APPLICANT: COMMUNICATIONS DEVELOPMENT LLC

FCC ID: QJ7-JNM032189

TABLE OF CONTENTS

TEST REPORT CONTAINING:

EXHIBIT ATTACHMENTS:

TEST PROCEDURE

GENERAL: This report shall NOT be reproduced except in full without the written approval of TIMCO ENGINEERING, INC. The UUT was transmitting a test signal during the testing.

15.247(a)(1) CARRIER FREQUENCY SEPARATION & NUMBER OF CHANNELS: A near field probe was used to sense the signal of the UUT. The UUT was made to hop its full range. The spectrum analyzer was set to view the frequency range from 902 to 928 MHz and placed in the memory mode. A plot was then made of the display showing the number of channels.

15.247(a)(1)(i) CARRIER FREQUENCY DWELL TIME: A near field probe was used to sense the signal of the UUT. The UUT was made to hop its full range. The spectrum analyzer was set to view the frequency range from 902 to 928 MHz and the center of the HOPPING RANGE was centered on the Spectrum Analyzer. The SPAN was then set to ZERO(0) and the SWEEP TIME was set to 20 seconds. Then by analyzing the plot of the total ON TIME of the UUT during the 20 seconds.

15.247(b)(2) POWER OUTPUT: The RF power output was measured at the antenna feed point by removing the permanent antenna and connecting the UUT to a peak power meter, HP Model No. 8900C.

15.247(c) ANTENNA CONDUCTED EMISSIONS: The RBW=100 kHz, VBW =1.0 MHz up to 1000 MHz and RBW=1 MHz & VBW=3 MHz above 1 GHz. The spectrum was scanned from 30 MHz to the 10th Harmonic of the fundamental.

RADIATION INTERFERENCE: The test procedure used was ANSI STANDARD C63.4-1992 using a HEWLETT PACKARD spectrum analyzer with a preselector. The analyzer was calibrated in dB above a microvolt at the output of the antenna. The resolution bandwidth was 100 kHz and the video bandwidth was 300 kHz up to 1.0 GHz and 1.0 MHz with a video BW of 3.0 MHz above 1.0 GHz. The ambient temperature of the UUT was 89°F, with a humidity of 47%. The hopping was stopped at the low end, middle and high end of the band in order to test the radiated emissions.

FORMULA OF CONVERSION FACTORS: The Field Strength at 3 m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB. The gain of the Preselector was accounted for in the Spectrum Analyzer Meter Reading.

Example:

