Test Report
And Application for Grant of Equipment Authorization

TEST REPORT PERTAINING TO:

Equipment Under Test	Model Number(s)
Premium Seat Electronics Box	RD-FA3221-01

CONFIGURATION
Tested with an Intel PRO/Wireless 2915ABG Network Connection with a Centurion PIFA Type Antenna

MEASUREMENTS PERFORMED IN ACCORDANCE WITH THE FOLLOWING STANDARD (S)

Regulatory Standard(s)
47 CFR Part 15, Subpart E Section 15.407 (UNII Devices)
Test Method: ANSI C63.4: 2003 American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

ACCREDITED

Certificate Number: 1111.01

PREPARED FOR:
Panasonic Avionics
26200 Enterprise Way
Lake Forest, CA 92630
Contact(s): Mr. William Wallace

PREPARED BY:
Aegis Labs, Inc.
8 Rancho Circle
Lake Forest, CA 92630
Agent(s): Mr. Rick Candelas
Mr. Johnny Candelas

Panasonic
Panasonic Avionics Corporation

Test Report #: PANAS-070203F
Test Report Revision: NONE

	REPORT BODY	APPENDICES		TOTAL PAGES
		A	*B*	
PAGES	12	30	1	43

TABLE OF CONTENTS

1.0 REGULATORY COMPLIANCE GUIDELINES

Aegis Labs, Inc. operates as both a Nevada and California Corporation with no organizational or financial relationship with any company, institution, or private individual. Testing and engineering functions provided by Aegis Labs were furnished by RF technicians and engineers with accredited qualifications and training credentials to carry out their duties.

The object of this report was to publish verifiable test results of an EUT subjected to the tests outlined in the standard listed on the cover page of this report.

1.1 Guidelines For Testing To Emissions Standards

This standard for EMC emission requirements apply to electrical equipment for Information Technology Equipment (ITE). Compliance to these standards and in combination with the other standards listed in this test report can be used to demonstrate presumption of compliance with the protection requirements of the appropriate agency standard.

The purpose of this standard is to specify minimum requirements for emissions regarding electromagnetic compatibility (EMC) and protect the radio frequency spectrum 9 kHz. – 400 GHz. from unwanted interference generated from electrical/digital systems that intentionally or unintentionally generated RF energy. The emissions standards, normative documents and/or publications were used to conduct all tests performed on the equipment herein referred to as “Equipment Under Test”.

2.0 SUMMARY OF TEST RESULTS

802.11a Mode (5150-5250 MHz)

EMISSIONS STANDARD			
FCC Part 15 Section	**Description**	**Results**	**Comments**
Operation in the 5.15-5.25 GHz Band			
15.407(d)	Any UNII device shall use a transmitting antenna that is an integral part of the device.	PASSED	The antenna will be integral when installed in a notebook computer
15.407(e)	UNII devices will be restricted to indoor operations.	PASSED	Refer to "User's Manual" Exhibit
15.407(a)(1)	26dB emissions bandwidth in MHz.	N/A	5.18 GHz = 23.58 MHz 5.24 GHz = 23.17 MHz
15.407(a)(1)	Peak transmit power shall not exceed the lesser of 50mW or 4dBm+10logB (where B = 26dB emissions bandwidth).	PASSED	5.18 GHz = 16.70dBm (46.77mW) 5.24 GHz = 16.80dBm (47.86mW)
15.407(a)(1)	The peak power spectral density shall not exceed 4dBm in any 1MHz band.	PASSED	5.18 GHz = 0.67dBm 5.24 GHz = 0.33dBm
15.407(a)(1)	Peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the transmitting antenna exceeds 6dBi.	N/A	All antennas tested have less than 6dBi antenna gain (Please see the antenna data sheets)
15.407(b)(1)	All emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of –27dBm/MHz.	PASSED	See Data Sheets
General Requirements For All Bands			
15.407(a)(6)	The ratio of the peak excursion of the modulation envelope to the peak transmit power shall not exceed 13dB across any 1 MHz bandwidth or the emissions bandwidth whichever is less.	PASSED	5.18 GHz = 8.00 dB 5.24 GHz = 7.67 dB
15.407(f)	Radio frequency radiation exposure requirement.	PASSED	Refer to SAR Test Report
15.407(b)(6) 15.209	Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in Section 15.209.	PASSED	See Data Sheets

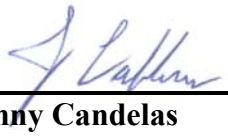
2.0 Summary Of Test Results (Continued)

ANALYSIS AND CONCLUSIONS

Based upon the measurement results we find that this equipment is within the limits of the global standards listed on the cover page of this test report. All results are based on a test of one sample. If any significant changes are made to the unit, the changes shall be evaluated and a retest may be required.

Approval Signatories

Test and Report Completed By:



04/30/07

Johnny Candelas **Date:**
Test Technician
Aegis Labs, Inc.

Report Approved By:

05/02/07

Rick Candelas **Date:**
Quality Assurance & EMC Lab Manager
Aegis Labs, Inc.

3.0 ADMINISTRATIVE DATA AND TEST DESCRIPTION

DEVICE TESTED:	ITE Type: Premium Seat Electronics Box Model Number(s): RD-FA3221-01 Serial Number: D085560 FCC ID: U6YRD-FA3221
DATE EUT RECEIVED:	April 10th, 2007
TEST DATE(S):	April 10th – 25th, 2007
ORIGIN OF TEST SAMPLE(S):	Production
EQUIPMENT CLASS:	EUT tested as CLASS B device
RESPONSIBLE PARTY:	Panasonic Avionics 26200 Enterprise Way Lake Forest, CA 92630
CLIENT CONTACT:	Mr. William Wallace
MANUFACTURER:	Panasonic Avionics
TEST LOCATION:	Aegis Labs, Inc. 32231 Trabuco Creek Road Trabuco Canyon, CA 92678 Open Area Test Site #1& #2
ACCREDITATION CERTIFICATE(s):	A2LA Certificate Number: 1111.01, Valid through February 28, 2008
PURPOSE OF TEST:	To demonstrate compliance with the standards as described in Sections 1.0 & 2.0 of this report.
UNCERTAINTY BUDGET:	Proficiency Testing and Uncertainty Calculations for all tests indicated in this report have been conducted in accordance with ISO 17025: 2005 requirements Section 5.4.6, and 5.9. Uncertainty Budgets and Proficiency Test results available upon request.
STATEMENT OF CALIBRATION:	All accredited equipment calibrations were performed by Liberty Labs, Inc. and World Cal. with typical calibration uncertainty estimates derived from ISO Guide to the determination of uncertainties with a Coverage Factor of k=2 for 95% level of confidence.

4.0 DESCRIPTION OF EUT CONFIGURATION

4.1 EUT Description

Equipment Under Test (EUT)	
Trade Name:	Premium Seat Electronics Box
Model Number:	RD-FA3221-01
Frequency Range:	802.11a = 5.15-5.25 GHz
Enclosure:	The EUT contains it's own shield made of aluminum approximately 3.5cm wide by 3.5cm deep by 2mm high.
Transfer Rate:	6/36/54 Mbps for 802.11a mode
Antenna Type:	PIFA
Antenna Gain (See Note 2):	Centurion Antenna @ 5 GHz = 4.00 dBi
Transmit Output Power:	Please see Appendix A (Data Sheets) for actual output power.
Power Supply:	28VDC
Number of External Test Ports Exercised:	1 Antenna Port

The PSEB is a device designed to provide video entertainment and peripheral interfaces for one seat in the premium class of an aircraft. It will be installed below the passenger seat. An 802.11abg radio module (Intel PRO/Wireless 2915ABG) will be integrated in the chassis of the PSEB and the transmitter/receiving antenna will be remotely located off to the left or right of the passenger depending on the location of the seat (using a 52 inch long coax cable) in the vicinity between the foot and knee of a passenger. The coax will connect to the radio module using an SMA Type connector but will not be readily accessible to the passenger.

NOTE 1: For a more detailed description, please refer to the manufacture's specifications or User's Manual.

NOTE 2: The EUT was tested with a set of Centurion Antennas. (Refer to the antenna specifications exhibits).

4.2 EUT Configuration

The EUT was tested with an Intel PRO/Wireless 2915ABG Network Connection (MN: WM3B2915ABG) installed in its Mini PCI slot and was connected to a Centurion multi-band antenna via its main antenna port. Data for a Centurion Antenna can be found in Appendix A.

The low, middle, and high channels were tested in 802.11a, b, & g modes. Also, the EUT was tested transmitting from the Main antenna port. The EUT was placed in either continuous transmit or continuous receive mode by a program provided by the Intel Corporation *(CRTU Version 3.2.15.0000)*.

