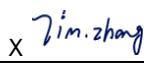


<b>Prüfbericht-Nr.:</b> <i>Test report no.:</i>	<b>CN22J98Z 002</b>	<b>Auftrags-Nr.:</b> <i>Order no.:</i>	<b>168349697</b>	<b>Seite 1 von 22</b> <i>Page 1 of 22</i>	
<b>Kunden-Referenz-Nr.:</b> <i>Client reference no.:</i>	<b>N/A</b>	<b>Auftragsdatum:</b> <i>Order date:</i>	<b>2021-12-29</b>		
<b>Auftraggeber:</b> <i>Client:</i>	<b>ZTE Corporation</b> ZTE Plaza, Hi-Tech Park, Nanshan District, Shenzhen, Guangdong, P.R.China				
<b>Prüfgegenstand:</b> <i>Test item:</i>	<b>RichMedia Box</b>				
<b>Bezeichnung / Typ-Nr.:</b> <i>Identification / Type no.:</i>	ZXV10 B866V2-H, ZXV10 B866V6-H, ZXV10 B866V2-H1, ZXV10 B866V2HA, ZXV10 B866V2J, ZXV10 B866V6, ZXV10 B866V6-H1, ZXV10 B866V6HA, ZXV10 B860H V6.1, ZXV10 B860H V6.0, ZXV10 B867V2, ZXV10 B867V2Hi, ZXV10 B870V2H, ZXV10 B870V6H, ZXV10 B870V2J (Trademark: ZTE)				
<b>Auftrags-Inhalt:</b> <i>Order content:</i>	<b>Test Report</b>				
<b>Prüfgrundlage:</b> <i>Test specification:</i>	CFR47 FCC Part 15: Subpart C Section 15.247 FCC KDB 558074 D01 15.247 Meas Guidance v05r02 FCC KDB 662911 D01 Multiple Transmitter Output v02r01 ANSI C63.10:2013				
<b>Wareneingangsdatum:</b> <i>Date of sample receipt:</i>	<b>2022-01-05</b>	Please refer to Photo Document			
<b>Prüfmuster-Nr.:</b> <i>Test sample no.:</i>	<b>A003194305-001</b> A003194305-004~005				
<b>Prüfzeitraum:</b> <i>Testing period:</i>	<b>2022-01-06 - 2022-01-21</b>				
<b>Ort der Prüfung:</b> <i>Place of testing:</i>	<b>TÜV Rheinland (Shenzhen) Co., Ltd.</b>				
<b>Prüflaboratorium:</b> <i>Testing laboratory:</i>	<b>TÜV Rheinland (Shenzhen) Co., Ltd.</b>				
<b>Prüfergebnis*:</b> <i>Test result*:</i>	<b>Pass</b>				
<b>geprüft von:</b> <i>tested by:</i>		<b>genehmigt von:</b> <i>authorized by:</i>			
<b>Datum:</b> <i>Date:</i>	<b>2022-01-25</b> <small>Signed by: Tim Zhang</small>	<b>Ausstellungsdatum:</b> <i>Issue date:</i>	<b>2022-01-25</b> <small>Signed by: Lin Lin</small>		
<b>Stellung / Position:</b>	<b>Project Manager</b>	<b>Stellung / Position:</b>	<b>Reviewer</b>		
<b>Sonstiges / Other:</b>	<b>FCC ID: Q78-ZXV10905X4</b>				
<b>Zustand des Prüfgegenstandes bei Anlieferung:</b> <i>Condition of the test item at delivery:</i>	<b>Prüfmuster vollständig und unbeschädigt</b> <i>Test item complete and undamaged</i>				
<b>* Legende:</b>	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend 3 = satisfactory	4 = ausreichend 4 = sufficient	5 = mangelhaft 5 = poor N/A = nicht anwendbar N/A = not applicable N/T = nicht getestet N/T = not tested
<b>* Legend:</b>	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory	4 = sufficient	5 = poor N/A = not applicable N/T = not tested
<b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b> <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>					

v05

## **Test Summary**

**5.1.1 ANTENNA REQUIREMENT**

*RESULT: Pass*

**5.1.2 MAXIMUM CONDUCTED OUTPUT POWER**

*RESULT: Pass*

**5.1.3 CONDUCTED POWER SPECTRAL DENSITY**

*RESULT: Pass*

**5.1.4 6dB BANDWIDTH**

*RESULT: Pass*

**5.1.5 99% BANDWIDTH**

*RESULT: Pass*

**5.1.6 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHZ BANDWIDTH**

*RESULT: Pass*

**5.1.7 RADIATED SPURIOUS EMISSION**

*RESULT: Pass*

**5.1.8 CONDUCTED EMISSION ON AC MAINS**

*RESULT: Pass*

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## 1 General Remarks

### 1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Test Results of Wi-Fi 802.11 b/g/n

## 2 Test Sites

### 2.1 Test Facilities

**TÜV Rheinland (Shenzhen) Co., Ltd.**

No. 362 Huanguan Road Middle, Longhua District, 518110, Shenzhen, P. R. China.

FCC Registration No.: 694916

ISED wireless device testing laboratory: 25069

## 2.2 List of Test and Measurement Instruments

**Table 1: List of Test and Measurement Equipment**

<b>Radio Spectrum Testing (SRD-Tonscend)</b>				
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model</b>	<b>Serial No.</b>	<b>Cal. until</b>
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY60241175	2022-09-28
MXG X-Series RF Vector Signal Generator	Keysight	N5182B	MY61250137	2022-09-28
EXG X-Series Microwave Analog Signal Generator	Keysight	N5173B	MY61250141	2022-09-28
DC power supply	Keysight	E3642A	MY61276100	2022-09-28
Power Control Unit	Tonscend	JS0806-4ADC	N/A	2022-09-28
Automation Control Unit	Tonscend	JS0806-2	21C8060396	2022-09-28
Test Software	Tonscend	JS1120-3	N/A	N/A
Control PC	Lenovo	TianYi510S-071MB	YLX23JMF	N/A
Shielding Room 8#	Albatross	SR8	APC17151-SR8	2024-06-22
<b>Unwanted Emission Testing (TS9975)</b>				
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model</b>	<b>Serial No.</b>	<b>Cal. until</b>
EMI Test Receiver	R&S	ESR 7	102021	2022-08-10
Signal Analyzer	R&S	FSV 40	101439	2022-08-09
System Controller Interface	R&S	SCI-100	S10010038	N/A
Filterbank	R&S	Wlan	100759	2022-08-09
OSP	R&S	OSP 120	102040	N/A
Pre-amplifier	R&S	SCU08F1	08320031	2022-08-09
Amplifier	R&S	SCU-18F	180070	2022-08-09
Amplifier	R&S	SCU40A	100475	2022-08-09
Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	2022-08-08
Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218717	2022-08-08
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	2022-08-08
Active Loop Antenna	Schwarzbeck	FMZB 1513	302	2022-09-13
Test software	R&S	EMC32 (V10.60.10)	N/A	N/A
Control PC	Dell	OptiPlex 7050	36NV9P2	N/A
3m Semi-Anechoic Chamber	Albatross	SAC-3m	APC17151-SAC	2024-06-22

<b>Conducted Emission</b>				
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Cal. Until</b>
EMI Test Receiver	R&S	ESR3	102428	2022-08-10
Artificial Mains Network	R&S	ENV216	102333	2022-08-10
Artificial Mains Network	R&S	ENV432	101411	2022-08-10
EMC32 test software	R&S	EMC32(Ver.10.50.00)	N/A	N/A

## 2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

## 2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

## 2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

Parameter	Uncertainty
Radio Frequency	$\pm 1 \times 10^{-7}$
RF Power (conducted)	$\pm 2.5$ dB
Radiated Emission of Transmitter, valid up to 26.5 GHz	$\pm 6$ dB
Radiated Emission of Receiver, valid up to 26.5 GHz	$\pm 6$ dB
Conducted Emission, (9kHz to 150kHz)/(150kHz to 30MHz)	$\pm 3.70$ dB / $\pm 3.30$ dB
Temperature	$\pm 1$ °C
Humidity	$\pm 5$ %
Voltage (DC)	$\pm 1$ %
Voltage (AC, <10kHz)	$\pm 2$ %

## 2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) Co., Ltd. file for certification follow-up purposes.

## 2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at No. 362 Huanguan Road Middle, Longhua District, 518110, Shenzhen, P. R. China. is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

### 3 General Product Information

#### 3.1 Product Function and Intended Use

The EUT is a RichMedia Box, which supports Bluetooth (dual mode), 2.4GHz Wi-Fi 802.11 b/g/n and 5GHz Wi-Fi 802.11a/n/ac wireless technology.

The basic model and all the series models' circuit theory, electrical design and the key components are the same, but the configuration maybe varies with different requirements which is Flash capacity for all models.

The EUT have four adapters, details as below table:

Description	Model	Rating	Manufacturer
Adapter 1#	UWP-12W-1210S	Input: 100-240V, 50/60Hz, 0.6A Output: 12.0V, 1.0A	I.T.E&AV POWER SUPPLY
Adapter 2#	KL-WA120100-B	Input: 100-240V, 50/60Hz, 0.6A Output: 12.0V, 1.0A	XIAMEN KELI ELECTRONIC CO., LTD
Adapter 3#	MN012E-L120100	Input: 100-240V, 50/60Hz, 0.6A Output: 12.0V, 1.0A	XIAMEN CASTEC ELECTRONIC INDUSTRY CO., LTD
Adapter 4#	RD1201000-C55-35MGD	Input: 100-240V, 50/60Hz, 0.6A Output: 12.0V, 1.0A	Shenzhen Ruide electronic industrial Co., Ltd.

For details refer to the User Manual, Technical Description and Circuit Diagram.

#### 3.2 Ratings and System Details

**Table 2: Technical Specification of EUT**

General Information of EUT	Value
Kind of Equipment:	RichMedia Box
Type Designation:	ZXV10 B866V2-H, ZXV10 B866V6-H, ZXV10 B866V2-H1, ZXV10 B866V2HA, ZXV10 B866V2J, ZXV10 B866V6, ZXV10 B866V6-H1, ZXV10 B866V6HA, ZXV10 B860H V6.1, ZXV10 B860H V6.0, ZXV10 B867V2, ZXV10 B867V2Hi, ZXV10 B870V2H, ZXV10 B870V6H, ZXV10 B870V2J
Trademark:	ZTE
FCC ID:	Q78-ZXV10905X4
Operating Voltage:	AC 120~240V, 50/60Hz input via adapter
Testing Voltage:	AC 120V, 60Hz
<b>Technical Specification of Bluetooth (dual mode)</b>	
Operating Frequency:	2402 MHz to 2480 MHz
Type of Modulation:	GFSK, $\pi/4$ -DQPSK, 8DPSK
Channel Number:	BDR & EDR mode:79 channels, Low Energy mode:40 channels
Channel Separation:	BDR & EDR mode: 1MHz, Low Energy mode: 2MHz
Data Rate:	BDR & EDR mode: 1Mbps, 3Mbps Low Energy mode: 1Mbps
Antenna Type:	Integral Antenna
Antenna Gain of Bluetooth:	3.0 dBi
<b>Technical Specification of Wi-Fi 802.11 b/g/n</b>	
Operating Frequency:	2412 - 2462 MHz for 802.11b/g/n(HT20)

	2422 - 2452 MHz for 802.11n(HT40)
Type of Modulation:	DSSS(DBPSK/DQPSK/CCK) OFDM(BPSK/QPSK/16QAM/64QAM)
Data Rate:	6/9/12/18/24/36/48/54 Mbps for 802.11g MCS0 ~ MCS7 for 802.11n
Channel Number:	11 channels for 802.11b/g/n(HT20) 7 channels for 802.11n(HT40)
Channel Separation:	5 MHz
Antenna Type:	Integral Antenna
Number of Antenna:	2
Antenna Gain 1:	3.0 dBi
Antenna Gain 2:	3.0 dBi
<b>Note:</b> The EUT supports MIMO 2*2, any transmit signals are correlated with each other, so $\text{Directional gain} = G_{ANT} + 10 \log(N_{ANT}) \text{ dBi} = 6.01 \text{ dBi} \approx 6$ ; The limit of output power is $30 - (6.01 - 6) \approx 30$ The limit of power spectral density is 8.	
<b>Technical Specification of Wi-Fi 802.11 a/n/ac</b>	
Operating Frequency:	5180-5320MHz, 5500-5700MHz, 5745-5825MHz
Type of Modulation:	OFDM(BPSK/QPSK/16QAM/64QAM/256QAM)
Channel Number:	5180-5320MHz, 14CHs, 802.11 a/n20/n40/ac20/ac40/ac80 5500-5700MHz, 12CHs, 802.11 a/n20/n40/ac20/ac40/ac80 5745-5825MHz, 8CHs, 802.11 a/n20/n40/ac20/ac40/ac80
Channel Separation	5 MHz
Antenna Type:	Integral Antenna
Number of Antenna:	2
Antenna Gain 1:	3.5 dBi
Antenna Gain 2:	3.5 dBi

