

NAME OF TEST: RADIATION INTERFERENCE

RULES PART NO.: 15.231

REQUIREMENTS:

Fundamental Frequency MHz	Field Strength of Fundamental dBuV	Field Strength of Harmonics and Spurious Emissions (dBuV/m @ 3m)
40.66 to 40.70	67.04	47.04
70 to 130	61.94	41.94
130 to 174	61.94 to 71.48	41.94 to 51.48
174 to 260	71.48	51.48
260 to 470	71.48 to 81.94	51.48 to 61.94
470 and above	81.94	61.94

THE LIMIT FOR AVERAGE FIELD STRENGTH dBuV/m FOR THE FUNDAMENTAL FREQUENCY= 75.92 dBuV/m. NO FUNDAMENTAL IS ALLOWED IN THE RESTRICTED BANDS.

THE LIMIT FOR AVERAGE FIELD STRENGTH dBuV/m FOR THE HARMONICS AND SPURIOUS FREQUENCIES = 55.92 dBuV/m. SPURIOUS IN THE RESTRICTED BANDS MUST BE LESS THAN 54dBuV/m OR 15.209.

TEST DATA:

Emission Frequency MHz	Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Correction Factor dB	Duty Cycle Factor dB	Field Strength dBuV/m	Margin dB
320.10	51.6	H	2.32	16.52	8.78	61.66	14.26
648.20	26.5	V	3.52	22.23	8.78	43.47	12.45
972.3**	26.1	V	2.84	25.45	8.78	45.61	8.39
1,296.40	34.4	V	2.24	26.35	8.78	54.21	1.71
1,620.5**	27.3	V	2.58	28.27	8.78	49.37	4.63
1,944.60	19.7	V	2.92	28.49	8.78	42.33	13.60
2,268.6**	14.6	V	3.19	28.76	8.78	37.77	16.23
2,592.80	18.1	V	3.45	29.20	8.78	41.97	13.95
2,916.90	9.4	V	3.70	30.35	8.78	34.67	19.33
3,241.00	4.1	V	4.00	30.87	8.78	30.19	25.73

SAMPLE CALCULATION OF LIMIT @ 303 MHz:

(470 - 260)MHz = 210 MHz

(12500 - 3750)uV/m = 8750 uV/m

8750uV/m/210MHz = 41.67 uV/m/MHz

(303-260)MHz = 43 MHz

43 MHz * 41.67 uV/m/MHz = 1791.81 uV/m

(1791.81 + 3750)uV/m = 5541.81 uV/m limit @ 303 MHz

The transmitter ceases transmitting when the button is released.

TEST RESULTS: The unit DOES meet the FCC requirements.

PERFORMED BY: STUART LOPATA DATE TESTED: JUNE 20, 2001

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