Freq (MHz)	METER READING + ACF = FS
33	20 dBuV + 10.36 dB = 30.36 dBuV/m @ 3m

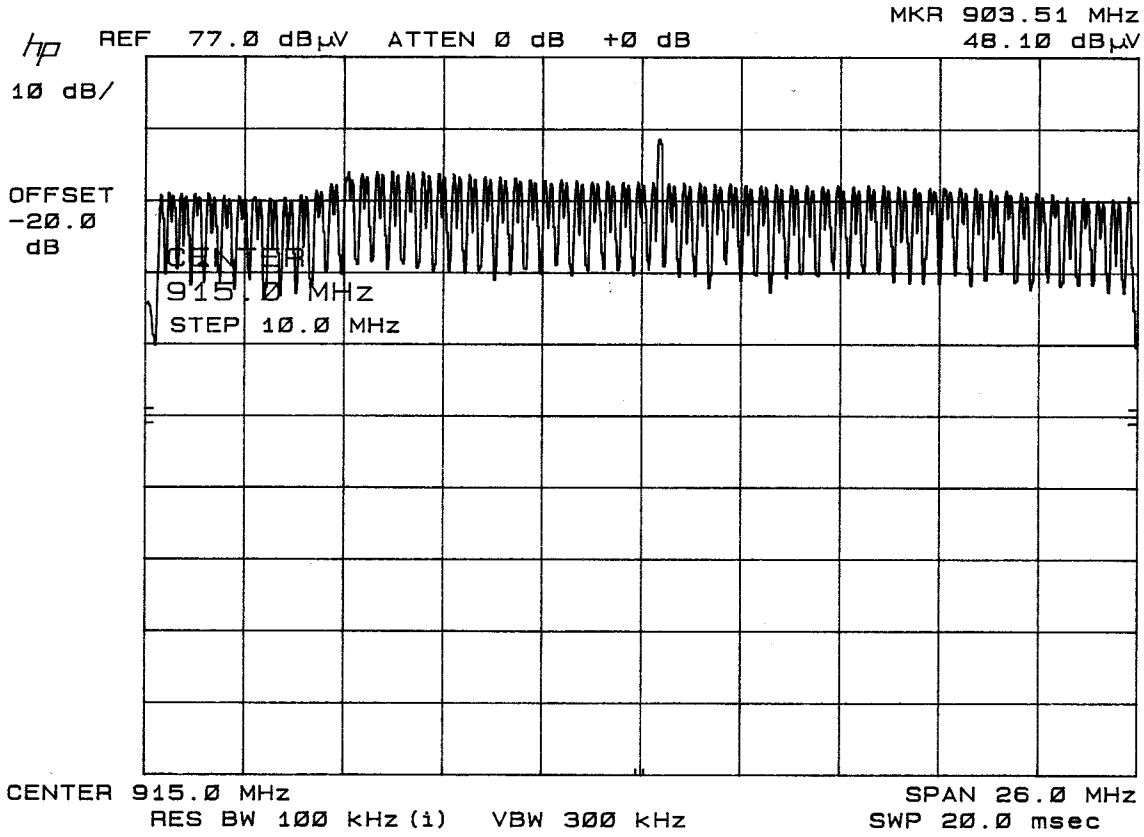
EMC Equipment List

	DEVICE	MFGR	MODEL	SERNO	CAL/CHAR DATE	DUE DATE or STATUS
X	3-Meter OATS	TEI	N/A	N/A	Listed 12/22/99	12/22/02
	3/10-Meter OATS	TEI	N/A	N/A	Listed 3/26/01	3/26/04
	Receiver, Beige Tower					
	Spectrum Analyzer (Tan)	HP	8566B Opt 462	3138A07786 3144A20661	CAL 8/31/01	8/31/03
	RF Preselector (Tan)	HP	85685A	3221A01400	CAL 8/31/01	8/31/03
	Quasi-Peak Adapter (Tan)	HP	85650A	3303A01690	CAL 8/31/01	8/31/03
X	Receiver, Blue Tower					
X	Spectrum Analyzer (Blue)	HP	8568B	2928A04729 2848A18049	CHAR 10/22/01	10/22/03
X	RF Preselector (Blue)	HP	85685A	2926A00983	CHAR 10/22/01	10/22/03
X	Quasi-Peak Adapter (Blue)	HP	85650A	2811A01279	CHAR 10/22/01	10/22/03
X	Biconnical Antenna	Electro-Metrics	BIA-25	1171	CAL 4/26/01	4/26/03
	Biconnical Antenna	Eaton	94455-1	1096	CAL 10/1/01	10/1/03
	Biconnical Antenna	Eaton	94455-1	1057	CHAR 3/15/00	3/15/02
	BiconiLog Antenna	EMCO	3143	9409-1043		
X	Log-Periodic Antenna	Electro-Metrics	LPA-25	1122	CAL 10/2/01	10/2/03
	Log-Periodic Antenna	Electro-Metrics	EM-6950	632	CHAR 10/15/01	10/15/03
	Log-Periodic Antenna	Electro-Metrics	LPA-30	409	CHAR 10/16/01	10/16/03
	Dipole Antenna Kit	Electro-Metrics	TDA-30/1-4	152	CAL 3/21/01	3/21/04
	Dipole Antenna Kit	Electro-Metrics	TDA-30/1-4	153	CHAR 11/24/00	11/24/03
	Double-Ridged Horn Antenna	Electro-Metrics	RGA-180	2319	CAL 12/19/01	12/19/03
	Horn Antenna	Electro-Metrics	EM-6961	6246	CAL 3/21/01	3/21/03
	Horn Antenna	ATM	19-443-6R	None	No Cal Required	
	Passive Loop Antenna	EMC Test Systems	EMCO 6512	9706-1211	CHAR 7/10/01	7/10/03
	Line Impedance Stabilization . . .	Electro-Metrics	ANS-25/2	2604	CAL 10/9/01	10/9/03

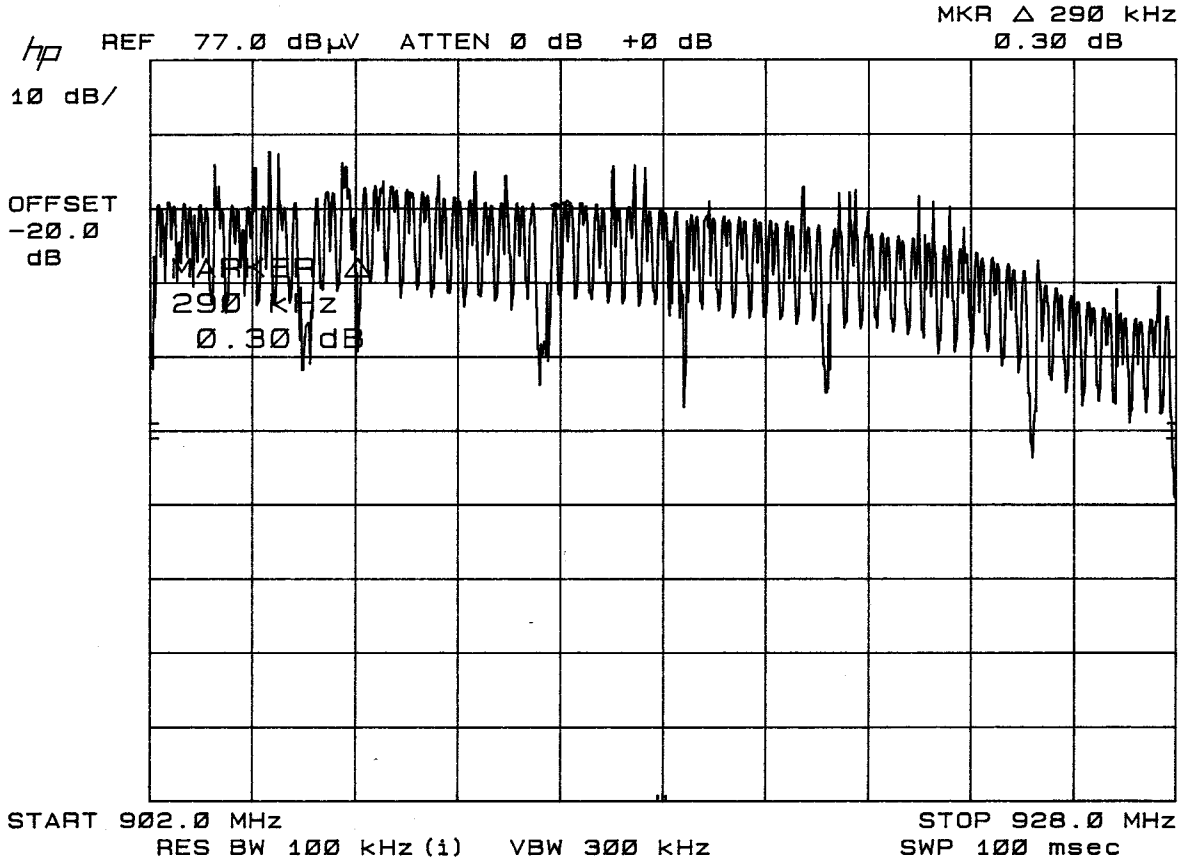
	DEVICE	MFGR	MODEL	SERNO	CAL/CHAR DATE	DUE DATE or STATUS
	Line Impedance Stabilization . . .	Electro-Metrics	EM-7820	2682	CAL 3/16/01	3/16/03
	Termaline Wattmeter	Bird Electronic Corporation	611	16405	CAL 5/25/99	5/25/01
	Termaline Wattmeter	Bird Electronic Corporation	6104	1926	CAL 12/12/01	12/12/03
	Oscilloscope	Tektronix	2230	300572	CHAR 2/1/01	2/1/03
	Temperature Chamber	Tenney Engineering	TTRC	11717-7	CHAR 1/22/02	1/22/04
	AC Voltmeter	HP	400FL	2213A14499	CAL 10/9/01	10/9/03
	AC Voltmeter	HP	400FL	2213A14261	CHAR 10/15/01	10/15/03
	AC Voltmeter	HP	400FL	2213A14728	CHAR 10/15/01	10/15/03
X	Digital Multimeter	Fluke	77	35053830	CHAR 1/8/02	1/8/04
	Digital Multimeter	Fluke	77	43850817	CHAR 1/8/02	1/8/04
	Digital Multimeter	HP	E2377A	2927J05849	CHAR 1/8/02	1/8/04
	Multimeter	Fluke	FLUKE-77-3	79510405	CAL 9/26/01	9/26/03
	Peak Power Meter	HP	8900C	2131A00545	CHAR 1/26/01	1/26/03
	Digital Thermometer	Fluke	2166A	42032	CAL 1/16/02	1/16/04
	Thermometer	Traulsen	SK-128		CHAR 1/22/02	1/22/04
X	Temp/Humidity gauge	EXTech	44577F	E000901	CHAR 1/22/02	1/22/04
	Frequency Counter	HP	5352B	2632A00165	CAL 11/28/01	11/28/03
	Power Sensor	Agilent Technologies	84811A	2551A02705	CAL 1/26/01	1/26/03
	Service Monitor	IFR	FM/AM 500A	5182	CAL 11/22/00	11/22/02
	Comm. Serv. Monitor	IFR	FM/AM 1200S	6593	CAL 5/12/02	5/12/04
	Signal Generator	HP	8640B	2308A21464	CAL 11/15/01	11/15/03
	Modulation Analyzer	HP	8901A	3435A06868	CAL 9/5/01	9/5/03
	Near Field Probe	HP	HP11940A	2650A02748	CHAR 2/1/01	2/1/03
	BandReject Filter	Lorch Microwave	5BR4-2400/ 60-N	Z1	CHAR 3/2/01	3/2/03
	BandReject Filter	Lorch Microwave	6BR6-2442/ 300-N	Z1	CHAR 3/2/01	3/2/03

