Prüfbericht-Nr.: *Test report no.:*	CN23RJTZ (P15C-WiFi) 001	**Auftrags-Nr.:** *Order no.*:	48224548	
Kunden-Referenz-Nr.: *Client reference no.:*	N/A	**Auftragsdatum:** *Order date:*	2023-10-12	
Auftraggeber: *Client:*	medDV GmbH Rudolf-Diesel-Straße 10-12, 35463 Fernwald, Germany			
Prüfgegenstand: *Test item:*	Mobile Medical Assistant			
Bezeichnung / Typ-Nr.: *Identification / Type no.:*	NIDApad			
Auftrags-Inhalt: *Order content*:	FCC Part 15C Test report (WiFi 2.4GHz)			
Prüfgrundlage: *Test specification:*	FCC 47CFR Part 15: Subpart C Section 15.247			
Wareneingangsdatum: *Date of sample receipt:*	2023-10-04			
Prüfmuster-Nr.: *Test sample no:*	A003574313-017			
Prüfzeitraum: *Testing period:*	2023-10-17 - 2023-11-09			
Ort der Prüfung: *Place of testing:*	EMC/RF Taipei Testing Site			
Prüflaboratorium: *Testing laboratory:*	Taipei Testing Laboratories			
Prüfergebnis*: *Test result*:*	Pass			

überprüft von: *compiled by:*	David Huang	**genehmigt von:** authorized by:	Brenda Chen
Datum: *Date:* 2023-11-23		**Ausstellungsdatum:** *Issue date:* 2023-11-23	
Stellung / *Position:*	David Huang Project Manager	**Stellung** / *Position:*	Senior Project Manager

Sonstiges / *Other:* Only RF output power, worst case of radiated spurious emissions, and mains conducted emission tests were evaluated in this report. For other test results, please refer to module report no.: RF201119E01.

Zustand des Prüfgegenstandes bei Anlieferung: Prüfmuster vollständig und unbeschädigt
Condition of the test item at delivery: *Test item complete and undamaged*

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhaft
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
** Legend:*	*1 = very good*	*2 = good*	*3 = satisfactory*	*4 = sufficient*	*5 = poor*
	P(ass) = passed a.m. test specification(s)		*F(ail) = failed a.m. test specification(s)*	*N/A = not applicable*	*N/T = not tested*

TEST SUMMARY

Report Section	FCC Clause	Test Item	Result
5.1.1	15.247(b) & 15.203	Antenna Requirement	Pass
5.1.2	15.247(b)(3)	Peak Output Power	Pass
-	15.247(a)(2)	6 dB Bandwidth	Note 1
-	2.1049	99% Occupied Bandwidth	Note 1
-	15.247(e)	Power Spectral Density	Note 1
-	15.247(d)	Conducted Spurious Emissions and Band Edges	Note 1
5.1.3	15.247(d) & 15.205 & 15.209	Radiated Spurious Emissions and Band Edges	Pass
5.2.1	15.207	Mains Conducted Emission	Pass

Note:

1. Refer to module report for the details.
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

Contents

HISTORY OF THIS TEST REPORT

Revision	Description	Date Issued
R01	Original Release	2023-11-23

1. General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:
Appendix A - Test Result of Radiated Emissions & Mains Conducted Emission
Appendix SP - Photographs of Test Setup
Appendix EP - Photographs of EUT

Applied Standard and Test Levels

Radio
FCC 47CFR Part 15: Subpart C Section 15.247
FCC 47CFR Part 2: Subpart J Section 2.1049
ANSI C63.10:2013
KDB 558074 D01 15.247 Meas Guidance v05r02
KDB 662911 D01 Multiple Transmitter Output v02r01

1.2 Decision Rule of Conformity

The decision rule of conformity of this test report is following the requirements of the requested standard in the quotation, and agreed among testing laboratory and manufacturer (applicant) to exclude the consideration of Measurement Uncertainty, unless it is required by the specific standard.

2. Test Sites

2.1 Test Laboratory

Taipei Testing Laboratories

11F. No.758, Sec. 4, Bade Rd., Songshan Dist.
Taipei City 105
Taiwan (R.O.C.)

2.2 Test Facility

Taipei Testing Laboratories

No.458-18, Sec. 2, Fenliao Rd., Linkou Dist.,
New Taipei City 244
Taiwan (R.O.C.)
FCC Registration No.: 180491
ISED Registration No.: 25563

2.3 Traceability

All measurement equipment calibrations are traceable to NML(Taiwan)/NIST(USA) or where calibration is performed outside Taiwan, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically in a suitably accredited Calibration Lab. Additionally all equipment is verified for proper performance on a regular basics using in house standards or comparisons.

2.5 Measurement Uncertainty

All measurement uncertainty values are shown with a coverage factor of k=2 to indicate a 95% level of confidence.

Emission Measurement Uncertainty

Parameter	Uncertainty
Radiated Emission (9 kHz ~ 30 MHz)	± 1.15 dB
Radiated Emission (30 MHz ~ 200 MHz)	± 1.30 dB
Radiated Emission (200 MHz ~ 1 GHz)	± 1.30 dB
Radiated Emission (1 GHz ~ 18 GHz)	± 1.54 dB
Radiated Emission (18 GHz ~ 40 GHz)	± 2.52 dB
Mains Conducted Emission	± 1.65 dB

3. General Product Information

3.1 Product Function and Intended Use

The EUT is a Mobile Medical Assistant. It contains a WLAN compatible module enabling the user to communicate data through a Wireless interface.
For details refer to the User Guide, Data Sheet and Circuit Diagram.

3.2 System Details and Ratings

Basic Information of EUT

Item	EUT information
Kind of Equipment/Test Item	Mobile Medical Assistant
Type Identification	NIDApad
FCC ID	2AWKZ-QCNFA765

Technical Specification of EUT

Item	EUT information
Operating Frequency	2412 MHz ~ 2462 MHz
Channel Number	802.11b/g/n/ac/ax HT20/VHT20/HE20: 13 802.11n/ac/ax HT40/VHT40/HE40: 11
Data Rate	802.11b: 11.0 / 5.5 / 2.0 / 1.0 Mbps 802.11g: 54.0 / 48.0 / 36.0 / 24.0 / 18.0 / 12.0 / 9.0 / 6.0 Mbps 802.11n: up to MCS7 802.11ac: up to MCS9 802.11ax: up to MCS11
Operation Voltage	7.2 Vdc (Battery) 12 Vdc (Adapter)
Modulation	DSSS (DBPSK, DQPSK, CCK) OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) OFDMA (1024QAM)
Maximum Output Power (mW)	802.11b: 382.41 802.11g: 551.47 802.11n HT20: 512.84 802.11n HT40: 217.35 802.11ac VHT20: 522.92 802.11ac VHT40: 225.02 802.11ax HE20: 549.73 802.11ax HE40: 237.29
RF Module	QCNFA765
Antenna Information	Refer to 5.1.1
Accessory Device	Refer to 4.4

3.3 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

3.4 Submitted Documents

- Circuit Diagram
- Instruction Manual
- Rating Label
- Technical Description

4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

The test modes were adapted accordingly in reference to the instructions for use.
During testing, Channel and Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output expected by the customer and is going to be fixed on the firmware of the final end product.

Table for Parameters of Test Software Setting

802.11b		802.11g		802.11n HT20		802.11n HT40	
Frequency (MHz)	Power Setting	Frequency (MHz)	Power Setting	Frequency (MHz)	Power Setting	Frequency (MHz)	Power Setting
2412	18.5	2412	15.5	2412	15	2422	13
2437	20	2417	15.5	2417	15.5	2427	13.5
2462	18	2437	20	2437	18.5	2437	13.5
2467	15.5	2457	16.5	2457	15	2447	13.5
2472	13	2462	15.5	2462	13.5	2452	12.5
		2467	13.5	2467	12.5	2457	11.5
		2472	1	2472	0.5	2462	2.5
802.11ac VHT20		802.11ac VHT40		802.11ax HE20		802.11ax HE40	
Frequency (MHz)	Power Setting	Frequency (MHz)	Power Setting	Frequency (MHz)	Power Setting	Frequency (MHz)	Power Setting
2412	15	2422	12.5	2412	15	2422	13
2417	15.5	2427	13	2417	15.5	2427	13.5
2437	18.5	2437	13	2437	18.5	2437	13.5
2457	15	2447	13	2457	15	2447	13.5
2462	13.5	2452	12	2462	13.5	2452	12.5
2467	12.5	2457	11	2467	12.5	2457	11.5
2472	0.5	2462	2.5	2472	1	2462	2.5

Partial RU								
802.11ax HE20								
Frequency (MHz)	RU Config.	Power Setting	Frequency (MHz)	RU Config.	Power Setting	Frequency (MHz)	RU Config.	Power Setting
2412	26/0	15	2412	52/37	15	2412	106/53	14.5
2417	26/0	15.5	2417	52/37	15	2417	106/53	15.5
2437	26/4	16.5	2437	52/38	16.5	2437	106/53	16.5
2457	26/8	13.5	2457	52/40	13	2457	106/54	13.5
2462	26/8	13.5	2462	52/40	12.5	2462	106/54	13.5
2467	26/8	10.5	2467	52/40	9.5	2467	106/54	10.5
2472	26/8	-10	2472	52/40	-10	2472	106/54	-8

802.11ax HE20			802.11ax HE40		
Frequency (MHz)	RU Config.	Power Setting	Frequency (MHz)	RU Config.	Power Setting
2412	242/61	13.5	2422	484/65	9.5
2417	242/61	14	2427	484/65	10
2437	242/61	16.5	2437	484/65	13.5
2457	242/61	14.5	2447	484/65	11
2462	242/61	12	2452	484/65	11.5
2467	242/61	10	2457	484/65	10
2472	242/61	-6.5	2462	484/65	-5

4.2 Carrier Frequency and Channel

802.11b, 802.11g, 802.11n HT20, 802.11ac VHT20, 802.11ax HE20:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	8	2447
2	2417	9	2452
3	2422	10	2457
4	2427	11	2462
5	2432	12	2467
6	2437	13	2472
7	2442		

802.11n HT40, 802.11ac VHT40, 802.11ax HE40:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	8	2447
4	2427	9	2452
5	2432	10	2457
6	2437	11	2462
7	2442		

4.3 Test Operation and Test Software

Setup for testing: Test samples are provided with an USB interface which makes it possible to control them through a test software installed on a notebook computer.
This software was running on the laptop computer connected to the EUT. It was used to enable the operation modes listed as below.

