

TIMCO ENGINEERING INC.

849 NW State Road 45
Newberry, Florida 32669
<http://www.timcoengr.com>
888.472.2424 F 352.472.2030 email: tei@timcoengr.com



Test Report

Product Name: SPEEDLAN

FCC ID: KINSL9202

Applicant:

**P-COM, INC.
7020 PROFESSIONAL PARKWAY EAST
SARASOTA FL 34240-8415**

Date Receipt: SEPTEMBER 8, 2004

Date Tested: SEPTEMBER 29, 2004

APPLICANT: P-COM, INC.
FCC ID: KINSL9202
REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

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SEPTEMBER 29, 2004

Federal Communications Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, MD 21046

SUBJECT: P-COM, INC.

FCC ID: KINSL9202

To Whom It May Concern:

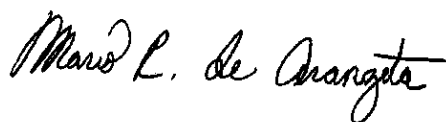
The attached report is for a wireless lan device with both DSSS and OFDM modulations. The device operates in the 2.4 and 5.6 GHz ISM bands. The assembly, made up of the Bridge/Radio (FCC ID:KINSL9202, 50 to 300 feet of special ethernet/power cable, 10 feet of coax, lightning suppressor, and antenna. P-Com sells only professionally installed equipment. This unit has output power control via software and is not user selectable or accessible. The following table shows the power output verses channel availability.

Model Number	Frequency Band - GHz	Mode	Channel Number	Antenna Gain & Type	Output Power	
					mW	dBm
9202	2.4	OFDM	1, 2, 10 and 11	18 dBi grid	22	13.4
9202	2.4	DSSS	1, 2, 10 and 11	18 dBi grid	26	14.2
9202	2.4	OFDM	3 through 9	18 dBi grid	50	17.0
9202	2.4	DSSS	3 through 9	18 dBi grid	50	17.0
9202	2.4	OFDM	1, 2, 10 and 11	9 dBi omni	22	13.4
9202	2.4	DSSS	1, 2, 10 and 11	9 dBi omni	26	14.2
9202	2.4	OFDM	3 through 9	9 dBi omni	50	17.0
9202	2.4	DSSS	3 through 9	9 dBi omni	50	17.0
9202	5.8	OFDM	149 through 165	29 dBi dish	40	16.0
9202	5.8	OFDM	149 through 165	23 dBi flat panel	40	16.0
9202	5.8	OFDM	149 through 165	10 dBi omni	40	16.0

P-COM, INC. purchases standard antennas from the manufacturer. The antenna is intended to be used outside. The KINSL9202 radio uses unique connector (reverse TNC).

Should you have any questions or require any further information with regards to this, please feel free to contact me.

Sincerely,



Mario R. de Aranzeta C.E.T.

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EMC Equipment List

Device	Manufacturer	Model	Serial Number	Cal/Char Date	Due Date or Status
3-Meter OATS	TEI	N/A	N/A	Listed 1/13/03	1/12/06
3/10-Meter OATS	TEI	N/A	N/A	Listed 3/27/04	3/26/07
Tan Tower Spectrum Analyzer	HP	8566B Opt 462	3138A07786 3144A20661	CAL 9/23/03	9/23/05
Tan Tower RF Preselector	HP	85685A	3221A01400	CAL 9/23/03	9/23/05
Tan Tower Quasi-Peak Adapter	HP	85650A	3303A01690	CAL 9/23/03	9/23/05
Tan Tower Preamplifier	HP	8449B-H02	3008A00372	CAL 9/23/03	9/23/05
Blue Tower Spectrum Analyzer	HP	8568B	2928A04729 2848A18049	CAL 4/15/03	4/15/05
Blue Tower RF Preselector	HP	85685A	2620A00294	CAL 4/27/04	4/27/06
Blue Tower Quasi-Peak Adapter	HP	85650A	2811A01279	CAL 4/15/03	4/15/05
Silver Tower Spectrum Analyzer	HP	8566B Opt 462	3552A22064 3638A08608	CAL 3/22/04	3/22/06
Silver Tower RF Preselector	HP	85685A	2926A00983	CAL 3/22/04	3/22/06
Silver Tower Quasi-Peak Adapter	HP	85650A	3303A01844	CAL 3/22/04	3/22/06
Silver Tower Preamplifier	HP	8449B	3008A01075	CAL 3/22/04	3/22/06
Biconnical Antenna	Electro-Metrics	BIA-25	1171	CAL 4/26/01	4/26/03
Biconnical Antenna	Eaton	94455-1	1096	CAL 8/17/04	8/17/06
Biconnical Antenna	Eaton	94455-1	1057	CAL 3/18/03	3/18/05
BiconiLog Antenna	EMCO	3143	9409-1043	No Cal Required	
Log-Periodic Antenna	Electro-Metrics	LPA-25	1122	CAL 8/26/04	8/26/06
Log-Periodic Antenna	Electro-Metrics	LPA-30	409	CAL 3/4/03	3/4/05
Log-Periodic	Eaton	96005	1243	CAL	5/8/05

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Device	Manufacturer	Model	Serial Number	Cal/Char Date	Due Date or Status
Antenna				5/8/03	
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	CAL 9/26/02	9/26/05
Double-Ridged Horn Antenna	Electro-Metrics	RGA-180	2319	CAL 2/17/03	2/17/05
Horn Antenna *(at 3 meters)	Electro-Metrics	EM-6961	6246	CAL 3/31/03	3/31/05
Horn Antenna *(at 10 meters)	Electro-Metrics	EM-6961	6246	CAL 6/4/03	6/4/05
Passive Loop Antenna	EMC Test Systems	EMCO 6512	9706-1211	CHAR 7/10/01	7/10/03
Harmonic Mixer with Horn Antenna	Oleson Microwave Labs	M08HW/A	F30425-1	CHAR 4/25/03	4/25/05
Harmonic Mixer with Horn Antenna	Oleson Microwave Labs	M12HW/A	E30425-1	CHAR 4/25/03	4/25/05
LISN	Electro-Metrics	ANS-25/2	2604	CAL 8/27/04	8/27/06
LISN	Electro-Metrics	EM-7820	2682	CAL 3/12/03	3/12/05
Termaline Wattmeter	Bird Electronic Corporation	611	16405	CAL 7/16/04	7/16/06
Termaline Wattmeter	Bird Electronic Corporation	6104	1926	CAL 7/16/04	7/16/06
Oscilloscope	Tektronix	2230	300572	CAL 7/3/03	7/3/05
System One	Audio Precision	System One	SYS1-45868	CHAR 4/25/02	4/25/04
Temperature Chamber	Tenney Engineering	TTRC	11717-7	CHAR 1/22/02	1/22/04
AC Voltmeter	HP	400FL	2213A14499	CAL 7/19/04	7/19/06
AC Voltmeter	HP	400FL	2213A14261	CHAR 10/15/01	10/15/03
AC Voltmeter	HP	400FL	2213A14728	CHAR 10/15/01	10/15/03
Digital Multimeter	Fluke	77	35053830	CHAR 1/8/02	1/8/04
Digital Multimeter	Fluke	77	43850817	CHAR 1/8/02	1/8/04

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Device	Manufacturer	Model	Serial Number	Cal/Char Date	Due Date or Status
Digital Multimeter	HP	E2377A	2927J05849	CHAR 1/8/02	1/8/04
Multimeter	Fluke	FLUKE-77-3	79510405	CHAR 9/26/01	9/26/03
Peak Power Meter	HP	8900C	2131A00545	CAL 7/2/03	7/2/05
Power Sensor	Agilent Technologies	84811A	2551A02705	CAL 7/2/03	7/2/05
Power Meter	HP	432A	1141A07655	CAL 4/15/03	4/15/05
Power Sensor	HP	478A	72129	CAL 4/15/03	4/15/05
Power Meter And Sensor	Bird	4421-107 & 4022	0166 & 0218	CAL 4/16/03	4/16/05
Digital Thermometer	Fluke	2166A	42032	CAL 7/19/04	7/19/06
Thermometer	Traulsen	SK-128		CHAR 1/22/02	1/22/04
Thermometer	Extech	4028	14871-2	CAL 3/7/03	3/7/05
Hygro-Thermometer	Extech	445703	0602	CAL 10/4/02	10/4/04
Frequency Counter	HP	5352B	2632A00165	CAL 8/3/04	8/3/06
Frequency Counter	HP	5385A	2730A03025	CAL 3/7/03	3/7/05
Service Monitor	IFR	FM/AM 500A	5182	CAL 11/22/00	Out of Service
Comm. Serv. Monitor	IFR	FM/AM 1200S	6593	CAL 5/12/02	5/12/04
Signal Generator	HP	8640B	2308A21464	CAL 8/26/04	8/26/06
Sweep Generator	Wiltron	6648	101009	CAL 4/15/03	4/15/05
Sweep Generator	Wiltron	6669M	007005	CAL 3/3/03	3/3/05
Modulation Analyzer	HP	8901A	3435A06868	CAL 9/5/01	9/5/03
Modulation Meter	Boonton	8220	10901AB	CAL 4/15/03	4/15/05
Near Field Probe	HP	HP11940A	2650A02748	CHAR 2/1/01	Out of Service
BandReject Filter	Lorch	5BR4-	Z1	CHAR	4/17/05

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Device	Manufacturer	Model	Serial Number	Cal/Char Date	Due Date or Status
	Microwave	2400/60-N		4/17/03	
BandReject Filter	Lorch Microwave	6BR6-2442/300-N	Z1	CHAR 4/17/03	4/17/05
BandReject Filter	Lorch Microwave	5BR4-10525/900-S	Z1	CHAR 4/12/03	4/12/05
Notch Filter	Lorch Microwave	5BRX-850/X100-N	AD-1	CHAR 4/17/03	4/17/05
High Pass Filter	Unk	3768(5)-400	041	CHAR 12/17/02	12/17/04
High Pass Filter	Microlab	HA-10N		CHAR 11/17/02	11/17/04
High Pass Filter	Microlab	HA-20N		CHAR 12/17/02	12/17/04
Audio Oscillator	HP	653A	832-00260	CHAR 12/1/02	12/1/04
Audio Generator	B&K Precision	3010	8739686	CHAR 12/1/02	12/1/04
Frequency Counter	HP	5382A	1620A03535	CHAR 3/2/01	Out of Service
Frequency Counter	HP	5385A	3242A07460	CAL 3/7/03	3/7/05
Amplifier	HP	11975A	2738A01969	No Cal Required	
Egg Timer	Unk			CHAR 2/1/02	2/1/04
Measuring Tape-20M	Kraftixx	0631-20		CHAR 2/1/02	2/1/04
Measuring Tape-7.5M	Kraftixx	7.5M PROFI		CHAR 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
Injection Probe	Fischer Custom Communications	F-120-9A	270	CAL 6/1/01	6/1/03
Power Line Coupling/Decoupling Network	Fischer Custom Communications	FCC-801-M2-16A	01048	CAL 8/29/01	8/29/03
Power Line	Fischer Custom	FCC-801-M3-	01060	CAL	8/29/03

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Device	Manufacturer	Model	Serial Number	Cal/Char Date	Due Date or Status
Coupling/Decoupling Network	Communications	16A		8/29/01	
VHF/UHF Current Probe	Fischer Custom Communications	F-52	130	CAL 8/30/01	8/30/03
Passive Impedance Adapter	Fischer Custom Communications	FCC-801-150-50-CDN	01117 & 01118	CAL 8/29/01	8/29/03
Radiating Field Coil	Fischer Custom Communications	F-1000-4-8/9/10-L-1M	9859	CAL 10/15/98	10/15/00
EMC Immunity Test System	Keytek	CEMASTER	9810210	CAL 2/1/02	2/1/04
Compliance Test System - AC Power Source	California Instruments	1251RP	L05865	CAL 2/25/04	2/25/06
Compliance Test System - PACS-1 Module	California Instruments	PACS-1	X71484	CAL 2/25/04	2/25/06
Isotropic Field Probe	Amplifier Research	FP5000	22839		
Isotropic Field Probe	Amplifier Research	FP5000	300103		
Capacitor Clamp	Keytek	CM-CCL	9811359	No Cal Required	
Amplifier	Amplifier Research	10W1000B	23117	No Cal Required	
Field Monitor	Amplifier Research	FM5004	22288	No Cal Required	
ELF Meter	F. W. Bell	4060	Not Serialized		Out of Service
Standard Gain Horn 1.0-2.4 GHz	Polarad	CA-L	235	No Cal Required	
Standard Gain Horn 2.14-4.34 GHz	Polarad	CA-S	203	No Cal Required	
Standard Gain Horn 3.95-5.85 GHz	Scientific-Atlanta Inc.	11A-3.9	8448CG	No Cal Required	
Standard Gain Horn 8.2-12.5 GHz	Systron Donner	DBG-520-20	Not Serialized	No Cal Required	
Standard Gain Horn 18.0-26.3 GHz	Systron Donner	DBE-520-20	Not Serialized	No Cal Required	
Standard Gain Horn 26.5-40.2 GHz	Systron Donner	DBD-520-20	Not Serialized	No Cal Required	
Standard Gain Horn 40.0-60.0 GHz	ATM	19-443-6R	Not Serialized	No Cal Required	
Double-Ridged Horn	EMCO	3116	9011-2145		Out of

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Device	Manufacturer	Model	Serial Number	Cal/Char Date	Due Date or Status
Antenna					Service
Standard Gain Horn 12.4-18.0 GHz	ATM	62-442-6	D262108-01	No Cal Required	
Standard Gain Horn 5.85-8.2 GHz	ATM	137-442-2	D261908-01	No Cal Required	
AC Voltmeter	HP	400F	0950A05433	CAL 8/13/03	8/13/05
RF Power Amplifier	Ophir RF	5150F	1041 'X1'	No Cal Required	
Electric Field Sensor	Amplifier Research	FP6001	302504		
Electric Field Sensor	Amplifier Research	FP6001	302510	CAL 6/1/04	6/1/06
Surge Generator	Com-Power Corporation	SG-168	25802	CAL 2/27/04	2/27/06
RF Power Amplifier	Ophir RF, Inc.	5150F	1041	CHAR 10/31/03	10/31/05
3-Meter Anechoic Chamber	Panashield	N/A	N/A	Listed 5/12/04	5/11/07
Digital Multimeter	Fluke	77III	79510408	CAL 7/19/04	7/19/06
Open-Frame Tower Spectrum Analyzer	HP	8566B/85662A	2627A03154/2648A14276	CAL 7/9/04	7/9/06
Open-Frame Tower RF Preselector	HP	85685A	3107A01282	CAL 7/9/04	7/9/06
Open-Frame Tower Quasi-Peak Adapter	HP	85650A	2046A00305	CAL 7/9/04	7/9/06
Signal Generator	HP	8648C	3847A04696	CAL 9/27/04	9/27/06

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TEST PROCEDURE

GENERAL: This report shall NOT be reproduced except in full without the written approval of TIMCO ENGINEERING, INC.

POWER LINE CONDUCTED INTERFERENCE: The procedure used was ANSI STANDARD C63.4-1992 using a 50uH LISN. Both lines were observed with the UUT transmitting. The bandwidth of the spectrum analyzer was 10kHz with an appropriate sweep speed. The ambient temperature of the UUT was 76°F with a humidity of 55%.

BANDWIDTH 6.0dB: The measurements were made with the spectrum analyzer's resolution bandwidth (RBW)=1.0MHz and the video bandwidth (VBW) =3.0MHz and the span set as shown on plot.

POWER OUTPUT: The RF power output was measured at the antenna feed point using a peak power meter.

ANTENNA CONDUCTED EMISSIONS: The RBW=100 kHz, VBW=300 kHz and the span set to 10 MHz and the spectrum was scanned from 30 MHz to the 10th harmonic of the fundamental. Above 1 GHz the resolution bandwidth was 1 MHz and the VBW = 3 MHz and the span to 50MHz.

RADIATION INTERFERENCE: The test procedure used was ANSI STANDARD C63.4-1992 using a HEWLETT PACKARD spectrum analyzer with a pre-selector. The bandwidth (RBW) of the spectrum analyzer was 100 kHz up to 1GHz and 1.0MHz above 1GHz with an appropriate sweep speed. The VBW above 1.0GHz was = 3.0MHz. The analyzer was calibrated in dB above a microvolt at the output of the antenna. The ambient temperature of the UUT was 76°F with a humidity of 55%.

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APPLICANT: P-COM, INC.
FCC ID: KINSL9202
NAME OF TEST: POWER LINE CONDUCTED INTERFERENCE
RULES PART NO.: 15.107(a)

REQUIREMENTS:	QUASI-PEAK	AVERAGE
.15 - 0.5 MHz	66-56 dBuV	56-46 dBuV
0.5 - 5.0	56	46
5.0 - 30.	60	50

TEST PROCEDURE: ANSI STANDARD C63.4-1992. The spectrum was scanned from .15 to 30 MHz.

TEST DATA:

THE PLOTS ON THE FOLLOWING PAGES REPRESENT THE EMISSIONS TAKEN FOR THIS DEVICE.