4.3 List of EUT, Sub-Assemblies and Host Equipment

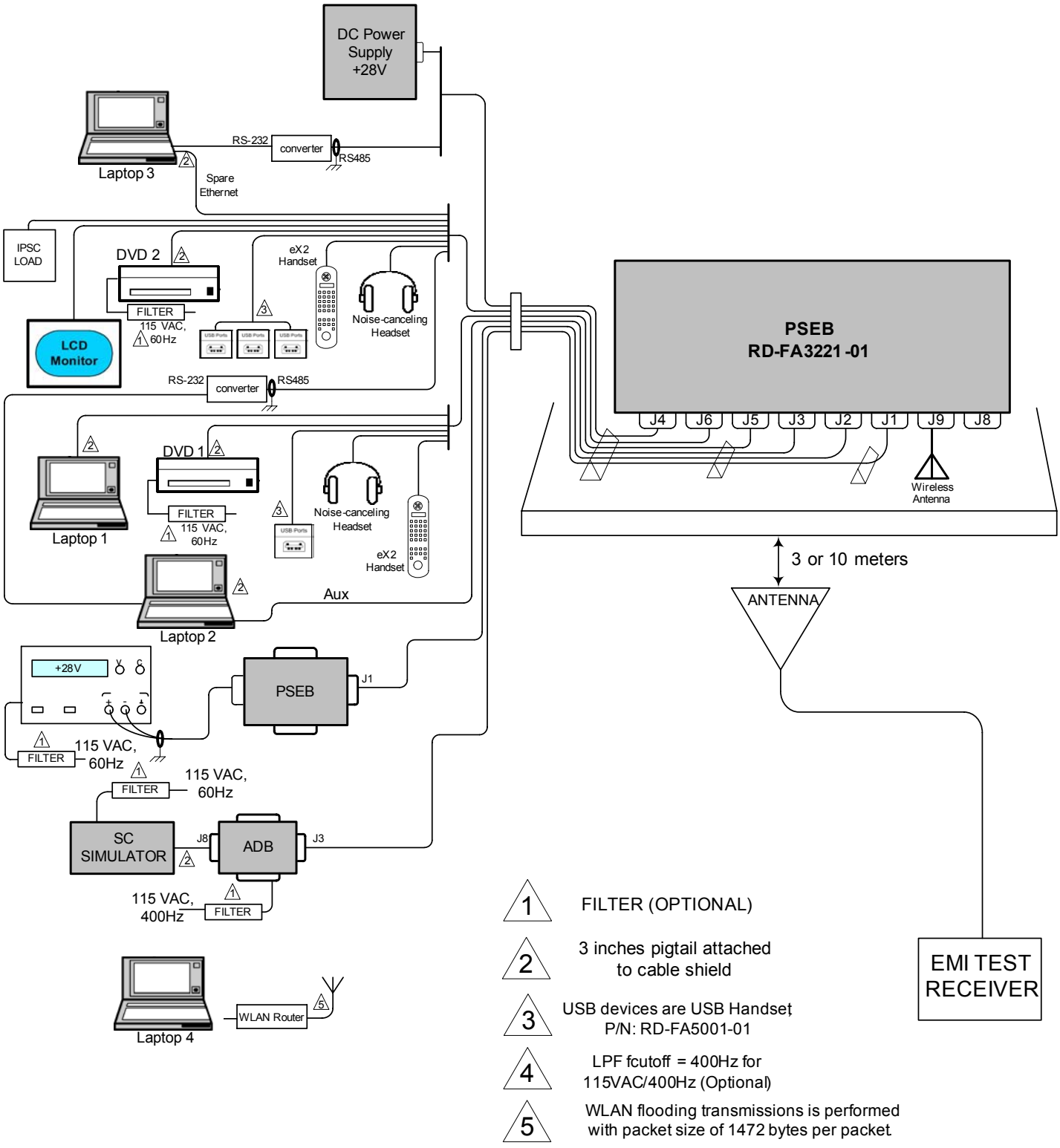
Equipment Under Test			
Manufacturer	**Equipment Name**	**Model or Part Number**	**Serial Number**
Panasonic Avionics	Premium Seat Electronics Box	RD-FA3221-01	D085560

EUT Sub Assemblies			
Manufacturer	**Equipment Name**	**Model or Part Number**	**Serial Number**
Intel Corporation	Intel PRO/Wireless Network Connection	WM3B2915ABG	N/A
Centurion	Main Antenna	WID2452	N/A

HOST EQUIPMENT LIST			
Manufacturer	**Equipment Name**	**Model or Part Number**	**Serial Number**
Linksys	Wireless Router	WRT55AG ver 2	MDJ104A03092
Phitek	Headset 1	2101	N/A
Phitek	Headset 2	2101	N/A
Panasonic	ADB	RD-FA2011-01	C893980
Resistors	ISPC Load	N/A	N/A
Generic	SC Simulator	112760	HW28
Sony	DVD Player 1	DVP-FX705	5008376
Sony	DVD Player 2	DVP-FX705	5000356
Panasonic	USB Handset 1	RDFA5001-01	C872229
Panasonic	USB Handset 2	RDFA5001-01	C872813
Panasonic	USB Handset 3	RDFA5001-01	C872537
Panasonic	USB Handset 4	RDFA5001-01	C872232
Panasonic	USB Handset 5	RDFA5001-01	C872233
Panasonic	USB Handset 6	RDFA5001-01	C872764
Dell	Laptop 1	PP10S	CN-0C8864-48643-53F-0182
Dell	Laptop 2	PP10S	CN-0C8864-48643-53F-0172
Dell	Laptop 3	PP10S	CN-0C8864-48643-53F-0112
Panasonic	Laptop 4	CF-48	CF-48E4KFUKM
Byte Runner	Byte Runner 1	COMMI	116710
Byte Runner	Byte Runner 2	COMMI	115285
Panasonic	LCD Monitor	U-FW7239-01	C997349
GW	DC Power Supply 1	GPR-6030D	D610327
GW	DC Power Supply 2	PSP-603	EE132868
Generic	Keyboard	5140	C67270459
Panasonic	PSEB (Support)	RDFA3221-01	D031938

NOTE: All the power cords of the above support equipment are standard and non-shielded.

4.4 I/O Cabling Diagram and Description



Note: Diagram was obtained from Panasonic Avionics Corporation.

4.5 EMC Test Hardware and Software Measurement Equipment

TEST EQUIPMENT LIST - Emissions					
Equipment Name	**Manufacturer**	**Model Number**	**Serial Number**	**Calibration Due Date**	**Maintenance Calibration Cycle**
Spectrum Analyzer	Agilent	8565EC	3946A00245	07/24/07	1 Year
Antenna - Horn	EMCO	3115	2230	05/15/07	1 Year
Preamp	Miteq	JS42-01001800-25-10P	815980	09/21/07	1 Year
28 Foot Coax	Semflex	S1L29BFS1348	608	07/26/07	1 Year
5.15-5.35 GHz Notch Filter	Microwave Circuits	N0452502	3173-01	NCR	NCR
Antenna - 18-26.5 GHz Pre-amplified Horn	Aegis Labs, Inc.	H042	SLK-35-3W	02/08/08	1 Year
Antenna - 26.5-40 GHz Pre-amplified Horn	Aegis Labs, Inc.	H028	GM1260-10	02/08/08	1 Year
EMI Receiver - RF Section	Hewlett Packard	8546A	3325A00137	04/26/07	1 Year
EMI Receiver - RF Filter Section	Hewlett Packard	85460A	3325A00138	04/26/07	1 Year
Antenna - Biconical	EMCO	3110	9108-1421	07/25/07	1 Year
Antenna - Log Periodic	ETS	3148	4947	07/25/07	1 Year
Power Meter	Anritsu	ML2487A	6K00001785	05/30/07	1 Year
Wide Bandwidth Sensor	Anritsu	MA2491A	31193	05/30/07	1 Year
12dB Attenuator	Narda	4779-12	203	07/09/07	2 Years
Temperature/Humidity Monitor	Dickson	TH550	7255185	04/13/08	1 Year

NCR – No Calibration Required.

5.0 CONDITIONS DURING EMISSIONS MEASUREMENTS

5.1 General

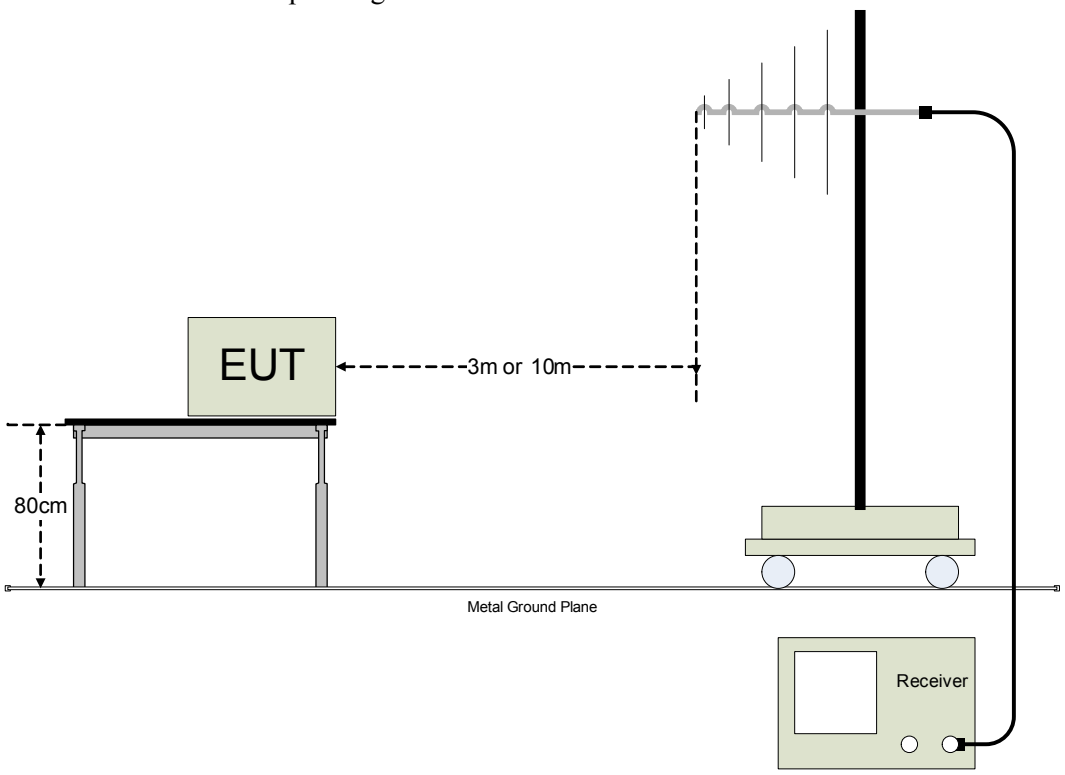
All measurements were made according to the procedures defined in or referred to by the standard listed on the cover page of this report. The measurements were made in the operating mode producing the largest emissions consistent with normal operation and connected to the minimum configuration of auxiliary devices.

5.2 Radiated Emissions Test Setup

The Open Area Test Site (OATS) was used for radiated emission testing. The receiving (Rx) antenna(s) was placed 10m from the nearest side of the EUT facing the Rx antenna. The EUT (if floor-standing) was placed directly on the flush-mounted 360 degree rotating turntable. The EUT (if table-top) was placed directly on an 80cm high non-metallic table, and the table was placed on the rotating turntable. During the initial EMI scan, all the suspect frequencies, i.e.; harmonics, broadband signals were checked with the Rx broadband antennas in both vertical and horizontal polarities. The biconical Rx, log periodic Rx, and horn Rx antennas were used from 30MHz – 299.99MHz, 300MHz – 1000MHz, and 1GHz – 18GHz respectively.

