



# RADIO TEST REPORT

**Test Report No. : 10582470S-A**

**Applicant** : Sony Corporation  
**Type of Equipment** : Wireless Stereo Headset  
**Model No.** : MDR-ZX770BT  
**FCC ID** : AK8ZX770BT  
**Test regulation** : FCC Part 15 Subpart C: 2014  
**Test Result** : Complied

1. This test report shall not be reproduced in full or partial, without the written approval of UL Japan, Inc.
2. The results in this report apply only to the sample tested.
3. This sample tested is in compliance with the above regulation.
4. The test results in this report are traceable to the national or international standards.
5. This test report must not be used by the customer to claim product certification, approval, or endorsement by any agency of the Federal Government.
6. The opinions and the interpretations to the result of the description in this report are outside scopes where UL Japan has been accredited.

**Date of test:** December 5, 6, 16, 2014

**Representative test engineer:**   
Kazuhiro Ando  
Engineer of EMC/Wireless Group,  
Consumer Technology Division

**Approved by:**   
Go Ishiwata  
Site Manager  
Engineer of EMC/Wireless Group,  
Consumer Technology Division



- The testing in which "Non-accreditation" is displayed is outside the accreditation scopes in UL Japan.  
 There is no testing item of "Non-accreditation".

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## REVISION HISTORY

### Original Test Report No. 10582470S-A

Revision	Date	Page revised	Revision Description
00	January 8, 2015	-	Original
01	January 9, 2015	4	Update of 3.1
		7, 15, 18, 25-30	Correction of typo
02	January 14, 2015	1-12	Correction of FCC ID

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## **SECTION 1: Customer information**

Company name : Sony Corporation  
Brand name : SONY  
Address : 2-10-1 Osaki, Shinagawa-ku, Tokyo 141-8610 Japan  
Telephone Number : +81-50-3750-7630  
Facsimile Number : +81-50-3750-6574  
Contact Person : Shigeru Higai

## **SECTION 2: Equipment under test (E.U.T.)**

### **2.1 Identification of E.U.T.**

Type of Equipment : Wireless Stereo Headset  
Model No. : MDR-ZX770BT  
Serial No. : Refer to Clause 4.2  
Rating : DC3.7V  
Receipt Date of Sample : November 19, 2014  
Country of Mass-production : Malaysia  
Condition of EUT : Engineering prototype  
(Not for Sale: This sample is equivalent to mass-produced items.)  
Modification of EUT : No Modification by the test lab

### **2.2 Product Description**

Model: MDR-ZX770BT (referred to as the EUT in this report) is a Wireless Stereo Headset.

Clock frequencies: 26MHz (Bluetooth)

Bluetooth specification:

Equipment type : Transceiver  
Frequency of operation : 2402-2480MHz  
Bandwidth / Channel spacing : 1MHz / 1MHz  
Type of modulation : FHSS  
Antenna type : Helical (Chip) Antenna  
Antenna connector type : Integral  
Antenna gain : -2.02dBi  
ITU code : F1D, G1D  
Operation temperature range : 0 to +40 deg.C

FCC 15.31 (e)

The EUT is a battery-operated device and test was performed with the full-charged battery.  
Therefore, the equipment complies with the requirement.

FCC 15.203

The equipment and its antenna comply with the requirement since the antenna is built in the equipment and it cannot be replaced by end users.

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## **SECTION 3: Test specification, procedures & results**

### **3.1 Test Specification**

Test Specification : FCC Part 15 Subpart C: 2014, final revised on December 23, 2014  
Title : FCC 47CFR Part15 Radio Frequency Device Subpart C Intentional Radiators  
Section 15.207 Conducted limits  
Section 15.209 Radiated emission limits, general requirements  
Section 15.247 Operation within the bands 902-928MHz, 2400-2483.5MHz,  
and 5725-5850MHz

\* The revision on December 23, 2014 does not affect the test specification applied to the EUT.

The EUT has been tested for compliance with FCC Part 15 Subpart B. Refer to the test report 10582470S-C.

### **3.2 Procedures and results**

Item	Test Procedure	Specification	Remarks	Deviation	Worst Margin	Results	
Conducted emission	ANSI C63.4:2009 7. AC powerline conducted emission measurements	FCC 15.207	-	N/A *1)	-	-	
Carrier frequency separation	FCC Public Notice DA 00-705 & ANSI C63.4:2009 13. Measurement of intentional radiators	FCC 15.247 (a)(1)	Conducted	N/A	*See data.	Complied	
20dB bandwidth	FCC Public Notice DA 00-705 & ANSI C63.4:2009 13. Measurement of intentional radiators	FCC 15.247 (a)(1)	Conducted	N/A		-	
Number of hopping frequency	FCC Public Notice DA 00-705 & ANSI C63.4:2009 13. Measurement of intentional radiators	FCC 15.247 (a)(1)(iii)	Conducted	N/A		Complied	
Dwell time	FCC Public Notice DA 00-705 & ANSI C63.4:2009 13. Measurement of intentional radiators	FCC 15.247 (a)(1)(iii)	Conducted	N/A		Complied	
Maximum peak output power	FCC Public Notice DA 00-705 & ANSI C63.4:2009 13. Measurement of intentional radiators	FCC 15.247 (b)(1)	Conducted	N/A		Complied	
Band edge compliance & Spurious emission	FCC Public Notice DA 00-705 & ANSI C63.4:2009 13. Measurement of intentional radiators	FCC 15.247 (d) 15.209	Conducted/ Radiated	N/A		11.5 dB Freq.: 472.001 MHz Polarization: Horizontal Detection: QP Mode: Tx 2402MHz, BDR	Complied

Note: UL Japan's Work Procedures No. 13-EM-W0420 and 13-EM-W0422

\*1) The test is not applicable since the EUT has no AC mains. During charging, the EUT doesn't perform BT operation.

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### 3.3 Addition to standard

Item	Test Procedure	Specification	Remarks	Worst Margin	Results
Occupied Bandwidth (99%)	ANSI C63.4:2009 13. Measurement of intentional radiators, RSS-Gen 6.6	-	Conducted	-	-

Note: UL Japan's Work Procedures No. 13-EM-W0420 and 13-EM-W0422

Other than above, no addition, exclusion nor deviation has been made from the standard.

### 3.4 Confirmation

UL Japan, Inc. hereby confirms the E.U.T., in the configuration tested, complies with the specifications FCC Part 15 Subpart C: 2014.

### 3.5 Uncertainty

The following uncertainties have been calculated to provide a confidence level of 95% using a coverage factor k=2.

Item	Frequency range	
Radiated emission	30 MHz-300 MHz	5.1 dB
	300 MHz-1 GHz	6.3 dB
	1 GHz-6 GHz	4.5 dB
	6 GHz-18 GHz	4.8 dB
	18 GHz-26.5 GHz	4.9 dB

The data listed in this test report has enough margin, more than the site margin.

#### Antenna port conducted test

Power measurement uncertainty above 1GHz for this test was: (±) 1.5dB

Spurious emission (Conducted) measurement (below 1GHz) uncertainty for this test was: (±) 1.6dB

Spurious emission (Conducted) measurement (1G-3GHz) uncertainty for this test was: (±) 1.4dB

Spurious emission (Conducted) measurement (3G-18GHz) uncertainty for this test was: (±) 2.8dB

Spurious emission (Conducted) measurement (18G-26.5GHz) uncertainty for this test was: (±) 2.5dB

Bandwidth measurement uncertainty for this test was: (±) 5.4%

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### 3.6 Test Location

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A2LA Accreditation No. : 1266-01

	FCC Registration No.	IC Registration No.	Width x Depth x Height (m)	Size of reference ground plane/horizontal conducting plane (m)	Maximum measurement distance
No.1 Open site	90558	IC 4659A-1	6.0 x 5.5 x 2.5	20 x 40	10 m
No.2 Open site	510504	IC 4659A-2	4.4 x 4.4 x 2.15	18 x 20	10 m
No.5 Open site	99356	IC 4659A-5	8.6 x 7.1 x 2.4	18 x 23	10 m
No.1 Shielded room	90558	IC 4659A-1	5.4 x 4.5 x 2.3	-	-
No.2 Shielded room	510504	IC 4659A-2	3.6 x 2.7 x 2.3	-	-
No.3 Shielded room	-	-	5.4 x 3.6 x 2.3	-	-
No.4 Shielded Room	-	-	6.1 x 6.1 x 3.1	-	-
No.5 Shielded Room	99356	IC 4659A-5	4.2 x 3.1 x 2.5	-	-
No.3 Fully Anechoic Chamber	-	-	7.0 x 3.5 x 3.5	-	-
No.6 Semi-anechoic Chamber	372431	IC 4659A-6	8.5 x 5.5 x 5.2	-	3 m
No.10 Semi-anechoic Chamber	682397	IC 4659A-10	18.4 x 9.9 x 7.7	-	10 m
No.11 Semi-anechoic Chamber	718605	IC 4659A-7	9.0 x 6.5 x 5.2	-	3 m
No.1 Measurement room	-	-	5.0 x 3.7 x 2.6	-	-
No.6 Measurement room	-	-	4.3 x 4.4 x 2.7	-	-

Our company name was changed from “UL Japan, Inc.” to “UL Japan, Inc.” on January 1st, 2015.

### 3.7 Data of EMI, Test instruments, and Test set up

Refer to APPENDIX.

## **SECTION 4: Operation of E.U.T. during testing**

### **4.1 Operating Mode(s)**

<b>Test item</b>	<b>Operating mode</b>	<b>Tested frequency</b>
Carrier frequency separation	Transmitting Hopping ON (DH5 / 2-DH5) , Payload: PRBS9	-
20dB bandwidth	Transmitting Hopping OFF (DH5 / 2-DH5) , Payload: PRBS9	2402MHz, 2441MHz, 2480MHz
Number of hopping frequency	Transmitting Hopping ON (DH5 / 2-DH5) , Payload: PRBS9	-
Dwell time	Transmitting (Hopping ON), Payload: PRBS9 - DH1, - DH3, - DH5 - 2-DH1, - 2-DH3, - 2-DH5	-
Maximum peak output power	Transmitting Hopping OFF , Payload: PRBS9 - DH5, - 2-DH5	2402MHz, 2441MHz, 2480MHz
Band edge compliance & Spurious emission (Conducted)	Transmitting (DH5 / 2-DH5), Payload: PRBS9 -Hopping OFF	Band edge compliance: 2402MHz, 2480MHz
(Radiated)	Transmitting (DH5 / 2-DH5), Payload: PRBS9 -Hopping OFF	Spurious emission: 2402MHz, 2441MHz, 2480MHz
99% occupied bandwidth	Transmitting (DH5 / 2-DH5), Payload: PRBS9 -Hopping ON -Hopping OFF	2402MHz, 2441MHz, 2480MHz

\*As a result of preliminary test, the formal test was performed with the above modes, which had the maximum payload (except Dwell time test).