	DEVICE	MFGR	MODEL	SERNO	CAL/CHAR DATE	DUE DATE or STATUS
	BandReject Filter	Lorch Microwave	5BR4-10525/ 900-S	Z1	CHAR 3/2/01	3/2/03
	High Pas Filter	Microlab	HA-10N		CHAR 10/4/01	10/4/03
	Audio Oscillator	HP	653A	832-00260	CHAR 3/1/01	3/1/03
	Frequency Counter	HP	5382A	1620A03535	CHAR 3/2/01	3/2/03
	Frequency Counter	HP	5385A	3242A07460	CHAR 12/11/01	12/11/03
	Preamplifier	HP	8449B-H02	3008A00372	CHAR 3/4/01	3/4/03
	Amplifier	HP	11975A	2738A01969	CHAR 3/1/01	3/1/03
	Egg Timer	Unk			CHAR 8/31/01	8/31/03
	Measuring Tape, 20M	Kraftixx	0631-20		CHAR 2/1/02	2/1/04
	Measuring Tape, 7.5M	Kraftixx	7.5M PROFI		2/1/02	2/1/04
	Coaxial Cable #51	Insulated Wire Inc.	NPS 2251-2880	Timco #51	CHAR 1/23/02	1/23/04
	Coaxial Cable #64	Semflex Inc.	60637	Timco #64	CHAR 1/24/02	1/24/04
	Coaxial Cable #65	General Cable Co.	E9917 RG233/U	Timco #65	CHAR 1/23/02	1/23/04
	Coaxial Cable #106	Unknown	Unknown	Timco #106	CHAR 1/23/02	1/23/04

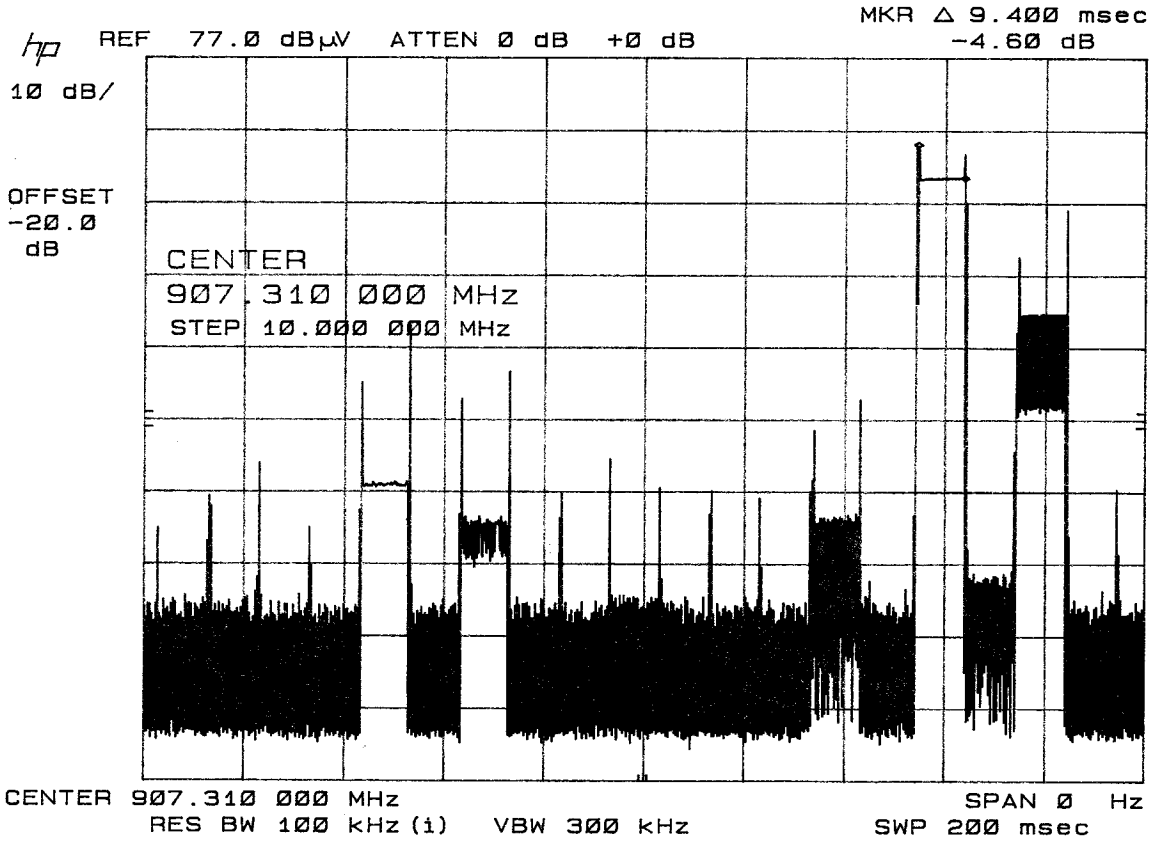
15.247(a): Definition: This EUT uses a pseudo random algorithm to hop over the frequency range of 902.00 to 928.00 MHz in 64 hops.

