

FCC 15.247 & RSS-247 2.4GHz Test Report

for

Samsung Electronics Co., Ltd.

**129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do,
16677 Republic of Korea**

Product Name : Wi-Fi/BT/Zigbee Transceiver
Model Name : WCHB41M
Brand : SAMSUNG
FCC ID : A3LWCHB41M
IC : 649E-WCHB41M

**Prepared by: : AUDIX Technology Corporation,
EMC Department**



The test report is based on a single evaluation of one sample of the above-mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab logo.

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TEST REPORT

Applicant : Samsung Electronics Co., Ltd.
Manufacturer : Samsung Electronics Co., Ltd.
Factory : #1 CHEMTRONICS Co., Ltd
 #2 CHEMTROVINA COMPANY LIMITED
 #3 SJIT VINA Co., Ltd
 #4 SJIT CO., LTD.
 #5 Chengdu Xuguang Technology Co., Ltd.
 #6 XUGUANG TECHNOLOGY (VIETNAM) COMPANY LIMITED

EUT Description

- (1) Product : Wi-Fi/BT/Zigbee Transceiver
(2) Model : WCHB41M
(3) Brand : SAMSUNG
(4) Power Supply : DC 5V

Applicable Standards:

Title 47 CFR FCC Part 15 Subpart C
RSS-Gen (Issue 5) +A2, February 2021
RSS-247 (Issue 4), July 2025

Audix Technology Corp. tested the equipment mentioned in accordance with the requirements set forth in the above standards. Test results indicate that the equipment tested is capable of demonstrating compliance with the requirements as documented within this report.

Audix Technology Corp. does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens and samples.

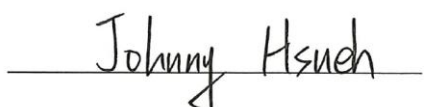
Date of Report: 2025. 12. 09

Reviewed by:



(Sunnies Huang/Administrator)

Approved by:



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1. REVISION RECORD OF TEST REPORT

Edition No	Issued Date	Revision Summary	Report Number
0	2025. 12. 09	Original Report	EM-F250675

2. SUMMARY OF TEST RESULTS

Rule		Description	Results
FCC	IC		
15.207	RSS-Gen §8.8	Conducted Emission	PASS
15.247(d)/ 15.205	RSS-Gen §8.9 RSS-247 §5.5	Radiated Band Edge and Radiated Spurious Emission	PASS
15.247(a)(2)	RSS-247 §5.2(1)	DTS/Occupied Bandwidth	PASS
15.247(b)(3)	RSS-247 §5.4(4)	Maximum Peak Output Power	PASS
15.247(d)	RSS-247 §5.5	Conducted Band Edges and Conducted Spurious Emission	PASS
15.247 (e)	RSS-247 §5.2(2)	Peak Power Spectral Density	PASS
15.203	---	Antenna Requirement	Compliance
Note: The uncertainties value is not used in determining the result.			

3. GENERAL INFORMATION

The EUT's information described in this section are all provided by the applicant.

3.1. Description of Application

Applicant	Samsung Electronics Co., Ltd. 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677 Republic of Korea
Manufacturer	Samsung Electronics Co., Ltd. 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677 Republic of Korea
Factory	#1 CHEMTRONICS Co., Ltd 35, Hyeongjero, Namsa-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea #2 CHEMTROVINA COMPANY LIMITED 54-11, Dongtanhana 1-gil, Hwaseong-si, GyeonggiDo, 18423, Republic of Korea #3 SJIT VINA Co., Ltd Lot X2, Ho Nai Industrial Zone, Ho Nai 3 Commune, Trang Bom District, Dong Nai Province, Vietnam #4 SJIT CO., LTD. #54-11, Dongtanhana 1gil, Hwaseong-si, GyeonggiDo, KoreaGuangdong Jingrong Technology Co., Ltd. #5 Chengdu Xuguang Technology Co., Ltd. Building 1, Floors 1-2 and Building 2, Wenbai Avenue No.998, Baihe Street, Economic and Technological Development Zone (Longquanyi District), Chengdu City, Sichuan Province, P.R. China #6 XUGUANG TECHNOLOGY (VIETNAM) COMPANY LIMITED Factory No. 4, Lot CN1, An Duong Industrial Park, Hong Phong Commune, An Duong District, Hai Phong City, Vietnam
Product	Wi-Fi/BT/Zigbee Transceiver
Model	WCHB41M
Brand	SAMSUNG

3.2. Description of EUT

Test Model	WCHB41M		
Serial Number	N/A		
Power Rating	DC 5V		
Software Version	WiFi: FC 1 BT: FC 1 Zigbee: FC 1		
RF Features	WLAN: 802.11 a/b/g/n/ac/ax, Bluetooth: BT and BLE (BT 5.4), Zigbee		
Transmit Type	2.4 GHz		
	802.11b	1T1R	
	802.11g	1T1R	
	802.11n-HT20/40	2T2R	
	802.11ax-HE20/40	2T2R	
	BT/BLE	1T1R	
	Zigbee	1T1R	
	U-NII Bands		
	802.11a	1T1R	
	802.11n-HT20/40	2T2R	
	802.11ac-VHT20/40/80	2T2R	
	802.11ax-HE20/40/80	2T2R	
	WLAN 6E Bands		
	802.11a	1T1R	
	802.11ax-HE20/40/80	2T2R	
	The MIMO is uncorrelated and supported SDM (Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).		
Device Category	☐ Outdoor Access Point ☐ Fixed point-to-point Access Point ☐ Indoor Access Point ☒ Mobile and Portable client device		
Sample Status	Trial sample		
Test Sample	Sample No.	Test Item	Firmware
	02	AC Conduction, RSE,	N/A
	01	RF Conducted	N/A
Date of Receipt	2025. 09. 15		
Date of Test	2025. 10. 15 ~ 29		
Interface Ports of EUT	None		
Accessories Supplied	None		

Note: Pursuant ISO 17025:2017 section 7.8.2, Audix Technology Corp. does not assume responsibility for all EUT's information including RF features, transmit type, antenna information...etc are provided by customer.

3.3. Reference Test Guidance

KDB 662911 D01 Multiple Transmitter Output v02r01
ANSI C63.10-2020 & ANSI C63.10-2020 + Cor.1-2023

3.4. Antenna Information

No.	Antenna Part Number	Manufacture	Antenna Type	Frequency (MHz)	Max Gain(dBi)	
					BT 0	BT 1/ Zigbee
1.	WCHB41M	Shenzhen Hanyang Antenna Co., Ltd.	Chip Antenna	2400	-1.23	-1.64
				2410	-1.19	-1.45
				2420	-1.20	-1.27
				2430	-1.26	-1.07
				2440	-1.42	-0.91
				2450	-1.43	-0.81
				2460	-1.54	-0.72
				2470	-1.77	-0.65
				2480	-2.02	-0.51

No.	Antenna Part Number	Manufacture	Antenna Type	Frequency (MHz)	Max Gain(dBi)	
					ANT 0	ANT 1
2.	WCHB41M	Shenzhen Hanyang Antenna Co., Ltd.	Chip Antenna	2400	-0.44	-2.24
				2410	-0.38	-2.28
				2420	-0.55	-2.33
				2430	-0.66	-2.38
				2440	-0.92	-2.36
				2450	-1.14	-2.2
				2460	-1.23	-2.11
				2470	-1.25	-2.04
				2480	-1.37	-1.88
				5150	-1.01	-1.75
				5250	-0.44	-1.24
				5350	-1.60	-1.87
				5450	-1.92	-1.24
				5550	-1.84	-1.19
				5650	-1.95	-0.03
				5750	-2.46	0.19
				5850	-2.94	-0.10
				5925	-2.89	0.37
				6075	-2.27	0.04
				6225	-1.31	-0.29
				6375	-0.50	-0.31
				6425	-0.70	-0.27
				6675	-0.89	0.13
				6825	-0.08	0.34
				6975	-0.04	-0.70
				7125	-0.73	-1.07

According to KDB 662911 D01 d) ii), transmit signals are completely uncorrelated, then
Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/N_{ANT}]$ dBi

Note 1. 2.4G: Directional gain =

2400~2500MHz: Directional gain = $10 \log[(10^{-2.88/10} + 10^{-1.23/10})/2] = -1.23$ dBi

Note 2. 5G: Directional gain =

5150 ~ 5250MHz: $= 10 \log[(10^{-1.24/10} + 10^{-0.44/10})/2] = -0.82$ dBi

5250 ~ 5350MHz: $= 10 \log[(10^{-1.24/10} + 10^{-0.44/10})/2] = -0.82$ dBi

5850 ~ 5925MHz: $= 10 \log[(10^{0.37/10} + 10^{-2.89/10})/2] = -0.96$ dBi

Note 3. UNII Band (WLAN 6G):

5925~6375MHz: Directional gain = $10 \log[(10^{-0.31/10} + 10^{0.5/10})/2] = -0.4$ dBi

6375~6525MHz: Directional gain = $10 \log[(10^{-0.31/10} + 10^{0.5/10})/2] = -0.4$ dBi

6525~6825MHz: Directional gain = $10 \log[(10^{0.34/10} + 10^{-0.08/10})/2] = 0.14$ dBi

6975~7125MHz: Directional gain = $10 \log[(10^{-0.7/10} + 10^{-0.04/10})/2] = -0.36$ dBi

3.5. EUT Specifications Assessed in Current Report

Mode	Fundamental Range (MHz)	Channel Number	Modulation	Data Rate (Mbps)
ZigBee	2405-2480	16	DSSS (O-QPSK)	Up to 0.25

Channel List			
ZigBee			
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
11	2405	19	2445
12	2410	20	2450
13	2415	21	2455
14	2420	22	2460
15	2425	23	2465
16	2430	24	2470
17	2435	25	2475
18	2440	26	2480

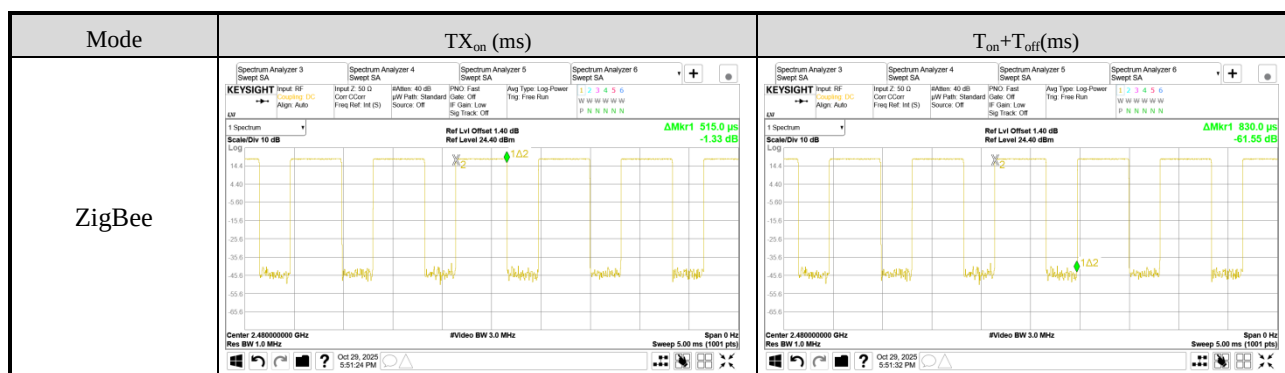
3.6. Description of Key Components

None

3.7. Test Configuration

Mode	TX _{on} (ms)	TX _{on+off} (ms)	Duty Cycle (x)	Duty Cycle Factor [10log(1/x)] (dB)
ZigBee	0.515	0.830	0.620	2.073

Note: When duty cycle is less than 98% (0.98) that duty cycle factor 10log(1/x) is needed to add in conducted test items measured in average detector.



