



Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

FCC Rules and Regulations / Intentional Radiators

Operational in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz, Bands

Part 15, Subpart C, Section 15.247

THE FOLLOWING **"MEETS"** THE ABOVE TEST SPECIFICATION

Formal Name: R110XiIII Plus  
Kind of Equipment: Thermal Transfer on demand barcode\RFID printer  
Test Configuration: Multiprotocol (Tested at 120 vac, 60 Hz)  
Model Number(s): 110XiIII  
Model(s) Tested: 110XiIII  
Serial Number(s): 91C04430211  
Date of Tests: November 17 & 18, 2004  
Test Conducted For: Zebra Technologies Corporation  
333 Corporate Woods Parkway  
Vernon Hills, Illinois 60061

**NOTICE:** "This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government". Please see the "Additional Description of Equipment Under Test" page listed inside of this report. This report must not be reproduced (except in full), without the approval of D.L.S. Electronic Systems.



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## SIGNATURE PAGE

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Arnom C. Rowe  
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EMC-001375-NE

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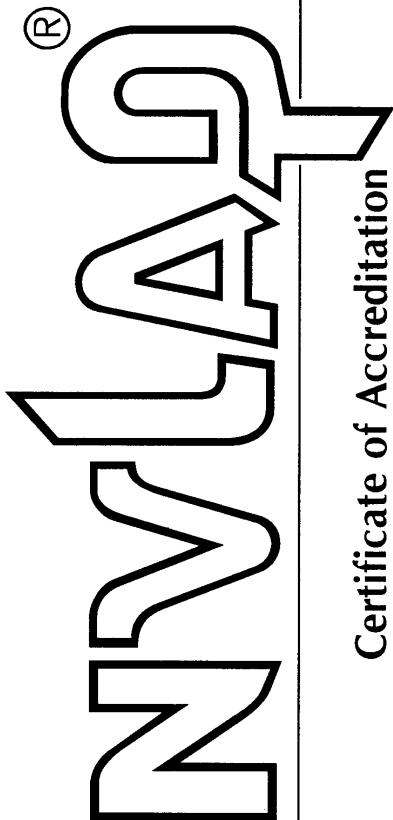
Zebra Technologies Corporation



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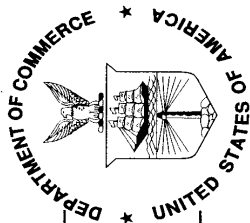
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United States Department of Commerce  
National Institute of Standards and Technology



## Certificate of Accreditation

ISO/IEC 17025:1999  
ISO 9002:1994



**D.L.S. ELECTRONIC SYSTEMS, INC.**  
WHEELING, IL

is recognized by the National Voluntary Laboratory Accreditation Program  
for satisfactory compliance with criteria set forth in NIST Handbook 150:2001,  
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Accreditation is awarded for specific services, listed on the Scope of Accreditation, for:

**ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS**

September 30, 2005

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NVLAP Lab Code: 100276-0

NVLAP-01C (06-01)



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#### D.L.S. ELECTRONIC SYSTEMS, INC.

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#### NVLAP Code Designation / Description

##### Emissions Test Methods:

|            |                                                                                                                                                                                                                                                                               |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12/160D21  | RTCA/DO-160D (1997): Environmental Conditions and Test Procedures for Airborne Equipment - Section 21 - Emission of Radio Frequency Energy                                                                                                                                    |
| 12/300220a | EN 300 220-1 V1.3.1 (2000-09): Electromagnetic compatibility and Radio spectrum Matters; Short Range Devices; Radio equipment to be used in the 25 MHz to 1000 MHz frequency range with power levels ranging up to 500 mW; Part 1: Technical characteristics and test methods |
| 12/300386a | EN 300 386 V.1.2.1: Electromagnetic compatibility and radio spectrum matter (ERM); Telecommunication network equipment; Electromagnetic compatibility (EMC) requirements                                                                                                      |
| 12/C63.17  | ANSI C63.17-1998: American National Standard for Methods of Measurement of the Electromagnetic and Operational Compatibility of Unlicensed Personal Communications Services (UPCS) Devices                                                                                    |

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|-------------------|----------------------------------|
|-------------------|----------------------------------|

|           |                                                                                                                                                                                                                                            |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12/C6317a | ANSI C63.17-1998: American National Standard for Methods of Measurement of the Electromagnetic and Operational Compatibility of Unlicensed Personal Communications Services (UPCS) Devices                                                 |
| 12/CIS11  | IEC/CISPR 11 + A1 (1997), EN 55011 (1998), AS/NZS CISPR 11 (2002), and CNS 13803 (1997): Limits and Methods of Measurement of Electromagnetic Disturbance Characteristics of Industrial, Scientific, and Medical Radio-Frequency Equipment |
| 12/CIS13  | IEC/CISPR 13 (2001-04), EN 55013 (2001), AS/NZS CISPR 13 (2003), and CNS 13439 (2001): Sound and television broadcast receivers and associated equipment - Radio disturbance characteristics - Limits and methods of measurement           |
| 12/CIS14  | CISPR 14-1 (March 30, 2000): Limits and Methods of Measurement of Radio interference Characteristics of Household Electrical Appliances, Portable Tools and Similiar Electrical Apparatus - Part 1: Emissions                              |
| 12/CIS14a | EN 55014-1 (1993), A1 (1997), A2 (1999):                                                                                                                                                                                                   |
| 12/CIS14d | IEC/CISPR 14-1 (2001) and A1 (2001): Electromagnetic Compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emissions                                                                       |
| 12/CIS14e | EN 55014-1 (2001) and A1 (2001): Electromagnetic Compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission                                                                            |

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|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12/CIS14f         | AS/NZS 1044 (2001) and A1 (2001): Electromagnetic Compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission                               |
| 12/CIS14g         | CNS 13783-1 (2001) and A1 (2001): Electromagnetic Compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission                               |
| 12/CIS15          | IEC/CISPR 15 (2000) + A1 (2001): Limits and methods of measurements of radio disturbance characteristics of electrical lighting and similar equipment                                          |
| 12/CIS15a         | AS/NZS CISPR 15 (2002): Limits and methods of measurements of radio disturbance characteristics of electrical lighting and similar equipment                                                   |
| 12/CIS15b         | CNS 13439 (2000) + A1 (2001): Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment                                              |
| 12/CIS15c         | EN 55015 (2000) + A1 (2001): Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment                                               |
| 12/CIS22          | IEC/CISPR 22 (1997) & EN 55022 (1998) + A1(2000): Limits and methods of measurement of radio disturbance characteristics of information technology equipment                                   |
| 12/CIS22a         | IEC/CISPR 22 (1993) and EN 55022 (1994): Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1 (1995) and Amendment 2 (1996) |

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|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12/CIS22b         | CNS 13438 (1997): Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment                                                                                           |
| 12/EM02a          | IEC 61000-3-2, Edition 2.1 (2001-10), EN 61000-3-2 (2000), and AS/NZS 2279.1 (2000): Electromagnetic compatibility (EMC) Part 3-2: Limits - Limits for harmonic current emissions (equipment input current $\leq 16$ A) |
| 12/EM03           | IEC 61000-3-3(1995); EN 61000-3-3(1995); AS/NZS 2279.3(1995): EMC - Part 3: Limits - Section 3. Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current up to 16A |
| 12/F18            | FCC OST/MP-5 (1986): FCC Methods of Measurement of Radio Noise Emissions for ISM Equipment (cited in FCC Method 47 CFR Part 18 - Industrial, Scientific, and Medical Equipment)                                         |
| 12/FCC15b         | ANSI C63.4 (2001) with FCC Method 47 CFR Part 15, Subpart B: Unintentional Radiators                                                                                                                                    |
| 12/FCC15c         | ANSI C63.4 (2001) with FCC Method 47 CFR Part 15, Subpart C: Intentional Radiators                                                                                                                                      |
| 12/FCC15d         | ANSI C63.4(2001) with FCC Method 47 CFR Part 15, Subpart D: Unlicensed Personal Communications Service Devices                                                                                                          |

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| 12/FCC15e         | ANSI C63.4 (2001) with FCC Method 47 CFR Part 15, Subpart E: Unlicensed National Information Infrastructure Service Devices                         |
| 12/T51            | AS/NZS CISPR 22 (2002) and AS/NZS 3548 (1997): Electromagnetic Interference - Limits and Methods of Measurement of Information Technology Equipment |
| 12/VCCIa          | Agreement of Voluntary Control Council for Interference by Information Technology Equipment - Technical Requirements: V-3/02.04                     |

#### Immunity Test Methods:

|           |                                                                                                                                                                                 |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12/1089a  | GR-1089-CORE, Issue 3, October 2002: Electromagnetic Compatibility and Electrical Safety - Generic Criteria for Network Telecommunications Equipment (sections 2, 3.3, and 3.5) |
| 12/160D16 | RTCA/DO-160D (1997): Environmental Conditions and Test Procedures for Airborne Equipment - Section 16 - Power Input                                                             |
| 12/160D17 | RTCA/DO-160D (1997): Environmental Conditions and Test Procedures for Airborne Equipment - Section 17 - Voltage Spike                                                           |
| 12/160D18 | RTCA/DO-160D (1997): Environmental Conditions and Test Procedures for Airborne Equipment - Section 18 - Audio Frequency Conducted Susceptibility - Power Inputs                 |

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|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12/160D19         | RTCA/DO-160D (1997): Environmental Conditions and Test Procedures for Airborne Equipment - Section 19 - Induced Signal Susceptibility                                                     |
| 12/160D20         | RTCA/DO-160D (1997): Environmental Conditions and Test Procedures for Airborne Equipment - Section 20 - Radio Frequency Susceptibility (Radiated and Conducted)                           |
| 12/160D22         | RTCA/DO-160D (1997): Environmental Conditions and Test Procedures for Airborne Equipment - Section 22 - Lightning Induced Transient Susceptibility                                        |
| 12/160D25         | RTCA/DO-160D (1997): Environmental Conditions and Test Procedures for Airborne Equipment - Section 25 - Electrostatic Discharge (ESD)                                                     |
| 12/I01            | IEC 61000-4-2, Ed. 2.1 (2001), A1, A2; EN 61000-4-2: Electrostatic Discharge Immunity Test                                                                                                |
| 12/I02            | IEC 61000-4-3, Ed. 2.0 (2002-03); EN 61000-4-3 (2002): Radiated Radio-Frequency Electromagnetic Field Immunity Test                                                                       |
| 12/I03            | IEC 61000-4-4(1995), A1(2000), A2(2001); EN 61000-4-4: Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical Fast Transient/Burst Immunity Test |
| 12/I04            | IEC 61000-4-5, Ed. 1.1 (2001-04); EN 61000-4-5: Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test                                  |

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- |            |                                                                                                                                                                                                            |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12/I05     | IEC 61000-4-6, Ed. 2.0 (2003-05); EN 61000-4-6: Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields |
| 12/I06     | IEC 61000-4-8, Ed. 1.1 (2001); EN 61000-4-8: Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test                             |
| 12/I07     | IEC 61000-4-11, Ed. 1.1 (2001-03); EN 61000-4-11: Voltage Dips, Short Interruptions and Voltage Variations Immunity Tests                                                                                  |
| 12/J111324 | SAE J1113/24: Immunity to radiated electromagnetic fields; 10 kHz to 200 MHz - Crawford TEM cell and 10 kHz to 5 GHz - Wideband TEM cell                                                                   |
| 12/J111341 | SAE J1113/41 (1995-07): Limits and methods of measurement of radio disturbance characteristics of components and modules for the protection of receivers used on board vehicles                            |

#### Radio Test Methods

- |           |                                                                                                             |
|-----------|-------------------------------------------------------------------------------------------------------------|
| 12/RSS119 | RSS-119, Issue 6 (March 25, 2000): Land Mobile and Fixed Radio Transmitters and Receivers, 27.41 to 960 MHz |
| 12/RSS123 | RSS-123, Issue 1, Rev. 2 (November 6, 1999): Low Power Licensed Radiocommunication Devices                  |

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| <i>NVLAP Code</i> | <i>Designation / Description</i>                                                                                                                                   |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12/RSS125         | RSS-125 (March 25, 2000): Land Mobile and Fixed Radio Transmitters and Receivers, 1.705 to 50.0 MHz, Primarily Amplitude Modulated                                 |
| 12/RSS131         | RSS-131, Issue 2 (July 2003): Zone Enhancers for the Land Mobile Service                                                                                           |
| 12/RSS132         | RSS-132, Issue 1 (August 2002): 800 MHz Cellular Telephones Employing New Technologies                                                                             |
| 12/RSS133         | RSS-133, Issue 2, Rev. 1 (November 6, 1999): 2GHz Personal Communications Services                                                                                 |
| 12/RSS134         | RSS-134, Issue 1, Rev. 1 (March 25, 2000): 900 MHz Narrowband Personal Communication Service                                                                       |
| 12/RSS135         | RSS-135, Issue 1 (October 26, 1996): Digital Scanner Receivers                                                                                                     |
| 12/RSS136         | RSS-136, Issue 5 (October 2002): Land and Mobile Station Radiotelephone Transmitters and Receivers Operating in the 26.960 - 27.410 MHz General Radio Service Band |
| 12/RSS137         | RSS-137, Issue 1, Rev. 1 (September 25, 1999): Location and Monitoring Service (902 - 928 MHz)                                                                     |
| 12/RSS139         | RSS-139, Issue 1 (February 5, 2000): Licensed Radiocommunications Devices in the Band 2400 - 2483.5 MHz                                                            |

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|-------------------|----------------------------------|
|-------------------|----------------------------------|

|           |                                                                                                                                                                                                  |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12/RSS141 | RSS-141, Issue 1 (July 2003): Aeronautical Radiocommunication Equipment in the Frequency Band 117.975 - 137 MHz                                                                                  |
| 12/RSS142 | RSS-142, Issue 2 (August 2002): Narrowband Multipoint Communication Systems in the 1,427 - 1,430 MHz and 1,493.5 - 1,496.5 MHz Bands                                                             |
| 12/RSS170 | RSS-170, Issue 1, Rev. 1 (November 6, 1999): Satellite Mobile Earth Stations                                                                                                                     |
| 12/RSS191 | RSS-191, Issue 2 (August 2002): Local Multipoint Communication Systems in the 28 GHz Band; Point-to-Point and Point-to-Multipoint Broadband Communication Systems in the 24 GHz and 38 GHz Bands |
| 12/RSS192 | RSS-192, Issue 1 (November 6, 1999): Fixed Wireless Access Systems in the Band 3400 - 3700 MHz                                                                                                   |
| 12/RSS193 | RSS-193, Issue 1 (July 2003): Multipoint and Point-to-Point Communication Systems (MCS) in the Fixed Service Operating in the 2,150 - 2,160 MHz, 2,500 - 2,596 MHz and 2,686 - 2,690 MHz Bands   |
| 12/RSS210 | RSS-210, Issue 5 (November 2001): Low Power Licence-Exempt Radiocommunication Devices                                                                                                            |
| 12/RSS212 | RSS-212, Issue 1 (February 27, 1999): Test Facilities and Test Methods for Radio Equipment                                                                                                       |

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#### *NVLAP Code Designation / Description*

12/RSS213 RSS-213, Issue 1 (April 24, 1999): 2 GHz Licence-Exempt Personal Communications Service Devices (PCS)

12/RSS215 RSS-215, Issue 1 (November 6, 1999): Analogue Scanner Receivers

#### **Telecommunications Test Methods:**

12/FCC2a2 TIA/EIA 603A (2001) with 47 CFR Part 2: Public Mobile Services in 47 CFR Part 22

12/FCC2b2 TIA/EIA 603A (2001) with 47 CFR Part 2: Private Land Mobile Radio Services in 47 CFR Part 90

12/FCC2d1 TIA/EIA 603A (2001) with 47 CFR Part 2: Experimental Radio, Auxiliary, Special Broadcast and Other Program Distributional Services in 47 CFR Part 74

12/FCC2e1 TIA/EIA 603A (2001) with 47 CFR Part 2: International Fixed Public Radiocommunication Services in 47 CFR Part 23

12/CIS15c EN 55015 (2000) + A1 (2001): Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment

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**MIL-STD-462 : Conducted Emissions:**

|        |                                    |
|--------|------------------------------------|
| 12/A13 | MIL-STD-462 Version D Method CE101 |
| 12/A14 | MIL-STD-462 Version D Method CE102 |
| 12/A16 | MIL-STD-461 Version E Method CE101 |
| 12/A17 | MIL-STD-461 Version E Method CE102 |
| 12/A18 | MIL-STD-461 Version E Method CE106 |

**MIL-STD-462 : Conducted Susceptibility:**

|        |                                    |
|--------|------------------------------------|
| 12/B12 | MIL-STD-462 Version D Method CS101 |
| 12/B13 | MIL-STD-462 Version D Method CS103 |
| 12/B25 | MIL-STD-461 Version E Method CS114 |
| 12/B26 | MIL-STD-461 Version E Method CS115 |
| 12/B27 | MIL-STD-461 Version E Method CS116 |

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***NVLAP Code    Designation / Description***

**MIL-STD-462 : Radiated Emissions:**

|        |                                    |
|--------|------------------------------------|
| 12/D04 | MIL-STD-462 Version D Method RE101 |
| 12/D05 | MIL-STD-462 Version D Method RE102 |
| 12/D06 | MIL-STD-462 Version D Method RE103 |

**MIL-STD-462 : Radiated Susceptibility:**

|        |                                    |
|--------|------------------------------------|
| 12/E08 | MIL-STD-462 Version D Method RS101 |
| 12/E09 | MIL-STD-462 Version D Method RS103 |

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## 1.0 SUMMARY OF TEST REPORT

It was found that the R110XiIII Plus, Model Number(s) 110XiIII, "**meets**" the radio interference conducted and radiated emission requirements of the FCC "Rules and Regulations", Part 15, Subpart C, Section 15.247 for operational in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz, Bands.

This test report relates only to the items tested and contains the following number of pages.

Text: 193

## 2.0 INTRODUCTION

On November 17 & 18, 2004, a series of radio frequency interference measurements was performed on R110XiIII Plus, Model Number(s) 110XiIII, Serial Number: 91C04430211. The tests were performed according to the procedures of the FCC as stated in the "Methods of Measurement of Radio-Noise Emissions for Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz" found in the American National Standards Institute, ANSI C63.4-2001. Tests were performed by personnel of D.L.S. Electronic Systems, Inc. who are responsible to Donald L. Sweeney, Senior EMC Engineer.

## 3.0 OBJECT

The purpose of this series of tests was to determine if the test sample could meet the radio frequency interference emission requirements of the FCC "Rules and Regulations", Part 15, Subpart C, Sections 15.205, 15.209 & 15.247 for Intentional Radiators operating in the Bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz.



Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

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#### 4.0 TEST SET-UP

All emission tests were performed at D.L.S. Electronic Systems, Inc. and set up according to the American National Standards Institute, ANSI C63.4-2001, Section 8, (Figures 11a and 11b).

All radiated emissions tests were performed with the test item placed on a 80 cm high rotating non-conductive table, located in the test room. Equipment normally operated on the floor was placed on a metal covered turntable which is flush with the surrounding conducting ground plane. The ground plane has an electrical isolation layer over its surface approximately 7 mm thick. The EUT is separated from the turntable ground plane by a non-conductive layer. The equipment under test was set up according to ANSI C63.4-2001, Sections 6 and 8.



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## 5.0 TEST EQUIPMENT (Bandwidths and Detector Function)

All preliminary data below 1000 MHz was automatically plotted using the HP Spectrum Analyzer or ESI 26/40 Fixed Tuned Receiver. The data was taken using Peak, Quasi-Peak or the Average Detector Functions as required. This information was then used to determine the frequencies of maximum emissions. Above 1000 MHz, final data was taken using the Average Detector.

Below 1000 MHz, final data was taken using the HP Spectrum Analyzer and/or ESI 26/40 Fixed Tuned Receiver. These plots were made using the Peak or Quasi-Peak Detector functions, with manual measurements performed on the questionable frequencies using the Quasi-Peak or the Average Detector Function of the Analyzer or ESI 26/40 Fixed Tuned Receiver as required. Above 1000 MHz, final data was taken using the Average Detector on the Spectrum Analyzer.

The bandwidths shown below are specified by ANSI C63.4-2001, Section 4.2.

| Frequency Range   | Bandwidth (-6 dB) |
|-------------------|-------------------|
| 10 to 150 kHz     | 200 Hz            |
| 150 kHz to 30 MHz | 9 kHz             |
| 30 MHz to 1 GHz   | 120 kHz           |
| Above 1 GHz       | 1 MHz             |

A list of the equipment used can be found in Table 1. All primary equipment was calibrated against known reference standards with a verified traceable path to NIST.



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## 6.0 AMBIENT MEASUREMENTS

For emissions measurements, broadband antennas and an EMI Test Receiver with a panoramic spectrum display are used. First the frequency range is scanned and displayed on the test receiver display. Next the scanned frequency range is divided into smaller ranges, and then it is manually tuned through to determine the emissions from the EUT. A headset or loudspeaker is connected to the test receiver's AM/FM demodulated output as an aid in detecting ambient signals and finding frequencies of significant emission from the EUT. If there is any doubt as to the source of the emission, it is further investigated by rotating the EUT, or by disconnecting the power from the EUT.

The EUT is set up in its typical configuration and operated in its various modes. For tabletop systems, cables are manipulated within the range of likely configurations. For floor-standing equipment, the cables are located in the same manner as the user would install them and no further manipulation is made. If the manner of cable installation is not known, or if it changes with each installation, cables or wires for floor-standing equipment shall be manipulated to the extent possible to produce the maximum level of emissions. For each mode of operation, the frequency spectrum is monitored. Variations in antenna height, antenna polarization, EUT azimuth, and cable or wire placement (each variable within bounds specified elsewhere) are explored to produce the emissions that have the highest amplitude relative to the limit. These methods are performed to the specifications in ANSI C63.4: 2001.



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## 7.0 DESCRIPTION OF TEST SAMPLE: (See also Paragraph 8.0)

### 7.1 Description:

Zebra R110XiIII is a RFID Thermal Transfer on demand printer. Capable of printing RFID labels. Printer powered through an IEC 320 connector, from 90-264 VAC, 47-63 Hz. Printer uses ZPL programming language, capable of receiving data via Serial connector, Parallel connector (covered when other communications options are installed). For this test the Ethernet print server option is installed and used for sending data packets of label data to the printer, from a Dell Laptop Computer.

### 7.2 PHYSICAL DIMENSIONS OF EQUIPMENT UNDER TEST

Length: 49.5 cm x Width: 26.3 cm x Height: 39.5 cm

### 7.3 LINE FILTER USED:

Yunpen YL06T1, 6EGG  
High - Low 06SS3-SR-Q

### 7.4 INTERNAL CLOCK FREQUENCIES:

Switching Power Supply Frequencies:

46 KHz, 56 KHz, 100 kHz

Clock Frequencies:

Printer CPU: 3.6469 MHz, 8.0 MHz, 16.0 MHz, 32.0 MHz

Print Server: 25 MHz, 33 MHz, 66 MHz, 133 MHz

RFID Reader: 16 MHz, 20 MHz



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Report Number: 11069

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## 7.0 DESCRIPTION OF TEST SAMPLE: (CON'T)

### 7.5 DESCRIPTION OF ALL CIRCUIT BOARDS:

- |                                   |                  |
|-----------------------------------|------------------|
| 1. CPU Board Assembly             | PN: 33008 Rev 4  |
| 2. Control Panel Board Assembly   | PN: 49750, Rev 1 |
| 3. AC Power Supply Board Assembly | PN: 33050 Rev 1  |
| 4. DC Power Supply Board Assembly | PN: 49795 Rev 3  |
| 5. Print server, 10\100 Ethernet  | PN: 47670 Rev 1  |
| 6. ASM MP UHF RFID RDR            | PN: 27095 Rev B  |
| 7. ASSY UHF COUPLER ARRAY R110Xi3 | PN: 2760 Rev C   |
| 8. Assy Xi RFID Reflc Sensor      | PN: 27090 Rev B  |



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8.0 ADDITIONAL DESCRIPTION OF TEST SAMPLE:  
(See also Paragraph 7.0)

1: There were no additional descriptions noted at the time of test.

I certify that the above, as described in paragraph 7.0, describes the equipment tested and will be manufactured as stated.

By: \_\_\_\_\_  
Signature Title

For: \_\_\_\_\_  
Company Date





Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

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## 9.0 PHOTO INFORMATION AND TEST SET-UP

Item 0 R110XiIII Plus

Model Number: 110XiIII Serial Number: 91C04430211

Item 1 Shielded Serial Cable with Metal Shells. 2.5m

Item 2 Shielded USB Cable with Metal Shells. 2m

Item 3 Non-shielded 10/100 Ethernet Cable with Plastic Shells. 50'

Item 4 Non-shielded AC Power Line Cord. 2.5m

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## 10.0 RADIATED PHOTOS TAKEN DURING TESTING





Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

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## 10.0 CONDUCTED PHOTOS TAKEN DURING TESTING





Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
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## 11.0 RESULTS OF TESTS

The radio interference emission charts results can be seen on the pages at the end of this report. Data sheets indicating the test measurements taken during testing can also be found at the end of this report. Points on the emission charts shown with a yellow mark are background frequencies that were verified during testing.

## 12.0 CONCLUSION

It was found that the R110XiIII Plus, Model Number(s) 110XiIII "**meets**" the radio interference conducted and radiated emission requirements of the FCC "Rules and Regulations", Part 15, Subpart C, Section 15.247 for operational in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz, Bands.



Company: Zebra Technologies Corporation  
 Model Tested: 110XiIII  
 Report Number: 11069

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TABLE 1 – EQUIPMENT LIST

| Test Equipment     | Manufacturer        | Model Number | Serial Number | Frequency Range  | Cal Due Dates |
|--------------------|---------------------|--------------|---------------|------------------|---------------|
| Spectrum Analyzer  | Hewlett/<br>Packard | 8566B        | 2240A002041   | 100 Hz – 22 GHz  | 10/05         |
| Quasi-Peak Adapter | Hewlett/<br>Packard | 85650A       | 2043A00121    | 10 kHz – 1 GHz   | 10/05         |
| Spectrum Analyzer  | Hewlett/<br>Packard | 8566B        | 2421A00452    | 100 Hz – 22 GHz  | 2/05          |
| Quasi-Peak Adapter | Hewlett/<br>Packard | 85650A       | 2043A00450    | 10 kHz – 1 GHz   | 2/05          |
| Spectrum Analyzer  | Hewlett/<br>Packard | 8591A        | 3009A00700    | 9 kHz – 1.8 GHz  | 3/05          |
| Receiver           | Electrometrics      | EMC-30       | 44168         | 10 kHz – 1 GHz   | 9/05          |
| Receiver           | Rohde &<br>Schwarz  | ESI 26       | 837491/010    | 20 Hz – 26 GHz   | 11/05         |
| Receiver           | Rohde &<br>Schwarz  | ESI 40       | 837808/006    | 20 Hz – 40 GHz   | 12/04         |
| Receiver           | Rohde &<br>Schwarz  | ESI 40       | 837808/005    | 20 Hz – 40 GHz   | 12/04         |
| Antenna            | EMCO                | 3104C        | 00054891      | 20 MHz – 200 MHz | 2/05          |
| Antenna            | Electrometrics      | LPA-25       | 1114          | 200 MHz – 1 GHz  | 3/05          |
| Antenna            | EMCO                | 3104C        | 00054892      | 20 MHz – 200 MHz | 3/05          |

All primary equipment is calibrated against known reference standards with a verified traceable path to NIST.



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 Model Tested: 110XiIII  
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TABLE 1 – EQUIPMENT LIST

| Test Equipment | Manufacturer    | Model Number     | Serial Number | Frequency Range  | Cal Due Dates |
|----------------|-----------------|------------------|---------------|------------------|---------------|
| Antenna        | Electrometrics  | 3146             | 1205          | 200 MHz – 1 GHz  | 3/05          |
| Antenna        | EMCO            | 3104C            | 97014785      | 20 MHz – 200 MHz | 2/05          |
| Antenna        | EMCO            | 3146             | 97024895      | 200 MHz – 1 GHz  | 3/05          |
| Antenna        | EMCO            | 3115             | 2479          | 1 GHz – 18 GHz   | 8/05          |
| Antenna        | EMCO            | 3115             | 99035731      | 1 GHz – 18 GHz   | 4/05          |
| Antenna        | Rohde & Schwarz | HUF-Z1           | 829381001     | 20 MHz – 1 GHz   | 2/05          |
| Antenna        | Rohde & Schwarz | HUF-Z1           | 829381005     | 20 MHz – 1 GHz   | 8/05          |
| LISN           | Solar           | 8012-50-R-24-BNC | 8305116       | 10 MHz – 30 MHz  | 8/05          |
| LISN           | Solar           | 8012-50-R-24-BNC | 814548        | 10 MHz – 30 MHz  | 8/05          |
| LISN           | Solar           | 9252-50-R-24-BNC | 961019        | 10 MHz – 30 MHz  | 12/04         |
| LISN           | Solar           | 9252-50-R-24-BNC | 971612        | 10 MHz – 30 MHz  | 10/05         |
| LISN           | Solar           | 9252-50-R-24-BNC | 92710620      | 10 MHz – 30 MHz  | 7/05          |

All primary equipment is calibrated against known reference standards with a verified traceable path to NIST.



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## APPENDIX A

# TEST PROCEDURE

Part 15, Subpart C, Section 15.247 (a-h)

**OPERATION WITHIN THE BAND 902-928 MHz, 2400-2483.5 MHz  
AND 5725-5857 MHz**



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Model Tested: 110XiIII  
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## APPENDIX A

### 1.0 CONDUCTED EMISSION MEASUREMENTS

If applicable, the conducted emissions were measured over the frequency range from 150 kHz to 30 MHz in accordance with the power line measurements as specified in the American National Standards Institute, ANSI C63.4-2001, Section 12. Since the device is operated from the public utility lines, the 115 Vac 60 Hz power leads, high and low sides, were to be measured by connecting the measuring equipment to the appropriate meter terminal of the LISN. All signals were then recorded. The allowed levels for Intentional Radiators cannot exceed 250 uV (47.96 dBuV) at any frequency between 150 kHz and 30 MHz, as stated in Section 15.207a.

All conducted emissions measurements were made at a test room temperature of **72°F** at **42%** relative humidity.





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Model Tested: 110XiIII  
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## APPENDIX A

# DATA AND GRAPH(S) TAKEN DURING TESTING

**PART 15.207**

FCC Part 15 Class B

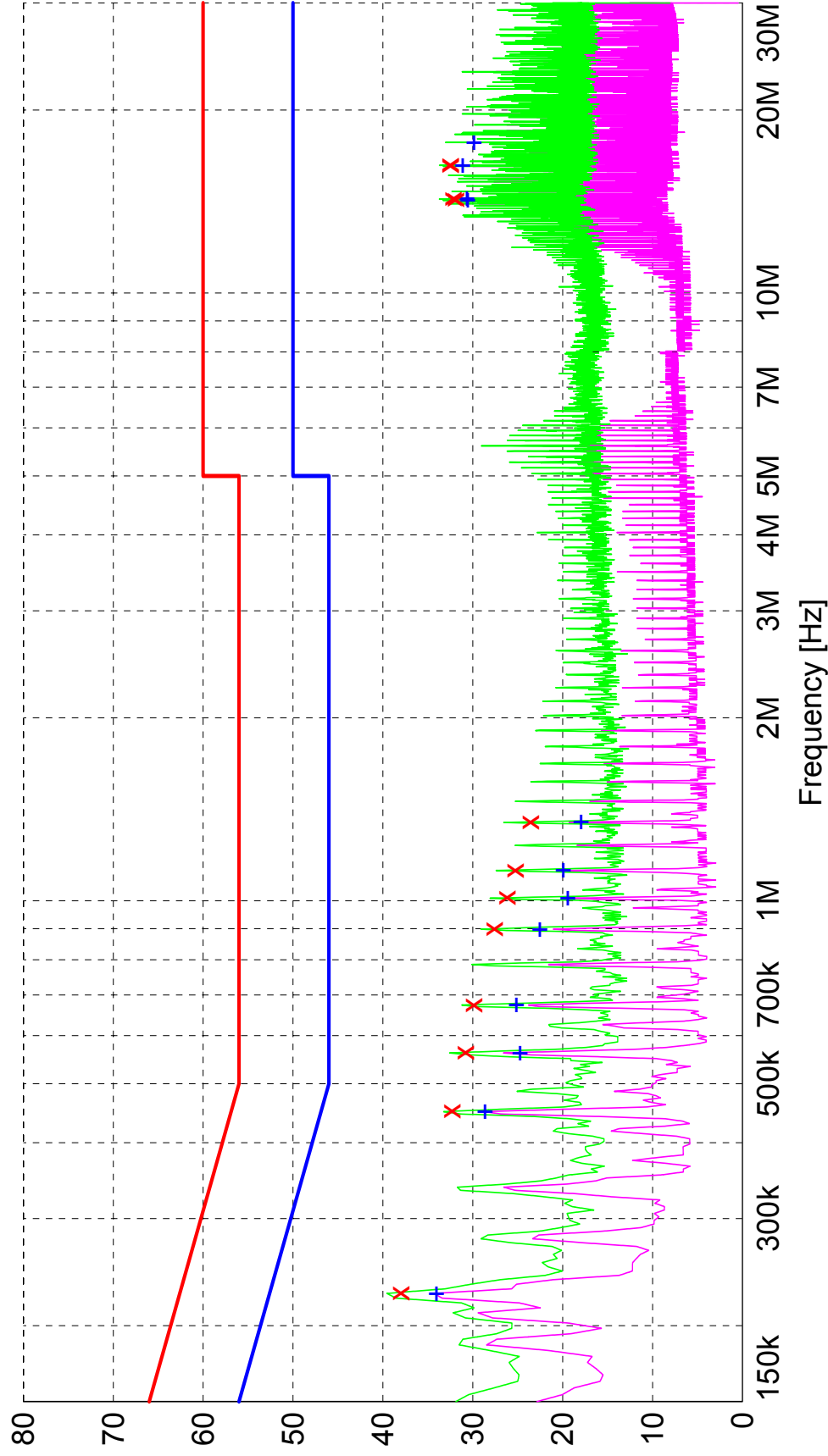
Voltage Mains Test

EUT: 110XiIII  
Manufacturer: Zebra  
Operating Condition: 72 deg. F, 42% R.H.  
Test Site: DLS OF Screen Room  
Operator: Craig B.  
Test Specification: 120 VAC, 60 Hz  
Comment: Line 1  
Date: 11/19/04

SCAN TABLE: "FCC ClassB Voltage"

| Short Description: |           | FCC Class B Voltage |          |            |              |
|--------------------|-----------|---------------------|----------|------------|--------------|
| Start              | Stop      | Step                | Detector | Meas. Time | IF Bandw.    |
| Frequency          | Frequency | Width               | MaxPeak  | 10.0 ms    | 9 kHz        |
| 150.0 kHz          | 30.0 MHz  | 4.0 kHz             | Average  |            |              |
|                    |           |                     |          |            | Transducer   |
|                    |           |                     |          |            | LISN DLS#128 |

Level [dBμV]



|   |     |            |    |                             |
|---|-----|------------|----|-----------------------------|
| x | MES | zzlcl1_fin | QP |                             |
| + | MES | zzlcl1_fin | AV |                             |
|   | MES | zzlcl1_pre | PK |                             |
|   | MES | zzlcl1_pre | AV |                             |
|   | LIM | FCC ClassB | V  | QP New                      |
|   | LIM | FCC ClassB | V  | AV New                      |
|   |     |            |    | Voltage Amplitude QP Limit  |
|   |     |            |    | Voltage Amplitude AVG Limit |

**MEASUREMENT RESULT: "zzlcll\_fin qp"**

| 11/19/2004 1:39PM |               |              |               |              |      |     |
|-------------------|---------------|--------------|---------------|--------------|------|-----|
| Frequency<br>MHz  | Level<br>dBµV | Transd<br>dB | Limit<br>dBµV | Margin<br>dB | Line | PE  |
| 0.226000          | 38.20         | 11.0         | 63            | 24.4         | 1    | --- |
| 0.450000          | 32.50         | 10.6         | 57            | 24.4         | 1    | --- |
| 0.562000          | 31.00         | 10.5         | 56            | 25.0         | 1    | --- |
| 0.674000          | 30.10         | 10.5         | 56            | 25.9         | 1    | --- |
| 0.898000          | 27.80         | 10.5         | 56            | 28.2         | 1    | --- |
| 1.010000          | 26.40         | 10.5         | 56            | 29.6         | 1    | --- |
| 1.122000          | 25.50         | 10.4         | 56            | 30.5         | 1    | --- |
| 1.346000          | 23.80         | 10.5         | 56            | 32.2         | 1    | --- |
| 14.214000         | 32.10         | 11.6         | 60            | 27.9         | 1    | --- |
| 14.274000         | 32.40         | 11.6         | 60            | 27.6         | 1    | --- |
| 16.166000         | 32.70         | 11.8         | 60            | 27.3         | 1    | --- |
| 16.230000         | 32.70         | 11.8         | 60            | 27.3         | 1    | --- |

**MEASUREMENT RESULT: "zzlcll\_fin av"**

| 11/19/2004 1:39PM |               |              |               |              |      |     |
|-------------------|---------------|--------------|---------------|--------------|------|-----|
| Frequency<br>MHz  | Level<br>dBµV | Transd<br>dB | Limit<br>dBµV | Margin<br>dB | Line | PE  |
| 0.226000          | 34.00         | 11.0         | 53            | 18.6         | 1    | --- |
| 0.450000          | 28.60         | 10.6         | 47            | 18.3         | 1    | --- |
| 0.562000          | 24.70         | 10.5         | 46            | 21.3         | 1    | --- |
| 0.674000          | 25.10         | 10.5         | 46            | 20.9         | 1    | --- |
| 0.898000          | 22.50         | 10.5         | 46            | 23.5         | 1    | --- |
| 1.010000          | 19.40         | 10.5         | 46            | 26.6         | 1    | --- |
| 1.122000          | 19.90         | 10.4         | 46            | 26.1         | 1    | --- |
| 1.346000          | 17.90         | 10.5         | 46            | 28.1         | 1    | --- |
| 14.214000         | 30.50         | 11.6         | 50            | 19.5         | 1    | --- |
| 14.274000         | 30.60         | 11.6         | 50            | 19.4         | 1    | --- |
| 16.226000         | 31.10         | 11.8         | 50            | 18.9         | 1    | --- |
| 17.694000         | 29.80         | 12.0         | 50            | 20.2         | 1    | --- |

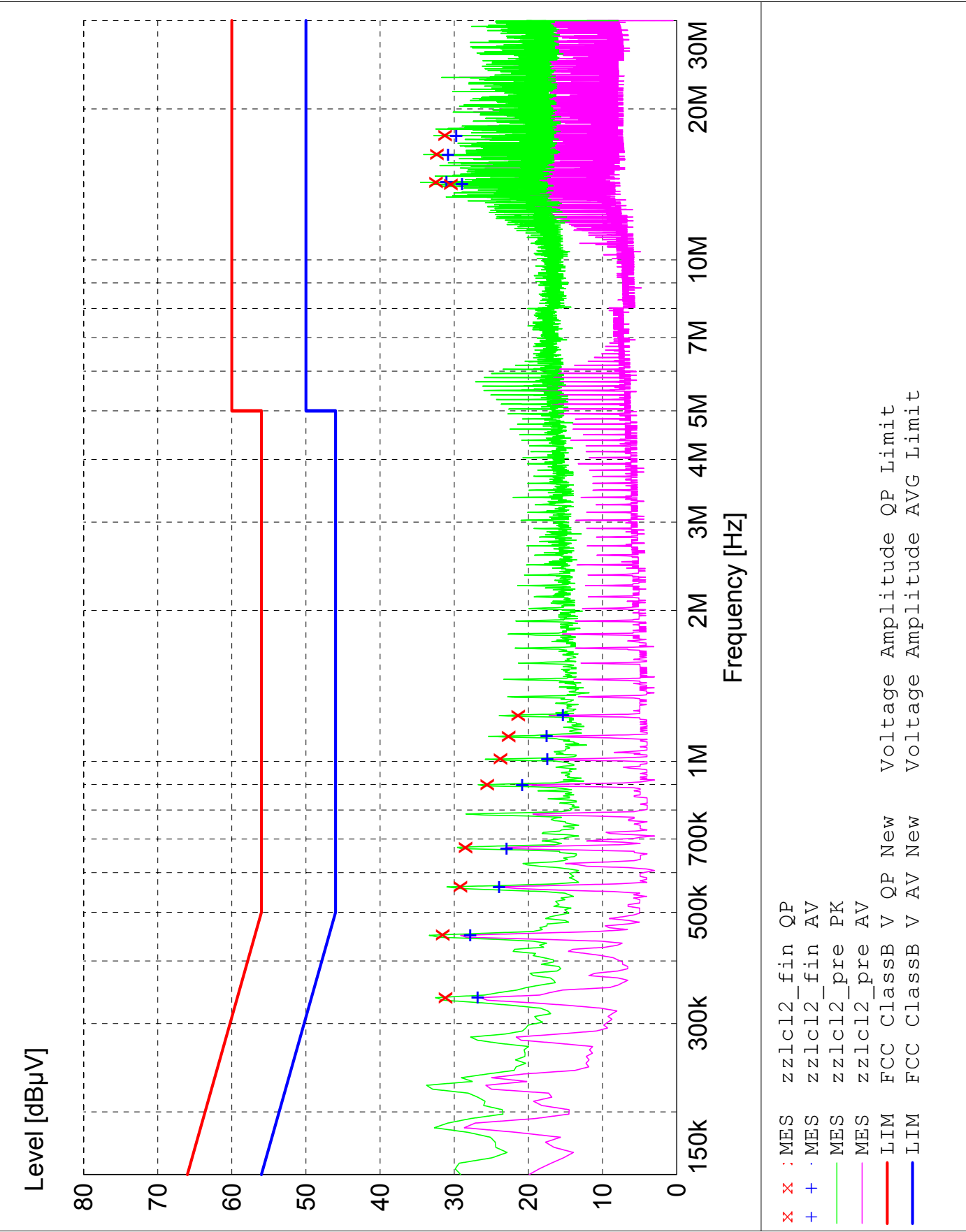
FCC Part 15 Class B

Voltage Mains Test

EUT: 110XiIII  
Manufacturer: Zebra  
Operating Condition: 72 deg. F, 42% R.H.  
Test Site: DLS OF Screen Room  
Operator: Craig B.  
Test Specification: 120 VAC, 60 Hz  
Comment: Line 2  
Date: 11/19/04

SCAN TABLE: "FCC ClassB Voltage"

| Short Description: |           | FCC Class B Voltage |          |            |              |
|--------------------|-----------|---------------------|----------|------------|--------------|
| Start              | Stop      | Step                | Detector | Meas. Time | IF Bandw.    |
| Frequency          | Frequency | Width               | MaxPeak  | 10.0 ms    | 9 kHz        |
| 150.0 kHz          | 30.0 MHz  | 4.0 kHz             | Average  |            |              |
|                    |           |                     |          |            | Transducer   |
|                    |           |                     |          |            | LISN DLS#128 |



MEASUREMENT RESULT: "zz1cl2\_fin QP"

|                   |               |              |               |              |      |     |
|-------------------|---------------|--------------|---------------|--------------|------|-----|
| 11/19/2004 1:45PM |               |              |               |              |      |     |
| Frequency<br>MHz  | Level<br>dBµV | Transd<br>dB | Limit<br>dBµV | Margin<br>dB | Line | PE  |
| 0.338000          | 31.40         | 10.6         | 59            | 27.8         | 1    | --- |
| 0.450000          | 31.80         | 10.6         | 57            | 25.1         | 1    | --- |
| 0.562000          | 29.40         | 10.5         | 56            | 26.6         | 1    | --- |
| 0.674000          | 28.70         | 10.5         | 56            | 27.3         | 1    | --- |
| 0.898000          | 25.80         | 10.5         | 56            | 30.2         | 1    | --- |
| 1.010000          | 24.00         | 10.5         | 56            | 32.0         | 1    | --- |
| 1.122000          | 22.90         | 10.4         | 56            | 33.1         | 1    | --- |
| 1.234000          | 21.60         | 10.5         | 56            | 34.4         | 1    | --- |
| 14.154000         | 30.70         | 11.6         | 60            | 29.3         | 1    | --- |
| 14.274000         | 32.70         | 11.6         | 60            | 27.3         | 1    | --- |
| 16.230000         | 32.60         | 11.8         | 60            | 27.4         | 1    | --- |
| 17.694000         | 31.50         | 12.0         | 60            | 28.5         | 1    | --- |

MEASUREMENT RESULT: "zz1cl2\_fin AV"

|                   |               |              |               |              |      |     |
|-------------------|---------------|--------------|---------------|--------------|------|-----|
| 11/19/2004 1:45PM |               |              |               |              |      |     |
| Frequency<br>MHz  | Level<br>dBµV | Transd<br>dB | Limit<br>dBµV | Margin<br>dB | Line | PE  |
| 0.338000          | 26.80         | 10.6         | 49            | 22.4         | 1    | --- |
| 0.450000          | 27.80         | 10.6         | 47            | 19.1         | 1    | --- |
| 0.562000          | 23.90         | 10.5         | 46            | 22.1         | 1    | --- |
| 0.670000          | 22.90         | 10.5         | 46            | 23.1         | 1    | --- |
| 0.898000          | 20.80         | 10.5         | 46            | 25.2         | 1    | --- |
| 1.010000          | 17.40         | 10.5         | 46            | 28.6         | 1    | --- |
| 1.122000          | 17.50         | 10.4         | 46            | 28.5         | 1    | --- |
| 1.234000          | 15.30         | 10.5         | 46            | 30.7         | 1    | --- |
| 14.154000         | 28.90         | 11.6         | 50            | 21.1         | 1    | --- |
| 14.274000         | 31.00         | 11.6         | 50            | 19.0         | 1    | --- |
| 16.230000         | 30.80         | 11.8         | 50            | 19.2         | 1    | --- |
| 17.694000         | 29.70         | 12.0         | 50            | 20.3         | 1    | --- |



Company: Zebra Technologies Corporation  
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## APPENDIX A

### 2.0 SPURIOUS EMISSIONS AT ANTENNA TERMINALS – PART 15.247(c)

Spurious conducted emissions were measured at the antenna terminals. Plots were made showing the amplitude of each harmonic emission with the equipment operated. As shown by the radiated charts there was no reason to believe that there were any spurious emissions other than the harmonics that were than individually investigated when doing the conducted test at the antenna terminals. Measurements were made up to the 10<sup>th</sup> harmonic of the fundamental.

The allowed emissions for transmitters operating in the 902 MHz to 928 MHz bands for R110XiIII Plus equipment are found under Part 15, Section 15.247(c). This paragraph states that in any 100 kHz bandwidth outside the frequency band which the spread spectrum intentional radiator is operating, the radio frequency power produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

**NOTE: See the following pages for the data ad graphs of the actual measurements made:**





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Report Number: 11069

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## APPENDIX A

# CONDUCTED EMISSION DATA AND GRAPH(S) TAKEN FOR SPURIOUS EMISSION MEASUREMENTS MADE AT THE ANTENNA TERMINALS

PART 15.247(c)



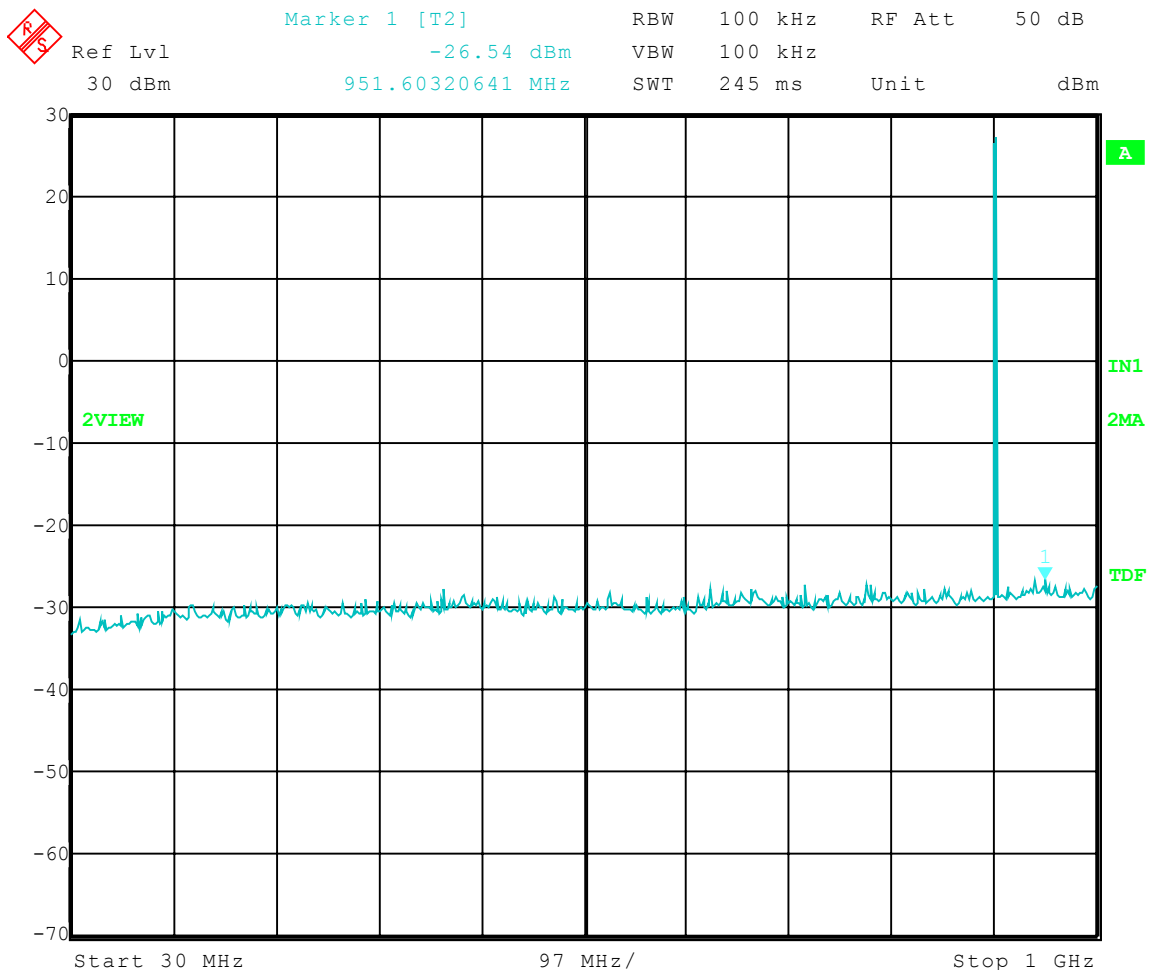
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

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## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Low Channel; High Power: Transmit = 902.967 MHz  
Frequency Range: 30 to 1000 MHz  
Limit = 7.16 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:02:55



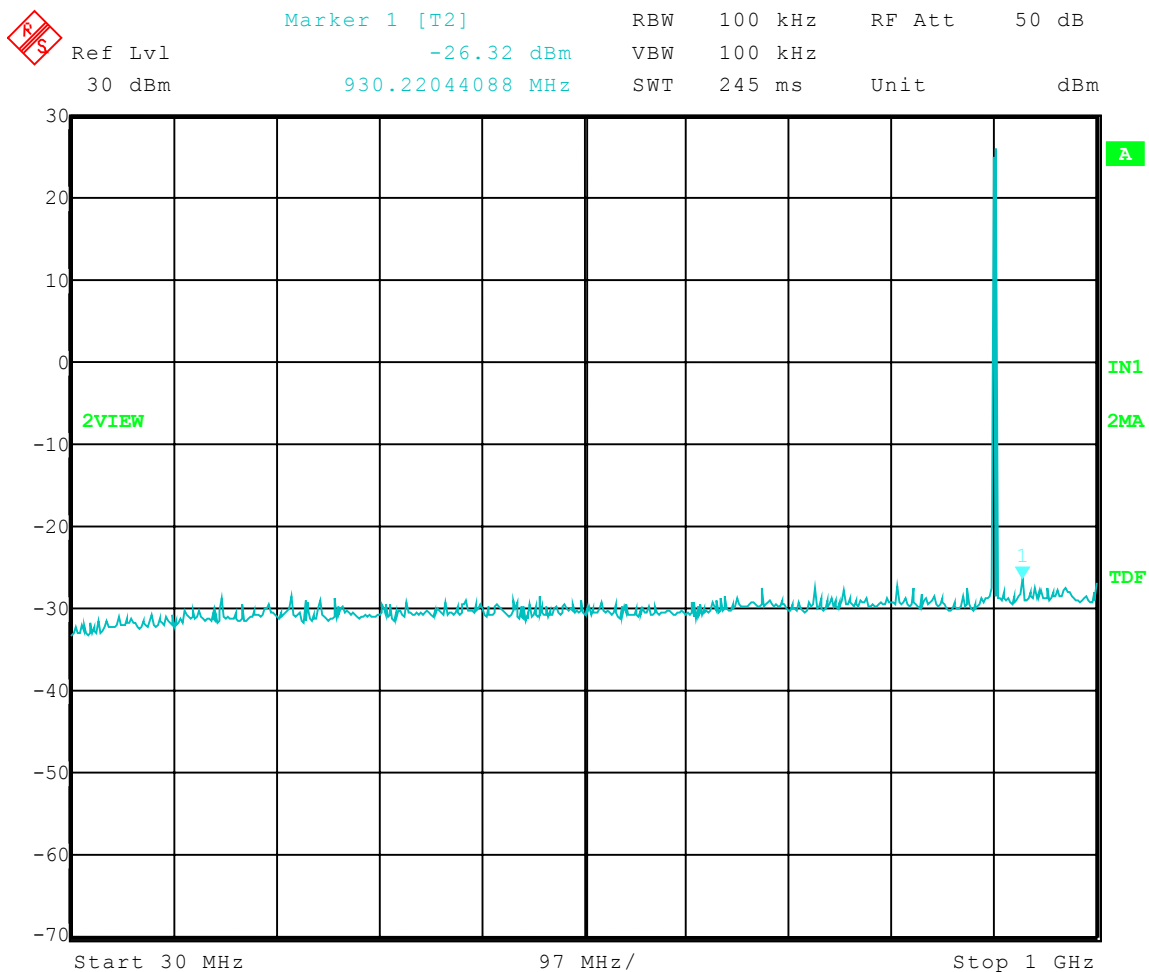
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

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## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Low Channel; Mid Power: Transmit = 902.967 MHz  
Frequency Range: 30 to 1000 MHz  
Limit = 5.75 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:07:50



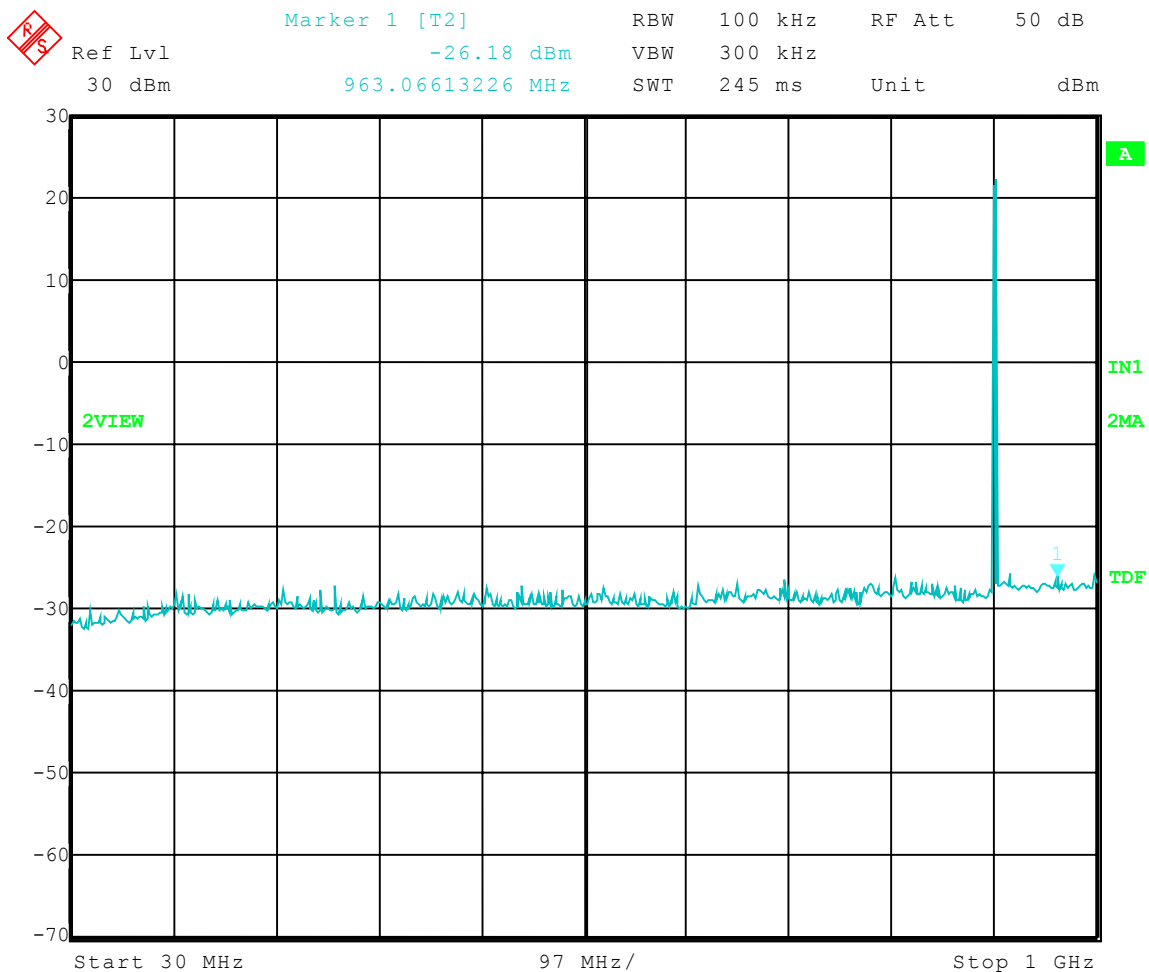
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

