

TEST REPORT

JP MIC Bluetooth Test for GVMRS

APPLICANT
LG Electronics Inc.

REPORT NO.
HCT-RF-2509-MC011-R1

DATE OF ISSUE
November 5, 2025

Tested by
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Applicant

LG Electronics Inc.

128, Yeoui-daero, Yeongdeungpo-gu, Seoul, Republic of Korea

Product Name

Generic Video Module

Model Name

GVMRS

Date of Test

August 26, 2025 ~ September 09, 2025

Test Standard Used

Article 2 Paragraph 1 of Item 19

Test Method Used

TELEC-T401(Ver 11.0)

Test Results

Approval for Japan MIC

Temperature : 22.1 °C, Relative Humidity : 50.1 % R.H.

Frequency alignment range

2 400 MHz ~ 2 483. 5 MHz

Location of Test

☒ Permanent Testing Lab ☐ On Site Testing

(Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea)

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	September 23, 2025	Initial Release
1	November 05, 2025	Corrected Typos

Notice

Content

The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated.

The test results have only been applied with the test methods required by the standard(s).

The laboratory is not accredited for the test results marked *.

Information provided by the applicant is marked **.

Test results provided by external providers are marked ***.

When confirmation of authenticity of this test report is required, please contact www.hct.co.kr

The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

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1. CLIENT INFORMATION

The EUT has been tested by request of

Company	LG Electronics Inc. 128, Yeoui-daero, Yeongdeungpo-gu, Seoul, Republic of Korea
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2. EQUIPMENT UNDER TEST (EUT)

Equipment	Generic Video Module
Model	GVMRS
Additional Model	-
Serial number	-
Manufacturer	LG Electronics Inc.
Rating	DC 12.0 V

3. DESCRIPTION OF THE EQUIPMENT UNDER TEST

3.1 Manufacturers declarations

Application:	Generic Video Module	
Equipment category:	Low power data communications system in the 2.4GHz band	
Model No.:	GVMRS	
Additional Model No.:	-	
Serial No.:	-	
RF Specification	Bluetooth BDR, EDR	
Type of emissions	F1D, G1D	
Type of modulation	FHSS (GFSK, $\pi/4$ -DQPSK and 8DPSK)	
Frequency alignment range:	2 400 MHz ~ 2 483.5 MHz	
Operating frequency range:	2 402 MHz ~ 2 480 MHz(1MHz separation, 79 Channels)	
Channels :	79 Channels	
Channel separation	1 MHz	
Power source:	Normal voltage :	DC 12.0 V
	Extreme lower voltage :	DC 10.8 V
	Extreme upper voltage :	DC 13.2 V
No. of Antenna	2	
Operating mode :	SISO	
Antenna type:	PCB Trace Antenna	
Max. antenna gain:	Ant1 : 6.38 dBi	
	Ant2 : 6.98 dBi	
Allowed Max EIRP	6.91 dBm/MHz	

3.2 Channel List

Bluetooth					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2 402	27	2 429	54	2 456
01	2 403	28	2 430	55	2 457
02	2 404	29	2 431	56	2 458
03	2 405	30	2 432	57	2 459
04	2 406	31	2 433	58	2 460
05	2 407	32	2 434	59	2 461
06	2 408	33	2 435	60	2 462
07	2 409	34	2 436	61	2 463
08	2 410	35	2 437	62	2 464
09	2 411	36	2 438	63	2 465
10	2 412	37	2 439	64	2 466
11	2 413	38	2 440	65	2 467
12	2 414	39	2 441	66	2 468
13	2 415	40	2 442	67	2 469
14	2 416	41	2 443	68	2 470
15	2 417	42	2 444	69	2 471
16	2 418	43	2 445	70	2 472
17	2 419	44	2 446	71	2 473
18	2 420	45	2 447	72	2 474
19	2 421	46	2 448	73	2 475
20	2 422	47	2 449	74	2 476
21	2 423	48	2 450	75	2 477
22	2 424	49	2 451	76	2 478
23	2 425	50	2 452	77	2 479
24	2 426	51	2 453	78	2 480
25	2 427	52	2 454	-	-
26	2 428	53	2 455	-	-

3.3 Operating frequency range during under the test

Operating frequency	Frequency(MHz)
Low	2 402
Middle	2 441
High	2 480

3.4 Rated Frequency, Antenna Power

Type of emission	Operating frequency range	Rated Antenna Power
F1D, G1D	2 402 MHz ~ 2 480 MHz(1MHz separation, 79 Channels)	0.04 ~ 0.16 mW/MHz

3.5 Comparison Measurement

Antenna	Modulation	Packet type	Frequency(MHz)	Burst Power (dBm)
Ant1	GFSK	DH5	2 441	0.673
	$\pi/4$ DQPSK	2-DH5	2 441	0.822
	8DPSK	3-DH5	2 441	0.955
Ant2	GFSK	DH5	2 441	1.990
	$\pi/4$ DQPSK	2-DH5	2 441	2.576
	8DPSK	3-DH5	2 441	2.628

3.6 PHY of the worst

All tests conducted in this report were made at the worst case packet type of each modulation.

Data rate	Worst case packet type
BDR	DH5
EDR	3-DH5

4. TEST SUMMARY

Parameter	Test method	Result
Frequency Error	Conducted	Pass
Occupied Bandwidth	Conducted	Pass
Spread Bandwidth and Spread Factor	Conducted	Pass
Spurious Emission	Conducted	Pass
Antenna Power and Tolerance	Conducted	Pass
Hopping Frequency staying time	Conducted	Pass
Interference Prevention Function	Conducted	Pass
Collateral Emission	Conducted	Pass

Note : The decision rule applies 'Simple acceptance'

5. TEST EQUIPMENT

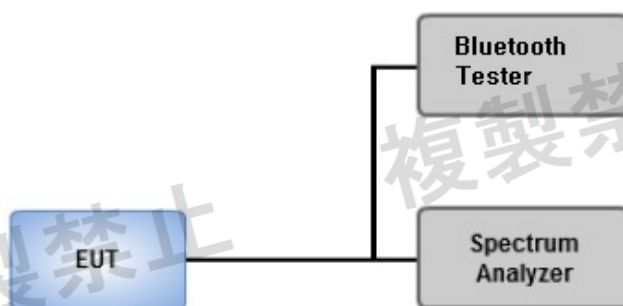
- a) : Calibration conducted by the National Institute of Information and Communications Technology(NICT) or a designated calibration agency under Article 102-18 paragraph (1) of the Radio Law.
- b) : Calibration conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992) Japan Calibration Service System.
- c) : Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1).
- d) : Calibration conducted by using other equipment that listed above from a) to c).

