

MEASUREMENT REPORT

FCC PART 15.247 Bluetooth-LE

FCC ID: 2AQJT-U1

APPLICANT: Actions Microelectronics Co., Ltd.

Application Type: Certification

Product: EZCast Ultra Wireless Display Receiver

Model No.: EZCast Ultra U1

Serial Model No.: EZCast Ultra U2, MagicUltra U1, MagicUltra U2

Brand Name: EZCast Ultra, Magic Ultra

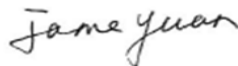
FCC Classification: Digital Transmission System (DTS)

FCC Rule Part(s): Part15 Subpart C (Section 15.247)

Test Procedure(s): ANSI C63.10-2013

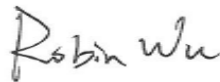
Test Date: November 10 ~ 24, 2019

Reviewed By:



(Jame Yuan)

Approved By:



(Robin Wu)



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.10-2013. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
1911RSU009-U1	Rev. 01	Initial Report	12-23-2019	Valid

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General Information

Applicant:	Actions Microelectronics Co., Ltd.
Applicant Address:	201, No.9 Building, Software Park, KeJiZhong Er Road, GaoXinQu, NanShan, Shenzhen, China
Manufacturer:	Actions Microelectronics Co., Ltd.
Manufacturer Address:	201, No.9 Building, Software Park, KeJiZhong Er Road, GaoXinQu, NanShan, Shenzhen, China
Test Site:	MRT Technology (Suzhou) Co., Ltd
Test Site Address:	D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China
Test Device Serial No.:	N/A <input type="checkbox"/> Production <input checked="" type="checkbox"/> Pre-Production <input type="checkbox"/> Engineering

Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Tian'edang Rd., Suzhou, China.

- MRT facility is a FCC registered (MRT Reg. No. 893164) test facility with the site description report on file and has met all the requirements specified in ANSI C63.4-2014.
- MRT facility is an IC registered (MRT Reg. No. 11384A-1) test laboratory with the site description on file at Industry Canada.
- MRT facility is a VCCI registered (R-20025, G-20034, C-20020, T-20020) test laboratory with the site description on file at VCCI Council.
- MRT Lab is accredited to ISO 17025 by the American Association for Laboratory Accreditation (A2LA) under the American Association for Laboratory Accreditation Program (A2LA Cert. No. 3628.01) in EMC, Telecommunications, Radio and SAR testing.



1. INTRODUCTION

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada and Certification and Engineering Bureau.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taihu Lake. These measurement tests were conducted at the MRT Technology (Suzhou) Co., Ltd. Facility located at D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China. The measurement facility compliant with the test site requirements specified in ANSI C63.4-2014.



2. PRODUCT INFORMATION

2.1. Feature of Equipment under Test

Product Name:	EZCast Ultra Wireless Display Receiver
Model No.:	EZCast Ultra U1
Serial Model No.:	EZCast Ultra U2, MagicUltra U1, MagicUltra U2
Brand Name:	EZCast Ultra, Magic Ultra
Wi-Fi Specification:	802.11a/b/g/n/ac
Bluetooth Version:	v5.0 single mode (Bluetooth-LE Only)
Power Supply:	5V \rightarrow 2A

Note 1: The different models and brands are only for marketing different clients, others are the same.

Note 2: The product does not come with adapter for marketing, and it's powered by adapter (model: FJ-SW266B50502000U) supplied by MRT for testing.

2.2. Product Specification Subjective to this Report

Frequency Range:	2402 ~ 2480MHz
Channel Number:	40
Type of modulation:	GFSK
Data Rate:	1Mbps
Antenna Type:	Shrapnel Antenna
Antenna Gain:	0.56dBi

Note: For other features of this EUT, test report will be issued separately.

2.3. Working Frequencies for this Report

Channel	Frequency	Channel	Frequency	Channel	Frequency
00	2402 MHz	01	2404 MHz	02	2406 MHz
03	2408 MHz	04	2410 MHz	05	2412 MHz
06	2414 MHz	07	2416 MHz	08	2418 MHz
09	2420 MHz	10	2422 MHz	11	2424 MHz
12	2426 MHz	13	2428 MHz	14	2430 MHz
15	2432 MHz	16	2434 MHz	17	2436 MHz
18	2438 MHz	19	2440 MHz	20	2442 MHz
21	2444 MHz	22	2446 MHz	23	2448 MHz
24	2450 MHz	25	2452 MHz	26	2454 MHz
27	2456 MHz	28	2458 MHz	29	2460 MHz
30	2462 MHz	31	2464 MHz	32	2466 MHz
33	2468 MHz	34	2470 MHz	35	2472 MHz
36	2474 MHz	37	2476 MHz	38	2478 MHz
39	2480 MHz	--	--	--	--

2.4. Test Mode

Test Mode	Mode 1: Transmit by Bluetooth-LE
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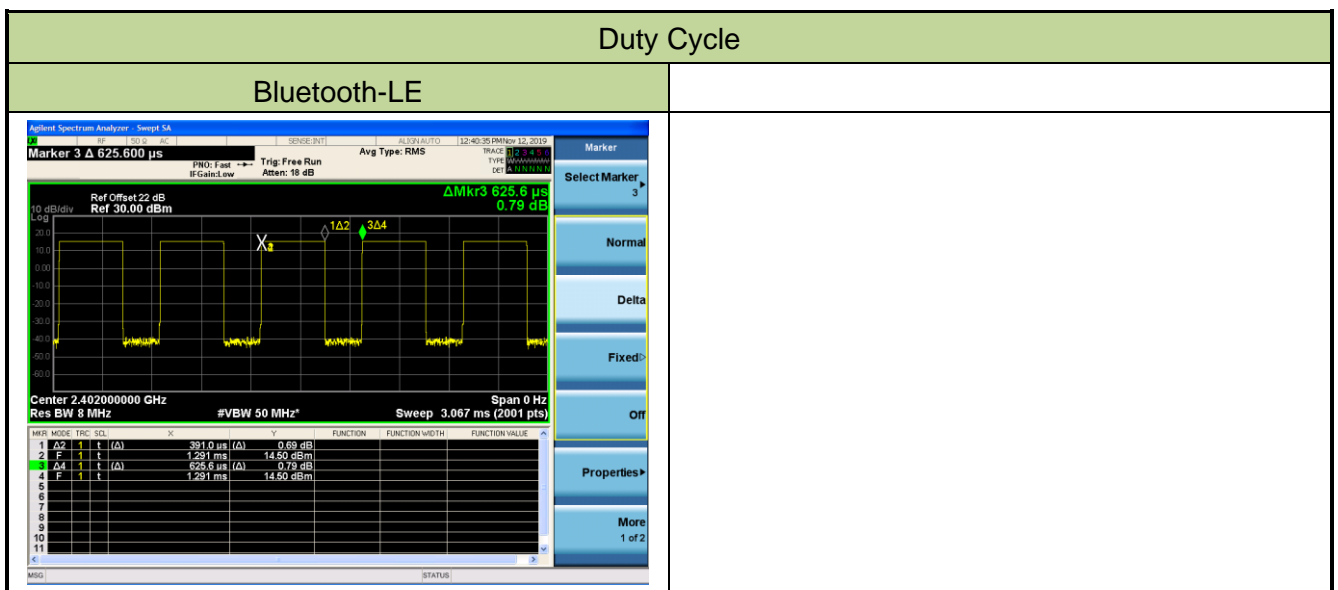
2.5. Device Capabilities

This device contains the following capabilities:

2.4GHz WLAN (DTS) & 5GHz WLAN (UNII) & Bluetooth v5.0 single mode (DTS).

Note: The maximum achievable duty cycles was determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

Test Mode	Duty Cycle
Bluetooth-LE	62.5%



2.6. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

2.7. Description of Test Software

The test utility software used during testing was “RTLBTAPP”, and the version was 5.2.1.21.

2.8. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase.

However, when the device is so small wherein placement of the label with specified statement is not practical, only the FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.

3. DESCRIPTION OF TEST

3.1. Evaluation Procedure

The measurement procedures described in the American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices (ANSI C63.10-2013), and the guidance provided in ANSI C63.10-2013 were used in the measurement.

Deviation from measurement procedure.....None

3.2. AC Line Conducted Emissions

The line-conducted facility is located inside an 8'x4'x4' shielded enclosure. A 1m x 2m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50uH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground-plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the receiver and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The receiver was scanned from 150kHz to 30MHz. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 9kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was also maximized by varying: power lines, the mode of operation or data exchange speed, or support equipment whichever determined the worst-case emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions were used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.

An extension cord was used to connect to a single LISN which powered by EUT. The extension cord was calibrated with LISN, the impedance and insertion loss are compliance with the requirements as stated in ANSI C63.10-2013.

3.3. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the Antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. A MF Model 210SS turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable. For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive Antenna height using a broadband Antenna from 30MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn Antennas were used. For frequencies below 30MHz, a calibrated loop Antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband Antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up for frequencies below 1GHz was placed on top of the 0.8 meter high, 1 x 1.5 meter table; and test set-up for frequencies 1-40GHz was placed on top of the 1.5 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, clock speed, mode of operation or video resolution, if applicable, turntable azimuth, and receive Antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn Antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive Antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive Antenna, whichever produced the worst-case emissions. According to 3dB Beam-Width of horn Antenna, the horn Antenna should be always directed to the EUT when rising height.

4. ANTENNA REQUIREMENTS

Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

- The antenna of the device is **permanently attached**.
- There are no provisions for connection to an external antenna.

Conclusion:

The unit complies with the requirement of §15.203.

5. TEST EQUIPMENT CALIBRATION DATE

Conducted Emission - SR2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06185	1 year	2020/04/15
Two-Line V-Network	R&S	ENV 216	MRTSUE06002	1 year	2020/06/13
Two-Line V-Network	R&S	ENV 216	MRTSUE06003	1 year	2020/06/13
Thermohygrometer	Testo	608-H1	MRTSUE06404	1 year	2020/08/08
Shielding Room	MIX-BEP	Chamber-SR2	MRTSUE06215	N/A	N/A

Radiated Emission - AC1

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2020/08/01
PXA Signal Analyzer	Keysight	9030B	MRTSUE06395	1 year	2020/09/03
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2020/11/10
Bilog Period Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2020/03/31
Broad Band Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2020/10/13
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06024	1 year	2019/12/17
Microwave System Amplifier	Agilent	83017A	MRTSUE06076	1 year	2019/11/16
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2020/06/11
Thermohygrometer	Testo	608-H1	MRTSUE06403	1 year	2020/08/08
Anechoic Chamber	TDK	Chamber-AC1	MRTSUE06212	1 year	2020/04/30

Radiated Emission - AC2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Keysight	N9038A	MRTSUE06125	1 year	2020/08/01
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2020/11/10
Bilog Period Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2020/10/13
Horn Antenna	Schwarzbeck	BBHA9120D	MRTSUE06171	1 year	2020/10/27
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06024	1 year	2019/12/17
Broadband Coaxial Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2020/11/15
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2020/06/11
Temperature/Humidity Meter	Minggao	ETH529	MRTSUE06170	1 year	2019/12/13
Anechoic Chamber	RIKEN	Chamber-AC2	MRTSUE06213	1 year	2020/04/30

