

FCC Measurement/Technical Report on

WLAN and Bluetooth Module

MAYA-W381

FCC ID: XPYMAW3A
IC: 8595A-MAYAW3A

Test Report Reference: MDE_UBLOX_2408_FCC_02_rev02

Test Laboratory:

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Deutsche
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D-PL-12140-01-00

Note:

The following test results relate only to the devices specified in this document. This report shall not be reproduced in parts without the written approval of the test laboratory.

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1 APPLIED STANDARDS AND TEST SUMMARY

1.1 APPLIED STANDARDS

Type of Authorization

Certification for an Intentional Radiator (Digital Device / Spread Spectrum).

Applicable FCC Rules

Prepared in accordance with the requirements of FCC Rules and Regulations as listed in 47 CFR Ch.1 Parts 2 and 15 (10-1-24 Edition). The following subparts are applicable to the results in this test report.

Part 2, Subpart J - Equipment Authorization Procedures, Certification

Part 15, Subpart C – Intentional Radiators

§ 15.201 Equipment authorization requirement

§ 15.207 Conducted limits

§ 15.209 Radiated emission limits; general requirements

Part 15, Subpart E – Unlicensed National Information Infrastructure Devices

§ 15.403 Definitions

§ 15.407 General technical requirements

Note:

The tests were selected and performed with reference to the FCC KDB "Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Subpart E, 789033 D02 General U-NII Test Procedures New Rules v02r01, 2017-12-14". and

"COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED-NATIONAL INFORMATION INFRASTRUCTURE DEVICES OPERATING IN THE 5250-5350 MHz AND 5470-5725 MHz BANDS INCORPORATING DYNAMIC FREQUENCY SELECTION, 905462 D02 UNII DFS Compliance Procedures New Rules v02, 2016-04-08

ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024 is applied.

1.2 FCC-IC CORRELATION TABLE

Correlation of measurement requirements for UNII / LE-LAN (e.g. WLAN 5 GHz) equipment from FCC and IC

UNII equipment

Measurement	FCC reference	IC reference
Conducted emissions on AC Mains	§ 15.207	RSS-Gen Issue 5 & AMD 1 & AMD 2: 8.8
Occupied bandwidth	§ 15.403 (26 dB) / § 15.407 (e) (6 dB)	RSS-247 Issue 4: 7.3.1.2 / 7.3.1.3 (c) / 7.3.2.2 / 7.3.3.2 (99%) RSS-247 Issue 4: 7.3.1.3 (b) (26 dB) RSS-247 Issue 4: 7.3.4.2 / 7.3.5.2 (6 dB) RSS-248 Issue 3: 4.4 (99%)
Maximum conducted output power	§ 15.407 (a) (1) to (8), (11)	RSS-247 Issue 4: 7.3.1.2 / 7.3.2.2 / 7.3.3.2 / 7.3.4.3 / 7.3.5.3 RSS-248 Issue 3: 4.5
Maximum power spectral density	§ 15.407 (a) (1) to (8), (12)	RSS-247 Issue 4: 7.3.1.2 / 7.3.2.2 / 7.3.3.2 / 7.3.4.3 / 7.3.5.3 RSS-248 Issue 3: 4.5
Transmitter undesirable emissions; General Field Strength Limits, Restricted Bands, In-Band Emissions	§ 15.407 (b) § 15.209 (a)	RSS-Gen Issue 5: 6.13 / 8.9 / 8.10; RSS-247 Issue 4: 7.3 / 7.3.1.3 / 7.3.2.3 / 7.3.3.3 / 7.3.4.4 / 7.3.5.4 RSS-248 Issue 3: 4.6
Frequency stability	§ 15.407 (g)	RSS-Gen Issue 5: 6.11 / 8.11
Transmit Power Control (TPC) and Dynamic Frequency Selection (DFS)	§ 15.407 (h)	RSS-247 Issue 4: 7.1 / 7.3.1.2 / 7.3.1.3 / 7.3.2.2 / 7.3.3.2 / 7.3.2.1 / 7.3.3.1 / 7.3.6
Antenna requirement	§ 15.203 / 15.204 § 15.407 (a) (9)	RSS-Gen Issue 5 & AMD 1 & AMD 2: 8.3
Contention Based Protocol	§ 15.407 (d) (6)	RSS-248 Issue 3: 4.7
Receiver spurious emissions	-	-

1.3 MEASUREMENT SUMMARY

47 CFR CHAPTER I FCC PART 15 Subpart E §15.407

FCC §15.207

AC Conducted Emissions

The measurement was performed according to ANSI C63.10, chapter 6.2

Final Result

OP-Mode

Operating mode

worst case

Setup

S03_AA01

Date

2025-07-16

FCC

Passed

IC

Passed

47 CFR CHAPTER I FCC PART 15 Subpart E §15.407

FCC §15.31, §15.403 (i)

26 dB Bandwidth

The measurement was performed according to ANSI C63.10, chapter 12.5.2

Final Result

OP-Mode

Radio Technology, Operating Frequency, Subband

Setup

S01_AA01

Date

2025-03-04

FCC

Performed

IC

N/A

WLAN a, high, U-NII-1

S01_AA01

2025-03-05

Performed

N/A

WLAN a, high, U-NII-2A

S01_AA01

2025-03-04

Performed

N/A

WLAN a, high, U-NII-2C

S01_AA01

2025-03-04

Performed

N/A

WLAN a, low, U-NII-1

S01_AA01

2025-03-04

Performed

N/A

WLAN a, low, U-NII-2A

S01_AA01

2025-03-04

Performed

N/A

WLAN a, low, U-NII-2C

S01_AA01

2025-03-05

Performed

N/A

WLAN a, mid, U-NII-1

S01_AA01

2025-03-04

Performed

N/A

WLAN a, mid, U-NII-2A

S01_AA01

2025-03-04

Performed

N/A

WLAN a, mid, U-NII-2C

S01_AA01

2025-03-04

Performed

N/A

WLAN a, straddle, U-NII-2C + U-NII-3

S01_AA01

2025-03-04

Performed

N/A

WLAN ac 20 MHz, high, U-NII-1

S01_AA01

2025-03-05

Performed

N/A

WLAN ac 20 MHz, high, U-NII-2A

S01_AA01

2025-03-05

Performed

N/A

WLAN ac 20 MHz, high, U-NII-2C

S01_AA01

2025-03-05

Performed

N/A

WLAN ac 20 MHz, low, U-NII-1

S01_AA01

2025-03-05

Performed

N/A

WLAN ac 20 MHz, low, U-NII-2A

S01_AA01

2025-03-05

Performed

N/A

WLAN ac 20 MHz, low, U-NII-2C

S01_AA01

2025-03-05

Performed

N/A

WLAN ac 20 MHz, mid, U-NII-1

S01_AA01

2025-03-05

Performed

N/A

WLAN ac 20 MHz, mid, U-NII-2A

S01_AA01

2025-03-05

Performed

N/A

WLAN ac 20 MHz, mid, U-NII-2C

S01_AA01

2025-03-05

Performed

N/A

WLAN ac 20 MHz, straddle, U-NII-2C + U-NII-3

S01_AA01

2025-03-05

Performed

N/A

WLAN ax 20 MHz, high, U-NII-1

S01_AA01

2025-03-05

Performed

N/A

WLAN ax 20 MHz, high, U-NII-2A

S01_AA01

2025-03-05

Performed

N/A

WLAN ax 20 MHz, high, U-NII-2C

S01_AA01

2025-03-05

Performed

N/A

WLAN ax 20 MHz, low, U-NII-1

S01_AA01

2025-03-05

Performed

N/A

WLAN ax 20 MHz, low, U-NII-2A

S01_AA01

2025-03-05

Performed

N/A

WLAN ax 20 MHz, low, U-NII-2C

S01_AA01

2025-03-05

Performed

N/A

WLAN ax 20 MHz, mid, U-NII-1

S01_AA01

2025-03-05

Performed

N/A

WLAN ax 20 MHz, mid, U-NII-2A

S01_AA01

2025-03-05

Performed

N/A

WLAN ax 20 MHz, mid, U-NII-2C

S01_AA01

2025-03-05

Performed

N/A

WLAN ax 20 MHz, straddle, U-NII-2C + U-NII-3

S01_AA01

2025-03-05

Performed

N/A

47 CFR CHAPTER I FCC PART 15 Subpart E §15.407
FCC §15.31, §15.403 (i)

26 dB Bandwidth

The measurement was performed according to ANSI C63.10,
chapter 12.5.2

Final Result
OP-Mode

Radio Technology, Operating Frequency,
Subband

Setup
Date
FCC
IC

WLAN n 20 MHz, high, U-NII-1	S01_AA01	2025-03-05	Performed	N/A
WLAN n 20 MHz, high, U-NII-2A	S01_AA01	2025-03-05	Performed	N/A
WLAN n 20 MHz, high, U-NII-2C	S01_AA01	2025-03-05	Performed	N/A
WLAN n 20 MHz, low, U-NII-1	S01_AA01	2025-03-05	Performed	N/A
WLAN n 20 MHz, low, U-NII-2A	S01_AA01	2025-03-05	Performed	N/A
WLAN n 20 MHz, low, U-NII-2C	S01_AA01	2025-03-05	Performed	N/A
WLAN n 20 MHz, mid, U-NII-1	S01_AA01	2025-03-05	Performed	N/A
WLAN n 20 MHz, mid, U-NII-2A	S01_AA01	2025-03-05	Performed	N/A
WLAN n 20 MHz, mid, U-NII-2C	S01_AA01	2025-03-05	Performed	N/A
WLAN n 20 MHz, straddle, U-NII-2C + U-NII-3	S01_AA01	2025-03-05	Performed	N/A

47 CFR CHAPTER I FCC PART 15 Subpart E §15.407
FCC §15.31, §15.407 (e)

6 dB Bandwidth

The measurement was performed according to ANSI C63.10,
chapter 12.5.1

Final Result
OP-Mode

Radio Technology, Operating Frequency,
Subband

Setup
Date
FCC
IC

WLAN a, high, U-NII-3	S01_AA01	2025-03-04	Passed	Passed
WLAN a, low, U-NII-3	S01_AA01	2025-03-04	Passed	Passed
WLAN a, mid, U-NII-3	S01_AA01	2025-03-04	Passed	Passed
WLAN a, straddle, U-NII-2C + U-NII-3	S01_AA01	2025-03-04	Passed	Passed
WLAN ac 20 MHz, high, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, low, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, straddle, U-NII-2C + U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, high, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, low, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, straddle, U-NII-2C + U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, high, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, low, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, mid, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, straddle, U-NII-2C + U-NII-3	S01_AA01	2025-03-05	Passed	Passed

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§15.407
FCC §15.31, IC RSS 247 Ch. 6.2.x

99 % Bandwidth

 The measurement was performed according to ANSI C63.10,
 chapter 12.5.3 (6.9.3)

Final Result
OP-Mode

 Radio Technology, Operating Frequency,
 Subband

Setup
Date
FCC
IC

WLAN a, high, U-NII-1	S01_AA01	2025-03-04	Performed	Performed
WLAN a, high, U-NII-2A	S01_AA01	2025-03-05	Performed	Performed
WLAN a, high, U-NII-2C	S01_AA01	2025-03-04	Performed	Performed
WLAN a, high, U-NII-3	S01_AA01	2025-03-04	Performed	Performed
WLAN a, low, U-NII-1	S01_AA01	2025-03-04	Performed	Performed
WLAN a, low, U-NII-2A	S01_AA01	2025-03-04	Performed	Performed
WLAN a, low, U-NII-2C	S01_AA01	2025-03-05	Performed	Performed
WLAN a, low, U-NII-3	S01_AA01	2025-03-04	Performed	Performed
WLAN a, mid, U-NII-1	S01_AA01	2025-03-04	Performed	Performed
WLAN a, mid, U-NII-2A	S01_AA01	2025-03-04	Performed	Performed
WLAN a, mid, U-NII-2C	S01_AA01	2025-03-04	Performed	Performed
WLAN a, mid, U-NII-3	S01_AA01	2025-03-04	Performed	Performed
WLAN a, straddle, U-NII-2C + U-NII-3	S01_AA01	2025-03-04	Performed	Performed
WLAN ac 20 MHz, high, U-NII-1	S01_AA01	2025-03-05	Performed	Performed
WLAN ac 20 MHz, high, U-NII-2A	S01_AA01	2025-03-05	Performed	Performed
WLAN ac 20 MHz, high, U-NII-2C	S01_AA01	2025-03-05	Performed	Performed
WLAN ac 20 MHz, high, U-NII-3	S01_AA01	2025-03-05	Performed	Performed
WLAN ac 20 MHz, low, U-NII-1	S01_AA01	2025-03-05	Performed	Performed
WLAN ac 20 MHz, low, U-NII-2A	S01_AA01	2025-03-05	Performed	Performed
WLAN ac 20 MHz, low, U-NII-2C	S01_AA01	2025-03-05	Performed	Performed
WLAN ac 20 MHz, low, U-NII-3	S01_AA01	2025-03-05	Performed	Performed
WLAN ac 20 MHz, mid, U-NII-1	S01_AA01	2025-03-05	Performed	Performed
WLAN ac 20 MHz, mid, U-NII-2A	S01_AA01	2025-03-05	Performed	Performed
WLAN ac 20 MHz, mid, U-NII-2C	S01_AA01	2025-03-05	Performed	Performed
WLAN ac 20 MHz, mid, U-NII-3	S01_AA01	2025-03-05	Performed	Performed
WLAN ac 20 MHz, straddle, U-NII-2C + U-NII-3	S01_AA01	2025-03-05	Performed	Performed
WLAN ax 20 MHz, high, U-NII-1	S01_AA01	2025-03-05	Performed	Performed
WLAN ax 20 MHz, high, U-NII-2A	S01_AA01	2025-03-05	Performed	Performed
WLAN ax 20 MHz, high, U-NII-2C	S01_AA01	2025-03-05	Performed	Performed
WLAN ax 20 MHz, high, U-NII-3	S01_AA01	2025-03-05	Performed	Performed
WLAN ax 20 MHz, low, U-NII-1	S01_AA01	2025-03-05	Performed	Performed
WLAN ax 20 MHz, low, U-NII-2A	S01_AA01	2025-03-05	Performed	Performed
WLAN ax 20 MHz, low, U-NII-2C	S01_AA01	2025-03-05	Performed	Performed
WLAN ax 20 MHz, low, U-NII-3	S01_AA01	2025-03-05	Performed	Performed
WLAN ax 20 MHz, mid, U-NII-1	S01_AA01	2025-03-05	Performed	Performed
WLAN ax 20 MHz, mid, U-NII-2A	S01_AA01	2025-03-05	Performed	Performed
WLAN ax 20 MHz, mid, U-NII-2C	S01_AA01	2025-03-05	Performed	Performed
WLAN ax 20 MHz, mid, U-NII-3	S01_AA01	2025-03-05	Performed	Performed
WLAN ax 20 MHz, straddle, U-NII-2C + U-NII-3	S01_AA01	2025-03-05	Performed	Performed
WLAN n 20 MHz, high, U-NII-1	S01_AA01	2025-03-05	Performed	Performed

47 CFR CHAPTER I FCC PART 15 Subpart E
§15.407
FCC §15.31, IC RSS 247 Ch. 6.2.x

99 % Bandwidth

 The measurement was performed according to ANSI C63.10,
 chapter 12.5.3 (6.9.3)

Final Result
OP-Mode

 Radio Technology, Operating Frequency,
 Subband

Setup
Date
FCC
IC

WLAN n 20 MHz, high, U-NII-2A	S01_AA01	2025-03-05	Performed	Performed
WLAN n 20 MHz, high, U-NII-2C	S01_AA01	2025-03-05	Performed	Performed
WLAN n 20 MHz, high, U-NII-3	S01_AA01	2025-03-05	Performed	Performed
WLAN n 20 MHz, low, U-NII-1	S01_AA01	2025-03-05	Performed	Performed
WLAN n 20 MHz, low, U-NII-2A	S01_AA01	2025-03-05	Performed	Performed
WLAN n 20 MHz, low, U-NII-2C	S01_AA01	2025-03-05	Performed	Performed
WLAN n 20 MHz, low, U-NII-3	S01_AA01	2025-03-05	Performed	Performed
WLAN n 20 MHz, mid, U-NII-1	S01_AA01	2025-03-05	Performed	Performed
WLAN n 20 MHz, mid, U-NII-2A	S01_AA01	2025-03-05	Performed	Performed
WLAN n 20 MHz, mid, U-NII-2C	S01_AA01	2025-03-05	Performed	Performed
WLAN n 20 MHz, mid, U-NII-3	S01_AA01	2025-03-05	Performed	Performed
WLAN n 20 MHz, straddle, U-NII-2C + U-NII-3	S01_AA01	2025-03-05	Performed	Performed

47 CFR CHAPTER I FCC PART 15 Subpart E §15.407 FCC §15.31, §15.407 (a)(1)

Maximum Conducted Output Power

The measurement was performed according to ANSI C63.10,
chapter 12.4.3.2

Final Result
OP-Mode

Radio Technology, Operating Frequency,
Subband

Setup
Date
FCC
IC

WLAN a, high, U-NII-1	S01_AA01	2025-03-04	Passed	Passed
WLAN a, high, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN a, high, U-NII-2C	S01_AA01	2025-03-04	Passed	Passed
WLAN a, high, U-NII-3	S01_AA01	2025-03-04	Passed	Passed
WLAN a, low, U-NII-1	S01_AA01	2025-03-04	Passed	Passed
WLAN a, low, U-NII-2A	S01_AA01	2025-03-04	Passed	Passed
WLAN a, low, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN a, low, U-NII-3	S01_AA01	2025-03-04	Passed	Passed
WLAN a, mid, U-NII-1	S01_AA01	2025-03-04	Passed	Passed
WLAN a, mid, U-NII-2A	S01_AA01	2025-03-04	Passed	Passed
WLAN a, mid, U-NII-2C	S01_AA01	2025-03-04	Passed	Passed
WLAN a, mid, U-NII-3	S01_AA01	2025-03-04	Passed	Passed
WLAN a, straddle, U-NII-2C + U-NII-3	S01_AA01	2025-03-04	Passed	Passed
WLAN ac 20 MHz, high, U-NII-1	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, high, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, high, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, high, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, low, U-NII-1	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, low, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, low, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, low, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-1	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, straddle, U-NII-2C + U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, high, U-NII-1	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, high, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, high, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, high, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, low, U-NII-1	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, low, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, low, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, low, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-1	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, straddle, U-NII-2C + U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, high, U-NII-1	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, high, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed

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Maximum Conducted Output Power

The measurement was performed according to ANSI C63.10,
chapter 12.4.3.2

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Subband				
WLAN n 20 MHz, high, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, high, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, low, U-NII-1	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, low, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, low, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, low, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, mid, U-NII-1	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, mid, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, mid, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, mid, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, straddle, U-NII-2C + U-NII-3	S01_AA01	2025-03-05	Passed	Passed

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§15.407
FCC §15.31, §15.407 (a) (1),(5)

Peak Power Spectral Density

 The measurement was performed according to ANSI C63.10,
 chapter 12.6 (SA-1)

Final Result
OP-Mode

 Radio Technology, Operating Frequency,
 Subband

Setup
Date
FCC
IC

WLAN a, high, U-NII-1	S01_AA01	2025-03-04	Passed	Passed
WLAN a, high, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN a, high, U-NII-2C	S01_AA01	2025-03-04	Passed	Passed
WLAN a, high, U-NII-3	S01_AA01	2025-03-04	Passed	Passed
WLAN a, low, U-NII-1	S01_AA01	2025-03-04	Passed	Passed
WLAN a, low, U-NII-2A	S01_AA01	2025-03-04	Passed	Passed
WLAN a, low, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN a, low, U-NII-3	S01_AA01	2025-03-04	Passed	Passed
WLAN a, mid, U-NII-1	S01_AA01	2025-03-04	Passed	Passed
WLAN a, mid, U-NII-2A	S01_AA01	2025-03-04	Passed	Passed
WLAN a, mid, U-NII-2C	S01_AA01	2025-03-04	Passed	Passed
WLAN a, mid, U-NII-3	S01_AA01	2025-03-04	Passed	Passed
WLAN a, straddle, U-NII-2C + U-NII-3	S01_AA01	2025-03-04	Passed	Passed
WLAN ac 20 MHz, high, U-NII-1	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, high, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, high, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, high, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, low, U-NII-1	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, low, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, low, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, low, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-1	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ac 20 MHz, straddle, U-NII-2C + U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, high, U-NII-1	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, high, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, high, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, high, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, low, U-NII-1	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, low, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, low, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, low, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-1	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN ax 20 MHz, straddle, U-NII-2C + U-NII-3	S01_AA01	2025-03-05	Passed	Passed

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§15.407
FCC §15.31, §15.407 (a) (1),(5)

Peak Power Spectral Density

 The measurement was performed according to ANSI C63.10,
 chapter 12.6 (SA-1)

Final Result
OP-Mode

 Radio Technology, Operating Frequency,
 Subband

Setup
Date
FCC
IC

WLAN n 20 MHz, high, U-NII-1	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, high, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, high, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, high, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, low, U-NII-1	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, low, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, low, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, low, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, mid, U-NII-1	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, mid, U-NII-2A	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, mid, U-NII-2C	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, mid, U-NII-3	S01_AA01	2025-03-05	Passed	Passed
WLAN n 20 MHz, straddle, U-NII-2C + U-NII-3	S01_AA01	2025-03-05	Passed	Passed

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Subpart E §15.407
FCC §15.407 (b), (1),(2),(3),(4); FCC
§15.205, §15.209, §15.407 (b) (5),(6)

Undesirable Emissions; General Field Strength Limits

The measurement was performed according to ANSI C63.10, chapter 6.4, 6.5, 6.6.5 (radiated); 12.7.5,12.7.6,12.7.7.2 (conducted)

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Measurement range, Subband				
WLAN a, high, 1GHz - 26GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN a, high, 1GHz - 26GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN a, high, 1GHz - 26GHz, U-NII-2A Remark: Measurement Method Radiated	S02_AG03	2025-06-25	Passed	Passed
WLAN a, high, 1GHz - 26GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN a, high, 1GHz - 26GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN a, high, 1GHz - 26GHz, U-NII-3 Remark: Measurement Method Radiated	S02_AG03	2025-06-25	Passed	Passed
WLAN a, high, 26GHz - 40GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN a, high, 26GHz - 40GHz, U-NII-1 Remark: Measurement Method Radiated 5th harmonic only	S02_AG03	2025-07-21	Passed	Passed
WLAN a, high, 26GHz - 40GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN a, high, 26GHz - 40GHz, U-NII-2A Remark: Measurement Method Radiated 5th harmonic only	S02_AG03	2025-07-21	Passed	Passed
WLAN a, high, 26GHz - 40GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN a, high, 26GHz - 40GHz, U-NII-2C Remark: Measurement Method Radiated 5th harmonic only	S02_AG03	2025-07-21	Passed	Passed
WLAN a, high, 26GHz - 40GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN a, high, 26GHz - 40GHz, U-NII-3 Remark: Measurement Method Radiated 5th harmonic only	S02_AG03	2025-07-21	Passed	Passed
WLAN a, high, 30MHz - 1GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN a, high, 30MHz - 1GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN a, high, 30MHz - 1GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN a, high, 30MHz - 1GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN a, high, 9kHz - 30MHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN a, high, 9kHz - 30MHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN a, high, 9kHz - 30MHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN a, high, 9kHz - 30MHz, U-NII-2C Remark: Measurement Method Radiated	S02_AG03	2025-07-11	Passed	Passed
WLAN a, high, 9kHz - 30MHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed

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FCC §15.407 (b), (1),(2),(3),(4); FCC
§15.205, §15.209, §15.407 (b) (5),(6)

Undesirable Emissions; General Field Strength Limits

 The measurement was performed according to ANSI C63.10, chapter
 6.4, 6.5, 6.6.5 (radiated); 12.7.5,12.7.6,12.7.7.2 (conducted)

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Measurement range, Subband				
WLAN a, low, 1GHz - 26GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN a, low, 1GHz - 26GHz, U-NII-1 Remark: Measurement Method Radiated	S02_AG03	2025-06-25	Passed	Passed
WLAN a, low, 1GHz - 26GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN a, low, 1GHz - 26GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN a, low, 1GHz - 26GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN a, low, 26GHz - 40GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN a, low, 26GHz - 40GHz, U-NII-1 Remark: Measurement Method Radiated	S02_AG03	2025-07-16	Passed	Passed
WLAN a, low, 26GHz - 40GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN a, low, 26GHz - 40GHz, U-NII-2A Remark: Measurement Method Radiated 5th harmonic only	S02_AG03	2025-07-21	Passed	Passed
WLAN a, low, 26GHz - 40GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN a, low, 26GHz - 40GHz, U-NII-2C Remark: Measurement Method Radiated 5th harmonic only	S02_AG03	2025-07-21	Passed	Passed
WLAN a, low, 26GHz - 40GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN a, low, 26GHz - 40GHz, U-NII-3 Remark: Measurement Method Radiated 5th harmonic only	S02_AG03	2025-07-21	Passed	Passed
WLAN a, low, 30MHz - 1GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN a, low, 30MHz - 1GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN a, low, 30MHz - 1GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN a, low, 30MHz - 1GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN a, low, 9kHz - 30MHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN a, low, 9kHz - 30MHz, U-NII-1 Remark: Measurement Method Radiated	S02_AG03	2025-07-11	Passed	Passed
WLAN a, low, 9kHz - 30MHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN a, low, 9kHz - 30MHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN a, low, 9kHz - 30MHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN a, mid, 1GHz - 26GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed

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Subpart E §15.407
FCC §15.407 (b), (1),(2),(3),(4); FCC
§15.205, §15.209, §15.407 (b) (5),(6)

Undesirable Emissions; General Field Strength Limits

The measurement was performed according to ANSI C63.10, chapter 6.4, 6.5, 6.6.5 (radiated); 12.7.5,12.7.6,12.7.7.2 (conducted)

Final Result
OP-Mode

 Radio Technology, Operating Frequency,
 Measurement range, Subband

Setup
Date
FCC
IC

 WLAN a, mid, 1GHz - 26GHz, U-NII-2A
 Remark: Measurement Method Conducted

S01_AA01

2025-03-13

Passed

Passed

 WLAN a, mid, 1GHz - 26GHz, U-NII-2C
 Remark: Measurement Method Conducted

S01_AA01

2025-10-09

Passed

Passed

 WLAN a, mid, 1GHz - 26GHz, U-NII-3
 Remark: Measurement Method Conducted

S01_AA01

2025-03-13

Passed

Passed

 WLAN a, mid, 26GHz - 40GHz, U-NII-1
 Remark: Measurement Method Conducted

S01_AA01

2025-10-06

Passed

Passed

 WLAN a, mid, 26GHz - 40GHz, U-NII-1
 Remark: Measurement Method Radiated

S02_AG03

2025-07-16

Passed

Passed

 WLAN a, mid, 26GHz - 40GHz, U-NII-2A
 Remark: Measurement Method Conducted

S01_AA01

2025-10-06

Passed

Passed

 WLAN a, mid, 26GHz - 40GHz, U-NII-2A
 Remark: Measurement Method Radiated

S02_AG03

2025-07-16

Passed

Passed

 WLAN a, mid, 26GHz - 40GHz, U-NII-2C
 Remark: Measurement Method Conducted

S01_AA01

2025-10-06

Passed

Passed

 WLAN a, mid, 26GHz - 40GHz, U-NII-2C
 Remark: Measurement Method Radiated

S02_AG03

2025-07-21

Passed

Passed

 WLAN a, mid, 26GHz - 40GHz, U-NII-3
 Remark: Measurement Method Conducted

S01_AA01

2025-10-06

Passed

Passed

 WLAN a, mid, 26GHz - 40GHz, U-NII-3
 Remark: Measurement Method Radiated

S02_AG03

2025-07-21

Passed

Passed

 WLAN a, mid, 30MHz - 1GHz, U-NII-1
 Remark: Measurement Method Conducted

S01_AA01

2025-09-05

Passed

Passed

 WLAN a, mid, 30MHz - 1GHz, U-NII-1
 Remark: Measurement Method Radiated

S02_AG03

2025-07-11

Passed

Passed

 WLAN a, mid, 30MHz - 1GHz, U-NII-2A
 Remark: Measurement Method Conducted

S01_AA01

2025-09-05

Passed

Passed

 WLAN a, mid, 30MHz - 1GHz, U-NII-2C
 Remark: Measurement Method Conducted

S01_AA01

2025-09-05

Passed

Passed

 WLAN a, mid, 30MHz - 1GHz, U-NII-3
 Remark: Measurement Method Conducted

S01_AA01

2025-09-05

Passed

Passed

 WLAN a, mid, 30MHz - 1GHz, U-NII-3
 Remark: Measurement Method Radiated

S02_AG03

2025-07-11

Passed

Passed

 WLAN a, mid, 9kHz - 30MHz, U-NII-1
 Remark: Measurement Method Conducted

S01_AA01

2025-09-05

Passed

Passed

 WLAN a, mid, 9kHz - 30MHz, U-NII-2A
 Remark: Measurement Method Conducted

S01_AA01

2025-09-05

Passed

Passed

 WLAN a, mid, 9kHz - 30MHz, U-NII-2C
 Remark: Measurement Method Conducted

S01_AA01

2025-09-05

Passed

Passed

 WLAN a, mid, 9kHz - 30MHz, U-NII-3
 Remark: Measurement Method Conducted

S01_AA01

2025-09-05

Passed

Passed

 WLAN ac 20 MHz, high, 1GHz - 26GHz, U-NII-1
 Remark: Measurement Method Conducted

S01_AA01

2025-03-13

Passed

Passed

 WLAN ac 20 MHz, high, 1GHz - 26GHz, U-NII-2A
 Remark: Measurement Method Conducted

S01_AA01

2025-03-18

Passed

Passed

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Subpart E §15.407
FCC §15.407 (b), (1),(2),(3),(4); FCC
§15.205, §15.209, §15.407 (b) (5),(6)

Undesirable Emissions; General Field Strength Limits

The measurement was performed according to ANSI C63.10, chapter 6.4, 6.5, 6.6.5 (radiated); 12.7.5,12.7.6,12.7.7.2 (conducted)

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Measurement range, Subband				
WLAN ac 20 MHz, high, 1GHz - 26GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-03-18	Passed	Passed
WLAN ac 20 MHz, high, 1GHz - 26GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-03-18	Passed	Passed
WLAN ac 20 MHz, low, 1GHz - 26GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN ac 20 MHz, low, 1GHz - 26GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN ac 20 MHz, low, 1GHz - 26GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-03-18	Passed	Passed
WLAN ac 20 MHz, low, 1GHz - 26GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-03-18	Passed	Passed
WLAN ac 20 MHz, mid, 1GHz - 26GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN ac 20 MHz, mid, 1GHz - 26GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN ac 20 MHz, mid, 1GHz - 26GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-03-18	Passed	Passed
WLAN ac 20 MHz, mid, 1GHz - 26GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-03-18	Passed	Passed
WLAN ax 20 MHz, high, 1GHz - 26GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-03-18	Passed	Passed
WLAN ax 20 MHz, high, 1GHz - 26GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-03-18	Passed	Passed
WLAN ax 20 MHz, high, 1GHz - 26GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-03-18	Passed	Passed
WLAN ax 20 MHz, high, 1GHz - 26GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-03-18	Passed	Passed
WLAN ax 20 MHz, high, 26GHz - 40GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN ax 20 MHz, high, 26GHz - 40GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN ax 20 MHz, high, 26GHz - 40GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN ax 20 MHz, high, 26GHz - 40GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN ax 20 MHz, high, 30MHz - 1GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, high, 30MHz - 1GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, high, 30MHz - 1GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, high, 30MHz - 1GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, high, 9kHz - 30MHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed

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Subpart E §15.407
FCC §15.407 (b), (1),(2),(3),(4); FCC
§15.205, §15.209, §15.407 (b) (5),(6)

Undesirable Emissions; General Field Strength Limits

The measurement was performed according to ANSI C63.10, chapter 6.4, 6.5, 6.6.5 (radiated); 12.7.5,12.7.6,12.7.7.2 (conducted)

Final Result
OP-Mode

 Radio Technology, Operating Frequency,
 Measurement range, Subband

Setup
Date
FCC
IC

WLAN ax 20 MHz, high, 9kHz - 30MHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, high, 9kHz - 30MHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, high, 9kHz - 30MHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, low, 1GHz - 26GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-03-18	Passed	Passed
WLAN ax 20 MHz, low, 1GHz - 26GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-03-18	Passed	Passed
WLAN ax 20 MHz, low, 1GHz - 26GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-03-18	Passed	Passed
WLAN ax 20 MHz, low, 1GHz - 26GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-03-18	Passed	Passed
WLAN ax 20 MHz, low, 26GHz - 40GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN ax 20 MHz, low, 26GHz - 40GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN ax 20 MHz, low, 26GHz - 40GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN ax 20 MHz, low, 26GHz - 40GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN ax 20 MHz, low, 30MHz - 1GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, low, 30MHz - 1GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, low, 30MHz - 1GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, low, 30MHz - 1GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, low, 9kHz - 30MHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, low, 9kHz - 30MHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, low, 9kHz - 30MHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, low, 9kHz - 30MHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, mid, 1GHz - 26GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-03-18	Passed	Passed
WLAN ax 20 MHz, mid, 1GHz - 26GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-03-18	Passed	Passed
WLAN ax 20 MHz, mid, 1GHz - 26GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-03-18	Passed	Passed
WLAN ax 20 MHz, mid, 1GHz - 26GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-03-18	Passed	Passed

47 CFR CHAPTER I FCC PART 15
Subpart E §15.407
FCC §15.407 (b), (1),(2),(3),(4); FCC
§15.205, §15.209, §15.407 (b) (5),(6)

Undesirable Emissions; General Field Strength Limits

The measurement was performed according to ANSI C63.10, chapter 6.4, 6.5, 6.6.5 (radiated); 12.7.5,12.7.6,12.7.7.2 (conducted)

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Measurement range, Subband				
WLAN ax 20 MHz, mid, 26GHz - 40GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN ax 20 MHz, mid, 26GHz - 40GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN ax 20 MHz, mid, 26GHz - 40GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN ax 20 MHz, mid, 26GHz - 40GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-10-06	Passed	Passed
WLAN ax 20 MHz, mid, 30MHz - 1GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, mid, 30MHz - 1GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, mid, 30MHz - 1GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, mid, 30MHz - 1GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, mid, 9kHz - 30MHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, mid, 9kHz - 30MHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, mid, 9kHz - 30MHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN ax 20 MHz, mid, 9kHz - 30MHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-09-05	Passed	Passed
WLAN n 20 MHz, high, 1GHz - 26GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN n 20 MHz, high, 1GHz - 26GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN n 20 MHz, high, 1GHz - 26GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN n 20 MHz, high, 1GHz - 26GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN n 20 MHz, low, 1GHz - 26GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN n 20 MHz, low, 1GHz - 26GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN n 20 MHz, low, 1GHz - 26GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN n 20 MHz, low, 1GHz - 26GHz, U-NII-3 Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN n 20 MHz, mid, 1GHz - 26GHz, U-NII-1 Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN n 20 MHz, mid, 1GHz - 26GHz, U-NII-2A Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed
WLAN n 20 MHz, mid, 1GHz - 26GHz, U-NII-2C Remark: Measurement Method Conducted	S01_AA01	2025-03-13	Passed	Passed

47 CFR CHAPTER I FCC PART 15
Subpart E §15.407
FCC §15.407 (b), (1),(2),(3),(4); FCC
§15.205, §15.209, §15.407 (b) (5),(6)

Undesirable Emissions; General Field Strength Limits

The measurement was performed according to ANSI C63.10, chapter 6.4, 6.5, 6.6.5 (radiated); 12.7.5,12.7.6,12.7.7.2 (conducted)

Final Result

OP-Mode

Radio Technology, Operating Frequency, Measurement range, Subband

WLAN n 20 MHz, mid, 1GHz - 26GHz, U-NII-3
 Remark: Measurement Method Conducted

Setup
Date
FCC
IC

S01_AA01

2025-03-13

Passed

Passed

47 CFR CHAPTER I FCC PART 15 Subpart E
§15.407
FCC §15.407 (b), (1),(2),(3),(4)

Band Edge

The measurement was performed according to ANSI C63.10, chapter 6.6.5 (radiated); 12.7.6, 12.7.7.2 (conducted)

Final Result

OP-Mode

Radio Technology, Operating Frequency, Subband

WLAN a, high, U-NII-2A

Remark: Measurement Method: Conducted

WLAN a, high, U-NII-2A

Remark: Measurement Method Radiated

WLAN a, high, U-NII-2C

Remark: Measurement Method: Conducted

WLAN a, high, U-NII-2C

Remark: Measurement Method Radiated

WLAN a, high, U-NII-3

Remark: Measurement Method: Conducted

WLAN a, high, U-NII-3

Remark: Measurement Method Radiated

WLAN a, low, U-NII-1

Remark: Measurement Method: Conducted

WLAN a, low, U-NII-1

Remark: Measurement Method Radiated

WLAN a, low, U-NII-2C

Remark: Measurement Method: Conducted

WLAN a, low, U-NII-2C

Remark: Measurement Method Radiated

WLAN a, low, U-NII-3

Remark: Measurement Method: Conducted

WLAN ac 20 MHz, high, U-NII-2A

Remark: Measurement Method: Conducted

WLAN ac 20 MHz, high, U-NII-2C

Remark: Measurement Method: Conducted

WLAN ac 20 MHz, high, U-NII-3

Remark: Measurement Method: Conducted

WLAN ac 20 MHz, low, U-NII-1

Remark: Measurement Method: Conducted

WLAN ac 20 MHz, low, U-NII-2C

Remark: Measurement Method: Conducted

WLAN ac 20 MHz, low, U-NII-3

Remark: Measurement Method: Conducted

WLAN ax 20 MHz, high, U-NII-2A

Remark: Measurement Method: Conducted

Setup
Date
FCC
IC

S01_AA01

2025-03-05

Passed

Passed

S02_AG03

2025-06-25

Passed

Passed

S01_AA01

2025-03-04

Passed

Passed

S02_AG03

2025-06-25

Passed

Passed

S01_AA01

2025-03-04

Passed

Passed

S02_AG03

2025-06-25

Passed

Passed

S01_AA01

2025-03-04

Passed

Passed

S02_AG03

2025-06-25

Passed

Passed

S01_AA01

2025-03-05

Passed

Passed

S02_AG03

2025-06-25

Passed

Passed

S01_AA01

2025-03-04

Passed

Passed

S01_AA01

2025-03-05

Passed

Passed

S01_AA01

2025-03-05

Passed

Passed

S01_AA01

2025-03-05

Passed

Passed

S01_AA01

2025-03-05

Passed

Passed

S01_AA01

2025-03-05

Passed

Passed

S01_AA01

2025-03-05

Passed

Passed

S01_AA01

2025-03-05

Passed

Passed

47 CFR CHAPTER I FCC PART 15 Subpart E §15.407
FCC §15.407 (b), (1),(2),(3),(4)

Band Edge

The measurement was performed according to ANSI C63.10, chapter 6.6.5 (radiated); 12.7.6, 12.7.7.2 (conducted)

Final Result
OP-Mode

Radio Technology, Operating Frequency, Subband

WLAN ax 20 MHz, high, U-NII-2C

Remark: Measurement Method: Conducted

Setup
Date
FCC
IC

S01_AA01

2025-03-05

Passed

Passed

WLAN ax 20 MHz, high, U-NII-3

Remark: Measurement Method: Conducted

S01_AA01

2025-03-05

Passed

Passed

WLAN ax 20 MHz, low, U-NII-1

Remark: Measurement Method: Conducted

S01_AA01

2025-03-05

Passed

Passed

WLAN ax 20 MHz, low, U-NII-2C

Remark: Measurement Method: Conducted

S01_AA01

2025-03-05

Passed

Passed

WLAN ax 20 MHz, low, U-NII-3

Remark: Measurement Method: Conducted

S01_AA01

2025-03-05

Passed

Passed

WLAN n 20 MHz, high, U-NII-2A

Remark: Measurement Method: Conducted

S01_AA01

2025-03-05

Passed

Passed

WLAN n 20 MHz, high, U-NII-2C

Remark: Measurement Method: Conducted

S01_AA01

2025-03-05

Passed

Passed

WLAN n 20 MHz, high, U-NII-3

Remark: Measurement Method: Conducted

S01_AA01

2025-03-05

Passed

Passed

WLAN n 20 MHz, low, U-NII-1

Remark: Measurement Method: Conducted

S01_AA01

2025-03-04

Passed

Passed

WLAN n 20 MHz, low, U-NII-2C

Remark: Measurement Method: Conducted

S01_AA01

2025-03-05

Passed

Passed

WLAN n 20 MHz, low, U-NII-3

Remark: Measurement Method: Conducted

S01_AA01

2025-03-05

Passed

Passed

47 CFR CHAPTER I FCC PART 15 Subpart E §15.407
FCC §15.31, §15.407 (h)

Dynamic Frequency Selection - In-Service Monitoring for Channel Move Time,

Channel Closing Transmission Time and Non-Occupancy Period

The measurement was performed according to KDB 905462

Final Result
OP-Mode

Radio Technology

WLAN ax 20 MHz

Setup
Date
FCC
IC

S04_AA01

2025-05-23

Passed

Passed

N/A: Not applicable

N/P: Not performed

2 REVISION HISTORY / SIGNATURES

Report version control			
Version	Release date	Change Description	Version validity
initial	2025-10-22	--	valid
rev01	2025-11-13	Moved 6 GHz tests to report MDE_UBLOX_2408_FCC_08	valid
rev02	2025-12-11	Added Antenna corresponding to the gain in chapter 4.1, removed Band 4 from chapter 4.6, added offset description to chapter 5.7.4, Modified table headers of reference offset calculation table on page 190.	valid

