FCC Measurement/Technical In-Situ Report on

SCALANCE W700 / MSAX

MSAX65-W1-M12-E2 with RCoax cable 6XV1875-2D

FCC ID: LHYMSAX65V1
IC: 267AA-MSAX65V1

Test Report Reference: MDE_SIEM_2405_FCC_01_REV_01

Test Laboratory:
7layers GmbH
Borsigstrasse 11
40880 Ratingen
Germany

Deutsche Akkreditierungsstelle D-PL-12140-01-00

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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 (10-1-23 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

§ 15.31(d)

§ 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".
- FCC KDB 347215, "Measurement of Leaky Coax Video Distribution System", 2007-09-14

ANSI C63.10-2020 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 3: 6.2.1.1, 6.2.2.1, 6.2.3.1 (99%) RSS-247 Issue 3: 6.2.4.2 (6 dB) RSS-248 Issue 2: 4.4
Maximum conducted output power	§ 15.407 (a) (1) to (8), (11)	RSS-247 Issue 3: 6.2.1.1, 6.2.2.1, 6.2.3.1, 6.2.4.2 RSS-248 Issue 2: 4.5
Maximum power spectral density	§ 15.407 (a) (1) to (8), (12)	RSS-247 Issue 3: 6.2.1.1, 6.2.2.1, 6.2.3.1, 6.2.4.1 RSS-248 Issue 2: 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 3: 3.3/6.2 6.2.1.2, 6.2.2.2, 6.2.3.2, 6.2.4.2 RSS-248 Issue 2: 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 3: 6.2.2.1, 6.2.3.1, 6.3
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 2: 4.7
Receiver spurious emissions	–	-

1.3 MEASUREMENT SUMMARY

Location: Eupen

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

Maximum Radiated Output Power (E.I.R.P.)
The measurement was performed according to ANSI C63.10, chapter 6.11.3, analyser settings chapter 12.4.2 (SA-2) **Final Result**

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN a, high, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN a, high, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN a, low, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN a, low, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN a, mid, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN a, mid, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN ac 20 MHz, high, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN ac 20 MHz, high, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN ac 20 MHz, low, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN ac 20 MHz, low, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN ac 40 MHz, high, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN ac 40 MHz, high, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN ac 40 MHz, low, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN ac 40 MHz, low, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN n 20 MHz, high, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN n 20 MHz, high, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN n 20 MHz, low, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN n 20 MHz, low, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN n 20 MHz, mid, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN n 20 MHz, mid, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN n 40 MHz, high, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN n 40 MHz, high, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN n 40 MHz, low, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN n 40 MHz, low, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN ax 20 MHz, high, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN ax 20 MHz, high, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN ax 20 MHz, low, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN ax 20 MHz, low, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN ax 40 MHz, high, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN ax 40 MHz, high, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN ax 40 MHz, low, U-NII-1	S01_AO04	2024-10-28	Passed	Passed

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

Maximum Radiated Output Power (E.I.R.P.)
The measurement was performed according to ANSI C63.10, chapter 6.11.3, analyser settings chapter 12.4.2 (SA-2) **Final Result**

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN ax 40 MHz, low, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-1	S01_AO04	2024-10-28	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-3	S01_AO04	2024-10-29	Passed	Passed

47 CFR CHAPTER I FCC PART 15 Subpart E §15.407 **FCC §15.31, §15.407 (a) (1),(5)**

Peak Power Spectral Density E.I.R.P.)
The measurement was performed according to ANSI C63.10, chapter 6.11.3, analyser setting chapter 12.5 (SA-2) **Final Result**

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN a, high, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN a, low, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN a, mid, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN ac 20 MHz, high, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN ac 20 MHz, low, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN ac 20 MHz, mid, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN ac 20 MHz, mid, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN ac 40 MHz, high, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN ac 40 MHz, low, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN ac 40 MHz, low, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN ac 80 MHz, mid, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN n 20 MHz, high, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN n 20 MHz, low, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN n 20 MHz, mid, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN n 40 MHz, high, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN n 40 MHz, low, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN ax 20 MHz, high, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN ax 20 MHz, low, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN ax 20 MHz, mid, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN ax 40 MHz, high, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN ax 40 MHz, low, U-NII-1	S01_AO04	2024-10-28	-	Passed
WLAN ax 80 MHz, mid, U-NII-1	S01_AO04	2024-10-28	-	Passed

For the U-NII-3 band exists no E.I.R.P. limit for the power spectral density.

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Undesirable Emissions; General Field Strength Limits

The measurement was performed according to ANSI C63.10, chapter 6.11.2, 6.11.3

Final Result

OP-Mode Radio Technology, Operating Frequency, Measurement range, Subband	Setup	Date	FCC	IC
WLAN a, mid, 9kHz - 30MHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN a, mid, 9kHz - 30MHz, U-NII-3	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN ax 20, mid, 9kHz - 30MHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN ax 20, mid, 9kHz - 30MHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN a, mid, 30MHz - 1GHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN a, mid, 30MHz - 1GHz, U-NII-3	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN ax 20, mid, 30MHz - 1GHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN ax 20, mid, 30MHz - 1GHz, U-NII-3	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN a, low, 1GHz - 18GHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN a, mid, 1GHz - 18GHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN a, high, 1GHz - 18GHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN a, low, 1GHz - 18GHz, U-NII-3	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN a, mid, 1GHz - 18GHz, U-NII-3	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN a, high, 1GHz - 18GHz, U-NII-3	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN n 20, low, 1GHz - 18GHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN n 20, mid, 1GHz - 18GHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN n 20, high, 1GHz - 18GHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN n 20, low, 1GHz - 18GHz, U-NII-3	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN n 20, mid, 1GHz - 18GHz, U-NII-3	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN n 20, high, 1GHz - 18GHz, U-NII-3	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN n 40, low, 1GHz - 18GHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN ac 20, low, 1GHz – 18GHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN ac 40, low, 1GHz - 18GHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN ac 80, mid, 1GHz - 18GHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN ax 20, low, 1GHz - 18GHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN ax 20, mid, 1GHz - 18GHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN ax 20, high, 1GHz - 18GHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN ax 20, low, 1GHz - 18GHz, U-NII-3	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN ax 20, mid, 1GHz - 18GHz, U-NII-3	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN ax 20, high, 1GHz - 18GHz, U-NII-3	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN ax 40, low, 1GHz – 18GHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN ax 80, low, 1GHz - 18GHz, U-NII-1	S01_AO04	2024-10-29	Passed*)	Passed*)
WLAN a, mid, 18GHz – 26.5GHz, U-NII-1	S01_AO04	2024-10-29	Passed	Passed
WLAN a, mid, 18GHz – 26.5GHz, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN ax 20, mid, 18GHz – 26.5GHz, U-NII-1	S01_AO04	2024-10-29	Passed	Passed
WLAN ax 20, mid, 18GHz – 26.5GHz, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN a, mid, 26.5GHz – 40GHz, U-NII-1	S01_AO04	2024-10-29	Passed	Passed
WLAN a, mid, 26.5GHz – 40GHz, U-NII-3	S01_AO04	2024-10-29	Passed	Passed
WLAN ax 20, mid, 26.5GHz – 40GHz, U-NII-1	S01_AO04	2024-10-29	Passed	Passed
WLAN ax 20, mid, 26.5GHz – 40GHz, U-NII-3	S01_AO04	2024-10-29	Passed	Passed

*) no higher emissions detected than in ambient noise plots

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Band Edge

The measurement was performed according to ANSI C63.10, chapter 6.11. The measurement was performed according to ANSI C63.10, chapter 6.11.3

Final Result

OP-Mode Radio Technology, Operating Frequency, Subband	**Setup**	**Date**	**FCC**	**IC**
WLAN a, low, U-NII-1		2024-10-28	Passed	Passed
WLAN a, low, U-NII-3		2024-10-29	Passed	Passed
WLAN a, high, U-NII-3		2024-10-29	Passed	Passed
WLAN ac 20 MHz, low, U-NII-1		2024-10-28	Passed	Passed
WLAN ac 20 MHz, low, U-NII-3		2024-10-29	Passed	Passed
WLAN ac 20 MHz, high, U-NII-3		2024-10-29	Passed	Passed
WLAN ac 40 MHz, high, U-NII-3		2024-10-29	Passed	Passed
WLAN ac 40 MHz, low, U-NII-1		2024-10-29	Passed	Passed
WLAN ac 40 MHz, low, U-NII-3		2024-10-29	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-1		2024-10-29	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-3		2024-10-29	Passed	Passed
WLAN ax 20 MHz, low, U-NII-1		2024-10-28	Passed	Passed
WLAN ax 20 MHz, high, U-NII-3		2024-10-29	Passed	Passed
WLAN ax 20 MHz, low, U-NII-3		2024-10-29	Passed	Passed
WLAN ax 40 MHz, high, U-NII-3		2024-10-29	Passed	Passed
WLAN ax 40 MHz, low, U-NII-1		2024-10-29	Passed	Passed
WLAN ax 40 MHz, low, U-NII-3		2024-10-29	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-1		2024-10-29	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-3		2024-10-29	Passed	Passed
WLAN n 20 MHz, high, U-NII-3		2024-10-29	Passed	Passed
WLAN n 20 MHz, low, U-NII-1		2024-10-28	Passed	Passed
WLAN n 20 MHz, low, U-NII-3		2024-10-29	Passed	Passed
WLAN n 40 MHz, high, U-NII-3		2024-10-29	Passed	Passed
WLAN n 40 MHz, low, U-NII-1		2024-10-29	Passed	Passed
WLAN n 40 MHz, low, U-NII-3		2024-10-29	Passed	Passed

Location: Erlangen

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Maximum Radiated Output Power (E.I.R.P.)
The measurement was performed according to ANSI C63.10, chapter 6.11.3, analyser settings chapter 12.4.2 (SA-2)

Final Result

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN a, high, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN a, high, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN a, low, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN a, low, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN a, mid, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN a, mid, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 20 MHz, high, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 20 MHz, high, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 20 MHz, low, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 20 MHz, low, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 40 MHz, high, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 40 MHz, high, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 40 MHz, low, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 40 MHz, low, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN n 20 MHz, high, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN n 20 MHz, high, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN n 20 MHz, low, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN n 20 MHz, low, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN n 20 MHz, mid, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN n 20 MHz, mid, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN n 40 MHz, high, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN n 40 MHz, high, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN n 40 MHz, low, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN n 40 MHz, low, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 20 MHz, high, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 20 MHz, high, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 20 MHz, low, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 20 MHz, low, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 40 MHz, high, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 40 MHz, high, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 40 MHz, low, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 40 MHz, low, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-1	S02_AO04	2024-11-11	Passed	Passed

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

Maximum Radiated Output Power (E.I.R.P.)
The measurement was performed according to ANSI C63.10, chapter 6.11.3, analyser settings chapter 12.4.2 (SA-2) **Final Result**

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN ax 80 MHz, mid, U-NII-3	S02_AO04	2024-11-11	Passed	Passed

47 CFR CHAPTER I FCC PART 15 Subpart E §15.407 **FCC §15.31, §15.407 (a) (1),(5)**

Peak Power Spectral Density E.I.R.P.)
The measurement was performed according to ANSI C63.10, chapter 6.11.3, analyser setting chapter 12.5 (SA-2) **Final Result**

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN a, high, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN a, low, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN a, mid, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN ac 20 MHz, high, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN ac 20 MHz, low, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN ac 20 MHz, mid, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN ac 20 MHz, mid, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN ac 40 MHz, high, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN ac 40 MHz, low, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN ac 40 MHz, low, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN ac 80 MHz, mid, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN n 20 MHz, high, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN n 20 MHz, low, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN n 20 MHz, mid, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN n 40 MHz, high, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN n 40 MHz, low, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN ax 20 MHz, high, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN ax 20 MHz, low, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN ax 20 MHz, mid, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN ax 40 MHz, high, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN ax 40 MHz, low, U-NII-1	S02_AO04	2024-11-11	-	Passed
WLAN ax 80 MHz, mid, U-NII-1	S02_AO04	2024-11-11	-	Passed

For the U-NII-3 band exists no E.I.R.P. limit for the power spectral density.

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 6.11.2, 6.11.3

Final Result

OP-Mode Radio Technology, Operating Frequency, Measurement range, Subband	Setup	Date	FCC	IC
WLAN a, mid, 9kHz - 30MHz, U-NII-1	S02_AO04	2024-11-12	Passed	Passed
WLAN a, mid, 9kHz - 30MHz, U-NII-3	S02_AO04	2024-11-12	Passed	Passed
WLAN ax 20, mid, 9kHz - 30MHz, U-NII-1	S02_AO04	2024-11-12	Passed	Passed
WLAN ax 20, mid, 9kHz - 30MHz, U-NII-1	S02_AO04	2024-11-12	Passed	Passed
WLAN a, mid, 30MHz - 1GHz, U-NII-1	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN a, mid, 30MHz - 1GHz, U-NII-3	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN ax 20, mid, 30MHz - 1GHz, U-NII-1	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN ax 20, mid, 30MHz - 1GHz, U-NII-3	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN a, low, 1GHz - 18GHz, U-NII-1	S02_AO04	2024-11-11	Passed*)	Passed*)
WLAN a, mid, 1GHz - 18GHz, U-NII-1	S02_AO04	2024-11-11	Passed*)	Passed*)
WLAN a, high, 1GHz - 18GHz, U-NII-1	S02_AO04	2024-11-11	Passed*)	Passed*)
WLAN a, low, 1GHz - 18GHz, U-NII-3	S02_AO04	2024-11-11	Passed*)	Passed*)
WLAN a, mid, 1GHz - 18GHz, U-NII-3	S02_AO04	2024-11-11	Passed*)	Passed*)
WLAN a, high, 1GHz - 18GHz, U-NII-3	S02_AO04	2024-11-11	Passed*)	Passed*)
WLAN n 20, low, 1GHz - 18GHz, U-NII-1	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN n 20, mid, 1GHz - 18GHz, U-NII-1	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN n 20, high, 1GHz - 18GHz, U-NII-1	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN n 20, low, 1GHz - 18GHz, U-NII-3	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN n 20, mid, 1GHz - 18GHz, U-NII-3	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN n 20, high, 1GHz - 18GHz, U-NII-3	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN n 40, low, 1GHz - 18GHz, U-NII-1	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN ac 20, low, 1GHz – 18GHz, U-NII-1	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN ac 40, low, 1GHz - 18GHz, U-NII-1	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN ac 80, mid, 1GHz - 18GHz, U-NII-1	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN ax 20, low, 1GHz - 18GHz, U-NII-1	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN ax 20, mid, 1GHz - 18GHz, U-NII-1	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN ax 20, high, 1GHz - 18GHz, U-NII-1	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN ax 20, low, 1GHz - 18GHz, U-NII-3	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN ax 20, mid, 1GHz - 18GHz, U-NII-3	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN ax 20, high, 1GHz - 18GHz, U-NII-3	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN ax 40, low, 1GHz – 18GHz, U-NII-1	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN ax 80, low, 1GHz - 18GHz, U-NII-1	S02_AO04	2024-11-12	Passed*)	Passed*)
WLAN a, mid, 18GHz – 26.5GHz, U-NII-1	S02_AO04	2024-11-12	Passed	Passed
WLAN a, mid, 18GHz – 26.5GHz, U-NII-3	S02_AO04	2024-11-12	Passed	Passed
WLAN ax 20, mid, 18GHz – 26.5GHz, U-NII-1	S02_AO04	2024-11-12	Passed	Passed
WLAN ax 20, mid, 18GHz – 26.5GHz, U-NII-3	S02_AO04	2024-11-12	Passed	Passed
WLAN a, mid, 26.5GHz – 40GHz, U-NII-1	S02_AO04	2024-11-12	Passed	Passed
WLAN a, mid, 26.5GHz – 40GHz, U-NII-3	S02_AO04	2024-11-12	Passed	Passed
WLAN ax 20, mid, 26.5GHz – 40GHz, U-NII-1	S02_AO04	2024-11-12	Passed	Passed
WLAN ax 20, mid, 26.5GHz – 40GHz, U-NII-3	S02_AO04	2024-11-12	Passed	Passed

*) no higher emissions detected than in ambient noise plots

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 6.11. The measurement was performed according to ANSI C63.10, chapter 6.11.3 **Final Result**

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN a, low, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN a, low, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN a, high, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 20 MHz, low, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 20 MHz, low, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 20 MHz, high, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 40 MHz, high, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 40 MHz, low, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 40 MHz, low, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 20 MHz, low, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 20 MHz, high, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 20 MHz, low, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 40 MHz, high, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 40 MHz, low, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 40 MHz, low, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN n 20 MHz, high, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN n 20 MHz, low, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN n 20 MHz, low, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN n 40 MHz, high, U-NII-3	S02_AO04	2024-11-11	Passed	Passed
WLAN n 40 MHz, low, U-NII-1	S02_AO04	2024-11-11	Passed	Passed
WLAN n 40 MHz, low, U-NII-3	S02_AO04	2024-11-11	Passed	Passed

N/A: Not applicable
N/P: Not performed

Location: Nürnberg

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

Maximum Radiated Output Power (E.I.R.P.)
The measurement was performed according to ANSI C63.10, chapter 6.11.3, analyser settings chapter 12.4.2 (SA-2)

Final Result

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN a, high, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN a, high, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN a, low, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN a, low, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN a, mid, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN a, mid, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 20 MHz, high, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 20 MHz, high, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 20 MHz, low, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 20 MHz, low, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 40 MHz, high, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 40 MHz, high, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 40 MHz, low, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 40 MHz, low, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN n 20 MHz, high, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN n 20 MHz, high, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN n 20 MHz, low, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN n 20 MHz, low, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN n 20 MHz, mid, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN n 20 MHz, mid, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN n 40 MHz, high, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN n 40 MHz, high, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN n 40 MHz, low, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN n 40 MHz, low, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 20 MHz, high, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 20 MHz, high, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 20 MHz, low, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 20 MHz, low, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 40 MHz, high, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 40 MHz, high, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 40 MHz, low, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 40 MHz, low, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-1	S03_AO04	2024-11-13	Passed	Passed

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

Maximum Radiated Output Power (E.I.R.P.)
The measurement was performed according to ANSI C63.10, chapter 6.11.3, analyser settings chapter 12.4.2 (SA-2) **Final Result**

OP-Mode Radio Technology, Operating Frequency, Subband	**Setup**	**Date**	**FCC**	**IC**
WLAN ax 80 MHz, mid, U-NII-3	S03_AO04	2024-11-13	Passed	Passed

47 CFR CHAPTER I FCC PART 15 Subpart E §15.407	**FCC §15.31, §15.407 (a) (1),(5)**

Peak Power Spectral Density E.I.R.P.)
The measurement was performed according to ANSI C63.10, chapter 6.11.3, analyser setting chapter 12.5 (SA-2) **Final Result**

OP-Mode Radio Technology, Operating Frequency, Subband	**Setup**	**Date**	**FCC**	**IC**
WLAN a, high, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN a, low, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN a, mid, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN ac 20 MHz, high, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN ac 20 MHz, low, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN ac 20 MHz, mid, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN ac 20 MHz, mid, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN ac 40 MHz, high, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN ac 40 MHz, low, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN ac 40 MHz, low, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN ac 80 MHz, mid, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN n 20 MHz, high, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN n 20 MHz, low, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN n 20 MHz, mid, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN n 40 MHz, high, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN n 40 MHz, low, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN ax 20 MHz, high, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN ax 20 MHz, low, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN ax 20 MHz, mid, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN ax 40 MHz, high, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN ax 40 MHz, low, U-NII-1	S03_AO04	2024-11-13	-	Passed
WLAN ax 80 MHz, mid, U-NII-1	S03_AO04	2024-11-13	-	Passed

For the U-NII-3 band exists no E.I.R.P. limit for the power spectral density.

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 6.11.2, 6.11.3

Final Result

OP-Mode Radio Technology, Operating Frequency, Measurement range, Subband	Setup	Date	FCC	IC
WLAN a, mid, 9kHz - 30MHz, U-NII-1	S03_AO04	2024-11-14	Passed	Passed
WLAN a, mid, 9kHz - 30MHz, U-NII-3	S03_AO04	2024-11-14	Passed	Passed
WLAN ax 20, mid, 9kHz - 30MHz, U-NII-1	S03_AO04	2024-11-14	Passed	Passed
WLAN ax 20, mid, 9kHz - 30MHz, U-NII-1	S03_AO04	2024-11-14	Passed	Passed
WLAN a, mid, 30MHz - 1GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN a, mid, 30MHz - 1GHz, U-NII-3	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN ax 20, mid, 30MHz - 1GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN ax 20, mid, 30MHz - 1GHz, U-NII-3	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN a, low, 1GHz - 18GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN a, mid, 1GHz - 18GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN a, high, 1GHz - 18GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN a, low, 1GHz - 18GHz, U-NII-3	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN a, mid, 1GHz - 18GHz, U-NII-3	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN a, high, 1GHz - 18GHz, U-NII-3	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN n 20, low, 1GHz - 18GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN n 20, mid, 1GHz - 18GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN n 20, high, 1GHz - 18GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN n 20, low, 1GHz - 18GHz, U-NII-3	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN n 20, mid, 1GHz - 18GHz, U-NII-3	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN n 20, high, 1GHz - 18GHz, U-NII-3	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN n 40, low, 1GHz - 18GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN ac 20, low, 1GHz – 18GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN ac 40, low, 1GHz - 18GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN ac 80, mid, 1GHz - 18GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN ax 20, low, 1GHz - 18GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN ax 20, mid, 1GHz - 18GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN ax 20, high, 1GHz - 18GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN ax 20, low, 1GHz - 18GHz, U-NII-3	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN ax 20, mid, 1GHz - 18GHz, U-NII-3	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN ax 20, high, 1GHz - 18GHz, U-NII-3	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN ax 40, low, 1GHz – 18GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN ax 80, low, 1GHz - 18GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN a, mid, 18GHz – 26.5GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN a, mid, 18GHz – 26.5GHz, U-NII-3	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN ax 20, mid, 18GHz – 26.5GHz, U-NII-1	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN ax 20, mid, 18GHz – 26.5GHz, U-NII-3	S03_AO04	2024-11-14	Passed*)	Passed*)
WLAN a, mid, 26.5GHz – 40GHz, U-NII-1	S03_AO04	2024-11-14	Passed	Passed
WLAN a, mid, 26.5GHz – 40GHz, U-NII-3	S03_AO04	2024-11-14	Passed	Passed
WLAN ax 20, mid, 26.5GHz – 40GHz, U-NII-1	S03_AO04	2024-11-14	Passed	Passed
WLAN ax 20, mid, 26.5GHz – 40GHz, U-NII-3	S03_AO04	2024-11-14	Passed	Passed

*) no higher emissions detected than in ambient noise plots

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 6.11. The measurement was performed according to ANSI C63.10, chapter 6.11.3

Final Result

OP-Mode Radio Technology, Operating Frequency, Subband	**Setup**	**Date**	**FCC**	**IC**
WLAN a, low, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN a, low, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN a, high, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 20 MHz, low, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 20 MHz, low, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 20 MHz, high, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 40 MHz, high, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 40 MHz, low, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 40 MHz, low, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 20 MHz, low, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 20 MHz, high, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 20 MHz, low, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 40 MHz, high, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 40 MHz, low, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 40 MHz, low, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN n 20 MHz, high, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN n 20 MHz, low, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN n 20 MHz, low, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN n 40 MHz, high, U-NII-3	S03_AO04	2024-11-13	Passed	Passed
WLAN n 40 MHz, low, U-NII-1	S03_AO04	2024-11-13	Passed	Passed
WLAN n 40 MHz, low, U-NII-3	S03_AO04	2024-11-13	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	2024-12-04	--	invalid
REV_01	2024-12-19	• Chapter 3.5: Notes added that cable was terminated and not segmented. • Chapter 4.4: 50 Ohm terminations added for each location. • Chapter 4.5: 50 Ohm terminations added to test setups. • Chapter 4.6: Used output power settings added. • Chapter 4.8: Worst-case consideration concerning power splitter added.	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:	2023-09-29

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:	2024-12-19
Testing Period:	2024-10-28 to 2024-11-14

3.3 APPLICANT DATA

Company Name:	SIEMENS AG
Address:	Östliche Rheinbrückenstr. 50 76187 Karlsruhe Germany
Contact Person:	Dr. Malgorzata Janson

3.4 MANUFACTURER DATA

Company Name:	SIEMENS AG
Address:	76181 Karlsruhe Germany
Contact Person:	Mr. Tianshu Pu

3.5 TESTING LOCATIONS

Location 1:

Company Name:	Kabelwerk Eupen AG
Address:	Malmedyerstr. 9 4700 Eupen Belgium

Installation Information of the RCoax cable:

Length of RCoax cable [m]	Installation height of RCoax cable [m]	Length of feeder cable [m]	Installation height of EUT [m]
73.00	2.05	1.00	1.80

Notes:

- The RCoax cable was not segmented.
- The RCoax cable was terminated with 50 Ohm.
- The length of the used feeder cable is the minimum allowed length. This is the typical length of the feeder cable for this installation height of the RCoax cable.

Location 2:

Company Name:	SIEMENS AG
Address:	Schuckertstr. 2 91058 Erlangen Germany

Installation Information of the RCoax cable:

Length of RCoax cable [m]	Installation height of RCoax cable [m]	Length of feeder cable [m]	Installation height of EUT [m]
23.00	7.7 m	10.0	1.6

Notes:

- The RCoax cable was not segmented.
- The RCoax cable was terminated with 50 Ohm.
- The length of the used feeder cable is the maximum allowed length. This is the typical length of the feeder cable for this installation height of the RCoax cable.

Location 3:

Company Name:	SIEMENS AG
Address:	Saganerstr. 22 90475 Nürnberg Germany

Installation Information of the RCoax cable:

Length of RCoax cable [m]	Installation height of RCoax cable [m]	Length of feeder cable [m]	Installation height of EUT [m]
40.00	4.05	10.0	1.2

Notes:

- The RCoax cable was not segmented.
- The RCoax cable was terminated with 50 Ohm.
- The length of the used feeder cable is the maximum allowed length. This is the typical length of the feeder cable for this installation height of the RCoax cable.

4 TEST OBJECT DATA

4.1 GENERAL EUT DESCRIPTION

Kind of Device product description	Industrial Access Point / Client
Product name	SCALANCE W700 / MSAX
Type	MSAX65-W1-M12-E2
Declared EUT data by the supplier	
Specific product description	The MSAX65-W1-M12-E2 device is a wireless LAN access point / client for industrial applications supporting following WLAN modes and frequency bands: • 802.11 ax/ac/a/h/n Mode: 5.15 - 5.35 GHz and 5.47 - 5.85 GHz • 802.11 ax/b/g/n Mode: 2400 - 2483.5 MHz 2 N connectors are available for usage with external antennas. 2x2 MIMO operation is possible in both bands. Simultaneous operation of the device in both frequency bands is supported. Module may be used either as Master or as Client WLAN device. The device supports 10/100/1000 Mbit/s Ethernet. Additionally, the device features one digital input and one digital output signalling line, a configuration/licensing plug and a sleep timer. Supply power is 24Vdc, also PoE on the ethernet interface is available. Together with the RCoax cable the EUT supports only: • the U-NII bands 1 & 3 • SISO modes.
Voltage Type	DC
Voltage Level	24.0 V
Antenna Type	EUT has two permanent 50 Ohm antenna connectors. External antenna(s)
Antenna Gain	For the radiated tests of this test report the EUT was tested with the following antenna: • RCoax cable 6XV1875-2D For details please see chapter 4.4 & 4.5 of this report.
Tested Modulation Type	WLAN a (6 Mbit): OFDM WLAN n (MCS0): OFDM WLAN ac (MCS0): OFDM WLAN ax (MCS0): OFDM
Number of Transmit Chains	2
Number of Receive Chains	2
Type of TX / RX Chains	symmetrical

Nominal Bandwidth	20 MHz, 40 MHz, 80 MHz
EUT ports (connected cables during testing):	• Enclosure • DC port: cable length appr. 1.0m • Digital I/O port: cable length 2.0m (terminated with DIDO box), only for radiated tests • LAN port: cable length (shielded), appr. 3.0m, only for radiated tests • USB C service port: cable length, appr. 2.0m, only for conducted tests • 2 Antenna ports, N-connector, antenna port A connected to RCoax cable via "Feeder Cable", Antenna Port B terminated with 50 Ohm
Tested data rates	WLAN a: 6 Mbit/s WLAN n: MCS0 WLAN ac: MCS0 WLAN ax: MCS0
Special software used for testing	Test commands in command line interface of EUT with connection by LAN Port of EUT

4.2 EUT MAIN COMPONENTS

Sample Name	**Sample Code**	**Description**
EUT ah01	DE1039028ao04	
Sample Parameter	**Value**	
Serial No.	VPN4200423	
HW Version	03	
SW Version	V 2.4	
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.

