

Summary of power gains (rel. to RF beat note amplitude):

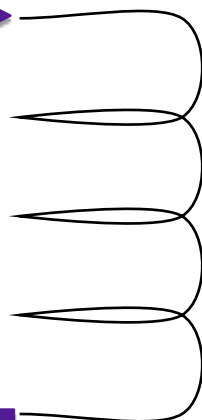
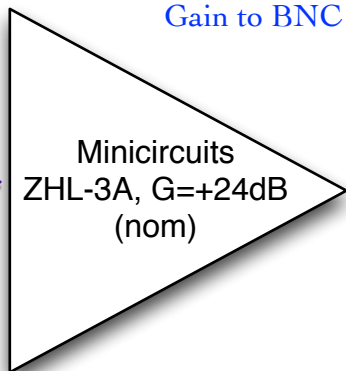
Gain in LO path = 26dB

Gain in RF path = 13dB

Gain to mixer IF output = 9dB

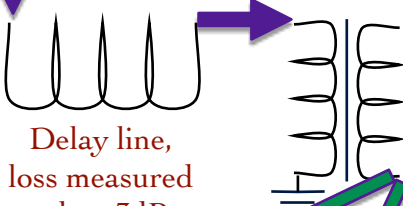
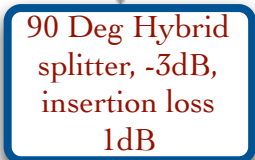
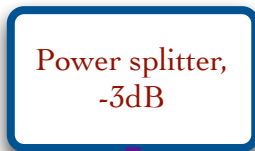
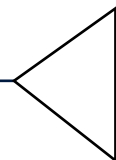
Gain to BNC output = 9dB + power gain of IF amplifier

Transimpedance gain = ??  
"Datasheet" says  
 $5 \times 10^4 \text{ V/W}$  maximum



Cabling to  
LSC rack.  
Measured  
loss of ~2dB,  
Jan 2018

Teledyne AP1053,  
G=+10dB,  
Pmax@input=17dBm

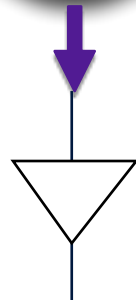


Delay line,  
loss measured  
to be ~3dB,  
Jan 2018

Transformer  
TC4-1T, divides  
RF between I and  
Q channels, so  
-3dB



Mixers are PE4140,  
conversion loss is 4dB  
as per T1000044, but  
data sheet suggests 8dB



IF preamps, AD829 with  
DC gain of 100 by default,  
and low pass at RF frees.  
What should this gain be?