Upon completion of all harmonic and broadband measurements, the balance of any remaining frequencies was checked between 30MHz – 18GHz. Any signals appearing within 20 dB of the classification limit was measured. Each signal was maximized by first rotating the turntable at least 360 degrees and recording the azimuth in the data sheet. Lastly, the Rx antenna was raised and/or lowered to maximize the signal elevation. If the measured signal was obtained using the peak detector and that signal appeared within 3 dB of the regulatory limit line, then the same signal was re-measured using the quasi-peak detector on the EMI receiver. Both meter readings if necessary were recorded on the data sheet.

Climatic Conditions:
The EUT was tested within its intended operating and climatic conditions.



APPENDIX A

TEST DATA

RADIATED EMISSIONS TEST RESULTS

CLIENT:	Panasonic Avionics	**DATE:**	04/10/07
EUT:	Premium Seat Electronics Box	**PROJECT NUMBER:**	PANAS-070202
MODEL NUMBER:	RD-FA3221-01	**TEST ENGINEER:**	JC
SERIAL NUMBER:	D085560	**SITE #:**	2
CONFIGURATION:	Tested with an Intel PRO/Wireless 2915ABG Network Connection installed in the EUT's mini PCI slot.	**TEMPERATURE:**	21 deg. C
		HUMIDITY:	50%
		TIME:	1:45 PM

Description:	Radiated RF Emissions (30 MHz – 1000 MHz)
Results:	**PASSED** Horizontal and Vertical Antenna Polarizations Class B Limits
Note:	Radiated Emissions Measurements were performed on the EUT with the power supply set at the following voltage. • 28VDC

Radiated Emissions Sample Calculations

Corrected Meter Reading = Meter Reading + F +C - D

Where, F = Antenna Factor
C = Cable Factor
G = Amplifier Gain
D = Distance Factor (if applicable)

Therefore, the equation for determining the Corrected Meter Reading Limit (CML) is:

CML = Specification Limit - F - C + D

Radiated Emissions Test Results (Continued)

SC Simulator Mode (PANAS-070202-03)

Horizontal Open Field Maximized Data										
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (degrees)*	*Quasi pk or AVG (dBuV)*	*Cable Factor (dB)*	*Antenna Factor (dB)*	*Distance Factor (dB)*	*Corrected Reading (dBuV/m)*	*Limits (dBuV/m)*	*Diff (dB) +=FAIL*
69.10	6.49	400	0		2.48	9.60	10.46	29.03	40.00	-10.97
124.97	7.38	400	45		2.46	11.35	10.46	31.65	43.50	-11.85
146.04	4.88	400	0		2.59	12.04	10.46	29.97	43.50	-13.53
150.00	3.16	400	45		2.53	12.20	10.46	28.35	43.50	-15.15
200.01	4.28	400	0		2.68	15.00	10.46	32.42	43.50	-11.08
224.97	4.28	400	45		2.75	16.30	10.46	33.79	46.00	-12.21
250.00	8.72	400	90		2.91	17.30	10.46	39.39	46.00	-6.61
300.00	5.13	300	315		3.05	13.90	10.46	32.54	46.00	-13.46
319.99	6.26	300	0		3.13	14.94	10.46	34.79	46.00	-11.21
333.32	8.37	275	90		3.18	15.13	10.46	37.14	46.00	-8.86
366.66	8.69	250	225		3.31	14.93	10.46	37.39	46.00	-8.61
375.00	5.45	250	45		3.35	14.90	10.46	34.16	46.00	-11.85
400.01	11.91	250	90		3.45	15.20	10.46	41.02	46.00	-4.98
432.05	7.68	225	225		3.58	16.01	10.46	37.73	46.00	-8.27
448.04	12.91	225	135		3.65	16.71	10.46	43.74	46.00	-2.26
499.99	8.17	225	0		3.84	19.00	10.46	41.47	46.00	-4.53
533.33	3.83	200	90		3.97	18.93	10.46	37.20	46.00	-8.80
599.99	5.72	200	45		4.16	18.80	10.46	39.14	46.00	-6.86
666.68	4.84	200	45		4.47	21.27	10.46	41.03	46.00	-4.97

Radiated Emissions Test Results (Continued)

SC Simulator Mode (PANAS-070202-03)

Vertical Open Field Maximized Data											
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (degrees)*	*Quasi pk or AVG (dBuV)*		*Cable Factor (dB)*	*Antenna Factor (dB)*	*Distance Factor (dB)*	*Corrected Reading (dBuV/m)*	*Limits (dBuV/m)*	*Diff (dB) +=FAIL*
42.98	8.94	100	0			2.68	10.44	10.46	32.52	40.00	-7.48
69.19	9.25	100	45			2.48	8.76	10.46	30.95	40.00	-9.05
124.97	12.46	100	225	10.48	Q	2.46	11.30	10.46	34.70	43.50	-8.80
150.00	5.74	100	45			2.53	11.70	10.46	30.43	43.50	-13.07
200.01	4.64	100	180			2.68	15.60	10.46	33.38	43.50	-10.12
249.98	8.21	100	225			2.91	18.40	10.46	39.98	46.00	-6.02
300.00	5.03	100	45			3.05	14.20	10.46	32.74	46.00	-13.26
320.59	15.75	100	135	14.31	Q	3.13	15.68	10.46	43.58	46.00	-2.42
375.00	5.49	100	0			3.35	15.20	10.46	34.50	46.00	-11.51
384.99	7.04	100	90			3.39	15.52	10.46	36.41	46.00	-9.59
399.96	8.06	100	0			3.45	16.00	10.46	37.97	46.00	-8.03
432.04	6.22	100	45			3.58	16.58	10.46	36.85	46.00	-9.15
448.03	12.72	100	315	10.08	Q	3.65	17.22	10.46	41.41	46.00	-4.59
500.00	5.00	100	45			3.84	17.90	10.46	37.20	46.00	-8.80
533.33	3.78	100	45			3.97	19.17	10.46	37.38	46.00	-8.62
599.99	3.98	100	90			4.16	20.00	10.46	38.60	46.00	-7.40
666.68	3.39	100	45			4.47	21.20	10.46	39.52	46.00	-6.48

Radiated Emissions Test Results (Continued)

DVD 1 Mode (PANAS-070202-03)

Horizontal Open Field Maximized Data											
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (degrees)*	*Quasi pk or AVG (dBuV)*		*Cable Factor (dB)*	*Antenna Factor (dB)*	*Distance Factor (dB)*	*Corrected Reading (dBuV/m)*	*Limits (dBuV/m)*	*Diff (dB) +=FAIL*
200.00	4.61	400	90			2.68	15.00	10.46	32.75	43.50	-10.75
225.00	4.21	400	0			2.75	16.30	10.46	33.72	46.00	-12.28
400.00	8.79	250	225			3.45	15.20	10.46	37.90	46.00	-8.10
448.00	7.66	225	315			3.65	16.71	10.46	38.48	46.00	-7.52
499.98	7.28	200	0			3.84	19.00	10.46	40.58	46.00	-5.42
666.66	4.50	150	45			4.47	21.27	10.46	40.69	46.00	-5.31

Vertical Open Field Maximized Data											
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (degrees)*	*Quasi pk or AVG (dBuV)*		*Cable Factor (dB)*	*Antenna Factor (dB)*	*Distance Factor (dB)*	*Corrected Reading (dBuV/m)*	*Limits (dBuV/m)*	*Diff (dB) +=FAIL*
43.00	7.55	100	225			2.68	10.44	10.46	31.13	40.00	-8.88
124.97	12.16	100	135	9.88	Q	2.46	11.30	10.46	34.10	43.50	-9.40
200.00	4.21	100	180			2.68	15.60	10.46	32.95	43.50	-10.55
249.99	8.14	100	225			2.91	18.40	10.46	39.91	46.00	-6.09
320.60	16.36	100	45	15.41	Q	3.13	15.68	10.46	44.68	46.00	-1.32
448.00	10.68	100	0			3.65	17.22	10.46	42.01	46.00	-3.99

Radiated Emissions Test Results (Continued)

DVD 2 Mode (PANAS-070202-03)

Horizontal Open Field Maximized Data										
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (degrees)*	*Quasi pk or AVG (dBuV)*	*Cable Factor (dB)*	*Antenna Factor (dB)*	*Distance Factor (dB)*	*Corrected Reading (dBuV/m)*	*Limits (dBuV/m)*	*Diff (dB) +=FAIL*
200.00	4.86	400	45		2.68	15.00	10.46	33.00	43.50	-10.50
225.00	4.03	400	135		2.75	16.30	10.46	33.54	46.00	-12.46
400.00	9.64	300	315		3.45	15.20	10.46	38.75	46.00	-7.25
448.00	7.60	225	45		3.65	16.71	10.46	38.42	46.00	-7.58
499.98	6.63	225	90		3.84	19.00	10.46	39.93	46.00	-6.07
666.66	5.78	200	45		4.47	21.27	10.46	41.97	46.00	-4.03

Vertical Open Field Maximized Data										
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (degrees)*	*Quasi pk or AVG (dBuV)*	*Cable Factor (dB)*	*Antenna Factor (dB)*	*Distance Factor (dB)*	*Corrected Reading (dBuV/m)*	*Limits (dBuV/m)*	*Diff (dB) +=FAIL*
43.00	7.12	100	45		2.68	10.44	10.46	30.70	40.00	-9.31
124.97	10.73	100	90		2.46	11.30	10.46	34.95	43.50	-8.55
200.00	5.00	100	180		2.68	15.60	10.46	33.74	43.50	-9.76
249.99	9.44	100	315		2.91	18.40	10.46	41.21	46.00	-4.79
320.60	13.25	100	45		3.13	15.68	10.46	42.52	46.00	-3.48
448.00	9.98	100	0		3.65	17.22	10.46	41.31	46.00	-4.69

Radiated Emissions Test Results (Continued)

HDD Mode (PANAS-070202-03)

Horizontal Open Field Maximized Data										
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (degrees)*	*Quasi pk or AVG (dBuV)*	*Cable Factor (dB)*	*Antenna Factor (dB)*	*Distance Factor (dB)*	*Corrected Reading (dBuV/m)*	*Limits (dBuV/m)*	*Diff (dB) +=FAIL*
200.00	4.14	400	315		2.68	15.00	10.46	32.28	43.50	-11.22
225.00	3.92	400	180		2.75	16.30	10.46	33.43	46.00	-12.57
400.00	7.85	250	45		3.45	15.20	10.46	36.96	46.00	-9.04
448.00	8.90	250	0		3.65	16.71	10.46	39.72	46.00	-6.28
499.98	8.07	225	45		3.84	19.00	10.46	41.37	46.00	-4.63
666.66	5.68	175	90		4.47	21.27	10.46	41.87	46.00	-4.13

