

## TEST REPORT

Report Number: 3119740ATL-001

November 13, 2007

**Product Designation: CP 114 Chilipad - Temp Controlled Sleep System**

Standard: 47 CFR Part 15, Subpart C (15.231 - Periodic operation in the band 40.66-40.70 MHz and above 70 MHz)

**Tested by:**

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

**Client:**

T2 International  
119 Eastbend Ct., Suite 16  
 Mooresville, NC 28117  
Contact: Karena Robb  
Phone: 704.663.1899  
Fax: 704.973.7728

**Tests performed by:**

A handwritten signature in blue ink, appearing to read "R. C. Bianco".

Richard C. Bianco  
EMC Project Engineer

**Report reviewed by:**

A handwritten signature in blue ink, appearing to read "David J. Schramm".

David J. Schramm  
EMC Department Manager

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## 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 verbatim 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)		
5.0	Overview of EUT (Low Power Transmitters) (FCC 15C - EUT Overview)	06/18/2007	PASS
6.0	Restrictions (FCC 15C - 15.231(a))	06/18/2007	PASS
7.0	Duty Cycle Determination (FCC 15A - 15.35(c))	06/12/2007	PASS
8.0	Radiated Emissions (FCC 15C - 15.231(b))	06/13/2007	PASS
9.0	Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)	06/18/2007	PASS
10.0	Bandwidth Requirements (FCC 15C - 15.231(c))	06/13/2007	PASS
11.0	Revision History (Revision History)		

### 3.0 Description of Equipment Under Test

Equipment Under Test			
Description	Manufacturer	Model Number	Serial Number
Remote Control	T2 International	GR08-1-A	8100063

EUT receive date:	06/11/2007
EUT receive condition:	Good

Description of EUT provided by Client:

The Chili Pad is a hot and cold sleep solution system. The Chili Pad uses hot and cold water to control the temperature in the pad or element. The unit has a temperature range from 8°C to 48°C that can be controlled remotely. The Chili Pad is equipped with a water level indicator and a sleep timer. The remote control is a battery operated handset that transmits at 315MHz.

Description of EUT exercising:

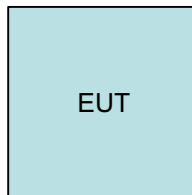
The remote control was placed in a transmit state during the testing by depressing the Enter key and tested in 3 different axial orientations.

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

### Method:

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

### Drawing:



EUT Block Diagram

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

**Data:**

EUT Cabling						
ID	Description	Length	Shielding	Ferrites	Connection	
					From	To
	None					

Support Equipment			
Description	Manufacturer	Model Number	Serial Number
None			

**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.

**Results: The sample tested was found to Comply.**

**Data:**

Applicant	T2 International
	119 Eastbend Ct.
	Mooreville, NC 28117
Trade Name & Model No.	ChiliPad, CP 114
FCC Identifier	Applied for
Use of product	Remote Control for temperature controlled sleep system
Transmitter activation	<input checked="" type="checkbox"/> Manual and automatically deactivate within 5 seconds of being released
	<input type="checkbox"/> Periodic transmissions
Frequency Range (MHz)	315
Antenna Type (15.203)	Permanently connected, Internal, Integral
Manufacturer name & address	T2 International
	119 Eastbend Ct.
	Mooreville, NC 28117
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 Restrictions (FCC 15C - 15.231(a))

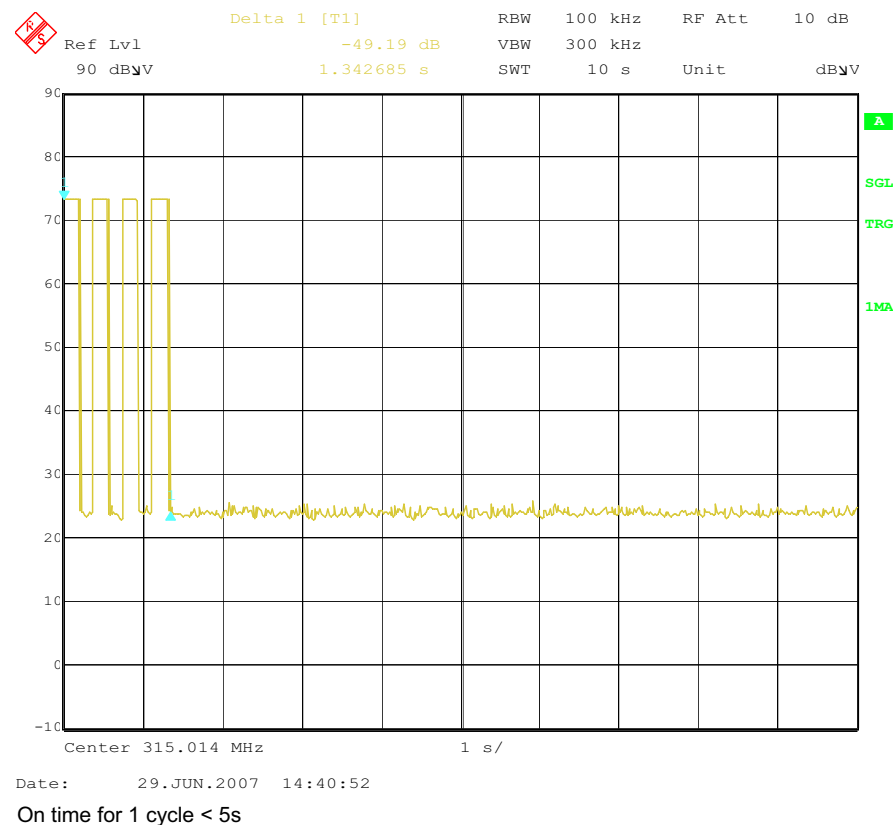
### Method:

15.231(a) The provisions of this section are restricted to periodic operation within the band 40.66-40.70 MHz and above 70 MHz. Except as shown in paragraph (e) of this section, the intentional radiator is restricted to the transmission of a control signal such as those used with alarm systems, door openers, remote switches, etc. Continuous transmissions, voice, video and the radio control of toys are not permitted. Data is permitted to be sent with a control signal. The following conditions shall be met to comply with the provisions for this periodic operation:

- (1) A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.
- (2) A transmitter activated automatically shall cease transmission within 5 seconds after activation.
- (3) Periodic transmissions at regular predetermined intervals are not permitted. However, polling or supervision transmissions, including data, to determine system integrity of transmitters used in security or safety applications are allowed if the total duration of transmissions does not exceed more than two seconds per hour for each transmitter. There is no limit on the number of individual transmissions, provided the total transmission time does not exceed two seconds per hour.
- (4) Intentional radiators which are employed for radio control purposes during emergencies involving fire, security, and safety of life, when activated to signal an alarm, may operate during the pendency of the alarm condition
- (5) Transmission of set-up information for security systems may exceed the transmission duration limits in paragraphs (a)(1) and (a)(2) of this section, provided such transmissions are under the control of a professional installer and do not exceed ten seconds after a manually operated switch is released or a transmitter is activated automatically. Such set-up information may include data.

