ADDENDUM TO ALICO SYSTEMS, INC. TEST REPORT

FOR THE

BROADBAND 802.11 B/G/A ACCESS POINT AND BRIDGE, 58-LB-09M, 58-LB-15O, 58-LB-17S, 58-AE-26F & 58-LB-32D

FCC PART 15 SUBPART C SECTIONS 15.207 & 15.247 AND SUBPART B SECTIONS 15.107 & 15.109 CLASS A

COMPLIANCE

DATE OF ISSUE: AUGUST 9, 2006

PREPARED FOR:

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P.O. No.: 15
W.O. No.: 84441

Date of test: January 18 - March 14, 2006

Report No.: FC06-027A

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TABLE OF CONTENTS

Administrative Information 4
FCC to Canada Standard Correlation Matrix....5
Conditions for Compliance 6
Approvals....6
FCC 15.33(a) Frequency Ranges Tested 7
FCC 15.35 Analyzer Bandwidth Settings....7
FCC 15.203 Antenna Requirements 7
EUT Operating Frequency....7
Equipment Under Test (EUT) Description 8
Equipment Under Test 8
Peripheral Devices 10
Report of Measurements....11
Table 1: FCC 15.107 Six Highest Conducted Emission Levels 11
Table 2: FCC 15.109 Six Highest Radiated Emission Levels 12
Table 3: FC 15.207 Six Highest Conducted Emission Levels....13
Table 4: FCC 15.247 Six Highest Radiated Emission Levels 14
FCC Part 15.247(b)(3) RF Power 15
FCC 15.247(d) Bandedge 31
Temperature And Humidity During Testing....41
EUT Setup....41
Correction Factors....41
Table A: Sample Calculations 41
Test Instrumentation and Analyzer Settings 42
Spectrum Analyzer Detector Functions 42
Peak....42
Quasi-Peak 42
Average 42
EUT Testing....43
Mains Conducted Emissions....43
Antenna Conducted Emissions 43
Radiated Emissions....43
Appendix A: Test Setup Photographs....44
Photograph Showing Grounding 45
Photograph Showing Mains Conducted Emissions 46
Photograph Showing Mains Conducted Emissions 47
Photograph Showing Mains Conducted Emissions 48
Photograph Showing Mains Conducted Emissions 49
Photograph Showing Mains Conducted Emissions 50
Photograph Showing Mains Conducted Emissions 51
Photograph Showing Radiated Emissions 52
Photograph Showing Radiated Emissions 53
Photograph Showing Radiated Emissions 54

Photograph Showing Radiated Emissions 55
Photograph Showing Radiated Emissions 56
Photograph Showing Radiated Emissions 57
Photograph Showing Radiated Emissions 58
Photograph Showing Radiated Emissions 59
Photograph Showing Radiated Emissions 60
Photograph Showing Radiated Emissions 61
Photograph Showing Radiated Emissions 62
Photograph Showing Radiated Emissions 63
Photograph Showing Radiated Emissions 64
Photograph Showing Radiated Emissions 65
Photograph Showing Direct Connect Test Setup.....66
Appendix B: Test Equipment List 67
Appendix C: Measurement Data Sheets 69

ADMINISTRATIVE INFORMATION

DATE OF TEST:	January 18 - March 14, 2006
DATE OF RECEIPT:	January 18, 2006
MANUFACTURER:	Alico Systems, Inc. 2461 W. 205th St., STE B105 Torrance, CA 90501
REPRESENTATIVE:	Syed Akbar
TEST LOCATION:	CKC Laboratories, Inc. 110 Olinda Place Brea, CA 92823
TEST METHOD:	FCC Part 15 Subpart C Sections 15.207 & 15.247 and Subpart B Sections 15.107 & 15.109
PURPOSE OF TEST:	To demonstrate the compliance of the Broadband 802.11 B/G/A Access Point and Bridge, 58-LB-09M, 58-LB-15O, 58-LB-17S, 58-AE-26F & 58-LB-32D, with the requirements for FCC Part 15 Subpart C Sections 15.207 & 15.247 and Subpart B Sections 15.107 & 15.109 Class A devices. This testing is to provide supplemental data to add antennas to a previously approved modular radio. **Addendum A** is to add additional information regarding the power output for each antenna used with no new testing.

FCC TO CANADA STANDARD CORRELATION MATRIX

Canadian Standard	Canadian Section	FCC Standard	FCC Section	Test Description
RSS GEN	7.1.4	47CFR	15.203	Antenna Connector Requirements
RSS GEN	7.2.1	47CFR	15.35(c)	Pulsed Operation
RSS GEN	7.2.2	47CFR	15.207	AC Mains Conducted Emissions Requirement
RSS 210	2.1	47CFR	15.215(c)	Frequency Stability Recommendation
RSS 210	2.2	47CFR	15.205	Restricted Bands of Operation
RSS 210	2.6	47CFR	15.209	General Radiated Emissions Requirement
RSS 210	A8.1	47CFR	15.247(a)(1)	Definition of FHSS
RSS 210	A8.1	47CFR	15.247(h)	Incorporation of Intelligence
RSS 210	A8.1(1)	47CFR	15.247(a)(1)	Minimum Channel Bandwidth
RSS 210	A8.1(1)	47CFR	15.247(g)	Hopping Sequence
RSS 210	A8.1(2)	47CFR	15.247(a)(1)	Carrier Separation
RSS 210	A8.1(2)	47CFR	15.247(a)(1)	Carrier Separation 2400 Alternative
RSS 210	A8.1(3)	47CFR	15.247(a)(1)(i)	Carrier Separation
RSS 210	A8.1(3)	47CFR	15.247(a)(1)(i)	Average Time of Occupancy
RSS 210	A8.1(3)	47CFR	15.247(a)(1)(i)	Number of Hopping Channels
RSS 210	A8.1(4)	47CFR	15.247(a)(1)(iii)	Average Time of Occupancy
RSS 210	A8.1(4)	47CFR	15.247(a)(1)(iii)	Number of Hopping Channels
RSS 210	A8.1(5)	47CFR	15.247(a)(1)(ii)	Max 20dB Bandwidth
RSS 210	A8.1(5)	47CFR	15.247(a)(1)(ii)	Average Time of Occupancy
RSS 210	A8.1(5)	47CFR	15.247(a)(1)(ii)	Number of Hopping Channels
RSS 210	A8.2(1)	47CFR	15.247(a)(2)	Minimum 6dB Bandwidth
RSS 210	A8.2(2)	47CFR	15.247(e)	Peak Power Spectral Density
RSS 210	A8.3(1)	47CFR	15.247(f)	Hybrid Systems - Time of Occupancy
RSS 210	A8.3(1)	47CFR	15.247(f)	Hybrid Systems - Power Spectral Density
RSS 210	A8.4(1)	47CFR	15.247(b)(2)	RF Power Output
RSS 210	A8.4(2)	47CFR	15.247(b)(1)	RF Power Output
RSS 210	A8.4(3)	47CFR	15.247(b)(1)	RF Power Output
RSS 210	A8.4(4)	47CFR	15.247(b)(3)	RF Power Output
RSS 210	A8.4(5)	47CFR	15.247(c)(1)	Directional Gain Requirements
RSS 210	A8.4(6)	47CFR	15.247(c)(2)	Beam Steering Antennas
RSS 210	A8.5	47CFR	15.247(d)	Spurious Emissions
	IC 3172-A		90473	Site File No.

Notes: Rule Sections for RSS 210 are taken from RSS 210 Issue 6

CONDITIONS FOR COMPLIANCE
No modifications to the EUT were necessary to comply.

APPROVALS

Steve Behm, Director of Engineering Services

QUALITY ASSURANCE:	**TEST PERSONNEL:**
Joyce Walker, Quality Assurance Administrative Manager	Eddie Wong, EMC Engineer

FCC 15.33(a) Frequency Ranges Tested
15.107 Conducted Emissions: 150 kHz – 30 MHz
15.109 Radiated Emissions: 9 kHz – 1000 MHz
15.207 Conducted Emissions: 150 kHz – 30 MHz
15.247 Radiated Emissions: 30 MHz – 40 GHz

FCC SECTION 15.35: ANALYZER BANDWIDTH SETTINGS PER FREQUENCY RANGE			
TEST	BEGINNING FREQUENCY	ENDING FREQUENCY	BANDWIDTH SETTING
CONDUCTED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	30 MHz	1000 MHz	120 kHz
RADIATED EMISSIONS	1000 MHz	40 GHz	1 MHz

FCC 15.203 Antenna Requirements
The customer declares the antenna is removable but must be professionally installed; therefore the EUT complies with Section 15.203 of the FCC rules.

EUT Operating Frequency
The EUT was operating at 5745 MHz – 5825 MHz.

EQUIPMENT UNDER TEST (EUT) DESCRIPTION

The customer declares the EUT tested by CKC Laboratories was representative of a production unit.

The following models were tested by CKC Laboratories (see table below):

Since the time of testing the manufacturer has chosen to use the following model names in their place. Any differences between the names does not affect their EMC characteristics and therefore complies to the level of testing equivalent to the tested model name shown on the data sheets:

Original Model Designation	New Model Designation	Comment
WNE-5809M	58-LB-09M	5.8 GHz Large Box 9 dBi Mobile Omni
WNE-5815O	58-LB-15O	5.8 GHz Large Box 15 dBi Omni
WNE-5817S	58-LB-17S	5.8 GHz Large Box 17 dBi Sector
WNE-5826F	58-AE-26F	5.8 GHz Antenna Enclosure 26 dBi Flat Panel
WNE-5832D	58-LB-32D	5.8 GHz Large Box 32 dBi Dish

EQUIPMENT UNDER TEST

Module 58-LB-09M consists of:

Router Board
Manuf: Mikrotik
Model: RB/532
Serial: NA

Radio Card
Manuf: Ubiquiti Networks
Model: Super Range 5
Serial: NA

Power Over Ethernet Supply
Manuf: Phihong
Model: PSA16U-480
Serial: NA

Antenna
Manuf: Mobile Mark
Model: ECOM9-5500
Serial: NA

Module 58-LB-15O consists of:

Router Board
Manuf: Mikrotik
Model: RB/532
Serial: NA

Radio Card
Manuf: Ubiquiti Networks
Model: Super Range 5
Serial: NA

Power Over Ethernet Supply
Manuf: Phihong
Model: PSA16U-480
Serial: NA

Antenna
Manuf: MTI Wireless Edge
Model: MT-484030/N
Serial: NA

Module 58-LB-17S consists of:

Router Board
Manuf: Mikrotik
Model: RB/532
Serial: NA

Radio Card
Manuf: Ubiquiti Networks
Model: Super Range 5
Serial: NA

Power Over Ethernet Supply
Manuf: Phihong
Model: PSA16U-480
Serial: NA

Antenna
Manuf: MTI Wireless Edge
Model: MT-484032/NV
Serial: NA

Module 58-AE-26F consists of:

Router Board
Manuf: Mikrotik
Model: RB/532
Serial: NA

Radio Card
Manuf: Ubiquiti Networks
Model: Super Range 5
Serial: NA

Antenna
Manuf: MTI Wireless Edge
Model: MT-486004/N
Serial: NA

Passive POE Injecter
Manuf: Hyper Link Technologies
Model: BT-CAT5-P1
Serial: NA

Power Supply
Manuf: AULT Inc
Model: PW118
Serial: NA

Module 58-LB-32D consists of:

Router Board
Manuf: Mikrotik
Model: RB/532
Serial: NA

Radio Card
Manuf: Ubiquiti Networks
Model: Super Range 5
Serial: NA

Power Supply
Manuf: AULT Inc
Model: PW118
Serial: NA

Passive POE Injecter
Manuf: Hyper Link Technologies
Model: BT-CAT5-P1
Serial: NA

Antenna
Manuf: Pacific Wireless
Model: PAW DA5x-32
Serial: NA

PERIPHERAL DEVICES

The EUT was tested with the following peripheral device(s):

Laptop
Manuf: Dell
Model: Inspiron 600M
Serial: GH1TU71

REPORT OF MEASUREMENTS

The following tables report the six highest worst case levels recorded during the tests performed on the EUT. All readings taken are peak readings unless otherwise noted. The data sheets from which these tables were compiled are contained in Appendix C.

Table 1: FCC 15.107 Six Highest Conducted Emission Levels

FREQUENCY MHz	METER READING dBµV	CORRECTION FACTORS HPF dB	Att dB	Cable dB	Lisn dB	CORRECTED READING dBµV	SPEC LIMIT dBµV	MARGIN dB	NOTES
2.233823	47.6	0.1	5.8	0.1	0.0	53.6	60.0	-6.4	W-F
2.238076	48.0	0.1	5.8	0.2	0.1	54.2	60.0	-5.8	W-D
2.301867	47.5	0.1	5.8	0.2	0.1	53.7	60.0	-6.3	W-F
2.306119	47.9	0.1	5.8	0.2	0.1	54.1	60.0	-5.9	W-D
2.369910	47.7	0.1	5.8	0.2	0.1	53.9	60.0	-6.1	W-D
2.369910	47.4	0.1	5.8	0.2	0.1	53.6	60.0	-6.4	W-F

Test Method: ANSI C63.4 (2003)
Spec Limit: FCC Part 15 Subpart B Section 15.107 Class A

NOTES: W = White Lead
D = 58-LB-32D
F = 58-AE-26F

COMMENTS: See individual data sheets for test conditions.

Table 2: FCC 15.109 Six Highest Radiated Emission Levels									
FREQUENCY MHz	METER READING dBµV	CORRECTION FACTORS Ant dB	Amp dB	Cable dB	Dist dB	CORRECTED READING dBµV/m	SPEC LIMIT dBµV/m	MARGIN dB	NOTES
66.805	65.8	5.2	-27.7	1.5	-10.0	34.8	39.1	-4.3	V-D
67.520	64.6	5.2	-27.7	1.6	-10.0	33.7	39.1	-5.4	V-F
67.690	64.4	5.2	-27.7	1.6	-10.0	33.5	39.1	-5.6	V-D
98.992	63.6	9.8	-27.6	1.9	-10.0	37.7	43.5	-5.8	H-D
98.999	66.0	9.8	-27.6	1.9	-10.0	40.1	43.5	-3.4	VQ-D
230.997	63.5	10.5	-27.6	3.0	-10.0	39.4	46.4	-7.0	H-D

Test Method: ANSI C63.4 (2003)
Spec Limit: FCC Part 15 Subpart B Section 15.109 Class A
Test Distance: 3 Meters

NOTES:
H = Horizontal Polarization
V = Vertical Polarization
Q = Quasi Peak Reading
D = 58-LB-32D
F = 58-AE-26F

COMMENTS: See individual data sheets for test conditions.

Table 3: FC 15.207 Six Highest Conducted Emission Levels									
	METER	CORRECTION FACTORS				CORRECTED	SPEC		
FREQUENCY MHz	READING dBµV	HPF dB	Att dB	Cable dB	Lisn dB	READING dBµV	LIMIT dBµV	MARGIN dB	NOTES
2.301867	37.9	0.1	5.8	0.2	0.1	44.1	46.0	-1.9	B-D
2.433701	39.1	0.1	5.8	0.2	0.1	45.3	46.0	-0.7	WA-F
2.433701	38.9	0.1	5.8	0.2	0.1	45.1	46.0	-0.9	WA-D
2.499545	39.3	0.1	5.8	0.2	0.1	45.5	46.0	-0.5	WA-F
2.501745	39.6	0.1	5.8	0.2	0.1	45.8	46.0	-0.2	WA-D
2.565535	38.7	0.1	5.8	0.2	0.1	44.9	46.0	-1.1	WA-D

Test Method: ANSI C63.4 (2003)
Spec Limit: FCC Part 15 Subpart C Section 15.207

NOTES:
W = White Lead
A = Average Reading
D = 58-LB-32D
F = 58-AE-26F

COMMENTS: See individual data sheets for test conditions.

Table 4: FCC 15.247 Six Highest Radiated Emission Levels									
FREQUENCY MHz	METER READING dBµV	CORRECTION FACTORS Ant dB	Amp dB	Cable dB	Dist dB	CORRECTED READING dBµV/m	SPEC LIMIT dBµV/m	MARGIN dB	NOTES
11557.700	38.1	38.0	-37.5	10.7		49.3	54.0	-4.7	H-D
11566.700	36.8	37.5	-37.5	10.7		47.5	54.0	-6.5	H-O
11570.000	38.6	37.9	-37.5	10.7		49.7	54.0	-4.3	HA-D
11648.300	38.6	37.9	-37.5	10.8		49.8	54.0	-4.2	H-O
11650.000	41.0	37.9	-37.5	10.8		52.2	54.0	-1.8	VA-D
11650.000	37.2	37.9	-37.5	10.8		48.4	54.0	-5.6	V-O

Test Method: ANSI C63.4 (2003)
Spec Limit: FCC Part 15 Subpart C Section 15.247
Test Distance: 3 Meters

NOTES:
H = Horizontal Polarization
V = Vertical Polarization
A = Average Reading
D = 58-LB-32D
O = 58-LB-15O
M = 58-LB-09M
S = 58-LB-17S
F = 58-AE-26F

COMMENTS: See individual data sheets for test conditions.

FCC Part 15.247(b)(3) RF POWER

Conducted Peak power is measured with a Spectrum analyzer.

Peak detector selected.
RBW= 1 MHz
VBW = 3 MHz
Integration over 18 MHz.

Model Number	Config	Transmit Range	Antenna	Conducted power (dBm)		
58-AE-26F	B1	5.8GHz	26dBi Flat Panel	25.5	25.5	25.5
58-LB-17S	B2	5.8GHz	17dBi Sector	25.5	25.5	25.5
58-LB-15O	B3	5.8GHz	15dBi Omni	20.7	20.7	20.6
58-LB-32D	B4	5.8GHz	32.5dBi Dish	25.5	25.5	25.5
58-LB-09M	B5	5.8GHz	9dBi Omni	25.5	25.5	25.5

dBi Gain	Antenna	Type	Range	Output Power (mW)	Worst Case Output (dBm)	Output Power Limit	Pass / Fail	Gain >6dBi	Calculated EIRP
26.0	Flat Panel	Directional	5.8GHz	372	25.5	30.0	Pass	20.0	51.5
17.0	Sector	Directional	5.8GHz	372	25.5	30.0	Pass	11.0	42.5
15.0	Omni	Omni	5.8GHz	372	20.7	21.0	Pass	9.0	35.7
6.0	Omni	Omni	5.8GHz	372	25.5	30.0	Pass	0.0	31.5
32.5	Dish	Directional	5.8GHz	372	25.5	30.0	Pass	26.5	58.0

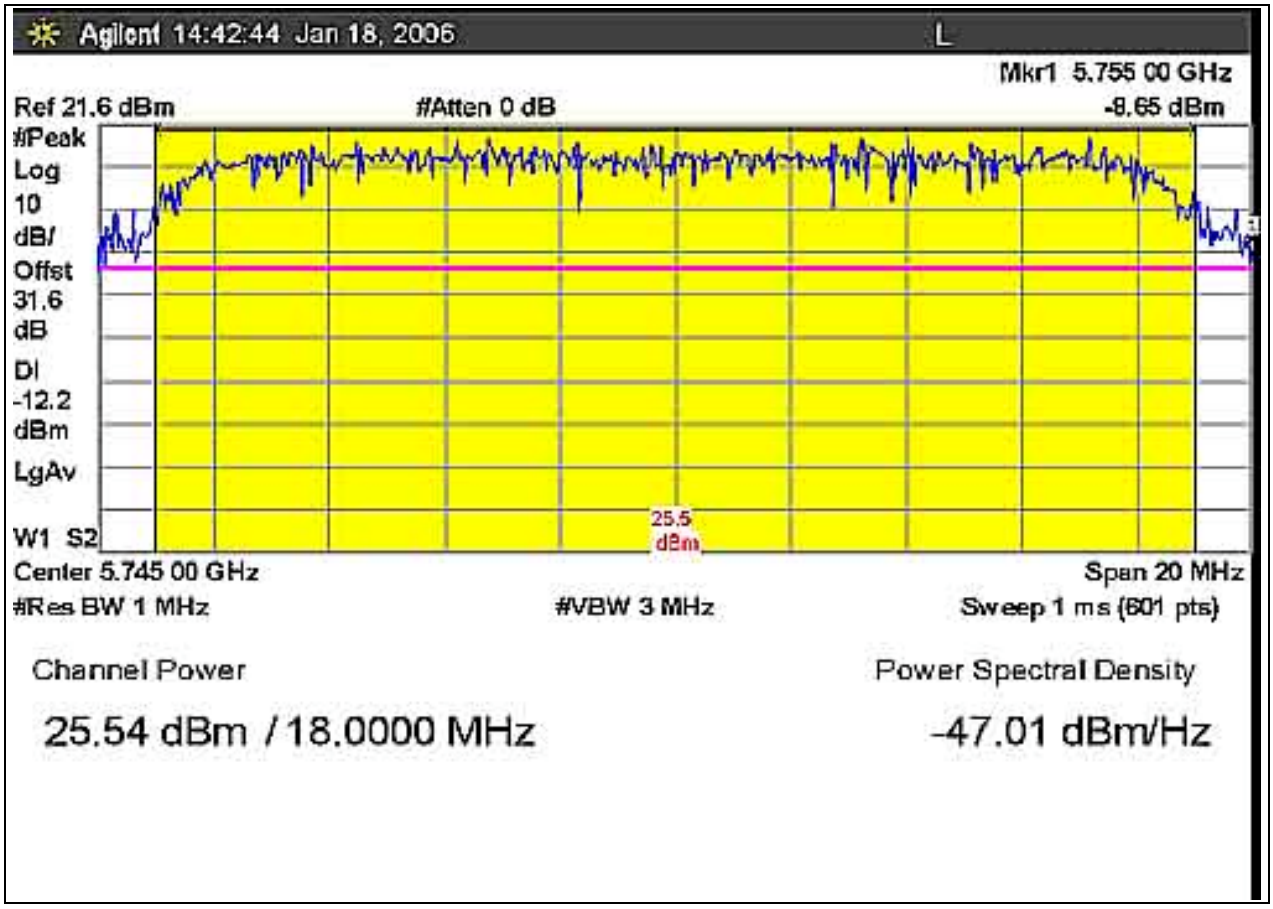
These are the calculations to "derive" the Output Power limit.

Gain>6 dBi = Antenna gain - 6

For Omni antenna 5.8 GHz
Output power limit = 30dBm -(gain>6)

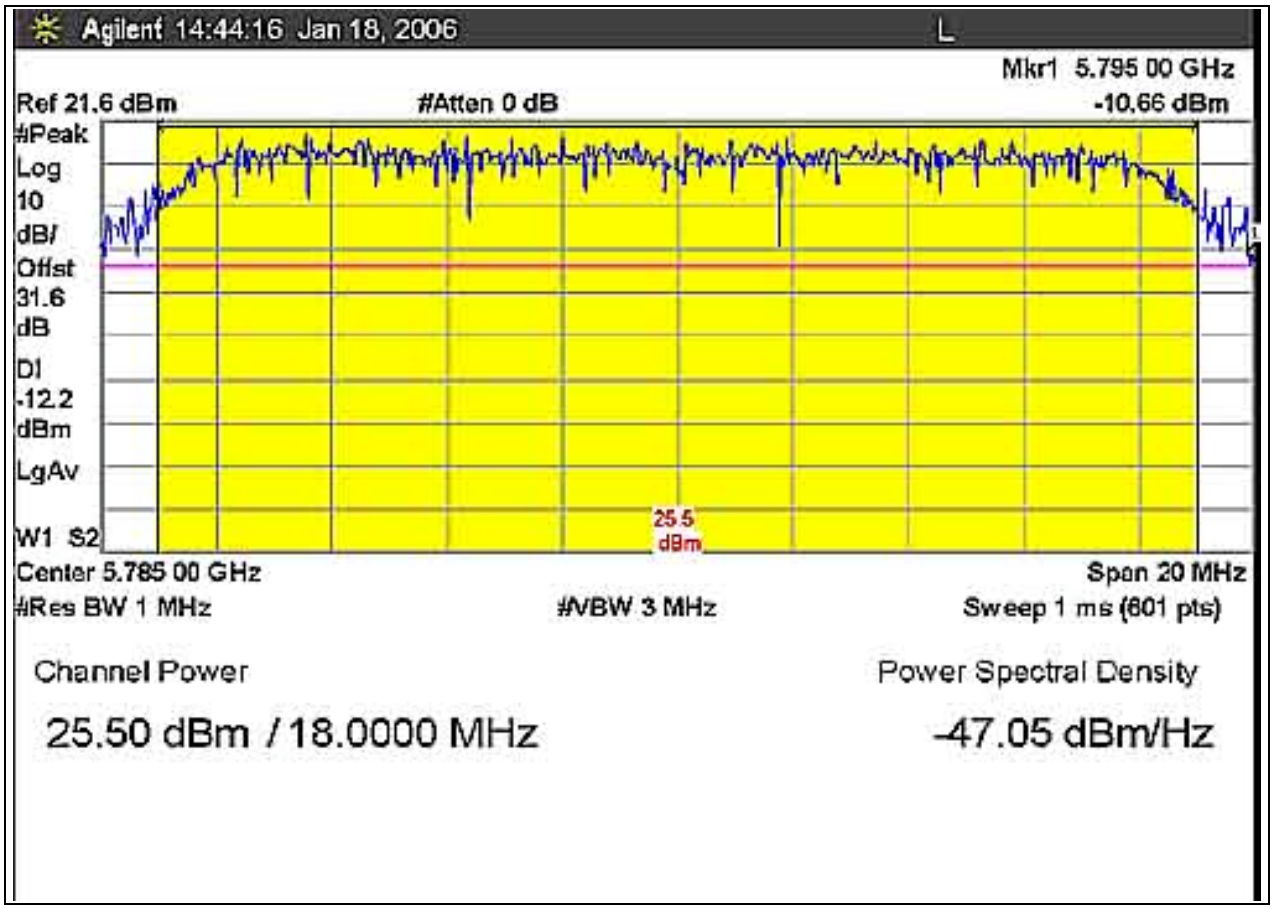
Directional antenna 5.8 GHz
No reduction in power

FCC 15.247(b)(3) RF POWER OUTPUT- 58-LB-09M 5745 MHz



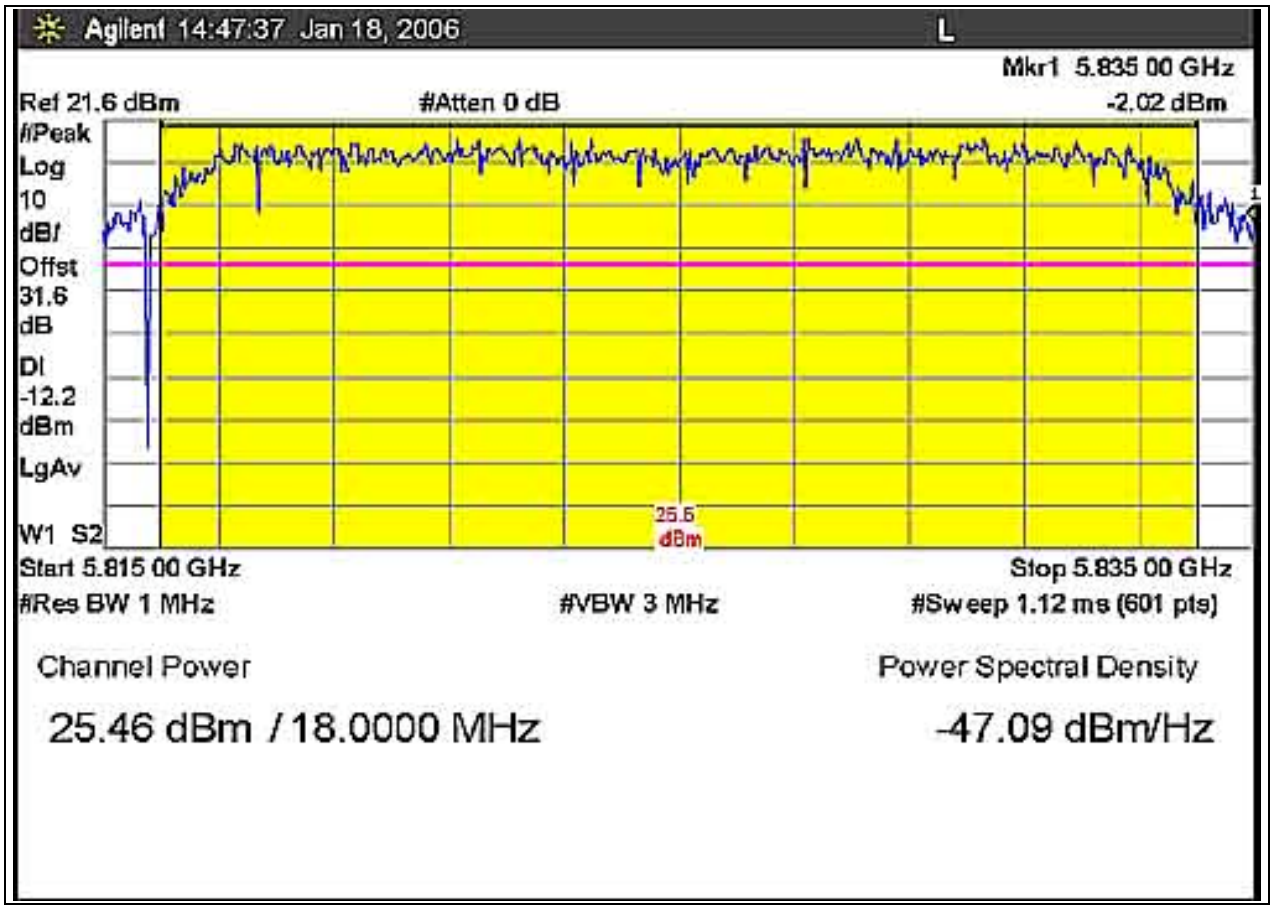
The 18.000 MHz number comes from the previous modular testing.

