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NAME OF TEST:

Field Strength of Spurious Radiation (Cont.)

- J) Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a non-radiating cable. With the antennas at both ends horizontally polarized and with the signal generator tuned to a particular spurious frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained. This should be done carefully repeating the adjustment of the test antenna and generator output.
- K) Repeat step J) with both antennas vertically polarized for each spurious frequency.
- L) Calculate power in dBm into a reference ideal half-wave dipole antenna by reducing the readings obtained in steps J) and K) by the power loss in the cable between the generator and the antenna and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna.
- M) The levels recorded in step L) are absolute levels of radiated spurious emissions in dBm. The radiated spurious emissions in dB can be calculated by the following:

Radiated spurious emissions dB =

$$10\log_{10}(\text{TX power in watts}/0.001) - \text{the levels in step l)}$$

NOTE: It is permissible that other antennas provided can be referenced to a dipole.

## Test Equipment:

Asset Description (as applicable)	s/n	Cycle	Last Cal
<small>Per ANSI C63.4-1992/2000 Draft, 10.1.4</small>			
<u>TRANSDUCER</u>			
i00088 EMCO 3109-B 25MHz-300MHz	2336	12 mo.	Sep-00
i00065 EMCO 3301-B Active Monopole	2635	12 mo.	Sep-00
i00089 Aprel 2001 200MHz-1GHz	001500	12 mo.	Sep-00
i00103 EMCO 3115 1GHz-18GHz	9208-3925	12 mo.	Sep-00
<u>AMPLIFIER</u>			
i00028 HP 8449A	2749A00121	12 mo.	Mar-00
<u>SPECTRUM ANALYZER</u>			
i00029 HP 8563E	3213A00104	12 mo.	Aug-00
i00033 HP 85462A	3625A00357	12 mo.	May-00
i00048 HP 8566B	2511AD1467	6 mo.	May-00
<u>MISCELLANEOUS</u>			
Microphone			
Antenna			<u>x</u>
All Ports Terminated			<u>x</u>

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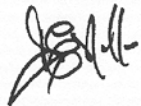
NAME OF TEST: Field Strength of Spurious Radiation

g00a0521: 2000-Oct-17 Tue 14:09:00

STATE: 2:High Power

FREQUENCY TUNED, MHz	FREQUENCY EMISSION, MHz	METER, dBuV	CF, dB	ERP, dBm	MARGIN, dB
415.010000	830.020000	42.06	29.59	-25.7	-12.8
415.010000	1245.047000	21.22	35.23	-40.9	-28
415.010000	1660.098000	21.92	38.8	-36.7	-23.7
415.010000	2075.153000	23.59	42.07	-31.7	-18.7
415.010000	2490.171000	24.55	45.76	-27.1	-14.1
415.010000	2905.208000	16.46	49.61	-31.3	-18.3
415.010000	3320.260000	10.24	51.4	-35.7	-22.8
415.010000	3735.319000	6.31	52.1	-39	-26
415.010000	4150.330000	0.59	52.75	-44	-31.1

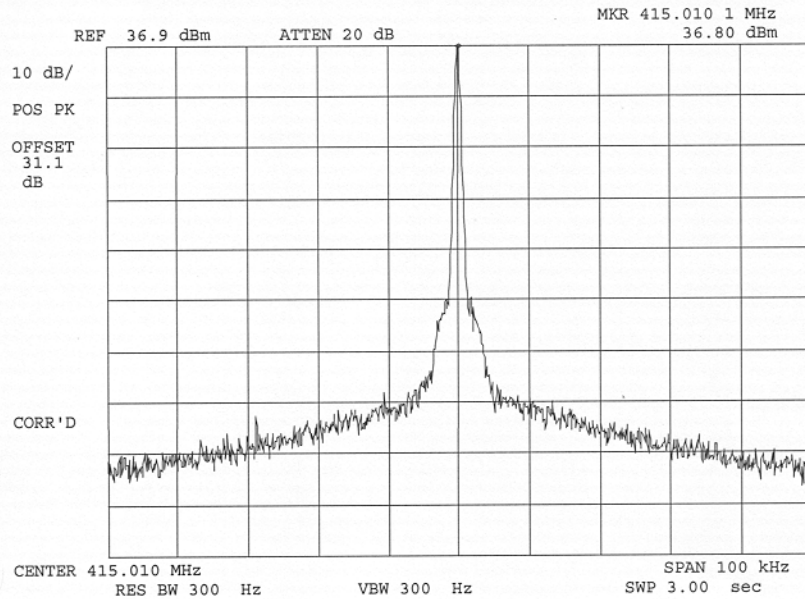
SUPERVISED BY:

  
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NAME OF TEST: Emission Masks (Occupied Bandwidth)  
g0110005: 2001-Jan-02 Tue 10:54:00  
STATE: 1:Low Power



POWER:  
MODULATION:

LOW  
NONE

SUPERVISED BY:

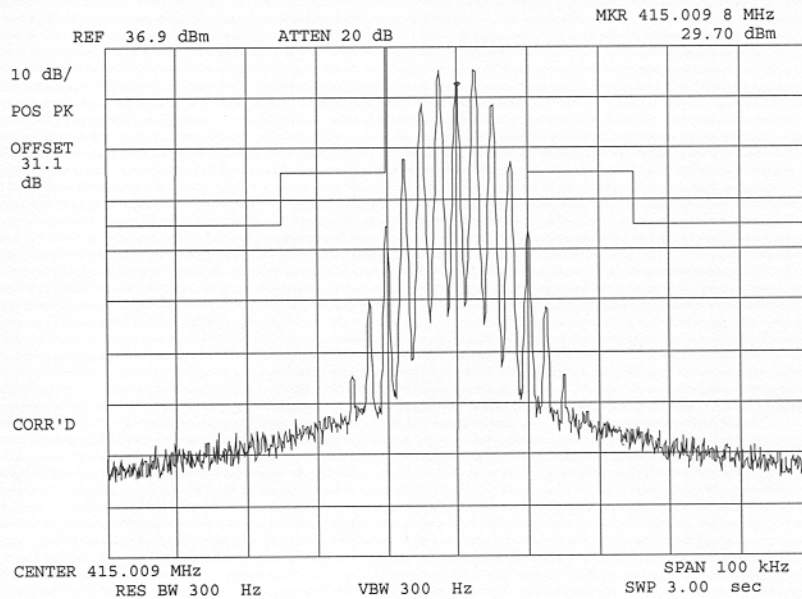
  
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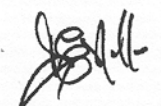
NAME OF TEST: Emission Masks (Occupied Bandwidth)  
g0110008: 2001-Jan-02 Tue 11:07:00  
STATE: 1:Low Power



POWER:  
MODULATION:

LOW  
VOICE: 2500 Hz SINE WAVE  
MASK: B, VHF/UHF 25kHz,  
w/LPF

SUPERVISED BY:

  
Doug Noble, B.A.S. E.E.T.