# Electromagnetic Compatibility Tests On a Wireless Hand Held Transmitter, Part No. BLX2

| | |
|---|---|
| For | : Shure Inc.<br>5800 West Touhy Avenue<br>Niles, IL 60714 |
| P.O. No. | : 4500294261 |
| Dates Tested | : April 6, 2015 through April 28, 2015 |
| Test Personnel | : Richard E. King |
| Specification | : FCC "Code of Federal Regulations"<br>Title 47 Part 74<br>Industry Canada RSS-GEN<br>Industry Canada RSS-210 |

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## REPORT REVISION HISTORY

| Revision | Date | Description |
|---|---|---|
| -- | 18 May 2015 | Initial release |
| | | |

**Electromagnetic Compatibility Tests on Wireless Hand Held Transmitter, Part No. BLX2**

## 1. INTRODUCTION

### 1.1 Scope of Tests

This document presents the results of a series of electromagnetic compatibility (EMC) tests performed on a Wireless Hand Held Transmitter, Model No. BLX2, (hereinafter referred to as the Equipment Under Test EUT). The EUT was manufactured and submitted for testing by Shure Inc. located in Niles, IL.

The EUT is designed to transmit in the following frequency bands using an internal antenna.

### 1.2 Purpose

The test series was performed to determine if the EUT would meet selected requirements of the FCC Part 74 for low power auxiliary station bands and Industry Canada RSS-210 Low Power Licensed Radio communication Devices.

### 1.3 Deviations, Additions, and Exclusions

For the modulation characteristics test the input level to the microphone was limited to -20dBV per Shure incorporated personal. The justification of this deviation available in the Shure "SLX/PGX DESCRIPTION OF OPERATION: MODULATION LIMITING" document.

There were no other deviations, additions to, or exclusions from the test specification during this test series.

### 1.4 EMC Laboratory Identification

The electromagnetic compatibility tests were performed by Elite Electronic Engineering Incorporated of Downers Grove, Illinois.

### 1.5 Laboratory Conditions

The temperature at the time of the test was 22°C and the relative humidity was 21%.

## 2. APPLICABLE DOCUMENTS

The following documents of the exact issue designated form part of this document to the extent specified herein:

- Federal Communications Commission "Code of Federal Regulations", Title 47, Part 74, dated 1 October 2014
- Federal Communications Commission "Code of Federal Regulations", Title 47, Part 2, dated 1 October 2014
- Industry Canada Radio Standards Specification, RSS-Gen, "General Requirements and Information for the Certification of Radiocommunication Equipment", Issue 4, November 2014
- RSS-210, "Radio Standards Specification License-exempt Radio Apparatus (All Frequency Bands): Category I Equipment" Issue 8, Amendment 1, February 2015
- ANSI C63.4-2009, "American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz"
- ANSI C63.4-2014, "American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9

kHz to 40 GHz"

## 3. EUT Setup and Operation

### 3.1 General Description

The EUT is a Wireless Hand Held Transmitter, Model No. BLX2. A block diagram of the EUT setup is shown as Figure 1.

#### 3.1.1 Power Input

The EUT was powered with 3VDC from two 1.5VDC alkaline batteries.

#### 3.1.2 Peripheral Equipment

The EUT was submitted for testing with a Shure SRH240 headphone via a two meter long 2-wire cord.

#### 3.1.3 Signal Input/Output Leads

The headphone port of the EUT was connected to a Shure SRH240 headphone via a two meter long 2-wire cord.

#### 3.1.4 Grounding

The EUT was not grounded during testing.

#### 3.1.5 Frequency of EUT

Per CFR Title 47, Section 2, part 1057, for spurious emissions measurements at the antenna terminal and for spurious radiated emissions measurements, the frequency spectrum shall be investigated up to at least the tenth harmonic of the highest fundamental frequency.

### 3.2 Operational Mode

All emissions tests were performed separately in the following modes:

| Band | Frequency (MHz) | Group | Channel | Output Power (mW) |
|---|---|---|---|---|
| H9<br>512 - 542MHz | 512.125 | E | 0 | 10 |
| | 527.200 | N | 3 | 10 |
| | 541.800 | A | 1 | 10 |
| H10<br>542 - 572MHz | 542.125 | J | 0 | 10 |
| | 556.675 | C | 9 | 10 |
| | 571.675 | J | A | 10 |

### 3.3 EUT Modifications

No modifications were required for compliance.

## 4. Test Facility and Test Instrumentation

### 4.1 Shielded Enclosure

All tests were performed in a 32ft. x 20ft. x 18ft. hybrid ferrite-tile/anechoic absorber lined test chamber. With the exception of the floor, the reflective surfaces of the shielded chamber are lined with ferrite tiles on the walls and ceiling. Anechoic absorber material is installed over the ferrite tile. The floor of the chamber is used as the ground plane. The chamber complies with ANSI C63.4-2009 and ANSI C63.4-2014 for site attenuation.

### 4.2 Test Instrumentation

The test instrumentation and auxiliary equipment used during the tests are listed in **Table 10-1**.

### 4.3 Calibration Traceability

Test equipment is maintained and calibrated on a regular basis. All calibrations are traceable to the National Institute of Standards and Technology (NIST).

### 4.4 Measurement Uncertainty

All measurements are an estimate of their true value. The measurement uncertainty characterizes, with a specified confidence level, the spread of values which may be possible for a given measurement system.

The measurement uncertainty for these tests is presented below:

| Radiated Emission Measurements | | |
|---|---|---|
| Combined Standard Uncertainty | 2.26 | -2.18 |
| Expanded Uncertainty (95% confidence) | 4.5 | -4.4 |

## 5. TEST PROCEDURES

### 5.1 RF POWER OUTPUT MEASUREMENTS

#### 5.1.1 Requirements

In accordance with paragraph 74.861(e)(1)(ii), for low power auxiliary stations operating in the bands allocated for TV broadcasting, the power of the measured unmodulated carrier power at the output of the transmitter power amplifier (antenna input power) may not exceed 250 milliwatts in the 470-608 and 614-806MHz bands. In accordance with paragraph 74.861(d)(1), for low power auxiliary stations operating in the bands other than those allocated for TV broadcasting, the maximum transmitter power which will be authorized is 1 watt.

For certification to paragraph 6.1 of the Industry Canada's RSS-210 requirement, the RF power output must not exceed 250 milliwatts mean power as listed in Table 1.

#### 5.1.2 Procedures

The output from the antenna port of the EUT was connected to a power meter. The output power of the each EUT was then measured.

#### 5.1.3 Results

The output power measurements are presented on pages 17 through 18. As can be seen from the data, the power output of each transmitter is within the requirements of Part 74.861 and RSS-210.

### 5.2 MODULATION CHARACTERISTICS

#### 5.2.1 Requirements

In accordance with paragraph 74.861(e)(3) and paragraph 5.5 of RSS-210, for low power auxiliary stations operating in the bands allocated for TV broadcasting, any form of modulation may be used. A maximum deviation of ±75kHz is permitted when frequency modulation is employed.

#### 5.2.2 Procedures

The output of the antenna port of the EUT was connected to a modulation analyzer. An audio signal

generator was connected to the audio input port of the EUT.

a) The EUT was modulated with a 1000 Hz modulating signal at 60% of the EUTs rated frequency deviation.

b) With input level held constant the audio signal generator was varied from 20 Hz to 20 kHz.

c) The positive and negative peak deviations were recorded and plotted.

The output of the antenna port of the EUT was connected to a modulation analyzer. An audio signal generator was connected to the audio input port of the EUT.

a) The modulation response was measured separately for each of five frequencies (100Hz, 500Hz, 2500Hz, 10000Hz and 15000Hz).

b) The input voltage of the audio signal generator was varied and frequency deviation was observed on the modulation analyzer.

c) The frequency deviations were recorded and plotted.

#### 5.2.3 Results

The plots of the modulation characteristics are presented on pages 19 through 24.

## 5.3 FREQUENCY STABILITY

#### 5.3.1 Requirements

In accordance with paragraph 74.861(e)(4) and paragraph 7 of RSS-210 Table 1, for low power auxiliary stations operating in the bands allocated for TV broadcasting, the frequency tolerance of the transmitter shall be 0.005 percent.

#### 5.3.2 Procedures

The EUT was connected to a frequency counter through the antenna output of each transmitter. The EUT was then placed in a humidity temperature chamber.

a) The nominal frequency of the transmitter was measured and recorded.

b) The temperature chamber was then set to -30ºC.

c) Once the temperature had reached -30ºC the EUT was allowed to soak for 30 minutes.

d) After soaking at -30ºC for thirty minutes the EUT was turned on and the transmit frequency was measured and recorded.

e) Steps (b) through (d) were repeated for each temperature in 10ºC steps from -20ºC to +50ºC.

f) The EUT was then removed from the temperature chamber and allowed to adjust to nominal room temperature (22ºC).

#### 5.3.3 Results

The frequency stability measurements are presented on pages 25 and 30. As can be seen from the data the test frequency deviation was within the 0.005 percent limit. A photograph of the test setup is shown in Figure 2.

## 5.4 OCCUPIED BANDWIDTH MEASUREMENTS

#### 5.4.1 Requirements

In accordance with paragraph 74.861(e)(5) and (6), for low power auxiliary stations operating in the bands allocated for TV broadcasting, the following technical requirements apply:

a) The operating bandwidth shall not exceed 200 kHz.

b) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the following schedule:

   i. On any frequency removed from the operating frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: at least 25 dB;

   ii. On any frequency removed from the operating frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 dB;

   iii. On any frequency removed from the operating frequency by more than 250 percent of the authorized bandwidth: at least 43+10log10 (mean output power in watts) dB.

For certification to the RSS-210 paragraph 6.3.1, the power of unwanted emissions shall be attenuated below the mean transmitter power in accordance with the following schedule:

a) On any frequency removed from the carrier frequency by more than 50% up to and including 100% of the authorized bandwidth: at least 25 dB.

b) On any frequency removed from the carrier frequency by more than 100% up to and including 250% of the authorized bandwidth: at least 35 dB.

c) On any frequency removed from the carrier frequency by more than 250% of the authorized bandwidth: at least 55 + 10 Log (Pmean) dB.

#### 5.4.2 Procedures

a) The EUT was connected to a spectrum analyzer through 40 dB of attenuation. The unmodulated carrier signal level was measured and recorded.

b) The EUT was modulated with a 2500 Hz sine wave at an input level 16 dB greater than that necessary to produce 50% of the rated system deviation.

c) The EUT was modulated with a 15 kHz sine wave at an input level necessary to produce 85% of the rated system deviation.

d) Steps (a) through (c) were repeated separately for each of the remaining 11 transmitters. The bandwidth of the spectrum analyzer was set to 2kHz (1% of Authorized BW).

#### 5.4.3 Results

The plots of the occupied bandwidth measured are presented on pages 31 through 48. The limits, shown on the plots, are referenced to the power measured from the un-modulated carrier, the power when modulated with a 2500 Hz sine wave at an input 16dB greater than that necessary to produce 50% of the rated deviation and a 15 kHz sine wave at 85% of the maximum deviation.

The operating bandwidth was determined using Carson's rule:
Bn = 2M + 2DK where Bn = bandwidth, M= Maximum modulating frequency and D = Peak Deviation. With K = 1, M = 12kHz and D = 60kHz resulting in an operating bandwidth of 144kHz.

The maximum Industry Canada 99% bandwidth measurement was 127kHz.

As can be seen from the data, the EUTs met all occupied bandwidth requirements.

### 5.5 FIELD STRENGTH OF SPURIOUS EMISSIONS

#### 5.5.1 Requirements

In accordance with paragraph 74.861 of CFR 47, the power of any emission on any frequency removed from the operating frequency by more than 250 percent of the authorized bandwidth shall be attenuated

by at least 43 + 10 log (P) dB.

In accordance with RSS-210 paragraph 6.3.1, the power of any emission on any frequency removed from the carrier frequency by more than 250% of the authorized bandwidth shall be attenuated by at least 55 + 10 log (P) dB.

### 5.5.2 Procedures

All tests were performed in a 32ft. x 20ft. x 18ft. hybrid ferrite-tile/anechoic absorber lined test chamber. The walls and ceiling of the shielded chamber are lined with ferrite tiles. Anechoic absorber material is installed over the ferrite tile. The floor of the chamber is used as the ground plane. The chamber complies with ANSI C63.4 -2009 and ANSI C63.4 2014 for site attenuation.

The shielded enclosure prevents emissions from other sources, such as radio and TV stations from interfering with the measurements. All powerlines and signal lines entering the enclosure pass through filters on the enclosure wall. The powerline filters prevent extraneous signals from entering the enclosure on these leads.

1. Preliminary radiated measurements were performed to determine the frequencies where the significant emissions might be found. With the EUT at one set position and the measurement antenna at a set height (i.e. without maximizing), the radiated emissions were measured using a peak detector and automatically plotted. The broadband measuring antenna was positioned at a 3 meter distance from the EUT. This data was then automatically plotted. All preliminary tests were performed separately with the EUT operating in the modes listed in Para. 3.2.
2. All significant broadband and narrowband signals found in the preliminary sweeps were then measured using a peak detector at a test distance of 3 meters. The measurements were made with a bilog antenna over the frequency range of 30MHz to 1GHz, and a double ridged waveguide antenna was used for frequencies above 1GHz.
3. To ensure that maximum emission levels were measured, the following steps were taken:
    a. The EUT was rotated so that all of its sides were exposed to the receiving antenna.
    b. Since the measuring antennas are linearly polarized, both horizontal and vertical field components were measured.
    c. The measuring antenna was raised and lowered from 1 to 4 meters for each antenna polarization to maximize the readings.

The equivalent power was determined from the field intensity levels measured at 3 meters using the substitution method. To determine the emission power, another antenna was set in place of the EUT and connected to a calibrated signal generator. (A tuned dipole was used for all measurements below 1GHz and a double ridged waveguide antenna was used for all measurements above 1GHz.) The output of the signal generator was adjusted to match the received level at the spectrum analyzer. The signal level was recorded. The reading was corrected to compensate for cable loss, as required, and for frequencies above 1GHz, increased by the gain of the waveguide.

### 5.5.3 Results

The preliminary plots peak levels for the EUT in the H9 band are presented on pages 49 through 60. Factors for the antennas and cables were added to the data before it was plotted. This data is only presented for a reference, and is not used as official data. All significant radiated emissions were subsequently measured using the substitution method.

The final radiated levels are presented on pages 61 through 63. The radiated emissions were measured through the 10th harmonic. All emissions measured from the EUT were within the specification limits.

The preliminary plots peak levels for the EUT in the H10 band are presented on pages 64 through 75. Factors for the antennas and cables were added to the data before it was plotted. This data is only

presented for a reference, and is not used as official data. All significant radiated emissions were subsequently measured using the substitution method.

The final radiated levels are presented on pages 76 through 75. The radiated emissions were measured through the 10th harmonic. All emissions measured from the EUT were within the specification limits.

Photographs of the test setup are shown in Figure 3 and Figure 4.

## 6. OTHER TEST CONDITIONS

### 6.1 Test Personnel and Witnesses

All EMC tests were performed by qualified personnel from Elite Electronic Engineering Incorporated. The test series was partially witnessed by Shure Inc. personnel.

### 6.2 Disposition of the EUT

The EUT and all associated equipment were returned to Shure Inc. upon completion of the tests.

## 7. CONCLUSION

It was found that the Shure Inc., model BLX2 Wireless Hand Held Transmitter, did comply with the RF power output, the occupied bandwidth, the frequency stability, the spurious emissions at antenna terminal, and the field strength of spurious emissions requirements of FCC Part 74 for low power auxiliary station bands and Industry Canada RSS-210 Low Power Licensed Radio communication Devices.

## 8. CERTIFICATION

Elite Electronic Engineering Incorporated certifies that the information contained in this report was obtained under conditions which meet or exceed those specified in the test specification. The data presented in this test report pertains only to the EUT at the test date. Any electrical or mechanical modification made to the EUT subsequent to the specified test date will serve to invalidate the data and void this certification.

## 9. ENDORSEMENT DISCLAIMER

This report must not be used to claim product endorsement by NVLAP or any agency of the US Government.

## 10. EQUIPMENT LIST

**Table 10-1**

| Eq ID | Equipment Description | Manufacturer | Model No. | Serial No. | Frequency Range | Cal Date | Due Date |
|---|---|---|---|---|---|---|---|
| APW11 | PREAMPLIFIER | PMI | PE2-35-120-5R0-10-12-SFF | PL11685/1241 | 1GHZ-20GHZ | 3/5/2015 | 3/5/2016 |
| CDX2 | COMPUTER | ELITE | WORKSTATION | --- | --- | N/A | |
| CDX8 | COMPUTER | ELITE | WORKSTATION | | | N/A | |
| CDY0 | WORKSTATION | ELITE | WORKSTATION | | WINDOWS 7 | N/A | |
| CMA1 | Controllers | EMCO | 2090 | 9701-1213 | --- | N/A | |
| ETD0 | ENV Chambers For Auto Dept Use Only | Thermotron | S-8 | 15461 | -70 to 150 degrees C | NOTE 1 | |
| ETDC | CONTROLLER | THERMOTRON | 2800 | 753726 | PROGRAMABLE | NOTE 1 | |
| GRE0 | SIGNAL GENERATOR | AGILENT TECHNOLOGIES | E4438C | MY42083127 | 250KHZ-6GHZ | 3/18/2015 | 3/18/2016 |
| GWH6 | 10MHZ DDS FUNCTION GENERATOR | WAVETEK | 29 | 154849 | 0.0001HZ-10MHZ | 10/8/2014 | 10/8/2015 |
| MFC0 | MICROWAVE FREQ. COUNTER | HEWLETT PACKARD | 5343A | 2133A00591 | 10HZ-26GHZ | 8/12/2014 | 8/12/2015 |
| NTA3 | BILOG ANTENNA | TESEQ | 6112D | 32853 | 25-1000MHz | 3/27/2015 | 3/27/2016 |
| NWQ0 | DOUBLE RIDGED WAVEGUIDE ANTENNA | ETS LINDGREN | 3117 | 66657 | 1GHZ-18GHZ | 3/11/2014 | 3/11/2016 |
| NWQ1 | DOUBLE RIDGED WAVEGUIDE ANTENNA | ETS-LINDGREN | 3117 | 66655 | 1GHZ-18GHZ | 3/11/2014 | 3/11/2016 |
| NWQ2 | DOUBLE RIDGED WAVEGUIDE ANTENNA | ETS LINDGREN | 3117 | 66659 | 1GHZ-18GHZ | 2/9/2014 | 2/9/2016 |
| PLF2 | CISPR16 50UH LISN | ELITE | CISPR16/70A | 002 | .15-30MHz | 6/5/2014 | 6/5/2015 |
| PLF4 | CISPR16 50UH LISN | ELITE | CISPR16/70A | 003 | .15-30MHz | 6/5/2014 | 6/5/2015 |
| RAKI | RF SECTION | HEWLETT PACKARD | 85462A | 3411A00181 | 0.009-6500MHZ | 3/12/2015 | 3/12/2016 |
| RAKJ | RF FILTER SECTION | HEWLETT PACKARD | 85460A | 3330A00154 | --- | 3/12/2015 | 3/12/2016 |
| RBB0 | EMI TEST RECEIVER 20HZ TO 40 GHZ. | ROHDE & SCHWARZ | ESIB40 | 100250 | 20 HZ TO 40GHZ | 2/13/2015 | 2/13/2016 |
| RBD1 | EMI TEST RECEIVER | ROHDE & SCHWARZ | ESU40 | 100009 | 20Hz-40GHz | 11/18/2014 | 11/18/2015 |
| RYE0 | MODULATION ANALYZER | HEWLETT PACKARD | 8901B | 3104A03410 | 0.15-1300MHZ | 9/12/2014 | 9/12/2015 |
| T1EG | 10DB 25W ATTENUATOR | WEINSCHEL | 46-10-34 | CD3551 | DC-18GHZ | 6/10/2014 | 6/10/2015 |
| T2DA | 20DB, 25W ATTENUATOR | WEINSCHEL | 46-20-34 | BH5446 | DC-18GHZ | 7/22/2014 | 7/22/2015 |
| T2SD | 20DB 25W ATTENUATOR | WEINSCHEL | 46-20-34 | CD5016 | DC-18GHZ | 10/15/2014 | 10/15/2015 |
| T2SG | 20DB 25W ATTENUATOR | WEINSCHEL | 46-20-34 | CD5016 | DC-18GHZ | 1/6/2015 | 1/6/2016 |
| T2SJ | 20DB 25W ATTENUATOR | WEINSCHEL | 46-20-34 | CD5021 | DC-18GHZ | 10/15/2014 | 10/15/2015 |
| WKA1 | SOFTWARE, UNIVERSAL RCV EMI | ELITE | UNIV_RCV_EMI | 1 | --- | I/O | |
| WQB0 | RE_8546A | | | | | | |
| XLQA | 5W, 50 OHM TERMINATION | JFW INDUSTRIES | 50T-052 | --- | DC-2GHZ | 7/22/2014 | 7/22/2015 |
| XPU0 | HIGH PASS FILTER (800MHz) | MINI-CIRCUITS | NHP-800+ | 912 | DC-3GHz | 4/9/2015 | 4/9/2016 |

I/O: Initial Only
N/A: Not Applicable
Note 1: For the purpose of this test, the equipment was calibrated over the specified frequency range, pulse rate, or modulation prior to the test or monitored by a calibrated instrument.

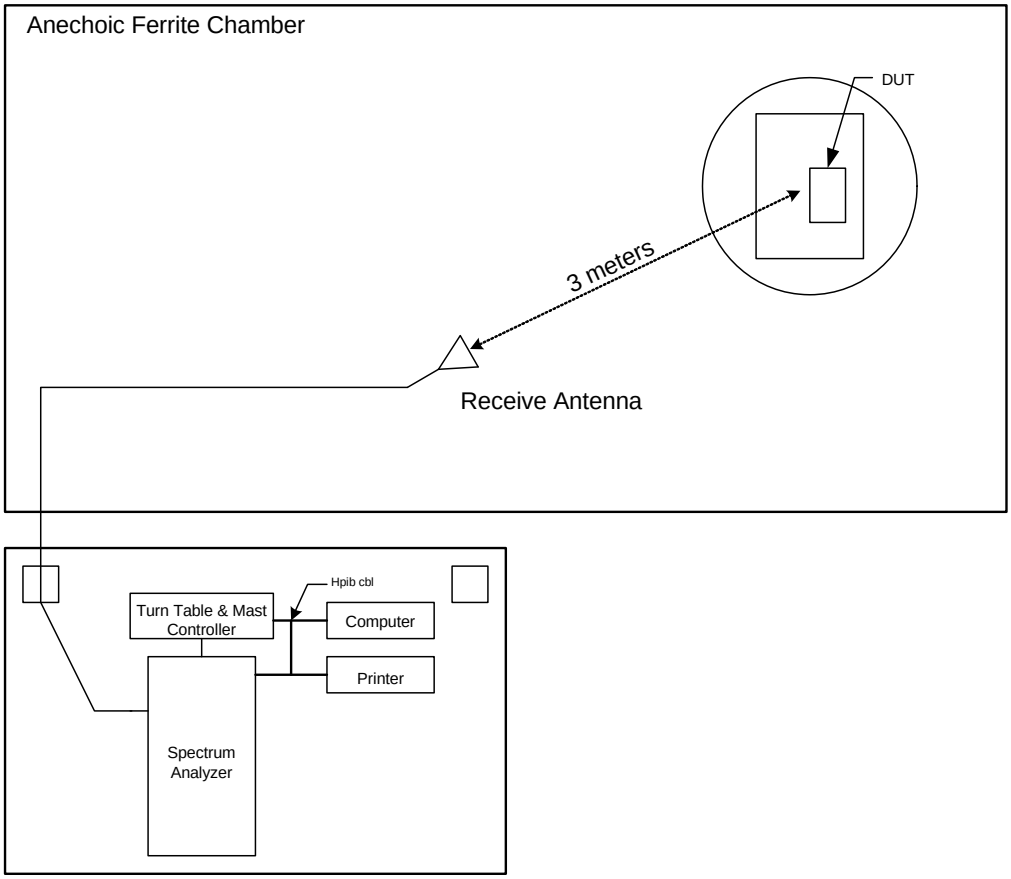



FIGURE 1 BLOCKDIAGRAM OF TEST SETUP

Figure 2

Test Setup for Frequency Stability Test

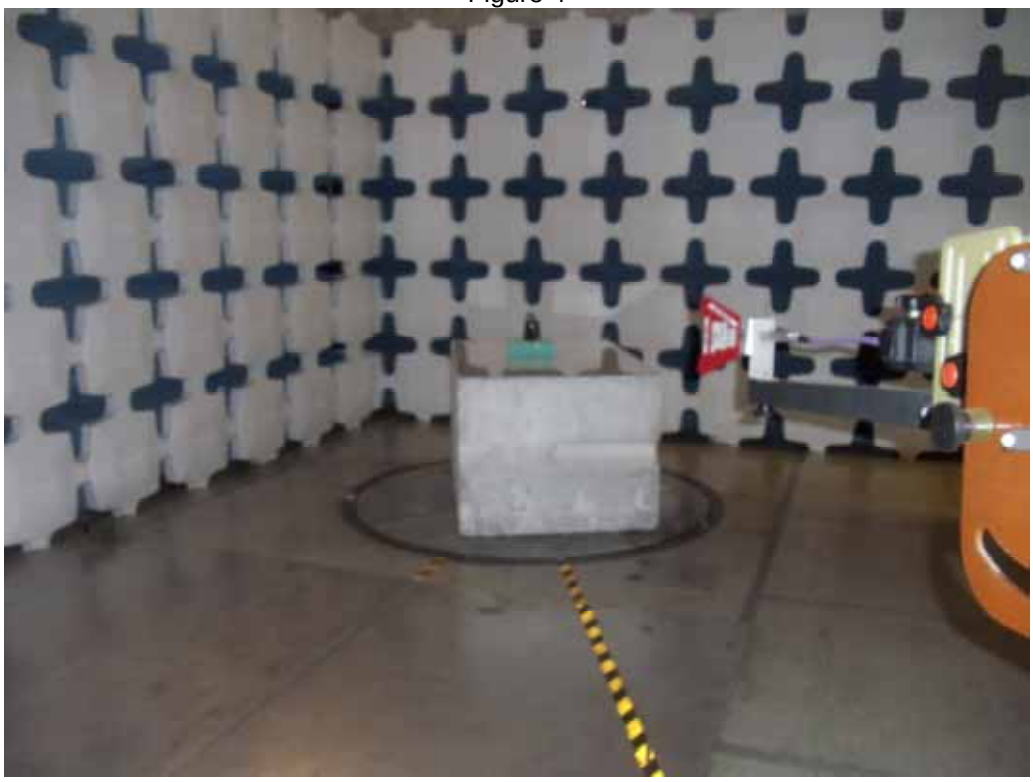
Test Setup for Occupied Bandwidth Test

Figure 3

Test Setup for Radiated Emissions, 30MHz to 1GHz – Horizontal Polarization

Test Setup for Radiated Emissions, 30MHz to 1GHz – Vertical Polarization

Figure 4



Test Setup for Radiated Emissions, Above 1GHz – Horizontal Polarization

Test Setup for Radiated Emissions, Above 1GHz – Vertical Polarization

MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 RF Power Output
DATE : April 13, 2015
MODE : Transmit H9 Band
EQUIPMENT USED : RBB0, T2SJ, T2S0

| Frequency MHz | Nominal Power dBm | Nominal Power mW | Measured Power dBm | Measured Power mW | FCC-74 Limit mW | RSS-210 Limit mW |
|---|---|---|---|---|---|---|
| 512.125 | 10 | 10 | 11.89 | 15 | 250 | 250 |
| 527.200 | 10 | 10 | 11.89 | 15 | 250 | 250 |
| 541.800 | 10 | 10 | 11.23 | 13 | 250 | 250 |

Checked BY Richard E. King :

Richard E. King

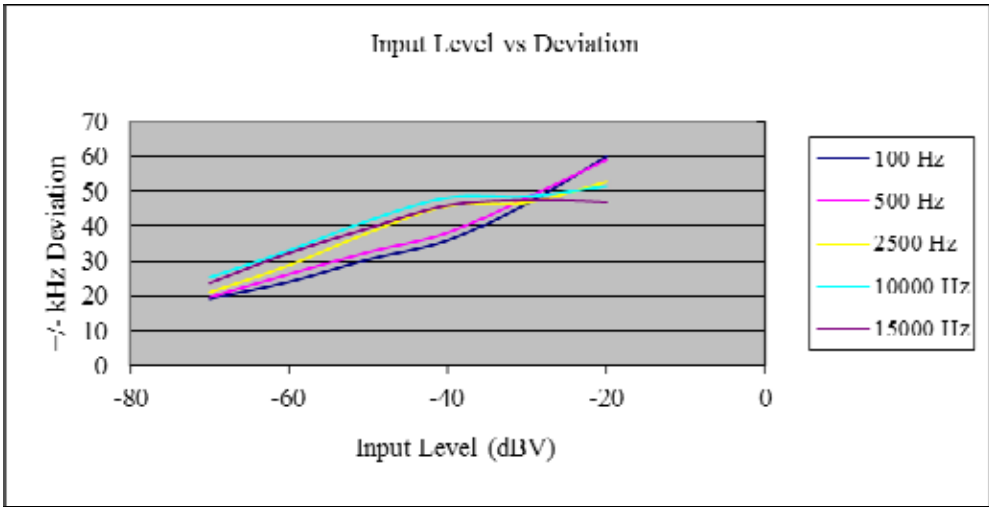
MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 RF Power Output
DATE : April 13, 2015
MODE : Transmit H10 Band
EQUIPMENT USED : RBB0, T2SJ, T2S0