No.	Instrument	Model No.	Manufacturer	Serial No.	Date Calibrated	Calibration Company	Calibration Method
☒	Signal Analyzer	N9020B	Keysight	MY60112457	2025-03-25	HCT Co., Ltd.	d)
☒	DC power supply	E3632A	Agilent	KR94907824	2025-02-25	HCT Co., Ltd.	d)
☒	Fixed Attenuator	33340C	H.P	15491	2024-11-05	HCT Co., Ltd.	d)
☒	Power Meter	N1911A	Agilent	MY45100523	2025-02-21	HCT Co., Ltd.	d)
☒	Power Sensor	N1921A	Agilent	MY57820067	2025-02-04	HCT Co., Ltd.	d)
☒	Power Divider	RFLT2WDC27GB	RF- Lambda	22112900057	2024-11-06	HCT Co., Ltd.	d)
☒	Bluetooth Tester	TC-3000C	Tescom	3000C000276	2025-02-24	HCT Co., Ltd.	d)

6. TRANSMITTER MEASUREMENTS – RESULTS

6.1 Frequency Error

6.1.1 Test Setup



6.1.2 Limit

Item	Limit
Frequency Error	± 50 ppm

6.1.3 Test Result

[Ant1]

Test Voltage	Test Item	Unit	Unit	Test Channel	
				BDR(DH5)	EDR(3-DH5)
V nom	Measured Frequency	MHz	-	2441.0010	2440.9927
	Frequency Error	ppm	± 50	0.0004	-0.0030
V high	Measured Frequency	MHz	-	2440.9973	2440.9940
	Frequency Error	ppm	± 50	-0.0011	-0.0025
V low	Measured Frequency	MHz	-	2441.0001	2440.9938
	Frequency Error	ppm	± 50	0.0000	-0.0026

[Ant2]

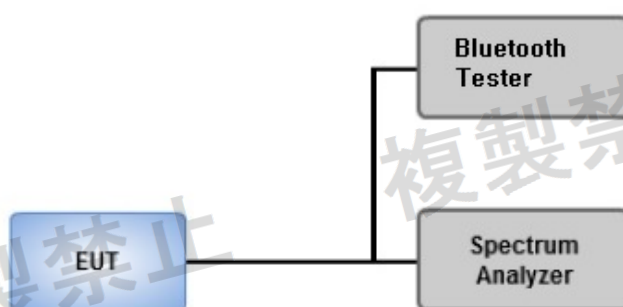
Test Voltage	Test Item	Unit	Unit	Test Channel : F mid	
				BDR(DH5)	EDR(3-DH5)
V nom	Measured Frequency	MHz	-	2441.0166	2441.0041
	Frequency Error	ppm	± 50	0.0068	0.0017
V high	Measured Frequency	MHz	-	2441.0118	2441.0039
	Frequency Error	ppm	± 50	0.0048	0.0016
V low	Measured Frequency	MHz	-	2441.0090	2441.0040
	Frequency Error	ppm	± 50	0.0037	0.0016

Note:

1. Hopping Mode : Normal hopping is disabled.(Single hop)

6.2 Occupied Bandwidth

6.2.1 Test Setup



6.2.2 Limit

Item	Modulation Method	Limit
Occupied Bandwidth	FHSS (Compound method with DSSS or OFDM)	≤ 83.5 MHz
	DSSS, OFDM (20 MHz)	≤ 26 MHz
	OFDM (40 MHz)	≤ 38 MHz
	Others	≤ 26 MHz

6.2.3 Test Result

[Ant1]

Data rate	Packet Type	Hopping Mode	Test Voltage	Unit	Limit	Test Result
BDR	DH5	Normal Hopping	V nom	MHz	83.5	78.865
			V high	MHz	83.5	78.885
			V low	MHz	83.5	78.872
BDR	DH5	AFH Hopping	V nom	MHz	83.5	20.460
			V high	MHz	83.5	20.464
			V low	MHz	83.5	20.466
EDR	3-DH5	Normal Hopping	V nom	MHz	83.5	78.849
			V high	MHz	83.5	78.925
			V low	MHz	83.5	78.846
EDR	3-DH5	AFH Hopping	V nom	MHz	83.5	20.643
			V high	MHz	83.5	20.640
			V low	MHz	83.5	20.658

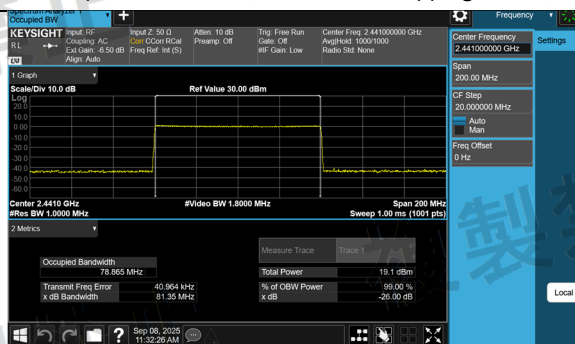
[Ant2]

Data rate	Packet Type	Hopping Mode	Test Voltage	Unit	Limit	Test Result
BDR	DH5	Normal Hopping	V nom	MHz	83.5	78.751
			V high	MHz	83.5	78.779
			V low	MHz	83.5	78.745
BDR	DH5	AFH Hopping	V nom	MHz	83.5	20.476
			V high	MHz	83.5	20.473
			V low	MHz	83.5	20.474
EDR	3-DH5	Normal Hopping	V nom	MHz	83.5	78.836
			V high	MHz	83.5	78.824
			V low	MHz	83.5	78.869
EDR	3-DH5	AFH Hopping	V nom	MHz	83.5	20.691
			V high	MHz	83.5	20.685
			V low	MHz	83.5	20.688

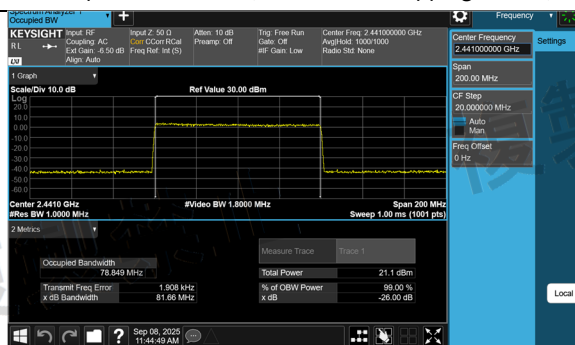
6.2.4 Test Plots

[Ant1]