Device	**Details (Manufacturer, Type Model, OUT Code)**	**Description**
-	-	-

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 Adapter 65W RE06	Fujitsu Ltd., AC Adapter 65W RE05:A13-065N3A, -, -, 186907LS04	A13-065N3A
Laptop RE06	Fujitsu Ltd., Laptop RE05: Lifebook U758, -, -, DSAL009811	Lifebook U758
AUX1	Siemens, -, -, -, -	DEBUG BOX CLP
AUX2	Siemens, -, -, -, -	DIDO Box
AUX3	Siemens, 6XV1875-2D, -, -, -	RCoax cable Test location: Eupen
AUX4	Siemens, 6XV1875-2D, -, -, -	RCoax cable Test location: Erlangen
AUX5	Siemens, 6XV1875-2D, -, -, -	RCoax cable Test Location: Nürnberg
AUX6	Siemens, 6XV1875-5AH1, -, -, -	Feeder cable, 1.0 m Test location: Eupen
AUX7	Siemens, 6XV1875-5AH10, -, -, -	Feeder cable, 10.0 m Test location: Erlangen
AUX8	Siemens, 6XV1875-5AH10, -, -, -	Feeder cable, 10.0 m Test location: Nürnberg
AUX9	Siemens, 6GKS795-1TN00-1AA0, -, -, -	50 Ohm termination, Test location: Eupen
AUX10	Siemens, 6GKS795-1TN00-1AA0, -, -, -	50 Ohm termination Test location: Erlangen
AUX11	Siemens, 6GKS795-1TN00-1AA0, -, -, -	50 Ohm termination Test location: Nürnberg

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_AO04	EUT ao01, AUX1, AUX2, Laptop RE05, AUX3, AUX6, AUX9	Setup for test location Eupen
S02_AO04	EUT ao01, AUX1, AUX2, Laptop RE05, AUX4, AUX7, AUX10	Setup for test location Erlangen
S03_AO04	EUT ao01, AUX1, AUX2, Laptop RE05, AUX5, AUX8, AUX11	Setup for test location Nürnberg

4.6 OPERATING MODES / TEST CHANNELS / OUTPUT POWER

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

Used Operating channels:

U-NII-Subband 1 5150 - 5250 MHz			U-NII-Subband 2A 5250 - 5350 MHz			U-NII-Subband 2C 5470 - 5725 MHz			U-NII-Subband 3 5725 - 5850 MHz			Nom. BW
low	mid	high	low	mid	high	low	mid	high	low	mid	high	20 MHz
36	40 / 44[2)]	48	-	-	-	-	-	-	149	157	165	Ch.-No.
5180	5200 / 5220	5240	-	-	-	-	-	-	5745	5785	5825	MHz

low	mid	high							low	mid	high	40 MHz
38	-	46	-	-	-	-	-	-	151	-	159	Ch.-No.
5190	-	5230		-	-	-	-	-	5755	-	5795	MHz

low	mid	high							low	mid	high	80 MHz
-	42	-	-	-	-	-	-	-	-	155	-	Ch.-No.

Used output power settings

U-NII-Subband 1 5150 - 5250 MHz			U-NII-Subband 2A 5250 - 5350 MHz			U-NII-Subband 2C 5470 - 5725 MHz			U-NII-Subband 3 5725 - 5850 MHz			Nom. BW
low	mid	high	low	mid	high	low	mid	high	low	mid	high	20 MHz
36	44	48	-	-	-	-	-	-	149	157	165	Ch.-No.
5180	5220	5240	-	-	-	-	-	-	5745	5785	5825	MHz
20	20	20	-	-	-	-	-	-	20	20	20	Power SISO

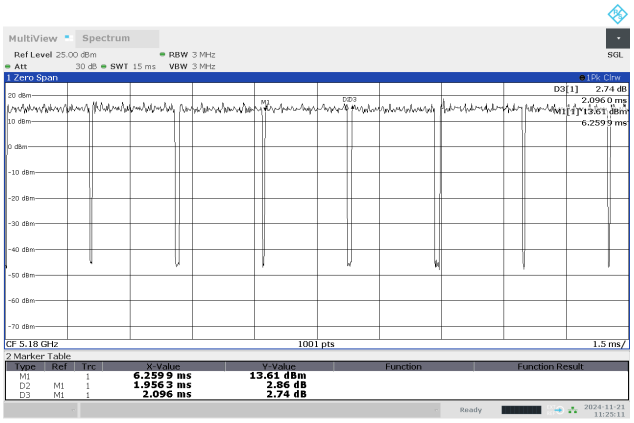
low	mid	high							low	mid	high	40 MHz
38	-	46	-	-	-	-	-	-	151	-	159	Ch.-No.
5190	-	5230	-	-	-	-	-	-	5755	-	5795	MHz
20		20	-	-	-	-	-	-	20		20	Power SISO

low	mid	high							low	mid	high	80 MHz
-	42	-	-	-	-	-	-	-	-	155	-	Ch.-No.
-	5210	-	-	-	-	-	-	-	-	5775	-	MHz
-	18		-	-	-	-	-	-	-	20	-	Power SISO

Note:

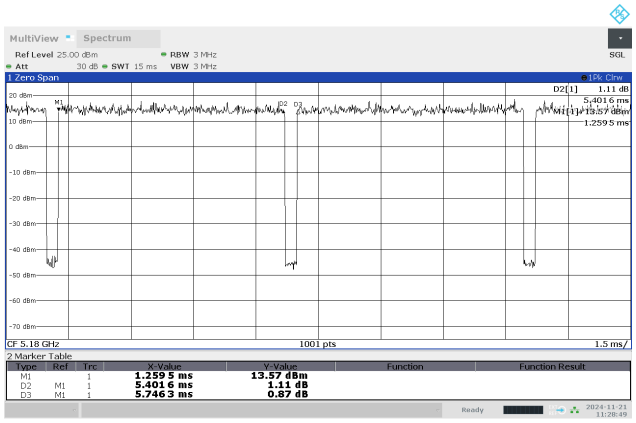
- All power values in dBm

4.7 DUTY CYCLE



11:25:12 AM 11/21/2024

a mode, DC = 0,93



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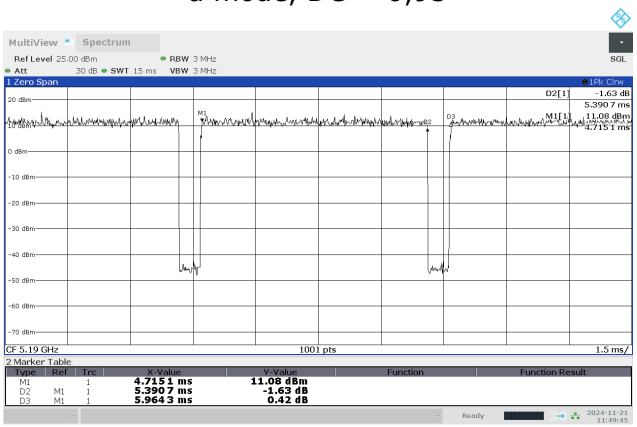
n-20 mode, DC = 0.94



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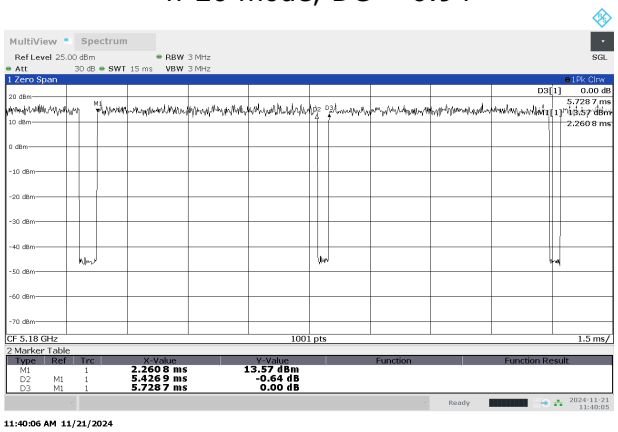
n-40 mode, DC = 0.90



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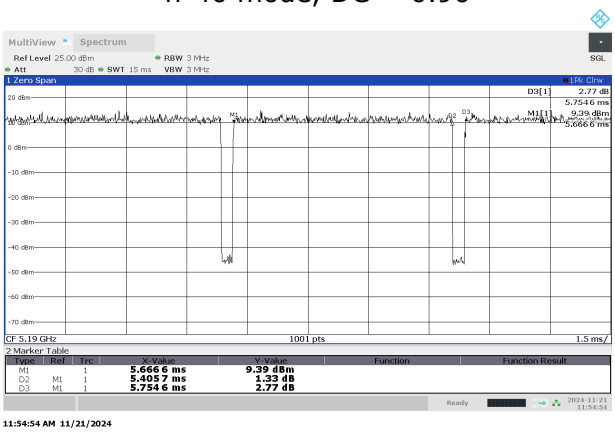
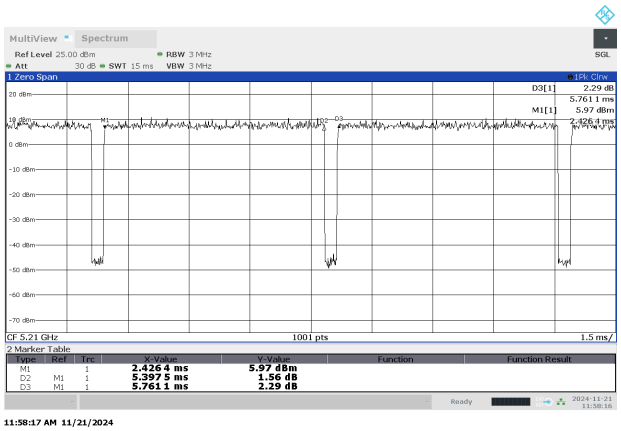
ac-20 mode, DC = 0.95



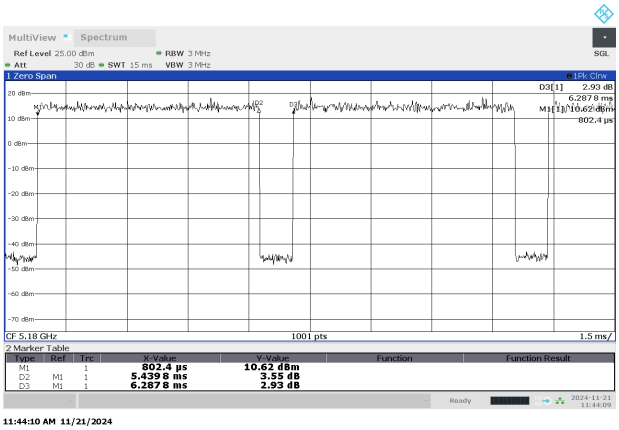
11:54:54 AM 11/21/2024

ac-40 mode, DC = 0.94



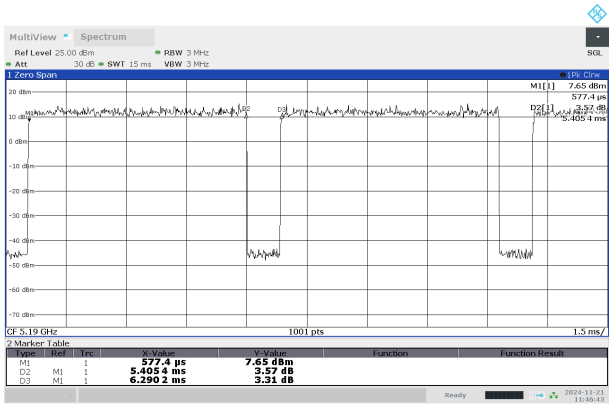
11:58:17 AM 11/21/2024

ac-80 mode, DC = 0.94



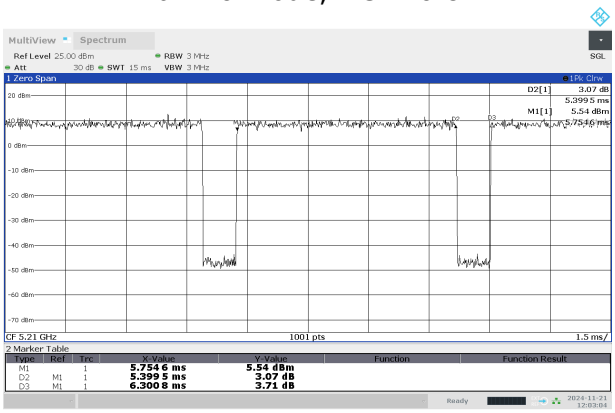
11:44:10 AM 11/21/2024

ax-20 mode, DC = 0.87



11:46:44 AM 11/21/2024

ax-40 mode, DC = 0.86



12:03:05 PM 11/21/2024

ax-80 mode, DC = 0.86

4.8 JUSTIFICATION OF MEASUREMENT PARAMETERS

Several scientific studies show that the electrical field radiated from a leaky coaxial cable has its maximum at a certain angle, which is dependent on the shape and spacing of the slots. E.g. "Wang, J., Y. Li, Z. Zhang, and M. Chen (2011), Radiation mechanism and polarization properties of leaky coaxial cables, Radio Sci., 46, RS2009, doi:10.1029/2010RS004486" https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2010RS004486

It is also shown the maximum radiated electrical field is obtained from a superposition of the radiation from several slots.
On the other hand, the signal power in a leaky coax structure is decreasing with the distance due to its longitudinal attenuation (for details please see IEC 61196-1-127: 2024).

Thus, it can be assumed that the maximum radiation from the cable is reached at some distance [D_{MAX}] from the feeding point.

D_{MAX} depends for every leaky coax on the shape and spacing of the single slots in the cable and the emitted frequency.

Because in this Insitu measurements only a single leaky coaxial cable type is investigated, D_{MAX} depends only on the emitted frequency.

Due to the wide investigated frequency range 9 kHz – 40 GHz, which causes a wide variation of D_{MAX}, the worst case search has been performed from the feeding point up to a distance beyond D_{MAX}, where a stable decrease of the emitted power has been measured. This distance [$D_{STABLE\ DECREASE}$] is stated in the measurement data of every test for each location.

The EUT was tested with end-feeding into a single segment RCoax cable. Alternatively, a centre feeding with a power splitter is possible. As a power splitter delivers at least 3 dB less power to each segment, the end-feeding is considered as worst-case configuration with respect to radiated power

4.9 PRODUCT LABELLING

4.9.1 FCC ID LABEL

Please refer to the documentation of the applicant.

4.9.2 LOCATION OF THE LABEL ON THE EUT

Please refer to the documentation of the applicant.

5 TEST RESULTS

5.1 MAXIMUM RADIATED OUTPUT POWER

Standard **FCC Part 15 Subpart E**

The test was performed according to:

- Measurement setup: ANSI C63.10, chapter 6.11.3
- Analyser settings: ANSI C63.10, chapter 12.4.2 (SA-2)

5.1.1 TEST DESCRIPTION

The Equipment Under Test (EUT) was installed in a typical installation in the test location. A RCoax cable was connected to one antenna connector (Port A). The other antenna output was terminated with 50 Ohm.

The following information can be found in the description of each measurement location.

- Length of the connected RCoax cable (chapter 3.5)
- Installation height of the RCoax cable (chapter 3.5)
- Length of the feeder cable (chapter 3.5)
- Measurement distance
- Maximum measurement distance from feeding point
- Maximum measurement height of the receiving antenna (during worst-case search)
- Worst-case measurement polarisation

Measurement procedure:

1. Determining of the worst-case position – highest emission of the fundamental for every TX frequency and occupied bandwidth – for both receiving antenna polarisations between:
    a. Determination of the maximum measurement distance [$D_{STABLE\ DECREASE}$] from the feeding point
    b. Search of worst-case distance between 0.0 m and maximum measurement distance from the feeding point of RCoax cable for both measurement polarisations.
    c. Height variation of the Receiving antenna: continuously from 1.0 m to maximum receiving antenna height for both polarisations.
    d. Determination of worst-case receiving antenna polarisation
2. Measurement of the output power at the worst-case position.
3. Measurement of the environmental electromagnetic spectrum – with EUT switched off – at worst-case position for both polarisations.

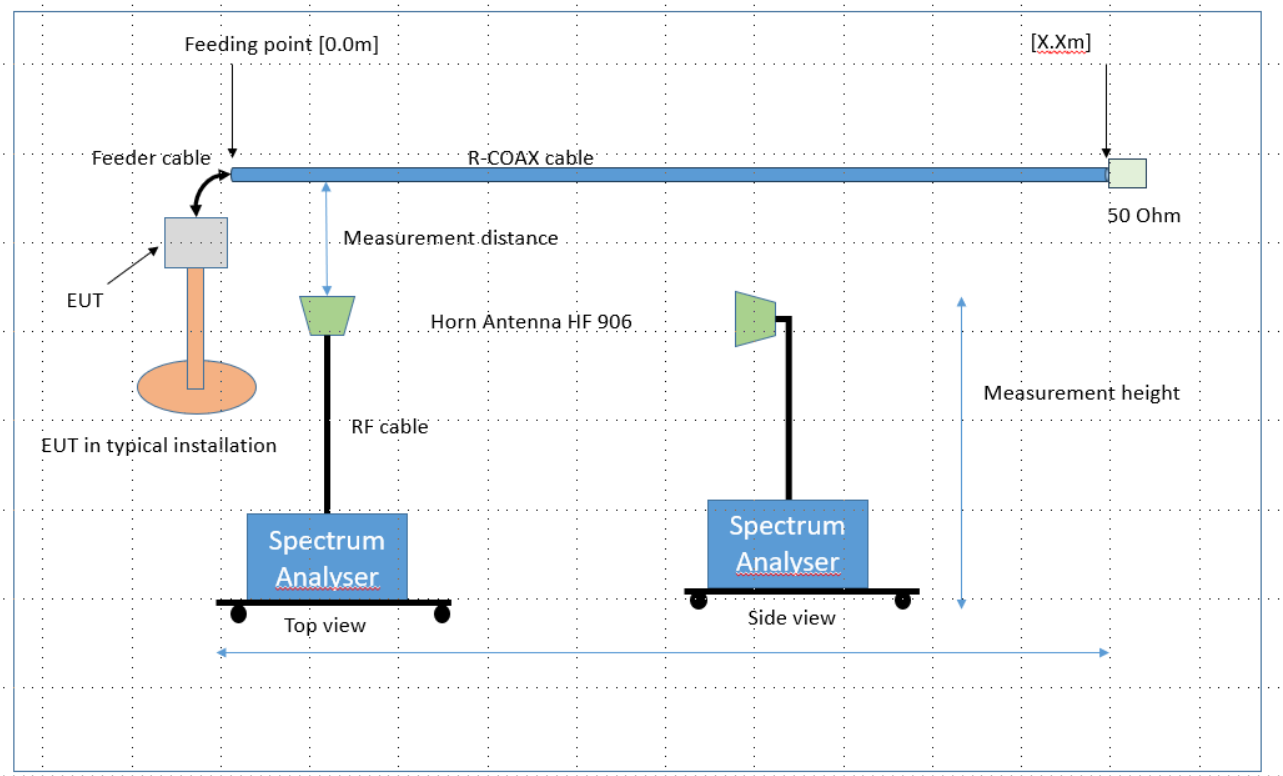
The results recorded were measured with the modulation which produces the worst-case (highest) output power

The analyser settings were according to FCC Public Note "Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Subpart E, 789033 D02", method **SA-2**.

Analyzer settings:

- Resolution Bandwidth (RBW): 1 MHz
- Video Bandwidth (VBW): 3 MHz
- Trace: Average, RMS power averaging mode
- Sweeps: at least 100
- Sweeptime: Auto
- Detector: RMS
- Trigger: free run (DC >98 %)

The following diagram shows the basic measurement set up:



Basic Test Setup In-Situ Measurements

For details please see pictures of the measurement setup for every location.

5.1.2 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 dBm + 10 log (26 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.

FCC Part 15, Subpart E, §15.407 (a) (4):
For a standard power access point and fixed client devices in the 5.925 – 6.425 GHz and 6.525 – 6.875 GHz bands:
Limit: 4 W (36 dBm) e.i.r.p.
For outdoor devices, 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).

FCC Part 15, Subpart E, §15.407 (a) (5):
For an indoor access point in the 5.925 – 7.125 GHz bands:
Limit: 1 W (30 dBm)e.i.r.p.

FCC Part 15, Subpart E, §15.407 (a) (6):
For a subordinate device operating under an indoor access point in the 5.925 – 7.125 GHz bands:
Limit: 1 W (30 dBm)e.i.r.p.

FCC Part 15, Subpart E, §15.407 (a) (7):
For a client device, except for fixed client devices, operating under standard power access point in the 5.925-6.425 GHz and 6.525-6.875 GHz bands:
Limit: 1 W (30 dBm)e.i.r.p.
The client device must limit it's power to no more than 6 dB below its associated standard power access point's authorized transmit power.

FCC Part 15, Subpart E, §15.407 (a) (8):
For client devices operating under the control of an indoor access point in the 5.925 – 7.125 GHz bands:
Limit: 250 mW (24 dBm)e.i.r.p.

FCC Part 15, Subpart E, §15.407 (a) (11):
The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.

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 log10 B [dBm], whichever power is less.
e.i.r.p.: 1.0 W (30 dBm) or 17 + 10 log10 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/MHzfor 0°≤ θ< 8°
ii.-13 −0.716 (θ-8) dBW/MHzfor 8° ≤ θ< 40°
iii.-35.9 −1.22 (θ-40) dBW/MHzfor 40° ≤ θ ≤45°
iv.-42 dBW/MHzfor θ > 45°

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 log10 B [dBm], whichever power is less.
e.i.r.p.: 1.0 W (30 dBm) or 17 + 10 log10 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)

5.1.3 TEST PROTOCOL – LOCATION EUPEN

Ambient temperature: 12 – 13 °C
Air Pressure: 990 – 994 hPa
Humidity: 83 – 84 %

WLAN a-Mode; 20 MHz; 6 Mbit/s				FCC		ISED	
U-NII-Subband	Ch. No.	TX Freq. [MHz]	EIRP [dBm]	FCC EIRP Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	36	5180	7.0	30.0	23.0	22.1	15.1
	40	5200	5.1	30.0	24.9	22.1	17.0
	48	5240	5.4	30.0	24.6	22.1	16.8
3	149	5745	4.1	36.0	31.9	36.0	31.9
	157	5785	3.6	36.0	32.4	36.0	32.4
	165	5825	5.2	36.0	30.8	36.0	30.8

WLAN n-Mode; 20 MHz; MCS 0; SISO				FCC		ISED	
U-NII-Subband	Ch. No.	TX Freq. [MHz]	EIRP [dBm]	FCC EIRP Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	36	5180	6.6	30.0	23.4	22.5	15.8
	40	5200	4.7	30.0	25.4	22.5	17.8
	48	5240	5.0	30.0	25.0	22.5	17.5
3	149	5745	3.8	36.0	32.2	36.0	32.2
	157	5785	3.2	36.0	32.8	36.0	32.8
	165	5825	4.8	36.0	31.2	36.0	31.2

WLAN n-Mode; 40 MHz; MCS 0; SISO				FCC		ISED	
U-NII-Subband	Ch. No.	TX Freq. [MHz]	EIRP [dBm]	FCC EIRP Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	38	5190	6.5	30.0	23.5	23.0	16.5
	46	5230	5.7	30.0	24.3	23.0	17.3
3	151	5755	4.6	36.0	31.4	36.0	31.4
	159	5795	5.3	36.0	30.7	36.0	30.7

WLAN ac-Mode; 20 MHz; MCS 0; SISO				FCC		ISED	
U-NII-Subband	Ch. No.	TX Freq. [MHz]	EIRP [dBm]	FCC EIRP Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	36	5180	6.5	30.0	23.5	22.5	15.9
	40	5200	4.6	30.0	25.4	22.5	17.8
	48	5240	4.9	30.0	25.1	22.5	17.6
3	149	5745	3.8	36.0	32.2	36.0	32.2
	157	5785	3.3	36.0	32.7	36.0	32.7
	165	5825	4.9	36.0	31.1	36.0	31.1

WLAN ac-Mode; 40 MHz; MCS 0; SISO				FCC		ISED	
U-NII-Subband	Ch. No.	TX Freq. [MHz]	EIRP [dBm]	FCC EIRP Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	38	5190	6.6	30.0	23.4	23.0	16.4
	46	5230	5.7	30.0	24.3	23.0	17.3
3	151	5755	4.6	36.0	31.4	36.0	31.4
	159	5795	5.2	36.0	30.8	36.0	30.8

WLAN ac-Mode; 80 MHz; MCS 0; SISO				FCC		ISED	
U-NII-Subband	Ch. No.	TX Freq. [MHz]	EIRP [dBm]	FCC EIRP Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	42	5210	3.0	30.0	27.0	23.0	20.0
3	155	5775	3.3	36.0	32.7	36.0	32.7

WLAN ax-Mode; 20 MHz; MCS 0; SISO				FCC		ISED	
U-NII-Subband	Ch. No.	TX Freq. [MHz]	EIRP [dBm]	FCC EIRP Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	36	5180	6.1	30.0	23.9	22.8	16.7
	40	5200	4.3	30.0	25.7	22.8	18.5
	48	5240	4.5	30.0	25.5	22.8	18.3
3	149	5745	3.3	36.0	32.7	36.0	32.7
	157	5785	3.0	36.0	33.0	36.0	33.0
	165	5825	4.4	36.0	31.6	36.0	31.6

WLAN ax-Mode; 40 MHz; MCS 0; SISO				FCC		ISED	
U-NII-Subband	Ch. No.	TX Freq. [MHz]	EIRP [dBm]	FCC EIRP Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	38	5190	5.8	30.0	24.2	23.0	17.2
	46	5230	5.0	30.0	25.0	23.0	18.0
3	151	5755	4.0	36.0	32.0	36.0	32.0
	159	5795	4.8	36.0	31.2	36.0	31.2

WLAN ax-Mode; 80 MHz; MCS 0; SISO				FCC		ISED	
U-NII-Subband	Ch. No.	TX Freq. [MHz]	EIRP [dBm]	FCC EIRP Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	42	5210	2.2	30.0	27.8	23.0	20.8
3	155	5775	2.8	36.0	33.2	36.0	33.2

COMMENT:

- The values of the 99% OBW – to calculate the ISED EIRP limit in subband 1 - have been taken from the original report of the EUT with the reference: MDE_SIEM_1911_FCC_02_REV01
- The spectrum analyser transducer TDF DUT3 contains the attenuation of the measurement cable
- The "Reference Level Offset" in the analyser contains the correction of the far-field attenuation and the gain of the receiving antenna.
  Example calculation:
  FF-ATT: 51.9 dB (5180 MHz@1.81m), Antenna Gain: 10.0 dB
  Reference Level Offset: 51.9 dB -10.0 dB = 41.9 dB

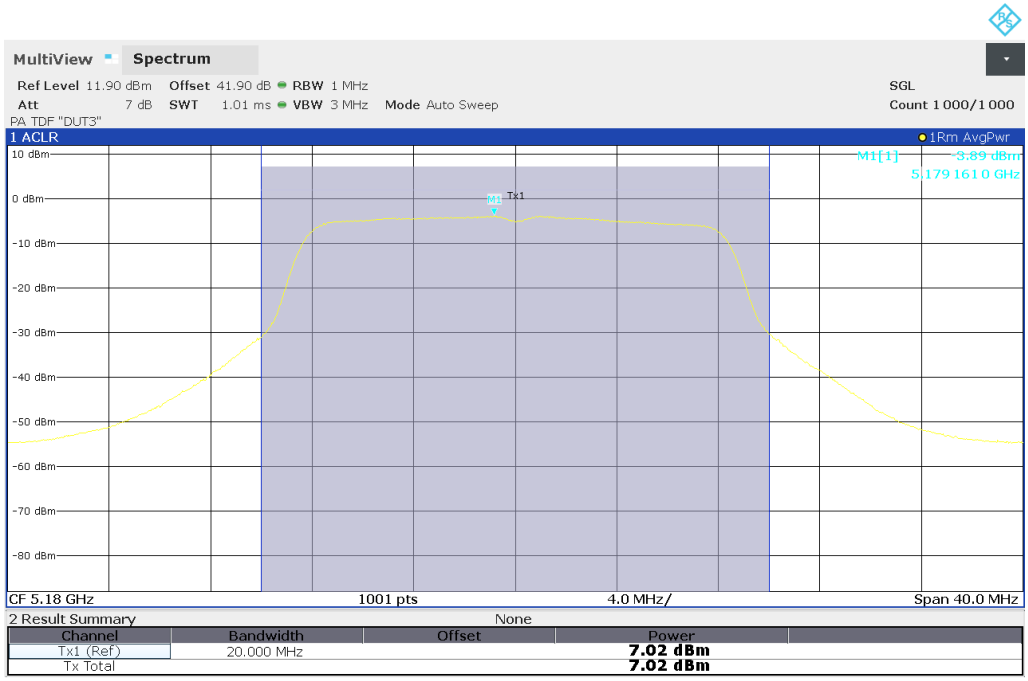
5.1.3.1 RESULTS OF WORST-CASE SEARCH

$D_{STABLE\ DECREASE}$ = 21.0 m

Channel Bandwidth [MHz]	Center Frequency [MHz]	Measurement Distance [m]	Measurement height [m]	Polarisation of receiving antenna	Worst-Case distance from feeding point [m]
20	5180	1.81	1.90	horizontal	8.41
	5200	1.81	1.90	horizontal	8.40
	5240	1.81	1.90	horizontal	8.43
	5745	1.81	1.90	horizontal	9.31
	5785	1.81	1.90	horizontal	9.32
	5825	1.81	1.90	horizontal	9.34
40	5190	1.81	1.90	horizontal	8.40
	5230	1.81	1.90	horizontal	8.43
	5755	1.81	1.90	horizontal	9.32
	5795	1.81	1.90	horizontal	9.33
80	5210	1.81	1.90	horizontal	8.42
	5775	1.81	1.90	horizontal	8.70

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

Radio Technology = WLAN a 20 MHz, Operating Frequency = low, Subband = U-NII-1 (S01_AO04)



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Radio Technology = WLAN a 20 MHz, Operating Frequency = mid, Subband = U-NII-1 (S01_AO04)

