

The splitter will have loss: 2-way -3dB nominal 4-way -6dB nominal 8-way -9dB nominal

The amplifier should have corresponding gain, low noise, and high dynamic range

Its output impedance must match the splitter's input impedance (typically 50 ohms)

Multicoupler Scheme
with passive splitter

Input-referred noise with AD8010 = 1.5 nV/sqrtHz
Clipping point with AD8010 is 350mVrms input = +3.9dBm
[with +/- 6v supplies, clips at 457mVrms input = +6.2dBm]

As drawn, gain = 9dB; w/ R1 = R2 = 470, gain = 6dB, clips at +7dBm

