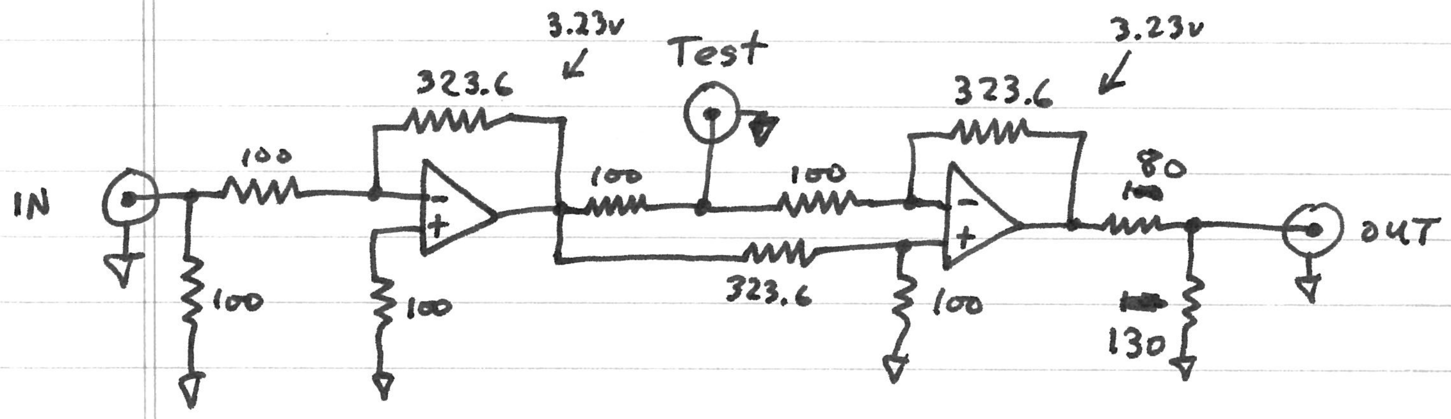
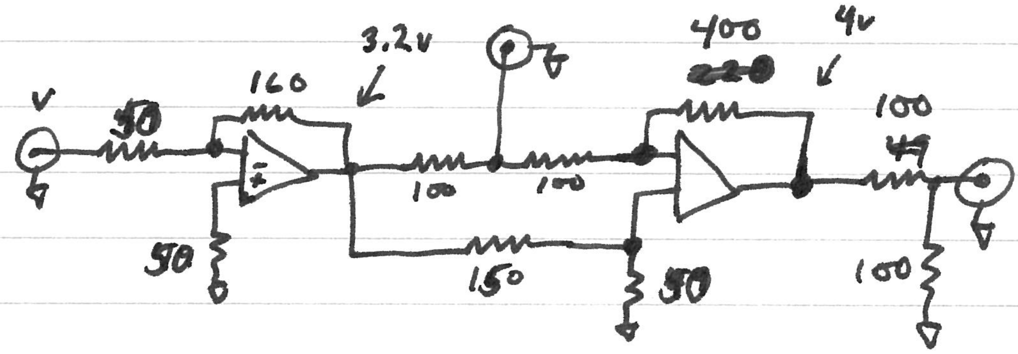
Active Isolator

DATE



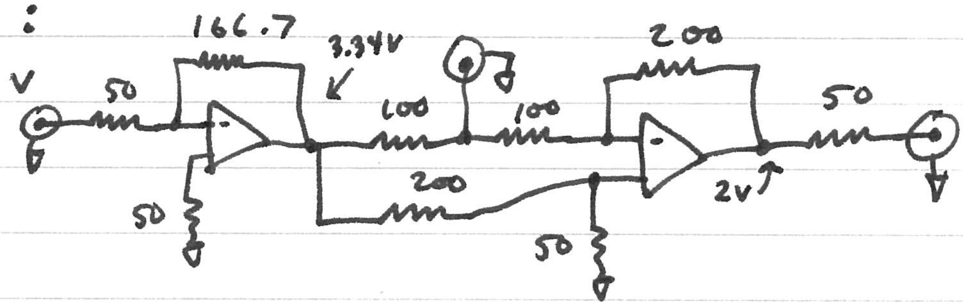
another possible:

