



Prüfbericht-Nr.: <i>Test report no.:</i>	CN25SQEW 001	Auftrags-Nr.: <i>Order no.:</i>	48254698	Seite 1 von 30 Page 1 of 30
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	2024-11-19	
Auftraggeber: <i>Client:</i>	Acer Incorporated 8F, 88, Sec. 1, Xintai 5th Rd. Xizhi, New Taipei City 221 Taiwan			
Prüfgegenstand: <i>Test item:</i>	Wi-Fi 7 USB Adapter			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	D7			
Auftrags-Inhalt: <i>Order content:</i>	FCC Part 15E Test report (WiFi 5GHz)			
Prüfgrundlage: <i>Test specification:</i>	FCC 47CFR Part 15: Subpart E Section 15.407			
Wareneingangsdatum: <i>Date of sample receipt:</i>	2025-01-23			
Prüfmuster-Nr.: <i>Test sample no.:</i>	A003917356-004			
Prüfzeitraum: <i>Testing period:</i>	2025-02-12 - 2025-04-23			
Ort der Prüfung: <i>Place of testing:</i>	EMC/RF Taipei Testing Site			
Prüflaboratorium: <i>Testing laboratory:</i>	Taipei Testing Laboratories			
Prüfergebnis*: <i>Test result*:</i>	Pass			
überprüft von: <i>compiled by:</i>	genehmigt von: <i>authorized by:</i>			
Datum: <i>Date:</i>	Ausstellungsdatum: <i>Issue date:</i>			
Stellung / Position:	Stellung / Position:			
Sonstiges / Other:	This report (CIIPC) is supplementary of report no.: CN25C7OT 001 to change the product name, model name, appearance of EUT, cradle, and antenna gain. Since the changes does not affect the RF characteristics, only radiated spurious emissions, mains conducted emission, and DFS tests were verified.			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	4 = ausreichend N/A = nicht anwendbar
* Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory F(ail) = failed a.m. test specification(s)	4 = sufficient N/A = not applicable
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

Prüfbericht-Nr.:
Test report no.:

CN25SQEW 001

Seite 2 von 30
Page 2 of 30

Anmerkungen
Remarks

- | | |
|----------|--|
| 1 | <p>Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben.
Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</p> <p><i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i></p> |
| 2 | <p>Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben. Informationen zur Verifizierung der Authentizität unserer Dokumente erhalten Sie auf folgender Webseite: go.tuv.com/digital-signature</p> <p><i>As contractually agreed, this document has been signed digitally only. TUV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TUV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged. For information on verifying the authenticity of our documents, please visit the following website: go.tuv.com/digital-signature</i></p> |
| 3 | <p>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben.
Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</p> <p><i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.
Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i></p> |
| 4 | <p>Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2023, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.</p> <p><i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2023, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i></p> |

TEST SUMMARY

Report Section	FCC Clause	Test Item	Result
5.1.1	15.407(a) & 15.203	Antenna Requirement	Pass
-	15.407(a)	Maximum Conducted Output Power	Note 1
5.1.3	15.407(h)(1)	Transmit Power Control (TPC)	Pass
-	15.407(a)	26 dB Bandwidth	Note 1
-	2.1049	99% Occupied Bandwidth	Note 1
-	15.407(e)	6 dB Bandwidth (U-NII-3 Band only)	Note 1
-	15.407(g)	Frequency Stability	Note 1
-	15.407(a)	Power Spectral Density	Note 1
5.1.2	15.407(b) & 15.205 & 15.209	Radiated Spurious Emissions and Band Edges	Pass
5.1.3	15.407(h) & KDB 905462 D02	Dynamic Frequency Selection	Pass
5.2.1	15.207	Mains Conducted Emission	Pass

Note:

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

Contents

HISTORY OF THIS TEST REPORT	5
1. GENERAL REMARKS	6
1.1 COMPLEMENTARY MATERIALS.....	6
1.2 DECISION RULE OF CONFORMITY	6
2. TEST SITES	7
2.1 TEST LABORATORY	7
2.2 TEST FACILITY.....	7
2.3 TRACEABILITY	8
2.4 CALIBRATION	8
2.5 MEASUREMENT UNCERTAINTY	8
3. GENERAL PRODUCT INFORMATION.....	9
3.1 PRODUCT FUNCTION AND INTENDED USE	9
3.2 SYSTEM DETAILS AND RATINGS.....	9
3.3 NOISE GENERATING AND NOISE SUPPRESSING PARTS	10
3.4 SUBMITTED DOCUMENTS.....	10
4. TEST SET-UP AND OPERATION MODES	11
4.1 PRINCIPLE OF CONFIGURATION SELECTION	11
4.2 CARRIER FREQUENCY AND CHANNEL	12
4.3 TEST OPERATION AND TEST SOFTWARE.....	13
4.4 SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT	15
4.5 TEST SETUP DIAGRAM	16
5. TEST RESULTS	18
5.1 TRANSMITTER REQUIREMENT & TEST SUITES	18
5.1.1 <i>Antenna Requirement</i>	<i>18</i>
5.1.2 <i>Radiated Spurious Emissions</i>	<i>19</i>
5.2 MAINS EMISSION	29
5.2.1 <i>Mains Conducted Emission.....</i>	<i>29</i>

APPENDIX A - TEST RESULT OF RADIATED EMISSIONS & MAINS CONDUCTED EMISSION

APPENDIX SP - PHOTOGRAPHS OF TEST SETUP

APPENDIX EP - PHOTOGRAPHS OF EUT

Prüfbericht - Nr.: CN25SQEW 001
Test Report No.

Seite 5 von 30
Page 5 of 30

HISTORY OF THIS TEST REPORT

Revision	Description	Date Issued
R01	Original Release	2025-05-06

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 E Section 15.407
FCC 47CFR Part 2: Subpart J Section 2.1049
ANSI C63.10:2013
KDB 789033 D02 General UNII Test Procedures New Rules v02r01
KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02
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 basis 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)	± 1.32 dB
Radiated Emission (200 MHz ~ 1 GHz)	± 1.31 dB
Radiated Emission (1 GHz ~ 18 GHz)	± 1.53 dB
Radiated Emission (18 GHz ~ 40 GHz)	± 2.50 dB
Mains Conducted Emission	± 1.65 dB

3. General Product Information

3.1 Product Function and Intended Use

The EUT is a Wi-Fi 7 USB Adapter. 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	Wi-Fi 7 USB Adapter
Type Identification	D7
FCC ID	HLZD7

Technical Specification of EUT

Item	EUT information
Operating Frequency Range	Band 1: 5180 MHz ~ 5250 MHz Band 2: 5250 MHz ~ 5350 MHz Band 3: 5470 MHz ~ 5725 MHz Band 4: 5725 MHz ~ 5850 MHz
Channel Number	<5150 MHz ~ 5350 MHz> 8 for 802.11a/n/ac/ax/be HT20/VHT20/HE20/EHT20 4 for 802.11n/ac/ax/be HT40/VHT40/HE40/EHT40 2 for 802.11ac/ax/be VHT80/HE80/EHT80 1 for 802.11ac/ax/be VHT160/HE160/EHT160 <5470 MHz ~ 5725 MHz> 11 for 802.11a/n/ac/ax/be HT20/VHT20/HE20/EHT20 5 for 802.11n/ac/ax/be HT40/VHT40/HE40/EHT40 2 for 802.11ac/ax/be VHT80/HE80/EHT80 1 for 802.11ac/ax/be VHT160/HE160/EHT160 <5725 MHz ~ 5850 MHz> 5 for 802.11a/n/ac/ax/be HT20/VHT20/HE20/EHT20 2 for 802.11n/ac/ax/be HT40/VHT40/HE40/EHT40 1 for 802.11ac/ax/be VHT80/HE80/EHT80
Data Rate	802.11a: 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 802.11be: up to MCS13
Operation Voltage	5 Vdc
Modulation	OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) OFDMA (1024QAM, 4096QAM)

Item	EUT information
DFS Mode	Slave without radar detection
Antenna Information	Refer to 5.1.1
Accessory Device	Refer to 4.4

Note: There're 2 configurations of the EUT listed as below. Since the only difference is the thermal pad which does not affect the RF characteristics, only the main sample was chosen for the final test.

EUT	Difference
Main sample	EUT with heat sink
2 nd sample	EUT with heat sink and thermal pad

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.

4.2 Carrier Frequency and Channel

Channel	Frequency (MHz)	802.11a 802.11n HT20 802.11ac VHT20 802.11ax HE20 802.11be EHT20	802.11n HT40 802.11ac VHT40 802.11ax HE40 802.11be EHT40	802.11ac VHT80 802.11ax HE80 802.11be EHT80	802.11ac VHT160 802.11ax HE160 802.11be EHT160
36	5180	V			
38	5190		V		
40	5200	V			
42	5210			V	
44	5220	V			
46	5230		V		
48	5240	V			
50	5250				V
52	5260	V			
54	5270		V		
56	5280	V			
58	5290			V	
60	5300	V			
62	5310		V		
64	5320	V			
100	5500	V			
102	5510		V		
104	5520	V			
106	5530			V	
108	5540	V			
110	5550		V		
112	5560	V			
114	5570				V
116	5580	V			
118	5590		V		
120	5600	V			
122	5610			V	
124	5620	V			
126	5630		V		
128	5640	V			
132	5660	V			
134	5670		V		
136	5680	V			
140	5700	V			
149	5745	V			
151	5755		V		
153	5765	V			
155	5775			V	
157	5785	V			
159	5795		V		
161	5805	V			
165	5825	V			

4.3 Test Operation and Test Software

Setup for testing: Test samples are provided with a 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	AX Series MP Tool V2.0.44
---------------	---------------------------

The samples were used as follows:
A003917356-004

Full test was applied on all test modes, but only worst case was shown.

The EUT provides two completed transmitters and receivers.

Modulation Mode	Tx Function
802.11a	2TX
802.11n HT20	2TX
802.11n HT40	2TX
802.11ac VHT20	2TX
802.11ac VHT40	2TX
802.11ac VHT80	2TX
802.11ac VHT160	2TX
802.11ax HE20	2TX
802.11ax HE40	2TX
802.11ax HE80	2TX
802.11ax HE160	2TX
802.11be EHT20	2TX
802.11be EHT40	2TX
802.11be EHT80	2TX
802.11be EHT160	2TX

* The modulation and bandwidth are similar for 802.11n mode HT20/HT40 and 802.11ac mode VHT20/VHT40/VHT80/VHT160 and 802.11ax mode HE20/HE40/HE80/HE160 and 802.11be mode EHT20/EHT40/EHT80/EHT160, therefore, only investigated worse case as representative mode in test report.