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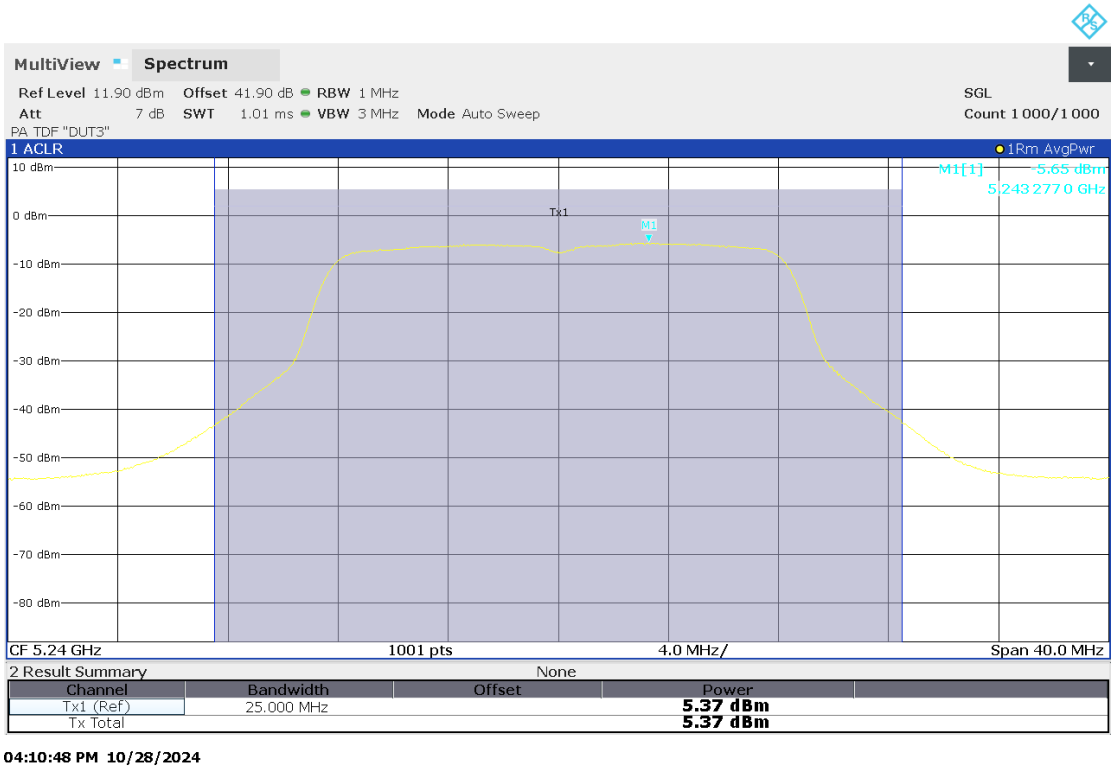
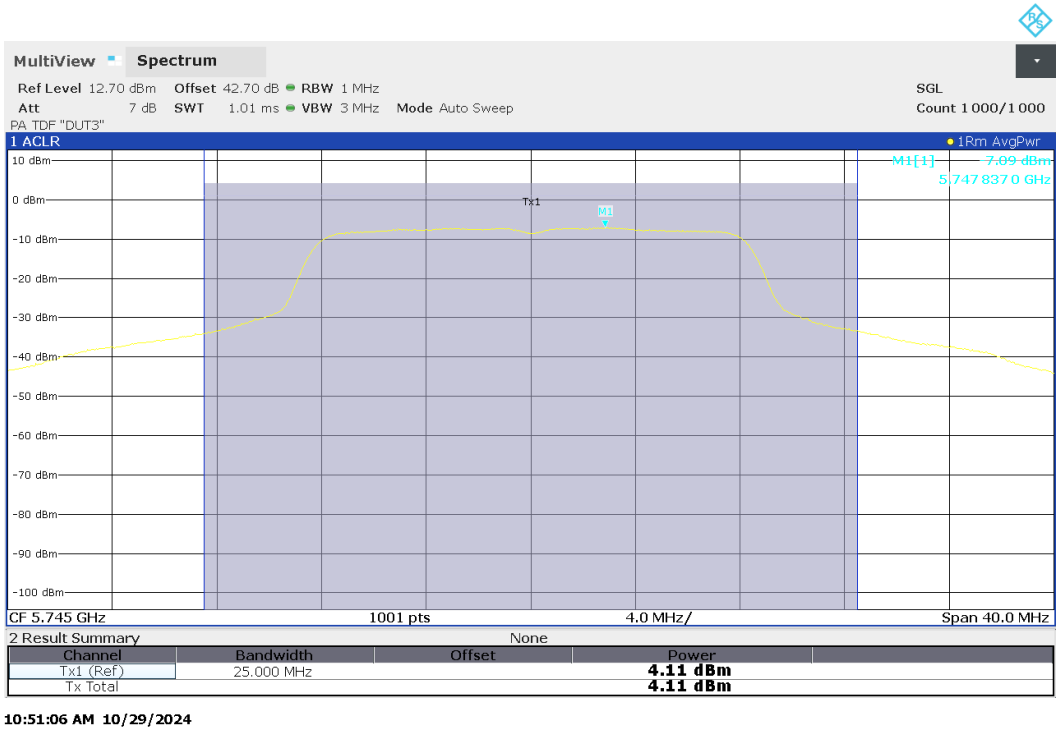
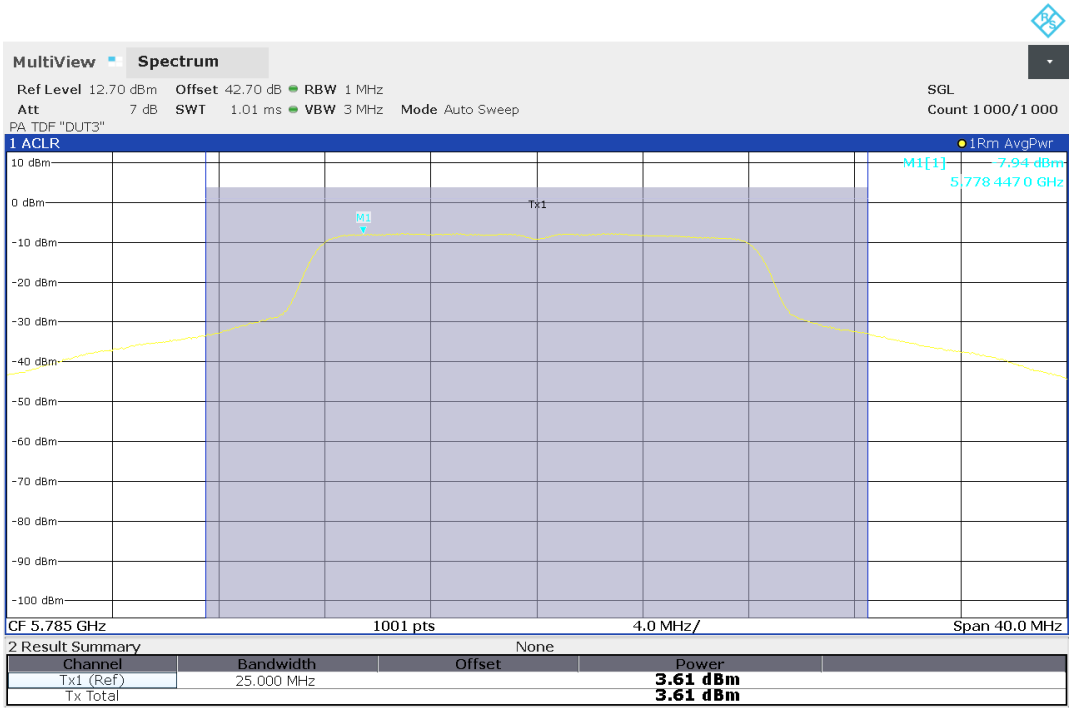
Radio Technology = WLAN a 20 MHz, Operating Frequency = high, Subband = U-NII-1 (S01_AO04)



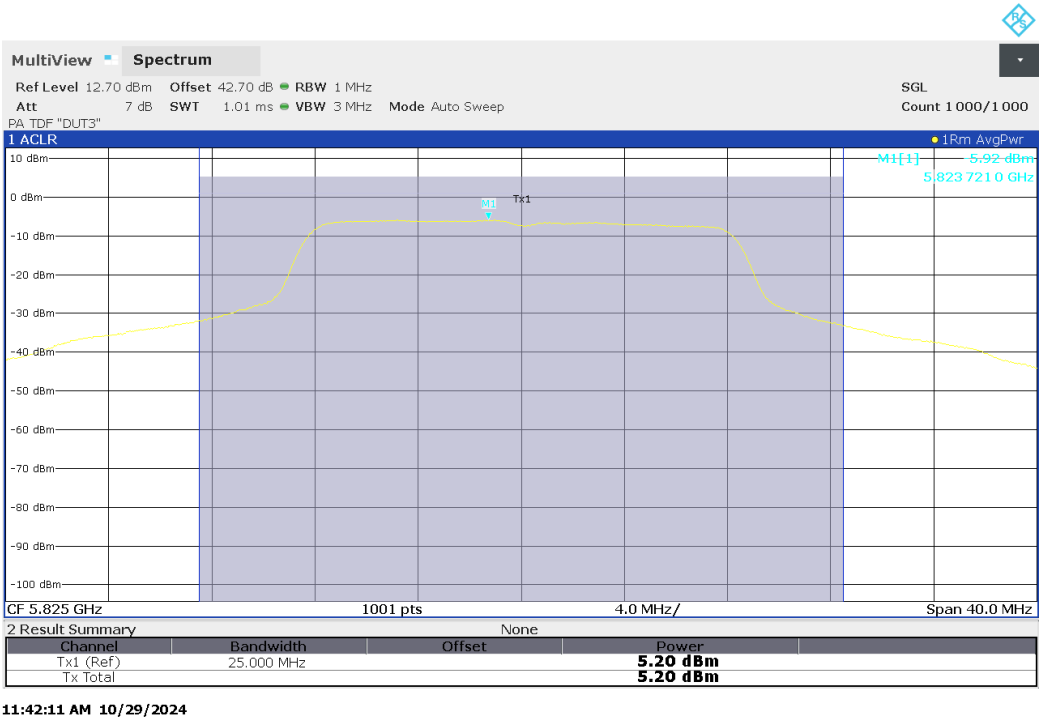
Radio Technology = WLAN a 20 MHz, Operating Frequency = low, Subband = U-NII-3 (S01_AO04)



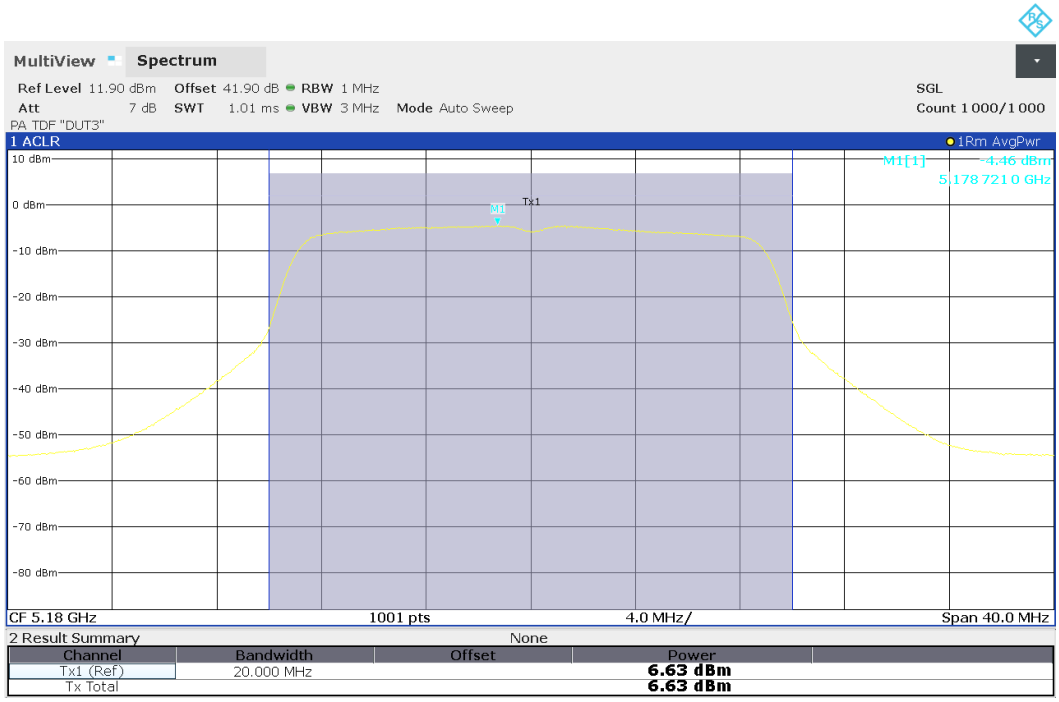
Radio Technology = WLAN a 20 MHz, Operating Frequency = mid, Subband = U-NII-3 (S01_AO04)



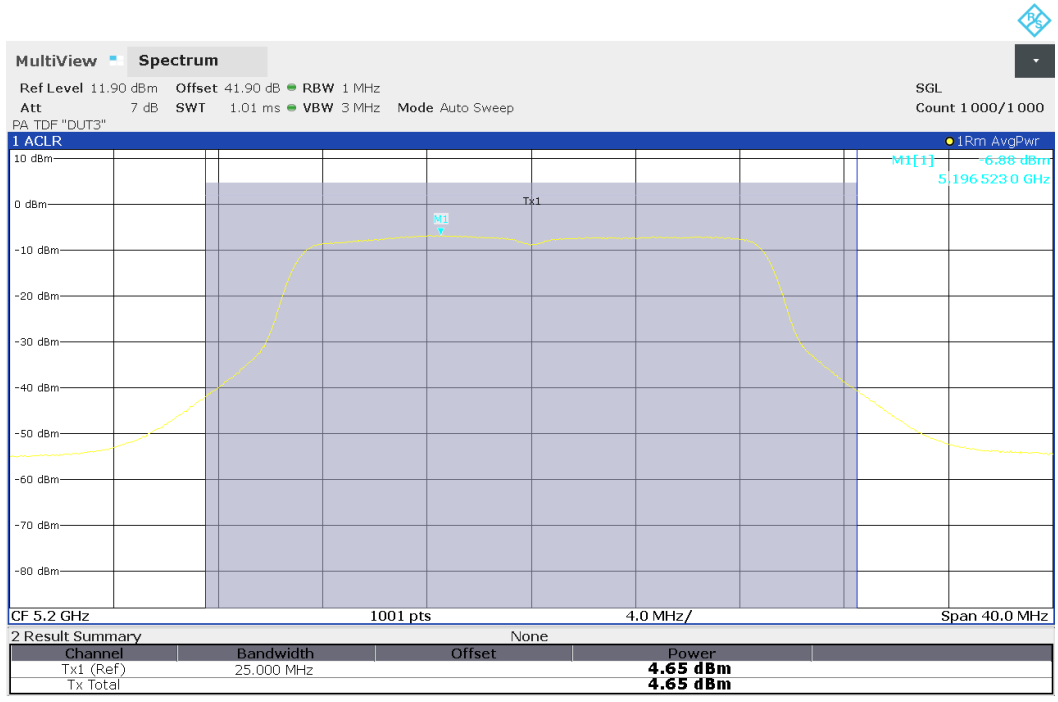
Radio Technology = WLAN a 20 MHz, Operating Frequency = high, Subband = U-NII-3 (S01_AO04)



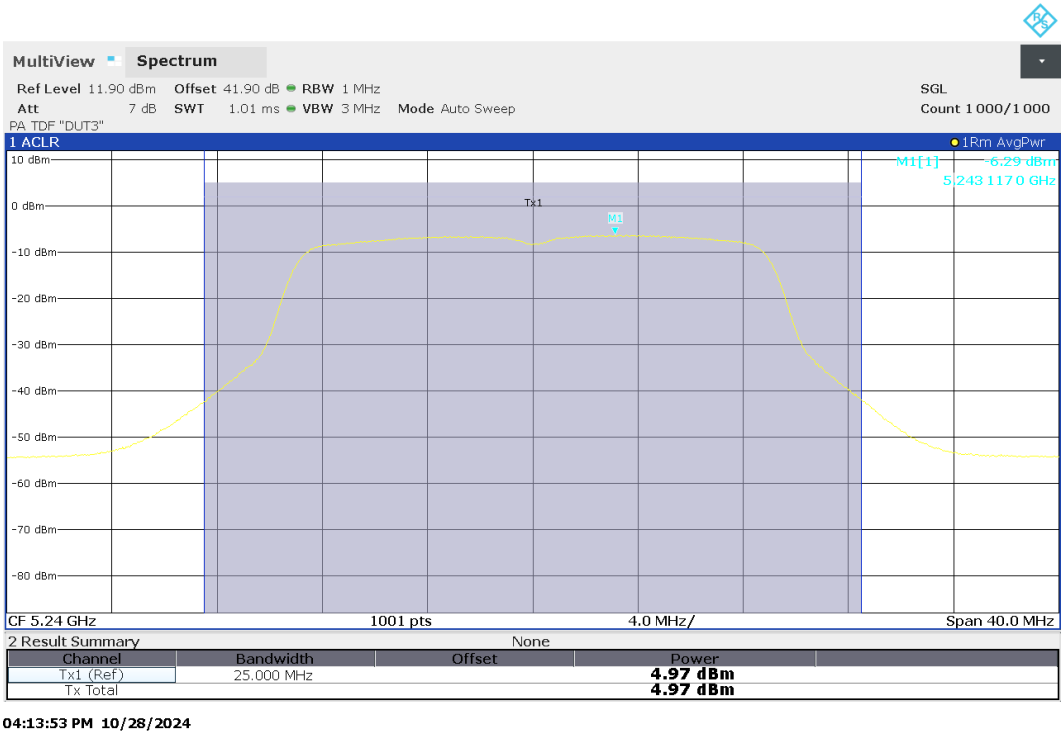
Radio Technology = WLAN n 20 MHz, Operating Frequency = low, Subband = U-NII-1 (S01_AO04)



Radio Technology = WLAN n 20 MHz, Operating Frequency = mid, Subband = U-NII-1 (S01_AO04)



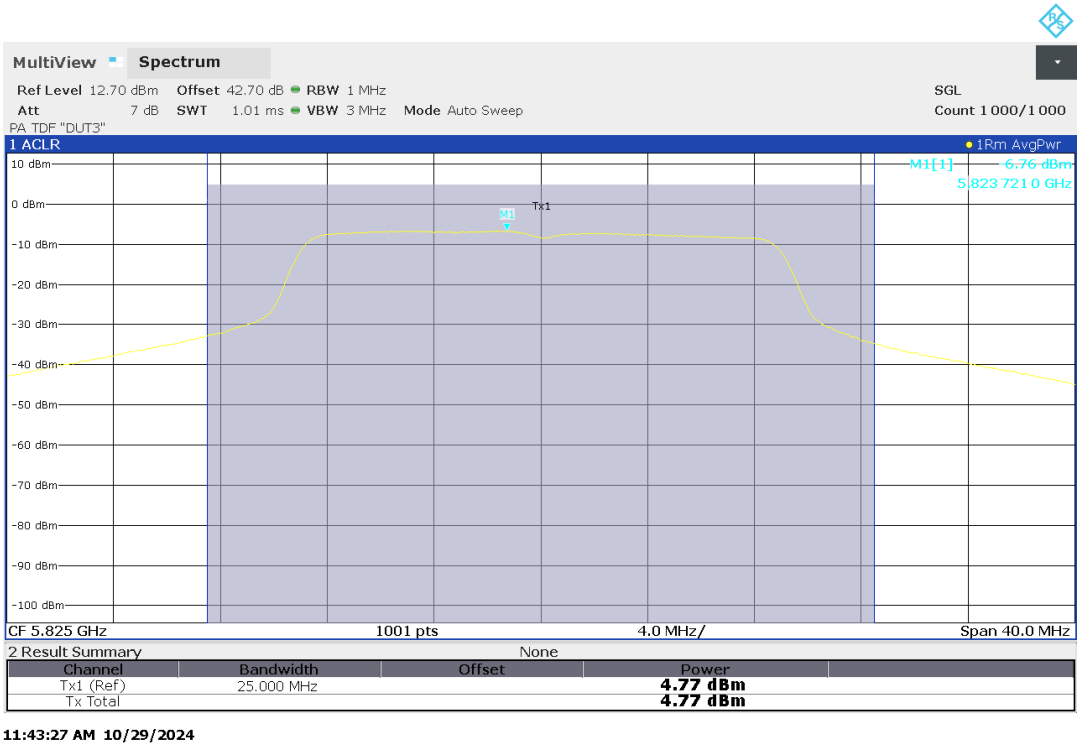
Radio Technology = WLAN n 20 MHz, Operating Frequency = high, Subband = U-NII-1 (S01_AO04)



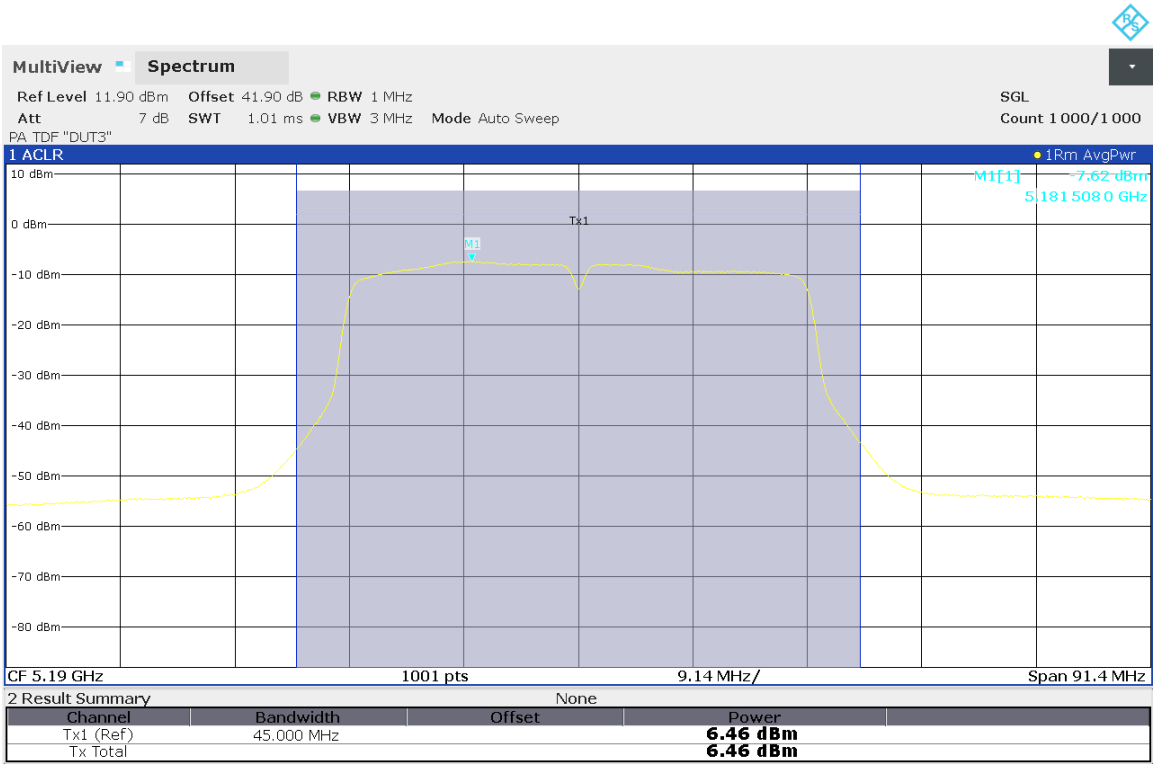
Radio Technology = WLAN n 20 MHz, Operating Frequency = low, Subband = U-NII-3 (S01_AO04)

Radio Technology = WLAN n 20 MHz, Operating Frequency = mid, Subband = U-NII-3 (S01_AO04)

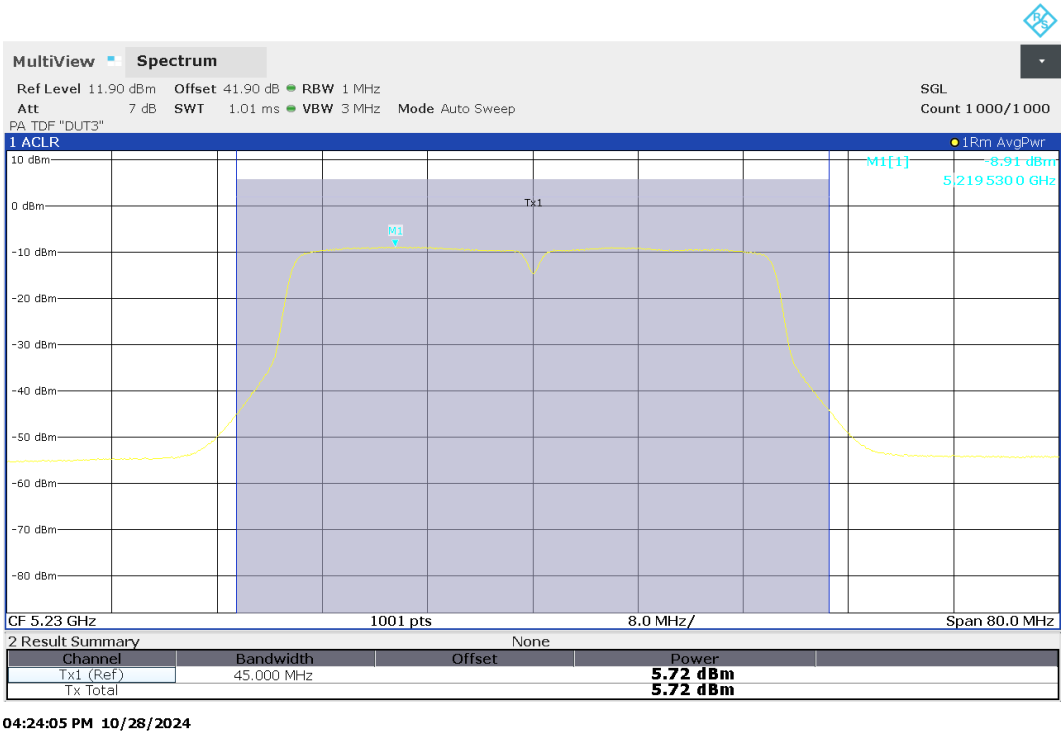
Radio Technology = WLAN n 20 MHz, Operating Frequency = high, Subband = U-NII-3 (S01_AO04)



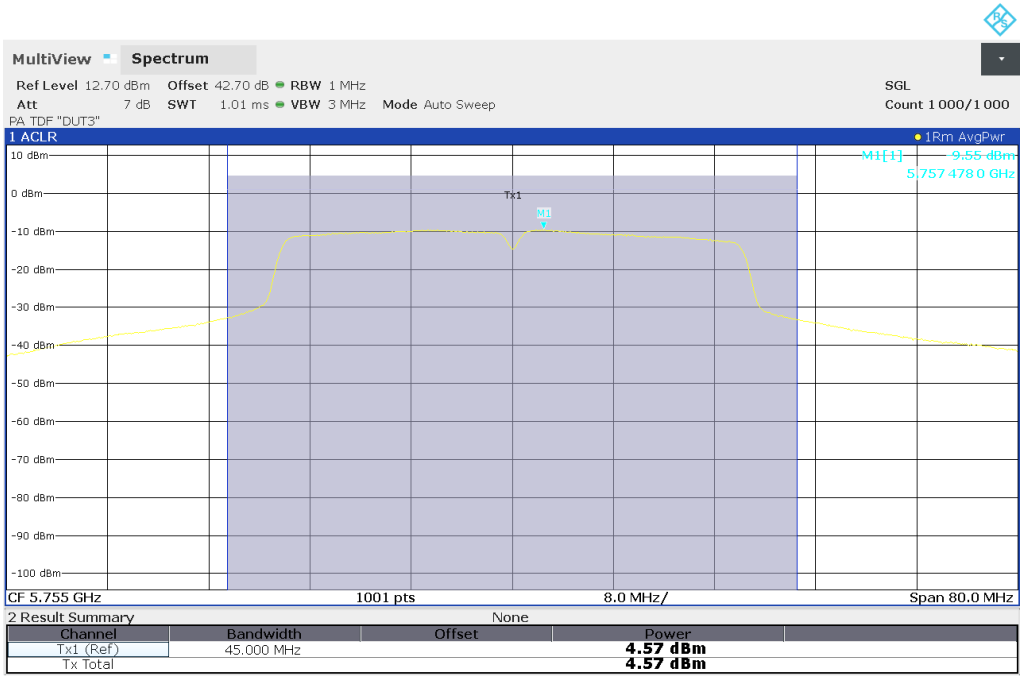
Radio Technology = WLAN n 40 MHz, Operating Frequency = low, Subband = U-NII-1 (S01_AO04)



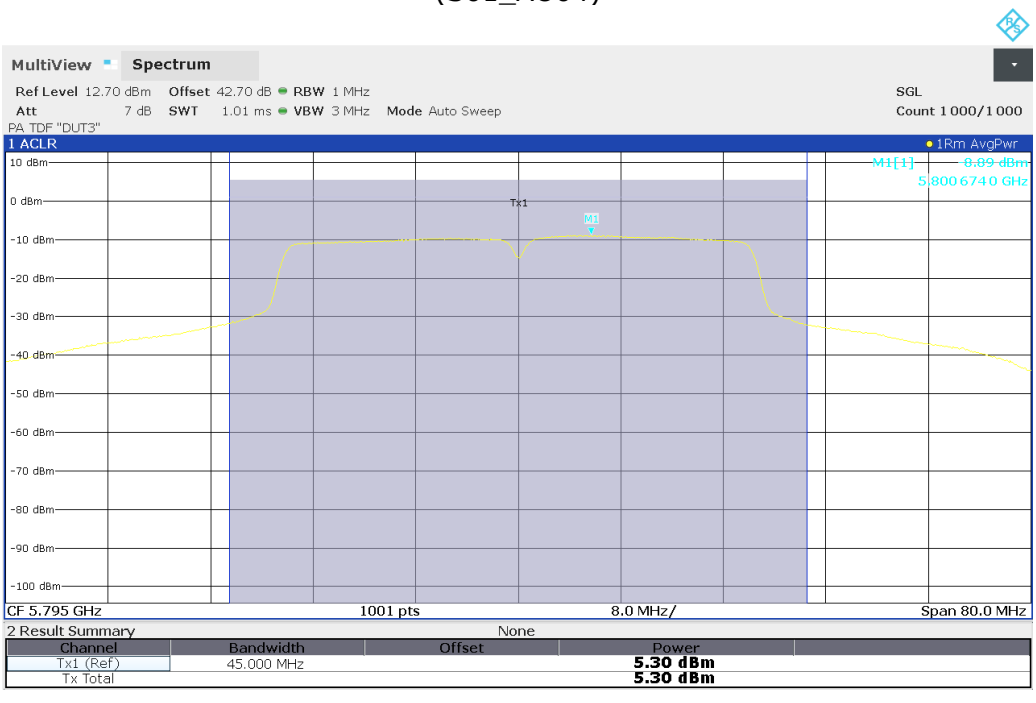
Radio Technology = WLAN n 40 MHz, Operating Frequency = high, Subband = U-NII-1 (S01_AO04)