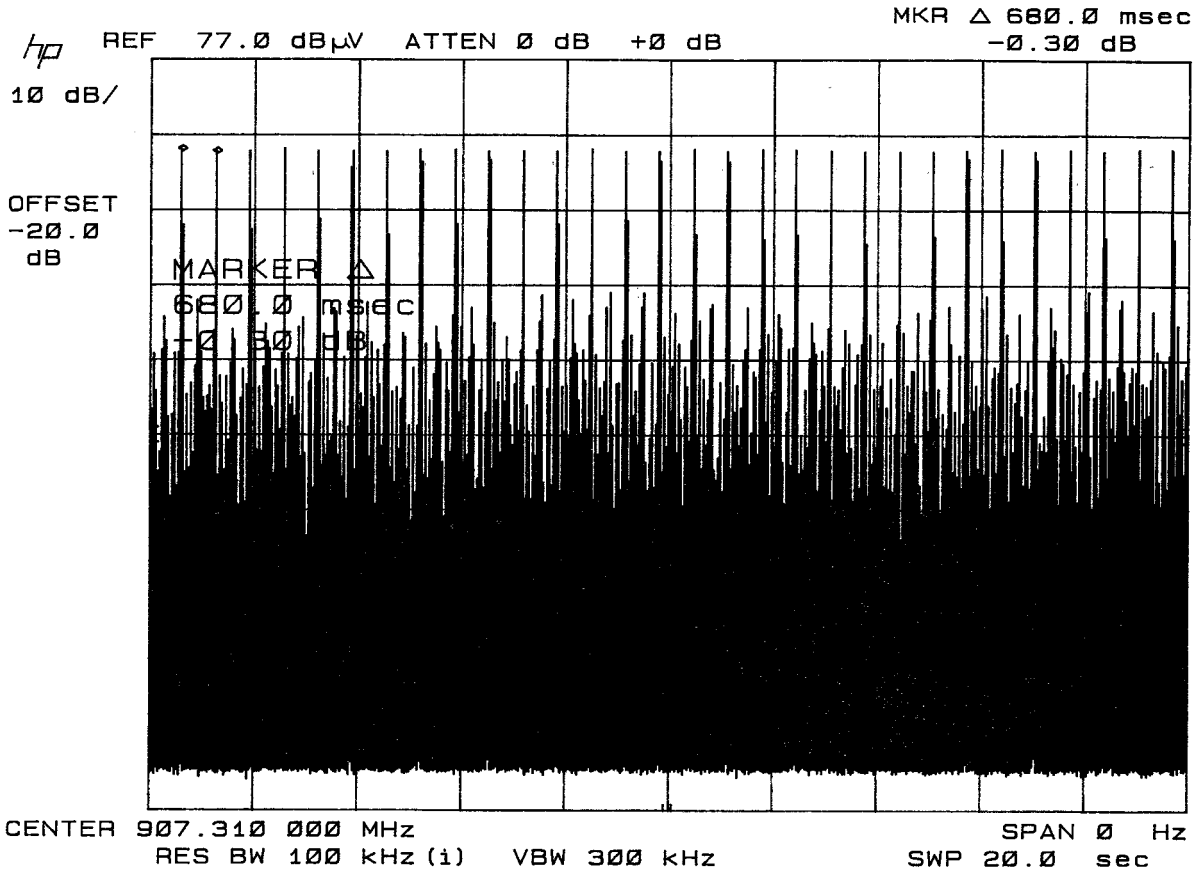


15.247(a)(1): The number of hops is 64 hops at a separation of 290 kHz. The requirement in the 902-928 MHz band is a minimum of 25 Hops when the 20 dB bandwidth is 250 kHz or greater.

