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1. INTRODUCTION

The XM Satellite Radio, Inc. **MyFi** receiver was evaluated for compliance to the FCC CFR-47, Part 15, Class B Subpart C, in the Technical Report 06-081a. This document reports the results obtained for the evaluation of EUT to FCC Part 15, Subpart C, Section 15.239(a).

The MyFi receiver was set to generate an FM signal from the available tuning ranges of 88.1 MHz to 88.9 MHz, and 106.7 MHz to 107.9 MHz. The audio level of the device was set to the maximum and it was verified that the unit could not operate outside of the frequency tuning range of 88 MHz to 108 MHz. The results apply only to the specific items of equipment, configurations and procedures supplied to the Florida Atlantic University EMI Research Lab by XM Satellite Radio, Inc., as reported in this document.

2. OBJECTIVE

This evaluation was performed to verify conformance of the XM Satellite Radio, Inc. **MyFi** unit to the U.S. Federal Communications Commission (FCC), Code of Federal Regulations (CFR), Title 47 - Telecommunication, FCC Part 15 Subpart C- intentional Radiators, Section 15.1239(a), FCC Class B radiated emission requirements.

3. CONCLUSION

The XM Satellite Radio, Inc. **MyFi** receiver met the FCC Part 15 Subpart C- intentional Radiators, Sections 15.1239(a), FCC Class B radiated emission requirements, as described in the following pages.

4. TEST PROCEDURES AND RESULTS

4.1 GENERAL TEST PROCEDURES

The measurement techniques identified in the measurement procedure of ANSI C63.4-2003 *"American National Standard of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz"* were followed as close as practical during this evaluation. Complete details and specific procedures used are discussed in the respective test result sections.

4.2 EQUIPMENT UNDER TEST (EUT) DETAILS

This report provides results for the following MyFi in-box tested items.

| ITEM | Description | Model / Part Number / ID | Software Rev Number |
|------|-------------------------------|-------------------------------------|---------------------|
| 1 | MyFi Receiver | Delphi SA10113 / Radio ID: TN2NJ042 | SDEC 33, XM2GO 31 |
| 2 | XM Satellite Antenna | R16-7326 | N/A |
| 3 | FM Coupler (SureConnect V1.0) | (United Cartel)UCMXMFMB-1001A | N/A |
| 4 | CLA 5V adapter | (ITI) CLA5V2A-XMS-04 | N/A |
| 5 | Delphi Car Cradle | (Delphi) SA10114 | N/A |

This report provides results for the following MyFi accessories.

| ITEM | Description | Model / Part Number / ID | Software Rev Number |
|------|-------------------------------|--------------------------|---------------------|
| 1 | FM Direct Adapter | (Audiovox) XMFM1 | N/A |
| 2 | XM Satellite Home Antenna | (Mitsumi) R16-7315 | N/A |
| 3 | Delphi Home Cradle | Delphi SA10115 | N/A |
| 4 | CLA 5V Adapter (Low Noise) | (ITI) CLA5V2A-XMLN-00 | N/A |
| 5 | ITE 5V AC Adapter | (ITE) SMPS5V2A-XM | N/A |
| 6 | Phihong 5V AC Adapter | (Phihong) PSM08A-052 (S) | N/A |
| 7 | Cassette Adapter | (ITI) SCD20MSSB-XMS | N/A |
| 8 | FM Coupler (SureConnect V1.5) | XMTH-SZ04985-00 | N/A |
| 9 | XM Home (New) | HAJHP 50327 | N/A |

4.3 Occupied Bandwidth – Section 15.239(a)

4.3.1 Occupied Bandwidth Test Setup

The MyFi unit was evaluated in the Delphi car cradle.

The occupied bandwidth test was performed using an FM direct adapter to maximize the power into the spectrum analyzer. The unit was programmed to the minimum and maximum FM frequencies (88.1 MHz and 107.9 MHz). The XM Satellite Radio, Inc., MyFi receiver was evaluated in three modes:

- The FM carrier modulated by live XM Satellite Radio signal.
- The FM carrier unmodulated.
- The FM carrier modulated by signal consisting of recorded audio files played back from the unit's internal memory.