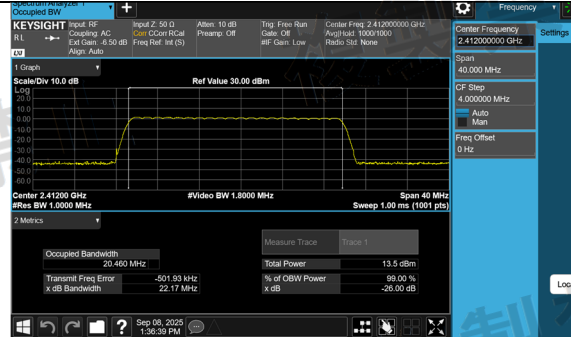
Occupied Bandwidth (BDR, Normal Hopping, V nom)



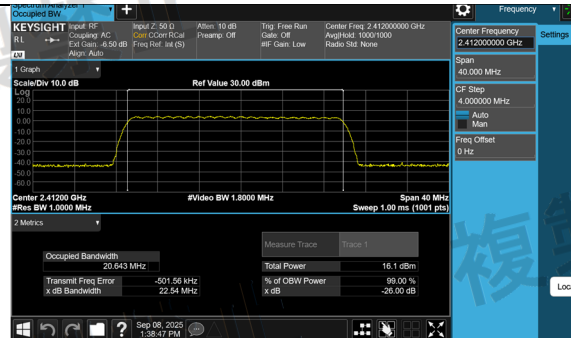
Occupied Bandwidth (EDR, Normal Hopping, V nom)



Occupied Bandwidth (BDR, AFH Hopping, V nom)

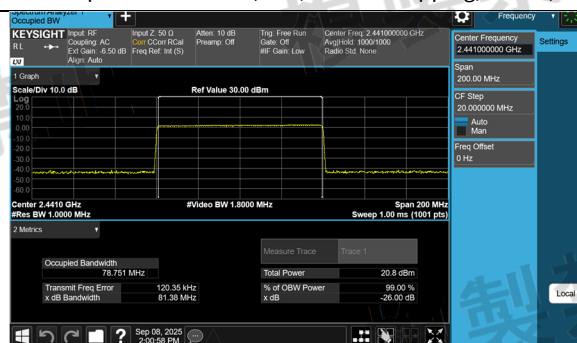


Occupied Bandwidth (EDR, AFH Hopping, V nom)

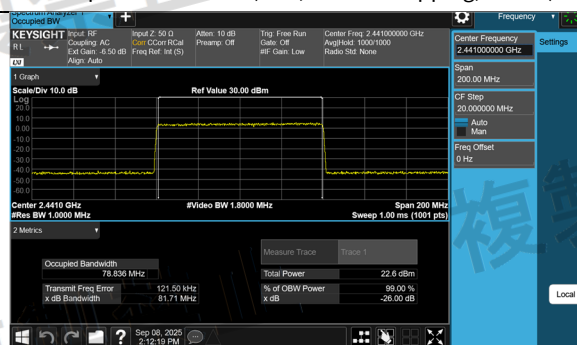


[Ant2]

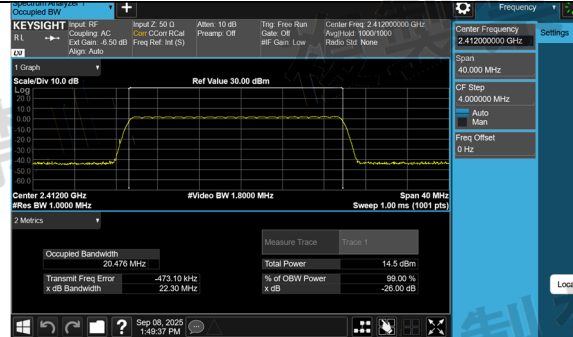
Occupied Bandwidth (BDR, Normal Hopping, V nom)



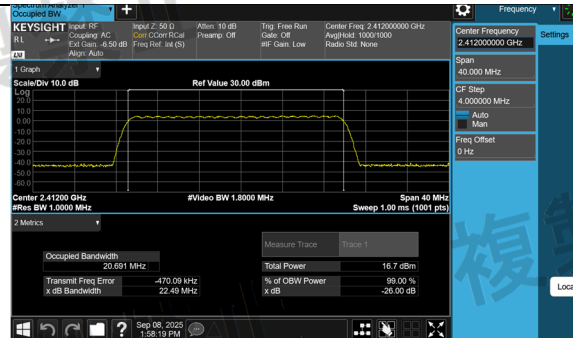
Occupied Bandwidth (EDR, Normal Hopping, V nom)



Occupied Bandwidth (BDR, AFH Hopping, V nom)

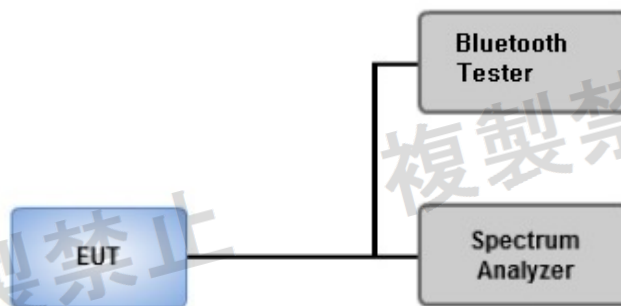


Occupied Bandwidth (EDR, AFH Hopping, V nom)



6.3 Spread Bandwidth, Spreading Factor

6.3.1 Test Setup



6.3.2 Limit

Item	Limit
Spread Bandwidth	≥ 500 kHz
Spread Factor	≥ 5

6.3.3 Test Result

[Ant1]