Conducted Test Equipment - TR3

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EXA Signal Analyzer	Agilent	N9020A	MRTSUE06106	1 year	2020/04/15
EXA Signal Analyzer	Keysight	N9010B	MRTSUE06452	1 year	2020/07/11
Signal Analyzer	R&S	FSV40	MRTSUE06218	1 year	2020/04/15
Power Meter	Agilent	U2021XA	MRTSUE06030	1 year	2019/11/16
USB wideband power sensor	Keysight	U2021XA	MRTSUE06446	1 year	2020/06/30
USB wideband power sensor	Keysight	U2021XA	MRTSUE06447	1 year	2020/06/30
Bluetooth Test Set	Anritsu	MT8852B-042	MRTSUE06389	1 year	2020/06/13
Audio Analyzer	Agilent	U8903B	MRTSUE06143	1 year	2020/06/13
Modulation Analyzer	HP	8901A	MRTSUE06098	1 year	2020/10/10
Wideband Radio Communication Tester	R&S	CMW 500	MRTSUE06243	1 year	2020/11/07
DC Power Supply	GWINSTEK	DPS-3303C	MRTSUE06064	N/A	N/A
Temperature & Humidity Chamber	BAOYT	BYH-150CL	MRTSUE06051	1 year	2020/11/07
Thermohygrometer	testo	608-H1	MRTSUE06401	1 year	2020/08/08

Software	Version	Function
EMI Software	V3	EMI Test Software

6. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

AC Conducted Emission Measurement - SR2	
Measurement Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$):	
9kHz~150kHz: 3.84dB	
150kHz~30MHz: 3.46dB	
Radiated Emission Measurement - AC1	
Measurement Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$):	
Horizontal: 30MHz~300MHz: 4.07dB	
300MHz~1GHz: 3.63dB	
1GHz~18GHz: 4.16dB	
Vertical: 30MHz~300MHz: 4.18dB	
300MHz~1GHz: 3.60dB	
1GHz~18GHz: 4.76dB	
Radiated Emission Measurement - AC2	
Measurement Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$):	
Horizontal: 30MHz~300MHz: 3.75dB	
300MHz~1GHz: 3.53dB	
1GHz~18GHz: 4.28dB	
Vertical: 30MHz~300MHz: 3.86dB	
300MHz~1GHz: 3.53dB	
1GHz~18GHz: 4.33dB	

7. TEST RESULT

7.1. Summary

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.247(a)(2)	6dB Bandwidth	$\geq 500\text{kHz}$	Conducted	Pass	Section 7.2
15.247(b)(3)	Output Power	$\leq 1\text{Watt}$		Pass	Section 7.3
15.247(e)	Power Spectral Density	$\leq 8\text{dBm} / 3\text{kHz}$		Pass	Section 7.4
15.247(d)	Band Edge / Out-of-Band Emissions	$\geq 20\text{dBc (Peak)}$		Pass	Section 7.5
15.205 15.209	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Emissions in restricted bands must meet the radiated limits detailed in 15.209	Radiated	Pass	Section 7.6 Section 7.7
15.207	AC Conducted Emissions 150kHz - 30MHz	$< \text{FCC 15.207 limits}$	Line Conducted	Pass	Section 7.8

Notes:

- 1) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
- 2) All modes of operation and data rates were investigated. For radiated emission test, every axis (X, Y, Z) was also verified. The test results shown in the following sections represent the worst case emissions.

7.2. Occupied Bandwidth Measurement

7.2.1. Test Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

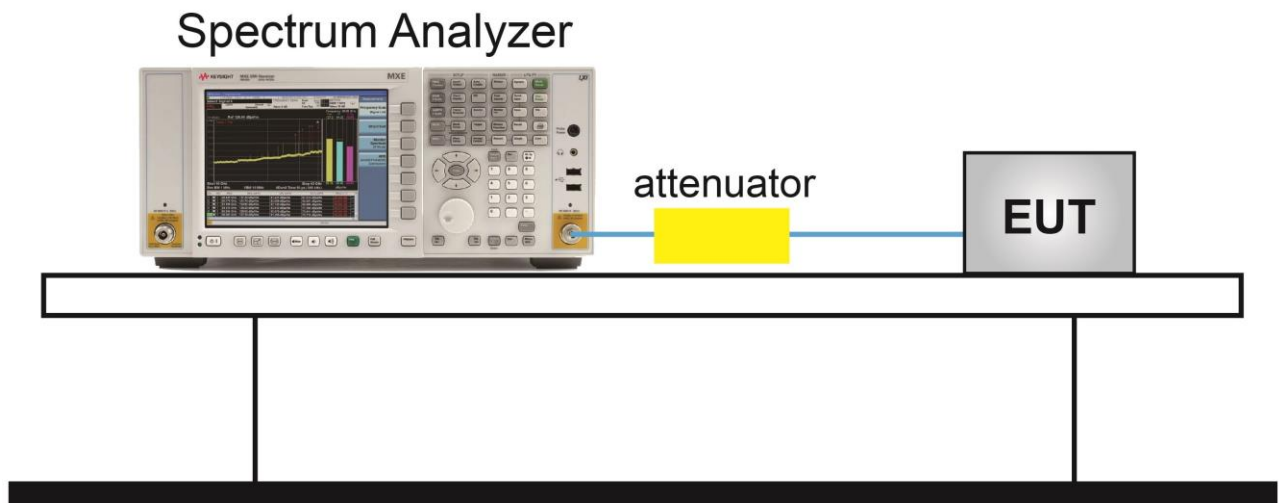
7.2.2. Test Procedure used

ANSI C63.10-2013 - Section 11.8 (6dB bandwidth)

7.2.3. Test Setting

1. The Spectrum's automatic bandwidth measurement capability was used to perform the 6dB bandwidth measurement. The "X" dB bandwidth parameter was set to $X = 6$. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. Set RBW = 100 kHz
3. VBW $\geq 3 \times$ RBW
4. Detector = Peak
5. Trace mode = Max hold
6. Sweep = Auto couple
7. Allow the trace was allowed to stabilize

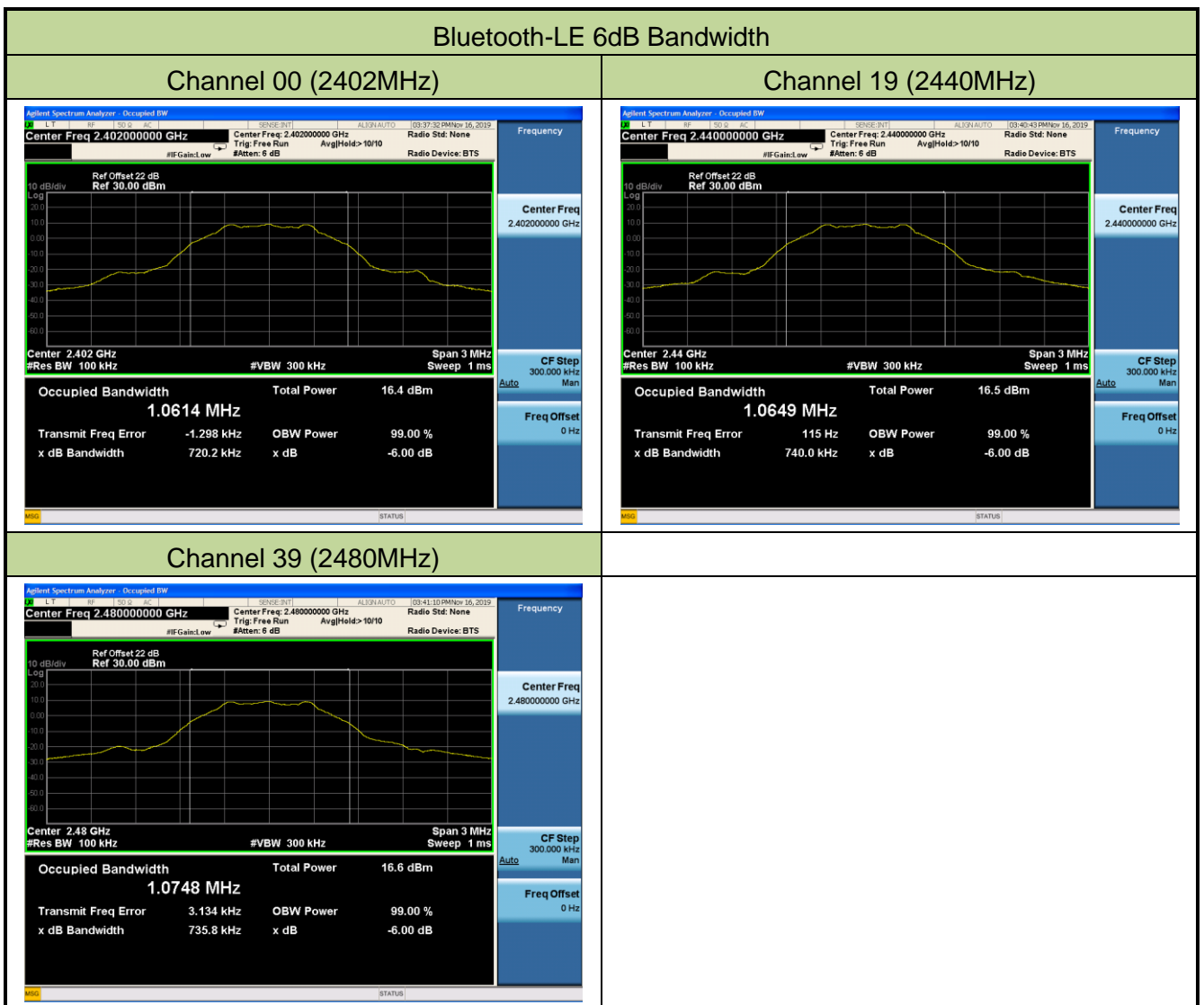
7.2.4. Test Setup



7.2.5. Test Result

Product	EZCast Ultra Wireless Display Receiver	Temperature	25°C
Test Engineer	Flay Yang	Relative Humidity	52%
Test Site	TR3	Test Date	2019/11/16

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Bluetooth-LE	1	00	2402	0.720	≥ 0.5	Pass
Bluetooth-LE	1	19	2440	0.740	≥ 0.5	Pass
Bluetooth-LE	1	39	2480	0.736	≥ 0.5	Pass



7.3. Output Power Measurement

7.3.1. Test Limit

The maximum out power shall be less 1 Watt (30dBm).

The conducted output power limit specified in paragraph FCC Part 15.247(b) of this section is based on the use of antennas with directional gains that do not exceed 6dBi. If transmitting antennas of directional gain greater than 6dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs FCC Part 15.247(b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6dBi.

7.3.2. Test Procedure Used

ANSI C63.10-2013 - Section 11.9.1.3

ANSI C63.10-2013 - Section 11.9.2.3

7.3.3. Test Setting

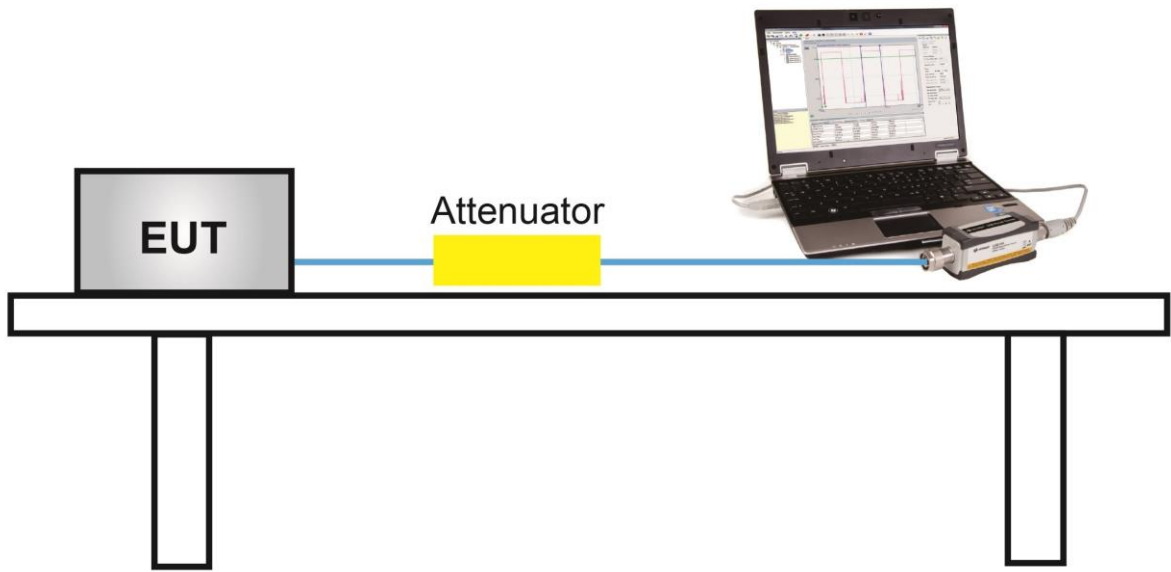
Method PKPM1 (Peak Power Measurement)

Peak power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The pulse sensor employs a VBW = 50MHz so this method was only used for signals whose DTS bandwidth was less than or equal to 50MHz.