It was verified that the unit could not be programmed outside of this frequency range. The FM audio level was maximized during the occupied bandwidth measurements.

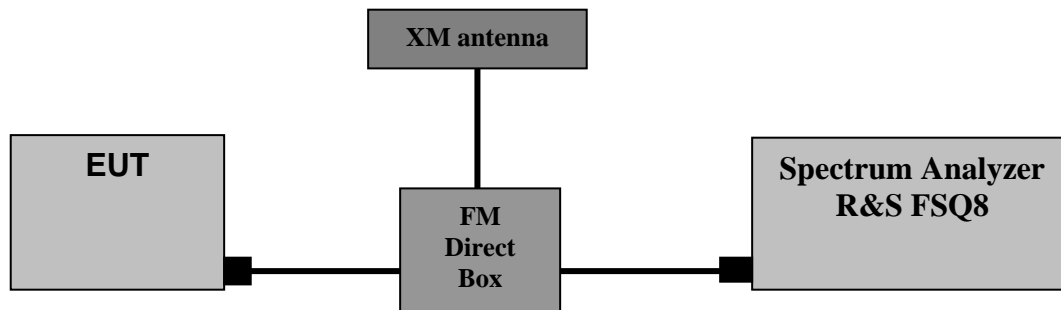


Diagram 1: Occupied Bandwidth Setup

A Rhode & Schwarz, FSQ8, spectrum analyzer was used for the evaluation. The resolution bandwidth (RBW) of the spectrum was set to 2 kHz which corresponds to 1% of the maximum allowed bandwidth of 200 kHz. The Spectrum Analyzer was set to the average detector mode and the peak emissions were recorded in “Max Hold” mode. The minimum observation time for each evaluation was about 5 minutes.

Photographs 1 and 2: Occupied Bandwidth Setup

4.3.2 MyFi Occupied Bandwidth Data

These results correspond to the MyFi unit evaluated in the Delphi Car Cradle.