FCC 15.247(b)(3) RF POWER OUTPUT - 58-LB-09M 5785 MHz



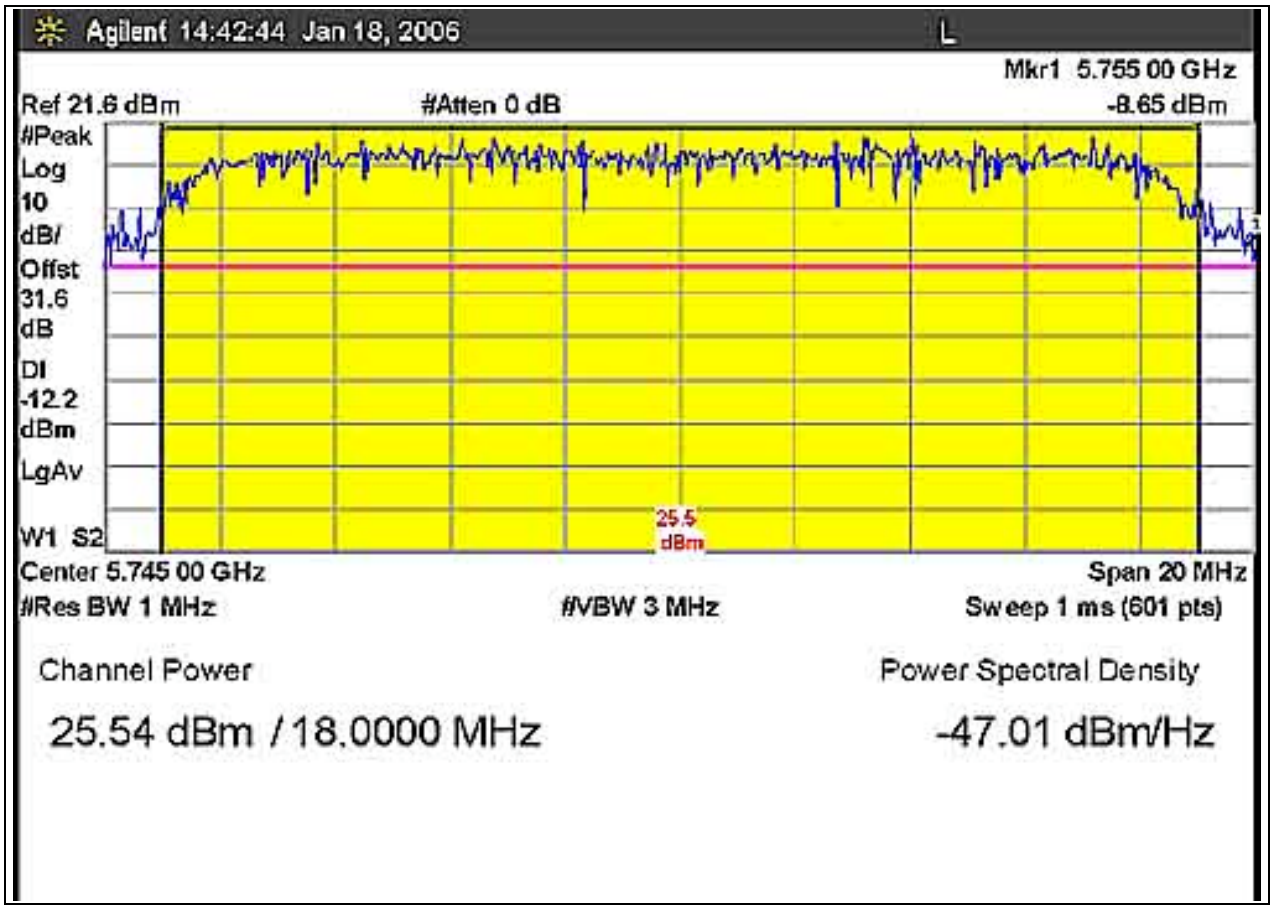
The 18.000 MHz number comes from the previous modular testing.

FCC 15.247(b)(3) RF POWER OUTPUT - 58-LB-09M 5825 MHz



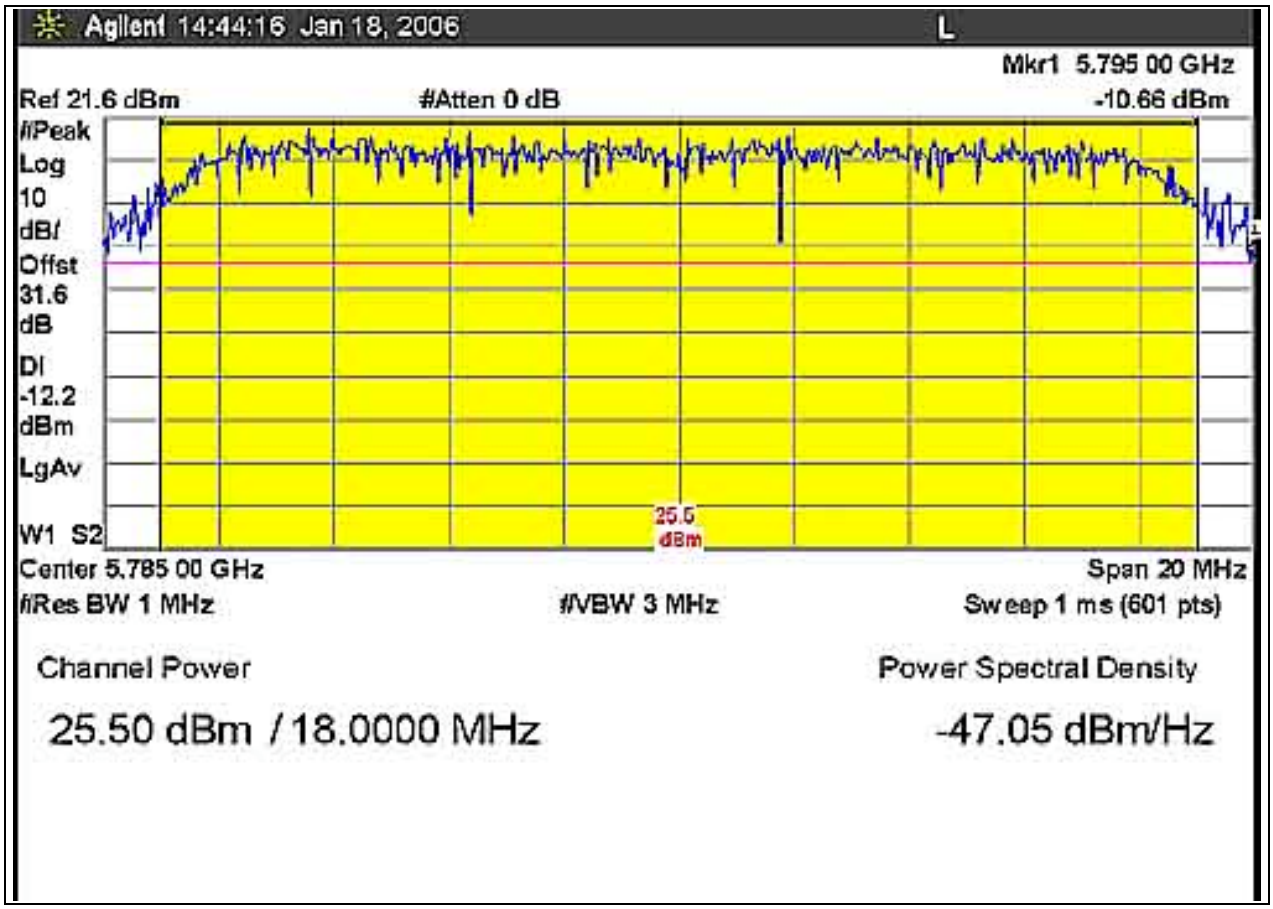
The 18.000 MHz number comes from the previous modular testing.

FCC 15.247(b)(3) RF POWER OUTPUT- 58-AE-26F 5745 MHz



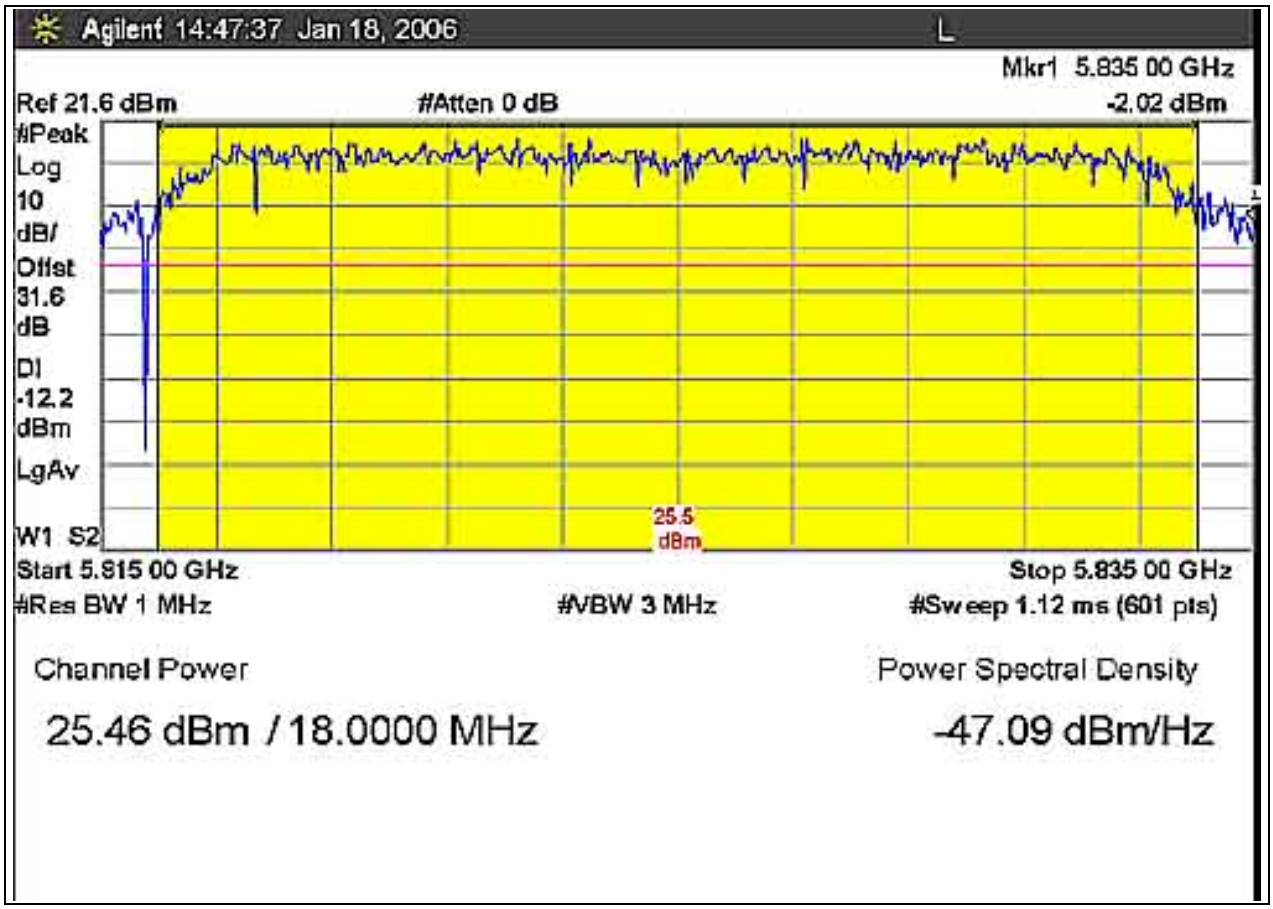
The 18.000 MHz number comes from the previous modular testing.

FCC 15.247(b)(3) RF POWER OUTPUT- 58-AE-26F 5785 MHz



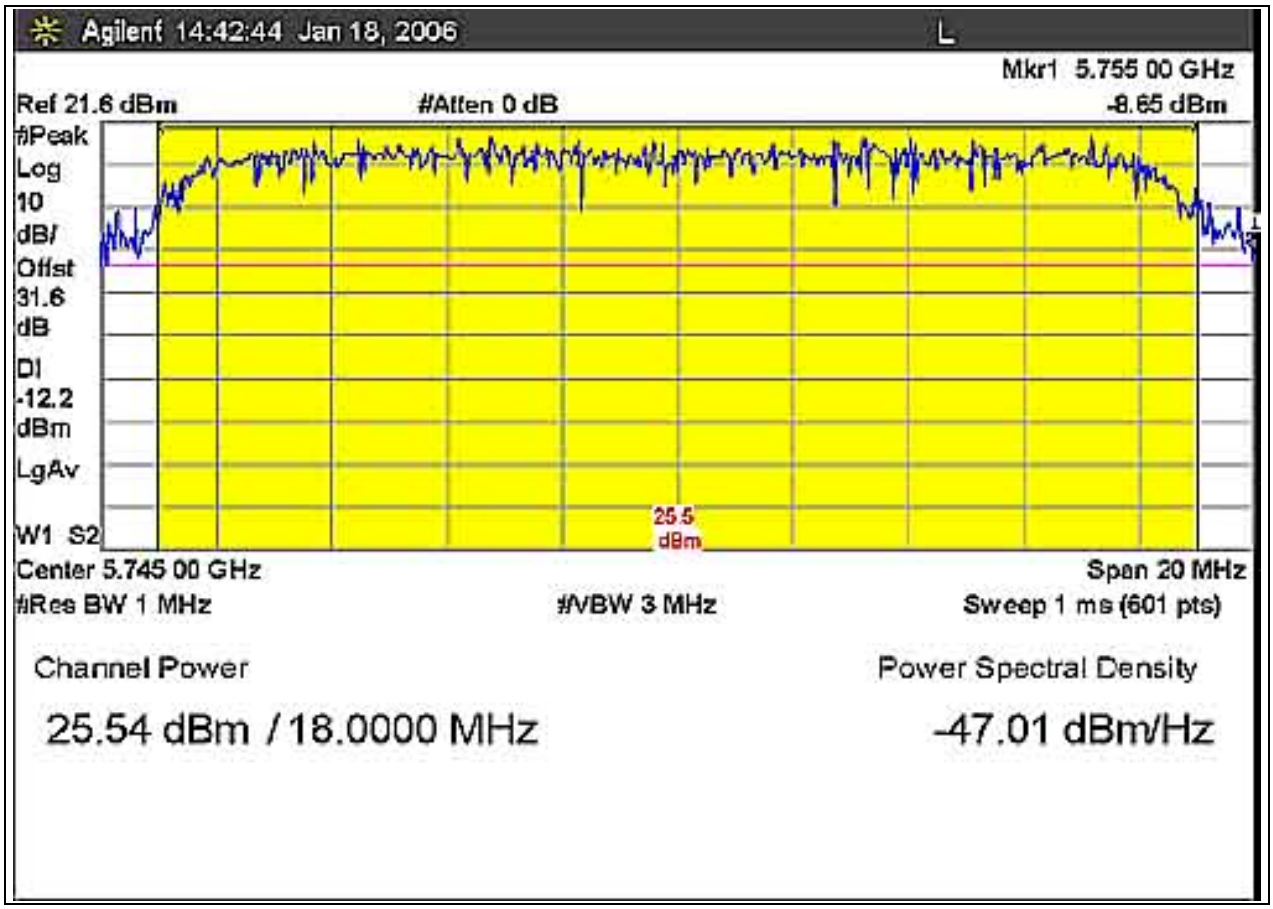
The 18.000 MHz number comes from the previous modular testing.

FCC 15.247(b)(3) RF POWER OUTPUT- 58-AE-26F 5825 MHz



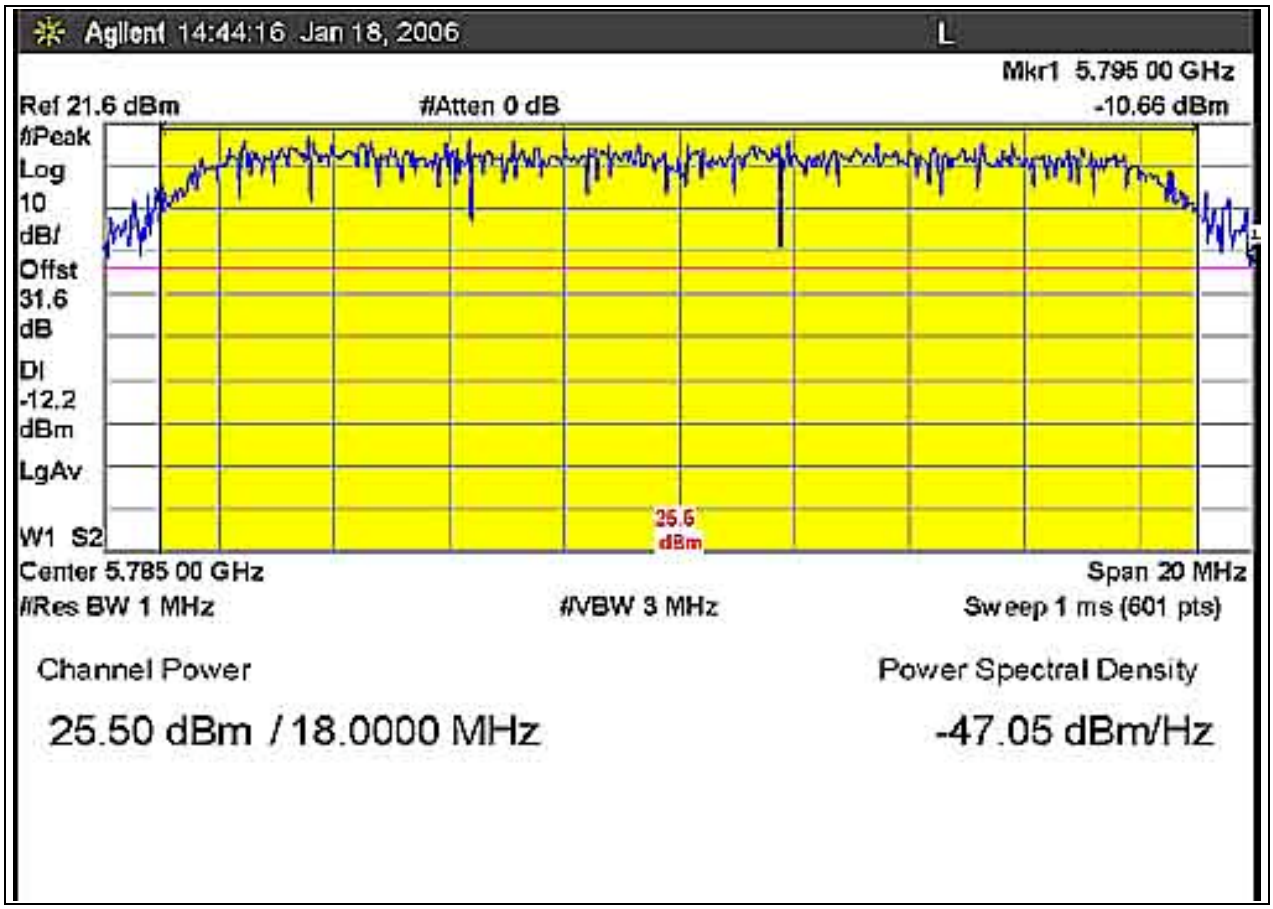
The 18.000 MHz number comes from the previous modular testing.

FCC 15.247(b)(3) RF POWER OUTPUT- 58-LB-17S 5745 MHz



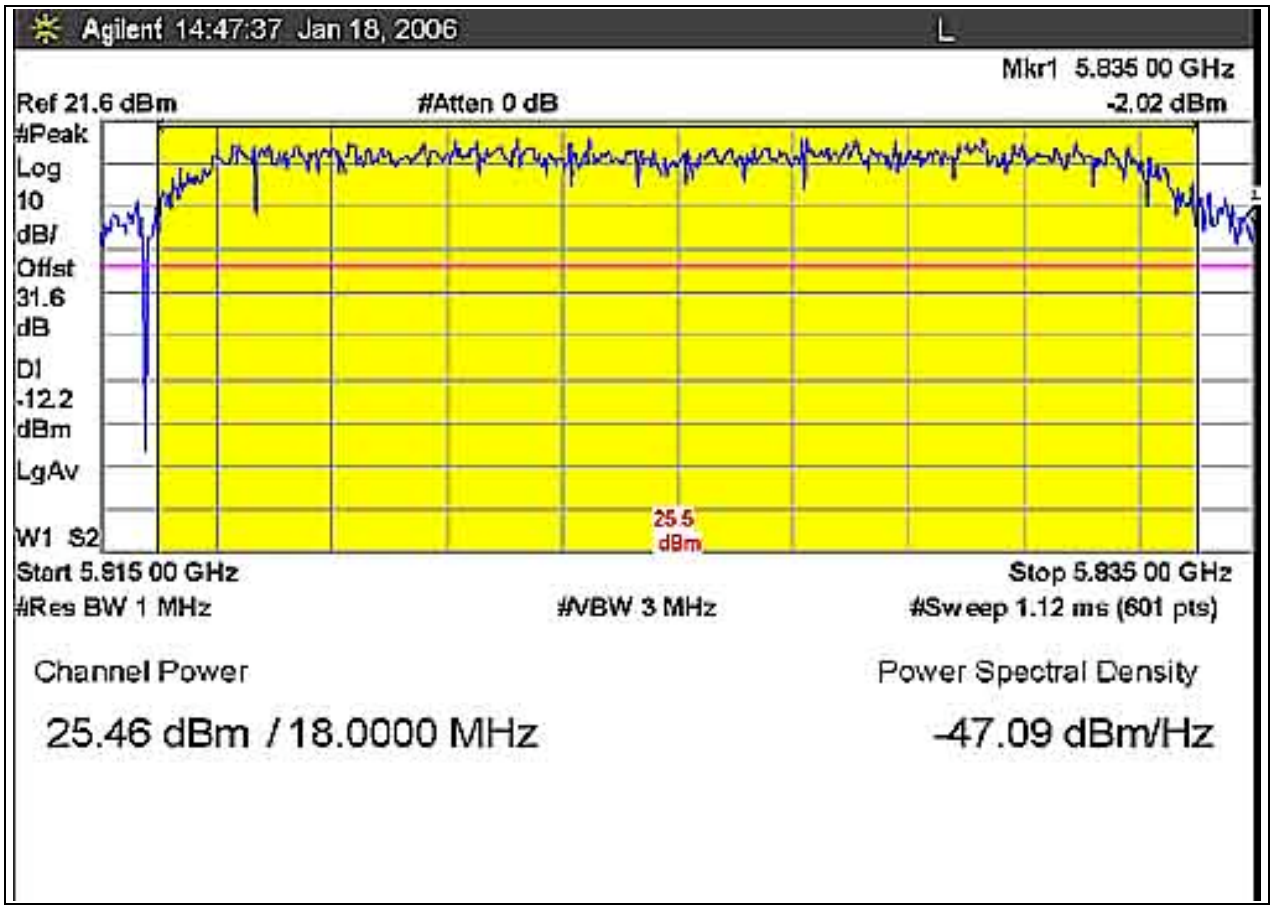
The 18.000 MHz number comes from the previous modular testing.

FCC 15.247(b)(3) RF POWER OUTPUT- 58-LB-17S 5785 MHz



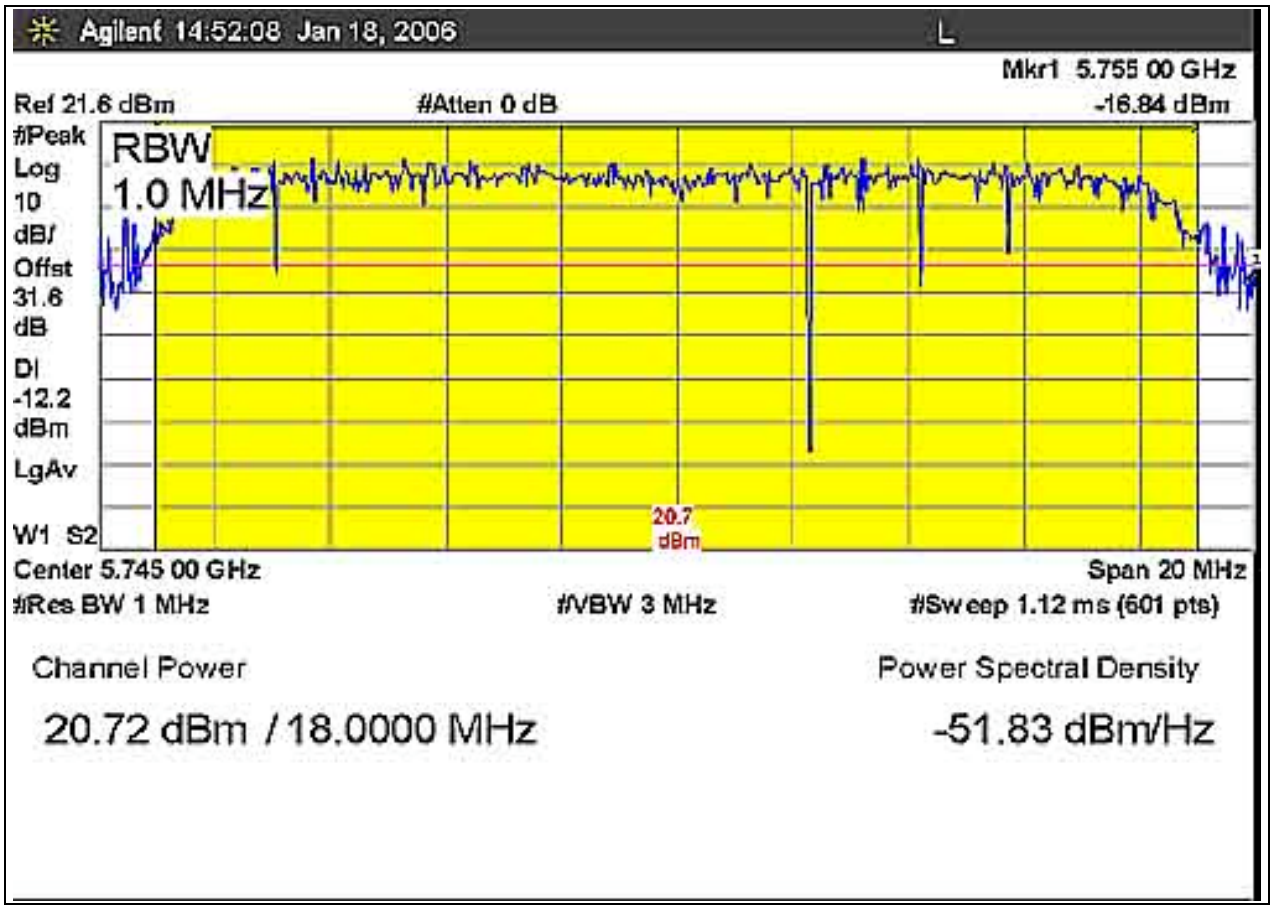
The 18.000 MHz number comes from the previous modular testing.

FCC 15.247(b)(3) RF POWER OUTPUT- 58-LB-17S 5825 MHz



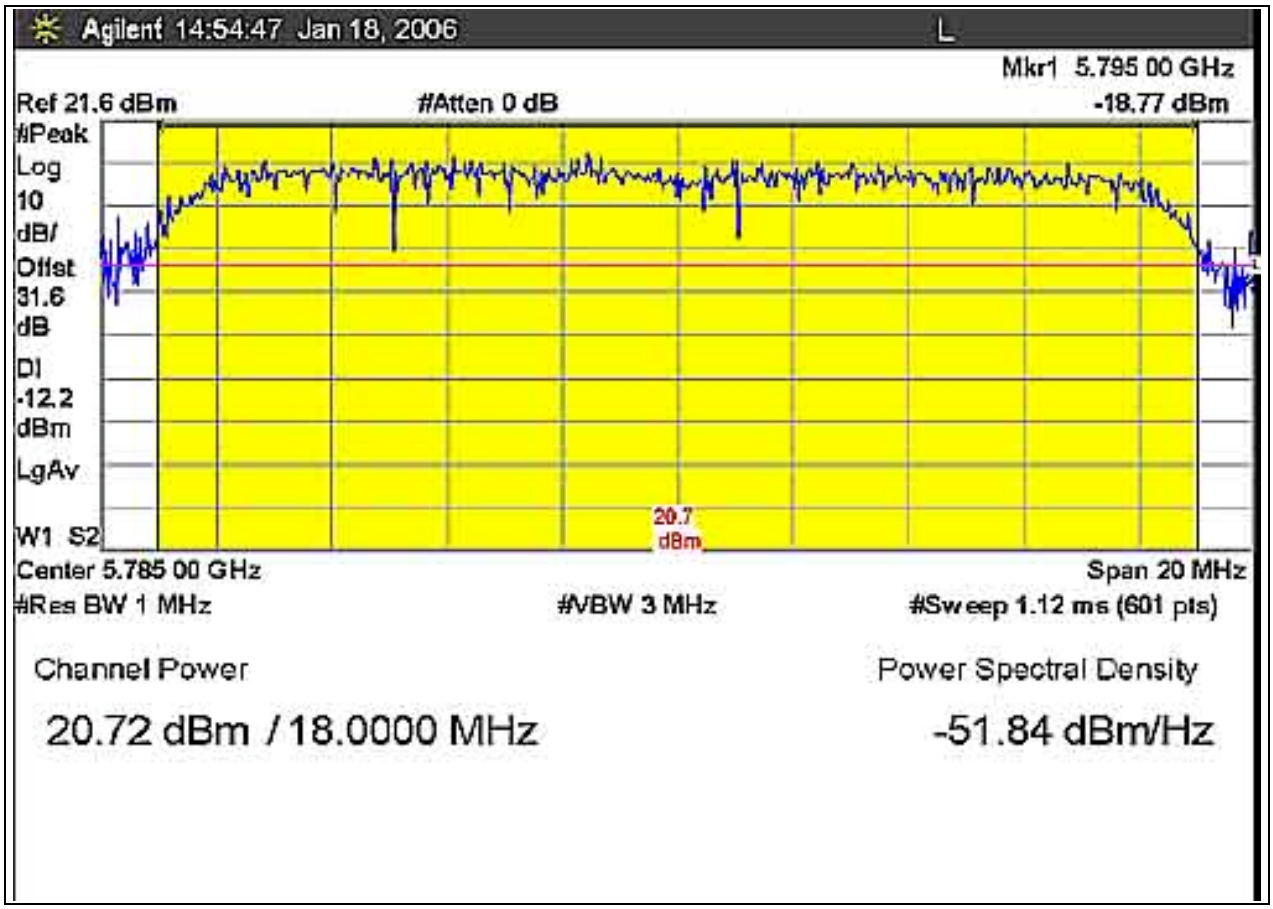
The 18.000 MHz number comes from the previous modular testing.