Data rate	Packet Type	Hopping Mode	Test Voltage	Test Item	Unit	Limit	Test Result
BDR	DH5	Normal Hopping	V nom	Spreading Bandwidth	MHz	≥ 0.5	72.375
				Spreading Factor	-	≥ 5	72.375
			V high	Spreading Bandwidth	MHz	≥ 0.5	72.363
				Spreading Factor	-	≥ 5	72.363
			V low	Spreading Bandwidth	MHz	≥ 0.5	72.333
				Spreading Factor	-	≥ 5	72.333
BDR	DH5	AFH Hopping	V nom	Spreading Bandwidth	MHz	≥ 0.5	18.468
				Spreading Factor	-	≥ 5	18.468
			V high	Spreading Bandwidth	MHz	≥ 0.5	18.481
				Spreading Factor	-	≥ 5	18.481
			V low	Spreading Bandwidth	MHz	≥ 0.5	18.474
				Spreading Factor	-	≥ 5	18.474
EDR	3-DH5	Normal Hopping	V nom	Spreading Bandwidth	MHz	≥ 0.5	72.194
				Spreading Factor	-	≥ 5	72.194
			V high	Spreading Bandwidth	MHz	≥ 0.5	72.089
				Spreading Factor	-	≥ 5	72.089
			V low	Spreading Bandwidth	MHz	≥ 0.5	72.180
				Spreading Factor	-	≥ 5	72.180
EDR	3-DH5	AFH Hopping	V nom	Spreading Bandwidth	MHz	≥ 0.5	18.498
				Spreading Factor	-	≥ 5	18.498
			V high	Spreading Bandwidth	MHz	≥ 0.5	18.521
				Spreading Factor	-	≥ 5	18.521
			V low	Spreading Bandwidth	MHz	≥ 0.5	18.527
				Spreading Factor	-	≥ 5	18.527

Note:

1. Spreading Factor = Spreading Bandwidth / 1

[Ant2]

Data rate	Packet Type	Hopping Mode	Test Voltage	Test Item	Unit	Limit	Test Result
BDR	DH5	Normal Hopping	V nom	Spreading Bandwidth	MHz	≥ 0.5	71.507
				Spreading Factor	-	≥ 5	71.507
			V high	Spreading Bandwidth	MHz	≥ 0.5	71.497
				Spreading Factor	-	≥ 5	71.497
			V low	Spreading Bandwidth	MHz	≥ 0.5	71.469
				Spreading Factor	-	≥ 5	71.469
BDR	DH5	AFH Hopping	V nom	Spreading Bandwidth	MHz	≥ 0.5	18.505
				Spreading Factor	-	≥ 5	18.505
			V high	Spreading Bandwidth	MHz	≥ 0.5	18.504
				Spreading Factor	-	≥ 5	18.504
			V low	Spreading Bandwidth	MHz	≥ 0.5	18.504
				Spreading Factor	-	≥ 5	18.504
EDR	3-DH5	Normal Hopping	V nom	Spreading Bandwidth	MHz	≥ 0.5	71.322
				Spreading Factor	-	≥ 5	71.322
			V high	Spreading Bandwidth	MHz	≥ 0.5	71.663
				Spreading Factor	-	≥ 5	71.663
			V low	Spreading Bandwidth	MHz	≥ 0.5	71.397
				Spreading Factor	-	≥ 5	71.397
EDR	3-DH5	AFH Hopping	V nom	Spreading Bandwidth	MHz	≥ 0.5	18.609
				Spreading Factor	-	≥ 5	18.609
			V high	Spreading Bandwidth	MHz	≥ 0.5	18.629
				Spreading Factor	-	≥ 5	18.629
			V low	Spreading Bandwidth	MHz	≥ 0.5	18.613
				Spreading Factor	-	≥ 5	18.613

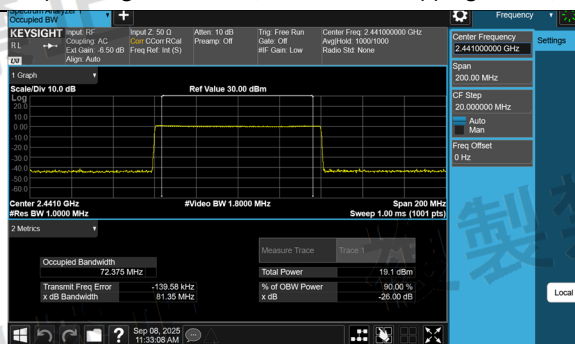
Note:

1. Spreading Factor = Spreading Bandwidth / 1

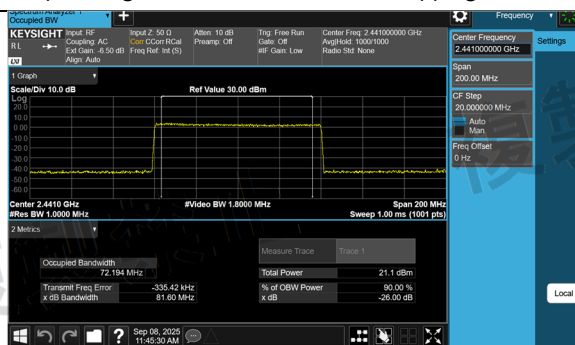
6.3.4 Test Plots

[Ant1]

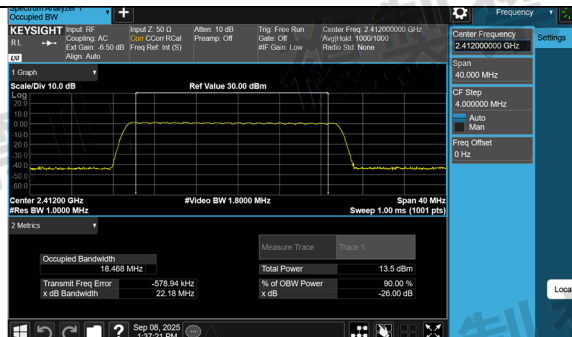
Spreading Bandwidth (BDR, Normal Hopping, V nom)



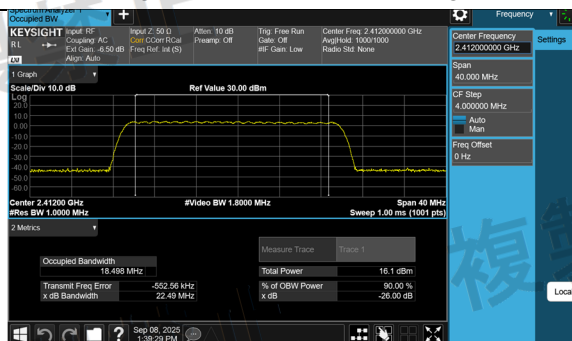
Spreading Bandwidth (EDR, Normal Hopping, V nom)



Spreading Bandwidth (BDR, AFH Hopping, V nom)

