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To: RFI Group

From: Alan E.E. Rogers

Subject: Simplified RFI block diagram

In my testing I have tried many variations of the calibration and load switching arrangement. In order to reduce the losses to the LNA I have incorporated the noise source onto the load via a 12 dB attenuator. The attenuator reduces the effect of the noise source VSWR. Currently the components are

Antenna:	Diamond D-130 J with 1 m top whip
GaAs switch:	Minicircuits ZASWA-2-50 DR (loss ~2 dB)
Spectrum analyzer:	Tektronix RSA3303A
LNA:	Minicircuits ZJL-3G (N.F. ~ 4 dB)
Noise source:	Noisecom NC3202

We plan to test the Agilent E4411B analyzer and I have ordered a Dowkey 401-220802 mechanical switch which has under 0.2 dB loss and a Miteq AFS1-00040200-12-10P-4 which has a 1.2 dB noise figure. We have also ordered a Rohde and Schwarz HK033 coaxial dipole antenna which has a better match and beam pattern.