** The EUT only supports Full RU, not support Partial RUs.

EUT Configure Mode	Applicable To				Description
	DFS	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 **Z-plane**.
2. "-" means no effect.

DFS

- ☒ 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	Frequency (MHz)	Available Channel	Tested Channel	Date Rate (Mbps)
-	802.11be EHT160	5500-5700	114	114	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	Frequency (MHz)	Available Channel	Tested Channel	Date Rate (Mbps)
-	802.11be EHT80	5180-5250	42	42	NSS1 MCS0
-		5500-5700	106 to 122	106	
-		5745-5825	155	155	
-	802.11be EHT160	5180-5320	50	50	NSS1 MCS0
-		5500-5700	114	114	

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	Frequency (MHz)	Available Channel	Tested Channel	Date Rate (Mbps)
EUT with Notebook	802.11be EHT20	5500-5700	100 to 140	140	NSS1 MCS0
EUT with Cradle	802.11be EHT20	5500-5700	100 to 140	140	NSS1 MCS0

Mains Conducted Emission Test

- ☒ 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	Frequency (MHz)	Available Channel	Tested Channel	Date Rate (Mbps)
EUT with Notebook	802.11be EHT20	5500-5700	100 to 140	140	NSS1 MCS0
EUT with Cradle	802.11be EHT20	5500-5700	100 to 140	140	NSS1 MCS0

Prüfbericht - Nr.: CN25SQEW 001
Test Report No.

 Seite 15 von 30
 Page 15 of 30

Test Condition

Test Item	Ambient Temperature	Relative Humidity	Tested by
DFS	19.2-19.8 °C	54-68 %	Nick Hsu
Radiated Spurious Emissions above 1 GHz	22.6-23.8 °C	53-54 %	Chuan Chu
Radiated Spurious Emissions below 1 GHz	22.6-23.8 °C	53-54 %	Chuan Chu
Mains Conducted Emission	22.1 °C	55 %	Chuan Chu

4.4 Special Accessories and Auxiliary Equipment

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

Accessory of EUT

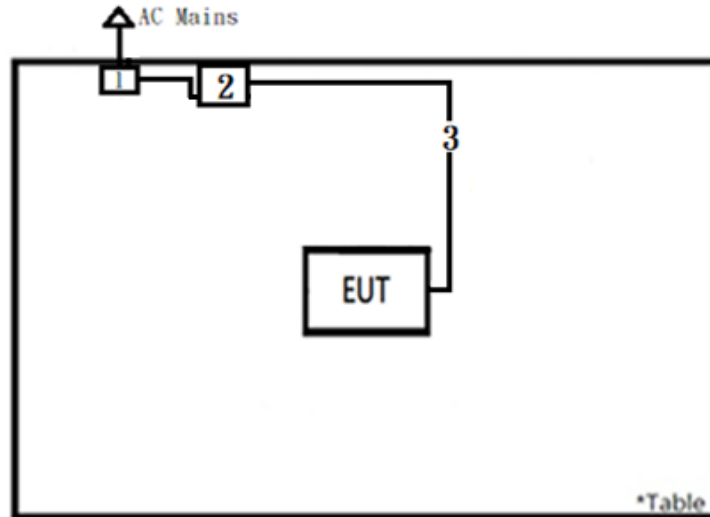
No.	Product	Brand	Model	Description
A	Cradle	Acer	D7 Cradle	--

Support Unit

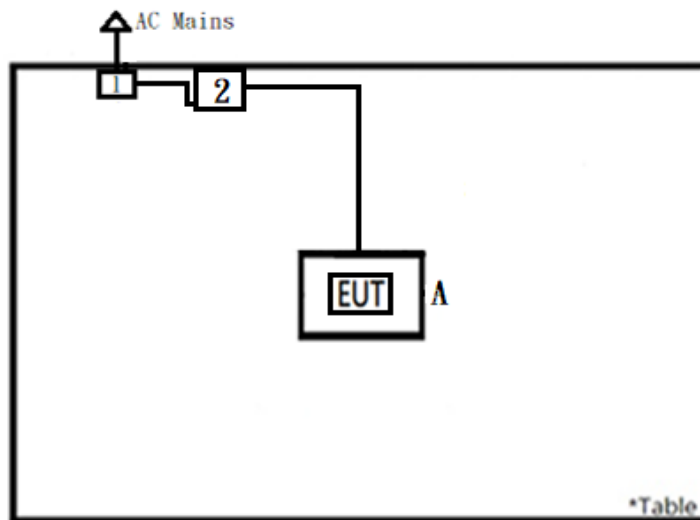
Support Unit								
No	Description	Brand	Model	S/N	Shielded	Ferrite Core (Qty)	Length (cm)	Remark
1	Adapter	Acer	A18-065N3A	N/A	NO	NO	150	--
2	Notebook	Acer	N20C4	NXA1UTA001 14210F853400	-	-	-	--
3	USB Cable	E-books	E-IPD235	N/A	NO	NO	200	--

4.5 Test Setup Diagram

<Radiated Spurious Emissions mode>
EUT with Notebook

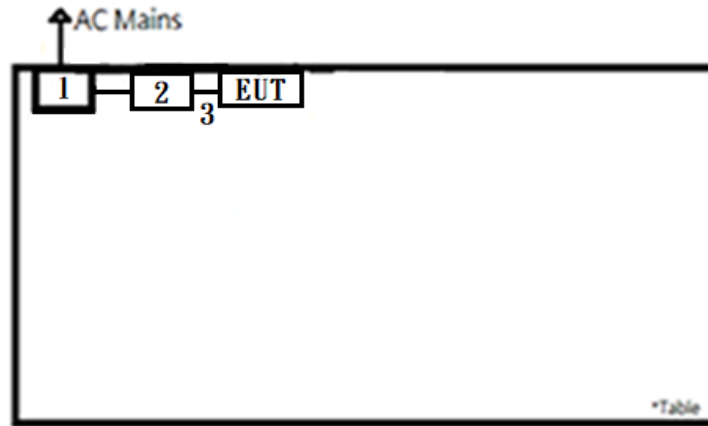


EUT with Cradle

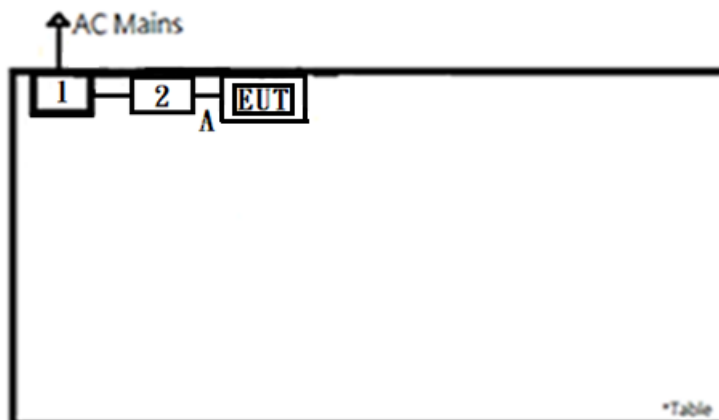


<Mains Conducted Emission mode>

EUT with Notebook



EUT with Cradle



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 Gain (dBi)				Antenna Type
	Band 1	Band 2	Band 3	Band 4	
1	1.60	1.60	2.50	3.00	PIFA Antenna
2	2.00	2.00	3.30	3.60	PIFA Antenna
Max. Peak Gain	2.00	2.00	3.30	3.60	-
Power Directional Gain	2.00	2.00	3.30	3.60	-
PSD Directional Gain	4.81	4.81	5.92	6.32	-

Note: PSD Directional Gain = $10\log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}]$

Refer to EUT photo for details.

5.1.2 Radiated Spurious Emissions

Limit

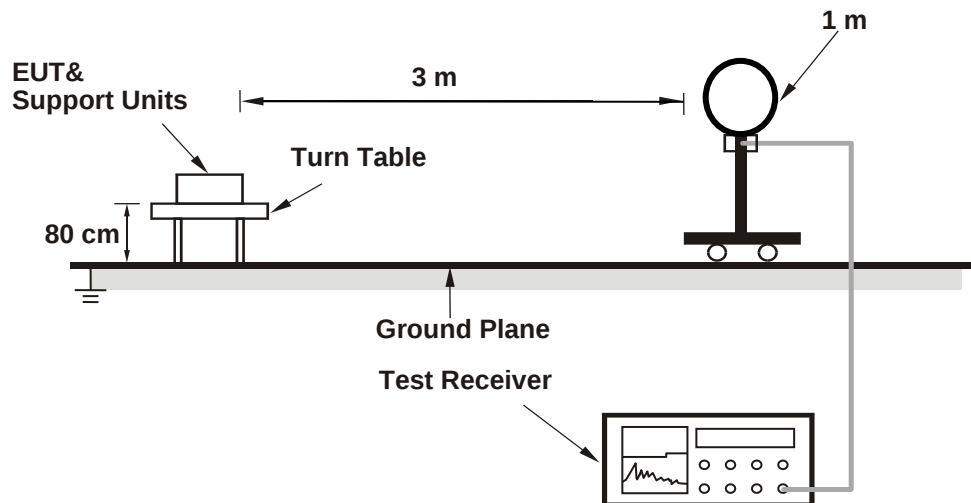
Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must comply with the radiated emission limits specified in §15.209(a).

Emissions radiated outside the restricted and authorized frequency bands must either comply with the radiated emission limits specified for the restricted bands or in §15.407(b).