FCC 15.247(b)(3) RF POWER OUTPUT - 58-LB-15O 5745 MHz



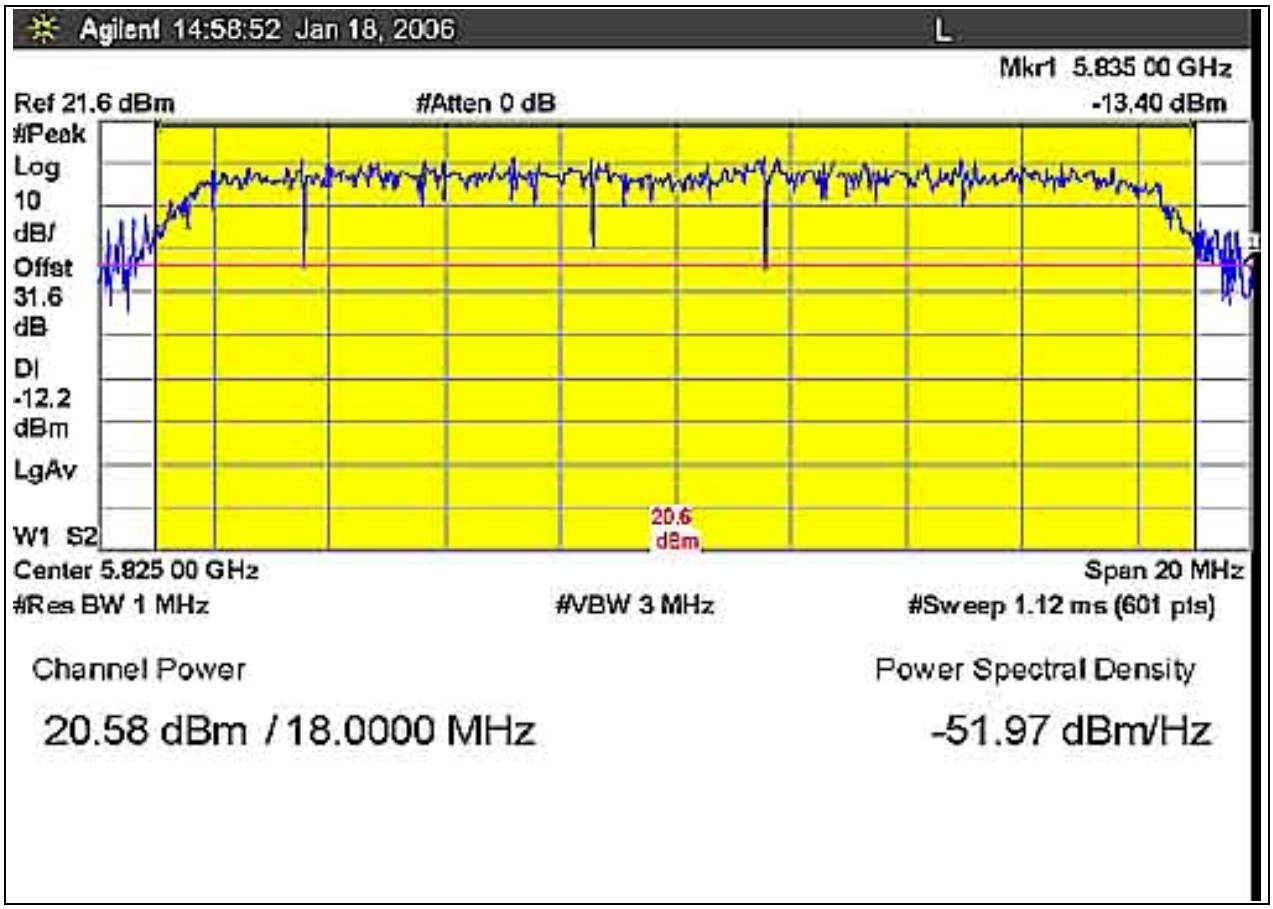
The 18.000 MHz number comes from the previous modular testing.

FCC 15.247(b)(3) RF POWER OUTPUT - 58-LB-15O 5785 MHz



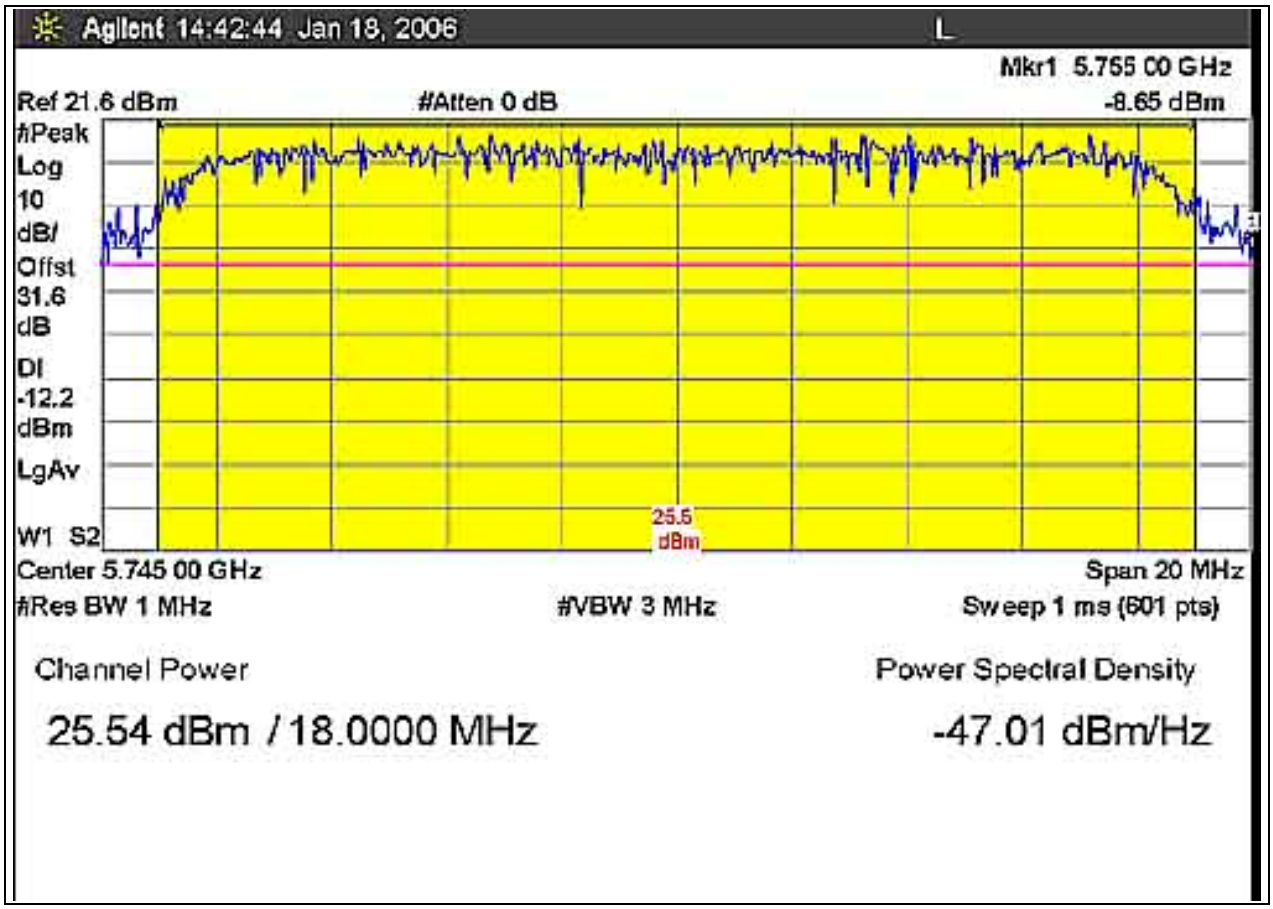
The 18.000 MHz number comes from the previous modular testing.

FCC 15.247(b)(3) RF POWER OUTPUT - 58-LB-15O 5825 MHz



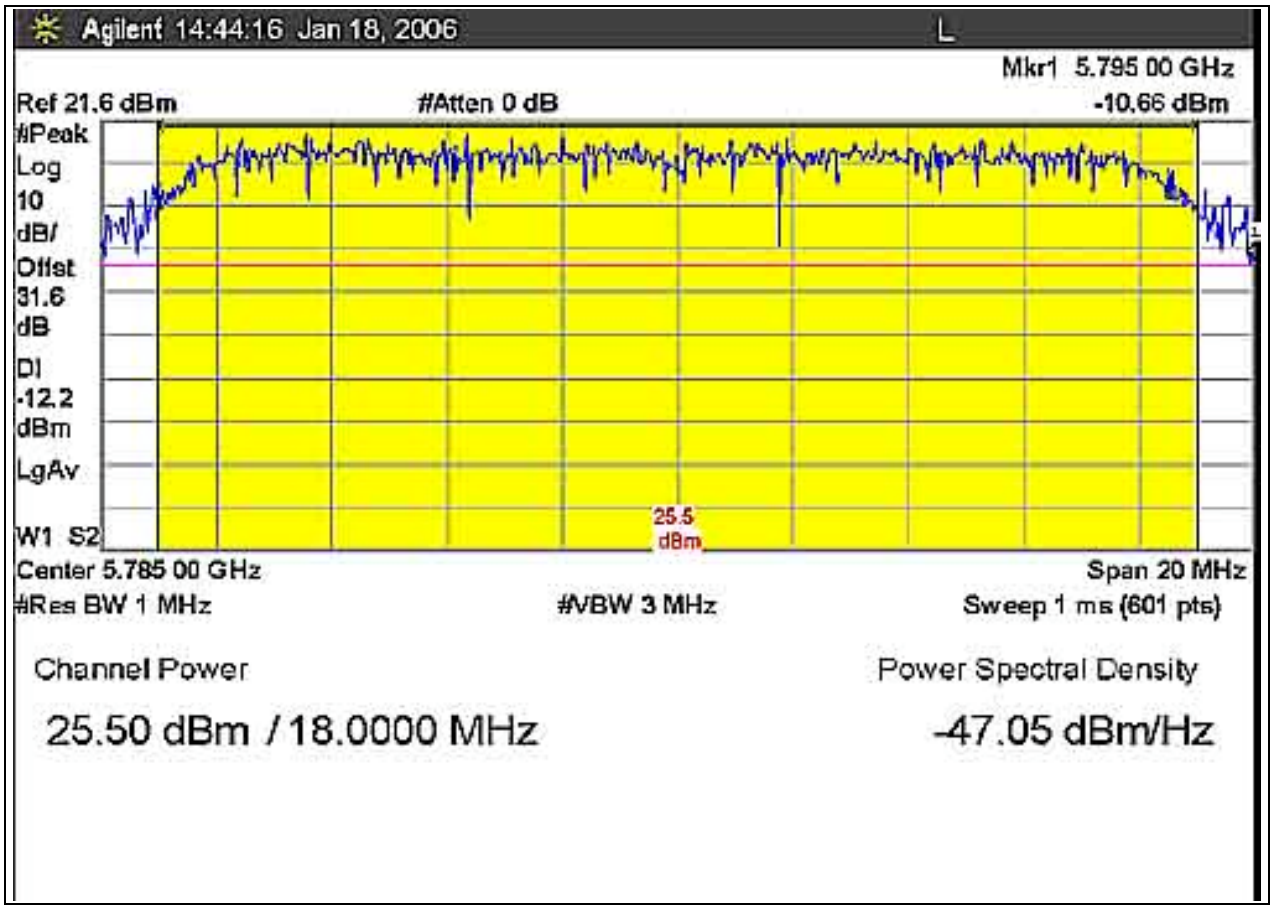
The 18.000 MHz number comes from the previous modular testing.

FCC 15.247(b)(3) RF POWER OUTPUT - 58-LB-32D 5745 MHz



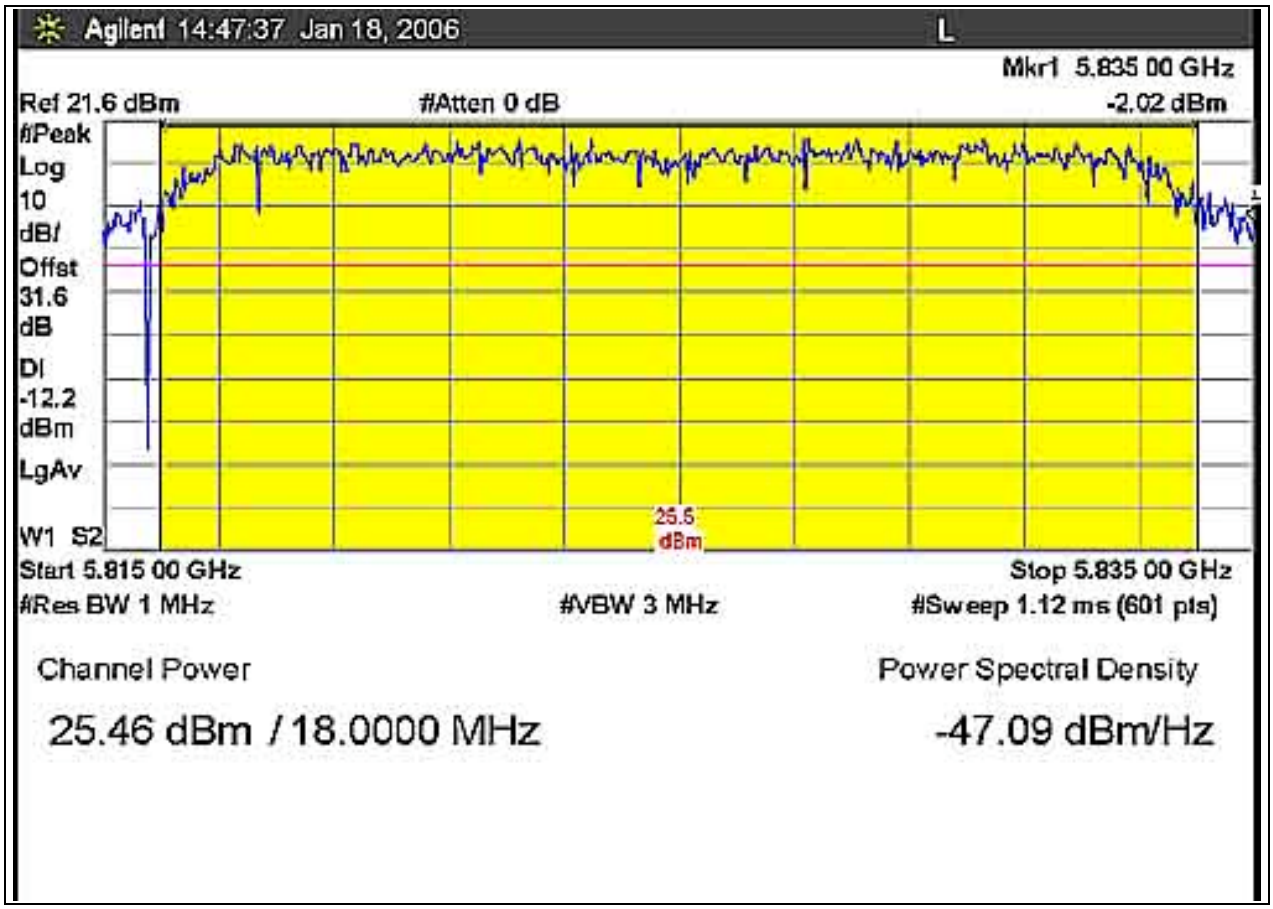
The 18.000 MHz number comes from the previous modular testing.

FCC 15.247(b)(3) RF POWER OUTPUT - 58-LB-32D 5785 MHz



The 18.000 MHz number comes from the previous modular testing.

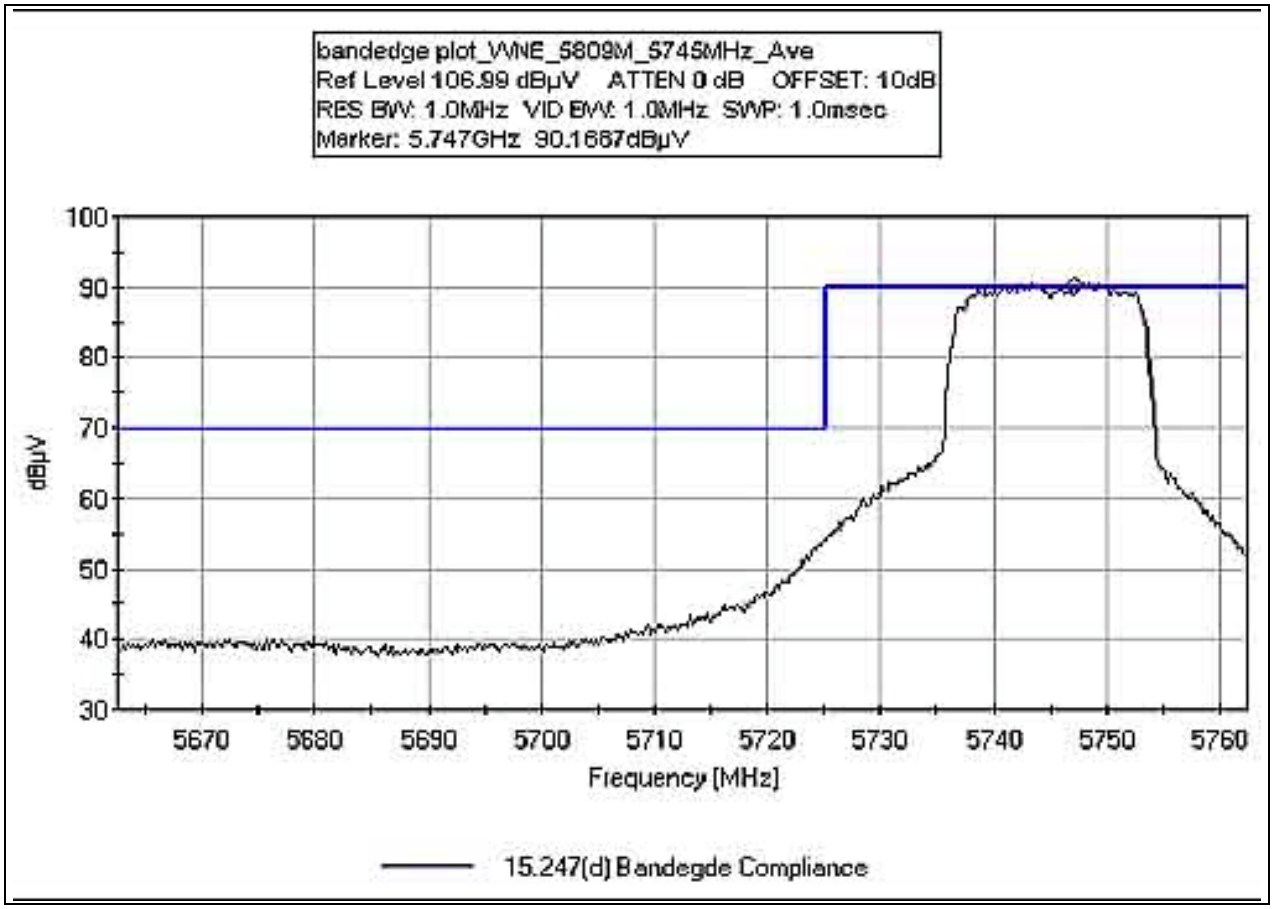
FCC 15.247(b)(3) RF POWER OUTPUT - 58-LB-32D 5825 MHz



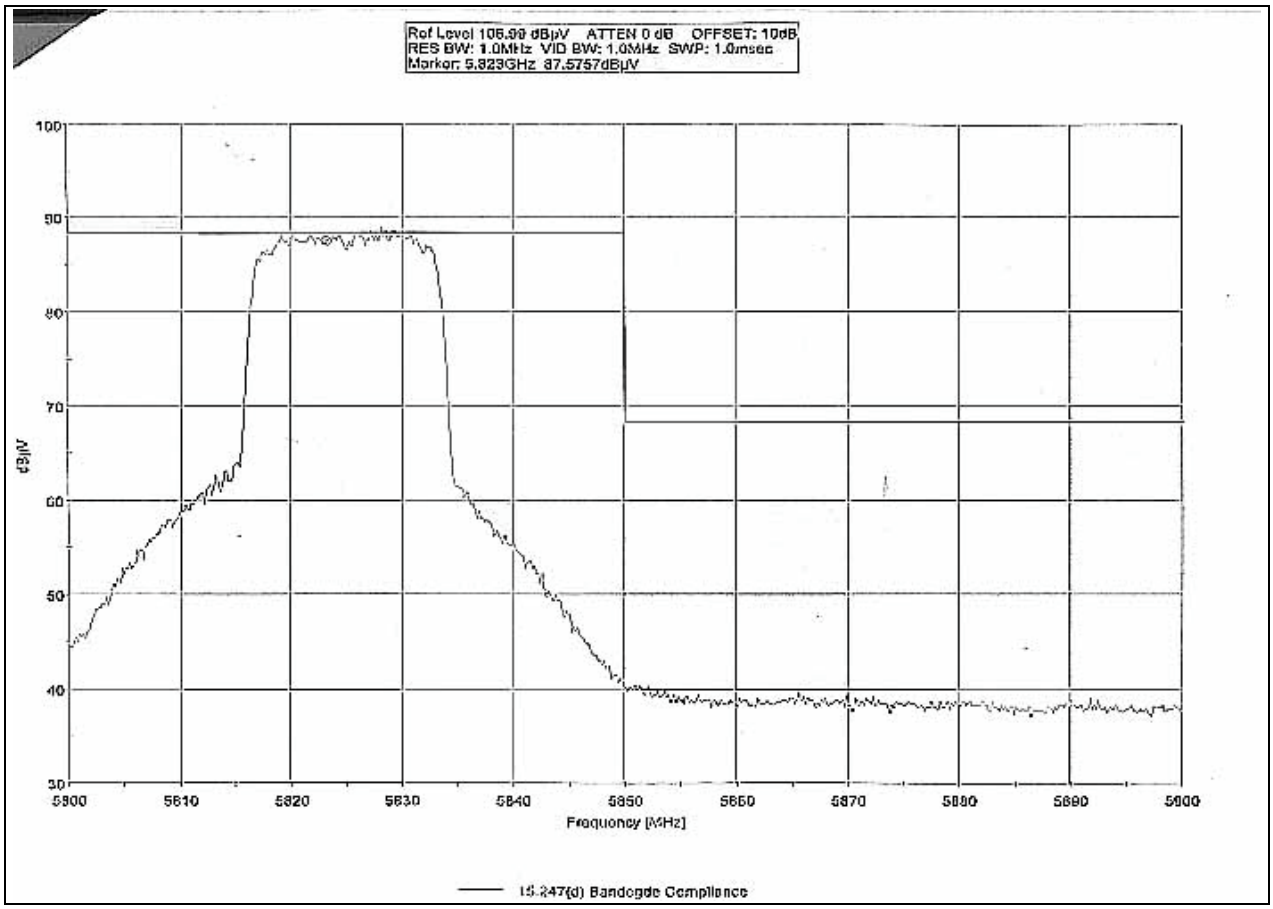
The 18.000 MHz number comes from the previous modular testing.

FCC 15.247(d) BANDEDGE - 58-LB-09M 5745 MHz

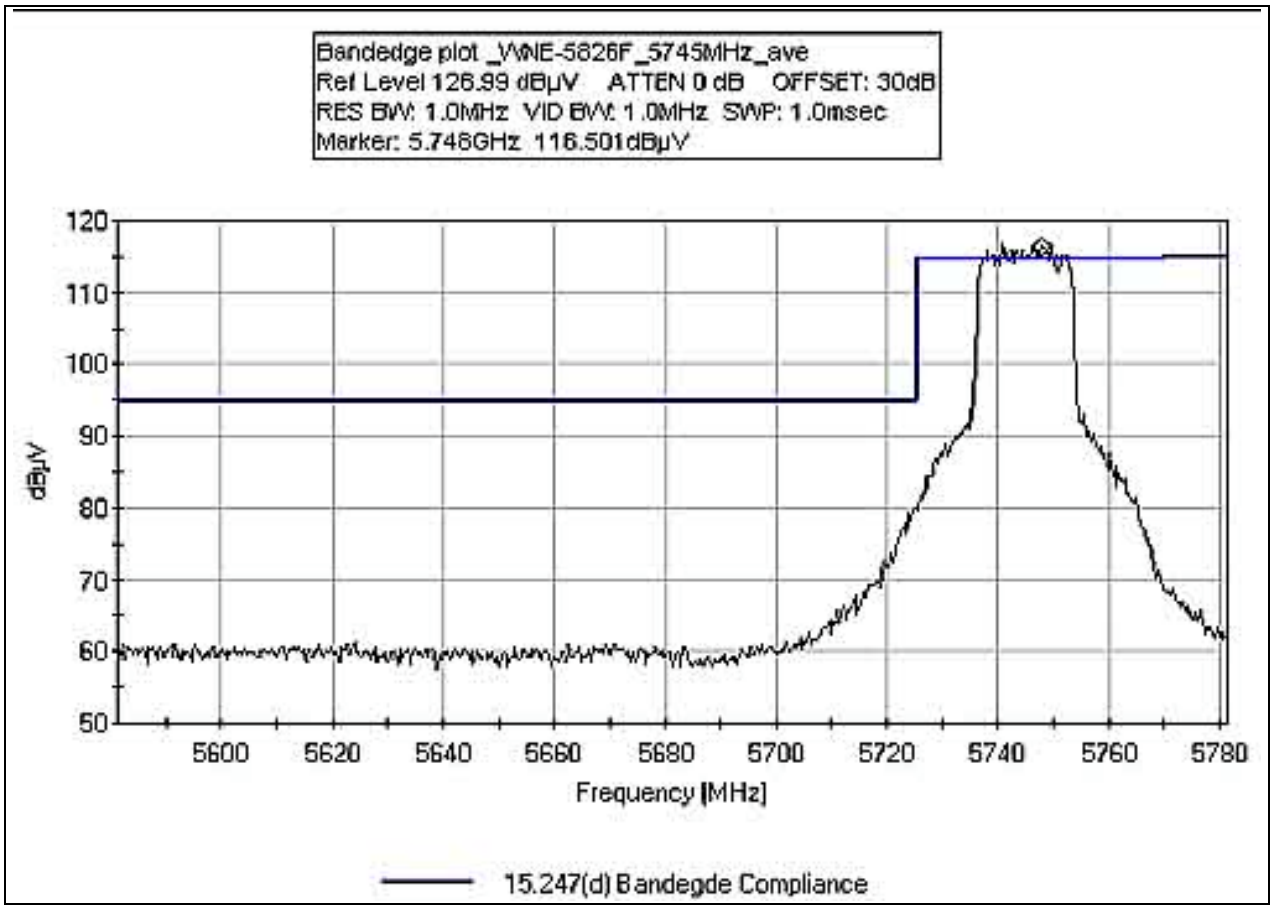
Test Conditions: Radiated field strength, Bandedge plot are performed on Open Area test site, 3 meter test distance.