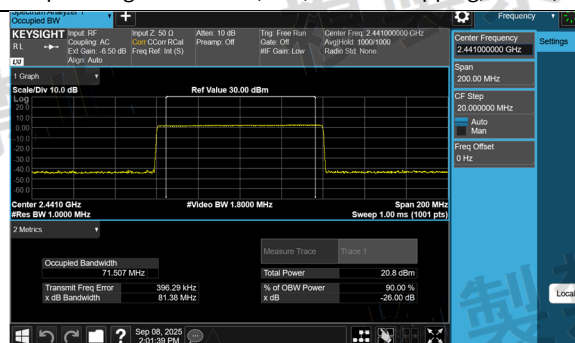


Spreading Bandwidth (EDR, AFH Hopping, V nom)

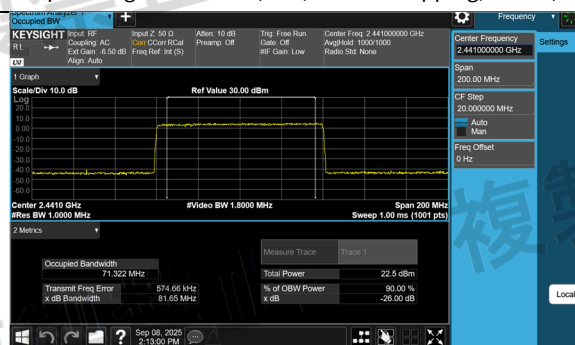


[Ant2]

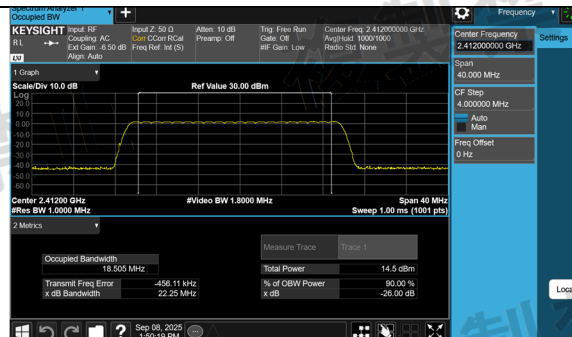
Spreading Bandwidth (BDR, Normal Hopping, V nom)



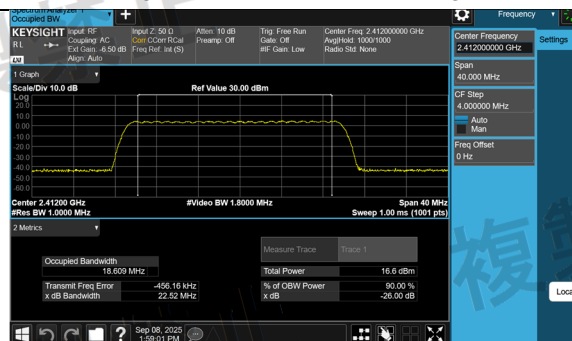
Spreading Bandwidth (EDR, Normal Hopping, V nom)



Spreading Bandwidth (BDR, AFH Hopping, V nom)

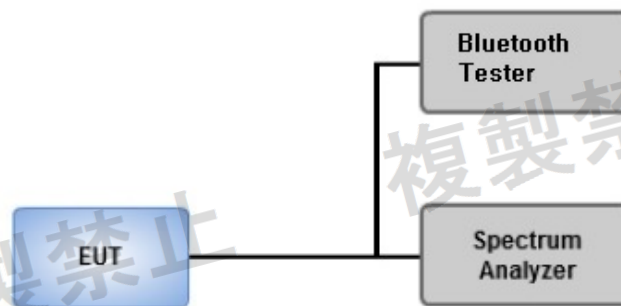


Spreading Bandwidth (EDR, AFH Hopping, V nom)



6.4 Spurious Emission

6.4.1 Test Setup



6.4.2 Limit

Item	Frequency Range	Limit
Spurious Emission	30 MHz – 2 387 MHz	2.5 μ W/MHz or less
	2 387 MHz – 2 400 MHz	25 μ W/MHz or less
	2 483.5 MHz – 2 496.5 MHz	25 μ W/MHz or less
	2 496.5 MHz – 12 500 MHz	2.5 μ W/MHz or less

6.4.3 Test Result

[Ant1]

Test Voltage	Frequency Range	Unit	Limit	Data Rate(Packet Type)	
				BDR(DH5)	EDR(3-DH5)
V nom	30 MHz – 2 387 MHz	μW/MHz	2. 5	0.0847	0.1094
		MHz	-	2242.20	2363.56
	2 387 MHz – 2 400 MHz	μW/MHz	25. 0	0.0687	0.0560
		MHz	-	2391.29	2393.08
	2 483. 5 MHz – 2 496. 5 MHz	μW/MHz	25. 0	0.0623	0.0687
		MHz	-	2489.40	2490.44
	2 496. 5 MHz – 12 500 MHz	μW/MHz	2. 5	0.1409	0.0970
		MHz	-	10677.23	11550.90
V high	30 MHz – 2 387 MHz	μW/MHz	2. 5	0.0863	0.0874
		MHz	-	2295.92	2383.71
	2 387 MHz – 2 400 MHz	μW/MHz	25. 0	0.0608	0.0527
		MHz	-	2393.59	2397.24
	2 483. 5 MHz – 2 496. 5 MHz	μW/MHz	25. 0	0.0649	0.0630
		MHz	-	2485.42	2494.86
	2 496. 5 MHz – 12 500 MHz	μW/MHz	2. 5	0.1123	0.0954
		MHz	-	10490.91	10349.30
V low	30 MHz – 2 387 MHz	μW/MHz	2. 5	0.0736	0.0822
		MHz	-	2287.46	2337.69
	2 387 MHz – 2 400 MHz	μW/MHz	25. 0	0.0669	0.0593
		MHz	-	2396.65	2397.41
	2 483. 5 MHz – 2 496. 5 MHz	μW/MHz	25. 0	0.0679	0.0699
		MHz	-	2492.72	2492.46
	2 496. 5 MHz – 12 500 MHz	μW/MHz	2. 5	0.0900	0.0974
		MHz	-	5618.79	5298.60

Note:

1. Hopping Mode : Normal hopping(79 Channels), Non-AFH

[Ant2]