Method AVGPM-G (Measurement using a gated RF average-reading power meter)

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since this measurement is made only during the ON time of the transmitter, no duty cycle correction is required.

7.3.4. Test Setup



7.3.5. Test Result of Output Power

Product	EZCast Ultra Wireless Display Receiver	Temperature	25°C
Test Engineer	Flay Yang	Relative Humidity	52%
Test Site	TR3	Test Date	2019/11/10

Test Result of Peak Output Power

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	Peak Power (dBm)	Limit (dBm)	Result
Bluetooth-LE	1	00	2402	10.14	≤ 30.00	Pass
Bluetooth-LE	1	19	2440	9.54	≤ 30.00	Pass
Bluetooth-LE	1	39	2480	8.83	≤ 30.00	Pass

Test Result of Average Output Power (Reporting Only)

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	Average Power (dBm)	Limit (dBm)	Result
Bluetooth-LE	1	00	2402	9.91	≤ 30.00	Pass
Bluetooth-LE	1	19	2440	9.14	≤ 30.00	Pass
Bluetooth-LE	1	39	2480	8.35	≤ 30.00	Pass

Note: The result of average output power is only for MPE evaluation.

7.4. Power Spectral Density Measurement

7.4.1. Test Limit

The maximum permissible power spectral density is 8dBm in any 3 kHz band.

The same method of determining the conducted output power shall be used to determine the power spectral density.

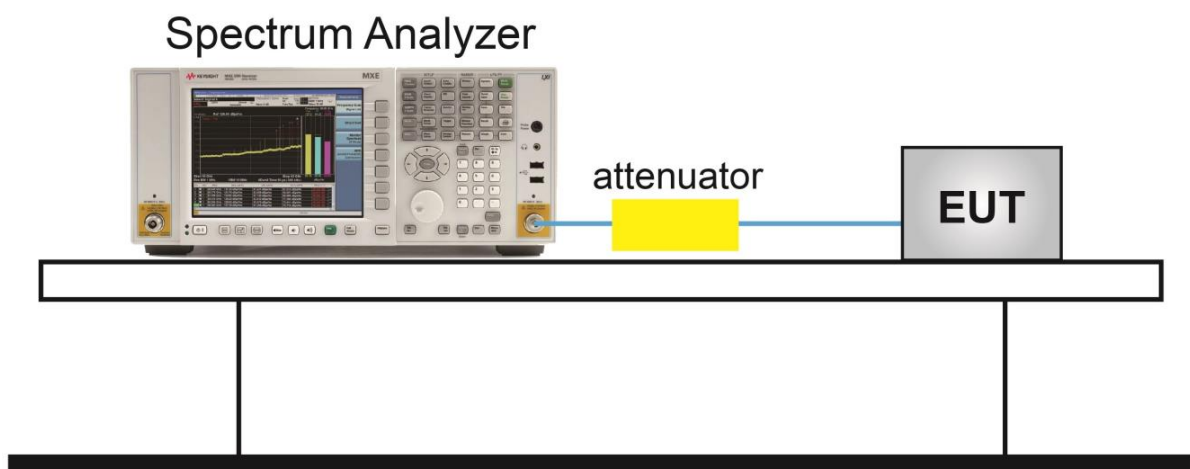
7.4.2. Test Procedure Used

ANSI C63.10-2013 - Section 11.10.2

7.4.3. Test Setting

1. Analyzer was set to the center frequency of the DTS channel under investigation
2. Span = 1.5 times the DTS channel bandwidth
3. RBW = 3kHz
4. VBW = 10kHz
5. Detector = Peak
6. Sweep time = Auto couple
7. Trace mode = Max hold
8. Trace was allowed to stabilize

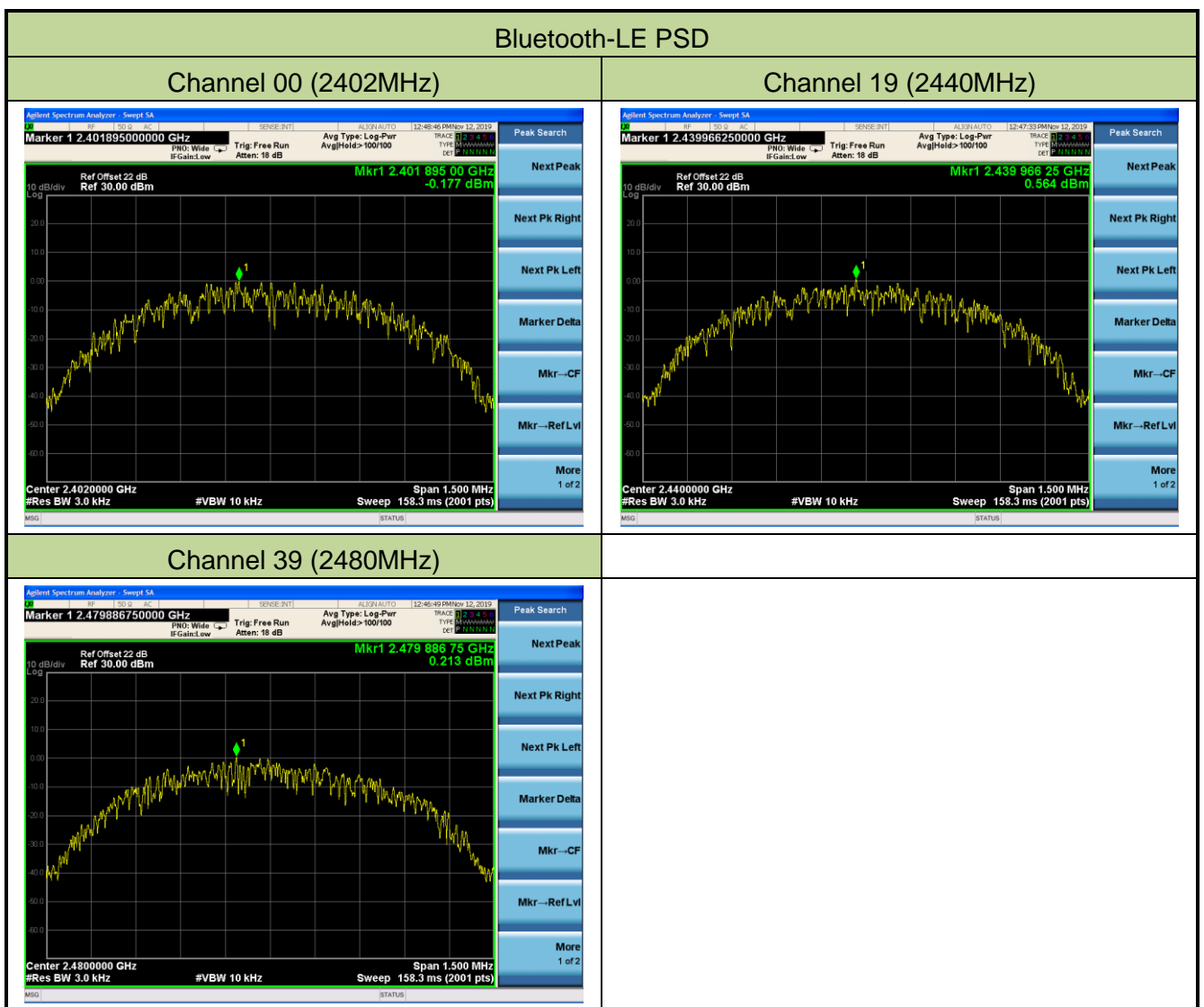
7.4.4. Test Setup



7.4.5. Test Result

Product	EZCast Ultra Wireless Display Receiver	Temperature	25°C
Test Engineer	Flay Yang	Relative Humidity	52%
Test Site	TR3	Test Date	2019/11/12

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	PSD Result (dBm / 3kHz)	Limit (dBm / 3kHz)	Result
Bluetooth-LE	1	00	2402	-0.18	≤ 8.00	Pass
Bluetooth-LE	1	19	2440	0.56	≤ 8.00	Pass
Bluetooth-LE	1	39	2480	0.21	≤ 8.00	Pass



7.5. Conducted Band Edge and Out-of-Band Emissions

7.5.1. Test Limit

The limit for out-of-band spurious emissions at the band edge is 20 dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100 kHz bandwidth per the PSD procedure.

7.5.2. Test Procedure Used

ANSI C63.10-2013 - Section 11.11

7.5.3. Test Setting

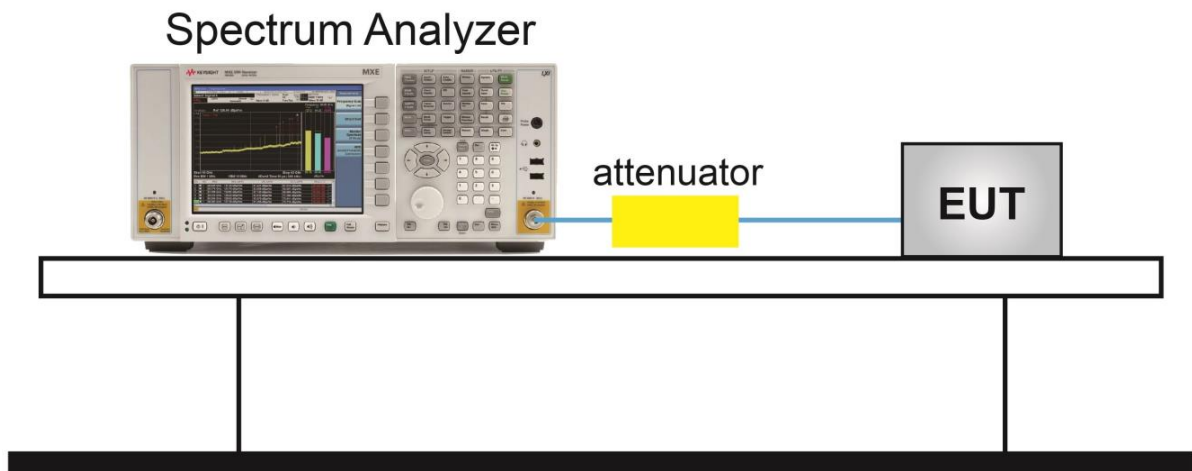
Reference level measurement

1. Set instrument center frequency to DTS channel center frequency
2. Set the span to ≥ 1.5 times the DTS bandwidth
3. Set the RBW = 100 kHz
4. Set the VBW $\geq 3 \times$ RBW
5. Detector = Peak
6. Sweep time = Auto couple
7. Trace mode = Max hold
8. Allow trace to fully stabilize

Emission level measurement

1. Set the center frequency and span to encompass frequency range to be measured
2. RBW = 100kHz
3. VBW = 300kHz
4. Detector = Peak
5. Trace mode = Max hold
6. Sweep time = Auto couple
7. The trace was allowed to stabilize

