CKC LABORATORIES, INC. Testing the Future

ADDENDUM TO FLUKE CORPORATION TEST REPORT

FOR THE

POWER RECORDER, 1750

FCC PART 15 SUBPART C SECTIONS 15.207, 15.209, 15.249 AND RSS-210

COMPLIANCE

DATE OF ISSUE: AUGUST 15, 2006

PREPARED FOR:

Fluke Corporation
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Everett, WA 98203

P.O. No.: 303188
W.O. No.: 85111

PREPARED BY:

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Date of test: May 22 – June 12, 2006

Report No.: FC06-034A

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ADMINISTRATIVE INFORMATION

DATE OF TEST:	May 22 – June 12, 2006
DATE OF RECEIPT:	May 22, 2006
MANUFACTURER:	Fluke Corporation 6920 Seaway Blvd. Everett, WA 98203
REPRESENTATIVE:	Thomas Smith
TEST LOCATION:	CKC Laboratories, Inc. 14797 NE 95th Redmond, WA 98052
TEST METHOD:	ANSI C63.4 (2003), FCC Part 15 Subpart C Sections 15.207, 15.209, 15.249 and RSS-210
PURPOSE OF TEST:	To demonstrate the compliance of the Power Recorder, 1750 with the requirements for FCC Part 15 Subpart C Sections 15.207 & 15.249 and RSS-210 devices. **Addendum A** revises the FCC to Canada matrix to reflect RSS 210 issue 6 with no new testing.

FCC TO CANADA STANDARD CORRELATION MATRIX

Canadian Standard	Canadian Section	FCC Standard	FCC Section	Test Description
RSS 210	2.1	47CFR	15.215(c)	Frequency Stability Recommendation
RSS 210	2.6	47CFR	15.209	General Radiated Emissions Requirement
RSS 210	2.7	47CFR	15.205	Restricted Bands of Operation
RSS 210	A2.9 (1)	47CFR	15.249(a)	Field Strength Limitations
RSS 210	A2.9 (1)	47CFR	15.249(c)	Test Distance Requirement
RSS 210	A2.9 (2)	47CFR	15.249(d)	Spurious Emissions Attenuation Requirement
RSS Gen	4.3	47CFR	15.35(c)	Pulsed Operation (N/A for 902-928MHz)
RSS Gen	7.2.2	47CFR	15.207	AC Mains Conducted Emissions Requirement
NA	NA	47CFR	15.249(b)	Point-to-Point Operations Limitations
NA	NA	47CFR	15.249(e)	Peak to Average Limit Requirement

Notes: Rule Sections for RSS 210 are taken from RSS 210 Issue 6
This table applies to 902-928, 2400-2483.5, 5275-5875MHz bands only.

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

APPROVALS

Steve Behm, Director of Engineering Services

QUALITY ASSURANCE:

Joyce Walker, Quality Assurance Administrative Manager

TEST PERSONNEL:

Eddie Wong, EMC Engineer

Ryan Rutledge, EMC Test Technologist

FCC 15.31(e) Voltage Variations
Voltage varied between 85% and 115% of the nominal rated supply voltage. No change on power level was observed.

FCC 15.31(m) Number Of Channels
This device was tested on three channels.

FCC 15.33(a) Frequency Ranges Tested
15.207 Conducted Emissions: 150 kHz – 30 MHz
15.209/15.249(d) Radiated Emissions: 9 kHz – 25 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	9 kHz	150 kHz	200 Hz
RADIATED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	30 MHz	1000 MHz	120 kHz
RADIATED EMISSIONS	1000 MHz	25 GHz	1 MHz

FCC 15.203 Antenna Requirements
The antenna is an integral part of the EUT and is non-removable; therefore the EUT complies with Section 15.203 of the FCC rules.

EUT Operating Frequency
The EUT was operating at 2401 MHz – 2481 MHz in the 2400 MHz – 2483.5 MHz range.

Temperature And Humidity During Testing
The temperature during testing was within +15°C and + 35°C.
The relative humidity was between 20% and 75%.

EQUIPMENT UNDER TEST (EUT) DESCRIPTION

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

EQUIPMENT UNDER TEST

Power Recorder

Manuf: Fluke Corporation
Model: 1750
Serial: NA
FCC ID: pending

PERIPHERAL DEVICES

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

Laptop

Manuf: Dell
Model: Laptitude
Serial: 0019-026-280-761
FCC ID: NA

REPORT OF MEASUREMENTS

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

Table 1: FCC 15.207 Six Highest Conducted Emission Levels

FREQUENCY MHz	METER READING dBµV	CORRECTION FACTORS HPF dB	Amp dB	Lisn dB	Cable dB	CORRECTED READING dBµV	SPEC LIMIT dBµV	MARGIN dB	NOTES
27.403060	47.5	20.0	-27.4	0.3	0.7	41.1	50.0	-8.9	B
27.896410	47.0	20.0	-27.4	0.3	0.7	40.6	50.0	-9.4	B
28.417170	48.9	19.9	-27.4	0.3	0.8	42.5	50.0	-7.5	B
28.931080	49.6	19.9	-27.5	0.2	0.8	43.0	50.0	-7.0	B
29.431280	49.0	19.8	-27.5	0.2	0.8	42.3	50.0	-7.7	B
29.945180	50.2	19.8	-27.6	0.2	0.8	43.4	50.0	-6.6	B

Test Method: ANSI C63.4 (2003) NOTES: B = Black Lead
Spec Limit: FCC Part 15 Subpart C Section 15.207

COMMENTS: EUT on table with all ports filled. Wireless card communicating with PDA via Bluetooth. Selected top 25 readings, performed in peak detection against the average limit. Top 25 contributions above 1 MHz measured and noted with radio card installed. The radio card made no detectable contribution to the emissions below 1 MHz.

Table 2: FCC 15.249(a) Fundamental 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
2401.780	82.4	28.7	-34.0	5.2		82.3	93.9	-11.6	H
2401.780	72.8	28.7	-34.0	5.2		72.7	93.9	-21.2	V
2441.130	83.8	28.9	-34.0	5.2		83.9	93.9	-10.0	H
2441.130	72.9	28.9	-34.0	5.2		73.0	93.9	-20.9	V
2480.030	82.3	29.1	-33.9	5.2		82.7	93.9	-11.2	H
2480.030	72.9	29.1	-33.9	5.2		73.3	93.9	-20.6	V

Test Method: FCC Part 15 Subpart C Section 15.249(a)
Spec Limit: FCC Part 15 Subpart C Section 15.249(a)
Test Distance: 3 Meters

NOTES: H = Horizontal Polarization
V = Vertical Polarization

COMMENTS: The RF card is installed in the data acquisition system. All ports were filled. The EUT communicates with a remote laptop. RF card is active sending RF in Bluetooth modulation. Frequency = 2402, 2440.5, 2480 MHz. Frequency range of measurement = Fundamental. RBW=1 MHz,VBW=1 MHz. 15.31(e) supply voltage varied between 85% and 115% of the nominal rated supply voltage. No change on power level was observed.

Note: FCC15.249 (a) Field Strength of Harmonics: Field strength of harmonics was investigated to 25 GHz. **No emissions within 20 dB of the limit line were detected**.

Table 3: FCC 15.249(d)/15.209 Six Highest Radiated Emission Levels: 30-1000 MHz									
	METER	CORRECTION FACTORS				CORRECTED	SPEC		
FREQUENCY MHz	READING dBµV	Ant dB	Cable dB	Amp dB	dB	READING dBµV/m	LIMIT dBµV/m	MARGIN dB	NOTES
31.398	41.8	21.1	0.8	-27.6		36.1	40.0	-3.9	V-1
64.805	57.9	4.7	1.1	-27.5		36.2	40.0	-3.8	V-1
92.556	55.4	10.6	1.4	-27.5		39.9	43.5	-3.6	V-1
194.998	54.9	9.8	2.1	-27.1		39.4	43.5	-4.1	VQ-2
365.017	50.3	16.0	2.9	-27.3		41.9	46.0	-4.1	V-1
416.669	50.1	17.4	3.0	-27.8		42.7	46.0	-3.3	VQ-2

Test Method: FCC Part 15 Subpart C Section 15.249(d)
Spec Limit: FCC Part 15 Subpart C Section 15.249(d)
Test Distance: 3 Meters

NOTES: Q = Quasi Peak Reading
V = Vertical Polarization
1 = 2402 MHz
2 = 2440 MHz
3 = 2480 MHz

COMMENTS: See individual data sheets for test conditions.

Note: Investigation was also performed from 9 kHz- 30 MHz at all three frequencies with the following setting: Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz- 30 MHz RBW=9 kHz, VBW=9 kHz. **No emissions were found.**

Table 4: FCC 15.249(d)/15.209 Six Highest Radiated Emission Levels: >1 GHz

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
1150.000	49.8	24.4	-36.5	3.5		41.2	54.0	-12.8	H-3
1250.000	46.2	25.0	-36.1	3.6		38.7	54.0	-15.3	V-2
1250.200	47.0	25.0	-36.1	3.6		39.5	54.0	-14.5	H-3
1549.630	43.8	26.2	-35.1	4.1		39.0	54.0	-15.0	H-2
1549.963	43.7	26.2	-35.1	4.1		38.9	54.0	-15.1	H-1
1550.000	44.1	26.2	-35.1	4.1		39.3	54.0	-14.7	V-3

