TEST REPORT

Report Number: 3107209ATL-004

November 29, 2006

Product Designation: Wireless Gateway 2.4

Standard: FCC Part 15 Subpart C (15.249)
RSS-210 - Issue 6 - 09/05

Tested by:
Intertek Testing Services NA Inc.
1950 Evergreen Blvd., Suite 100
Duluth, GA 30096

Client:
BodyMedia, Inc.
4 Smithfield Street
Suite 1200
Pittsburgh, PA 15222
Contact: Scott Boehmke
Phone: 412.288.9901
Fax: 412.288.9902

Tests performed by:

Shawn K. McGuinness
EMC Project Engineer

Report reviewed by:

David J. Schramm
EMC Department Manager

1.0 Introduction and Conclusion

The tests indicated in section 2.0 were performed on the product constructed as described in section 3.0. The remaining test sections are the verbatum text from the actual data sheets used during the investigation. These test sections include the test name, the specified test Method, a list of the actual Test Equipment Used, documentation Photos, Results and raw Data. No additions, deviations, or exclusions have been made from the standard(s) unless specifically noted.

Based on the results of our investigation, we have concluded the product tested complies with the requirements of the standard(s) indicated. The results obtained in this test report pertain only to the item(s) tested.

2.0 Test Summary

Section	Test Full Name	Test Date	Result
4.0	System setup including cable interconnection details, support equipment and simplified block diagram. (System Setup)	11/08/2006	
5.0	Overview of EUT (Low Power Transmitters) (FCC 15C - EUT Overview)	11/08/2006	
6.0	Duty Cycle Determination (FCC 15A - 15.35(c))		
7.0	Conducted emissions on AC power lines (Conducted Emissions)	11/08/2006	PASS
8.0	Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)	11/01/2006	PASS
NA	15.249(b): Requirements for fixed, point-to-point operation (FCC 15C - 15.249(b)) was waived due to EUT not for fixed, point-to-point operation		

3.0 Description of Equipment Under Test

Equipment Under Test			
Description	Manufacturer	Model Number	Serial Number
Wireless Gateway	BodyMedia	Wireless Gateway 2.4	Prototype
AC Power Supply	BodyMedia	AD-405U-1055	Not labeled

EUT receive date:	10-25-2006
EUT receive condition:	Prototype/good

Description of EUT provided by Client:
The EUT is a wireless central data collection point used to process physiological data from a data communicator. The processor has an integrated 2.4GHz RF transceiver. It is a synthesizer baser transceiver with a 26MHz 10ppm crystal source which serves as the clock source for the CPU, serial port, Serial EEPROM and the 2.4GHz radio. The transceiver is intended to operate with < 1mW output power at the antenna.

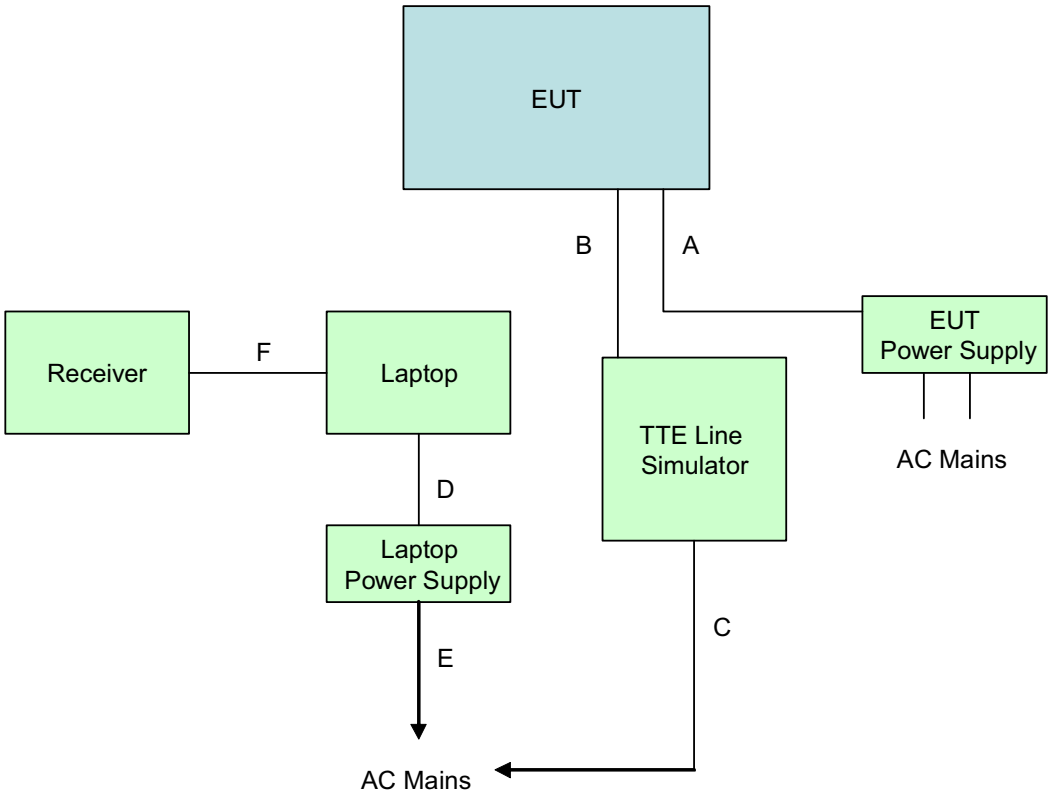
Description of EUT exercising:
The EUT was tested in transmit mode. When tested in transmit mode the EUT was tested in its mid channel setting. EUT transmit output power was set to its maximum programmable setting.

4.0 System setup including cable interconnection details, support equipment and simplified block diagram. (System Setup)

Method:

Record the details of EUTcabling, document the support equipment, and show the interconnections in a block diagram.

Photo:



EUT set up block diagram

4.0 System setup including cable interconnection details, support equipment and simplified block diagram. (System Setup)

Data:

EUT Cabling						
					Connection	
ID	Description	Length	Shielding	Ferrites	From	To
A	Power Cord	1.8m	No	No	EUT	AC Mains
B	RJ11	1.5m	No	No	EUT	Line Simulator
C	Power Cord	1.5m	No	No	Line Simulator	AC Mains
D	Power Cord	2m	No	Yes	Laptop	Laptop Power Supply
E	Power Cord	2m	No	No	Laptop Power Supply	AC Mains
F	USB	1.5m	No	Yes	Laptop	Receiver

Support Equipment			
Description	Manufacturer	Model Number	Serial Number
Line Simulator	Teltone	TLS-5	99784
Laptop	Compaq	Evo N620c	CNU3400PHK
Laptop Power Supply	Compaq	1X1559556LC	5482AOALLMJCCC
Receiver	Bodymedia	Bodybugg	6256798

5.0 Overview of EUT (Low Power Transmitters) (FCC 15C - EUT Overview)

Method:

Complete the overview spreadsheet.

Related Submittal(s) Grants: This report is for use with an application for certification of a low power transmitter. One transmitter is included in the application.

Data:

Applicant	BodyMedia, Inc.
	4 Smiths Street, Suite 1200
	Pittsburg, PA 15222
Trade Name & Model No.	Wireless Gateway
FCC Identifier	PV8XXXXX (TBD)
Use of Product	Quantity production is planned.
Transmitter Activation	☑ Automatically activated
	☑ Periodic transmissions
Frequency Range (MHz)	2400 to 2483.5 MHz
Antenna Type (15.203)	Intregal - Board Mounted
Manufacturer name & address	BodyMedia, Inc.
	4 Smiths Street, Suite 1200
	Pittsburgh, PA 15222
Related Submittals and Grants:	This report is for use with an application for certification of a low power transmitter. One transmitter is included in the application.
Additions, deviations and exclusions from standards	None

6.0 Duty Cycle Determination (FCC 15A - 15.35(c))

Method:

(c) Unless otherwise specified, e.g. §15.255(b), when the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value. The exact method of calculating the average field strength shall be submitted with any application for certification or shall be retained in the measurement data file for equipment subject to notification or verification.

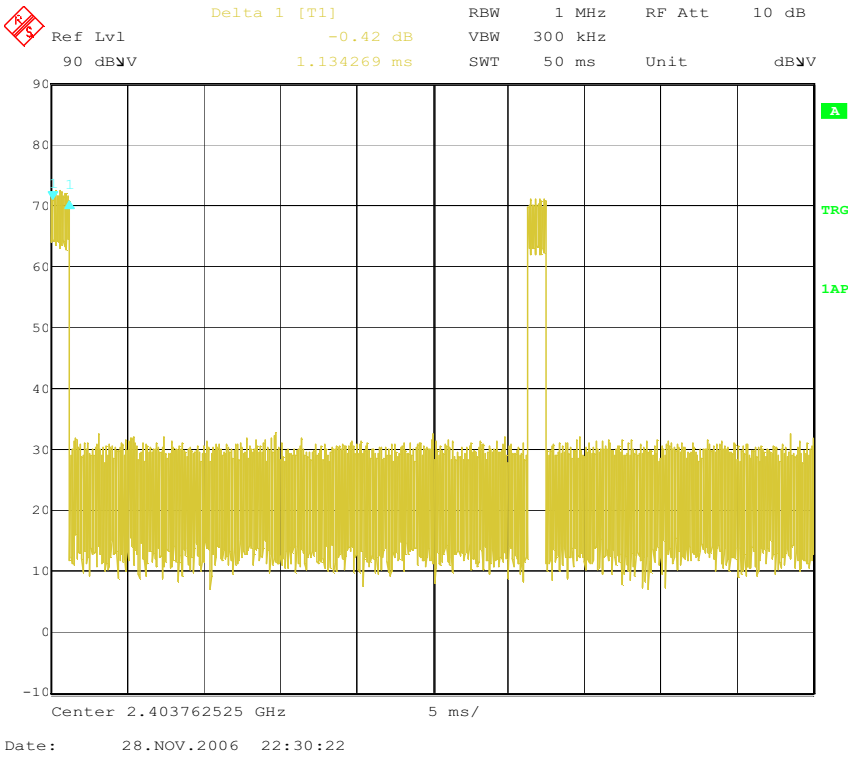
Determine the period of the pulse train, T, in mSec and record the results. T is defined as the time from the beginning of one pulse train to the beginning of the next pulse train.