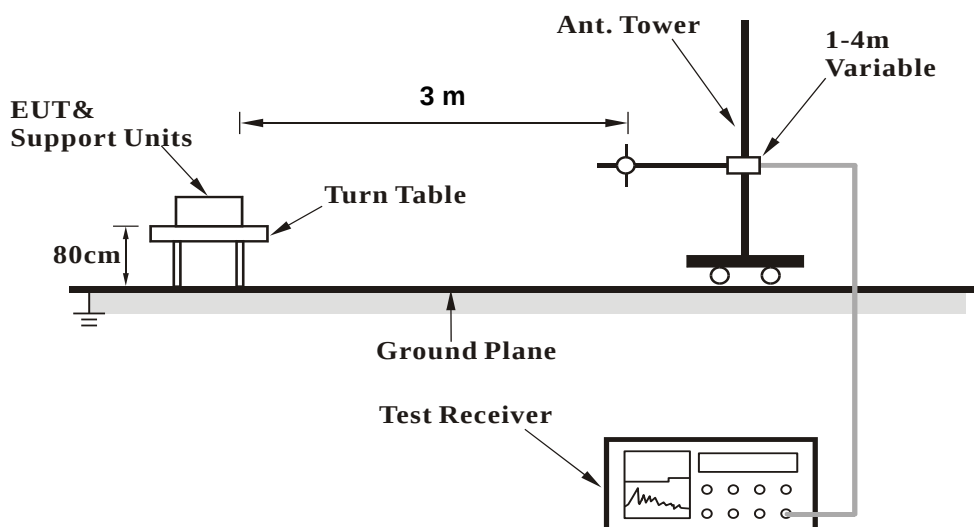
Kind of Test Site 3m Semi-Anechoic Chamber

Test Setup

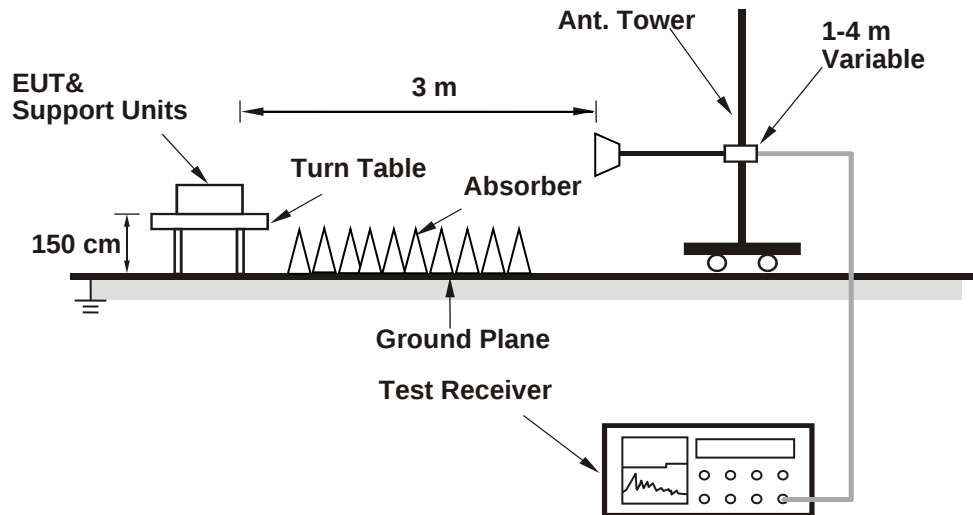
<Radiated Emissions below 30 MHz>



<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).

Prüfbericht - Nr.: CN25SQEW 001
Test Report No.

Seite 21 von 30
Page 21 of 30

Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date
Above 1 GHz (Test Period: 2025-03-21 ~ 2025-04-17)					
Signal Analyzer	R&S	FSV40	101509	2024/4/30	2025/4/29
Horn Antenna	ETS-Lindgren	3117	00218930	2024/12/10	2025/12/9
Horn Antenna	SCHWARZBECK	BBHA 9170	00890	2024/4/30	2025/4/29
HF-AMP + AC source	EMCI	EMC051845SE	980633	2025/1/15	2026/1/14
HF-AMP + AC source	EMCI	EMC184045SE	980656	2025/1/15	2026/1/14
Test Software	Audix E3	15914a_20191106 tuv	PK-001087	N/A	N/A
30 MHz ~ 1 GHz (Test Period: 2025-02-12 ~ 2025-04-08)					
Receiver	R&S	ESR7	102108	2024/7/4	2025/7/3
Bilog Antenna	SCHWARZBECK	VULB-9168	00950	2024/5/9	2025/5/8
LF-AMP	Agilent	8447D	2727A05146	2025/1/15	2026/1/14
Test Software	Audix E3	15914a_20191106 tuv	PK-001087	N/A	N/A
Below 30 MHz (Test Period: 2025-02-12 ~ 2025-04-08)					
Receiver	R&S	ESR7	102108	2024/7/4	2025/7/3
Loop Antenna	SCHWARZBECK	FMZB 1519B	00215	2024/12/11	2025/12/10
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 $\geq 1/T$ (Duty cycle $< 98\%$) or 10 Hz (Duty cycle $\geq 98\%$) 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.

Prüfbericht - Nr.: **CN25SQEW 001**
Test Report No.

Seite 23 von 30
Page 23 of 30

Test Results

Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) – Amplifier (dB)

Level (dBuV/m) = Reading (dBuV) + Factor (dB/m)

Please refer to Appendix A.

Prüfbericht - Nr.: CN25SQEW 001
 Test Report No.

 Seite 24 von 30
 Page 24 of 30

5.1.3 Dynamic Frequency Selection

Limit

<DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection>

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP $\geq$ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. Note 3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.	

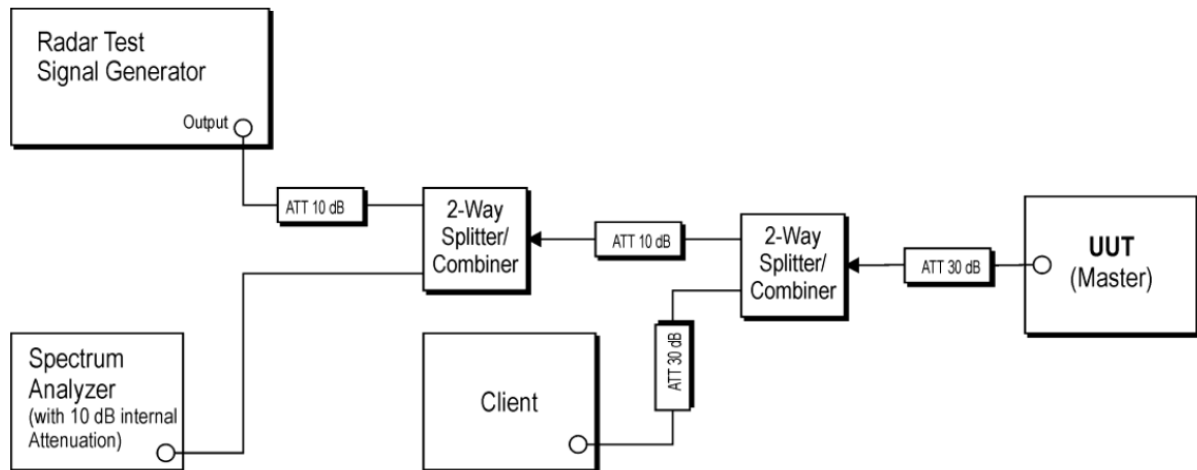
<DFS Response Requirement Values>

Parameter	Value
<i>Non-occupancy period</i>	Minimum 30 minutes
<i>Channel Availability Check Time</i>	60 seconds
<i>Channel Move Time</i>	10 seconds See Note 1.
<i>Channel Closing Transmission Time</i>	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
<i>U-NII Detection Bandwidth</i>	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
Note 1: <i>Channel Move Time</i> and the <i>Channel Closing Transmission Time</i> should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst. Note 2: The <i>Channel Closing Transmission Time</i> is comprised of 200 milliseconds starting at the beginning of the <i>Channel Move Time</i> plus any additional intermittent control signals required to facilitate a <i>Channel</i> move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions. Note 3: During the <i>U-NII Detection Bandwidth</i> detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.	

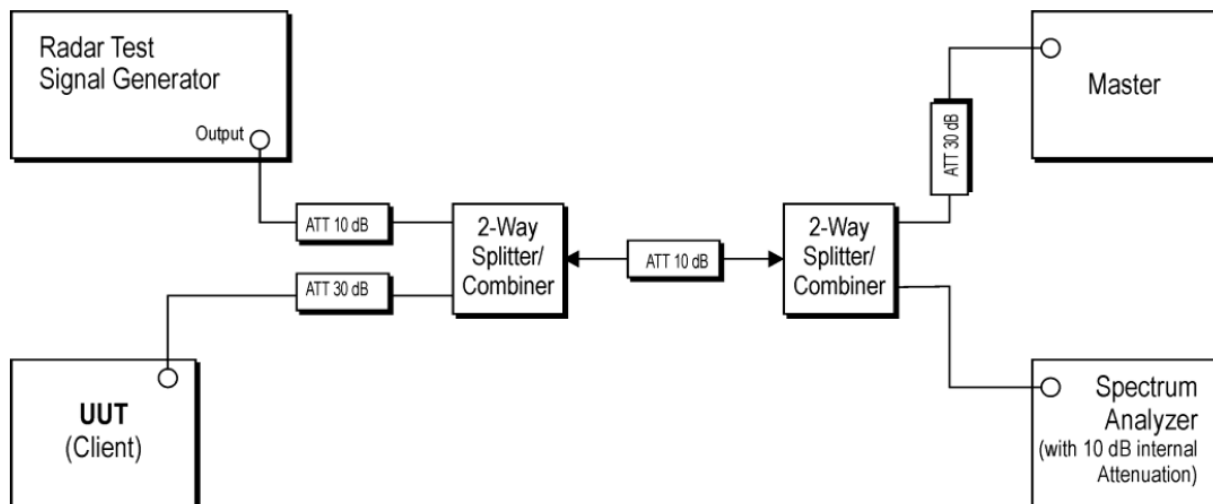
Kind of Test Site Shielded room

Test Setup

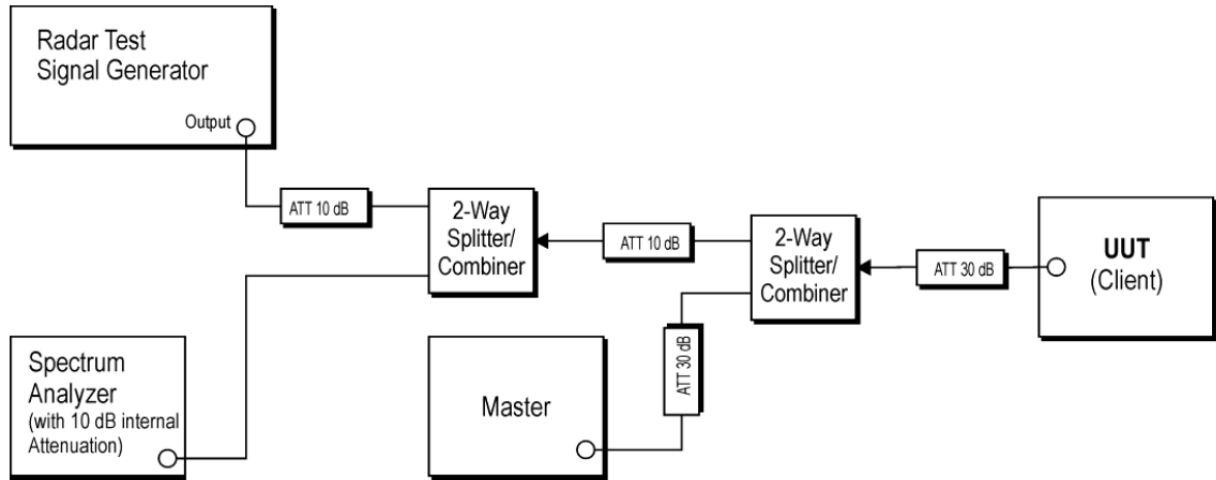
<Setup for Master with injection at the Master>