COMMENT: -



(responsible for accreditation scope)
Dipl.-Ing. Marco Kullik



(responsible for testing and report)
Dipl.-Ing. Daniel Gall



7 layers GmbH, Borsigstr. 11
40880 Ratingen, Germany
Phone +49 (0)2102 749 0

3 ADMINISTRATIVE DATA

3.1 TESTING LABORATORY

Company Name: 7layers GmbH
Address: Borsigstr. 11
40880 Ratingen
Germany

The test facility is accredited by the following accreditation organisation:

Laboratory accreditation no: DAkKS D-PL-12140-01-00
FCC Designation Number: DE0015
FCC Test Firm Registration: 929146
ISED CAB Identifier DE0007; ISED#: 3699A

Responsible for accreditation scope: Dipl.-Ing. Marco Kullik
Report Template Version: 2025-02-28

3.2 PROJECT DATA

Responsible for testing and report: Dipl.-Ing. Daniel Gall
Employees who performed the tests: documented internally at 7Layers
Date of Report: 2025-12-11
Testing Period: 2025-03-04 to 2025-10-09

3.3 APPLICANT DATA

Company Name: u-blox AG
Address: Zürcherstrasse 68
8800 Thalwil
Switzerland
Contact Person: Filip Kruzela

3.4 MANUFACTURER DATA

Company Name: please see Applicant Data

Address:

Contact Person:

4 TEST OBJECT DATA

4.1 GENERAL EUT DESCRIPTION

Kind of Device product description	Host-based module with WLAN and Bluetooth technology																																																																																																																																																																					
Product name	MAYA-W381																																																																																																																																																																					
Type	MAYA-W381-00B																																																																																																																																																																					
Declared EUT data by the supplier																																																																																																																																																																						
Voltage Type	DC																																																																																																																																																																					
Voltage Level	1.8 / 3.3 V																																																																																																																																																																					
Tested Modulation Type	OFDM																																																																																																																																																																					
Specific product description	The EUT is a Bluetooth and WLAN module. Supported technologies relevant for this report are WLAN a, n, ac, ax 20 MHz bandwidth. For ax mode OFDMA MU is supported. U-NII bands 1 and 2A are indoor only. In the DFS bands, the EUT can be used as Client without radar detection only.																																																																																																																																																																					
Ports of the device	Enclosure Data DC Antenna The EUT is a module with solder pads for surface mounting, so no cables were connected to the EUT itself.																																																																																																																																																																					
Antenna / Gain	External / 5.3 dBi in U-NII bands 1 to 3. (The 5.3 dBi correspond to the Taoglas GW.59 3dBi Wi-Fi 6 Dipole Antenna in the antenna list. Tests are to be performed without antenna, for radiated tests antenna ports are terminated by 50 Ohm terminations.)																																																																																																																																																																					
Tested Datarates	WLAN a: 6 Mbps, n: MCS0, ac: MCS 0, ax: MSC 0																																																																																																																																																																					
Special software used for testing	Scripts provided on a computer board by the applicant.																																																																																																																																																																					
Used output power setting in test software	<table><tr><th colspan="2"></th><th colspan="28">5 GHz</th></tr><tr><th>Mode</th><th>Ch.</th><th>36</th><th>40</th><th>44</th><th>48</th><th>52</th><th>56</th><th>60</th><th>64</th><th>100</th><th>104</th><th>108</th><th>112</th><th>116</th><th>120</th><th>124</th><th>128</th><th>132</th><th>136</th><th>140</th><th>144</th><th>149</th><th>153</th><th>157</th><th>161</th><th>165</th></tr><tr><td>A</td><td></td><td>14</td><td>14</td><td>14</td><td>14</td><td>15</td><td>15</td><td>15</td><td>14</td><td>14</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>14</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td></tr><tr><td>N20 SISO</td><td></td><td>14</td><td>14</td><td>14</td><td>14</td><td>15</td><td>15</td><td>15</td><td>14</td><td>12</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>11</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td></tr><tr><td>Ac20 SISO</td><td></td><td>14</td><td>14</td><td>14</td><td>14</td><td>15</td><td>15</td><td>15</td><td>14</td><td>13</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>13</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td></tr><tr><td>Ax20 SISO</td><td></td><td>14</td><td>14</td><td>14</td><td>14</td><td>15</td><td>15</td><td>15</td><td>14</td><td>13</td><td>14</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>12</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td></tr></table> OFDMA power: U-NII Bd. 1: 4, U-NII Bd. 2 A: 6, U-NII Bd. 2C: 5 U-NII Bd. 3: 8			5 GHz																												Mode	Ch.	36	40	44	48	52	56	60	64	100	104	108	112	116	120	124	128	132	136	140	144	149	153	157	161	165	A		14	14	14	14	15	15	15	14	14	15	15	15	15	15	15	15	15	15	14	15	15	15	15	15	15	N20 SISO		14	14	14	14	15	15	15	14	12	15	15	15	15	15	15	15	15	15	11	15	15	15	15	15	15	Ac20 SISO		14	14	14	14	15	15	15	14	13	15	15	15	15	15	15	15	15	15	13	15	15	15	15	15	15	Ax20 SISO		14	14	14	14	15	15	15	14	13	14	15	15	15	15	15	15	15	15	12	15	15	15	15	15	15
		5 GHz																																																																																																																																																																				
Mode	Ch.	36	40	44	48	52	56	60	64	100	104	108	112	116	120	124	128	132	136	140	144	149	153	157	161	165																																																																																																																																												
A		14	14	14	14	15	15	15	14	14	15	15	15	15	15	15	15	15	15	14	15	15	15	15	15	15																																																																																																																																												
N20 SISO		14	14	14	14	15	15	15	14	12	15	15	15	15	15	15	15	15	15	11	15	15	15	15	15	15																																																																																																																																												
Ac20 SISO		14	14	14	14	15	15	15	14	13	15	15	15	15	15	15	15	15	15	13	15	15	15	15	15	15																																																																																																																																												
Ax20 SISO		14	14	14	14	15	15	15	14	13	14	15	15	15	15	15	15	15	15	12	15	15	15	15	15	15																																																																																																																																												

4.2 EUT MAIN COMPONENTS

Sample Name	Sample Code	Description
EUT aa01	DE1015193aa01	
Sample Parameter	Value	
Serial No.	GZ4B8F44FA23A480400	
HW Version	W3A	
SW Version	28.10.387.10	
Comment		

Sample Name	Sample Code	Description
EUT ag03	DE1015193ag03	
Sample Parameter	Value	
Serial No.	GZ4B8F44FA23A080400	
HW Version	W3A	
SW Version	28.10.387.10	
Comment		

NOTE: The short description is used to simplify the identification of the EUT in this test report.

4.3 ANCILLARY EQUIPMENT

For the purposes of this test report, ancillary equipment is defined as equipment which is used in conjunction with the EUT to provide operational and control features to the EUT. It is necessary to configure the system in a typical fashion, as a customer would normally use it. But nevertheless Ancillary Equipment can influence the test results.

-	-	-
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4.4 AUXILIARY EQUIPMENT

For the purposes of this test report, auxiliary equipment is defined as equipment which is used temporarily to enable operational and control features especially used for the tests of the EUT which is not used during normal operation or equipment that is used during the tests in combination with the EUT but is not subject of this test report. It is necessary to configure the system in a typical fashion, as a customer would normally use it. But nevertheless Auxiliary Equipment can influence the test results.

Device	Details (Manufacturer, Type Model, HW, SW, S/N)	Description
AC/DC supply	Agilent, E3631A, -, -, MY40018563	Laboratory Power Supply 120 V 60 Hz
Control board 1	Radxa, ROCK 5B, v1.46, -, 1	Mini host layer PC
Laptop RE 02 (Fujitsu)	Fujitsu Ltd., Laptop RE 02 (Fujitsu):Lifebook E series E782, -, -, DSCM004672	Lifebook E series E782
Router	Linksys, Hydra Pro 6E MR7500, -, 1.1.10.210455, 45C10M27C01246	WLAN Access Point DFS Master FCC ID: K7S-03689

4.5 EUT SETUPS

This chapter describes the combination of EUTs and equipment used for testing. The rationale for selecting the EUTs, ancillary and auxiliary equipment and interconnecting cables, is to test a representative configuration meeting the requirements of the referenced standards.

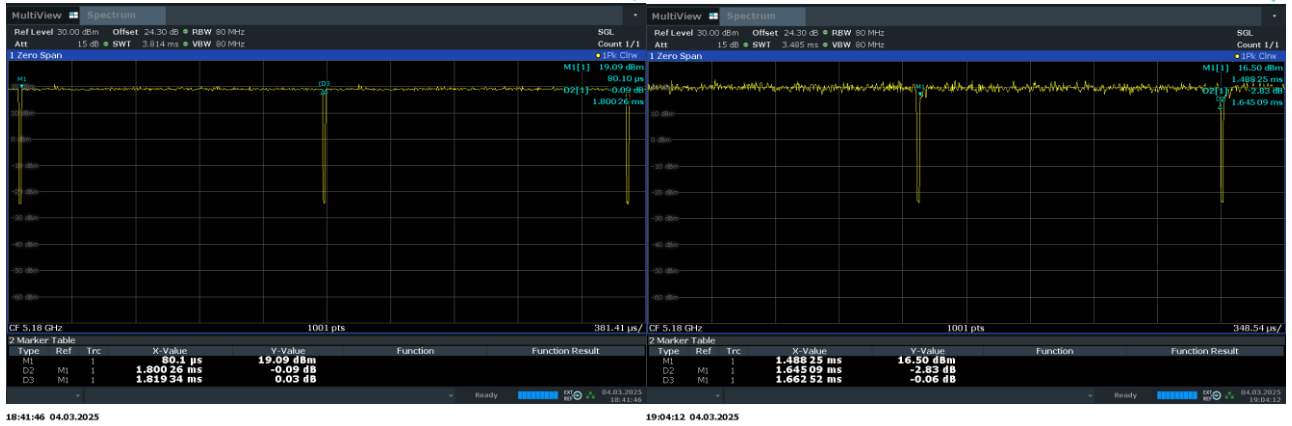
Setup	Combination of EUTs	Description and Rationale
S01_AA01	EUT aa01, Control board 1	Conducted Setup
S02_AG03	EUT ag03	Radiated Setup
S03_AA01	EUT aa01, AC/DC supply	AC conducted Setup
S04_AA01	EUT aa01, Control board 1, Router, Laptop RE 02 (Fujitsu)	DFS conducted Setup

4.6 OPERATING MODES / TEST CHANNELS

This chapter describes the operating modes of the EUTs used for testing.

U-NII-Subband 1 5150 - 5250 MHz			U-NII-Subband 2A 5250 - 5350 MHz			U-NII-Subband 2C 5470 - 5725 MHz			U-NII 2 / 3	U-NII-Subband 3 5725 - 5850 MHz		
20 MHz BW												
low	mid	high	low	mid	high	low	mid	high	straddle	low	mid	high
36	40	48	52	60	64	100	116	140	144	149	157	165
5180	5200	5240	5260	5300	5320	5500	5580	5700	5720	5745	5785	5825

Duty Cycles



18:41:46 04.03.2025

19:04:12 04.03.2025



19:25:21 05.03.2025

19:46:55 05.03.2025

WLAN ac 20 Mhz

WLAN ax 20 MHz

Resulting Duty Cycle				
Mode	WLAN a	WLAN n20	WLAN ac20	WLAN ax20
Duty Cycle [%]	99.0	99.0	98.7	98.3
Corr. [dB]	0.1	0.1	0.1	0.1

Worst case data rate check at channel 5180 MHz:

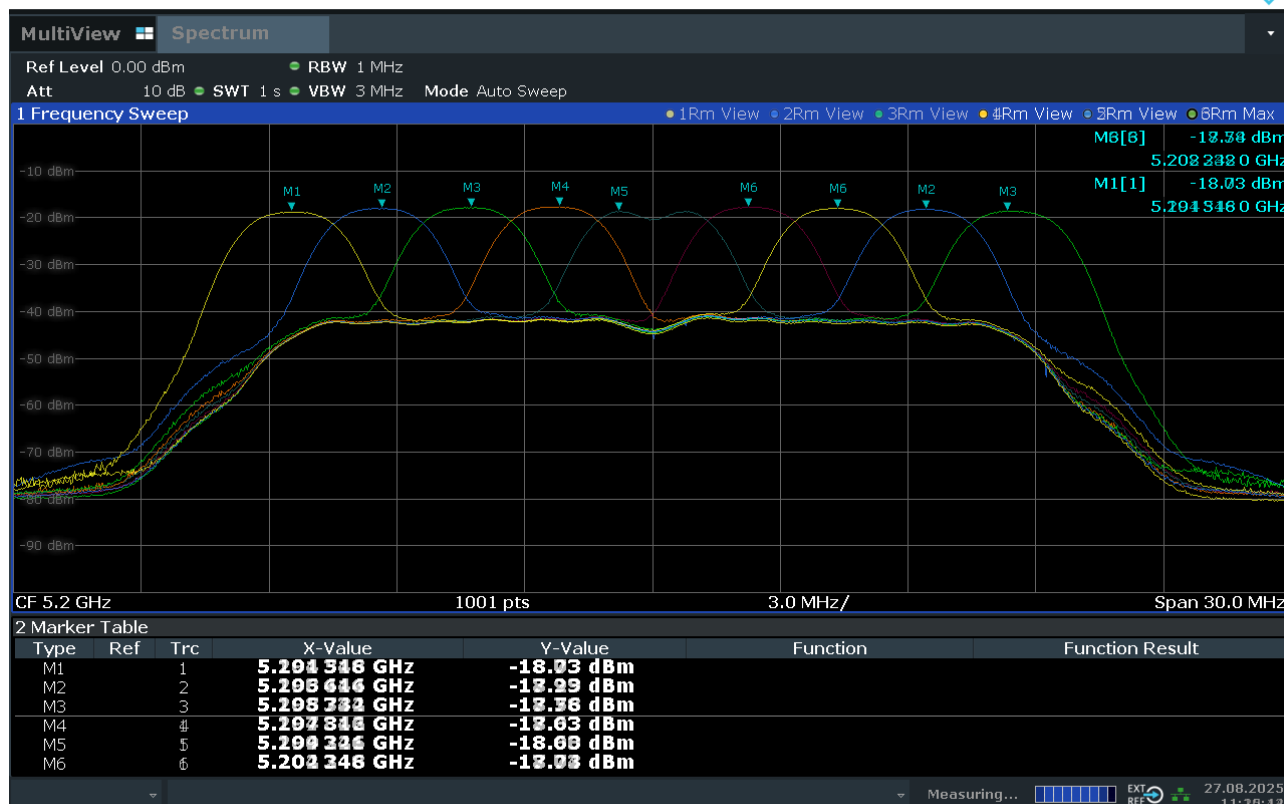
Mode	PD	BE PK	BE AV
a 6M	2.1	-39.3	-51.3
a 9M	0.0	-39.9	-51.9
a 12M	0.0	-40.1	-52.2
a 18M	-0.3	-40.1	-52.0
a 24M	0.5	-39.3	-51.9
a 36M	-1.4	-39.5	-51.9
a 48M	-1.4	-33.6	-51.6
a 54M	-1.2	-34.6	-51.1
n 20 MHz MCS 0	1.0	-39.8	-51.5
n 20 MHz MCS 1	-0.2	-40.3	-51.9
n 20 MHz MCS 2	0.0	-40.3	-51.7
n 20 MHz MCS 3	0.3	-40.2	-51.5
n 20 MHz MCS 4	0.2	-38.7	-51.4
n 20 MHz MCS 5	-1.3	-31.8	-50.6
n 20 MHz MCS 6	-1.3	-32.4	-50.5
n 20 MHz MCS 7	-1.3	-30.5	-51.1
ac 20 MHz MCS 0	-2.8	-42.7	-54.0
ac 20 MHz MCS 1	-3.8	-43.1	-54.6
ac 20 MHz MCS 2	-3.6	-43.4	-54.6
ac 20 MHz MCS 3	-3.2	-43.3	-54.4
ac 20 MHz MCS 4	-3.3	-43.1	-54.4
ac 20 MHz MCS 5	-4.9	-42.4	-54.2
ac 20 MHz MCS 6	-4.9	-43.0	-54.5
ac 20 MHz MCS 7	-4.9	-43.2	-54.5
ac 20 MHz MCS 8	-4.8	-34.4	-49.8
ax 20 MHz MCS 0	-2.6	-42.2	-53.8
ax 20 MHz MCS 1	-4.3	-42.7	-54.3
ax 20 MHz MCS 2	-4.1	-43.4	-54.5
ax 20 MHz MCS 3	-3.7	-43.3	-54.0
ax 20 MHz MCS 4	-3.7	-42.8	-54.1
ax 20 MHz MCS 5	-3.3	-41.9	-53.9
ax 20 MHz MCS 6	-3.3	-42.3	-54.1
ax 20 MHz MCS 7	-4.7	-42.4	-54.0
ax 20 MHz MCS 8	-4.6	-42.9	-54.1
ax 20 MHz MCS 9	-4.9	-42.7	-54.1
ax 20 MHz MCS 10	-4.6	-40.9	-54.1
ax 20 MHz MCS 11	-4.7	-41.8	-54.0

Max power setting per data rate provided by applicant:

Rate	5 GHz Band				6 GHz Band			
	U-NII-1 Ch 36 - 48	U-NII-2A Ch 52 - 64	U-NII-2C Ch 100 - 144	U-NII-3 Ch 149 - 165	U-NII-5 Ch 1 - 93	U-NII-6 Ch 97 - 113	U-NII-7 Ch 117 - 185	U-NII-8 Ch 189 - 233
MCS0 / 6 Mbps	16.00	15.00	15.00	15.00	16.00	16.00	16.00	16.00
9 Mbps	16.00	15.00	15.00	15.00	16.00	16.00	16.00	16.00
MCS1 / 12 Mbps	16.00	15.00	15.00	15.00	16.00	16.00	16.00	16.00
MCS2 / 18 Mbps	16.00	15.00	15.00	15.00	16.00	16.00	16.00	16.00
MCS3 / 24 Mbps	16.00	15.00	15.00	15.00	16.00	16.00	16.00	16.00
MCS4 / 36 Mbps	16.00	15.00	15.00	15.00	16.00	16.00	15.00	15.00
MCS5 / 48 Mbps	15.00	14.00	14.00	14.00	16.00	16.00	14.00	14.00
MCS6 / 54 Mbps	14.00	14.00	14.00	14.00	15.00	15.00	13.00	13.00
MCS7	14.00	14.00	14.00	14.00	14.00	14.00	12.00	12.00
MCS8	11.00	13.00	12.00	12.00	13.00	13.00	11.00	11.00
MCS9	10.00	12.00	10.00	10.00	12.00	12.00	11.00	11.00
MCS10	10.00	10.00	10.00	8.00	9.00	9.00	9.00	9.00
MCS11	10.00	10.00	9.00	8.00	9.00	9.00	9.00	9.00

Since Power Density was highest for the lowest data rates and the higher data rates are only supported for lower power settings, the lowest data rates were used for testing.
For n mode Band Edge measurements were also performed with data rate MCS 7 at 14 dBm.

Worst case RU for OFDMA RU testing:



11:25:14 27.08.2025

Highest RU: RU 3

4.7 PRODUCT LABELLING

4.7.1 FCC ID LABEL

Please refer to the documentation of the applicant.

4.7.2 LOCATION OF THE LABEL ON THE EUT

Please refer to the documentation of the applicant.

5 TEST RESULTS

5.1 AC CONDUCTED EMISSIONS

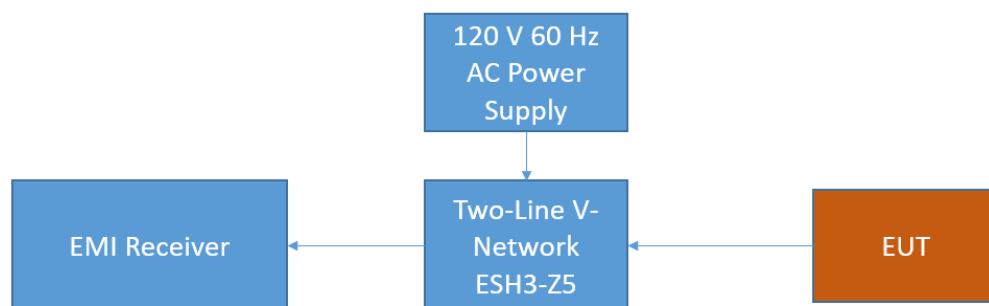
Standard **FCC Part 15 Subpart E**

The test was performed according to:

ANSI C63.10, chapter 6.2

5.1.1 TEST DESCRIPTION

The test set-up was made in accordance to the general provisions of ANSI C 63.10. The Equipment Under Test (EUT) was setup in a shielded room to perform the conducted emissions measurements in a typical installation configuration. The EUT was powered from 50 μ H || 50 Ohm Line Impedance Stabilization Network (LISN). The LISN's unused connections were terminated with 50 Ohm loads.



FCC Conducted Emissions on AC

The measurement procedure consists of two steps. It is implemented into the EMI test software EMC-32 from R&S.

Step 1: Preliminary scan

Intention of this step is, to determine the conducted EMI-profile of the EUT.

EMI receiver settings:

- Detector: Peak – Maxhold & Average
- Frequency range: 150 kHz – 30 MHz
- Frequency steps: 2.5 kHz
- IF-Bandwidth: 9 kHz
- Measuring time / Frequency step: 100 ms (FFT-based)
- Measurement on phase + neutral lines of the power cords

On basis of this preliminary scan the highest amplitudes and the corresponding frequencies relative to the limit are identified. Emissions above the limit and emissions which are in the 10 dB range below the limit are considered.

Step 2: Final measurement

Intention of this step is, to determine the highest emissions with the settings defined in the test specification for the frequencies identified in step 1.

EMI receiver settings:

- Detector: Quasi-Peak & (CISPR) Average
- IF Bandwidth: 9 kHz
- Measuring time: 1 s / frequency

At each frequency determined in step 1, four measurements are performed in the following combinations:

- 1) Neutral lead - reference ground (PE grounded)
- 2) Phase lead - reference ground (PE grounded)
- 3) Neutral lead - reference ground (PE floating)
- 4) Phase lead - reference ground (PE floating)

The highest value is reported.

5.1.2 TEST REQUIREMENTS / LIMITS

FCC Part 15, Subpart C, §15.207

Frequency (MHz)	QP Limits (dBμV)	AV Limits (dBμV)
0.15 – 0.5	66 - 56	56 - 46
0.5 - 5	56	46
5 - 30	60	50

5.1.3 TEST PROTOCOL

Temperature: 27 °C
 Air Pressure: 1006 hPa
 Humidity: 44 %

Mode	Power line	PE	Frequency [MHz]	Measured value QP [dBμV]	Measured value AV [dBμV]	Limit [dBμV]	Margin [dB]
WLAN a 6Mbps 5300 MHz	L1	GND	12.01	46.0	-	60.0	14.0
	L1	GND	12.01	-	42.4	50.0	7.6
	L1	FLO	24.01	46.6	---	60.0	13.4
	L1	FLO	24.01	---	44.6	50.0	5.4

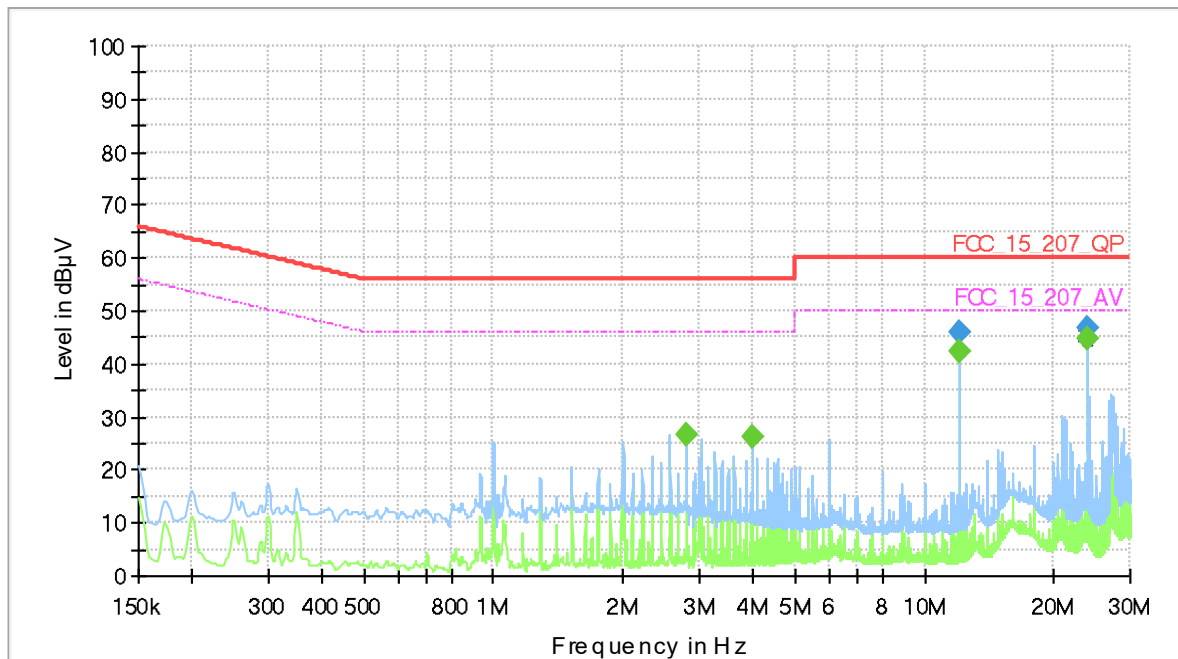
Remark: Please see next sub-clause for the measurement plot.

5.1.4 MEASUREMENT PLOT (EXAMPLE PLOT, SHOWING WORST CASE, IF APPLICABLE)

Operating mode = worst case
(S03_AA01)

Common Information

Test Description: Conducted Emissions
Test Standard: FCC §15.207
EUT / Setup Code: DE1015194aa01
Operating Conditions: 120 V 60 Hz -> 3.3V & 1.8V DC; WLAN5GHz, a-Mode, 6Mbps, CH60, pwr15;
Comment: -
Legend: Trace: blue = QP, green = CISPR AV; Star: red or blue = critical frequency; Rhombus: blue = final QP, green = final CISPR AV
Tested Port / used LISN: AC mains => 1st LISN ESH3-Z5
Termination of other ports: N/A, AC of AUX => 2nd LISN ESH3-Z5 +50 Ohm



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time	Bandwidth (kHz)	Line	PE	Corr. (dB)
2.802750	---	26.60	46.00	19.40	1000.0	9.000	L1	GND	10.3
4.002000	---	26.30	46.00	19.70	1000.0	9.000	L1	GND	10.3
12.005250	---	42.36	50.00	7.64	1000.0	9.000	L1	GND	10.7
12.005250	46.03	---	60.00	13.97	1000.0	9.000	L1	GND	10.7
24.009000	46.60	---	60.00	13.40	1000.0	9.000	L1	FLO	11.2
24.009000	---	44.57	50.00	5.43	1000.0	9.000	L1	FLO	11.2

5.1.5 TEST EQUIPMENT USED

- Conducted Emissions FCC

5.2 26 DB BANDWIDTH

Standard **FCC Part 15 Subpart E**

The test was performed according to:
 ANSI C63.10, chapter 12.5.2

5.2.1 TEST DESCRIPTION

The Equipment Under Test (EUT) was set up to perform the occupied bandwidth measurements.

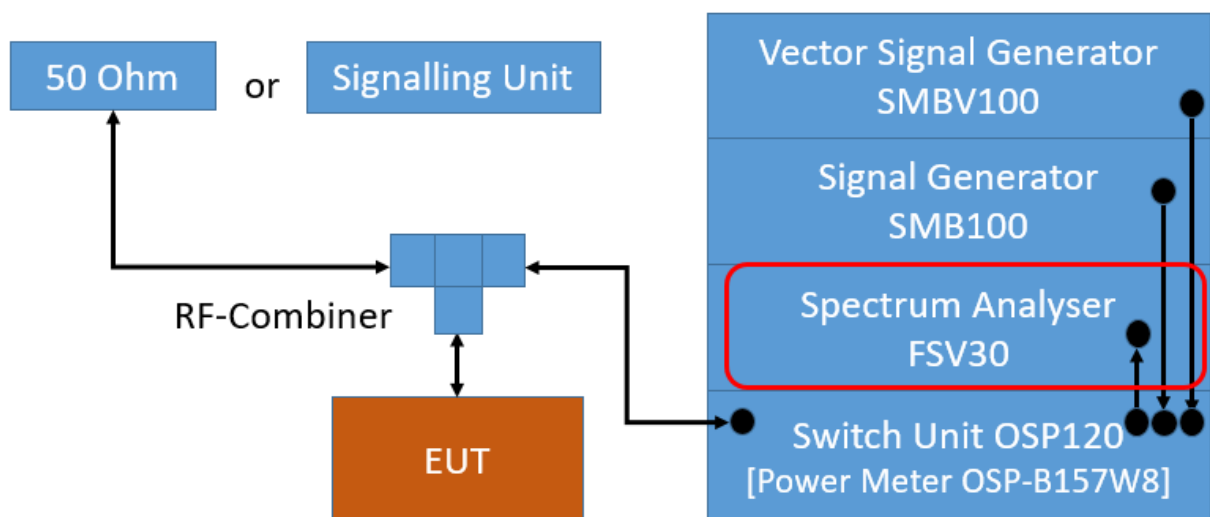
The reference level is the level of the highest amplitude signal observed from the transmitter at either the fundamental frequency or first-order modulation products in all typical modes of operation, including the unmodulated carrier, even if atypical.

The results recorded were measured with the modulation which produce the worst-case (widest) emission bandwidth.

The EUT was connected to the test system as described in the block diagram below. The complete attenuation of the measurement path is known and considered.

Analyzer settings:

- Resolution Bandwidth (RBW): 1% to 5% of the emission bandwidth
- Video Bandwidth (VBW): > RBW
- Span: see example plots
- Trace: Maxhold
- Sweeps: see plots
- Sweep time: Auto
- Detector: Peak



TS8997; Occupied Channel Bandwidth 6 dB / 26 dB / 99 %

5.2.2 TEST REQUIREMENTS / LIMITS

FCC Part 15, Subpart E

There exist no applicable limits. The test was performed to determine the limits for the "Maximum Conducted Output Power" and DFS test cases.

Therefore no result was applied.

5.2.3 TEST PROTOCOL

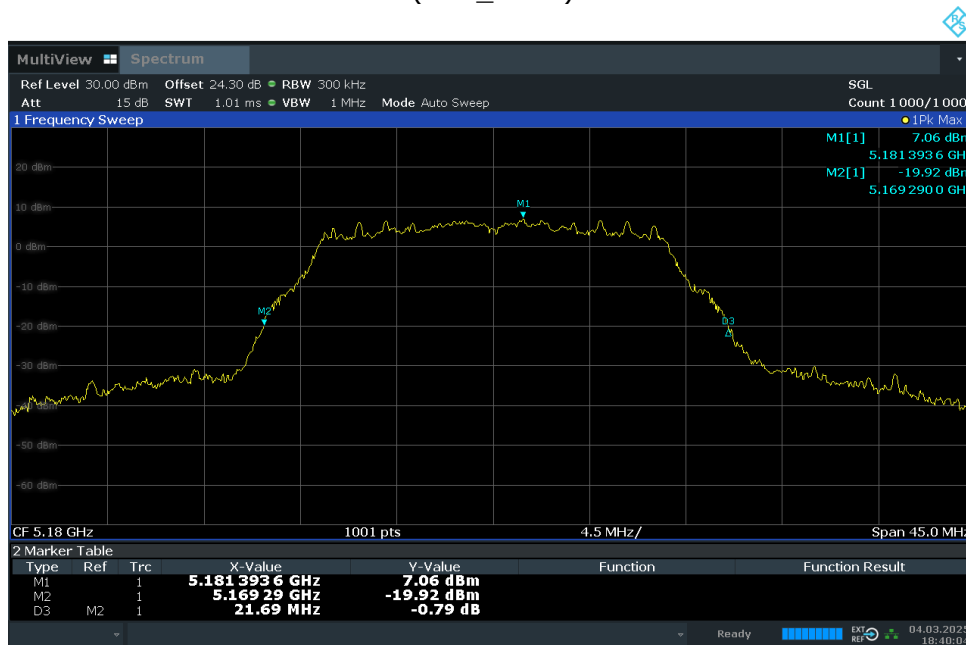
Ambient temperature: 20 - 24 °C
 Air Pressure: 30 - 56 hPa
 Humidity: 992 - 1020 %

Radio Technology	Subband	Operating Frequency	26 dB Bandwidth [MHz]
WLAN a	U-NII-1	low	21.7
WLAN a	U-NII-1	mid	21.6
WLAN a	U-NII-1	high	21.6
WLAN a	U-NII-2A	low	21.6
WLAN a	U-NII-2A	mid	21.6
WLAN a	U-NII-2A	high	21.6
WLAN a	U-NII-2C	low	21.6
WLAN a	U-NII-2C	mid	21.6
WLAN a	U-NII-2C	high	21.6
WLAN a	U-NII-2C/3	straddle	15.8
WLAN n 20 MHz	U-NII-1	low	21.7
WLAN n 20 MHz	U-NII-1	mid	21.7
WLAN n 20 MHz	U-NII-1	high	21.7
WLAN n 20 MHz	U-NII-2A	low	21.9
WLAN n 20 MHz	U-NII-2A	mid	21.8
WLAN n 20 MHz	U-NII-2A	high	21.8
WLAN n 20 MHz	U-NII-2C	low	21.7
WLAN n 20 MHz	U-NII-2C	mid	21.6
WLAN n 20 MHz	U-NII-2C	high	21.6
WLAN n 20 MHz	U-NII-2C/3	straddle	15.9
WLAN ac 20 MHz	U-NII-1	low	21.8
WLAN ac 20 MHz	U-NII-1	mid	21.7
WLAN ac 20 MHz	U-NII-1	high	21.6
WLAN ac 20 MHz	U-NII-2A	low	21.6
WLAN ac 20 MHz	U-NII-2A	mid	21.8
WLAN ac 20 MHz	U-NII-2A	high	21.6
WLAN ac 20 MHz	U-NII-2C	low	21.7
WLAN ac 20 MHz	U-NII-2C	mid	21.9
WLAN ac 20 MHz	U-NII-2C	high	21.7
WLAN ac 20 MHz	U-NII-2C/3	straddle	16.1
WLAN ax 20 MHz	U-NII-1	low	21.8
WLAN ax 20 MHz	U-NII-1	mid	21.8
WLAN ax 20 MHz	U-NII-1	high	21.8
WLAN ax 20 MHz	U-NII-2A	low	21.6
WLAN ax 20 MHz	U-NII-2A	mid	21.8
WLAN ax 20 MHz	U-NII-2A	high	21.7
WLAN ax 20 MHz	U-NII-2C	low	21.8
WLAN ax 20 MHz	U-NII-2C	mid	21.7
WLAN ax 20 MHz	U-NII-2C	high	21.7
WLAN ax 20 MHz	U-NII-2C/3	straddle	15.8

Remark: For the straddle channel UNII-2C/3 only the value for band 2C is given.
 Please see next sub-clause for the measurement plot.

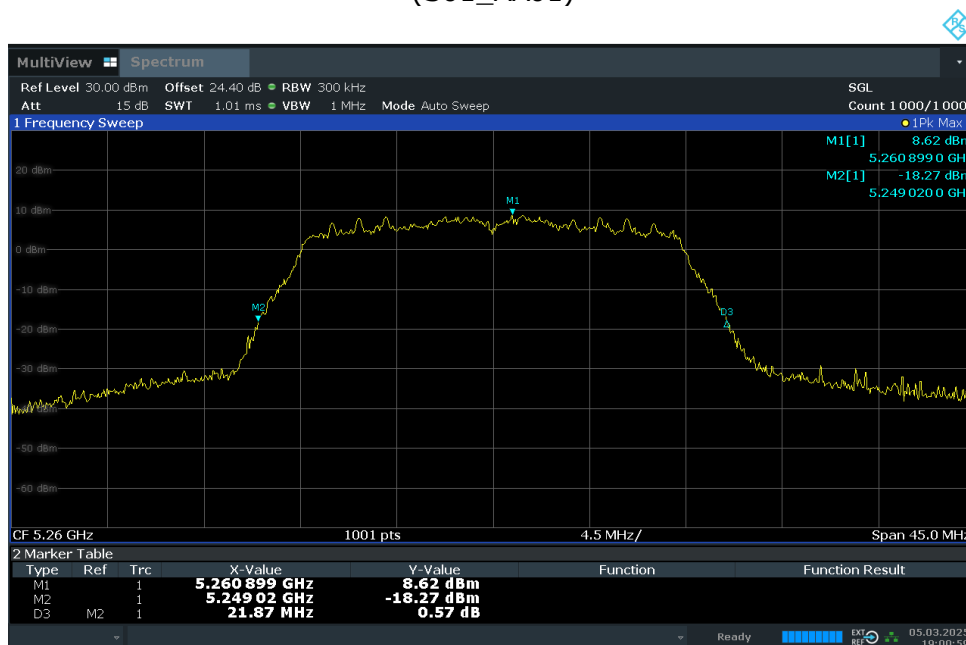
5.2.4 MEASUREMENT PLOT (EXAMPLE PLOT, SHOWING WORST CASE, IF APPLICABLE)

Radio Technology = WLAN a, Operating Frequency = low, Subband = U-NII-1
(S01_AA01)



18:40:05 04.03.2025

Radio Technology = WLAN n 20 MHz, Operating Frequency = low, Subband = U-NII-2A (S01_AA01)



19:01:00 05.03.2025

Radio Technology = WLAN ac 20 MHz, Operating Frequency = mid, Subband = U-NII-2C (S01_AA01)



19:36:07 05.03.2025

Radio Technology = WLAN ax 20 MHz, Operating Frequency = mid, Subband = U-NII-2A (S01_AA01)



19:02:24 05.03.2025

5.2.5 TEST EQUIPMENT USED

- R&S TS8997

5.3 6 DB BANDWIDTH

Standard **FCC Part 15 Subpart E**

The test was performed according to:
 ANSI C63.10, chapter 12.5.1

5.3.1 TEST DESCRIPTION

The Equipment Under Test (EUT) was setup in a shielded room to perform the occupied bandwidth measurements.

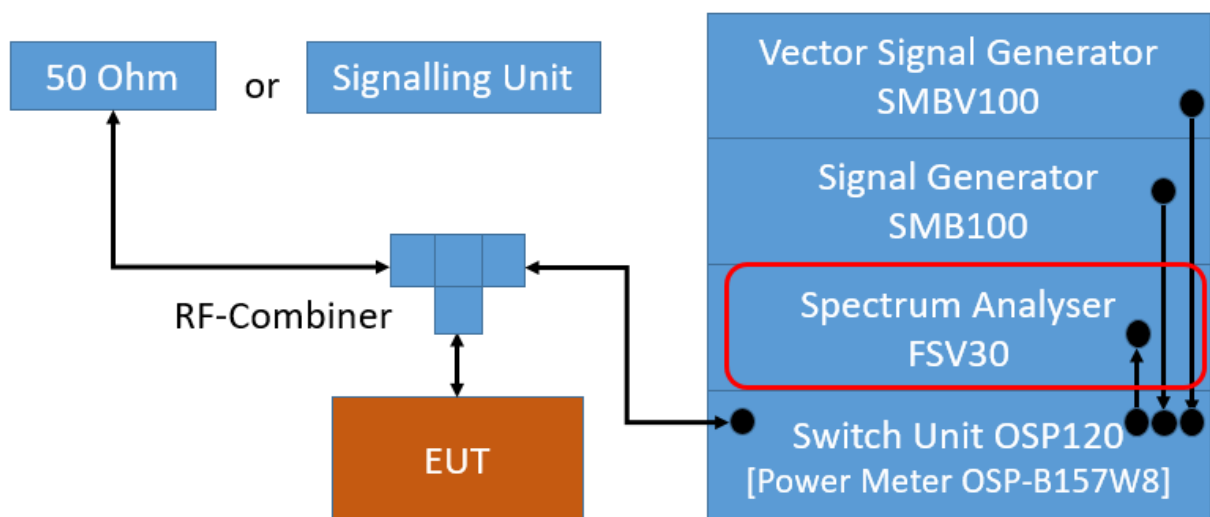
The reference level is the level of the highest amplitude signal observed from the transmitter at either the fundamental frequency or first-order modulation products in all typical modes of operation, including the unmodulated carrier, even if atypical.