**Results: The sample tested was found to Comply.**

### Plot:



**6.0 Restrictions (FCC 15C - 15.231(a))****Data:**

15.231(a)	Response	Requirement
Frequency Range (Mhz, max)	315	40.66-40.70 MHz and > 70MHz
Frequency Range (MHz, min)	315	40.66-40.70 MHz and > 70MHz
Transmit only control signal?	Yes	Only control signal allowed
Continuous transmission?	No	No
Voice transmission?	No	No
Video transmission?	No	No
Radio control of toy?	No	No

**15.231(a)(1)**

Manually operated?	Yes	
Deactivates within 5 seconds?	Yes	Yes
Show plot (10 second sweep)	Yes	

**15.231(a)(2)**

Automatically operated?	NA	
Deactivates within 5 seconds?	NA	
Show plot (10 second sweep)	NA	

**15.231(a)(3)**

Periodically transmits at predetermined intervals?	No	No
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## 7.0 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.

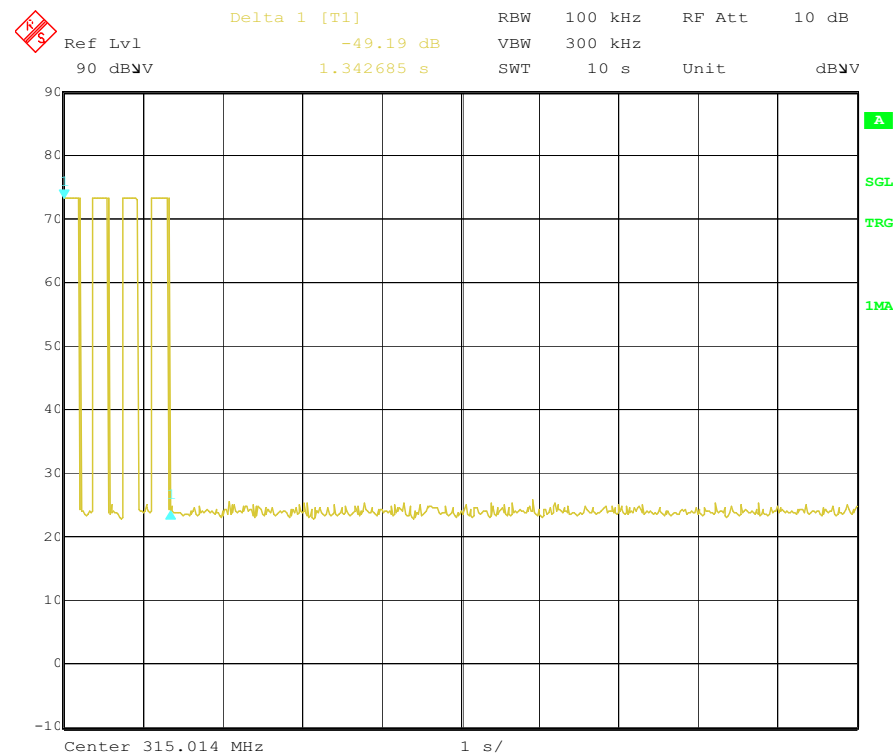
Use the Duty Cycle Correction Factor, DCCF, from the results table and use it to adjust the field strength measurements recorded for radiated emissions.

### Test Equipment Used:

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Spectrum Analyzer, 20 Hz to 40 GHz	Rohde & Schwarz	FSEK30	200062	03/12/2007	03/12/2008