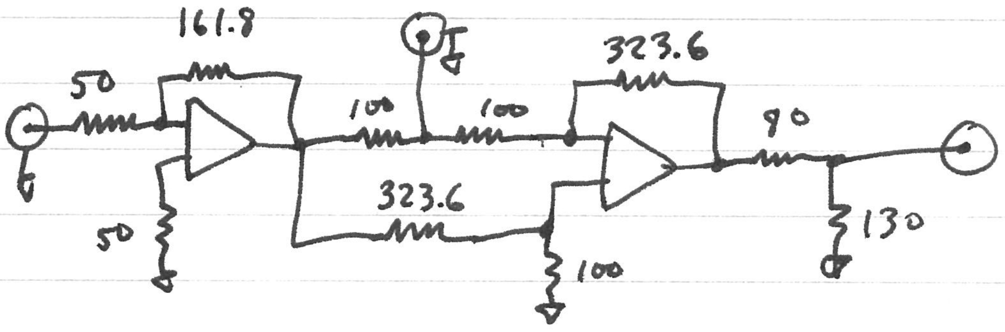


[calc: [illegible]]

MORE :

See Spreadsheet "circ"



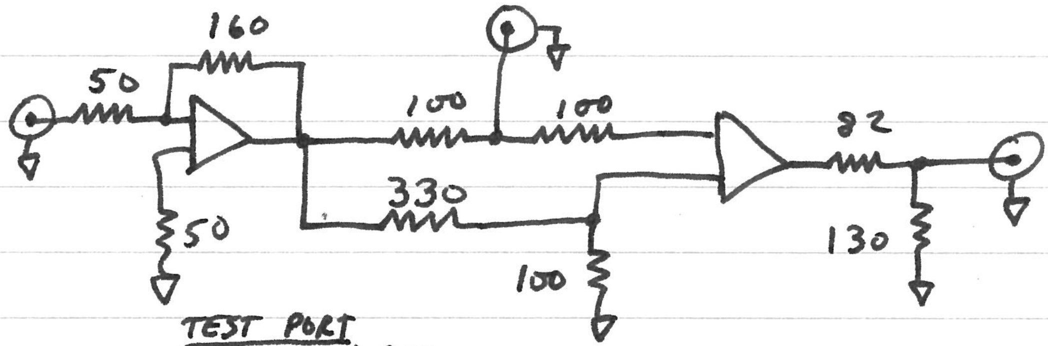


PREPARED BY

PAGE

Active Isolator (2)

DATE



TEST PORT

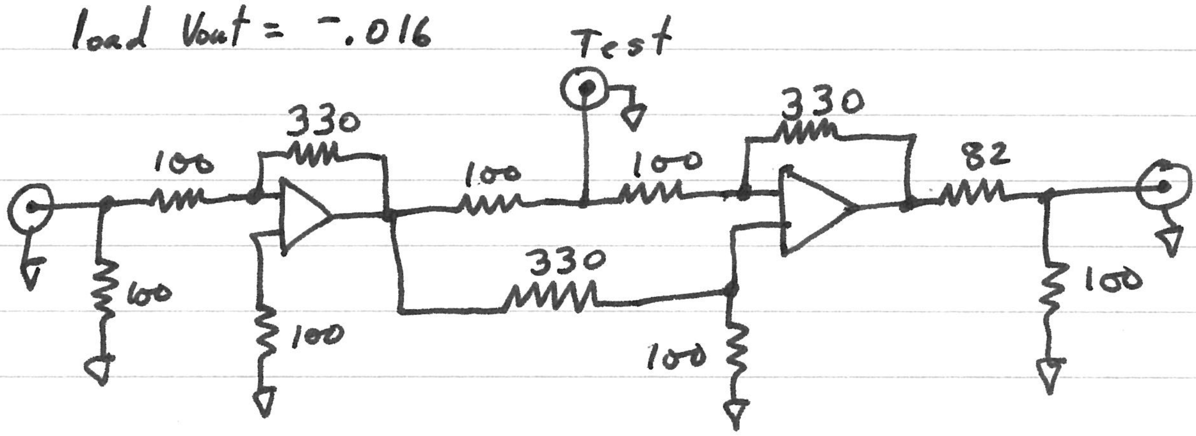
Errors: Vout open = 1.97v

Vout loaded = .986

OUTPUT PORT

No load Vout = -1.011

load Vout = -.016



Errors: Open test volts : 2.034 (.15dB)