Item	Mode
AC Conduction Test Case	Normal Operation

Item		Mode	Data Rate	Test Channel
Radiated Test Case	Radiated Spurious Emission (30MHz~1GHz) ^{Note 1,2}	ZigBee	---	11
Radiated Test Case	Radiated Band Edge ^{Note1}	ZigBee	---	11/26
	Radiated Spurious Emission ^{Note1 & 2}	ZigBee	---	11/18/26
Conducted Test Case	DTS/Occupied Bandwidth	ZigBee	---	11/18/26
	Peak Output Power	ZigBee	---	11/18/26
	Band Edge	ZigBee	---	11/18/26
	Spurious Emission	ZigBee	---	11/18/26
	Peak Power Spectral Density	ZigBee	---	11/18/26

Note 1: ☐ Mobile Device ☒ Portable Device and 3 axis were assessed. The worst scenario for Radiated Spurious Emission as follow: ☒ Lie ☐ Side ☐ Stand

Note 2: Low, mid, and high channels were measured, only the worst channel of each modulation was presented in this report.

Note 3: The data rates were selected based on preliminary testing that identified rate as the worst case for output power.

3.8. Output Power Setting

Mode	
ZigBee	
Centre Frequency (MHz)	Power Setting
2405	20.000
2440	20.000
2480	20.000

3.9. Tested Supporting System List

3.9.1. Support Peripheral Unit

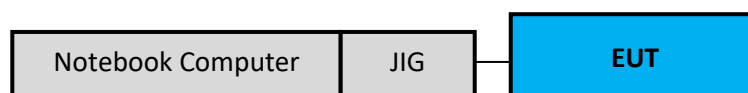
No.	Product	Brand	Model No.	Serial No.	Approval
1	Notebook Computer	acer	MS2343	N/A	N/A
2	JIG	N/A	N/A	N/A	N/A

3.9.2. Cable Lists

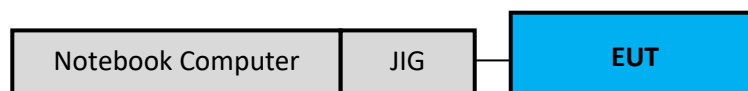
No.	Cable Description Of The Above Support Units
1	Bus Cable: Unshielded, Undetachable, 0.1 m

3.10. Setup Configuration

3.10.1. EUT Configuration for Power Line & Radiated Emission



3.10.2. EUT Configuration for RF Conducted Test Items



3.11. Operating Condition of EUT

Test program "WCN Combo Tool" is used for enabling EUT RF function under continues transmitting and choosing data rate/ channel.

3.12. Description of Test Facility

Name of Test Firm	Audix Technology Corporation / EMC Department No. 491, Zhongfu Rd., Linkou Dist., New Taipei City 244, Taiwan Tel: +886-2-26092133 Fax: +886-2-26099303 Website : www.audixtech.com Contact e-mail: attemc_report@audixtech.com
Accreditations	The laboratory is accredited by following organizations under ISO/IEC 17025:2017 (1) NVLAP(USA) NVLAP Lab Code 200077-0 (2) TAF(Taiwan) No. 1724
Test Facilities	FCC OET Designation Number under APEC MRA by NCC is : TW1724 ISED CAB Identifier Number under APEC TEL MRA by NCC is TW1724 (1) No.7 Shielded Room (2) No.1 3m Semi Anechoic Chamber

3.13.Measurement Uncertainty

The measurement uncertainty levels have been estimated as specified in ETSI TR 100 028-2001

Test Items/Facilities			Frequency Range	Uncertainty
Conduction Test	☒	No. 7 Shielded Room	9kHz-150kHz	±3.7dB
	150kHz-30MHz		±3.4dB	
	☐	No. 8 Shielded Room	9kHz-150kHz	±3.7dB
	150kHz-30MHz		±3.4dB	
Radiation Test	☒	No.1 3m Semi Anechoic Chamber	30MHz-200MHz, 3m, Horizontal	±4.0dB
	200MHz-1000MHz, 3m, Horizontal		±4.0dB	
	30MHz-200MHz, 3m, Vertical		±4.8dB	
	200MHz-1000MHz, 3m, Vertical		±4.5dB	
	1GHz-6GHz, 3m		±4.2dB	
	6GHz-18GHz, 3m		±4.0dB	
	☐	No.3 3m Semi Anechoic Chamber	30MHz-200MHz, 3m, Horizontal	±4.3dB
	200MHz-1000MHz, 3m, Horizontal		±4.0dB	
	30MHz-200MHz, 3m, Vertical		±4.7dB	
	200MHz-1000MHz, 3m, Vertical		±4.5dB	
	1GHz-6GHz, 3m		±4.7dB	
	6GHz-18GHz, 3m		±4.4dB	
	☐	No.4 3m Semi Anechoic Chamber	30MHz-200MHz, 3m, Horizontal	±3.9dB
	200MHz-1000MHz, 3m, Horizontal		±3.9dB	
	30MHz-200MHz, 3m, Vertical		±4.6dB	
	200MHz-1000MHz, 3m, Vertical		±4.3dB	
	1GHz-6GHz, 3m		±4.6dB	
	6GHz-18GHz, 3m		±4.1dB	
	☐	No.5 3m Semi Anechoic Chamber	30MHz-200MHz, 3m, Horizontal	±4.4dB
	200MHz-1000MHz, 3m, Horizontal		±4.2dB	
	30MHz-200MHz, 3m, Vertical		±4.9dB	
	200MHz-1000MHz, 3m, Vertical		±5.1dB	
	1GHz-6GHz, 3m		±4.4dB	
	6GHz-18GHz, 3m		±4.0dB	
		Radiated emissions (18GHz-40GHz)		18GHz-40GHz, 3m

Remark : Uncertainty = $k_{uc}(y)$

Test Item	Uncertainty
Bandwidth	±0.48%
Maximum peak output power	± 0.8dB
Power spectral density	±0.5dB
Conducted Emission Limitations	±1.24 dB

4. MEASUREMENT EQUIPMENT LIST

4.1. Conducted Emission Measurement

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Test Receiver	R&S	ESR3	103114	2025.06.02	1 Year
2.	A.M.N.	R&S	ESH2-Z5	100366	2024.11.01	1 Year
3.	L.I.S.N.	Kyoritsu	KNW-407	8-1370-9	2025.02.05	1 Year
4.	Pulse Limiter	R&S	ESH3-Z2	101495	2024.12.07	1 Year
5.	Digital Thermo-Hygro Meter	iMax	HTC-1	No.7 S/R	2025.04.09	1 Year
6.	Signal Cable	Thermax/CDT	RG-142	CE-07	2025.05.08	1 Year
7.	Test Software	Audix	e3	V9 18621a	N.C.R.	N.C.R.

4.2. Radiated Emission Measurement

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9010A-526	MY53400071	2025.08.07	1 Year
2.	Spectrum Analyzer	Keysight	N9010B-544	MY55460198	2025.07.09	1 Year
3.	Test Receiver	R&S	ESCS30	100338	2025.06.14	1 Year
4.	Amplifier	HP	8447D	2944A06305	2024.12.16	1 Year
5.	Microwave Preamplifier	Agilent	8449B	3008A02678	2025.02.12	1 Year
6.	Microwave Preamplifier	HP	8449B	3008A01284	2025.07.07	1 Year
7.	Microwave Amplifier	Keysight	83051A	MY56480113	2025.09.05	1 Year
8.	Loop antenna	TESEQ	HLA 6121	60478	2025.06.05	1 Year
9.	Bilog Antenna	TESEQ	CBL6112D	33821	2025.02.08	1 Year
10.	Horn Antenna	EMCO	3115	9112-3775	2025.05.06	1 Year
11.	Horn Antenna	COM-POWER	AH-840	101092	2025.01.09	1 Year
12.	2.4GHz Notch Filter	K&L Microwave	7NSL10-2441.5/E13 0.5-O/O	1	2025.04.10	1 Year
13.	High-Pass Filter	Microwave	H3G018G1	484796	2025.04.10	1 Year
14.	Coaxial Cable	MIYAZAKI	5D2W	RE-11	2025.01.03	1 Year
15.	Coaxial Cable	HUBER+SUHNER	SUCOFLEX 106	RE-14	2025.01.03	1 Year
16.	Coaxial Cable	HUBER+SUHNER	SUCOFLEX 102	RE-30	2025.08.19	1 Year
17.	Digital Thermo-Hygro Meter	iMax	HTC-1	No.1 3m A/C	2025.04.09	1 Year
18.	Test Software	Audix	e3	V9 18621a	N.C.R.	N.C.R.

4.3. RF Conducted Measurement

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Keysight	N9010B	MY65100101	2025.05.05	1 Year
2.	Spectrum Analyzer	Keysight	N9010B	MY65100102	2025.05.14	1 Year
3.	Power Meter	Anritsu	ML2495A	2127005	2024.11.19	1 Year
4.	Power Sensor	Anritsu	MA2411B	1911360	2024.11.30	1 Year
5.	Digital Thermo-Hygro Meter	iMax	HTC-1	RF-03	2025.04.09	1 Year

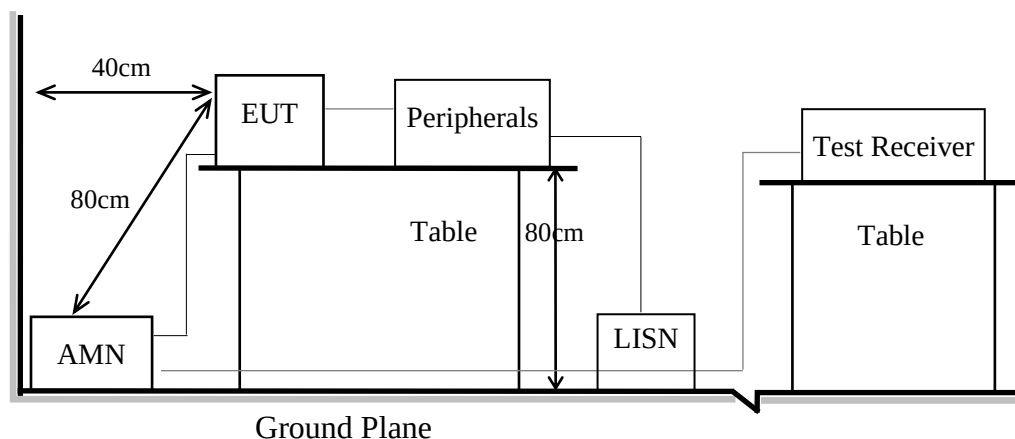
5. CONDUCTED EMISSION

5.1. Block Diagram of Test Setup

5.1.1. Block Diagram of EUT

Indicated as section 3.10

5.1.2. Shielded Room Setup Diagram



5.2. Conducted Emission Limit

Frequency	Conducted Limit	
	Quasi-Peak Level	Average Level
150kHz ~ 500kHz	66 ~ 56 dB μ V	56 ~ 46 dB μ V
500kHz ~ 5MHz	56 dB μ V	46 dB μ V
5MHz ~ 30MHz	60 dB μ V	50 dB μ V

Remark1.: If the average limit is met when using a Quasi-Peak detector, the measurement using the average detector is not required.