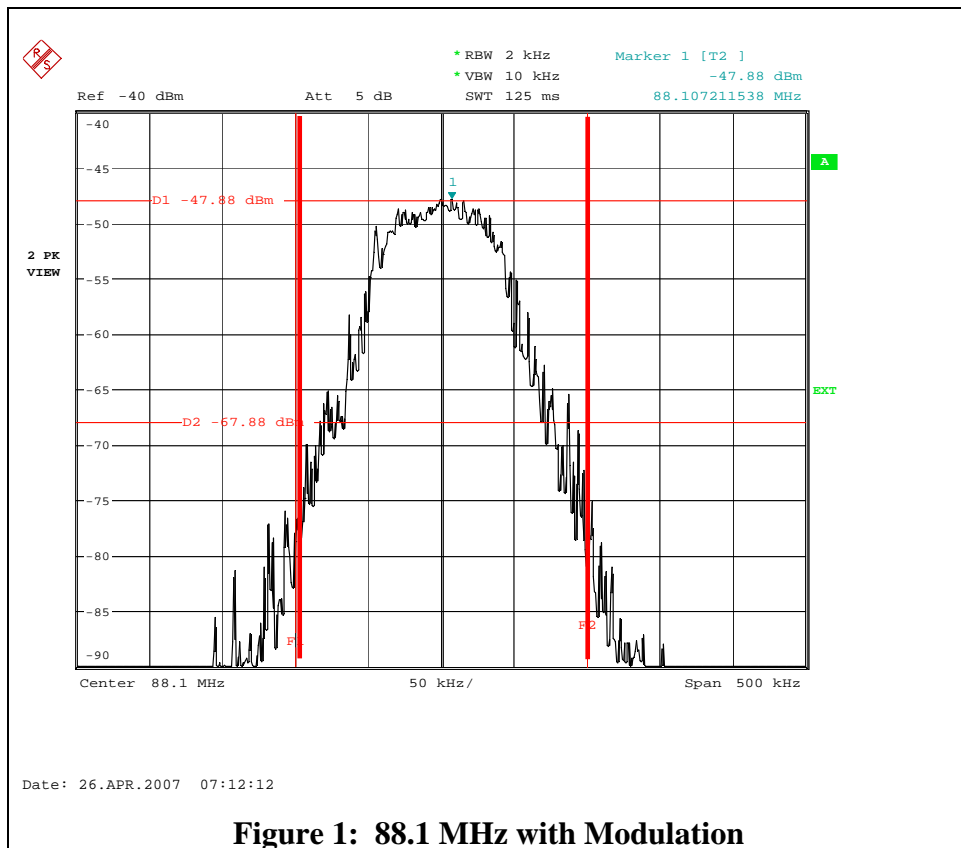


Figure 1: 88.1 MHz with Modulation

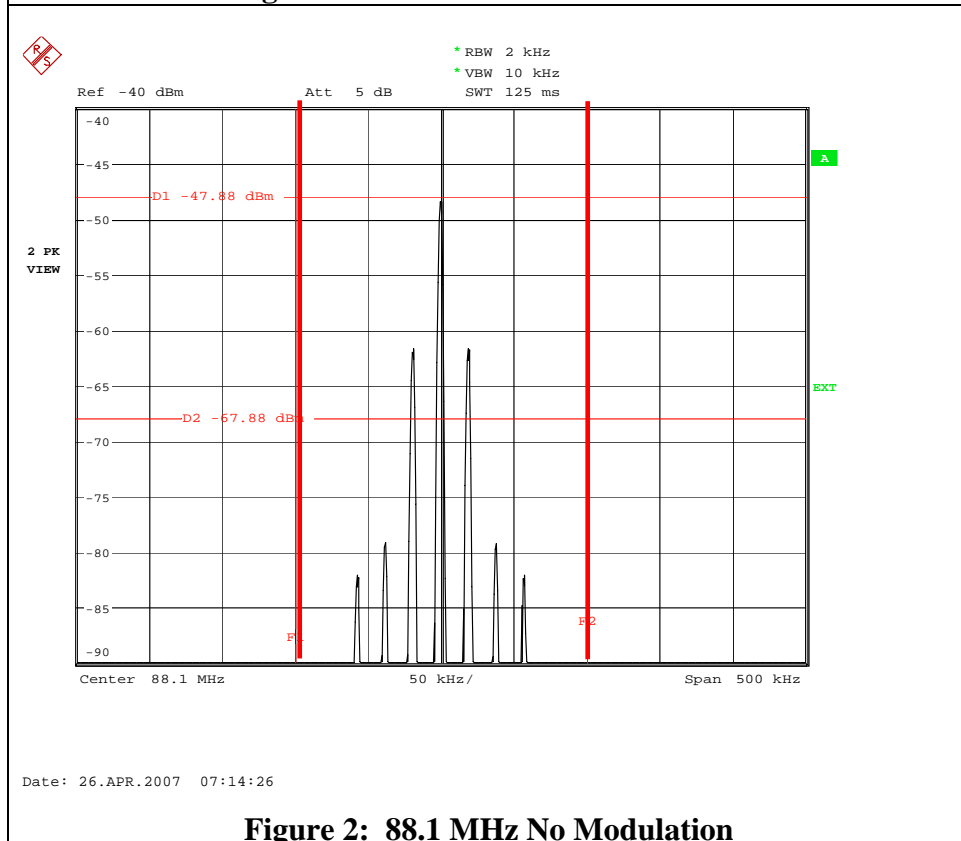