**Results: The sample tested was found to Comply.**

### Plot:

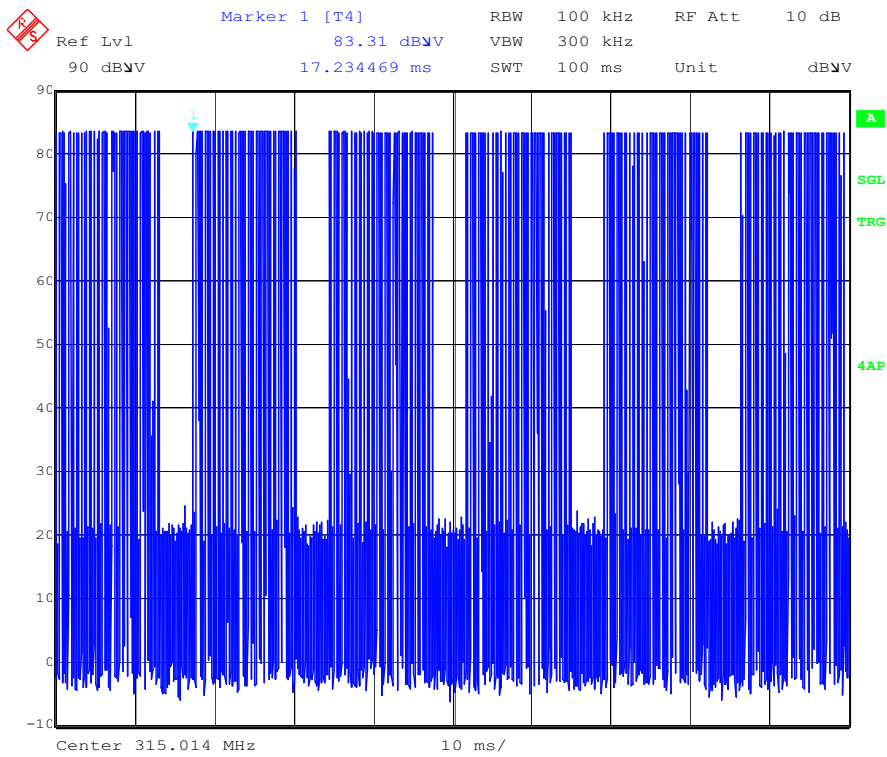


Date: 29.JUN.2007 14:40:52

Automatic Deactivation

## 7.0 Duty Cycle Determination (FCC 15A - 15.35(c))

### Plot:

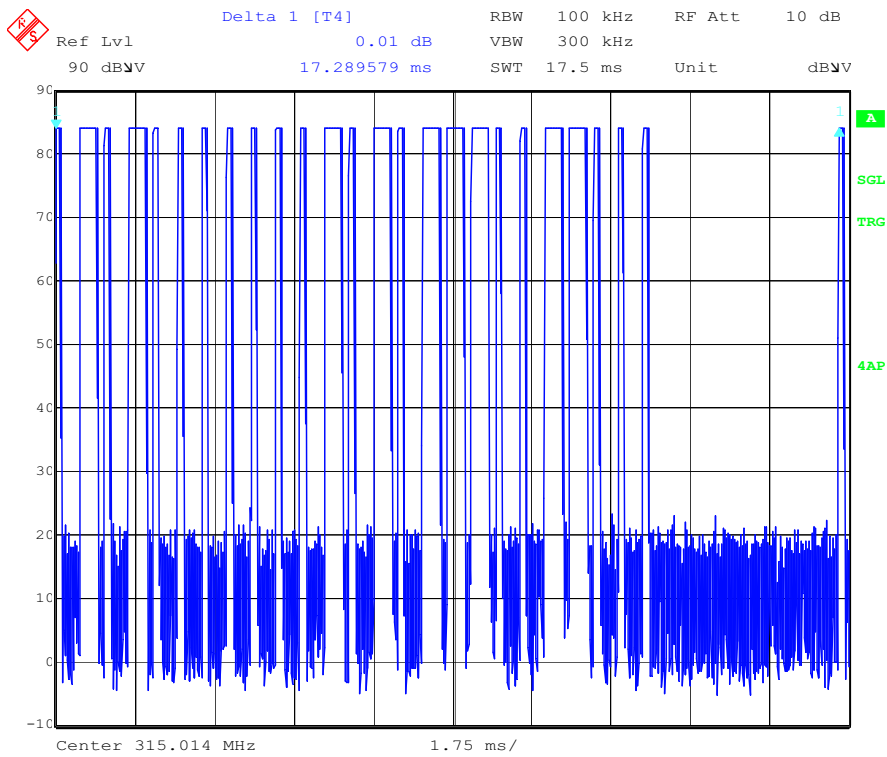


Date: 29.JUN.2007 14:51:48

Total Transmit Time

## 7.0 Duty Cycle Determination (FCC 15A - 15.35(c))

### Plot:

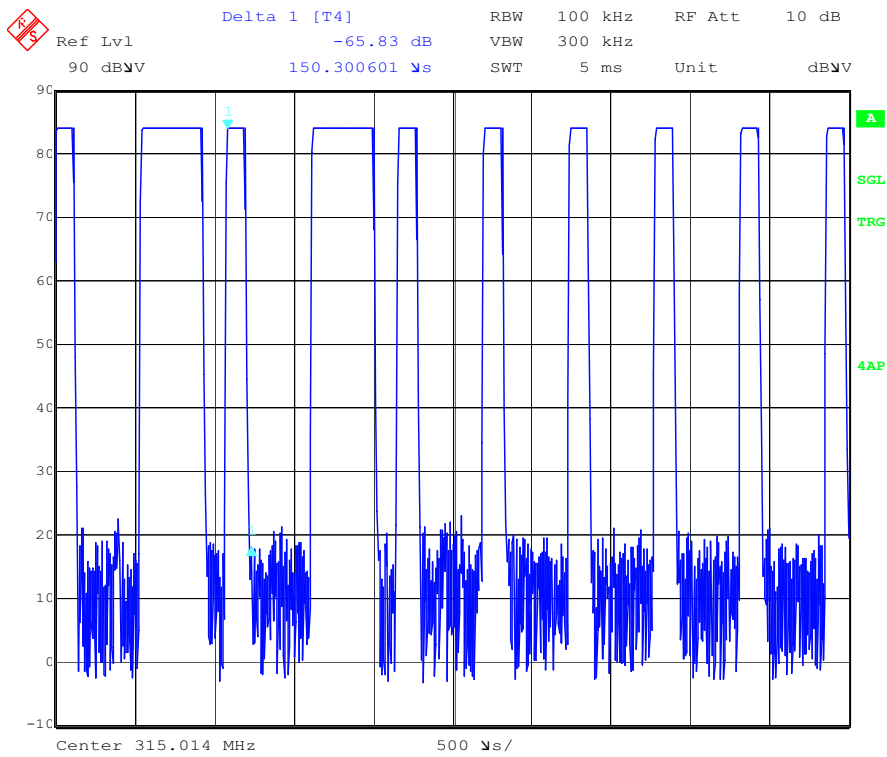


Date: 29.JUN.2007 14:53:47

Measured Pulse Train

## 7.0 Duty Cycle Determination (FCC 15A - 15.35(c))

### Plot:

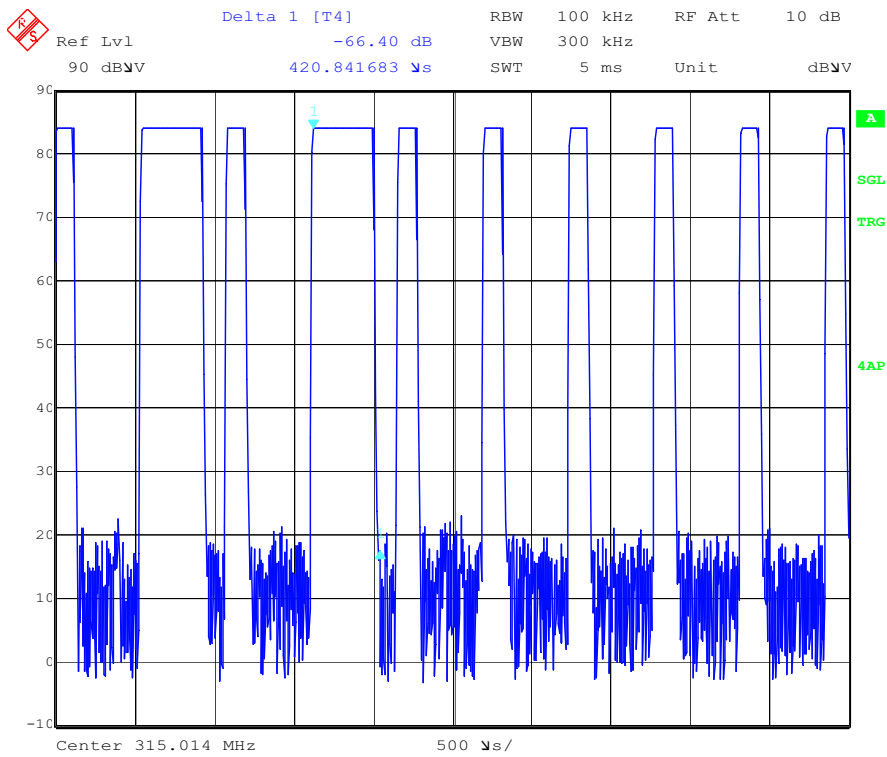


Date: 29.JUN.2007 14:56:15

Small Pulse Width

## 7.0 Duty Cycle Determination (FCC 15A - 15.35(c))

### Plot:



Date: 29.JUN.2007 14:56:49

Large Pulse Width

## 7.0 Duty Cycle Determination (FCC 15A - 15.35(c))

### Data:

Duration of Pulse Train, T (mSec):	17.3
Averaging Interval, $A_I$ (mSec):	17.3
Number of different Pulses, N:	2

	Number (#P <sub>x</sub> )	Pulse Width, mSec (PW <sub>x</sub> )	Product (#P <sub>x</sub> )*(PW <sub>x</sub> )
Pulse Width 1	16	0.15	2.4
Pulse Width 2	9	0.42	3.78
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:	0.357225434
Duty Cycle Correction Factor, dB:	-8.9

$$T_{on} = (PW_1 * \#P_1) + (PW_2 * \#P_2) + \dots + (PW_n * \#P_n)$$

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

$$DCCF = 20 * \log_{10}(DutyCycle)$$

## 8.0 Radiated Emissions (FCC 15C - 15.231(b))

### Method:

(b) In addition to the provisions of §15.205, the field strength of emissions from intentional radiators operated under this section shall not exceed the limits specified in FCC Part 15.231(b).

Intentional radiators operating under the provisions of this section shall demonstrate compliance with the limits on the field strength of emissions, as shown in the above table, based on the average value of the measured emissions. As an alternative, compliance with the limits in the above table may be based on the use of measurement instrumentation with a CISPR quasi-peak detector. The specific method of measurement employed shall be specified in the application for equipment authorization. If average emission measurements are employed, the provisions in §15.35 for averaging pulsed emissions and for limiting peak emissions apply. Further, compliance with the provisions of §15.205 shall be demonstrated using the measurement instrumentation specified in that section.