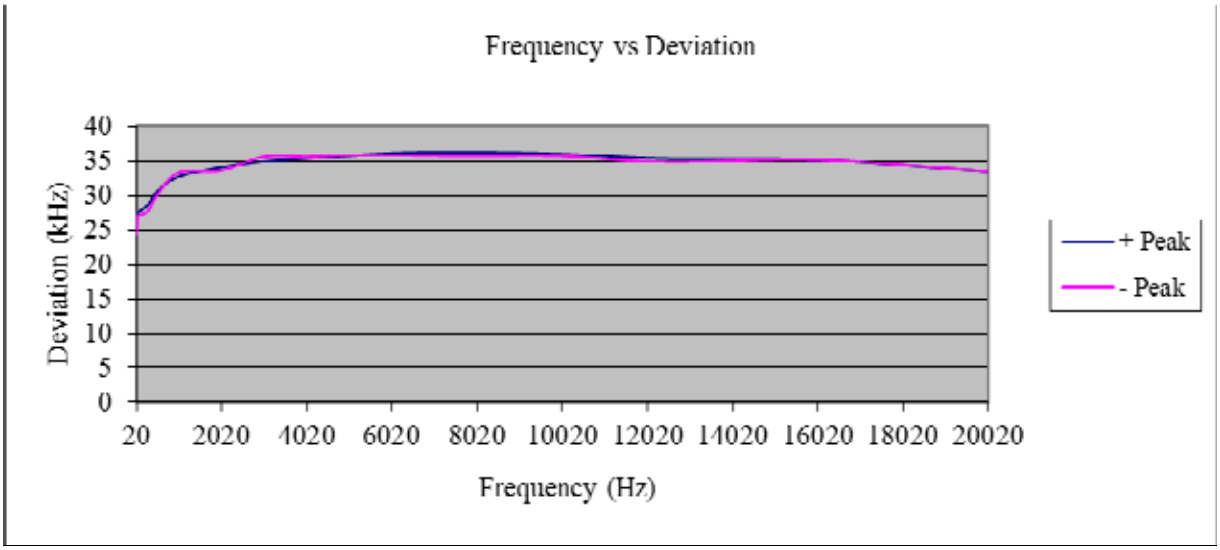
| Frequency MHz | Nominal Power dBm | Nominal Power mW | Measured Power dBm | Measured Power mW | FCC-74 Limit mW | RSS-210 Limit mW |
|---|---|---|---|---|---|---|
| 512.125 | 10 | 10 | 11.62 | 14 | 250 | 250 |
| 527.200 | 10 | 10 | 11.23 | 13 | 250 | 250 |
| 541.800 | 10 | 10 | 10.30 | 11 | 250 | 250 |

Checked BY Richard E. King :

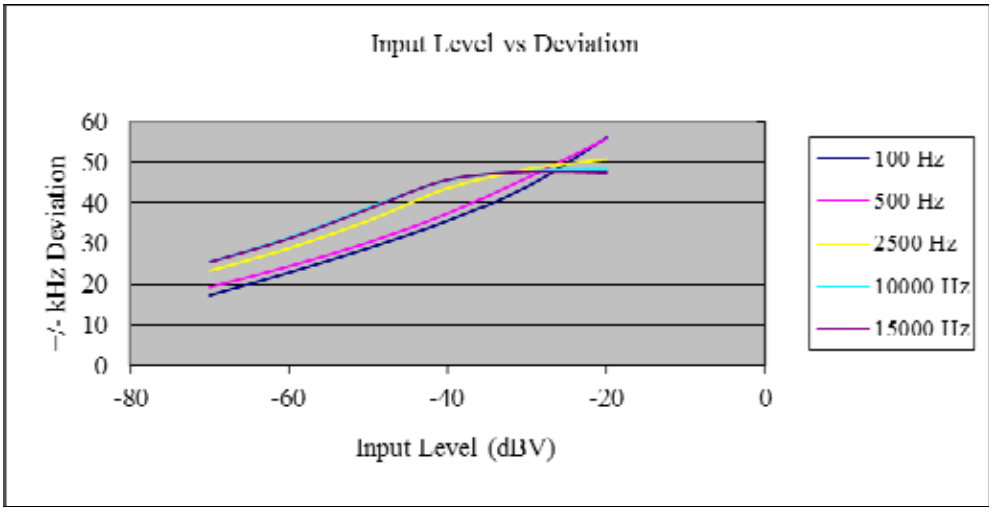
Richard E. King

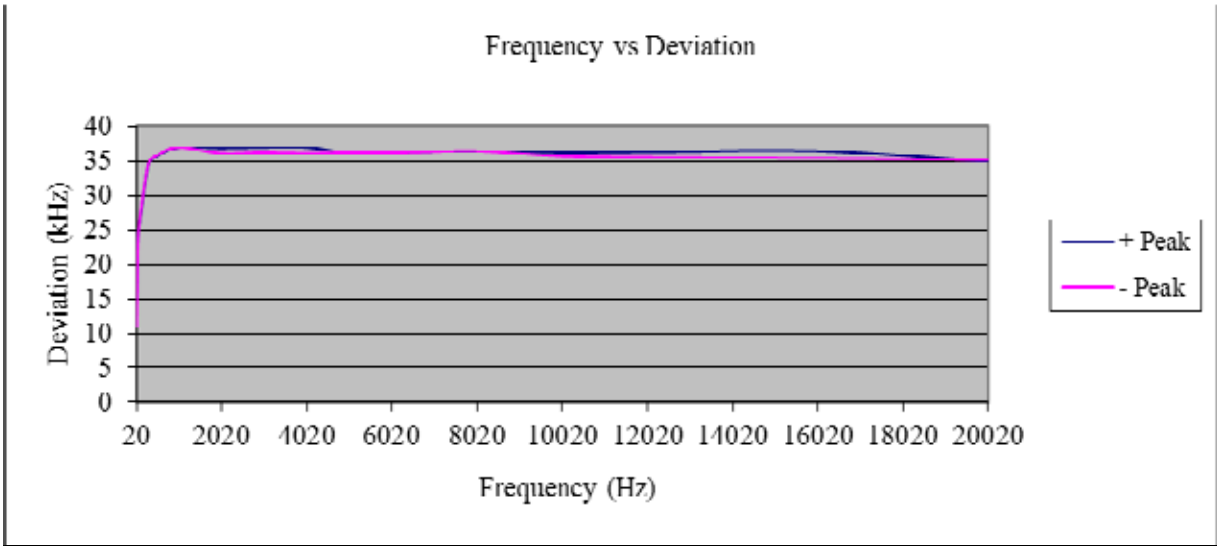
MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 Modulation Characteristics
DATE : April 16, 2015
MODE : Transmit at 512.125MHz
BAND : H9 Group J Channel 0
EQUIPMENT USED : RYE0, GWH6, T1EN



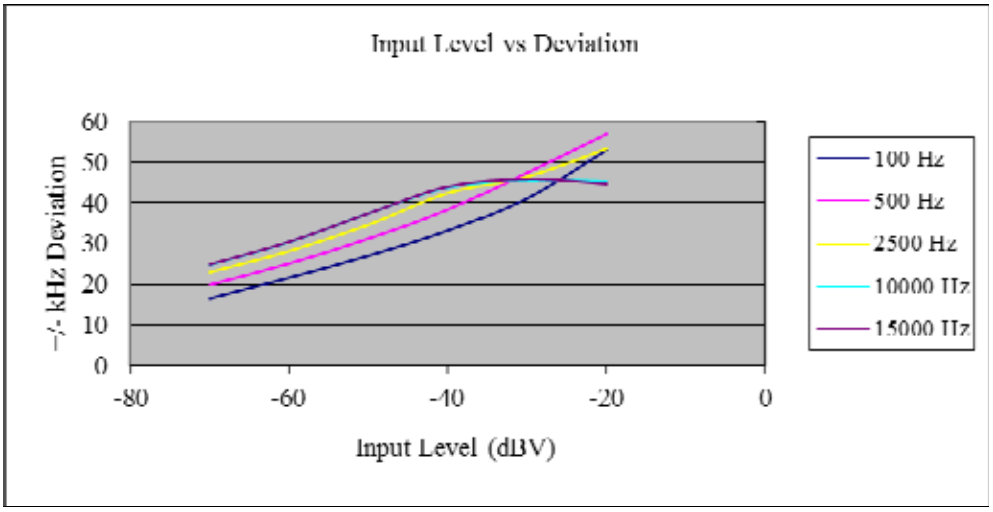



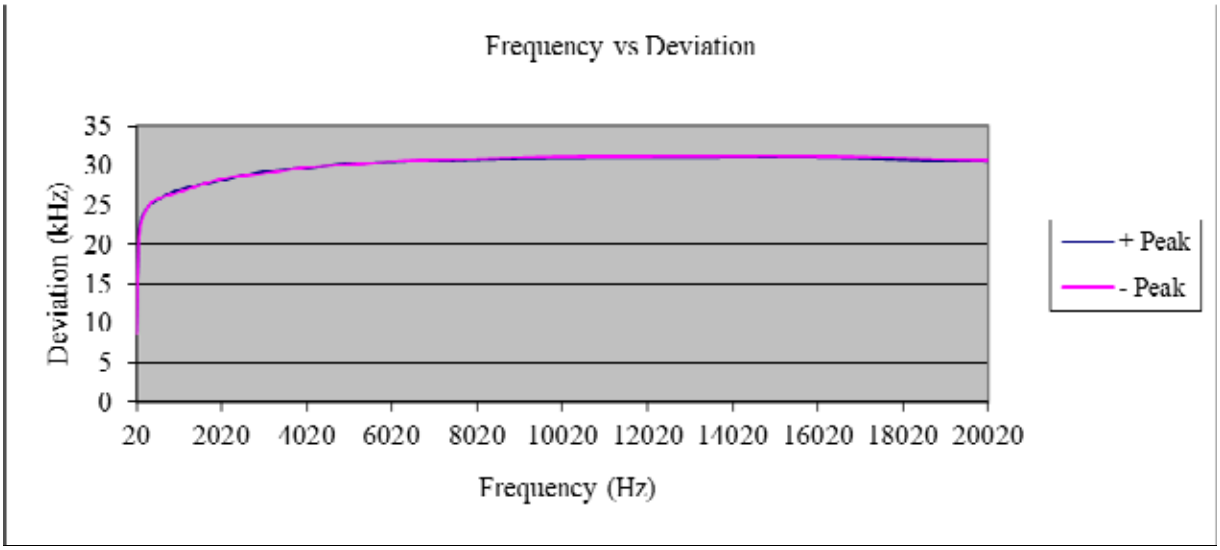
MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 Modulation Characteristics
DATE : April 16, 2015
MODE : Transmit at 527.2MHz
BAND : H9 Group C Channel 9
EQUIPMENT USED : RYE0, GWH6, T1EN



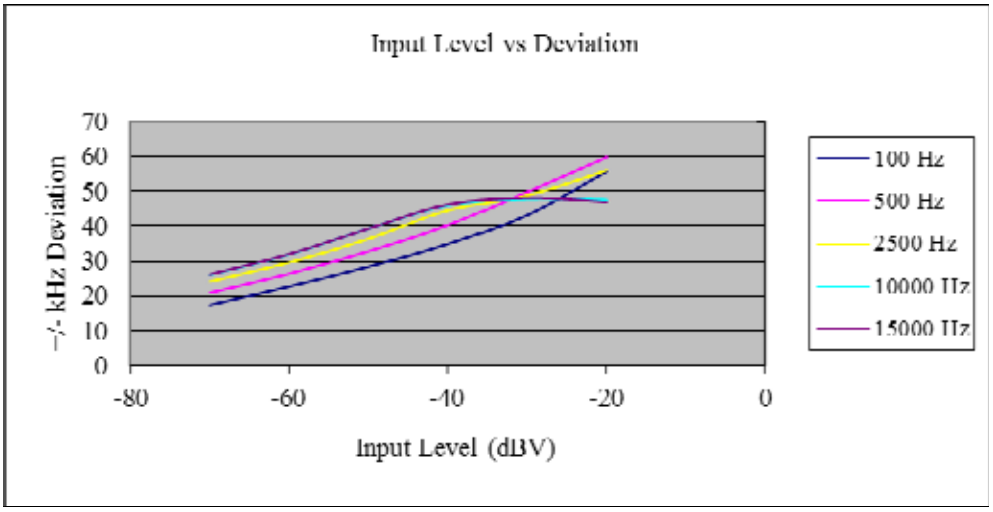



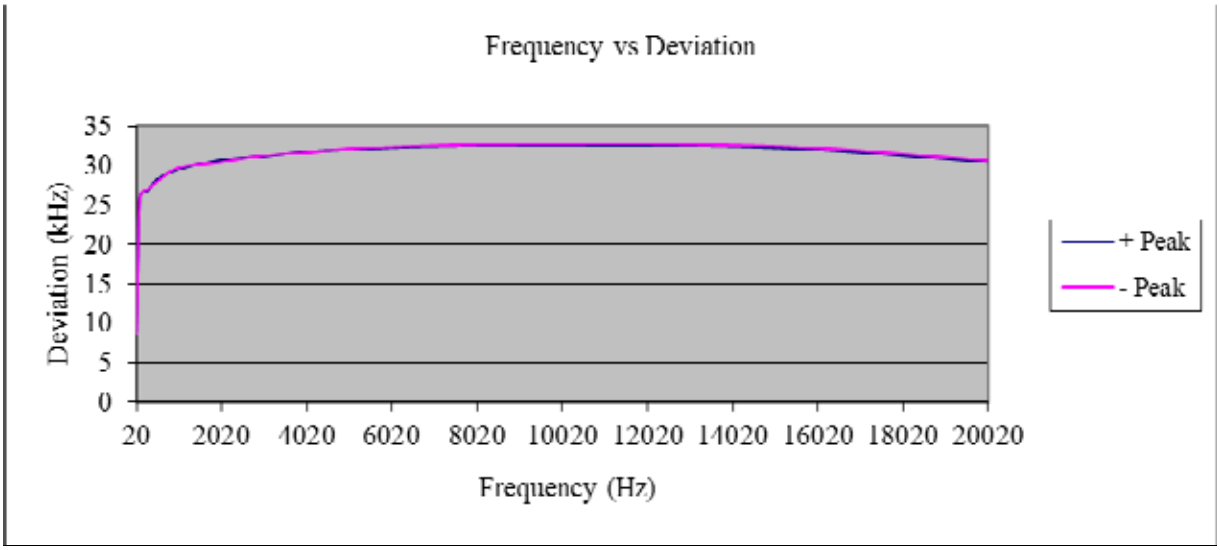
MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 Modulation Characteristics
DATE : April 16, 2015
MODE : Transmit at 541.8MHz
BAND : H9 Group J Channel A
EQUIPMENT USED : RYE0, GWH6, T1EN



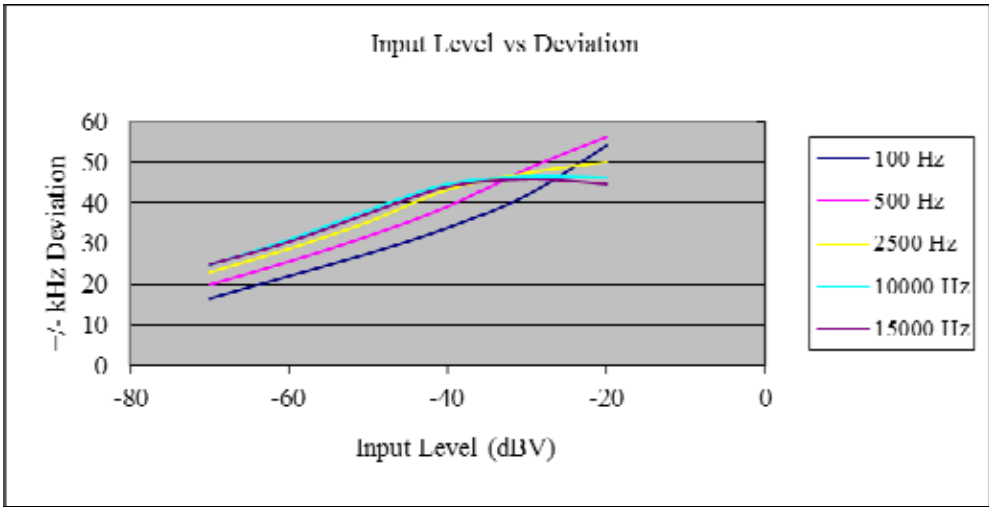



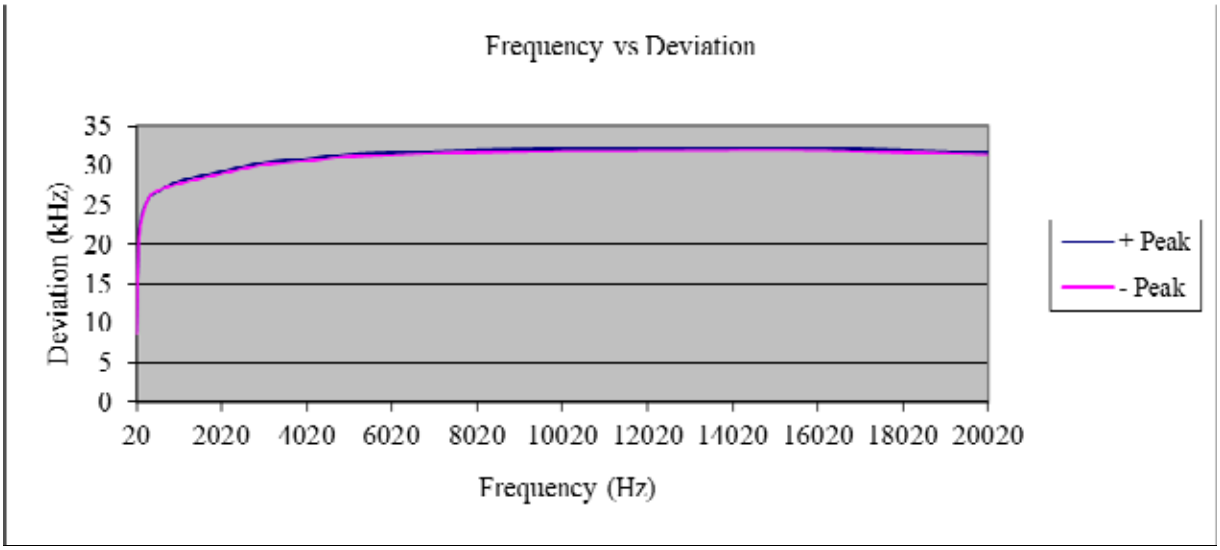
MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 Modulation Characteristics
DATE : April 16, 2015
MODE : Transmit at 542.125MHz
BAND : H10 Group E Channel 0
EQUIPMENT USED : RYE0, GWH6, T1EN



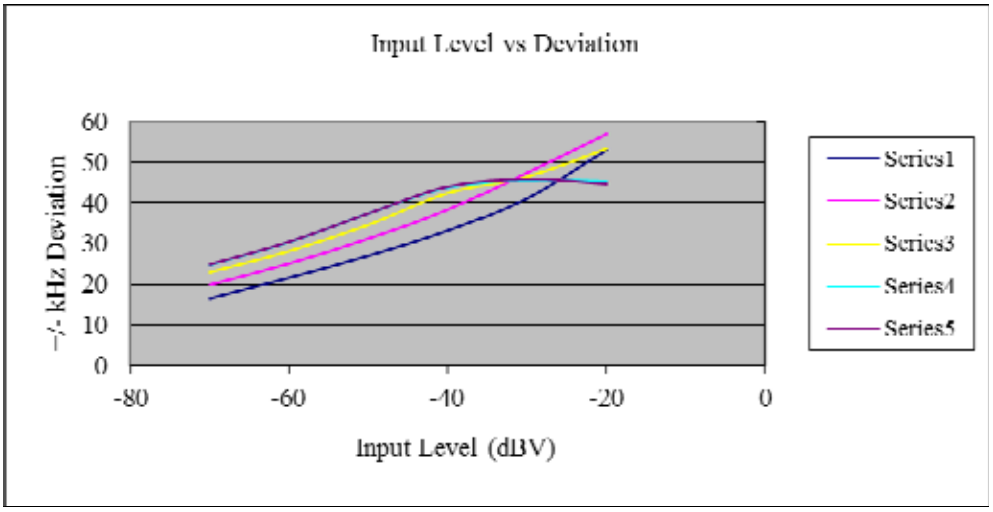



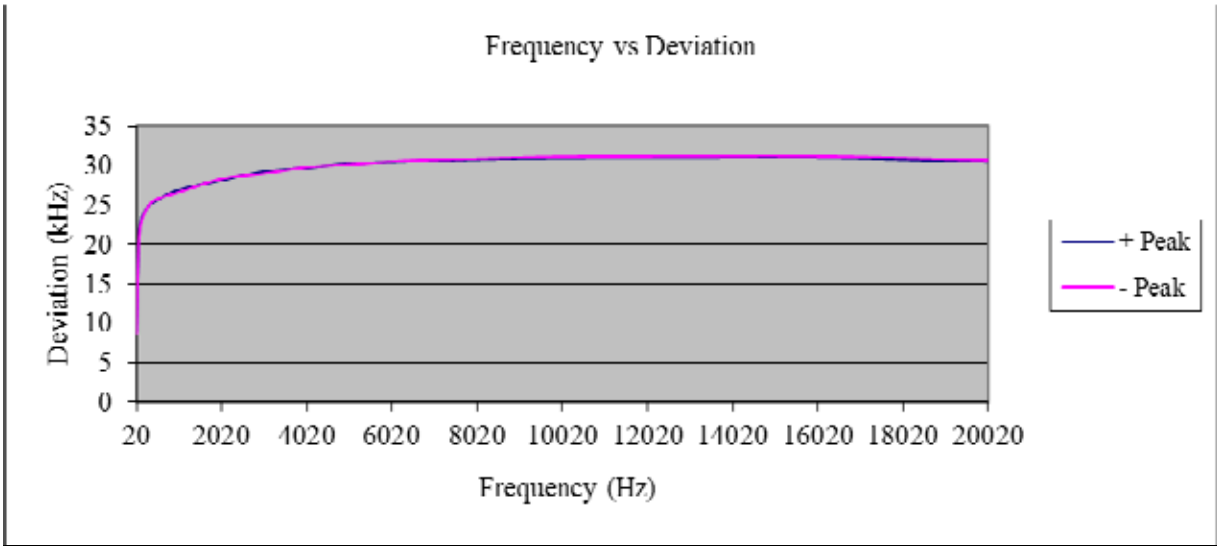
MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 Modulation Characteristics
DATE : April 16, 2015
MODE : Transmit at 556.675MHz
BAND : H10 Group N Channel 3
EQUIPMENT USED : RYE0, GWH6, T1EN



MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 Modulation Characteristics
DATE : April 16, 2015
MODE : Transmit at 571.675MHz
BAND : H10 Group A Channel 1
EQUIPMENT USED : RYE0, GWH6, T1EN



MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 Frequency Stability
DATE : April 16, 2015
MODE : Transmit at 512.125MHz
BAND : H9 Group J Channel 0
EQUIPMENT USED : ETD0, ETDC, ETDA, MFC0, SAA1

| Temperature °C | Nominal Frequency Hz | Frequency Variation in % | | | | |
|---|---|---|---|---|---|---|
| | | Measured Frequency Hz | Lower Limit % | Measured Variation % | Upper Limit % | Pass/Fail |
| -30 | 512,125,000 | 512,124,945 | -0.005000000 | -0.000010740 | 0.005000000 | Pass |
| -20 | 512,125,000 | 512,124,944 | -0.005000000 | -0.000010935 | 0.005000000 | Pass |
| -10 | 512,125,000 | 512,125,006 | -0.005000000 | 0.000001172 | 0.005000000 | Pass |
| 0 | 512,125,000 | 512,124,996 | -0.005000000 | -0.000000781 | 0.005000000 | Pass |
| +10 | 512,125,000 | 512,125,059 | -0.005000000 | 0.000011521 | 0.005000000 | Pass |
| +20 | 512,125,000 | 512,125,053 | -0.005000000 | 0.000010349 | 0.005000000 | Pass |
| +30 | 512,125,000 | 512,125,000 | -0.005000000 | 0.000000000 | 0.005000000 | Pass |
| +40 | 512,125,000 | 512,124,900 | -0.005000000 | -0.000019526 | 0.005000000 | Pass |
| +50 | 512,125,000 | 512,124,852 | -0.005000000 | -0.000028899 | 0.005000000 | Pass |

Checked BY Richard E. King :

Richard E. King

MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 Frequency Stability
DATE : April 16, 2015
MODE : Transmit at 527.2MHz
BAND : H9 Group C Channel 9
EQUIPMENT USED : ETD0, ETDC, ETDA, MFC0, SAA1

| Temperature °C | Nominal Frequency Hz | Frequency Variation in % | | | | |
|---|---|---|---|---|---|---|
| | | Measured Frequency Hz | Lower Limit % | Measured Variation % | Upper Limit % | Pass/Fail |
| -30 | 527,200,000 | 527,199,939 | -0.005000000 | -0.000011571 | 0.005000000 | Pass |
| -20 | 527,200,000 | 527,199,939 | -0.005000000 | -0.000011571 | 0.005000000 | Pass |
| -10 | 527,200,000 | 527,200,003 | -0.005000000 | 0.000000569 | 0.005000000 | Pass |
| 0 | 527,200,000 | 527,200,019 | -0.005000000 | 0.000003604 | 0.005000000 | Pass |
| +10 | 527,200,000 | 527,200,057 | -0.005000000 | 0.000010812 | 0.005000000 | Pass |
| +20 | 527,200,000 | 527,200,052 | -0.005000000 | 0.000009863 | 0.005000000 | Pass |
| +30 | 527,200,000 | 527,200,006 | -0.005000000 | 0.000001138 | 0.005000000 | Pass |
| +40 | 527,200,000 | 527,199,902 | -0.005000000 | -0.000018589 | 0.005000000 | Pass |
| +50 | 527,200,000 | 527,199,852 | -0.005000000 | -0.000028073 | 0.005000000 | Pass |

Checked BY Richard E. King :

Richard E. King

MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 Frequency Stability
DATE : April 16, 2015
MODE : Transmit at 541.8MHz
BAND : H9 Group J Channel A
EQUIPMENT USED : ETD0, ETDC, ETDA, MFC0, SAA1

| Temperature °C | Nominal Frequency Hz | Frequency Variation in % | | | | |
|---|---|---|---|---|---|---|
| | | Measured Frequency Hz | Lower Limit % | Measured Variation % | Upper Limit % | Pass/Fail |
| -30 | 541,800,000 | 541,799,939 | -0.005000000 | -0.000011259 | 0.005000000 | Pass |
| -20 | 541,800,000 | 541,799,940 | -0.005000000 | -0.000011074 | 0.005000000 | Pass |
| -10 | 541,800,000 | 541,799,999 | -0.005000000 | -0.000000185 | 0.005000000 | Pass |
| 0 | 541,800,000 | 541,800,033 | -0.005000000 | 0.000006091 | 0.005000000 | Pass |
| +10 | 541,800,000 | 541,800,056 | -0.005000000 | 0.000010336 | 0.005000000 | Pass |
| +20 | 541,800,000 | 541,800,051 | -0.005000000 | 0.000009413 | 0.005000000 | Pass |
| +30 | 541,800,000 | 541,800,008 | -0.005000000 | 0.000001477 | 0.005000000 | Pass |
| +40 | 541,800,000 | 541,799,902 | -0.005000000 | -0.000018088 | 0.005000000 | Pass |
| +50 | 541,800,000 | 541,799,851 | -0.005000000 | -0.000027501 | 0.005000000 | Pass |

Checked BY Richard E. King :

Richard E. King

MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 Frequency Stability
DATE : April 16, 2015
MODE : Transmit at 542.125MHz
BAND : H10 Group E Channel 0
EQUIPMENT USED : ETD0, ETDC, ETDA, MFC0, SAA1

| Temperature °C | Nominal Frequency Hz | Frequency Variation in % | | | | |
|---|---|---|---|---|---|---|
| | | Measured Frequency Hz | Lower Limit % | Measured Variation % | Upper Limit % | Pass/Fail |
| -30 | 542,125,000 | 542,124,748 | -0.005000000 | -0.000046484 | 0.005000000 | Pass |
| -20 | 542,125,000 | 542,124,728 | -0.005000000 | -0.000050173 | 0.005000000 | Pass |
| -10 | 542,125,000 | 542,124,884 | -0.005000000 | -0.000021397 | 0.005000000 | Pass |
| 0 | 542,125,000 | 542,124,891 | -0.005000000 | -0.000020106 | 0.005000000 | Pass |
| +10 | 542,125,000 | 542,124,978 | -0.005000000 | -0.000004058 | 0.005000000 | Pass |
| +20 | 542,125,000 | 542,124,984 | -0.005000000 | -0.000002951 | 0.005000000 | Pass |
| +30 | 542,125,000 | 542,124,927 | -0.005000000 | -0.000013466 | 0.005000000 | Pass |
| +40 | 542,125,000 | 542,124,849 | -0.005000000 | -0.000027853 | 0.005000000 | Pass |
| +50 | 542,125,000 | 542,124,782 | -0.005000000 | -0.000040212 | 0.005000000 | Pass |

Checked BY Richard E. King :

Richard E. King

MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 Frequency Stability
DATE : April 16, 2015
MODE : Transmit at 556.675MHz
BAND : H10 Group N Channel 3
EQUIPMENT USED : ETD0, ETDC, ETDA, MFC0, SAA1

| Temperature °C | Nominal Frequency Hz | Frequency Variation in % | | | | |
|---|---|---|---|---|---|---|
| | | Measured Frequency Hz | Lower Limit % | Measured Variation % | Upper Limit % | Pass/Fail |
| -30 | 556,675,000 | 556,674,728 | -0.005000000 | -0.000048862 | 0.005000000 | Pass |
| -20 | 556,675,000 | 556,674,762 | -0.005000000 | -0.000042754 | 0.005000000 | Pass |
| -10 | 556,675,000 | 556,674,859 | -0.005000000 | -0.000025329 | 0.005000000 | Pass |
| 0 | 556,675,000 | 556,674,908 | -0.005000000 | -0.000016527 | 0.005000000 | Pass |
| +10 | 556,675,000 | 556,674,969 | -0.005000000 | -0.000005569 | 0.005000000 | Pass |
| +20 | 556,675,000 | 556,674,985 | -0.005000000 | -0.000002695 | 0.005000000 | Pass |
| +30 | 556,675,000 | 556,674,928 | -0.005000000 | -0.000012934 | 0.005000000 | Pass |
| +40 | 556,675,000 | 556,674,841 | -0.005000000 | -0.000028562 | 0.005000000 | Pass |
| +50 | 556,675,000 | 556,674,776 | -0.005000000 | -0.000040239 | 0.005000000 | Pass |

Checked BY Richard E. King :