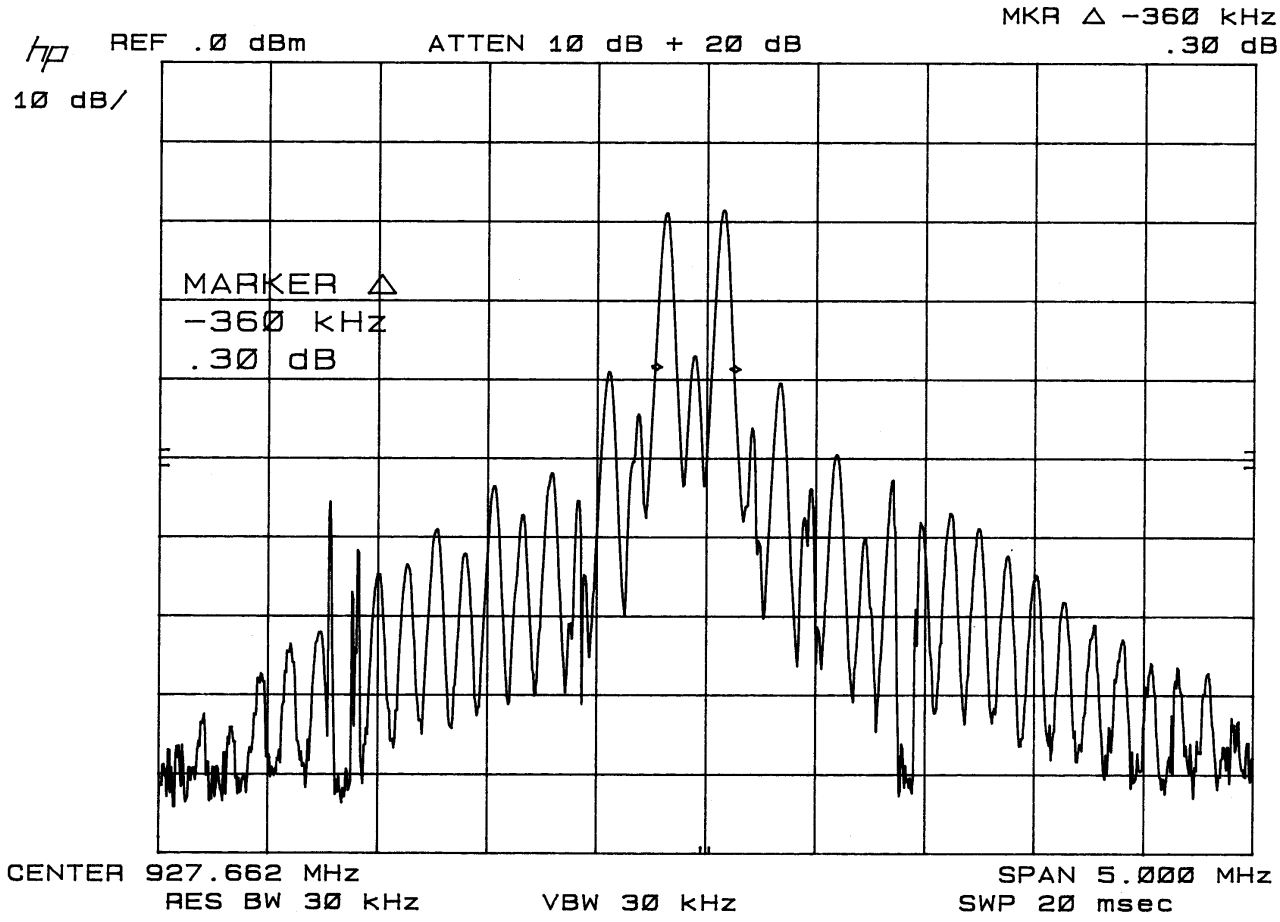


15.247(a)(1)(i) Dwell Time of Hop: The dwell time of any hopping frequency cannot be greater than 0.4 seconds in any 10 second period. The Dwell time in 10 seconds is 9.4 milliseconds.




MKR △ 680.0 msec
REF 77.0 dBμV ATTEN 0 dB +0 dB
-0.30 dB
10 dB/
OFFSET
-20.0
dB
MARKER △
680.0 msec
-0.30 dB
CENTER 907.310 000 MHz
SPAN 0 Hz
RES BW 100 kHz (i) VBW 300 kHz
SWP 20.0 sec

15.247(a)(1)(i) The maximum allowed 20 dB bandwidth of a hopping channel is 500 kHz. The 20 dB bandwidth measured was 360 kHz.



15.35 Correction Factor

From the plot on page 7 ‘Dwell Time’ the on time is 9.4 milliseconds in 100 milliseconds. The calculation of dB of correction is presented below.

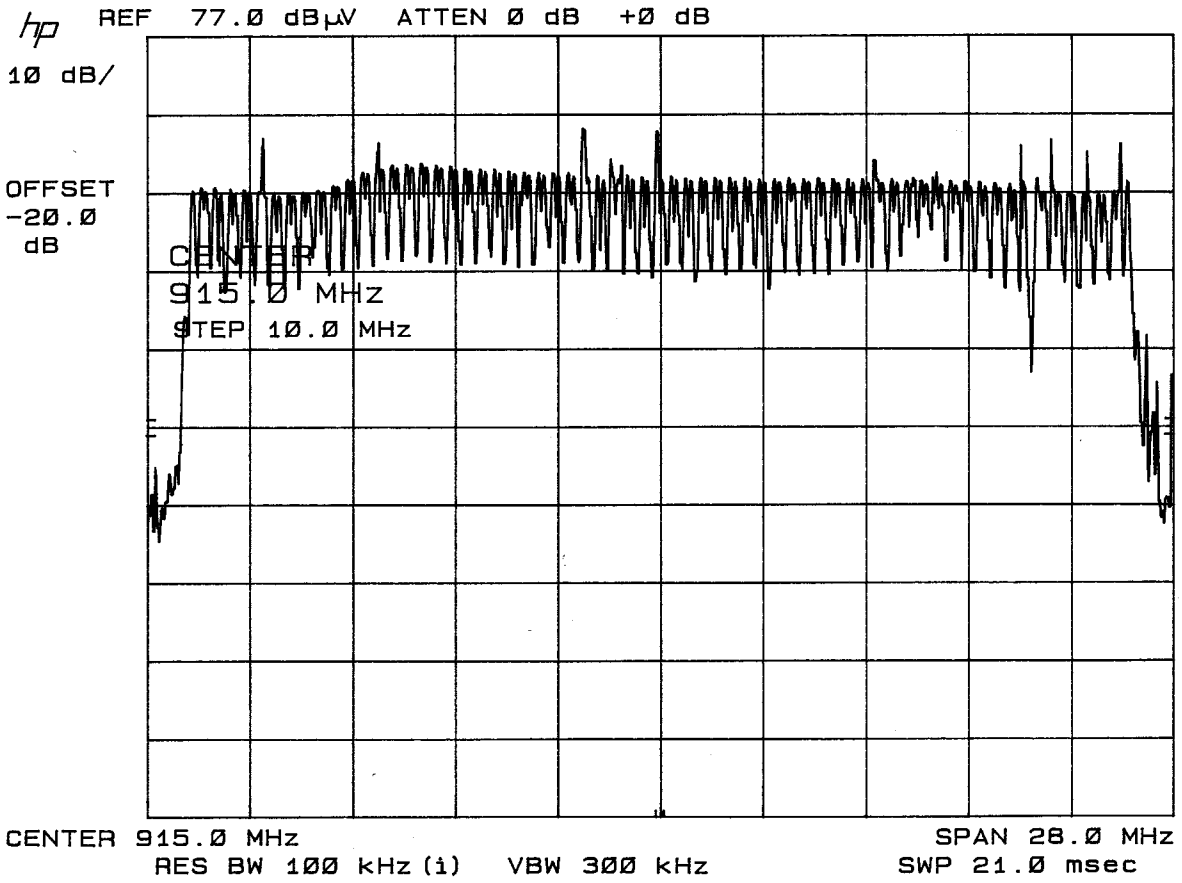
dB=20log(.094)= 20.53 dB

Maximum allowable is 20 dB.