**Table 3: RF Channel and Frequency of Wi-Fi 802.11 b/g/n**

RF Channel	802.11 b/g/n(HT20)	802.11 n(HT40)
	Frequency (MHz)	Frequency (MHz)
<b>01</b>	<b>2412</b>	/
02	2417	/
<b>03</b>	2422	<b>2422</b>
04	2427	2427
05	2432	2432
<b>06</b>	<b>2437</b>	<b>2437</b>
07	2442	2442
08	2447	2447
<b>09</b>	2452	<b>2452</b>
10	2457	/
<b>11</b>	<b>2462</b>	/

Test frequencies are lowest channel: 2412 MHz, middle channel: 2437 MHz and highest channel: 2462 MHz for 802.11b/g/n(HT20)

Test frequencies are lowest channel: 2422 MHz, middle channel: 2437 MHz and highest channel: 2452 MHz for 802.11n(HT40)

### 3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Wi-Fi 802.11 b/g/n wireless transmitting mode
  - 1) Low Channel
  - 2) Middle Channel
  - 3) High Channel
- B. On, Normal operation (Wi-Fi Link)
- C. Off

### 3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

### 3.5 Submitted Documents

- Application Form
- Operation Description
- Schematics
- PCB Layout
- User Manual
- Block Diagram
- Rating Label
- Parts List

## 4 Test Set-up and Operation Modes

### 4.1 Principle of Configuration Selection

**Radio Spectrum:** The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

**Emission:** The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

### 4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All tests were performed according to the procedures in ANSI C63.10: 2013.

According to clause 3.1, all tests were performed on model ZXV10 B866V2-H in this report.

### 4.3 Special Accessories and Auxiliary Equipment

**Table 4: Auxiliary Equipment Used during Test**

Description	Manufacturer	Model	S/N
Laptop	Lenovo	T480	PF-16A6N8
Portable Laptop	Lenovo	ThinkPad T480	10Q67059
LCD 4K Color Display	PHILIPS	272P7V	AUCA1833000075472
Soundbar	Fenda	NS-HTSB22	/
RJ45 cable	/	/	/
AV cable	/	/	/
HDMI cable	/	/	/
Optical fiber cable	/	/	/

### 4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

## 4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

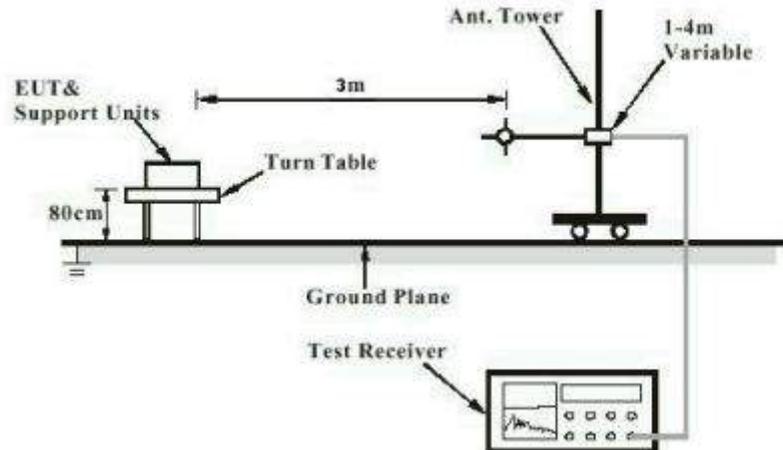
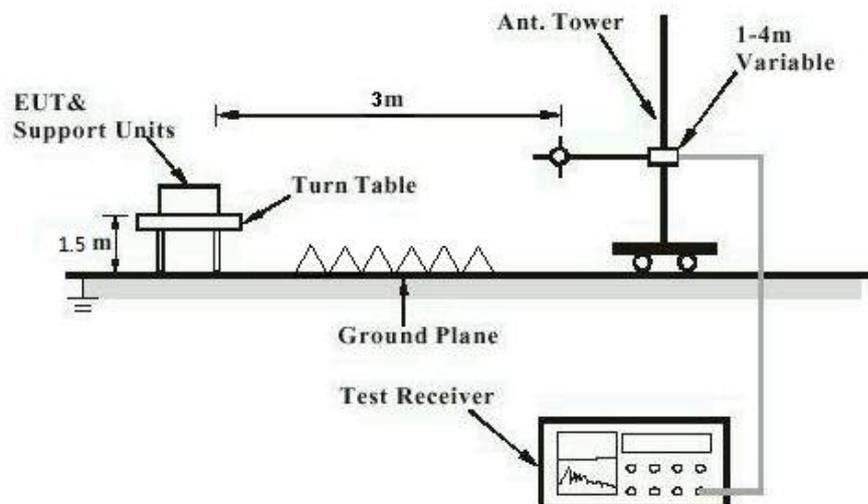
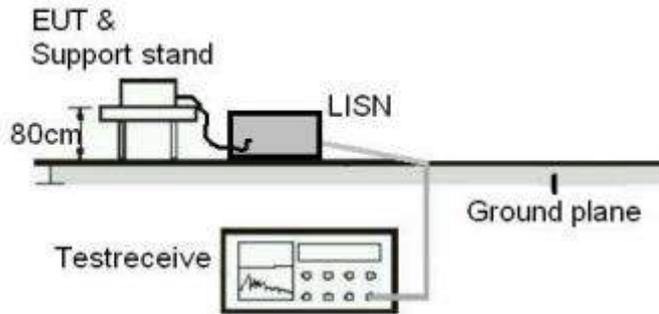


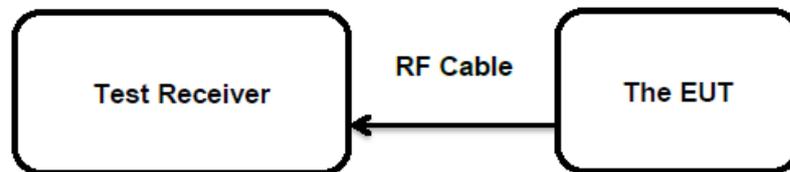
Diagram of Measurement Configuration for Radiation Test (Above 1GHz)



**Diagram of Measurement Configuration for Mains Conduction Measurement**



**Diagram of Measurement Configuration for Conducted Transmitter Measurement**



## 5 Test Results

### 5.1 Transmitter Requirement & Test Suites

#### 5.1.1 Antenna Requirement

**RESULT:**

**Pass**

**Test Specification**

Test standard : FCC Part 15.247(b)(4) and Part 15.203

According to the manufacturer declared, the EUT have two internal antennas, Each antenna has a Max. antenna gain of 3 dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement.

Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

### 5.1.2 Maximum Conducted Output Power

**RESULT:**
**Pass**
**Test Specification**

Test standard : FCC Part 15.247(b)(3)  
 Basic standard : ANSI C63.10: 2013  
 Limits : 1.0 Watts  
 Kind of test site : Shielded Room

**Test Setup**

Date of testing : 2022-01-11 to 2022-01-12  
 Input voltage : AC 120V, 60Hz  
 Operation mode : A  
 Test channel : Low / Middle / High  
 Ambient temperature : 24.8 °C  
 Relative humidity : 55 %  
 Atmospheric pressure : 101 kPa

**Table 5: Test Result of Maximum Conducted Output Power, SISO mode (Ant1)**

Test Mode	Data Rate	Test Channel (MHz)	Measured Peak Power		Limit (W)
			(dBm)	(W)	
802.11b	1 Mbps	2412	14.57	0.0286	< 1.0
		2437	15.23	0.0333	
		2462	14.85	0.0305	
802.11g	6 Mbps	2412	19.63	0.0918	
		2437	20.04	0.1009	
		2462	19.73	0.0940	
802.11n (HT20)	MCS0	2412	19.24	0.0839	
		2437	19.69	0.0931	
		2462	19.48	0.0887	
802.11n (HT40)	MCS0	2422	19.99	0.0998	
		2437	20.15	0.1035	
		2452	20.00	0.1000	
<b>Maximum Measured Value</b>			20.15	0.1035	

**Table 6: Test Result of Maximum Conducted Output Power, SISO mode (Ant2)**

Test Mode	Data Rate	Test Channel (MHz)	Measured Peak Power		Limit (W)
			(dBm)	(W)	
802.11b	1 Mbps	2412	14.16	0.0261	< 1.0
		2437	15.06	0.0321	
		2462	14.49	0.0281	
802.11g	6 Mbps	2412	19.56	0.0904	
		2437	19.98	0.0995	
		2462	19.95	0.0989	
802.11n (HT20)	MCS0	2412	19.50	0.0891	
		2437	19.89	0.0975	
		2462	19.74	0.0942	
802.11n (HT40)	MCS0	2422	20.22	0.1052	
		2437	20.12	0.1028	
		2452	20.27	0.1064	
<b>Maximum Measured Value</b>			20.27	0.1064	

**Table 7: Test Result of Maximum Conducted Output Power, MIMO mode (Ant1+2)**

Test Mode	Data Rate	Test Channel (MHz)	Measured Peak Power		Limit (W)
			(dBm)	(W)	
802.11n (HT20)	MCS0	2412	22.38	0.1730	< 1.0
		2437	22.80	0.1905	
		2462	22.62	0.1828	
802.11n (HT40)	MCS0	2422	23.12	0.2051	
		2437	23.15	0.2065	
		2452	23.15	0.2065	
<b>Maximum Measured Value</b>			23.15	0.2065	

Note:

- 1) The cable loss is taken into account in results.
- 2) Antenna gain(G) 1: 3.0 dBi
- 3) Antenna gain(G) 2: 3.0 dBi
- 4) Directional gain(G)= $G_{ANT} + 10 \log(N_{ANT})$  dBi=6.01 dBi

### 5.1.3 Conducted Power Spectral Density

**RESULT:****Pass****Test Specification**

Test standard : FCC Part 15.247(e)  
Basic standard : ANSI C63.10: 2013  
Limits : < 8 dBm / 3kHz  
Kind of test site : Shielded Room

**Test Setup**

Date of testing : 2022-01-11  
Input voltage : AC 120V, 60Hz  
Operation mode : A  
Test channel : Low / Middle / High  
Ambient temperature : 24.8 °C  
Relative humidity : 55 %  
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix A.

### 5.1.4 6dB Bandwidth

**RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.247(a)(2)
Basic standard	: ANSI C63.10: 2013
Limits	: > 500 kHz
Kind of test site	: Shielded Room

**Test Setup**

Date of testing	: 2022-01-11
Input voltage	: AC 120V, 60Hz
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 24.8 °C
Relative humidity	: 55 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

### 5.1.5 99% Bandwidth

**RESULT:****Pass****Test Specification**

Test standard : FCC Part 15.247(a)  
Basic standard : ANSI C63.10: 2013  
Kind of test site : Shielded Room

**Test Setup**

Date of testing : 2022-01-11  
Input voltage : AC 120V, 60Hz  
Operation mode : A  
Test channel : Low / Middle / High  
Ambient temperature : 24.8 °C  
Relative humidity : 55 %  
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix A.

## 5.1.6 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

**RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.247(d)
Basic standard	: ANSI C63.10: 2013
Limits	: 20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power); In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a)
Kind of test site	: Shielded Room

**Test Setup**

Date of testing	: 2022-01-11 to 2022-01-12
Input voltage	: AC 120V, 60Hz
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 24.8 °C
Relative humidity	: 55 %
Atmospheric pressure	: 101 kPa

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to test plots, and compliance is achieved as well.

For the measurement records, refer to the appendix A.

## 5.1.7 Radiated Spurious Emission

**RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.247(d) & FCC Part 15.205
Basic standard	: ANSI C63.10: 2013
Limits	: Refer to 15.209(a) of FCC part 15.247(d)
Kind of test site	: 3m Semi-anechoic Chamber

**Test Setup**

Date of testing	: 2022-01-17 to 2022-01-20
Input voltage	: AC 120V, 60Hz
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: Refer to test result
Relative humidity	: Refer to test result
Atmospheric pressure	: 101 kPa

**Remark:**

Testing was carried out within frequency range 9kHz to the tenth harmonics. All configurations tested for both MIMO and SISO, only worst-case mode data reported.