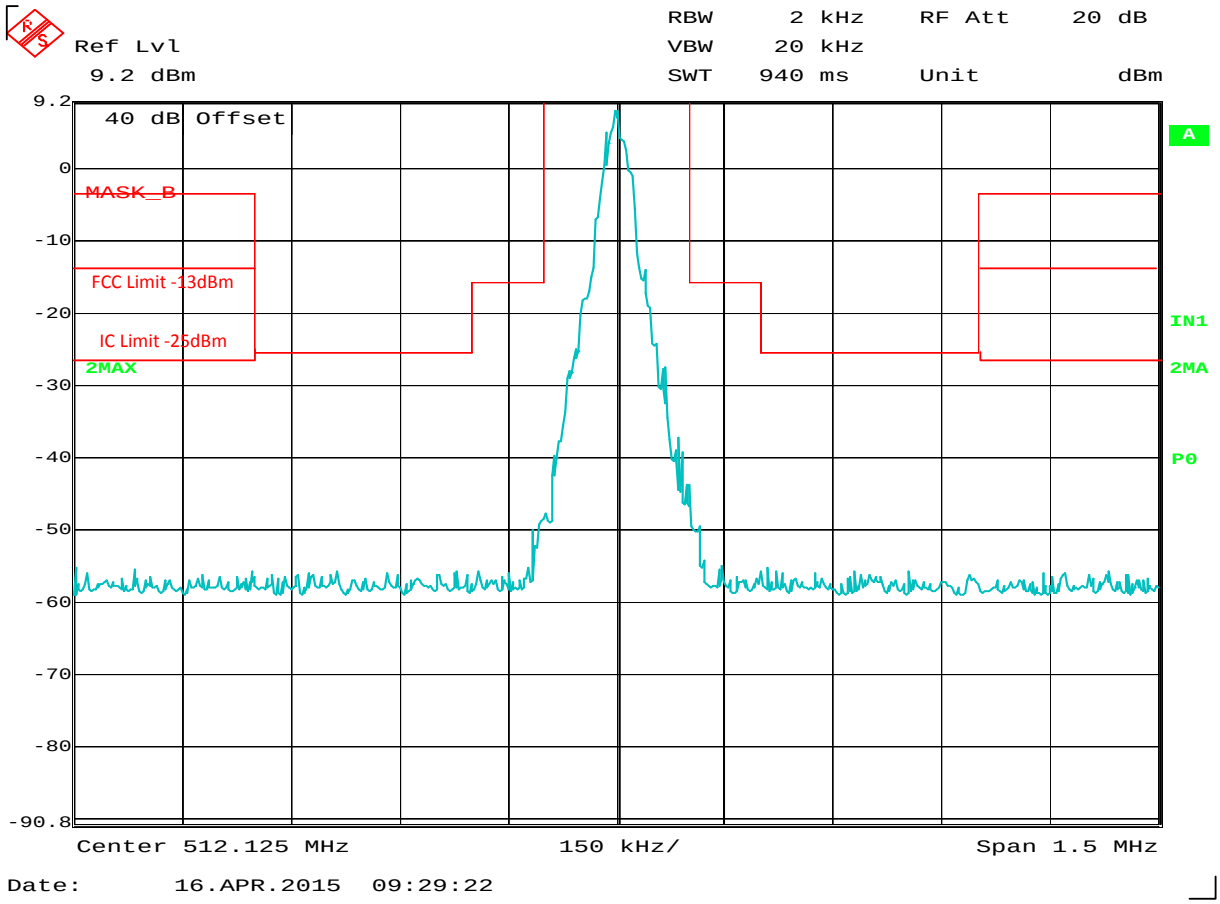
Richard E. King

MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 Frequency Stability
DATE : April 16, 2015
MODE : Transmit at 571.675MHz
BAND : H10 Group A Channel 1
EQUIPMENT USED : ETD0, ETDC, ETDA, MFC0, SAA1

| Temperature °C | Nominal Frequency Hz | Frequency Variation in % | | | | |
|---|---|---|---|---|---|---|
| | | Measured Frequency Hz | Lower Limit % | Measured Variation % | Upper Limit % | Pass/Fail |
| -30 | 571,675,000 | 571,674,728 | -0.005000000 | -0.000047579 | 0.005000000 | Pass |
| -20 | 571,675,000 | 571,674,783 | -0.005000000 | -0.000037959 | 0.005000000 | Pass |
| -10 | 571,675,000 | 571,674,820 | -0.005000000 | -0.000031486 | 0.005000000 | Pass |
| 0 | 571,675,000 | 571,674,920 | -0.005000000 | -0.000013994 | 0.005000000 | Pass |
| +10 | 571,675,000 | 571,674,961 | -0.005000000 | -0.000006822 | 0.005000000 | Pass |
| +20 | 571,675,000 | 571,674,984 | -0.005000000 | -0.000002799 | 0.005000000 | Pass |
| +30 | 571,675,000 | 571,674,931 | -0.005000000 | -0.000012070 | 0.005000000 | Pass |
| +40 | 571,675,000 | 571,674,837 | -0.005000000 | -0.000028513 | 0.005000000 | Pass |
| +50 | 571,675,000 | 571,674,770 | -0.005000000 | -0.000040233 | 0.005000000 | Pass |

Checked BY Richard E. King :

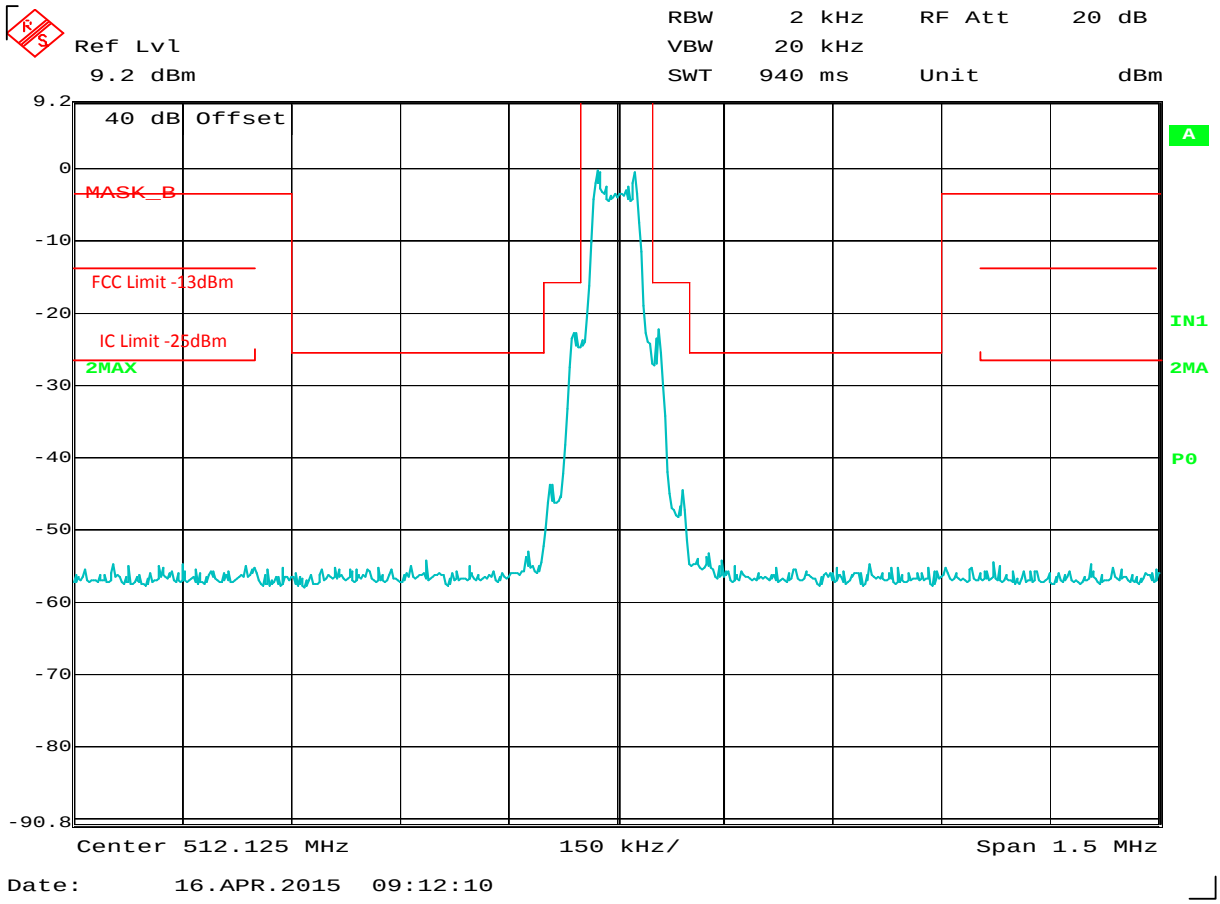
Richard E. King




**FCC/IC Part 74/RSS-210 Occupied Bandwidth**

MANUFACTURER :Shure Incorporated
MODEL NUMBER :BLX2
SERIAL NUMBER :
TEST MODE :Tx @ 512.125MHz
TEST PARAMETERS :H9 Group J Channel 0
EQUIPMENT USED :RBB0, T2DA, T2SD, RYE0, GWH6, T1EN
NOTES :Un-modulated carrier

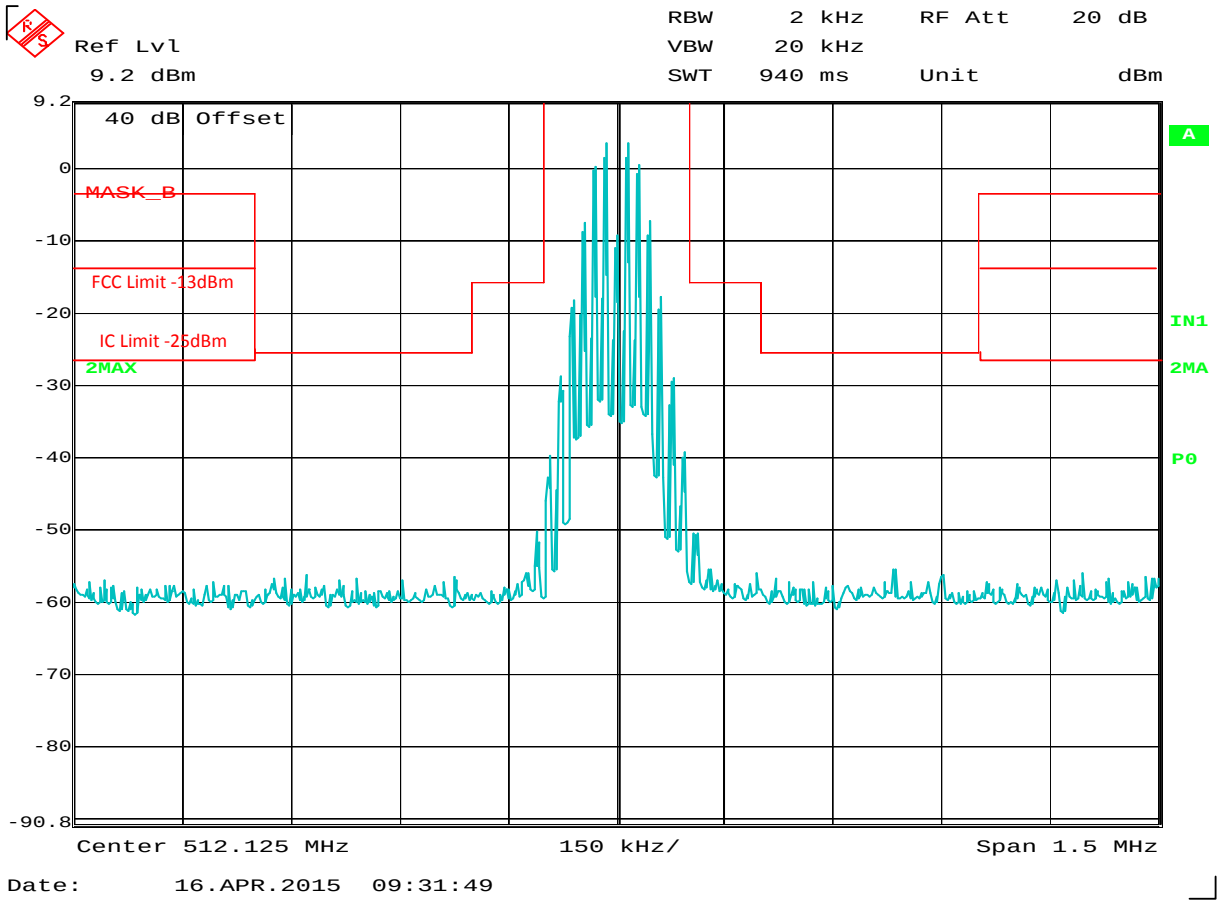
NOTES




**FCC/IC Part 74/RSS-210 Occupied Bandwidth**

MANUFACTURER :Shure Incorporated
MODEL NUMBER :BLX2
SERIAL NUMBER :
TEST MODE :Tx @ 512.125MHz
TEST PARAMETERS :H9 Group J Channel 0
EQUIPMENT USED :RBB0, T2DA, T2SD, RYE0, GWH6, T1EN
NOTES :2500Hz @ 16 dB over 50% Deviation

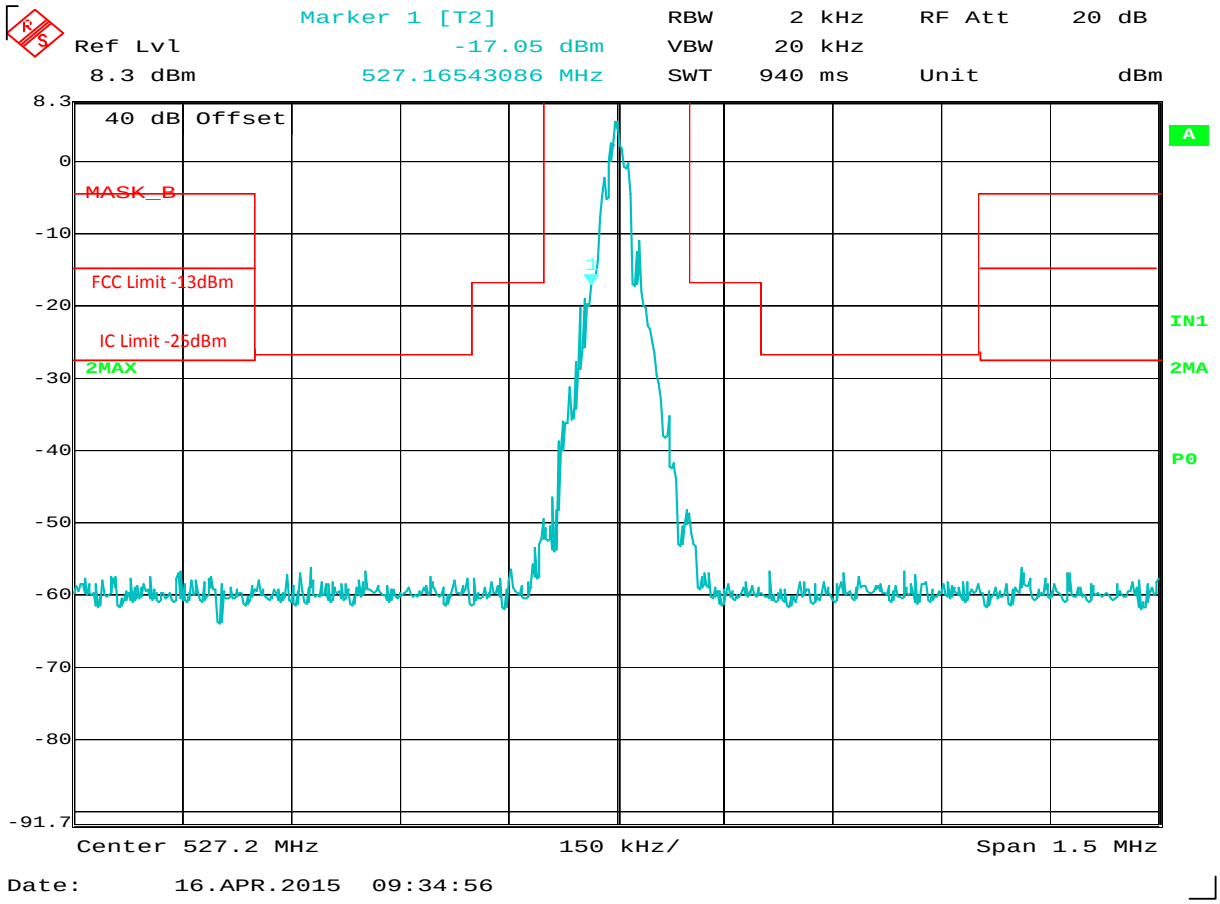
NOTES




**FCC Part 74 and IC RSS-210 Occupied Bandwidth**

MANUFACTURER :Shure Incorporated
MODEL NUMBER :BLX2
SERIAL NUMBER :
TEST MODE :Tx @ 512.125MHz
TEST PARAMETERS :H9 Group J Channel 0
EQUIPMENT USED :RBB0, T2DA, T2SD, RYE0, GWH6, T1EN
NOTES :15kHz @ 85%modulation

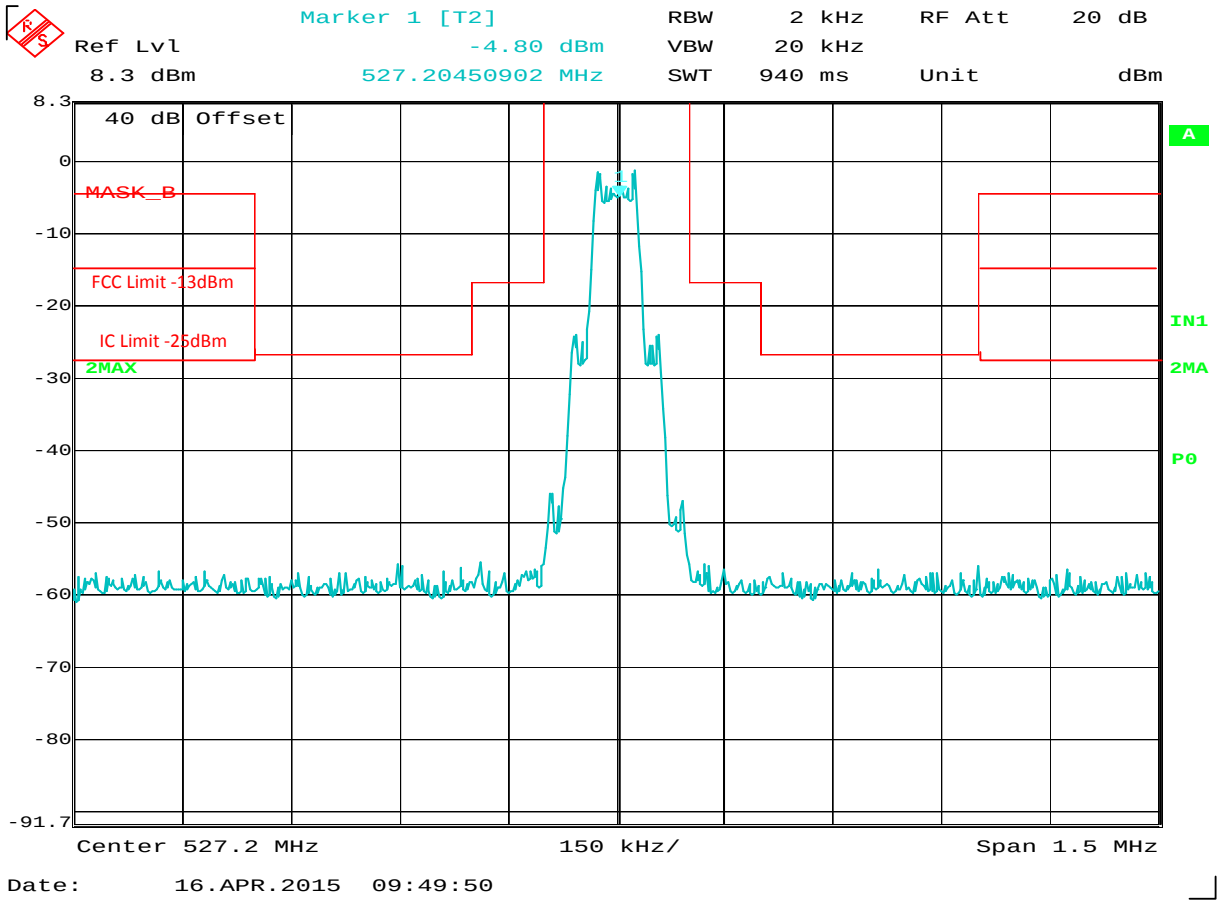
NOTES




**FCC Part 74 and IC RSS-210 Occupied Bandwidth**

MANUFACTURER :Shure Incorporated
MODEL NUMBER :BLX2
SERIAL NUMBER :
TEST MODE :Tx @ 527.2MHz
TEST PARAMETERS :H9 Group C Channel 9
EQUIPMENT USED :RBB0, T2DA, T2SD, RYE0, GWH6, T1EN
NOTES :un-modulated carrier

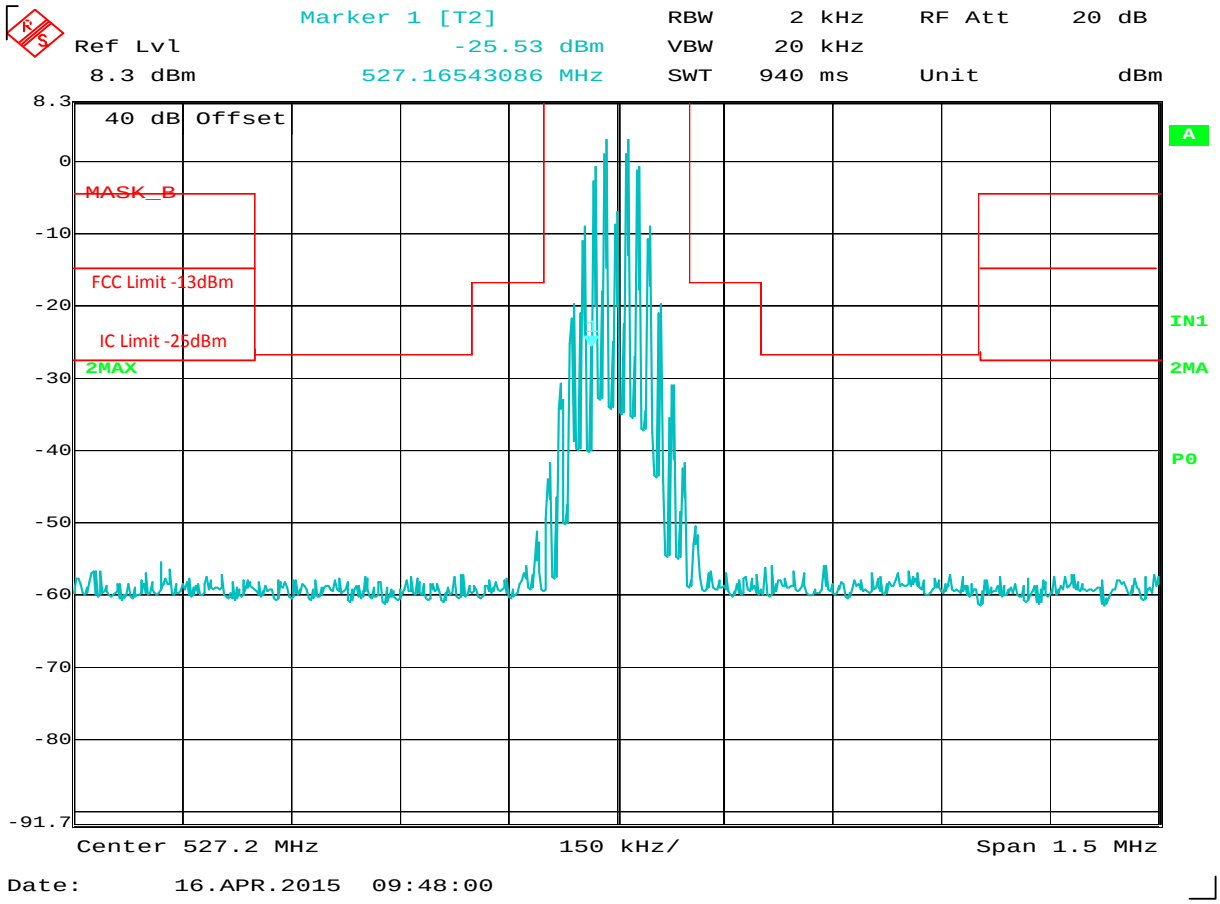
NOTES




**FCC Part 74 and IC RSS-210 Occupied Bandwidth**

MANUFACTURER :Shure Incorporated
MODEL NUMBER :BLX2
SERIAL NUMBER :
TEST MODE :Tx @ 527.2MHz
TEST PARAMETERS :H9 Group C Channel 9
EQUIPMENT USED :RBB0, T2DA, T2SD, RYE0, GWH6, T1EN
NOTES :2.5kHz at 16dB over 50% modulation

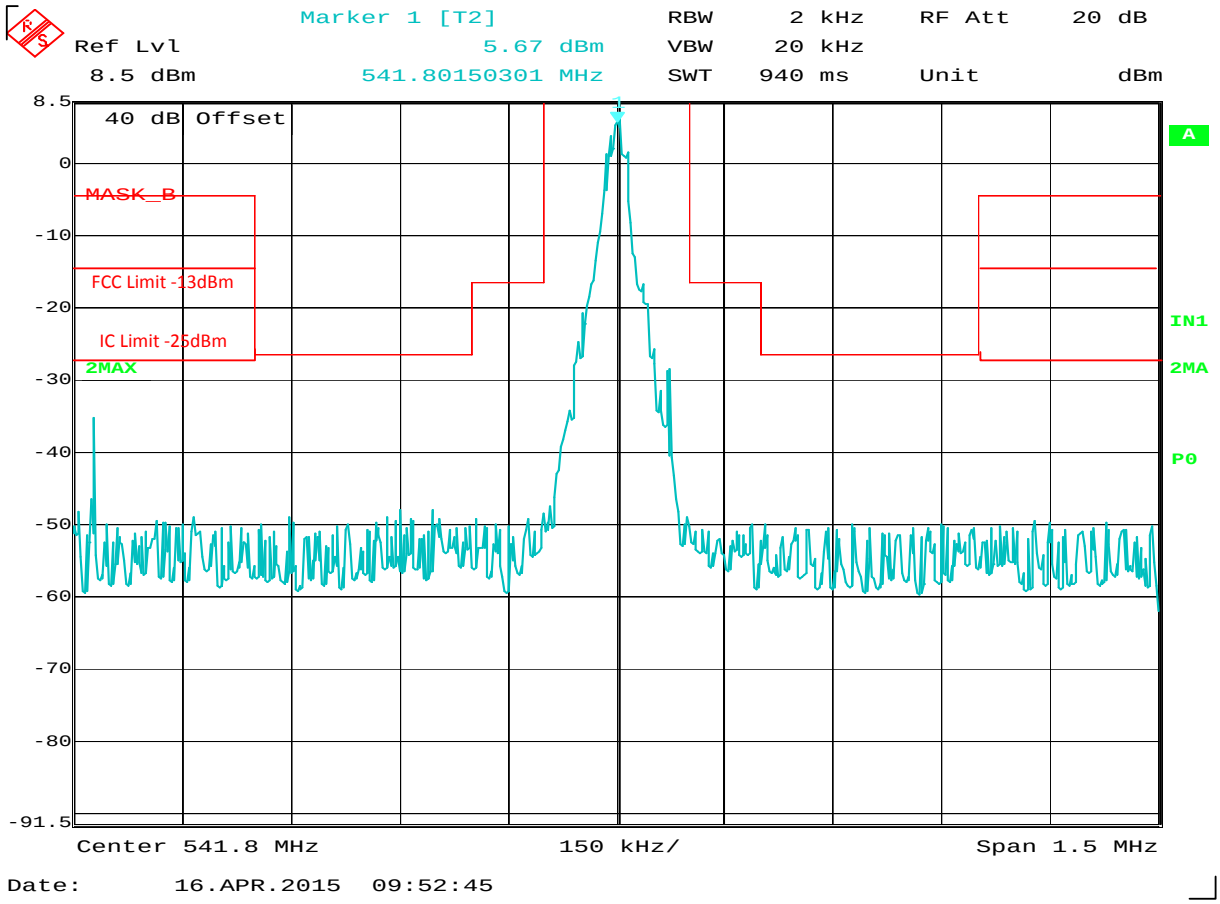
NOTES




**FCC Part 74 and IC RSS-210 Occupied Bandwidth**

MANUFACTURER :Shure Incorporated
MODEL NUMBER :BLX2
SERIAL NUMBER :
TEST MODE :Tx @ 527.2MHz
TEST PARAMETERS :H9 Group C Channel 9
EQUIPMENT USED :RBB0, T2DA, T2SD, RYE0, GWH6, T1EN
NOTES :15kHz @ 85% modulation

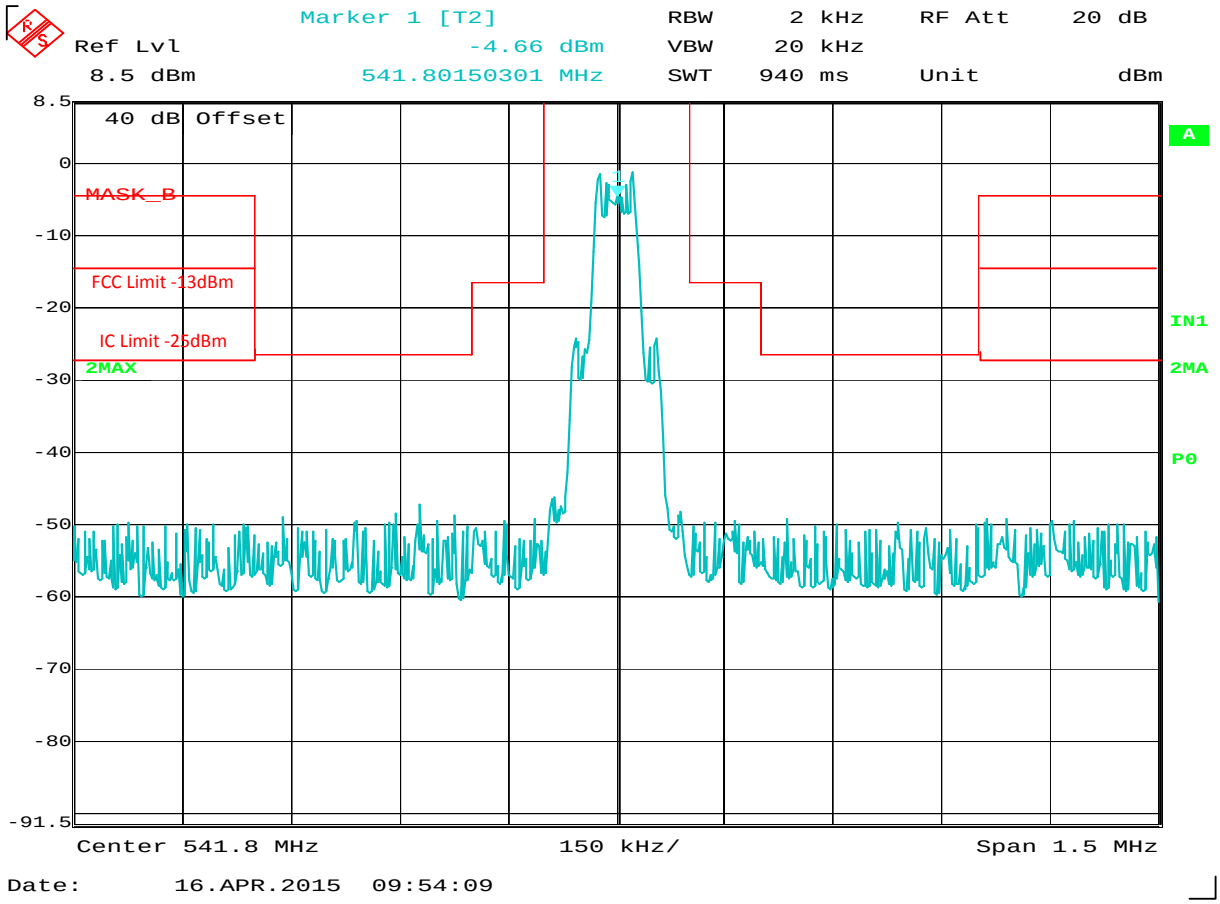
NOTES




**FCC Part 74 and IC RSS-210 Occupied Bandwidth**

MANUFACTURER :Shure Incorporated
MODEL NUMBER :BLX2
SERIAL NUMBER :
TEST MODE :Tx @ 541.8MHz
TEST PARAMETERS :H9 Group J Channel A
EQUIPMENT USED :RBB0, T2DA, T2SD, RYE0, GWH6, T1EN
NOTES :unmodulated carrier