<Setup for Client with injection at the Master>



<Setup for Client with injection at the Client>



Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date	Test Date	
						From	Until
Spectrum Analyzer	Keysight	N9000B	MY62361339	2025/02/13	2026/02/12	2025/4/23	2025/4/23
EXG Vector Signal Generator	Keysight	N5172B	MY61253270	2024/12/24	2025/12/23	2025/4/23	2025/4/23
Frequency Extender	Keysight	N5182BX07	MY61500182	2024/12/24	2025/12/23	2025/4/23	2025/4/23

Requirement

Requirement	Operational Mode	
	Master Device or Client with Radar Detection	Client Without Radar Detection
<i>DFS Detection Threshold</i>	Yes	Not required
<i>Channel Closing Transmission Time</i>	Yes	Yes
<i>Channel Move Time</i>	Yes	Yes
<i>U-NII Detection Bandwidth</i>	Yes	Not required

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client Without Radar Detection
<i>U-NII Detection Bandwidth and Statistical Performance Check</i>	All BW modes must be tested	Not required
<i>Channel Move Time and Channel Closing Transmission Time</i>	Test using widest BW mode available	Test using the widest BW mode available for the link
<i>All other tests</i>	Any single BW mode	Not required

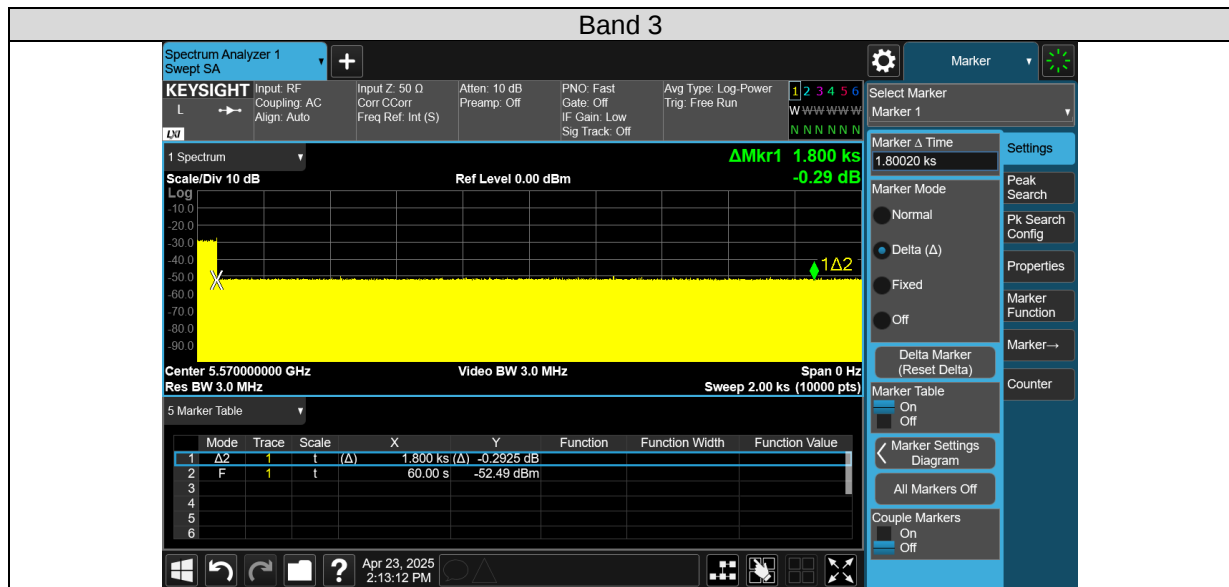
Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.

Test Results

<802.11be EHT160>

Non-occupancy period

Channel (MHz)	Limit (minute)	Result
5570	30	Pass

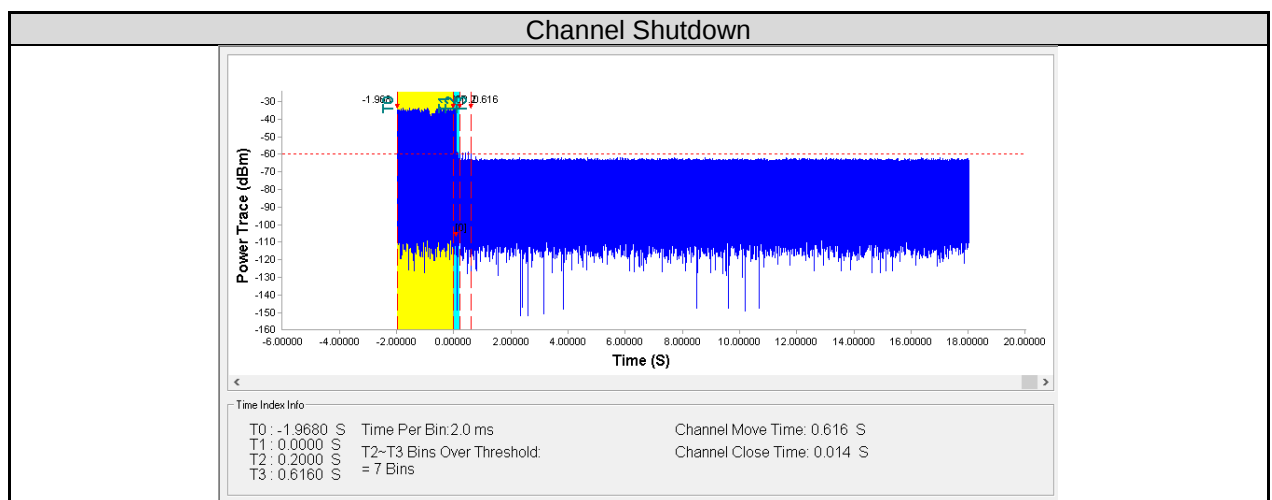


Channel Moving Time

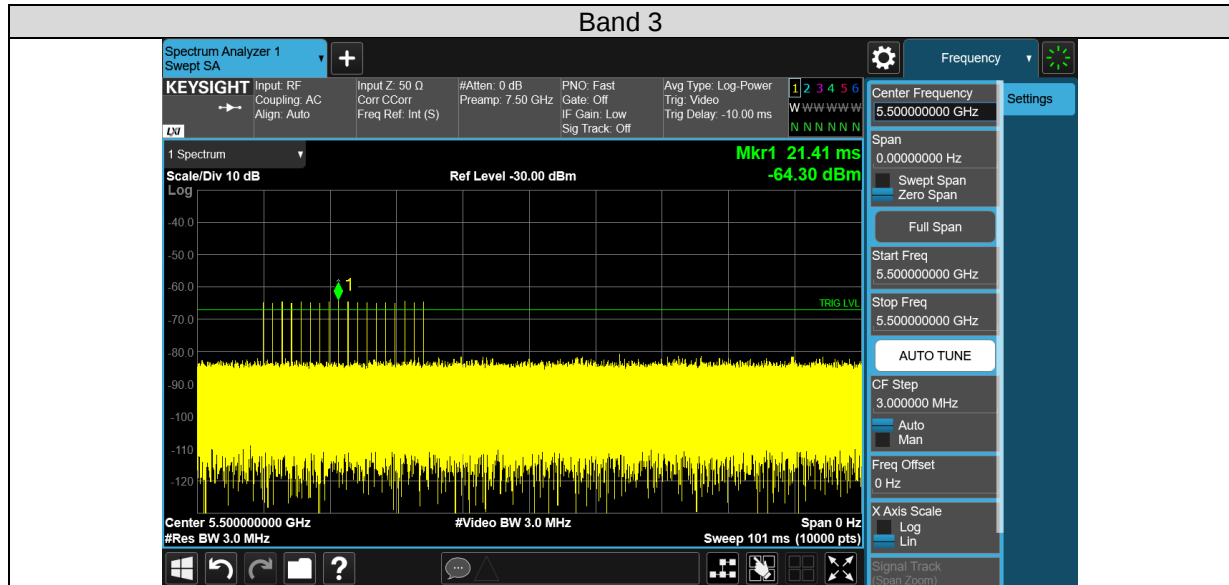
Channel (MHz)	Channel Move Time (s)	Limit (s)	Result
5570	0.616	10	Pass

Channel Closing Transmission Time

Channel (MHz)	Channel Closing Transmission Time (ms)	Limit (ms)	Result
5570	14	60	Pass



Radar Level



5.2 Mains Emission

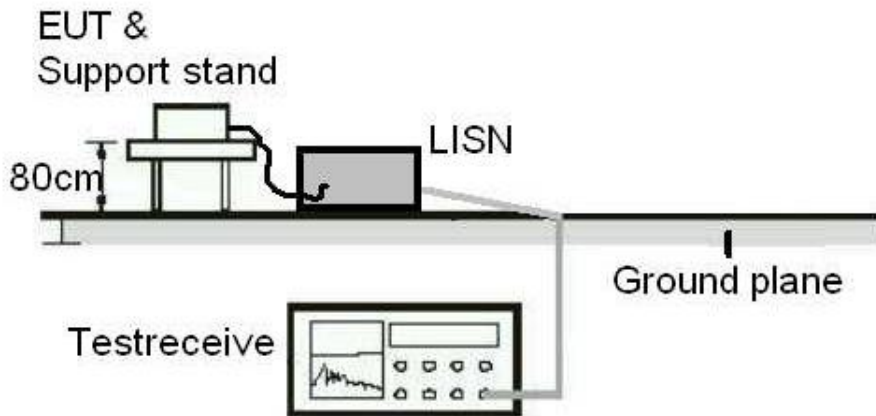
5.2.1 Mains Conducted Emission

Limit

Mains Conducted emissions 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	2024/10/22	2025/10/21
EMI Test Receiver	R&S	ESCI	101094	2024/11/26	2025/11/25

Prüfbericht - Nr.: **CN25SQEW 001**
Test Report No.