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## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Low Channel; Low Power: Transmit = 902.967 MHz  
Frequency Range: 30 to 1000 MHz  
Limit = 2.02 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:13:01



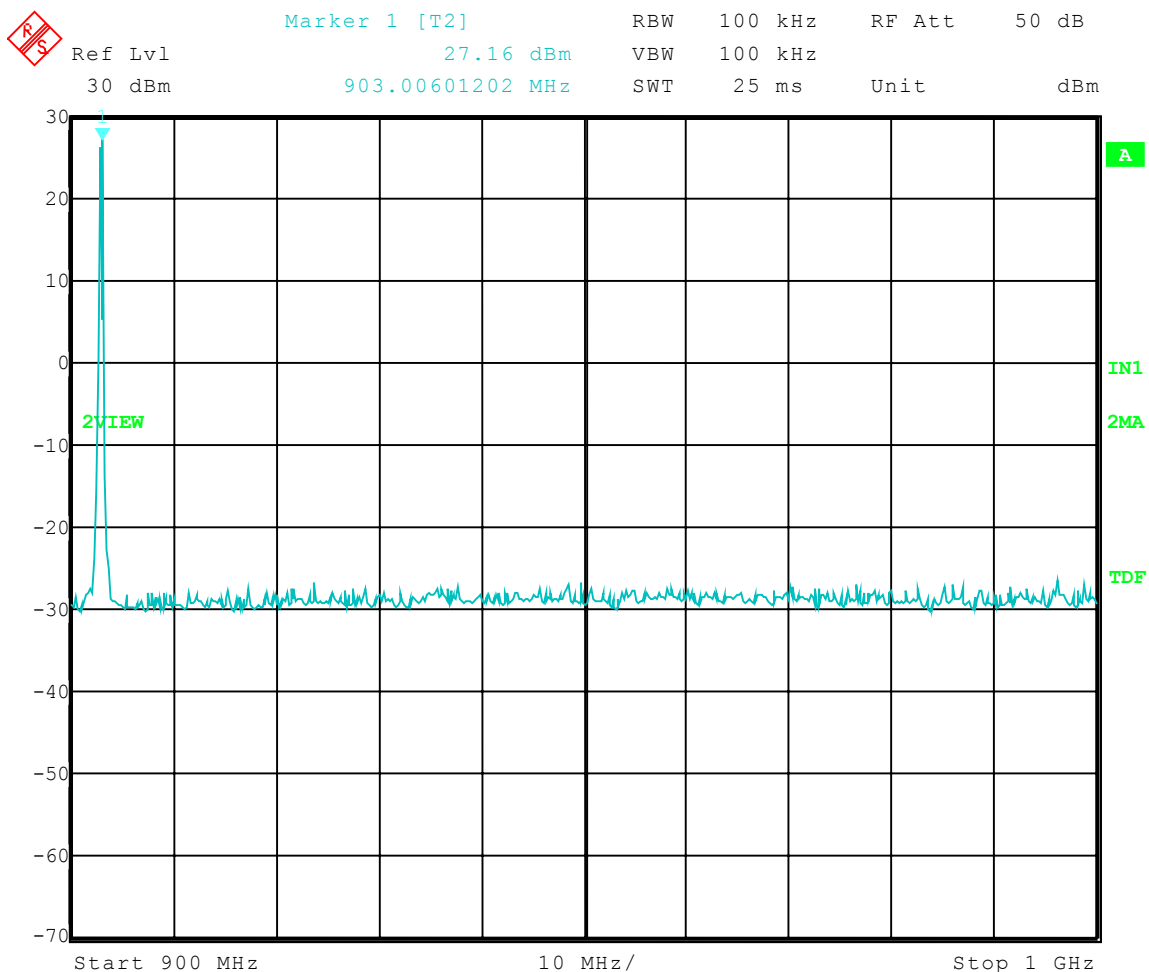
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Low Channel; High Power: Transmit = 902.967 MHz  
Frequency Range: 900 to 1000 MHz  
Limit = 7.16 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 11:57:48



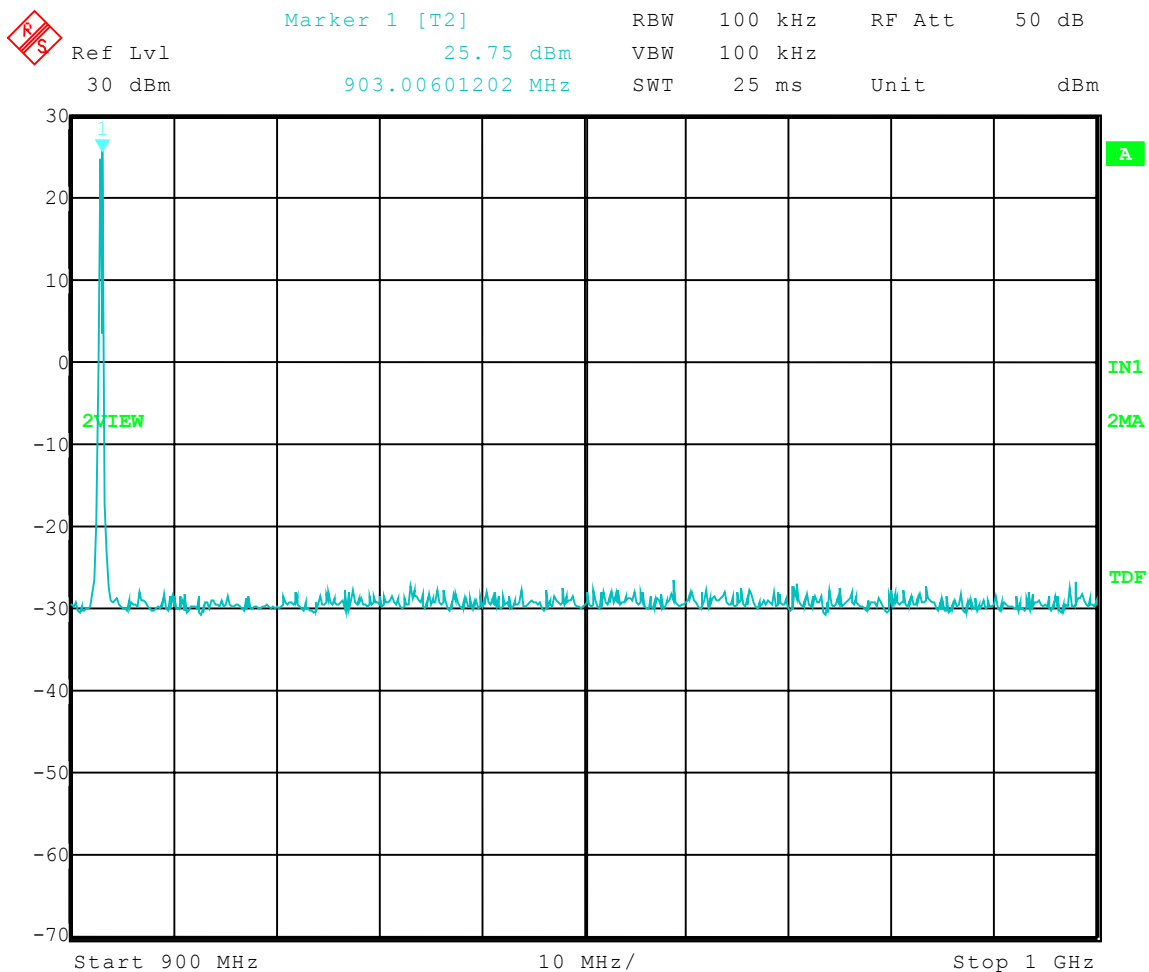
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Low Channel; Mid Power: Transmit = 902.967 MHz  
Frequency Range: 900 to 1000 MHz  
Limit = 5.75 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:05:54



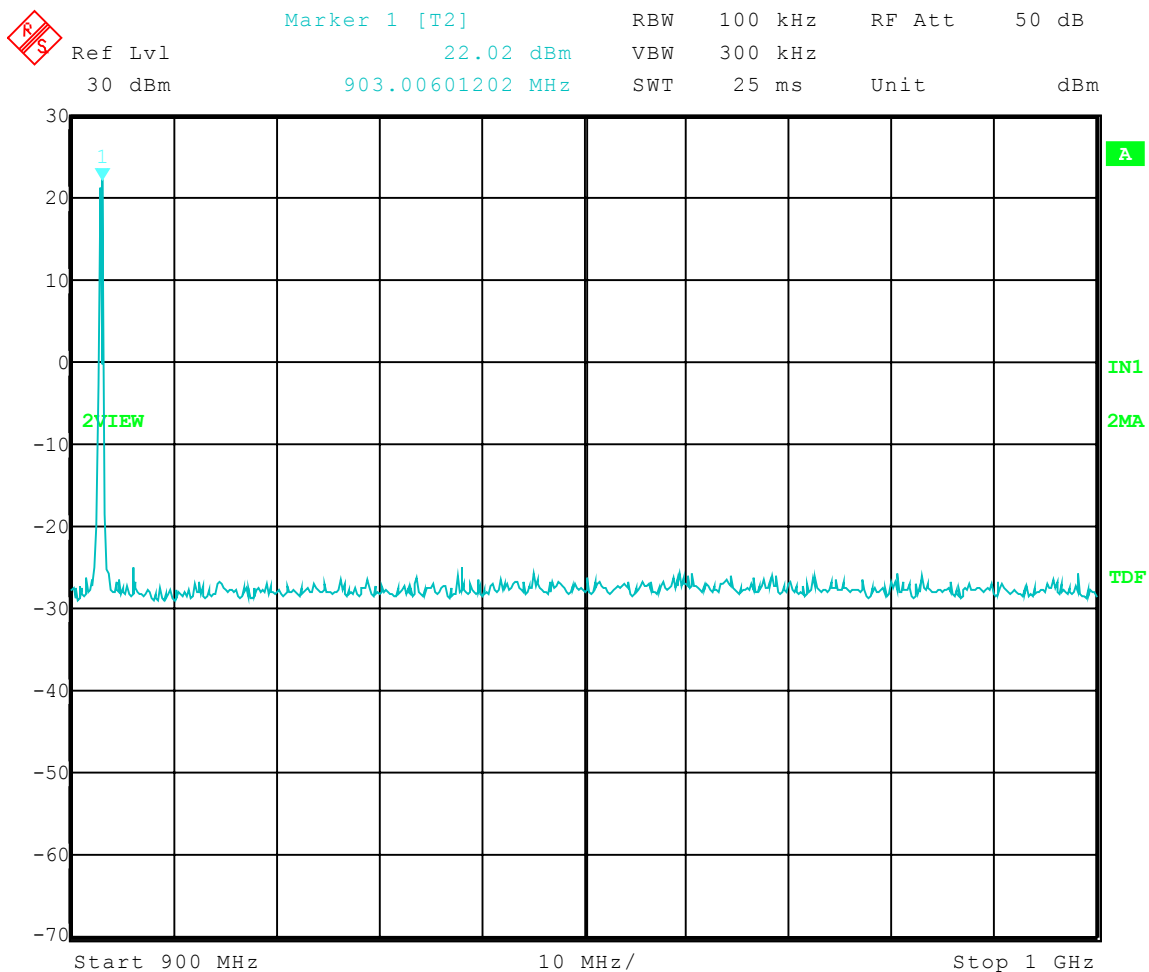
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Low Channel; Low Power: Transmit = 902.967 MHz  
Frequency Range: 900 to 1000 MHz  
Limit = 2.02 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:11:16



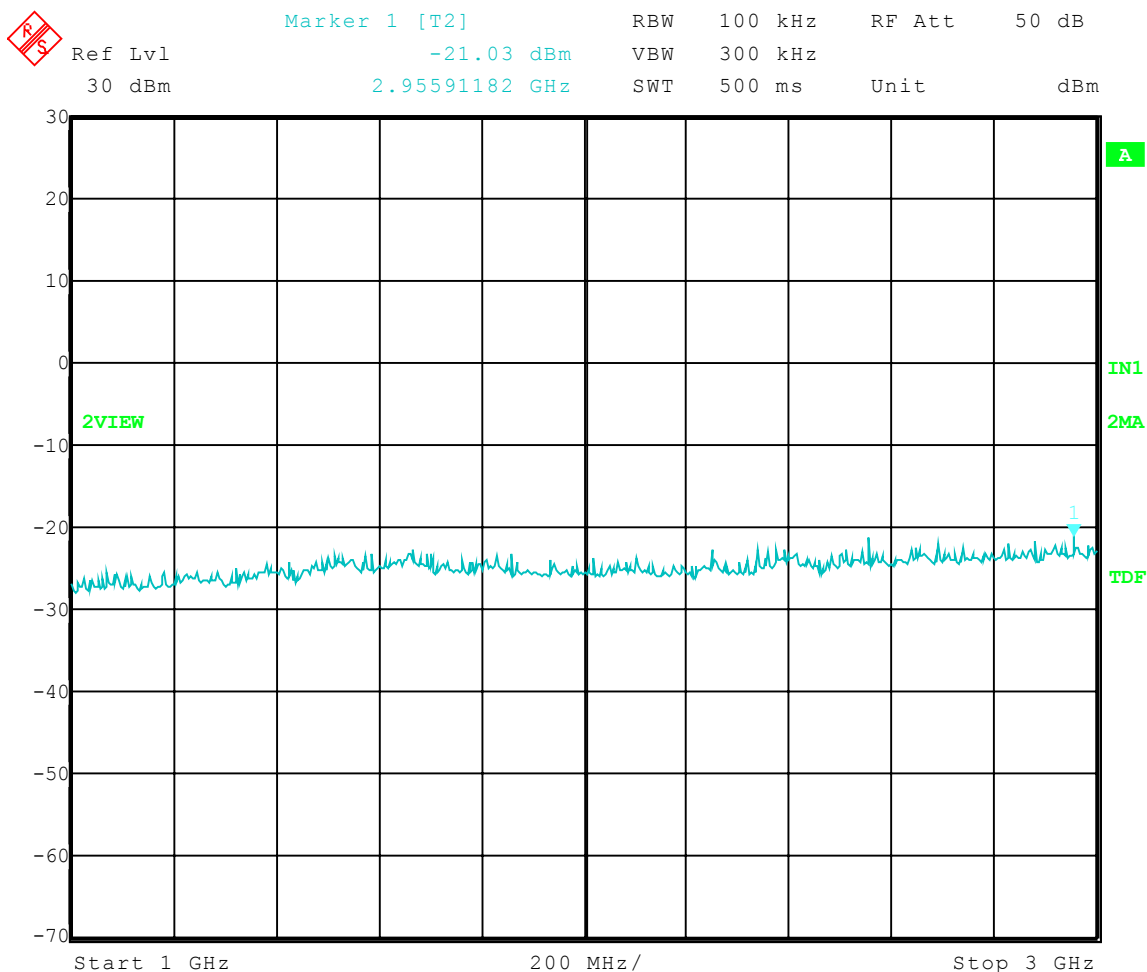
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Low Channel; High Power: Transmit = 902.967 MHz  
Frequency Range: 1 to 3 GHz  
Limit = 7.16 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:36:02





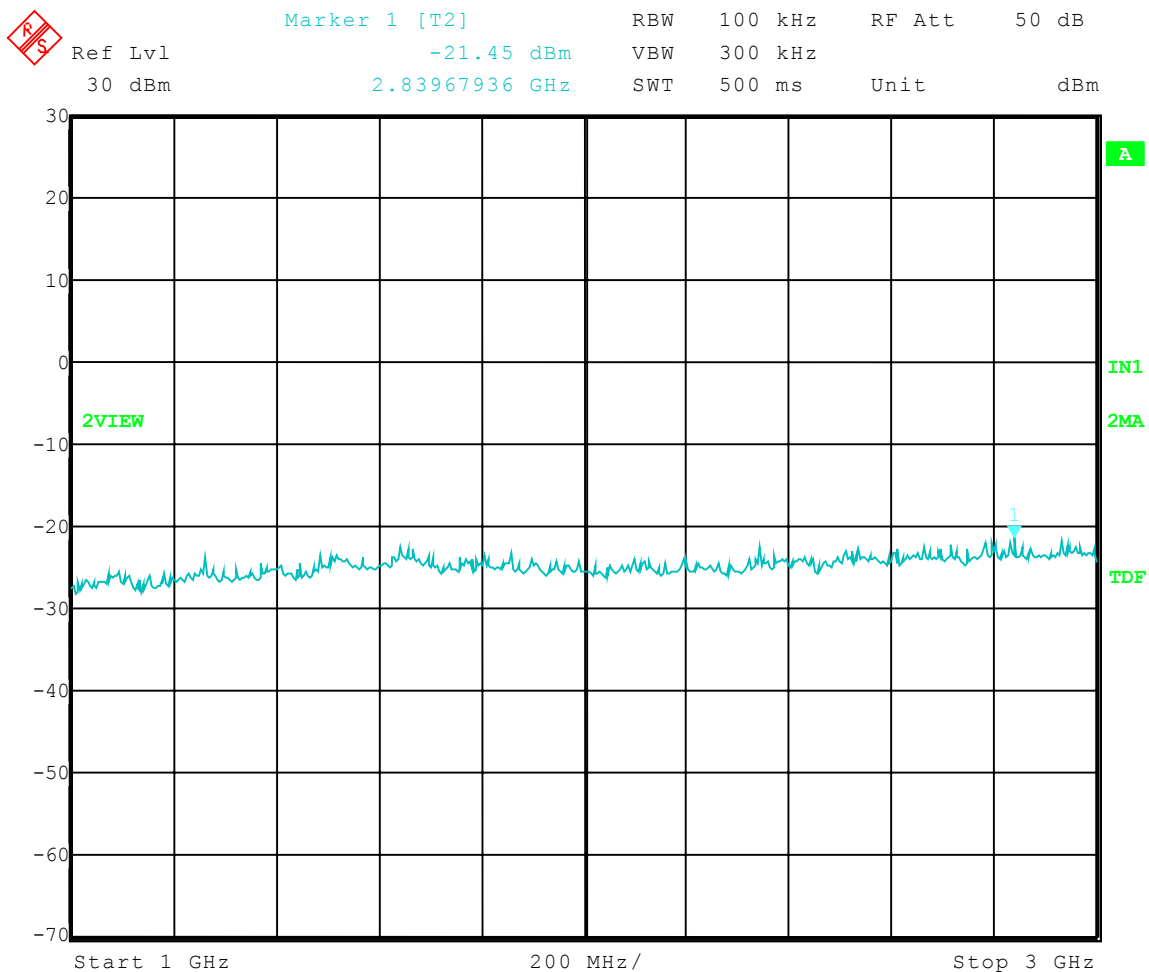
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Low Channel; Mid Power: Transmit = 902.967 MHz  
Frequency Range: 1 to 3 GHz  
Limit = 5.75 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:41:33



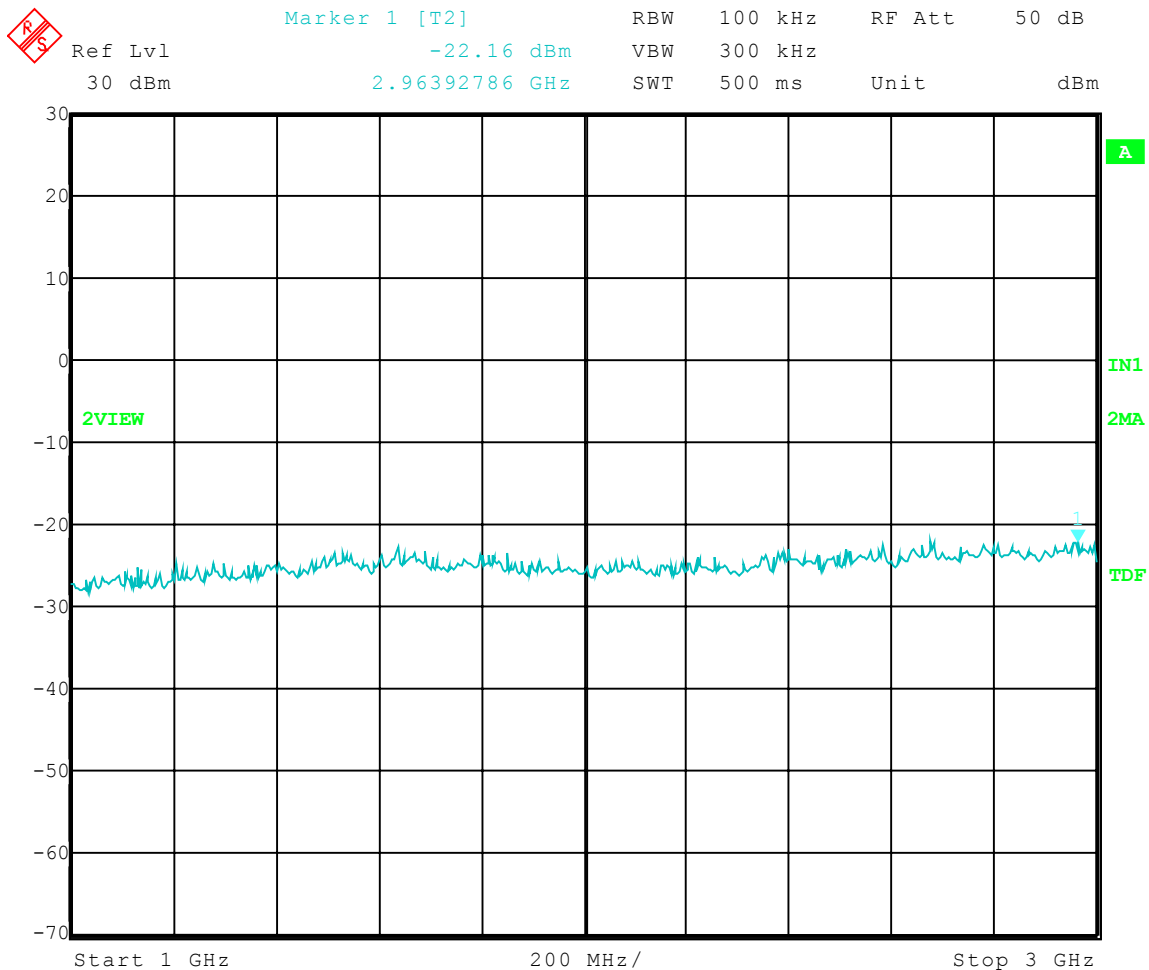
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Low Channel; Low Power: Transmit = 902.967 MHz  
Frequency Range: 1 to 3 GHz  
Limit = 2.02 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:42:50



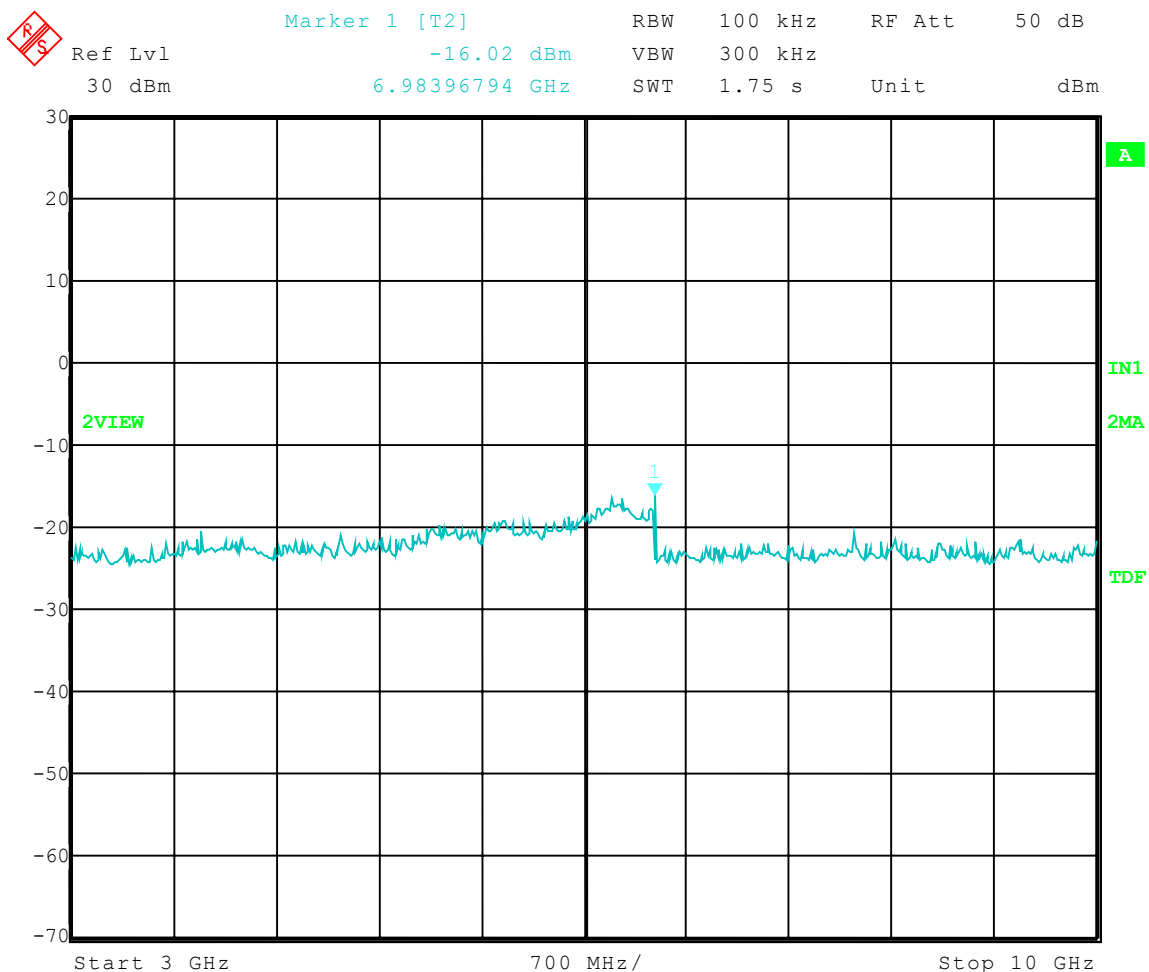
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Low Channel; High Power: Transmit = 902.967 MHz  
Frequency Range: 3 to 10 GHz  
Limit = 7.16 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:38:47



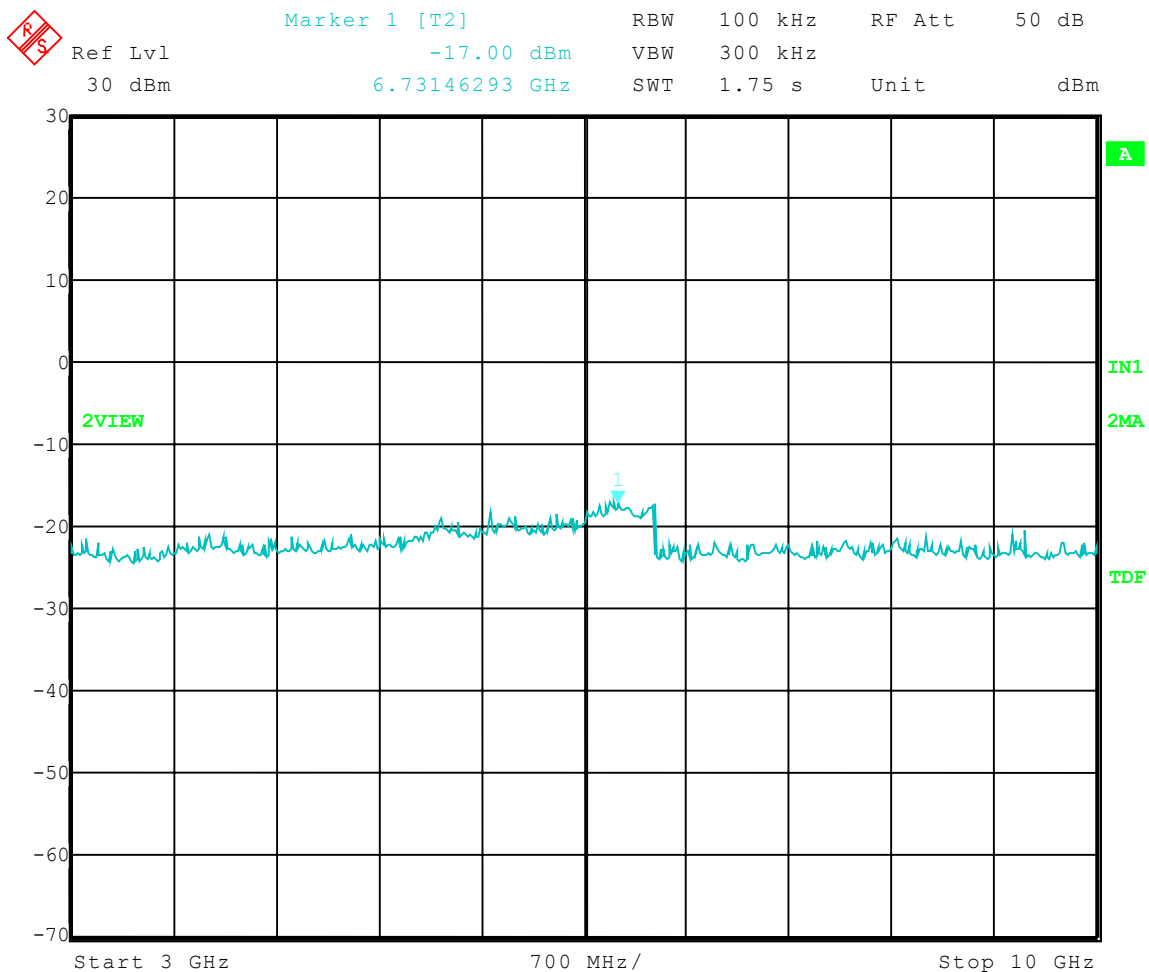
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Low Channel; Mid Power: Transmit = 902.967 MHz  
Frequency Range: 3 to 10 GHz  
Limit = 5.75 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:40:14



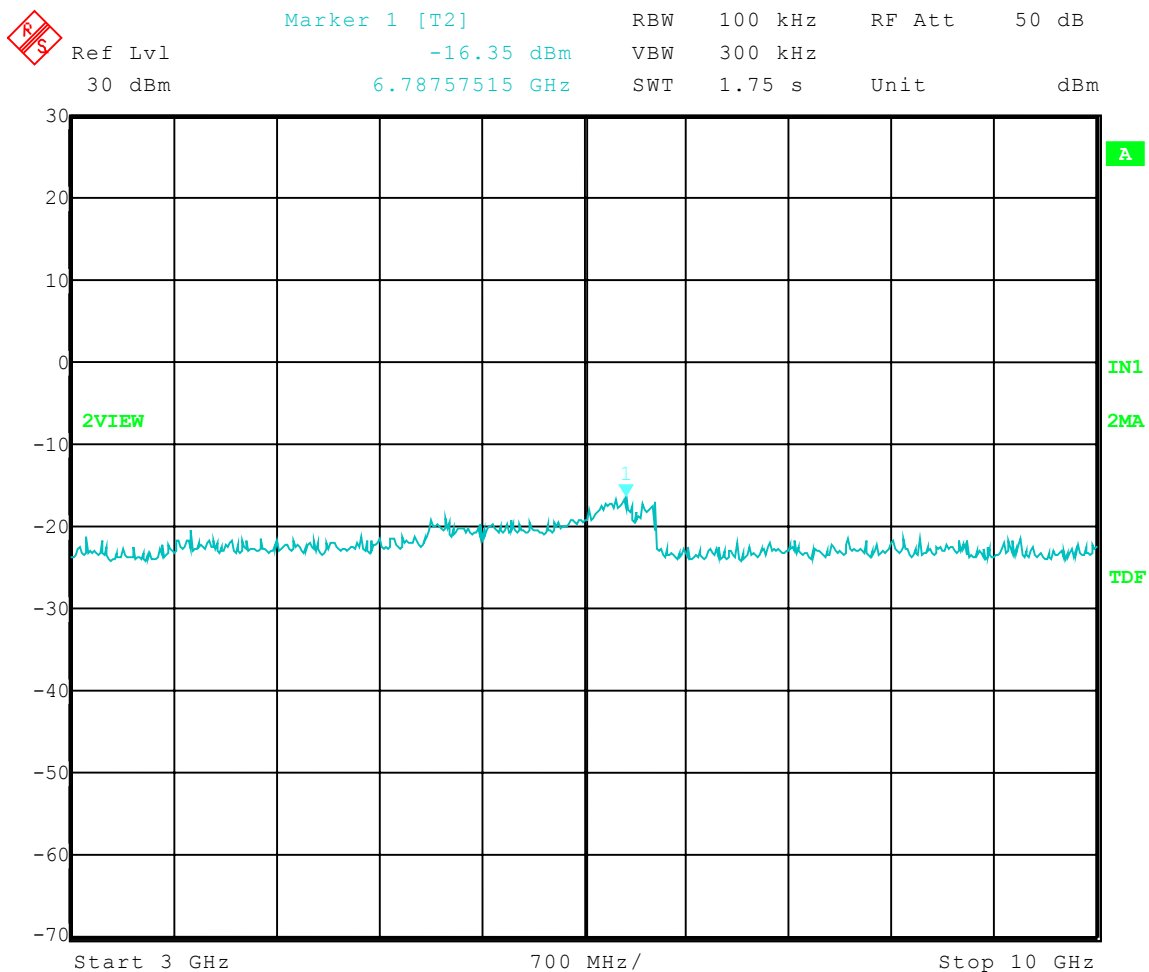
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Low Channel; Low Power: Transmit = 902.967 MHz  
Frequency Range: 3 to 10 GHz  
Limit = 2.02 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:44:19



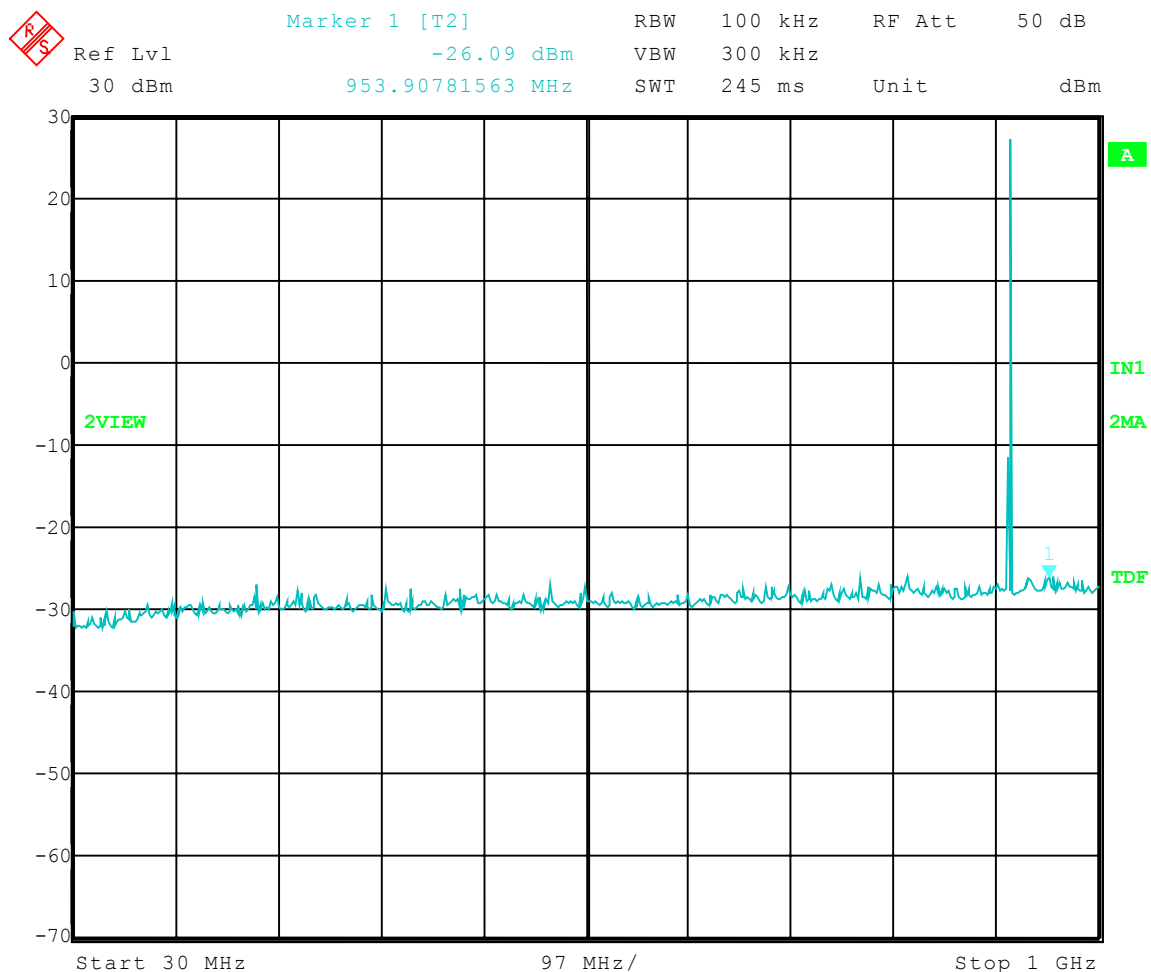
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Middle Channel; High Power: Transmit = 915.101 MHz  
Frequency Range: 30 to 1000 MHz  
Limit = 7.06 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:20:38



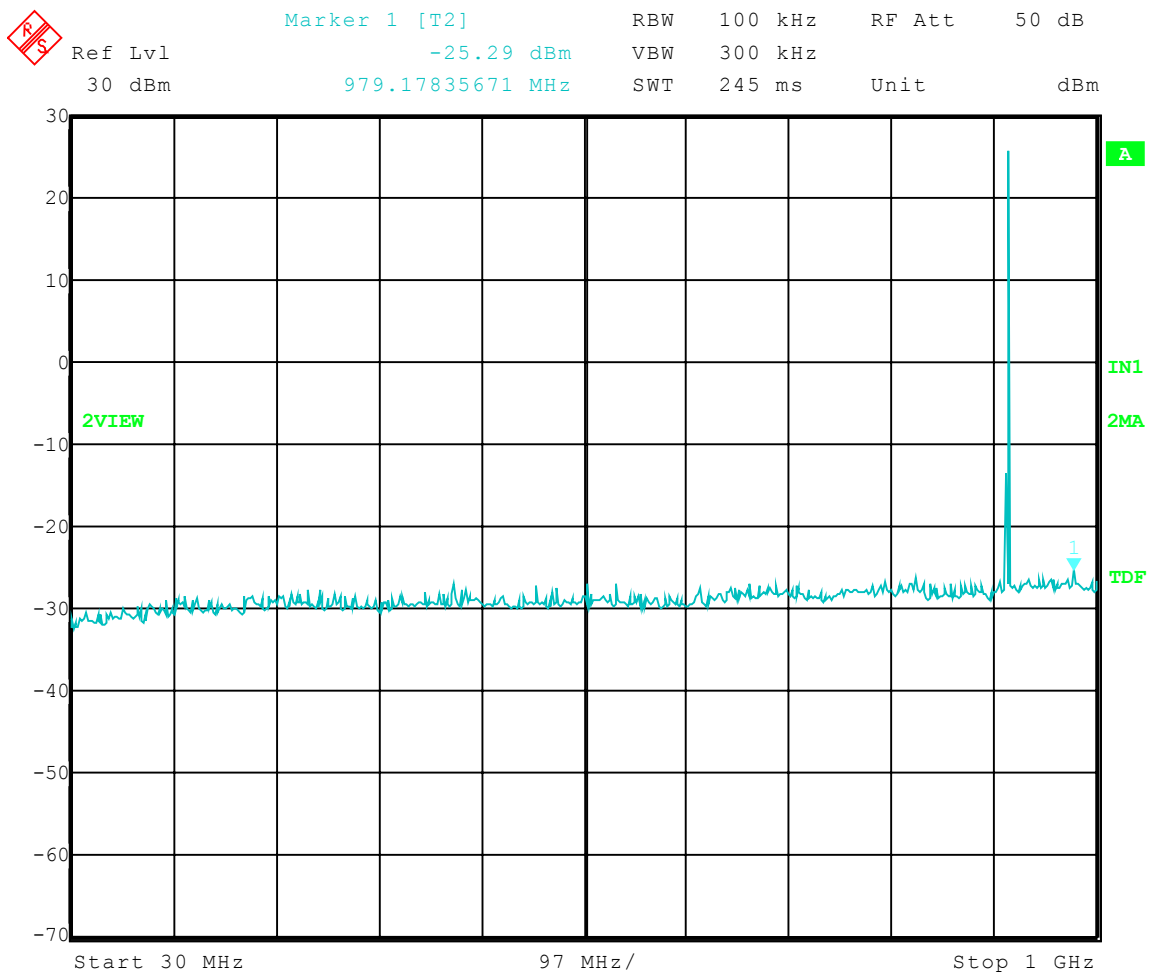
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Middle Channel; Mid Power: Transmit = 915.101 MHz  
Frequency Range: 30 to 1000 MHz  
Limit = 5.63 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:24:27



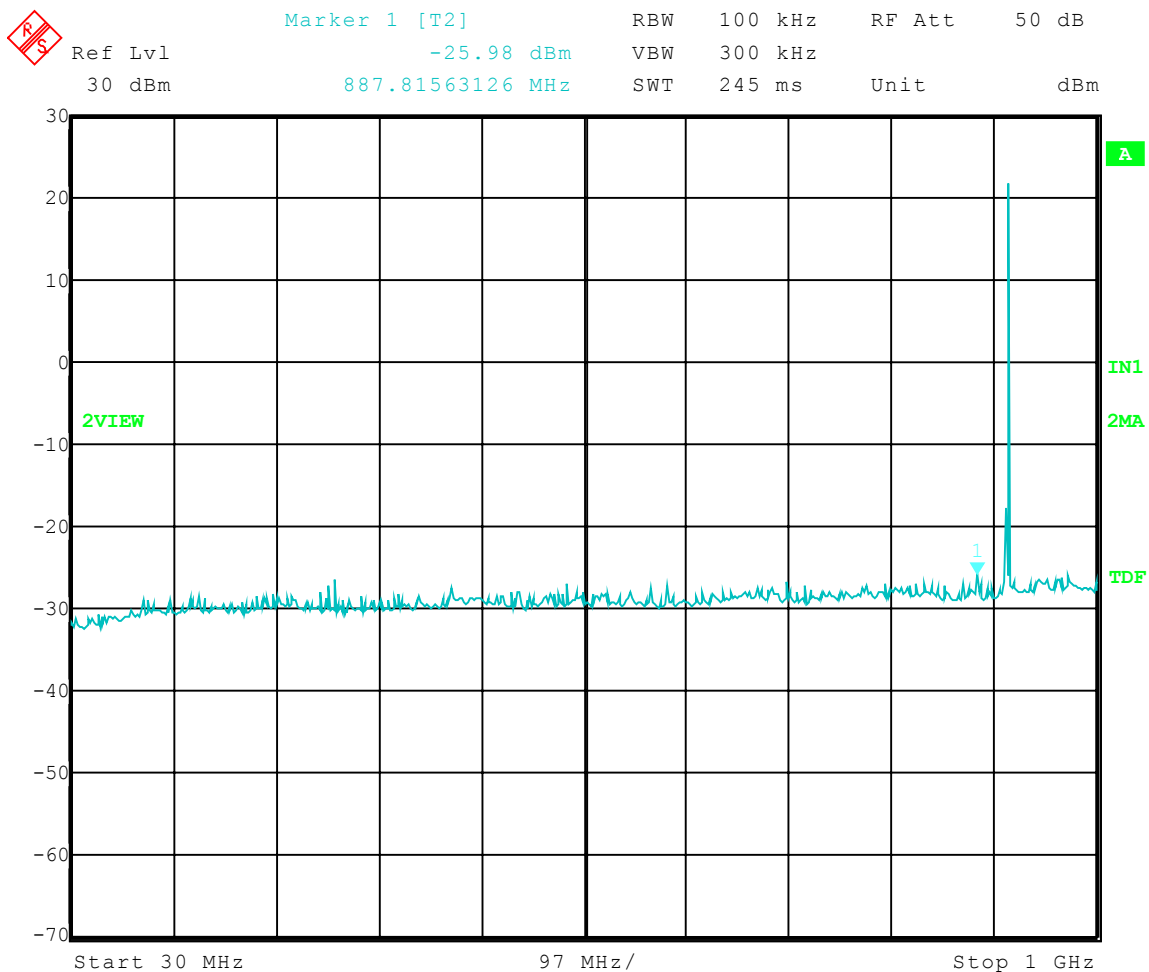
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Middle Channel; Low Power: Transmit = 915.101 MHz  
Frequency Range: 30 to 1000 MHz  
Limit = 1.67 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:28:47





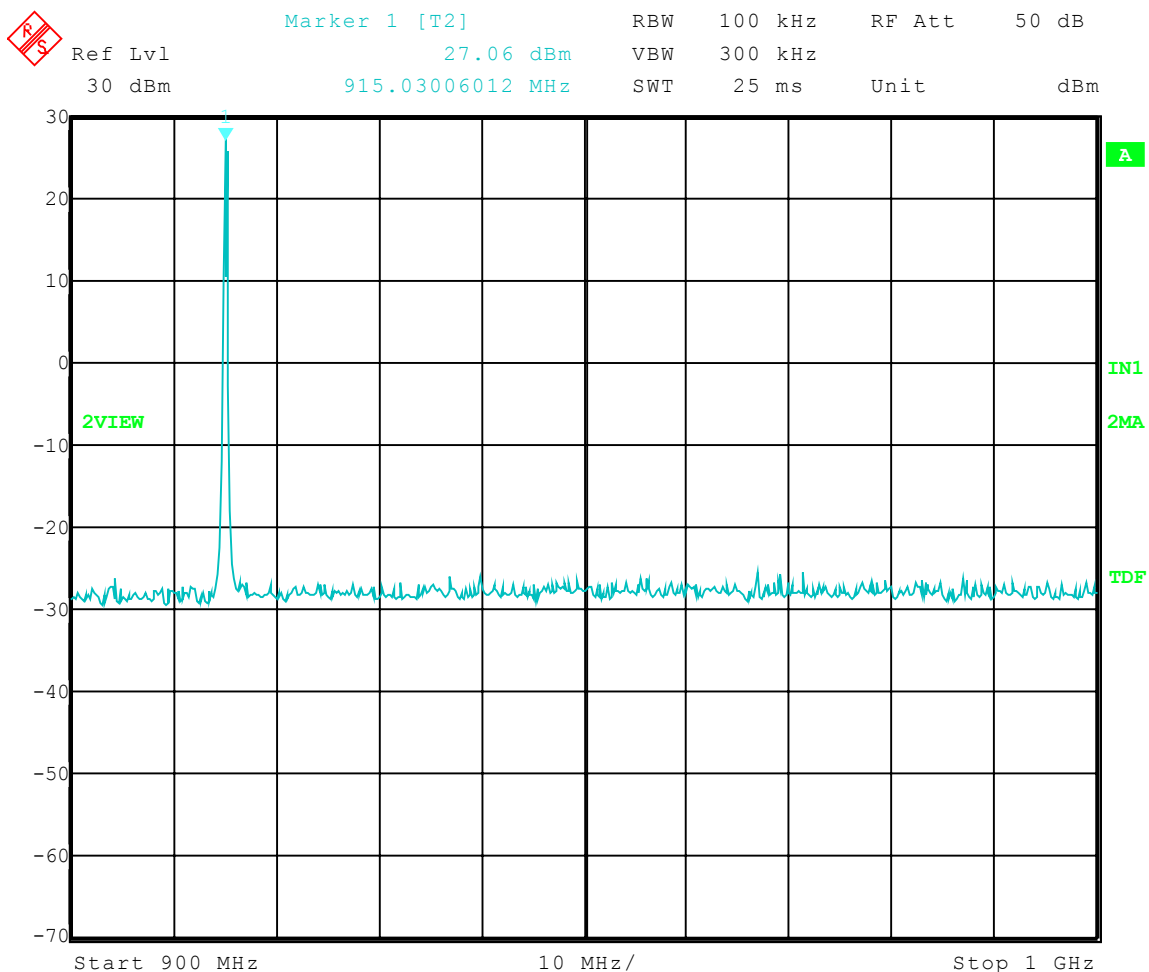
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Middle Channel; High Power: Transmit = 915.101 MHz  
Frequency Range: 900 to 1000 MHz  
Limit = 7.06 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:17:40



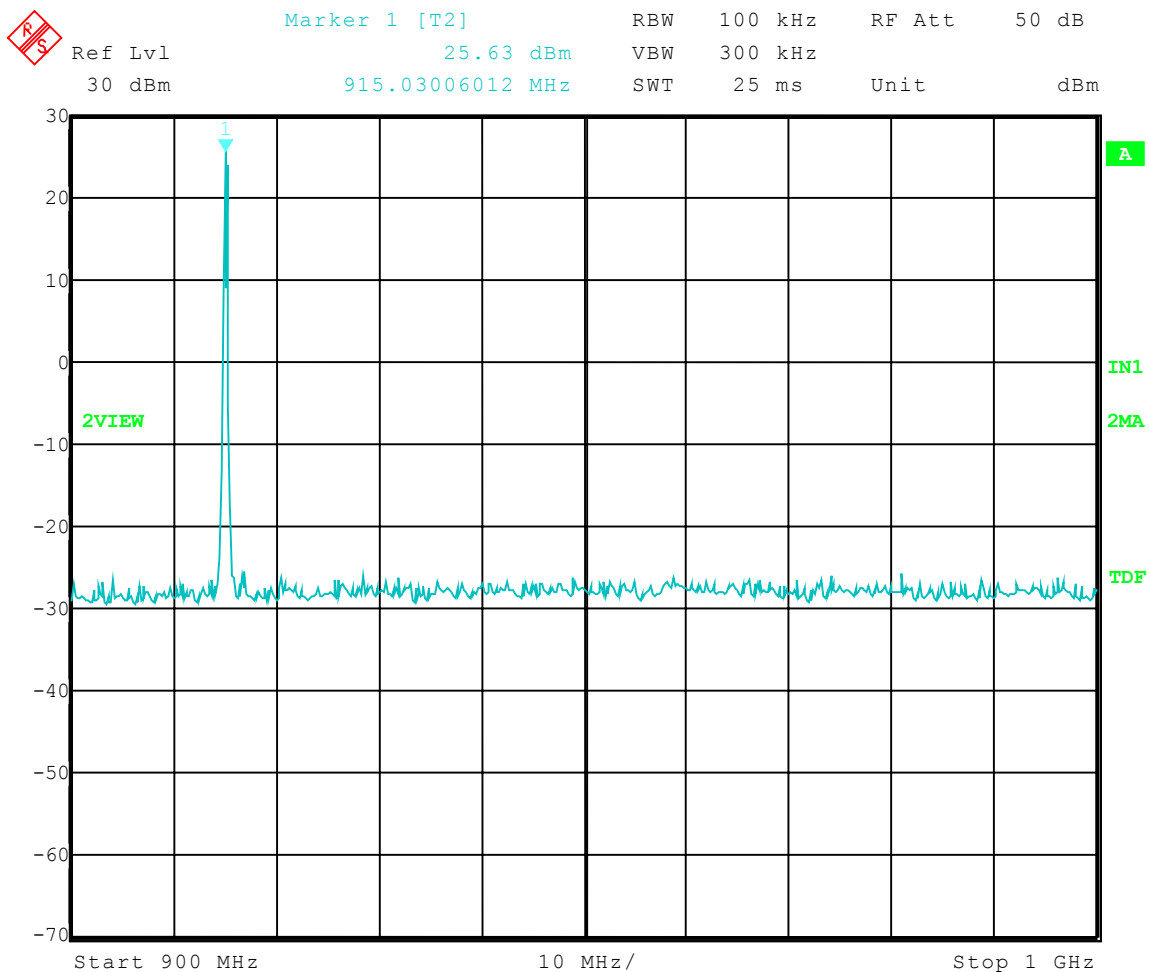
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Middle Channel; Mid Power: Transmit = 915.101 MHz  
Frequency Range: 900 to 1000 MHz  
Limit = 5.63 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:22:52



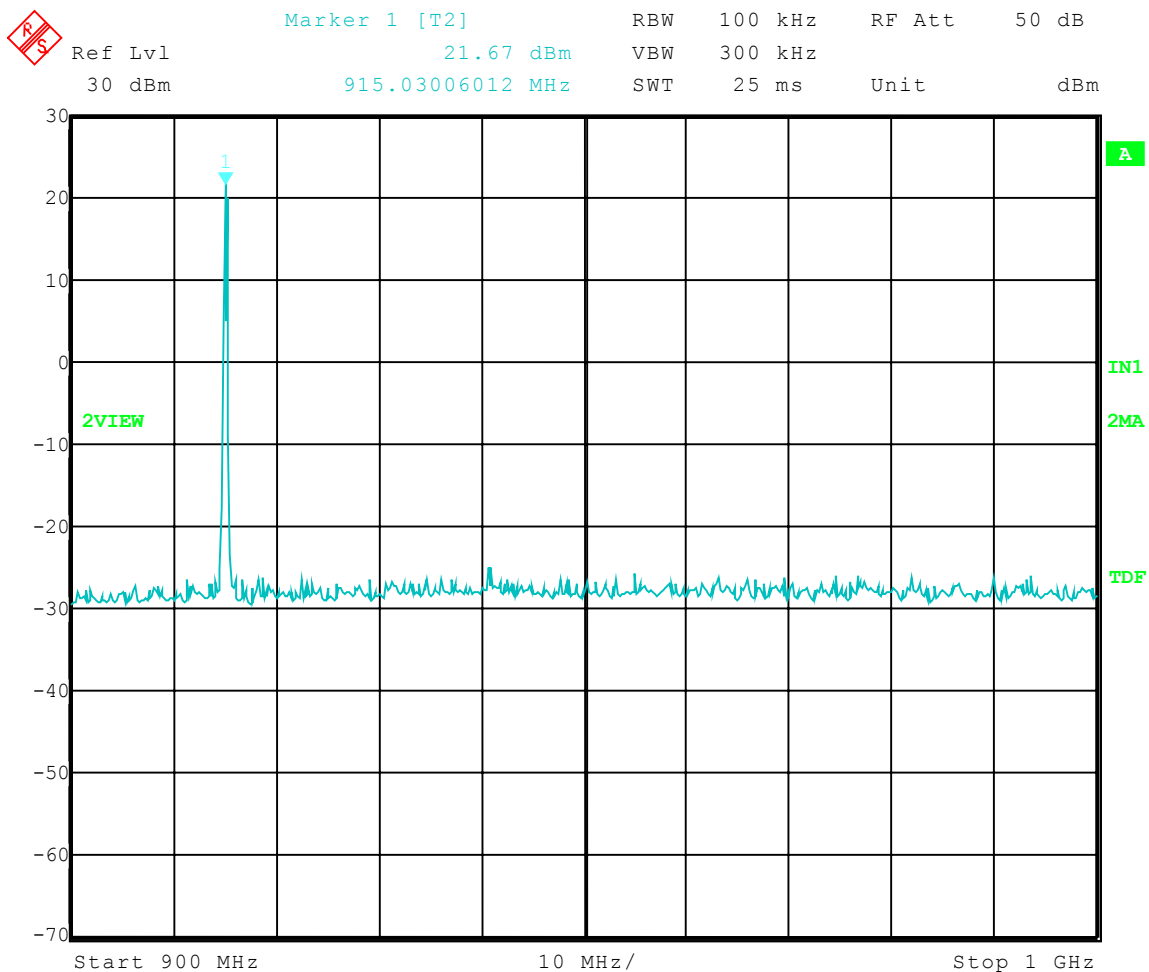
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Middle Channel; Low Power: Transmit = 915.101 MHz  
Frequency Range: 900 to 1000 MHz  
Limit = 1.67 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:26:55



