

APPLICATION FOR CERTIFICATION

On Behalf of

Belkin International Inc.

Conserve Remove Switch

Model No.: BG200001

Brand: Belkin

FCC ID : K7S-BG200001

Prepared for : Belkin International Inc.  
501 West Walnut Street, Compton, CA90220, U.S.A.

Prepared by : AUDIX Technology Corporation  
EMC Department  
No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang,  
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File Number : EM971102  
Report Number : EM-F970366  
Date of Test : Jun. 30, 2008  
Date of Report : Jul. 03, 2008

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# TEST REPORT CERTIFICATION

Applicant : Belkin International Inc.  
 Manufacture : DONGGUAN QUAN SHENG ELECTRIC CO., LTD.  
 EUT Description : Conserve Remove Switch  
 FCC ID : K7S-BG200001  
     (A) Model No. : BG200001  
     (B) Serial No. : N/A  
     (C) Brand : Belkin  
     (D) Power Supply : DC 12V

## Measurement Procedure Used:

FCC RULES AND REGULATIONS PART 15 SUBPART C, Sep. 2007  
 AND ANSI C63.4/2003  
 (FCC CFR 47 Part 15C, §15.231, §15.203, §15.205, §15.207 and §15.209)

The device described above was tested by AUDIX Technology Corporation to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the FCC Part 15 subpart C limits both radiated and conducted emissions.

The measurement results are contained in this test report and AUDIX Technology Corporation is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC official limits.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX Technology Corporation.

Date of Test : Jun. 30, 2008

Prepared by :

  
 (Nita Lee/Administrator)

Test Engineer :

  
 (Ben Cheng/Deputy Manager)

Approved & Authorized Signer :

  
 (Leon Liu/Vice President)

# 1. GENERAL INFORMATION

## 1.1. Description of Device (EUT)

Description : Conserve Remove Switch (Transmitter Unit)

Model Number : BG200001

FCC ID : K7S-BG200001

Applicant : Belkin International Inc.  
501 West Walnut Street, Compton, CA90220,  
U.S.A.

Manufacturer : DONGGUAN QUAN SHENG ELECTRIC CO., LTD.  
CHU-TANG 2<sup>ND</sup> INDUSTRIAL PARK HOU-CHIEH  
TOWN DONGGUAN GUANGDONG CHINA

Fundamental Frequency : 433MHz

Date of Receipt of Sample : Jun. 19, 2008

Date of Test : Jun. 30, 2008

\* Conserve Surge Protector – Receiver Unit

Model No.: (1)BG108000-XX (2)AG108000-XX (3)BG108030-XX  
(4)AG108030-XX (5)BG110000-XX (6)AG110000-XX  
(7)BG110030-XX (8)AG110030-XX FCC by DoC

Test report number: EM-F970365.

The difference list for all models are as follows:

Description	Model No.	Description	Coax Protection
Conserve Surge Protector	BG108000-XX	8 outlets TVSS+RF	no
	AG108000-XX	8 outlets TVSS+RF	no
	BG108030-XX	8 outlets TVSS+RF	1 F-Type
	AG108030-XX	8 outlets TVSS+RF	1 F-Type
	BG110000-XX	10 outlets TVSS+RF	no
	AG110000-XX	10 outlets TVSS+RF	no
	BG110030-XX	10 outlets TVSS+RF	1 F-Type
	AG110030-XX	10 outlets TVSS+RF	1 F-Type

Remark: XX=Power Cord Length.

AG & BG has different Package.

Test Model: BG110030-04

### Remark:

Antenna requirement: This EUT's transmitter antenna is design in soldered to a printed circuit board, comply with §15.203 and inform to user that any change and modify is prohibited.

## 1.2. Description of Test Facility

Name of Firm : **AUDIX Technology Corporation  
EMC Department**  
No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang,  
Taipei County 24443, Taiwan, R.O.C.

Test Location & Facility : **Semi-Anechoic Chamber**  
(Semi-AC) No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang,  
Taipei County 24443, Taiwan, R.O.C.  
Federal Communication Commission  
Registration Number: 90993  
Filing on May 16, 2006

NVLAP Lab. Code : 200077-0  
(NVLAP is a NATA accredited body under Mutual Recognition Agreement)

DAR-Registration No. : DAP-P-145/03-01

## 1.3. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty (dB)
Radiation Test (Distance: 3m)	30MHz~300MHz	± 2.91dB
	300MHz~1000MHz	± 2.94dB

Remark : Uncertainty =  $k_{uc}(y)$

## **2. POWERLINE CONDUCTED EMISSION MEASUREMENT**

**【The EUT only employ battery power for operation, no conductive emissions limits are required according to FCC Part 15 Section §15.207】**

### 3. RADIATED EMISSION MEASUREMENT

#### 3.1. Test Equipment

The following test equipment was used during the radiated disturbance measurement:

##### 3.1.1. For Frequency Range 30MHz~1000MHz (at Semi-Anechoic Chamber)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E7405A	MY42000133	Jul. 10, 07'	Jul. 09, 08'
2.	Test Receiver	R&S	ESCS30	100265	Sep. 04, 07'	Sep. 03, 08'
3.	Amplifier	HP	8447D	2944A06305	Feb. 19, 08'	Feb. 18, 09'
4.	Log Periodic Antenna	Schwarzbeck	UHALP9108-A	0810	Apr. 10, 08'	Apr. 09, 09'
5.	Biconical Antenna	CHASE	VBA6106A	1264	Apr. 10, 08'	Apr. 09, 09'

##### 3.1.2. For Frequency Above 1GHz (at Semi-Anechoic Chamber)

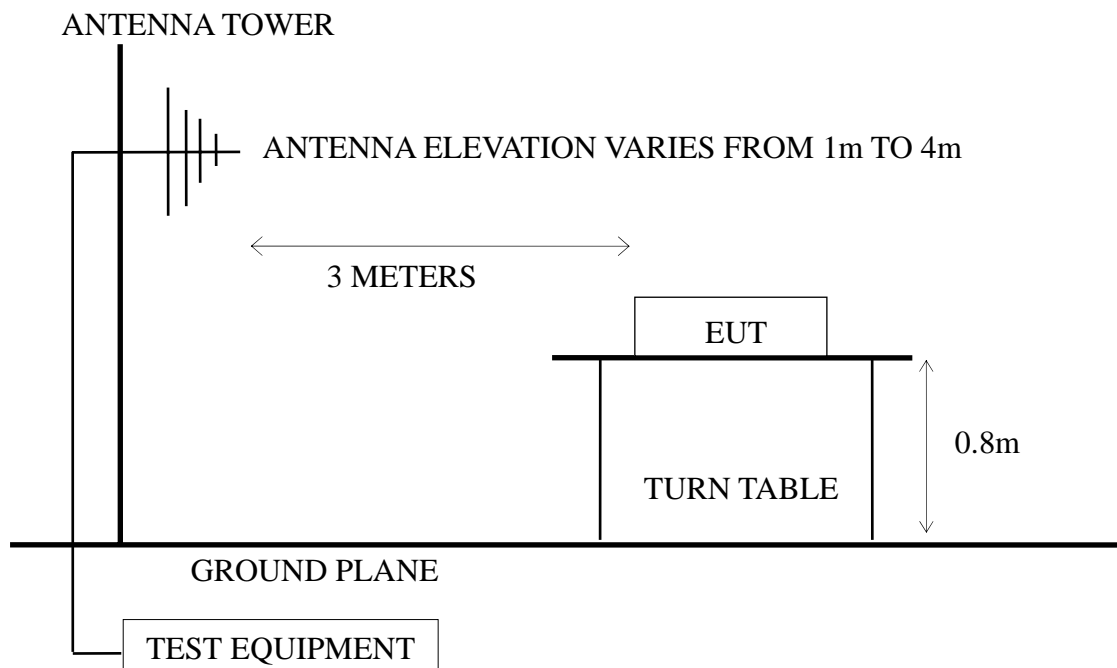
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E7405A	MY42000133	Jul. 10, 07'	Jul. 09, 08'
2.	Pre-Amplifier	HP	8449B	3008A01284	Jun. 17, 08'	Jun. 16, 09'
3.	Horn Antenna	EMCO	3115	9112-3775	May 20, 08'	May 19, 09'

#### 3.2. Test Setup

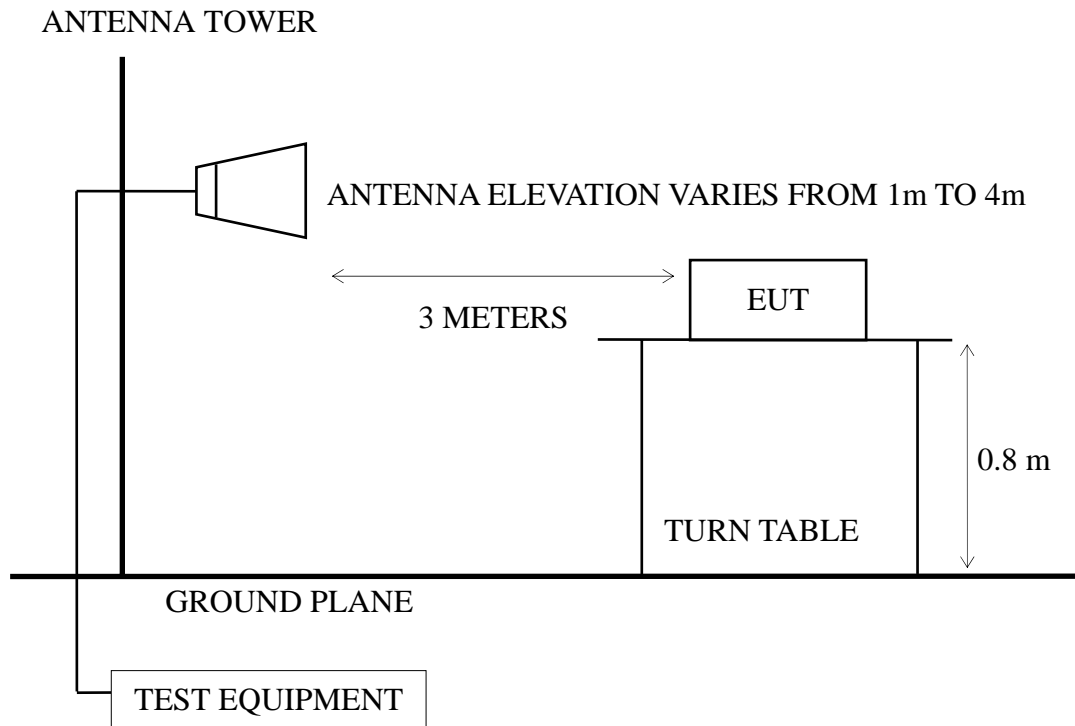
##### 3.2.1. Block Diagram of connection between EUT and simulators

CONSERVE REMOVE SWITCH (EUT)

##### 3.2.2. Semi-Anechoic Chamber (3m) Setup Diagram for 30-1000MHz



### 3.2.3. Semi-Anechoic Chamber (3m) Setup Diagram for above 1GHz



### 3.3. Radiation Limit (Comply with §15.231 & §15.209)

#### 3.3.1. §15.231 Radiated Emission Limits (Fundamental Frequency)

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMITS	
		$\mu\text{V/m}$	$\text{dB}\mu\text{V/m}$
Fundamental Freq.	3	11002.71	80.83 (Quasi-Peak)
Spurious Emission	3	1100.271	60.83 (Quasi-Peak)
Above 1GHz *(3)	3	---	74 (Peak)
Above 1GHz *(3)	3	---	54 (Average)

- Remark :
- (1) Emission level ( $\text{dB}\mu\text{V/m}$ ) =  $20 \log$  Emission level ( $\mu\text{V/m}$ )
  - (2) Where limit of Fundamental Freq. is calculated by:  
 $41.6667 \times 433.99 - 7083.3333 = 11002.71 \mu\text{V/m} = 80.83 \text{dB}\mu\text{V/m}$   
 limit of spurious emission is  $80.83 \text{dB}\mu\text{V/m} - 20 \text{dB} = 60.83 \text{dB}\mu\text{V/m}$
  - (3) The over 1GHz limit, FCC limit is used based on CFR 47 Part 15.35 (b) and Part 15.205(b) & Part 15.209(b) & Part 15.231(a)-(3).