2.: The lower limit applies to the band edges.

5.3. Test Procedure

- 5.3.1. To set up the EUT as indicated in ANSI C63.10. The EUT was placed on the table which has 80 cm height to the ground and 40 cm distance to the conducting wall.
- 5.3.2. Power supplier of the EUT was connected to the AC mains through an Artificial Mains Network (A.M.N.).
- 5.3.3. The AC power supplies to all peripheral devices must be provided through line impedance stabilization network (L.I.S.N.)
- 5.3.4. Checking frequency range from 150kHz to 30 MHz and record the emission which does not have 20 dB below limit.

5.4. Test Results

Please refer to Appendix A.

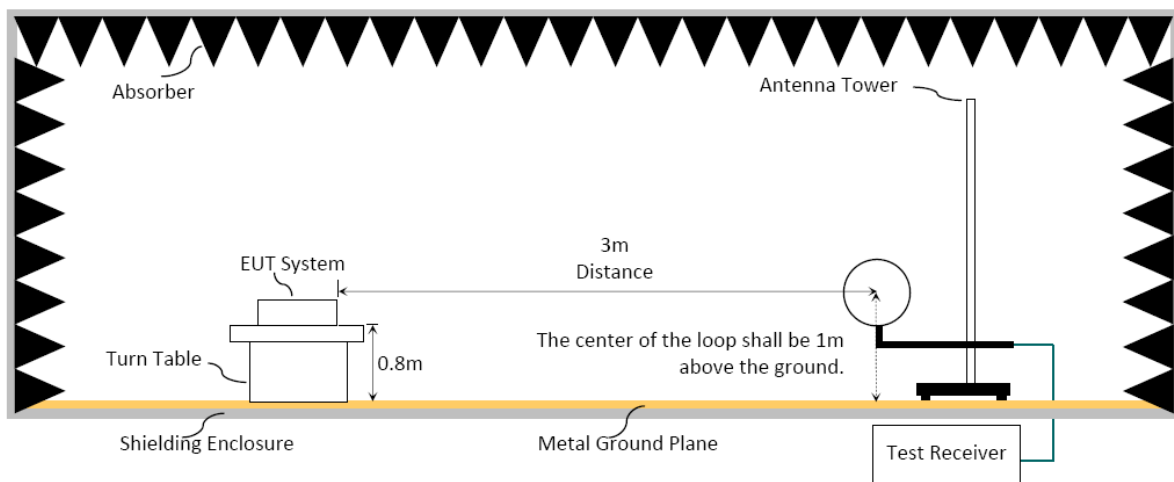
6. RADIATED EMISSION

6.1. Block Diagram of Test Setup

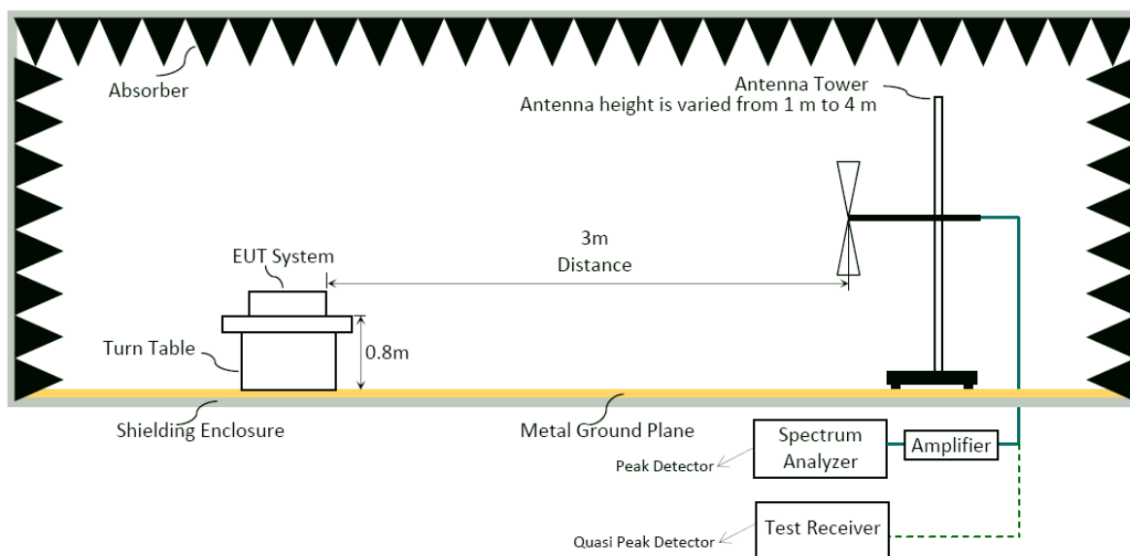
6.1.1. Block Diagram of EUT

Indicated as section 3.10

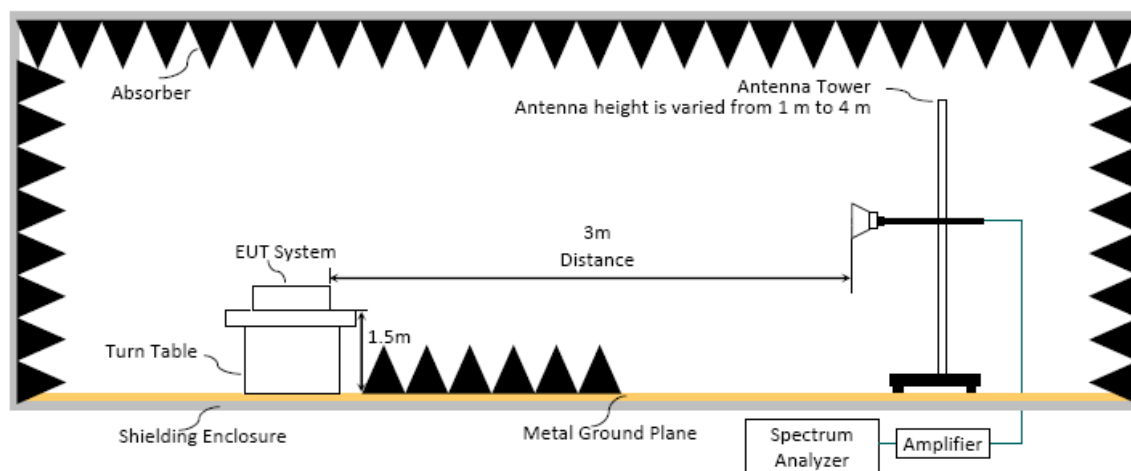
6.1.2. Setup Diagram for 9kHz-30MHz



6.1.3. Setup Diagram for 30-1000MHz



6.1.4. Setup Diagram for above 1GHz



6.2. Radiated Emission Limits

In any 100kHz bandwidth outside the frequency band, the radio frequency power produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level. In addition, radiated emissions which fall in restricted bands, as defined in Section 15.205/RSS-Gen Section 8.10 table 6, must also comply with the radiated emission limits specified as below.

Frequency (MHz)	Distance(m)	Limits	
		dBμV/m	μV/m
0.009 - 0.490	300	67.6-20 log f(kHz)	2400/f kHz
0.490 - 1.705	30	87.6-20 log f(kHz)	24000/f kHz
1.705 - 30	30	29.5	30
30 - 88	3	40.0	100
88- 216	3	43.5	150
216- 960	3	46.0	200
Above 960	3	54.0	500
Above 1000	3	74.0 dBμV/m (Peak) 54.0 dBμV/m (Average)	

Remark : (1) $\text{dB}\mu\text{V/m} = 20 \log (\mu\text{V/m})$

- (2) The tighter limit applies to the edge between two frequency bands.
- (3) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
- (4) Fundamental and emission fall within operation band are exempted from this section.
- (5) Pursuant to ANSI C63.10: 6.6.4.3, if the maximized peak measured value complies with the average limit, then it is unnecessary to perform an average measurement.

6.3. Test Procedure

Frequency Range 9kHz~30MHz:

The EUT setup on the turntable which has 0.8 m height to the ground. The turn table rotated 360 degrees and antenna fixed to 1 m to find the maximum emission level. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10-2020 & ANSI C63.10-2020 + COR.1-2023 regulation.

- (1) RBW = 9kHz with peak and average detector.
- (2) Detector: average and peak (9kHz-490kHz)
Q.P. (490kHz-30MHz)

Frequency Range 30MHz ~ 25GHz:

The EUT setup on the turn table which has 80cm (for 30-1000MHz) and 1.5m (for above 1GHz) height to the ground. The turn table rotated 360 degrees and antenna varied from 1 m to 4 m to find the maximum emission level. Both horizontal and vertical polarization are required. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10-2020 & ANSI C63.10-2020 + COR.1-2023 regulation.

Frequency below 1GHz:

Spectrum Analyzer is used for pre-testing with following setting:

- (1) RBW = 120KHz
- (2) VBW $\geq 3 \times$ RBW.
- (3) Detector = Peak.
- (4) Sweep time = auto.
- (5) Trace mode = max hold.
- (6) Allow sweeps to continue until the trace stabilizes.

Note 1: When peak-detected value is lower than limit that the measurement using the Q.P. detector is not required, otherwise using Q.P. for final measurement.

Note 2: When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds.

Frequency above 1GHz to 10th harmonic(up to 25 GHz):

Peak Detector:

- (1) RBW = 1MHz
- (2) VBW $\geq 3 \times$ RBW.
- (3) Detector = Peak.
- (4) Sweep time = auto.
- (5) Trace mode = max hold.
- (6) Allow sweeps to continue until the trace stabilizes.

Note: When peak-detected value is lower than limit that the measurement using the average detector is not required, otherwise using average detector for final measurement.

Average Detector:☒ **Option 1:**

(1) RBW = 1MHz

(2) VBW $\geq 1/T$. (Duty Cycle < 98%, when duty cycle presented in section 3.7)

Modulation Type	VBW Setting (VBW $\geq 1/T$)
Zigbee	2.0kHz

(3) VBW = 10Hz (Duty Cycle $\geq 98\%$, when duty cycle presented in section 3.7)

(4) Sweep time = auto.

(5) Trace mode = max hold.

(6) Allow sweeps to continue until the trace stabilizes.

☐ **Option 2:**

Average Emission Level = Peak Emission Level + D.C.C.F.

