



**METEOR COMMUNICATION CORPORATION TEST REPORT**

**FOR THE**

**MULTIBAND MOBILE TRANSCEIVER, 6120**

**FCC PART 15 SUBPART C SECTIONS 15.207, 15.209 & 15.247**

**COMPLIANCE**

**DATE OF ISSUE: NOVEMBER 28, 2006**

**PREPARED FOR:**

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Date of test: October 23 –  
November 14, 2006

**Report No.: FC06-062**

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## ADMINISTRATIVE INFORMATION

<b>DATE OF TEST:</b>	October 23 - November 14, 2006
<b>DATE OF RECEIPT:</b>	October 23, 2006
<b>MANUFACTURER:</b>	Meteor Communication Corporation 22614 66th Ave. South Kent, WA 98032
<b>REPRESENTATIVE:</b>	Norm Shivley
<b>TEST LOCATION:</b>	CKC Laboratories, Inc. 22116 23rd Drive S.E., Suite A Bothell, WA 98021-4413
<b>TEST METHOD:</b>	ANSI C63.4 (2003)
<b>PURPOSE OF TEST:</b>	To demonstrate the compliance of the Multiband Mobile Transceiver, 6120, with the requirements for FCC Part 15 Subpart C Section 15.247 devices.

## CONDITIONS FOR COMPLIANCE

No modifications to the EUT were necessary to comply.

## APPROVALS

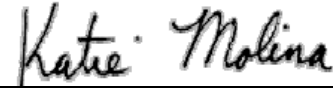
Steve Behm, Director of Engineering Services

### QUALITY ASSURANCE:



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Joyce Walker, Quality Assurance Administrative Manager



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Katie Molina, Senior EMC Engineer/Lab Manager

### TEST PERSONNEL:



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Eddie Wong, EMC Engineer



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Ryan Rutledge, Test Technologist

## EQUIPMENT UNDER TEST (EUT) DESCRIPTION

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

### FCC 15.31(e) Voltage Variations

The EUT satisfied 15.31 (e), Voltage Variations. With the DC power varied + - 15%, no variation of measured power was observed.

### FCC 15.31(m) Number Of Channels

This device was tested on three channels.

### FCC 15.33(a) Frequency Ranges Tested

15.207 Conducted Emissions: 150 kHz – 30 MHz

15.209 Radiated Emissions: 30 MHz – 26 GHz

15.247 Radiated Emissions: 9 kHz – 26 GHz

FCC SECTION 15.35: ANALYZER BANDWIDTH SETTINGS PER FREQUENCY RANGE			
TEST	BEGINNING FREQUENCY	ENDING FREQUENCY	BANDWIDTH SETTING
CONDUCTED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	9 kHz	150 kHz	200 Hz
RADIATED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	30 MHz	1000 MHz	120 kHz
RADIATED EMISSIONS	1000 MHz	26 GHz	1 MHz

### FCC 15.205 Restricted Bands

The fundamental operating frequency lies outside the restricted bands and therefore complies with the requirements of Section 15.205 of the FCC rules. Any spurious emission coming from the EUT was investigated to determine if any portion lies inside the restricted band. If any portion of a spurious emissions signal was found to be within a restricted band, investigation was performed to ensure compliance with Section 15.209.

### EUT Operating Frequency

The EUT was operating at 2412-2467 MHz.

## **EQUIPMENT UNDER TEST**

### **Multiband Mobile Transceiver**

Manuf: Meteor Communications Corporation  
Model: 6120  
Serial: 573

## **PERIPHERAL DEVICES**

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

### **2.4 GHz Antenna**

Manuf: Antenex  
Model: TRA24003P  
Serial: 38666

### **GPS Antenna**

Manuf: Synergy System  
Model: SMA-35  
Serial: 10001339

### **Laptop**

Manuf: HP  
Model: Pavilion 4500  
Serial: CNF3361RKW

### **Power Supply**

Manuf: Astron  
Model: VS-35M  
Serial: 205050015

### **USB Thumb Drive**

Manuf: Linear  
Model: NA  
Serial: NA

## REPORT OF MEASUREMENTS

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

**Table 1: FCC 15.207 Six Highest Conducted Emission Levels**

FREQUENCY MHz	METER READING dBμV	CORRECTION FACTORS				CORRECTED READING dBμV	SPEC LIMIT dBμV	MARGIN dB	NOTES
		Att dB	Lisn dB	Cable dB					
21.662190	34.5	10.0	0.4	0.6		45.5	50.0	-4.5	N-1
21.662190	34.1	10.0	0.3	0.6		45.0	50.0	-5.0	L-2
21.662190	34.0	10.0	0.3	0.6		44.9	50.0	-5.1	L-1
22.580650	34.1	10.0	0.4	0.7		45.2	50.0	-4.8	N-1
23.075900	33.9	10.0	0.4	0.7		45.0	50.0	-5.0	L-2
23.129920	33.4	10.0	0.4	0.7		44.5	50.0	-5.5	L-1

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

NOTES:  
L = Line Lead  
N = Neutral Lead  
1 = Low Band  
2 = High Band

COMMENTS: See individual data sheets for test conditions.

**Table 2: FCC 15.209 Six Highest Radiated Emission Levels**

FREQUENCY MHz	METER READING dBμV	CORRECTION FACTORS				CORRECTED READING dBμV/m	SPEC LIMIT dBμV/m	MARGIN dB	NOTES
		Ant dB	Amp dB	Cable dB	Dist dB				
30.000	41.7	22.3	-27.5	0.8		37.3	40.0	-2.7	V
32.595	42.6	20.6	-27.5	0.8		36.5	40.0	-3.5	VQ
34.658	44.4	19.4	-27.5	0.8		37.1	40.0	-2.9	V
58.718	55.6	9.6	-27.6	1.1		38.7	40.0	-1.3	VQ
62.010	53.4	9.6	-27.5	1.1		36.6	40.0	-3.4	V
400.004	50.9	17.3	-27.7	3.0		43.5	46.0	-2.5	HQ

Test Method: ANSI C63.4 (2003)  
Spec Limit: FCC Part 15 Subpart C Section 15.209  
Test Distance: 3 Meters

NOTES: H = Horizontal Polarization  
V = Vertical Polarization  
Q = Quasi Peak Reading

**COMMENTS:** The vehicular mounted EUT is placed on the wooden table. Low band antenna port is connected to a 100Watt load. High Band antenna port is connected to 50Watt load. 802.11b antenna port is connected to 2.4 GHz antenna. GPS receiving antenna is connected to GPS antenna. I/O port is connected to a dongle with a Parallel port and three RS232s. One of the RS232 ports is connected to COM port of a remote support laptop. Parallel and two RS232s are left unpopulated. Ethernet and USB port: Terminated to a USB thumb drive, the other is left unpopulated. Two Ethernet ports are connected to support laptop via STP. DC Power is connected to a support DC power supply placed under the wooden table. The Laptop is running test software to exercise the EUT. Receiver under test: 802.11b, GPS. 13.6VDC, 19°C, 38% relative humidity. Frequency range of measurement = 30 MHz - 26 GHz. Frequency 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz. 1-26 GHz, VBW=RBW=1MHz.



**Table 3: FCC 15.247(d) Six Highest Radiated Emission Levels**

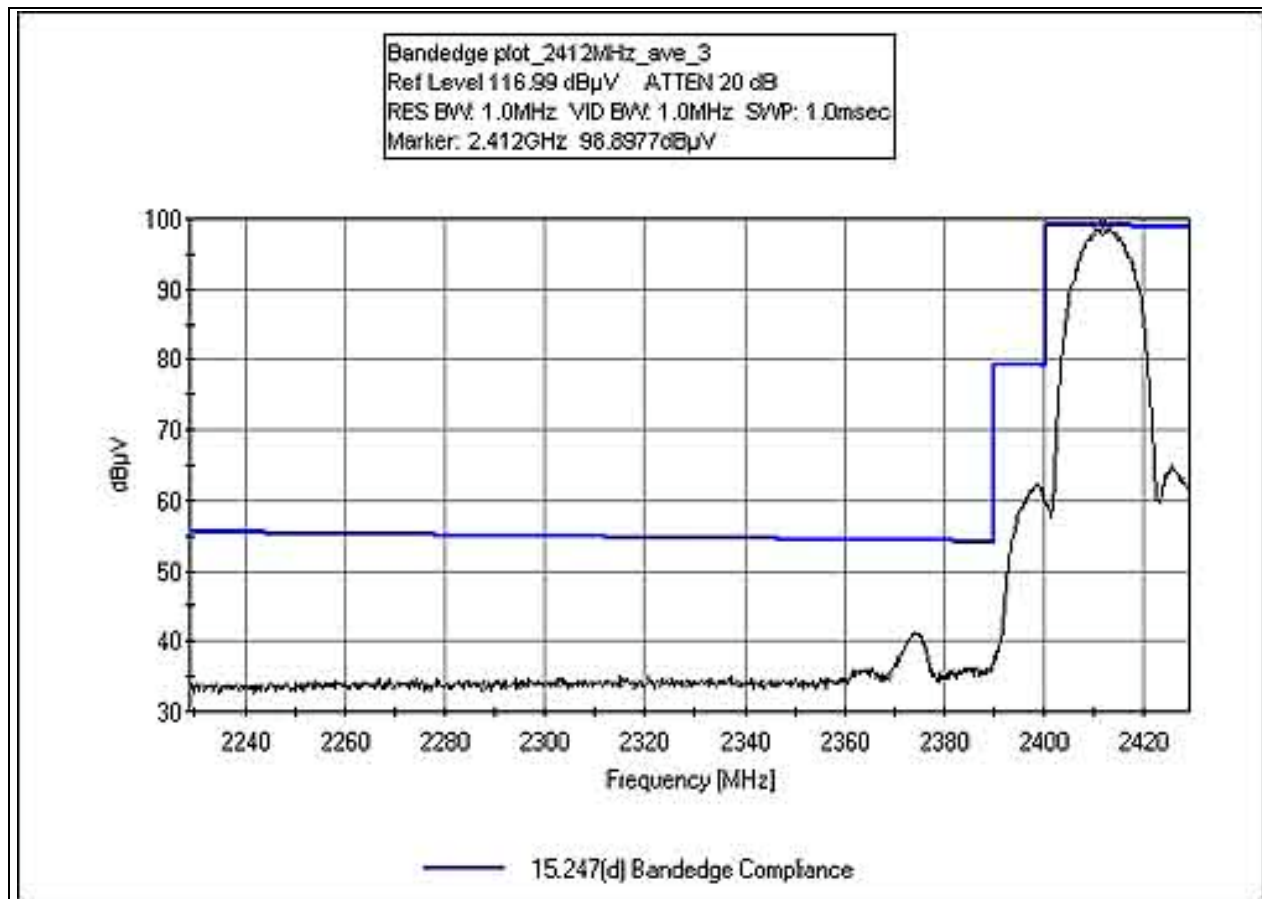
FREQUENCY MHz	METER READING dB $\mu$ V	CORRECTION FACTORS				CORRECTED READING dB $\mu$ V/m	SPEC LIMIT dB $\mu$ V/m	MARGIN dB	NOTES
		Ant dB	Amp dB	Cable dB	HPF dB				
4824.000	28.0	33.3	-33.0	7.8	0.3	36.4	54.0	-17.6	VA
4824.300	33.6	33.3	-33.0	7.8	0.3	42.0	54.0	-12.0	H
4873.200	34.4	33.4	-33.0	8.0	0.3	43.1	54.0	-10.9	H
4879.800	34.1	33.4	-33.0	8.0	0.3	42.8	54.0	-11.2	V
4922.300	35.0	33.5	-32.9	8.0	0.3	43.9	54.0	-10.1	H
4923.200	35.3	33.5	-32.9	8.0	0.3	44.2	54.0	-9.8	V

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

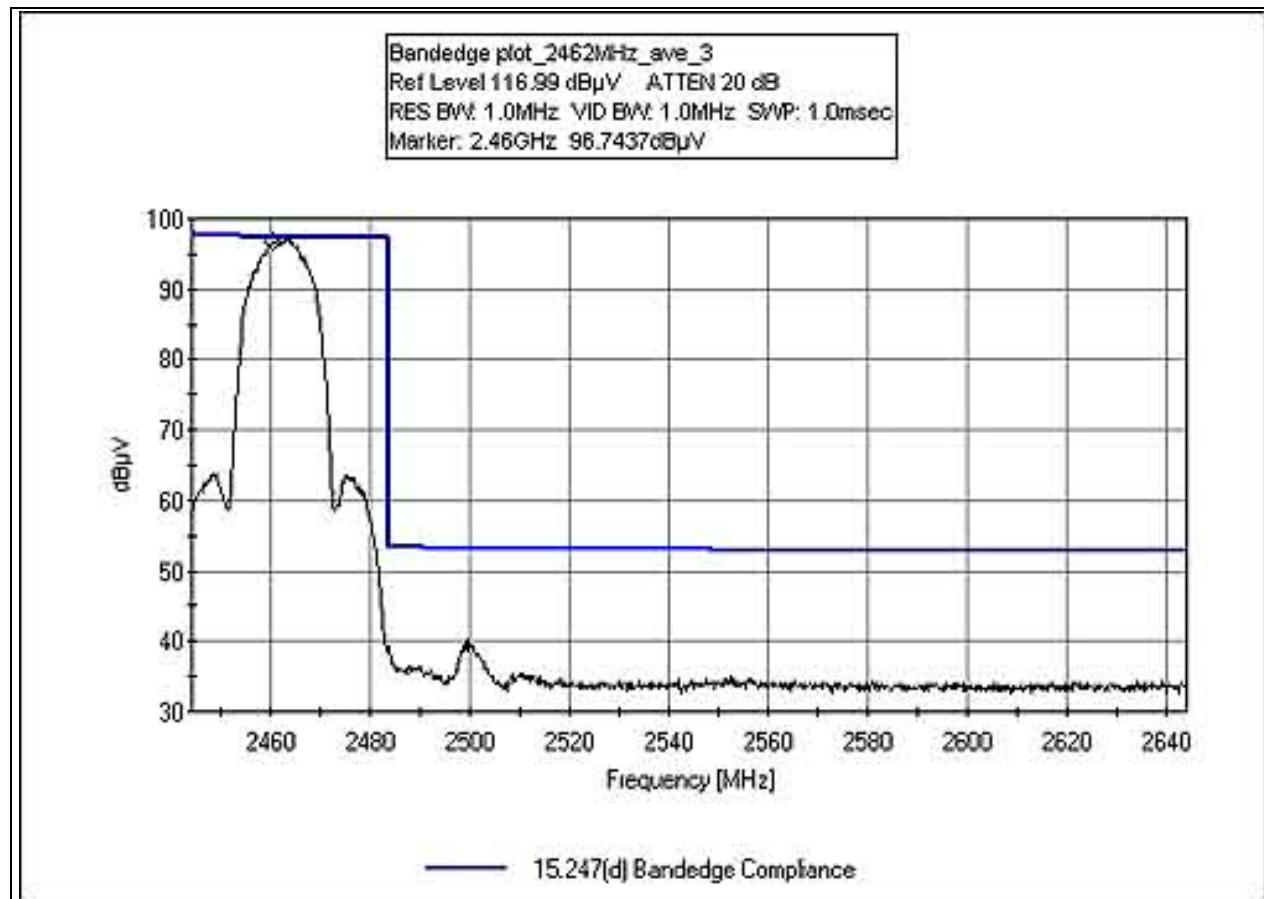
NOTES: H = Horizontal Polarization  
V = Vertical Polarization  
A = Average Reading

