



FCC Radio Test Report

FCC ID: A4Z-B0028

: eLAB-FCC-3-2407X001 Report No.

Body Camera Equipment

DrivePro Body 40, DrivePro Body 4XXXXXX, TS1TDPB40A, TS512GDPB40A, **Model Name**

TS256GDPB40A, TS128GDPB40A, TS64GDPB40A, TSXXXXDPB4XXXXXX (The "X" in the Model Number could be defined as A-Z, 0-9, -, _, or blank for

marketing differentiation)

Transcend **Brand Name**

Applicant : TRANSCEND INFORMATION INC.

Address : No.70, XingZhong Rd., NeiHu Dist., TAIPEI, 114, Taiwan

Radio Function : Bluetooth EDR

FCC Rule Part(s) : FCC CFR Title 47, Part 15, Subpart C (15.247)

Measurement Procedure(s)

: ANSI C63.10-2013

: 2024/7/4 **Date of Receipt**

Date of Test : 2024/7/4~2024/8/2

Issued Date : 2024/9/4

The above equipment has been tested and found in compliance with the requirement of the above standards by eTest certification Laboratory Inc. hereinafter referred to as "eLAB".

Prepared by

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(a).cher

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4045

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Declaration

eLAB represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

eLAB's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **eLAB** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **eLAB** issued reports.

This report is the confidential property of the client. As a mutual protection to the clients, the public and ourselves, the test report shall not be reproduced, except in full, without our written approval.

eLAB's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

eLAB is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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REVISION HISTORY

Report No.	Version	Description	Issued Date	Note
eLAB-FCC-3-2407X001	R00	Original Report.	2024/9/4	Valid

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1 SUMMARY OF TEST RESULTS

Test procedures according to the technical standards.

Standard(s) Section	Description	Result	Remark
15.207	AC Power Line Conducted Emissions	Pass	
15.205 15.209 15.247(d)	Radiated Emissions	Pass	
15.247 (a)(1)(iii)	Number of Hopping Frequency	Pass	
15.247 (a)(1)(iii)	Average Time of Occupancy	Pass	
15.247 (a)(1)	Hopping Channel Separation	Pass	
15.247 (a)(1)	Bandwidth	Pass	
15.247 (b)(1)	Output Power	Pass	
15.247(d)	Antenna conducted Spurious Emission	Pass	
15.203	Antenna Requirement	Pass	

NOTE:

(1) "N/A" denotes test is not applicable in this Test Report.

(2) The report format version is FR15CBT_V1.0

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1.1 TEST FACILITY

The test locations stated below are under the TAF Accreditation number is 4045. The satellite facilities under the test firm used to collect the test data in this report are:

1-2F, No. 91, Ln. 298, Wengong 1st Rd., Guishan Dist., Taoyuan City 333001, Taiwan

■ CB03

■ C01

CB02

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $\mathbf{y} \pm \mathbf{U}$, where expanded uncertainty \mathbf{U} is based on a standard uncertainty multiplied by a coverage factor of $\mathbf{k} = \mathbf{2}$, providing a level of confidence of approximately $\mathbf{95}$ %. The measurement instrumentation uncertainty considerations contained in CISPR 16-4-2. The eLab measurement uncertainty is less than the CISPR 16-4-2 \mathbf{U}_{cispr} requirement.

A. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U (dB)
C01	CISPR 150 kHz ~ 30 MHz		3.3

B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range		U (dB)
		0.009 kHz ~ 30 MHz	-	2.84
		30 MHz ~ 1000 MHz	Η	3.12
		30 MH2 ~ 1000 MH2	V	3.92
CB03	CISPR	CISPR 1 GHz ~ 6 GHz	Н	4.71
CBUS	6 GHz ~ 18 GHz	I GHZ ~ 0 GHZ	V	4.90
		C CLI= 40 CLI=	Н	4.72
		6 GHZ ~ 16 GHZ	V	4.63
		18 GHz ~ 40GHz	-	4.06

Test Site	Method	Measurement Frequency Range		U (dB)
		1 GHz ~ 6 GHz	Н	4.9
	: CISPR	1 GHZ ~ 0 GHZ		4.8
CB02		6GHz ~ 18GHz	Н	4.8
CBUZ			V	4.9
		18GHz ~40GHz	-	4.6

C. Conducted test:

u lest.	
Test Item	U,(dB)
Occupied Bandwidth	7.2%
Output power	03659
Peak power spectral density	0.6606
Conducted Spurious emissions	0.5416
Conducted Band edges	0.5348
Dwell time	0.6606Hz
Channel separation	0.6606Hz
Channel numbers	0.6606Hz

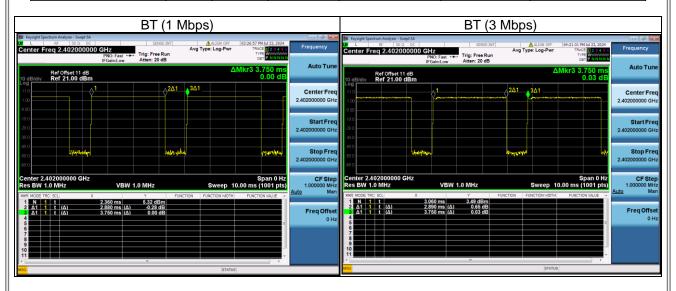
NOTE

Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

1.3 DUTY CYCLE

If duty cycle is \geq 98 %, duty factor is not required. If duty cycle is < 98 %, duty factor shall be considered.

Remark	Delta 1			Delta 2	On Time/Period	10 log(1/Duty Cycle)
Mode	ON	Numbers	On Time (B)	Period (ON+OFF)	Duty Cycle	Duty Factor
iviode	(ms)	(ON)	(ms)	(ms)	(%)	(dB)
BT (1 Mbps)	2.880	1	2.880	3.750	76.80%	1.15
BT (3 Mbps)	2.890	1	2.890	3.750	77.07%	1.13





2 GENERAL INFORMATION

2.1 DESCRIPTION OF EUT

Equipment	Body Camera
Model Name	DrivePro Body 40, DrivePro Body 4XXXXXX, TS1TDPB40A, TS512GDPB40A, TS256GDPB40A, TS128GDPB40A, TS64GDPB40A, TSXXXXDPB4XXXXXX (The "X" in the Model Number could be defined as A-Z, 0-9, -, _, or blank for marketing differentiation)
Brand Name	Transcend
Model Difference	Different models distribute to different areas.
SD capacity	64GB/128GB/256GB/512GB/1T
Test Software Version	Tera Term Pro version 2.3
Operation Band	2400 MHz ~ 2483.5 MHz
Operation Frequency	2402 MHz ~ 2480 MHz
Modulation Type	GFSK, π/4-DQPSK, 8DPSK
Modulation Technology	FHSS
Transfer Rate	1 Mbps, 2 Mbps, 3Mbps
Output Power (Max)	1 Mbps: 12.55 dBm (0.0180W) 2 Mbps: 10.92 dBm (0.0124W) 3 Mbps: 11.55 dBm (0.0143W)

NOTE:

(1)	The above EUT information is declared by manufacturer and for more detailed features	description,
	please refers to the manufacturer's specifications or user's manual.	