Test Software	QRCT

The samples were used as follows:
A003574313-017

EUT Configure Mode	Applicable To				Description
	RF Output Power	Radiated Spurious Emissions above 1 GHz	Radiated Spurious Emissions below 1 GHz	Mains Conducted Emission	
-	√	√	√	√	-

Note:
1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when position on **Y-plane**.
2. "-" means no effect.

RF Output Power

☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.
☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Date Rate (Mbps)
-	802.11b	1 to 13	1, 6, 11, 12, 13	1.0
-	802.11g	1 to 13	1, 2, 6, 10, 11, 12, 13	6.0
-	802.11n HT20	1 to 13	1, 2, 6, 10, 11, 12, 13	MCS0
-	802.11n HT40	3 to 11	3, 4, 6, 8, 9, 10, 11	MCS0
-	802.11ac VHT20	1 to 13	1, 2, 6, 10, 11, 12, 13	NSS1 MCS0
-	802.11ac VHT40	3 to 11	3, 4, 6, 8, 9, 10, 11	NSS1 MCS0
-	802.11ax HE20	1 to 13	1, 2, 6, 10, 11, 12, 13	NSS1 MCS0
-	802.11ax HE40	3 to 11	3, 4, 6, 8, 9, 10, 11	NSS1 MCS0
-	802.11ax HE20_RU26	1 to 13	1, 2, 6, 10, 11, 12, 13	NSS1 MCS0
-	802.11ax HE20_RU52	1 to 13	1, 2, 6, 10, 11, 12, 13	NSS1 MCS0
-	802.11ax HE20_RU106	1 to 13	1, 2, 6, 10, 11, 12, 13	NSS1 MCS0
-	802.11ax HE20_RU242	1 to 13	1, 2, 6, 10, 11, 12, 13	NSS1 MCS0
-	802.11ax HE40_RU484	3 to 11	3, 4, 6, 8, 9, 10, 11	NSS1 MCS0

Radiated Spurious Emissions (Above 1 GHz)

☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Date Rate (Mbps)	Note
-	802.11b	1 to 13	13	1.0	Harmonic
-	802.11g	1 to 13	13	6.0	
-	802.11ax HE20	1 to 13	13	NSS1 MCS0	
-	802.11ax HE40	3 to 11	11	NSS1 MCS0	
-	802.11b	1 to 13	6	1.0	Bandedge
-	802.11g	1 to 13	13	6.0	
-	802.11ax HE20	1 to 13	13	NSS1 MCS0	
-	802.11ax HE40	3 to 11	8	NSS1 MCS0	
-	802.11ax HE20_RU26	1 to 13	13	NSS1 MCS0	Harmonic
-	802.11ax HE40_RU484	3 to 11	11	NSS1 MCS0	
-	802.11ax HE20_RU26	1 to 13	13	NSS1 MCS0	Bandedge
-	802.11ax HE40_RU484	3 to 11	10	NSS1 MCS0	

Radiated Spurious Emissions (Below 1 GHz)

☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Date Rate (Mbps)
-	802.11ax HE40	3 to 11	8	NSS1 MCS0

Mains Conducted Emission

☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Date Rate (Mbps)
-	802.11ax HE40	3 to 11	8	NSS1 MCS0

Test Condition

Test Item	Ambient Temperature	Relative Humidity	Tested by
RF Output Power	20.8-25.5 °C	59-66 %	Nick Guan
Radiated Spurious Emissions above 1 GHz	22.6-24.5 °C	52-54 %	Ray Huang
Radiated Spurious Emissions below 1 GHz	22.6-24.5 °C	52-54 %	Ray Huang
Mains Conducted Emission	19.1-25.9 °C	50.2-58.9 %	Roger Liao

4.4 Special Accessories and Auxiliary Equipment

The product has been tested together with the following additional accessories:

Accessory of EUT

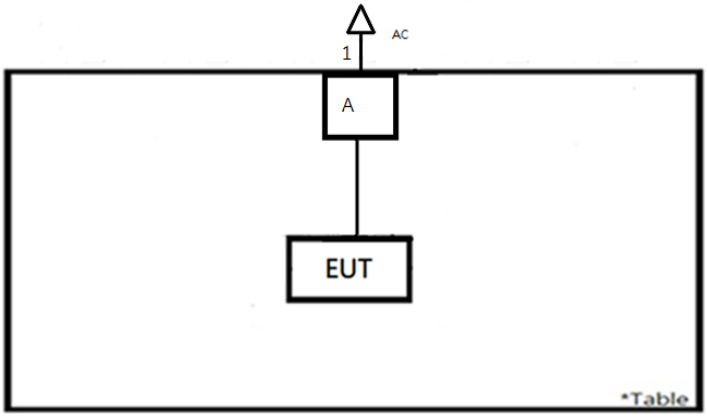
No.	Product	Brand	Model	Description
B	Adapter	FSP	FSP096-AHAN3	I/P: 100-240 Vac, 1.8 A O/P: 12 Vdc, 8 A
-	Battery	medDV	OPM-P05T-C1	7.2 Vdc, 4545 mAh

Support Unit

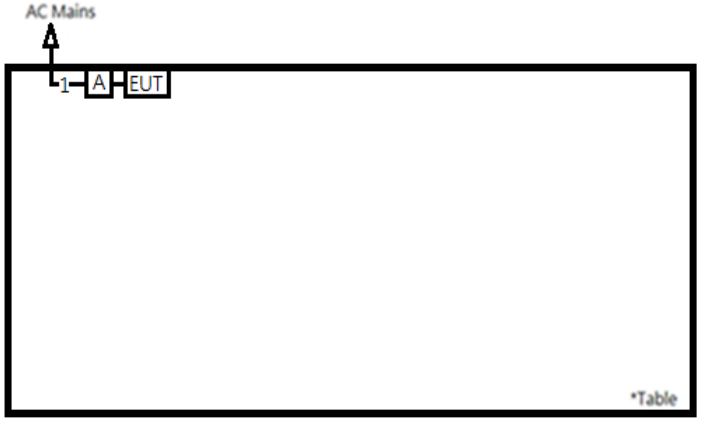
Support Unit								
No	Description	Brand	Model	S/N	Shielded	Ferrite Core (Qty)	Length (cm)	Remark
1	Power cord	Onyx Healthcare	N/A	N/A	NO	NO	180	--

4.5 Test Setup Diagram

<Radiated Spurious Emissions mode>



<Mains Conducted Emission mode>



5. Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

Requirement Use of approved antennas only

According to the manufacturer declaration, the antenna information is as listed below. The antenna is with no possibility of replacement with a non-approved antenna by the end-user. Therefore, the EUT is considered to comply with this provision.

Antenna	Antenna Type	Antenna Gain (dBi)
1	PIFA	2.46
2	PIFA	2.70

Refer to EUT photo for details.

5.1.2 Peak Output Power

Limit 1 watt (30 dBm)

Kind of Test Site Shielded room

Test Setup

Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date	Test Date	
						From	Until
Power Meter	Anritsu	ML2495A	1901008	2023/03/17	2024/03/16	2023/10/17	2023/10/17
Power Sensor	Anritsu	MA2411B	1725269	2023/03/17	2024/03/16	2023/10/17	2023/10/17

Test Procedures

A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor. Record the power level.
Average power sensor was used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

Test Result

Peak Output Power

<802.11b>

Channel	Channel Frequency (MHz)	Peak Output Power (dBm)		Total Power		Limit (dBm)
		Ant 1	Ant 2	(dBm)	(mW)	
1	2412	21.55	21.89	24.73	297.41	30
6	2437	22.83	22.80	25.83	382.41	30
11	2462	21.30	21.28	24.30	269.17	30
12	2467	18.83	19.39	22.13	163.28	30
13	2472	16.28	16.77	19.54	90.00	30

<802.11g>

Channel	Channel Frequency (MHz)	Peak Output Power (dBm)		Total Power		Limit (dBm)
		Ant 1	Ant 2	(dBm)	(mW)	
1	2412	21.83	22.70	25.30	338.61	30
2	2417	21.85	23.03	25.49	354.02	30
6	2437	24.03	24.75	27.42	551.47	30
10	2457	22.92	23.41	26.18	415.16	30
11	2462	22.19	22.79	25.51	355.68	30
12	2467	20.04	20.57	23.32	214.95	30
13	2472	7.84	8.48	11.18	13.13	30

<802.11n HT20>

Channel	Channel Frequency (MHz)	Peak Output Power (dBm)		Total Power		Limit (dBm)
		Ant 1	Ant 2	(dBm)	(mW)	
1	2412	21.97	22.80	25.42	347.94	30
2	2417	22.58	23.42	26.03	400.92	30
6	2437	23.72	24.43	27.10	512.84	30
10	2457	22.40	22.65	25.54	357.86	30
11	2462	20.71	20.89	23.81	240.50	30
12	2467	19.66	20.04	22.86	193.40	30
13	2472	8.03	8.97	11.54	14.24	30

<802.11n HT40>

Channel	Channel Frequency (MHz)	Peak Output Power (dBm)		Total Power		Limit (dBm)
		Ant 1	Ant 2	(dBm)	(mW)	
3	2422	19.12	19.55	22.35	171.82	30
4	2427	20.04	20.42	23.24	211.08	30
6	2437	20.12	20.59	23.37	217.35	30
8	2447	19.89	20.31	23.12	204.90	30
9	2452	19.25	19.58	22.43	174.92	30
10	2457	18.45	18.23	21.35	136.51	30
11	2462	9.02	9.65	12.36	17.21	30

<802.11ac VHT20>

Channel	Channel Frequency (MHz)	Peak Output Power (dBm)		Total Power		Limit (dBm)
		Ant 1	Ant 2	(dBm)	(mW)	
1	2412	22.03	22.89	25.49	354.12	30
2	2417	22.65	23.48	26.10	406.92	30
6	2437	23.81	24.51	27.18	522.92	30
10	2457	22.49	22.73	25.62	364.92	30
11	2462	20.81	21.04	23.94	247.56	30
12	2467	19.79	20.12	22.97	198.08	30
13	2472	8.11	9.06	11.62	14.53	30

