

## **MET 81374 Response to RT (Innovative Wireless)**

### **Technical Review:**

1. Each device has two radios (i.e. transceivers) as stated in the filing. It appears one is dedicated to data and one to voice. Can these radios operate simultaneously? If so, were measurements made (i.e. output power, spurious radiated emissions etc) with them simultaneously transmitting?

**No the radios do not run simultaneously.**

2. It appears that antenna data sheets have not been provided.

**Documentation for the antenna used has been provided with this response.**

3. The conducted spurious emissions need to be taken with a 100 kHz RBW per FCC DTS test procedures. Also, plots must be submitted from 30 MHz to the 10<sup>th</sup> harmonic of the fundamental.

**Data for 30MHz to the 10<sup>th</sup> harmonic have been placed in the report.**

4. Radiated spurs measurements are only shown for 915 MHz fundamental on page 18. Please clarify if spurs and harmonics emanating from the low and high fundamental frequencies of the EUT were examined.

**The Low and High fundamental frequency information has been inserted.**

5. Please clarify if the excess length of the power cord was bundled in the middle as stated in ANSI C63.4 during CEV.

**The length of the power cable is 6ft. This connects to a power supply. The output of the power supply then connects to the EUT providing 24VDC to the unit.**

6. The frequency range listed on form 731 under equipment specifications is wrong.

**The frequency has been revised and a new 731 is being submitted.**



## Request for Additional Information for EMC Certification

Company:	Innovative Wireless Technologies (MFlom)	Composite Device:	Yes: <input type="checkbox"/>	No: <input checked="" type="checkbox"/>
MT#:	81374	FCC Direct Filing:	Yes: <input type="checkbox"/>	No: <input checked="" type="checkbox"/>
		Permit But Ask:	Yes: <input type="checkbox"/>	No: <input checked="" type="checkbox"/>
FCC ID:	SP8-FAP2210-001	FCC Rule Part:	15.247	
UPN:		RSS Standard:		
FRN:	0009408154	Class II PC/Reassessment:	Yes: <input type="checkbox"/>	No: <input checked="" type="checkbox"/>

February 2, 2009

Dear Hoosam,

Thank you for your application. In order for us to process your approval, the following must be addressed. Please provide a response in a timely manner to avoid delays or dismissals.

### Technical Review:

1. New antenna data sheets for two antennas, a Yagi and an Omni have been provided, however it appears that radiated measurements have not been provided for both antennas.
2. The MPE has to be re-calculated using the higher gain antenna. The gain of this antenna appears to be 8.86 dBd (i.e. 11.01 dBi).
3. It appears that all measurements have been made with the recorded conducted output power of around 13 dBm as stated in the test report. The power of the unit cannot be varied up to 1 W as stated in form 731.
4. In the first Request for Technical information, item 4 was not completely addressed. The report now includes data for the low and high channels but the middle channel data is missing which was in the original test report. This data should also be included in the test report. Please clarify.
5. In the first Request for Technical information, item 5 has not been answered.

If you have any questions or concerns, please contact us.

Thank you!

Jennifer Sanchez  
TCB Administrator  
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Admin Review By: Jennifer Sanchez  
Technical Review By: Dusmantha Tennakoon

*Please note that partial responses increase processing time and should not be submitted. The items indicated above must be provided before processing can continue on the above referenced application. Failure to provide the requested information in a timely manner may result in application dismissal.*



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Met 81374

Response to Met RT dated 2/2/09

1. In addition to 15.247 this device falls under rule 15.211 for tunnel use. The Yagi antenna is only used in the tunnel therefore no testing is required.
2. The higher gain antenna (Yagi) is used only when the device is in a tunnel and will always be greater than 20cm from a human body; therefore MPE is not required.
3. The device will be run at 13 dBm outside the tunnel and at higher power in the tunnel where 15.211 indicates there is no power restriction. The device is to be professionally installed and tuned therefore the higher power will not be used outside the tunnel.
4. Test data for all three frequencies have been included in the revised test report.
5. Page 4 of the test report indicates that the device was testing using the procedures from ANSI C63.4-2003 and the FCC DTS Guide March 23, 2005. All test setups were done according to those defined procedures.

## Jennifer Sanchez

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**From:** Sandy Valentine [sandyv@mflom.com]  
**Sent:** Wednesday, February 18, 2009 9:27 AM  
**To:** Jennifer Sanchez  
**Subject:** re: 81374 MFlom - 3rd Request for information for Innovative Wireless Technologies, FCC ID: SP8-FAP2210-001 (p08b0016)  
**Attachments:** d0910003.FCC.Certification.15.247\_Rev5.pdf

Hello Jennifer:

In response to the request below:

A column has been added to the band edge test table indicating the -dBc value which was derived from the plots in that test section.

A revised test report is attached.

Best regards,  
Sandy Valentine

Flom Test Lab  
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### ----- Original Message -----

**From:** "Jennifer Sanchez" <[jsanchez@metlabs.com](mailto:jsanchez@metlabs.com)>  
**To:** "Sandy Valentine" <[sandyv@mflom.com](mailto:sandyv@mflom.com)>  
**Date:** Tue, 17 Feb 2009 13:31:53 -0800  
**Subject:** **81374 MFlom - 3rd Request for information for Innovative Wireless Technologies, FCC ID: SP8-FAP2210-001 (p08b0016)**

Hi Sandy,

Please see the certifier's comments regarding this application:

The report does not demonstrate the RF conducted requirements for 20dBc at the band edge. See below. Also, for future filings the VBW setting on the spectral density plots should be > the RBW.

#### 15.247(d):

\_\_\_ Were acceptable test procedures and instrument settings used for both spurious radiated and RF conducted measurements?

\_\_\_ Do the measured spurious RF conducted emission levels comply with the 20 dBc limit, both at the bandedges, and for all other spurious emissions through the 10th harmonic, or 40GHz (whichever is lower)?  
**RBW may be reduced at the bandedges. Devices that utilize a permanently attached antenna must demonstrate compliance with the 20 dBc requirement based wholly on radiated measurement results. For radiated emissions not located in a restricted band, a peak detector and a RBW of 100kHz may be used, and compared to the radiated level of the fundamental, as measured with a peak detector and a RBW of 100 kHz.**

If you have any questions, please let me know.

2/18/2009