FCC CERTIFICATION On Behalf of Belkin International Inc.

FM Transmitter Model No.: F8Z075

FCC ID: K7SF8Z075YF

Prepared for : Belkin International Inc.

Address : 501 West Walnut Street, Compton, California, United States

Prepared by : Accurate Technology Co., Ltd.

Address : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.

Science & Industry Park, Nanshan, Shenzhen, Guangdong P.R.

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Report Number : ATE20071433
Date of Test : June 11, 2007
Date of Report : June 15, 2007

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Test Report Certification

Applicant : Belkin International Inc.

Manufacturer : Yifang Digital Technologies Co., Ltd.

EUT Description : FM Transmitter

(A) MODEL NO.: F8Z075

(B) SERIAL NO.: N/A

(C) POWER SUPPLY: DC 12V

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.239: 2006& ANSI 63.4: 2003

The device described above is tested by ACCURATE TECHNOLOGY CO. LTD to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section15.239 limits. The measurement results are contained in this test report and ACCURATE TECHNOLOGY CO. LTD is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of ACCURATE TECHNOLOGY CO. LTD.

Date of Test:	June 11, 2007	
Prepared by :	sky rlang	
	(Engineer)	
Reviewer:	Seculo	
	(Quality Manager)	
Approved & Authorized Signer :	Martinh	
	(Manager)	

1. GENERAL INFORMATION

1.1.Description of Device (EUT)

EUT : FM Transmitter

Model Number : F8Z075 Power Supply : DC 12V

Operate Frequency : 88.1M-107.9MHz
Channel : 0.1MHz interval
iPod 20G : Manufacturer: Apple

M/N: A1136

S/N: JQ543GF9SZA

Car Adapter for : Input: DC 12V

TuneFM Output: DC 5V, 500mA Applicant : Belkin International Inc.

Address : 501 West Walnut Street, Compton, California

United States

Manufacturer : Yifang Digital Technologies Co., Ltd.

Address : Building No.23, Fifth Region, Baiwangxin Industrial Park

Songbai Rd., Nanshan, Shenzhen 518108, China

Date of sample received: June 08, 2007 Date of Test: June 11, 2007

1.2.Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen, May 10, 2004

Accredited by FCC, May 10, 2004

The Certificate Registration Number is 253065

Accredited by Industry Canada, May 18, 2004 The Certificate Registration Number is IC 5077

Name of Firm : ACCURATE TECHNOLOGY CO. LTD

Site Location : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.

Science & Industry Park, Nanshan, Shenzhen, Guangdong

P.R. China

1.3. Measurement Uncertainty

Conducted emission expanded uncertainty = 2.23dB, k=2

Radiated emission expanded uncertainty = 4.12dB, k=2

2. MEASURING DEVICE AND TEST EQUIPMENT

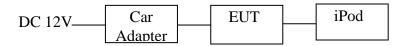
Table 1: List of Test and Measurement Equipment

Kind of equipment	Manufacturer	Туре	S/N	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	03.31.2008
EMI Test Receiver	Rohde&Schwarz	ESI26	838786/013	01.24.2008
Bilog Antenna	Schwarzbeck	VULB9163	9163-194	03.31.2008
Bilog Antenna	Chase	CBL6112B	2591	03.31.2008
Horn Antenna	Rohde&Schwarz	HF906	100013	01.24.2008
Spectrum Analyzer	Anritsu	MS2651B	6200238856	03.31.2008
Pre-Amplifier	Agilent	8447D	2944A10619	03.31.2008
L.I.S.N.	Rohde&Schwarz	ESH3-Z5	100305	03.31.2008
L.I.S.N.	Rohde&Schwarz	ESH3-Z5	100310	03.31.2008

3. RADIATED EMISSION FOR FCC PART 15 SECTION 15.239(C)

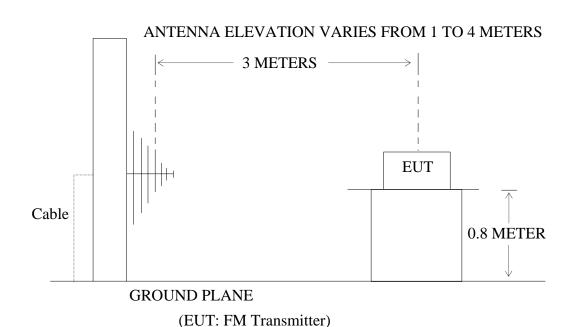
3.1.Block Diagram of Test Setup

3.1.1.Block diagram of connection between the EUT and simulators



(EUT: FM Transmitter)