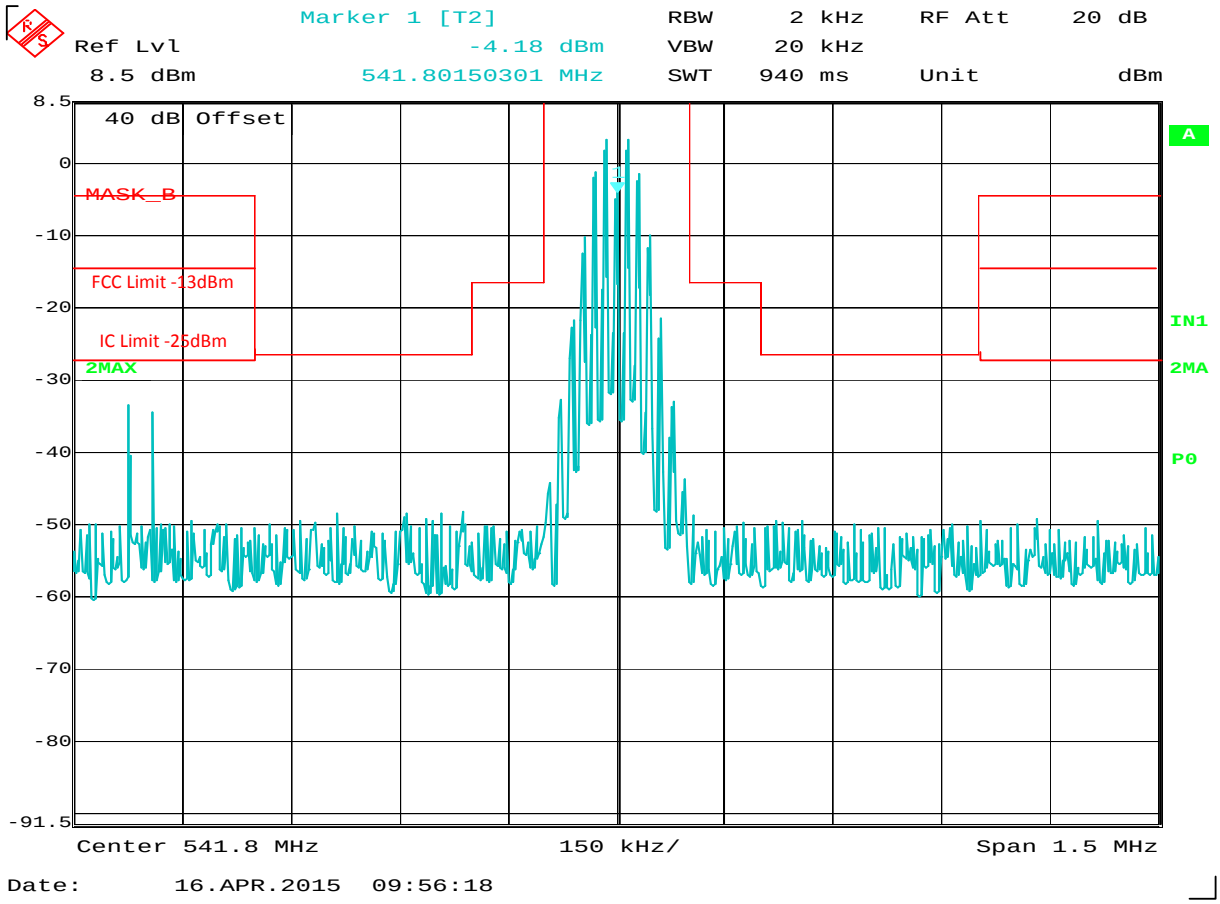
NOTES




**FCC Part 74 and IC RSS-210 Occupied Bandwidth**

MANUFACTURER :Shure Incorporated
MODEL NUMBER :BLX2
SERIAL NUMBER :
TEST MODE :Tx @ 541.8MHz
TEST PARAMETERS :H9 Group J Channel A
EQUIPMENT USED :RBB0, T2DA, T2SD, RYE0, GWH6, T1EN
NOTES :2.5kHz at 16dB over 50% modulation

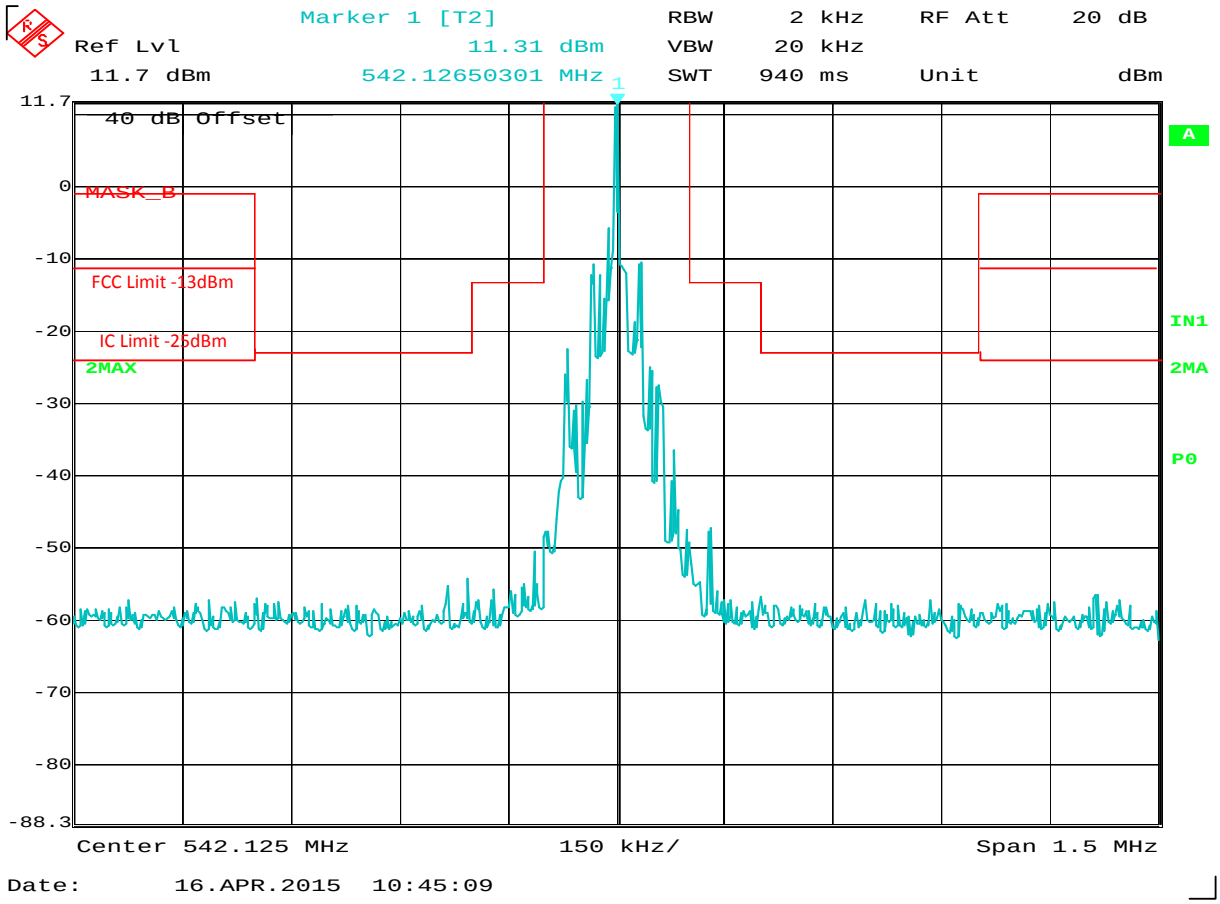
NOTES




**FCC Part 74 and IC RSS-210 Occupied Bandwidth**

MANUFACTURER :Shure Incorporated
MODEL NUMBER :BLX2
SERIAL NUMBER :
TEST MODE :Tx @ 541.8MHz
TEST PARAMETERS :H9 Group J Channel A
EQUIPMENT USED :RBB0, T2DA, T2SD, RYE0, GWH6, T1EN
NOTES :15kHz at 85% modulation

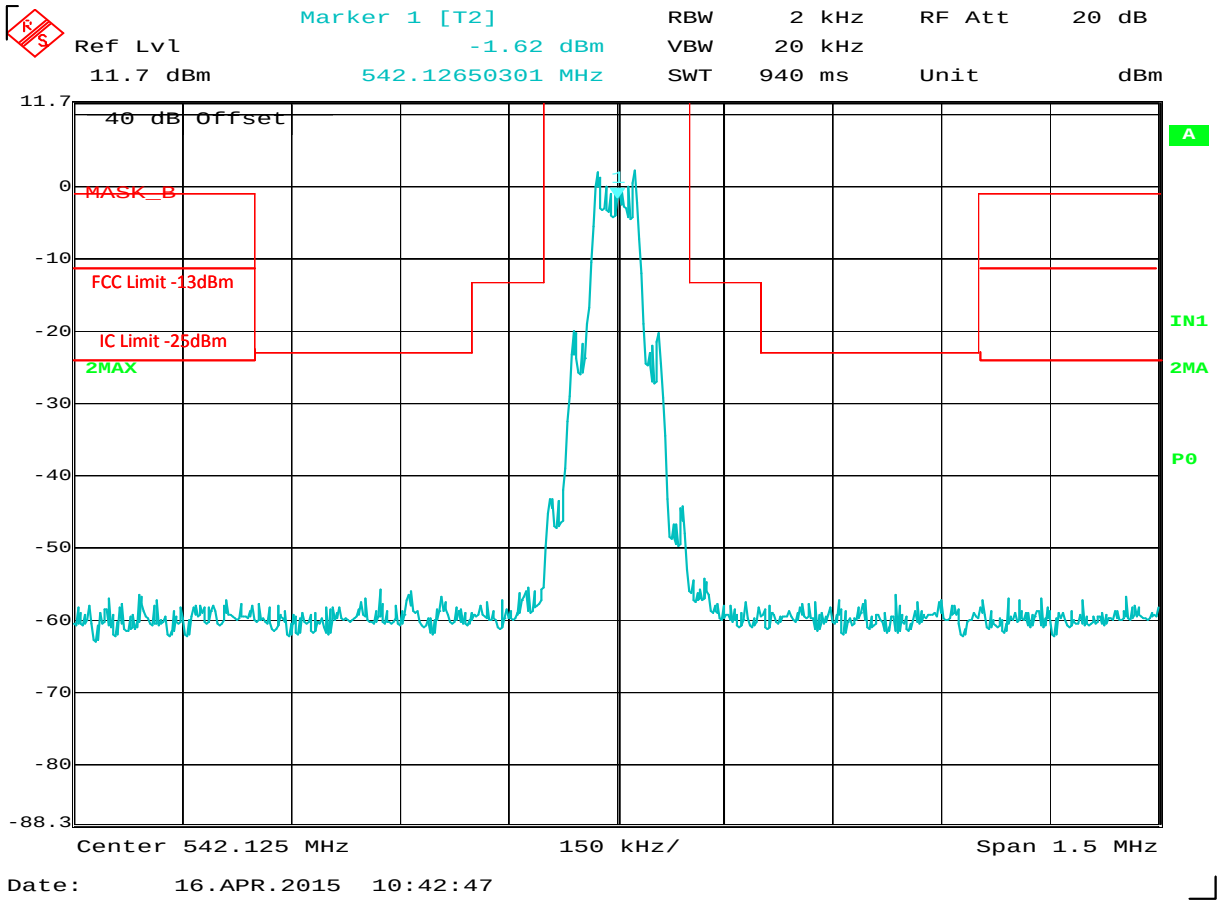
NOTES




**FCC Part 74 and IC RSS-210 Occupied Bandwidth**

MANUFACTURER :Shure Incorporated
MODEL NUMBER :BLX2
SERIAL NUMBER :
TEST MODE :Tx @ 542.125MHz
TEST PARAMETERS :H10 Group E Channel 0
EQUIPMENT USED :RBB0, T2DA, T2SD, RYE0, GWH6, T1EN
NOTES :unmodulated carrier

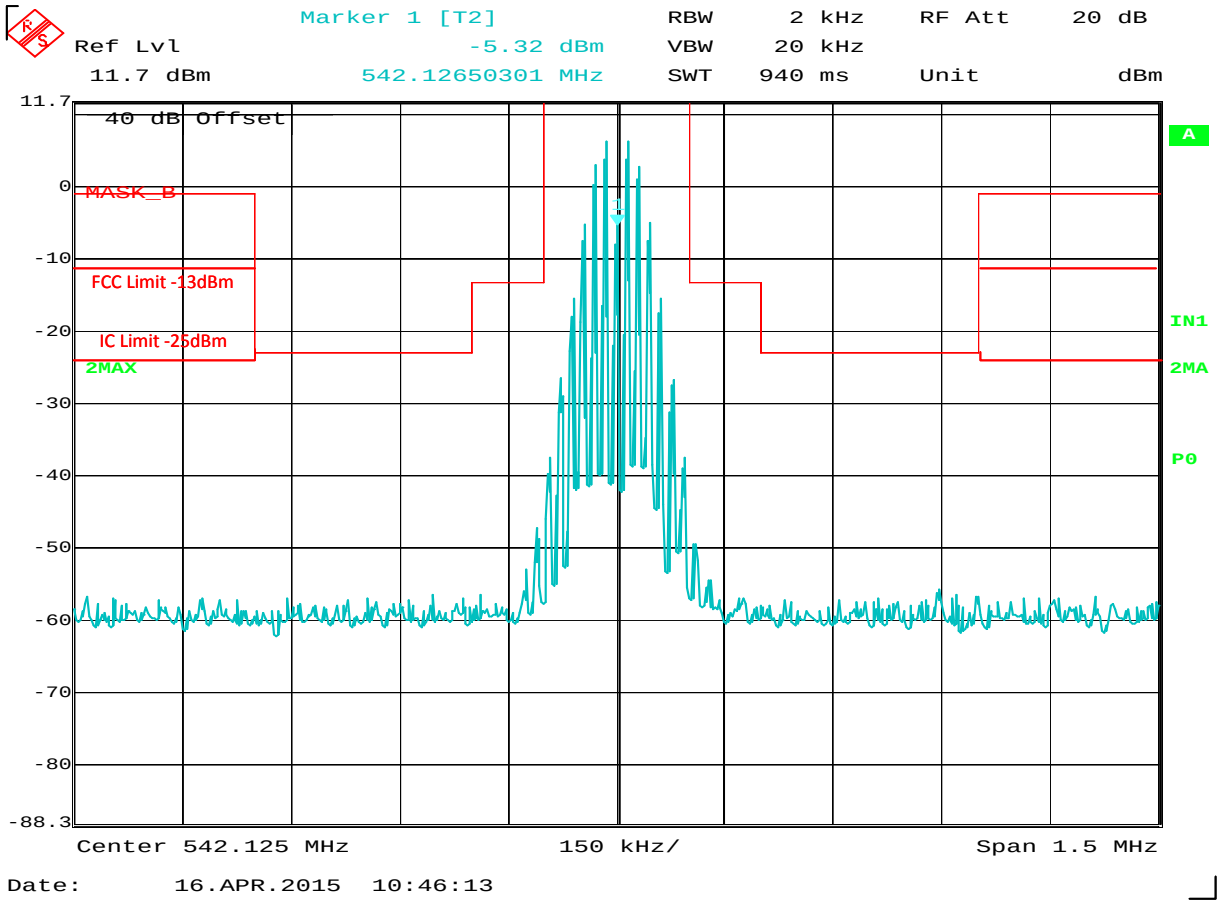
NOTES




**FCC Part 74 and IC RSS-210 Occupied Bandwidth**

MANUFACTURER :Shure Incorporated
MODEL NUMBER :BLX2
SERIAL NUMBER :
TEST MODE :Tx @ 542.125MHz
TEST PARAMETERS :H10 Group E Channel 0
EQUIPMENT USED :RBB0, T2DA, T2SD, RYE0, GWH6, T1EN
NOTES : 2.5kHz at 16dB over 50% modulation

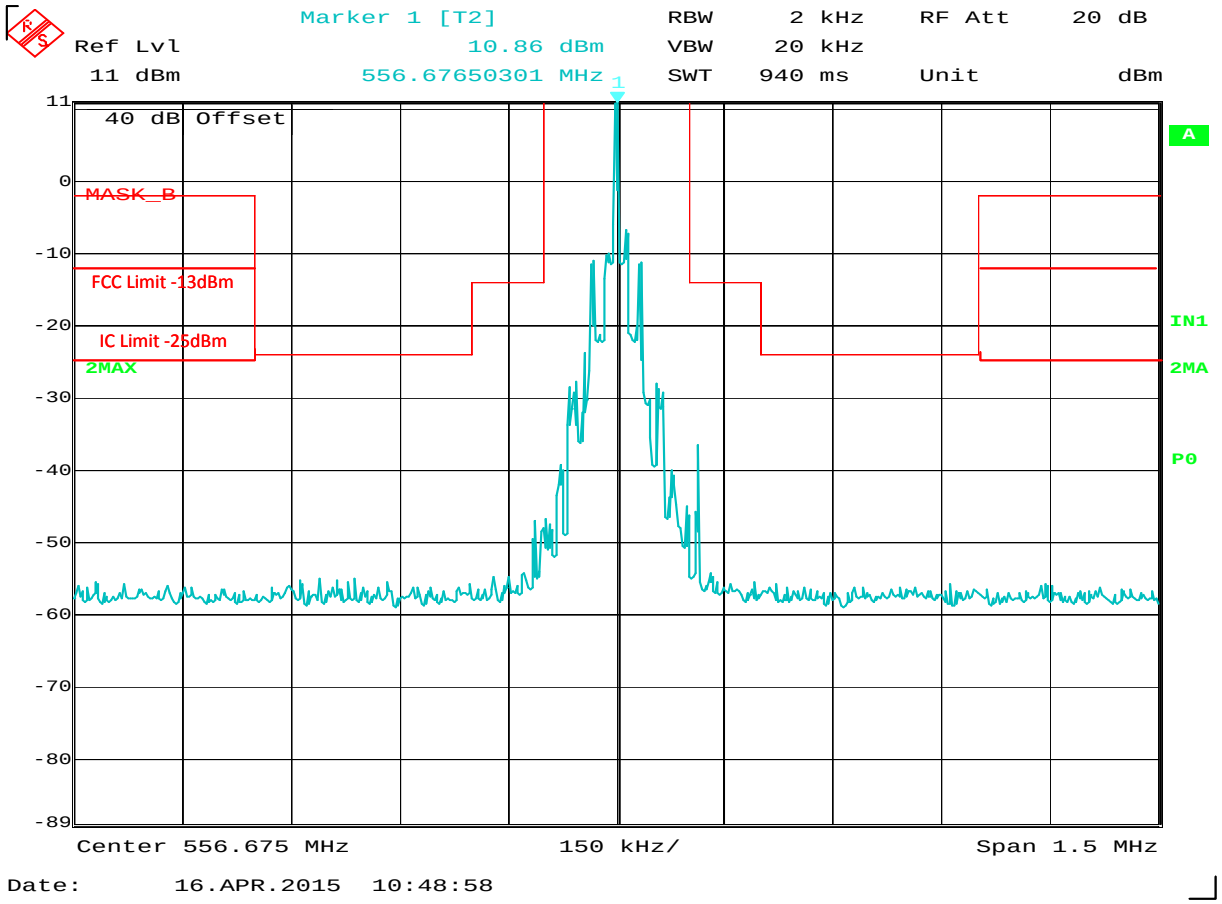
NOTES




**FCC Part 74 and IC RSS-210 Occupied Bandwidth**

MANUFACTURER :Shure Incorporated
MODEL NUMBER :BLX2
SERIAL NUMBER :
TEST MODE :Tx @ 542.125MHz
TEST PARAMETERS :H10 Group E Channel 0
EQUIPMENT USED :RBB0, T2DA, T2SD, RYE0, GWH6, T1EN
NOTES : 15kHz at 85% modulation

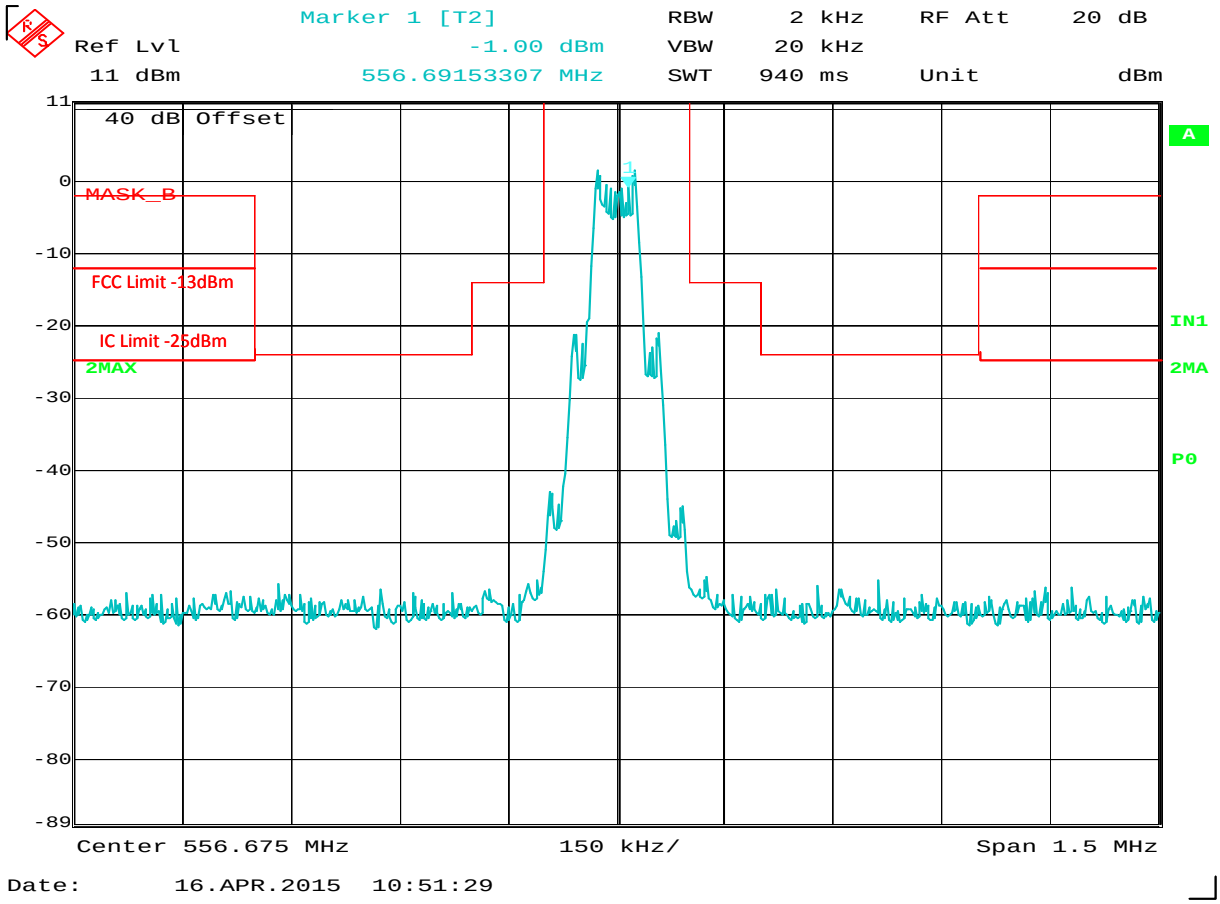
NOTES




**FCC Part 74 and IC RSS-210 Occupied Bandwidth**

MANUFACTURER :Shure Incorporated
MODEL NUMBER :BLX2
SERIAL NUMBER :
TEST MODE :Tx @ 556.675MHz
TEST PARAMETERS :H10 Group N Channel 3
EQUIPMENT USED :RBB0, T2DA, T2SD, RYE0, GWH6, T1EN
NOTES :unmodulated carrier

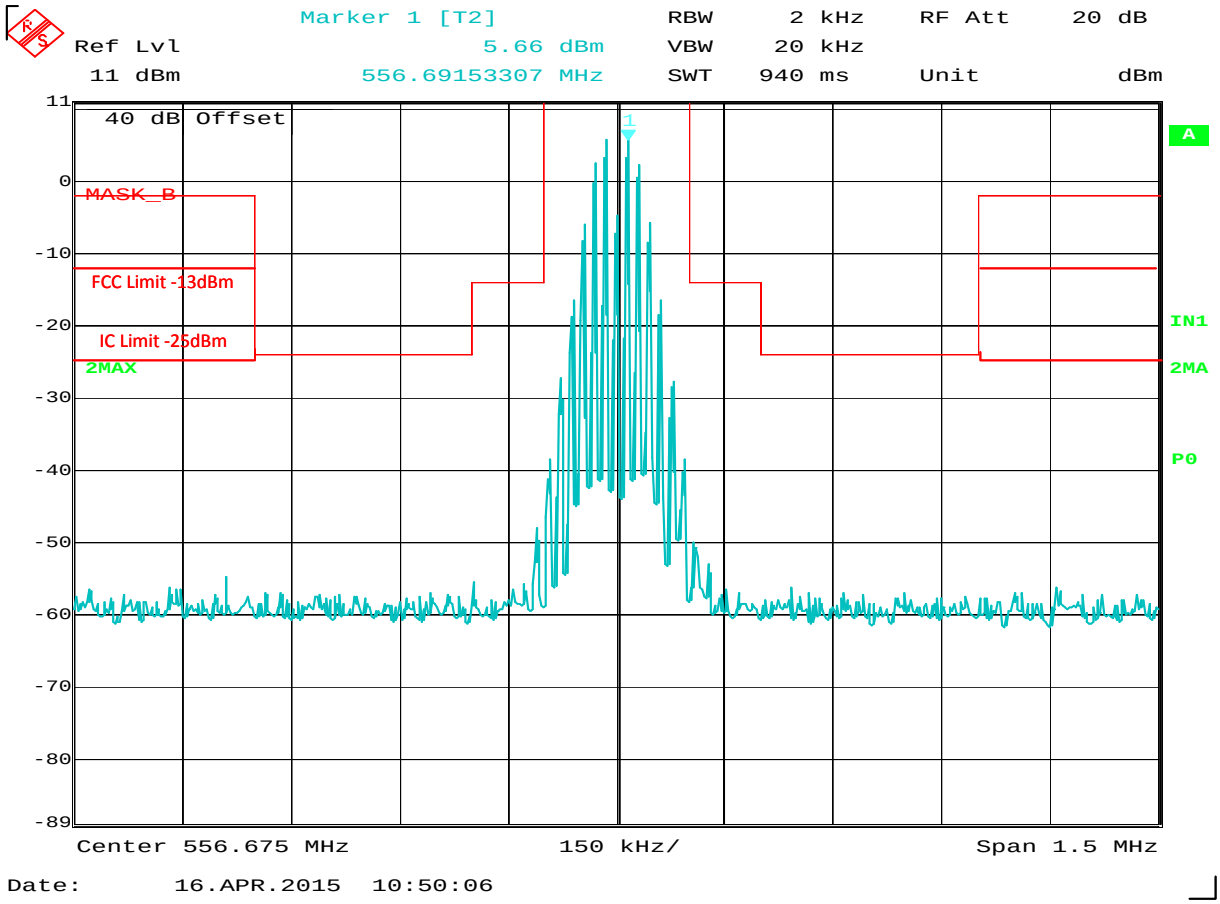
NOTES




**FCC Part 74 and IC RSS-210 Occupied Bandwidth**

MANUFACTURER :Shure Incorporated
MODEL NUMBER :BLX2
SERIAL NUMBER :
TEST MODE :Tx @ 556.675MHz
TEST PARAMETERS :H10 Group N Channel 3
EQUIPMENT USED :RBB0, T2DA, T2SD, RYE0, GWH6, T1EN
NOTES :2.5kHz at 16 dB over 50% modulation

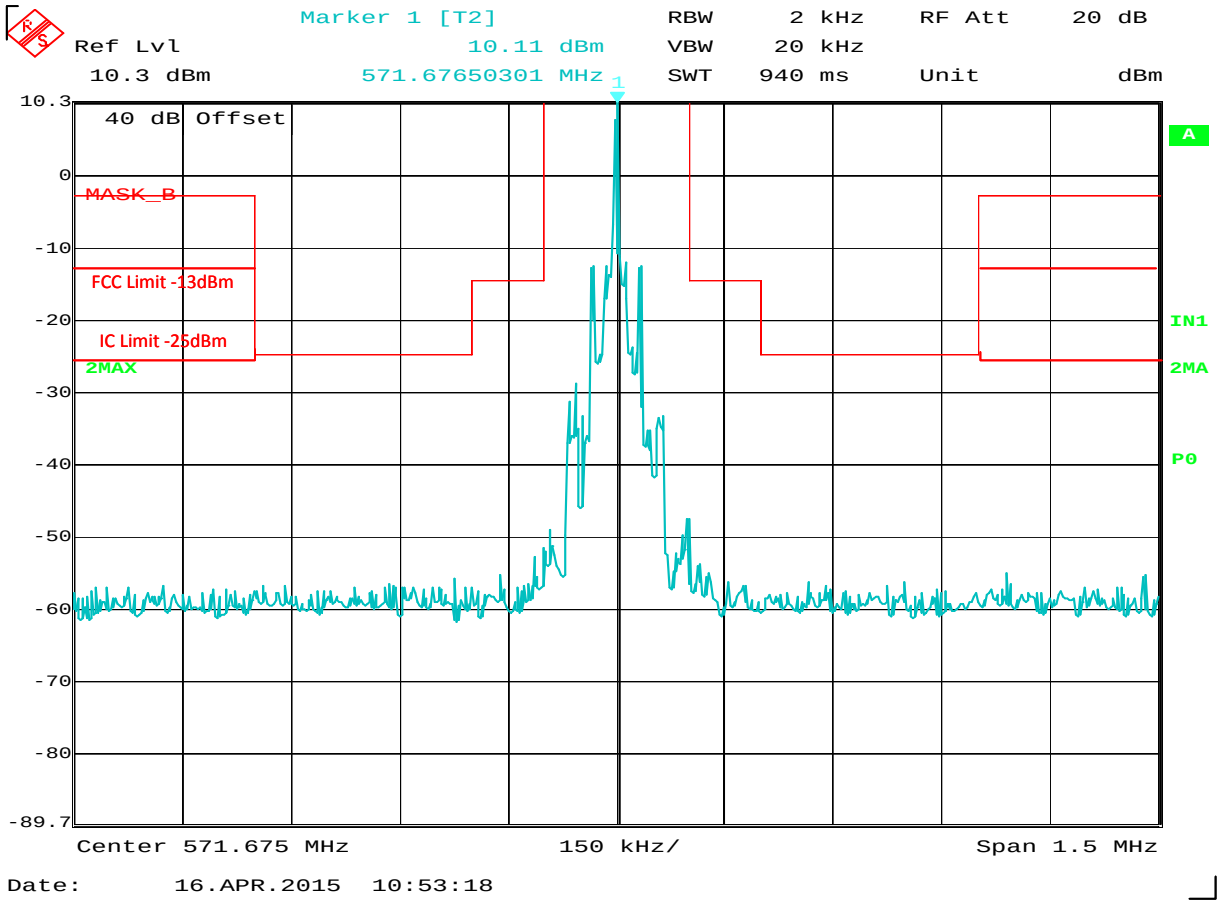
NOTES




**FCC Part 74 and IC RSS-210 Occupied Bandwidth**

MANUFACTURER :Shure Incorporated
MODEL NUMBER :BLX2
SERIAL NUMBER :
TEST MODE :Tx @ 556.675MHz
TEST PARAMETERS :H10 Group N Channel 3
EQUIPMENT USED :RBB0, T2DA, T2SD, RYE0, GWH6, T1EN
NOTES :15kHz at 85% modulation