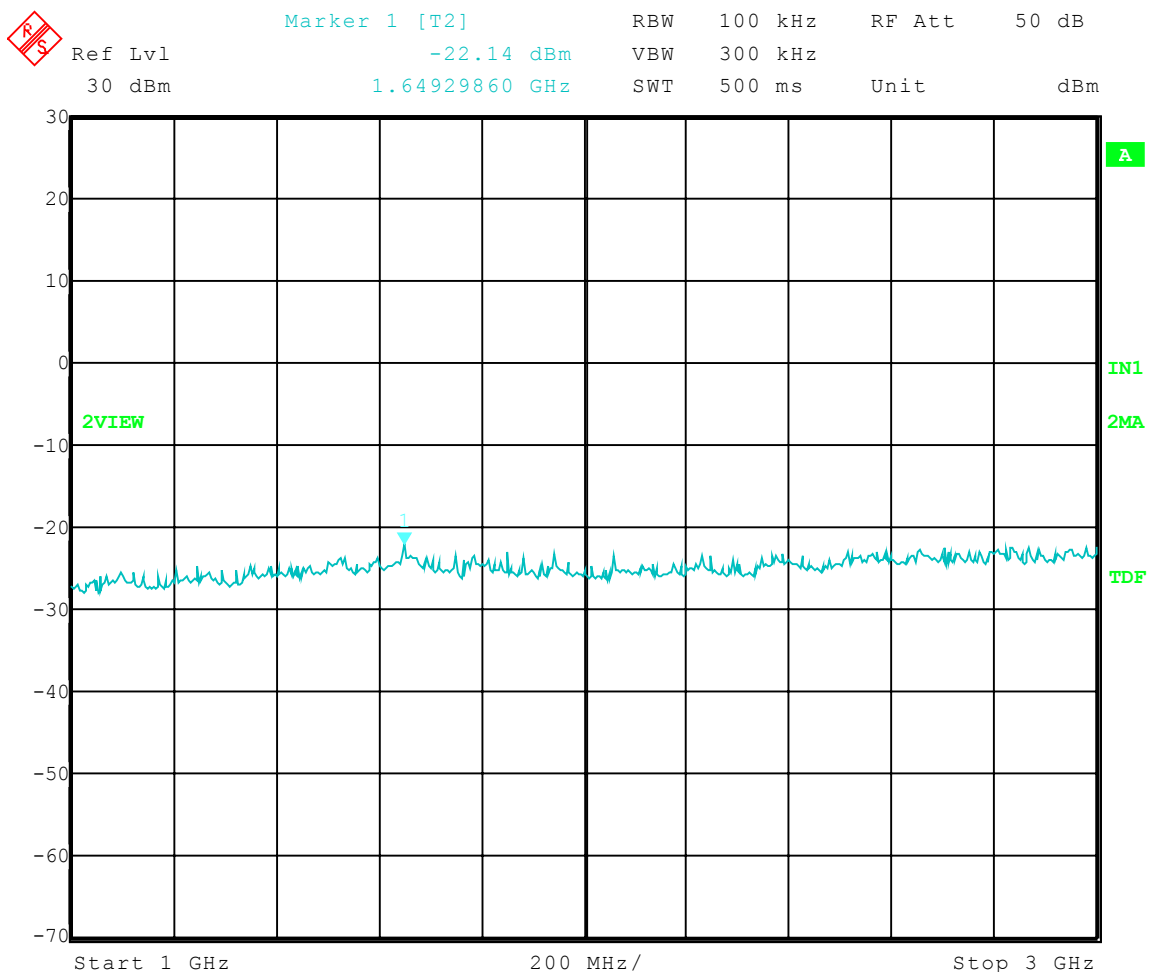
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Middle Channel; High Power: Transmit = 915.101 MHz  
Frequency Range: 1 to 3 GHz  
Limit = 7.06 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:23:35



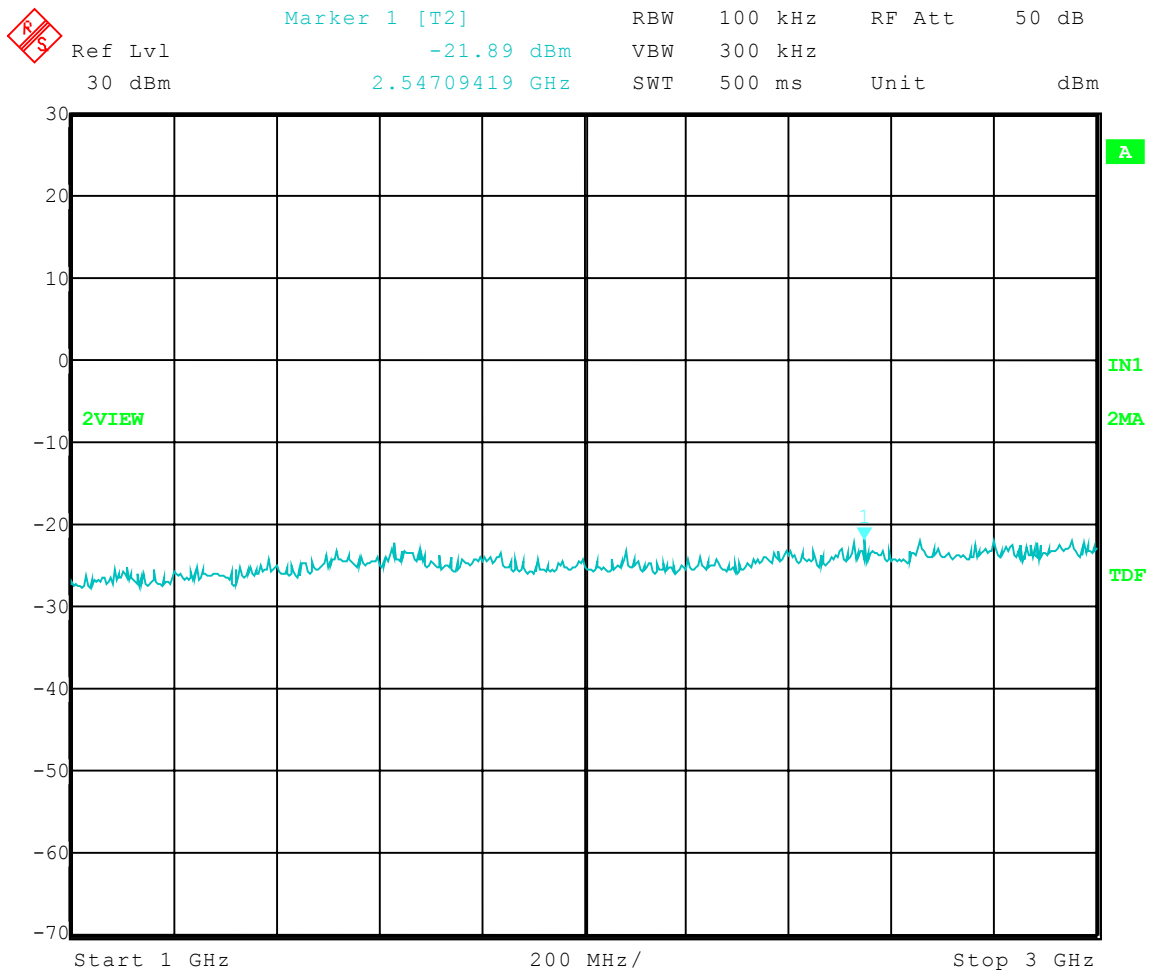
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Middle Channel; Mid Power: Transmit = 915.101 MHz  
Frequency Range: 1 to 3 GHz  
Limit = 5.63 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:29:25



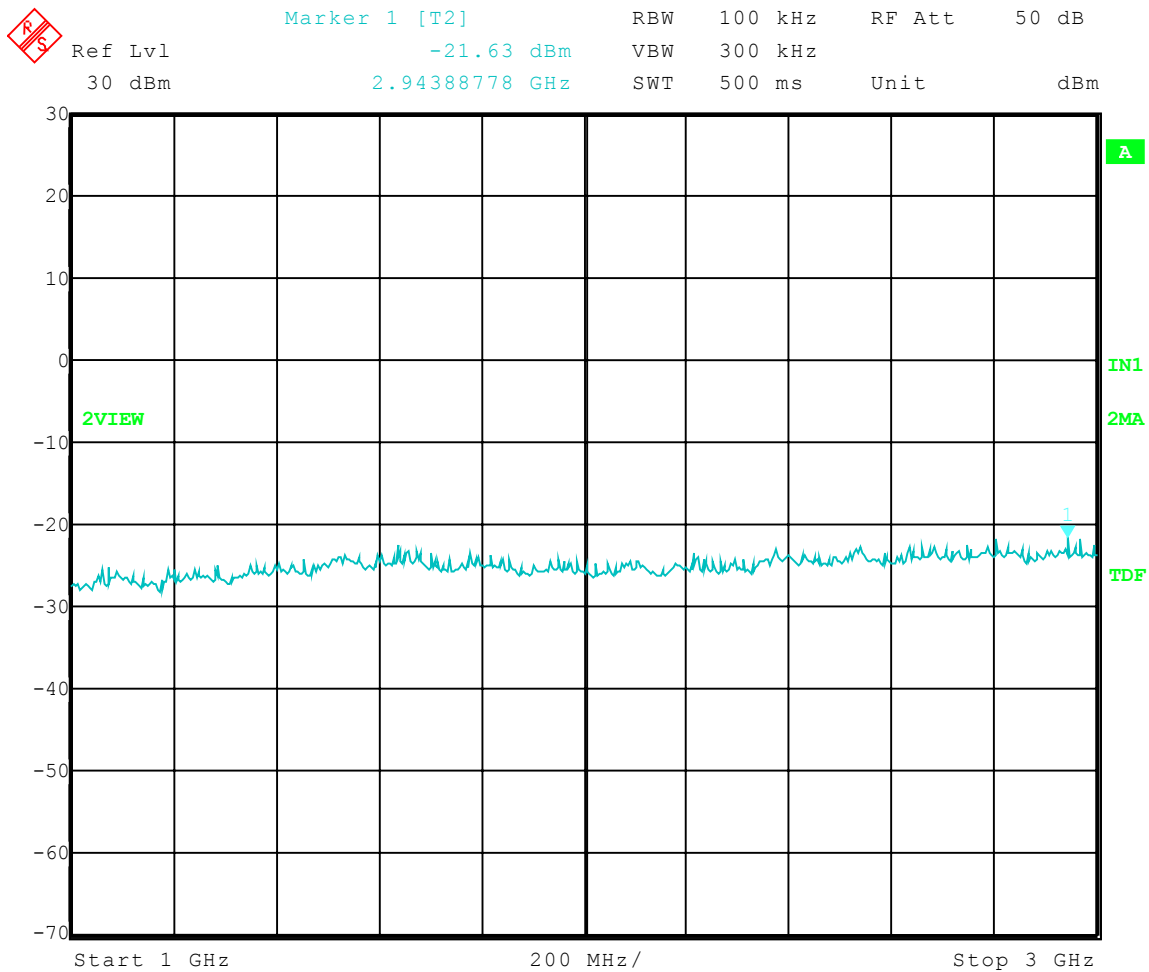
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Middle Channel; Low Power: Transmit = 915.101 MHz  
Frequency Range: 1 to 3 GHz  
Limit = 1.67 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:31:05



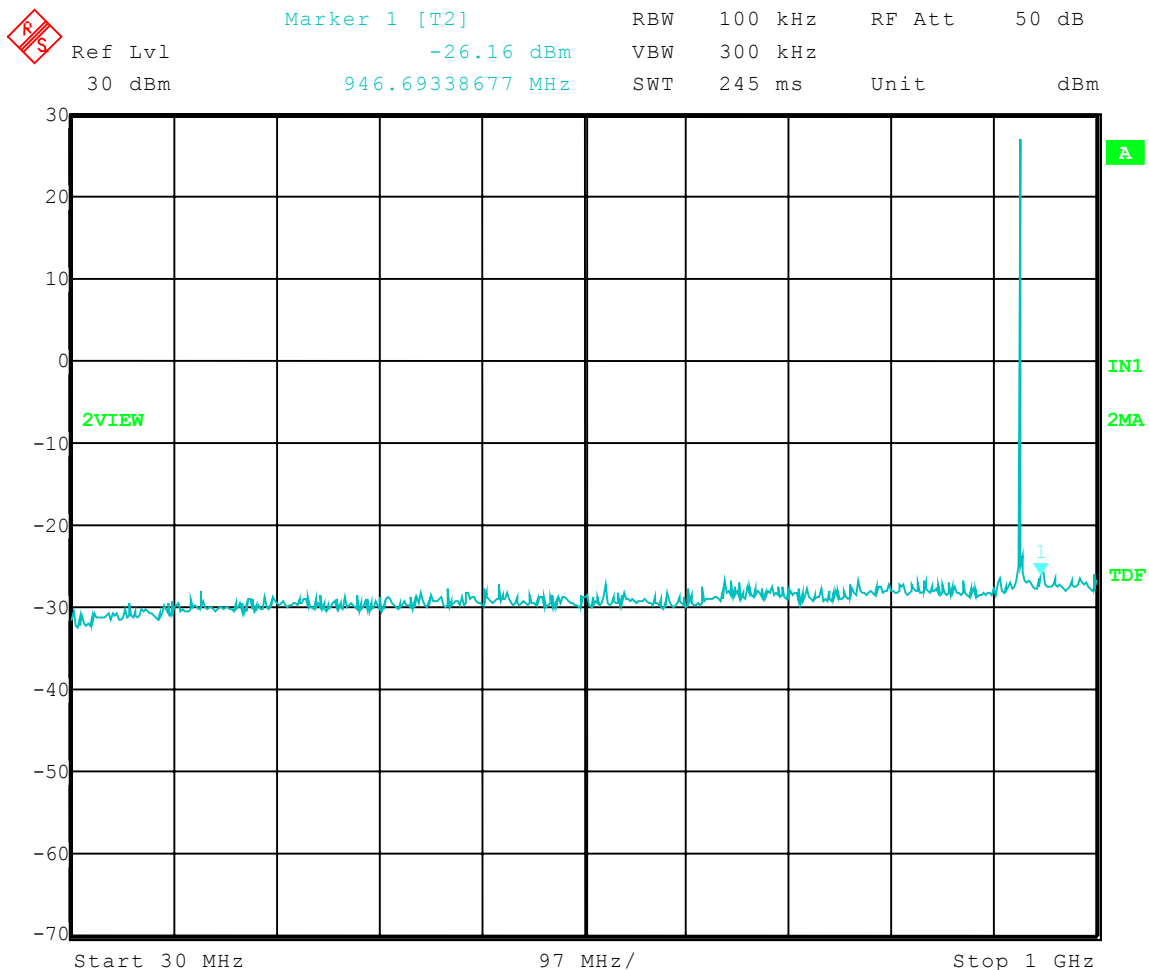
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: High Channel; High Power: Transmit = 927.233 MHz  
Frequency Range: 30 to 1000 MHz  
Limit = 6.91 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:34:47



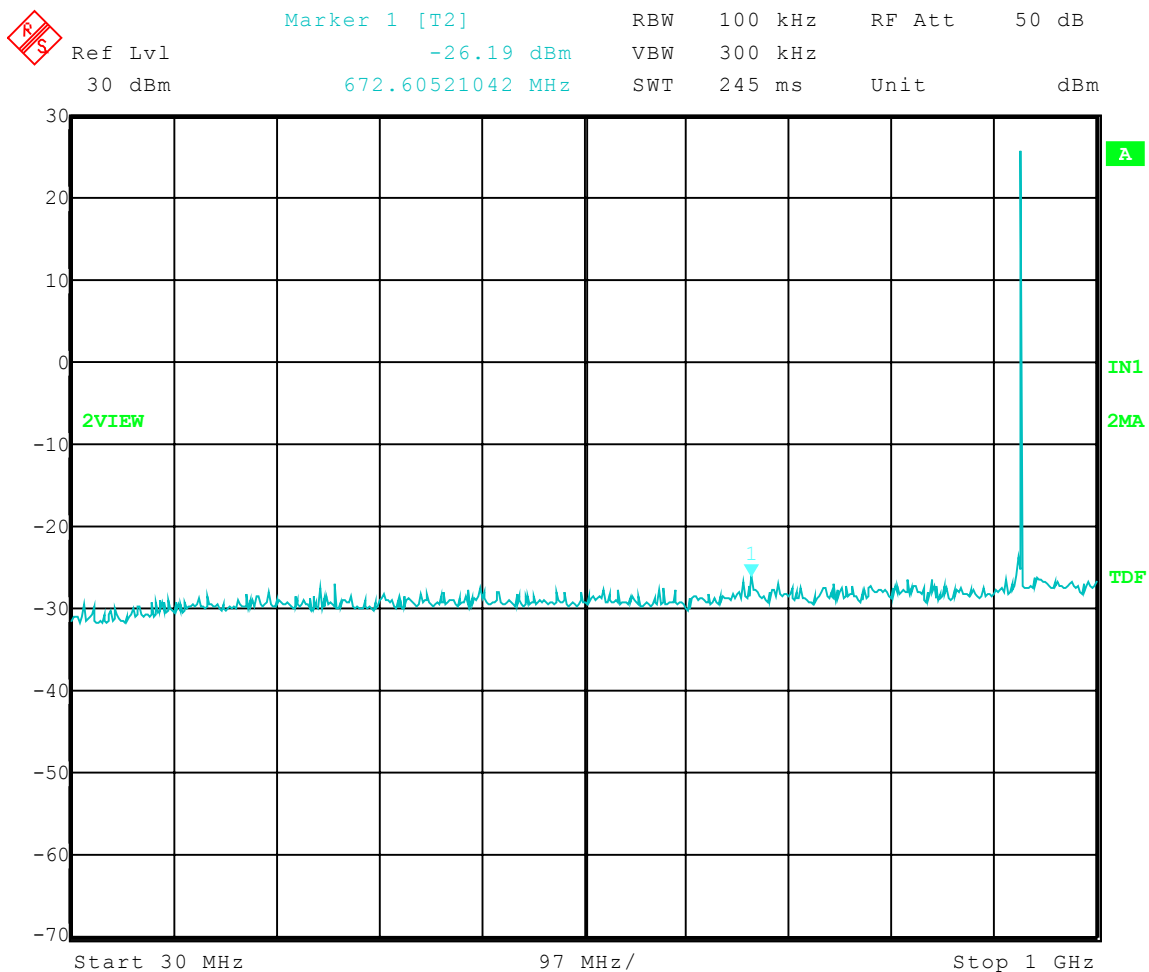
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: High Channel; Mid Power: Transmit = 927.233 MHz  
Frequency Range: 30 to 1000 MHz  
Limit = 5.60 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:38:08





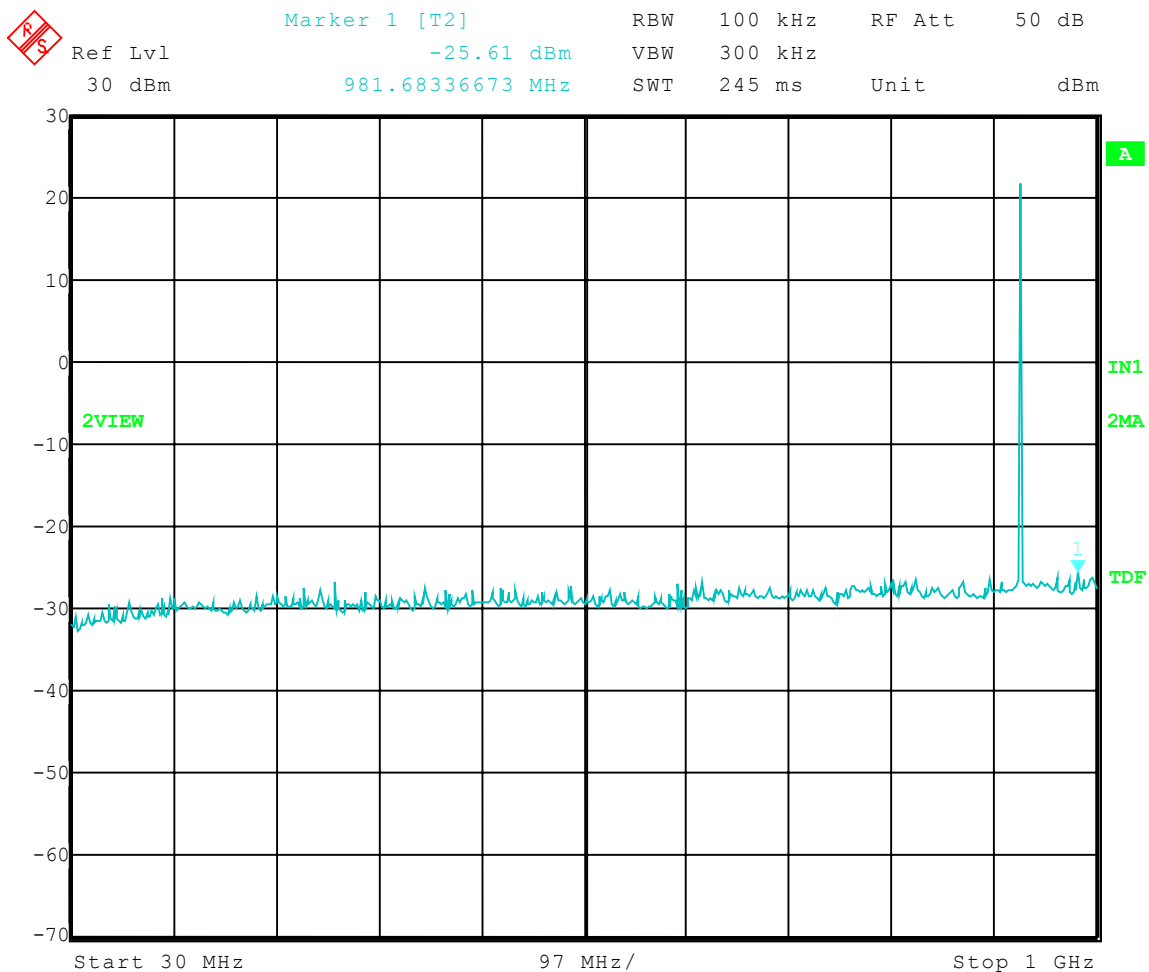
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: High Channel; Low Power: Transmit = 927.233 MHz  
Frequency Range: 30 to 1000 MHz  
Limit = 1.59 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:41:08



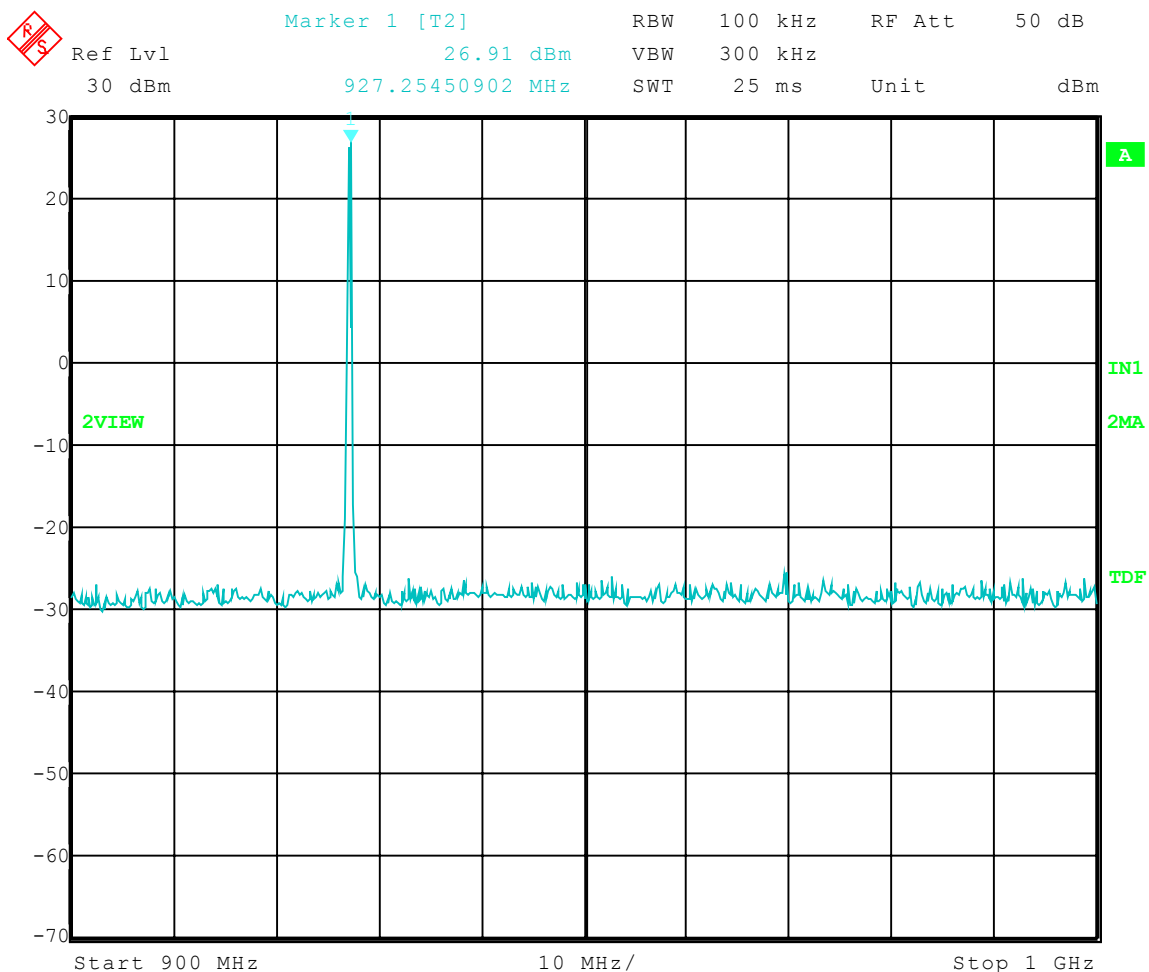
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: High Channel; High Power: Transmit = 927.233 MHz  
Frequency Range: 900 to 1000 MHz  
Limit = 6.91 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:31:44



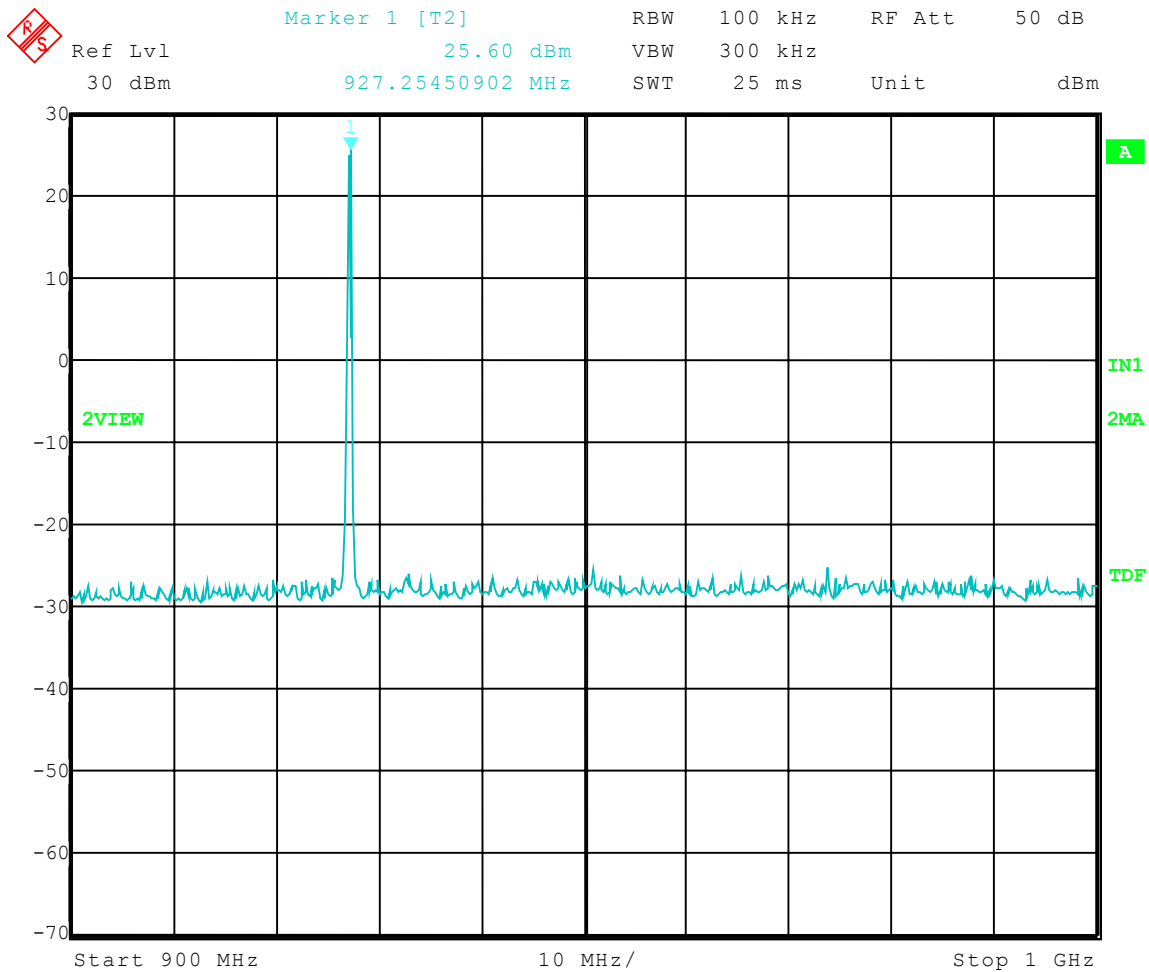
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: High Channel; Mid Power: Transmit = 927.233 MHz  
Frequency Range: 900 to 1000 MHz  
Limit = 5.60 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:36:52



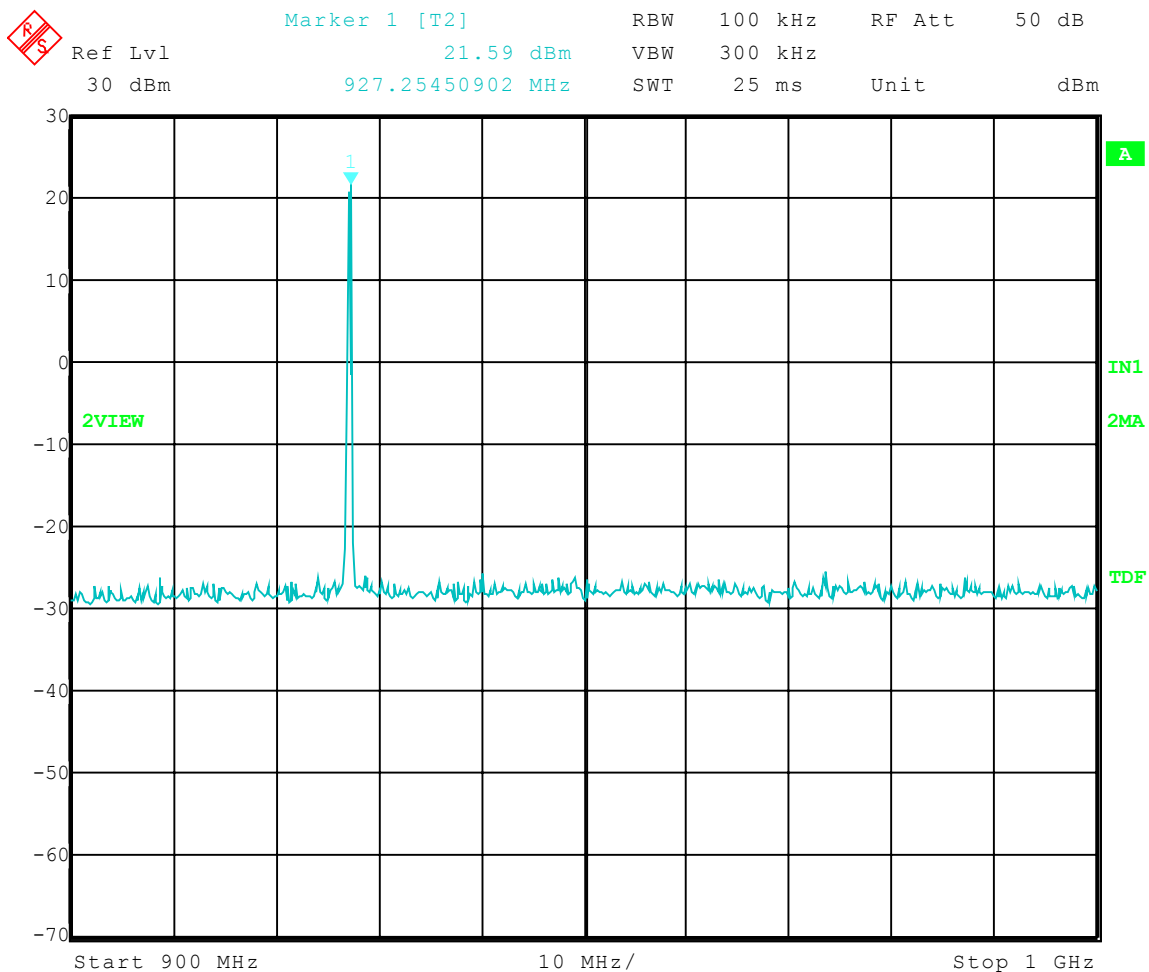
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: High Channel; Low Power: Transmit = 927.233 MHz  
Frequency Range: 900 to 1000 MHz  
Limit = 1.59 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:39:48



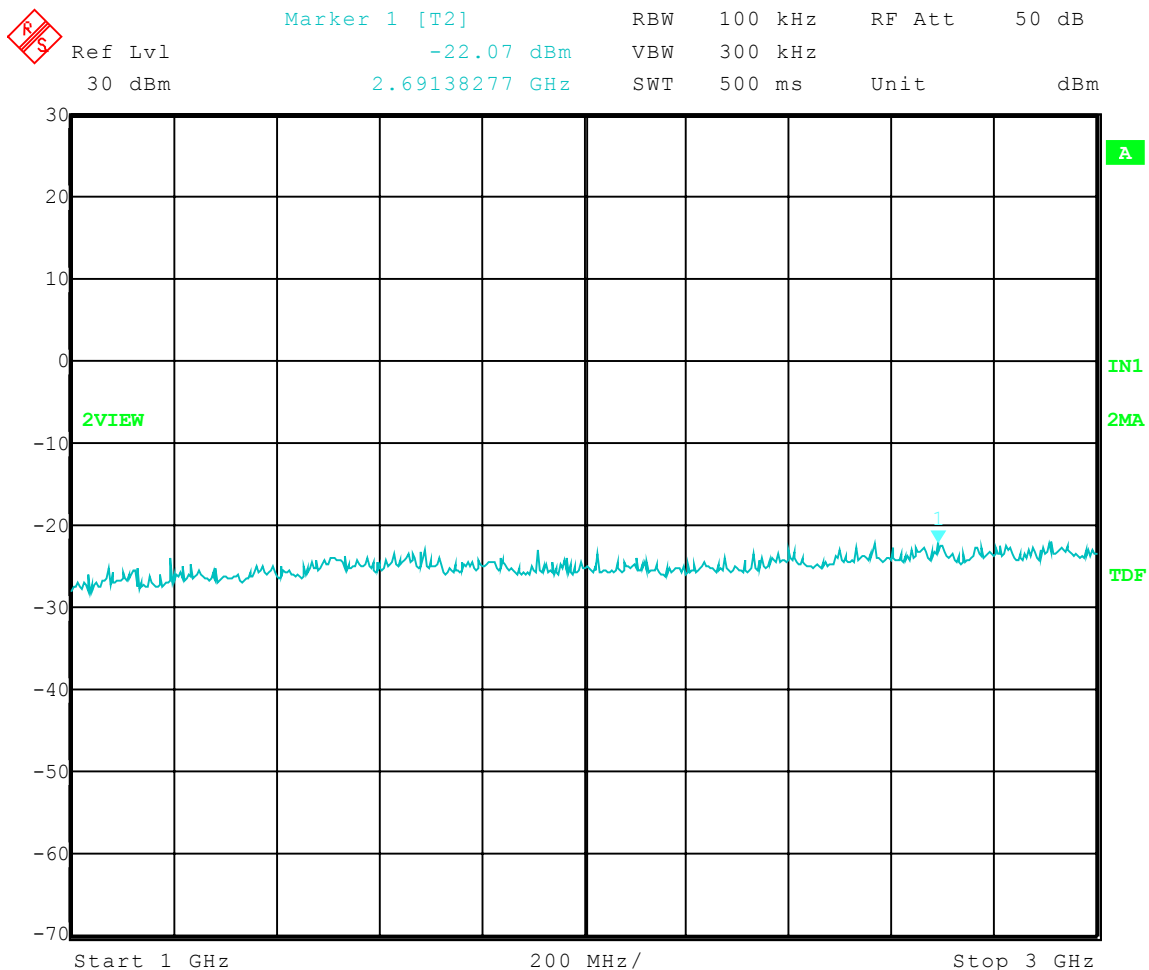
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: High Channel; High Power: Transmit = 927.233 MHz  
Frequency Range: 1 to 3 GHz  
Limit = 6.91 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:10:06



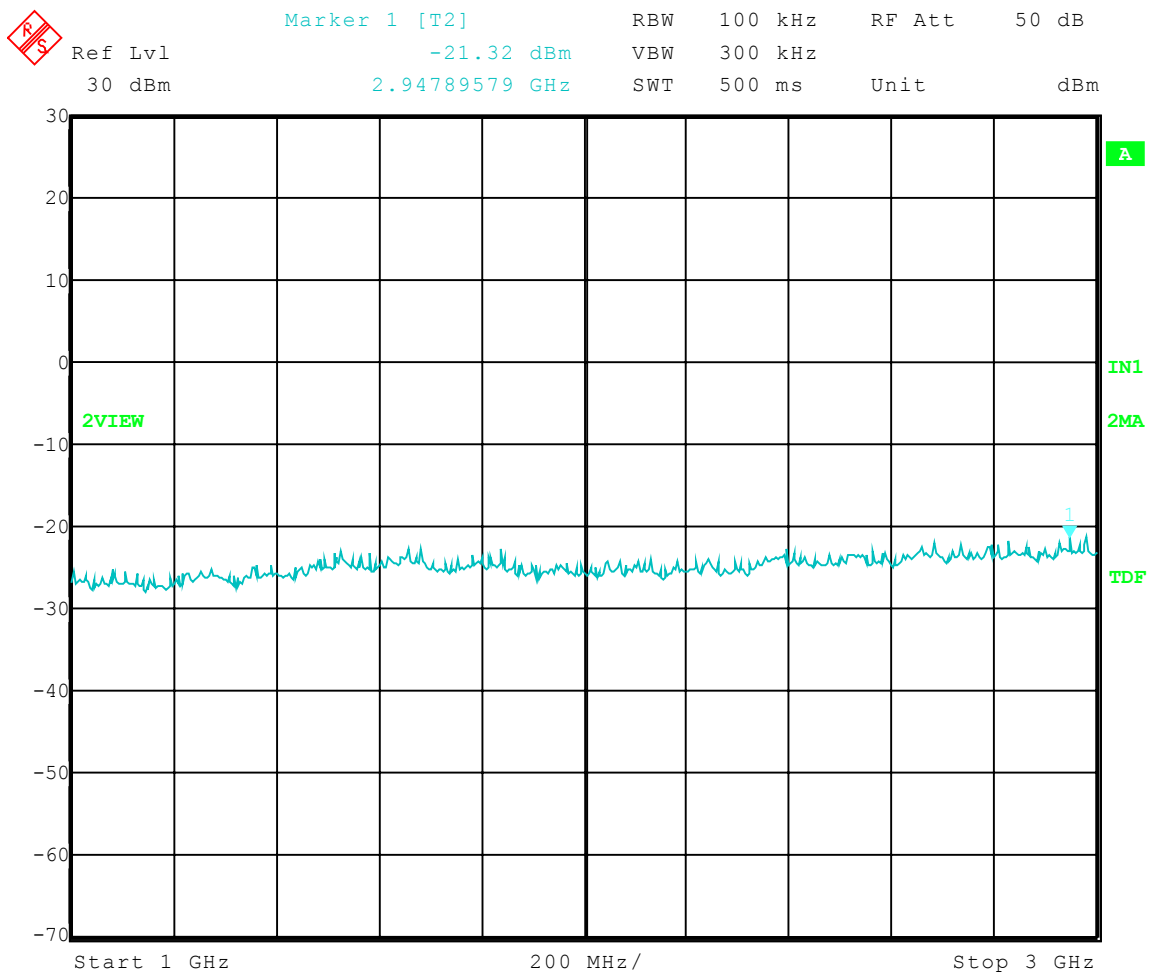
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: High Channel; Mid Power: Transmit = 927.233 MHz  
Frequency Range: 1 to 3 GHz  
Limit = 5.60 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:18:11



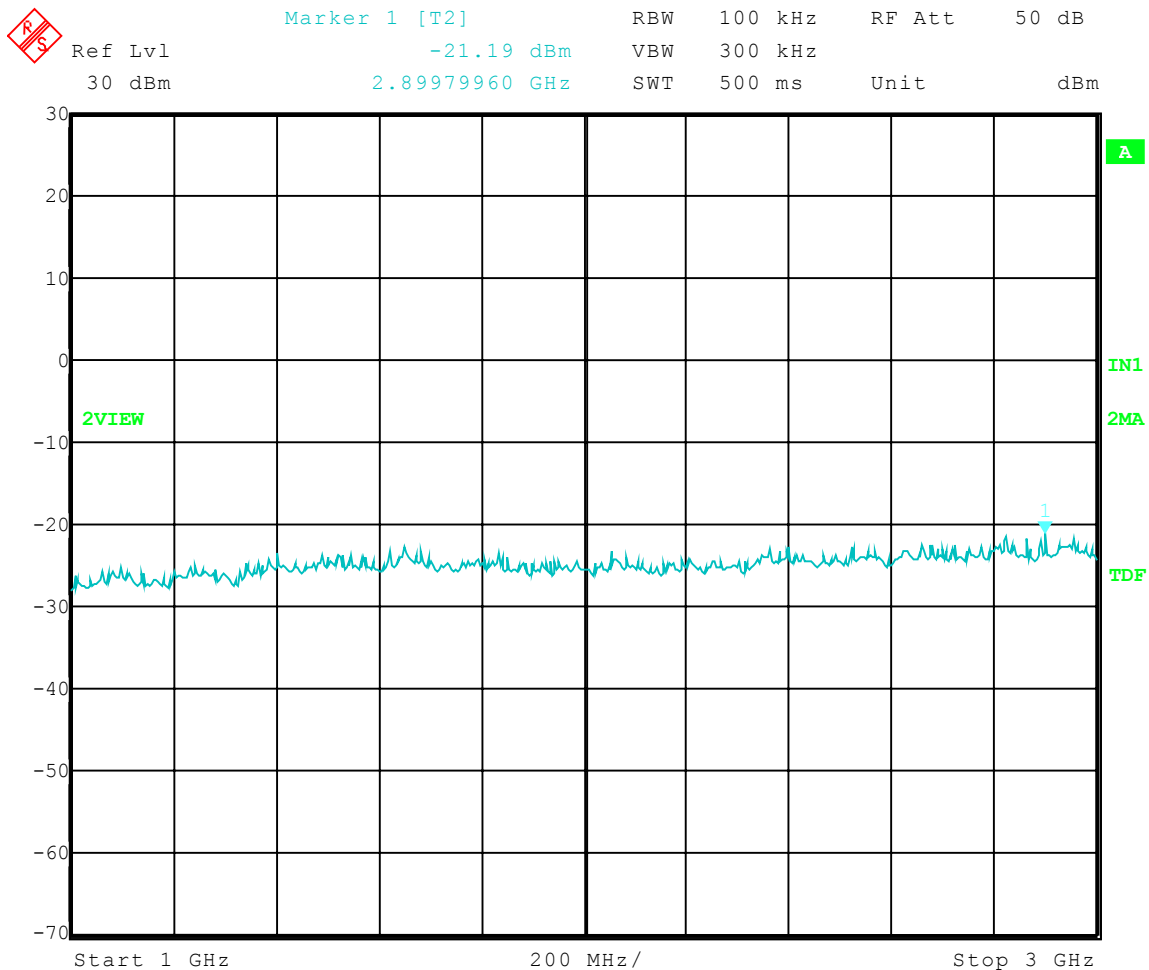
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: High Channel; Low Power: Transmit = 927.233 MHz  
Frequency Range: 1 to 3 GHz  
Limit = 1.59 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:19:22



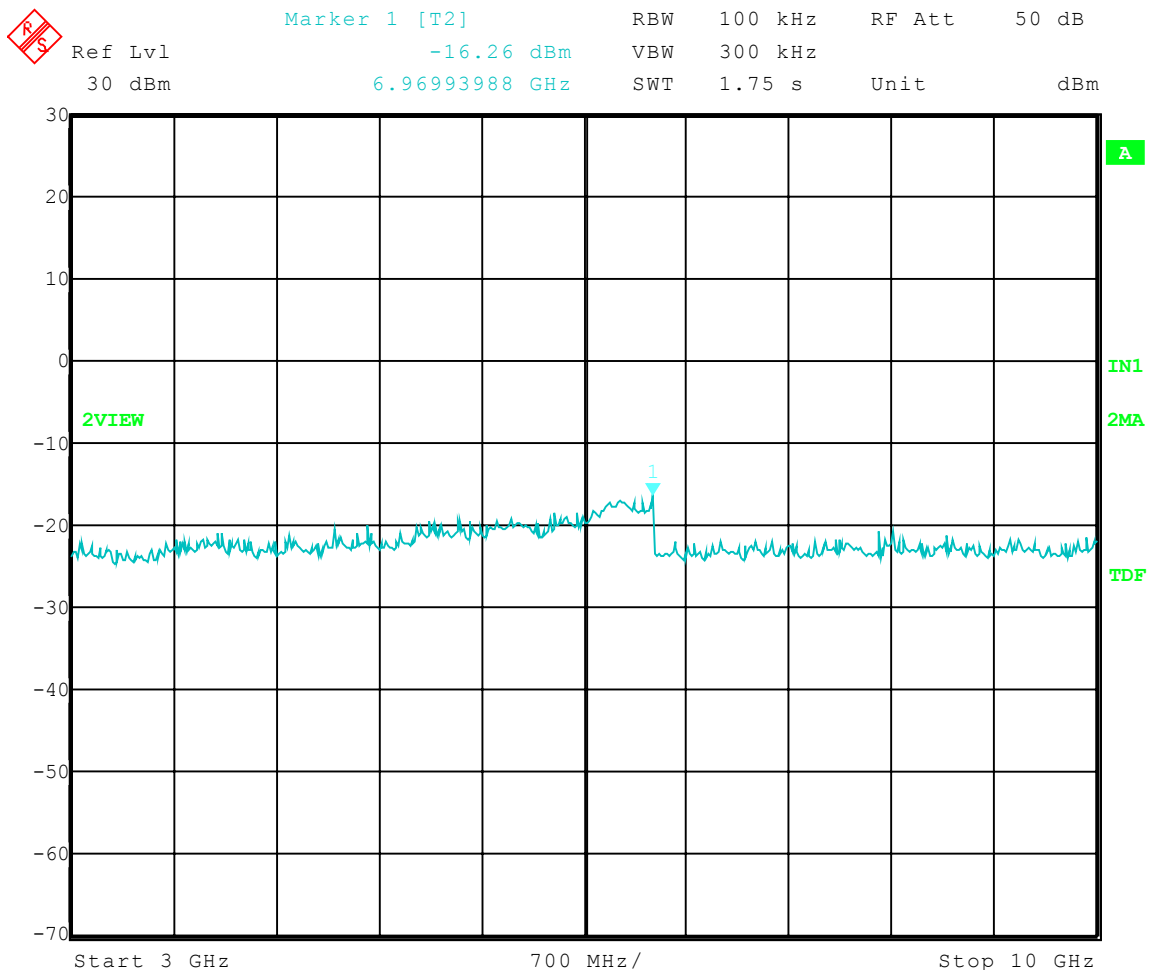
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: High Channel; High Power: Transmit = 927.233 MHz  
Frequency Range: 3 to 10 GHz  
Limit = 6.91 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:13:49





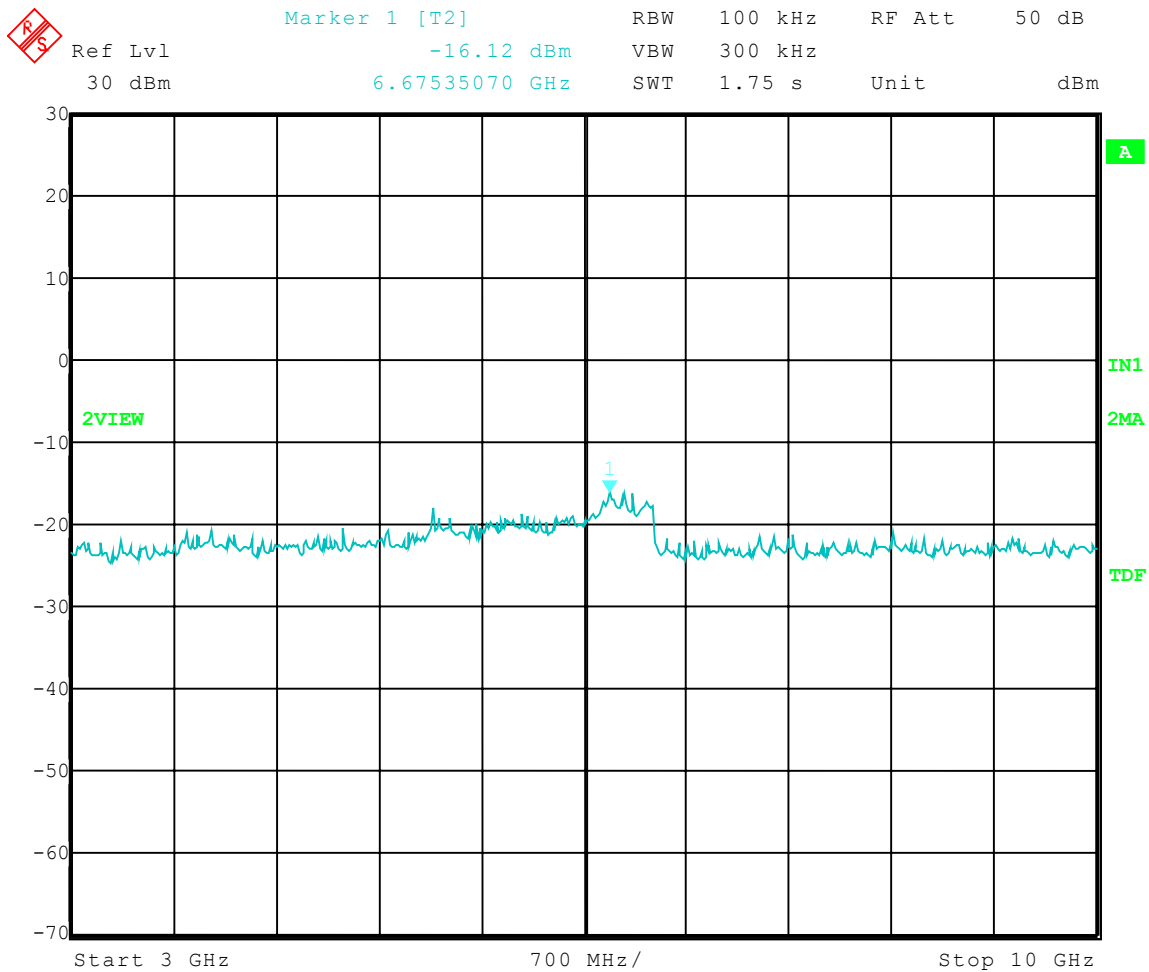
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: High Channel; Mid Power: Transmit = 927.233 MHz  
Frequency Range: 3 to 10 GHz  
Limit = 5.60 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:16:46



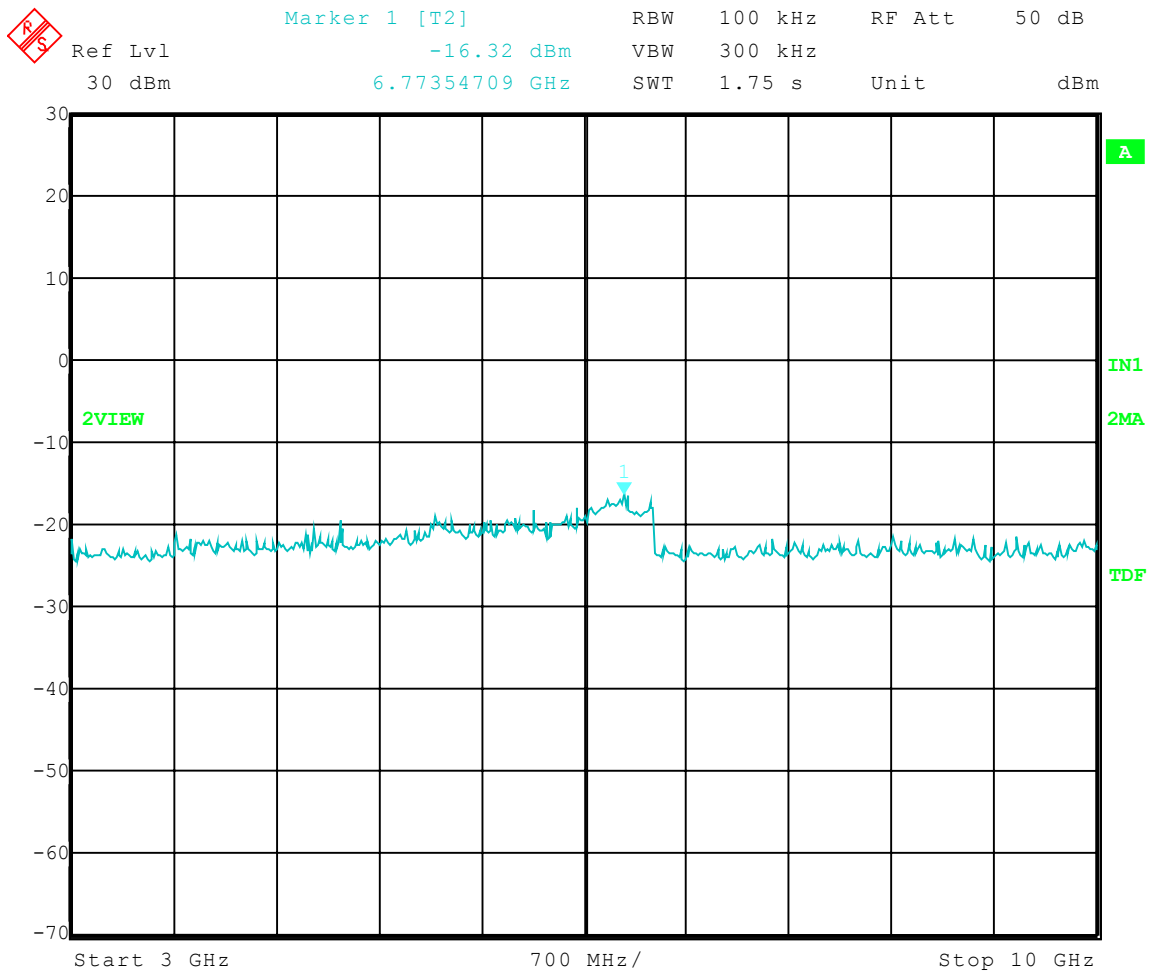
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: High Channel; Low Power: Transmit = 927.233 MHz  
Frequency Range: 3 to 10 GHz  
Limit = 1.59 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:20:43

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

### 3.0 CONDUCTED EMISSIONS (ANTENNA TERMINAL) PHOTOS TAKEN DURING TESTING





Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

### 4.0 RESTRICTED BANDS

As stated in Section 15.205a, the fundamental emission from the R110XiIII Plus shall not fall within any of the bands listed below:

| Frequency<br>in MHz | Frequency<br>in MHz | Frequency<br>in MHz | Frequency<br>in GHz |
|---------------------|---------------------|---------------------|---------------------|
| .0900 to .1100      | 162.0125 to 167.17  | 2310.0 to 2390      | 9.30 to 9.50        |
| .4900 to .5100      | 167.7200 to 173.20  | 2483.5 to 2500      | 10.60 to 12.70      |
| 2.1735 to 2.1905    | 240.000 to 285.00   | 2655.0 to 2900      | 13.25 to 13.40      |
| 8.362 to 8.3660     | 322.200 to 335.40   | 3260.0 to 3267      | 14.47 to 14.50      |
| 13.36 to 13.410     | 399.900 to 410.00   | 3332.0 to 3339      | 15.35 to 16.20      |
| 25.50 to 25.670     | 608.000 to 614.00   | 3345.8 to 3358      | 17.70 to 21.40      |
| 37.50 to 38.250     | 960.000 to 1240.00  | 3600.0 to 4400      | 22.01 to 23.13      |
| 73.00 to 75.500     | 1300.000 to 1427.00 | 4500.0 to 5250      | 23.60 to 24.00      |
| 108.00 to 121.94    | 1435.000 to 1626.50 | 5350.0 to 5450      | 31.20 to 31.80      |
| 123.00 to 138.00    | 1660.000 to 1710.00 | 7250.0 to 7750      | 36.43 to 36.50      |
| 149.90 to 150.00    | 1718.800 to 1722.20 | 8025.0 to 8500      | ABOVE 38.60         |
| 156.70 to 156.90    | 2200.000 to 2300.00 | 9000.0 to 9200      |                     |

#### NOTE:

The noise floor within the Restricted Bands for the EMC Receiver and HP Spectrum Analyzer will typically lay 20 dB below the limit.

### 5.0 BAND EDGE AND RESTRICT BAND COMPLIANCE

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the attenuation below the general limits specified in 15.209 is not required.

The field strength of any **radiated emissions** which fall within the restricted bands shall not exceed the general radiated emissions limits as stated Section 15.209.