3.1.2. Anechoic Chamber Test Setup Diagram



3.2. The Emission Limit for section 15.239(c)

3.2.1 The field strength of any emissions radiated on any frequency outside of the specified 200kHz band shall not exceed the general radiated emission limits in section 15.209

Radiation Emission Measurement Limits According to Section 15.209

		Limit,	
Frequency (MHz)	Field Strength of Quasi-peak Value (microvolts/m)	Field Strength of Quasi-peak Value (dBµV/m)	The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is
30 - 88	100	40	performed with

88 - 216	150	43.5	Average detector. Except those frequency bands
216 - 960	200	46	mention above, the final measurement for
Above 960	500	54	frequencies below 1000MHz is
110000 700	300	J.	performed with Quasi Peak detector.

3.3. Configuration of EUT on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

3.3.1.FM Transmitter (EUT)

Model Number : F8Z075 Serial Number : N/A

Manufacturer : Yifang Digital Technologies Co., Ltd.

3.4. Operating Condition of EUT

3.4.1. Setup the EUT and simulator as shown as Section 3.1.

3.4.2. Turn on the power of all equipment.

Let the EUT work in TX modes [Plug iPod to EUT 30pin Connector and iPod playing typical audio signal (music song) with maximum audio level] measure it. The transmit frequency are 88.1-107.9MHz.We are select 88.1M, 98.1M, 107.9MHz TX frequency to transmitted.

Note: The EUT is connected to iPod by the base interface of iPod. The input signal of EUT is controlled by iPod. so the volume control of iPod was set to maximum during the test. It means that the test was performed with the maximum audio input.

3.5.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated emission measurement.

The bandwidth of test receiver (R&S ESCS30) is set at 120KHz in 30-1000MHz; Set at 1MHz in above 1000MHz. The frequency range from 30MHz to 1100MHz is checked.

The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.

3.6. The Field Strength of Radiation Emission Measurement Results **PASS.**

The frequency range 30MHz to 1100MHz is investigated.

Date of Test:June 11, 2007Temperature:25°CEUT:FM TransmitterHumidity:50%Model No.:F8Z075Power Supply:DC 12VTest Mode:TX 88.1MHzTest Engineer:Andy

Polarization	Frequency (MHz)	Reading(dBµV/m) QP	Factor Corr.(dB)	Result(dBμV/m) QP	Limits(dBµV/m) QP	Margin(dBμV/m) QP
Horizontal	176.200	19.8	8.0	27.8	43.5	15.7
Horizontal	264.300	25.7	10.8	36.5	46.0	9.5
Horizontal	352.408	16.6	14.0	30.6	46.0	15.4
Horizontal	440.496	13.7	16.0	29.7	46.0	16.3
Vertical	137.700	18.4	7.4	25.8	43.5	17.7
Vertical	176.200	13.8	8.4	22.2	43.5	21.3
Vertical	264.298	13.4	10.2	23.6	46.0	22.4
Vertical	372.002	8.9	14.6	23.5	46.0	22.5
Vertical	415.784	10.1	15.7	25.8	46.0	20.2
Vertical	443.990	9.4	16.4	25.8	46.0	20.2

The spectral diagrams in appendix I display the measurement of peak values with corrected factors counted.

The field strength is calculated by adding the antenna factor, and cable loss, and subtracting the amplifier gain from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Date of Test:	June 11, 2007	Temperature:	25°C
EUT:	FM Transmitter	Humidity:	50%
Model No.:	F8Z075	Power Supply:	DC 12V
Test Mode:	TX 98.1MHz	Test Engineer:	Andy

Polarization	Frequency (MHz)	Reading(dBµV/m) QP	Factor Corr.(dB)	\ • • · · ·	Limits(dBµV/m) QP	Margin(dBμV/m) QP
Horizontal	137.600	25.1	5.4	30.5	43.5	13.0
Horizontal	196.200	28.8	9.6	38.4	43.5	5.1
Horizontal	294.301	24.5	12.3	36.8	46.0	9.2
Horizontal	502.220	13.8	17.0	30.8	46.0	15.2
Horizontal	647.984	14.4	19.3	33.7	46.0	12.3
Vertical	196.200	21.5	9.0	30.5	43.5	13.0
Vertical	294.316	11.7	12.1	23.8	46.0	22.2
Vertical	419.984	8.6	15.9	24.5	46.0	21.5
Vertical	515.974	10.5	18.1	28.6	46.0	17.4

The spectral diagrams in appendix I display the measurement of peak values with corrected factors counted.