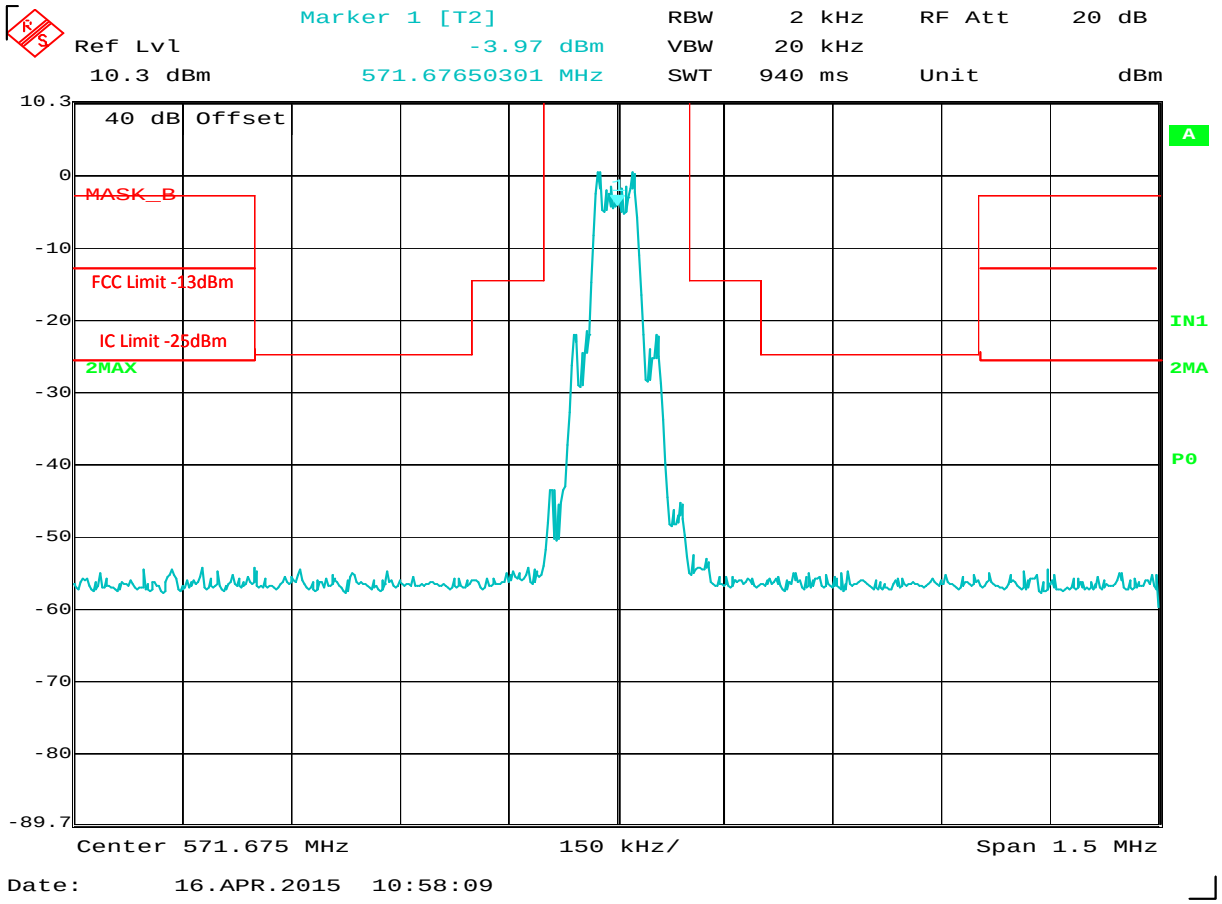
NOTES




**FCC Part 74 and IC RSS-210 Occupied Bandwidth**

MANUFACTURER :Shure Incorporated
MODEL NUMBER :BLX2
SERIAL NUMBER :
TEST MODE :Tx @ 571.675MHz
TEST PARAMETERS :H10 Group A Channel 1
EQUIPMENT USED :RBB0, T2DA, T2SD, RYE0, GWH6, T1EN
NOTES :unmodulated carrier

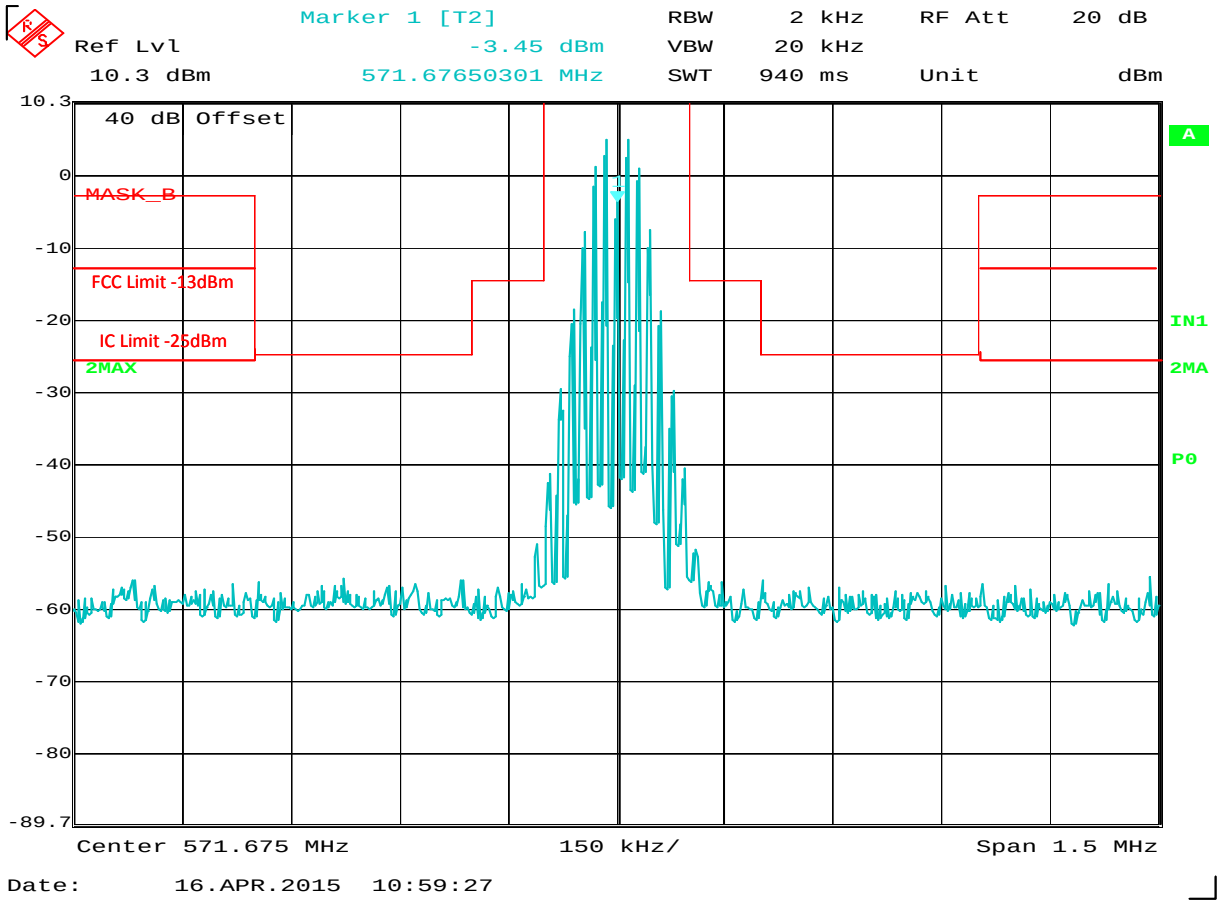
NOTES




**FCC Part 74 and IC RSS-210 Occupied Bandwidth**

MANUFACTURER :Shure Incorporated
MODEL NUMBER :BLX2
SERIAL NUMBER :
TEST MODE :Tx @ 571.675MHz
TEST PARAMETERS :H10 Group A Channel 1
EQUIPMENT USED :RBB0, T2DA, T2SD, RYE0, GWH6, T1EN
NOTES :2.5kHz at 16 dB over 50% modulation

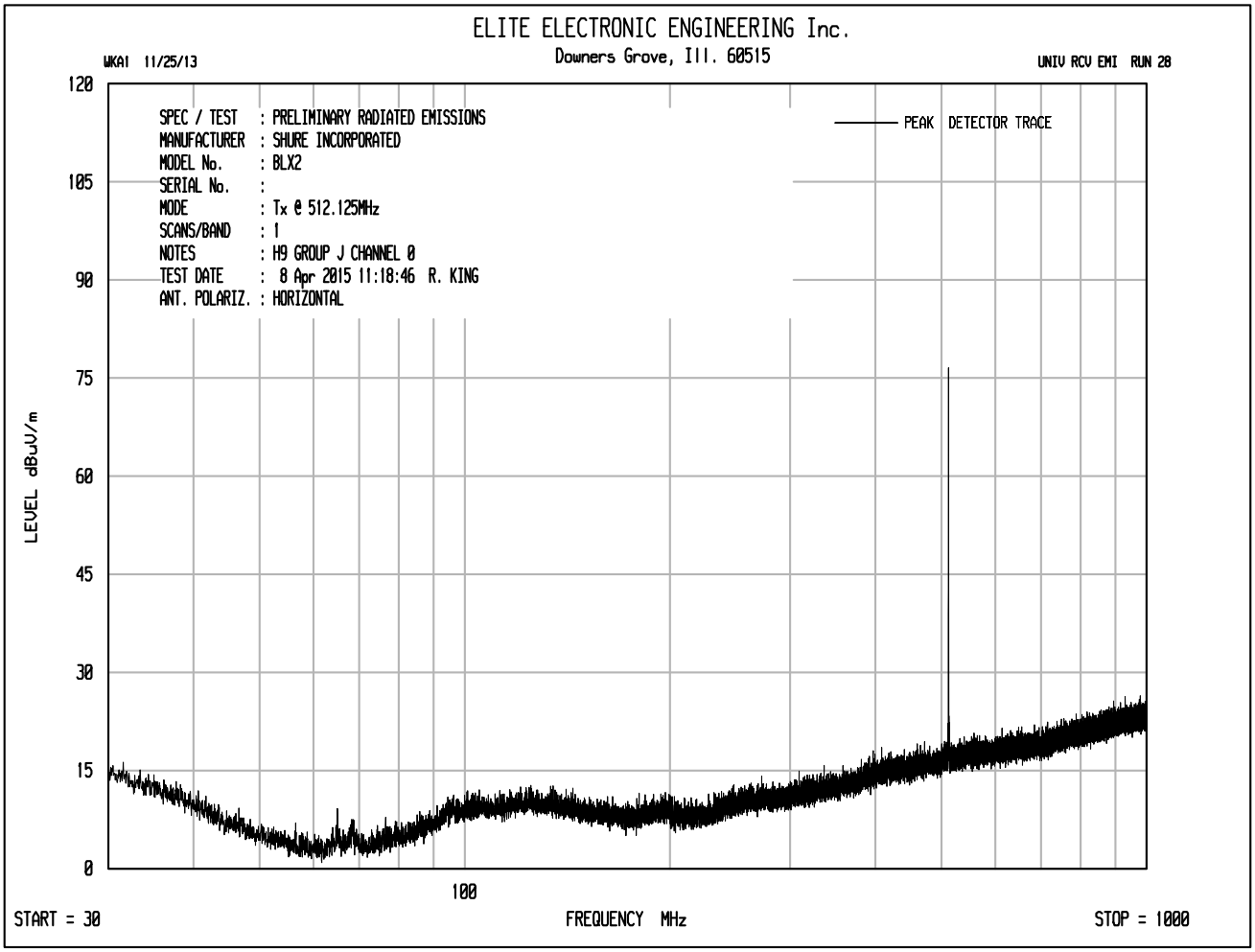
NOTES

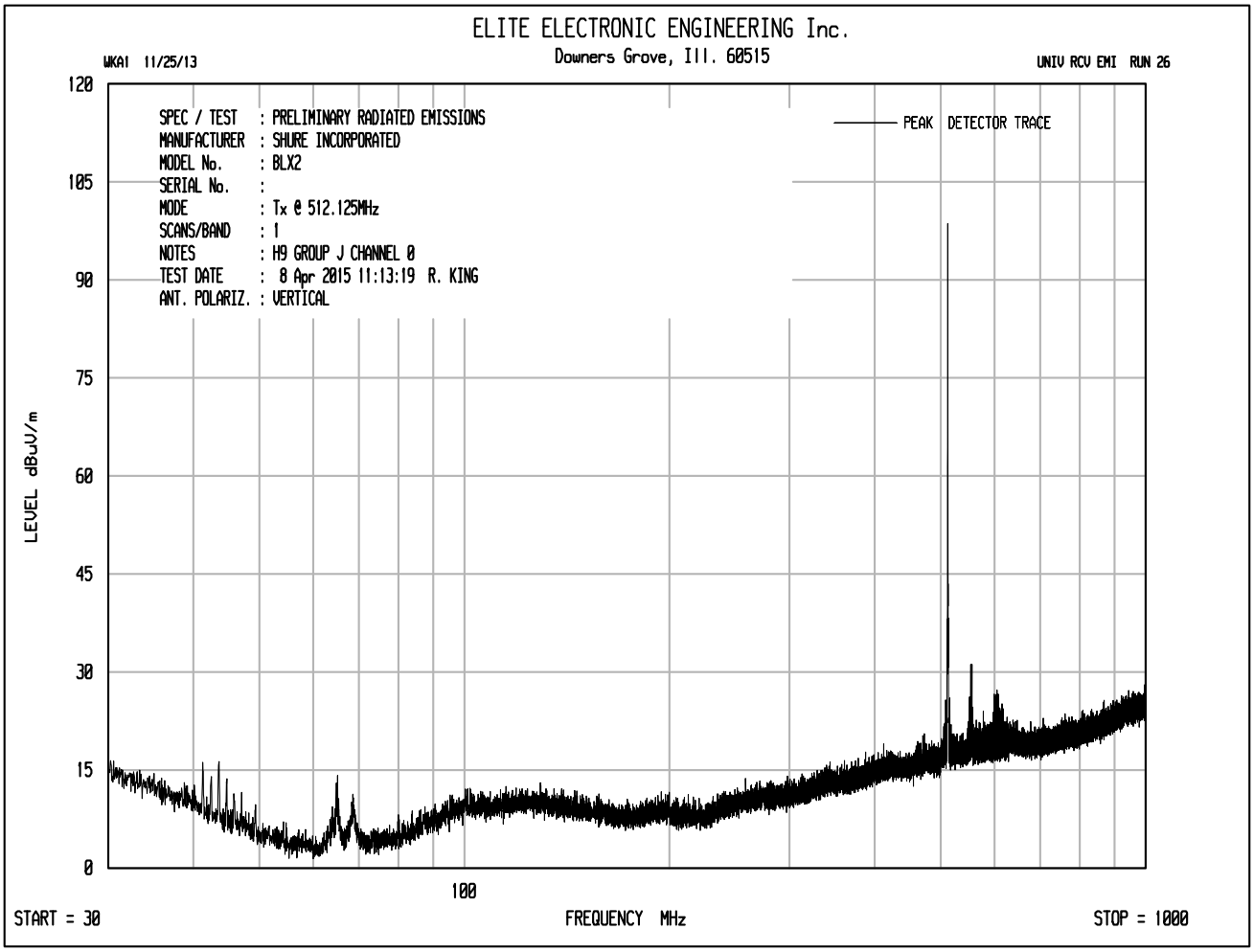


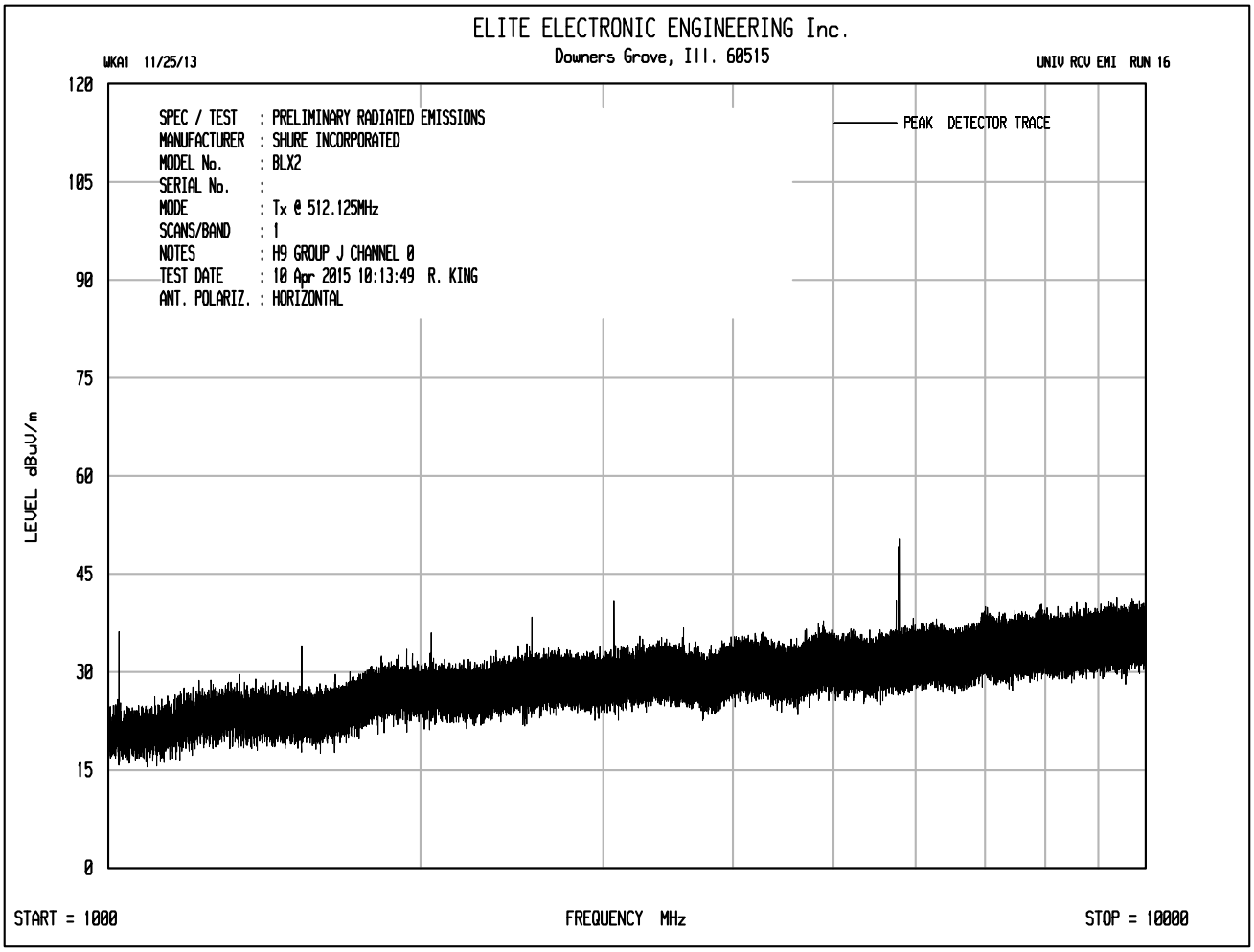

**FCC Part 74 and IC RSS-210 Occupied Bandwidth**

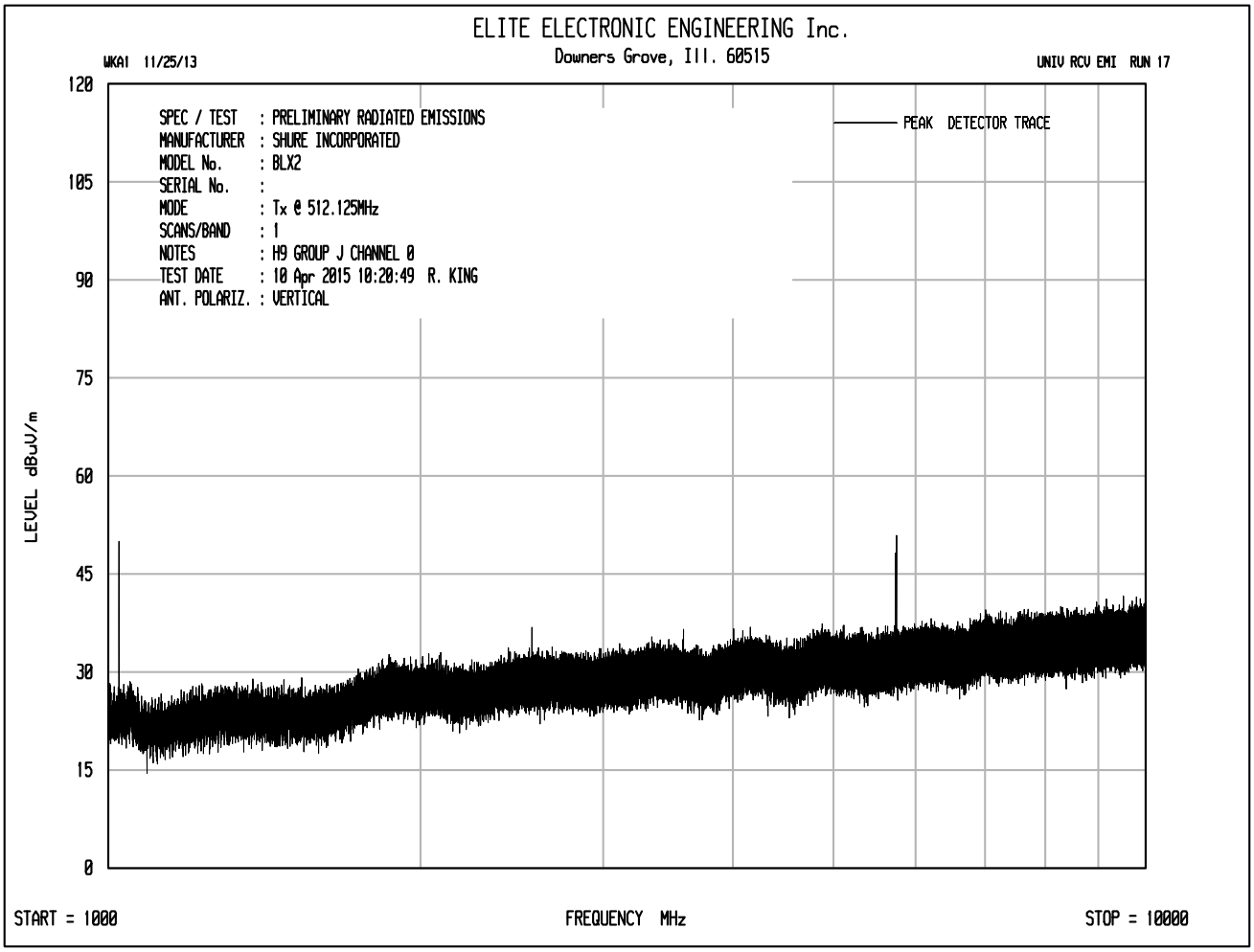
MANUFACTURER :Shure Incorporated
MODEL NUMBER :BLX2
SERIAL NUMBER :
TEST MODE :Tx @ 571.675MHz
TEST PARAMETERS :H10 Group A Channel 1
EQUIPMENT USED :RBB0, T2DA, T2SD, RYE0, GWH6, T1EN
NOTES :15kHz at 85% modulation

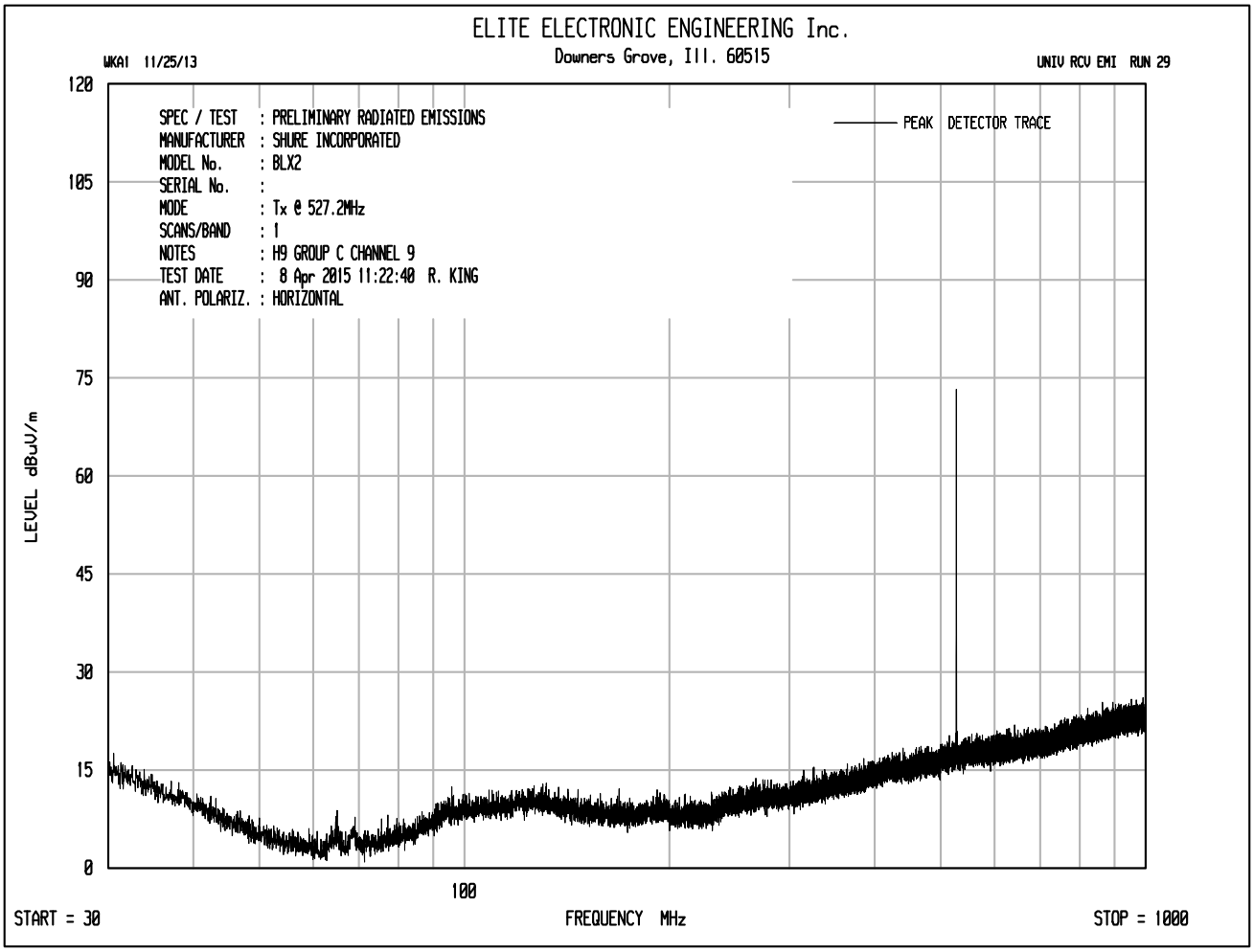
NOTES

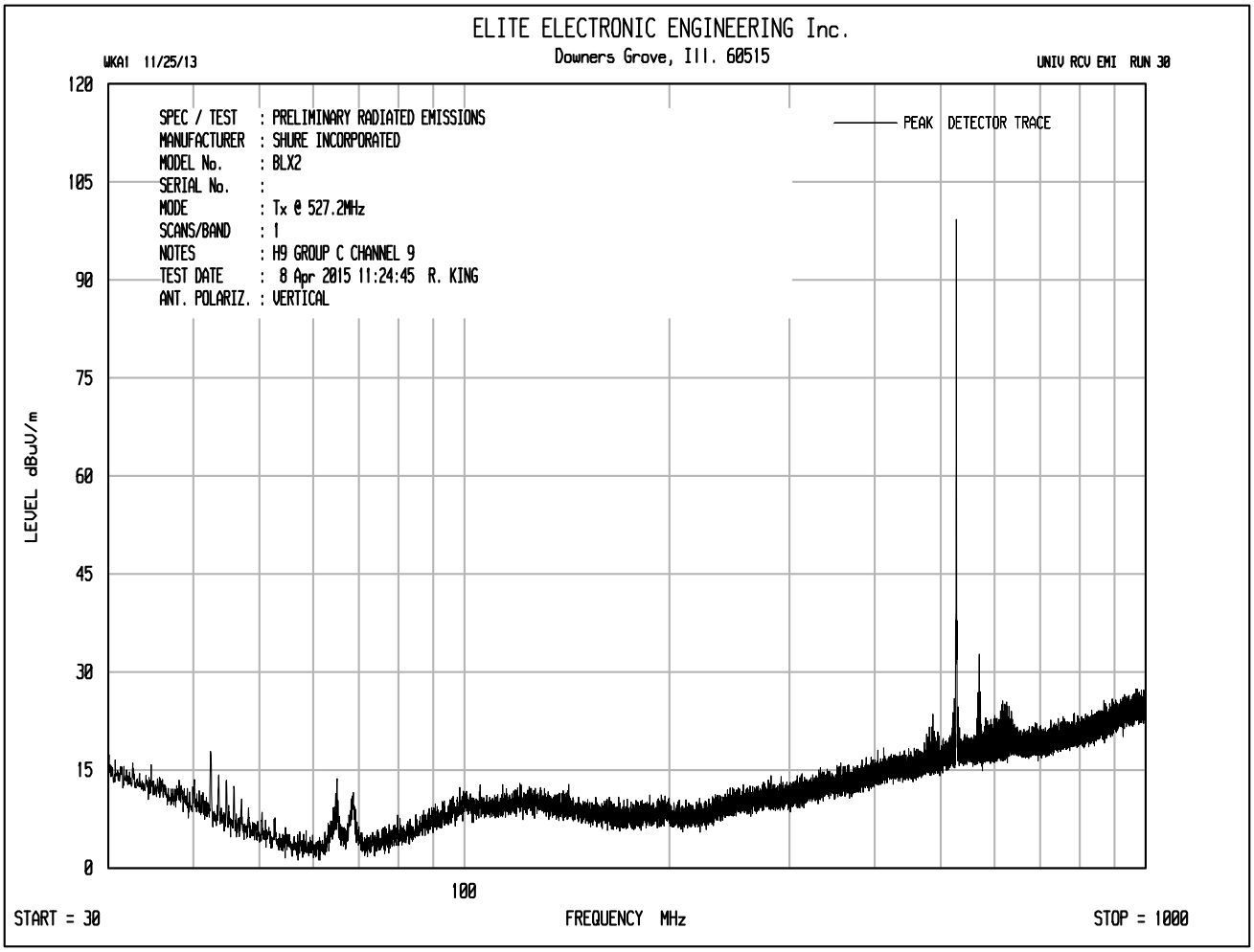

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 28
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 512.125MHz
SCANS/BAND : 1
NOTES : H9 GROUP J CHANNEL 0
TEST DATE : 8 Apr 2015 11:18:46 R. KING
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