For the measurement records, refer to the appendix A.

### 5.1.8 Conducted Emission on AC Mains

**RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.207(a)
Basic standard	: ANSI C63.10: 2013
Frequency range	: 0.15 – 30MHz
Limits	: FCC Part 15.207(a)
Kind of test site	: Shielded Room

**Test Setup**

Date of testing	: 2022-01-13
Input voltage	: AC 120V, 60Hz
Operation mode	: B
Earthing	: Not connected
Ambient temperature	: 23.1 °C
Relative humidity	: 52 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

## 6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the separate test photo file.

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## Appendix A: Test Results of Wi-Fi 802.11 b/g/n

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### Appendix A.1: Test Results of Conducted Power Spectral Density

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B-SISO	Ant1	2412	-3.27	≤8	PASS
	Ant2	2412	-4.68	≤8	PASS
	total	2412	---	---	---
	Ant1	2437	-3.12	≤8	PASS
	Ant2	2437	-3.92	≤8	PASS
	total	2437	---	---	---
	Ant1	2462	-3.55	≤8	PASS
	Ant2	2462	-2.89	≤8	PASS
	total	2462	---	---	---
11G-SISO	Ant1	2412	-5.39	≤8	PASS
	Ant2	2412	-5.42	≤8	PASS
	total	2412	---	---	---
	Ant1	2437	-4.84	≤8	PASS
	Ant2	2437	-5.15	≤8	PASS
	total	2437	---	---	---
	Ant1	2462	-5.34	≤8	PASS
	Ant2	2462	-4.64	≤8	PASS
	total	2462	---	---	---
11N20MIMO	Ant1	2412	-6.35	≤8	PASS
	Ant2	2412	-5.5	≤8	PASS
	total	2412	-2.89	≤8	PASS
	Ant1	2437	-4.38	≤8	PASS
	Ant2	2437	-5.01	≤8	PASS
	total	2437	-1.67	≤8	PASS
	Ant1	2462	-6.4	≤8	PASS
	Ant2	2462	-4.52	≤8	PASS
	total	2462	-2.35	≤8	PASS
11N40MIMO	Ant1	2422	-8.55	≤8	PASS
	Ant2	2422	-7.88	≤8	PASS
	total	2422	-5.19	≤8	PASS
	Ant1	2437	-6.89	≤8	PASS
	Ant2	2437	-7.17	≤8	PASS
	total	2437	-4.02	≤8	PASS
	Ant1	2452	-8.47	≤8	PASS
	Ant2	2452	-7.69	≤8	PASS
	total	2452	-5.05	≤8	PASS

11B-SISO Ant1 2412



11B-SISO Ant2 2412



11B-SISO Ant1 2437



11B-SISO Ant2 2437



11B-SISO Ant1 2462



11B-SISO Ant2 2462



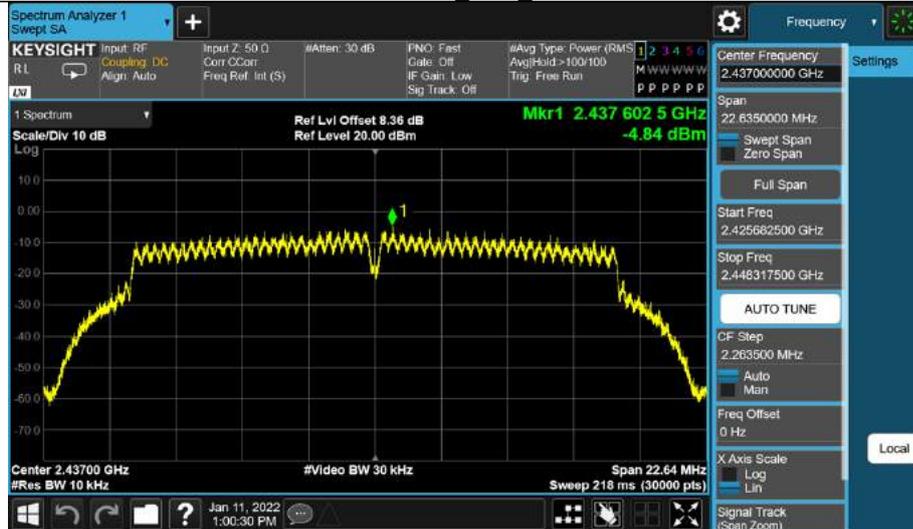
11G-SISO Ant1\_2412



11G-SISO Ant2\_2412



11G-SISO Ant1\_2437

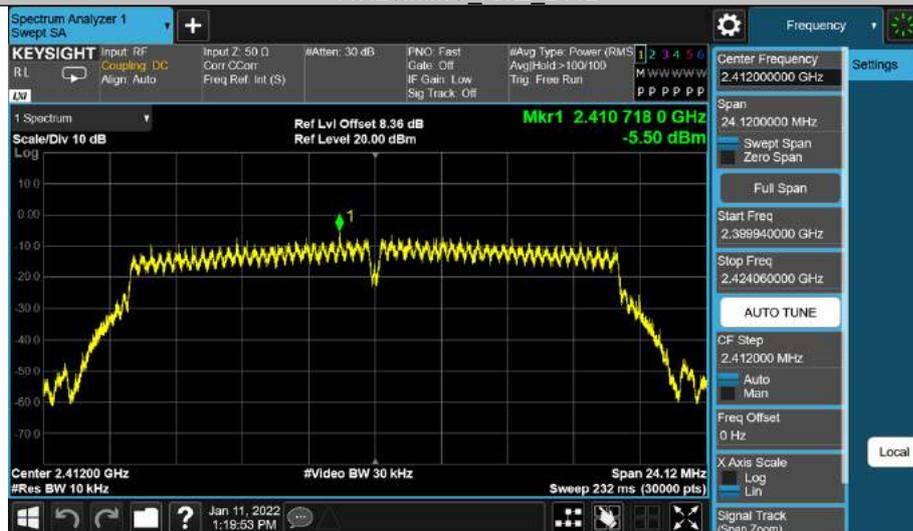




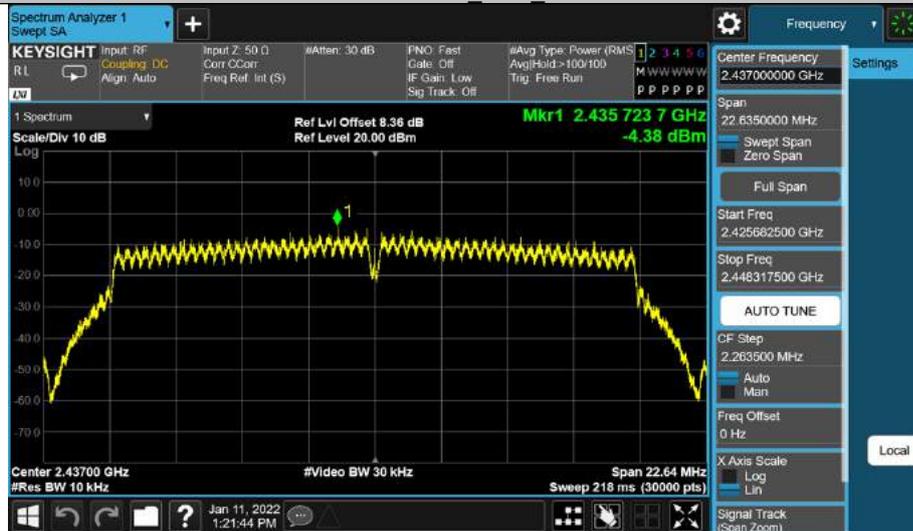
11N20MIMO Ant1 2412



11N20MIMO Ant2 2412



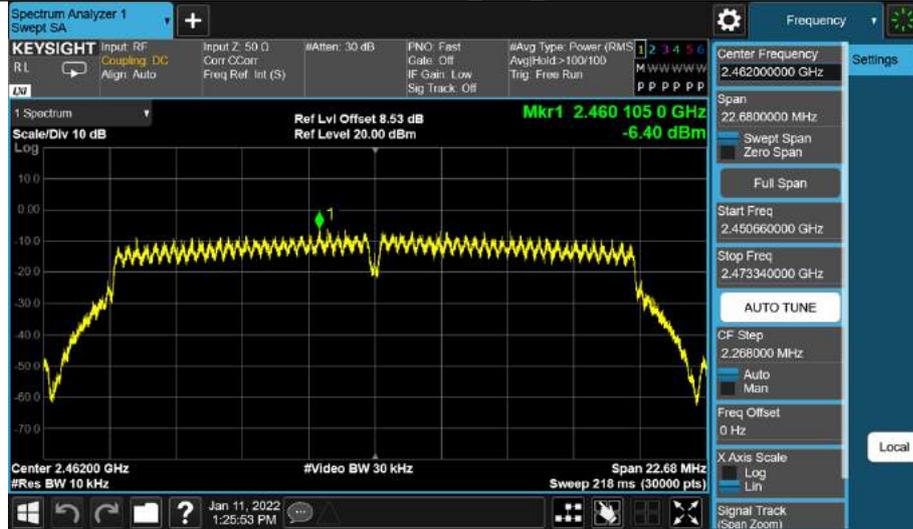
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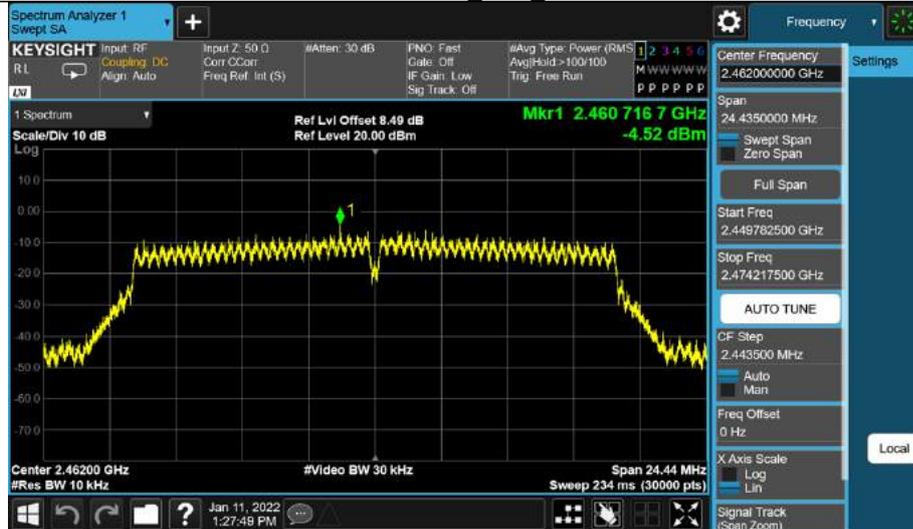
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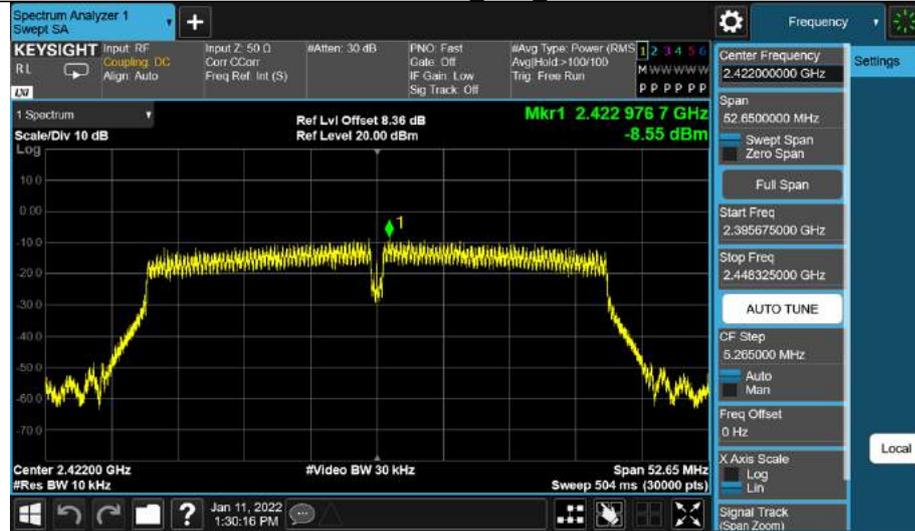
11N20MIMO Ant1 2462