Seite 30 von 30
Page 30 of 30

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 Radiation Spurious Emissions & Mains

Conducted Emission

<EUT with Notebook>

Band Edges, 4.5GHz ~ 5.15GHz

U-NII-1

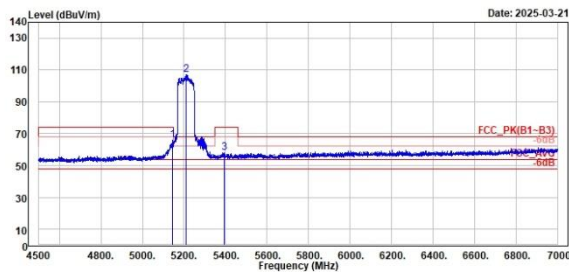
802.11be EHT80

CH 42 (Horizontal) Peak

CH 42 (Vertical) Peak



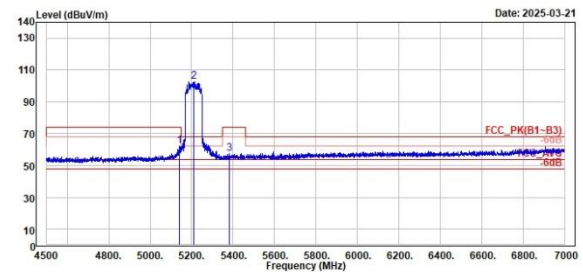
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Level	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	dB	cm	deg			
1	5146.50	66.07	22.86	43.21	74.00	-7.93	100	296	Peak	Horizontal		
2 *	5210.00	107.19	63.69	43.50	68.20	38.99	100	296	Peak	Horizontal		
3	5395.00	57.87	13.73	44.14	74.00	-16.13	100	296	Peak	Horizontal		



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



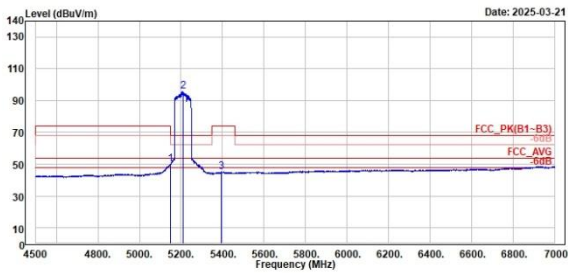
	Freq	Level	Read	Level	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	dB	cm	deg			
1	5142.50	62.52	19.31	43.21	74.00	-11.48	100	86	Peak	Vertical		
2 *	5210.00	102.68	59.18	43.50	68.20	34.48	100	86	Peak	Vertical		
3	5382.50	57.65	13.69	43.96	74.00	-16.35	100	86	Peak	Vertical		

802.11be EHT80

CH 42 (Horizontal) Average



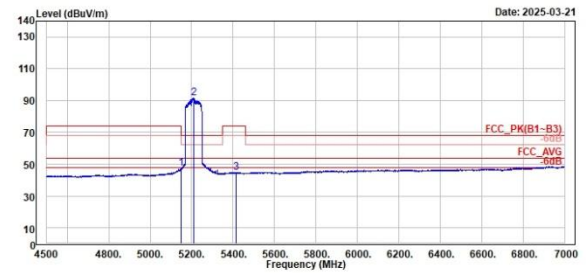
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	5150.00	50.04	6.82	43.22	54.00	-3.96	100	296	Average	Horizontal	
2 *	5210.00	95.72	52.22	43.50	54.00	41.72	100	296	Average	Horizontal	
3	5395.50	45.05	0.90	44.15	54.00	-8.95	100	296	Average	Horizontal	



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	5150.00	47.31	4.09	43.22	54.00	-6.69	100	86	Average	Vertical	
2 *	5210.00	91.57	48.07	43.50	54.00	37.57	100	86	Average	Vertical	
3	5414.00	44.85	0.71	44.14	54.00	-9.15	100	86	Average	Vertical	

Band Edges, 5.35GHz
U-NII-2A

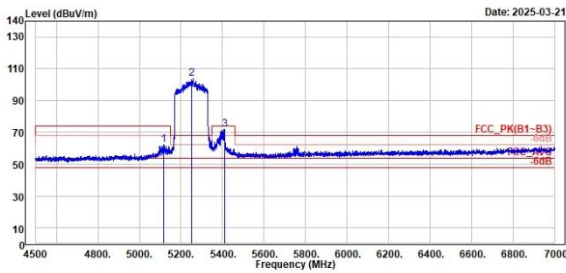
802.11be EHT160

CH 50 (Horizontal) Peak

CH 50 (Vertical) Peak



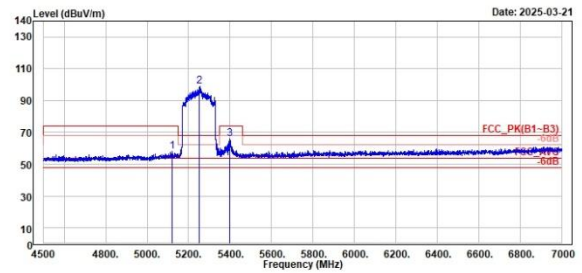
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	5116.50	62.49	19.30	43.19	74.00	-11.51	100	292	Peak	Horizontal	
2 *	5250.00	103.97	60.68	43.29	68.20	35.77	100	292	Peak	Horizontal	
3 !	5409.00	71.95	27.78	44.17	74.00	-2.05	100	292	Peak	Horizontal	



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



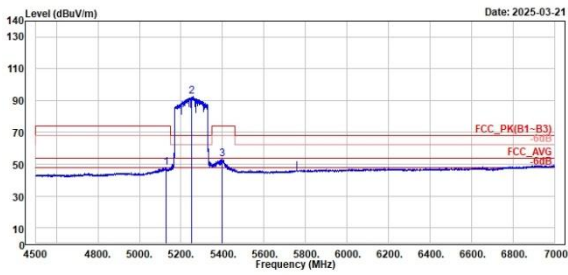
	Freq	Level	Read	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	5119.00	57.82	14.63	43.19	74.00	-16.18	100	280	Peak	Vertical	
2 *	5250.00	98.75	55.46	43.29	68.20	30.55	100	280	Peak	Vertical	
3	5400.00	65.78	21.57	44.21	74.00	-8.22	100	280	Peak	Vertical	

802.11be EHT160

CH 50 (Horizontal) Average



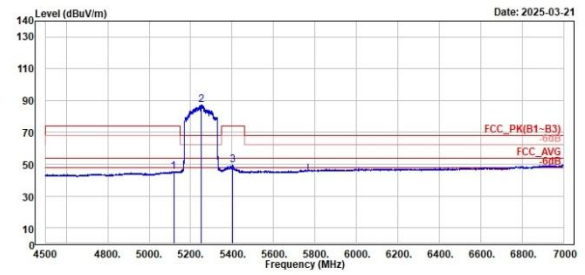
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	5127.50	48.07	4.87	43.20	54.00	-5.93	100	292 Average	Horizontal	
2	5250.00	92.48	49.19	43.29	54.00	38.48	100	292 Average	Horizontal	
3	5398.00	53.01	8.83	44.18	54.00	-0.99	100	292 Average	Horizontal	



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	5118.50	45.50	2.31	43.19	54.00	-8.50	100	280 Average	Vertical	
2	5250.00	87.39	44.10	43.29	54.00	33.39	100	280 Average	Vertical	
3	5402.50	49.36	5.16	44.20	54.00	-4.64	100	280 Average	Vertical	

Band Edges, 5.3GHz ~ 5.47GHz, 5.725GHz
U-NII-2

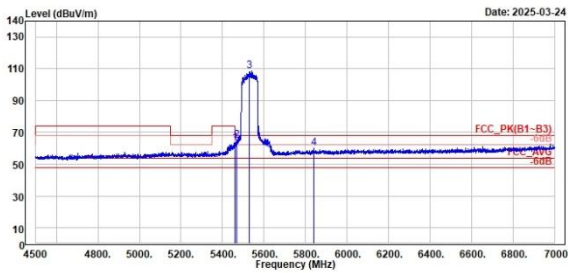
802.11be EHT80

CH 106 (Horizontal) Peak

CH 106 (Vertical) Peak



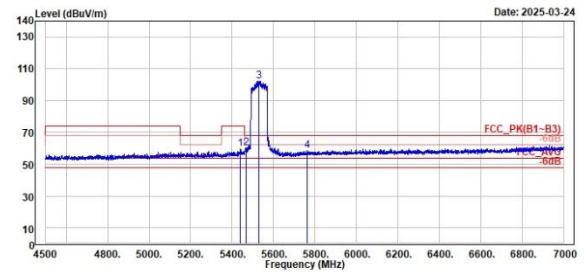
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	5459.00	63.32	19.32	44.00	74.00	-10.68	103	240 Peak	Horizontal	
2	5469.00	64.79	20.75	44.04	68.20	-3.41	103	240 Peak	Horizontal	
3 *	5530.00	108.67	64.58	44.09	68.20	40.47	103	240 Peak	Horizontal	
4	5838.50	60.31	15.86	44.45	68.20	-7.89	103	240 Peak	Horizontal	



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



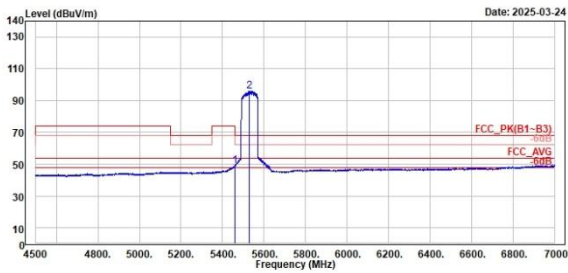
	Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	5438.50	59.37	15.36	44.01	74.00	-14.63	100	256 Peak	Vertical	
2	5469.00	60.15	16.10	44.05	68.20	-8.05	100	256 Peak	Vertical	
3 *	5530.00	102.42	58.33	44.09	68.20	34.22	100	256 Peak	Vertical	
4	5763.00	58.35	13.88	44.47	68.20	-9.85	100	256 Peak	Vertical	

802.11be EHT80

CH 106 (Horizontal) Average



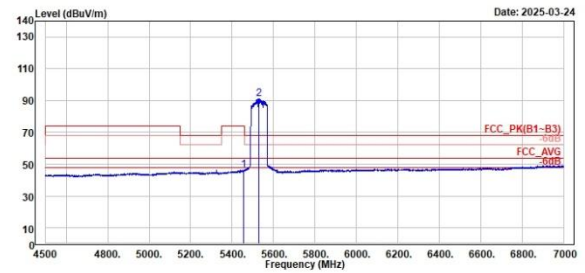
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	5459.00	49.11	5.11	44.00	54.00	-4.89	103	240	Average	Horizontal
2 *	5530.00	95.95	53.66	44.09	54.00	41.95	103	240	Average	Horizontal