The results recorded were measured with the modulation which produce the worst-case (smallest) emission bandwidth.

The EUT was connected to the test system as described in the block diagram below. The complete attenuation of the measurement path is known and considered.

Analyzer settings:

- Resolution Bandwidth (RBW): 100 kHz
- Video Bandwidth (VBW): 300 kHz
- Span: see plots
- Trace: Maxhold
- Sweeps: see plots
- Sweep time: Auto
- Detector: Peak



TS8997; Occupied Channel Bandwidth 6 dB / 26 dB / 99 %

5.3.2 TEST REQUIREMENTS / LIMITS

FCC Part 15, Subpart E, §15.407 (e)

Within the 5.725-5.850 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

5.3.3 TEST PROTOCOL

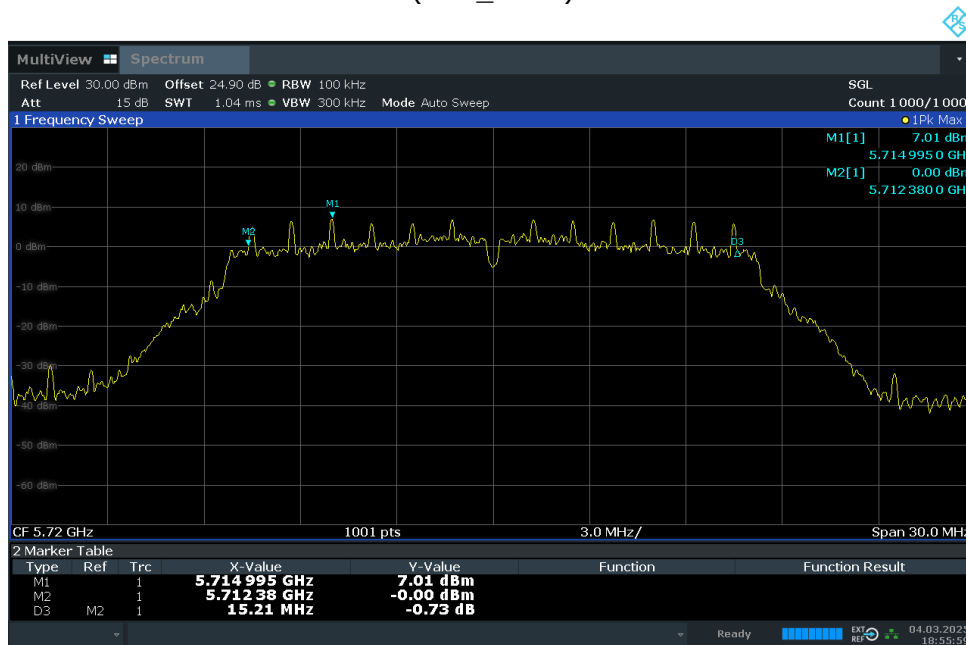
Ambient temperature: 20 - 24 °C
 Air Pressure: 30 - 56 hPa
 Humidity: 992 - 1020 %

Radio Technology	Subband	Operating Frequency	6 dB Bandwidth [MHz]	Limit [MHz]	Margin [MHz]
WLAN a	U-NII-2C/3	straddle	2.6	0.5	2.1
WLAN a	U-NII-3	low	15.2	0.5	14.7
WLAN a	U-NII-3	mid	15.2	0.5	14.7
WLAN a	U-NII-3	high	15.2	0.5	14.7
WLAN n 20 MHz	U-NII-2C/3	straddle	2.6	0.5	2.1
WLAN n 20 MHz	U-NII-3	low	15.2	0.5	14.7
WLAN n 20 MHz	U-NII-3	mid	15.2	0.5	14.7
WLAN n 20 MHz	U-NII-3	high	15.2	0.5	14.7
WLAN ac 20 MHz	U-NII-2C/3	straddle	2.6	0.5	2.1
WLAN ac 20 MHz	U-NII-3	low	15.2	0.5	14.7
WLAN ac 20 MHz	U-NII-3	mid	15.2	0.5	14.7
WLAN ac 20 MHz	U-NII-3	high	15.2	0.5	14.7
WLAN ax 20 MHz	U-NII-2C/3	straddle	3.7	0.5	3.2
WLAN ax 20 MHz	U-NII-3	low	18.4	0.5	17.9
WLAN ax 20 MHz	U-NII-3	mid	16.7	0.5	16.2
WLAN ax 20 MHz	U-NII-3	high	18.2	0.5	17.7

Remark: For the straddle U-NII2C/3 only the value for band 3 is given since the 6 dB BW is not relevant for band 2C.
 Please see next sub-clause for the measurement plot.

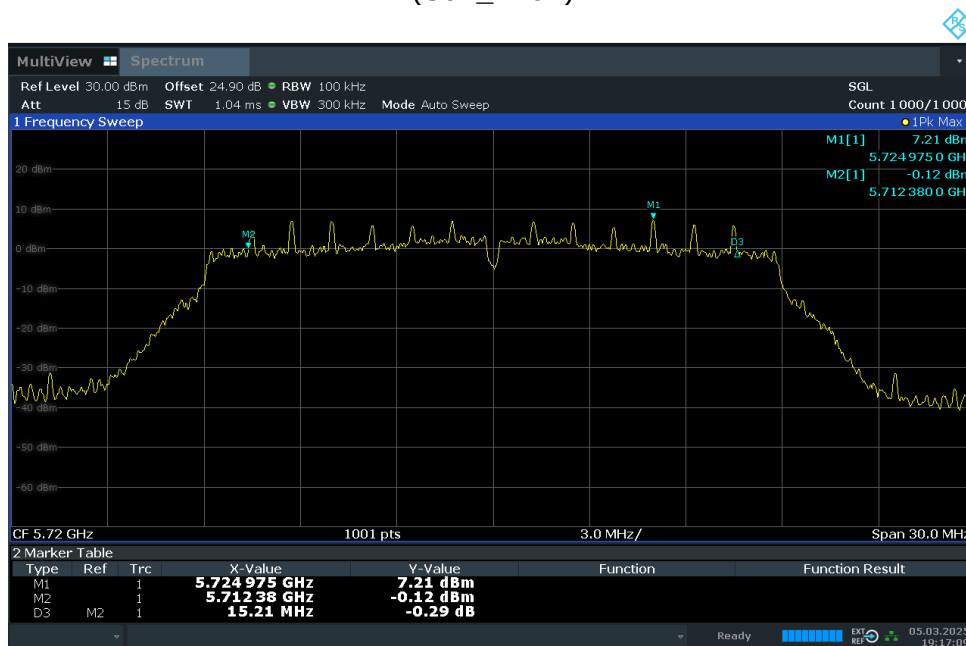
5.3.4 MEASUREMENT PLOT (EXAMPLE PLOT, SHOWING WORST CASE, IF APPLICABLE)

Radio Technology = WLAN a, Operating Frequency = straddle, Subband = U-NII-2C + U-NII-3 (S01_AA01)



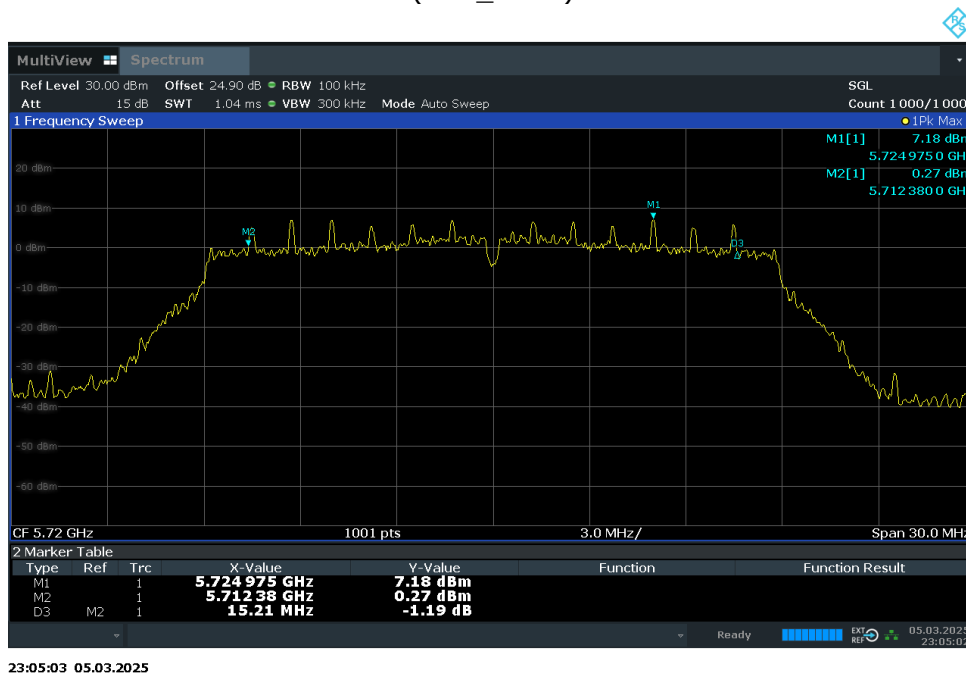
18:56:00 04.03.2025

Radio Technology = WLAN n 20 MHz, Operating Frequency = straddle, Subband = U-NII-2C + U-NII-3 (S01_AA01)

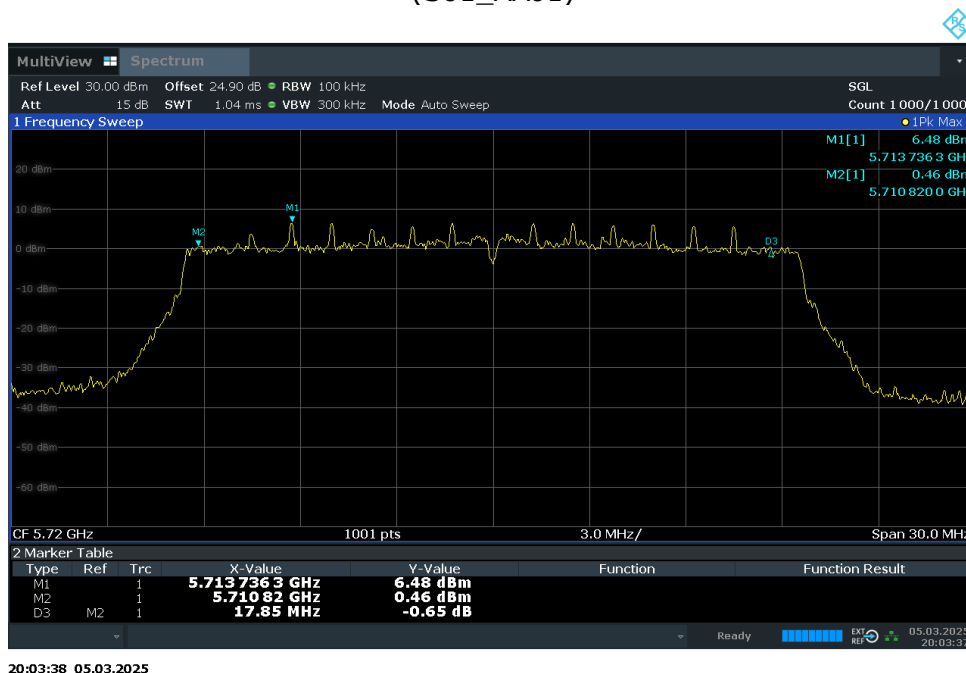


19:17:10 05.03.2025

Radio Technology = WLAN ac 20 MHz, Operating Frequency = straddle, Subband = U-NII-2C + U-NII-3 (S01_AA01)



Radio Technology = WLAN ax 20 MHz, Operating Frequency = straddle, Subband = U-NII-2C + U-NII-3 (S01_AA01)



5.3.5 TEST EQUIPMENT USED

- R&S TS8997

5.4 99 % BANDWIDTH

Standard **FCC Part 15 Subpart E**

The test was performed according to:
 ANSI C63.10, chapter 12.5.3 (6.9.3)

5.4.1 TEST DESCRIPTION

The Equipment Under Test (EUT) was set up to perform the occupied bandwidth measurements.

The reference level is the level of the highest amplitude signal observed from the transmitter at either the fundamental frequency or first-order modulation products in all typical modes of operation, including the unmodulated carrier, even if atypical.

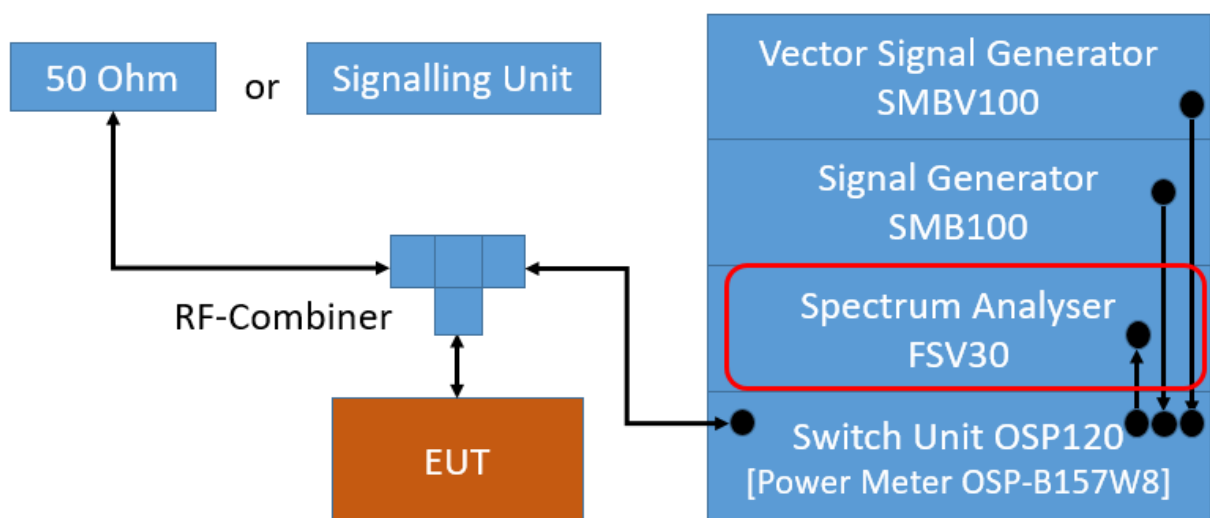
The results recorded were measured with the modulation which produce the worst-case (widest) emission bandwidth.

The EUT was connected to the test system as described in the block diagram below. The complete attenuation of the measurement path is known and considered.

Analyzer settings:

- Resolution Bandwidth (RBW): 1% to 5% of the OBW
- Video Bandwidth (VBW): ≥ 3 times the RBW
- Span: 1.5 to 5 times OBW
- Trace: Maxhold
- Sweeps: see plots
- Sweep time: Auto
- Detector: Peak

The 99 % measurement function of the spectrum analyser function was used to determine the 99 % bandwidth.



TS8997; Occupied Channel Bandwidth 6 dB / 26 dB / 99 %

5.4.2 TEST REQUIREMENTS / LIMITS

No applicable limit.

The test was performed to determine the limits for the "Maximum Conducted Output Power" and DFS test cases.

5.4.3 TEST PROTOCOL

Ambient temperature: 20 - 24 °C
 Air Pressure: 30 - 56 hPa
 Humidity: 992 - 1020 %

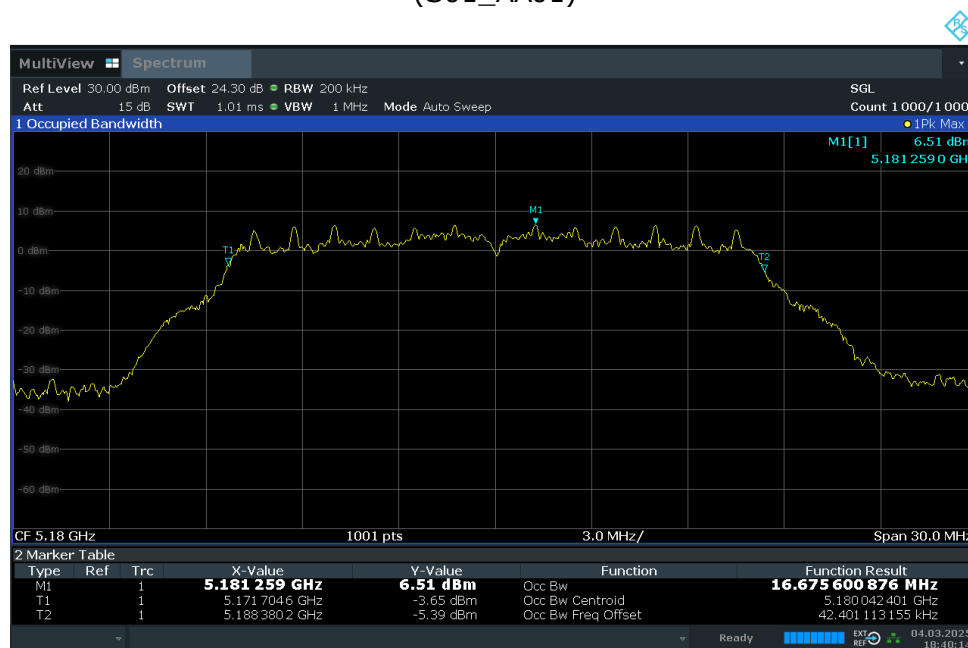
Radio Technology	Subband	Operating Frequency	99% Bandwidth [MHz]
WLAN a	U-NII-1	low	16.7
WLAN a	U-NII-1	mid	16.7
WLAN a	U-NII-1	high	16.6
WLAN a	U-NII-2A	low	16.6
WLAN a	U-NII-2A	mid	16.6
WLAN a	U-NII-2A	high	16.7
WLAN a	U-NII-2C	low	16.6
WLAN a	U-NII-2C	mid	16.7
WLAN a	U-NII-2C	high	16.7
WLAN a	U-NII-2C/3	straddle	13.3/3.3
WLAN a	U-NII-3	low	16.7
WLAN a	U-NII-3	mid	16.7
WLAN a	U-NII-3	high	16.7
WLAN n 20 MHz	U-NII-1	low	17.8
WLAN n 20 MHz	U-NII-1	mid	17.7
WLAN n 20 MHz	U-NII-1	high	17.7
WLAN n 20 MHz	U-NII-2A	low	17.8
WLAN n 20 MHz	U-NII-2A	mid	17.7
WLAN n 20 MHz	U-NII-2A	high	17.7
WLAN n 20 MHz	U-NII-2C	low	17.7
WLAN n 20 MHz	U-NII-2C	mid	17.7
WLAN n 20 MHz	U-NII-2C	high	17.7
WLAN n 20 MHz	U-NII-2C/3	straddle	13.9/3.8
WLAN n 20 MHz	U-NII-3	low	17.8
WLAN n 20 MHz	U-NII-3	mid	17.7
WLAN n 20 MHz	U-NII-3	high	17.7
WLAN ac 20 MHz	U-NII-1	low	17.7
WLAN ac 20 MHz	U-NII-1	mid	17.7
WLAN ac 20 MHz	U-NII-1	high	17.8
WLAN ac 20 MHz	U-NII-2A	low	17.8
WLAN ac 20 MHz	U-NII-2A	mid	17.7
WLAN ac 20 MHz	U-NII-2A	high	17.8
WLAN ac 20 MHz	U-NII-2C	low	17.7
WLAN ac 20 MHz	U-NII-2C	mid	17.7
WLAN ac 20 MHz	U-NII-2C	high	17.8
WLAN ac 20 MHz	U-NII-2C/3	straddle	13.9/3.9
WLAN ac 20 MHz	U-NII-3	low	17.7
WLAN ac 20 MHz	U-NII-3	mid	17.7
WLAN ac 20 MHz	U-NII-3	high	17.8
WLAN ax 20 MHz	U-NII-1	low	19.0

WLAN ax 20 MHz	U-NII-1	mid	19.0
WLAN ax 20 MHz	U-NII-1	high	19.0
WLAN ax 20 MHz	U-NII-2A	low	19.0
WLAN ax 20 MHz	U-NII-2A	mid	19.0
WLAN ax 20 MHz	U-NII-2A	high	19.0
WLAN ax 20 MHz	U-NII-2C	low	19.0
WLAN ax 20 MHz	U-NII-2C	mid	19.0
WLAN ax 20 MHz	U-NII-2C	high	19.0
WLAN ax 20 MHz	U-NII-2C/3	straddle	14.5/4.5
WLAN ax 20 MHz	U-NII-3	low	19.0
WLAN ax 20 MHz	U-NII-3	mid	19.0
WLAN ax 20 MHz	U-NII-3	high	19.0

Remark: For the straddle channels the given values are the values for each of the two bands that are used by the channel, first value is lower band, second value is higher band.
Please see next sub-clause for the measurement plot.

5.4.4 MEASUREMENT PLOT (EXAMPLE PLOT, SHOWING WORST CASE, IF APPLICABLE)

Radio Technology = WLAN a, Operating Frequency = low, Subband = U-NII-1
(S01_AA01)



18:40:15 04.03.2025

Radio Technology = WLAN n 20 MHz, Operating Frequency = low, Subband = U-NII-2A (S01_AA01)



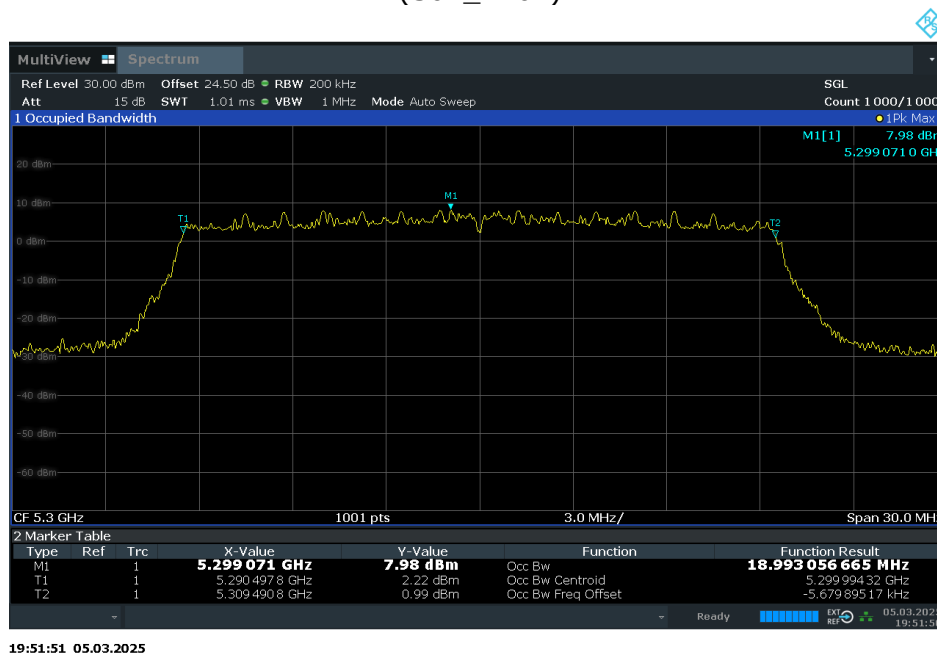
19:01:10 05.03.2025

Radio Technology = WLAN ac 20 MHz, Operating Frequency = high, Subband = U-NII-2C (S01_AA01)



23:46:05 05.03.2025

Radio Technology = WLAN ax 20 MHz, Operating Frequency = mid, Subband = U-NII-2A
(S01_AA01)



19:51:51 05.03.2025

5.4.5 TEST EQUIPMENT USED

- R&S TS8997

5.5 MAXIMUM CONDUCTED OUTPUT POWER

Standard **FCC Part 15 Subpart E**

The test was performed according to:

ANSI C63.10, chapter 12.4.3.2

5.5.1 TEST DESCRIPTION

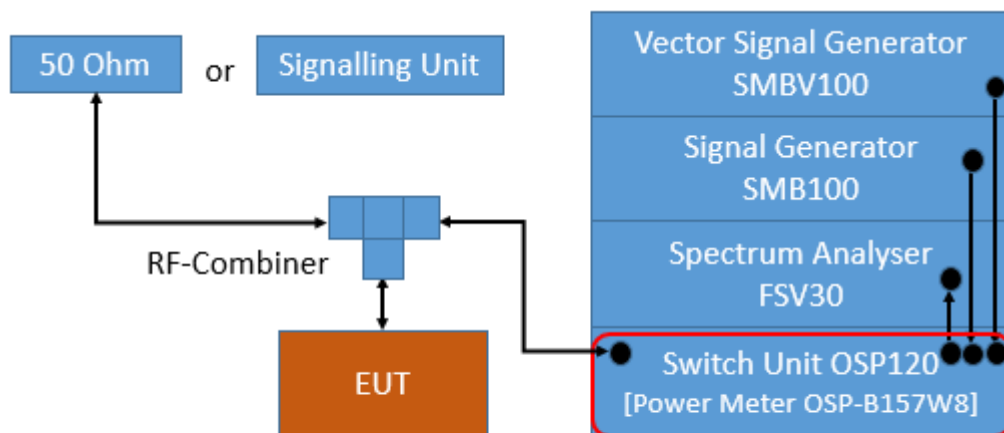
The Equipment Under Test (EUT) was set up to perform the output power measurements. The results recorded were measured with the modulation which produces the worst-case (highest) output power

The EUT was connected to the test system as described in the block diagram below. The complete attenuation of the measurement path is known and considered.

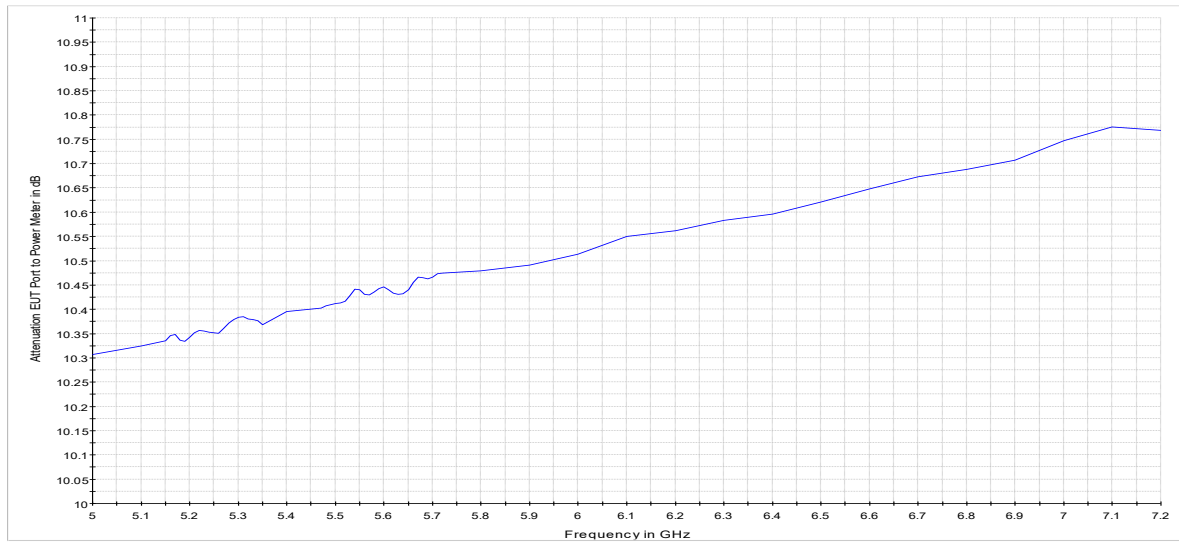
The OSP-B157W is a gated RF average power meter with a signal bandwidth > 300 MHz.

Note:

The measurement was performed according FCC Public Note "Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Subpart E, 789033 D02", method **PM-G**.



TS8997; Maximum Conducted Output Power



Attenuation of measurement path

5.5.2 TEST REQUIREMENTS / LIMITS

A) FCC

FCC Part 15, Subpart E, §15.407 (a) (1) (i): Outdoor access point:

For systems using digital modulation techniques in the 5.15 – 5.25 GHz bands:

Limit: 1 W (30 dBm) provided the maximum antenna gain does not exceed 6 dBi.

The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

§15.407 (a) (1) (ii): Indoor access point:

Limit: 1 W (30 dBm) provided the maximum antenna gain does not exceed 6 dBi.

§15.407 (a) (1) (iii): Fixed point-to-point access points:

Limit: 1 W (30 dBm) provided the maximum antenna gain does not exceed 23 dBi.

§15.407 (a) (1) (iv): Client devices:

Limit: 250 mW (24 dBm) provided the maximum antenna gain does not exceed 6 dBi.

FCC Part 15, Subpart E, §15.407 (a) (2)

For systems using digital modulation techniques in the 5.25 – 5.35 GHz and 5.47 – 5.725 GHz bands:

Limit: 250 mW (24 dBm) or $11 \text{ dBm} + 10 \log (26 \text{ dB bandwidth/MHz})$ whatever is the lesser.

FCC Part 15, Subpart E, §15.407 (a) (3):

For systems using digital modulation techniques in the 5.725 – 5.850 GHz bands:

Limit: 1 W (30 dBm) provided the maximum antenna gain does not exceed 6 dBi. The antenna gain limitation is not applicable for fixed point-to-point devices.

B) IC

Different frequency bands and limits apply, as compared to the FCC requirements.

All frequency bands: B is the 99% emission bandwidth in MHz.

RSS-247, 6.2.1.1, Band 5150-5250 MHz, indoor operation only, except for OEM devices installed by vehicle manufacturers:

Limits:

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed 30 mW or $1.76 + 10 \log_{10} B$, dBm, whichever is less. Devices shall implement transmitter power control (TPC) in order to have the capability to operate at least 3 dB below the maximum permitted e.i.r.p. of 30 mW. (e.i.r.p.)

Other devices: 200 mW (23 dBm) or $10 + 10 \log_{10} B$ [dBm], whichever power is less.

RSS-247, 6.2.2.1, Band 5250-5350 MHz:

Limits:

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed 30 mW or $1.76 + 10 \log_{10} B$, dBm, whichever is less. Devices shall implement TPC in order to have the capability to operate at least 3 dB below the maximum permitted e.i.r.p. of 30 mW.

Devices, other devices than installed in vehicles:

Maximum conducted Power: 250 mW (24 dBm) or $11 + 10 \log_{10} B$ [dBm], whichever power is less.

e.i.r.p.: 1.0 W (30 dBm) or $17 + 10 \log_{10} B$ [dBm], whichever power is less.

Outdoor fixed devices with a maximum e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where θ is the angle above the local horizontal plane (of the Earth) as shown below:

- i. -13 dBW/MHz for $0^\circ \leq \theta < 8^\circ$
- ii. $-13 - 0.716 (\theta - 8)$ dBW/MHz for $8^\circ \leq \theta < 40^\circ$
- iii. $-35.9 - 1.22 (\theta - 40)$ dBW/MHz for $40^\circ \leq \theta \leq 45^\circ$
- iv. -42 dBW/MHz for $\theta > 45^\circ$

RSS-247, 6.2.3.1, Bands 5470-5600 MHz and 5650-5725 MHz:

Limits:

Maximum conducted Power: 250 mW (24 dBm) or $11 + 10 \log_{10} B$ [dBm], whichever power is less.

e.i.r.p.: 1.0 W (30 dBm) or $17 + 10 \log_{10} B$ [dBm], whichever power is less.

Note: Devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

RSS-247, 6.2.4.1, Band 5725-5850 MHz:

Limits:

Maximum conducted Power: 1 W (30 dBm)

e.i.r.p.: 4 W (36 dBm)

5.5.3 TEST PROTOCOL

Ambient temperature: 20 - 24 °C
 Air Pressure: 30 - 56 hPa
 Humidity: 992 - 1020 %
 WLAN a-Mode; 20 MHz; 6 Mbit/s

U-NII-band	Ch. No.	TX Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	FCC EIRP Limit [dBm]	Margin [dB]	ISED Cond. Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	36	5180	14.4	19.7	24.0	9.6	30.0	10.3	N/A	-	22.2	2.5
	40	5200	14.6	19.9	24.0	9.4	30.0	10.1	N/A	-	22.2	2.3
	48	5240	14.1	19.4	24.0	9.9	30.0	10.6	N/A	-	22.2	2.8
2A	52	5260	16.5	21.8	24.0	7.5	27.0	5.2	23.2	6.7	27.0	5.2
	60	5300	16.5	21.8	24.0	7.5	27.0	5.2	23.2	6.7	27.0	5.2
	64	5320	14.2	19.5	24.0	9.8	27.0	7.5	23.2	9.0	27.0	7.5
2C	100	5500	14.0	19.3	24.0	10.0	27.0	7.7	23.2	9.2	27.0	7.7
	116	5580	15.7	21.0	24.0	8.3	27.0	6.0	23.2	7.5	27.0	6.0
	140	5700	14.4	19.7	24.0	9.6	27.0	7.3	23.2	8.8	27.0	7.3
2C+3	144	5720	16.3	21.6	23.0	6.7	27.0	5.4	22.3	6.0	27.0	5.4
3	149	5745	15.2	20.5	30.0	14.8	36.0	15.5	30.0	14.8	36.0	15.5
	157	5785	15.2	20.5	30.0	14.8	36.0	15.5	30.0	14.8	36.0	15.5
	165	5825	15.3	20.6	30.0	14.7	36.0	15.4	30.0	14.7	36.0	15.4

WLAN n-Mode; 20 MHz; MCS 0; SISO

U-NII-band	Ch. No.	TX Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	FCC EIRP Limit [dBm]	Margin [dB]	ISED Cond. Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	36	5180	14.5	19.8	24.0	9.5	30.0	10.2	N/A	-	22.5	2.7
	40	5200	14.5	19.8	24.0	9.5	30.0	10.2	N/A	-	22.5	2.7
	48	5240	14.8	20.1	24.0	9.2	30.0	9.9	N/A	-	22.5	2.4
2A	52	5260	16.4	21.7	24.0	7.6	27.0	5.3	23.5	7.1	27.0	5.3
	60	5300	16.6	21.9	24.0	7.4	27.0	5.1	23.5	6.9	27.0	5.1
	64	5320	14.2	19.5	24.0	9.8	27.0	7.5	23.5	9.3	27.0	7.5
2C	100	5500	12.4	17.7	24.0	11.6	27.0	9.3	23.5	11.1	27.0	9.3
	116	5580	15.7	21.0	24.0	8.3	27.0	6.0	23.5	7.8	27.0	6.0
	140	5700	12.2	17.5	24.0	11.8	27.0	9.5	23.5	11.3	27.0	9.5
2C+3	144	5720	16.3	21.6	23.0	6.7	27.0	5.4	22.4	6.1	27.0	5.4
3	149	5745	15.3	20.6	30.0	14.7	36.0	15.4	30.0	14.7	36.0	15.4
	157	5785	15.1	20.4	30.0	14.9	36.0	15.6	30.0	14.9	36.0	15.6
	165	5825	15.4	20.7	30.0	14.6	36.0	15.3	30.0	14.6	36.0	15.3

WLAN ac-Mode; 20 MHz; MCS 0; SISO

U-NII-band	Ch. No.	TX Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	FCC EIRP Limit [dBm]	Margin [dB]	ISED Cond. Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	36	5180	14.4	19.7	24.0	9.6	30.0	10.3	N/A	-	22.5	2.8
	40	5200	14.5	19.8	24.0	9.5	30.0	10.2	N/A	-	22.5	2.7
	48	5240	14.2	19.5	24.0	9.8	30.0	10.5	N/A	-	22.5	3.0
2A	52	5260	16.5	21.8	24.0	7.5	27.0	5.2	23.5	6.9	27.0	5.2
	60	5300	16.7	22.0	24.0	7.3	27.0	5.0	23.5	6.8	27.0	5.0
	64	5320	14.8	20.1	24.0	9.2	27.0	6.9	23.5	8.7	27.0	6.9
2C	100	5500	13.4	18.7	24.0	10.6	27.0	8.3	23.5	10.1	27.0	8.3
	116	5580	15.9	21.2	24.0	8.1	27.0	5.8	23.5	7.6	27.0	5.8
	140	5700	13.8	19.1	24.0	10.2	27.0	7.9	23.5	9.6	27.0	7.9
2C+3	144	5720	16.3	21.6	23.1	6.8	27.0	5.4	22.4	6.2	27.0	5.4
3	149	5745	15.4	20.7	30.0	14.6	36.0	15.3	30.0	14.6	36.0	15.3
	157	5785	15.3	20.6	30.0	14.7	36.0	15.4	30.0	14.7	36.0	15.4
	165	5825	15.3	20.6	30.0	14.7	36.0	15.4	30.0	14.7	36.0	15.4

WLAN ax-Mode; 20 MHz; MCS 0; SISO

U- NII- band	Ch. No.	TX Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	FCC EIRP Limit [dBm]	Margin [dB]	ISED Cond. Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	36	5180	14.5	19.8	24.0	9.5	30.0	10.2	N/A	-	22.8	3.0
	40	5200	14.8	20.1	24.0	9.2	30.0	9.9	N/A	-	22.8	2.7
	48	5240	14.4	19.7	24.0	9.6	30.0	10.3	N/A	-	22.8	3.1
2A	52	5260	17.1	22.4	24.0	6.9	27.0	4.6	23.8	6.7	27.0	4.6
	60	5300	16.9	22.2	24.0	7.1	27.0	4.8	23.8	6.9	27.0	4.8
	64	5320	14.6	19.9	24.0	9.4	27.0	7.1	23.8	9.2	27.0	7.1
2C	100	5500	13.4	18.7	24.0	10.6	27.0	8.3	23.8	10.4	27.0	8.3
	116	5580	15.9	21.2	24.0	8.1	27.0	5.8	23.8	7.9	27.0	5.8
	140	5700	13.1	18.4	24.0	10.9	27.0	8.6	23.8	10.7	27.0	8.6
2C+3	144	5720	16.5	21.8	23.0	6.5	27.0	5.2	22.6	6.1	27.0	5.2
3	149	5745	15.6	20.9	30.0	14.4	36.0	15.1	30.0	14.4	36.0	15.1
	157	5785	15.4	20.7	30.0	14.6	36.0	15.3	30.0	14.6	36.0	15.3
	165	5825	15.6	20.9	30.0	14.4	36.0	15.1	30.0	14.4	36.0	15.1

Remark: Power Meter measurement, no plots provided.

5.5.4 TEST EQUIPMENT USED

- R&S TS8997

5.6 PEAK POWER SPECTRAL DENSITY

Standard **FCC Part 15 Subpart E**

The test was performed according to:

ANSI C63.10, chapter 12.6 (SA-1)

5.6.1 TEST DESCRIPTION

The Equipment Under Test (EUT) was set up in a shielded room to perform the Maximum Power Spectral Density measurements.

The results recorded were measured with the modulation which produces the worst-case (highest) output power.

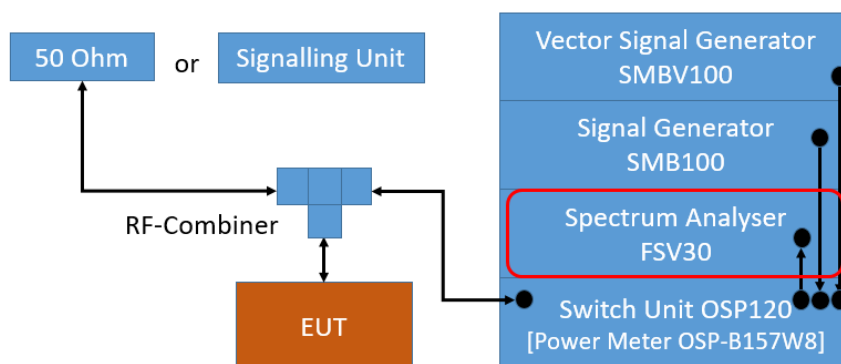
The EUT was connected to the test system as described in the block diagram below. The complete attenuation of the measurement path is known and considered.