**COMMENTS:** The vehicular mounted EUT is placed on the wooden table. Low band antenna port is connected to a 100Watt load. High Band antenna port is connected to 50Watt load. 802.11b antenna port is connected to 2.4 GHz antenna. GPS receiving antenna is connected to GPS antenna. I/O port is connected to a dongle with a Parallel port and three RS232s. One of the RS232 ports is connected to COM port of a remote support laptop. Parallel and two RS232s are left unpopulated. Ethernet and USB port: Terminated to a USB thumb drive, the other is left unpopulated. Two Ethernet ports are connected to support laptop via STP. DC Power is connected to a support DC power supply placed under the wooden table. The Laptop is running test software to exercise the EUT. Radio under test: 802.11b, Frequency =2412 MHz, 2437 MHz and 2462 MHz. 13.6VDC, 19°C, 38% relative humidity. Frequency range of measurement = 9 kHz - 26 GHz. Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz - 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz, 1 GHz - 26 GHz, RBW=1MHz, VBW=1MHz.

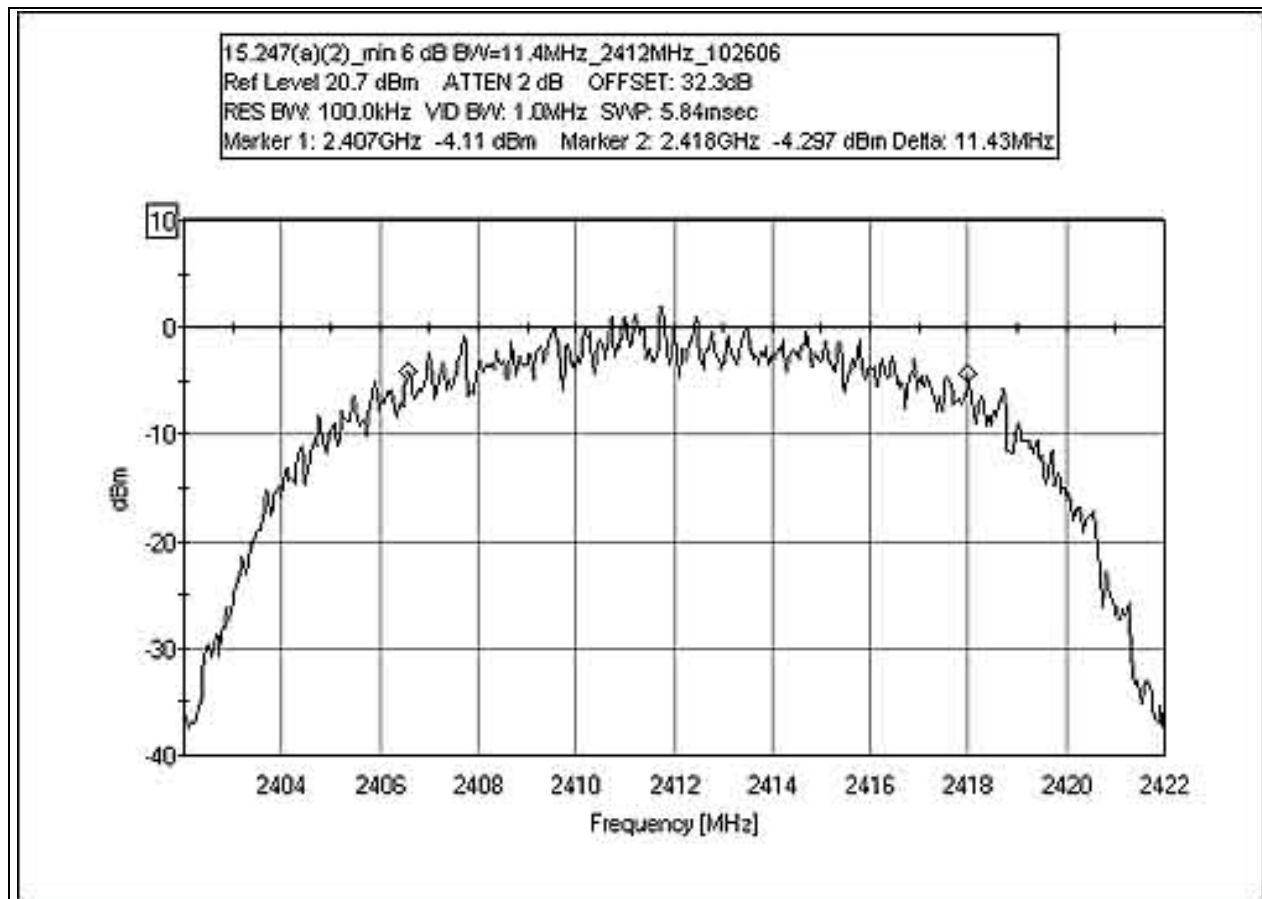
**FCC 15.247(d) BANDEDGE 2412 MHz**



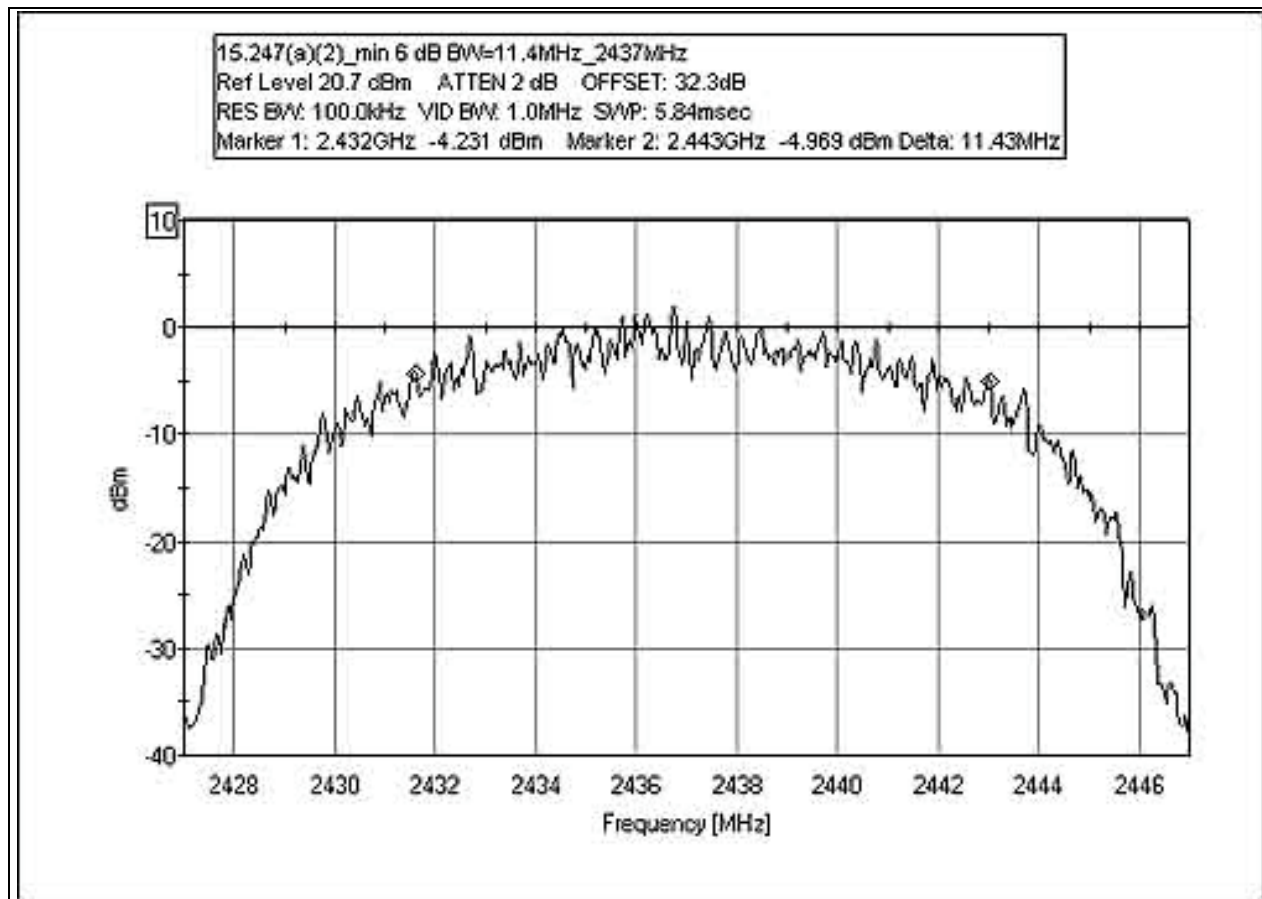
**FCC 15.247(d) BANDEDGE 2462 MHz**



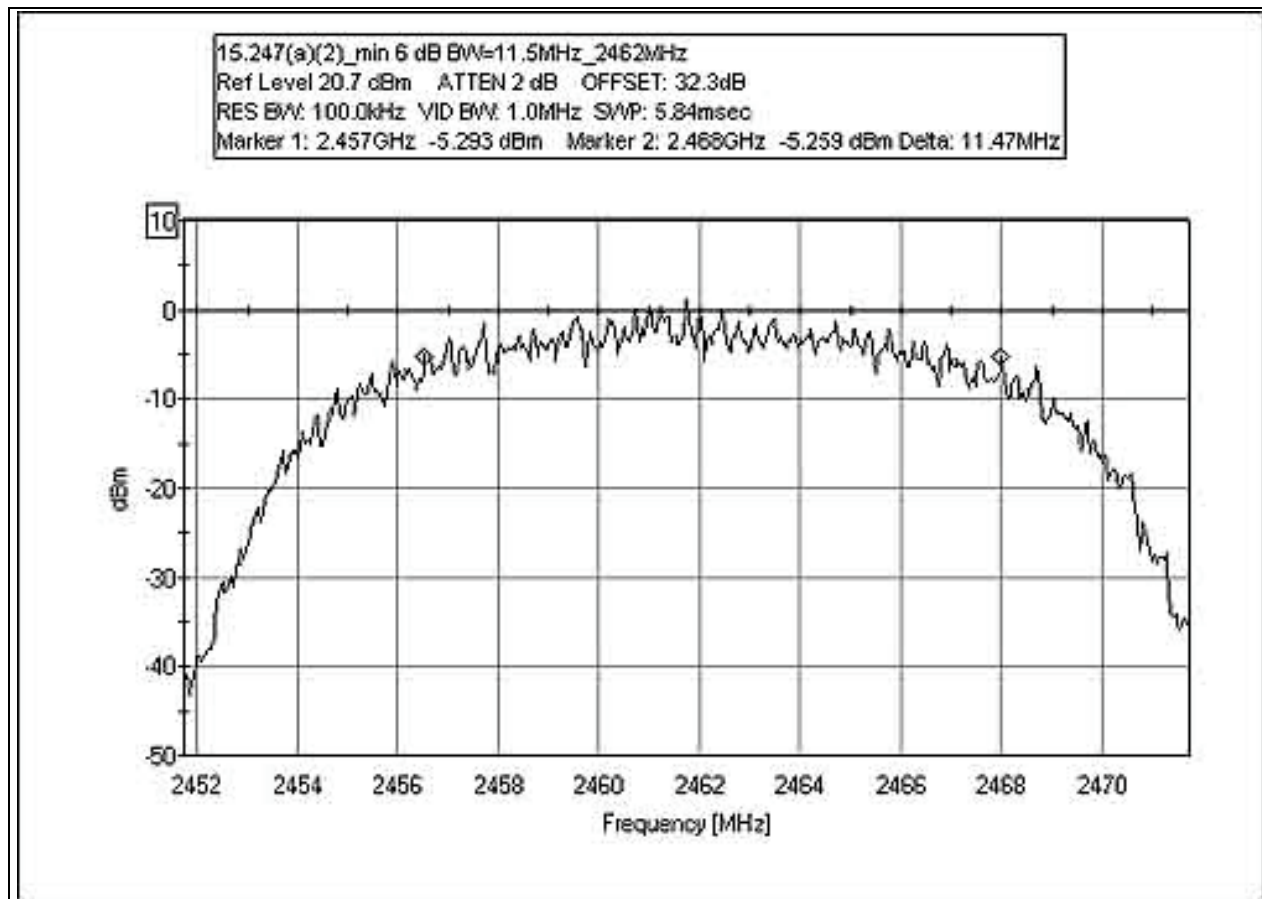
**FCC 15.247(a)(2) 6 dB Bandwidth 2412 MHz**



**FCC 15.247(a)(2) 6 dB Bandwidth 2437 MHz**



**FCC 15.247(a)(2) 6 dB Bandwidth 2462 MHz**



### FCC 15.247(b)(3) RF Output Power

Test setup: The RF output power and Power Spectral Density are measured at the RF antenna port of the EUT with a spectrum analyzer set in Channel power measurement