Loaded test volts : 1.017 (.15dB)

output with open test port : -.986 (-.12dB)

output with loaded test port : -0.016

Z out = 45Ω

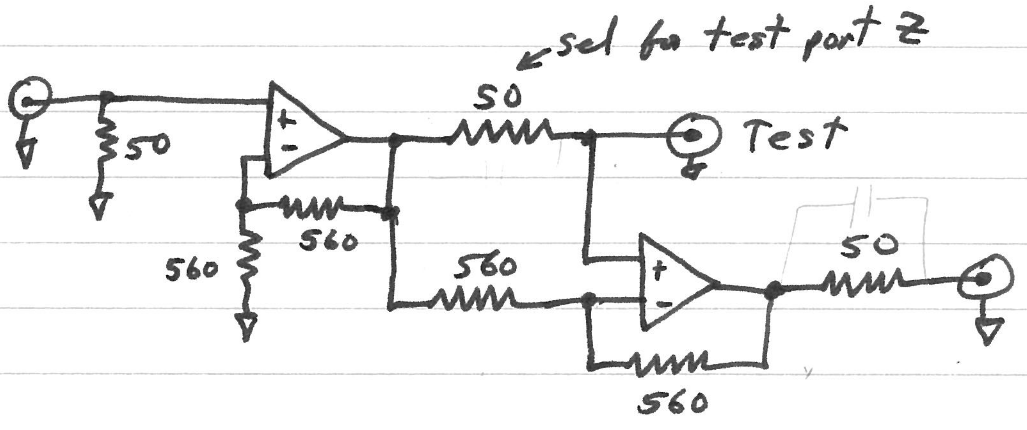
PREPARED BY

PAGE

Active Isolator (3)

DATE

This ckt. has more distortion but the power handling is higher:



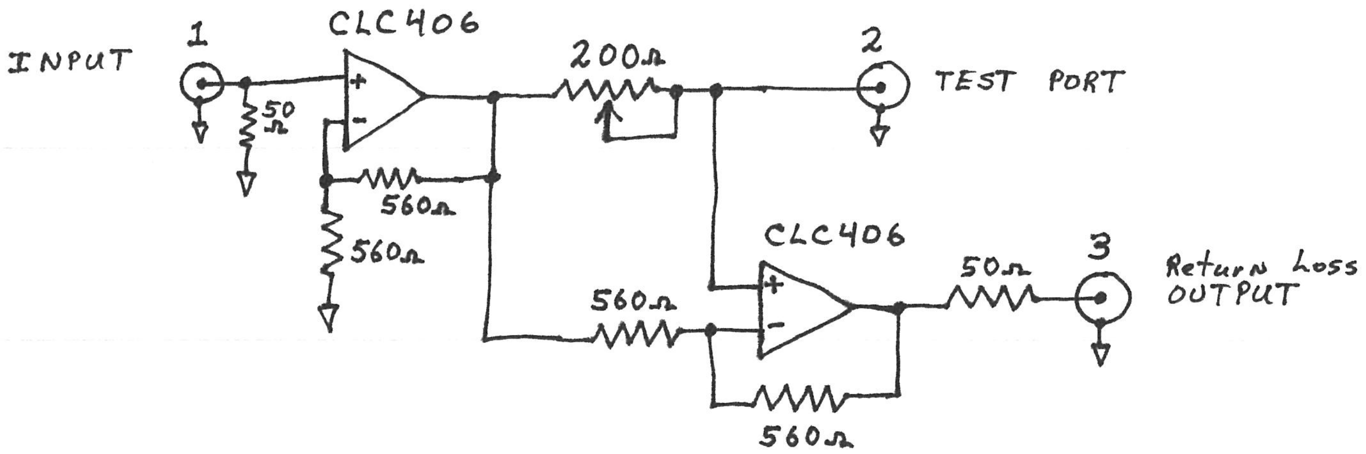
See layout "circulator.pcb"

PREPARED BY

PAGE

Variable Impedance Isolator

±6.8v D.C. Power



Connect a signal generator to port 1, an antenna or other device to port 2, and a signal level monitor to port 3. Adjust the potentiometer for minimum signal at port The pot's resistance will equal the resistance of the device connected to port 2 and the return loss at the characteristic impedance is equal to the difference in signal level at port 3 when the device is connected and disconnected.

NOTES:

1) The 50Ω resistors may be changed for different input an output impedance.

2) The 200Ω pot must have low inductance.

3) With ±6.8VDC power, this circuit will handle signals up to 15dBm. (Referred to 50Ω)

4) A larger pot. will work for higher impedance applications.

Isolator 6-28-11