7.5.4. Test Setup



7.5.5. Test Result

Product	EZCast Ultra Wireless Display Receiver	Temperature	25°C
Test Engineer	Flay Yang	Relative Humidity	52%
Test Site	TR3	Test Date	2019/11/12

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	Limit	Result
Bluetooth-LE	1	00	2402	20dBc	Pass
Bluetooth-LE	1	19	2440	20dBc	Pass
Bluetooth-LE	1	39	2480	20dBc	Pass

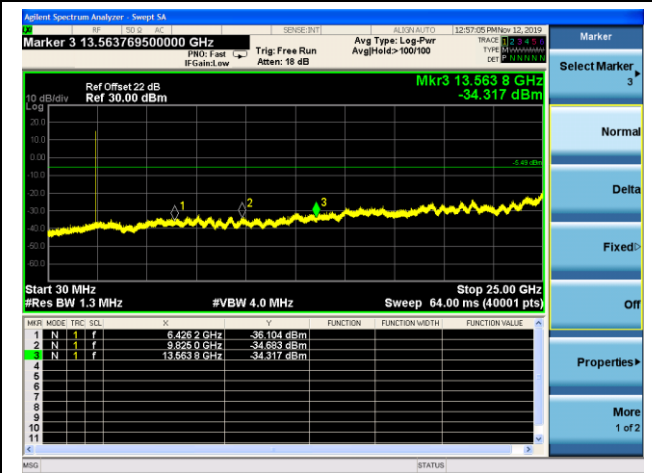


Channel 19 (2440MHz)

100kHz PSD reference Level

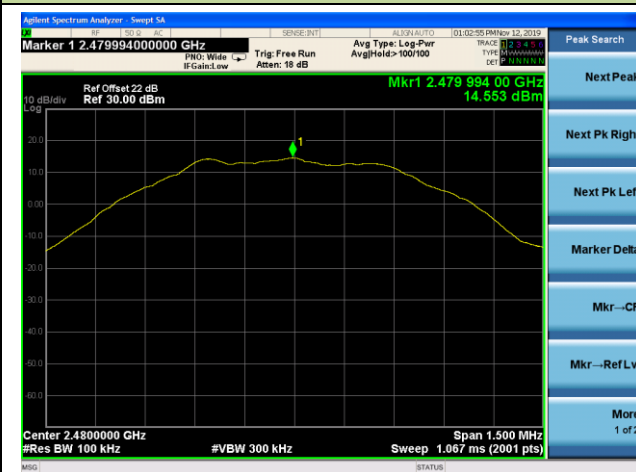


Spurious Emission 30MHz ~ 25GHz

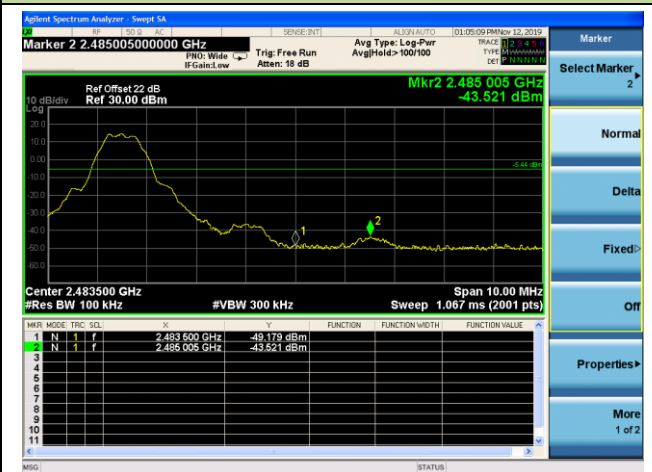


Channel 39 (2480MHz)

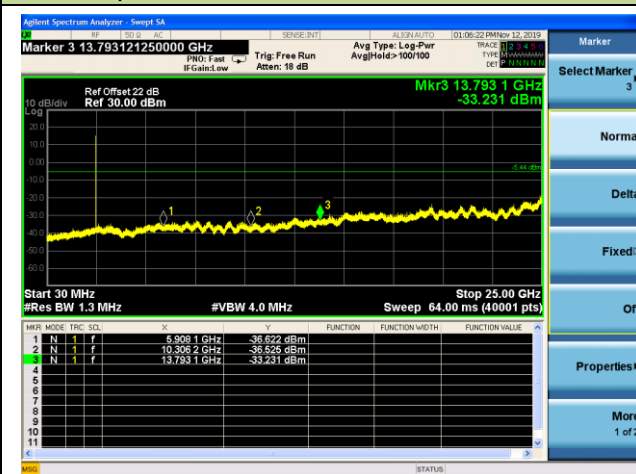
100kHz PSD reference Level



High Band Edge



Spurious Emission 30MHz ~ 25GHz



7.6. Radiated Spurious Emission Measurement

7.6.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15.209 Limits		
Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measured Distance (m)
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

7.6.2. Test Procedure Used

ANSI C63.10-2013 - Section 6.3 (General Requirements)

ANSI C63.10-2013 - Section 6.4 (Standard test method below 30MHz)

ANSI C63.10-2013 - Section 6.5 (Standard test method above 30MHz to 1GHz)

ANSI C63.10-2013 - Section 6.6 (Standard test method above 1GHz)

7.6.3. Test Setting

Table 1 - RBW as a function of frequency

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = as specified in Table 1
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Peak Measurements above 1GHz

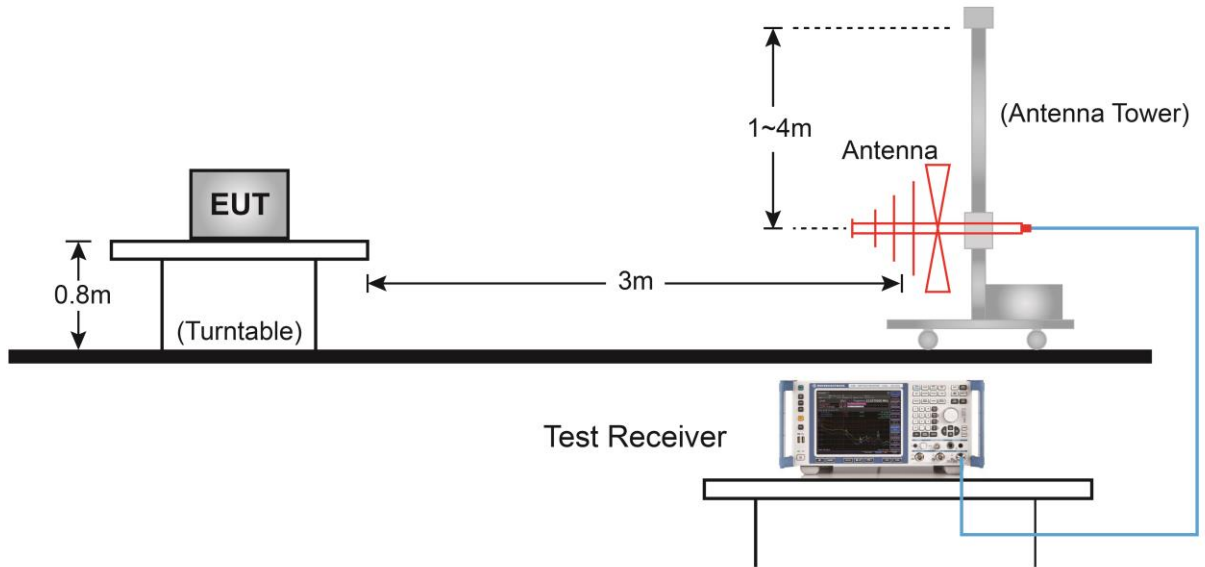
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

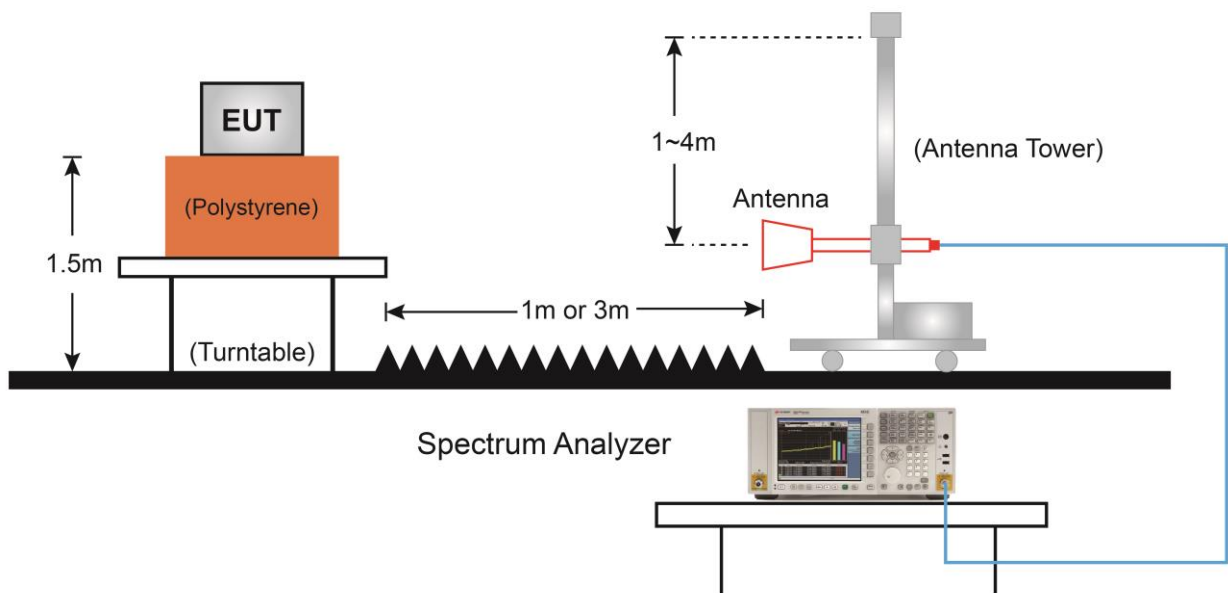
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10Hz
If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$. T is the minimum transmission duration
4. Detector = Peak
5. Sweep time = auto
6. Trace mode = max hold
7. Trace was allowed to stabilize

7.6.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



7.6.5. Test Result

Product	EZCast Ultra Wireless Display Receiver	Temperature	25°C
Test Engineer	Snake Ni	Relative Humidity	54%
Test Site	AC1	Test Date	2019/11/11
Test Mode	Bluetooth-LE	Test Channel:	00
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	3830.5	36.8	2.0	38.8	74.0	-35.2	Peak	Horizontal
	4799.5	43.3	5.5	48.8	74.0	-25.2	Peak	Horizontal
*	7205.0	38.0	11.6	49.6	85.4	-35.8	Peak	Horizontal
*	9933.5	31.4	16.1	47.5	85.4	-37.9	Peak	Horizontal
	3966.5	35.4	2.4	37.8	74.0	-36.2	Peak	Vertical
	4808.0	40.9	5.6	46.5	74.0	-27.5	Peak	Vertical
*	7205.0	36.0	11.6	47.6	85.4	-37.8	Peak	Vertical
*	10044.0	30.8	16.1	46.9	85.4	-38.5	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (105.4dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	EZCast Ultra Wireless Display Receiver	Temperature	25°C
Test Engineer	Snake Ni	Relative Humidity	54%
Test Site	AC1	Test Date	2019/11/11
Test Mode	Bluetooth-LE	Test Channel:	19
Remark	1. Average measurement was not performed if peak level lower than average limit. So the margin was calculated using the average limit for emissions fall within the restricted bands. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4876.0	43.1	5.7	48.8	74.0	-25.2	Peak	Horizontal
	7324.0	34.8	11.7	46.5	74.0	-27.5	Peak	Horizontal
*	8616.0	33.6	12.9	46.5	85.2	-38.7	Peak	Horizontal
*	10231.0	32.2	16.6	48.8	85.2	-36.4	Peak	Horizontal
	4884.5	40.9	5.7	46.6	74.0	-27.4	Peak	Vertical
	7315.5	35.1	11.7	46.8	74.0	-27.2	Peak	Vertical
*	8820.0	32.6	13.4	46.0	85.2	-39.2	Peak	Vertical
*	10426.5	30.4	16.8	47.2	85.2	-38.0	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (105.2dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	EZCast Ultra Wireless Display Receiver	Temperature	25°C
Test Engineer	Snake Ni	Relative Humidity	54%
Test Site	AC1	Test Date	2019/11/11
Test Mode	Bluetooth-LE	Test Channel:	39
Remark	<ol style="list-style-type: none"> 1. Average measurement was not performed if peak level lower than average limit. So the margin was calculated using the average limit for emissions fall within the restricted bands. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. 		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4961.0	41.4	5.9	47.3	74.0	-26.7	Peak	Horizontal
	7443.0	38.6	11.9	50.5	74.0	-23.5	Peak	Horizontal
*	8667.0	31.3	13.0	44.3	85.1	-40.8	Peak	Horizontal
*	10180.0	30.8	16.3	47.1	85.1	-38.0	Peak	Horizontal
	4961.0	42.3	5.9	48.2	74.0	-25.8	Peak	Vertical
	7443.0	37.1	11.9	49.0	74.0	-25.0	Peak	Vertical
*	8811.5	33.6	13.4	47.0	85.1	-38.1	Peak	Vertical
*	10375.5	32.7	16.9	49.6	85.1	-35.5	Peak	Vertical