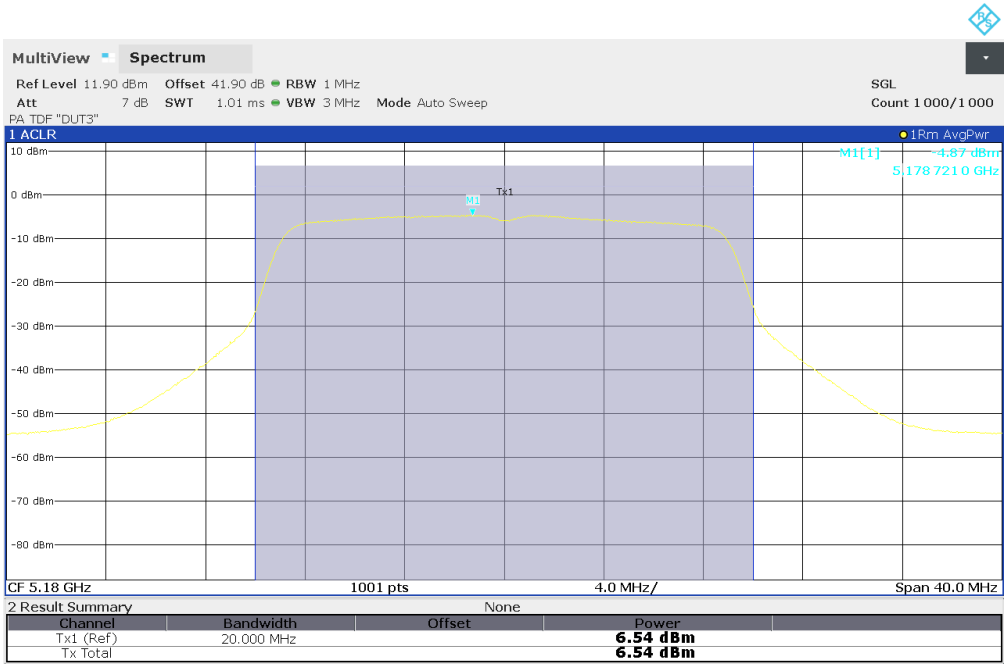
Radio Technology = WLAN n 40 MHz, Operating Frequency = low, Subband = U-NII-3 (S01_AO04)



Radio Technology = WLAN n 40 MHz, Operating Frequency = high, Subband = U-NII-3 (S01_AO04)

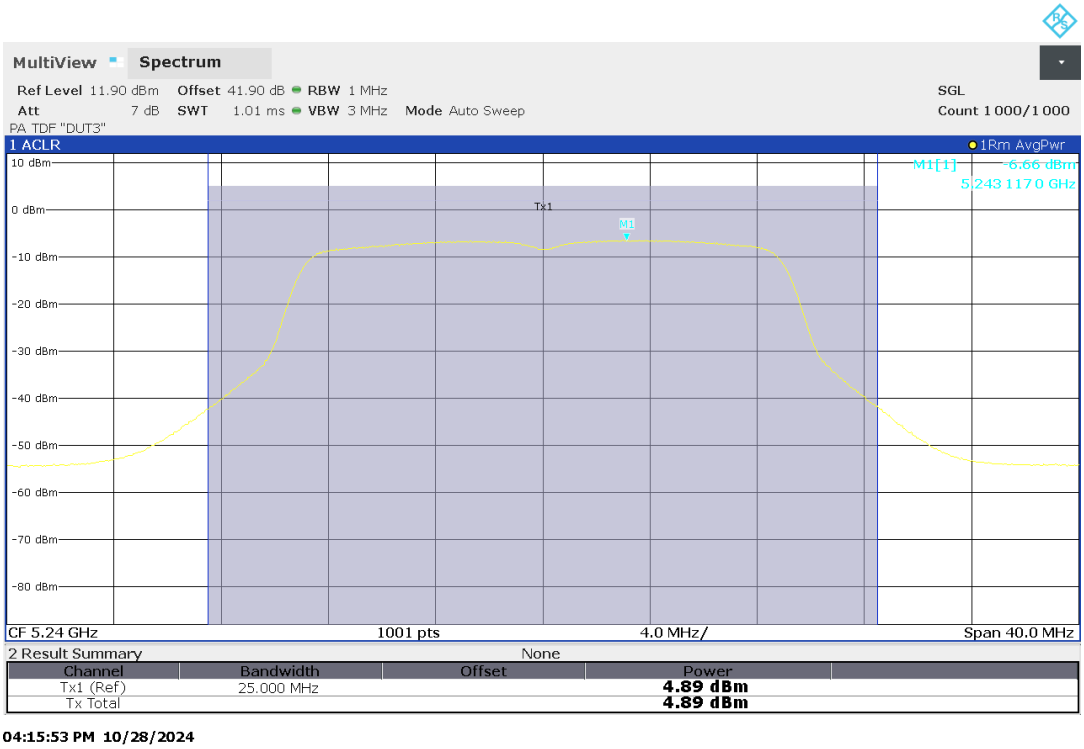


Radio Technology = WLAN ac 20 MHz, Operating Frequency = low, Subband = U-NII-1 (S01_AO04)



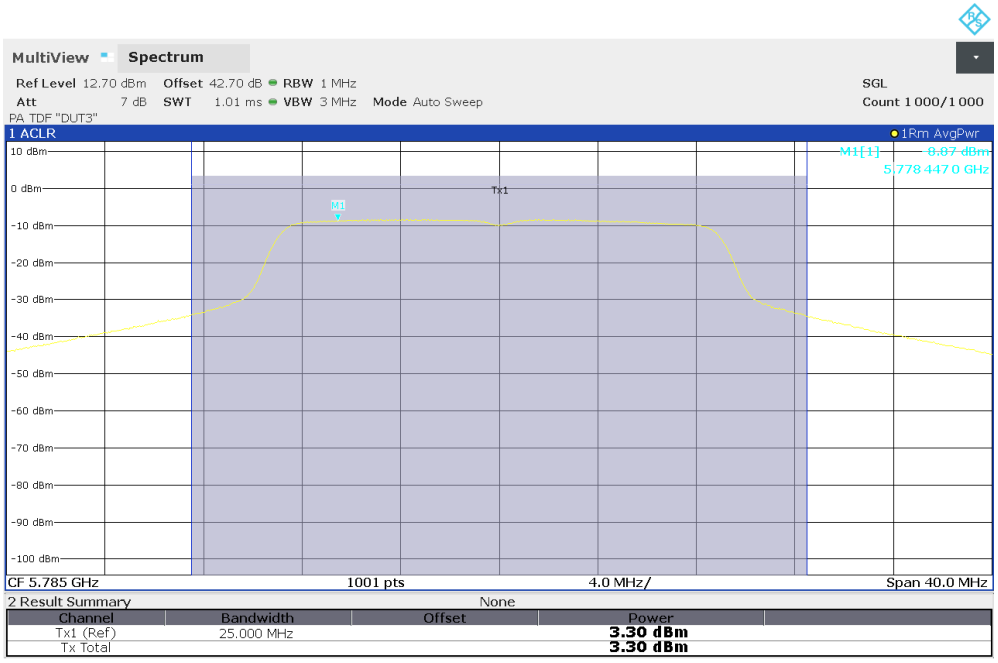
Radio Technology = WLAN ac 20 MHz, Operating Frequency = mid, Subband = U-NII-1 (S01_AO04)

Radio Technology = WLAN ac 20 MHz, Operating Frequency = high, Subband = U-NII-1 (S01_AO04)

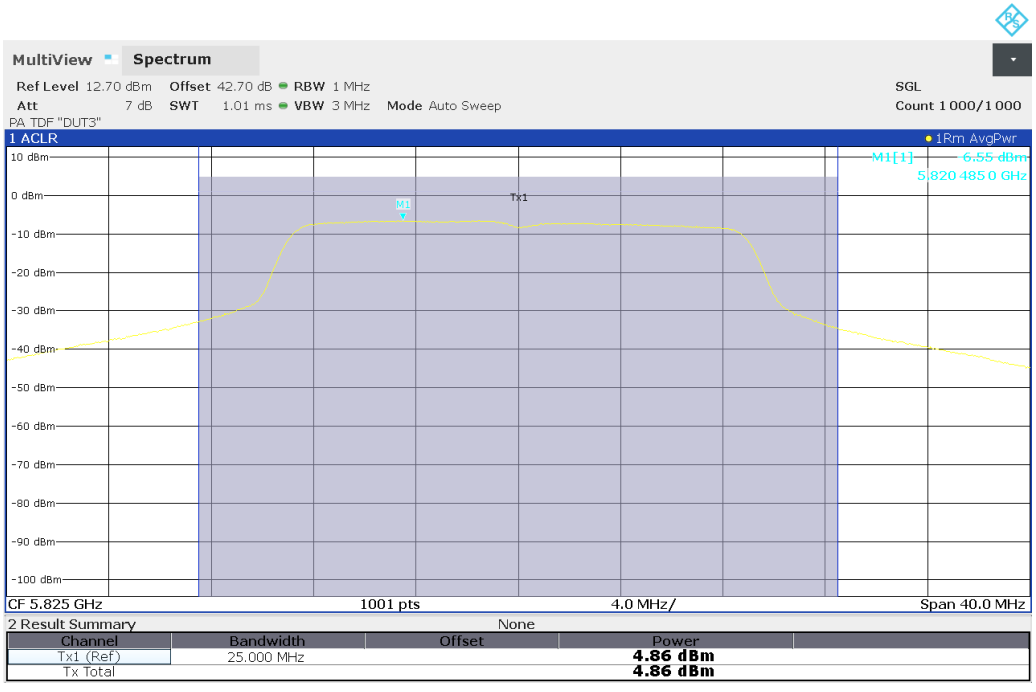


Radio Technology = WLAN ac 20 MHz, Operating Frequency = low, Subband = U-NII-3 (S01_AO04)

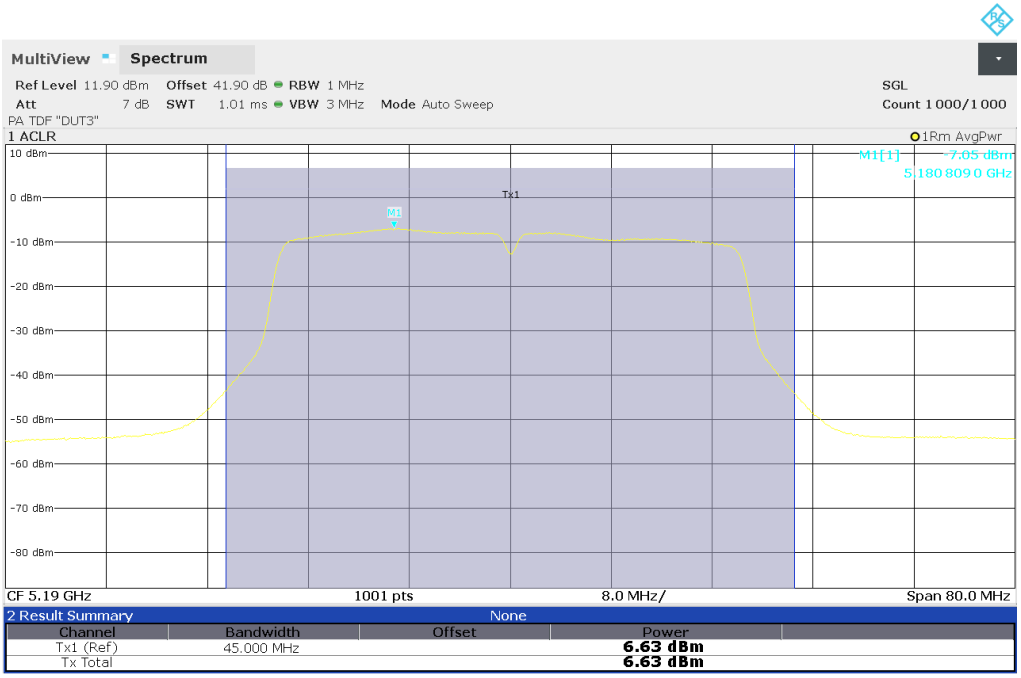
Radio Technology = WLAN ac 20 MHz, Operating Frequency = mid, Subband = U-NII-3 (S01_AO04)



Radio Technology = WLAN ac 20 MHz, Operating Frequency = high, Subband = U-NII-3 (S01_AO04)



Radio Technology = WLAN ac 40 MHz, Operating Frequency = low, Subband = U-NII-1 (S01_AO04)



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Radio Technology = WLAN ac 40 MHz, Operating Frequency = high, Subband = U-NII-1 (S01_AO04)

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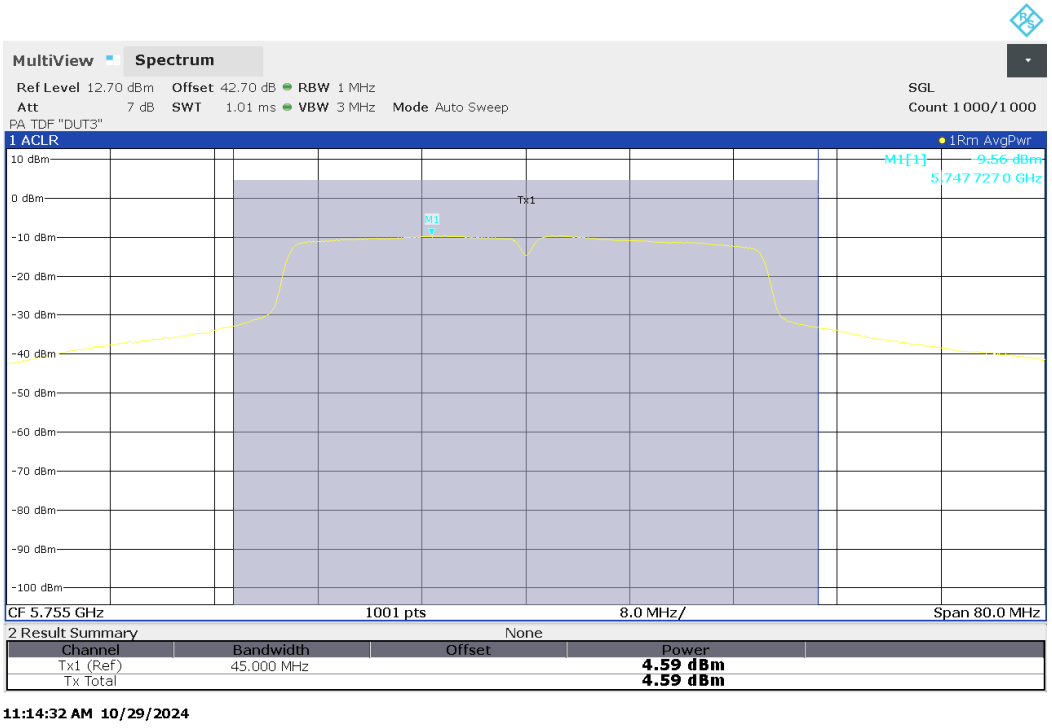
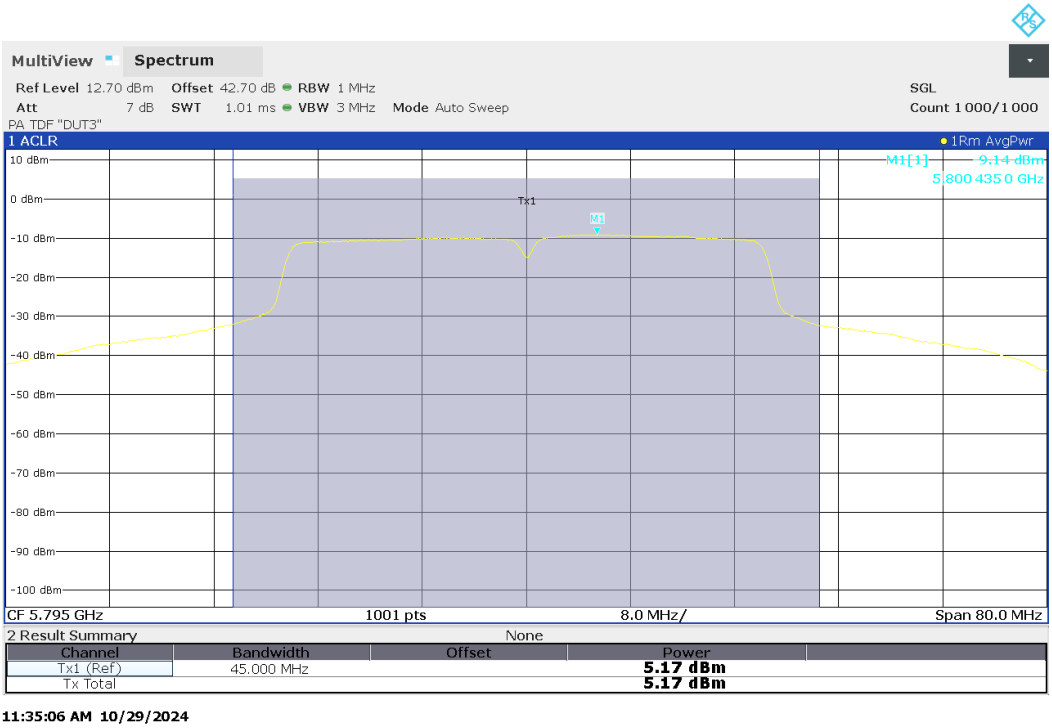
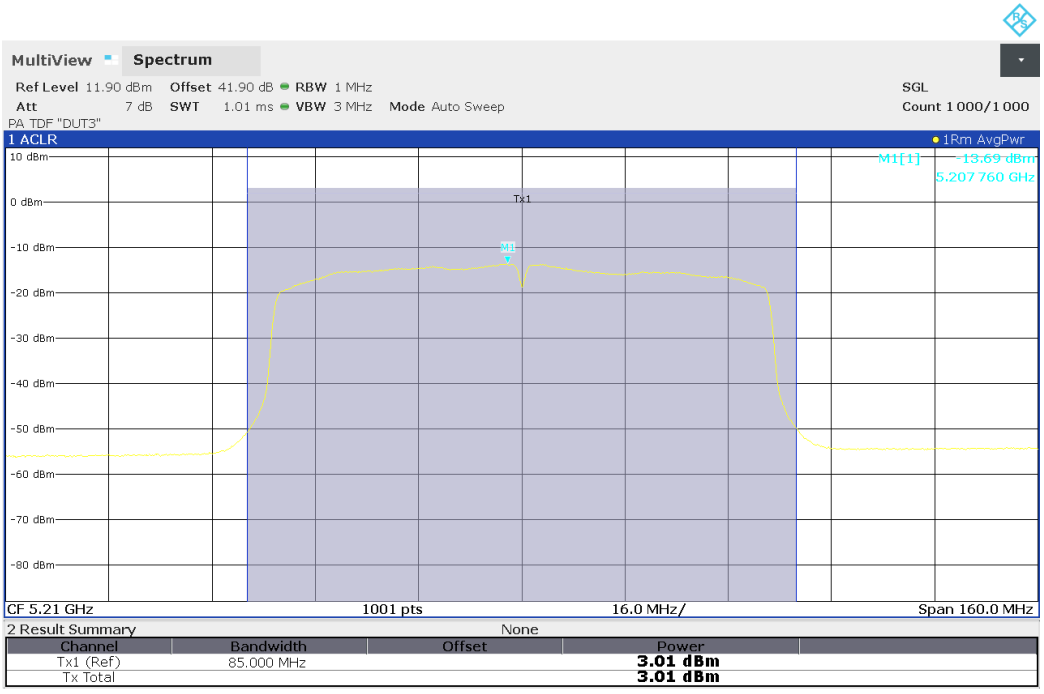
Radio Technology = WLAN ac 40 MHz, Operating Frequency = low, Subband = U-NII-3 (S01_AO04)



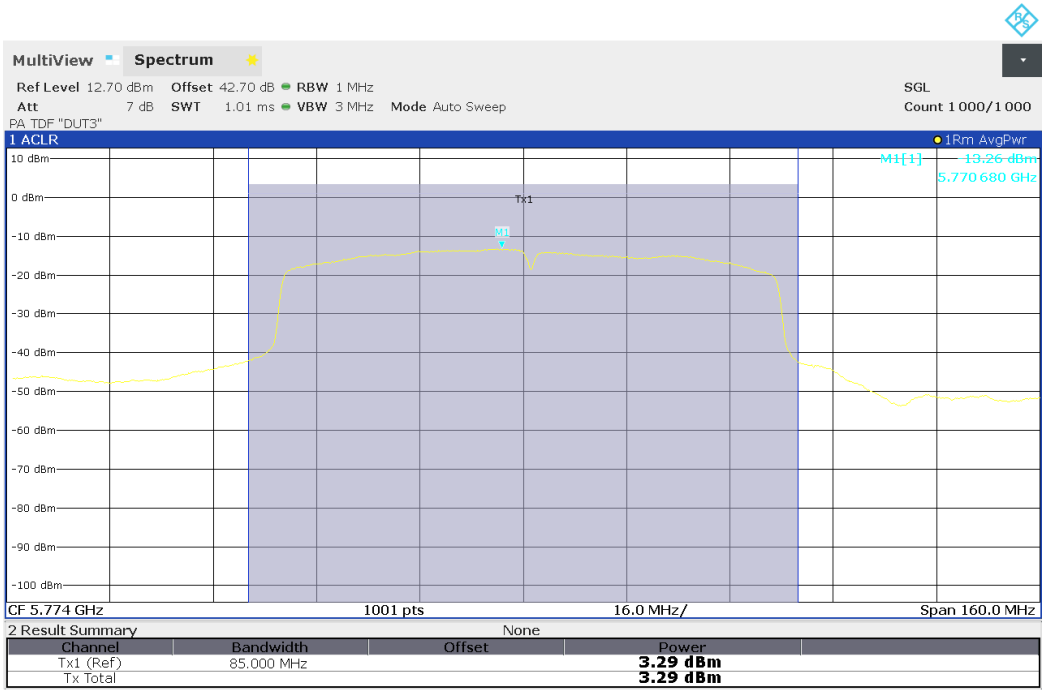
Radio Technology = WLAN ac 40 MHz, Operating Frequency = high, Subband = U-NII-3 (S01_AO04)



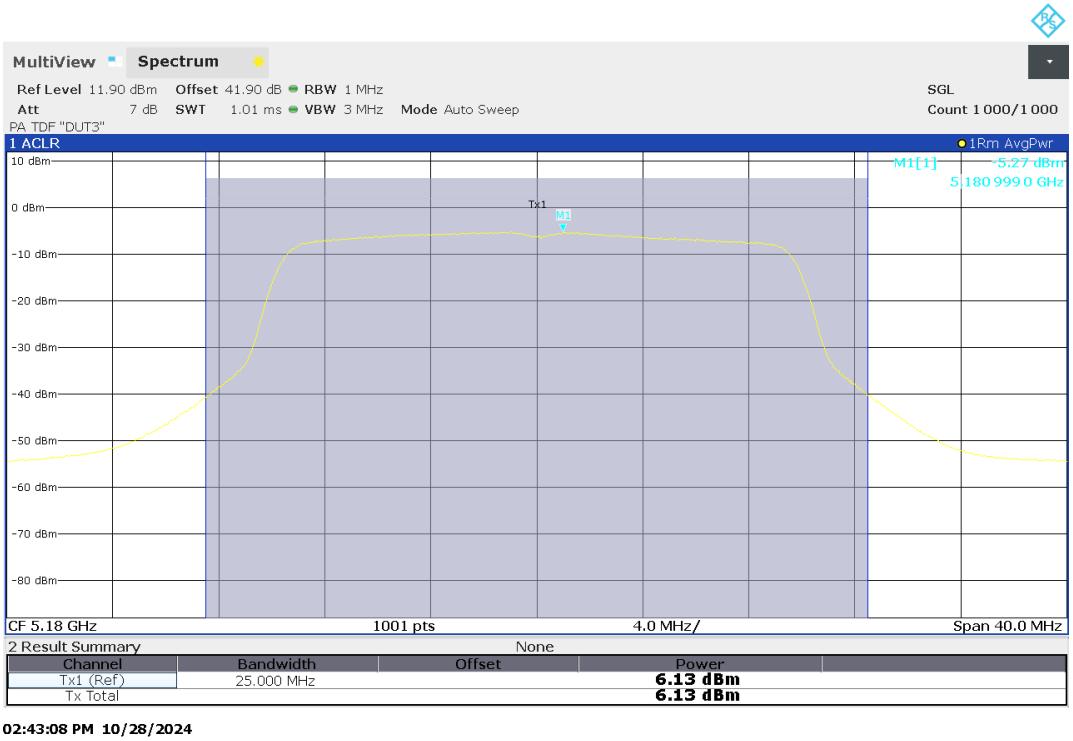
Radio Technology = WLAN ac 80 MHz, Operating Frequency = mid, Subband = U-NII-1 (S01_AO04)



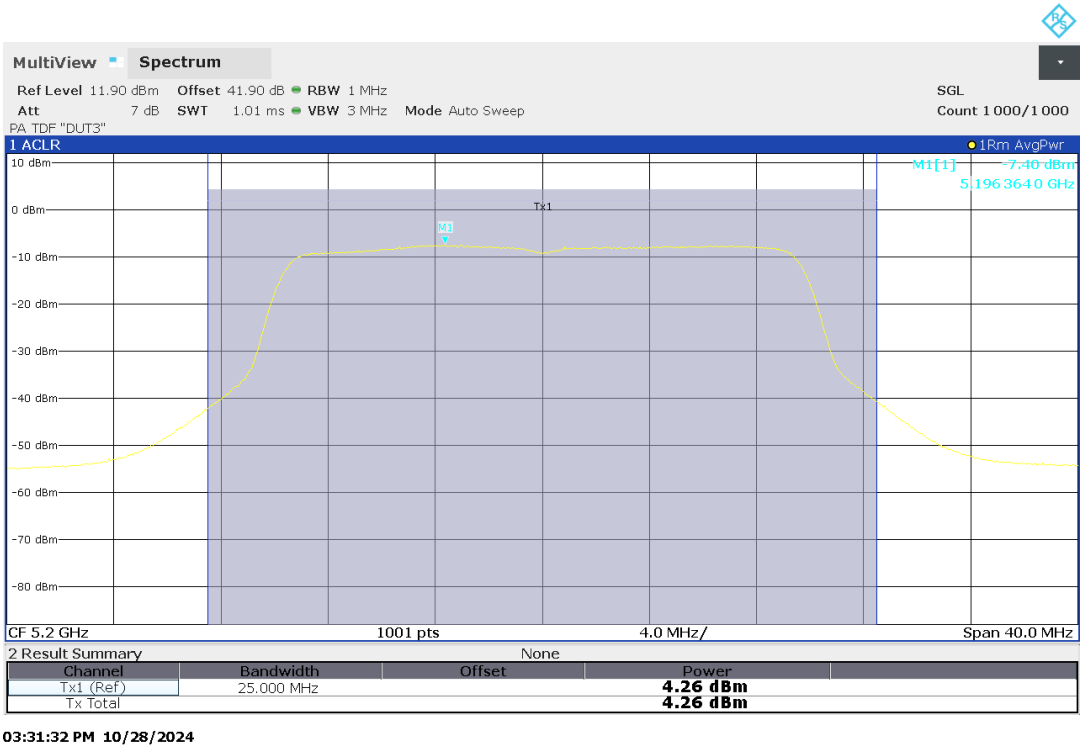
Radio Technology = WLAN ac 80 MHz, Operating Frequency = mid, Subband = U-NII-3 (S01_AO04)



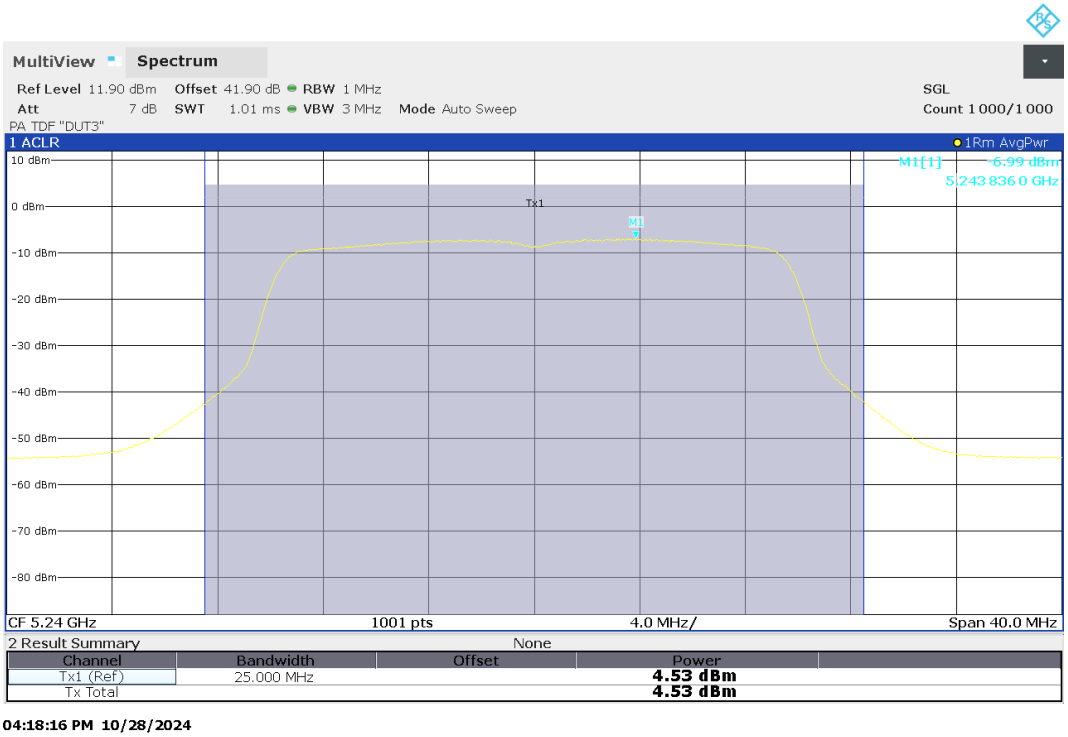
Radio Technology = WLAN ax 20 MHz, Operating Frequency = low, Subband = U-NII-1 (S01_AO04)