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(2) Channel List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	27	2429	54	2456
01	2403	28	2430	55	2457
02	2404	29	2431	56	2458
03	2405	30	2432	57	2459
04	2406	31	2433	58	2460
05	2407	32	2434	59	2461
06	2408	33	2435	60	2462
07	2409	34	2436	61	2463
08	2410	35	2437	62	2464
09	2411	36	2438	63	2465
10	2412	37	2439	64	2466
11	2413	38	2440	65	2467
12	2414	39	2441	66	2468
13	2415	40	2442	67	2469
14	2416	41	2443	68	2470
15	2417	42	2444	69	2471
16	2418	43	2445	70	2472
17	2419	44	2446	71	2473
18	2420	45	2447	72	2474
19	2421	46	2448	73	2475
20	2422	47	2449	74	2476
21	2423	48	2450	75	2477
22	2424	49	2451	76	2478
23	2425	50	2452	77	2479
24	2426	51	2453	78	2480
25	2427	52	2454	-	-
26	2428	53	2455	-	-

(3) Table for Filed Antenna:

Brand Name	Model Name	Type	Frequency (MHz)	Gain (dBi)
PSA	RFECA3216060A1T	MULTILAYER CERAMIC ANTENNA	2400 ~ 2483.5	2

(4) The above Antenna information is derived from the antenna data sheet provided by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

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2.2 TEST MODES

Test Items	Test mode	Channel	Note
AC power line conducted emissions	Normal	-	-
Transmitter Radiated Emissions (below 1GHz)	1 Mbps	00	-
Transmitter Radiated Emissions	1/3 Mbps	00/78	Bandedge
(above 1GHz)	1/3 Mbps	00/39/78	Harmonic
Number of Hopping Frequency	1/3 Mbps	00~78	-
Average Time of Occupancy	1/3 Mbps	00/39/78	-
Hopping Channel Separation	1/3 Mbps	00/39/78	-
Bandwidth	1/3 Mbps	00/39/78	-
Peak Output Power	1/3 Mbps	00/39/78	-
Antenna conducted Spurious Emission	1/3 Mbps	00/39/78	-

NOTE:

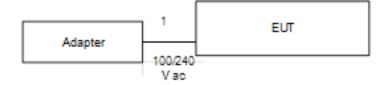
(1)	For radiated emission band edge test, both	Vertical and Horizontal	l are evaluated, but on	ly the worst case
	(Horizontal) is recorded.			

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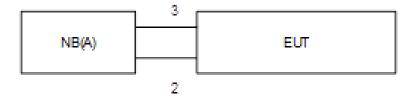
2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Equipment letters and Cable numbers refer to item numbers described in the tables of clause 2.4.

AC power line conducted emissions



Radiated Emissions



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2.4 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Remarks
Α	Notebook PC	dynabook	A40-J	Furnished by test lab.
В	Adapter	CWT	2AEA010BC3D	Supplied by test requester.

Item	Cable Type	Ferrite Core	Length	Shielded	Remarks
1	USB2.0 A to C cable	NO	1m	YES	Supplied by test requester.
2	USB2.0 C to C cable	NO	1m	YES	Supplied by test requester.
3	USB cable	NO	1m	YES	Supplied by test requester.

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3 AC POWER LINE CONDUCTED EMISSIONS TEST

3.1 LIMIT

Frequency	Limit (dBμV)		
(MHz)	Quasi-peak	Average	
0.15 - 0.5	66 - 56 *	56 - 46 *	
0.50 - 5.0	56	46	
5.0 - 30.0	60	50	

NOTE:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.
- (3) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor

Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor (if use)

Margin Level = Measurement Value - Limit Value

Calculation example:

Reading Level		Correct Factor		Measurement Value
(dBµV)		(dB)		(dBµV)
38.22	+	3.45	=	41.67

Measurement Value		Limit Value		Margin Level
(dBµV)		(dBµV)		(dB)
41.67	-	60	=	-18.33

The following table is the setting of the receiver.

Receiver Parameter	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 KHz

3.2 TEST PROCEDURE

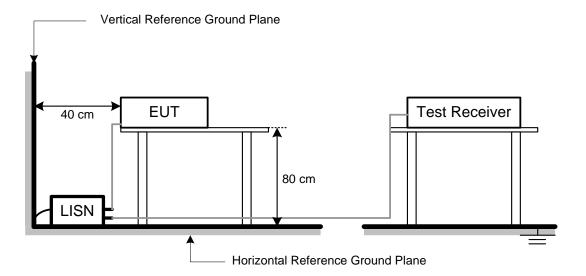
- a. The EUT was placed 0.8 m above the horizontal ground plane with the EUT being connected to the power mains through a line impedance stabilization network (LISN).
 - All other support equipment were powered from an additional LISN(s).
 - The LISN provides 50 Ohm/50uH of impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle to keep the cable above 40 cm.
- c. Excess I/O cables that are not connected to a peripheral shall be bundled in the center.
 - The end of the cable will be terminated, using the correct terminating impedance.
 - The overall length shall not exceed 1 m.
- d. The LISN is spaced at least 80 cm from the nearest part of the EUT chassis.
- e. For the actual test configuration, please refer to the related Item EUT TEST PHOTO.

NOTE:

- (1) In the results, each reading is marked as Peak, QP or AVG per the detector used. BW=9 kHz (6 dB Bandwidth)
- (2) All readings are Peak unless otherwise stated QP or AVG in column of Note. Both the QP and the AVG readings must be less than the limit for compliance.

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3.3 TEST SETUP



3.4 TEST RESULT

Please refer to the APPENDIX A.

4 RADIATED EMISSIONS TEST

4.1 LIMIT

In case the emission fall within the restricted band specified on 15.205, then the 15.209 limit in the table below has to be followed.

LIMITS OF RADIATED EMISSIONS MEASUREMENT (9 kHz to 1000 MHz)

Frequency	Field Strength	Measurement Distance
(MHz)	(microvolts/meter)	(meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

LIMITS OF RADIATED EMISSIONS MEASUREMENT (Above 1000 MHz)

Frequency (MHz)	Radiated (dBu	Measurement Distance	
(IVITIZ)	Peak	Average	(meters)
Above 1000	74	54	3

NOTE:

- (1) The limit for radiated test was performed according to FCC CFR Title 47, Part 15, Subpart C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).
- (4) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor

Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)

Margin Level = Measurement Value - Limit Value

Calculation example:

Reading Level (dBµV)		Correct Factor (dB/m)		Measurement Value (dBµV/m
35.45	+	-11.37	=	24.08

Measurement Value (dBµV/m)			Margin Level (dB)	
24.08	-	40	=	-15.92

Spectrum Parameter	Setting		
Attenuation	Auto		
Start Frequency	1000 MHz		
Stop Frequency	10th carrier harmonic		
RBW / VBW	1MHz / 3MHz for Peak,		
(Emission in restricted band)	1MHz / 1/T for Average		

Spectrum Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9KHz~90KHz for PK/AVG detector
Start ~ Stop Frequency	90KHz~110KHz for QP detector
Start ~ Stop Frequency	110KHz~490KHz for PK/AVG detector
Start ~ Stop Frequency	490KHz~30MHz for QP detector
Start ~ Stop Frequency	30MHz~1000MHz for QP detector

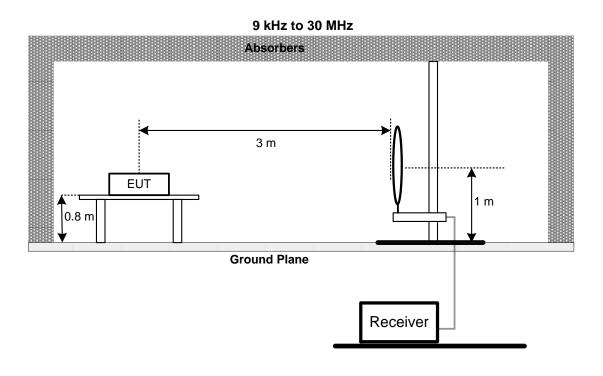
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4.2 TEST PROCEDURE

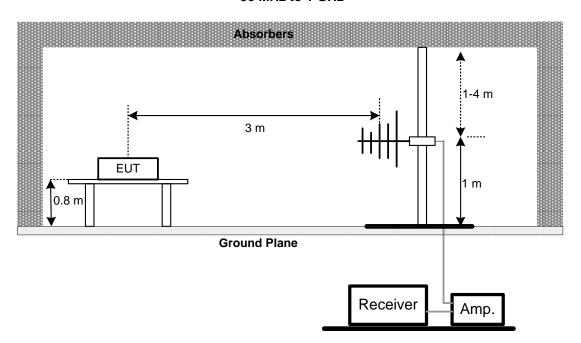
- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. (below 1GHz)
- b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- c. The height of the equipment or of the substitution antenna shall be 0.8 m or 1.5 m, the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1GHz.
- f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform. (below 1GHz)
- h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1GHz)
- i. For the actual test configuration, please refer to the related Item EUT TEST PHOTO.