6.4. Measurement Result Explanation

☒ Peak Emission Level (dB μ V/m) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB) + Reading (dB μ V).

☒ Average Emission Level (dB μ V/m) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB) + Reading (dB μ V).

☐ Average Emission Level (dB μ V/m) = Peak Emission Level (dB μ V/m) + DCCF (dB)
Duty Cycle Correction Factor (DCCF) (dB) = $20\log(TX_{on}/TX_{on+off})$ presented in section 3.7.

☐ ERP (dBm) = Peak Emission Level (dB μ V/m) - 95.2dB - 2.14dB



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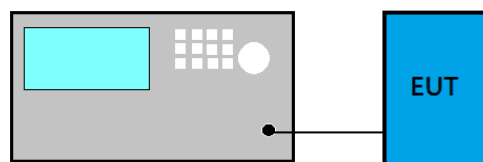
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6.5. Test Results

Please refer to Appendix A.

7. DTS/OCCUPIED BANDWIDTH

7.1. Block Diagram of Test Setup



7.2. Specification Limits

The minimum bandwidth shall be at least 500kHz.

7.3. Test Procedure

Following measurement procedure is reference to ANSI C63.10-2020 & ANSI C63.10-2020 + COR.1-2023:

For DTS Bandwidth

- (1) Set RBW shall be in the range of 1% to 5% of the OBW, but not less than 100kHz.
- (2) Set the video bandwidth (VBW) $\geq 3 \times \text{RBW}$.
- (3) Detector = Peak.
- (4) Trace mode = max hold.
- (5) Sweep = auto couple.
- (6) Allow the trace to stabilize.
- (7) Setting channel bandwidth function x to -6dB power to record the final bandwidth..

For 99% Occupied Bandwidth

- (1) Set Span range 1.5~5 times the OBW
- (2) Set RBW close to 1% to 5% of OBW.
- (3) Set $\text{VBW} \geq 3 \times \text{RBW}$.
- (4) Detector = Peak.
- (5) Trace mode = Max hold
- (6) Sweep = Auto couple.
- (7) Allow the trace to stabilize.

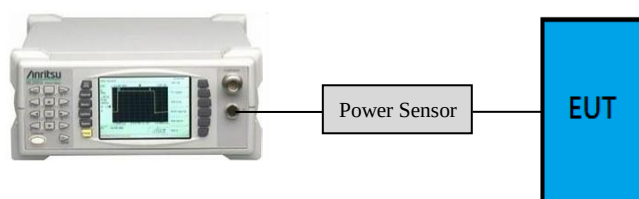
7.4. Test Results

Please refer to Appendix A

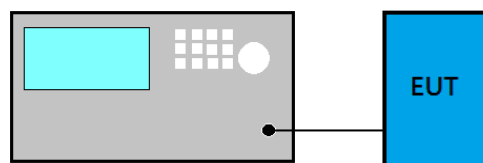
8. MAXIMUM PEAK OUTPUT POWER

8.1. Block Diagram of Test Setup

- For WLAN Function



- For BLE Function



8.2. Specification Limits

The Limits of maximum Peak Output Power for digital modulation in 2400-2483.5MHz is : 1Watt. (30dBm), and E.I.R.P.: 4Watt (36dBm)

8.3. Test Procedure

Following measurement procedure is reference to ANSI C63.10-2020 & ANSI C63.10-2020 + COR.1-2023:

☒ **PKPM1 Peak power meter method:**

EUT is connected to power sensor and record the maximum output power.

☐ **Maximum peak conducted output power method:**

- (1) Set the RBW $\geq$ DTS bandwidth
- (2) Set VBW $\geq 3 \times$ RBW
- (3) Set span $\geq 3 \times$ RBW.
- (4) Sweep time = auto couple
- (5) Detector = peak.
- (6) Trace mode = max hold.
- (7) Allow trace to fully stabilize.
- (8) Use peak marker function to determine the peak amplitude level.

☒ **Method AVGPM (Measurement using an RF average power meter):**

EUT is connected to power sensor and record the maximum average output power and duty cycle factor is added when duty cycle presented in section 3.7 is $< 98\%$.

☐ **Method AVGSA-2 (Spectrum channel power)**

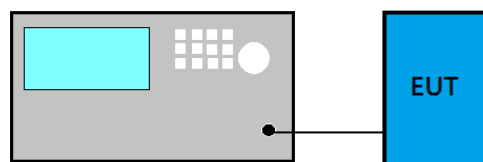
- (1) Set span to at least 1.5 times the OBW
- (2) Set RBW = 1 -5% of OBW
- (3) Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- (4) Detector = RMS.
- (5) Trace mode = trace average at least 100 traces
- (6) Sweep = auto couple.
- (7) Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function with band limits set equal to the OBW band edges.
- (8) Duty cycle factor is added when duty cycle presented in section 3.7 is $< 98\%$.

8.4. Test Results

Please refer to Appendix A

9. EMISSION LIMITATIONS

9.1. Block Diagram of Test Setup



9.2. Specification Limits

In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, that the required attenuation shall be 30 dB instead of 20 dB.

Attenuation below the general limits specified in Section 15.209(a)/RSS-Gen Section 8.9 table 4 is not required. In addition, radiated emissions which fall in restricted bands, as defined in Section 15.205(a)/RSS-Gen Section 8.10 table 6, must also comply with the radiated emission limits specified in Section 15.209(a)/RSS-Gen Section 8.9 table 4 (See Section 15.205(c)).

9.3. Test Procedure

Following measurement procedure is reference to ANSI C63.10-2020 & ANSI C63.10-2020 + COR.1-2023:

☒ Reference Level

- (1) Set analyzer center frequency to DTS channel center frequency.
- (2) Set the span to 1.5 times the DTS bandwidth.
- (3) Set the RBW to: 100 kHz.
- (4) Set the VBW $\geq 3 \times$ RBW.
- (5) Detector = peak.
- (6) Sweep time = auto couple.
- (7) Trace mode = max hold.
- (8) Allow trace to fully stabilize to find the max PSD as reference level.

☑ Emission Level Measurement

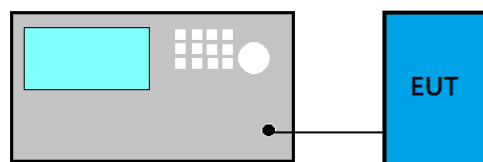
- (1) Set analyzer center frequency to DTS channel center frequency.
- (2) Set the span to 1.5 times the DTS bandwidth.
- (3) Set the RBW to: 100 kHz.
- (4) Set the VBW $\geq 3 \times$ RBW.
- (5) Detector = peak.
- (6) Sweep time = auto couple.
- (7) Trace mode = max hold.
- (8) Allow trace to fully stabilize to find the max level.

9.4. Test Results

Please refer to Appendix A

10. POWER SPECTRAL DENSITY

10.1. Block Diagram of Test Setup



10.2. Specification Limits

The peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band.

10.3. Test Procedure

Following measurement procedure is reference to ANSI C63.10-2020 & ANSI C63.10-2020 + COR.1-2023:

☒ **Method PKPSD (peak PSD)**

- (1) Set analyzer center frequency to DTS channel center frequency.
- (2) Set the span to 1.5 times the DTS bandwidth.
- (3) Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- (4) Set the VBW $\geq 3 \times \text{RBW}$.
- (5) Detector = peak.
- (6) Sweep time = auto couple.
- (7) Trace mode = max hold.
- (8) Allow trace to fully stabilize.
- (9) Use the peak marker function to determine the maximum amplitude level.
- (10) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

☐ **Method AVGPSD-2**

- (1) Using peak PSD procedure step 1 to step 4.
- (2) Detector = RMS detector
- (3) Sweep time = auto couple
- (4) Trace mode = trace averaging over a minimum of 100 traces
- (5) Use the peak marker function to determine the maximum amplitude level.
- (6) Duty cycle factor is added when duty cycle presented in section 3.7 < 98%.
- (7) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

10.4. Test Results

Please refer to Appendix A



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11.DEVIATION TO TEST SPECIFICATIONS

【NONE】



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APPENDIX A

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APPENDIX A

TEST DATA AND PLOTS

(Model: WCHB41M)

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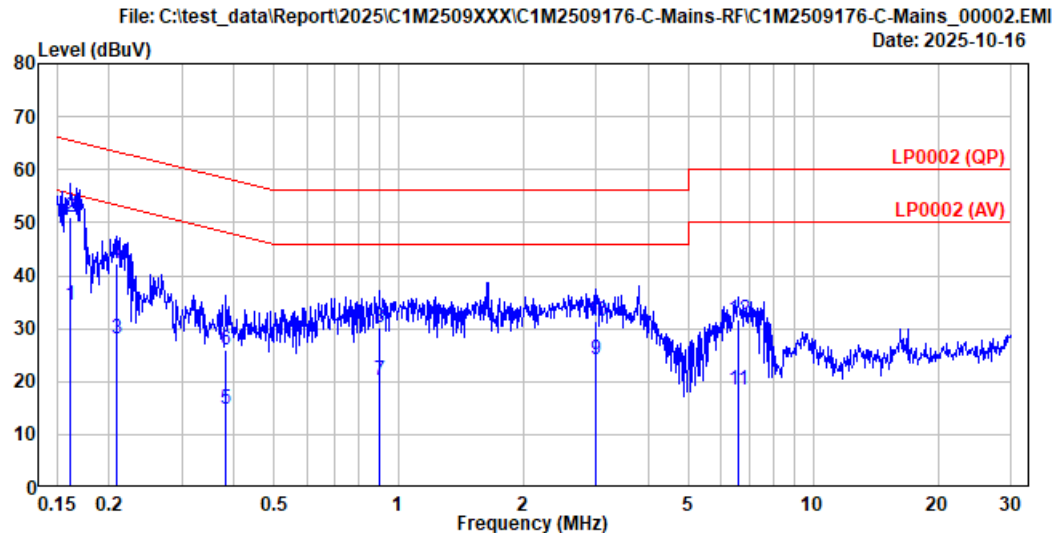
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A.1 CONDUCTED EMISSION

Test Date	2025/10/16	Temp./Hum.	24°C/61%
Test Voltage	DC 5V (Through jig via Notebook PC)	Tested By	Bruce Tseng



Site No.	: No.7 Shielded Room	Data No.	: 2
Instrument 1	: Receiver ESR(114)		
Instrument 2	: ESH2-Z5 (366)(A) CE-07 ESH3-Z2 (495)		
Limit	: LP0002 (QP)	Phase	: Neutral
Environment	: 24°C/61%	Test Rating	: 5Vdc
EUT Model	: WCHB41M	Engineer	: Bruce
Test Mode	: Operating		