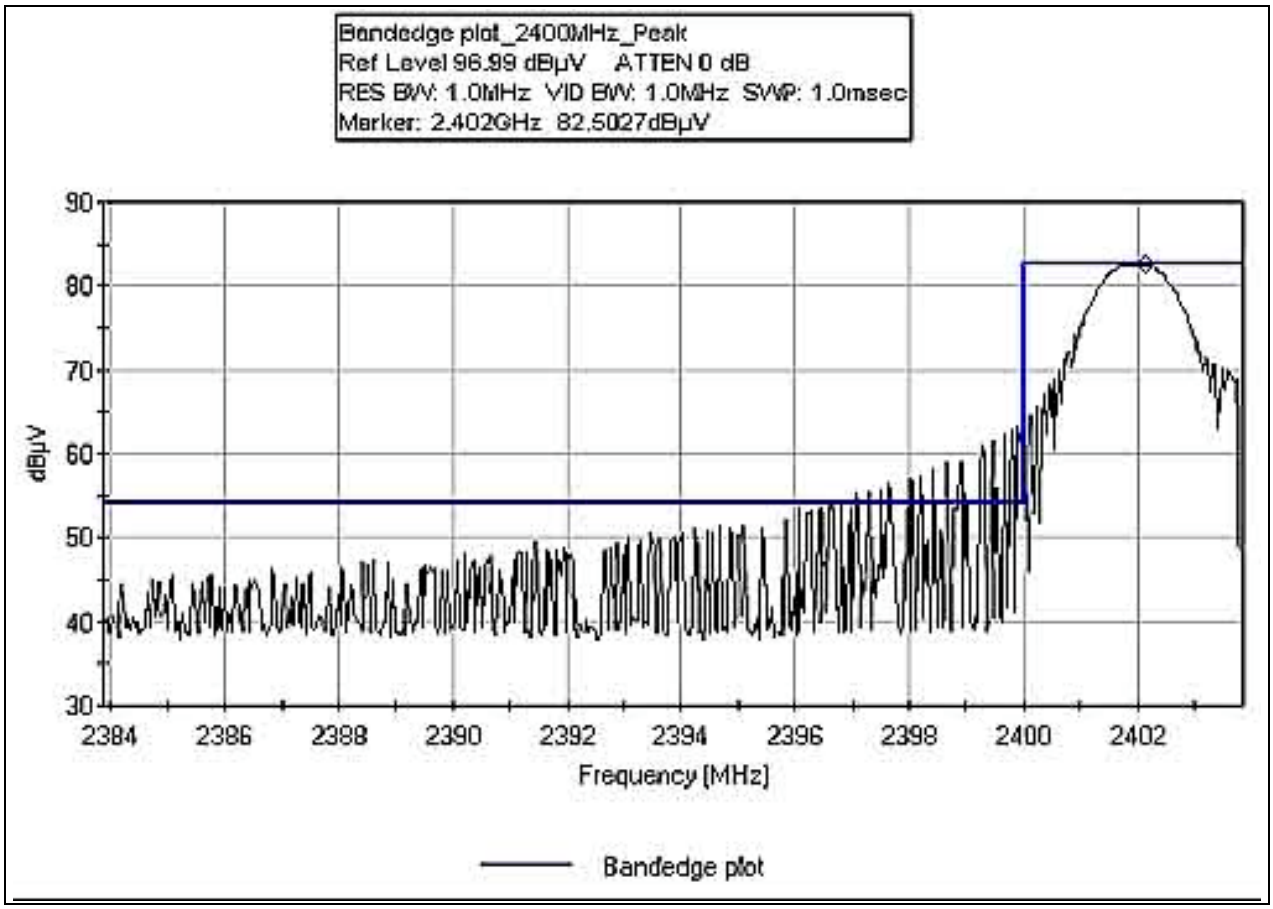
Test Method: FCC Part 15 Subpart C Section 15.249(d)
Spec Limit: FCC Part 15 Subpart C Section 15.249(d)
Test Distance: 3 Meters

NOTES: H = Horizontal Polarization
V = Vertical Polarization
1 = 2402 MHz
2 = 2440 MHz
3 = 2480 MHz

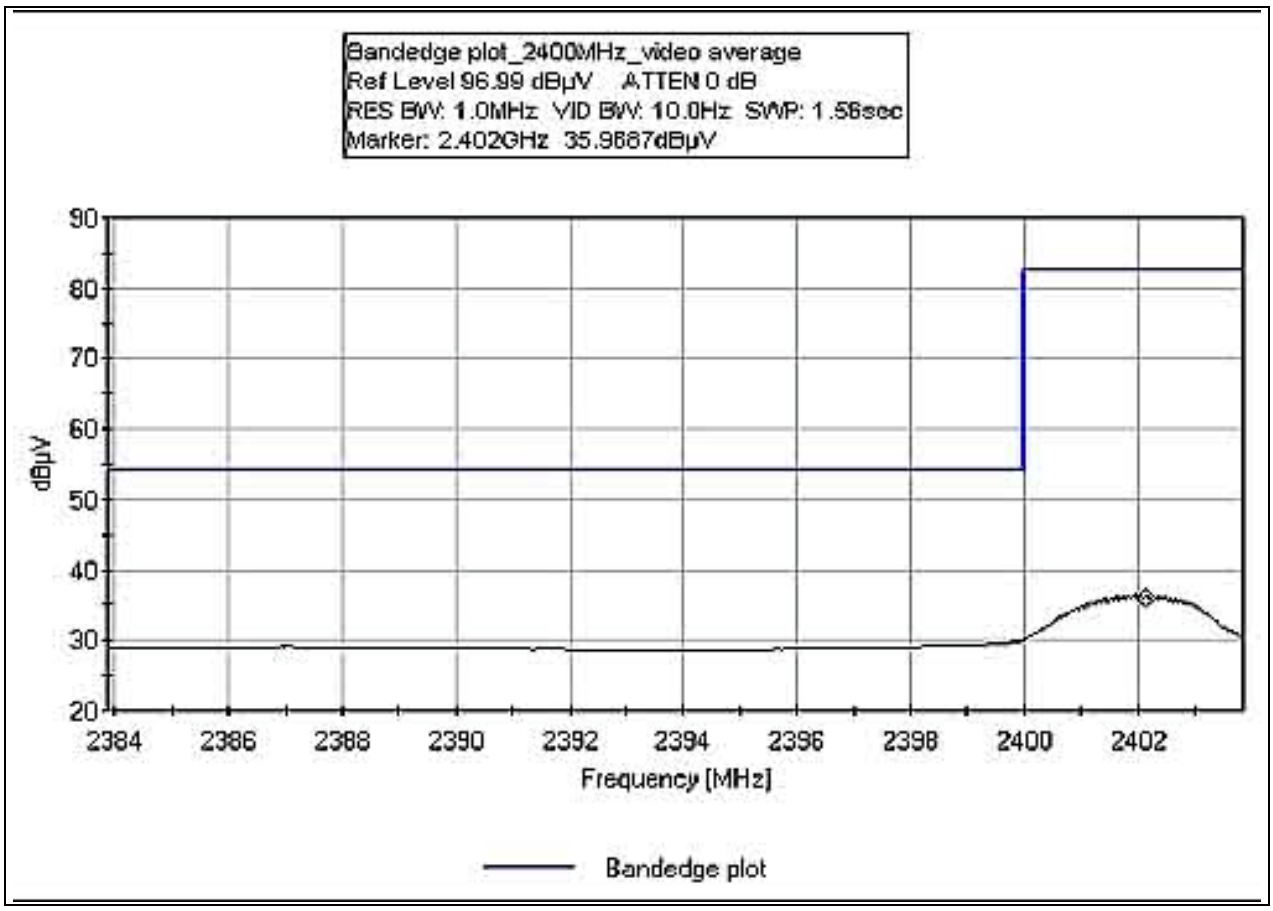
COMMENTS: See individual data sheets for test conditions.

BANDEDGE PLOT - 2400 MHz PEAK

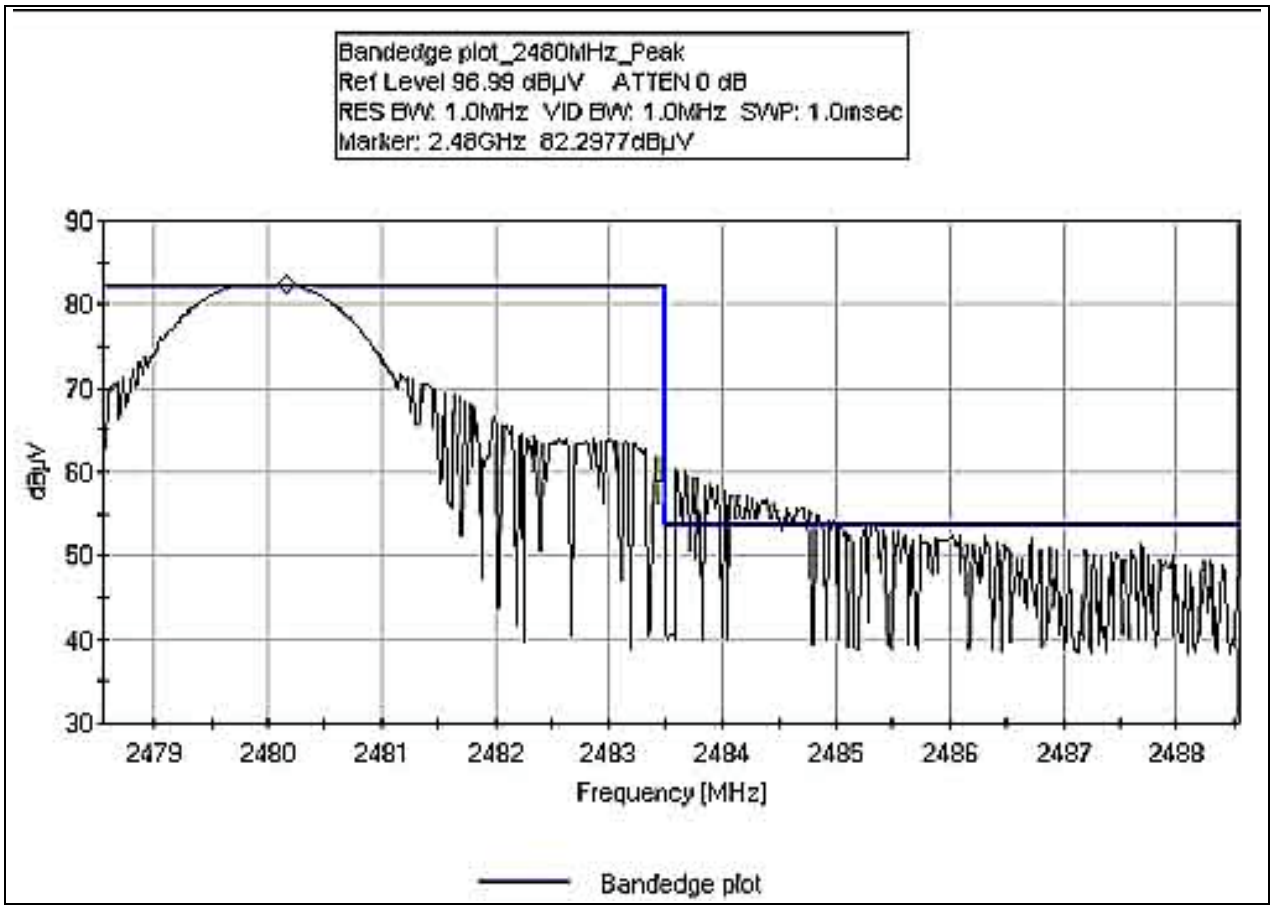
Test Conditions: The RF card is installed in the data acquisition system. All ports were filled. The EUT communicates with a remote laptop. RF card is active sending RF in Bluetooth modulation. Radiated measurement. Due to the cyclic nature of the transmission that causes out of band random spikes, two plots are included. One is Peak, showing the peak power, the other is Average showing compliance to ave limit per 15.209 above 1GHz.



