

FCC Measurement/Technical Report on

Multimedia Equipment with WLAN and Bluetooth

BCI3L4PTR1(Star 3.5 / Star 3.0)

FCC ID: 2AUXS-BCI3L4PTR1

Test Report Reference: MDE_BOSCH_2411_FCC_10_rev01

Test Laboratory:

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Borsigstrasse 11
40880 Ratingen
Germany



Deutsche
Akkreditierungsstelle
D-PL-12140-01-00

Note:

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

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1 APPLIED STANDARDS AND TEST SUMMARY

1.1 APPLIED STANDARDS

Type of Authorization

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

Applicable FCC Rules

Prepared in accordance with the requirements of FCC Rules and Regulations as listed in 47 CFR Ch.1 Parts 2 and 15 (10-1-23 Edition). The following subparts are applicable to the results in this test report.

Part 2, Subpart J - Equipment Authorization Procedures, Certification

Part 15, Subpart C – Intentional Radiators

§ 15.201 Equipment authorization requirement

§ 15.207 Conducted limits (only in case of direct or indirect connection to AC main)

§ 15.209 Radiated emission limits; general requirements

Part 15, Subpart E – Unlicensed National Information Infrastructure Devices

§ 15.403 Definitions

§ 15.407 General technical requirements

Note:

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

"GUIDELINES FOR COMPLIANCE TESTING OF UNLICENSED NATIONAL INFORMATION INFRASTRUCTURE 6 GHz (U-NII) DEVICES PART 15, SUBPART E, 987594 D02 U-NII 6GHz EMC Measurement v01r01, 2021-02-04".

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 & AMD 1 & AMD 2: 8.8
Occupied bandwidth	§ 15.403 (26 dB) / § 15.407 (e) (6 dB)	RSS-247 Issue 3: 6.2.1.1, 6.2.2.1, 6.2.3.1 (99%) RSS-247 Issue 3: 6.2.4.2 (6 dB) RSS-248 Issue 2: 4.4
Maximum conducted output power	§ 15.407 (a) (1) to (8), (11)	RSS-247 Issue 3: 6.2.1.1, 6.2.2.1, 6.2.3.1, 6.2.4.2 RSS-248 Issue 2: 4.5
Maximum power spectral density	§ 15.407 (a) (1) to (8), (12)	RSS-247 Issue 3: 6.2.1.1, 6.2.2.1, 6.2.3.1, 6.2.4.1 RSS-248 Issue 2: 4.5
Transmitter undesirable emissions; General Field Strength Limits, Restricted Bands, In-Band Emissions	§ 15.407 (b) § 15.209 (a)	RSS-Gen Issue 5: 6.13/8.9/8.10; RSS-247 Issue 3: 3.3/6.2 6.2.1.2, 6.2.2.2, 6.2.3.2, 6.2.4.2 RSS-248 Issue 2: 4.6
Frequency stability	§ 15.407 (g)	RSS-Gen Issue 5: 6.11/8.11
Transmit Power Control (TPC) and Dynamic Frequency Selection (DFS)	§ 15.407 (h)	RSS-247 Issue 3: 6.2.2.1, 6.2.3.1, 6.3
Antenna requirement	§ 15.203 / 15.204 § 15.407 (a) (9)	RSS-Gen Issue 5 & AMD 1 & AMD 2: 8.3
Contention Based Protocol	§ 15.407 (d) (6)	RSS-248 Issue 2: 4.7
Receiver spurious emissions	-	-

1.3 MEASUREMENT SUMMARY

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

Undesirable Emissions; General Field Strength Limits

The measurement was performed according to ANSI C63.10, chapter 6.4, **Final Result**
 6.5, 6.6.5

