

TABLE 1
RADIATED SPURIOUS EMISSIONS
MENTOR RADIO PA25 AMPLIFIER
July 16, 1998

Freq. (MHz)	Value (dBuV)	AF (dB)	CL (db)	Field St. (dBuV/m)	Eff. Pwr. (uW)	Difference (dB)
255.0	53.0	12.6	1.7	67.3	0.982	-74.1
382.5	44.0	15.1	2.1	61.2	0.241	-80.2
510.0	38.0	18.8	2.5	59.3	0.156	-82.1
637.5	40.0	19.0	2.8	61.8	0.277	-79.6
765.0	47.5	21.2	3.2	71.9	2.830	-69.5
892.5	33.0	22.1	3.5	58.6	0.133	-82.8
1020.0	29.0	24.0	3.7	56.7	0.086	-84.7
1147.5	39.0	24.5	4.0	67.5	1.030	-73.9
1275.0	27.0	25.0	4.3	56.3	0.078	-85.1

AF = Antenna Factor
CL = Coax Loss Factor

Required Attenuation @ 25 W = $43 + 10(\log 25) = 43 + 14 = 57$ dB.

Twenty-five Watts into a half-wave dipole would produce a field strength at 3 meters of 11.69 V/m or 141.4 dBuV/m.

Above was calculated using the equation

$$E = \frac{49.2 \times 25}{3}$$

All measurements were made with peak detection on the unmodulated carrier. CISPR bandwidth was used below 1 GHz and a 1 MHz bandwidth was used above 1 GHz.

Both horizontal and vertically polarized measurements were made. Values in the table are the greater of the two readings at each frequency.