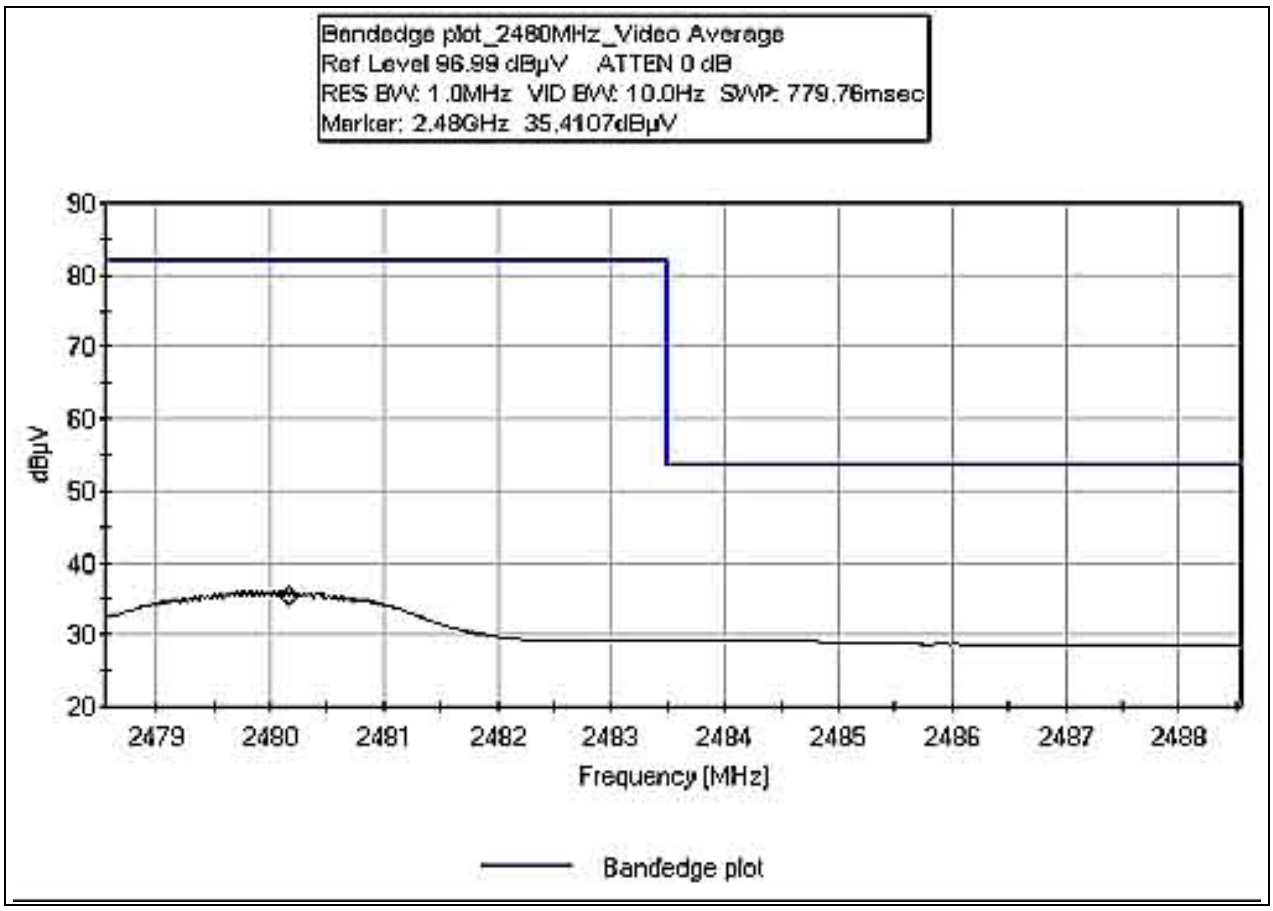
BANDEDGE PLOT - 2400 MHz VIDEO AVERAGE



BANDEDGE PLOT - 2480 MHz PEAK

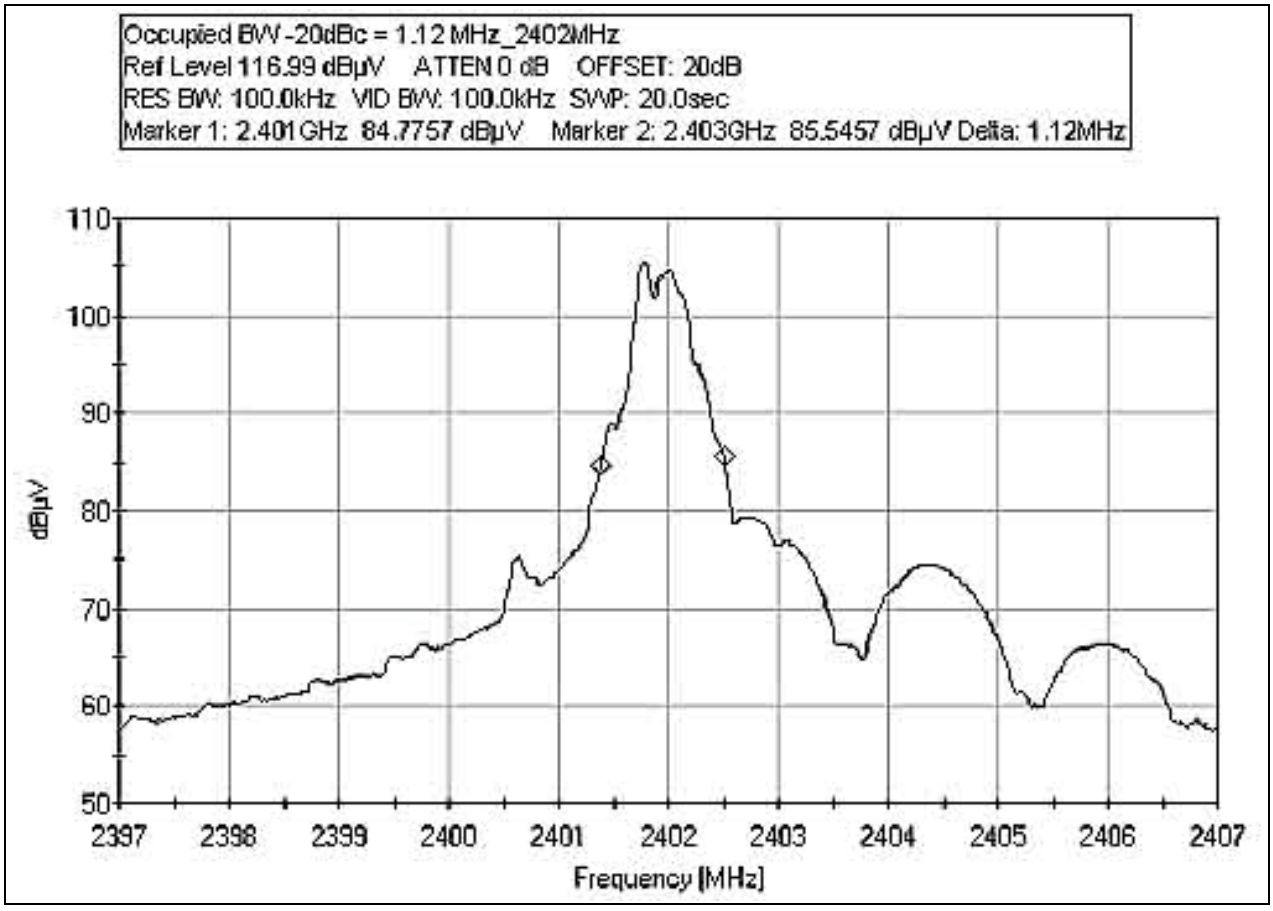


BANDEDGE PLOT - 2480 MHz VIDEO AVERAGE



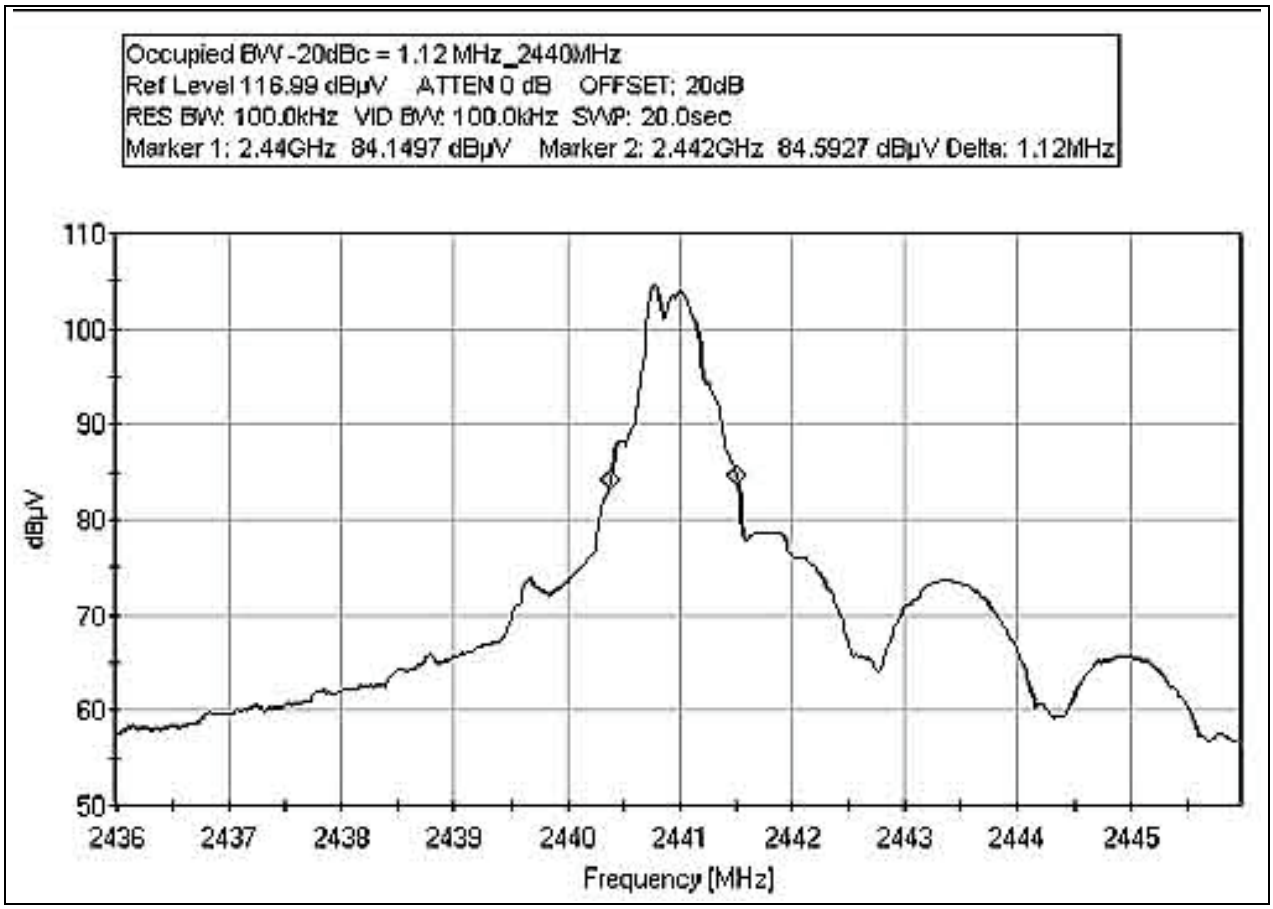
OCCUPIED BANDWIDTH - 2402 MHz

Test Conditions: The EUT is placed on the test bench. Measurement performed at antenna port. Occupied BW -20dBc = 1.12 MHz_2402 MHz.