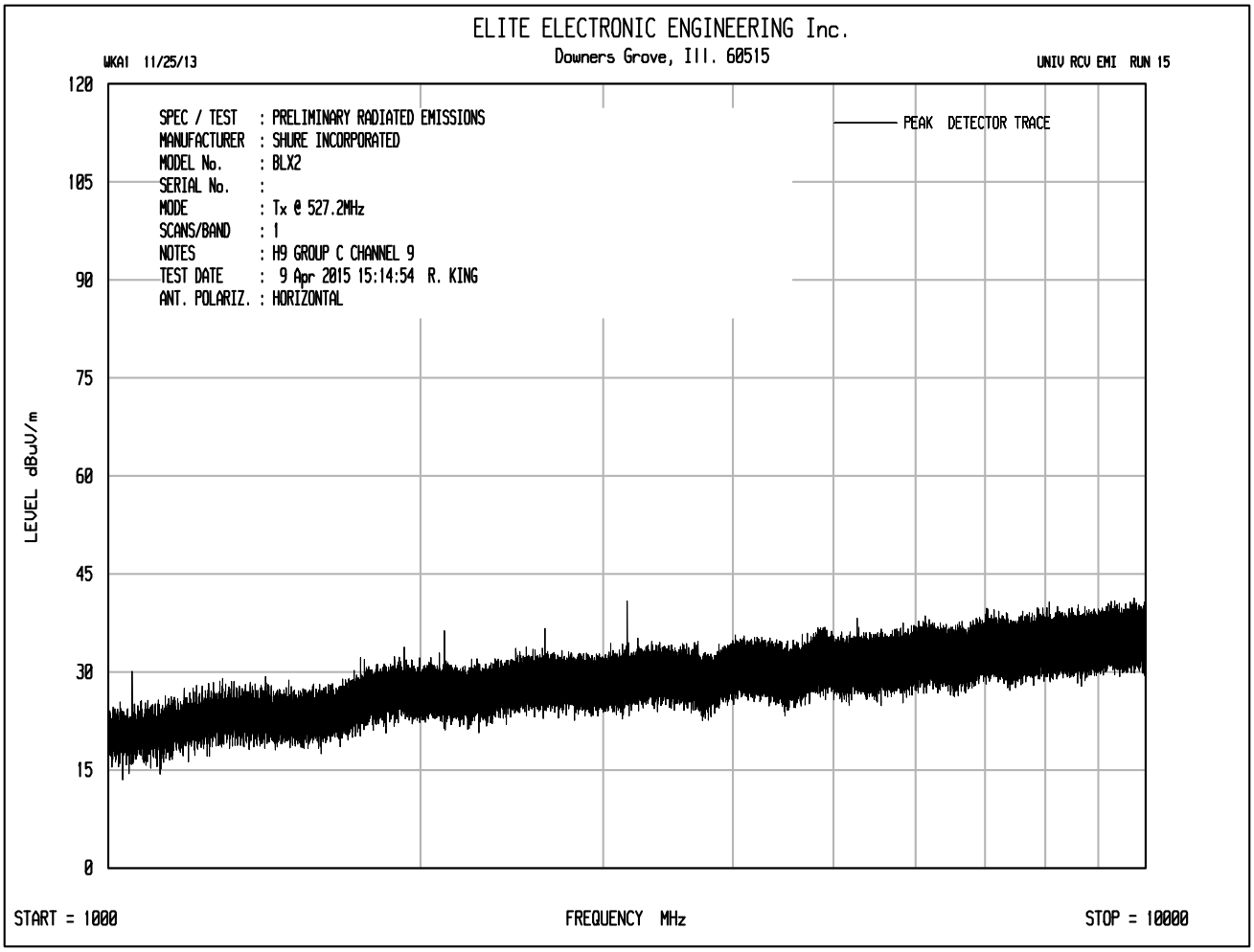

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 26
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 512.125MHz
SCANS/BAND : 1
NOTES : H9 GROUP J CHANNEL 0
TEST DATE : 8 Apr 2015 11:13:19 R. KING
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

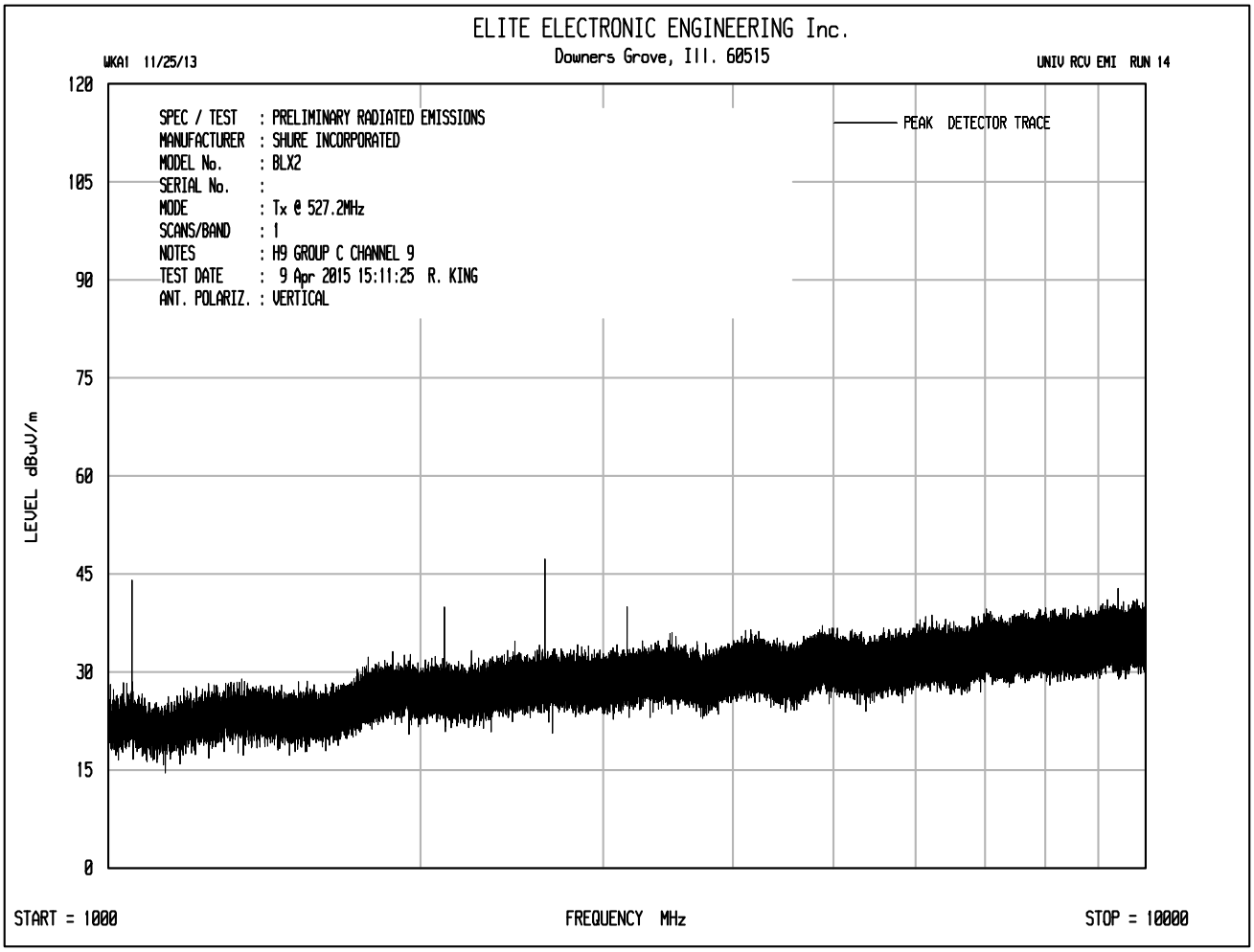

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 16
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 512.125MHz
SCANS/BAND : 1
NOTES : H9 GROUP J CHANNEL 0
TEST DATE : 10 Apr 2015 10:13:49 R. KING
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 10000

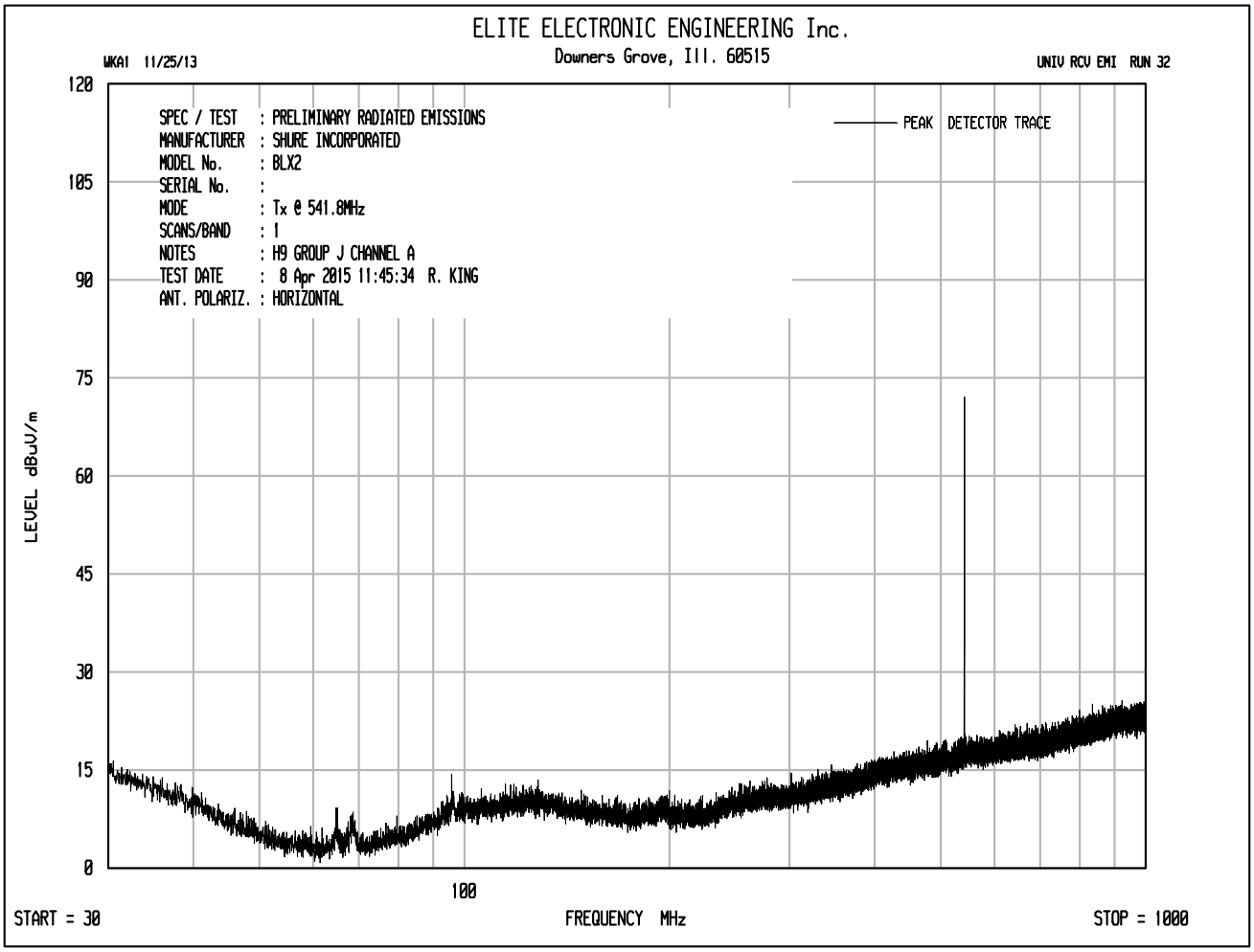

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 17
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 512.125MHz
SCANS/BAND : 1
NOTES : H9 GROUP J CHANNEL 0
TEST DATE : 10 Apr 2015 10:20:49 R. KING
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 10000

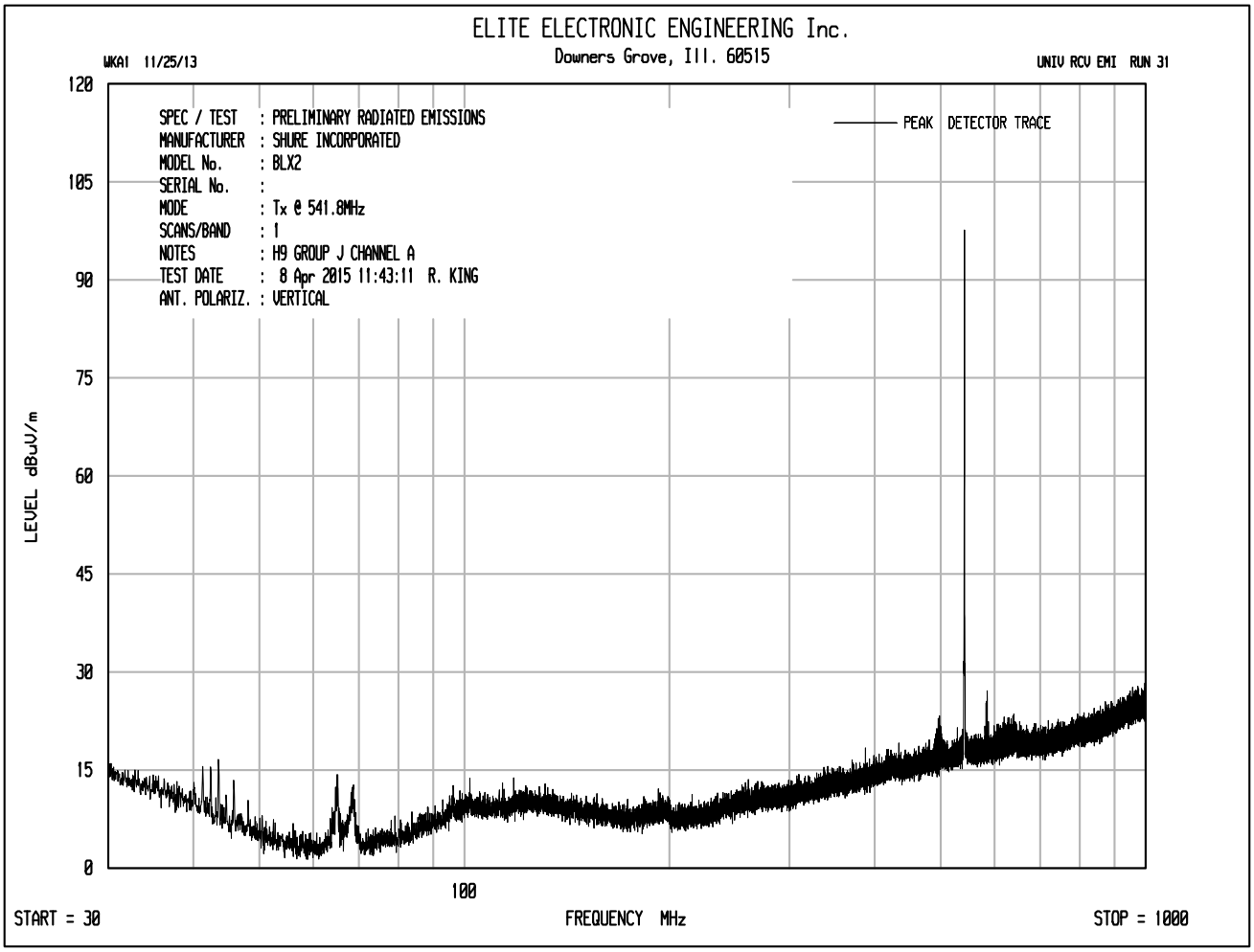

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 29
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 527.2MHz
SCANS/BAND : 1
NOTES : H9 GROUP C CHANNEL 9
TEST DATE : 8 Apr 2015 11:22:40 R. KING
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

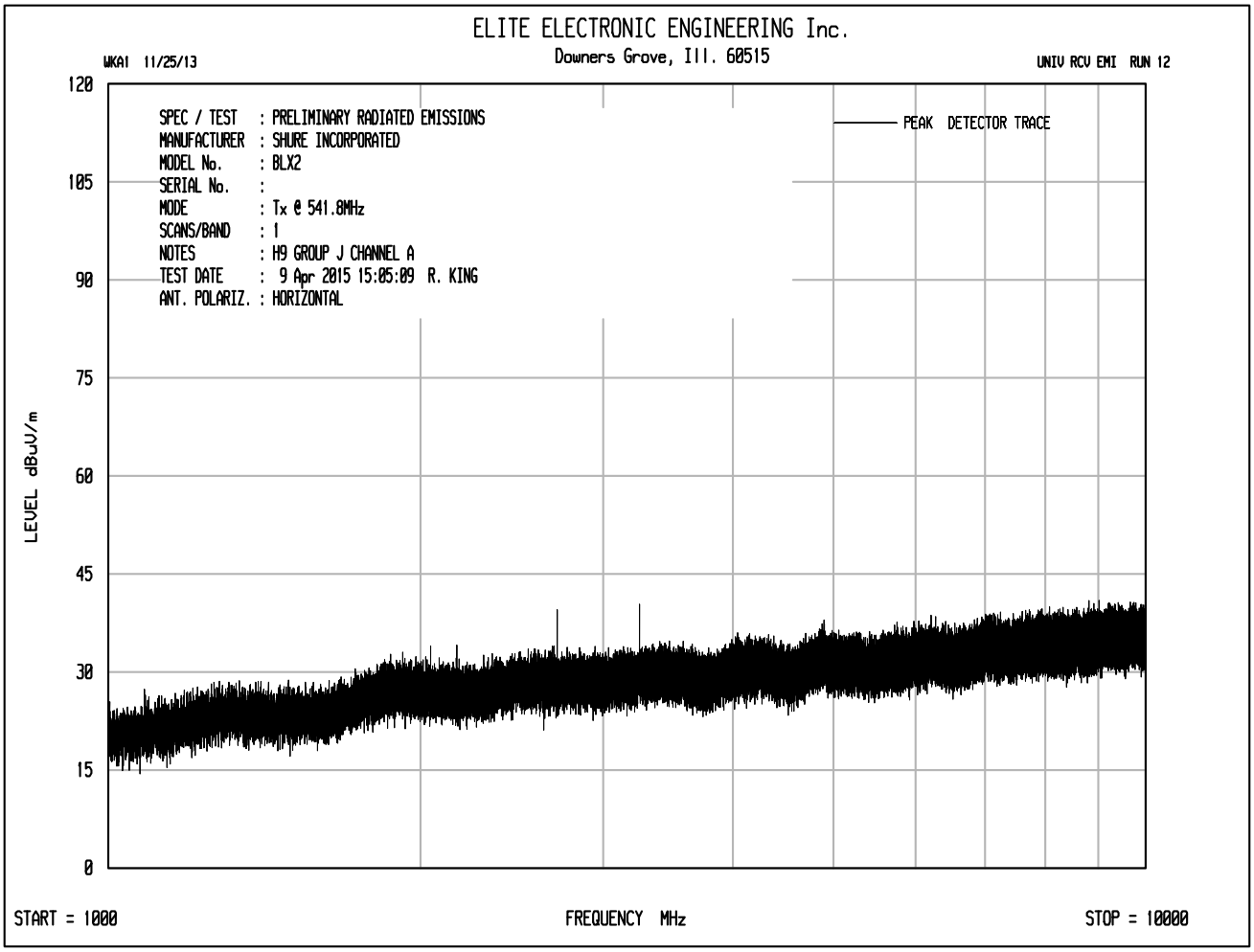

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 30
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 527.2MHz
SCANS/BAND : 1
NOTES : H9 GROUP C CHANNEL 9
TEST DATE : 8 Apr 2015 11:24:45 R. KING
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

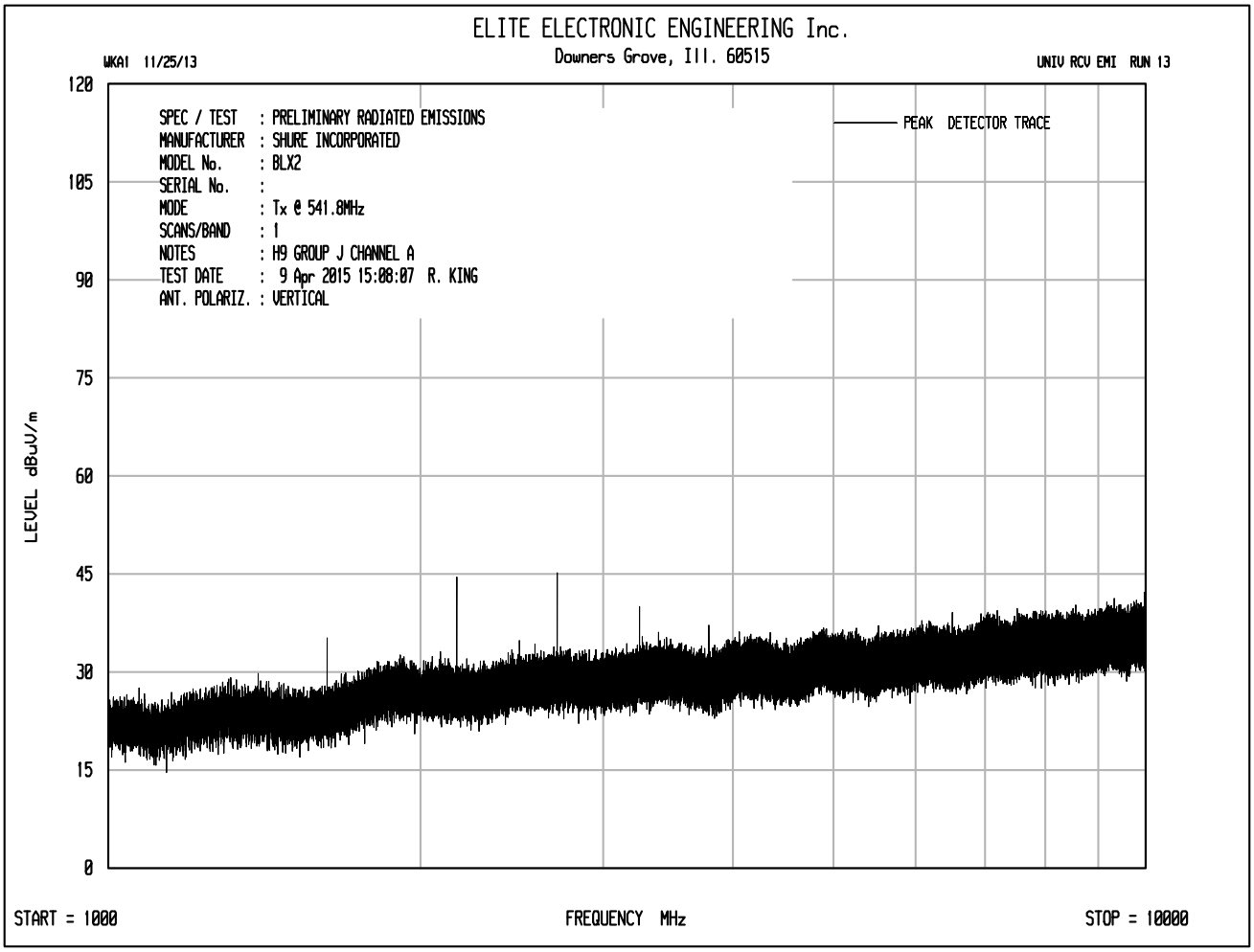

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 15
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 527.2MHz
SCANS/BAND : 1
NOTES : H9 GROUP C CHANNEL 9
TEST DATE : 9 Apr 2015 15:14:54 R. KING
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 10000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 14
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 527.2MHz
SCANS/BAND : 1
NOTES : H9 GROUP C CHANNEL 9
TEST DATE : 9 Apr 2015 15:11:25 R. KING
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 10000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 32
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 541.8MHz
SCANS/BAND : 1
NOTES : H9 GROUP J CHANNEL A
TEST DATE : 8 Apr 2015 11:45:34 R. KING
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 31
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 541.8MHz
SCANS/BAND : 1
NOTES : H9 GROUP J CHANNEL A
TEST DATE : 8 Apr 2015 11:43:11 R. KING
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 12
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 541.8MHz
SCANS/BAND : 1
NOTES : H9 GROUP J CHANNEL A
TEST DATE : 9 Apr 2015 15:05:09 R. KING
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 10000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 13
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 541.8MHz
SCANS/BAND : 1
NOTES : H9 GROUP J CHANNEL A
TEST DATE : 9 Apr 2015 15:08:07 R. KING
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 10000

MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 Spurious Radiated Emissions
DATE : April 9 through April 16, 2015
MODE : Transmit at 512.125MHz
BAND : H9 Group J Channel 0

| Freq. MHz | Ant Pol | Meter Reading dBuV | Amb | Matched Sig Gen dBm | Antenna Gain dB | Cable Factor dB | ERP Total dBm | Atten. dB | Part 74 Min. Attn. dB | RSS-210 Min. Attn. dB |
|---|---|---|---|---|---|---|---|---|---|---|
| 1024.25 | H | 56.0 | | -61.2 | 1.1 | 1.7 | -61.8 | 71.8 | 23.0 | 35.0 |
| 1024.25 | V | 67.5 | | -49.7 | 1.1 | 1.7 | -50.3 | 60.3 | 23.0 | 35.0 |
| 1536.38 | H | 52.3 | | -64.7 | 3.4 | 2.2 | -63.5 | 73.5 | 23.0 | 35.0 |
| 1536.38 | V | 52.8 | | -64.2 | 3.4 | 2.2 | -63.0 | 73.0 | 23.0 | 35.0 |
| 2048.50 | H | 48.7 | | -65.6 | 2.3 | 2.5 | -65.9 | 75.9 | 23.0 | 35.0 |
| 2048.50 | V | 49.4 | | -64.9 | 2.3 | 2.5 | -65.1 | 75.1 | 23.0 | 35.0 |
| 2560.63 | H | 52.3 | | -59.9 | 3.4 | 2.9 | -59.3 | 69.3 | 23.0 | 35.0 |
| 2560.63 | V | 51.9 | * | -60.3 | 3.4 | 2.9 | -59.7 | 69.7 | 23.0 | 35.0 |
| 3072.75 | H | 55.1 | | -68.3 | 4.7 | 3.1 | -66.7 | 76.7 | 23.0 | 35.0 |
| 3072.75 | V | 55.3 | * | -68.0 | 4.7 | 3.1 | -66.5 | 76.5 | 23.0 | 35.0 |
| 3584.88 | H | 50.6 | * | -72.0 | 5.9 | 3.4 | -69.5 | 79.5 | 23.0 | 35.0 |
| 3584.88 | V | 49.3 | * | -73.3 | 5.9 | 3.4 | -70.8 | 80.8 | 23.0 | 35.0 |
| 4097.00 | H | 49.0 | * | -71.8 | 6.6 | 3.6 | -68.8 | 78.8 | 23.0 | 35.0 |
| 4097.00 | V | 47.8 | * | -73.0 | 6.6 | 3.6 | -70.0 | 80.0 | 23.0 | 35.0 |
| 4609.13 | H | 47.8 | * | -72.3 | 7.2 | 3.8 | -68.9 | 78.9 | 23.0 | 35.0 |
| 4609.13 | V | 47.7 | * | -72.4 | 7.2 | 3.8 | -69.0 | 79.0 | 23.0 | 35.0 |
| 5121.25 | H | 48.0 | * | -69.5 | 7.3 | 4.0 | -66.2 | 76.2 | 23.0 | 35.0 |
| 5121.25 | V | 46.3 | * | -71.2 | 7.3 | 4.0 | -67.9 | 77.9 | 23.0 | 35.0 |

* - Ambient

ERP Total (dBm) = Matched Sig Gen (dBm) + Antenna Gain (dB) – Cable Factor (dB)

Atten. (dB) = Output Power (dBm) – ERP (dBm)

Checked BY Richard E. King :

Richard E. King

MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 Spurious Radiated Emissions
DATE : April 9 through April 16, 2015
MODE : Transmit at 527.2MHz
BAND : H9 Group C Channel 9

| Freq. MHz | Ant Pol | Meter Reading dBuV | Amb | Matched Sig Gen dBm | Antenna Gain dB | Cable Factor dB | ERP Total dBm | Atten. dB | Part 74 Min. Attn. dB | RSS-210 Min. Attn. dB |
|---|---|---|---|---|---|---|---|---|---|---|
| 1054.40 | H | 52.3 | | -64.7 | 1.5 | 1.8 | -65.0 | 75.0 | 23.0 | 35.0 |
| 1054.40 | V | 61.3 | | -55.7 | 1.5 | 1.8 | -56.0 | 66.0 | 23.0 | 35.0 |
| 1581.60 | H | 49.4 | | -67.4 | 3.5 | 2.2 | -66.1 | 76.1 | 23.0 | 35.0 |
| 1581.60 | V | 55.3 | | -61.4 | 3.5 | 2.2 | -60.2 | 70.2 | 23.0 | 35.0 |
| 2108.80 | H | 50.3 | | -63.9 | 2.2 | 2.5 | -64.2 | 74.2 | 23.0 | 35.0 |
| 2108.80 | V | 54.3 | | -59.9 | 2.2 | 2.5 | -60.2 | 70.2 | 23.0 | 35.0 |
| 2636.00 | H | 51.8 | | -60.1 | 3.6 | 2.9 | -59.4 | 69.4 | 23.0 | 35.0 |
| 2636.00 | V | 54.2 | | -57.7 | 3.6 | 2.9 | -57.0 | 67.0 | 23.0 | 35.0 |
| 3163.20 | H | 52.4 | * | -70.1 | 4.8 | 3.2 | -68.4 | 78.4 | 23.0 | 35.0 |
| 3163.20 | V | 53.8 | * | -68.6 | 4.8 | 3.2 | -67.0 | 77.0 | 23.0 | 35.0 |
| 3690.40 | H | 47.0 | | -74.0 | 6.1 | 3.4 | -71.4 | 81.4 | 23.0 | 35.0 |
| 3690.40 | V | 48.0 | * | -73.0 | 6.1 | 3.4 | -70.4 | 80.4 | 23.0 | 35.0 |
| 4217.60 | H | 48.4 | * | -71.6 | 6.9 | 3.7 | -68.4 | 78.4 | 23.0 | 35.0 |
| 4217.60 | V | 48.8 | * | -71.3 | 6.9 | 3.7 | -68.0 | 78.0 | 23.0 | 35.0 |
| 4744.80 | H | 48.3 | * | -70.0 | 7.3 | 3.9 | -66.6 | 76.6 | 23.0 | 35.0 |
| 4744.80 | V | 46.0 | * | -72.3 | 7.3 | 3.9 | -68.9 | 78.9 | 23.0 | 35.0 |
| 5272.00 | H | 47.3 | * | -68.7 | 7.7 | 4.1 | -65.0 | 75.0 | 23.0 | 35.0 |
| 5272.00 | V | 47.6 | * | -68.4 | 7.7 | 4.1 | -64.7 | 74.7 | 23.0 | 35.0 |