<802.11ac VHT40>

Channel	Channel Frequency (MHz)	Peak Output Power (dBm)		Total Power		Limit (dBm)
		Ant 1	Ant 2	(dBm)	(mW)	
3	2422	19.28	19.63	22.47	176.56	30
4	2427	20.19	20.51	23.36	216.93	30
6	2437	20.26	20.75	23.52	225.02	30
8	2447	20.08	20.48	23.29	213.55	30
9	2452	19.43	19.73	22.59	181.67	30
10	2457	18.61	18.45	21.54	142.59	30
11	2462	9.15	9.78	12.49	17.73	30

<802.11ax HE20>

Channel	Channel Frequency (MHz)	Peak Output Power (dBm)		Total Power		Limit (dBm)
		Ant 1	Ant 2	(dBm)	(mW)	
1	2412	22.24	23.14	25.72	373.56	30
2	2417	22.88	23.67	26.30	426.90	30
6	2437	24.00	24.75	27.40	549.73	30
10	2457	22.70	22.90	25.81	381.19	30
11	2462	20.94	21.22	24.09	256.60	30
12	2467	20.02	20.34	23.19	208.60	30
13	2472	8.25	9.27	11.80	15.14	30

<802.11ax HE40>

Channel	Channel Frequency (MHz)	Peak Output Power (dBm)		Total Power		Limit (dBm)
		Ant 1	Ant 2	(dBm)	(mW)	
3	2422	19.47	19.88	22.69	185.79	30
4	2427	20.37	20.75	23.57	227.74	30
6	2437	20.42	20.81	23.63	230.66	30
8	2447	20.25	20.65	23.46	222.07	30
9	2452	19.76	19.91	22.85	192.57	30
10	2457	18.85	18.61	21.74	149.35	30
11	2462	9.34	10.03	12.71	18.66	30

<802.11ax HE20_Partial RU>

Channel	Channel Frequency (MHz)	RU Config.	Peak Output Power (dBm)		Total Power		Limit (dBm)
			Ant 1	Ant 2	(dBm)	(mW)	
1	2412	26/0	22.41	22.76	25.60	362.98	30
2	2417	26/0	22.53	22.68	25.62	364.41	30
6	2437	26/4	23.30	23.20	26.26	422.73	30
10	2457	26/8	20.72	20.93	23.84	241.91	30
11	2462	26/8	20.58	21.24	23.93	247.33	30
12	2467	26/8	17.40	18.27	20.87	122.10	30
13	2472	26/8	-2.87	-2.52	0.32	1.08	30
1	2412	52/37	21.93	22.16	25.06	320.39	30
2	2417	52/37	22.17	22.28	25.24	333.86	30
6	2437	52/38	23.31	23.47	26.40	436.62	30
10	2457	52/40	20.28	20.57	23.44	220.68	30
11	2462	52/40	19.74	20.04	22.90	195.11	30
12	2467	52/40	16.29	17.28	19.82	96.02	30
13	2472	52/40	-2.84	-2.39	0.40	1.10	30
1	2412	106/53	21.45	21.93	24.71	295.59	30
2	2417	106/53	22.52	22.82	25.68	370.07	30
6	2437	106/53	23.85	23.27	26.58	454.99	30
10	2457	106/54	20.33	20.86	23.61	229.79	30
11	2462	106/54	20.66	21.09	23.89	244.94	30
12	2467	106/54	17.24	18.50	20.93	123.76	30
13	2472	106/54	-1.13	-0.29	2.32	1.71	30
1	2412	242/61	20.69	21.01	23.86	243.40	30
2	2417	242/61	21.18	21.43	24.32	270.22	30
6	2437	242/61	23.24	23.47	26.37	433.19	30
10	2457	242/61	21.68	21.91	24.81	302.47	30
11	2462	242/61	19.38	19.56	22.48	177.06	30
12	2467	242/61	17.30	17.96	20.65	116.22	30
13	2472	242/61	0.32	0.91	3.64	2.31	30

<802.11ax HE40_Partial RU>

Channel	Channel Frequency (MHz)	RU Config.	Peak Output Power (dBm)		Total Power		Limit (dBm)
			Ant 1	Ant 2	(dBm)	(mW)	
3	2422	484/65	15.64	16.40	19.05	80.30	30
4	2427	484/65	16.18	17.03	19.64	91.96	30
6	2437	484/65	20.48	20.99	23.75	237.29	30
8	2447	484/65	17.51	17.96	20.75	118.88	30
9	2452	484/65	18.18	18.37	21.29	134.47	30
10	2457	484/65	16.20	17.15	19.71	93.57	30
11	2462	484/65	1.28	1.71	4.51	2.83	30

Average Power

<802.11b>

Channel	Channel Frequency (MHz)	Average Power (dBm)		Total Power	
		Ant 1	Ant 2	(dBm)	(mW)
1	2412	19.10	19.42	22.27	168.78
6	2437	20.39	20.35	23.38	217.79
11	2462	18.93	18.83	21.89	154.55
12	2467	16.37	16.80	19.60	91.21
13	2472	13.74	14.25	17.01	50.27

<802.11g>

Channel	Channel Frequency (MHz)	Average Power (dBm)		Total Power	
		Ant 1	Ant 2	(dBm)	(mW)
1	2412	15.98	16.95	19.50	89.17
2	2417	16.12	17.08	19.64	91.98
6	2437	20.19	19.58	22.91	195.25
10	2457	17.31	17.63	20.48	111.77
11	2462	16.18	16.67	19.44	87.95
12	2467	14.20	14.69	17.46	55.75
13	2472	1.93	2.55	5.26	3.36

<802.11n HT20>

Channel	Channel Frequency (MHz)	Average Power (dBm)		Total Power	
		Ant 1	Ant 2	(dBm)	(mW)
1	2412	15.12	16.04	18.61	72.69
2	2417	15.70	16.51	19.13	81.92
6	2437	18.81	18.65	21.74	149.32
10	2457	15.32	15.69	18.52	71.11
11	2462	13.95	14.17	17.07	50.95
12	2467	12.92	13.27	16.11	40.82
13	2472	1.24	2.18	4.75	2.98

<802.11n HT40>

Channel	Channel Frequency (MHz)	Average Power (dBm)		Total Power	
		Ant 1	Ant 2	(dBm)	(mW)
1	2412	13.28	13.51	16.41	43.72
2	2417	13.61	14.13	16.89	48.84
6	2437	13.69	14.14	16.93	49.33
10	2457	13.66	13.92	16.80	47.89
11	2462	12.80	13.14	15.98	39.66
12	2467	11.83	12.18	15.02	31.76
13	2472	2.78	4.03	6.46	4.43

<802.11ac VHT20>

Channel	Channel Frequency (MHz)	Average Power (dBm)		Total Power	
		Ant 1	Ant 2	(dBm)	(mW)
1	2412	15.19	16.15	18.71	74.25
2	2417	15.77	16.62	19.23	83.68
6	2437	18.88	18.72	21.81	151.74
10	2457	15.36	15.78	18.59	72.20
11	2462	14.02	14.25	17.15	51.84
12	2467	12.98	13.33	16.17	41.39
13	2472	1.32	2.25	4.82	3.03

<802.11ac VHT40>

Channel	Channel Frequency (MHz)	Average Power (dBm)		Total Power	
		Ant 1	Ant 2	(dBm)	(mW)
1	2412	13.35	13.69	16.53	45.02
2	2417	13.68	14.22	16.97	49.76
6	2437	13.77	14.23	17.02	50.31
10	2457	13.75	14.02	16.90	48.95
11	2462	12.96	13.24	16.11	40.86
12	2467	11.92	12.26	15.10	32.39
13	2472	2.88	4.12	6.55	4.52

<802.11ax HE20>

Channel	Channel Frequency (MHz)	Average Power (dBm)		Total Power	
		Ant 1	Ant 2	(dBm)	(mW)
1	2412	15.42	16.39	18.94	78.38
2	2417	15.96	16.88	19.45	88.20
6	2437	19.07	18.89	21.99	158.17
10	2457	15.55	16.02	18.80	75.89
11	2462	14.17	14.49	17.34	54.24
12	2467	13.20	13.56	16.39	43.59
13	2472	1.59	2.40	5.02	3.18

<802.11ax HE40>

Channel	Channel Frequency (MHz)	Average Power (dBm)		Total Power	
		Ant 1	Ant 2	(dBm)	(mW)
1	2412	13.51	13.90	16.72	46.99
2	2417	13.89	14.37	17.15	51.84
6	2437	13.95	14.44	17.21	52.63
10	2457	13.90	14.21	17.07	50.91
11	2462	13.14	13.41	16.29	42.53
12	2467	12.15	12.48	15.33	34.11
13	2472	3.06	4.35	6.76	4.75

<802.11ax HE20_Partial RU>

Channel	Channel Frequency (MHz)	RU Config.	Average Power (dBm)		Total Power	
			Ant 1	Ant 2	(dBm)	(mW)
1	2412	26/0	14.65	15.39	18.05	63.77
2	2417	26/0	15.41	15.90	18.67	73.66
6	2437	26/4	16.14	16.91	19.55	90.21
10	2457	26/8	13.51	13.86	16.70	46.76
11	2462	26/8	13.49	13.87	16.69	46.71
12	2467	26/8	10.13	11.25	13.74	23.64
13	2472	26/8	-10.47	-10.08	-7.26	0.19
1	2412	52/37	14.61	15.36	18.01	63.26
2	2417	52/37	14.73	15.32	18.05	63.76
6	2437	52/38	16.26	16.84	19.57	90.57
10	2457	52/40	12.85	13.18	16.03	40.07
11	2462	52/40	12.47	12.93	15.72	37.29
12	2467	52/40	9.02	9.94	12.51	17.84
13	2472	52/40	-10.43	-10.03	-7.22	0.19
1	2412	106/53	14.24	14.81	17.54	56.82
2	2417	106/53	15.23	15.89	18.58	72.16
6	2437	106/53	16.52	16.86	19.70	93.40
10	2457	106/54	13.27	13.90	16.61	45.78
11	2462	106/54	13.49	13.86	16.69	46.66
12	2467	106/54	10.06	11.12	13.63	23.08
13	2472	106/54	-8.37	-7.98	-5.16	0.30
1	2412	242/61	13.28	13.97	16.65	46.23
2	2417	242/61	13.76	14.28	17.04	50.56
6	2437	242/61	16.22	16.92	19.59	91.08
10	2457	242/61	14.33	14.81	17.59	57.37
11	2462	242/61	12.06	12.41	15.25	33.49
12	2467	242/61	9.67	10.57	13.15	20.67
13	2472	242/61	-6.87	-6.46	-3.65	0.43