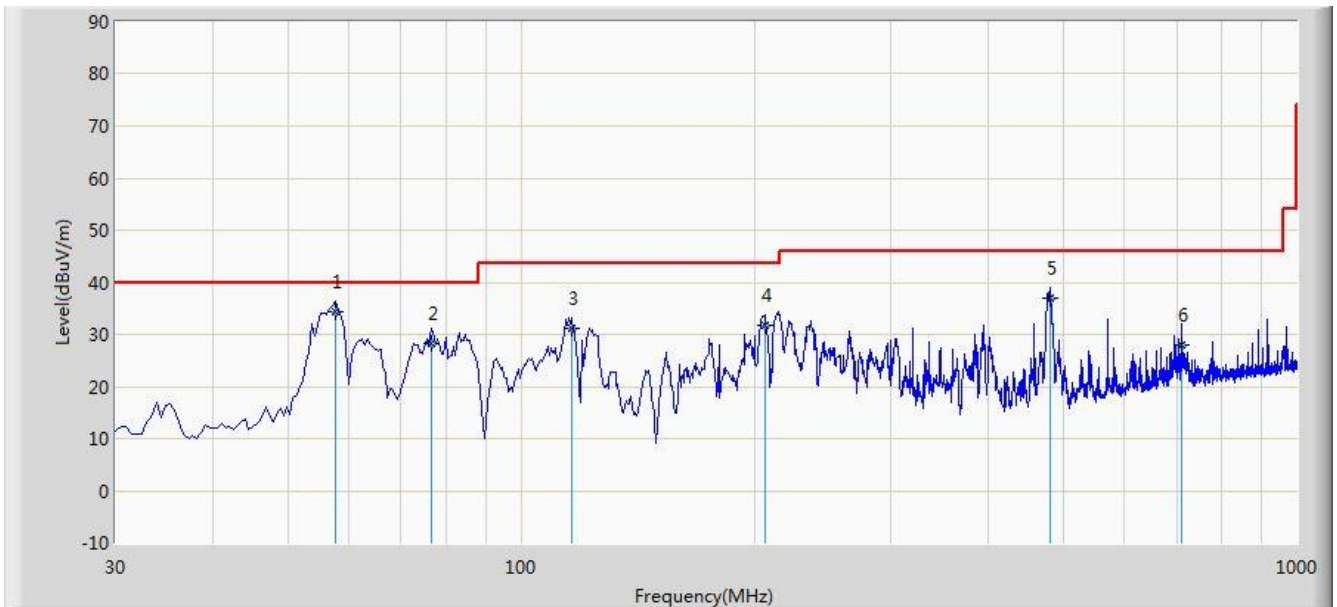
Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (105.1dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

The Worst Case of Radiated Emission below 1GHz:

Site: AC1	Time: 2019/11/12 - 13:43
Limit: FCC_Part15.209_RE(3m)	Engineer: Snake Ni
Probe: VULB 9168 _20-2000MHz	Polarity: Horizontal
EUT: EZCast Ultra Wireless Display Receiver	Power: AC 120V/60Hz
Test Mode: Transmit by Bluetooth-LE at Channel 2402MHz	



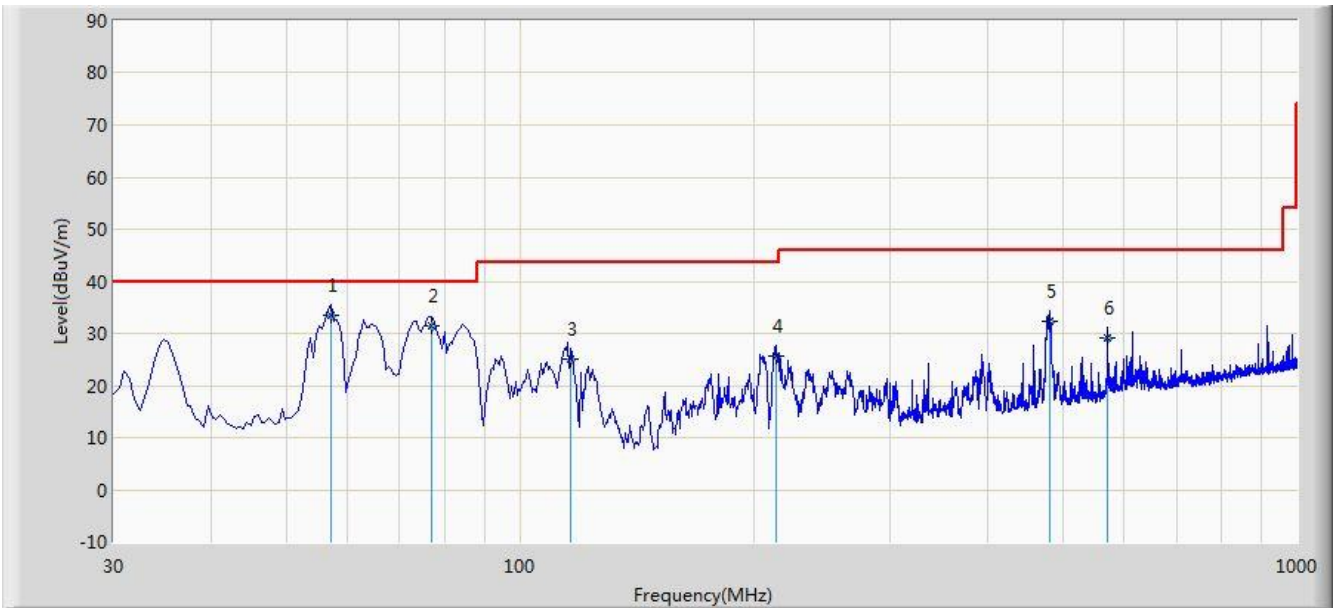
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	57.645	34.422	20.724	-5.578	40.000	13.698	QP
2			76.560	28.166	17.471	-11.834	40.000	10.695	QP
3			116.330	31.129	18.207	-12.371	43.500	12.922	QP
4			206.055	31.711	20.269	-11.789	43.500	11.442	QP
5			480.080	36.958	18.523	-9.042	46.000	18.435	QP
6			709.970	27.969	5.404	-18.031	46.000	22.565	QP

Note 1: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

Site: AC1	Time: 2019/11/12 - 14:03
Limit: FCC_Part15.209_RE(3m)	Engineer: Snake Ni
Probe: VULB 9168 _20-2000MHz	Polarity: Vertical
EUT: EZCast Ultra Wireless Display Receiver	Power: AC 120V/60Hz
Test Mode: Transmit by Bluetooth-LE at Channel 2402MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	57.160	33.434	19.696	-6.566	40.000	13.738	QP
2			77.045	31.320	20.694	-8.680	40.000	10.626	QP
3			116.330	25.197	12.275	-18.303	43.500	12.922	QP
4			213.330	25.590	13.865	-17.910	43.500	11.724	QP
5			480.080	32.231	13.796	-13.769	46.000	18.435	QP
6			570.775	29.217	8.957	-16.783	46.000	20.260	QP

Note 1: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

7.7. Radiated Restricted Band Edge Measurement

7.7.1. Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)
13.36 - 13.41	--	--	--

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15.209 Limits		
Frequency (MHz)	Field Strength ($\mu\text{V}/\text{m}$)	Measured Distance (m)
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

7.7.2. Test Procedure Used

ANSI C63.10-2013 - Section 6.3 (General Requirements)

ANSI C63.10-2013 - Section 6.6 (Standard test method above 1GHz)

7.7.3. Test Setting

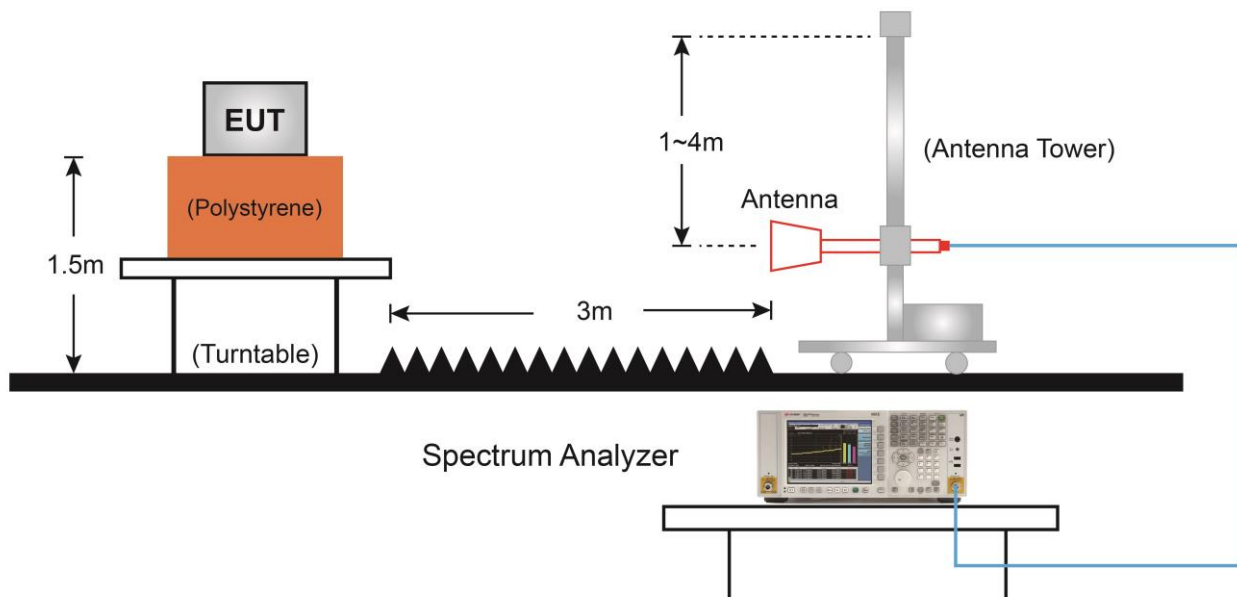
Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = Peak
5. Sweep time = Auto couple
6. Trace mode = Max hold
7. Trace was allowed to stabilize