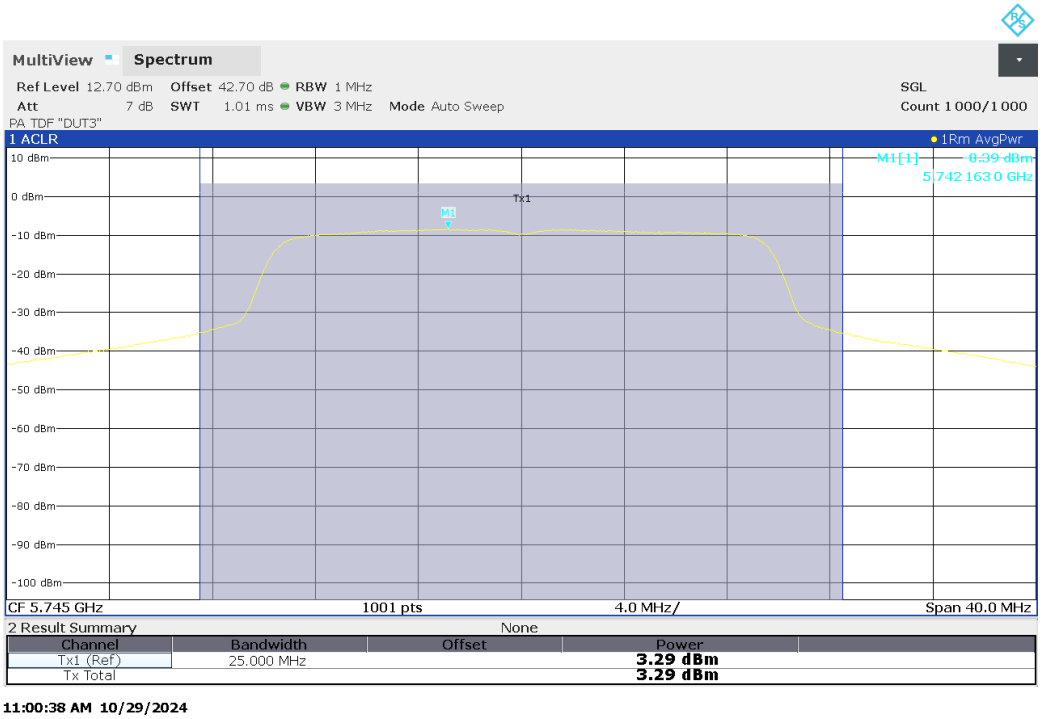
Radio Technology = WLAN ax 20 MHz, Operating Frequency = mid, Subband = U-NII-1 (S01_AO04)



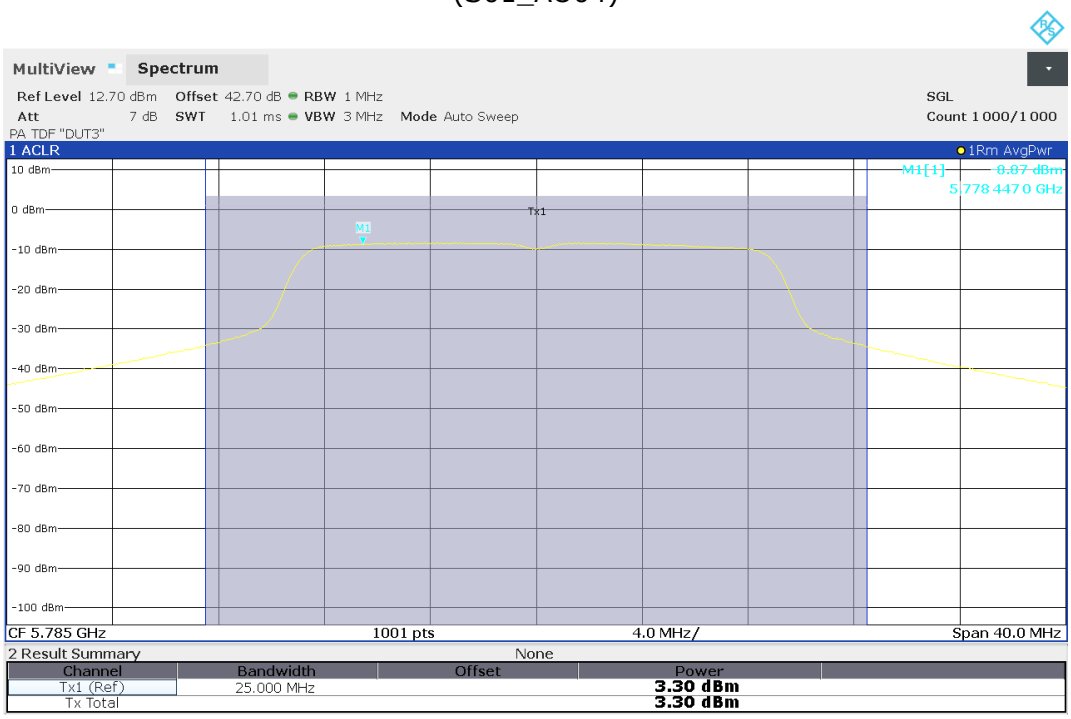
Radio Technology = WLAN ax 20 MHz, Operating Frequency = high, Subband = U-NII-1 (S01_AO04)



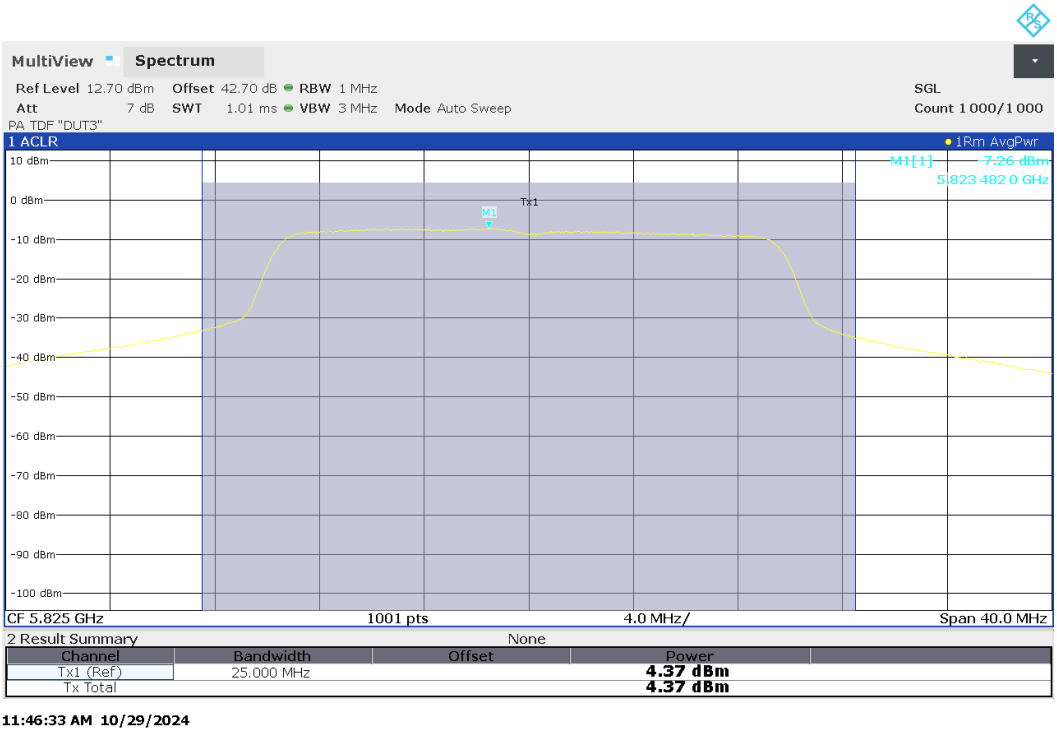
Radio Technology = WLAN ax 20 MHz, Operating Frequency = low, Subband = U-NII-3 (S01_AO04)



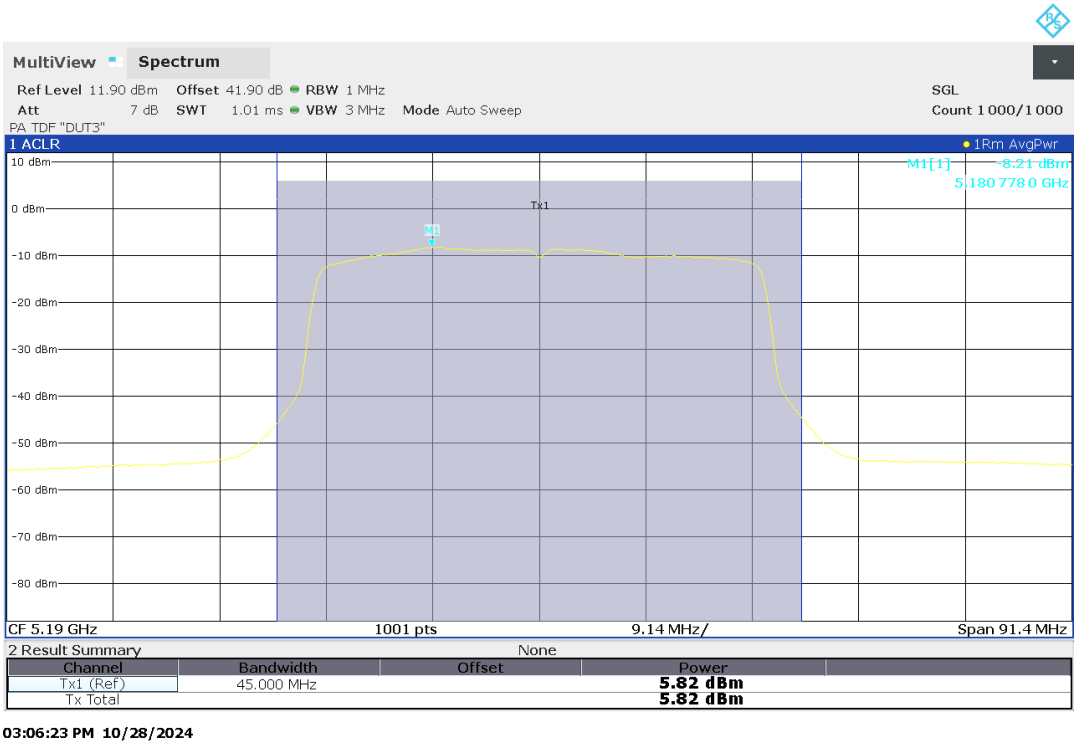
Radio Technology = WLAN ax 20 MHz, Operating Frequency = mid, Subband = U-NII-3 (S01_AO04)



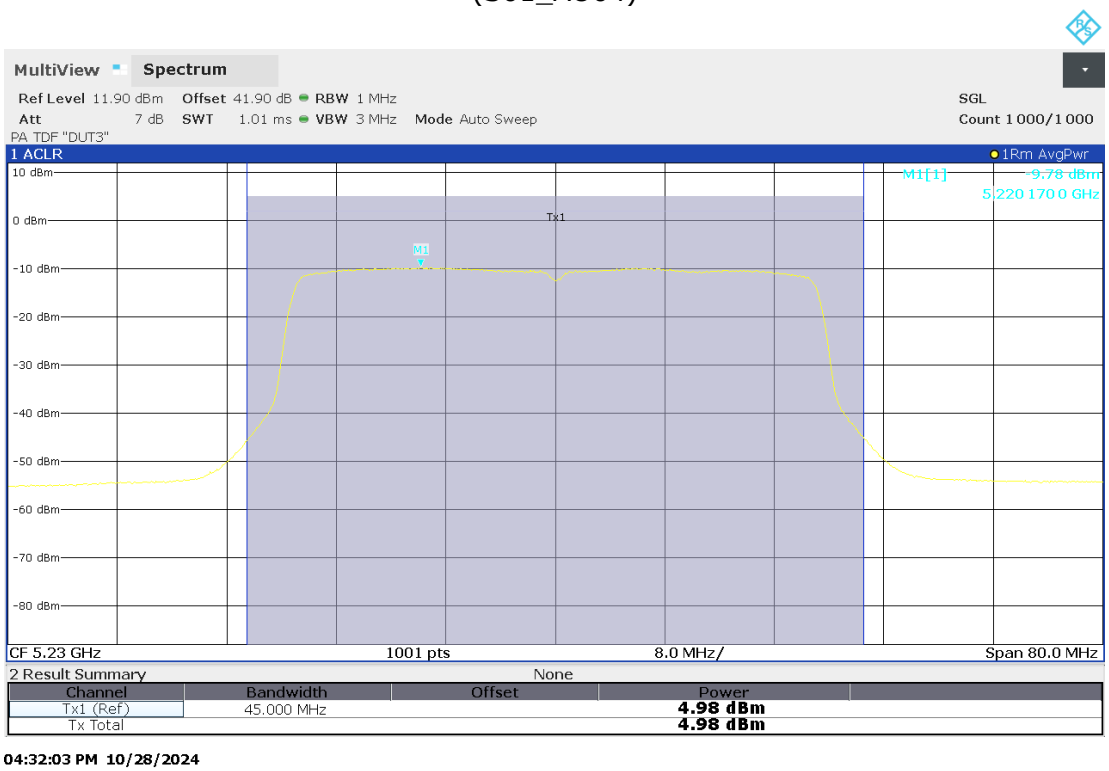
Radio Technology = WLAN ax 20 MHz, Operating Frequency = high, Subband = U-NII-3 (S01_AO04)



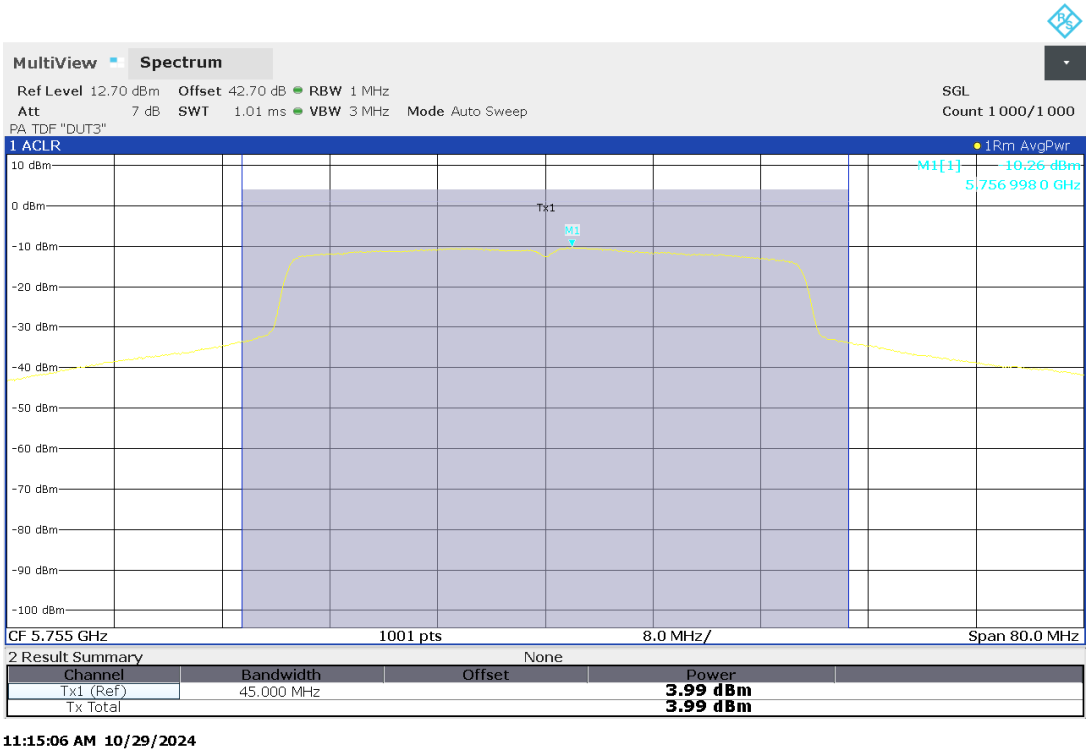
Radio Technology = WLAN ax 40 MHz, Operating Frequency = low, Subband = U-NII-1 (S01_AO04)



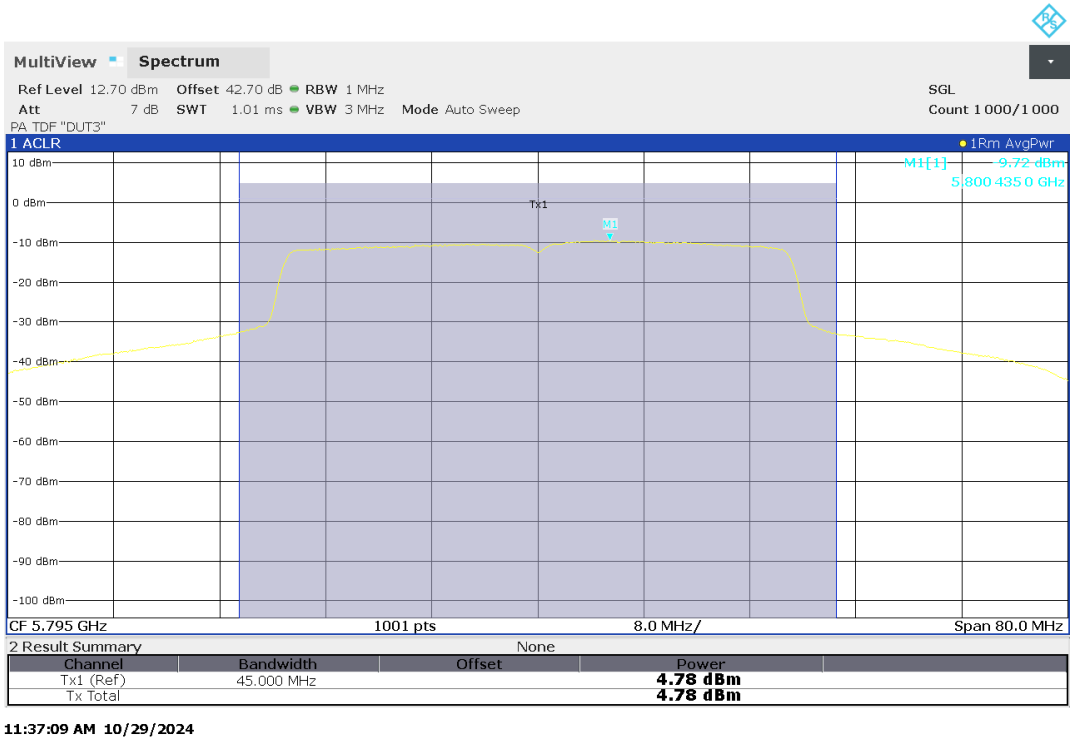
Radio Technology = WLAN ax 40 MHz, Operating Frequency = high, Subband = U-NII-1 (S01_AO04)



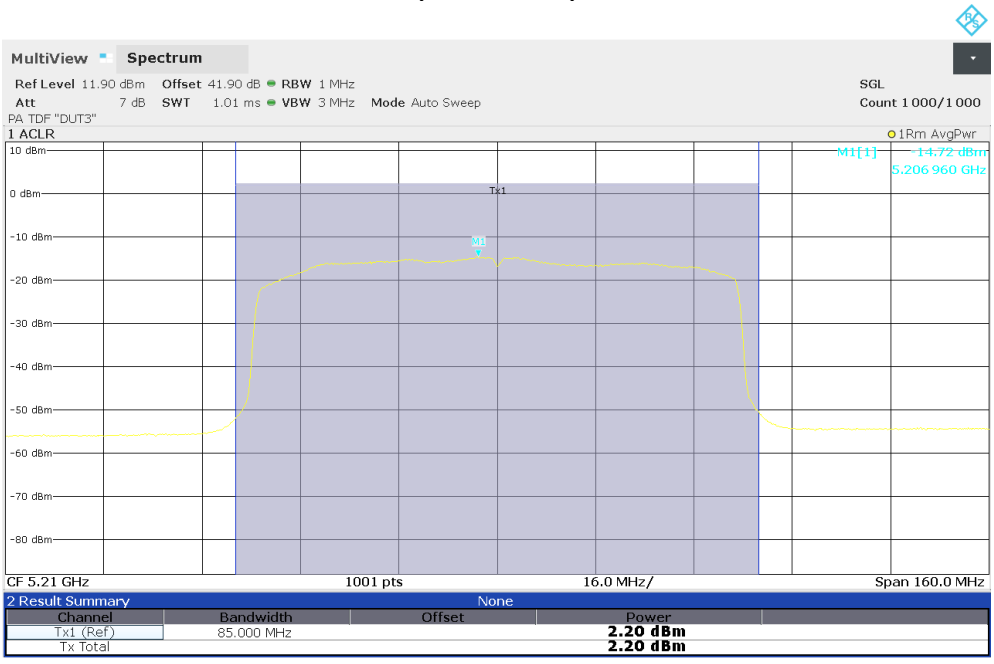
Radio Technology = WLAN ax 40 MHz, Operating Frequency = low, Subband = U-NII-3 (S01_AO04)



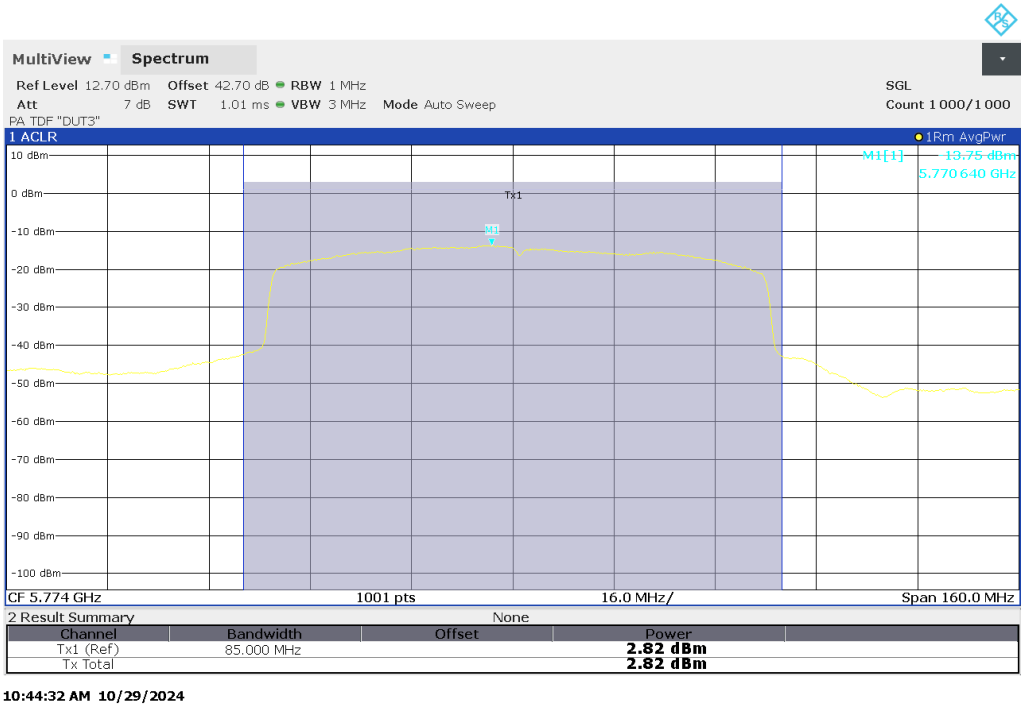
Radio Technology = WLAN ax 40 MHz, Operating Frequency = high, Subband = U-NII-3 (S01_AO04)



Radio Technology = WLAN ax 80 MHz, Operating Frequency = mid, Subband = U-NII-1 (S01_AO04)



Radio Technology = WLAN ax 80 MHz, Operating Frequency = mid, Subband = U-NII-3 (S01_AO04)



5.1.4 TEST PROTOCOL – LOCATION ERLANGEN

Ambient temperature: 20 °C
Air Pressure: 992 hPa
Humidity: 46 %

WLAN a-Mode; 20 MHz; 6 Mbit/s				FCC		ISED	
U-NII-Subband	Ch. No.	TX Freq. [MHz]	EIRP [dBm]	FCC EIRP Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	36	5180	2.8	2.8	30.0	27.2	22.0
	40	5200	0.7	0.7	30.0	29.3	22.0
	48	5240	1.1	1.1	30.0	28.9	22.0
3	149	5745	0.6	0.6	36.0	35.4	36.0
	157	5785	-0.7	-0.7	36.0	36.7	36.0
	165	5825	0.4	0.4	36.0	35.6	36.0

WLAN n-Mode; 20 MHz; MCS 0; SISO				FCC		ISED	
U-NII-Subband	Ch. No.	TX Freq. [MHz]	EIRP [dBm]	FCC EIRP Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	36	5180	2.1	30.0	27.9	22.8	20.6
	40	5200	0.1	30.0	29.9	22.8	22.7
	48	5240	0.3	30.0	29.7	22.8	22.5
3	149	5745	-0.2	36.0	36.2	36.0	36.2
	157	5785	-1.1	36.0	37.1	36.0	37.1
	165	5825	0.0	36.0	36.0	36.0	36.0

WLAN n-Mode; 40 MHz; MCS 0; SISO				FCC		ISED	
U-NII-Subband	Ch. No.	TX Freq. [MHz]	EIRP [dBm]	FCC EIRP Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	38	5190	0.9	30.0	29.1	22.8	21.9
	46	5230	-0.3	30.0	30.3	22.8	23.1
3	151	5755	0.4	36.0	35.6	36.0	35.6
	159	5795	0.7	36.0	35.3	36.0	35.3

WLAN ac-Mode; 20 MHz; MCS 0; SISO				FCC		ISED	
U-NII-Subband	Ch. No.	TX Freq. [MHz]	EIRP [dBm]	FCC EIRP Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	36	5180	2.0	30.0	28.0	22.8	20.8
	40	5200	-0.4	30.0	30.4	22.8	23.2
	48	5240	0.2	30.0	29.8	22.8	22.6
3	149	5745	-0.2	36.0	36.2	36.0	36.2
	157	5785	-1.0	36.0	37.0	36.0	37.0
	165	5825	0.0	36.0	36.0	36.0	36.0

WLAN ac-Mode; 40 MHz; MCS 0; SISO				FCC		ISED	
U-NII-Subband	Ch. No.	TX Freq. [MHz]	EIRP [dBm]	FCC EIRP Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	38	5190	0.8	30.0	29.3	22.8	22.0
	46	5230	-0.4	30.0	30.4	22.8	23.2
3	151	5755	0.3	36.0	35.7	36.0	35.7
	159	5795	0.8	36.0	35.3	36.0	35.3

WLAN ac-Mode; 80 MHz; MCS 0; SISO				FCC		ISED	
U-NII-Subband	Ch. No.	TX Freq. [MHz]	EIRP [dBm]	FCC EIRP Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	42	5210	-3.1	30.0	33.1	22.8	25.9
3	155	5775	-2.0	36.0	38.0	36.0	38.0

WLAN ax-Mode; 20 MHz; MCS 0; SISO				FCC		ISED	
U-NII-Subband	Ch. No.	TX Freq. [MHz]	EIRP [dBm]	FCC EIRP Limit [dBm]	Margin [dB]	ISED EIRP Limit [dBm]	Margin [dB]
1	36	5180	1.3	30.0	28.8	22.8	21.5
	40	5200	-0.9	30.0	30.9	22.8	23.7
	48	5240	-0.5	30.0	30.5	22.8	23.3
3	149	5745	-1.1	36.0	37.1	36.0	37.1
	157	5785	-1.6	36.0	37.6	36.0	37.6
	165	5825	-0.6	36.0	36.6	36.0	36.6

WLAN ax-Mode; 40 MHz; MCS 0; SISO				FCC		ISED	
U-NII-Subband	**Ch. No.**	**TX Freq. [MHz]**	**EIRP [dBm]**	**FCC EIRP Limit [dBm]**	**Margin [dB]**	**ISED EIRP Limit [dBm]**	**Margin [dB]**
1	38	5190	0.0	30.0	30.0	22.8	22.8
	46	5230	-1.1	30.0	31.1	22.8	23.9
3	151	5755	-0.4	36.0	36.4	36.0	36.4
	159	5795	0.1	36.0	35.9	36.0	35.9

WLAN ax-Mode; 80 MHz; MCS 0; SISO				FCC		ISED	
U-NII-Subband	**Ch. No.**	**TX Freq. [MHz]**	**EIRP [dBm]**	**FCC EIRP Limit [dBm]**	**Margin [dB]**	**ISED EIRP Limit [dBm]**	**Margin [dB]**
1	42	5210	-3.7	30.0	33.7	22.8	26.5
3	155	5775	-2.5	36.0	38.5	36.0	38.5

COMMENT:

- The values of the 99% OBW – to calculate the ISED EIRP limit in subband 1 - have been taken from the original report of the EUT with the reference: MDE_SIEM_1911_FCC_02_REV01
- The spectrum analyser transducer "TDF TS DUT CAL" contains the attenuation of the measurement cable
- The "Reference Level Offset" in the analyser contains the correction of the far-field attenuation and the gain of the receiving antenna.
  Example calculation:
  FF-ATT: 62.6 dB (5180 MHz@7.0m), Antenna Gain: 10.0 dB
  Reference Level Offset: 62.6 dB -10.0 dB = 52.6 dB