Vertical Open Field Maximized Data										
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (degrees)*	*Quasi pk or AVG (dBuV)*	*Cable Factor (dB)*	*Antenna Factor (dB)*	*Distance Factor (dB)*	*Corrected Reading (dBuV/m)*	*Limits (dBuV/m)*	*Diff (dB) +=FAIL*
42.98	10.99	100	45		2.68	10.44	10.46	34.57	40.00	-5.43
124.97	11.36	100	0		2.46	11.30	10.46	35.58	43.50	-7.92
200.00	6.70	100	45		2.68	15.60	10.46	35.44	43.50	-8.06
249.99	9.76	100	90		2.91	18.40	10.46	41.53	46.00	-4.47
320.60	12.88	100	135		3.13	15.68	10.46	42.15	46.00	-3.85
448.00	10.84	100	225		3.65	17.22	10.46	42.17	46.00	-3.83

RADIATED EMISSIONS TEST RESULTS

CLIENT:	Panasonic Avionics	**DATE:**	04/11/07
EUT:	Premium Seat Electronics Box	**PROJECT NUMBER:**	PANAS-070202
MODEL NUMBER:	RD-FA3221-01	**TEST ENGINEER:**	JC/BM
SERIAL NUMBER:	D085560	**SITE #:**	2
CONFIGURATION:	Tested with an Intel PRO/Wireless 2915ABG Network Connection installed in the EUT's mini PCI slot in **802.11a (5150-5250 MHz) mode with Centurion Antenna.**	**TEMPERATURE:**	18 deg. C
		HUMIDITY:	58% RH
		TIME:	11:00 AM

Description:	Radiated RF Emissions (1 GHz – 18 GHz)
Results:	**PASSED** Horizontal and Vertical Antenna Polarizations Class B Limits
Note:	Radiated Emissions Measurements were performed on the EUT with power supply set at the following voltage. • 28VDC

Unwanted Spurious Emissions Limits			
Frequency (MHz)	**Field Strength (uV/m)**	**Field Strength (dBuV/m) (Emissions in the restricted bands)**	**Field Strength (dBm/MHz) (Emissions outside the restricted bands)**
Above 960	500	54.00 (Average) 74.00 (Peak)	< -20 dBc

Radiated Emissions Sample Calculations

Corrected Meter Reading = Meter Reading + F +C - D

Where, F = Antenna Factor
C = Cable Factor
G = Amplifier Gain
D = Distance Factor (if applicable)

Therefore, the equation for determining the Corrected Meter Reading Limit (CML) is:

CML = Specification Limit - F - C + D

Radiated Emissions Test Results (Continued)

*Fundamental Measurements in **802.11a mode (5150-5250 MHz)***
Channels 36 & 48
Continuous TX** at **Main** Antenna port with **Centurion Antenna
Aegis Labs, Inc. File #: PANAS-070202-05

RADIATED EMISSIONS - Horizontal Antenna Polarization											
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (degrees)*	*Quasi pk or AVG (dBuV)*		*Cable Factor (dB)*	*Ant. Factor (dB)*	*Corrected Reading (dBuV)*	*Limits (dBuV)*	*Diff (dB) +=FAIL*	*Comments*
5180.00	56.67	125	315			2.98	34.62	94.27			**Ch. 36**
5180.00				48.13	A	2.98	34.62	85.73			
5240.00	56.17	100	315			3.00	34.73	93.90			**Ch. 48**
5240.00				47.09	A	3.00	34.73	84.82			

RADIATED EMISSIONS – Vertical Antenna Polarization											
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (degrees)*	*Quasi pk or AVG (dBuV)*		*Cable Factor (dB)*	*Ant. Factor (dB)*	*Corrected Reading (dBuV)*	*Limits (dBuV)*	*Diff (dB) +=FAIL*	*Comments*
5180.00	61.83	100	225			2.98	34.39	99.20			**Ch. 36**
5180.00				53.32	A	2.98	34.39	90.69			
5240.00	63.17	100	225			3.00	34.48	100.65			**Ch. 48**
5240.00				53.55	A	3.00	34.48	91.03			

NOTE: Fundamental signals measured to calculate the band edge field strengths using the “Marker Delta Method”.

Radiated Emissions Test Results (Continued)

*Band Edge Field Strength Measurements in **802.11a mode (5150-5250 MHz)***
Channels 36
Continuous TX** at **Main** Antenna port with **Centurion Antenna
Aegis Labs, Inc. File #: PANAS-070202-05

RADIATED EMISSIONS - Horizontal Antenna Polarization											
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (degrees)*	*Quasi pk or AVG (dBuV)*		*Cable Factor (dB)*	*Ant. Factor (dB)*	*Corrected Reading (dBuV)*	*Limits (dBuV)*	*Diff (dB) +=FAIL*	*Comments*
5150.00								45.11	74.00	-28.89	**Ch. 36**
5150.00					A			29.73	54.00	-24.27	

RADIATED EMISSIONS – Vertical Antenna Polarization											
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (degrees)*	*Quasi pk or AVG (dBuV)*		*Cable Factor (dB)*	*Ant. Factor (dB)*	*Corrected Reading (dBuV)*	*Limits (dBuV)*	*Diff (dB) +=FAIL*	*Comments*
5150.00								50.04	74.00	-23.96	**Ch. 36**
5150.00					A			34.69	54.00	-19.31	

NOTE: The “Band Edge Field Strength” was calculated using the “Fundamental” and “Conducted Band Edge” measurements per the “Marker-Delta Method” with the following formula:

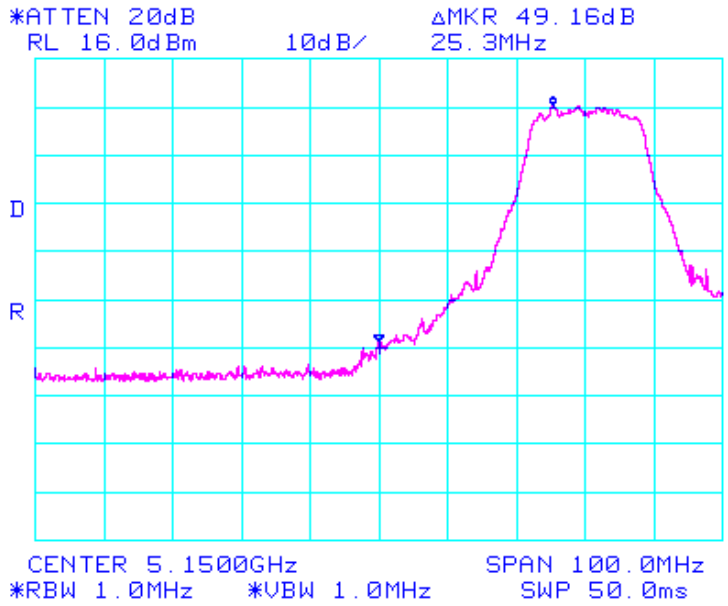
$BE = Fm - \Delta m$

Where
BE = Band Edge Field Strength
Fm = Measured Fundamental (Peak or Average)
Δm = Measured Conducted Band Edge Delta (Peak or Average)

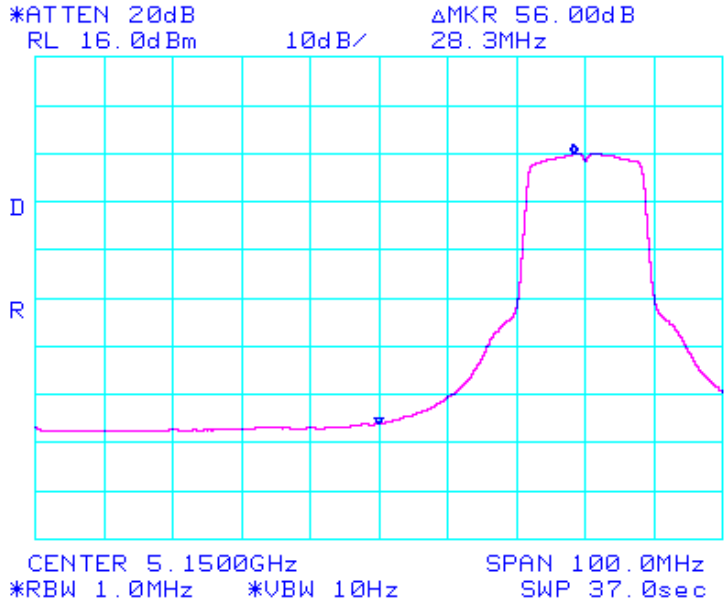
Radiated Emissions Test Results (Continued)

Plots Showing Out-Of-Band Emissions (Peak RBW=VBW=1MHz; Average RBW = 1MHz, VBW = 10Hz)

Test Date	*Data*	*Test Eng.*
04/12/07	5.18 GHz band edge **PEAK DELTA** (PANAS-070202-10a01)	JC



Test Date	*Data*	*Test Eng.*
04/12/07	5.18 GHz band edge **AVERAGE DELTA** (PANAS-070202-10a02)	JC



Radiated Emissions Test Results (Continued)

*Spurious Emissions Measurements in **802.11a mode (5150-5250 MHz)***
Channels 36 & 48
Continuous TX** at **Main** Antenna port with **Centurion Antenna
Aegis Labs, Inc. File #: PANAS-070202-06

RADIATED EMISSIONS - Horizontal Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)		Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
1000.00	59.00	100	225			46.32	1.27	24.40	38.35	74.00	-35.65	**Ch. 36**
1000.00				51.51	A	46.32	1.27	24.40	30.86	54.00	-23.14	
1200.00	76.50	100	0			46.32	1.42	25.00	56.60	74.00	-17.40	
1200.00				70.07	A	46.32	1.42	25.00	50.17	54.00	-3.83	
1600.00	59.67	100	225			46.24	1.62	26.34	41.39	74.00	-32.61	
1600.00				52.87	A	46.24	1.62	26.34	34.59	54.00	-19.41	
3453.33	51.83	100	180			46.60	2.41	32.29	39.93	68.00	-28.07	
6906.66	53.50	175	180			45.19	3.47	35.91	47.69	68.00	-20.31	
1000.00	61.00	100	270			46.32	1.27	24.40	40.35	74.00	-33.65	**Ch. 48**
1000.00				54.65	A	46.32	1.27	24.40	34.00	54.00	-20.00	
1200.00	68.67	125	270			46.32	1.42	25.00	48.77	74.00	-25.23	
1200.00				59.50	A	46.32	1.42	25.00	39.60	54.00	-14.40	
1600.00	59.83	100	270			46.24	1.62	26.34	41.55	74.00	-32.45	
1600.00				52.71	A	46.24	1.62	26.34	34.43	54.00	-19.57	
3506.66	52.50	100	225			46.60	2.43	32.41	40.75	68.00	-27.25	
7013.32	52.00	100	135			45.04	3.51	36.03	46.50	68.00	-21.50	