Test Voltage	Frequency Range	Unit	Limit	Data Rate(Packet Type)	
				BDR(DH5)	EDR(3-DH5)
V nom	30 MHz – 2 387 MHz	μW/MHz	2.5	0.0914	0.0705
		MHz	-	2329.24	2257.12
	2 387 MHz – 2 400 MHz	μW/MHz	25.0	0.0613	0.0561
		MHz	-	2393.45	2398.75
	2 483.5 MHz – 2 496.5 MHz	μW/MHz	25.0	0.0608	0.0788
		MHz	-	2483.85	2489.53
	2 496.5 MHz – 12 500 MHz	μW/MHz	2.5	0.1049	0.0985
		MHz	-	10781.13	10760.90
	30 MHz – 2 387 MHz	μW/MHz	2.5	0.0943	0.0811
		MHz	-	2342.67	2174.56
V high	2 387 MHz – 2 400 MHz	μW/MHz	25.0	0.0600	0.0546
		MHz	-	2392.12	2399.69
	2 483.5 MHz – 2 496.5 MHz	μW/MHz	25.0	0.0639	0.0632
		MHz	-	2490.86	2495.94
	2 496.5 MHz – 12 500 MHz	μW/MHz	2.5	0.0973	0.0902
		MHz	-	12367.88	12098.88
	30 MHz – 2 387 MHz	μW/MHz	2.5	0.0741	0.0842
		MHz	-	2329.74	2361.57
	2 387 MHz – 2 400 MHz	μW/MHz	25.0	0.0596	0.0561
		MHz	-	2397.95	2396.03
V low	2 483.5 MHz – 2 496.5 MHz	μW/MHz	25.0	0.0732	0.0626
		MHz	-	2492.43	2490.69
	2 496.5 MHz – 12 500 MHz	μW/MHz	2.5	0.0975	0.0903
		MHz	-	11093.84	10599.56

Note:

1. Hopping Mode : Normal hopping(79 Channels), Non-AFH

6.4.4 Test Plots

[Ant1]

Spurious Emission (BDR, Normal Hopping, V nom)



Spurious Emission (EDR, Normal Hopping, V nom)



[Ant2]

Spurious Emission (BDR, Normal Hopping, V nom)

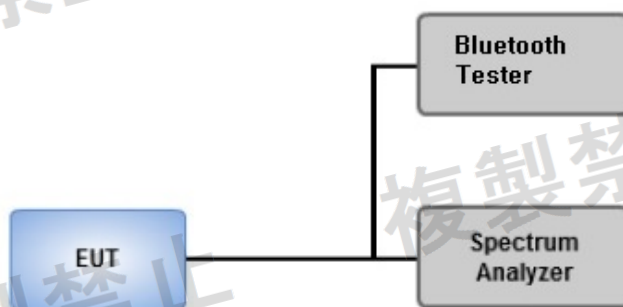


Spurious Emission (EDR, Normal Hopping, V nom)



6.5 Antenna Power and Tolerance

6.5.1 Test Setup



6.5.2 Limit

Item	Modulation Method	Limit
Antenna Power	1) FHSS (Compound method with DSSS or OFDM)	$\leq 3 \text{ mW/MHz}$
	2) DSSS, OFDM (20 MHz)	$\leq 10 \text{ mW/MHz}$
	3) OFDM (40 MHz)	$\leq 5 \text{ mW/MHz}$
	4) Others	$\leq 10 \text{ mW}$
Tolerance	+20% of the rated Antenna Power declared by manufacturer	

Note 1:

In the case of a transmitting device using a spread spectrum system or an OFDM system, when the E.I.R.P in a bandwidth of 1 MHz of the transmitting device falls below the value obtained when the average power in a bandwidth of 1 MHz as specified in 1) to 3) is added to a transmitting antenna with 2.14 dBi, or in the case of a transmitting device using a GFSK system, when the E.I.R.P of the transmitting device falls below the value obtained when the antenna power as specified in 4) is added to a transmitting antenna with 2.14 dBi, the decrease can be compensated for by the antenna power.

Note 2: $3 \text{ mW/MHz} + 2.14 \text{ dBi} = 6.91 \text{ dBm/MHz}$

6.5.3 Test Result

[Ant1]

Data rate	Packet Type	Hopping Mode	Test Voltage	Test Item	Unit	Limit	Test Result
BDR	DH5	Normal Hopping	V nom	Antenna Power	mW/MHz	≤ 3	0.018
				Tolerance	%	+20	-55.531
				EIRP	dBm/MHz	6.91	-11.119
			V high	Antenna Power	mW/MHz	≤ 3	0.018
				Tolerance	%	+20	-55.506
				EIRP	dBm/MHz	6.91	-11.116
			V low	Antenna Power	mW/MHz	≤ 3	0.018
				Tolerance	%	+20	-55.386
				EIRP	dBm/MHz	6.91	-11.105
BDR	DH5	AFH Hopping	V nom	Antenna Power	mW/MHz	≤ 3	0.070
				Tolerance	%	+20	-56.433
				EIRP	dBm/MHz	6.91	-5.187
			V high	Antenna Power	mW/MHz	≤ 3	0.070
				Tolerance	%	+20	-56.447
				EIRP	dBm/MHz	6.91	-5.189
			V low	Antenna Power	mW/MHz	≤ 3	0.070
				Tolerance	%	+20	-56.329
				EIRP	dBm/MHz	6.91	-5.177
EDR	3-DH5	Normal Hopping	V nom	Antenna Power	mW/MHz	≤ 3	0.021
				Tolerance	%	+20	-46.353
				EIRP	dBm/MHz	6.91	-10.304
			V high	Antenna Power	mW/MHz	≤ 3	0.021
				Tolerance	%	+20	-46.369
				EIRP	dBm/MHz	6.91	-10.305
			V low	Antenna Power	mW/MHz	≤ 3	0.021
				Tolerance	%	+20	-46.506
				EIRP	dBm/MHz	6.91	-10.316
EDR	3-DH5	AFH Hopping	V nom	Antenna Power	mW/MHz	≤ 3	0.084
				Tolerance	%	+20	-47.655
				EIRP	dBm/MHz	6.91	-4.390
			V high	Antenna Power	mW/MHz	≤ 3	0.084
				Tolerance	%	+20	-47.812
				EIRP	dBm/MHz	6.91	-4.403
			V low	Antenna Power	mW/MHz	≤ 3	0.083
				Tolerance	%	+20	-47.898
				EIRP	dBm/MHz	6.91	-4.410

Note:

1. Rated Antenna Power(ANT1) : 0.04 ~ 0.16 mW/MHz.
2. The results of EIRP are less than 6.91 dBm/MHz.
3. Max Peak Antenna Gain(ANT1) : 6.38 dBi.