4.3 TEST SETUP

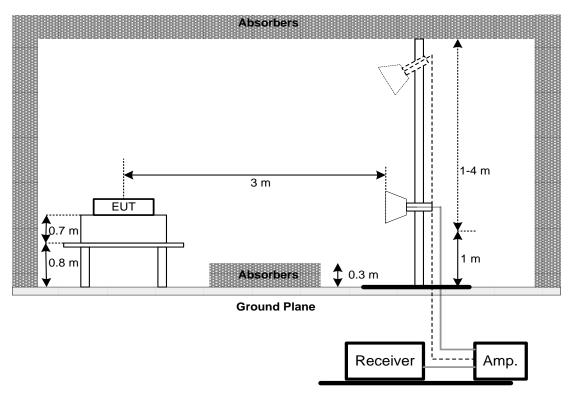




30 MHz to 1 GHz



Above 1 GHz



4.4 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.



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4.5	TEST RESULT – BELOW 30 MHZ
The	ere were no emissions found below 30 MHz within 20 dB of the limit.
4.6	TEST RESULT – 30 MHZ TO 1 GHZ
Plea	ase refer to the APPENDIX B.
4.7	TEST RESULT – ABOVE 1 GHZ
Plea	ase refer to the APPENDIX C.
NO ⁻	TE: (1) No limit: This is fundamental signal, the judgment is not applicable. For fundamental signal judgment was referred to Peak output test.

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5 NUMBER OF HOPPING CHANNEL

5.1 APPLIED PROCEDURES

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Frequency Range (MHz)	Result	
15.247(a)(1)(iii)	Number of Hopping Channel	2400-2483.5	PASS	

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> Operating Frequency Range
RBW	100 kHz
VBW	100 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

5.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW=100KHz, VBW=100KHz, Sweep time = Auto.

5.3 TEST SETUP



5.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.5 TEST RESULTS

Please refer to the APPENDIX D.

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AVERAGE TIME OF OCCUPANCY

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section Test Item Limit Frequency Range (MHz) Result				
15.247(a)(1)(iii)	Average Time of Occupancy	0.4sec	2400-2483.5	PASS

6.2 TEST PROCEDURE

- a. The transmitter output (antenna port) was connected to the spectrum analyzer
- b. Set RBW of spectrum analyzer to 1MHz and VBW to 1MHz.
- c. Use a video trigger with the trigger level set to enable triggering only on full pulses.
- d. Sweep Time is more than once pulse time.
- e. Set the center frequency on any frequency would be measure and set the frequency span to zero span.
- f. Measure the maximum time duration of one single pulse.
- g. Set the EUT for DH5, DH3 and DH1 packet transmitting.
- h. Measure the maximum time duration of one single pulse.
- i. Measure the maximum time duration of one single pulse.

A Period Time = (channel number) * 0.4

For Non-AFH Mode (79 Channel):

DH1 Time Slot: Reading * (1600/2)/79 * (0.4 * 79)

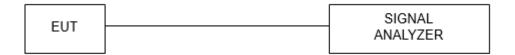
DH3 Time Slot: Reading * (1600/4)/79 * (0.4 * 79)

DH5 Time Slot: Reading * (1600/6)/79 * (0.4 * 79)

For AFH Mode (20 Channel):

DH1 Time Slot: Reading * (800/2)/20 * (0.4 * 20) DH3 Time Slot: Reading * (800/4)/20 * (0.4 * 20) DH5 Time Slot: Reading * (800/6)/20 * (0.4 * 20)

6.3 TEST SETUP



6.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.5 TEST RESULTS

Please refer to the APPENDIX E.

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7 HOPPING CHANNEL SEPARATION MEASUREMENT

7.1 APPLIED PROCEDURES / LIMIT

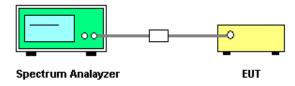
Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 KHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	> Measurement Bandwidth or Channel Separation
RBW	30 kHz
VBW	100 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

7.2 TEST PROCEDURE

- a. The EUT must have its hopping function enabled
- b. Span = wide enough to capture the peaks of two adjacent channels Resolution (or IF) Bandwidth (RBW) ≥ 1% of the span Video (or Average) Bandwidth (VBW) ≥ RBW Sweep = Auto Detector function = Peak Trace = Max Hold

7.3 TEST SETUP



7.4 TEST RESULTS

Please refer to the APPENDIX F.

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8 BANDWIDTH TEST

8.1 APPLIED PROCEDURES

	FCC Part15 (15.247), Subpart C	
Section	Test Item	Frequency Range (MHz)
15.247(a)(1)	Bandwidth	2400-2483.5

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	> Measurement Bandwidth or Channel Separation
RBW	30 kHz (20dB Bandwidth) / 30 kHz (Channel Separation)
VBW	100 kHz (20dB Bandwidth) / 100 kHz (Channel Separation)
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

8.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 30KHz, VBW=100KHz, Sweep Time = Auto.

8.3 TEST SETUP



8.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.5 TEST RESULTS

Please refer to the APPENDIX G.



9 OUTPUT POWER TEST

9.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247), Subpart C				
Section Test Item Limit Frequency Range (MHz) Result				Result
15.247(b)(1)	Peak Output Power	0.125Watt or 21dBm	2400-2483.5	PASS

9.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 3MHz, VBW= 3MHz, Sweep time = Auto.

9.3 TEST SETUP



9.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

9.5 TEST RESULTS

Please refer to the APPENDIX H.

10 ANTENNA CONDUCTED SPURIOUS EMISSION

10.1 APPLIED PROCEDURES / LIMIT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits.

10.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 100KHz, VBW=100KHz, Sweep time = Auto.
- c. Offset=antenna gain+ cable loss

10.3 TEST SETUP



10.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

10.5 TEST RESULTS

Please refer to the APPENDIX I.

11 LIST OF MEASURING EQUIPMENTS

	AC Power Line Conducted Emissions						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until	
1	TWO-LINE V-NETWORK	R&S	ENV216	101339	2024/3/28	2025/3/27	
2	Test Cable	EMCI	EMCRG142S-SM -SM-5000	230609	2024/7/18	2025/7/17	
3	EMI Test Receiver	R&S	ESR3	103133	2024/6/28	2025/6/27	
4	Measurement Software	Farad	EZ_EMC (Ver.E-LAB-5A2.2 2021)	N/A	N/A	N/A	

	Radiated Emissions									
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until				
1	Log-Bicon Antenna	Schwarzbeck	VULB 9168	01578	2024/7/17	2025/7/16				
2	Attenuator	INMET	EMCI-N-6-05	AT-N0576	2024/7/17	2025/7/16				
3	Pre-Amplifier	EMCI	EMC001330	980908	2024/7/11	2025/7/10				
4	Test Cable	EMCI	EMC104-SM-SM- 6000	230539	2024/7/13	2025/7/12				
5	Test Cable	EMCI	EMC104-SM-SM- 2500	230542	2024/7/13	2025/7/12				
6	Test Cable	EMCI	EMC104-SM-SN- 1000	230543	2024/7/13	2025/7/12				
7	MXE EMI Receiver	Keysight	N9038A	MY55420127	2024/6/19	2025/6/18				
8	Horn Antenna	RFSPIN	DRH18-E	KV2D02A18ES	2024/6/7	2025/6/6				
9	Pre-Amplifier	EMCI	EMC118A45SE	980962	2024/7/19	2025/7/18				
10	Test Cable	EMCI	EMC104-SM-SM- 6000	230540	2024/7/19	2025/7/18				
11	Test Cable	EMCI	EMC104-SM-SM- 2500	230541	2024/7/19	2025/7/18				
12	Test Cable	EMCI	EMC104-SM-SM- 1000	230546	2024/7/19	2025/7/18				
13	EXA Signal Analyzer	Keysight	N9010A	MY52220990	2023/8/11	2024/8/10				
14	Horn Antenna	Schwarzbeck	BBHA 9170	01228	2024/6/12	2025/6/11				
15	Pre-Amplifier	EMCI	EMC184045SE	980918	2024/7/17	2025/7/16				
16	Test Cable	EMCI	EMC104-35M-35 M-1000	230547	2024/7/19	2025/7/18				
17	Test Cable	EMCI	EMC104-35M-35 M-4700	230548	2024/7/19	2025/7/18				
18	EXA Signal Analyzer	Keysight	N9010A	MY52220990	2023/8/11	2024/8/10				
19	Measurement Software	Farad	EZ_EMC (Ver. NB-03A1-01)	N/A	N/A	N/A				

	Number of Hopping Frequency								
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until			
1	EXA Signal Analyzer	Keysight	N9010A	MY52220990	2023/8/11	2024/8/10			

	Average Time of Occupancy								
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until			
1	EXA Signal Analyzer	Keysight	N9010A	MY52220990	2023/8/11	2024/8/10			

	Hopping Channel Separation								
ItemKind of EquipmentManufacturerType No.Serial No.Calibrated DateCalibrate Until									
1	EXA Signal Analyzer	Keysight	N9010A	MY52220990	2023/8/11	2024/8/10			

Bandwidth									
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until			
1	EXA Signal Analyzer	Keysight	N9010A	MY52220990	2023/8/11	2024/8/10			

	Output Power								
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until			
1	EXA Signal Analyzer	Keysight	N9010A	MY52220990	2023/8/11	2024/8/10			

	Antenna conducted Spurious Emission									
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until				
1	EXA Signal Analyzer	Keysight	N9010A	MY52220990	2023/8/11	2024/8/10				

Remark: "N/A" denotes no model name, no serial no. or no calibration specified. All calibration period of equipment list is one year.