Analyzer settings:

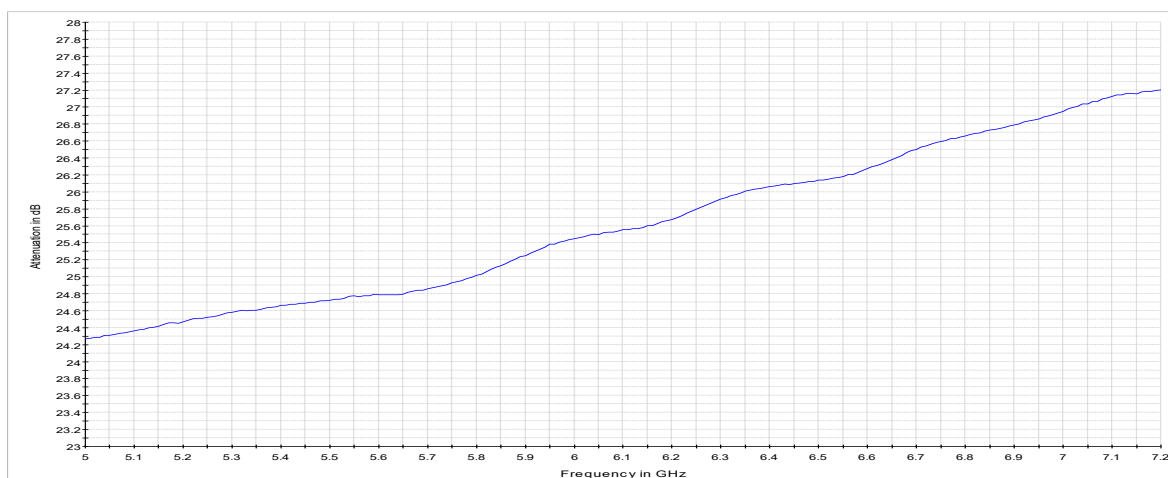
- Resolution Bandwidth (RBW): 1 MHz (for subband 3: 500 kHz)
- Video Bandwidth (VBW): 3 MHz (for subband 3: 2 MHz)
- Trace: Average (Power)
- Sweeps: see plots
- Sweep time: Auto
- Detector: RMS
- Trigger: free run

Note:

The analyser settings are according FCC Public Note "Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Subpart E, 789033 D02", method **SA-3**.



TS8997; Maximum Power Spectral Density



Attenuation of the measurement path

5.6.2 TEST REQUIREMENTS / LIMITS

A) FCC

FCC Part 15, Subpart E, §15.407 (a) (1)

For systems using digital modulation techniques in the 5.15 – 5.25 GHz bands:

(i) and (ii), outdoor and indoor access points: Limit: 17 dBm/MHz.

(iv), mobile and portable client devices: Limit: 11 dBm/MHz.

FCC Part 15, Subpart E, §15.407 (a) (2)

For systems using digital modulation techniques in the 5.25 – 5.35 GHz and 5.47 – 5.725 GHz bands:

Limit: 11 dBm/MHz.

FCC Part 15, Subpart E, §15.407 (a) (3)

For systems using digital modulation techniques in the 5.725 – 5.850 GHz bands:

Limit: 30 dBm/500 kHz.

B) IC

Different frequency bands and limits apply, as compared to the FCC requirements.

RSS-247, 6.2.1 (1), Band 5150-5250 MHz, indoor operation only:

Limit (e.i.r.p.): 10 dBm/MHz.

RSS-247, 6.2.2 (1), Band 5250-5350 MHz:

Limit: 11 dBm/MHz.

RSS-247, 6.2.3 (1), Bands 5470-5600 MHz and 5650-5725 MHz:

Limit: 11 dBm/MHz.

RSS-247, 6.2.4 (1), Band 5725-5850 MHz:

Limit: 30 dBm/500 kHz.

5.6.3 TEST PROTOCOL

Ambient temperature: 20 - 24 °C
 Air Pressure: 30 - 56 hPa
 Humidity: 992 - 1020 %
 WLAN a-Mode; 20 MHz; 6 Mbit/s

U-NII-band	Ch. No.	Freq. [MHz]	MPSD [dBm/MHz]	E.I.R.P MPSD [dBm/MHz]	FCC Limit [dBm/MHz] or [dBm/500kHz] in U-NII-3	Margin [dB]	ISED Limit [dBm/MHz] or [dBm/500kHz] in U-NII-3	Margin [dB]	ISED E.I.R.P limit [dBm/MHz] or [dBm/500kHz] in U-NII-3	Margin [dB]
1	36	5180	4.3	9.6	11.0	6.7	N/A	-	10.0	0.4
	40	5200	4.5	9.8	11.0	6.5	N/A	-	10.0	0.2
	48	5240	4.0	9.3	11.0	7.0	N/A	-	10.0	0.7
2A	52	5260	6.3	11.6	11.0	4.7	11.0	4.7	N/A	-
	60	5300	6.4	11.7	11.0	4.6	11.0	4.6	N/A	-
	64	5320	3.8	9.1	11.0	7.2	11.0	7.2	N/A	-
2C	100	5500	3.8	9.1	11.0	7.2	11.0	7.2	N/A	-
	116	5580	5.9	11.2	11.0	5.1	11.0	5.1	N/A	-
	140	5700	4.2	9.5	11.0	6.8	11.0	6.8	N/A	-
2C+3	144	5720	6.1	11.4	11.0	4.9	11.0	4.9	N/A	-
	3	149	5745	2.3	7.6	30.0	27.7	30.0	N/A	-
	157	5785	2.0	7.3	30.0	28.0	30.0	28.0	N/A	-
	165	5825	2.3	7.6	30.0	27.7	30.0	27.7	N/A	-

WLAN n-Mode; 20 MHz; MCS 0; SISO

U-NII-band	Ch. No.	Freq. [MHz]	MPSD [dBm/MHz]	E.I.R.P MPSD [dBm/MHz]	FCC Limit [dBm/MHz] or [dBm/500kHz] in U-NII-3	Margin [dB]	ISED Limit [dBm/MHz] or [dBm/500kHz] in U-NII-3	Margin [dB]	ISED E.I.R.P limit [dBm/MHz] or [dBm/500kHz] in U-NII-3	Margin [dB]
1	36	5180	3.9	9.2	11.0	7.1	N/A	-	10.0	0.8
	40	5200	4.0	9.3	11.0	7.0	N/A	-	10.0	0.7
	48	5240	3.5	8.8	11.0	7.5	N/A	-	10.0	1.2
2A	52	5260	5.9	11.2	11.0	5.1	11.0	5.1	N/A	-
	60	5300	6.0	11.3	11.0	5.0	11.0	5.0	N/A	-
	64	5320	3.6	8.9	11.0	7.4	11.0	7.4	N/A	-
2C	100	5500	2.1	7.4	11.0	8.9	11.0	8.9	N/A	-
	116	5580	5.5	10.8	11.0	5.5	11.0	5.5	N/A	-
	140	5700	1.8	7.1	11.0	9.2	11.0	9.2	N/A	-
2C+3	144	5720	5.9	11.2	11.0	5.1	11.0	5.1	N/A	-
	3	149	5745	1.9	7.2	30.0	28.1	30.0	N/A	-
	157	5785	1.7	7.0	30.0	28.3	30.0	28.3	N/A	-
	165	5825	2.1	7.4	30.0	27.9	30.0	27.9	N/A	-

WLAN ac-Mode; 20 MHz; MCS 0; SISO

U-NII-band	Ch. No.	Freq. [MHz]	MPSD [dBm/MHz]	E.I.R.P MPSD [dBm/MHz]	FCC Limit [dBm/MHz] or [dBm/500kHz] in U-NII-3	Margin [dB]	ISED Limit [dBm/MHz] or [dBm/500kHz] in U-NII-3	Margin [dB]	ISED E.I.R.P limit [dBm/MHz] or [dBm/500kHz] in U-NII-3	Margin [dB]
1	36	5180	4.0	9.3	11.0	7.0	N/A	-	10.0	0.7
	40	5200	4.1	9.4	11.0	6.9	N/A	-	10.0	0.6
	48	5240	3.8	9.1	11.0	7.2	N/A	-	10.0	0.9
2A	52	5260	6.0	11.3	11.0	5.0	11.0	5.0	N/A	-
	60	5300	6.2	11.5	11.0	4.8	11.0	4.8	N/A	-
	64	5320	3.8	9.1	11.0	7.2	11.0	7.2	N/A	-
2C	100	5500	3.1	8.4	11.0	7.9	11.0	7.9	N/A	-
	116	5580	5.7	11.0	11.0	5.3	11.0	5.3	N/A	-
	140	5700	3.5	8.8	11.0	7.5	11.0	7.5	N/A	-
2C+3	144	5720	5.9	11.2	11.0	5.1	11.0	5.1	N/A	-
3	149	5745	2.0	7.3	30.0	28.0	30.0	28.0	N/A	-
	157	5785	1.9	7.2	30.0	28.1	30.0	28.1	N/A	-
	165	5825	1.9	7.2	30.0	28.1	30.0	28.1	N/A	-

WLAN ax-Mode; 20 MHz; MCS 0; SISO

U-NII-band	Ch. No.	Freq. [MHz]	MPSD [dBm/MHz]	E.I.R.P MPSD [dBm/MHz]	FCC Limit [dBm/MHz] or [dBm/500kHz] in U-NII-3	Margin [dB]	ISED Limit [dBm/MHz] or [dBm/500kHz] in U-NII-3	Margin [dB]	ISED E.I.R.P limit [dBm/MHz] or [dBm/500kHz] in U-NII-3	Margin [dB]
1	36	5180	3.6	8.9	11.0	7.4	N/A	-	10.0	1.1
	40	5200	3.7	9.0	11.0	7.3	N/A	-	10.0	1.0
	48	5240	3.5	8.8	11.0	7.5	N/A	-	10.0	1.2
2A	52	5260	5.6	10.9	11.0	5.4	11.0	5.4	N/A	-
	60	5300	5.8	11.1	11.0	5.2	11.0	5.2	N/A	-
	64	5320	3.6	8.9	11.0	7.4	11.0	7.4	N/A	-
2C	100	5500	2.7	8.0	11.0	8.3	11.0	8.3	N/A	-
	116	5580	5.2	10.5	11.0	5.8	11.0	5.8	N/A	-
	140	5700	2.2	7.5	11.0	8.8	11.0	8.8	N/A	-
2C+3	144	5720	5.4	10.7	11.0	5.6	11.0	5.6	N/A	-
3	149	5745	2.2	7.5	30.0	27.8	30.0	27.8	N/A	-
	157	5785	2.0	7.3	30.0	28.0	30.0	28.0	N/A	-
	165	5825	2.3	7.6	30.0	27.7	30.0	27.7	N/A	-

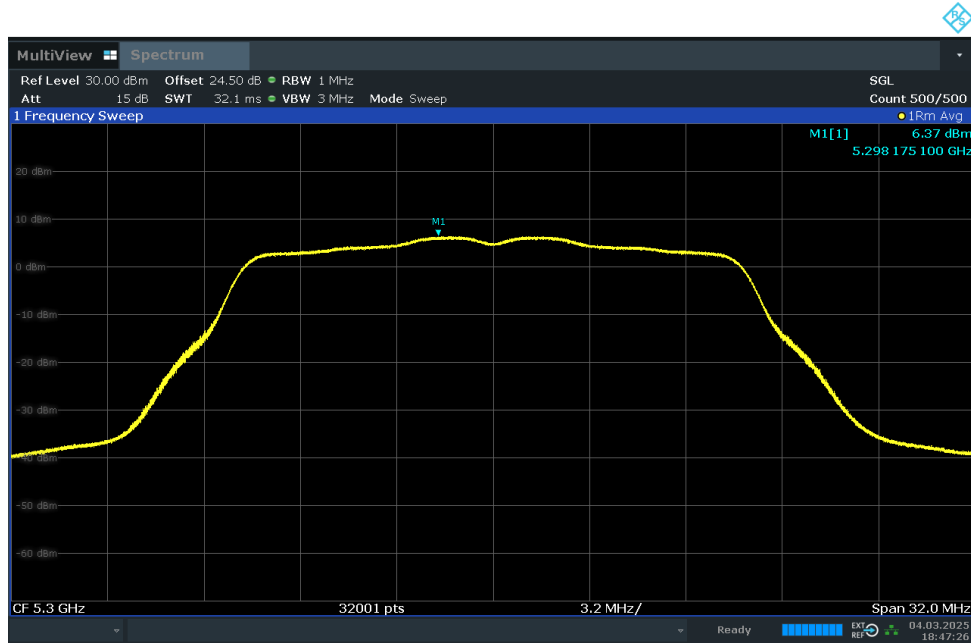
OFDMA RU:

WLAN ax-Mode; 20 MHz; MCS 0; RU3; SISO

U-NII-band	Ch. No.	Freq. [MHz]	MPSD [dBm/MHz]	E.I.R.P MPSD [dBm/MHz]	FCC Limit [dBm/MHz] or [dBm/500kHz] in U-NII-3	Margin [dB]	ISED Limit [dBm/MHz] or [dBm/500kHz] in U-NII-3	Margin [dB]	ISED E.I.R.P limit [dBm/MHz] or [dBm/500kHz] in U-NII-3	Margin [dB]
1	36	5180	1.8	7.1	11.0	9.2	N/A	-	10.0	2.9
	40	5200	1.9	7.2	11.0	9.1	N/A	-	10.0	2.8
	48	5240	1.6	6.9	11.0	9.4	N/A	-	10.0	3.1
2A	52	5260	4.1	9.4	11.0	6.9	11.0	6.9	N/A	-
	60	5300	4.1	9.4	11.0	6.9	11.0	6.9	N/A	-
	64	5320	3.8	9.1	11.0	7.2	11.0	7.2	N/A	-
2C	100	5500	2.8	8.1	11.0	8.2	11.0	8.2	N/A	-
	116	5580	3.1	8.4	11.0	7.9	11.0	7.9	N/A	-
	140	5700	2.8	8.1	11.0	8.2	11.0	8.2	N/A	-
2C+3	144	5720	3.1	8.4	11.0	7.9	11.0	7.9	N/A	-
3	149	5745	2.2	7.5	30.0	27.8	30.0	27.8	N/A	-
	157	5785	2.2	7.5	30.0	27.8	30.0	27.8	N/A	-
	165	5825	2.4	7.7	30.0	27.6	30.0	27.6	N/A	-

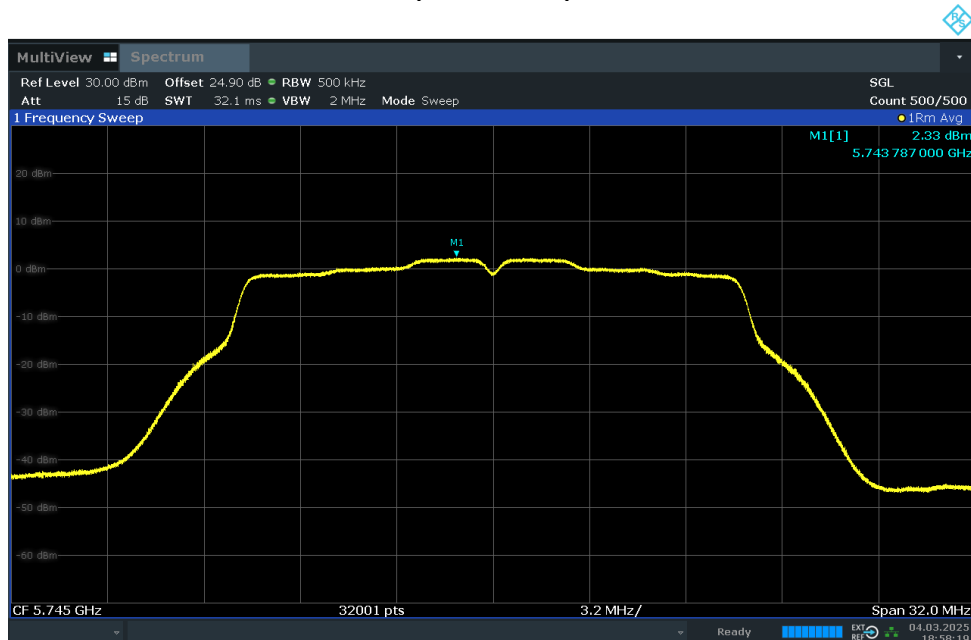
Remark: Please see next sub-clause for the measurement plot.

5.6.4 MEASUREMENT PLOT (EXAMPLE PLOT, SHOWING WORST CASE, IF APPLICABLE)
Radio Technology = WLAN a, Operating Frequency = mid, Subband = U-NII-2A
(S01_AA01)



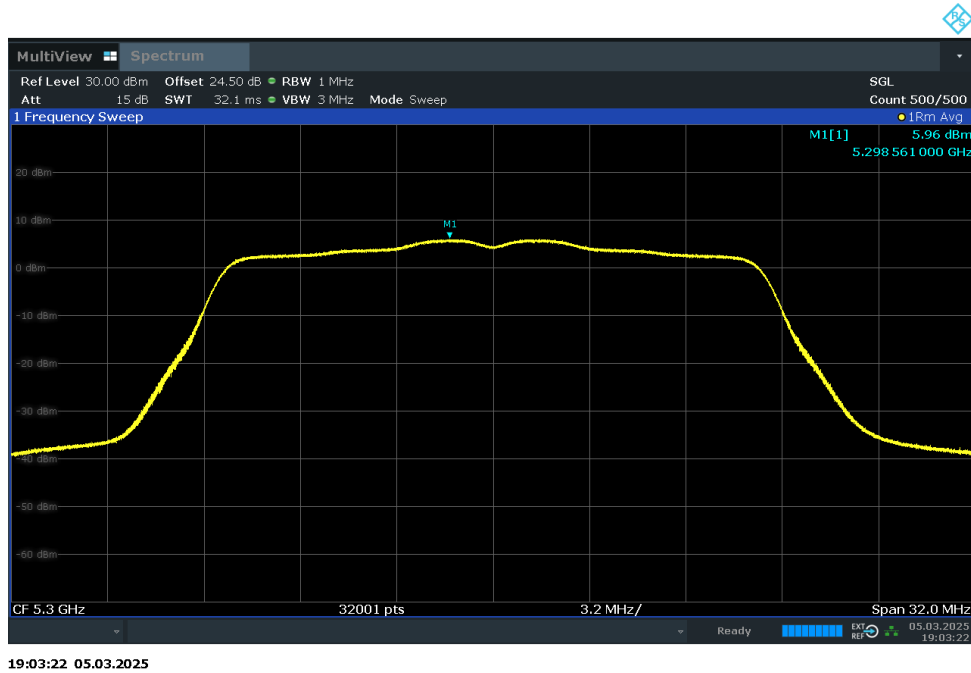
18:47:27 04.03.2025

Radio Technology = WLAN a, Operating Frequency = low, Subband = U-NII-3
(S01_AA01)

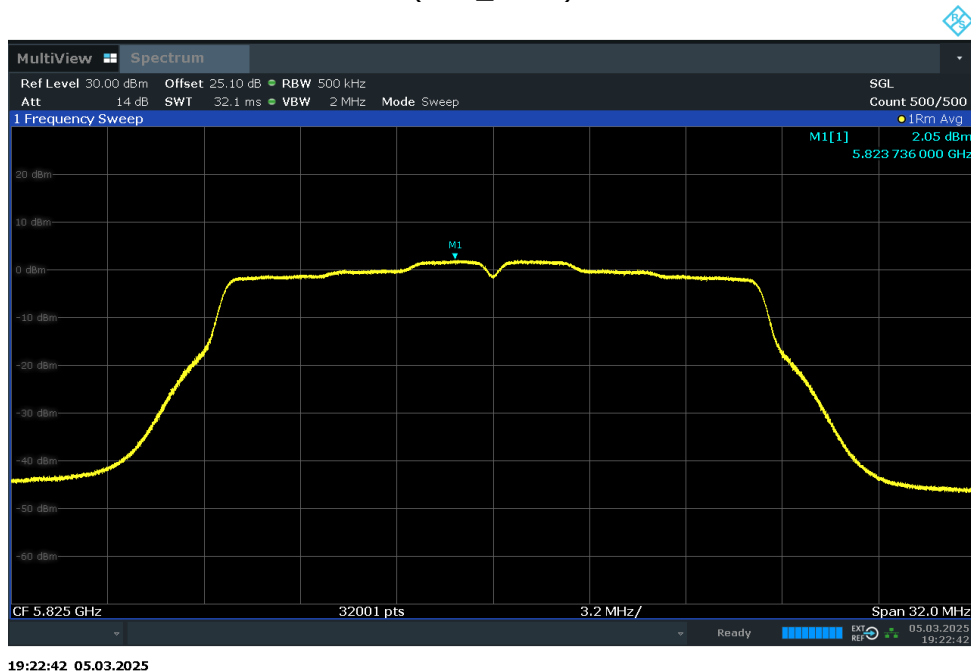


18:58:19 04.03.2025

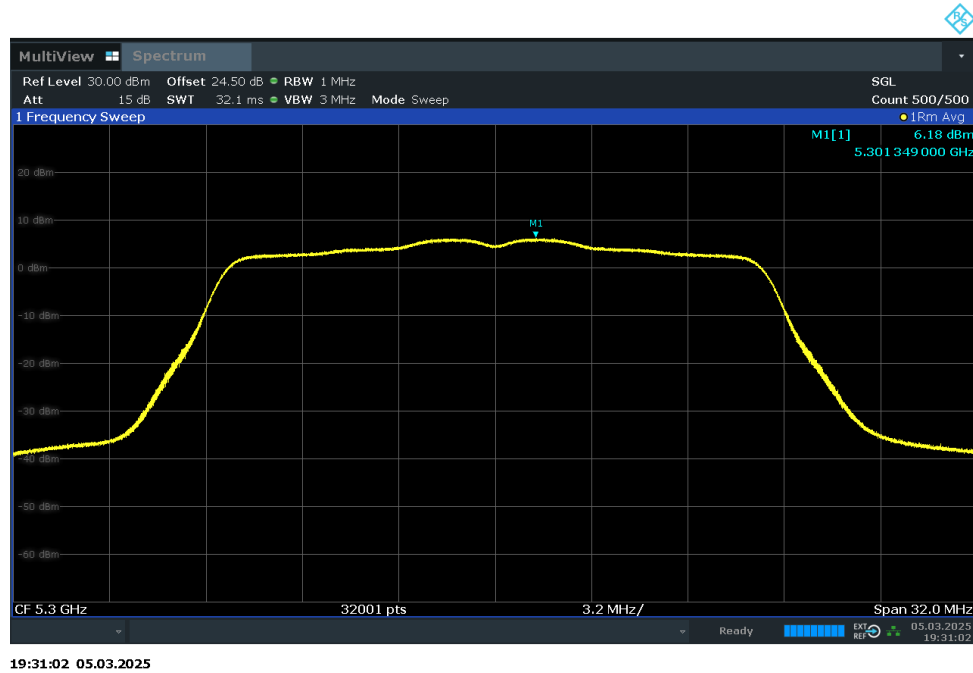
Radio Technology = WLAN n 20 MHz, Operating Frequency = mid, Subband = U-NII-2A
(S01_AA01)



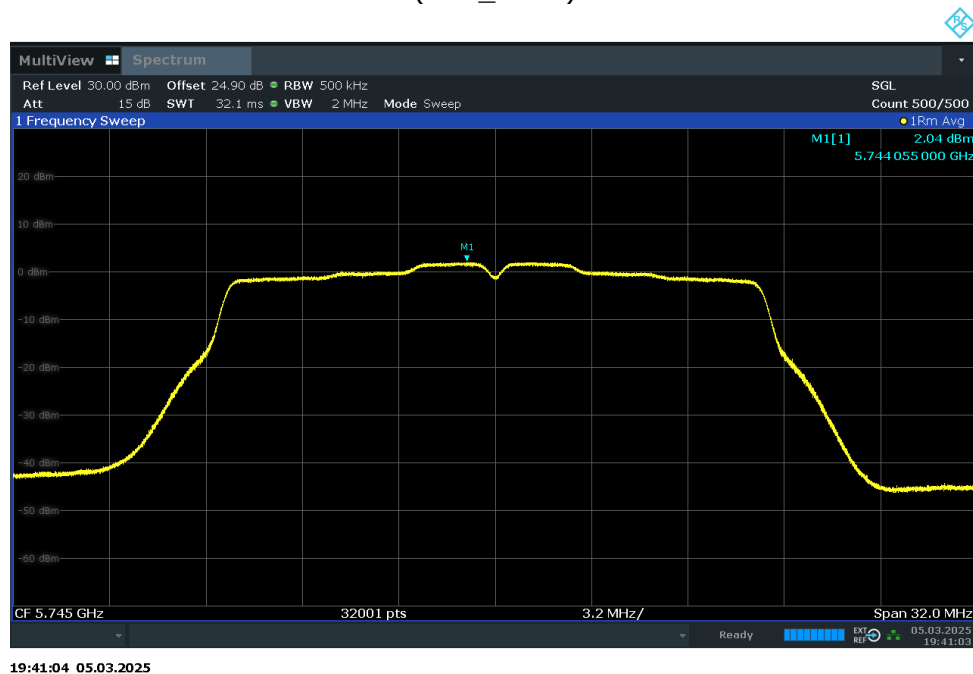
Radio Technology = WLAN n 20 MHz, Operating Frequency = high, Subband = U-NII-3
(S01_AA01)



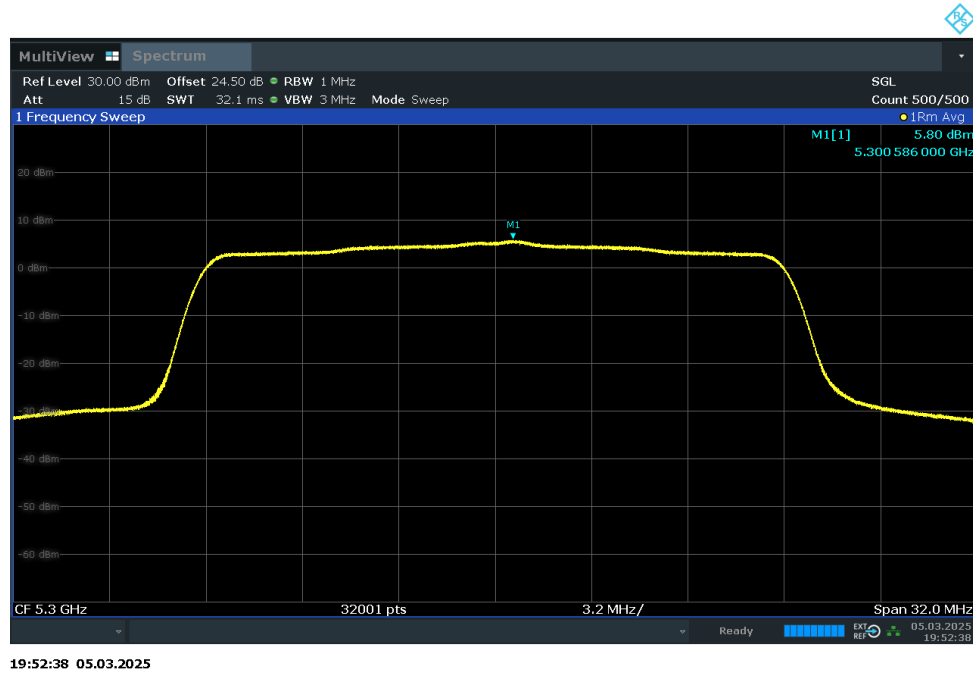
Radio Technology = WLAN ac 20 MHz, Operating Frequency = mid, Subband = U-NII-2A
(S01_AA01)



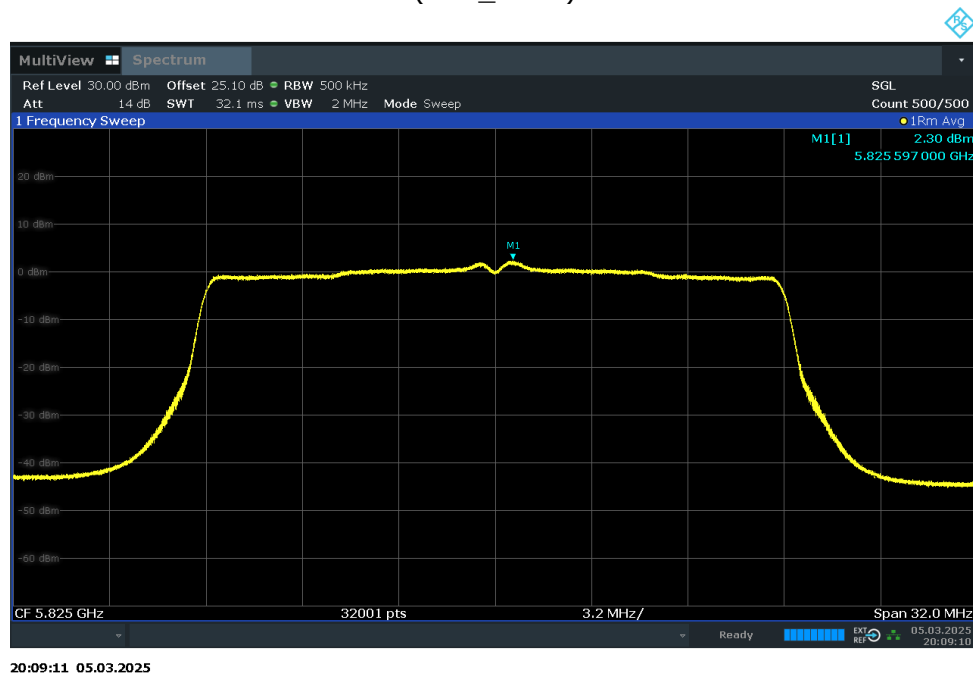
Radio Technology = WLAN ac 20 MHz, Operating Frequency = low, Subband = U-NII-3
(S01_AA01)



Radio Technology = WLAN ax 20 MHz, Operating Frequency = mid, Subband = U-NII-2A
(S01_AA01)



Radio Technology = WLAN ax 20 MHz, Operating Frequency = high, Subband = U-NII-3
(S01_AA01)



5.6.5 TEST EQUIPMENT USED

- R&S TS8997

5.7 UNDESIRABLE EMISSIONS; GENERAL FIELD STRENGTH LIMITS

Standard **FCC Part 15 Subpart E**

Radiated Measurement Method:
The test was performed according to:
 ANSI C63.10, chapter 6.4, 6.5, 6.6.5

Conducted Measurement Method:
The test was performed according to:
 ANSI C63.10, chapter 12.7.5, 12.7.6, 12.7.7.2

5.7.1 TEST DESCRIPTION

Radiated Measurements with 50 Ohm termination at the antenna port:

The test set-up was made in accordance to the general provisions of ANSI C63.10 in a typical installation configuration. The measurements were performed according the following sub-chapters of ANSI C63.10:

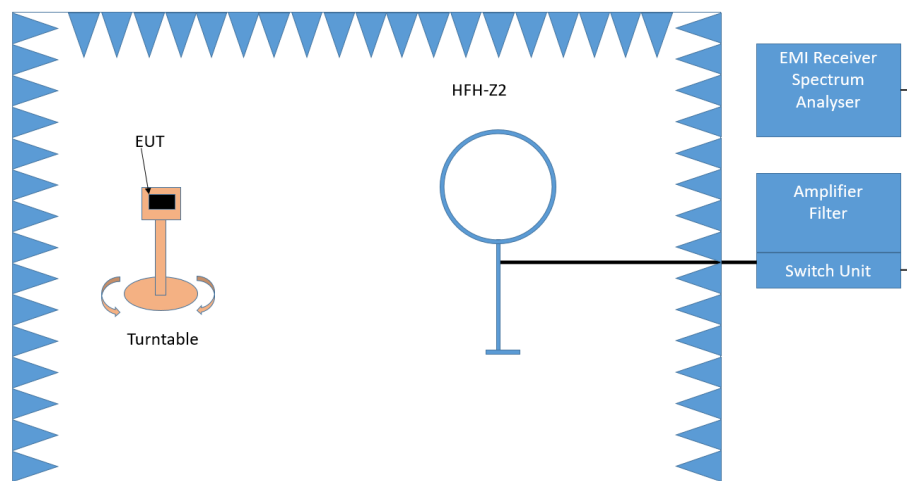
- < 30 MHz: Chapter 6.4
- 30 MHz – 1 GHz: Chapter 6.5
- > 1 GHz: Chapter 6.6 (procedure according 6.6.5 used)

The measurement procedure is implemented into the EMI test software EMC32 from R&S. Exploratory tests are performed at 3 orthogonal axes to determine the worst-case orientation of a body-worn or handheld EUT. The final test on all kind of EUTs is also performed at 3 axes. A pre-check is performed while the EUT is powered.

Below 1 GHz:

The Equipment Under Test (EUT) was set up on a non-conductive table in the semi-anechoic chamber. The influence of the EUT support table that is used between 30–1000 MHz was evaluated.

1. Measurement up to 30 MHz



Test Setup; Spurious Emission Radiated (SAC), 9 kHz – 30 MHz

The Loop antenna HFH2-Z2 is used.

Step 1: pre measurement

- Anechoic chamber
- Antenna distance: 3 m
- Detector: Peak-Maxhold
- Frequency range: 0.009 - 0.15 MHz and 0.15 - 30 MHz
- Frequency steps: 0.05 kHz and 2.25 kHz
- IF-Bandwidth: 0.2 kHz and 9 kHz
- Measuring time / Frequency step: 100 ms (FFT-based)

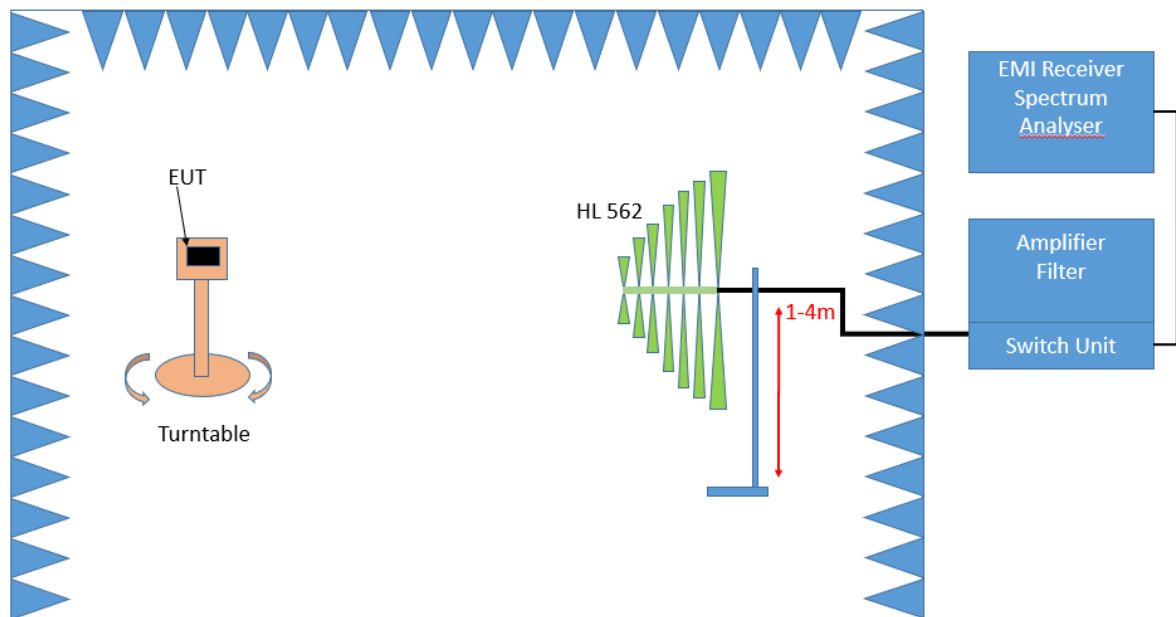
Intention of this step is, to determine the radiated EMI-profile of the EUT. Afterwards the relevant emissions for the final measurement are identified.

Step 2: final measurement

For the relevant emissions determined in step 1, an additional measurement with the following settings will be performed. Intention of this step is to find the maximum emission level.

- Open area test site
- Antenna distance: according to the Standard
- Detector: Quasi-Peak
- Frequency range: 0.009 - 30 MHz
- Frequency steps: measurement at frequencies detected in step 1
- IF-Bandwidth: 0.2 - 10 kHz
- Measuring time / Frequency step: 1 s

2. Measurement above 30 MHz and up to 1 GHz



Test Setup; Spurious Emission Radiated (SAC), 30 MHz- 1GHz

Step 1: Preliminary scan

This is a preliminary test to identify the highest amplitudes relative to the limit.

Settings for step 1:

- Antenna distance: 3 m
- Detector: Peak-Maxhold / Quasipeak (FFT-based)
- Frequency range: 30 - 1000 MHz
- Frequency steps: 30 kHz
- IF-Bandwidth: 120 kHz

- Measuring time / Frequency step: 100 ms
- Turntable angle range: -180° to 90°
- Turntable step size: 90°
- Height variation range: 1 – 4 m
- Height variation step size: 1.5 m
- Polarisation: Horizontal + Vertical

Intention of this step is, to determine the radiated EMI-profile of the EUT. Afterwards the relevant emissions for the final measurement are identified.

Step 2: Adjustment measurement

In this step the accuracy of the turntable azimuth and antenna height will be improved. This is necessary to find out the maximum value of every frequency.

For each frequency, which was determined the turntable azimuth and antenna height will be adjusted. The turntable azimuth will slowly vary by 360° . During this action, the value of emission is continuously measured. The turntable azimuth at the highest emission will be recorded and adjusted. In this position, the antenna height will also slowly vary by 1 – 4 meter. During this action, the value of emission is also continuously measured. The antenna height of the highest emission will also be recorded and adjusted.

- Detector: Peak – Maxhold
- Measured frequencies: in step 1 determined frequencies
- IF – Bandwidth: 120 kHz
- Measuring time: 100 ms
- Turntable angle range: 360°
- Height variation range: 1 – 4 m
- Antenna Polarisation: max. value determined in step 1

Step 3: Final measurement with QP detector

With the settings determined in step 2, the final measurement will be performed:

EMI receiver settings for step 3:

- Detector: Quasi-Peak (< 1 GHz)
- Measured frequencies: in step 1 determined frequencies
- IF – Bandwidth: 120 kHz
- Measuring time: 1 s

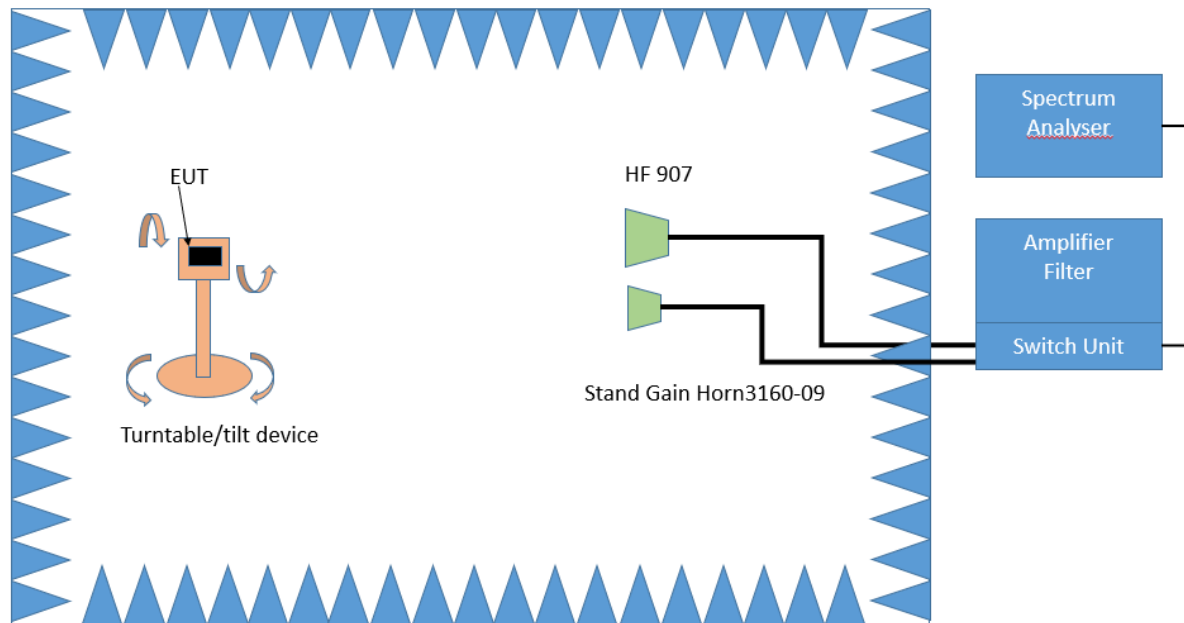
After the measurement a plot will be generated which contains a diagram with the results of the preliminary scan and a chart with the frequencies and values of the results of the final measurement.

Above 1 GHz:

The Equipment Under Test (EUT) was set up on a non-conductive support (tilt device) at 1.5 m height in the fully-anechoic chamber.

All steps were performed with one height (1.5 m) of the receiving antenna only.

3. Measurement 1 GHz up to 26.5 GHz



Test Setup; Spurious Emission Radiated (FAC), 1 GHz-26.5 GHz

Step 1:

The Equipment Under Test (EUT) was set up on a non-conductive support (tilt device) at 1.5 m height in the fully-anechoic chamber.

All steps were performed with one height (1.5 m) of the receiving antenna only.

The EUT is turned during the preliminary measurement across the elevation axis, with a step size of 90 °.

The turn table step size (azimuth angle) for the preliminary measurement is 45 °.

Step 2:

Due to the fact, that in this frequency range the test is performed in a fully anechoic room, the height scan of the receiving antenna in step 2 is omitted. Instead of this, a maximum search with a step size $\pm 45^\circ$ for the elevation axis is performed.