## 3.3.2. §15.209 Radiated Emission Limits (Spurious Frequency)

FREQUENCY	DISTANCE	FIELD STRENGTHS LIMITS	
		$\mu\text{V/m}$	$\text{dB}\mu\text{V/m}$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
Above 960	3	500	54.0

- Remark : (1) Emission level ( $\text{dB}\mu\text{V/m}$ ) =  $20 \log$  Emission level ( $\mu\text{V/m}$ )  
 (2) The tighter limit applies at the edge between two frequency bands.  
 (3) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.  
 (4) The over 1GHz limit, FCC limit is used based on CFR 47 Part 15.35 (b) and 15.205(b) & Part 15.209(e).

## 3.4. Operating Condition of EUT

- 3.4.1. Setup the EUT and simulator as shown on 3.2.  
 3.4.2. Turned on the power of all equipment.  
 3.4.3. The EUT [Conserve Remove Switch] was emitted the fundamental frequency at the stand, side and lie conditions.  
 3.4.4. The EUT was operated on maximum transmitting status during all testing.

## 3.5. Test Procedure

The EUT was placed on a turn table which was 0.8 meter above the ground. The turn table rotated 360 degrees to determine the position of the maximum emission level. EUT was set to 3 meters away from the receiving antenna which was mounted on a antenna tower. The antenna moved up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna such as calibrated biconical and log-periodical antenna or horn antennas were used as a receiving antenna. Both horizontal and vertical polarization of the antenna were set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to FCC ANSI C63.4-2003 regulation.

The bandwidth of test receiver was set at 120kHz for 30-1000MHz frequency range and resolution bandwidth of spectrum analyzer was set at 1MHz for 1-5GHz frequency range.

The frequency range from 30MHz to 5GHz (Up to 10<sup>th</sup> harmonics) was investigated. All the emissions not reported below are too low against the FCC part 15 Subpart C limit.

### 3.6. Radiated Emission Measurement Results

#### **PASSED.**

All the emissions not reported below are too low against the FCC part 15 Subpart C limit.

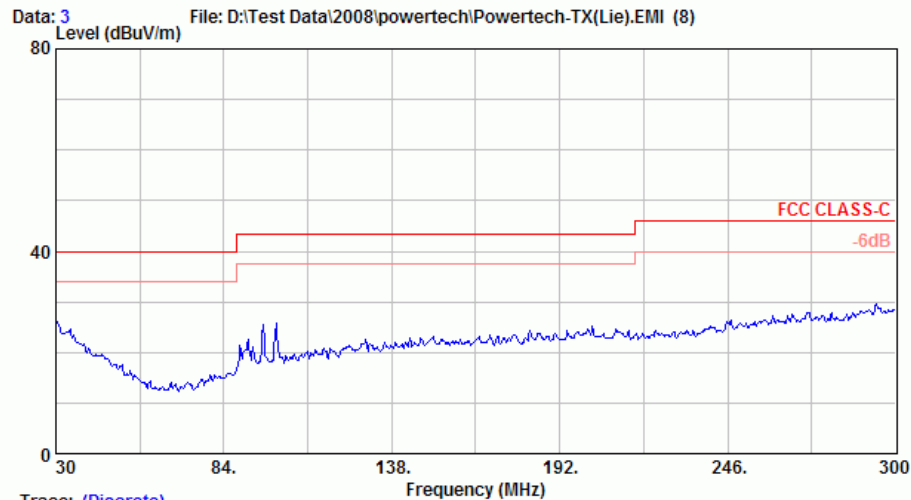
The EUT with three kinds of position (on Lie, Side, Stand) were done during radiated measurement and all the test results are attached in next pages.

Mode	Operation of EUT	Reference Test Data No.			
		Horizontal		Vertical	
Frequency Range: 30-300MHz					
1.	EUT on Lie, Transmitting Mode	# 3		# 4	
2.	EUT on Side, Transmitting Mode	# 4		# 3	
3.	EUT on Stand, Transmitting Mode	# 3		# 4	
Frequency Range: 300-1000MHz					
1.	EUT on Lie, Transmitting Mode	# 1		# 2	
2.	EUT on Side, Transmitting Mode	# 2		# 1	
3.	EUT on Stand, Transmitting Mode	# 2		# 1	
Frequency Range: 1000-5000MHz					
1.	EUT on Lie, Transmitting Mode	Peak	# 5	Peak	# 6
		Average	# 7	Average	# 8
2.	EUT on Side, Transmitting Mode	Peak	# 6	Peak	# 5
		Average	# 8	Average	# 7
3.	EUT on Stand, Transmitting Mode	Peak	# 5	Peak	# 6
		Average	# 7	Average	# 8

## Frequency Range: 30-300MHz



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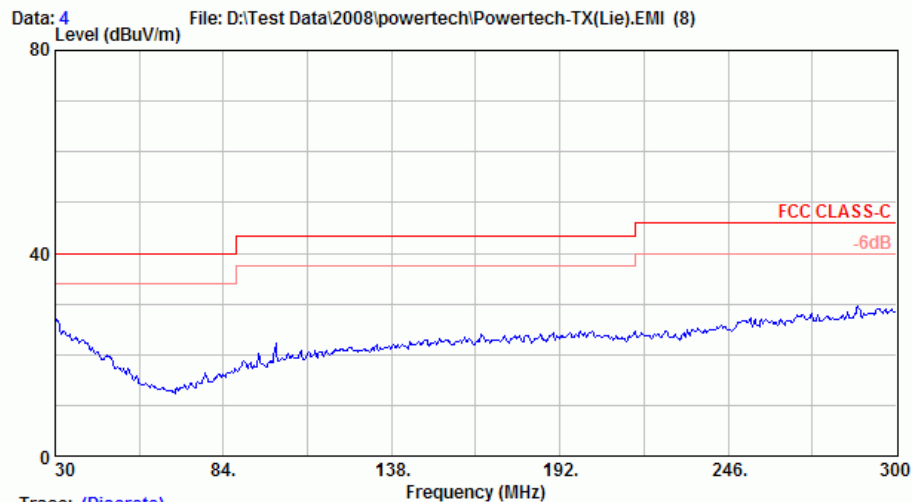


Trace: (Discrete)

Site no. : A/C Chamber	Data no. : 3
Dis. / Ant. : 3m VBA6106A(1264)2006	Ant. pol. : HORIZONTAL
Limit : FCC CLASS-C	
Env. / Ins. : E7405A 27°C/55%	Engineer : Jarwei Wang
EUT : Conserve Remove Switch M/N:BG200001	
Power Rating : DC 12V	
Test Mode : Lie	



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Trace: (Discrete)

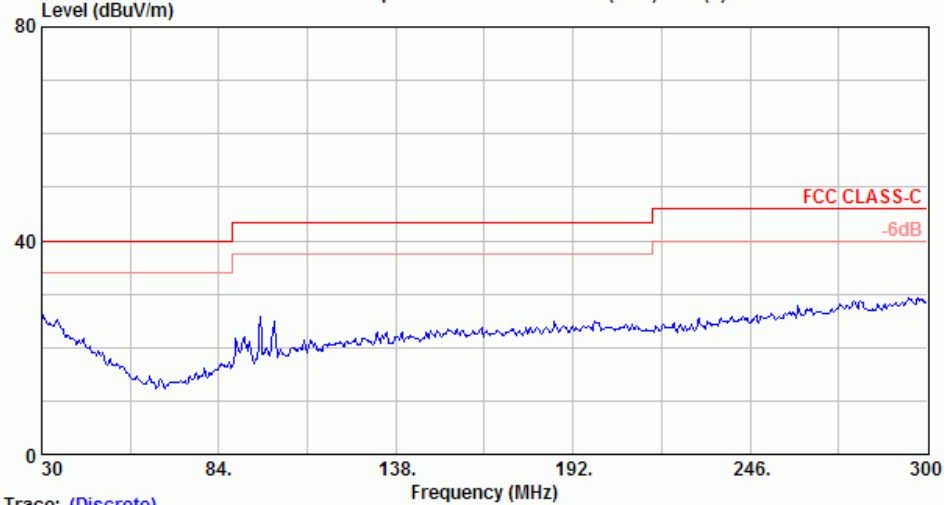
Site no. : A/C Chamber	Data no. : 4
Dis. / Ant. : 3m VBA6106A(1264)2006	Ant. pol. : VERTICAL
Limit : FCC CLASS-C	
Env. / Ins. : E7405A 27°C/55%	Engineer : Jarwei Wang
EUT : Conserve Remove Switch M/N:BG200001	
Power Rating : DC 12V	
Test Mode : Lie	

Remark : The emissions level were too low against the official limit and not report.



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Email:ttemc@ttemc.