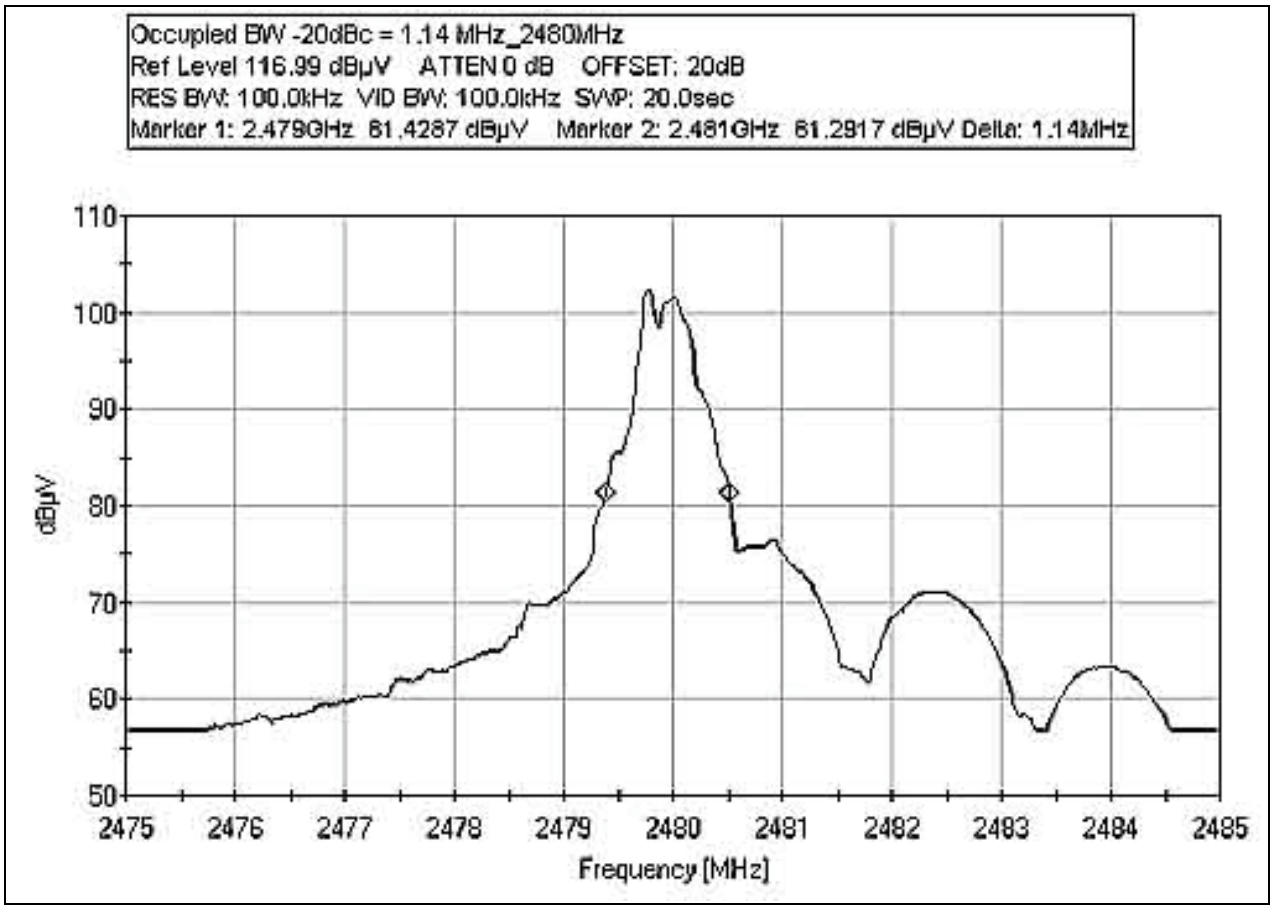
OCCUPIED BANDWIDTH - 2440 MHz

Test Conditions: The EUT is placed on the test bench. Measurement performed at antenna port. Occupied BW -20dBc = 1.12 MHz_2440 MHz.



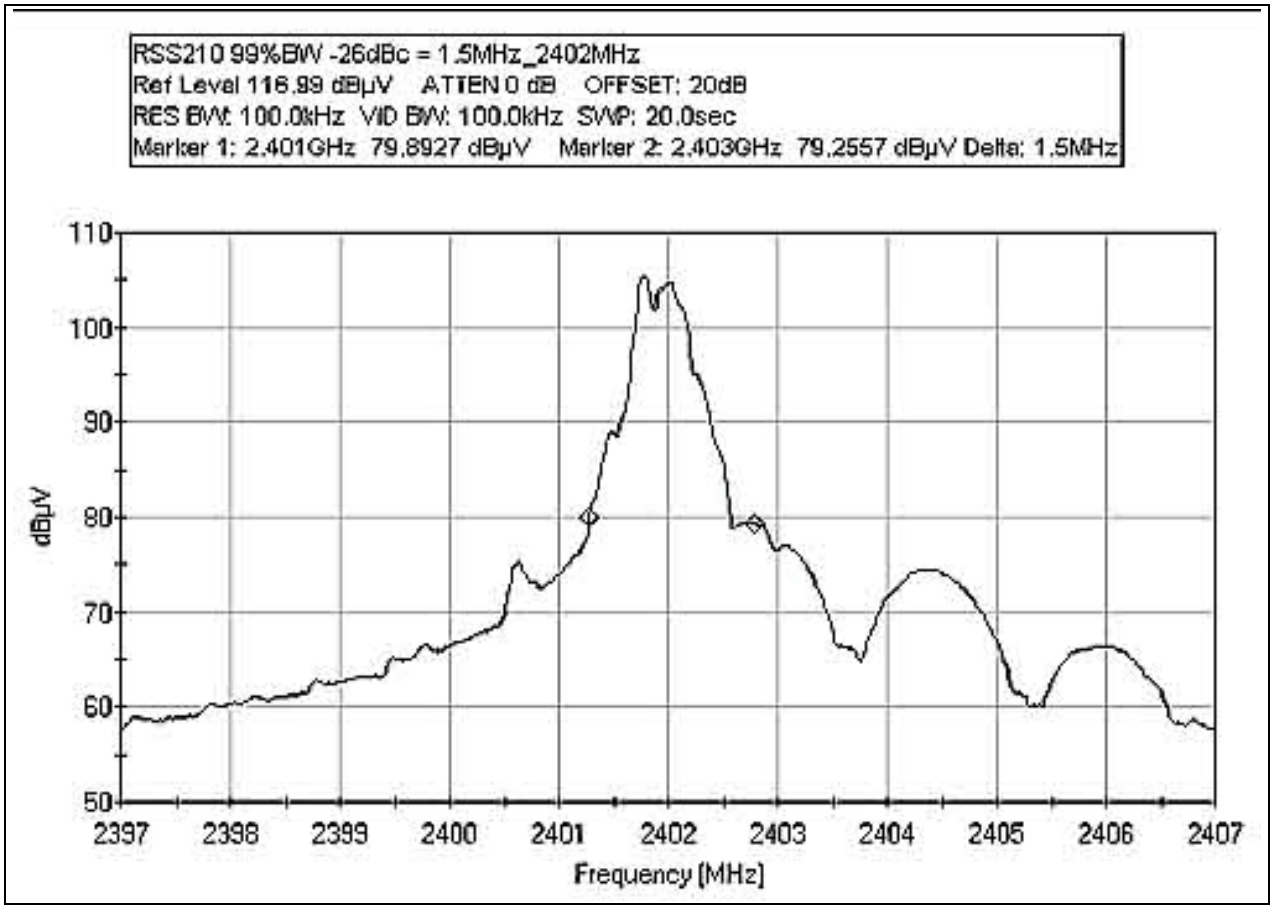
OCCUPIED BANDWIDTH - 2480 MHz

Test Conditions: The EUT is placed on the test bench. Measurement performed at antenna port. Occupied BW -20dBc = 1.14 MHz_2480 MHz.



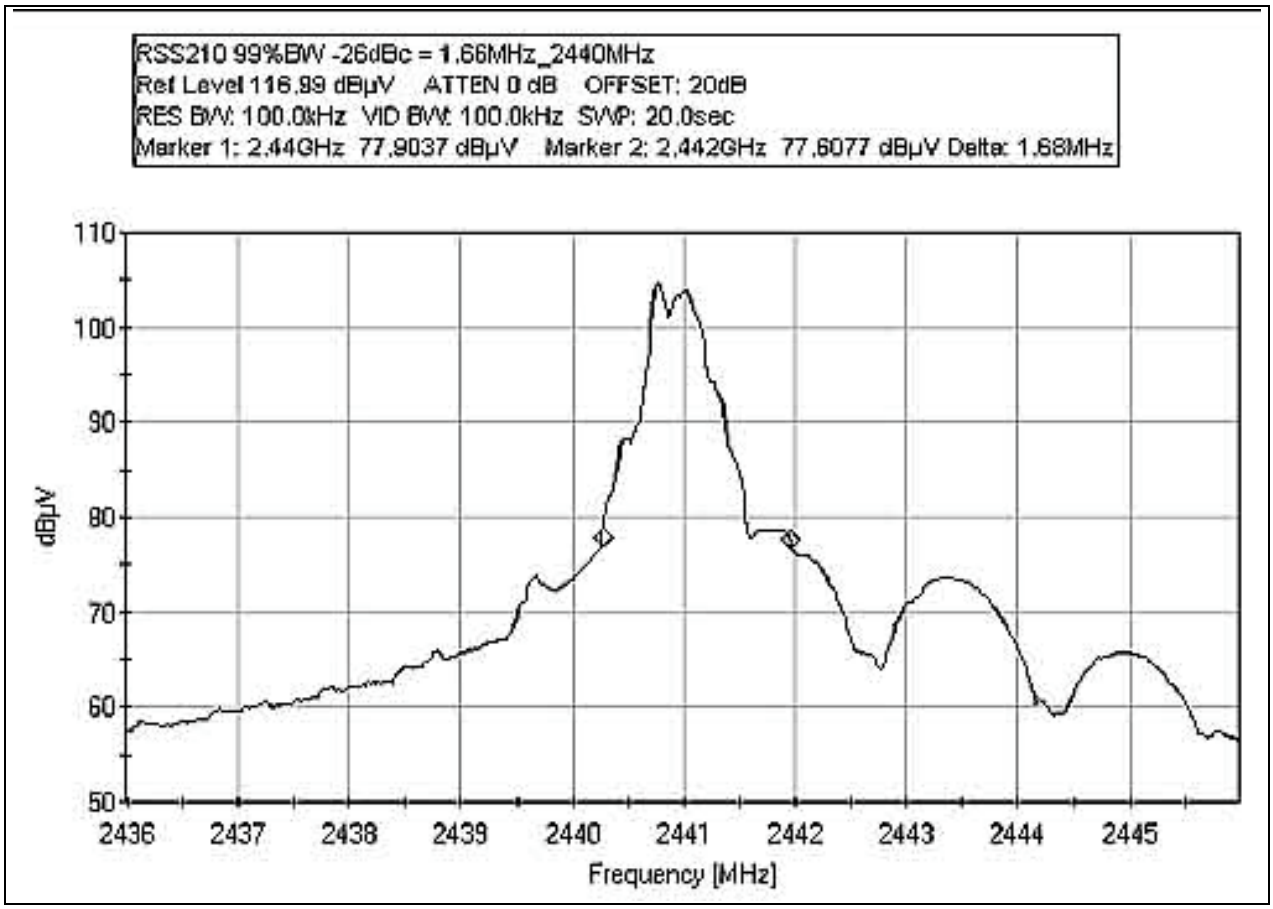
RSS-210 99% BANDWIDTH - 2402 MHz

Test Conditions: The EUT is placed on the test bench. Measurement performed at antenna port. RSS210 99%BW -26dBc = 1.5 MHz_2402 MHz.