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Measurement range, Subband				
WLAN a Diversity, high, 1 - 26GHz, U-NII-1	S01_AA01#S3.5	2025-01-12	Passed	Passed
WLAN a Diversity, high, 1 - 26GHz, U-NII-3	S01_AA01#S3.5	2025-01-06	Passed	Passed
WLAN a Diversity, low, 1 - 26GHz, U-NII-1	S01_AA01#S3.5	2025-01-12	Passed	Passed
WLAN a Diversity, low, 1 - 26GHz, U-NII-3	S01_AA01#S3.5	2025-01-11	Passed	Passed
WLAN a Diversity, low, 9kHz - 30MHz, U-NII-1	S01_AA01#S3.5	2025-01-11	Passed	Passed
WLAN a Diversity, low, 9kHz - 30MHz, U-NII-3	S01_AA01#S3.5	2024-12-14	Passed	Passed
WLAN a Diversity, mid, 1 - 26GHz, U-NII-1	S01_AA01#S3.5	2025-01-06	Passed	Passed
WLAN a Diversity, mid, 1 - 26GHz, U-NII-3	S01_AA01#S3.5	2025-01-06	Passed	Passed
WLAN a Diversity, mid, 26 - 40GHz, U-NII-1	S01_AA01#S3.5	2025-01-22	Passed	Passed
WLAN a Diversity, mid, 26 - 40GHz, U-NII-3	S01_AA01#S3.5	2025-01-22	Passed	Passed
WLAN a Diversity, mid, 30MHz - 1GHz, U-NII-1	S01_AA01#S3.5	2024-12-17	Passed	Passed
WLAN a Diversity, mid, 30MHz - 1GHz, U-NII-3	S01_AA01#S3.5	2024-12-17	Passed	Passed
WLAN ac 40 MHz MIMO, high, 1 - 18GHz, U-NII-1	S01_AA01#S3.5	2025-01-15	Passed	Passed
WLAN ac 40 MHz MIMO, high, 1 - 18GHz, U-NII-3	S01_AA01#S3.5	2025-01-20	Passed	Passed
WLAN ac 40 MHz MIMO, low, 1 - 18GHz, U-NII-1	S01_AA01#S3.5	2025-01-20	Passed	Passed
WLAN ac 40 MHz MIMO, low, 1 - 18GHz, U-NII-3	S01_AA01#S3.5	2025-01-15	Passed	Passed
WLAN ax 20 MHz MIMO(SU), high, 1 - 26GHz, U-NII-3 Remark: Only Band Edges and harmonics	S01_AA01#S3.5	2025-01-19	Passed	Passed
WLAN ax 20 MHz MIMO(MU), high, 1 - 26GHz, U-NII-3 Remark: Only Band Edges and harmonics	S01_AA01#S3.5	2025-01-20	Passed	Passed
WLAN ax 20 MHz MIMO(SU), low, 1 - 26GHz, U-NII-1 Remark: Only Band Edges and harmonics	S01_AA01#S3.5	2025-01-19	Passed	Passed
WLAN ax 20 MHz MIMO(MU), low, 1 - 26GHz, U-NII-1 Remark: Only Band Edges and harmonics	S01_AA01#S3.5	2025-01-20	Passed	Passed
WLAN ax 40 MHz MIMO(SU), high, 1 - 26GHz, U-NII-3 Remark: Only Band Edges and harmonics	S01_AA01#S3.5	2025-01-20	Passed	Passed
WLAN ax 40 MHz MIMO(MU), high, 1 - 26GHz, U-NII-3 Remark: Only Band Edges and harmonics	S01_AA01#S3.5	2025-01-20	Passed	Passed
WLAN ax 40 MHz MIMO(SU), low, 1 - 26GHz, U-NII-1 Remark: Only Band Edges and harmonics	S01_AA01#S3.5	2025-01-19	Passed	Passed
WLAN ax 40 MHz MIMO(MU), low, 1 - 26GHz, U-NII-1 Remark: Only Band Edges and harmonics	S01_AA01#S3.5	2025-01-20	Passed	Passed
WLAN ax 80 MHz MIMO(SU), low, 1 - 26GHz, U-NII-3 Remark: Only Band Edges and harmonics	S01_AA01#S3.5	2025-07-19	Passed	Passed
WLAN ax 80 MHz MIMO(MU), low, 1 - 26GHz, U-NII-3 Remark: Only Band Edges and harmonics	S01_AA01#S3.5	2025-07-19	Passed	Passed
WLAN ax 80 MHz MIMO(SU), mid, 1 - 26GHz, U-NII-1 Remark: Only Band Edges and harmonics	S01_AA01#S3.5	2025-01-20	Passed	Passed
WLAN ax 80 MHz MIMO(MU), mid, 1 - 26GHz, U-NII-1 Remark: Only Band Edges and harmonics	S01_AA01#S3.5	2025-01-20	Passed	Passed
WLAN n 20 MHz MIMO, high, 1 - 18GHz, U-NII-1	S01_AA01#S3.5	2025-01-15	Passed	Passed
WLAN n 20 MHz MIMO, high, 1 - 18GHz, U-NII-3	S01_AA01#S3.5	2025-01-06	Passed	Passed
WLAN n 20 MHz MIMO, low, 1 - 18GHz, U-NII-1	S01_AA01#S3.5	2025-01-06	Passed	Passed
WLAN n 20 MHz MIMO, low, 1 - 18GHz, U-NII-3	S01_AA01#S3.5	2025-01-13	Passed	Passed