Data: 4 File: D:\Test Data\2008\powertech\Powertech-TX(side).EMI (8)



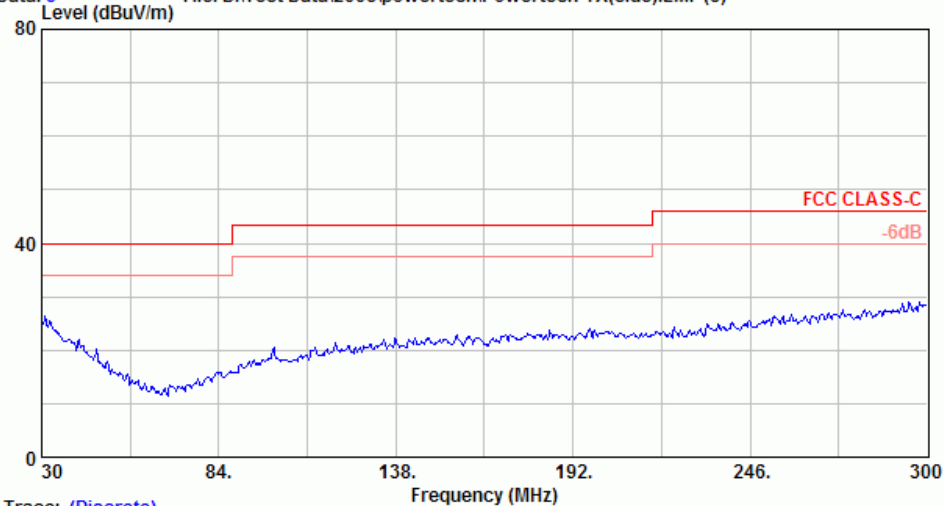
Trace: (Discrete)

Site no. : A/C Chamber Data no. : 4  
Dis. / Ant. : 3m VBA6106A(1264)2006 Ant. pol. : HORIZONTAL  
Limit : FCC CLASS-C  
Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
EUT : Conserve Remive Switch M/N:BG200001  
Power Rating : DC 12V  
Test Mode : Side



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Data: 3 File: D:\Test Data\2008\powertech\Powertech-TX(side).EMI (8)



Trace: (Discrete)

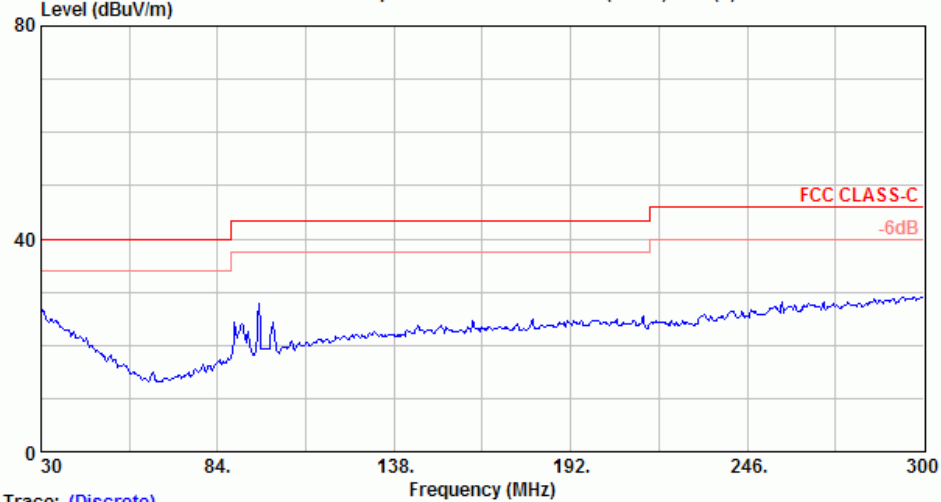
Site no. : A/C Chamber Data no. : 3  
Dis. / Ant. : 3m VBA6106A(1264)2006 Ant. pol. : VERTICAL  
Limit : FCC CLASS-C  
Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
EUT : Conserve Remive Switch M/N:BG200001  
Power Rating : DC 12V  
Test Mode : Side

Remark : The emissions level were too low against the official limit and not report.



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Data: 3 File: D:\Test Data\2008\powertech\Powertech-TX(stand).EMI (8)



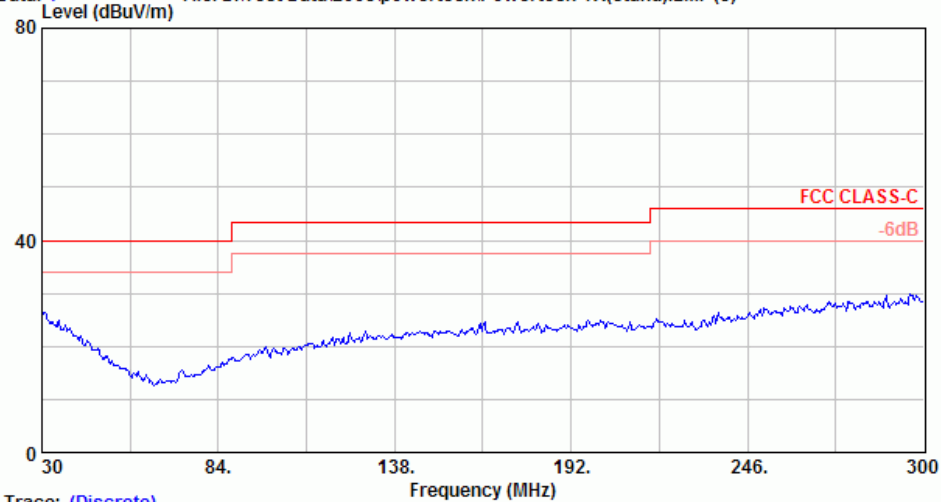
Trace: (Discrete)

Site no. : A/C Chamber Data no. : 3  
Dis. / Ant. : 3m VBA6106A(1264)2006 Ant. pol. : HORIZONTAL  
Limit : FCC CLASS-C  
Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
EUT : Conserve Remive Switch M/N:BG200001  
Power Rating : DC 12V  
Test Mode : Stand



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Trace: (Discrete)

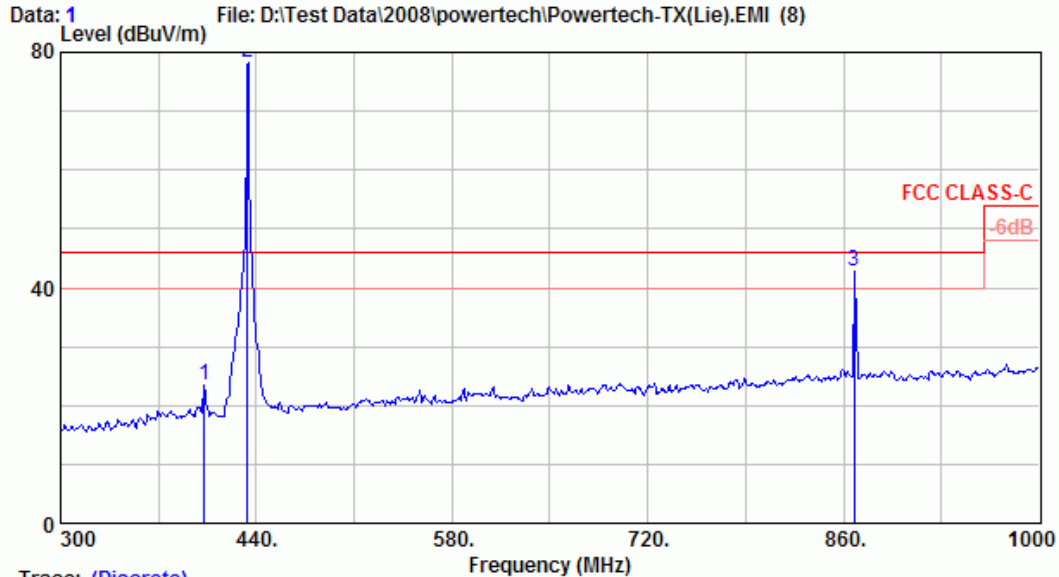
Site no. : A/C Chamber Data no. : 4  
Dis. / Ant. : 3m VBA6106A(1264)2006 Ant. pol. : VERTICAL  
Limit : FCC CLASS-C  
Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
EUT : Conserve Remive Switch M/N:BG200001  
Power Rating : DC 12V  
Test Mode : Stand

Remark : The emissions level were too low against the official limit and not report.

## Frequency Range: 300-1000MHz



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Site no. : A/C Chamber Data no. : 1  
Dis. / Ant. : 3m UHALP9108A(0810)2007 Ant. pol. : HORIZONTAL  
Limit : FCC CLASS-C  
Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
EUT : Conserve Remove Switch M/N:BG200001  
Power Rating : DC 12V  
Test Mode : Lie

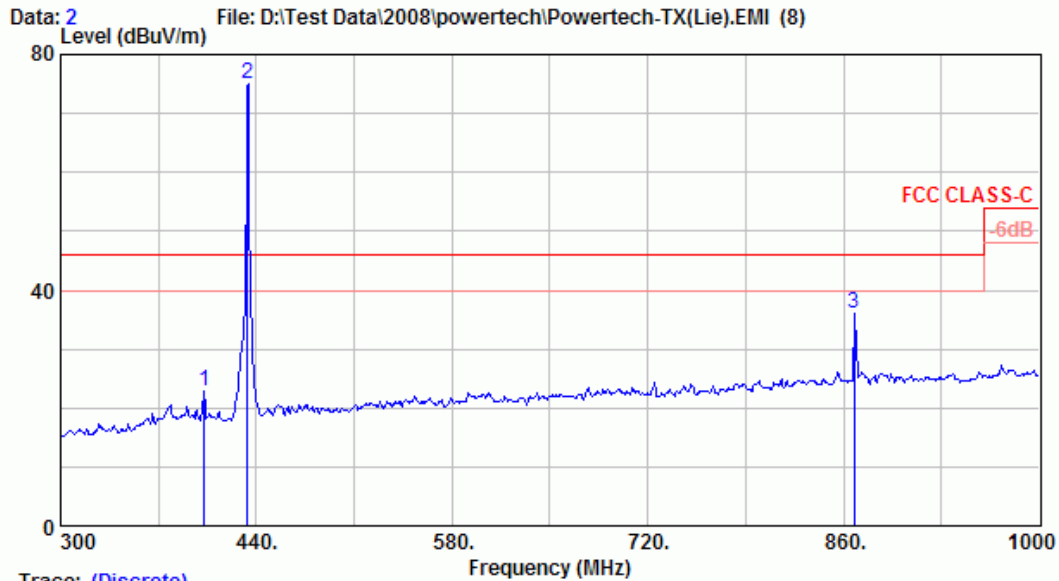
	Freq.	Ant.	Cable		Emission			
	(MHz)	Factor	Loss	Reading	Level	Limits	Margin	Remark
		(dB/m)	(dB)	(dBμV)	(dBμV/m)	(dBμV/m)	(dB)	
* 1	402.900	16.69	1.39	5.45	23.53	46.00	22.47	
2	433.920	16.74	1.54	59.83	78.11	80.83	2.72	
3	867.840	22.19	2.16	18.45	42.80	60.83	18.03	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
2. The emission levels that are 20dB below the official limit are not reported.