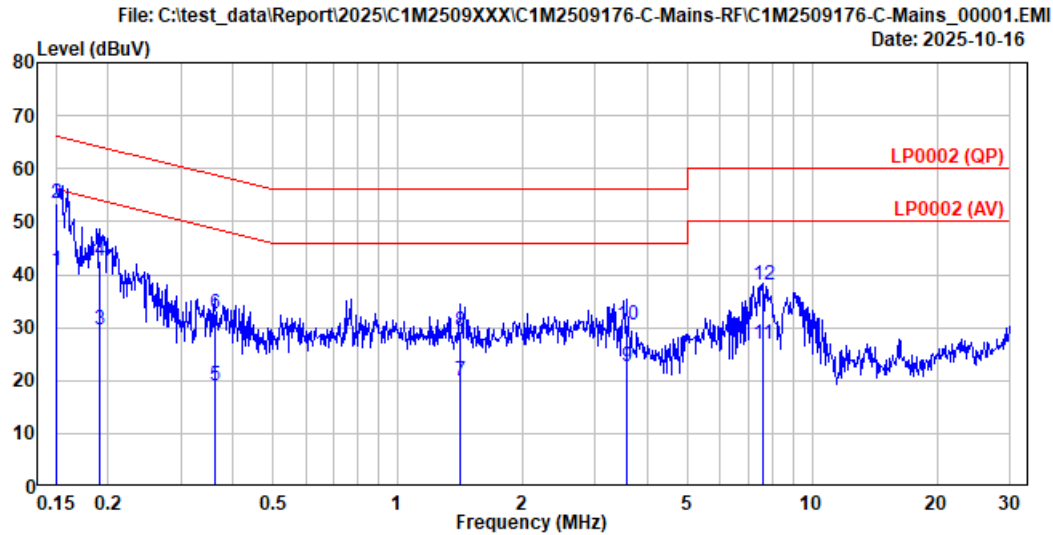
	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.162	0.17	0.05	9.86	24.28	34.36	55.38	21.02	Average
2	0.162	0.17	0.05	9.86	40.84	50.92	65.38	14.46	QP
3	0.208	0.17	0.05	9.87	17.94	28.03	53.27	25.24	Average
4	0.208	0.17	0.05	9.87	32.22	42.31	63.27	20.96	QP
5	0.383	0.17	0.05	9.86	4.84	14.92	48.22	33.30	Average
6	0.383	0.17	0.05	9.86	16.01	26.09	58.22	32.13	QP
7	0.898	0.20	0.06	9.87	9.95	20.08	46.00	25.92	Average
8	0.898	0.20	0.06	9.87	20.01	30.14	56.00	25.86	QP
9	2.985	0.25	0.10	9.87	13.99	24.21	46.00	21.79	Average
10	2.985	0.25	0.10	9.87	21.03	31.25	56.00	24.75	QP
11	6.593	0.29	0.14	9.89	8.17	18.49	50.00	31.51	Average
12	6.593	0.29	0.14	9.89	21.26	31.58	60.00	28.42	QP

Remarks: 1. Emission Level(dBμV)= AMN Factor(dB) + Cable Loss(dB) + Pulse Att.(dB) + Reading(dBμV).

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Test Date	2025/10/16	Temp./Hum.	24°C/61%
Test Voltage	DC 5V (Through jig via Notebook PC)	Tested By	Bruce Tseng



Site No.	: No.7 Shielded Room	Data No.	: 1
Instrument 1	: Receiver ESR(114)		
Instrument 2	: ESH2-Z5 (366)(A) CE-07 ESH3-Z2 (495)		
Limit	: LP0002 (QP)	Phase	: Line
Environment	: 24°C/61%	Test Rating	: 5Vdc
EUT Model	: WCHB41M	Engineer	: Bruce
Test Mode	: Operating		

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.150	0.14	0.05	9.86	30.66	40.71	56.00	15.29	Average
2	0.150	0.14	0.05	9.86	43.34	53.39	66.00	12.61	QP
3	0.191	0.14	0.05	9.87	19.54	29.60	54.01	24.41	Average
4	0.191	0.14	0.05	9.87	32.62	42.68	64.01	21.33	QP
5	0.362	0.14	0.05	9.86	8.90	18.95	48.67	29.72	Average
6	0.362	0.14	0.05	9.86	22.44	32.49	58.67	26.18	QP
7	1.413	0.18	0.07	9.87	9.95	20.07	46.00	25.93	Average
8	1.413	0.18	0.07	9.87	19.23	29.35	56.00	26.65	QP
9	3.571	0.23	0.11	9.87	12.55	22.76	46.00	23.24	Average
10	3.571	0.23	0.11	9.87	20.38	30.59	56.00	25.41	QP
11	7.618	0.25	0.15	9.89	16.68	26.97	50.00	23.03	Average
12	7.618	0.25	0.15	9.89	27.88	38.17	60.00	21.83	QP

Remarks: 1. Emission Level(dBμV)= AMN Factor(dB) + Cable Loss(dB) + Pulse Att.(dB) + Reading(dBμV).

A.2 RADIATED EMISSION

Test Date	2025/10/15 ~ 16	Temp./Hum.	23°C/51~56%
Test Voltage	DC 5V (Through jig via Notebook PC)	Tested By	Kuper Hsu

A.2.1 Emissions within Restricted Frequency Bands

A.2.1.1 Frequency 9kHz~30MHz

The emissions (9kHz~30MHz) not reported for there is no emission be found.

A.2.1.2 Frequency Below 1GHz.

Mode	Zigbee	Frequency	TX 2405MHz
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Antenna at Horizontal Polarization

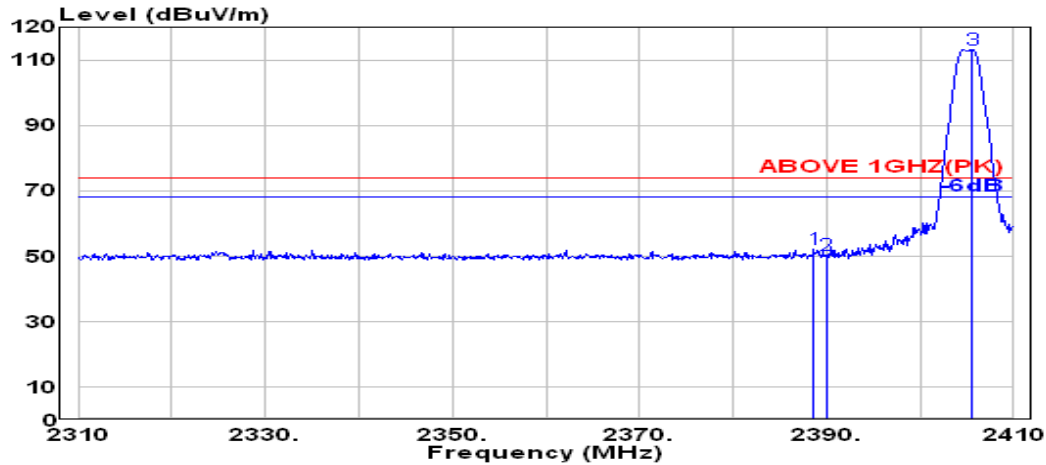
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
32.500	22.55	1.45	26.47	26.24	23.77	40.00	16.23	Peak
140.000	17.22	3.08	26.04	38.63	32.89	43.50	10.61	Peak
354.000	20.48	5.47	26.07	35.75	35.63	46.00	10.37	Peak
665.500	24.47	7.47	27.40	28.05	32.59	46.00	13.41	Peak
897.000	26.36	8.80	27.01	25.56	33.72	46.00	12.28	Peak
973.500	26.94	9.24	26.78	28.59	37.99	54.00	16.01	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
32.500	22.55	1.45	26.47	27.31	24.84	40.00	15.16	Peak
140.500	17.18	3.09	26.03	33.17	27.40	43.50	16.10	Peak
413.500	21.67	6.19	26.51	31.16	32.50	46.00	13.50	Peak
567.000	23.93	7.07	27.29	32.40	36.11	46.00	9.89	Peak
904.500	26.47	8.85	26.99	32.86	41.18	46.00	4.82	Peak
977.500	26.96	9.26	26.76	27.38	36.83	54.00	17.17	Peak

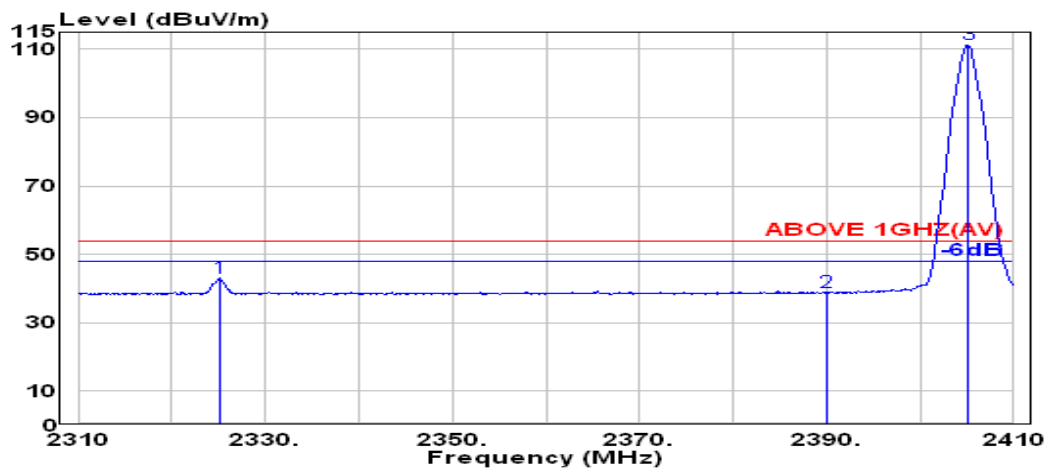
A.2.1.3 Frequency Above 1 GHz to 10th harmonics

Mode	Zigbee	Frequency	TX 2405MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2388.600	28.20	5.70	39.92	58.17	52.15	74.00	21.85	Peak
2390.000	28.20	5.70	39.92	56.38	50.36	74.00	23.64	Peak
@ 2405.600	28.21	5.72	39.92	119.11	113.13	---	---	Peak



Antenna at Horizontal Polarization

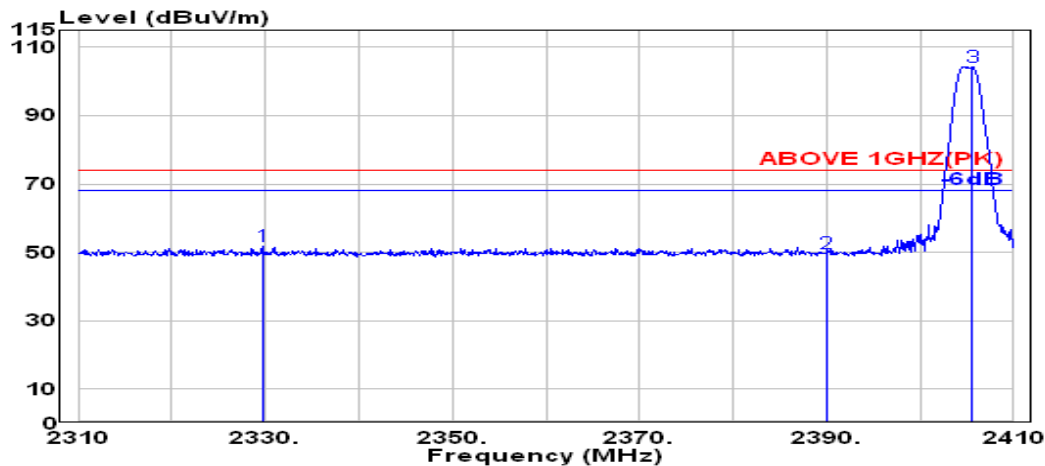
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2325.100	28.10	5.61	39.92	49.25	43.04	54.00	10.96	Average
2390.000	28.20	5.70	39.92	44.88	38.86	54.00	15.14	Average
@ 2405.100	28.21	5.72	39.92	117.35	111.36	---	---	Average

