

FCC Measurement/Technical Report on

WLAN and Bluetooth module

JODY-W377

FCC ID: XPYJODYW377

IC: 8595A-JODYW377

JODY-W374

FCC ID: XPYJODYW374

IC: 8595A-JODYW374

Test Report Reference: MDE_UBLOX_2030_FCC_02_rev02

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Deutsche
Akkreditierungsstelle
D-PL-12140-01-01
D-PL-12140-01-02
D-PL-12140-01-03

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 (10-1-20 Edition) and 15 (10-1-20 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 Public Notice "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".

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

ANSI C63.10-2013 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: 8.8
Occupied bandwidth	§ 15.403 (26 dB) / § 15.407 (e) (6 dB)	RSS-247 Issue 2: 6.2.1.1, 6.2.2.1, 6.2.3.1 (99%) RSS-247 Issue 2: 6.2.4.1 (6 dB)
Maximum conducted output power	§ 15.407 (a) (1) to (8), (11)	RSS-247 Issue 2: 6.2.1.1, 6.2.2.1, 6.2.3.1, 6.2.4.1
Maximum power spectral density	§ 15.407 (a) (1) to (8), (12)	RSS-247 Issue 2: 6.2.1.1, 6.2.2.1, 6.2.3.1, 6.2.4.1
Transmitter undesirable emissions; General Field Strength Limits, Restricted Bands	§ 15.407 (b) § 15.209 (a)	RSS-Gen Issue 5: 6.13/8.9/8.10; RSS-247 Issue 2: 3.3/6.2 6.2.1.2, 6.2.2.2, 6.2.3.2, 6.2.4.2
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 2: 6.2.2.1, 6.2.3.1, 6.3
Antenna requirement	§ 15.203 / 15.204 § 15.407 (a) (9)	RSS-Gen Issue 5: 8.3
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 6.2

Final Result

OP-Mode	Setup	Date	FCC	IC
Operating mode				
worst case	S03_377_AE01	2022-08-09	Passed	Passed
worst case	S03_374_BB01	2022-08-09	Passed	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 12.4.1

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Subband				
WLAN a, high, U-NII-1	S01_377_AA01	2022-04-04	Performed	N/A
WLAN a, high, U-NII-2A	S01_377_AA01	2022-04-04	Performed	N/A
WLAN a, high, U-NII-2C	S01_377_AA01	2022-04-04	Performed	N/A
WLAN a, low, U-NII-1	S01_377_AA01	2022-04-04	Performed	N/A
WLAN a, low, U-NII-2A	S01_377_AA01	2022-04-04	Performed	N/A
WLAN a, low, U-NII-2C	S01_377_AA01	2022-04-04	Performed	N/A
WLAN a, mid, U-NII-1	S01_377_AA01	2022-04-04	Performed	N/A
WLAN a, mid, U-NII-2A	S01_377_AA01	2022-04-04	Performed	N/A
WLAN a, mid, U-NII-2C	S01_377_AA01	2022-04-04	Performed	N/A
WLAN ac 20 MHz, high, U-NII-1	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ac 20 MHz, high, U-NII-2A	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ac 20 MHz, high, U-NII-2C	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ac 20 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ac 20 MHz, low, U-NII-1	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ac 20 MHz, low, U-NII-2A	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ac 20 MHz, low, U-NII-2C	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ac 20 MHz, mid, U-NII-1	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ac 20 MHz, mid, U-NII-2A	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ac 20 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ac 40 MHz, high, U-NII-1	S01_377_AA01	2022-04-14	Performed	N/A
WLAN ac 40 MHz, high, U-NII-2A	S01_377_AA01	2022-04-14	Performed	N/A
WLAN ac 40 MHz, high, U-NII-2C	S01_377_AA01	2022-04-14	Performed	N/A
WLAN ac 40 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-14	Performed	N/A
WLAN ac 40 MHz, low, U-NII-1	S01_377_AA01	2022-04-14	Performed	N/A
WLAN ac 40 MHz, low, U-NII-2A	S01_377_AA01	2022-04-14	Performed	N/A
WLAN ac 40 MHz, low, U-NII-2C	S01_377_AA01	2022-04-14	Performed	N/A
WLAN ac 40 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-14	Performed	N/A
WLAN ac 80 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-20	Performed	N/A
WLAN ac 80 MHz, low, U-NII-2C	S01_377_AA01	2022-04-20	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 12.4.1

Final Result

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN ac 80 MHz, mid, U-NII-1	S01_377_AA01	2022-04-20	Performed	N/A
WLAN ac 80 MHz, mid, U-NII-2A	S01_377_AE01	2022-08-12	Performed	N/A
WLAN ax 20 MHz, high, U-NII-1	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ax 20 MHz, high, U-NII-2A	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ax 20 MHz, high, U-NII-2C	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ax 20 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ax 20 MHz, low, U-NII-1	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ax 20 MHz, low, U-NII-2A	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ax 20 MHz, low, U-NII-2C	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ax 20 MHz, mid, U-NII-1	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ax 20 MHz, mid, U-NII-2A	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ax 20 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-11	Performed	N/A
WLAN ax 40 MHz, high, U-NII-1	S01_377_AA01	2022-04-19	Performed	N/A
WLAN ax 40 MHz, high, U-NII-2A	S01_377_AA01	2022-04-19	Performed	N/A
WLAN ax 40 MHz, high, U-NII-2C	S01_377_AA01	2022-04-19	Performed	N/A
WLAN ax 40 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-19	Performed	N/A
WLAN ax 40 MHz, low, U-NII-1	S01_377_AA01	2022-04-19	Performed	N/A
WLAN ax 40 MHz, low, U-NII-2A	S01_377_AA01	2022-04-19	Performed	N/A
WLAN ax 40 MHz, low, U-NII-2C	S01_377_AA01	2022-04-19	Performed	N/A
WLAN ax 40 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-19	Performed	N/A
WLAN ax 80 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-20	Performed	N/A
WLAN ax 80 MHz, low, U-NII-2C	S01_377_AA01	2022-04-20	Performed	N/A
WLAN ax 80 MHz, mid, U-NII-1	S01_377_AA01	2022-04-20	Performed	N/A
WLAN ax 80 MHz, mid, U-NII-2A	S01_377_AE01	2022-08-12	Performed	N/A
WLAN n 20 MHz, high, U-NII-1	S01_377_AA01	2022-04-06	Performed	N/A
WLAN n 20 MHz, high, U-NII-2A	S01_377_AA01	2022-04-06	Performed	N/A
WLAN n 20 MHz, high, U-NII-2C	S01_377_AA01	2022-04-06	Performed	N/A
WLAN n 20 MHz, low, U-NII-1	S01_377_AA01	2022-04-06	Performed	N/A
WLAN n 20 MHz, low, U-NII-2A	S01_377_AA01	2022-04-06	Performed	N/A
WLAN n 20 MHz, low, U-NII-2C	S01_377_AA01	2022-04-06	Performed	N/A
WLAN n 20 MHz, mid, U-NII-1	S01_377_AA01	2022-04-06	Performed	N/A
WLAN n 20 MHz, mid, U-NII-2A	S01_377_AA01	2022-04-06	Performed	N/A
WLAN n 20 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-06	Performed	N/A
WLAN n 40 MHz, high, U-NII-1	S01_377_AA01	2022-04-12	Performed	N/A
WLAN n 40 MHz, high, U-NII-2A	S01_377_AA01	2022-04-12	Performed	N/A
WLAN n 40 MHz, high, U-NII-2C	S01_377_AA01	2022-04-12	Performed	N/A
WLAN n 40 MHz, low, U-NII-1	S01_377_AA01	2022-04-12	Performed	N/A
WLAN n 40 MHz, low, U-NII-2A	S01_377_AA01	2022-04-12	Performed	N/A
WLAN n 40 MHz, low, U-NII-2C	S01_377_AA01	2022-04-12	Performed	N/A
WLAN n 40 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-12	Performed	N/A

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Subpart E §15.407

FCC §15.31, §15.407 (e)

6 dB Bandwidth

The measurement was performed according to ANSI C63.10 6.9.2

Final Result

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN a, high, U-NII-3	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, low, U-NII-3	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, mid, U-NII-3	S01_377_AA01	2022-04-04	Passed	Passed
WLAN ac 20 MHz, high, U-NII-3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, low, U-NII-3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 40 MHz, high, U-NII-3	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, low, U-NII-3	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-3	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ac 80 MHz, straddle, U-NII-2C/3	S01_377_AE01	2022-10-18	Passed	Passed
WLAN ax 20 MHz, high, U-NII-3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, low, U-NII-3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 40 MHz, high, U-NII-3	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, low, U-NII-3	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-3	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ax 80 MHz, straddle, U-NII-2C/3	S01_377_AE01	2022-10-18	Passed	Passed
WLAN n 20 MHz, high, U-NII-3	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, low, U-NII-3	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, mid, U-NII-3	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 40 MHz, high, U-NII-3	S01_377_AA01	2022-04-12	Passed	Passed
WLAN n 40 MHz, low, U-NII-3	S01_377_AA01	2022-04-12	Passed	Passed

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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
12.4.2 (6.9.3)

Final Result

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN a, high, U-NII-1	S01_377_AA01	2022-04-04	Performed	Performed
WLAN a, high, U-NII-2A	S01_377_AA01	2022-04-04	Performed	Performed
WLAN a, high, U-NII-2C	S01_377_AA01	2022-04-04	Performed	Performed
WLAN a, high, U-NII-3	S01_377_AA01	2022-04-04	Performed	Performed
WLAN a, low, U-NII-1	S01_377_AA01	2022-04-04	Performed	Performed
WLAN a, low, U-NII-2A	S01_377_AA01	2022-04-04	Performed	Performed

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Subpart E §15.407

99 % Bandwidth

The measurement was performed according to ANSI C63.10
 12.4.2 (6.9.3)

Final Result

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN a, low, U-NII-2C	S01_377_AA01	2022-04-04	Performed	Performed
WLAN a, low, U-NII-3	S01_377_AA01	2022-04-04	Performed	Performed
WLAN a, mid, U-NII-1	S01_377_AA01	2022-04-04	Performed	Performed
WLAN a, mid, U-NII-2A	S01_377_AA01	2022-04-04	Performed	Performed
WLAN a, mid, U-NII-2C	S01_377_AA01	2022-04-04	Performed	Performed
WLAN a, mid, U-NII-3	S01_377_AA01	2022-04-04	Performed	Performed
WLAN ac 20 MHz, high, U-NII-1	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ac 20 MHz, high, U-NII-2A	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ac 20 MHz, high, U-NII-2C	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ac 20 MHz, high, U-NII-3	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ac 20 MHz, low, U-NII-1	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ac 20 MHz, low, U-NII-2A	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ac 20 MHz, low, U-NII-2C	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ac 20 MHz, low, U-NII-3	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ac 20 MHz, mid, U-NII-1	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ac 20 MHz, mid, U-NII-2A	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ac 20 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ac 20 MHz, mid, U-NII-3	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ac 20 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ac 40 MHz, high, U-NII-1	S01_377_AA01	2022-04-14	Performed	Performed
WLAN ac 40 MHz, high, U-NII-2A	S01_377_AA01	2022-04-14	Performed	Performed
WLAN ac 40 MHz, high, U-NII-2C	S01_377_AA01	2022-04-14	Performed	Performed
WLAN ac 40 MHz, high, U-NII-3	S01_377_AA01	2022-04-14	Performed	Performed
WLAN ac 40 MHz, low, U-NII-1	S01_377_AA01	2022-04-14	Performed	Performed
WLAN ac 40 MHz, low, U-NII-2A	S01_377_AA01	2022-04-14	Performed	Performed
WLAN ac 40 MHz, low, U-NII-2C	S01_377_AA01	2022-04-14	Performed	Performed
WLAN ac 40 MHz, low, U-NII-3	S01_377_AA01	2022-04-14	Performed	Performed
WLAN ac 40 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-14	Performed	Performed
WLAN ac 40 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-14	Performed	Performed
WLAN ac 80 MHz, high, U-NII-2C	S01_377_AA01	2022-04-20	Performed	Performed
WLAN ac 80 MHz, low, U-NII-2C	S01_377_AA01	2022-04-20	Performed	Performed
WLAN ac 80 MHz, mid, U-NII-1	S01_377_AA01	2022-04-20	Performed	Performed
WLAN ac 80 MHz, mid, U-NII-2A	S01_377_AA01	2022-04-20	Performed	Performed
WLAN ac 80 MHz, mid, U-NII-3	S01_377_AA01	2022-04-20	Performed	Performed
WLAN ac 80 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-20	Performed	Performed
WLAN ax 20 MHz, high, U-NII-1	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ax 20 MHz, high, U-NII-2A	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ax 20 MHz, high, U-NII-2C	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ax 20 MHz, high, U-NII-3	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ax 20 MHz, low, U-NII-1	S01_377_AA01	2022-04-11	Performed	Performed

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Subpart E §15.407

99 % Bandwidth

The measurement was performed according to ANSI C63.10
 12.4.2 (6.9.3)

Final Result

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN ax 20 MHz, low, U-NII-2A	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ax 20 MHz, low, U-NII-2C	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ax 20 MHz, low, U-NII-3	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ax 20 MHz, mid, U-NII-1	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ax 20 MHz, mid, U-NII-2A	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ax 20 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ax 20 MHz, mid, U-NII-3	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ax 20 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-11	Performed	Performed
WLAN ax 40 MHz, high, U-NII-1	S01_377_AA01	2022-04-19	Performed	Performed
WLAN ax 40 MHz, high, U-NII-2A	S01_377_AA01	2022-04-19	Performed	Performed
WLAN ax 40 MHz, high, U-NII-2C	S01_377_AA01	2022-04-19	Performed	Performed
WLAN ax 40 MHz, high, U-NII-3	S01_377_AA01	2022-04-19	Performed	Performed
WLAN ax 40 MHz, low, U-NII-1	S01_377_AA01	2022-04-19	Performed	Performed
WLAN ax 40 MHz, low, U-NII-2A	S01_377_AA01	2022-04-19	Performed	Performed
WLAN ax 40 MHz, low, U-NII-2C	S01_377_AA01	2022-04-19	Performed	Performed
WLAN ax 40 MHz, low, U-NII-3	S01_377_AA01	2022-04-19	Performed	Performed
WLAN ax 40 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-19	Performed	Performed
WLAN ax 40 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-19	Performed	Performed
WLAN ax 80 MHz, high, U-NII-2C	S01_377_AA01	2022-04-20	Performed	Performed
WLAN ax 80 MHz, low, U-NII-2C	S01_377_AA01	2022-04-20	Performed	Performed
WLAN ax 80 MHz, mid, U-NII-1	S01_377_AA01	2022-04-20	Performed	Performed
WLAN ax 80 MHz, mid, U-NII-2A	S01_377_AA01	2022-04-20	Performed	Performed
WLAN ax 80 MHz, mid, U-NII-3	S01_377_AA01	2022-04-20	Performed	Performed
WLAN ax 80 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-20	Performed	Performed
WLAN n 20 MHz, high, U-NII-1	S01_377_AA01	2022-04-06	Performed	Performed
WLAN n 20 MHz, high, U-NII-2A	S01_377_AA01	2022-04-06	Performed	Performed
WLAN n 20 MHz, high, U-NII-2C	S01_377_AA01	2022-04-06	Performed	Performed
WLAN n 20 MHz, high, U-NII-3	S01_377_AA01	2022-04-06	Performed	Performed
WLAN n 20 MHz, low, U-NII-1	S01_377_AA01	2022-04-06	Performed	Performed
WLAN n 20 MHz, low, U-NII-2A	S01_377_AA01	2022-04-06	Performed	Performed
WLAN n 20 MHz, low, U-NII-2C	S01_377_AA01	2022-04-06	Performed	Performed
WLAN n 20 MHz, low, U-NII-3	S01_377_AA01	2022-04-06	Performed	Performed
WLAN n 20 MHz, mid, U-NII-1	S01_377_AA01	2022-04-06	Performed	Performed
WLAN n 20 MHz, mid, U-NII-2A	S01_377_AA01	2022-04-06	Performed	Performed
WLAN n 20 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-06	Performed	Performed
WLAN n 20 MHz, mid, U-NII-3	S01_377_AA01	2022-04-06	Performed	Performed
WLAN n 40 MHz, high, U-NII-1	S01_377_AA01	2022-04-12	Performed	Performed
WLAN n 40 MHz, high, U-NII-2A	S01_377_AA01	2022-04-12	Performed	Performed
WLAN n 40 MHz, high, U-NII-2C	S01_377_AA01	2022-04-12	Performed	Performed
WLAN n 40 MHz, high, U-NII-3	S01_377_AA01	2022-04-12	Performed	Performed

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99 % Bandwidth

The measurement was performed according to ANSI C63.10
 12.4.2 (6.9.3)

Final Result

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN n 40 MHz, low, U-NII-1	S01_377_AA01	2022-04-12	Performed	Performed
WLAN n 40 MHz, low, U-NII-2A	S01_377_AA01	2022-04-12	Performed	Performed
WLAN n 40 MHz, low, U-NII-2C	S01_377_AA01	2022-04-12	Performed	Performed
WLAN n 40 MHz, low, U-NII-3	S01_377_AA01	2022-04-12	Performed	Performed
WLAN n 40 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-12	Performed	Performed

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Maximum Conducted Output Power

The measurement was performed according to ANSI C63.10 12.3.3.2

Final Result

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN a, high, U-NII-1	S01_377_AE01	2022-08-15	Passed	Passed
WLAN a, high, U-NII-2A	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, high, U-NII-2C	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, high, U-NII-3	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, low, U-NII-1	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, low, U-NII-2A	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, low, U-NII-2C	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, low, U-NII-3	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, mid, U-NII-1	S01_377_AE01	2022-08-15	Passed	Passed
WLAN a, mid, U-NII-2A	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, mid, U-NII-2C	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, mid, U-NII-3	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, high, U-NII-1	S01_374_BC01	2022-08-15	Passed	Passed
WLAN a, high, U-NII-2A	S01_374_BC01	2022-08-02	Passed	Passed
WLAN a, high, U-NII-2C	S01_374_BC01	2022-08-02	Passed	Passed
WLAN a, high, U-NII-3	S01_374_BC01	2022-08-02	Passed	Passed
WLAN a, low, U-NII-1	S01_374_BC01	2022-08-02	Passed	Passed
WLAN a, low, U-NII-2A	S01_374_BC01	2022-08-02	Passed	Passed
WLAN a, low, U-NII-2C	S01_374_BC01	2022-08-02	Passed	Passed
WLAN a, low, U-NII-3	S01_374_BC01	2022-08-02	Passed	Passed
WLAN a, mid, U-NII-1	S01_374_BC01	2022-08-15	Passed	Passed
WLAN a, mid, U-NII-2A	S01_374_BC01	2022-08-02	Passed	Passed
WLAN a, mid, U-NII-2C	S01_374_BC01	2022-08-02	Passed	Passed
WLAN a, mid, U-NII-3	S01_374_BC01	2022-08-02	Passed	Passed
WLAN ac 20 MHz, high, U-NII-1	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, high, U-NII-2A	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, high, U-NII-2C	S01_377_AA01	2022-04-11	Passed	Passed

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FCC §15.31, §15.407 (a)(1)

Maximum Conducted Output Power

The measurement was performed according to ANSI C63.10 12.3.3.2

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Subband				
WLAN ac 20 MHz, high, U-NII-3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, low, U-NII-1	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, low, U-NII-2A	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, low, U-NII-2C	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, low, U-NII-3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-1	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-2A	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 40 MHz, high, U-NII-1	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, high, U-NII-2A	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, high, U-NII-2C	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, high, U-NII-3	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, low, U-NII-1	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, low, U-NII-2A	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, low, U-NII-2C	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, low, U-NII-3	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 80 MHz, low, U-NII-2C	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-1	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-2A	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-3	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ac 80 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ax 20 MHz, high, U-NII-1	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, high, U-NII-2A	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, high, U-NII-2C	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, high, U-NII-3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, low, U-NII-1	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, low, U-NII-2A	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, low, U-NII-2C	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, low, U-NII-3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-1	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-2A	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 40 MHz, high, U-NII-1	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, high, U-NII-2A	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, high, U-NII-2C	S01_377_AA01	2022-04-19	Passed	Passed

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FCC §15.31, §15.407 (a)(1)

Maximum Conducted Output Power

The measurement was performed according to ANSI C63.10 12.3.3.2

Final Result

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN ax 40 MHz, high, U-NII-3	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, low, U-NII-1	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, low, U-NII-2A	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, low, U-NII-2C	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, low, U-NII-3	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 80 MHz, low, U-NII-2C	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-1	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-2A	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-3	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ax 80 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-20	Passed	Passed
WLAN n 20 MHz, high, U-NII-1	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, high, U-NII-2A	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, high, U-NII-2C	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, high, U-NII-3	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, low, U-NII-1	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, low, U-NII-2A	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, low, U-NII-2C	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, low, U-NII-3	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, mid, U-NII-1	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, mid, U-NII-2A	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, mid, U-NII-3	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, high, U-NII-1	S01_374_BC01	2022-08-02	Passed	Passed
WLAN n 20 MHz, high, U-NII-2A	S01_374_BC01	2022-08-02	Passed	Passed
WLAN n 20 MHz, high, U-NII-2C	S01_374_BC01	2022-08-02	Passed	Passed
WLAN n 20 MHz, high, U-NII-3	S01_374_BC01	2022-08-02	Passed	Passed
WLAN n 20 MHz, low, U-NII-1	S01_374_BC01	2022-08-02	Passed	Passed
WLAN n 20 MHz, low, U-NII-2A	S01_374_BC01	2022-08-02	Passed	Passed
WLAN n 20 MHz, low, U-NII-2C	S01_374_BC01	2022-08-02	Passed	Passed
WLAN n 20 MHz, low, U-NII-3	S01_374_BC01	2022-08-02	Passed	Passed
WLAN n 20 MHz, mid, U-NII-1	S01_374_BC01	2022-08-02	Passed	Passed
WLAN n 20 MHz, mid, U-NII-2A	S01_374_BC01	2022-08-02	Passed	Passed
WLAN n 20 MHz, mid, U-NII-2C	S01_374_BC01	2022-08-02	Passed	Passed
WLAN n 20 MHz, mid, U-NII-3	S01_374_BC01	2022-08-02	Passed	Passed
WLAN n 40 MHz, high, U-NII-1	S01_377_AA01	2022-04-12	Passed	Passed
WLAN n 40 MHz, high, U-NII-2A	S01_377_AA01	2022-04-12	Passed	Passed
WLAN n 40 MHz, high, U-NII-2C	S01_377_AA01	2022-04-12	Passed	Passed
WLAN n 40 MHz, high, U-NII-3	S01_377_AA01	2022-04-12	Passed	Passed
WLAN n 40 MHz, low, U-NII-1	S01_377_AA01	2022-04-12	Passed	Passed

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Maximum Conducted Output Power

The measurement was performed according to ANSI C63.10 12.3.3.2

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Subband				
WLAN n 40 MHz, low, U-NII-2A	S01_377_AA01	2022-04-12	Passed	Passed
WLAN n 40 MHz, low, U-NII-2C	S01_377_AA01	2022-04-12	Passed	Passed
WLAN n 40 MHz, low, U-NII-3	S01_377_AA01	2022-04-12	Passed	Passed
WLAN n 40 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-12	Passed	Passed
WLAN ac 20 MHz MIMO, high, U-NII-1	S01_377_AE01	2022-04-11	Passed	Passed
WLAN ac 20 MHz MIMO, high, U-NII-1	S01_374_BC01	2022-08-15	Passed	Passed
WLAN ac 20 MHz MIMO, high, U-NII-2A	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, high, U-NII-2C	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, high, U-NII-3	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, low, U-NII-1	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, low, U-NII-2A	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, low, U-NII-2A	S01_374_BC01	2022-08-16	Passed	Passed
WLAN ac 20 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, low, U-NII-3	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, mid, U-NII-1	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, mid, U-NII-2A	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, mid, U-NII-2A	S01_374_BC01	2022-08-16	Passed	Passed
WLAN ac 20 MHz MIMO, mid, U-NII-2C	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, mid, U-NII-3	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, straddle, U-NII-2C/3	S01_377_AE01	2022-08-03	Passed	Passed
WLAN ac 40 MHz MIMO, high, U-NII-1	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 40 MHz MIMO, high, U-NII-2A	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 40 MHz MIMO, high, U-NII-2C	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 40 MHz MIMO, high, U-NII-3	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 40 MHz MIMO, low, U-NII-1	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 40 MHz MIMO, low, U-NII-2A	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 40 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 40 MHz MIMO, low, U-NII-3	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 40 MHz MIMO, mid, U-NII-2C	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 40 MHz MIMO, straddle, U-NII-2C/3	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 80 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-10-20	Passed	Passed
WLAN ac 80 MHz MIMO, mid, U-NII-1	S01_377_AE01	2022-10-20	Passed	Passed
WLAN ac 80 MHz MIMO, mid, U-NII-2A	S01_377_AE01	2022-10-20	Passed	Passed
WLAN ac 80 MHz MIMO, mid, U-NII-3	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 80 MHz MIMO, straddle, U-NII-2C/3	S01_377_AE01	2022-08-12	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-1	S01_377_AE01	2022-08-05	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-2A	S01_377_AE01	2022-08-05	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-2C	S01_377_AE01	2022-08-05	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-3	S01_377_AE01	2022-08-05	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-1	S01_377_AE01	2022-08-04	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-2A	S01_377_AE01	2022-08-04	Passed	Passed

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Maximum Conducted Output Power

The measurement was performed according to ANSI C63.10 12.3.3.2

Final Result

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN ax 20 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-08-04	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-3	S01_377_AE01	2022-08-04	Passed	Passed
WLAN ax 20 MHz MIMO, mid, U-NII-1	S01_377_AE01	2022-08-04	Passed	Passed
WLAN ax 20 MHz MIMO, mid, U-NII-2A	S01_377_AE01	2022-08-04	Passed	Passed
WLAN ax 20 MHz MIMO, mid, U-NII-2C	S01_377_AE01	2022-08-04	Passed	Passed
WLAN ax 20 MHz MIMO, mid, U-NII-3	S01_377_AE01	2022-08-04	Passed	Passed
WLAN ax 20 MHz MIMO, straddle, U-NII-2C/3	S01_377_AE01	2022-08-05	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-1	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-2A	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-2C	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-3	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-1	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-2A	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-3	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 40 MHz MIMO, mid, U-NII-2C	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 40 MHz MIMO, straddle, U-NII-2C/3	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 80 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-10-20	Passed	Passed
WLAN ax 80 MHz MIMO, mid, U-NII-1	S01_377_AE01	2022-10-20	Passed	Passed
WLAN ax 80 MHz MIMO, mid, U-NII-2A	S01_377_AE01	2022-10-20	Passed	Passed
WLAN ax 80 MHz MIMO, mid, U-NII-3	S01_377_AE01	2022-08-12	Passed	Passed
WLAN ax 80 MHz MIMO, straddle, U-NII-2C/3	S01_377_AE01	2022-08-12	Passed	Passed
WLAN n 20 MHz MIMO, high, U-NII-1	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, high, U-NII-2A	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, high, U-NII-2C	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, high, U-NII-3	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, low, U-NII-1	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, low, U-NII-2A	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, low, U-NII-2A	S01_374_BC01	2022-08-16	Passed	Passed
WLAN n 20 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, low, U-NII-3	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, mid, U-NII-1	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, mid, U-NII-2A	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, mid, U-NII-2A	S01_374_BC01	2022-08-16	Passed	Passed
WLAN n 20 MHz MIMO, mid, U-NII-2C	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, mid, U-NII-3	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 40 MHz MIMO, high, U-NII-1	S01_377_AE01	2022-08-04	Passed	Passed
WLAN n 40 MHz MIMO, high, U-NII-2A	S01_377_AE01	2022-08-04	Passed	Passed
WLAN n 40 MHz MIMO, high, U-NII-2C	S01_377_AE01	2022-08-04	Passed	Passed
WLAN n 40 MHz MIMO, high, U-NII-3	S01_377_AE01	2022-08-04	Passed	Passed
WLAN n 40 MHz MIMO, low, U-NII-1	S01_377_AE01	2022-08-04	Passed	Passed

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FCC §15.31, §15.407 (a)(1)

Maximum Conducted Output Power

The measurement was performed according to ANSI C63.10 12.3.3.2

Final Result

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN n 40 MHz MIMO, low, U-NII-2A	S01_377_AE01	2022-08-04	Passed	Passed
WLAN n 40 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-08-04	Passed	Passed
WLAN n 40 MHz MIMO, low, U-NII-3	S01_377_AE01	2022-08-04	Passed	Passed
WLAN n 40 MHz MIMO, mid, U-NII-2C	S01_377_AE01	2022-08-04	Passed	Passed

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FCC §15.31, §15.407 (a) (1),(5)

Peak Power Spectral Density

The measurement was performed according to ANSI C63.10 12.5 (SA-3)

Final Result

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN a, high, U-NII-1	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, high, U-NII-2A	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, high, U-NII-2C	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, high, U-NII-3	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, low, U-NII-1	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, low, U-NII-2A	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, low, U-NII-2C	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, low, U-NII-3	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, mid, U-NII-1	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, mid, U-NII-2A	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, mid, U-NII-2C	S01_377_AA01	2022-04-04	Passed	Passed
WLAN a, mid, U-NII-3	S01_377_AA01	2022-04-04	Passed	Passed
WLAN ac 20 MHz, high, U-NII-1	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, high, U-NII-2A	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, high, U-NII-2C	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, high, U-NII-3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, low, U-NII-1	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, low, U-NII-2A	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, low, U-NII-2C	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, low, U-NII-3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-1	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-2A	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, mid, U-NII-3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 20 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ac 40 MHz, high, U-NII-1	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, high, U-NII-2A	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, high, U-NII-2C	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, high, U-NII-3	S01_377_AA01	2022-04-14	Passed	Passed

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Subpart E §15.407

FCC §15.31, §15.407 (a) (1),(5)

Peak Power Spectral Density

The measurement was performed according to ANSI C63.10 12.5 (SA-3)

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Subband				
WLAN ac 40 MHz, low, U-NII-1	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, low, U-NII-2A	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, low, U-NII-2C	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, low, U-NII-3	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 40 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-14	Passed	Passed
WLAN ac 80 MHz, low, U-NII-2C	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-1	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-2A	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-3	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ac 80 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ax 20 MHz, high, U-NII-1	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, high, U-NII-2A	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, high, U-NII-2C	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, high, U-NII-3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, low, U-NII-1	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, low, U-NII-2A	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, low, U-NII-2C	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, low, U-NII-3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-1	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-2A	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, mid, U-NII-3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 20 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-11	Passed	Passed
WLAN ax 40 MHz, high, U-NII-1	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, high, U-NII-2A	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, high, U-NII-2C	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, high, U-NII-3	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, low, U-NII-1	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, low, U-NII-2A	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, low, U-NII-2C	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, low, U-NII-3	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 40 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-19	Passed	Passed
WLAN ax 80 MHz, low, U-NII-2C	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-1	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-2A	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-3	S01_377_AA01	2022-04-20	Passed	Passed
WLAN ax 80 MHz, straddle, U-NII-2C/3	S01_377_AA01	2022-04-20	Passed	Passed
WLAN n 20 MHz, high, U-NII-1	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, high, U-NII-2A	S01_377_AA01	2022-04-06	Passed	Passed

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FCC §15.31, §15.407 (a) (1),(5)

Peak Power Spectral Density

The measurement was performed according to ANSI C63.10 12.5 (SA-3)

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Subband				
WLAN n 20 MHz, high, U-NII-2C	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, high, U-NII-3	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, low, U-NII-1	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, low, U-NII-2A	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, low, U-NII-2C	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, low, U-NII-3	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, mid, U-NII-1	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, mid, U-NII-2A	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 20 MHz, mid, U-NII-3	S01_377_AA01	2022-04-06	Passed	Passed
WLAN n 40 MHz, high, U-NII-1	S01_377_AA01	2022-04-12	Passed	Passed
WLAN n 40 MHz, high, U-NII-2A	S01_377_AA01	2022-04-12	Passed	Passed
WLAN n 40 MHz, high, U-NII-2C	S01_377_AA01	2022-04-12	Passed	Passed
WLAN n 40 MHz, high, U-NII-3	S01_377_AA01	2022-04-12	Passed	Passed
WLAN n 40 MHz, low, U-NII-1	S01_377_AA01	2022-04-12	Passed	Passed
WLAN n 40 MHz, low, U-NII-2A	S01_377_AA01	2022-04-12	Passed	Passed
WLAN n 40 MHz, low, U-NII-2C	S01_377_AA01	2022-04-12	Passed	Passed
WLAN n 40 MHz, low, U-NII-3	S01_377_AA01	2022-04-12	Passed	Passed
WLAN n 40 MHz, mid, U-NII-2C	S01_377_AA01	2022-04-12	Passed	Passed
WLAN ac 20 MHz MIMO, high, U-NII-1	S01_377_AE01	2022-04-11	Passed	Passed
WLAN ac 20 MHz MIMO, high, U-NII-2A	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, high, U-NII-2C	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, high, U-NII-3	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, low, U-NII-1	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, low, U-NII-2A	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, low, U-NII-3	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, mid, U-NII-1	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, mid, U-NII-2A	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, mid, U-NII-2C	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, mid, U-NII-3	S01_377_AE01	2022-08-02	Passed	Passed
WLAN ac 20 MHz MIMO, straddle, U-NII-2C/3	S01_377_AE01	2022-08-03	Passed	Passed
WLAN ac 40 MHz MIMO, high, U-NII-1	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 40 MHz MIMO, high, U-NII-2A	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 40 MHz MIMO, high, U-NII-2C	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 40 MHz MIMO, high, U-NII-3	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 40 MHz MIMO, low, U-NII-1	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 40 MHz MIMO, low, U-NII-2A	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 40 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 40 MHz MIMO, low, U-NII-3	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 40 MHz MIMO, mid, U-NII-2C	S01_377_AE01	2022-08-10	Passed	Passed

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FCC §15.31, §15.407 (a) (1),(5)

Peak Power Spectral Density

The measurement was performed according to ANSI C63.10 12.5 (SA-3)

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Subband				
WLAN ac 40 MHz MIMO, straddle, U-NII-2C/3	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 80 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 80 MHz MIMO, mid, U-NII-1	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 80 MHz MIMO, mid, U-NII-2A	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 80 MHz MIMO, mid, U-NII-3	S01_377_AE01	2022-08-10	Passed	Passed
WLAN ac 80 MHz MIMO, straddle, U-NII-2C/3	S01_377_AE01	2022-08-12	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-1	S01_377_AE01	2022-08-05	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-2A	S01_377_AE01	2022-08-05	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-2C	S01_377_AE01	2022-08-05	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-3	S01_377_AE01	2022-08-05	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-1	S01_377_AE01	2022-08-04	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-2A	S01_377_AE01	2022-08-04	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-08-04	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-3	S01_377_AE01	2022-08-04	Passed	Passed
WLAN ax 20 MHz MIMO, mid, U-NII-1	S01_377_AE01	2022-08-04	Passed	Passed
WLAN ax 20 MHz MIMO, mid, U-NII-2A	S01_377_AE01	2022-08-04	Passed	Passed
WLAN ax 20 MHz MIMO, mid, U-NII-2C	S01_377_AE01	2022-08-04	Passed	Passed
WLAN ax 20 MHz MIMO, mid, U-NII-3	S01_377_AE01	2022-08-04	Passed	Passed
WLAN ax 20 MHz MIMO, straddle, U-NII-2C/3	S01_377_AE01	2022-08-05	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-1	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-2A	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-2C	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-3	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-1	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-2A	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-3	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 40 MHz MIMO, mid, U-NII-2C	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 40 MHz MIMO, straddle, U-NII-2C/3	S01_377_AE01	2022-08-11	Passed	Passed
WLAN ax 80 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-08-12	Passed	Passed
WLAN ax 80 MHz MIMO, mid, U-NII-1	S01_377_AE01	2022-08-12	Passed	Passed
WLAN ax 80 MHz MIMO, mid, U-NII-2A	S01_377_AE01	2022-08-12	Passed	Passed
WLAN ax 80 MHz MIMO, mid, U-NII-3	S01_377_AE01	2022-08-12	Passed	Passed
WLAN ax 80 MHz MIMO, straddle, U-NII-2C/3	S01_377_AE01	2022-08-12	Passed	Passed
WLAN n 20 MHz MIMO, high, U-NII-1	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, high, U-NII-2A	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, high, U-NII-2C	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, high, U-NII-3	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, low, U-NII-1	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, low, U-NII-2A	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-08-03	Passed	Passed

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FCC §15.31, §15.407 (a) (1),(5)

Peak Power Spectral Density

The measurement was performed according to ANSI C63.10 12.5 (SA-3)

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Subband				
WLAN n 20 MHz MIMO, low, U-NII-3	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, mid, U-NII-1	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, mid, U-NII-2A	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, mid, U-NII-2C	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 20 MHz MIMO, mid, U-NII-3	S01_377_AE01	2022-08-03	Passed	Passed
WLAN n 40 MHz MIMO, high, U-NII-1	S01_377_AE01	2022-08-04	Passed	Passed
WLAN n 40 MHz MIMO, high, U-NII-2A	S01_377_AE01	2022-08-04	Passed	Passed
WLAN n 40 MHz MIMO, high, U-NII-2C	S01_377_AE01	2022-08-04	Passed	Passed
WLAN n 40 MHz MIMO, high, U-NII-3	S01_377_AE01	2022-08-04	Passed	Passed
WLAN n 40 MHz MIMO, low, U-NII-1	S01_377_AE01	2022-08-04	Passed	Passed
WLAN n 40 MHz MIMO, low, U-NII-2A	S01_377_AE01	2022-08-04	Passed	Passed
WLAN n 40 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-08-04	Passed	Passed
WLAN n 40 MHz MIMO, low, U-NII-3	S01_377_AE01	2022-08-04	Passed	Passed
WLAN n 40 MHz MIMO, mid, U-NII-2C	S01_377_AE01	2022-08-04	Passed	Passed
OFDMA with one active Resource Unit:				
WLAN ax 20 MHz MIMO, high, U-NII-1	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-2A	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-2C	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-3	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-1	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-2A	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-3	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 20 MHz MIMO, mid, U-NII-1	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 20 MHz MIMO, mid, U-NII-2A	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 20 MHz MIMO, mid, U-NII-2C	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 20 MHz MIMO, mid, U-NII-3	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 20 MHz MIMO, straddle, U-NII-2C/3	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-1	S01_377_AE01	2022-11-11	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-2A	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-2C	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-3	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-1	S01_377_AE01	2022-11-11	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-2A	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-3	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 40 MHz MIMO, mid, U-NII-2C	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 40 MHz MIMO, straddle, U-NII-2C/3	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 80 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 80 MHz MIMO, mid, U-NII-1	S01_377_AE01	2022-11-11	Passed	Passed

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FCC §15.31, §15.407 (a) (1),(5)

Peak Power Spectral Density

The measurement was performed according to ANSI C63.10 12.5 (SA-3)

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Subband				
WLAN ax 80 MHz MIMO, mid, U-NII-2A	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 80 MHz MIMO, mid, U-NII-3	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 80 MHz MIMO, straddle, U-NII-2C/3	S01_377_AE01	2022-11-10	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-1	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-2A	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-2C	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-3	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-1	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-2A	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-2C	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-3	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 20 MHz MIMO, mid, U-NII-1	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 20 MHz MIMO, mid, U-NII-2A	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 20 MHz MIMO, mid, U-NII-2C	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 20 MHz MIMO, mid, U-NII-3	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 20 MHz MIMO, straddle, U-NII-2C/3	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-1	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-2A	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-2C	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-3	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-1	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-2A	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-2C	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-3	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 40 MHz MIMO, mid, U-NII-2C	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 40 MHz MIMO, straddle, U-NII-2C/3	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 80 MHz MIMO, low, U-NII-2C	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 80 MHz MIMO, mid, U-NII-1	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 80 MHz MIMO, mid, U-NII-2A	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 80 MHz MIMO, mid, U-NII-3	S01_377_BA01	2022-11-18	Passed	Passed
WLAN ax 80 MHz MIMO, straddle, U-NII-2C/3	S01_377_BA01	2022-11-18	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

6.4, 6.5, 6.6.5

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_377_AE01	2022-08-12	Passed	Passed
WLAN a, high, 1GHz - 26GHz, U-NII-1 Remark: Harmonics tested	S02_377_AD01	2022-04-21	Passed	Passed
WLAN a, high, 1GHz - 26GHz, U-NII-2A Remark: Measurement Method Conducted	S01_377_AE01	2022-08-12	Passed	Passed
WLAN a, high, 1GHz - 26GHz, U-NII-2A Remark: Harmonics tested	S02_377_AD01	2022-04-21	Passed	Passed
WLAN a, high, 1GHz - 26GHz, U-NII-2C Remark: Measurement Method Conducted	S01_377_AE01	2022-08-12	Passed	Passed
WLAN a, high, 1GHz - 26GHz, U-NII-2C Remark: Harmonics tested	S02_377_AD01	2022-04-21	Passed	Passed
WLAN a, high, 1GHz - 26GHz, U-NII-3 Remark: Measurement Method Conducted	S01_377_AE01	2022-08-12	Passed	Passed
WLAN a, high, 1GHz - 26GHz, U-NII-3	S02_377_AD01	2022-04-27	Passed	Passed
WLAN a, high, 9kHz - 30MHz, U-NII-2C	S02_377_AB01	2022-03-14	Passed	Passed
WLAN a, high, 9kHz - 30MHz, U-NII-2C	S02_374_BB01	2022-07-21	Passed	Passed
WLAN a, low, 1GHz - 26GHz, U-NII-1 Remark: Measurement Method Conducted	S01_377_AA01	2022-03-28	Passed	Passed
WLAN a, low, 1GHz - 26GHz, U-NII-1 Remark: Harmonics tested	S02_377_AD01	2022-04-21	Passed	Passed
WLAN a, low, 1GHz - 26GHz, U-NII-1	S02_374_BB01	2022-07-19	Passed	Passed
WLAN a, low, 1GHz - 26GHz, U-NII-2A Remark: Measurement Method Conducted	S01_377_AE01	2022-08-12	Passed	Passed
WLAN a, low, 1GHz - 26GHz, U-NII-2A Remark: Harmonics tested	S02_377_AD01	2022-04-21	Passed	Passed
WLAN a, low, 1GHz - 26GHz, U-NII-2C Remark: Measurement Method Conducted	S01_377_AE01	2022-08-12	Passed	Passed
WLAN a, low, 1GHz - 26GHz, U-NII-2C	S02_377_AD01	2022-05-01	Passed	Passed
WLAN a, low, 1GHz - 26GHz, U-NII-3 Remark: Measurement Method Conducted	S01_377_AE01	2022-08-12	Passed	Passed
WLAN a, low, 1GHz - 26GHz, U-NII-3 Remark: Harmonics tested	S02_377_AD01	2022-04-22	Passed	Passed
WLAN a, low, 9kHz - 30MHz, U-NII-1	S02_377_AB01	2022-03-14	Passed	Passed
WLAN a, low, 9kHz - 30MHz, U-NII-1	S02_374_BB01	2022-07-21	Passed	Passed
WLAN a, mid, 1GHz - 26GHz, U-NII-1 Remark: Measurement Method Conducted	S01_377_AE01	2022-08-12	Passed	Passed
WLAN a, mid, 1GHz - 26GHz, U-NII-1 Remark: Harmonics tested	S02_377_AD01	2022-04-21	Passed	Passed
WLAN a, mid, 1GHz - 26GHz, U-NII-1 Remark: Measurement Method Conducted, Measured Range: 1 - 18 GHz	S01_374_BA01	2022-08-15	Passed	Passed
WLAN a, mid, 1GHz - 26GHz, U-NII-2A Remark: Measurement Method Conducted	S01_377_AE01	2022-08-12	Passed	Passed
WLAN a, mid, 1GHz - 26GHz, U-NII-2A Remark: Harmonics tested	S02_377_AD01	2022-04-21	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

