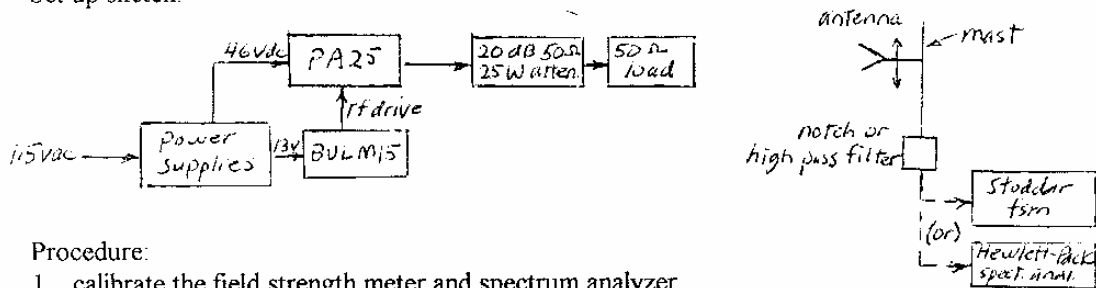


9. Emco model 3115 horn antenna (for 1000-1500 Mhz)
10. Microwave Filter Co. model 6367 tunable notch filter, adjusted to 127.500 Mhz and used to increase the dynamic range of the field strength meter or spectrum analyzer for frequencies below 500 Mhz
11. Minicircuits model NHP-250 high pass filter, used to increase the dynamic range of the field strength meter above 500 Mhz
12. coaxial cables and connectors as needed

Measured insertion loss for the notch filter is:

Microwave Filter Co. Notch Filter	
Mhz	dB i.l.
127.50	-24
255.00	-0.1
382.50	-0.5
510.00	-0.1
637.50	-0.1
765.00	-9.7

Set up sketch:



Procedure:

1. calibrate the field strength meter and spectrum analyzer
2. adjust the antenna for horizontal polarization, aiming it directly towards the PA25 on the wooden table atop the rotation platform
3. scan the spectrum up to the tenth harmonic of the signal driving the amplifier (127.500 Mhz was used). At each frequency where a "spur" is detected, rotate the platform and vary the antenna height to find the maximum radiated field strength reading. Record this. Change the antenna polarization to vertical and repeat. For each "spur", select the higher of the two readings (vertical or horizontal antenna polarization) as the measurement for that frequency. Note: it is necessary to change the antennas for frequencies below 200 Mhz and above 1000 Mhz.
4. Apply the correction factors for the antenna and coaxial cables.

Results: table is attached, p. 8a. The data in column 7, labeled "Difference", is equal to "dBc" (dB below the carrier). There is no correction for the notch or high pass filter for the data in column 7, but examining the insertion loss figures for the notch filter (below 500 Mhz) and the high pass filter (HPF) above 500 Mhz, it is clear that since all values are much better than the permissible attenuation the small adjustments do not significantly change the conclusion that the amplifier meets the requirements for Part 2.993 and Part 87.139.