* - Ambient

ERP Total (dBm) = Matched Sig Gen (dBm) + Antenna Gain (dB) – Cable Factor (dB)

Atten. (dB) = Output Power (dBm) – ERP (dBm)

Checked BY Richard E. King :

Richard E. King

MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 Spurious Radiated Emissions
DATE : April 9 through April 16, 2015
MODE : Transmit at 541.8MHz
BAND : H9 Group J Channel A

| Freq. MHz | Ant Pol | Meter Reading dBuV | Amb | Matched Sig Gen dBm | Antenna Gain dB | Cable Factor dB | ERP Total dBm | Atten. dB | Part 74 Min. Attn. dB | RSS-210 Min. Attn. dB |
|---|---|---|---|---|---|---|---|---|---|---|
| 1083.60 | H | 50.6 | | -66.4 | 1.7 | 1.8 | -66.5 | 76.5 | 23.0 | 35.0 |
| 1083.60 | V | 55.5 | | -61.5 | 1.7 | 1.8 | -61.6 | 71.6 | 23.0 | 35.0 |
| 1625.40 | H | 48.4 | | -68.0 | 3.6 | 2.2 | -66.7 | 76.7 | 23.0 | 35.0 |
| 1625.40 | V | 54.0 | | -62.5 | 3.6 | 2.2 | -61.2 | 71.2 | 23.0 | 35.0 |
| 2167.20 | H | 49.1 | | -65.1 | 2.5 | 2.6 | -65.2 | 75.2 | 23.0 | 35.0 |
| 2167.20 | V | 54.9 | | -59.3 | 2.5 | 2.6 | -59.4 | 69.4 | 23.0 | 35.0 |
| 2709.00 | H | 55.6 | | -56.0 | 3.9 | 2.9 | -55.0 | 65.0 | 23.0 | 35.0 |
| 2709.00 | V | 59.0 | | -52.6 | 3.9 | 2.9 | -51.6 | 61.6 | 23.0 | 35.0 |
| 3250.80 | H | 54.1 | | -55.3 | 5.4 | 3.2 | -53.1 | 63.1 | 23.0 | 35.0 |
| 3250.80 | V | 53.4 | * | -70.6 | 5.4 | 3.2 | -68.5 | 78.5 | 23.0 | 35.0 |
| 3792.60 | H | 48.4 | * | -73.4 | 6.3 | 3.5 | -70.7 | 80.7 | 23.0 | 35.0 |
| 3792.60 | V | 48.7 | * | -73.2 | 6.3 | 3.5 | -70.4 | 80.4 | 23.0 | 35.0 |
| 4334.40 | H | 49.9 | * | -71.9 | 7.0 | 3.7 | -68.6 | 78.6 | 23.0 | 35.0 |
| 4334.40 | V | 47.6 | * | -74.3 | 7.0 | 3.7 | -70.9 | 80.9 | 23.0 | 35.0 |
| 4876.20 | H | 49.3 | * | -70.1 | 7.0 | 3.9 | -66.9 | 76.9 | 23.0 | 35.0 |
| 4876.20 | V | 49.3 | * | -70.1 | 7.0 | 3.9 | -66.9 | 76.9 | 23.0 | 35.0 |
| 5418.00 | H | 46.4 | * | -70.9 | 8.0 | 4.1 | -67.0 | 77.0 | 23.0 | 35.0 |
| 5418.00 | V | 45.4 | * | -71.9 | 8.0 | 4.1 | -68.1 | 78.1 | 23.0 | 35.0 |

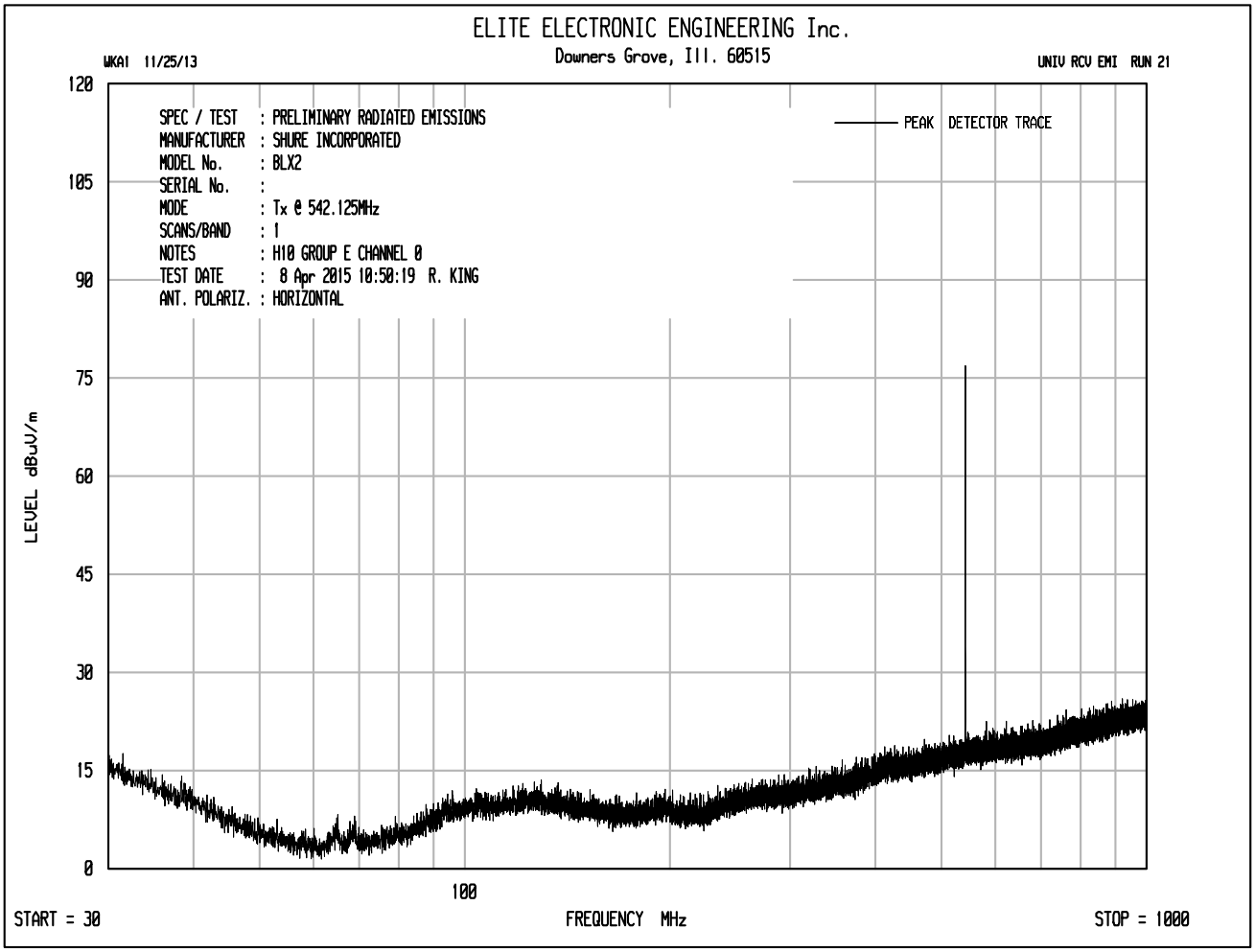
* - Ambient

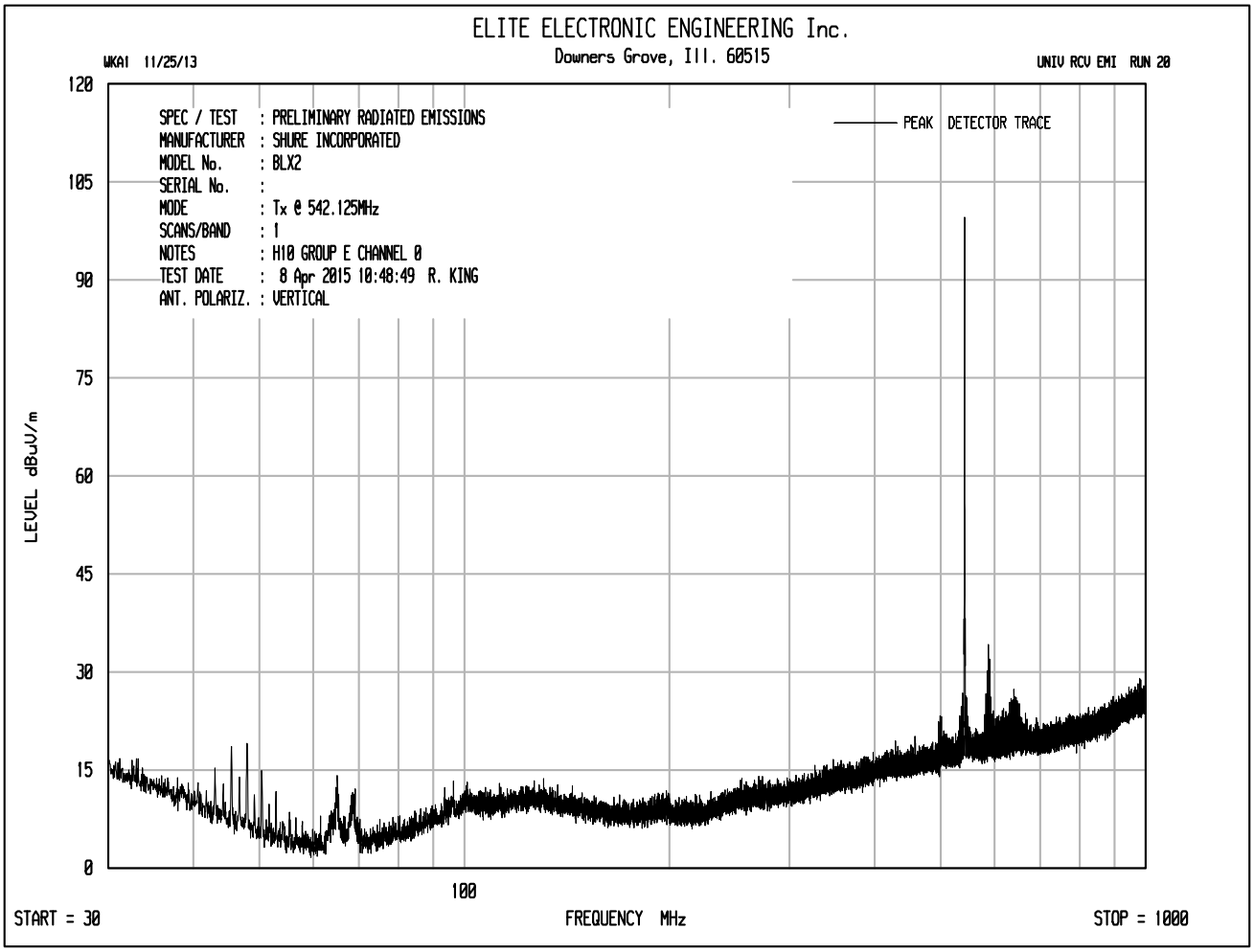
ERP Total (dBm) = Matched Sig Gen (dBm) + Antenna Gain (dB) – Cable Factor (dB)

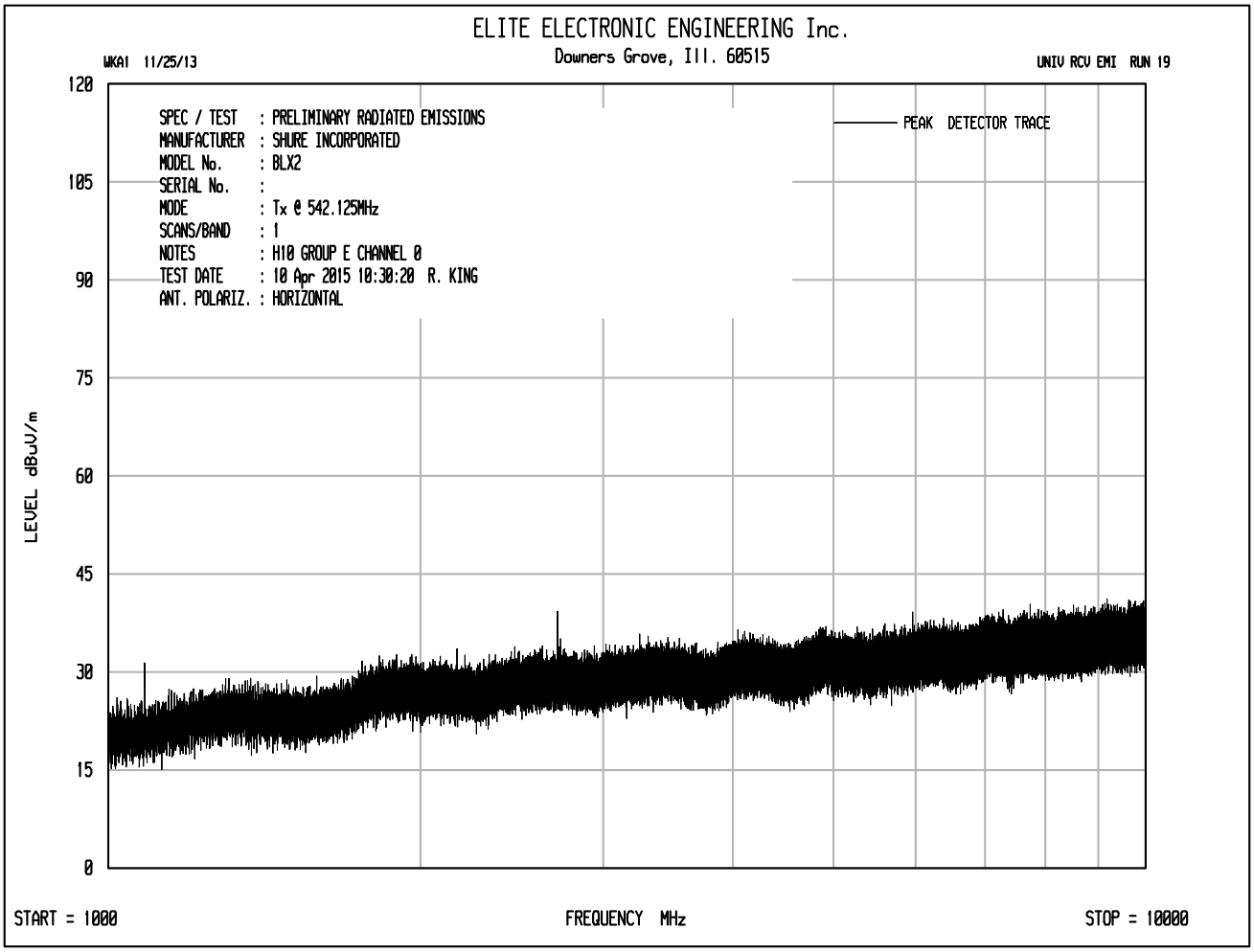
Atten. (dB) = Output Power (dBm) – ERP (dBm)

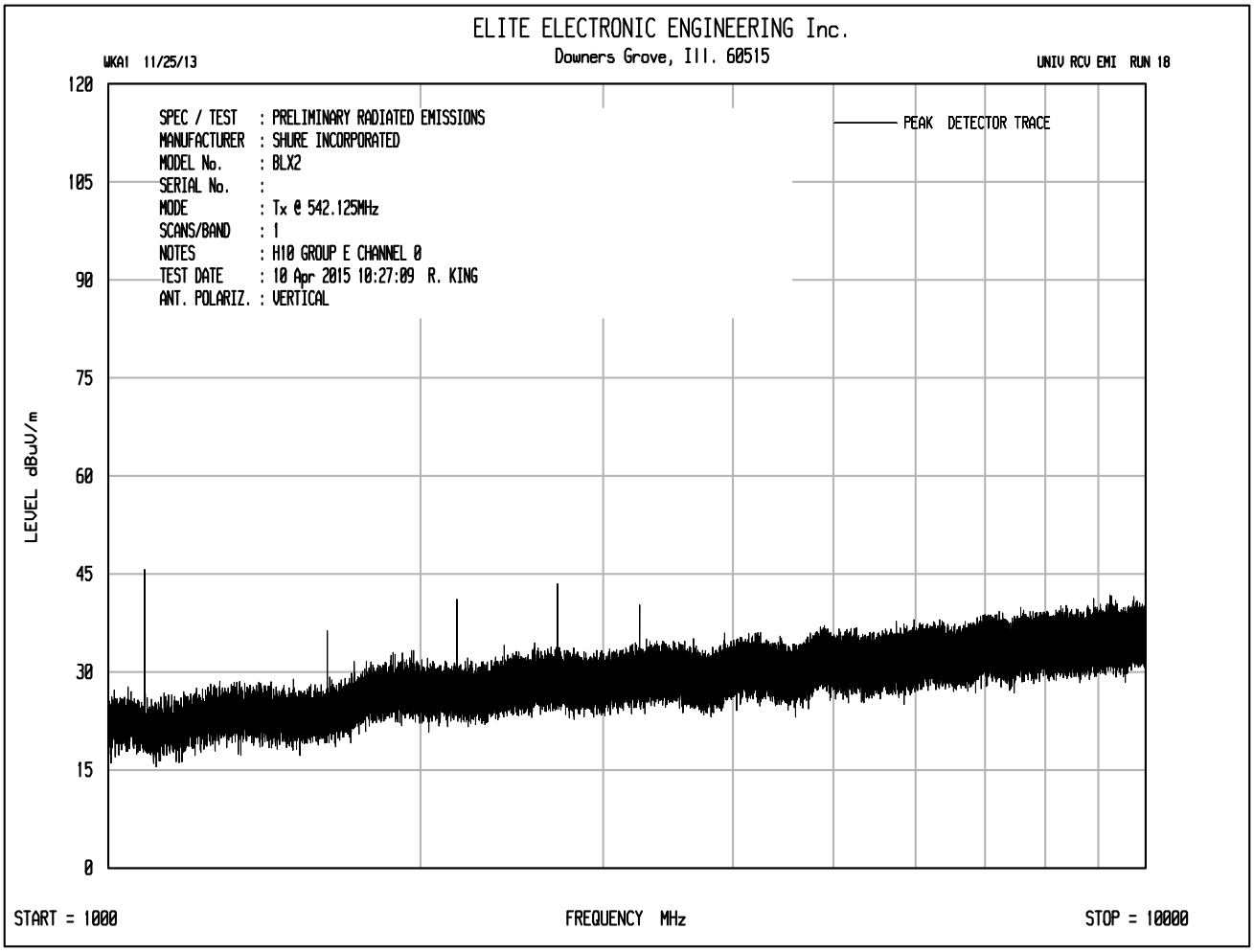
Checked BY Richard E. King :

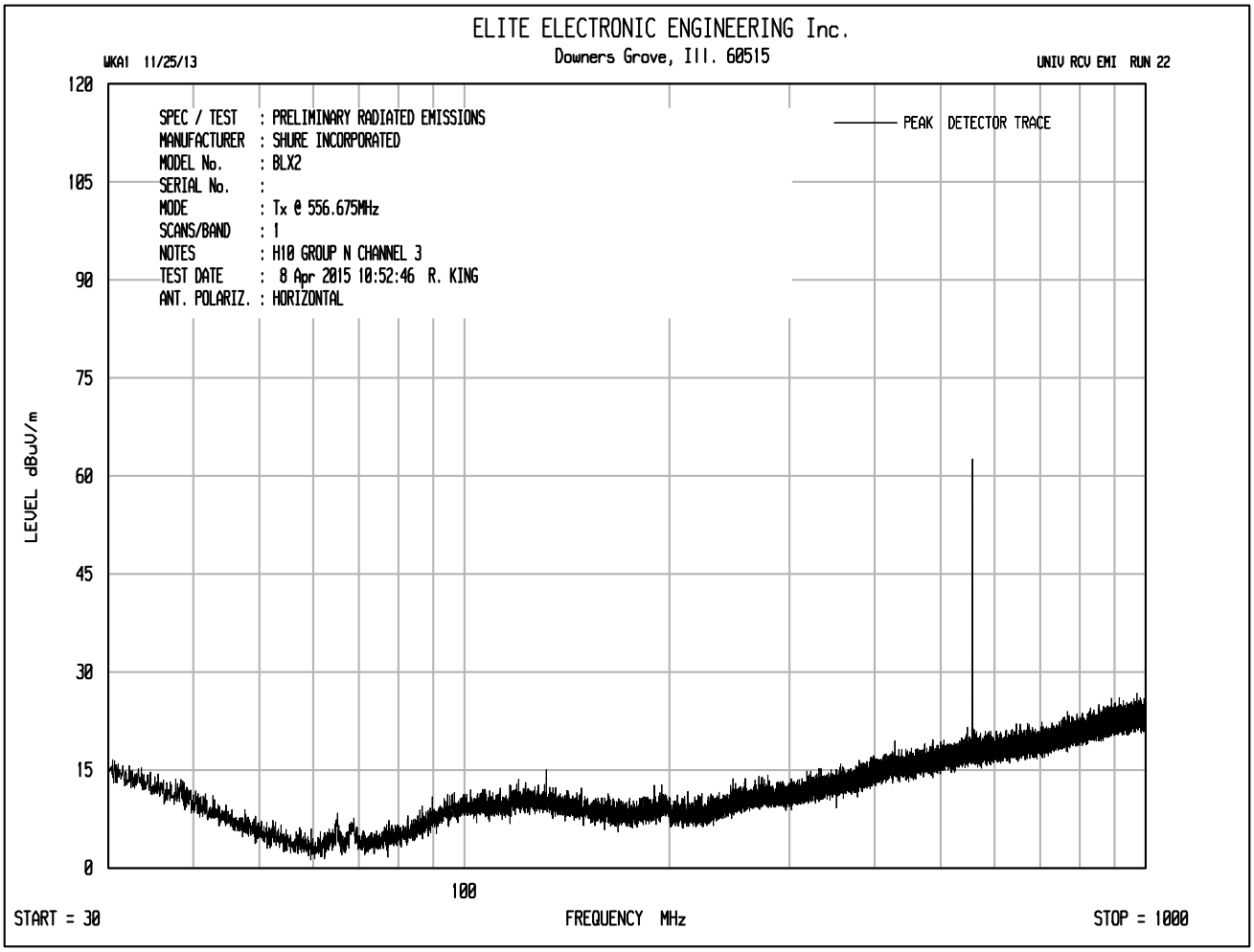
Richard E. King

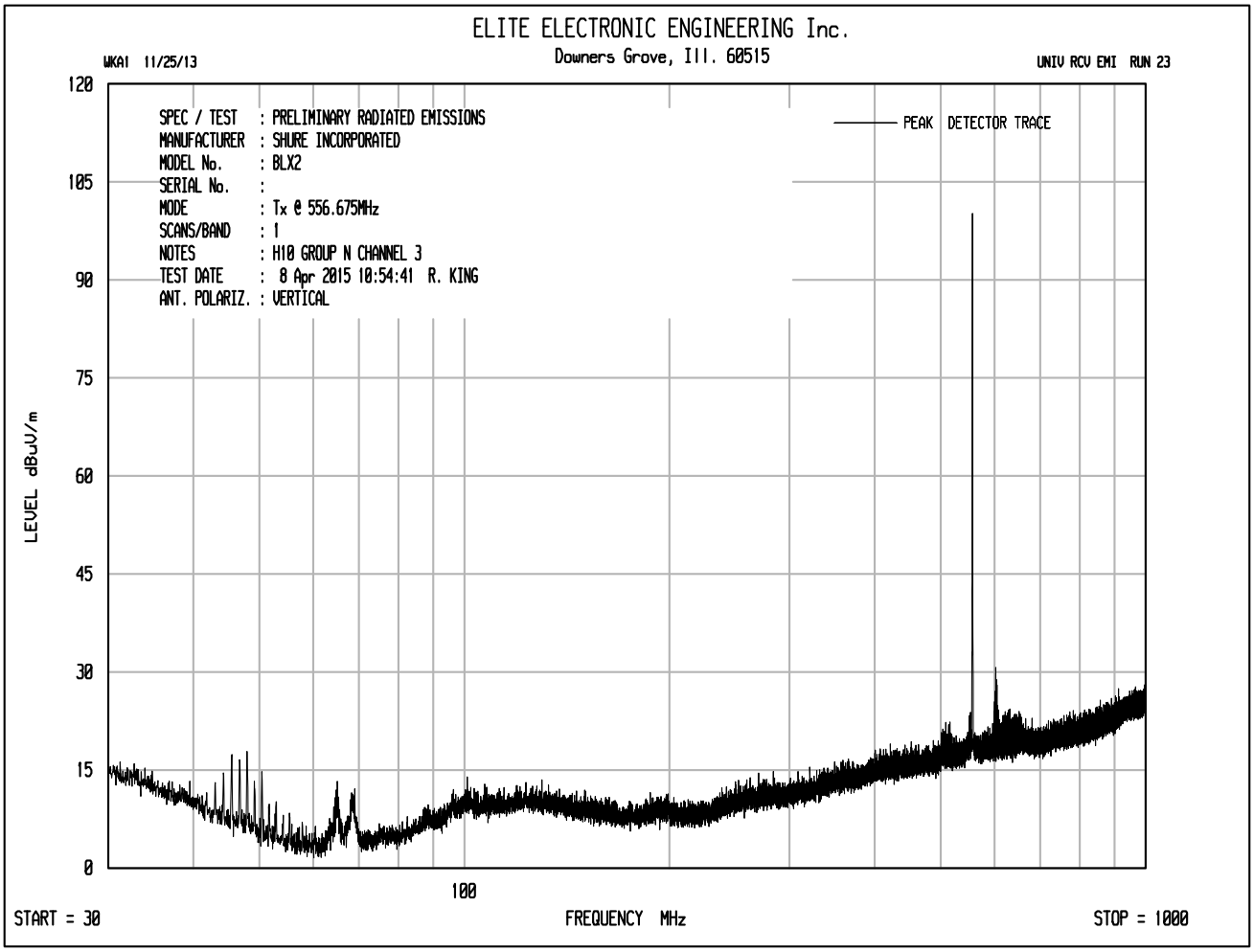

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 21
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 542.125MHz
SCANS/BAND : 1
NOTES : H10 GROUP E CHANNEL 0
TEST DATE : 8 Apr 2015 10:50:19 R. KING
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuV/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

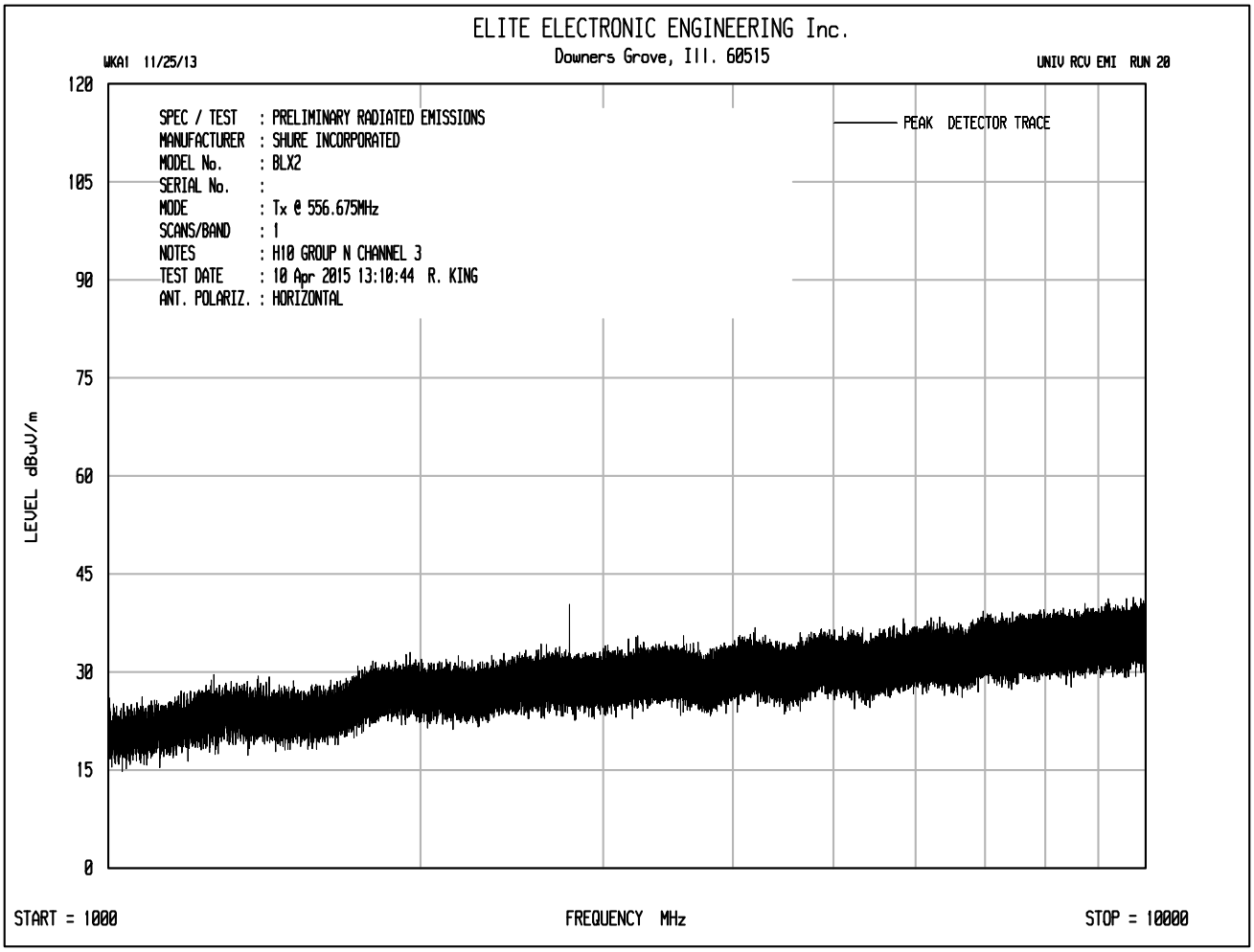

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 20
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 542.125MHz
SCANS/BAND : 1
NOTES : H10 GROUP E CHANNEL 0
TEST DATE : 8 Apr 2015 10:48:49 R. KING
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