\*Remarks: Test was not performed at AFH mode, because the decrease of number of channel (min: 20ch) at AFH mode does not affect the output power and bandwidth of the EUT.  
As this device had AFH mode and frequency separation could not meet the requirement of over 20dB BW without 2/3 relaxation, 125mW power limit was applied to it.

The EUT has no inquiry mode.

Software: CSR Blue Suite BlueTest 3

Power settings:

BDR: Ext.=23, Int.=32

EDR: Ext.=56, Int.=35

TX PA ATTEN settings:

BDR: 1

EDR: 0

**Justification:** The system was configured in typical fashion (as customer would normally use it) for testing.

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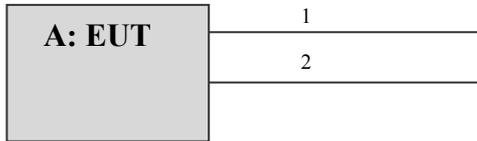
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## 4.2 Configuration and peripherals



\* Test data was taken under worse case conditions.

### Description of EUT and support equipment

No.	Item	Model number	Serial number	Manufacturer	Remarks
A	Wireless Stereo Headset	MDR-ZX770BT	*1)	Sony	EUT

\*1) 2000027: Antenna port conducted tests, 2000029: Radiated emission tests

### List of cables used

No.	Cable name	Length(m)	Shield		Remarks
			Cable	Connector	
1	Audio	1.5	Unshielded	Unshielded	-
2	USB	0.5	Shielded	Shielded	-

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## **SECTION 5: Carrier frequency separation**

### **Test procedure**

The carrier frequency separation was measured with a spectrum analyzer connected to the antenna port.

Summary of the test results: Pass  
Refer to APPENDIX 1.

## **SECTION 6: 20dB bandwidth & Occupied bandwidth (99%)**

### **Test procedure**

The bandwidth was measured with a spectrum analyzer connected to the antenna port.

Summary of the test results: Pass  
Refer to APPENDIX 1.

## **SECTION 7: Number of hopping frequency**

### **Test procedure**

The Number of Hopping Frequency was measured with a spectrum analyzer connected to the antenna port.

Summary of the test results: Pass  
Refer to APPENDIX 1.

## **SECTION 8: Dwell time**

### **Test procedure**

The Dwell time was measured with a spectrum analyzer connected to the antenna port.

Summary of the test results: Pass  
Refer to APPENDIX 1.

## **SECTION 9: Maximum peak output power**

### **Test procedure**

The Maximum Peak Output Power was measured with a power meter connected to the antenna port.

Summary of the test results: Pass  
Refer to APPENDIX 1.

## **SECTION 10: Spurious emissions (Antenna port conducted)**

### **Test procedure**

The Out of Band Emissions was measured with a spectrum analyzer connected to the antenna port.

The radio frequency power that is produced by the intentional radiator confirmed 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on a radiated measurement.

In the frequency range below 30MHz, RBW was narrowed to separate the noise contents.

Then, wide-band noise near the limit was checked separately, however the noise was not detected as shown in the chart. (9kHz-150kHz:RBW=200Hz, 150kHz-30MHz:RBW=10kHz)

Summary of the test results: Pass  
Refer to APPENDIX 1.

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## **SECTION 11: Radiated emission**

### **11.1 Operating environment**

Test room : See test data (APPENDIX 1)  
Temperature : See test data (APPENDIX 1)  
Humidity : See test data (APPENDIX 1)

### **11.2 Test configuration**

EUT was placed on a polystyrene platform of nominal size, 0.5m by 0.5m, raised 0.8m above the conducting ground plane. Photographs of the set up are shown in APPENDIX 3.

### **11.3 Test conditions**

Frequency range : 30MHz - 25GHz  
EUT position : Table top

### **11.4 Test procedure**

The Radiated Electric Field Strength intensity has been measured on a semi-anechoic chamber with a ground plane and at a distance of 3m (below 13GHz) / 1m (above 13GHz) (Refer to Figure 1). Measurements were performed with quasi-peak, peak and average detector. The measuring antenna height was varied between 1 and 4m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity. The measurements were performed for both vertical and horizontal antenna polarization.

The radiated emission measurements were made with the following detection.

Frequency	30 - 1000MHz	1 - 25GHz		20dBc
Detection Type	: Quasi-Peak	Peak	Average *1)	Peak
IF Bandwidth	: 120kHz	RBW:1MHz VBW:3MHz	RBW:1MHz VBW:10Hz	RBW: 100kHz, VBW: 300kHz

\*1) When using Spectrum analyzer, the test was made with adjusting span to zero by using peak hold. Although 00-705 accepts VBW=10Hz for AV measurements, confirmed that superfluous smoothing was not performed.

The carrier levels and noise levels were confirmed at each position of X, Y and Z axes to see the position of maximum noise, and the test was made at the position that has the maximum noise.

Antenna polarization	Carrier	Spurious (Below 1GHz)	Spurious (1-13GHz)	Spurious (13-18GHz)	Spurious (18-25GHz)
Horizontal	X	Z	X	X	X
Vertical	Z	Y	Z	Z	Z

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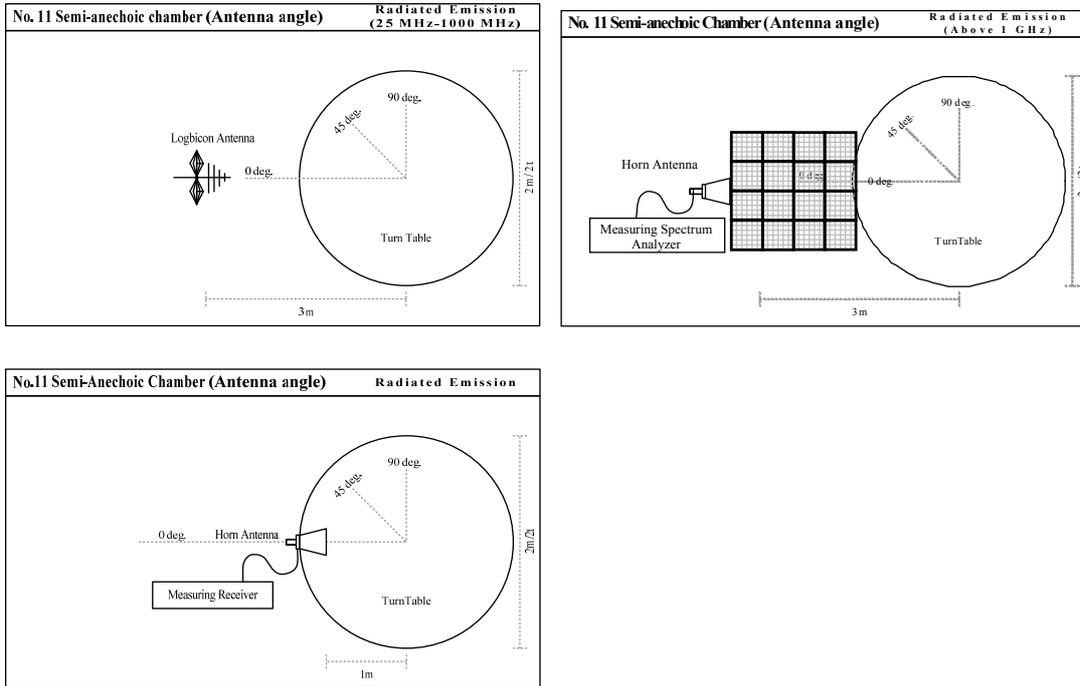
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**Figure 1. Antenna angle**



### 11.5 Band edge

Band edge level is below the limits of FCC 15.209. Refer to the data.

### 11.6 Results

Summary of the test results: Pass  
 \*No noise was detected above the 9<sup>th</sup> order harmonics.

Refer to APPENDIX 1.

## **Contents of APPENDIXES**

### **APPENDIX 1: Data of Radio tests**

20dB bandwidth and Carrier frequency separation  
Number of hopping frequency  
Dwell time  
Maximum peak output power  
Radiated emission  
Spurious emission (Antenna port conducted)  
Occupied bandwidth

### **APPENDIX 2: Test instruments**

Test instruments

### **APPENDIX 3: Photographs of test setup**

Radiated emission  
Pre-check of the worst position

## APPENDIX 1: Data of Radio tests

### 20dB Bandwidth and Carrier Frequency Separation

Test place                      UL Kashima, Inc.                      No.6 Measurement Room  
 Date                                December 16, 2014  
 Temperature / Humidity        22 deg.C        , 36 %RH  
 Engineer                         Kazuhiro Ando  
 Mode                                Tx, Bluetooth, BDR, PRBS9

Mode	Freq. [MHz]	20dB Bandwidth [MHz]	Carrier Frequency Separation [MHz]	Limit for Carrier Frequency Separation [MHz]
DH5	2402.0	0.947	1.000	>= 0.631
DH5	2441.0	0.941	1.000	>= 0.627
DH5	2480.0	0.943	1.000	>= 0.628

Limit: Two-thirds of 20dB Bandwidth or 25kHz (whichever is greater).

No limit applies to 20dB Bandwidth.

