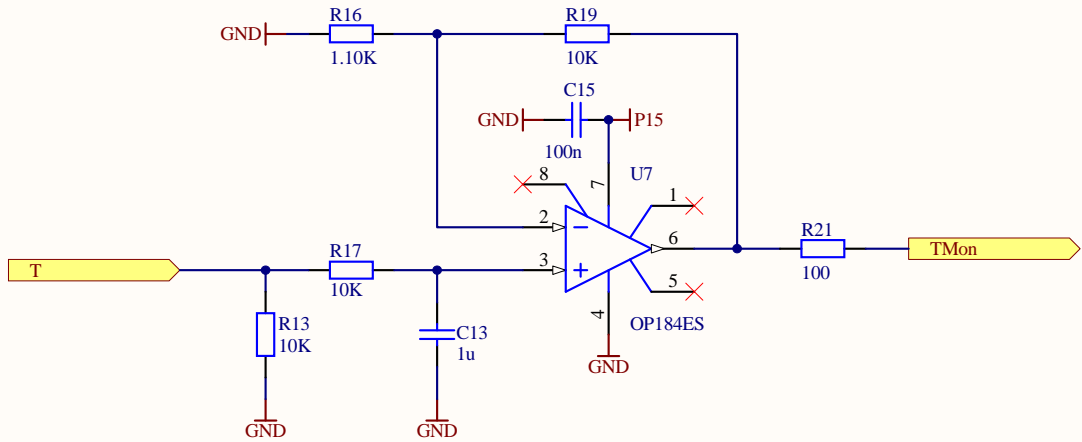
Title RF Distribution Amplifier: Monitor		
Size B	Number D080714	Revision B
Date: 6/10/2009	Sheet 1 of 2	
File: C:\Users\...\RF Amplifier Monitor 1.SchDoc	Drawn By: Daniel Sigg	



30 dBm	2.3V
20 dBm	3.2V
10 dBm	4.2V
0 dBm	5.2V
-10 dBm	6.2V
-20 dBm	7.2V
-30 dBm	8.0V