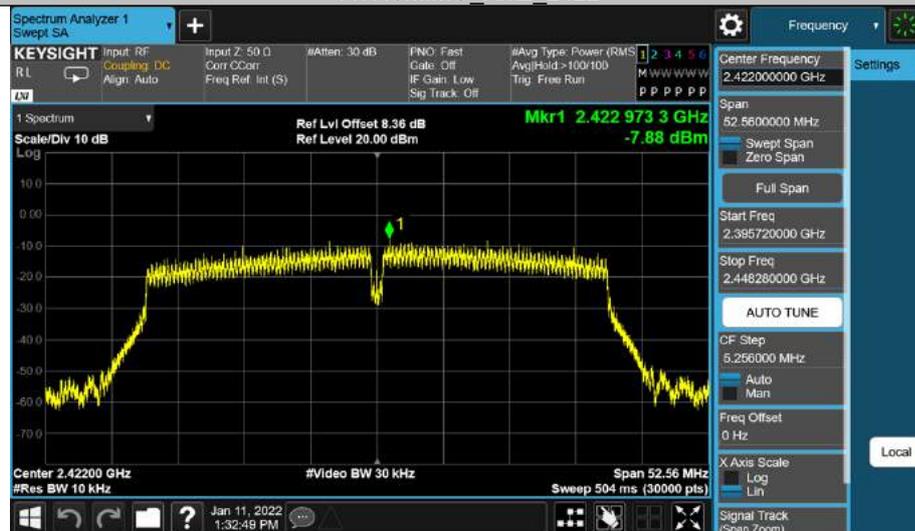
11N20MIMO Ant2 2462



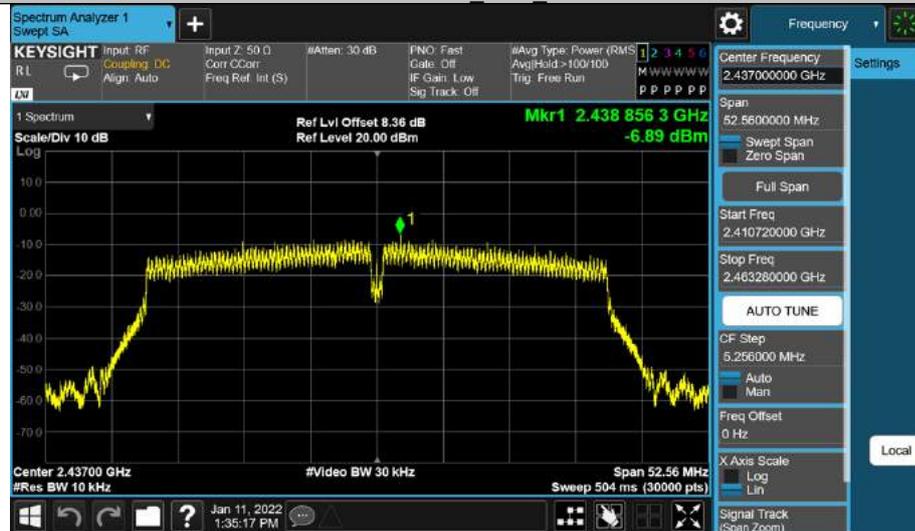
11N40MIMO Ant1 2422



11N40MIMO Ant2 2422



11N40MIMO Ant1 2437



11N40MIMO Ant2 2437



11N40MIMO Ant1 2452



11N40MIMO Ant2 2452



### Appendix A.2: Test Results of 6dB Bandwidth

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B-SISO	Ant1	2412	9.030	2407.470	2416.500	0.5	PASS
	Ant2	2412	8.550	2407.950	2416.500	0.5	PASS
	Ant1	2437	8.070	2432.950	2441.020	0.5	PASS
	Ant2	2437	8.550	2432.470	2441.020	0.5	PASS
	Ant1	2462	8.550	2457.950	2466.500	0.5	PASS
	Ant2	2462	8.550	2457.950	2466.500	0.5	PASS
11G-SISO	Ant1	2412	15.150	2404.410	2419.560	0.5	PASS
	Ant2	2412	15.450	2404.440	2419.890	0.5	PASS
	Ant1	2437	15.090	2429.440	2444.530	0.5	PASS
	Ant2	2437	15.090	2429.440	2444.530	0.5	PASS
	Ant1	2462	15.090	2454.410	2469.500	0.5	PASS
	Ant2	2462	16.050	2453.840	2469.890	0.5	PASS
11N20MIMO	Ant1	2412	15.090	2404.440	2419.530	0.5	PASS
	Ant2	2412	16.080	2404.440	2420.520	0.5	PASS
	Ant1	2437	15.090	2429.440	2444.530	0.5	PASS
	Ant2	2437	15.090	2429.410	2444.500	0.5	PASS
	Ant1	2462	15.120	2454.440	2469.560	0.5	PASS
	Ant2	2462	16.290	2453.840	2470.130	0.5	PASS
11N40MIMO	Ant1	2422	35.100	2404.420	2439.520	0.5	PASS
	Ant2	2422	35.040	2404.480	2439.520	0.5	PASS
	Ant1	2437	35.040	2419.480	2454.520	0.5	PASS
	Ant2	2437	30.000	2419.480	2449.480	0.5	PASS
	Ant1	2452	35.100	2434.420	2469.520	0.5	PASS
	Ant2	2452	35.700	2433.820	2469.520	0.5	PASS

11B-SISO Ant1 2412



11B-SISO Ant2 2412



11B-SISO Ant1 2437



11B-SISO Ant2 2437



11B-SISO Ant1 2462



11B-SISO Ant2 2462



11G-SISO Ant1 2412



11G-SISO Ant2 2412



11G-SISO Ant1 2437



11G-SISO Ant2\_2437



11G-SISO Ant1\_2462



11G-SISO Ant2\_2462



11N20MIMO Ant1 2412



11N20MIMO Ant2 2412



11N20MIMO Ant1 2437







11N40MIMO Ant2 2437



11N40MIMO Ant1 2452



11N40MIMO Ant2 2452



### Appendix A.3: Test Results of 99% Bandwidth

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B-SISO	Ant1	2412	13.403	2405.316	2418.719	---	PASS
		2437	13.292	2430.310	2443.602	---	PASS
		2462	13.433	2455.291	2468.724	---	PASS
11G-SISO	Ant1	2412	16.836	2403.616	2420.452	---	PASS
		2437	16.671	2428.633	2445.304	---	PASS
		2462	16.861	2453.548	2470.409	---	PASS
11N20MIMO	Ant1	2412	17.846	2403.026	2420.872	---	PASS
		2437	17.755	2428.085	2445.840	---	PASS
		2462	17.789	2453.148	2470.937	---	PASS
11N40MIMO	Ant1	2422	36.095	2403.935	2440.030	---	PASS
		2437	35.960	2419.007	2454.967	---	PASS
		2452	36.246	2433.860	2470.106	---	PASS

11B-SISO Ant1 2412



11B-SISO Ant1 2437



11B-SISO Ant1 2462



11G-SISO Ant1\_2412



11G-SISO Ant1\_2437



11G-SISO Ant1\_2462



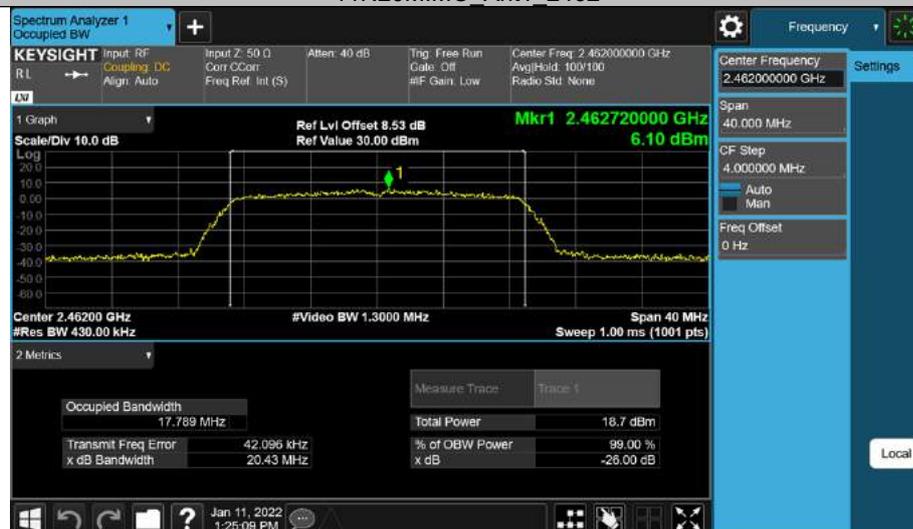
11N20MIMO Ant1 2412



11N20MIMO Ant1 2437



11N20MIMO Ant1 2462



11N40MIMO Ant1 2422



11N40MIMO Ant1 2437



11N40MIMO Ant1 2452



### Appendix A.4: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

#### Conducted Spurious Emission

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B-SISO	Ant1	2412	Reference	3.06	3.06	---	PASS
			30~1000	3.06	-61.76	≤-16.94	PASS
			1000~26500	3.06	-48.21	≤-16.94	PASS
		2437	Reference	3.77	3.77	---	PASS
			30~1000	3.77	-62.31	≤-16.23	PASS
			1000~26500	3.77	-45.63	≤-16.23	PASS
		2462	Reference	3.19	3.19	---	PASS
			30~1000	3.19	-62.23	≤-16.81	PASS
			1000~26500	3.19	-40.46	≤-16.81	PASS
11G-SISO	Ant1	2412	Reference	2.33	2.33	---	PASS
			30~1000	2.33	-62.3	≤-17.67	PASS
			1000~26500	2.33	-53.11	≤-17.67	PASS
		2437	Reference	2.83	2.83	---	PASS
			30~1000	2.83	-61.86	≤-17.17	PASS
			1000~26500	2.83	-52.06	≤-17.17	PASS
		2462	Reference	2.57	2.57	---	PASS
			30~1000	2.57	-62.27	≤-17.43	PASS
			1000~26500	2.57	-50.91	≤-17.43	PASS
11N20MIMO	Ant1	2412	Reference	1.72	1.72	---	PASS
			30~1000	1.72	-61.05	≤-18.28	PASS
			1000~26500	1.72	-52.24	≤-18.28	PASS
		2437	Reference	3.36	3.36	---	PASS
			30~1000	3.36	-61.97	≤-16.64	PASS
			1000~26500	3.36	-52.92	≤-16.64	PASS
		2462	Reference	2.05	2.05	---	PASS
			30~1000	2.05	-61.83	≤-17.95	PASS
			1000~26500	2.05	-49.61	≤-17.95	PASS
11N40MIMO	Ant1	2422	Reference	-0.03	-0.03	---	PASS
			30~1000	-0.03	-58.73	≤-20.03	PASS
			1000~26500	-0.03	-52.31	≤-20.03	PASS
		2437	Reference	0.82	0.82	---	PASS
			30~1000	0.82	-58.28	≤-19.18	PASS
			1000~26500	0.82	-51.84	≤-19.18	PASS
		2452	Reference	-0.23	-0.23	---	PASS
			30~1000	-0.23	-57.94	≤-20.23	PASS
			1000~26500	-0.23	-53.19	≤-20.23	PASS

11B-SISO Ant1\_2412\_0~Reference



11B-SISO Ant1\_2412\_30~1000



11B-SISO Ant1\_2412\_1000~26500



11B-SISO Ant1\_2437\_0~Reference



11B-SISO Ant1\_2437\_30~1000



11B-SISO Ant1\_2437\_1000~26500



11B-SISO Ant1\_2462\_0~Reference



11B-SISO Ant1\_2462\_30~1000



11B-SISO Ant1\_2462\_1000~26500



11G-SISO\_Ant1\_2412\_0~Reference



11G-SISO\_Ant1\_2412\_30~1000



11G-SISO\_Ant1\_2412\_1000~26500



11G-SISO\_Ant1\_2437\_0~Reference



11G-SISO\_Ant1\_2437\_30~1000



11G-SISO\_Ant1\_2437\_1000~26500



11G-SISO\_Ant1\_2462\_0~Reference



11G-SISO\_Ant1\_2462\_30~1000



11G-SISO\_Ant1\_2462\_1000~26500



11N20MIMO Ant1\_2412\_0~Reference



11N20MIMO Ant1\_2412\_30~1000



11N20MIMO Ant1\_2412\_1000~26500



11N20MIMO Ant1\_2437\_0~Reference



11N20MIMO Ant1\_2437\_30~1000



11N20MIMO Ant1\_2437\_1000~26500



11N20MIMO Ant1\_2462\_0~Reference



11N20MIMO Ant1\_2462\_30~1000



11N20MIMO Ant1\_2462\_1000~26500



11N40MIMO Ant1\_2422\_0~Reference



11N40MIMO Ant1\_2422\_30~1000



11N40MIMO Ant1\_2422\_1000~26500



11N40MIMO Ant1\_2437\_0~Reference



11N40MIMO Ant1\_2437\_30~1000



11N40MIMO Ant1\_2437\_1000~26500



11N40MIMO Ant1\_2452\_0~Reference



11N40MIMO Ant1\_2452\_30~1000



11N40MIMO Ant1\_2452\_1000~26500



**Band Edge**

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B-SISO	Ant1	Low	2412	3.89	-43.83	≤-16.11	PASS
		High	2462	4.23	-49.38	≤-15.77	PASS
11G-SISO	Ant1	Low	2412	2.68	-39.67	≤-17.32	PASS
		High	2462	2.86	-47.18	≤-17.14	PASS
11N20MIMO	Ant1	Low	2412	2.38	-39.83	≤-17.62	PASS
		High	2462	3.19	-48.39	≤-16.82	PASS
11N40MIMO	Ant1	Low	2422	0.10	-39.71	≤-19.9	PASS
		High	2452	-0.06	-46.01	≤-20.06	PASS