- Measurement was up to 10th harmonics (~5GHz), but the emissions level were too low against the official limit and not report.
- '\*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



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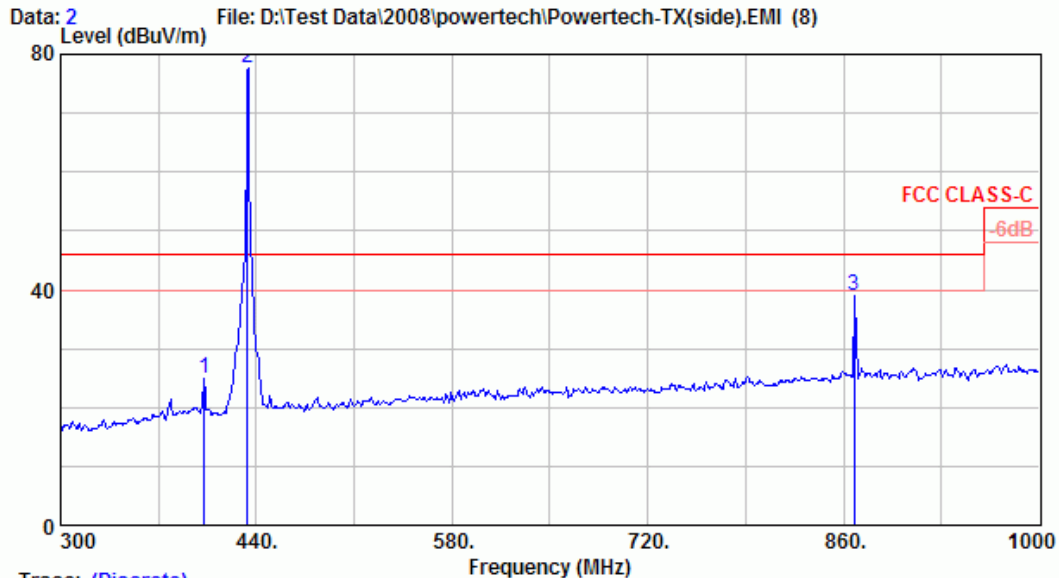
Site no. : A/C Chamber Data no. : 2  
Dis. / Ant. : 3m UHALP9108A(0810)2007 Ant. pol. : VERTICAL  
Limit : FCC CLASS-C  
Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
EUT : Conserve Remove Switch M/N:BG200001  
Power Rating : DC 12V  
Test Mode : Lie

		Ant.	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
* 1	402.900	16.69	1.39	4.89	22.97	46.00	23.03	
2	433.920	16.74	1.54	56.85	75.14	80.83	5.69	
3	867.840	22.19	2.16	11.78	36.12	60.83	24.71	

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
2. The emission levels that are 20dB below the official limit are not reported.  
3. Measurement was up to 10th harmonics (~5GHz), but the emissions level were too low against the official limit and not report.  
4. '\*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



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Trace: (Discrete)

Site no. : A/C Chamber Data no. : 2  
 Dis. / Ant. : 3m UHALP9108A(0810)2007 Ant. pol. : HORIZONTAL  
 Limit : FCC CLASS-C  
 Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
 EUT : Conserve Remote Switch M/N:BG200001  
 Power Rating : DC 12V  
 Test Mode : Side

	Freq.	Ant. Factor	Cable Loss	Reading	Emission Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
* 1	402.900	16.69	1.39	6.95	25.03	46.00	20.97	
2	433.920	16.74	1.54	59.46	77.74	80.83	3.09	
3	867.840	22.19	2.16	14.70	39.05	60.83	21.78	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

2. The emission levels that are 20dB below the official limit are not reported.

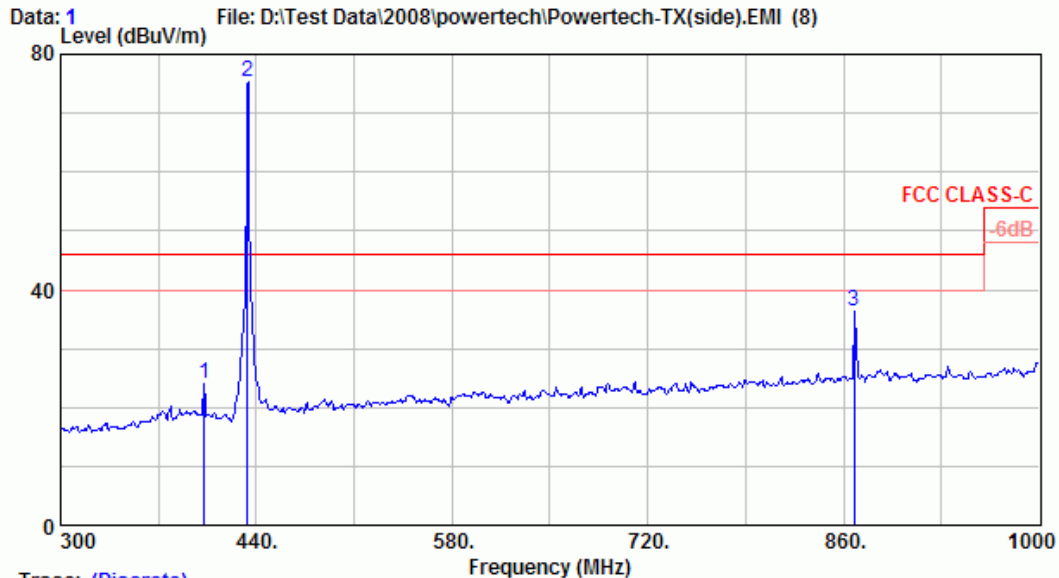
3. Measurement was up to 10th harmonics (~5GHz), but the emissions level were too low against the official limit and not report.

4. '\*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.





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Trace: (Discrete)

Site no. : A/C Chamber Data no. : 1  
 Dis. / Ant. : 3m UHALP9108A(0810)2007 Ant. pol. : VERTICAL  
 Limit : FCC CLASS-C  
 Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
 EUT : Conserve Remote Switch M/N:BG200001  
 Power Rating : DC 12V  
 Test Mode : Side

		Ant. Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin
	(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)
* 1	402.900	16.69	1.39	5.82	23.90	46.00	22.10
2	433.920	16.74	1.54	57.10	75.38	80.83	5.45
3	867.840	22.19	2.16	12.12	36.47	60.83	24.36

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

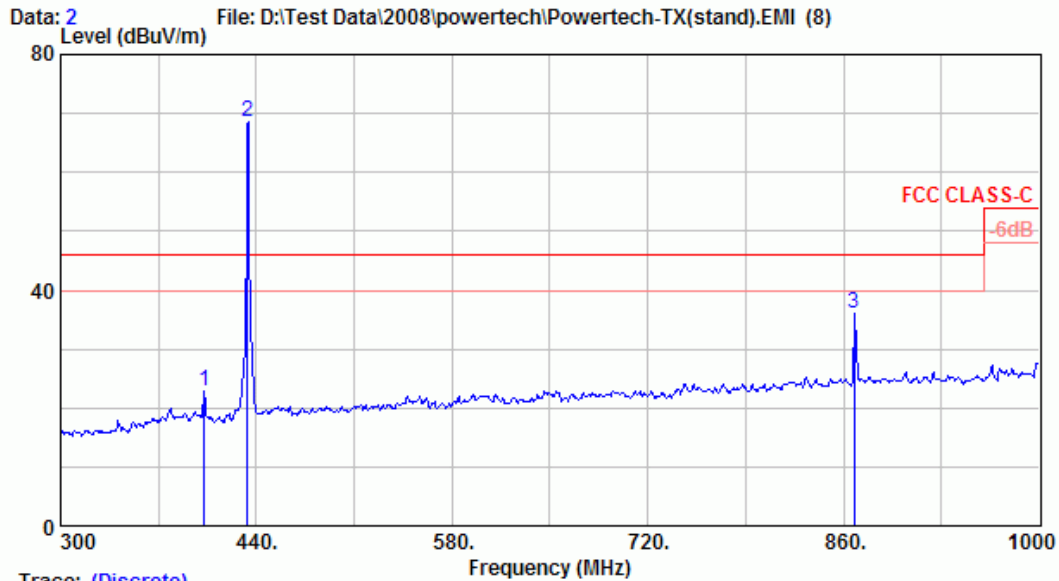
2. The emission levels that are 20dB below the official limit are not reported.

3. Measurement was up to 10th harmonics (~5GHz), but the emissions level were too low against the official limit and not report.

4. '\*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



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Trace: (Discrete)

Site no. : A/C Chamber Data no. : 2  
 Dis. / Ant. : 3m UHALP9108A(0810)2007 Ant. pol. : HORIZONTAL  
 Limit : FCC CLASS-C  
 Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
 EUT : Conserve Remote Switch M/N:BG200001  
 Power Rating : DC 12V  
 Test Mode : Stand

		Ant.	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
* 1	402.900	16.69	1.39	4.77	22.85	46.00	23.15	
2	433.920	16.74	1.54	50.18	68.47	80.83	12.36	
3	867.840	22.19	2.16	11.66	36.01	60.83	24.82	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

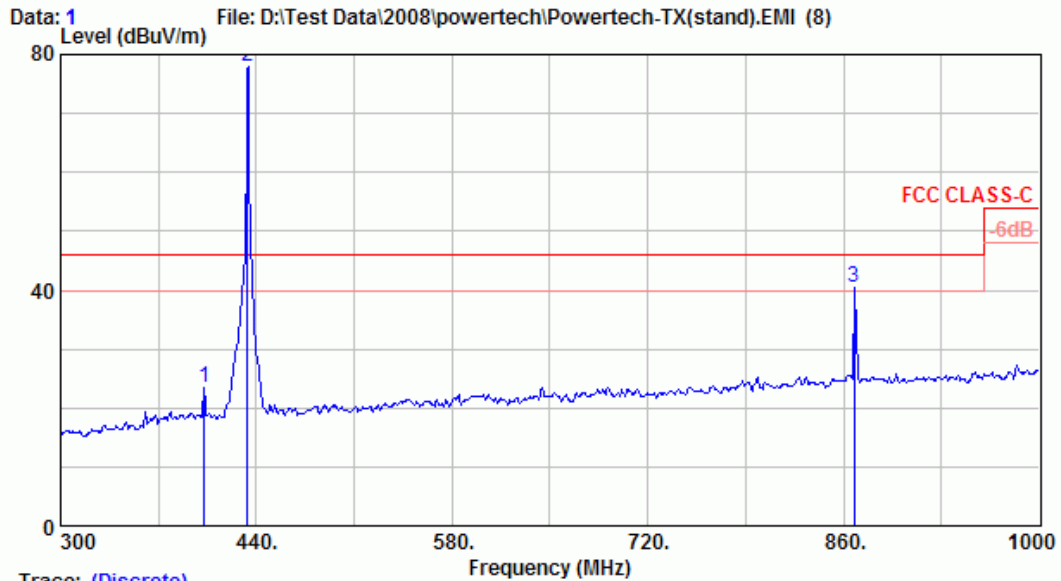
2. The emission levels that are 20dB below the official limit are not reported.