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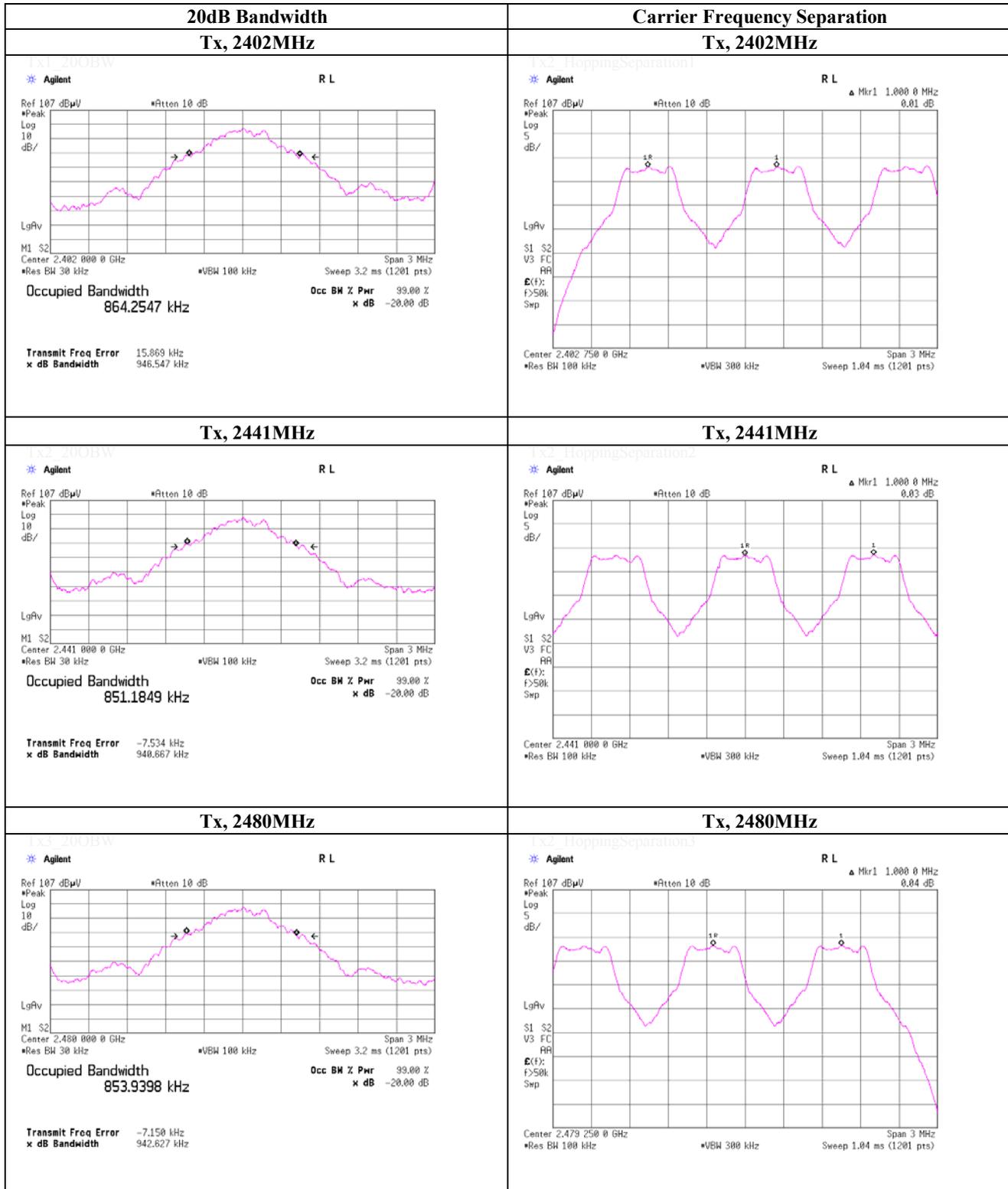
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## 20dB Bandwidth and Carrier Frequency Separation

Tx, Bluetooth, BDR, PRBS9



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## 20dB Bandwidth and Carrier Frequency Separation

Test place	UL Kashima, Inc.	No.6 Measurement Room
Date	December 16, 2014	
Temperature / Humidity	22 deg.C , 36 %RH	
Engineer	Kazuhiro Ando	
Mode	Tx, Bluetooth, EDR, PRBS9	

Mode	Freq. [MHz]	20dB Bandwidth [MHz]	Carrier Frequency Separation [MHz]	Limit for Carrier Frequency Separation [MHz]
2-DH5	2402.0	1.257	1.000	>= 0.838
2-DH5	2441.0	1.235	1.000	>= 0.823
2-DH5	2480.0	1.240	1.000	>= 0.826

Limit: Two-thirds of 20dB Bandwidth or 25kHz (whichever is greater).

No limit applies to 20dB Bandwidth.

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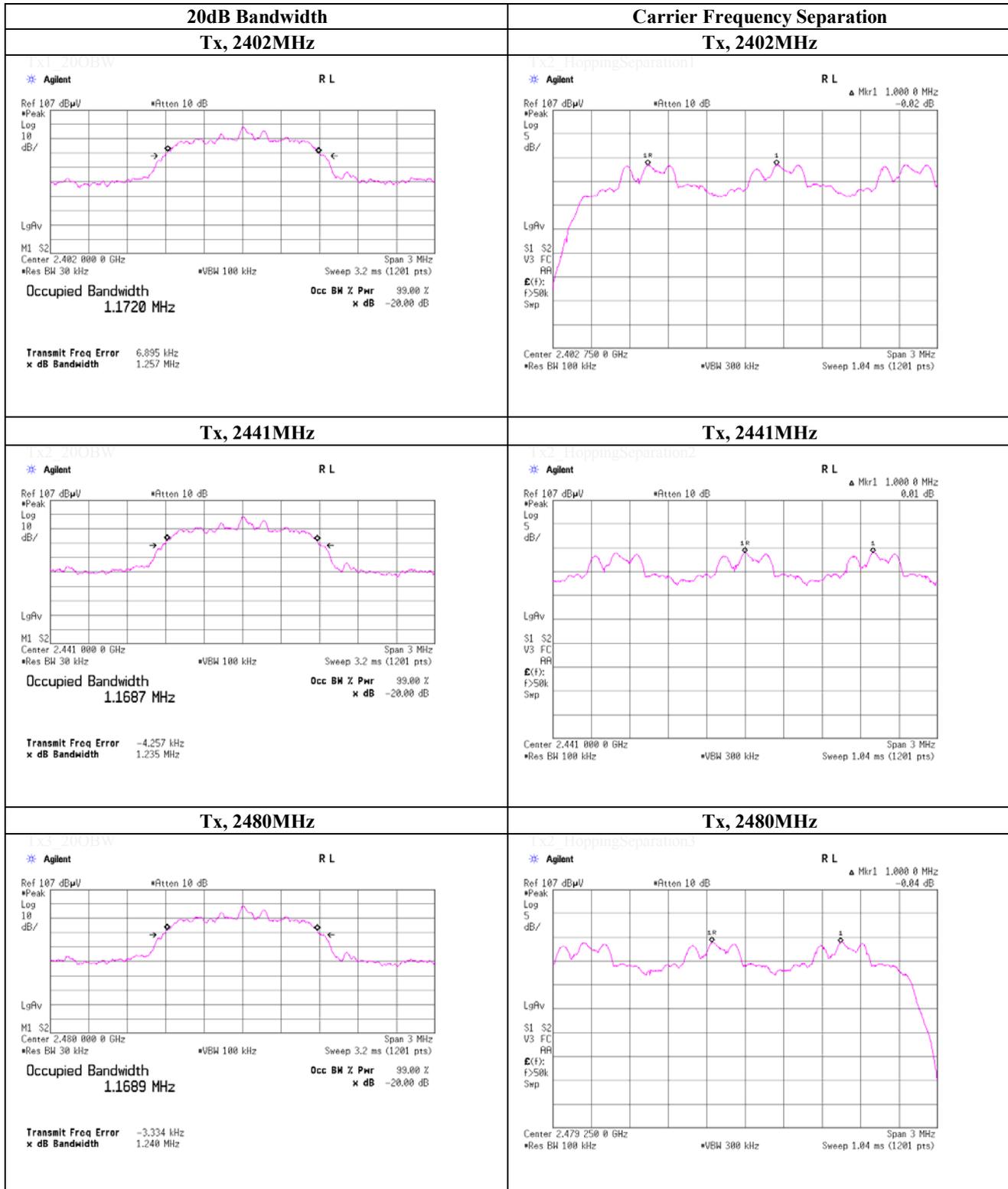
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## 20dB Bandwidth and Carrier Frequency Separation

Tx, Bluetooth, EDR, PRBS9



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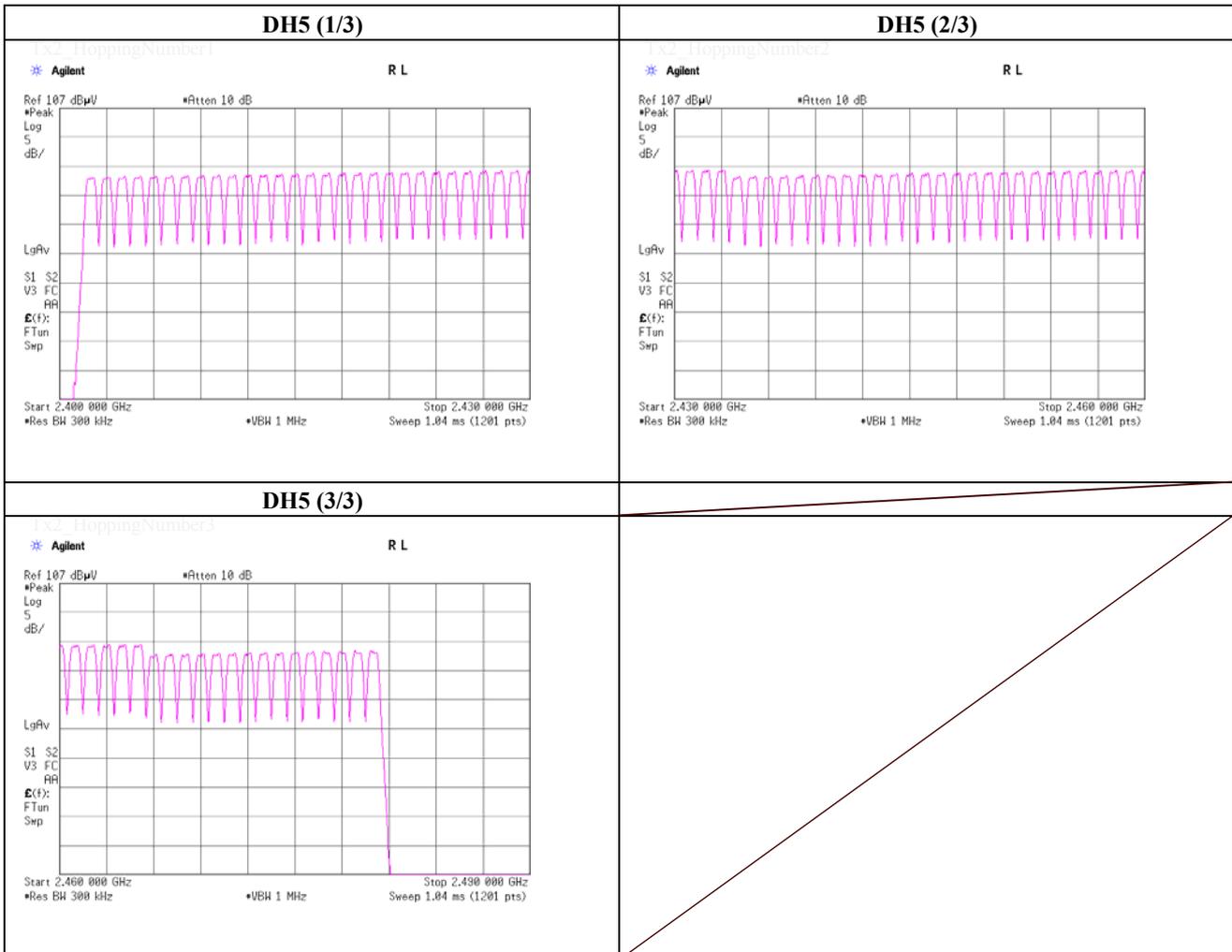
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## Number of Hopping Frequency