15.247 (b)(3) DESCRIPTION OF ANTENNAS USED FOR TESTING:

ANTENA MODEL NUMBER	MANUFACTURER	TYPE	GAIN
TB2-900SMA	HANKOOK ANTENNA	OMNI WHIP W/ SMA CONNECTOR	0 dBd
ACE 915	ACE	OMNI WHIP W/ SMA CONNECTOR	0 dBd
MAX-9053	MAXRAD	OMNI W/N CONNECTOR	3 dBd
YA6-900	LARSEN	YAGI W/N CONNECTOR	6 dBd

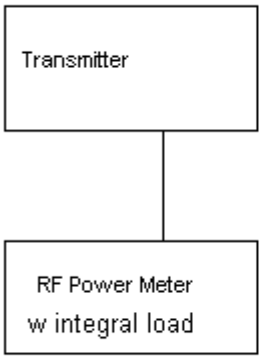
15.247 (4)(c) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.



15.247(b)(2): POWER OUTPUT

The maximum peak output power shall not exceed 1 watt (30 dBm) for systems employing at least 50 hopping channels. If directional transmitting antennas with a gain of more than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
The maximum power output was less than +30 dBm. Power was measured by disconnecting the antennas and measuring across a 50 ohm load as recommended by the manufacturer using a HP peak power meter Model 8900C. The power output was measured at three places in the band highest is reported below.

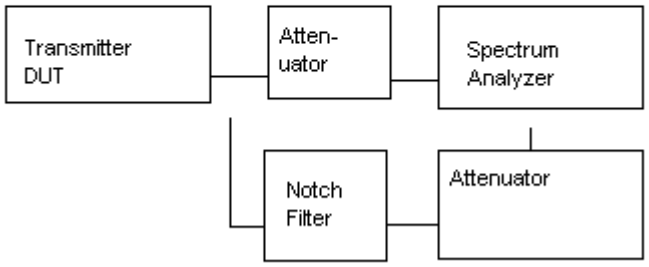
MEASUREMENT: 1 Watt



POWER OUTPUT: 1 Watt appears to meet the FCC requirements.

15.247(c) Method of Measuring RF Conducted Spurious Emissions

Spurious Emissions at
Antenna Terminals



NAME OF TEST: SPURIOUS EMISSIONS AT ANTENNA TERMINALS

TF	EF	dB below carrier
914.2	914.2	0
	1828.4	51.5
	2742.6	48.5
	3656.8	64.8
	4571.0	63.8
	5485.2	64.8
	6399.4	64.8
	7313.6	55.3
	8227.8	64.8
	9142.0	64.8

Three places in the band were measured, the worst case data is presented above.

15.247 (c) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either on RF conducted or a radiated measurement. Attenuation below the general limits specified in 15.209 (a) is not required.

15.247(c),15.205 &15.209(b) Field_strength_of_spurious_emissions:

REQUIREMENTS:

FIELD STRENGTH	FIELD STRENGTH	S15.209	
of Fundamental:	of Harmonics	30 - 88 MHz	40 dBuV/m @3M
902-928MHz		88 -216 MHz	43.5
2.4-2.4835GHz		216 -960 MHz	46
127.38dBuV/m @3m	54 dBuV/m @3m	ABOVE 960 MHz	54dBuV/m

EMISSIONS RADIATED OUTSIDE OF THE SPECIFIED FREQUENCY BANDS, EXCEPT FOR HARMONICS, SHALL BE ATTENUATED BY AT LEAST 20 dB BELOW THE LEVEL OF THE FUNDAMENTAL OR TO THE GENERAL RADIATED EMISSION LIMITS IN 15.209, WHICHEVER IS THE LESSER ATTENUATION.

REQUIREMENTS: Emissions that fall in the restricted bands (15.205) must be less than 54dBuV/m average (or 74dBuV/m peak) otherwise the spurious and harmonics must be attenuated by at least 20dB.
Peak Field Strength Values are shown.

TEST DATA:

Tuned Frequency MHz	Emission Frequency MHz	Meter Reading dBuv	Ant. Polarity	Coax Loss dB	Correction Factor dB	Correction Factor dB (DCF)	Field Strength dBuv/m Peak	Margin dB
BEAM								
902.2	902.2	95.5	V	4.15	23.46		123.11	0.00
902.2	2,706.80R	27.9	V	3.57	29.72	20	41.19	32.81
902.2	3,609.10R	9.4	H	4.41	31.50	20	25.31	48.69
902.2	3,609.10R	10.0	V	4.41	31.50	20	25.91	48.09
902.2	4,511.40R	14.3	V	5.52	33.53	20	33.35	40.65
902.2	4,511.40R	15.5	H	5.52	33.53	20	34.55	39.45
902.2	7,218.30	16.7	H	7.02	36.01	20	39.73	63.38
902.2	7,218.30	22.4	V	7.02	36.01	20	45.43	57.38
LONG WHIP								
902.3	902.30	91.3	V	4.15	23.46		118.91	0.00
902.3	2,701.10R	24.9	V	3.56	29.70	20	38.16	35.84
902.3	2,707.10R	17.7	H	3.57	29.73	20	31.00	43.00
902.3	4,511.90R	12.8	V	5.52	33.53	20	31.85	42.15
902.3	4,511.90R	20.1	H	5.52	33.53	20	39.15	34.85
902.3	6,316.60	10.7	V	6.61	35.27	20	32.58	66.33
902.3	7,219.00	15.5	H	7.02	36.01	20	38.53	60.38
902.3	7,219.00	16.0	V	7.02	36.01	20	39.03	59.88