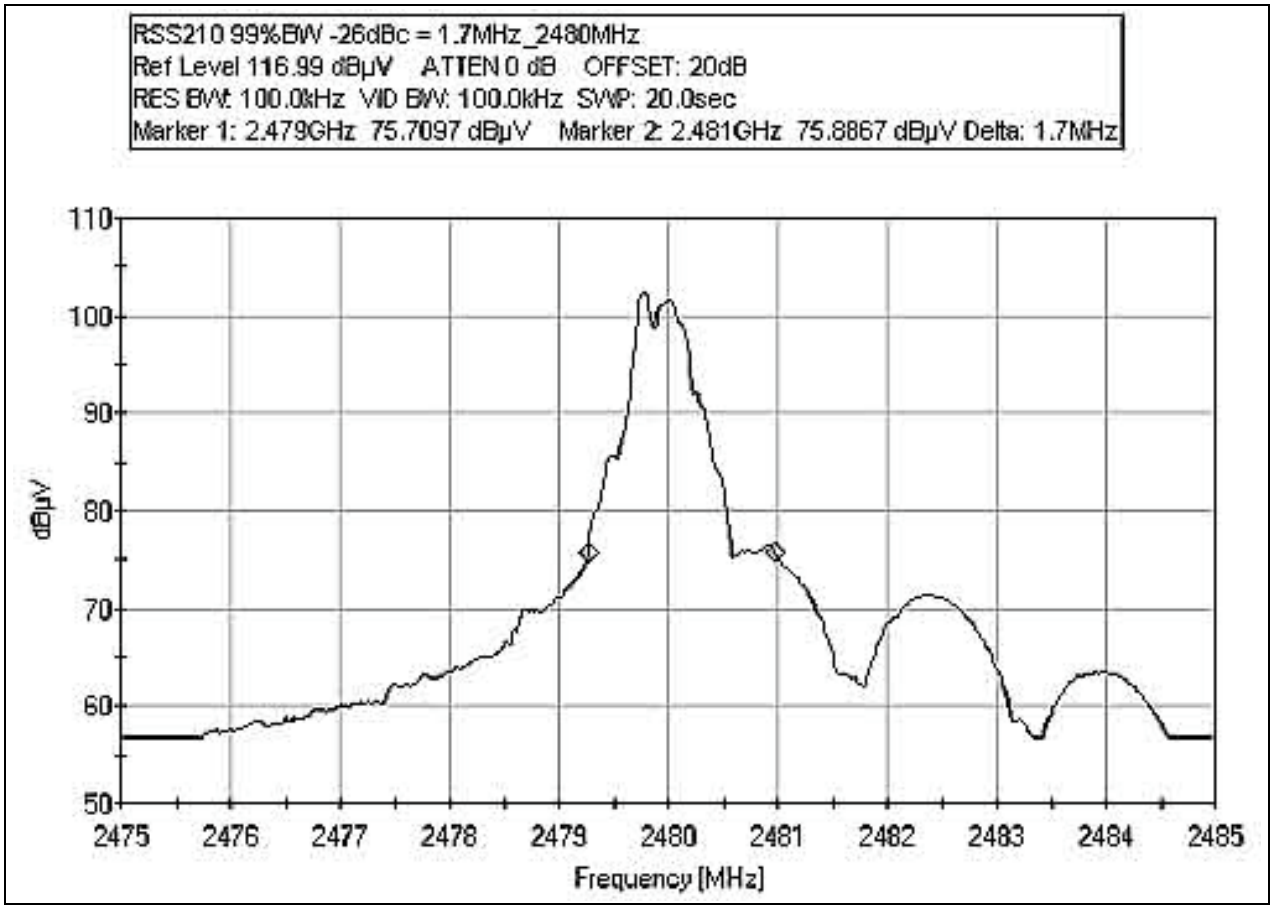
RSS-210 99% BANDWIDTH - 2440 MHz

Test Conditions: The EUT is placed on the test bench. Measurement performed at antenna port. RSS210 99%BW -26dBc = 1.66 MHz_2440 MHz.



RSS-210 99% BANDWIDTH - 2480 MHz

Test Conditions: The EUT is placed on the test bench. Measurement performed at antenna port. RSS210 99%BW -26dBc = 1.7 MHz_2480 MHz.



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 Appendix B were used to collect both the radiated and conducted emissions data. For radiated measurements from 9 kHz to 30 MHz, the magnetic loop antenna was used. For frequencies 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 wooden table measuring approximately 80 cm high, 1 meter deep, and 1.5 meters in length. One wall of the room where the EUT was located has a minimum 2 meter by 2 meter conductive plane. The EUT was mounted on the wooden table 40 cm away from the conductive plane, and 80 cm from any other conductive surface.

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, rotating table 80 cm above the conductive grid. The nonconductive table dimensions were 1 meter by 1.5 meters.

During the preliminary radiated scan, the EUT was powered up and operating in its defined FCC test mode. For radiated measurements from 9 kHz to 30 MHz, the magnetic loop antenna was used. 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.

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.