Test place	UL Kashima, Inc.	No.6 Measurement Room
Date	December 16, 2014	
Temperature / Humidity	22 deg.C , 36 %RH	
Engineer	Kazuhiro Ando	
Mode	Tx, Bluetooth, BDR, PRBS9	

Mode	Number of Channel [times]	Limit [times]
DH5	79	>= 15

\* Test was not performed at AFH mode whose number of hopping channel is 20 channels because this Bluetooth radio is in compliance of Bluetooth Specification.



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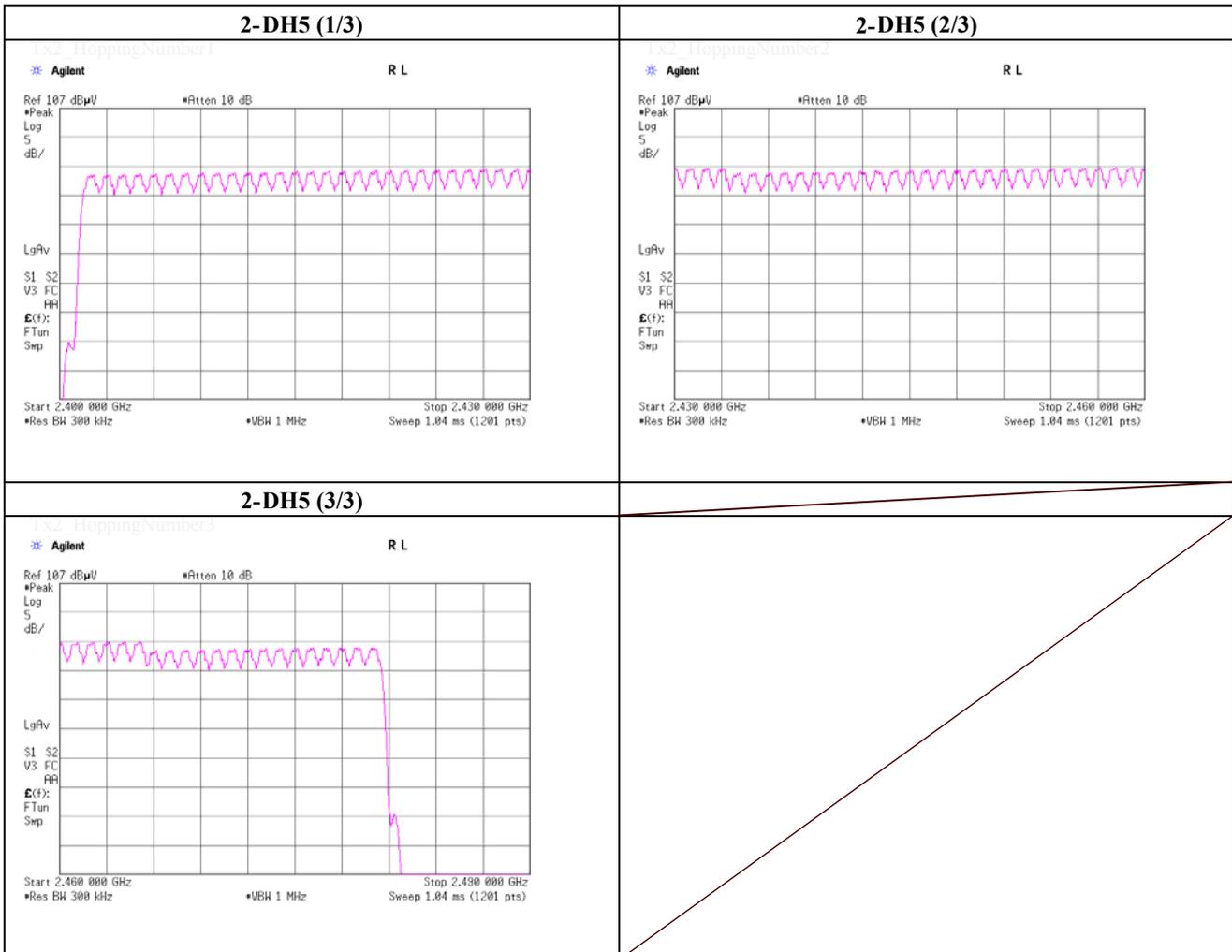
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## Number of Hopping Frequency

Test place	UL Kashima, Inc.	No.6 Measurement Room
Date	December 16, 2014	
Temperature / Humidity	22 deg.C , 36 %RH	
Engineer	Kazuhiro Ando	
Mode	Tx, Bluetooth, EDR, PRBS9	

Mode	Number of Channel [times]	Limit [times]
2-DH5	79	>= 15

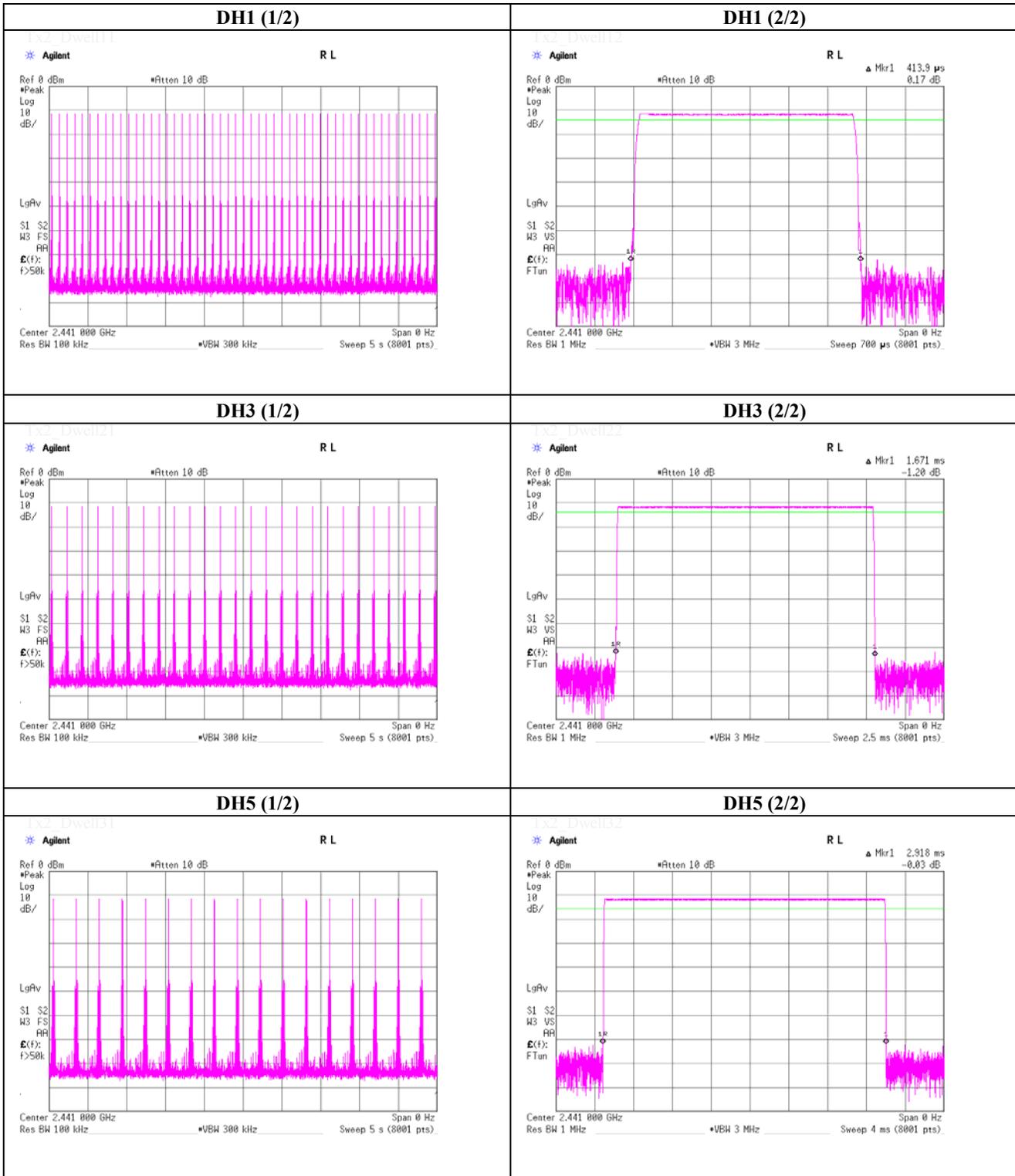
\* Test was not performed at AFH mode whose number of hopping channel is 20 channels because this Bluetooth radio is in compliance of Bluetooth Specification.





