

Results:

- (a) NF-105A measured carrier level as 24 volts.  
 $(24)^2/50 = 11.52$  watts  
 This is in good agreement with the 11.9 watts indicated by the RF wattmeter.
- (b) Measured spurious outputs are tabulated below.  
 For a mean power output of 14.4 watts, the maximum permissible spurious output relative to the carrier is:

$$43 + 10 \log(14.4) = 54.6 \text{ dB}$$

| Frequency, Mhz | voltage        | dB relative to carrier   |
|----------------|----------------|--------------------------|
| 41.05          | 300 uv         | -98                      |
| 61.575         | 2.4 mv         | -80                      |
| 82.10          | 1.2 mv         | -86                      |
| 113.0          | .015 v         | -64                      |
| 123.15         | 24 v           | 0 (carrier)              |
| 133.85         | .038 v         | -56 (note 1)             |
| 164.2          | 240 uv         | -100                     |
| 246.3          | 24 mv          | -60                      |
| 369.45         | 24 mv          | -60                      |
| 492.6          | 19 mv          | -62                      |
| 615.75         | 3.8 mv         | -76                      |
| 738.9          | 4.8 mv         | -74                      |
| 862.05         | 850 uv         | -89                      |
| 985.2          | 6 mv           | -72                      |
| 1108.35        | less than 2 mv | better than -80 (Note 2) |
| 1231.5         | less than 2 mv | better than -80 "        |

All other measured spurious outputs were better than -100 dB.

- Notes: 1. 133.85 is receiver local oscillator frequency.  
 2. Limit of spectrum analyzer sensitivity for level of "local oscillator" injection used was 2 mv.