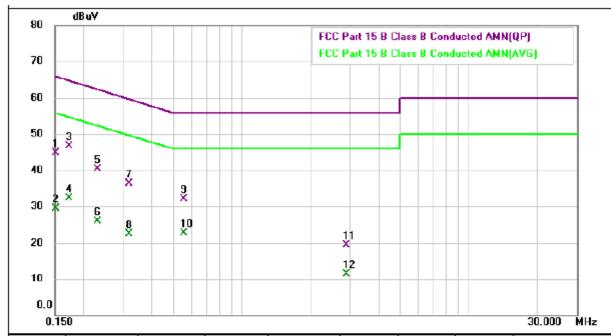
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12 EUT TEST PHOTO Please refer to APPENDIX- EP-Test Setup-2407X001-1/ EP-Support Units-2407X001-3 **13 EUT PHOTOS** Please refer to APPENDIX- EP-External-2407X001-1/ EP-Internal-2407X001-2

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APPENDIX A AC POWER LINE CONDUCTED EMISSIONS

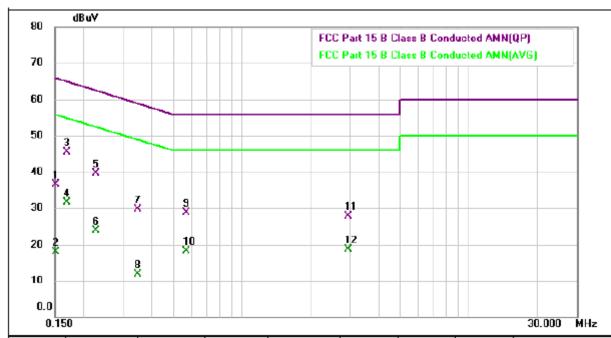
Test Mode	Normal	Tested Date	2024/8/2
Test Frequency	-	Phase	Line



N	0.	Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector	Comment	
IN	0.	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	Detector	Comment	
1		0.150000	35.10	9.64	44.74	66.00	-21.26	QP		
2		0.150000	20.00	9.64	29.64	56.00	-26.36	AVG		
3	*	0.172500	37.10	9.64	46.74	64.84	-18.10	QP		
4		0.172500	22.60	9.64	32.24	54.84	-22.60	AVG		
5		0.231000	30.70	9.65	40.35	62.41	-22.06	QP		
6		0.231000	16.30	9.65	25.95	52.41	-26.46	AVG		
7		0.318750	26.60	9.64	36.24	59.74	-23.50	QP		
8		0.318750	12.80	9.64	22.44	49.74	-27.30	AVG		
9		0.555000	22.40	9.64	32.04	56.00	-23.96	QP		
10		0.555000	13.10	9.64	22.74	46.00	-23.26	AVG		
11		2.881500	9.80	9.72	19.52	56.00	-36.48	QP		
12		2.881500	1.80	9.72	11.52	46.00	-34.48	AVG		

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.
- (3) *: Maximum data x: Over limit !: Over margin

Test Mode	Normal	Tested Date	2024/8/2
Test Frequency	-	Phase	Neutral

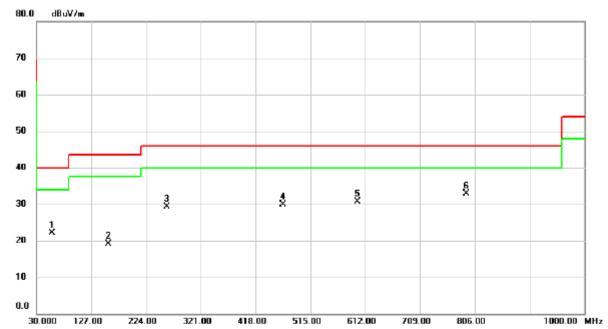


N	0.	Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector	Comment	
IN	0.	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	Detector	Comment	
1		0.150000	27.00	9.64	36.64	66.00	-29.36	QP		
2		0.150000	8.30	9.64	17.94	56.00	-38.06	AVG		
3	*	0.168000	36.00	9.64	45.64	65.06	-19.42	QP		
4		0.168000	21.90	9.64	31.54	55.06	-23.52	AVG		
5		0.226500	30.10	9.64	39.74	62.58	-22.84	QP		
6		0.226500	14.30	9.64	23.94	52.58	-28.64	AVG		
7		0.345750	20.10	9.64	29.74	59.06	-29.32	QP		
8		0.345750	2.30	9.64	11.94	49.06	-37.12	AVG		
9		0.568500	19.30	9.64	28.94	56.00	-27.06	QP		
10		0.568500	8.50	9.64	18.14	46.00	-27.86	AVG		
11		2.940000	18.10	9.72	27.82	56.00	-28.18	QP		
12		2.940000	9.10	9.72	18.82	46.00	-27.18	AVG		

- (1) Measurement Value = Reading Level + Correct Factor.
 (2) Margin Level = Measurement Value Limit Value.
 (3) *: Maximum data x: Over limit !: Over margin

APPENDIX B RADIATED EMISSIONS - 30 MHZ TO 1 GHZ

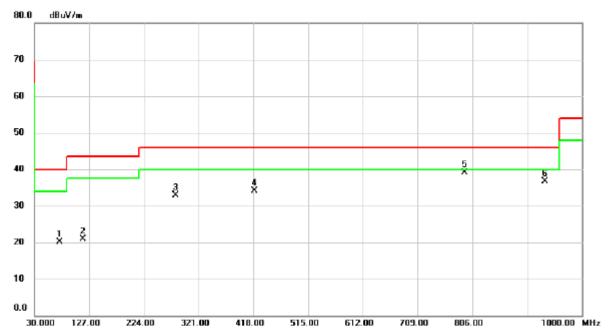
Test Mode	BT(1Mbps)	Test Date	2024/7/23
Test Frequency	2480 MHz	Polarization	Vertical
Temp	24°C	Hum.	63%



No	_	Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector	Height	Degree	Comment
INC	0.	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	Comment
1		58.1300	35.20	-13.07	22.13	40.00	-17.87	peak			
2		157.0700	31.70	-12.51	19.19	43.50	-24.31	peak			
3		260.8600	42.73	-13.45	29.28	46.00	-16.72	peak			
4		466.5000	37.81	-7.83	29.98	46.00	-16.02	peak			
5		598.4200	36.03	-5.34	30.69	46.00	-15.31	peak			
6	*	791.4500	35.45	-2.45	33.00	46.00	-13.00	peak			

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.
- (3) *: Maximum data x: Over limit !: Over margin

Test Mode	BT(1Mbps)	Test Date	2024/7/23
Test Frequency	2480 MHz	Polarization	Horizontal
Temp	24°C	Hum.	63%