5.1.4.1 RESULTS OF WORST-CASE SEARCH

$D_{STABLE\ DECREASE}$ = 23.0 m (equal to length of installed cable)

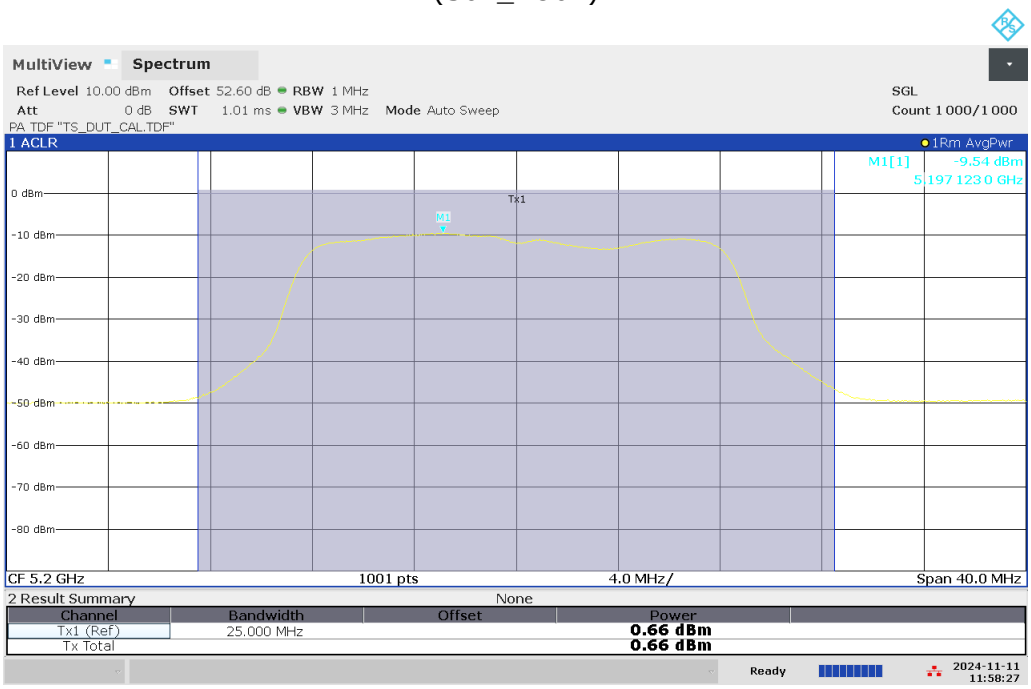
Channel Bandwidth [MHz]	Center Frequency [MHz]	Measurement Distance [m]	Measurement height [m]	Polarisation of receiving antenna	Worst-Case distance from feeding point [m]
20	5180	7.0	2.0	horizontal	8.3
	5200	7.0	2.0	horizontal	11.9
	5240	7.0	2.0	horizontal	8.3
	5745	7.0	2.0	horizontal	14.5
	5785	7.0	2.0	horizontal	11.2
	5825	7.0	2.0	horizontal	10.9
40	5190	7.0	2.0	horizontal	8.3
	5230	7.0	2.0	horizontal	8.5
	5755	7.0	2.0	horizontal	13.1
	5795	7.0	2.0	horizontal	14.6
80	5210	7.0	2.0	horizontal	8.3
	5775	7.0	2.0	horizontal	16.1

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

Radio Technology = WLAN a 20 MHz, Operating Frequency = low, Subband = U-NII-1 (S02_AO04)

11:40:28 AM 11/11/2024

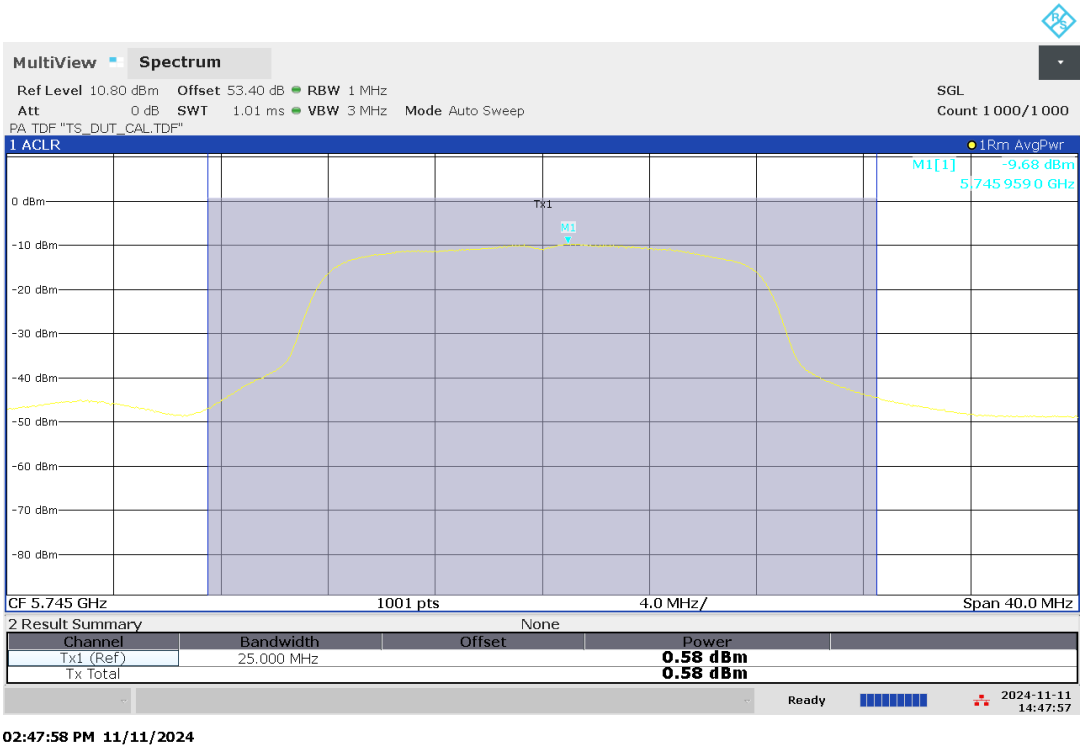
Radio Technology = WLAN a 20 MHz, Operating Frequency = mid, Subband = U-NII-1 (S02_AO04)



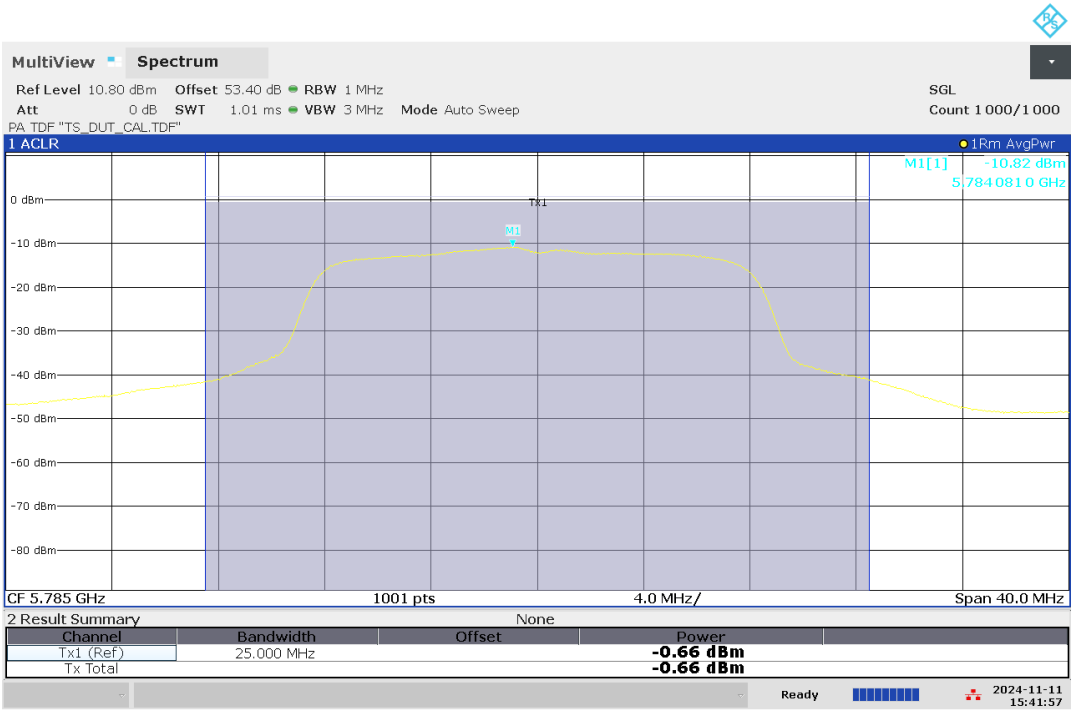
11:58:27 AM 11/11/2024

Radio Technology = WLAN a 20 MHz, Operating Frequency = high, Subband = U-NII-1 (S02_AO04)

Radio Technology = WLAN a 20 MHz, Operating Frequency = low, Subband = U-NII-3 (S02_AO04)

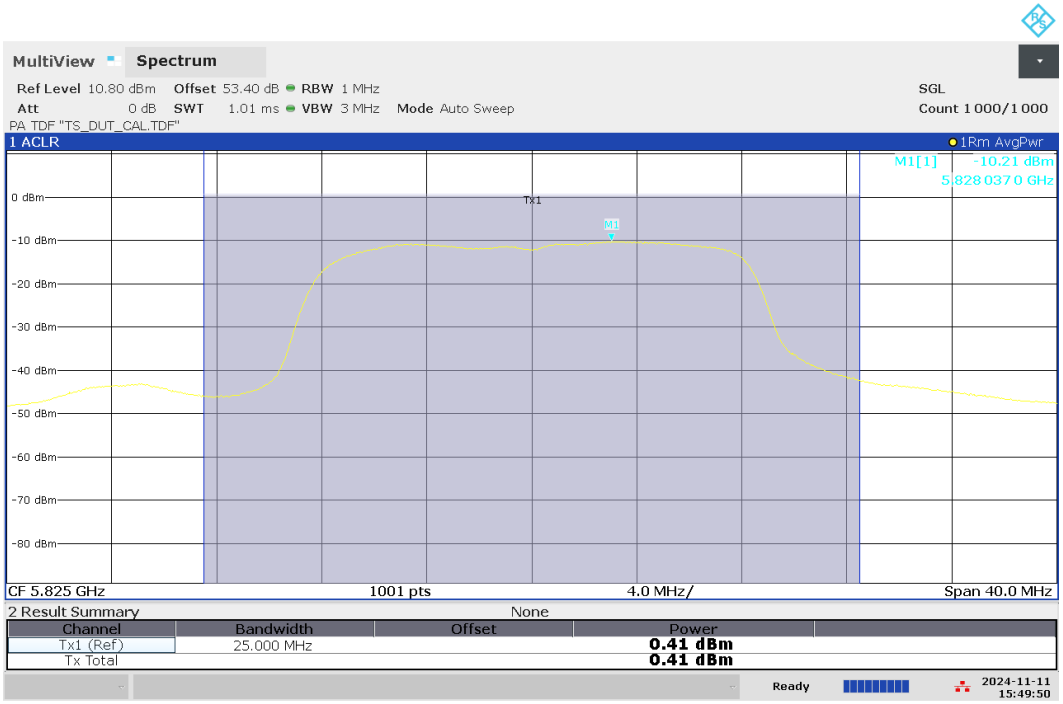


Radio Technology = WLAN a 20 MHz, Operating Frequency = mid, Subband = U-NII-3 (S02_AO04)



03:41:58 PM 11/11/2024

Radio Technology = WLAN a 20 MHz, Operating Frequency = high, Subband = U-NII-3 (S02_AO04)

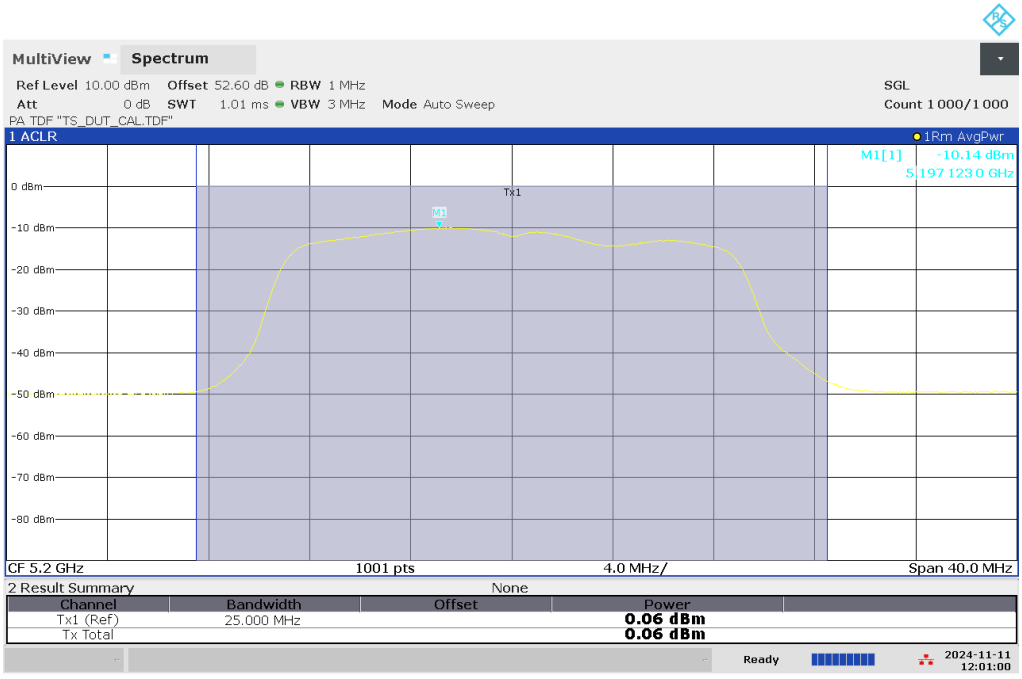


03:49:51 PM 11/11/2024

Radio Technology = WLAN n 20 MHz, Operating Frequency = low, Subband = U-NII-1 (S02_AO04)

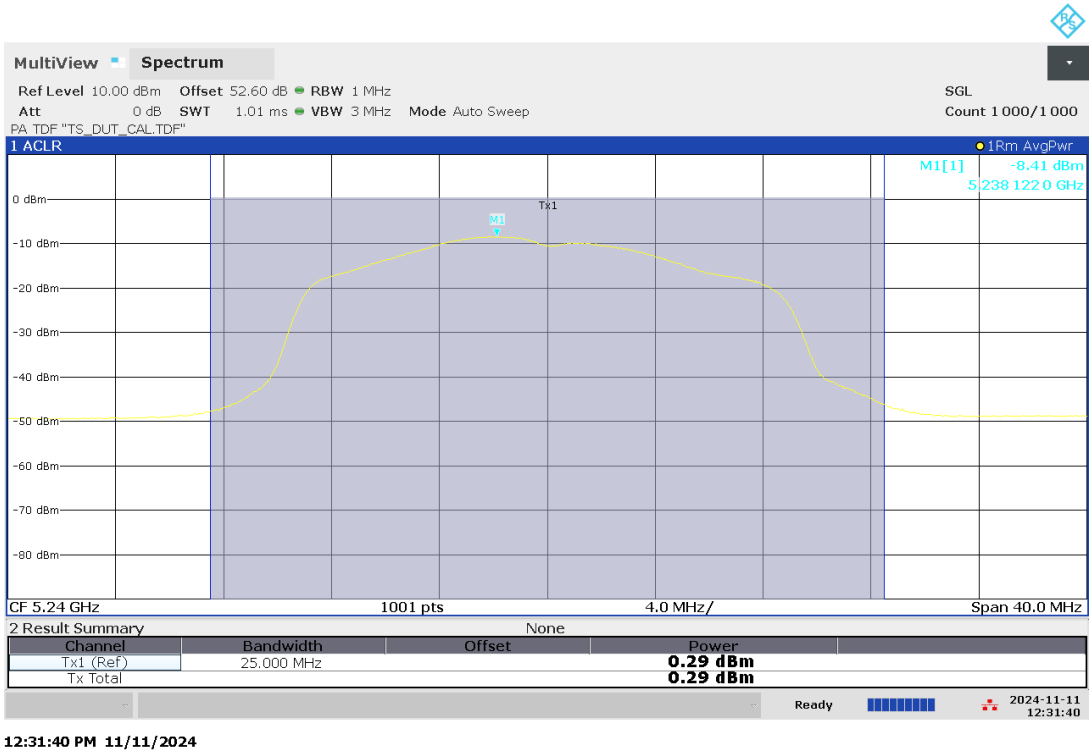
11:39:07 AM 11/11/2024

Radio Technology = WLAN n 20 MHz, Operating Frequency = mid, Subband = U-NII-1 (S02_AO04)



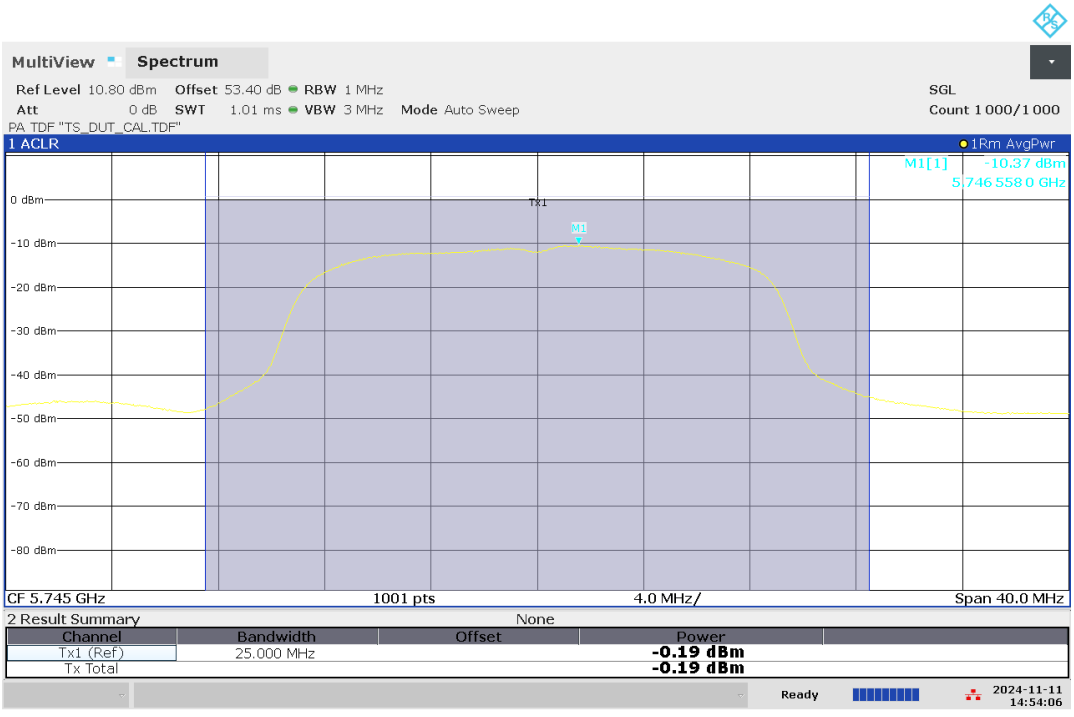
12:01:00 PM 11/11/2024

Radio Technology = WLAN n 20 MHz, Operating Frequency = high, Subband = U-NII-1 (S02_AO04)



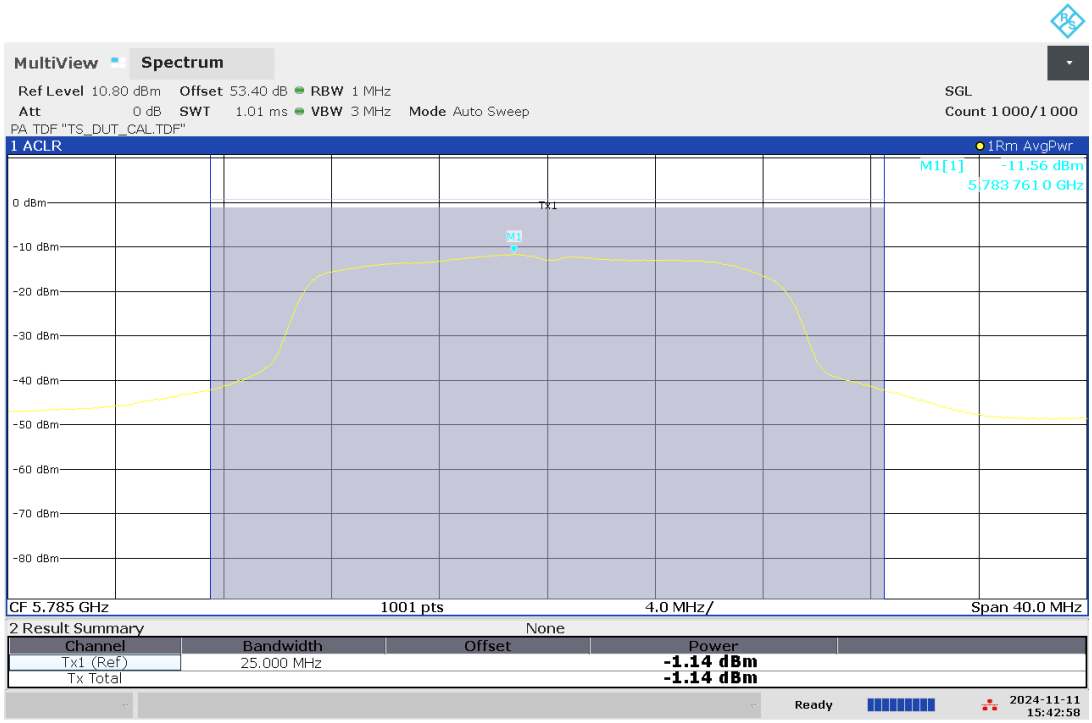
12:31:40 PM 11/11/2024

Radio Technology = WLAN n 20 MHz, Operating Frequency = low, Subband = U-NII-3 (S02_AO04)



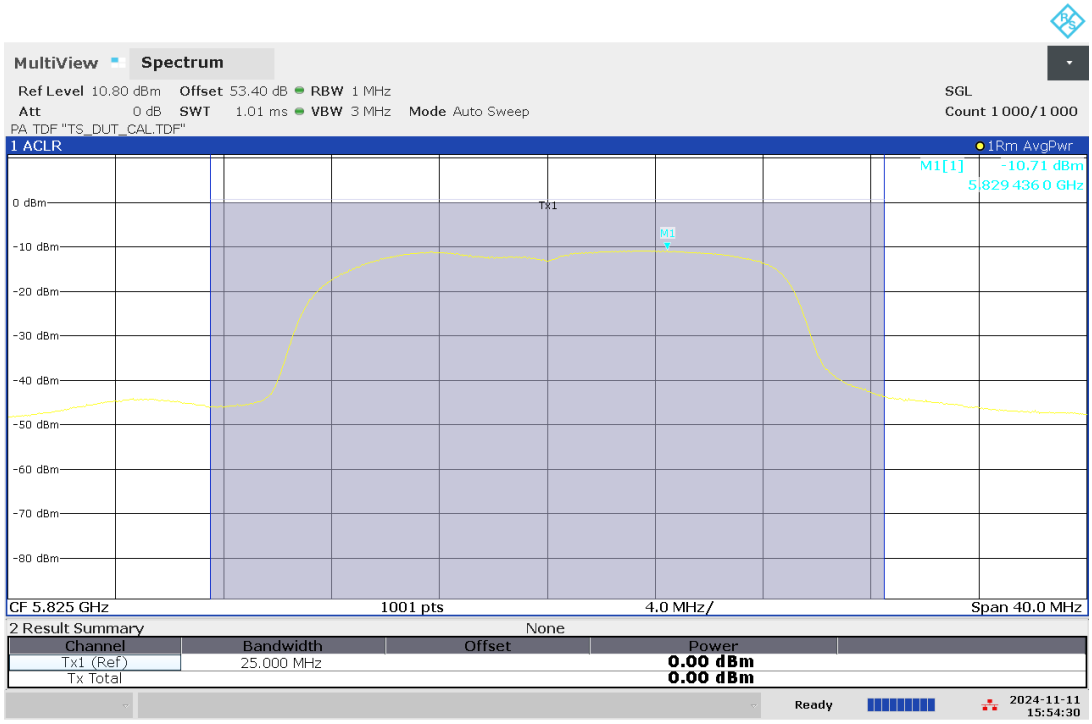
02:54:06 PM 11/11/2024

Radio Technology = WLAN n 20 MHz, Operating Frequency = mid, Subband = U-NII-3 (S02_AO04)



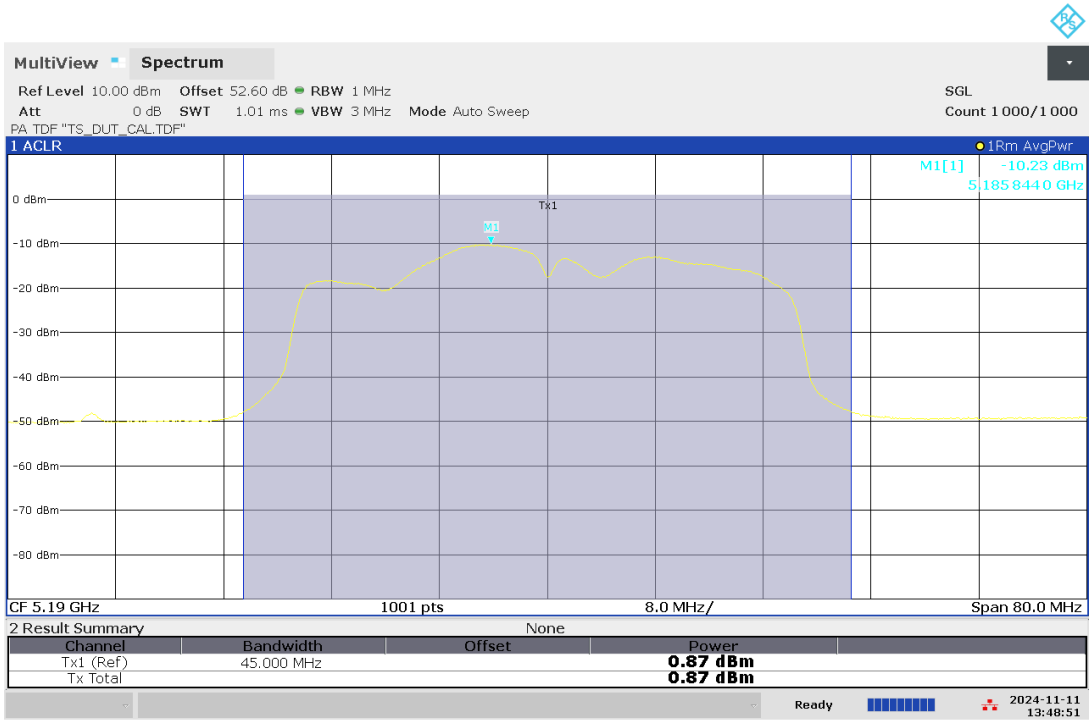
03:42:59 PM 11/11/2024

Radio Technology = WLAN n 20 MHz, Operating Frequency = high, Subband = U-NII-3 (S02_AO04)



03:54:31 PM 11/11/2024

Radio Technology = WLAN n 40 MHz, Operating Frequency = low, Subband = U-NII-1 (S02_AO04)

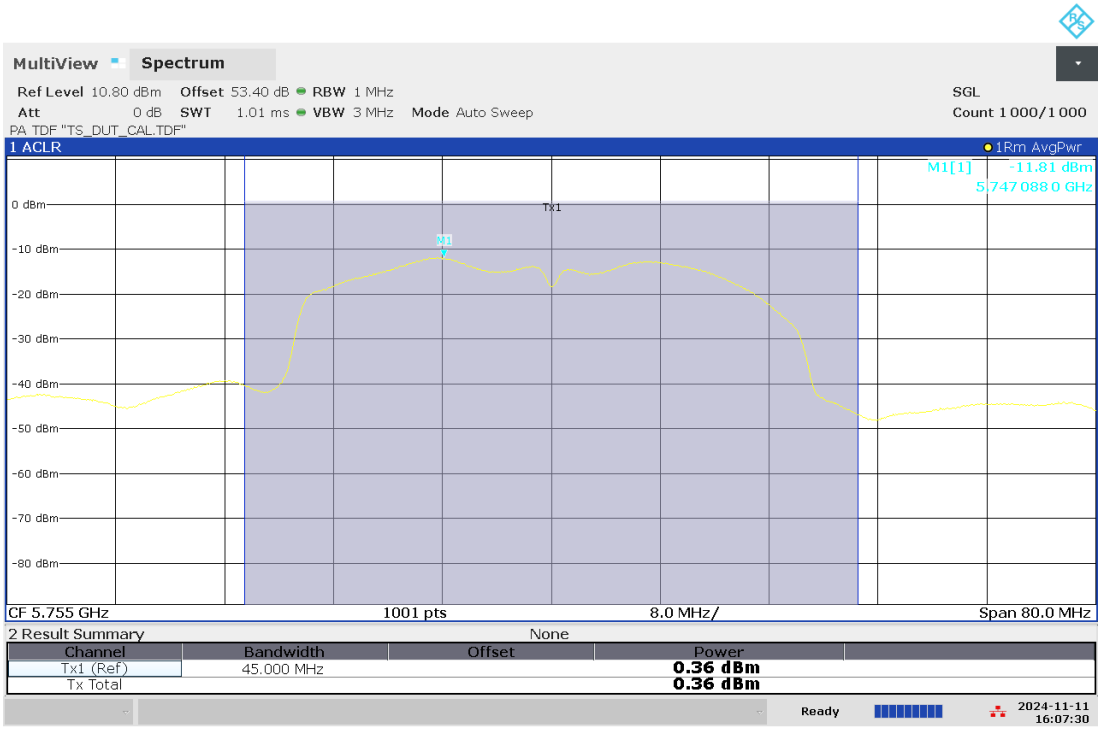


01:48:51 PM 11/11/2024

Radio Technology = WLAN n 40 MHz, Operating Frequency = high, Subband = U-NII-1 (S02_AO04)