The turn table azimuth will slowly vary by $\pm 22.5^\circ$.

The elevation angle will slowly vary by $\pm 45^\circ$

EMI receiver settings (for all steps):

- Detector: Peak, Average
- IF Bandwidth = 1 MHz

Step 3:

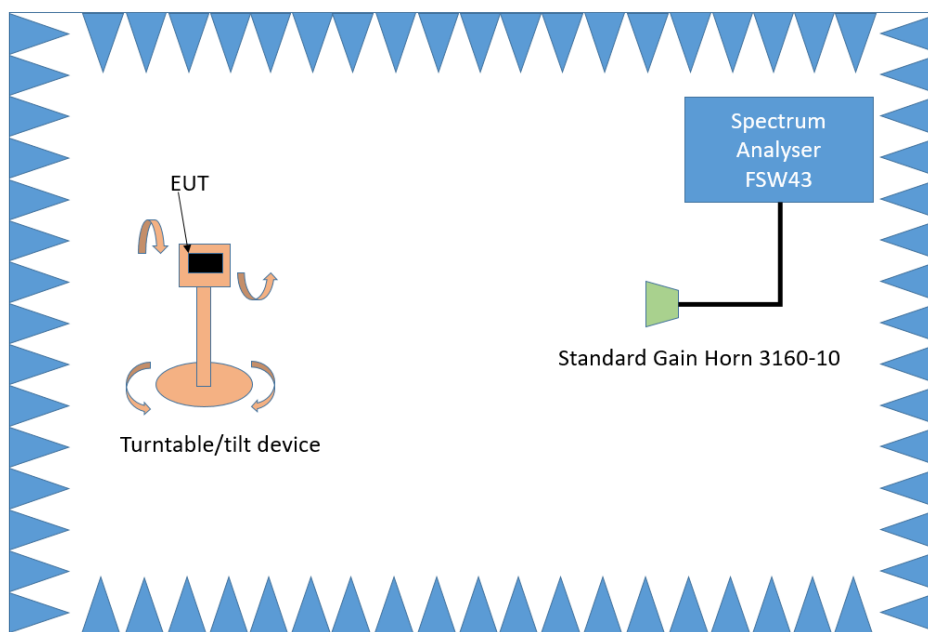
Spectrum analyser settings for step 3:

- Detector: Peak / Average
- Measured frequencies: in step 1 determined frequencies
- IF – Bandwidth: 1 MHz
- Measuring time: 1 s

4. Measurement above 26.5 GHz up to 40 GHz

The following modifications, compared to the frequency range 1 GHz – 26.5 GHz, apply to the measurement procedure for the frequency range above 26.5 GHz:

- Measurement distance: 1m

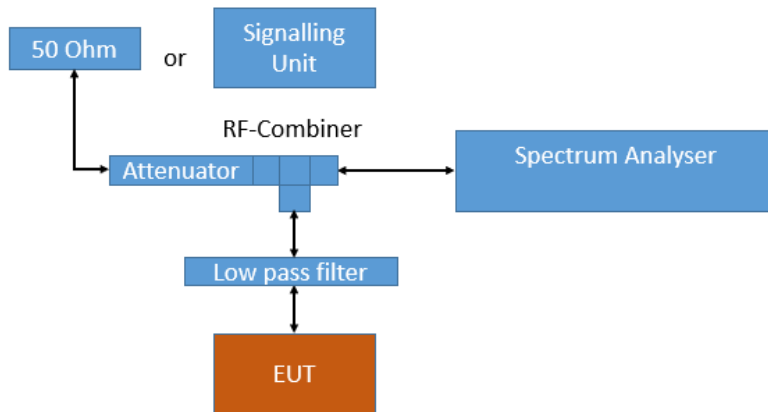


Test Setup; Spurious Emission Radiated (FAC), 26.5 – 40 GHz

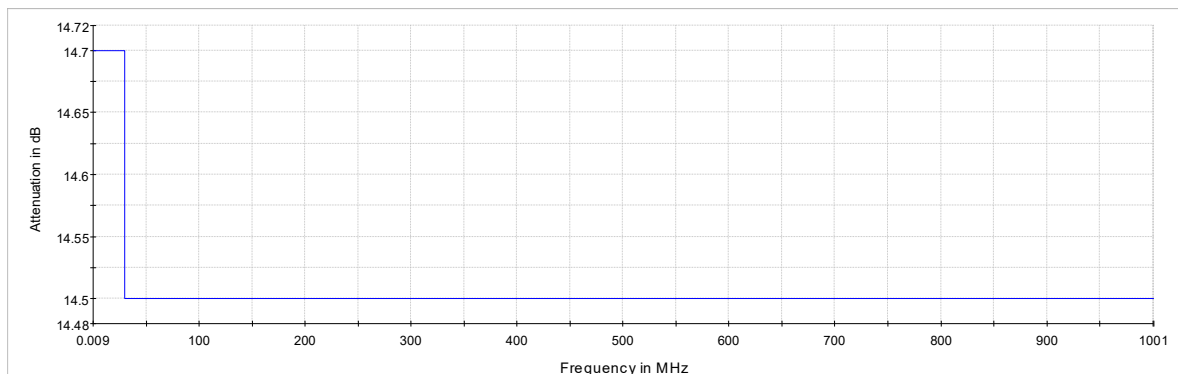
Conducted Measurements at antenna ports:

The Equipment Under Test (EUT) was set up to perform the spurious emissions measurements.

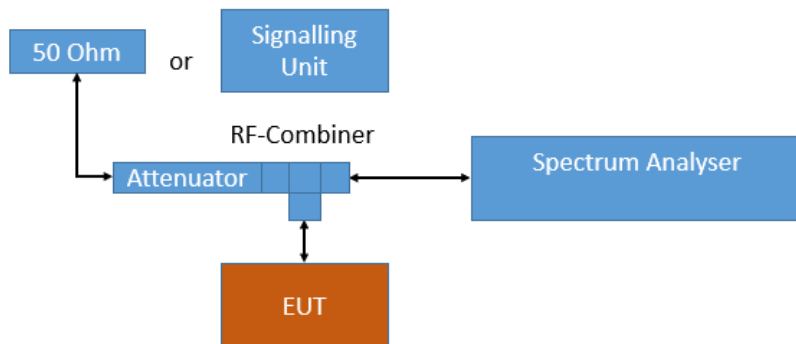
The EUT was connected to the test system as described in the block diagram below. The complete attenuation of the measurement path is known and considered.



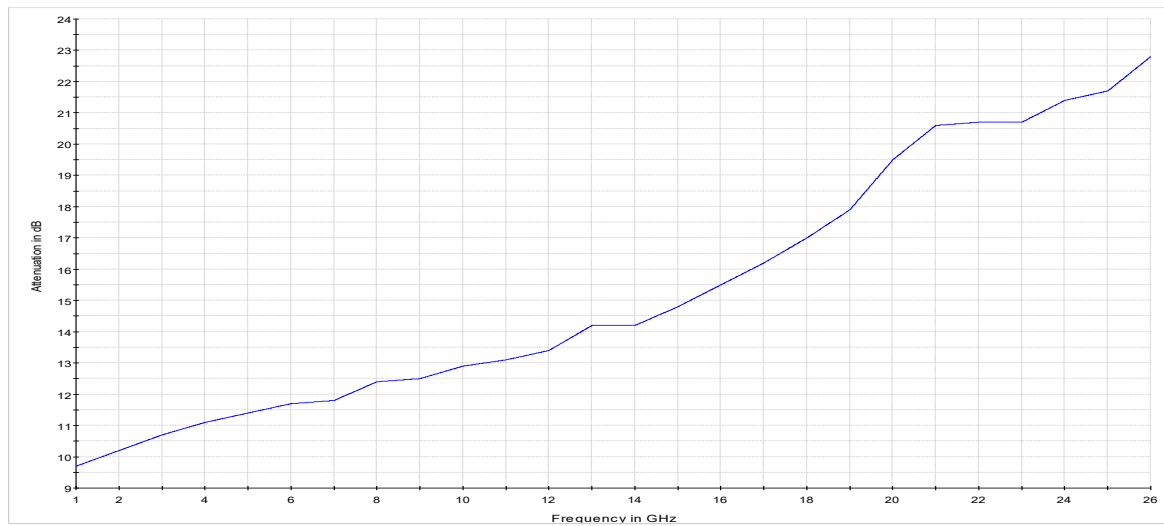
Measurement <1GHz: Path Attenuation Transducer DUT1_3dB_TP2000



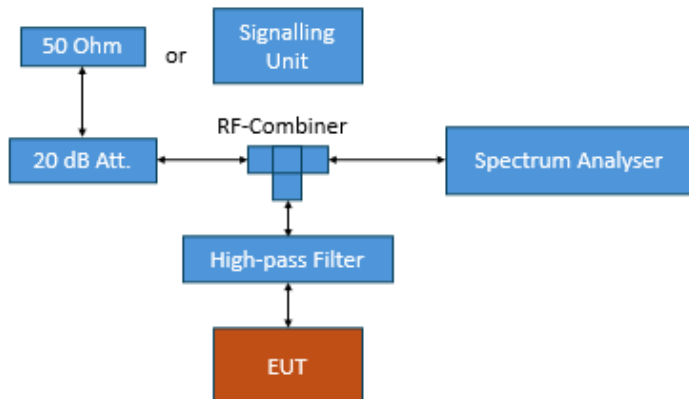
Transducer DUT1_3dB_TP2000



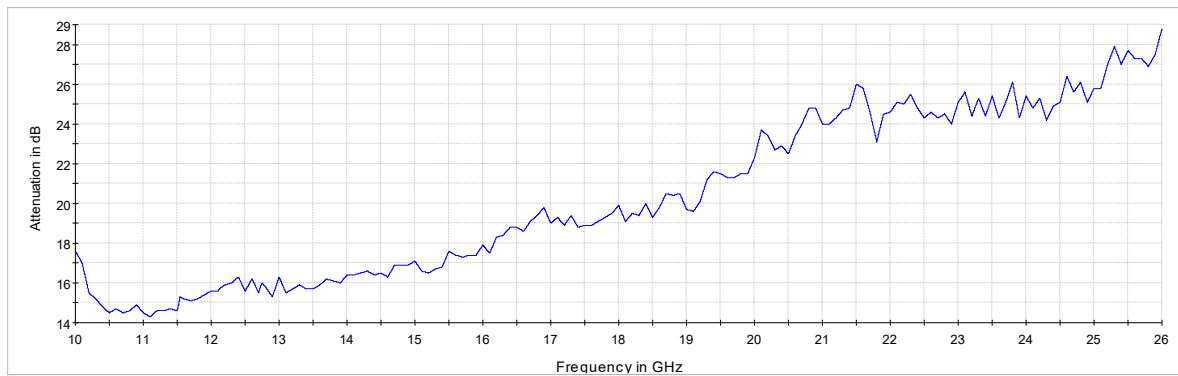
Measurement 1 – 13.5 GHz: Path Attenuation Transducer DUT1_3dB



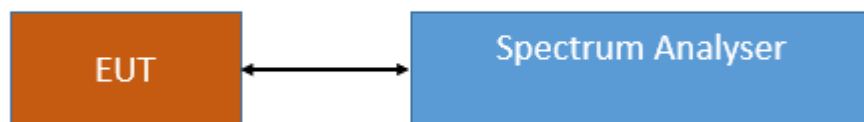
Transducer DUT1_3dB



Measurement 13.5 - 26 GHz: Path Attenuation Transducer DUT1_3dB_HP11G



Transducer DUT1_3dB_HP11G



Measurement 26 GHz - 40 GHz

Offset for Cable (5.5 dB) + Ant. Gain (5.3 dBi) = 10.8 dB (5 GHz)

Analyser settings:

- Frequency range: 0.009 – 30 MHz
- Resolution Bandwidth (RBW): 10 kHz
- Video Bandwidth (VBW): 30 kHz
- Trace: Maxhold
- Sweeps: see plots
- Sweep Time: coupled
- Detector: Peak

- Frequency range: 30 – 1000 MHz
- Resolution Bandwidth (RBW): 100 kHz
- Video Bandwidth (VBW): 300 kHz
- Trace: Maxhold
- Sweeps: see plots
- Sweep Time: coupled
- Detector: Peak

- Frequency range: 1000 – 26000 MHz
- Resolution Bandwidth (RBW): 1000 kHz
- Video Bandwidth (VBW): 3000 kHz
- Trace: Maxhold, Average Power
- Sweeps: see plots
- Sweep Time: coupled
- Detector: Peak, RMS

- Frequency range: 26000 – 40000 MHz
- Resolution Bandwidth (RBW): 1000 kHz
- Video Bandwidth (VBW): 3000 kHz
- Trace: Maxhold, Average Power
- Sweeps: 1000
- Sweep Time: coupled
- Detector: Peak, RMS

For the conducted emissions in restricted bands the Value is measured in dBm and then converted to dBµV/m as given in KDB 789033:

1. Measure the conducted output power in dBm.
2. Add the maximum antenna gain in dBi. (Included in measurement result by offset)
3. Add the appropriate ground reflection factor (included in measurement result by transducer factor)
 - 6 dB for frequencies ≤ 30 MHz;
 - 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive; and
 - 0 dB for frequencies > 1000 MHz).
4. Convert the resultant EIRP level to an equivalent electric field strength level using the following relationship:
 - $E = \text{EIRP} - 20 \log D + 104.8$
 - Where E is the electric field strength in dBµV/m,
 - EIRP is the equivalent isotropically radiated power in dBm
 - D is the specified measurement distance in m

Value [dBµV/m] = Measured value [dBm] (including gain and ground reflection factor) – 20 log D + 104.8

5.7.2 TEST REQUIREMENTS / LIMITS

A) FCC

FCC Part 15 Subpart E, §15.407 (b)(1)

For transmitters operating in the 5150–5250 MHz band:

Limit: –27 dBm/MHz EIRP outside of the band 5150–5350 MHz.

FCC Part 15 Subpart E, §15.407 (b)(2)

For transmitters operating in the 5250–5350 MHz band:

Limit: –27 dBm/MHz EIRP outside of the band 5150–5350 MHz.

FCC Part 15 Subpart E, §15.407 (b)(3)

For transmitters operating in the 5470–5725 MHz band:

Limit: –27 dBm/MHz EIRP outside of the band 5470–5725 MHz.

FCC Part 15 Subpart E, §15.407 (b)(4)

For transmitters operating in the 5725–5850 MHz band:

Limit: –27 dBm/MHz at 75 MHz or more above or below the band edge
increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge
increasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edge
increasing linearly to 27 dBm/MHz at the band edge.

B) IC

Different frequency bands and limits apply, as compared to the FCC requirements.

RSS-247, 6.2.1.2, Emissions outside the band 5150–5250 MHz, indoor operation only:

Limit: –27 dBm/MHz EIRP outside of the band 5150–5250 MHz.

RSS-247, 6.2.2.2, Emissions outside the band 5250–5350 MHz:

Limit: –27 dBm/MHz EIRP outside of the band 5250–5350 MHz.

RSS-247, 6.2.3.2, Emissions outside the bands 5470–5600 MHz and 5650–5725 MHz:

Limit: –27 dBm/MHz EIRP outside of the band 5470–5725 MHz.

However, devices with bandwidth overlapping the band edge of 5725 MHz can meet the emission limit of –27 dBm/MHz e.i.r.p. at 5850 MHz instead of 5725 MHz.

Note: No operation is permitted for the frequency range 5600–5650 MHz.

RSS-247, 6.2.4.2, Emissions outside the band 5725–5850 MHz:

- a. 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 Bm/MHz at 5 MHz above or below the band edges;
- b. 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges;
- c. 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to –27 dBm/MHz at 75 MHz above or below the band edges; and
- d. –27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.

C) FCC & IC

FCC Part 15 Subpart E, §15.405

The provisions of §§ 15.203 and 15.205 are included.

§15.407 (b)(6)

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209.

§15.407 (b)(7)

The provisions of §15.205 apply to intentional radiators operating under this section

FCC Part 15, Subpart C, §15.209, Radiated Emission Limits

Frequency in MHz	Limit (µV/m)	Measurement distance (m)	Limits (dBµV/m)
0.009 – 0.49	2400/F(kHz)@300m	3	(48.5 – 13.8)@300m
0.49 – 1.705	24000/F(kHz)@30m	3	(33.8 – 23.0)@30m
1.705 – 30	30@30m	3	29.5@30m

The measured values are corrected with an inverse linear distance extrapolation factor (40 dB/decade) according FCC 15.31 (2).

Frequency in MHz	Limit (µV/m)	Measurement distance (m)	Limits (dBµV/m)
30 – 88	100@3m	3	40.0@3m
88 – 216	150@3m	3	43.5@3m
216 – 960	200@3m	3	46.0@3m
960 – 26000	500@3m	3	54.0@3m
26000 – 40000	500@3m	1	54.0@3m

The measured values above 26 GHz are corrected with an inverse linear distance extrapolation factor (20 dB/decade).

§15.35(b) ..., there is also a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit....

Used conversion factor:

- Limit (dBµV/m) = 20 log (Limit (µV/m)/1µV/m)
- Limit (dBµV/m) = EIRP [dBm] – 20 log (d [m]) + 104.8

Limit types (in result tables):

RB – Emissions falls into a "Restricted Band" according FCC §§15.205 and 15.209 *)

UE – "Undesirable Emission Limit" according FCC §15.407

BE-RB – Band Edge Limit basing on "Restricted Band Limits"

BE-UE – Band Edge Limit basing on "Undesirable Emission Limit"

*) Below 1 GHz the limits of §15.209 are applied for all frequencies.

5.7.3 TEST PROTOCOL

Ambient temperature: 20 - 27 °C
 Air Pressure: 30 - 56 hPa
 Humidity: 992 - 1020 %
 WLAN a-Mode; 20 MHz; 6 Mbit/s
 Applied duty cycle correction (AV): 0.1 dB

Measurement Method	Ch. Center Freq. [MHz]	Spurious Freq. [MHz]	Spurious Level [dBμV/m]	Detector	RBW [kHz]	Limit [dBμV/m]	Margin [dB]	Limit Type
Conducted	5180	3884.8	53.1	PEAK	1000	74.0	20.9	RB
Conducted	5180	3884.8	47.4	AV	1000	54.0	6.7	RB
Conducted	5200	3900.0	53.1	PEAK	1000	74.0	20.9	RB
Conducted	5200	3900.0	47.3	AV	1000	54.0	6.7	RB
Conducted	5240	3930.1	52.4	PEAK	1000	74.0	21.6	RB
Conducted	5240	3930.1	47.1	AV	1000	54.0	6.9	RB
Conducted	5260	3944.9	52.6	PEAK	1000	74.0	21.4	RB
Conducted	5260	3944.9	47.0	AV	1000	54.0	7.0	RB
Conducted	5300	3975.0	52.2	PEAK	1000	74.0	21.8	RB
Conducted	5300	3975.0	47.0	AV	1000	54.0	7.0	RB
Conducted	5320	3989.8	52.4	PEAK	1000	74.0	21.6	RB
Conducted	5320	3989.8	47.0	AV	1000	54.0	7.0	RB
Conducted	5500	3666.8	52.0	PEAK	1000	74.0	22.0	RB
Conducted	5500	3666.8	45.4	AV	1000	54.0	8.6	RB
Conducted	5580	3719.9	52.8	PEAK	1000	74.0	21.2	RB
Conducted	5580	3719.9	46.1	AV	1000	54.0	7.9	RB
Conducted	5700	3800.0	52.0	PEAK	1000	74.0	22.0	RB
Conducted	5700	3800.0	47.2	AV	1000	54.0	6.8	RB
Conducted	5745	3830.1	52.4	PEAK	1000	74.0	21.6	RB
Conducted	5745	3830.1	47.1	AV	1000	54.0	6.9	RB
Conducted	5785	3856.6	52.1	PEAK	1000	74.0	21.9	RB
Conducted	5785	3856.6	47.0	AV	1000	54.0	7.0	RB
Conducted	5825	3883.2	52.4	PEAK	1000	74.0	21.6	RB
Conducted	5825	3883.2	46.9	AV	1000	54.0	7.1	RB
Radiated	5180	-	-	-	-	-	-	UE
Radiated	5200	-	-	-	-	-	-	UE
Radiated	5240	26199.9	55.2	PEAK	1000	68.2	13.0	UE
Radiated	5260	-	-	-	-	-	-	UE
Radiated	5300	26526.5	54.8	PEAK	1000	68.2	13.4	UE
Radiated	5320	-	-	-	-	-	-	UE
Radiated	5500	-	-	-	-	-	-	UE
Radiated	5580	-	-	-	-	-	-	UE
Radiated	5700	-	-	-	-	-	-	UE
Radiated	5745	-	-	-	-	-	-	UE
Radiated	5785	-	-	-	-	-	-	UE
Radiated	5825	-	-	-	-	-	-	UE

WLAN n-Mode; 20 MHz; MCS 0; SISO
 Applied duty cycle correction (AV): 0.1 dB

Measurement Method	Ch. Center Freq. [MHz]	Spurious Freq. [MHz]	Spurious Level [dBμV/m]	Detector	RBW [kHz]	Limit [dBμV/m]	Margin [dB]	Limit Type
Conducted	5180	3884.8	52.5	PEAK	1000	74.0	21.5	RB
Conducted	5180	3884.8	47.3	AV	1000	54.0	6.7	RB
Conducted	5200	3900.0	53.1	PEAK	1000	74.0	20.9	RB
Conducted	5200	3900.0	47.5	AV	1000	54.0	6.5	RB
Conducted	5240	3930.1	52.1	PEAK	1000	74.0	21.9	RB
Conducted	5240	3930.1	47.2	AV	1000	54.0	6.8	RB
Conducted	5260	3944.9	52.3	PEAK	1000	74.0	21.7	RB
Conducted	5260	3944.9	47.3	AV	1000	54.0	6.7	RB
Conducted	5300	3975.0	52.6	PEAK	1000	74.0	21.4	RB
Conducted	5300	3975.0	46.9	AV	1000	54.0	7.1	RB
Conducted	5320	3989.8	51.9	PEAK	1000	74.0	22.1	RB
Conducted	5320	3989.8	46.7	AV	1000	54.0	7.3	RB
Conducted	5500	3666.8	51.7	PEAK	1000	74.0	22.3	RB
Conducted	5500	3666.8	45.7	AV	1000	54.0	8.3	RB
Conducted	5580	3719.9	53.1	PEAK	1000	74.0	20.9	RB
Conducted	5580	3719.9	47.1	AV	1000	54.0	6.9	RB
Conducted	5700	3800.0	54.5	PEAK	1000	74.0	19.6	RB
Conducted	5700	3800.0	47.4	AV	1000	54.0	6.6	RB
Conducted	5745	3830.1	52.3	PEAK	1000	74.0	21.7	RB
Conducted	5745	3830.1	47.2	AV	1000	54.0	6.8	RB
Conducted	5785	3856.6	53.1	PEAK	1000	74.0	20.9	RB
Conducted	5785	3856.6	47.0	AV	1000	54.0	7.0	RB
Conducted	5825	3883.2	52.2	PEAK	1000	74.0	21.8	RB
Conducted	5825	3883.2	46.8	AV	1000	54.0	7.2	RB

WLAN ac-Mode; 20 MHz; MCS 0; SISO

Applied duty cycle correction (AV): 0.1 dB

Measurement Method	Ch. Center Freq. [MHz]	Spurious Freq. [MHz]	Spurious Level [dBμV/m]	Detector	RBW [kHz]	Limit [dBμV/m]	Margin [dB]	Limit Type
Conducted	5180	3884.8	52.6	PEAK	1000	74.0	21.4	RB
Conducted	5180	3884.8	47.4	AV	1000	54.0	6.6	RB
Conducted	5200	3900.0	54.2	PEAK	1000	74.0	19.8	RB
Conducted	5200	3900.0	47.5	AV	1000	54.0	6.5	RB
Conducted	5240	3930.1	53.2	PEAK	1000	74.0	20.8	RB
Conducted	5240	3930.1	47.1	AV	1000	54.0	7.0	RB
Conducted	5260	3944.9	52.0	PEAK	1000	74.0	22.0	RB
Conducted	5260	3944.9	47.1	AV	1000	54.0	6.9	RB
Conducted	5300	3975.0	52.4	PEAK	1000	74.0	21.6	RB
Conducted	5300	3975.0	46.9	AV	1000	54.0	7.1	RB
Conducted	5320	3989.8	52.3	PEAK	1000	74.0	21.8	RB
Conducted	5320	3989.8	46.4	AV	1000	54.0	7.6	RB
Conducted	5500	3666.8	51.8	PEAK	1000	74.0	22.2	RB
Conducted	5500	3666.8	44.9	AV	1000	54.0	9.1	RB
Conducted	5580	3719.9	52.2	PEAK	1000	74.0	21.8	RB
Conducted	5580	3719.9	46.5	AV	1000	54.0	7.5	RB
Conducted	5700	3800.0	52.0	PEAK	1000	74.0	22.0	RB
Conducted	5700	3800.0	46.5	AV	1000	54.0	7.5	RB
Conducted	5745	3830.1	51.8	PEAK	1000	74.0	22.2	RB
Conducted	5745	3830.1	46.5	AV	1000	54.0	7.5	RB
Conducted	5785	3856.6	52.3	PEAK	1000	74.0	21.7	RB
Conducted	5785	3856.6	46.3	AV	1000	54.0	7.7	RB
Conducted	5825	3883.2	52.3	PEAK	1000	74.0	21.8	RB
Conducted	5825	3883.2	46.2	AV	1000	54.0	7.8	RB

WLAN ax-Mode; 20 MHz; MCS 0; SISO
 Applied duty cycle correction (AV): 0.1 dB

Measurement Method	Ch. Center Freq. [MHz]	Spurious Freq. [MHz]	Spurious Level [dBμV/m]	Detector	RBW [kHz]	Limit [dBμV/m]	Margin [dB]	Limit Type
Conducted	5180	3884.8	51.8	PEAK	1000	74.0	22.2	RB
Conducted	5180	3884.8	46.5	AV	1000	54.0	7.6	RB
Conducted	5200	3900.0	51.7	PEAK	1000	74.0	22.3	RB
Conducted	5200	3900.0	46.8	AV	1000	54.0	7.2	RB
Conducted	5240	3930.1	52.3	PEAK	1000	74.0	21.7	RB
Conducted	5240	3930.1	46.3	AV	1000	54.0	7.7	RB
Conducted	5260	3944.9	52.1	PEAK	1000	74.0	21.9	RB
Conducted	5260	3944.9	46.5	AV	1000	54.0	7.5	RB
Conducted	5300	3975.0	51.6	PEAK	1000	74.0	22.4	RB
Conducted	5300	3975.0	46.1	AV	1000	54.0	7.9	RB
Conducted	5320	3989.8	51.6	PEAK	1000	74.0	22.4	RB
Conducted	5320	3989.8	46.5	AV	1000	54.0	7.6	RB
Conducted	5500	3666.8	51.9	PEAK	1000	74.0	22.1	RB
Conducted	5500	3666.8	45.3	AV	1000	54.0	8.7	RB
Conducted	5580	3719.9	51.7	PEAK	1000	74.0	22.3	RB
Conducted	5580	3719.9	46.4	AV	1000	54.0	7.6	RB
Conducted	5700	3800.0	52.3	PEAK	1000	74.0	21.7	RB
Conducted	5700	3800.0	46.5	AV	1000	54.0	7.5	RB
Conducted	5745	3830.1	51.9	PEAK	1000	74.0	22.1	RB
Conducted	5745	3830.1	46.3	AV	1000	54.0	7.7	RB
Conducted	5785	3856.6	52.0	PEAK	1000	74.0	22.0	RB
Conducted	5785	3856.6	46.4	AV	1000	54.0	7.6	RB
Conducted	5825	3883.2	52.4	PEAK	1000	74.0	21.6	RB
Conducted	5825	3883.2	46.3	AV	1000	54.0	7.7	RB

Remark: Radiated Measurements were performed with 50 Ohm termination at the antenna ports.

When no clear peaks were found in the plots, the tested frequencies are given with "-" instead of values in the table above.

Since radiated measurements did not show relevant peaks below 26 GHz, not all channels were tested for the frequency range <26 GHz and for some channels only the relevant harmonic was tested in the range above 26 GHz.

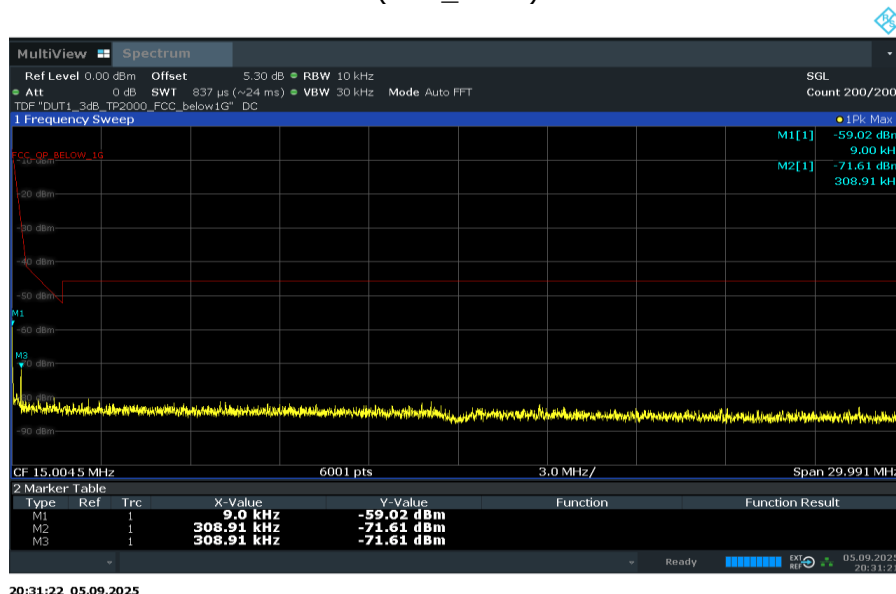
For details, please see the plots in next sub-clause.

5.7.4 MEASUREMENT PLOT (EXAMPLE PLOT, SHOWING WORST CASE, IF APPLICABLE)

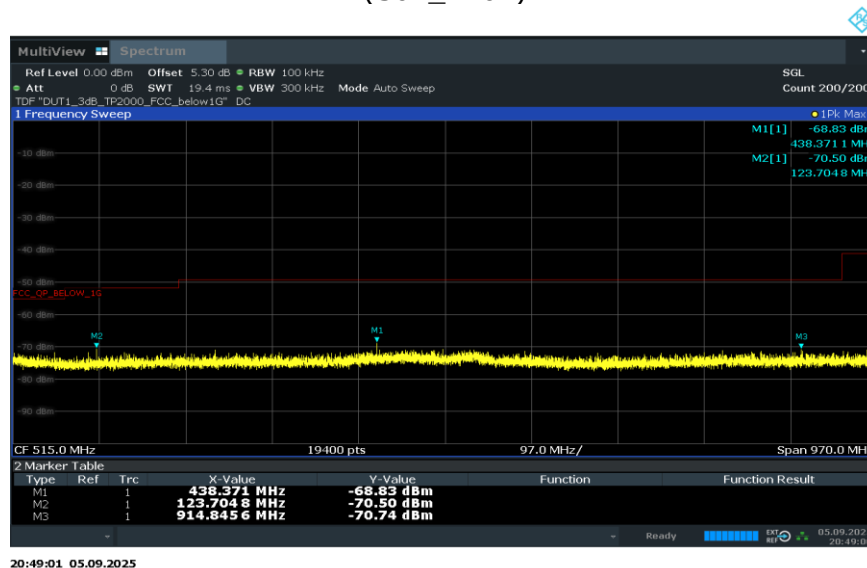
Conducted Measurements

For the range 9 kHz to 26 GHz the cable attenuation is considered as transducer factor and the antenna gain as offset (5.3 dBi)
In the range 26 to 40 GHz, the offset represents the highest cable attenuation (5.5 dB) of the range plus antenna gain (5.3 dBi).

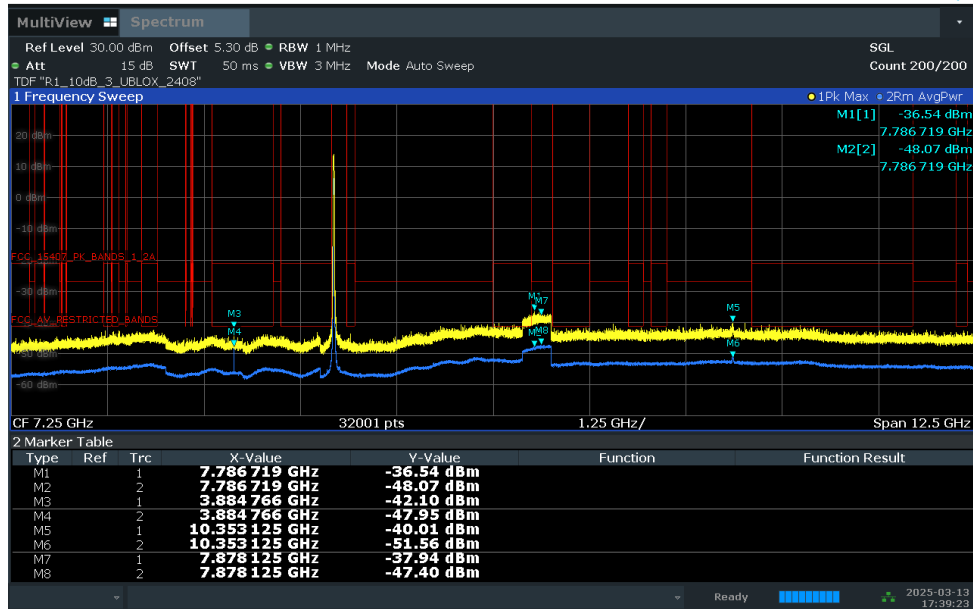
Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 9kHz - 30MHz, Subband = U-NII-1 (S01_AA01)



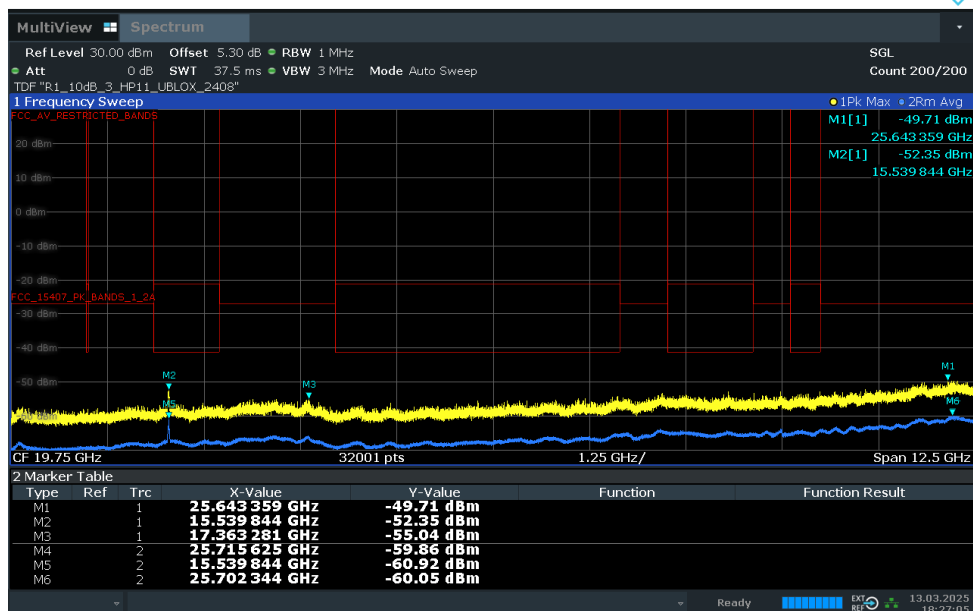
Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 30MHz - 1GHz, Subband = U-NII-1 (S01_AA01)



Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 1GHz - 26GHz, Subband = U-NII-1 (S01_AA01)

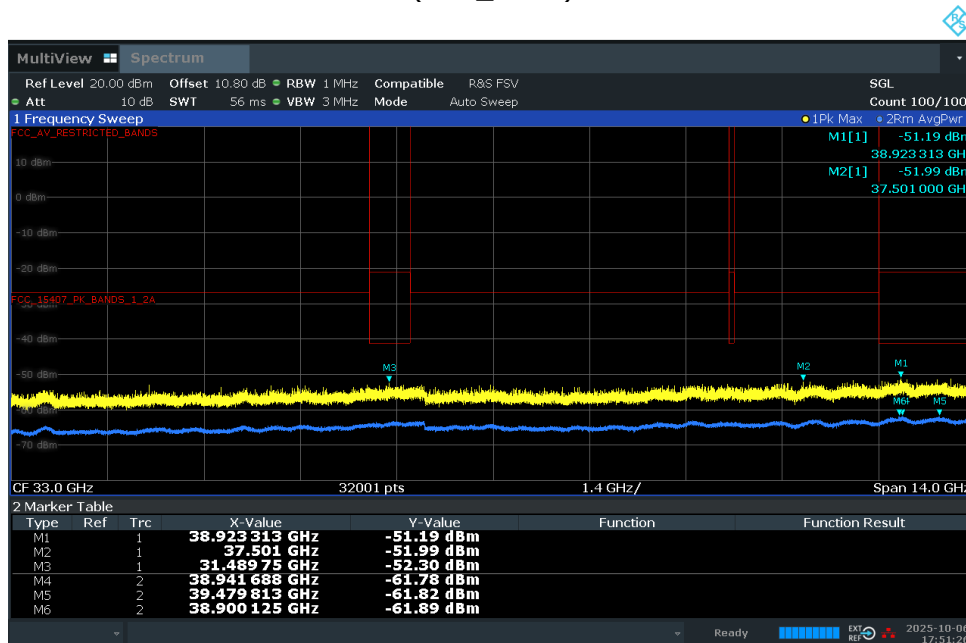


05:39:23 PM 03/13/2025



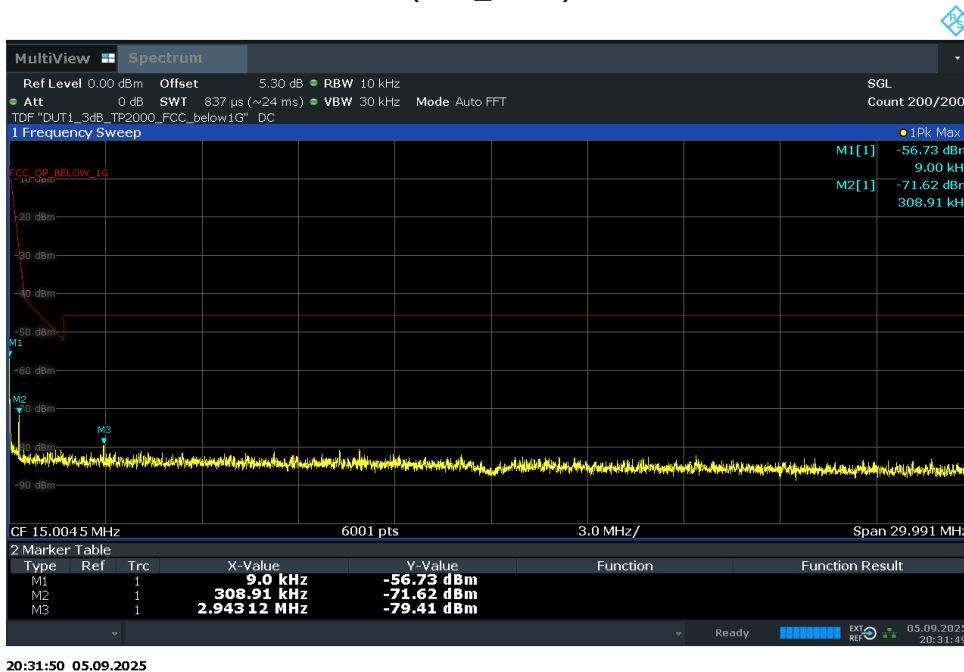
18:27:05 13.03.2025

Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 26GHz - 40GHz, Subband = U-NII-1 (S01_AA01)