The limits on the field strength of the spurious emissions in the above table are based on the fundamental frequency of the intentional radiator. Spurious emissions shall be attenuated to the average (or, alternatively, CISPR quasi-peak) limits shown in this table or to the general limits shown in §15.209, whichever limit permits a higher field strength.

For radiated emission measurements, the EUT is attached to a styro-foam block and placed on a non-conductive table whose top is 80cm above the ground plane. If the EUT is handheld, the signal shall be aximized through rotation and placement in the three orthogonal axes.

During the test the EUT is rotated and the antenna height and polarization are varied during the search for maximum signal level. The antenna height is varied from 1 to 4 meters.

Radiated emissions are taken at 3 meters unless the signal level is too low for measurement at that distance. If necessary, a pre-amplifier is used and/or the test is conducted at a closer distance. All readings are extrapolated back to the equivalent 3-meter reading using inverse scaling with distance.

Radiated emission measurements were performed from 30 MHz to 10 times the highest frequency generated in the EUT.

Analyzer resolution is:

- 100 kHz or greater for frequencies 1000 MHz and below,
- 1 MHz for frequencies above 1000 MHz.

The Peak value of the Field Strength was measured. The Average value was obtained from the Peak by subtracting the Duty Cycle Correction Factor.

### Test Equipment Used:

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Antenna, Bilog (20MHz to 2GHz)	Chase	CBL6112B	211386	08/29/2006	08/29/2007
Cable E01, <18GHz	Pasternack	RG214/U	E01	05/10/2007	05/10/2008
Cable E05, <18GHz	Huber-Suhner	Sucoflex 104PEA	E05	05/10/2007	05/10/2008
Cable, 18 GHz, N, 10m	Megaphase	G919-NKNK-394	MP3	05/10/2007	05/10/2008
Cable, 18 GHz, N, 3m	Megaphase	TM18 NKNK 118	E201	01/15/2007	01/15/2008
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 radiated emissions	Software	Excel - RE Worksh	SW004	08/01/2006	08/01/2007
Preamplifier, 10 MHz to 2000 MHz, 27 dB gain	Mini-Circuits	ZKL-2	200074	02/08/2007	02/08/2008
Spectrum Analyzer, 20 Hz to 40 GHz	Rohde & Schwarz	FSEK30	200062	03/12/2007	03/12/2008

**Results: The sample tested was found to Comply.**

**8.0 Radiated Emissions (FCC 15C - 15.231(b))****Photo:**

Test Setup



**8.0 Radiated Emissions (FCC 15C - 15.231(b))****Data:****Date:** 06/18/2007**Limit:** 15\_231 Pk Limit at 315MHz-3m**Frequency Range (MHz):** 30-1000**Test Distance (m):** 3**Input power:** Battery**Modifications for compliance (y/n):** n**Notes:**