The field strength is calculated by adding the antenna factor, and cable loss, and subtracting the amplifier gain from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Date of Test:	June 11, 2007	Temperature:	25°C
EUT:	FM Transmitter	Humidity:	50%
Model No.:	F8Z075	Power Supply:	DC 12V
Test Mode:	TX 107.9MHz	Test Engineer:	Andy

Polarization	Frequency (MHz)	Reading(dBµV/m) QP	Factor Corr.(dB)		Limits(dBµV/m) QP	Margin(dBμV/m) QP
Horizontal	215.806	24.3	9.7	34.0	43.5	9.5
Horizontal	323.706	20.2	13.2	33.4	46.0	12.6
Horizontal	431.614	19.2	15.7	34.9	46.0	11.1
Horizontal	446.250	11.1	17.8	28.9	46.0	17.1
Vertical	137.400	16.4	7.3	23.7	43.5	19.8
Vertical	215.792	12.2	8.9	21.1	43.5	22.4
Vertical	323.698	9.0	13.1	22.1	46.0	23.9
Vertical	465.870	15.0	16.9	31.9	46.0	14.1

The spectral diagrams in appendix I display the measurement of peak values with corrected factors counted.

The field strength is calculated by adding the antenna factor, and cable loss, and subtracting the amplifier gain from the measured reading. The basic equation calculation is as follows:

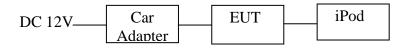
Result = Reading + Corrected Factor

Reviewer:	Sean	

4. FUNDAMENTAL RADIATED EMISSION FOR FCC PART 15 SECTION 15.239(B)

4.1.Block Diagram of Test Setup

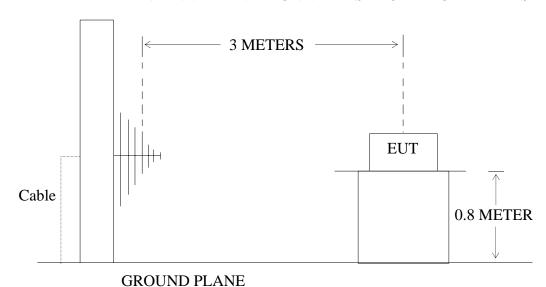
4.1.1.Block diagram of connection between the EUT and simulators



(EUT: FM Transmitter)

4.1.2. Anechoic Chamber Test Setup Diagram

ANTENNA ELEVATION VARIES FROM 1 TO 4 METERS



(EUT: FM Transmitter)

4.2. The Emission Limit For Section 15.239(b)

4.2.1 The field strength of any emission within the permitted 200kHz band shall not exceed 250microvolts/meter at 3 meters. The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in section 15.35 for limiting peak emissions apply.

4.3.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

4.3.1.FM Transmitter (EUT)

Model Number : F8Z075 Serial Number : N/A

Manufacturer : Yifang Digital Technologies Co., Ltd.

4.4. Operating Condition of EUT

4.4.1. Setup the EUT and simulator as shown as Section 4.1.

4.4.2. Turn on the power of all equipment.

Let the EUT work in TX modes [Plug iPod to EUT 30pin Connector and iPod playing typical audio signal (music song) with maximum audio level] measure it. The transmit frequency are 88.1-107.9MHz.We are select 88.1M, 98.1M, 107.9MHz TX frequency to transmitted.

Note: The EUT is connected to iPod by the base interface of iPod. The input signal of EUT is controlled by iPod. so the volume control of iPod was set to maximum during the test. It means that the test was performed with the maximum audio input.

4.5.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated emission measurement.

4.6. The Emission Measurement Result

PASS.