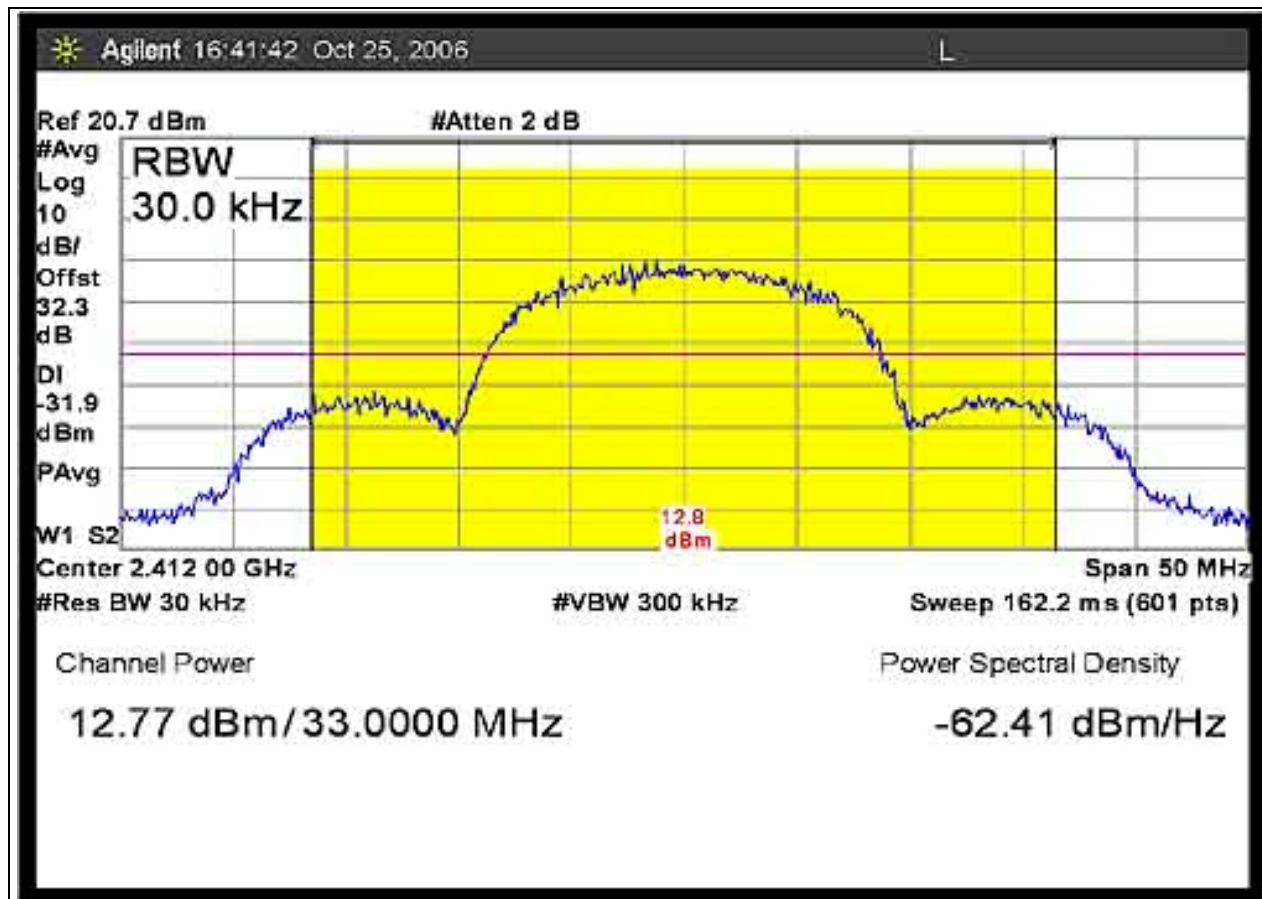
15.247 (b)(3)

For systems using digital modulation in the 902-928 MHz, 2400- 2483.5 MHz, and 5725-5850 MHz bands: 1 Watt

802.11(b)

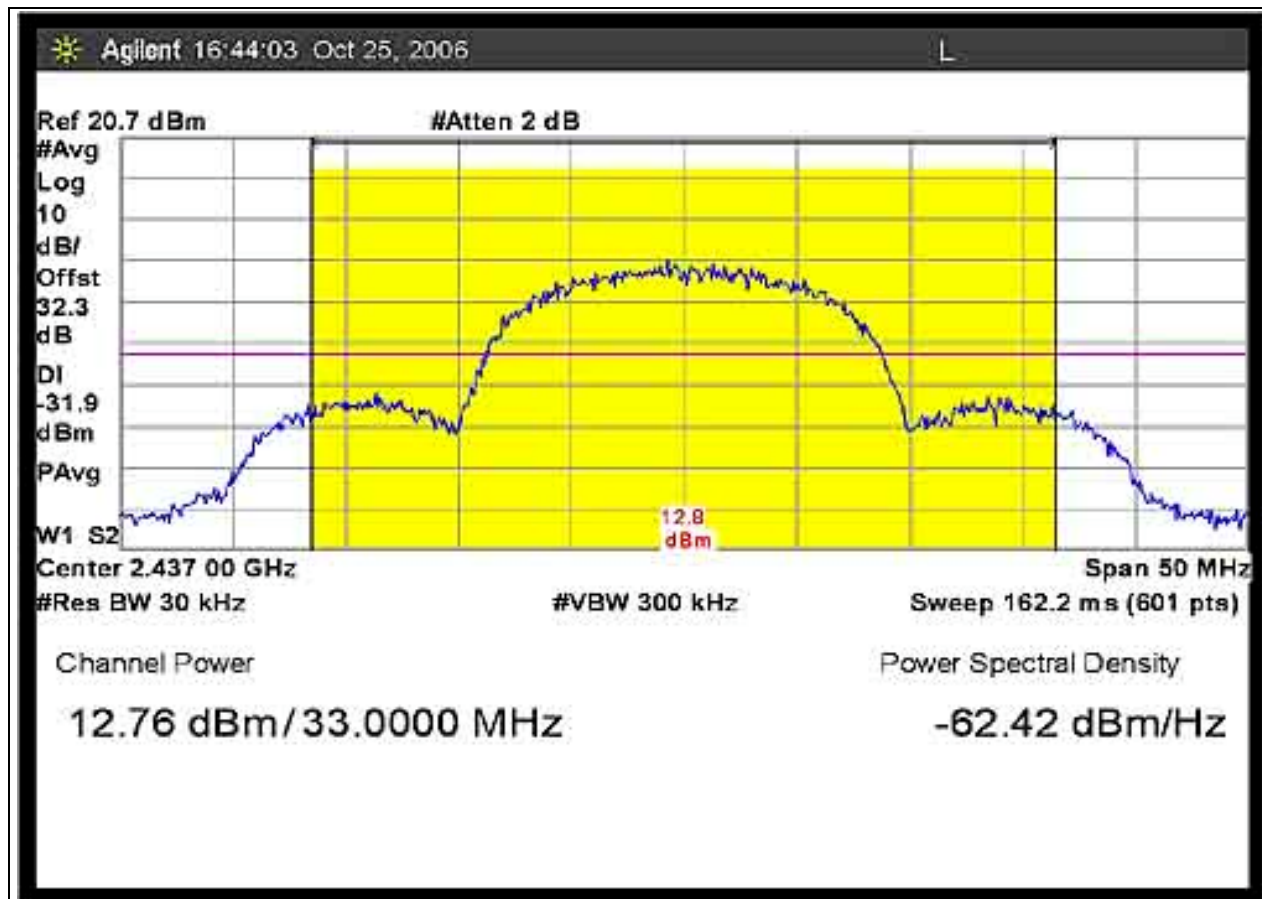
Frequency MHz	Bit Rate	Conducted power (dBm)	Conducted Power (watt)
2412	11 mbps	14.8	<b>0.0302</b>
2437	11 mbps	14.7	<b>0.0295</b>
2462	11 mbps	14.9	<b>0.0309</b>

FCC 15.247(b)(3) RF Output Power 2412 MHz

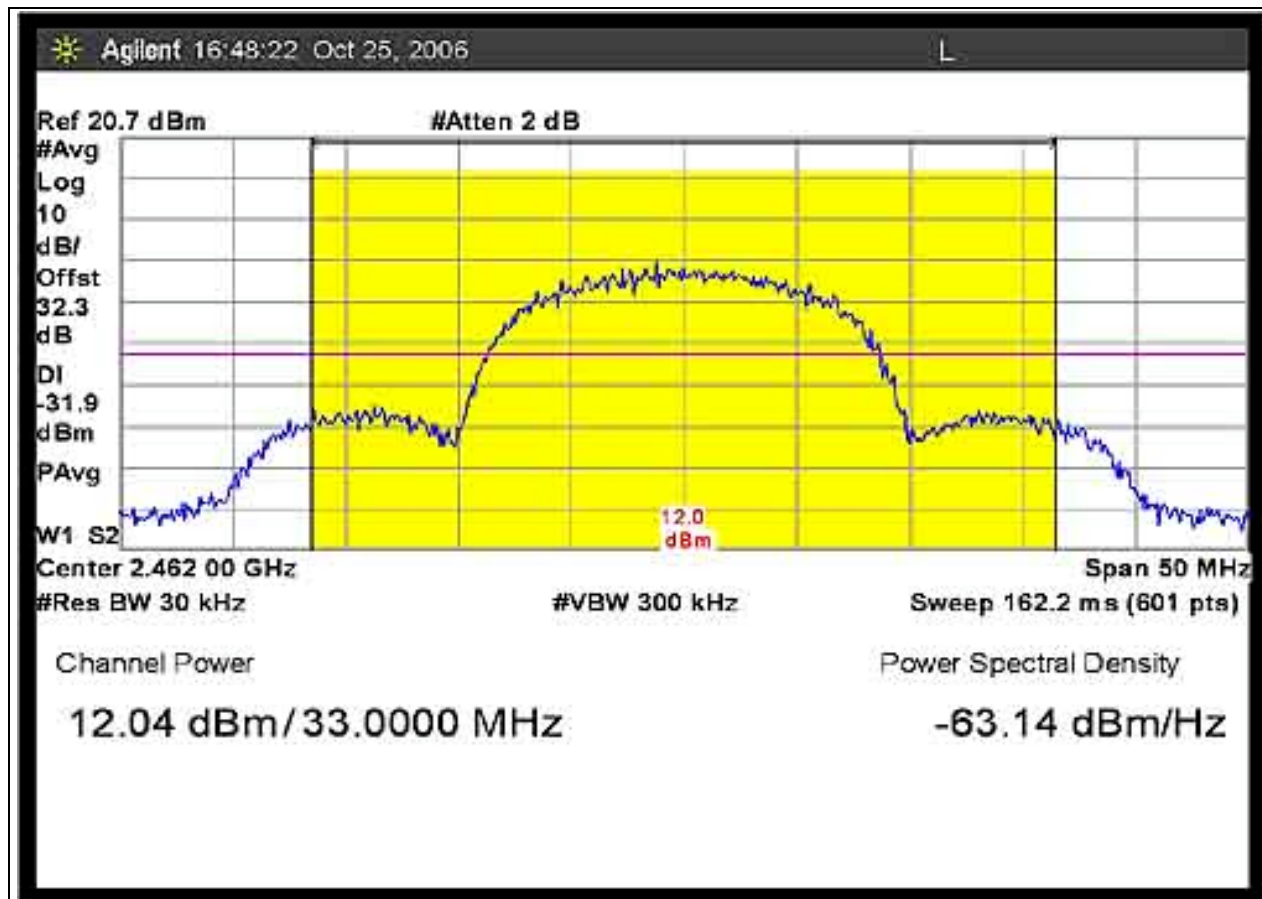




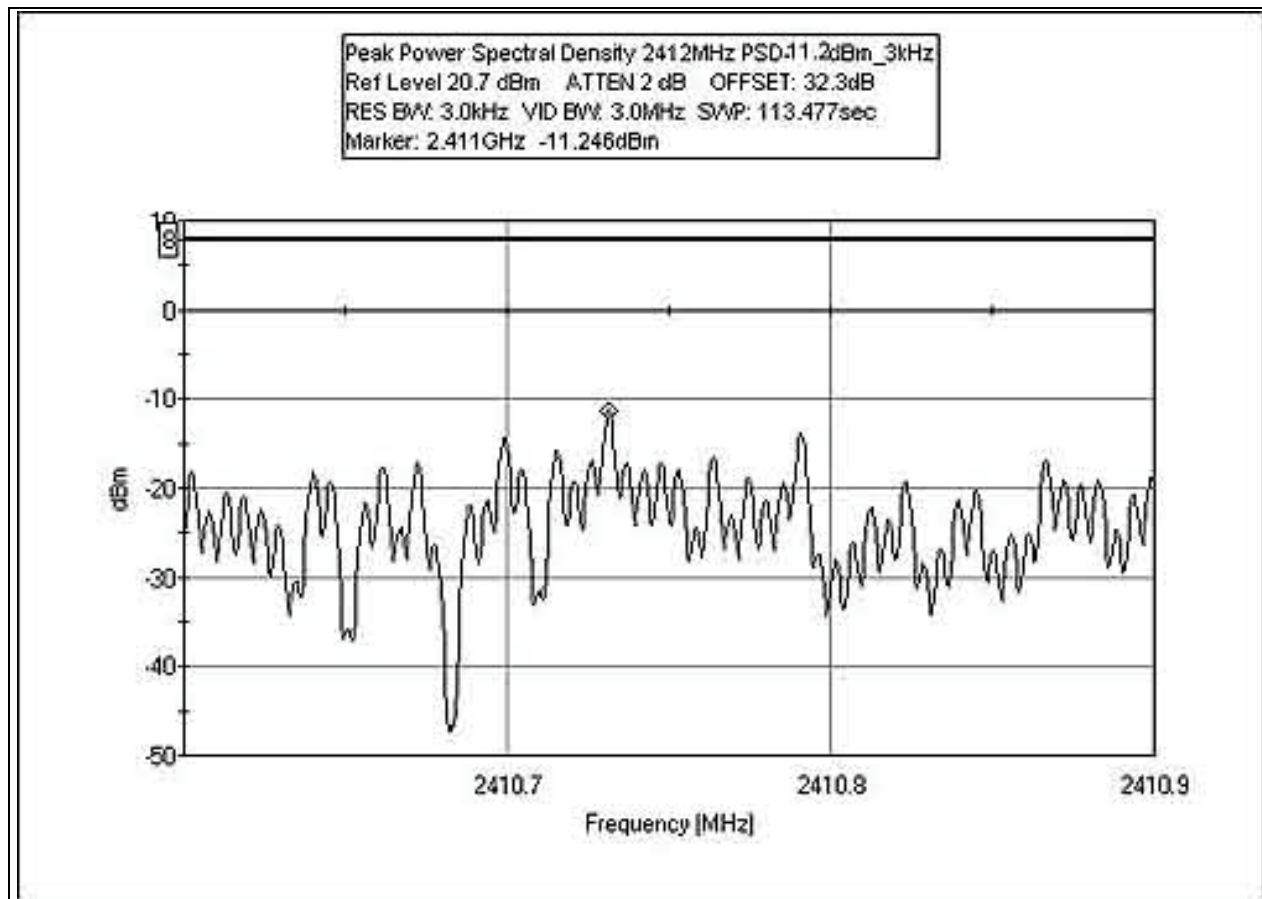
FCC 15.247(b)(3) RF Power Output 2437 MHz