RADIATED EMISSIONS - Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)		Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
1000.00	59.50	100	0			46.32	1.27	24.60	39.05	74.00	-34.95	**Ch. 36**
1000.00				51.99	A	46.32	1.27	24.60	31.54	54.00	-22.46	
1200.00	68.67	200	0			46.32	1.42	25.12	48.89	74.00	-25.11	
1200.00				61.88	A	46.32	1.42	25.12	42.10	54.00	-11.90	
1800.00	59.50	100	225			46.15	1.85	27.04	42.25	74.00	-31.76	
1800.00				51.04	A	46.15	1.85	27.04	33.79	54.00	-20.22	
3453.33	52.50	100	135			46.60	2.41	31.80	40.11	68.00	-27.89	
6906.66	54.83	100	225			45.19	3.47	35.83	48.93	68.00	-19.07	
1000.00	60.00	100	0			46.32	1.27	24.60	39.55	74.00	-34.45	**Ch. 48**
1000.00				52.92	A	46.32	1.27	24.60	32.47	54.00	-21.53	
1200.00	67.83	200	0			46.32	1.42	25.12	48.05	74.00	-25.95	
1200.00				61.62	A	46.32	1.42	25.12	41.84	54.00	-12.16	
1800.00	57.17	100	225			46.15	1.85	27.04	39.92	74.00	-34.09	
1800.00				50.89	A	46.15	1.85	27.04	33.64	54.00	-20.37	
3506.66	52.83	100	135			46.60	2.43	31.92	40.58	68.00	-27.42	
7013.32	53.33	100	225			45.04	3.51	35.93	47.73	68.00	-20.27	

Radiated Emissions Test Results (Continued)

*Spurious Emissions Measurements in **802.11a mode (5150-5250 MHz)***
Channels 36 & 48
Continuous RX** at **Main** Antenna port with **Centurion Antenna
Aegis Labs, Inc. File #: PANAS-070202-06

RADIATED EMISSIONS - Horizontal Antenna Polarization												
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (degrees)*	*Quasi pk or AVG (dBuV)*		*Preamp Factor (dB)*	*Cable Factor (dB)*	*Ant. Factor (dB)*	*Corrected Reading (dBuV)*	*Limits (dBuV)*	*Diff (dB) +=FAIL*	*Comments*
1000.00	62.00	100	225			46.32	1.27	24.40	41.35	74.00	-32.65	**Ch. 36**
1000.00				55.50	A	46.32	1.27	24.40	34.85	54.00	-19.15	
1200.00	74.12	100	0			46.32	1.42	25.00	54.22	74.00	-19.78	
1200.00				68.52	A	46.32	1.42	25.00	48.62	54.00	-5.38	
1600.00	60.32	100	225			46.24	1.62	26.34	42.04	74.00	-31.96	
1600.00				54.00	A	46.24	1.62	26.34	35.72	54.00	-18.28	
3453.33	52.83	100	45			46.60	2.41	32.29	40.93	74.00	-33.07	
3453.33				40.19	A	46.60	2.41	32.29	28.29	54.00	-25.71	
6906.66	51.67	100	45			45.19	3.47	35.91	45.86	74.00	-28.14	
6906.66				39.64	A	45.19	3.47	35.91	33.83	54.00	-20.17	
10359.99	51.17	100	45			44.47	4.39	38.62	49.70	74.00	-24.30	
10359.99				38.89	A	44.47	4.39	38.62	37.42	54.00	-16.58	
1000.00	60.05	100	270			46.32	1.27	24.40	39.40	74.00	-34.60	**Ch. 48**
1000.00				53.46	A	46.32	1.27	24.40	32.81	54.00	-21.19	
1200.00	69.00	125	270			46.32	1.42	25.00	49.10	74.00	-24.90	
1200.00				60.30	A	46.32	1.42	25.00	40.40	54.00	-13.60	
1600.00	60.10	100	270			46.24	1.62	26.34	41.82	74.00	-32.18	
1600.00				54.80	A	46.24	1.62	26.34	36.52	54.00	-17.48	
3493.33	52.50	100	135			46.60	2.43	32.38	40.71	74.00	-33.29	
3493.33				40.41	A	46.60	2.43	32.38	28.62	54.00	-25.38	
6986.66	51.50	100	135			45.07	3.50	35.99	45.92	74.00	-28.08	
6986.66				39.29	A	45.07	3.50	35.99	33.71	54.00	-20.29	
10479.99	50.33	100	135			44.49	4.43	38.69	48.96	74.00	-25.04	
10479.99				38.32	A	44.49	4.43	38.69	36.95	54.00	-17.05	

Radiated Emissions Test Results (Continued)

RADIATED EMISSIONS - Vertical Antenna Polarization												
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (degrees)*	*Quasi pk or AVG (dBuV)*		*Preamp Factor (dB)*	*Cable Factor (dB)*	*Ant. Factor (dB)*	*Corrected Reading (dBuV)*	*Limits (dBuV)*	*Diff (dB) +=FAIL*	*Comments*
1000.00	63.00	100	0			46.32	1.27	24.60	42.55	74.00	-31.45	**Ch. 36**
1000.00				54.98	A	46.32	1.27	24.60	34.53	54.00	-19.47	
1200.00	70.00	200	0			46.32	1.42	25.12	50.22	74.00	-23.78	
1200.00				62.45	A	46.32	1.42	25.12	42.67	54.00	-11.33	
1800.00	60.10	100	225			46.15	1.85	27.04	42.85	74.00	-31.16	
1800.00				52.00	A	46.15	1.85	27.04	34.75	54.00	-19.26	
3453.33	52.00	100	45			46.60	2.41	31.80	39.61	74.00	-34.39	
3453.33				39.83	A	46.60	2.41	31.80	27.44	54.00	-26.56	
6906.66	51.33	100	45			45.19	3.47	35.83	45.43	74.00	-28.57	
6906.66				39.22	A	45.19	3.47	35.83	33.32	54.00	-20.68	
10359.99	51.00	100	180			44.47	4.39	38.59	49.51	74.00	-24.49	
10359.99				38.86	A	44.47	4.39	38.59	37.37	54.00	-16.63	
1000.00	59.83	100	0			46.32	1.27	24.60	39.38	74.00	-34.62	**Ch. 48**
1000.00				51.42	A	46.32	1.27	24.60	30.97	54.00	-23.03	
1200.00	68.00	200	0			46.32	1.42	25.12	48.22	74.00	-25.78	
1200.00				62.50	A	46.32	1.42	25.12	42.72	54.00	-11.28	
1800.00	60.50	100	225			46.15	1.85	27.04	43.25	74.00	-30.76	
1800.00				52.00	A	46.15	1.85	27.04	34.75	54.00	-19.26	
3493.33	52.00	100	135			46.60	2.43	31.89	39.71	74.00	-34.29	
3493.33				39.97	A	46.60	2.43	31.89	27.68	54.00	-26.32	
6986.66	51.17	100	135			45.07	3.50	35.89	45.49	74.00	-28.51	
6986.66				39.22	A	45.07	3.50	35.89	33.54	54.00	-20.46	
10479.99	50.67	100	135			44.49	4.43	38.68	49.30	74.00	-24.70	
10479.99				38.04	A	44.49	4.43	38.68	36.67	54.00	-17.33	

PEAK TRANSMIT POWER

CLIENT:	Panasonic Avionics	**DATE:**	04/11/07
EUT:	Premium Seat Electronics Box	**PROJECT NUMBER:**	PANAS-070202
MODEL NUMBER:	RD-FA3221-01	**TEST ENGINEER:**	JC
SERIAL NUMBER:	D085560	**SITE #:**	2
CONFIGURATION:	Tested with an Intel PRO/Wireless 2915ABG Network Connection installed in the EUT's mini PCI slot.	**TEMPERATURE:**	16 deg. C
		HUMIDITY:	67% RH
		TIME:	9:15 AM

Description:	For the band 5.15-5.25 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10logB, where B is the 26-dB emission bandwidth in MHz. For the band 5.25-5.35 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10logB, where B is the 26-dB emission bandwidth in MHz.
Results:	Passed (See Data Sheet)
Note:	Conducted Emissions Measurements were performed on the EUT with power supply set at the following voltage. • 28VDC

Peak Transmit Power (Continued)

Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Average Power (dBm)	Average Power (mW)	Peak Power (dBm)	Peak Power (mW)
802.11a	36	5180	6	11.82	15.21	16.70	46.77
802.11a	36	5180	6	11.73	14.89	16.50	44.67
802.11a	36	5180	6	11.68	14.72	16.50	44.67
802.11a	48	5240	6	12.13	16.33	16.80	47.86
802.11a	48	5240	6	12.00	15.85	16.90	48.98
802.11a	48	5240	6	11.96	15.70	16.80	47.86

NOTE: The output power measurement is conducted.