Average Field Strength Measurements

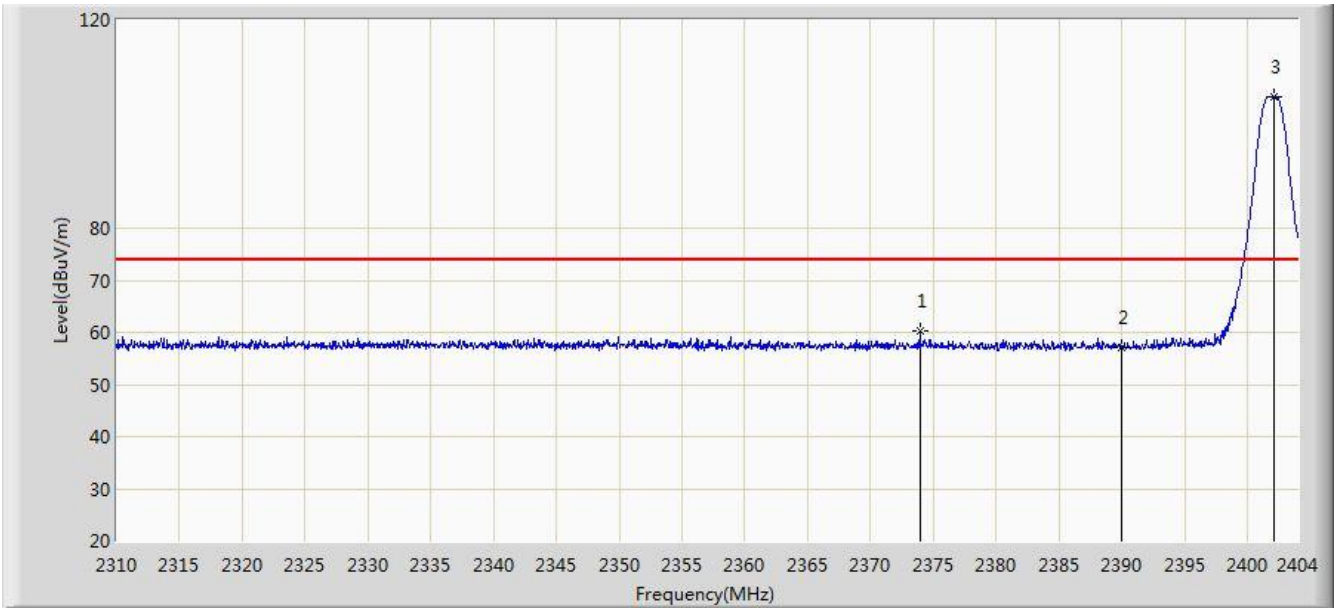
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10Hz
4. If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$. T is the minimum transmission duration
5. Detector = Peak
6. Sweep time = Auto
7. Trace mode = Max hold
8. Trace was allowed to stabilize

7.7.4. Test Setup



7.7.5. Test Result

Site: AC1	Time: 2019/11/11 - 17:17
Limit: FCC_Part15.209_RE(3m)	Engineer: Flay Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: EZCast Ultra Wireless Display Receiver	Power: AC 120V/60Hz
Test Mode: Transmit by Bluetooth-LE at channel 2402MHz	

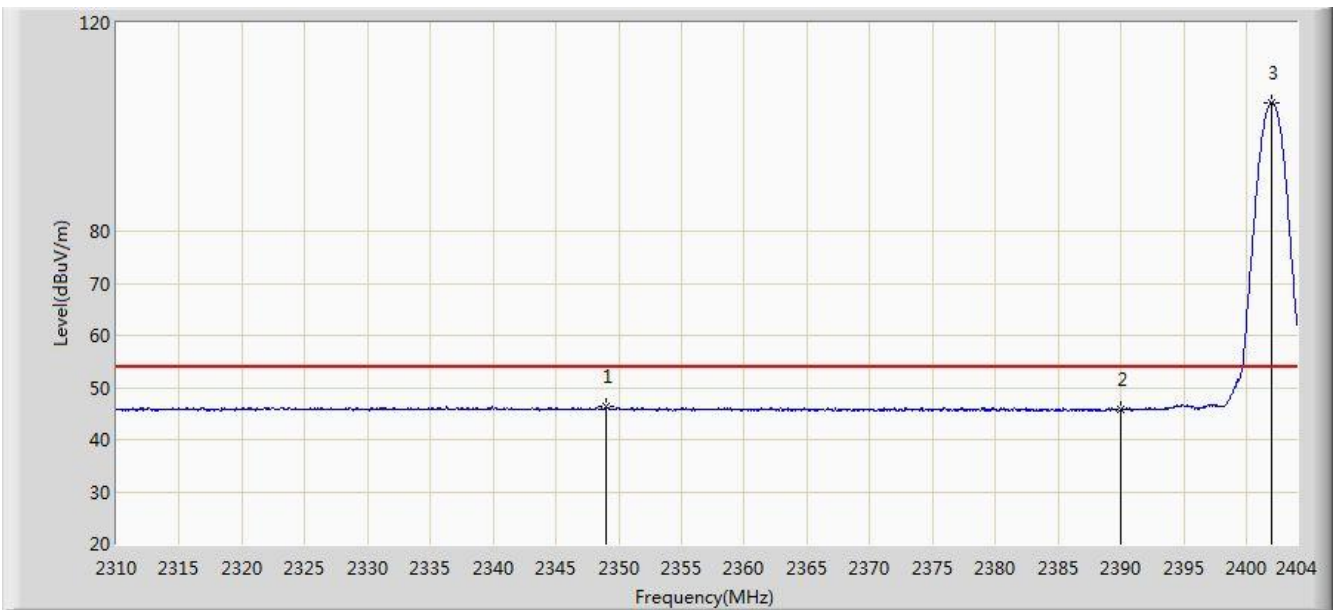


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2373.920	60.318	27.875	-13.682	74.000	32.444	PK
2			2390.000	57.206	24.793	-16.794	74.000	32.413	PK
3		*	2402.120	105.271	72.875	N/A	N/A	32.396	PK

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2019/11/11 - 17:30
Limit: FCC_Part15.209_RE(3m)	Engineer: Flay Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: EZCast Ultra Wireless Display Receiver	Power: AC 120V/60Hz
Test Mode: Transmit by Bluetooth-LE at channel 2402MHz	

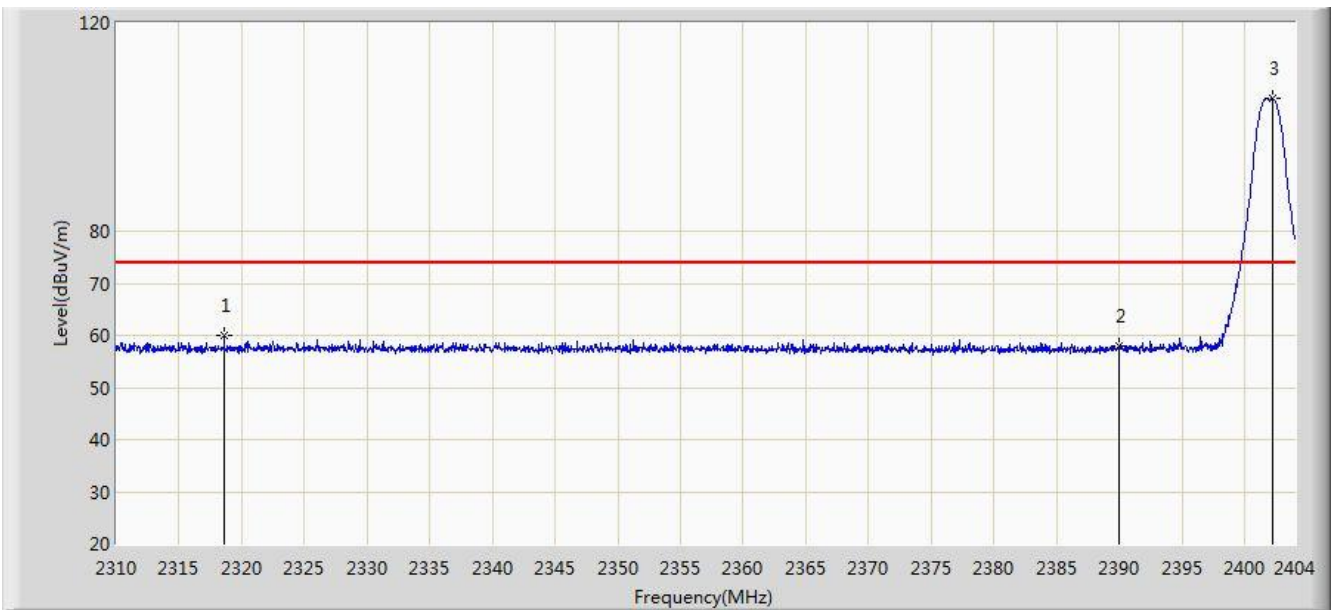


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2348.963	46.326	13.810	-7.674	54.000	32.517	AV
2			2390.000	45.866	13.453	-8.134	54.000	32.413	AV
3		*	2402.026	104.685	72.289	N/A	N/A	32.396	AV

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2019/11/11 - 17:38
Limit: FCC_Part15.209_RE(3m)	Engineer: Flay Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: EZCast Ultra Wireless Display Receiver	Power: AC 120V/60Hz
Test Mode: Transmit by Bluetooth-LE at channel 2402MHz	

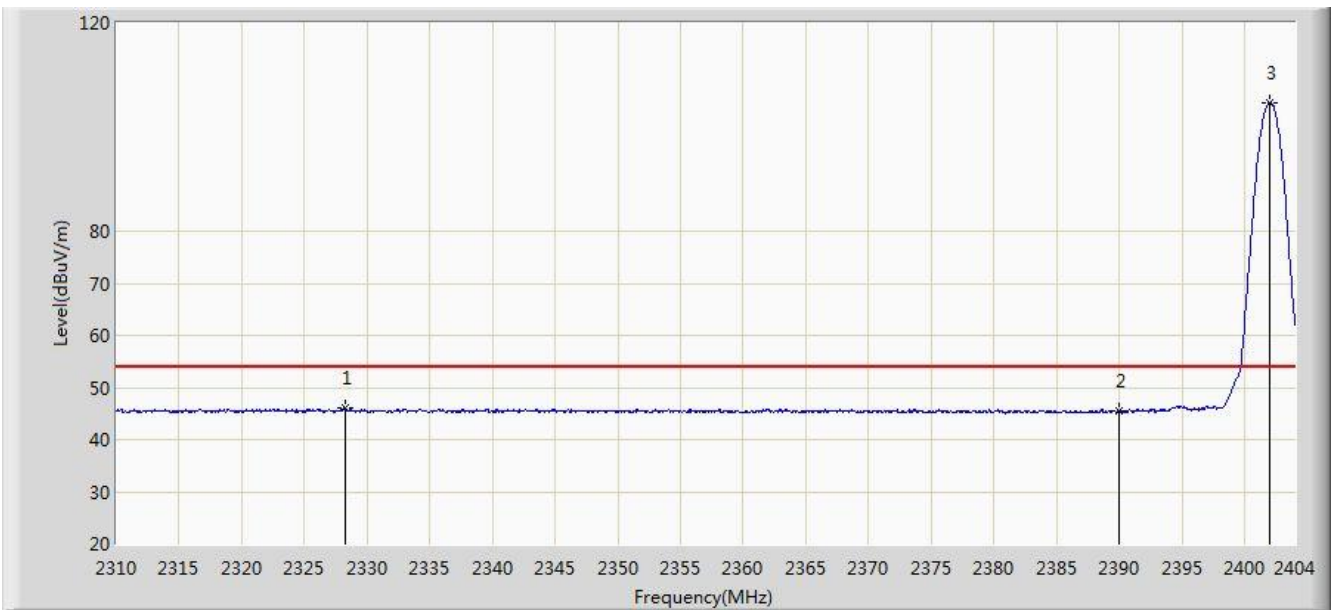


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2318.601	60.003	27.367	-13.997	74.000	32.637	PK
2			2390.000	57.842	25.429	-16.158	74.000	32.413	PK
3		*	2402.214	105.408	73.012	N/A	N/A	32.396	PK