Remark: The “@” means fundamental frequency, it is ignored in this section

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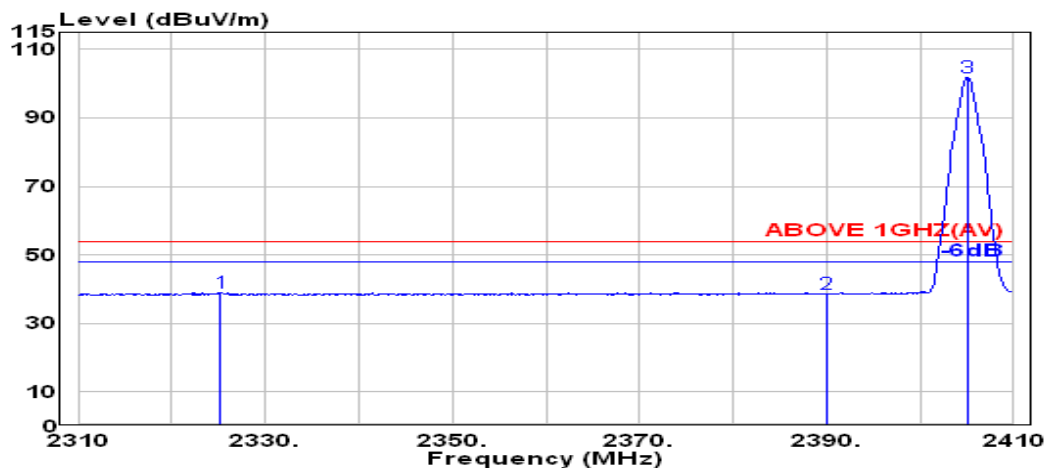
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Mode	Zigbee	Frequency	TX 2405MHz
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Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2329.700	28.12	5.62	39.92	57.80	51.62	74.00	22.38	Peak
2390.000	28.20	5.70	39.92	55.72	49.71	74.00	24.29	Peak
@ 2405.600	28.21	5.72	39.92	110.28	104.30	---	---	Peak

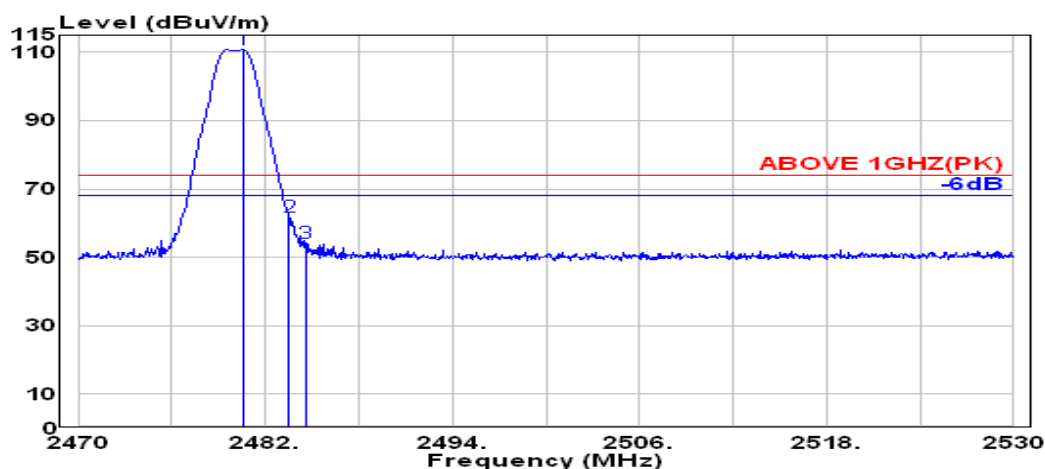


Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2325.200	28.10	5.61	39.92	45.13	38.93	54.00	15.07	Average
2390.000	28.20	5.70	39.92	44.74	38.72	54.00	15.28	Average
@ 2405.000	28.21	5.72	39.92	107.74	101.76	---	---	Average

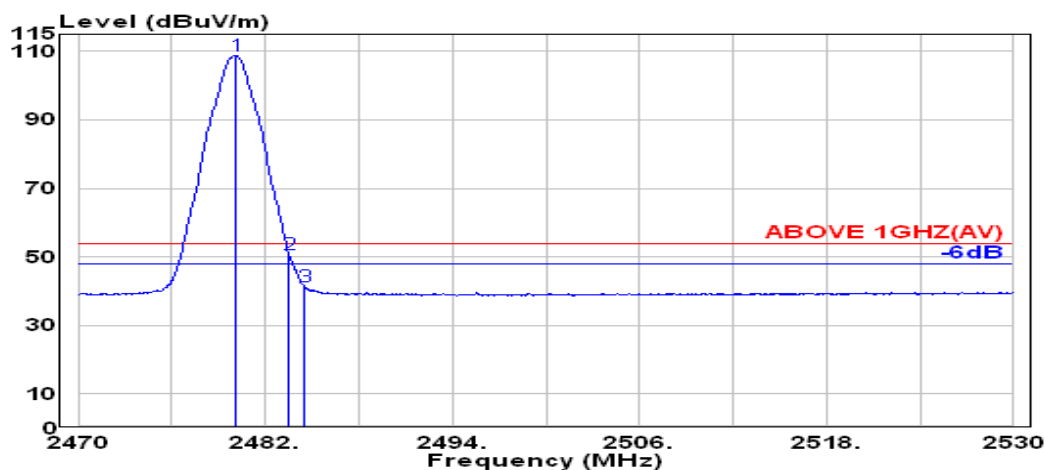
Remark: The “@” means fundamental frequency, it is ignored in this section

Mode	Zigbee	Frequency	TX 2480MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2480.550	28.42	5.82	39.92	116.46	110.79	---	---	Peak
2483.500	28.43	5.83	39.92	67.38	61.72	74.00	12.28	Peak
2484.600	28.44	5.83	39.92	59.99	54.34	74.00	19.66	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2480.150	28.42	5.82	39.92	114.49	108.82	---	---	Average
2483.500	28.43	5.83	39.92	56.25	50.60	54.00	3.40	Average
2484.500	28.44	5.83	39.92	47.06	41.40	54.00	12.60	Average

Remark: The “@” means fundamental frequency, it is ignored in this section

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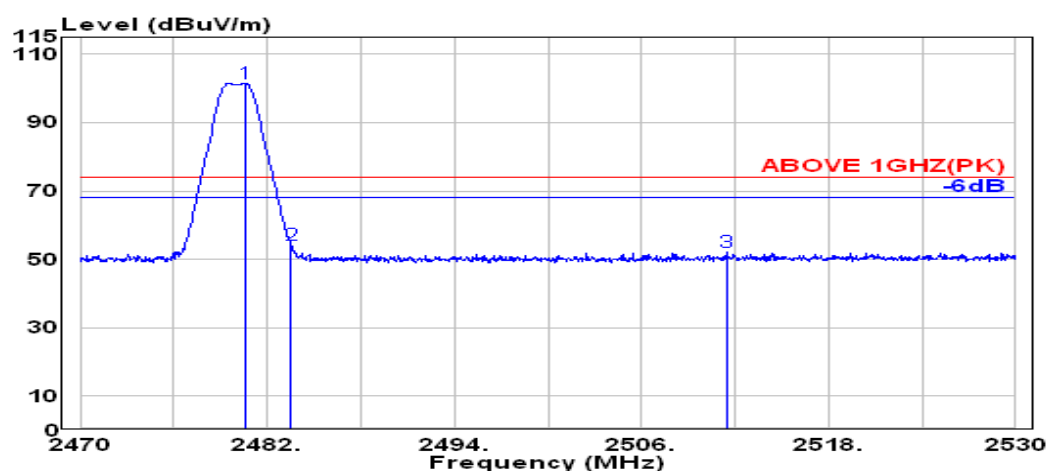
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New Taipei City244, Taiwan

Tel: +886 2 26099301

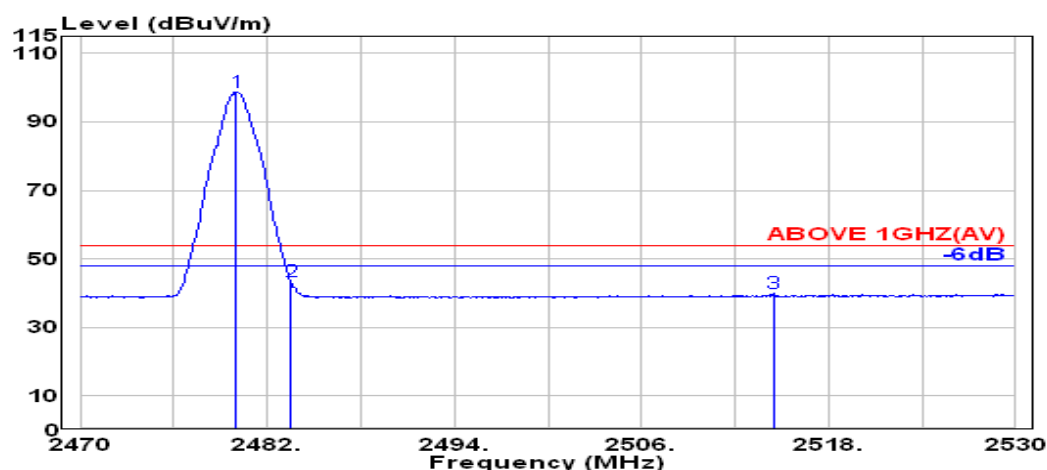
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Mode	Zigbee	Frequency	TX 2480MHz
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Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2480.550	28.42	5.82	39.92	107.25	101.58	---	---	Peak
2483.500	28.43	5.83	39.92	59.85	54.19	74.00	19.81	Peak
2511.450	28.55	5.86	39.92	57.67	52.16	74.00	21.84	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Read Level (dBμV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Detector
@ 2480.000	28.42	5.82	39.92	104.52	98.84	---	---	Average
2483.500	28.43	5.83	39.92	48.98	43.33	54.00	10.67	Average
2514.450	28.56	5.87	39.92	45.33	39.84	54.00	14.16	Average

Remark: The “@” means fundamental frequency, it is ignored in this section

A.2.2 Emissions outside the frequency band

The emissions (up to 25GHz) not reported for there is no emission be found.