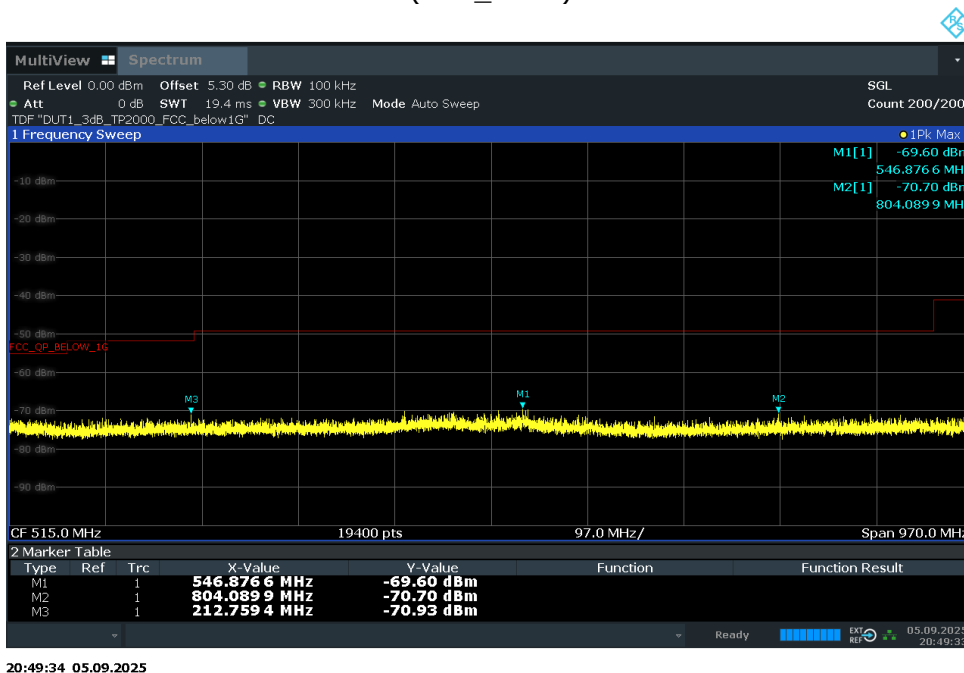
05:51:27 PM 10/06/2025

Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 9kHz - 30MHz, Subband = U-NII-1 (S01_AA01)



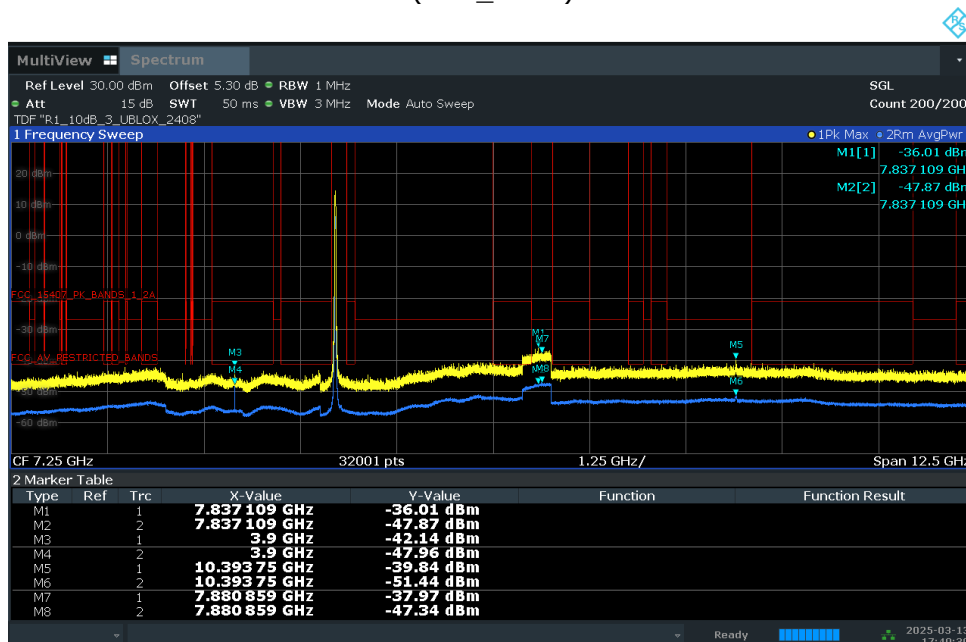
20:31:50 05.09.2025

Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 30MHz - 1GHz, Subband = U-NII-1 (S01_AA01)

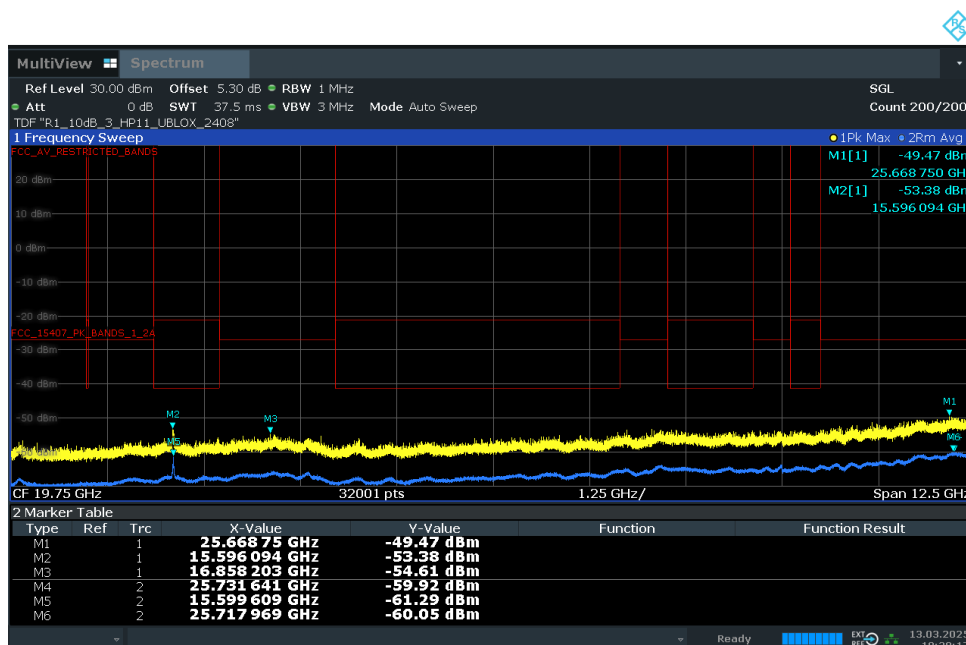


20:49:34 05.09.2025

Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 1GHz - 26GHz, Subband = U-NII-1 (S01_AA01)

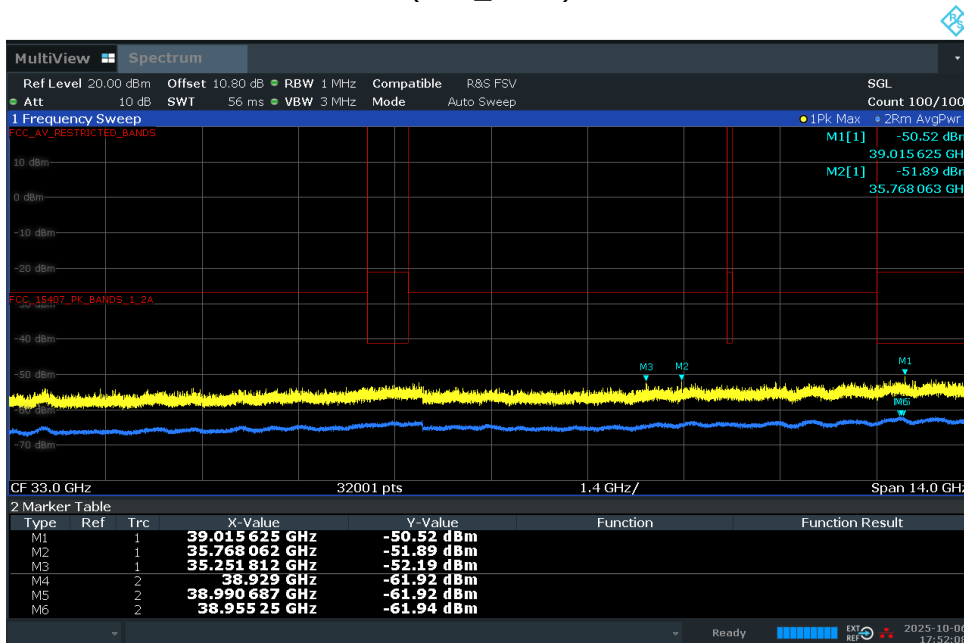


05:40:39 PM 03/13/2025



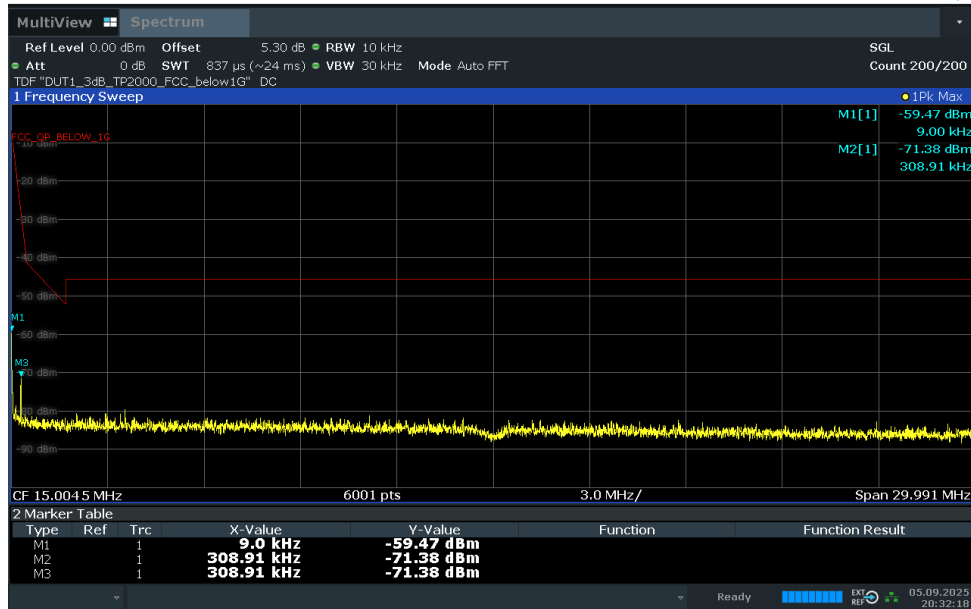
18:28:18 13.03.2025

Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 26GHz - 40GHz, Subband = U-NII-1 (S01_AA01)



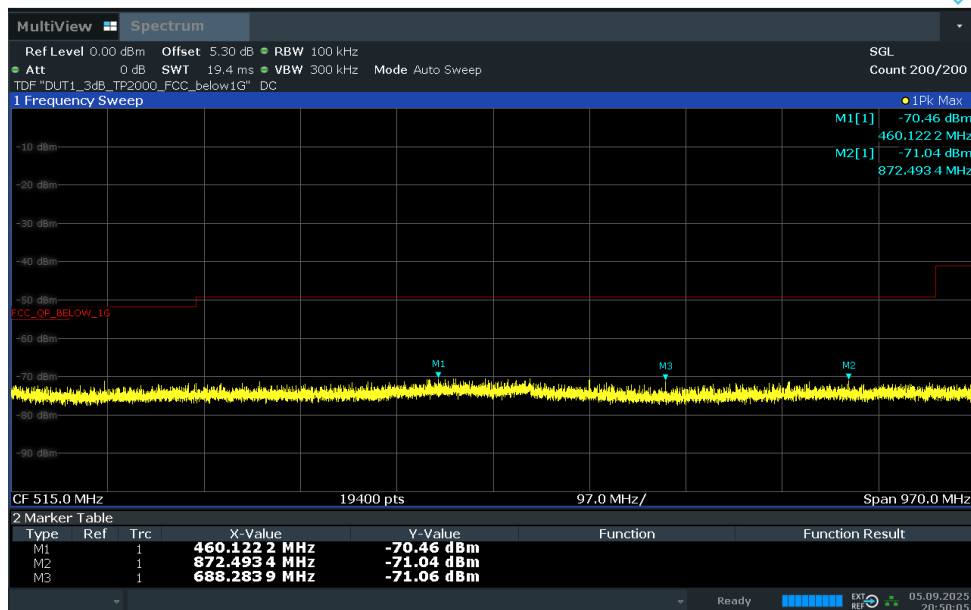
05:52:08 PM 10/06/2025

Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 9kHz - 30MHz, Subband = U-NII-1 (S01_AA01)



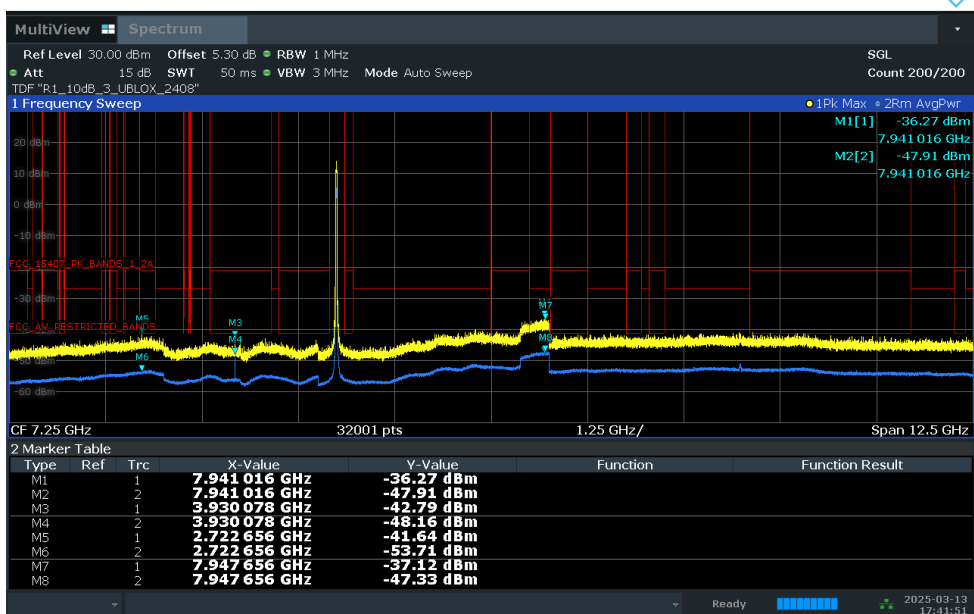
20:32:18 05.09.2025

Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 30MHz - 1GHz, Subband = U-NII-1 (S01_AA01)

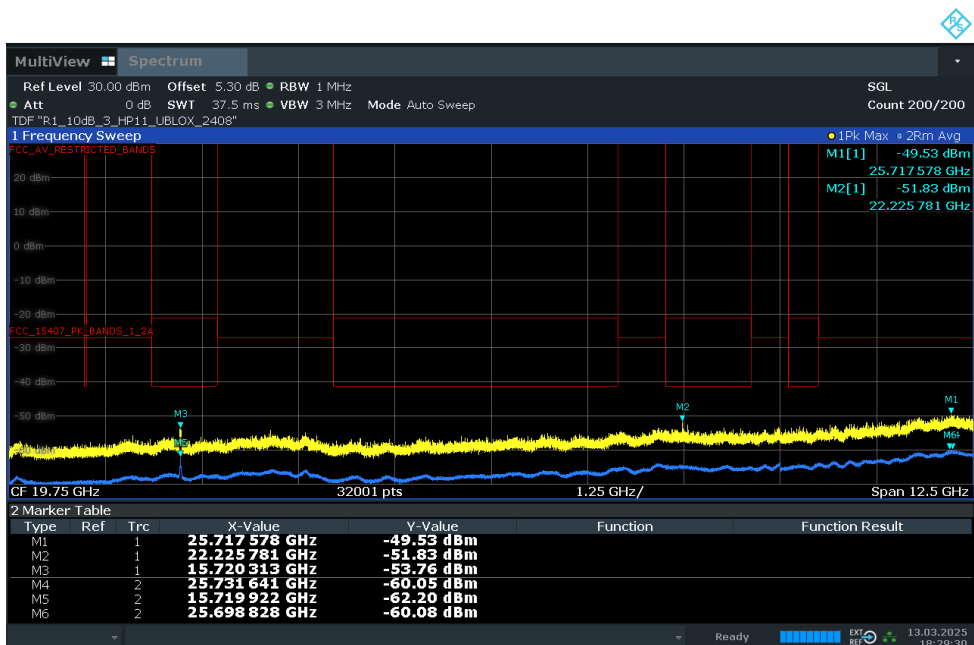


20:50:06 05.09.2025

Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 1GHz - 26GHz, Subband = U-NII-1 (S01_AA01)

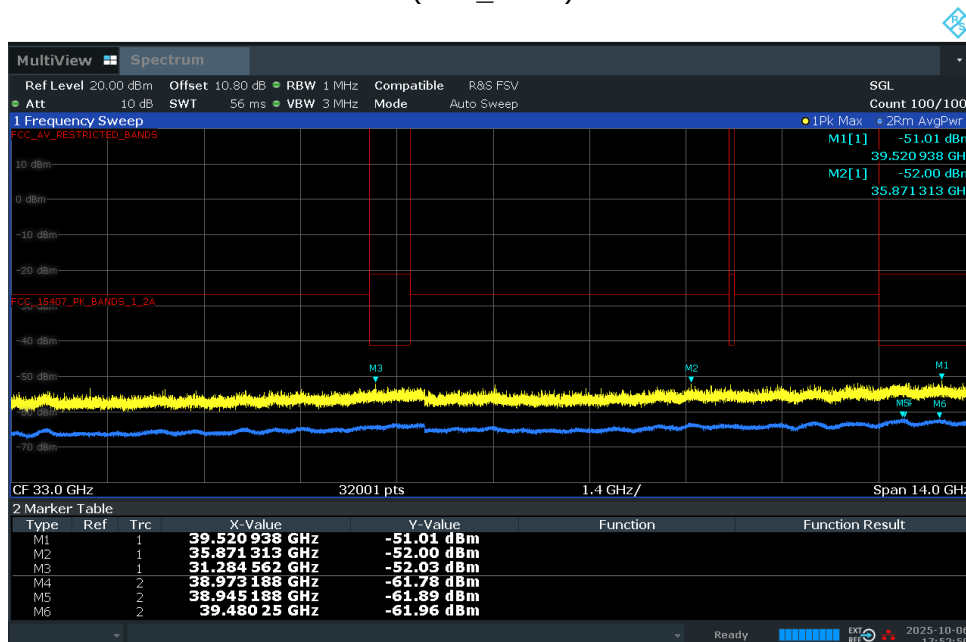


05:41:51 PM 03/13/2025



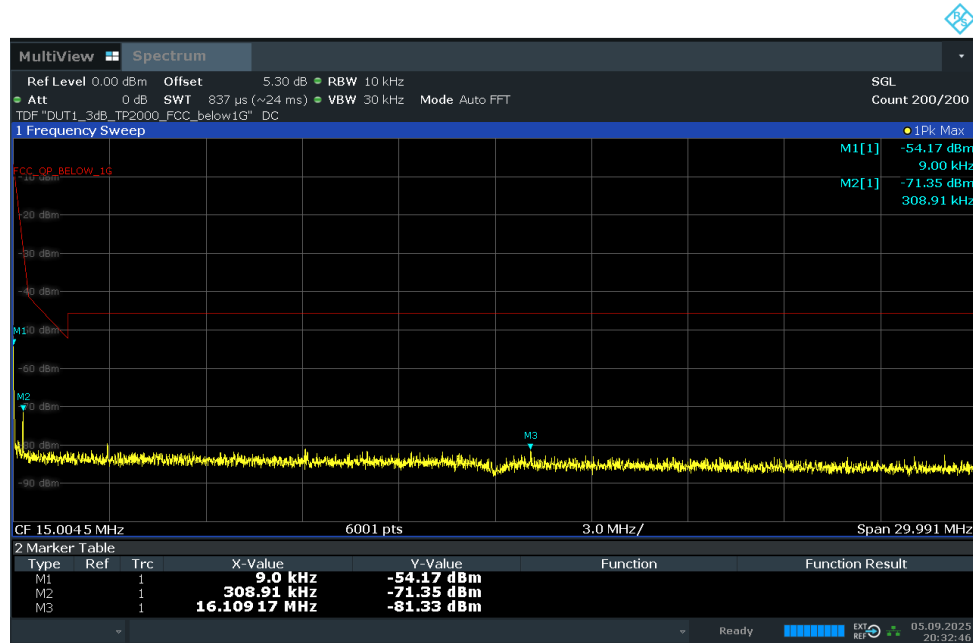
18:29:31 13.03.2025

Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 26GHz - 40GHz, Subband = U-NII-1 (S01_AA01)



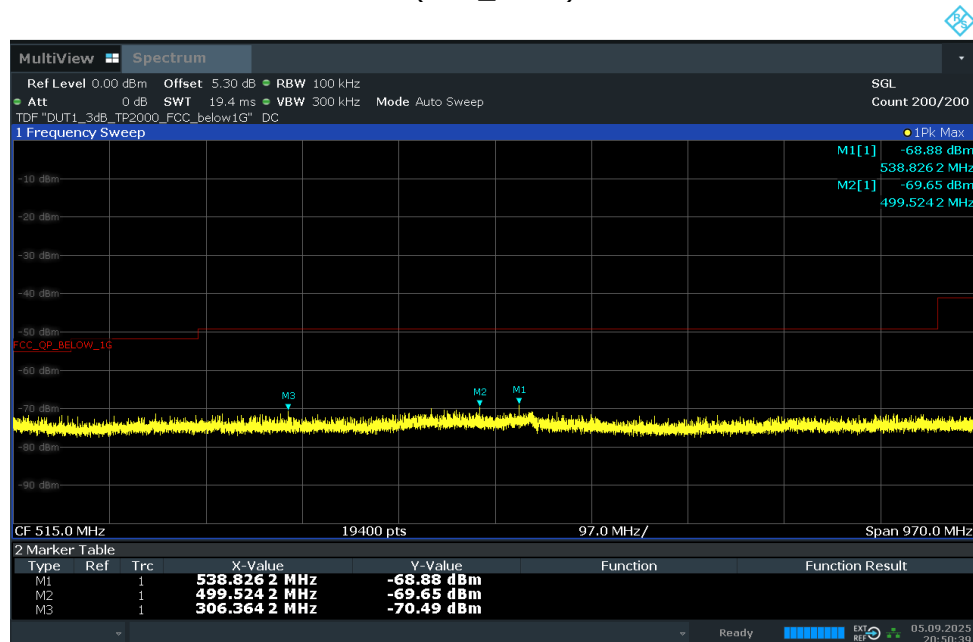
05:52:51 PM 10/06/2025

Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 9kHz - 30MHz, Subband = U-NII-2A (S01_AA01)



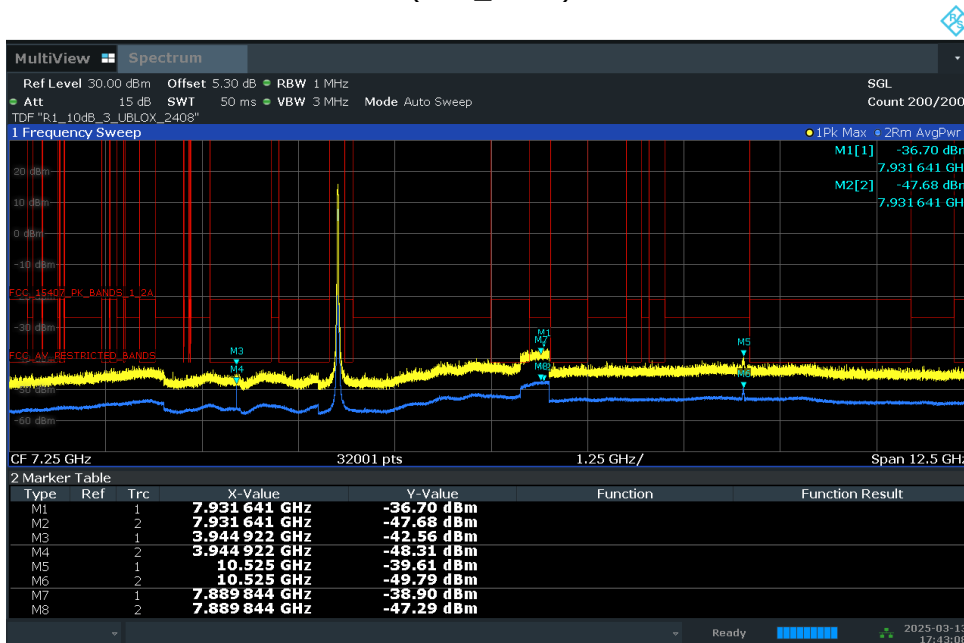
20:32:46 05.09.2025

Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 30MHz - 1GHz, Subband = U-NII-2A (S01_AA01)

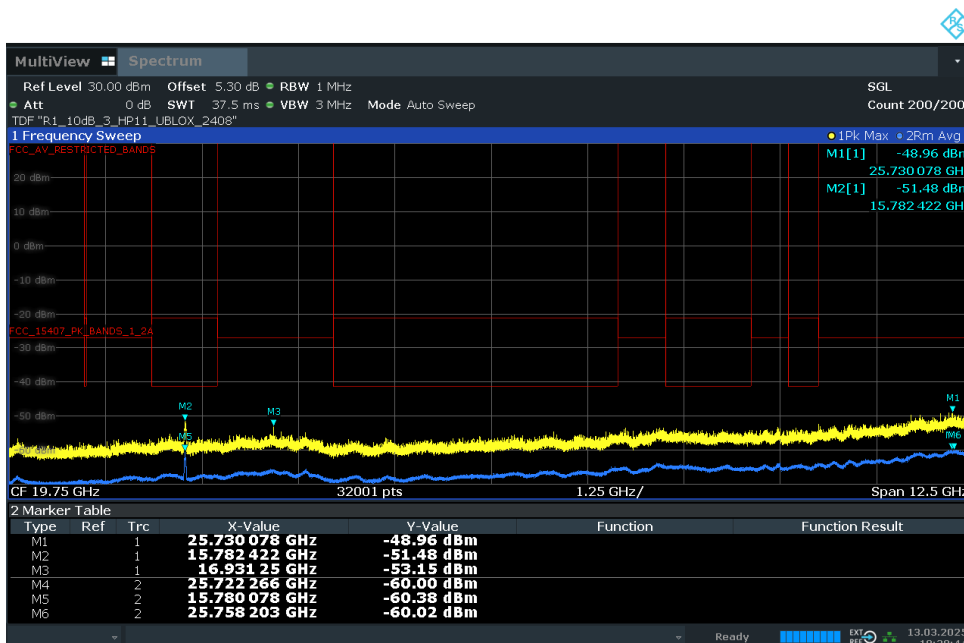


20:50:39 05.09.2025

Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 1GHz - 26GHz, Subband = U-NII-2A (S01_AA01)

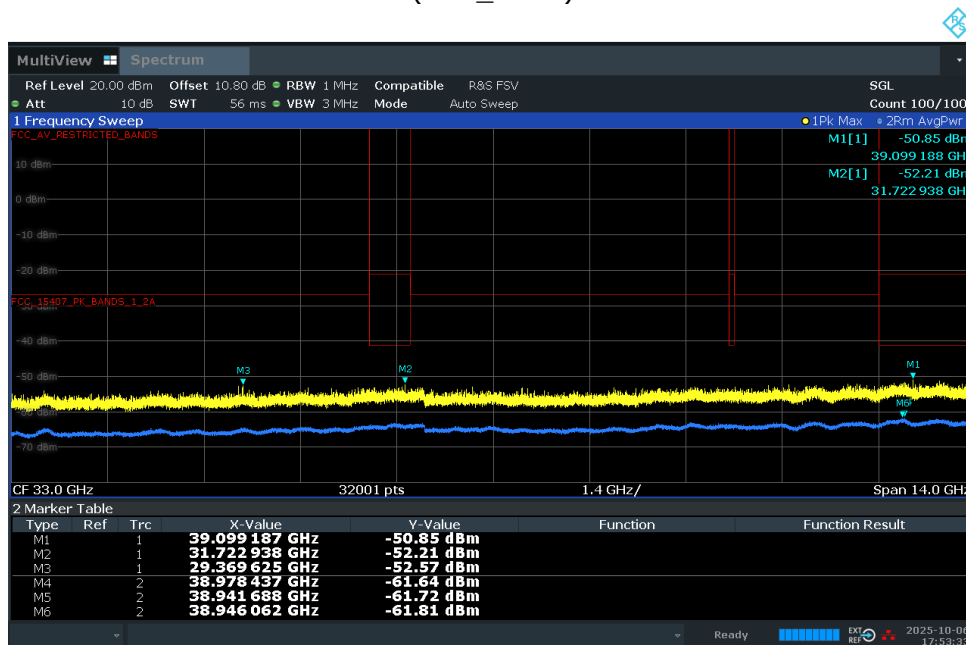


05:43:08 PM 03/13/2025



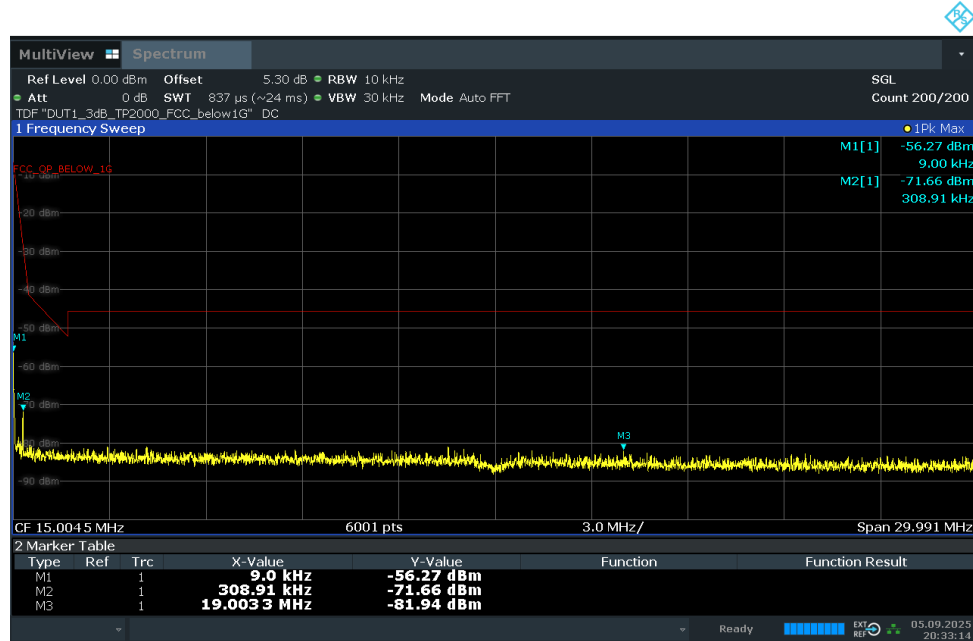
18:30:44 13.03.2025

Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 26GHz - 40GHz, Subband = U-NII-2A (S01_AA01)



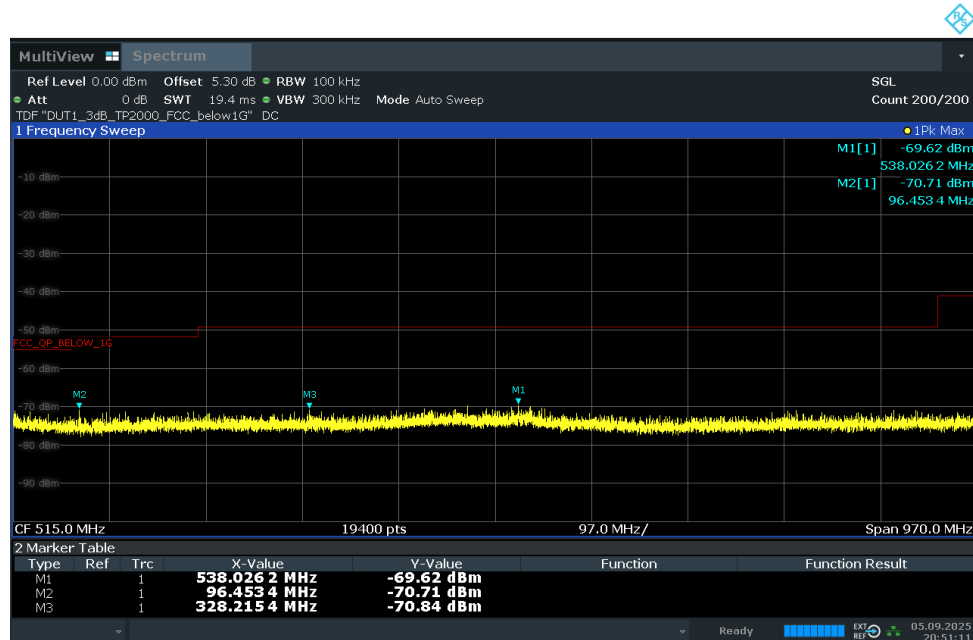
05:53:33 PM 10/06/2025

Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 9kHz - 30MHz, Subband = U-NII-2A (S01_AA01)



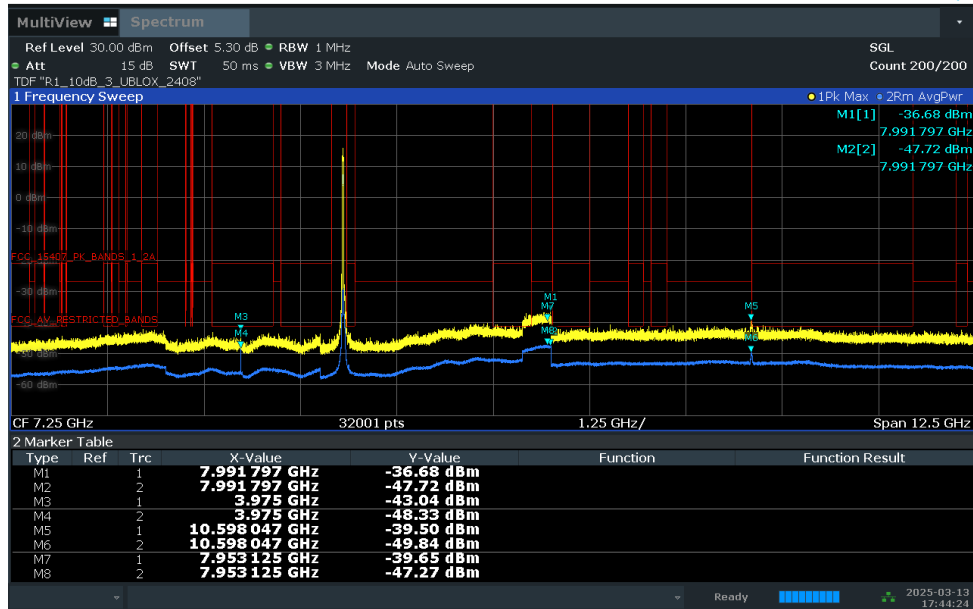
20:33:15 05.09.2025

Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 30MHz - 1GHz, Subband = U-NII-2A (S01_AA01)

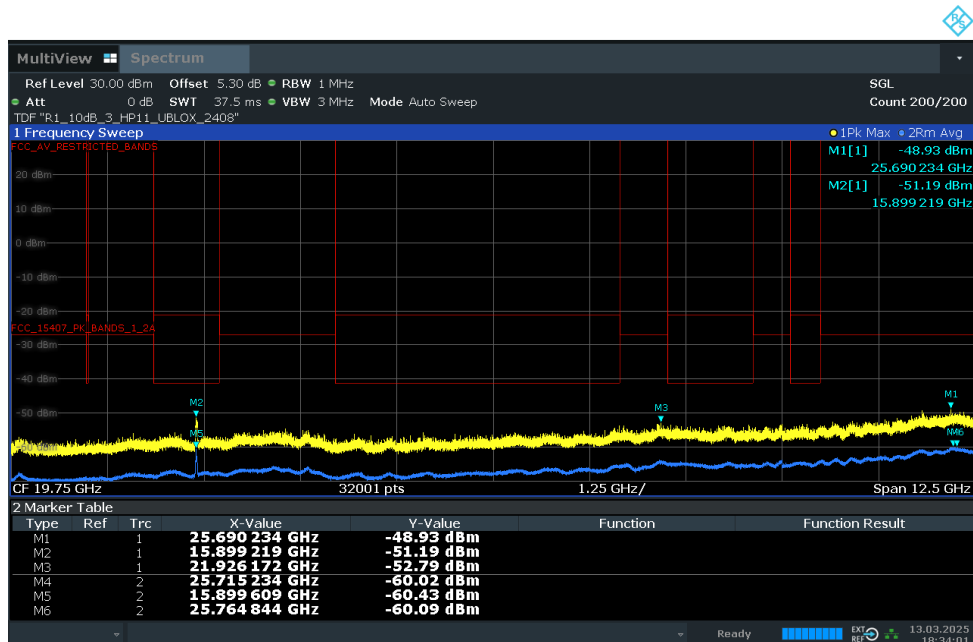


20:51:12 05.09.2025

Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 1GHz - 26GHz, Subband = U-NII-2A (S01_AA01)

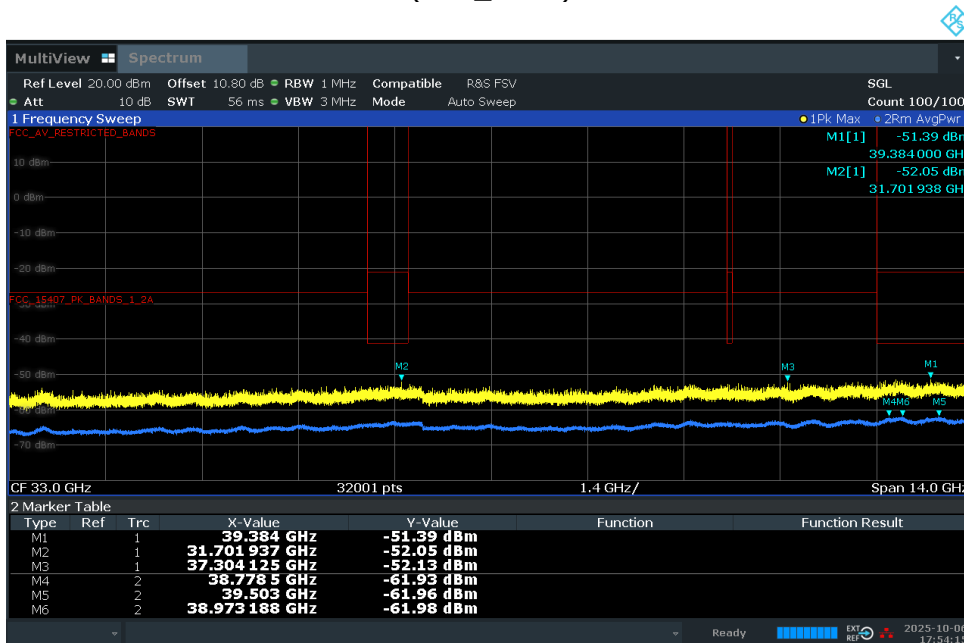


05:44:24 PM 03/13/2025



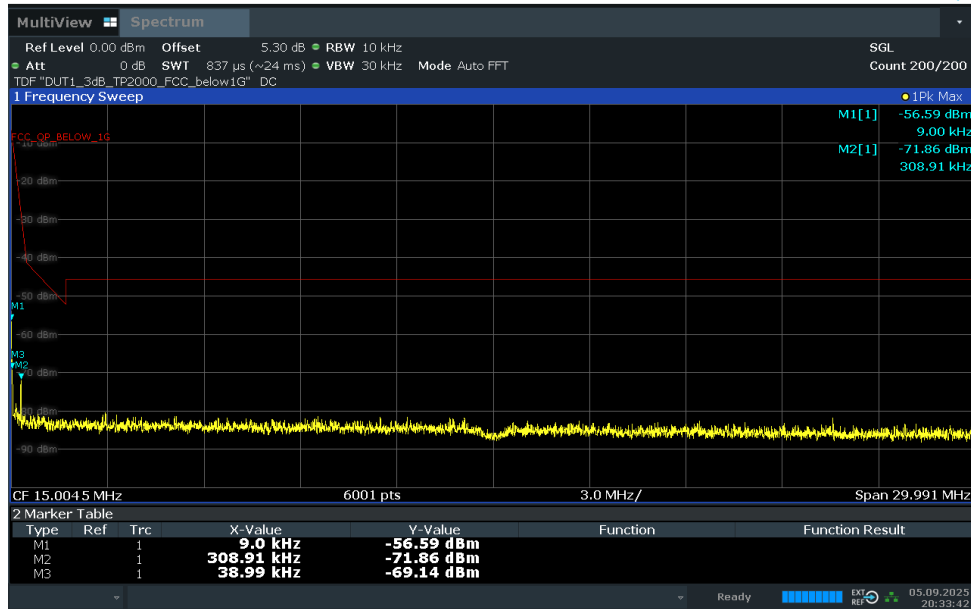
18:34:01 13.03.2025

Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 26GHz - 40GHz, Subband = U-NII-2A (S01_AA01)