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



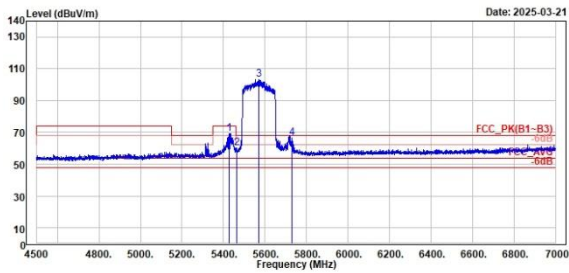
	Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	5457.00	46.26	2.27	43.99	54.00	-7.74	100	256	Average	Vertical
2 *	5530.00	91.24	47.15	44.09	54.00	37.24	100	256	Average	Vertical

802.11be EHT160

CH 114 (Horizontal) Peak



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliiao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322

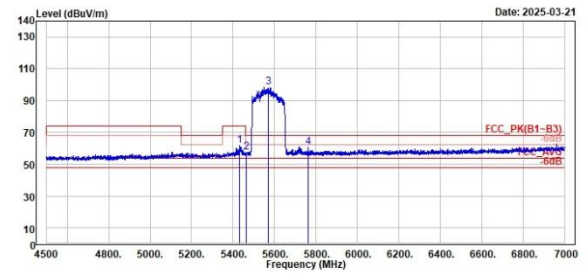


	Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	5429.00	69.12	25.06	44.06	74.00	-4.88	100	244 Peak	Horizontal	
2	5463.00	60.03	16.02	44.01	68.20	-8.17	100	244 Peak	Horizontal	
3	5570.00	103.42	59.42	44.00	68.20	35.22	100	244 Peak	Horizontal	
4	5729.00	66.29	21.99	44.30	68.20	-1.91	100	244 Peak	Horizontal	

CH 114 (Vertical) Peak



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliiao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



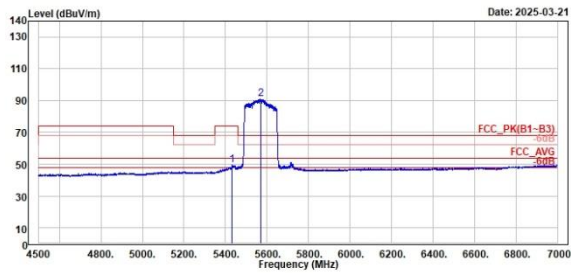
	Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	5433.00	61.82	17.78	44.04	74.00	-12.18	100	255 Peak	Vertical	
2	5463.50	57.36	13.35	44.01	68.20	-10.84	100	255 Peak	Vertical	
3	5570.00	98.45	54.45	44.00	68.20	30.25	100	255 Peak	Vertical	
4	5762.00	60.81	16.34	44.47	68.20	-7.39	100	255 Peak	Vertical	

802.11be EHT160

CH 114 (Horizontal) Average



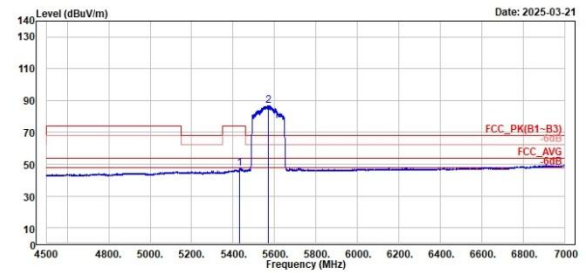
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	5433.00	49.45	5.41	44.04	54.00	-4.55	100	224	Average	Horizontal	
2	5570.00	91.11	47.11	44.00	54.00	37.11	100	224	Average	Horizontal	



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	5433.00	47.62	3.57	44.05	54.00	-6.38	100	255	Average	Vertical	
2	5570.00	86.97	42.97	44.00	54.00	32.97	100	255	Average	Vertical	

Mask, 5.725GHz ~ 5.85GHz
U-NII-3

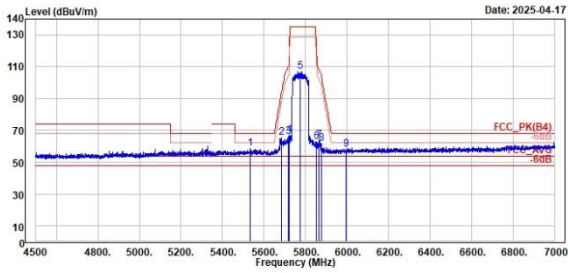
802.11be EHT80

CH 155 (Horizontal) Peak

CH 155 (Vertical) Peak



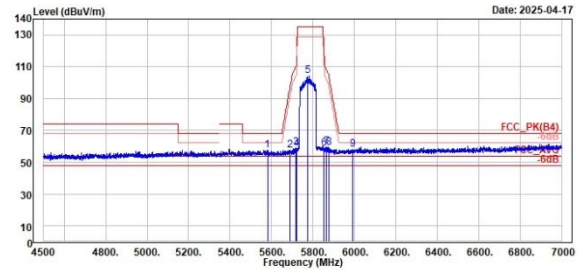
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	5534.00	58.55	14.47	44.00	68.20	-9.65	110	238 Peak	Horizontal	
2	5683.50	65.40	21.45	44.03	93.03	-27.55	110	238 Peak	Horizontal	
3	5718.00	65.78	21.58	44.20	110.24	-44.46	110	238 Peak	Horizontal	
4	5722.00	67.04	22.80	44.24	120.48	-53.44	110	238 Peak	Horizontal	
5	5775.00	106.79	62.34	44.45	135.00	-28.21	110	238 Peak	Horizontal	
6	5853.00	62.93	18.45	44.48	120.48	-57.55	110	238 Peak	Horizontal	
7	5864.00	64.00	19.50	44.50	100.28	-44.28	110	238 Peak	Horizontal	
8	5876.00	61.71	17.18	44.53	104.46	-42.75	110	238 Peak	Horizontal	
9	5996.50	58.21	13.25	44.96	68.20	-9.99	110	238 Peak	Horizontal	



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	5500.50	57.67	13.68	43.99	68.20	-10.53	114	93 Peak	Vertical	
2	5690.50	57.63	13.59	44.04	98.20	-40.57	114	93 Peak	Vertical	
3	5718.50	58.99	14.78	44.21	110.38	-51.39	114	93 Peak	Vertical	
4	5722.50	58.37	14.13	44.24	122.90	-64.53	114	93 Peak	Vertical	
5	5775.00	104.15	59.70	44.45	135.00	-30.85	114	93 Peak	Vertical	
6	5852.50	58.50	14.12	44.46	122.90	-64.32	114	93 Peak	Vertical	
7	5863.50	59.82	15.32	44.50	100.42	-48.60	114	93 Peak	Vertical	
8	5876.00	59.23	14.70	44.53	104.46	-45.23	114	93 Peak	Vertical	
9	5990.50	58.05	13.14	44.91	68.20	-10.15	114	93 Peak	Vertical	

Spurious Emissions, Tx Mode, 9kHz ~30MHz

U-NII-2C

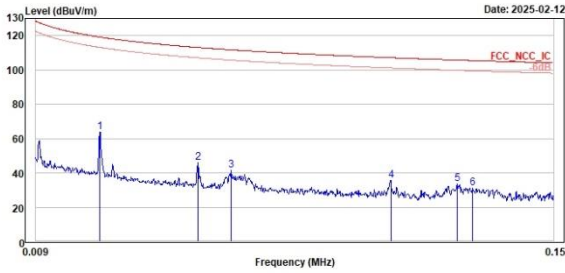
802.11be EHT20

CH 140(Open) (9kHz ~ 150kHz)

CH 140(Open) (150kHz ~ 30MHz)



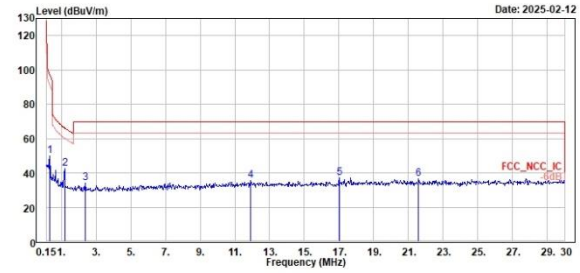
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



Peak	Freq	Level	Read	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	0.03	64.01	44.18	19.83	119.13	-55.12	100	358	Peak	Open	
2	0.05	46.10	27.42	18.68	113.09	-66.99	100	368	Peak	Open	
3	0.06	41.52	23.47	18.05	111.72	-70.20	100	203	Peak	Open	
4	0.11	35.44	17.38	18.06	107.11	-71.67	100	135	Peak	Open	
5	0.12	33.75	15.58	18.17	105.74	-71.99	100	95	Peak	Open	
6	0.13	30.89	12.69	18.20	105.45	-74.56	100	45	Peak	Open	



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



Peak	Freq	Level	Read	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	0.33	50.09	31.52	18.57	97.26	-47.17	100	97	Peak	Open	
2	1.19	42.68	23.88	18.80	66.06	-23.38	100	108	Peak	Open	
3	2.39	34.27	15.37	18.90	69.50	-35.23	100	96	Peak	Open	
4	11.91	35.57	13.84	21.73	69.50	-33.93	100	234	Peak	Open	
5	17.02	37.08	14.76	22.32	69.50	-32.42	100	2	Peak	Open	
6	21.58	36.49	13.99	22.50	69.50	-33.01	100	38	Peak	Open	

Spurious Emissions, Tx Mode, 30MHz ~ 1GHz

U-NII-2C

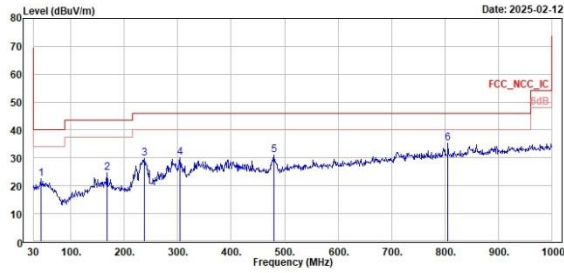
802.11be EHT20

CH 140 (Horizontal)

CH 140 (Vertical)