3. Measurement was up to 10th harmonics (~5GHz), but the emissions level were too low against the official limit and not report.

4. '\*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



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Trace: (Discrete)

Site no. : A/C Chamber Data no. : 1  
Dis. / Ant. : 3m UHALP9108A(0810)2007 Ant. pol. : VERTICAL  
Limit : FCC CLASS-C  
Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
EUT : Conserve Remote Switch M/N:BG200001  
Power Rating : DC 12V  
Test Mode : Stand

		Ant. Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
* 1	402.900	16.69	1.39	5.40	23.47	46.00	22.53
2	433.920	16.74	1.54	59.62	77.91	80.83	2.92
3	867.840	22.19	2.16	16.01	40.36	60.83	20.47

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

2. The emission levels that are 20dB below the official limit are not reported.

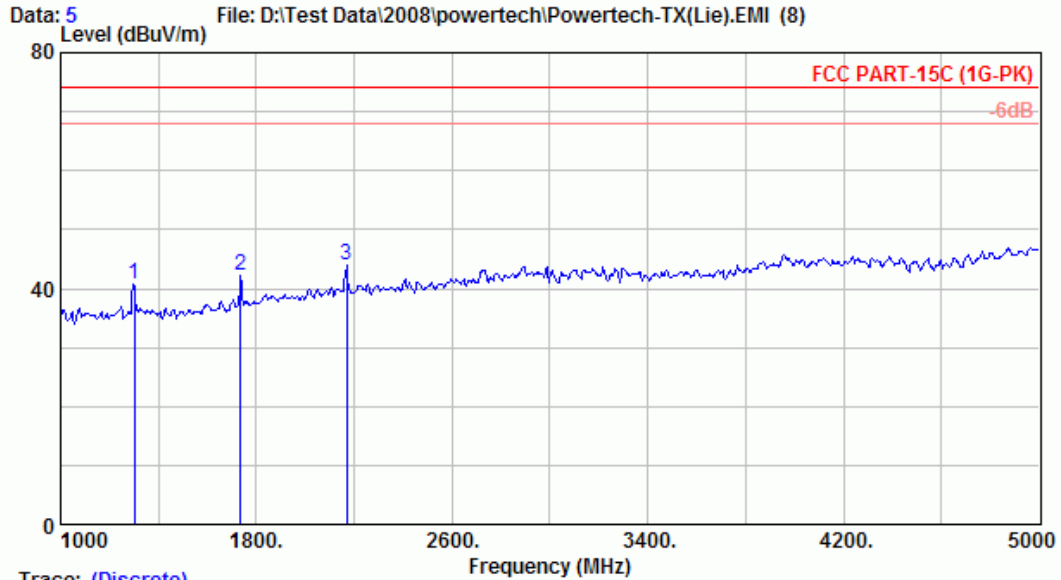
3. Measurement was up to 10th harmonics (~5GHz), but the emissions level were too low against the official limit and not report.

4. '\*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.

## Frequency Range: 1000-5000MHz



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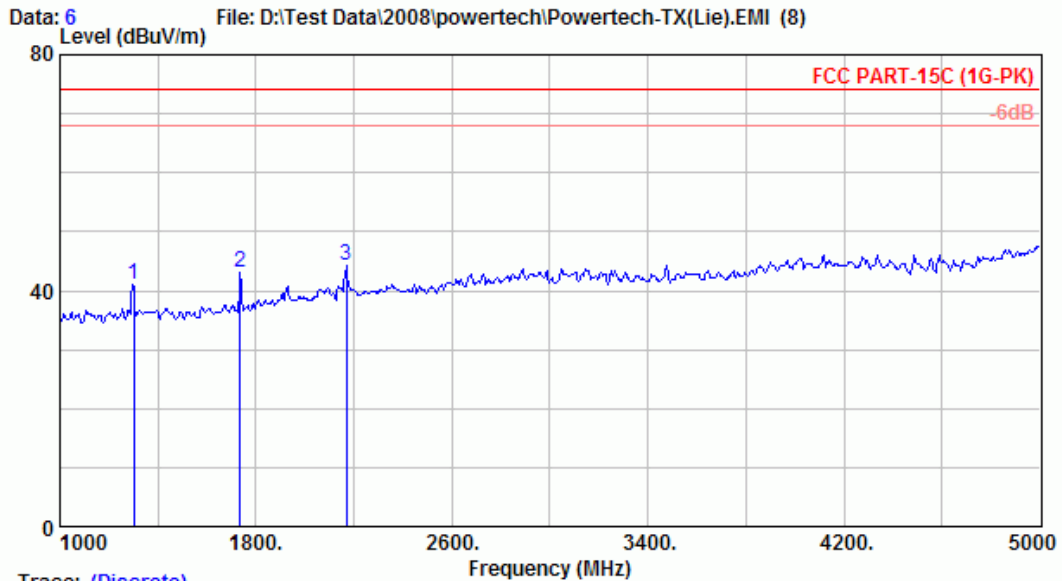
Site no. : A/C Chamber Data no. : 5  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART-15C (1G-PK)  
 Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
 EUT : Conserve Remove Switch M/N:BG200001  
 Power Rating : DC 12V  
 Test Mode : Lie

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBμV)	(dBμV/m)	(dBμV/m)	(dB)		
1	1301.760	25.33	3.28	12.25	40.86	74.00	33.14	Peak
2	1735.680	26.62	3.82	11.88	42.33	74.00	31.67	Peak
3	2169.600	28.16	4.98	10.81	43.95	74.00	30.05	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



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 Email:ttemc@ttemc.



Trace: (Discrete)

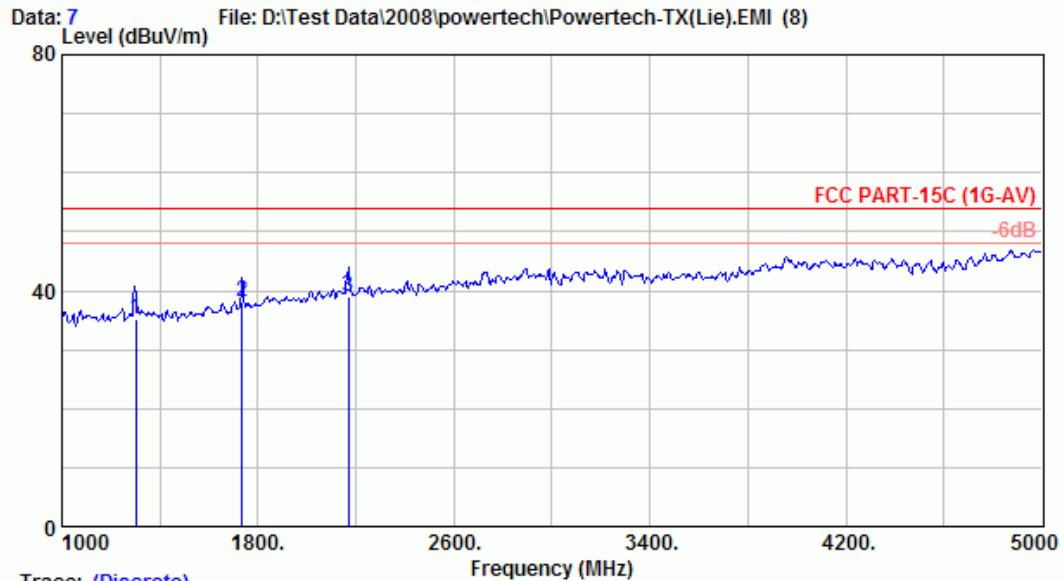
Site no. : A/C Chamber Data no. : 6  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART-15C (1G-PK)  
 Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
 EUT : Conserve Remove Switch M/N:BG200001  
 Power Rating : DC 12V  
 Test Mode : Lie

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBμV)	(dBμV/m)	(dBμV/m)	(dB)		
1	1301.760	25.33	3.28	12.53	41.14	74.00	32.86	Peak
2	1735.680	26.62	3.82	12.55	43.00	74.00	31.00	Peak
3	2169.600	28.16	4.98	11.00	44.15	74.00	29.86	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Trace: (Discrete)

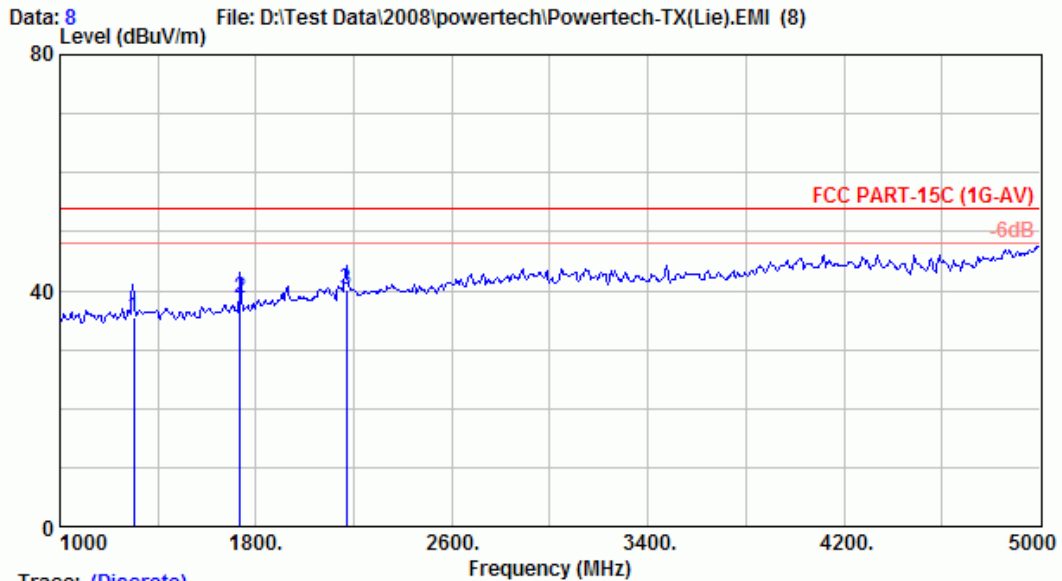
Site no. : A/C Chamber Data no. : 7  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART-15C (1G-AV)  
 Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
 EUT : Conserve Remove Switch M/N:BG200001  
 Power Rating : DC 12V  
 Test Mode : Lie