<802.11ax HE40_Partial RU>

Channel	Channel Frequency (MHz)	RU Config.	Average Power (dBm)		Total Power	
			Ant 1	Ant 2	(dBm)	(mW)
3	2422	484/65	8.72	9.82	12.32	17.04
4	2427	484/65	9.36	10.34	12.89	19.44
6	2437	484/65	13.27	13.71	16.51	44.73
8	2447	484/65	10.65	10.84	13.76	23.75
9	2452	484/65	11.23	11.58	14.42	27.66
10	2457	484/65	9.36	10.18	12.80	19.05
11	2462	484/65	-5.13	-4.73	-1.92	0.64

5.1.3 Radiated Spurious Emissions and Band Edges

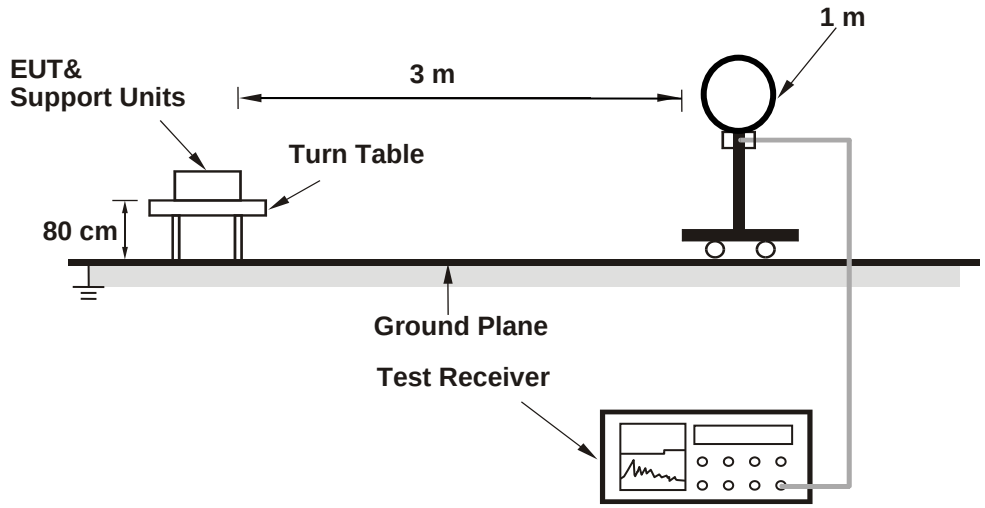
Limit

Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must comply with the radiated emission limits specified in §15.209(a).
Emissions radiated outside the restricted and authorized frequency bands must either comply with the radiated emission limits specified for the restricted bands or in §15.247(d).

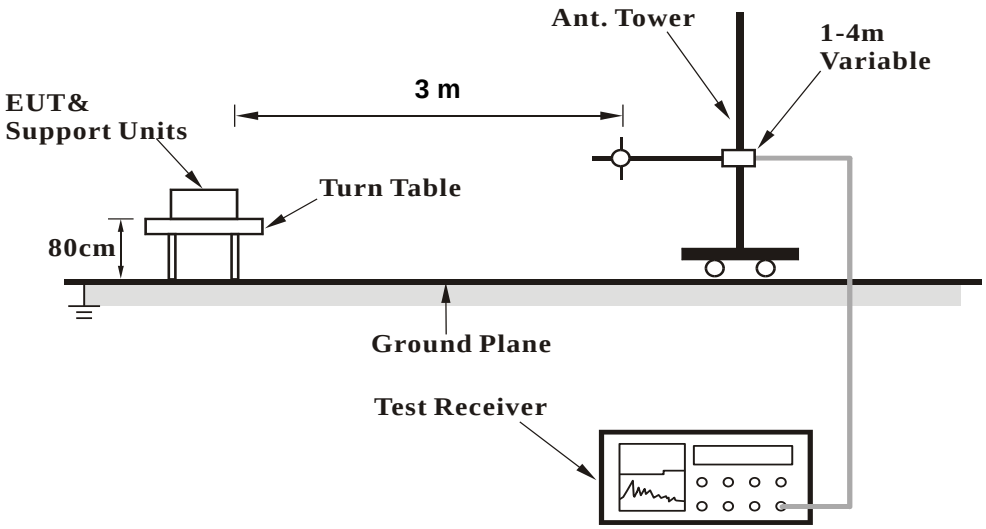
Kind of Test Site 3m Semi-Anechoic Chamber

Test Setup

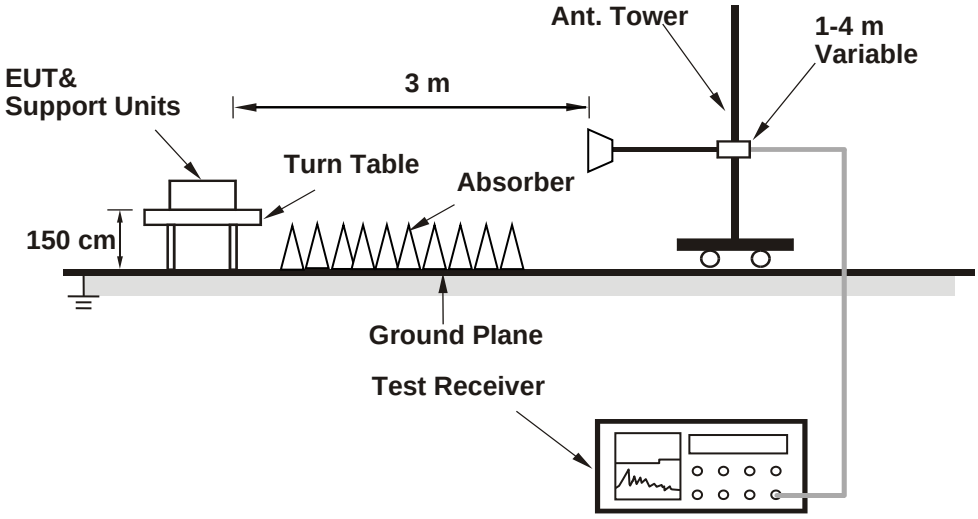
<Radiated Emissions below 30 MHz>



<Radiated Emissions 30 MHz to 1 GHz>



<Radiated Emissions above 1 GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date
Above 1 GHz					
Signal Analyzer	R&S	FSV40	101509	2023/4/26	2024/4/24
Horn Antenna	ETS-Lindgren	3117	00218929	2022/11/17	2023/11/16
Horn Antenna	SCHWARZBECK	BBHA 9170	00890	2023/5/4	2024/5/2
HF-AMP + AC source	EMCI	EMC051845SE	980635	2023/2/16	2024/2/15
HF-AMP + AC source	EMCI	EMC051845SE	980656	2023/1/16	2024/1/15
Test Software	Audix E3	15914a_20191106 tuv	PK-001087	N/A	N/A
30 MHz ~ 1 GHz					
Receiver	R&S	ESR7	102109	2023/2/24	2024/2/23
Bilog Antenna	SCHWARZBECK	VULB-9168	00951	2023/3/31	2024/3/29
LF-AMP	Agilent	8447D	2944A107722	2023/3/22	2024/3/20
Test Software	Audix E3	15914a_20191106 tuv	PK-001087	N/A	N/A
Below 30 MHz					
Receiver	R&S	ESR7	102109	2023/2/24	2024/2/23
Loop Antenna	SCHWARZBECK	FMZB 1519B	00215	2023/1/4	2024/1/3
Test Software	Audix E3	15914a_20191106 tuv	PK-001087	N/A	N/A

Test Procedures

For Radiated Emissions below 30 MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. Parallel (OPEN), perpendicular (CLOSE), and ground-parallel (GROUND) orientations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz at frequency below 30 MHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

For Radiated Emissions above 30 MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30 MHz ~ 1 GHz) / 1.5 meters (for above 1 GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. 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 from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
f. The test-receiver system was set to peak and average detected function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) or Peak detection (PK) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98 %) or 10 Hz (Duty cycle ≥ 98 %) for Average detection (AV) at frequency above 1 GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.
5. The Radiated Emissions testing was performed in the X(E1), Y(H) and Z(E2) axis orientation. The worst-case Axis orientation is recorded in this test report.
6. The emission levels of other frequencies (including the 10th harmonic of the highest fundamental frequency) are very lower than the limit and are not shown in the test report.

Test Results

Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)
Level (dBuV/m) = Reading (dBuV) + Factor (dB/m)

Please refer to Appendix A.

5.2 Mains Emission

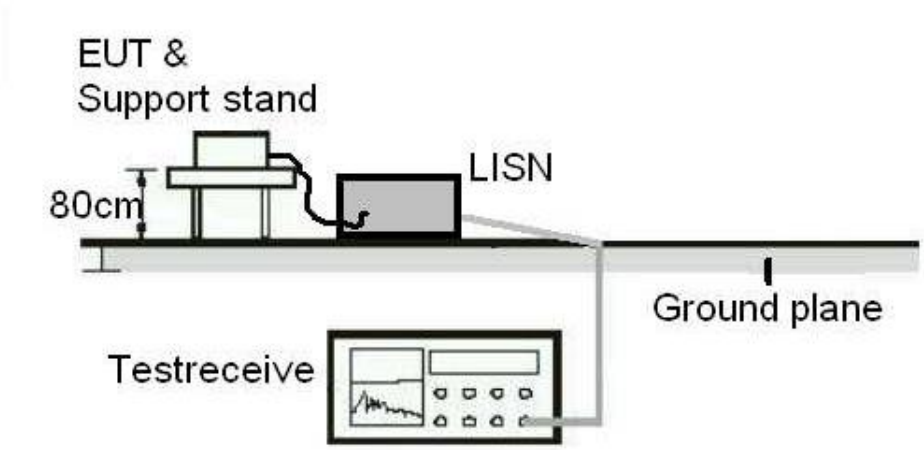
5.2.1 Mains Conducted Emission

Limit

Mains Conducted Emission as defined in §15.207 must comply with the mains conducted emission limits.

Kind of Test Site Shielded room

Test Setup



Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date
Two-Line V-Network	Rohde & Schwarz	ENV216	101938	2023/10/23	2024/10/21
EMI Test Receiver	R&S	ESCI	101094	2022/11/24	2023/11/23

Test Procedures

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/50 uH of coupling impedance for the measuring instrument.
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

Note: The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz – 30 MHz.