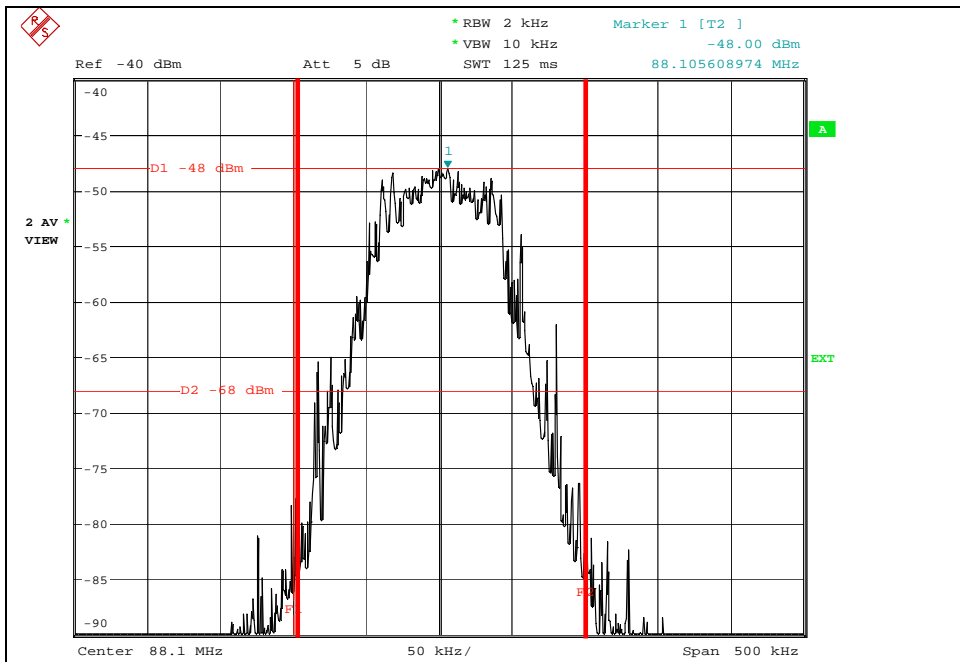
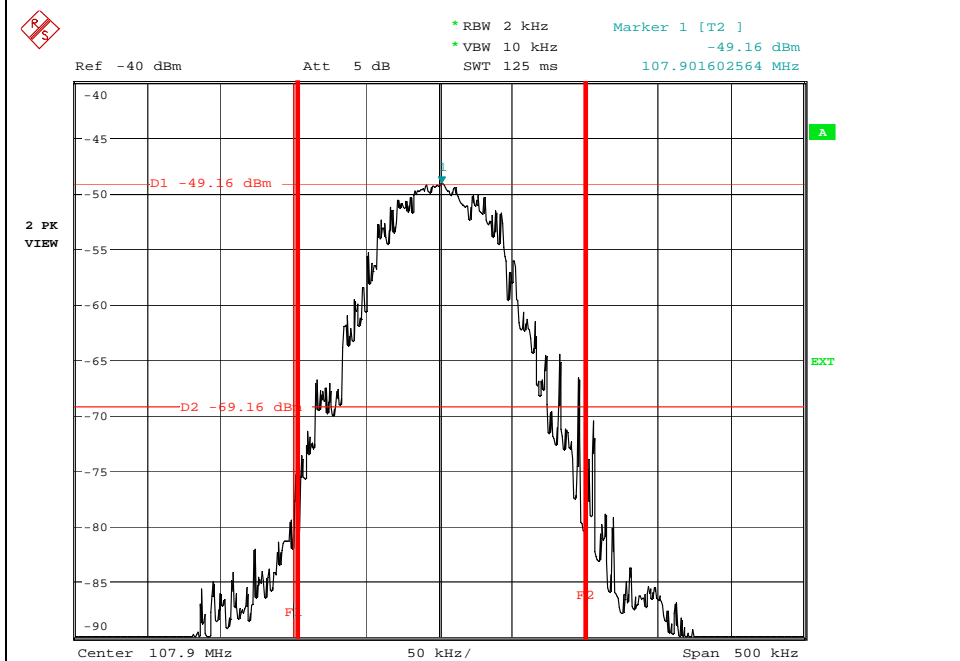