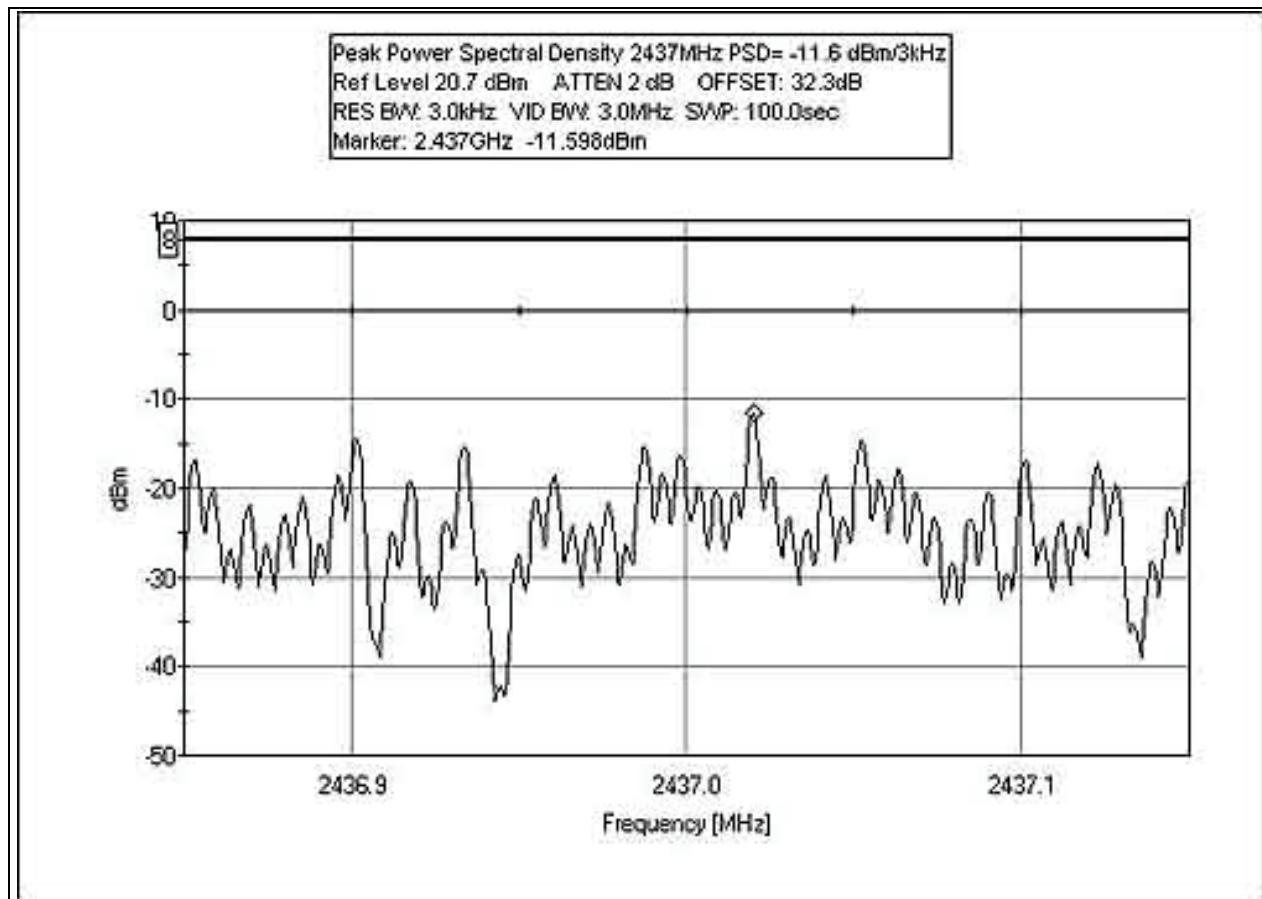
FCC 15.247(b)(3) RF Power Output 2462 MHz



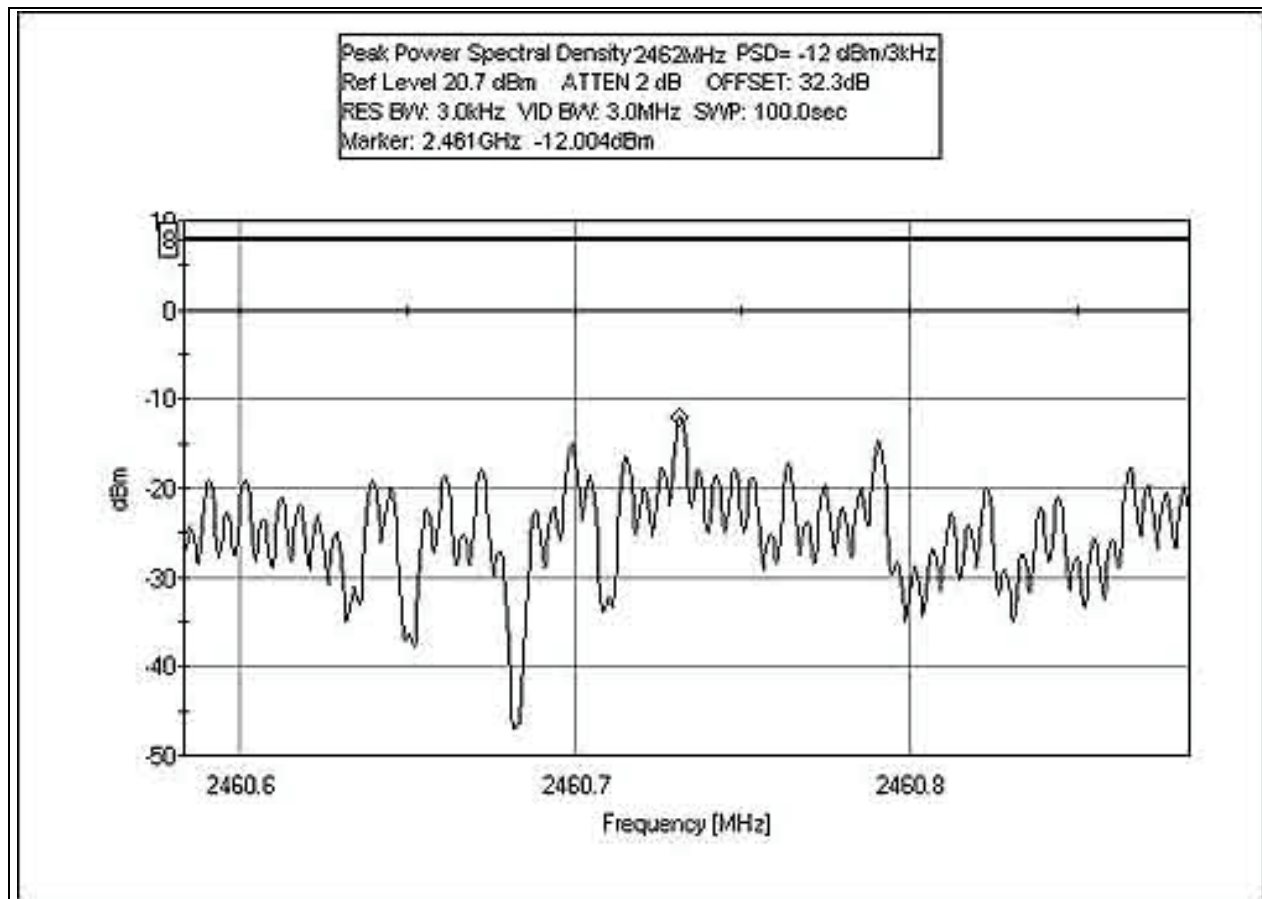
**FCC 15.247(e) Peak Power Spectral Density 2412 MHz**



**FCC 15.247(e) Peak Power Spectral Density 2437 MHz**



**FCC 15.247(e) Peak Power Spectral Density 2462 MHz**



## TEMPERATURE AND HUMIDITY DURING TESTING

The temperature during testing was within +15°C and + 35°C.

The relative humidity was between 20% and 75%.

## EUT SETUP

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

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

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

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

## CORRECTION FACTORS

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

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

## **TEST INSTRUMENTATION AND ANALYZER SETTINGS**

The test instrumentation and equipment listed in Table A were used to collect both the radiated and conducted emissions data for the EUT. For radiated measurements from 9 kHz to 30 MHz, the magnetic loop antenna was used. For radiated measurements from 30 to 1000 MHz, the biconilog antenna was used. The horn antenna was used for frequencies above 1000 MHz. Conducted emissions tests required the use of the FCC type LISNs.

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

## **SPECTRUM ANALYZER DETECTOR FUNCTIONS**

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

### **Peak**

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

### **Quasi-Peak**

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

### **Average**

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



## **EUT TESTING**

### **Mains Conducted Emissions**

During conducted emissions testing, the EUT was located on a wooden table measuring approximately 80 cm high, 1 meter deep, and 1.5 meters in length. One wall of the room where the EUT was located has a minimum 2 meter by 2 meter conductive plane. The EUT was mounted on the wooden table 40 cm away from the conductive plane, and 80 cm from any other conductive surface.

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

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

### **Antenna Conducted Emissions**

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

### **Radiated Emissions**

The EUT was mounted on a nonconductive, rotating table 80 cm above the conductive grid. The nonconductive table dimensions were 1 meter by 1.5 meters.

During the preliminary radiated scan, the EUT was powered up and operating in its defined FCC test mode. For radiated measurements from 9 kHz to 30 MHz, the magnetic loop antenna was used. The frequency range of 30 MHz to 1000 MHz was scanned with the biconilog antenna located about 1.5 meter above the ground plane in the vertical polarity. During this scan, the turntable was rotated and all peaks at or near the limit were recorded. A scan of the FM band from 88 to 110 MHz was then made using a reduced resolution bandwidth and frequency span. The biconilog antenna was changed to the horizontal polarity and the above steps were repeated. For frequencies exceeding 1000 MHz, the horn antenna was used. Care was taken to ensure that no frequencies were missed within the FM and TV bands.

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



**APPENDIX A**

**TEST SETUP PHOTOGRAPHS**

## PHOTOGRAPH SHOWING VOLTAGE VARIATIONS



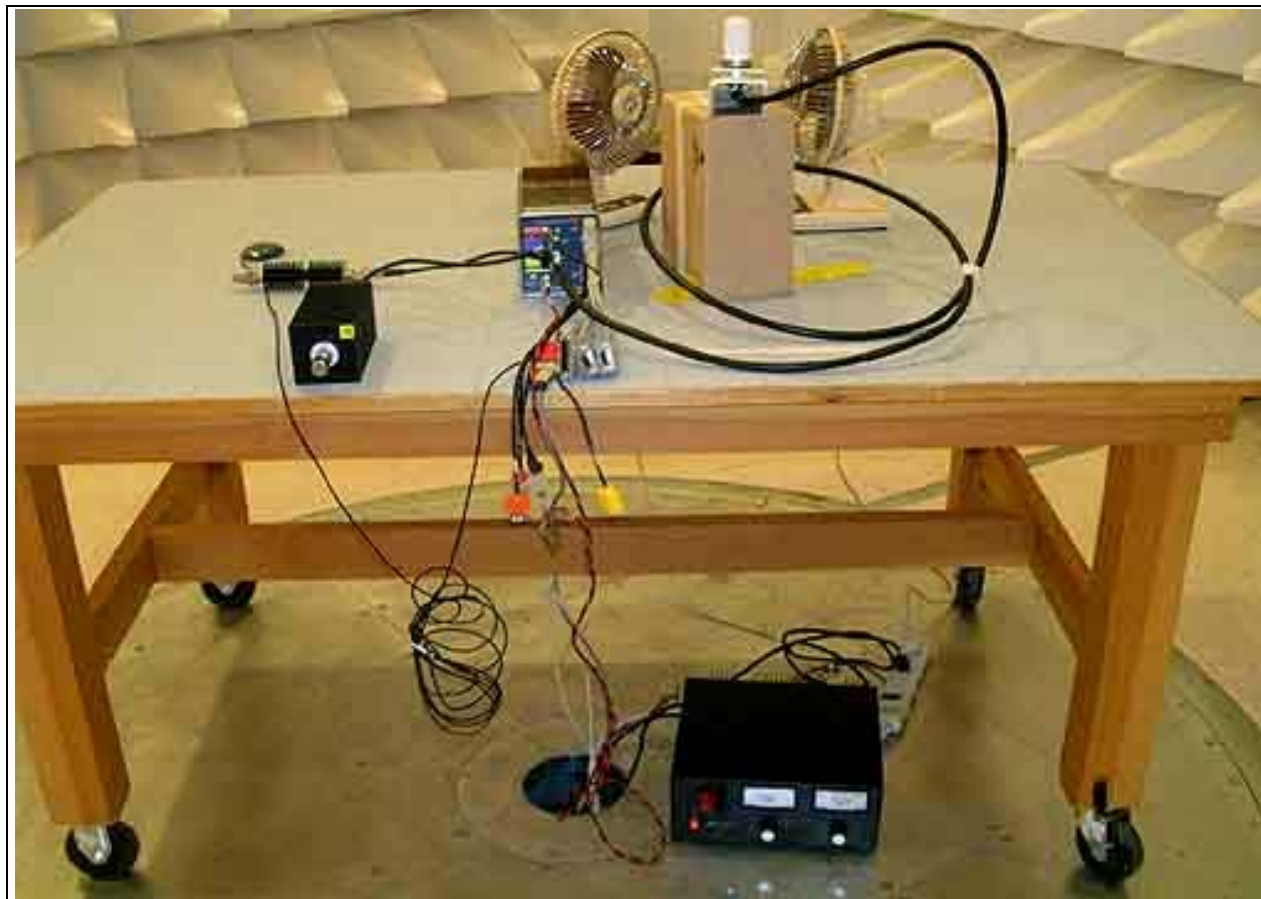
Voltage Variations

**PHOTOGRAPH SHOWING MAINS CONDUCTED EMISSIONS**



Mains Conducted Emissions - Front View

**PHOTOGRAPH SHOWING RADIATED EMISSIONS**



Radiated Emissions - Front View

**PHOTOGRAPH SHOWING RADIATED EMISSIONS**



Radiated Emissions - Back View



**PHOTOGRAPH SHOWING DIRECT CONNECT TEST SETUP**



## APPENDIX B

### TEST EQUIPMENT LIST

#### *FCC 15.31*

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02673	Agilent	E4446A	US44300437	061606	061607
Digital multi meter	01505	Fluke	85	65560492	062905	062907