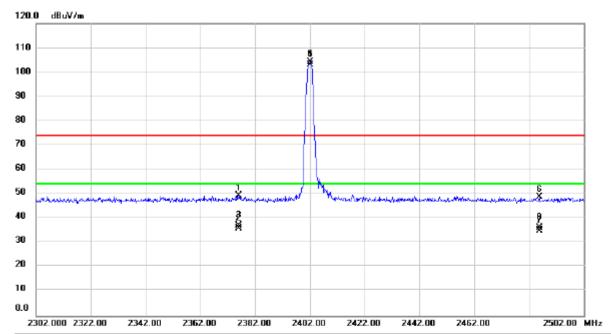


N	_	Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector	Height	Degree	Comment
IN	0.	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	
1		74.6200	36.55	-16.42	20.13	40.00	-19.87	peak			
2		116.3300	36.05	-15.17	20.88	43.50	-22.62	peak			
3		280.2600	45.56	-12.56	33.00	46.00	-13.00	peak			
4		419.9400	43.06	-8.89	34.17	46.00	-11.83	peak			
5	*	792.4200	41.56	-2.44	39.12	46.00	-6.88	peak			
6		935.0100	37.33	-0.64	36.69	46.00	-9.31	peak			

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.
- (3) *: Maximum data x: Over limit !: Over margin

APPENDIX C RADIATED EMISSIONS - ABOVE 1 GHZ

Test Mode	BT(1Mbps)	Test Date	2024/7/26
Test Frequency	2402 MHz	Polarization	Horizontal
Temp	22°C	Hum.	62%



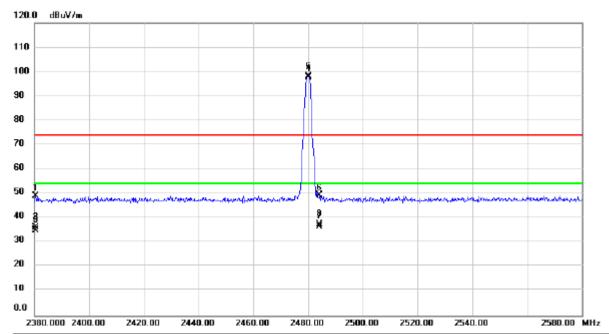
N		Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector	Height	Degree	Comment
IN	0.	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	Comment
1		2376.000	45.94	3.56	49.50	74.00	-24.50	peak			
2		2376.000	32.42	3.56	35.98	54.00	-18.02	AVG			
3		2376.000	33.57	3.56	37.13	54.00	-16.87	AVG			DCF:1.15
4	Х	2402.000	100.78	3.59	104.37	74.00	30.37	peak			
5	*	2402.000	99.36	3.59	102.95	54.00	48.95	AVG			
6		2485.800	45.05	3.72	48.77	74.00	-25.23	peak			
7		2485.800	31.37	3.72	35.09	54.00	-18.91	AVG			
8		2485.800	32.52	3.72	36.24	54.00	-17.76	AVG			DCF:1.15

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.
- (3) *: Maximum data x: Over limit !: Over margin (4) X and * represent fundamental frequency and with no limit.

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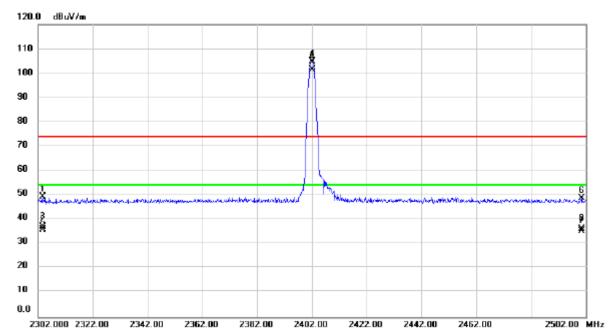
Test Mode	BT(1Mbps)	Test Date	2024/7/26
Test Frequency	2480 MHz	Polarization	Horizontal
Temp	22°C	Hum.	62%



N		Freq.	Reading	Factor	Meas. Level	Limit	Margin	Dotootor	Height	Degree	Comment
14	0.	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	Comment
1		2380.400	45.49	3.56	49.05	74.00	-24.95	peak			
2		2380.400	32.67	3.56	36.23	54.00	-17.77	AVG			DCF:1.15
3		2380.400	31.52	3.56	35.08	54.00	-18.92	AVG			
4	Х	2480.000	94.51	3.70	98.21	74.00	24.21	peak			
5	*	2480.000	94.06	3.70	97.76	54.00	43.76	AVG			
6		2484.200	45.59	3.71	49.30	74.00	-24.70	peak			
7		2484.200	32.62	3.71	36.33	54.00	-17.67	AVG			
8		2484.200	33.77	3.71	37.48	54.00	-16.52	AVG			DCF:1.15

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.
- (3) *: Maximum data x: Over limit !: Over margin
- (4) X and * represent fundamental frequency and with no limit.

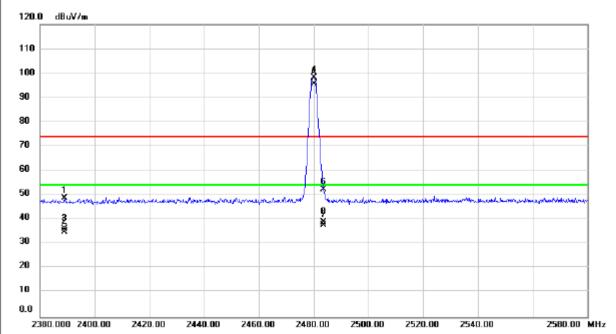
Test Mode	BT(3Mbps)	Test Date	2024/7/26
Test Frequency	2402 MHz	Polarization	Horizontal
Temp	22°C	Hum.	62%



NL	0.	Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector	Height	Degree	Comment
180	0.	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	Comment
1		2303.800	45.95	3.46	49.41	74.00	-24.59	peak			
2		2303.800	32.36	3.46	35.82	54.00	-18.18	AVG			
3		2303.800	33.49	3.46	36.95	54.00	-17.05	AVG			DCF:1.13
4	Χ	2402.000	101.17	3.59	104.76	74.00	30.76	peak			
5	*	2402.000	97.96	3.59	101.55	54.00	47.55	AVG			
6		2500.400	45.05	3.73	48.78	74.00	-25.22	peak			
7		2500.400	31.38	3.73	35.11	54.00	-18.89	AVG			
8		2500.400	32.51	3.73	36.24	54.00	-17.76	AVG			DCF:1.13

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.
- (3) *: Maximum data x: Over limit !: Over margin
 (4) X and * represent fundamental frequency and with no limit.

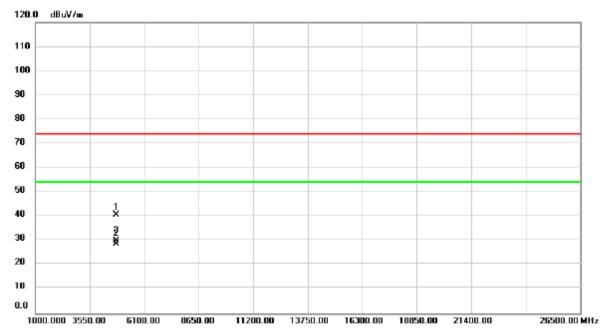
Test Mode	BT(3Mbps)	Test Date	2024/7/26
Test Frequency	2480 MHz	Polarization	Horizontal
Temp	22°C	Hum.	62%



N		Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector	Height	Degree	Comment
140	0.	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	Comment
1		2388.800	45.03	3.58	48.61	74.00	-25.39	peak			
2		2388.800	31.46	3.58	35.04	54.00	-18.96	AVG			
3		2388.800	32.59	3.58	36.17	54.00	-17.83	AVG			DCF:1.13
4	Х	2480.000	94.59	3.70	98.29	74.00	24.29	peak			
5	*	2480.000	91.93	3.70	95.63	54.00	41.63	AVG			
6		2483.600	48.76	3.71	52.47	74.00	-21.53	peak			
7		2483.600	33.99	3.71	37.70	54.00	-16.30	AVG			
8		2483.600	35.12	3.71	38.83	54.00	-15.17	AVG			DCF:1.13

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.
- (3) *: Maximum data x: Over limit !: Over margin
 (4) X and * represent fundamental frequency and with no limit.