## Dwell time

Tx, Bluetooth, BDR, PRBS9



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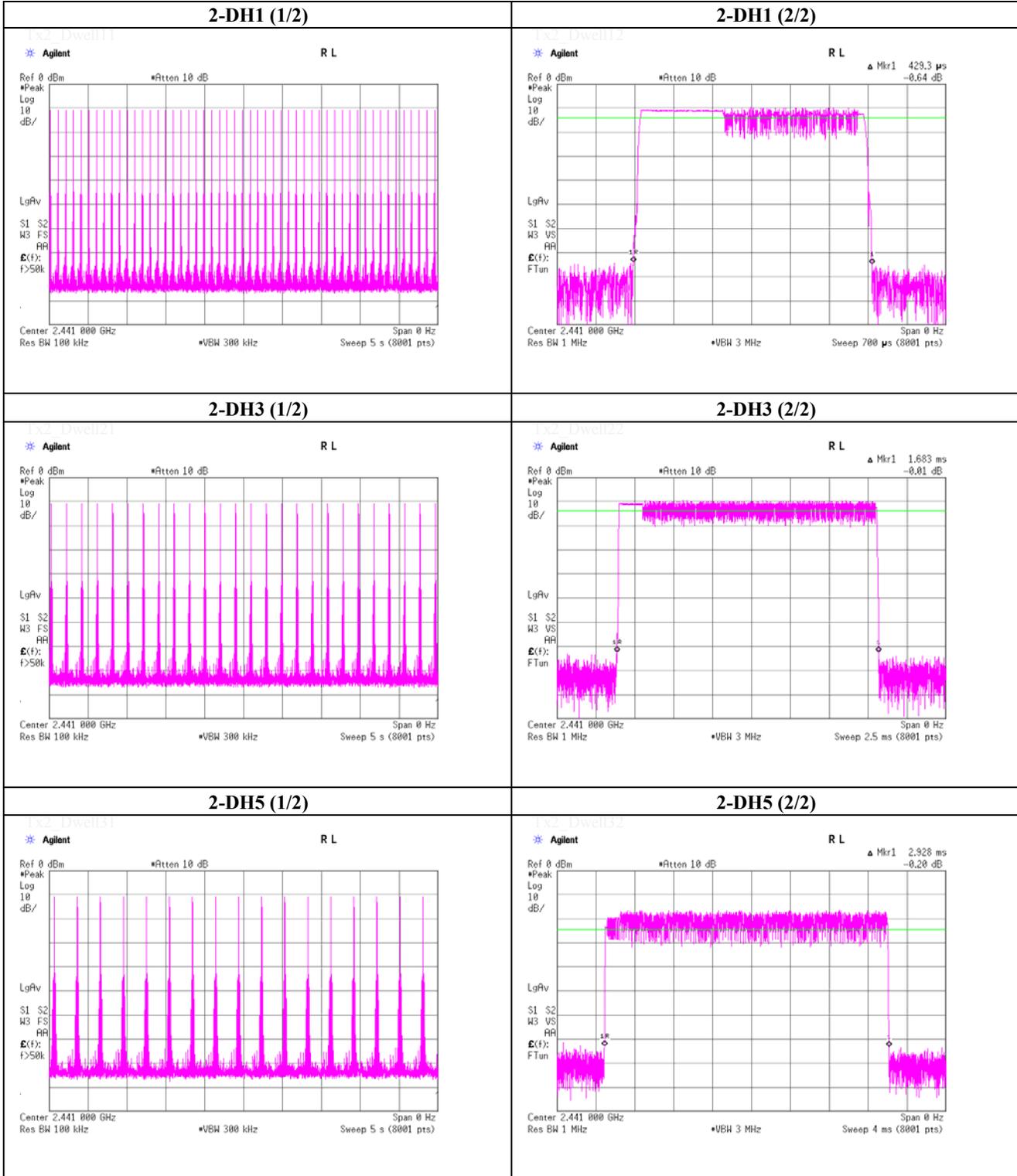
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## Dwell time

### Tx, Bluetooth, EDR, PRBS9



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## Maximum Peak Conducted Output Power (Conducted)

Test place                   UL Kashima, Inc.                   No.6 Measurement Room  
 Date                         December 16, 2014  
 Temperature / Humidity   22 deg.C     , 36 %RH  
 Engineer                  Kazuhiro Ando  
 Mode                        Tx, Bluetooth

(\* P/M: Power Meter with power sensor)

	Freq. [MHz]	P/M (Peak) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
DH5	2402.0	-11.28	0.97	10.07	-0.24	0.95	20.97	125	21.21
DH5	2441.0	-10.96	0.98	10.07	0.09	1.02	20.97	125	20.88
DH5	2480.0	-11.08	0.98	10.07	-0.03	0.99	20.97	125	21.00
2-DH5	2402.0	-9.16	0.97	10.07	1.88	1.54	20.97	125	19.09
2-DH5	2441.0	-8.65	0.98	10.07	2.40	1.74	20.97	125	18.57
2-DH5	2480.0	-8.75	0.98	10.07	2.30	1.70	20.97	125	18.67

Sample Calculation:

Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

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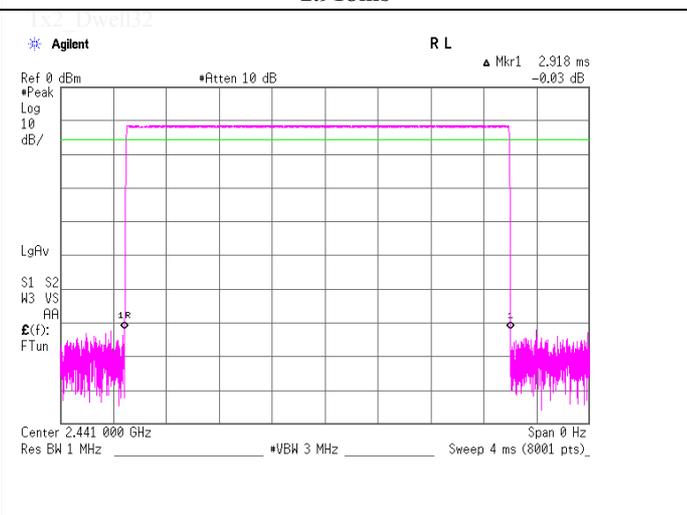






## Dwell time factor Calculation chart

### Dwell time factor Calculation Tx, Bluetooth, BDR, PRBS9

<p><b>Worst 100ms</b>  <b>Dwell time factor = <math>20\log((2.918 \times 2)/100) = -24.68\text{dB}</math></b></p> <p>ON time of some channel during 100ms: Twice                  This is the worst case in hopping sequence of Bluetooth.</p>	<p><b>1cycle On time :                  2.918ms</b></p> 
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### VBW (Average) setting

**\*Although 00-705 accepts VBW=10Hz for AV measurements, confirmed that superfluous smoothing was not performed.**

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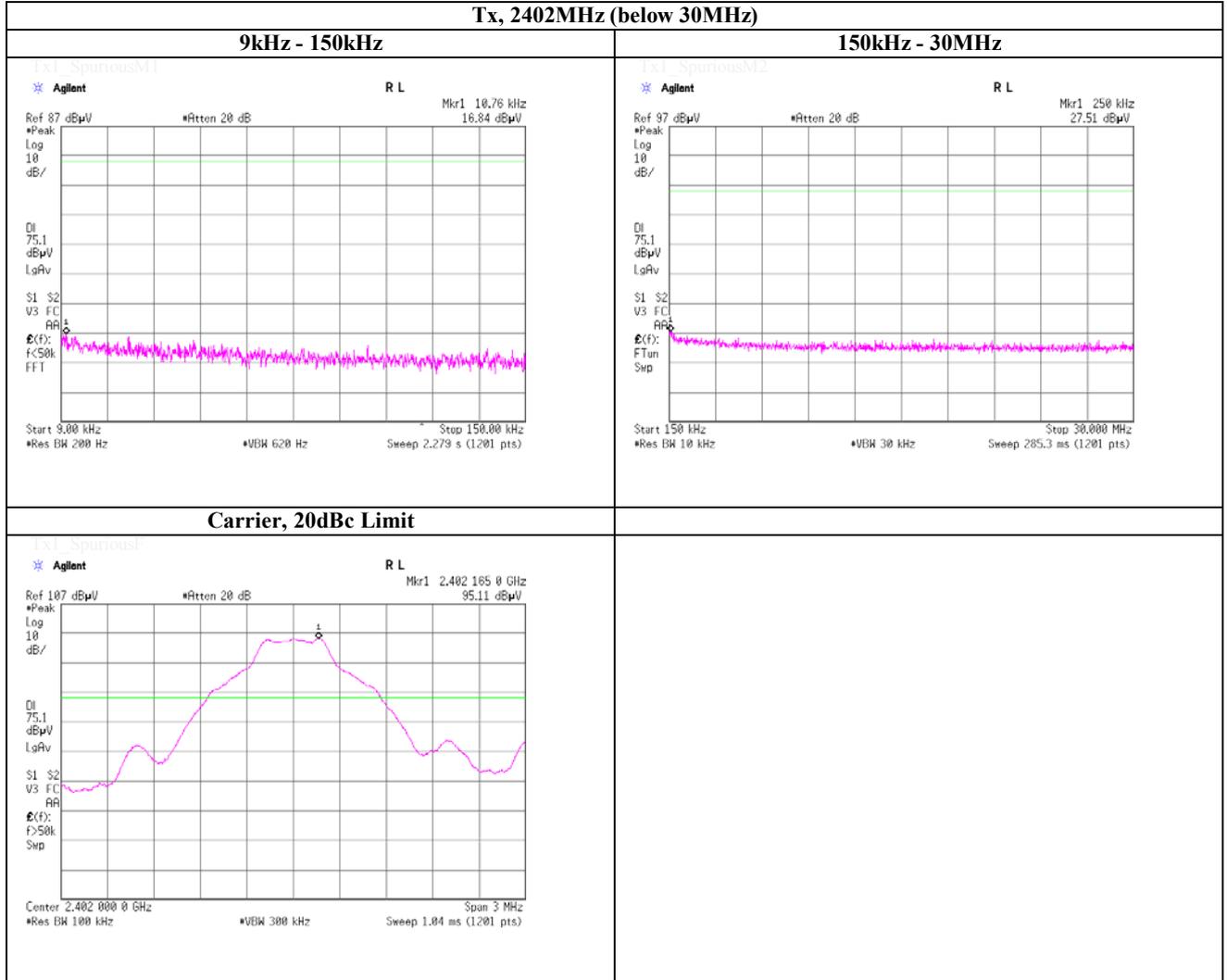
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## Spurious emission (Conducted)