Test Results

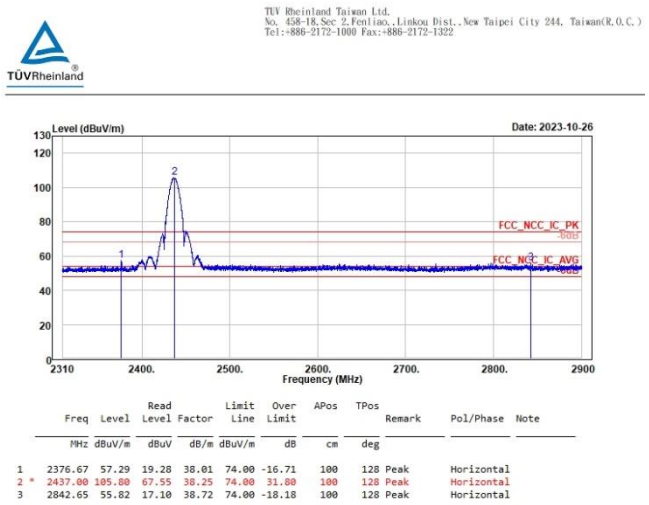
Please refer to Appendix A.

Appendix A: Test Results of Radiated Spurious Emissions & Mains

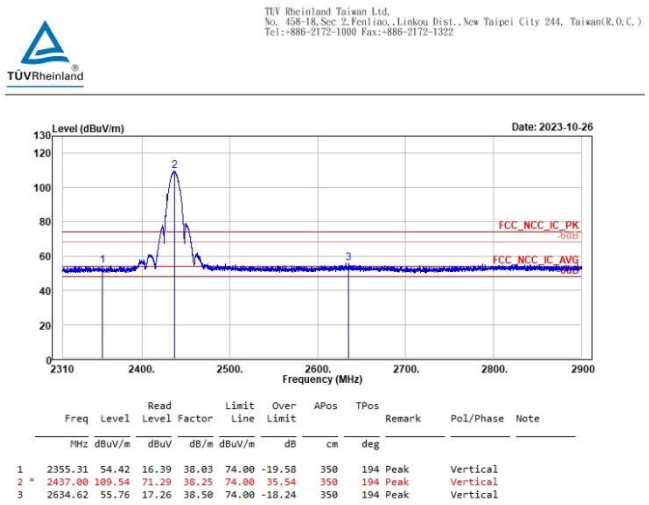
Conducted Emission Test

Band Edges, 2.31GHz ~ 2.9GHz

802.11b	
CH 6 (Horizontal) Peak	**CH6 (Vertical) Peak**



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2376.67	57.29	19.28	38.01	74.00	-16.71	100	128	Peak	Horizontal	
2 *	2437.00	105.80	67.55	38.25	74.00	31.80	100	128	Peak	Horizontal	
3	2842.65	55.82	17.10	38.72	74.00	-18.18	100	128	Peak	Horizontal	



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2355.31	54.42	16.39	38.03	74.00	-19.58	350	194	Peak	Vertical	
2 *	2437.00	109.54	71.29	38.25	74.00	35.54	350	194	Peak	Vertical	
3	2634.62	55.76	17.26	38.50	74.00	-18.24	350	194	Peak	Vertical	

802.11b

CH6 (Horizontal) Average

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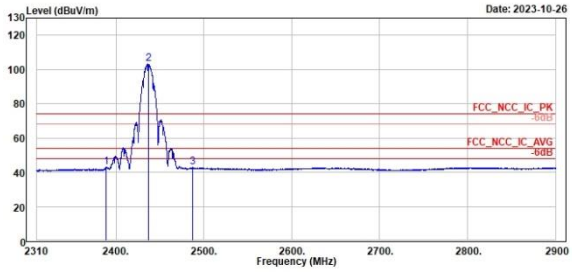

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2388.82	42.96	4.96	38.00	54.00	-11.04	100	128	Average	Horizontal	
2 *	2437.00	103.16	64.91	38.25	54.00	49.16	100	128	Average	Horizontal	
3	2487.24	42.89	4.50	38.39	54.00	-11.11	100	128	Average	Horizontal	

CH6 (Vertical) Average

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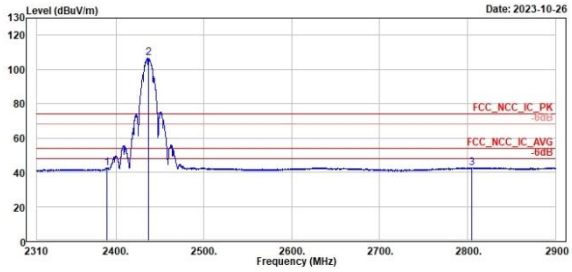

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2389.77	42.53	4.53	38.00	54.00	-11.47	350	194	Average	Vertical	
2 *	2437.00	106.57	68.32	38.25	54.00	52.57	350	194	Average	Vertical	
3	2804.77	42.70	4.02	38.68	54.00	-11.30	350	194	Average	Vertical	

802.11g

CH13 (Horizontal) Peak

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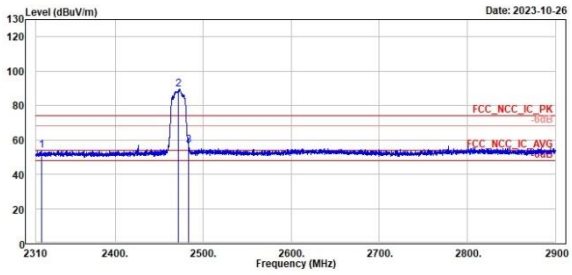

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2316.14	53.98	16.26	37.72	74.00	-20.02	131	142	Peak	Horizontal	
2 *	2472.00	89.53	51.15	38.38	74.00	15.53	131	142	Peak	Horizontal	
3	2483.46	56.95	18.56	38.39	74.00	-17.05	131	142	Peak	Horizontal	

CH13 (Vertical) Peak

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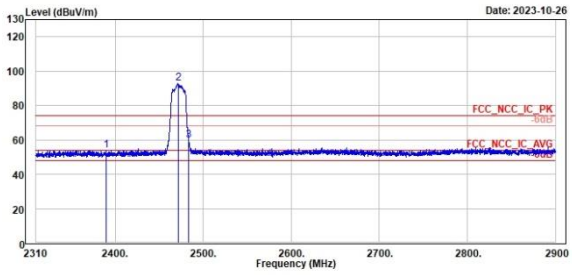

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2389.77	54.11	16.11	38.00	74.00	-19.89	338	193	Peak	Vertical	
2 *	2472.00	92.78	54.40	38.38	74.00	18.78	338	193	Peak	Vertical	
3	2483.58	59.56	21.17	38.39	74.00	-14.44	338	193	Peak	Vertical	

802.11g

CH13 (Horizontal) Average

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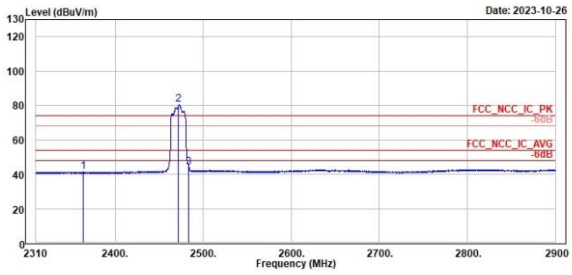

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2363.69	41.30	3.28	38.02	54.00	-12.70	131	142	Average	Horizontal	
2 *	2472.00	80.37	41.99	38.38	54.00	26.37	131	142	Average	Horizontal	
3	2483.58	44.17	5.78	38.39	54.00	-9.83	131	142	Average	Horizontal	

CH13 (Vertical) Average

TÜV Rheinland Taiwan Ltd.
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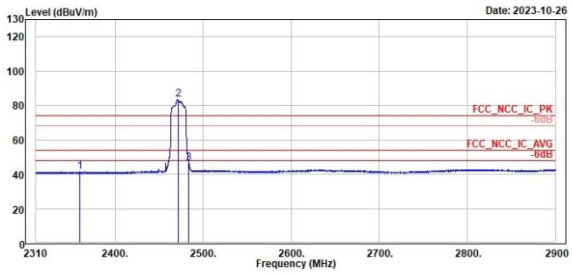

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2360.15	41.31	3.29	38.02	54.00	-12.69	338	193	Average	Vertical	
2 *	2472.00	83.41	45.03	38.38	54.00	29.41	338	193	Average	Vertical	
3	2483.58	46.59	8.20	38.39	54.00	-7.41	338	193	Average	Vertical	

802.11ax HE20

CH13 (Horizontal) Peak

TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao., Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
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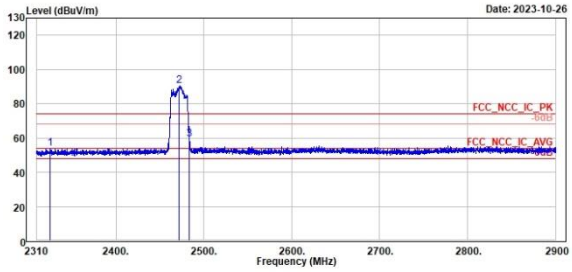

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2325.58	53.77	15.97	37.80	74.00	-20.23	108	130	Peak	Horizontal	
2 *	2472.00	90.34	51.96	38.38	74.00	16.34	108	130	Peak	Horizontal	
3	2483.46	59.44	21.05	38.39	74.00	-14.56	108	130	Peak	Horizontal	

CH13 (Vertical) Peak

TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao., Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
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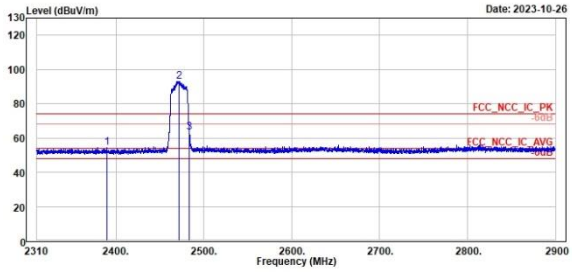

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2390.00	54.28	16.28	38.00	74.00	-19.72	376	195	Peak	Vertical	
2 *	2472.00	93.04	54.66	38.38	74.00	19.04	376	195	Peak	Vertical	
3	2483.58	63.49	25.10	38.39	74.00	-10.51	376	195	Peak	Vertical	