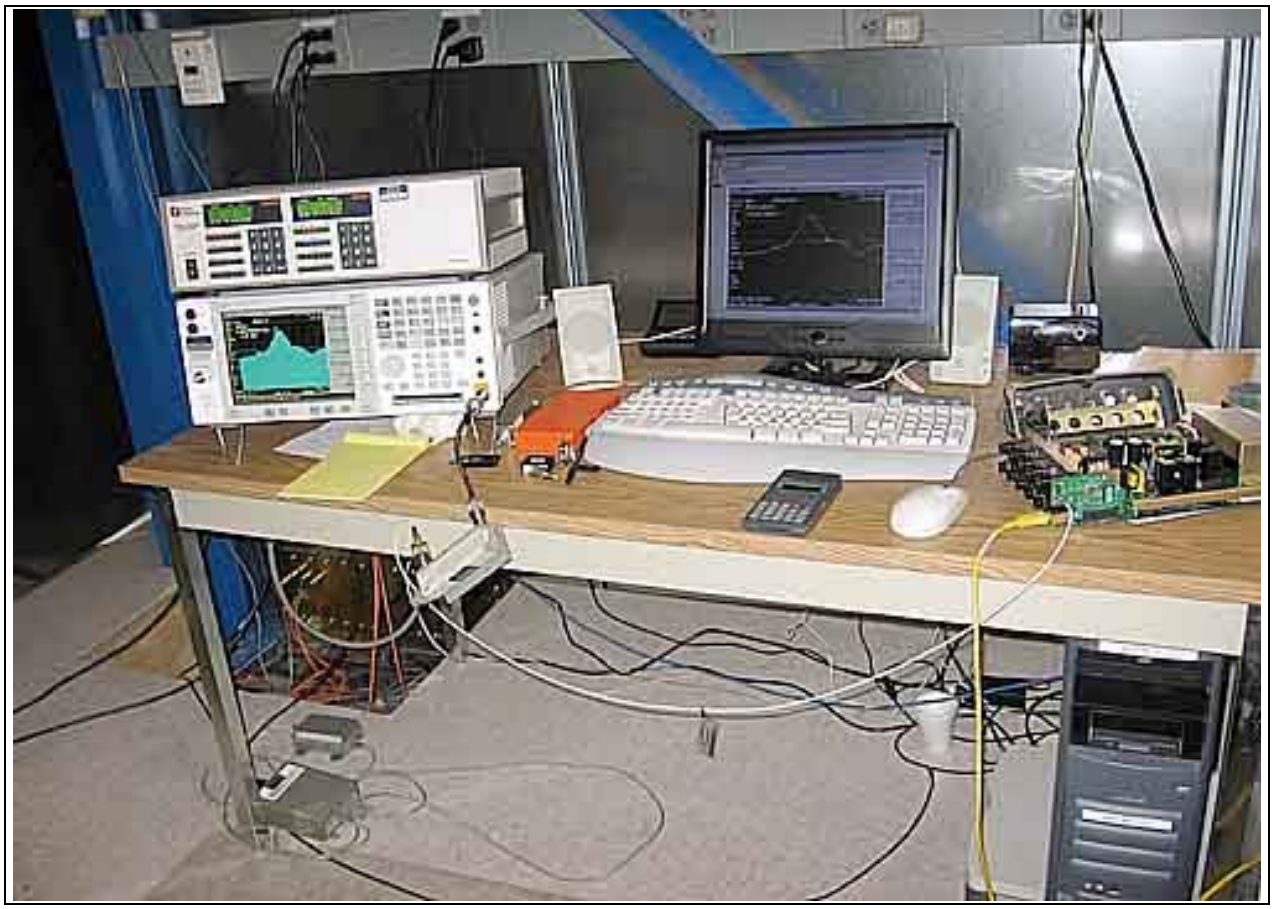
APPENDIX A

TEST SETUP PHOTOGRAPHS

PHOTOGRAPH SHOWING VOLTAGE VARIATIONS

Voltage Variations

PHOTOGRAPH SHOWING VOLTAGE VARIATIONS

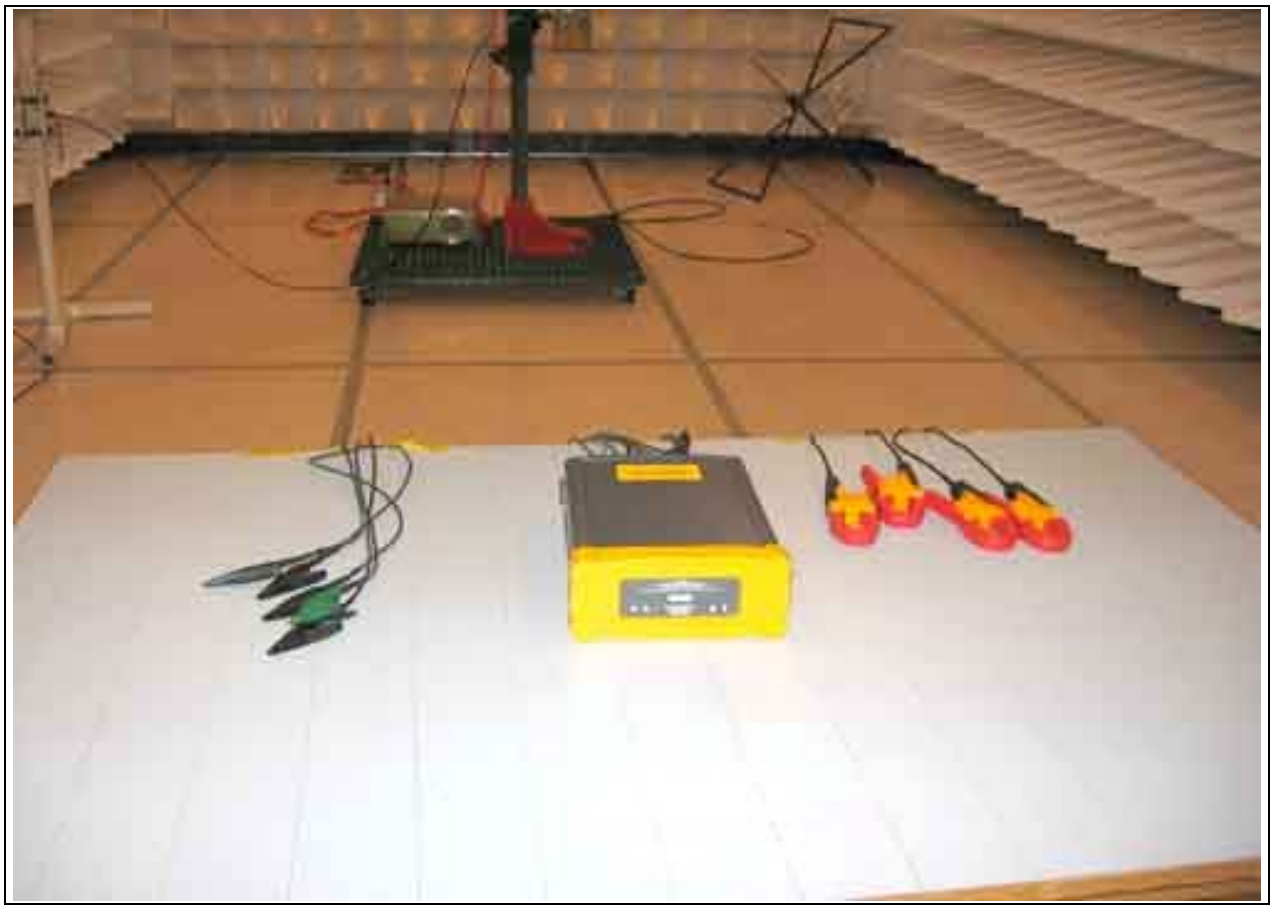


Voltage Variations

PHOTOGRAPH SHOWING RADIATED EMISSIONS

Radiated Emissions - Front View

PHOTOGRAPH SHOWING RADIATED EMISSIONS



Radiated Emissions - Back View

PHOTOGRAPH SHOWING MAINS CONDUCTED EMISSIONS

Mains Conducted Emissions - Front View

PHOTOGRAPH SHOWING DIRECT CONNECT TEST SETUP

APPENDIX B

TEST EQUIPMENT LIST

15.31(e) Voltage variation

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Power Source	1315	Pacific Power	345AMXT UPC32	0190	060204	060206

FCC 15.207

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
SA	02660	Agilent	E4446A	US44300407	120105	120107
5m Cable Set	P05444	Bothell	NA	P05444	112805	112807
PreAmp	01517	HP	8447D	2944A08601	071304	071306
20dB High Pass Filter	02181	TTE	H613-150K-50-21378	C9398	110105	110107
LISN	01492	EMCO	3816/2NM	9606-1049	052605	052607

FCC 15.249, Bandedge plot, RSS-210

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02660	Agilent	E4446A	US44300407	120105	120107
9kHz-30 MHz						
Active Loop ant	00052	Emco	6502	2156	022006	022008
30 MHz-1000 MHz						
Bothell 5m Cable Set	P05444	NA	NA	P05444	112805	112807
PreAmp	01517	HP	8447D	2944A08601	071304	071306
BILOG	01994	Chase	2453	2453	020205	020207
Spectrum Analyzer	02672	Agilent	E4446A	US44300438	011405	011407
1GHz-18GHz						
2.4 GHz HPF	02745	K&L	11SH10-3000	2	030806	030808
2.4 GHz LPF	02040	K&L	11SL10-20000	7	030706	030708
Pre-amp	1271	HP	83017A	3123A00464	100305	100307
Cable Heliax	P04085	Andrew	NA	NA		
Cable 30 MHz-40GHz	P05424	Pasterneck	NA	NA	051106	051108
Cable 30 MHz-40GHz	P5207	Pasterneck	NA	NA	020805	020807
Horn Antenna	1412	EMCO	3115	9006-4854	010605	010607
18GHz-26GHz						
18-26.5 GHz Horn Antenna	02112	HP	84125-80008	3643A00027	110504	110506

OBW, RSS-210 99% BW plot.

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02660	Agilent	E4446A	US44300407	120105	120107

APPENDIX C:

MEASUREMENT DATA SHEETS

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Fluke Corporation**
Specification: **FCC 15.207 - AVE**
Work Order #: **85111** Date: 6/12/2006
Test Type: **Conducted Emissions** Time: 18:01:48
Equipment: **1750 Power Recorder** Sequence#: 1
Manufacturer: Fluke Corporations Tested By: Ryan Rutledge
Model: 1750 120V 60Hz
S/N: NA

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

Function	Manufacturer	Model #	S/N
1750 Power Recorder*	Fluke Corporations	1750	NA

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

EUT on table with all ports filled. Wireless card communicating with PDA via Bluetooth. Selected top 25 readings, performed in peak detection against the average limit. Top 25 contributions above 1 MHz measured and noted with radio card installed. The radio card made no detectable contribution to the emissions below 1 MHz.

Transducer Legend:

T1=ATT-ANP02181-110105	T2=HP 8477D-A AN01517
T3=AN1492 Line EMCO 3816/2NM	T4=Bothell 5 meter cable set

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	29.945M	50.2	+19.8	-27.6	+0.2	+0.8	+0.0	43.4	50.0	-6.6	Black
2	28.931M	49.6	+19.9	-27.5	+0.2	+0.8	+0.0	43.0	50.0	-7.0	Black
3	28.417M	48.9	+19.9	-27.4	+0.3	+0.8	+0.0	42.5	50.0	-7.5	Black
4	29.431M	49.0	+19.8	-27.5	+0.2	+0.8	+0.0	42.3	50.0	-7.7	Black
5	27.403M	47.5	+20.0	-27.4	+0.3	+0.7	+0.0	41.1	50.0	-8.9	Black
6	27.896M	47.0	+20.0	-27.4	+0.3	+0.7	+0.0	40.6	50.0	-9.4	Black
7	26.382M	46.8	+19.9	-27.4	+0.3	+0.7	+0.0	40.3	50.0	-9.7	Black
8	25.875M	46.2	+19.9	-27.4	+0.4	+0.7	+0.0	39.8	50.0	-10.2	Black
9	22.833M	46.2	+19.6	-27.4	+0.4	+0.7	+0.0	39.5	50.0	-10.5	Black
10	26.910M	45.8	+20.0	-27.4	+0.3	+0.7	+0.0	39.4	50.0	-10.6	Black
11	28.308M	45.3	+19.9	-27.4	+0.3	+0.8	+0.0	38.9	50.0	-11.1	Black

12	24.875M	45.0	+19.8	-27.4	+0.4	+0.7	+0.0	38.5	50.0	-11.5	Black
13	25.375M	44.7	+19.8	-27.4	+0.4	+0.7	+0.0	38.2	50.0	-11.8	Black
14	28.684M	44.6	+19.9	-27.5	+0.2	+0.8	+0.0	38.0	50.0	-12.0	Black
15	23.353M	44.6	+19.7	-27.4	+0.4	+0.7	+0.0	38.0	50.0	-12.0	Black
16	22.337M	44.6	+19.6	-27.4	+0.3	+0.6	+0.0	37.7	50.0	-12.3	Black
17	29.836M	44.4	+19.8	-27.6	+0.2	+0.8	+0.0	37.6	50.0	-12.4	Black
18	23.833M	44.2	+19.7	-27.4	+0.4	+0.7	+0.0	37.6	50.0	-12.4	Black
19	29.712M	44.1	+19.8	-27.6	+0.2	+0.8	+0.0	37.3	50.0	-12.7	Black
20	28.821M	43.6	+19.9	-27.5	+0.2	+0.8	+0.0	37.0	50.0	-13.0	Black
21	24.347M	43.5	+19.7	-27.4	+0.4	+0.7	+0.0	36.9	50.0	-13.1	Black
22	29.315M	43.2	+19.9	-27.5	+0.2	+0.8	+0.0	36.6	50.0	-13.4	Black
23	1.013M	40.2	+19.5	-27.3	+0.0	+0.2	+0.0	32.6	46.0	-13.4	Black
24	27.828M	42.9	+20.0	-27.4	+0.3	+0.7	+0.0	36.5	50.0	-13.5	Black
25	29.541M	42.8	+19.8	-27.6	+0.2	+0.8	+0.0	36.0	50.0	-14.0	Black

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Fluke Corporation**
Specification: **FCC 15.207 - AVE**
Work Order #: **85111** Date: 6/12/2006
Test Type: **Conducted Emissions** Time: 18:07:10
Equipment: **1750 Power Recorder** Sequence#: 2
Manufacturer: Fluke Corporations Tested By: Ryan Rutledge
Model: 1750 120V 60Hz
S/N: NA

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

Function	Manufacturer	Model #	S/N
1750 Power Recorder*	Fluke Corporations	1750	NA

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

EUT on table with all ports filled. Wireless card communicating with PDA via Bluetooth. Selected top 25 readings, performed in peak detection against the average limit. Top 25 contributions above 1 MHz measured and noted with radio card installed. The radio card made no detectable contribution to the emissions below 1 MHz.

Transducer Legend:

T1=ATT-ANP02181-110105	T2=HP 8477D-A AN01517
T3=AN1492 Neutral EMCO 3816/2NM	T4=Bothell 5 meter cable set

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	28.458M	45.8	+19.9	-27.4	+0.3	+0.8	+0.0	39.4	50.0	-10.6	White
2	24.765M	45.5	+19.8	-27.4	+0.4	+0.7	+0.0	39.0	50.0	-11.0	White
3	26.944M	45.3	+20.0	-27.4	+0.3	+0.7	+0.0	38.9	50.0	-11.1	White
4	28.965M	44.4	+19.9	-27.5	+0.2	+0.8	+0.0	37.8	50.0	-12.2	White
5	26.430M	44.1	+19.9	-27.4	+0.3	+0.7	+0.0	37.6	50.0	-12.4	White
6	25.423M	44.1	+19.8	-27.4	+0.4	+0.7	+0.0	37.6	50.0	-12.4	White
7	27.437M	43.9	+20.0	-27.4	+0.3	+0.7	+0.0	37.5	50.0	-12.5	White
8	27.163M	43.9	+20.0	-27.4	+0.3	+0.7	+0.0	37.5	50.0	-12.5	White
9	29.459M	44.1	+19.8	-27.5	+0.2	+0.8	+0.0	37.4	50.0	-12.6	White
10	27.958M	43.7	+20.0	-27.4	+0.3	+0.7	+0.0	37.3	50.0	-12.7	White
11	27.896M	43.3	+20.0	-27.4	+0.3	+0.7	+0.0	36.9	50.0	-13.1	White