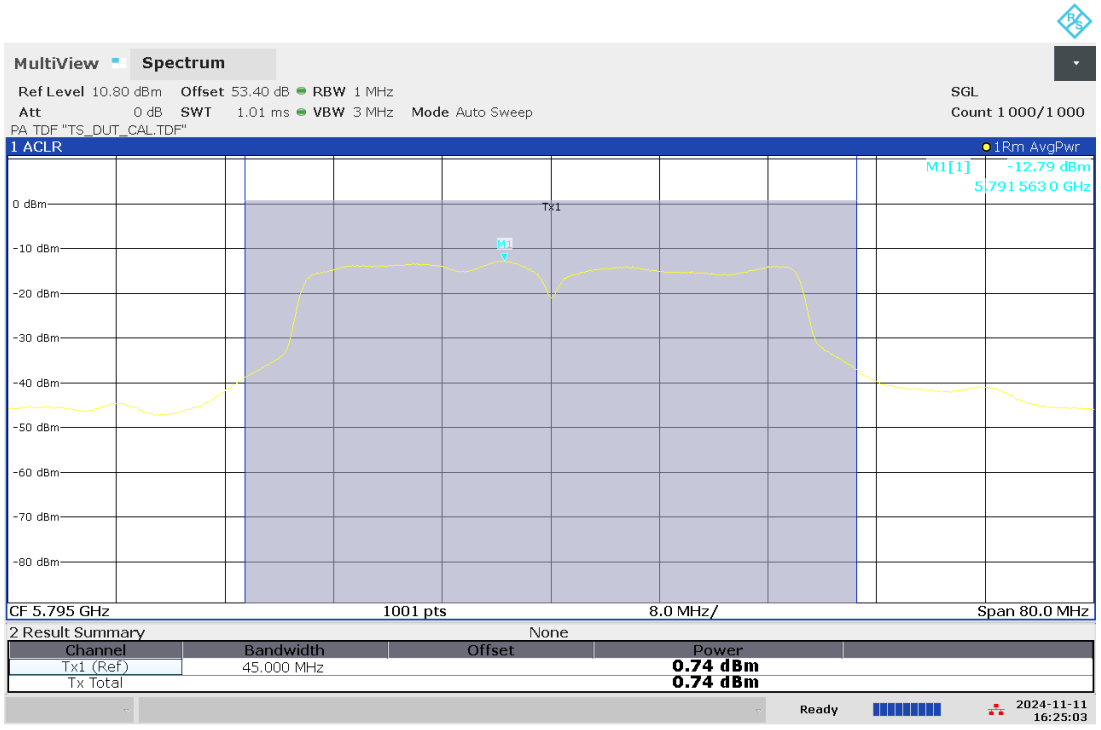
02:08:15 PM 11/11/2024

Radio Technology = WLAN n 40 MHz, Operating Frequency = low, Subband = U-NII-3 (S02_AO04)



04:07:30 PM 11/11/2024

Radio Technology = WLAN n 40 MHz, Operating Frequency = high, Subband = U-NII-3 (S02_AO04)

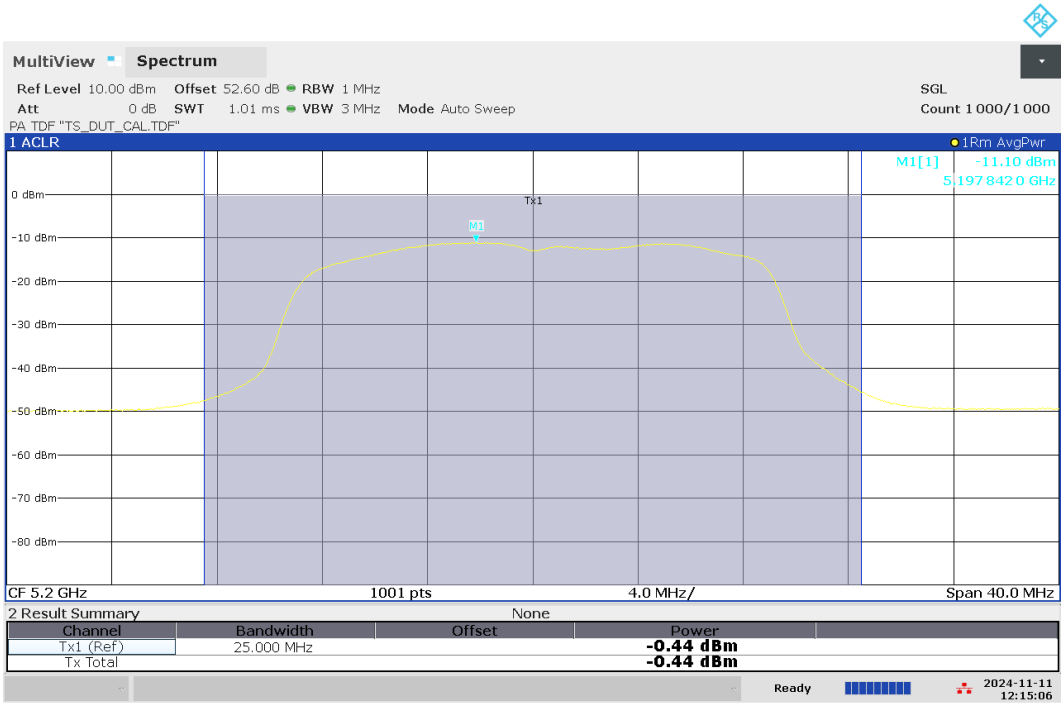


04:25:03 PM 11/11/2024

Radio Technology = WLAN ac 20 MHz, Operating Frequency = low, Subband = U-NII-1 (S02_AO04)

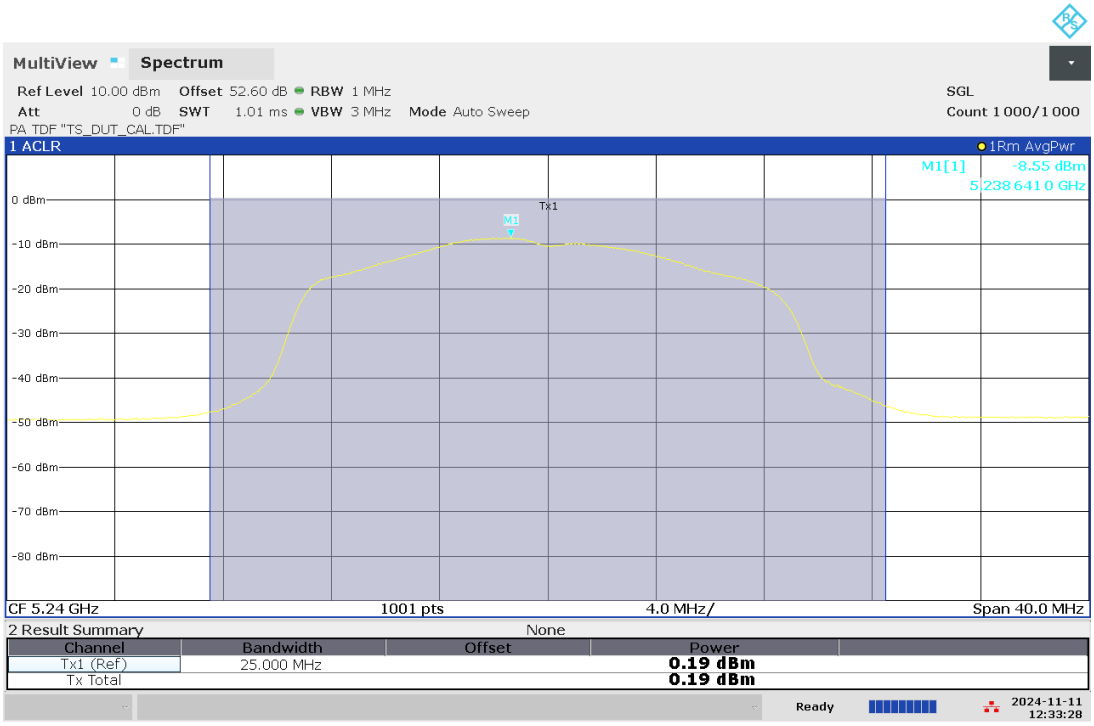
11:41:53 AM 11/11/2024

Radio Technology = WLAN ac 20 MHz, Operating Frequency = mid, Subband = U-NII-1 (S02_AO04)



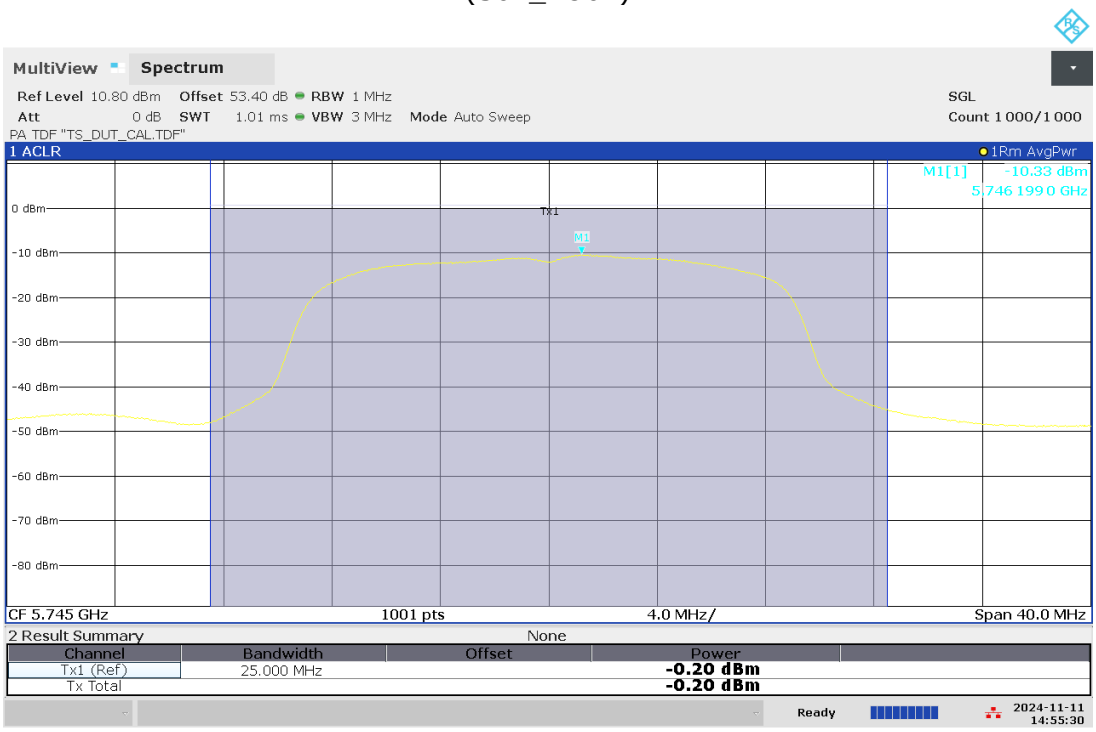
12:15:06 PM 11/11/2024

Radio Technology = WLAN ac 20 MHz, Operating Frequency = high, Subband = U-NII-1 (S02_AO04)



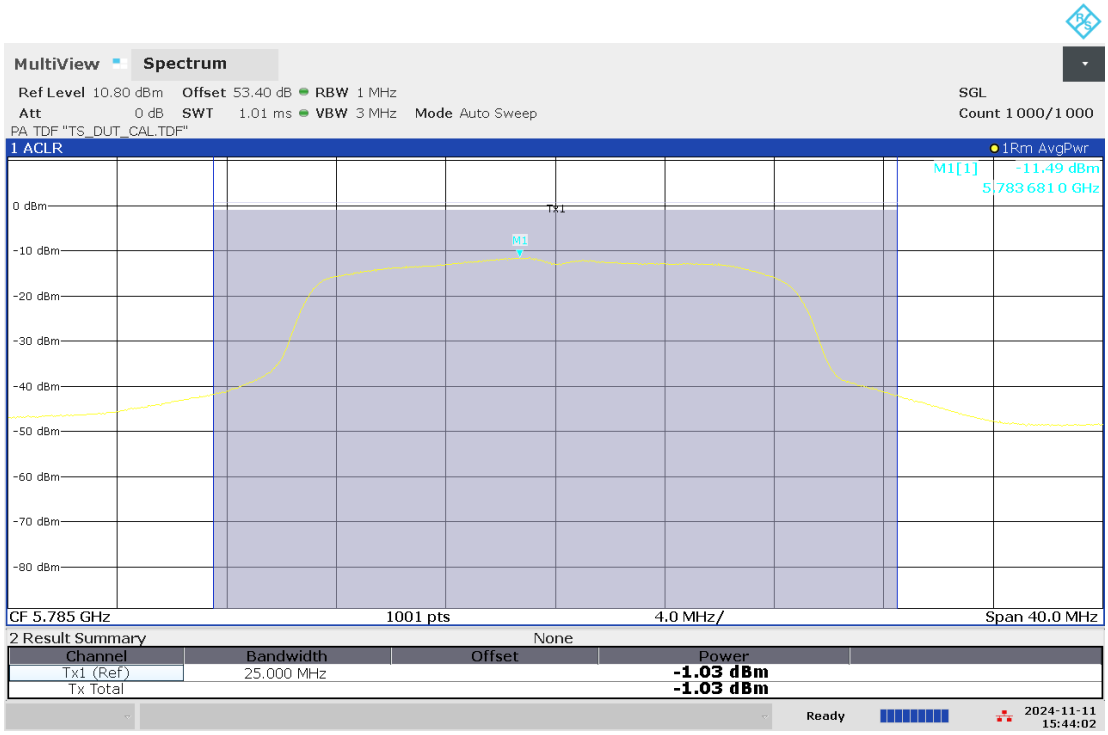
12:33:28 PM 11/11/2024

Radio Technology = WLAN ac 20 MHz, Operating Frequency = low, Subband = U-NII-3 (S02_AO04)



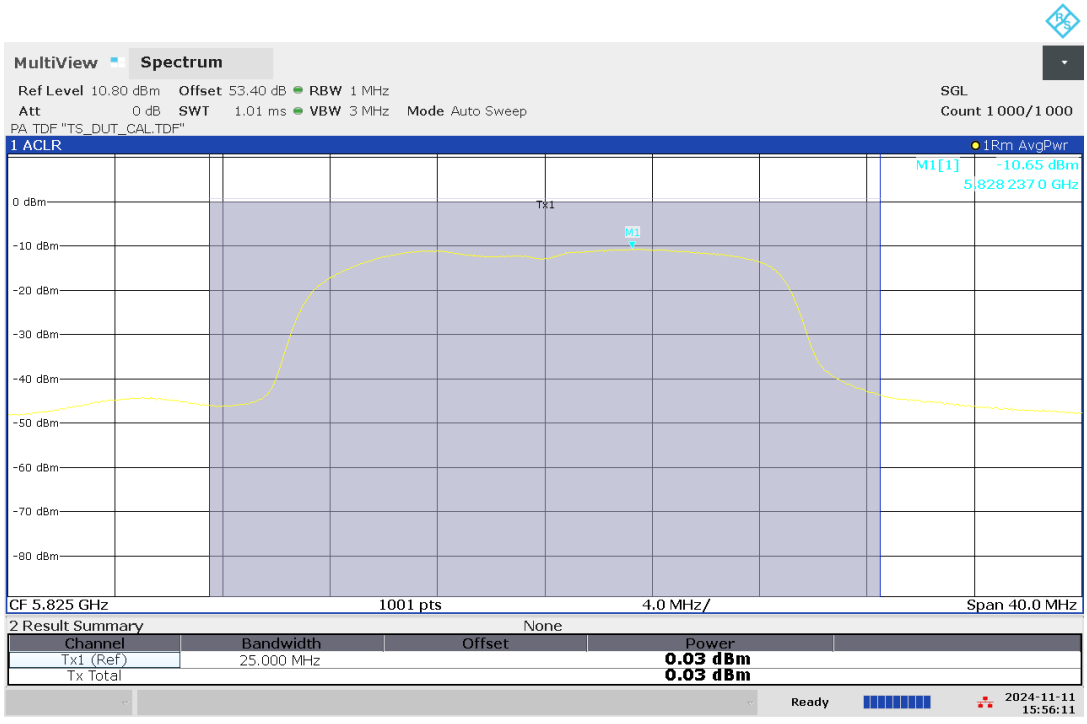
02:55:31 PM 11/11/2024

Radio Technology = WLAN ac 20 MHz, Operating Frequency = mid, Subband = U-NII-3 (S02_AO04)



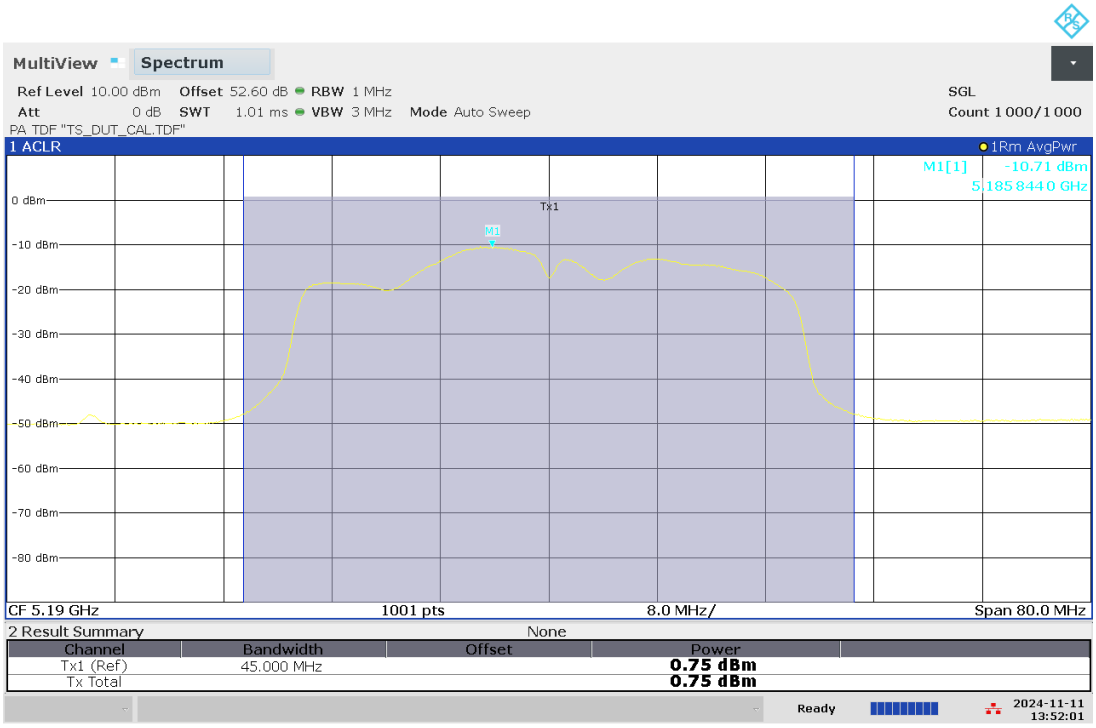
03:44:02 PM 11/11/2024

Radio Technology = WLAN ac 20 MHz, Operating Frequency = high, Subband = U-NII-3 (S02_AO04)



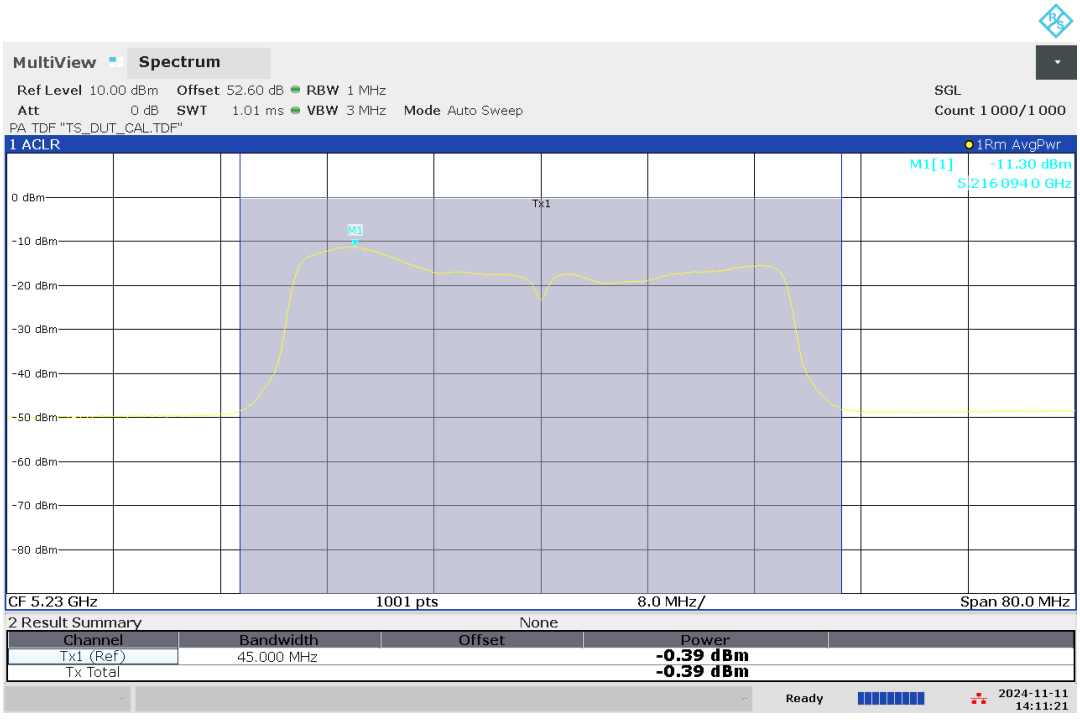
03:56:12 PM 11/11/2024

Radio Technology = WLAN ac 40 MHz, Operating Frequency = low, Subband = U-NII-1 (S02_AO04)



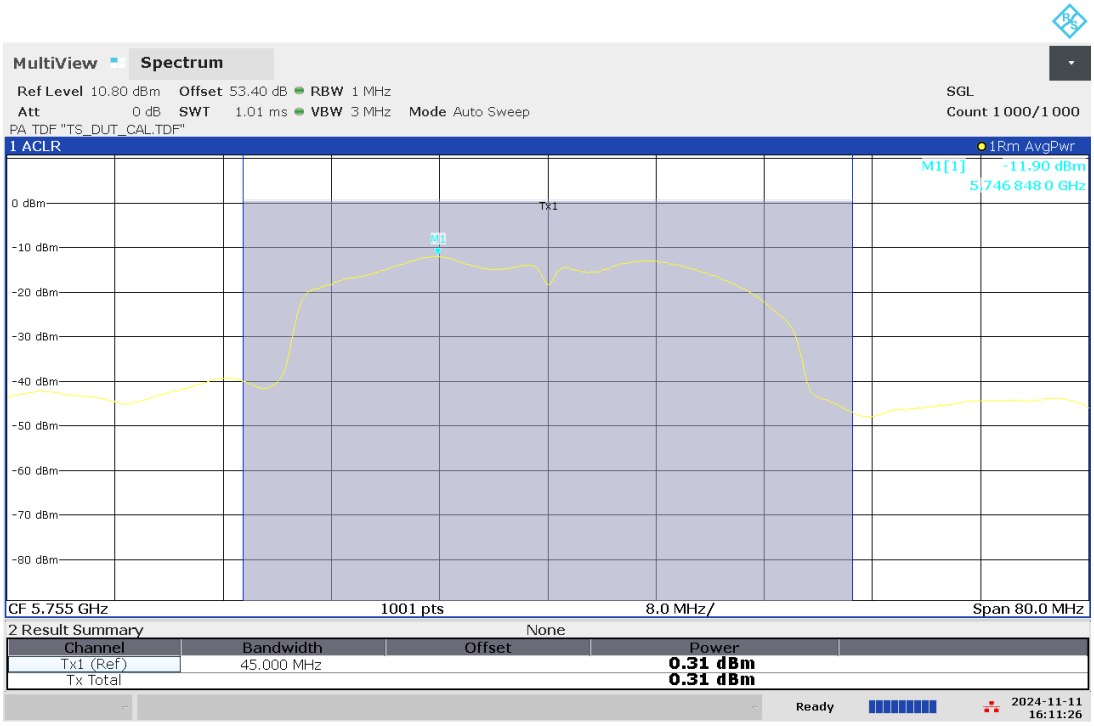
01:52:02 PM 11/11/2024

Radio Technology = WLAN ac 40 MHz, Operating Frequency = high, Subband = U-NII-1 (S02_AO04)



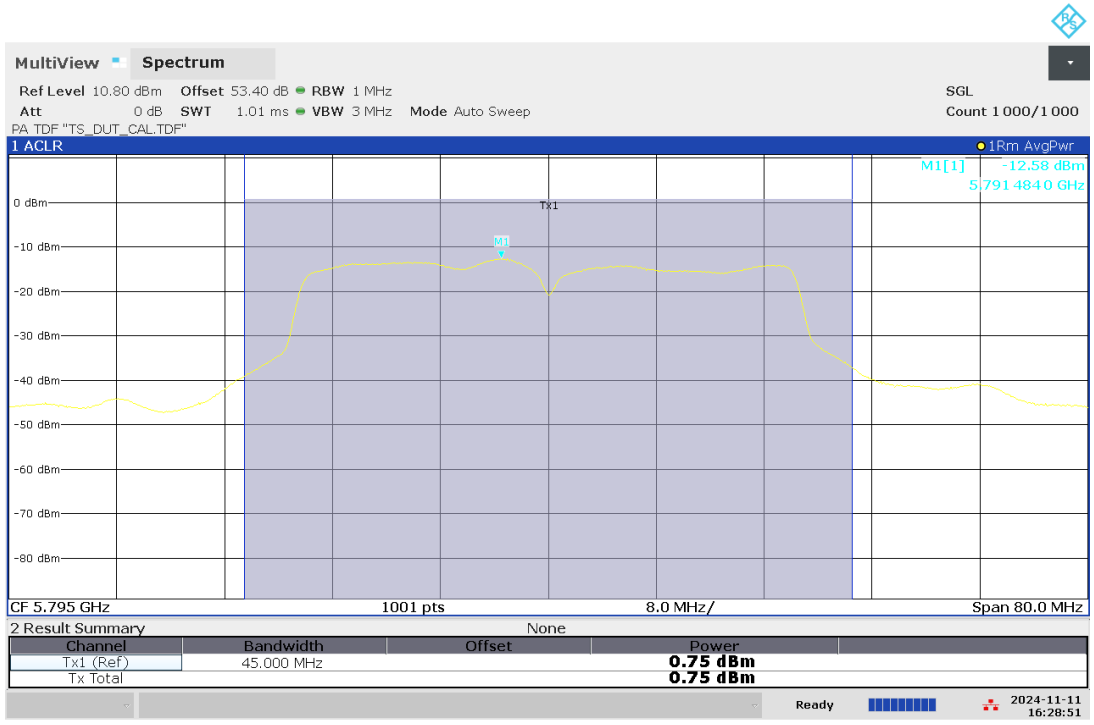
02:11:22 PM 11/11/2024

Radio Technology = WLAN ac 40 MHz, Operating Frequency = low, Subband = U-NII-3 (S02_AO04)



04:11:27 PM 11/11/2024

Radio Technology = WLAN ac 40 MHz, Operating Frequency = high, Subband = U-NII-3 (S02_AO04)