Count the number of different types of pulses, N and record the results.

For each of the different types of pulses, count the number of occurrences within one pulse train.

Use the Duty Cycle Correction Factor, DCCF, from the results table and use it to adjust the field strength measurements recorded for radiated emissions.

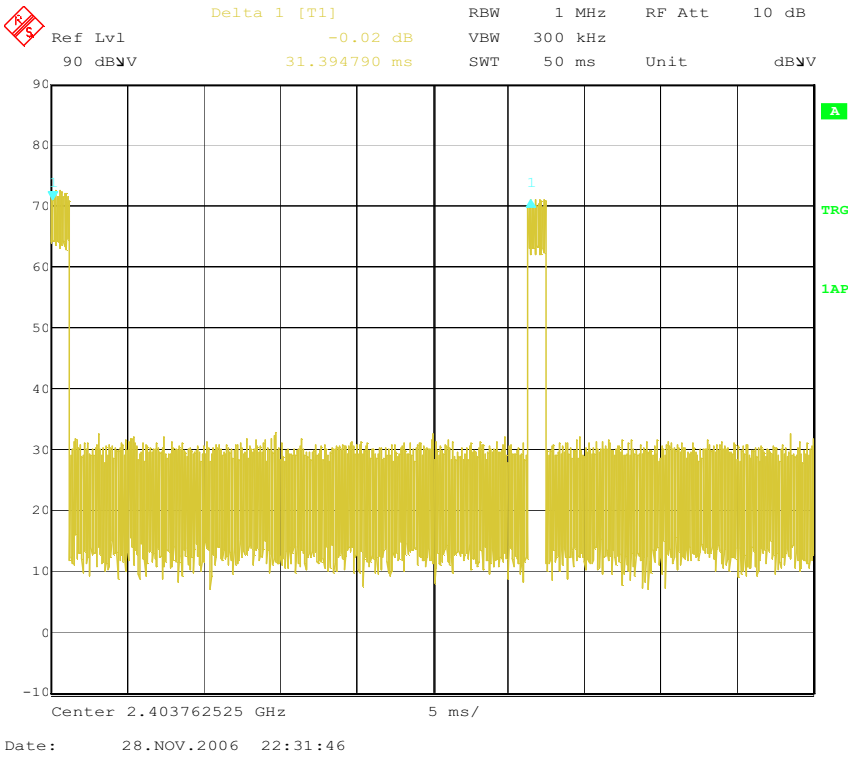
Plot:



Duty Cycle Plot

6.0 Duty Cycle Determination (FCC 15A - 15.35(c))

Plot:



Duty Cycle Plot

6.0 Duty Cycle Determination (FCC 15A - 15.35(c))

Data:

Duration of Pulse Train, T (mSec):	31.39
Averaging Interval, A_I (mSec):	31.39
Number of different Pulses, N:	1

	Number ($\#P_x$)	Pulse Width, mSec (PW_x)	Product ($\#P_x$)*(PW_x)
Pulse Width 1	1	1.13	1.13
Pulse Width 2			
Pulse Width 3			
Pulse Width 4			
Pulse Width 5			
Pulse Width 6			
Pulse Width 7			
Pulse Width 8			
Pulse Width 9			
Pulse Width 10			

Duty Cycle:	0.035998726
Duty Cycle Correction Factor, dB:	-28.9

$$T_{on} = (PW_1 * \#P)_1 + (PW_{2*} * \#P_2) + \cdots + (PW_n * \#P_n)$$

$$DutyCycle = T_{on} \div A_I$$

$$DCCF = 20 * Log_{10}(DutyCycle)$$

7.0 Conducted emissions on AC power lines (Conducted Emissions)

Method:

Equipment setup for conducted disturbance tests shall follow the guidelines of ANSI C63.4:2003, EN 55022:1998 +A1:2000 +A2:2003.

Measurements in the frequency range of 150kHz to 30 MHz shall be performed with a quasi-peak or average detector instrument that meets the requirements of Section One of CISPR 16. An AMN shall be used to provide a defined impedance at high frequencies across the power feed at the point of measurement of terminal voltage and also to provide isolation of the circuit under test from the ambient noise on the power lines. An AMN defined in CISPR 16 shall be used.

In the frequency range of 150 kHz to 30 MHz, a resolution/video bandwidth of 9kHz/30kHz or greater shall be used.

The EUT shall be located so that the distance between the boundary of the EUT and the closest surface of the AMN is 0.8m.

If a flexible mains cord is provided by the manufacturer that is in excess of 1m, the excess cable shall be folded back and forth as far as possible to form a bundle not exceeding 0.4m in length.

The EUT shall be arranged and connected with cables terminated in accordance with the product specification.

Conducted disturbance shall be measured between each current carrying conductor and the reference ground. Each measured values shall be reported.

If EUT is intended for tabletop use, the EUT shall be placed on a table whose top is 0.8m above the ground plane. A vertical, metal reference plane is be placed 0.4m from the EUT. The vertical metal reference-plane is at least 2m by 2m. The EUT shall be kept at least 0.8m from any other metal surface or other ground plane not being part of the EUT. The table shall be constructed of non-conductive materials. Its dimensions are at least 1m by 1.5m, but may be extended for larger EUT.

If EUT is floor standing, the floor standing EUT shall be placed on a horizontal metal ground plane and isolated from the ground plane by up to 12 mm of insulating material. The metal ground plane shall extend at least 0.5m beyond the boundaries of the EUT and had minimum dimensions of 2m by 2m.

TEST SITE
The test site for radiated emissions is located at 1950 Evergreen Blvd, Suite 100, Duluth, Georgia 30096.

MEASUREMENT UNCERTAINTY
Compliance of the product is based on the measured value. However, the measurement uncertainty is included for informational purposes. The values given are the measurement uncertainty values with an expanded uncertainty of k=2.
150 kHz to 30 MHz: +/- 2.8 dB

Test Equipment Used:

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Cable TT4	Andrews	Cable TT4	211404	05/11/2006	05/11/2007
Coaxial Cable, 6ft, N(Male) to N(Male)	Mini-Circuits	CBL-6FT-NMNM	TT1	05/11/2006	05/11/2007
EMI Receiver	Hewlett Packard	8546A	211388	08/04/2006	08/04/2007
EMI Receiver, Preselector section	Hewlett Packard	85460A	211389	08/04/2006	08/04/2007
Excel spreadsheet for conducted emissions tests	Intertek Software	SW (CE Worksheet	SW002	08/01/2006	08/01/2007
LISN (TT4)	Fischer Custom Comm	FCC-LISN-50-50-M	211406	09/26/2006	09/26/2007
Spectrum Analyzer, 20 Hz to 40 GHz	Rohde & Schwarz	FSEK30	200062	01/12/2006	01/12/2007

Results: The sample tested was found to Comply.

7.0 Conducted emissions on AC power lines (Conducted Emissions)

Photo:

Test set up front

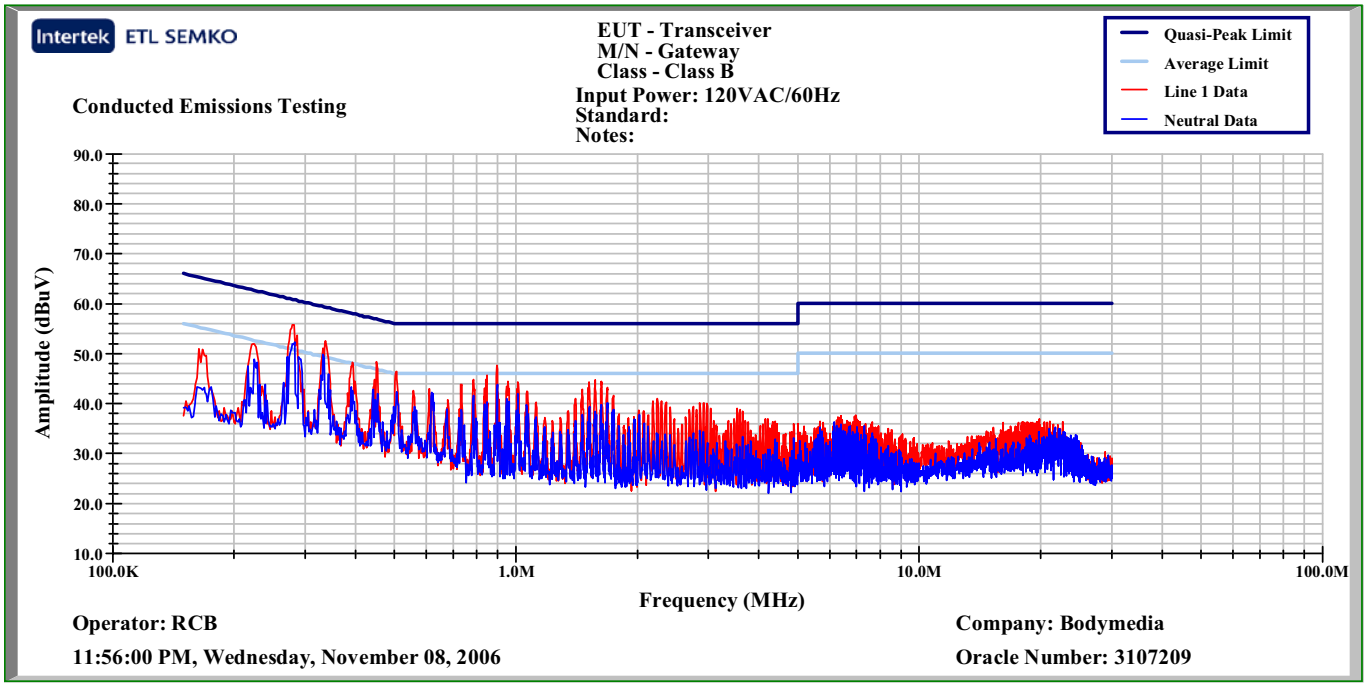
7.0 Conducted emissions on AC power lines (Conducted Emissions)