Date of Test:	June 11, 2007	Temperature:	25°C
EUT:	FM Transmitter	Humidity:	50%
Model No.:	F8Z075	Power Supply:	DC 12V
Test Mode:	TX 88.1MHz	Test Engineer:	Andy

Fundamental Radiated Emissions

Frequency	Reading(c	dBμV/m)	Factor(dB)	Result(c	lBμV/m)	Limit(dI	BμV/m)	Margin(c	dBμV/m)	Polarizati
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	on
88.1	26.8	29.3	6.3	33.1	35.6	48	68	14.9	32.4	Vertical
88.1	33.7	36.3	8.5	42.2	44.8	48	68	5.8	23.2	Horizontal

The spectral diagrams in appendix I display the measurement of peak values with corrected factors counted.

The field strength is calculated by adding the antenna factor, and cable loss, and subtracting the amplifier gain from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Date of Test:	June 11, 2007	Temperature:	25°C
EUT:	FM Transmitter	Humidity:	50%
Model No.:	F8Z075	Power Supply:	DC 12V
Test Mode:	TX 98.1MHz	Test Engineer:	Andy

Fundamental Radiated Emissions

Frequency	Reading(dBμV/m)	Factor(dB)	Result(c	lBμV/m)	Limit(dI	BμV/m)	Margin(c	dBμV/m)	Polarizati
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	on
98.1	22.6	25.5	6.7	29.3	32.2	48	68	18.7	35.8	Vertical
98.1	29.9	32.6	7.4	37.3	40.0	48	68	10.7	28.0	Horizontal

The spectral diagrams in appendix I display the measurement of peak values with corrected factors counted.

The field strength is calculated by adding the antenna factor, and cable loss, and subtracting the amplifier gain from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Date of Test:	June 11, 2007	Temperature:	25°C
EUT:	FM Transmitter	Humidity:	50%
Model No.:	F8Z075	Power Supply:	DC 12V
Test Mode:	TX 107.9MHz	Test Engineer:	Andy

Fundamental Radiated Emissions

Frequency	Reading(dBμV/m)	Factor(dB)	Result(c	lBμV/m)	Limit(dI	BμV/m)	Margin(c	dBμV/m)	Polarizati
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	on
107.9	22.5	25.0	7.0	29.5	32.0	48	68	18.5	36.0	Vertical
107.9	30.6	33.4	7.0	37.6	40.4	48	68	10.4	27.6	Horizontal

The spectral diagrams in appendix I display the measurement of peak values with corrected factors counted.

The field strength is calculated by adding the antenna factor, and cable loss, and subtracting the amplifier gain from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

5. OCCUPIED BANDWIDTH FOR FCC PART 15 SECTION

15.239(A)

5.1. The Requirement For Section 15.239(a)

5.1.1. Emission from the device shall be confined within a band 200kHz wide centered on the operating frequency. The 200kHz band shall lie wholly within the frequency range of 88-108MHz.

5.2.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

5.2.1.FM Transmitter (EUT)

Model Number : F8Z075 Serial Number : N/A

Manufacturer : Yifang Digital Technologies Co., Ltd.

5.3. Operating Condition of EUT

- 5.3.1. Setup the EUT and simulator as shown as Section 4.1.
- 5.3.2. Turn on the power of all equipment.

Let the EUT work in TX modes [Plug iPod to EUT 30pin Connector and iPod playing typical audio signal(music song) with maximum audio level] measure it. The transmit frequency are 88.1-107.9MHz.We are select 88.1M, 98.1M, 107.9MHz TX frequency to transmitted.

Note: The EUT is connected to iPod by the base interface of iPod. The input signal of EUT is controlled by iPod. so the volume control of iPod was set to maximum during the test. It means that the test was performed with the maximum audio input.

5.4.Test Procedure

- 5.4.1. The EUT was placed on a turn table which is 0.8m above ground plane.
- 5.4.2. Set EUT as normal operation. Playing MP3.(the volume control of iPod was set to maximum.)
- 5.4.3. Set EMI test receiver Center Frequency = fundamental frequency, RBW= 3kHz, VBW= 10kHz, Span=300kHz.
- 5.4.4. Set EMI test receiver Max hold. Mark peak, -26dB.

5.5.Test Result

The EUT does meet the FCC requirement.

Input signal: play typical audio signal(music song)

FM 88.1MHz

-26dB bandwidth = 150.0kHz

FM 98.1 MHz

-26dB bandwidth = 148.8kHz

FM 107.9 MHz

-26dB bandwidth = 145.2kHz

6. TUNING RANGE

6.1. The Requirement For Section 15.239

88-108MHz

6.2.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

6.2.1.FM Transmitter (EUT)

Model Number : F8Z075 Serial Number : N/A

Manufacturer : Yifang Digital Technologies Co., Ltd.