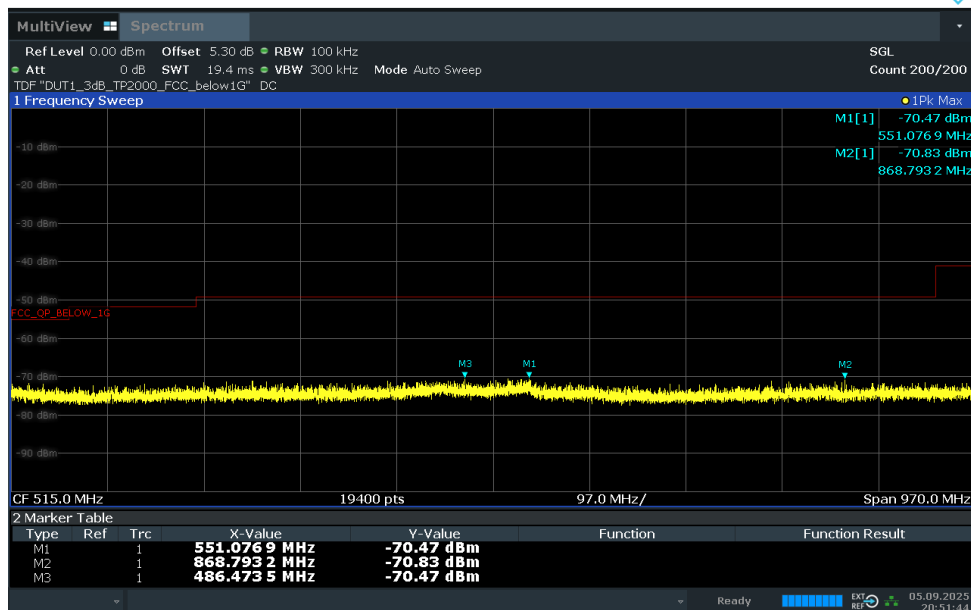
05:54:15 PM 10/06/2025

Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 9kHz - 30MHz, Subband = U-NII-2A (S01_AA01)



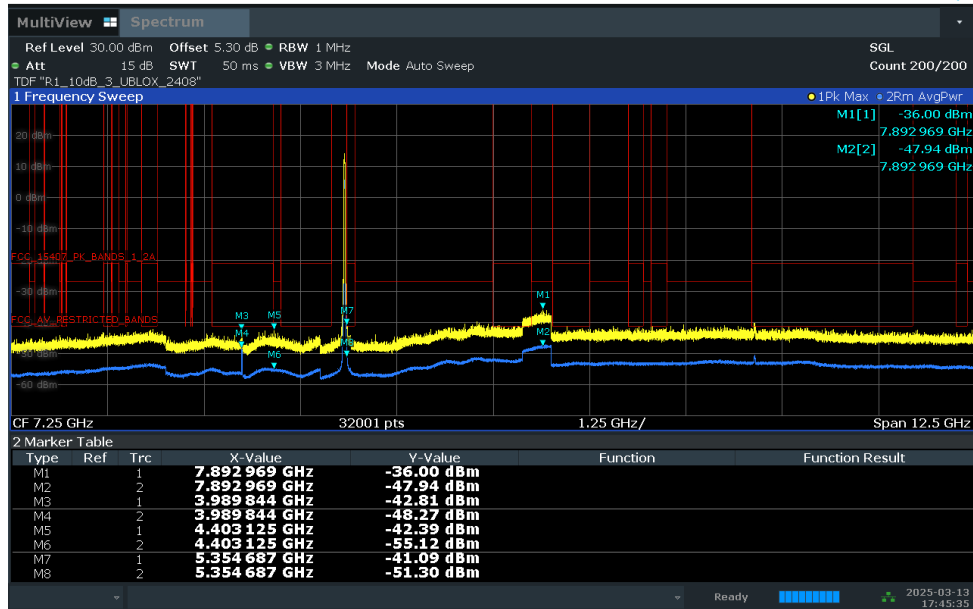
20:33:43 05.09.2025

Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 30MHz - 1GHz, Subband = U-NII-2A (S01_AA01)

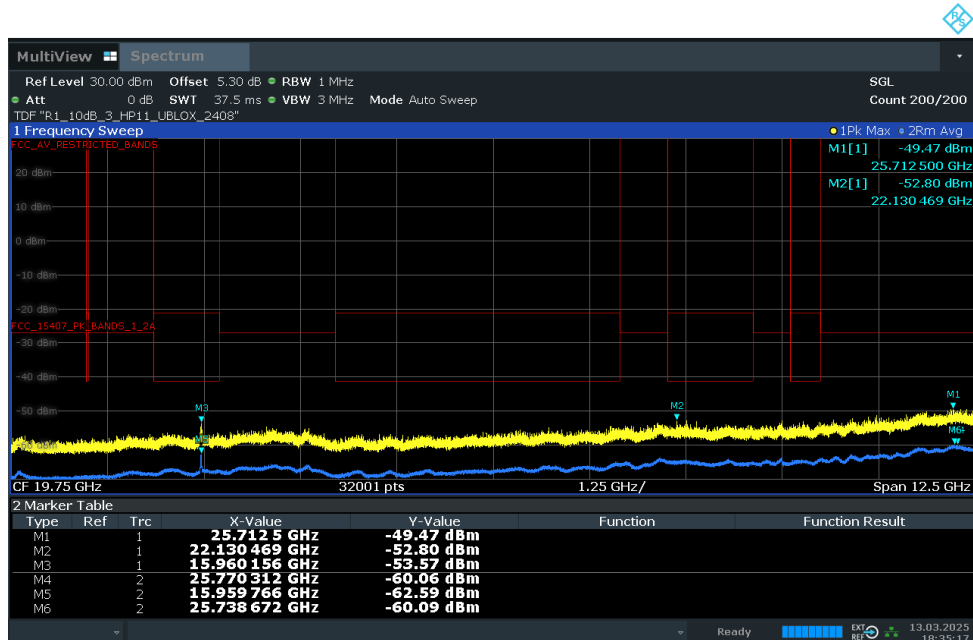


20:51:44 05.09.2025

Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 1GHz - 26GHz, Subband = U-NII-2A (S01_AA01)

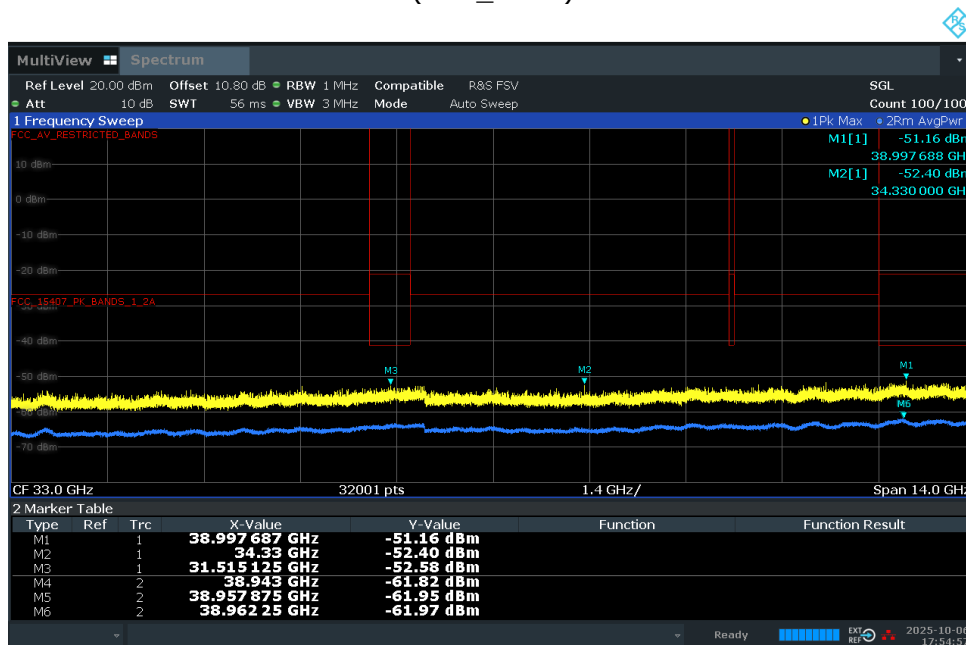


05:45:35 PM 03/13/2025



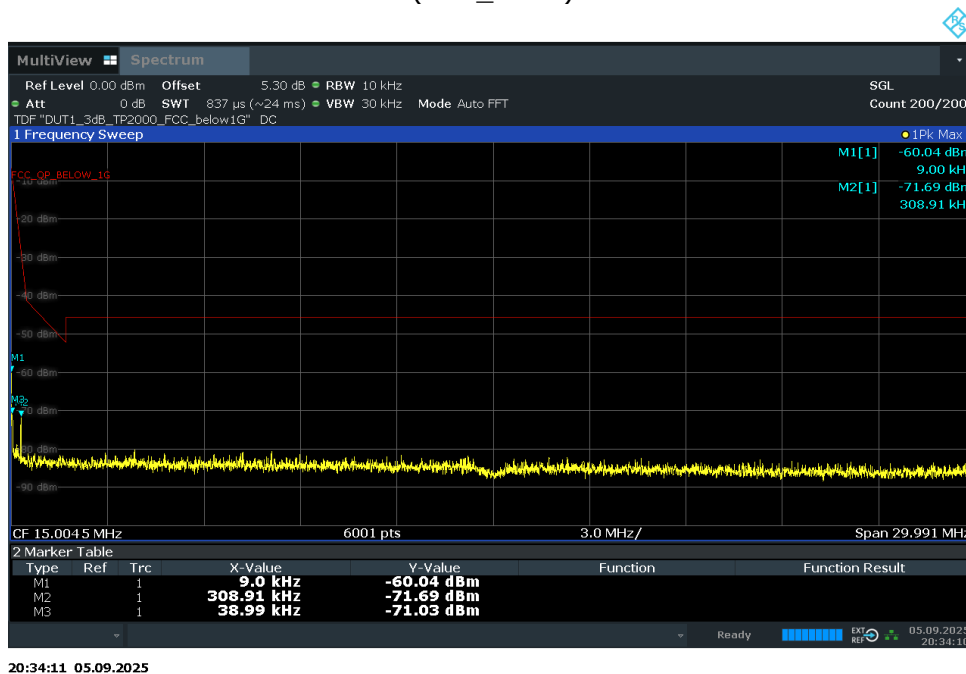
18:35:17 13.03.2025

Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 26GHz - 40GHz, Subband = U-NII-2A (S01_AA01)



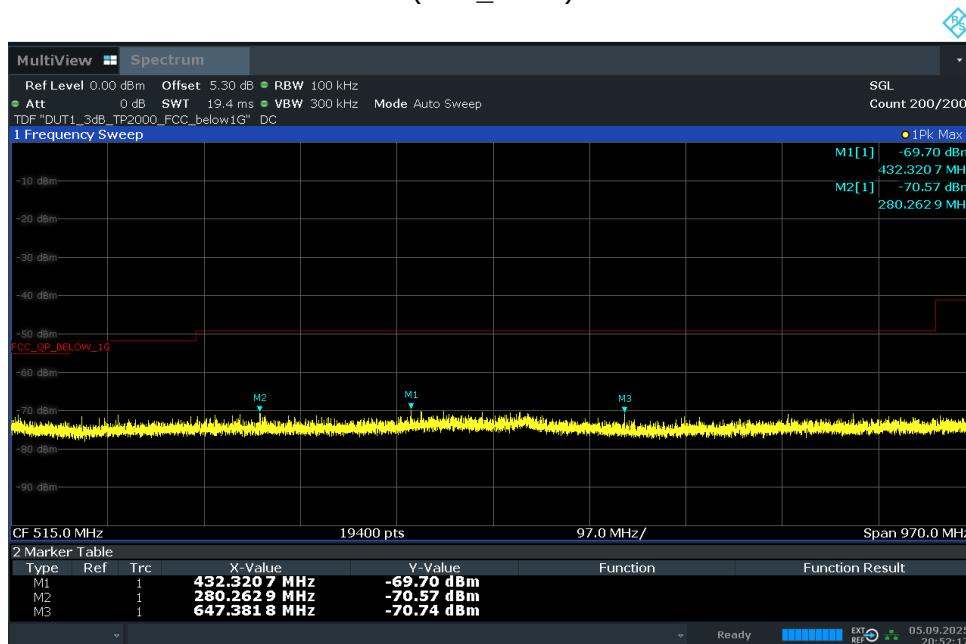
05:54:58 PM 10/06/2025

Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 9kHz - 30MHz, Subband = U-NII-2C (S01_AA01)



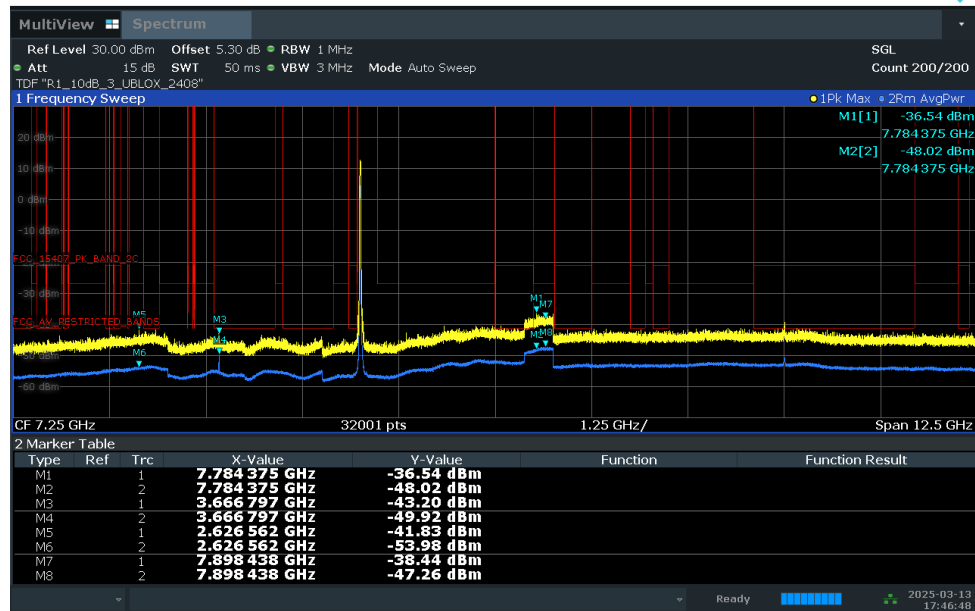
20:34:11 05.09.2025

Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 30MHz - 1GHz, Subband = U-NII-2C (S01_AA01)

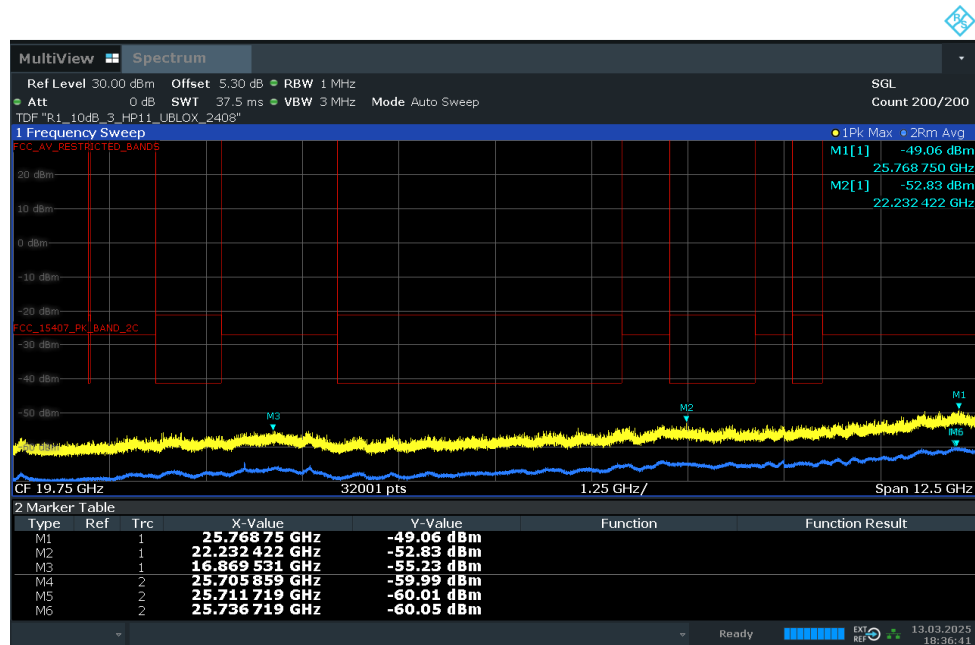


20:52:17 05.09.2025

Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 1GHz - 26GHz, Subband = U-NII-2C (S01_AA01)

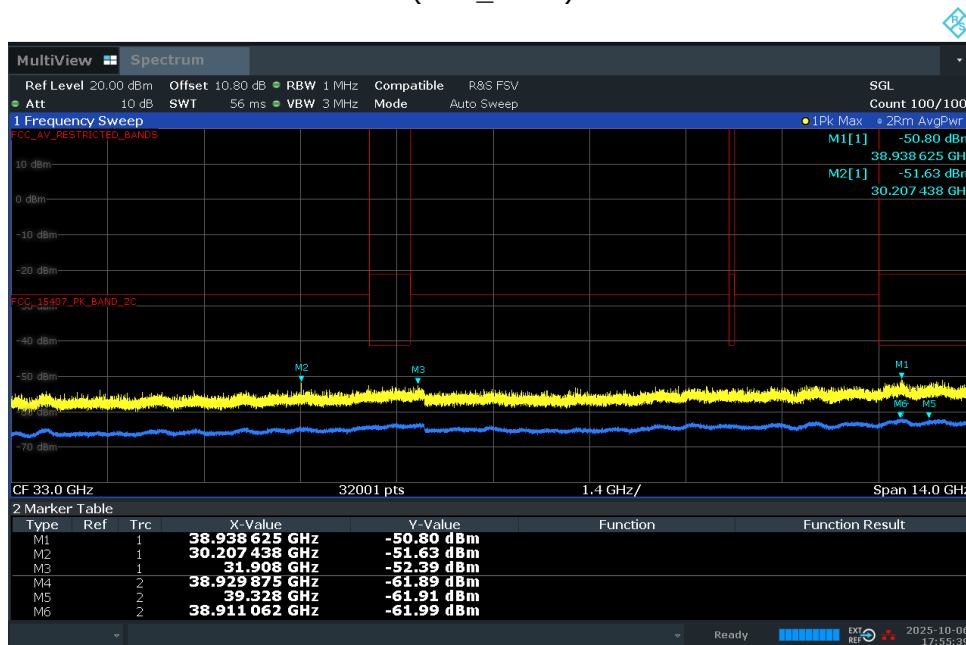


05:46:48 PM 03/13/2025



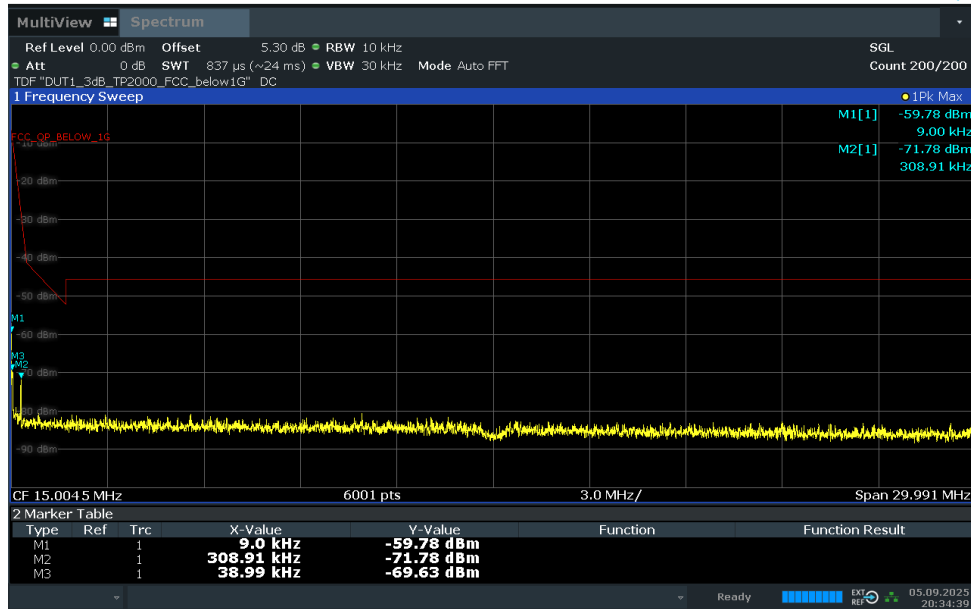
18:36:42 13.03.2025

Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 26GHz - 40GHz, Subband = U-NII-2C (S01_AA01)



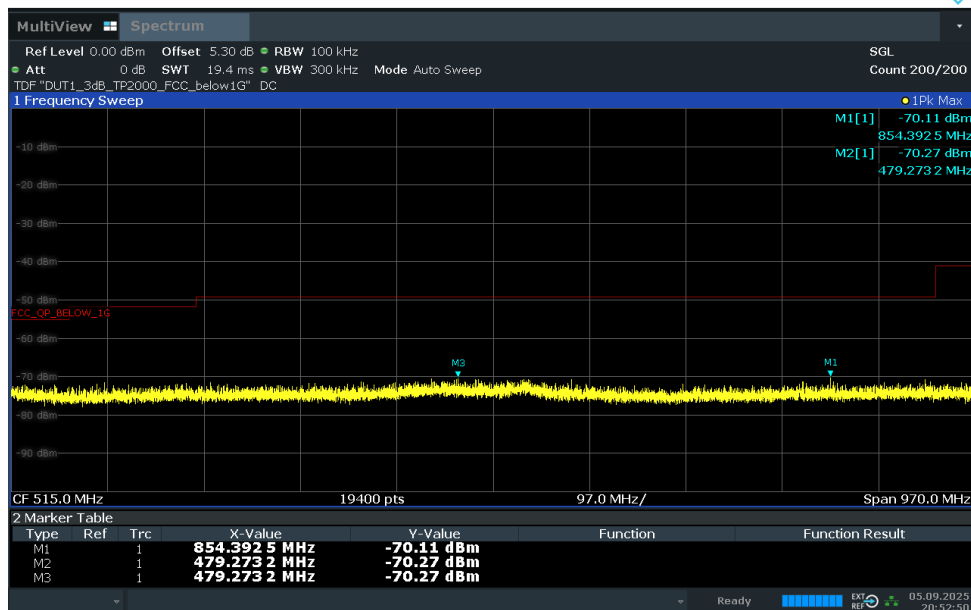
05:55:40 PM 10/06/2025

Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 9kHz - 30MHz, Subband = U-NII-2C (S01_AA01)



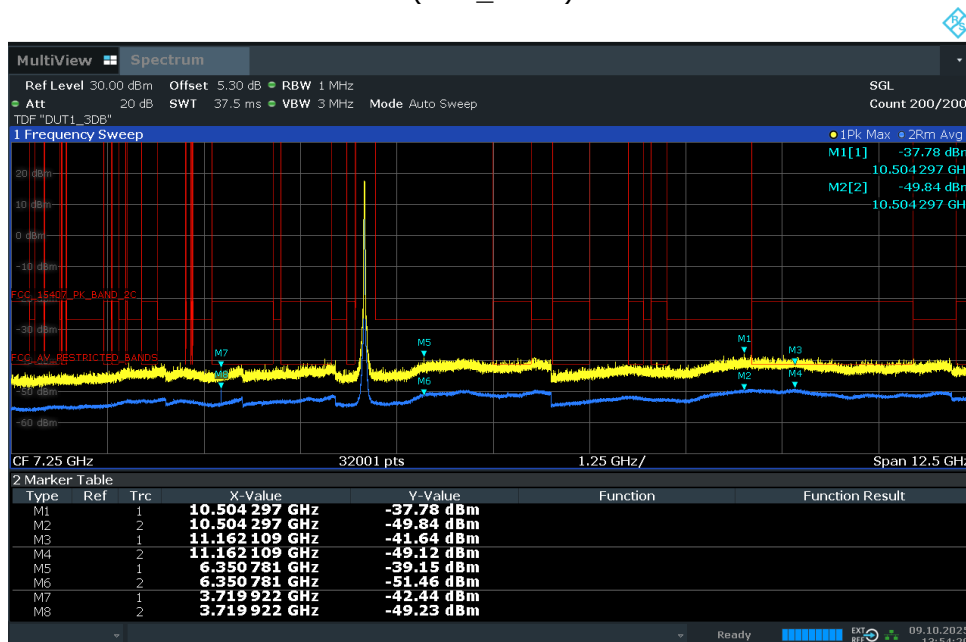
20:34:39 05.09.2025

Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 30MHz - 1GHz, Subband = U-NII-2C (S01_AA01)

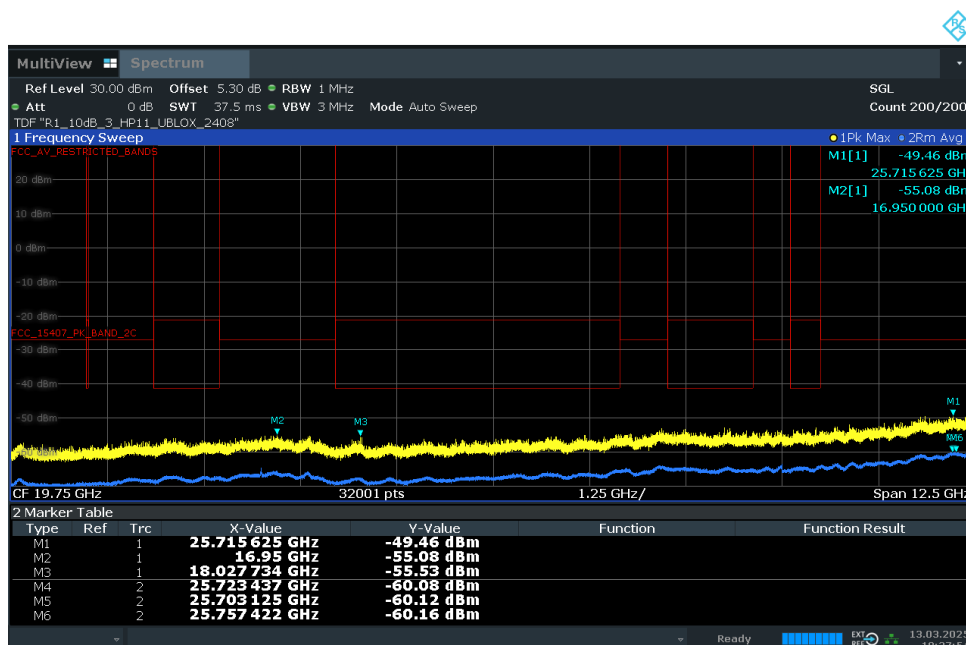


20:52:50 05.09.2025

Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 1GHz - 26GHz, Subband = U-NII-2C (S01_AA01)

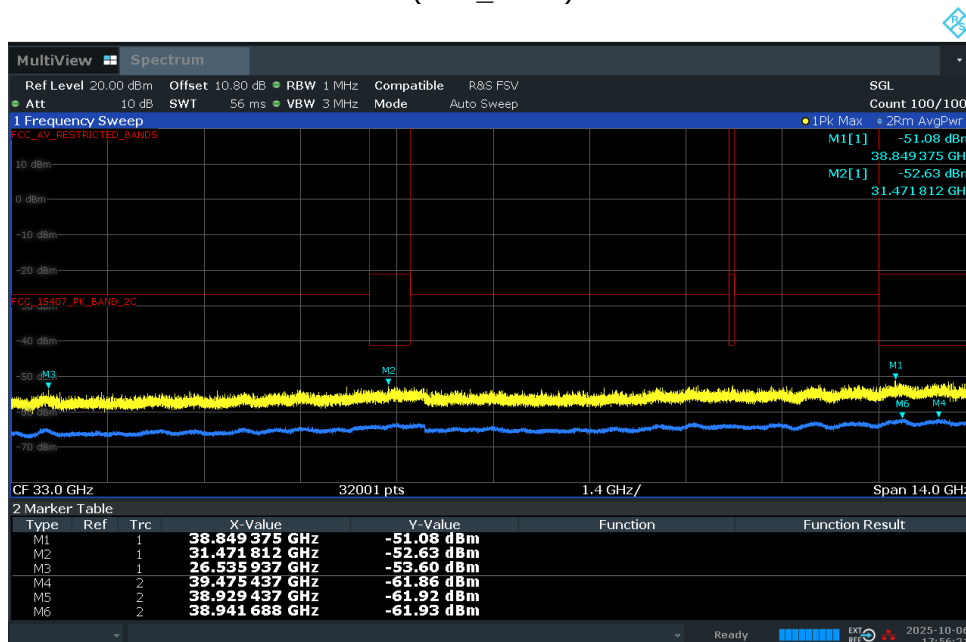


13:54:20 09.10.2025



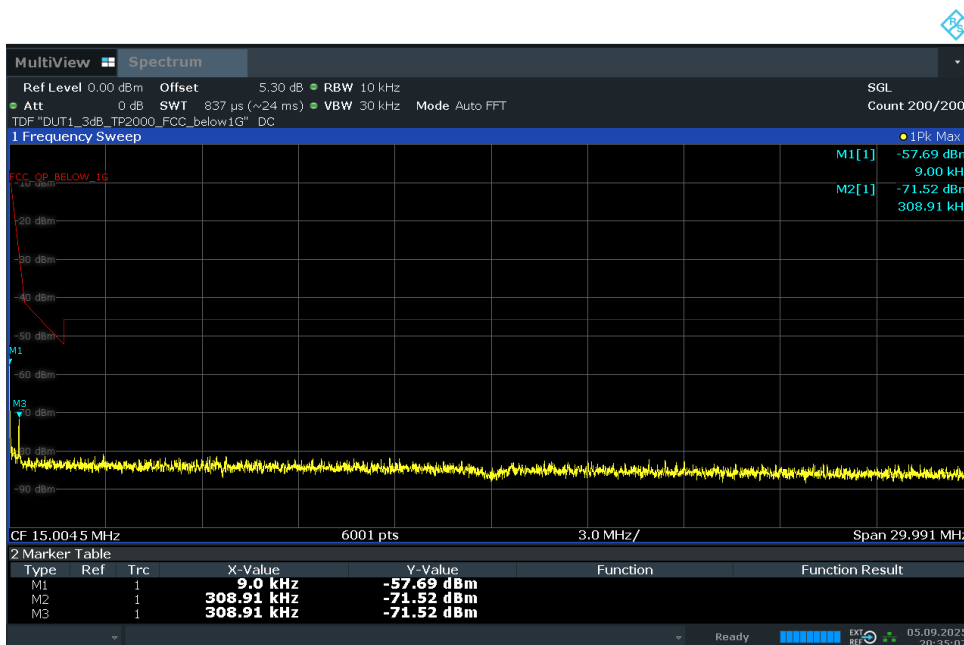
18:37:55 13.03.2025

Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 26GHz - 40GHz, Subband = U-NII-2C (S01_AA01)



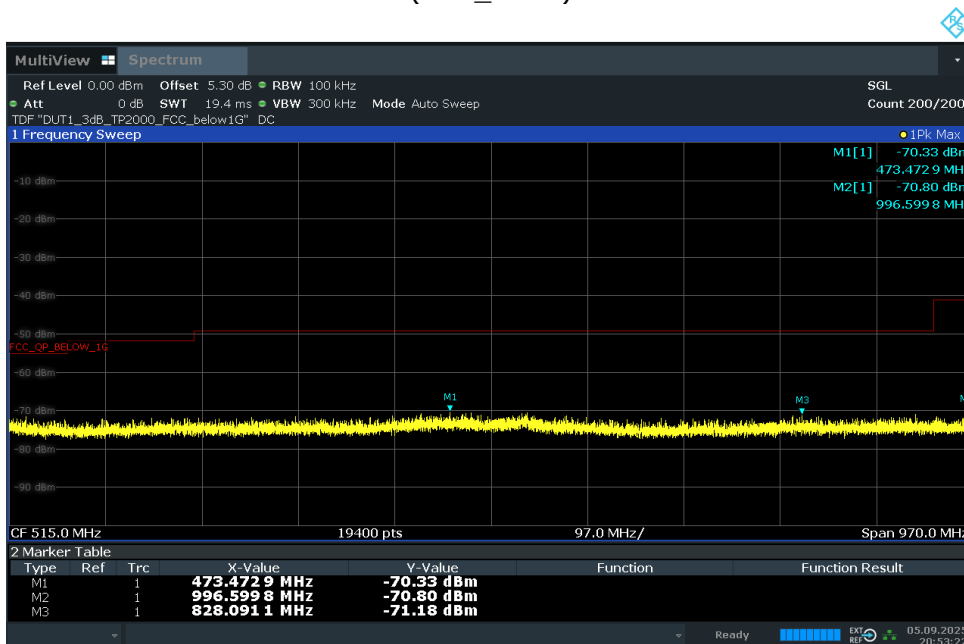
05:56:22 PM 10/06/2025

Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 9kHz - 30MHz, Subband = U-NII-2C (S01_AA01)



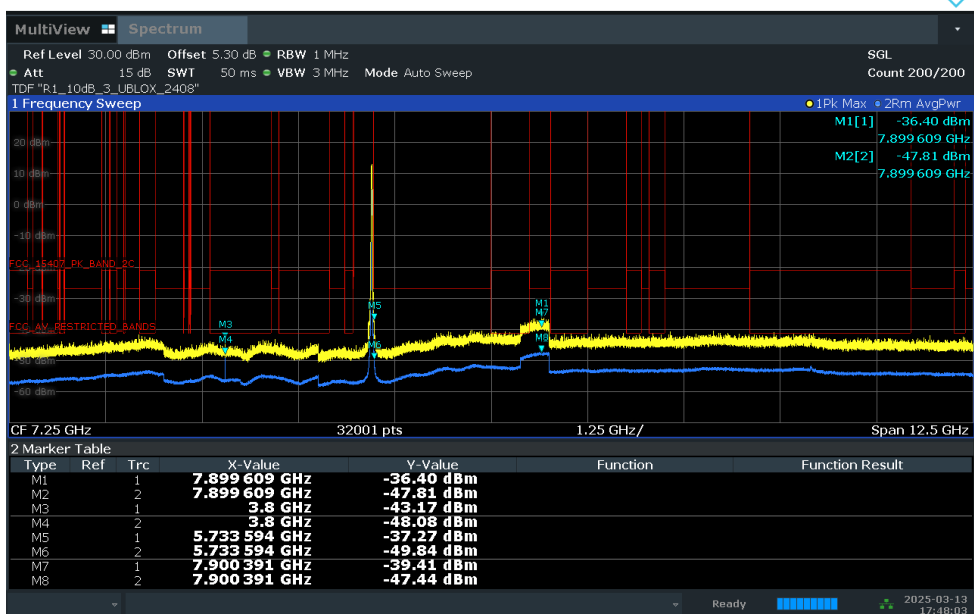
20:35:07 05.09.2025

Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 30MHz - 1GHz, Subband = U-NII-2C (S01_AA01)

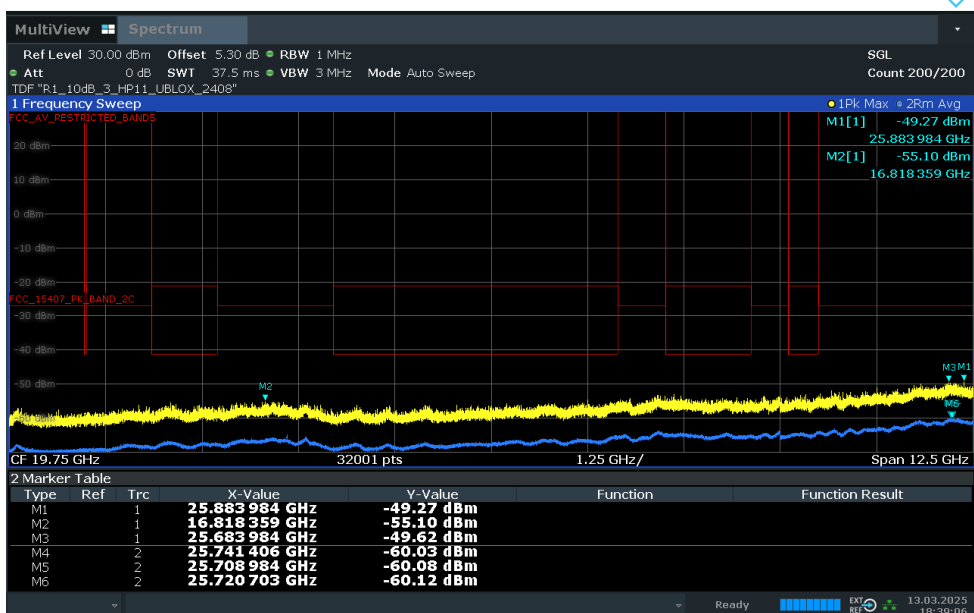


20:53:23 05.09.2025

Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 1GHz - 26GHz, Subband = U-NII-2C (S01_AA01)

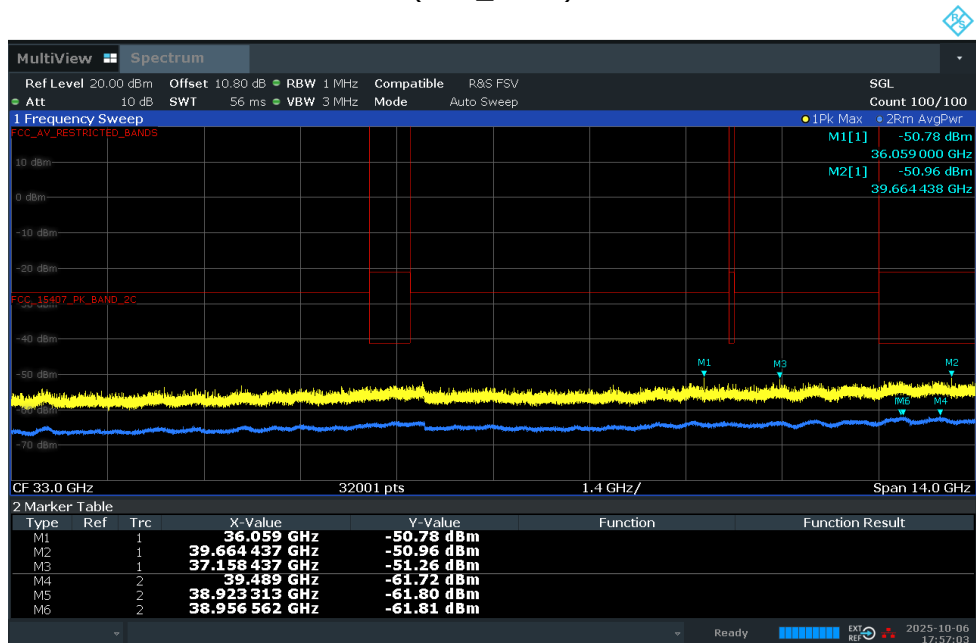


05:48:04 PM 03/13/2025



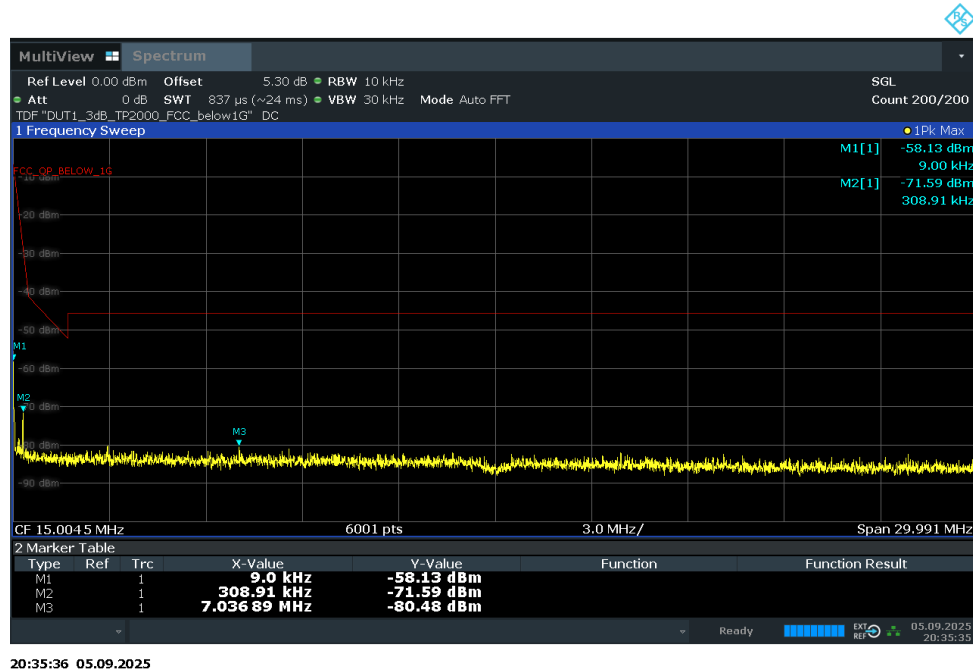
18:39:07 13.03.2025

Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 26GHz - 40GHz, Subband = U-NII-2C (S01_AA01)