TEST RESULTS: Both lines were observed. The measurements indicate that the unit DOES meet the FCC requirements for this class of equipment.

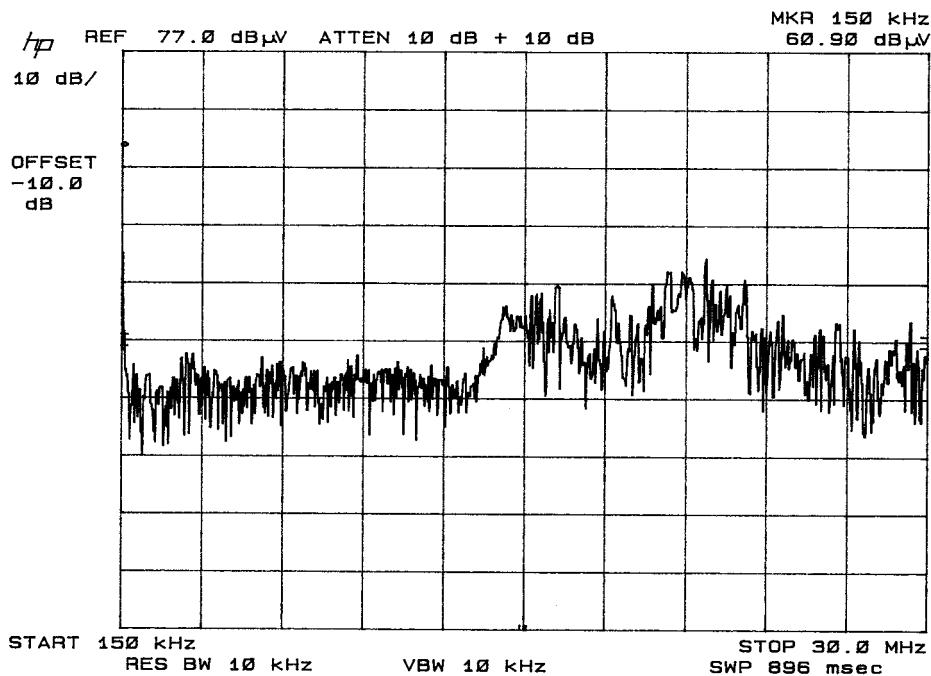
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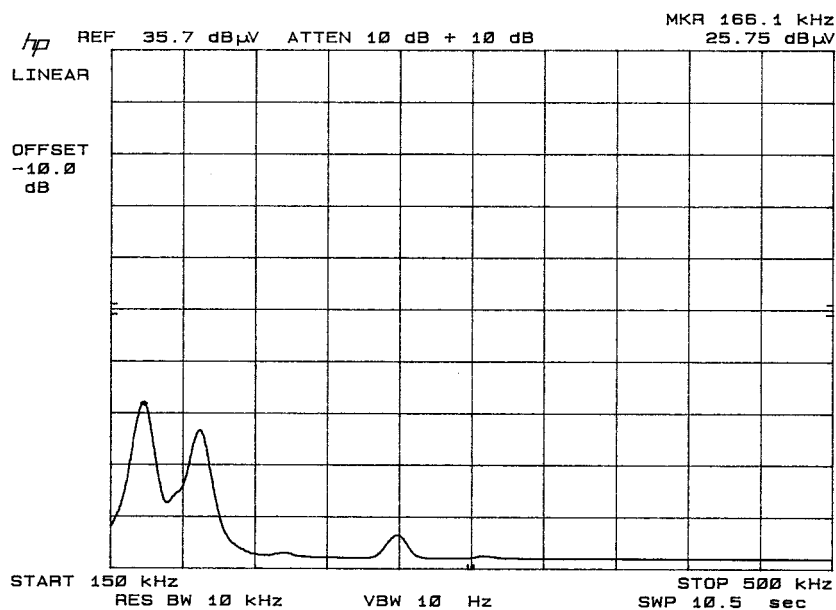
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L1 Peak



L1 Average

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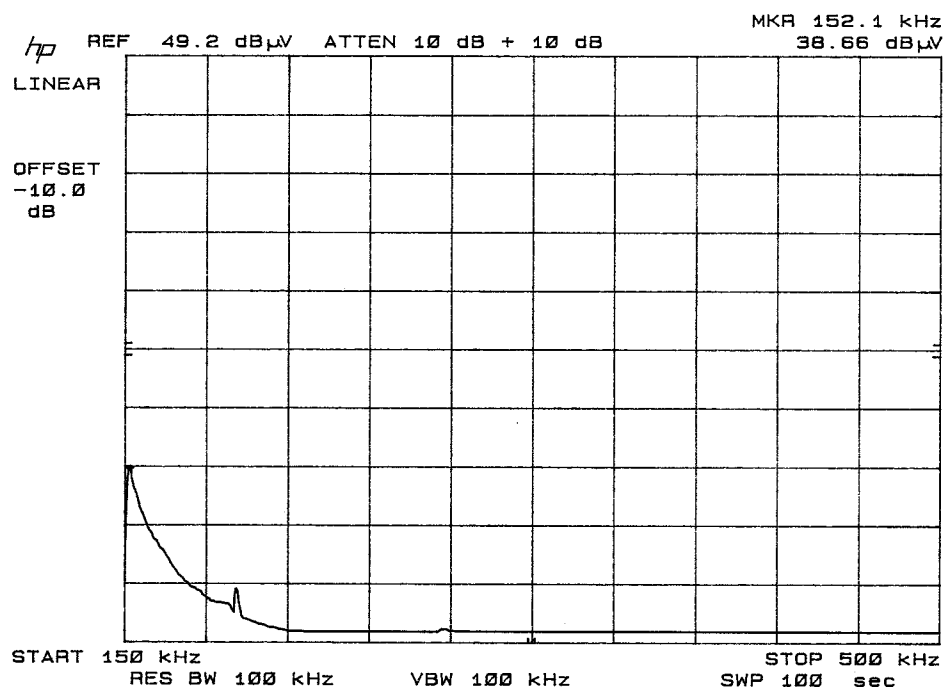
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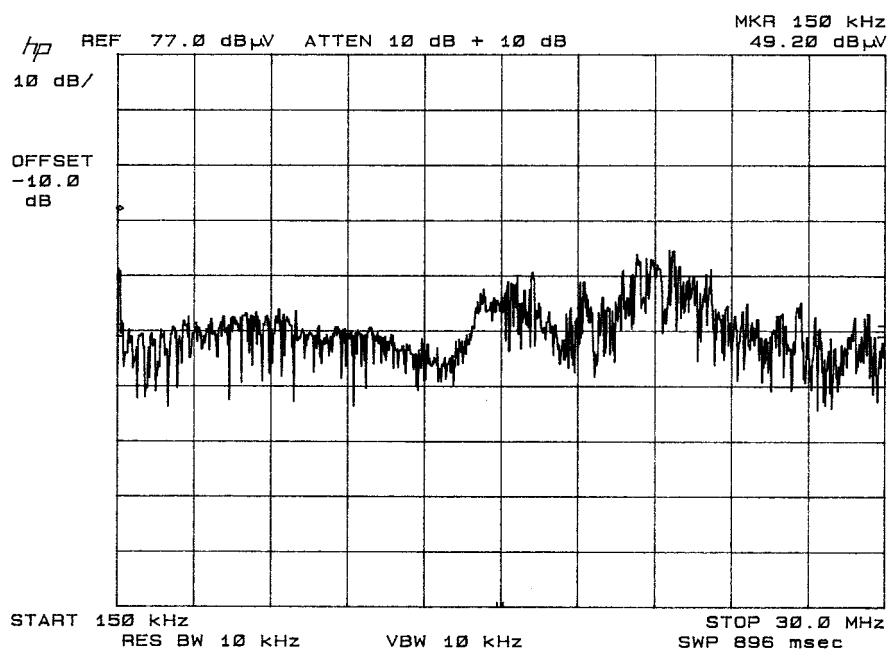
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L1 Quasi-peak



L2 Peak

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APPLICANT: P-COM, INC.
FCC ID: KINSL9202
NAME OF TEST: RADIATION INTERFERENCE (2.4 GHz)
RULES PART NO.: 15.209
REQUIREMENTS: CARRIER FREQUENCY WILL NOT EXCEED 2400/F (kHz) AT 300 METERS

OUT-OF-BAND EMISSIONS SHALL NOT EXCEED THE LEVEL OF THE FUNDAMENTAL.

9 to 490 KHz:	2400/F (kHz) uV/m @ 300 METERS
490 to 1705 KHz:	24000/F (kHz) uV/m @ 30 METERS
1705 to 30 MHz:	29.54 dBuV/M @ 30 METERS
30 to 88 MHz:	40.00 dBuV/M @ 3 METERS
88 to 216 MHz:	43.50 dBuV/M
216 to 960 MHz:	46.02 dBuV/M
ABOVE 960 MHz:	54.00 dBuV/M

TEST

CONFIGURATION: DELL LAPTOP MODEL: PP07L

TEST DATA:

Emission Frequency MHz	Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Correction Factor dB	Field Strength dBuV/m	Margin dB
50.40	20.6	H	0.97	11.46	33.03	6.97
30.60	22.7	H	0.81	13.54	37.05	2.95
30.60	25.0	V	0.81	12.12	37.93	2.07
40.80	20.4	H	0.89	13.47	34.76	5.24
43.80	20.3	V	0.92	11.62	32.84	7.16
50.70	23.4	V	0.98	10.58	34.96	5.04
58.70	26.0	H	1.05	8.17	35.22	4.78
60.80	25.3	H	1.06	7.25	33.61	6.39
62.20	26.8	H	1.08	6.63	34.51	5.49
64.80	29.8	V	1.10	5.98	36.88	3.12
68.30	31.7	H	1.13	5.20	38.03	1.97
69.60	29.0	H	1.14	5.12	35.26	4.74
71.70	30.6	H	1.16	5.61	37.37	2.63
71.70	33.0	V	1.16	5.78	39.94	0.06
79.90	30.7	H	1.23	8.07	40.00	0.00
83.30	26.4	V	1.26	9.39	37.05	2.95
110.80	23.7	V	1.48	10.82	36.00	7.50
137.70	19.7	H	1.66	14.29	35.65	7.85
137.70	20.0	H	1.66	14.29	35.95	7.55
138.40	22.5	H	1.67	14.41	38.58	4.92

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

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APPLICANT: P-COM, INC.
FCC ID: KINSL9202
NAME OF TEST: RADIATION INTERFERENCE (2.4 GHz)
RULES PART NO.: 15.209
REQUIREMENTS: CARRIER FREQUENCY WILL NOT EXCEED 2400/F (kHz) AT 300 METERS

OUT-OF-BAND EMISSIONS SHALL NOT EXCEED THE LEVEL OF THE FUNDAMENTAL.

9 to 490 KHz:	2400/F (kHz) uV/m @ 300 METERS
490 to 1705 KHz:	24000/F (kHz) uV/m @ 30 METERS
1705 to 30 MHz:	29.54 dBuV/M @ 30 METERS
30 to 88 MHz:	40.00 dBuV/M @ 3 METERS
88 to 216 MHz:	43.50 dBuV/M
216 to 960 MHz:	46.02 dBuV/M
ABOVE 960 MHz:	54.00 dBuV/M

TEST

CONFIGURATION: DELL LAPTOP MODEL: PP07L

TEST DATA (CONTINUED):

Emission Frequency MHz	Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Correction Factor dB	Field Strength dBuV/m	Margin dB
143.30	17.3	V	1.70	16.23	35.23	8.27
148.10	20.5	H	1.74	15.69	37.93	5.57
151.50	20.9	H	1.76	15.89	38.55	4.95
159.60	20.6	H	1.82	16.10	38.52	4.98
175.40	18.3	H	1.93	14.24	34.47	9.03
190.30	15.5	V	2.03	14.68	32.21	11.29
200.00	14.4	V	2.10	12.10	28.60	14.90
200.00	16.1	H	2.10	12.00	30.20	13.30
223.50	16.0	H	2.22	11.93	30.15	15.85
250.00	13.8	V	2.35	12.50	28.65	17.35
250.00	16.0	H	2.35	12.80	31.15	14.85
270.00	20.0	H	2.45	13.60	36.05	9.95
399.50	20.5	V	3.10	15.90	39.50	6.50
433.30	18.0	H	3.23	16.97	38.20	7.80
452.90	18.0	H	3.31	18.65	39.96	6.04
465.00	16.0	H	3.36	17.45	36.81	9.19
533.30	18.0	H	3.60	18.77	40.37	5.63
537.30	15.7	V	3.61	18.13	37.44	8.56
566.70	12.6	V	3.70	18.73	35.03	10.97

The spectrum was scanned from 30 MHz to 1000 MHz.

SAMPLE CALCULATION: FSdBuV/m = MR (dBuV) + ACFdB.

APPLICANT: P-COM, INC.

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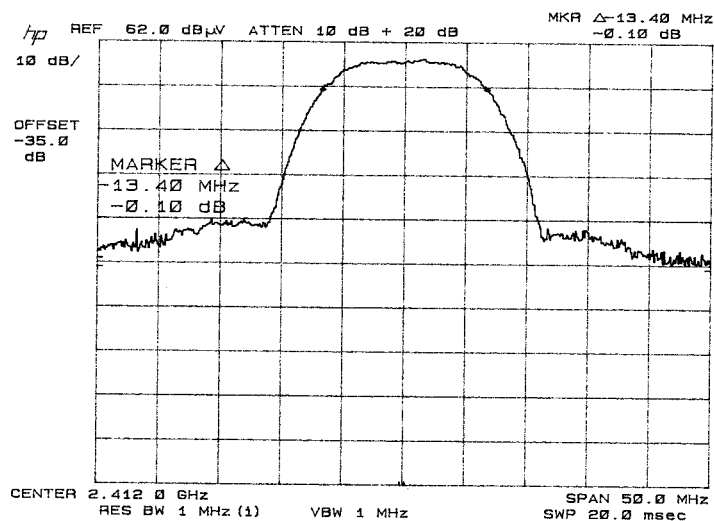
APPLICANT: P-COM, INC.

FCC ID: KINSL9202

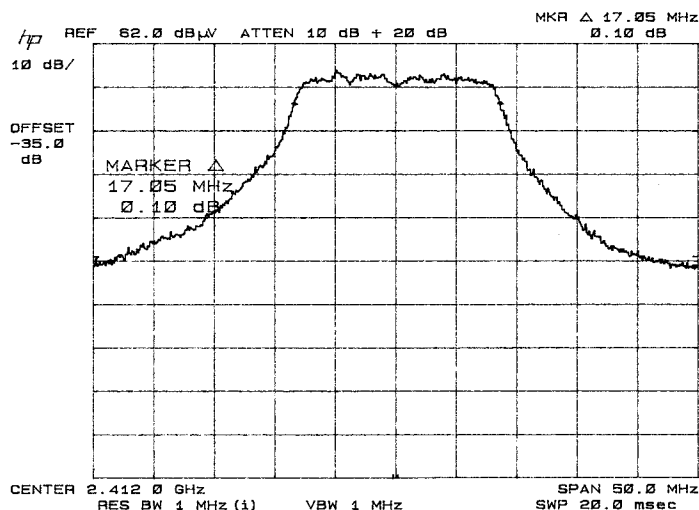
NAME OF TEST: 6.0 dB BANDWIDTH

RULES PART NO.: 15.247(a)(2)

REQUIREMENTS: The 6.0 dB bandwidth must be greater than 500 kHz.