11B-SISO Ant1 Low 2412



11B-SISO Ant1 High 2462



11G-SISO Ant1 Low 2412



11G-SISO Ant1 High 2462



11N20MIMO Ant1 Low 2412



11N20MIMO Ant1 High 2462



11N40MIMO Ant1 Low 2422



11N40MIMO Ant1 High 2452



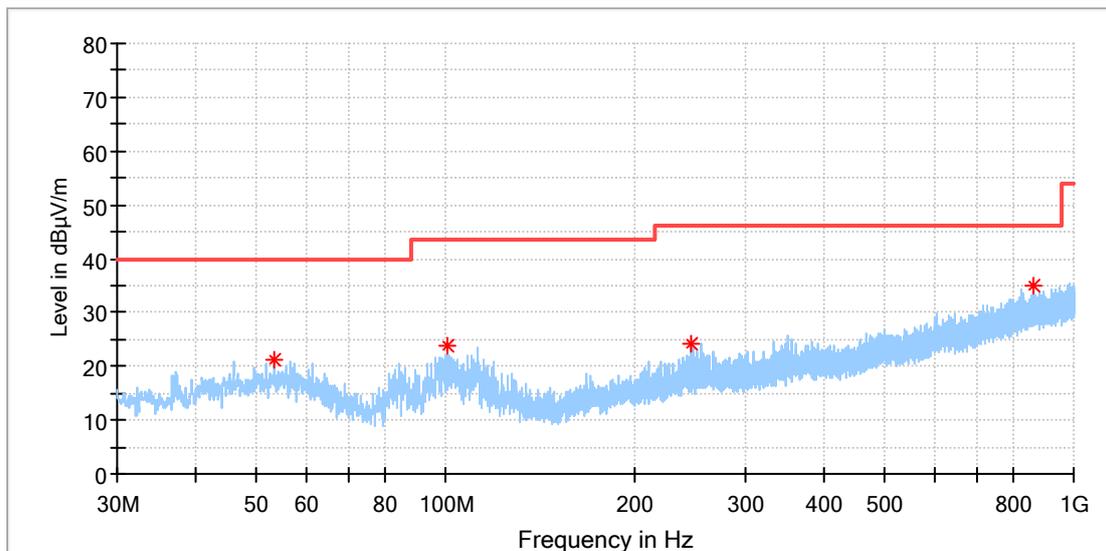
Note: 1. Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported. 2. This testing was carried out on different modulations, but only the worst case was presented in this report. 3. We tested four adapter and recorded the wose case data in the report.

**Appendix A.5: Test Results of Radiated Spurious Emissions**  
**30MHz - 1GHz (Worst case)**

# Test Report

## EUT Information

EUT Name:	RichMedia Box
Model:	ZXV10 B866V2-H
Test Mode:	WIFI 2.4G_11b_Mid channel
Order No/Sample No:	168349697/A003194305-001
Test Voltage::	120V/60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



## Critical\_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
53.328500	21.36	40.00	18.64	100.0	H	216.0	-18.4
100.761500	23.64	43.50	19.86	100.0	H	354.0	-19.0
246.213000	24.36	46.00	21.64	100.0	H	171.0	-17.5
865.364000	34.81	46.00	11.19	100.0	H	226.0	-5.3

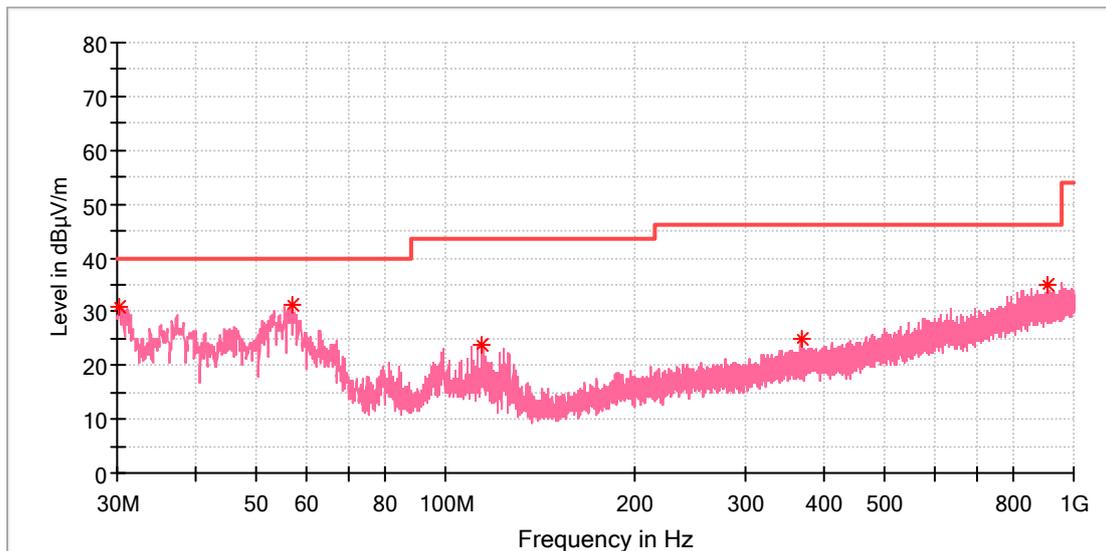
## Final\_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

# Test Report

## EUT Information

EUT Name:	RichMedia Box
Model:	ZXV10 B866V2-H
Test Mode:	WIFI 2.4G_11b_Mid channel
Order No/Sample No:	168349697/A003194305-001
Test Voltage::	120V/60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



## Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
30.242500	31.07	40.00	8.93	100.0	V	195.0	-23.0
56.917500	31.08	40.00	8.92	100.0	V	6.0	-18.7
114.002000	23.80	43.50	19.70	100.0	V	261.0	-19.6
367.851000	24.97	46.00	21.03	100.0	V	210.0	-14.5
907.801500	34.88	46.00	11.12	100.0	V	29.0	-4.9

## Final Result

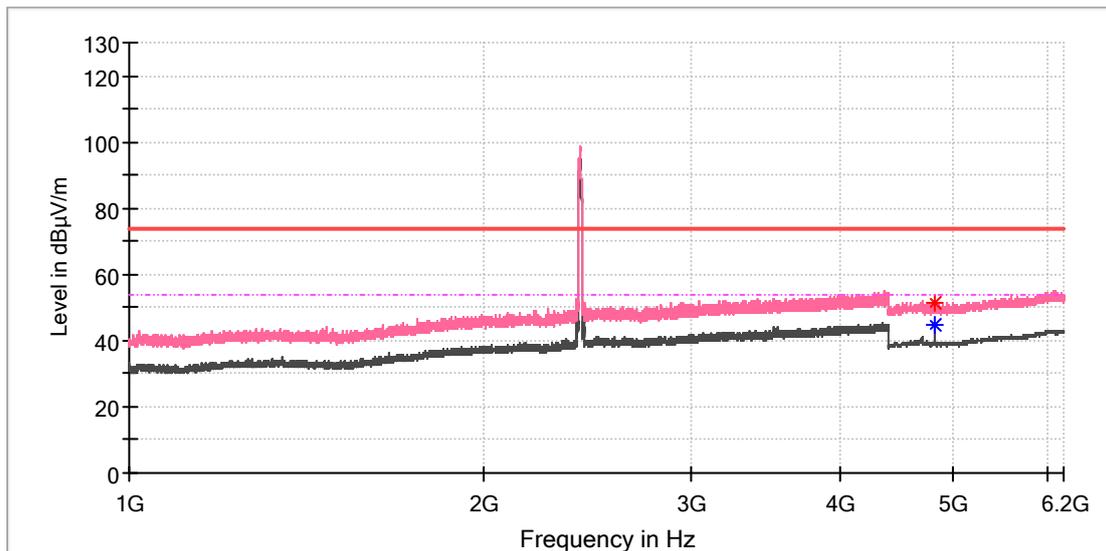
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---



# Test Report

## EUT Information

EUT Name: RichMedia Box  
 Model: ZXV10 B866V2-H  
 Test Mode: WIFI 2.4G\_11b\_Low channel  
 Order No/Sample No: 168349697/A003194305-001  
 Test Voltage:: 120V/60Hz  
 Remark: Temp 23 Humi:58%  
 Test Standard: FCC 15.247  
 Tested By: Kei Zhang  
 Reviewed By: Terry Yin



## Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4823.500000	51.31	---	74.00	22.69	100.0	V	256.0	11.8
4824.000000	---	44.69	54.00	9.31	100.0	V	249.0	11.8

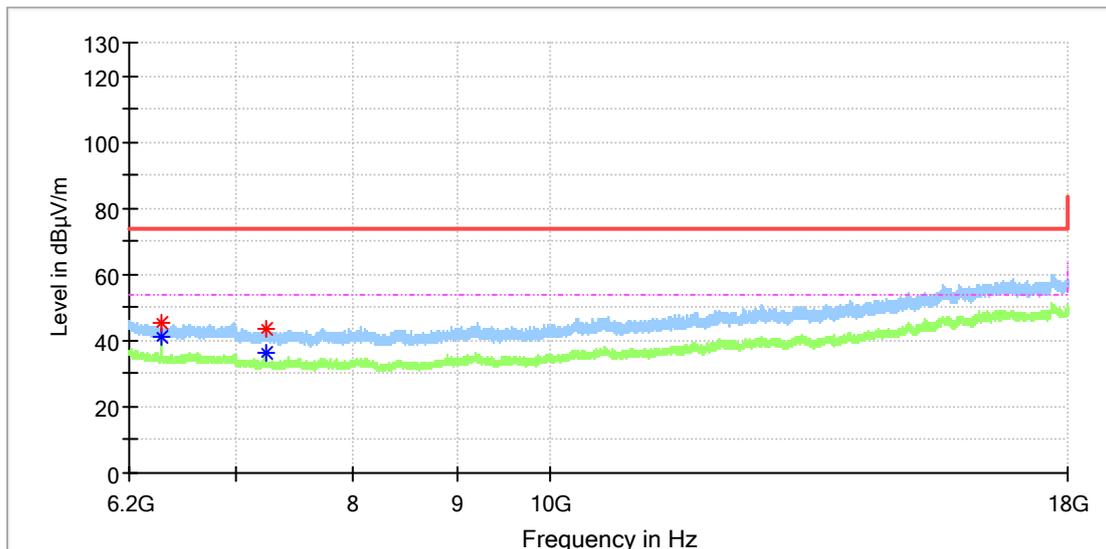
## Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

# Test Report

## EUT Information

EUT Name:	RichMedia Box
Model:	ZXV10 B866V2-H
Test Mode:	WIFI 2.4G_11b_Low channel
Order No/Sample No:	168349697/A003194305-001
Test Voltage::	120V/60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



## Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
6431.575000	45.22	---	74.00	28.78	100.0	H	103.0	8.8
6431.575000	---	41.25	54.00	12.75	100.0	H	103.0	8.8
7235.941667	43.52	---	74.00	30.48	100.0	H	163.0	8.6
7236.433333	---	36.03	54.00	17.97	100.0	H	174.0	8.6