802.11ax HE20

CH13 (Horizontal) Average

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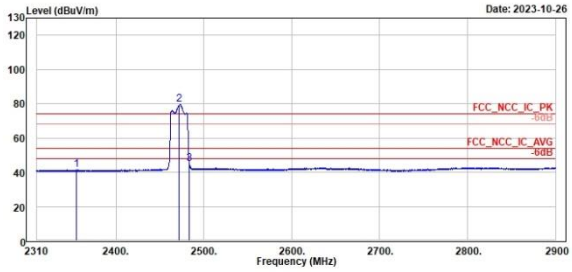

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2354.84	41.34	3.31	38.03	54.00	-12.66	108	130	Average	Horizontal	
2 *	2472.00	79.57	41.19	38.38	54.00	25.57	108	130	Average	Horizontal	
3	2483.46	45.17	6.78	38.39	54.00	-8.83	108	130	Average	Horizontal	

CH13 (Vertical) Average

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No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
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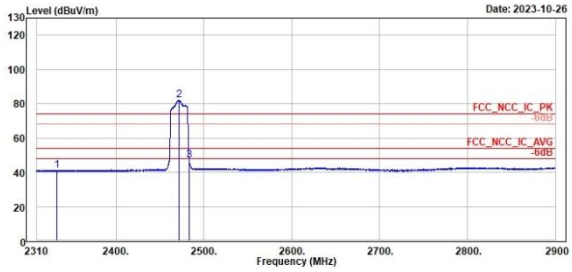

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2333.13	41.26	3.38	37.88	54.00	-12.74	376	195	Average	Vertical	
2 *	2472.00	82.03	43.65	38.38	54.00	28.03	376	195	Average	Vertical	
3	2483.46	46.89	8.50	38.39	54.00	-7.11	376	195	Average	Vertical	

802.11ax HE40

CH8 (Horizontal) Peak

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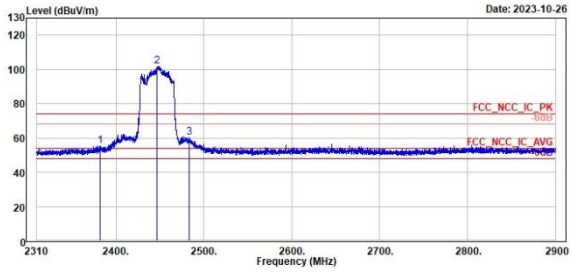

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2381.74	55.40	17.39	38.01	74.00	-18.60	111	130	Peak	Horizontal	
2 *	2447.00	101.79	63.46	38.33	74.00	27.79	111	130	Peak	Horizontal	
3	2483.81	60.25	21.86	38.39	74.00	-13.75	111	130	Peak	Horizontal	

CH8 (Vertical) Peak

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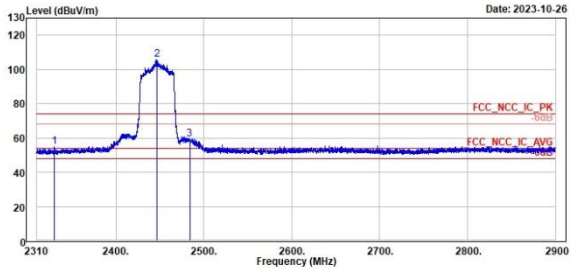

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2329.82	54.89	17.04	37.85	74.00	-19.11	390	195	Peak	Vertical	
2 *	2447.00	105.71	67.38	38.33	74.00	31.71	390	195	Peak	Vertical	
3	2483.93	59.40	21.01	38.39	74.00	-14.60	390	195	Peak	Vertical	

802.11ax HE40

CH8 (Horizontal) Average

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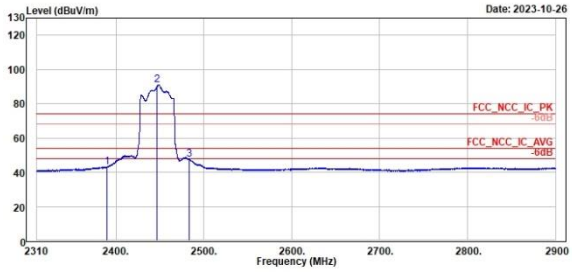

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2389.53	43.10	5.10	38.00	54.00	-10.90	111	130	Average	Horizontal	
2 *	2447.00	91.19	52.86	38.33	54.00	37.19	111	130	Average	Horizontal	
3	2483.58	47.55	9.16	38.39	54.00	-6.45	111	130	Average	Horizontal	

CH8 (Vertical) Average

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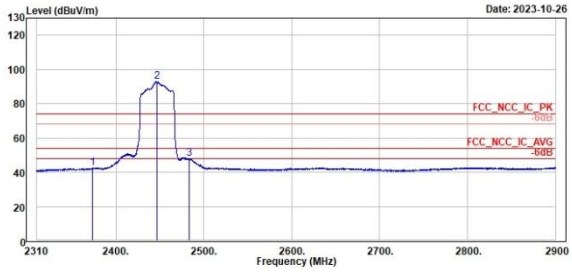

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2373.48	42.62	4.61	38.01	54.00	-11.38	390	195	Average	Vertical	
2 *	2447.00	93.06	54.73	38.33	54.00	39.06	390	195	Average	Vertical	
3	2483.70	47.77	9.38	38.39	54.00	-6.23	390	195	Average	Vertical	

Spurious Emissions, Tx Mode, 9kHz ~ 30MHz

802.11ax HE40

CH8 (Open) 9kHz~150kHz

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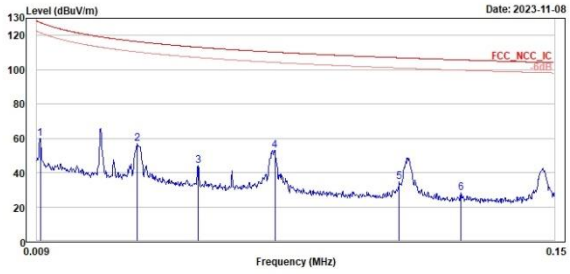

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	0.01	59.86	42.14	17.72	127.60	-67.74	100	87	Peak	Open	
2	0.04	56.79	37.61	19.18	116.35	-59.56	100	225	Peak	Open	
3	0.05	43.88	24.84	19.04	113.11	-69.23	100	216	Peak	Open	
4	0.07	52.74	34.20	18.54	110.23	-57.49	100	360	Peak	Open	
5	0.11	34.67	16.72	17.95	106.95	-72.28	100	194	Peak	Open	
6	0.12	28.18	10.16	18.02	105.70	-77.52	100	353	Peak	Open	

CH8 (Open) 150kHz~30MHz

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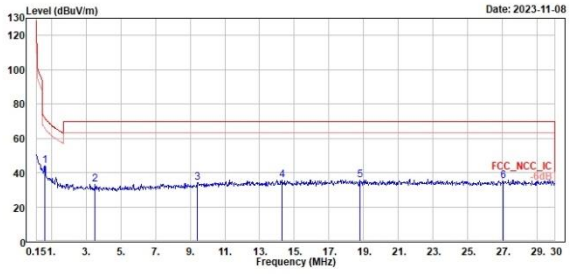

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	0.63	43.85	24.94	18.91	71.65	-27.80	100	271	Peak	Open	
2	3.52	33.20	13.58	19.62	69.50	-36.30	100	270	Peak	Open	
3	9.43	34.16	12.82	21.34	69.50	-35.34	100	49	Peak	Open	
4	14.30	35.51	13.62	21.89	69.50	-33.99	100	286	Peak	Open	
5	18.78	35.60	13.38	22.22	69.50	-33.90	100	290	Peak	Open	
6	27.02	35.11	12.75	22.36	69.50	-34.39	100	128	Peak	Open	

Spurious Emissions, Tx Mode, 30MHz ~ 1GHz

802.11ax HE40

CH8 (Horizontal)

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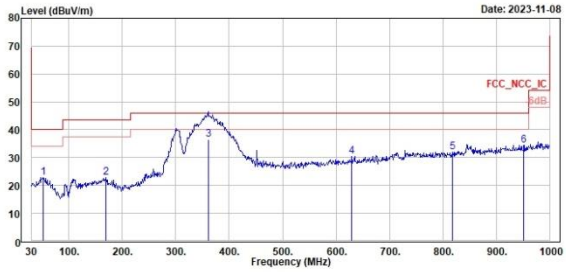

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	51.34	22.95	28.56	-5.61	40.00	-17.05	100	72	Peak	Horizontal	
2	169.68	22.85	28.75	-5.90	43.50	-20.65	200	106	Peak	Horizontal	
3	360.77	36.37	39.90	-3.53	46.00	-9.63	100	346	QP	Horizontal	
4	629.46	30.49	29.47	1.02	46.00	-15.51	200	84	Peak	Horizontal	
5	818.61	31.94	28.57	3.37	46.00	-14.06	100	194	Peak	Horizontal	
6	951.50	34.46	29.16	5.30	46.00	-11.54	300	14	Peak	Horizontal	

CH8 (Vertical)

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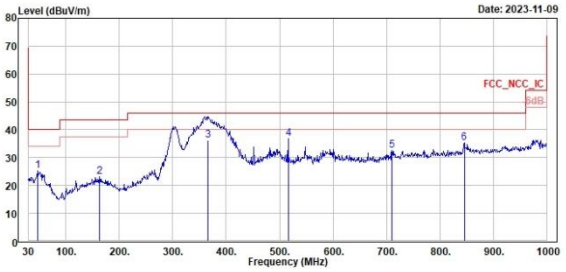

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	47.46	25.40	31.23	-5.83	40.00	-14.60	100	250	Peak	Vertical	
2	162.89	22.97	28.58	-5.61	43.50	-20.53	279	360	Peak	Vertical	
3	365.62	36.25	39.72	-3.47	46.00	-9.75	138	360	QP	Vertical	
4	515.97	36.89	38.08	-1.19	46.00	-9.11	100	166	Peak	Vertical	
5	709.97	32.41	30.22	2.19	46.00	-13.59	200	210	Peak	Vertical	
6	845.77	35.26	31.16	4.10	46.00	-10.74	100	83	Peak	Vertical	

Spurious Emissions, Tx Mode, 1GHz ~ 26.5GHz

802.11b

CH13 (Horizontal)

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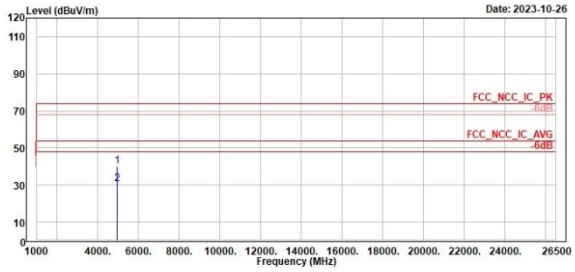