#### *FCC 15.207*

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02673	Agilent	E4446A	US44300437	052706	052708
5m Cable Set	P05444	Bothell	NA	P05444	112805	112807
High Pass Filter	01717	Allen	F3440-P005	F3440-P005	071706	071708
Attenuator	P05506	BNC	10dB	7	050106	050108
LISN	01492	EMCO	3816/2NM	9606-1049	052605	052607

#### *FCC 15.209 & 15.247(d) radiated emissions and bandedge*

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
<b>9kHz-30MHz</b>						
Active Loop ant	00052	Emco	6502	2156	022006	022008
<b>30MHz-1000MHz</b>						
Bothell 5m Cable Set	P05444	NA	NA	P05444	112805	112807
PreAmp	01517	HP	8447D	2944A08601	071006	071008
BILOG	1993	Chase	CBL6111C	2456	021405	021407
Spectrum Analyzer	02673	Agilent	E4446A	US44300437	061606	061607
<b>1GHz-18GHz</b>						
2.4 GHz HPF (Bothell's)	02745	K&L	11SH10-3000	2	030806	030808
2.4 GHz LPF (Bothell's)	02040	K&L	11SL10-20000	7	030706	030708
1 GHz HPG (Bothell's)	02750	K&L	9SH10-1000	2	030706	030708
Pre-amp	1271	HP	83017A	3123A00464	100305	100307
Cable Helix	P04085	Andrew	NA	NA	031506	031508
Cable 30MHz-40GHz	P05422	Pasternack	NA	NA	051106	051108
Cable 30MHz-40GHz	P05206	Pasternack	NA	NA	020805	020807
Horn Antenna	1412	EMCO	3115	9006-4854	010605	010607
<b>18GHz-26GHz</b>						
18-26.5 GHz Horn Antenna	02742	Dorado	GH-42-25	05-1203	041406	041408

#### *FCC 15.247 (a)(2), (b)(3), (d) conducted & (e)*

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02673	Agilent	E4446A	US44300437	061606	061607

**APPENDIX C**  
**MEASUREMENT DATA SHEETS**



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

Customer: **Meteor Communication Corporation.**  
 Specification: **FCC 15.207(a) - AVE**  
 Work Order #: **85716** Date: 11/14/2006  
 Test Type: **Conducted Emissions** Time: 13:56:02  
 Equipment: **Multiband Mobile Transceiver** Sequence#: 33  
 Manufacturer: Meteor Communications Corporation Tested By: Ryan Rutledge  
 Model: 6120 120V 60Hz  
 S/N: 573

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

Function	Manufacturer	Model #	S/N
Multiband Mobile Transceiver*	Meteor Communications Corporation	6120	573

**Support Devices:**

Function	Manufacturer	Model #	S/N
USB Thumb drive	Linear	NA	NA
2.4 GHz Antenna	Antenex	TRA24003P	38666
GPS Antenna	Synergy System	SMA-35	10001339
Laptop	HP	Pavilion 4500	CNF3361RKW
Power Supply	Cosel	PBA300F-15	6220813SR

**Test Conditions / Notes:**

The vehicular mounted EUT is placed on the wooden table. Low band antenna port is connected to a 100Watt load. High Band antenna port is connected to 50Watt load. 802.11b antenna port is connected to 2.4 GHz antenna. GPS receiving antenna is connected to GPS antenna. I/O port is connected to a dongle with a Parallel port and three RS232s. One of the RS232 ports is connected to COM port of a remote support laptop. Parallel and two RS232s are left unpopulated. Ethernet and USB port: Terminated to a USB thumb drive, the other is left unpopulated. Two Ethernet ports are connected to support laptop via STP. DC Power is connected to a support DC power supply placed under the wooden table. The Laptop is running test software to exercise the EUT. Operating modes: Hi Band Frequency = 156 MHz receive mode, 802.11b transmit mode, GPS receive mode. 13.6VDC (120/60Hz, support AC Power supply), 19°C, 38% relative humidity. Cosel support power supply, radio operating as stated above.

**Transducer Legend:**

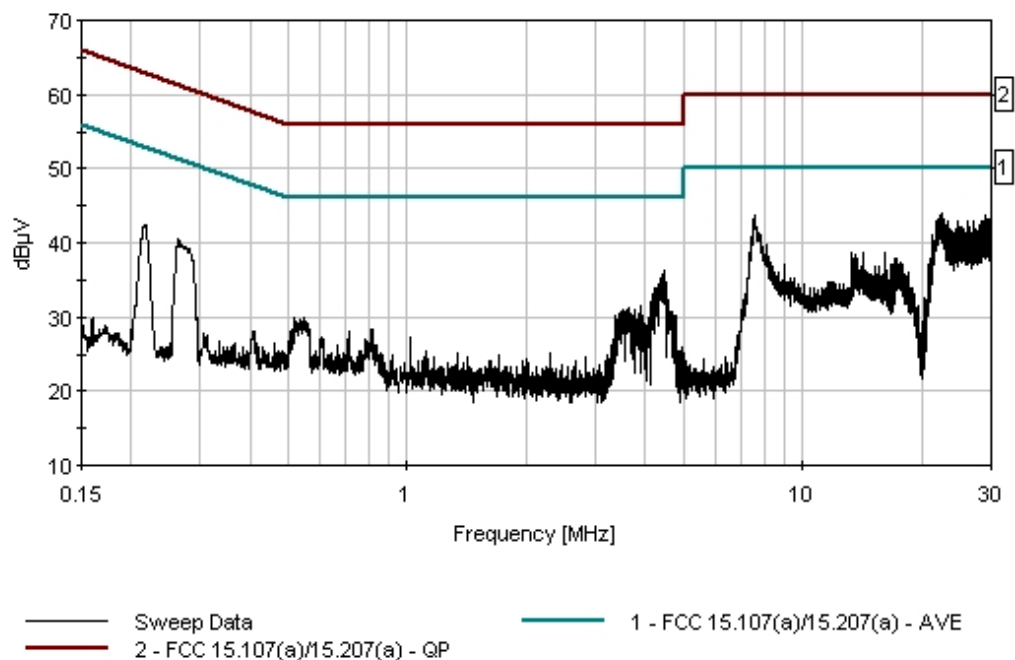
T1=ATT-ANP05506-050106	T2=AN1492 Neutral EMCO 3816/2NM
T3=Bothell 5 meter cable set	

**Measurement Data:** Reading listed by margin. Test Lead: Neutral

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	22.518M	32.8	+10.0	+0.4	+0.7		+0.0	43.9	50.0	-6.1	Neutr
2	7.552M	33.0	+10.0	+0.2	+0.4		+0.0	43.6	50.0	-6.4	Neutr
3	28.981M	32.6	+10.0	+0.2	+0.8		+0.0	43.6	50.0	-6.4	Neutr
4	21.662M	32.0	+10.0	+0.4	+0.6		+0.0	43.0	50.0	-7.0	Neutr
5	24.762M	31.8	+10.0	+0.4	+0.7		+0.0	42.9	50.0	-7.1	Neutr

6	27.852M	31.3	+10.0	+0.3	+0.7	+0.0	42.3	50.0	-7.7	Neutr
7	26.443M	31.1	+10.0	+0.3	+0.7	+0.0	42.1	50.0	-7.9	Neutr
8	4.458M	26.0	+10.0	+0.1	+0.3	+0.0	36.4	46.0	-9.6	Neutr
9	216.539k	32.4	+10.0	+0.0	+0.0	+0.0	42.4	53.0	-10.6	Neutr
10	4.411M	25.0	+10.0	+0.1	+0.3	+0.0	35.4	46.0	-10.6	Neutr
11	264.171k	30.4	+10.0	+0.0	+0.0	+0.0	40.4	51.3	-10.9	Neutr
12	4.488M	24.6	+10.0	+0.1	+0.3	+0.0	35.0	46.0	-11.0	Neutr
13	14.215M	28.0	+10.0	+0.2	+0.5	+0.0	38.7	50.0	-11.3	Neutr
14	16.223M	27.9	+10.0	+0.3	+0.5	+0.0	38.7	50.0	-11.3	Neutr
15	13.351M	27.9	+10.0	+0.2	+0.5	+0.0	38.6	50.0	-11.4	Neutr
16	4.216M	23.4	+10.0	+0.1	+0.3	+0.0	33.8	46.0	-12.2	Neutr
17	4.524M	23.4	+10.0	+0.1	+0.3	+0.0	33.8	46.0	-12.2	Neutr
18	17.079M	26.9	+10.0	+0.3	+0.6	+0.0	37.8	50.0	-12.2	Neutr

CKC Laboratories Date: 11/14/2006 Time: 13:56:02 Meteor Communication Corporation. WVO#: 85716  
 FCC 15.107(a)/15.207(a) - AVE Test Lead: Neutral 120V 60Hz Sequence#: 33 Polarity: Neutral  
 Notes: The vehicular mounted EUT is placed on the wooden table. Low band antenna port is connected to a 100Watt load



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

Customer: **Meteor Communication Corporation.**

Specification: **FCC 15.207(a) - AVE**

Work Order #: **85716**

Date: 11/14/2006

Test Type: **Conducted Emissions**

Time: 13:47:40

Equipment: **Multiband Mobile Transceiver**

Sequence#: 32

Manufacturer: Meteor Communications Corporation

Tested By: Ryan Rutledge

Model: 6120

120V 60Hz

S/N: 573

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

Function	Manufacturer	Model #	S/N
Multiband Mobile Transceiver*	Meteor Communications Corporation	6120	573

**Support Devices:**

Function	Manufacturer	Model #	S/N
USB Thumb drive	Linear	NA	NA
2.4 GHz Antenna	Antenex	TRA24003P	38666
GPS Antenna	Synergy System	SMA-35	10001339
Laptop	HP	Pavilion 4500	CNF3361RKW
Power Supply	Cosel	PBA300F-15	6220813SR

**Test Conditions / Notes:**

The vehicular mounted EUT is placed on the wooden table. Low band antenna port is connected to a 100Watt load. High Band antenna port is connected to 50Watt load. 802.11b antenna port is connected to 2.4 GHz antenna. GPS receiving antenna is connected to GPS antenna. I/O port is connected to a dongle with a Parallel port and three RS232s. One of the RS232 ports is connected to COM port of a remote support laptop. Parallel and two RS232s are left unpopulated. Ethernet and USB port: Terminated to a USB thumb drive, the other is left unpopulated. Two Ethernet ports are connected to support laptop via STP. DC Power is connected to a support DC power supply placed under the wooden table. The Laptop is running test software to exercise the EUT. Operating modes: Hi Band Frequency = 156 MHz receive mode, 802.11b transmit mode, GPS receive mode. 13.6VDC (120/60Hz, support AC Power supply), 19°C, 38% relative humidity. Cosel support power supply, radio operating as stated above.

**Transducer Legend:**

T1=ATT-ANP05506-050106	T2=AN1492 Line EMCO 3816/2NM
T3=Bothell 5 meter cable set	

**Measurement Data:**

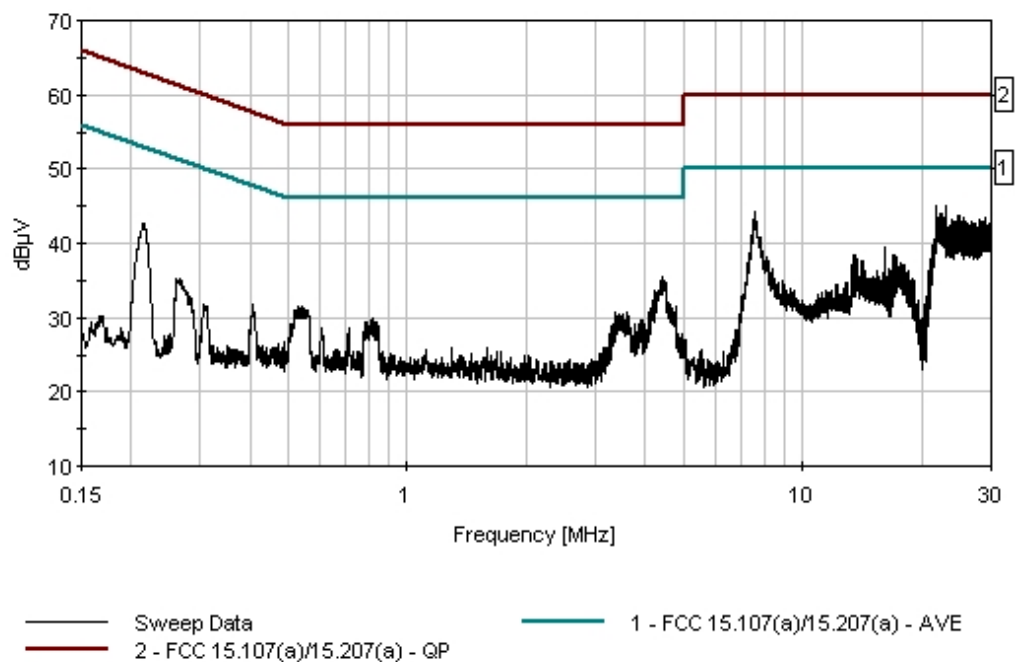
Reading listed by margin.