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

Undesirable Emissions; General Field Strength Limits

The measurement was performed according to ANSI C63.10, chapter 6.4, **Final Result**
 6.5, 6.6.5

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Measurement range, Subband				
WLAN n 20 MHz MIMO, mid, 1 - 18GHz, U-NII-1	S01_AA01#S3.5	2025-01-12	Passed	Passed
WLAN n 20 MHz MIMO, mid, 1 - 18GHz, U-NII-3	S01_AA01#S3.5	2025-01-11	Passed	Passed
WLAN n 40 MHz MIMO, high, 1 - 26GHz, U-NII-1	S01_AA01#S3.5	2025-01-07	Passed	Passed
WLAN n 40 MHz MIMO, high, 1 - 26GHz, U-NII-3	S01_AA01#S3.5	2025-01-07	Passed	Passed
WLAN n 40 MHz MIMO, high, 30MHz - 1GHz, U-NII-3	S01_AA01#S3.5	2025-01-12	Passed	Passed
WLAN n 40 MHz MIMO, low, 1 - 26GHz, U-NII-1	S01_AA01#S3.5	2025-01-07	Passed	Passed
WLAN n 40 MHz MIMO, low, 1 - 26GHz, U-NII-3	S01_AA01#S3.5	2025-01-07	Passed	Passed
WLAN n 40 MHz MIMO, low, 30MHz - 1GHz, U-NII-1	S01_AA01#S3.5	2024-01-11	Passed	Passed
WLAN n 40 MHz MIMO, low, 9kHz - 30MHz, U-NII-1	S01_AA01#S3.5	2025-01-11	Passed	Passed
Simultaneous Transmission A, 1 - 26GHz	S01_AA01#S3.5	2025-02-20	Passed	Passed
WLAN a Diversity, low, 1 - 26GHz, U-NII-1	S01_AB01#S3.0	2025-01-30	Passed	Passed
Remark: Only Band Edges and harmonics				
WLAN a Diversity, low, 9kHz - 30MHz, U-NII-1	S01_AA01#S3.0	2025-01-30	Passed	Passed
WLAN a Diversity, mid, 30MHz - 1GHz, U-NII-1	S01_AA01#S3.0	2025-01-30	Passed	Passed
WLAN ac 40 MHz MIMO, high, 1 - 26GHz, U-NII-1	S01_AB01#S3.0	2025-02-01	Passed	Passed
Remark: Only Band Edges and harmonics				
WLAN ax 20 MHz MIMO(SU), high, 1 - 26GHz, U-NII-3	S01_AB01#S3.0	2025-07-19	Passed	Passed
Remark: Only Band Edges and harmonics				
WLAN ax 40 MHz MIMO(SU), low, 1 - 26GHz, U-NII-1	S01_AB01#S3.0	2025-01-31	Passed	Passed
Remark: Only Band Edges and harmonics				
WLAN ax 20 MHz MIMO(MU), high, 1 - 26GHz, U-NII-3	S01_AB01#S3.0	2025-07-19	Passed	Passed
Remark: Only Band Edges and harmonics				
WLAN ax 40 MHz MIMO(MU), low, 1 - 26GHz, U-NII-1	S01_AB01#S3.0	2025-01-31	Passed	Passed
Remark: Only Band Edges and harmonics				
WLAN ax 20 MHz MIMO(MU), low, 30MHz - 1GHz, U-NII-1	S01_AA01#S3.0	2025-01-30	Passed	Passed
WLAN n 40 MHz MIMO, high, 1 - 26GHz, U-NII-3	S01_AB01#S3.0	2025-07-19	Passed	Passed
Remark: Only Band Edges and harmonics				
WLAN n 40 MHz MIMO, low, 30MHz - 1GHz, U-NII-1	S01_AA01#S3.0	2025-01-31	Passed	Passed
Simultaneous Transmission B, 1 - 26GHz	S01_AB01#S3.0	2025-01-31	Passed	Passed

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Subpart E §15.407
FCC §15.407 (b), (1),(2),(3),(4)
Band Edge