Figure 2: 88.1 MHz No Modulation



Date: 26.APR.2007 07:54:58

**Figure 3: 88.1 MHz with Modulation
In Play-Back Mode**



Date: 26.APR.2007 07:24:53

Figure 4: 107.9 MHz with Modulation

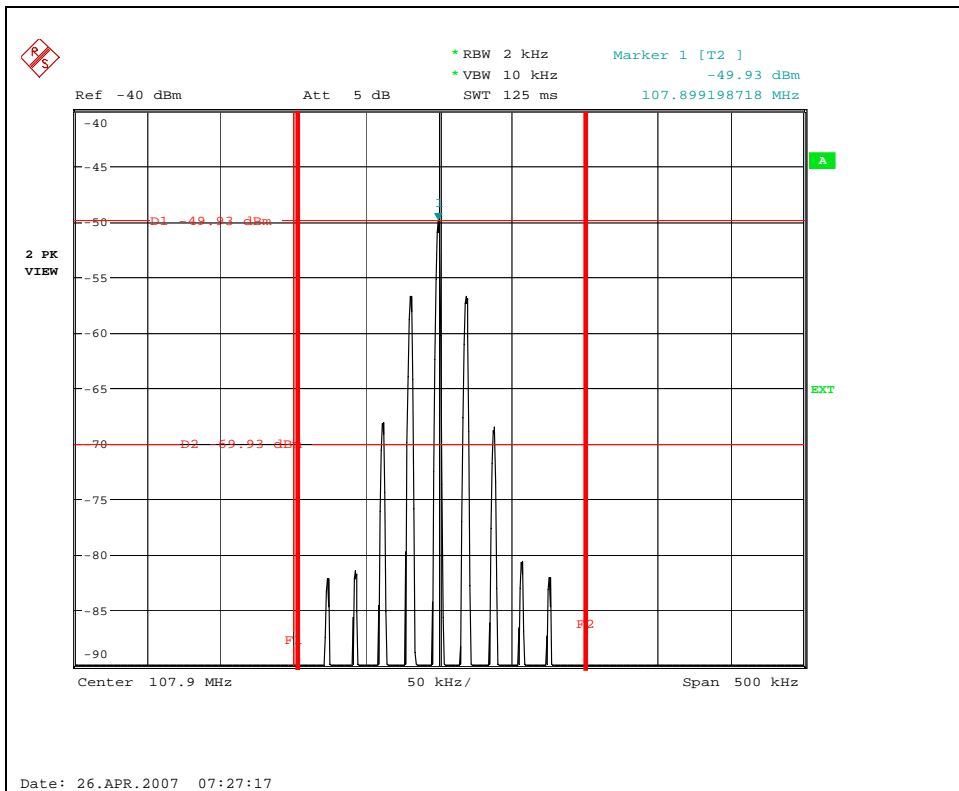
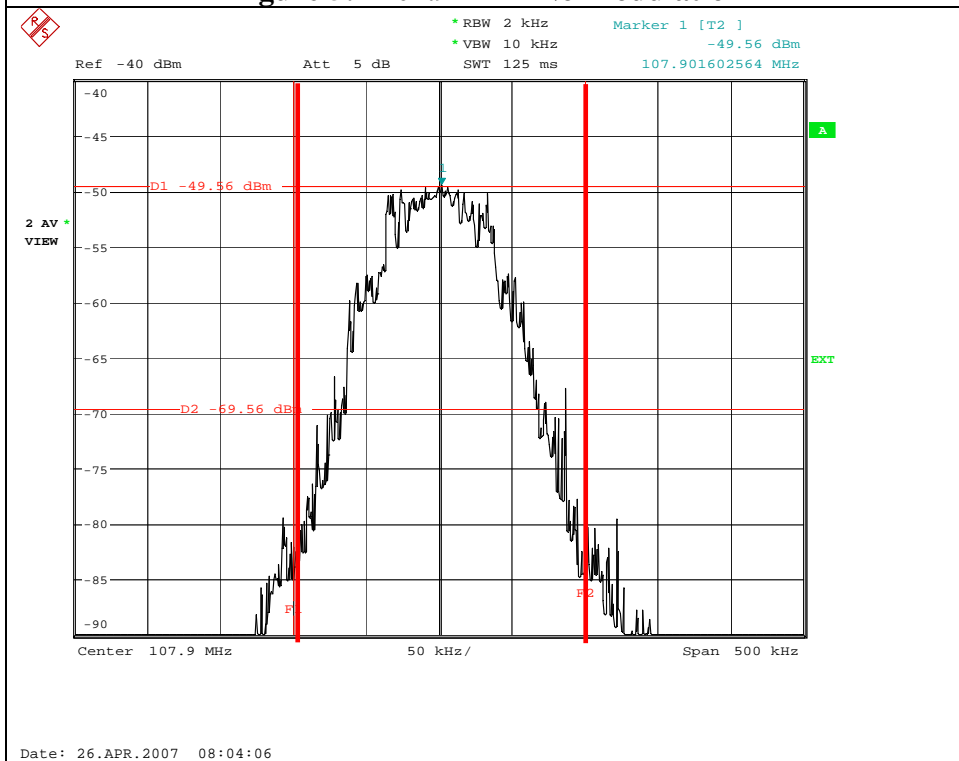