Test Mode	BT(1Mbps)	Test Date	2024/7/26
Test Frequency	2402 MHz	Polarization	Vertical
Temp	22°C	Hum.	62%



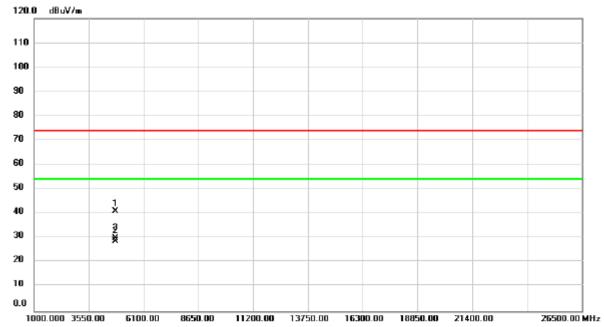
N	o.	Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector	Height	Degree	Comment
14	0.	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	Comment
1		4804.000	40.74	-0.20	40.54	74.00	-33.46	peak			
2		4804.000	28.95	-0.20	28.75	54.00	-25.25	AVG			
3	*	4804.000	30.10	-0.20	29.90	54.00	-24.10	AVG			DCF:1.15

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value. (3) *: Maximum data x: Over limit !: Over margin

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Test Mode	BT(1Mbps)	Test Date	2024/7/26
Test Frequency	2402 MHz	Polarization	Horizontal
Temp	22°C	Hum.	62%



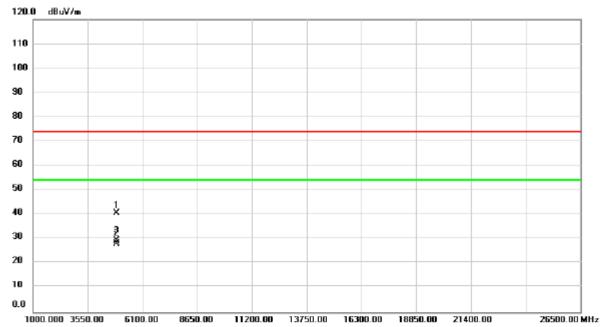
N	0.	Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector	Height	Degree	Comment
14	0.	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	Comment
1		4804.000	41.08	-0.20	40.88	74.00	-33.12	peak			
2		4804.000	28.96	-0.20	28.76	54.00	-25.24	AVG			
3	*	4804.000	30.11	-0.20	29.91	54.00	-24.09	AVG			DCF:1.15

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.
- (3) *: Maximum data x: Over limit !: Over margin

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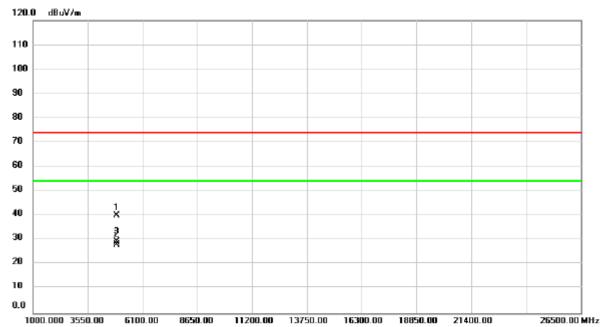
Test Mode	BT(1Mbps)	Test Date	2024/7/26
Test Frequency	2441 MHz	Polarization	Vertical
Temp	22°C	Hum.	62%



N	_	Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector	Height	Degree	Comment
14	0.	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	Comment
1		4882.000	40.77	-0.05	40.72	74.00	-33.28	peak			
2		4882.000	28.23	-0.05	28.18	54.00	-25.82	AVG			·
3	*	4882.000	29.38	-0.05	29.33	54.00	-24.67	AVG			DCF:1.15

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.
 (3) *: Maximum data x: Over limit !: Over margin

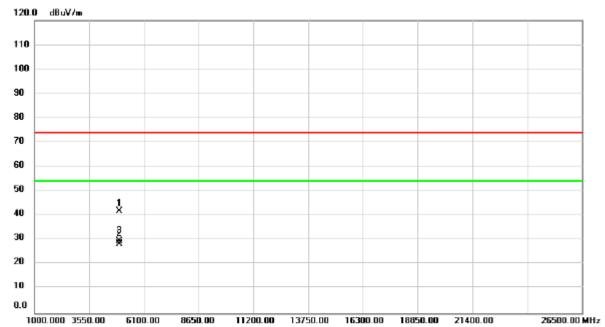
Test Mode	BT(1Mbps)	Test Date	2024/7/26
Test Frequency	2441 MHz	Polarization	Horizontal
Temp	22°C	Hum.	62%



N	o.	Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector		Degree	Comment
14	U.	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	Comment
1		4882.000	39.98	-0.05	39.93	74.00	-34.07	peak			
2		4882.000	28.18	-0.05	28.13	54.00	-25.87	AVG			
3	*	4882.000	29.33	-0.05	29.28	54.00	-24.72	AVG			DCF:1.15

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.
- (3) *: Maximum data x: Over limit !: Over margin

Test Mode	BT(1Mbps)	Test Date	2024/7/26
Test Frequency	2480 MHz	Polarization	Vertical
Temp	22°C	Hum.	62%



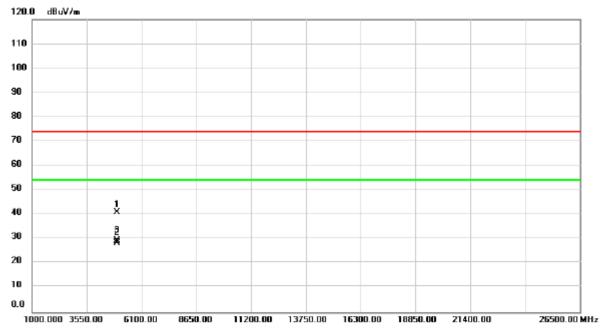
N	о.	Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector	Height	Degree	Comment
14	0.	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	Comment
1		4960.000	41.91	0.08	41.99	74.00	-32.01	peak			
2		4960.000	28.36	0.08	28.44	54.00	-25.56	AVG			
3	*	4960.000	29.51	0.08	29.59	54.00	-24.41	AVG			DCF:1.15

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.(3) *: Maximum data x: Over limit !: Over margin

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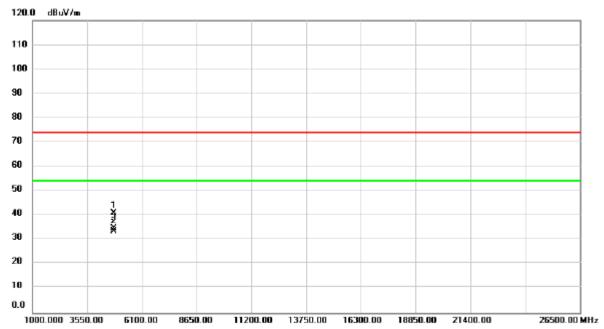
Test Mode	BT(1Mbps)	Test Date	2024/7/26
Test Frequency	2480 MHz	Polarization	Horizontal
Temp	22°C	Hum.	62%



N	о.	Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector	Height	Degree	Comment
14	0.	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	Comment
1		4960.000	40.96	0.08	41.04	74.00	-32.96	peak			
2		4960.000	28.13	0.08	28.21	54.00	-25.79	AVG			
3	*	4960.000	29.28	0.08	29.36	54.00	-24.64	AVG			DCF:1.15

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.
- (3) *: Maximum data x: Over limit !: Over margin

Test Mode	BT(3Mbps)	Test Date	2024/7/26
Test Frequency	2402 MHz	Polarization	Vertical
Temp	22°C	Hum.	62%



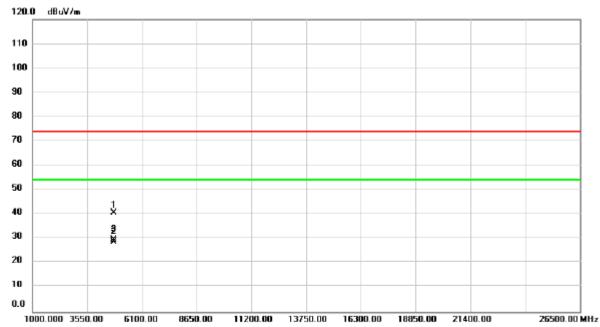
N	0.	Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector	Height	Degree	Comment
14	0.	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	Comment
1		4804.000	41.02	-0.20	40.82	74.00	-33.18	peak			
2		4804.000	33.76	-0.20	33.56	54.00	-20.44	AVG			
3	*	4804.000	34.89	-0.20	34.69	54.00	-19.31	AVG			DCF:1.13