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBμV)	(dBμV/m)	(dBμV/m)	(dB)		
1 1301.760	25.33	3.32	6.54	35.19	54.00	18.81	Average	
2 1735.680	26.62	3.82	7.60	38.05	54.00	15.95	Average	
3 2169.600	28.16	4.98	5.80	38.94	54.00	15.06	Average	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Trace: (Discrete)

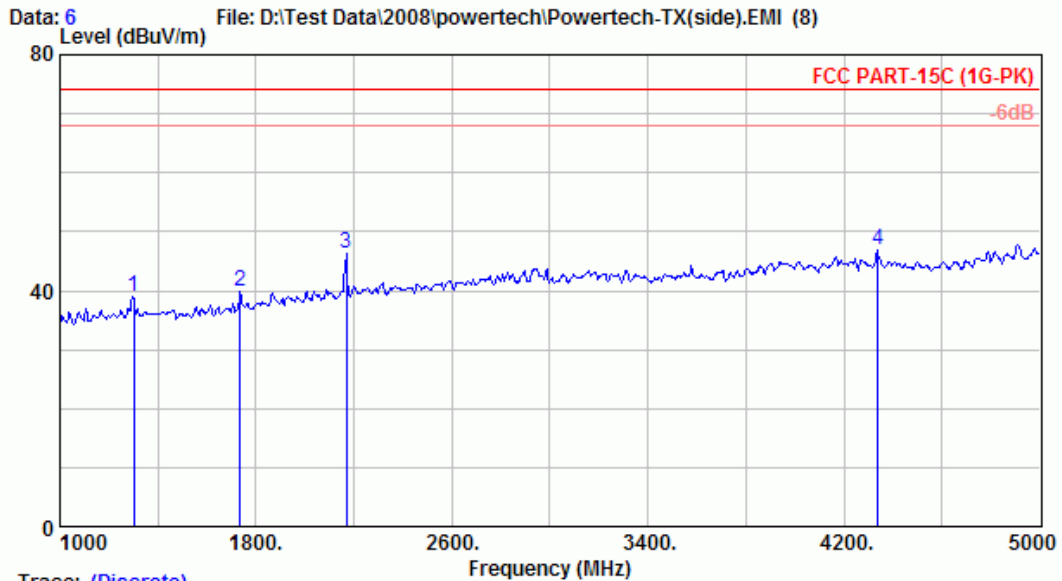
Site no. : A/C Chamber Data no. : 8  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART-15C (1G-AV)  
 Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
 EUT : Conserve Remove Switch M/N:BG200001  
 Power Rating : DC 12V  
 Test Mode : Lie

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBμV)	(dBμV/m)	(dBμV/m)	(dB)		
1 1301.760	25.33	3.32	6.85	35.50	54.00	18.50	Average	
2 1735.680	26.62	3.82	8.22	38.67	54.00	15.33	Average	
3 2169.600	28.16	4.98	7.04	40.18	54.00	13.82	Average	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Trace: (Discrete)

Site no. : A/C Chamber Data no. : 6  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART-15C (1G-PK)  
 Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
 EUT : Conserve Remote Switch M/N:BG200001  
 Power Rating : DC 12V  
 Test Mode : Side

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBμV)	(dBμV/m)	(dBμV/m)	(dB)		
1	1301.760	25.33	3.28	10.46	39.06	74.00	34.94	Peak
2	1735.680	26.62	3.82	9.49	39.94	74.00	34.06	Peak
3	2169.600	28.16	4.98	13.02	46.16	74.00	27.84	Peak
4	4339.200	32.83	7.52	6.39	46.74	74.00	27.26	Peak

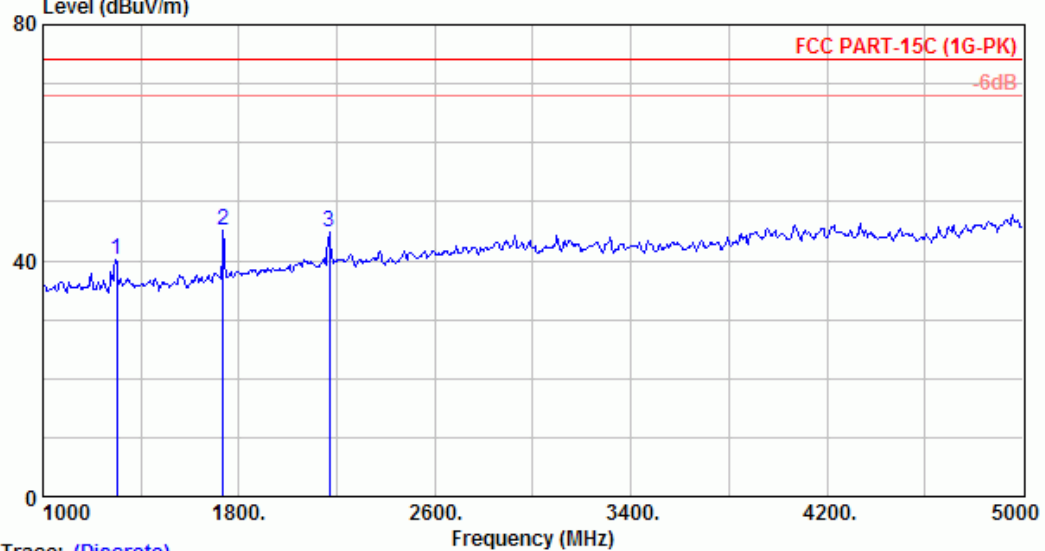
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.





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Data: 5 File: D:\Test Data\2008\powertech\Powertech-TX(side).EMI (8)



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 5  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART-15C (1G-PK)  
 Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
 EUT : Conserve Remote Switch M/N:BG200001  
 Power Rating : DC 12V  
 Test Mode : Side

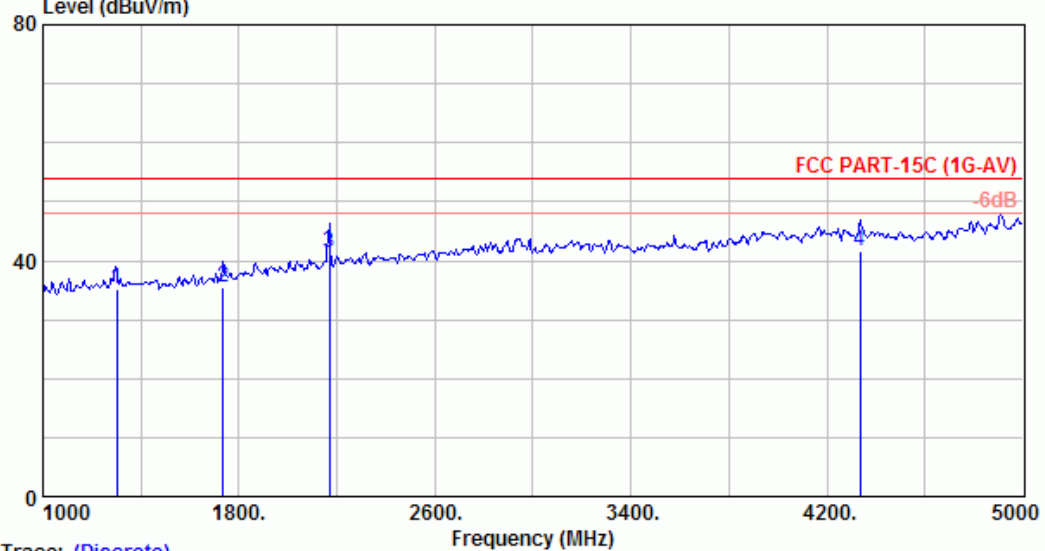
		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBμV)	(dBμV/m)	(dBμV/m)	(dB)		
1	1301.760	25.33	3.28	11.50	40.10	74.00	33.90	Peak
2	1735.680	26.62	3.82	14.77	45.22	74.00	28.78	Peak
3	2169.600	28.16	4.98	11.83	44.97	74.00	29.03	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 8 File: D:\Test Data\2008\powertech\Powertech-TX(side).EMI (8)



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 8  
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
Limit : FCC PART-15C (1G-AV)  
Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
EUT : Conserve Remote Switch M/N:BG200001  
Power Rating : DC 12V  
Test Mode : Side

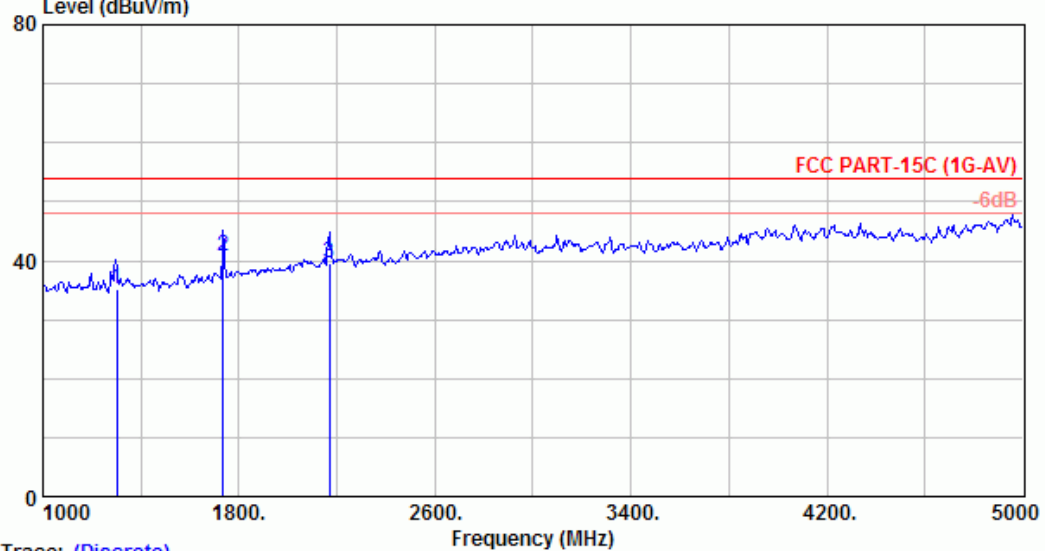
		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBμV)	(dBμV/m)	(dBμV/m)	(dB)		
1	1301.760	25.33	3.32	6.63	35.28	54.00	18.72	Average
2	1735.680	26.62	3.82	5.12	35.57	54.00	18.43	Average
3	2169.600	28.16	4.98	8.23	41.37	54.00	12.63	Average
4	4336.000	32.83	7.52	1.22	41.57	54.00	12.43	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 7 File: D:\Test Data\2008\powertech\Powertech-TX(side).EMI (8)



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 7  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART-15C (1G-AV)  
 Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
 EUT : Conserve Remote Switch M/N:BG200001  
 Power Rating : DC 12V  
 Test Mode : Side