2.4 GHz DSSS



2.4 GHz OFDM

Tested 3 places in the band, worst-case is shown

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

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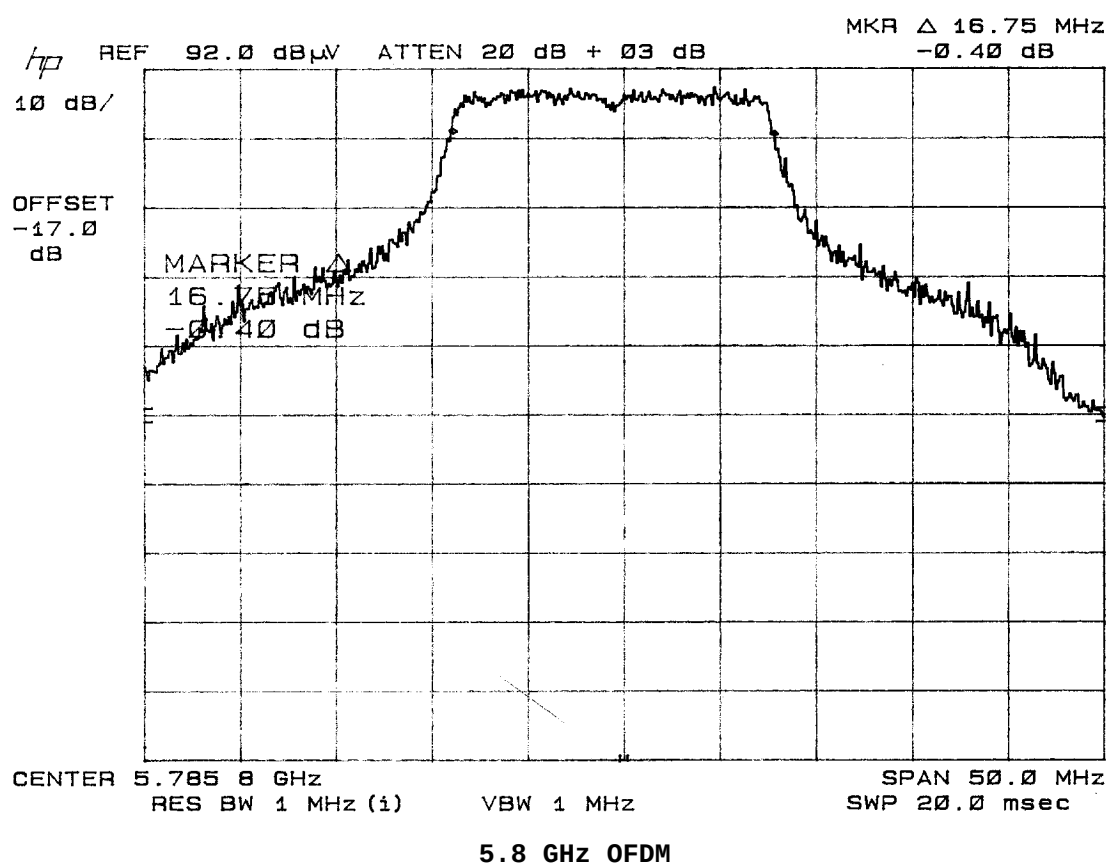
APPLICANT: P-COM, INC.

FCC ID: KINSL9202

NAME OF TEST: 6.0dB BANDWIDTH

RULES PART NO.: 15.247(a)(2)

REQUIREMENTS: The 6 dB bandwidth must be greater than 500 kHz.



Tested 3 places in the band, worst-case is shown

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

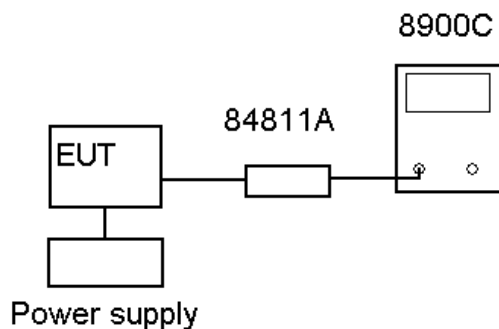
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NAME OF TEST: POWER OUTPUT

RULES PART NO.: 15.247(b) 1 Watt or +30 dBm

15.247(c) Method of Measuring RF Power output: The Peak power Sensor was connected in place of the antenna.



Data: 2.4 GHz

26mW		DSSS
freq	dBm	mW
2412	14.15	26
2437	13.62	23
2462	13.42	22
22 mW		OFDM
freq	dBm	mW
2412	13.42	22
2437	13.01	20
2462	12.55	18
50 mW		DSSS
freq	dBm	mW
2412	16.99	50
2437	16.63	46
2462	16.23	42
50 mW		OFDM
freq	dBm	mW
2412	16.99	50
2437	16.53	45
2462	16.23	42

Data: 5.8 GHz

MHz	dBm	mW
5745	16	40
5785	16	40
5825	16	40

APPLICANT: P-COM, INC.

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NAME OF TEST: SPURIOUS EMISSIONS AT ANTENNA TERMINALS

REQUIREMENTS: Emissions must be at least 20dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW.

TEST DATA:

	Freq. MHz	dBc
Ch 149	5745	0
	7660	62.5
	11154	65.1
	11495	61.7
	12447	68.1
	16592	63.1
Ch 157	5785	0
	7713	64.1
	11569	67.5
Ch 165	5825	0
	7766	64.8
	11648	66.1

NOTE: THE SPECTRUM WAS SCANNED TO THE TENTH HARMONIC.

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

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NAME OF TEST: SPURIOUS EMISSIONS AT ANTENNA TERMINALS

REQUIREMENTS: Emissions must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW.

TEST DATA:

22 mW OFDM

	Freq. MHz	dBc		Freq. MHz	dBc		Freq. MHz	dBc
ch 1	2412	0.0	ch 6	2437	0.0	ch 12	2462	0.0
	4824	65.2		4874	71.8		4924	71.0
	7236	72.0		7311	60.1		7386	63.4
	2016	49.9		2016	50.1		2016	50.9
	2688	51.8		2688	52.4		2688	52.1

26 mW DSSS

	Freq. MHz	dBc		Freq. MHz	dBc		Freq. MHz	dBc
ch 1	2412	0.0	ch 6	2437	0.0	ch 11	2462	0.0
	4824	58.7		4874	59.2		4924	55.9
	7236	58.6		7311	58.2		7386	54.6
	2016	56.8		2016	55.7		2016	55.0
	2688	57.5		2688	57.5		2688	56.7

50 mW DSSS

	Freq. MHz	dBc		Freq. MHz	dBc		Freq. MHz	dBc
ch 3	2422	0.0	ch 6	2437	0.0	ch 9	2452	0.0
	4844	54.5		4874	63.4		4904	59.5
	7266	58.7		7311	50.6		7356	56.1
	9688	71.9		9748	71.5		9808	72.9
	2016	65.3		2016	63.4		2016	63.6
	2688	65.7		2688	61.8		2688	61.4

50 mW OFDM

	Freq. MHz	dBc		Freq. MHz	dBc		Freq. MHz	dBc
ch 3	2422	0.0	ch 6	2437	0.0	ch 9	2452	0.0
	4844	62.2		4874	63.8		4904	61.3
	7266	55.8		7311	54.1		7356	51.7
	2016	60.8		2016	59.9		2016	59.6
	2688	62.2		2688	60.6		2688	62.4

NOTE: THE SPECTRUM WAS SCANNED TO THE TENTH HARMONIC.

APPLICANT: P-COM, INC.

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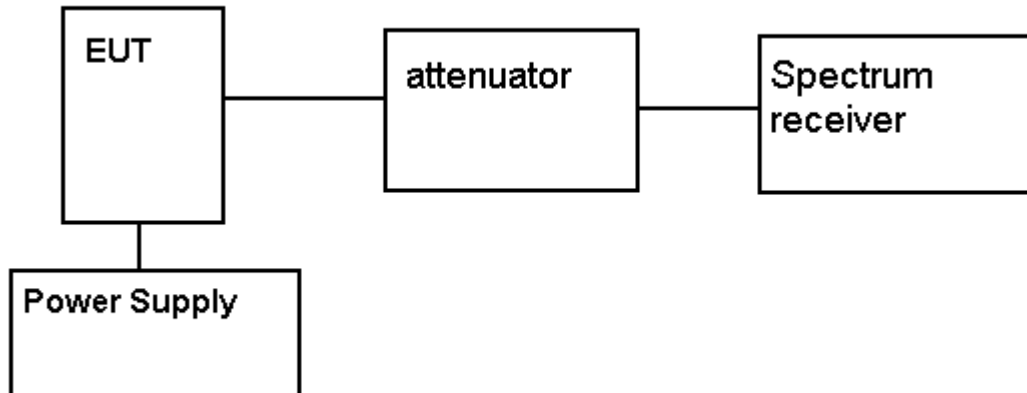
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15.247(c) Method of Measuring RF Conducted Spurious Emissions



APPLICANT: P-COM, INC.

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

REQUIREMENTS:

FIELD STRENGTH of Fundamental: 902-928MHz	FIELD STRENGTH of Harmonics	S15.209 30 - 88 MHz 40 dBuV/m @3M 88 -216 MHz 43.5 216 -960 MHz 46 ABOVE 960 MHz 54dBuV/m
2.4-2.4835GHz	127.37dBuV/m 54 dBuV/m @3m	

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 FOR EMISSIONS THAT FALL IN A RESTRICTED BAND:

FIELD STRENGTH LIMITS FOR PEAK READINGS: 74 dBuV/m
FIELD STRENGTH LIMITS FOR AVERAGE READINGS: 54 dBuV/m

TEST DATA (18 dBi 22 mW OFDM):

Tuned Frequency MHz	Emission Frequency MHz		Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Correction Factor dB	Field Strength dBuV/m	Margin dB
2,412.0	2,412.00		81.9	V	3.19	29.28	114.37	13.00
2,412.0	2,016.00		16.4	V	2.91	28.72	48.03	46.34
2,412.0	2,320.00	R	10.5	V	3.12	29.15	42.77	AV 11.23
2,412.0	2,320.00	R	23.8	V	3.12	29.15	56.07	PK 17.93
2,412.0	2,330.00	R	10.5	V	3.13	29.16	42.79	AV 11.21
2,412.0	2,330.00	R	23.8	V	3.13	29.16	56.09	PK 17.91
2,412.0	2,558.00		21.0	V	3.29	29.53	53.82	40.55
2,412.0	2,688.00	R	14.6	V	3.38	29.81	47.79	AV 6.21
2,412.0	2,688.00	R	18.3	V	3.38	29.81	51.49	PK 22.51
2,437.0	2,437.00		83.4	V	3.21	29.31	115.92	11.45
2,437.0	2,016.00		16.4	V	2.91	28.72	48.03	46.34
2,437.0	2,320.00	R	10.5	V	3.12	29.15	42.77	AV 11.23
2,437.0	2,320.00	R	23.8	V	3.12	29.15	56.07	PK 17.93
2,437.0	2,330.00	R	10.5	V	3.13	29.16	42.79	AV 11.21
2,437.0	2,330.00	R	23.8	V	3.13	29.16	56.09	PK 17.91
2,437.0	2,558.00		21.0	V	3.29	29.53	53.82	40.55
2,437.0	2,688.00	R	14.6	V	3.38	29.81	47.79	AV 6.21
2,437.0	2,688.00	R	18.3	V	3.38	29.81	51.49	PK 22.51
2,462.0	2,462.00		83.8	V	3.22	29.35	116.37	11.00
2,462.0	2,016.00		16.5	V	2.91	28.72	48.13	48.24
2,462.0	2,320.00	R	10.0	V	3.12	29.15	42.27	AV 11.73
2,462.0	2,320.00	R	23.2	V	3.12	29.15	55.47	PK 18.53
2,462.0	2,330.00	R	10.5	V	3.13	29.16	42.79	AV 11.21
2,462.0	2,330.00	R	23.8	V	3.13	29.16	56.09	PK 17.91
2,462.0	2,558.00		7.5	V	3.29	29.53	40.32	56.05
2,462.0	2,688.00	R	8.6	V	3.38	29.81	41.79	AV 12.21
2,462.0	2,688.00	R	13.9	V	3.38	29.81	47.09	PK 26.91

Resulting emissions which are attenuated more than 20 dB below the permissible value are not reported.

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

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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	127.37dBuV/m	216 - 960 MHz 46
	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 FOR EMISSIONS THAT FALL IN A RESTRICTED BAND:

FIELD STRENGTH LIMITS FOR PEAK READINGS: 74 dBuV/m
FIELD STRENGTH LIMITS FOR AVERAGE READINGS: 54 dBuV/m

TEST DATA (18 dBi 26 mW DSSS):

Tuned Frequency MHz	Emission Frequency MHz		Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Correction Factor dB	Field Strength dBuV/m	Margin dB
2,412.0	2,412.00		82.1	V	3.19	29.28	114.57	12.80
2,412.0	2,016.00		16.3	V	2.91	28.72	47.93	46.64
2,412.0	2,309.00		20.5	V	3.12	29.13	52.75	41.82
2,412.0	2,326.00	R	11.5	V	3.13	29.16	43.79	AV 10.21
2,412.0	2,326.00	R	26.6	V	3.13	29.16	58.89	PK 15.11
2,412.0	2,332.00	R	11.5	V	3.13	29.16	43.79	AV 10.21
2,412.0	2,332.00	R	24.9	V	3.13	29.16	57.19	PK 16.81
2,412.0	2,541.00		7.0	V	3.28	29.49	39.77	54.80
2,412.0	2,688.00	R	15.5	V	3.38	29.81	48.69	AV 5.31
2,412.0	2,688.00	R	19.3	V	3.38	29.81	52.49	PK 21.51
2,437.0	2,437.00		83.5	V	3.21	29.31	116.02	11.35
2,437.0	2,016.00		16.4	V	2.91	28.72	48.03	47.14
2,437.0	2,320.00	R	10.0	V	3.12	29.15	42.27	AV 11.73
2,437.0	2,320.00	R	23.7	V	3.12	29.15	55.97	PK 18.03
2,437.0	2,332.00	R	10.5	V	3.13	29.16	42.79	AV 11.21
2,437.0	2,332.00	R	23.8	V	3.13	29.16	56.09	PK 17.91
2,437.0	2,541.00		19.9	V	3.28	29.49	52.67	42.40
2,437.0	2,688.00	R	13.1	V	3.38	29.81	46.29	AV 7.71
2,437.0	2,688.00	R	19.3	V	3.38	29.81	52.49	PK 21.51
2,437.0	4,929.00	R	-2.4	V	4.96	34.37	36.93	AV 17.07
2,437.0	4,929.00	R	9.1	V	4.96	34.37	48.43	PK 25.57
2,462.0	2,462.00		82.5	V	3.22	29.35	115.07	12.30
2,462.0	2,016.00		16.4	V	2.91	28.72	48.03	47.14
2,462.0	2,320.00	R	10.0	V	3.12	29.15	42.27	AV 11.73
2,462.0	2,320.00	R	23.7	V	3.12	29.15	55.97	PK 18.03
2,462.0	2,332.00	R	10.5	V	3.13	29.16	42.79	AV 11.21
2,462.0	2,332.00	R	23.8	V	3.13	29.16	56.09	PK 17.91
2,462.0	2,541.00		19.9	V	3.28	29.49	52.67	42.40
2,462.0	2,688.00	R	13.1	V	3.38	29.81	46.29	AV 7.71
2,462.0	2,688.00	R	19.3	V	3.38	29.81	52.49	PK 21.51
2,462.0	4,929.00	R	-2.4	V	4.96	34.37	36.93	AV 17.07
2,462.0	4,929.00	R	9.1	V	4.96	34.37	48.43	PK 25.57

Resulting emissions which are attenuated more than 20 dB below the permissible value are not reported.

APPLICANT: P-COM, INC.

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

REQUIREMENTS:

FIELD STRENGTH of Fundamental: 902-928MHz	FIELD STRENGTH of Harmonics	S15.209 30 - 88 MHz 40 dBuV/m @3M 88 -216 MHz 43.5 216 -960 MHz 46 ABOVE 960 MHz 54dBuV/m
2.4-2.4835GHz	127.37dBuV/m 54 dBuV/m @3m	

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 FOR EMISSIONS THAT FALL IN A RESTRICTED BAND:

FIELD STRENGTH LIMITS FOR PEAK READINGS: 74 dBuV/m
FIELD STRENGTH LIMITS FOR AVERAGE READINGS: 54 dBuV/m

TEST DATA (18 dB_i 50 mW OFDM):

Tuned Frequency MHz	Emission Frequency MHz		Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Correction Factor dB	Field Strength dBuV/m	Margin dB
2,422.0	2,422.00		83.8	V	3.20	29.29	116.29	11.08
2,422.0	2,016.00		16.5	V	2.91	28.72	48.13	48.16
2,422.0	2,320.00	R	10.5	V	3.12	29.15	42.77	AV 11.23
2,422.0	2,320.00	R	23.8	V	3.12	29.15	56.07	PK 17.93
2,422.0	2,330.00	R	10.5	V	3.13	29.16	42.79	AV 11.21
2,422.0	2,330.00	R	23.8	V	3.13	29.16	56.09	PK 17.91
2,422.0	2,542.00		18.0	V	3.28	29.49	50.77	45.52
2,422.0	2,560.00		19.0	V	3.29	29.53	51.82	44.47
2,422.0	2,688.00	R	17.0	V	3.38	29.81	50.19	PK 23.81
2,437.0	2,437.00		84.4	V	3.21	29.31	116.92	10.45
2,437.0	2,016.00		16.5	V	2.91	28.72	48.13	48.79
2,437.0	2,320.00	R	10.6	V	3.12	29.15	42.87	AV 11.13
2,437.0	2,320.00	R	24.0	V	3.12	29.15	56.27	PK 17.73
2,437.0	2,330.00	R	10.3	V	3.13	29.16	42.59	AV 11.41
2,437.0	2,330.00	R	23.6	V	3.13	29.16	55.89	PK 18.11
2,437.0	2,543.00		19.1	V	3.28	29.49	51.87	45.05
2,437.0	2,688.00	R	17.7	V	3.38	29.81	50.89	PK 23.11
2,452.0	2,452.00		83.8	V	3.22	29.33	116.35	11.02
2,452.0	2,016.00		16.4	V	2.91	28.72	48.03	48.32
2,452.0	2,320.00	R	10.6	V	3.12	29.15	42.87	AV 11.13
2,452.0	2,320.00	R	24.0	V	3.12	29.15	56.27	PK 17.73
2,452.0	2,330.00	R	10.4	V	3.13	29.16	42.69	AV 11.31
2,452.0	2,330.00	R	23.8	V	3.13	29.16	56.09	PK 17.91
2,452.0	2,541.90		20.7	V	3.28	29.49	53.47	20.53
2,452.0	2,688.00	R	18.2	V	3.38	29.81	51.39	PK 22.61
2,452.0	4,904.00	R	7.5	V	4.95	34.29	46.74	PK 27.26

Resulting emissions which are attenuated more than 20 dB below the permissible value are not reported.