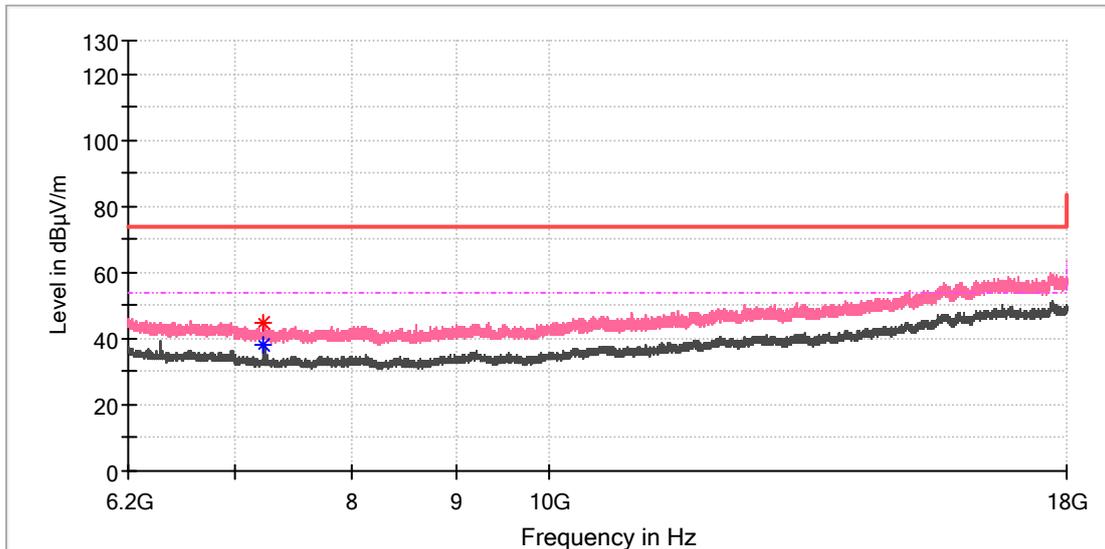
## Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

# Test Report

## EUT Information

EUT Name: RichMedia Box  
 Model: ZXV10 B866V2-H  
 Test Mode: WIFI 2.4G\_11b\_Low channel  
 Order No/Sample No: 168349697/A003194305-001  
 Test Voltage:: 120V/60Hz  
 Remark: Temp 23 Humi:58%  
 Test Standard: FCC 15.247  
 Tested By: Kei Zhang  
 Reviewed By: Terry Yin



## Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7234.466667	---	37.91	54.00	16.09	100.0	V	83.0	8.6
7234.958333	44.71	---	74.00	29.29	100.0	V	46.0	8.6

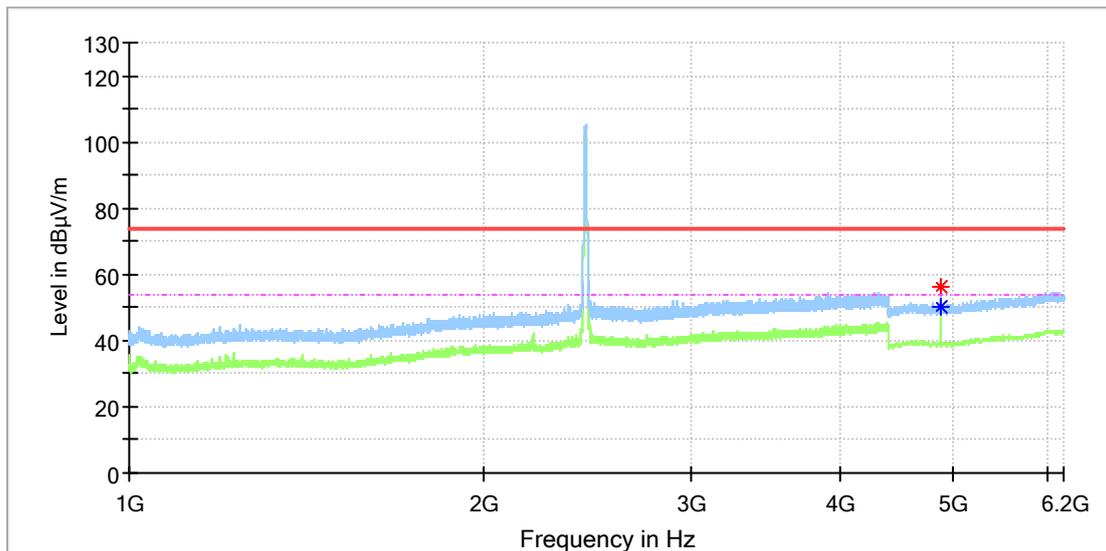
## Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

# Test Report

## EUT Information

EUT Name: RichMedia Box  
 Model: ZXV10 B866V2-H  
 Test Mode: WIFI 2.4G\_11b\_Mid channel  
 Order No/Sample No: 168349697/A003194305-001  
 Test Voltage:: 120V/60Hz  
 Remark: Temp 23 Humi:58%  
 Test Standard: FCC 15.247  
 Tested By: Kei Zhang  
 Reviewed By: Terry Yin



## Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4873.500000	---	50.20	54.00	3.80	100.0	H	184.0	11.8
4874.000000	56.07	---	74.00	17.93	100.0	H	177.0	11.8

## Final Result

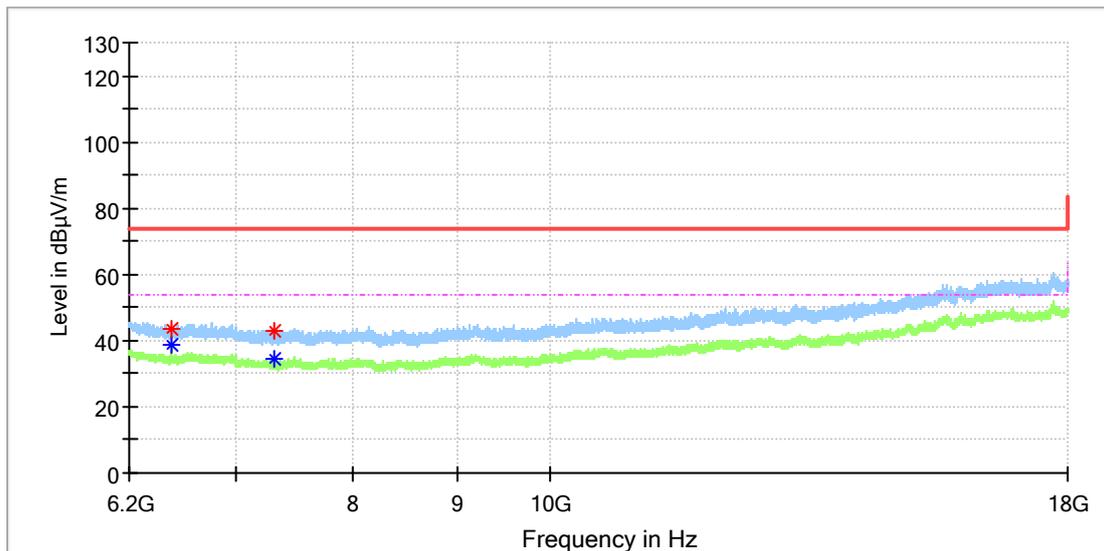
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---



# Test Report

## EUT Information

EUT Name: RichMedia Box  
 Model: ZXV10 B866V2-H  
 Test Mode: WIFI 2.4G\_11b\_Mid channel  
 Order No/Sample No: 168349697/A003194305-001  
 Test Voltage:: 120V/60Hz  
 Remark: Temp 23 Humi:58%  
 Test Standard: FCC 15.247  
 Tested By: Kei Zhang  
 Reviewed By: Terry Yin



## Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
6497.950000	43.63	---	74.00	30.37	100.0	H	95.0	8.8
6498.441667	---	38.73	54.00	15.27	100.0	H	95.0	8.8
7311.166667	---	34.53	54.00	19.47	100.0	H	167.0	8.2
7313.625000	42.94	---	74.00	31.06	100.0	H	239.0	8.2

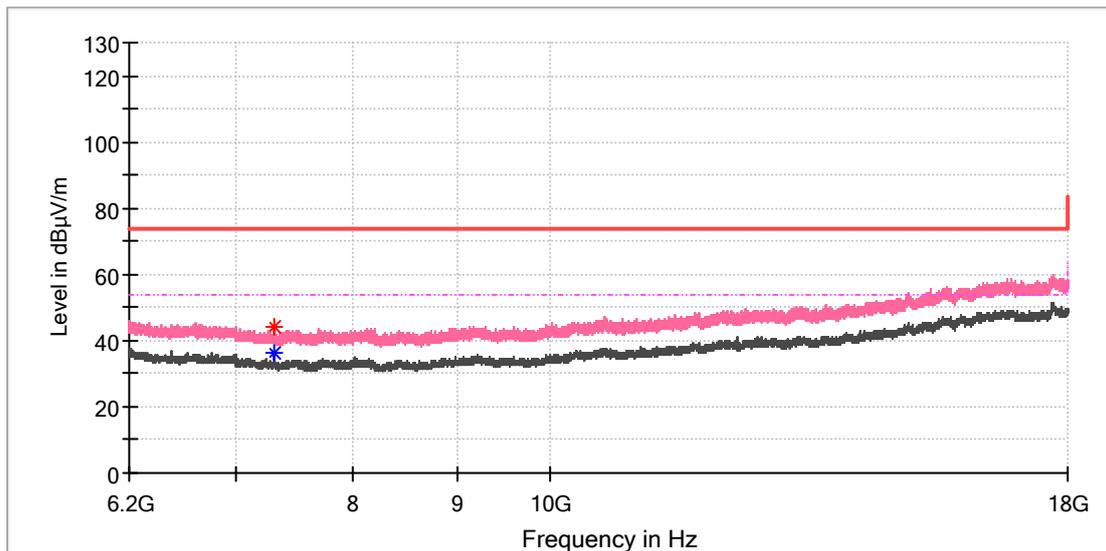
## Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

# Test Report

## EUT Information

EUT Name: RichMedia Box  
 Model: ZXV10 B866V2-H  
 Test Mode: WIFI 2.4G\_11b\_Mid channel  
 Order No/Sample No: 168349697/A003194305-001  
 Test Voltage:: 120V/60Hz  
 Remark: Temp 23 Humi:58%  
 Test Standard: FCC 15.247  
 Tested By: Kei Zhang  
 Reviewed By: Terry Yin



## Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7310.183333	---	36.44	54.00	17.56	100.0	V	43.0	8.2
7312.150000	44.35	---	74.00	29.65	100.0	V	54.0	8.2

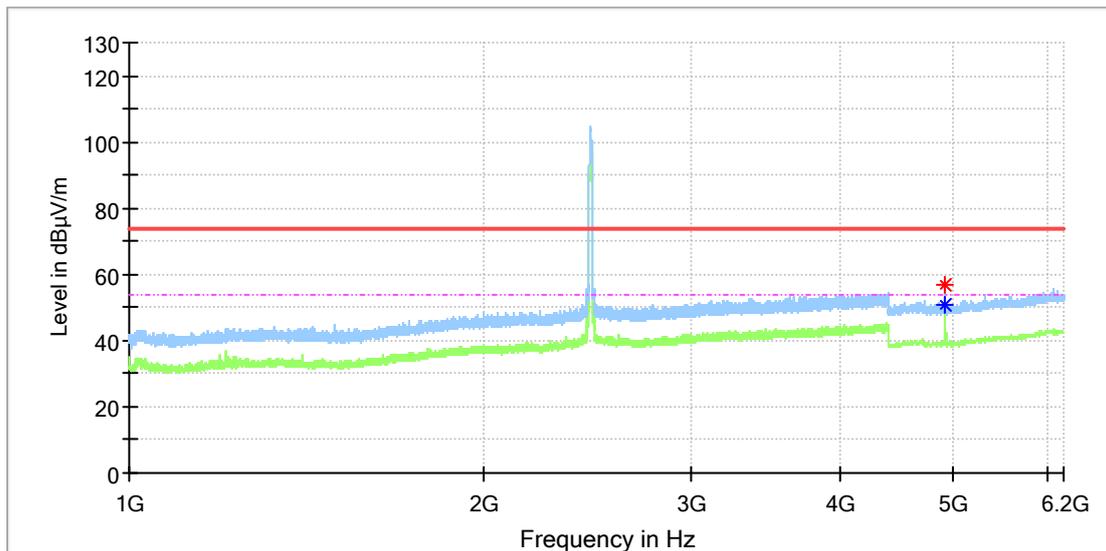
## Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