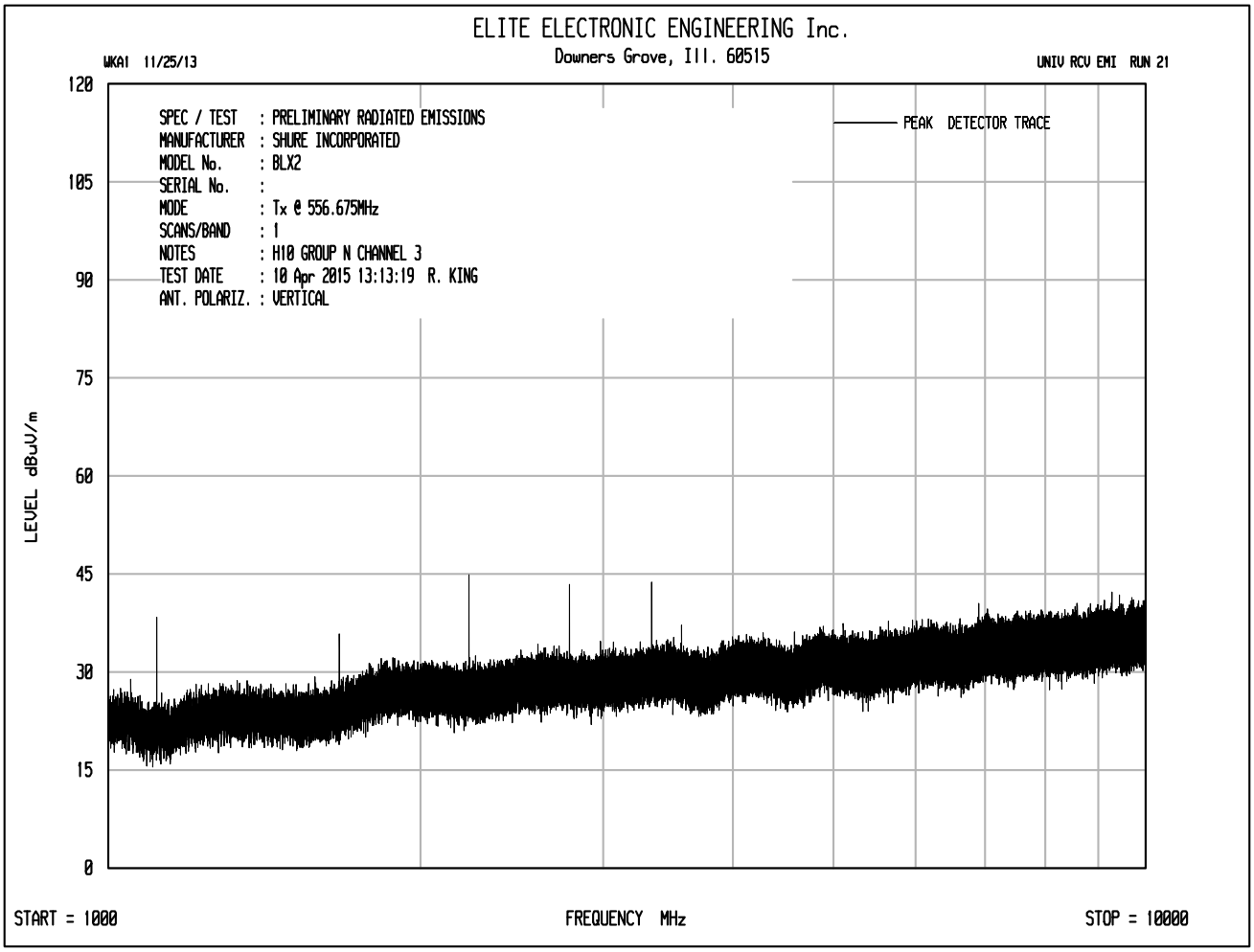

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 19
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 542.125MHz
SCANS/BAND : 1
NOTES : H10 GROUP E CHANNEL 0
TEST DATE : 10 Apr 2015 10:30:20 R. KING
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 10000

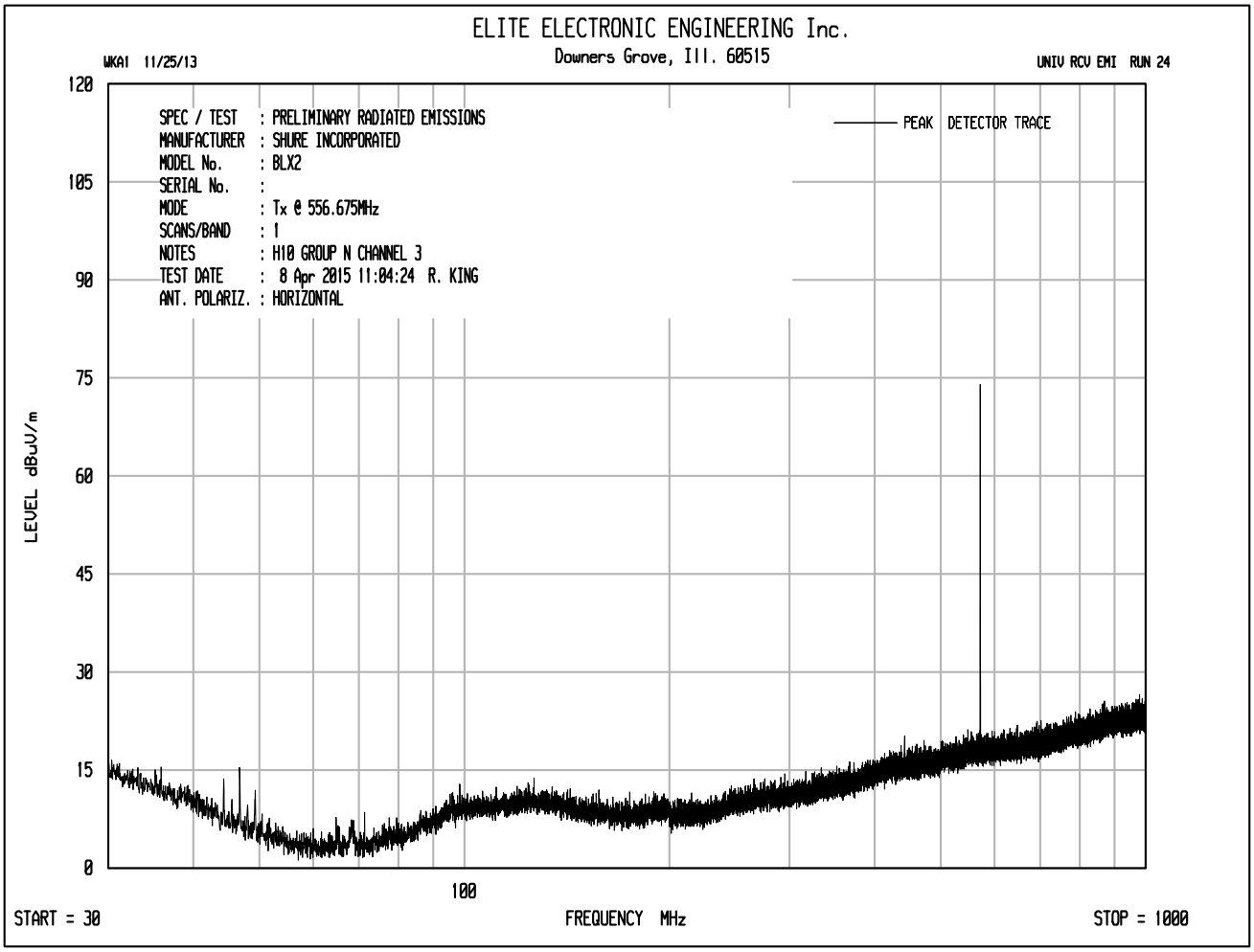

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 18
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 542.125MHz
SCANS/BAND : 1
NOTES : H10 GROUP E CHANNEL 0
TEST DATE : 10 Apr 2015 10:27:09 R. KING
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 10000

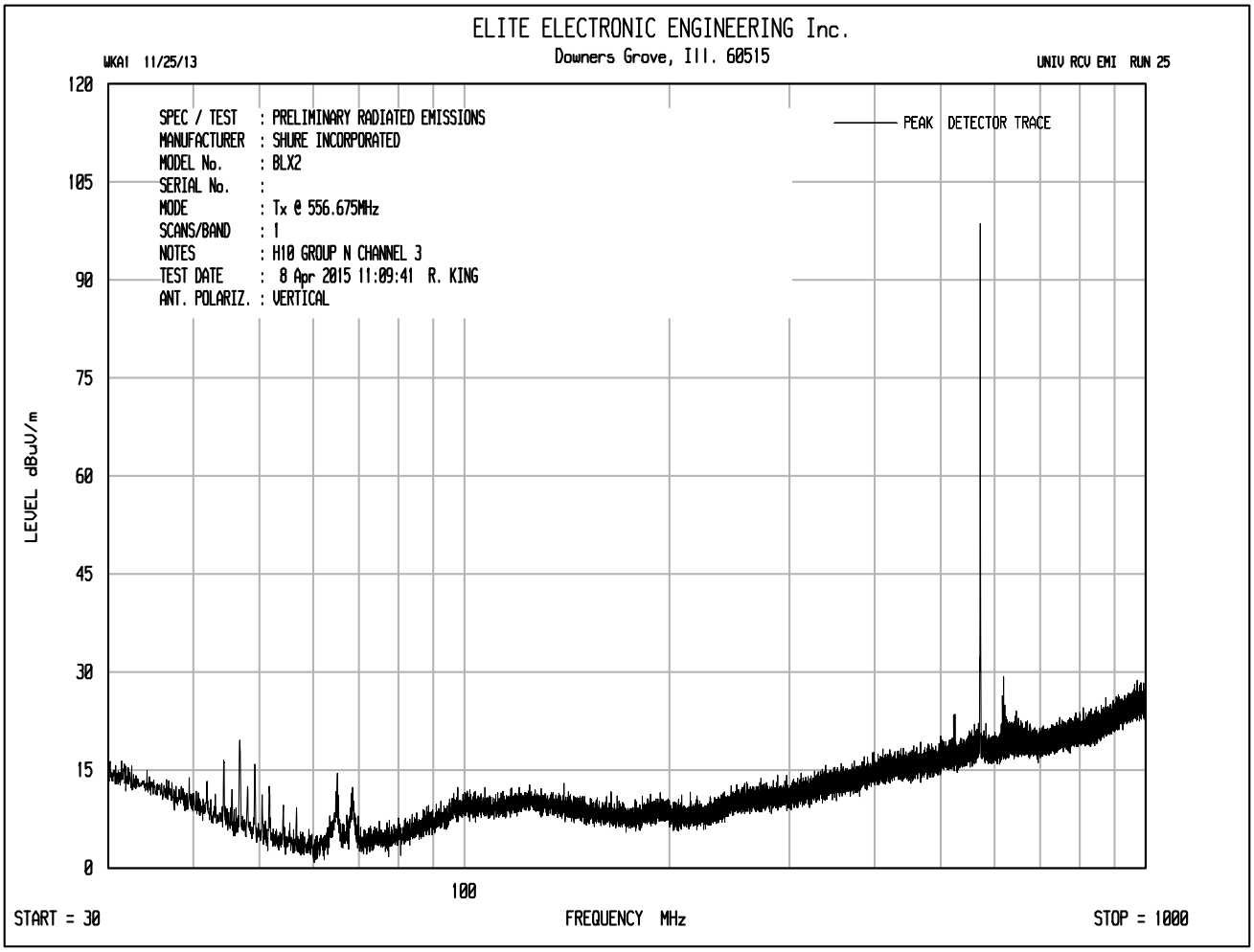

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 22
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 556.675MHz
SCANS/BAND : 1
NOTES : H10 GROUP N CHANNEL 3
TEST DATE : 8 Apr 2015 10:52:46 R. KING
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

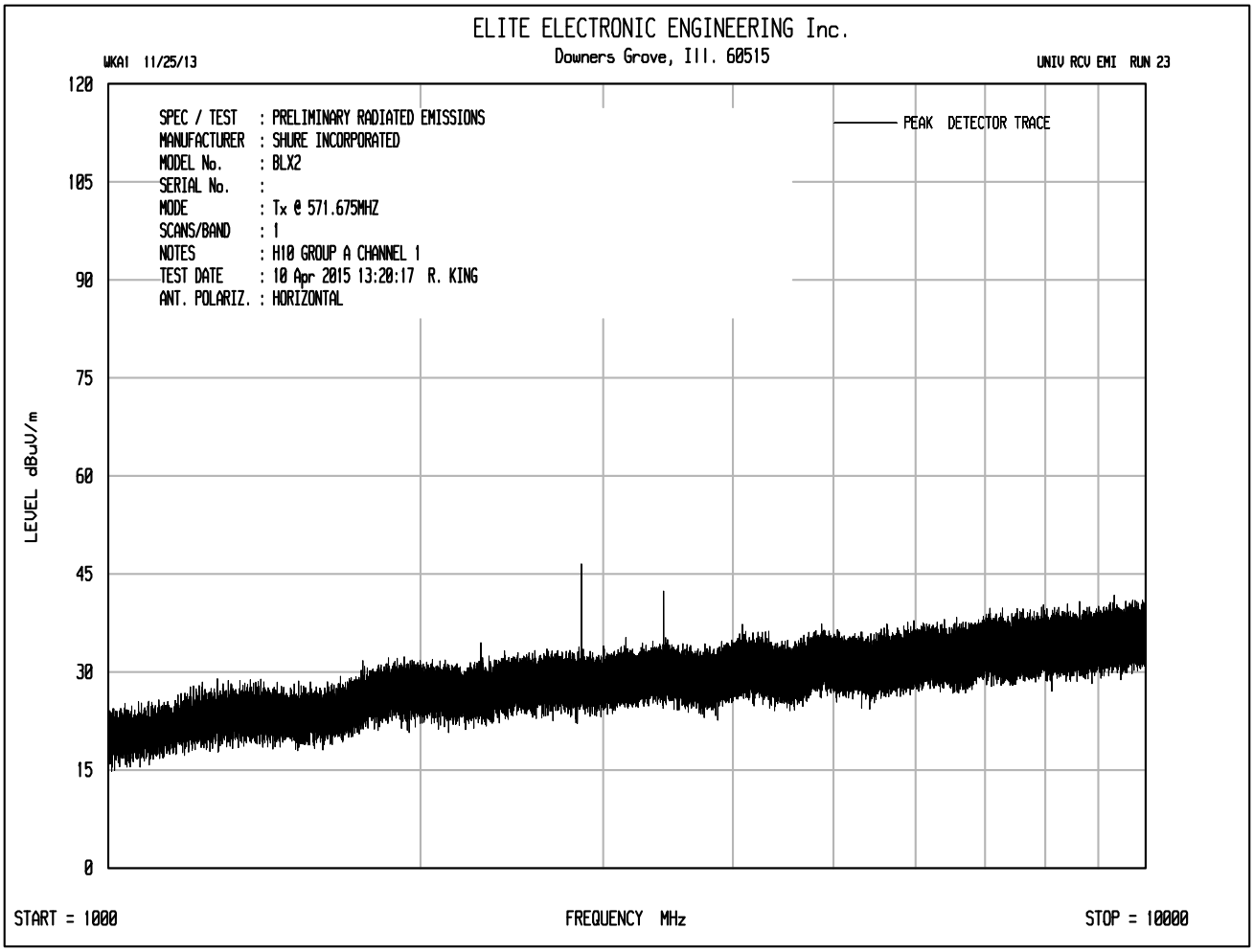

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 23
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 556.675MHz
SCANS/BAND : 1
NOTES : H10 GROUP N CHANNEL 3
TEST DATE : 8 Apr 2015 10:54:41 R. KING
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000

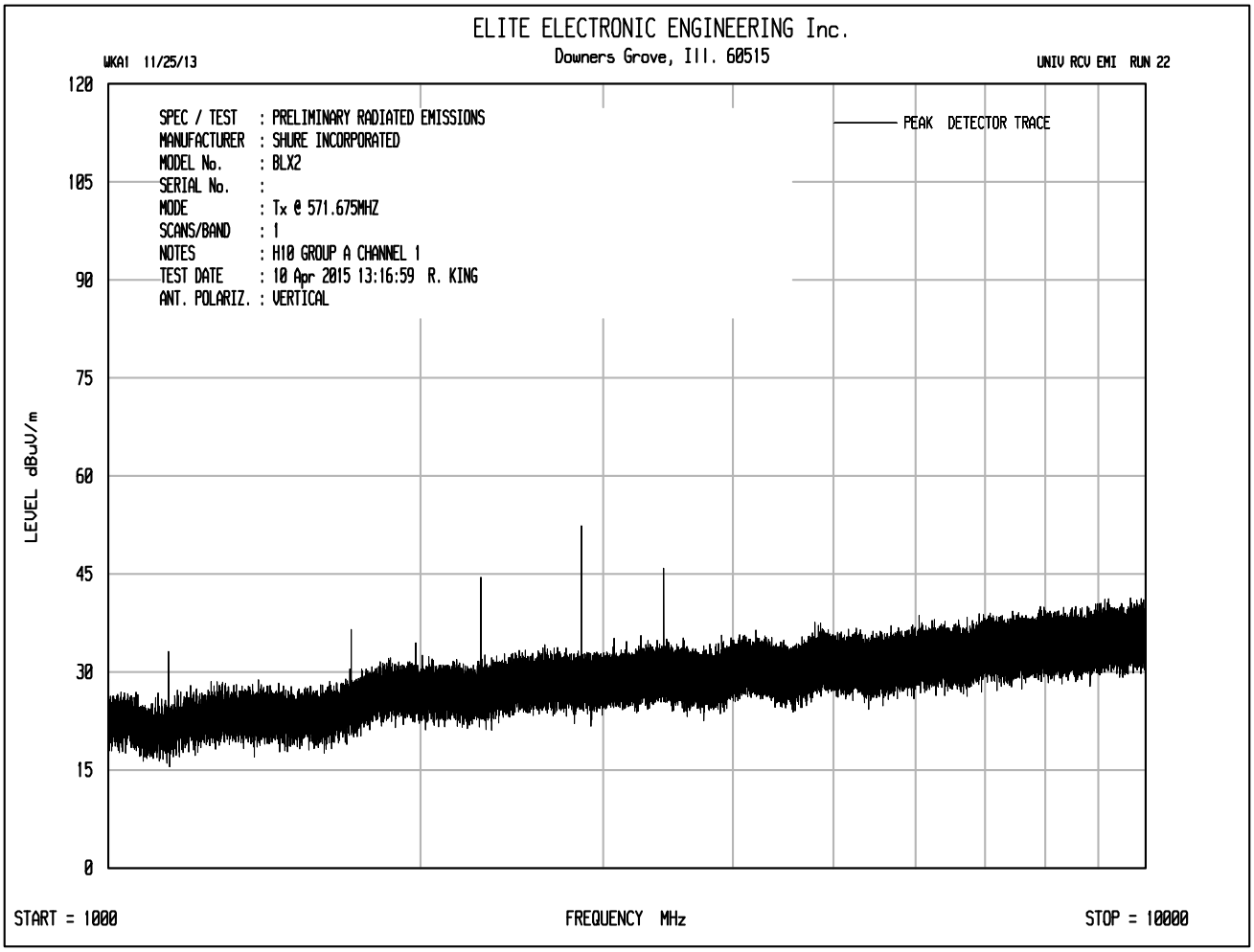

ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 20
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 556.675MHz
SCANS/BAND : 1
NOTES : H10 GROUP N CHANNEL 3
TEST DATE : 10 Apr 2015 13:10:44 R. KING
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 10000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 21
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 556.675MHz
SCANS/BAND : 1
NOTES : H10 GROUP N CHANNEL 3
TEST DATE : 10 Apr 2015 13:13:19 R. KING
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 10000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 24
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 556.675MHz
SCANS/BAND : 1
NOTES : H10 GROUP N CHANNEL 3
TEST DATE : 8 Apr 2015 11:04:24 R. KING
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 25
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 556.675MHz
SCANS/BAND : 1
NOTES : H10 GROUP N CHANNEL 3
TEST DATE : 8 Apr 2015 11:09:41 R. KING
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
100
START = 30
FREQUENCY MHz
STOP = 1000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 23
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 571.675MHZ
SCANS/BAND : 1
NOTES : H10 GROUP A CHANNEL 1
TEST DATE : 10 Apr 2015 13:20:17 R. KING
ANT. POLARIZ. : HORIZONTAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 10000


ELITE ELECTRONIC ENGINEERING Inc.
Downers Grove, Ill. 60515
WKA1 11/25/13
UNIV RCV EMI RUN 22
SPEC / TEST : PRELIMINARY RADIATED EMISSIONS
MANUFACTURER : SHURE INCORPORATED
MODEL No. : BLX2
SERIAL No. :
MODE : Tx @ 571.675MHZ
SCANS/BAND : 1
NOTES : H10 GROUP A CHANNEL 1
TEST DATE : 10 Apr 2015 13:16:59 R. KING
ANT. POLARIZ. : VERTICAL
PEAK DETECTOR TRACE
LEVEL dBuU/m
120
105
90
75
60
45
30
15
0
START = 1000
FREQUENCY MHz
STOP = 10000

MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 Spurious Radiated Emissions
DATE : April 9 through April 16, 2015
MODE : Transmit at 542.125MHz
BAND : H10 Group E Channel 0

| Freq. MHz | Ant Pol | Meter Reading dBuV | Amb | Matched Sig Gen dBm | Antenna Gain dB | Cable Factor dB | ERP Total dBm | Atten. dB | Part 74 Min. Attn. dB | RSS-210 Min. Attn. dB |
|---|---|---|---|---|---|---|---|---|---|---|
| 1084.25 | H | 53.6 | | -63.5 | 1.7 | 1.8 | -63.6 | 73.6 | 23.0 | 35.0 |
| 1084.25 | V | 63.3 | | -53.8 | 1.7 | 1.8 | -53.9 | 63.9 | 23.0 | 35.0 |
| 1626.38 | H | 50.2 | | -66.4 | 3.6 | 2.2 | -65.1 | 75.1 | 23.0 | 35.0 |
| 1626.38 | V | 55.1 | | -61.5 | 3.6 | 2.2 | -60.2 | 70.2 | 23.0 | 35.0 |
| 2168.50 | H | 49.4 | | -65.0 | 2.6 | 2.6 | -65.1 | 75.1 | 23.0 | 35.0 |
| 2168.50 | V | 53.0 | | -61.4 | 2.6 | 2.6 | -61.4 | 71.4 | 23.0 | 35.0 |
| 2710.63 | H | 52.6 | | -59.2 | 3.9 | 2.9 | -58.2 | 68.2 | 23.0 | 35.0 |
| 2710.63 | V | 55.5 | | -56.3 | 3.9 | 2.9 | -55.3 | 65.3 | 23.0 | 35.0 |
| 3252.75 | H | 49.5 | | -60.0 | 5.4 | 3.2 | -57.8 | 67.8 | 23.0 | 35.0 |
| 3252.75 | V | 50.3 | | -59.2 | 5.4 | 3.2 | -57.0 | 67.0 | 23.0 | 35.0 |
| 3794.88 | H | 47.0 | | -72.6 | 6.3 | 3.5 | -69.9 | 79.9 | 23.0 | 35.0 |
| 3794.88 | V | 48.2 | | -71.5 | 6.3 | 3.5 | -68.7 | 78.7 | 23.0 | 35.0 |
| 4337.00 | H | 48.2 | * | -71.4 | 7.0 | 3.7 | -68.1 | 78.1 | 23.0 | 35.0 |
| 4337.00 | V | 48.2 | * | -71.4 | 7.0 | 3.7 | -68.1 | 78.1 | 23.0 | 35.0 |
| 4879.13 | H | 48.1 | * | -69.0 | 7.0 | 3.9 | -65.9 | 75.9 | 23.0 | 35.0 |
| 4879.13 | V | 48.7 | * | -68.5 | 7.0 | 3.9 | -65.3 | 75.3 | 23.0 | 35.0 |
| 5421.25 | H | 48.5 | * | -66.6 | 8.0 | 4.1 | -62.7 | 72.7 | 23.0 | 35.0 |
| 5421.25 | V | 47.7 | * | -67.4 | 8.0 | 4.1 | -63.6 | 73.6 | 23.0 | 35.0 |

* - Ambient

ERP Total (dBm) = Matched Sig Gen (dBm) + Antenna Gain (dB) – Cable Factor (dB)

Atten. (dB) = Output Power (dBm) – ERP (dBm)

Checked BY Richard E. King :

Richard E. King

MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 Spurious Radiated Emissions
DATE : April 9 through April 16, 2015
MODE : Transmit at 556.675MHz
BAND : H10 Group N Channel 3

| Freq. MHz | Ant Pol | Meter Reading dBuV | Amb | Matched Sig Gen dBm | Antenna Gain dB | Cable Factor dB | ERP Total dBm | Atten. dB | Part 74 Min. Attn. dB | RSS-210 Min. Attn. dB |
|---|---|---|---|---|---|---|---|---|---|---|
| 1113.35 | H | 49.4 | | -67.3 | 1.7 | 1.8 | -67.4 | 77.4 | 23.0 | 35.0 |
| 1113.35 | V | 56.4 | | -60.3 | 1.7 | 1.8 | -60.4 | 70.4 | 23.0 | 35.0 |
| 1670.03 | H | 48.4 | | -67.4 | 3.5 | 2.3 | -66.1 | 76.1 | 23.0 | 35.0 |
| 1670.03 | V | 54.1 | | -61.7 | 3.5 | 2.3 | -60.5 | 70.5 | 23.0 | 35.0 |
| 2226.70 | H | 49.1 | | -64.7 | 2.8 | 2.6 | -64.5 | 74.5 | 23.0 | 35.0 |
| 2226.70 | V | 55.9 | | -57.9 | 2.8 | 2.6 | -57.7 | 67.7 | 23.0 | 35.0 |
| 2783.38 | H | 56.5 | | -54.5 | 4.3 | 3.0 | -53.3 | 63.3 | 23.0 | 35.0 |
| 2783.38 | V | 57.9 | | -53.2 | 4.3 | 3.0 | -51.9 | 61.9 | 23.0 | 35.0 |
| 3340.05 | H | 52.4 | | -56.8 | 5.6 | 3.3 | -54.4 | 64.4 | 23.0 | 35.0 |
| 3340.05 | V | 52.9 | | -56.3 | 5.6 | 3.3 | -53.9 | 63.9 | 23.0 | 35.0 |
| 3896.73 | H | 48.4 | * | -71.4 | 6.2 | 3.5 | -68.8 | 78.8 | 23.0 | 35.0 |
| 3896.73 | V | 48.2 | * | -71.7 | 6.2 | 3.5 | -69.0 | 79.0 | 23.0 | 35.0 |
| 4453.40 | H | 47.1 | * | -72.7 | 7.0 | 3.7 | -69.5 | 79.5 | 23.0 | 35.0 |
| 4453.40 | V | 48.0 | * | -71.9 | 7.0 | 3.7 | -68.6 | 78.6 | 23.0 | 35.0 |
| 5010.08 | H | 49.9 | * | -67.3 | 6.9 | 3.9 | -64.3 | 74.3 | 23.0 | 35.0 |
| 5010.08 | V | 48.4 | * | -68.8 | 6.9 | 3.9 | -65.8 | 75.8 | 23.0 | 35.0 |
| 5566.75 | H | 48.4 | * | -67.5 | 8.0 | 4.2 | -63.6 | 73.6 | 23.0 | 35.0 |
| 5566.75 | V | 47.8 | * | -68.1 | 8.0 | 4.2 | -64.2 | 74.2 | 23.0 | 35.0 |

* - Ambient

ERP Total (dBm) = Matched Sig Gen (dBm) + Antenna Gain (dB) – Cable Factor (dB)

Atten. (dB) = Output Power (dBm) – ERP (dBm)

Checked BY Richard E. King :

Richard E. King

MANUFACTURER : Shure Inc.
MODEL : BLX2 Wireless Hand Held Transmitter
SPECIFICATION : FCC-74 and RSS-210 Spurious Radiated Emissions
DATE : April 9 through April 16, 2015
MODE : Transmit at 571.675MHz
BAND : H10 Group A Channel 1

| Freq. MHz | Ant Pol | Meter Reading dBuV | Amb | Matched Sig Gen dBm | Antenna Gain dB | Cable Factor dB | ERP Total dBm | Atten. dB | Part 74 Min. Attn. dB | RSS-210 Min. Attn. dB |
|---|---|---|---|---|---|---|---|---|---|---|
| 1143.35 | H | 49.4 | | -67.2 | 1.6 | 1.9 | -67.5 | 77.5 | 23.0 | 35.0 |
| 1143.35 | V | 54.3 | | -62.3 | 1.6 | 1.9 | -62.6 | 72.6 | 23.0 | 35.0 |
| 1715.03 | H | 49.1 | | -66.2 | 3.1 | 2.3 | -65.4 | 75.4 | 23.0 | 35.0 |
| 1715.03 | V | 54.0 | | -61.4 | 3.1 | 2.3 | -60.6 | 70.6 | 23.0 | 35.0 |
| 2286.70 | H | 49.0 | | -64.2 | 3.2 | 2.7 | -63.7 | 73.7 | 23.0 | 35.0 |
| 2286.70 | V | 57.3 | | -55.9 | 3.2 | 2.7 | -55.4 | 65.4 | 23.0 | 35.0 |
| 2858.38 | H | 59.8 | | -50.7 | 4.6 | 3.0 | -49.1 | 59.1 | 23.0 | 35.0 |
| 2858.38 | V | 61.4 | | -49.1 | 4.6 | 3.0 | -47.5 | 57.5 | 23.0 | 35.0 |
| 3430.05 | H | 51.6 | | -57.4 | 5.7 | 3.3 | -55.0 | 65.0 | 23.0 | 35.0 |
| 3430.05 | V | 51.8 | | -57.3 | 5.7 | 3.3 | -54.9 | 64.9 | 23.0 | 35.0 |
| 4001.73 | H | 49.8 | | -65.1 | 6.5 | 3.6 | -62.1 | 72.1 | 23.0 | 35.0 |
| 4001.73 | V | 51.0 | | -63.9 | 6.5 | 3.6 | -60.9 | 70.9 | 23.0 | 35.0 |
| 4573.40 | H | 45.9 | * | -68.5 | 7.1 | 3.8 | -65.2 | 75.2 | 23.0 | 35.0 |
| 4573.40 | V | 45.5 | * | -68.9 | 7.1 | 3.8 | -65.6 | 75.6 | 23.0 | 35.0 |
| 5145.08 | H | 47.7 | * | -63.7 | 7.5 | 4.0 | -60.3 | 70.3 | 23.0 | 35.0 |
| 5145.08 | V | 46.1 | * | -65.3 | 7.5 | 4.0 | -61.8 | 71.8 | 23.0 | 35.0 |
| 5716.75 | H | 46.3 | * | -64.7 | 8.1 | 4.2 | -60.8 | 70.8 | 23.0 | 35.0 |
| 5716.75 | V | 46.6 | * | -64.5 | 8.1 | 4.2 | -60.6 | 70.6 | 23.0 | 35.0 |

* - Ambient

ERP Total (dBm) = Matched Sig Gen (dBm) + Antenna Gain (dB) – Cable Factor (dB)

Atten. (dB) = Output Power (dBm) – ERP (dBm)

Checked BY Richard E. King :

Richard E. King