6.4, 6.5, 6.6.5

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Measurement range, Subband				
WLAN a, mid, 1GHz - 26GHz, U-NII-2A Remark: Measurement Method Conducted Measured Range: 1 - 18 GHz	S01_374_BA01	2022-08-15	Passed	Passed
WLAN a, mid, 1GHz - 26GHz, U-NII-2C Remark: Measurement Method Conducted	S01_377_AE01	2022-08-12	Passed	Passed
WLAN a, mid, 1GHz - 26GHz, U-NII-2C Remark: Harmonics tested	S02_377_AD01	2022-04-21	Passed	Passed
WLAN a, mid, 1GHz - 26GHz, U-NII-2C Remark: Measurement Method Conducted Measured Range: 1 - 18 GHz	S01_374_BA01	2022-08-15	Passed	Passed
WLAN a, mid, 1GHz - 26GHz, U-NII-3 Remark: Measurement Method Conducted	S01_377_AE01	2022-08-12	Passed	Passed
WLAN a, mid, 1GHz - 26GHz, U-NII-3 Remark: Measurement Method Conducted Measured Range: 1 - 18 GHz	S01_374_BA01	2022-08-15	Passed	Passed
WLAN a, mid, 26GHz - 40GHz, U-NII-1	S02_377_AD01	2022-05-05	Passed	Passed
WLAN a, mid, 26GHz - 40GHz, U-NII-2A	S02_377_AD01	2022-05-05	Passed	Passed
WLAN a, mid, 26GHz - 40GHz, U-NII-2C	S02_377_AD01	2022-05-05	Passed	Passed
WLAN a, mid, 26GHz - 40GHz, U-NII-3	S02_377_AD01	2022-05-05	Passed	Passed
WLAN a, mid, 30MHz - 1GHz, U-NII-1 Remark: Measurement Method Conducted	S01_377_AE01	2022-08-12	Passed	Passed
WLAN a, mid, 30MHz - 1GHz, U-NII-1	S02_377_AB01	2022-03-14	Passed	Passed
WLAN a, mid, 30MHz - 1GHz, U-NII-1	S02_374_BA01	2022-07-13	Passed	Passed
WLAN a, mid, 30MHz - 1GHz, U-NII-1 Remark: Measurement Method Conducted	S01_374_BA01	2022-08-15	Passed	Passed
WLAN a, mid, 30MHz - 1GHz, U-NII-2A	S02_377_AB01	2022-03-14	Passed	Passed
WLAN a, mid, 30MHz - 1GHz, U-NII-2A Remark: Measurement Method Conducted	S01_374_BA01	2022-08-15	Passed	Passed
WLAN a, mid, 30MHz - 1GHz, U-NII-2C	S02_377_AB01	2022-03-14	Passed	Passed
WLAN a, mid, 30MHz - 1GHz, U-NII-2C Remark: Measurement Method Conducted	S01_374_BA01	2022-08-15	Passed	Passed
WLAN a, mid, 30MHz - 1GHz, U-NII-3 Remark: Measurement Method Conducted	S01_377_AE01	2022-08-12	Passed	Passed
WLAN a, mid, 30MHz - 1GHz, U-NII-3	S02_377_AB01	2022-03-14	Passed	Passed
WLAN a, mid, 30MHz - 1GHz, U-NII-3	S02_374_BA01	2022-07-13	Passed	Passed
WLAN a, mid, 30MHz - 1GHz, U-NII-3 Remark: Measurement Method Conducted	S01_374_BA01	2022-08-15	Passed	Passed
WLAN a, mid, 9kHz - 30MHz, U-NII-1 Remark: Measurement Method Conducted	S01_377_AE01	2022-08-12	Passed	Passed
WLAN a, mid, 9kHz - 30MHz, U-NII-3 Remark: Measurement Method Conducted	S01_377_AE01	2022-08-12	Passed	Passed
WLAN a, mid, 9kHz - 30MHz, U-NII-3 Remark: Measurement Method Conducted	S01_374_BA01	2022-08-15	Passed	Passed
WLAN ac 20 MHz MIMO, mid, 1GHz - 26GHz, U-NII-1 Remark: Measurement Method Conducted	S01_377_AE01	2022-08-12	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

6.4, 6.5, 6.6.5

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Measurement range, Subband				
WLAN ac 80 MHz MIMO, mid, 1GHz - 26GHz, U-NII-1	S01_377_AE01	2022-08-12	Passed	Passed
Remark: Measurement Method Conducted				
WLAN ax 20 MHz, mid, 1GHz - 26GHz, U-NII-1	S01_377_AE01	2022-08-12	Passed	Passed
Remark: Measurement Method Conducted				
WLAN n 20 MHz MIMO, mid, 1GHz - 26GHz, U-NII-1	S01_377_AE01	2022-08-12	Passed	Passed
Remark: Measurement Method Conducted				
WLAN n 40 MHz MIMO, high, 1GHz - 26GHz, U-NII-1	S01_377_AE01	2022-08-12	Passed	Passed
Remark: Measurement Method Conducted				

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FCC §15.407 (b), (1),(2),(3),(4)

Band Edge

The measurement was performed according to ANSI C63.10 6.6.5

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Subband				
WLAN a, high, U-NII-2A	S01_377_AA01	2022-03-16	Passed	Passed
WLAN a, high, U-NII-2A	S02_377_AD01	2022-04-28	Passed	Passed
WLAN a, high, U-NII-2A	S01_374_BA01	2022-07-28	Passed	Passed
WLAN a, high, U-NII-2C	S01_377_AA01	2022-04-01	Passed	Passed
WLAN a, high, U-NII-2C	S02_377_AD01	2022-04-21	Passed	Passed
WLAN a, high, U-NII-2C	S01_374_BA01	2022-07-28	Passed	Passed
WLAN a, high, U-NII-3	S01_377_AA01	2022-04-25	Passed	Passed
WLAN a, high, U-NII-3	S02_377_AD01	2022-04-27	Passed	Passed
WLAN a, high, U-NII-3	S01_374_BA01	2022-07-28	Passed	Passed
WLAN a, low, U-NII-1	S01_377_AA01	2022-03-08	Passed	Passed
WLAN a, low, U-NII-1	S02_377_AD01	2022-04-28	Passed	Passed
WLAN a, low, U-NII-1	S01_374_BA01	2022-07-28	Passed	Passed
WLAN a, low, U-NII-1	S02_374_BB01	2022-07-19	Passed	Passed
WLAN a, low, U-NII-2C	S01_377_AA01	2022-04-01	Passed	Passed
WLAN a, low, U-NII-2C	S02_377_AD01	2022-05-01	Passed	Passed
WLAN a, low, U-NII-2C	S01_374_BA01	2022-07-28	Passed	Passed
WLAN a, low, U-NII-3	S01_377_AA01	2022-04-25	Passed	Passed
WLAN a, low, U-NII-3	S02_377_AD01	2022-04-21	Passed	Passed
WLAN a, low, U-NII-3	S01_374_BA01	2022-07-28	Passed	Passed
WLAN ac 20 MHz MIMO, high, U-NII-2A	S01_377_AA01	2022-03-16	Passed	Passed
WLAN ac 20 MHz MIMO, high, U-NII-2C	S01_377_AA01	2022-04-07	Passed	Passed
WLAN ac 20 MHz MIMO, low, U-NII-1	S01_377_AA01	2022-03-08	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 6.6.5

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Subband				
WLAN ac 20 MHz MIMO, low, U-NII-2C	S01_377_AA01	2022-03-22	Passed	Passed
WLAN ac 20 MHz, high, U-NII-2A	S01_377_AA01	2022-03-16	Passed	Passed
WLAN ac 20 MHz, high, U-NII-2C	S01_377_AA01	2022-04-01	Passed	Passed
WLAN ac 20 MHz, low, U-NII-1	S01_377_AA01	2022-03-08	Passed	Passed
WLAN ac 20 MHz, low, U-NII-2C	S01_377_AA01	2022-03-18	Passed	Passed
WLAN ac 40 MHz MIMO, high, U-NII-2A	S01_377_AA01	2022-03-18	Passed	Passed
WLAN ac 40 MHz MIMO, high, U-NII-2C	S01_377_AA01	2022-04-01	Passed	Passed
WLAN ac 40 MHz MIMO, low, U-NII-1	S01_377_AA01	2022-03-10	Passed	Passed
WLAN ac 40 MHz MIMO, low, U-NII-2C	S01_377_AA01	2022-03-22	Passed	Passed
WLAN ac 40 MHz MIMO, low, U-NII-3	S01_377_AE01	2022-08-12	Passed	Passed
WLAN ac 40 MHz, high, U-NII-2A	S01_377_AA01	2022-03-18	Passed	Passed
WLAN ac 40 MHz, low, U-NII-1	S01_377_AA01	2022-03-10	Passed	Passed
WLAN ac 40 MHz, low, U-NII-2C	S01_377_AA01	2022-03-18	Passed	Passed
WLAN ac 80 MHz MIMO, low, U-NII-2C	S01_377_AA01	2022-03-22	Passed	Passed
WLAN ac 80 MHz MIMO, mid, U-NII-1	S01_377_AA01	2022-03-10	Passed	Passed
WLAN ac 80 MHz MIMO, mid, U-NII-2A	S01_377_AA01	2022-03-16	Passed	Passed
WLAN ac 80 MHz MIMO, mid, U-NII-3	S01_377_AA01	2022-04-07	Passed	Passed
WLAN ac 80 MHz MIMO, mid, U-NII-3	S01_374_BA01	2022-08-15	Passed	Passed
WLAN ac 80 MHz, low, U-NII-2C	S01_377_AA01	2022-03-22	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-1	S01_377_AA01	2022-03-10	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-2A	S01_377_AA01	2022-03-16	Passed	Passed
WLAN ac 80 MHz, mid, U-NII-3	S01_374_BA01	2022-08-15	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-2A	S01_377_AA01	2022-03-16	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-2C	S01_377_AA01	2022-04-07	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-1	S01_377_AA01	2022-03-08	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-2C	S01_377_AA01	2022-03-22	Passed	Passed
WLAN ax 20 MHz, high, U-NII-2A	S01_377_AA01	2022-03-16	Passed	Passed
WLAN ax 20 MHz, high, U-NII-2C	S01_377_AA01	2022-04-01	Passed	Passed
WLAN ax 20 MHz, low, U-NII-1	S01_377_AA01	2022-03-08	Passed	Passed
WLAN ax 20 MHz, low, U-NII-2C	S01_377_AA01	2022-03-18	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-2A	S01_377_AA01	2022-03-18	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-2C	S01_377_AA01	2022-04-01	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-1	S01_377_AA01	2022-03-10	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-2C	S01_377_AA01	2022-03-22	Passed	Passed
WLAN ax 40 MHz, high, U-NII-2A	S01_377_AA01	2022-03-18	Passed	Passed
WLAN ax 40 MHz, low, U-NII-1	S01_377_AA01	2022-03-10	Passed	Passed
WLAN ax 40 MHz, low, U-NII-2C	S01_377_AA01	2022-03-18	Passed	Passed
WLAN ax 80 MHz MIMO, low, U-NII-2C	S01_377_AA01	2022-03-22	Passed	Passed
WLAN ax 80 MHz MIMO, mid, U-NII-1	S01_377_AA01	2022-03-10	Passed	Passed
WLAN ax 80 MHz MIMO, mid, U-NII-2A	S01_377_AA01	2022-03-16	Passed	Passed
WLAN ax 80 MHz MIMO, mid, U-NII-3	S01_377_AA01	2022-04-07	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 6.6.5

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Subband				
WLAN ax 80 MHz MIMO, mid, U-NII-3	S01_374_BA01	2022-08-15	Passed	Passed
WLAN ax 80 MHz, low, U-NII-2C	S01_377_AA01	2022-03-22	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-1	S01_377_AA01	2022-03-10	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-2A	S01_377_AA01	2022-03-16	Passed	Passed
WLAN ax 80 MHz, mid, U-NII-3	S01_374_BA01	2022-08-15	Passed	Passed
WLAN n 20 MHz MIMO, high, U-NII-2A	S01_377_AA01	2022-03-16	Passed	Passed
WLAN n 20 MHz MIMO, high, U-NII-2A	S01_374_BA01	2022-08-10	Passed	Passed
WLAN n 20 MHz MIMO, high, U-NII-2A	S01_374_BA01	2022-08-10	Passed	Passed
WLAN n 20 MHz MIMO, high, U-NII-2C	S01_377_AA01	2022-04-07	Passed	Passed
WLAN n 20 MHz MIMO, high, U-NII-2C	S01_374_BA01	2022-08-10	Passed	Passed
WLAN n 20 MHz MIMO, high, U-NII-2C	S01_374_BA01	2022-08-10	Passed	Passed
WLAN n 20 MHz MIMO, low, U-NII-1	S01_377_AA01	2022-03-08	Passed	Passed
WLAN n 20 MHz MIMO, low, U-NII-1	S01_374_BA01	2022-08-10	Passed	Passed
WLAN n 20 MHz MIMO, low, U-NII-1	S01_374_BA01	2022-08-10	Passed	Passed
WLAN n 20 MHz MIMO, low, U-NII-2C	S01_377_AA01	2022-03-22	Passed	Passed
WLAN n 20 MHz MIMO, low, U-NII-2C	S01_374_BA01	2022-08-10	Passed	Passed
WLAN n 20 MHz MIMO, low, U-NII-2C	S01_374_BA01	2022-08-10	Passed	Passed
WLAN n 20 MHz, high, U-NII-2A	S01_377_AA01	2022-03-16	Passed	Passed
WLAN n 20 MHz, high, U-NII-2C	S01_377_AA01	2022-04-01	Passed	Passed
WLAN n 20 MHz, low, U-NII-1	S01_377_AA01	2022-03-08	Passed	Passed
WLAN n 20 MHz, low, U-NII-2C	S01_377_AA01	2022-03-16	Passed	Passed
WLAN n 40 MHz MIMO, high, U-NII-2A	S01_377_AA01	2022-03-18	Passed	Passed
WLAN n 40 MHz MIMO, high, U-NII-2C	S01_377_AA01	2022-04-01	Passed	Passed
WLAN n 40 MHz MIMO, low, U-NII-1	S01_377_AA01	2022-03-08	Passed	Passed
WLAN n 40 MHz MIMO, low, U-NII-2C	S01_377_AA01	2022-03-22	Passed	Passed
WLAN n 40 MHz MIMO, low, U-NII-3	S01_377_AE01	2022-08-12	Passed	Passed
WLAN n 40 MHz, high, U-NII-2A	S01_377_AA01	2022-03-18	Passed	Passed
WLAN n 40 MHz, high, U-NII-2C	S01_377_AA01	2022-04-01	Passed	Passed
WLAN n 40 MHz, low, U-NII-1	S01_377_AA01	2022-03-10	Passed	Passed
WLAN n 40 MHz, low, U-NII-2C	S01_377_AA01	2022-03-18	Passed	Passed
OFDMA with one active Resource Unit:				
WLAN ax 20 MHz MIMO, high, U-NII-2A	S01_377_AE01	2022-11-08	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-2C	S01_377_AE01	2022-11-08	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-1	S01_377_AE01	2022-11-08	Passed	Passed
WLAN ax 20 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-11-08	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-2A	S01_377_AE01	2022-11-08	Passed	Passed
WLAN ax 40 MHz MIMO, high, U-NII-2C	S01_377_AE01	2022-11-21	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-1	S01_377_AE01	2022-11-08	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-11-08	Passed	Passed
WLAN ax 80 MHz MIMO, low, U-NII-2C	S01_377_AE01	2022-11-08	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 6.6.5

Final Result

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN ax 80 MHz MIMO, mid, U-NII-1	S01_377_AE01	2022-11-08	Passed	Passed
WLAN ax 80 MHz MIMO, mid, U-NII-2A	S01_377_AE01	2022-11-08	Passed	Passed
WLAN ax 80 MHz MIMO, mid, U-NII-3	S01_377_AE01	2022-11-08	Passed	Passed
WLAN ax 80 MHz MIMO, mid, U-NII-3	S01_377_AE01	2022-11-08	Passed	Passed
WLAN ax 20 MHz MIMO, high, U-NII-2C	S01_374_BA01	2022-11-21	Passed	Passed
WLAN ax 40 MHz MIMO, low, U-NII-2C	S01_374_BA01	2022-11-18	Passed	Passed
WLAN ax 80 MHz MIMO, low, U-NII-2C	S01_374_BA01	2022-11-18	Passed	Passed

47 CFR CHAPTER I FCC PART 15
Subpart E §15.407

FCC §15.31, §15.407 (h)

Dynamic Frequency Selection

The measurement was performed according to KDB 905462 D02

Final Result

OP-Mode Radio Technology, Operating Frequency, Subband	Setup	Date	FCC	IC
WLAN ac 80 MHz, low, U-NII-2C	S01_377_AE01	2022-08-16	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	2022-08-31	--	invalid
rev01	2022-10-18	Added straddle channel results	invalid
rev02	2022-11-21	Corrected EUT SW version, changed some limits/values in test case output power / power density, added results of OFDMA mode (power density / band edge) with use of single resource unit and related power table	valid

COMMENT: According to the applicant the WLAN part of the JODY-W377 is identical to the WLAN part of the JODY-W374. Due to this not all tests have been performed for JODY-W374.


 (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-12140-01-01 | -02 | -03
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: 2021-09-09

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: 2022-11-21
Testing Period: 2022-03-08 to 2022-10-18

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	JODY-W3
Type	JODY-W377-00A JODY-W374-00A
Declared EUT data by the supplier	
Voltage Type	DC
Voltage Level	1.8 V + 3.3 V
Tested Modulation Type	OFDM
Specific product description	The EUT is a Bluetooth and WLAN module. In the 5 GHz band it supports SISO and MIMO Mode for WLAN. Supported WLAN modes are a, n, ac and ax with 20 MHz (mode a, n, ac, ax), 40 MHz (mode n, ac, ax) and 80 MHz (mode ac, ax) BW. The ax Mode Supports MU-MIMO and OFDMA. The U-NII bands 1, 2A, 2C and 3 are supported. For this report the EUT is a slave without radar detection in the relevant DFS bands.
Ports of the device	Enclosure Data DC Power Antenna The EUT is a module with solder pads for surface mounting, so no cables were connected to the EUT itself.
Antenna	External / 2 dBi (No antennas were provided for the tests, radiated measurements were performed with 50 Ohm terminations) Remark by laboratory: Naming of antenna ports for the report: 
Tested Datarates	WLAN a: 6 Mbit WLAN n: MCS 0 (SISO), MCS 8 (MIMO) WLAN ac, ax: MCS 0
Special software used for testing	Labtool V2.0.0.85-17.80.200.p204 on computer board provided by applicant

Mode\Ch.	36	40	44	48	52	56	60	64	100	104	108	112	116	132	136	140	144	149	153	157	161	165		
ax 20 MIMO	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9		
ax 40 MIMO	8		8		9		9		7		9		N/A		9		9		9		N/A			
ax 80 MIMO	8				9				7				N/A		9				9				N/A	

Sample Name	Sample Code	Description
EUT 377 ad01	DE1015152ad01	JODY-W377 Sample
Sample Parameter	Value	
Serial No.	I316009C380A7B00600	
HW Version	05	
SW Version	2.0.0.86-17.80.200.p207	
Comment		

Sample Name	Sample Code	Description
EUT 377 ae01	DE1015152ae01	JODY-W377 Sample
Sample Parameter	Value	
Serial No.	I316009C380A7940600	
HW Version	05	
SW Version	Test mode: 2.0.0.86-17.80.200.p207, normal mode (DFS):17.68.1.p88-17.26.1.p88-MXM5X17287_V0V1	
Comment		

Sample Name	Sample Code	Description
EUT 374 ba01	DE1015152ba01	JODY-W374 Sample
Sample Parameter	Value	
Serial No.	F666009C380BD240500	
HW Version	05	
SW Version	2.0.0.86-17.80.200.p207	
Comment		

Sample Name	Sample Code	Description
EUT 374 bb01	DE1015152bb01	JODY-W374 Sample
Sample Parameter	Value	
Serial No.	F666009C380BD680500	
HW Version	05	
SW Version	2.0.0.86-17.80.200.p207	
Comment		

Sample Name	Sample Code	Description
EUT 374 bc01	DE1015152bc01	JODY-W374 Sample
Sample Parameter	Value	
Serial No.	F666009C380BD580500	
HW Version	05	
SW Version	2.0.0.86-17.80.200.p207	
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
AUX1	UBLOX, JODY-Carrier Board, REV C, - , 10000001898798018001	Supply and Port connector board
AUX2	UBLOX, JODY-Carrier Board, REV C, - , 10000001898798019001	Supply and Port connector board
AUX4	UBLOX, JODY-Carrier Board, REV C, - , 10000001898798014001	Supply and Port connector board
AUX5	UBLOX, JODY-Carrier Board, REV C, - , 10000001898798024001	Supply and Port connector board
AUX6	UBLOX, JODY-Carrier Board, REV D, - , 10000002210935012001	Supply and Port connector board
AUX7	UBLOX, JODY-Carrier Board, REV C, - , 10000001898798022001	Supply and Port connector board
AUX8	UBLOX, JODY-Carrier Board, REV C, - , 10000001898798023002	Supply and Port connector board
AUX21	Toradex, , -, - ,	Board Computer for setting modes
ACDC1	Agilent, E3631A, -, -, MY40018563	120 V 60 Hz AC laboratory power supply

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
S02_377_AB01	EUT 377 ab01, AUX2,	Radiated Setup
S03_377_AE01	EUT 377 ae01, AUX5, ACDC1	AC Conducted Setup
S01_377_AE01	EUT 377 ae01, AUX5, AUX21	Conducted Setup
S02_377_AD01	EUT 377 ad01, AUX4,	Radiated Setup
S01_377_AA01	EUT 377 aa01, AUX1, AUX21	Conducted Setup
S01_374_BA01	EUT 374 ba01, AUX6, AUX21	Conducted Setup
S02_374_BB01	EUT 374 bb01, AUX7	Radiated Setup
S03_374_BB01	EUT 374 bb01, AUX7, ACDC1	AC Conducted Setup
S01_374_BC01	EUT 374 bc01, AUX8, AUX21	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-Subband 3 5725 - 5850 MHz			Nom. BW
low	mid	high	low	mid	high	low	mid	high	low	mid	high	20 MHz
36	40	48	52	60	64	100	116	140 / 144 ¹⁾	149	157	165	Ch.-No.
5180	5200	5240	5260	5300	5320	5500	5580	5700 / 5720	5745	5785	5825	MHz

low	mid	high	low	mid	high	low	mid	high	low	mid	high	40 MHz
38	-	46	54	-	62	102	110	134 / 142 ¹⁾	151	-	159	Ch.-No.
5190	-	5230	5270	-	5310	5510	5550	5670 / 5710	5755	-	5795	MHz

low	mid	high	low	mid	high	low	mid	high	low	mid	high	80 MHz
-	42	-	-	58	-	106	-	138 ¹⁾	155	-	-	Ch.-No.
-	5210	-	-	5290	-	5530	-	5690	5775	-	-	MHz

1) Channels 144, 142 and 138 are straddle channels. Relevant high channels for upper Band Edge of band 2C are CH.140, CH. 134 and Ch 122.

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

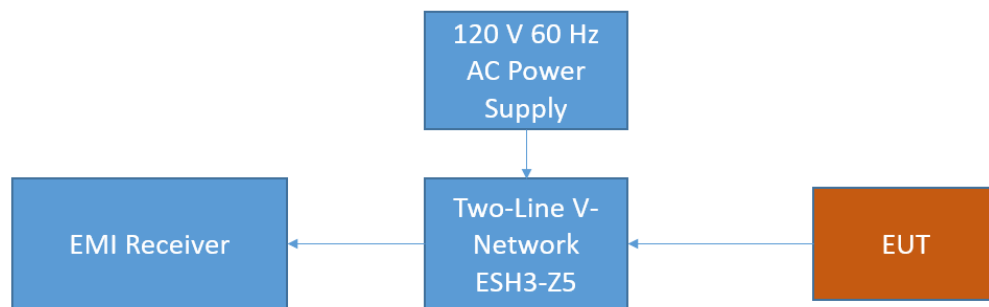
5.1 AC CONDUCTED EMISSIONS

Standard **FCC Part 15 Subpart E**

The test was performed according to:
ANSI C63.10 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: 30 °C
Air Pressure: 1018 hPa
Humidity: 34 %

Variant	Power line	PE	Frequency [MHz]	Measured value QP [dBµV]	Measured value AV [dBµV]	Limit [dBµV]	Margin [dB]
377	N	GND	12.01	46.2	-	60.0	13.8
377	N	GND	12.01	-	42.5	50.0	7.5
377	N	FLO	24.01	46.3	-	60.0	13.7
377	N	FLO	24.01	-	44.0	50.0	6.0
374	N	GND	12.01	46.1	-	60.0	13.9
374	N	GND	12.01	-	42.4	50.0	7.6
374	N	FLO	24.01	48.2	-	60.0	11.8
374	N	FLO	24.01	-	44.6	50.0	5.4

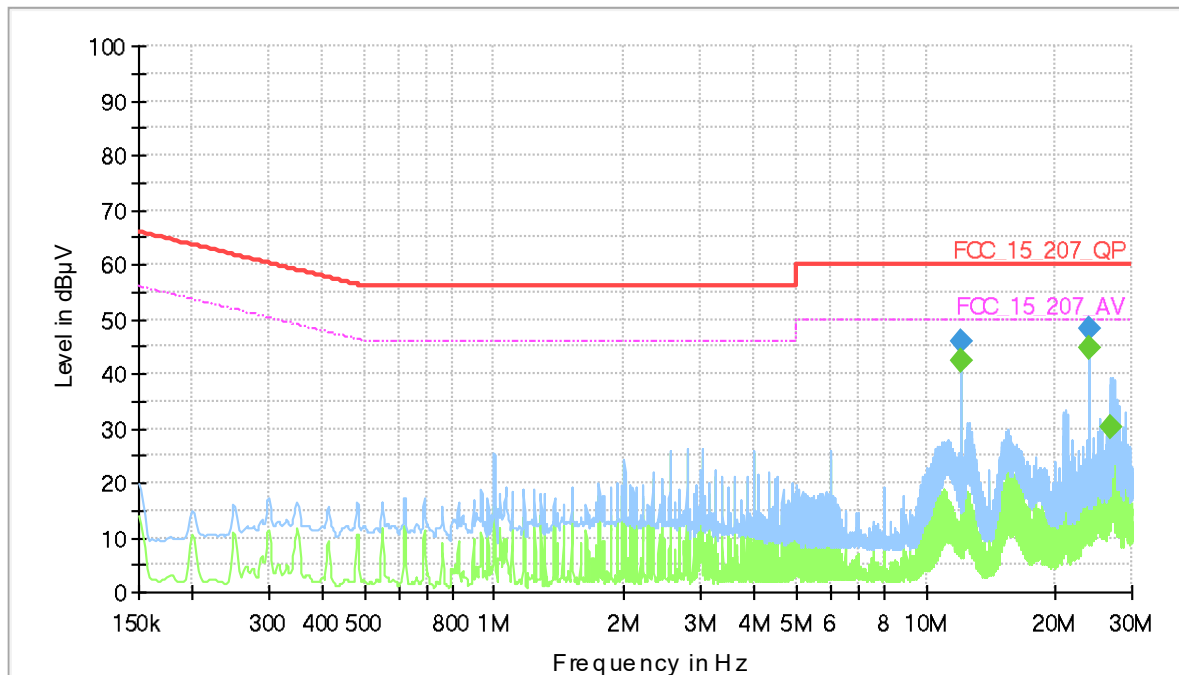
Remark: Please see next sub-clause for the measurement plot.

5.1.4 MEASUREMENT PLOT

Operating mode = worst case, Connection to AC mains = via ancillary/auxiliary equipment (S03_374_BB01)

Common Information

Test Description:	Conducted Emissions
Test Standard:	FCC §15.207, ANSI C63.10
EUT / Setup Code:	DE1015152bb01
Operating Conditions:	120 V 60 Hz, WLANb 1 Mbps Ch6, WLANa 6 Mbps Ch40
Operator Name:	GAL
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



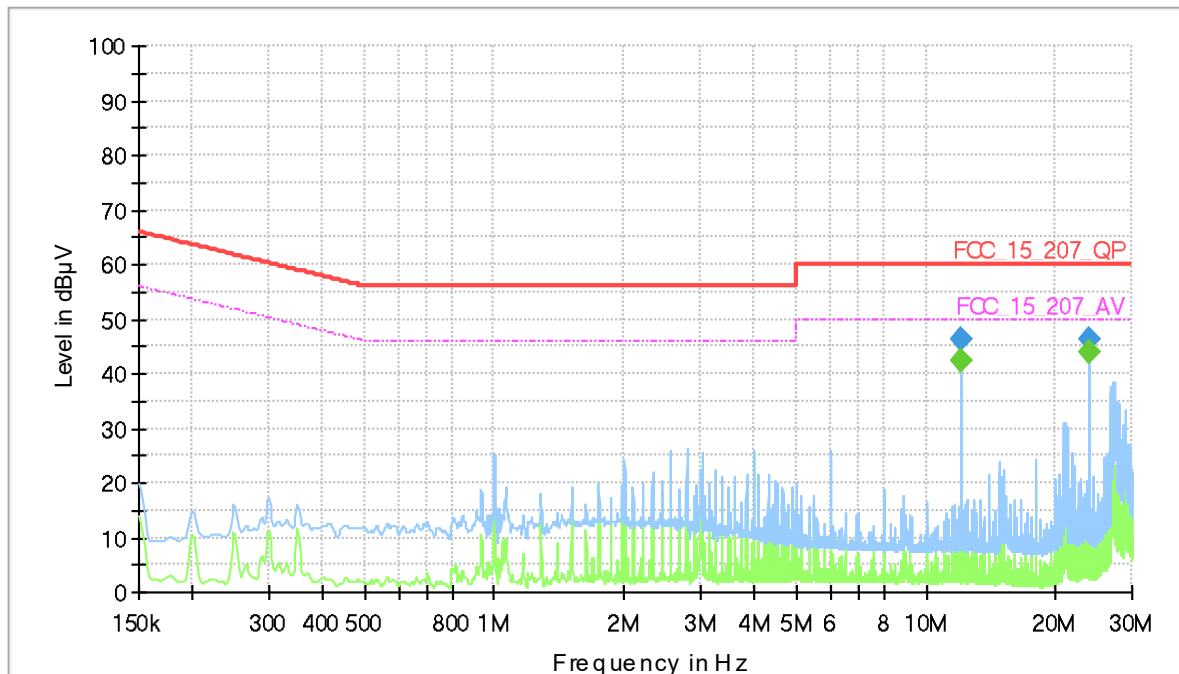
Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time	Bandwidth (kHz)	Line	PE	Corr. (dB)
12.005250	46.07	---	60.00	13.93	1000.0	9.000	N	GND	10.7
12.005250	---	42.35	50.00	7.65	1000.0	9.000	N	GND	10.7
24.009000	---	44.55	50.00	5.45	1000.0	9.000	N	FLO	11.2
24.009000	48.15	---	60.00	11.85	1000.0	9.000	N	FLO	11.2
26.832750	---	30.33	50.00	19.67	1000.0	9.000	L1	GND	11.2

Operating mode = worst case, Connection to AC mains = via ancillary/auxiliary equipment
(S03_377_AE01)

Common Information

Test Description:	Conducted Emissions
Test Standard:	FCC §15.207, ANSI C63.10
EUT / Setup Code:	DE1015152ae01
Operating Conditions:	120 V 60 Hz, WLANb 1 Mbps Ch 6, WLANA 6 Mbps Ch 40
Operator Name:	GAL
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)
12.005250	---	42.46	50.00	7.54	1000.0	9.000	N	GND	10.7
12.005250	46.20	---	60.00	13.80	1000.0	9.000	N	GND	10.7
24.009000	46.26	---	60.00	13.74	1000.0	9.000	N	FLO	11.2
24.009000	---	44.04	50.00	5.96	1000.0	9.000	N	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 12.4.1

5.2.1 TEST DESCRIPTION

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

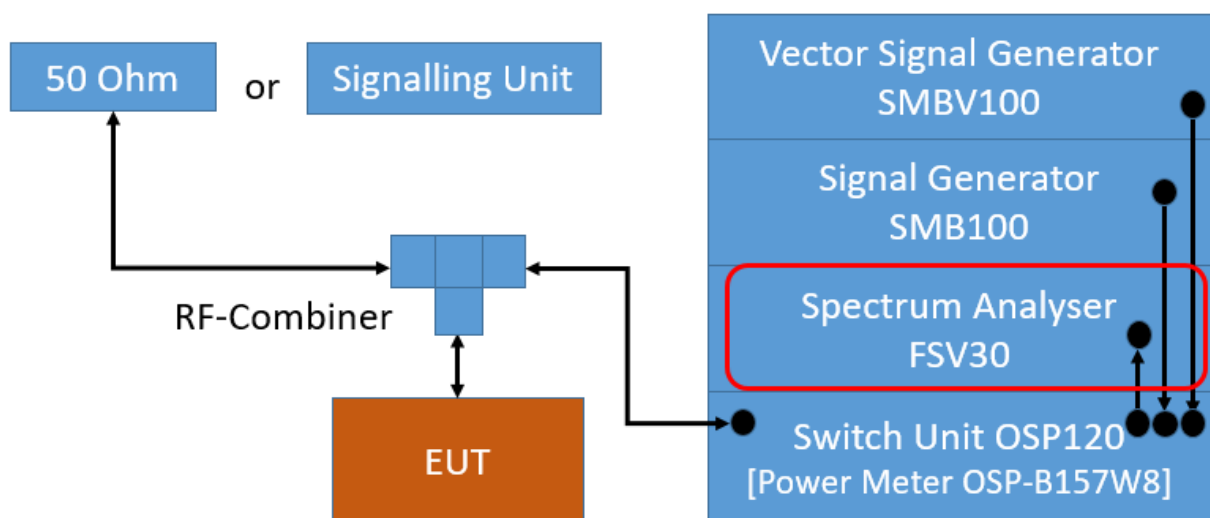
The reference level is the level of the highest amplitude signal observed from the transmitter at either the fundamental frequency or first-order modulation products in all typical modes of operation, including the unmodulated carrier, even if atypical.

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): initially approx. 1 % of nominal emission bandwidth
- Video Bandwidth (VBW): > RBW
- Span: 40 / 80 / 160 / 320 MHz (for 20 / 40 / 80 / 160 MHz nominal bandwidth)
- Trace: Maxhold
- Sweeps: Until the trace is stable
- 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: 23 - 26 °C
Air Pressure: 980 - 1020 hPa
Humidity: 30 - 40%

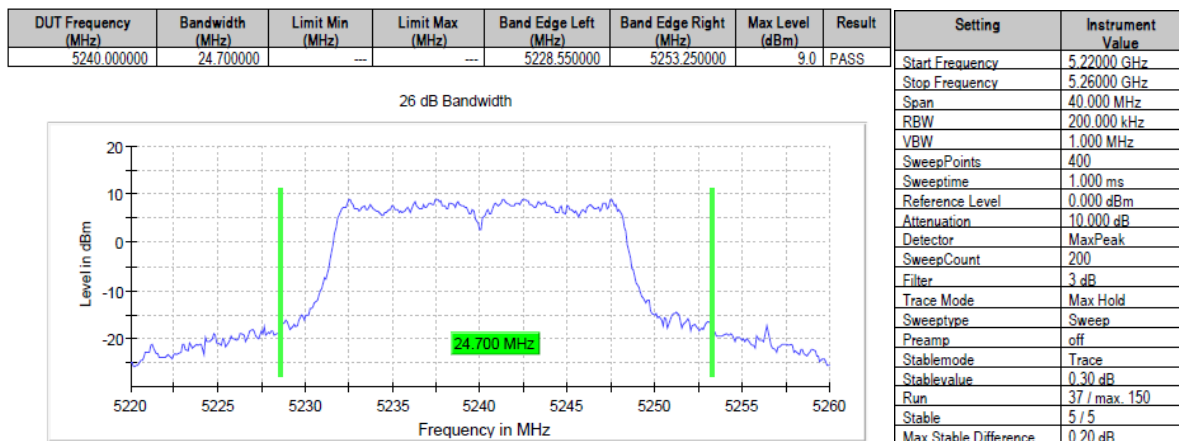
Radio Technology	Operating Frequency	Subband	26 dB Bandwidth [MHz]
WLAN a	low	U-NII-1	19.9
WLAN a	mid	U-NII-1	23.6
WLAN a	high	U-NII-1	24.7
WLAN a	low	U-NII-2A	23.1
WLAN a	mid	U-NII-2A	22.2
WLAN a	high	U-NII-2A	20.0
WLAN a	low	U-NII-2C	20.0
WLAN a	mid	U-NII-2C	19.8
WLAN a	high	U-NII-2C	19.7
WLAN n 20 MHz	low	U-NII-1	20.2
WLAN n 20 MHz	mid	U-NII-1	21.3
WLAN n 20 MHz	high	U-NII-1	21.3
WLAN n 20 MHz	low	U-NII-2A	20.5
WLAN n 20 MHz	mid	U-NII-2A	20.4
WLAN n 20 MHz	high	U-NII-2A	20.2
WLAN n 20 MHz	low	U-NII-2C	20.2
WLAN n 20 MHz	mid	U-NII-2C	20.1
WLAN n 20 MHz	high	U-NII-2C	20.2
WLAN n 40 MHz	low	U-NII-1	41.1
WLAN n 40 MHz	high	U-NII-1	40.8
WLAN n 40 MHz	low	U-NII-2A	41.1
WLAN n 40 MHz	high	U-NII-2A	41.1
WLAN n 40 MHz	low	U-NII-2C	40.7
WLAN n 40 MHz	mid	U-NII-2C	40.8
WLAN n 40 MHz	high	U-NII-2C	40.8
WLAN ac 20 MHz	low	U-NII-1	20.2
WLAN ac 20 MHz	mid	U-NII-1	20.6
WLAN ac 20 MHz	high	U-NII-1	21.9
WLAN ac 20 MHz	low	U-NII-2A	20.5
WLAN ac 20 MHz	mid	U-NII-2A	20.4
WLAN ac 20 MHz	high	U-NII-2A	20.0
WLAN ac 20 MHz	low	U-NII-2C	20.2
WLAN ac 20 MHz	mid	U-NII-2C	20.1
WLAN ac 20 MHz	high	U-NII-2C	20.4
WLAN ac 20 MHz	straddle	U-NII-2C	20.2
WLAN ac 40 MHz	low	U-NII-1	40.5
WLAN ac 40 MHz	high	U-NII-1	43.1
WLAN ac 40 MHz	low	U-NII-2A	40.5
WLAN ac 40 MHz	high	U-NII-2A	40.5
WLAN ac 40 MHz	low	U-NII-2C	40.4
WLAN ac 40 MHz	mid	U-NII-2C	40.7
WLAN ac 40 MHz	high	U-NII-2C	40.7
WLAN ac 40 MHz	straddle	U-NII-2C	41.3
WLAN ac 80 MHz	mid	U-NII-1	83.0
WLAN ac 80 MHz	mid	U-NII-2A	83.0
WLAN ac 80 MHz	low	U-NII-2C	83.0
WLAN ac 80 MHz	high	U-NII-2C	96.0

WLAN ac 80 MHz	straddle	U-NII-2C	96.0
WLAN ax 20 MHz	low	U-NII-1	20.6
WLAN ax 20 MHz	mid	U-NII-1	20.7
WLAN ax 20 MHz	high	U-NII-1	20.6
WLAN ax 20 MHz	low	U-NII-2A	20.6
WLAN ax 20 MHz	mid	U-NII-2A	20.6
WLAN ax 20 MHz	high	U-NII-2A	20.5
WLAN ax 20 MHz	low	U-NII-2C	20.6
WLAN ax 20 MHz	mid	U-NII-2C	20.6
WLAN ax 20 MHz	high	U-NII-2C	20.6
WLAN ax 20 MHz	straddle	U-NII-2C	20.7
WLAN ax 40 MHz	low	U-NII-1	40.5
WLAN ax 40 MHz	high	U-NII-1	40.7
WLAN ax 40 MHz	low	U-NII-2A	40.4
WLAN ax 40 MHz	high	U-NII-2A	40.8
WLAN ax 40 MHz	low	U-NII-2C	40.5
WLAN ax 40 MHz	mid	U-NII-2C	40.7
WLAN ax 40 MHz	high	U-NII-2C	40.5
WLAN ax 40 MHz	straddle	U-NII-2C	40.4
WLAN ax 80 MHz	mid	U-NII-1	82.0
WLAN ax 80 MHz	mid	U-NII-2A	81.5
WLAN ax 80 MHz	low	U-NII-2C	82.5
WLAN ax 80 MHz	high	U-NII-2C	82.0
WLAN ax 80 MHz	straddle	U-NII-2C	82.0

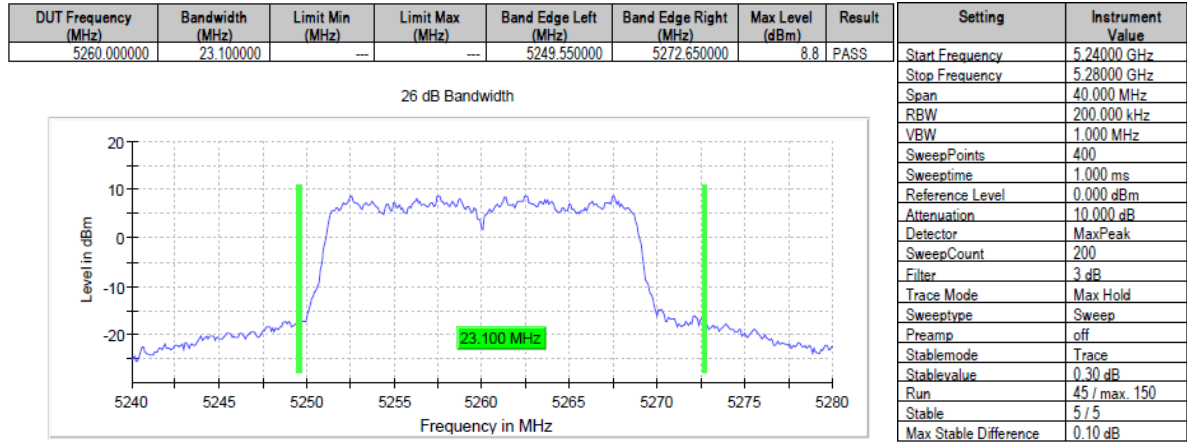
Remark: Please see next sub-clause for the measurement plot.