**Tx, Bluetooth, BDR, PRBS9**

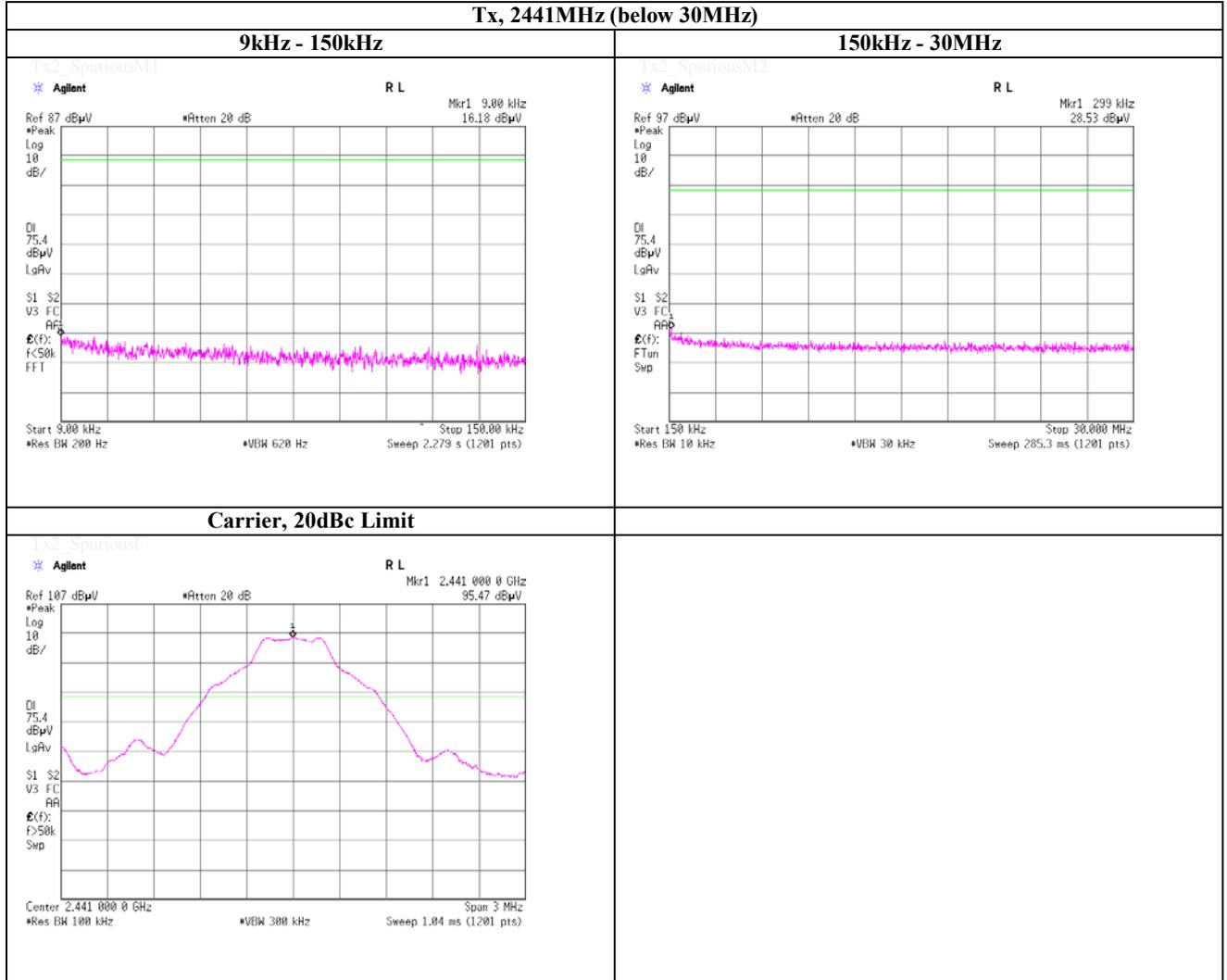
**Tx, 2402MHz (below 30MHz)**



## Spurious emission (Conducted)

**Tx, Bluetooth, BDR, PRBS9**

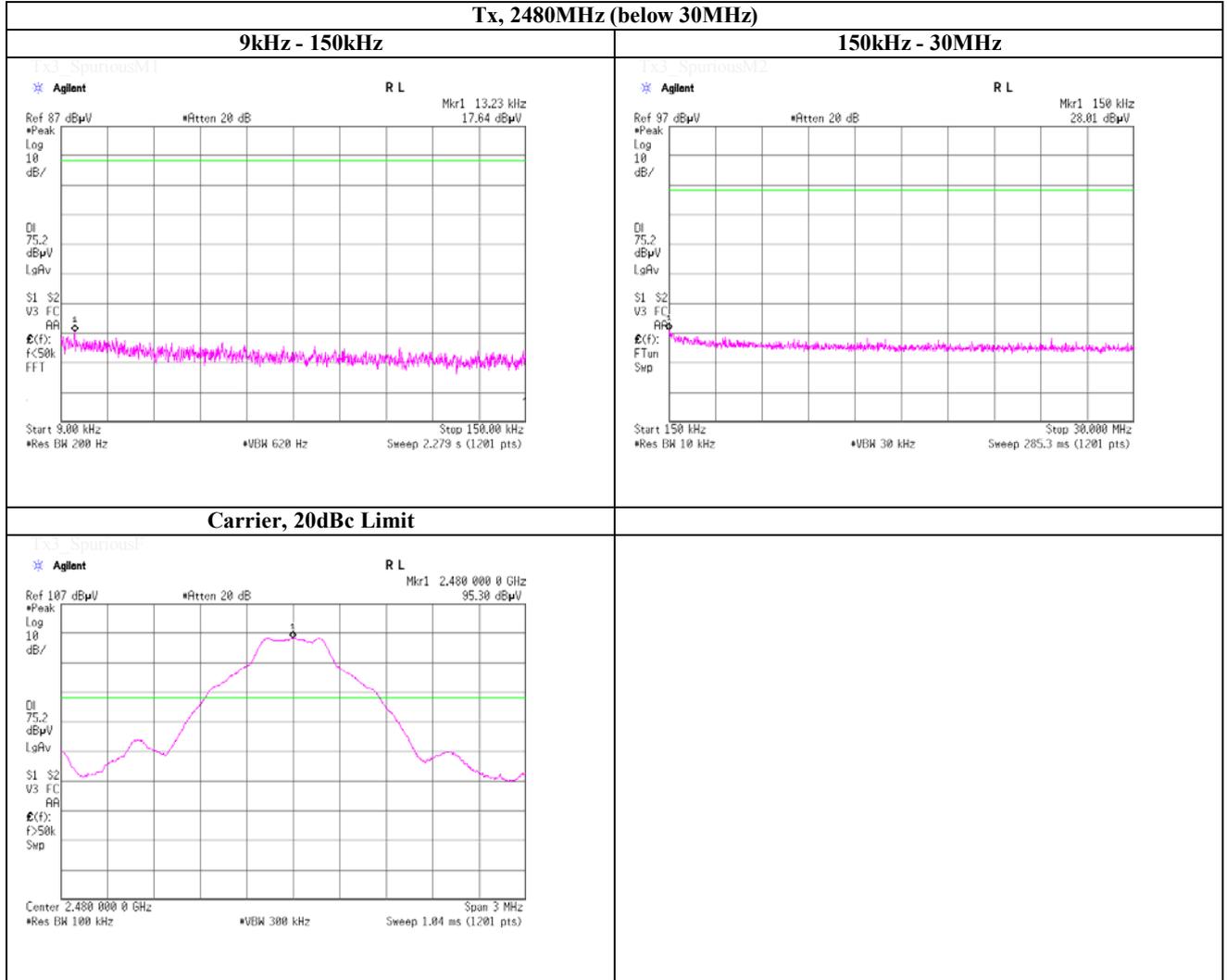
**Tx, 2441MHz (below 30MHz)**



## Spurious