**NOTE:** See the following page(s) for the graph(s) made showing compliance for Band Edge and Restrict Band:



Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

# DATA AND GRAPH(S) TAKEN SHOWING THE BAND EDGE AND RESTRICT BAND COMPLIANCE

PART 15.247(c)



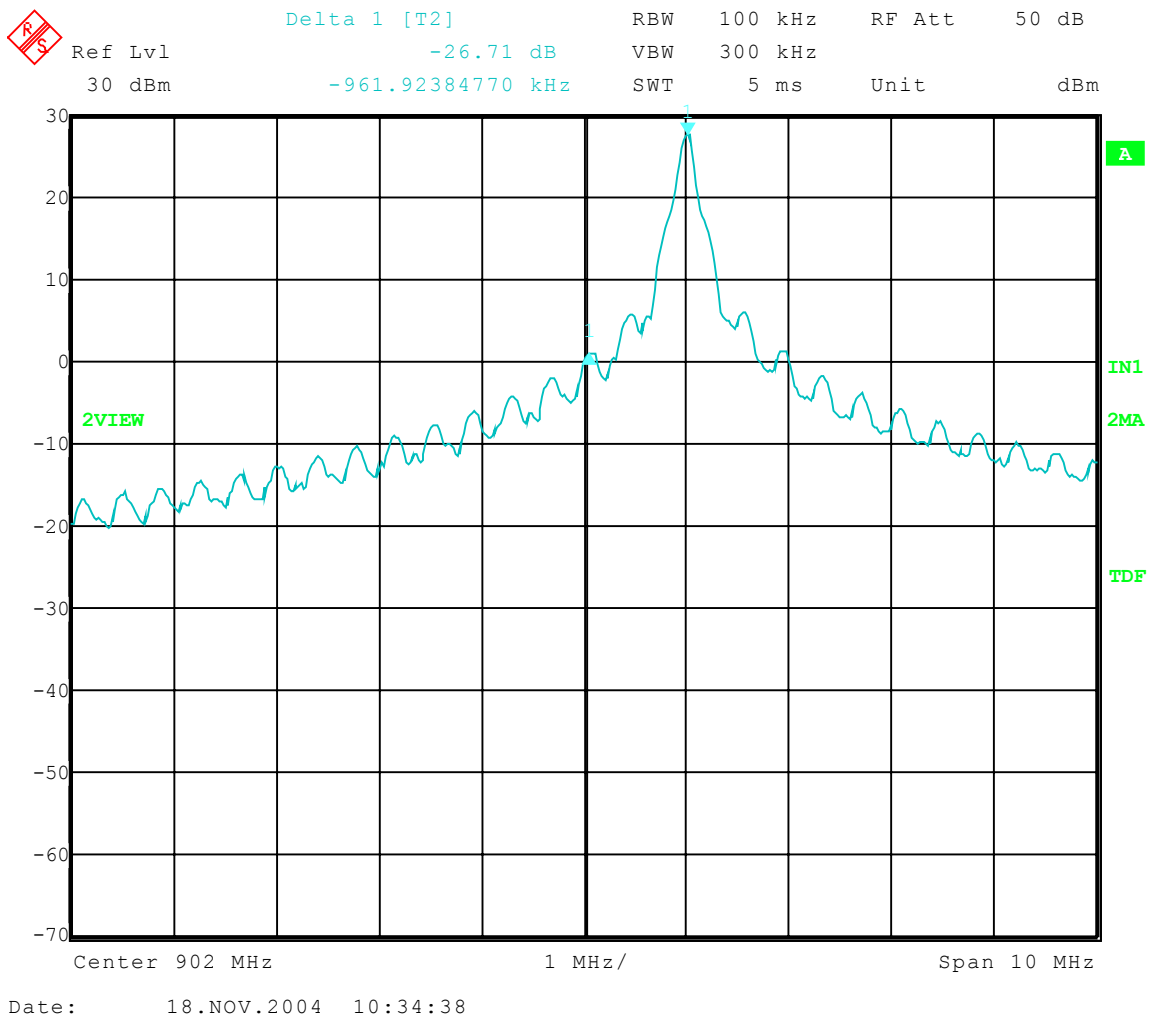
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Low Band-Edge Compliance - Conducted  
Operator: Craig B  
Comment: Low Channel; High Power: Frequency – 902.967 MHz

Band-Edge Frequency = 902 MHz  
Band-Edge > 20 dB Below Peak In-Band Emission

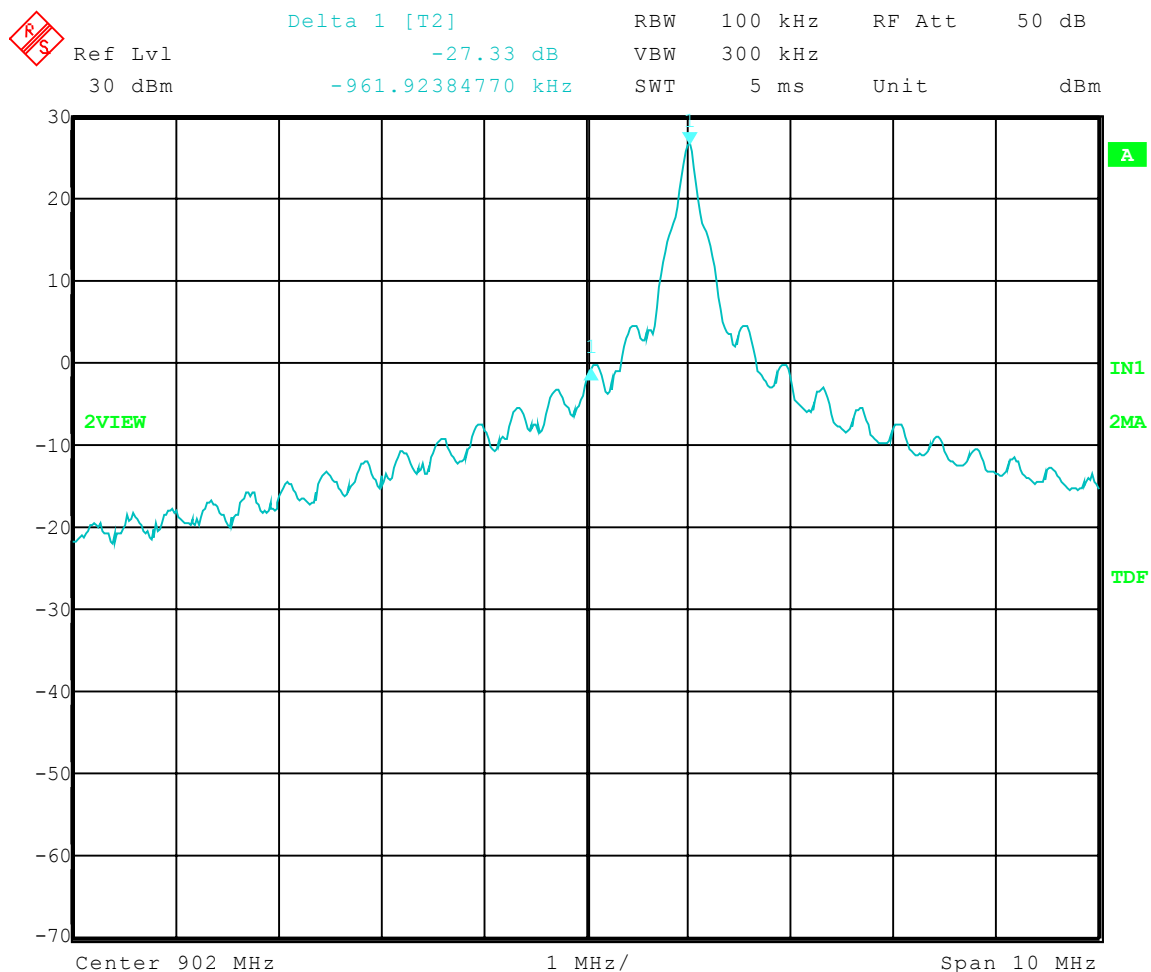


**1250 Peterson Dr., Wheeling, IL 60090**

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Low Band-Edge Compliance - Conducted  
Operator: Craig B  
Comment: Low Channel; Mid Power: Frequency – 902.967 MHz

Band-Edge Frequency = 902 MHz  
Band-Edge > 20 dB Below Peak In-Band Emission



Date: 18.NOV.2004 10:36:23



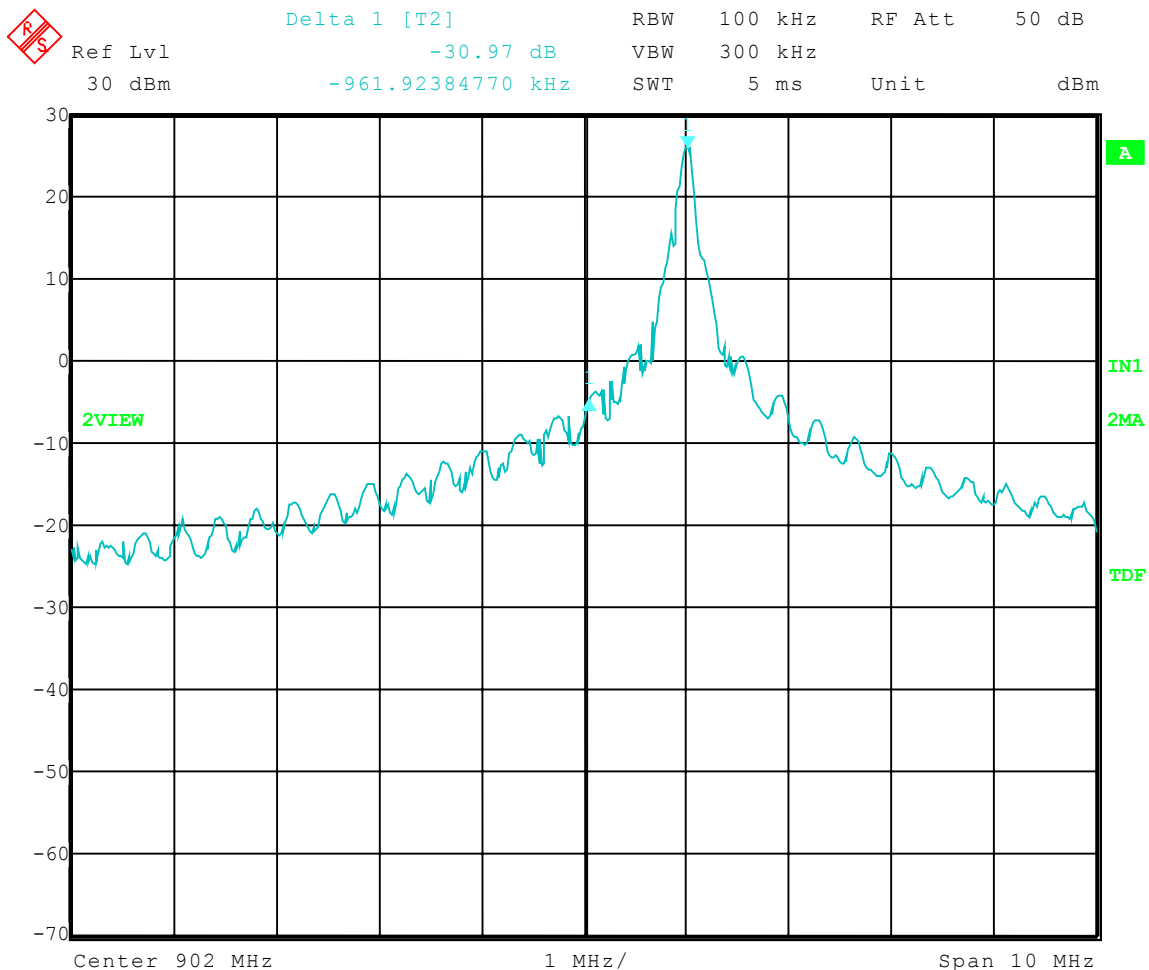
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Low Band-Edge Compliance - Conducted  
Operator: Craig B  
Comment: Low Channel; Low Power: Frequency – 902.967 MHz

Band-Edge Frequency = 902 MHz  
Band-Edge > 20 dB Below Peak In-Band Emission



Date: 18.NOV.2004 10:38:39





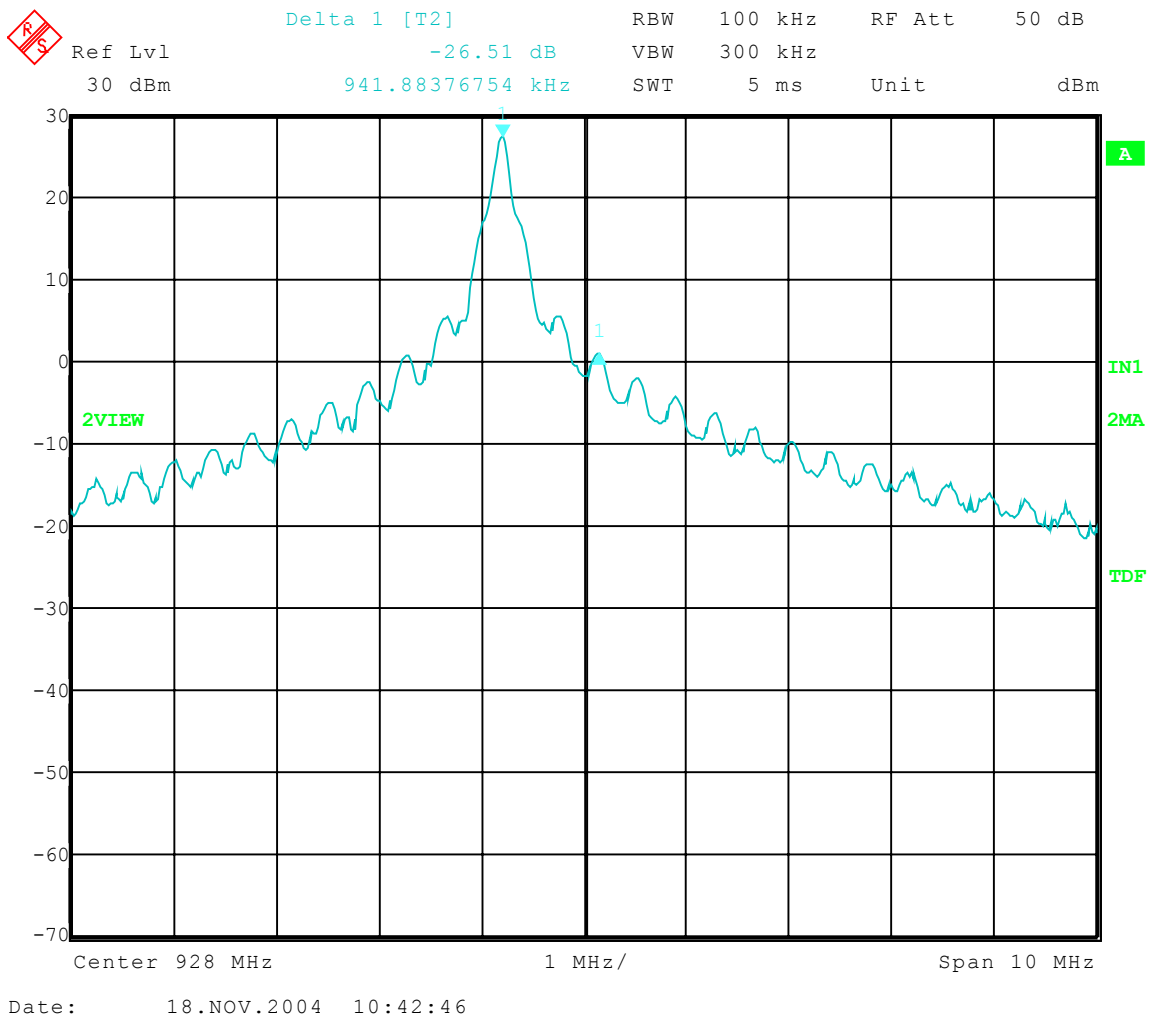
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: High Band-Edge Compliance - Conducted  
Operator: Craig B  
Comment: High Channel; High Power: Frequency – 927.223 MHz

Band-Edge Frequency = 928 MHz  
Band-Edge > 20 dB Below Peak In-Band Emission





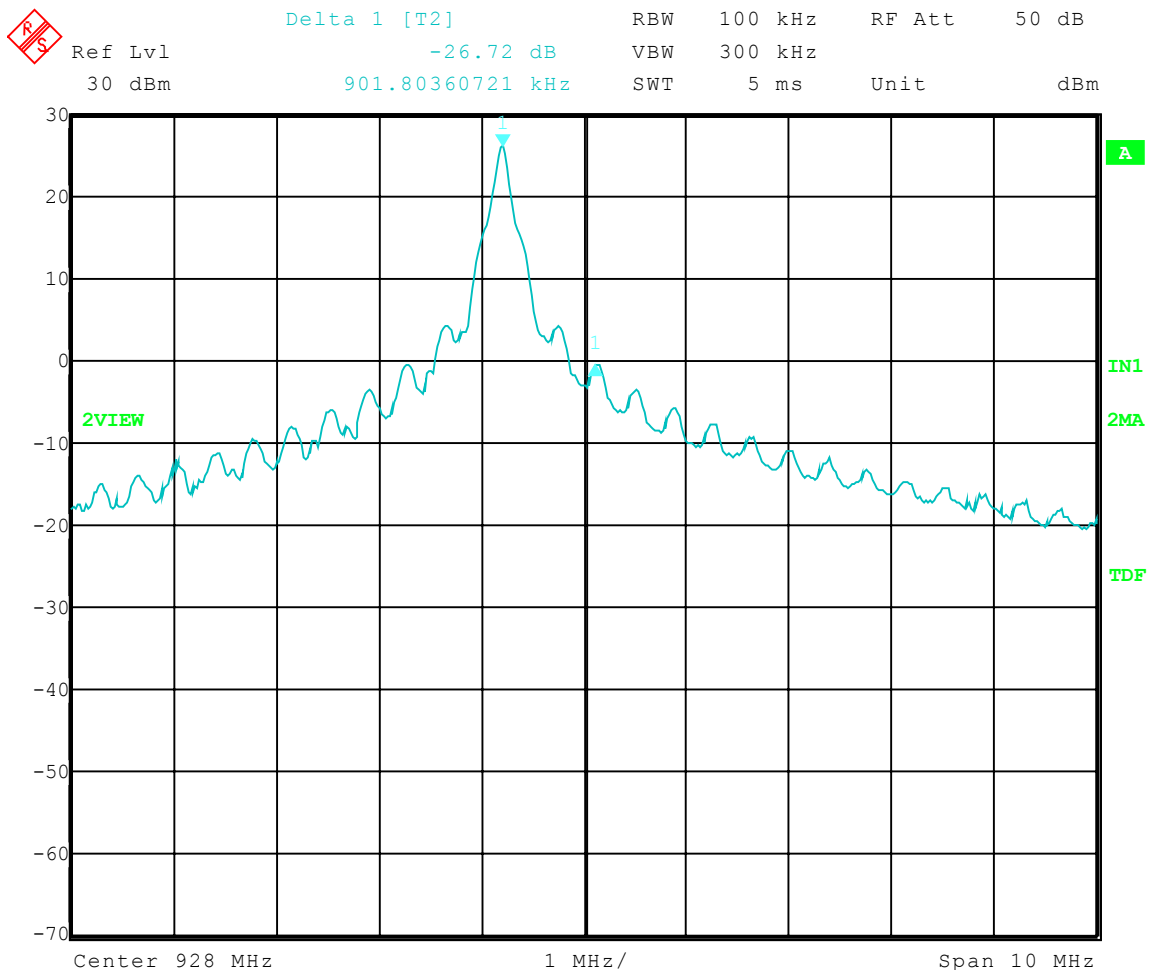
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: High Band-Edge Compliance - Conducted  
Operator: Craig B  
Comment: High Channel; Mid Power: Frequency – 927.223 MHz

Band-Edge Frequency = 928 MHz  
Band-Edge > 20 dB Below Peak In-Band Emission



Date: 18.NOV.2004 10:44:14



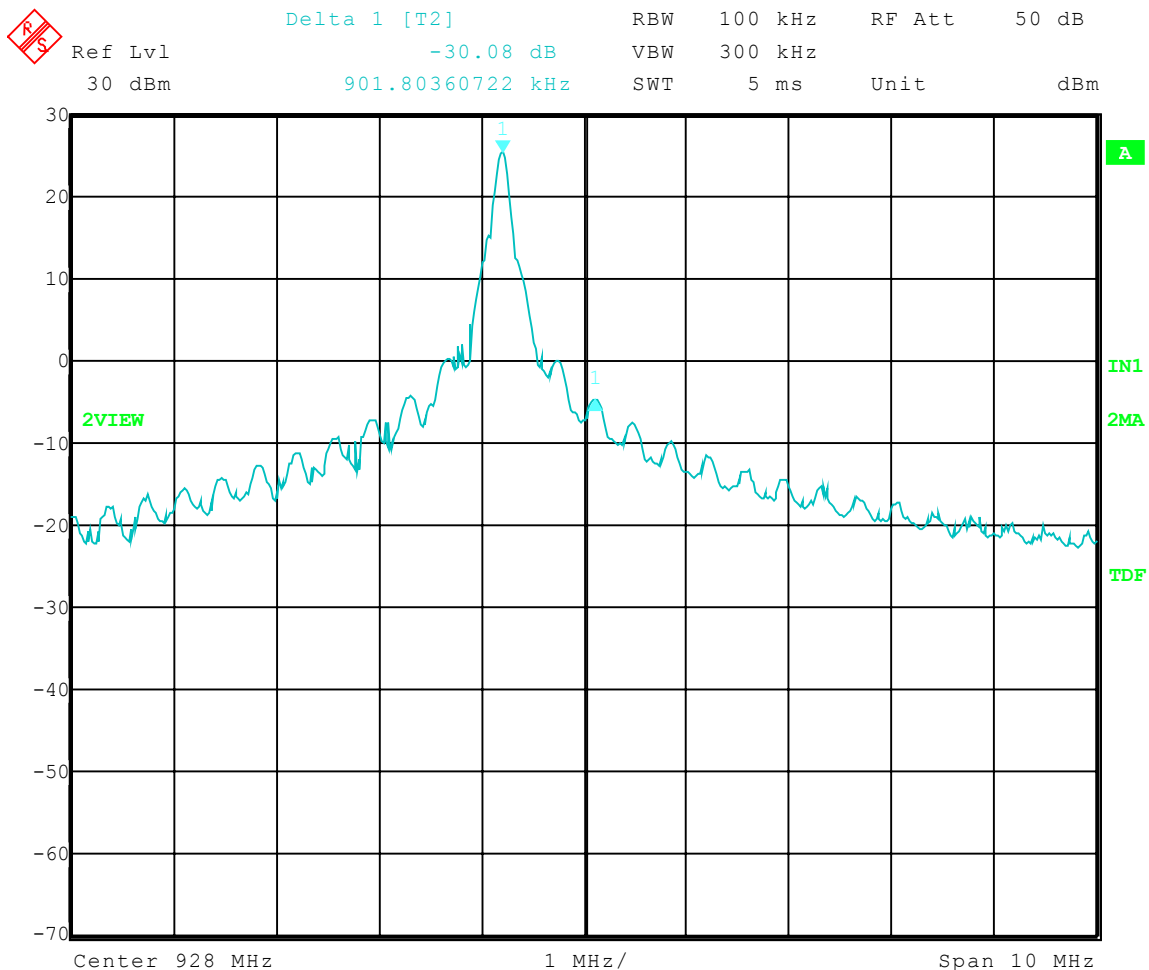
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: High Band-Edge Compliance - Conducted  
Operator: Craig B  
Comment: High Channel; Low Power: Frequency – 927.223 MHz

Band-Edge Frequency = 928 MHz  
Band-Edge > 20 dB Below Peak In-Band Emission



Date: 18.NOV.2004 10:45:40



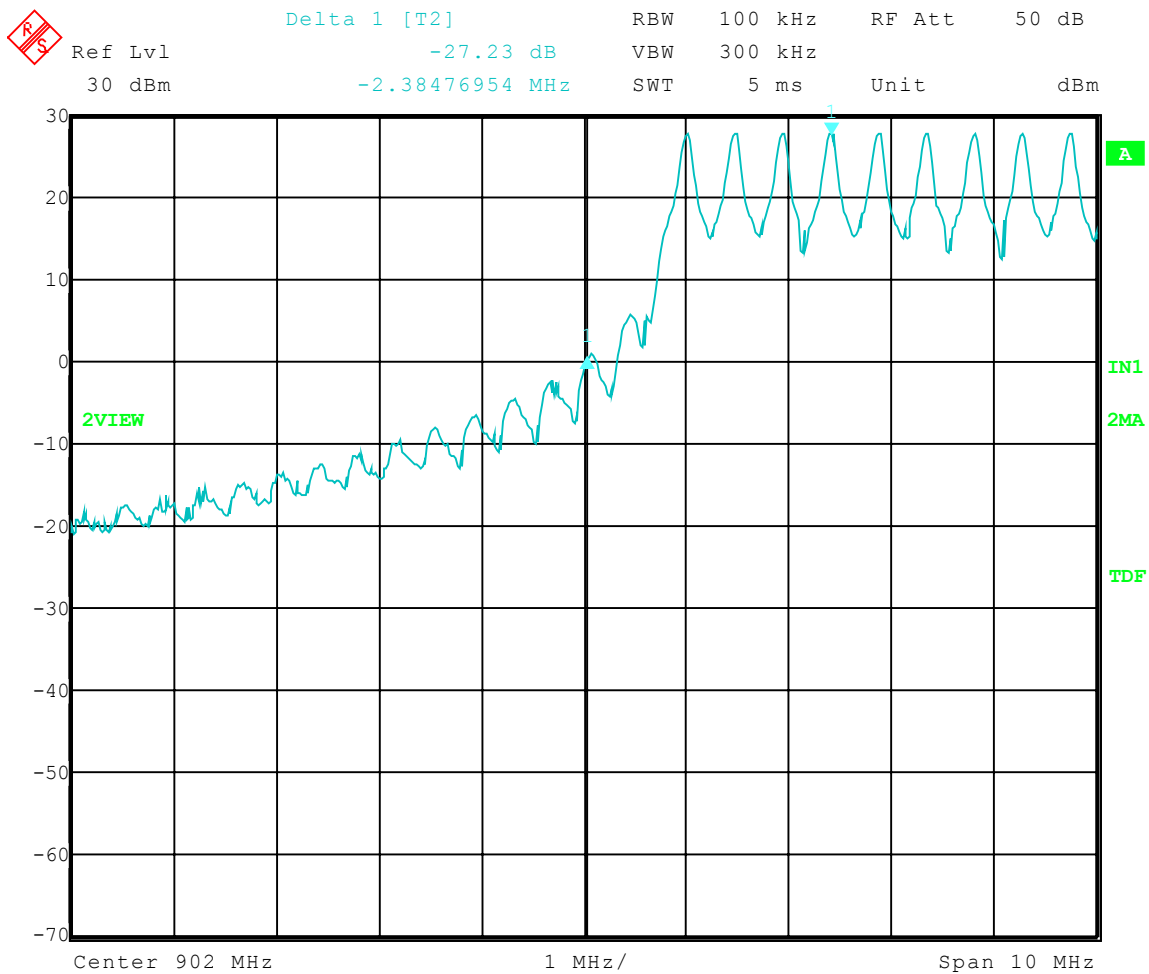
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Low Band-Edge Compliance - Conducted  
Operator: Craig B  
Comment: Spread Spectrum Frequency Hopping On; High Power

Band-Edge Frequency = 902 MHz  
Band-Edge > 20 dB Below Peak In-Band Emission



Date: 18.NOV.2004 10:51:19



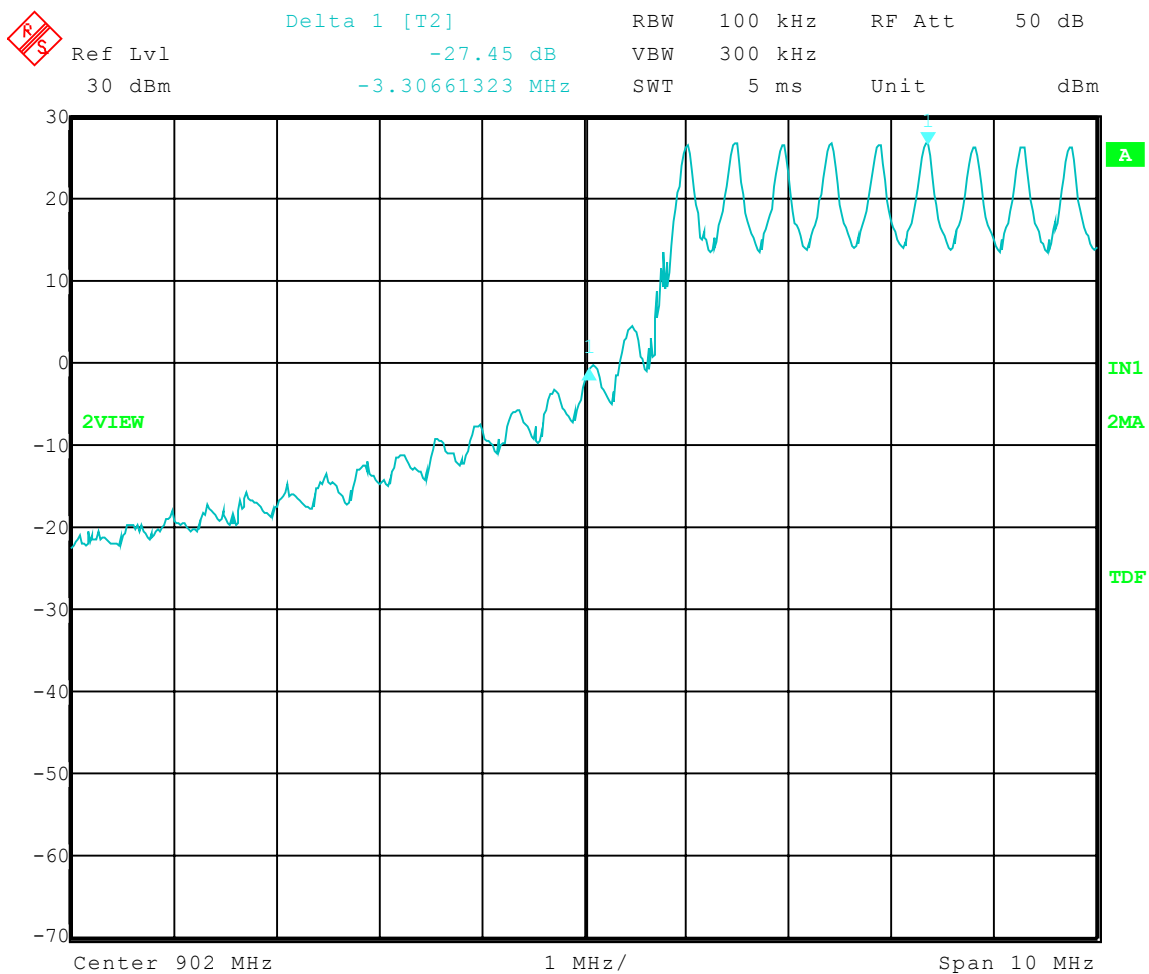
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Low Band-Edge Compliance - Conducted  
Operator: Craig B  
Comment: Spread Spectrum Frequency Hopping On; Mid Power

Band-Edge Frequency = 902 MHz  
Band-Edge > 20 dB Below Peak In-Band Emission



Date: 18.NOV.2004 11:06:17



Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

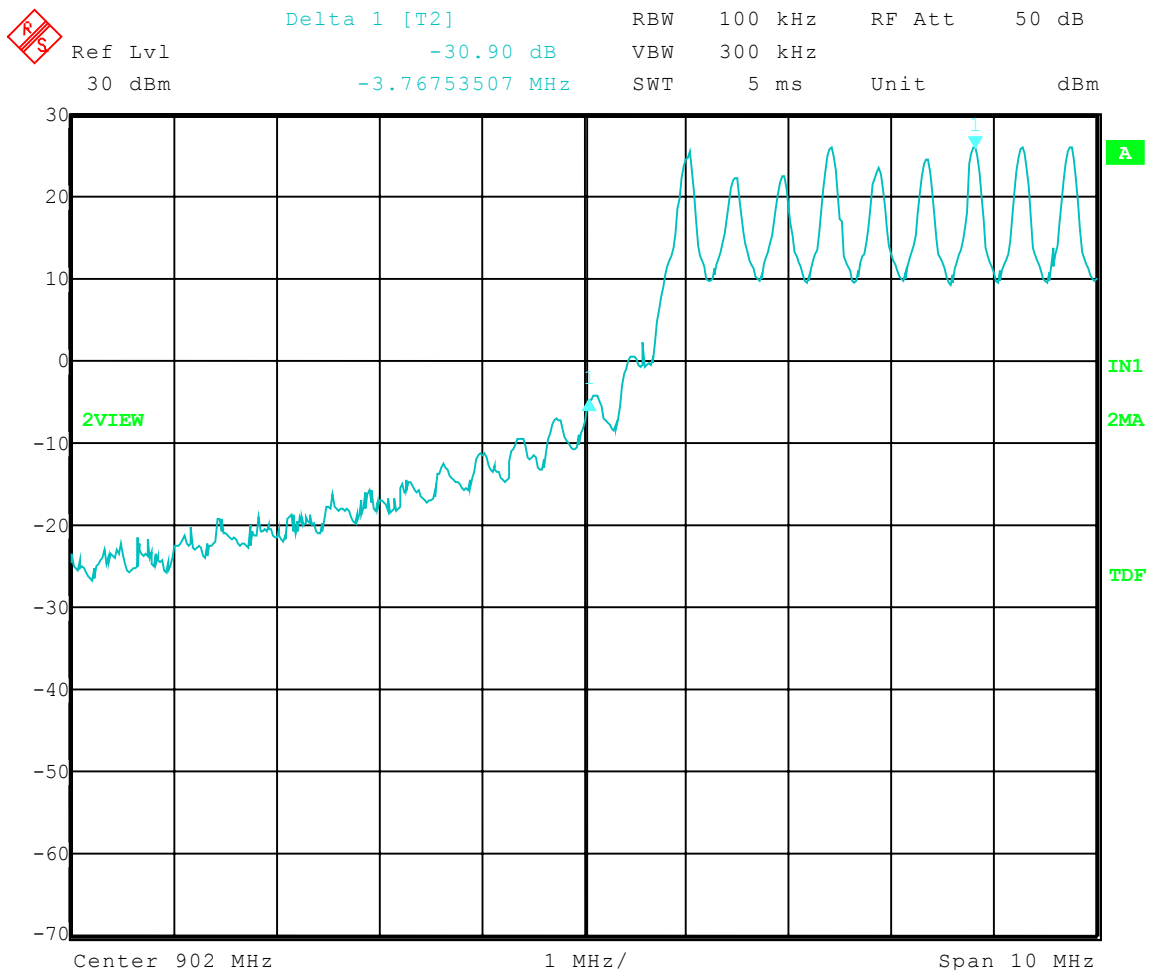
1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Low Band-Edge Compliance - Conducted  
Operator: Craig B  
Comment: Spread Spectrum Frequency Hopping On; Low Power

Band-Edge Frequency = 902 MHz

Band-Edge > 20 dB Below Peak In-Band Emission



Date: 18.NOV.2004 11:11:17



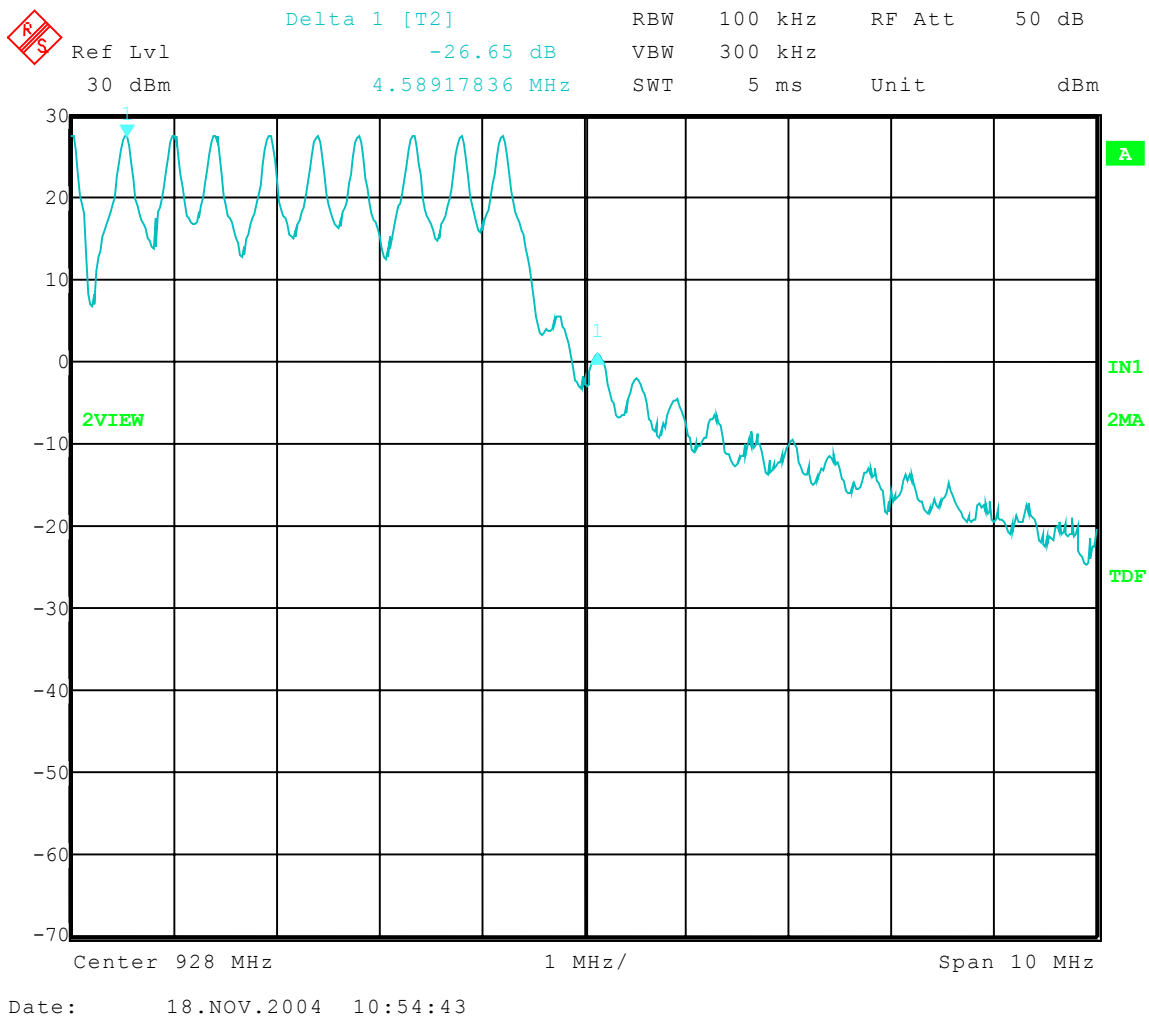
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: High Band-Edge Compliance - Conducted  
Operator: Craig B  
Comment: Spread Spectrum Frequency Hopping On; High Power

Band-Edge Frequency = 928 MHz  
Band-Edge > 20 dB Below Peak In-Band Emission





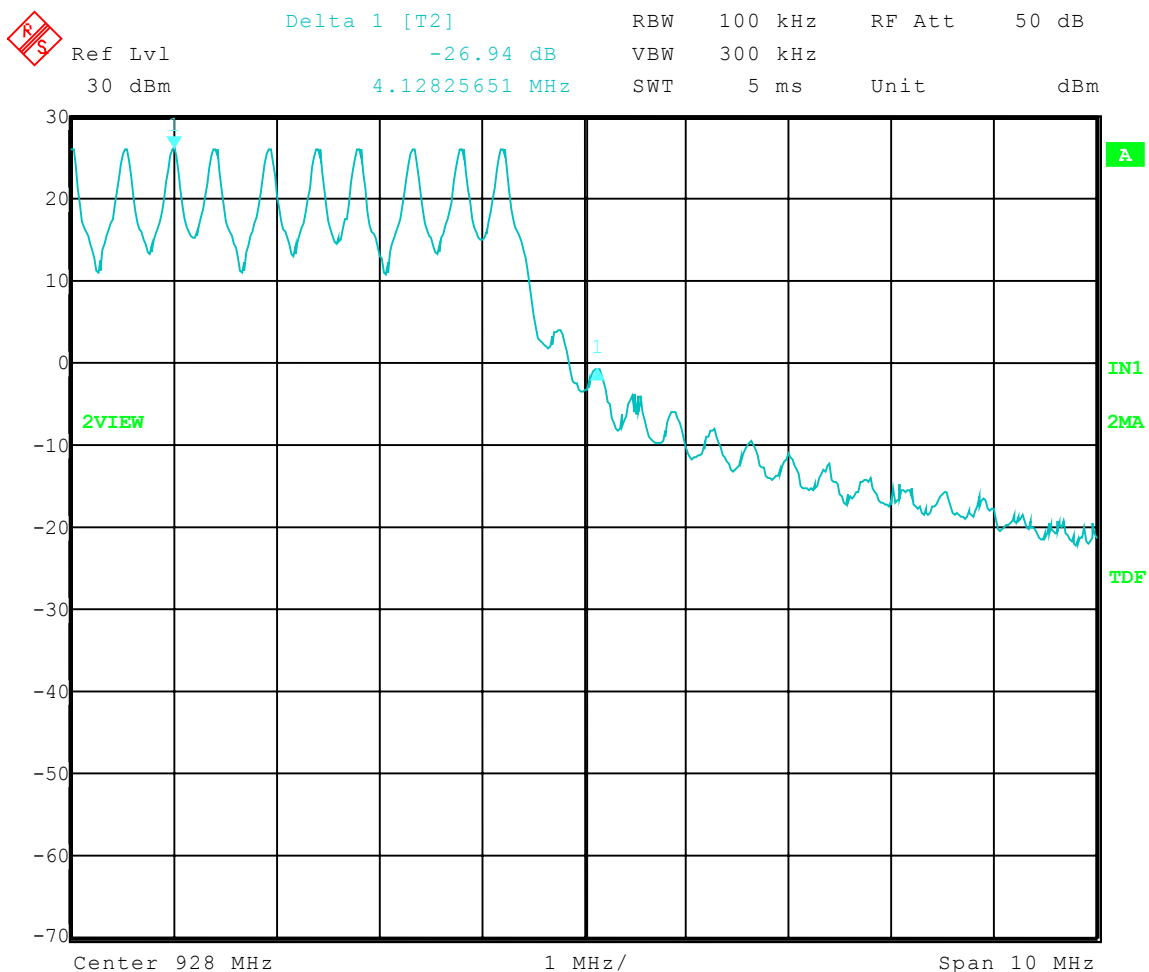
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: High Band-Edge Compliance - Conducted  
Operator: Craig B  
Comment: Spread Spectrum Frequency Hopping On; Mid Power

Band-Edge Frequency = 928 MHz  
Band-Edge > 20 dB Below Peak In-Band Emission



Date: 18.NOV.2004 11:03:56





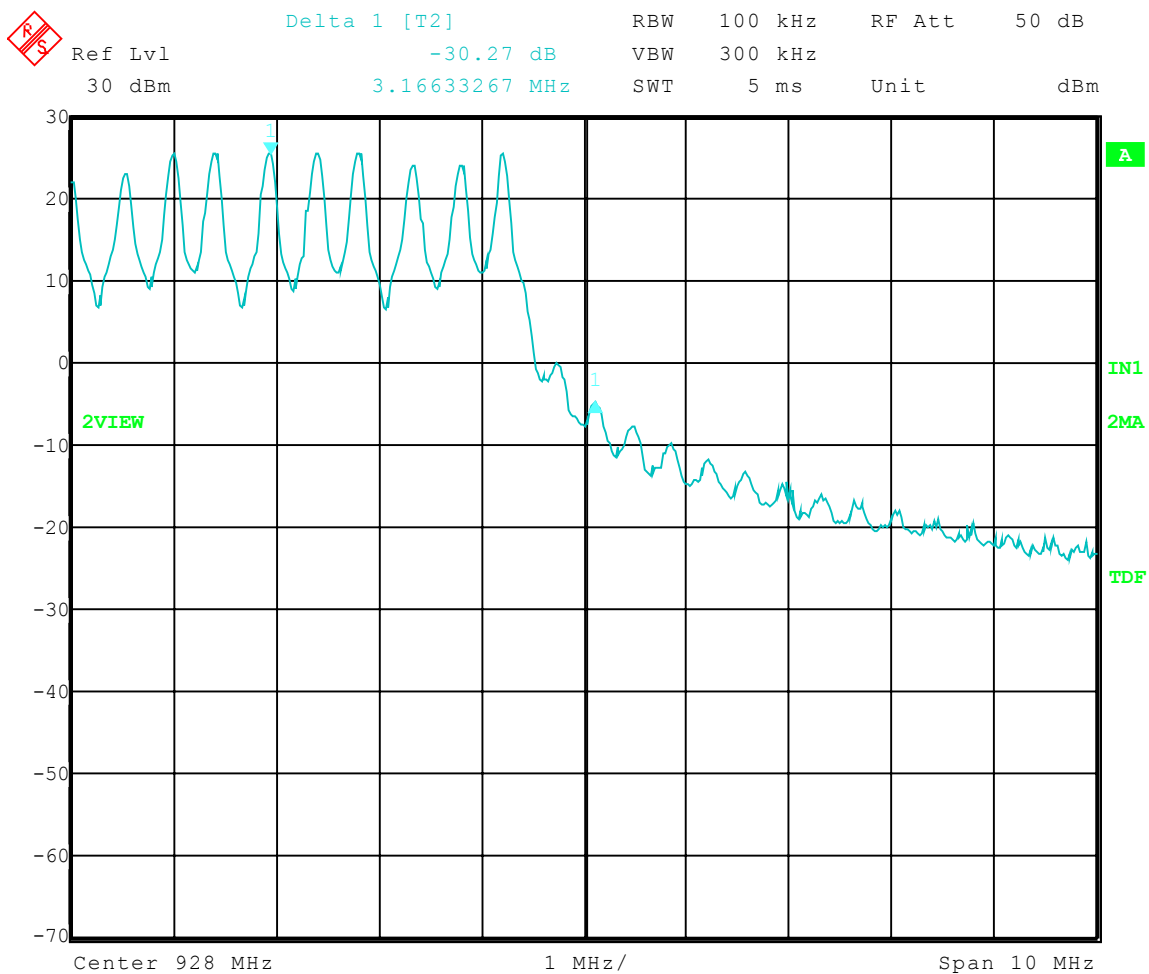
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: High Band-Edge Compliance - Conducted  
Operator: Craig B  
Comment: Spread Spectrum Frequency Hopping On; Low Power

Band-Edge Frequency = 928 MHz  
Band-Edge > 20 dB Below Peak In-Band Emission



Date: 18.NOV.2004 11:14:37

## **FCC Part 15 Class B**

### **Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification:  
Comment: Unintentional; Rx mode; Tx harmonics in restricted bands  
Date: 11-17-2004

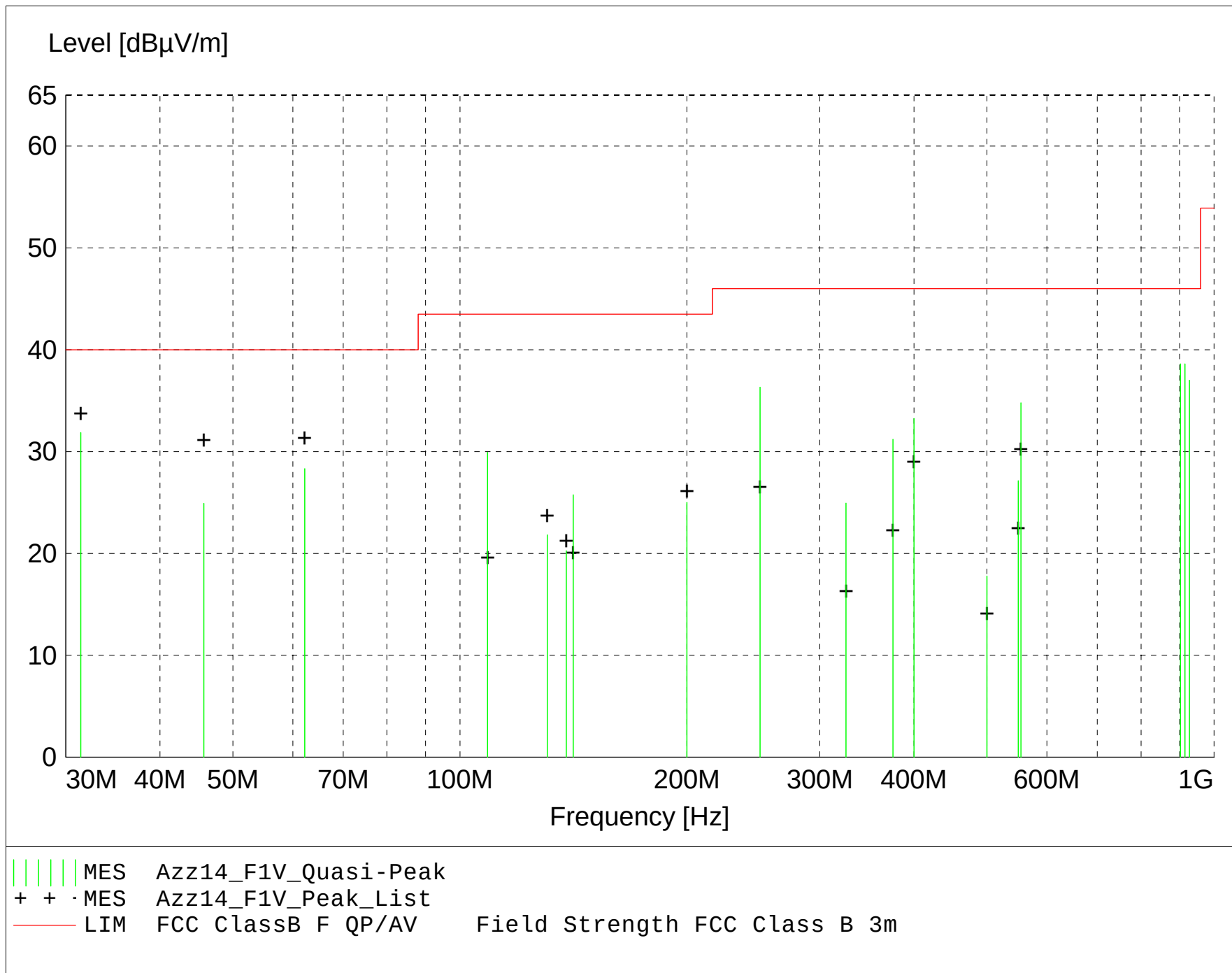
### **TEXT: "Site 3 MidV 3M"**

Short Description: Test Set-up Vert30-1000MHz  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 26 SN: 837491/010

Antennas ---  
Biconical -- EMC0 3104C SN: 9701-4785  
Log Periodic -- EMC0 3146 SN: 9702-4895

Pre-Amp --- Rohde&Schwarz TS-PR10 SN: 032001/005

TEST SET-UP: EuT Measured at 3 Meters with VERTICAL Antenna Polarisation



# MEASUREMENT RESULT: "Azz14\_F1V\_Final"

11/30/2004 12:34PM

| Frequency  | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz        | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 915.130000 | 34.76 | 22.36             | -18.5          | 38.6           | 46.0   | 7.4    | 1.10                | 315                 | QUASI-PEAK        | None    |
| 902.990000 | 34.81 | 22.28             | -18.5          | 38.6           | 46.0   | 7.4    | 1.10                | 315                 | QUASI-PEAK        | None    |
| 31.405000  | 45.08 | 11.48             | -24.7          | 31.9           | 40.0   | 8.1    | 1.00                | 180                 | QUASI-PEAK        | None    |
| 927.190000 | 32.76 | 22.38             | -18.2          | 37.0           | 46.0   | 9.0    | 1.10                | 315                 | QUASI-PEAK        | None    |
| 250.000000 | 45.96 | 12.56             | -22.2          | 36.3           | 46.0   | 9.7    | 1.00                | 0                   | QUASI-PEAK        | None    |
| 554.320000 | 36.73 | 18.69             | -20.6          | 34.8           | 46.0   | 11.2   | 1.10                | 135                 | QUASI-PEAK        | None    |
| 62.225000  | 43.10 | 9.21              | -24.0          | 28.3           | 40.0   | 11.7   | 1.00                | 135                 | QUASI-PEAK        | None    |
| 400.000000 | 38.79 | 15.85             | -21.4          | 33.2           | 46.0   | 12.8   | 1.70                | 270                 | QUASI-PEAK        | None    |
| 108.785000 | 40.69 | 12.55             | -23.3          | 29.9           | 43.5   | 13.6   | 1.00                | 0                   | QUASI-PEAK        | None    |
| 375.000000 | 37.36 | 15.25             | -21.4          | 31.2           | 46.0   | 14.8   | 1.00                | 225                 | QUASI-PEAK        | None    |
| 45.750000  | 37.35 | 11.80             | -24.2          | 24.9           | 40.0   | 15.1   | 1.00                | 270                 | QUASI-PEAK        | None    |
| 141.225000 | 36.75 | 12.09             | -23.1          | 25.8           | 43.5   | 17.7   | 1.00                | 30                  | QUASI-PEAK        | None    |
| 200.000000 | 30.72 | 17.01             | -22.7          | 25.0           | 43.5   | 18.5   | 1.00                | 90                  | QUASI-PEAK        | None    |
| 550.000000 | 29.25 | 18.58             | -20.7          | 27.1           | 46.0   | 18.9   | 1.00                | 180                 | QUASI-PEAK        | None    |
| 325.000000 | 31.49 | 15.10             | -21.7          | 24.9           | 46.0   | 21.1   | 1.00                | 180                 | QUASI-PEAK        | None    |
| 130.515000 | 32.39 | 12.59             | -23.2          | 21.8           | 43.5   | 21.7   | 1.00                | 180                 | QUASI-PEAK        | None    |
| 138.300000 | 31.28 | 12.13             | -23.1          | 20.3           | 43.5   | 23.2   | 1.00                | 30                  | QUASI-PEAK        | None    |
| 500.000000 | 20.76 | 17.82             | -20.8          | 17.8           | 46.0   | 28.2   | 1.00                | 180                 | QUASI-PEAK        | None    |

## **FCC Part 15 Class B**

### **Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification:  
Comment: Unintentional; Rx mode; Tx harmonics in restricted bands  
Date: 11-17-2004

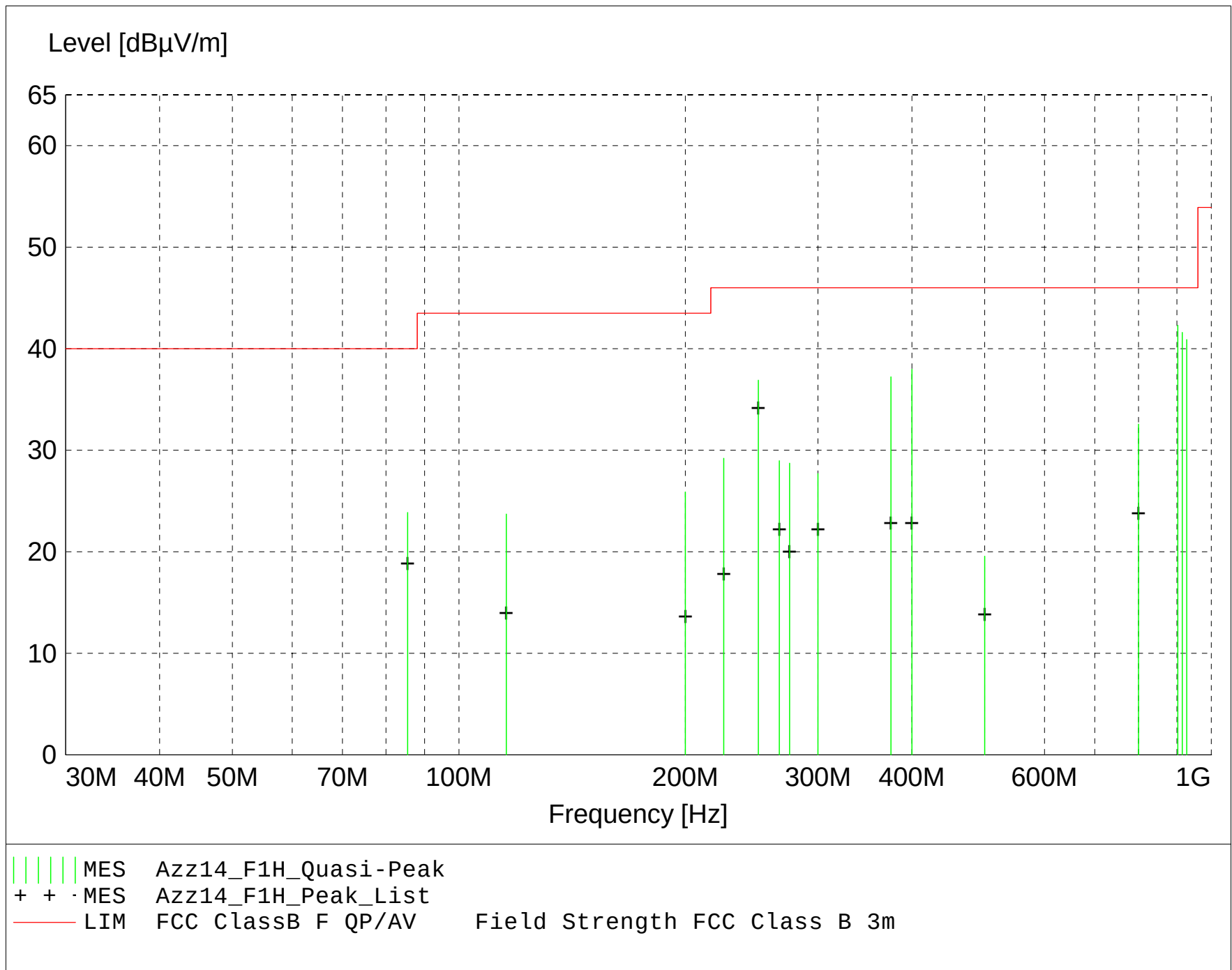
### **TEXT: "Site 3 MidH 3M"**

Short Description: Test Set-up Horz30-1000MHz  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006

Antennas ---  
Biconical -- EMC0 3104C SN: 9701-4785  
Log Periodic -- EMC0 3146 SN: 9702-4895

Pre-Amp --- Rohde&Schwarz TS-PR10 SN: 032001/005

TEST SET-UP: EuT Measured at 3 Meters with HORIZONTAL Antenna Polarisation



**MEASUREMENT RESULT: "Azz14\_F1H\_Final"**

11/30/2004 12:39PM

| Frequency  | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz        | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 902.990000 | 38.47 | 22.28             | -18.5          | 42.3           | 46.0   | 3.7    | 1.10                | 150                 | QUASI-PEAK        | None    |
| 915.130000 | 37.67 | 22.36             | -18.5          | 41.6           | 46.0   | 4.4    | 1.10                | 150                 | QUASI-PEAK        | None    |
| 927.200000 | 36.66 | 22.38             | -18.2          | 40.9           | 46.0   | 5.1    | 1.10                | 150                 | QUASI-PEAK        | None    |
| 400.000000 | 43.51 | 15.85             | -21.4          | 38.0           | 46.0   | 8.0    | 1.00                | 315                 | QUASI-PEAK        | None    |
| 375.000000 | 43.39 | 15.25             | -21.4          | 37.2           | 46.0   | 8.8    | 1.00                | 315                 | QUASI-PEAK        | None    |
| 250.000000 | 46.53 | 12.56             | -22.2          | 36.9           | 46.0   | 9.1    | 1.50                | 315                 | QUASI-PEAK        | None    |
| 800.000000 | 30.65 | 21.32             | -19.4          | 32.6           | 46.0   | 13.4   | 1.80                | 180                 | QUASI-PEAK        | None    |
| 85.455000  | 39.53 | 8.14              | -23.8          | 23.9           | 40.0   | 16.1   | 2.50                | 135                 | QUASI-PEAK        | None    |
| 225.000000 | 40.03 | 11.44             | -22.3          | 29.2           | 46.0   | 16.8   | 2.20                | 315                 | QUASI-PEAK        | None    |
| 266.660000 | 37.83 | 13.16             | -22.0          | 29.0           | 46.0   | 17.0   | 1.00                | 315                 | QUASI-PEAK        | None    |
| 275.000000 | 37.07 | 13.61             | -22.0          | 28.7           | 46.0   | 17.3   | 1.00                | 270                 | QUASI-PEAK        | None    |
| 200.000000 | 31.59 | 17.01             | -22.7          | 25.9           | 43.5   | 17.6   | 1.50                | 270                 | QUASI-PEAK        | None    |
| 300.000000 | 34.54 | 14.96             | -21.8          | 27.7           | 46.0   | 18.3   | 1.40                | 315                 | QUASI-PEAK        | None    |
| 115.610000 | 33.99 | 13.03             | -23.3          | 23.7           | 43.5   | 19.8   | 3.00                | 90                  | QUASI-PEAK        | None    |
| 500.000000 | 22.55 | 17.82             | -20.8          | 19.6           | 46.0   | 26.4   | 1.00                | 90                  | QUASI-PEAK        | None    |



Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

### 6.0 FIELD STRENGTH OF SPURIOUS EMISSION MEASUREMENTS

The radiated measurements made at D.L.S. Electronic Systems, Inc., for the R110XiIII Plus, Model Number: 110XiIII, are shown in tabulated and graph form. Preliminary radiation measurements were performed at a 3 meter test distance with the limits adjusted linearly when required. The frequency range from 30 MHz to over 960 MHz, depending upon the fundamental frequency as stated in Part 15.33a, was automatically scanned and plotted at various angles.