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

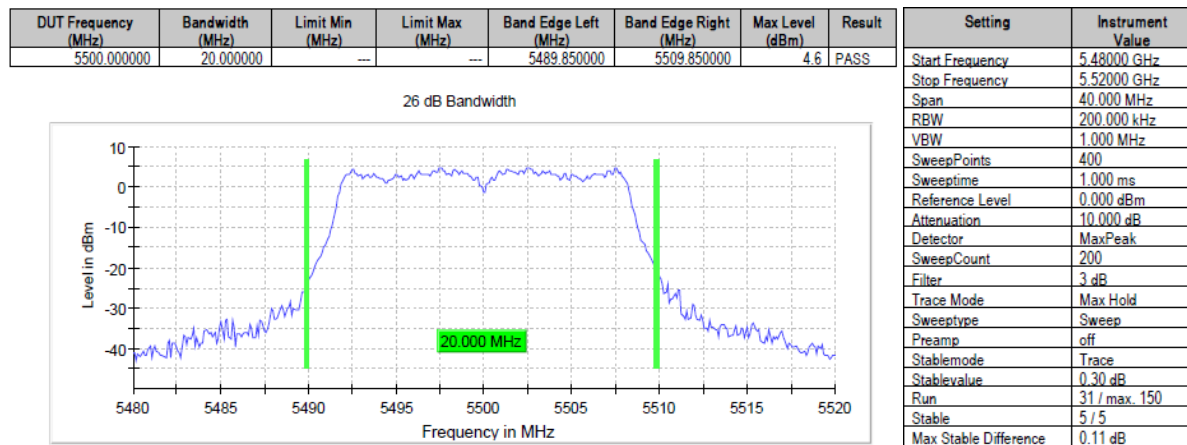
Radio Technology = WLAN a, Operating Frequency = high, Subband = U-NII-1
(S01_377_AA01)



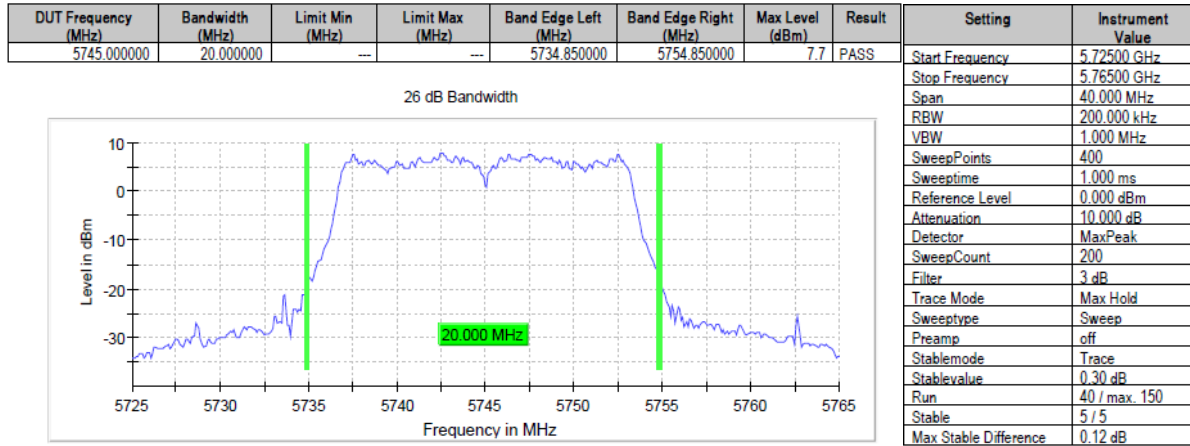
Radio Technology = WLAN a, Operating Frequency = low, Subband = U-NII-2A
(S01_377_AA01)



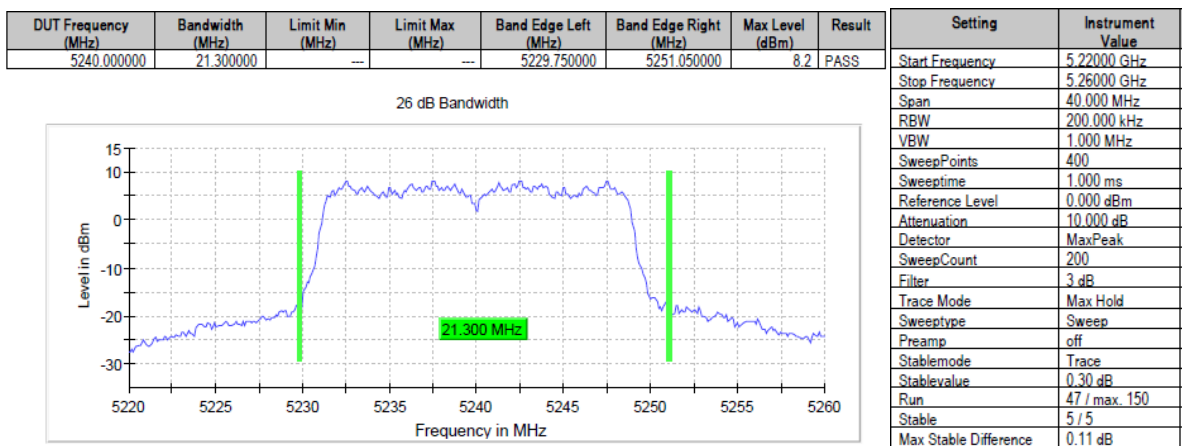
Radio Technology = WLAN a, Operating Frequency = low, Subband = U-NII-2C
(S01_377_AA01)



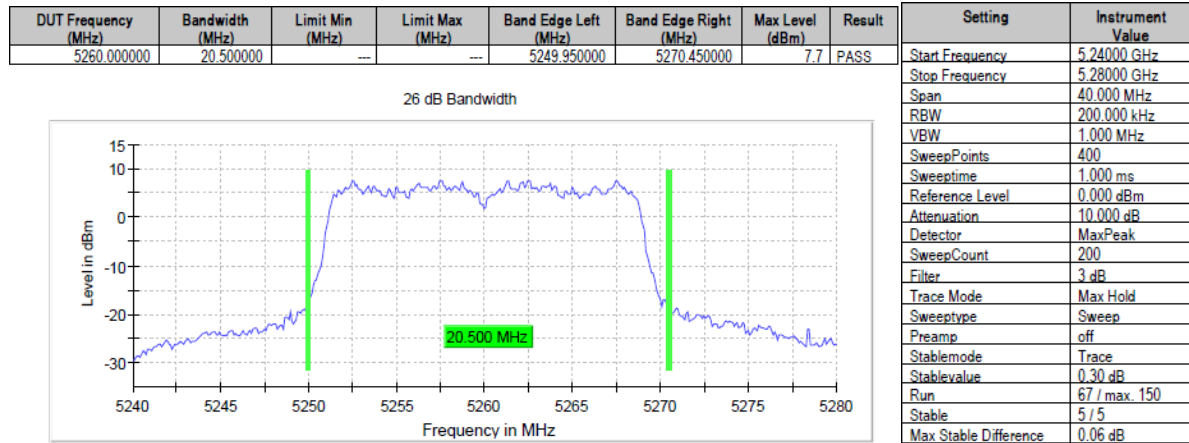
Radio Technology = WLAN a, Operating Frequency = low, Subband = U-NII-3
(S01_377_AA01)



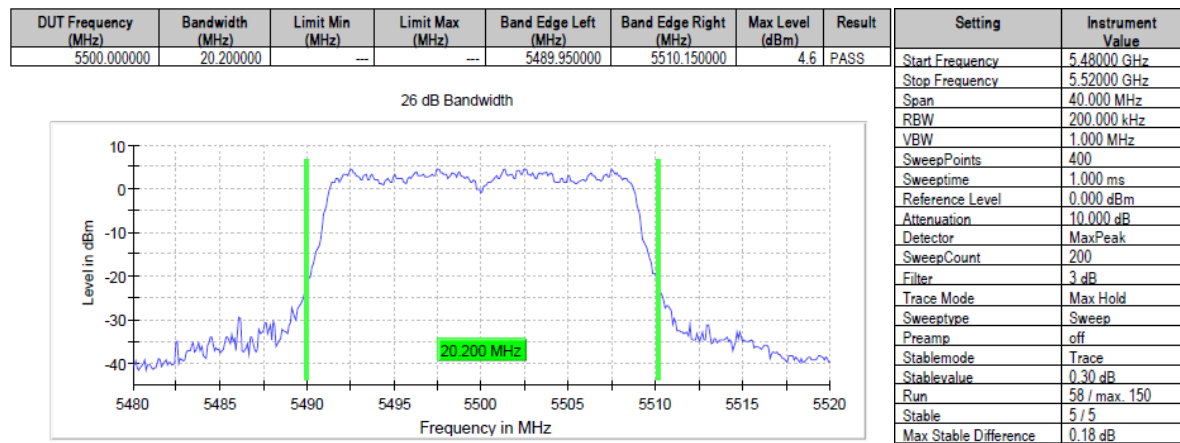
Radio Technology = WLAN n 20 MHz, Operating Frequency = high, Subband = U-NII-1
(S01_377_AA01)



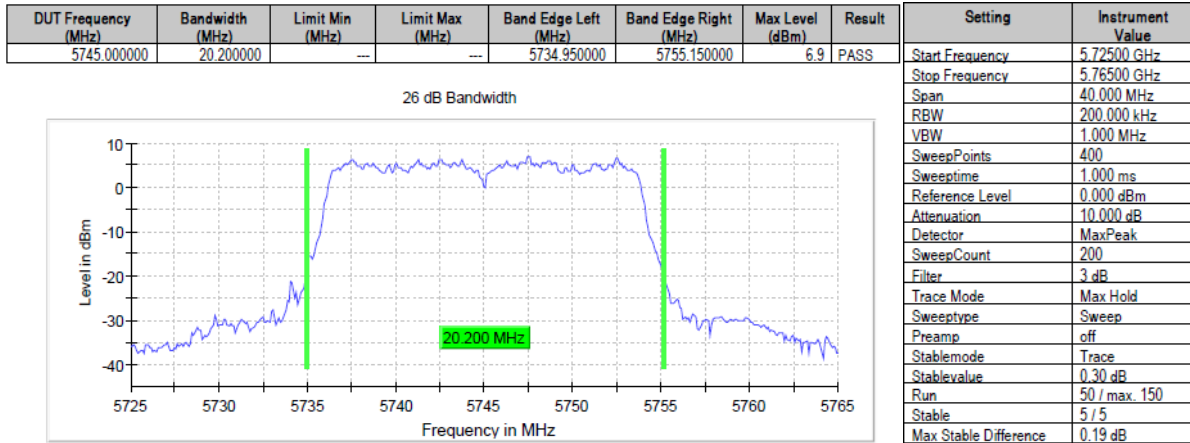
Radio Technology = WLAN n 20 MHz, Operating Frequency = low, Subband = U-NII-2A
(S01_377_AA01)



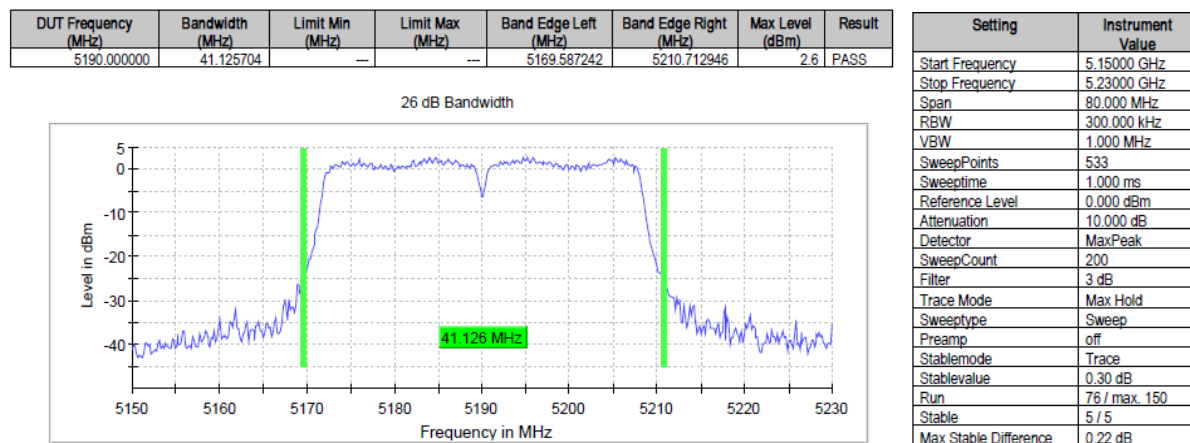
Radio Technology = WLAN n 20 MHz, Operating Frequency = low, Subband = U-NII-2C
(S01_377_AA01)



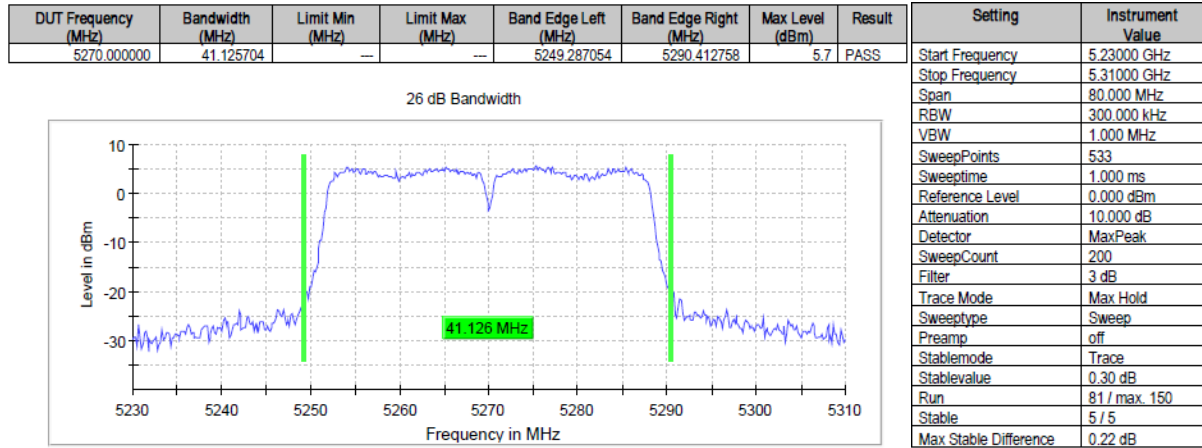
Radio Technology = WLAN n 20 MHz, Operating Frequency = low, Subband = U-NII-3
(S01_377_AA01)



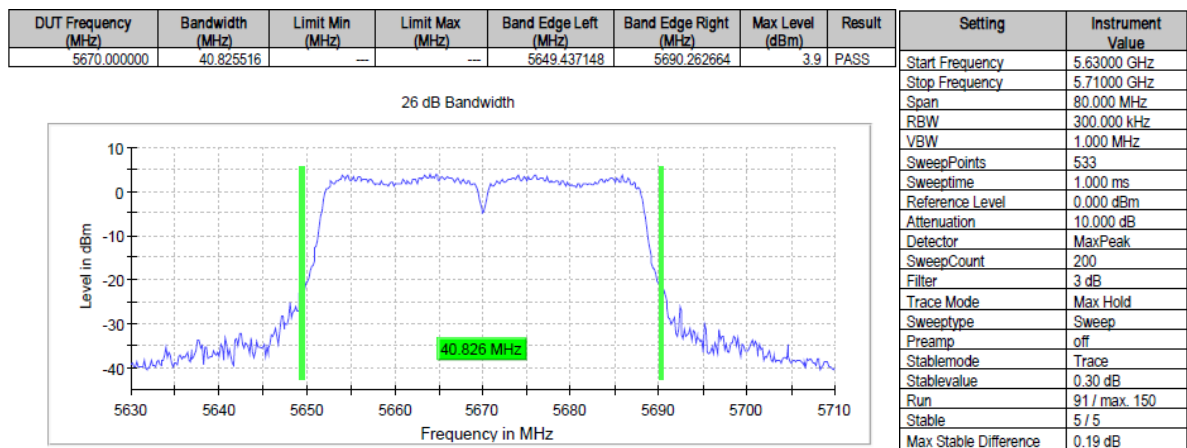
Radio Technology = WLAN n 40 MHz, Operating Frequency = low, Subband = U-NII-1
(S01_377_AA01)



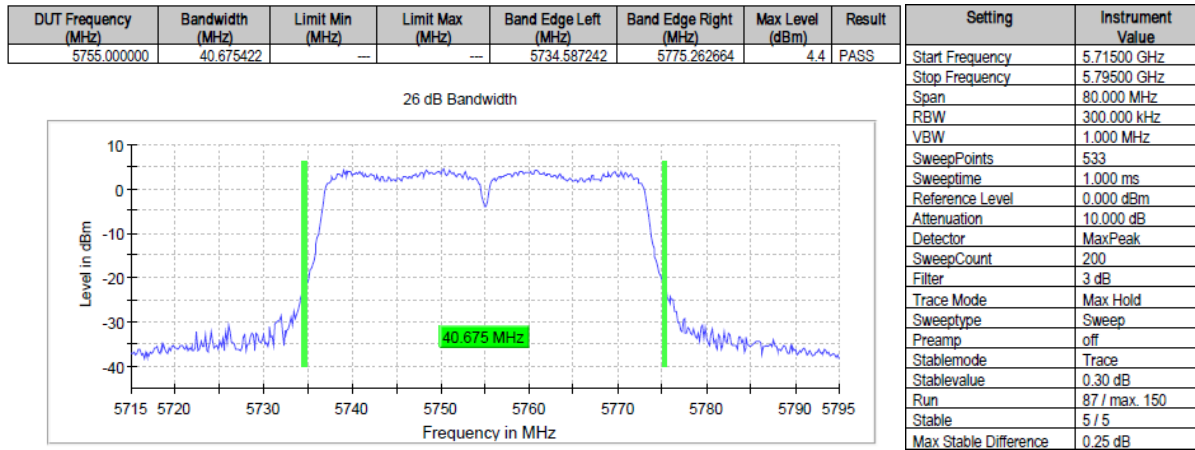
Radio Technology = WLAN n 40 MHz, Operating Frequency = low, Subband = U-NII-2A
(S01_377_AA01)



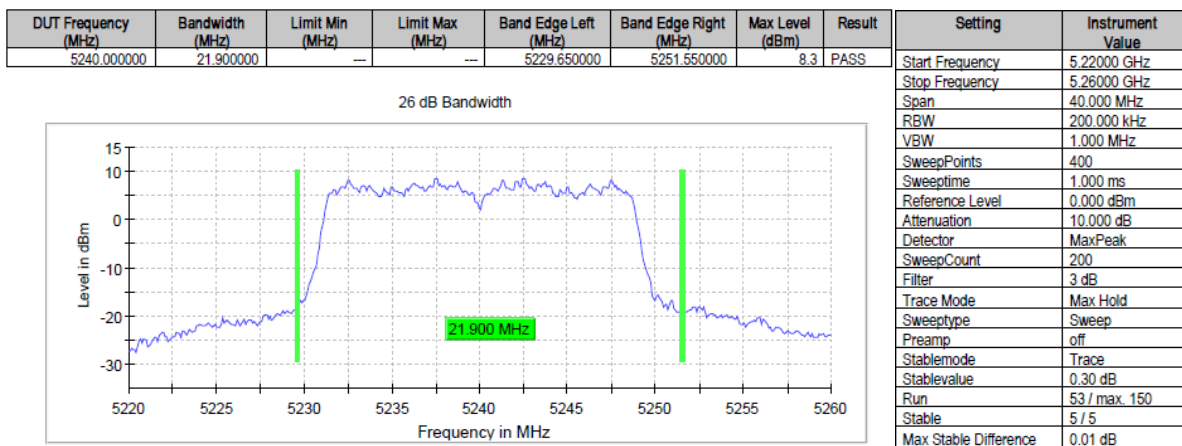
Radio Technology = WLAN n 40 MHz, Operating Frequency = high, Subband = U-NII-2C
(S01_377_AA01)



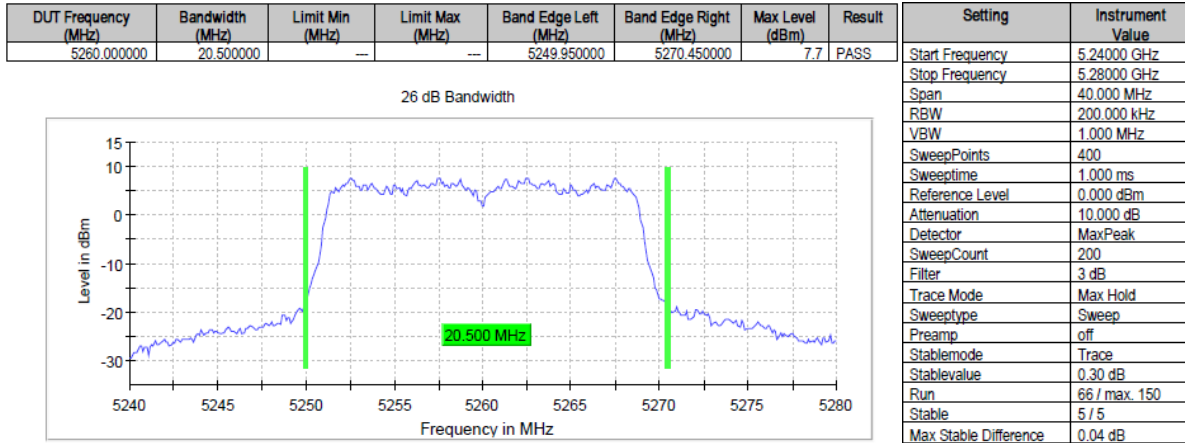
Radio Technology = WLAN n 40 MHz, Operating Frequency = low, Subband = U-NII-3
(S01_377_AA01)



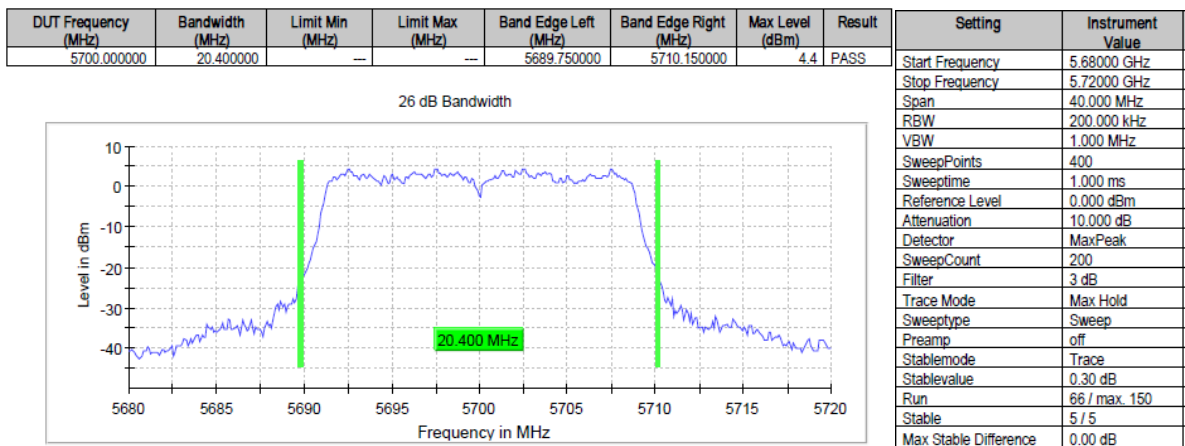
Radio Technology = WLAN ac 20 MHz, Operating Frequency = high, Subband = U-NII-1
(S01_377_AA01)



Radio Technology = WLAN ac 20 MHz, Operating Frequency = low, Subband = U-NII-2A
(S01_377_AA01)

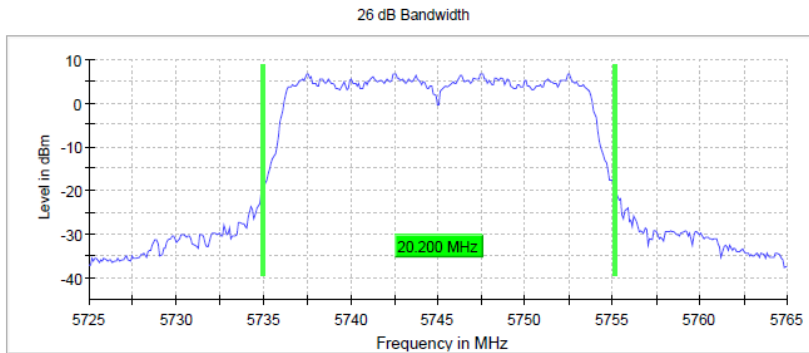


Radio Technology = WLAN ac 20 MHz, Operating Frequency = high, Subband = U-NII-2C
(S01_377_AA01)



Radio Technology = WLAN ac 20 MHz, Operating Frequency = low, Subband = U-NII-3
(S01_377_AA01)

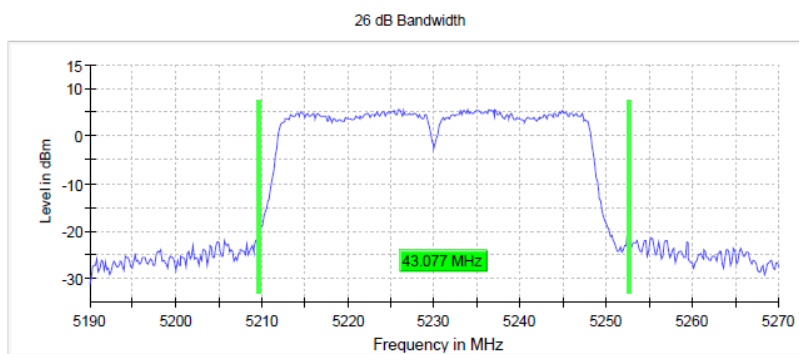
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
5745.000000	20.200000	---	---	5734.950000	5755.150000	6.8	PASS



Setting	Instrument Value
Start Frequency	5.72500 GHz
Stop Frequency	5.76500 GHz
Span	40.000 MHz
RBW	200.000 kHz
VBW	1.000 MHz
SweepPoints	400
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	52 / max. 150
Stable	5 / 5
Max Stable Difference	0.14 dB

Radio Technology = WLAN ac 40 MHz, Operating Frequency = high, Subband = U-NII-1
(S01_377_AA01)

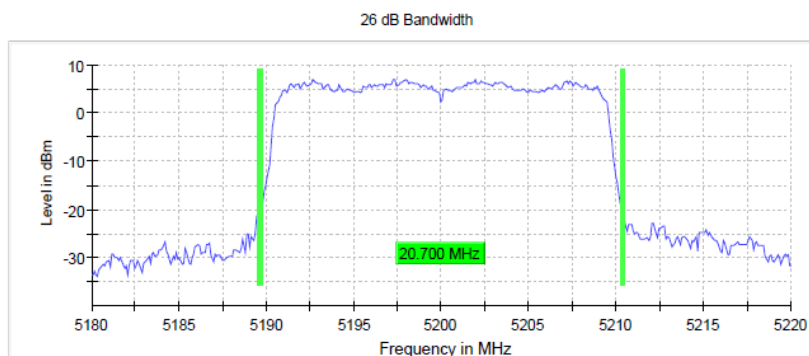
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
5230.000000	43.076923	---	---	5209.587242	5252.664165	5.6	PASS



Setting	Instrument Value
Start Frequency	5.19000 GHz
Stop Frequency	5.27000 GHz
Span	80.000 MHz
RBW	300.000 kHz
VBW	1.000 MHz
SweepPoints	533
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	72 / max. 150
Stable	5 / 5
Max Stable Difference	0.29 dB

Radio Technology = WLAN ax 20 MHz, Operating Frequency = mid, Subband = U-NII-1
(S01_377_AA01)

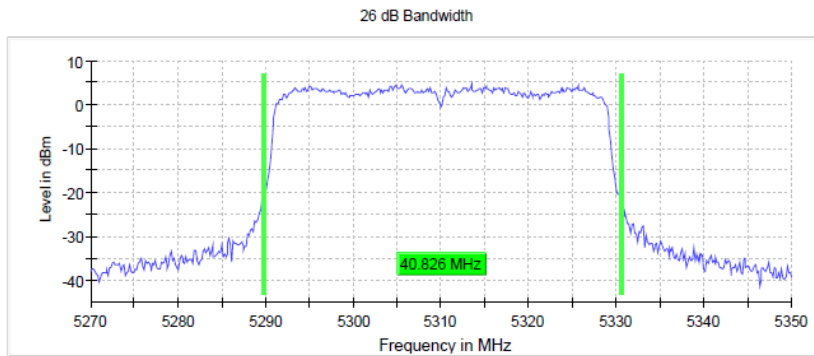
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
5200.000000	20.700000	---	---	5189.650000	5210.350000	7.0	PASS



Setting	Instrument Value
Start Frequency	5.18000 GHz
Stop Frequency	5.22000 GHz
Span	40.000 MHz
RBW	200.000 kHz
VBW	1.000 MHz
SweepPoints	400
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	96 / max. 150
Stable	5 / 5
Max Stable Difference	0.25 dB

Radio Technology = WLAN ax 40 MHz, Operating Frequency = high, Subband = U-NII-2A
(S01_377_AA01)

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
5310.000000	40.825516	---	---	5289.737336	5330.562852	4.8	PASS

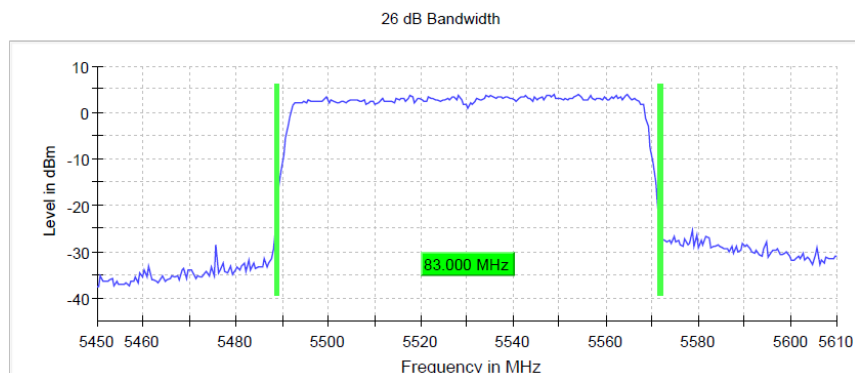


Setting	Instrument Value
Start Frequency	5.27000 GHz
Stop Frequency	5.35000 GHz
Span	80.000 MHz
RBW	300.000 kHz
VBW	1.000 MHz
SweepPoints	533
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	119 / max. 150
Stable	5 / 5
Max Stable Difference	0.29 dB

Radio Technology = WLAN ac 80 MHz, Operating Frequency = low, Subband = U-NII-2C
(S01_377_AA01)

26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
5530.000000	83.000000	---	---	5488.750000	5571.750000	4.1	PASS

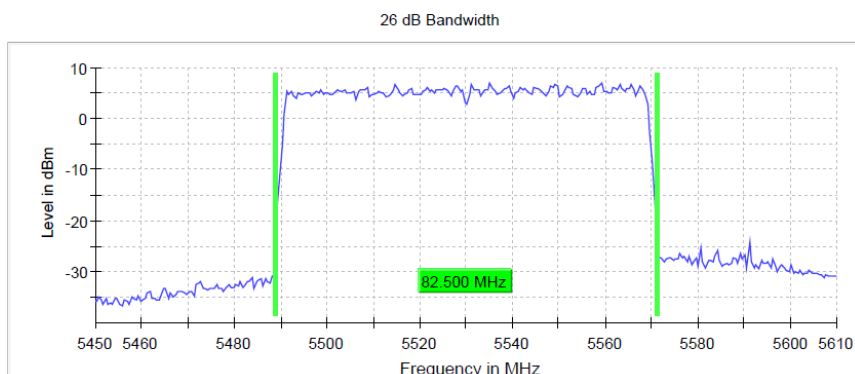


Setting	Instrument Value
Start Frequency	5.45000 GHz
Stop Frequency	5.61000 GHz
Span	160.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	320
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	65 / max. 150
Stable	5 / 5
Max Stable Difference	0.00 dB

Radio Technology = WLAN ax 80 MHz, Operating Frequency = low, Subband = U-NII-2C
(S01_377_AA01)

26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
5530.000000	82.500000	---	---	5488.750000	5571.250000	6.9	PASS



Setting	Instrument Value
Start Frequency	5.45000 GHz
Stop Frequency	5.61000 GHz
Span	160.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	320
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	138 / max. 150
Stable	5 / 5
Max Stable Difference	0.00 dB

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 6.9.2

5.3.1 TEST DESCRIPTION

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

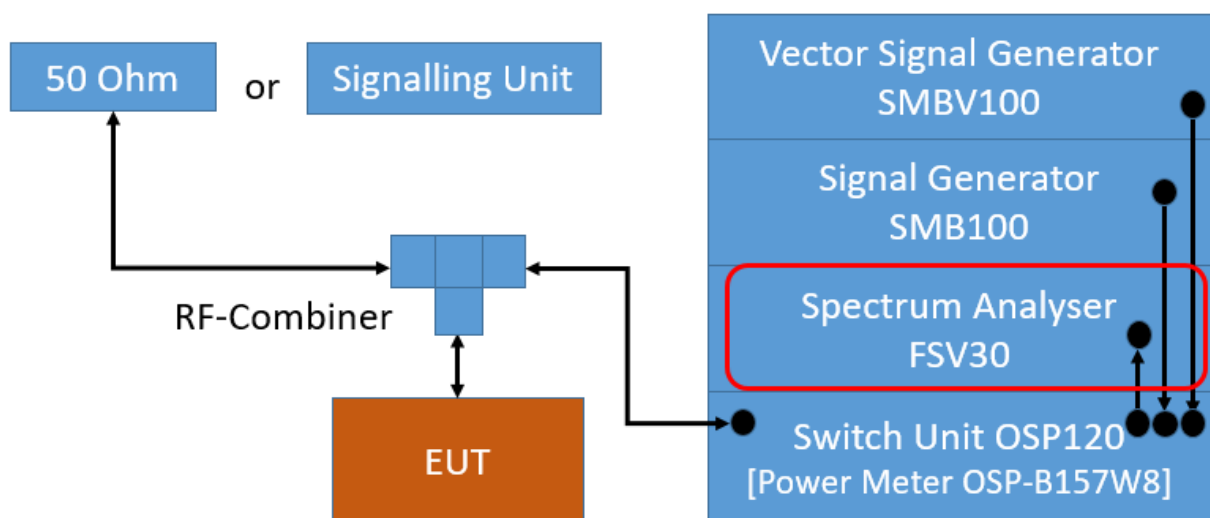
The reference level is the level of the highest amplitude signal observed from the transmitter at either the fundamental frequency or first-order modulation products in all typical modes of operation, including the unmodulated carrier, even if atypical.

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: 40 / 80 / 160 / 320 MHz (for 20 / 40 / 80 / 160 MHz nominal bandwidth))
- Trace: Maxhold
- Sweeps: Until the trace is stable
- 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: 23 - 26 °C

Air Pressure: 980 - 1020 hPa

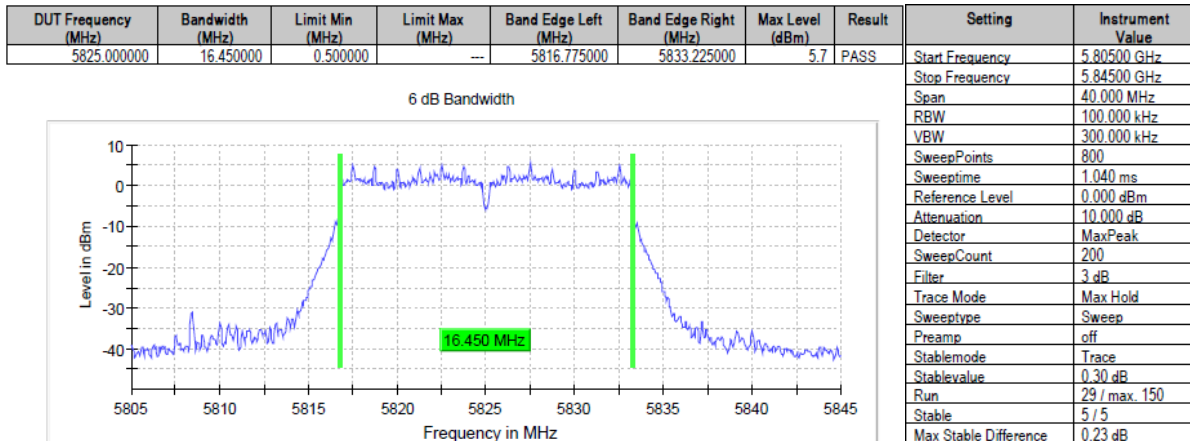
Humidity: 30 - 40%

Radio Technology	Operating Frequency	6 dB Bandwidth [MHz]	Limit [MHz]	Margin [MHz]	Min. 6 dB Frequency [MHz]	Max. 6 dB Frequency [MHz]
WLAN a	low	16.45	0.5	15.95	5736.78	5753.23
WLAN a	mid	16.45	0.5	15.95	5776.78	5793.23
WLAN a	high	16.45	0.5	15.95	5816.78	5833.23
WLAN n 20 MHz	low	17.40	0.5	16.90	5736.18	5753.58
WLAN n 20 MHz	mid	17.40	0.5	16.90	5776.18	5793.58
WLAN n 20 MHz	high	17.40	0.5	16.90	5816.18	5833.58
WLAN n 40 MHz	low	35.90	0.5	35.40	5737.03	5772.93
WLAN n 40 MHz	high	35.90	0.5	35.40	5777.03	5812.93
WLAN ac 20 MHz	straddle	17.40	0.5	16.90	5711.18	5728.58
WLAN ac 20 MHz	low	17.40	0.5	16.90	5736.18	5753.58
WLAN ac 20 MHz	mid	17.40	0.5	16.90	5776.18	5793.58
WLAN ac 20 MHz	high	17.40	0.5	16.90	5816.18	5833.58
WLAN ac 40 MHz	straddle	32.98	0.5	32.48	5692.03	5727.93
WLAN ac 40 MHz	low	35.90	0.5	35.40	5692.03	5727.93
WLAN ac 40 MHz	high	35.75	0.5	35.25	5737.03	5772.78
WLAN ac 80 MHz	straddle	76.45	0.5	75.95	5651.78	5728.23
WLAN ac 80 MHz	mid	76.45	0.5	75.95	5736.78	5813.23
WLAN ax 20 MHz	straddle	18.60	0.5	18.10	5710.68	5729.28
WLAN ax 20 MHz	low	18.60	0.5	18.10	5735.73	5754.33
WLAN ax 20 MHz	mid	18.55	0.5	18.05	5775.73	5794.28
WLAN ax 20 MHz	high	18.60	0.5	18.10	5815.68	5834.28
WLAN ax 40 MHz	straddle	37.40	0.5	36.90	5691.28	5728.73
WLAN ax 40 MHz	low	37.45	0.5	36.95	5691.28	5728.73
WLAN ax 40 MHz	high	37.30	0.5	36.80	5736.33	5773.63
WLAN ax 80 MHz	straddle	78.15	0.5	77.65	5650.93	5729.08
WLAN ax 80 MHz	mid	78.20	0.5	77.70	5735.88	5814.08

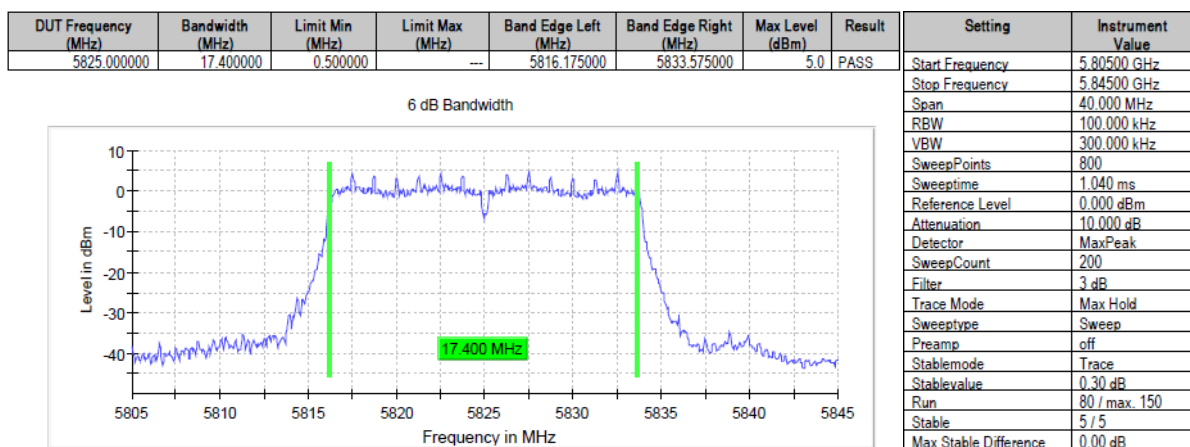
Remark: Please see next sub-clause for the measurement plot.