A	B	C	D	E	F	G	H	I	J	K
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Duty Cycle Factor dB	Net dB(uV/m)	3m Limit dB(uV/m)	Margin dB	Axis / Detector
V	315.011	89.5	13.9	3.6	27.5	0.0	79.5	95.6pk	-16.1	XP
V	315.011	89.5	13.9	3.6	27.5	8.9	70.6	75.6av	-5.0	XP
V	315.011	88.0	13.9	3.6	27.5	0.0	78.0	95.6pk	-17.6	YP
V	315.011	88.0	13.9	3.6	27.5	8.9	69.1	75.6av	-6.5	YP
V	315.011	89.5	13.9	3.6	27.5	0.0	79.5	95.6pk	-16.1	ZP
V	315.011	89.5	13.9	3.6	27.5	8.9	70.6	75.6av	-5.0	ZP
H	315.011	88.6	14.2	3.6	27.5	0.0	78.9	95.6pk	-16.7	XP
H	315.011	88.6	14.2	3.6	27.5	8.9	70.0	75.6av	-5.6	XP
H	315.011	92.4	14.2	3.6	27.5	0.0	82.7	95.6pk	-12.9	YP
H	315.011	92.4	14.2	3.6	27.5	8.9	73.8	75.6av	-1.8	YP
H	315.011	88.6	14.2	3.6	27.5	0.0	78.9	95.6pk	-16.7	ZP
H	315.011	88.6	14.2	3.6	27.5	8.9	70.0	75.6av	-5.6	ZP
<b>Calculations</b>		G=C+D+E-F			I=G-H					

## 9.0 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 orthogonal 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	12/15/2006	12/15/2007
Antenna, Horn, 1-18 GHz	EMCO	3115	213061	04/02/2007	04/02/2008
Cable E01, <18GHz	Pasternack	RG214/U	E01	05/10/2007	05/10/2008
Cable E04, <18GHz	Huber-Suhner	Sucoflex 104PE	E04	05/14/2007	05/14/2008
Cable E05, <18GHz	Huber-Suhner	Sucoflex 104PEA	E05	05/10/2007	05/10/2008
Cable, 18 GHz, N, 10m	Megaphase	G919-NKNK-394	MP3	05/10/2007	05/10/2008
Cable, 18 GHz, N, 3m	Megaphase	TM18 NKNK 118	E201	01/15/2007	01/15/2008
Coaxial Cable, 7m, N-N, 18 GHz	Storm Products Co.	PR90-206-7MTR	ST1	01/11/2007	01/11/2008

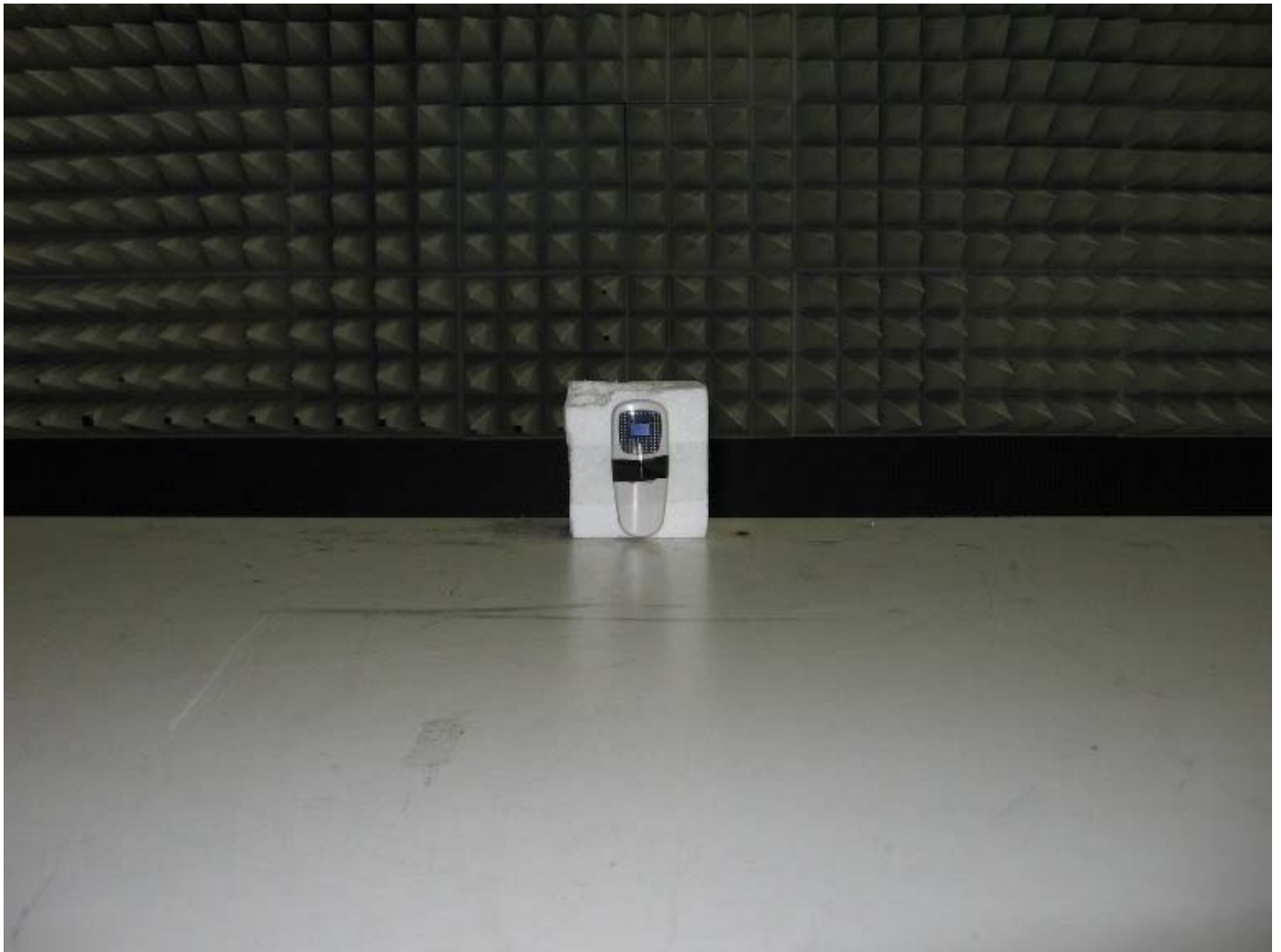
**9.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)****Test Equipment Used:**

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
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 radiated emissions	Software	Excel - RE Worksh	SW004	08/01/2006	08/01/2007
High Pass Filter, 1 GHz	Filtek	HP12/1000-5AB	213156a	03/14/2007	03/14/2008
Preamplifier, 10 MHz to 2000 MHz, 27 dB gain	Mini-Circuits	ZKL-2	200074	02/08/2007	02/08/2008
Preamplifier, 20 MHz to 18 GHz, 40 dB	A.H. Systems	PAM-0118	200108	03/21/2007	03/21/2008
Spectrum Analyzer, 20 Hz to 40 GHz	Rohde & Schwarz	FSEK30	200062	03/12/2007	03/12/2008