nominal slope: -100mV/dBm

$P = 12 \text{ dBm} - 10 \text{ dBm/V} * (U - 4V)$

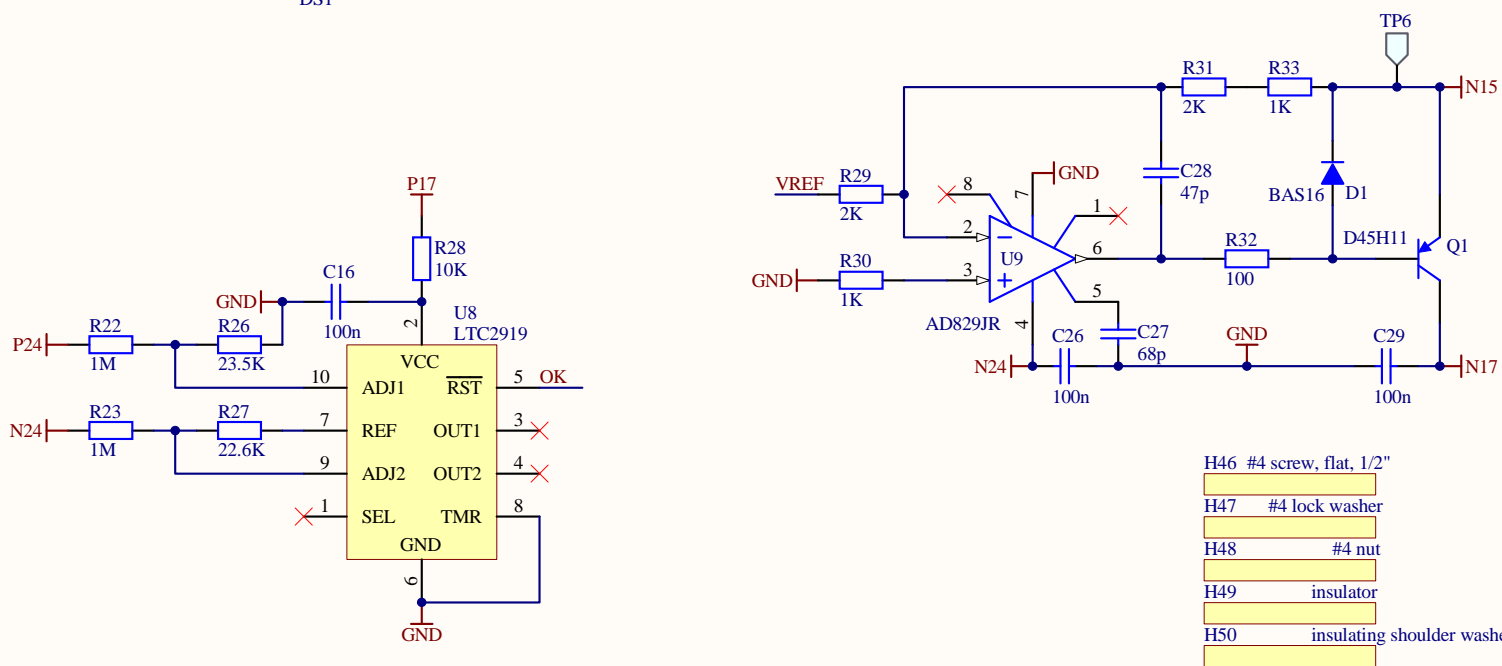
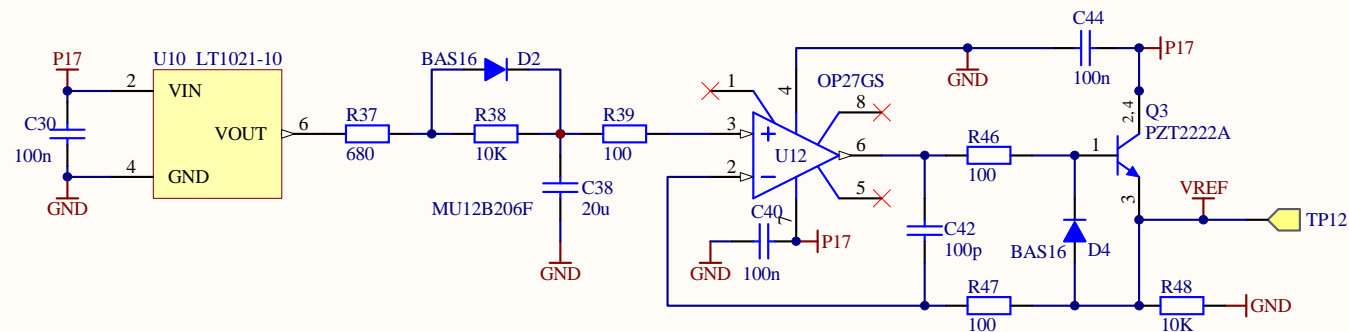
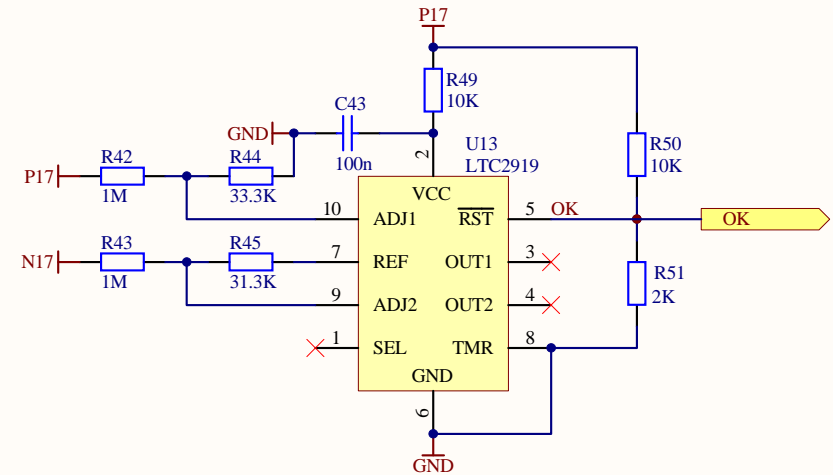
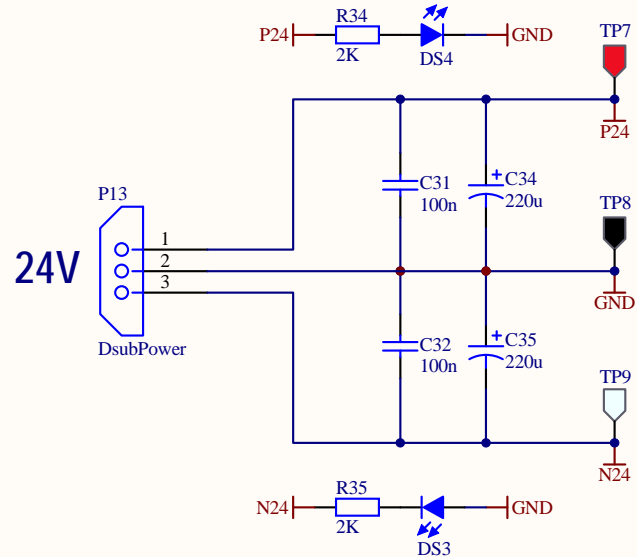
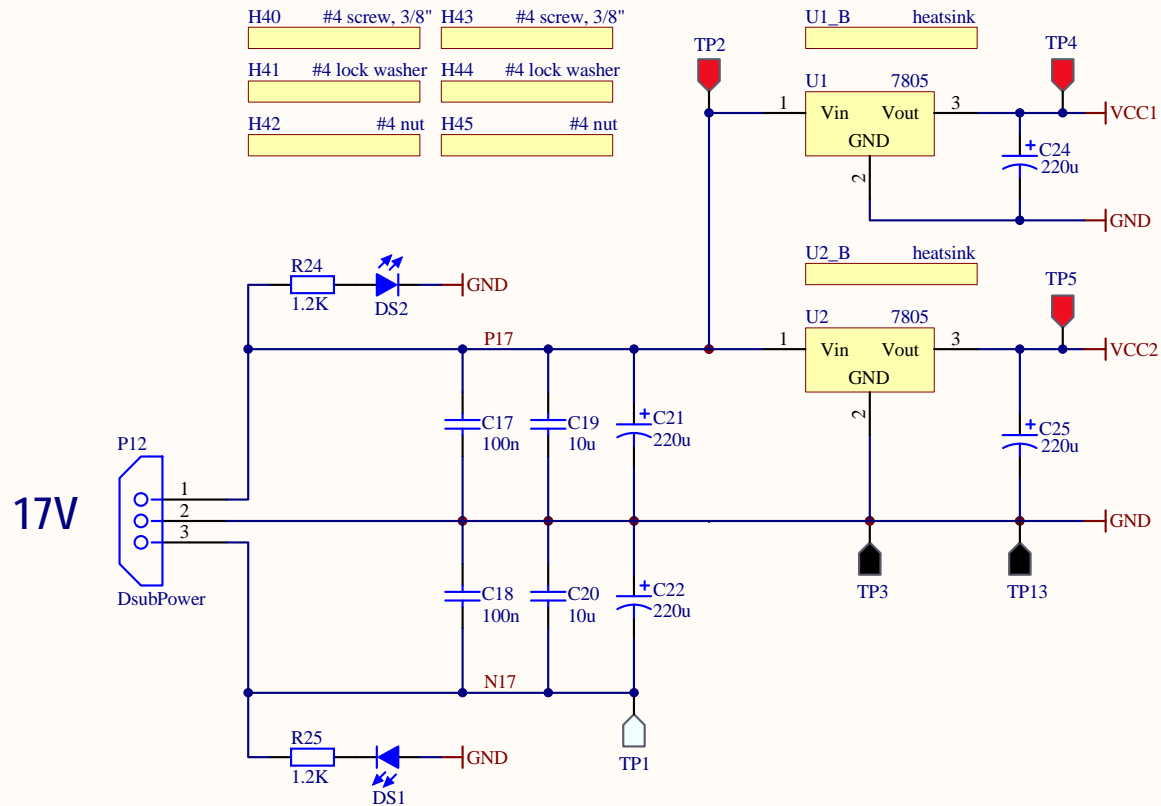


$T = 20^{\circ}\text{C} + 50^{\circ}\text{C/V} * (U - 6V)$

Title **RF Distribution Amplifier: Monitor**

Size B	Number D080714	Revision B
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Date:	6/10/2009	Sheet 2 of 2
File:	C:\Users\...\RFAmplifierMonitor2.SchDoc	Drawn By: Daniel Sigg



H46 #4 screw, flat, 1/2"
H47 #4 lock washer
H48 #4 nut
H49 insulator
H50 insulating shoulder washer

H51 #4 screw, flat, 1/2"
H52 #4 lock washer
H53 #4 nut
H54 insulator
H55 insulating shoulder washer

Title		
RF Distribution Amplifier: Monitor		
Size	Number	Revision
B	D080714	B
Date:	6/10/2009	Sheet 3 of 3
File:	C:\Users\...\RFAmplifierMonitor3.SchDoc	Drawn By: Daniel Sigg