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

Radio Technology = WLAN a, Operating Frequency = high, Subband = U-NII-3 (S01_377_AA01)

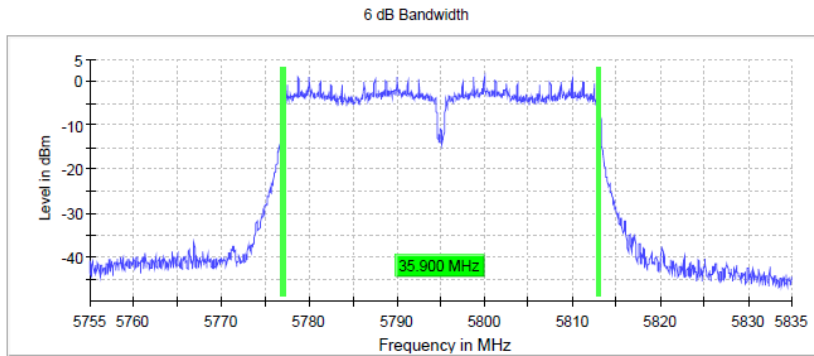


Radio Technology = WLAN n 20 MHz, Operating Frequency = high, Subband = U-NII-3 (S01_377_AA01)



Radio Technology = WLAN n 40 MHz, Operating Frequency = high, Subband = U-NII-3
(S01_377_AA01)

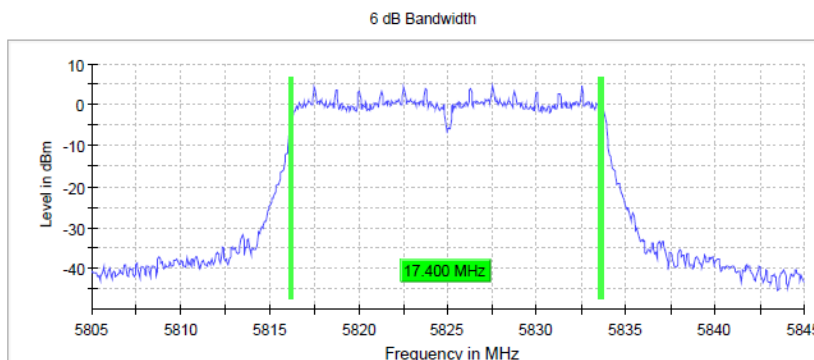
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
5795.000000	35.900000	0.500000	---	5777.025000	5812.925000	1.1	PASS



Setting	Instrument Value
Start Frequency	5.75500 GHz
Stop Frequency	5.83500 GHz
Span	80.000 MHz
RBW	100.000 kHz
VBW	300.000 kHz
SweepPoints	1600
SweepTime	1.600 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	112 / max. 150
Stable	5 / 5
Max Stable Difference	0.00 dB

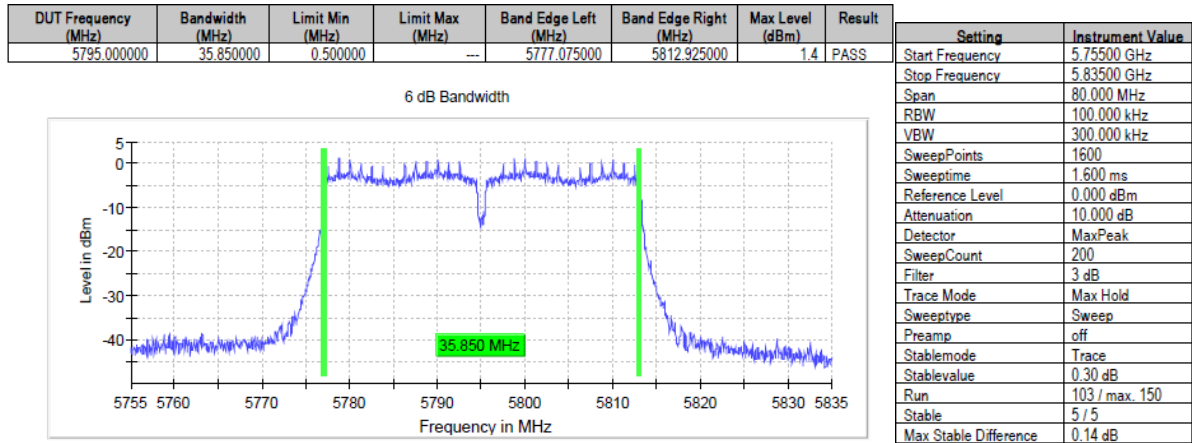
Radio Technology = WLAN ac 20 MHz, Operating Frequency = high, Subband = U-NII-3
(S01_377_AA01)

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
5825.000000	17.400000	0.500000	---	5816.175000	5833.575000	4.7	PASS

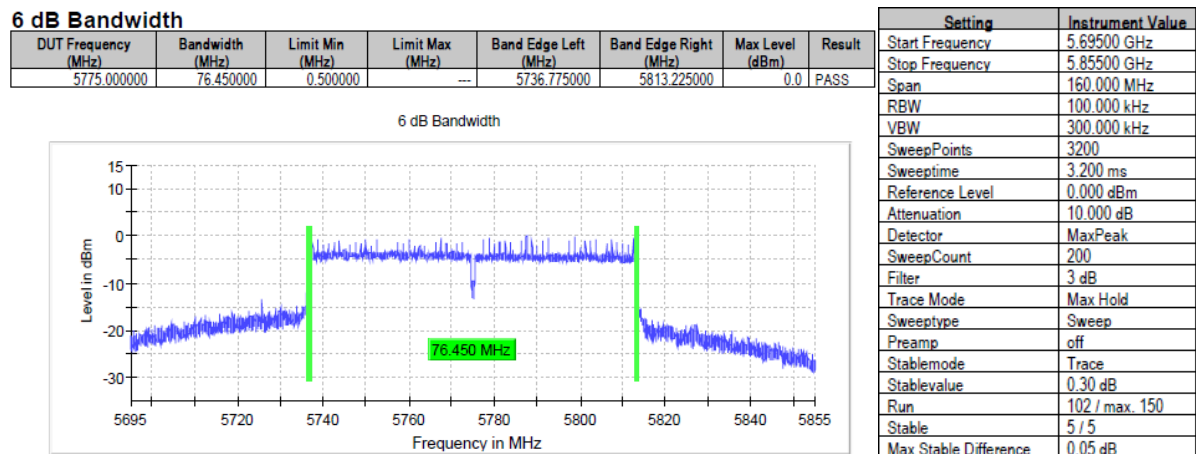


Setting	Instrument Value
Start Frequency	5.80500 GHz
Stop Frequency	5.84500 GHz
Span	40.000 MHz
RBW	100.000 kHz
VBW	300.000 kHz
SweepPoints	800
SweepTime	1.040 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	59 / max. 150
Stable	5 / 5
Max Stable Difference	0.22 dB

Radio Technology = WLAN ac 40 MHz, Operating Frequency = high, Subband = U-NII-3
(S01_377_AA01)

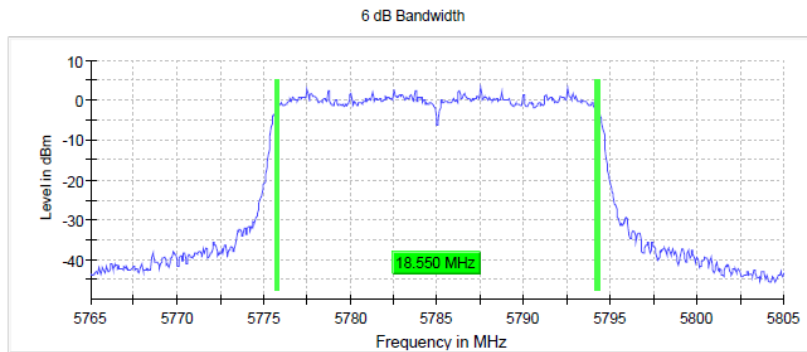


Radio Technology = WLAN ac 80 MHz, Operating Frequency = mid, Subband = U-NII-3
(S01_377_AA01)



Radio Technology = WLAN ax 20 MHz, Operating Frequency = mid, Subband = U-NII-3
(S01_377_AA01)

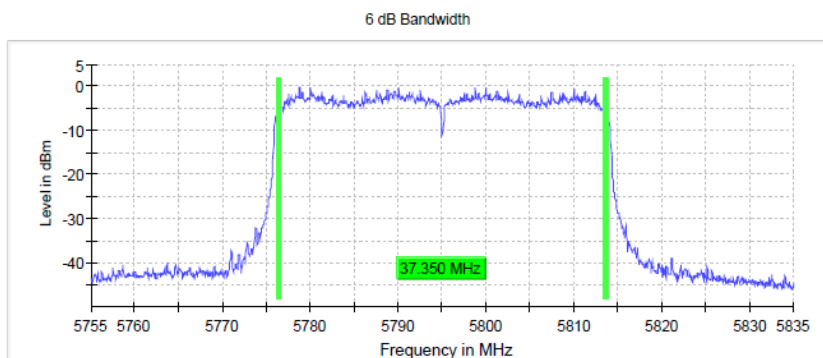
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
5785.000000	18.550000	0.500000	---	5775.725000	5794.275000	3.4	PASS



Setting	Instrument Value
Start Frequency	5.76500 GHz
Stop Frequency	5.80500 GHz
Span	40.000 MHz
RBW	100.000 kHz
VBW	300.000 kHz
SweepPoints	800
SweepTime	1.040 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	127 / max. 150
Stable	5 / 5
Max Stable Difference	0.08 dB

Radio Technology = WLAN ax 40 MHz, Operating Frequency = high, Subband = U-NII-3
(S01_377_AA01)

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
5795.000000	37.350000	0.500000	---	5776.325000	5813.675000	0.0	PASS

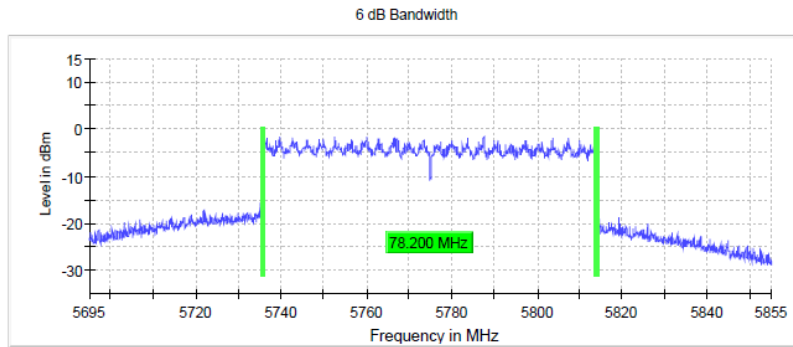


Setting	Instrument Value
Start Frequency	5.75500 GHz
Stop Frequency	5.83500 GHz
Span	80.000 MHz
RBW	100.000 kHz
VBW	300.000 kHz
SweepPoints	1600
SweepTime	1.600 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	132 / max. 150
Stable	5 / 5
Max Stable Difference	0.00 dB

Radio Technology = WLAN ax 80 MHz, Operating Frequency = mid, Subband = U-NII-3
(S01_377_AA01)

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
5775.000000	78.200000	0.500000	---	5735.875000	5814.075000	-1.6	PASS



Setting	Instrument Value
Start Frequency	5.69500 GHz
Stop Frequency	5.85500 GHz
Span	160.000 MHz
RBW	100.000 kHz
VBW	300.000 kHz
SweepPoints	3200
SweepTime	3.200 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	122 / max. 150
Stable	5 / 5
Max Stable Difference	0.00 dB

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 12.4.2 (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.

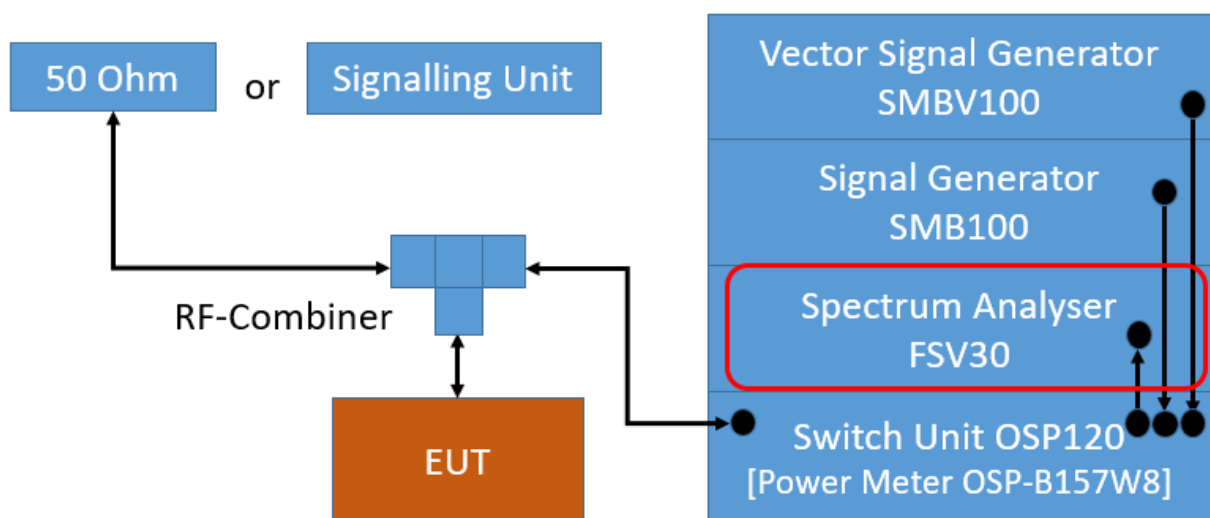
The results recorded were measured with the modulation which produce the worst-case (widest) emission bandwidth.

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): approx. ≥ 1 % of the span, but not below
- Video Bandwidth (VBW): ≥ 3 times the RBW
- Span: 40 / 80 / 160 / 320 MHz (for 20 / 40 / 80 / 160 MHz nominal bandwidth)
- Trace: Maxhold
- Sweeps: Until the trace is stable
- Sweeptime: 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: 23 - 26 °C
Air Pressure: 980 - 1020 hPa
Humidity: 30 - 40%

Radio Technology	Operating Frequency	Subband	99% Bandwidth [MHz]
WLAN a	low	U-NII-1	16.6
WLAN a	mid	U-NII-1	16.7
WLAN a	high	U-NII-1	16.7
WLAN a	low	U-NII-2A	17.7
WLAN a	mid	U-NII-2A	16.7
WLAN a	high	U-NII-2A	16.7
WLAN a	low	U-NII-2C	16.6
WLAN a	mid	U-NII-2C	16.7
WLAN a	high	U-NII-2C	16.7
WLAN a	low	U-NII-3	16.7
WLAN a	mid	U-NII-3	16.7
WLAN a	high	U-NII-3	16.7
WLAN n 20 MHz	low	U-NII-1	17.7
WLAN n 20 MHz	mid	U-NII-1	17.7
WLAN n 20 MHz	high	U-NII-1	17.7
WLAN n 20 MHz	low	U-NII-2A	17.7
WLAN n 20 MHz	mid	U-NII-2A	17.7
WLAN n 20 MHz	high	U-NII-2A	17.7
WLAN n 20 MHz	low	U-NII-2C	17.7
WLAN n 20 MHz	mid	U-NII-2C	17.6
WLAN n 20 MHz	high	U-NII-2C	17.7
WLAN n 20 MHz	low	U-NII-3	17.7
WLAN n 20 MHz	mid	U-NII-3	17.7
WLAN n 20 MHz	high	U-NII-3	17.7
WLAN n 40 MHz	low	U-NII-1	36.3
WLAN n 40 MHz	high	U-NII-1	36.3
WLAN n 40 MHz	low	U-NII-2A	36.3
WLAN n 40 MHz	high	U-NII-2A	36.3
WLAN n 40 MHz	low	U-NII-2C	36.3
WLAN n 40 MHz	mid	U-NII-2C	36.3
WLAN n 40 MHz	high	U-NII-2C	36.3
WLAN n 40 MHz	low	U-NII-3	36.3
WLAN n 40 MHz	high	U-NII-3	36.3
WLAN ac 20 MHz	low	U-NII-1	17.6
WLAN ac 20 MHz	mid	U-NII-1	17.7
WLAN ac 20 MHz	high	U-NII-1	17.7
WLAN ac 20 MHz	low	U-NII-2A	17.7
WLAN ac 20 MHz	mid	U-NII-2A	17.7
WLAN ac 20 MHz	high	U-NII-2A	17.7
WLAN ac 20 MHz	low	U-NII-2C	17.7
WLAN ac 20 MHz	mid	U-NII-2C	17.7
WLAN ac 20 MHz	high	U-NII-2C	17.7
WLAN ac 20 MHz	low	U-NII-3	17.6
WLAN ac 20 MHz	mid	U-NII-3	17.7
WLAN ac 20 MHz	high	U-NII-3	17.7
WLAN ac 20 MHz	straddle	U-NII-2C/3	17.7

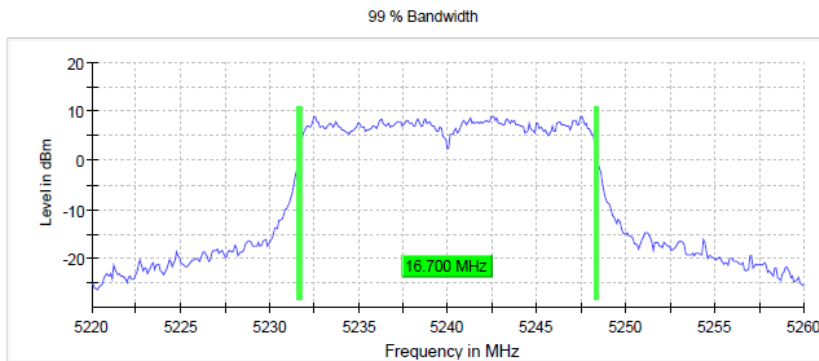
WLAN ac 40 MHz	low	U-NII-1	36.3
WLAN ac 40 MHz	high	U-NII-1	36.5
WLAN ac 40 MHz	low	U-NII-2A	36.3
WLAN ac 40 MHz	high	U-NII-2A	36.3
WLAN ac 40 MHz	low	U-NII-2C	36.3
WLAN ac 40 MHz	mid	U-NII-2C	36.3
WLAN ac 40 MHz	high	U-NII-2C	36.3
WLAN ac 40 MHz	low	U-NII-3	36.3
WLAN ac 40 MHz	high	U-NII-3	36.3
WLAN ac 40 MHz	straddle	U-NII-2C/3	36.3
WLAN ac 80 MHz	mid	U-NII-1	77.0
WLAN ac 80 MHz	mid	U-NII-2A	76.5
WLAN ac 80 MHz	low	U-NII-2C	77.0
WLAN ac 80 MHz	high	U-NII-2C	77.0
WLAN ac 80 MHz	mid	U-NII-3	76.5
WLAN ac 80 MHz	straddle	U-NII-2C/3	77.0
WLAN ax 20 MHz	low	U-NII-1	18.9
WLAN ax 20 MHz	mid	U-NII-1	18.8
WLAN ax 20 MHz	high	U-NII-1	18.9
WLAN ax 20 MHz	low	U-NII-2A	18.8
WLAN ax 20 MHz	mid	U-NII-2A	18.8
WLAN ax 20 MHz	high	U-NII-2A	18.9
WLAN ax 20 MHz	low	U-NII-2C	18.8
WLAN ax 20 MHz	mid	U-NII-2C	18.7
WLAN ax 20 MHz	high	U-NII-2C	18.8
WLAN ax 20 MHz	low	U-NII-3	18.7
WLAN ax 20 MHz	mid	U-NII-3	18.9
WLAN ax 20 MHz	high	U-NII-3	18.8
WLAN ax 20 MHz	straddle	U-NII-2C/3	18.8
WLAN ax 40 MHz	low	U-NII-1	37.8
WLAN ax 40 MHz	high	U-NII-1	37.8
WLAN ax 40 MHz	low	U-NII-2A	37.8
WLAN ax 40 MHz	high	U-NII-2A	37.8
WLAN ax 40 MHz	low	U-NII-2C	37.8
WLAN ax 40 MHz	mid	U-NII-2C	37.8
WLAN ax 40 MHz	high	U-NII-2C	37.8
WLAN ax 40 MHz	low	U-NII-3	37.8
WLAN ax 40 MHz	high	U-NII-3	37.8
WLAN ax 40 MHz	straddle	U-NII-2C/3	37.8
WLAN ax 80 MHz	mid	U-NII-1	78.0
WLAN ax 80 MHz	mid	U-NII-2A	78.5
WLAN ax 80 MHz	low	U-NII-2C	78.0
WLAN ax 80 MHz	high	U-NII-2C	77.5
WLAN ax 80 MHz	mid	U-NII-3	78.0
WLAN ax 80 MHz	straddle	U-NII-2C/3	77.5

Remark: 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 = high, Subband = U-NII-1
(S01_377_AA01)

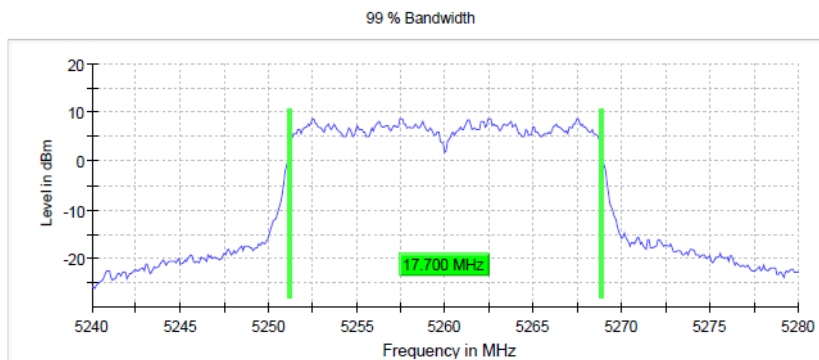
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5240.000000	16.700000	---	---	5231.650000	5248.350000	PASS



Setting	Instrument Value
Start Frequency	5.22000 GHz
Stop Frequency	5.26000 GHz
Span	40.000 MHz
RBW	200.000 kHz
VBW	1.000 MHz
SweepPoints	400
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	17 / max. 150
Stable	5 / 5
Max Stable Difference	0.27 dB

Radio Technology = WLAN a, Operating Frequency = low, Subband = U-NII-2A
(S01_377_AA01)

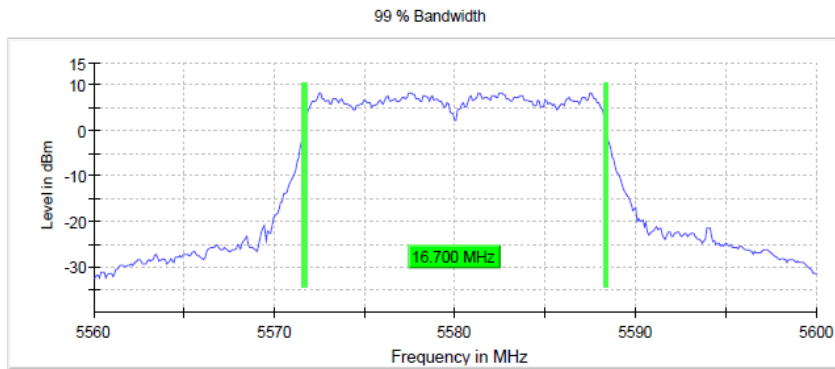
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5260.000000	17.700000	---	---	5251.150000	5268.850000	PASS



Setting	Instrument Value
Start Frequency	5.24000 GHz
Stop Frequency	5.28000 GHz
Span	40.000 MHz
RBW	200.000 kHz
VBW	1.000 MHz
SweepPoints	400
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	55 / max. 150
Stable	5 / 5
Max Stable Difference	0.27 dB

Radio Technology = WLAN a, Operating Frequency = mid, Subband = U-NII-2C
(S01_377_AA01)

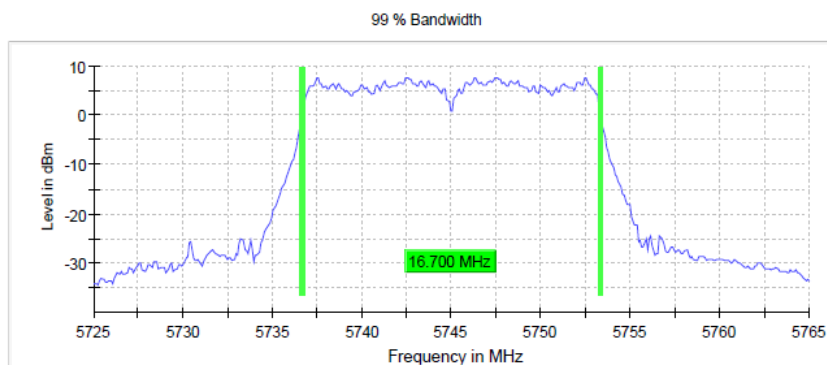
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5580.000000	16.700000	---	---	5571.650000	5588.350000	PASS



Setting	Instrument Value
Start Frequency	5.56000 GHz
Stop Frequency	5.60000 GHz
Span	40.000 MHz
RBW	200.000 kHz
VBW	1.000 MHz
SweepPoints	400
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	31 / max. 150
Stable	5 / 5
Max Stable Difference	0.06 dB

Radio Technology = WLAN a, Operating Frequency = low, Subband = U-NII-3
(S01_377_AA01)

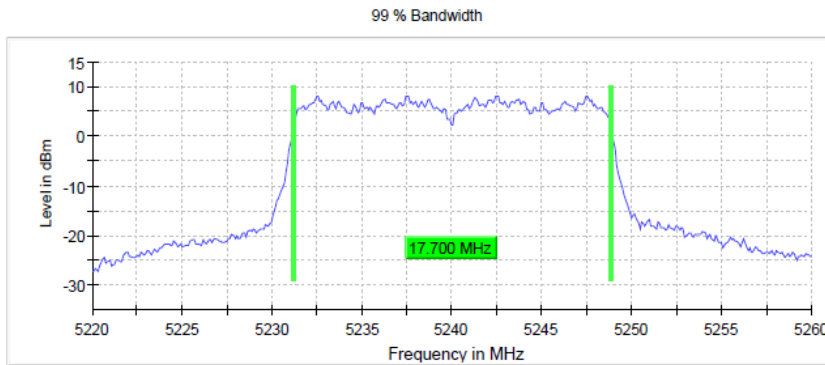
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5745.000000	16.700000	---	---	5736.650000	5753.350000	PASS



Setting	Instrument Value
Start Frequency	5.72500 GHz
Stop Frequency	5.76500 GHz
Span	40.000 MHz
RBW	200.000 kHz
VBW	1.000 MHz
SweepPoints	400
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	30 / max. 150
Stable	5 / 5
Max Stable Difference	0.12 dB

Radio Technology = WLAN n 20 MHz, Operating Frequency = high, Subband = U-NII-1
(S01_377_AA01)

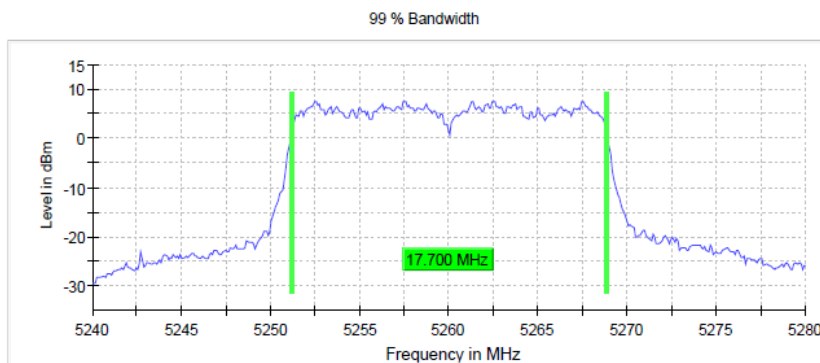
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5240.000000	17.700000	---	---	5231.150000	5248.850000	PASS



Setting	Instrument Value
Start Frequency	5.22000 GHz
Stop Frequency	5.26000 GHz
Span	40.000 MHz
RBW	200.000 kHz
VBW	1.000 MHz
SweepPoints	400
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	60 / max. 150
Stable	5 / 5
Max Stable Difference	0.04 dB

Radio Technology = WLAN n 20 MHz, Operating Frequency = low, Subband = U-NII-2A
(S01_377_AA01)

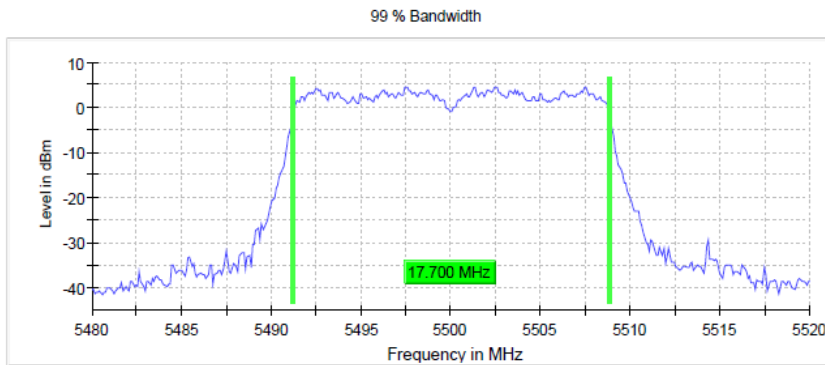
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5260.000000	17.700000	---	---	5251.150000	5268.850000	PASS



Setting	Instrument Value
Start Frequency	5.24000 GHz
Stop Frequency	5.28000 GHz
Span	40.000 MHz
RBW	200.000 kHz
VBW	1.000 MHz
SweepPoints	400
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	67 / max. 150
Stable	5 / 5
Max Stable Difference	0.12 dB

Radio Technology = WLAN n 20 MHz, Operating Frequency = low, Subband = U-NII-2C
(S01_377_AA01)

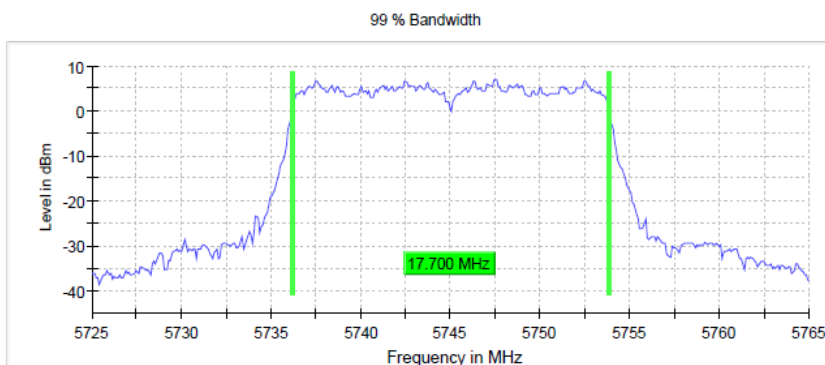
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5500.000000	17.700000	---	---	5491.150000	5508.850000	PASS



Setting	Instrument Value
Start Frequency	5.48000 GHz
Stop Frequency	5.52000 GHz
Span	40.000 MHz
RBW	200.000 kHz
VBW	1.000 MHz
SweepPoints	400
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	43 / max. 150
Stable	5 / 5
Max Stable Difference	0.01 dB

Radio Technology = WLAN n 20 MHz, Operating Frequency = low, Subband = U-NII-3
(S01_377_AA01)

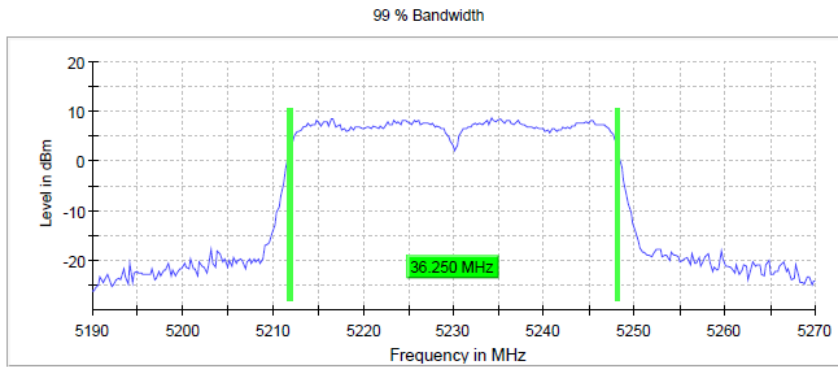
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5745.000000	17.700000	---	---	5736.150000	5753.850000	PASS



Setting	Instrument Value
Start Frequency	5.72500 GHz
Stop Frequency	5.76500 GHz
Span	40.000 MHz
RBW	200.000 kHz
VBW	1.000 MHz
SweepPoints	400
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	43 / max. 150
Stable	5 / 5
Max Stable Difference	0.08 dB

Radio Technology = WLAN n 40 MHz, Operating Frequency = high, Subband = U-NII-1
(S01_377_AA01)

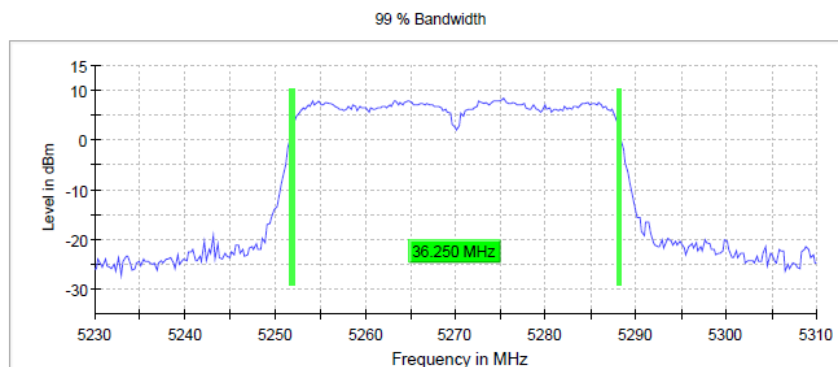
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5230.000000	36.250000	---	---	5211.875000	5248.125000	PASS



Setting	Instrument Value
Start Frequency	5.19000 GHz
Stop Frequency	5.27000 GHz
Span	80.000 MHz
RBW	500.000 kHz
VBW	2.000 MHz
SweepPoints	320
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	76 / max. 150
Stable	5 / 5
Max Stable Difference	0.17 dB

Radio Technology = WLAN n 40 MHz, Operating Frequency = low, Subband = U-NII-2A
(S01_377_AA01)

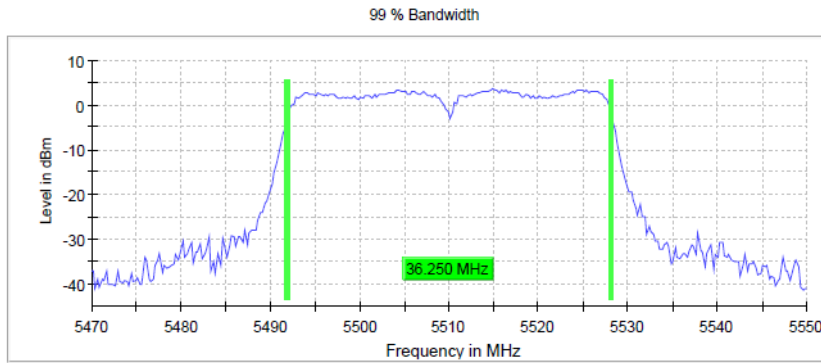
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5270.000000	36.250000	---	---	5251.875000	5288.125000	PASS



Setting	Instrument Value
Start Frequency	5.23000 GHz
Stop Frequency	5.31000 GHz
Span	80.000 MHz
RBW	500.000 kHz
VBW	2.000 MHz
SweepPoints	320
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	70 / max. 150
Stable	5 / 5
Max Stable Difference	0.24 dB

Radio Technology = WLAN n 40 MHz, Operating Frequency = low, Subband = U-NII-2C
(S01_377_AA01)

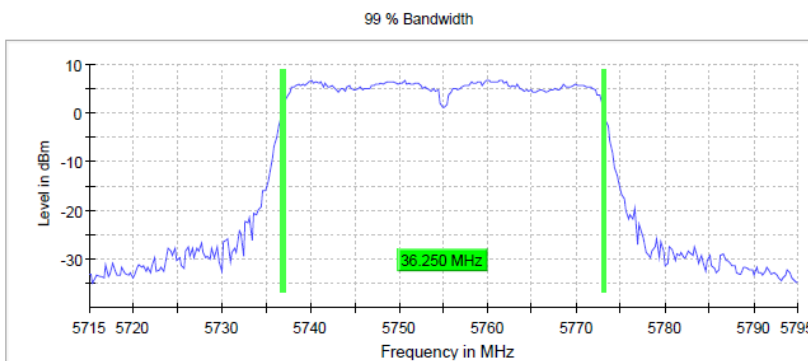
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5510.000000	36.250000	---	---	5491.875000	5528.125000	PASS



Setting	Instrument Value
Start Frequency	5.47000 GHz
Stop Frequency	5.55000 GHz
Span	80.000 MHz
RBW	500.000 kHz
VBW	2.000 MHz
SweepPoints	320
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	63 / max. 150
Stable	5 / 5
Max Stable Difference	0.20 dB

Radio Technology = WLAN n 40 MHz, Operating Frequency = low, Subband = U-NII-3
(S01_377_AA01)

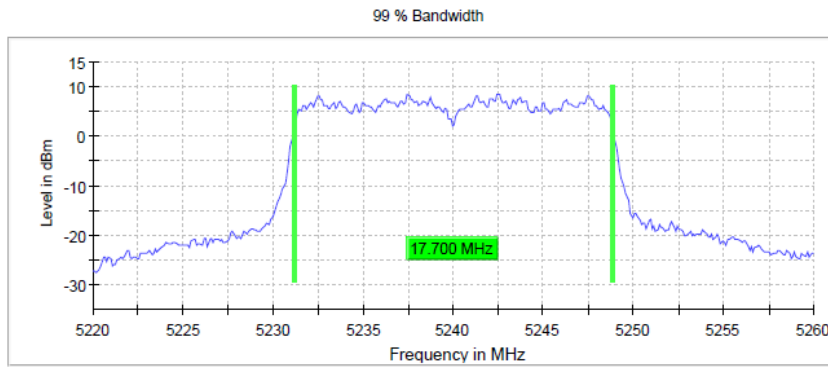
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5755.000000	36.250000	---	---	5736.875000	5773.125000	PASS



Setting	Instrument Value
Start Frequency	5.71500 GHz
Stop Frequency	5.79500 GHz
Span	80.000 MHz
RBW	500.000 kHz
VBW	2.000 MHz
SweepPoints	320
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	86 / max. 150
Stable	5 / 5
Max Stable Difference	0.08 dB

Radio Technology = WLAN ac 20 MHz, Operating Frequency = high, Subband = U-NII-1
(S01_377_AA01)

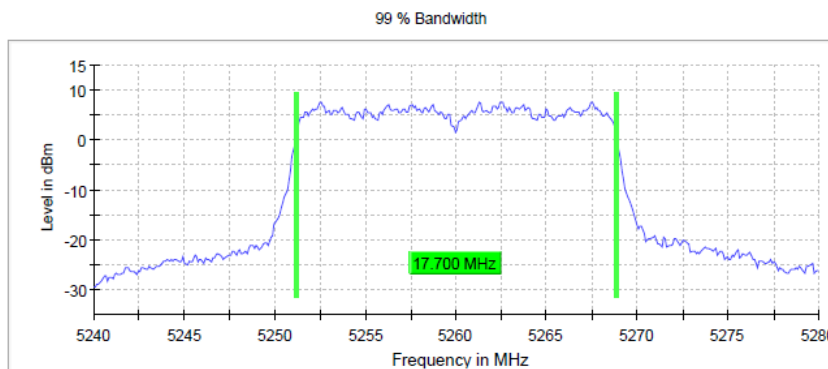
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5240.000000	17.700000	---	---	5231.150000	5248.850000	PASS



Setting	Instrument Value
Start Frequency	5.22000 GHz
Stop Frequency	5.26000 GHz
Span	40.000 MHz
RBW	200.000 kHz
VBW	1.000 MHz
SweepPoints	400
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	64 / max. 150
Stable	5 / 5
Max Stable Difference	0.06 dB

Radio Technology = WLAN ac 20 MHz, Operating Frequency = low, Subband = U-NII-2A
(S01_377_AA01)

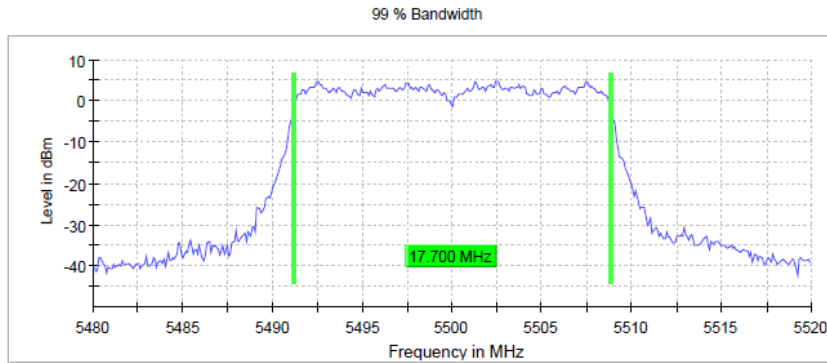
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5260.000000	17.700000	---	---	5251.150000	5268.850000	PASS



Setting	Instrument Value
Start Frequency	5.24000 GHz
Stop Frequency	5.28000 GHz
Span	40.000 MHz
RBW	200.000 kHz
VBW	1.000 MHz
SweepPoints	400
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	54 / max. 150
Stable	5 / 5
Max Stable Difference	0.05 dB

Radio Technology = WLAN ac 20 MHz, Operating Frequency = low, Subband = U-NII-2C
(S01_377_AA01)

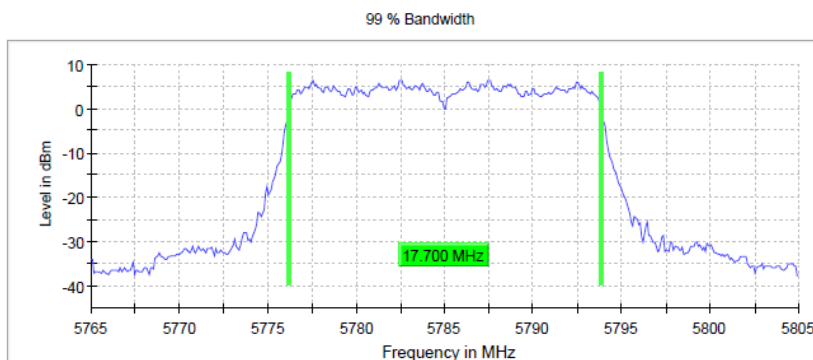
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5500.000000	17.700000	---	---	5491.150000	5508.850000	PASS



Setting	Instrument Value
Start Frequency	5.48000 GHz
Stop Frequency	5.52000 GHz
Span	40.000 MHz
RBW	200.000 kHz
VBW	1.000 MHz
SweepPoints	400
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	50 / max. 150
Stable	5 / 5
Max Stable Difference	0.27 dB

Radio Technology = WLAN ac 20 MHz, Operating Frequency = mid, Subband = U-NII-3
(S01_377_AA01)

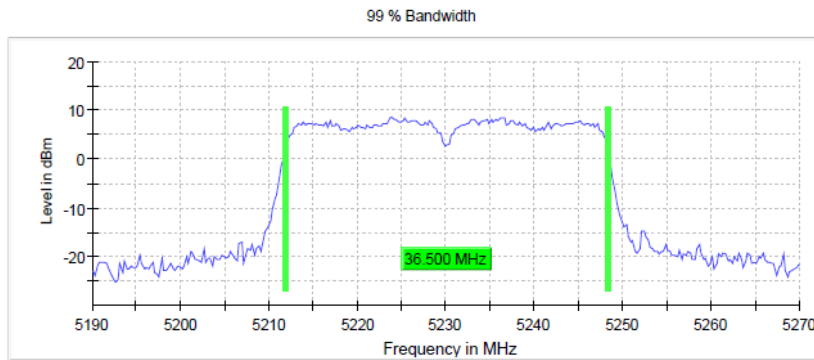
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5785.000000	17.700000	---	---	5776.150000	5793.850000	PASS



Setting	Instrument Value
Start Frequency	5.76500 GHz
Stop Frequency	5.80500 GHz
Span	40.000 MHz
RBW	200.000 kHz
VBW	1.000 MHz
SweepPoints	400
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	87 / max. 150
Stable	5 / 5
Max Stable Difference	0.08 dB

Radio Technology = WLAN ac 40 MHz, Operating Frequency = high, Subband = U-NII-1
(S01_377_AA01)

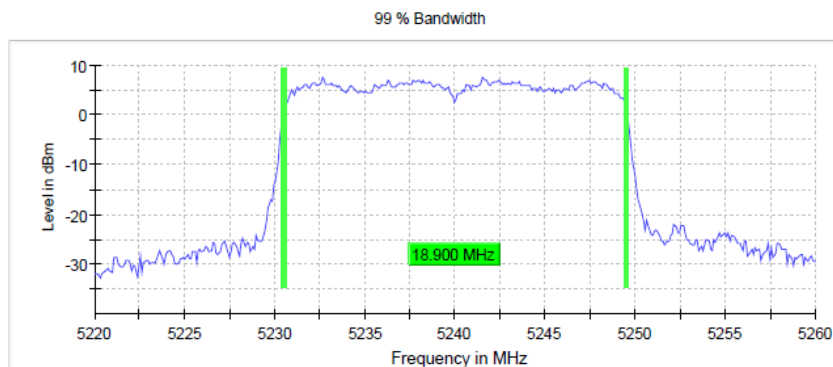
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5230.000000	36.500000	---	---	5211.875000	5248.375000	PASS



Setting	Instrument Value
Start Frequency	5.19000 GHz
Stop Frequency	5.27000 GHz
Span	80.000 MHz
RBW	500.000 kHz
VBW	2.000 MHz
SweepPoints	320
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	97 / max. 150
Stable	5 / 5
Max Stable Difference	0.00 dB

Radio Technology = WLAN ax 20 MHz, Operating Frequency = high, Subband = U-NII-1
(S01_377_AA01)

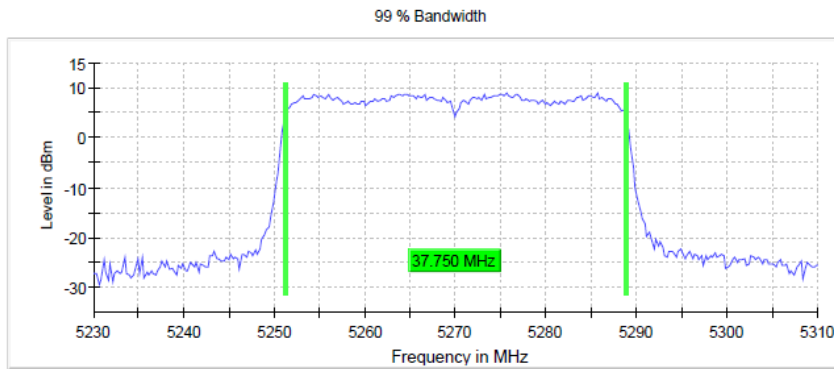
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5240.000000	18.900000	---	---	5230.550000	5249.450000	PASS



Setting	Instrument Value
Start Frequency	5.22000 GHz
Stop Frequency	5.26000 GHz
Span	40.000 MHz
RBW	200.000 kHz
VBW	1.000 MHz
SweepPoints	400
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	89 / max. 150
Stable	5 / 5
Max Stable Difference	0.29 dB

Radio Technology = WLAN ax 40 MHz, Operating Frequency = low, Subband = U-NII-2A
(S01_377_AA01)

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5270.000000	37.750000	---	---	5251.125000	5288.875000	PASS

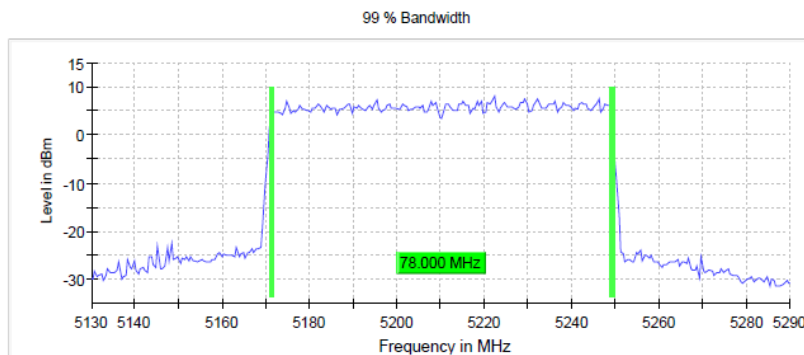


Setting	Instrument Value
Start Frequency	5.23000 GHz
Stop Frequency	5.31000 GHz
Span	80.000 MHz
RBW	500.000 kHz
VBW	2.000 MHz
SweepPoints	320
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	108 / max. 150
Stable	5 / 5
Max Stable Difference	0.00 dB

Radio Technology = WLAN ax 80 MHz, Operating Frequency = mid, Subband = U-NII-1
(S01_377_AA01)

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5210.000000	78.000000	---	---	5171.250000	5249.250000	PASS



Setting	Instrument Value
Start Frequency	5.13000 GHz
Stop Frequency	5.29000 GHz
Span	160.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	320
SweepTime	1.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	110 / max. 150
Stable	5 / 5
Max Stable Difference	0.00 dB

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

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

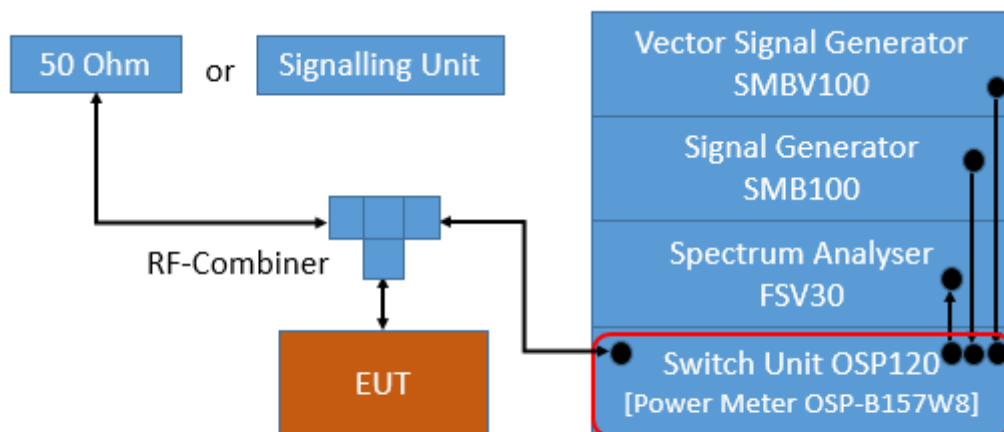
For U-NII bands 1, 2A, 2C, 3:

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.