Photo:

Test set up rear

7.0 Conducted emissions on AC power lines (Conducted Emissions)

Plot:



Scan plot

7.0 Conducted emissions on AC power lines (Conducted Emissions)

Data:

Frequency Range (MHz): .150-30

Input power: 120 Vac / 60 Hz **Limit:** CISPR Class B

Notes: Transmit mode **Modifications for compliance (y/n):** N

A	B	C	D	E	F	G	H	I
LISN Number 1,2	**Detector (P,QP, A)**	**Frequency MHz**	**Reading dBuV**	**Cable Loss dB**	**LISN Ins. Loss dB**	**Net dBuV**	**Limit dBuV**	**Margin dB**
1	QP	0.223	44.0	0.6	6.1	50.7	62.8	-12.1
1	A	0.223	37.6	0.6	6.1	44.3	52.8	-8.5
1	QP	0.281	48.3	0.6	6.1	55.0	60.8	-5.8
1	A	0.281	42.1	0.6	6.1	48.8	50.8	-2.0
1	QP	0.335	45.0	0.6	6.1	51.7	59.3	-7.6
1	A	0.335	38.6	0.6	6.1	45.3	49.3	-4.0
1	QP	0.448	40.8	0.6	6.0	47.4	57.0	-9.6
1	A	0.448	34.0	0.6	6.0	40.6	47.0	-6.4
1	QP	0.505	38.7	0.6	6.0	45.3	56.0	-10.7
1	A	0.505	31.3	0.6	6.0	37.9	46.0	-8.1
1	QP	0.896	39.6	0.6	6.0	46.2	56.0	-9.8
1	A	0.896	32.8	0.6	6.0	39.4	46.0	-6.6
2	QP	0.224	40.3	0.6	6.1	47.0	62.8	-15.8
2	A	0.224	27.4	0.6	6.1	34.1	52.8	-18.7
2	QP	0.281	43.9	0.6	6.1	50.6	60.8	-10.2
2	A	0.281	30.8	0.6	6.1	37.5	50.8	-13.3
2	QP	0.336	42.8	0.6	6.1	49.5	59.3	-9.8
2	A	0.336	27.5	0.6	6.1	34.2	49.3	-15.1
2	QP	0.450	35.7	0.6	6.0	42.3	56.9	-14.6
2	A	0.450	23.4	0.6	6.0	30.0	46.9	-16.9
2	QP	0.506	33.2	0.6	6.0	39.8	56.0	-16.2
2	A	0.506	21.2	0.6	6.0	27.8	46.0	-18.2
2	QP	0.899	35.9	0.6	6.0	42.5	56.0	-13.5
2	A	0.899	22.5	0.6	6.0	29.1	46.0	-16.9
Calculations		G=D+E+F		I=G-H				

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Method:

Measurements shall be performed with a quasi-peak detector instrument that meets the requirements of Section One of CISPR 16.

Bandwidths:
30 MHz to 1000 MHz: 120 kHz RBW and 1 MHz VBW
Above 1000 MHz: 1 MHz RBW and 3 MHz VBW

Frequency range of radiated measurements
For an intentional radiator, the spectrum shall be investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to at least the frequency shown in this paragraph:

(1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

(2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.

(3) If the intentional radiator operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower, unless specified otherwise elsewhere in the rules.

(4) If the intentional radiator contains a digital device, regardless of whether this digital device controls the functions of the intentional radiator or the digital device is used for additional control or function purposes other than to enable the operation of the intentional radiator, the frequency range shall be investigated up to the range specified in paragraphs (a)(1) through (a)(3) of this section or the range applicable to the digital device, as shown in paragraph (b)(1) of this section, whichever is the higher frequency range of investigation.

Measurement antenna requirements:
Below 30 MHz - Loop antenna
30 to 1000 MHz - Biconical, Log Periodic, or equivalent
Above 1000 MHz - Horn or equivalent

Measurements of the radiated field are made with the antenna located at a distance of 3 or 10 meters from the EUT. The limit applied to the measurement shall be appropriate for the test distance. The test distance shall be indicated in the results section.

The EUT shall be arranged and connected with cables terminated in accordance with the product specification.

Exploratory tests should be carried out while varying the cable positions to determine the maximum or near-maximum emission level. During manipulation, cables shall not be placed under or on top of the system test components unless such placement is required by the inherent equipment design.

The antenna shall be adjusted between 1m and 4m in height above the ground plane for maximum meter reading at each test frequency.

The antenna-to-EUT azimuth shall be varied during the measurement to find the maximum field-strength readings.

The antenna-to-EUT polarization (horizontal and vertical) shall be varied during the measurements to find the maximum field-strength readings.

If the EUT is handheld, it shall be oriented in each of its othogonal axes.

If the EUT is intended for tabletop use, it shall be placed on a table whose top is 0.8m above the ground plane. The table shall be constructed of non-conductive materials. Its dimensions are at least 1m by 1.5m, but may be extended for larger EUT.

If EUT is floor standing, the EUT was placed on a horizontal metal ground plane and isolated from the ground plane by up to 12 mm of insulating material.

Equipment setup for radiated disturbance tests shall follow the guidelines of ANSI C63.4:2003.

TEST SITE
The test site for radiated emissions is located at 1950 Evergreen Blvd, Suite 100, Duluth, Georgia 30096.

Test Equipment Used:

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Antenna, BiLog (20MHz to 2GHz)	Chase	CBL6112A	211518	12/08/2005	12/08/2006
Antenna, Horn, 1-18GHz	EMCO	3115	BOX-HORN1	12/05/2005	12/05/2006
Cable E01 (Formerly PE7000N-N2 or N2)	Pasternack	RG214/U	E01	05/11/2006	05/11/2007
Cable, 18 GHz, N, 394 inches	Megaphase	G919-NKNK-394	MP3	05/11/2006	05/11/2007
Cable, 40 GHz, 2.9, 80 inches	Megaphase	TM40 K1K1 80	E405	05/12/2006	05/12/2007
Cable, 40 GHz, 2.9, 80 inches	Megaphase	TM40 K1K1 80	E404	05/12/2006	05/12/2007
EMI Receiver	Hewlett Packard	8546A	211388	08/04/2006	08/04/2007
EMI Receiver, Preselector section	Hewlett Packard	85460A	211389	08/04/2006	08/04/2007

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Test Equipment Used:

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Excel spreadsheet for radiated emissions	Intertek Software	SW (RE Worksheet	SW004	08/01/2006	08/01/2007
Preamplifier, 10 MHz to 2000 MHz, 27 dB gain	Mini-Circuits	ZKL-2	200074	01/24/2006	01/24/2007
Preamplifier, 1-26 GHz	Hewlett Packard	8449B	213191	05/04/2006	05/04/2007
Spectrum Analyzer, 20 Hz to 40 GHz	Rohde & Schwarz	FSEK30	200062	01/12/2006	01/12/2007

Results: The sample tested was found to Comply.

Photo:

Test set up front

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Photo:

Test set up rear

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Photo:

Test set up front Hi-freq.

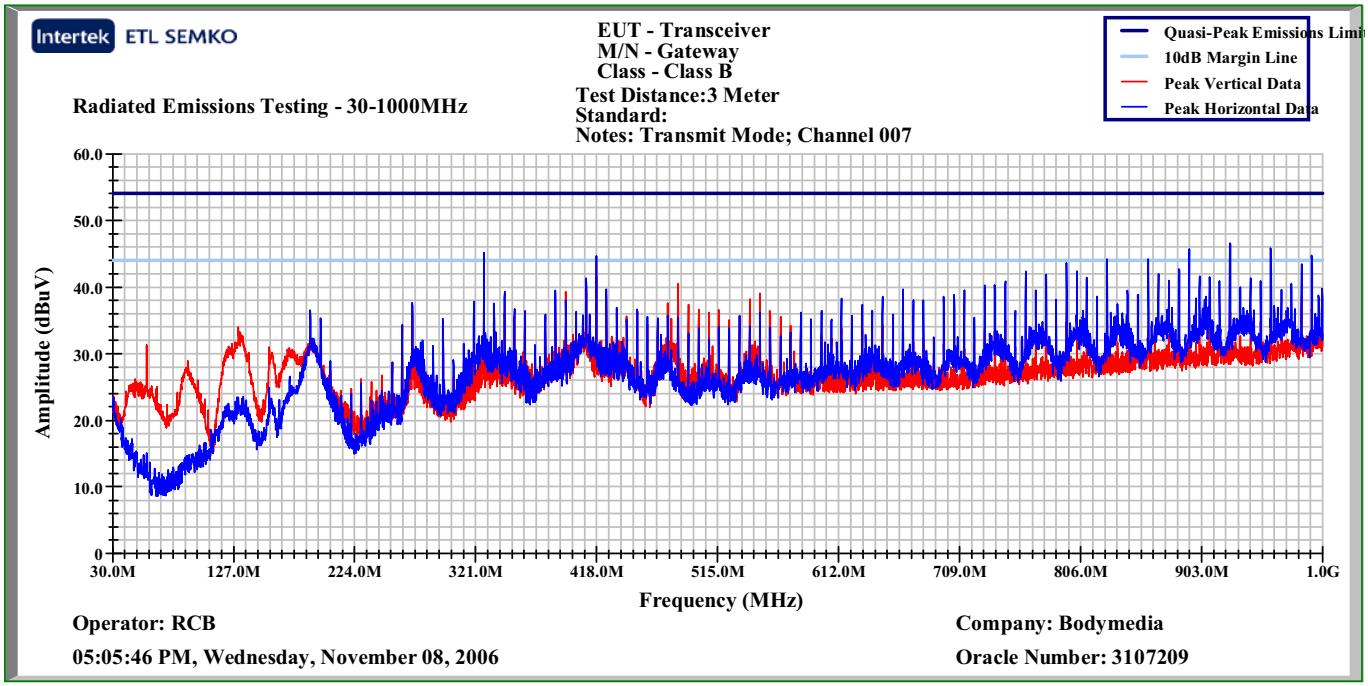
8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Photo:

Test set up rear Hi-freq.