# Test Report

## EUT Information

EUT Name: RichMedia Box  
 Model: ZXV10 B866V2-H  
 Test Mode: WIFI 2.4G\_11b\_High channel  
 Order No/Sample No: 168349697/A003194305-001  
 Test Voltage:: 120V/60Hz  
 Remark: Temp 23 Humi:58%  
 Test Standard: FCC 15.247  
 Tested By: Kei Zhang  
 Reviewed By: Terry Yin



## Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4923.500000	56.72	---	74.00	17.28	100.0	H	181.0	11.8
4923.500000	---	50.96	54.00	3.04	100.0	H	181.0	11.8

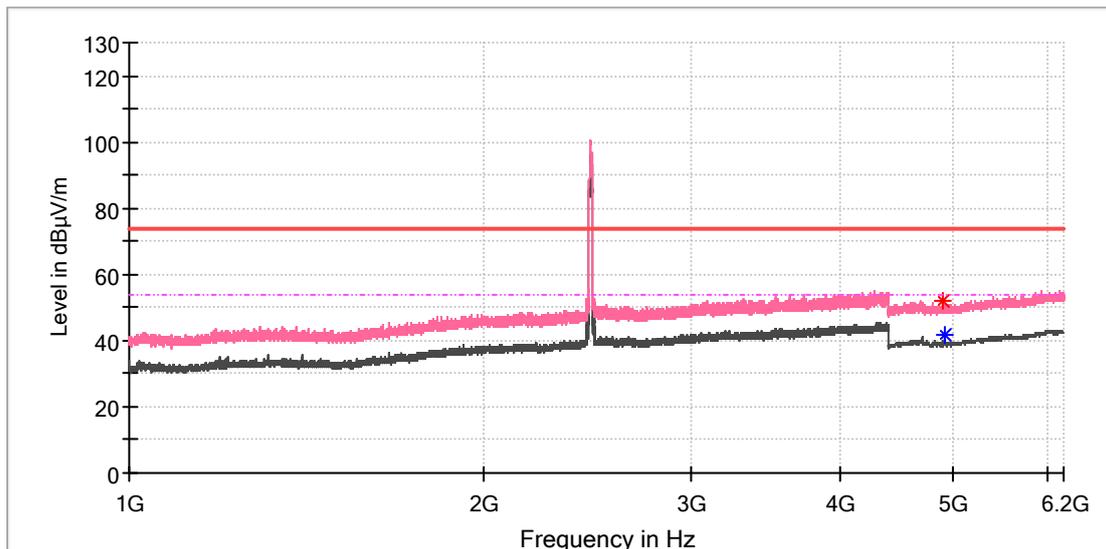
## Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

# Test Report

## EUT Information

EUT Name:	RichMedia Box
Model:	ZXV10 B866V2-H
Test Mode:	WIFI 2.4G_11b_High channel
Order No/Sample No:	168349697/A003194305-001
Test Voltage::	120V/60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



## Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4902.000000	51.95	---	74.00	22.05	100.0	V	125.0	11.8
4924.000000	---	41.98	54.00	12.02	100.0	V	242.0	11.8

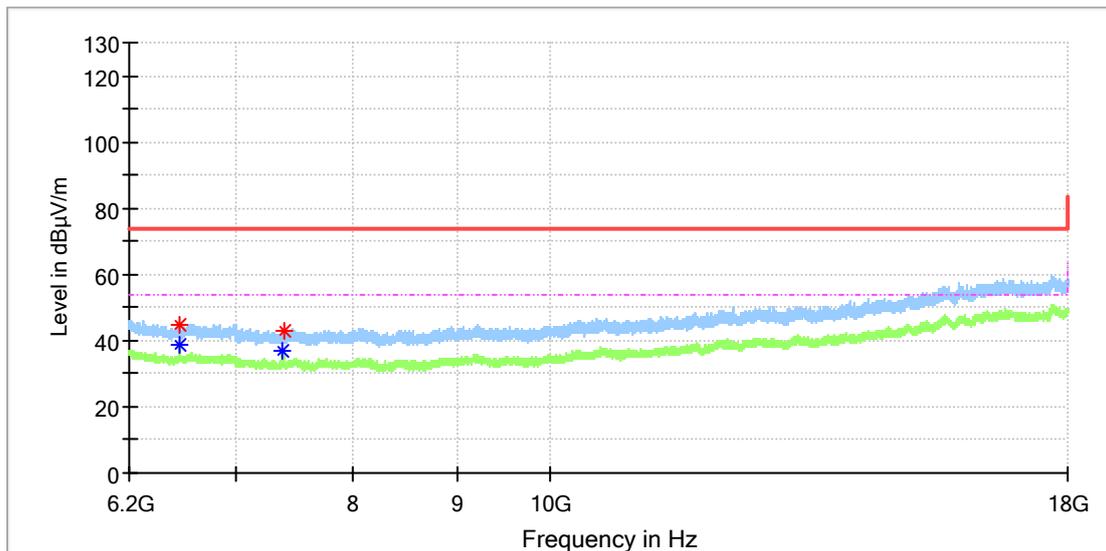
## Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

# Test Report

## EUT Information

EUT Name: RichMedia Box  
 Model: ZXV10 B866V2-H  
 Test Mode: WIFI 2.4G\_11b\_High channel  
 Order No/Sample No: 168349697/A003194305-001  
 Test Voltage:: 120V/60Hz  
 Remark: Temp 23 Humi:58%  
 Test Standard: FCC 15.247  
 Tested By: Kei Zhang  
 Reviewed By: Terry Yin



## Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
6565.308333	45.05	---	74.00	28.95	100.0	H	87.0	8.7
6565.308333	---	38.82	54.00	15.18	100.0	H	87.0	8.7
7385.408333	---	36.86	54.00	17.14	100.0	H	172.0	8.2
7385.900000	43.11	---	74.00	30.89	100.0	H	185.0	8.2

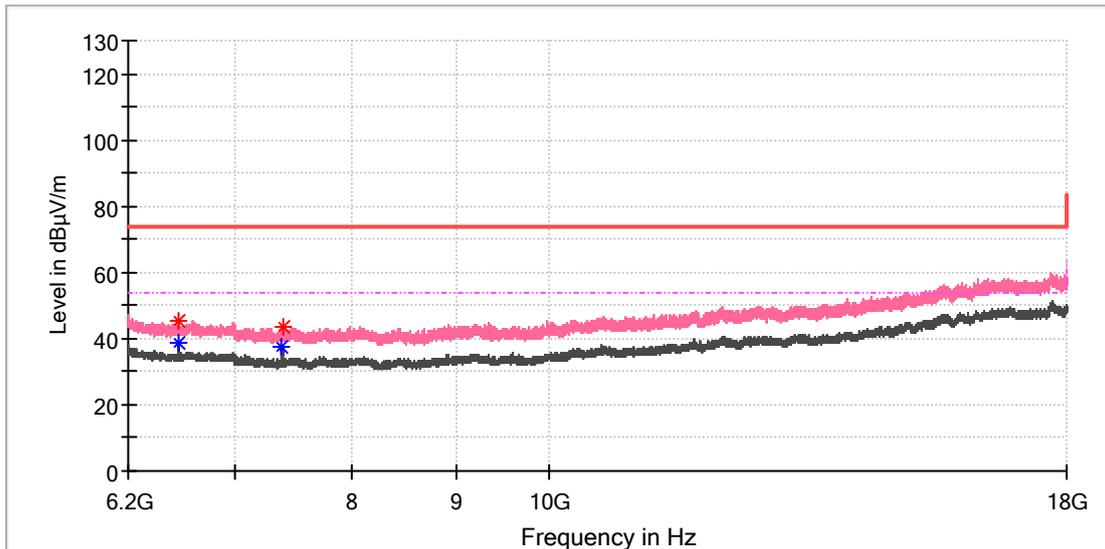
## Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

# Test Report

## EUT Information

EUT Name:	RichMedia Box
Model:	ZXV10 B866V2-H
Test Mode:	WIFI 2.4G_11b_High channel
Order No/Sample No:	168349697/A003194305-001
Test Voltage::	120V/60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



## Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
6564.816667	45.05	---	74.00	28.95	100.0	V	293.0	8.7
6564.816667	---	38.64	54.00	15.36	100.0	V	293.0	8.7
7384.916667	---	37.69	54.00	16.31	100.0	V	84.0	8.2
7385.900000	43.44	---	74.00	30.56	100.0	V	47.0	8.2

## Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

















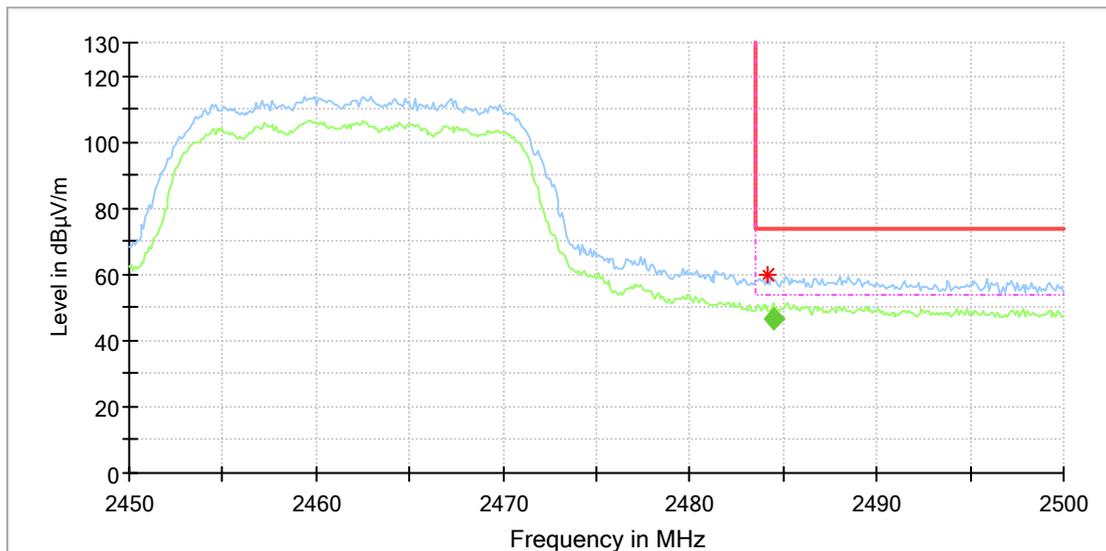




# Test Report

## EUT Information

EUT Name:	RichMedia Box
Model:	ZXV10 B866V2-H
Test Mode:	WIFI 2.4G_11n20_High channel
Order No/Sample No:	168349697/A003194305-001
Test Voltage::	120V/60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



## Critical\_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2484.200000	59.69	---	74.00	14.31	100.0	H	149.0	7.4

## Final\_Result

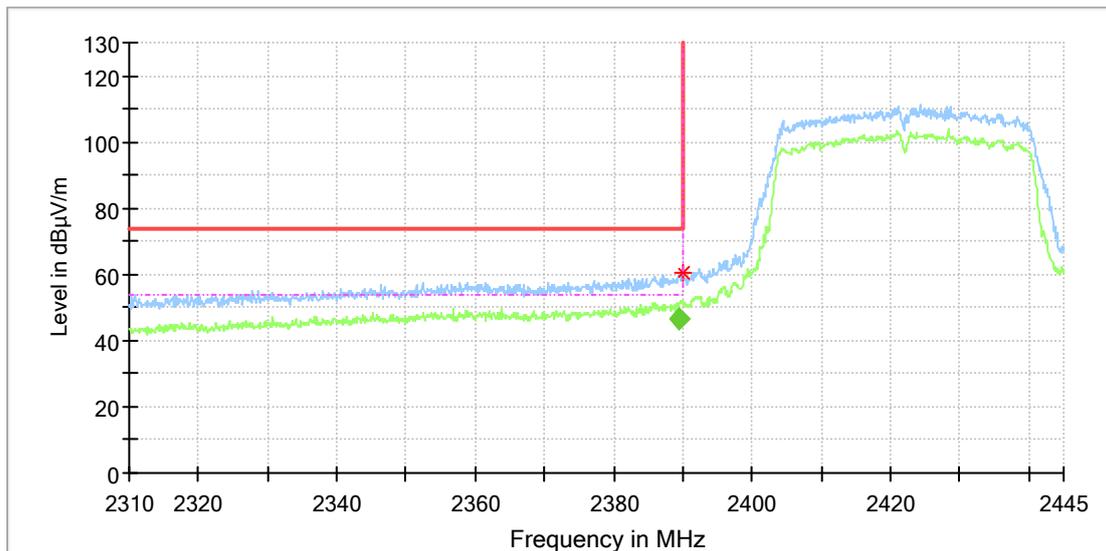
Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2484.430100	46.41	54.00	7.59	105.0	H	133.0	7.4