6.3. Operating Condition of EUT

- 6.3.1. Setup the EUT and simulator as shown as Section 4.1.
- 6.3.2. Turn on the power of all equipment.

Let the EUT work in TX modes

6.4. Test Procedure

- 6.4.1. The EUT was placed on a turn table which is 0.8m above ground plane.
- 6.4.2. Set the EUT working on the working frequency.
- 6.4.3. Set EMI test receiver center frequency = working frequency, RBW=3kHz, VBW= 10kHz, Span=300kHz.
- 6.4.4. Measuring the working frequency.
- 6.4.5. The working frequency should be inside 88-108MHz.

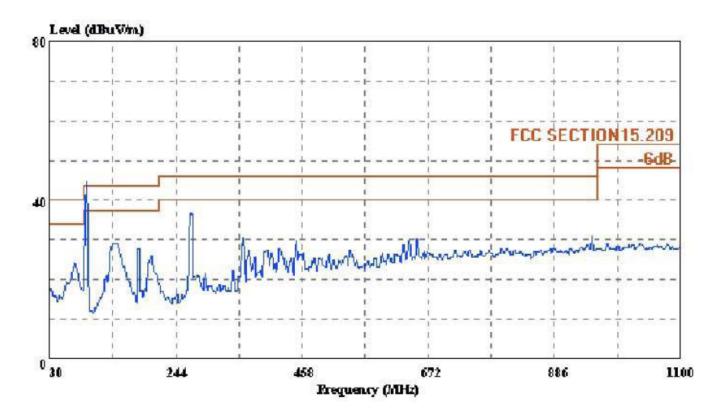
6.5.Test Result

The EUT does meet the FCC requirement.

Low Frequency= 88.102400MHz	EUT screen display 88.1MHz
Mid Frequency= 98.102400MHz	EUT screen display 98.1MHz
High Frequency=107.902400MHz	EUT screen display 107.9MHz

The working frequency rang is from 88.1 to 107.9MHz.

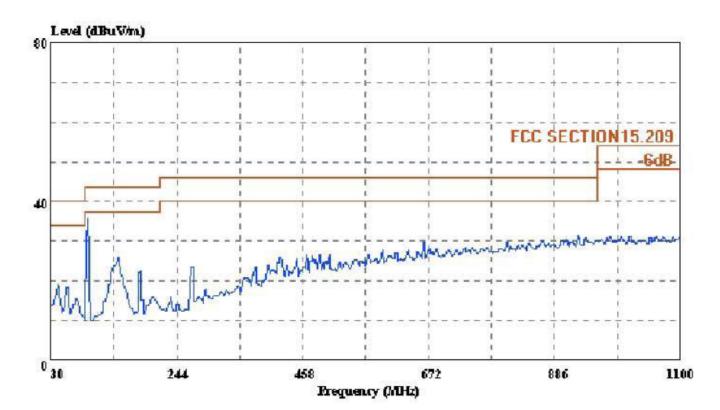
APPENDIX I (Test Curves)



Condition: FCC SECTION15.209 3m ATC FCC15C ANTENNA HORIZONTAL

eut : FM Transmitter m/n:F8Z075

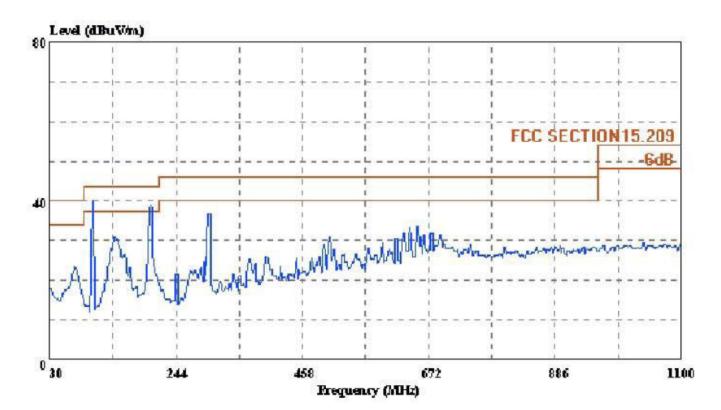
power : DC 12.0V memo : TX 88.1MHz manuf : Belkin sample no.: 071589