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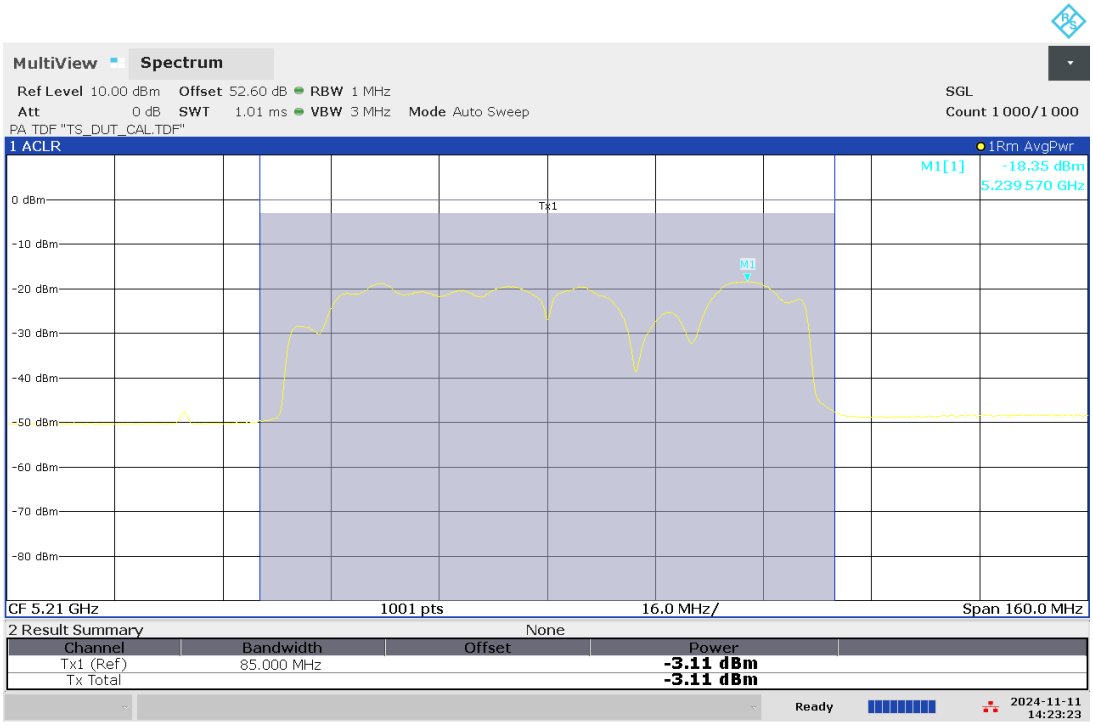
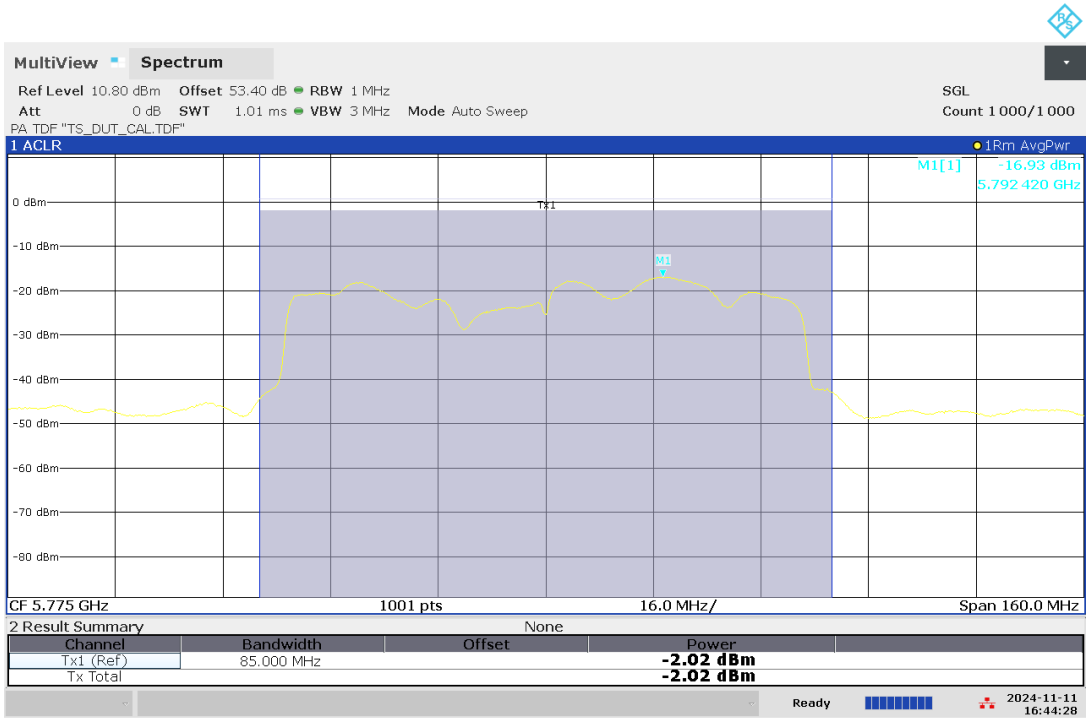
Radio Technology = WLAN ac 80 MHz, Operating Frequency = mid, Subband = U-NII-1 (S02_AO04)



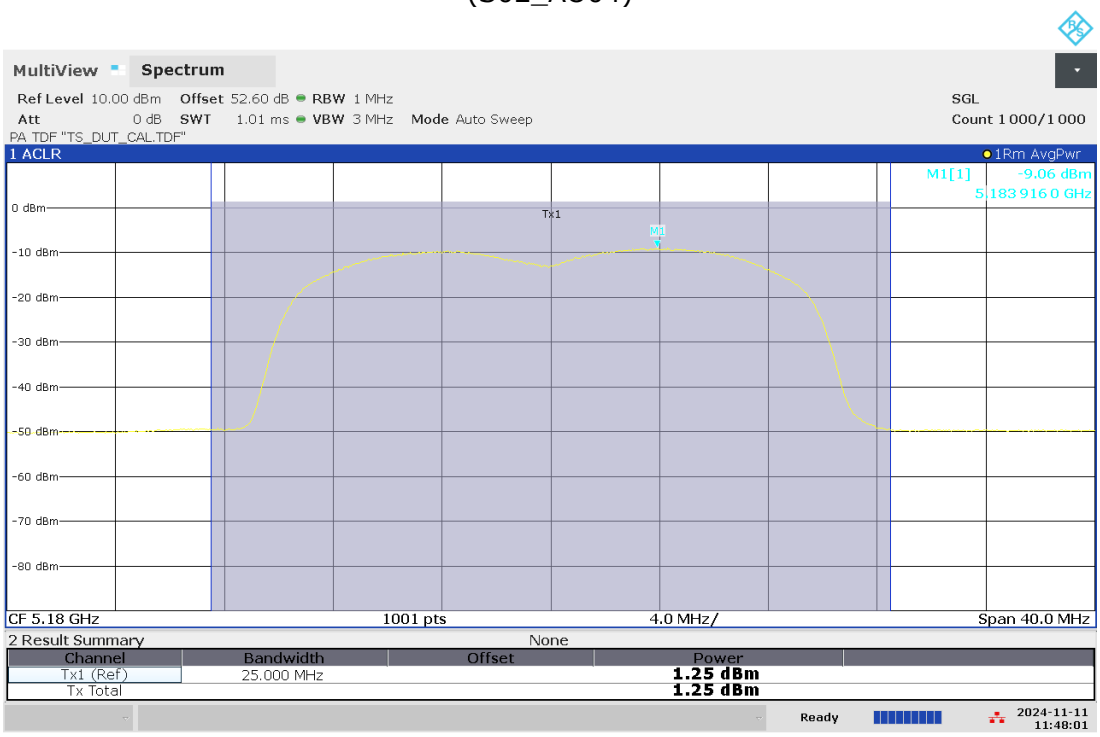
02:23:23 PM 11/11/2024

Radio Technology = WLAN ac 80 MHz, Operating Frequency = mid, Subband = U-NII-3 (S02_AO04)



04:44:28 PM 11/11/2024

Radio Technology = WLAN ax 20 MHz, Operating Frequency = low, Subband = U-NII-1 (S02_AO04)

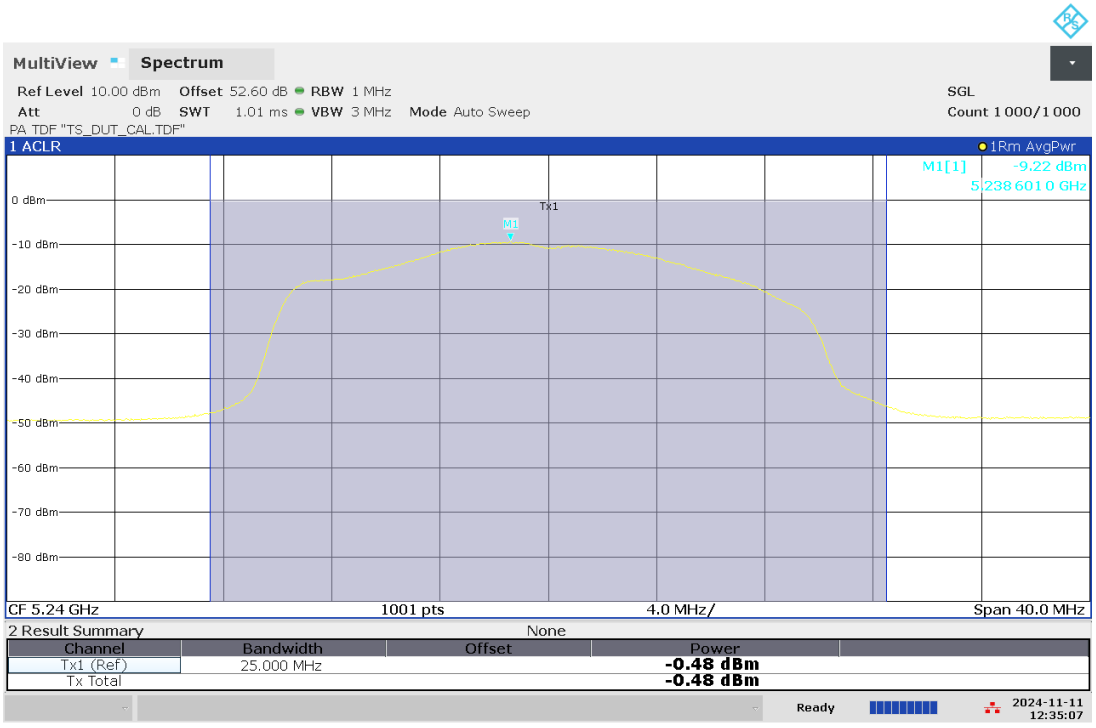


11:48:02 AM 11/11/2024

Radio Technology = WLAN ax 20 MHz, Operating Frequency = mid, Subband = U-NII-1 (S02_AO04)

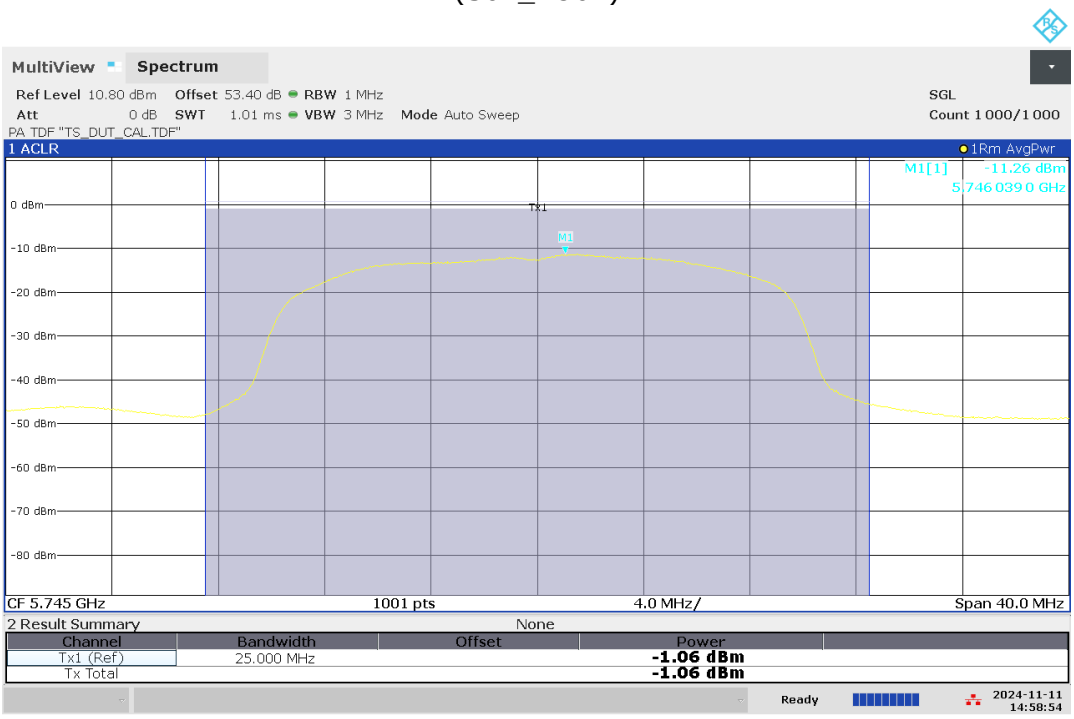
12:16:58 PM 11/11/2024

Radio Technology = WLAN ax 20 MHz, Operating Frequency = high, Subband = U-NII-1 (S02_AO04)



12:35:08 PM 11/11/2024

Radio Technology = WLAN ax 20 MHz, Operating Frequency = low, Subband = U-NII-3 (S02_AO04)

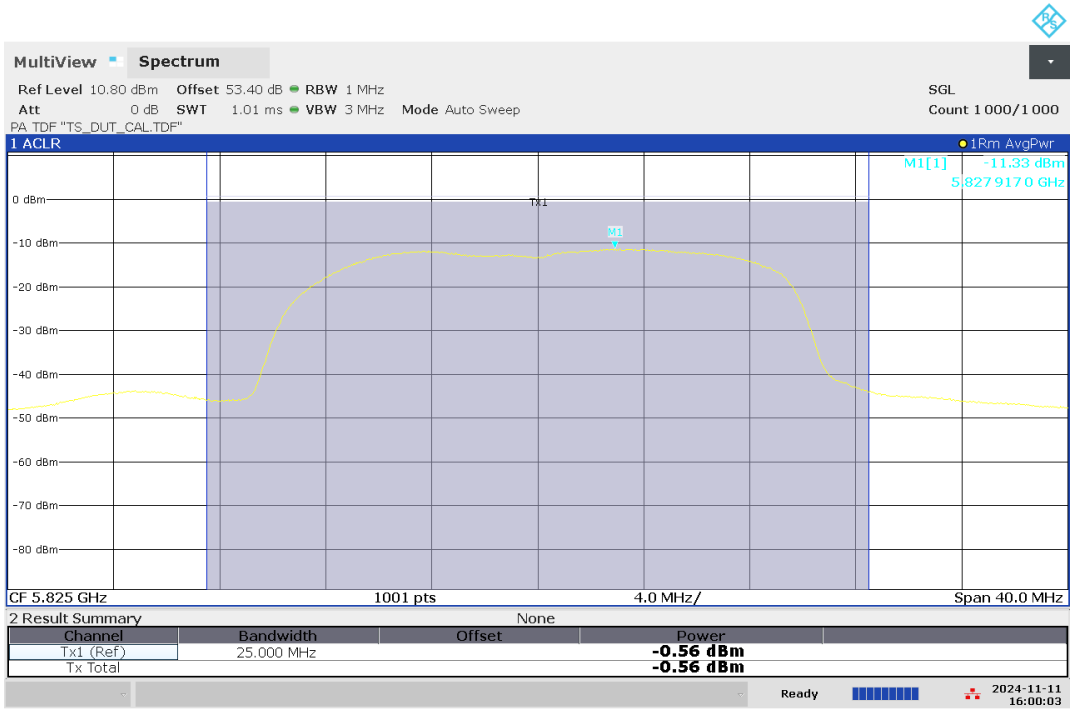


02:58:54 PM 11/11/2024

Radio Technology = WLAN ax 20 MHz, Operating Frequency = mid, Subband = U-NII-3 (S02_AO04)

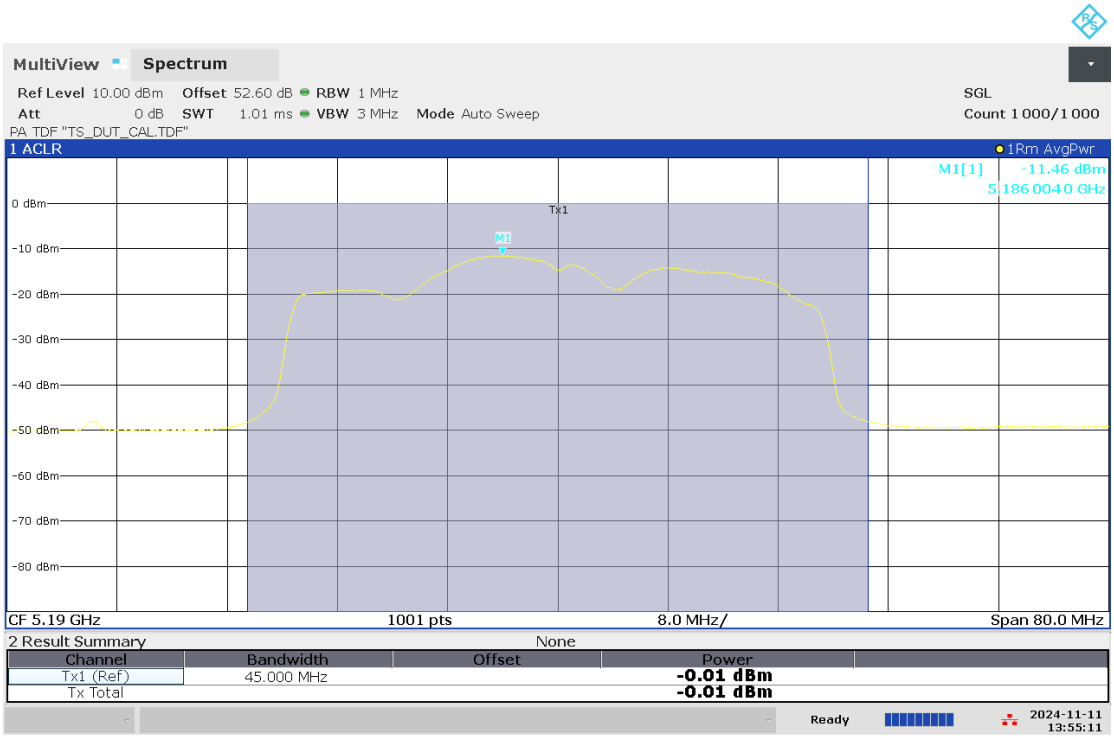
03:44:46 PM 11/11/2024

Radio Technology = WLAN ax 20 MHz, Operating Frequency = high, Subband = U-NII-3 (S02_AO04)



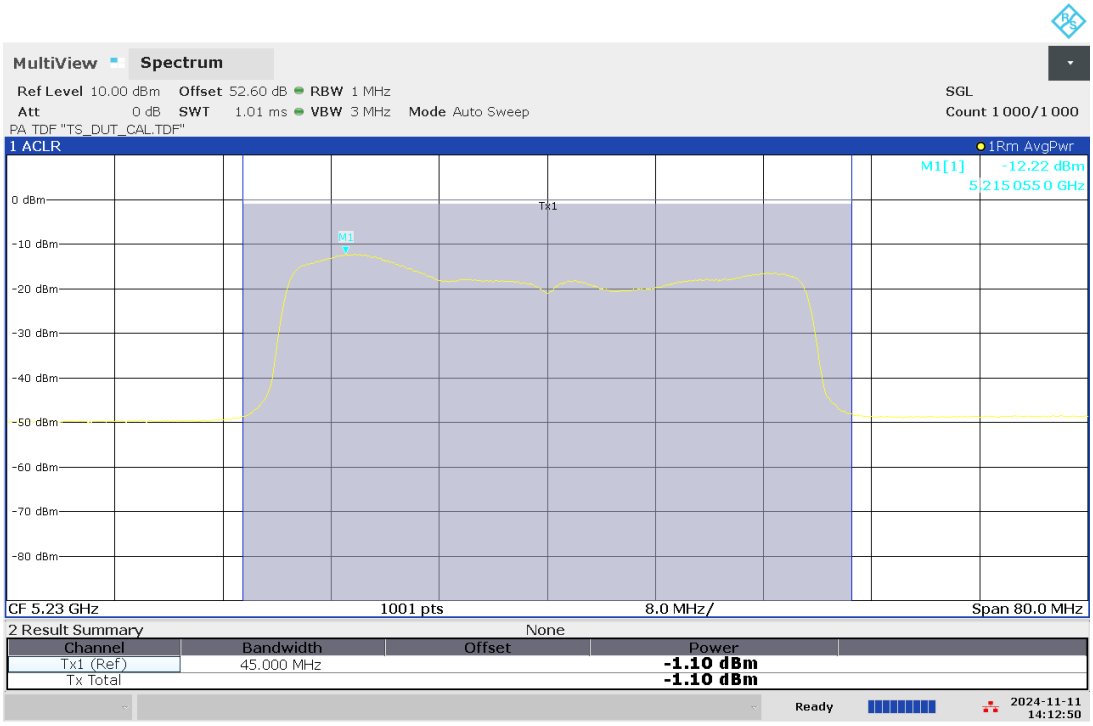
04:00:03 PM 11/11/2024

Radio Technology = WLAN ax 40 MHz, Operating Frequency = low, Subband = U-NII-1 (S02_AO04)



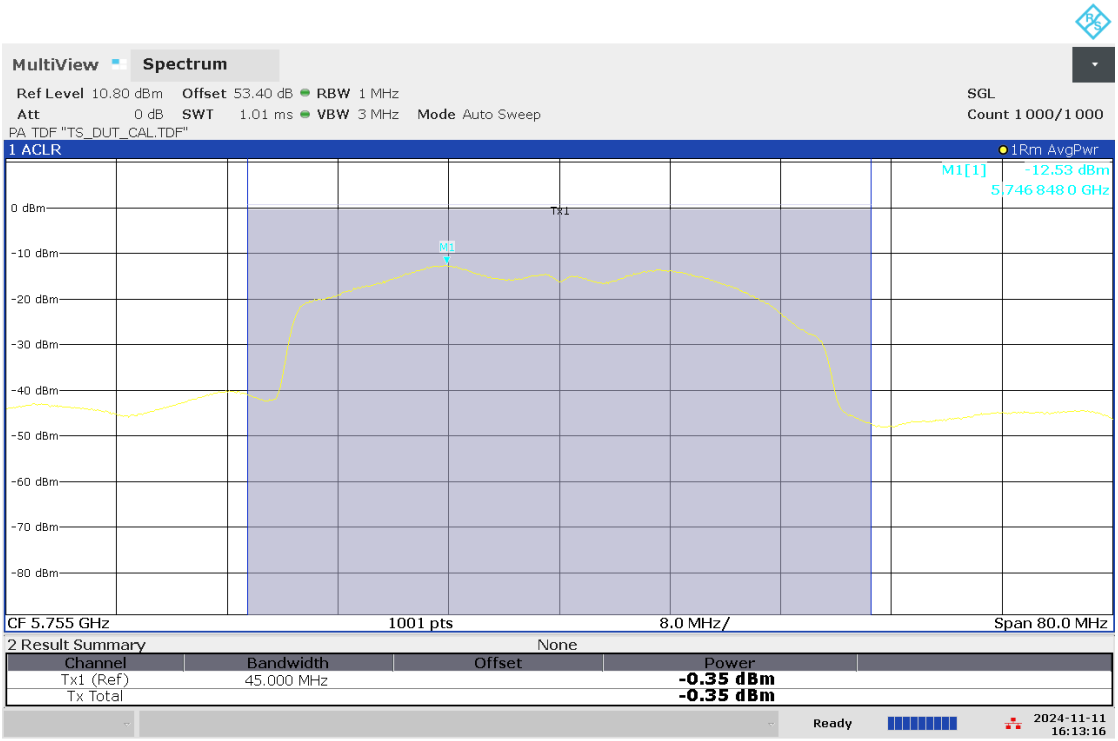
01:55:12 PM 11/11/2024

Radio Technology = WLAN ax 40 MHz, Operating Frequency = high, Subband = U-NII-1 (S02_AO04)



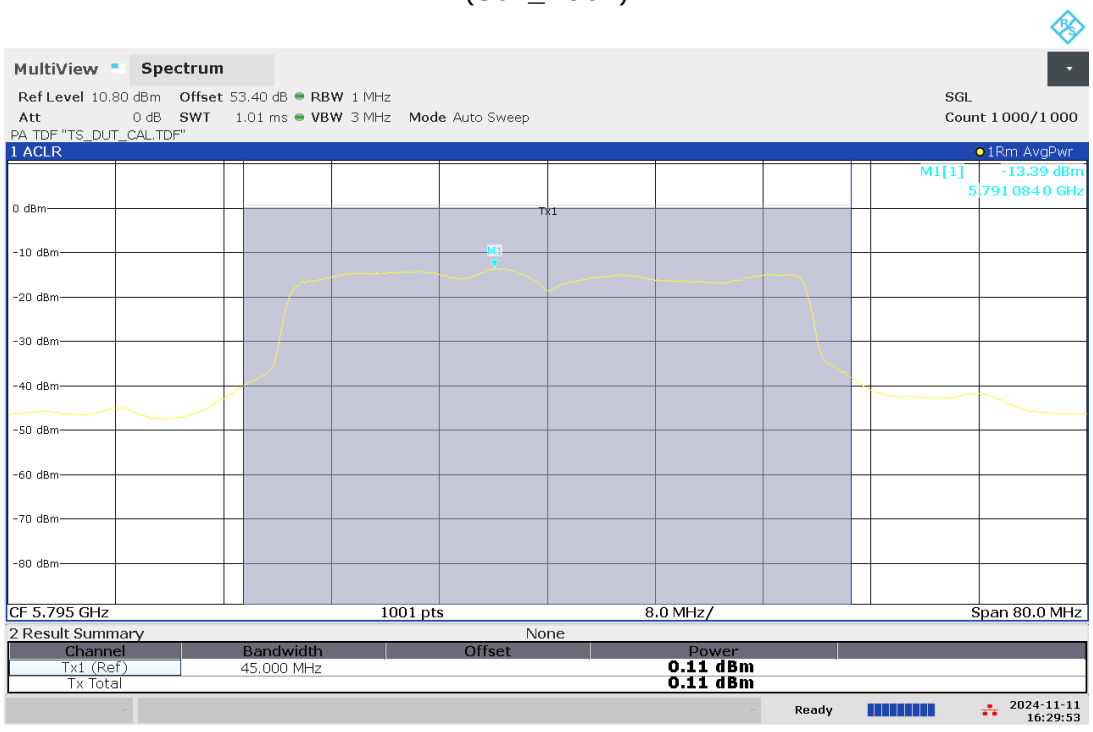
02:12:50 PM 11/11/2024

Radio Technology = WLAN ax 40 MHz, Operating Frequency = low, Subband = U-NII-3 (S02_AO04)



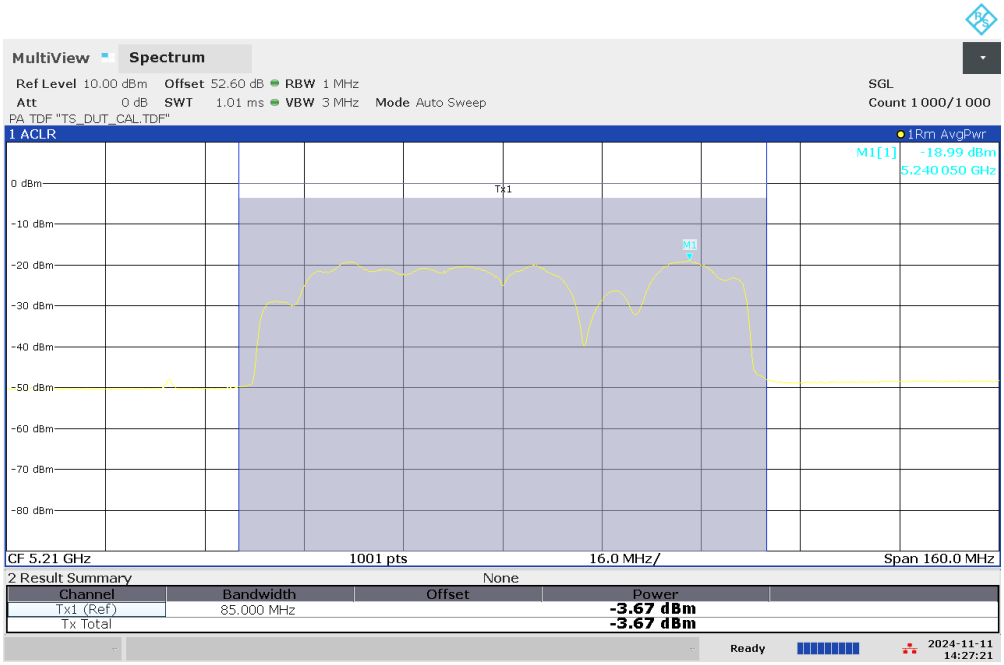
04:13:17 PM 11/11/2024

Radio Technology = WLAN ax 40 MHz, Operating Frequency = high, Subband = U-NII-3 (S02_AO04)



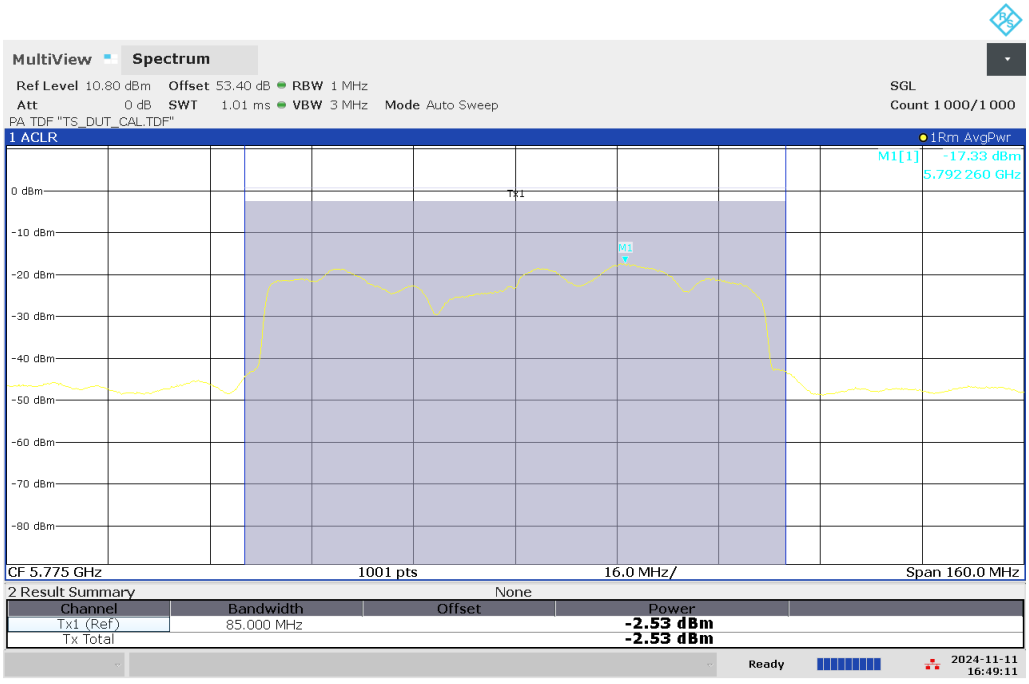
04:29:53 PM 11/11/2024

Radio Technology = WLAN ax 80 MHz, Operating Frequency = mid, Subband = U-NII-1 (S02_AO04)



02:27:21 PM 11/11/2024

Radio Technology = WLAN ax 80 MHz, Operating Frequency = mid, Subband = U-NII-3 (S02_AO04)



04:49:11 PM 11/11/2024