Mode	Zigbee	Frequency	TX 2405MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4810.000	32.74	8.03	39.18	40.35	41.94	54.00	12.06	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4810.000	32.74	8.03	39.18	40.67	42.26	54.00	11.74	Peak

Mode	Zigbee	Frequency	TX 2440MHz
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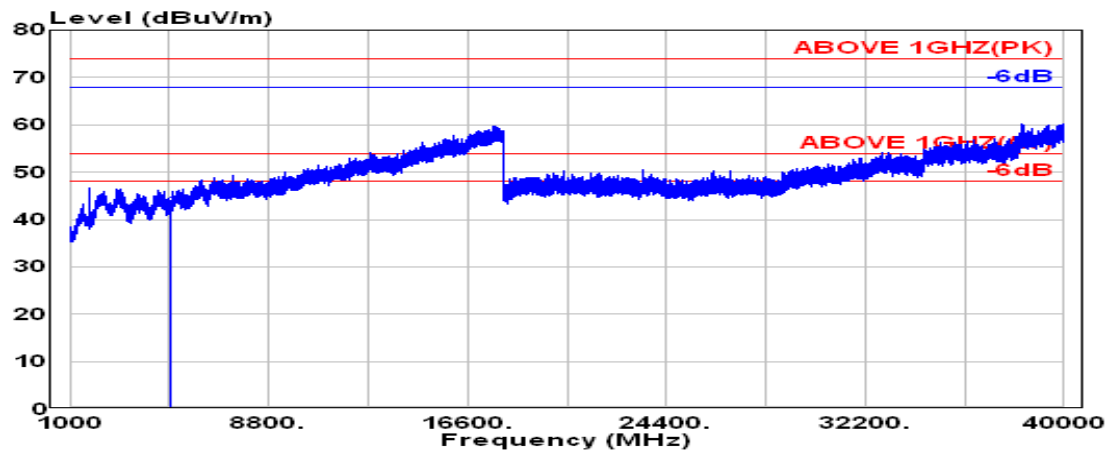
Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4880.000	33.02	8.08	39.15	40.15	42.09	54.00	11.91	Peak

Antenna at Vertical Polarization

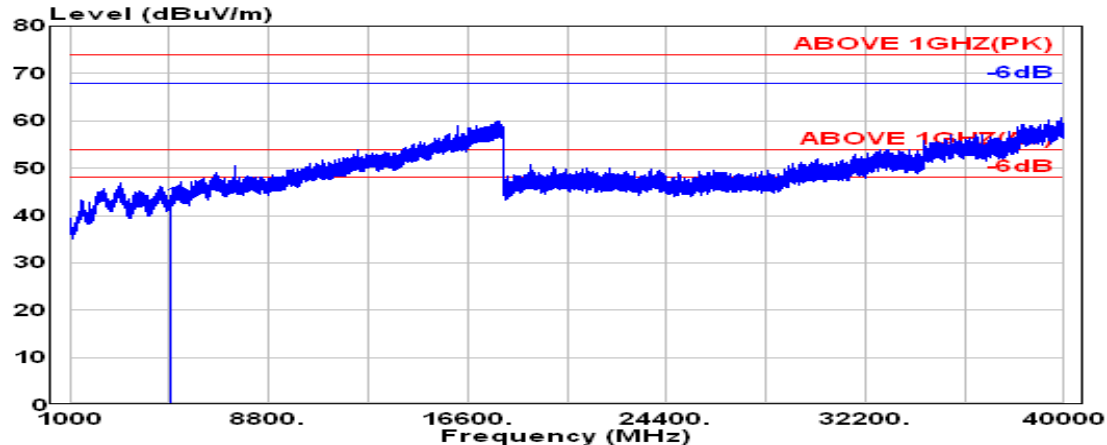
Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4880.000	33.02	8.08	39.15	40.31	42.26	54.00	11.74	Peak

Mode	Zigbee	Frequency	TX 2480MHz
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Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4960.000	33.22	8.13	39.12	39.45	41.69	54.00	12.31	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Gain (dB)	Reading level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4960.000	33.22	8.13	39.12	40.35	42.59	54.00	11.41	Peak

A.2.3 Emissions in Non-restricted Frequency Bands

Pursuant to ANSI C63.10:2013 that emission levels below the FCC 15.209(a)/RSS-Gen Section 8.9 table 5 general radiated emissions limits is not required.

A.3 DTS/OCCUPIED BANDWIDTH

Test Date	2025/10/29	Temp./Hum.	22°C /64%
Cable Loss	1.4dB	Tested By	Sean Wang
Test Voltage	DC 5V (Through jig via Notebook PC)		

A.3.1 DTS/Occupied Bandwidth Result

Mode	Centre Frequency (MHz)	DTS (6dB) Bandwidth (MHz)	Occupied (99%) Bandwidth (MHz)	Limit
Zigbee	2405	1.409	2.0435	>500kHz
	2440	1.412	2.0449	
	2480	1.412	2.0458	

Note: We only presented the middle channel plots for each test mode.

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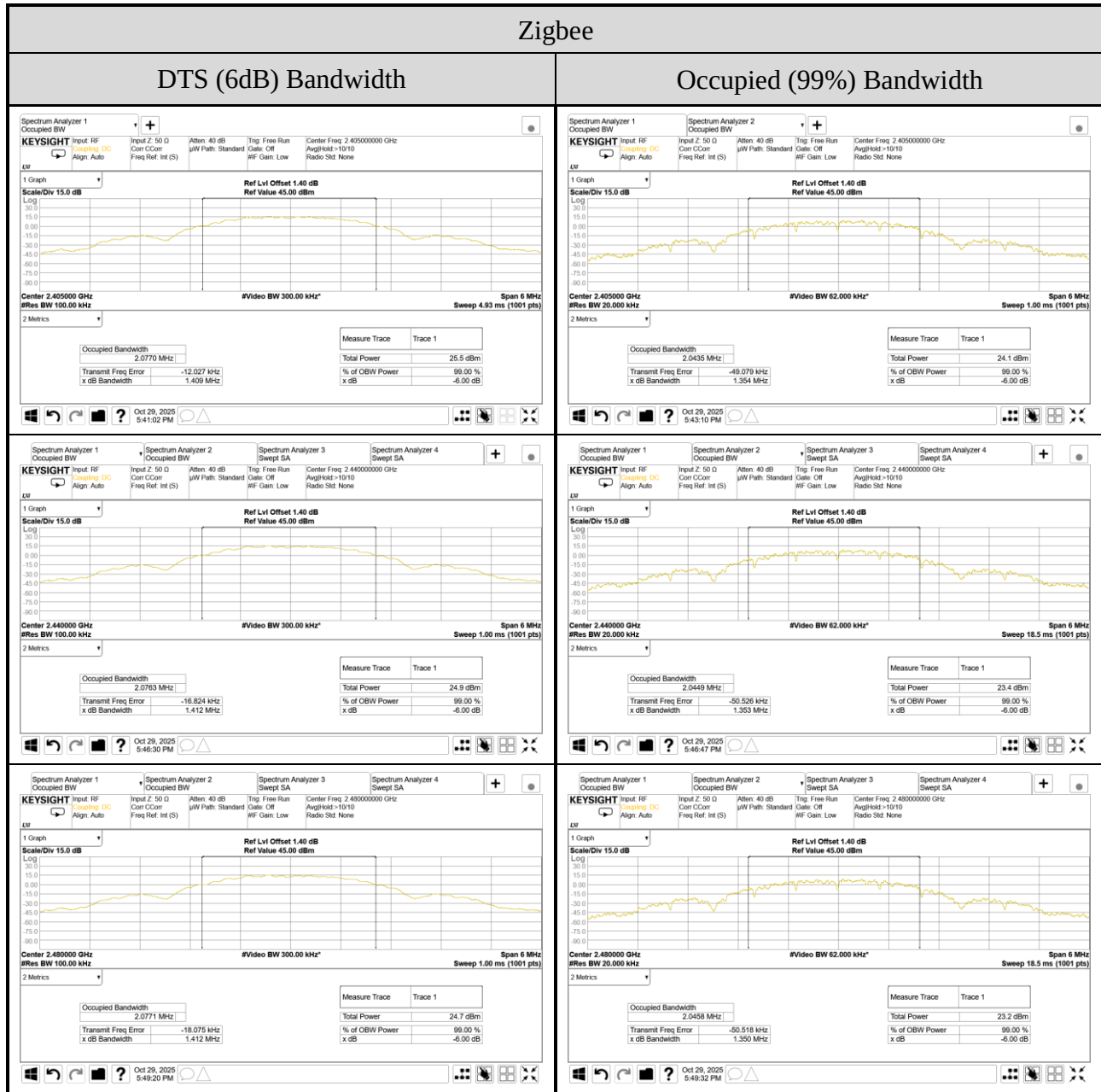
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A.3.2 Measurement Plots



A.4 MAXIMUM PEAK OUTPUT POWER

Test Date	2025/10/28	Temp./Hum.	23°C /58%
Cable Loss	1.4dB	Tested By	Sean Wang
Test Voltage	DC 5V (Through jig via Notebook PC)		

A.4.1 Peak Output Power

Mode	Centre Frequency (MHz)	Peak Output Power (dBm)	Antenna Gain (dBi)	E.I.R.P ^{Note 2}	Limit
Zigbee	2405	19.90	0.51	20.41	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2440	19.66	0.51	20.17	
	2480	19.06	0.51	19.57	

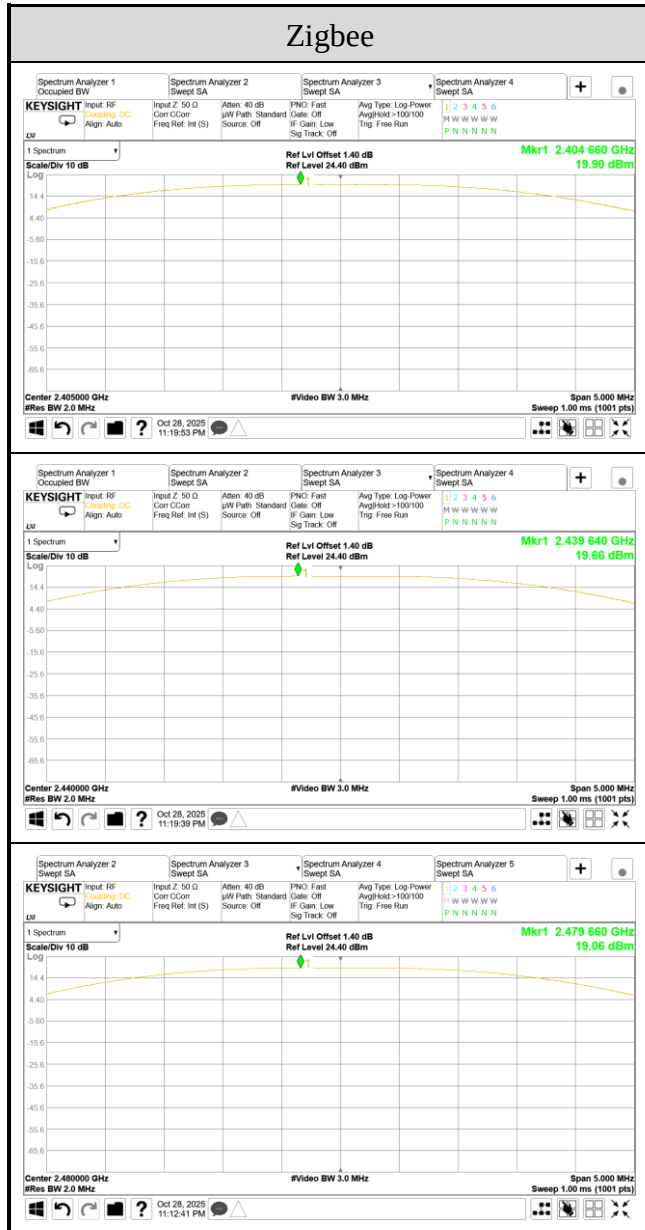
Note: 1. The results have been included cable loss.