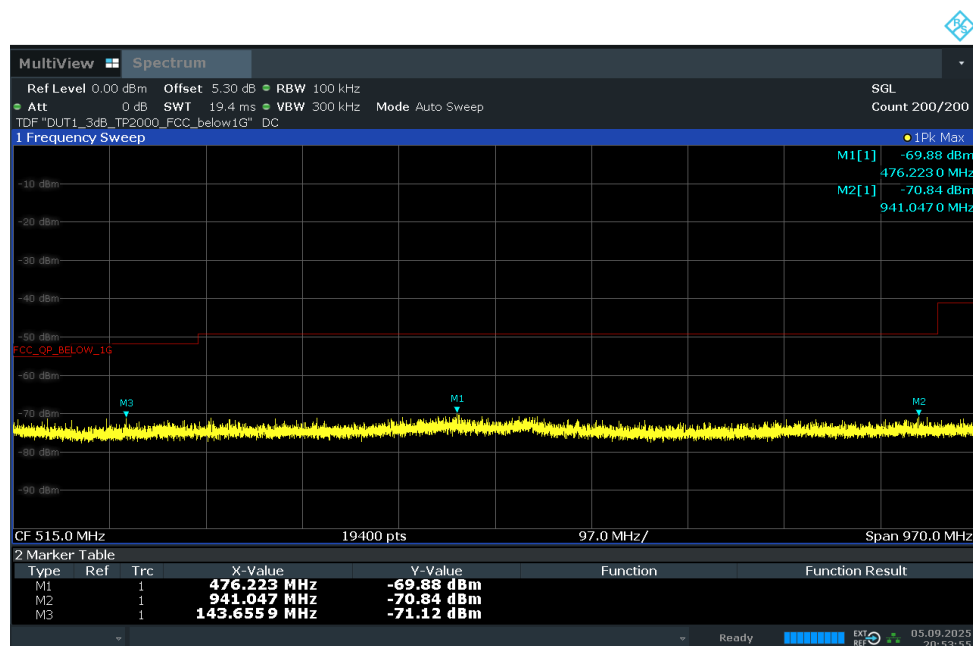
05:57:04 PM 10/06/2025

Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 9kHz - 30MHz, Subband = U-NII-3 (S01_AA01)



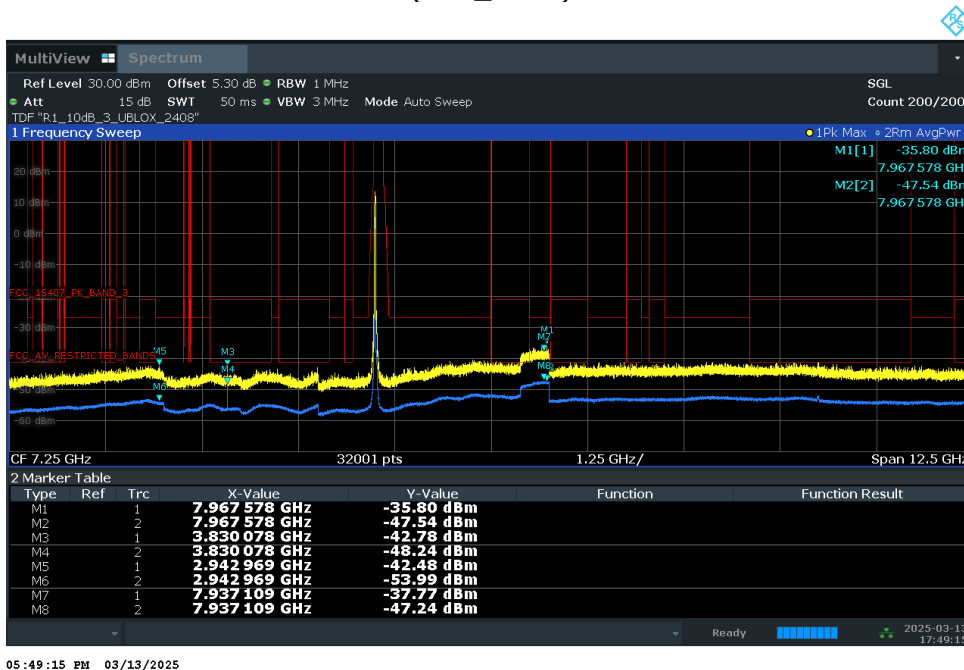
20:35:36 05.09.2025

Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 30MHz - 1GHz, Subband = U-NII-3 (S01_AA01)

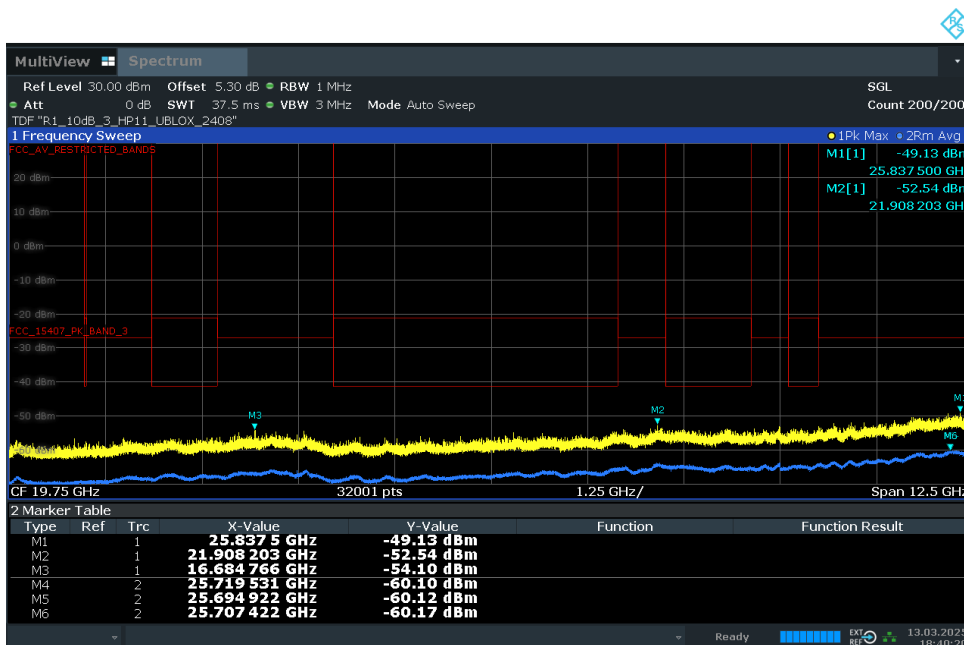


20:53:56 05.09.2025

Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 1GHz - 26GHz, Subband = U-NII-3 (S01_AA01)

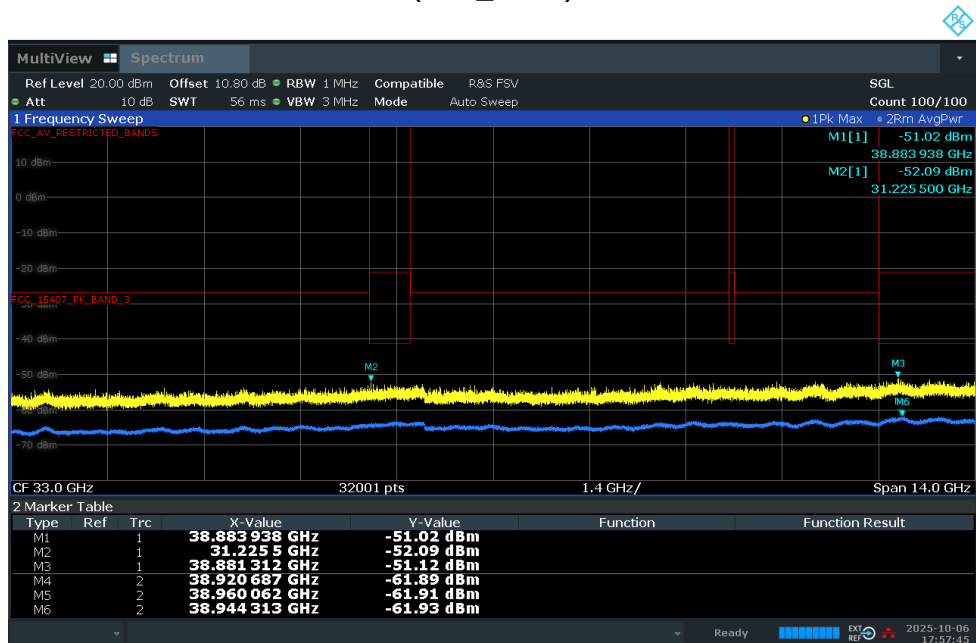


05:49:15 PM 03/13/2025



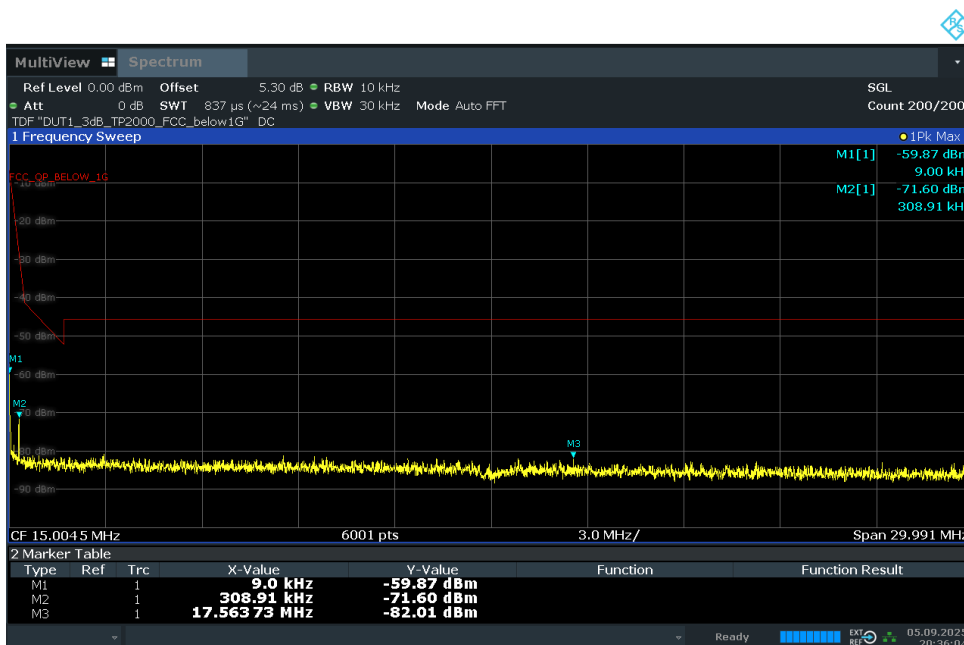
18:40:20 13.03.2025

Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 26GHz - 40GHz, Subband = U-NII-3 (S01_AA01)



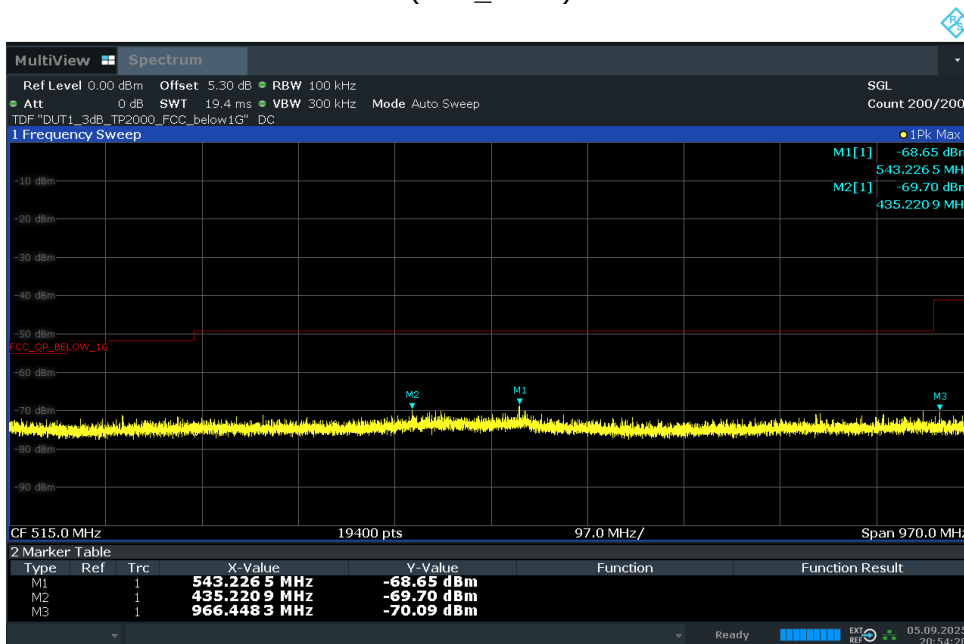
05:57:46 PM 10/06/2025

Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 9kHz - 30MHz, Subband = U-NII-3 (S01_AA01)



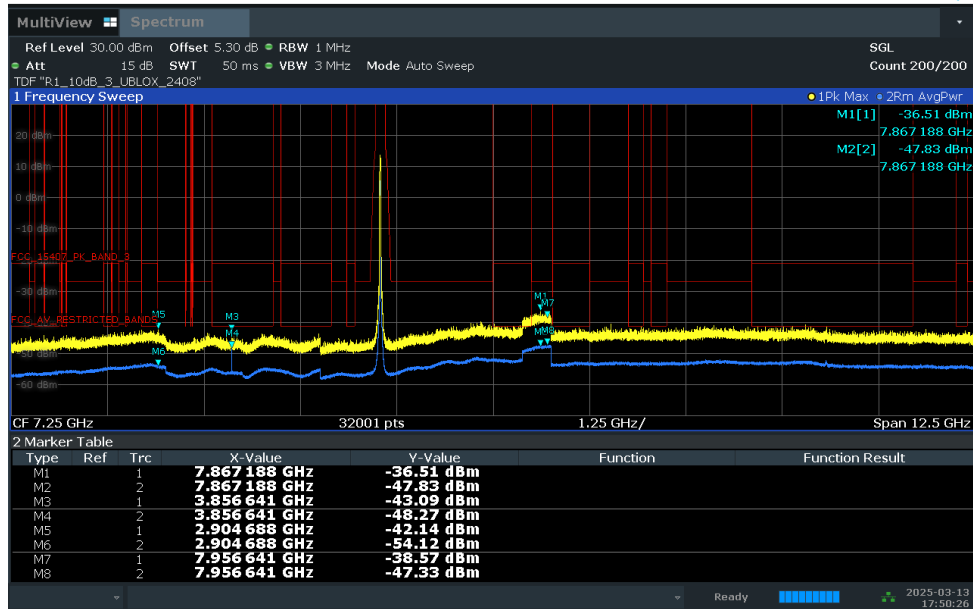
20:36:04 05.09.2025

Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 30MHz - 1GHz, Subband = U-NII-3 (S01_AA01)

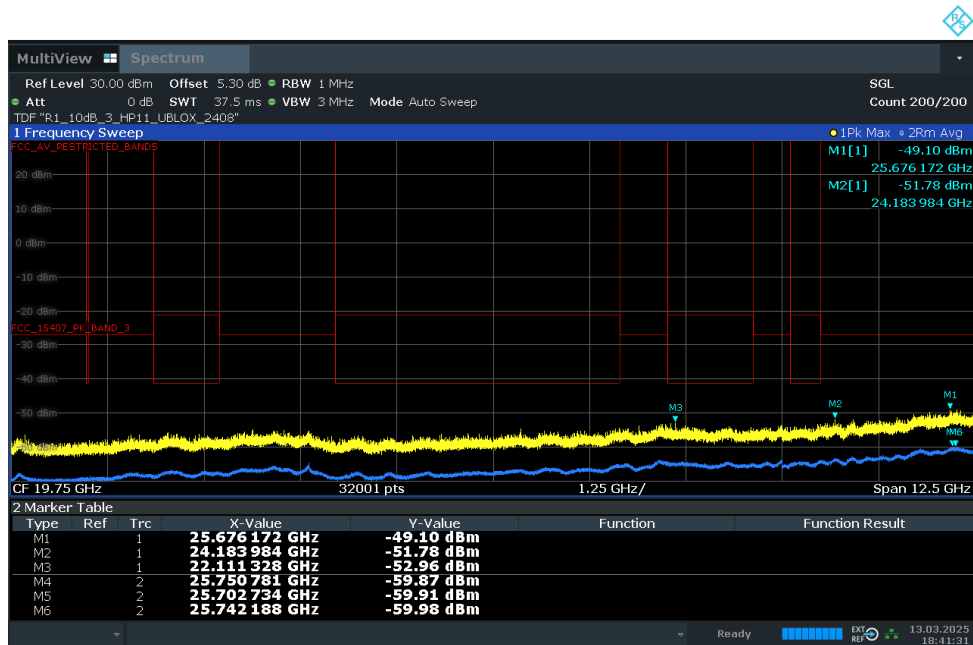


20:54:28 05.09.2025

Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 1GHz - 26GHz, Subband = U-NII-3 (S01_AA01)

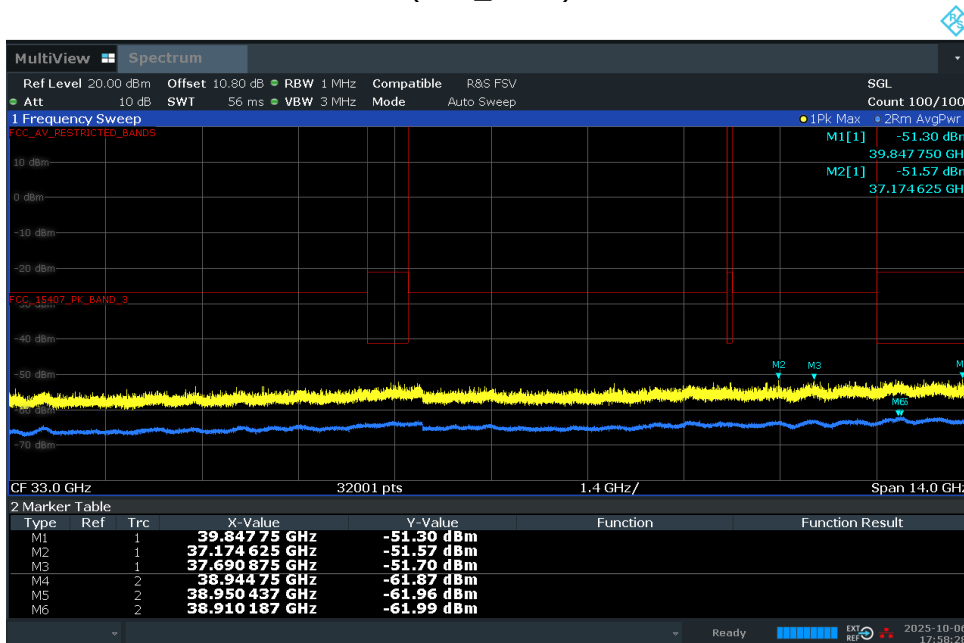


05:50:27 PM 03/13/2025



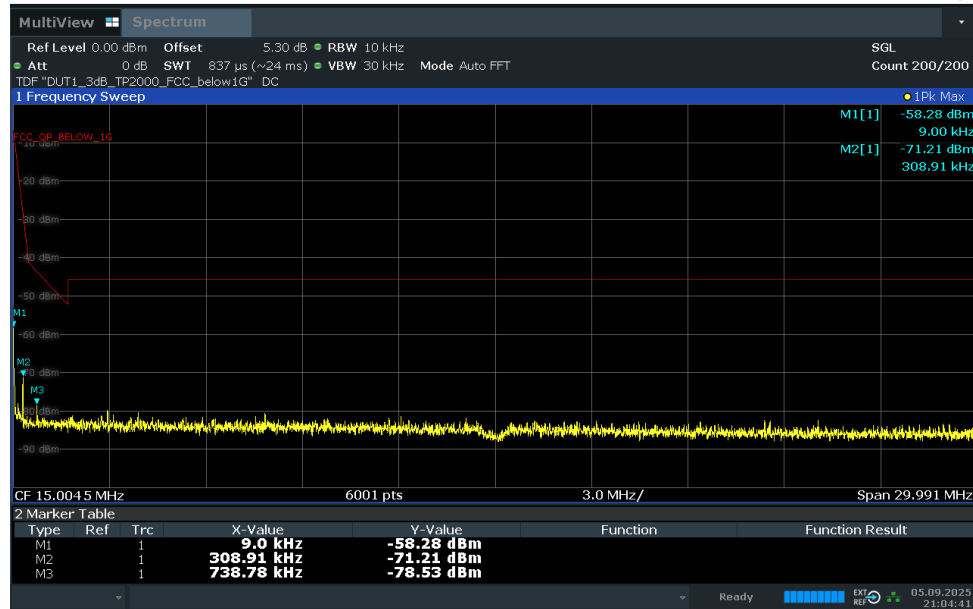
18:41:32 13.03.2025

Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 26GHz - 40GHz, Subband = U-NII-3 (S01_AA01)



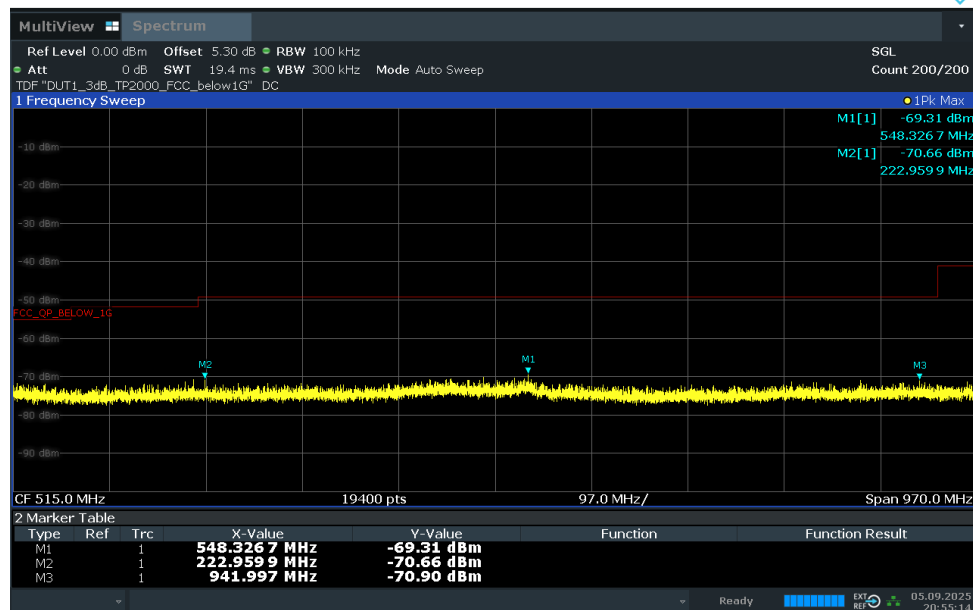
05:58:29 PM 10/06/2025

Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 9kHz - 30MHz, Subband = U-NII-3 (S01_AA01)



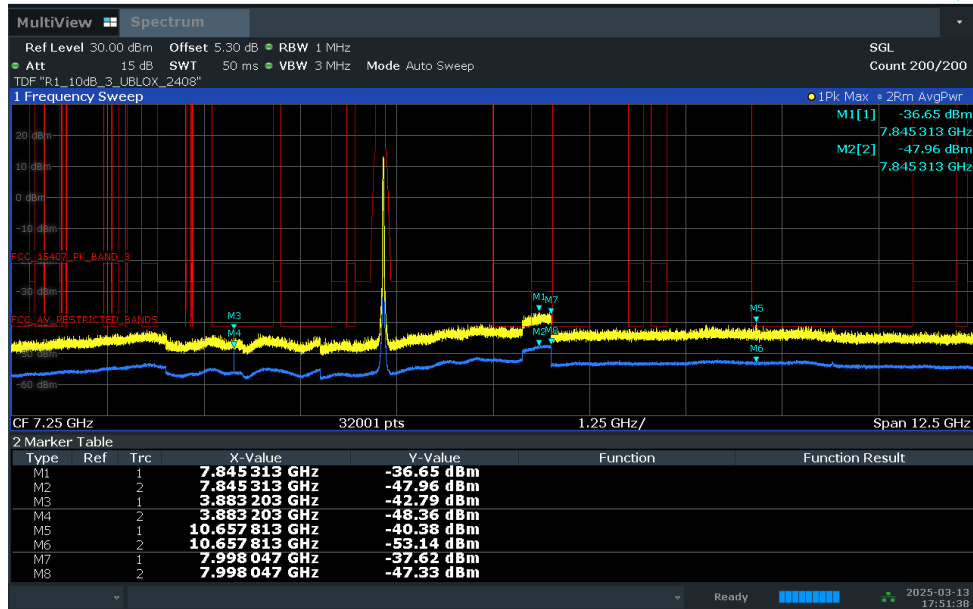
21:04:42 05.09.2025

Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 30MHz - 1GHz, Subband = U-NII-3 (S01_AA01)

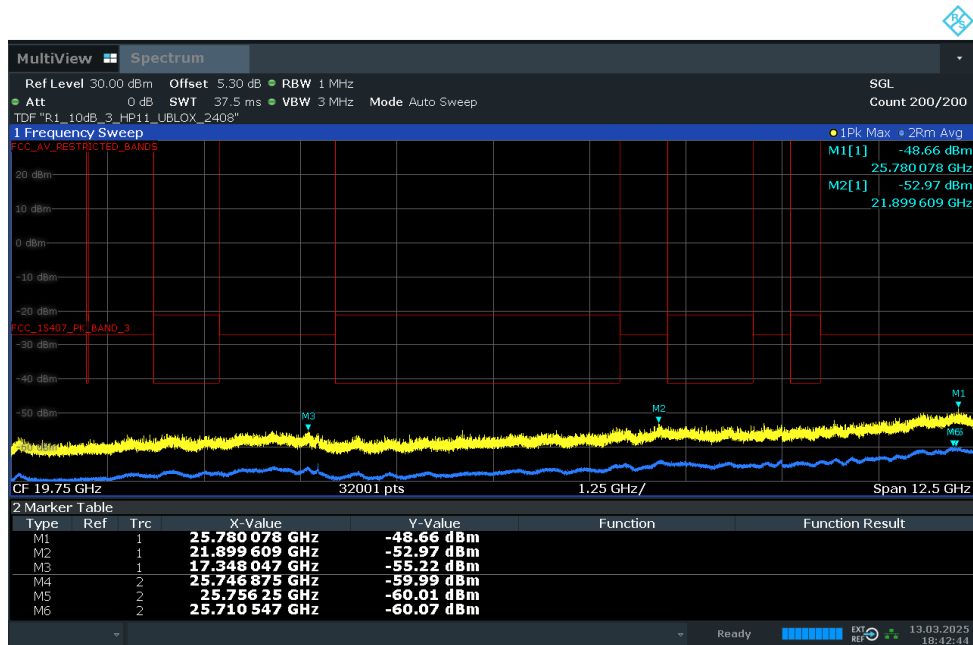


20:55:14 05.09.2025

Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 1GHz - 26GHz, Subband = U-NII-3 (S01_AA01)

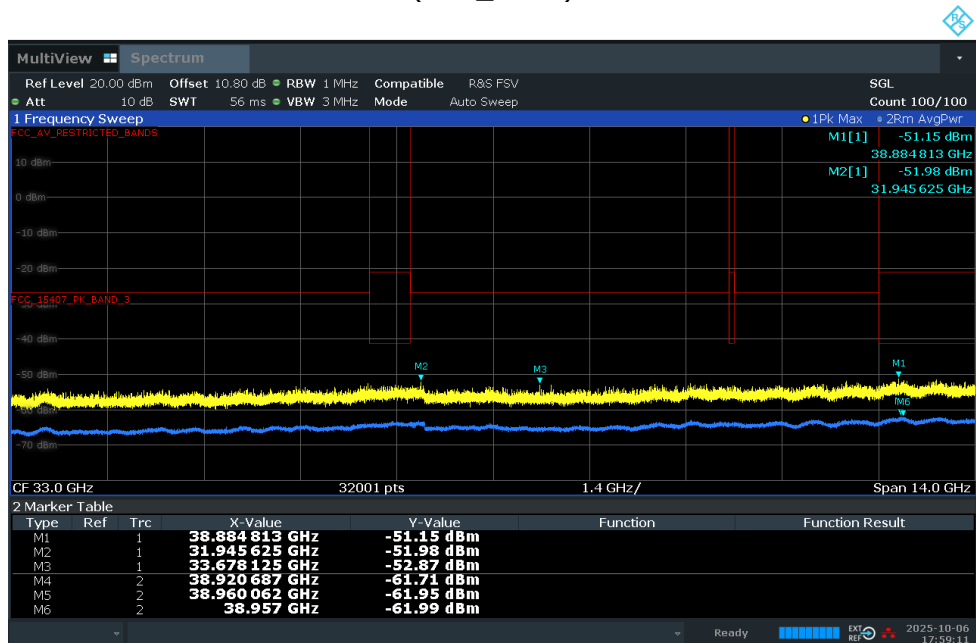


05:51:38 PM 03/13/2025



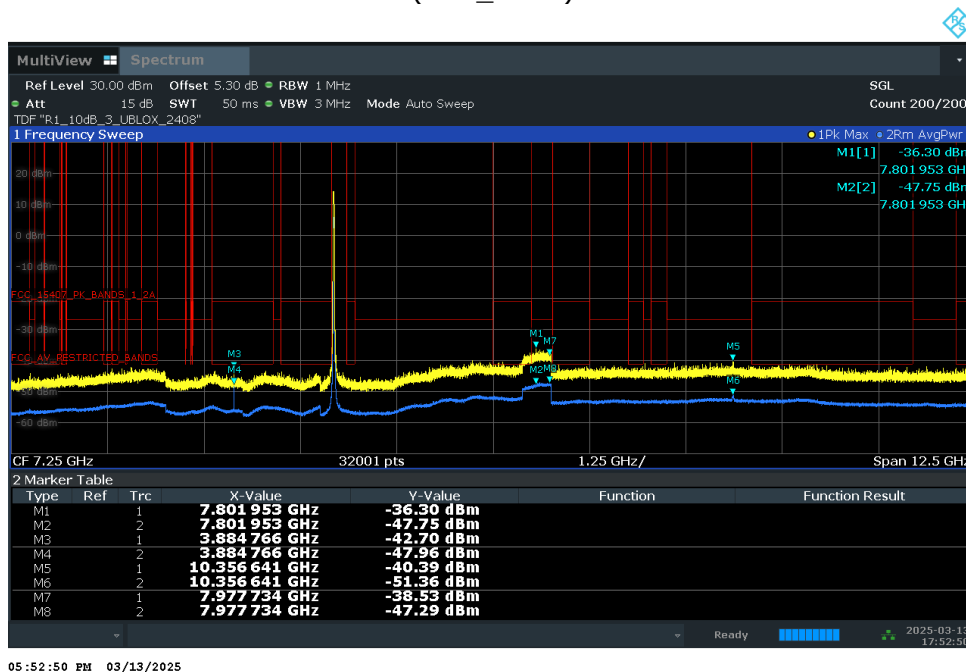
18:42:45 13.03.2025

Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 26GHz - 40GHz, Subband = U-NII-3 (S01_AA01)

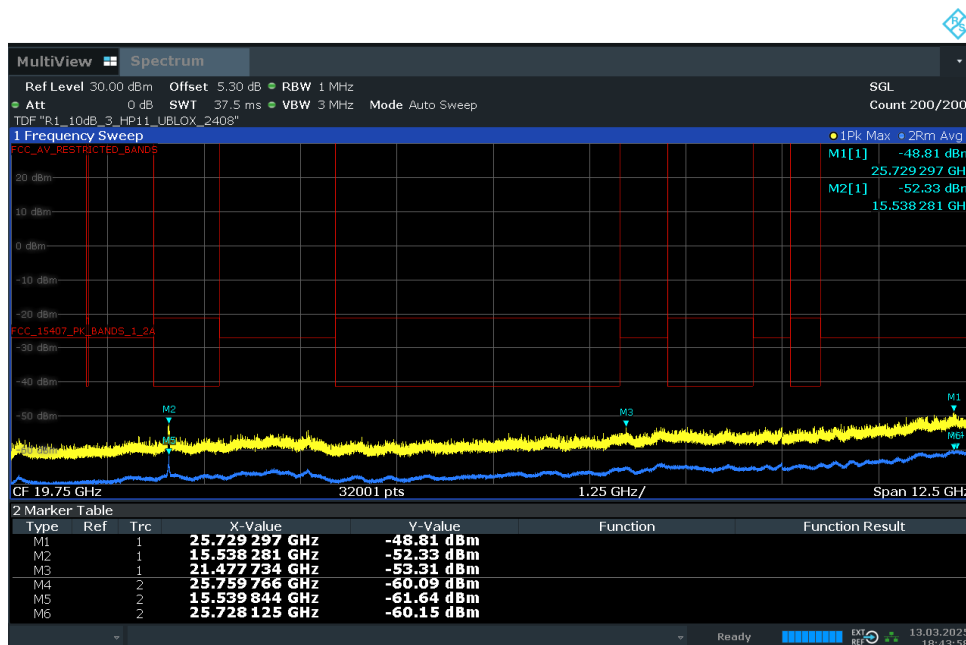


05:59:11 PM 10/06/2025

Radio Technology = WLAN n 20 MHz, Operating Frequency = low, Measurement range = 1GHz
- 26GHz, Subband = U-NII-1
(S01_AA01)

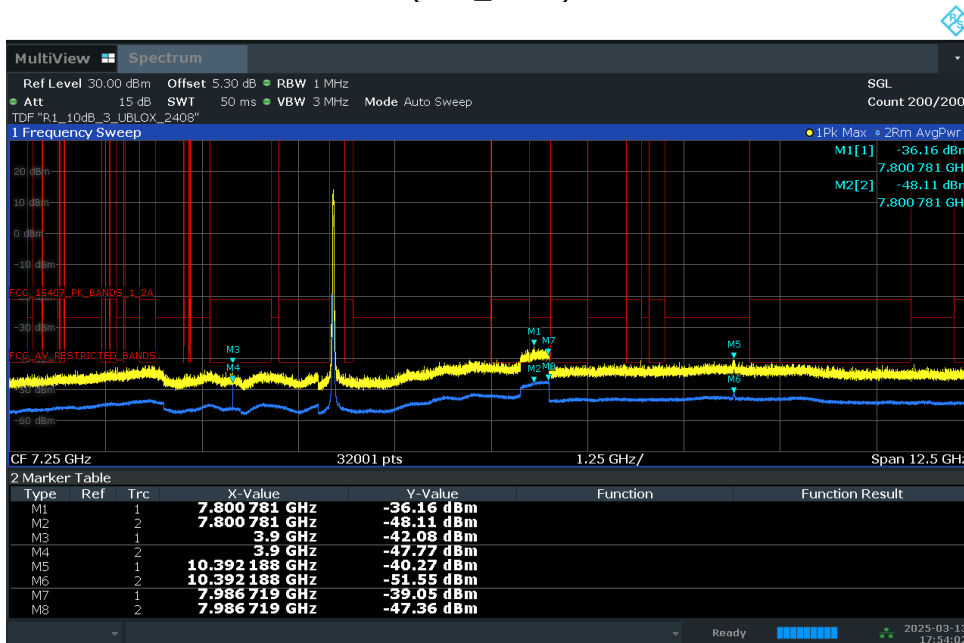


05:52:50 PM 03/13/2025

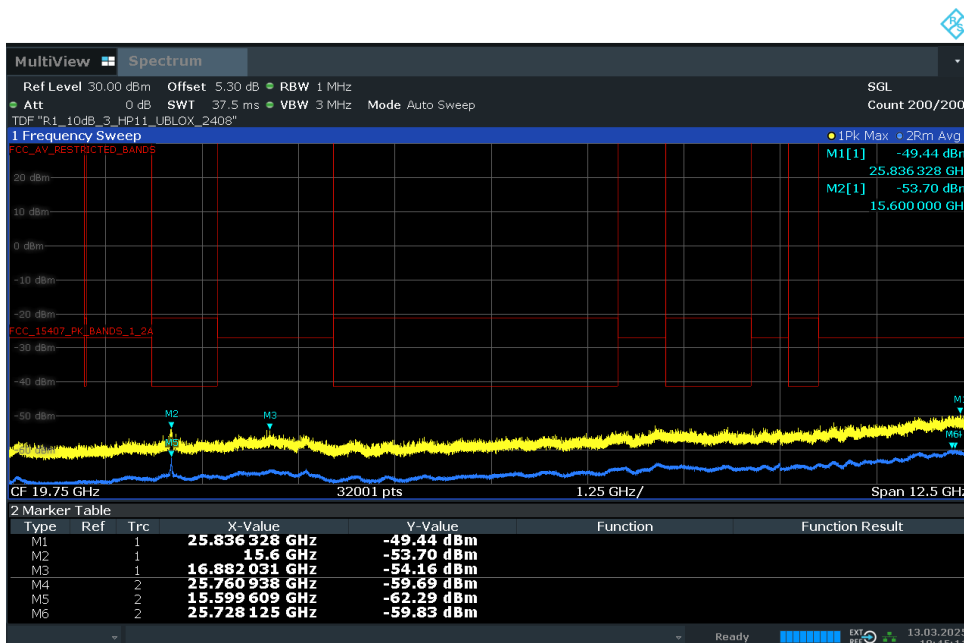


18:43:59 13.03.2025

Radio Technology = WLAN n 20 MHz, Operating Frequency = mid, Measurement range = 1GHz
- 26GHz, Subband = U-NII-1
(S01_AA01)

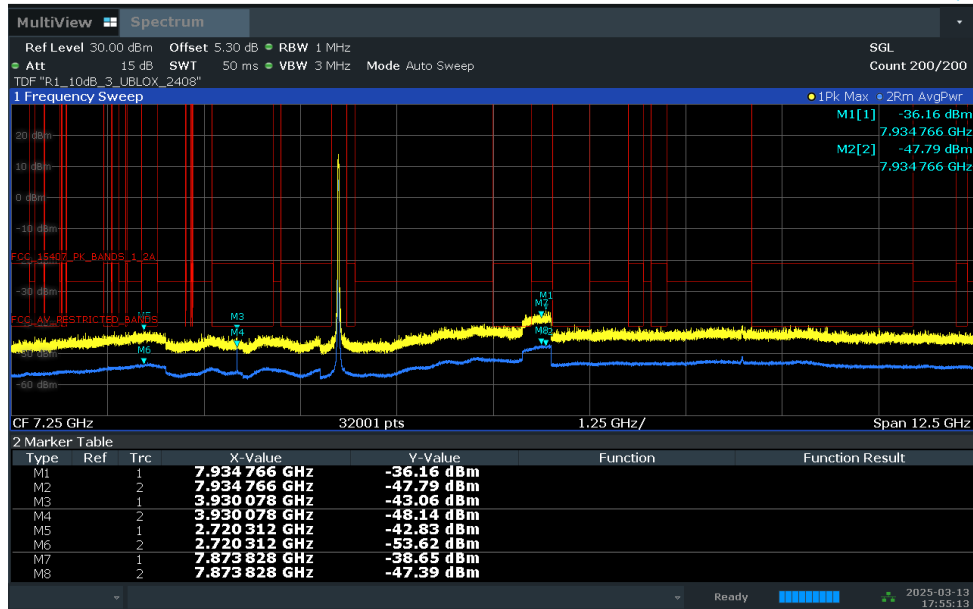


05:54:02 PM 03/13/2025

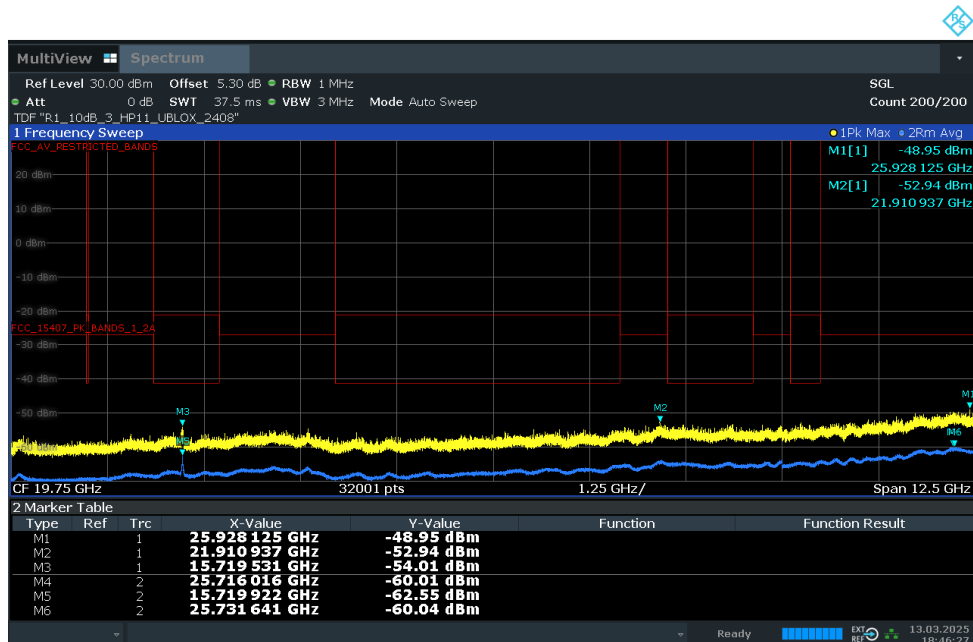


18:45:11 13.03.2025

Radio Technology = WLAN n 20 MHz, Operating Frequency = high, Measurement range =
1GHz - 26GHz, Subband = U-NII-1
(S01_AA01)



05:55:14 PM 03/13/2025



18:46:28 13.03.2025