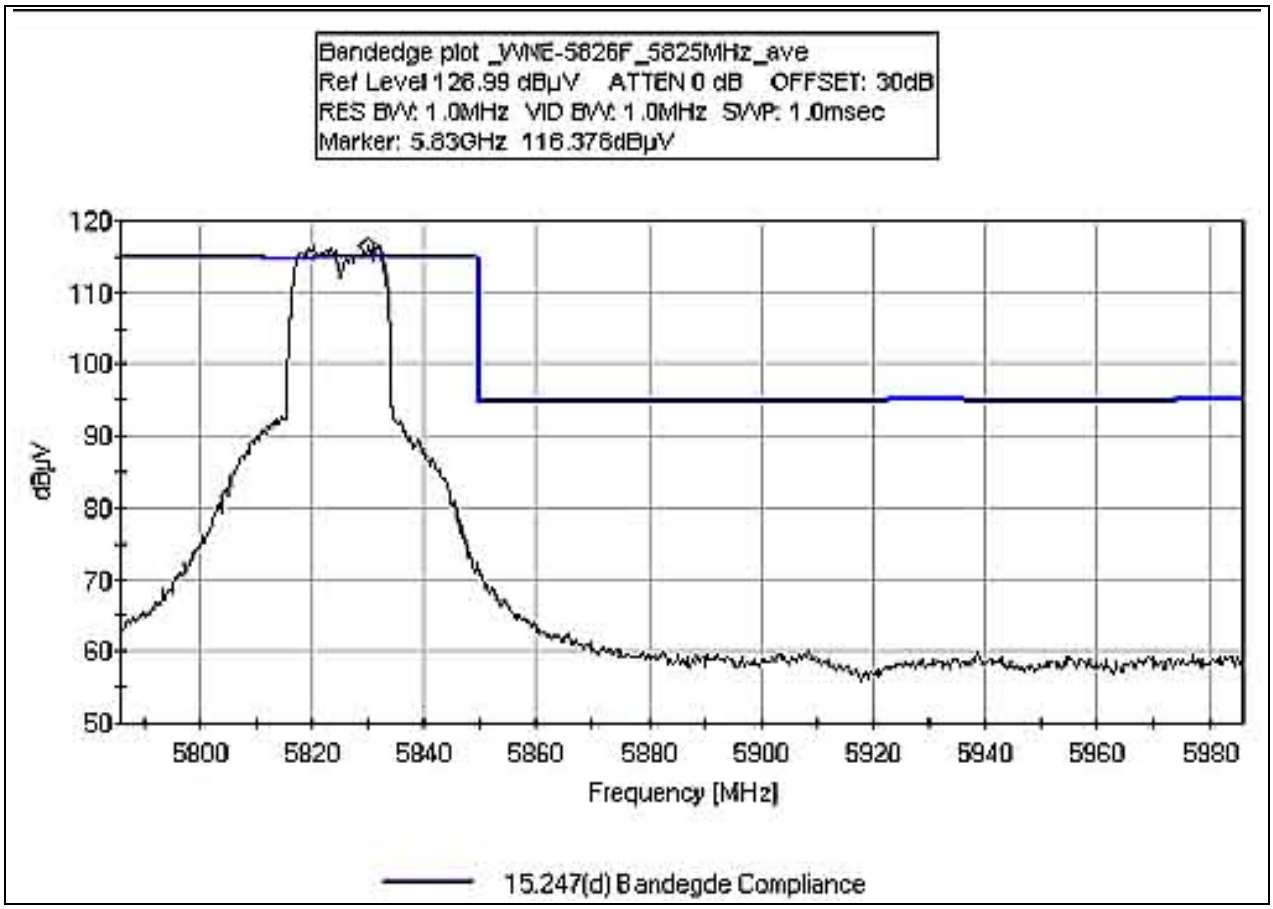
FCC 15.247(d) BANDEDGE - 58-LB-09M 5825 MHz



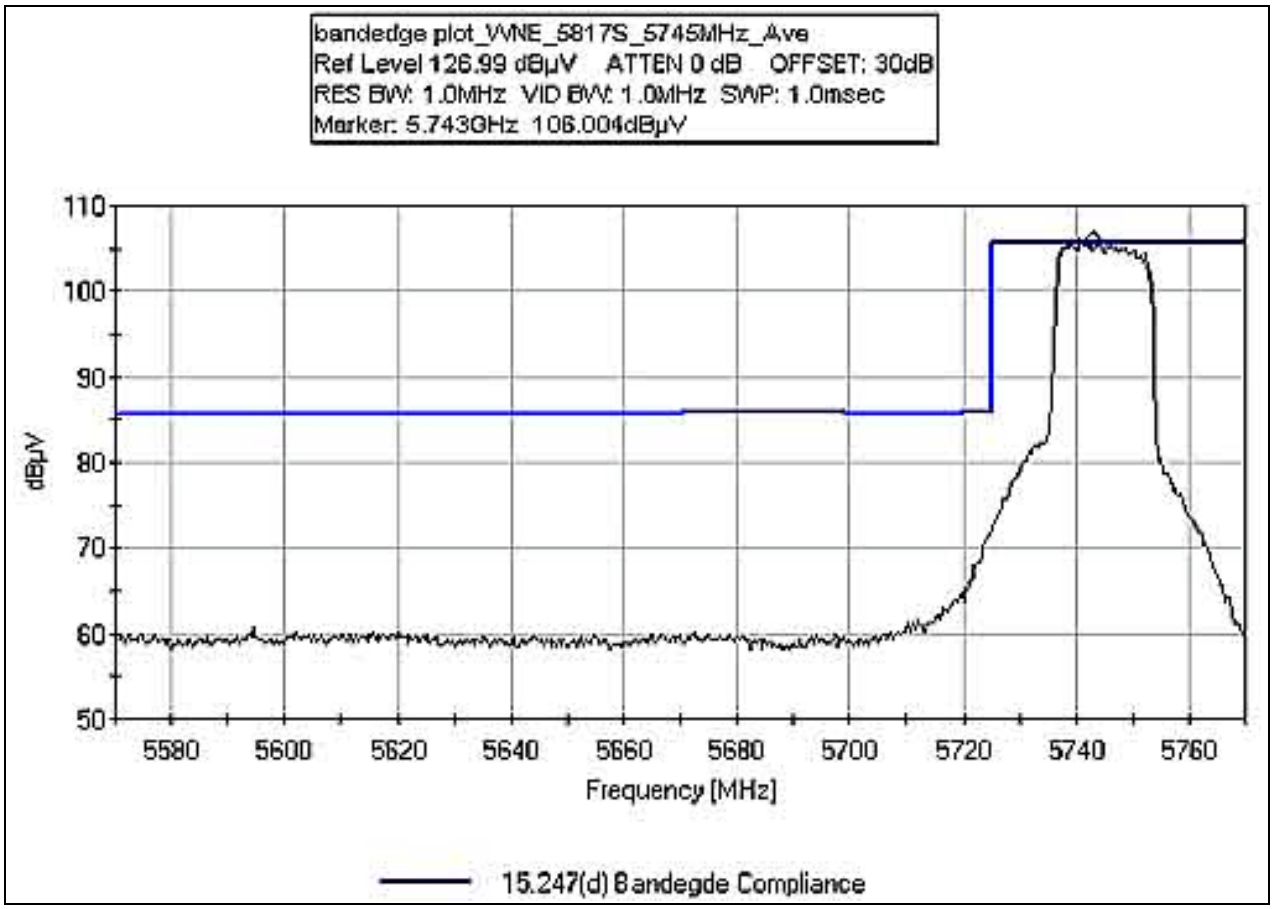
FCC 15.247(d) BANDEDGE - 58-AE-26F 5745 MHz



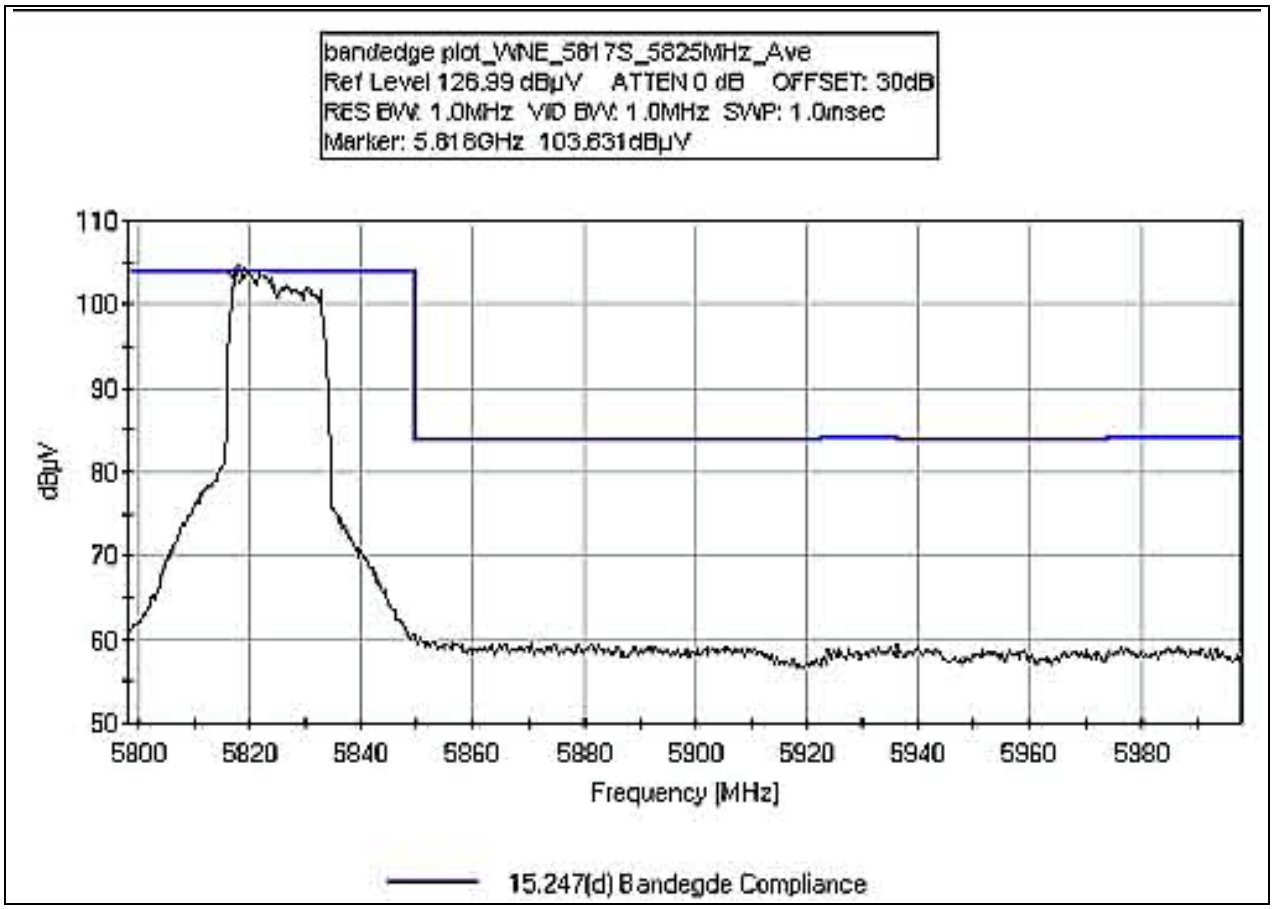
FCC 15.247(d) BANDEDGE - 58-AE-26F 5825 MHz



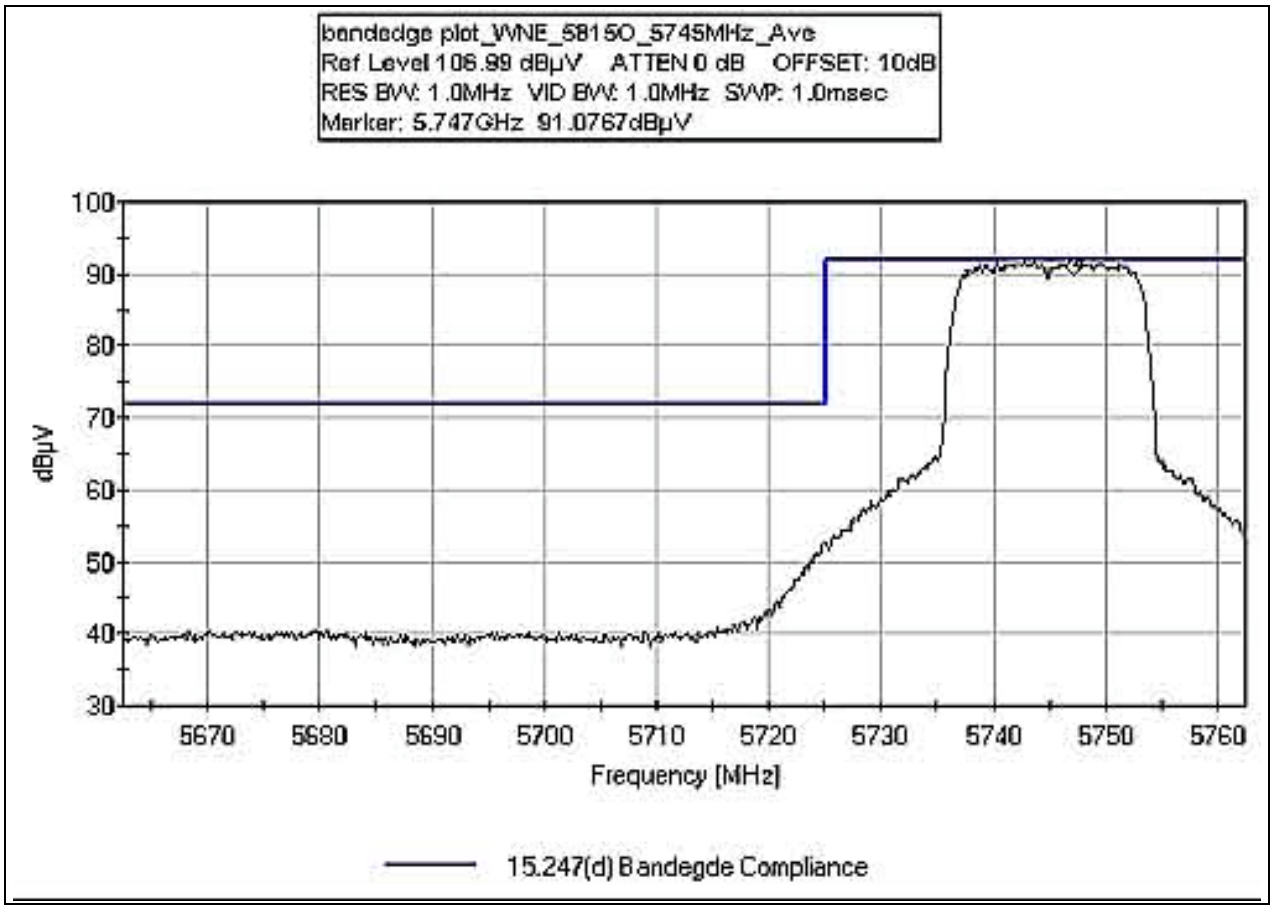
FCC 15.247(d) BANDEDGE - 58-LB-17S 5745 MHz



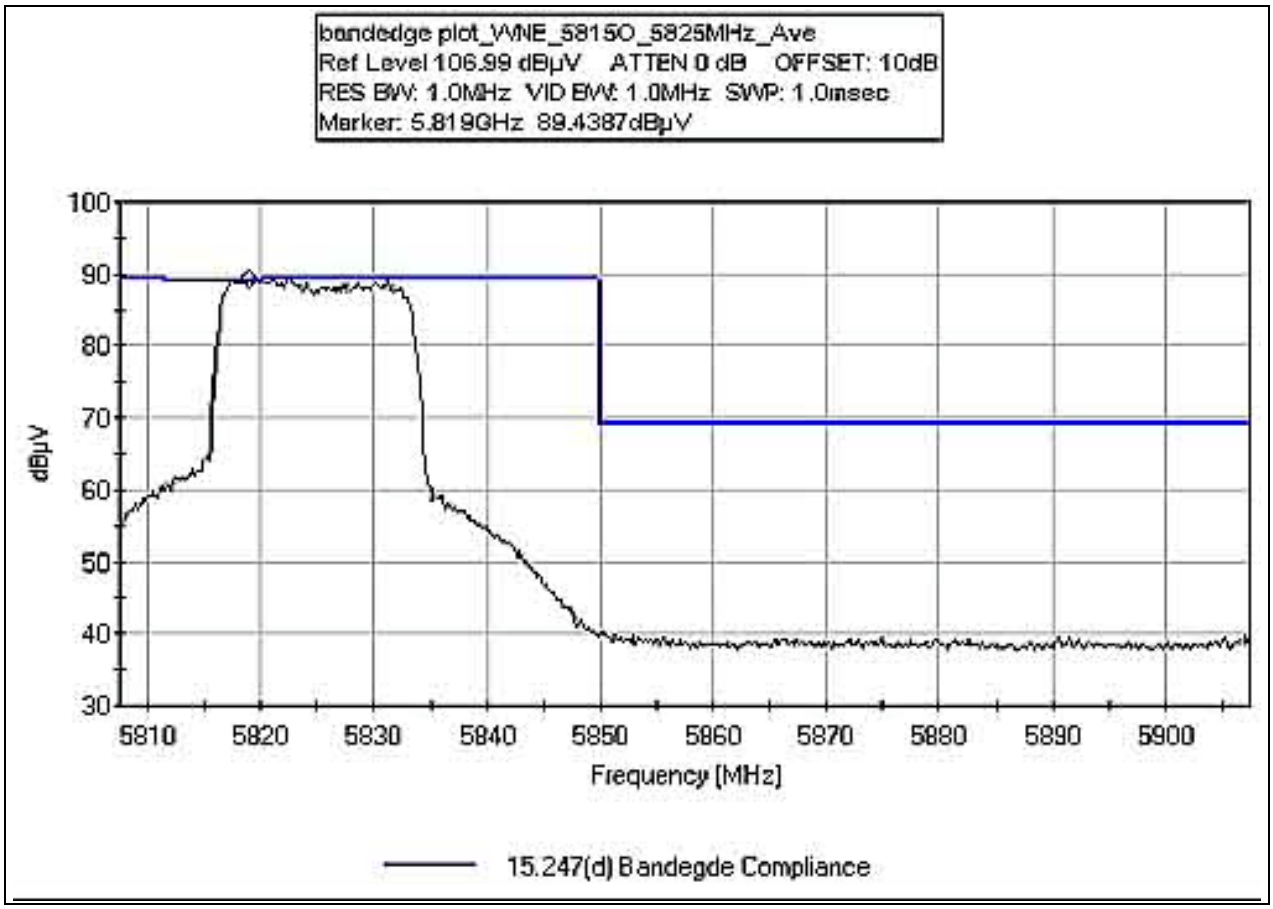
FCC 15.247(d) BANDEDGE - 58-LB-17S 5825 MHz



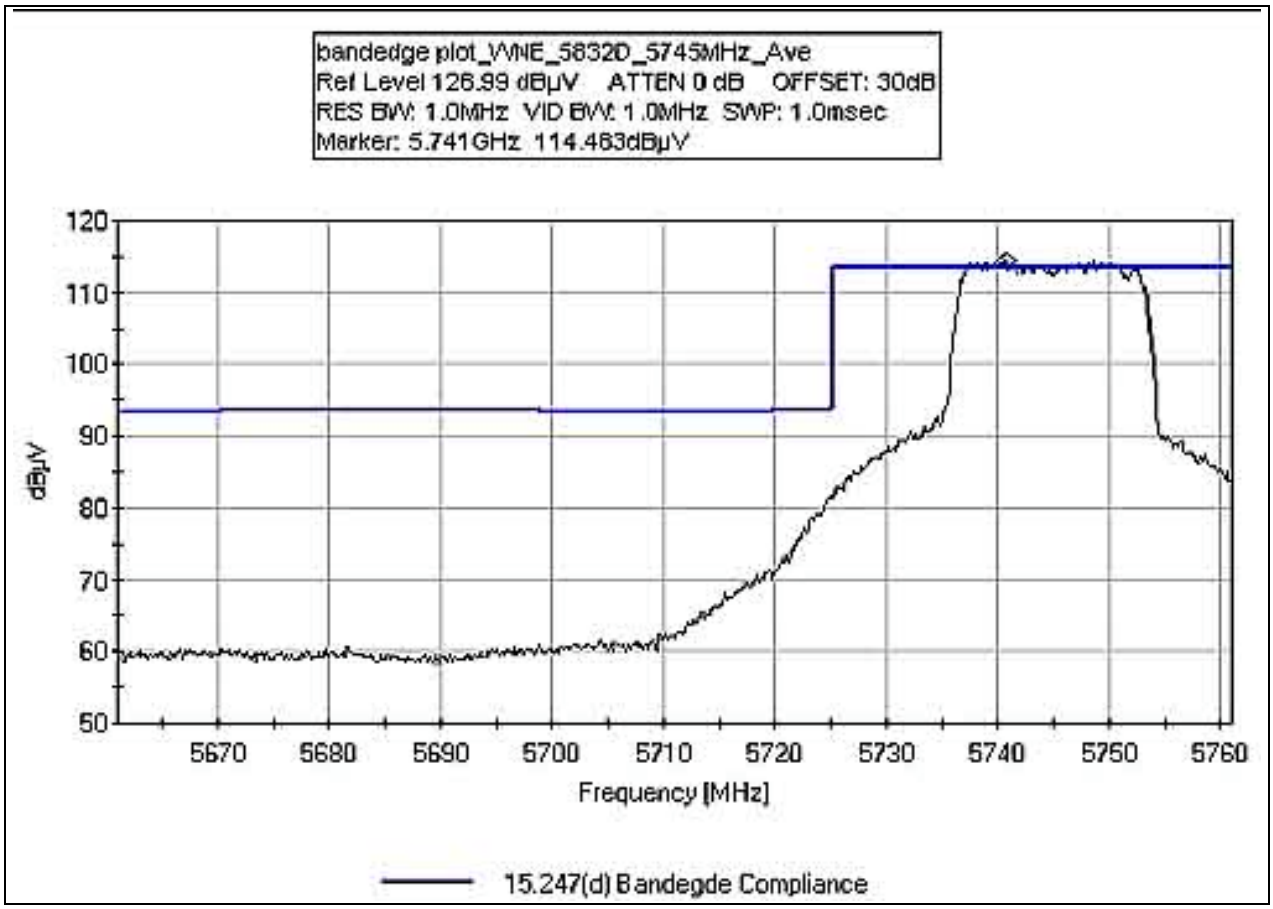
FCC 15.247(d) BANDEDGE - 58-LB-15O 5745 MHz



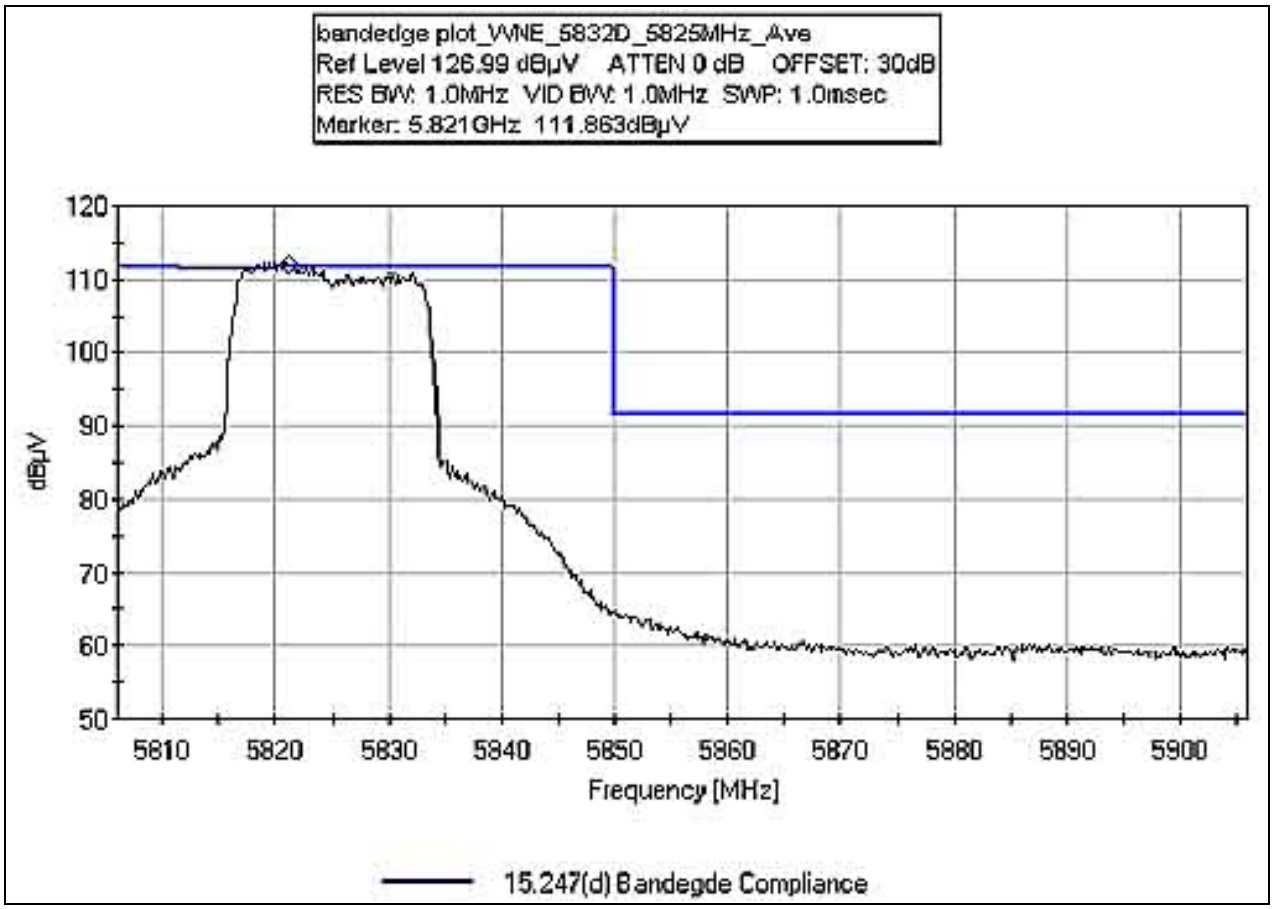
FCC 15.247(d) BANDEDGE - 58-LB-15O 5825 MHz



FCC 15.247(d) BANDEDGE - 58-LB-32D 5745 MHz



FCC 15.247(d) BANDEDGE - 58-LB-32D 5825 MHz



TEMPERATURE AND HUMIDITY DURING TESTING

The temperature during testing was within +15°C and + 35°C.
The relative humidity was between 20% and 75%.

EUT SETUP

The equipment under test (EUT) was set up in a manner that represented its normal use, as shown in the photographs in Appendix A. Any special conditions required for the EUT to operate normally are identified in the comments that accompany the emissions tables. The corrected data was then compared to the applicable emission limits to determine compliance.

The cables were routed consistent with the typical application by varying the configuration of the test sample. Interface cables were connected to the available I/O ports of the test unit. The effect of varying the position of the cables was investigated to find the configuration that produced maximum emissions. I/O cables were of the type and length specified in the individual requirements. The length of cable that produced maximum emissions was selected.

The radiated and conducted emissions data of the EUT was taken with the HP Spectrum Analyzer. Incorporating the applicable correction factors for distance, antenna, cable loss and amplifier gain, the data was reduced as shown in Table A.

Preliminary and final measurements were taken in order to ensure that all emissions from the EUT were found and maximized.

CORRECTION FACTORS

The basic spectrum analyzer reading was converted using correction factors as shown in the highest emissions readings in the tables. For radiated emissions in dBµV/m, the spectrum analyzer reading in dBµV was corrected by using the following formula in Table A. This reading was then compared to the applicable specification limit to determine compliance.

TABLE A: SAMPLE CALCULATIONS		
	Meter reading	(dBµV)
+	Antenna Factor	(dB)
+	Cable Loss	(dB)
-	Distance Correction	(dB)
-	Preamplifier Gain	(dB)
=	Corrected Reading	(dBµV/m)

TEST INSTRUMENTATION AND ANALYZER SETTINGS

The test instrumentation and equipment listed in Table A were used to collect both the radiated and conducted emissions data for the EUT. For radiated measurements from 30 to 1000 MHz, the biconilog antenna was used. The horn antenna was used for frequencies above 1000 MHz. Conducted emissions tests required the use of the FCC type LISNs.

The HP spectrum analyzer was used for all measurements. Table B shows the analyzer bandwidth settings that were used in designated frequency bands. For conducted emissions, an appropriate reference level and a vertical scale size of 10 dB per division were used. A 10 dB external attenuator was also used during conducted tests, with internal offset correction in the analyzer. During radiated testing, the measurements were made with 0 dB of attenuation, a reference level of 97 dBµV, and a vertical scale of 10 dB per division.

SPECTRUM ANALYZER DETECTOR FUNCTIONS

The notes that accompany the measurements contained in the Tables indicate the type of detector function used to obtain the given readings. Unless otherwise noted, all readings were made in the "Peak" mode. Whenever a "Quasi-Peak" or "Average" reading is listed as one of the six highest readings, this is indicated as a "Q" or an "A" in the appropriate table. The following paragraphs describe in more detail the detector functions and when they were used to obtain the emissions data.

Peak

In this mode, the Spectrum Analyzer or test engineer recorded all emissions at their peak value as the frequency band selected was scanned. By combining this function with another feature of the analyzer called "peak hold," the analyzer had the ability to measure transients or low duty cycle transient emission peak levels. In this mode the analyzer made a slow scan across the frequency band selected and measured the peak emission value found at each frequency across the band.

Quasi-Peak

When the true peak values exceeded or were within 2 dB of the specification limit, quasi-peak measurements were taken using the HP Quasi-Peak Adapter for the HP Spectrum Analyzer. The detailed procedure for making quasi peak measurements contained in the HP Quasi-Peak Adapter manual were followed.

Average

For certain frequencies, average measurements may be made using the spectrum analyzer. To make these measurements, the test engineer reduces the video bandwidth on the analyzer until the modulation of the signal is filtered out. At this point the analyzer is set into the linear mode and the scan time is reduced.

EUT TESTING

Mains Conducted Emissions

During conducted emissions testing, the EUT was located on a non-conductive pole (mounted on a wooden pedestal) approximately 80 cm high from the conductive plane and 80 cm away from any other conductive surface. One wall of the room where the EUT was located has a minimum 2 meter by 2 meter conductive plane.

The vertical metal plane used for conducted emissions was grounded to the earth. Power to the EUT was provided through a LISN. The LISN was grounded to the ground plane. All other objects were kept a minimum of 80 cm away from the EUT during the conducted test.

The LISNs used were 50 µH-/+50 ohms. A 30 to 50 second sweep time was used for automated measurements in the frequency bands of 150 kHz to 500 kHz, and 500 kHz to 30 MHz. All readings within 20 dB of the limit were recorded, and those within 6 dB of the limit were examined with additional measurements using a slower sweep time.

Antenna Conducted Emissions

For measuring the signal strength on the RF output port of the EUT, the spectrum analyzer was connected directly to the EUT. The sweep time of the analyzer was adjusted so that the spectrum analyzer readings were always in a calibrated range. All readings within 20 dB of the limit were recorded.

Radiated Emissions

The EUT was mounted on a nonconductive pole 80 cm above the conductive grid.

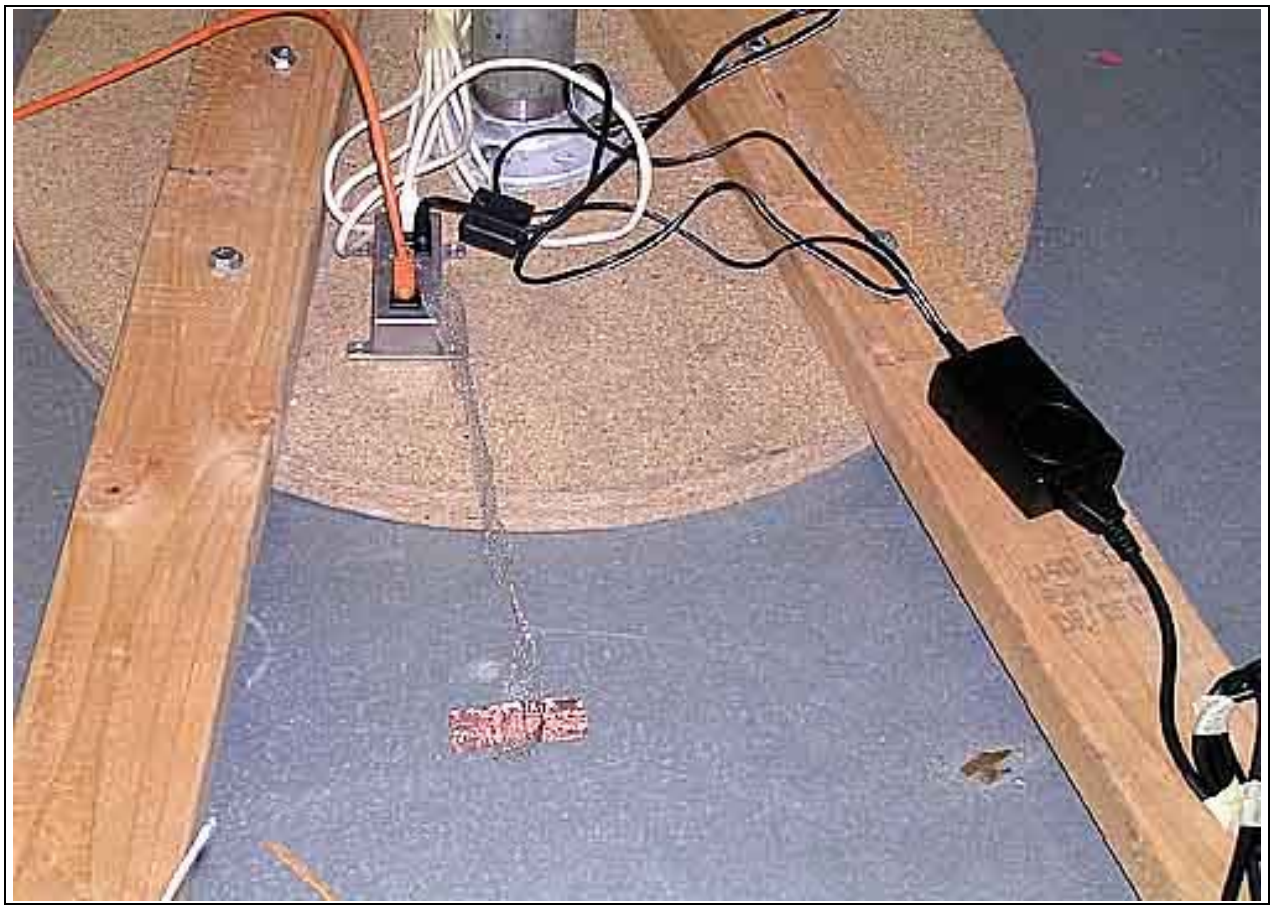
During the preliminary radiated scan, the EUT was powered up and operating in its defined FCC test mode. The frequency range of 30 MHz to 1000 MHz was scanned with the biconilog antenna located about 1.5 meter above the ground plane in the vertical polarity. During this scan, the turntable was rotated and all peaks at or near the limit were recorded. A scan of the FM band from 88 to 110 MHz was then made using a reduced resolution bandwidth and frequency span. The biconilog antenna was changed to the horizontal polarity and the above steps were repeated. For frequencies exceeding 1000 MHz, the horn antenna was used. Care was taken to ensure that no frequencies were missed within the FM and TV bands. An analysis was performed to determine if the signals that were at or near the limit were caused by an ambient transmission. If unable to determine by analysis, the equipment was powered down to make the final determination if the EUT was the source of the emission.