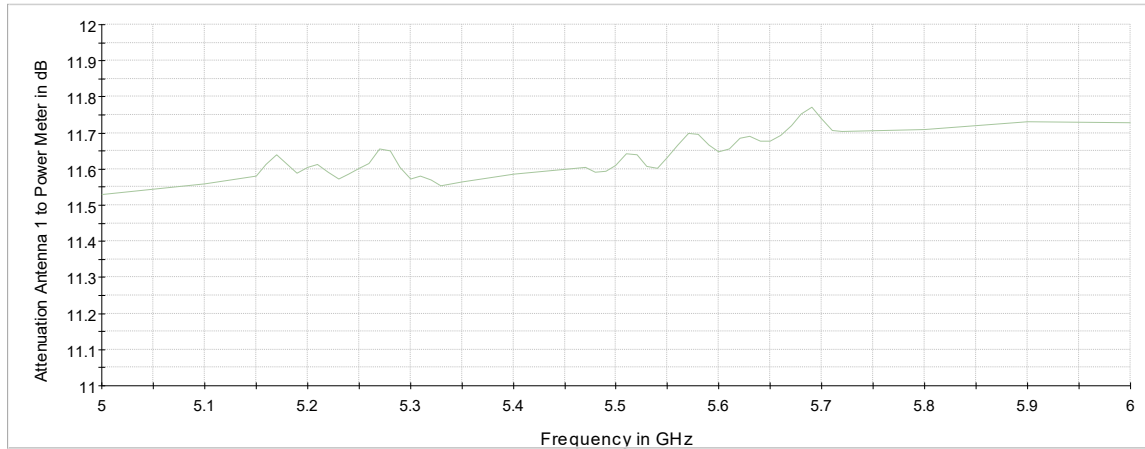
The OSP-B157W is a gated RF average power meter with a signal bandwidth > 300 MHz.

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

For U-NII bands 5,6,7,8:

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.

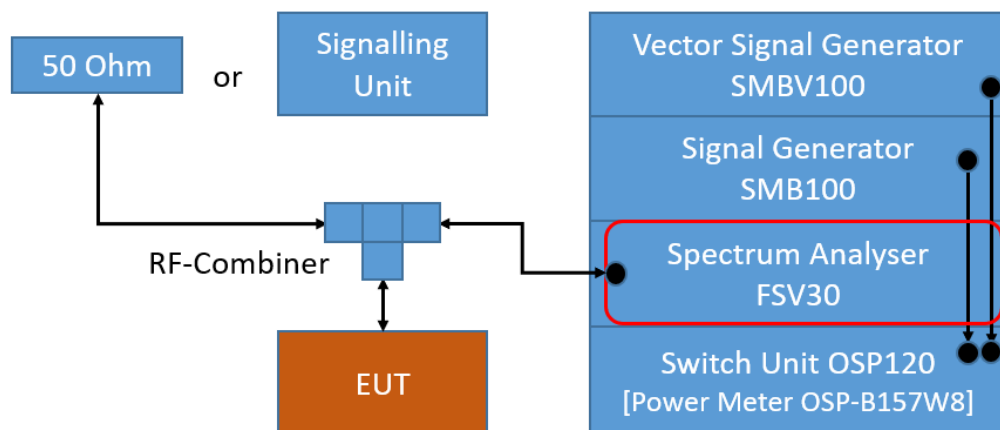
Analyzer settings:

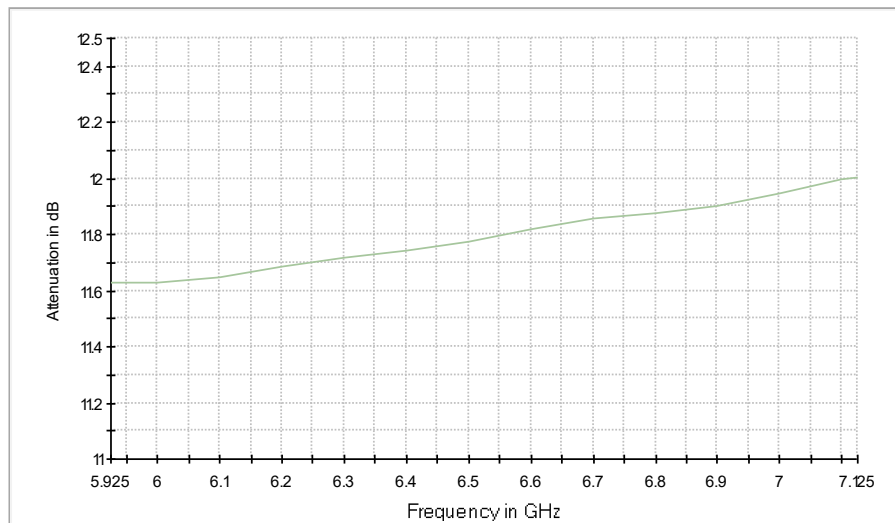
- Resolution Bandwidth (RBW): 1 MHz
- Video Bandwidth (VBW): 3 MHz
- Trace: Average, RMS power averaging mode
- Sweeps: at least 100
- Sweep time: Auto
- Detector: RMS
- Trigger: free run (DC > 98 %) or gated mode (DC < 98 %)

See worst case result plots for details

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 **SA-1**.





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.

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 its 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 $11 + 10 \log_{10}B$ [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: 23 - 26 °C
 Air Pressure: 980 - 1020 hPa
 Humidity: 30 - 40%
 WLAN a-Mode; 20 MHz; 6 Mbit/s

Variant	U-NII-Subband	Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	IC Cond. Limit [dBm]	Margin [dB]	IC EIRP Limit [dBm]	Margin [dB]	
377	1	5180	16.7	18.7	24.0	7.3	N/A	-	22.2	3.5	1)
377		5200	18.1	20.1	24.0	5.9	N/A	-	22.2	2.1	1)
377		5240	17.9	19.9	24.0	6.1	N/A	-	22.2	2.3	1)
377	2A	5260	18.5	20.5	24.0	5.5	23.5	5.0	29.5	9.0	1)
377		5300	18.7	20.7	24.0	5.3	23.2	4.5	29.2	8.5	1)
377		5320	16.8	18.8	24.0	7.2	23.2	6.4	29.2	10.4	1)
377	2C	5500	14.7	16.7	24.0	9.3	23.2	8.5	29.2	12.5	
377		5580	18.3	20.3	24.0	5.7	23.2	4.9	29.2	8.9	
377		5700	17.6	19.6	23.9	6.3	23.2	5.6	29.2	9.6	
377	3	5745	17.8	19.8	30.0	12.2	30.0	12.2	36.0	16.2	
377		5785	17.2	19.2	30.0	12.8	30.0	12.8	36.0	16.8	
377		5825	16.7	18.7	30.0	13.3	30.0	13.3	36.0	17.3	
374	1	5180	17.5	19.5	24.0	6.5	N/A	-	22.2	2.7	1)
374		5200	18.9	20.9	24.0	5.1	N/A	-	22.2	1.3	1)
374		5240	18.9	20.9	24.0	5.1	N/A	-	22.2	1.3	1)
374	2A	5260	19.1	21.1	24.0	4.9	23.5	4.4	29.5	8.4	1)
374		5300	19.0	21.0	24.0	5.0	23.2	4.2	29.2	8.2	1)
374		5320	17.2	19.2	24.0	6.8	23.2	6.1	29.2	10.1	1)
374	2C	5500	15.6	17.6	24.0	8.4	23.2	7.6	29.2	11.6	
374		5580	18.9	20.9	24.0	5.1	23.2	4.3	29.2	8.3	
374		5700	15.3	17.3	23.9	8.7	23.2	8.0	29.2	12.0	
374	3	5745	18.3	20.3	30.0	11.7	30.0	11.7	36.0	15.7	
374		5785	17.3	19.3	30.0	12.7	30.0	12.7	36.0	16.7	
374		5825	16.8	18.8	30.0	13.2	30.0	13.2	36.0	17.2	

WLAN n-Mode; 20 MHz; MCS0; SISO

Variant	U-NII-Subband	Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	IC Cond. Limit [dBm]	Margin [dB]	IC EIRP Limit [dBm]	Margin [dB]	
377	1	5180	14.6	16.6	24.0	9.4	N/A	-	22.5	5.9	1)
377		5200	17.8	19.8	24.0	6.2	N/A	-	22.5	2.7	1)
377		5240	18.0	20.0	24.0	6.0	N/A	-	22.5	2.5	1)
377	2A	5260	17.6	19.6	24.0	6.4	23.5	5.9	29.5	9.9	1)
377		5300	17.6	19.6	24.0	6.4	23.5	5.9	29.5	9.9	1)
377		5320	14.7	16.7	24.0	9.3	23.5	8.8	29.5	12.8	1)
377	2C	5500	14.6	16.6	24.0	9.4	23.5	8.9	29.5	12.9	
377		5580	17.2	19.2	24.0	6.8	23.5	6.3	29.5	10.3	
377		5700	14.4	16.4	24.0	9.6	23.5	9.1	29.5	13.1	
377	3	5745	16.8	18.8	30.0	13.2	30.0	13.2	36.0	17.2	
377		5785	16.1	18.1	30.0	13.9	30.0	13.9	36.0	17.9	
377		5825	15.7	17.7	30.0	14.3	30.0	14.3	36.0	18.3	
374	1	5180	15.6	17.6	24.0	8.4	N/A	-	22.5	4.9	1)
374		5200	18.4	20.4	24.0	5.6	N/A	-	22.5	2.1	1)
374		5240	18.9	20.9	24.0	5.1	N/A	-	22.5	1.6	1)
374	2A	5260	18.2	20.2	24.0	5.8	23.5	5.3	29.5	9.3	1)
374		5300	18.1	20.1	24.0	5.9	23.5	5.4	29.5	9.4	1)
374		5320	15.2	17.2	24.0	8.8	23.5	8.3	29.5	12.3	1)
374	2C	5500	15.2	17.2	24.0	8.8	23.5	8.3	29.5	12.3	
374		5580	18.0	20.0	24.0	6.0	23.5	5.5	29.5	9.5	
374		5700	15.5	17.5	24.0	8.5	23.5	8.0	29.5	12.0	
374	3	5745	17.4	19.4	30.0	12.6	30.0	12.6	36.0	16.6	
374		5785	16.3	18.3	30.0	13.7	30.0	13.7	36.0	17.7	
374		5825	16.7	18.7	30.0	13.3	30.0	13.3	36.0	17.3	

WLAN n-Mode; 40 MHz; MCS0; SISO

Variant	U-NII-Subband	Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	IC Cond. Limit [dBm]	Margin [dB]	IC EIRP Limit [dBm]	Margin [dB]	
377	1	5190	13.6	15.6	24.0	10.4	N/A	-	23.0	7.4	1)
377		5230	17.1	19.1	24.0	6.9	N/A	-	23.0	3.9	1)
377	2A	5270	16.8	18.8	24.0	7.2	24.0	7.2	30.0	11.2	1)
377		5310	14.2	16.2	24.0	9.8	24.0	9.8	30.0	13.8	1)
377	2C	5510	12.2	14.2	24.0	11.8	24.0	11.8	30.0	15.8	
377		5550	16.2	18.2	24.0	7.8	24.0	7.8	30.0	11.8	
377		5670	14.9	16.9	24.0	9.1	24.0	9.1	30.0	13.1	
377	3	5755	15.7	17.7	30.0	14.3	30.0	14.3	36.0	18.3	
377		5795	15.1	17.1	30.0	14.9	30.0	14.9	36.0	18.9	

WLAN ac-Mode; 20 MHz; MCS0; SISO

Variant	U-NII-Subband	Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	IC Cond. Limit [dBm]	Margin [dB]	IC EIRP Limit [dBm]	Margin [dB]	
377	1	5180	14.6	16.6	24.0	9.4	N/A	-	22.5	5.9	1)
377		5200	17.8	19.8	24.0	6.2	N/A	-	22.5	2.7	1)
377		5240	18.0	20.0	24.0	6.0	N/A	-	22.5	2.4	1)
377	2A	5260	17.6	19.6	24.0	6.4	23.5	5.9	29.5	9.9	1)
377		5300	17.6	19.6	24.0	6.4	23.5	5.9	29.5	9.9	1)
377		5320	14.7	16.7	24.0	9.3	23.5	8.8	29.5	12.8	1)
377	2C	5500	14.6	16.6	24.0	9.4	23.5	8.9	29.5	12.9	
377		5580	17.2	19.2	24.0	6.8	23.5	6.3	29.5	10.3	
377		5700	14.4	16.4	24.0	9.6	23.5	9.1	29.5	13.1	
377	2C/3	5720	16.5	18.5	24.0	7.5	23.5	7.0	29.5	11.0	
377	3	5745	16.7	18.7	30.0	13.3	30.0	13.3	36.0	17.3	
377		5785	16.1	18.1	30.0	13.9	30.0	13.9	36.0	17.9	
377		5825	15.7	17.7	30.0	14.3	30.0	14.3	36.0	18.3	

WLAN ac-Mode; 40 MHz; MCS0; SISO

Variant	U-NII-Subband	Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	IC Cond. Limit [dBm]	Margin [dB]	IC EIRP Limit [dBm]	Margin [dB]	
377	1	5190	13.6	15.6	24.0	10.4	N/A	-	23.0	7.4	1)
377		5230	17.0	19.0	24.0	7.0	N/A	-	23.0	4.0	1)
377	2A	5270	16.6	18.6	24.0	7.4	24.0	7.4	30.0	11.4	1)
377		5310	14.0	16.0	24.0	10.0	24.0	10.0	30.0	14.0	1)
377	2C	5510	12.1	14.1	24.0	11.9	24.0	11.9	30.0	15.9	
377		5550	16.0	18.0	24.0	8.0	24.0	8.0	30.0	12.0	
377		5670	14.7	16.7	24.0	9.3	24.0	9.3	30.0	13.3	
377	2C/3	5710	15.3	17.3	24.0	6.7	24.0	6.7	30.0	12.7	
377	3	5755	15.4	17.4	30.0	14.6	30.0	14.6	36.0	18.6	
377		5795	15.0	17.0	30.0	15.0	30.0	15.0	36.0	19.0	

WLAN ac-Mode; 80 MHz; MCS0; SISO

Variant	U-NII-Subband	Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	IC Cond. Limit [dBm]	Margin [dB]	IC EIRP Limit [dBm]	Margin [dB]	
377	1	5210	13.3	15.3	24.0	10.7	N/A	-	23.0	7.7	1)
377	2A	5290	13.8	15.8	24.0	10.2	24.0	10.2	30.0	14.2	1)
377	2C	5530	12.3	10.3	24.0	11.7	24.0	11.7	30.0	15.7	
377	2C/3	5690	15.6	13.6	24.0	8.4	24.0	8.4	30.0	12.4	
377	3	5775	17.2	15.2	30.0	12.8	30.0	12.8	36.0	16.8	

WLAN ax-Mode; 20 MHz; MCS0; SISO

Variant	U-NII-Subband	Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	IC Cond. Limit [dBm]	Margin [dB]	IC EIRP Limit [dBm]	Margin [dB]	
377	1	5180	14.8	16.8	24.0	9.2	N/A	-	22.8	6.0	1)
377		5200	16.0	18.0	24.0	8.0	N/A	-	22.7	4.7	1)
377		5240	16.3	18.3	24.0	7.7	N/A	-	22.8	4.5	1)
377	2A	5260	15.8	17.8	24.0	8.2	23.7	7.9	29.7	11.9	1)
377		5300	15.9	17.9	24.0	8.1	23.7	7.8	29.7	11.8	1)
377		5320	15.0	17.0	24.0	9.0	23.8	8.8	29.8	12.8	1)
377	2C	5500	13.9	15.9	24.0	10.1	23.7	9.9	29.7	13.9	
377		5580	15.4	17.4	24.0	8.6	23.7	8.3	29.7	12.3	
377		5700	14.6	16.6	24.0	9.4	23.7	9.1	29.7	13.1	
377	2C/3	5720	14.6	16.6	24.0	9.4	23.7	9.1	29.7	13.1	
377	3	5745	15.0	17.0	30.0	15.0	30.0	15.0	36.0	19.0	
377		5785	14.3	16.3	30.0	15.7	30.0	15.7	36.0	19.7	
377		5825	13.9	15.9	30.0	16.1	30.0	16.1	36.0	20.1	

WLAN ax-Mode; 40 MHz; MCS0; SISO

Variant	U-NII-Subband	Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	IC Cond. Limit [dBm]	Margin [dB]	IC EIRP Limit [dBm]	Margin [dB]	
377	1	5190	13.6	15.6	24.0	10.4	N/A	-	23.0	7.4	1)
377		5230	16.0	18.0	24.0	8.0	N/A	-	23.0	5.0	1)
377	2A	5270	15.7	17.7	24.0	8.3	24.0	8.3	30.0	12.3	1)
377		5310	14.1	16.1	24.0	9.9	24.0	9.9	30.0	13.9	1)
377	2C	5510	12.1	14.1	24.0	11.9	24.0	11.9	30.0	15.9	
377		5550	14.9	16.9	24.0	9.1	24.0	9.1	30.0	13.1	
377		5670	14.8	16.8	24.0	9.2	24.0	9.2	30.0	13.2	
377	2C/3	5710	14.3	16.3	24.0	9.7	24.0	9.7	30.0	13.7	
377	3	5755	14.6	16.6	30.0	15.4	30.0	15.4	36.0	19.4	
377		5795	14.1	16.1	30.0	15.9	30.0	15.9	36.0	19.9	

WLAN ax-Mode; 80 MHz; MCS0; SISO

Variant	U-NII-Subband	Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	IC Cond. Limit [dBm]	Margin [dB]	IC EIRP Limit [dBm]	Margin [dB]	
377	1	5210	13.5	15.5	24.0	10.5	N/A	-	23.0	7.5	1)
377	2A	5290	14.0	16.0	24.0	10.0	24.0	10.0	30.0	14.0	1)
377	2C	5530	12.7	14.7	24.0	11.3	24.0	11.3	30.0	15.3	
377	2C/3	5690	14.9	16.9	24.0	9.1	24.0	9.1	30.0	13.1	
377	3	5775	16.1	18.1	30.0	13.9	30.0	13.9	36.0	17.9	

WLAN n-Mode; 20 MHz; MCS8; MIMO

Variant	U-NII-Subband	Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	IC Cond. Limit [dBm]	Margin [dB]	IC EIRP Limit [dBm]	Margin [dB]	
377	1	5180	17.8	19.8	24.0	6.2	N/A	-	22.5	2.7	1)
377		5200	18.2	20.2	24.0	5.8	N/A	-	22.5	2.3	1)
377		5240	18.3	20.3	24.0	5.7	N/A	-	22.5	2.2	1)
377	2A	5260	20.7	22.7	24.0	3.3	23.5	2.8	29.5	6.8	1)
377		5300	20.7	22.7	24.0	3.3	23.5	2.7	29.5	6.8	1)
377		5320	17.7	19.7	24.0	6.3	23.5	5.8	29.5	9.8	1)
377	2C	5500	17.3	19.3	24.0	6.7	23.5	6.2	29.5	10.2	
377		5580	20.7	22.7	24.0	3.3	23.5	2.8	29.5	6.8	
377		5700	16.9	18.9	24.0	7.1	23.5	6.6	29.5	10.6	
377	3	5745	19.6	21.6	30.0	10.4	30.0	10.4	36.0	14.4	
377		5785	18.7	20.7	30.0	11.3	30.0	11.3	36.0	15.3	
377		5825	18.7	20.7	30.0	11.3	30.0	11.3	36.0	15.3	
374	1	5200	18.9	20.9	24.0	5.1	N/A		22.5	1.6	1)
374		5240	18.8	20.8	24.0	5.2	N/A		22.5	1.7	1)
374	2A	5260	20.3	22.3	24.0	3.7	23.5	3.2	29.5	7.2	1)
374		5300	20.4	22.4	24.0	3.6	23.5	3.1	29.5	7.1	1)

WLAN n-Mode; 40 MHz; MCS8; MIMO

Variant	U-NII-Subband	Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	IC Cond. Limit [dBm]	Margin [dB]	IC EIRP Limit [dBm]	Margin [dB]	
377	1	5190	15.9	17.9	24.0	8.1	N/A	-	23.0	5.1	1)
377		5230	18.2	20.2	24.0	5.8	N/A		23.0	2.8	1)
377	2A	5270	19.6	21.6	24.0	4.4	24.0	8.1	30.0	8.4	1)
377		5310	16.7	18.7	24.0	7.3	24.0	4.4	30.0	11.3	1)
377	2C	5510	14.2	16.2	24.0	9.8	24.0	7.3	30.0	13.8	
377		5550	19.5	21.5	24.0	4.5	24.0	9.8	30.0	8.5	
377		5670	18.3	20.3	24.0	5.7	24.0	4.5	30.0	9.7	
377	3	5755	18.2	20.2	30.0	11.8	30.0	11.7	36.0	15.8	
377		5795	17.8	19.8	30.0	12.2	30.0	11.8	36.0	16.2	

WLAN ac-Mode; 20 MHz; MCS0; MIMO

Variant	U-NII-Subband	Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	IC Cond. Limit [dBm]	Margin [dB]	IC EIRP Limit [dBm]	Margin [dB]	
377	1	5180	17.5	19.5	24.0	6.5	N/A		22.5	3.0	1)
377		5200	18.2	20.2	24.0	5.8	N/A		22.5	2.3	1)
377		5240	18.3	20.3	24.0	5.7	N/A		22.5	2.2	1)
377	2A	5260	20.7	22.7	24.0	3.3	23.5	2.8	29.5	6.8	1)
377		5300	20.7	22.7	24.0	3.3	23.5	2.7	29.5	6.8	1)
377		5320	17.7	19.7	24.0	6.3	23.5	5.8	29.5	9.8	1)
377	2C	5500	17.1	19.1	24.0	6.9	23.5	6.4	29.5	10.4	
377		5580	20.6	22.6	24.0	3.4	23.5	2.8	29.5	6.9	
377		5700	16.8	18.8	24.0	7.2	23.5	6.7	29.5	10.7	
377	2C/3	5720	19.6	21.6	24.0	4.4	23.5	3.9	29.5	7.9	
377	3	5745	19.6	21.6	30.0	10.4	30.0	10.4	36.0	14.4	
377		5785	18.9	20.9	30.0	11.1	30.0	11.1	36.0	15.1	
377		5825	18.7	20.7	30.0	11.3	30.0	11.3	36.0	15.3	
374	2A	5260	20.3	22.3	24.0	3.7	23.5	3.2	29.5	7.2	1)
374		5300	20.4	22.4	24.0	3.6	23.5	3.1	29.5	7.1	1)

WLAN ac-Mode; 40 MHz; MCS0; MIMO

Variant	U-NII-Subband	Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	IC Cond. Limit [dBm]	Margin [dB]	IC EIRP Limit [dBm]	Margin [dB]	
377	1	5190	16.0	18.0	24.0	8.0	N/A	-	23.0	5.0	1)
377		5230	18.1	20.1	24.0	5.9	N/A		23.0	2.9	1)
377	2A	5270	19.8	21.8	24.0	4.2	24.0	8.0	30.0	8.2	1)
377		5310	15.8	17.8	24.0	8.2	24.0	4.2	30.0	12.2	1)
377	2C	5510	14.3	16.3	24.0	9.7	24.0	8.2	30.0	13.7	
377		5550	19.3	21.3	24.0	4.7	24.0	9.7	30.0	8.7	
377		5670	18.1	20.1	24.0	5.9	24.0	4.7	30.0	9.9	
377	2C/3	5710	18.7	20.7	24.0	5.3	24.0	5.3	30.0	9.3	
377	3	5755	18.2	20.2	30.0	11.8	30.0	11.9	36.0	15.8	
377		5795	17.8	19.8	30.0	12.2	30.0	11.8	36.0	16.2	

WLAN ac-Mode; 80 MHz; MCS0; MIMO

Variant	U-NII-Subband	Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	IC Cond. Limit [dBm]	Margin [dB]	IC EIRP Limit [dBm]	Margin [dB]	
377	1	5210	15.1	17.1	24.0	8.9	N/A	-	23.0	5.9	1)
377	2A	5290	14.8	16.8	24.0	9.2	24.0	9.2	30.0	13.2	1)
377	2C	5530	14.2	16.2	24.0	9.8	24.0	9.8	30.0	13.8	
377	2C/3	5690	19.1	21.1	24.0	4.9	24.0	4.9	30.0	8.9	
377	3	5775	18.1	20.1	30.0	11.9	30.0	11.9	36.0	15.9	

WLAN ax-Mode; 20 MHz; MCS0; MIMO

Variant	U-NII-Subband	Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	IC Cond. Limit [dBm]	Margin [dB]	IC EIRP Limit [dBm]	Margin [dB]	
377	1	5180	18.2	20.2	24.0	5.8	N/A		22.8	2.6	1)
377		5200	17.5	19.5	24.0	6.5	N/A		22.7	3.2	1)
377		5240	17.2	19.2	24.0	6.8	N/A		22.8	3.6	1)
377	2A	5260	19.0	21.0	24.0	5.0	23.7	4.7	29.7	8.7	1)
377		5300	19.1	21.1	24.0	4.9	23.7	4.7	29.7	8.6	1)
377		5320	18.0	20.0	24.0	6.0	23.8	5.7	29.8	9.8	1)
377	2C	5500	17.4	19.4	24.0	6.6	23.7	6.3	29.7	10.3	
377		5580	18.9	20.9	24.0	5.1	23.7	4.8	29.7	8.8	
377		5700	17.0	19.0	24.0	7.0	23.7	6.7	29.7	10.7	
377	2C/3	5720	18.0	20.0	24.0	6.0	23.7	5.7	29.7	9.7	
377	3	5745	17.9	19.9	30.0	12.1	30.0	12.1	36.0	16.1	
377		5785	17.2	19.2	30.0	12.8	30.0	12.8	36.0	16.8	
377		5825	17.0	19.0	30.0	13.0	30.0	13.0	36.0	17.0	

WLAN ax-Mode; 40 MHz; MCS0; MIMO

Variant	U-NII-Subband	Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	IC Cond. Limit [dBm]	Margin [dB]	IC EIRP Limit [dBm]	Margin [dB]	
377	1	5190	16.0	18.0	24.0	8.0	N/A	-	23.0	5.0	1)
377		5230	17.6	19.6	24.0	6.4	N/A		23.0	3.4	1)
377	2A	5270	18.8	20.8	24.0	5.2	24.0	8.0	30.0	9.2	1)
377		5310	16.9	18.9	24.0	7.1	24.0	5.2	30.0	11.1	1)
377	2C	5510	14.6	16.6	24.0	9.4	24.0	7.1	30.0	13.4	
377		5550	18.8	20.8	24.0	5.2	24.0	9.4	30.0	9.2	
377		5670	18.3	20.3	24.0	5.7	24.0	5.2	30.0	9.7	
377	2C/3	5710	17.9	19.9	24.0	6.1	24.0	6.1	30.0	10.1	
377	3	5755	17.9	19.9	30.0	12.1	30.0	11.7	36.0	16.1	
377		5795	17.1	19.1	30.0	12.9	30.0	12.1	36.0	16.9	

WLAN ax-Mode; 80 MHz; MCS0; MIMO

Variant	U-NII-Subband	Freq. [MHz]	Cond. Power [dBm]	EIRP [dBm]	FCC Cond. Limit [dBm]	Margin [dB]	IC Cond. Limit [dBm]	Margin [dB]	IC EIRP Limit [dBm]	Margin [dB]	
377	1	5210	15.3	17.3	24.0	8.7	N/A		23.0	5.7	1)
377	2A	5290	15.1	17.1	24.0	8.9	24.0	8.9	30.0	12.9	1)
377	2C	5530	14.6	16.6	24.0	9.4	24.0	9.4	30.0	13.4	
377	2C/3	5690	18.4	20.4	24.0	5.6	24.0	5.6	30.0	9.6	
377	3	5775	17.4	19.4	30.0	12.6	30.0	12.6	36.0	16.6	

Remark: 1) = no additional limit applies related to the elevation.
Please see next sub-clause for the measurement plot.

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

Power Meter Measurement, no plots provided.

5.5.5 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 12.5 (SA-3)

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.

For U-NII bands 1, 2A, 2C, 3:

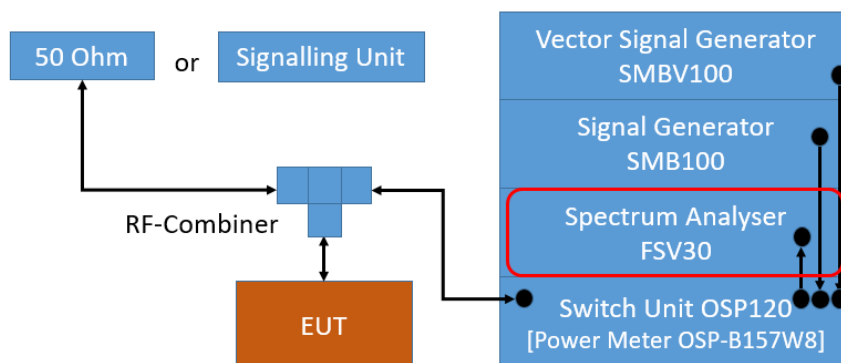
The EUT was connected to the test system as described in the block diagram below. The complete attenuation of the measurement path is known and considered.

Analyzer settings:

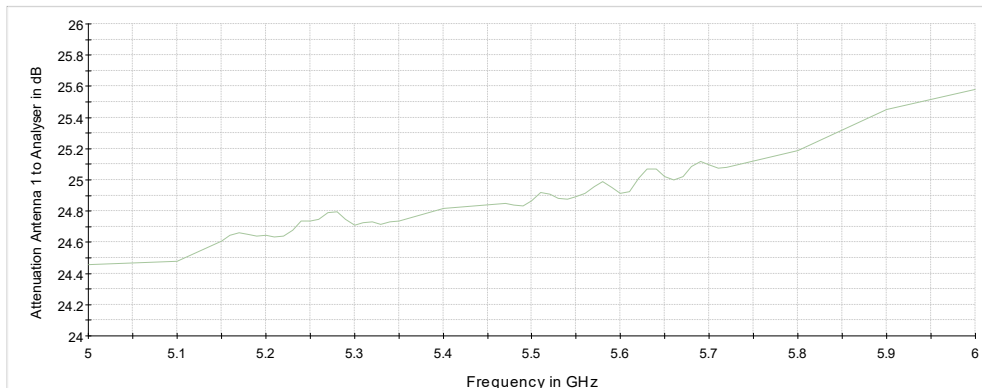
- Resolution Bandwidth (RBW): 1 MHz (for subband 3: 500 kHz)
- Video Bandwidth (VBW): 3 MHz (for subband 3: 2 MHz)
- Trace: Max Hold
- Sweeps: till stable (at least 180, max. 900)
- Sweptime: $\leq$ Number of sweep points x Min. Transmitter on time
- Detector: RMS
- Trigger: free run

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

For U-NII bands 5, 6, 7, 8:

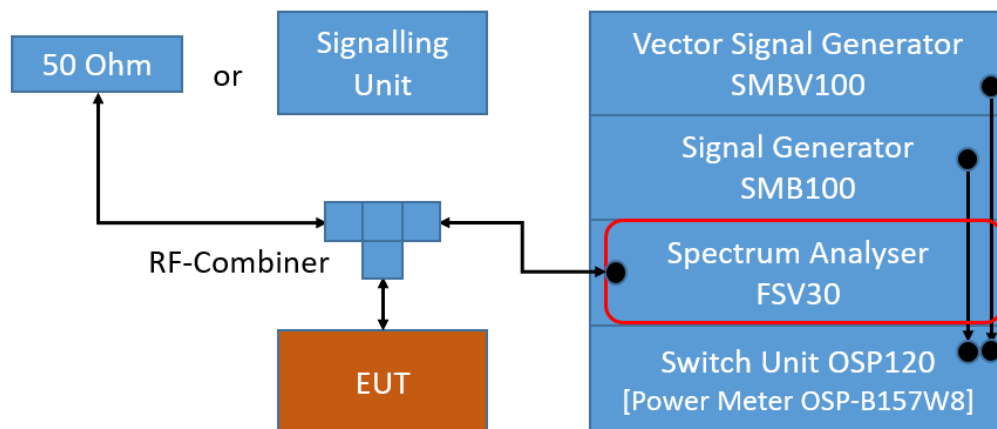
The EUT was connected to the test system as described in the block diagram below. The complete attenuation of the measurement path is known and considered.

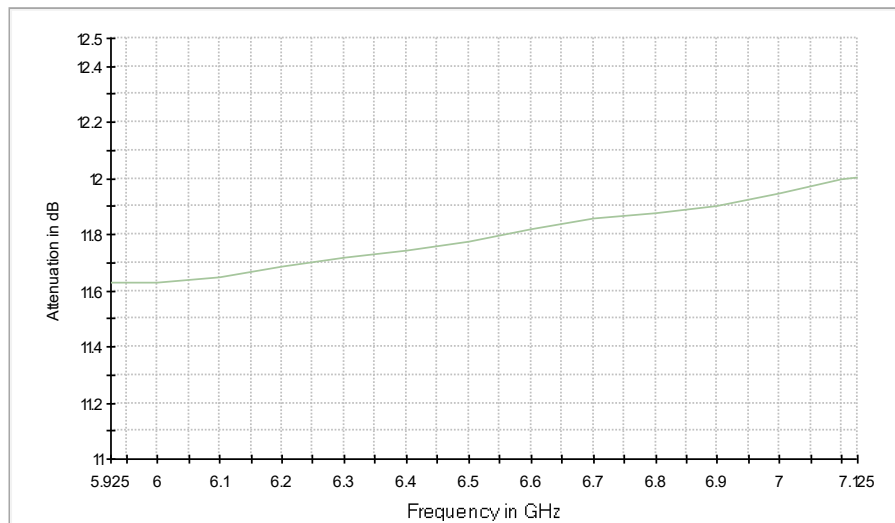
Analyzer settings:

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

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-1**.





Attenuation of 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.

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: 23 dBm/MHz e.i.r.p.

FCC Part 15, Subpart E, §15.407 (a) (5):

For an indoor access point in the 5.925 – 7.125 GHz bands:

Limit: 5 dBm/MHz 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: 5 dBm/MHz 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: 17 dBm/MHz e.i.r.p.

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: -1 dBm/MHz e.i.r.p.

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: 23 - 26 °C
Air Pressure: 980 - 1020 hPa
Humidity: 30 - 40%
WLAN a-Mode; 20 MHz; 6 Mbit/s

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPD
377	1	5180	5.3	11.0	5.7	10.0	2.7	7.3
377		5200	6.6	11.0	4.4	10.0	1.4	8.6
377		5240	6.7	11.0	4.3	10.0	1.3	8.7
377	2A	5260	6.7	11.0	4.3	11.0	4.3	unit:
377		5300	7.0	11.0	4.0	11.0	4.0	dBm/
377		5320	5.2	11.0	5.8	11.0	5.8	MHz
377	2C	5500	3.3	11.0	7.7	11.0	7.7	
377		5580	7.0	11.0	4.0	11.0	4.0	
377		5700	6.0	11.0	5.0	11.0	5.0	
377	3	5745	3.3	30.0	26.7	30.0	26.7	
377		5785	2.7	30.0	27.3	30.0	27.3	
377		5825	2.2	30.0	27.8	30.0	27.8	
374	1	5200	7.5	11.0	3.5	10.0	0.5	9.5
374		5240	7.5	11.0	3.5	10.0	0.5	9.5

WLAN n-Mode; 20 MHz; MCS0; SISO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPSD
377	1	5180	2.8	11.0	8.2	10.0	5.2	4.8
377		5200	5.9	11.0	5.1	10.0	2.1	7.9
377		5240	6.2	11.0	4.8	10.0	1.8	8.2
377	2A	5260	5.6	11.0	5.4	11.0	5.4	unit:
377		5300	5.6	11.0	5.4	11.0	5.4	dBm/
377		5320	2.7	11.0	8.3	11.0	8.3	MHz
377	2C	5500	2.8	11.0	8.2	11.0	8.2	
377		5580	5.7	11.0	5.3	11.0	5.3	
377		5700	2.5	11.0	8.5	11.0	8.5	
377	3	5745	1.9	30.0	28.1	30.0	28.1	
377		5785	1.3	30.0	28.7	30.0	28.7	
377		5825	0.9	30.0	29.1	30.0	29.1	

WLAN n-Mode; 40 MHz; MCS0; SISO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPSD
377	1	5190	-0.9	11.0	11.9	10.0	8.9	1.1
377		5230	2.5	11.0	8.5	10.0	5.5	4.5
377	2A	5270	2.1	11.0	8.9	11.0	8.9	unit:
377		5310	-0.6	11.0	11.6	11.0	11.6	dBm/
377	2C	5510	-2.2	11.0	13.2	11.0	13.2	MHz
377		5550	1.7	11.0	9.3	11.0	9.3	
377		5670	0.3	11.0	10.7	11.0	10.7	
377	3	5755	-2.1	30.0	32.1	30.0	32.1	
377		5795	-2.8	30.0	32.8	30.0	32.8	

WLAN ac-Mode; 20 MHz; MCS0; SISO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPSD
377	1	5180	2.9	11.0	8.1	10.0	5.1	4.9
377		5200	6.1	11.0	4.9	10.0	1.9	8.1
377		5240	6.3	11.0	4.7	10.0	1.7	8.3
377	2A	5260	5.7	11.0	5.3	11.0	5.3	unit:
377		5300	5.6	11.0	5.4	11.0	5.4	dBm/
377		5320	2.6	11.0	8.4	11.0	8.4	MHz
377	2C	5500	2.8	11.0	8.2	11.0	8.2	
377		5580	5.6	11.0	5.4	11.0	5.4	
377		5700	2.5	11.0	8.5	11.0	8.5	
377	2C/3	5720	4.5	11.0	6.5	11.0	6.5	
377	3	5745	1.9	30.0	28.1	30.0	28.1	
377		5785	1.3	30.0	28.7	30.0	28.7	
377		5825	0.9	30.0	29.1	30.0	29.1	

WLAN ac-Mode; 40 MHz; MCS0; SISO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPSD
377	1	5190	-0.9	11.0	11.9	10.0	8.9	1.1
377		5230	2.4	11.0	8.6	10.0	5.6	4.4
377	2A	5270	2.0	11.0	9.0	11.0	9.0	unit:
377		5310	-0.9	11.0	11.9	11.0	11.9	dBm/
377	2C	5510	-2.4	11.0	13.4	11.0	13.4	MHz
377		5550	1.3	11.0	9.7	11.0	9.7	
377		5670	-0.1	11.0	11.1	11.0	11.1	
377	2C/3	5710	0.3	11.0	9.7	11.0	9.7	
377	3	5755	-2.4	30.0	32.4	30.0	32.4	
377		5795	-2.5	30.0	32.5	30.0	32.5	

WLAN ac-Mode; 80 MHz; MCS0; SISO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPSD
377	1	5210	-3.5	11.0	14.5	10.0	11.5	-1.5
377	2A	5290	-3.2	11.0	14.2	11.0	14.2	unit:
377	2C	5530	-4.2	11.0	15.2	11.0	15.2	dBm/
377	2C/3	5690	-1.0	11.0	12.0	11.0	12.0	
377	3	5775	-1.2	30.0	31.2	30.0	31.2	

WLAN ax-Mode; 20 MHz; MCS0; SISO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPSD
377	1	5180	2.8	11.0	8.2	10.0	5.2	4.8
377		5200	4.0	11.0	7.0	10.0	4.0	6.0
377		5240	4.3	11.0	6.7	10.0	3.7	6.3
377	2A	5260	3.8	11.0	7.2	11.0	7.2	unit:
377		5300	3.8	11.0	7.2	11.0	7.2	dBm/
377		5320	2.8	11.0	8.2	11.0	8.2	MHz
377	2C	5500	2.1	11.0	8.9	11.0	8.9	
377		5580	3.7	11.0	7.3	11.0	7.3	
377		5700	2.6	11.0	8.4	11.0	8.4	
377	2C/3	5720	2.6	11.0	8.4	11.0	8.4	
377	3	5745	0.0	30.0	30.0	30.0	30.0	
377		5785	-0.6	30.0	30.6	30.0	30.6	
377		5825	-1.1	30.0	31.1	30.0	31.1	

WLAN ax-Mode; 40 MHz; MCS0; SISO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPSD
377	1	5190	-1.4	11.0	12.4	10.0	9.4	0.6
377		5230	0.9	11.0	10.1	10.0	7.1	2.9
377	2A	5270	0.6	11.0	10.4	11.0	10.4	unit:
377		5310	-1.0	11.0	12.0	11.0	12.0	dBm/
377	2C	5510	-2.6	11.0	13.6	11.0	13.6	MHz
377		5550	0.2	11.0	10.8	11.0	10.8	
377		5670	0.0	11.0	11.0	11.0	11.0	
377	2C/3	5710	-0.6	11.0	11.6	11.0	11.6	
377	3	5755	-3.2	30.0	33.2	30.0	33.2	
377		5795	-3.8	30.0	33.8	30.0	33.8	

WLAN ax-Mode; 80 MHz; MCS0; SISO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPSD
377	1	5210	-2.6	11.0	13.6	10.0	10.6	-0.6
377	2A	5290	-2.1	11.0	13.1	11.0	13.1	unit:
377	2C	5530	-3.3	11.0	14.3	11.0	14.3	dBm/
377	2C/3	5690	-1.0	11.0	12.0	11.0	12.0	
377	3	5775	-1.2	30.0	31.2	30.0	31.2	

WLAN n-Mode; 20 MHz; MCS8; MIMO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPSD
377	1	5180	6.0	11.0	5.0	10.0	2.0	8.0
377		5200	6.5	11.0	4.5	10.0	1.5	8.5
377		5240	6.7	11.0	4.3	10.0	1.3	8.7
377	2A	5260	9.0	11.0	2.0	11.0	2.0	unit:
377		5300	9.0	11.0	2.0	11.0	2.0	dBm/
377		5320	6.0	11.0	5.0	11.0	5.0	MHz
377	2C	5500	5.7	11.0	5.3	11.0	5.3	
377		5580	9.1	11.0	1.9	11.0	1.9	
377		5700	5.2	11.0	5.8	11.0	5.8	
377	3	5745	4.8	30.0	25.2	30.0	25.2	
377		5785	4.2	30.0	25.8	30.0	25.8	
377		5825	4.0	30.0	26.0	30.0	26.0	
374	1	5200	7.1	11.0	3.9	10.0	0.9	9.1
374		5240	7.3	11.0	3.7	10.0	0.7	9.3

WLAN n-Mode; 40 MHz; MCS8; MIMO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPSD
377	1	5190	1.3	11.0	9.7	10.0	6.7	3.3
377		5230	3.5	11.0	7.5	10.0	4.5	5.5
377	2A	5270	4.9	11.0	6.1	11.0	6.1	unit:
377		5310	2.0	11.0	9.0	11.0	9.0	dBm/
377	2C	5510	-0.3	11.0	11.3	11.0	11.3	MHz
377		5550	5.0	11.0	6.0	11.0	6.0	
377		5670	3.7	11.0	7.3	11.0	7.3	
377	3	5755	0.6	30.0	29.4	30.0	29.4	
377		5795	-0.1	30.0	30.1	30.0	30.1	

WLAN ac-Mode; 20 MHz; MCS0; MIMO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPSD
377	1	5180	5.8	11.0	5.2	10.0	2.2	7.8
377		5200	6.5	11.0	4.5	10.0	1.5	8.5
377		5240	6.6	11.0	4.4	10.0	1.4	8.6
377	2A	5260	8.9	11.0	2.1	11.0	2.1	unit:
377		5300	8.9	11.0	2.1	11.0	2.1	dBm/
377		5320	5.9	11.0	5.1	11.0	5.1	MHz
377	2C	5500	5.5	11.0	5.5	11.0	5.5	
377		5580	9.1	11.0	1.9	11.0	1.9	
377		5700	5.2	11.0	5.8	11.0	5.8	
377	2C/3	5720	7.8	11.0	3.2	11.0	3.2	
377	3	5745	4.8	30.0	25.2	30.0	25.2	
377		5785	4.2	30.0	25.8	30.0	25.8	
377		5825	3.9	30.0	26.1	30.0	26.1	

WLAN ac-Mode; 40 MHz; MCS0; MIMO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPSD
377	1	5190	1.5	11.0	9.5	10.0	6.5	3.5
377		5230	3.5	11.0	7.5	10.0	4.5	5.5
377	2A	5270	5.1	11.0	5.9	11.0	5.9	unit:
377		5310	1.1	11.0	9.9	11.0	9.9	dBm/
377	2C	5510	-0.2	11.0	11.2	11.0	11.2	MHz
377		5550	4.8	11.0	6.2	11.0	6.2	
377		5670	3.6	11.0	7.4	11.0	7.4	
377	2C/3	5710	4.1	11.0	6.9	11.0	6.9	
377	3	5755	0.6	30.0	29.4	30.0	29.4	
377		5795	0.2	30.0	29.8	30.0	29.8	

WLAN ac-Mode; 80 MHz; MCS0; SISO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPSD
377	1	5210	-0.1	11.0	11.1	10.0	8.1	1.9
377	2A	5290	-1.0	11.0	12.0	11.0	12.0	unit:
377	2C	5530	-2.0	11.0	13.0	11.0	13.0	dBm/
377	2C/3	5690	2.7	11.0	8.3	11.0	8.3	
377	3	5775	-0.3	30.0	30.3	30.0	30.3	

WLAN ax-Mode; 20 MHz; MCS0; MIMO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPSD
377	1	5180	5.8	11.0	5.2	10.0	2.2	7.8
377		5200	5.5	11.0	5.5	10.0	2.5	7.5
377		5240	5.6	11.0	5.4	10.0	2.4	7.6
377	2A	5260	7.0	11.0	4.0	11.0	4.0	unit:
377		5300	7.1	11.0	3.9	11.0	3.9	dBm/
377		5320	6.0	11.0	5.0	11.0	5.0	MHz
377	2C	5500	5.6	11.0	5.4	11.0	5.4	
377		5580	6.9	11.0	4.1	11.0	4.1	
377		5700	4.8	11.0	6.2	11.0	6.2	
377	2C/3	5710	6.1	11.0	4.9	11.0	4.9	
377	3	5745	2.9	30.0	27.1	30.0	27.1	
377		5785	2.2	30.0	27.8	30.0	27.8	
377		5825	2.2	30.0	27.8	30.0	27.8	

WLAN ax-Mode; 40 MHz; MCS0; MIMO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPSD
377	1	5190	1.0	11.0	10.0	10.0	7.0	3.0
377		5230	2.6	11.0	8.4	10.0	5.4	4.6
377	2A	5270	4.0	11.0	7.0	11.0	7.0	unit:
377		5310	2.0	11.0	9.0	11.0	9.0	dBm/
377	2C	5510	-0.1	11.0	11.1	11.0	11.1	MHz
377		5550	4.1	11.0	6.9	11.0	6.9	
377		5670	3.8	11.0	7.2	11.0	7.2	
377	2C/3	5710	3.3	11.0	7.7	11.0	7.7	
377	3	5755	-0.2	30.0	30.2	30.0	30.2	
377		5795	-0.6	30.0	30.6	30.0	30.6	

WLAN ax-Mode; 80 MHz; MCS0; MIMO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPSD
377	1	5210	-0.5	11.0	11.5	10.0	8.5	1.5
377	2A	5290	-1.0	11.0	12.0	11.0	12.0	unit:
377	2C	5530	-1.0	11.0	12.0	11.0	12.0	dBm/
377	2C/3	5690	2.6	11.0	8.4	11.0	8.4	
377	3	5775	-0.2	30.0	30.2	30.0	30.2	

Remark: [dBm/MHz] is valid for U-NII bands 1/2A/2C and straddle channels, [dBm/500 kHz] is valid for band 3.
Please see next sub-clause for the measurement plot.