Test Lead: Line

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	21.662M	34.1	+10.0	+0.3	+0.6		+0.0	45.0	50.0	-5.0	Line
2	23.076M	33.9	+10.0	+0.4	+0.7		+0.0	45.0	50.0	-5.0	Line
3	7.597M	33.6	+10.0	+0.2	+0.4		+0.0	44.2	50.0	-5.8	Line
4	22.220M	33.1	+10.0	+0.3	+0.6		+0.0	44.0	50.0	-6.0	Line
5	24.758M	32.5	+10.0	+0.4	+0.7		+0.0	43.6	50.0	-6.4	Line

6	25.039M	32.5	+10.0	+0.4	+0.7	+0.0	43.6	50.0	-6.4	Line
7	25.609M	32.4	+10.0	+0.4	+0.7	+0.0	43.5	50.0	-6.5	Line
8	28.978M	32.5	+10.0	+0.2	+0.8	+0.0	43.5	50.0	-6.5	Line
9	28.137M	32.1	+10.0	+0.3	+0.7	+0.0	43.1	50.0	-6.9	Line
10	29.832M	32.0	+10.0	+0.2	+0.8	+0.0	43.0	50.0	-7.0	Line
11	26.738M	31.9	+10.0	+0.3	+0.7	+0.0	42.9	50.0	-7.1	Line
12	215.085k	32.7	+10.0	+0.0	+0.0	+0.0	42.7	53.0	-10.3	Line
13	16.232M	28.7	+10.0	+0.3	+0.5	+0.0	39.5	50.0	-10.5	Line
14	4.415M	25.0	+10.0	+0.1	+0.3	+0.0	35.4	46.0	-10.6	Line
15	13.477M	27.7	+10.0	+0.3	+0.5	+0.0	38.5	50.0	-11.5	Line
16	17.394M	27.2	+10.0	+0.3	+0.6	+0.0	38.1	50.0	-11.9	Line
17	17.142M	27.0	+10.0	+0.3	+0.6	+0.0	37.9	50.0	-12.1	Line
18	4.220M	23.1	+10.0	+0.1	+0.3	+0.0	33.5	46.0	-12.5	Line

CKC Laboratories Date: 11/14/2006 Time: 13:47:40 Meteor Communication Corporation, WFO#: 85716  
FCC 15.107(a)/15.207(a) - AVE Test Lead: Line 120V 60Hz Sequence#: 32 Polarity: Line  
Notes: The vehicular mounted EUT is placed on the wooden table. Low band antenna port is connected to a 100Watt load



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

Customer: **Meteor Communication Corporation.**  
 Specification: **FCC 15.207(a) - AVE**  
 Work Order #: **85716** Date: 11/14/2006  
 Test Type: **Conducted Emissions** Time: 14:03:31  
 Equipment: **Multiband Mobile Transceiver** Sequence#: 34  
 Manufacturer: Meteor Communications Corporation Tested By: Ryan Rutledge  
 Model: 6120 120V 60Hz  
 S/N: 573

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

Function	Manufacturer	Model #	S/N
Multiband Mobile Transceiver*	Meteor Communications Corporation	6120	573

**Support Devices:**

Function	Manufacturer	Model #	S/N
USB Thumb drive	Linear	NA	NA
2.4 GHz Antenna	Antenex	TRA24003P	38666
GPS Antenna	Synergy System	SMA-35	10001339
Laptop	HP	Pavilion 4500	CNF3361RKW
Power Supply	Cosel	PBA300F-15	6220813SR

**Test Conditions / Notes:**

The vehicular mounted EUT is placed on the wooden table. Low band antenna port is connected to a 100Watt load. High Band antenna port is connected to 50Watt load. 802.11b antenna port is connected to 2.4 GHz antenna. GPS receiving antenna is connected to GPS antenna. I/O port is connected to a dongle with a Parallel port and three RS232s. One of the RS232 ports is connected to COM port of a remote support laptop. Parallel and two RS232s are left unpopulated. Ethernet and USB port: Terminated to a USB thumb drive, the other is left unpopulated. Two Ethernet ports are connected to support laptop via STP. DC Power is connected to a support DC power supply placed under the wooden table. The Laptop is running test software to exercise the EUT. Operating modes: Lo Band Frequency = 44.5 MHz receive mode, 802.11b transmit mode, GPS receive mode. 13.6VDC (120/60Hz, support AC Power supply), 19°C, 38% relative humidity. Cosel support power supply, radio operating as stated above.

**Transducer Legend:**

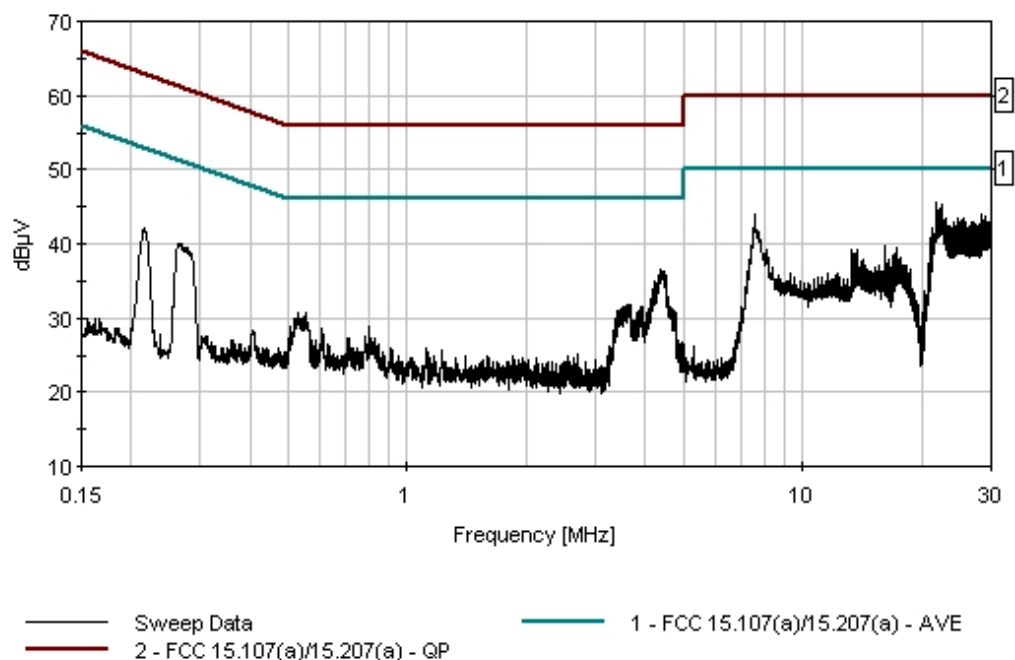
T1=ATT-ANP05506-050106	T2=AN1492 Neutral EMCO 3816/2NM
T3=Bothell 5 meter cable set	

**Measurement Data:** Reading listed by margin. Test Lead: Neutral

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	21.662M	34.5	+10.0	+0.4	+0.6		+0.0	45.5	50.0	-4.5	Neutr
2	22.581M	34.1	+10.0	+0.4	+0.7		+0.0	45.2	50.0	-4.8	Neutr
3	7.588M	33.5	+10.0	+0.2	+0.4		+0.0	44.1	50.0	-5.9	Neutr
4	4.367M	26.1	+10.0	+0.1	+0.3		+0.0	36.5	46.0	-9.5	Neutr
5	16.232M	28.9	+10.0	+0.3	+0.5		+0.0	39.7	50.0	-10.3	Neutr

6	13.360M	28.6	+10.0	+0.2	+0.5	+0.0	39.3	50.0	-10.7	Neutr
7	216.903k	32.1	+10.0	+0.0	+0.0	+0.0	42.1	52.9	-10.8	Neutr
8	267.444k	30.1	+10.0	+0.0	+0.0	+0.0	40.1	51.2	-11.1	Neutr
9	3.656M	21.4	+10.0	+0.1	+0.3	+0.0	31.8	46.0	-14.2	Neutr
10	529.238k	20.5	+10.0	+0.0	+0.1	+0.0	30.6	46.0	-15.4	Neutr

CKC Laboratories Date: 11/14/2006 Time: 14:03:31 Meteor Communication Corporation, W/O#: 85716  
FCC 15.107(a)/15.207(a) - AVE Test Lead: Neutral 120V 60Hz Sequence#: 34 Polarity: Neutral  
Notes: The vehicular mounted EUT is placed on the wooden table. Low band antenna port is connected to a 100Watt load





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

Customer: **Meteor Communication Corporation.**  
 Specification: **FCC 15.207- AVE**  
 Work Order #: **85716** Date: 11/14/2006  
 Test Type: **Conducted Emissions** Time: 14:14:30  
 Equipment: **Multiband Mobile Transceiver** Sequence#: 35  
 Manufacturer: Meteor Communications Corporation Tested By: Ryan Rutledge  
 Model: 6120 120V 60Hz  
 S/N: 573

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

Function	Manufacturer	Model #	S/N
Multiband Mobile Transceiver*	Meteor Communications Corporation	6120	573

**Support Devices:**

Function	Manufacturer	Model #	S/N
USB Thumb drive	Linear	NA	NA
2.4 GHz Antenna	Antenex	TRA24003P	38666
GPS Antenna	Synergy System	SMA-35	10001339
Laptop	HP	Pavilion 4500	CNF3361RKW
Power Supply	Cosel	PBA300F-15	6220813SR

**Test Conditions / Notes:**

The vehicular mounted EUT is placed on the wooden table. Low band antenna port is connected to a 100Watt load. High Band antenna port is connected to 50Watt load. 802.11b antenna port is connected to 2.4 GHz antenna. GPS receiving antenna is connected to GPS antenna. I/O port is connected to a dongle with a Parallel port and three RS232s. One of the RS232 ports is connected to COM port of a remote support laptop. Parallel and two RS232s are left unpopulated. Ethernet and USB port: Terminated to a USB thumb drive, the other is left unpopulated. Two Ethernet ports are connected to support laptop via STP. DC Power is connected to a support DC power supply placed under the wooden table. The Laptop is running test software to exercise the EUT. Operating modes: Lo Band Frequency = 44.5 MHz receive mode, 802.11b transmit mode, GPS receive mode. 13.6VDC (120/60Hz, support AC Power supply), 19°C, 38% relative humidity. Cosel support power supply, radio operating as stated above.

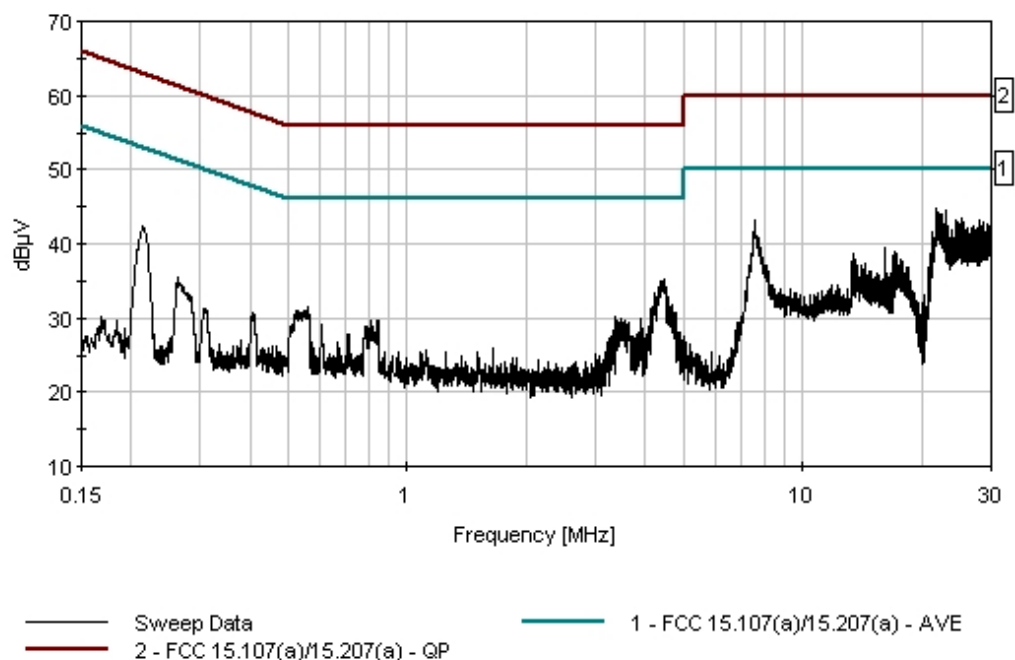
**Transducer Legend:**

T1=ATT-ANP05506-050106	T2=AN1492 Line EMCO 3816/2NM
T3=Bothell 5 meter cable set	

Measurement Data:		Reading listed by margin.				Test Lead: Line					
#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	21.662M	34.0	+10.0	+0.3	+0.6		+0.0	44.9	50.0	-5.1	Line
2	23.130M	33.4	+10.0	+0.4	+0.7		+0.0	44.5	50.0	-5.5	Line
3	7.597M	32.6	+10.0	+0.2	+0.4		+0.0	43.2	50.0	-6.8	Line
4	16.232M	28.8	+10.0	+0.3	+0.5		+0.0	39.6	50.0	-10.4	Line
5	213.994k	32.3	+10.0	+0.0	+0.0		+0.0	42.3	53.0	-10.7	Line

6	4.471M	24.8	+10.0	+0.1	+0.3	+0.0	35.2	46.0	-10.8	Line
7	562.326k	21.3	+10.0	+0.0	+0.1	+0.0	31.4	46.0	-14.6	Line
8	3.369M	19.8	+10.0	+0.1	+0.3	+0.0	30.2	46.0	-15.8	Line
9	261.990k	25.4	+10.0	+0.0	+0.0	+0.0	35.4	51.4	-16.0	Line
10	813.212k	19.4	+10.0	+0.0	+0.2	+0.0	29.6	46.0	-16.4	Line

CKC Laboratories Date: 11/14/2006 Time: 14:14:30 Meteor Communication Corporation, WFO#: 85716  
FCC 15.107(a)/15.207(a) - AVE Test Lead: Line 120V 60Hz Sequence#: 35 Polarity: Line  
Notes: The vehicular mounted EUT is placed on the wooden table. Low band antenna port is connected to a 100Watt load



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

Customer: **Meteor Communication Corporation.**  
 Specification: **FCC 15.209**  
 Work Order #: **85716** Date: 10/25/2006  
 Test Type: **Radiated Scan** Time: 12:08:06  
 Equipment: **Multiband Mobile Transceiver** Sequence#: 3  
 Manufacturer: Meteor Communications Corporation Tested By: Eddie Wong  
 Model: 6120  
 S/N: 573

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

Function	Manufacturer	Model #	S/N
Multiband Mobile Transceiver*	Meteor Communications Corporation	6120	573

**Support Devices:**

Function	Manufacturer	Model #	S/N
USB Thumb drive	Linear	NA	NA
2.4 GHz Antenna	Antenex	TRA24003P	38666
GPS Antenna	Synergy System	SMA-35	10001339
Laptop	HP	Pavilion 4500	CNF3361RKW
Power Supply	Astron	VS-35M	205050015

**Test Conditions / Notes:**

The vehicular mounted EUT is placed on the wooden table. Low band antenna port is connected to a 100Watt load. High Band antenna port is connected to 50Watt load. 802.11b antenna port is connected to 2.4 GHz antenna. GPS receiving antenna is connected to GPS antenna. I/O port is connected to a dongle with a Parallel port and three RS232s. One of the RS232 ports is connected to COM port of a remote support laptop. Parallel and two RS232s are left unpopulated. Ethernet and USB port: Terminated to a USB thumb drive, the other is left unpopulated. Two Ethernet ports are connected to support laptop via STP. DC Power is connected to a support DC power supply placed under the wooden table. The Laptop is running test software to exercise the EUT. Receiver Under test: 802.11b, GPS. 13.6VDC, 19°C, 38% relative humidity. Frequency range of measurement = 30 MHz – 26 GHz. Frequency 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz. 1000 MHz – 26 GHz RBW=1 MHz, VBW=1 MHz.