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4944.00	40.34	47.87	-7.53	74.00	-33.66	281	360	Peak	Horizontal	
2	4944.00	30.56	38.09	-7.53	54.00	-23.44	281	360	Average	Horizontal	

CH13 (Vertical)

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No. 458-18, Sec 2, Fenliao., Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
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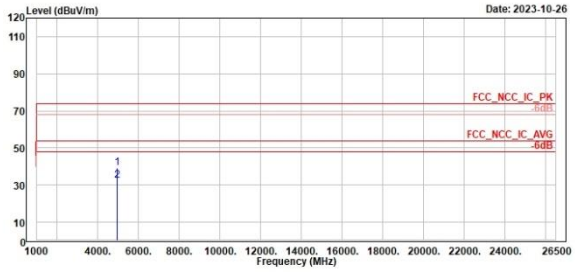

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4944.00	39.12	46.65	-7.53	74.00	-34.88	300	360	Peak	Vertical	
2	4944.00	32.48	40.01	-7.53	54.00	-21.52	300	360	Average	Vertical	

802.11g

CH13 (Horizontal)

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No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
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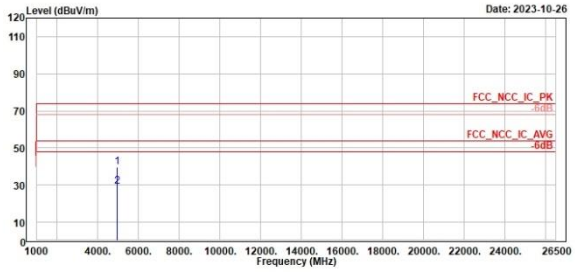

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4944.00	39.58	47.11	-7.53	74.00	-34.42	300	233	Peak	Horizontal	
2	4944.00	29.21	36.74	-7.53	54.00	-24.79	300	233	Average	Horizontal	

CH13 (Vertical)

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No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
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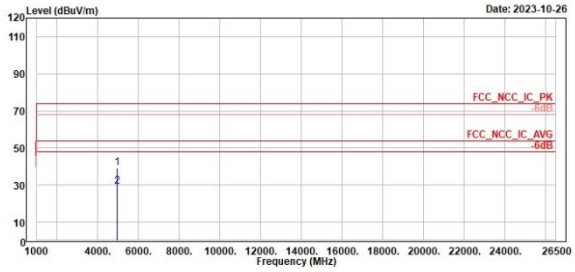

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4944.00	39.06	46.59	-7.53	74.00	-34.94	199	360	Peak	Vertical	
2	4944.00	29.13	36.66	-7.53	54.00	-24.87	199	360	Average	Vertical	

802.11ax HE20

CH13 (Horizontal)

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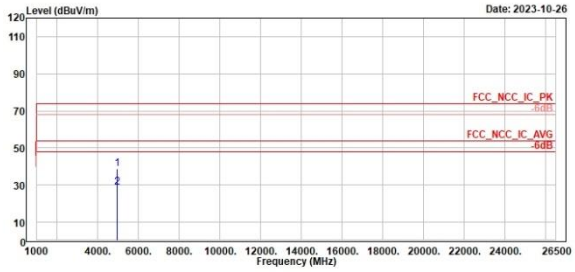

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4944.00	38.60	46.13	-7.53	74.00	-35.40	100	137	Peak	Horizontal	
2	4944.00	28.88	36.41	-7.53	54.00	-25.12	100	137	Average	Horizontal	

CH13 (Vertical)

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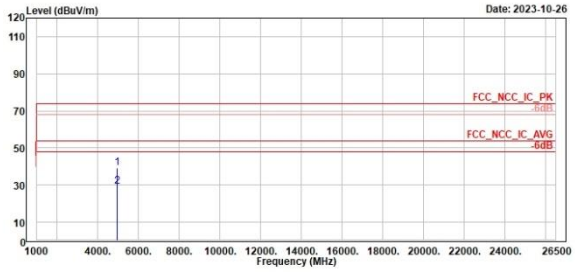

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4944.00	39.10	46.63	-7.53	74.00	-34.90	112	42	Peak	Vertical	
2	4944.00	29.07	36.60	-7.53	54.00	-24.93	112	42	Average	Vertical	

802.11ax HE40

CH11 (Horizontal)

TUV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao., Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
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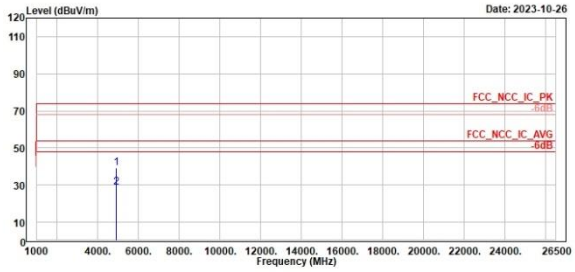

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4924.00	39.20	46.83	-7.63	74.00	-34.80	200	186	Peak	Horizontal	
2	4924.00	28.56	36.19	-7.63	54.00	-25.44	200	186	Average	Horizontal	

CH11 (Vertical)

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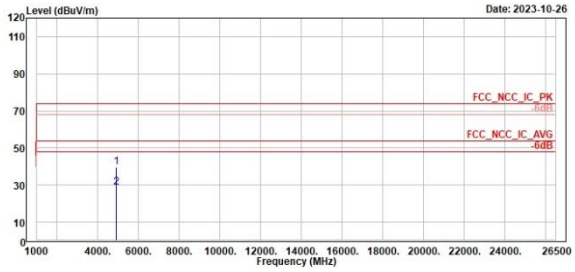
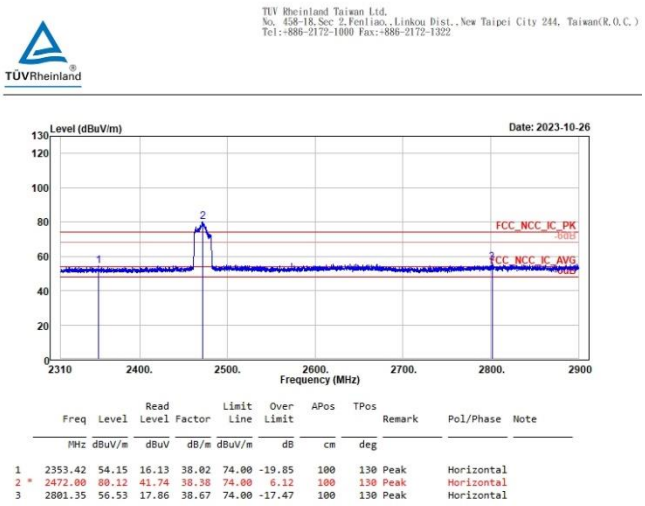


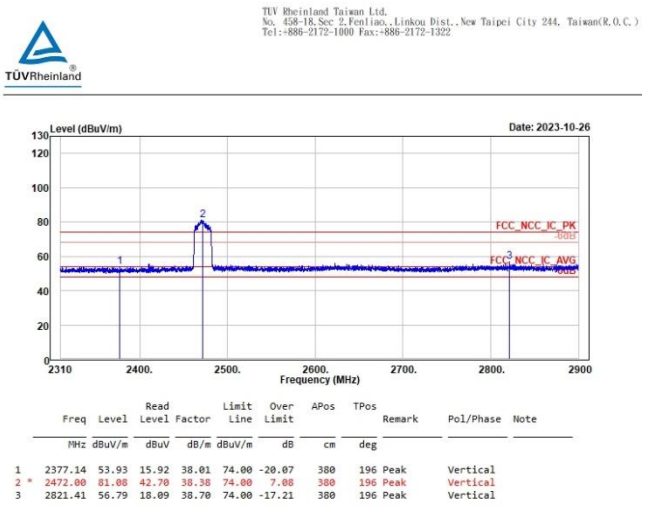
	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4924.00	39.67	47.30	-7.63	74.00	-34.33	100	205	Peak	Vertical	
2	4924.00	28.85	36.48	-7.63	54.00	-25.15	100	205	Average	Vertical	

<Partial RU>
Band Edges, 2.31GHz ~ 2.9GHz

802.11ax HE20_RU26	
CH13 (Horizontal) Peak	**CH13 (Vertical) Peak**



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2353.42	54.15	16.13	38.02	74.00	-19.85	100	130	Peak	Horizontal	
2 *	2472.00	80.12	41.74	38.38	74.00	6.12	100	130	Peak	Horizontal	
3	2801.35	56.53	17.86	38.67	74.00	-17.47	100	130	Peak	Horizontal	



	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2377.14	53.93	15.92	38.01	74.00	-20.07	380	196	Peak	Vertical	
2 *	2472.00	81.08	42.70	38.38	74.00	7.08	380	196	Peak	Vertical	
3	2821.41	56.79	18.09	38.70	74.00	-17.21	380	196	Peak	Vertical	

802.11ax HE20_RU26

CH13 (Horizontal) Average

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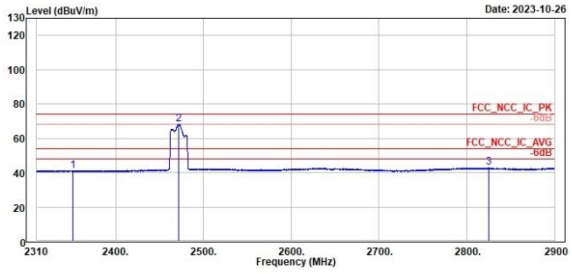

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2350.95	41.22	3.19	38.03	54.00	-12.78	100	130	Average	Horizontal	
2 *	2472.00	68.29	29.91	38.38	54.00	14.29	100	130	Average	Horizontal	
3	2824.83	42.79	4.09	38.70	54.00	-11.21	100	130	Average	Horizontal	

CH13 (Vertical) Average

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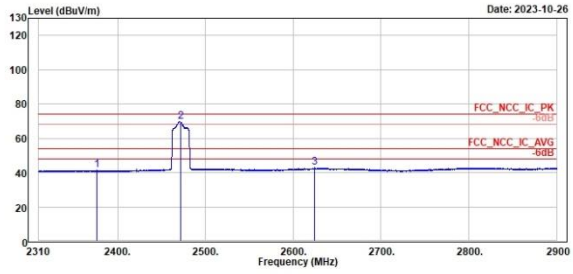