Measurements for the R110XiIII Plus were made up to 10000 MHz, in accordance with Section 15.33a for Intentional Radiators with a fundamental frequency of 928 MHz. For intentional radiators, the frequency range to be investigated is determined by the lowest radio frequency generated by the device without going below 30 MHz, up to at least the tenth harmonic of the highest fundamental frequency or 10 GHz, whichever is lower. At those frequencies where significant signals were detected, measurements were made over the entire frequency range specified in FCC Part 15, Subpart C, Section 15.247 at the open field test site, located at Genoa City, Wisconsin, FCC file number **31040/SIT**. When required, levels were extrapolated from 10 meters to 3 meters using a linear extrapolation.

All signals in the frequency range of 30 MHz to 2000 MHz were measured with a Biconical Antenna or tuned dipoles and from 200 MHz to 1000 MHz, a Log Periodic or Tuned Dipoles were used. From 1000 MHz to 25 GHz Horn Antennas were used. During the test the equipment was rotated and the antenna was raised and lowered from 1 meter to 4 meters to find the maximum level of emissions. In order to find maximum emissions, the cables were moved through all the positions the equipment would be expected to experience in the field. The EUT, peripheral equipment and cables were configured to meet the conditions in ANSI C63.4-2001, Clauses 6 & 8. Tests were made with the receive antenna(s) in both the horizontal and vertical planes of polarization. In each case, the table was rotated to find the maximum emissions.





Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

### 6.0 FIELD STRENGTH OF SPURIOUS EMISSION MEASUREMENTS (CON'T)

As stated in Section 15.247(b) the allowed maximum peak output power of the transmitter shall not exceed 1 Watt. In any 100 kHz bandwidth outside these frequency bands (the power that is produced by the modulation products of the spreading sequence), the information sequence and the carrier frequency shall be either at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power. Attenuation below the general limits specified in 15.209 is not required.

Field strength limits are at a distance of 3 meters. The emission limits shown are based on measurement instrumentation employing an average detector.

Emissions radiated outside of the specified frequency bands, except for harmonics are attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

Preliminary radiated emission measurements were performed at a 3 meter test distance. The frequency range from 30 MHz to 1000 MHz was automatically scanned and plotted at various angles.

#### **NOTE:**

All radiated emissions measurements were made at a test room temperature of **71°F** at **44%** relative humidity.



Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

RADIATED DATA AND GRAPH(S) TAKEN FOR

FIELD STRENGTH

SPURIOUS EMISSION MEASUREMENTS

PART 15.247

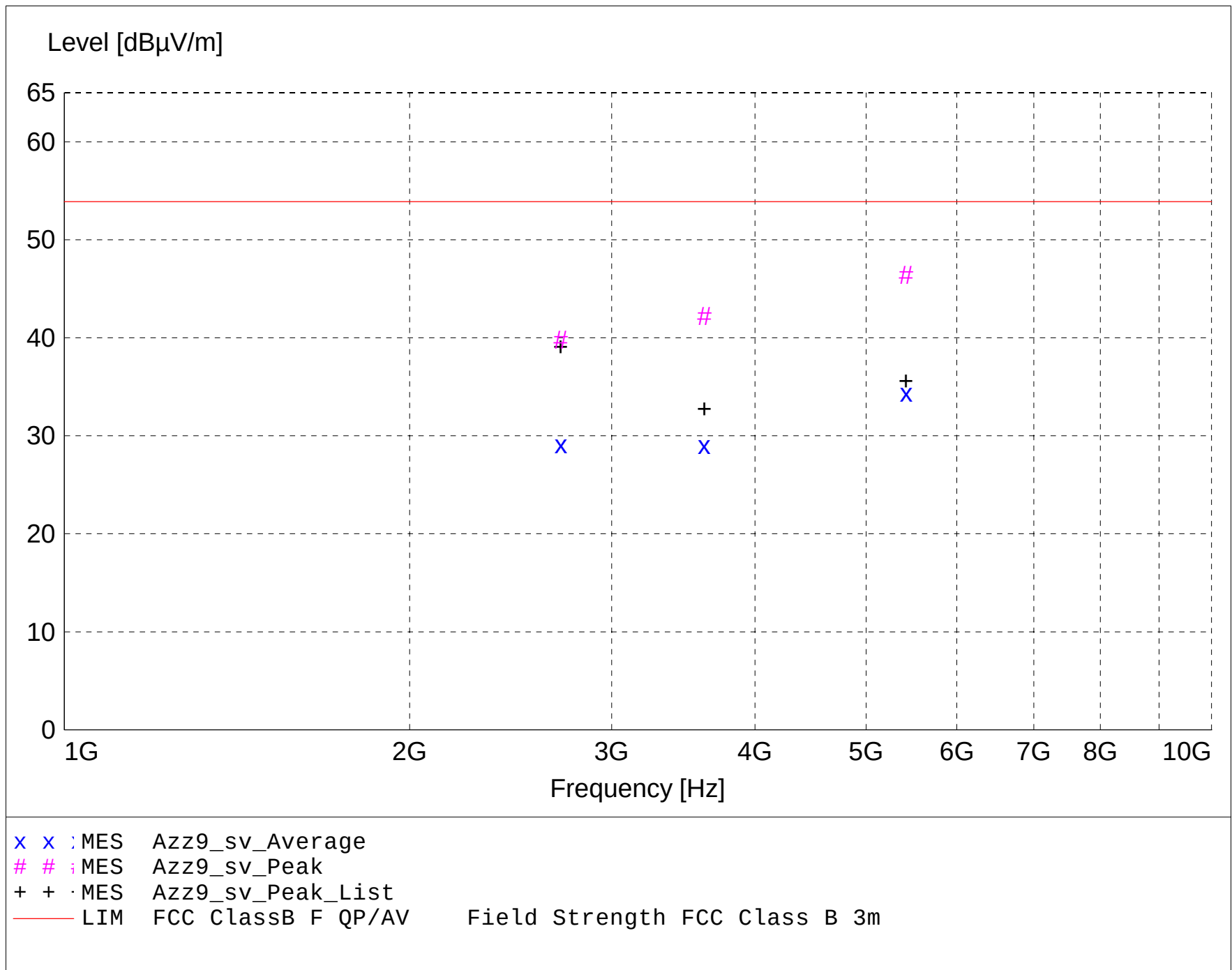
**FCC Part 15 Class B**

**Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification: Rx mode, Tx unintentional and harmonics in restricted bands  
Comment: Low Power; Low channel  
Date: 11-17-2004

**TEXT: "Site 3 5731&184 V3M"**

Short Description: Test Set-up Vert1GHz-  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006  
  
Horn Antenna --- EMC0 3115 SN: 9903-5731  
  
Pre-Amps ---  
1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 682425  
10 - 18 GHz -- Miteq AMF-6F-100200-50-10P SN: 668382  
  
TEST SET-UP: EuT Measured at 3 Meters with VERTICAL Antenna Polarisation



**MEASUREMENT RESULT: "Azz9\_sv\_Final"**

11/17/2004 1:30PM

| Frequency   | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|-------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz         | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 5417.950000 | 48.29 | 34.07             | -35.9          | 46.4           | 53.9   | 7.5    | 1.00                | 45                  | MAX PEAK          | None    |
| 3612.000000 | 48.15 | 31.51             | -37.5          | 42.2           | 53.9   | 11.7   | 1.70                | 90                  | MAX PEAK          | None    |
| 2709.000000 | 49.36 | 29.23             | -38.8          | 39.8           | 53.9   | 14.1   | 1.00                | 340                 | MAX PEAK          | None    |
| 5417.950000 | 36.24 | 34.07             | -35.9          | 34.4           | 53.9   | 19.5   | 1.00                | 45                  | AVERAGE           | None    |
| 2709.000000 | 38.64 | 29.23             | -38.8          | 29.1           | 53.9   | 24.8   | 1.00                | 340                 | AVERAGE           | None    |
| 3612.000000 | 34.96 | 31.51             | -37.5          | 29.0           | 53.9   | 24.9   | 1.70                | 90                  | AVERAGE           | None    |

**FCC Part 15 Class B**

**Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification: Rx mode, Tx unintentional and harmonics in restricted bands  
Comment: Low Power; Low channel  
Date: 11-17-2004

**TEXT: "Site 3 5731&184 H3M"**

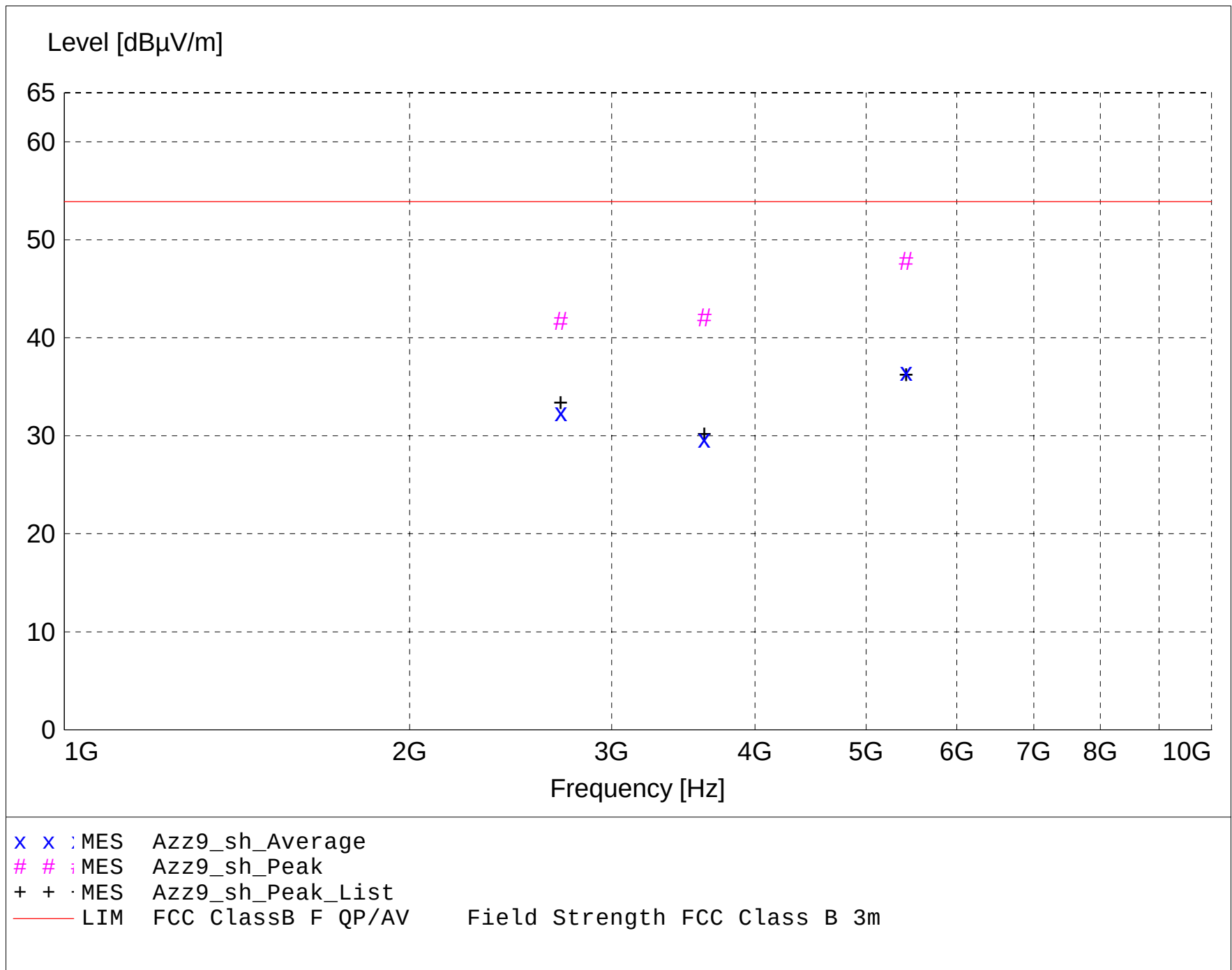
Short Description: Test Set-up Horz1GHz-  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006

Horn Antenna --- EMC0 3115 SN: 9903-5731

Pre-Amps ---

1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 682425  
10 - 18 GHz -- Miteq AMF-6F-100200-50-10P SN: 668382

TEST SET-UP: EuT Measured at 3 Meters with HORIZONTAL Antenna Polarisation



**MEASUREMENT RESULT: "Azz9\_sh\_Final"**

11/17/2004 1:35PM

| Frequency   | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|-------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz         | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 5417.950000 | 49.64 | 34.07             | -35.9          | 47.8           | 53.9   | 6.1    | 1.00                | 135                 | MAX PEAK          | None    |
| 3612.000000 | 48.02 | 31.51             | -37.5          | 42.1           | 53.9   | 11.8   | 1.10                | 30                  | MAX PEAK          | None    |
| 2709.000000 | 51.23 | 29.23             | -38.8          | 41.7           | 53.9   | 12.2   | 1.00                | 270                 | MAX PEAK          | None    |
| 5417.950000 | 38.34 | 34.07             | -35.9          | 36.5           | 53.9   | 17.4   | 1.00                | 135                 | AVERAGE           | None    |
| 2709.000000 | 41.96 | 29.23             | -38.8          | 32.4           | 53.9   | 21.5   | 1.00                | 270                 | AVERAGE           | None    |
| 3612.000000 | 35.63 | 31.51             | -37.5          | 29.7           | 53.9   | 24.2   | 1.10                | 30                  | AVERAGE           | None    |



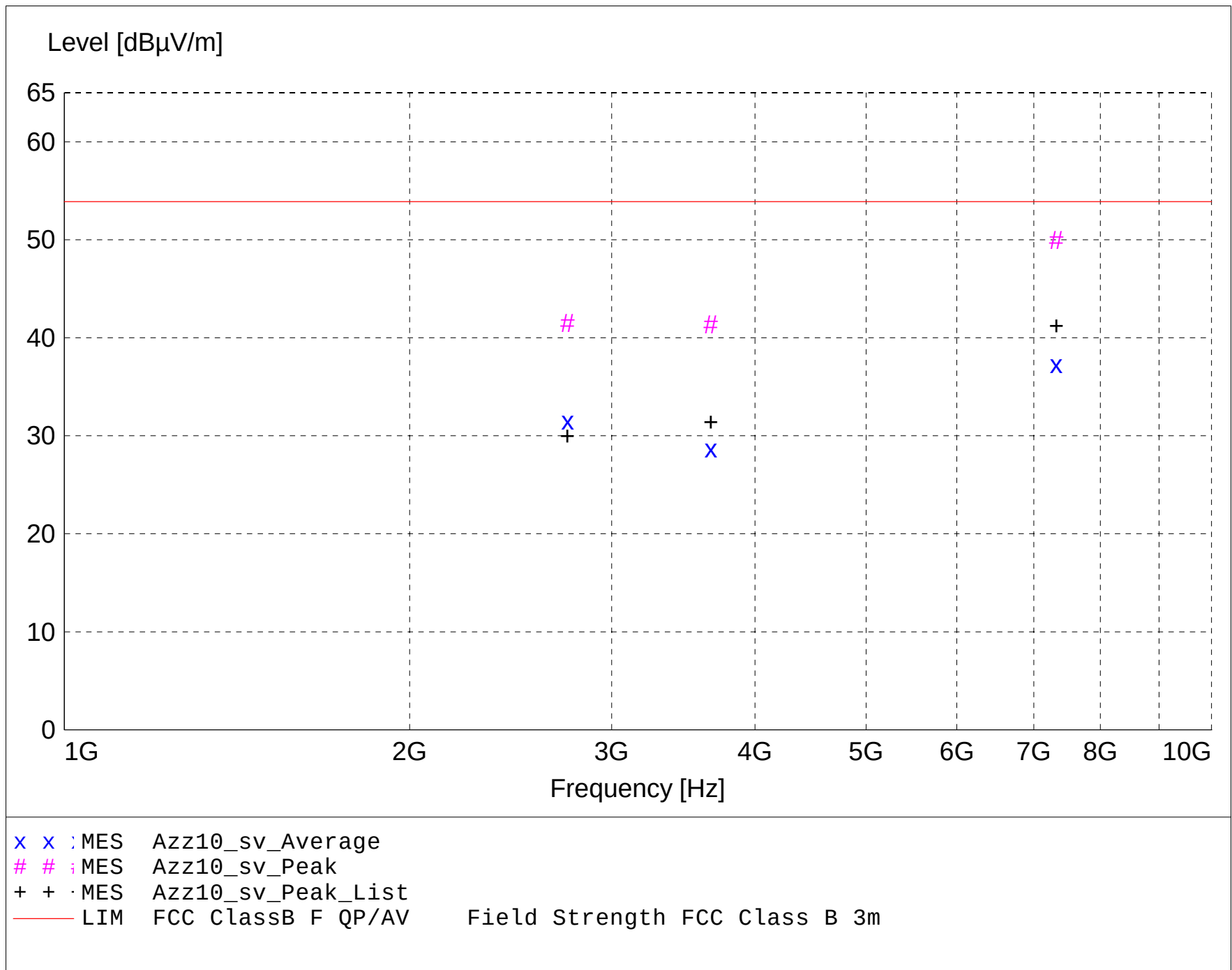
## **FCC Part 15 Class B**

### **Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification: Rx mode, Tx unintentional and harmonics in restricted bands  
Comment: Low Power; Mid channel  
Date: 11-17-2004

### **TEXT: "Site 3 5731&184 V3M"**

Short Description: Test Set-up Vert1GHz-  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006  
Horn Antenna --- EMC0 3115 SN: 9903-5731  
Pre-Amps ---  
1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 682425  
10 - 18 GHz -- Miteq AMF-6F-100200-50-10P SN: 668382  
TEST SET-UP: EuT Measured at 3 Meters with VERTICAL Antenna Polarisation



**MEASUREMENT RESULT: "Azz10\_sv\_Final"**

11/17/2004 1:43PM

| Frequency   | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|-------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz         | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 7321.000000 | 48.28 | 35.97             | -34.3          | 49.9           | 53.9   | 4.0    | 1.00                | 135                 | MAX PEAK          | None    |
| 2745.400000 | 50.70 | 29.34             | -38.5          | 41.5           | 53.9   | 12.4   | 1.00                | 0                   | MAX PEAK          | None    |
| 3660.500000 | 47.19 | 31.65             | -37.5          | 41.3           | 53.9   | 12.6   | 1.00                | 180                 | MAX PEAK          | None    |
| 7321.000000 | 35.61 | 35.97             | -34.3          | 37.3           | 53.9   | 16.6   | 1.00                | 135                 | AVERAGE           | None    |
| 2745.400000 | 40.75 | 29.34             | -38.5          | 31.5           | 53.9   | 22.4   | 1.00                | 0                   | AVERAGE           | None    |
| 3660.500000 | 34.58 | 31.65             | -37.5          | 28.7           | 53.9   | 25.2   | 1.00                | 180                 | AVERAGE           | None    |

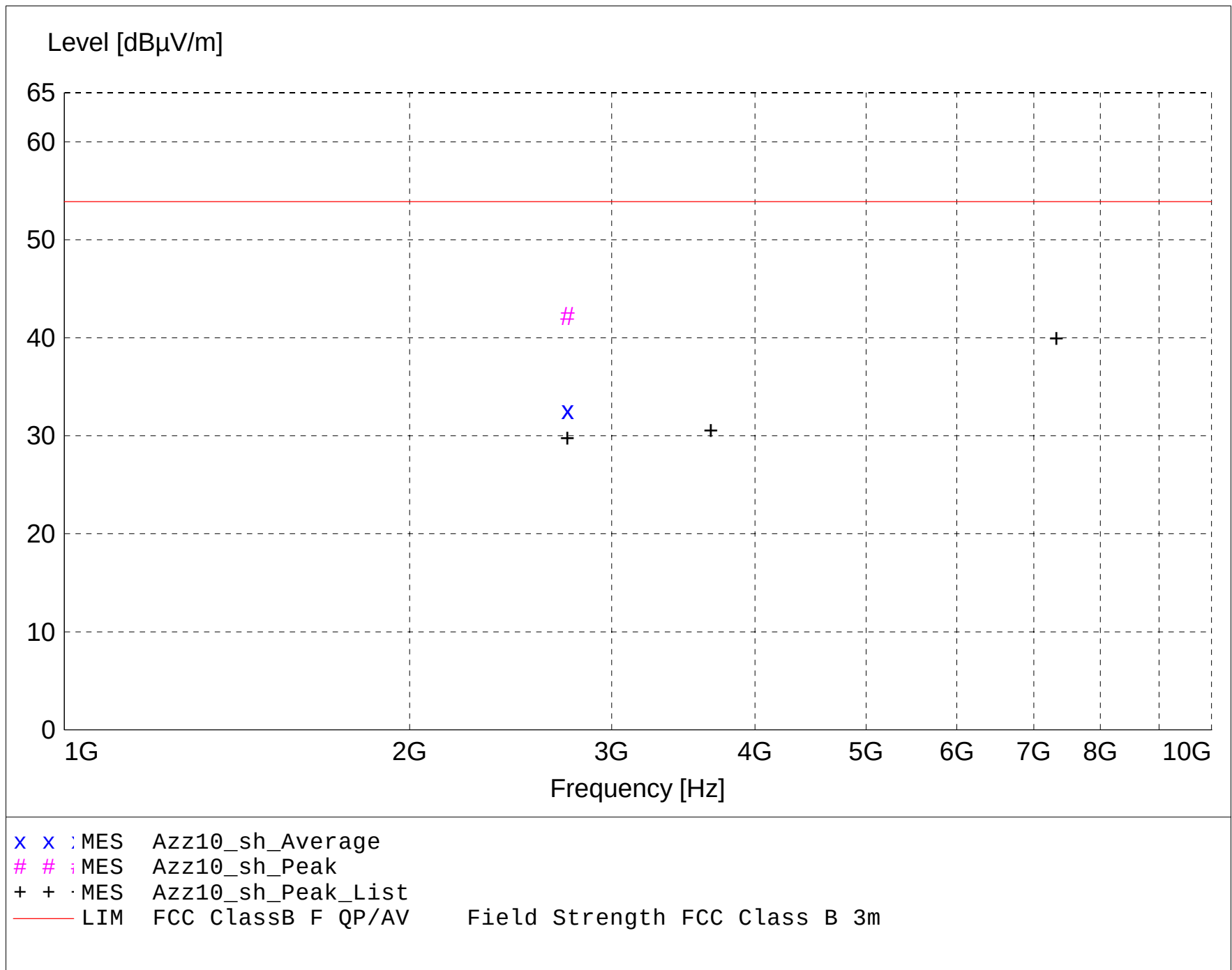
## **FCC Part 15 Class B**

### **Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification: Rx mode, Tx unintentional and harmonics in restricted bands  
Comment: Low Power; Mid channel  
Date: 11-17-2004

### **TEXT: "Site 3 5731&184 H3M"**

Short Description: Test Set-up Horz1GHz-  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006  
Horn Antenna --- EMC0 3115 SN: 9903-5731  
Pre-Amps ---  
1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 682425  
10 - 18 GHz -- Miteq AMF-6F-100200-50-10P SN: 668382  
TEST SET-UP: EuT Measured at 3 Meters with HORIZONTAL Antenna Polarisation



**MEASUREMENT RESULT: "Azz10\_sh\_Final"**

11/17/2004 1:45PM

| Frequency   | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|-------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz         | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 2745.400000 | 51.37 | 29.34             | -38.5          | 42.2           | 53.9   | 11.7   | 1.30                | 180                 | MAX PEAK          | None    |
| 2745.400000 | 41.79 | 29.34             | -38.5          | 32.6           | 53.9   | 21.3   | 1.30                | 180                 | AVERAGE           | None    |

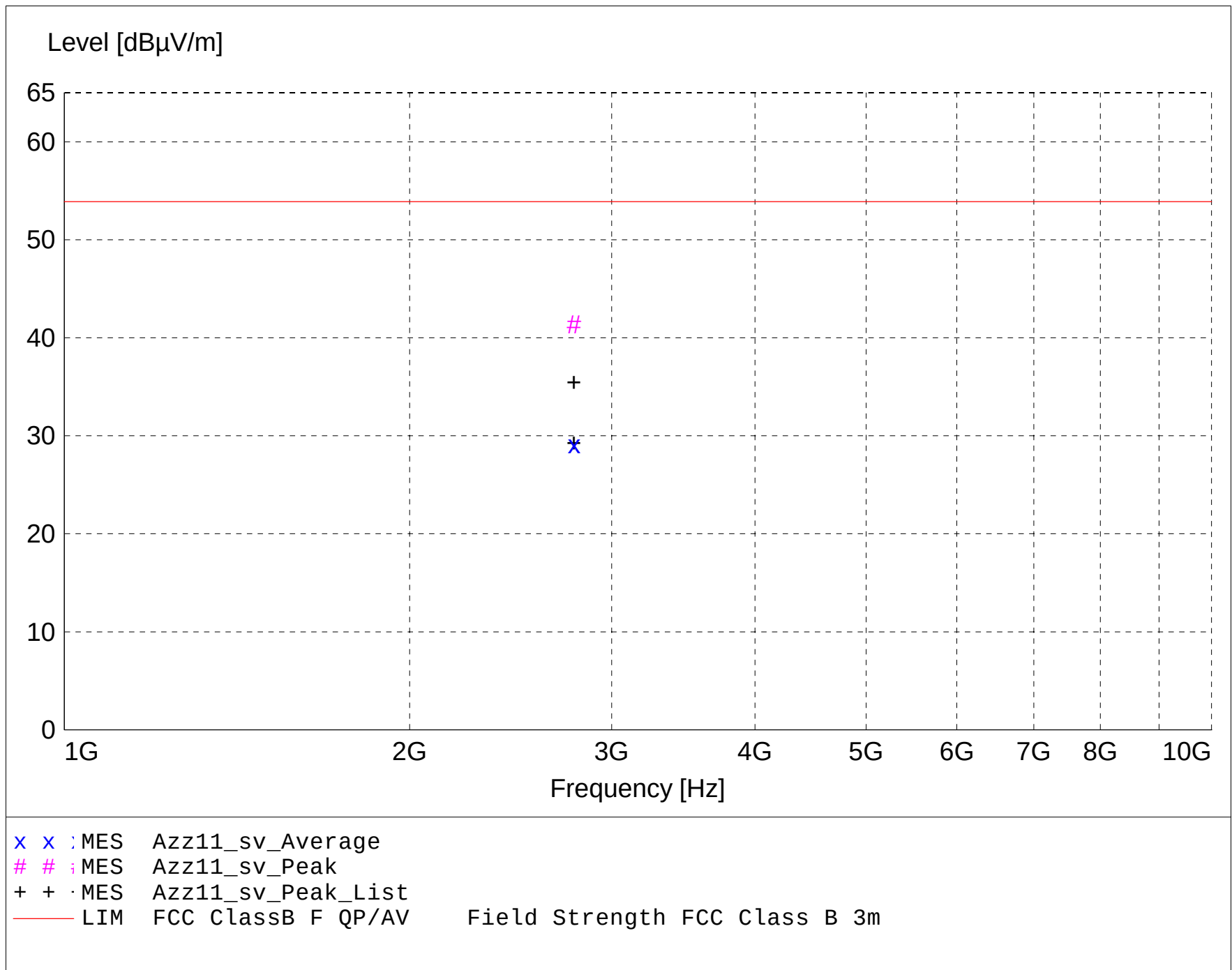
**FCC Part 15 Class B**

**Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification: Rx mode, Tx unintentional and harmonics in restricted bands  
Comment: Low Power; High channel  
Date: 11-17-2004

**TEXT: "Site 3 5731&184 V3M"**

Short Description: Test Set-up Vert1GHz-  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006  
  
Horn Antenna --- EMC0 3115 SN: 9903-5731  
  
Pre-Amps ---  
1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 682425  
10 - 18 GHz -- Miteq AMF-6F-100200-50-10P SN: 668382  
  
TEST SET-UP: EuT Measured at 3 Meters with VERTICAL Antenna Polarisation





**MEASUREMENT RESULT: "Azz11\_sv\_Final"**

11/17/2004 1:48PM

| Frequency   | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|-------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz         | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 2781.600000 | 50.32 | 29.44             | -38.4          | 41.4           | 53.9   | 12.5   | 1.10                | 0                   | MAX PEAK          | None    |
| 2781.600000 | 38.01 | 29.44             | -38.4          | 29.1           | 53.9   | 24.8   | 1.10                | 0                   | AVERAGE           | None    |

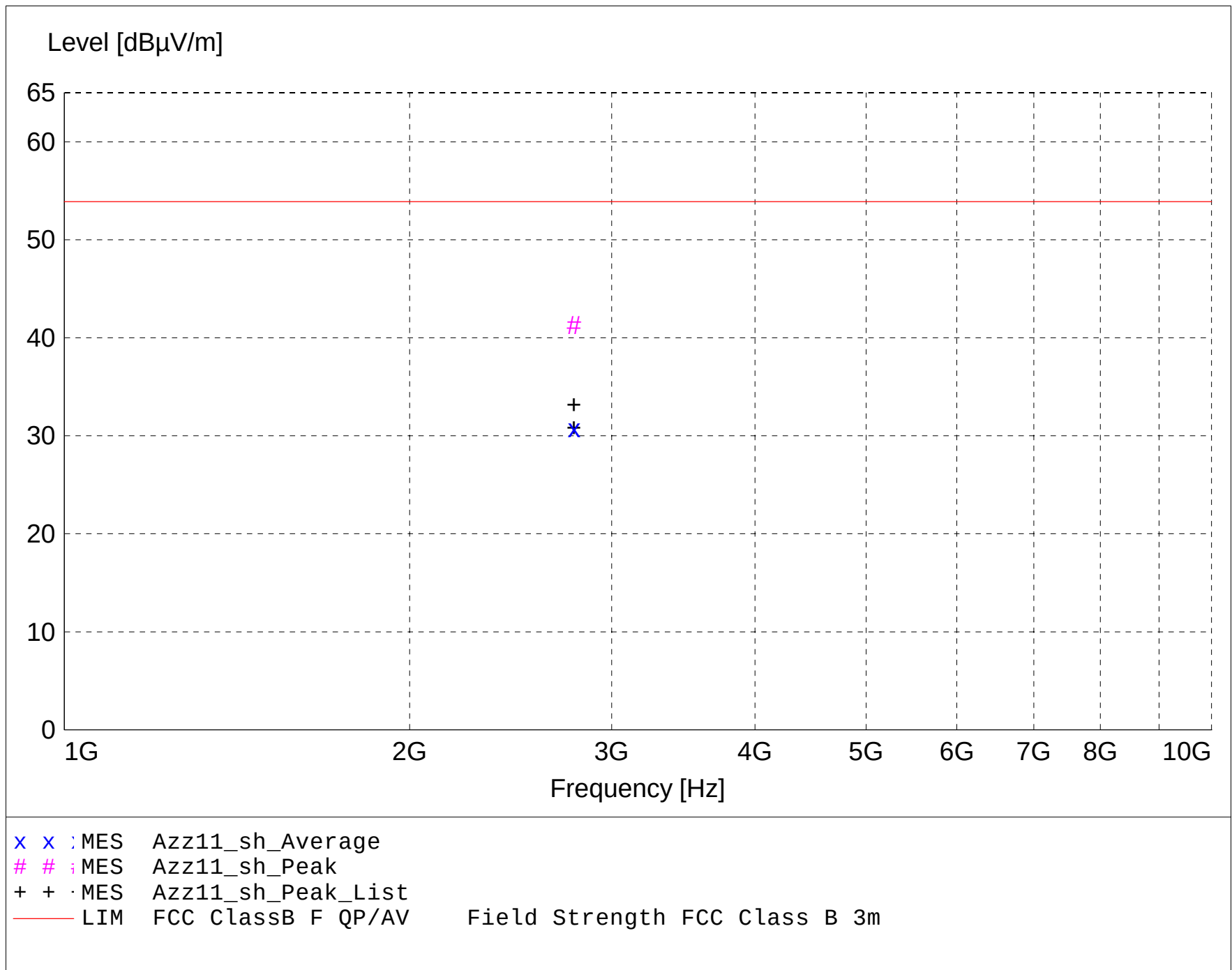
**FCC Part 15 Class B**

**Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification: Rx mode, Tx unintentional and harmonics in restricted bands  
Comment: Low Power; High channel  
Date: 11-17-2004

**TEXT: "Site 3 5731&184 H3M"**

Short Description: Test Set-up Horz1GHz-  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006  
Horn Antenna --- EMC0 3115 SN: 9903-5731  
Pre-Amps ---  
1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 682425  
10 - 18 GHz -- Miteq AMF-6F-100200-50-10P SN: 668382  
TEST SET-UP: EuT Measured at 3 Meters with HORIZONTAL Antenna Polarisation



**MEASUREMENT RESULT: "Azz11\_sh\_Final"**

11/17/2004 1:55PM

| Frequency   | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|-------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz         | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 2781.600000 | 50.19 | 29.44             | -38.4          | 41.2           | 53.9   | 12.7   | 1.10                | 150                 | MAX PEAK          | None    |
| 2781.600000 | 39.65 | 29.44             | -38.4          | 30.7           | 53.9   | 23.2   | 1.10                | 150                 | AVERAGE           | None    |

**FCC Part 15 Class B**

**Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification: Rx mode, Tx unintentional and harmonics in restricted bands  
Comment: Mid Power; Low channel  
Date: 11-17-2004

**TEXT: "Site 3 5731&184 V3M"**

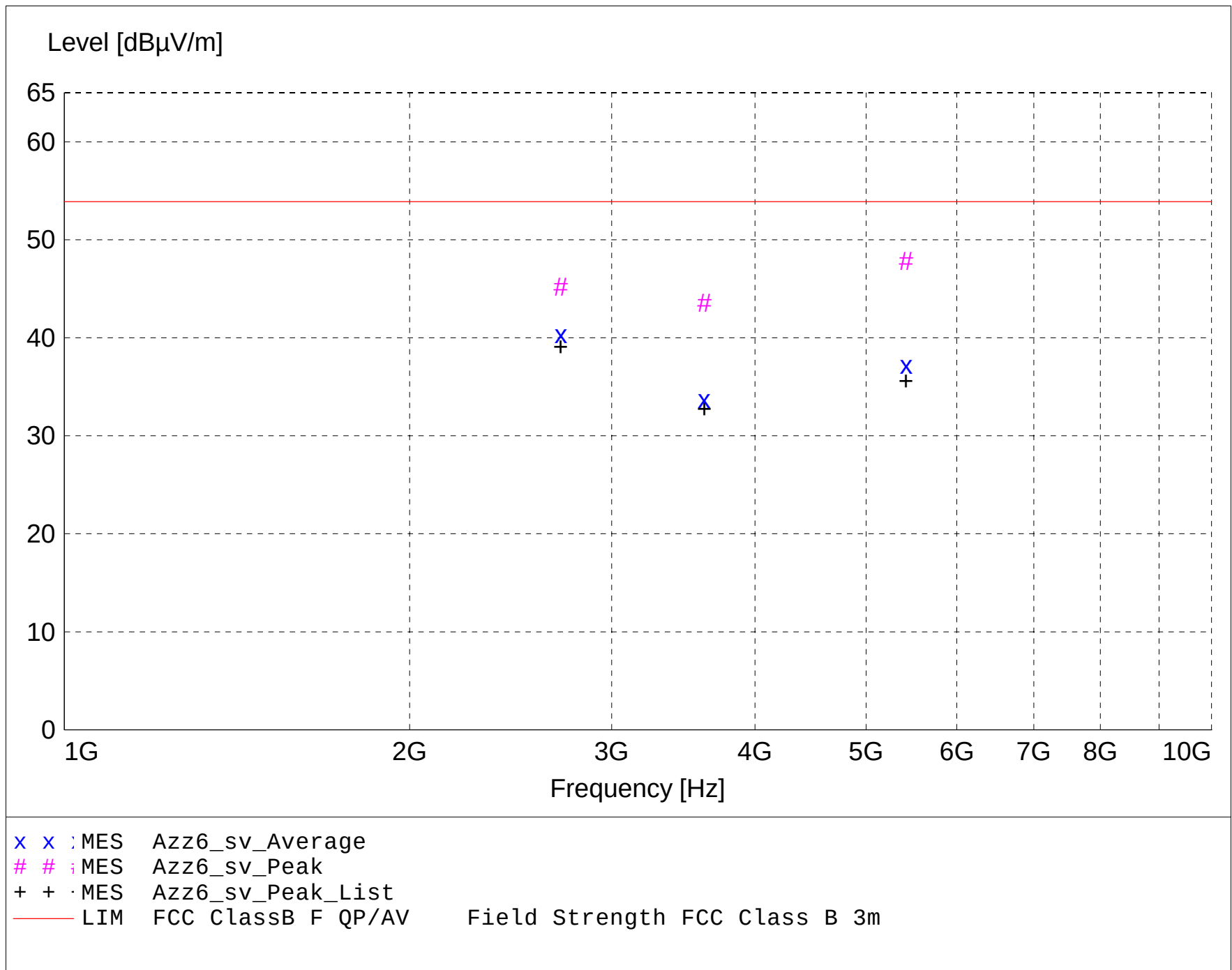
Short Description: Test Set-up Vert1GHz-  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006

Horn Antenna --- EMC0 3115 SN: 9903-5731

Pre-Amps ---

1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 682425  
10 - 18 GHz -- Miteq AMF-6F-100200-50-10P SN: 668382

TEST SET-UP: EuT Measured at 3 Meters with VERTICAL Antenna Polarisation



**MEASUREMENT RESULT: "Azz6\_sv\_Final"**

11/17/2004 12:58PM

| Frequency   | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|-------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz         | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 5417.950000 | 49.64 | 34.07             | -35.9          | 47.8           | 53.9   | 6.1    | 1.00                | 45                  | MAX PEAK          | None    |
| 2709.000000 | 54.72 | 29.23             | -38.8          | 45.2           | 53.9   | 8.7    | 1.00                | 0                   | MAX PEAK          | None    |
| 3612.000000 | 49.50 | 31.51             | -37.5          | 43.5           | 53.9   | 10.4   | 1.00                | 135                 | MAX PEAK          | None    |
| 2709.000000 | 49.89 | 29.23             | -38.8          | 40.3           | 53.9   | 13.6   | 1.00                | 0                   | AVERAGE           | None    |
| 5417.950000 | 39.06 | 34.07             | -35.9          | 37.2           | 53.9   | 16.7   | 1.00                | 45                  | AVERAGE           | None    |
| 3612.000000 | 39.71 | 31.51             | -37.5          | 33.7           | 53.9   | 20.2   | 1.00                | 135                 | AVERAGE           | None    |

**FCC Part 15 Class B**

**Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification: Rx mode, Tx unintentional and harmonics in restricted bands  
Comment: Mid Power; Low channel  
Date: 11-17-2004

**TEXT: "Site 3 5731&184 H3M"**

Short Description: Test Set-up Horz1GHz-  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006

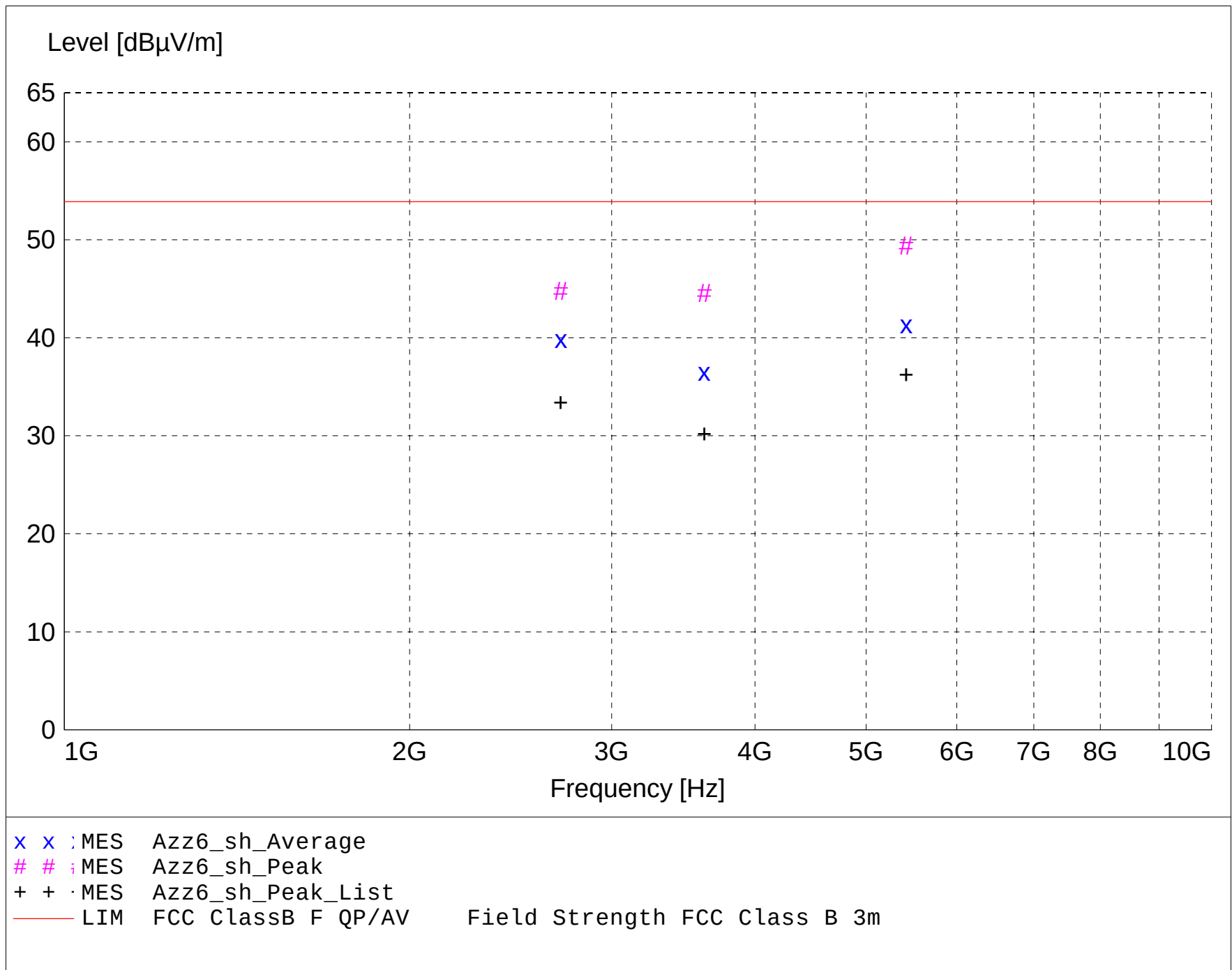
Horn Antenna --- EMC0 3115 SN: 9903-5731

Pre-Amps ---

1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 682425  
10 - 18 GHz -- Miteq AMF-6F-100200-50-10P SN: 668382

TEST SET-UP: EuT Measured at 3 Meters with HORIZONTAL Antenna Polarisation





**MEASUREMENT RESULT: "Azz6\_sh\_Final"**

11/17/2004 1:03PM

| Frequency   | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|-------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz         | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 5417.950000 | 51.23 | 34.07             | -35.9          | 49.4           | 53.9   | 4.5    | 1.00                | 135                 | MAX PEAK          | None    |
| 2709.000000 | 54.31 | 29.23             | -38.8          | 44.7           | 53.9   | 9.2    | 1.10                | 135                 | MAX PEAK          | None    |
| 3612.000000 | 50.45 | 31.51             | -37.5          | 44.5           | 53.9   | 9.4    | 1.20                | 30                  | MAX PEAK          | None    |
| 5417.950000 | 43.22 | 34.07             | -35.9          | 41.4           | 53.9   | 12.5   | 1.00                | 135                 | AVERAGE           | None    |
| 2709.000000 | 49.40 | 29.23             | -38.8          | 39.8           | 53.9   | 14.1   | 1.10                | 135                 | AVERAGE           | None    |
| 3612.000000 | 42.48 | 31.51             | -37.5          | 36.5           | 53.9   | 17.4   | 1.20                | 30                  | AVERAGE           | None    |

**FCC Part 15 Class B**

**Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification: Rx mode, Tx unintentional and harmonics in restricted bands  
Comment: Mid Power; Mid channel  
Date: 11-17-2004

**TEXT: "Site 3 5731&184 V3M"**

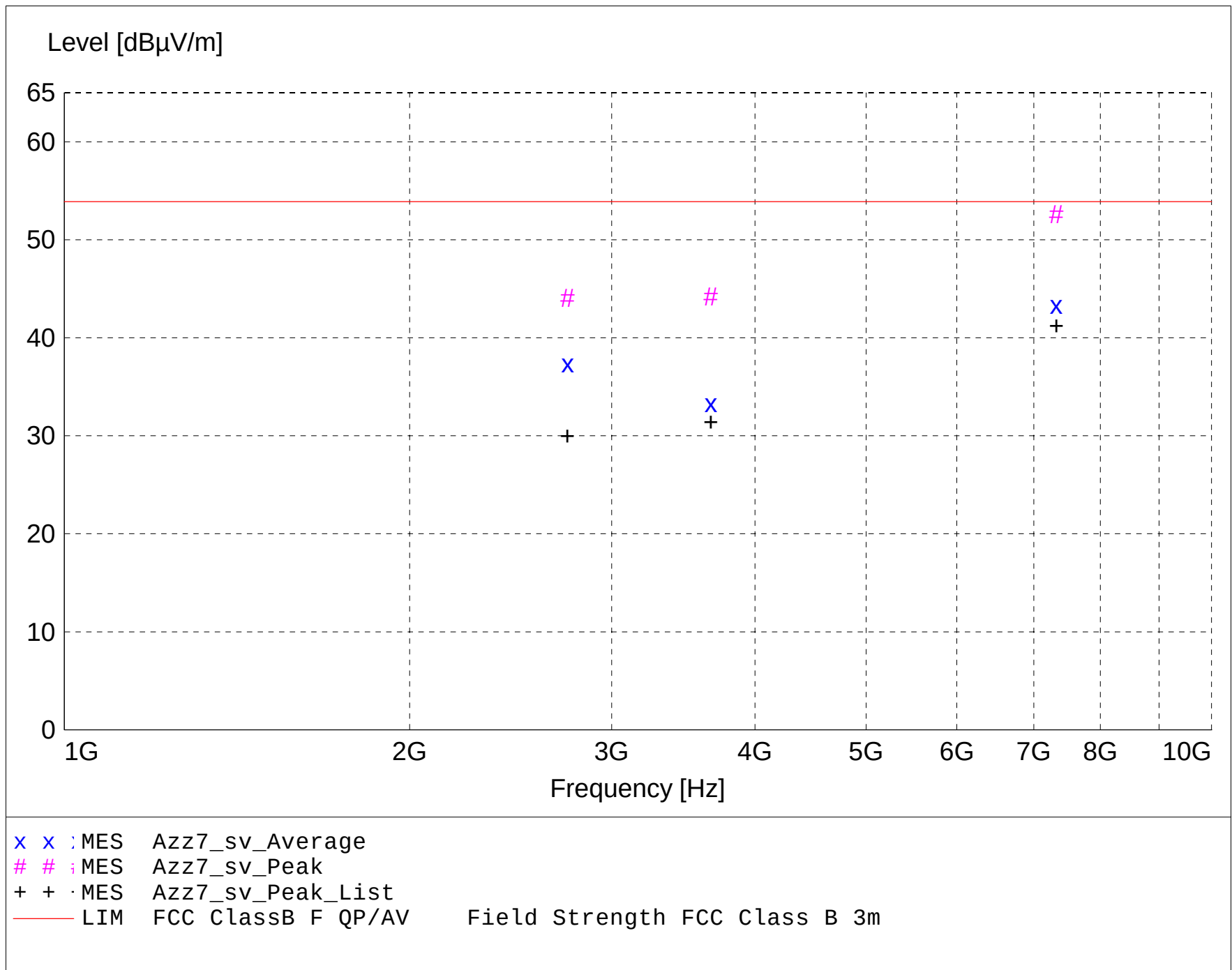
Short Description: Test Set-up Vert1GHz-  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006

Horn Antenna --- EMC0 3115 SN: 9903-5731

Pre-Amps ---

1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 682425  
10 - 18 GHz -- Miteq AMF-6F-100200-50-10P SN: 668382

TEST SET-UP: EuT Measured at 3 Meters with VERTICAL Antenna Polarisation



**MEASUREMENT RESULT: "Azz7\_sv\_Final"**

11/17/2004 1:09PM

| Frequency   | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|-------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz         | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 7321.000000 | 50.96 | 35.97             | -34.3          | 52.6           | 53.9   | 1.3    | 1.00                | 160                 | MAX PEAK          | None    |
| 3660.500000 | 50.06 | 31.65             | -37.5          | 44.2           | 53.9   | 9.7    | 1.00                | 90                  | MAX PEAK          | None    |
| 2745.400000 | 53.25 | 29.34             | -38.5          | 44.0           | 53.9   | 9.9    | 1.00                | 0                   | MAX PEAK          | None    |
| 7321.000000 | 41.64 | 35.97             | -34.3          | 43.3           | 53.9   | 10.6   | 1.00                | 160                 | AVERAGE           | None    |
| 2745.400000 | 46.57 | 29.34             | -38.5          | 37.4           | 53.9   | 16.5   | 1.00                | 0                   | AVERAGE           | None    |
| 3660.500000 | 39.20 | 31.65             | -37.5          | 33.3           | 53.9   | 20.6   | 1.00                | 90                  | AVERAGE           | None    |

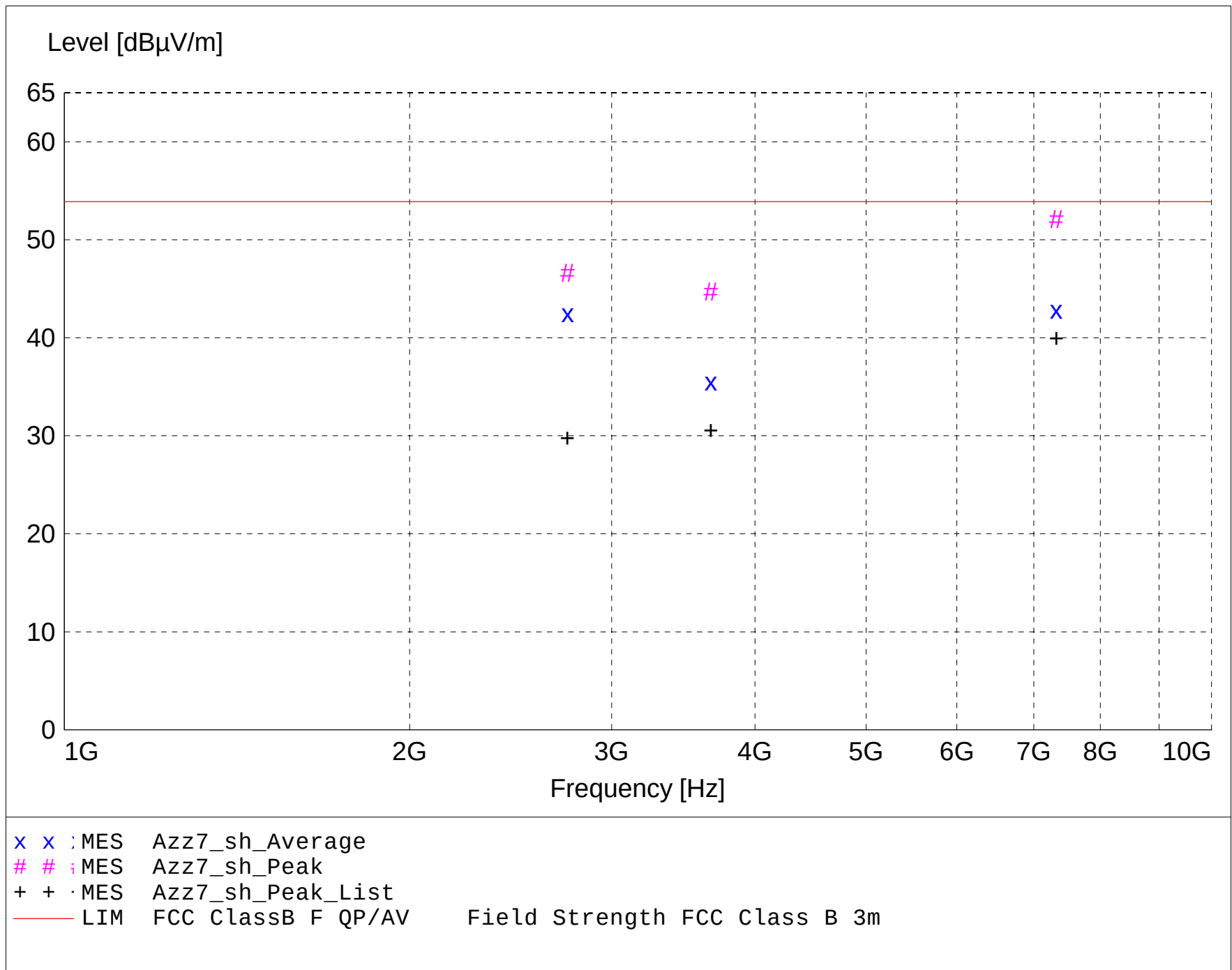
**FCC Part 15 Class B**

**Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification: Rx mode, Tx unintentional and harmonics in restricted bands  
Comment: Mid Power; Mid channel  
Date: 11-17-2004

**TEXT: "Site 3 5731&184 H3M"**

Short Description: Test Set-up Horz1GHz-  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006  
Horn Antenna --- EMC0 3115 SN: 9903-5731  
Pre-Amps ---  
1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 682425  
10 - 18 GHz -- Miteq AMF-6F-100200-50-10P SN: 668382  
TEST SET-UP: EuT Measured at 3 Meters with HORIZONTAL Antenna Polarisation



**MEASUREMENT RESULT: "Azz7\_sh\_Final"**

11/17/2004 1:14PM

| Frequency   | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|-------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz         | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 7321.000000 | 50.44 | 35.97             | -34.3          | 52.1           | 53.9   | 1.8    | 2.00                | 135                 | MAX PEAK          | None    |
| 2745.400000 | 55.81 | 29.34             | -38.5          | 46.6           | 53.9   | 7.3    | 1.30                | 180                 | MAX PEAK          | None    |
| 3660.500000 | 50.58 | 31.65             | -37.5          | 44.7           | 53.9   | 9.2    | 1.30                | 90                  | MAX PEAK          | None    |
| 7321.000000 | 41.17 | 35.97             | -34.3          | 42.8           | 53.9   | 11.1   | 2.00                | 135                 | AVERAGE           | None    |
| 2745.400000 | 51.65 | 29.34             | -38.5          | 42.5           | 53.9   | 11.4   | 1.30                | 180                 | AVERAGE           | None    |
| 3660.500000 | 41.43 | 31.65             | -37.5          | 35.5           | 53.9   | 18.4   | 1.30                | 90                  | AVERAGE           | None    |