CONDCUTED BAND EDGE EMISSIONS TEST RESULTS

CLIENT:	Panasonic Avionics	**DATE:**	04/13/07
EUT:	Premium Seat Electronics Box	**PROJECT NUMBER:**	PANAS-070202
MODEL NUMBER:	RD-FA3221-01	**TEST ENGINEER:**	JC
SERIAL NUMBER:	D085560	**SITE #:**	2
CONFIGURATION:	Tested with an Intel PRO/Wireless 2915ABG Network Connection installed in the EUT's mini PCI slot.	**TEMPERATURE:**	20 deg. C
		HUMIDITY:	47% RH
		TIME:	10:15 AM

Description:	For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.
Results:	See Data Sheet
Note:	Conducted Emissions Measurements were performed on the EUT with power supply set at the following voltage. • 28VDC

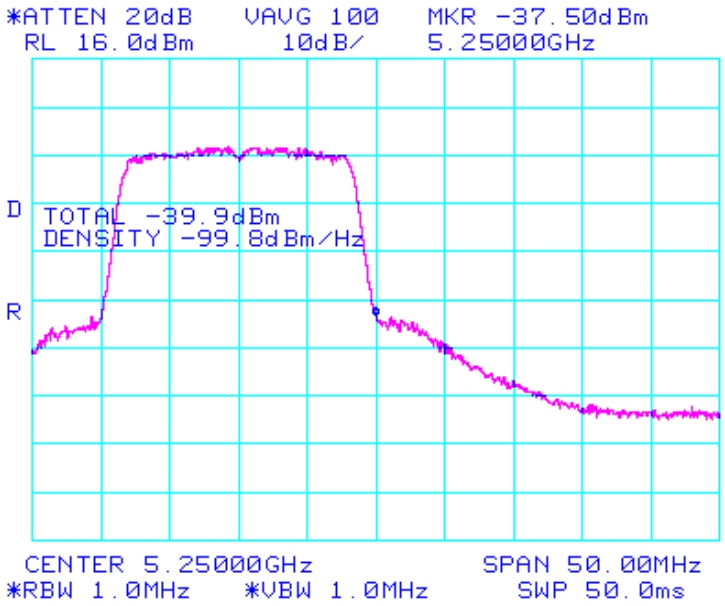
Unwanted Spurious Emissions Limits	
Frequency (MHz)	**Field Strength (dBm/Hz) (Emissions outside the restricted bands)**
5250-5350	EIRP < -27dBm/Hz (68.3dBuV/m)

Freq. (MHz)	*Power Spec Den. Reading (dBm/Hz)*	*Antenna Gain (dBi)*	*Corrected Reading (dBm/Hz)*	*Limits (dBm/Hz)*	*Diff (dB) +=FAIL*	*Comments*
With Centurion Antenna (Gain at 5GHz) Transmitting on Main Antenna Port						
5250.00	-39.90	4.00	-35.90	-27.00	-8.90	Tx @ 5240 MHz

Conducted Band Edge Emissions Test Results (Continued)

802.11a Mode

Test Date	*Data*	*Test Eng.*
04/13/07	5.24 GHz band edge (PANAS-070202-11f01)	JC



26dB EMISSIONS BANDWIDTH

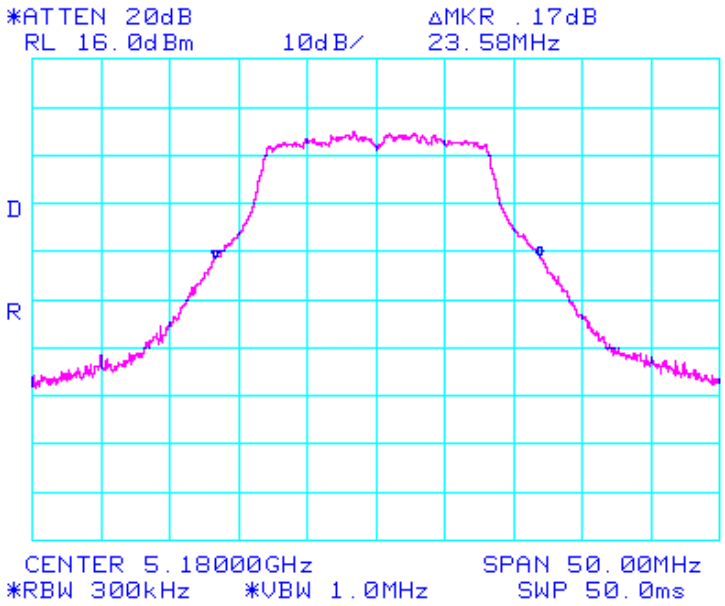
CLIENT:	Panasonic Avionics	**DATE:**	04/13/07
EUT:	Premium Seat Electronics Box	**PROJECT NUMBER:**	PANAS-070202
MODEL NUMBER:	RD-FA3221-01	**TEST ENGINEER:**	JC
SERIAL NUMBER:	D085560	**SITE #:**	2
CONFIGURATION:	Tested with an Intel PRO/Wireless 2915ABG Network Connection installed in the EUT's mini PCI slot.	**TEMPERATURE:**	20 deg. C
		HUMIDITY:	47% RH
		TIME:	10:15 AM

Description:	26dB emissions bandwidth in MHz.
Results:	See Data Sheet
Note:	Conducted Emissions Measurements were performed on the EUT with power supply set at the following voltage. • 28VDC

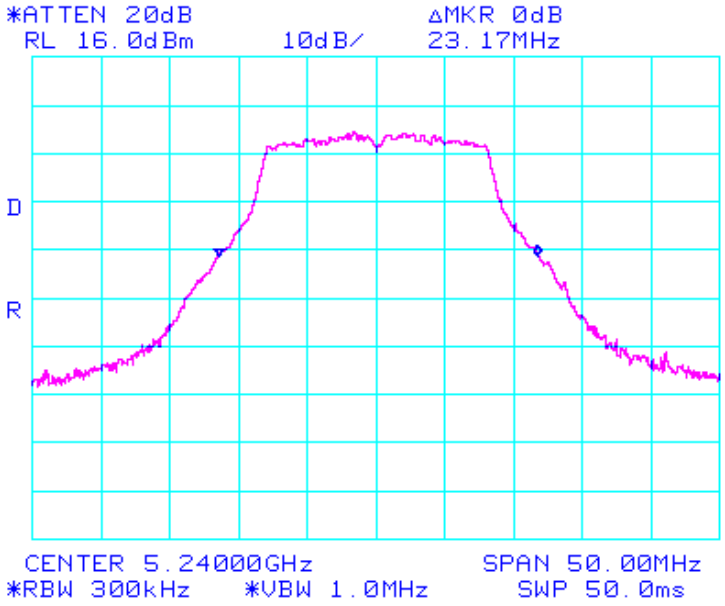
26dB Emissions Bandwidth (Continued)

802.11a Mode

Test Date	*Data*	*Test Eng.*
04/13/07	5.18 GHz (PANAS-070202-11a01)	JC



Test Date	*Data*	*Test Eng.*
04/13/07	5.24 GHz (PANAS-070202-11a02)	JC



PEAK POWER SPECTRAL DENSITY

CLIENT:	Panasonic Avionics	**DATE:**	04/13/07
EUT:	Premium Seat Electronics Box	**PROJECT NUMBER:**	PANAS-070202
MODEL NUMBER:	RD-FA3221-01	**TEST ENGINEER:**	JC
SERIAL NUMBER:	D085560	**SITE #:**	2
CONFIGURATION:	Tested with an Intel PRO/Wireless 2915ABG Network Connection installed in the EUT's mini PCI slot.	**TEMPERATURE:**	20 deg. C
		HUMIDITY:	47% RH
		TIME:	10:15 AM

Description:	For the band 5.15-5.25 GHz, the peak power spectral density shall not exceed 4 dBm in any 1-MHz band
Results:	See Data Sheet
Note:	Conducted Emissions Measurements were performed on the EUT with power supply set at the following voltage. • 28VDC

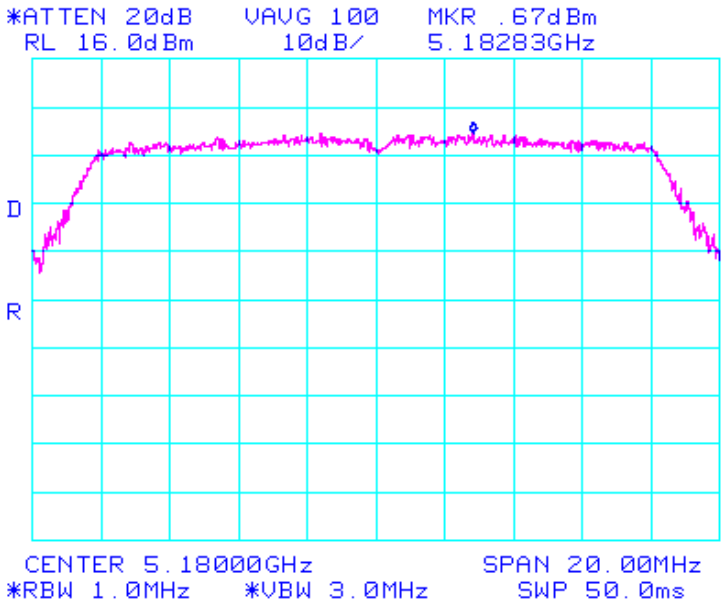
Peak Power Spectral Density Limits	
Frequency (MHz)	**Limit (dBm)**
5150-5250	4

Using "Method 1" of the FCC Public Notice (DA 02-2138) for 5150-5250MHz band

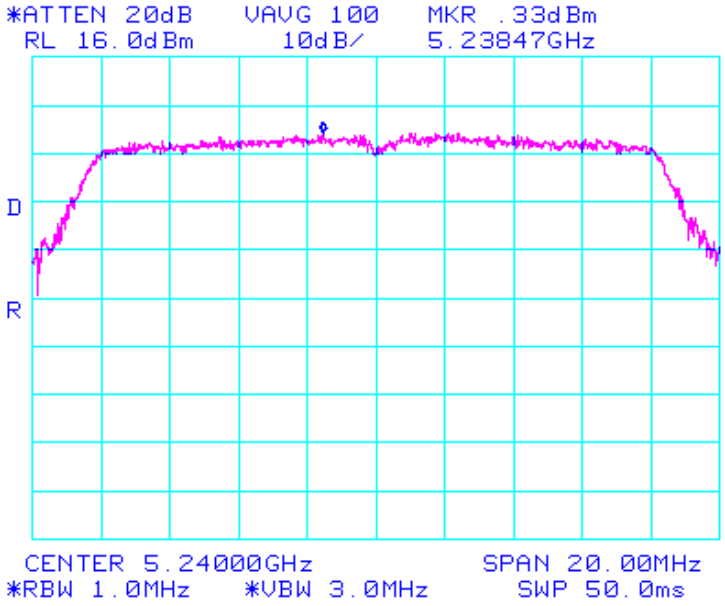
Peak Power Spectral Density (Continued)