# Test Report

## EUT Information

EUT Name:	RichMedia Box
Model:	ZXV10 B866V2-H
Test Mode:	WIFI 2.4G_11n40_Low channel
Order No/Sample No:	168349697/A003194305-001
Test Voltage::	120V/60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



## Critical\_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2390.000000	60.35	---	74.00	13.65	100.0	H	204.0	7.0

## Final\_Result

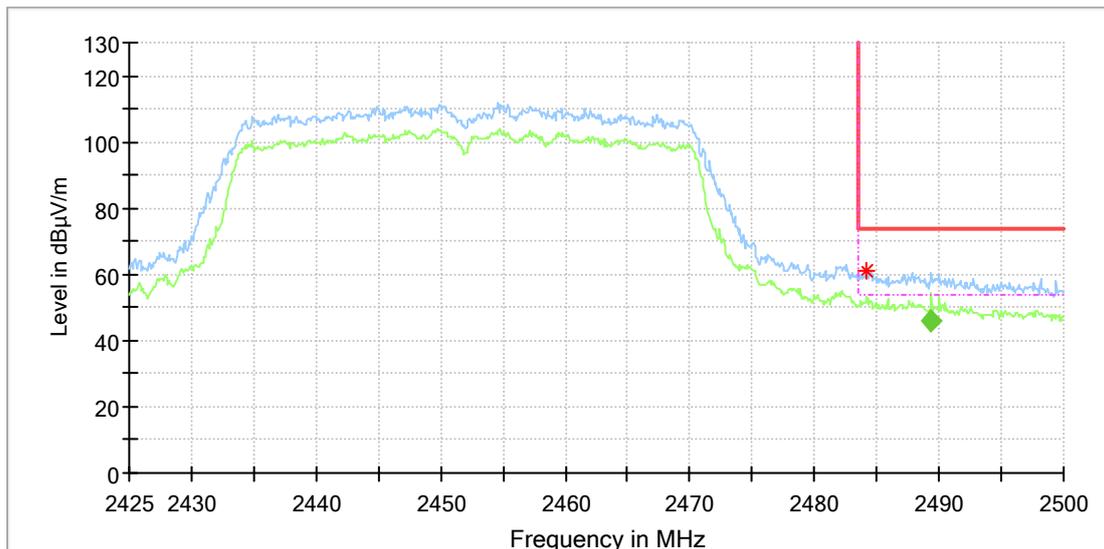
Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2389.311750	46.36	54.00	7.64	100.0	H	180.0	7.0



# Test Report

## EUT Information

EUT Name:	RichMedia Box
Model:	ZXV10 B866V2-H
Test Mode:	WIFI 2.4G_11n40_High channel
Order No/Sample No:	168349697/A003194305-001
Test Voltage::	120V/60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



## Critical\_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2484.200000	61.24	---	74.00	12.76	100.0	H	141.0	7.4

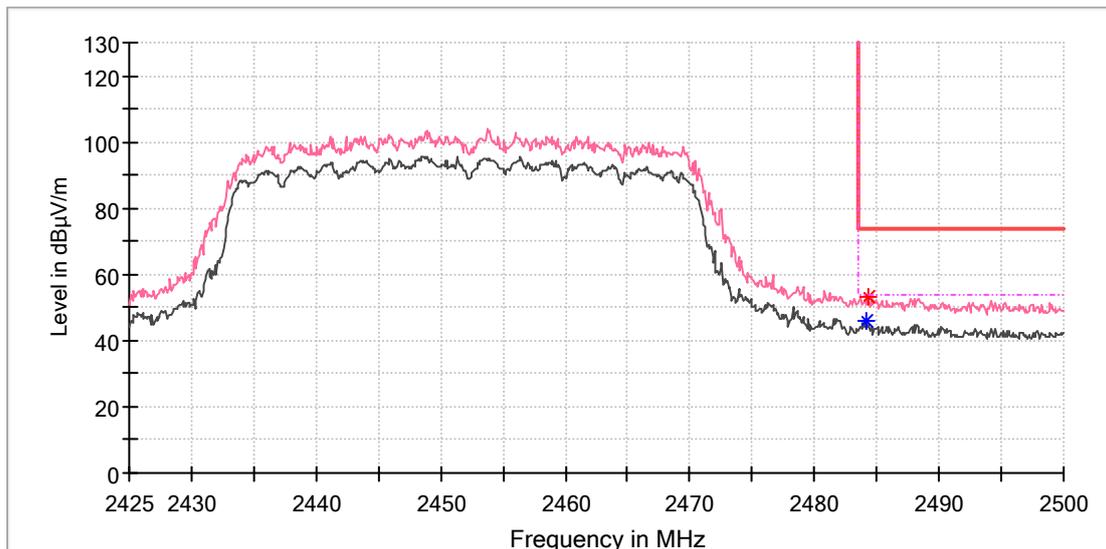
## Final\_Result

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2489.400750	45.92	54.00	8.08	100.0	H	136.0	7.4

# Test Report

## EUT Information

EUT Name:	RichMedia Box
Model:	ZXV10 B866V2-H
Test Mode:	WIFI 2.4G_11n40_High channel
Order No/Sample No:	168349697/A003194305-001
Test Voltage::	120V/60Hz
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



## Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2484.100000	---	46.03	54.00	7.97	100.0	V	334.0	7.4
2484.300000	53.14	---	74.00	20.86	100.0	V	334.0	7.4

## Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

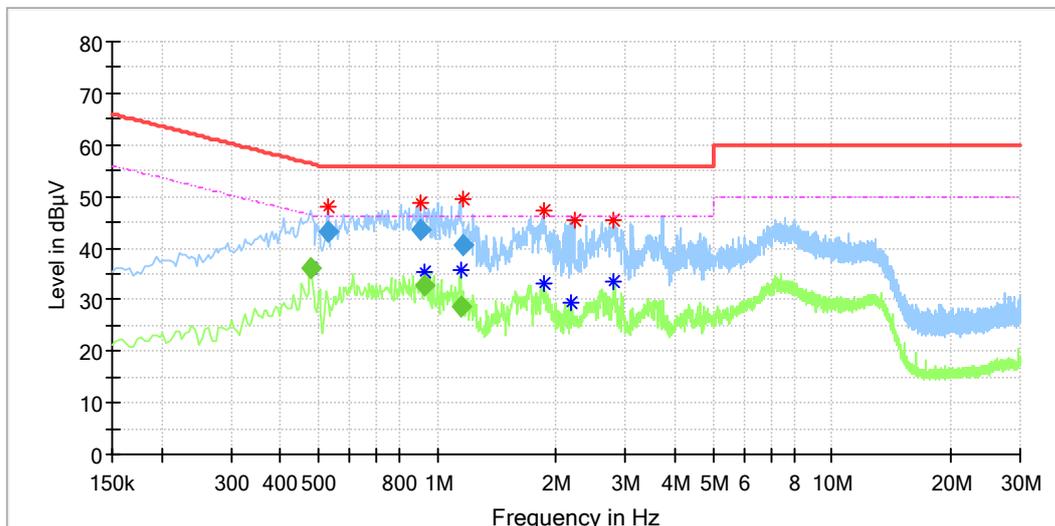
## Appendix A.7: Test Results of Conducted Emission

Note: We tested four adapter and recorded the wose case data in the report.

# Test Report

## EUT Information

EUT Name:	RichMedia Box
Order No:	168349697
Model:	ZXV10 B866V2-H
Test Mode:	WiFi operation+HDMI(4K)+S/PDIF
Test Voltage:	AC 120V/60Hz
Test By:	Mac Xie
Review By:	Gary Chen
Remark:	Adapter Model:UWP-12W-1210S



## Critical Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.476500	---	36.18	46.37	10.19	L1	9.7
0.526500	48.03	---	56.00	7.97	L1	9.7
0.906500	48.67	---	56.00	7.33	L1	9.7
0.930500	---	35.49	46.00	10.52	L1	9.7
1.154500	---	35.56	46.00	10.44	L1	9.7
1.157500	49.38	---	56.00	6.62	L1	9.7
1.856000	---	33.27	46.00	12.73	L1	9.8
1.856000	47.14	---	56.00	8.86	L1	9.8
2.192000	---	29.48	46.00	16.52	L1	9.8
2.220000	45.37	---	56.00	10.63	L1	9.8
2.784000	---	33.31	46.00	12.69	L1	9.9
2.804000	45.23	---	56.00	10.77	L1	9.9

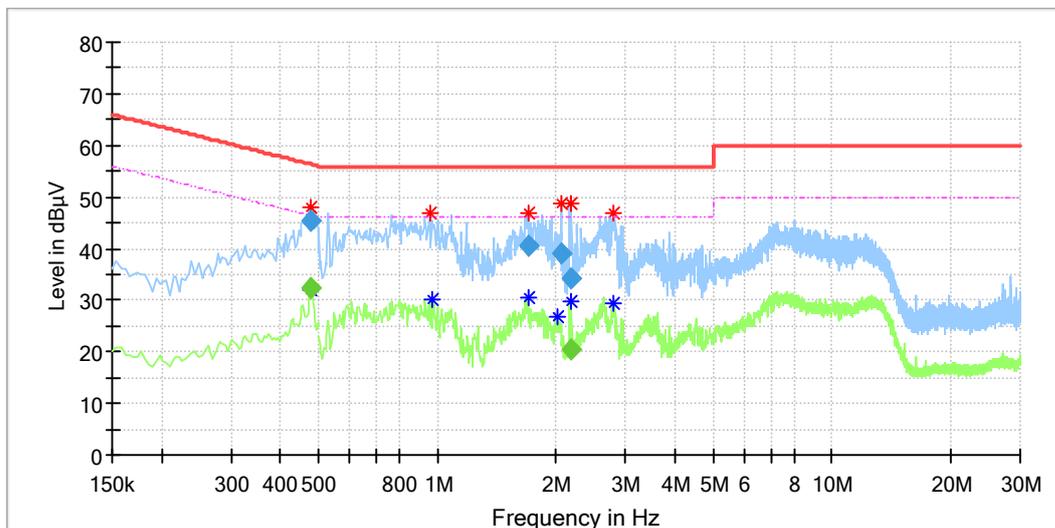
## Final Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.476500	---	36.09	46.40	10.31	1000.0	9.000	L1	9.7
0.526500	43.10	---	56.00	12.90	1000.0	9.000	L1	9.7
0.906500	43.35	---	56.00	12.65	1000.0	9.000	L1	9.7
0.930500	---	32.85	46.00	13.15	1000.0	9.000	L1	9.7
1.154500	---	28.74	46.00	17.26	1000.0	9.000	L1	9.7
1.157500	40.57	---	56.00	15.43	1000.0	9.000	L1	9.7

# Test Report

## EUT Information

EUT Name: RichMedia Box  
 Order No: 168349697  
 Model: ZXV10 B866V2-H  
 Test Mode: WiFi operation+HDMI(4K)+S/PDIF  
 Test Voltage: AC 120V/60Hz  
 Test By: Mac Xie  
 Review By: Gary Chen  
 Remark: Adapter Model:UWP-12W-1210S



## Critical Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.476500	47.96	---	56.31	8.35	N	9.7
0.476500	---	32.03	46.37	14.34	N	9.7
0.956000	46.95	---	56.00	9.05	N	9.7
0.976000	---	30.02	46.00	15.98	N	9.7
1.696000	---	30.50	46.00	15.50	N	9.7
1.709500	46.90	---	56.00	9.10	N	9.7
2.008000	---	26.96	46.00	19.04	N	9.8
2.073500	48.80	---	56.00	7.20	N	9.8
2.170500	48.73	---	56.00	7.27	N	9.8
2.182500	---	29.64	46.00	16.36	N	9.8
2.784000	---	29.53	46.00	16.47	N	9.9
2.804000	46.83	---	56.00	9.17	N	9.9

## Final Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.476500	---	32.47	46.40	13.93	1000.0	9.000	N	9.7
0.476500	45.40	---	56.40	11.00	1000.0	9.000	N	9.7
1.709500	40.48	---	56.00	15.52	1000.0	9.000	N	9.7
2.073500	39.12	---	56.00	16.88	1000.0	9.000	N	9.8
2.170500	34.23	---	56.00	21.77	1000.0	9.000	N	9.8
2.182500	---	20.52	46.00	25.48	1000.0	9.000	N	9.8