12	13.220M	44.2	+19.4	-27.4	+0.2	+0.5	+0.0	36.9	50.0	-13.1	White
13	29.979M	43.6	+19.8	-27.6	+0.2	+0.8	+0.0	36.8	50.0	-13.2	White
14	24.162M	43.2	+19.7	-27.4	+0.4	+0.7	+0.0	36.6	50.0	-13.4	White
15	25.073M	42.9	+19.8	-27.4	+0.4	+0.7	+0.0	36.4	50.0	-13.6	White
16	24.943M	42.6	+19.8	-27.4	+0.4	+0.7	+0.0	36.1	50.0	-13.9	White
17	24.902M	42.6	+19.8	-27.4	+0.4	+0.7	+0.0	36.1	50.0	-13.9	White
18	23.381M	42.4	+19.7	-27.4	+0.4	+0.7	+0.0	35.8	50.0	-14.2	White
19	24.381M	42.1	+19.8	-27.4	+0.4	+0.7	+0.0	35.6	50.0	-14.4	White
20	22.697M	42.1	+19.6	-27.4	+0.4	+0.7	+0.0	35.4	50.0	-14.6	White
21	24.183M	41.8	+19.7	-27.4	+0.4	+0.7	+0.0	35.2	50.0	-14.8	White
22	24.279M	41.7	+19.7	-27.4	+0.4	+0.7	+0.0	35.1	50.0	-14.9	White
23	23.847M	41.7	+19.7	-27.4	+0.4	+0.7	+0.0	35.1	50.0	-14.9	White
24	23.155M	41.4	+19.7	-27.4	+0.4	+0.7	+0.0	34.8	50.0	-15.2	White
25	23.130M	41.3	+19.7	-27.4	+0.4	+0.7	+0.0	34.7	50.0	-15.3	White

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Fluke Corporation**
Specification: **FCC 15.249(a)**
Work Order #: **85111** Date: 5/25/2006
Test Type: **Radiated Scan** Time: 11:34:43
Equipment: **1750 Power Recorder** Sequence#: 1
Manufacturer: Fluke Corporations Tested By: Eddie Wong
Model: 1750
S/N: NA

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

Function	Manufacturer	Model #	S/N
1750 Power Recorder*	Fluke Corporations	1750	NA

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

The RF card is installed in the data acquisition system. All ports were filled. The EUT communicates with a remote laptop. RF card is active sending RF in Bluetooth modulation. Frequency = 2402, 2440.5, 2480 MHz. Frequency range of measurement = Fundamental. RBW=1 MHz,VBW=1 MHz. 15.31(e) supply voltage varied between 85% and 115% of the nominal rated supply voltage. No change on power level was observed.

Transducer Legend:

T1=ANT-AN01412-121305 Model 3115	T2=CAB-ANP05207-020805 40GHz Cable
T3=Cable ANP05424 - 36"	T4=CAB-P04085-031506
T5=AMP 26GHz	

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	2441.130M	83.8	+28.9 -34.0	+1.3	+2.0	+1.9	+0.0 325	83.9	93.9	-10.0	Horiz 232
2	2480.030M	82.3	+29.1 -33.9	+1.3	+2.0	+1.9	+0.0 325	82.7	93.9	-11.2	Horiz 186
3	2401.780M	82.4	+28.7 -34.0	+1.3	+2.0	+1.9	+0.0 328	82.3	93.9	-11.6	Horiz 189
4	2480.030M	72.9	+29.1 -33.9	+1.3	+2.0	+1.9	+0.0 328	73.3	93.9	-20.6	Vert 154
5	2441.130M	72.9	+28.9 -34.0	+1.3	+2.0	+1.9	+0.0 310	73.0	93.9	-20.9	Vert 226
6	2401.780M	72.8	+28.7 -34.0	+1.3	+2.0	+1.9	+0.0 16	72.7	93.9	-21.2	Vert 127

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Fluke Corporation**
Specification: **FCC 15.249(d) / 15.209**
Work Order #: **85111** Date: 5/26/2006
Test Type: **Radiated Scan** Time: 8:13:36 AM
Equipment: **1750 Power Recorder** Sequence#: 10
Manufacturer: Fluke Corporations Tested By: Eddie Wong
Model: 1750
S/N: NA

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

Function	Manufacturer	Model #	S/N
1750 Power Recorder*	Fluke Corporations	1750	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Laptitude	0019-026-280-761

Test Conditions / Notes:

The RF card is installed in the data acquisition system. All ports were filled. The EUT communicates with a remote laptop. RF card is active sending RF in Bluetooth modulation. Frequency = 2402 MHz. Frequency range of measurement = 30 MHz - 1 GHz. 30 MHz-1000 MHz; RBW=120 kHz, VBW=120 kHz.

Transducer Legend:

T1=Chase AN 1994 SN 2453 2/2/05-2/2/07	T2=Bothell 5 meter cable set fudged
T3=HP 8477D-A 13July2004	

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

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	200.693M	54.4	+9.5	+2.1	-27.1		+0.0 360	38.9	43.5	-4.6	Horiz 107
2	180.032M	54.0	+9.6	+1.9	-27.2		+0.0 360	38.3	43.5	-5.2	Horiz 107
3	449.942M	47.8	+17.9	+3.1	-28.0		+0.0 360	40.8	46.0	-5.2	Horiz 107
4	649.942M	44.4	+20.3	+3.9	-28.4		+0.0 360	40.2	46.0	-5.8	Horiz 107
5	195.047M	53.1	+9.5	+2.1	-27.1		+0.0 360	37.6	43.5	-5.9	Horiz 107
6	189.282M	52.9	+9.6	+2.0	-27.1		+0.0 360	37.4	43.5	-6.1	Horiz 107
7	430.002M	47.0	+17.6	+3.0	-27.8		+0.0 360	39.8	46.0	-6.2	Horiz 107
8	250.062M	51.7	+12.6	+2.3	-26.9		+0.0 360	39.7	46.0	-6.3	Horiz 107
9	170.062M	51.6	+10.7	+1.9	-27.2		+0.0 360	37.0	43.5	-6.5	Horiz 107

10	365.017M	47.9	+16.0	+2.9	-27.3	+0.0 360	39.5	46.0	-6.5	Horiz 107
11	188.801M	52.4	+9.6	+2.0	-27.1	+0.0 360	36.9	43.5	-6.6	Horiz 107
12	439.972M	46.4	+17.8	+3.1	-27.9	+0.0 360	39.4	46.0	-6.6	Horiz 107
13	350.002M	48.1	+15.5	+2.8	-27.1	+0.0 360	39.3	46.0	-6.7	Horiz 107

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Fluke Corporation**
Specification: **FCC 15.249(d) / 15.209**
Work Order #: **85111** Date: 5/26/2006
Test Type: **Radiated Scan** Time: 8:31:13 AM
Equipment: **1750 Power Recorder** Sequence#: 11
Manufacturer: Fluke Corporations Tested By: Eddie Wong
Model: 1750
S/N: NA

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

Function	Manufacturer	Model #	S/N
1750 Power Recorder*	Fluke Corporations	1750	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Laptitude	0019-026-280-761

Test Conditions / Notes:

The RF card is installed in the data acquisition system. All ports were filled. The EUT communicates with a remote laptop. RF card is active sending RF in Bluetooth modulation. Frequency = 2402 MHz. Frequency range of measurement = 30 MHz - 1 GHz. 30 MHz-1000 MHz; RBW=120 kHz, VBW=120 kHz.

Transducer Legend:

T1=Chase AN 1994 SN 2453 2/2/05-2/2/07	T2=Bothell 5 meter cable set fudged
T3=HP 8477D-A 13July2004	

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

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	92.556M	55.4	+10.6	+1.4	-27.5		+0.0	39.9	43.5	-3.6	Vert 107
2	64.805M	57.9	+4.7	+1.1	-27.5		+0.0	36.2	40.0	-3.8	Vert 107
3	31.398M	41.8	+21.1	+0.8	-27.6		+0.0	36.1	40.0	-3.9	Vert 107
4	119.972M	52.2	+13.0	+1.6	-27.4		+0.0	39.4	43.5	-4.1	Vert 107
5	190.603M	55.0	+9.5	+2.0	-27.1		+0.0	39.4	43.5	-4.1	Vert 107
6	365.017M	50.3	+16.0	+2.9	-27.3		+0.0	41.9	46.0	-4.1	Vert 107
7	130.062M	52.4	+12.7	+1.6	-27.4		+0.0	39.3	43.5	-4.2	Vert 107

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Fluke Corporation**
Specification: **FCC 15.249(d) / 15.209**
Work Order #: **85111** Date: 5/25/2006
Test Type: **Radiated Scan** Time: 16:52:14
Equipment: **1750 Power Recorder** Sequence#: 7
Manufacturer: Fluke Corporations Tested By: Eddie Wong
Model: 1750
S/N: NA

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

Function	Manufacturer	Model #	S/N
1750 Power Recorder*	Fluke Corporations	1750	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Laptitude	0019-026-280-761

Test Conditions / Notes:

The RF card is installed in the data acquisition system. All ports were filled. The EUT communicates with a remote laptop. RF card is active sending RF in Bluetooth modulation. Frequency = 2440 MHz. Frequency range of measurement = 30 MHz - 1 GHz. 30 MHz-1000 MHz; RBW=120 kHz, VBW=120 kHz.

Transducer Legend:

T1=Chase AN 1994 SN 2453 2/2/05-2/2/07	T2=Bothell 5 meter cable set fudged
T3=HP 8477D-A 13July2004	

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

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	416.669M QP	50.1	+17.4	+3.0	-27.8		+0.0	42.7	46.0	-3.3	Vert 100
^	416.669M	57.6	+17.4	+3.0	-27.8		+0.0	50.2	46.0	+4.2	Vert 100
3	107.700M QP	53.5	+11.8	+1.5	-27.5		+0.0 360	39.3	43.5	-4.2	Vert 101
^	107.700M	57.3	+11.8	+1.5	-27.5		+0.0 360	43.1	43.5	-0.4	Vert 101
5	58.283M	56.1	+5.9	+1.1	-27.5		+0.0	35.6	40.0	-4.4	Vert 126
6	374.987M	49.6	+16.4	+2.9	-27.4		+0.0	41.5	46.0	-4.5	Vert 126
7	64.779M QP	56.9	+4.7	+1.1	-27.5		+0.0 325	35.2	40.0	-4.8	Vert 99
^	64.779M	59.2	+4.7	+1.1	-27.5		+0.0 325	37.5	40.0	-2.5	Vert 99

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Fluke Corporation**
Specification: **FCC 15.249(d) / 15.209**
Work Order #: **85111** Date: 5/25/2006
Test Type: **Radiated Scan** Time: 17:08:23
Equipment: **1750 Power Recorder** Sequence#: 8
Manufacturer: Fluke Corporations Tested By: Eddie Wong
Model: 1750
S/N: NA

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

Function	Manufacturer	Model #	S/N
1750 Power Recorder*	Fluke Corporations	1750	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Laptitude	0019-026-280-761

Test Conditions / Notes:

The RF card is installed in the data acquisition system. All ports were filled. The EUT communicates with a remote laptop. RF card is active sending RF in Bluetooth modulation. Frequency = 2440 MHz. Frequency range of measurement = 30 MHz - 1 GHz. 30 MHz-1000 MHz; RBW=120 kHz, VBW=120 kHz.