**FCC Part 15 Class B**

**Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification: Rx mode, Tx unintentional and harmonics in restricted bands  
Comment: Mid Power; High channel  
Date: 11-17-2004

**TEXT: "Site 3 5731&184 V3M"**

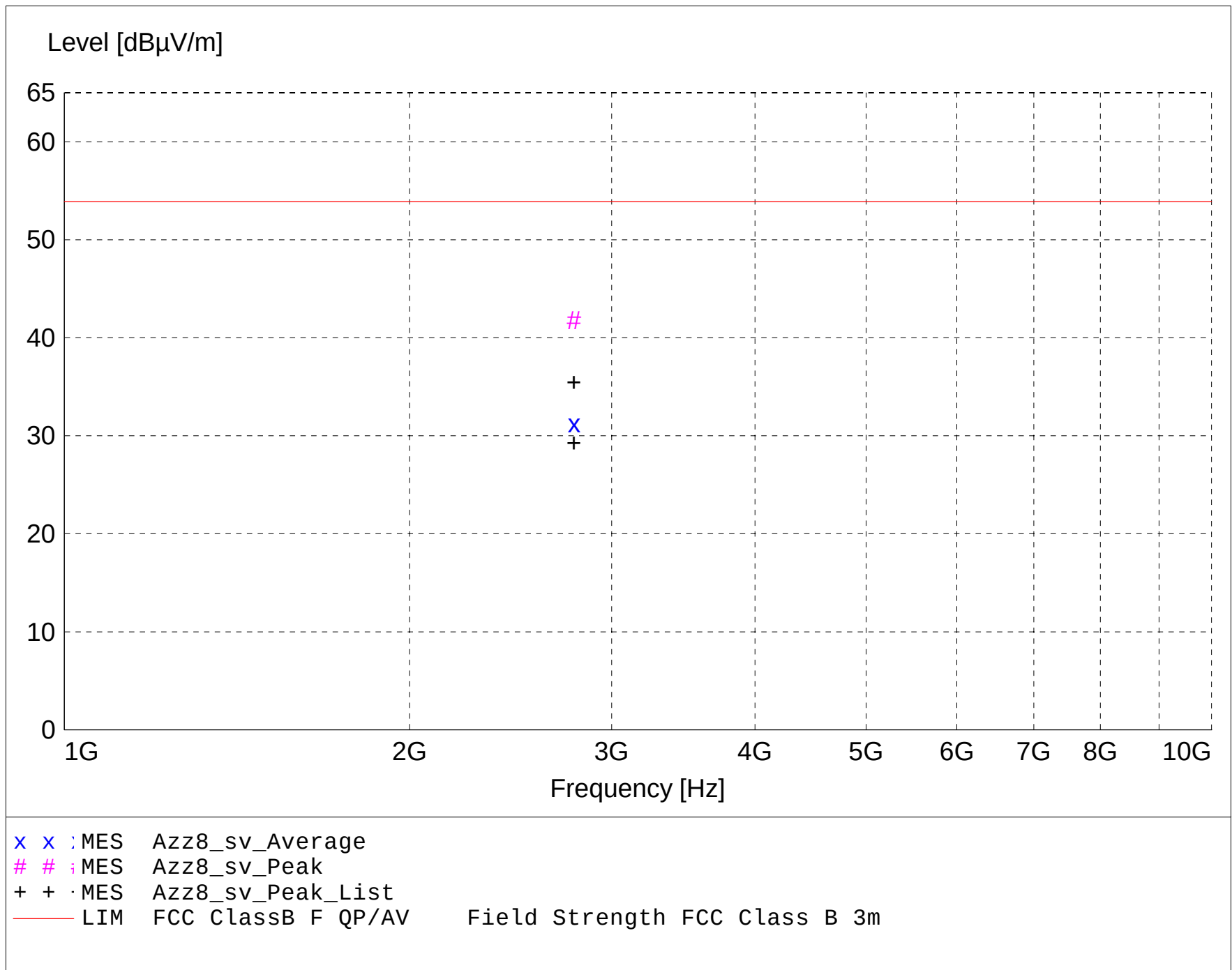
Short Description: Test Set-up Vert1GHz-  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006

Horn Antenna --- EMC0 3115 SN: 9903-5731

Pre-Amps ---

1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 682425  
10 - 18 GHz -- Miteq AMF-6F-100200-50-10P SN: 668382

TEST SET-UP: EuT Measured at 3 Meters with VERTICAL Antenna Polarisation



**MEASUREMENT RESULT: "Azz8\_sv\_Final"**

11/17/2004 1:19PM

| Frequency   | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|-------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz         | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 2781.550000 | 50.70 | 29.44             | -38.4          | 41.8           | 53.9   | 12.1   | 1.40                | 30                  | MAX PEAK          | None    |
| 2781.550000 | 40.18 | 29.44             | -38.4          | 31.2           | 53.9   | 22.7   | 1.40                | 30                  | AVERAGE           | None    |

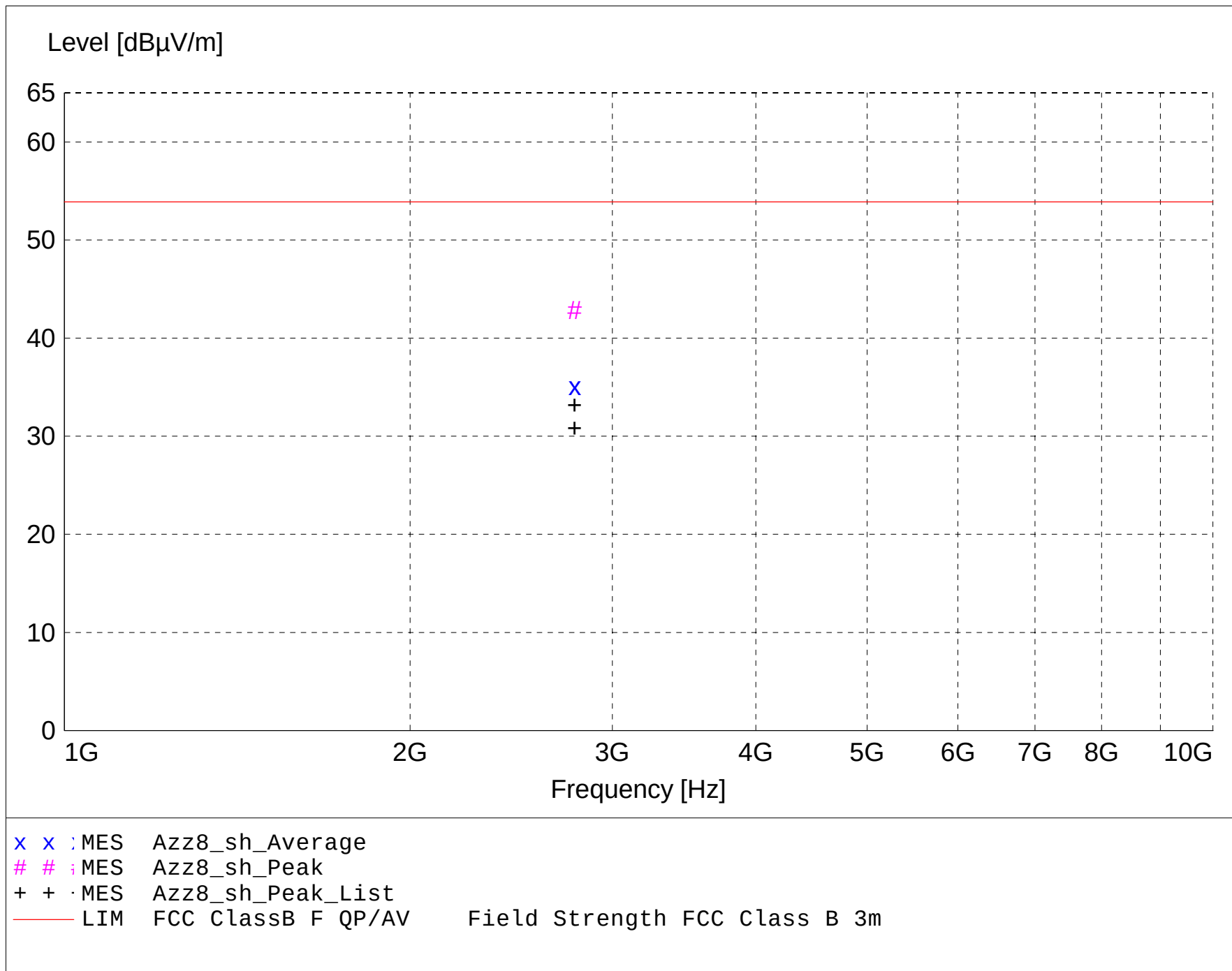
**FCC Part 15 Class B**

**Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification: Rx mode, Tx unintentional and harmonics in restricted bands  
Comment: Mid Power; High channel  
Date: 11-17-2004

**TEXT: "Site 3 5731&184 H3M"**

Short Description: Test Set-up Horz1GHz-  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006  
Horn Antenna --- EMC0 3115 SN: 9903-5731  
Pre-Amps ---  
1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 682425  
10 - 18 GHz -- Miteq AMF-6F-100200-50-10P SN: 668382  
TEST SET-UP: EuT Measured at 3 Meters with HORIZONTAL Antenna Polarisation



**MEASUREMENT RESULT: "Azz8\_sh\_Final"**

11/17/2004 1:22PM

| Frequency   | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|-------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz         | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 2781.600000 | 51.78 | 29.44             | -38.4          | 42.8           | 53.9   | 11.1   | 1.30                | 45                  | MAX PEAK          | None    |
| 2781.600000 | 44.02 | 29.44             | -38.4          | 35.1           | 53.9   | 18.8   | 1.30                | 45                  | AVERAGE           | None    |

**FCC Part 15 Class B**

**Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification: Rx mode, Tx unintentional and harmonics in restricted bands  
Comment: High Power; Low channel  
Date: 11-17-2004

**TEXT: "Site 3 5731&184 V3M"**

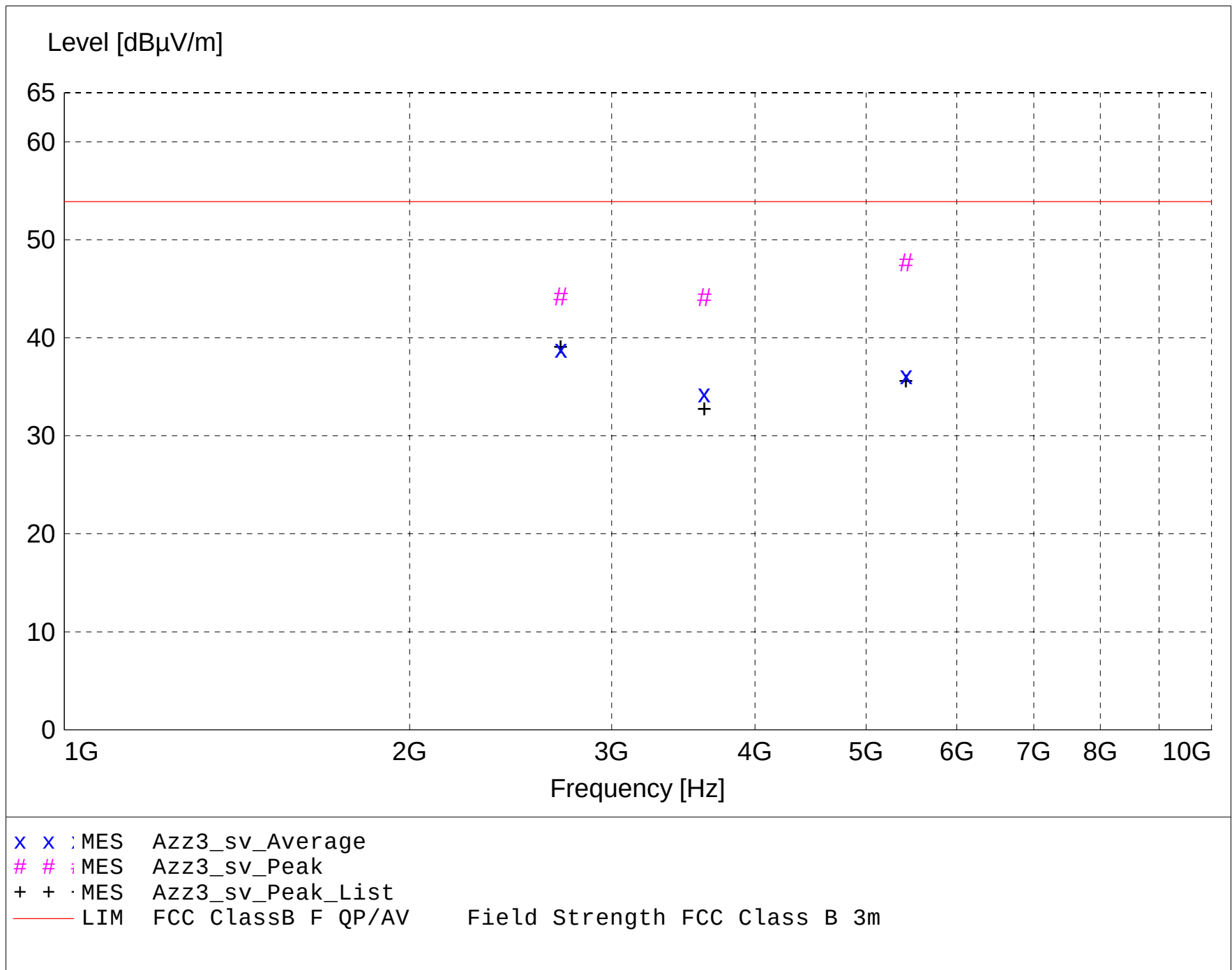
Short Description: Test Set-up Vert1GHz-  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006

Horn Antenna --- EMC0 3115 SN: 9903-5731

Pre-Amps ---

1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 682425  
10 - 18 GHz -- Miteq AMF-6F-100200-50-10P SN: 668382

TEST SET-UP: EuT Measured at 3 Meters with VERTICAL Antenna Polarisation





**MEASUREMENT RESULT: "Azz3\_sv\_Final"**

11/17/2004 11:16AM

| Frequency   | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|-------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz         | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 5417.950000 | 49.50 | 34.07             | -35.9          | 47.6           | 53.9   | 6.3    | 1.00                | 60                  | MAX PEAK          | None    |
| 2709.000000 | 53.77 | 29.23             | -38.8          | 44.2           | 53.9   | 9.7    | 1.00                | 0                   | MAX PEAK          | None    |
| 3612.000000 | 50.06 | 31.51             | -37.5          | 44.1           | 53.9   | 9.8    | 1.00                | 180                 | MAX PEAK          | None    |
| 2709.000000 | 48.38 | 29.23             | -38.8          | 38.8           | 53.9   | 15.1   | 1.00                | 0                   | AVERAGE           | None    |
| 5417.950000 | 38.00 | 34.07             | -35.9          | 36.1           | 53.9   | 17.8   | 1.00                | 60                  | AVERAGE           | None    |
| 3612.000000 | 40.28 | 31.51             | -37.5          | 34.3           | 53.9   | 19.6   | 1.00                | 180                 | AVERAGE           | None    |

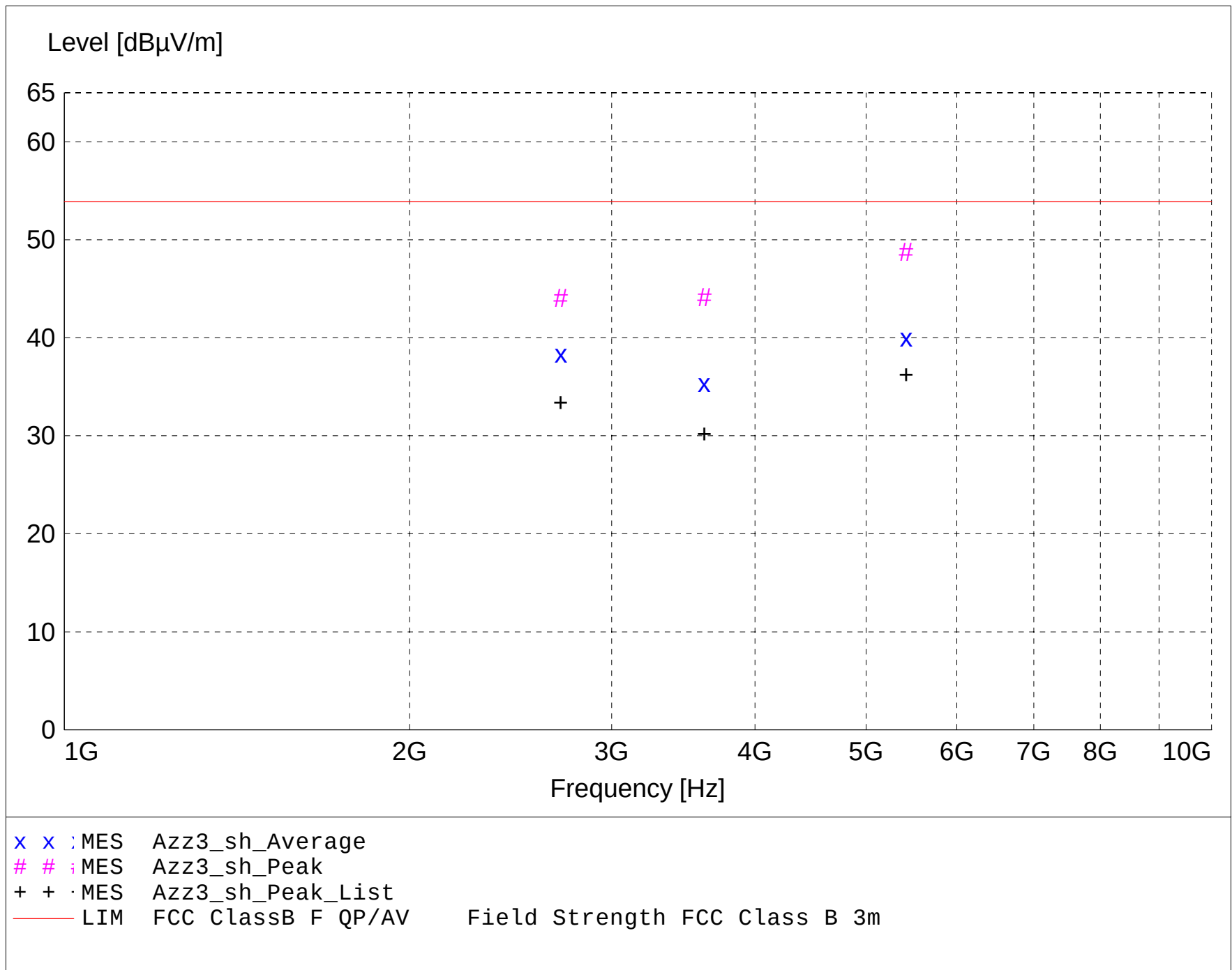
**FCC Part 15 Class B**

**Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification: Rx mode, Tx unintentional and harmonics in restricted bands  
Comment: High Power; Low channel  
Date: 11-17-2004

**TEXT: "Site 3 5731&184 H3M"**

Short Description: Test Set-up Horz1GHz-  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006  
Horn Antenna --- EMC0 3115 SN: 9903-5731  
Pre-Amps ---  
1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 682425  
10 - 18 GHz -- Miteq AMF-6F-100200-50-10P SN: 668382  
TEST SET-UP: EuT Measured at 3 Meters with HORIZONTAL Antenna Polarisation



**MEASUREMENT RESULT: "Azz3\_sh\_Final"**

11/17/2004 11:26AM

| Frequency   | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|-------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz         | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 5417.950000 | 50.58 | 34.07             | -35.9          | 48.7           | 53.9   | 5.2    | 1.00                | 135                 | MAX PEAK          | None    |
| 3612.000000 | 50.06 | 31.51             | -37.5          | 44.1           | 53.9   | 9.8    | 1.20                | 30                  | MAX PEAK          | None    |
| 2709.000000 | 53.64 | 29.23             | -38.8          | 44.1           | 53.9   | 9.8    | 1.00                | 30                  | MAX PEAK          | None    |
| 5417.950000 | 41.83 | 34.07             | -35.9          | 40.0           | 53.9   | 13.9   | 1.00                | 135                 | AVERAGE           | None    |
| 2709.000000 | 47.90 | 29.23             | -38.8          | 38.3           | 53.9   | 15.6   | 1.00                | 30                  | AVERAGE           | None    |
| 3612.000000 | 41.33 | 31.51             | -37.5          | 35.4           | 53.9   | 18.5   | 1.20                | 30                  | AVERAGE           | None    |

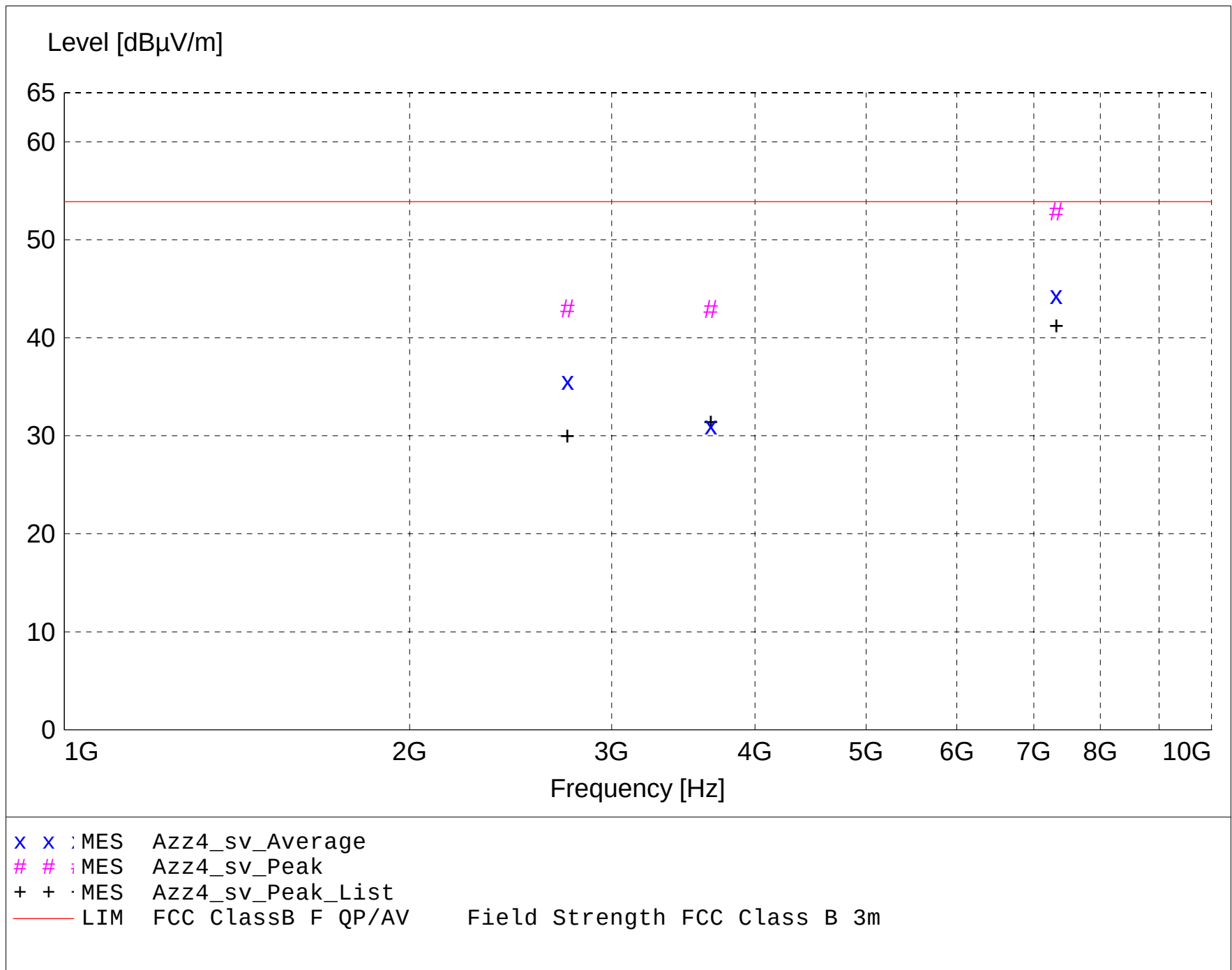
**FCC Part 15 Class B**

**Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification: Rx mode, Tx unintentional and harmonics in restricted bands  
Comment: High Power; Mid channel  
Date: 11-17-2004

**TEXT: "Site 3 5731&184 V3M"**

Short Description: Test Set-up Vert1GHz-  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006  
  
Horn Antenna --- EMC0 3115 SN: 9903-5731  
  
Pre-Amps ---  
1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 682425  
10 - 18 GHz -- Miteq AMF-6F-100200-50-10P SN: 668382  
  
TEST SET-UP: EuT Measured at 3 Meters with VERTICAL Antenna Polarisation



**MEASUREMENT RESULT: "Azz4\_sv\_Final"**

11/17/2004 11:39AM

| Frequency   | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|-------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz         | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 7321.000000 | 51.23 | 35.97             | -34.3          | 52.9           | 53.9   | 1.0    | 1.10                | 135                 | MAX PEAK          | None    |
| 7321.000000 | 42.70 | 35.97             | -34.3          | 44.3           | 53.9   | 9.6    | 1.10                | 135                 | AVERAGE           | None    |
| 2745.400000 | 52.18 | 29.34             | -38.5          | 43.0           | 53.9   | 10.9   | 1.20                | 0                   | MAX PEAK          | None    |
| 3660.500000 | 48.81 | 31.65             | -37.5          | 42.9           | 53.9   | 11.0   | 1.10                | 270                 | MAX PEAK          | None    |
| 2745.400000 | 44.80 | 29.34             | -38.5          | 35.6           | 53.9   | 18.3   | 1.20                | 0                   | AVERAGE           | None    |
| 3660.500000 | 36.88 | 31.65             | -37.5          | 31.0           | 53.9   | 22.9   | 1.10                | 270                 | AVERAGE           | None    |

**FCC Part 15 Class B**

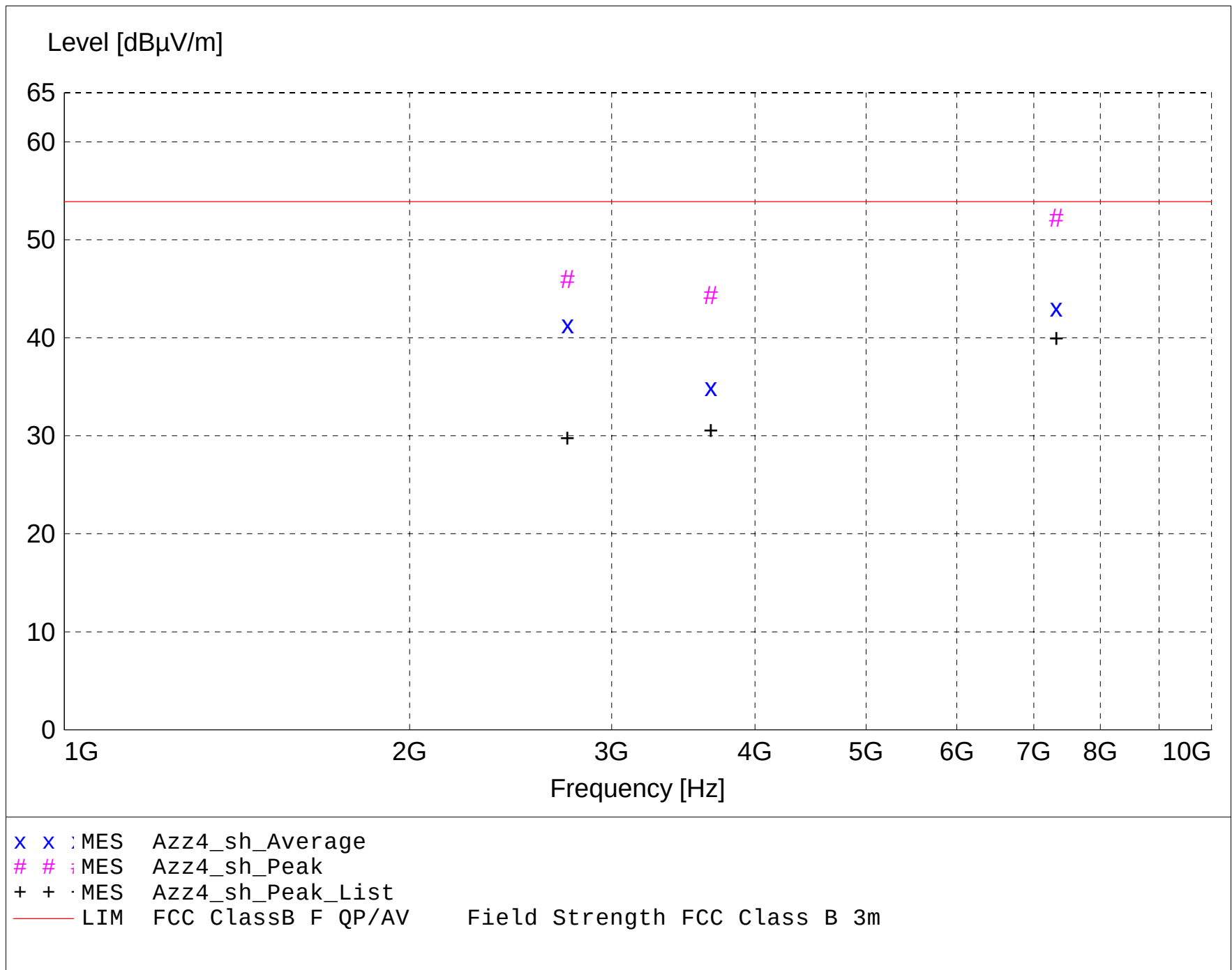
**Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification: Rx mode, Tx unintentional and harmonics in restricted bands  
Comment: High Power; Mid channel  
Date: 11-17-2004

**TEXT: "Site 3 5731&184 H3M"**

Short Description: Test Set-up Horz1GHz-  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006  
  
Horn Antenna --- EMC0 3115 SN: 9903-5731  
  
Pre-Amps ---  
1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 682425  
10 - 18 GHz -- Miteq AMF-6F-100200-50-10P SN: 668382  
  
TEST SET-UP: EuT Measured at 3 Meters with HORIZONTAL Antenna Polarisation





**MEASUREMENT RESULT: "Azz4\_sh\_Final"**

11/17/2004 11:49AM

| Frequency   | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|-------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz         | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 7321.000000 | 50.57 | 35.97             | -34.3          | 52.2           | 53.9   | 1.7    | 1.20                | 90                  | MAX PEAK          | None    |
| 2745.400000 | 55.14 | 29.34             | -38.5          | 45.9           | 53.9   | 8.0    | 1.30                | 180                 | MAX PEAK          | None    |
| 3660.500000 | 50.19 | 31.65             | -37.5          | 44.3           | 53.9   | 9.6    | 1.80                | 90                  | MAX PEAK          | None    |
| 7321.000000 | 41.43 | 35.97             | -34.3          | 43.1           | 53.9   | 10.8   | 1.20                | 90                  | AVERAGE           | None    |
| 2745.400000 | 50.53 | 29.34             | -38.5          | 41.3           | 53.9   | 12.6   | 1.30                | 180                 | AVERAGE           | None    |
| 3660.500000 | 40.85 | 31.65             | -37.5          | 35.0           | 53.9   | 18.9   | 1.80                | 90                  | AVERAGE           | None    |

**FCC Part 15 Class B**

**Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification: Rx mode, Tx unintentional and harmonics in restricted bands  
Comment: High Power; High channel  
Date: 11-17-2004

**TEXT: "Site 3 5731&184 V3M"**

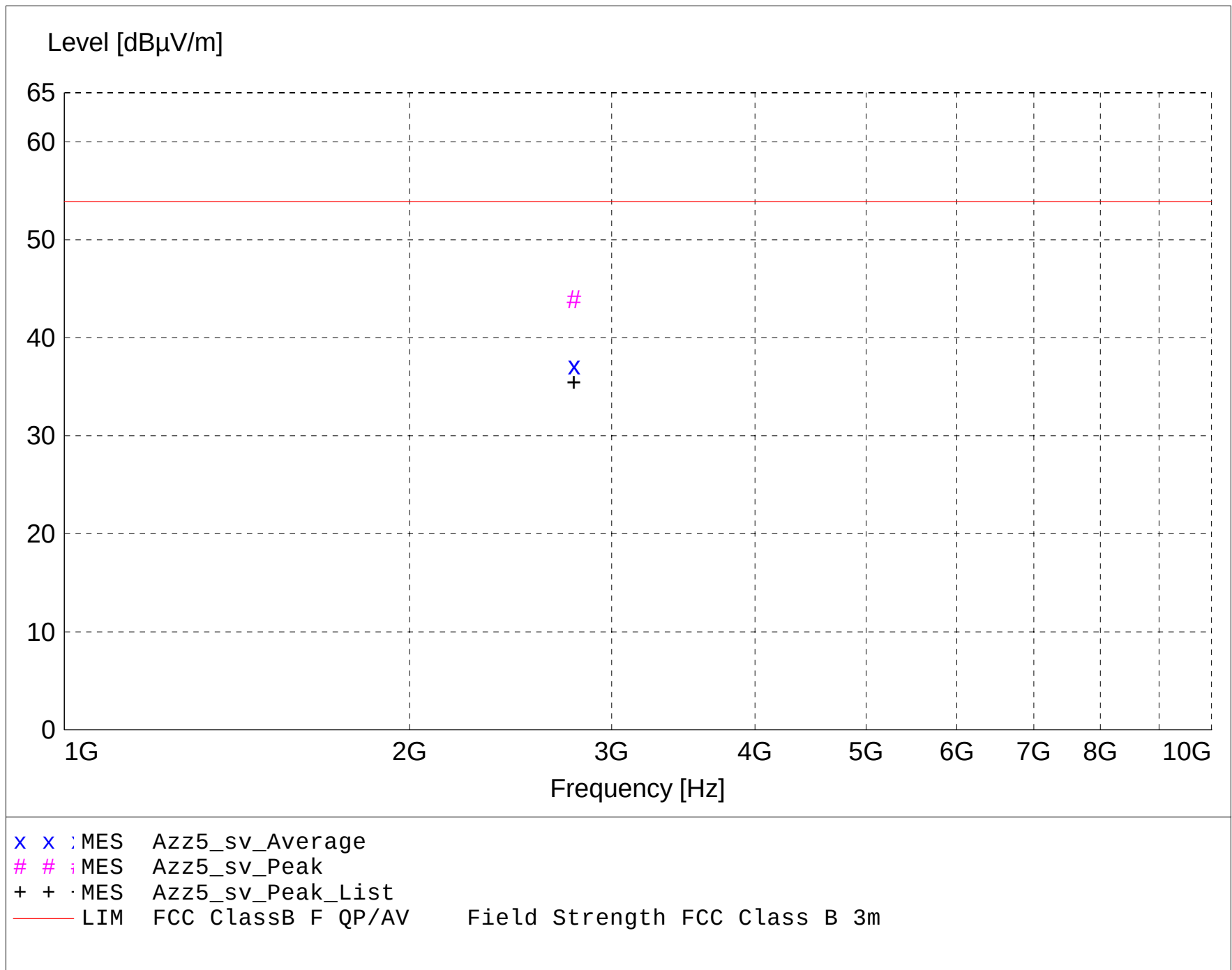
Short Description: Test Set-up Vert1GHz-  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006

Horn Antenna --- EMC0 3115 SN: 9903-5731

Pre-Amps ---

1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 682425  
10 - 18 GHz -- Miteq AMF-6F-100200-50-10P SN: 668382

TEST SET-UP: EuT Measured at 3 Meters with VERTICAL Antenna Polarisation



**MEASUREMENT RESULT: "Azz5\_sv\_Final"**

11/17/2004 12:40PM

| Frequency   | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|-------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz         | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 2781.550000 | 52.86 | 29.44             | -38.4          | 43.9           | 53.9   | 10.0   | 1.30                | 30                  | MAX PEAK          | None    |
| 2781.550000 | 46.08 | 29.44             | -38.4          | 37.1           | 53.9   | 16.8   | 1.30                | 30                  | AVERAGE           | None    |

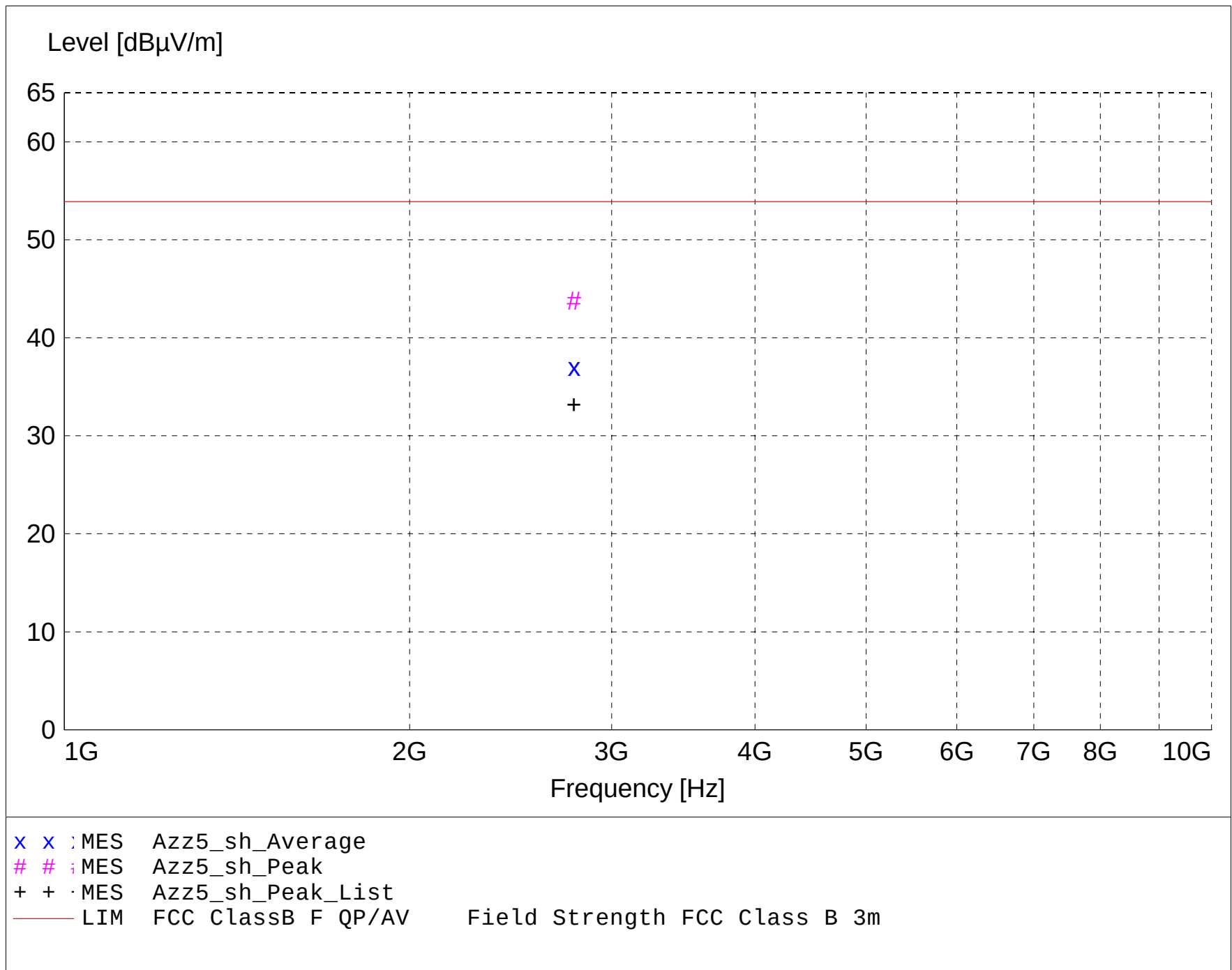
**FCC Part 15 Class B**

**Electric Field Strength**

EUT: 110XiIII  
Manufacturer: Zebra Technologies  
Operating Condition: 71 deg. F; 44% R.H.  
Test Site: DLS OF Site 3  
Operator: Craig B.  
Test Specification: Rx mode, Tx unintentional and harmonics in restricted bands  
Comment: High Power; High channel  
Date: 11-17-2004

**TEXT: "Site 3 5731&184 H3M"**

Short Description: Test Set-up Horz1GHz-  
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006  
  
Horn Antenna --- EMC0 3115 SN: 9903-5731  
  
Pre-Amps ---  
1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 682425  
10 - 18 GHz -- Miteq AMF-6F-100200-50-10P SN: 668382  
  
TEST SET-UP: EuT Measured at 3 Meters with HORIZONTAL Antenna Polarisation



**MEASUREMENT RESULT: "Azz5\_sh\_Final"**

11/17/2004 12:47PM

| Frequency   | Level | Antenna<br>Factor | System<br>Loss | Total<br>Level | Limit  | Margin | Height<br>Ant.<br>m | EuT<br>Angle<br>deg | Final<br>Detector | Comment |
|-------------|-------|-------------------|----------------|----------------|--------|--------|---------------------|---------------------|-------------------|---------|
| MHz         | dBμV  | dBμV/m            | dB             | dBμV/m         | dBμV/m | dB     |                     |                     |                   |         |
| 2781.600000 | 52.72 | 29.44             | -38.4          | 43.8           | 53.9   | 10.1   | 1.00                | 135                 | MAX PEAK          | None    |
| 2781.600000 | 45.95 | 29.44             | -38.4          | 37.0           | 53.9   | 16.9   | 1.00                | 135                 | AVERAGE           | None    |





Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

# 20 dB BANDWIDTH GRAPHS

## PART 15.247



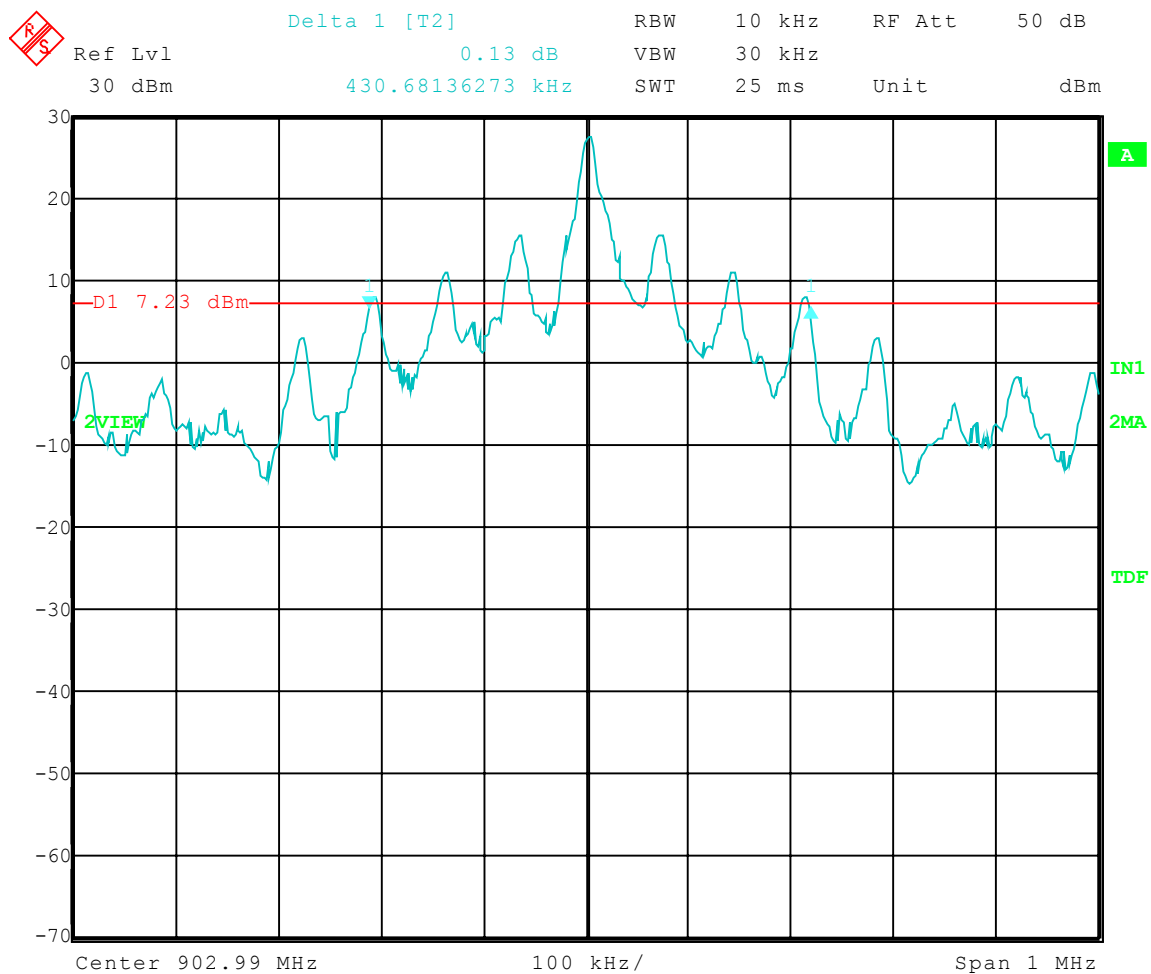
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: 20 dB Bandwidth - Conducted  
Operator: Craig B  
Comment: Low Channel; High Power: Frequency – 902.967 MHz

20 dB Bandwidth = 430.68 kHz



Date: 18.NOV.2004 09:59:19



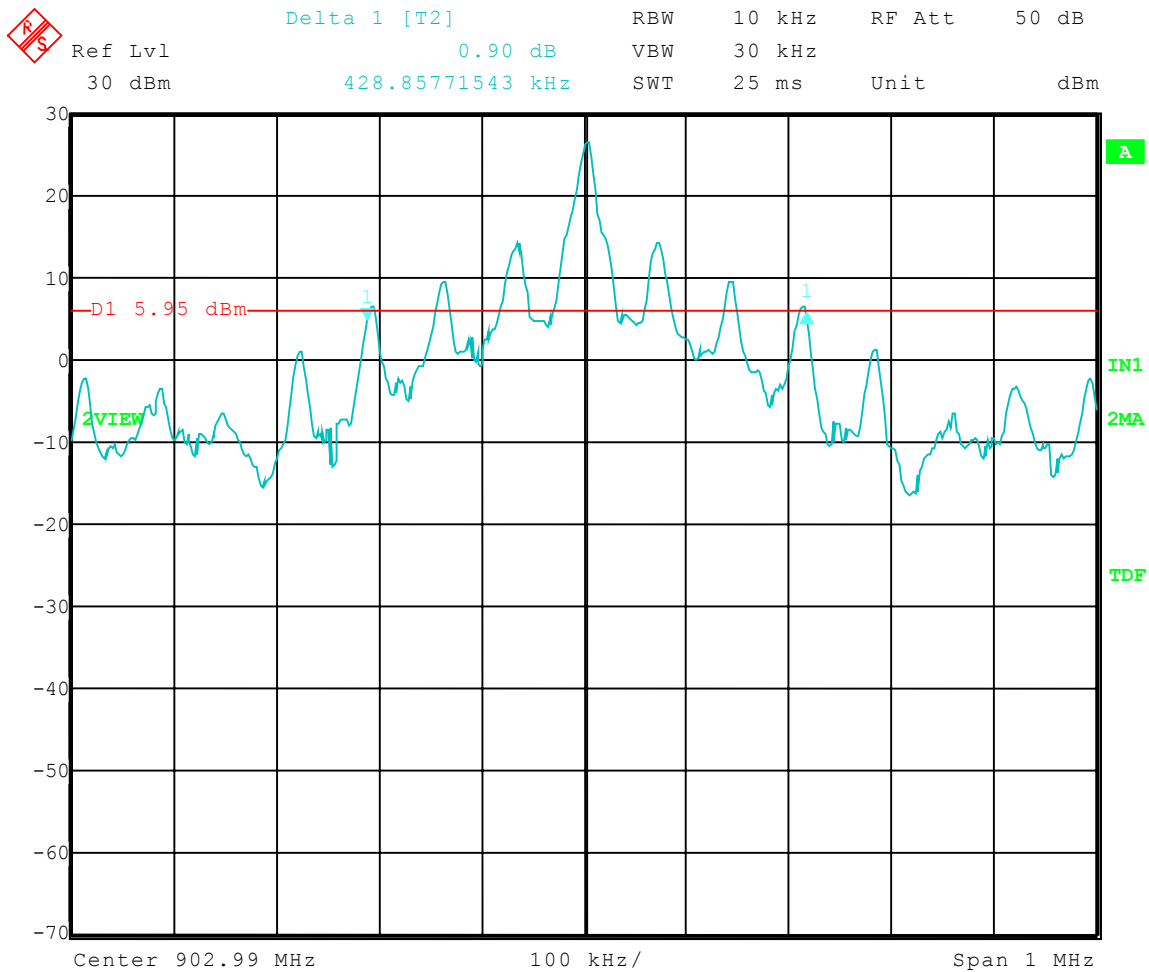
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: 20 dB Bandwidth - Conducted  
Operator: Craig B  
Comment: Low Channel; Mid Power: Frequency – 902.967 MHz

20 dB Bandwidth = 428.86 kHz



Date: 18.NOV.2004 10:02:08



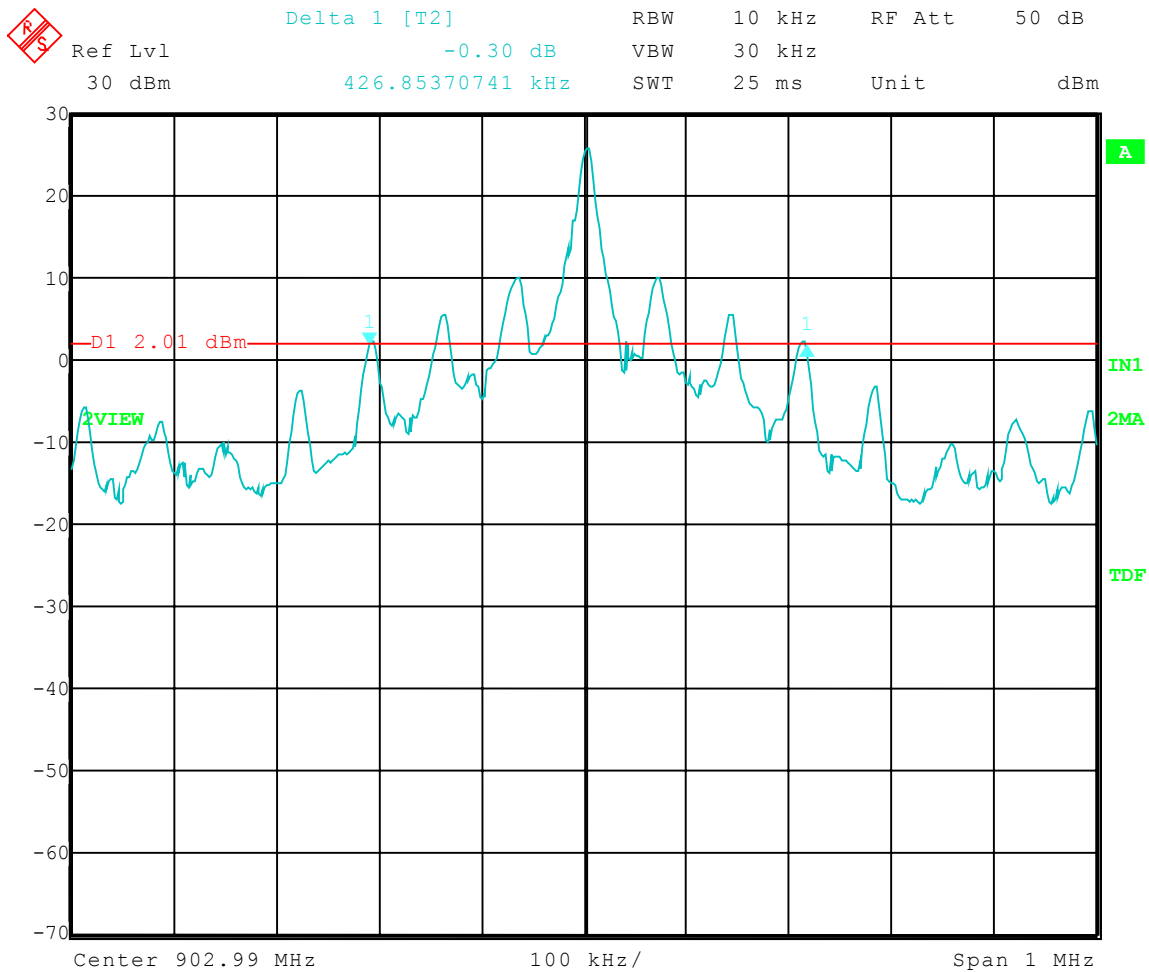
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: 20 dB Bandwidth - Conducted  
Operator: Craig B  
Comment: Low Channel; Low Power: Frequency – 902.967 MHz

20 dB Bandwidth = 426.85 kHz



Date: 18.NOV.2004 10:04:11



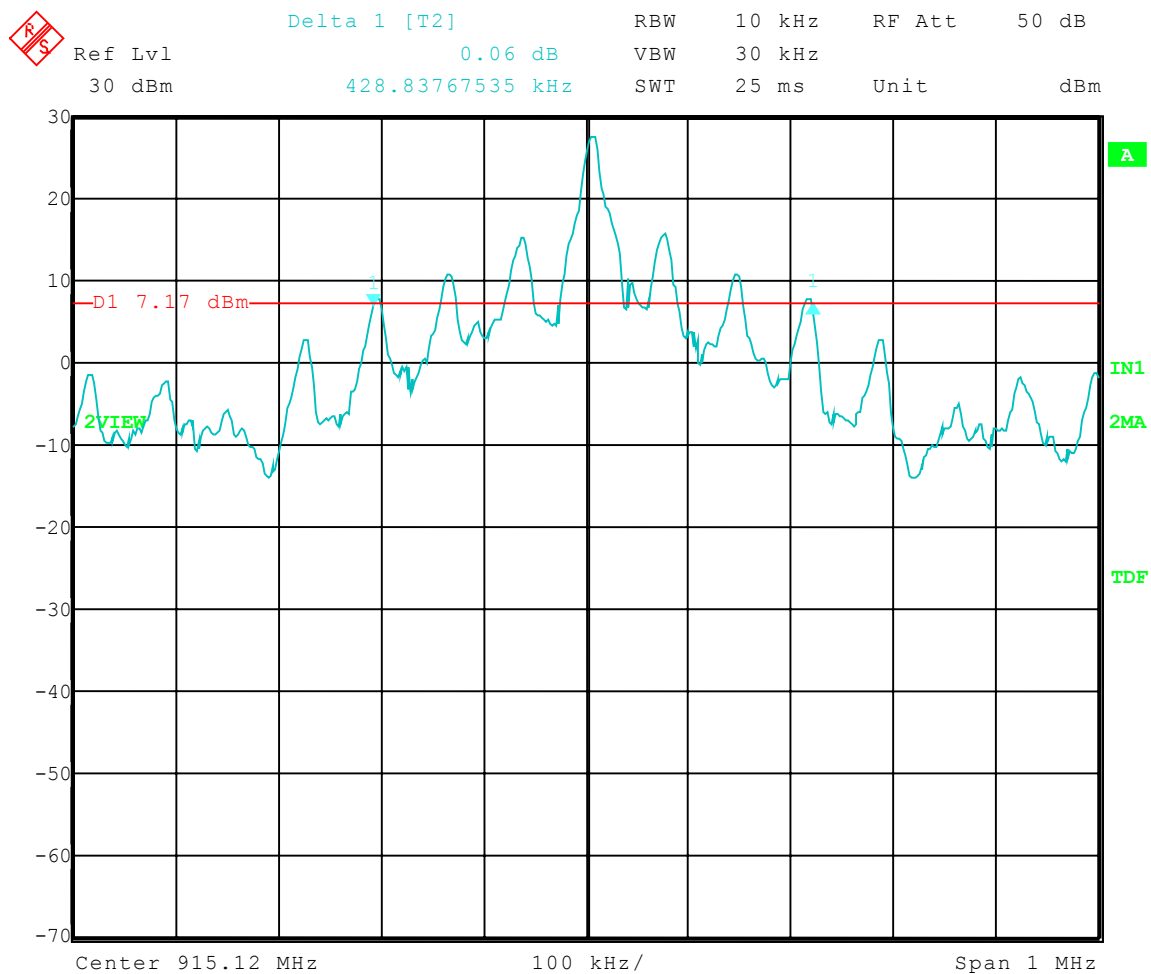
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: 20 dB Bandwidth - Conducted  
Operator: Craig B  
Comment: Middle Channel; High Power: Frequency – 915.101 MHz