OFDMA with one active Resource Unit (worst case OFDMA):

WLAN ax-Mode; 20 MHz; MCS0; MIMO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPSD	
377	1	5180	6.6	N/A	N/A	10.0	1.4	8.6	1)
1)377		5200	6.8	N/A	N/A	10.0	1.2	8.8	1)
377		5240	7.1	N/A	N/A	10.0	0.9	9.1	1)
377	1	5180	10.1	11.0	0.9	N/A	N/A	N/A	2)
377		5200	10.4	11.0	0.6	N/A	N/A	N/A	2)
377		5240	10.6	11.0	0.4	N/A	N/A	N/A	2)
377	2A	5260	10.0	11.0	1.0	11.0	1.0	unit:	
377		5300	10.1	11.0	0.9	11.0	0.9	dBm/	
377		5320	10.0	11.0	1.0	11.0	1.0	MHz	
377	2C	5500	9.5	11.0	1.5	11.0	1.5		
377		5580	10.0	11.0	1.0	11.0	1.0		
377		5700	9.3	11.0	1.7	11.0	1.7		
377	2C/3	5710	10.1	11.0	0.9	11.0	0.9		
377	3	5745	6.6	30.0	23.4	30.0	23.4		
377		5785	6.9	30.0	23.1	30.0	23.1		
377		5825	6.6	30.0	23.4	30.0	23.4		
374	1	5180	6.0	N/A	N/A	10.0	2.0	8.0	1)
374		5200	6.4	N/A	N/A	10.0	1.6	8.4	1)
374		5240	6.7	N/A	N/A	10.0	1.3	8.7	1)
374	1	5180	6.0	11.0	5.0	N/A	N/A	N/A	2)
374		5200	6.4	11.0	4.6	N/A	N/A	N/A	2)
374		5240	6.7	11.0	4.3	N/A	N/A	N/A	2)
374	2A	5260	10.3	11.0	0.7	11.0	0.7	unit:	
374		5300	10.4	11.0	0.6	11.0	0.6	dBm/	
374		5320	10.3	11.0	0.7	11.0	0.7	MHz	
374	2C	5500	9.7	11.0	1.3	11.0	1.3		
374		5580	10.4	11.0	0.6	11.0	0.6		
374		5700	9.7	11.0	1.3	11.0	1.3		
374	2C/3	5710	10.0	11.0	1.0	11.0	1.0		
374	3	5745	6.7	30.0	23.3	30.0	23.3		
374		5785	7.1	30.0	22.9	30.0	22.9		
374		5825	6.5	30.0	23.5	30.0	23.5		

WLAN ax-Mode; 40 MHz; MCS0; MIMO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPD	
377	1	5190	6.7	N/A	N/A	10.0	1.3	8.7	1)
377		5230	7.4	N/A	N/A	10.0	0.6	9.4	1)
377	1	5190	9.3	11.0	1.7	N/A	N/A	N/A	2)
377		5230	9.9	11.0	1.1	N/A	N/A	N/A	2)
377	2A	5270	10.4	11.0	0.6	11.0	0.6	unit:	
377		5310	10.4	11.0	0.6	11.0	0.6	dBm/	
377	2C	5510	9.9	11.0	1.1	11.0	1.1	MHz	3)
377		5550	10.1	11.0	0.9	11.0	0.9		
377		5670	10.0	11.0	1.0	11.0	1.0		
377	2C/3	5710	9.5	11.0	1.5	11.0	1.5		
377	3	5755	6.7	30.0	23.3	30.0	23.3		
377		5795	7.0	30.0	23.0	30.0	23.0		
374	1	5190	6.5	N/A	N/A	1.5	7.0	8.5	1)
374		5230	7.0	N/A	N/A	1.0	5.4	9.0	1)
374	1	5190	9.5	11.0	1.5	N/A	N/A	N/A	2)
374		5230	10.1	11.0	0.9	N/A	N/A	N/A	2)
374	2A	5270	10.6	11.0	11.0	0.4	7.0	unit:	
374		5310	10.3	11.0	11.0	0.7	9.0	dBm/	
374	2C	5510	10.1	11.0	11.0	0.9	11.1	MHz	3)
374		5550	10.5	11.0	11.0	0.5	6.9		
374		5670	10.7	11.0	11.0	0.3	7.2		
374	2C/3	5710	10.1	11.0	11.0	0.9	7.7		
374	3	5755	7.3	30.0	30.0	22.7	30.2		
374		5795	7.5	30.0	30.0	22.5	30.6		

WLAN ax-Mode; 80 MHz; MCS0; MIMO

Variant	U-NII-Subband	Freq. [MHz]	MPSD [dBm/ MHz] or [dBm/500kHz]	FCC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]	IC EIRP MPD	
377	1	5210	7.6	N/A	N/A	10.0	0.4	9.6	1)
377	1	5210	10.2	11.0	0.8	N/A	N/A	N/A	2)
377	2A	5290	10.8	11.0	0.2	11.0	0.2	unit:	
377	2C	5530	10.4	11.0	0.6	11.0	0.6	dBm/	3)
377	2C/3	5690	9.8	11.0	1.2	11.0	1.2		
377	3	5775	7.6	30.0	22.4	30.0	22.4		
374	1	5210	7.2	N/A	N/A	10.0	0.8	9.2	1)
374	1	5210	10.3	11.0	0.7	N/A	N/A	N/A	2)
374	2A	5290	6.5	11.0	4.5	11.0	4.5	unit:	
374	2C	5530	10.6	11.0	0.4	11.0	0.4	dBm/	3)
374	2C/3	5690	10.2	11.0	0.8	11.0	0.8		
374	3	5775	7.7	30.0	22.3	30.0	22.3		

Remark: [dBm/MHz] is valid for U-NII bands 1/2A/2C and straddle channels, [dBm/500 kHz] is valid for band 3. Measurement was performed with active RU unit 5 (20 MHz BW), 6 (40 MHz BW) and 25 (80 MHz BW), which proved worst case in preliminary measurement.

- 1) Results for ISSED power setting.
- 2) Results for FCC power setting.
- 3) Tested at 9 dBm and not repeated for final setting of 7 dBm, since it is worse case. Please see next sub-clause for the measurement plot.

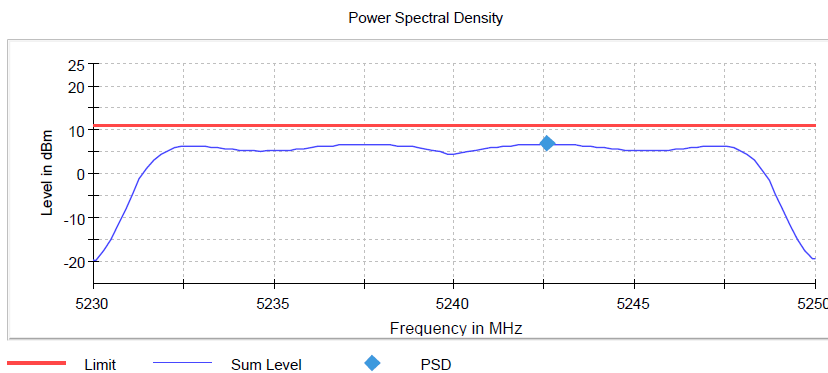
5.6.4 MEASUREMENT PLOT (EXAMPLE PLOT, SHOWING WORST CASE, IF APPLICABLE)

Radio Technology = WLAN a, Operating Frequency = high, Subband = U-NII-1 (S01_377_AE01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5240.000000	5242.574257	6.736	11.0	PASS

Ports

Port	State
1	used



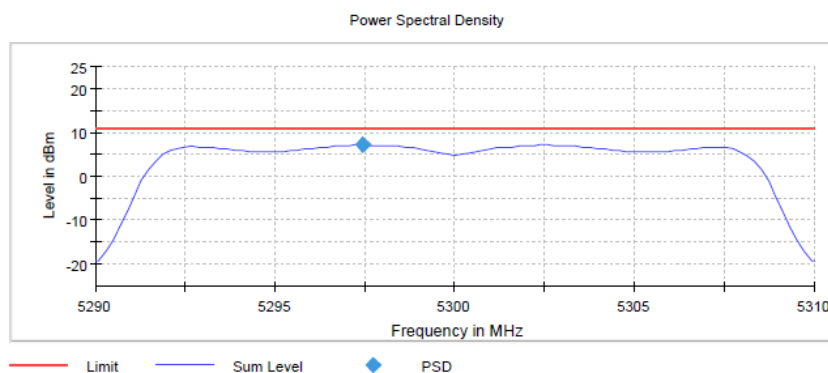
Setting	Instrument Value
Start Frequency	5.23000 GHz
Stop Frequency	5.25000 GHz
Span	20.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	10.000 dBm
Attenuation	20.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.00 dB

Radio Technology = WLAN a, Operating Frequency = mid, Subband = U-NII-2A (S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5300.000000	5297.425743	7.045	11.0	PASS

Ports

Port	State
1	used



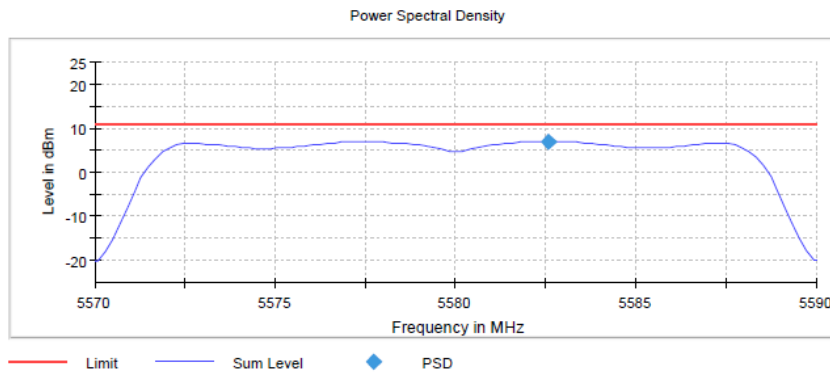
Setting	Instrument Value
Start Frequency	5.29000 GHz
Stop Frequency	5.31000 GHz
Span	20.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.00 dB

Radio Technology = WLAN a, Operating Frequency = mid, Subband = U-NII-2C
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5580.000000	5582.574257	7.024	11.0	PASS

Ports

Port	State
1	used



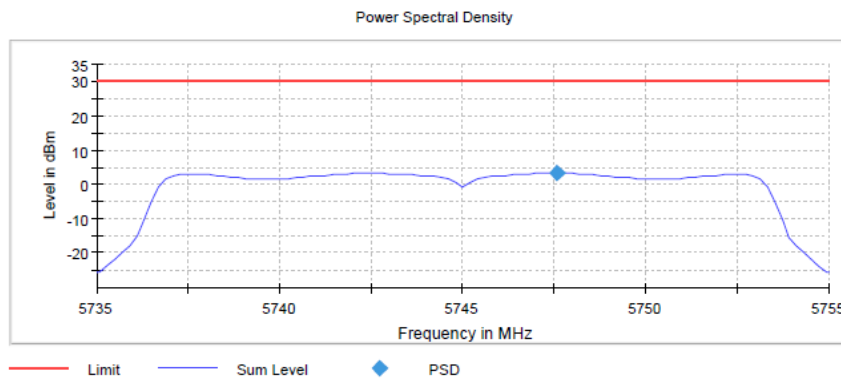
Setting	Instrument Value
Start Frequency	5.57000 GHz
Stop Frequency	5.59000 GHz
Span	20.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.00 dB

Radio Technology = WLAN a, Operating Frequency = low, Subband = U-NII-3
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5745.000000	5747.574257	3.281	30.0	PASS

Ports

Port	State
1	used



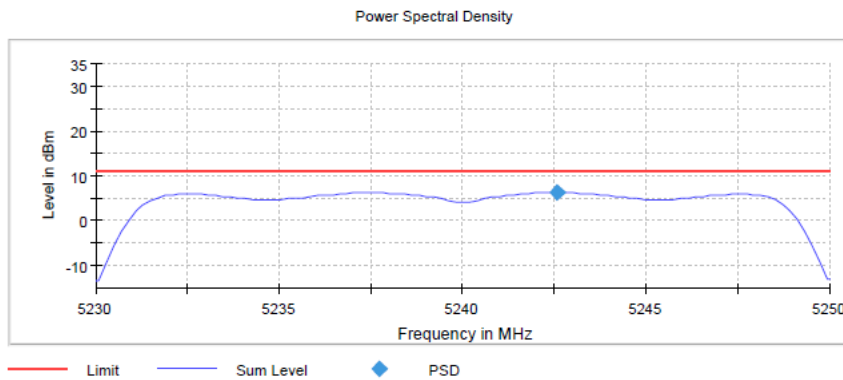
Setting	Instrument Value
Start Frequency	5.73500 GHz
Stop Frequency	5.75500 GHz
Span	20.000 MHz
RBW	500.000 kHz
VBW	2.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.01 dB

Radio Technology = WLAN n 20 MHz, Operating Frequency = high, Subband = U-NII-1
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5240.000000	5242.574257	6.228	11.0	PASS

Ports

Port	State
1	used



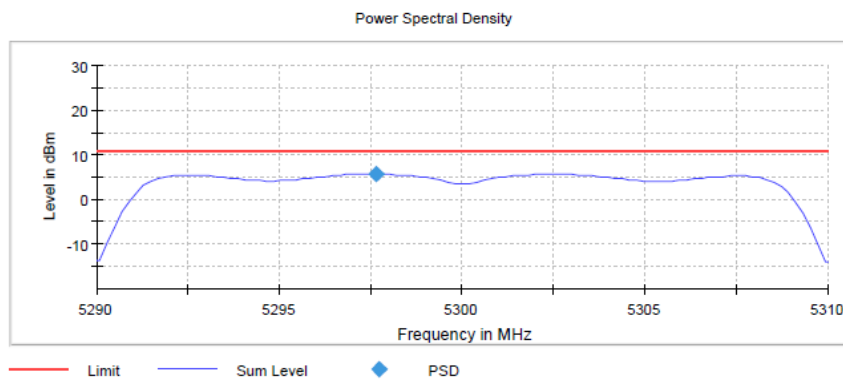
Setting	Instrument Value
Start Frequency	5.23000 GHz
Stop Frequency	5.25000 GHz
Span	20.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.00 dB

Radio Technology = WLAN n 20 MHz, Operating Frequency = mid, Subband = U-NII-2A
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5300.000000	5297.623762	5.635	11.0	PASS

Ports

Port	State
1	used



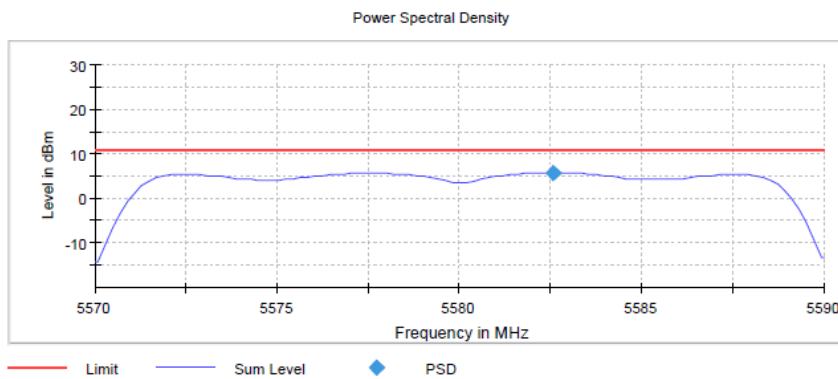
Setting	Instrument Value
Start Frequency	5.29000 GHz
Stop Frequency	5.31000 GHz
Span	20.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.01 dB

Radio Technology = WLAN n 20 MHz, Operating Frequency = mid, Subband = U-NII-2C
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5580.000000	5582.574257	5.745	11.0	PASS

Ports

Port	State
1	used



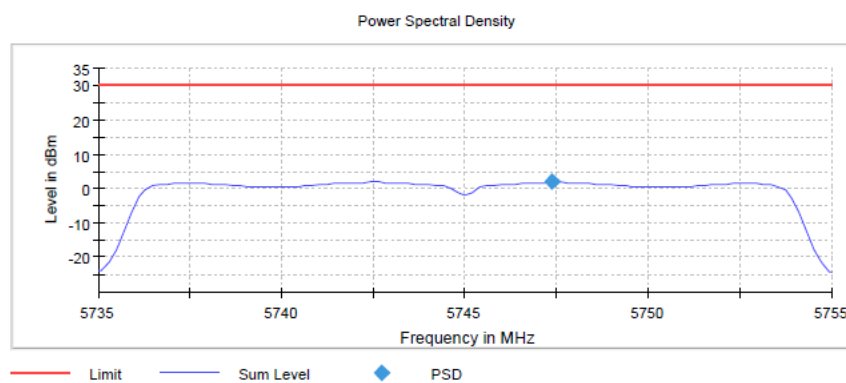
Setting	Instrument Value
Start Frequency	5.57000 GHz
Stop Frequency	5.59000 GHz
Span	20.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.00 dB

Radio Technology = WLAN n 20 MHz, Operating Frequency = low, Subband = U-NII-3
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5745.000000	5747.376238	1.933	30.0	PASS

Ports

Port	State
1	used



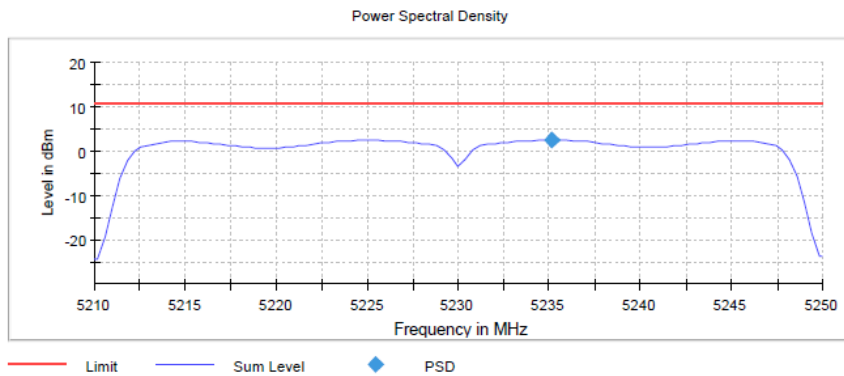
Setting	Instrument Value
Start Frequency	5.73500 GHz
Stop Frequency	5.75500 GHz
Span	20.000 MHz
RBW	500.000 kHz
VBW	2.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.00 dB

Radio Technology = WLAN n 40 MHz, Operating Frequency = high, Subband = U-NII-1
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5230.000000	5235.148515	2.490	11.0	PASS

Ports

Port	State
1	used



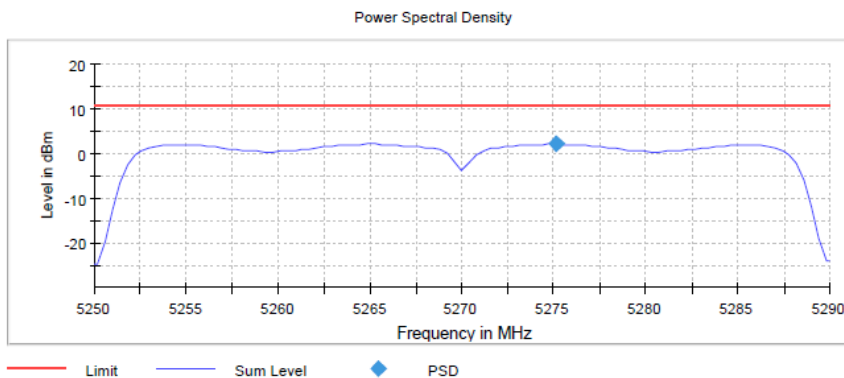
Setting	Instrument Value
Start Frequency	5.21000 GHz
Stop Frequency	5.25000 GHz
Span	40.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.00 dB

Radio Technology = WLAN n 40 MHz, Operating Frequency = low, Subband = U-NII-2A
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5270.000000	5275.148515	2.058	11.0	PASS

Ports

Port	State
1	used



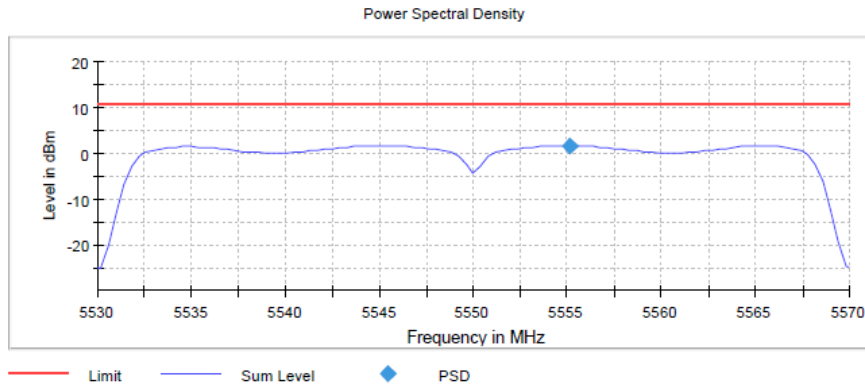
Setting	Instrument Value
Start Frequency	5.25000 GHz
Stop Frequency	5.29000 GHz
Span	40.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.02 dB

Radio Technology = WLAN n 40 MHz, Operating Frequency = mid, Subband = U-NII-2C
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5550.000000	5555.148515	1.671	11.0	PASS

Ports

Port	State
1	used



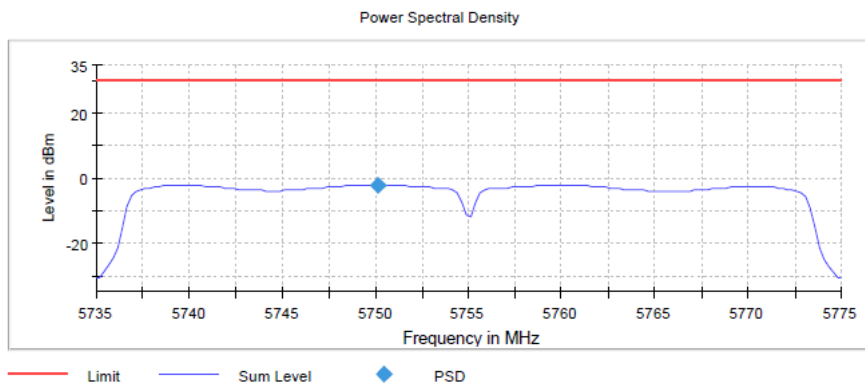
Setting	Instrument Value
Start Frequency	5.53000 GHz
Stop Frequency	5.57000 GHz
Span	40.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
StableMode	Trace
StableValue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.00 dB

Radio Technology = WLAN n 40 MHz, Operating Frequency = low, Subband = U-NII-3
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5755.000000	5750.125000	-2.070	30.0	PASS

Ports

Port	State
1	used



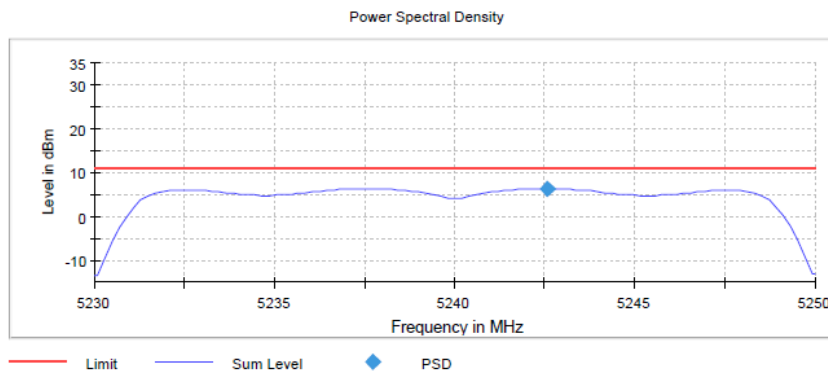
Setting	Instrument Value
Start Frequency	5.73500 GHz
Stop Frequency	5.77500 GHz
Span	40.000 MHz
RBW	500.000 kHz
VBW	2.000 MHz
SweepPoints	160
SweepTime	1.600 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	38
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
StableMode	Trace
StableValue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.03 dB

Radio Technology = WLAN ac 20 MHz, Operating Frequency = high, Subband = U-NII-1
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5240.000000	5242.574257	6.330	11.0	PASS

Ports

Port	State
1	used



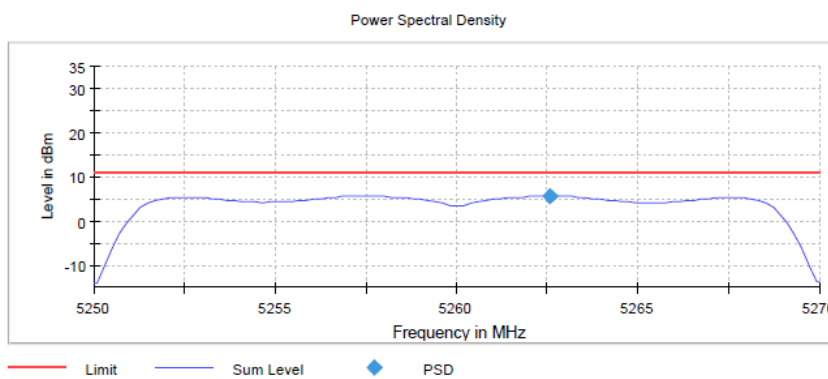
Setting	Instrument Value
Start Frequency	5.23000 GHz
Stop Frequency	5.25000 GHz
Span	20.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.00 dB

Radio Technology = WLAN ac 20 MHz, Operating Frequency = low, Subband = U-NII-2A
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5260.000000	5262.574257	5.666	11.0	PASS

Ports

Port	State
1	used



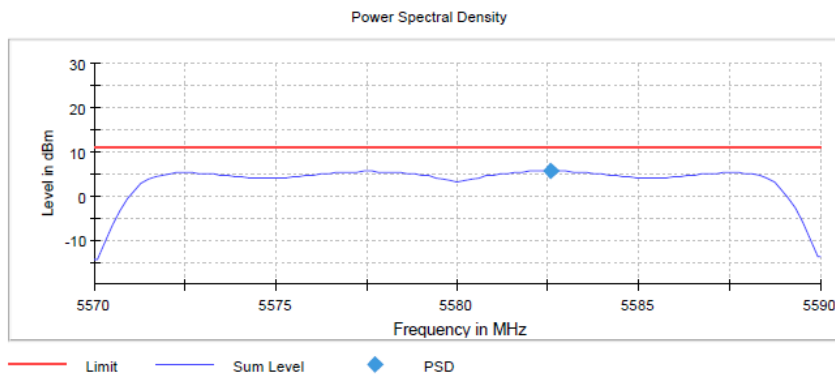
Setting	Instrument Value
Start Frequency	5.25000 GHz
Stop Frequency	5.27000 GHz
Span	20.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.02 dB

Radio Technology = WLAN ac 20 MHz, Operating Frequency = mid, Subband = U-NII-2C
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5580.000000	5582.574257	5.598	11.0	PASS

Ports

Port	State
1	used



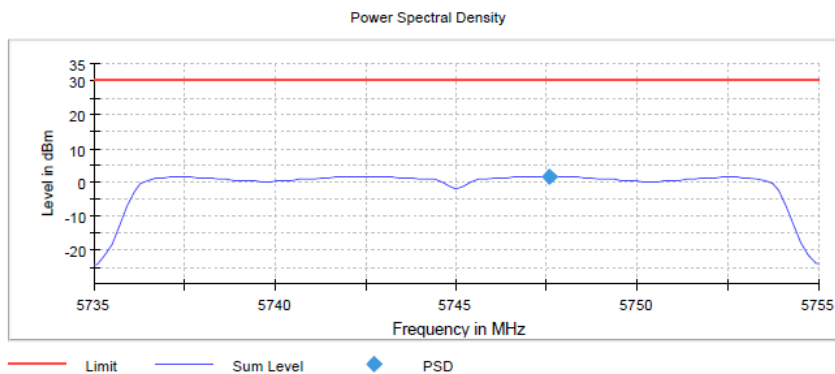
Setting	Instrument Value
Start Frequency	5.57000 GHz
Stop Frequency	5.59000 GHz
Span	20.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
Sweeptime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.01 dB

Radio Technology = WLAN ac 20 MHz, Operating Frequency = low, Subband = U-NII-3
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5745.000000	5747.574257	1.856	30.0	PASS

Ports

Port	State
1	used



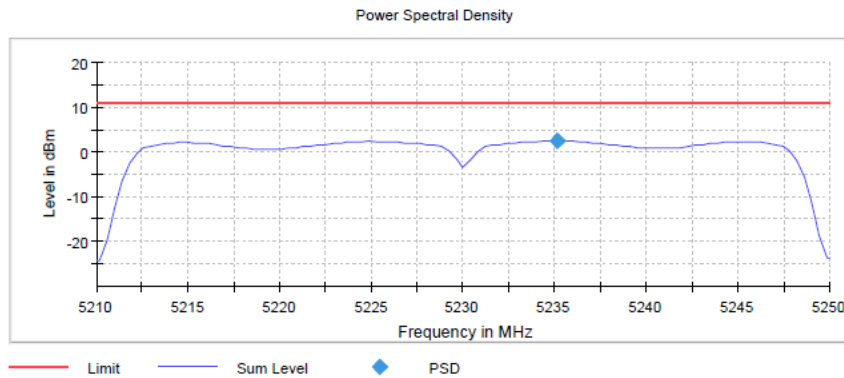
Setting	Instrument Value
Start Frequency	5.73500 GHz
Stop Frequency	5.75500 GHz
Span	20.000 MHz
RBW	500.000 kHz
VBW	2.000 MHz
SweepPoints	101
Sweeptime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.02 dB

Radio Technology = WLAN ac 40 MHz, Operating Frequency = high, Subband = U-NII-1
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5230.000000	5235.148515	2.430	11.0	PASS

Ports

Port	State
1	used



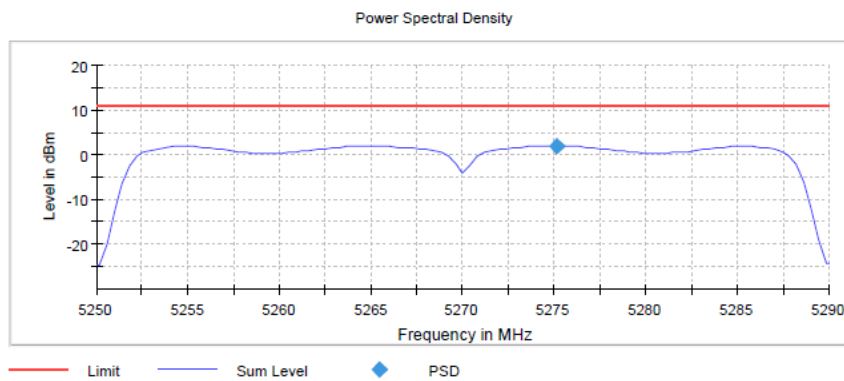
Setting	Instrument Value
Start Frequency	5.21000 GHz
Stop Frequency	5.25000 GHz
Span	40.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.02 dB

Radio Technology = WLAN ac 40 MHz, Operating Frequency = low, Subband = U-NII-2A
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5270.000000	5275.148515	1.966	11.0	PASS

Ports

Port	State
1	used



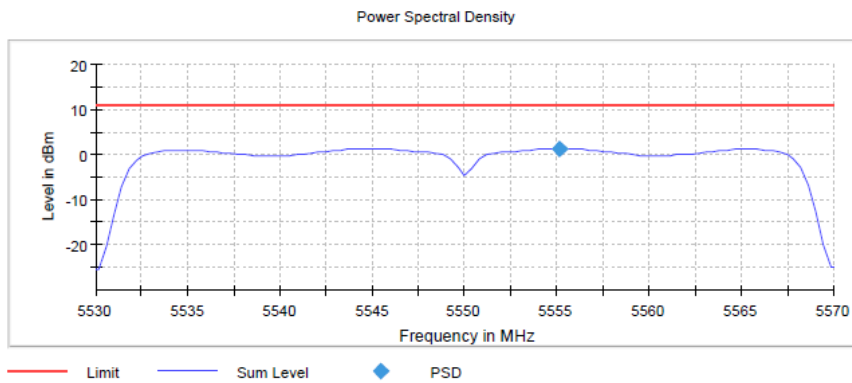
Setting	Instrument Value
Start Frequency	5.25000 GHz
Stop Frequency	5.29000 GHz
Span	40.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.00 dB

Radio Technology = WLAN ac 40 MHz, Operating Frequency = mid, Subband = U-NII-2C
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5550.000000	5555.148515	1.277	11.0	PASS

Ports

Port	State
1	used



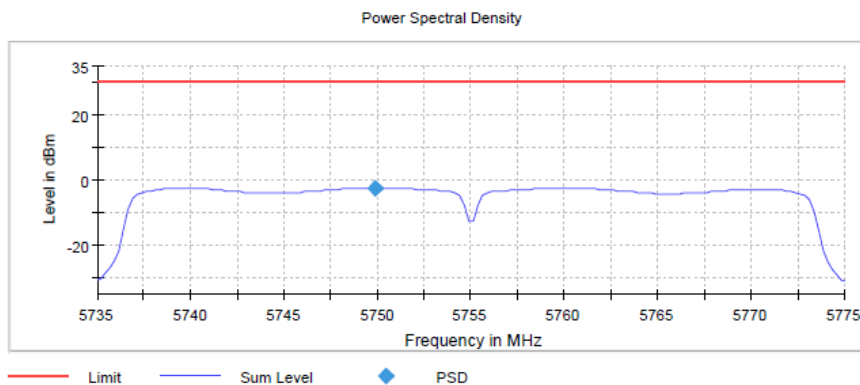
Setting	Instrument Value
Start Frequency	5.53000 GHz
Stop Frequency	5.57000 GHz
Span	40.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.00 dB

Radio Technology = WLAN ac 40 MHz, Operating Frequency = low, Subband = U-NII-3
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5755.000000	5749.875000	-2.422	30.0	PASS

Ports

Port	State
1	used



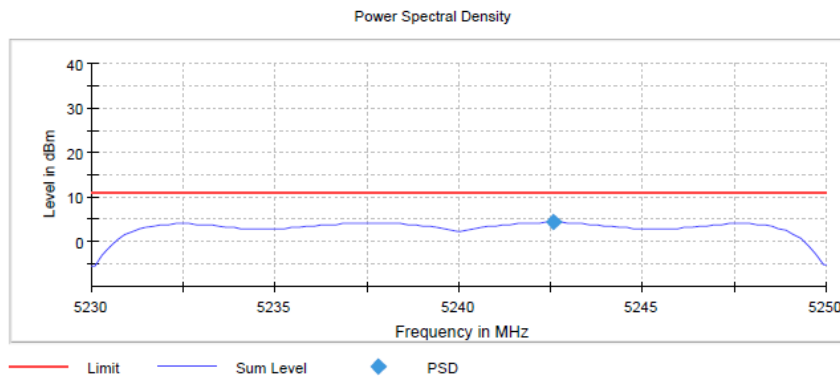
Setting	Instrument Value
Start Frequency	5.73500 GHz
Stop Frequency	5.77500 GHz
Span	40.000 MHz
RBW	500.000 kHz
VBW	2.000 MHz
SweepPoints	160
SweepTime	1.600 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	38
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.01 dB

Radio Technology = WLAN ax 20 MHz, Operating Frequency = high, Subband = U-NII-1
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5240.000000	5242.574257	4.267	11.0	PASS

Ports

Port	State
1	used



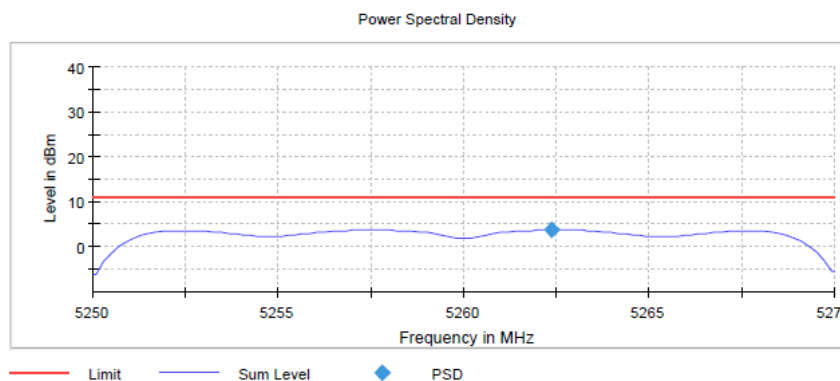
Setting	Instrument Value
Start Frequency	5.23000 GHz
Stop Frequency	5.25000 GHz
Span	20.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.00 dB

Radio Technology = WLAN ax 20 MHz, Operating Frequency = low, Subband = U-NII-2A
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5260.000000	5262.376238	3.758	11.0	PASS

Ports

Port	State
1	used



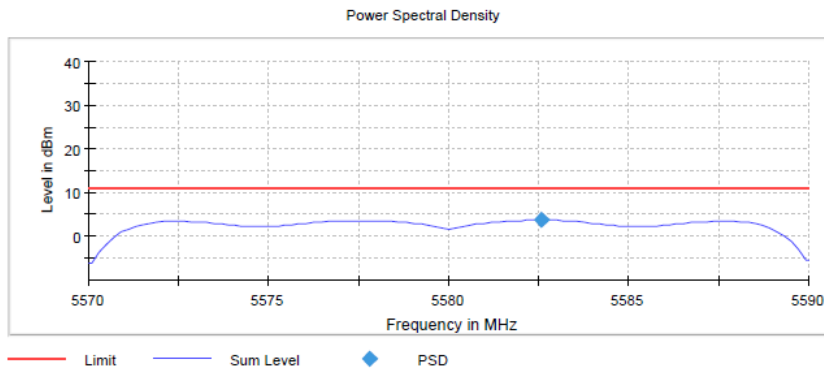
Setting	Instrument Value
Start Frequency	5.25000 GHz
Stop Frequency	5.27000 GHz
Span	20.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.00 dB