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2019/11/11 - 17:41
Limit: FCC_Part15.209_RE(3m)	Engineer: Flay Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: EZCast Ultra Wireless Display Receiver	Power: AC 120V/60Hz
Test Mode: Transmit by Bluetooth-LE at channel 2402MHz	

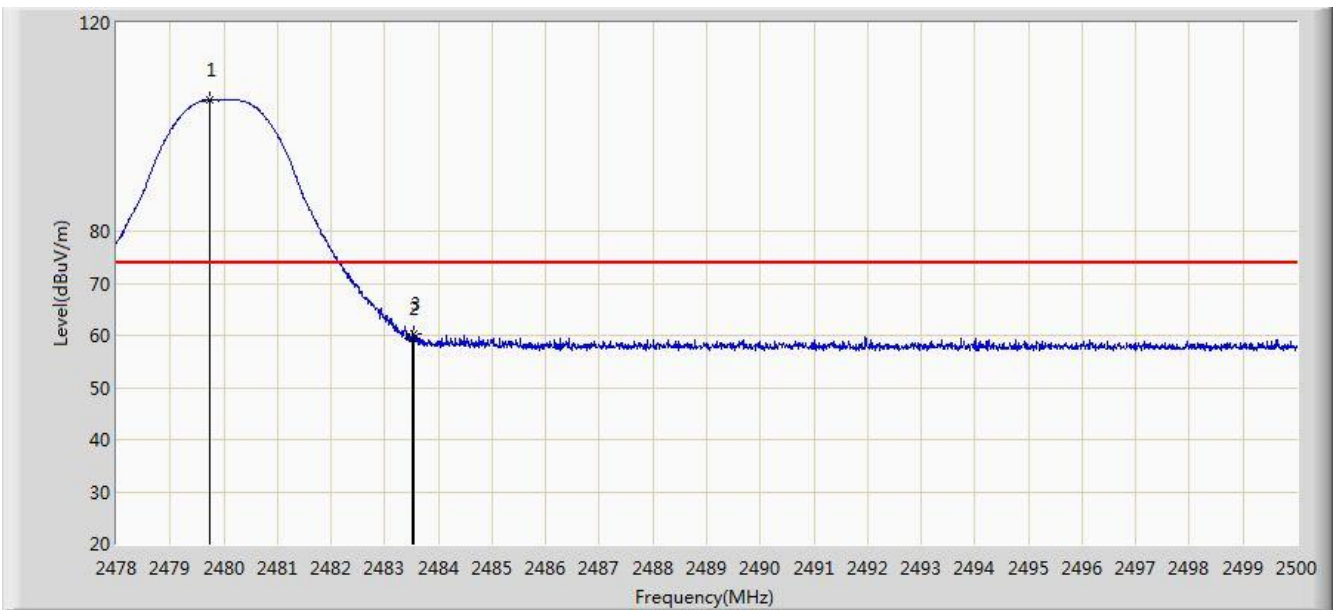


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2328.236	46.224	13.625	-7.776	54.000	32.600	AV
2			2390.000	45.557	13.144	-8.443	54.000	32.413	AV
3		*	2402.026	104.716	72.320	N/A	N/A	32.396	AV

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2019/11/11 - 17:44
Limit: FCC_Part15.209_RE(3m)	Engineer: Flay Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: EZCast Ultra Wireless Display Receiver	Power: AC 120V/60Hz
Test Mode: Transmit by Bluetooth-LE at channel 2480MHz	

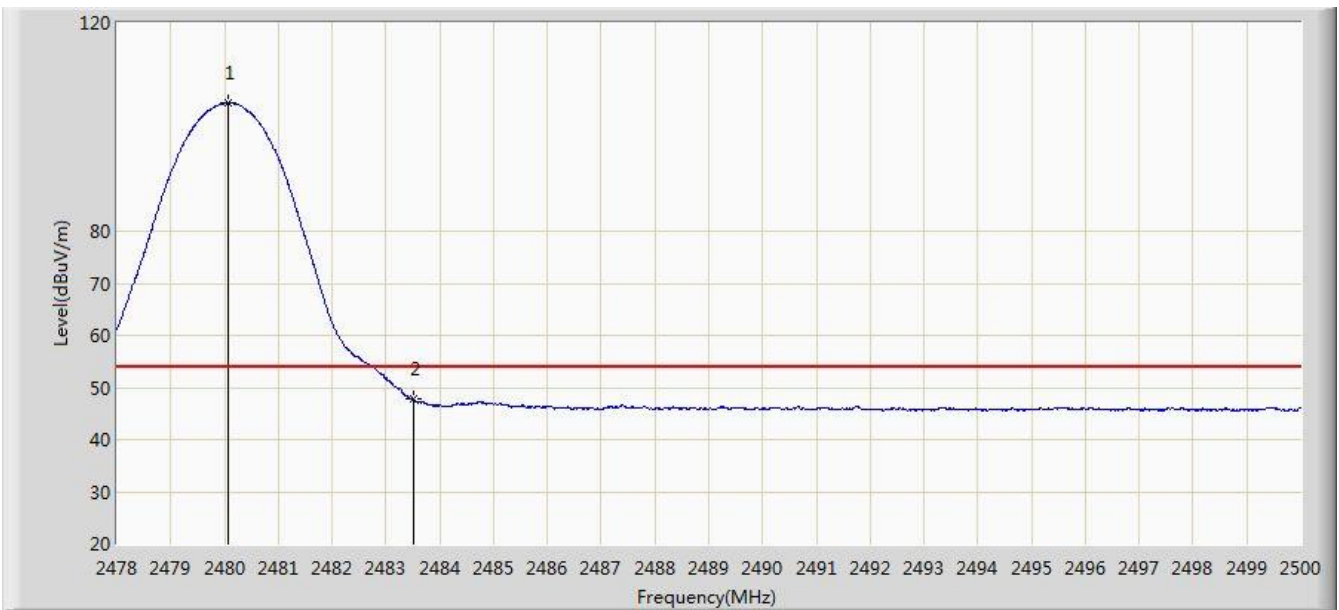


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.738	105.133	72.725	N/A	N/A	32.408	PK
2			2483.500	59.467	27.052	-14.533	74.000	32.416	PK
3			2483.533	60.407	27.992	-13.593	74.000	32.416	PK

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2019/11/11 - 17:49
Limit: FCC_Part15.209_RE(3m)	Engineer: Flay Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: EZCast Ultra Wireless Display Receiver	Power: AC 120V/60Hz
Test Mode: Transmit by Bluetooth-LE at channel 2480MHz	

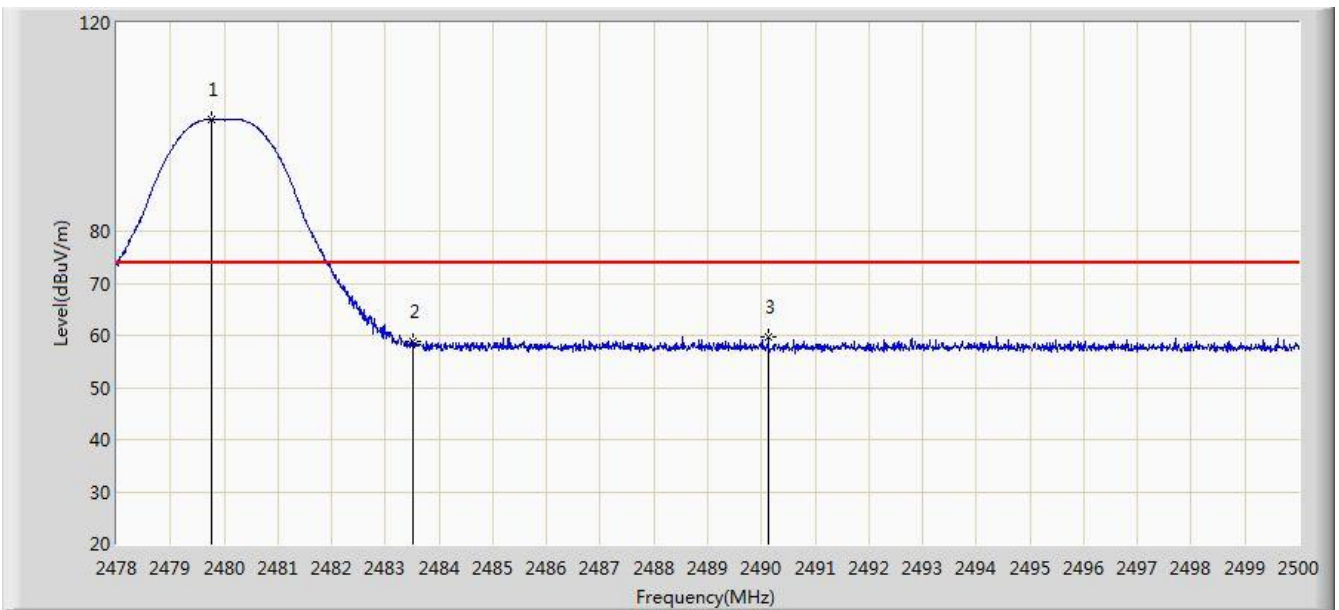


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.057	104.637	72.228	N/A	N/A	32.408	AV
2			2483.500	47.772	15.357	-6.228	54.000	32.416	AV

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2019/11/11 - 17:52
Limit: FCC_Part15.209_RE(3m)	Engineer: Flay Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: EZCast Ultra Wireless Display Receiver	Power: AC 120V/60Hz
Test Mode: Transmit by Bluetooth-LE at channel 2480MHz	

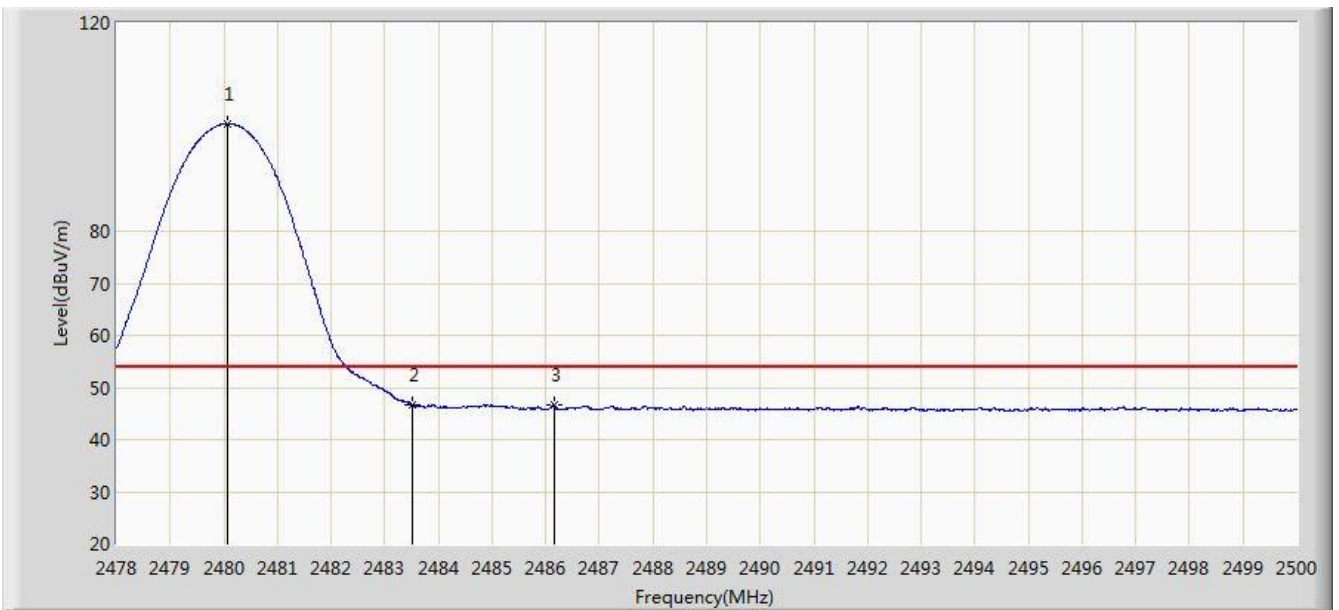


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.760	101.418	69.010	N/A	N/A	32.408	PK
2			2483.500	58.803	26.388	-15.197	74.000	32.416	PK
3			2490.133	59.615	27.186	-14.385	74.000	32.429	PK