**Transducer Legend:**

T1=Bothell 5 meter cable set fudged	T2=Chase AN 1993 SN 2458 2/2/05-2/2/07
T3=AMP-AN01517-071006	T4=ANT-AN01412-121305 Model 3115
T5=CAB-P05419-031506	T6=AMP-ANP01271-100305 - HP 83017A 26.5 GHz
T7=P05206 40GHz	T8=Cable ANP05422 - 60"

**Measurement Data:**

Reading listed by margin.

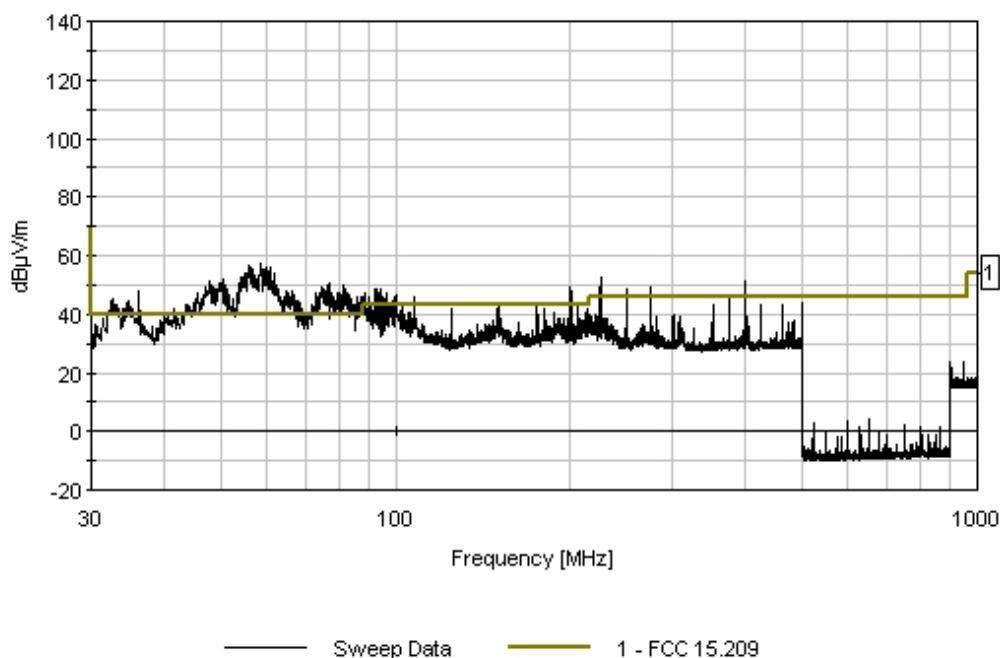
Test Distance: 3 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7	T8	Table	dBμV/m	dBμV/m	dB	Ant
1	58.718M	55.6	+1.1	+9.6	-27.6	+0.0	+0.0	38.7	40.0	-1.3	Vert
QP			+0.0	+0.0	+0.0	+0.0					162
^	58.718M	59.0	+1.1	+9.6	-27.6	+0.0	+0.0	42.1	40.0	+2.1	Vert
			+0.0	+0.0	+0.0	+0.0					162

3	30.000M	41.7	+0.8 +0.0	+22.3 +0.0	-27.5 +0.0	+0.0 +0.0	+0.0	37.3	40.0	-2.7	Vert 99
4	34.658M	44.4	+0.8 +0.0	+19.4 +0.0	-27.5 +0.0	+0.0 +0.0	+0.0	37.1	40.0	-2.9	Vert 99
5	62.010M	53.4	+1.1 +0.0	+9.6 +0.0	-27.5 +0.0	+0.0 +0.0	+0.0	36.6	40.0	-3.4	Vert 99
6	32.595M QP	42.6	+0.8 +0.0	+20.6 +0.0	-27.5 +0.0	+0.0 +0.0	+0.0 112	36.5	40.0	-3.5	Vert 130
^	32.595M	44.5	+0.8 +0.0	+20.6 +0.0	-27.5 +0.0	+0.0 +0.0	+0.0 112	38.4	40.0	-1.6	Vert 130
8	50.431M	51.3	+1.0 +0.0	+11.6 +0.0	-27.7 +0.0	+0.0 +0.0	+0.0	36.2	40.0	-3.8	Vert 99
9	59.281M QP	52.9	+1.1 +0.0	+9.5 +0.0	-27.6 +0.0	+0.0 +0.0	+0.0 47	35.9	40.0	-4.1	Vert 163
^	59.281M	57.4	+1.1 +0.0	+9.5 +0.0	-27.6 +0.0	+0.0 +0.0	+0.0 47	40.4	40.0	+0.4	Vert 163
11	60.208M QP	53.1	+1.1 +0.0	+9.3 +0.0	-27.6 +0.0	+0.0 +0.0	+0.0 360	35.9	40.0	-4.1	Vert 99
^	60.208M	57.4	+1.1 +0.0	+9.3 +0.0	-27.6 +0.0	+0.0 +0.0	+0.0 360	40.2	40.0	+0.2	Vert 99
13	55.839M QP	52.1	+1.1 +0.0	+10.2 +0.0	-27.6 +0.0	+0.0 +0.0	+0.0 360	35.8	40.0	-4.2	Vert 99
^	55.839M	57.0	+1.1 +0.0	+10.2 +0.0	-27.6 +0.0	+0.0 +0.0	+0.0 360	40.7	40.0	+0.7	Vert 99
15	56.553M QP	52.2	+1.1 +0.0	+10.1 +0.0	-27.6 +0.0	+0.0 +0.0	+0.0 7	35.8	40.0	-4.2	Vert 130
^	56.553M	55.3	+1.1 +0.0	+10.1 +0.0	-27.6 +0.0	+0.0 +0.0	+0.0	38.9	40.0	-1.1	Vert 99
17	48.434M	49.7	+1.0 +0.0	+12.5 +0.0	-27.7 +0.0	+0.0 +0.0	+0.0	35.5	40.0	-4.5	Vert 99
18	55.318M QP	51.5	+1.1 +0.0	+10.4 +0.0	-27.6 +0.0	+0.0 +0.0	+0.0	35.4	40.0	-4.6	Vert 141
^	55.318M	54.8	+1.1 +0.0	+10.4 +0.0	-27.6 +0.0	+0.0 +0.0	+0.0	38.7	40.0	-1.3	Vert 141
20	60.812M QP	52.4	+1.1 +0.0	+9.4 +0.0	-27.6 +0.0	+0.0 +0.0	+0.0 1	35.3	40.0	-4.7	Vert 99
^	60.812M	57.6	+1.1 +0.0	+9.4 +0.0	-27.6 +0.0	+0.0 +0.0	+0.0 1	40.5	40.0	+0.5	Vert 99
22	47.037M	48.6	+1.0 +0.0	+13.3 +0.0	-27.6 +0.0	+0.0 +0.0	+0.0	35.3	40.0	-4.7	Vert 99
23	34.126M	41.8	+0.8 +0.0	+19.7 +0.0	-27.5 +0.0	+0.0 +0.0	+0.0	34.8	40.0	-5.2	Vert 99
24	47.794M QP	48.3	+1.0 +0.0	+12.9 +0.0	-27.7 +0.0	+0.0 +0.0	+0.0 360	34.5	40.0	-5.5	Vert 139
^	47.794M	52.7	+1.0 +0.0	+12.9 +0.0	-27.7 +0.0	+0.0 +0.0	+0.0 360	38.9	40.0	-1.1	Vert 139
26	45.706M	46.8	+1.0 +0.0	+14.0 +0.0	-27.6 +0.0	+0.0 +0.0	+0.0	34.2	40.0	-5.8	Vert 99
27	51.096M	49.4	+1.0 +0.0	+11.4 +0.0	-27.7 +0.0	+0.0 +0.0	+0.0	34.1	40.0	-5.9	Vert 99

28	399.998M	45.9	+3.0	+17.3	-27.7	+0.0	+0.0	38.5	46.0	-7.5	Vert
	QP		+0.0	+0.0	+0.0	+0.0					196
^	399.972M	49.5	+3.0	+17.3	-27.7	+0.0	+0.0	42.1	46.0	-3.9	Vert
			+0.0	+0.0	+0.0	+0.0					99
30	3273.333M	34.9	+0.0	+0.0	+0.0	+30.4	+0.0	38.4	54.0	-15.6	Vert
	Ave		+2.4	-33.3	+1.3	+2.7	360				110
^	3273.333M	42.6	+0.0	+0.0	+0.0	+30.4	+0.0	46.1	54.0	-7.9	Vert
			+2.4	-33.3	+1.3	+2.7	360				110
32	36.256M	28.4	+0.9	+18.5	-27.6	+0.0	+0.0	20.2	40.0	-19.8	Vert
	QP		+0.0	+0.0	+0.0	+0.0	275				162
^	36.256M	47.5	+0.9	+18.5	-27.6	+0.0	+0.0	39.3	40.0	-0.7	Vert
			+0.0	+0.0	+0.0	+0.0					99

CKC Laboratories Date: 10/25/2006 Time: 12:08:06 Meteor Communication Corporation, WFO#: 85716  
FCC 15.209 Test Distance: 3 Meters Sequence#: 3 Polarity: Vert  
Notes: The vehicular mounted EUT is placed on the wooden table. Low band antenna port is connected to a 100Watt load



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

Customer: **Meteor Communication Corporation.**  
 Specification: **FCC 15.209**  
 Work Order #: **85716** Date: 10/25/2006  
 Test Type: **Radiated Scan** Time: 12:04:52  
 Equipment: **Multiband Mobile Transceiver** Sequence#: 4  
 Manufacturer: Meteor Communications Corporation Tested By: Eddie Wong  
 Model: 6120  
 S/N: 573

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

Function	Manufacturer	Model #	S/N
Multiband Mobile Transceiver*	Meteor Communications Corporation	6120	573

**Support Devices:**

Function	Manufacturer	Model #	S/N
USB Thumb drive	Linear	NA	NA
2.4 GHz Antenna	Antenex	TRA24003P	38666
GPS Antenna	Synergy System	SMA-35	10001339
Laptop	HP	Pavilion 4500	CNF3361RKW
Power Supply	Astron	VS-35M	205050015

**Test Conditions / Notes:**

The vehicular mounted EUT is placed on the wooden table. Low band antenna port is connected to a 100Watt load. High Band antenna port is connected to 50Watt load. 802.11b antenna port is connected to 2.4 GHz antenna. GPS receiving antenna is connected to GPS antenna. I/O port is connected to a dongle with a Parallel port and three RS232s. One of the RS232 ports is connected to COM port of a remote support laptop. Parallel and two RS232s are left unpopulated. Ethernet and USB port: Terminated to a USB thumb drive, the other is left unpopulated. Two Ethernet ports are connected to support laptop via STP. DC Power is connected to a support DC power supply placed under the wooden table. The Laptop is running test software to exercise the EUT. Receiver Under test: 802.11b, GPS. 13.6VDC, 19°C, 38% relative humidity. Frequency range of measurement = 30 MHz - 26 GHz. Frequency 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz. 1-26 GHz, VBW=RBW=1MHz

**Transducer Legend:**

T1=Bothell 5 meter cable set fudged	T2=Chase AN 1993 SN 2458 2/2/05-2/2/07
T3=AMP-AN01517-071006	T4=ANT-AN01412-121305 Model 3115
T5=CAB-P05419-031506	T6=AMP-ANP01271-100305 - HP 83017A 26.5 GHz
T7=P05206 40GHz	T8=Cable ANP05422 - 60"