emission (Conducted)

**Tx, Bluetooth, BDR, PRBS9**

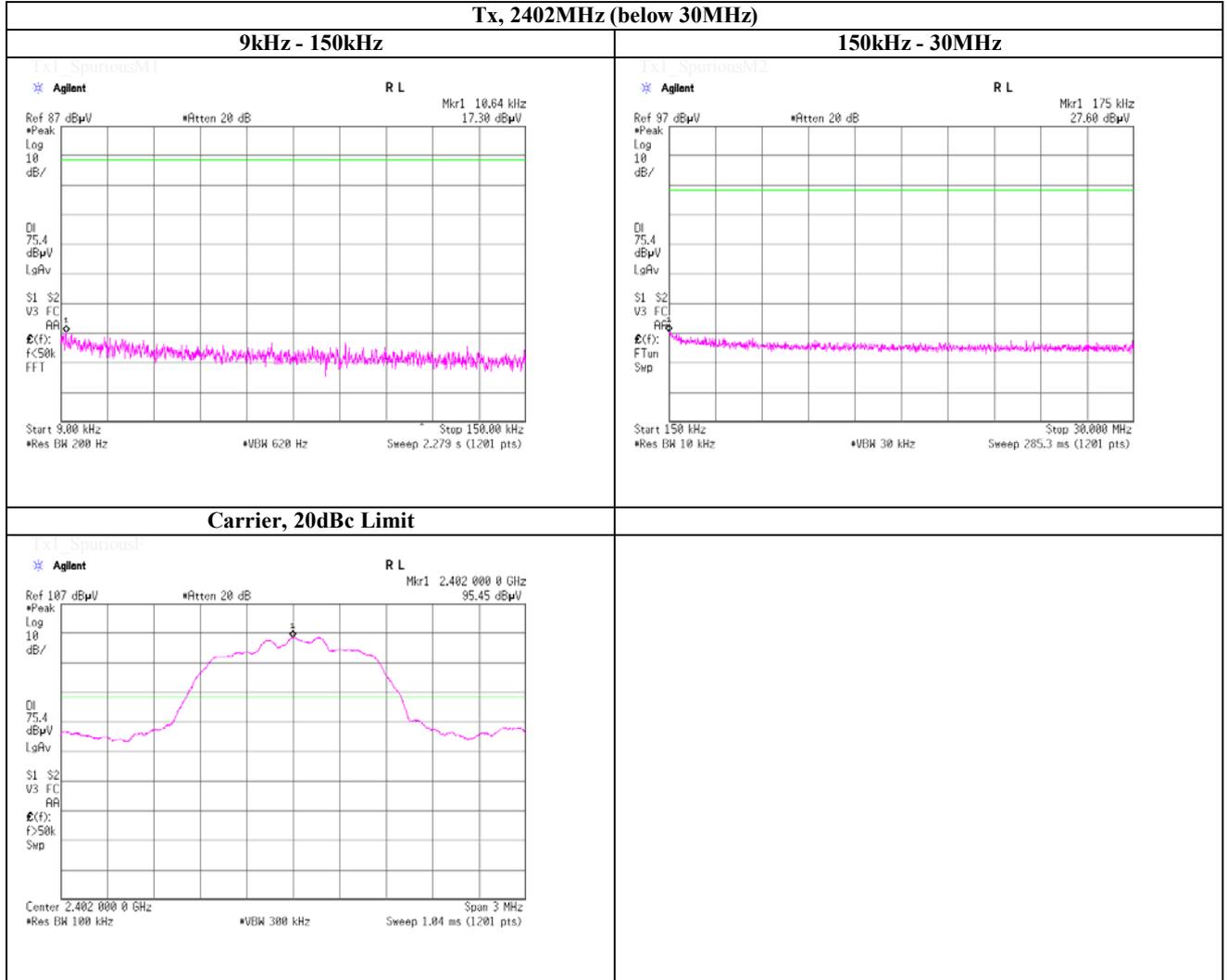
**Tx, 2480MHz (below 30MHz)**



## Spurious emission (Conducted)

Tx, Bluetooth, EDR, PRBS9

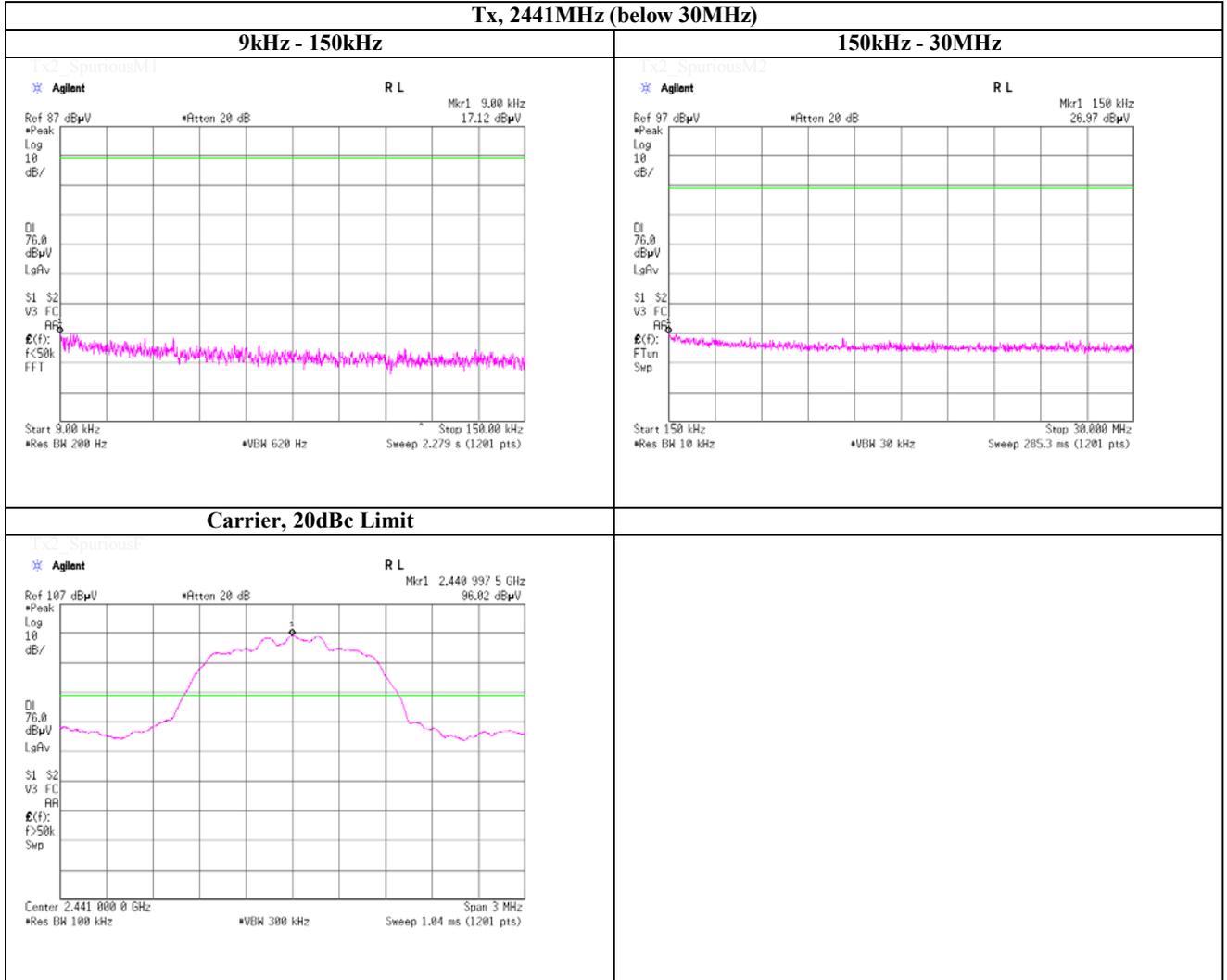
Tx, 2402MHz (below 30MHz)