Tuned Frequency MHz	Emission Frequency MHz	Meter Reading dBuv	Ant. Polarity	Coax Loss dB	Correction Factor dB	Correction Factor dB	Field Strength dBuv/m	Margin dB
SHORT WHIP								
902.4	902.40	92.6	V	4.15	23.46		120.21	0.00
902.4	1,804.70	23.1	V	2.79	28.41	20	34.30	65.91
902.4	1,804.70	27.2	H	2.79	28.41	20	38.40	61.81
902.4	2,707.10R	28.0	H	3.57	29.73	20	41.30	32.70
902.4	2,707.10R	35.0	V	3.57	29.73	20	48.30	25.70
902.4	3,609.50R	20.1	V	4.41	31.50	20	36.01	37.99
902.4	3,609.50R	24.2	H	4.41	31.50	20	40.11	33.89
902.4	4,511.90R	20.3	V	5.52	33.53	20	39.35	34.65
902.4	4,511.90R	31.3	H	5.52	33.53	20	50.35	23.65
902.4	5,414.20R	8.4	V	6.34	34.27	20	29.01	44.99
902.4	5,414.20R	10.7	H	6.34	34.27	20	31.31	42.69
902.4	6,316.60	17.5	V	6.61	35.27	20	39.38	60.83
902.4	6,316.60	17.9	H	6.61	35.27	20	39.78	60.43
902.4	7,219.00	25.0	H	7.02	36.01	20	48.03	52.18
902.4	7,219.00	25.5	V	7.02	36.01	20	48.53	51.68
902.4	8,121.40R	9.8	H	8.03	37.36	20	35.19	38.81
902.4	9,023.80R	14.1	H	8.27	37.34	20	39.71	34.29
GROUND PLANE								
902.5	902.30	92.1	V	4.15	23.46		119.71	0.00
902.5	2,707.00R	20.5	H	3.57	29.73	20	33.80	40.20
902.5	2,707.00R	26.6	V	3.57	29.73	20	39.90	35.10
902.5	3,609.40R	8.4	H	4.41	31.50	20	24.31	49.69
902.5	3,609.40R	8.8	V	4.41	31.50	20	24.71	49.29
902.5	4,511.70R	14.0	V	5.52	33.53	20	33.05	40.95
902.5	4,511.70R	15.9	H	5.52	33.53	20	34.95	39.05
902.5	6,316.50	10.7	V	6.61	35.27	20	32.58	67.13
902.5	6,316.50	11.2	H	6.61	35.27	20	33.08	66.63
902.5	7,218.80	16.0	H	7.02	36.01	20	39.03	60.68
902.5	7,218.80	19.9	V	7.02	36.01	20	42.93	56.78
902.5	9,023.50	9.2	H	8.27	37.34	20	34.81	64.90
BEAM								
914.2	914.30	94.5	V	3.88	23.40		121.78	0.00
914.2	2,743.00R	17.4	H	3.59	29.85	20	30.84	43.16
914.2	2,743.00R	24.7	V	3.59	29.85	20	38.14	35.86
914.2	3,657.40R	10.0	V	4.46	31.71	20	26.17	47.83
914.2	4,571.70R	13.2	V	5.60	33.59	20	32.39	41.61
914.2	4,571.70R	13.3	H	5.60	33.59	20	32.49	41.51
914.2	6,400.50	9.8	H	6.63	35.42	20	31.85	69.93
914.2	6,400.50	11.8	V	6.63	35.42	20	33.85	67.93
914.2	7,314.80R	15.7	H	7.14	36.20	20	39.04	34.96
914.2	7,314.80R	20.5	H	7.14	36.20	20	43.84	30.16

Tuned Frequency MHz	Emission Frequency MHz	Meter Reading dBuv	Ant. Polarity	Coax Loss dB	Correction Factor dB	Correction Factor dB	Field Strength dBuv/m	Margin dB
LONG WHIP								
914.3	914.30	91.2	V	3.88	23.40		118.48	0.00
914.3	1,828.70	23.5	V	2.82	28.43	20	34.75	63.73
914.3	2,743.10R	21.7	H	3.59	29.86	20	35.15	38.85
914.3	2,743.10R	39.8	V	3.59	29.86	20	53.25	20.75
914.3	3,657.50R	9.3	H	4.46	31.71	20	25.47	48.53
914.3	3,657.50R	18.6	V	4.46	31.71	20	34.77	39.23
914.3	4,571.90R	16.6	H	5.60	33.59	20	35.79	38.21
914.3	4,571.90R	21.7	V	5.60	33.59	20	40.89	33.11
914.3	5,486.20	11.1	V	6.37	34.32	20	31.79	66.69
914.3	6,400.60	11.4	H	6.63	35.42	20	33.45	65.03
914.3	6,400.60	18.8	V	6.63	35.42	20	40.85	57.63
914.3	7,315.00R	13.5	H	7.14	36.20	20	36.84	37.16
914.3	7,315.90R	28.3	V	7.14	36.21	20	51.65	22.35
SHORT WHIP								
914.4	914.40	90.5	V	3.88	23.40		117.78	0.00
914.4	2,743.20R	9.1	H	3.59	29.86	20	22.55	51.45
914.4	2,743.20R	26.7	V	3.59	29.86	20	40.15	33.85
914.4	3,657.60R	10.2	H	4.46	31.71	20	26.37	47.63
914.4	4,572.00R	8.3	H	5.60	33.59	20	27.49	46.51
914.4	4,572.00R	17.1	H	5.60	33.59	20	36.29	37.71
914.4	6,400.80	11.9	H	6.63	35.42	20	33.95	63.83
914.4	7,315.20R	14.7	H	7.14	36.20	20	38.04	35.96
914.4	7,315.20R	18.5	V	7.14	36.20	20	41.84	32.16
GROUND PLANE								
914.5	914.52	92.2	V	3.87	23.40		119.47	0.00
914.5	2,743.00R	19.1	H	3.59	29.85	20	32.54	41.46
914.5	2,743.00R	23.9	V	3.59	29.85	20	37.34	36.66
914.5	3,657.40R	8.1	V	4.46	31.71	20	24.27	49.73
914.5	3,657.40R	9.7	H	4.46	31.71	20	25.87	48.13
914.5	4,571.70R	11.9	V	5.60	33.59	20	31.09	42.91
914.5	4,571.70R	13.5	H	5.60	33.59	20	32.69	41.31
914.5	6,400.30	10.1	V	6.63	35.42	20	32.15	67.32
914.5	7,314.60R	13.7	H	7.14	36.20	20	37.04	36.96
914.5	7,314.60R	18.4	V	7.14	36.20	20	41.74	32.26
BEAM								
927.2	927.50	94.1	V	3.58	23.48		121.16	0.00
927.2	2,782.70R	21.6	H	3.63	30.00	20	35.23	38.77
927.2	2,782.70R	32.7	V	3.63	30.00	20	46.33	27.67
927.2	3,710.30R	10.6	H	4.51	31.95	20	27.06	46.94
927.2	4,637.90R	10.1	V	5.69	33.65	20	29.44	44.56
927.2	4,637.90R	10.3	H	5.69	33.65	20	29.64	44.36
927.2	6,493.00	10.5	V	6.65	35.59	20	32.74	68.42
927.2	6,493.00	11.3	H	6.65	35.59	20	33.54	67.62
927.2	7,420.60R	16.6	H	7.28	36.41	20	40.29	33.71
927.2	7,420.60R	20.6	V	7.28	36.41	20	44.29	29.71
LONG WHIP								
927.3	927.50	90.4	V	3.58	23.48		117.46	0.00
927.3	2,782.60R	27.5	V	3.63	30.00	20	41.13	32.87
927.3	2,782.60R	28.2	H	3.63	30.00	20	41.83	32.17
927.3	4,637.80R	8.7	V	5.69	33.65	20	28.04	45.96
927.3	4,637.80R	12.5	H	5.69	33.65	20	31.84	42.16
927.3	6,492.90	10.8	H	6.65	35.59	20	33.04	64.42
927.3	7,420.40R	14.5	H	7.28	36.41	20	38.19	35.81
927.3	7,420.40R	20.8	V	7.28	36.41	20	44.49	29.51