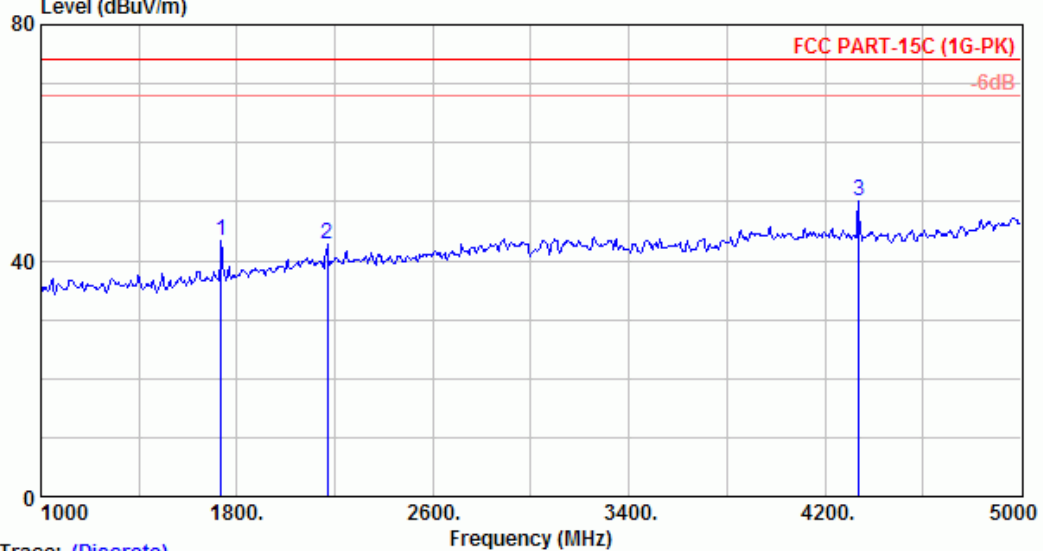
		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 1301.760	25.33	3.32	6.62	35.27	54.00	18.73	Average	
2 1735.680	26.62	3.82	10.15	40.60	54.00	13.40	Average	
3 2169.600	28.16	4.98	6.43	39.57	54.00	14.43	Average	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 5 File: D:\Test Data\2008\powertech\Powertech-TX(stand).EMI (8)



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 5  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART-15C (1G-PK)  
 Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
 EUT : Conserve Remote Switch M/N:BG200001  
 Power Rating : DC 12V  
 Test Mode : Stand

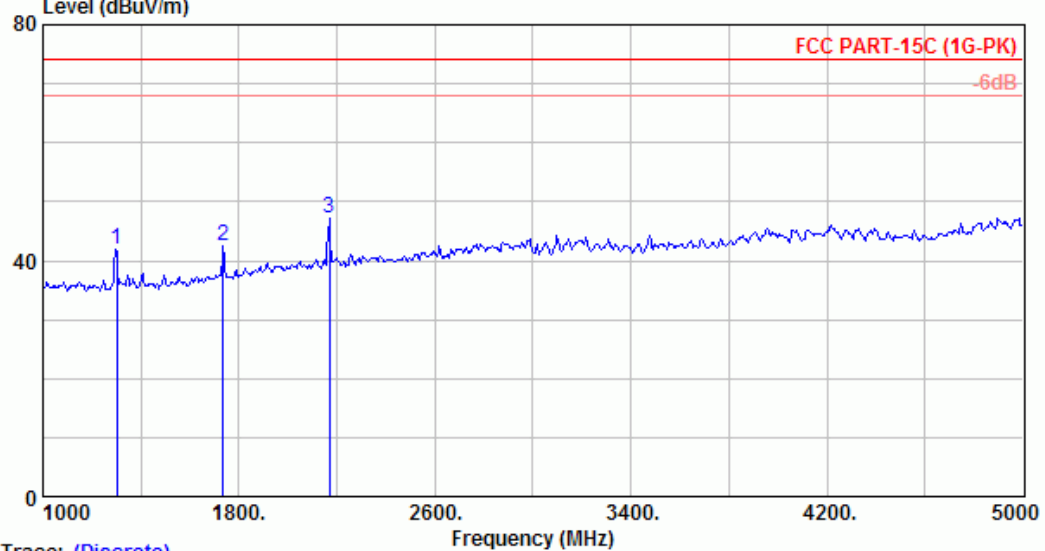
		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBμV)	(dBμV/m)	(dBμV/m)	(dB)		
1	1735.680	26.62	3.82	13.03	43.48	74.00	30.52	Peak
2	2169.600	28.16	4.98	9.54	42.68	74.00	31.32	Peak
3	4339.200	32.83	7.52	9.63	49.98	74.00	24.02	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 6 File: D:\Test Data\2008\powertech\Powertech-TX(stand).EMI (8)



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 6  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART-15C (1G-PK)  
 Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
 EUT : Conserve Remote Switch M/N:BG200001  
 Power Rating : DC 12V  
 Test Mode : Stand

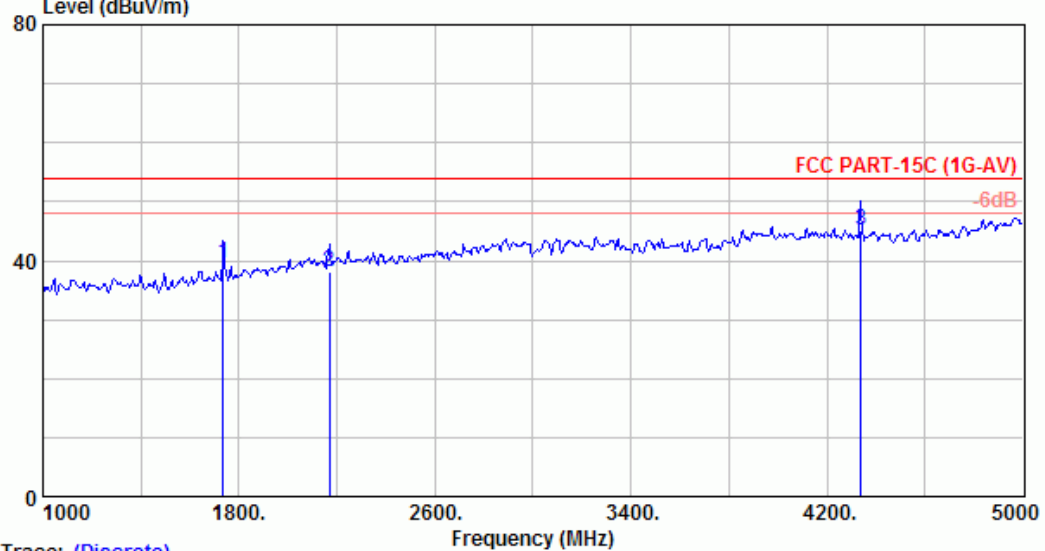
		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBμV)	(dBμV/m)	(dBμV/m)	(dB)		
1	1301.760	25.33	3.28	13.24	41.85	74.00	32.15	Peak
2	1735.680	26.62	3.82	12.07	42.52	74.00	31.48	Peak
3	2169.600	28.16	4.98	14.10	47.24	74.00	26.76	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 7 File: D:\Test Data\2008\powertech\Powertech-TX(stand).EMI (8)



Trace: (Discrete)

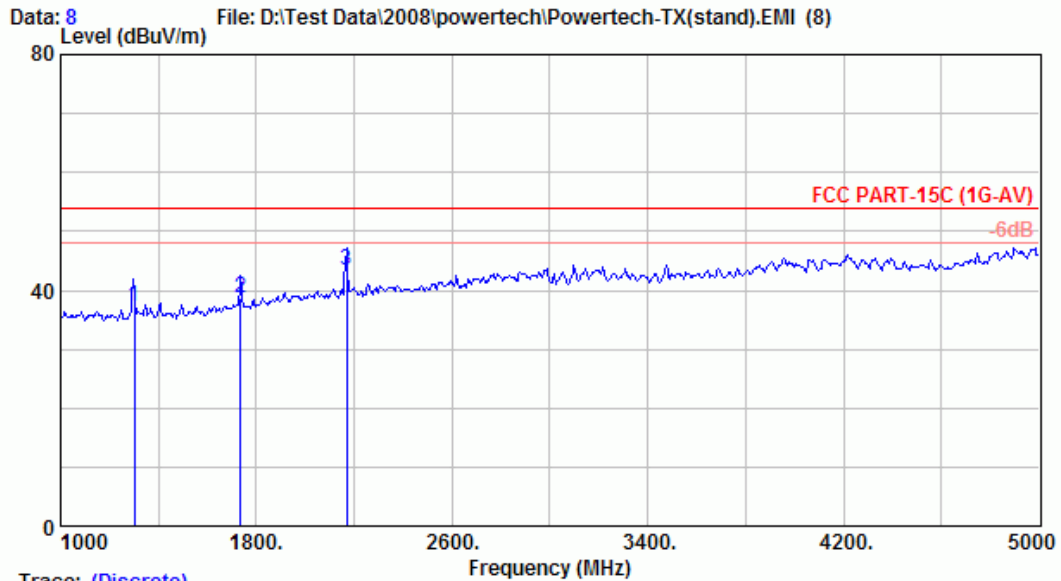
Site no. : A/C Chamber Data no. : 7  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART-15C (1G-AV)  
 Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
 EUT : Conserve Remote Switch M/N:BG200001  
 Power Rating : DC 12V  
 Test Mode : Stand

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBμV)	(dBμV/m)	(dBμV/m)	(dB)		
1 1735.680	26.62	3.82	9.02	39.47	54.00	14.53	Average	
2 2169.600	28.16	4.98	5.04	38.18	54.00	15.82	Average	
3 4339.200	32.83	7.52	4.70	45.05	54.00	8.95	Average	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



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 Email:ttemc@ttemc.



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 8  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART-15C (1G-AV)  
 Env. / Ins. : E7405A 27°C/55% Engineer : Jarwei Wang  
 EUT : Conserve Remote Switch M/N:BG200001  
 Power Rating : DC 12V  
 Test Mode : Stand

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBμV)	(dBμV/m)	(dBμV/m)	(dB)		
1	1301.760	25.33	3.28	8.57	37.17	54.00	16.83	Average
2	1735.680	26.62	3.82	8.15	38.60	54.00	15.40	Average
3	2169.600	28.16	4.98	10.29	43.43	54.00	10.57	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

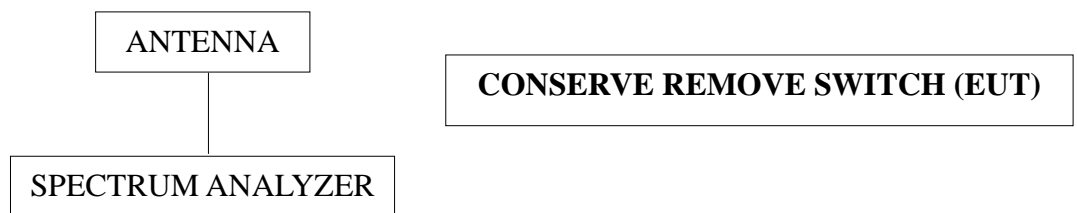
## 4. EMISSION BANDWIDTH MEASUREMENT (99% OCC BW)

### 4.1. Test Equipment

The following test equipment were used during the Bandwidth Measurement :

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	Aug.13, 07'	Aug.12, 08'
2.	Wide Band Antenna	Diamond	RH799	N/A	N/A	N/A

### 4.2. Block Diagram of Test Setup



### 4.3. Specification Limits [§15.231-(c)]

The bandwidth of emission shall be no wider than 0.25% of the center frequency for device operating above 70MHz and below 900MHz. Bandwidth is determined at the points 20dB down from the modulated carrier.