2. E.I.R.P.= The Max. of Peak Output Power (dBm)+ Antenna Gain (dBi).

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● Measurement Plots (Peak Output Power)

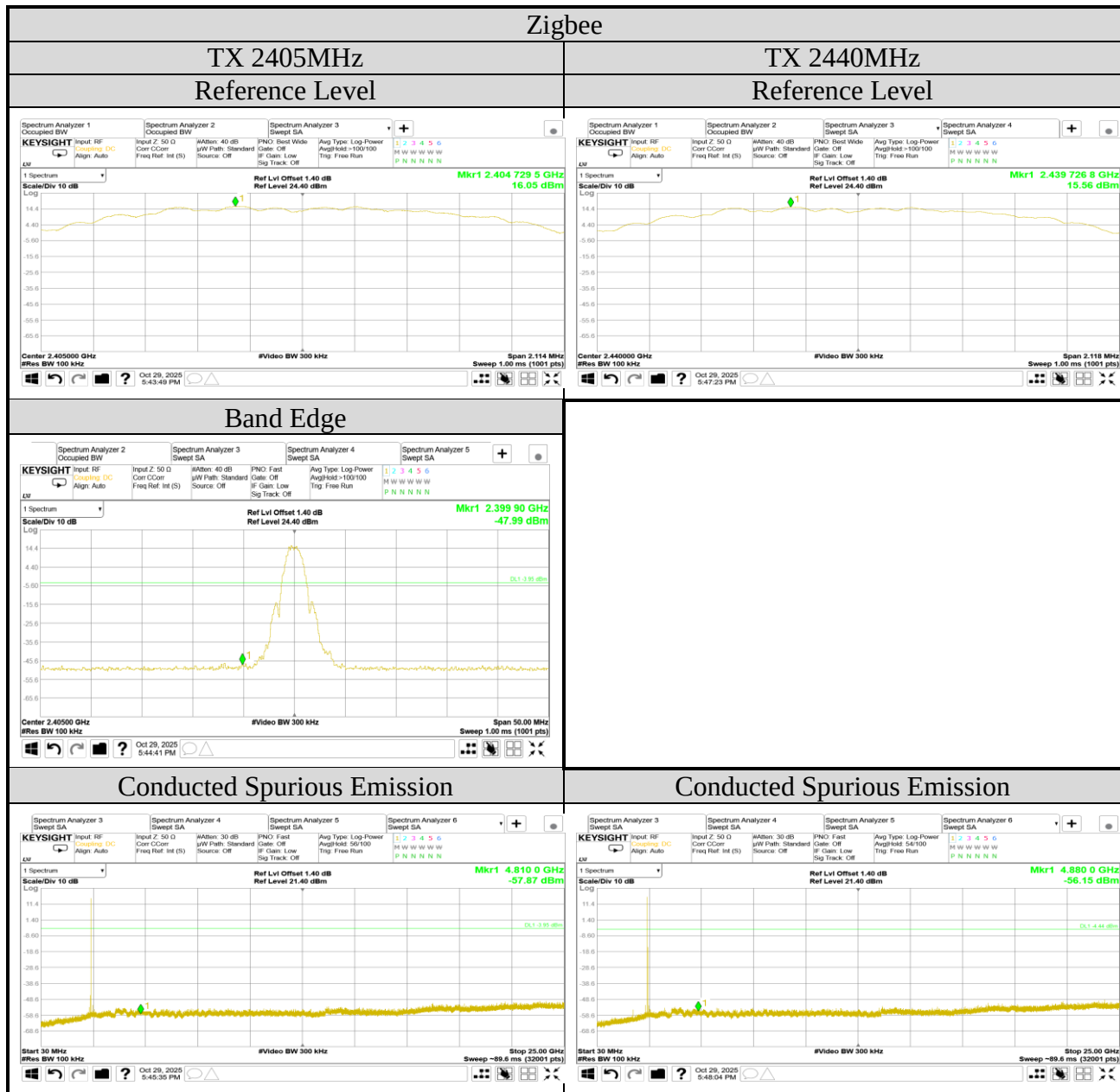


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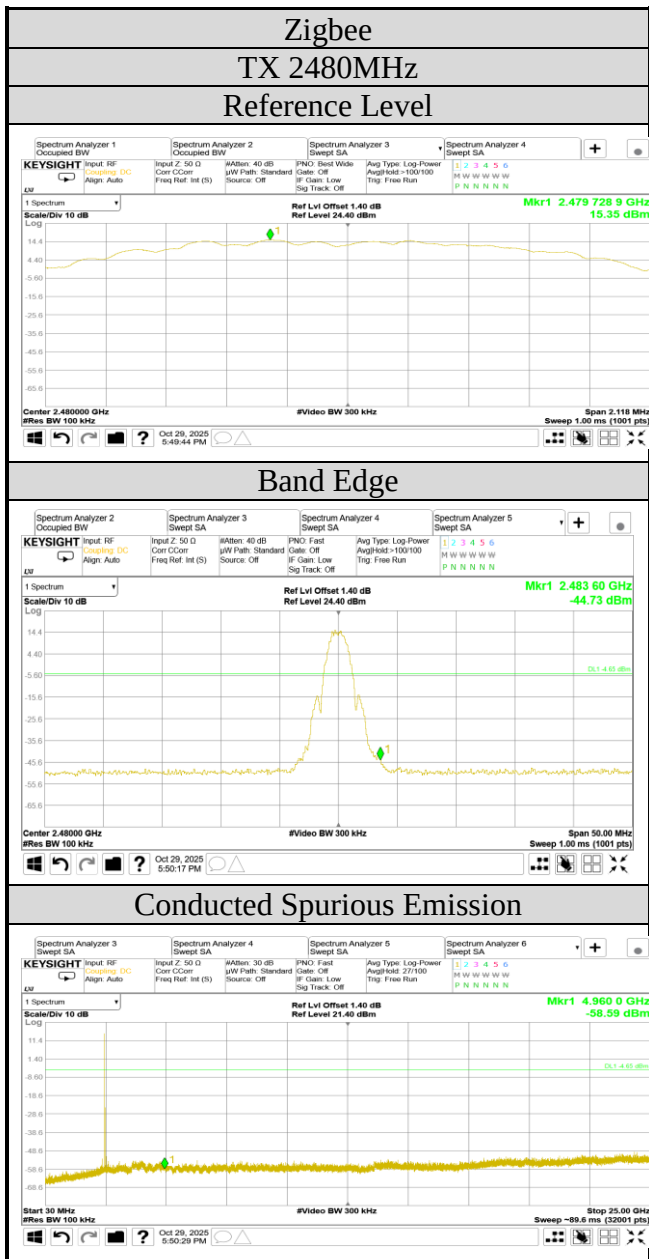
A.5 EMISSION LIMITATIONS

Test Date	2025/10/29	Temp./Hum.	22°C /64%
Cable Loss	1.4dB	Tested By	Sean Wang
Test Voltage	DC 5V (Through jig via Notebook PC)		



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A.6 POWER SPECTRAL DENSITY

Test Date	2025/10/29	Temp./Hum.	22°C/64%
Cable Loss	1.4dB	Tested By	Sean Wang
Test Voltage	DC 5V (Through jig via Notebook PC)		

A.6.1 Power Spectral Density Result

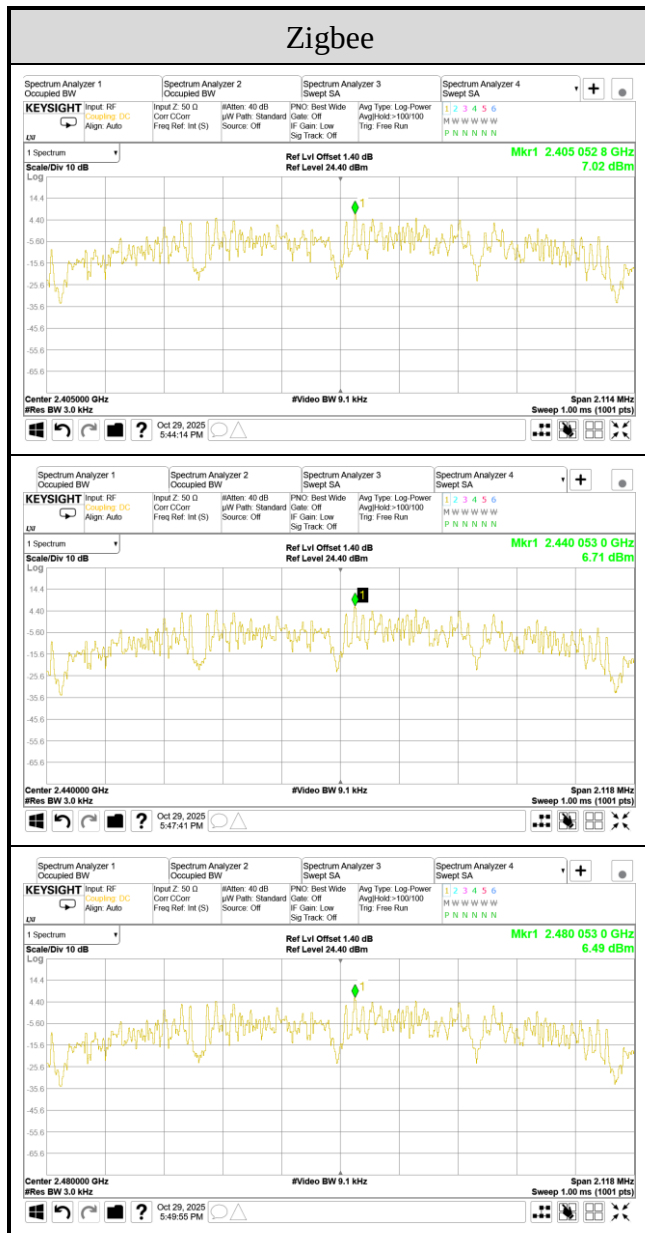
Mode	Center Frequency (MHz)	Power Spectral Density (dBm)	Limit
Zigbee	2405	7.02	<8 dBm/3kHz
	2440	6.71	
	2480	6.49	

Note: . All results have been included cable loss.

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A.6.2 Measurement Plots



Note: All results have been included cable loss.



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APPENDIX B

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APPENDIX B

TEST PHOTOGRAPHS

(Model: WCHB41M)