

Unwanted Emissions 95.635c Measured using Substitution Method

Requirement $43 + 10 \log(\text{watts}) \text{ dB}$ is equal to 30.6 dB below carrier

Watts = .05763 Carrier = 17.6 dBm

Requirement = $17.6 - 30.6 = -13 \text{ dBm}$

Corrected ERP is Power Meter measurement at source end, minus cable loss, plus antenna gain (dBd).

Frequency MHz	Pwr Meter dBm	Cable Loss dB	Ant Gain dBd	Corrected ERP (dBm)	Limit (dBm)	Margin (dB)	Orientation	
144.325	-38.2	3.7	-1.9	-43.8	-13.0	-30.8	Flat	H
288.65	-36.8	5.5	2.3	-40.0	-13.0	-27.0	Flat	H
360.812	-51.3	6.2	3.2	-54.3	-13.0	-41.3	Flat	H
432.975	-33.1	7	4	-36.1	-13.0	-23.1	Flat	H
505.137	-41	7.6	4.4	-44.2	-13.0	-31.2	Flat	H
577.3	-45.3	8.2	5.1	-48.4	-13.0	-35.4	Edge	H
649.48	-31.9	8.8	5.2	-35.5	-13.0	-22.5	Edge	H
721.625	-52.1	9.5	5	-56.6	-13.0	-43.6	Edge	H
793.765	-41.2	10	4.5	-46.7	-13.0	-33.7	Edge	H
865.92	-47.2	1.6	4.8	-44.0	-13.0	-31.0	Edge	H
1082.437	-44.4	1.9	4.8	-41.5	-13.0	-28.5	End	V
1298.92	-38	2	5.4	-34.6	-13.0	-21.6	Flat	H
1515.4	-40.5	2.2	6.4	-36.3	-13.0	-23.3	End	V
1731.9	-35.9	2.3	6.7	-31.5	-13.0	-18.5	Flat	H
1948.38	-50.2	2.5	6.8	-45.9	-13.0	-32.9	Flat	H
2164.87	-42.8	2.6	7.2	-38.2	-13.0	-25.2	End	V

Power Measurement at source end of cable.

$\text{dBd} = \text{dBi} - 2.15 \text{ dB}$

$\text{dBi} = 20 \cdot \log(\text{MHz}) - 29.78 - \text{AntFactor}$

Test Equipment List

HP8566B Stack
Gigatronics 9000
HP436A Pwr Meter
HP8442 Power Sensor
Horn A/N 077
Bi-cone A/N 007
LP A/N 0461
C007 Armored Cable
C009 100 ft RG214 Cable