### 4.4. Emission Bandwidth Measurement Results

**PASSED.** (0.014% < 0.25%)

Fundamental Frequency: 433MHz

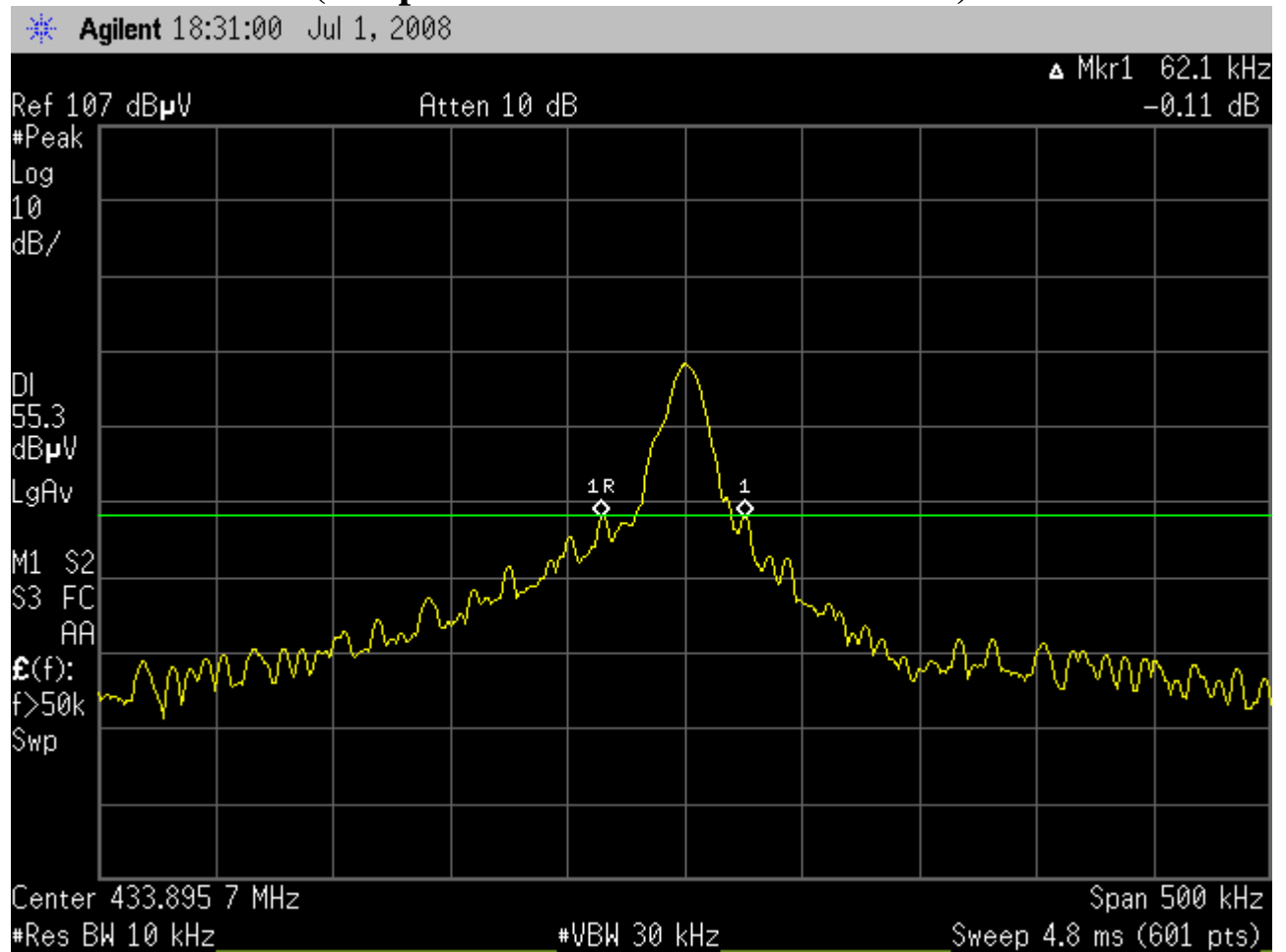
(Test Date: Jun. 30, 2008, Temperature: 24 , Humidity: 62%)

No.	Center Frequency	Bandwidth	Tolerance (%)
1.	433MHz	62.1kHz	0.014%

The graph of bandwidth measured is attached in next page.



### (Graph of Bandwidth Measurement)



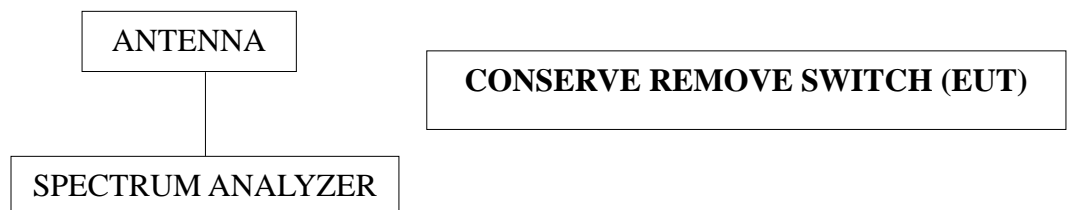
## 5. PERIODIC OPERATED MEASUREMENT

### 5.1. Test Equipment

The following test equipment were used during the periodic operated Measurement :

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	Aug.13, 07'	Aug.12, 08'
2.	Wide Band Antenna	Diamond	RH799	N/A	N/A	N/A

### 5.2. Block Diagram of Test Setup



### 5.3. Specification Limits [§15.231-(a)-(1)]

The operation of this device is manually operated transmitter that is automatically deactivated the transmitter within not more than 5 seconds of being released, Compliance with §15.231 (a)- (1).

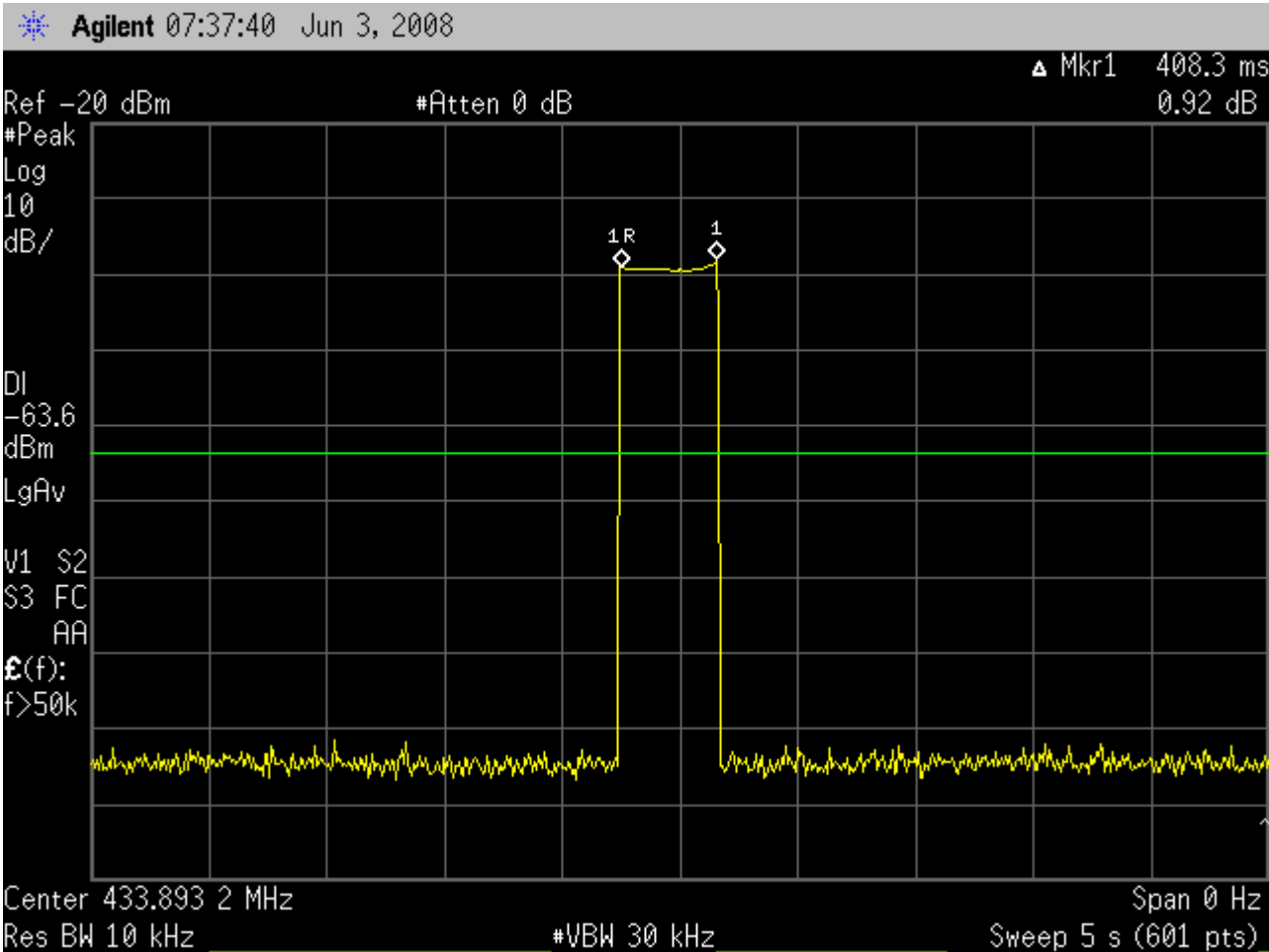
### 5.4. Periodic Operated Measurement Results

**PASSED.** T = 408.3ms. (< 5sec.)

(Test Date: Jun. 30, 2008, Temperature: 24 , Humidity: 62%)

The graph of testing is attached in next page.

(Graph of Periodic Operated Measurement)



## **6. DEVIATION TO TEST SPECIFICATIONS**

**【NONE】**