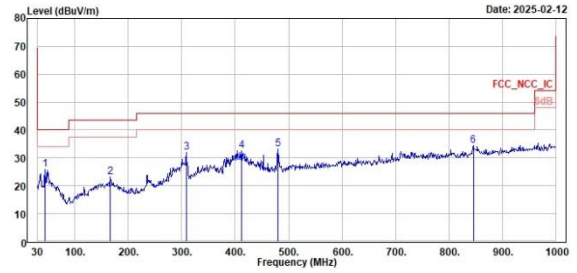
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	43.58	22.63	29.99	-7.36	48.00	-17.37	300	176	Peak	Horizontal	
2	167.74	24.49	31.15	-6.66	43.50	-19.01	200	220	Peak	Horizontal	
3	237.58	29.66	37.50	-7.84	46.00	-16.34	200	0	Peak	Horizontal	
4	304.51	30.09	36.40	-6.31	46.00	-15.91	100	51	Peak	Horizontal	
5	480.08	31.04	33.64	-2.60	46.00	-14.96	200	13	Peak	Horizontal	
6	806.00	35.19	31.76	3.43	46.00	-10.01	100	99	Peak	Horizontal	



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	43.58	25.93	33.29	-7.36	48.00	-14.07	100	162	Peak	Vertical	
2	166.77	23.00	29.65	-6.65	43.50	-20.50	200	311	Peak	Vertical	
3	308.39	31.84	38.07	-6.23	46.00	-14.16	180	360	Peak	Vertical	
4	411.21	32.50	36.55	-4.05	46.00	-13.50	100	164	Peak	Vertical	
5	480.08	33.28	35.88	-2.60	46.00	-12.72	200	267	Peak	Vertical	
6	845.77	34.37	30.36	4.01	46.00	-11.63	300	312	Peak	Vertical	

Spurious Emissions, Tx Mode, 1GHz ~ 40GHz
U-NII-1

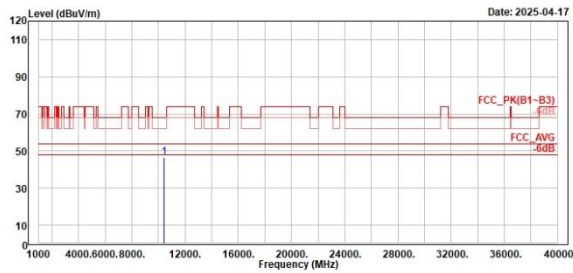
802.11be EHT80

CH 42 (Horizontal)

CH 42 (Vertical)



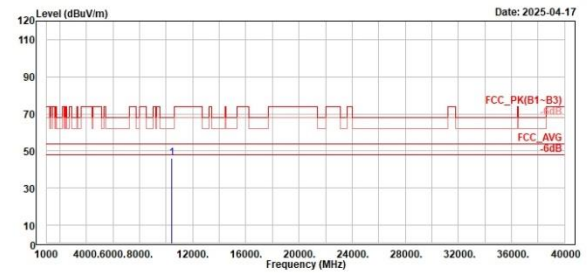
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	10420.00	46.68	49.20	-2.52	68.20	-21.52	100	309 Peak	Horizontal



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	10420.00	46.10	48.62	-2.52	68.20	-22.10	100	126 Peak	Vertical

U-NII-2A

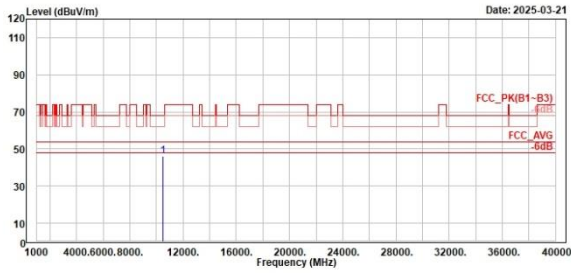
802.11be EHT160

CH 50 (Horizontal)

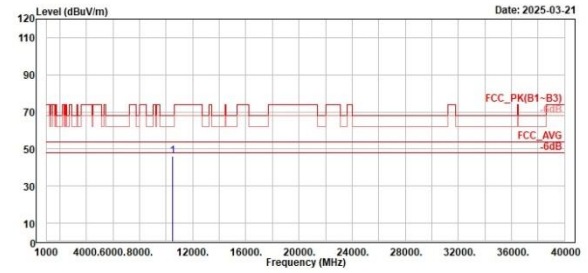
CH 50 (Vertical)



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



U-NII-2C

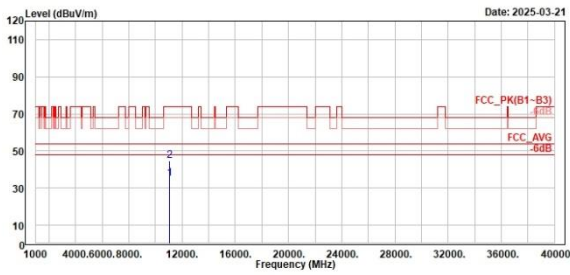
802.11be EHT80

CH 106 (Horizontal)

CH 106 (Vertical)



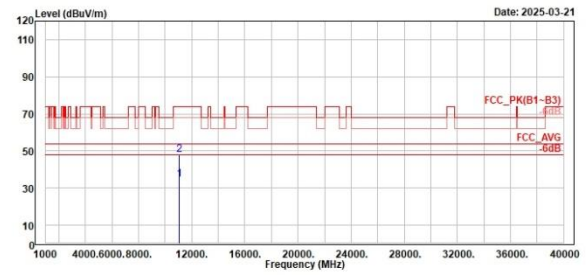
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	11060.00	35.13	34.72	0.41	54.00	-18.87	100	360	Average	Horizontal	
2	11060.00	44.56	44.15	0.41	74.00	-29.44	100	360	Peak	Horizontal	



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	11060.00	34.55	34.14	0.41	54.00	-19.45	200	55	Average	Vertical	
2	11060.00	47.88	47.47	0.41	74.00	-26.12	200	55	Peak	Vertical	

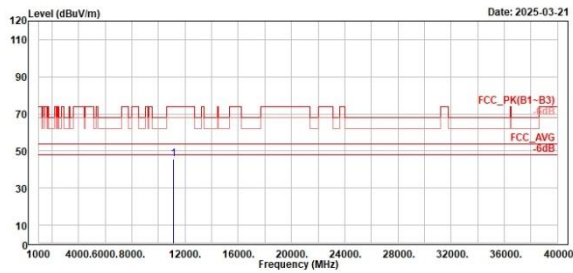
802.11be EHT160

CH 114 (Horizontal)

CH 114 (Vertical)



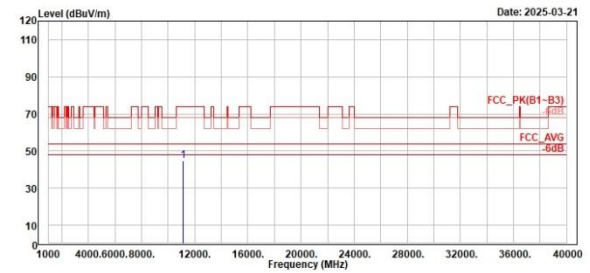
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1 11140.00	45.62	45.07	0.55	74.00	-28.38	133	360 Peak	Horizontal	



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1 11140.00	44.71	44.16	0.55	74.00	-29.29	100	215 Peak	Vertical	

U-NII-3

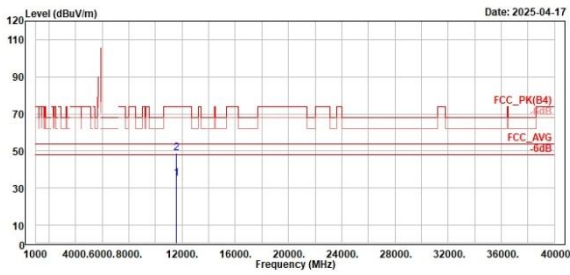
802.11be EHT80

CH 155 (Horizontal)

CH 155 (Vertical)



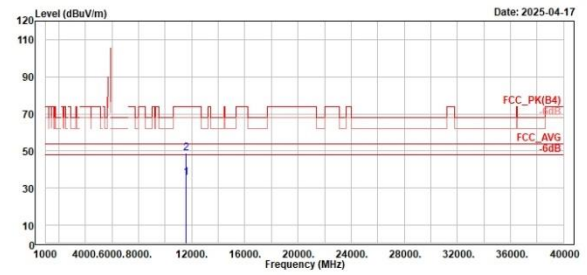
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	11550.00	34.99	35.57	-0.58	54.00	-19.01	100	254 Average	Horizontal	
2	11550.00	48.69	49.27	-0.58	74.00	-25.31	100	254 Peak	Horizontal	



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	11550.00	35.38	35.96	-0.58	54.00	-18.62	200	295 Average	Vertical	
2	11550.00	48.74	49.32	-0.58	74.00	-25.26	200	295 Peak	Vertical	

Mains Conducted Emission, (150kHz ~ 30MHz)

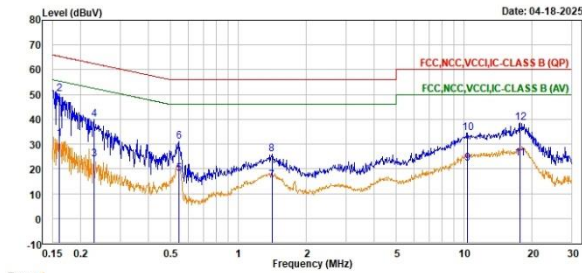
Worst Band

(Line)

(Neutral)



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec. 2, Fenhiao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322

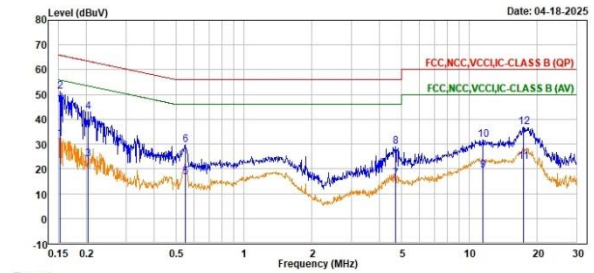


Trace: 1

	Freq	Level	Read	Factor	Limit	Over	Remark	Pol/Phase	Note
	MHz	dBuV	dBuV	dB	dBuV	dB			
1	0.16	32.16	22.53	9.63	55.42	-23.26	Average	line1	
2	0.16	50.07	40.44	9.63	65.42	-15.35	QP	line1	
3	0.23	23.06	14.23	9.63	52.52	-28.66	Average	line1	
4	0.23	39.96	30.33	9.63	62.52	-22.56	QP	line1	
5	0.54	18.22	8.59	9.63	46.00	-27.78	Average	line1	
6	0.54	31.00	21.37	9.63	56.00	-25.00	QP	line1	
7	1.41	15.47	5.83	9.64	46.00	-30.53	Average	line1	
8	1.41	25.78	16.14	9.64	56.00	-30.22	QP	line1	
9	10.32	22.26	12.51	9.75	50.00	-27.74	Average	line1	
10	10.32	34.47	24.72	9.75	60.00	-25.53	QP	line1	
11	17.69	24.27	14.52	9.75	50.00	-25.73	Average	line1	
12	17.69	38.44	28.69	9.75	60.00	-21.56	QP	line1	