Radio Technology = WLAN ax 20 MHz, Operating Frequency = mid, Subband = U-NII-2C
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5580.000000	5582.574257	3.700	11.0	PASS

Ports

Port	State
1	used



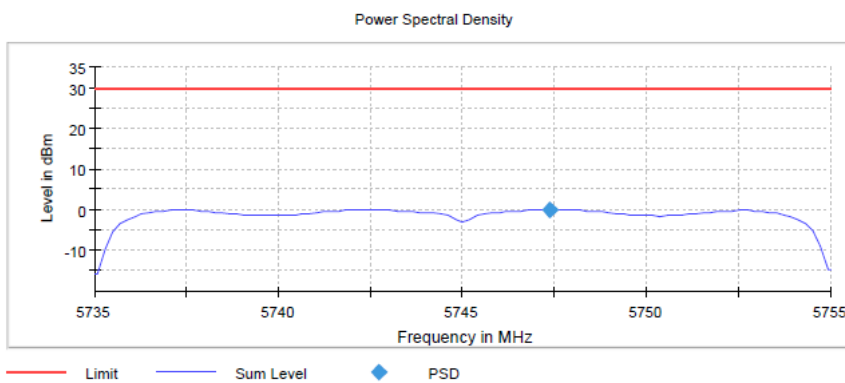
Setting	Instrument Value
Start Frequency	5.57000 GHz
Stop Frequency	5.59000 GHz
Span	20.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.00 dB

Radio Technology = WLAN ax 20 MHz, Operating Frequency = low, Subband = U-NII-3
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5745.000000	5747.376238	0.044	30.0	PASS

Ports

Port	State
1	used



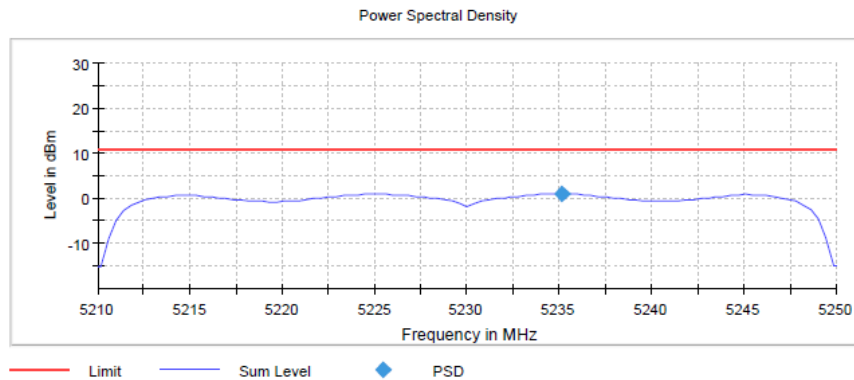
Setting	Instrument Value
Start Frequency	5.73500 GHz
Stop Frequency	5.75500 GHz
Span	20.000 MHz
RBW	500.000 kHz
VBW	2.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.01 dB

Radio Technology = WLAN ax 40 MHz, Operating Frequency = high, Subband = U-NII-1
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5230.000000	5235.148515	0.905	11.0	PASS

Ports

Port	State
1	used



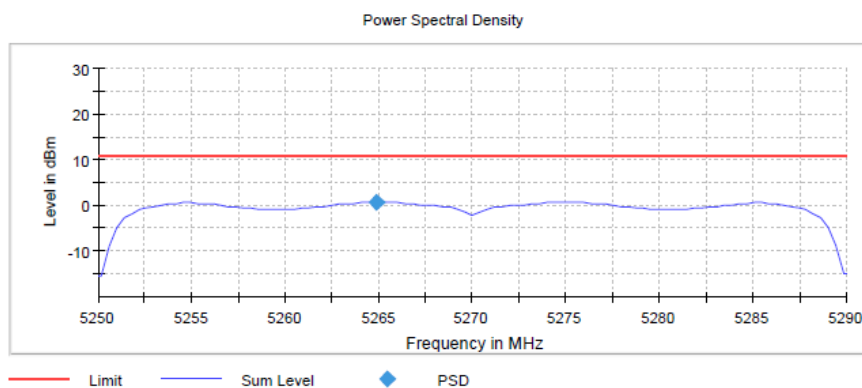
Setting	Instrument Value
Start Frequency	5.21000 GHz
Stop Frequency	5.25000 GHz
Span	40.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.06 dB

Radio Technology = WLAN ax 40 MHz, Operating Frequency = low, Subband = U-NII-2A
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5270.000000	5264.851485	0.613	11.0	PASS

Ports

Port	State
1	used



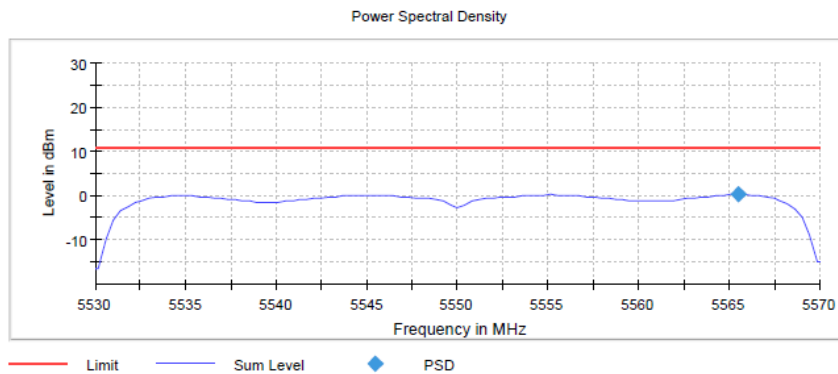
Setting	Instrument Value
Start Frequency	5.25000 GHz
Stop Frequency	5.29000 GHz
Span	40.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.01 dB

Radio Technology = WLAN ax 40 MHz, Operating Frequency = mid, Subband = U-NII-2C
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5550.000000	5565.445545	0.207	11.0	PASS

Ports

Port	State
1	used



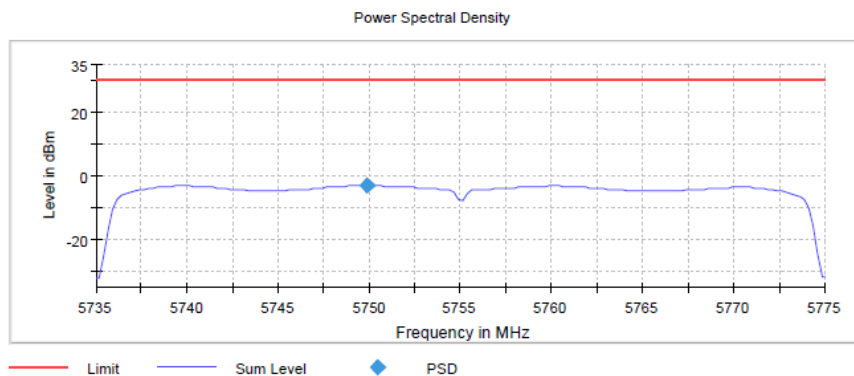
Setting	Instrument Value
Start Frequency	5.53000 GHz
Stop Frequency	5.57000 GHz
Span	40.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.00 dB

Radio Technology = WLAN ax 40 MHz, Operating Frequency = low, Subband = U-NII-3
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5755.000000	5749.875000	-3.154	30.0	PASS

Ports

Port	State
1	used



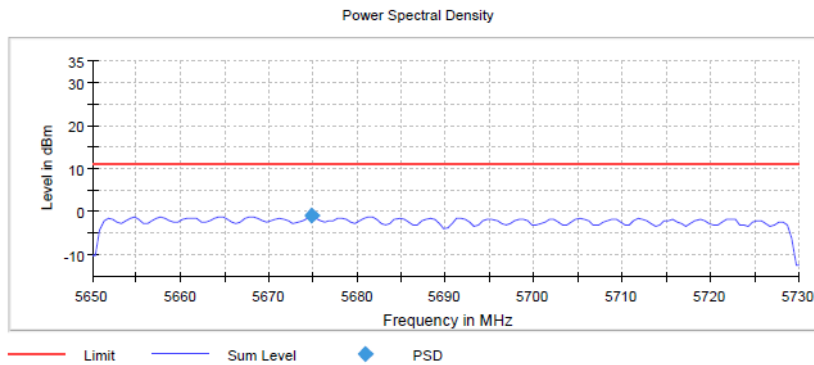
Setting	Instrument Value
Start Frequency	5.73500 GHz
Stop Frequency	5.77500 GHz
Span	40.000 MHz
RBW	500.000 kHz
VBW	2.000 MHz
SweepPoints	160
SweepTime	1.600 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	38
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.00 dB

Radio Technology = WLAN ax 80 MHz, Operating Frequency = high, Subband = U-NII-2C
(S01_377_AA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5690.000000	5674.750000	-1.044	11.0	PASS

Ports

Port	State
1	used



Setting	Instrument Value
Start Frequency	5.65000 GHz
Stop Frequency	5.73000 GHz
Span	80.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	160
SweepTime	3.200 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
Sweep/Count	18751
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max 15
Stable	3 / 3
Max Stable Difference	0.00 dB

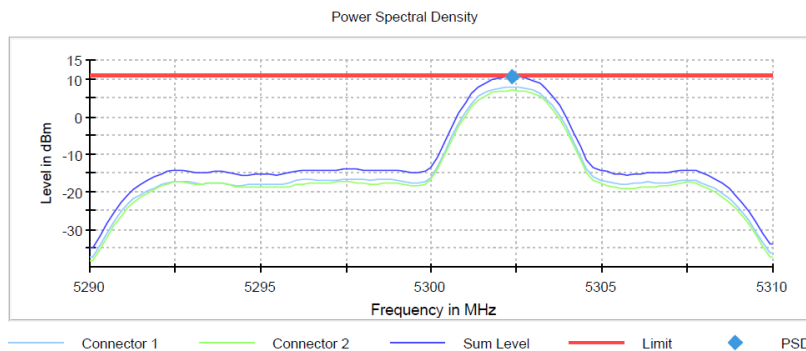
OFDMA with one active Resource Unit (worst case OFDMA):

Radio Technology = WLAN ax 20 MHz, Operating Frequency = mid, Subband = U-NII-2A, RU 5 (S01_374_BA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5300.000000	5302.376238	10.423	11.0	PASS

Ports

Port	State
1	used
2	used



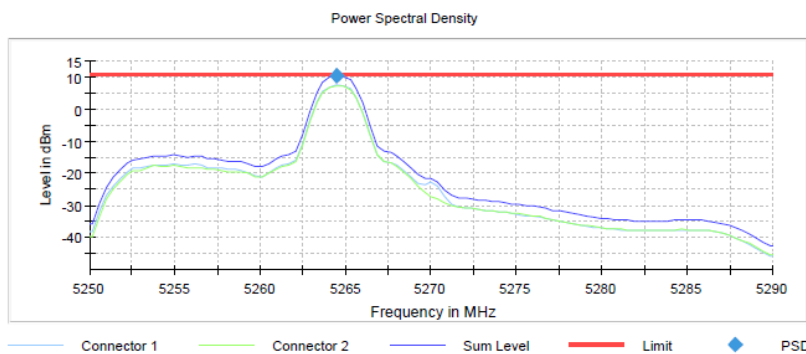
Setting	Instrument Value
Start Frequency	5.29000 GHz
Stop Frequency	5.31000 GHz
Span	20.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.03 dB

Radio Technology = WLAN ax 40 MHz, Operating Frequency = low, Subband = U-NII-2A, RU 6 (S01_374_BA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5270.000000	5264.455446	10.406	11.0	PASS

Ports

Port	State
1	used
2	used



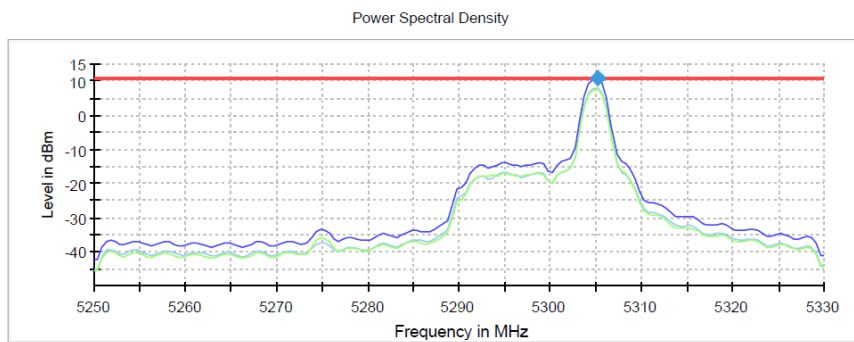
Setting	Instrument Value
Start Frequency	5.25000 GHz
Stop Frequency	5.29000 GHz
Span	40.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	101
SweepTime	1.010 s
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	60
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.04 dB

Radio Technology = WLAN ax 40 MHz, Operating Frequency = mid, Subband = U-NII-2A,
RU 25
(S01_374_BA01)

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5290.000000	5305.250000	10.769	11.0	PASS

Ports

Port	State
1	used
2	used



Connector 1 Connector 2 Sum Level Limit PSD

Setting	Instrument Value
Start Frequency	5.25000 GHz
Stop Frequency	5.33000 GHz
Span	80.000 MHz
RBW	1.000 MHz
VBW	3.000 MHz
SweepPoints	160
SweepTime	218.000 ms
Reference Level	0.000 dBm
Attenuation	10.000 dB
Detector	RMS
SweepCount	276
Filter	3 dB
Trace Mode	Max Hold
SweepType	Sweep
Preamplifier	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 15
Stable	3 / 3
Max Stable Difference	0.00 dB

5.6.5 TEST EQUIPMENT USED

- R&S TS8997

5.7 UNDESIRABLE EMISSIONS; GENERAL FIELD STRENGTH LIMITS

Standard **FCC Part 15 Subpart E**

The test was performed according to:
ANSI C63.10

5.7.1 TEST DESCRIPTION

Radiated Measurement with 50 Ohm termination at antenna ports

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:

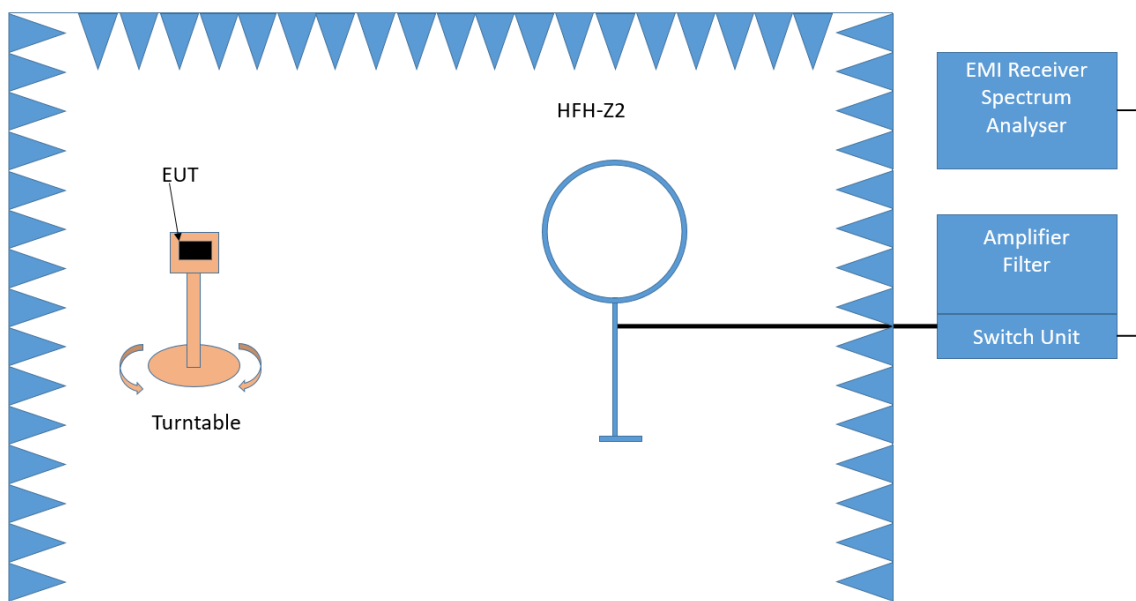
- < 30 MHz: Chapter 6.4
- 30 MHz – 1 GHz: Chapter 6.5
- > 1 GHz: Chapter 6.6 (procedure according 6.6.5 used)

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)

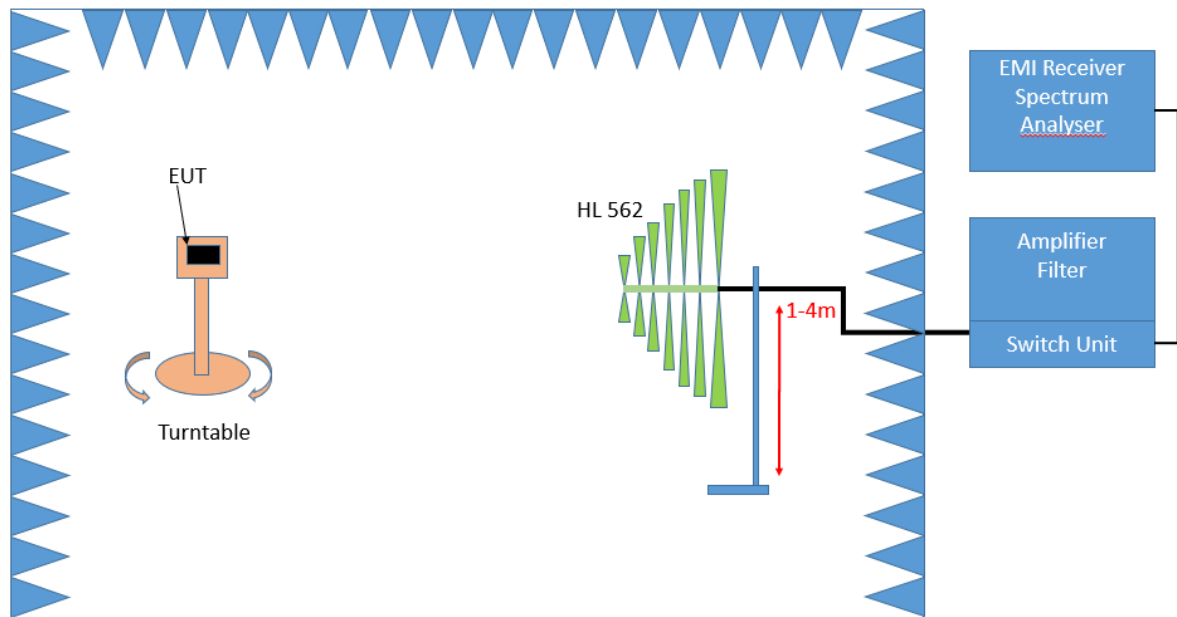
Intention of this step is, to determine the radiated EMI-profile of the EUT. Afterwards the relevant emissions for the final measurement are identified.

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

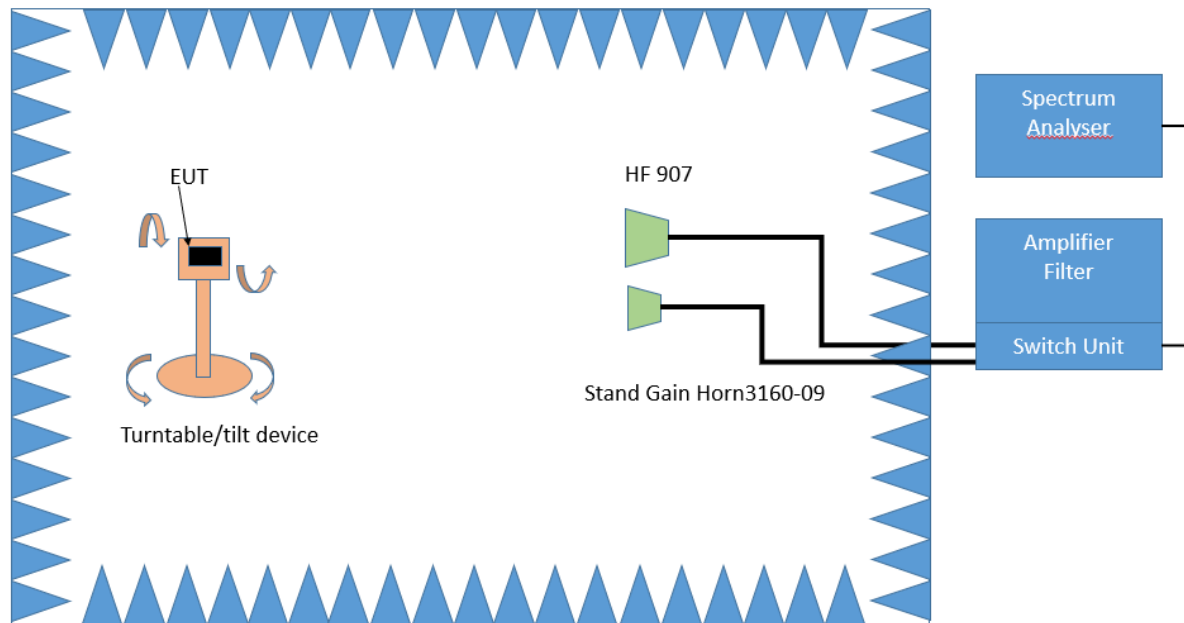
After the measurement a plot will be generated which contains a diagram with the results of the preliminary scan and a chart with the frequencies and values of the results of the final measurement.

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:

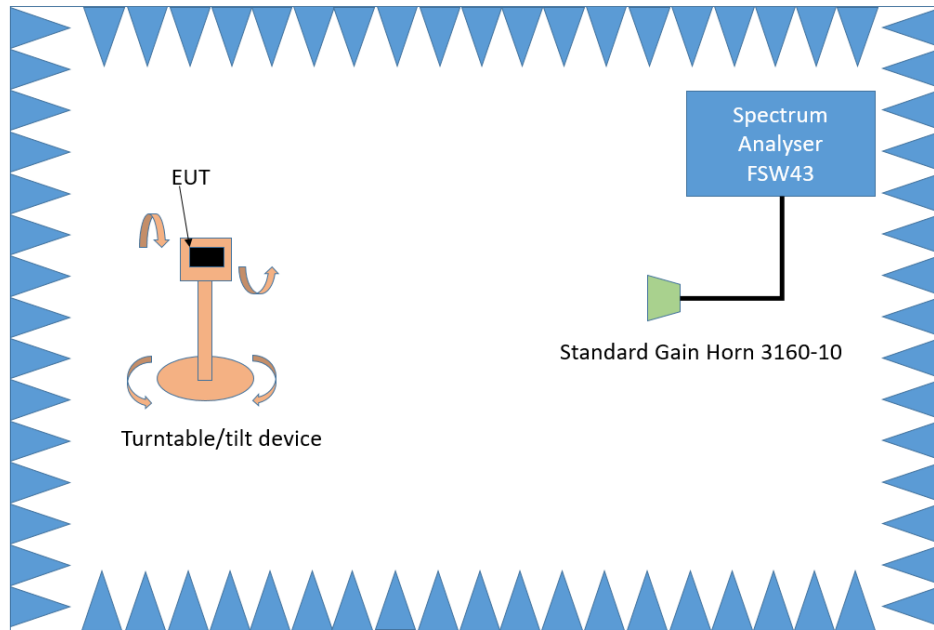
Spectrum analyser settings for step 3:

- 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

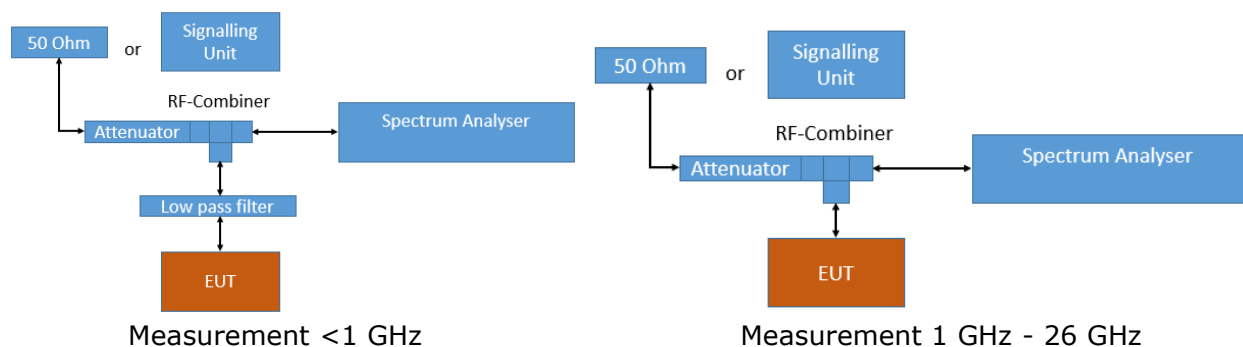


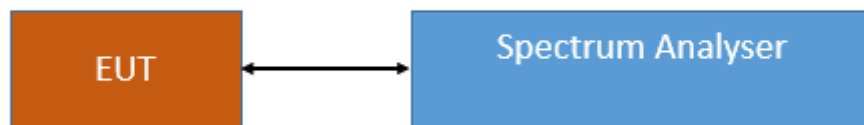
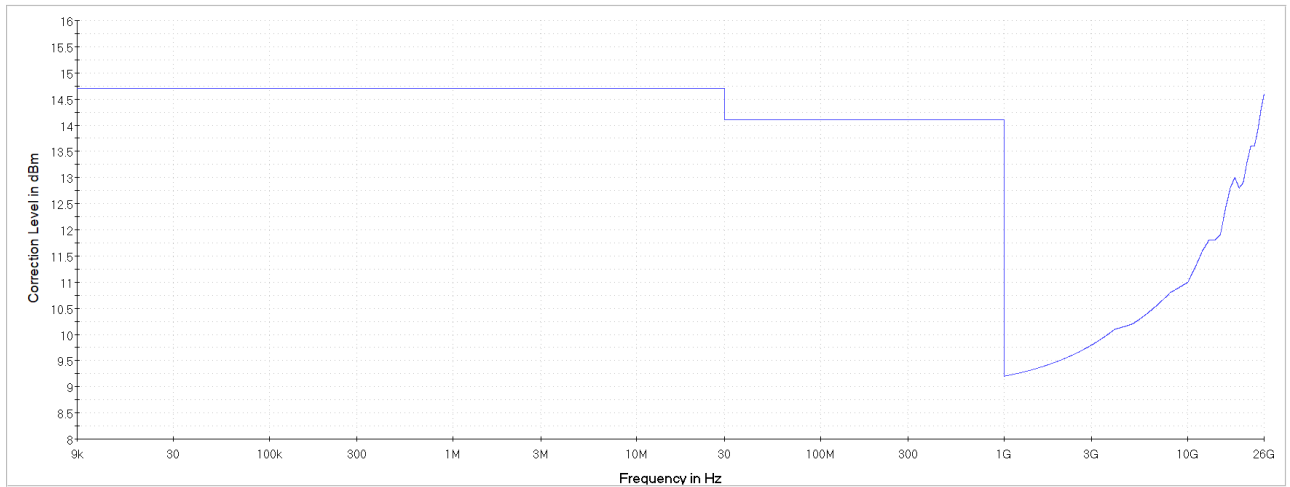
Test Setup; Spurious Emission Radiated (FAC), 26.5 – 40 GHz

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 26 GHz - 40 GHz

Analyser settings:

- Frequency range: 0.009 – 30 MHz
 - Resolution Bandwidth (RBW): 10 kHz
 - Video Bandwidth (VBW): 30 kHz
 - Trace: Maxhold
 - Sweeps: till stable
 - Sweep Time: coupled
 - Detector: Peak
-
- Frequency range: 30 – 1000 MHz
 - Resolution Bandwidth (RBW): 100 kHz
 - Video Bandwidth (VBW): 300 kHz
 - Trace: Maxhold
 - Sweeps: till stable
 - 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: 500
 - 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.

FCC Part 15 Subpart E, §15.407 (b) (5)
 For transmitters operating within the 5.925–7.125 GHz band:

Limit: -27 dBm/MHz EIRP outside of the band 5.925-7.125 GHz.

FCC Part 15 Subpart E, §15.407 (b) (6)

For transmitters operating within the 5.925-7.125 GHz bands:

Power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center. At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression, and at frequencies between one and one- and one-half times an unlicensed device's channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression. Emissions removed from the channel center by more than one- and one-half times the channel bandwidth must be suppressed by at least 40 dB.

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:

- $\text{Limit (dB}\mu\text{V/m)} = 20 \log (\text{Limit } (\mu\text{V/m})/1\mu\text{V/m})$
- $\text{Limit (dB}\mu\text{V/m)} = \text{EIRP [dBm]} - 20 \log (d [\text{m}]) + 104.8$

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: 24–30 °C
 Air Pressure: 990–1026 hPa
 Humidity: 30–40 %
 WLAN a-Mode; 20 MHz; 6 Mbit/s
 Applied duty cycle correction (AV): 0 dB

Variant / Measurement Method	Ch. Center Freq. [MHz]	Spurious Freq. [MHz]	Spurious Level [dBμV/m]	Detector	RBW [kHz]	Limit [dBμV/m]	Margin [dB]	Limit Type
377 / Radiated	5180	10359.4	58.4	PEAK	1000	68.2	9.8	UE
377 / Radiated	5180	20719.9	58.5	PEAK	1000	74.0	15.5	RB
377 / Radiated	5180	20719.9	53.7	AV	1000	54.0	0.3	RB
377 / Radiated	5200	10399.9	61.1	PEAK	1000	68.2	7.1	UE
377 / Radiated	5200	20800.0	60.0	PEAK	1000	74.0	14.0	RB
377 / Radiated	5200	20800.0	53.6	AV	1000	54.0	0.4	RB
377 / Radiated	5240	10480.9	59.8	PEAK	1000	68.2	8.4	UE
377 / Radiated	5240	20960.0	60.9	PEAK	1000	74.0	13.1	RB
377 / Radiated	5240	20960.0	53.0	AV	1000	54.0	1.0	RB
377 / Radiated	5260	10520.6	61.0	PEAK	1000	68.2	7.2	UE
377 / Radiated	5260	21040.0	60.7	PEAK	1000	74.0	13.3	RB
377 / Radiated	5260	21040.0	52.9	AV	1000	54.0	1.1	RB
377 / Radiated	5300	10600.3	61.9	PEAK	1000	74.0	12.1	RB
377 / Radiated	5300	10600.3	47.8	AV	1000	54.0	6.2	RB
377 / Radiated	5300	21200.1	59.4	PEAK	1000	74.0	14.6	RB
377 / Radiated	5300	21200.1	52.2	AV	1000	54.0	1.8	RB
377 / Radiated	5320	10639.7	59.7	PEAK	1000	74.0	14.3	RB
377 / Radiated	5320	10639.7	46.4	AV	1000	54.0	7.6	RB
377 / Radiated	5320	21280.0	57.3	PEAK	1000	74.0	16.7	RB
377 / Radiated	5320	21280.0	51.1	AV	1000	54.0	2.9	RB
377 / Radiated	5500	1941.4	46.3	PEAK	1000	74.0	27.7	RB
377 / Radiated	5500	11000.4	55.6	PEAK	1000	74.0	18.4	RB
377 / Radiated	5500	11000.4	41.3	AV	1000	54.0	12.7	RB
377 / Radiated	5580	11159.6	56.7	PEAK	1000	74.0	17.3	RB
377 / Radiated	5580	11159.6	43.2	AV	1000	54.0	10.8	RB
377 / Radiated	5580	22320.2	55.8	PEAK	1000	74.0	18.2	RB
377 / Radiated	5580	22320.2	50.3	AV	1000	54.0	3.7	RB
377 / Radiated	5700	11400.0	57.0	PEAK	1000	74.0	17.0	RB
377 / Radiated	5700	11400.0	43.9	AV	1000	54.0	10.1	RB
377 / Radiated	5700	22800.1	57.0	PEAK	1000	74.0	17.0	RB
377 / Radiated	5700	22800.1	52.0	AV	1000	54.0	2.0	RB
377 / Radiated	5745	11490.0	56.8	PEAK	1000	74.0	17.2	RB
377 / Radiated	5745	11490.0	44.0	AV	1000	54.0	10.0	RB
377 / Radiated	5745	22980.1	57.0	PEAK	1000	74.0	17.0	RB
377 / Radiated	5745	22980.1	52.1	AV	1000	54.0	1.9	RB
377 / Conducted	5180	-	-	-	-	-	-	-
377 / Conducted	5200	-	-	-	-	-	-	-
377 / Conducted	5240	-	-	-	-	-	-	-
377 / Conducted	5260	-	-	-	-	-	-	-
377 / Conducted	5300	-	-	-	-	-	-	-
377 / Conducted	5320	-	-	-	-	-	-	-
377 / Conducted	5500	-	-	-	-	-	-	-
377 / Conducted	5580	-	-	-	-	-	-	-
377 / Conducted	5700	-	-	-	-	-	-	-
377 / Conducted	5745	-	-	-	-	-	-	-
377 / Conducted	5795	-	-	-	-	-	-	-
377 / Conducted	5825	-	-	-	-	-	-	-
374 / Conducted	5200	-	-	-	-	-	-	-
374 / Conducted	5300	-	-	-	-	-	-	-
374 / Conducted	5580	-	-	-	-	-	-	-
374 / Conducted	5795	-	-	-	-	-	-	-

WLAN n-Mode; 20 MHz; MCS8; MIMO
Applied duty cycle correction (AV): 0 dB

Ch. No.	Ch. Center Freq. [MHz]	Spurious Freq. [MHz]	Spurious Level [dBμV/m]	Detector	RBW [kHz]	Limit [dBμV/m]	Margin [dB]	Limit Type
377 / Conducted	5200	-	-	-	-	-	-	-

WLAN n-Mode; 40 MHz; MCS8; MIMO
Applied duty cycle correction (AV): 0 dB

Ch. No.	Ch. Center Freq. [MHz]	Spurious Freq. [MHz]	Spurious Level [dBμV/m]	Detector	RBW [kHz]	Limit [dBμV/m]	Margin [dB]	Limit Type
377 / Conducted	5200	-	-	-	-	-	-	-

WLAN ac-Mode; 20 MHz; MCS0; MIMO
Applied duty cycle correction (AV): 0 dB

Ch. No.	Ch. Center Freq. [MHz]	Spurious Freq. [MHz]	Spurious Level [dBμV/m]	Detector	RBW [kHz]	Limit [dBμV/m]	Margin [dB]	Limit Type
377 / Conducted	5200	-	-	-	-	-	-	-

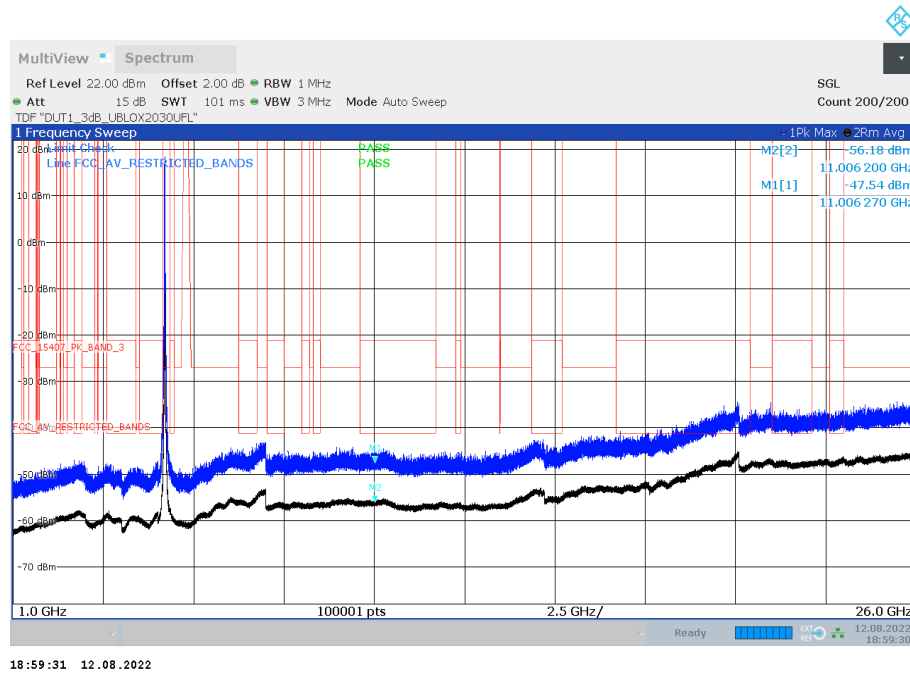
WLAN ac-Mode; 80 MHz; MCS0; MIMO
Applied duty cycle correction (AV): 0 dB

Ch. No.	Ch. Center Freq. [MHz]	Spurious Freq. [MHz]	Spurious Level [dBμV/m]	Detector	RBW [kHz]	Limit [dBμV/m]	Margin [dB]	Limit Type
377 / Conducted	5200	-	-	-	-	-	-	-

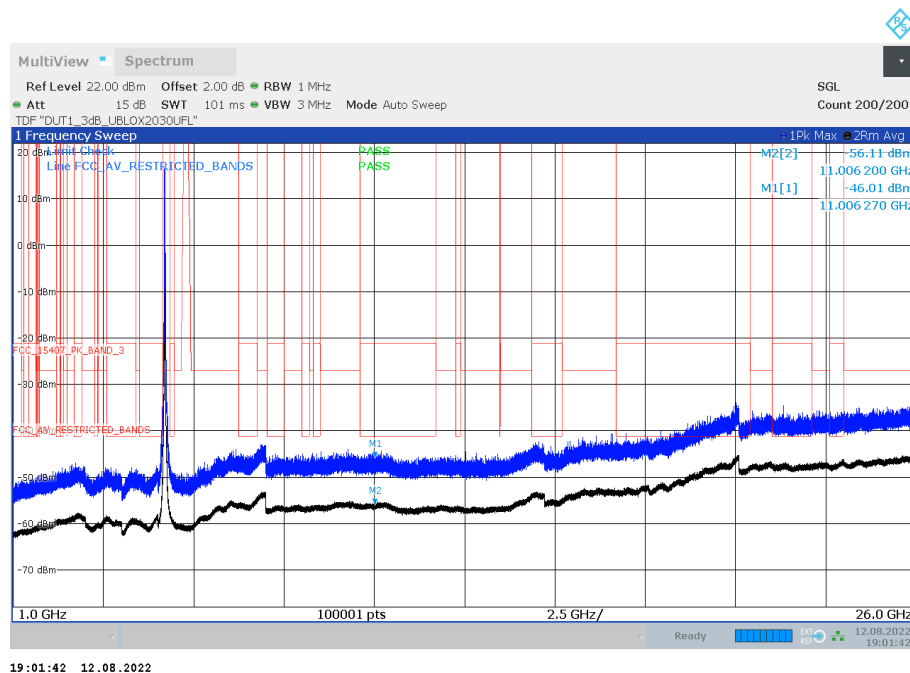
Remark: Please see next sub-clause for the measurement plot.