Transducer Legend:

T1=Chase AN 1994 SN 2453 2/2/05-2/2/07	T2=Bothell 5 meter cable set fudged
T3=HP 8477D-A 13July2004	

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

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	175.588M	51.8	+10.2	+1.9	-27.2		+0.0 360	36.7	43.5	-6.8	Horiz 141
2	214.987M	51.0	+10.5	+2.1	-27.0		+0.0 360	36.6	43.5	-6.9	Horiz 141
3	207.180M	51.5	+10.0	+2.1	-27.1		+0.0 360	36.5	43.5	-7.0	Horiz 141
4	100.032M	51.4	+11.0	+1.4	-27.5		+0.0 360	36.3	43.5	-7.2	Horiz 141
5	118.291M	49.3	+12.8	+1.6	-27.4		+0.0 360	36.3	43.5	-7.2	Horiz 141
6	107.600M	50.2	+11.8	+1.5	-27.5		+0.0 360	36.0	43.5	-7.5	Horiz 141
7	159.972M	49.7	+11.5	+1.8	-27.2		+0.0 360	35.8	43.5	-7.7	Horiz 141
8	424.957M	45.4	+17.6	+3.0	-27.8		+0.0 360	38.2	46.0	-7.8	Horiz 141
9	120.003M	44.1	+13.0	+1.6	-27.4		+0.0 152	31.3	43.5	-12.2	Horiz 107

Test Location:	CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717		
Customer:	**Fluke Corporation**		
Specification:	**FCC 15.249(d) / 15.209**		
Work Order #:	**85111**	Date:	5/25/2006
Test Type:	**Radiated Scan**	Time:	15:14:00
Equipment:	**1750 Power Recorder**	Sequence#:	5
Manufacturer:	Fluke Corporations	Tested By:	Eddie Wong
Model:	1750	S/N:	NA

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

Function	Manufacturer	Model #	S/N
1750 Power Recorder*	Fluke Corporations	1750	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Laptitude	0019-026-280-761

Test Conditions / Notes:

The RF card is installed in the data acquisition system. All ports were filled. The EUT communicates with a remote laptop. RF card is active sending RF in Bluetooth modulation. Frequency = 2480 MHz. Frequency range of measurement = 30 MHz - 1 GHz. 30 MHz-1000 MHz; RBW=120 kHz, VBW=120 kHz.

Transducer Legend:

T1=Chase AN 1994 SN 2453 2/2/05-2/2/07 T2=Bothell 5 meter cable set fudged
T3=HP 8477D-A 13July2004

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

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	191.630M	53.3	+9.5	+2.0	-27.1		+0.0 281	37.7	43.5	-5.8	Horiz 124
2	178.709M	53.0	+9.8	+1.9	-27.2		+0.0 237	37.5	43.5	-6.0	Horiz 181
3	193.473M	50.4	+9.5	+2.1	-27.1		+0.0 85	34.9	43.5	-8.6	Horiz 99
4	205.015M	48.8	+9.8	+2.1	-27.1		+0.0	33.6	43.5	-9.9	Horiz
5	170.781M	46.8	+10.6	+1.9	-27.2		+0.0	32.1	43.5	-11.4	Horiz
6	95.706M	47.0	+10.8	+1.4	-27.5		+0.0	31.7	43.5	-11.8	Horiz
7	204.534M	46.7	+9.8	+2.1	-27.1		+0.0	31.5	43.5	-12.0	Horiz
8	192.883M QP	46.6	+9.5	+2.0	-27.1		+0.0 257	31.0	43.5	-12.5	Horiz 99
^	192.883M	54.7	+9.5	+2.0	-27.1		+0.0 257	39.1	43.5	-4.4	Horiz 99
10	66.276M	44.0	+4.6	+1.2	-27.5		+0.0	22.3	40.0	-17.7	Horiz
11	120.811M QP	34.4	+12.9	+1.6	-27.4		+0.0 358	21.5	43.5	-22.0	Horiz 99
^	120.811M	51.3	+12.9	+1.6	-27.4		+0.0 358	38.4	43.5	-5.1	Horiz 99

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Fluke Corporation**
Specification: **FCC 15.249(d) / 15.209**
Work Order #: **85111** Date: 5/25/2006
Test Type: **Radiated Scan** Time: 16:21:43
Equipment: **1750 Power Recorder** Sequence#: 6
Manufacturer: Fluke Corporations Tested By: Eddie Wong
Model: 1750
S/N: NA

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

Function	Manufacturer	Model #	S/N
1750 Power Recorder*	Fluke Corporations	1750	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Laptitude	0019-026-280-761

Test Conditions / Notes:

The RF card is installed in the data acquisition system. All ports were filled. The EUT communicates with a remote laptop. RF card is active sending RF in Bluetooth modulation. Frequency = 2480 MHz. Frequency range of measurement = 30 MHz - 1 GHz. 30 MHz-1000 MHz; RBW=120 kHz, VBW=120 kHz.

Transducer Legend:

T1=Chase AN 1994 SN 2453 2/2/05-2/2/07	T2=Bothell 5 meter cable set fudged
T3=HP 8477D-A 13July2004	

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

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	194.998M QP	54.9	+9.5	+2.1	-27.1		+0.0 102	39.4	43.5	-4.1	Vert 103
^	194.998M	58.2	+9.5	+2.1	-27.1		+0.0 102	42.7	43.5	-0.8	Vert 103
3	170.012M QP	53.4	+10.7	+1.9	-27.2		+0.0 210	38.8	43.5	-4.7	Vert 117
^	170.012M	54.6	+10.7	+1.9	-27.2		+0.0 210	40.0	43.5	-3.5	Vert 117
5	132.740M QP	45.2	+12.7	+1.6	-27.3		+0.0 360	32.2	43.5	-11.3	Vert 126
^	132.740M	56.7	+12.7	+1.6	-27.3		+0.0 360	43.7	43.5	+0.2	Vert 126
7	60.229M QP	48.4	+4.8	+1.1	-27.5		+0.0 37	26.8	40.0	-13.2	Vert 206
^	60.229M	58.0	+4.8	+1.1	-27.5		+0.0 37	36.4	40.0	-3.6	Vert 206

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Fluke Corporation**
Specification: **FCC 15.249(d) / 15.209**
Work Order #: **85111** Date: 5/25/2006
Test Type: **Radiated Scan** Time: 12:23:19
Equipment: **1750 Power Recorder** Sequence#: 2
Manufacturer: Fluke Corporations Tested By: Eddie Wong
Model: 1750
S/N: NA

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

Function	Manufacturer	Model #	S/N
1750 Power Recorder*	Fluke Corporations	1750	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Laptitude	0019-026-280-761

Test Conditions / Notes:

The RF card is installed in the data acquisition system. All ports were filled. The EUT communicates with a remote laptop. RF card is active sending RF in Bluetooth modulation. Frequency = 2402 MHz Frequency range of measurement = 1GHz- 25 GHz. 1000 MHz-25000 MHz; RBW=1 MHz,VBW=1 MHz. FCC15.249(a) Field Strength of Harmonics: Field strength of harmonics was investigated to 25 GHz. No emissions within 20 dB of the limit line were detected.

Transducer Legend:

T1=ANT-AN01412-121305 Model 3115
T2=CAB-ANP05207-020805 40GHz Cable
T3=Cable ANP05424 - 36"
T4=CAB-P04085-031506
T5=AMP 26GHz

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	1549.963M	43.7	+26.2 -35.1	+1.0	+1.6	+1.5	+0.0 360	38.9	54.0	-15.1	Horiz 117
2	3202.200M	35.2	+30.2 -33.3	+1.5	+2.3	+2.0	+0.0	37.9	54.0	-16.1	Vert 121

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Fluke Corporation**
Specification: **FCC 15.249(d) / 15.209**
Work Order #: **85111** Date: 5/25/2006
Test Type: **Radiated Scan** Time: 13:41:11
Equipment: **1750 Power Recorder** Sequence#: 3
Manufacturer: Fluke Corporations Tested By: Eddie Wong
Model: 1750
S/N: NA

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

Function	Manufacturer	Model #	S/N
1750 Power Recorder*	Fluke Corporations	1750	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Laptitude	0019-026-280-761

Test Conditions / Notes:

The RF card is installed in the data acquisition system. All ports were filled. The EUT communicates with a remote laptop. RF card is active sending RF in Bluetooth modulation. Frequency = 2440.5 MHz Frequency range of measurement = 1GHz - 25 GHz. 1000 MHz-25000 MHz; RBW=1 MHz, VBW=1 MHz. FCC 15.249(a) Field Strength of Harmonics: Field strength of harmonics was investigated to 25 GHz. No emissions within 20 dB of the limit line were detected.

Transducer Legend:

T1=ANT-AN01412-121305 Model 3115
T2=CAB-ANP05207-020805 40GHz Cable
T3=Cable ANP05424 - 36"
T4=CAB-P04085-031506
T5=AMP 26GHz

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	1549.630M	43.8	+26.2 -35.1	+1.0	+1.6	+1.5	+0.0 1	39.0	54.0	-15.0	Horiz 117
2	1250.000M	46.2	+25.0 -36.1	+0.9	+1.4	+1.3	+0.0 21	38.7	54.0	-15.3	Vert 117

Test Location: CKC Laboratories •22116 23rd Dr SE • Bothell, WA 98021-4413 • 425-402-1717

Customer: **Fluke Corporation**
Specification: **FCC 15.249(d) / 15.209**
Work Order #: **85111** Date: 5/25/2006
Test Type: **Radiated Scan** Time: 14:04:51
Equipment: **1750 Power Recorder** Sequence#: 4
Manufacturer: Fluke Corporations Tested By: Eddie Wong
Model: 1750
S/N: NA

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

Function	Manufacturer	Model #	S/N
1750 Power Recorder*	Fluke Corporations	1750	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Laptitude	0019-026-280-761

Test Conditions / Notes:

The RF card is installed in the data acquisition system. All ports were filled. The EUT communicates with a remote laptop. RF card is active sending RF in Bluetooth modulation. Frequency = 2480 MHz. Frequency range of measurement = 1GHz - 25 GHz. 1000 MHz-25000 MHz; RBW=1 MHz, VBW=1 MHz. FCC15.249(a) Field Strength of Harmonics: Field strength of harmonics was investigated to 25 GHz. No emissions within 20 dB of the limit line were detected.

Transducer Legend:

T1=ANT-AN01412-121305 Model 3115	T2=CAB-ANP05207-020805 40GHz Cable
T3=Cable ANP05424 - 36"	T4=CAB-P04085-031506
T5=AMP 26GHz	

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	1150.000M	49.8	+24.4 -36.5	+0.9	+1.4	+1.2	+0.0 318	41.2	54.0	-12.8	Horiz 99
2	1250.200M	47.0	+25.0 -36.1	+0.9	+1.4	+1.3	+0.0 1	39.5	54.0	-14.5	Horiz 99
3	1550.000M	44.1	+26.2 -35.1	+1.0	+1.6	+1.5	+0.0 30	39.3	54.0	-14.7	Vert 106