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec. 2, Fenhiao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



Trace: 1

	Freq	Level	Read	Factor	Limit	Over	Remark	Pol/Phase	Note
	MHz	dBuV	dBuV	dB	dBuV	dB			
1	0.15	32.21	22.57	9.64	55.88	-23.67	Average	neutral	
2	0.15	51.13	41.49	9.64	65.88	-14.75	QP	neutral	
3	0.20	23.75	14.12	9.63	53.47	-29.72	Average	neutral	
4	0.20	42.94	33.31	9.63	63.47	-20.53	QP	neutral	
5	0.55	16.54	6.91	9.63	46.00	-29.46	Average	neutral	
6	0.55	29.59	19.96	9.63	56.00	-26.41	QP	neutral	
7	4.72	15.94	6.23	9.71	46.00	-30.06	Average	neutral	
8	4.72	28.99	19.28	9.71	56.00	-27.01	QP	neutral	
9	11.46	19.34	9.54	9.80	50.00	-30.66	Average	neutral	
10	11.46	31.71	21.91	9.80	60.00	-28.29	QP	neutral	
11	17.43	22.95	13.12	9.83	50.00	-27.05	Average	neutral	
12	17.43	36.71	26.88	9.83	60.00	-23.29	QP	neutral	

<EUT with Cradle>

Spurious Emissions, Tx Mode, 9kHz ~ 30MHz

U-NII-2C

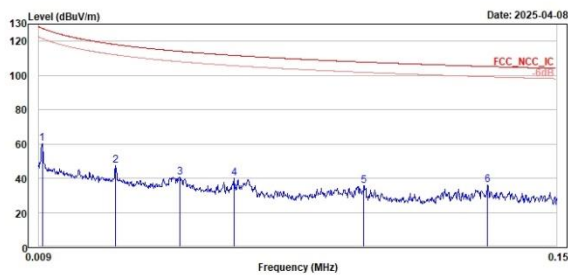
802.11be EHT20

CH 140(Open) (9kHz ~ 150kHz)

CH 140(Open) (150kHz ~ 30MHz)



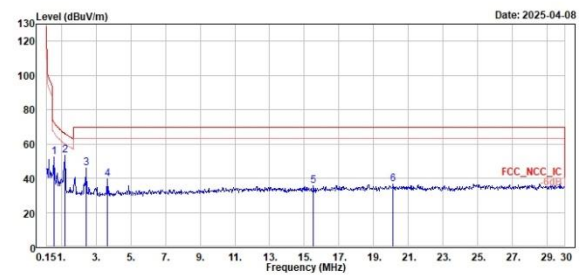
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	0.01	60.17	42.06	18.11	127.00	-67.43	100	176 Peak	Open	
2	0.03	47.29	27.28	20.01	118.05	-70.76	100	84 Peak	Open	
3	0.05	40.68	21.66	19.02	114.09	-73.41	100	231 Peak	Open	
4	0.06	40.23	22.18	18.05	111.72	-71.49	100	252 Peak	Open	
5	0.10	35.62	17.59	18.03	107.81	-72.19	100	238 Peak	Open	
6	0.13	36.00	17.78	18.22	105.24	-69.24	100	208 Peak	Open	



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	0.60	52.42	33.66	18.76	72.07	-19.65	100	253 Peak	Open	
2	1.22	53.29	34.49	18.80	65.84	-12.55	100	257 Peak	Open	
3	2.45	46.05	27.15	18.90	69.50	-23.45	100	257 Peak	Open	
4	3.67	39.48	20.22	19.26	69.50	-30.02	100	237 Peak	Open	
5	15.52	35.83	14.07	21.76	69.50	-33.67	100	50 Peak	Open	
6	28.12	36.78	13.94	22.84	69.50	-32.72	100	86 Peak	Open	

Spurious Emissions, Tx Mode, 30MHz ~ 1GHz

U-NII-2C

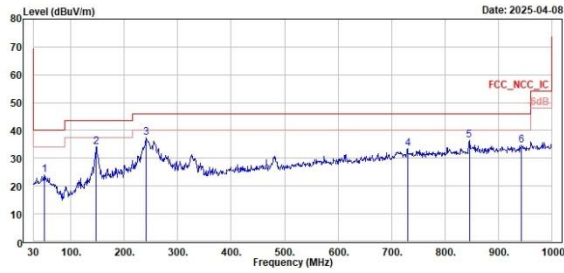
802.11be EHT20

CH 140 (Horizontal)

CH 140 (Vertical)



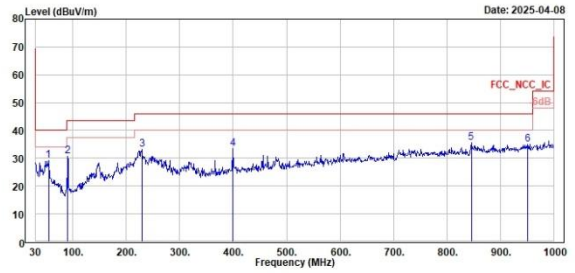
TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	50.37	24.05	29.77	-5.72	40.00	-15.95	200	150	Peak	Horizontal	
2	146.40	34.14	40.28	-6.14	43.50	-9.36	200	195	Peak	Horizontal	
3	240.49	37.45	44.22	-6.77	46.00	-8.55	100	263	Peak	Horizontal	
4	730.34	33.34	30.55	2.79	46.00	-12.66	134	360	Peak	Horizontal	
5	845.77	36.56	32.47	4.09	46.00	-9.44	100	37	Peak	Horizontal	
6	943.74	34.77	29.10	5.67	46.00	-11.23	100	66	Peak	Horizontal	



TÜV Rheinland Taiwan Ltd.
No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



	Freq	Level	Read	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	54.25	29.35	35.05	-5.70	40.00	-10.65	100	288	Peak	Vertical	
2	90.14	30.64	43.06	-12.42	43.50	-12.86	100	130	Peak	Vertical	
3	228.85	33.11	40.52	-7.41	46.00	-12.89	100	324	Peak	Vertical	
4	399.57	33.31	36.53	-3.22	46.00	-12.69	200	43	Peak	Vertical	
5	845.77	35.65	31.56	4.09	46.00	-10.35	199	360	Peak	Vertical	
6	950.53	35.09	29.38	5.71	46.00	-10.91	100	298	Peak	Vertical	

Mains Conducted Emission, 150kHz ~ 30MHz

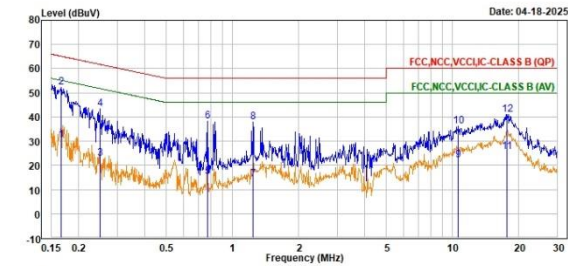
Worst Band

(Line)

(Neutral)



TÜV Rheinland Taiwan Ltd.
No. 438-18, Sec. 2, Fenhiao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322

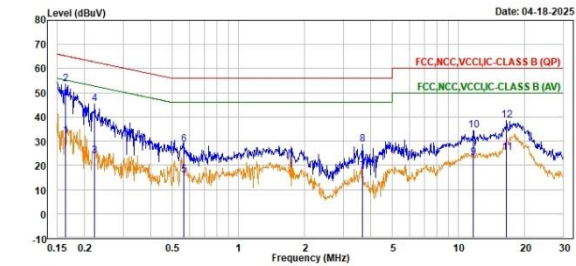


Trace: 1

	Freq	Level	Read	Limit	Over		
	MHz	dBuV	Level	Line	Limit	Remark	Pol/Phase Note
	MHz	dBuV	Factor	dB	dB		
1	0.17	30.46	20.83	9.63	55.17	-24.71 Average	line1
2	0.17	52.41	42.78	9.63	65.17	-12.76 QP	line1
3	0.25	22.85	13.22	9.63	51.78	-28.93 Average	line1
4	0.25	43.36	33.73	9.63	61.78	-18.42 QP	line1
5	0.77	15.47	5.83	9.64	46.00	-30.53 Average	line1
6	0.77	38.38	28.74	9.64	56.00	-17.62 QP	line1
7	1.24	14.27	4.63	9.64	46.00	-31.73 Average	line1
8	1.24	37.91	28.27	9.64	56.00	-18.09 QP	line1
9	10.64	22.28	12.53	9.75	50.00	-27.72 Average	line1
10	10.64	36.33	26.58	9.75	60.00	-23.67 QP	line1
11	17.69	25.57	15.82	9.75	50.00	-24.43 Average	line1
12	17.69	41.08	31.33	9.75	60.00	-18.92 QP	line1



TÜV Rheinland Taiwan Ltd.
No. 438-18, Sec. 2, Fenhiao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)
Tel: +886-2172-1000 Fax: +886-2172-1322



Trace: 1

	Freq	Level	Read	Limit	Over		
	MHz	dBuV	Level	Line	Limit	Remark	Pol/Phase Note
	MHz	dBuV	Factor	dB	dB		
1	0.16	32.14	22.50	9.64	55.30	-23.16 Average	neutral
2	0.16	53.70	44.06	9.64	65.30	-11.60 QP	neutral
3	0.22	23.96	14.33	9.63	52.77	-28.81 Average	neutral
4	0.22	45.45	35.82	9.63	62.77	-17.32 QP	neutral
5	0.56	16.12	6.49	9.63	46.00	-29.88 Average	neutral
6	0.56	28.56	18.93	9.63	56.00	-27.44 QP	neutral
7	3.66	17.21	7.52	9.69	46.00	-28.79 Average	neutral
8	3.66	28.50	18.81	9.69	56.00	-27.50 QP	neutral
9	11.70	23.34	13.54	9.80	50.00	-26.66 Average	neutral
10	11.70	34.57	24.77	9.80	60.00	-25.43 QP	neutral
11	16.58	25.36	15.53	9.83	50.00	-24.64 Average	neutral
12	16.58	38.74	28.91	9.83	60.00	-21.26 QP	neutral