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.
 (3) *: Maximum data x: Over limit !: Over margin

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Test Mode	BT(3Mbps)	Test Date	2024/7/26
Test Frequency	2402 MHz	Polarization	Horizontal
Temp	22°C	Hum.	62%



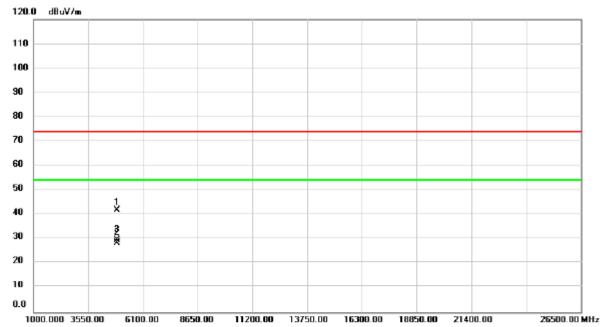
N	lo.	Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector	Height	Degree	Comment
14	ΙΟ.	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	Comment
1		4804.000	40.79	-0.20	40.59	74.00	-33.41	peak			
2		4804.000	28.72	-0.20	28.52	54.00	-25.48	AVG			
3	*	4804.000	29.85	-0.20	29.65	54.00	-24.35	AVG			DCF:1.13

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value. (3) *: Maximum data x: Over limit !: Over margin

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Test Mode	BT(3Mbps)	Test Date	2024/7/26
Test Frequency	2441 MHz	Polarization	Vertical
Temp	22°C	Hum.	62%



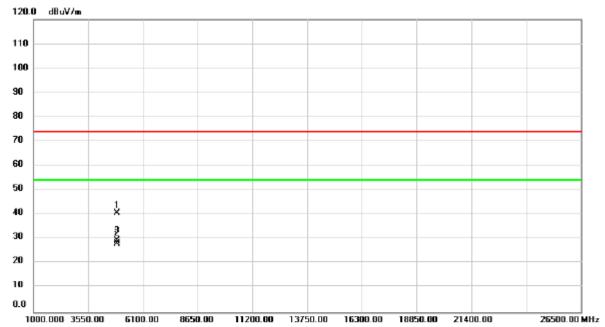
N	О.	Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector	Height	Degree	Comment
IN	0.	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	Comment
1		4882.000	41.98	-0.05	41.93	74.00	-32.07	peak			
2		4882.000	28.38	-0.05	28.33	54.00	-25.67	AVG			
3	*	4882.000	29.51	-0.05	29.46	54.00	-24.54	AVG			DCF:1.13

REMARKS:

- Measurement Value = Reading Level + Correct Factor.
 Margin Level = Measurement Value Limit Value.
 *: Maximum data x: Over limit !: Over margin

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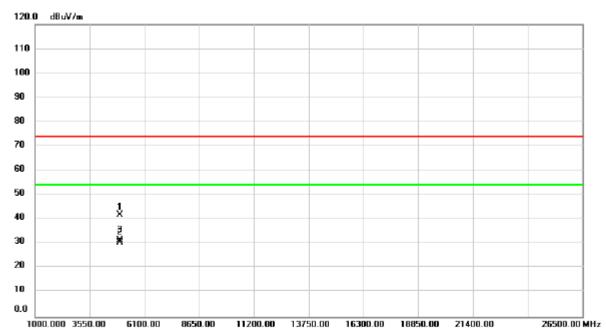
Test Mode	BT(3Mbps)	Test Date	2024/7/26
Test Frequency	2441 MHz	Polarization	Horizontal
Temp	22°C	Hum.	62%



N	0.	Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector	Height	Degree	Comment
IN	0.	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	Comment
1		4882.000	40.63	-0.05	40.58	74.00	-33.42	peak			
2		4882.000	28.24	-0.05	28.19	54.00	-25.81	AVG			
3	*	4882.000	29.37	-0.05	29.32	54.00	-24.68	AVG			DCF:1.13

- Measurement Value = Reading Level + Correct Factor.
 Margin Level = Measurement Value Limit Value.
 *: Maximum data x: Over limit !: Over margin

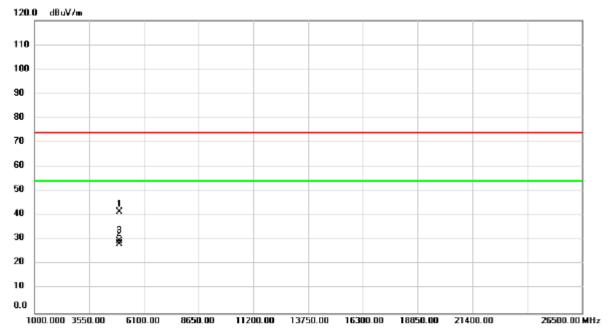
Test Mode	BT(3Mbps)	Test Date	2024/7/26
Test Frequency	2480 MHz	Polarization	Vertical
Temp	22°C	Hum.	62%



N	lo.	Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector	Height	Degree	Comment
IN.	ΙΟ.	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	Comment
1		4960.000	41.79	0.08	41.87	74.00	-32.13	peak			
2		4960.000	30.29	0.08	30.37	54.00	-23.63	AVG			
3	*	4960.000	31.42	0.08	31.50	54.00	-22.50	AVG			DCF:1.13

- (1) Measurement Value = Reading Level + Correct Factor.
 (2) Margin Level = Measurement Value Limit Value.
 (3) *: Maximum data x: Over limit !: Over margin

Test Mode	BT(3Mbps)	Test Date	2024/7/26
Test Frequency	2480 MHz	Polarization	Horizontal
Temp	22°C	Hum.	62%



N	0.	Freq.	Reading	Factor	Meas. Level	Limit	Margin	Detector	Height	Degree	Comment
IN	0.	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	Comment
1		4960.000	41.45	0.08	41.53	74.00	-32.47	peak			
2		4960.000	28.31	0.08	28.39	54.00	-25.61	AVG			
3	*	4960.000	29.44	0.08	29.52	54.00	-24.48	AVG			DCF:1.13

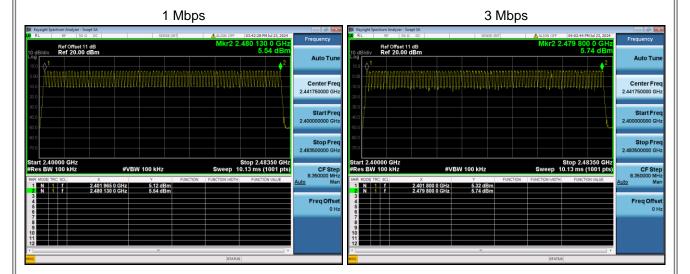
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.
- (3) *: Maximum data x: Over limit !: Over margin



APPENDIX D NUMBER OF HOPPING CHANNEL

Test Mode

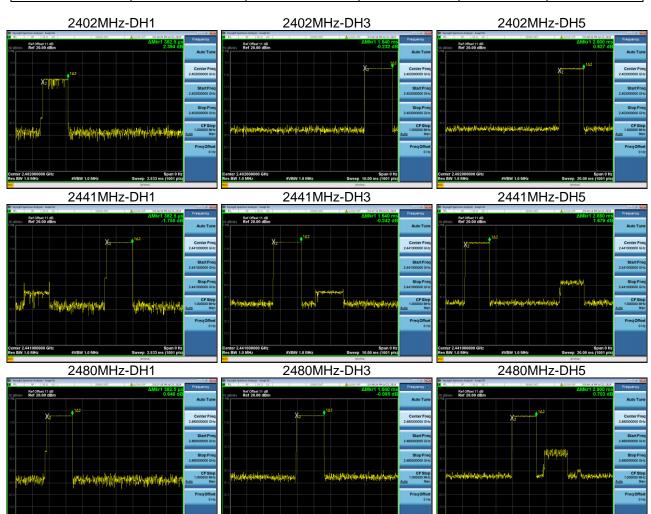
Test Mode	Number of Hopping Channel	≥ Limit	Test Result
1 Mbps	79	15	Pass
3 Mbps	79	15	Pass