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

TIMCO ENGINEERING INC.

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

REQUIREMENTS:

FIELD STRENGTH of Fundamental: 902-928MHz	FIELD STRENGTH of Harmonics	S15.209 30 - 88 MHz 40 dBuV/m @3M 88 -216 MHz 43.5 216 -960 MHz 46 ABOVE 960 MHz 54dBuV/m
2.4-2.4835GHz	127.37dBuV/m 54 dBuV/m @3m	

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 FOR EMISSIONS THAT FALL IN A RESTRICTED BAND:

FIELD STRENGTH LIMITS FOR PEAK READINGS: 74 dBuV/m
FIELD STRENGTH LIMITS FOR AVERAGE READINGS: 54 dBuV/m

TEST DATA (18 dBi 50 mW DSSS):

Tuned Frequency MHz	Emission Frequency MHz		Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Correction Factor dB	Field Strength dBuV/m		Margin dB
2,422.0	2,422.00		88.9	V	3.20	29.29	121.39		5.98
2,422.0	2,016.00		16.5	V	2.91	28.72	48.13		53.26
2,422.0	2,320.00	R	10.5	V	3.12	29.15	42.77	AV	11.23
2,422.0	2,320.00	R	23.8	V	3.12	29.15	56.07	PK	17.93
2,422.0	2,330.00	R	10.0	V	3.13	29.16	42.29	AV	11.71
2,422.0	2,330.00	R	23.0	V	3.13	29.16	55.29	PK	18.71
2,422.0	2,540.00		20.0	V	3.28	29.49	52.77		48.62
2,422.0	2,688.00	R	18.2	V	3.38	29.81	51.39	PK	22.61
2,422.0	4,844.00	R	12.0	V	4.92	34.10	51.02	PK	22.98
2,422.0	7,264.00	R	7.9	V	5.76	36.64	50.30	PK	23.70
2,437.0	2,437.00		89.0	V	3.21	29.31	121.52		5.85
2,437.0	2,016.00		16.5	V	2.91	28.72	48.13		53.39
2,437.0	2,320.00	R	10.1	V	3.12	29.15	42.37	AV	11.63
2,437.0	2,320.00	R	23.4	V	3.12	29.15	55.67	PK	18.33
2,437.0	2,332.00	R	10.4	V	3.13	29.16	42.69	AV	11.31
2,437.0	2,332.00	R	23.8	V	3.13	29.16	56.09	PK	17.91
2,437.0	2,557.00		19.0	V	3.29	29.53	51.82		49.70
2,437.0	2,688.00	R	18.1	V	3.38	29.81	51.29	PK	22.71
2,437.0	4,874.00	R	11.5	V	4.94	34.20	50.64	PK	23.36
2,437.0	7,309.00	R	7.5	V	5.79	36.61	49.90	PK	24.10
2,452.0	2,452.00		88.0	V	3.22	29.33	120.55		6.82
2,452.0	2,016.00		16.5	V	2.91	28.72	48.13		52.42
2,452.0	2,320.00	R	10.0	V	3.12	29.15	42.27	AV	11.73
2,452.0	2,320.00	R	23.4	V	3.12	29.15	55.67	PK	18.33
2,452.0	2,332.00	R	10.0	V	3.13	29.16	42.29	AV	11.71
2,452.0	2,332.00	R	23.4	V	3.13	29.16	55.69	PK	18.31
2,452.0	2,535.00		21.4	V	3.27	29.48	54.15		46.40
2,452.0	2,688.00	R	18.4	V	3.38	29.81	51.59	PK	22.41
2,452.0	4,904.00	R	9.8	V	4.95	34.29	49.04	PK	24.96
2,452.0	7,356.00	R	7.8	V	5.81	36.59	50.20	PK	23.80

*Resulting emissions which are attenuated more than 20 dB below
the permissible value are not reported.*

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

TIMCO ENGINEERING INC.

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888.472.2424 F 352.472.2030 email: tei@timcoengr.com

15.247(c), 15.205 & 15.209(b) Field strength of spurious emissions:

REQUIREMENTS:

FIELD STRENGTH of Fundamental: 902-928MHz 2.4-2.4835GHz	FIELD STRENGTH of Harmonics 127.37dBuV/m 54 dBuV/m @3m	S15.209 30 - 88 MHz 40 dBuV/m @3M 88 -216 MHz 43.5 216 -960 MHz 46 ABOVE 960 MHz 54dBuV/m
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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 FOR EMISSIONS THAT FALL IN A RESTRICTED BAND:

FIELD STRENGTH LIMITS FOR PEAK READINGS: 74 dBuV/m
FIELD STRENGTH LIMITS FOR AVERAGE READINGS: 54 dBuV/m

TEST DATA (9 dBi 22 mW OFDM):

Tuned Frequency MHz	Emission Frequency MHz	Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Correction Factor dB	Field Strength dBuV/m	Margin dB
2,412.0	2,412.00	75.0	V	3.19	29.28	107.47	19.90
2,412.0	2,016.00	9.2	V	2.91	28.72	40.83	46.64
2,412.0	2,542.00	16.4	V	3.28	29.49	49.17	38.30
2,412.0	2,688.00	R 15.1	V	3.38	29.81	48.29	PK 5.71
2,437.0	2,437.00	75.0	V	3.21	29.31	107.52	19.85
2,437.0	2,016.00	9.0	V	2.91	28.72	40.63	46.89
2,437.0	2,688.00	R 9.0	V	3.38	29.81	42.19	AV 11.81
2,437.0	2,688.00	R 15.1	V	3.38	29.81	48.29	PK 5.71
2,462.0	2,462.00	74.0	V	3.22	29.35	106.57	20.80
2,462.0	2,016.00	9.0	V	2.91	28.72	40.63	45.94
2,462.0	2,688.00	R 15.1	V	3.38	29.81	48.29	PK 5.71

Resulting emissions which are attenuated more than 20 dB below the permissible value are not reported.

Harmonics were checked through the 10th harmonic

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

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15.247(c), 15.205 & 15.209(b) Field strength of spurious emissions:

REQUIREMENTS:

FIELD STRENGTH of Fundamental: 902-928MHz 2.4-2.4835GHz	FIELD STRENGTH of Harmonics 127.37dBuV/m 54 dBuV/m @3m	S15.209 30 - 88 MHz 40 dBuV/m @3M 88 -216 MHz 43.5 216 -960 MHz 46 ABOVE 960 MHz 54dBuV/m
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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 FOR EMISSIONS THAT FALL IN A RESTRICTED BAND:

FIELD STRENGTH LIMITS FOR PEAK READINGS: 74 dBuV/m
FIELD STRENGTH LIMITS FOR AVERAGE READINGS: 54 dBuV/m

TEST DATA (9 dBi 50 mW OFDM):

Tuned Frequency MHz	Emission Frequency MHz		Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Correction Factor dB	Field Strength dBuV/m		Margin dB
2,422.0	2,422.00		81.0	V	3.20	29.29	113.49		13.88
2,422.0	2,688.00	R	15.0	V	3.38	29.81	48.19	AV	5.81
2,422.0	2,688.00	R	18.8	V	3.38	29.81	51.99	PK	2.01
2,437.0	2,437.00		79.7	V	3.21	29.31	112.22		15.15
2,437.0	2,688.00	R	14.9	V	3.38	29.81	48.09	AV	5.91
2,437.0	2,688.00	R	18.2	V	3.38	29.81	51.39	PK	2.61
2,452.0	2,452.00		80.6	V	3.22	29.33	113.15		14.22
2,452.0	2,688.00	R	14.4	V	3.38	29.81	47.59	AV	6.41
2,452.0	2,688.00	R	19.0	V	3.38	29.81	52.19	PK	1.81

Resulting emissions which are attenuated more than 20 dB below the permissible value are not reported.

Harmonics were checked through the 10th harmonic

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15.247(c), 15.205 & 15.209(b) Field strength of spurious emissions:

REQUIREMENTS:

FIELD STRENGTH of Fundamental: 902-928MHz 2.4-2.4835GHz	FIELD STRENGTH of Harmonics 127.37dBuV/m 54 dBuV/m @3m	S15.209 30 - 88 MHz 40 dBuV/m @3M 88 -216 MHz 43.5 216 -960 MHz 46 ABOVE 960 MHz 54dBuV/m
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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 FOR EMISSIONS THAT FALL IN A RESTRICTED BAND:

FIELD STRENGTH LIMITS FOR PEAK READINGS: 74 dBuV/m
FIELD STRENGTH LIMITS FOR AVERAGE READINGS: 54 dBuV/m

TEST DATA (9 dBi 50 mW DSSS):

Tuned Frequency MHz	Emission Frequency MHz		Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Correction Factor dB	Field Strength dBuV/m		Margin dB
2,422.0	2,422.00		83.5	V	3.20	29.29	115.99		11.38
2,422.0	2,688.00	R	19.5	V	3.38	29.81	52.69	AV	1.31
2,422.0	2,688.00	R	29.6	V	3.38	29.81	62.79	PK	11.21
2,422.0	4,844.00	R	0.0	V	4.92	34.10	39.02	AV	14.98
2,422.0	4,844.00	R	7.0	V	4.92	34.10	46.02	PK	7.98
2,422.0	7,266.00	R	0.3	V	5.76	36.64	42.70	AV	11.30
2,422.0	7,266.00	R	11.2	V	5.76	36.64	53.60	PK	20.40
2,437.0	2,437.00		84.2	V	3.21	29.31	116.72		10.65
2,437.0	2,688.00	R	19.8	V	3.38	29.81	52.99	AV	1.01
2,437.0	2,688.00	R	30.5	V	3.38	29.81	63.69	PK	10.31
2,437.0	7,311.00	R	0.7	V	5.79	36.61	43.10	AV	10.90
2,437.0	7,311.00	R	10.6	V	5.79	36.61	53.00	PK	21.00
2,452.0	2,452.00		83.2	V	3.22	29.33	115.75		11.62
2,452.0	2,489.00	R	19.6	V	3.24	29.38	52.22	AV	1.78
2,452.0	2,489.00	R	32.2	V	3.24	29.38	64.82	PK	9.18
2,452.0	2,688.00	R	19.9	V	3.38	29.81	53.09	AV	0.91
2,452.0	2,688.00	R	30.5	V	3.38	29.81	63.69	PK	10.31
2,452.0	7,356.00	R	1.3	V	5.81	36.59	43.70	AV	10.30
2,452.0	7,356.00	R	10.6	V	5.81	36.59	53.00	PK	21.00

Resulting emissions which are attenuated more than 20 dB below the permissible value are not reported.

Harmonics were checked through the 10th harmonic

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

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15.247(c), 15.205 & 15.209(b) Field strength of spurious emissions:

REQUIREMENTS:

FIELD STRENGTH of Fundamental: 902-928MHz 2.4-2.4835GHz	FIELD STRENGTH of Harmonics 127.37dBuV/m 54 dBuV/m @3m	S15.209 30 - 88 MHz 40 dBuV/m @3M 88 -216 MHz 43.5 216 -960 MHz 46 ABOVE 960 MHz 54dBuV/m
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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 FOR EMISSIONS THAT FALL IN A RESTRICTED BAND:

FIELD STRENGTH LIMITS FOR PEAK READINGS: 74 dBuV/m
FIELD STRENGTH LIMITS FOR AVERAGE READINGS: 54 dBuV/m

TEST DATA (29 dBi 40 mW):

Tuned Frequency MHz	Emission Frequency MHz		Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Correction Factor dB	Field Strength dBuV/m		Margin dB
5,745.0	5,745.00		87.0	H	5.22	34.95	127.17		
5,745.0	11,490.00	R	6.0	H	7.60	40.32	53.92	AV	0.08
5,745.0	11,490.00	R	22.0	H	7.60	40.32	69.92	PK	4.08
5,785.0	5,785.00		90.0	H	5.24	34.96	130.20		
5,785.0	11,570.00	R	6.0	H	7.63	40.30	53.92	AV	0.08
5,785.0	11,570.00	R	21.5	H	7.63	40.30	69.43	PK	4.57
5,785.0	17,235.00		2.1	H	10.37	42.96	55.43		54.77
5,825.0	5,825.00		90.1	H	5.25	34.97	130.32		
5,825.0	11,650.00	R	6.0	H	7.66	40.27	53.96	AV	0.04
5,825.0	11,650.00	R	22.6	H	7.66	40.30	70.56	PK	3.44
5,825.0	17,475.00		16.5	H	10.44	44.45	71.39		38.93

Resulting emissions which are attenuated more than 20 dB below the permissible value are not reported.

Harmonics were checked through the 10th harmonic

APPLICANT: P-COM, INC.

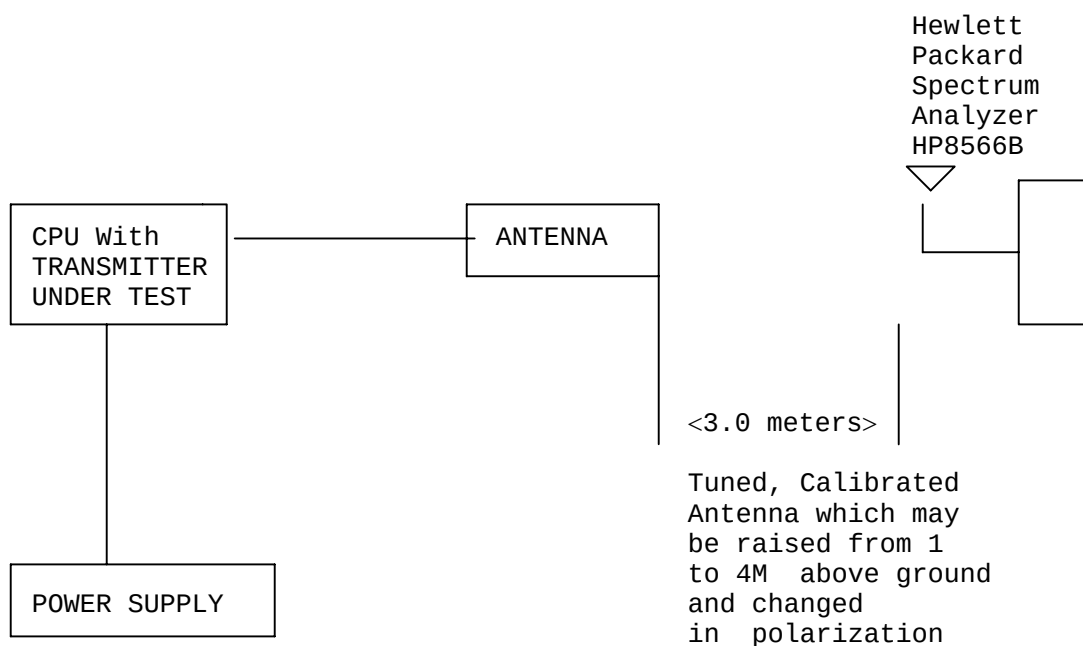
FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

TIMCO ENGINEERING INC.

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Method of Measuring Radiated Spurious Emissions



Equipment placed 80cm above ground on a rotatable platform.

METHOD OF MEASUREMENT: The procedure used was ANSI STANDARD C63.4-1992 & the FCC/OET Guidance on Measurements for Direct Sequence Spread Spectrum Systems – Public Notice 54797 Dated July 12, 1995. Measurements were made at the open field test site of TIMCO ENGINEERING INC. located at 849 N.W. State Road 45, Newberry, FL 32669.

APPLICANT: P-COM, INC.

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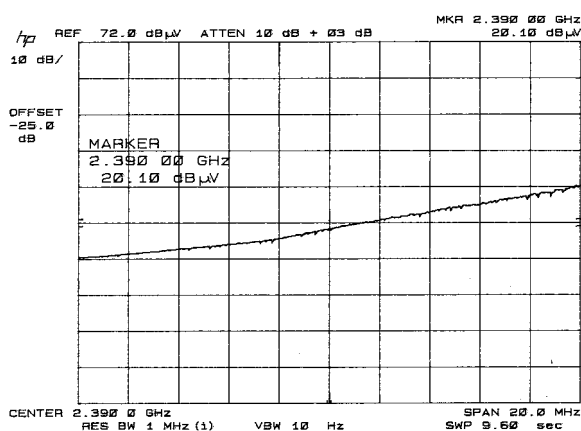
APPLICANT: P-COM, INC.