A thorough scan of all frequencies was made manually using a small frequency span, rotating the turntable and raising and lowering the antenna from one to four meters as needed. The test engineer maximized the readings with respect to the table rotation, antenna height and configuration of EUT. Maximizing of the EUT was achieved by monitoring the spectrum analyzer on a closed circuit television monitor.

APPENDIX A

TEST SETUP PHOTOGRAPHS

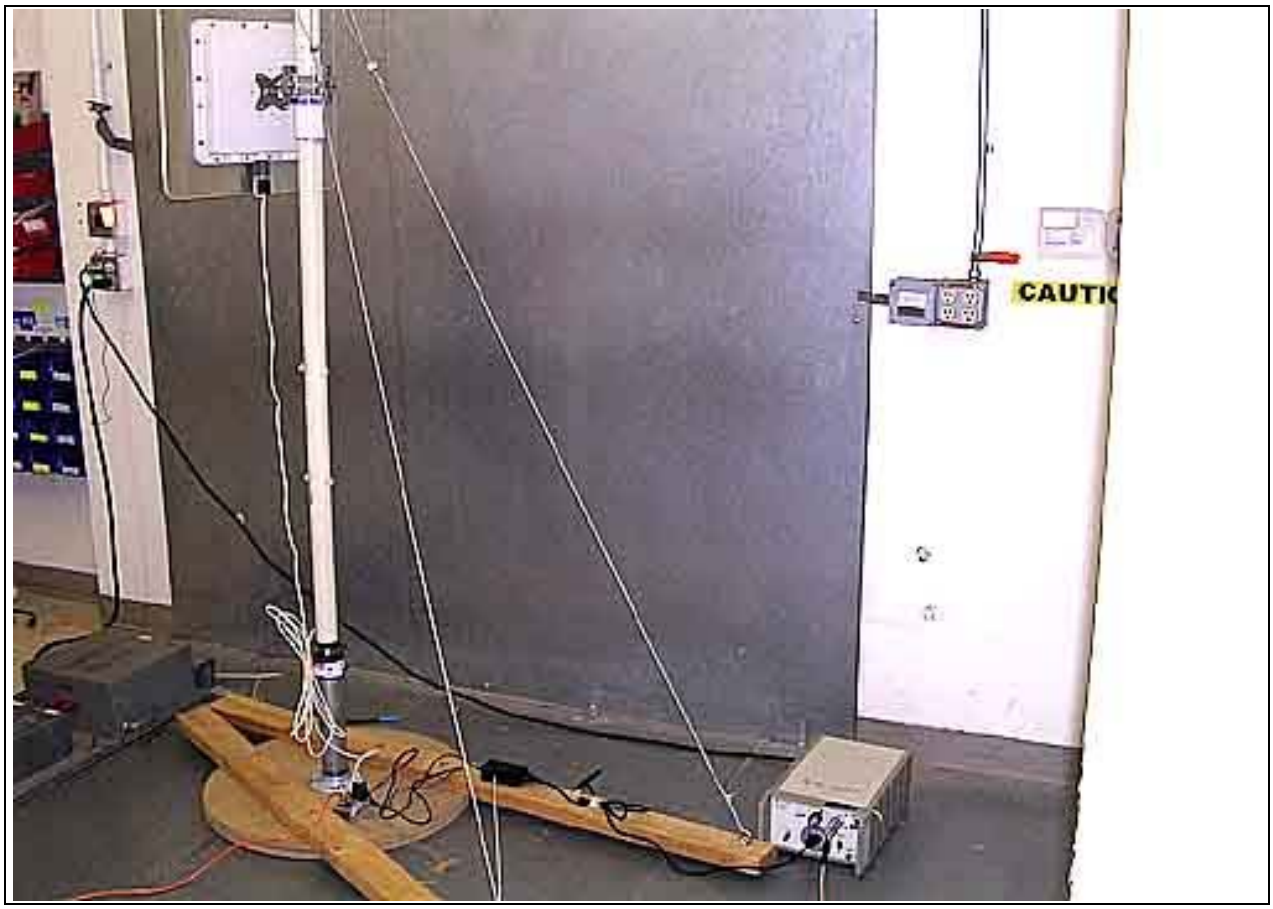
PHOTOGRAPH SHOWING GROUNDING



PHOTOGRAPH SHOWING MAINS CONDUCTED EMISSIONS

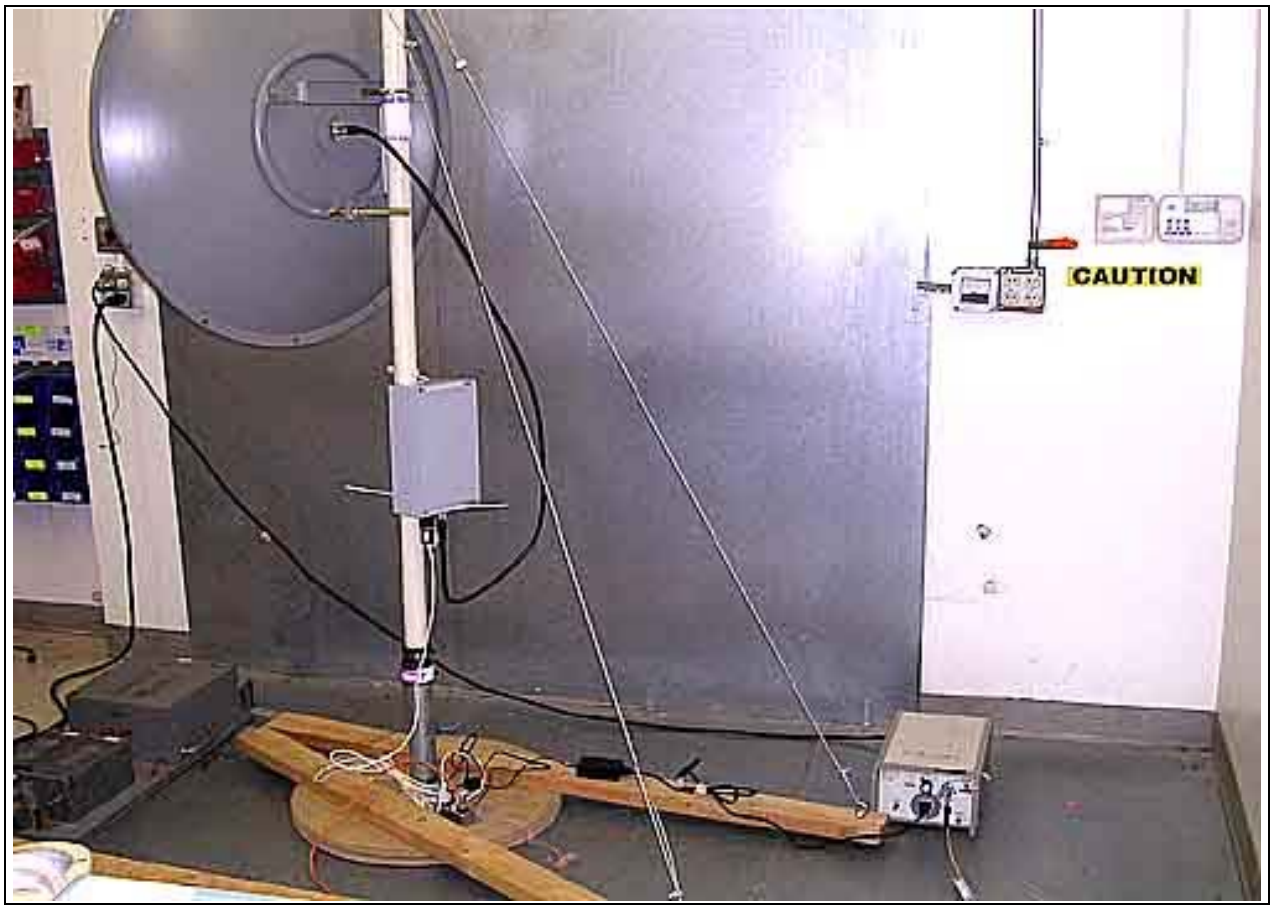
FCC 15.107 Mains Conducted Emissions - Front View - 58-AE-26F

PHOTOGRAPH SHOWING MAINS CONDUCTED EMISSIONS



FCC 15.107 Mains Conducted Emissions - Back View - 58-AE-26F

PHOTOGRAPH SHOWING MAINS CONDUCTED EMISSIONS

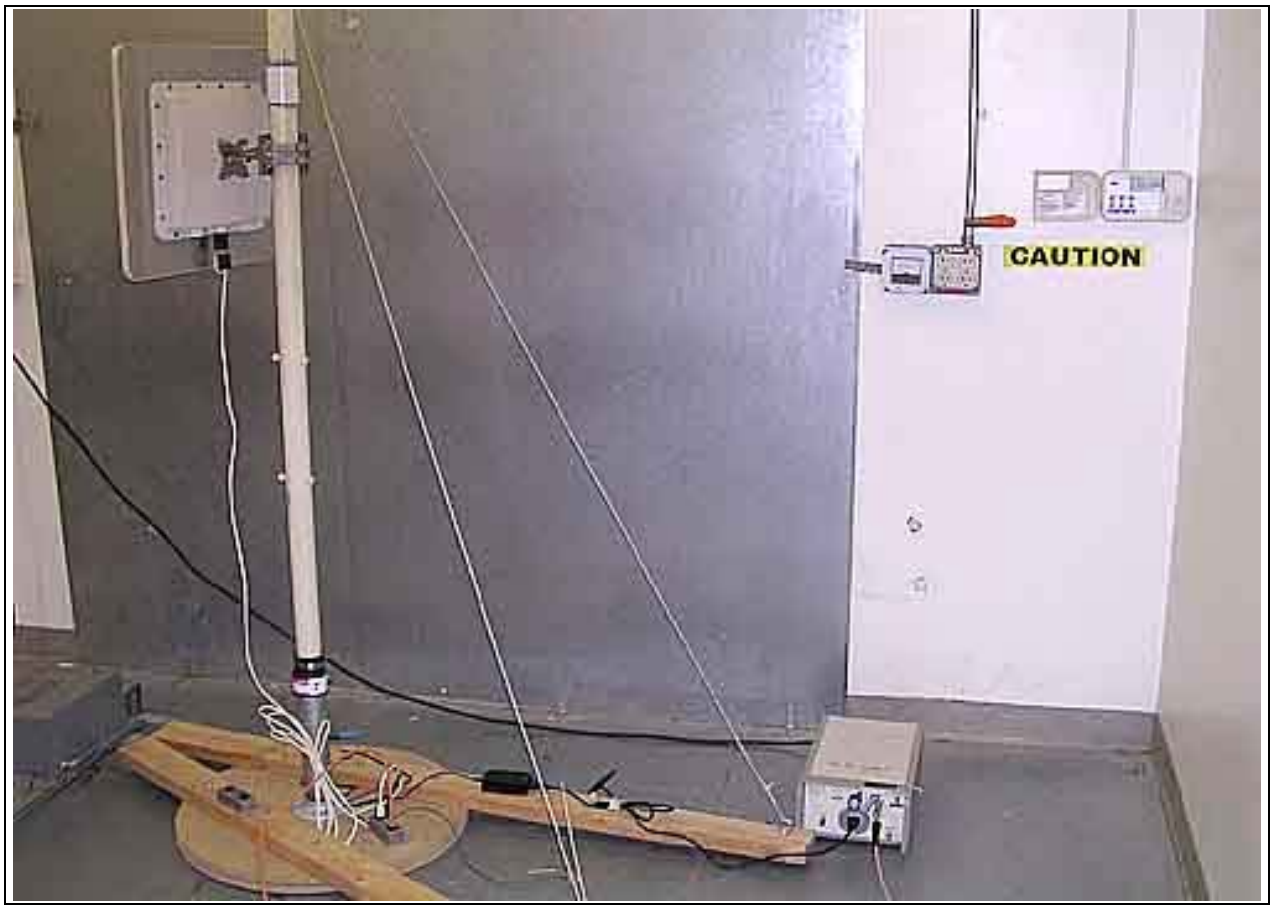


FCC 15.107 Mains Conducted Emissions - Front View - 58-LB-32D

PHOTOGRAPH SHOWING MAINS CONDUCTED EMISSIONS

FCC 15.107 Mains Conducted Emissions - Back View - 58-LB-32D

PHOTOGRAPH SHOWING MAINS CONDUCTED EMISSIONS



Mains Conducted Emissions - Front View - 58-AE-26F

PHOTOGRAPH SHOWING MAINS CONDUCTED EMISSIONS

Mains Conducted Emissions - Back View - 58-AE-26F

PHOTOGRAPH SHOWING RADIATED EMISSIONS

FCC 15.109 Radiated Emissions - Front View - 58-AE-26F

PHOTOGRAPH SHOWING RADIATED EMISSIONS

FCC 15.109 Radiated Emissions - Back View - 58-AE-26F

PHOTOGRAPH SHOWING RADIATED EMISSIONS

FCC 15.109 Radiated Emissions - Front View - 58-LB-32D

PHOTOGRAPH SHOWING RADIATED EMISSIONS

FCC 15.109 Radiated Emissions - Back View - 58-LB-32D

PHOTOGRAPH SHOWING RADIATED EMISSIONS

Radiated Emissions - Front View - 58-LB-09M

PHOTOGRAPH SHOWING RADIATED EMISSIONS

Radiated Emissions - Back View - 58-LB-09M

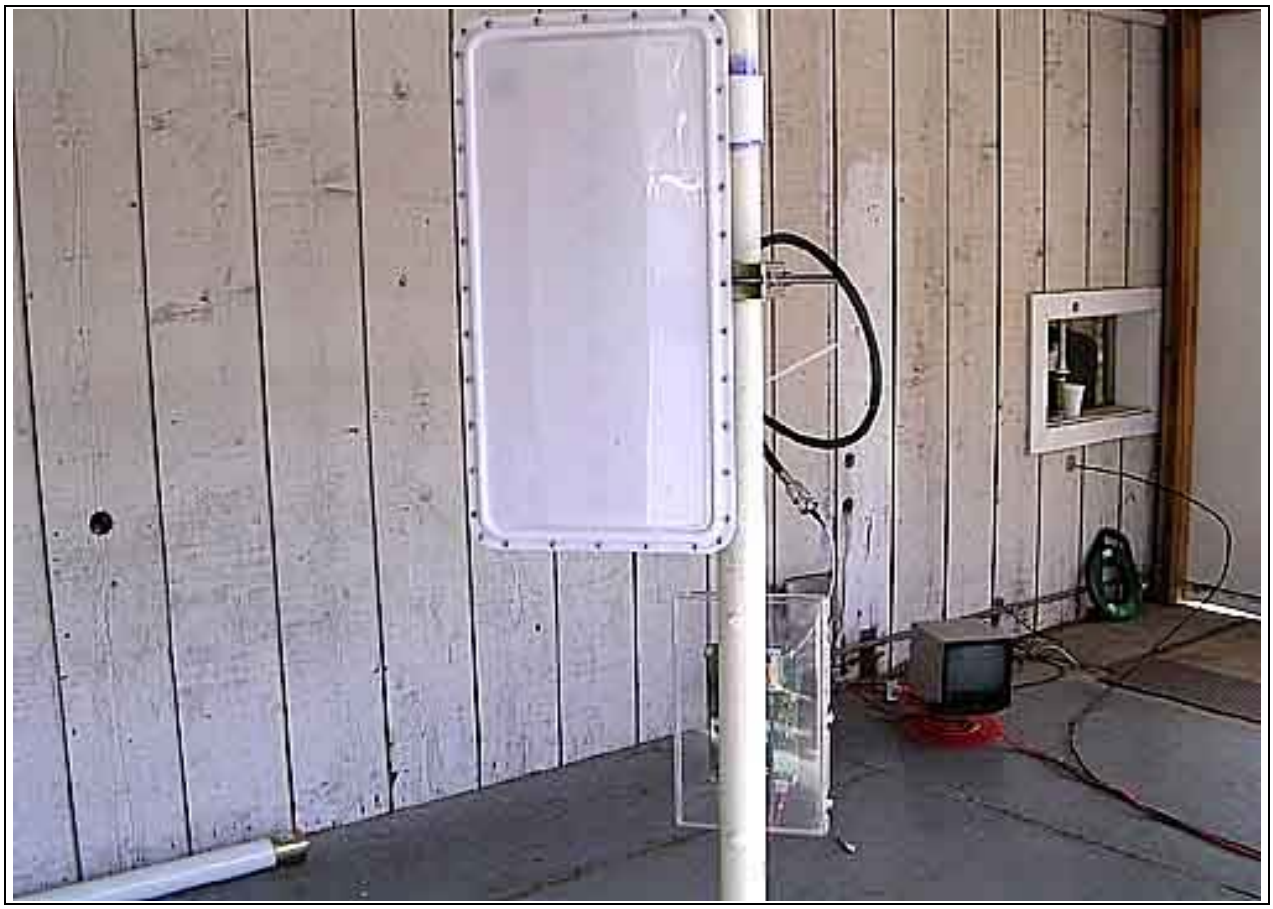
PHOTOGRAPH SHOWING RADIATED EMISSIONS

Radiated Emissions - Front View - 58-AE-26F

PHOTOGRAPH SHOWING RADIATED EMISSIONS

Radiated Emissions - Front View - 58-AE-26F

PHOTOGRAPH SHOWING RADIATED EMISSIONS



Radiated Emissions - Front View - 58-LB-17S

PHOTOGRAPH SHOWING RADIATED EMISSIONS

Radiated Emissions - Back View - 58-LB-17S

PHOTOGRAPH SHOWING RADIATED EMISSIONS

Radiated Emissions - Front View - 58-LB-15O

PHOTOGRAPH SHOWING RADIATED EMISSIONS

Radiated Emissions - Back View - 58-LB-15O

PHOTOGRAPH SHOWING RADIATED EMISSIONS

Radiated Emissions - Front View - 58-LB-32D

PHOTOGRAPH SHOWING RADIATED EMISSIONS

Radiated Emissions - Back View - 58-LB-32D

PHOTOGRAPH SHOWING DIRECT CONNECT TEST SETUP

58-LB-09M

APPENDIX B

TEST EQUIPMENT LIST

Conducted Emissions 15.107, 15.207

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer RF Section	02462	HP	8568B	2928A04874	100804	100806
Spectrum Analyzer Display Section	02472	HP	85662A	3001A18430	100804	100806
QP Adapter	01437	HP	85650A	3303A01884	100804	100806
Spectrum Analyzer	02672	Agilent	E4446A	US44300438	011405	011407
Conducted Cable	04358	Harbour Ind	RG142	Cable # 21	070204	070206
150kHZ HPF	02610	TTE	HB9615-150k-50-720	G7755	041606	041606
6dB Attenuator	P05267	Weinschel	18W	(none)	092805	092807
LISN	00847	EMCO	3816/2NM	1104	120804	120806
LISN	00276, 00277, 00278	Solar	8028-50-TS-24BNC	B2	091505	091507

Radiated Emissions 15.109, 15.247(d)

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02672	Agilent	E4446A	US44300438	011405	011407
30-1000MHz						
Biconilog Antenna	01995	Chase	CBL6111C	2451	080105	080107
Pre-amp	00309	HP	8447D	1937A02548	071404	071406
Antenna cable	PO5198	Belden	RG214	Cable#15	010305	010307
Pre-amp to SA cable	NA	Pasternack	RG223/U	Cable#10	051605	051606
1-18GHz						
Horn Antenna	0849	EMCO	3115	6246	072204	072206
Microwave Pre-amp	00786	HP	83017A	3123A00281	081204	081206
Heliax Antenna cable	NA	Andrew	LDF1-50	Cable#20	091604	091606
24” SMA Cable (White)	P05204	Pasterneck	35591-48	1-40GHz_white	020805	020807
2.4 GHz HPF	01440	K&L	91H31-3000	001	042505	042507
8.2 GHz HPF	02118	HP	84300-80039	3643A00027	062705	062707
18-26GHz						
2.4 GHz HPF	01440	K&L	91H31-3000	001	042505	042507
8.2 GHz HPF	02118	HP	84300-80039	3643A00027	062705	062707
18-26.5 GHz Horn Antenna	02112	HP	84125-8008	3643A00027	110504	110506
26-40GHz						
2.4 GHz HPF	01440	K&L	91H31-3000	001	042505	042507
8.2 GHz HPF	02118	HP	84300-80039	3643A00027	062705	062707
26.5-40 GHz Horn Antenna	02045	ARA	MWH-2640/B	1012	102505	102507
Amplifier	02115	HP	83051A	3332A00309	040105	040107

15.247(b)(3) Peak RF Output power

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02672	Agilent	E4446A	US44300438	011405	011407

APPENDIX C
MEASUREMENT DATA SHEETS

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.107 Class A COND AVE**		
Work Order #:	**84441**	Date:	3/14/2006
Test Type:	**Conducted Emissions**	Time:	9:15:00 AM
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	57
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5826F		110V 60Hz
S/N:			

Components of the EUT module are listed below:

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	MTI Wireless Edge	MT-486004/N	NA
Passive POE Injecter	Hyper Link Technologies	BT-CAT5-P1	NA
Power Supply	AULT Inc	PW118	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router is mounted on a non-conductive pole. The router and radio card are installed inside the flat panel antenna. The router is connected to a remote laptop via UTP through a Power Over Ethernet power supply system. The laptop executes test routine to exercise the EUT. Antenna gain = 26dBi. Flatpanel Receiver Frequency = 5785 MHz, Mode = RX. 110VAC, 60 Hz, 21°C, 43% relative humidity. Modification: Two ferrites installed on UTP. Fair rite 0443167251, 1 loop inside the enclosure, 1 loop outside the enclosure. Power Supply: 118 PCB repositioned to mate with mounting hole. Passive POE Ground braid installed on Passive POE: 12" in length, Fair rite 0443167251 installed on Power supply cable, POE end, 1 loop.

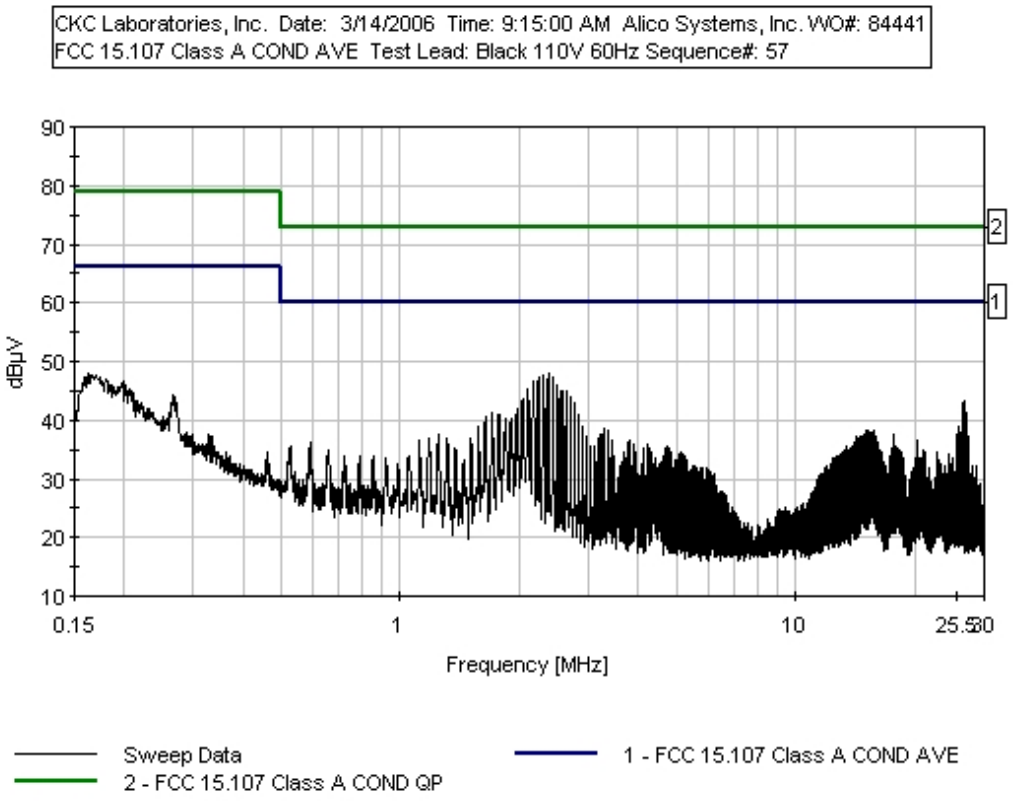
Transducer Legend:

T1=150kHz HPF Asset 02610	T2=6dB Attenuator P05267 092807
T3=Cable #21 Conducted Site A 070206	T4=(L1) Insertion Loss 00847 EMCO 3816/2NM

Measurement Data: Reading listed by margin. Test Lead: Black

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	2.370M	41.9	+0.1	+5.8	+0.2	+0.1	+0.0	48.1	60.0	-11.9	Black
2	2.298M	41.6	+0.1	+5.8	+0.2	+0.1	+0.0	47.8	60.0	-12.2	Black
3	2.234M	41.4	+0.1	+5.8	+0.1	+0.0	+0.0	47.4	60.0	-12.6	Black
4	2.434M	41.2	+0.1	+5.8	+0.2	+0.1	+0.0	47.4	60.0	-12.6	Black
5	2.166M	40.7	+0.1	+5.8	+0.1	+0.0	+0.0	46.7	60.0	-13.3	Black
6	2.497M	39.9	+0.1	+5.8	+0.2	+0.1	+0.0	46.1	60.0	-13.9	Black

7	2.098M	39.2	+0.1	+5.8	+0.1	+0.0	+0.0	45.2	60.0	-14.8	Black
8	2.561M	38.9	+0.1	+5.8	+0.2	+0.1	+0.0	45.1	60.0	-14.9	Black
9	2.629M	38.8	+0.1	+5.8	+0.2	+0.1	+0.0	45.0	60.0	-15.0	Black
10	2.693M	37.8	+0.1	+5.8	+0.2	+0.1	+0.0	44.0	60.0	-16.0	Black
11	2.038M	37.6	+0.1	+5.8	+0.1	+0.0	+0.0	43.6	60.0	-16.4	Black
12	26.608M	35.7	+0.3	+5.8	+0.4	+1.1	+0.0	43.3	60.0	-16.7	Black
13	2.761M	36.7	+0.1	+5.8	+0.2	+0.1	+0.0	42.9	60.0	-17.1	Black
14	26.485M	35.3	+0.3	+5.8	+0.4	+1.1	+0.0	42.9	60.0	-17.1	Black
15	26.547M	34.4	+0.3	+5.8	+0.4	+1.1	+0.0	42.0	60.0	-18.0	Black



Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.107 Class A COND AVE**		
Work Order #:	**84441**	Date:	3/14/2006
Test Type:	**Conducted Emissions**	Time:	9:08:28 AM
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	56
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5826F		110V 60Hz
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	MTI Wireless Edge	MT-486004/N	NA
Passive POE Injecter	Hyper Link Technologies	BT-CAT5-P1	NA
Power Supply	AULT Inc	PW118	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router is mounted on a non-conductive pole. The router and radio card are installed inside the flat panel antenna. The router is connected to a remote laptop via UTP through a Power Over Ethernet power supply system. The laptop executes test routine to exercise the EUT. Antenna gain = 26dBi. flatpanel Receiver Frequency = 5785 MHz Mode = RX 110VAC, 60 Hz, 21°C, 43% relative humidity. Modification: Two ferrites installed on UTP. Fair rite 0443167251, 1 loop inside the enclosure, 1 loop outside the enclosure. Power Supply: 118 PCB repositioned to mate with mounting hole. Passive POE Ground braid installed on Passive POE: 12" in length, Fair rite 0443167251 installed on Power supply cable, POE end, 1 loop.