802.11a Mode

Test Date	*Data*	*Test Eng.*
04/13/07	5.18 GHz (PANAS-070202-11e01)	JC



Test Date	*Data*	*Test Eng.*
04/13/07	5.24 GHz (PANAS-070202-11e02)	JC



PEAK EXCURSION

CLIENT:	Panasonic Avionics	**DATE:**	04/13/07
EUT:	Premium Seat Electronics Box	**PROJECT NUMBER:**	PANAS-070202
MODEL NUMBER:	RD-FA3221-01	**TEST ENGINEER:**	JC
SERIAL NUMBER:	D085560	**SITE #:**	2
CONFIGURATION:	Tested with an Intel PRO/Wireless 2915ABG Network Connection installed in the EUT's mini PCI slot.	**TEMPERATURE:**	20 deg. C
		HUMIDITY:	47% RH
		TIME:	10:15 AM

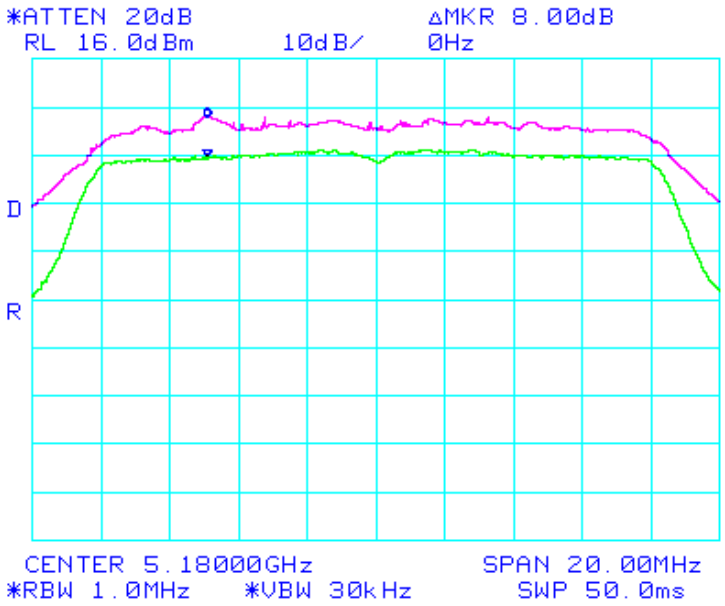
Description:	The ratio of the peak excursion of the modulation envelope to the peak transmit power shall not exceed 13dB across any 1 MHz bandwidth or the emissions bandwidth whichever is less.
Results:	See Data Sheet
Note:	Conducted Emissions Measurements were performed on the EUT with power supply set at the following voltage. • 28VDC

Peak Power Spectral Density Limits	
Frequency (MHz)	**Limit (dBm)**
5150-5250	13

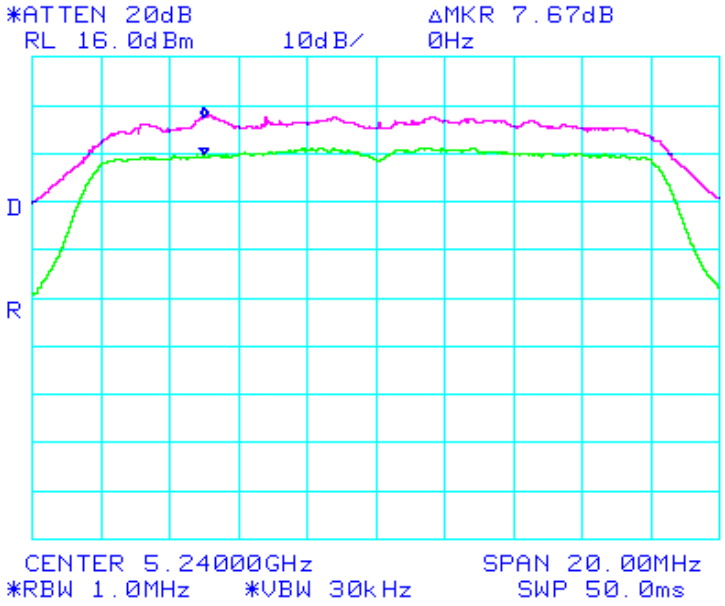
Peak Excursion (Continued)

802.11a Mode

Test Date	*Data*	*Test Eng.*
04/13/07	5.18 GHz (PANAS-070202-11c01)	JC



Test Date	*Data*	*Test Eng.*
04/13/07	5.24 GHz (PANAS-070202-11c02)	JC



CONDUCTED OUT OF BAND EMISSIONS

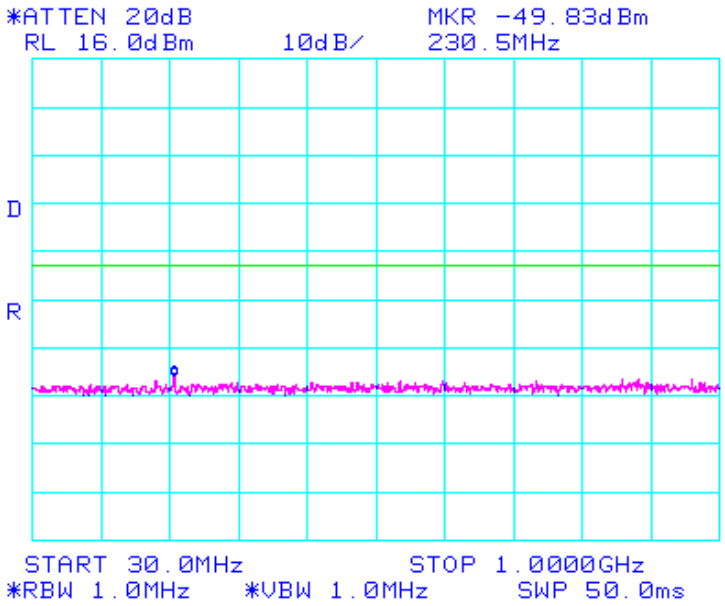
CLIENT:	Panasonic Avionics	**DATE:**	04/13/07
EUT:	Premium Seat Electronics Box	**PROJECT NUMBER:**	PANAS-070202
MODEL NUMBER:	RD-FA3221-01	**TEST ENGINEER:**	JC
SERIAL NUMBER:	D085560	**SITE #:**	2
CONFIGURATION:	Tested with an Intel PRO/Wireless 2915ABG Network Connection installed in the EUT's mini PCI slot.	**TEMPERATURE:**	20 deg. C
		HUMIDITY:	47% RH
		TIME:	10:15 AM

Description:	For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.
Results:	See Data Sheet
Note:	Conducted Emissions Measurements were performed on the EUT with power supply set at the following voltage. • 28VDC

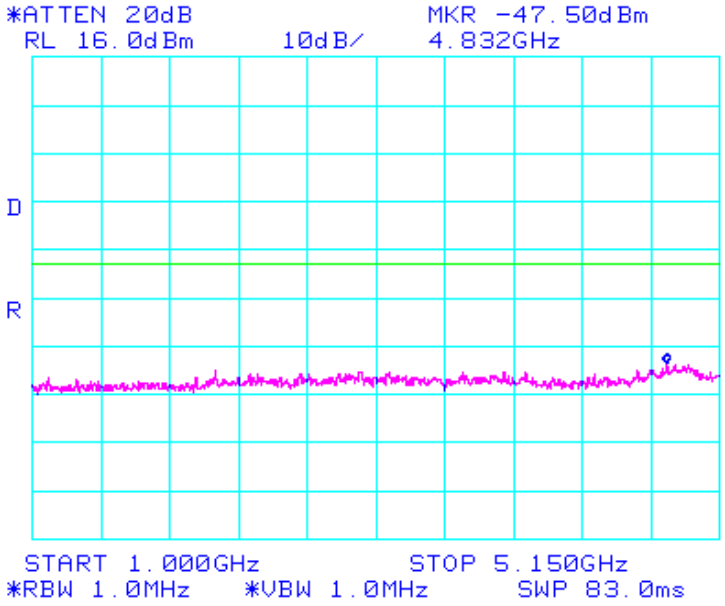
Conducted Out Of Band Emissions (Continued)

802.11a Mode

Test Date	*Data*	*Test Eng.*
04/13/07	5.18 GHz (PANAS-070202-11d01)	JC



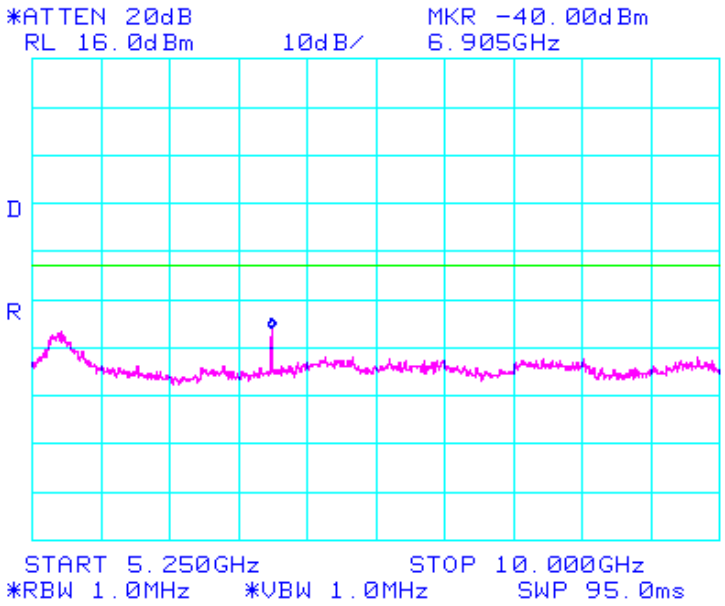
Test Date	*Data*	*Test Eng.*
04/13/07	5.18 GHz (PANAS-070202-11d02)	JC



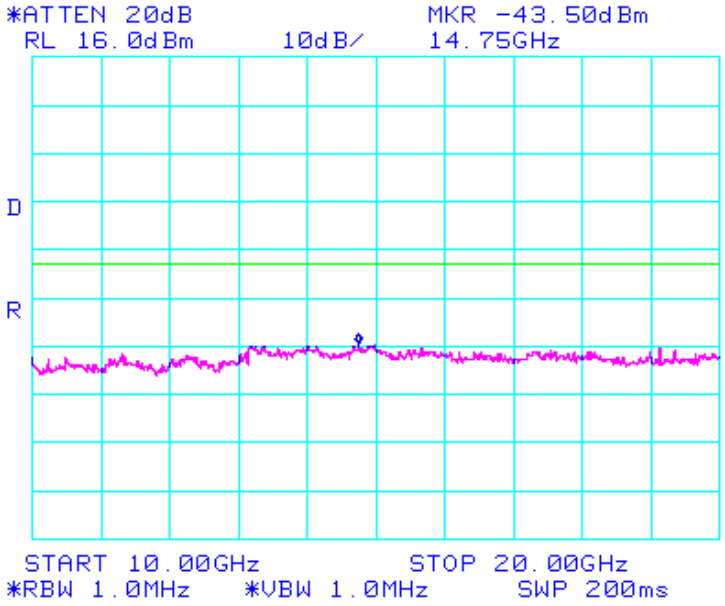
Conducted Out Of Band Emissions (Continued)