FCC ID: KINSL9202

NAME OF TEST: RADIATED SPURIOUS EMISSIONS INTO ADJACENT RESTRICTED BAND

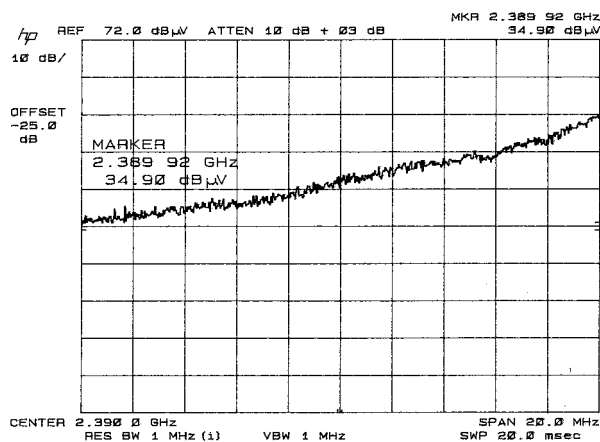
REQUIREMENTS: Emissions that fall in the restricted bands (15.205). These emissions must be less than or equal to 500 uV/m (54 dBuV/m).

TEST PROCEDURE: An in band field strength measurement of the fundamental Emission using the RBW and detector function required by C63.4-2000 and FCC Rules. The procedure was repeated with an average detector and a plot made. The calculated field strength in the adjacent restricted band is presented below.



18 dBi Ant. 22 mW OFDM - AV - Lower

FREQUENCY: 2390 MHz
+20.10 dBuV from plot
+29.25 dB ACF
+ 3.17 dB CL
52.52 dBuV/m



18 dBi Ant. 22 mW OFDM - PK - Lower

FREQUENCY: 2389.92 MHz
+34.90 dBuV from plot
+29.25 dB ACF
+ 3.17 dB CL
67.32 dBuV/m

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

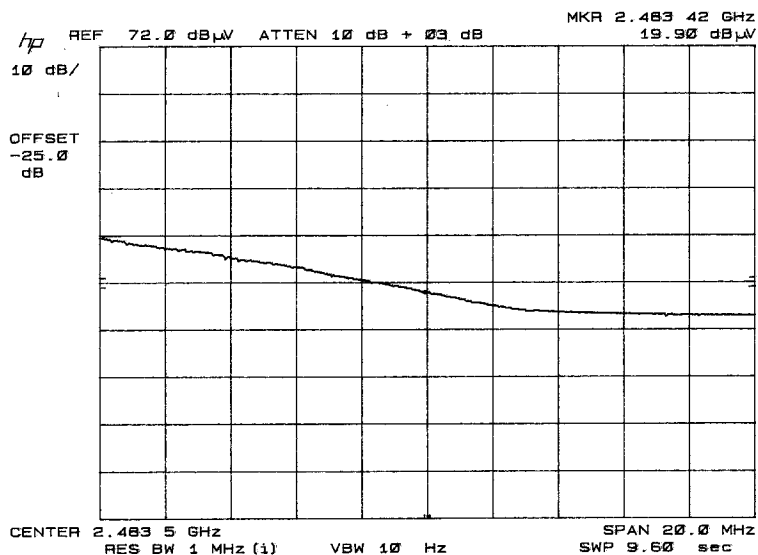
TIMCO ENGINEERING INC.

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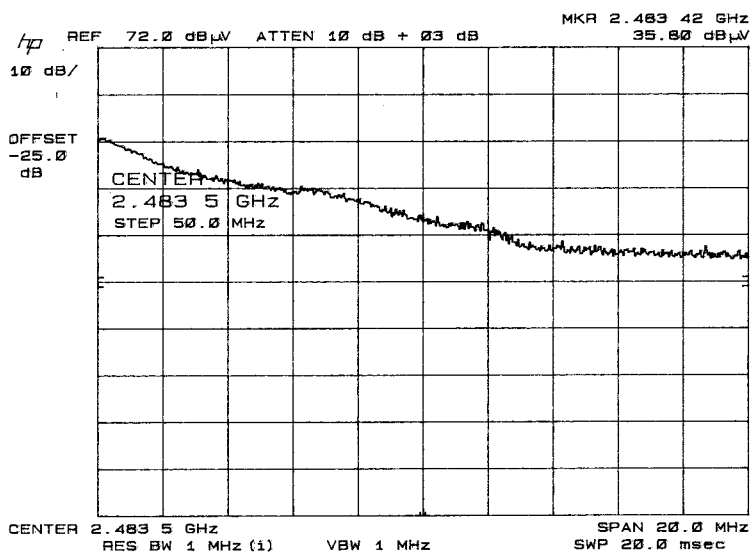
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18 dBi Ant. 22 mW OFDM - AV - Upper

FREQUENCY: 2483.42 MHz
+19.90 dBuV from plot
+29.38 dB ACF
+ 3.24 dB CL
52.52 dBuV/m

FREQUENCY: 2483.50 MHz
+35.80 dBuV from plot
+29.38 dB ACF
+ 3.24 dB CL
68.42 dBuV/m



18 dBi Ant. 22 mW OFDM - PK - Upper

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

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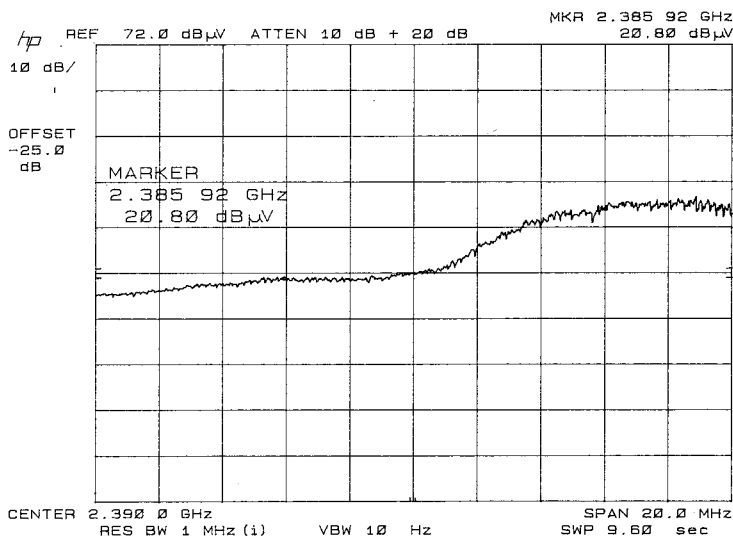
TIMCO ENGINEERING INC.

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18 dBi Ant. 26 mW DSSS - AV - Lower

FREQUENCY: 2385.92 MHz

+20.80 dBuV from plot

+29.25 dB ACF

+ 3.17 dB CL

53.22 dBuV/m

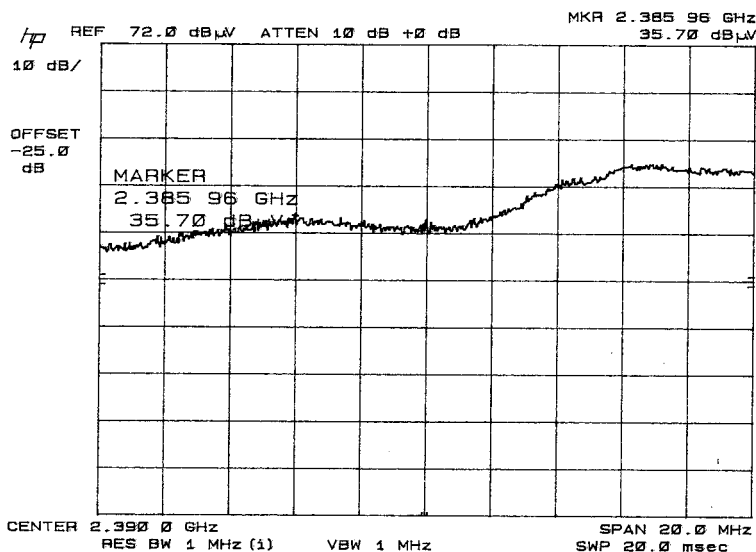
FREQUENCY: 2385.96 MHz

+35.70 dBuV from plot

+29.25 dB ACF

+ 3.17 dB CL

68.12 dBuV/m



18 dBi Ant. 26 mW DSSS - PK - Lower

APPLICANT: P-COM, INC.

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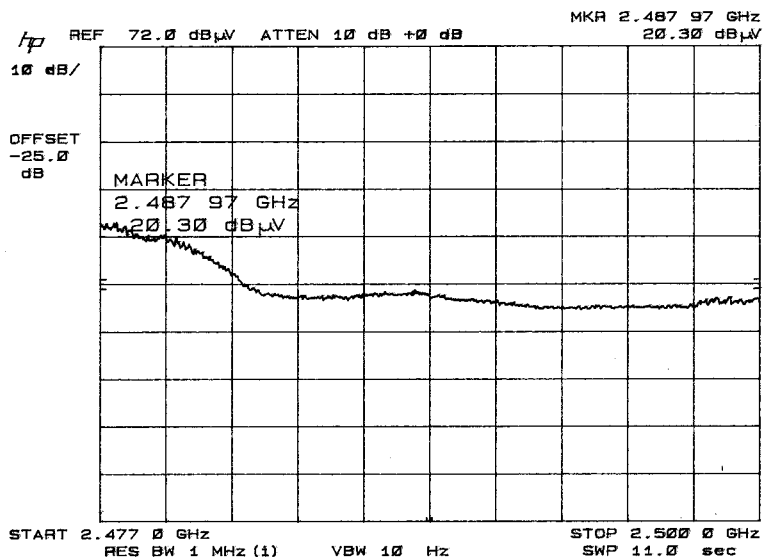
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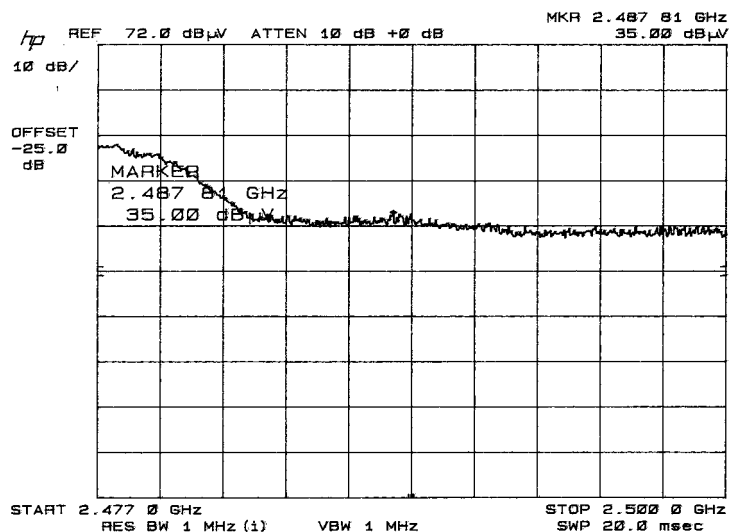
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18 dBi Ant. 26 mW DSSS - AV - Upper

FREQUENCY: 2487.97 MHz
 +20.30 dBμV from plot
 +29.38 dB ACF
 + 3.24 dB CL
 52.92 dBuV/m

FREQUENCY: 2487.81 MHz
 +35.00 dBμV from plot
 +29.38 dB ACF
 + 3.24 dB CL
 67.62 dBuV/m



18 dBi Ant. 26 mW DSSS - PK - Upper

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

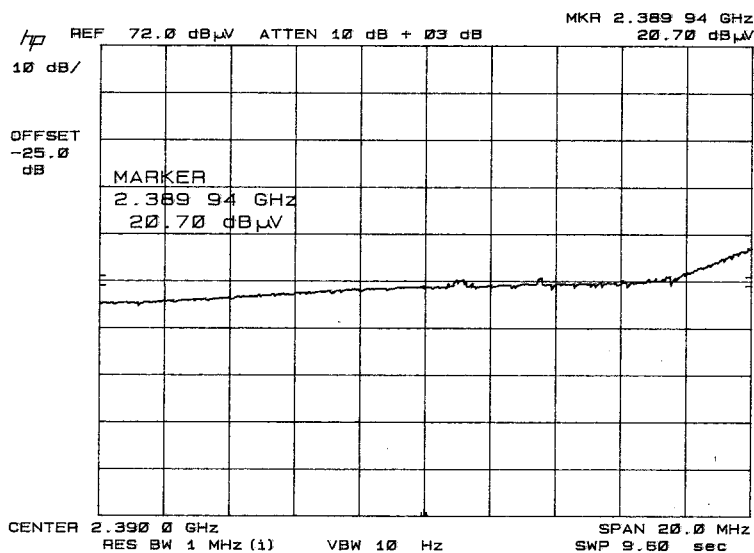
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Newberry, Florida 32669

<http://www.timcoengr.com>

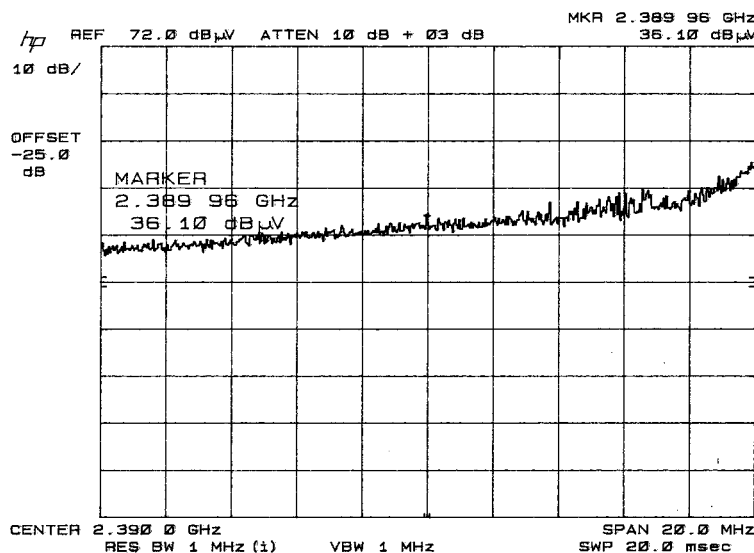
888.472.2424 F 352.472.2030 email: tei@timcoengr.com



18 dBi Ant. 50 mW OFDM - AV - Lower

FREQUENCY: 2389.94 MHz
+20.70 dBuV from plot
+29.25 dB ACF
+ 3.17 dB CL
53.12 dBuV/m

FREQUENCY: 2389.96 MHz
+36.10 dBuV from plot
+29.25 dB ACF
+ 3.17 dB CL
68.52 dBuV/m



18 dBi Ant. 50 mW OFDM - PK - Lower

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

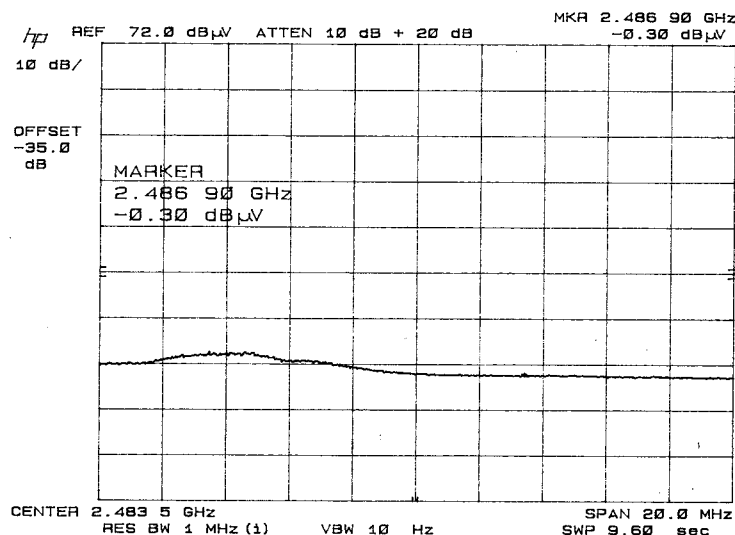
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18 dBi Ant. 50 mW OFDM - AV - Upper

FREQUENCY: 2486.90 MHz

- 0.30 dBuV from plot

+29.38 dB ACF

+20.00 dB Attn.

+ 3.24 dB CL

52.32 dBuV/m

FREQUENCY: 2488.56 MHz

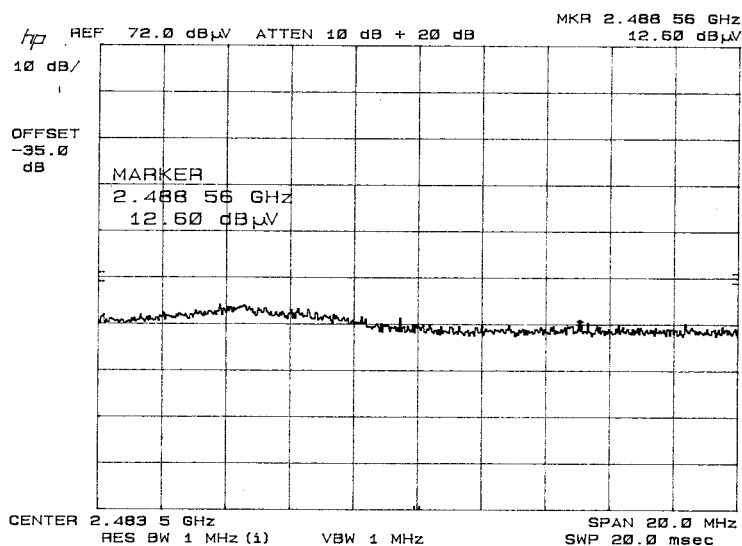
+12.60 dBuV from plot

+29.38 dB ACF

+20.00 dB Attn.