**Measurement Data:**

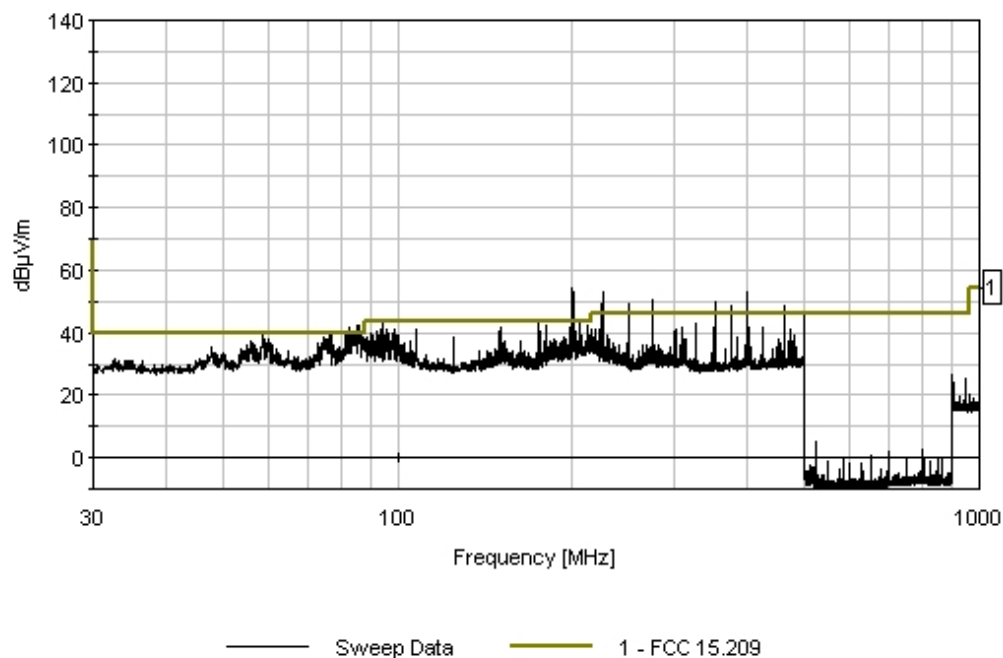
Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7	T8	Table	dBμV/m	dBμV/m	dB	Ant
1	400.004M	50.9	+3.0	+17.3	-27.7	+0.0	+0.0	43.5	46.0	-2.5	Horiz
QP			+0.0	+0.0	+0.0	+0.0	101				99
^	400.004M	52.1	+3.0	+17.3	-27.7	+0.0	+0.0	44.7	46.0	-1.3	Horiz
			+0.0	+0.0	+0.0	+0.0	101				99

3	199.997M	53.7	+2.1 +0.0	+9.6 +0.0	-27.4 +0.0	+0.0 +0.0	+0.0 136	38.0	43.5	-5.5	Horiz 198
4	460.805M	47.0	+3.1 +0.0	+18.1 +0.0	-28.0 +0.0	+0.0 +0.0	+0.0 173	40.2	46.0	-5.8	Horiz 99
5	199.972M	52.9	+2.1 +0.0	+9.6 +0.0	-27.4 +0.0	+0.0 +0.0	+0.0 360	37.2	43.5	-6.3	Horiz 99
6	352.044M	48.2	+2.8 +0.0	+15.7 +0.0	-27.3 +0.0	+0.0 +0.0	+0.0 360	39.4	46.0	-6.6	Horiz 99
7	500.032M	45.7	+3.3 +0.0	+18.6 +0.0	-28.2 +0.0	+0.0 +0.0	+0.0 360	39.4	46.0	-6.6	Horiz 99
8	374.987M	46.7	+2.9 +0.0	+16.5 +0.0	-27.5 +0.0	+0.0 +0.0	+0.0 360	38.6	46.0	-7.4	Horiz 99
9	224.957M	51.6	+2.1 +0.0	+11.2 +0.0	-27.0 +0.0	+0.0 +0.0	+0.0 360	37.9	46.0	-8.1	Horiz 99
10	274.927M	49.2	+2.4 +0.0	+13.2 +0.0	-27.0 +0.0	+0.0 +0.0	+0.0 360	37.8	46.0	-8.2	Horiz 99
11	949.974M	36.6	+4.9 +0.0	+23.9 +0.0	-27.6 +0.0	+0.0 +0.0	+0.0 360	37.8	46.0	-8.2	Horiz 99
12	900.032M	37.7	+4.6 +0.0	+23.2 +0.0	-27.9 +0.0	+0.0 +0.0	+0.0 360	37.6	46.0	-8.4	Horiz 99
13	249.942M	47.8	+2.3 +0.0	+12.7 +0.0	-27.0 +0.0	+0.0 +0.0	+0.0 360	35.8	46.0	-10.2	Horiz 99
14	799.972M	37.9	+4.4 +0.0	+22.0 +0.0	-28.5 +0.0	+0.0 +0.0	+0.0 360	35.8	46.0	-10.2	Horiz 99
15	525.017M	41.5	+3.4 +0.0	+18.9 +0.0	-28.4 +0.0	+0.0 +0.0	+0.0 360	35.4	46.0	-10.6	Horiz 99
16	3273.333M Ave	39.9	+0.0 +2.4	+0.0 -33.3	+0.0 +1.3	+30.4 +2.7	+0.0 99	43.4	54.0	-10.6	Horiz 154
^	3273.333M	44.7	+0.0 +2.4	+0.0 -33.3	+0.0 +1.3	+30.4 +2.7	+0.0 99	48.2	54.0	-5.8	Horiz 154
18	895.948M	34.8	+4.6 +0.0	+23.2 +0.0	-27.9 +0.0	+0.0 +0.0	+0.0 360	34.7	46.0	-11.3	Horiz 99
19	863.996M	35.2	+4.5 +0.0	+22.8 +0.0	-28.0 +0.0	+0.0 +0.0	+0.0 360	34.5	46.0	-11.5	Horiz 99
20	849.942M	34.9	+4.5 +0.0	+22.6 +0.0	-28.0 +0.0	+0.0 +0.0	+0.0 360	34.0	46.0	-12.0	Horiz 99
21	700.032M	37.6	+4.0 +0.0	+20.6 +0.0	-28.4 +0.0	+0.0 +0.0	+0.0 360	33.8	46.0	-12.2	Horiz 99
22	223.996M	46.9	+2.1 +0.0	+11.2 +0.0	-27.0 +0.0	+0.0 +0.0	+0.0 360	33.2	46.0	-12.8	Horiz 99
23	898.590M	33.3	+4.6 +0.0	+23.2 +0.0	-27.9 +0.0	+0.0 +0.0	+0.0 360	33.2	46.0	-12.8	Horiz 99
24	474.927M	39.2	+3.2 +0.0	+18.3 +0.0	-27.9 +0.0	+0.0 +0.0	+0.0 360	32.8	46.0	-13.2	Horiz 99
25	1000.004M	47.3	+0.0 +1.2	+0.0 -37.2	+0.0 +0.7	+23.5 +1.5	+0.0 288	37.0	54.0	-17.0	Horiz 154

CKC Laboratories Date: 10/25/2006 Time: 12:04:52 Meteor Communication Corporation. WVO#: 85716  
 FCC 15.209 Test Distance: 3 Meters Sequence#: 4 Polarity: Horiz  
 Notes: The vehicular mounted EUT is placed on the wooden table. Low band antenna port is connected to a 100Watt load





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

Customer: **Meteor Communication Corporation.**  
 Specification: **FCC 15.247 (d) (FCC 15.205 restricted band)**  
 Work Order #: **85716** Date: 10/25/2006  
 Test Type: **Radiated Scan** Time: 14:48:32  
 Equipment: **Multiband Mobile Transceiver** Sequence#: 7  
 Manufacturer: Meteor Communications Corporation Tested By: Eddie Wong  
 Model: 6120  
 S/N: 573

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

Function	Manufacturer	Model #	S/N
Multiband Mobile Transceiver*	Meteor Communications Corporation	6120	573

**Support Devices:**

Function	Manufacturer	Model #	S/N
USB Thumb drive	Linear	NA	NA
2.4 GHz Antenna	Antenex	TRA24003P	38666
GPS Antenna	Synergy System	SMA-35	10001339
Laptop	HP	Pavilion 4500	CNF3361RKW
Power Supply	Astron	VS-35M	205050015

**Test Conditions / Notes:**

The vehicular mounted EUT is placed on the wooden table. Low band antenna port is connected to a 100Watt load. High Band antenna port is connected to 50Watt load. 802.11b antenna port is connected to 2.4 GHz antenna. GPS receiving antenna is connected to GPS antenna. I/O port is connected to a dongle with a Parallel port and three RS232s. One of the RS232 ports is connected to COM port of a remote support laptop. Parallel and two RS232s are left unpopulated. Ethernet and USB port: Terminated to a USB thumb drive, the other is left unpopulated. Two Ethernet ports are connected to support laptop via STP. DC Power is connected to a support DC power supply placed under the wooden table. The Laptop is running test software to exercise the EUT. Radio Under test: 802.11b, Frequency = 2437 MHz. 13.6VDC, 19°C, 38% relative humidity. Frequency range of measurement = 9 kHz - 26 GHz. Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz - 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz, 1 GHz-26GHz, RBW=1MHz, VBW=1MHz.

**Transducer Legend:**

T1=ANT-AN01412-121305 Model 3115	T2=CAB-P05419-031506
T3=AMP-ANP01271-100305 - HP 83017A 26.5 GHz	T4=P05206 40GHz
T5=Cable ANP05422 - 60"	T6=Filter 3GHz HP AN02745

**Measurement Data:**

Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5 dB	T6 dB	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	4873.200M	34.4	+33.4 +3.4	+3.0 +0.3	-33.0	+1.6	+0.0 37	43.1	54.0	-10.9	Horiz 114
2	4879.800M	34.1	+33.4 +3.4	+3.0 +0.3	-33.0	+1.6	+0.0 126	42.8	54.0	-11.2	Vert 117

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

Customer: **Meteor Communication Corporation.**  
 Specification: **FCC 15.247 (d) (FCC 15.205 restricted band)**  
 Work Order #: **85716** Date: 10/25/2006  
 Test Type: **Radiated Scan** Time: 14:32:51  
 Equipment: **Multiband Mobile Transceiver** Sequence#: 6  
 Manufacturer: Meteor Communications Corporation Tested By: Eddie Wong  
 Model: 6120  
 S/N: 573

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

Function	Manufacturer	Model #	S/N
Multiband Mobile Transceiver*	Meteor Communications Corporation	6120	573

**Support Devices:**

Function	Manufacturer	Model #	S/N
USB Thumb drive	Linear	NA	NA
2.4 GHz Antenna	Antenex	TRA24003P	38666
GPS Antenna	Synergy System	SMA-35	10001339
Laptop	HP	Pavilion 4500	CNF3361RKW
Power Supply	Astron	VS-35M	205050015

**Test Conditions / Notes:**

The vehicular mounted EUT is placed on the wooden table. Low band antenna port is connected to a 100Watt load. High Band antenna port is connected to 50Watt load. 802.11b antenna port is connected to 2.4 GHz antenna. GPS receiving antenna is connected to GPS antenna. I/O port is connected to a dongle with a Parallel port and three RS232s. One of the RS232 ports is connected to COM port of a remote support laptop. Parallel and two RS232s are left unpopulated. Ethernet and USB port: Terminated to a USB thumb drive, the other is left unpopulated. Two Ethernet ports are connected to support laptop via STP. DC Power is connected to a support DC power supply placed under the wooden table. The Laptop is running test software to exercise the EUT. Radio Under test: 802.11b, Frequency = 2412 MHz. 13.6VDC, 19°C, 38% relative humidity. Frequency range of measurement = 9 kHz - 26 GHz. Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz - 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz, 1 GHz-26 GHz, RBW=1MHz, VBW=1MHz

**Transducer Legend:**

T1=ANT-AN01412-121305 Model 3115	T2=CAB-P05419-031506
T3=AMP-ANP01271-100305 - HP 83017A 26.5 GHz	T4=P05206 40GHz
T5=Cable ANP05422 - 60"	T6=Filter 3GHz HP AN02745

**Measurement Data:**

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	4824.300M	33.6	+33.3 +3.3	+2.9 +0.3	-33.0	+1.6	+0.0 122	42.0	54.0	-12.0	Horiz 112
2	4824.000M Ave	28.0	+33.3 +3.3	+2.9 +0.3	-33.0	+1.6	+0.0 174	36.4	54.0	-17.6	Vert 109
^	4824.000M	36.5	+33.3 +3.3	+2.9 +0.3	-33.0	+1.6	+0.0 174	44.9	54.0	-9.1	Vert 109

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

Customer: **Meteor Communication Corporation.**  
 Specification: **FCC 15.247 (d) (FCC 15.205 restricted band)**  
 Work Order #: **85716** Date: 10/25/2006  
 Test Type: **Radiated Scan** Time: 15:10:29  
 Equipment: **Multiband Mobile Transceiver** Sequence#: 8  
 Manufacturer: Meteor Communications Corporation Tested By: Eddie Wong  
 Model: 6120  
 S/N: 573

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

Function	Manufacturer	Model #	S/N
Multiband Mobile Transceiver*	Meteor Communications Corporation	6120	573

**Support Devices:**

Function	Manufacturer	Model #	S/N
USB Thumb drive	Linear	NA	NA
2.4 GHz Antenna	Antenex	TRA24003P	38666
GPS Antenna	Synergy System	SMA-35	10001339
Laptop	HP	Pavilion 4500	CNF3361RKW
Power Supply	Astron	VS-35M	205050015

**Test Conditions / Notes:**

The vehicular mounted EUT is placed on the wooden table. Low band antenna port is connected to a 100Watt load. High Band antenna port is connected to 50Watt load. 802.11b antenna port is connected to 2.4 GHz antenna. GPS receiving antenna is connected to GPS antenna. I/O port is connected to a dongle with a Parallel port and three RS232s. One of the RS232 ports is connected to COM port of a remote support laptop. Parallel and two RS232s are left unpopulated. Ethernet and USB port: Terminated to a USB thumb drive, the other is left unpopulated. Two Ethernet ports are connected to support laptop via STP. DC Power is connected to a support DC power supply placed under the wooden table. The Laptop is running test software to exercise the EUT. Radio Under test: 802.11b, Frequency = 2462MHz 13.6VDC, 19°C, 38% relative humidity. Frequency range of measurement = 9 kHz - 26 GHz. Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz - 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz, 1 GHz-26 GHz, RBW=1MHz, VBW=1MHz.

**Transducer Legend:**

T1=ANT-AN01412-121305 Model 3115	T2=CAB-P05419-031506
T3=AMP-ANP01271-100305 - HP 83017A 26.5 GHz	T4=P05206 40GHz
T5=Cable ANP05422 - 60"	T6=Filter 3GHz HP AN02745

**Measurement Data:**

Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5 dB	T6 dB	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	4923.200M	35.3	+33.5 +3.4	+3.0 +0.3	-32.9	+1.6	+0.0 117	44.2	54.0	-9.8	Verti 117
2	4922.300M	35.0	+33.5 +3.4	+3.0 +0.3	-32.9	+1.6	+0.0 85	43.9	54.0	-10.1	Horiz 117