**Results: The sample tested was found to Comply.**

**Photo:**

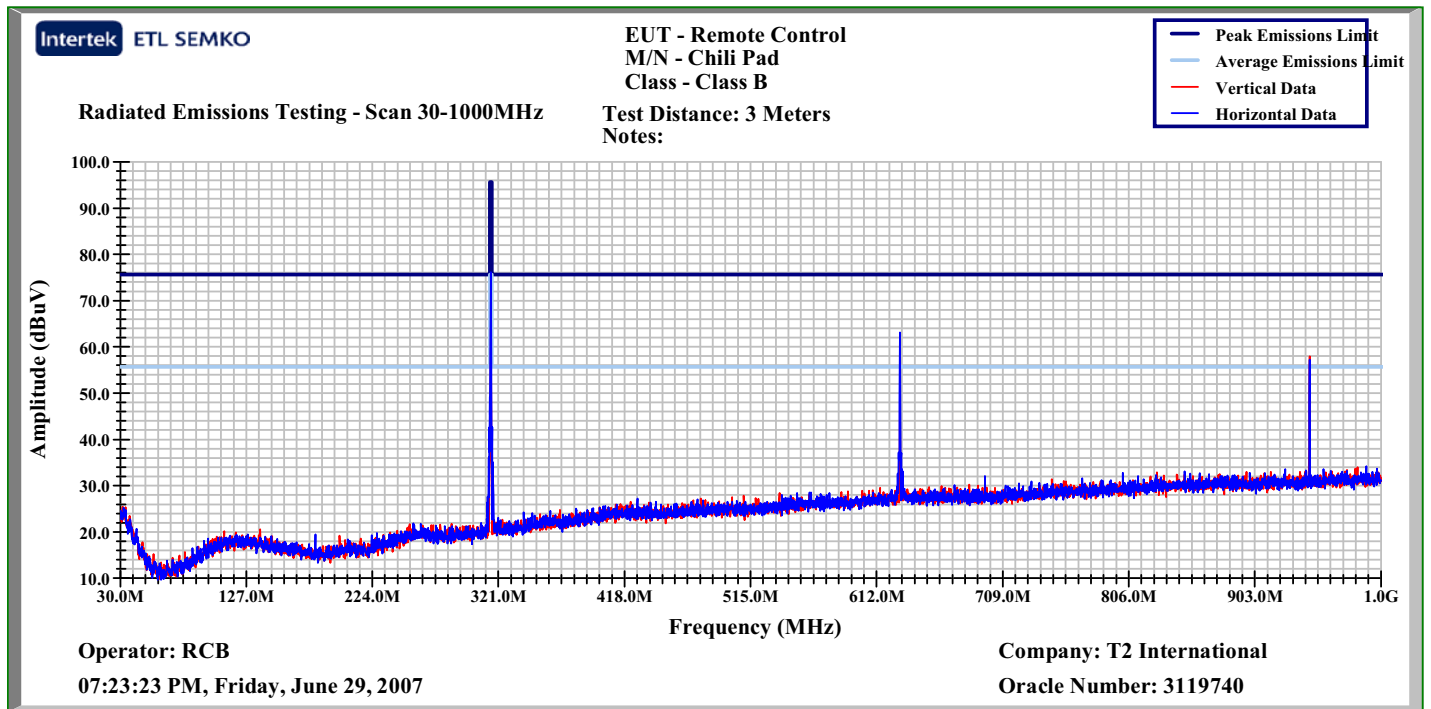
Y-Axis

**9.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)****Photo:**

X Axis

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

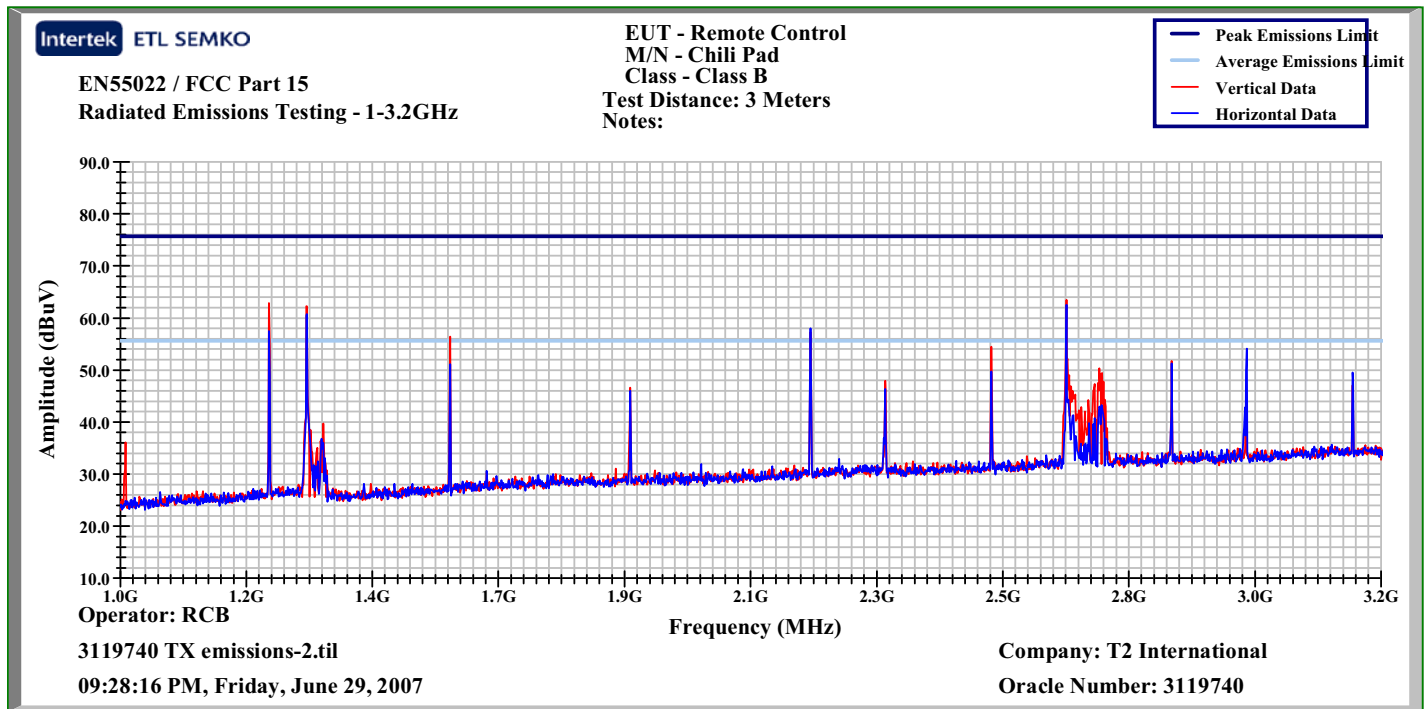
Plot:



30MHz - 1000MHz

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

Plot:



1GHz - 3.2GHz

**9.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)****Data:****Date:** 06/29/2007**Limit:** 15\_231 Pk Limit at 315MHz-3m**Frequency Range (MHz):** 30-1000**Test Distance (m):** 3**Input power:** Battery**Modifications for compliance (y/n):** n**Notes:**

A	B	C	D	E	F	G	H	I	J	K
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Duty Cycle Factor dB	Net dB(uV/m)	3m Limit dB(uV/m)	Margin dB	Axis / Detector
V	630.028	65.1	19.4	5.2	27.4	0.0	62.3	75.6	-13.3	XP
V	630.028	65.1	19.4	5.2	27.4	8.9	53.4	55.6	-2.2	XP
H	630.028	66.1	19.6	5.2	27.4	0.0	63.5	75.6	-12.1	YP
H	630.028	66.1	19.6	5.2	27.4	8.9	54.6	55.6	-1.0	YP
V	630.028	64.7	19.4	5.2	27.4	0.0	61.9	75.6	-13.7	ZP
V	630.028	64.7	19.4	5.2	27.4	8.9	53.0	55.6	-2.6	ZP
V	945.043	60.3	20.9	6.4	27.0	0.0	60.6	75.6	-15.0	XP
V	945.043	60.3	20.9	6.4	27.0	8.9	51.7	55.6	-3.9	XP
H	945.043	62.2	22.0	6.4	27.0	0.0	63.6	75.6	-12.0	YP
H	945.043	62.2	22.0	6.4	27.0	8.9	54.7	55.6	-0.9	YP
V	945.043	60.0	20.9	6.4	27.0	0.0	60.3	75.6	-15.3	ZP
V	945.043	60.0	20.9	6.4	27.0	8.9	51.4	55.6	-4.2	ZP
<b>Calculations</b>		G=C+D+E-F			I=G-H					

30MHz - 1000MHz

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

### Data:

Date: 06/29/2007 Limit: 15\_231 Pk Limit at 315MHz-3m  
 Frequency Range (MHz): 30-1000 Test Distance (m): 3  
 Input power: Battery Modifications for compliance (y/n): n

Notes:

A	B	C	D	E	F	G	H	I	J	K
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Duty Cycle Factor dB	Net dB(uV/m)	3m Limit dB(uV/m)	Margin dB	Axis / Detector
V	1260.003	71.9	24.1	5.1	40.4	0.0	60.7	75.6	-14.9	XP
V	1260.003	71.9	24.1	5.1	40.4	8.9	51.8	55.6	-3.8	XP
H	1260.003	74.4	24.2	5.1	40.4	0.0	63.3	75.6	-12.3	YP
H	1260.003	74.4	24.2	5.1	40.4	8.9	54.4	55.6	-1.2	YP
V	1260.003	72.0	24.1	5.1	40.4	0.0	60.8	75.6	-14.8	ZP
V	1260.003	72.0	24.1	5.1	40.4	8.9	51.9	55.6	-3.7	ZP
V	1324.310	71.3	24.1	5.1	40.4	0.0	60.1	75.6	-15.5	XP
V	1324.310	71.3	24.1	5.1	40.4	8.9	51.2	55.6	-4.4	XP
H	1324.310	74.2	24.2	5.1	40.4	0.0	63.1	75.6	-12.5	YP
H	1324.310	74.2	24.2	5.1	40.4	8.9	54.2	55.6	-1.4	YP
V	1324.310	70.9	24.1	5.1	40.4	0.0	59.7	75.6	-15.9	ZP
V	1324.310	70.9	24.1	5.1	40.4	8.9	50.8	55.6	-4.8	ZP
V	1575.015	67.8	25.6	5.1	40.4	0.0	58.2	75.6	-17.5	XP
V	1575.015	67.8	25.6	5.1	40.4	8.9	49.3	55.6	-6.3	XP
H	1575.015	70.6	25.7	5.1	40.4	0.0	61.1	75.6	-14.6	YP
H	1575.015	70.6	25.7	5.1	40.4	8.9	52.2	55.6	-3.5	YP
V	1575.015	67.9	25.6	5.1	40.4	0.0	58.3	75.6	-17.4	ZP
V	1575.015	67.9	25.6	5.1	40.4	8.9	49.4	55.6	-6.3	ZP
V	2204.960	66.2	27.7	5.9	40.4	0.0	59.4	75.6	-16.2	XP
V	2204.960	66.2	27.7	5.9	40.4	8.9	50.5	55.6	-5.1	XP
H	2204.960	68.0	27.8	5.9	40.4	0.0	61.3	75.6	-14.3	YP
H	2204.960	68.0	27.8	5.9	40.4	8.9	52.4	55.6	-3.2	YP
V	2204.960	65.7	27.7	5.9	40.4	0.0	58.9	75.6	-16.7	ZP
V	2204.960	65.7	27.7	5.9	40.4	8.9	50.0	55.6	-5.6	ZP
V	2334.760	65.1	27.7	5.9	40.5	0.0	58.2	75.6	-17.4	XP
V	2334.760	65.1	27.7	5.9	40.5	8.9	49.3	55.6	-6.3	XP
H	2334.760	66.9	27.8	5.9	40.5	0.0	60.1	75.6	-15.5	YP
H	2334.760	66.9	27.8	5.9	40.5	8.9	51.2	55.6	-4.4	YP
V	2334.760	66.2	27.7	5.9	40.5	0.0	59.3	75.6	-16.3	ZP
V	2334.760	66.2	27.7	5.9	40.5	8.9	50.4	55.6	-5.2	ZP
V	2650.350	67.5	28.5	5.9	40.5	0.0	61.4	75.6	-14.2	XP
V	2650.350	67.5	28.5	5.9	40.5	8.9	52.5	55.6	-3.1	XP
H	2650.350	69.0	28.6	5.9	40.5	0.0	63.0	75.6	-12.6	YP
H	2650.350	69.0	28.6	5.9	40.5	8.9	54.1	55.6	-1.5	YP
V	2650.350	67.6	28.5	5.9	40.5	0.0	61.5	75.6	-14.1	ZP
V	2650.350	67.6	28.5	5.9	40.5	8.9	52.6	55.6	-3.0	ZP
V	2835.000	63.4	28.5	5.9	40.7	0.0	57.1	75.6	-18.5	XP
V	2835.000	63.4	28.5	5.9	40.7	8.9	48.2	55.6	-7.4	XP
H	2835.000	64.6	28.6	5.9	40.7	0.0	58.4	75.6	-17.2	YP
H	2835.000	64.6	28.6	5.9	40.7	8.9	49.5	55.6	-6.1	YP
V	2835.000	63.3	28.5	5.9	40.7	0.0	57.0	75.6	-18.6	ZP
V	2835.000	63.3	28.5	5.9	40.7	8.9	48.1	55.6	-7.5	ZP
V	2965.080	62.8	28.5	5.9	40.8	0.0	56.4	75.6	-19.2	XP
V	2965.080	62.8	28.5	5.9	40.8	8.9	47.5	55.6	-8.1	XP
H	2965.080	64.9	28.6	5.9	40.8	0.0	58.6	75.6	-17.0	YP
H	2965.080	64.9	28.6	5.9	40.8	8.9	49.7	55.6	-5.9	YP
V	2965.080	62.6	28.5	5.9	40.8	0.0	56.2	75.6	-19.4	ZP
V	2965.080	62.6	28.5	5.9	40.8	8.9	47.3	55.6	-8.3	ZP
V	3150.010	62.0	30.0	9.0	40.7	0.0	60.4	75.6	-15.2	XP
V	3150.010	62.0	30.0	9.0	40.7	8.9	51.5	55.6	-4.1	XP
H	3150.010	62.7	30.1	9.0	40.7	0.0	61.2	75.6	-14.4	YP
H	3150.010	62.7	30.1	9.0	40.7	8.9	52.3	55.6	-3.3	YP
V	3150.010	61.8	30.0	9.0	40.7	0.0	60.2	75.6	-15.4	ZP
V	3150.010	61.8	30.0	9.0	40.7	8.9	51.3	55.6	-4.3	ZP
Calculations		G=C+D+E-F		I=G-H						