+ 3.24 dB CL

65.22 dBuV/m



18 dBi Ant. 50 mW OFDM - PK - Upper

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

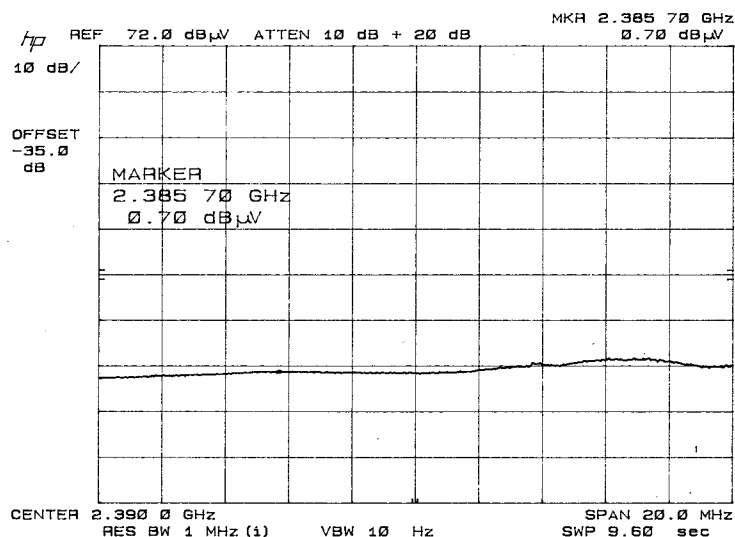
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18 dBi Ant. 50 mW DSSS - AV - Lower

FREQUENCY: 2384.70 MHz

+ 0.70 dBuV from plot

+29.25 dB ACF

+20.00 dB Attn.

+ 3.17 dB CL

53.12 dBuV/m

FREQUENCY: 2384.00 MHz

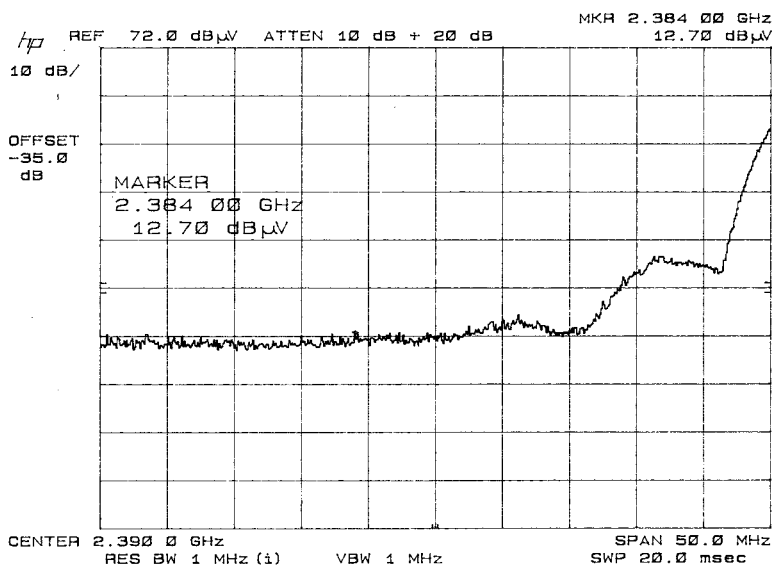
+12.70 dBuV from plot

+29.25 dB ACF

+20.00 dB Attn.

+ 3.17 dB CL

65.12 dBuV/m



18 dBi Ant. 50 mW DSSS - PK - Lower

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

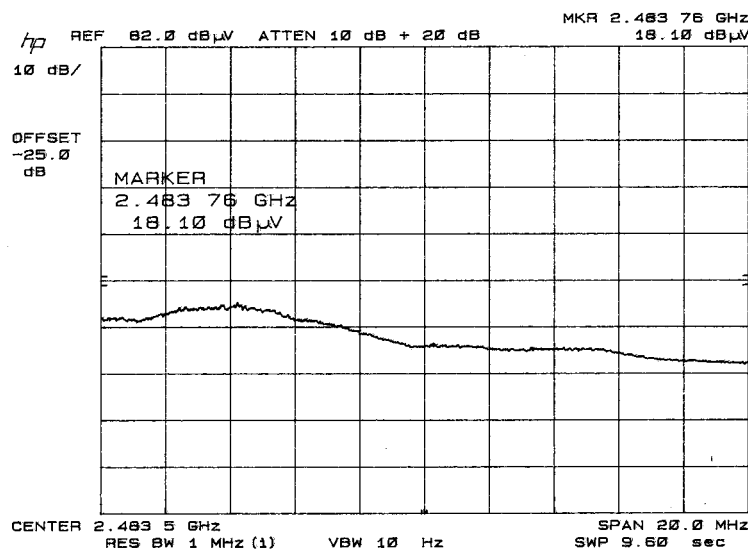
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18 dBi Ant. 50 mW DSSS - AV - Upper

FREQUENCY: 2483.76 MHz

+18.10 dBuV from plot

+29.38 dB ACF

+ 3.24 dB CL

50.72 dBuV/m

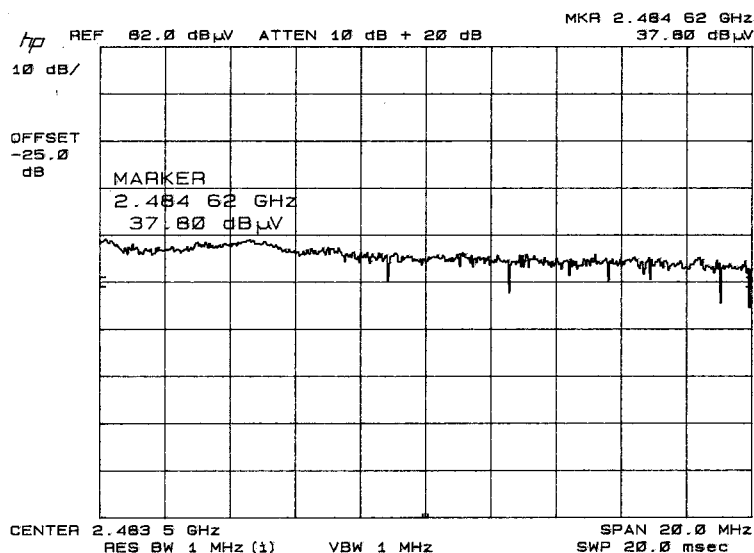
FREQUENCY: 2484.62 MHz

+37.80 dBuV from plot

+29.38 dB ACF

+ 3.24 dB CL

70.42 dBuV/m



18 dBi Ant. 50 mW DSSS - PK - Upper

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

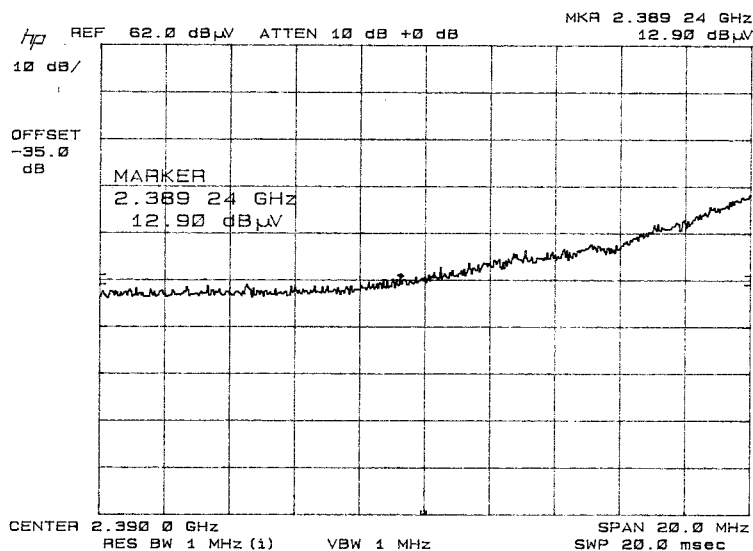
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9 dBi Ant. 22 mW OFDM - AV - CH 1

FREQUENCY: 2389.76 MHz

- 0.30 dBuV from plot

+29.25 dB ACF

+20.00 dB Attn.

+ 3.17 dB CL

52.12 dBuV/m

FREQUENCY: 2389.24 MHz

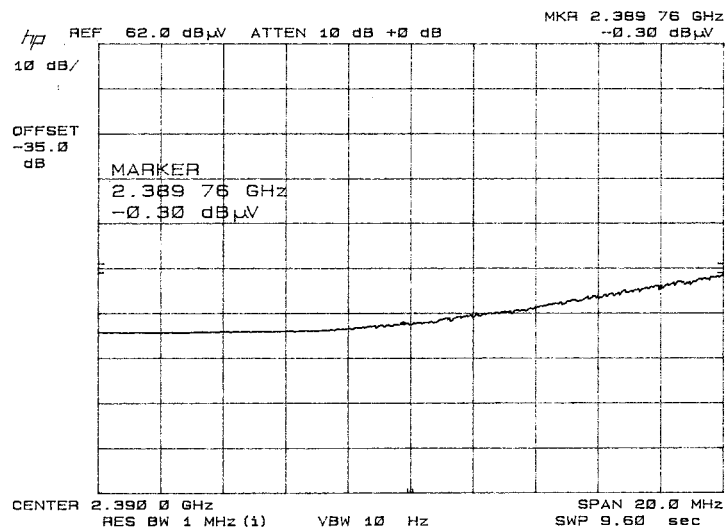
+12.90 dBuV from plot

+29.25 dB ACF

+20.00 dB Attn.

+ 3.17 dB CL

65.32 dBuV/m



9 dBi Ant. 22 mW OFDM - PK - CH 1

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

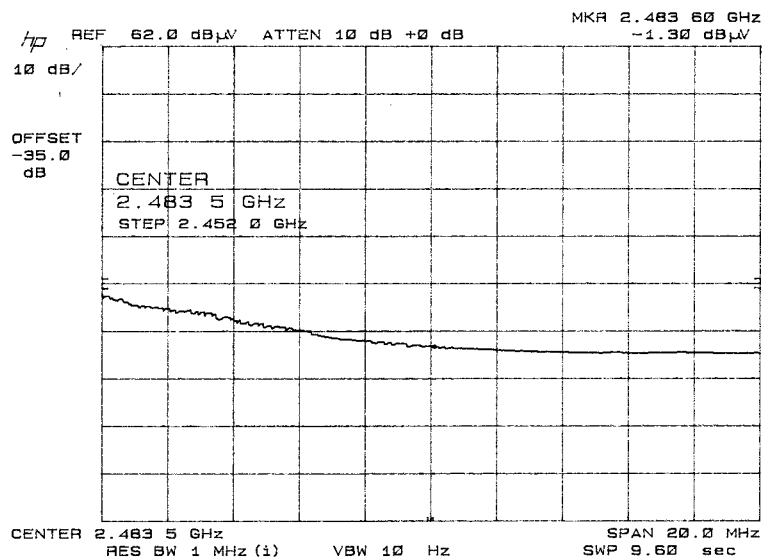
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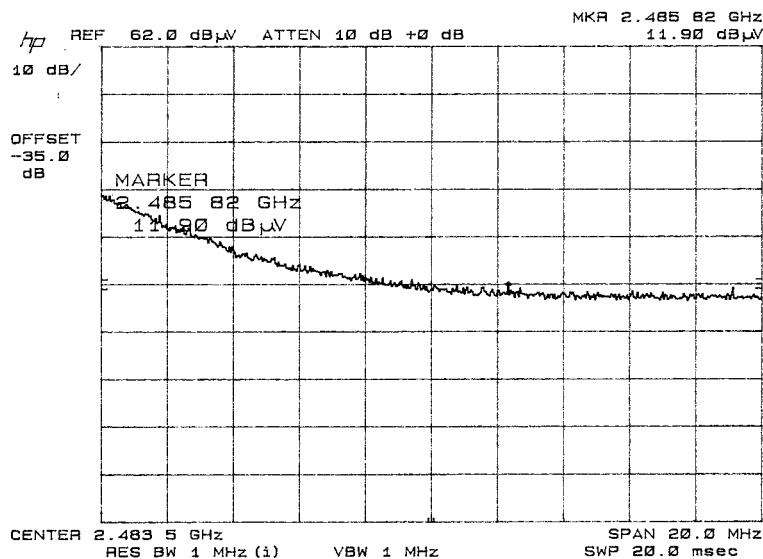
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9 dBi Ant. 22 mW OFDM - AV - CH 11

FREQUENCY: 2485.82 MHz
+11.90 dBuV from plot
+29.38 dB ACF
+20.00 dB Attn.
+ 3.24 dB CL
64.52 dBuV/m

FREQUENCY: 2483.50 MHz
- 1.30 dBuV from plot
+29.38 dB ACF
+20.00 dB Attn.
+ 3.24 dB CL
51.32 dBuV/m



9 dBi Ant. 22 mW OFDM - PK - CH 11

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

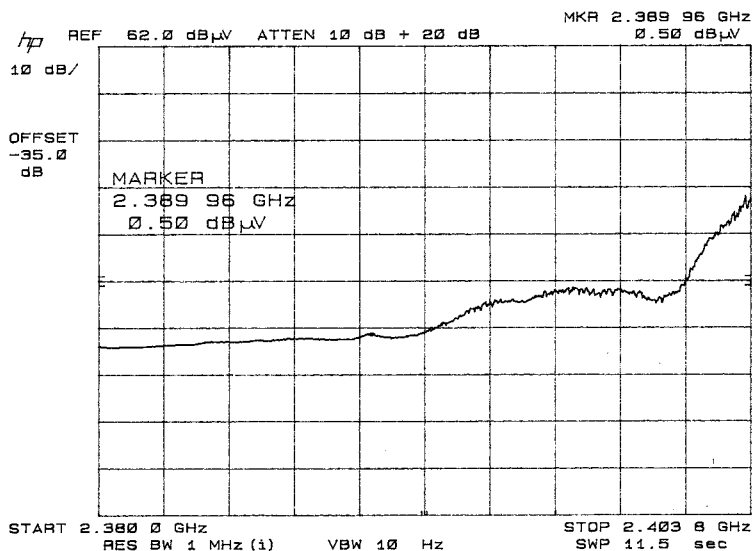
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9 dBi Ant. 26 mW DSSS - AV - Lower

FREQUENCY: 2389.96 MHz

+ 0.50 dBuV from plot

+29.25 dB ACF

+20.00 dB Attn.

+ 3.17 dB CL

52.92 dBuV/m

FREQUENCY: 2389.96 MHz

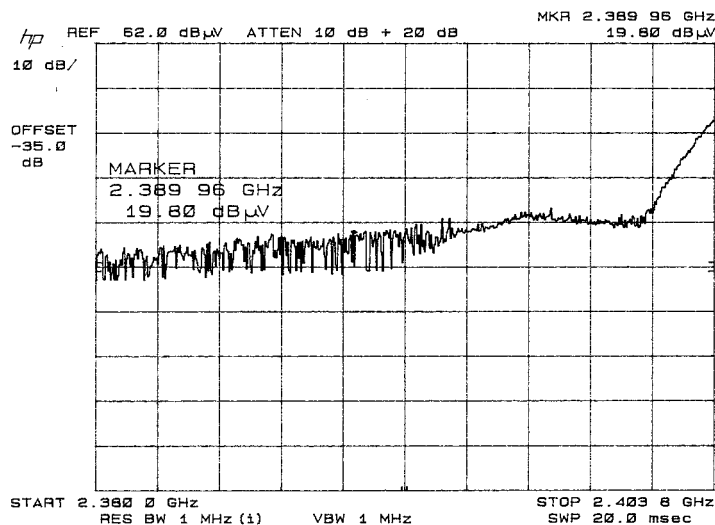
+19.80 dBuV from plot

+29.25 dB ACF

+20.00 dB Attn.

+ 3.17 dB CL

72.22 dBuV/m



9 dBi Ant. 26 mW DSSS - PK - Lower

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

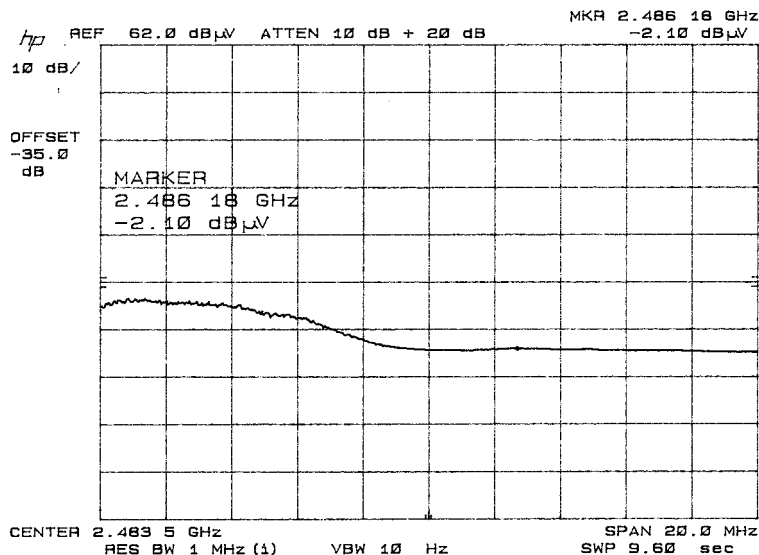
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9 dBi Ant. 26 mW DSSS - AV - Upper

FREQUENCY: 2486.18 MHz

- 2.10 dBuV from plot

+29.38 dB ACF

+20.00 dB Attn.