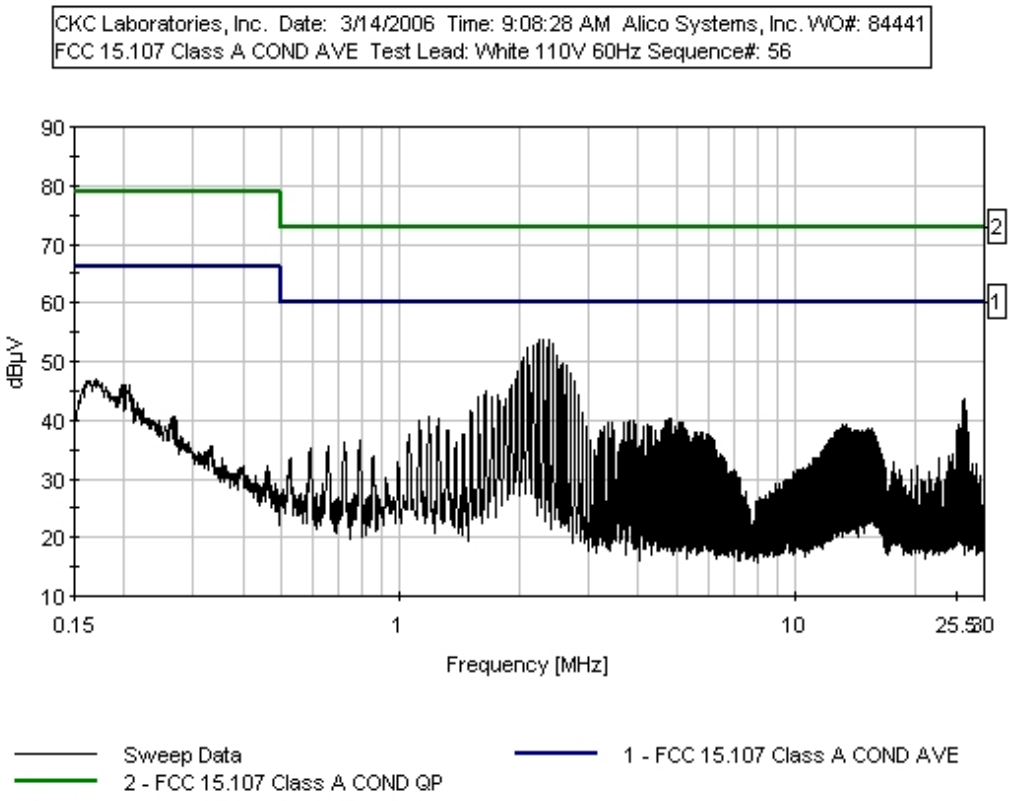
Transducer Legend:

T1=150kHz HPF Asset 02610	T2=6dB Attenuator P05267 092807
T3=Cable #21 Conducted Site A 070206	T4=(L2) Insertion Loss 00847 EMCO 3816/2NM

Measurement Data: Reading listed by margin. Test Lead: White

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	2.302M	47.5	+0.1	+5.8	+0.2	+0.1	+0.0	53.7	60.0	-6.3	White
2	2.234M	47.6	+0.1	+5.8	+0.1	+0.0	+0.0	53.6	60.0	-6.4	White
3	2.370M	47.4	+0.1	+5.8	+0.2	+0.1	+0.0	53.6	60.0	-6.4	White
4	2.434M	46.7	+0.1	+5.8	+0.2	+0.1	+0.0	52.9	60.0	-7.1	White
5	2.170M	46.8	+0.1	+5.8	+0.1	+0.0	+0.0	52.8	60.0	-7.2	White
6	2.102M	46.2	+0.1	+5.8	+0.1	+0.0	+0.0	52.2	60.0	-7.8	White

7	2.502M	44.7	+0.1	+5.8	+0.2	+0.1	+0.0	50.9	60.0	-9.1	White
8	2.038M	44.8	+0.1	+5.8	+0.1	+0.0	+0.0	50.8	60.0	-9.2	White
9	2.566M	43.6	+0.1	+5.8	+0.2	+0.1	+0.0	49.8	60.0	-10.2	White
10	2.629M	43.0	+0.1	+5.8	+0.2	+0.1	+0.0	49.2	60.0	-10.8	White
11	1.974M	42.2	+0.1	+5.8	+0.1	+0.0	+0.0	48.2	60.0	-11.8	White
12	2.693M	41.7	+0.1	+5.8	+0.2	+0.1	+0.0	47.9	60.0	-12.1	White
13	2.761M	40.4	+0.1	+5.8	+0.2	+0.1	+0.0	46.6	60.0	-13.4	White
14	1.906M	40.1	+0.1	+5.8	+0.1	+0.0	+0.0	46.1	60.0	-13.9	White
15	1.643M	38.9	+0.1	+5.8	+0.1	+0.0	+0.0	44.9	60.0	-15.1	White



Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.107 Class A COND AVE**		
Work Order #:	**84441**	Date:	3/13/2006
Test Type:	**Conducted Emissions**	Time:	3:27:45 PM
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	56
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5832D		110V 60Hz
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	Pacific Wireless	PAW DA5x-32	NA
Power Supply	AULT Inc	PW118	NA
Passive POE Injecter	Hyper Link Technologies	BT-CAT5-P1	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna is connected to the RF port of the radio card hosted by a router in enclosure, mounted on a non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via UTP through a Power Over Ethernet power supply system. The laptop executes test routine to exercise the EUT. Antenna gain = 32.5dBi. Dish Receiver Frequency = 5785 MHz, Power level = Idle, receive mode. 110VAC, 60 Hz, 21°C, 43% relative humidity. Modification: Two ferrites installed on UTP. Fair rite 0443167251, 1 loop inside the enclosure, 1 loop outside the enclosure. Power Supply: 118 Passive POE Ground braid installed on Passive POE: 12" in length, Fair rite 0443167251 installed on Power supply cable, POE end, 1 loop.

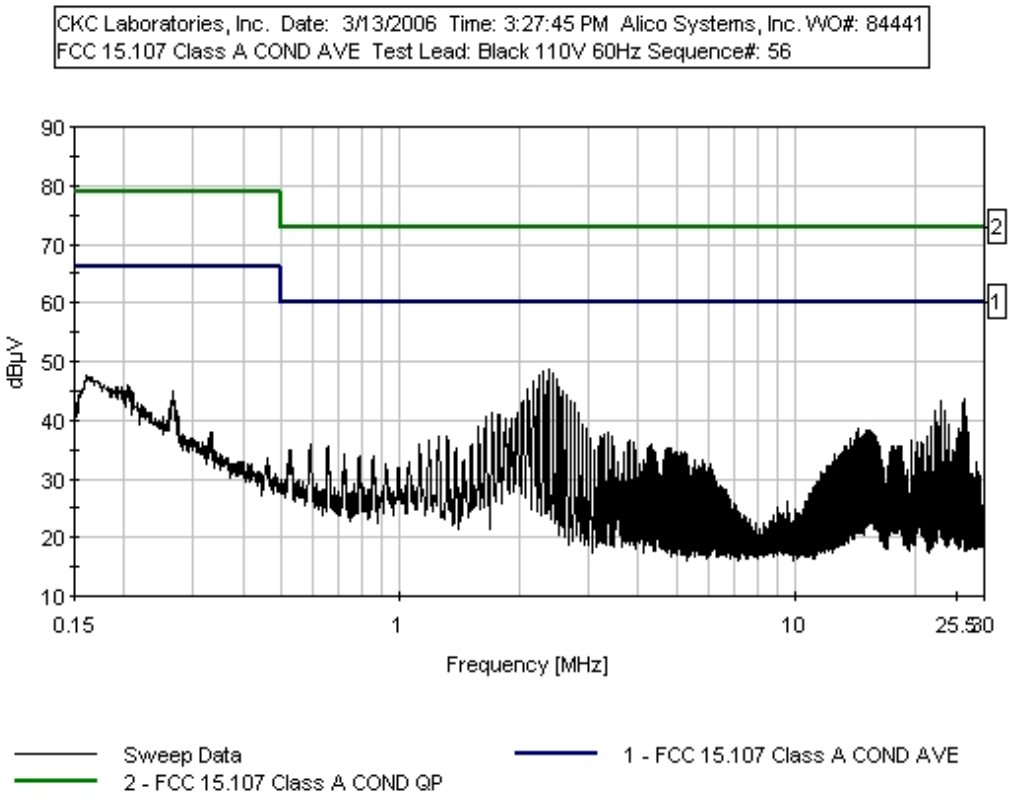
Transducer Legend:

T1=150kHz HPF Asset 02610	T2=6dB Attenuator P05267 092807
T3=Cable #21 Conducted Site A 070206	T4=(L1) Insertion Loss 00847 EMCO 3816/2NM

Measurement Data: Reading listed by margin. Test Lead: Black

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	2.370M	42.4	+0.1	+5.8	+0.2	+0.1	+0.0	48.6	60.0	-11.4	Black
2	2.306M	42.0	+0.1	+5.8	+0.2	+0.1	+0.0	48.2	60.0	-11.8	Black
3	2.438M	41.9	+0.1	+5.8	+0.2	+0.1	+0.0	48.1	60.0	-11.9	Black
4	2.238M	41.4	+0.1	+5.8	+0.2	+0.1	+0.0	47.6	60.0	-12.4	Black
5	2.502M	40.7	+0.1	+5.8	+0.2	+0.1	+0.0	46.9	60.0	-13.1	Black
6	2.170M	40.6	+0.1	+5.8	+0.1	+0.0	+0.0	46.6	60.0	-13.4	Black

7	2.102M	39.4	+0.1	+5.8	+0.1	+0.0	+0.0	45.4	60.0	-14.6	Black
8	2.566M	38.8	+0.1	+5.8	+0.2	+0.1	+0.0	45.0	60.0	-15.0	Black
9	2.634M	38.1	+0.1	+5.8	+0.2	+0.1	+0.0	44.3	60.0	-15.7	Black
10	26.608M	36.1	+0.3	+5.8	+0.4	+1.1	+0.0	43.7	60.0	-16.3	Black
11	2.038M	37.4	+0.1	+5.8	+0.1	+0.0	+0.0	43.4	60.0	-16.6	Black
12	2.697M	37.1	+0.1	+5.8	+0.2	+0.1	+0.0	43.3	60.0	-16.7	Black
13	23.230M	35.8	+0.3	+5.8	+0.4	+0.9	+0.0	43.2	60.0	-16.8	Black
14	26.485M	35.3	+0.3	+5.8	+0.4	+1.1	+0.0	42.9	60.0	-17.1	Black
15	2.765M	36.6	+0.1	+5.8	+0.2	+0.1	+0.0	42.8	60.0	-17.2	Black



Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.107 Class A COND AVE**		
Work Order #:	**84441**	Date:	3/13/2006
Test Type:	**Conducted Emissions**	Time:	3:24:37 PM
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	55
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5832D		110V 60Hz
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	Pacific Wireless	PAW DA5x-32	NA
Power Supply	AULT Inc	PW118	NA
Passive POE Injecter	Hyper Link Technologies	BT-CAT5-P1	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna is connected to the RF port of the radio card hosted by a router in enclosure, mounted on a non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via UTP through a Power Over Ethernet power supply system. The laptop executes test routine to exercise the EUT. Antenna gain = 32.5dBi. Dish Receiver Frequency = 5785 MHz, Power level = Idle, receive mode. 110VAC, 60 Hz, 21°C, 43% relative humidity. Modification: Two ferrites installed on UTP. Fair rite 0443167251, 1 loop inside the enclosure, 1 loop outside the enclosure. Power Supply: 118 Passive POE Ground braid installed on Passive POE: 12" in length, Fair rite 0443167251 installed on Power supply cable, POE end, 1 loop.

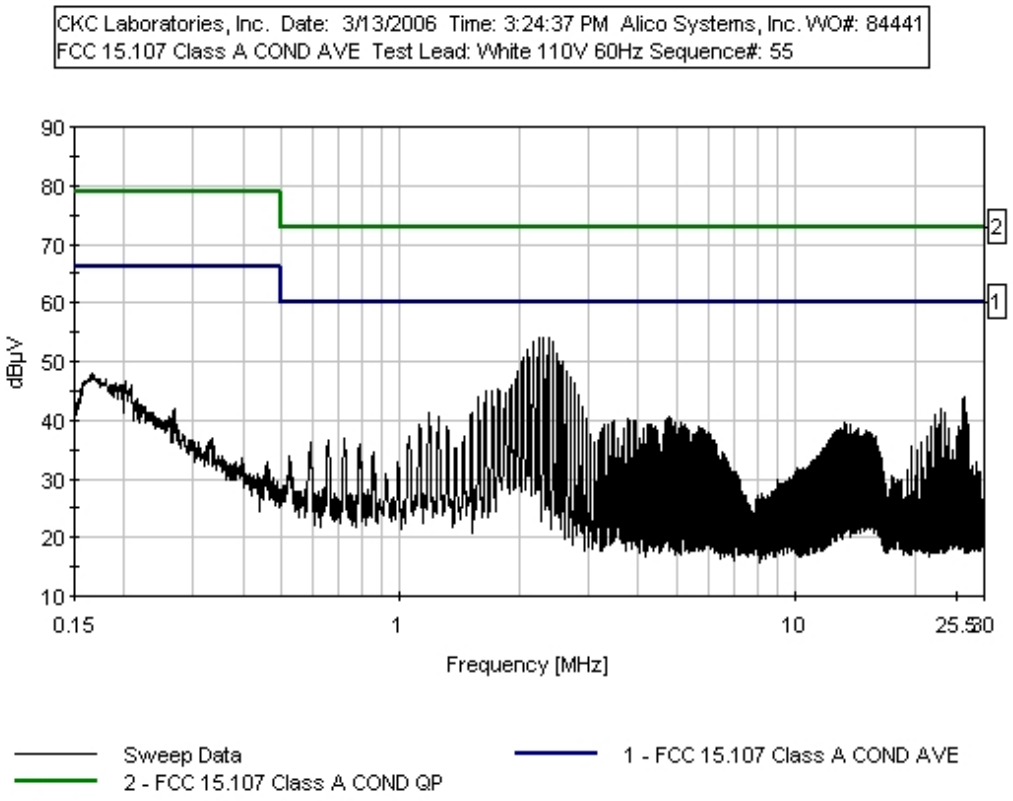
Transducer Legend:

T1=150kHz HPF Asset 02610	T2=6dB Attenuator P05267 092807
T3=Cable #21 Conducted Site A 070206	T4=(L2) Insertion Loss 00847 EMCO 3816/2NM

Measurement Data: Reading listed by margin. Test Lead: White

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	2.238M	48.0	+0.1	+5.8	+0.2	+0.1	+0.0	54.2	60.0	-5.8	White
2	2.306M	47.9	+0.1	+5.8	+0.2	+0.1	+0.0	54.1	60.0	-5.9	White
3	2.370M	47.7	+0.1	+5.8	+0.2	+0.1	+0.0	53.9	60.0	-6.1	White
4	2.170M	47.5	+0.1	+5.8	+0.1	+0.0	+0.0	53.5	60.0	-6.5	White
5	2.434M	47.2	+0.1	+5.8	+0.2	+0.1	+0.0	53.4	60.0	-6.6	White
6	2.102M	46.1	+0.1	+5.8	+0.1	+0.0	+0.0	52.1	60.0	-7.9	White

7	2.497M	45.2	+0.1	+5.8	+0.2	+0.1	+0.0	51.4	60.0	-8.6	White
8	2.038M	44.7	+0.1	+5.8	+0.1	+0.0	+0.0	50.7	60.0	-9.3	White
9	2.566M	43.8	+0.1	+5.8	+0.2	+0.1	+0.0	50.0	60.0	-10.0	White
10	2.634M	42.2	+0.1	+5.8	+0.2	+0.1	+0.0	48.4	60.0	-11.6	White
11	1.970M	42.3	+0.1	+5.8	+0.1	+0.0	+0.0	48.3	60.0	-11.7	White
12	2.697M	41.2	+0.1	+5.8	+0.2	+0.1	+0.0	47.4	60.0	-12.6	White
13	2.761M	40.2	+0.1	+5.8	+0.2	+0.1	+0.0	46.4	60.0	-13.6	White
14	1.906M	40.0	+0.1	+5.8	+0.1	+0.0	+0.0	46.0	60.0	-14.0	White
15	1.775M	39.3	+0.1	+5.8	+0.1	+0.0	+0.0	45.3	60.0	-14.7	White



Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.109 Class A**		
Work Order #:	**84441**	Date:	3/13/2006
Test Type:	**Radiated Scan**	Time:	13:07:54
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	51
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5826F		
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	MTI Wireless Edge	MT-486004/N	NA
Passive POE Injecter	Hyper Link Technologies	BT-CAT5-P1	NA
Power Supply	AULT Inc	PW118	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router is mounted on a non-conductive pole. The router and radio card are installed inside the flat panel antenna. The router is connected to a remote laptop via UTP through a Power Over Ethernet power supply system. The laptop executes test routine to exercise the EUT. Antenna gain = 26dBi. Flatpanel Receiver Frequency = 5785 MHz, Power level = Idle, receive mode. 110VAC, 60 Hz, 21°C, 43% relative humidity. Modification: Two ferrites installed on UTP. Fair rite 0443167251, 1 loop inside the enclosure, 1 loop outside the enclosure. Power Supply: 118 PCB repositioned to mate with mounting hole. Passive POE

Transducer Legend:

T1=Bilog 2451 080107	T2=Cable #10 051606
T3=Cable #15, Site A, 010307	T4=Preamp 8447D 071406

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	67.520M	64.6	+5.2	+0.1	+1.5	-27.7	-10.0	33.7	39.1	-5.4	Vert
2	60.117M	63.7	+4.7	+0.1	+1.3	-27.7	-10.0	32.1	39.1	-7.0	Vert
3	50.039M	60.5	+7.7	+0.1	+1.2	-27.7	-10.0	31.8	39.1	-7.3	Vert
4	37.600M	53.8	+14.1	+0.1	+1.1	-27.7	-10.0	31.4	39.1	-7.7	Vert
5	50.042M	58.0	+7.7	+0.1	+1.2	-27.7	-10.0	29.3	39.1	-9.8	Vert
6	72.833M	59.5	+5.9	+0.1	+1.5	-27.7	-10.0	29.3	39.1	-9.8	Vert
7	42.950M	54.3	+11.3	+0.1	+1.1	-27.7	-10.0	29.1	39.1	-10.0	Vert

8	56.532M	59.5	+5.7	+0.1	+1.3	-27.7	-10.0	28.9	39.1	-10.2	Vert
9	230.980M	57.4	+10.5	+0.2	+2.8	-27.6	-10.0	33.3	46.4	-13.1	Vert
10	626.988M	44.6	+19.9	+0.5	+4.9	-27.1	-10.0	32.8	46.4	-13.6	Vert
11	51.802M	54.8	+7.1	+0.1	+1.2	-27.7	-10.0	25.5	39.1	-13.6	Vert
12	231.008M	56.4	+10.5	+0.2	+2.8	-27.6	-10.0	32.3	46.4	-14.1	Vert
13	47.369M	52.1	+9.1	+0.1	+1.2	-27.7	-10.0	24.8	39.1	-14.3	Vert
14	77.583M	53.4	+6.7	+0.1	+1.6	-27.7	-10.0	24.1	39.1	-15.0	Vert
15	627.000M	43.1	+19.9	+0.5	+4.9	-27.1	-10.0	31.3	46.4	-15.1	Horiz
16	135.594M	51.4	+11.2	+0.1	+2.1	-27.6	-10.0	27.2	43.5	-16.3	Vert
17	142.085M	51.1	+11.1	+0.2	+2.1	-27.6	-10.0	26.9	43.5	-16.6	Vert
18	297.000M	50.2	+12.9	+0.3	+3.2	-27.5	-10.0	29.1	46.4	-17.3	Vert
19	68.092M	52.2	+5.3	+0.1	+1.5	-27.7	-10.0	21.4	39.1	-17.7	Horiz
20	63.347M	52.6	+4.9	+0.1	+1.4	-27.7	-10.0	21.3	39.1	-17.8	Vert
21	132.020M	49.5	+11.2	+0.1	+2.1	-27.6	-10.0	25.3	43.5	-18.2	Vert
22	693.033M	38.9	+20.5	+0.5	+5.2	-26.9	-10.0	28.2	46.4	-18.2	Horiz
23	84.066M	48.6	+7.8	+0.1	+1.6	-27.7	-10.0	20.4	39.1	-18.7	Vert
24	193.903M	50.9	+8.1	+0.2	+2.6	-27.6	-10.0	24.2	43.5	-19.3	Vert
25	324.997M	47.2	+13.7	+0.3	+3.4	-27.6	-10.0	27.0	46.4	-19.4	Vert
26	139.117M	47.9	+11.2	+0.2	+2.1	-27.6	-10.0	23.8	43.5	-19.7	Horiz
27	272.045M	48.5	+12.5	+0.3	+3.1	-27.7	-10.0	26.7	46.4	-19.7	Vert
28	109.557M	48.8	+10.5	+0.1	+1.9	-27.6	-10.0	23.7	43.5	-19.8	Vert
29	363.009M	45.2	+14.9	+0.3	+3.6	-27.5	-10.0	26.5	46.4	-19.9	Vert
30	108.348M	48.3	+10.4	+0.1	+1.9	-27.6	-10.0	23.1	43.5	-20.4	Vert
31	230.992M	50.0	+10.5	+0.2	+2.8	-27.6	-10.0	25.9	46.4	-20.5	Horiz
32	143.841M	47.1	+10.9	+0.2	+2.2	-27.6	-10.0	22.8	43.5	-20.7	Vert

33	326.179M	45.6	+13.8	+0.3	+3.4	-27.6	-10.0	25.5	46.4	-20.9	Vert
34	123.748M	46.9	+11.2	+0.1	+2.0	-27.6	-10.0	22.6	43.5	-20.9	Vert
35	296.983M	46.4	+12.9	+0.3	+3.2	-27.5	-10.0	25.3	46.4	-21.1	Horiz
36	214.598M	48.0	+9.1	+0.2	+2.7	-27.6	-10.0	22.4	43.5	-21.1	Vert
37	284.135M	46.6	+12.7	+0.3	+3.1	-27.6	-10.0	25.1	46.4	-21.3	Vert
38	208.093M	48.3	+8.5	+0.2	+2.6	-27.6	-10.0	22.0	43.5	-21.5	Vert
39	122.270M	46.3	+11.1	+0.1	+2.0	-27.6	-10.0	21.9	43.5	-21.6	Vert
40	196.252M	48.7	+7.9	+0.2	+2.6	-27.6	-10.0	21.8	43.5	-21.7	Vert
41	127.000M	46.1	+11.2	+0.1	+2.0	-27.6	-10.0	21.8	43.5	-21.7	Vert
42	205.788M	48.3	+8.2	+0.2	+2.6	-27.6	-10.0	21.7	43.5	-21.8	Vert
43	225.007M	49.3	+10.0	+0.2	+2.7	-27.6	-10.0	24.6	46.4	-21.8	Vert
44	259.577M	46.7	+12.2	+0.2	+3.0	-27.6	-10.0	24.5	46.4	-21.9	Vert
45	198.070M	48.5	+7.8	+0.2	+2.6	-27.6	-10.0	21.5	43.5	-22.0	Vert
46	363.000M	43.1	+14.9	+0.3	+3.6	-27.5	-10.0	24.4	46.4	-22.0	Horiz
47	104.811M	46.9	+10.2	+0.1	+1.8	-27.6	-10.0	21.4	43.5	-22.1	Vert
48	146.237M	45.7	+10.8	+0.2	+2.2	-27.6	-10.0	21.3	43.5	-22.2	Vert
49	429.000M	40.8	+16.5	+0.3	+3.9	-27.6	-10.0	23.9	46.4	-22.5	Horiz
50	180.272M	46.8	+8.9	+0.2	+2.5	-27.6	-10.0	20.8	43.5	-22.7	Vert
51	129.083M	45.0	+11.2	+0.1	+2.0	-27.6	-10.0	20.7	43.5	-22.8	Vert
52	232.955M	47.5	+10.6	+0.2	+2.8	-27.6	-10.0	23.5	46.4	-22.9	Vert
53	177.308M	46.4	+9.0	+0.2	+2.5	-27.6	-10.0	20.5	43.5	-23.0	Vert
54	171.985M	46.2	+9.2	+0.2	+2.5	-27.6	-10.0	20.5	43.5	-23.0	Vert
55	212.854M	46.0	+8.9	+0.2	+2.7	-27.6	-10.0	20.2	43.5	-23.3	Vert
56	108.908M	44.9	+10.5	+0.1	+1.9	-27.6	-10.0	19.8	43.5	-23.7	Horiz
57	349.969M	42.0	+14.4	+0.3	+3.6	-27.6	-10.0	22.7	46.4	-23.7	Vert

58	258.116M	44.9	+12.2	+0.2	+3.0	-27.6	-10.0	22.7	46.4	-23.7	Vert
59	108.363M	45.0	+10.4	+0.1	+1.9	-27.6	-10.0	19.8	43.5	-23.7	Vert
60	287.140M	43.9	+12.8	+0.3	+3.1	-27.6	-10.0	22.5	46.4	-23.9	Vert
61	125.500M	43.7	+11.2	+0.1	+2.0	-27.6	-10.0	19.4	43.5	-24.1	Vert
62	124.592M	43.5	+11.2	+0.1	+2.0	-27.6	-10.0	19.2	43.5	-24.3	Horiz
63	192.033M	45.7	+8.2	+0.2	+2.6	-27.6	-10.0	19.1	43.5	-24.4	Horiz
64	256.348M	44.3	+12.1	+0.2	+3.0	-27.6	-10.0	22.0	46.4	-24.4	Vert
65	204.819M	45.7	+8.2	+0.2	+2.6	-27.6	-10.0	19.1	43.5	-24.4	Vert
66	175.000M	44.5	+9.0	+0.2	+2.5	-27.6	-10.0	18.6	43.5	-24.9	Vert
67	186.158M	44.9	+8.5	+0.2	+2.5	-27.6	-10.0	18.5	43.5	-25.0	Vert
68	153.650M	42.9	+10.4	+0.2	+2.2	-27.6	-10.0	18.1	43.5	-25.4	Vert
69	319.656M	40.9	+13.6	+0.3	+3.4	-27.5	-10.0	20.7	46.4	-25.7	Vert
70	395.997M	37.8	+16.0	+0.3	+3.7	-27.4	-10.0	20.4	46.4	-26.0	Vert
71	354.000M	39.4	+14.5	+0.3	+3.6	-27.6	-10.0	20.2	46.4	-26.2	Horiz
72	331.758M	39.9	+13.9	+0.3	+3.5	-27.6	-10.0	20.0	46.4	-26.4	Horiz
73	264.042M	41.9	+12.3	+0.3	+3.1	-27.6	-10.0	20.0	46.4	-26.4	Horiz
74	249.983M	42.3	+12.0	+0.2	+3.0	-27.5	-10.0	20.0	46.4	-26.4	Horiz
75	163.690M	41.6	+9.9	+0.2	+2.4	-27.6	-10.0	16.5	43.5	-27.0	Vert
76	251.939M	40.6	+12.0	+0.2	+3.0	-27.5	-10.0	18.3	46.4	-28.1	Vert
77	310.492M	38.8	+13.3	+0.3	+3.3	-27.5	-10.0	18.2	46.4	-28.2	Vert
78	289.460M	39.4	+12.8	+0.3	+3.2	-27.6	-10.0	18.1	46.4	-28.3	Vert
79	174.030M	40.9	+9.1	+0.2	+2.5	-27.6	-10.0	15.1	43.5	-28.4	Vert
80	335.617M	37.8	+14.0	+0.3	+3.5	-27.6	-10.0	18.0	46.4	-28.4	Vert
81	338.606M	37.5	+14.1	+0.3	+3.5	-27.6	-10.0	17.8	46.4	-28.6	Vert

82	379.970M	35.4	+15.4	+0.3	+3.7	-27.5	-10.0	17.3	46.4	-29.1	Vert
83	350.408M	36.6	+14.4	+0.3	+3.6	-27.6	-10.0	17.3	46.4	-29.1	Horiz
84	246.282M	38.8	+11.7	+0.2	+3.0	-27.5	-10.0	16.2	46.4	-30.2	Vert
85	185.050M	39.5	+8.6	+0.2	+2.5	-27.6	-10.0	13.2	43.5	-30.3	Vert

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.109 Class A**		
Work Order #:	**84441**	Date:	3/10/2006
Test Type:	**Radiated Scan**	Time:	11:04:57
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	50
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5832D		
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Power Over Ethernet supply	Phihong	PSA16U-480	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	Pacific Wireless	PAW DA5x-32	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna is connected to the RF port of the radio card hosted by a router in enclosure, mounted on a non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via UTP through a Power Over Ethernet power supply system. The laptop executes test routine to exercise the EUT. Antenna gain = 32.5dBi. Dish Receiver Frequency = 5785 MHz, Power level = Idle, receive mode. 110VAC, 60 Hz, 21°C, 43% relative humidity. Modification: Two ferrites installed on UTP. Fair rite 0443167251, 1 loop inside the enclosure, 1 loop outside the enclosure. Power Supply: 118 Passive POE

Transducer Legend:

T1=Bilog 2451 080107	T2=Cable #10 051606
T3=Cable #15, Site A, 010307	T4=Preamp 8447D 071406

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	98.999M QP	66.0	+9.8	+0.1	+1.8	-27.6	-10.0	40.1	43.5	-3.4	Vert
^	98.999M	67.0	+9.8	+0.1	+1.8	-27.6	-10.0	41.1	43.5	-2.4	Vert
3	66.805M	65.8	+5.2	+0.1	+1.4	-27.7	-10.0	34.8	39.1	-4.3	Vert
4	67.690M	64.4	+5.2	+0.1	+1.5	-27.7	-10.0	33.5	39.1	-5.6	Vert
5	98.992M	63.6	+9.8	+0.1	+1.8	-27.6	-10.0	37.7	43.5	-5.8	Horiz
6	230.997M	63.5	+10.5	+0.2	+2.8	-27.6	-10.0	39.4	46.4	-7.0	Horiz
7	230.999M	63.3	+10.5	+0.2	+2.8	-27.6	-10.0	39.2	46.4	-7.2	Vert

8	54.233M	60.5	+6.4	+0.1	+1.2	-27.7	-10.0	30.5	39.1	-8.6	Vert
9	48.650M	58.5	+8.4	+0.1	+1.2	-27.7	-10.0	30.5	39.1	-8.6	Vert
10	319.983M	57.7	+13.6	+0.3	+3.4	-27.5	-10.0	37.5	46.4	-8.9	Horiz
11	56.007M	60.6	+5.8	+0.1	+1.3	-27.7	-10.0	30.1	39.1	-9.0	Vert
12	49.831M	58.4	+7.8	+0.1	+1.2	-27.7	-10.0	29.8	39.1	-9.3	Vert
13	36.348M	51.2	+14.8	+0.1	+1.0	-27.7	-10.0	29.4	39.1	-9.7	Vert
14	91.137M	60.6	+8.8	+0.1	+1.6	-27.7	-10.0	33.4	43.5	-10.1	Vert
15	91.745M	60.2	+8.9	+0.1	+1.6	-27.7	-10.0	33.1	43.5	-10.4	Horiz
16	91.739M	60.2	+8.9	+0.1	+1.6	-27.7	-10.0	33.1	43.5	-10.4	Vert
17	66.830M	59.3	+5.2	+0.1	+1.4	-27.7	-10.0	28.3	39.1	-10.8	Horiz
18	249.983M	57.5	+12.0	+0.2	+3.0	-27.5	-10.0	35.2	46.4	-11.2	Vert
19	75.563M	57.2	+6.4	+0.1	+1.6	-27.7	-10.0	27.6	39.1	-11.5	Vert
20	64.771M	58.7	+5.0	+0.1	+1.4	-27.7	-10.0	27.5	39.1	-11.6	Vert
21	325.000M	54.7	+13.7	+0.3	+3.4	-27.6	-10.0	34.5	46.4	-11.9	Horiz
22	43.052M	52.1	+11.3	+0.1	+1.1	-27.7	-10.0	26.9	39.1	-12.2	Vert
23	34.012M	47.4	+15.9	+0.0	+1.0	-27.7	-10.0	26.6	39.1	-12.5	Vert
24	74.699M	55.8	+6.2	+0.1	+1.5	-27.7	-10.0	25.9	39.1	-13.2	Vert
25	31.369M	45.3	+17.2	+0.0	+0.9	-27.7	-10.0	25.7	39.1	-13.4	Vert
26	197.983M	57.0	+7.8	+0.2	+2.6	-27.6	-10.0	30.0	43.5	-13.5	Vert
27	165.020M	55.2	+9.8	+0.2	+2.4	-27.6	-10.0	30.0	43.5	-13.5	Vert
28	154.132M	54.6	+10.4	+0.2	+2.3	-27.6	-10.0	29.9	43.5	-13.6	Vert
29	46.863M	52.6	+9.3	+0.1	+1.2	-27.7	-10.0	25.5	39.1	-13.6	Vert
30	297.000M	53.7	+12.9	+0.3	+3.2	-27.5	-10.0	32.6	46.4	-13.8	Horiz
31	319.999M	52.7	+13.6	+0.3	+3.4	-27.5	-10.0	32.5	46.4	-13.9	Vert
32	72.971M	55.4	+5.9	+0.1	+1.5	-27.7	-10.0	25.2	39.1	-13.9	Vert