Figure 5: 107.9 MHz No Modulation



**Figure 6: 107.9 MHz with Modulation
In Play-Back Mode**

It can be seen from the previous figures that the FM audio signal did not exceed the 200 kHz bandwidth. Hence the device is in compliance.

4.7 TEST EQUIPMENT

FAU EMI LAB

| FAU EMI R&D LABORATORY TEST EQUIPMENT | | | | | | |
|---------------------------------------|-----------------|--------------------|---------|------------|------------------|------------------------------|
| Equipment Type | Manufacturer | Description | Model | Serial No. | Calibration Date | Calibration Interval (Years) |
| Spectrum Analyzer | Hewlett Packard | RF Section | 8566B | 2403A06381 | Aug-22-06 | 2 |
| Spectrum Analyzer | Hewlett Packard | Display | 85662A | 2407A06381 | Aug-22-06 | 2 |
| Spectrum Analyzer | Hewlett Packard | Quasi Peak Adapter | 85650A | 2430A00559 | Aug-22-06 | 2 |
| RF Preselector | Hewlett Packard | Preselector | 85685A | 2510A00151 | Feb-8-06 | 2 |
| LISN | EMCO | LISN | 3825/2R | 1095 | March-10-06 | 2 |
| Antenna | EMCO | Biconical | 3108 | 2147 | Feb-24-06 | 2 |
| Antenna | EMCO | Log Periodic | 3146 | 1385 | Feb-24-06 | 2 |
| Amplifier | Hewlett Packard | Amplifier | 8447D | 2443A03952 | Dec-01-06 | 2 |

OCCUPIED BANDWIDTH TEST SETUP

| Equipment Type | Manufacturer | Model | Cal Date | Due Date |
|-------------------|-----------------|-------|---------------|---------------|
| Spectrum Analyzer | Rhode & Schwarz | FSQ8 | April-10-2007 | April-10-2008 |

4.8 TEST FACILITY

FAU EMI Research and Development Laboratory
Department of Electrical Engineering
Florida Atlantic University
Boca Raton, Florida 33431
(561) 361-4390

A2LA Certificate Number: 2129.01
FCC Registration: 90599
Industry Canada: IC46405-4076

| | |
|------------------------------|--|
| Description: | The 3-m semi-anechoic chamber and Power Line Conducted Spurious Voltage test setup is constructed and calibrated to meet the FCC requirements of Section 2.948, as well as Industry Canada RSS 212 Issue 1. |
| Site Filing: | A site description is on file with the Federal Communications Commission, 7435 Oakland Mills Road, Columbia, MD 21046, and with the Industry Canada, Certification and Engineering Bureau, 3701 Carling Ave., Building 94, P.O. Box 11490, Station "H", Ottawa Ontario, K2H 8S2. |
| Instrument Tolerance: | All measuring equipment is in accordance with ANSI C63.4 and CISPR 22 requirements. |

End Report