[Ant2]

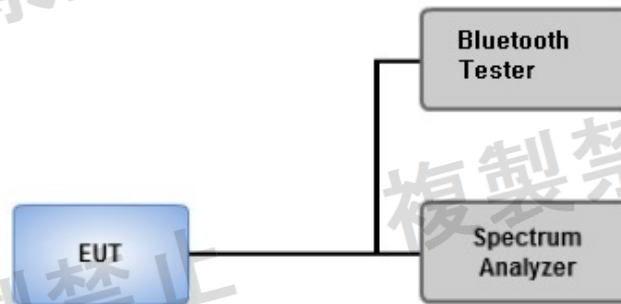
Data rate	Packet Type	Hopping Mode	Test Voltage	Test Item	Unit	Limit	Test Result
BDR	DH5	Normal Hopping	V nom	Antenna Power	mW/MHz	≤ 3	0.023
				Tolerance	%	+20	-41.686
				EIRP	dBm/MHz	6.91	-9.342
			V high	Antenna Power	mW/MHz	≤ 3	0.023
				Tolerance	%	+20	-41.669
				EIRP	dBm/MHz	6.91	-9.340
			V low	Antenna Power	mW/MHz	≤ 3	0.023
				Tolerance	%	+20	-43.026
				EIRP	dBm/MHz	6.91	-9.443
BDR	DH5	AFH Hopping	V nom	Antenna Power	mW/MHz	≤ 3	0.090
				Tolerance	%	+20	-43.666
				EIRP	dBm/MHz	6.91	-3.471
			V high	Antenna Power	mW/MHz	≤ 3	0.090
				Tolerance	%	+20	-43.655
				EIRP	dBm/MHz	6.91	-3.470
			V low	Antenna Power	mW/MHz	≤ 3	0.088
				Tolerance	%	+20	-44.987
				EIRP	dBm/MHz	6.91	-3.574
EDR	3-DH5	Normal Hopping	V nom	Antenna Power	mW/MHz	≤ 3	0.027
				Tolerance	%	+20	-32.559
				EIRP	dBm/MHz	6.91	-8.710
			V high	Antenna Power	mW/MHz	≤ 3	0.027
				Tolerance	%	+20	-32.870
				EIRP	dBm/MHz	6.91	-8.730
			V low	Antenna Power	mW/MHz	≤ 3	0.027
				Tolerance	%	+20	-32.521
				EIRP	dBm/MHz	6.91	-8.708
EDR	3-DH5	AFH Hopping	V nom	Antenna Power	mW/MHz	≤ 3	0.103
				Tolerance	%	+20	-35.381
				EIRP	dBm/MHz	6.91	-2.875
			V high	Antenna Power	mW/MHz	≤ 3	0.103
				Tolerance	%	+20	-35.441
				EIRP	dBm/MHz	6.91	-2.879
			V low	Antenna Power	mW/MHz	≤ 3	0.104
				Tolerance	%	+20	-35.289
				EIRP	dBm/MHz	6.91	-2.869

Note:

1. Rated Antenna Power(ANT2) : 0.04 ~ 0.16 mW/MHz.
2. The results of EIRP are less than 6.91 dBm/MHz.
3. Max Peak Antenna Gain(ANT2) : 6.98 dBi.

6.6 Hopping frequency Staying time

6.6.1 Test Setup



6.6.2 Limit

Item	Limit
Hopping frequency Staying time	0.4 sec or less

6.6.3 Test Result

[Ant1]

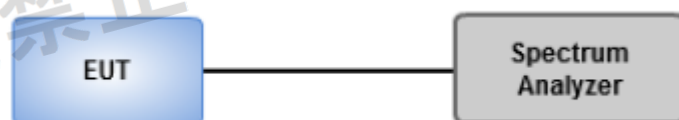
Data rate	Packet Type	Hopping Mode	Test Voltage	Unit	Limit	Test Result	
BDR	DH5	Normal Hopping	V nom	s	0.4	0.2818	Pass
			V high	s	0.4	0.2810	Pass
			V low	s	0.4	0.2813	Pass
BDR	DH5	AFH Hopping	V nom	s	0.4	0.2841	Pass
			V high	s	0.4	0.2835	Pass
			V low	s	0.4	0.2838	Pass
EDR	3-DH5	Normal Hopping	V nom	s	0.4	0.2807	Pass
			V high	s	0.4	0.2806	Pass
			V low	s	0.4	0.2810	Pass
EDR	3-DH5	AFH Hopping	V nom	s	0.4	0.2841	Pass
			V high	s	0.4	0.2848	Pass
			V low	s	0.4	0.2849	Pass

[Ant2]

Data rate	Packet Type	Hopping Mode	Test Voltage	Unit	Limit	Test Result	
BDR	DH5	Normal Hopping	V nom	s	0.4	0.2790	Pass
			V high	s	0.4	0.2790	Pass
			V low	s	0.4	0.2789	Pass
BDR	DH5	AFH Hopping	V nom	s	0.4	0.2852	Pass
			V high	s	0.4	0.2852	Pass
			V low	s	0.4	0.2852	Pass
EDR	3-DH5	Normal Hopping	V nom	s	0.4	0.2785	Pass
			V high	s	0.4	0.2796	Pass
			V low	s	0.4	0.2788	Pass
EDR	3-DH5	AFH Hopping	V nom	s	0.4	0.2870	Pass
			V high	s	0.4	0.2871	Pass
			V low	s	0.4	0.2871	Pass

6.7 Interference Protection Function

6.7.1 Test Setup



6.7.2 Limit

Clarify, the one automatically to transmit and to receive identification code with the wireless equipment of the wireless station used in the same premises.