20 dB Bandwidth = 428.84 kHz



Date: 18.NOV.2004 10:09:48



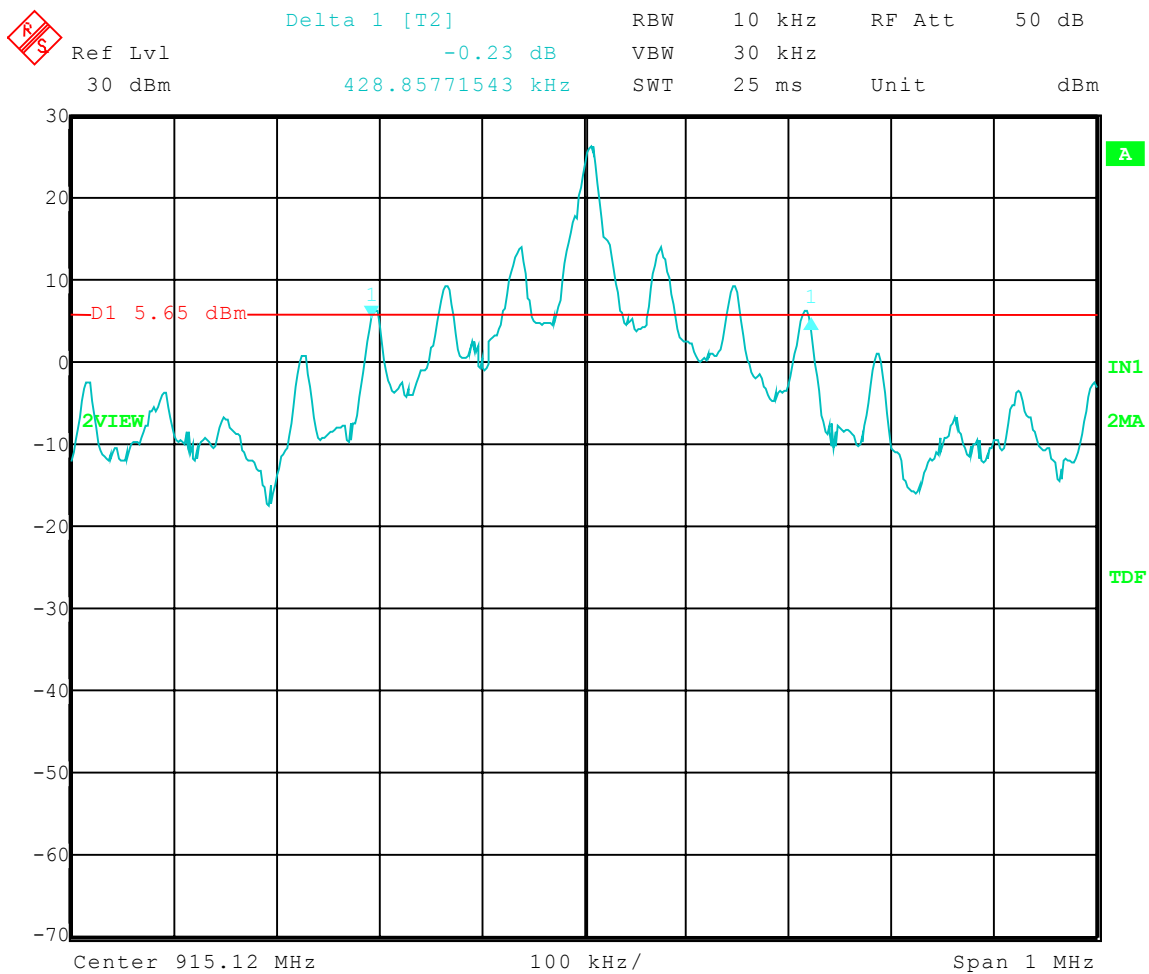
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: 20 dB Bandwidth - Conducted  
Operator: Craig B  
Comment: Middle Channel; Mid Power: Frequency – 915.101 MHz

20 dB Bandwidth = 428.86 kHz



Date: 18.NOV.2004 10:13:32



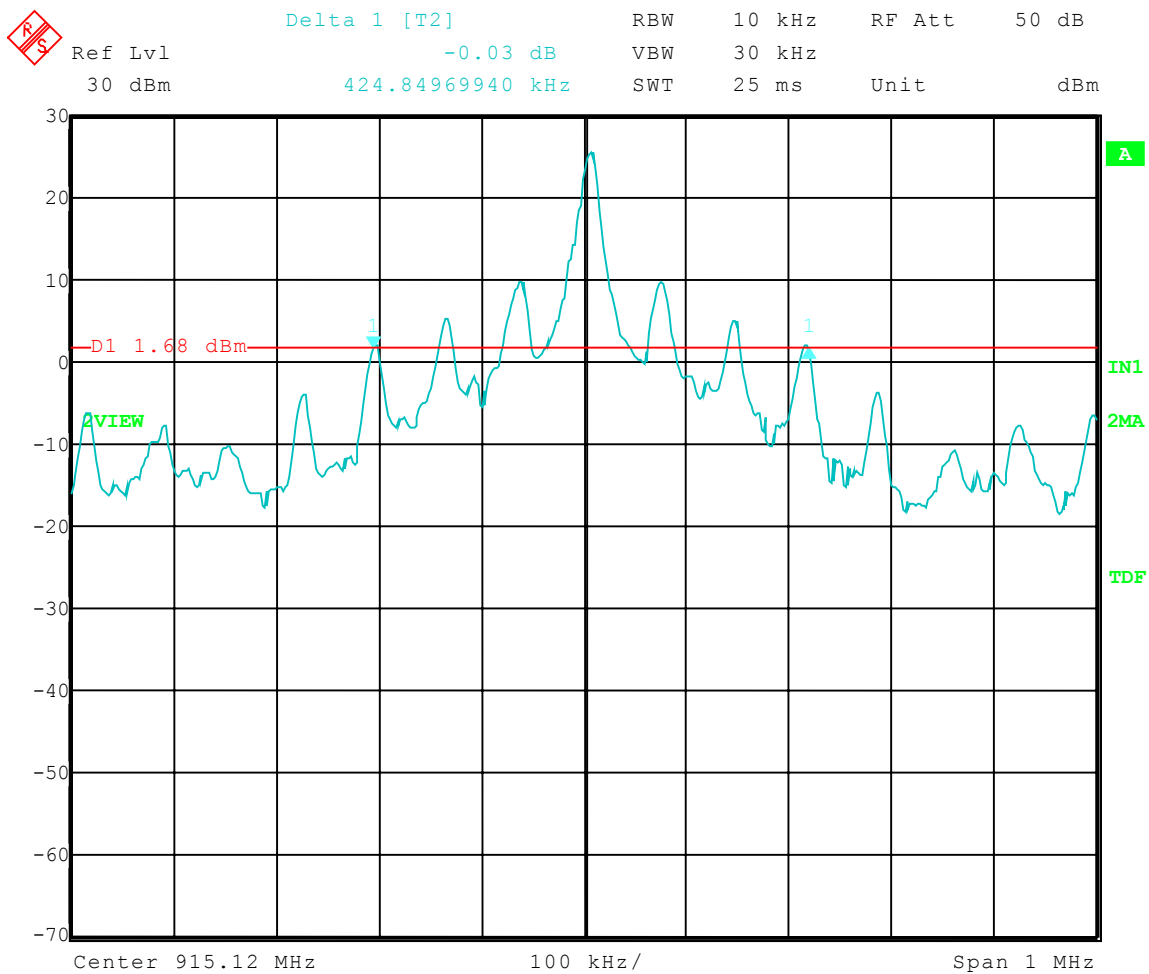
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: 20 dB Bandwidth - Conducted  
Operator: Craig B  
Comment: Middle Channel; Low Power: Frequency – 915.101 MHz

20 dB Bandwidth = 424.85 kHz



Date: 18.NOV.2004 10:15:34



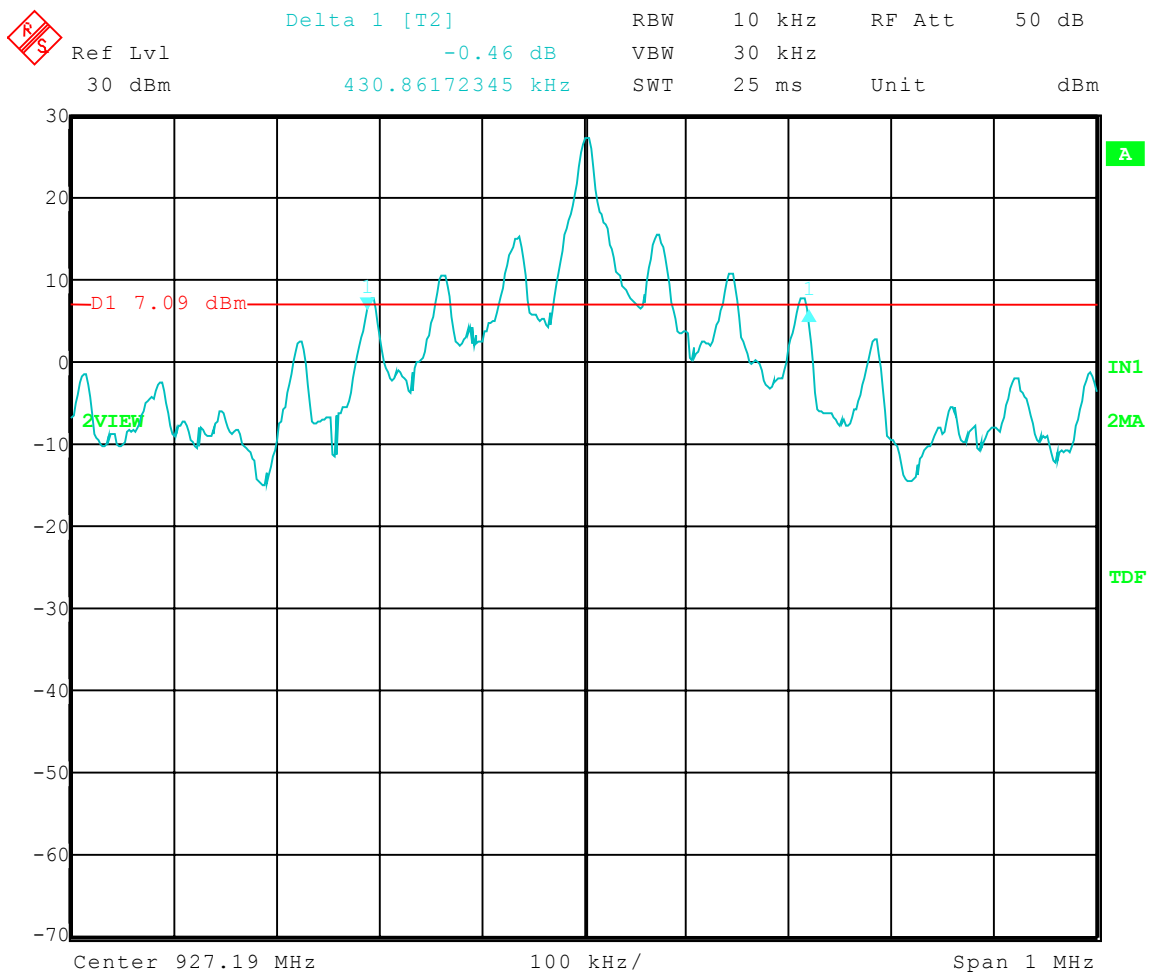
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: 20 dB Bandwidth - Conducted  
Operator: Craig B  
Comment: High Channel; High Power: Frequency – 927.233 MHz

20 dB Bandwidth = 430.86 kHz



Date: 18.NOV.2004 10:20:46





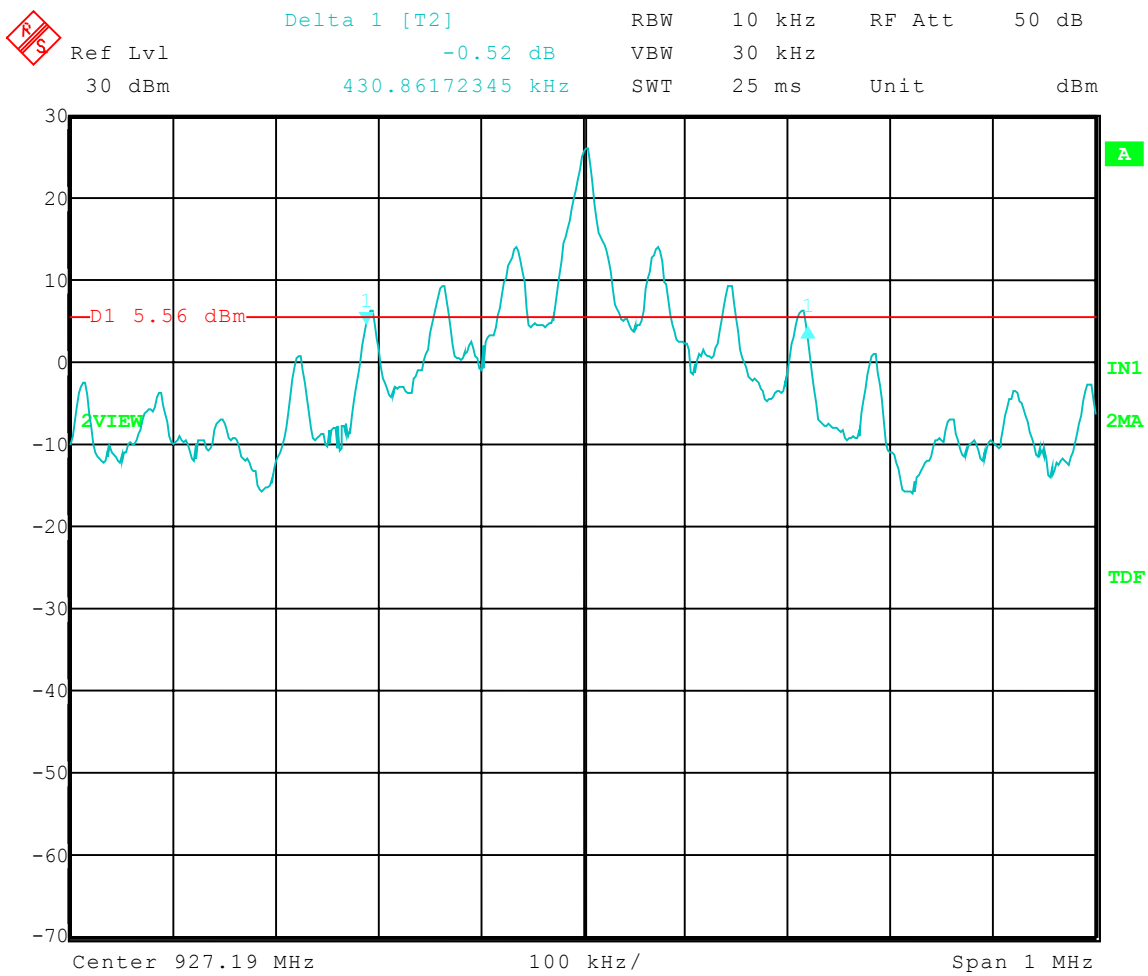
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: 20 dB Bandwidth - Conducted  
Operator: Craig B  
Comment: High Channel; Mid Power: Frequency – 927.233 MHz

20 dB Bandwidth = 430.86 kHz



Date: 18.NOV.2004 10:25:04



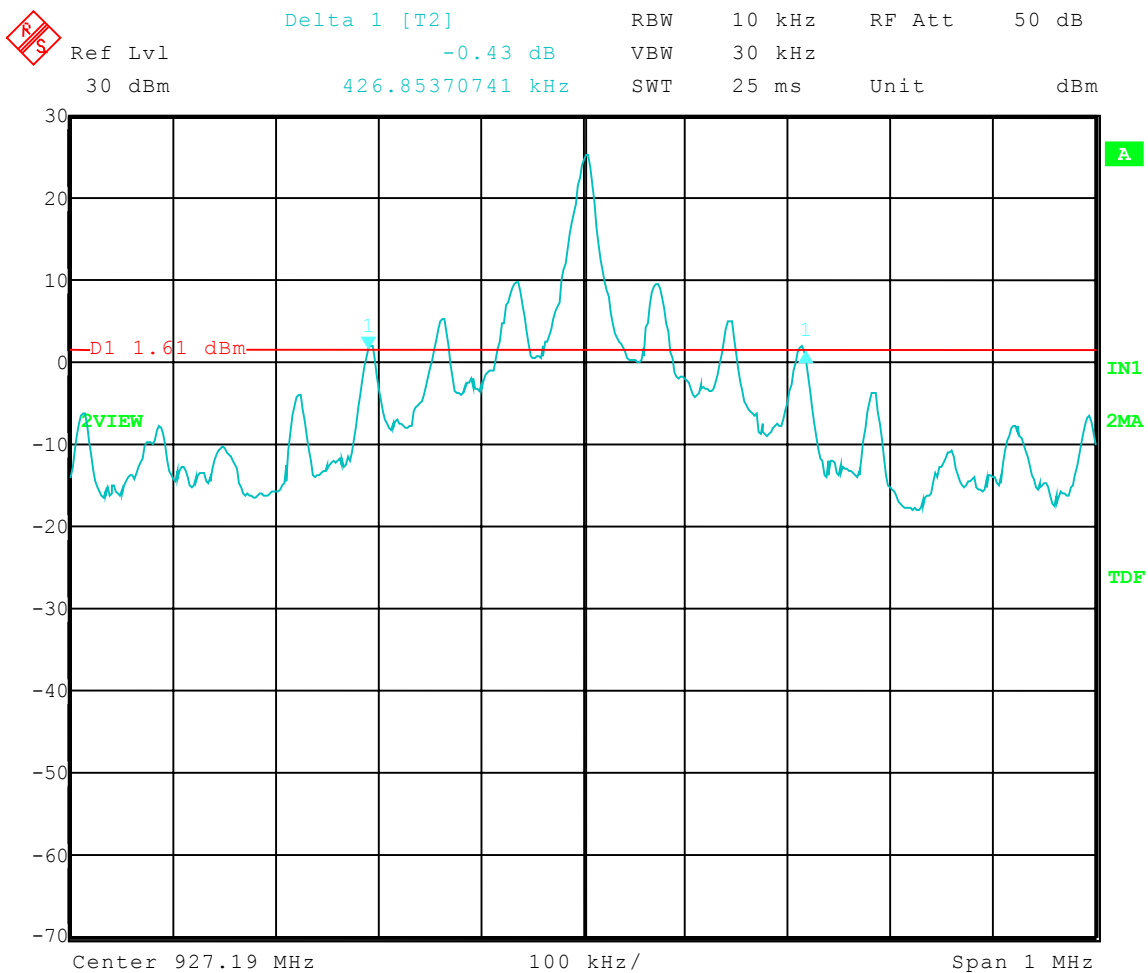
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: 20 dB Bandwidth - Conducted  
Operator: Craig B  
Comment: High Channel; Low Power: Frequency – 927.233 MHz

20 dB Bandwidth = 426.85 kHz





Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

# CARRIER FREQUENCY SEPARATION GRAPH(S)

PART 15.247



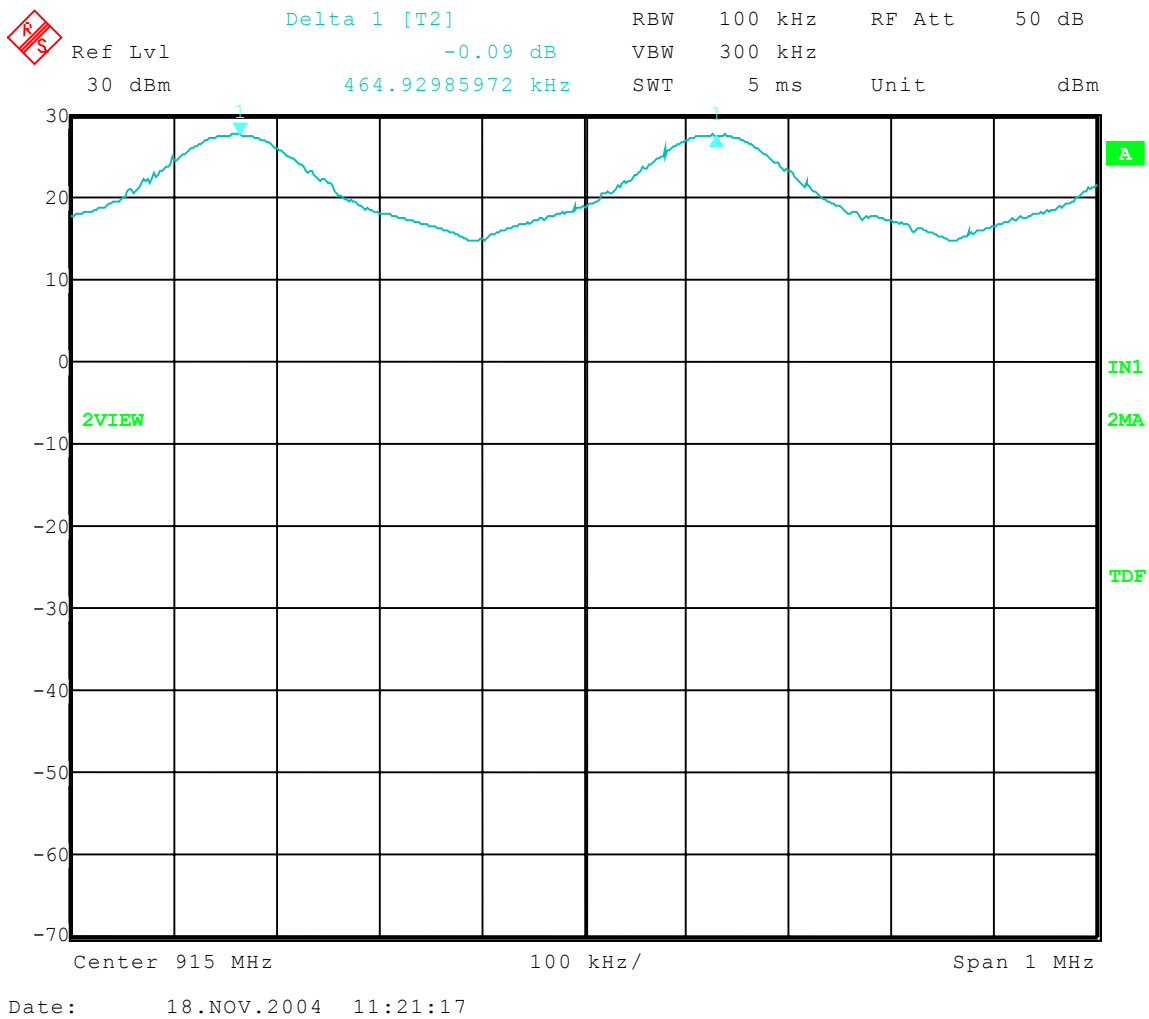
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Carrier Frequency Separation - Conducted  
Operator: Craig B  
Comment: Frequency Hopping On

Carrier Freq Separation = 464.93 kHz





Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

# NUMBER OF HOPPING FREQUENCIES GRAPH(S)

## PART 15.247



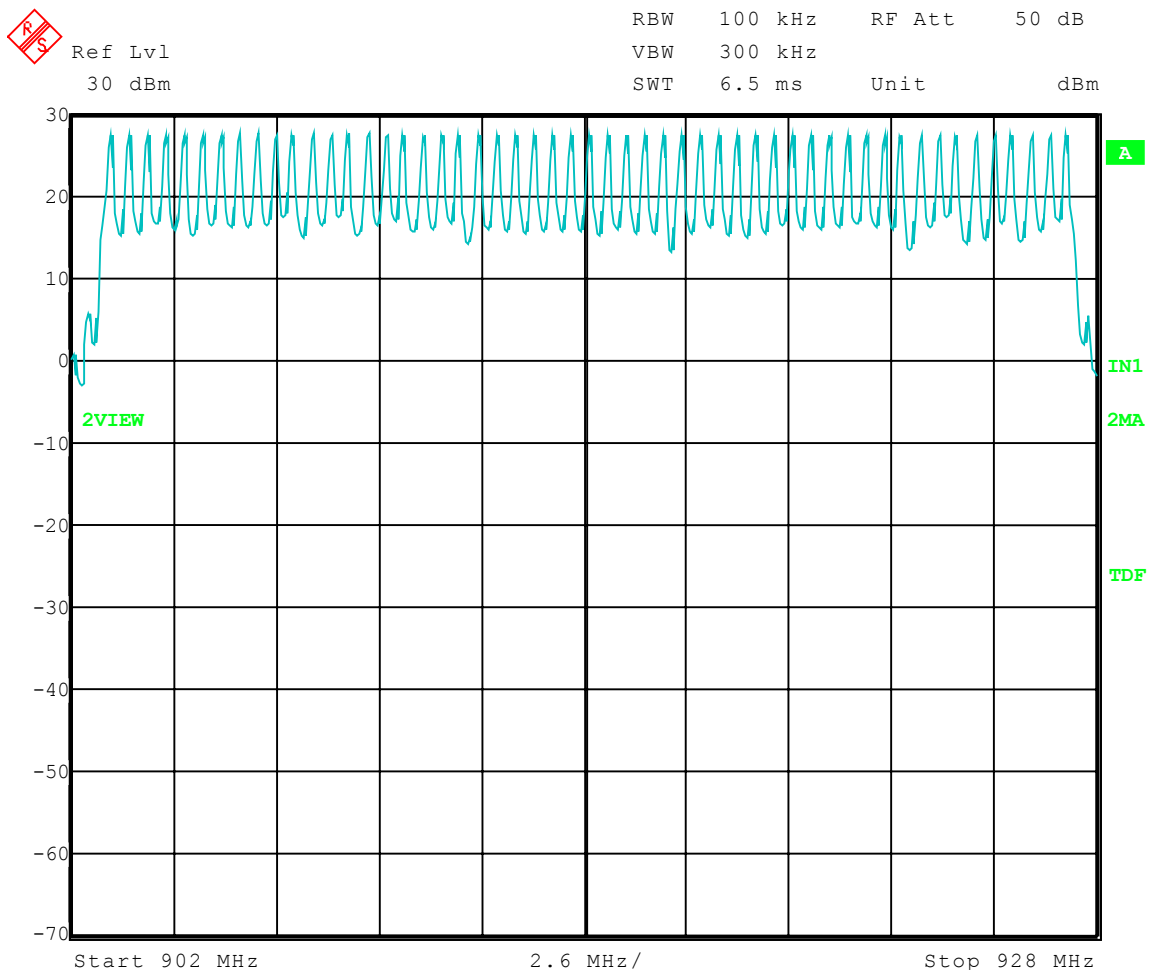
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Number of Hopping Frequencies - Conducted  
Operator: Craig B  
Comment: Hopping Mode

Frequency Range = 902 MHz to 928 MHz  
Number of Frequencies in Range = 53



Date: 18.NOV.2004 11:25:33



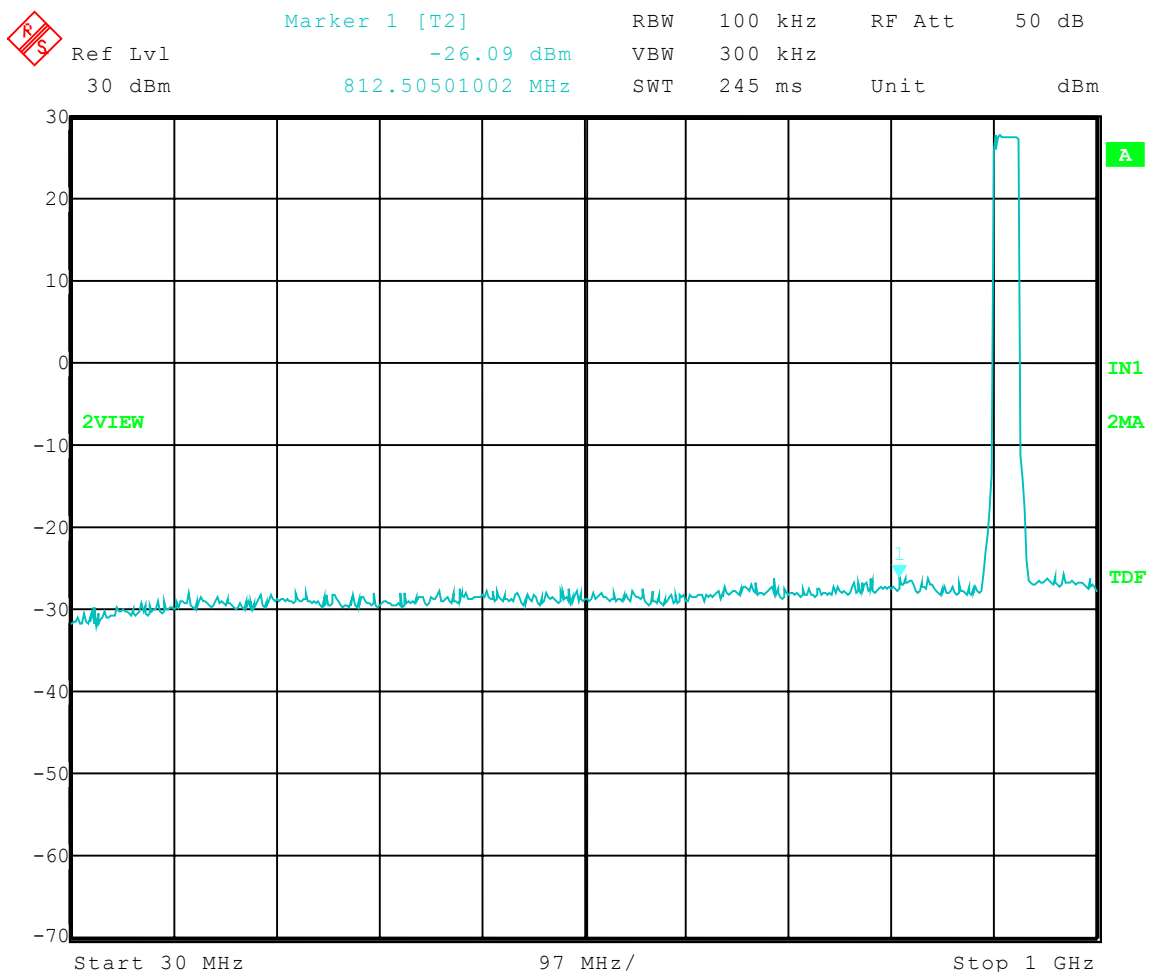
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Spread Spectrum Hopping On; High Power  
Frequency Range: 30 to 1000 MHz  
Limit = 7.50 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:50:53



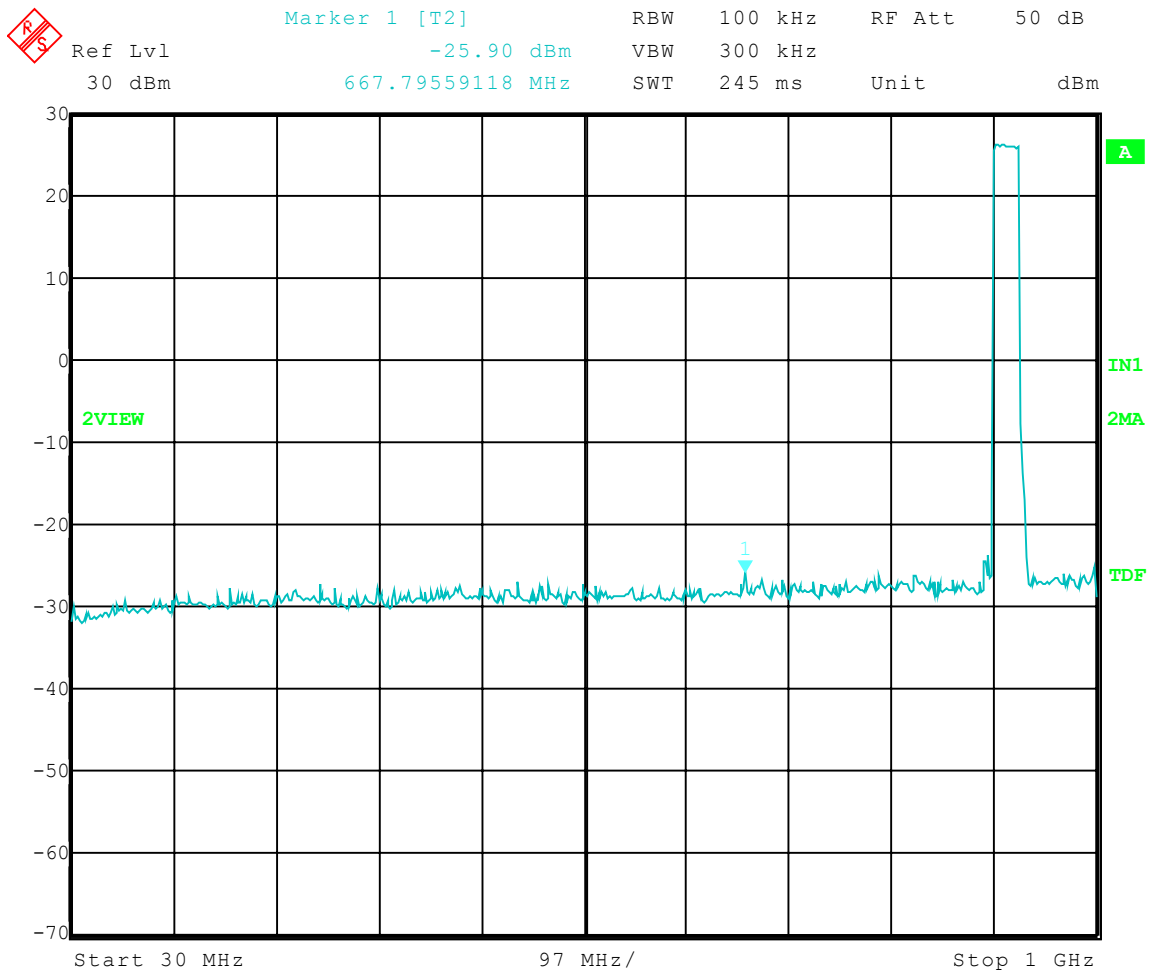
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Spread Spectrum Hopping On; Mid Power  
Frequency Range: 30 to 1000 MHz  
Limit = 6.61 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 13:25:26





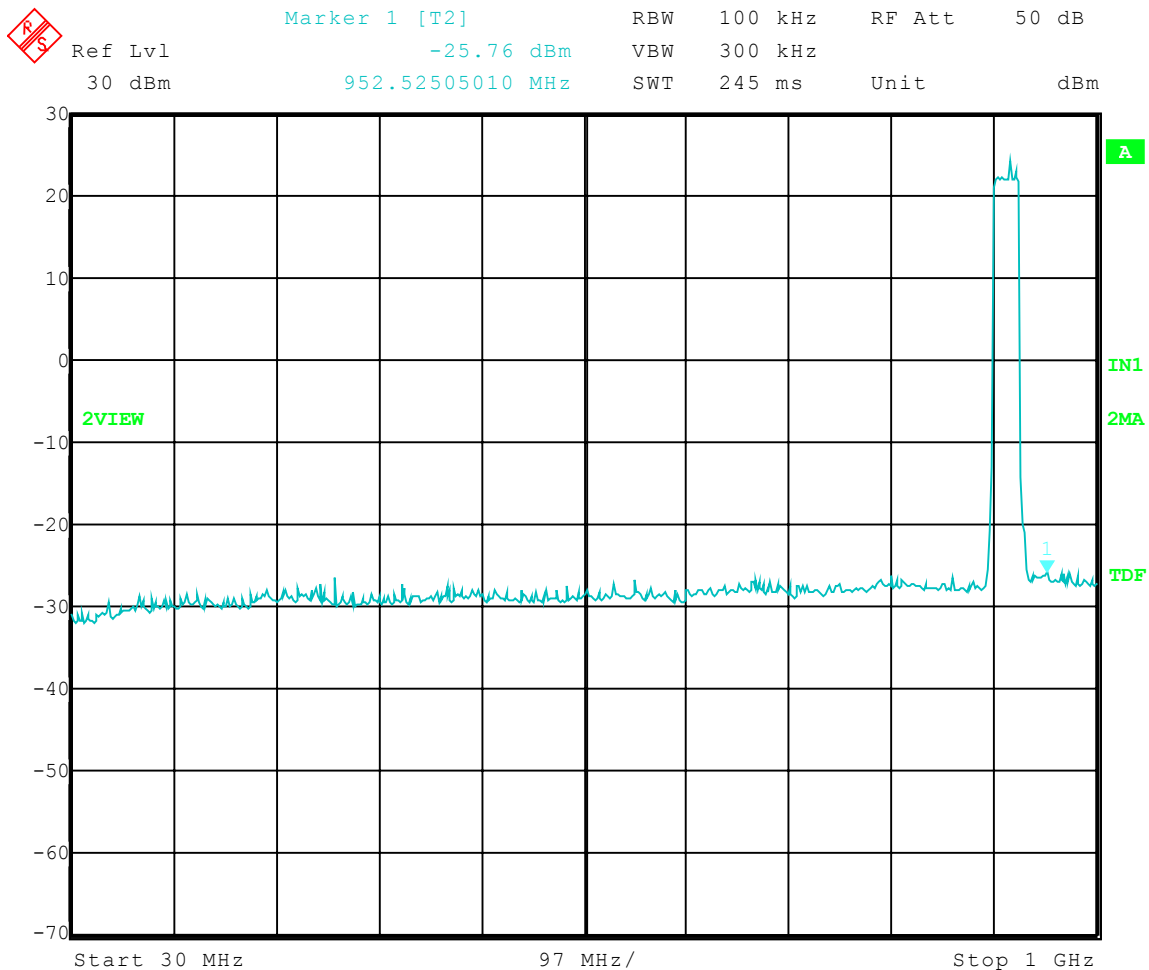
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Spread Spectrum Hopping On; Low Power  
Frequency Range: 30 to 1000 MHz  
Limit = 1.83 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 13:37:29



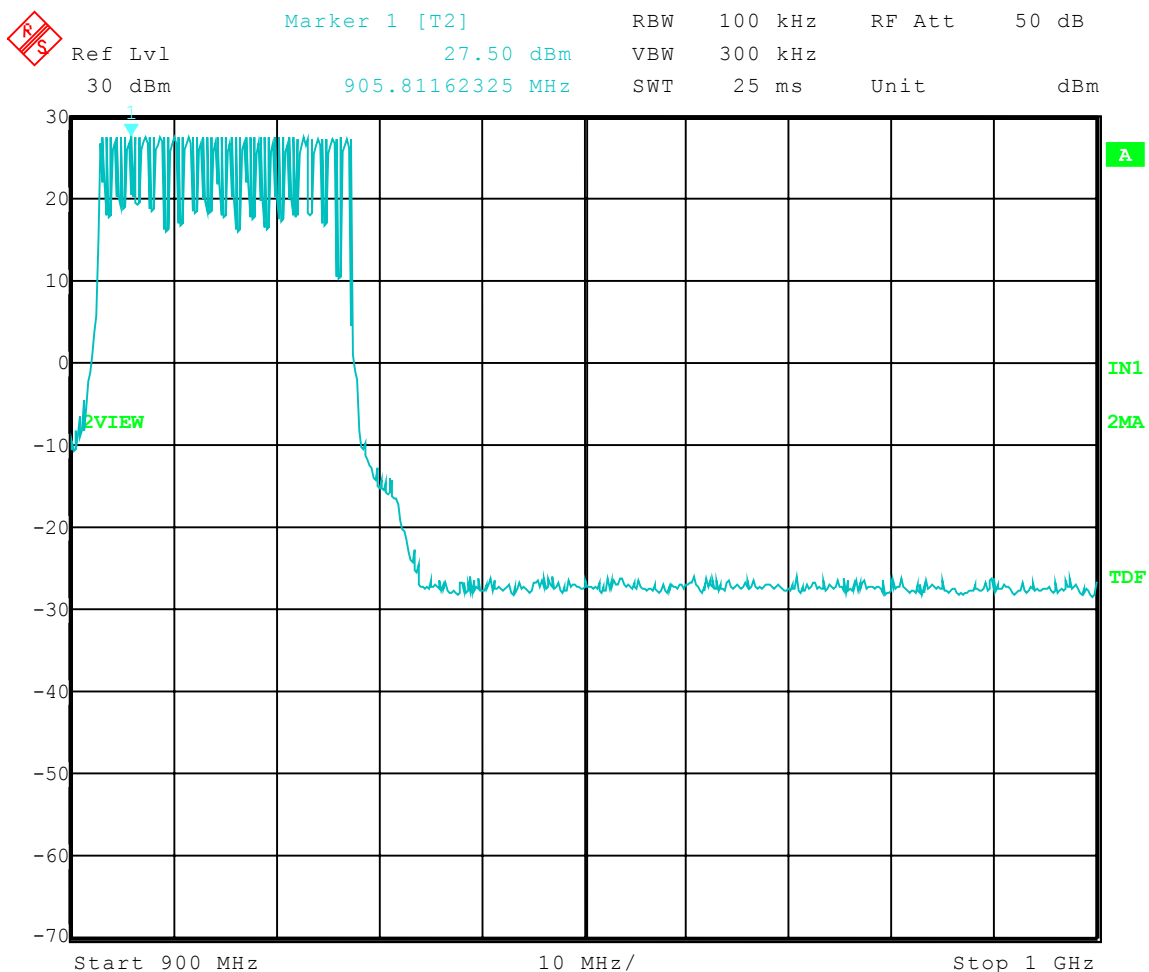
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Spread Spectrum Hopping On; High Power  
Frequency Range: 900 to 1000 MHz  
Limit = 7.50 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 12:47:18



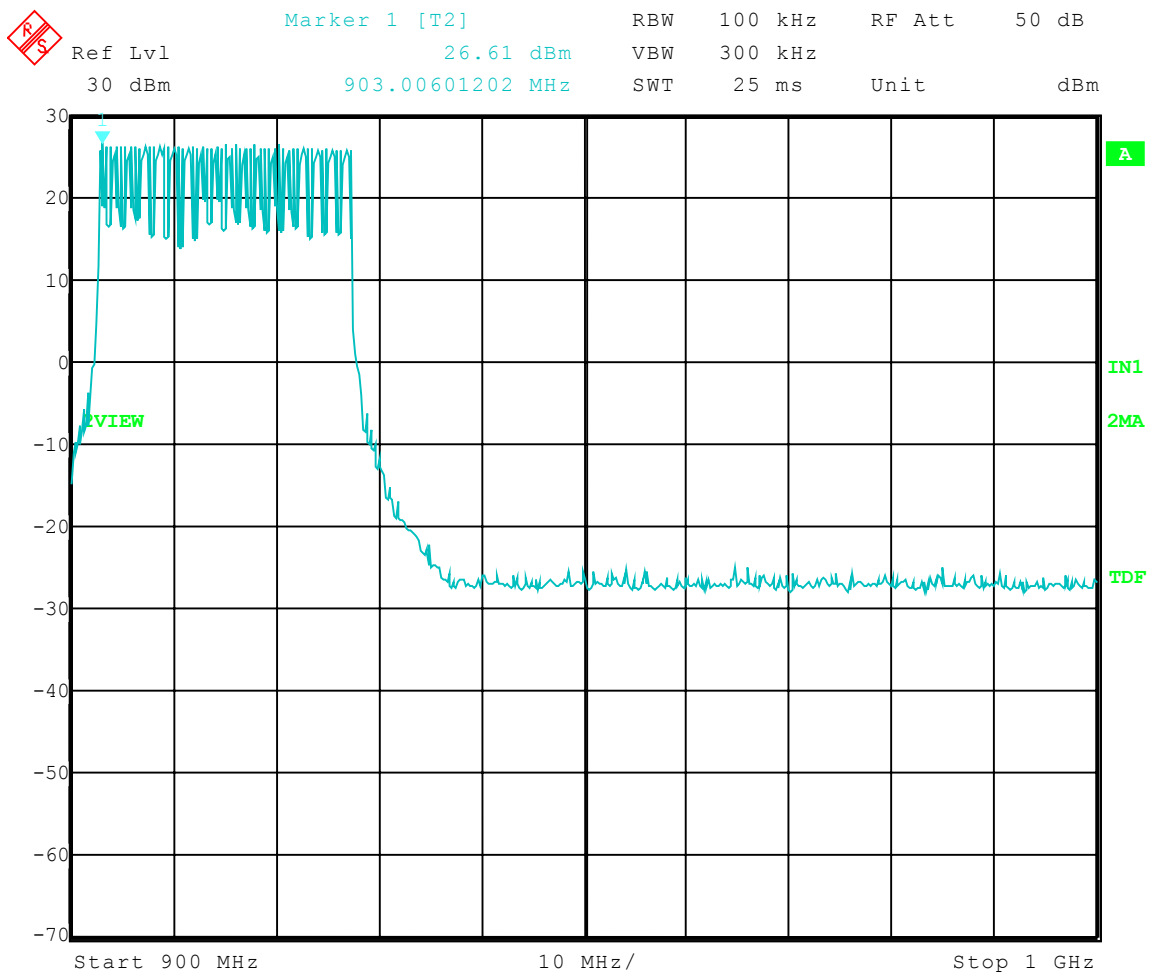
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Spread Spectrum Hopping On; Mid Power  
Frequency Range: 900 to 1000 MHz  
Limit = 6.61 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 13:23:51



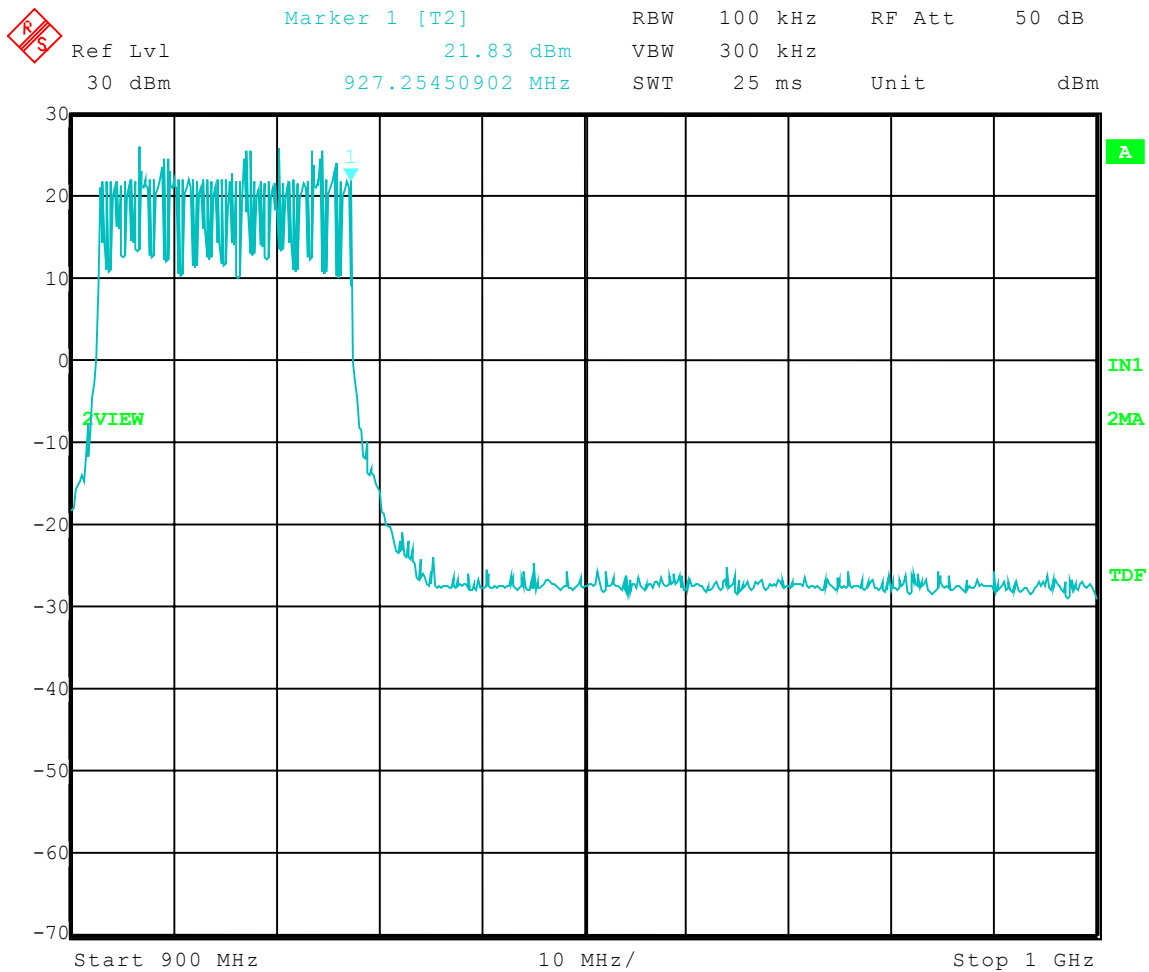
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Spread Spectrum Hopping On; Low Power  
Frequency Range: 900 to 1000 MHz  
Limit = 1.83 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 13:35:13



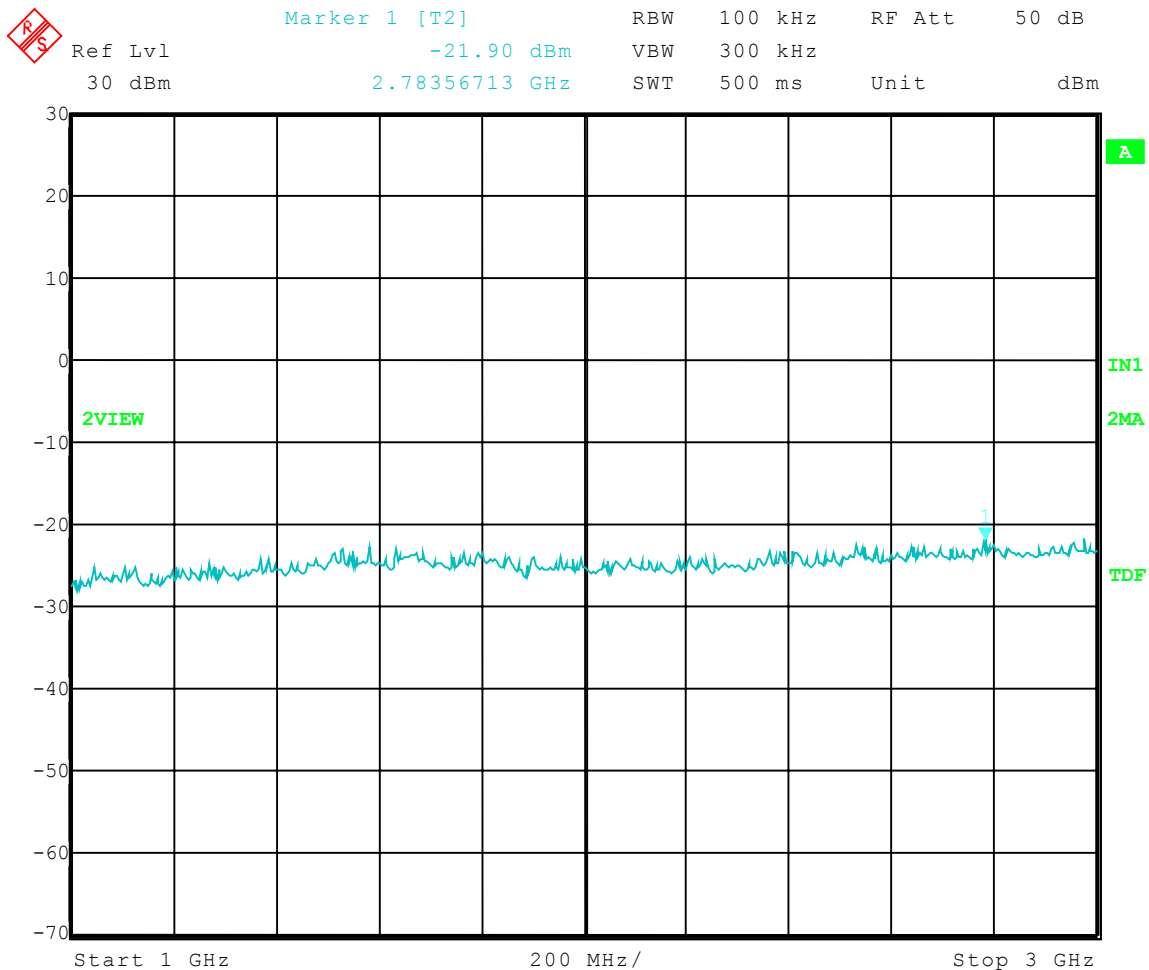
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Spread Spectrum Hopping On; High Power  
Frequency Range: 1 to 3 GHz  
Limit = 7.50 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 13:55:57



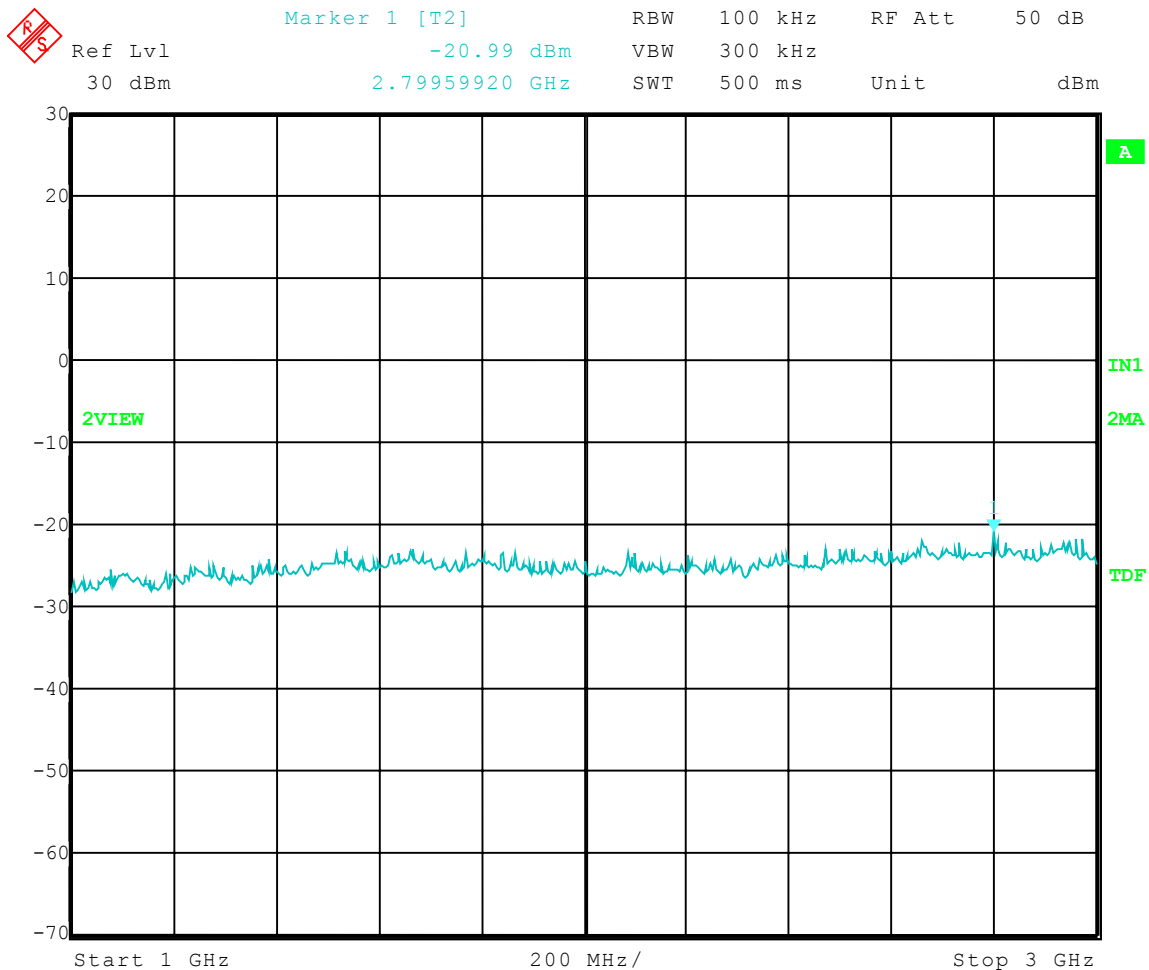
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Spread Spectrum Hopping On; Mid Power  
Frequency Range: 1 to 3 GHz  
Limit = 6.61 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:00:49