33	825.020M	39.8	+23.0	+0.6	+5.7	-26.9	-10.0	32.2	46.4	-14.2	Horiz
34	108.157M	54.5	+10.4	+0.1	+1.9	-27.6	-10.0	29.3	43.5	-14.2	Vert
35	44.537M	50.9	+10.5	+0.1	+1.1	-27.7	-10.0	24.9	39.1	-14.2	Vert
36	428.980M	48.9	+16.5	+0.3	+3.9	-27.6	-10.0	32.0	46.4	-14.4	Horiz
37	78.820M	53.2	+6.9	+0.1	+1.6	-27.7	-10.0	24.1	39.1	-15.0	Vert
38	108.744M	53.3	+10.5	+0.1	+1.9	-27.6	-10.0	28.2	43.5	-15.3	Vert
39	330.020M	50.8	+13.9	+0.3	+3.4	-27.6	-10.0	30.8	46.4	-15.6	Vert
40	375.000M	48.9	+15.3	+0.3	+3.7	-27.5	-10.0	30.7	46.4	-15.7	Horiz
41	44.842M	49.4	+10.4	+0.1	+1.2	-27.7	-10.0	23.4	39.1	-15.7	Vert
42	375.020M	48.8	+15.3	+0.3	+3.7	-27.5	-10.0	30.6	46.4	-15.8	Vert
43	692.970M	41.1	+20.5	+0.5	+5.2	-26.9	-10.0	30.4	46.4	-16.0	Horiz
44	329.980M	50.4	+13.9	+0.3	+3.4	-27.6	-10.0	30.4	46.4	-16.0	Horiz
45	249.997M	52.5	+12.0	+0.2	+3.0	-27.5	-10.0	30.2	46.4	-16.2	Horiz
46	86.047M	50.4	+8.1	+0.1	+1.6	-27.7	-10.0	22.5	39.1	-16.6	Vert
47	110.180M	51.6	+10.5	+0.1	+1.9	-27.6	-10.0	26.5	43.5	-17.0	Vert
48	197.985M	52.8	+7.8	+0.2	+2.6	-27.6	-10.0	25.8	43.5	-17.7	Horiz
49	84.712M	49.5	+7.9	+0.1	+1.6	-27.7	-10.0	21.4	39.1	-17.7	Vert
50	825.020M	36.0	+23.0	+0.6	+5.7	-26.9	-10.0	28.4	46.4	-18.0	Vert
51	60.628M	52.7	+4.7	+0.1	+1.3	-27.7	-10.0	21.1	39.1	-18.0	Vert
52	221.274M	53.4	+9.6	+0.2	+2.7	-27.6	-10.0	28.3	46.4	-18.1	Horiz
53	233.009M	52.1	+10.6	+0.2	+2.8	-27.6	-10.0	28.1	46.4	-18.3	Horiz
54	87.330M	48.4	+8.3	+0.1	+1.6	-27.7	-10.0	20.7	39.1	-18.4	Horiz
55	131.291M	49.3	+11.2	+0.1	+2.1	-27.6	-10.0	25.1	43.5	-18.4	Vert
56	124.995M	49.2	+11.2	+0.1	+2.0	-27.6	-10.0	24.9	43.5	-18.6	Vert
57	264.013M	49.2	+12.3	+0.3	+3.1	-27.6	-10.0	27.3	46.4	-19.1	Horiz

58	123.669M	48.7	+11.2	+0.1	+2.0	-27.6	-10.0	24.4	43.5	-19.1	Horiz
59	500.020M	42.0	+18.0	+0.4	+4.3	-27.6	-10.0	27.1	46.4	-19.3	Horiz
60	165.010M	49.2	+9.8	+0.2	+2.4	-27.6	-10.0	24.0	43.5	-19.5	Horiz
61	221.850M	51.9	+9.7	+0.2	+2.7	-27.6	-10.0	26.9	46.4	-19.5	Vert
62	126.000M	47.8	+11.2	+0.1	+2.0	-27.6	-10.0	23.5	43.5	-20.0	Horiz
63	281.670M	47.9	+12.7	+0.3	+3.1	-27.6	-10.0	26.4	46.4	-20.0	Vert
64	224.796M	50.6	+10.0	+0.2	+2.7	-27.6	-10.0	25.9	46.4	-20.5	Horiz
65	217.164M	50.9	+9.3	+0.2	+2.7	-27.6	-10.0	25.5	46.4	-20.9	Horiz
66	768.030M	33.8	+22.5	+0.5	+5.5	-26.8	-10.0	25.5	46.4	-20.9	Vert
67	118.401M	46.9	+11.0	+0.1	+2.0	-27.6	-10.0	22.4	43.5	-21.1	Vert
68	199.990M	49.4	+7.7	+0.2	+2.6	-27.6	-10.0	22.3	43.5	-21.2	Horiz
69	128.079M	46.4	+11.2	+0.1	+2.0	-27.6	-10.0	22.1	43.5	-21.4	Horiz
70	154.735M	46.7	+10.4	+0.2	+2.3	-27.6	-10.0	22.0	43.5	-21.5	Horiz
71	302.450M	45.3	+13.1	+0.3	+3.2	-27.5	-10.0	24.4	46.4	-22.0	Horiz
72	129.551M	45.8	+11.2	+0.1	+2.0	-27.6	-10.0	21.5	43.5	-22.0	Vert
73	116.054M	46.2	+10.9	+0.1	+1.9	-27.6	-10.0	21.5	43.5	-22.0	Vert
74	594.000M	36.5	+19.7	+0.5	+4.8	-27.2	-10.0	24.3	46.4	-22.1	Horiz
75	280.470M	45.8	+12.6	+0.3	+3.1	-27.7	-10.0	24.1	46.4	-22.3	Horiz
76	420.020M	41.0	+16.4	+0.3	+3.8	-27.6	-10.0	23.9	46.4	-22.5	Vert
77	138.354M	45.0	+11.2	+0.2	+2.1	-27.6	-10.0	20.9	43.5	-22.6	Vert
78	424.980M	40.6	+16.5	+0.3	+3.9	-27.6	-10.0	23.7	46.4	-22.7	Vert
79	148.115M	45.4	+10.6	+0.2	+2.2	-27.6	-10.0	20.8	43.5	-22.7	Vert
80	129.533M	45.0	+11.2	+0.1	+2.0	-27.6	-10.0	20.7	43.5	-22.8	Horiz
81	416.020M	40.5	+16.3	+0.3	+3.8	-27.5	-10.0	23.4	46.4	-23.0	Vert
82	420.020M	40.3	+16.4	+0.3	+3.8	-27.6	-10.0	23.2	46.4	-23.2	Horiz

83	133.652M	44.5	+11.2	+0.1	+2.1	-27.6	-10.0	20.3	43.5	-23.2	Vert
84	363.000M	41.5	+14.9	+0.3	+3.6	-27.5	-10.0	22.8	46.4	-23.6	Horiz
85	429.020M	39.7	+16.5	+0.3	+3.9	-27.6	-10.0	22.8	46.4	-23.6	Vert
86	133.068M	43.2	+11.2	+0.1	+2.1	-27.6	-10.0	19.0	43.5	-24.5	Horiz
87	395.980M	39.2	+16.0	+0.3	+3.7	-27.4	-10.0	21.8	46.4	-24.6	Horiz
88	131.936M	43.0	+11.2	+0.1	+2.1	-27.6	-10.0	18.8	43.5	-24.7	Horiz
89	492.050M	36.5	+17.8	+0.4	+4.3	-27.6	-10.0	21.4	46.4	-25.0	Horiz
90	363.020M	39.5	+14.9	+0.3	+3.6	-27.5	-10.0	20.8	46.4	-25.6	Vert
91	207.801M	43.7	+8.4	+0.2	+2.6	-27.6	-10.0	17.3	43.5	-26.2	Horiz
92	550.030M	32.1	+20.7	+0.5	+4.5	-27.8	-10.0	20.0	46.4	-26.4	Vert
93	139.247M	40.6	+11.2	+0.2	+2.1	-27.6	-10.0	16.5	43.5	-27.0	Horiz
94	197.118M	40.2	+7.9	+0.2	+2.6	-27.6	-10.0	13.3	43.5	-30.2	Horiz

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.207 COND [AVE]**		
Work Order #:	**84441**	Date:	3/14/2006
Test Type:	**Conducted Emissions**	Time:	09:00:32
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	54
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5826F		110V 60Hz
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	MTI Wireless Edge	MT-486004/N	NA
Passive POE Injecter	Hyper Link Technologies	BT-CAT5-P1	NA
Power Supply	AULT Inc	PW118	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router is mounted on a non-conductive pole. The router and radio card are installed inside the flat panel antenna. The router is connected to a remote laptop via UTP through a Power Over Ethernet power supply system. The laptop executes test routine to exercise the EUT. Antenna gain = 26dBi. Flatpanel Receiver Frequency = 5785 MHz, Mode = TX. 110VAC, 60 Hz, 21°C, 43% relative humidity. Modification: Two ferrites installed on UTP. Fair rite 0443167251, 1 loop inside the enclosure, 1 loop outside the enclosure. Power Supply: 118 PCB repositioned to mate with mounting hole. Passive POE Ground braid installed on Passive POE: 12" in length, Fair rite 0443167251 installed on Power supply cable, POE end, 1 loop. Frequency range tested: 30 MHz - 1 GHz, RBW=VBW=120kHz.

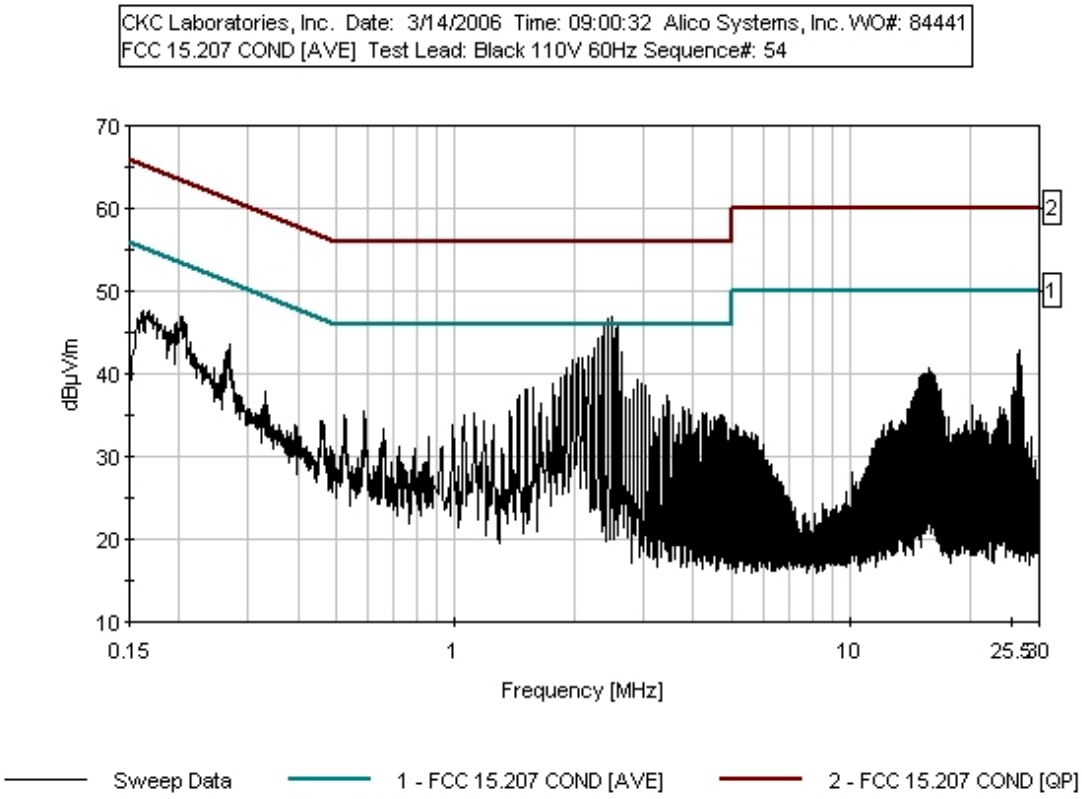
Transducer Legend:

T1=150kHz HPF Asset 02610	T2=6dB Attenuator P05267 092807
T3=Cable #21 Conducted Site A 070206	T4=(L1) Insertion Loss 00847 EMCO 3816/2NM

Measurement Data: Reading listed by margin. Test Lead: Black

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	2.234M	37.1	+0.1	+5.8	+0.1	+0.0	+0.0	43.1	46.0	-2.9	Black
2	2.629M	36.5	+0.1	+5.8	+0.2	+0.1	+0.0	42.7	46.0	-3.3	Black
3	2.166M	36.2	+0.1	+5.8	+0.1	+0.0	+0.0	42.2	46.0	-3.8	Black
4	2.038M	36.0	+0.1	+5.8	+0.1	+0.0	+0.0	42.0	46.0	-4.0	Black
5	2.102M	36.0	+0.1	+5.8	+0.1	+0.0	+0.0	42.0	46.0	-4.0	Black
6	1.974M	35.7	+0.1	+5.8	+0.1	+0.0	+0.0	41.7	46.0	-4.3	Black

7	2.497M Ave	35.2	+0.1	+5.8	+0.2	+0.1	+0.0	41.4	46.0	-4.6	Black
^	2.497M	40.8	+0.1	+5.8	+0.2	+0.1	+0.0	47.0	46.0	+1.0	Black
9	1.906M	34.6	+0.1	+5.8	+0.1	+0.0	+0.0	40.6	46.0	-5.4	Black
10	2.566M Ave	33.8	+0.1	+5.8	+0.2	+0.1	+0.0	40.0	46.0	-6.0	Black
^	2.566M	39.4	+0.1	+5.8	+0.2	+0.1	+0.0	45.6	46.0	-0.4	Black
12	2.366M Ave	33.5	+0.1	+5.8	+0.2	+0.1	+0.0	39.7	46.0	-6.3	Black
^	2.366M	39.6	+0.1	+5.8	+0.2	+0.1	+0.0	45.8	46.0	-0.2	Black
14	1.843M	33.6	+0.1	+5.8	+0.1	+0.0	+0.0	39.6	46.0	-6.4	Black
15	202.359k	41.0	+0.2	+5.8	+0.0	+0.0	+0.0	47.0	53.5	-6.5	Black
16	2.893M	33.1	+0.1	+5.8	+0.2	+0.1	+0.0	39.3	46.0	-6.7	Black
17	2.302M Ave	32.6	+0.1	+5.8	+0.2	+0.1	+0.0	38.8	46.0	-7.2	Black
^	2.302M	38.0	+0.1	+5.8	+0.2	+0.1	+0.0	44.2	46.0	-1.8	Black
19	2.429M Ave	31.9	+0.1	+5.8	+0.2	+0.1	+0.0	38.1	46.0	-7.9	Black
^	2.429M	40.4	+0.1	+5.8	+0.2	+0.1	+0.0	46.6	46.0	+0.6	Black


CKC Laboratories, Inc. Date: 3/14/2006 Time: 09:00:32 Alico Systems, Inc. WO#: 84441
FCC 15.207 COND [AVE] Test Lead: Black 110V 60Hz Sequence#: 54
70
60
50
40
30
20
10
dBµV/m
0.15
1
10
25.530
Frequency [MHz]
2
1
Sweep Data
1 - FCC 15.207 COND [AVE]
2 - FCC 15.207 COND [QP]

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.207 COND [AVE]**		
Work Order #:	**84441**	Date:	3/14/2006
Test Type:	**Conducted Emissions**	Time:	09:07:30
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	55
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5826F		110V 60Hz
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	MTI Wireless Edge	MT-486004/N	NA
Passive POE Injecter	Hyper Link Technologies	BT-CAT5-P1	NA
Power Supply	AULT Inc	PW118	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router is mounted on a non-conductive pole. The router and radio card are installed inside the flat panel antenna. The router is connected to a remote laptop via UTP through a Power Over Ethernet power supply system. The laptop executes test routine to exercise the EUT. Antenna gain = 26dBi. flatpanel Receiver Frequency = 5785 MHz, Mode = TX 110VAC, 60 Hz, 21°C, 43% relative humidity. Modification: Two ferrites installed on UTP. Fair rite 0443167251, 1 loop inside the enclosure, 1 loop outside the enclosure. Power Supply: 118 PCB repositioned to mate with mounting hole. Passive POE Ground braid installed on Passive POE: 12" in length, Fair rite 0443167251 installed on Power supply cable, POE end, 1 loop. Frequency range tested: 30 MHz - 1 GHz, RBW=VBW=120kHz.

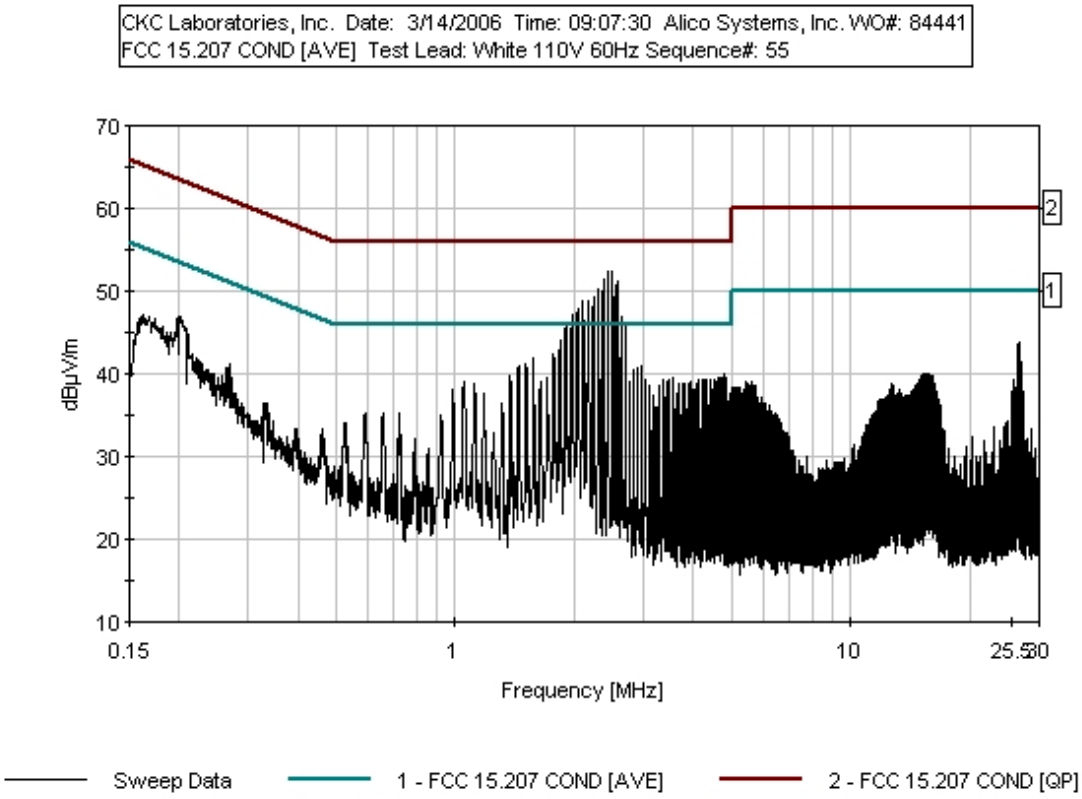
Transducer Legend:

T1=150kHz HPF Asset 02610	T2=6dB Attenuator P05267 092807
T3=Cable #21 Conducted Site A 070206	T4=(L2) Insertion Loss 00847 EMCO 3816/2NM

Measurement Data: Reading listed by margin. Test Lead: White

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1 Ave	2.500M	39.3	+0.1	+5.8	+0.2	+0.1	+0.0	45.5	46.0	-0.5	White
^	2.500M	46.1	+0.1	+5.8	+0.2	+0.1	+0.0	52.3	46.0	+6.3	White
3 Ave	2.434M	39.1	+0.1	+5.8	+0.2	+0.1	+0.0	45.3	46.0	-0.7	White
^	2.434M	46.1	+0.1	+5.8	+0.2	+0.1	+0.0	52.3	46.0	+6.3	White
5	1.838M	38.0	+0.1	+5.8	+0.1	+0.0	+0.0	44.0	46.0	-2.0	White

6	2.566M Ave	37.6	+0.1	+5.8	+0.2	+0.1	+0.0	43.8	46.0	-2.2	White
^	2.566M	44.9	+0.1	+5.8	+0.2	+0.1	+0.0	51.1	46.0	+5.1	White
8	2.366M Ave	37.5	+0.1	+5.8	+0.2	+0.1	+0.0	43.7	46.0	-2.3	White
^	2.366M	45.2	+0.1	+5.8	+0.2	+0.1	+0.0	51.4	46.0	+5.4	White
10	2.302M Ave	36.8	+0.1	+5.8	+0.2	+0.1	+0.0	43.0	46.0	-3.0	White
^	2.302M	44.1	+0.1	+5.8	+0.2	+0.1	+0.0	50.3	46.0	+4.3	White
12	2.038M Ave	36.8	+0.1	+5.8	+0.1	+0.0	+0.0	42.8	46.0	-3.2	White
^	2.038M	41.9	+0.1	+5.8	+0.1	+0.0	+0.0	47.9	46.0	+1.9	White
14	1.775M	36.5	+0.1	+5.8	+0.1	+0.0	+0.0	42.5	46.0	-3.5	White
15	1.906M Ave	35.7	+0.1	+5.8	+0.1	+0.0	+0.0	41.7	46.0	-4.3	White
^	1.906M	40.1	+0.1	+5.8	+0.1	+0.0	+0.0	46.1	46.0	+0.1	White
17	2.102M Ave	35.7	+0.1	+5.8	+0.1	+0.0	+0.0	41.7	46.0	-4.3	White
^	2.102M	42.8	+0.1	+5.8	+0.1	+0.0	+0.0	48.8	46.0	+2.8	White
19	2.234M Ave	35.6	+0.1	+5.8	+0.1	+0.0	+0.0	41.6	46.0	-4.4	White
^	2.234M	43.3	+0.1	+5.8	+0.1	+0.0	+0.0	49.3	46.0	+3.3	White
21	1.974M Ave	35.4	+0.1	+5.8	+0.1	+0.0	+0.0	41.4	46.0	-4.6	White
^	1.974M	41.2	+0.1	+5.8	+0.1	+0.0	+0.0	47.2	46.0	+1.2	White
23	2.629M Ave	34.6	+0.1	+5.8	+0.2	+0.1	+0.0	40.8	46.0	-5.2	White
^	2.629M	40.7	+0.1	+5.8	+0.2	+0.1	+0.0	46.9	46.0	+0.9	White
25	2.166M Ave	32.0	+0.1	+5.8	+0.1	+0.0	+0.0	38.0	46.0	-8.0	White
^	2.166M	42.8	+0.1	+5.8	+0.1	+0.0	+0.0	48.8	46.0	+2.8	White
27	2.693M Ave	28.8	+0.1	+5.8	+0.2	+0.1	+0.0	35.0	46.0	-11.0	White
^	2.693M	39.7	+0.1	+5.8	+0.2	+0.1	+0.0	45.9	46.0	-0.1	White


CKC Laboratories, Inc. Date: 3/14/2006 Time: 09:07:30 Alico Systems, Inc. WO#: 84441
FCC 15.207 COND [AVE] Test Lead: White 110V 60Hz Sequence#: 55
70
60
50
40
30
20
10
dBµV/m
0.15
1
10
25.530
Frequency [MHz]
2
1
Sweep Data
1 - FCC 15.207 COND [AVE]
2 - FCC 15.207 COND [QP]

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.207 COND [AVE]**		
Work Order #:	**84441**	Date:	3/13/2006
Test Type:	**Conducted Emissions**	Time:	15:15:09
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	53
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5832D		110V 60Hz
S/N:			

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	Pacific Wireless	PAW DA5x-32	NA
Power Supply	AULT Inc	PW118	NA
Passive POE Injecter	Hyper Link Technologies	BT-CAT5-P1	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna is connected to the RF port of the radio card hosted by a router in enclosure, mounted on a non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via UTP through a Power Over Ethernet power supply system. The laptop execute test routine to exercise the EUT. Antenna gain = 32.5dBi. Dish Receiver Frequency = 5785 MHz, Power level = TX. 110VAC, 60 Hz, 21°C, 43 % relative humidity. Modification: Two ferrite installed on UTP. Fair rite 0443167251, 1 loop inside the enclosure, 1 loop outside the enclosure. Power Supply: 118 Passive POE Ground braid installed on Passive POE: 12" in length, Fair rite 0443167251 installed on Power supply cable, POE end. 1 loop. Frequency range tested: 30 MHz - 1 GHz, RBW=VBW=120kHz.

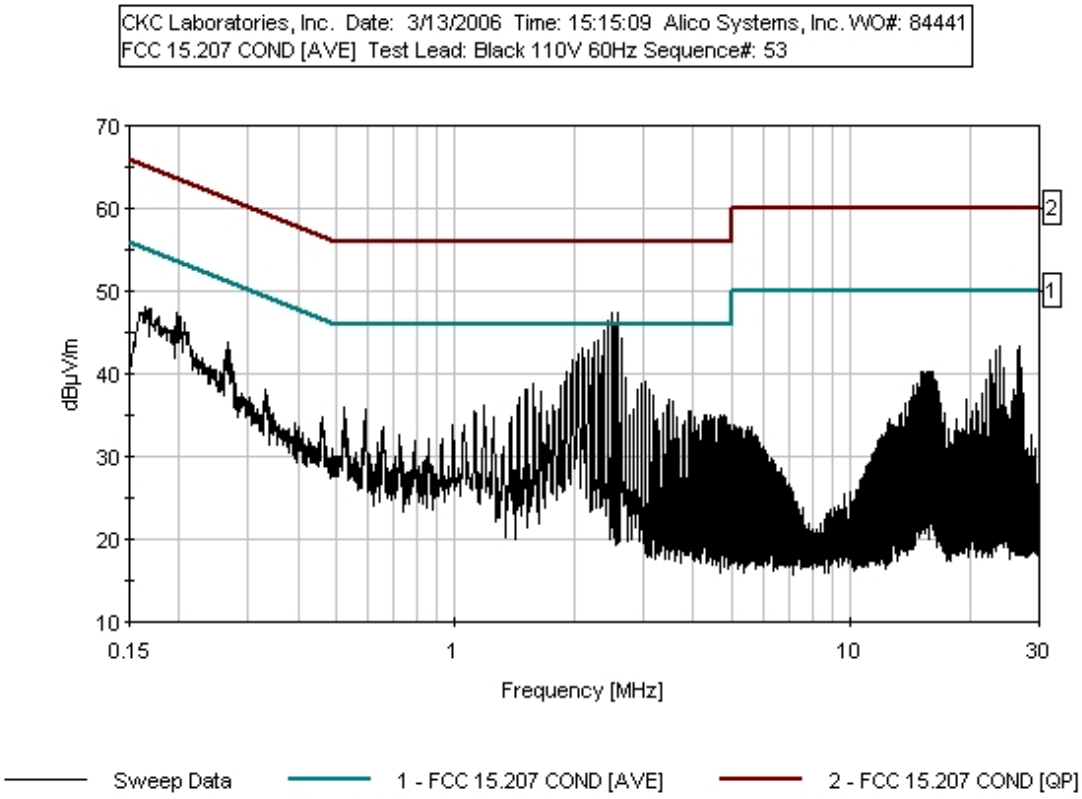
Transducer Legend:

T1=150kHz HPF Asset 02610	T2=6dB Attenuator P05267 092807
T3=Cable #21 Conducted Site A 070206	T4=(L1) Insertion Loss 00847 EMCO 3816/2NM

Measurement Data: Reading listed by margin. Test Lead: Black

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	2.302M	37.9	+0.1	+5.8	+0.2	+0.1	+0.0	44.1	46.0	-1.9	Black
2	2.242M	37.5	+0.1	+5.8	+0.2	+0.1	+0.0	43.7	46.0	-2.3	Black
3	2.106M	37.0	+0.1	+5.8	+0.1	+0.0	+0.0	43.0	46.0	-3.0	Black
4	2.166M	36.9	+0.1	+5.8	+0.1	+0.0	+0.0	42.9	46.0	-3.1	Black
5	2.038M	36.4	+0.1	+5.8	+0.1	+0.0	+0.0	42.4	46.0	-3.6	Black
6	1.974M	35.7	+0.1	+5.8	+0.1	+0.0	+0.0	41.7	46.0	-4.3	Black

7	2.502M Ave	35.2	+0.1	+5.8	+0.2	+0.1	+0.0	41.4	46.0	-4.6	Black
^	2.502M	41.2	+0.1	+5.8	+0.2	+0.1	+0.0	47.4	46.0	+1.4	Black
9	2.566M Ave	34.6	+0.1	+5.8	+0.2	+0.1	+0.0	40.8	46.0	-5.2	Black
^	2.566M	41.1	+0.1	+5.8	+0.2	+0.1	+0.0	47.3	46.0	+1.3	Black
11	2.434M Ave	34.4	+0.1	+5.8	+0.2	+0.1	+0.0	40.6	46.0	-5.4	Black
^	2.434M	40.3	+0.1	+5.8	+0.2	+0.1	+0.0	46.5	46.0	+0.5	Black
13	1.906M	34.3	+0.1	+5.8	+0.1	+0.0	+0.0	40.3	46.0	-5.7	Black
14	197.996k	41.3	+0.2	+5.8	+0.0	+0.0	+0.0	47.3	53.7	-6.4	Black
15	2.697M	33.4	+0.1	+5.8	+0.2	+0.1	+0.0	39.6	46.0	-6.4	Black
16	2.370M Ave	33.2	+0.1	+5.8	+0.2	+0.1	+0.0	39.4	46.0	-6.6	Black
^	2.370M	39.0	+0.1	+5.8	+0.2	+0.1	+0.0	45.2	46.0	-0.8	Black
18	26.608M	35.8	+0.3	+5.8	+0.4	+1.1	+0.0	43.4	50.0	-6.6	Black
19	2.629M Ave	29.6	+0.1	+5.8	+0.2	+0.1	+0.0	35.8	46.0	-10.2	Black
^	2.629M	38.2	+0.1	+5.8	+0.2	+0.1	+0.0	44.4	46.0	-1.6	Black


CKC Laboratories, Inc. Date: 3/13/2006 Time: 15:15:09 Alico Systems, Inc. WO#: 84441
FCC 15.207 COND [AVE] Test Lead: Black 110V 60Hz Sequence#: 53
70
60
50
40
30
20
10
dBµV/m
0.15
1
10
30
Frequency [MHz]
2
1
Sweep Data
1 - FCC 15.207 COND [AVE]
2 - FCC 15.207 COND [QP]

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.207 COND [AVE]**		
Work Order #:	**84441**	Date:	3/13/2006
Test Type:	**Conducted Emissions**	Time:	15:22:44
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	54
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5832D		110V 60Hz
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	Pacific Wireless	PAW DA5x-32	NA
Power Supply	AULT Inc	PW118	NA
Passive POE Injecter	Hyper Link Technologies	BT-CAT5-P1	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna is connected to the RF port of the radio card hosted by a router in enclosure, mounted on a non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via UTP through a Power Over Ethernet power supply system. The laptop executes test routine to exercise the EUT. Antenna gain = 32.5dBi. Dish Receiver Frequency = 5785 MHz, Power level = TX. 110VAC, 60 Hz, 21°C, 43% relative humidity. Modification: Two ferrites installed on UTP. Fair rite 0443167251, 1 loop inside the enclosure, 1 loop outside the enclosure. Power Supply: 118 Passive POE Ground braid installed on Passive POE: 12" in length, Fair rite 0443167251 installed on Power supply cable, POE end, 1 loop. Frequency range tested: 30 MHz - 1 GHz, RBW=VBW=120kHz.