Condition: FCC SECTION15.209 3m ATC FCC15C ANTENNA VERTICAL

eut : FM Transmitter m/n:F8Z075

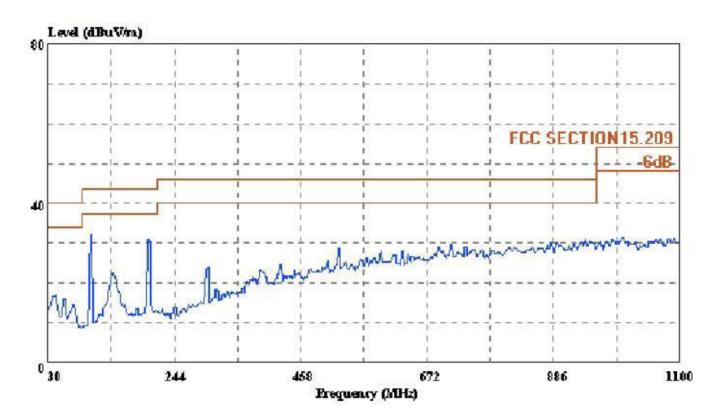
power : DC 12.0V memo : TX 88.1MHz manuf : Belkin sample no.: 071589



Condition: FCC SECTION15.209 3m ATC FCC15C ANTENNA HORIZONTAL

eut : FM Transmitter m/n:F8Z075

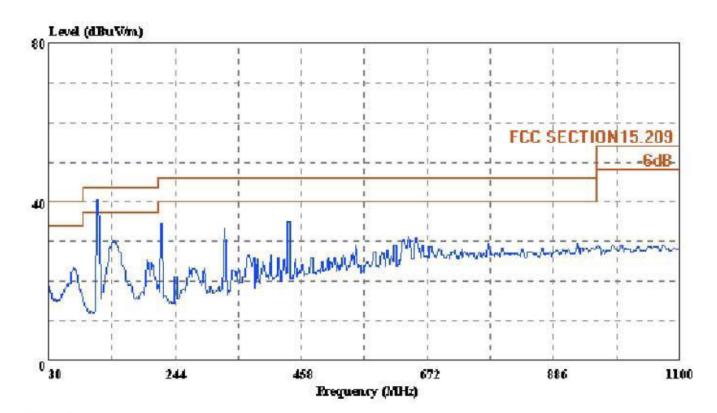
power : DC 12.0V memo : TX 98.1MHz manuf : Belkin sample no.: 071589



Condition: FCC SECTION15.209 3m ATC FCC15C ANTENNA VERTICAL

eut : FM Transmitter m/n:F8Z075

power : DC 12.0V memo : TX 98.1MHz manuf : Belkin sample no.: 071589

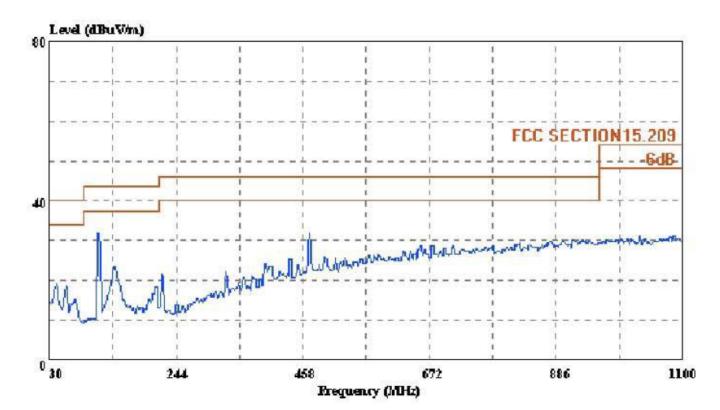


Condition: FCC SECTION15.209 3m ATC FCC15C ANTENNA HORIZONTAL

eut : FM Transmitter m/n:F8Z075

power : DC 12.0V memo : TX 107.9MHz

manuf : Belkin sample no.: 071589



Condition: FCC SECTION15.209 3m ATC FCC15C ANTENNA VERTICAL

eut : FM Transmitter m/n:F8Z075

power : DC 12.0V memo : TX 107.9MHz

manuf : Belkin sample no.: 071589