APPENDIX E AVERAGE TIME OF OCCUPANCY

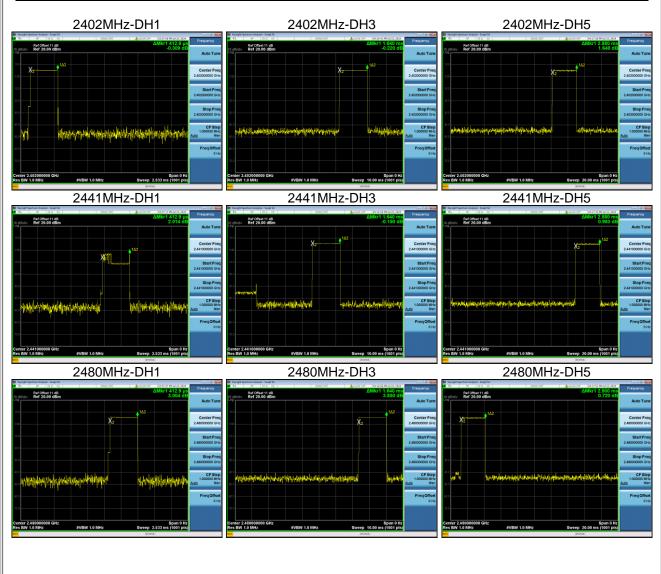
Test Mode	1Mbps
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Data Packet	Frequency (MHz)	Pulse Duration (ms)	Dwell Time (s)	Limits (s)	Test Result
DH5	2402	2.9000	0.3093	0.4000	Pass
DH3	2402	1.6400	0.2624	0.4000	Pass
DH1	2402	0.3825	0.1224	0.4000	Pass
DH5	2441	2.8800	0.3072	0.4000	Pass
DH3	2441	1.6400	0.2624	0.4000	Pass
DH1	2441	0.3825	0.1224	0.4000	Pass
DH5	2480	2.9000	0.3093	0.4000	Pass
DH3	2480	1.6400	0.2624	0.4000	Pass
DH1	2480	0.3825	0.1224	0.4000	Pass



Test Mode	3Mbps

Data Packet	Frequency (MHz)	Pulse Duration(ms)	Dwell Time(s)	Limits(s)	Test Result
3DH5	2402	2.8800	0.3072	0.4000	Pass
3DH3	2402	1.6400	0.2624	0.4000	Pass
3DH1	2402	0.4129	0.1321	0.4000	Pass
3DH5	2441	2.8800	0.3072	0.4000	Pass
3DH3	2441	1.6400	0.2624	0.4000	Pass
3DH1	2441	0.4129	0.1321	0.4000	Pass
3DH5	2480	2.9000	0.3093	0.4000	Pass
3DH3	2480	1.6400	0.2624	0.4000	Pass
3DH1	2480	0.4129	0.1321	0.4000	Pass





APPENDIX F HOPPING CHANNEL SEPARATION MEASUREMENT

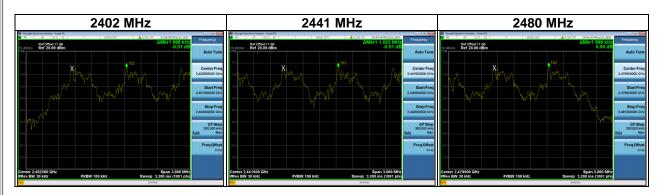
Test Mode Hopping on _1Mbps

Frequency (MHz)	Channel Separation (MHz)	2/3 of 20dB Bandwidth (MHz)	Test Result
2402	1.010	0.667	Pass
2441	0.993	0.672	Pass
2480	1.008	0.675	Pass



Test Mode	Hopping on	3Mbps
TOST WIDGE	n lopping on .	

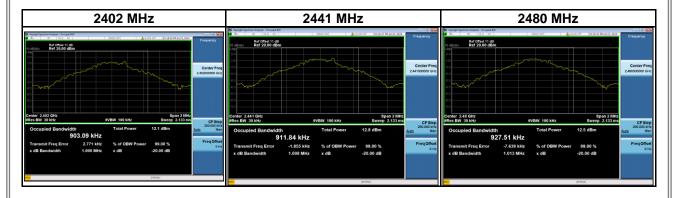
Frequency (MHz)	Channel Separation (MHz)	2/3 of 20dB Bandwidth (MHz)	Test Result
2402	0.998	0.883	Pass
2441	1.003	0.892	Pass
2480	0.998	0.878	Pass



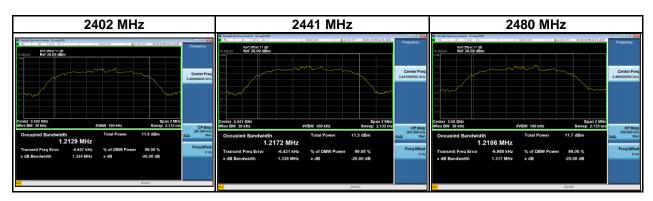
APPENDIX G BANDWIDTH

Test Mode	1Mbps
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Frequency (MHz)	20dB Bandwidth (MHz)	99% Occupied BW (MHz)	Test Result
2402	1.000	903.090	Pass
2441	1.008	911.840	Pass
2480	1.013	927.510	Pass



Frequency (MHz)	20dB Bandwidth (MHz)	99% Occupied BW (MHz)	Test Result
2402	1.324	1.213	Pass
2441	1.338	1.217	Pass
2480	1.317	1.219	Pass



APPENDIX H OUTPUT POWER

Test Mode	1Mbps			Tested Date	2024/7/23
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Test Result
2402	11.64	0.0146	21.00	0.1250	Pass
2441	12.44	0.0175	21.00	0.1250	Pass
2480	12.55	0.0180	21.00	0.1250	Pass

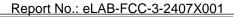
Test Mode 2Mbps Tested Date 2024/7/23	
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Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Test Result
2402	11.15	10.82	0.0121	0.1250	Pass
2441	11.35	10.77	0.0119	0.1250	Pass
2480	11.55	10.92	0.0124	0.1250	Pass

Test Mode	3Mbps	Tested Date	2024/7/23
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Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Test Result
2402	11.15	0.0130	21.00	0.1250	Pass
2441	11.35	0.0136	21.00	0.1250	Pass
2480	11.55	0.0143	21.00	0.1250	Pass

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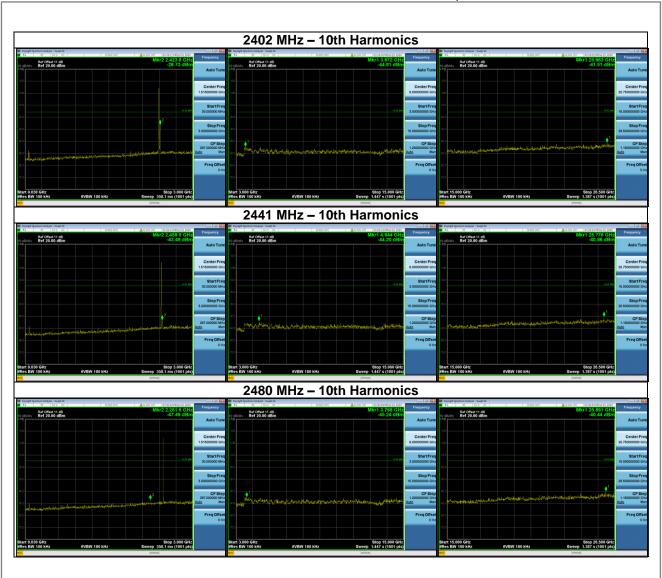




APPENDIX I ANTENNA CONDUCTED SPURIOUS EMISSION

Test Mode 1Mbps 2402 MHz_ Lower 2480 MHz_ Upper Ref Offset 11 dB Ref 20.00 dBm Ref Offset 11 dB Ref 20.00 dBm Center Fre 2.523000000 GH Center Fre 2.357000000 GH CF Step 2402 MHz_ Hopping on mode (Lower) 2480 MHz_ Hopping on mode (Upper) Ref Offset 11 dB Ref 20.00 dBm Ref Offset 11 dB Ref 20.00 dBm Center Fre Stop Fre 5.21 dBm -51.05 dBm -51.06 dBm -48.97 dBm











End of Test Report