Tuned Frequency MHz	Emission Frequency MHz	Meter Reading dBuv	Ant. Polarity	Coax Loss dB	Correction Factor dB	Correction Factor dB	Field Strength dBuv/m	Margin dB
SHORT WHIP								
927.4	927.50	91.0	V	3.58	23.48		118.06	0.00
927.4	2,782.40R	19.7	H	3.63	30.00	20	33.33	40.67
927.4	2,782.40R	37.5	V	3.63	30.00	20	51.13	22.87
927.4	4,637.40R	9.0	V	5.69	33.65	20	28.34	45.66
927.4	4,637.40R	11.7	H	5.69	33.65	20	31.04	42.96
927.4	5,564.90	7.0	V	6.40	34.38	20	27.78	70.28
927.4	6,492.40	12.8	H	6.65	35.59	20	35.04	63.02
927.4	7,419.90R	16.3	H	7.27	36.41	20	39.98	34.02
927.4	7,419.90R	18.1	V	7.27	36.41	20	41.78	32.22
GROUND PLANE								
927.5	927.50	88.9	V	3.58	23.48		115.96	0.00
927.5	2,782.70R	28.0	H	3.63	30.00	20	41.63	32.37
927.5	2,782.70R	44.4	V	3.58	23.32	20	51.30	22.70
927.5	4,637.50R	10.5	H	5.69	33.65	20	29.84	44.16
927.5	4,637.50R	15.5	V	5.69	33.65	20	34.84	39.16
927.5	7,420.40R	16.1	H	7.29	36.43	20	39.82	34.18
927.5	7,420.70R	19.6	V	7.28	36.41	20	43.29	30.71

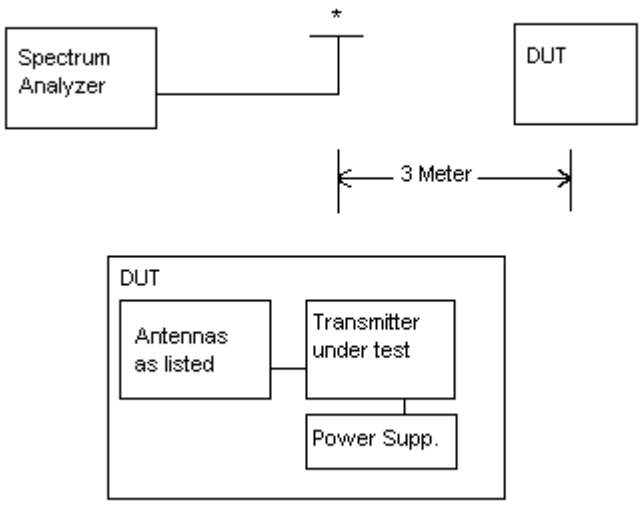
APPLICANT: COMMUNICATIONS DEVELOPMENT LLC

FCC ID: QJ7-JNM032189

NAME OF TEST: RADIATION INTERFERENCE CONTINUED

RULES PART NUMBER: 15.247, 15.209

Method of Measuring Radiated Spurious Emissions



Equipment placed 80 cm above ground
on a rotatable platform.

1.1307,2.1091,2.1093 Environmental evaluation

MPE CALCULATION

MPE calculation based on a 1 watt transmitter and a dipole antenna with the center of the band being 915 MHz.

$Po := 1000$ mWatts $dBd := 0$ antenna gain $f := 915$ Frequency in MHz

$G := dBd + 2.15$ gain in dBi

$Gn := 10^{\frac{G}{10}}$ gain numeric $S := .61$ S is f/1500 for uncontrolled exposure.

$Gn = 1.641$ $S = 0.61$

$$R := \sqrt{\frac{(Po \cdot Gn)}{(4 \cdot \pi \cdot S)}} \qquad Rinches := \frac{R}{2.54}$$

$R = 14.63$ distance in centimeters required for compliance

$Rinches = 5.76$