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2376.67	41.37	3.36	38.01	54.00	-12.63	380	196	Average	Vertical	
2 *	2472.00	69.78	31.40	38.38	54.00	15.78	380	196	Average	Vertical	
3	2624.59	42.87	4.36	38.51	54.00	-11.13	380	196	Average	Vertical	

802.11ax HE40_RU484

CH10 (Horizontal) Peak

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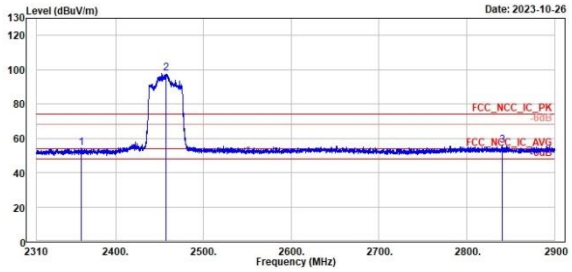

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2361.21	54.25	16.23	38.02	74.00	-19.75	114	130	Peak	Horizontal	
2 *	2457.00	97.76	59.40	38.36	74.00	23.76	114	130	Peak	Horizontal	
3	2840.53	55.75	17.03	38.72	74.00	-18.25	114	130	Peak	Horizontal	

CH10 (Vertical) Peak

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No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
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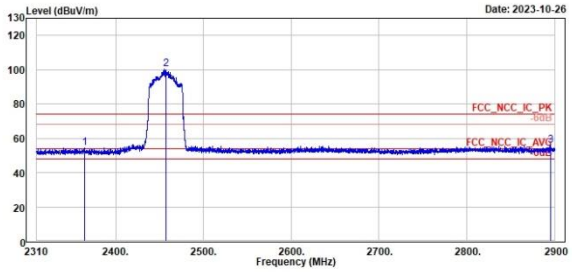

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2364.40	54.59	16.57	38.02	74.00	-19.41	392	196	Peak	Vertical	
2 *	2457.00	100.43	62.07	38.36	74.00	26.43	392	196	Peak	Vertical	
3	2895.63	55.70	16.83	38.87	74.00	-18.30	392	196	Peak	Vertical	

802.11ax HE40_RU484

CH10 (Horizontal) Average

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No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
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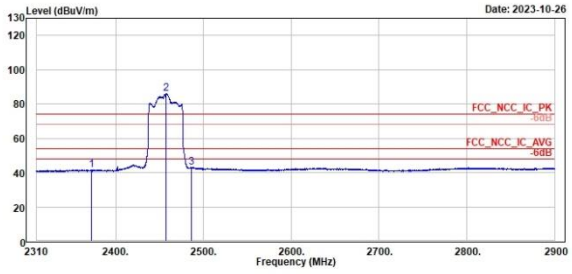

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2372.30	41.57	3.55	38.02	54.00	-12.43	114	130	Average	Horizontal	
2 *	2457.00	85.99	47.63	38.36	54.00	31.99	114	130	Average	Horizontal	
3	2486.06	43.05	4.66	38.39	54.00	-10.95	114	130	Average	Horizontal	

CH10 (Vertical) Average

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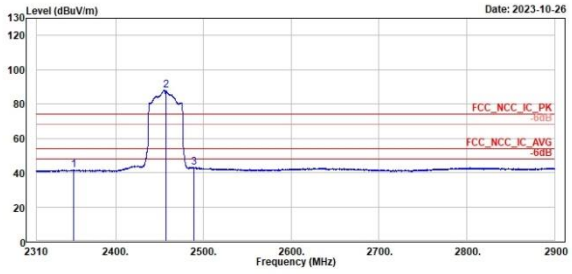

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	2352.24	41.64	3.61	38.03	54.00	-12.36	392	196	Average	Vertical	
2 *	2457.00	88.10	49.74	38.36	54.00	34.10	392	196	Average	Vertical	
3	2489.60	43.07	4.67	38.40	54.00	-10.93	392	196	Average	Vertical	

Spurious Emissions, Tx Mode, 1GHz ~ 26.5GHz

802.11ax HE20_RU26

CH13 (Horizontal)

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No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
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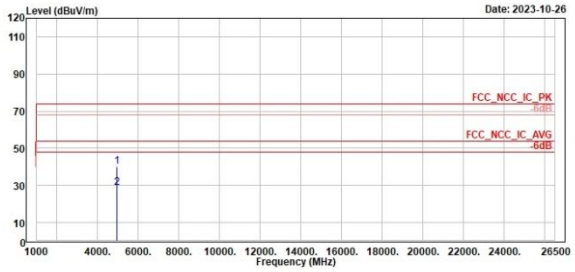

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4944.00	40.37	47.90	-7.53	74.00	-33.63	300	95	Peak	Horizontal	
2	4944.00	28.86	36.39	-7.53	54.00	-25.14	300	95	Average	Horizontal	

CH13 (Vertical)

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No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
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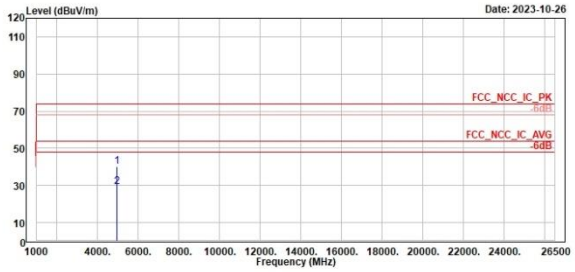

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4944.00	40.02	47.55	-7.53	74.00	-33.98	300	200	Peak	Vertical	
2	4944.00	29.17	36.70	-7.53	54.00	-24.83	300	200	Average	Vertical	

802.11ax HE40_RU484

CH11 (Horizontal)

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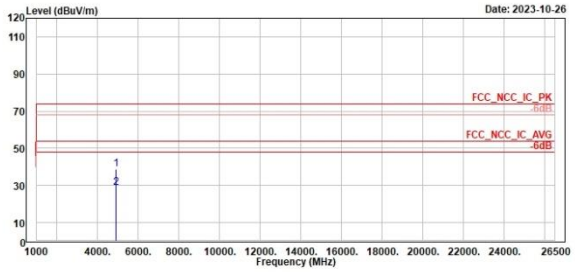

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4924.00	38.87	46.50	-7.63	74.00	-35.13	300	71	Peak	Horizontal	
2	4924.00	28.78	36.41	-7.63	54.00	-25.22	300	71	Average	Horizontal	

CH11 (Vertical)

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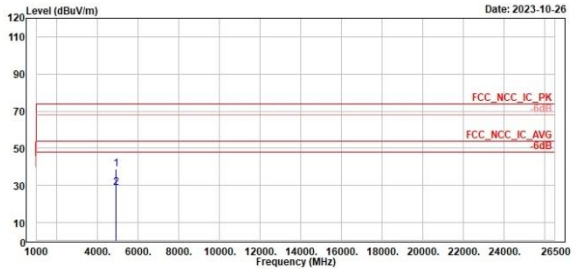

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	4924.00	38.82	46.45	-7.63	74.00	-35.18	100	44	Peak	Vertical	
2	4924.00	28.87	36.50	-7.63	54.00	-25.13	100	44	Average	Vertical	

Mains Conducted Emission, 150kHz ~ 30MHz

Worst Band

(Line)

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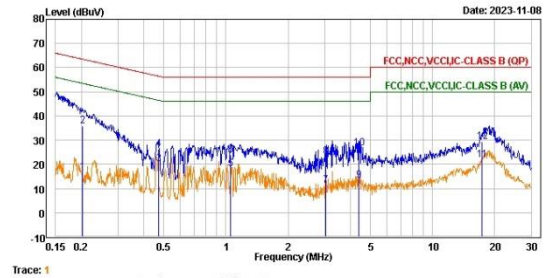

Trace: 1

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark	Pol/Phase	Note
	MHz	dBuV	dBuV	dB	dBuV	dB			
1	0.20	16.68	7.06	9.62	53.52	-36.84	Average	line1	
2	0.20	35.96	26.34	9.62	63.52	-27.56	QP	line1	
3	0.47	20.06	10.43	9.63	46.48	-26.42	Average	line1	
4	0.47	26.18	16.55	9.63	56.48	-30.30	QP	line1	
5	1.05	18.20	8.56	9.64	46.00	-27.80	Average	line1	
6	1.05	24.01	14.37	9.64	56.00	-31.99	QP	line1	
7	3.03	11.07	1.39	9.68	46.00	-34.93	Average	line1	
8	3.03	23.21	13.53	9.68	56.00	-32.79	QP	line1	
9	4.40	13.11	3.42	9.69	46.00	-32.89	Average	line1	
10	4.40	26.45	16.76	9.69	56.00	-29.55	QP	line1	
11	17.34	21.77	12.00	9.77	50.00	-28.23	Average	line1	
12	17.34	29.29	19.52	9.77	60.00	-30.71	QP	line1	

(Neutral)

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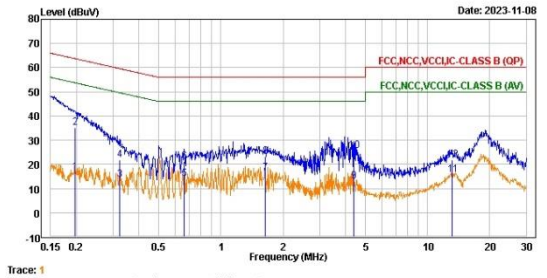

Trace: 1

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark	Pol/Phase	Note
	MHz	dBuV	dBuV	dB	dBuV	dB			
1	0.20	16.83	7.21	9.62	53.72	-36.89	Average	neutral	
2	0.20	35.27	25.65	9.62	63.72	-28.45	QP	neutral	
3	0.32	13.53	3.91	9.62	49.62	-36.09	Average	neutral	
4	0.32	21.72	12.10	9.62	59.62	-37.90	QP	neutral	
5	0.66	14.01	4.38	9.63	46.00	-31.99	Average	neutral	
6	0.66	21.04	11.41	9.63	56.00	-34.96	QP	neutral	
7	1.63	16.46	6.80	9.66	46.00	-29.54	Average	neutral	
8	1.63	23.15	13.49	9.66	56.00	-32.85	QP	neutral	
9	4.38	13.04	3.33	9.71	46.00	-32.96	Average	neutral	
10	4.38	25.50	15.79	9.71	56.00	-30.50	QP	neutral	
11	13.18	15.76	5.95	9.81	50.00	-34.24	Average	neutral	
12	13.18	21.82	12.01	9.81	60.00	-38.18	QP	neutral	