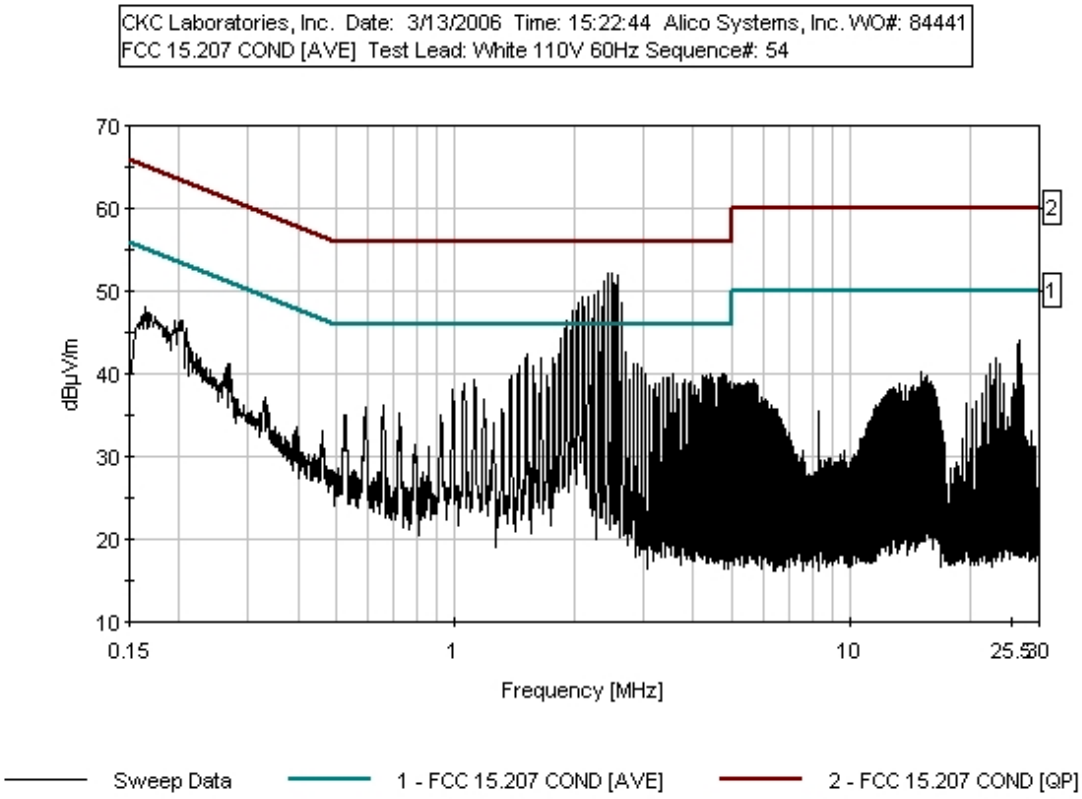
Transducer Legend:

T1=150kHz HPF Asset 02610	T2=6dB Attenuator P05267 092807
T3=Cable #21 Conducted Site A 070206	T4=(L2) Insertion Loss 00847 EMCO 3816/2NM

Measurement Data: Reading listed by margin. Test Lead: White

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1 Ave	2.502M	39.6	+0.1	+5.8	+0.2	+0.1	+0.0	45.8	46.0	-0.2	White
^	2.502M	46.0	+0.1	+5.8	+0.2	+0.1	+0.0	52.2	46.0	+6.2	White
3 Ave	2.434M	38.9	+0.1	+5.8	+0.2	+0.1	+0.0	45.1	46.0	-0.9	White
^	2.434M	46.0	+0.1	+5.8	+0.2	+0.1	+0.0	52.2	46.0	+6.2	White
5 Ave	2.566M	38.7	+0.1	+5.8	+0.2	+0.1	+0.0	44.9	46.0	-1.1	White
^	2.566M	45.6	+0.1	+5.8	+0.2	+0.1	+0.0	51.8	46.0	+5.8	White

7	2.106M Ave	37.6	+0.1	+5.8	+0.1	+0.0	+0.0	43.6	46.0	-2.4	White
^	2.106M	43.4	+0.1	+5.8	+0.1	+0.0	+0.0	49.4	46.0	+3.4	White
9	2.238M Ave	37.0	+0.1	+5.8	+0.2	+0.1	+0.0	43.2	46.0	-2.8	White
^	2.238M	43.4	+0.1	+5.8	+0.2	+0.1	+0.0	49.6	46.0	+3.6	White
11	1.974M Ave	36.8	+0.1	+5.8	+0.1	+0.0	+0.0	42.8	46.0	-3.2	White
^	1.974M	41.6	+0.1	+5.8	+0.1	+0.0	+0.0	47.6	46.0	+1.6	White
13	2.170M Ave	36.8	+0.1	+5.8	+0.1	+0.0	+0.0	42.8	46.0	-3.2	White
^	2.170M	43.3	+0.1	+5.8	+0.1	+0.0	+0.0	49.3	46.0	+3.3	White
15	2.302M Ave	36.4	+0.1	+5.8	+0.2	+0.1	+0.0	42.6	46.0	-3.4	White
^	2.302M	43.9	+0.1	+5.8	+0.2	+0.1	+0.0	50.1	46.0	+4.1	White
17	2.697M	36.4	+0.1	+5.8	+0.2	+0.1	+0.0	42.6	46.0	-3.4	White
18	1.515M	36.4	+0.1	+5.8	+0.1	+0.0	+0.0	42.4	46.0	-3.6	White
19	2.038M Ave	36.3	+0.1	+5.8	+0.1	+0.0	+0.0	42.3	46.0	-3.7	White
^	2.038M	42.6	+0.1	+5.8	+0.1	+0.0	+0.0	48.6	46.0	+2.6	White
21	2.634M Ave	35.3	+0.1	+5.8	+0.2	+0.1	+0.0	41.5	46.0	-4.5	White
^	2.634M	42.3	+0.1	+5.8	+0.2	+0.1	+0.0	48.5	46.0	+2.5	White
23	1.906M Ave	34.8	+0.1	+5.8	+0.1	+0.0	+0.0	40.8	46.0	-5.2	White
^	1.906M	40.4	+0.1	+5.8	+0.1	+0.0	+0.0	46.4	46.0	+0.4	White
25	1.843M Ave	34.7	+0.1	+5.8	+0.1	+0.0	+0.0	40.7	46.0	-5.3	White
^	1.843M	38.4	+0.1	+5.8	+0.1	+0.0	+0.0	44.4	46.0	-1.6	White
27	2.366M Ave	34.4	+0.1	+5.8	+0.2	+0.1	+0.0	40.6	46.0	-5.4	White
^	2.366M	45.0	+0.1	+5.8	+0.2	+0.1	+0.0	51.2	46.0	+5.2	White


CKC Laboratories, Inc. Date: 3/13/2006 Time: 15:22:44 Alico Systems, Inc. WO#: 84441
FCC 15.207 COND [AVE] Test Lead: White 110V 60Hz Sequence#: 54
70
60
50
40
30
20
10
dBµV/m
0.15
1
10
25.530
Frequency [MHz]
2
1
Sweep Data
1 - FCC 15.207 COND [AVE]
2 - FCC 15.207 COND [QP]

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205) 25- 40000 MHz**		
Work Order #:	**84441**	Date:	1/20/2006
Test Type:	**Radiated Scan**	Time:	16:22:06
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	13
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5809M		
S/N:			

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Power Over Ethernet supply	Phihong	PSA16U-480	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	Mobile Mark	ECOM9-5500	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router in open frame is mounted on non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via RS232 and UTP. The laptop execute test routine to exercise the EUT. Antenna gain = 9 dBi. Frequency = 5745 MHz, Power level = 25.5 dBm. 110VAC, 60 Hz, 21°C, 43 % relative humidity. Frequency 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 40000 MHz RBW=1 MHz, VBW=1 MHz.

Transducer Legend:

T1=Cable #20 48ft Heliax 091606	T2=Horn 6246_072206
T3=HP 83017A 071606	T4=1-40 GHz Cable_020807
T5=HPF_AN02118_8.2GHz_062705	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	11490.000M Ave	28.5	+8.3 +0.5	+37.5	-37.5	+2.4	+0.0	39.7	54.0	-14.3	Vert
^	11490.000M	40.2	+8.3 +0.5	+37.5	-37.5	+2.4	+0.0	51.4	54.0	-2.6	Vert
3	11490.000M Ave	25.5	+8.3 +0.5	+37.5	-37.5	+2.4	+0.0	36.7	54.0	-17.3	Horiz
^	11490.000M	37.2	+8.3 +0.5	+37.5	-37.5	+2.4	+0.0	48.4	54.0	-5.6	Horiz

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.247 (d)**		
Work Order #:	**84441**	Date:	1/23/2006
Test Type:	**Radiated Scan**	Time:	14:55:08
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	14
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5809M		
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Power Over Ethernet supply	Phihong	PSA16U-480	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	Mobile Mark	ECOM9-5500	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router in open frame is mounted on non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via RS232 and UTP. The laptop executes test routine to exercise the EUT. Antenna gain = 9 dBi. Frequency = 5785 MHz, Power level = 25.5 dBm. 110VAC, 60 Hz, 21°C, 43% relative humidity. Frequency range of measurement = 30 MHz - 40 GHz. Frequency 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 40000 MHz RBW=1 MHz, VBW=1 MHz.

Transducer Legend:

T1=Cable #20 48ft Heliax 091606	T2=Horn 6246_072206
T3=HP 83017A 071606	T4=1-40 GHz Cable_020807
T5=HPF_AN02118_8.2GHz_062705	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	11570.000M Ave	31.6	+8.3 +0.4	+37.5	-37.5	+2.4	+0.0	42.7	54.0	-11.3	Vert
^	11570.000M	45.1	+8.3 +0.4	+37.5	-37.5	+2.4	+0.0	56.2	54.0	+2.2	Vert
3	11570.000M Ave	31.3	+8.3 +0.4	+37.5	-37.5	+2.4	+0.0	42.4	54.0	-11.6	Horiz
^	11570.000M	44.7	+8.3 +0.4	+37.5	-37.5	+2.4	+0.0	55.8	54.0	+1.8	Horiz
^	11570.000M	43.8	+8.3 +0.4	+37.5	-37.5	+2.4	+0.0	54.9	54.0	+0.9	Horiz

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.247 (d)**		
Work Order #:	**84441**	Date:	1/20/2006
Test Type:	**Radiated Scan**	Time:	16:35:06
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	15
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5809M		
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Power Over Ethernet supply	Phihong	PSA16U-480	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	Mobile Mark	ECOM9-5500	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router in open frame is mounted on non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via RS232 and UTP. The laptop executes test routine to exercise the EUT. Antenna gain = 9 dBi. Frequency = 5825 MHz, Power level = 25.5 dBm. 110VAC, 60 Hz, 21°C, 43% relative humidity. Frequency range of measurement = 30 MHz - 40 GHz. Frequency 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 40000 MHz RBW=1 MHz, VBW=1 MHz.

Transducer Legend:

T1=Cable #20 48ft Heliax 091606	T2=Horn 6246_072206
T3=HP 83017A 071606	T4=1-40 GHz Cable_020807
T5=HPF_AN02118_8.2GHz_062705	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	11650.000M Ave	32.2	+8.4 +0.4	+37.5	-37.5	+2.4	+0.0	43.4	54.0	-10.6	Vert
^	11650.000M	44.1	+8.4 +0.4	+37.5	-37.5	+2.4	+0.0	55.3	54.0	+1.3	Vert
^	11650.000M	43.2	+8.4 +0.4	+37.5	-37.5	+2.4	+0.0	54.4	54.0	+0.4	Vert
4	11650.000M Ave	30.1	+8.4 +0.4	+37.5	-37.5	+2.4	+0.0	41.3	54.0	-12.7	Vert

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.247 (d)**		
Work Order #:	**84441**	Date:	1/20/2006
Test Type:	**Radiated Scan**	Time:	10:58:36
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	4
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5826F		
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Power Over Ethernet supply	Phihong	PSA16U-480	NA
Antenna	MTI Wireless Edge	MT-486004/N	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router in open frame is mounted on non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via RS232 and UTP. The laptop executes test routine to exercise the EUT. Antenna gain = 26 dBi. Frequency = 5745 MHz, Power level = 25.5 dBm. 110VAC, 60 Hz, 21°C, 43% relative humidity. Frequency range of measurement = 30 MHz - 40 GHz. Frequency 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 40000 MHz RBW=1 MHz, VBW=1 MHz.

Transducer Legend:

T1=Cable #20 48ft Heliax 091606	T2=Horn 6246_072206
T3=HP 83017A 071606	T4=1-40 GHz Cable_020807
T5=HPF_AN02118_8.2GHz_062705	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	11490.000M Ave	32.2	+8.3 +0.5	+37.5	-37.5	+2.4	+0.0	43.4	54.0	-10.6	Vert
^	11490.000M	45.9	+8.3 +0.5	+37.5	-37.5	+2.4	+0.0	57.1	54.0	+3.1	Vert
3	11490.000M Ave	28.8	+8.3 +0.5	+37.5	-37.5	+2.4	+0.0	40.0	54.0	-14.0	Horiz
^	11490.000M	40.7	+8.3 +0.5	+37.5	-37.5	+2.4	+0.0	51.9	54.0	-2.1	Horiz

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.247 (d)**		
Work Order #:	**84441**	Date:	1/20/2006
Test Type:	**Radiated Scan**	Time:	11:21:40
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	5
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5826F		
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Power Over Ethernet supply	Phihong	PSA16U-480	NA
Antenna	MTI Wireless Edge	MT-486004/N	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router in open frame is mounted on non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via RS232 and UTP. The laptop executes test routine to exercise the EUT. Antenna gain = 26 dBi. Frequency = 5785 MHz, Power level = 25.5 dBm. 110VAC, 60 Hz, 21°C, 43% relative humidity. Frequency range of measurement = 30 MHz - 40 GHz. Frequency 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 40000 MHz RBW=1 MHz, VBW=1 MHz.

Transducer Legend:

T1=Cable #20 48ft Heliax 091606	T2=Horn 6246_072206
T3=HP 83017A 071606	T4=1-40 GHz Cable_020807
T5=HPF_AN02118_8.2GHz_062705	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	11570.000M Ave	31.7	+8.3 +0.4	+37.5	-37.5	+2.4	+0.0	42.8	54.0	-11.2	Vert
^	11570.000M	44.3	+8.3 +0.4	+37.5	-37.5	+2.4	+0.0	55.4	54.0	+1.4	Vert
3	11570.000M Ave	29.3	+8.3 +0.4	+37.5	-37.5	+2.4	+0.0	40.4	54.0	-13.6	Horiz
^	11570.000M	42.8	+8.3 +0.4	+37.5	-37.5	+2.4	+0.0	53.9	54.0	-0.1	Horiz

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.247 (d)**		
Work Order #:	**84441**	Date:	1/20/2006
Test Type:	**Radiated Scan**	Time:	11:36:05
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	6
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5826F		
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Power Over Ethernet supply	Phihong	PSA16U-480	NA
Antenna	MTI Wireless Edge	MT-486004/N	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router in open frame is mounted on non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via RS232 and UTP. The laptop executes test routine to exercise the EUT. Antenna gain = 26 dBi. Frequency = 5825 MHz, Power level = 25.5 dBm. 110VAC, 60 Hz, 21°C, 43% relative humidity. Frequency range of measurement = 30 MHz - 40 GHz. Frequency 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 40000 MHz RBW=1 MHz, VBW=1 MHz.

Transducer Legend:

T1=Cable #20 48ft Heliax 091606	T2=Horn 6246_072206
T3=HP 83017A 071606	T4=1-40 GHz Cable_020807
T5=HPF_AN02118_8.2GHz_062705	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	11650.000M Ave	33.5	+8.4 +0.4	+37.5	-37.5	+2.4	+0.0	44.7	54.0	-9.3	Vert
^	11650.000M	48.9	+8.4 +0.4	+37.5	-37.5	+2.4	+0.0	60.1	54.0	+6.1	Vert
3	11650.000M Ave	29.7	+8.4 +0.4	+37.5	-37.5	+2.4	+0.0	40.9	54.0	-13.1	Horiz
^	11650.000M	43.5	+8.4 +0.4	+37.5	-37.5	+2.4	+0.0	54.7	54.0	+0.7	Horiz

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.247 (d)**		
Work Order #:	**84441**	Date:	1/20/2006
Test Type:	**Radiated Scan**	Time:	14:14:19
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	7
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5817S		
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Power Over Ethernet supply	Phihong	PSA16U-480	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	MTI Wireless Edge	MT-484032/NV	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router in open frame is mounted on non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via RS232 and UTP. The laptop executes test routine to exercise the EUT. Antenna gain = 17 dBi. Frequency = 5745 MHz, Power level = 25.5 dBm. 110VAC, 60 Hz, 21°C, 43% relative humidity. Frequency range of measurement = 30 MHz - 40 GHz. Frequency 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 40000 MHz RBW=1 MHz, VBW=1 MHz.

Transducer Legend:

T1=Cable #20 48ft Heliax 091606	T2=Horn 6246_072206
T3=HP 83017A 071606	T4=1-40 GHz Cable_020807

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	11490.000M Ave	30.2	+8.3	+37.5	-37.5	+2.4	+0.0	40.9	54.0	-13.1	Vert
^	11490.000M	44.0	+8.3	+37.5	-37.5	+2.4	+0.0	54.7	54.0	+0.7	Vert
3	11490.000M Ave	26.8	+8.3	+37.5	-37.5	+2.4	+0.0	37.5	54.0	-16.5	Horiz
^	11490.000M	38.5	+8.3	+37.5	-37.5	+2.4	+0.0	49.2	54.0	-4.8	Horiz

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.247 (d)**		
Work Order #:	**84441**	Date:	1/20/2006
Test Type:	**Radiated Scan**	Time:	14:27:51
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	8
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5817S		
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Power Over Ethernet supply	Phihong	PSA16U-480	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	MTI Wireless Edge	MT-484032/NV	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router in open frame is mounted on non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via RS232 and UTP. The laptop executes test routine to exercise the EUT. Antenna gain = 17 dBi. Frequency = 5785 MHz, Power level = 25.5 dBm. 110VAC, 60 Hz, 21°C, 43% relative humidity. Frequency range of measurement = 30 MHz - 40 GHz. Frequency 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 40000 MHz RBW=1 MHz, VBW=1 MHz.

Transducer Legend:

T1=Cable #20 48ft Heliax 091606	T2=Horn 6246_072206
T3=HP 83017A 071606	T4=1-40 GHz Cable_020807
T5=HPF_AN02118_8.2GHz_062705	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	11570.000M Ave	29.8	+8.3 +0.4	+37.5	-37.5	+2.4	+0.0	40.9	54.0	-13.1	Vert
^	11570.000M	43.1	+8.3 +0.4	+37.5	-37.5	+2.4	+0.0	54.2	54.0	+0.2	Vert
3	11570.000M Ave	29.6	+8.3 +0.4	+37.5	-37.5	+2.4	+0.0	40.7	54.0	-13.3	Horiz
^	11570.000M	43.7	+8.3 +0.4	+37.5	-37.5	+2.4	+0.0	54.8	54.0	+0.8	Horiz

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.247 (d)**		
Work Order #:	**84441**	Date:	1/20/2006
Test Type:	**Radiated Scan**	Time:	14:38:43
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	9
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5817S		
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Power Over Ethernet supply	Phihong	PSA16U-480	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	MTI Wireless Edge	MT-484032/NV	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router in open frame is mounted on non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via RS232 and UTP. The laptop executes test routine to exercise the EUT. Antenna gain = 17 dBi. Frequency = 5825 MHz, Power level = 25.5 dBm. 110VAC, 60 Hz, 21°C, 43% relative humidity. Frequency range of measurement = 30 MHz - 40 GHz. Frequency 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 40000 MHz RBW=1 MHz, VBW=1 MHz.

Transducer Legend:

T1=Cable #20 48ft Heliax 091606	T2=Horn 6246_072206
T3=HP 83017A 071606	T4=1-40 GHz Cable_020807
T5=HPF_AN02118_8.2GHz_062705	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	11650.000M Ave	33.4	+8.4 +0.4	+37.5	-37.5	+2.4	+0.0	44.6	54.0	-9.4	Vert
^	11650.000M	47.5	+8.4 +0.4	+37.5	-37.5	+2.4	+0.0	58.7	54.0	+4.7	Vert
3	11650.000M Ave	31.5	+8.4 +0.4	+37.5	-37.5	+2.4	+0.0	42.7	54.0	-11.3	Horiz
^	11650.000M	45.3	+8.4 +0.4	+37.5	-37.5	+2.4	+0.0	56.5	54.0	+2.5	Horiz

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.247 (d)**		
Work Order #:	**84441**	Date:	1/20/2006
Test Type:	**Radiated Scan**	Time:	15:06:10
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	10
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5815O		
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Power Over Ethernet supply	Phihong	PSA16U-480	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	MTI Wireless Edge	MT-484030/N	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router in open frame is mounted on non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via RS232 and UTP. The laptop executes test routine to exercise the EUT. Antenna gain = 15 dBi. Frequency = 5745 MHz, Power level = 20.7 dBm. 110VAC, 60 Hz, 21°C, 43% relative humidity. Frequency range of measurement = 30 MHz - 40 GHz. Frequency 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 40000 MHz RBW=1 MHz, VBW=1 MHz.

Transducer Legend:

T1=Cable #20 48ft Heliax 091606	T2=Horn 6246_072206
T3=HP 83017A 071606	T4=1-40 GHz Cable_020807

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	11490.000M	36.1	+8.3	+37.5	-37.5	+2.4	+0.0	46.8	54.0	-7.2	Horiz
2	11490.000M	36.0	+8.3	+37.5	-37.5	+2.4	+0.0	46.7	54.0	-7.3	Vert

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.247 (d)**		
Work Order #:	**84441**	Date:	1/20/2006
Test Type:	**Radiated Scan**	Time:	15:15:55
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	11
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5815O		
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Power Over Ethernet supply	Phihong	PSA16U-480	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	MTI Wireless Edge	MT-484030/N	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router in open frame is mounted on non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via RS232 and UTP. The laptop executes test routine to exercise the EUT. Antenna gain = 15 dBi. Frequency = 5785 MHz, Power level = 20.7 dBm. 110VAC, 60 Hz, 21°C, 43% relative humidity. Frequency range of measurement = 30 MHz - 40 GHz. Frequency 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 40000 MHz RBW=1 MHz, VBW=1 MHz.

Transducer Legend:

T1=Cable #20 48ft Heliax 091606	T2=Horn 6246_072206
T3=HP 83017A 071606	T4=1-40 GHz Cable_020807

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	11566.700M	36.8	+8.3	+37.5	-37.5	+2.4	+0.0	47.5	54.0	-6.5	Horiz
2	11570.000M	36.6	+8.3	+37.5	-37.5	+2.4	+0.0	47.3	54.0	-6.7	Vert

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.247 (d)**		
Work Order #:	**84441**	Date:	1/20/2006
Test Type:	**Radiated Scan**	Time:	15:42:35
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	12
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5815O		
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Power Over Ethernet supply	Phihong	PSA16U-480	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	MTI Wireless Edge	MT-484030/N	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router in open frame is mounted on non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via RS232 and UTP. The laptop executes test routine to exercise the EUT. Antenna gain = 15 dBi. Frequency = 5825 MHz, Power level = 20.7 dBm. 110VAC, 60 Hz, 21°C, 43% relative humidity. Frequency range of measurement = 30 MHz - 40 GHz. Frequency 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 40000 MHz RBW=1 MHz, VBW=1 MHz.

Transducer Legend:

T1=Cable #20 48ft Heliax 091606	T2=Horn 6246_072206
T3=HP 83017A 071606	T4=1-40 GHz Cable_020807
T5=HPF_AN02118_8.2GHz_062705	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	11648.300M	38.6	+8.4 +0.4	+37.5	-37.5	+2.4	+0.0	49.8	54.0	-4.2	Horiz
2	11650.000M	37.2	+8.4 +0.4	+37.5	-37.5	+2.4	+0.0	48.4	54.0	-5.6	Vert
3	11650.000M Ave	27.7	+8.4 +0.4	+37.5	-37.5	+2.4	+0.0	38.9	54.0	-15.1	Horiz

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Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.247 (d)**		
Work Order #:	**84441**	Date:	1/23/2006
Test Type:	**Radiated Scan**	Time:	14:52:42
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	16
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5832D		
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Power Over Ethernet supply	Phihong	PSA16U-480	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	Pacific Wireless	PAW DA5x-32	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router in open frame is mounted on non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via RS232 and UTP. The laptop executes test routine to exercise the EUT. Antenna gain = 32.5dBi. Frequency = 5745 MHz, Power level = 25.5 dBm. 110VAC, 60 Hz, 21°C, 43% relative humidity. Frequency range of measurement = 30 MHz - 40 GHz. Frequency 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 40000 MHz RBW=1 MHz, VBW=1 MHz.

Transducer Legend:

T1=Cable #20 48ft Heliax 091606	T2=Horn 6246_072206
T3=HP 83017A 071606	T4=1-40 GHz Cable_020807
T5=HPF_AN02118_8.2GHz_062705	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	11490.000M Ave	31.9	+8.3 +0.5	+37.5	-37.5	+2.4	+0.0	43.1	54.0	-10.9	Vert
^	11490.000M	45.7	+8.3 +0.5	+37.5	-37.5	+2.4	+0.0	56.9	54.0	+2.9	Vert
3	11492.570M Ave	28.0	+8.3 +0.5	+37.5	-37.5	+2.4	+0.0	39.2	54.0	-14.8	Horiz
^	11492.570M	38.1	+8.3 +0.5	+37.5	-37.5	+2.4	+0.0	49.3	54.0	-4.7	Horiz

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Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.247 (d)**		
Work Order #:	**84441**	Date:	1/23/2006
Test Type:	**Radiated Scan**	Time:	15:01:15
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	17
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5832D		
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Power Over Ethernet supply	Phihong	PSA16U-480	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	Pacific Wireless	PAW DA5x-32	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router in open frame is mounted on non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via RS232 and UTP. The laptop executes test routine to exercise the EUT. Antenna gain = 32.5dBi. Frequency = 5785 MHz, Power level = 25.5 dBm. 110VAC, 60 Hz, 21°C, 43% relative humidity. Frequency range of measurement = 30 MHz - 40 GHz. Frequency 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 40000 MHz RBW=1 MHz, VBW=1 MHz.

Transducer Legend:

T1=Cable #20 48ft Heliax 091606	T2=Horn 6246_072206
T3=HP 83017A 071606	T4=1-40 GHz Cable_020807
T5=HPF_AN02118_8.2GHz_062705	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	11570.000M Ave	38.6	+8.3 +0.4	+37.5	-37.5	+2.4	+0.0	49.7	54.0	-4.3	Horiz
^	11570.000M	51.8	+8.3 +0.4	+37.5	-37.5	+2.4	+0.0	62.9	54.0	+8.9	Horiz
3	11570.000M Ave	29.9	+8.3 +0.4	+37.5	-37.5	+2.4	+0.0	41.0	54.0	-13.0	Vert
^	11570.000M	43.8	+8.3 +0.4	+37.5	-37.5	+2.4	+0.0	54.9	54.0	+0.9	Vert

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer:	**Alico Systems, Inc.**		
Specification:	**FCC 15.247 (d)**		
Work Order #:	**84441**	Date:	1/23/2006
Test Type:	**Radiated Scan**	Time:	15:21:08
Equipment:	**Broadband 802.11 B/G/A Access Point and Bridge**	Sequence#:	18
Manufacturer:	Alico Systems, Inc	Tested By:	E. Wong
Model:	WNE-5832D		
S/N:			

***Components of the EUT module are listed below*:**

Function	Manufacturer	Model #	S/N
Router Board	Mikrotik	RB/532	NA
Power Over Ethernet supply	Phihong	PSA16U-480	NA
Radio Card	Ubiquiti Networks	Super Range 5	NA
Antenna	Pacific Wireless	PAW DA5x-32	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Inspiron 600M	GH1TU71

Test Conditions / Notes:

Pole mounted antenna, connected to the RF port of the radio card, hosted by a router in open frame is mounted on non-conductive pole. The router and radio card are located 1 meter above the ground plane. The router is connected to a remote laptop via RS232 and UTP. The laptop executes test routine to exercise the EUT. Antenna gain = 32.5dBi. Frequency = 5825 MHz, Power level = 25.5 dBm. 110VAC, 60 Hz, 21°C, 43% relative humidity. Frequency range of measurement = 30 MHz - 40 GHz. Frequency 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 40000 MHz RBW=1 MHz, VBW=1 MHz.

Transducer Legend:

T1=Cable #20 48ft Heliax 091606	T2=Horn 6246_072206
T3=HP 83017A 071606	T4=1-40 GHz Cable_020807
T5=HPF_AN02118_8.2GHz_062705	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	11650.000M Ave	41.0	+8.4 +0.4	+37.5	-37.5	+2.4	+0.0	52.2	54.0	-1.8	Vert
^	11650.000M	55.5	+8.4 +0.4	+37.5	-37.5	+2.4	+0.0	66.7	54.0	+12.7	Vert
3	11557.700M	38.1	+8.3 +0.5	+37.5	-37.5	+2.4	+0.0	49.3	54.0	-4.7	Horiz
4	11560.000M Ave	27.8	+8.3 +0.5	+37.5	-37.5	+2.4	+0.0	39.0	54.0	-15.0	Horiz