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

Radio Technology = WLAN ax 20 MHz, Operating Frequency = mid, Measurement range = 1GHz - 26GHz, Subband = U-NII-1 (S01_377_AE01)

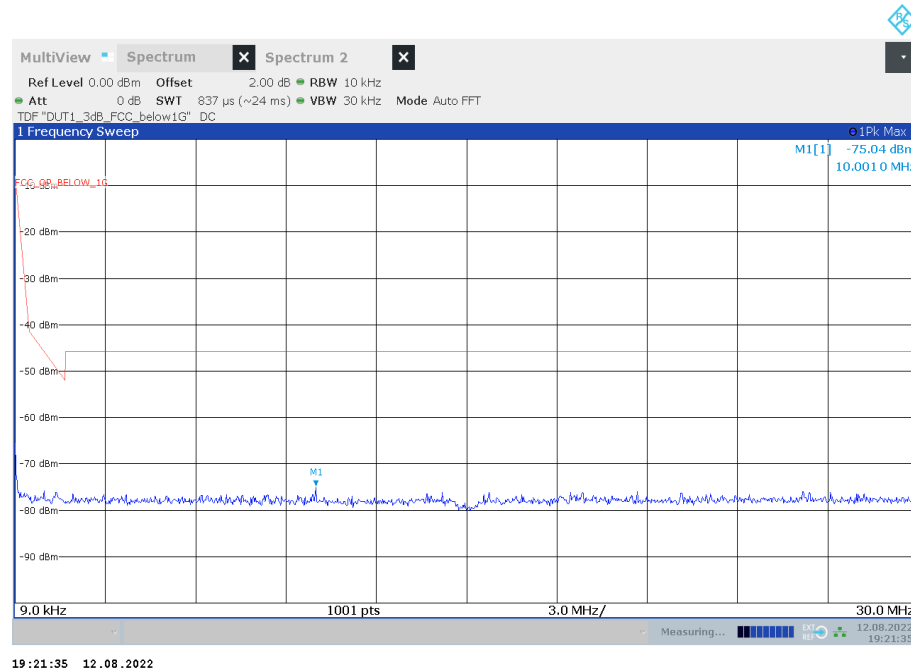


Antenna A

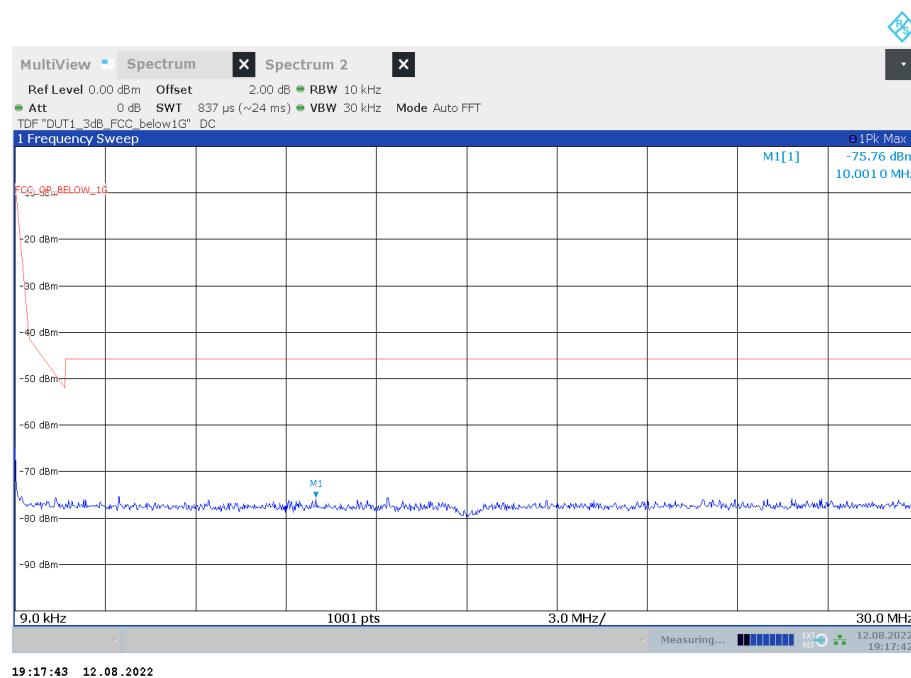


Antenna B

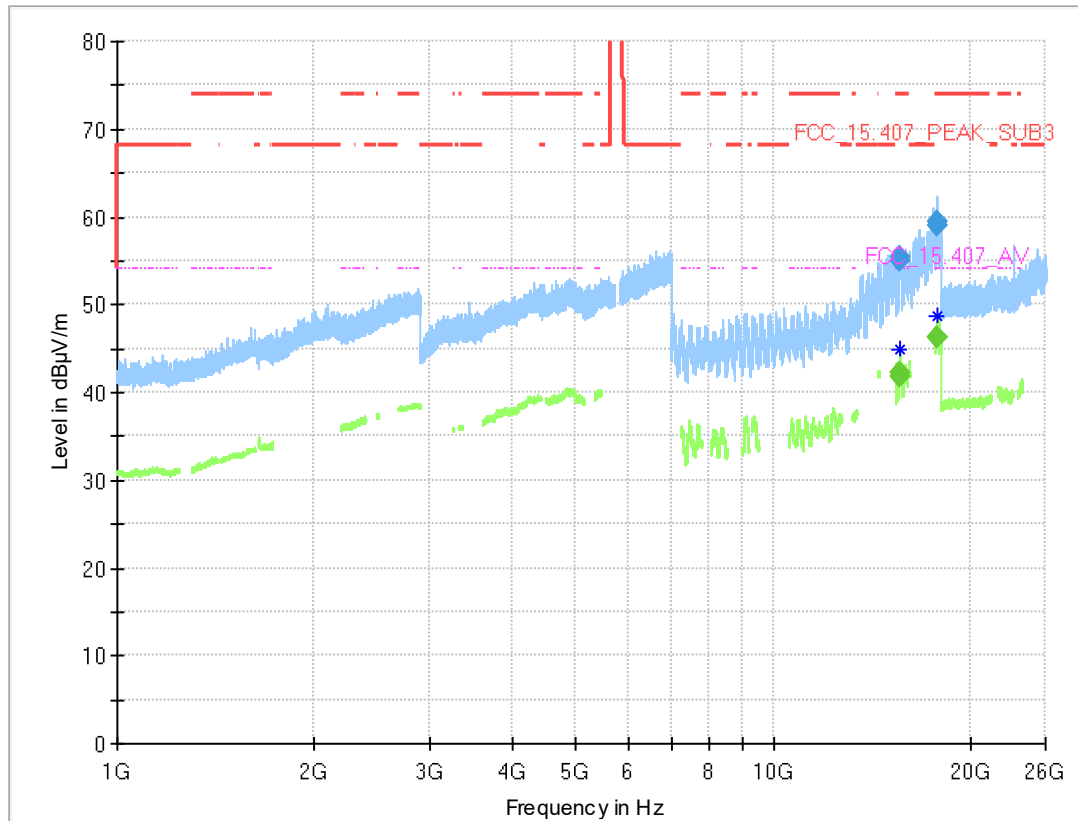
Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 9kHz - 30MHz, Subband = U-NII-3 (S01_377_AE01)



Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 9kHz - 30MHz, Subband = U-NII-1 (S01_377_AE01)



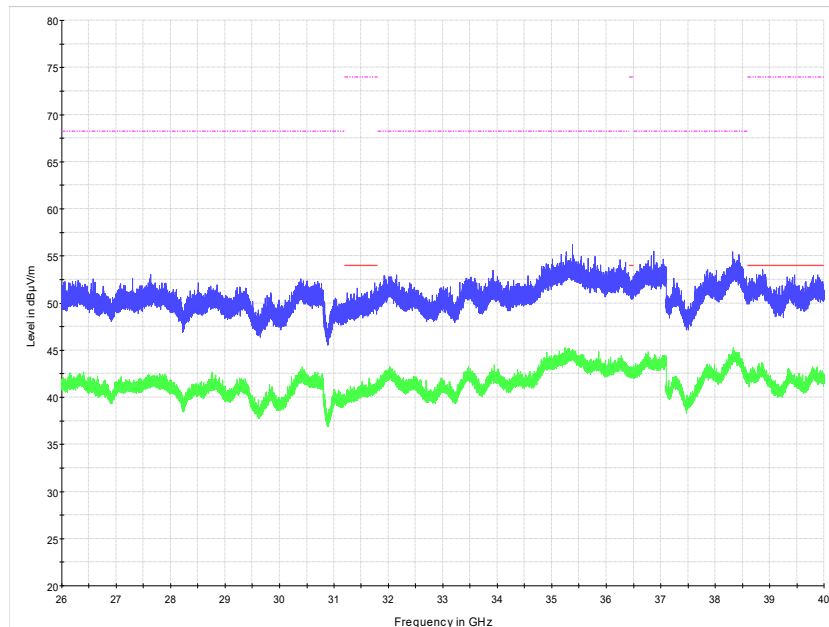
Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 1GHz - 26GHz, Subband = U-NII-3 (S02_377_AD01)



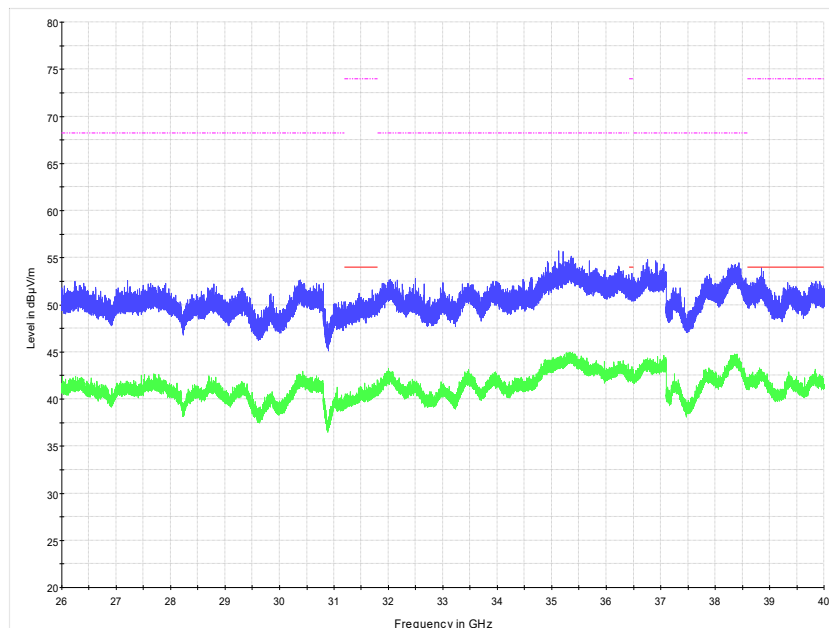
Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)
15599.617	---	42.3	54.00	11.68	1000.0	1000.000	150.0	V	-34.0	4.0	-0.9
15599.617	55.4	---	74.00	18.65	1000.0	1000.000	150.0	V	-34.0	4.0	-0.9
15620.442	---	41.9	54.00	12.12	1000.0	1000.000	150.0	H	0.0	3.0	-1.7
15620.442	55.0	---	74.00	18.97	1000.0	1000.000	150.0	H	0.0	3.0	-1.7
17822.250	---	46.2	54.00	7.76	1000.0	1000.000	150.0	V	-169.0	78.0	1.4
17822.250	59.1	---	74.00	14.92	1000.0	1000.000	150.0	V	-169.0	78.0	1.4
17826.000	---	46.4	54.00	7.65	1000.0	1000.000	150.0	V	87.0	15.0	1.5
17826.000	59.4	---	74.00	14.62	1000.0	1000.000	150.0	V	87.0	15.0	1.5

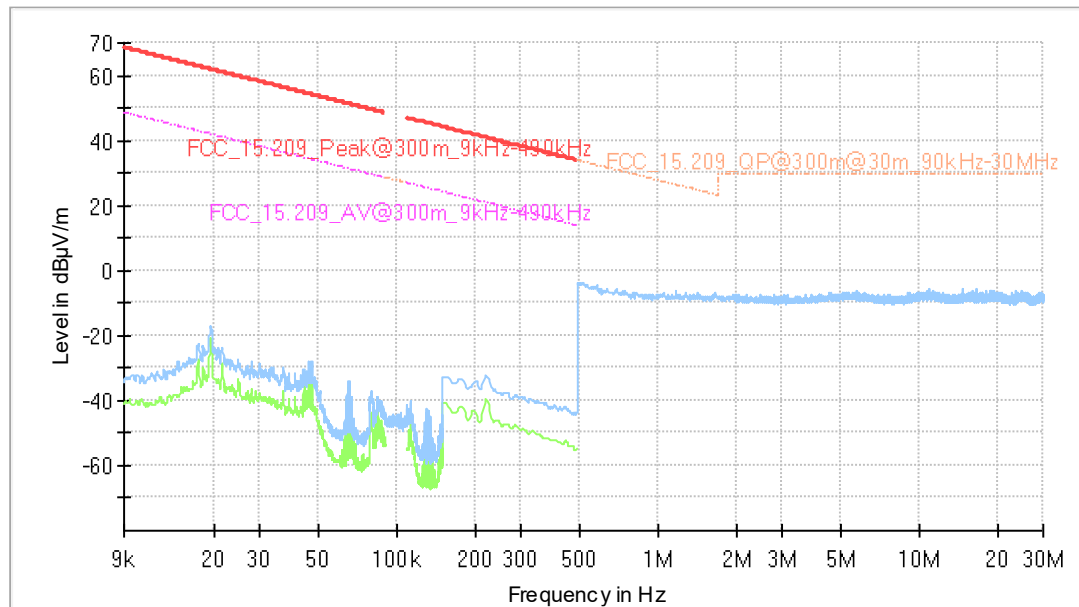
Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 26GHz - 40GHz, Subband = U-NII-2A
(S02_377_AD01)



Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 26GHz - 40GHz, Subband = U-NII-1
(S02_377_AD01)



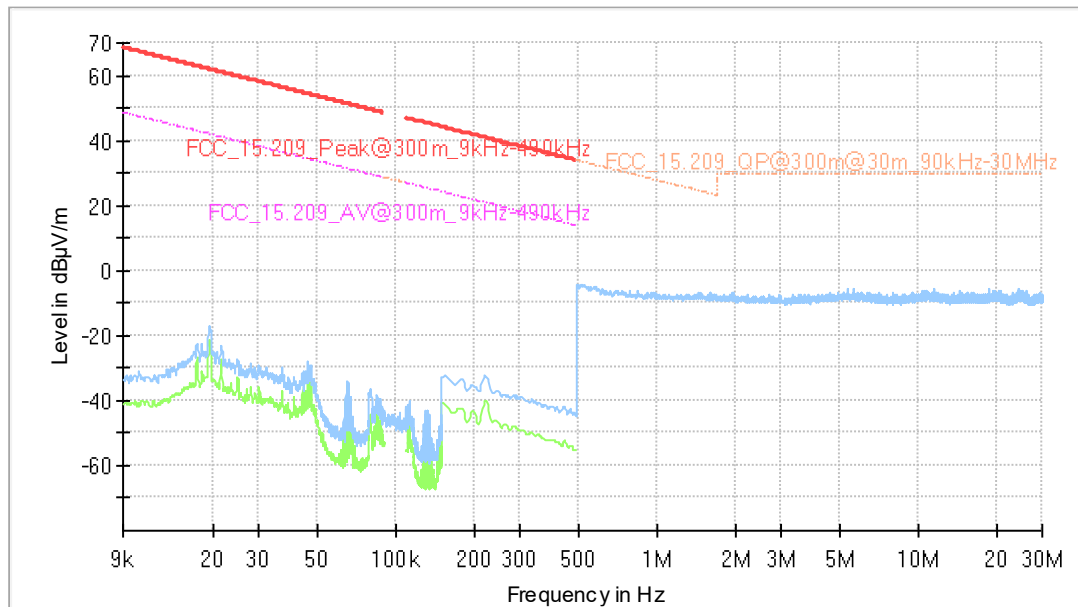
Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 9kHz - 30MHz, Subband = U-NII-1
(S02_377_AB01)



Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---	---	---

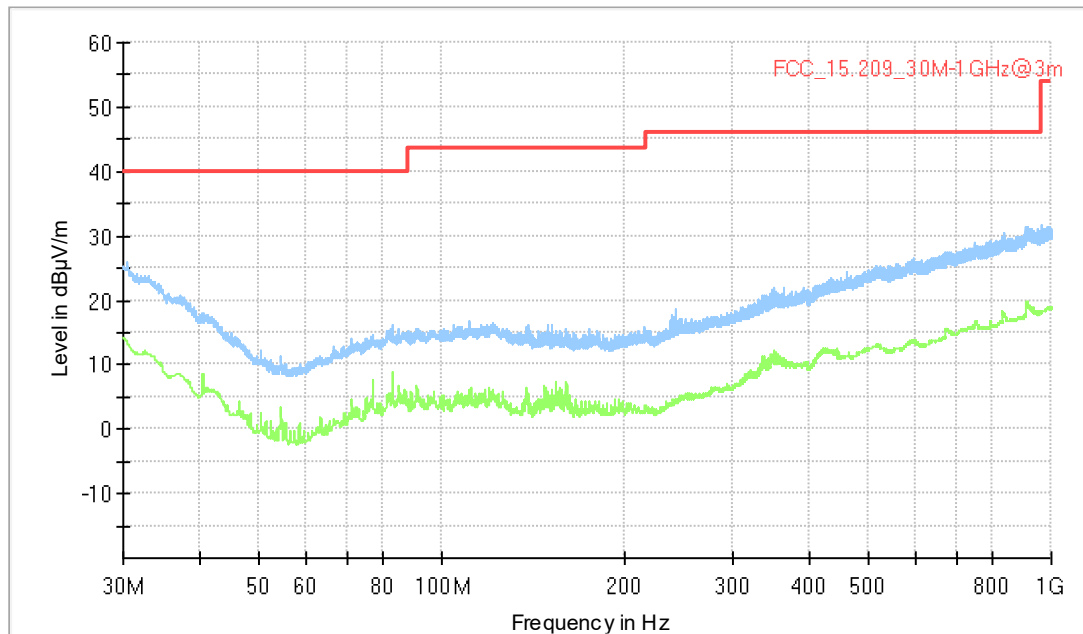
Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 9kHz - 30MHz, Subband = U-NII-2C
(S02_377_AB01)



Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---	---	---

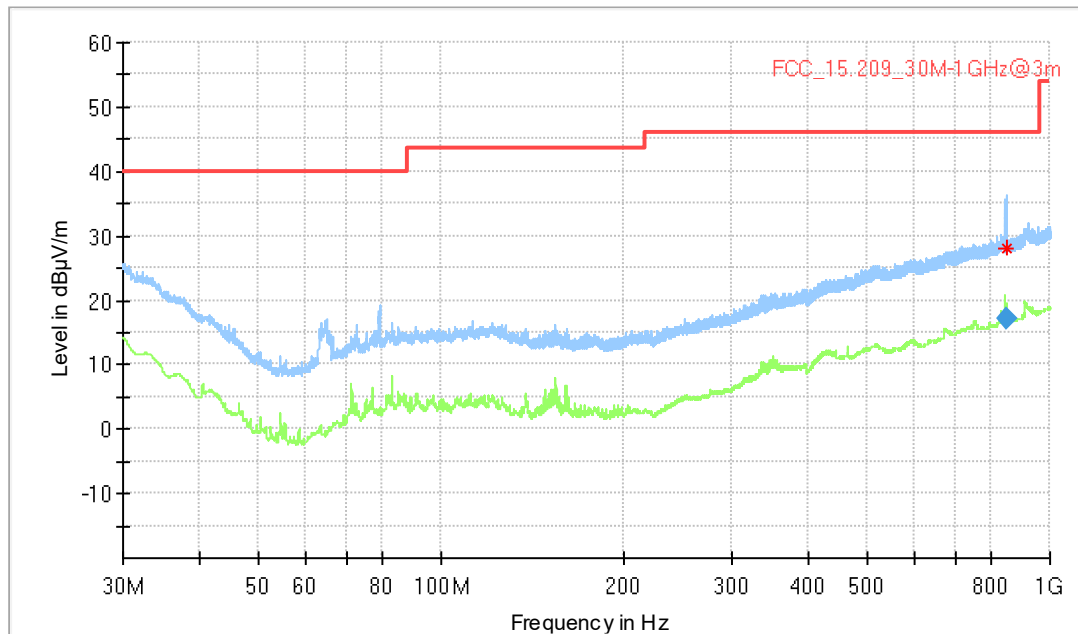
Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 30MHz - 1GHz, Subband = U-NII-2C (S02_377_AB01)



Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---	---	---

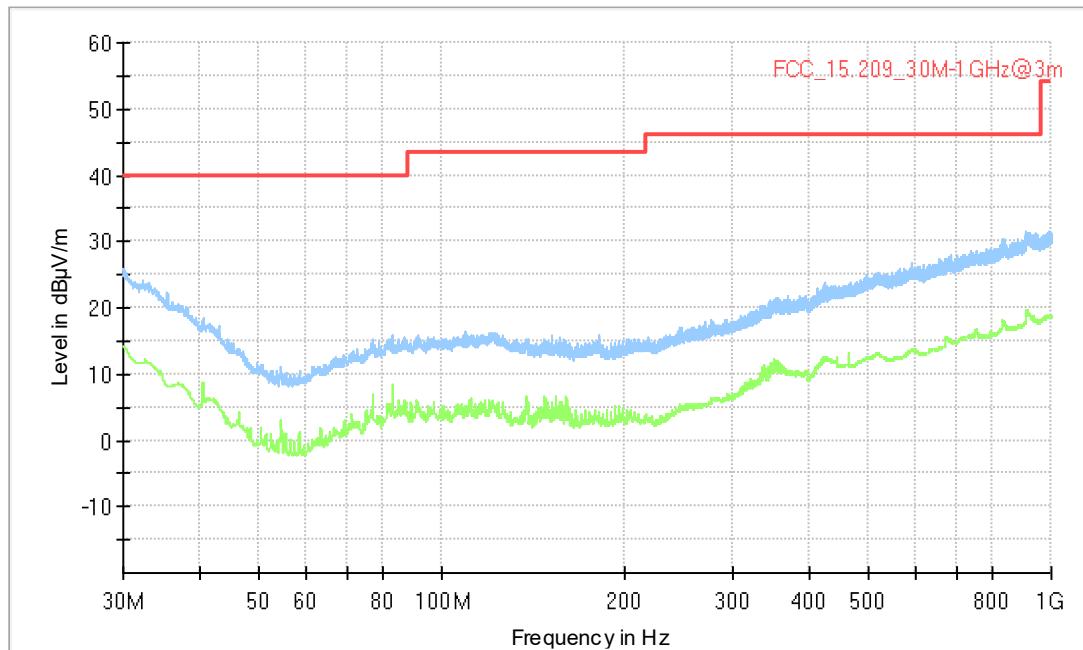
Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 30MHz - 1GHz, Subband = U-NII-1
(S02_377_AB01)



Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
851.010000	17.13	46.00	28.87	1000.0	120.000	287.0	V	162.0	24.1

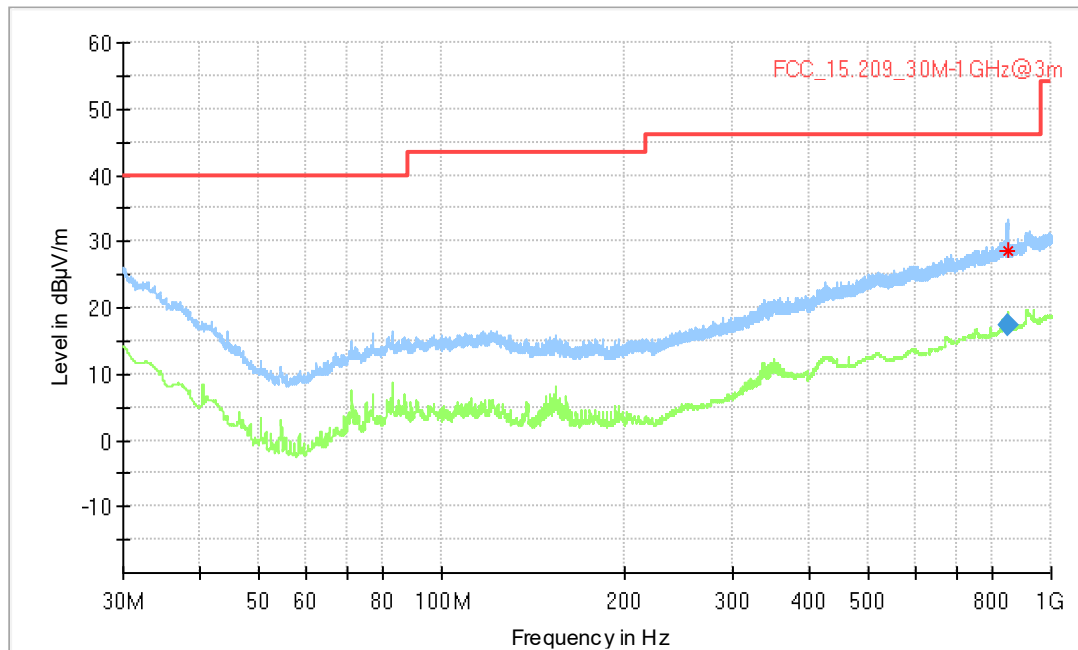
Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 30MHz - 1GHz, Subband = U-NII-3 (S02_377_AB01)



Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---		---	---

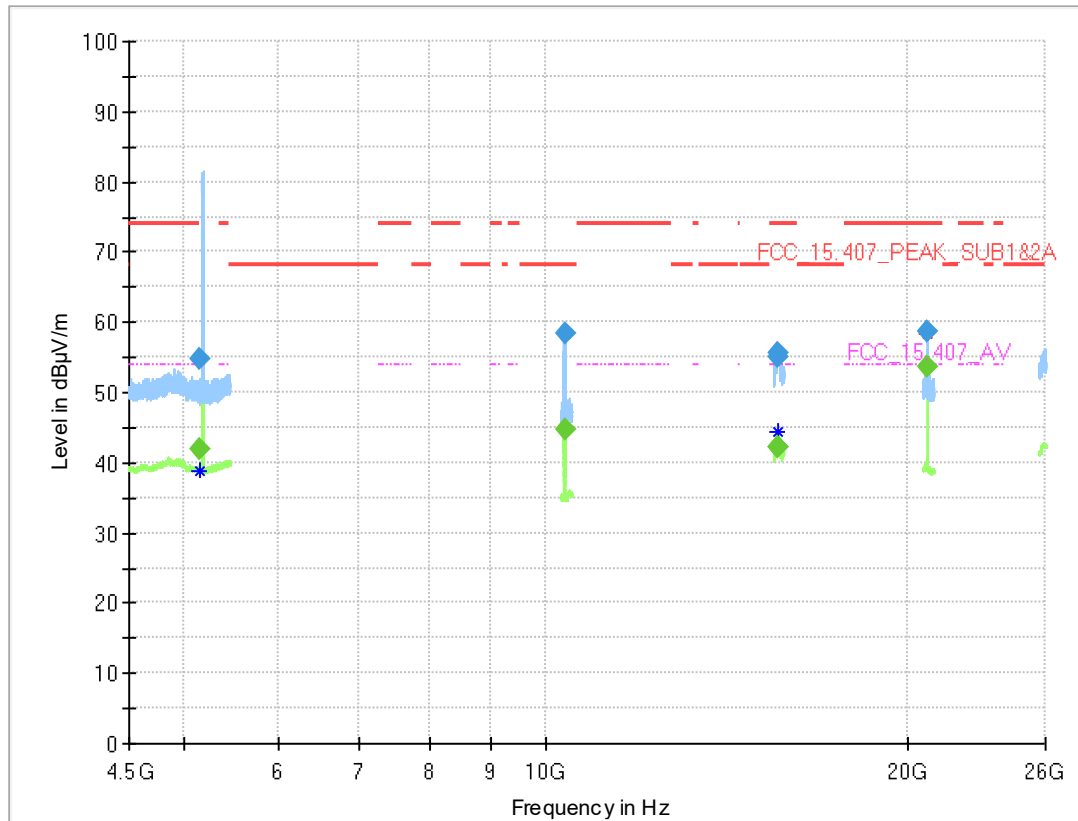
Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 30MHz - 1GHz, Subband = U-NII-2A (S02_377_AB01)



Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
851.100000	17.24	46.00	28.76	1000.0	120.000	349.0	H	140.0	24.1

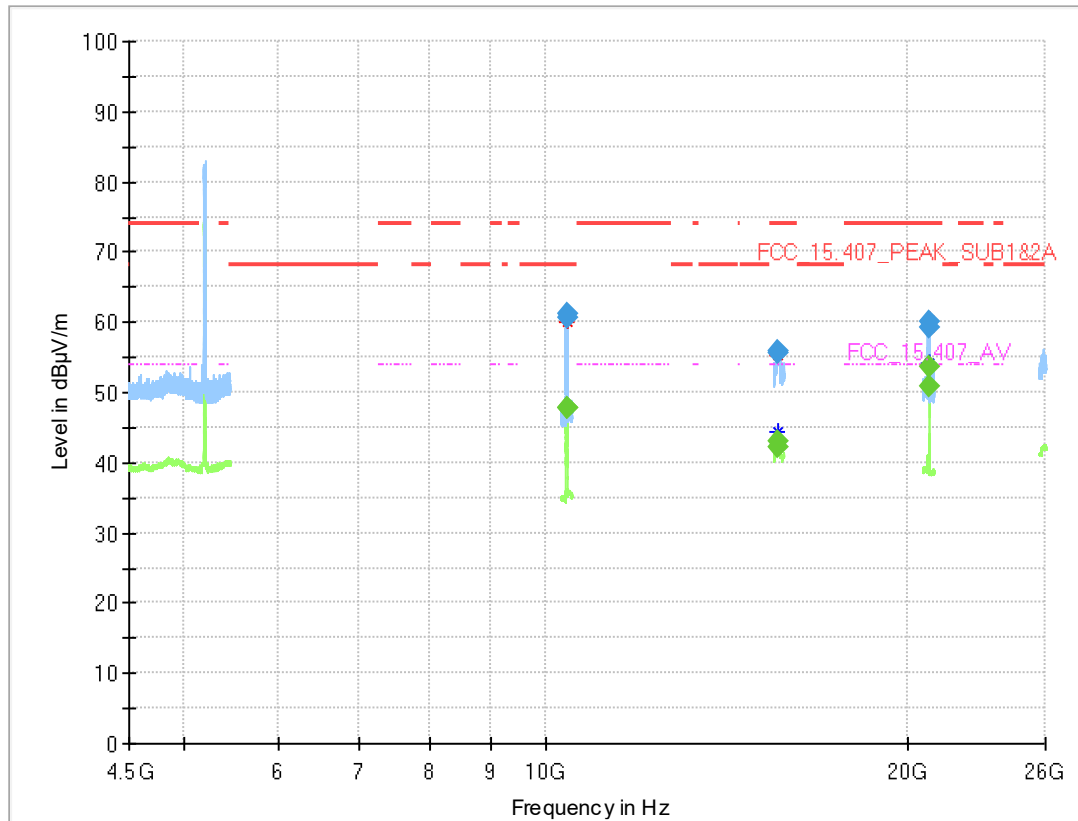
Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 1GHz - 26GHz, Subband = U-NII-1 (S02_377_AD01)



Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)
5149.838	---	41.8	54.00	12.16	1000.0	1000.000	150.0	H	-138.0	2.0	13.5
5149.838	54.8	---	74.00	19.20	1000.0	1000.000	150.0	H	-138.0	2.0	13.5
10359.400	---	44.7	---	---	1000.0	1000.000	150.0	H	-7.0	101.0	-12.3
10359.400	58.4	---	68.20	9.84	1000.0	1000.000	150.0	H	-7.0	101.0	-12.3
15599.769	---	42.3	54.00	11.74	1000.0	1000.000	150.0	V	-138.0	15.0	-0.9
15599.769	55.1	---	74.00	18.91	1000.0	1000.000	150.0	V	-138.0	15.0	-0.9
15602.077	---	42.1	54.00	11.87	1000.0	1000.000	150.0	V	-95.0	15.0	-1.0
15602.077	55.6	---	74.00	18.36	1000.0	1000.000	150.0	V	-95.0	15.0	-1.0
20719.900	---	53.7	54.00	0.33	1000.0	1000.000	150.0	H	44.0	105.0	18.5
20719.900	58.5	---	74.00	15.46	1000.0	1000.000	150.0	H	44.0	105.0	18.5

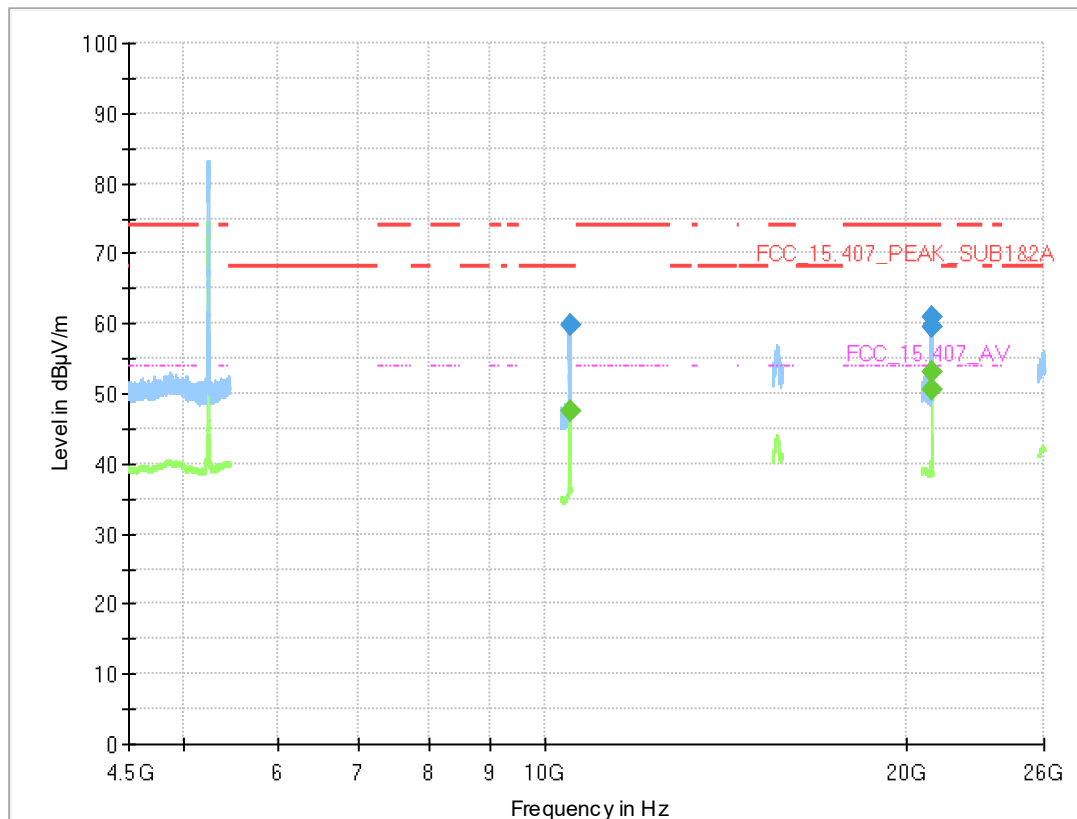
Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 1GHz - 26GHz, Subband = U-NII-1 (S02_377_AD01)



Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)
10399.900	---	47.8	---	---	1000.0	1000.000	150.0	H	-10.0	105.0	-11.9
10399.900	61.1	---	68.20	7.13	1000.0	1000.000	150.0	H	-10.0	105.0	-11.9
10400.100	---	47.8	---	---	1000.0	1000.000	150.0	H	-10.0	105.0	-11.9
10400.100	60.5	---	68.20	7.66	1000.0	1000.000	150.0	H	-10.0	105.0	-11.9
15598.154	---	42.2	54.00	11.77	1000.0	1000.000	150.0	V	-126.0	90.0	-1.0
15598.154	55.6	---	74.00	18.42	1000.0	1000.000	150.0	V	-126.0	90.0	-1.0
15600.115	---	43.0	54.00	11.03	1000.0	1000.000	150.0	H	-8.0	88.0	-0.9
15600.115	55.9	---	74.00	18.12	1000.0	1000.000	150.0	H	-8.0	88.0	-0.9
20800.000	---	53.6	54.00	0.43	1000.0	1000.000	150.0	H	46.0	105.0	18.3
20800.000	60.0	---	74.00	14.03	1000.0	1000.000	150.0	H	46.0	105.0	18.3
20800.300	---	50.8	54.00	3.19	1000.0	1000.000	150.0	H	47.0	105.0	18.3
20800.300	59.2	---	74.00	14.76	1000.0	1000.000	150.0	H	47.0	105.0	18.3

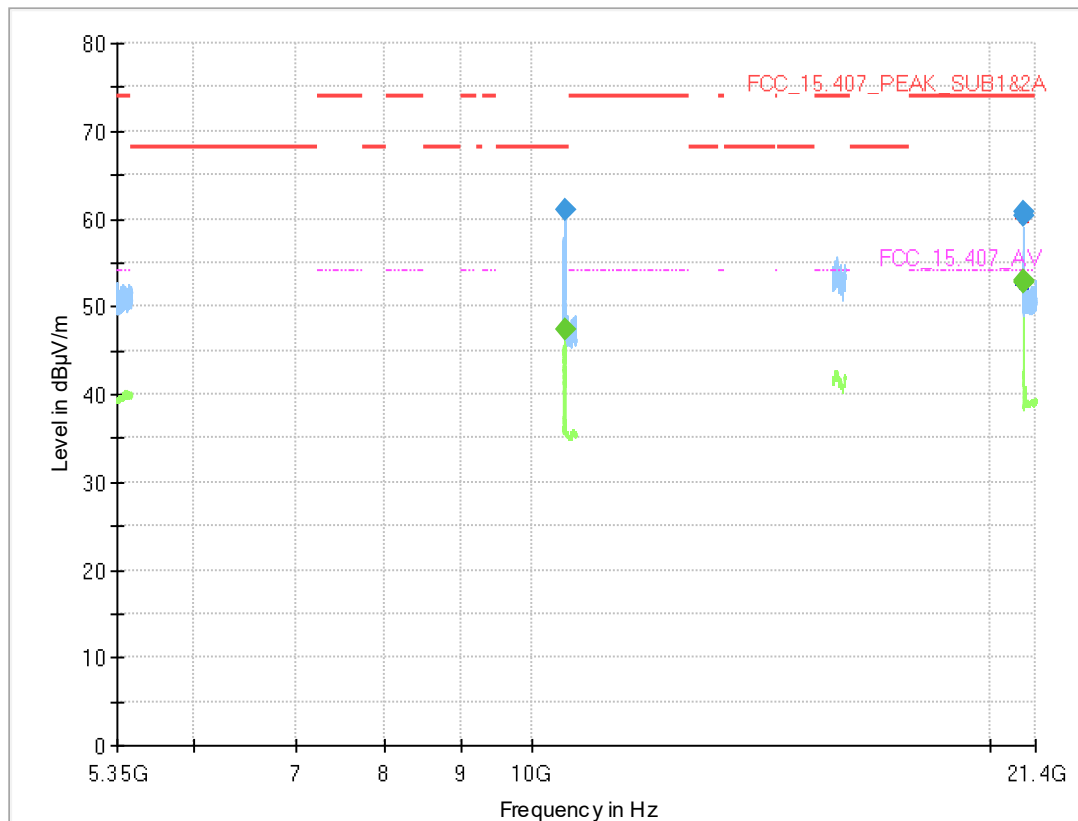
Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 1GHz - 26GHz, Subband = U-NII-1 (S02_377_AD01)



Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)
10480.900	---	47.4	---	---	1000.0	1000.000	150.0	H	-1.0	105.0	-11.0
10480.900	59.8	---	68.20	8.36	1000.0	1000.000	150.0	H	-1.0	105.0	-11.0
20960.000	---	53.0	54.00	0.99	1000.0	1000.000	150.0	H	44.0	86.0	18.5
20960.000	60.9	---	74.00	13.10	1000.0	1000.000	150.0	H	44.0	86.0	18.5
20960.400	---	50.5	54.00	3.54	1000.0	1000.000	150.0	H	45.0	84.0	18.5
20960.400	59.6	---	74.00	14.42	1000.0	1000.000	150.0	H	45.0	84.0	18.5

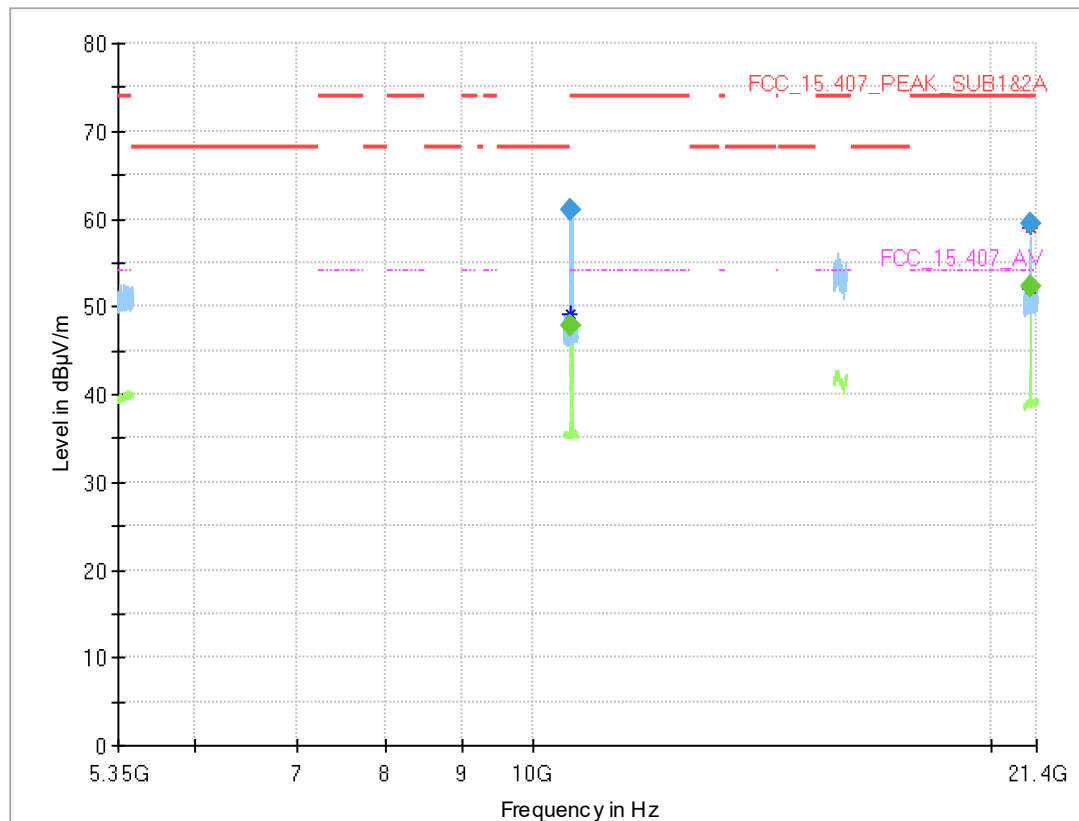
Radio Technology = WLAN a, Operating Frequency = low, Measurement range = 1GHz - 26GHz, Subband = U-NII-2A
(S02_377_AD01)



Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)
10520.600	---	47.5	---	---	1000.0	1000.000	150.0	H	-6.0	92.0	-11.1
10520.600	61.0	---	68.20	7.23	1000.0	1000.000	150.0	H	-6.0	92.0	-11.1
21040.000	---	52.9	54.00	1.09	1000.0	1000.000	150.0	H	44.0	78.0	18.4
21040.000	60.7	---	74.00	13.27	1000.0	1000.000	150.0	H	44.0	78.0	18.4
21040.133	---	52.7	54.00	1.31	1000.0	1000.000	150.0	H	48.0	105.0	18.4
21040.133	60.4	---	74.00	13.60	1000.0	1000.000	150.0	H	48.0	105.0	18.4

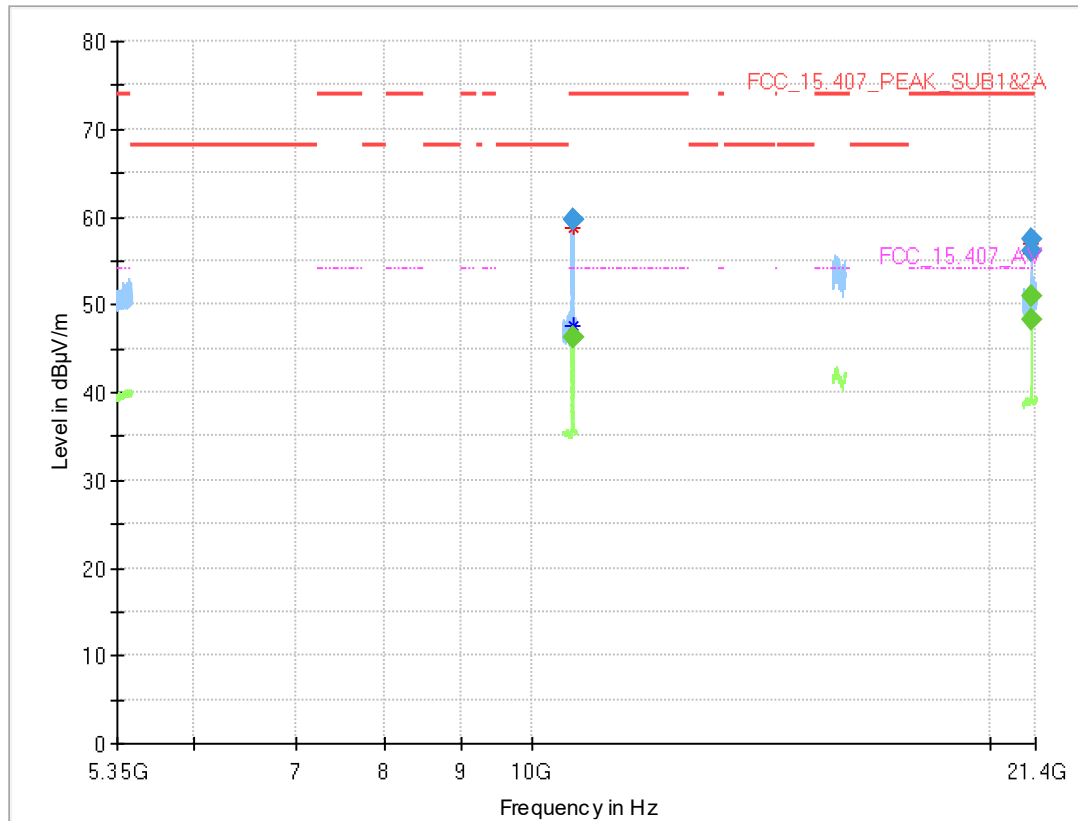
Radio Technology = WLAN a, Operating Frequency = mid, Measurement range = 1GHz - 26GHz, Subband = U-NII-2A
(S02_377_AD01)



Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)
10600.300	---	47.8	54.00	6.21	1000.0	1000.000	150.0	H	-9.0	92.0	-12.1
10600.300	60.9	---	74.00	13.10	1000.0	1000.000	150.0	H	-9.0	92.0	-12.1
21200.133	---	52.2	54.00	1.79	1000.0	1000.000	150.0	H	44.0	75.0	18.6
21200.133	59.4	---	74.00	14.63	1000.0	1000.000	150.0	H	44.0	75.0	18.6

Radio Technology = WLAN a, Operating Frequency = high, Measurement range = 1GHz - 26GHz, Subband = U-NII-2A
(S02_377_AD01)



Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)
10639.700	---	46.4	54.00	7.65	1000.0	1000.000	150.0	H	-8.0	96.0	-11.7
10639.700	59.7	---	74.00	14.31	1000.0	1000.000	150.0	H	-8.0	96.0	-11.7
10640.100	---	46.3	54.00	7.70	1000.0	1000.000	150.0	H	-8.0	105.0	-11.7
10640.100	59.6	---	74.00	14.42	1000.0	1000.000	150.0	H	-8.0	105.0	-11.7
21279.733	---	48.4	54.00	5.63	1000.0	1000.000	150.0	H	44.0	97.0	18.6
21279.733	56.0	---	74.00	18.02	1000.0	1000.000	150.0	H	44.0	97.0	18.6
21280.000	---	51.1	54.00	2.95	1000.0	1000.000	150.0	H	49.0	105.0	18.6
21280.000	57.3	---	74.00	16.68	1000.0	1000.000	150.0	H	49.0	105.0	18.6