802.11a Mode

Test Date	*Data*	*Test Eng.*
04/13/07	5.18 GHz (PANAS-070202-11d03)	JC



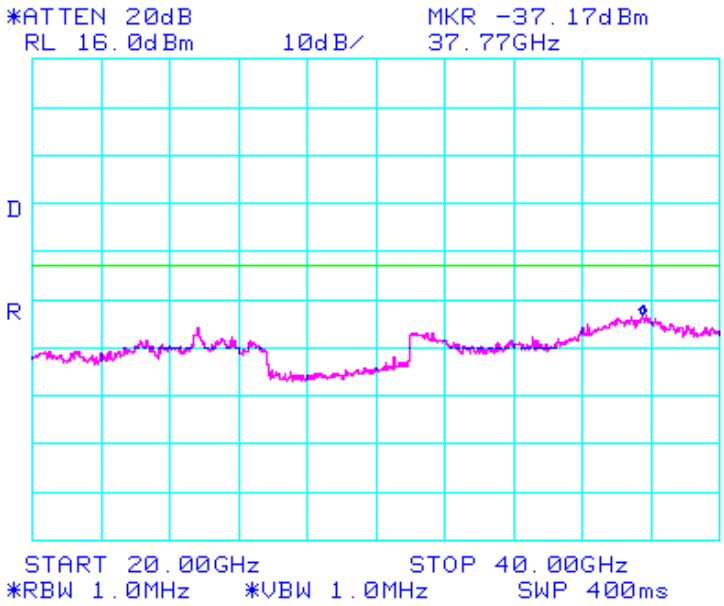
Test Date	*Data*	*Test Eng.*
04/13/07	5.18 GHz (PANAS-070202-11d04)	JC



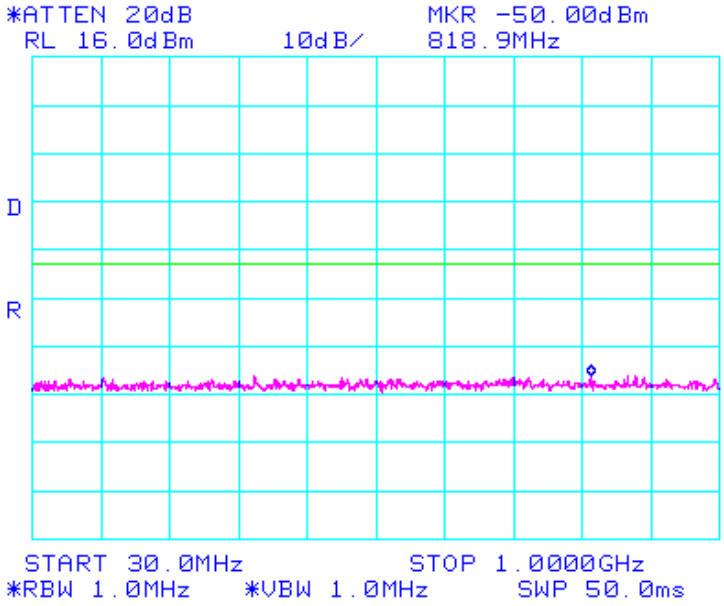
Conducted Out Of Band Emissions (Continued)

802.11a Mode

Test Date	*Data*	*Test Eng.*
04/13/07	5.18 GHz (PANAS-070202-11d05)	JC



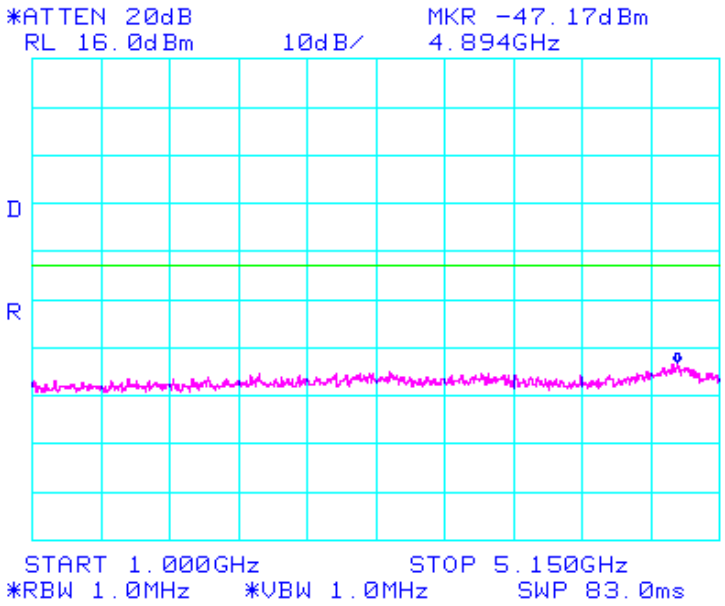
Test Date	*Data*	*Test Eng.*
04/13/07	5.24 GHz (PANAS-070202-11d06)	JC



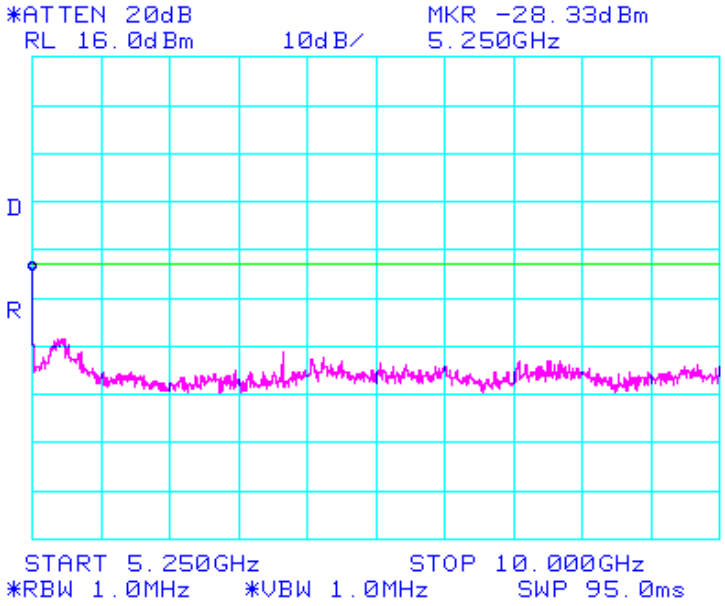
Conducted Out Of Band Emissions (Continued)

802.11a Mode

Test Date	*Data*	*Test Eng.*
04/13/07	5.24 GHz (PANAS-070202-11d07)	JC



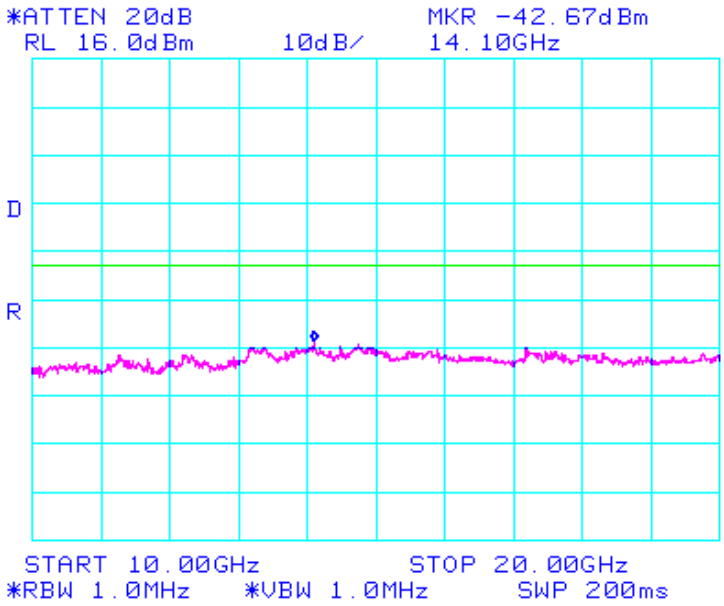
Test Date	*Data*	*Test Eng.*
04/13/07	5.24 GHz (PANAS-070202-11d08)	JC



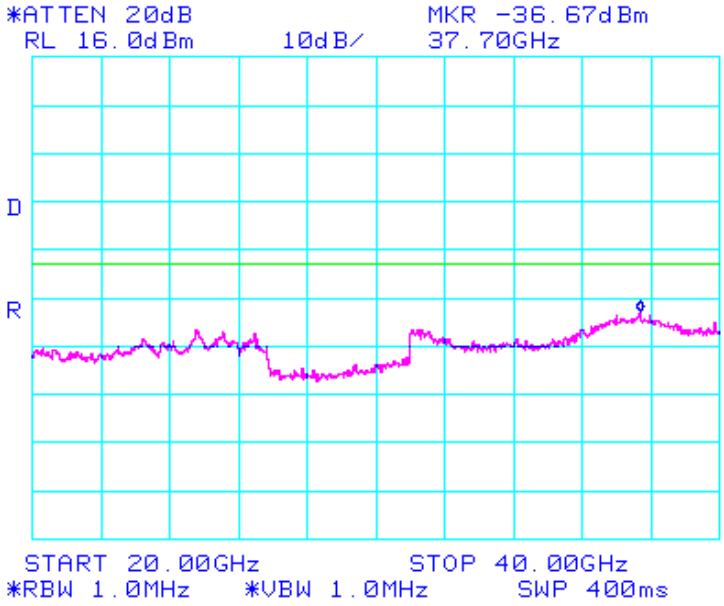
Conducted Out Of Band Emissions (Continued)

802.11a Mode

Test Date	*Data*	*Test Eng.*
04/13/07	5.24 GHz (PANAS-070202-11d09)	JC



Test Date	*Data*	*Test Eng.*
04/13/07	5.24 GHz (PANAS-070202-11d10)	JC



APPENDIX B

MODIFICATIONS AND RECOMMENDATIONS

1.0	NONE