+ 3.24 dB CL

50.52 dBuV/m

FREQUENCY: 2485.00 MHz

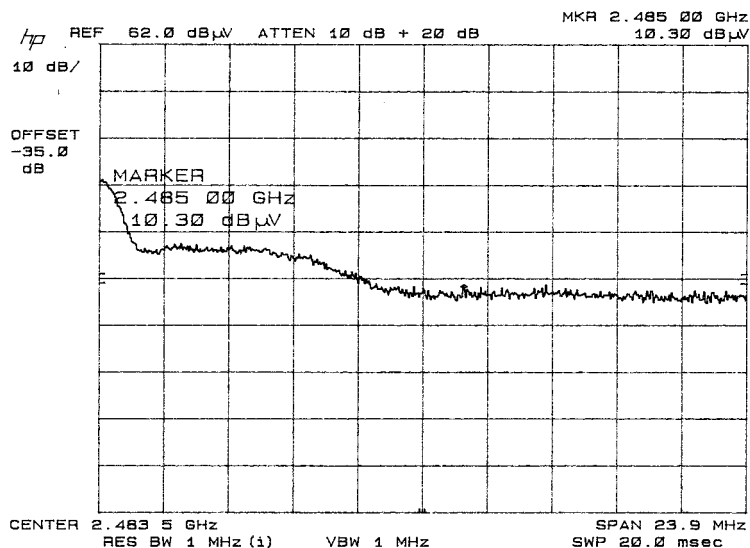
+10.30 dBuV from plot

+29.38 dB ACF

+20.00 dB Attn.

+ 3.24 dB CL

62.92 dBuV/m



9 dBi Ant. 26 mW DSSS - PK - Upper

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

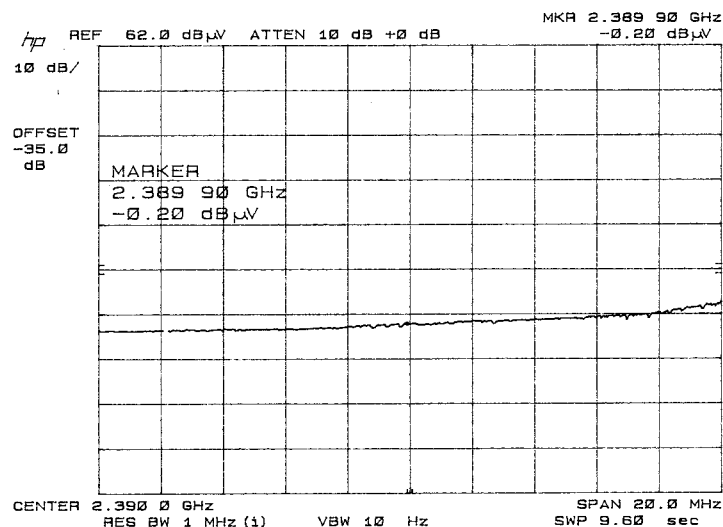
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9 dBi Ant. 50 mW OFDM - AV - Lower

FREQUENCY: 2389.90 MHz

- 0.20 dBuV from plot

+29.25 dB ACF

+20.00 dB Attn.

+ 3.17 dB CL

52.22 dBuV/m

FREQUENCY: 2388.76 MHz

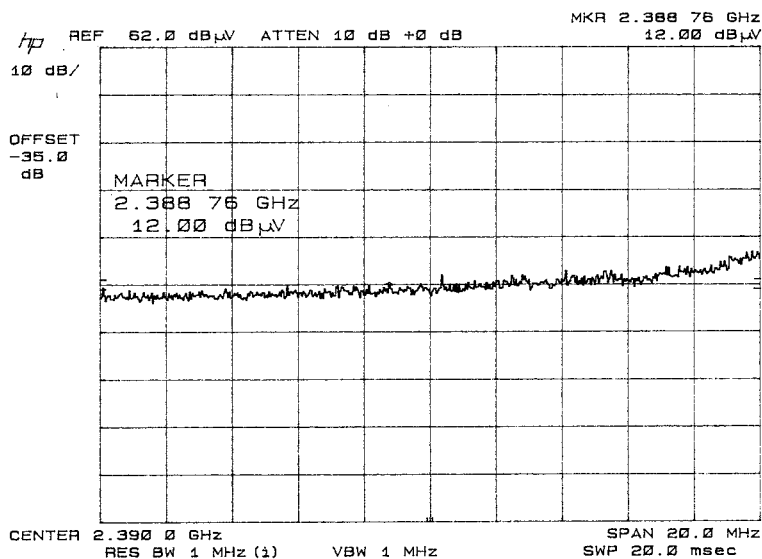
+12.00 dBuV from plot

+29.25 dB ACF

+20.00 dB Attn.

+ 3.17 dB CL

64.42 dBuV/m



9 dBi Ant. 50 mW OFDM - PK - Lower

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

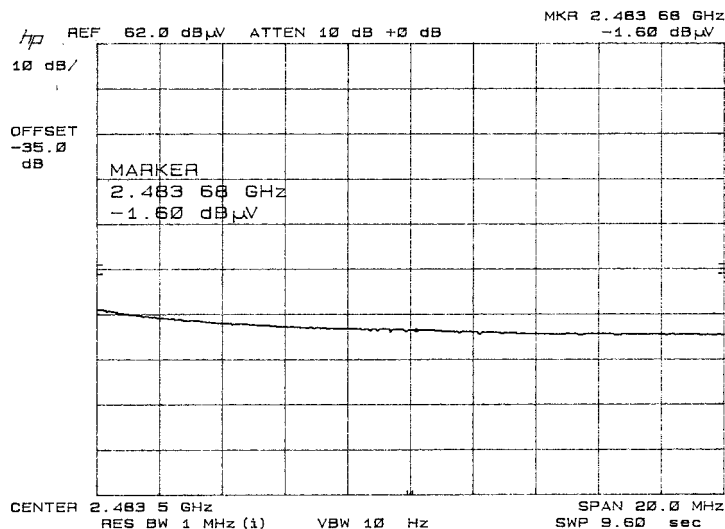
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9 dBi Ant. 50 mW OFDM - AV - Upper

FREQUENCY: 2483.68 MHz

- 1.60 dBuV from plot

+29.38 dB ACF

+20.00 dB Attn.

+ 3.24 dB CL

51.02 dBuV/m

FREQUENCY: 2485.46 MHz

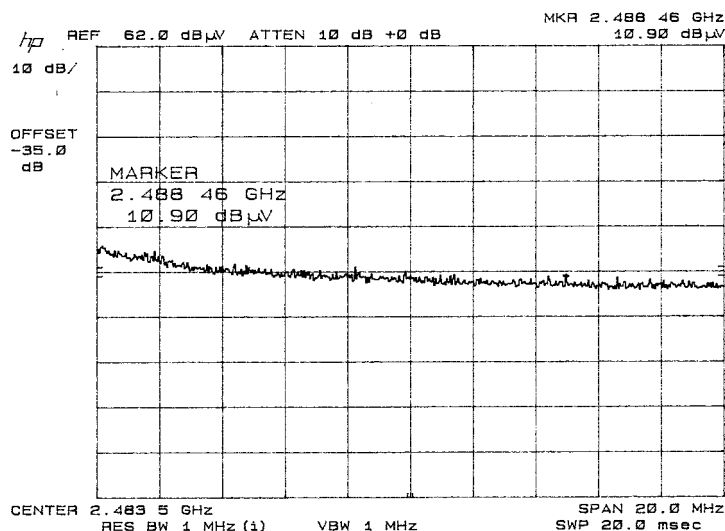
+10.90 dBuV from plot

+29.38 dB ACF

+20.00 dB Attn.

+ 3.24 dB CL

63.52 dBuV/m



9 dBi Ant. 50 mW OFDM - PK - Upper

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

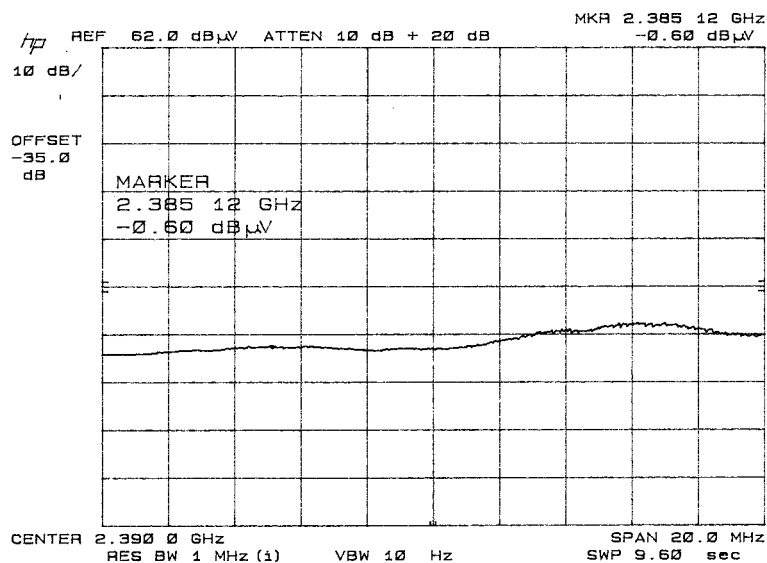
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9 dBi Ant. 50 mW DSSS - AV - Lower

FREQUENCY: 2385.12 MHz

- 0.60 dBuV from plot

+29.25 dB ACF

+20.00 dB Attn.

+ 3.17 dB CL

51.82 dBuV/m

FREQUENCY: 2385.56 MHz

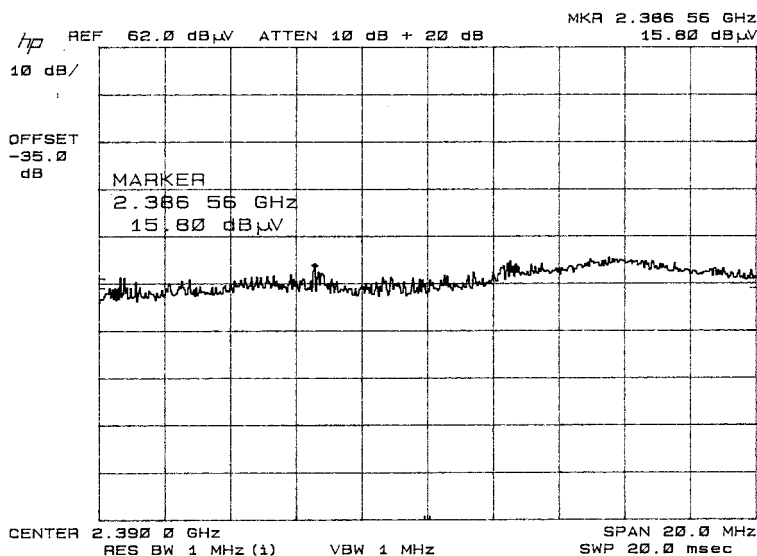
+15.80 dBuV from plot

+29.25 dB ACF

+20.00 dB Attn.

+ 3.17 dB CL

68.22 dBuV/m



9 dBi Ant. 50 mW DSSS - PK - Lower

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

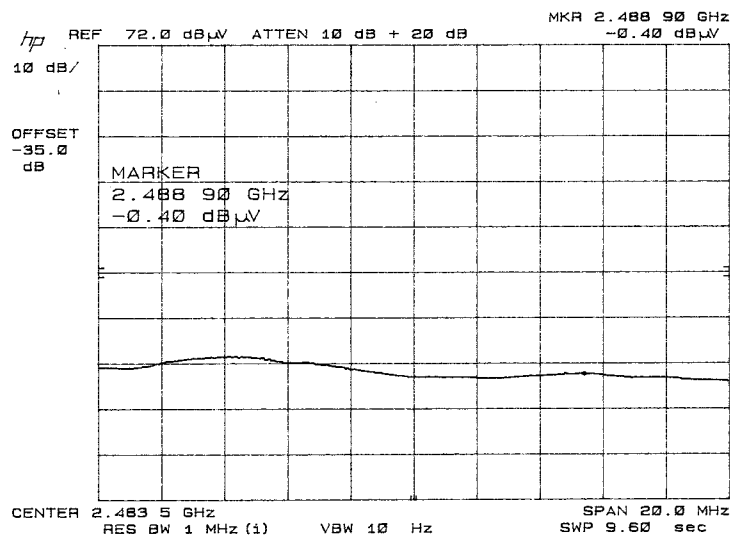
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9 dBi Ant. 50 mW DSSS - AV - Upper

FREQUENCY: 2488.92 MHz

- 0.40 dBuV from plot

+29.38 dB ACF

+20.00 dB Attn.

+ 3.24 dB CL

52.22 dBuV/m

FREQUENCY: 2489.02 MHz

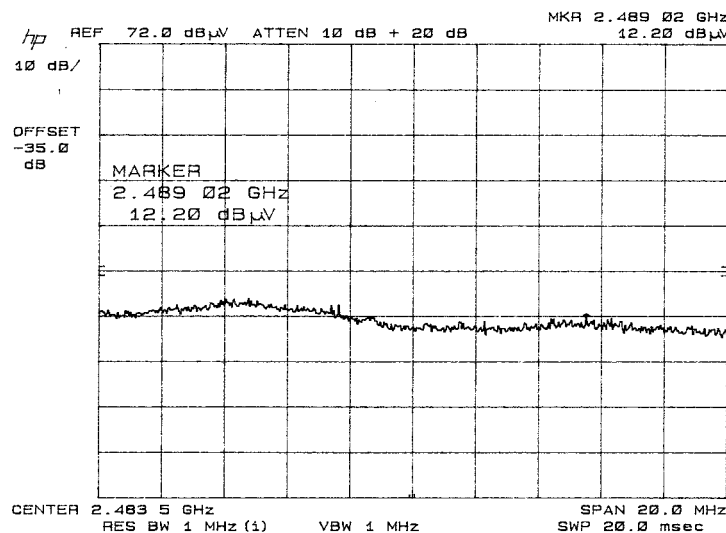
+12.20 dBuV from plot

+29.38 dB ACF

+20.00 dB Attn.