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

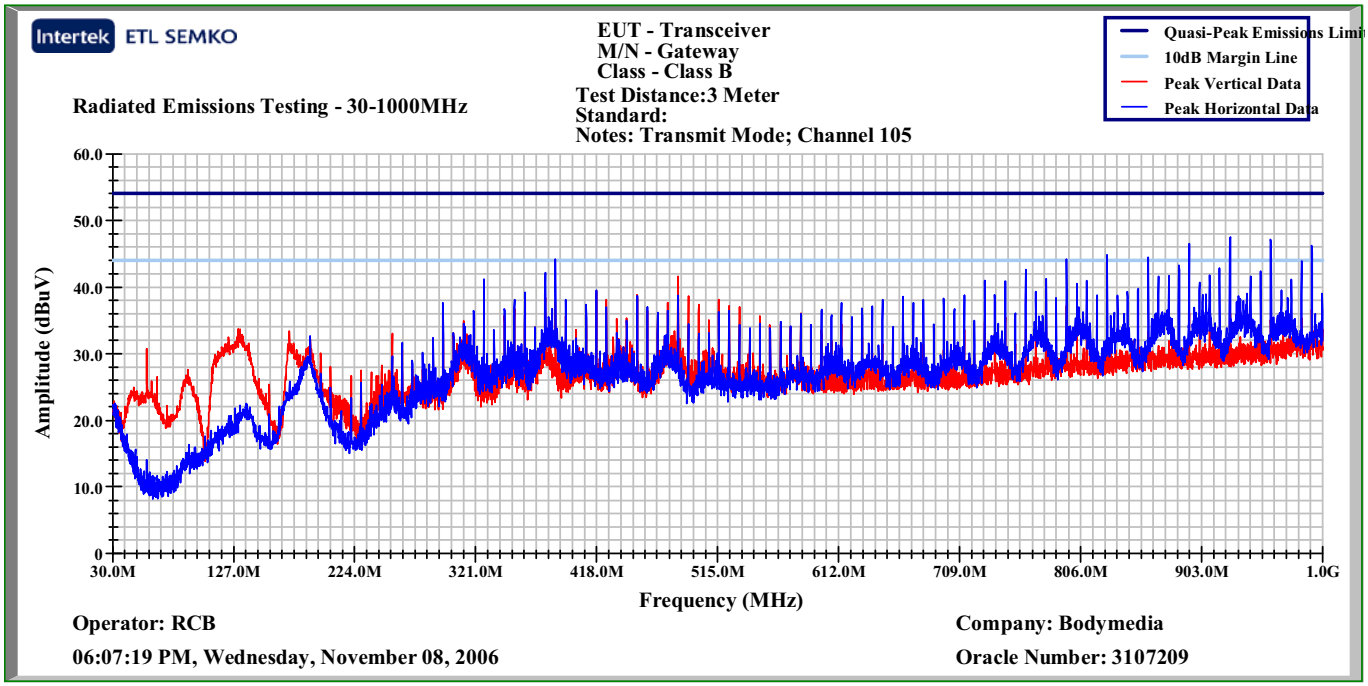
Plot:



30-1000MHz Transmit Mode; Low Channel

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

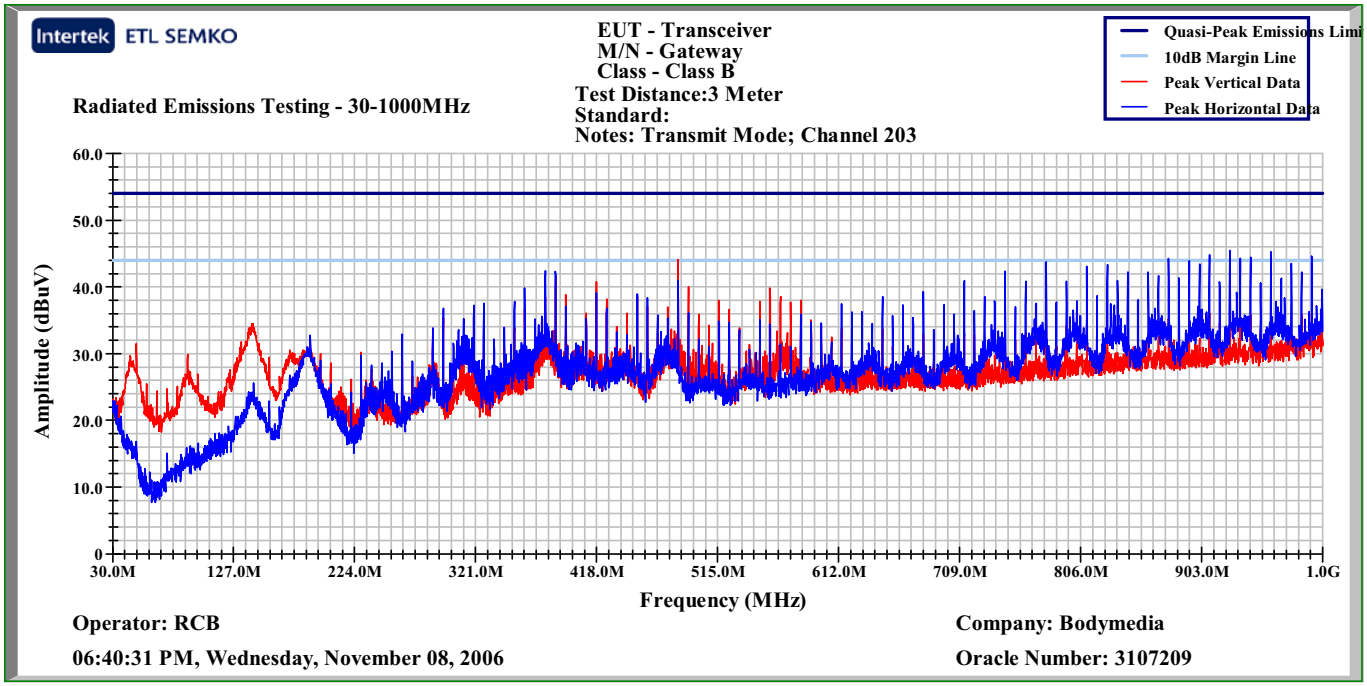
Plot:



30-1000MHz Transmit Mode; Mid Channel

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

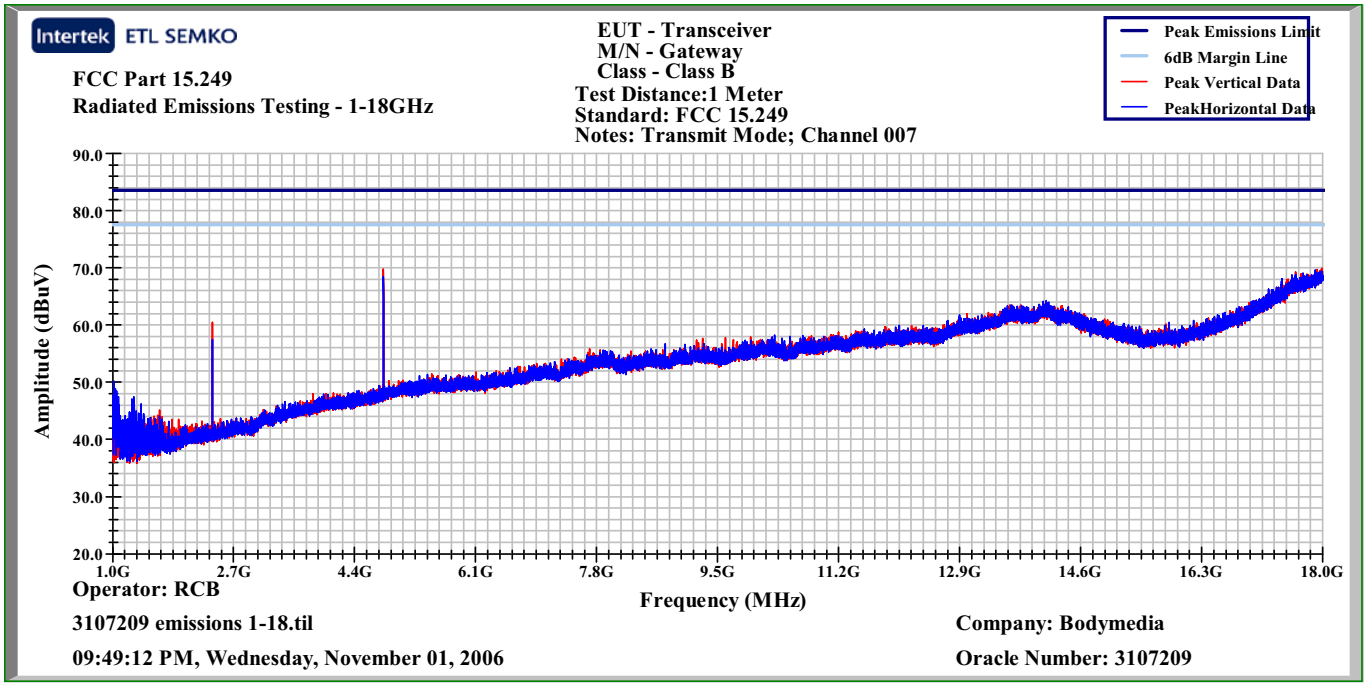
Plot:



30-1000MHz Transmit Mode; Hi Channel

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

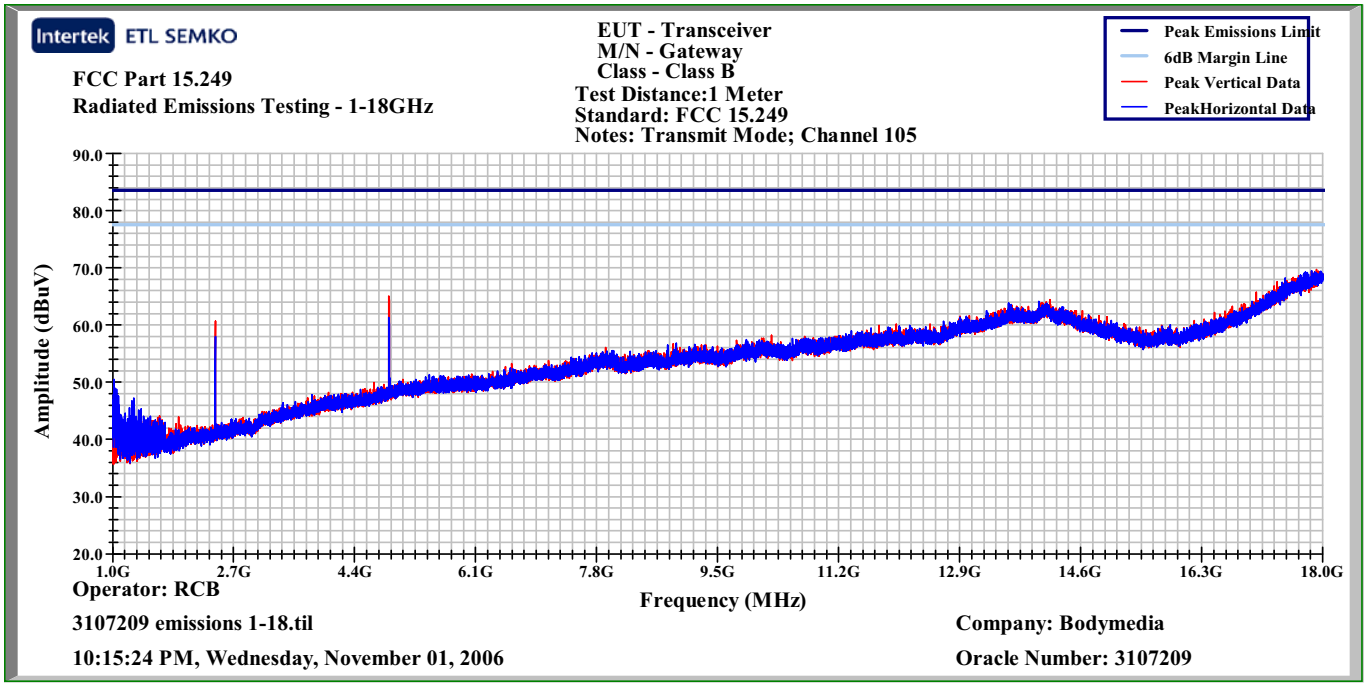
Plot:



1-18GHz Transmit Mode; Low Channel; Peak

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

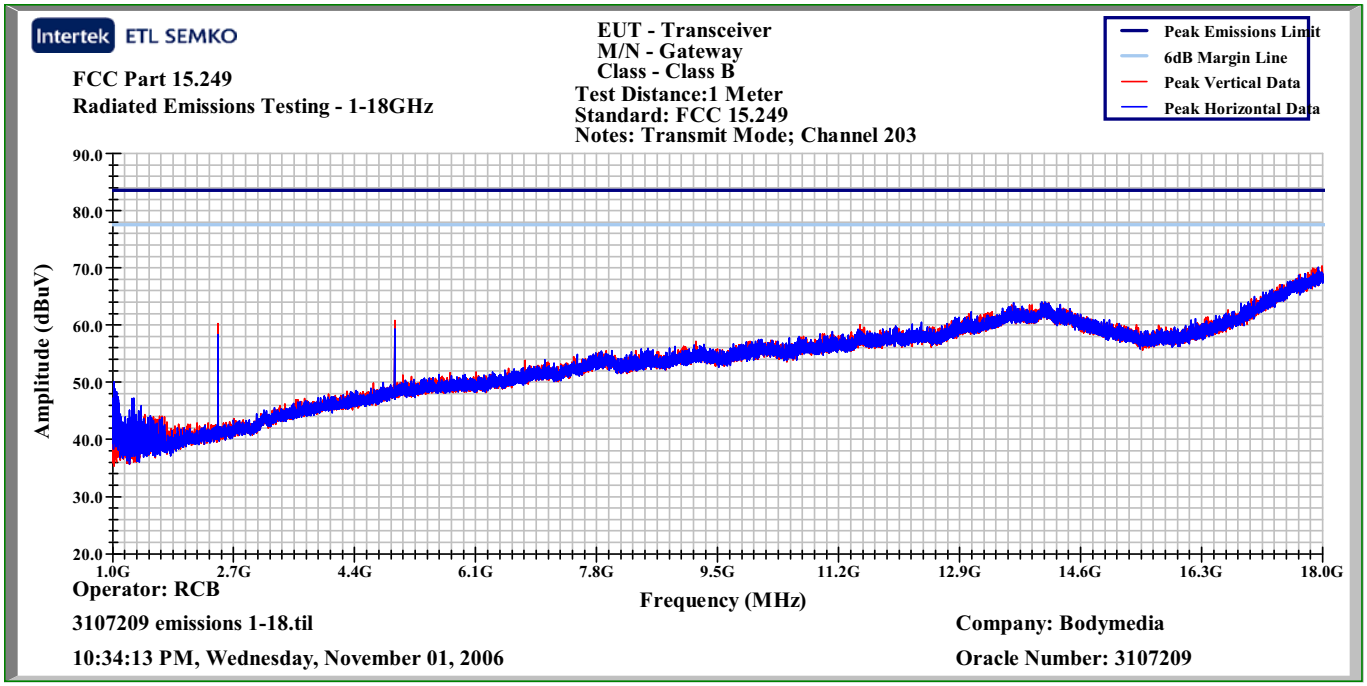
Plot:



1-18GHz Transmit Mode; Mid Channel; Peak

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

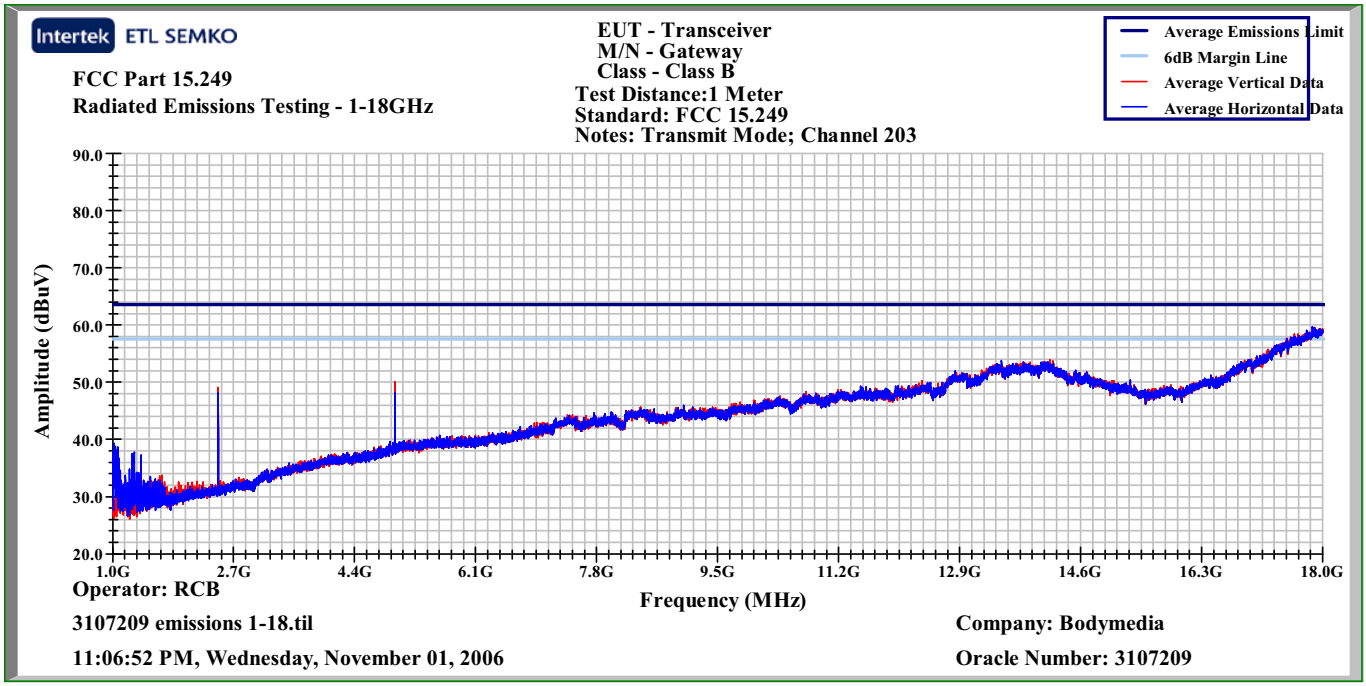
Plot:



1-18GHz Transmit Mode; High Channel; Peak

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

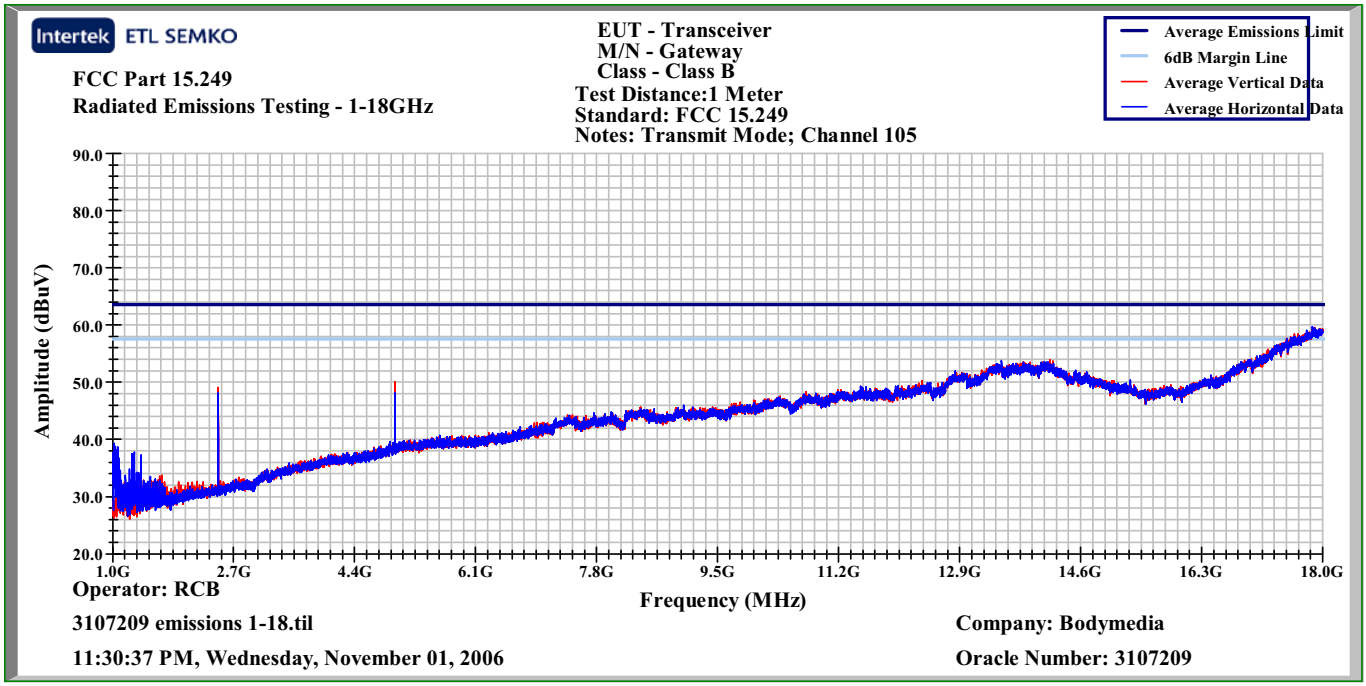
Plot:



1-18GHz Transmit Mode; High Channel; Average

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

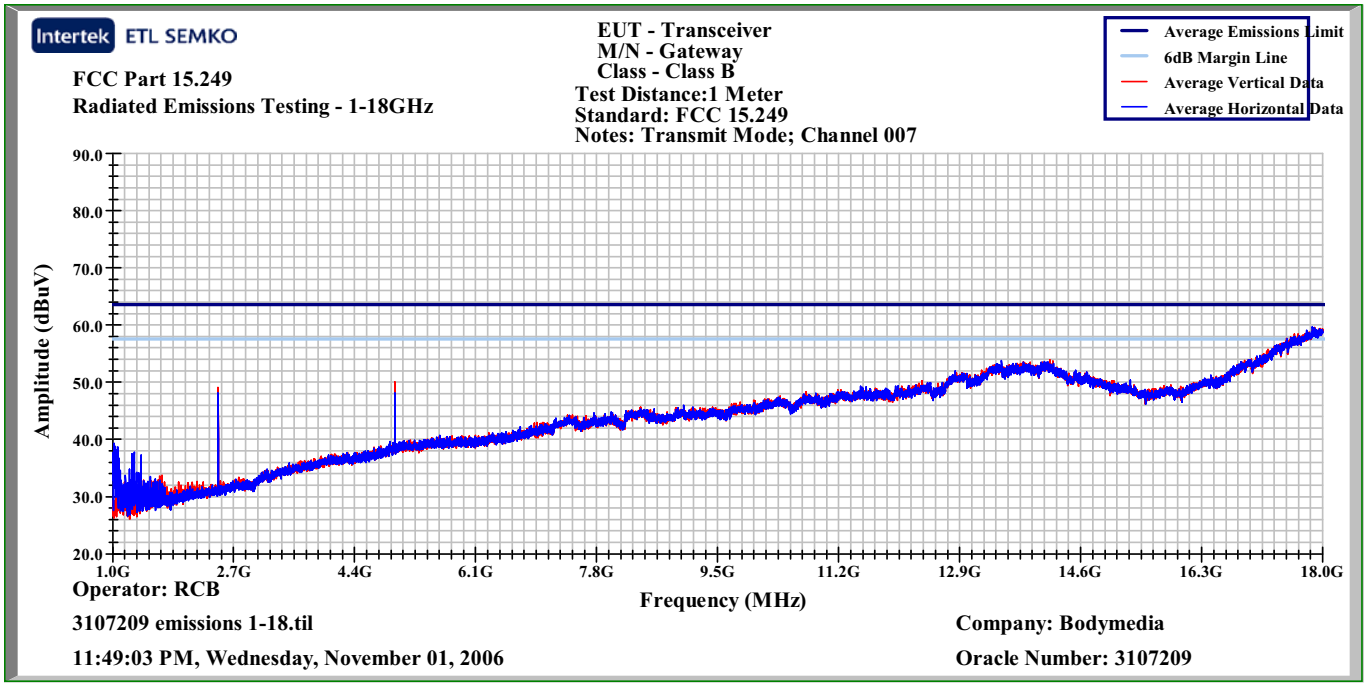
Plot:



1-18GHz Transmit Mode; Mid Channel; Average

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

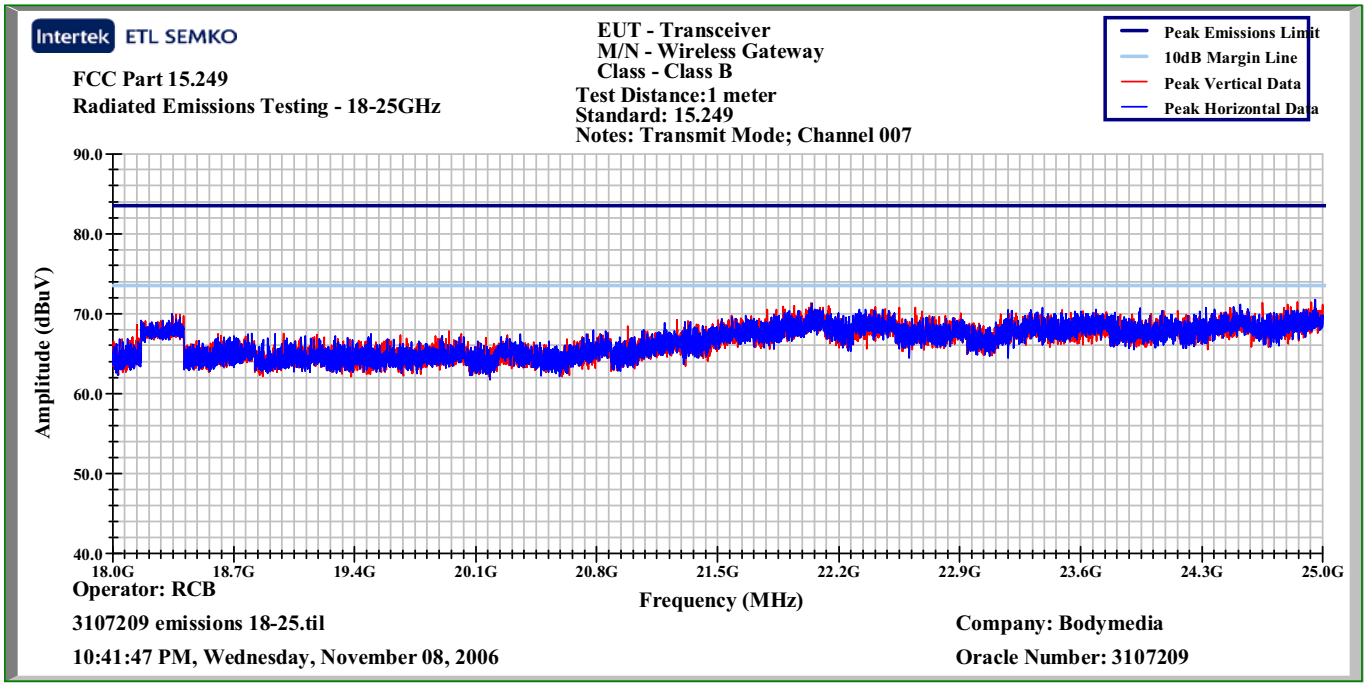
Plot:



1-18GHz Transmit Mode; Low Channel; Average

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

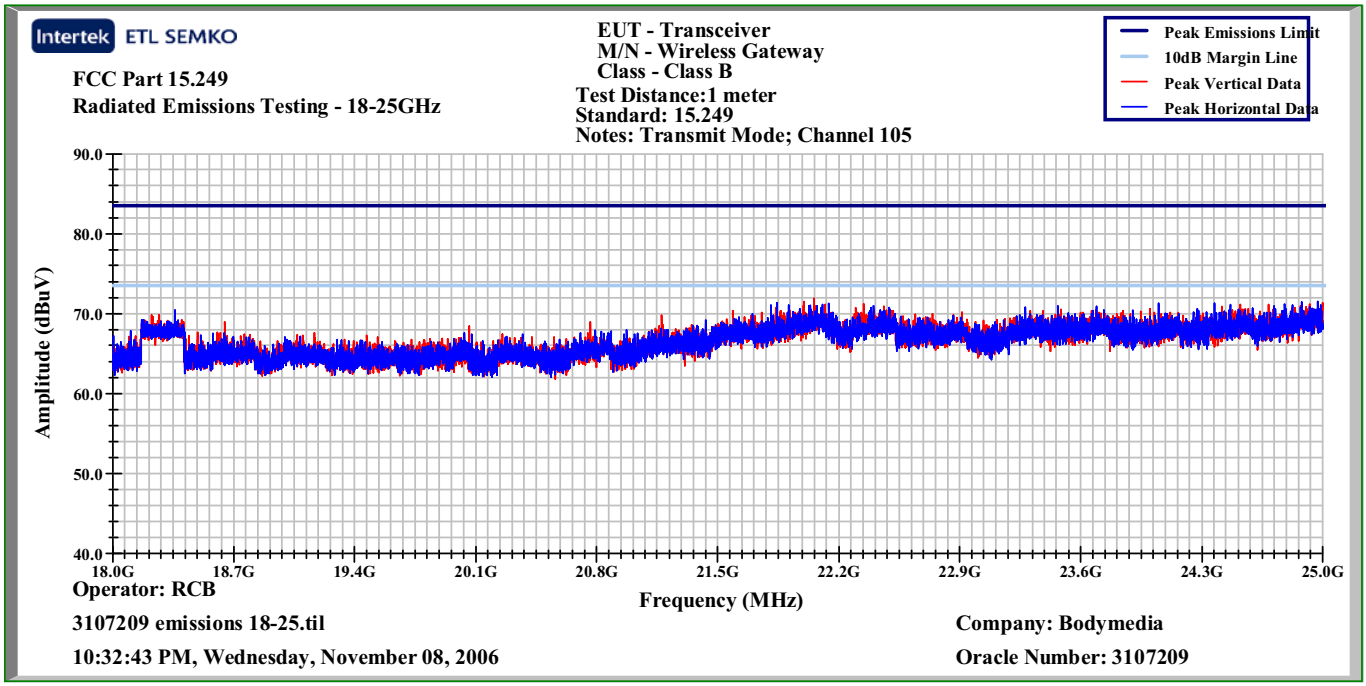
Plot:



18-25GHz Transmit Mode; Low Channel; Peak

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

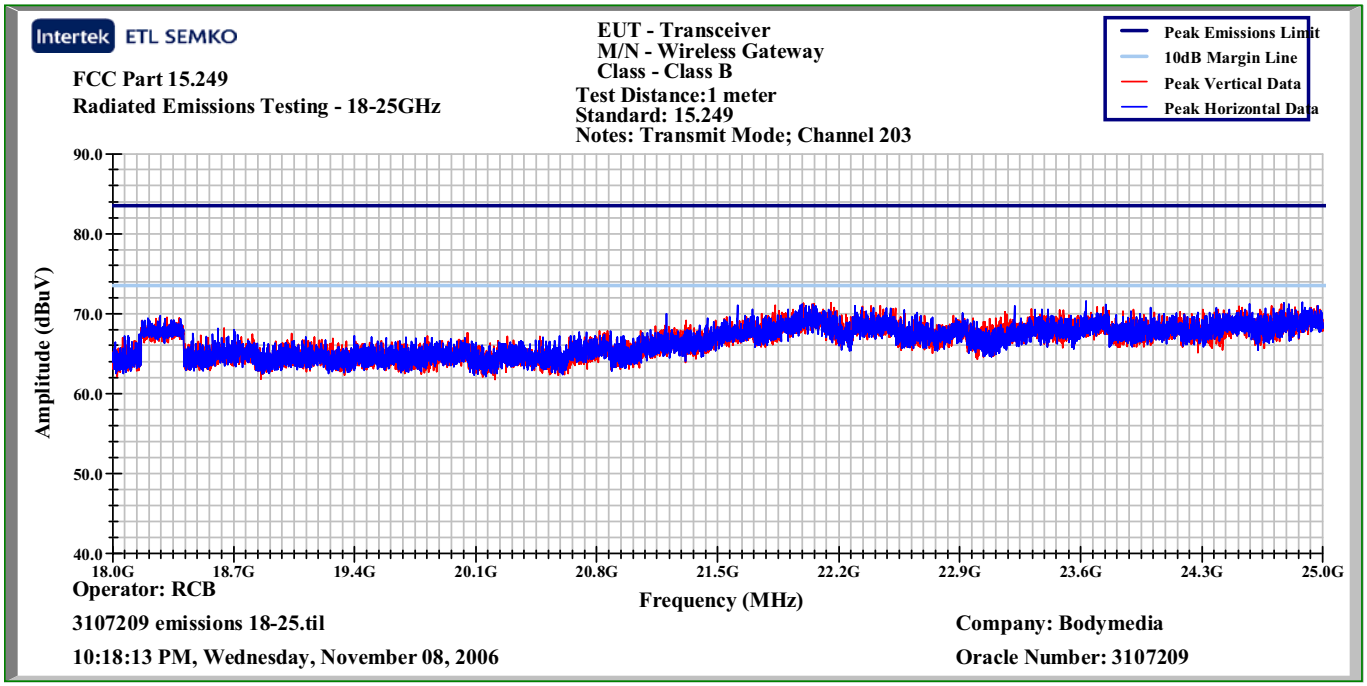
Plot:



18-25GHz Transmit Mode; Mid Channel; Peak

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

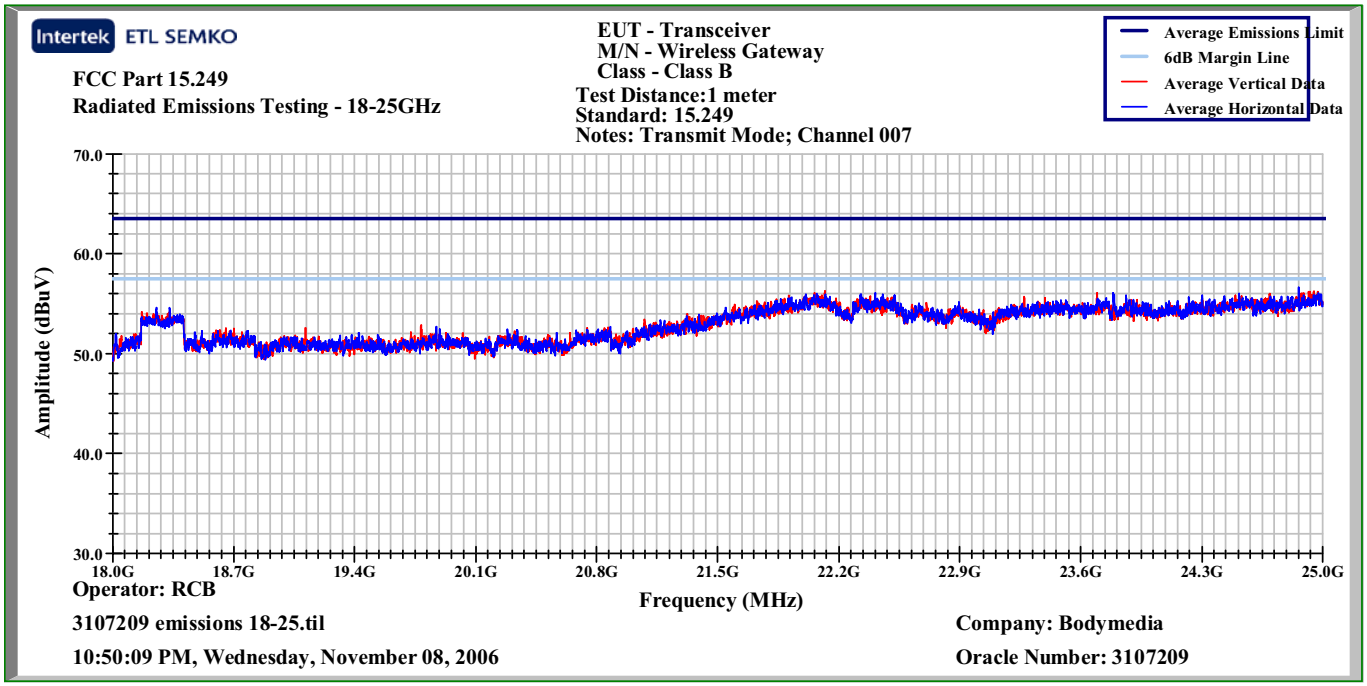
Plot:



18-25GHz Transmit Mode; High Channel; Peak

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

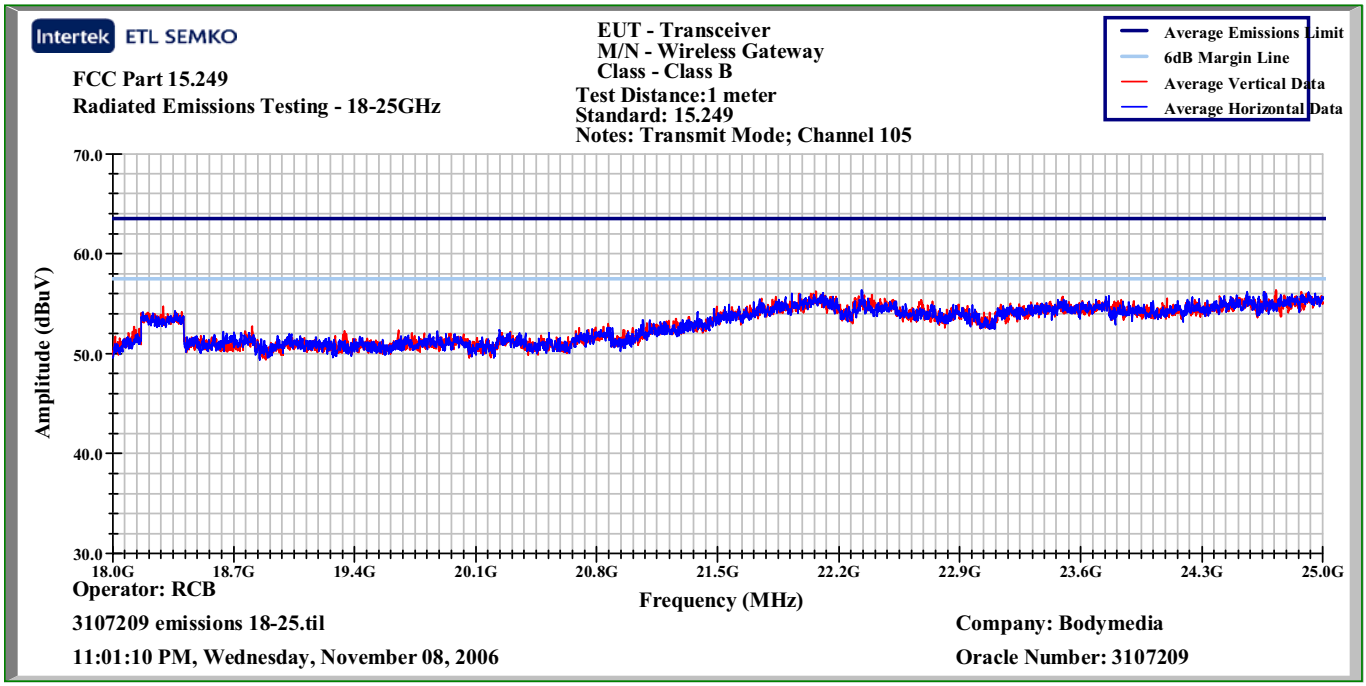
Plot:



18-25GHz Transmit Mode; Low Channel; Average

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

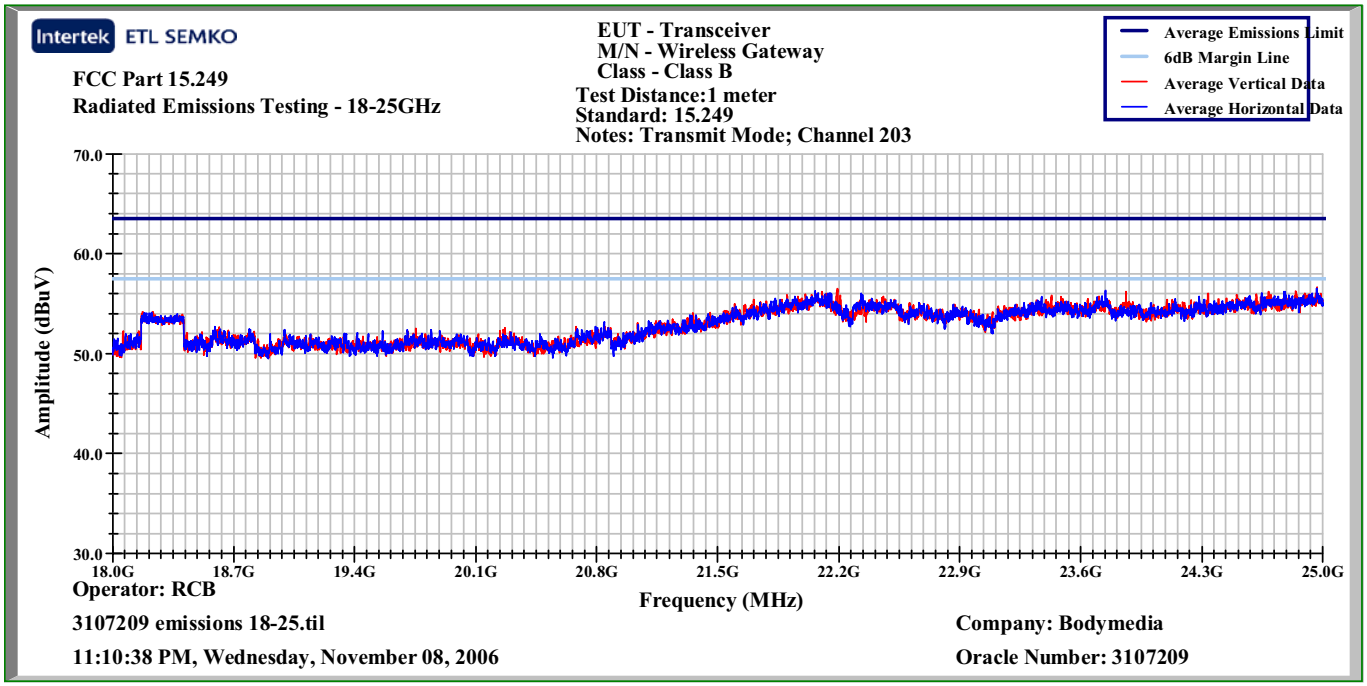
Plot:



18-25GHz Transmit Mode; Mid Channel; Average

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Plot:



18-25GHz Transmit Mode; High Channel; Average

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Data:

Client: Bodymedia
Model Number: Wireless Gateway
Project Number: 3107209
Tested By: RCB
Date: 11/08/2006
Frequency Range (MHz): 30-1000
Input power: 230/50

Receiver: HP 8546A
Antenna: Chase 2228
Cables: E01+MP3+TT1+E05
Preamp: ZKL-2 D052005
Limit: FCC 15.249
Test Distance (m): 3
Modifications for compliance (y/n): No

A	B	C	D	E	F	G	H	I
Ant. Pol. (V/H)	**Frequency MHz**	**Reading dB(uV)**	**Antenna Factor dB(1/m)**	**Cable Loss dB**	**Pre-amp Factor dB**	**Net dB(uV/m)**	**3m Limit dB(uV/m)**	**Margin dB**
Channel 007								
H	327.688	55.0	14.6	3.3	28.0	44.9	54.0	-9.1
H	417.786	50.3	17.0	3.8	27.9	43.2	54.0	-10.8
H	892.918	48.2	21.4	5.2	27.7	47.2	54.0	-6.8
H	925.691	48.0	21.6	5.9	27.6	47.8	54.0	-6.2
H	958.452	46.9	21.9	5.9	27.6	47.1	54.0	-6.9
H	991.226	45.2	22.3	5.9	27.6	45.7	54.0	-8.3
Channel 105								
H	385.026	55.0	15.9	3.3	28.0	46.2	54.0	-7.8
H	827.392	47.7	20.9	5.2	27.7	46.2	54.0	-7.8
H	892.906	48.6	21.4	5.2	27.7	47.5	54.0	-6.5
H	925.683	48.8	21.6	5.9	27.6	48.7	54.0	-5.3
H	958.456	47.9	21.9	5.9	27.6	48.0	54.0	-6.0
H	991.240	46.0	22.3	5.9	27.6	46.5	54.0	-7.5
Channel 203								
H	483.322	50.5	17.6	3.8	27.9	44.0	54.0	-10.0
H	778.230	48.4	20.4	4.8	27.8	45.8	54.0	-8.2
H	909.307	46.9	21.5	5.9	27.6	46.7	54.0	-7.3
H	925.708	48.1	21.6	5.9	27.6	48.0	54.0	-6.0
H	958.455	46.1	21.9	5.9	27.6	46.2	54.0	-7.8
H	991.210	44.6	22.3	5.9	27.6	45.2	54.0	-8.8
Calculations		G=C+D+E-F		I=G-H				

Spurious emissions test results: 30 to 1000 MHz

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Data:

Client: Bodymedia
Model Number: Wireless Gateway
Project Number: 3107209
Tested By: RCB
Date: 11-02-2006
Frequency Range (MHz): 2400-2483.5
Input power: 230VAC/50

Receiver: HP 8546A
Antenna: EMCO 3115
Cables: E11+MP3+TT1+E20
Preamp: HP 8449B
Limit: 15.249
Test Distance (m): 3
Modifications for compliance (y/n): No

Emissions at Fundamental Frequency

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	**Frequency MHz**	**Reading dB(uV)**	**Antenna Factor dB(1/m)**	**Cable Loss dB**	**Pre-amp Factor dB**	**DCCF dB**	**Net dB(uV/m)**	**3m Limit dB(uV/m)**	**Margin dB**
Average measurements									
V	2402.860	67.8	27.2	8.7	35.8	28.9	39.0	94.0	-55.0
H	2402.865	68.3	27.4	8.7	35.8	28.9	39.7	94.0	-54.3
H	2442.073	66.4	27.4	8.7	35.8	28.9	37.8	94.0	-56.2
V	2442.278	64.8	27.2	8.7	35.8	28.9	36.0	94.0	-58.0
V	2481.263	63.4	27.2	8.7	35.8	28.9	34.6	94.0	-59.4
H	2481.263	65.3	27.4	8.7	35.8	28.9	36.7	94.0	-57.3
Peak measurements									
V	2402.860	67.8	27.2	8.7	35.8	0.0	67.9	114.0	-46.1
H	2402.865	68.3	27.4	8.7	35.8	0.0	68.6	114.0	-45.4
H	2442.073	66.4	27.4	8.7	35.8	0.0	66.7	114.0	-47.3
V	2442.278	64.8	27.2	8.7	35.8	0.0	64.9	114.0	-49.1
V	2481.263	63.4	27.2	8.7	35.8	0.0	63.5	114.0	-50.5
H	2481.263	65.3	27.4	8.7	35.8	0.0	65.6	114.0	-48.4
Calculations		H=C+D+E-F-G		J=H-I					

No duty cycle correction factor required for compliance.

Fundamental emissions test results

8.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Data:

Client: Bodymedia
Model Number: Wireless Gateway
Project Number: 3107209
Tested By: RCB
Date: 11-02-2006
Frequency Range (MHz): 2400-2483.5
Input power: 230VAC/50

Receiver: HP 8546A
Antenna: EMCO 3115
Cables: E11+MP3+TT1+E20
Preamp: HP 8449B
Limit: 15.209
Test Distance (m): 3meters
Modifications for compliance (y/n): No

Spurious Frequency

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	**Frequency MHz**	**Reading dB(uV)**	**Antenna Factor dB(1/m)**	**Cable Loss dB**	**Pre-amp Factor dB**	**DCCF dB**	**Net dB(uV/m)**	**3m Limit dB(uV/m)**	**Margin dB**
Average measurements									
V	4806.259	48.0	32.3	13.0	35.1	28.9	29.3	54.0	-24.7
H	4806.259	49.8	32.5	13.0	35.1	28.9	31.2	54.0	-22.8
V	4884.125	48.9	32.3	13.0	35.1	28.9	30.1	54.0	-23.9
H	4884.125	48.0	32.5	13.0	35.1	28.9	29.5	54.0	-24.5
V	4962.401	47.5	32.3	13.0	35.1	28.9	28.8	54.0	-25.2
H	4962.401	47.3	32.5	13.0	35.1	28.9	28.7	54.0	-25.3
Peak measurements									
V	4806.259	48.0	32.3	13.0	35.1	0.0	58.2	74.0	-15.8
H	4806.259	49.8	32.5	13.0	35.1	0.0	60.1	74.0	-13.9
V	4884.125	48.9	32.3	13.0	35.1	0.0	59.0	74.0	-15.0
H	4884.125	48.0	32.5	13.0	35.1	0.0	58.4	74.0	-15.6
V	4962.401	47.5	32.3	13.0	35.1	0.0	57.7	74.0	-16.3
H	4962.401	47.3	32.5	13.0	35.1	0.0	57.6	74.0	-16.4
Calculations		H=C+D+E-F-G		J=H-I					

Spurious emissions test results: 1 to 25 GHz