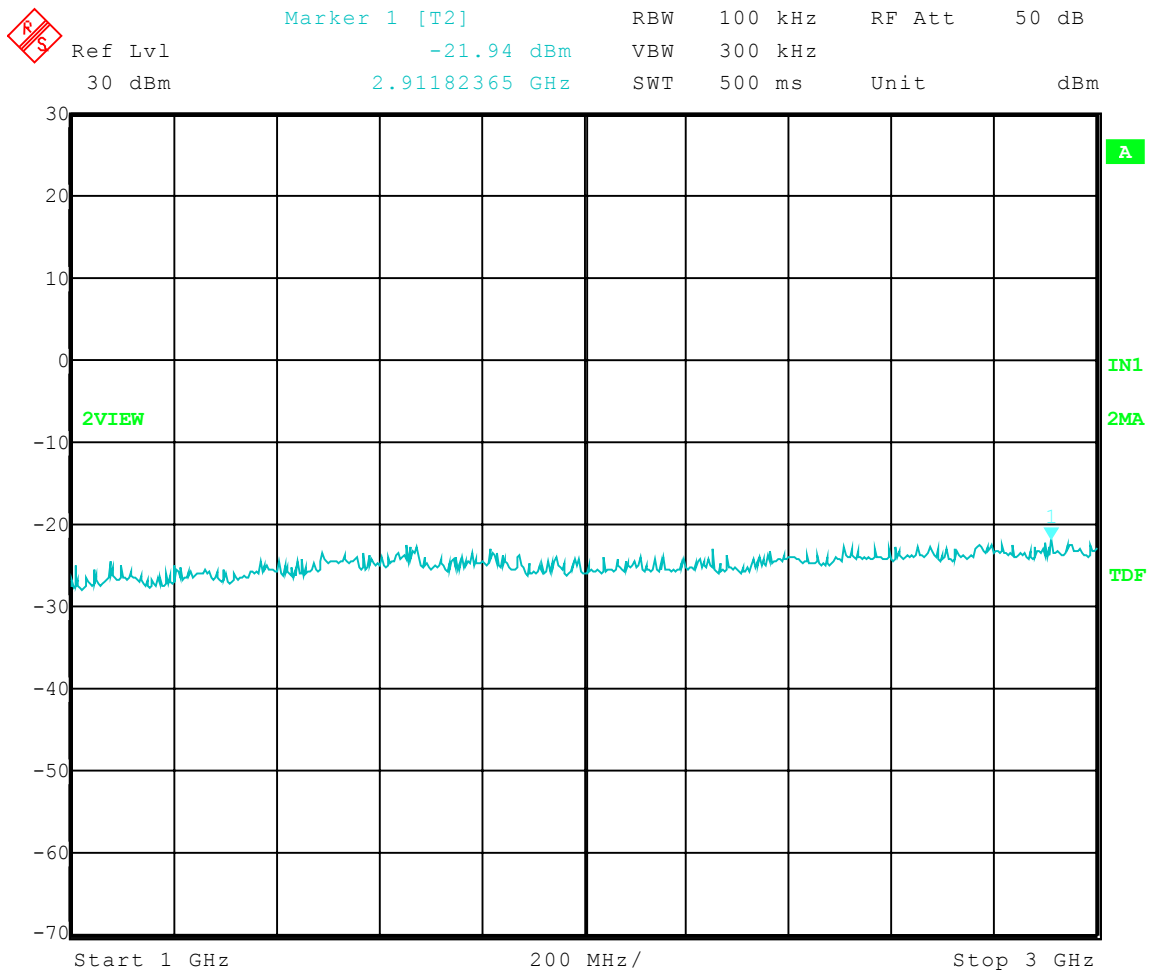
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Spread Spectrum Hopping On; Low Power  
Frequency Range: 1 to 3 GHz  
Limit = 1.83 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:04:11



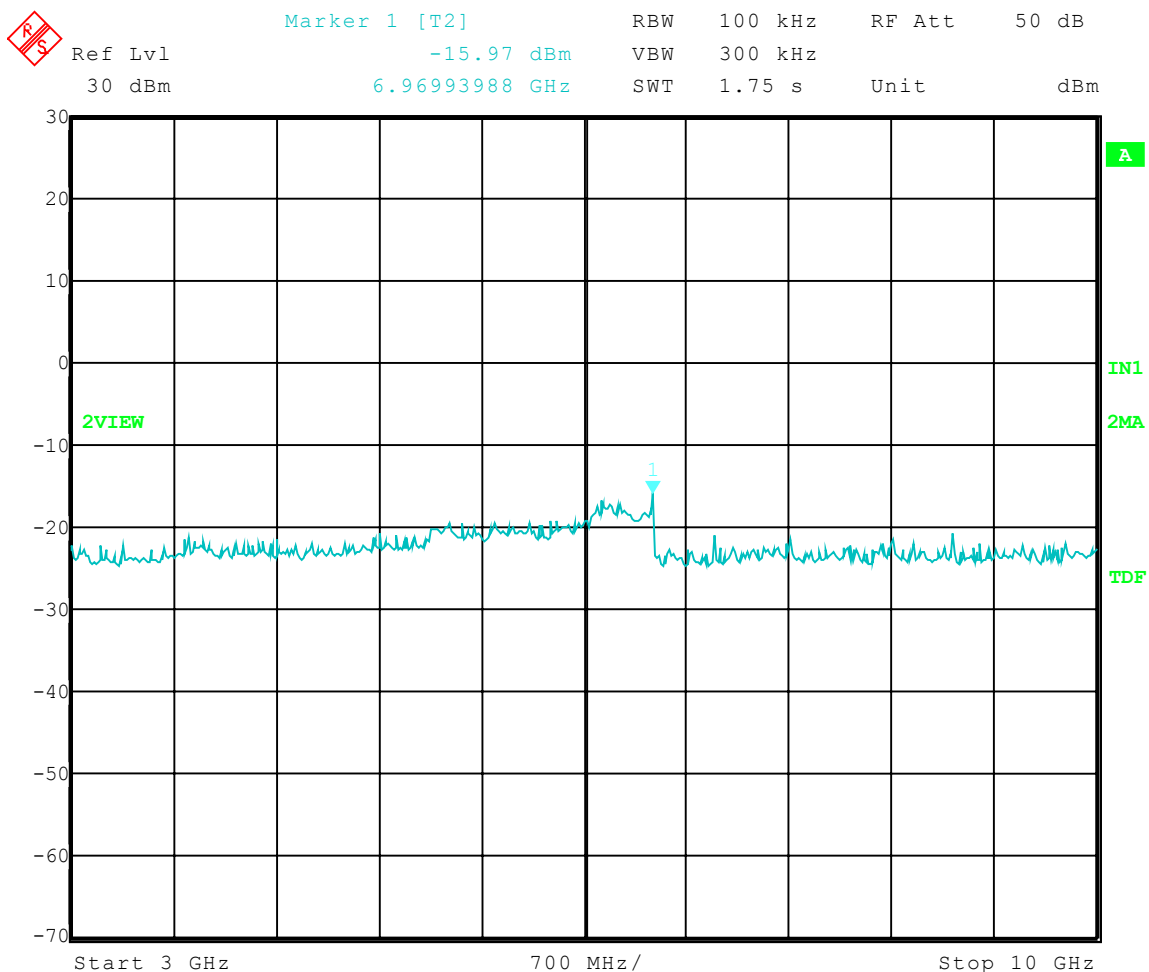
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Spread Spectrum Hopping On; High Power  
Frequency Range: 3 to 10 GHz  
Limit = 7.50 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 13:59:03





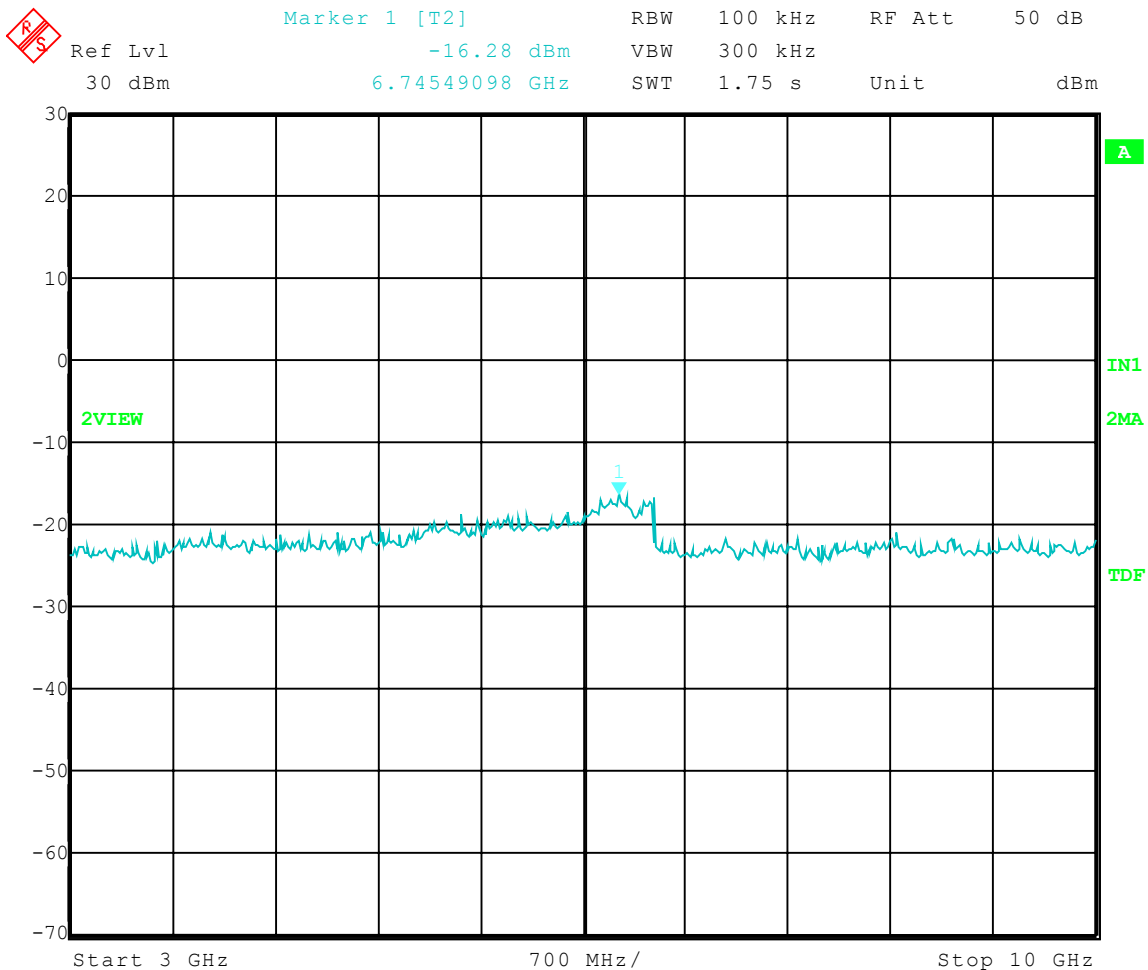
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Spread Spectrum Hopping On; Mid Power  
Frequency Range: 3 to 10 GHz  
Limit = 6.61 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:02:05



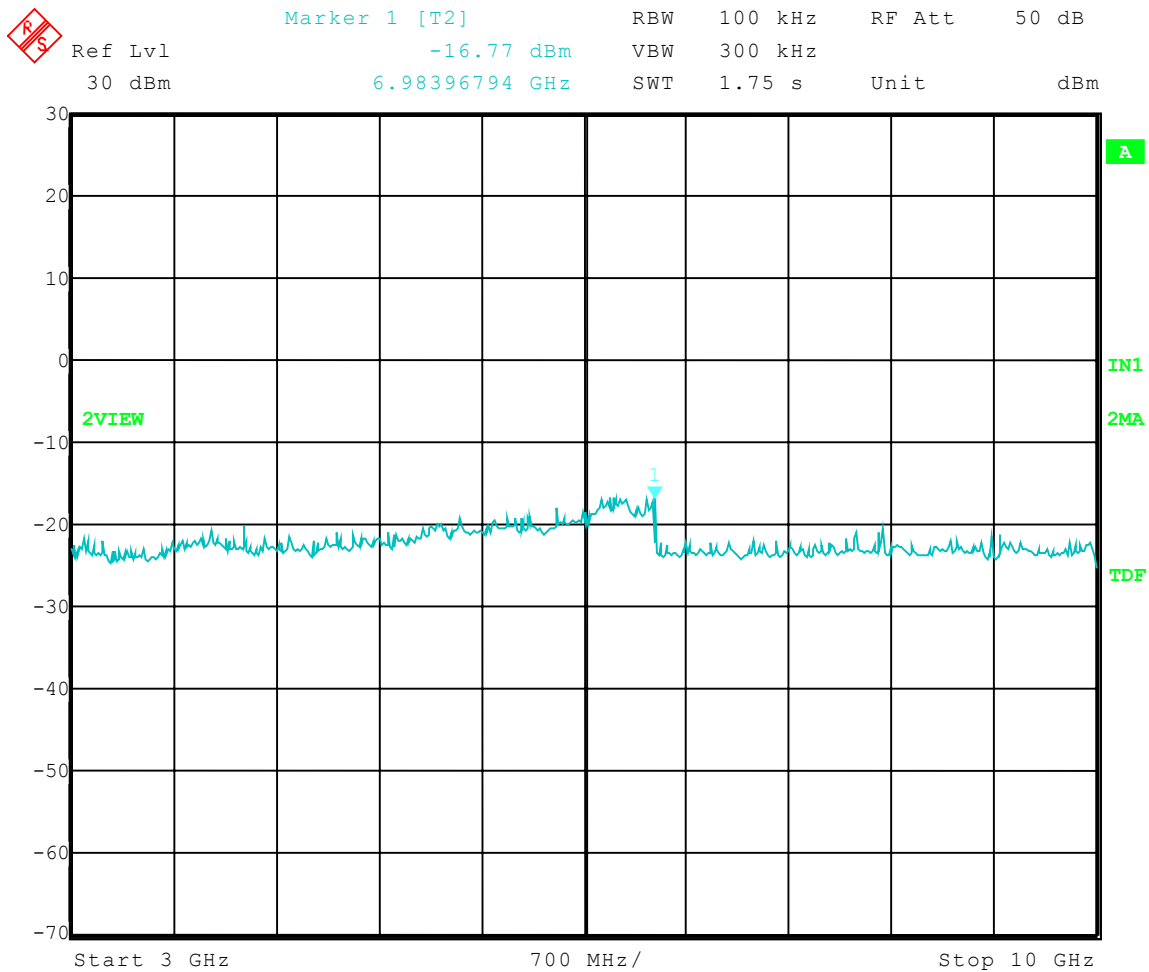
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Spurious Emissions - Conducted  
Operator: Craig B  
Comment: Spread Spectrum Hopping On; Low Power  
Frequency Range: 3 to 10 GHz  
Limit = 1.83 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



Date: 18.NOV.2004 14:05:28



Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

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## APPENDIX A

# PSEUDORANDOM HOPPING FREQUENCIES TABLE(S)

PART 15.247



Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

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## APPENDIX A

The default frequency hop table has 53 entries spaced 466kHz apart. The default table is shown below:

|    |        |
|----|--------|
| 1  | 927233 |
| 2  | 903900 |
| 3  | 920234 |
| 4  | 905767 |
| 5  | 923500 |
| 6  | 909033 |
| 7  | 917900 |
| 8  | 909967 |
| 9  | 921167 |
| 10 | 917434 |
| 11 | 902967 |
| 12 | 920700 |
| 13 | 907633 |
| 14 | 913234 |
| 15 | 924900 |
| 16 | 904367 |
| 17 | 919300 |
| 18 | 914634 |
| 19 | 923033 |
| 20 | 918834 |
| 21 | 925367 |
| 22 | 909500 |
| 23 | 908567 |
| 24 | 926300 |
| 25 | 913701 |
| 26 | 904834 |
| 27 | 906234 |
| 28 | 916034 |
| 29 | 915101 |
| 30 | 923967 |
| 31 | 922100 |
| 32 | 906700 |
| 33 | 916501 |
| 34 | 918367 |
| 35 | 910900 |
| 36 | 916967 |
| 37 | 907167 |
| 38 | 926767 |
| 39 | 912767 |
| 40 | 911833 |
| 41 | 910433 |
| 42 | 903434 |
| 43 | 914167 |
| 44 | 911367 |
| 45 | 921634 |
| 46 | 925833 |
| 47 | 915567 |
| 48 | 908100 |
| 49 | 912301 |
| 50 | 922567 |
| 51 | 924433 |
| 52 | 919767 |
| 53 | 905300 |

Table 3: Default frequency hop table values Hop Table Entry # Frequency in kHz.



Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

# TIME OF OCCUPANCY GRAPHS

## PART 15.247



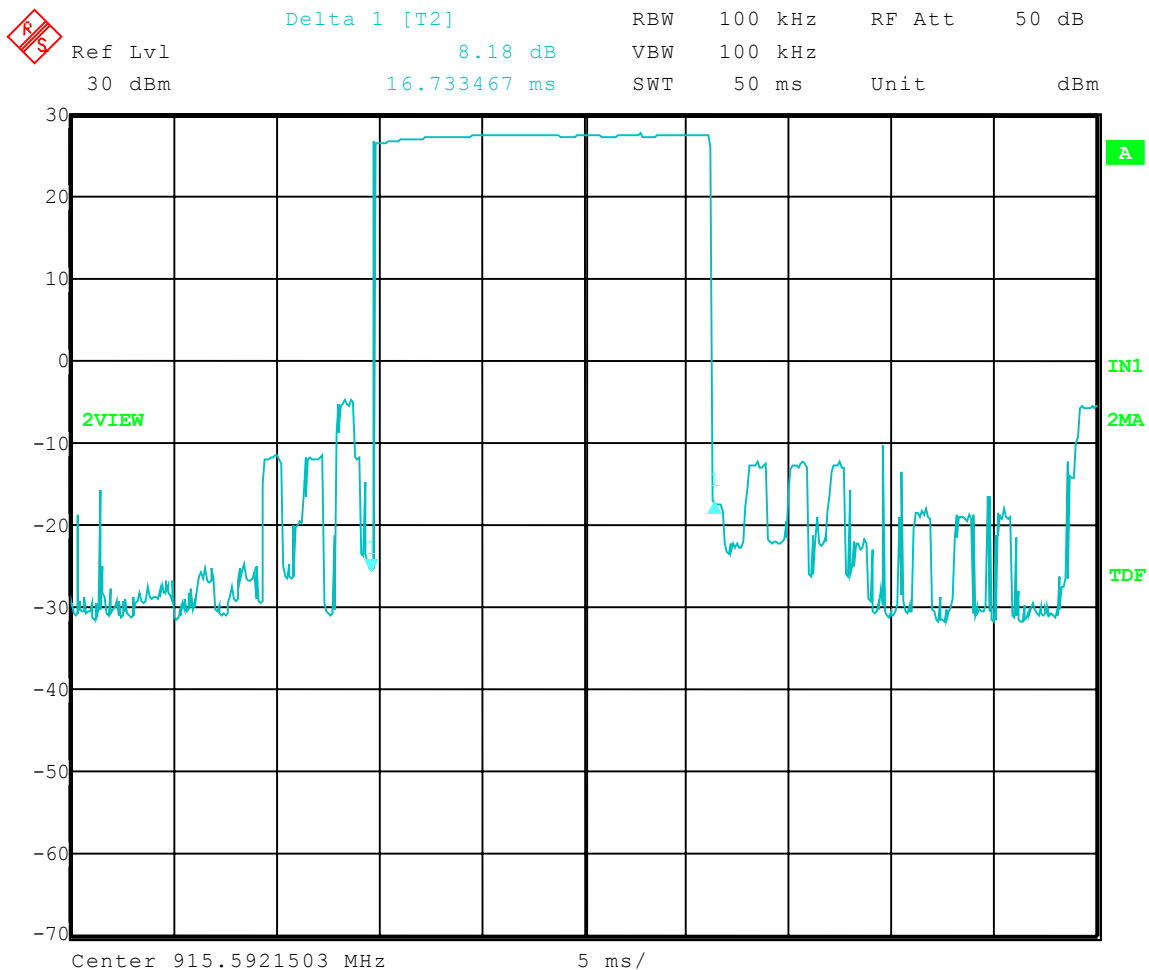
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Dwell Time - Conducted  
Operator: Craig B  
Comment: Middle Channel - Hopping Mode On

Dwell Time = 16.73 mS



Date: 18.NOV.2004 11:37:29



Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

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## APPENDIX A

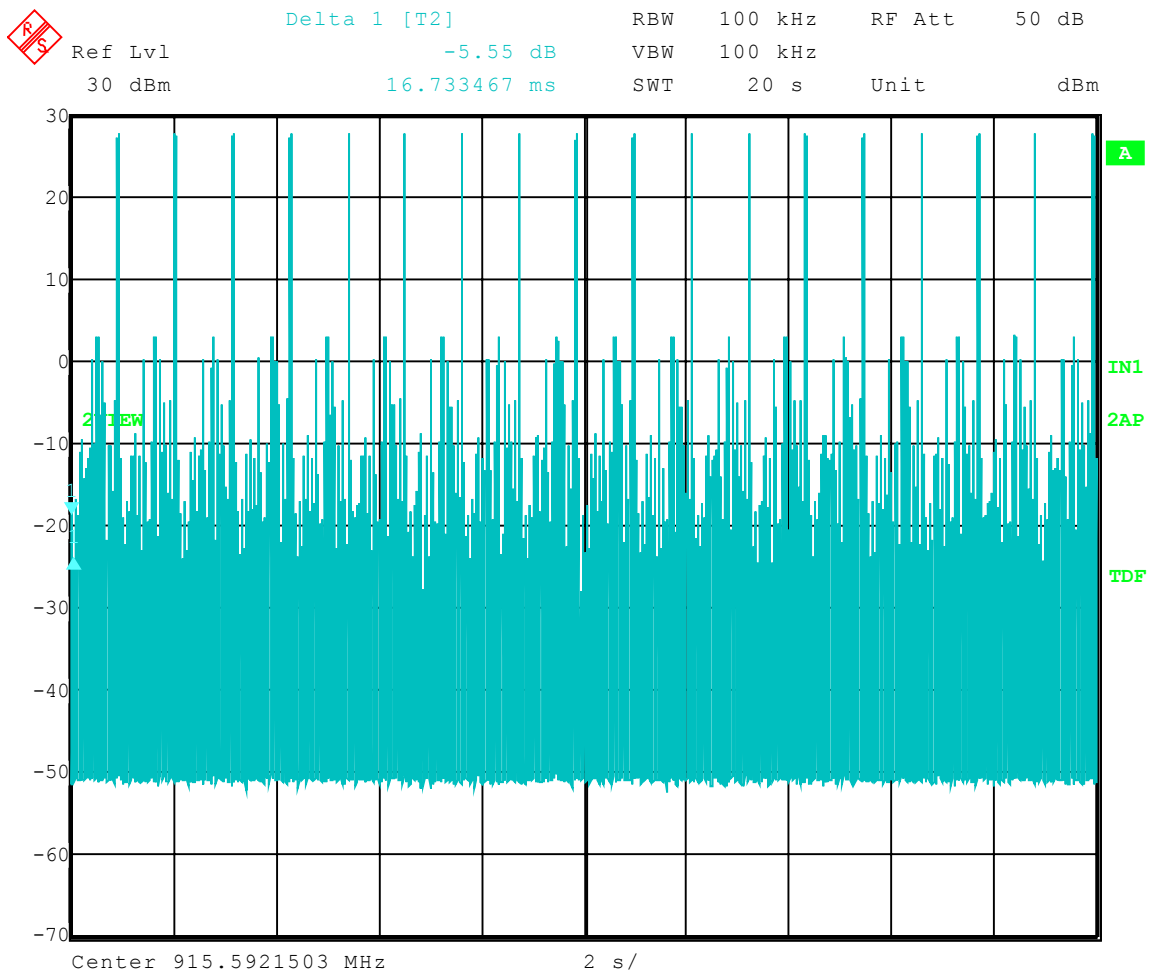
Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Dwell Time in 20 Seconds - Conducted  
Operator: Craig B  
Comment: Middle Channel – Hopping Mode On

Dwell Time Limit = 0.4 Seconds in 20 Seconds

Times ON in 20 Sec = 18

Dwell Time in 20 Sec = Time Slot Length X Times On in 20 s

0.301 Seconds = 16.73 ms X 18



Date: 18.NOV.2004 11:44:45



Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

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## APPENDIX A

# CONDUCTED PEAK OUTPUT POWER GRAPHS

## PART 15.247





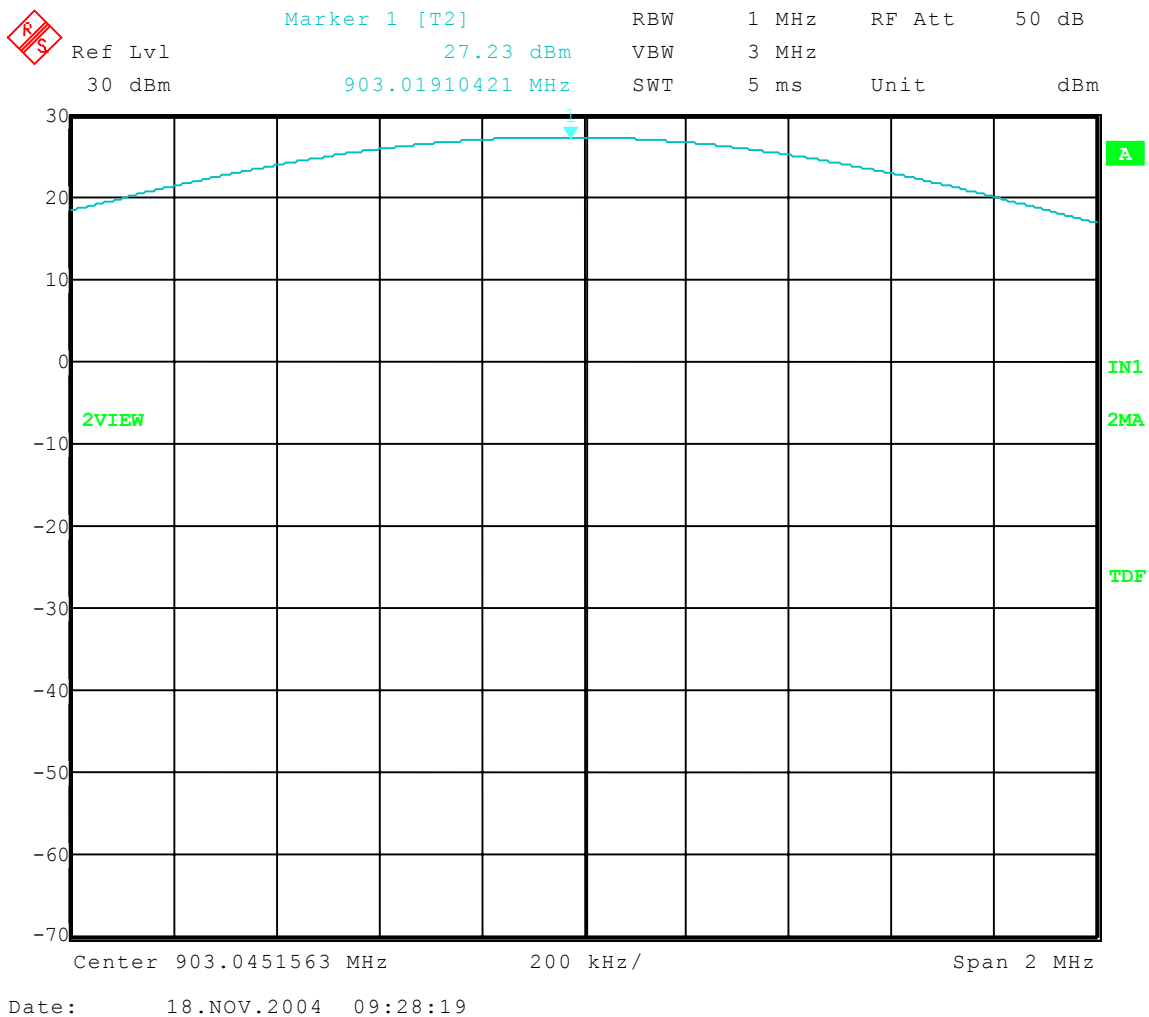
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Peak Output Power - Conducted  
Operator: Craig B  
Comment: Low Channel; High Power: Frequency – 902.967 MHz

Peak Output Power = 27.23 dBm = 528.4 mW





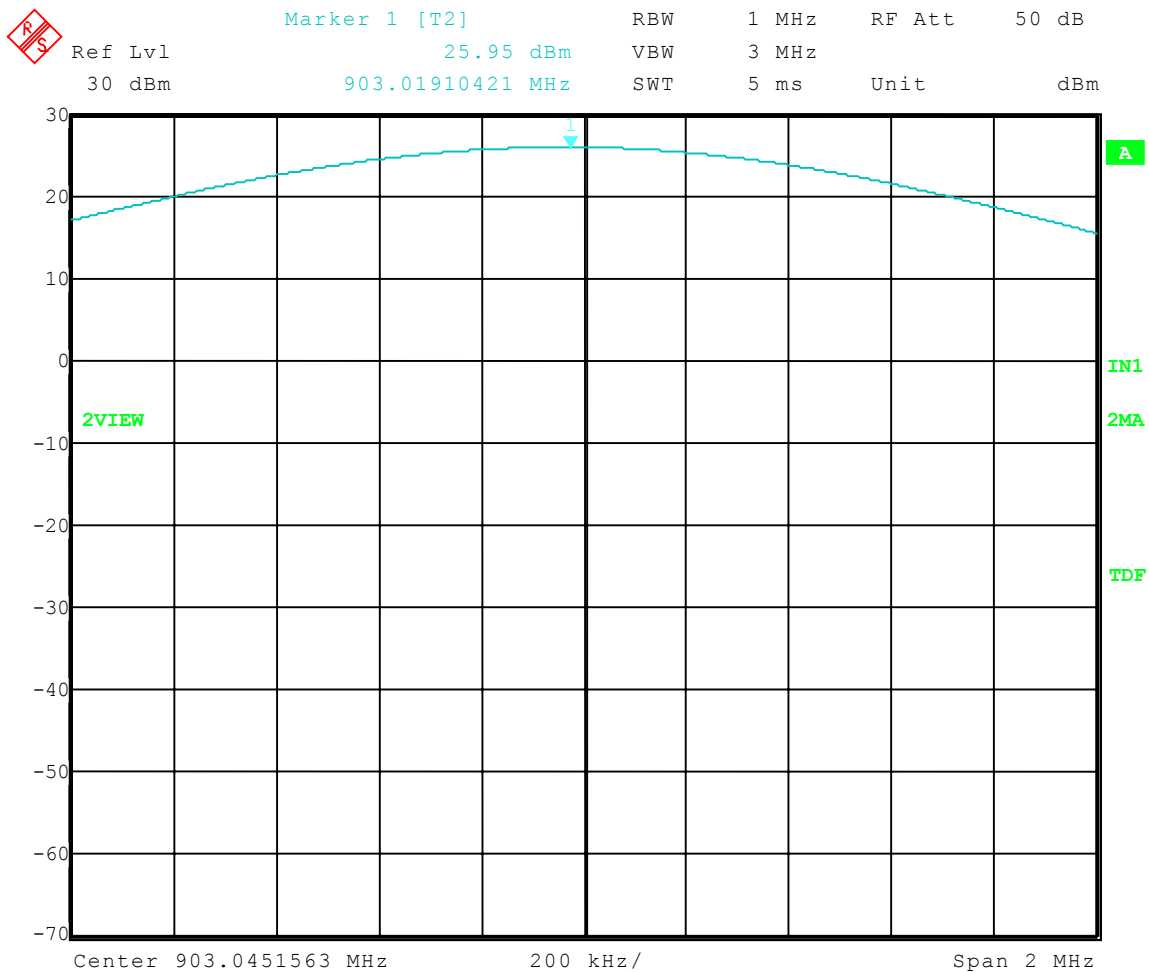
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

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## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Peak Output Power - Conducted  
Operator: Craig B  
Comment: Low Channel; Mid Power: Frequency – 902.967 MHz

Peak Output Power = 25.95 dBm = 393.6 mW



Date: 18.NOV.2004 09:32:28



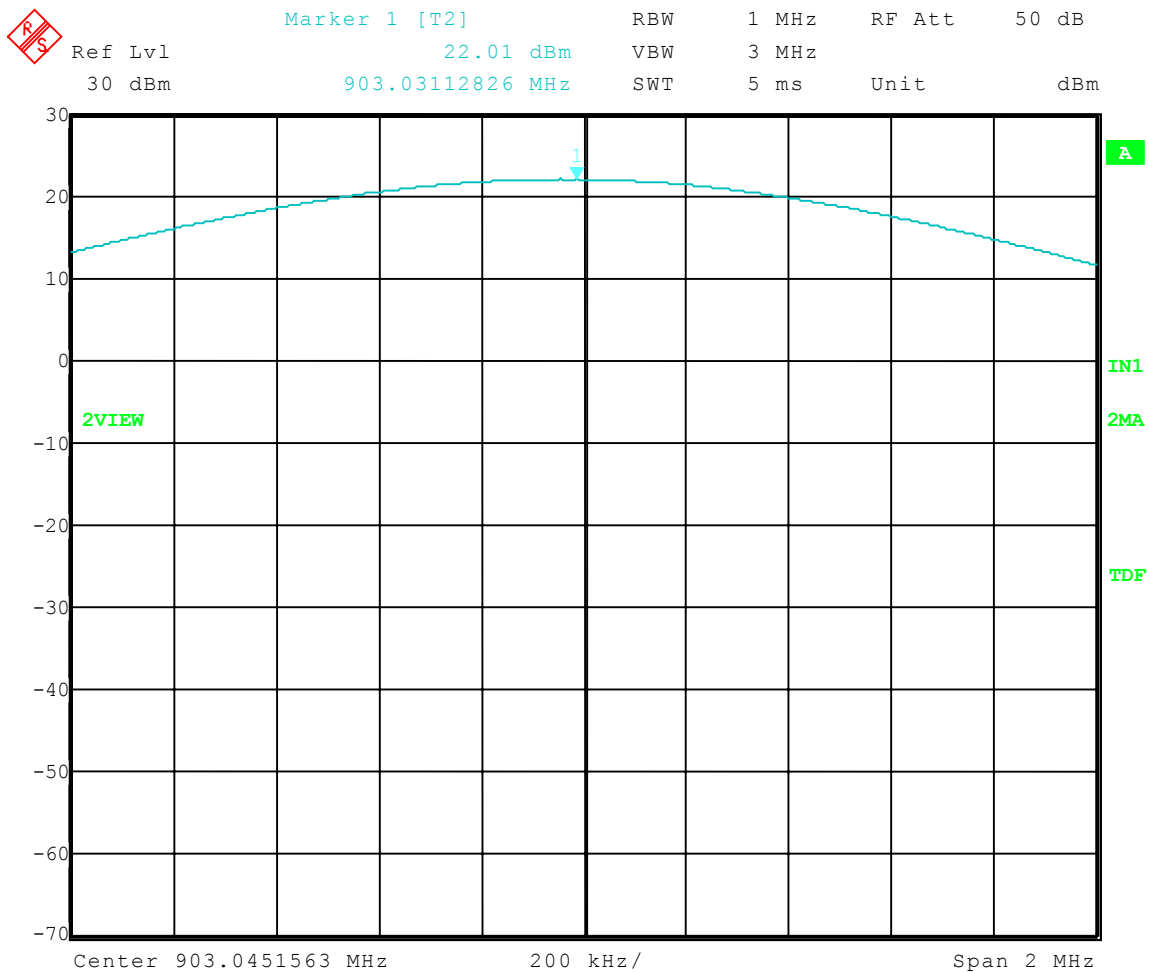
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Peak Output Power - Conducted  
Operator: Craig B  
Comment: Low Channel; Low Power: Frequency – 902.967 MHz

Peak Output Power = 22.01 dBm = 158.8 mW



Date: 18.NOV.2004 09:35:48



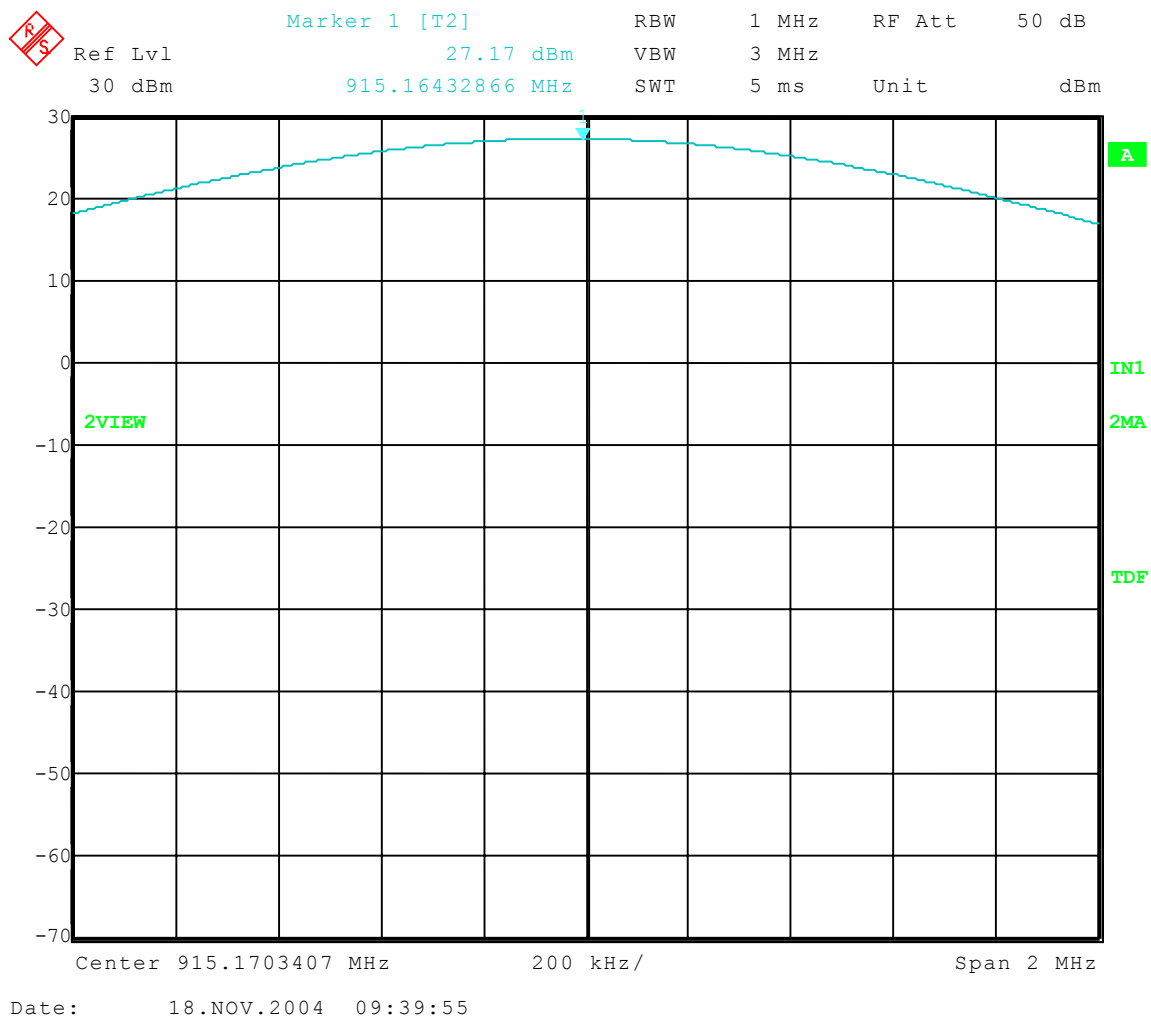
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Peak Output Power - Conducted  
Operator: Craig B  
Comment: Middle Channel; High Power: Frequency – 915.101 MHz

Peak Output Power = 27.17 dBm = 521.2 mW





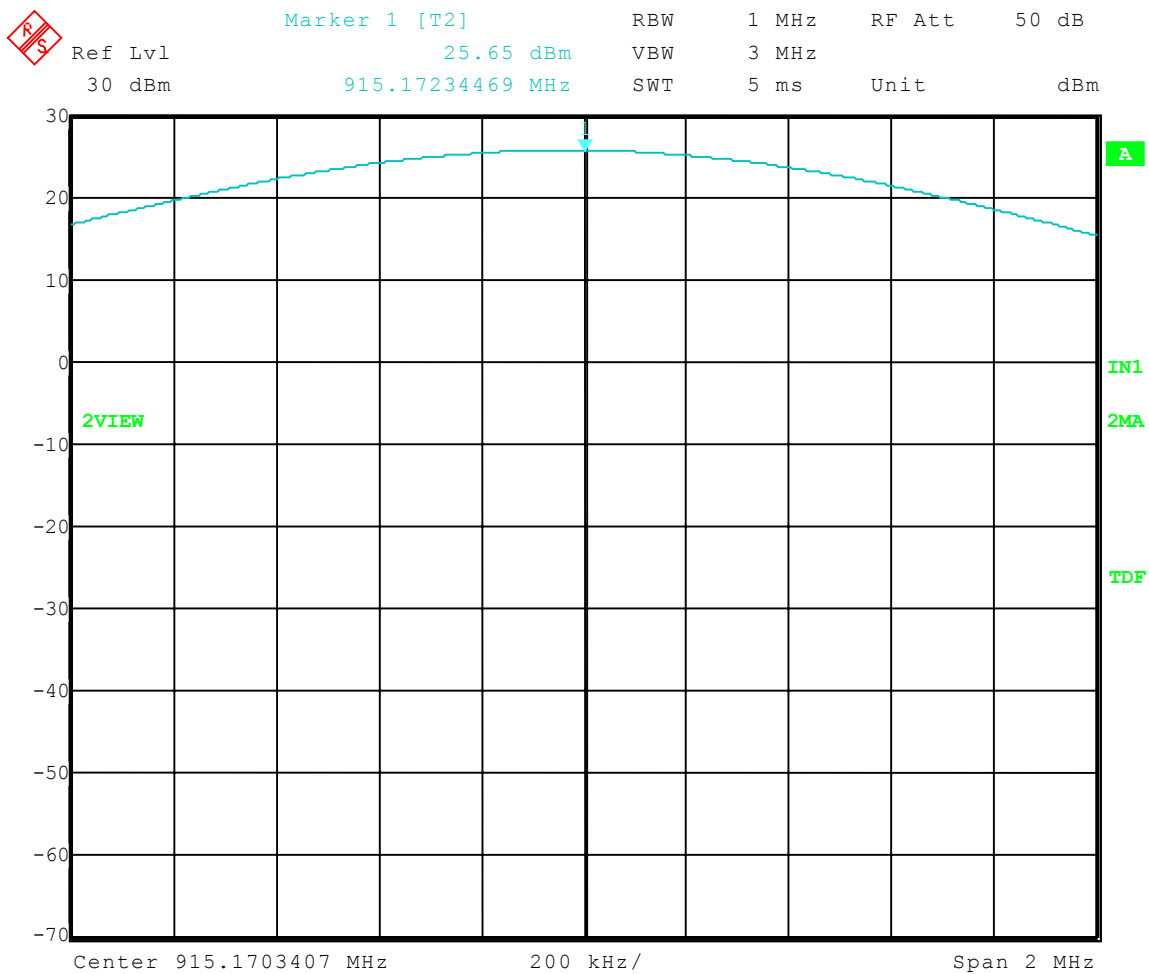
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Peak Output Power - Conducted  
Operator: Craig B  
Comment: Middle Channel; Mid Power: Frequency – 915.101 MHz

Peak Output Power = 25.65 dBm = 367.3 mW



Date: 18.NOV.2004 09:42:05



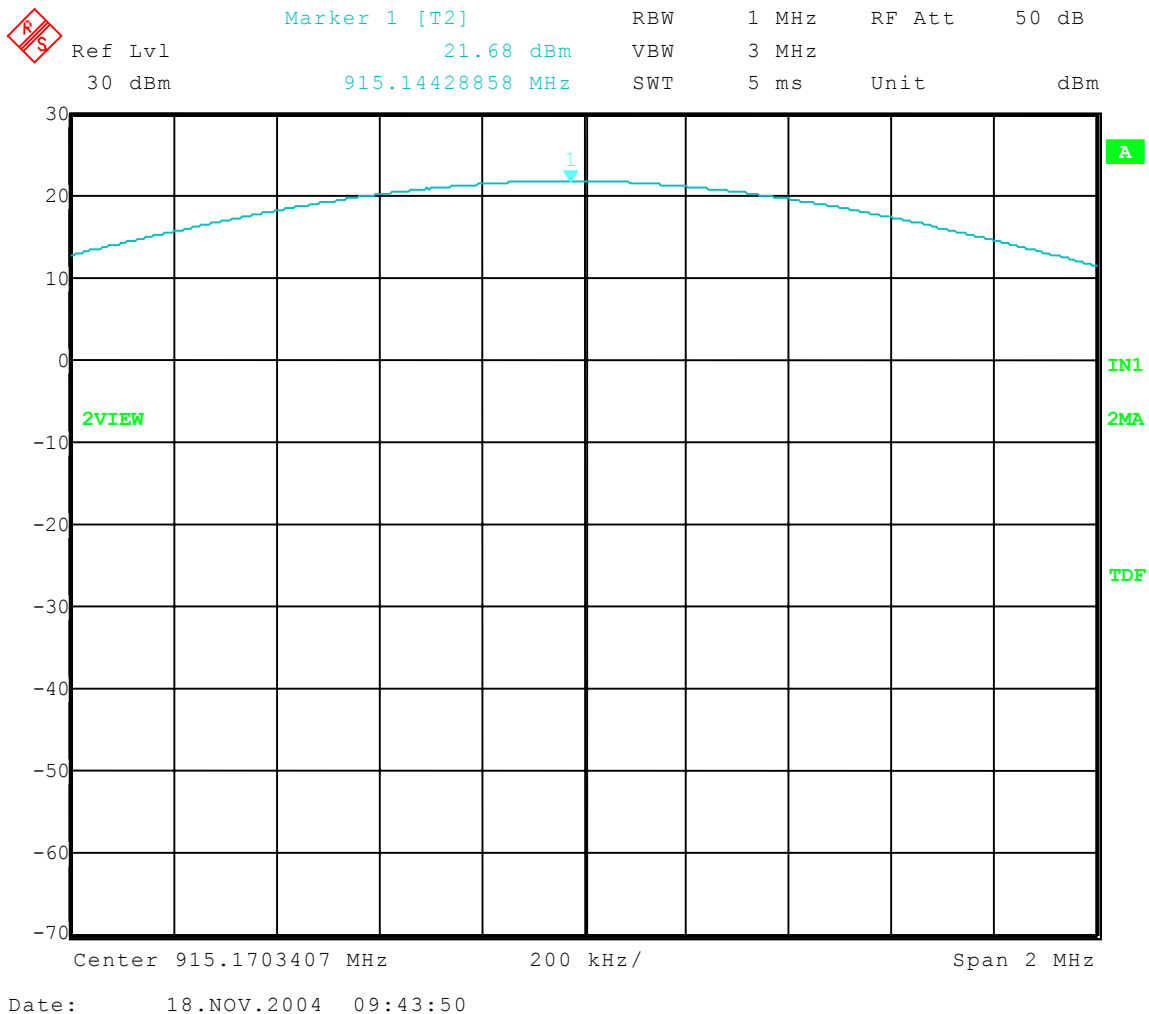
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Peak Output Power - Conducted  
Operator: Craig B  
Comment: Middle Channel; Low Power: Frequency – 915.101 MHz

Peak Output Power = 21.68 dBm = 147.2 mW





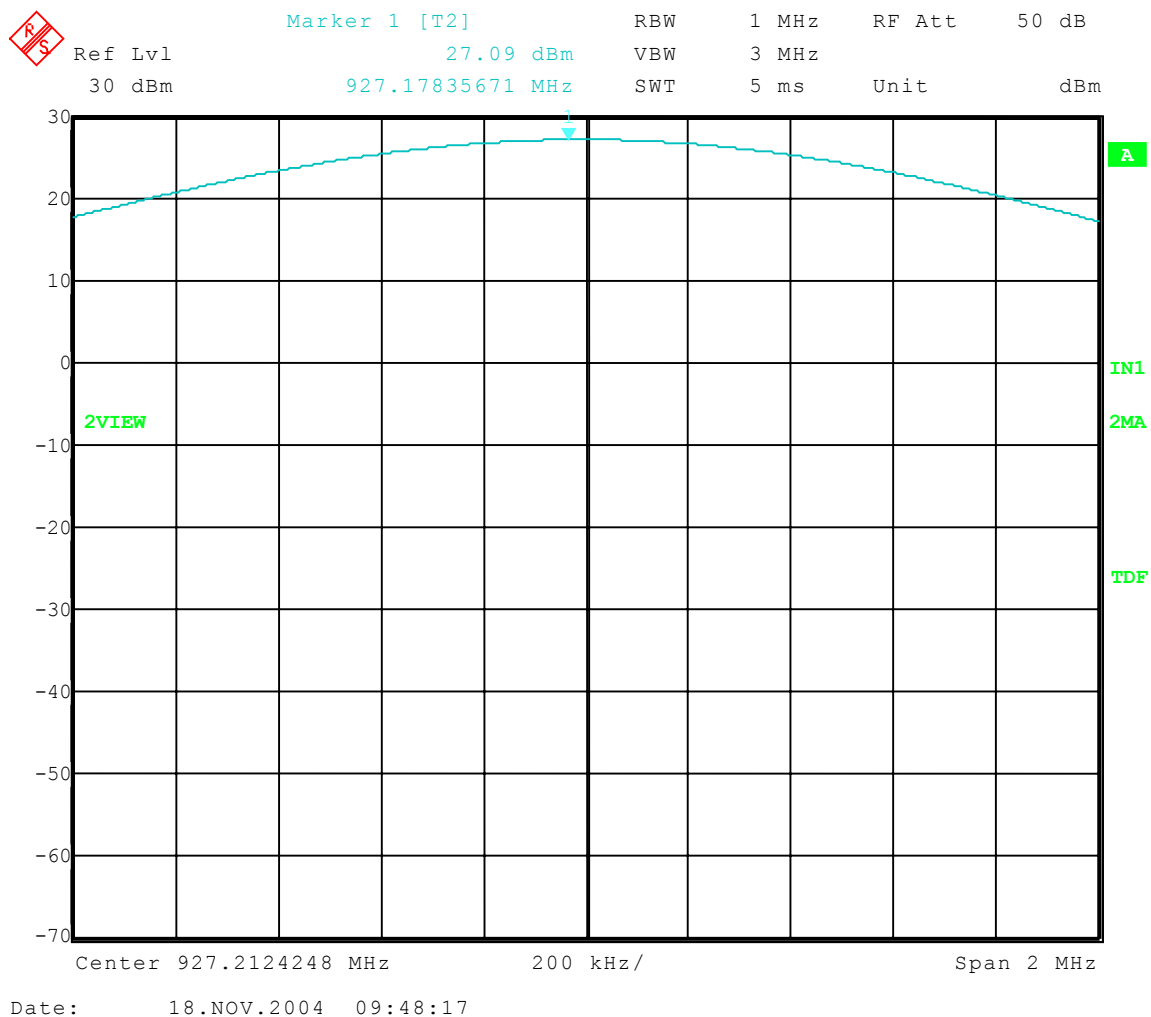
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Peak Output Power - Conducted  
Operator: Craig B  
Comment: High Channel; High Power: Frequency – 927.233 MHz

Peak Output Power = 27.09 dBm = 511.7 mW





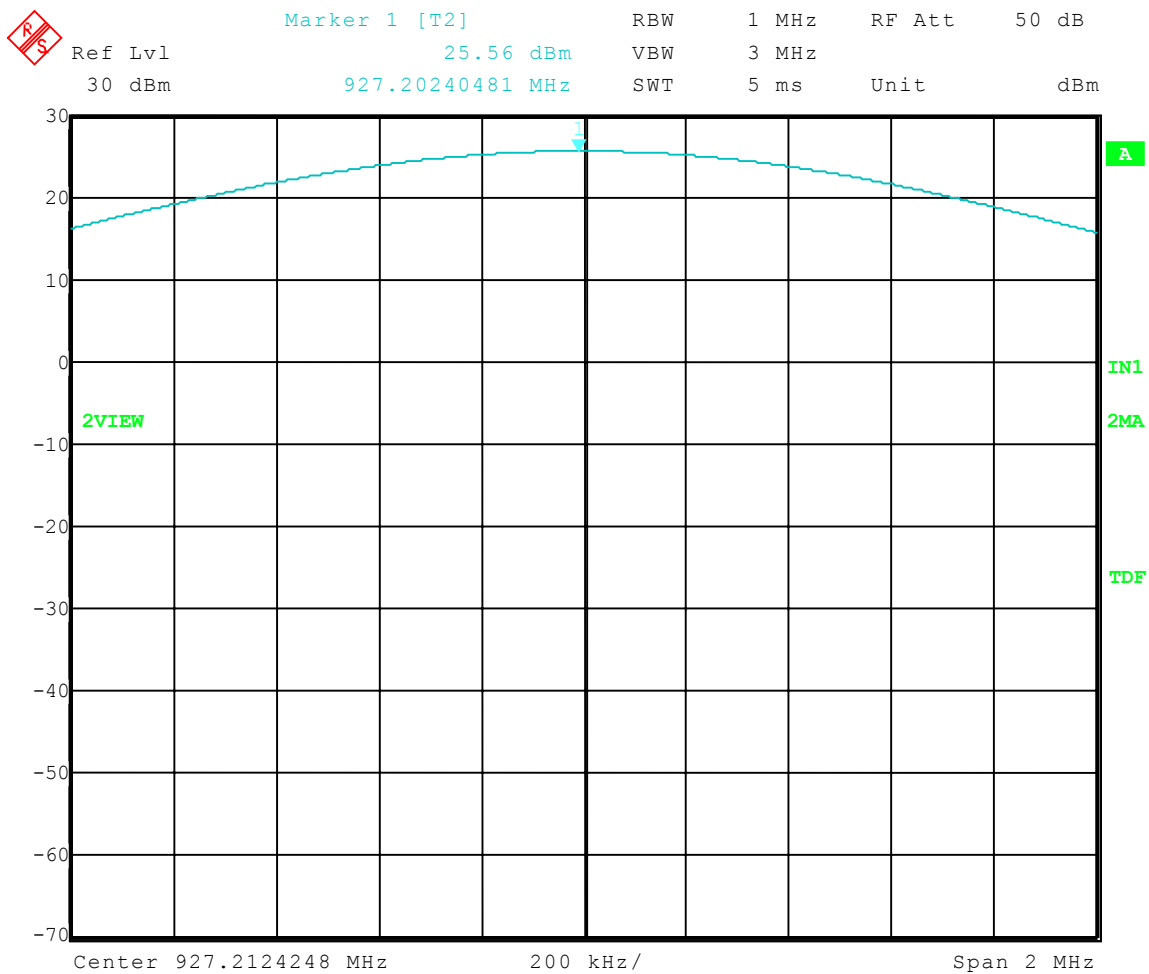
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Peak Output Power - Conducted  
Operator: Craig B  
Comment: High Channel; Mid Power: Frequency – 927.233 MHz

Peak Output Power = 25.56 dBm = 359.7 mW



Date: 18.NOV.2004 09:49:41





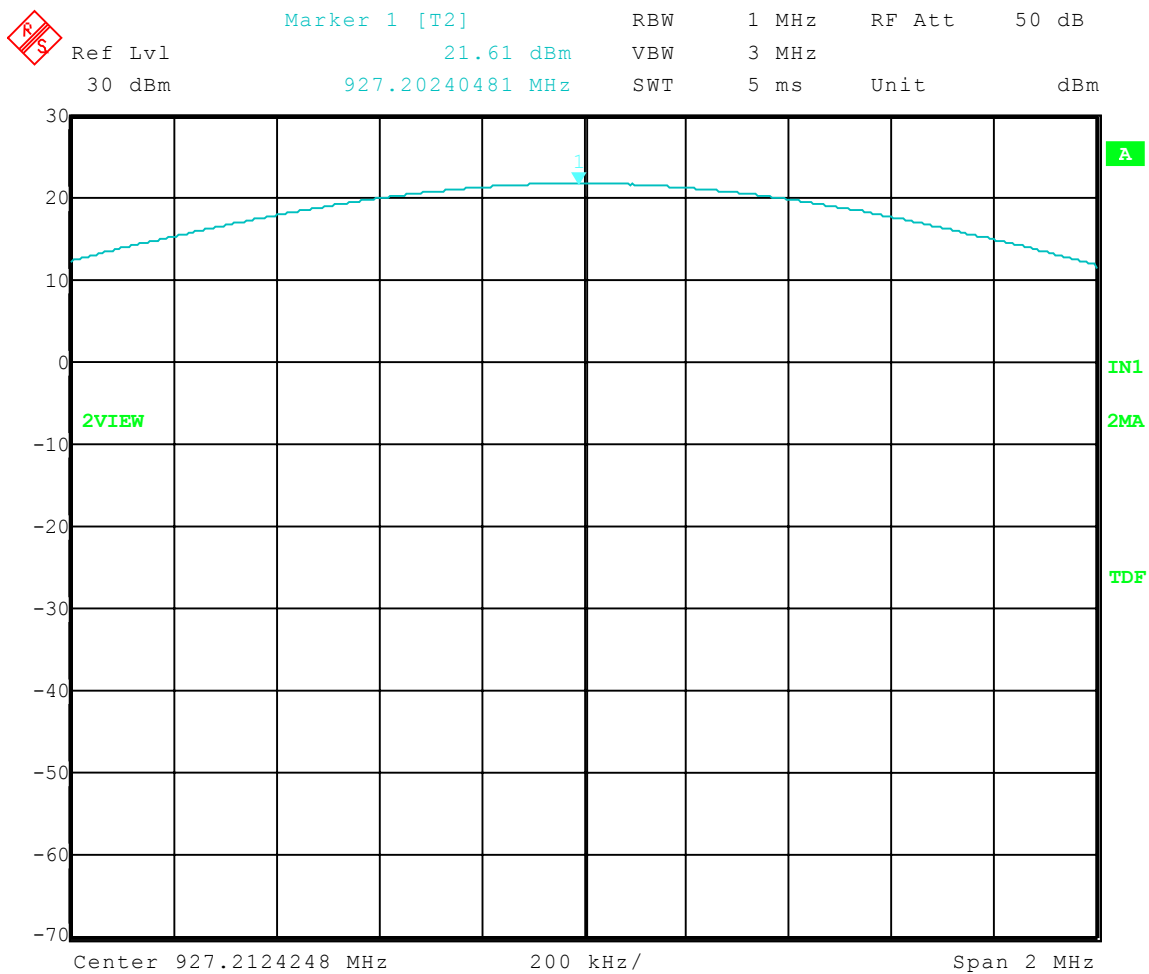
Company: Zebra Technologies Corporation  
Model Tested: 110XiIII  
Report Number: 11069

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

Test Date: 11-18-04  
Company: Zebra Technologies  
EUT: 110XiIII  
Test: Peak Output Power - Conducted  
Operator: Craig B  
Comment: High Channel; Low Power: Frequency – 927.233 MHz

Peak Output Power = 21.61 dBm = 144.9 mW



Date: 18.NOV.2004 09:51:07