+ 3.24 dB CL

64.82 dBuV/m



9 dBi Ant. 50 mW DSSS - PK - Upper

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

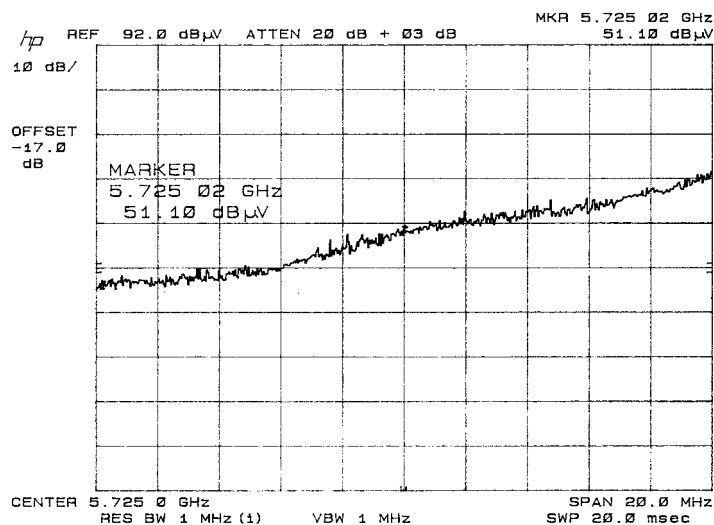
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29 dBi Ant. 40 mW OFDM

FREQUENCY: 5725.02 MHz

+51.10 dBuV from plot

+34.95 dB ACF

+ 5.22 dB CL

91.27 dBuV/m

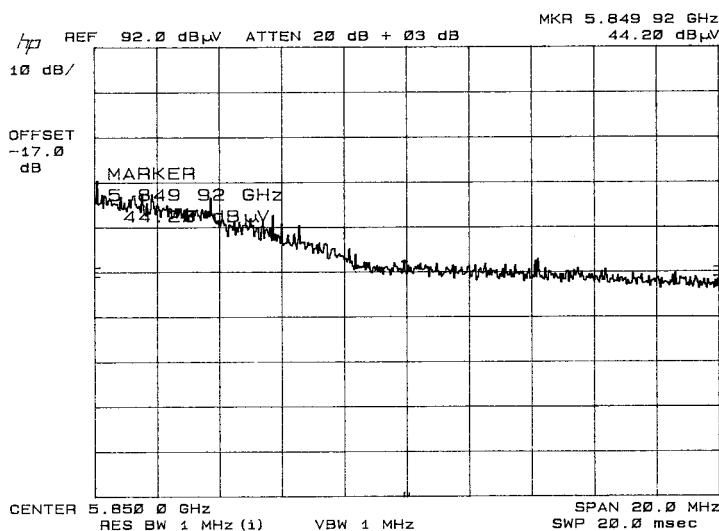
FREQUENCY: 5849.92 MHz

+44.20 dBuV from plot

+34.97 dB ACF

+ 5.26 dB CL

84.43 dBuV/m



29 dBi Ant. 40 mW OFDM

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

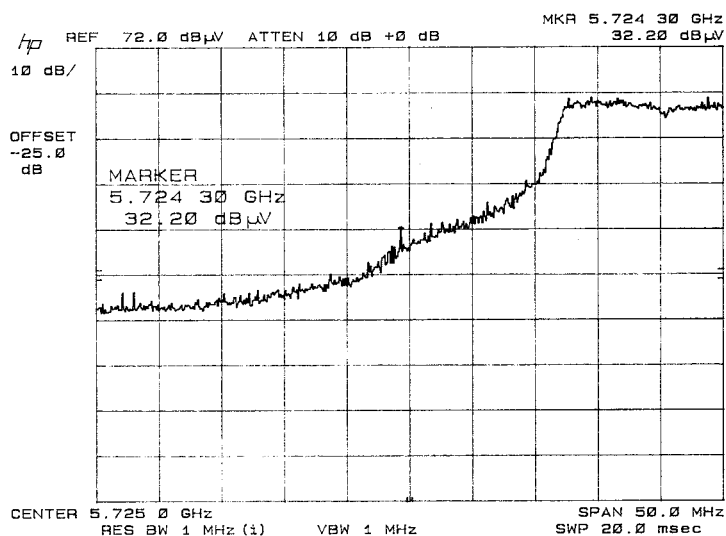
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23 dBi Ant 40 mW OFDM

FREQUENCY: 5724.30 MHz

+32.20 dBuV from plot

+34.95 dB ACF

+ 5.22 dB CL

72.37 dBuV/m

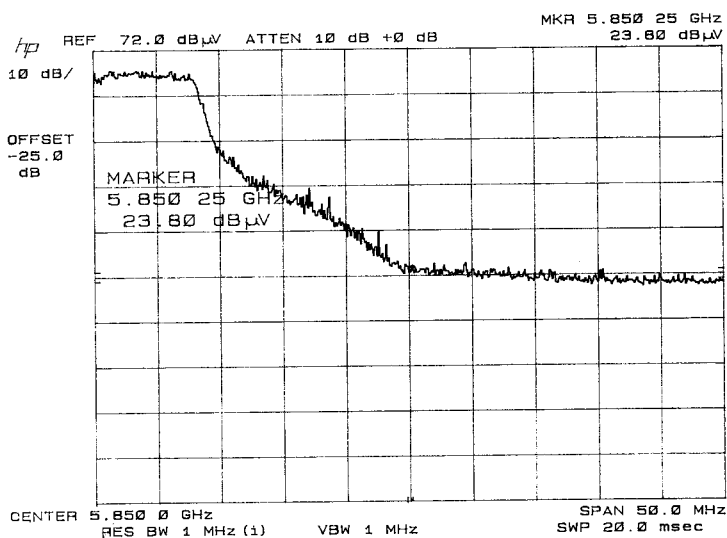
FREQUENCY: 5850.25 MHz

+23.80 dBuV from plot

+34.97 dB ACF

+ 5.26 dB CL

64.03 dBuV/m



23 dBi ant 40 mW

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

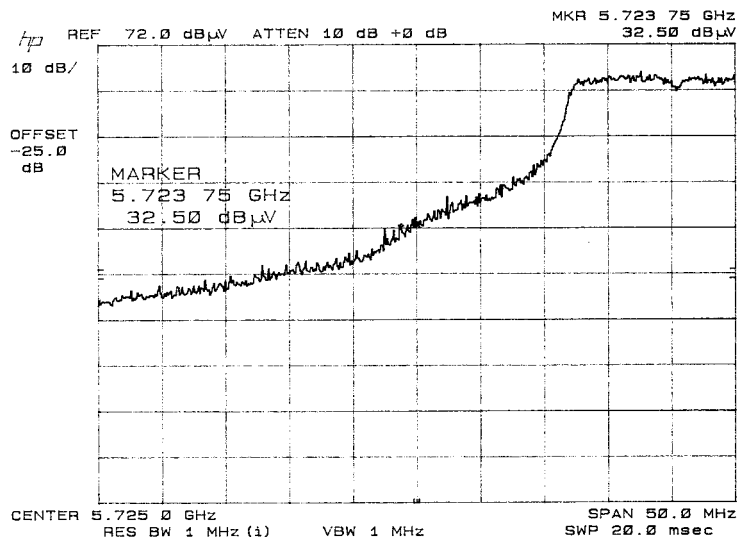
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10 dBi Ant. 40 mW OFDM

FREQUENCY: 5723.75 MHz

+32.50 dBuV from plot

+34.95 dB ACF

+ 5.22 dB CL

72.67 dBuV/m

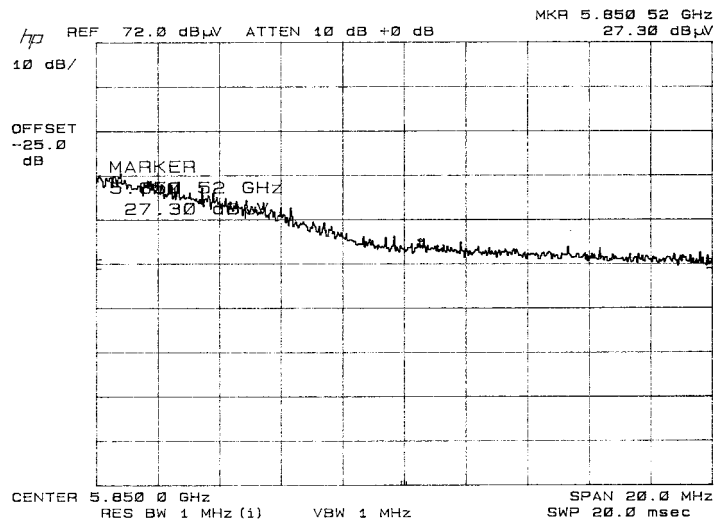
FREQUENCY: 5850.52 MHz

+27.30 dBuV from plot

+34.97 dB ACF

+ 5.26 dB CL

67.53 dBuV/m



10 dBi Ant. 40 mW OFDM

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

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APPLICANT: P-COM, INC.

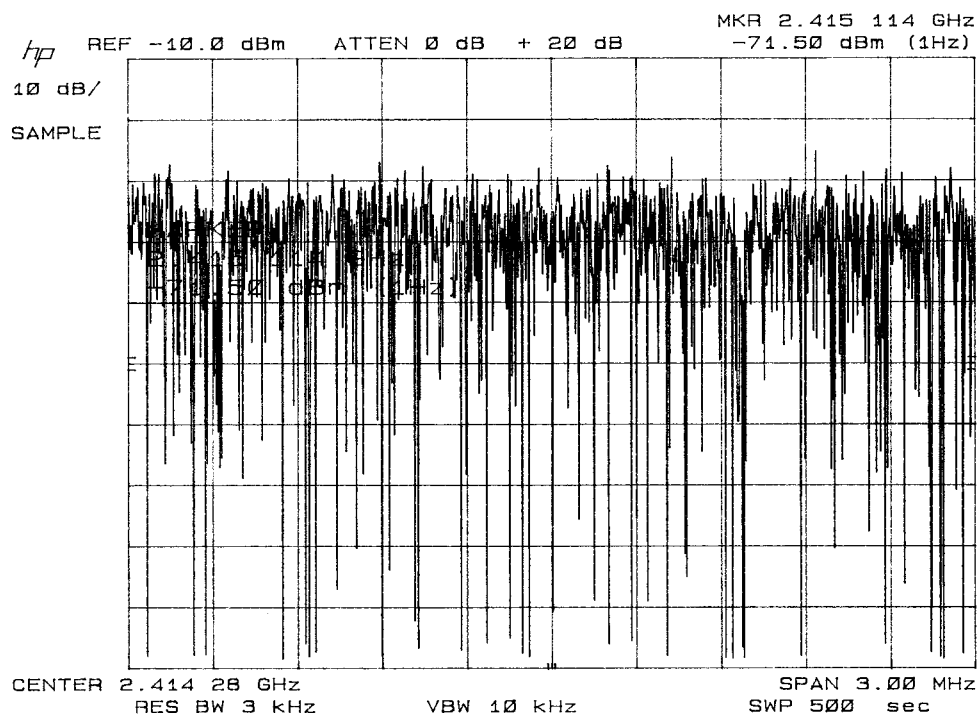
FCC ID: KINSL9202

NAME OF TEST: POWER SPECTRAL DENSITY

RULES PART NO.: 15.247(d)

REQUIREMENTS: The peak level measured must be no greater than +8.0 dBm.

+10 dB Attn.
+35 dB Correction Factor to 1 MHz
+45 dB
-71.5 dBm from plot
-26.5 dBm



2.4 GHz DSSS

Measurements were made at low, medium and high channels.
Worst-case was reported

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

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APPLICANT: P-COM, INC.

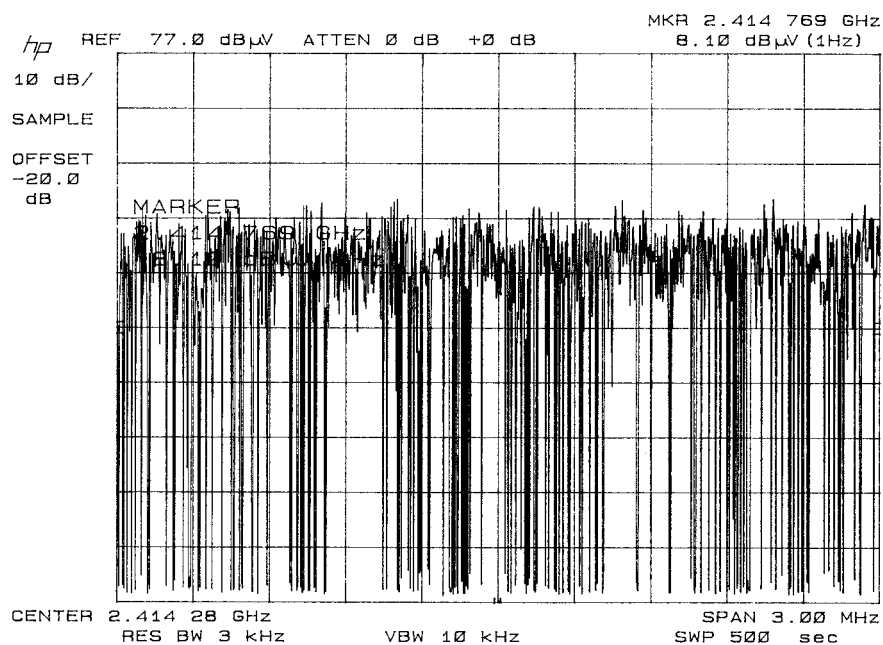
FCC ID: KINSL9202

NAME OF TEST: POWER SPECTRAL DENSITY

RULES PART NO.: 15.247(d)

REQUIREMENTS: The peak level measured must be no greater than +8.0 dBm.

+40 dB	Attn.
+35 dB	Correction Factor to 1 MHz
+75dB	
+ 8.1 dBuV from plot	
83.1 dBuV	
-107.0 dB convert factor to dBm	
-23.9 dBm	



2.4 GHz OFDM

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

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APPLICANT: P-COM, INC.

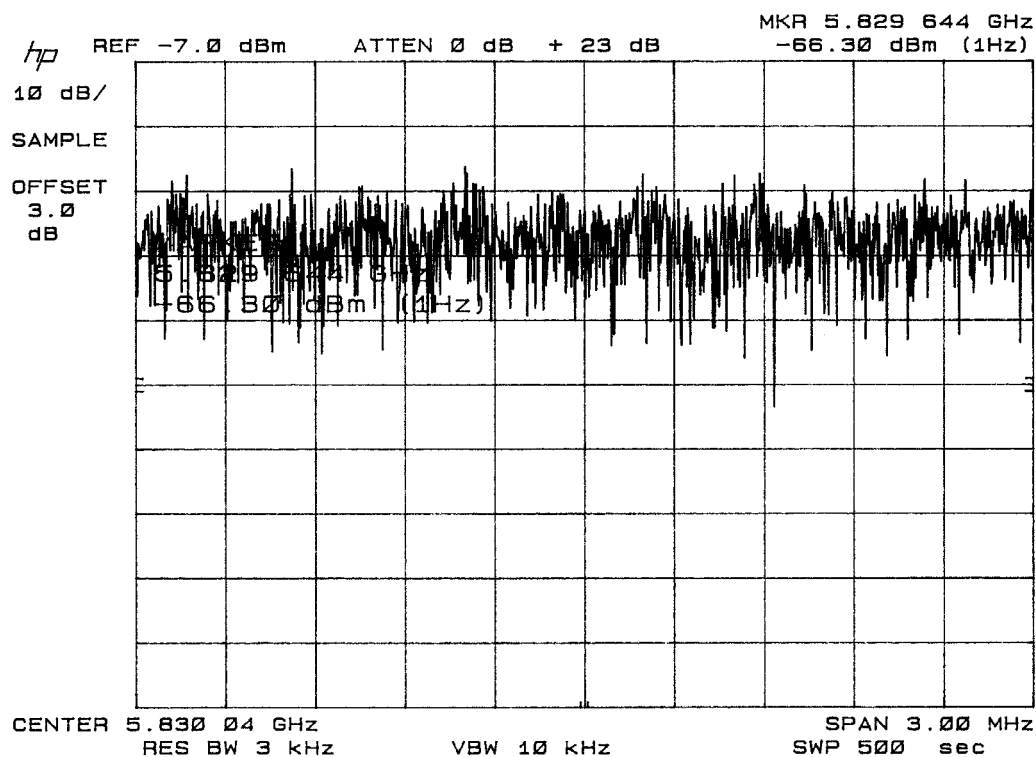
FCC ID: KINSL9205

NAME OF TEST: POWER SPECTRAL DENSITY

RULES PART NO.: 15.247(d)

REQUIREMENTS: The peak level measured must be no greater than +8.0dBm.

-66.30 dBm
+35 dB Correction Factor
-31.3 dBm



APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

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Antenna Specification Page

The 29 dBi antenna is a Andrews 52 Series parabolic model.
The 23 dBi flat panel antenna is model MT-485002 from MTI
The 10 dBi omni antenna is model R380.700.205 from Radiall/Larsen
The 18 dBi grid antenna is model 18T2400 from Conifer
The 9 dBi omni antenna is model PAW0DH24-9 from Pacific Wireless

APPLICANT: P-COM, INC.

FCC ID: KINSL9202

REPORT #: P\P-COM_KIN\1469BUT4\1469BUT4TestReport.doc

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Maximum Permissible Exposure

This calculation show the distance required for compliance using the 29 dBi antenna and 40 mW of output power.

$$\begin{aligned} P_o &:= 40 \quad \text{mWatts} & \text{dBd} &:= 26.85 \text{ antenna gain} & f &:= 1500 \quad \text{Frequency in MHz} \\ G &:= \text{dBd} + 2.15 & \text{gain in dBi} & & G &= 29 \\ \frac{G}{G_n} &:= 10^{\frac{G}{10}} & \text{gain numeric} & & S &:= \frac{f}{1500} & 1500 \text{ use for uncontrolled exposure} \\ G_n &:= 794.328 & & & & & \text{use 300 for controlled} \\ S &= 1 \\ R &:= \sqrt{\frac{(P_o \cdot G_n)}{(4 \cdot \pi \cdot S)}} \\ \text{inches} &:= \frac{R}{2.54} \\ R &= 50.283 \quad \text{distance in centimeters} \\ & \text{required for compliance} & \text{inches} &= 19.797 \end{aligned}$$

This calculation shows the distance required for compliance using a 18 dBi antenna and 50 mW.

$$\begin{aligned} P_o &:= 50 \quad \text{mWatts} & \text{dBd} &:= 15.85 \text{ antenna gain} & f &:= 1500 \quad \text{Frequency in MHz} \\ G &:= \text{dBd} + 2.15 & \text{gain in dBi} & & G &= 18 \\ \frac{G}{G_n} &:= 10^{\frac{G}{10}} & \text{gain numeric} & & S &:= \frac{f}{1500} & 1500 \text{ use for uncontrolled exposure} \\ G_n &:= 63.096 & & & & & \text{use 300 for controlled} \\ S &= 1 \\ R &:= \sqrt{\frac{(P_o \cdot G_n)}{(4 \cdot \pi \cdot S)}} \\ \text{inches} &:= \frac{R}{2.54} \\ R &= 15.845 \quad \text{distance in centimeters} \\ & \text{required for compliance} & \text{inches} &= 6.238 \end{aligned}$$

Note: Above 1500 MHz all values of S are the same and equal to 1

APPLICANT: P-COM, INC.

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