1GHz - 3.2GHz



## 10.0 Bandwidth Requirements (FCC 15C - 15.231(c))

### Method:

The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.

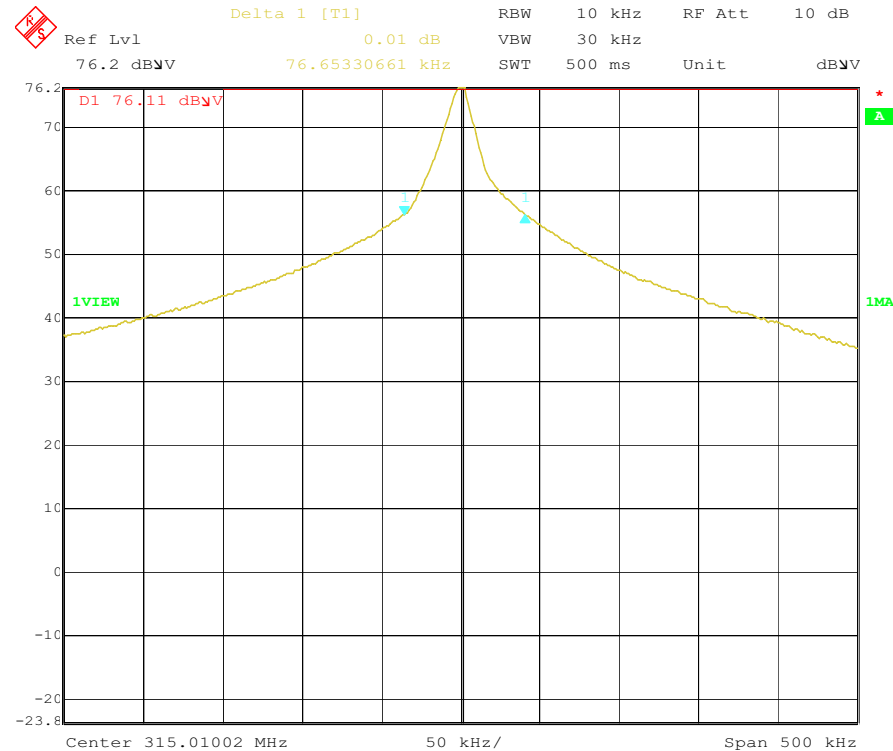
- Center Frequency is set to the fundamental of transmitter.
- Resolution Bandwidth is set to approximately 1% of the emission bandwidth.
- Video Bandwidth is set greater than or equal to the Resolution Bandwidth.

### Test Equipment Used:

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Spectrum Analyzer, 20 Hz to 40 GHz	Rohde & Schwarz	FSEK30	200062	03/12/2007	03/12/2008

**Results: The sample tested was found to Comply.**

### Plot:



Date: 26.JUN.2007 22:11:44

20dB Down Bandwidth Plot

**10.0 Bandwidth Requirements (FCC 15C - 15.231(c))****Data:**

Fundamental Frequency MHz	Measured Bandwidth MHz	Bandwidth Limit MHz
315	0.07665	0.7875

Suggested Instrument Settings	
RBW (kHz):	10
VBW (kHz):	30
Approximate Span (MHz):	1.575
Minimum Sweep time (s):	1

**11.0 Revision History (Revision History)****Method:**

Document the history of the report.

**Data:**

Revision Level	Date	Report Number	Notes
Original issue	July 9, 2007	3119740TL-001	--
1	November 13, 2007	3119740TL-001	Corrected typographical error in Section 8 data table. 10 m test distance was actually 3 m.