## Spurious emission (Conducted)

**Tx, Bluetooth, EDR, PRBS9**

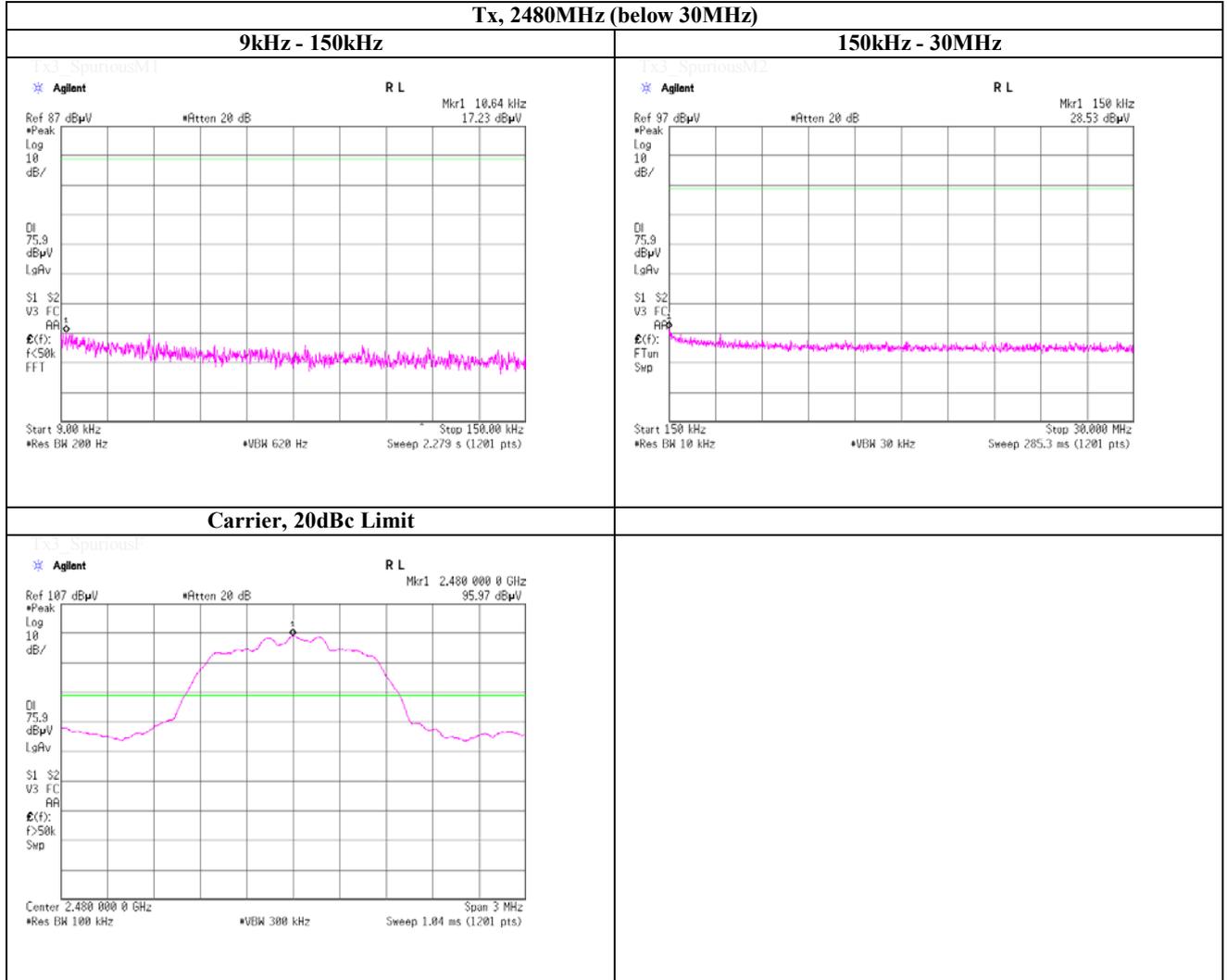
**Tx, 2441MHz (below 30MHz)**



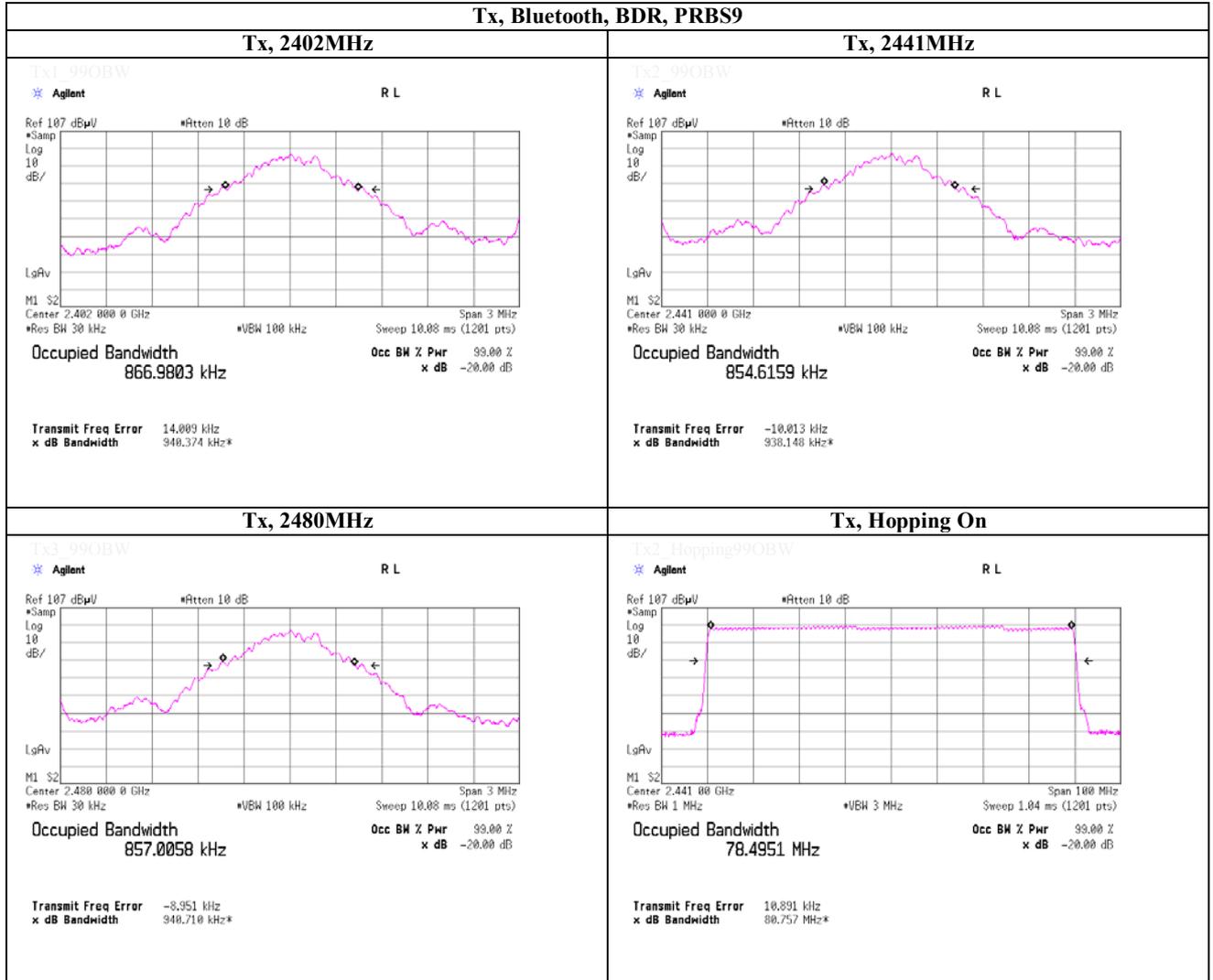
## Spurious emission (Conducted)

**Tx, Bluetooth, EDR, PRBS9**

**Tx, 2480MHz (below 30MHz)**



## 99% Occupied Bandwidth



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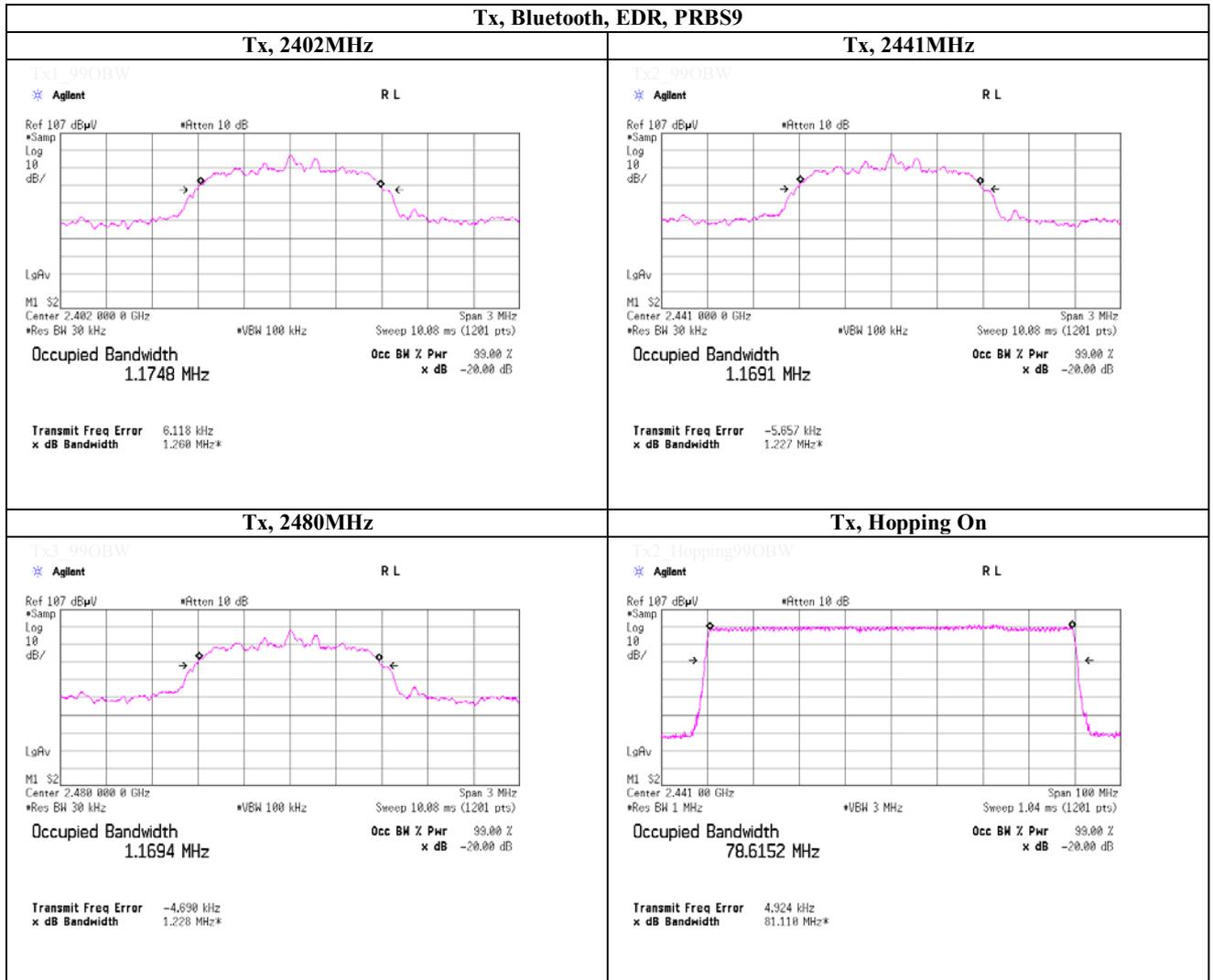
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## 99% Occupied Bandwidth



## APPENDIX Test Instruments

### EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
CTR-06	Test Receiver	Rohde & Schwarz	ESCI	100107 Rev 4.32	RE	2014/09/03 * 12
CCC-S11-R(1/4/5/CATS12-13/6/7/8/10)	Coaxial Cable	Fujikura,Suhner,Suhner, Agilent,Suhner,-,Suhner	5D-2W,SF106,SF104,8496B+8494B,SF106,-,SF106	MY42143380,US00431042(Step Att)	RE	2014/11/09 * 12
CBL-09	LOGBICON	Schwarzbeck	VULB 9168	508	RE	2014/04/25 * 12
CAF-16	Pre-Amplifier	Sonoma Instrument	310N	325015	RE	2014/05/23 * 12
CSCL-16	Ruler	Tajima	G3 gold	none	RE	2014/02/03 * 12
COS-11	Temperature, Humidity & Atmospheric Logger	T&D	TR-73U	F8060468	RE	2014/05/07 * 12
COTS-CEMI-02	EMI Software	TSJ	TEPTO-DV(RE,CE, MF,PE)	Ver.2.5.0130	RE	-
CAT6-11	6dB Fixed Atten.	TAMAGAWA	UFA-01	none	RE	2014/09/18 * 12
CSA-06	Spectrum Analyzer	Agilent	N9030A	MY53310670	RE	2014/05/20 * 12
CHA-20	Broad Band Horn	Schwarzbeck	BBHA 9120D	9120D-1270	RE	2014/07/12 * 12
CHA-07	Double Ridged Horn	TOYO	HAP18-26W	00000035	RE	2014/06/26 * 12
CHA-08	Double Ridged Horn	TOYO	HAP26-40W	00000005	RE	2014/06/26 * 12
CAF-18	Pre-Amplifier	TOYO	TPA0118-36	A-1001	RE	2014/07/14 * 12
CAT10-16	10dB Fixed Atten.	Weinschel	54A-10	56246	RE	2014/05/23 * 12
CHF-03	HPF	Micro-Tronics	HPM50111-02	008	RE	2014/05/23 * 12
CCC-W05	Micro Wave Cable	Junkosha	MWX241	MRA-12-14-145	RE	2014/05/23 * 12
CCC-W07	Micro Wave Cable	Junkosha	MWX221	MRA-12-14-148	RE	2014/05/23 * 12
CCC-W09	Micro Wave Cable	SUHNER	SUCOFLEX104	MY588/4	RE	2014/07/17 * 12
CSA-07	Spectrum Analyzer	Agilent	E4448A	MY52490024	AT	2014/05/19 * 12
CPM-16	Peak Power Analyzer	Agilent	8990B	MY51000276	AT	2014/06/26 * 12
CPSO-24	Power Sensor	Agilent	N1923A	MY54070024	AT	2014/06/26 * 12
COS-12	Temperature & Humidity Indicator	A&D	AD-5681	6876017	AT	2014/07/01 * 12

The expiration date of the calibration is the end of the expired month .  
As for some calibrations performed after the tested dates , those test equipment have been controlled by means of an unbroken chains of calibrations .

All equipment is calibrated with valid calibrations . Each measurement data is traceable to the national or international standards .

Test Item :

RE: Radiated emission,  
AT: Antenna terminal disturbance voltage

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