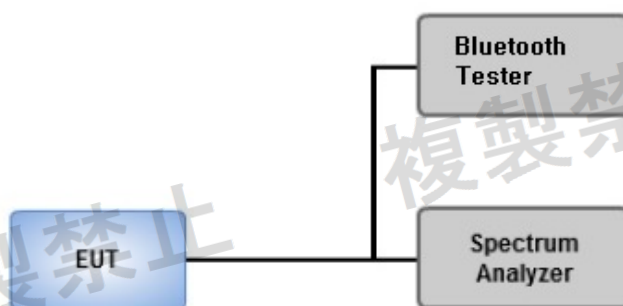
6.7.3 Test Result

Good

7. RECEIVER MEASUREMENTS – RESULTS

7.1 Collateral Emission

7.1.1 Test Setup



7.1.2 Limit

Item	Frequency Range	Limit
Collateral Emissions	30 MHz – 1 000 MHz	4 nW or less
	1 000 MHz – 12 500 MHz	20 nW or less

7.1.3 Test Result

[Ant1]

Test Voltage	Frequency Range	Unit	Limit	Data Rate(Packet Type)	
				BDR(DH5)	EDR(3-DH5)
V nom	30 MHz – 1 000 MHz	nW	4.0	0.0025	0.0026
		MHz	-	909.395	865.793
	1 000 MHz – 12 500 MHz	nW	20.0	0.0670	0.0612
		MHz	-	10658.85	9941.25
V high	30 MHz – 1 000 MHz	nW	4.0	0.0022	0.0024
		MHz	-	884.494	936.647
	1 000 MHz – 12 500 MHz	nW	20.0	0.0815	0.0642
		MHz	-	3066.55	10780.75
V low	30 MHz – 1 000 MHz	nW	4.0	0.0026	0.0023
		MHz	-	844.542	752.087
	1 000 MHz – 12 500 MHz	nW	20.0	0.0634	0.0812
		MHz	-	10258.65	10615.73

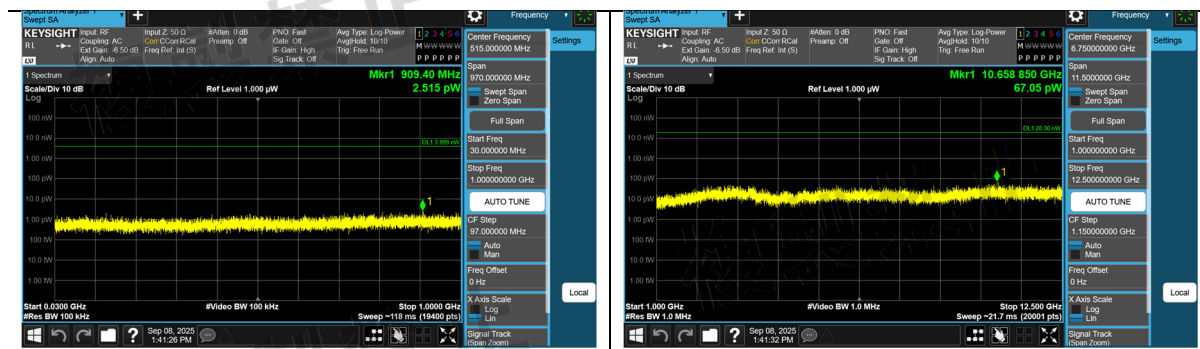
[Ant2]

Test Voltage	Frequency Range	Unit	Limit	Data Rate(Packet Type)	
				BDR(DH5)	EDR(3-DH5)
V nom	30 MHz – 1 000 MHz	nW	4.0	0.0027	0.0023
		MHz	-	937.297	938.097
	1 000 MHz – 12 500 MHz	nW	20.0	0.0583	0.0675
		MHz	-	10029.80	6498.15
V high	30 MHz – 1 000 MHz	nW	4.0	0.0043	0.0021
		MHz	-	887.994	804.090
	1 000 MHz – 12 500 MHz	nW	20.0	0.0518	0.0741
		MHz	-	3505.27	10516.25
V low	30 MHz – 1 000 MHz	nW	4.0	0.0028	0.0024
		MHz	-	887.994	992.900
	1 000 MHz – 12 500 MHz	nW	20.0	0.0638	0.0605
		MHz	-	3168.32	9403.05

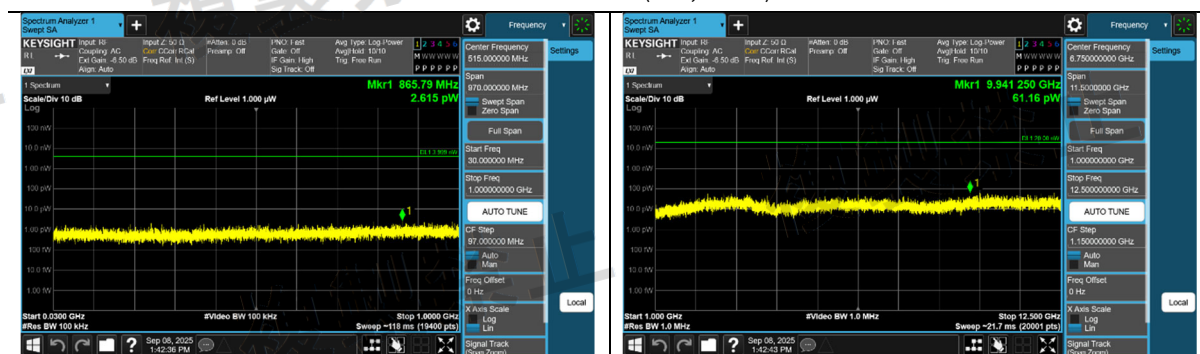
7.1.4 Test Plots

[Ant1]

Collateral Emission (BDR, V nom)

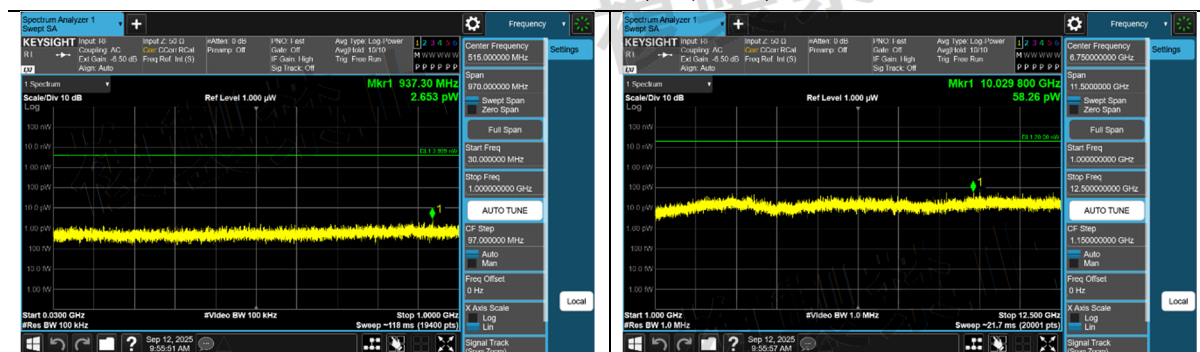


Collateral Emission (EDR, V nom)



[Ant2]

Collateral Emission (BDR, V nom)



Collateral Emission (EDR, V nom)