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2019/11/11 - 17:56
Limit: FCC_Part15.209_RE(3m)	Engineer: Flay Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: EZCast Ultra Wireless Display Receiver	Power: AC 120V/60Hz
Test Mode: Transmit by Bluetooth-LE at channel 2480MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.079	100.664	68.255	N/A	N/A	32.408	AV
2			2483.500	46.543	14.128	-7.457	54.000	32.416	AV
3			2486.151	46.564	14.143	-7.436	54.000	32.420	AV

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

7.8. AC Conducted Emissions Measurement

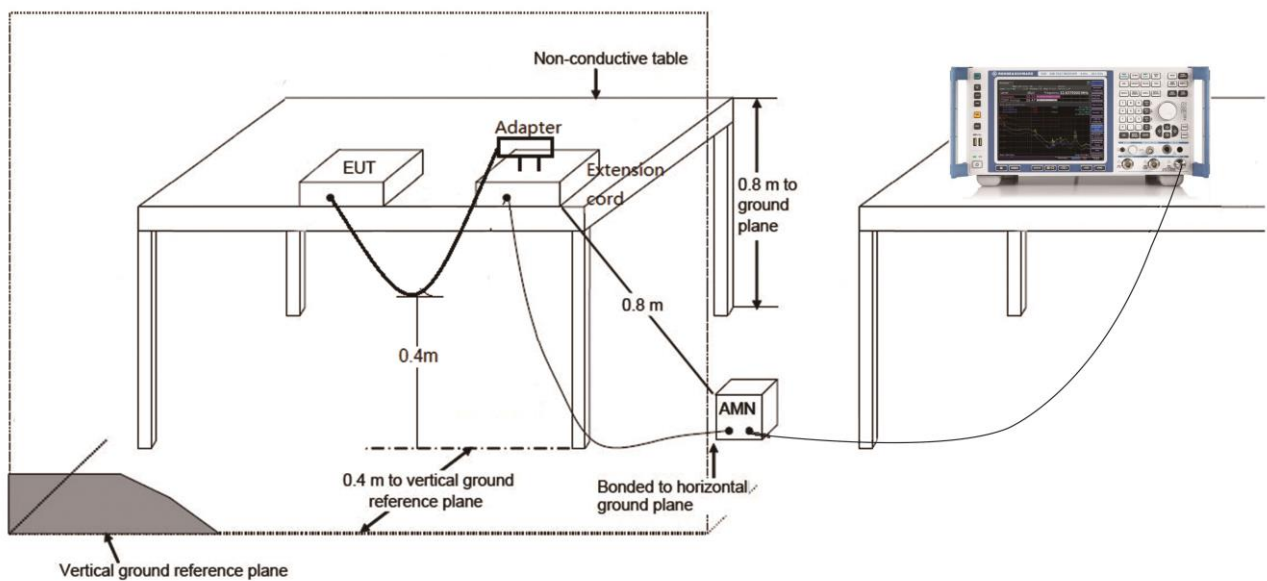
7.8.1. Test Limit

FCC Part 15.207 Limits		
Frequency (MHz)	QP (dB μ V)	Average (dB μ V)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

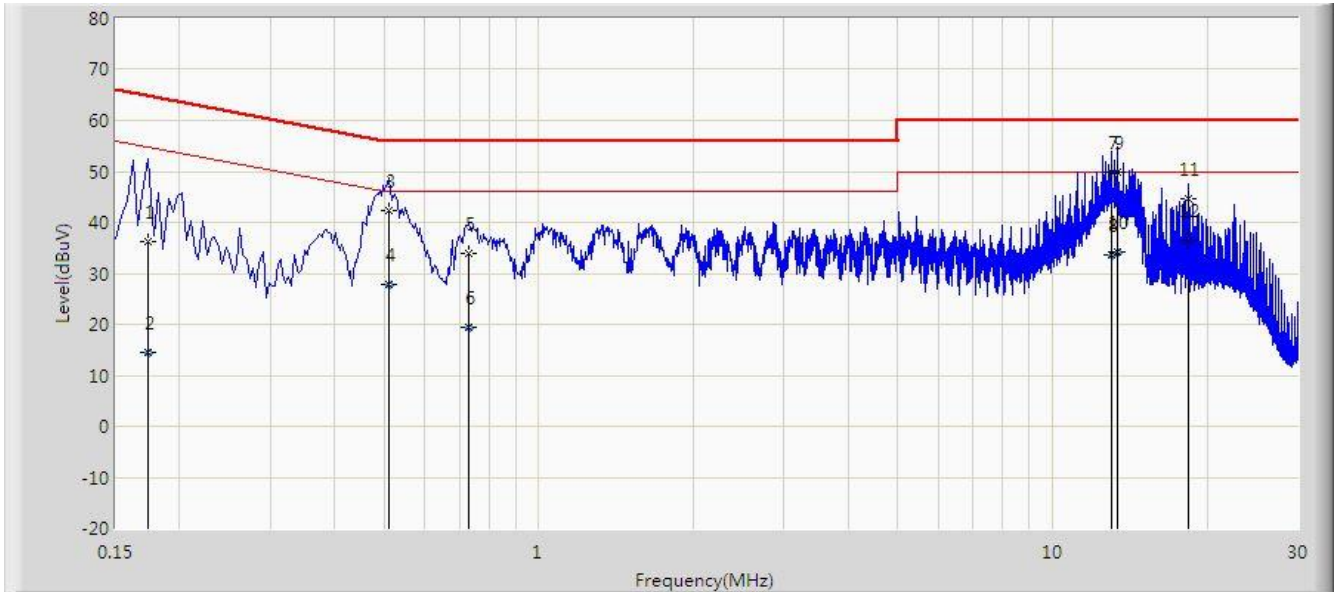
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

7.8.2. Test Setup



7.8.3. Test Result

Site: SR2	Time: 2019/11/24 - 14:12
Limit: FCC_Part15.207_CE_AC Power	Engineer: Liz Yuan
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: EZCast Ultra Wireless Display Receiver	Power: AC 120V/60Hz
Worst Mode: Transmit by Bluetooth-LE at Channel 2402MHz	

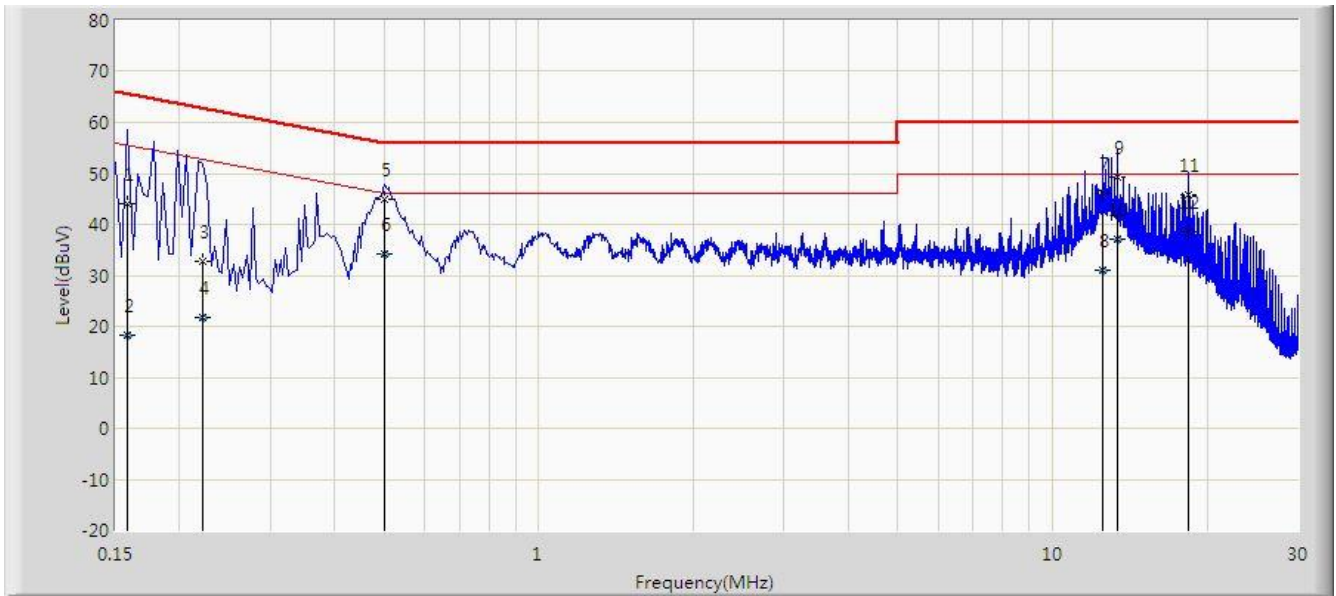


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.174	36.158	26.090	-28.610	64.767	10.068	QP
2			0.174	14.600	4.532	-40.168	54.767	10.068	AV
3			0.510	42.237	32.080	-13.763	56.000	10.157	QP
4			0.510	27.776	17.619	-18.224	46.000	10.157	AV
5			0.730	33.912	23.864	-22.088	56.000	10.048	QP
6			0.730	19.399	9.351	-26.601	46.000	10.048	AV
7			13.018	49.735	39.663	-10.265	60.000	10.072	QP
8			13.018	33.526	23.454	-16.474	50.000	10.072	AV
9		*	13.374	49.918	39.844	-10.082	60.000	10.075	QP
10			13.374	34.233	24.158	-15.767	50.000	10.075	AV
11			18.434	44.578	34.478	-15.422	60.000	10.100	QP
12			18.434	36.386	26.286	-13.614	50.000	10.100	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

Site: SR2	Time: 2019/11/24 - 14:17
Limit: FCC_Part15.207_CE_AC Power	Engineer: Liz Yuan
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: EZCast Ultra Wireless Display Receiver	Power: AC 120V/60Hz
Worst Mode: Transmit by Bluetooth-LE at Channel 2402MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.158	44.127	33.837	-21.441	65.568	10.290	QP
2			0.158	18.209	7.919	-37.359	55.568	10.290	AV
3			0.222	32.724	22.744	-30.020	62.744	9.980	QP
4			0.222	21.636	11.656	-31.108	52.744	9.980	AV
5			0.502	44.871	34.694	-11.129	56.000	10.177	QP
6			0.502	34.106	23.928	-11.894	46.000	10.177	AV
7			12.498	46.190	36.088	-13.810	60.000	10.102	QP
8			12.498	31.127	21.025	-18.873	50.000	10.102	AV
9		*	13.374	49.134	39.019	-10.866	60.000	10.115	QP
10			13.374	37.066	26.951	-12.934	50.000	10.115	AV
11			18.434	45.678	35.541	-14.322	60.000	10.137	QP
12			18.434	38.516	28.379	-11.484	50.000	10.137	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

8. CONCLUSION

The data collected relate only the item(s) tested and show that the device is in compliance with Part 15C of the FCC rules.

————— The End —————

Appendix A - Test Setup Photograph

Refer to "1911RSU009-UT" file.

Appendix B - EUT Photograph

Refer to "1911RSU009-UE" file.