The measurement was performed according to ANSI C63.10, chapter 6.6.5

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Subband				
WLAN a Diversity, high, U-NII-3	S01_AA01#S3.5	2025-01-06	Passed	Passed
WLAN a Diversity, high, U-NII-1	S01_AA01#S3.5	2025-03-19	Passed	Passed
WLAN a Diversity, low, U-NII-1	S01_AA01#S3.5	2025-03-19	Passed	Passed
WLAN a Diversity, low, U-NII-3	S01_AA01#S3.5	2025-01-05	Passed	Passed
WLAN ac 20 MHz MIMO, high, U-NII-3	S01_AA01#S3.5	2025-03-22	Passed	Passed
WLAN ac 20 MHz MIMO, high, U-NII-1	S01_AA01#S3.5	2025-01-15	Passed	Passed
WLAN ac 20 MHz MIMO, low, U-NII-1	S01_AA01#S3.5	2025-01-14	Passed	Passed
WLAN ac 20 MHz MIMO, low, U-NII-3	S01_AA01#S3.5	2025-01-15	Passed	Passed
WLAN ac 40 MHz MIMO, high, U-NII-3	S01_AA01#S3.5	2025-03-22	Passed	Passed
WLAN ac 40 MHz MIMO, high, U-NII-1	S01_AA01#S3.5	2025-03-19	Passed	Passed
WLAN ac 40 MHz MIMO, low, U-NII-1	S01_AA01#S3.5	2025-03-19	Passed	Passed
WLAN ac 40 MHz MIMO, low, U-NII-3	S01_AA01#S3.5	2025-03-22	Passed	Passed
WLAN ac 80 MHz MIMO, low, U-NII-3	S01_AA01#S3.5	2025-03-22	Passed	Passed
WLAN ac 80 MHz MIMO, mid, U-NII-1	S01_AA01#S3.5	2025-01-14	Passed	Passed
WLAN ax 20 MHz MIMO(SU), high, U-NII-3	S01_AA01#S3.5	2025-03-19	Passed	Passed
WLAN ax 20 MHz MIMO(SU), high, U-NII-1	S01_AA01#S3.5	2025-01-20	Passed	Passed
WLAN ax 20 MHz MIMO(SU), low, U-NII-1	S01_AA01#S3.5	2025-01-14	Passed	Passed
WLAN ax 20 MHz MIMO(SU), low, U-NII-3	S01_AA01#S3.5	2025-01-19	Passed	Passed
WLAN ax 40 MHz MIMO(SU), high, U-NII-3	S01_AA01#S3.5	2025-03-19	Passed	Passed
WLAN ax 40 MHz MIMO(SU), high, U-NII-1	S01_AA01#S3.5	2025-01-20	Passed	Passed
WLAN ax 40 MHz MIMO(SU), low, U-NII-1	S01_AA01#S3.5	2025-01-19	Passed	Passed
WLAN ax 40 MHz MIMO(SU), low, U-NII-3	S01_AA01#S3.5	2025-01-20	Passed	Passed
WLAN ax 80 MHz MIMO(SU), low, U-NII-3	S01_AA01#S3.5	2025-03-22	Passed	Passed
WLAN ax 80 MHz MIMO(SU), mid, U-NII-1	S01_AA01#S3.5	2025-03-17	Passed	Passed
WLAN ax 20 MHz MIMO(MU), high, U-NII-3	S01_AA01#S3.5	2025-03-19	Passed	Passed
WLAN ax 20 MHz MIMO(MU), high, U-NII-1	S01_AA01#S3.5	2025-01-20	Passed	Passed
WLAN ax 20 MHz MIMO(MU), low, U-NII-1	S01_AA01#S3.5	2025-01-14	Passed	Passed
WLAN ax 20 MHz MIMO(MU), low, U-NII-3	S01_AA01#S3.5	2025-01-19	Passed	Passed
WLAN ax 40 MHz MIMO(MU), high, U-NII-3	S01_AA01#S3.5	2025-03-22	Passed	Passed
WLAN ax 40 MHz MIMO(MU), high, U-NII-1	S01_AA01#S3.5	2025-01-20	Passed	Passed
WLAN ax 40 MHz MIMO(MU), low, U-NII-1	S01_AA01#S3.5	2025-01-19	Passed	Passed
WLAN ax 40 MHz MIMO(MU), low, U-NII-3	S01_AA01#S3.5	2025-01-20	Passed	Passed
WLAN ax 80 MHz MIMO(MU), low, U-NII-3	S01_AA01#S3.5	2025-03-22	Passed	Passed
WLAN ax 80 MHz MIMO(MU), mid, U-NII-1	S01_AA01#S3.5	2025-03-17	Passed	Passed
WLAN n 20 MHz MIMO, high, U-NII-3	S01_AA01#S3.5	2025-01-14	Passed	Passed
WLAN n 20 MHz MIMO, high, U-NII-1	S01_AA01#S3.5	2025-03-19	Passed	Passed
WLAN n 20 MHz MIMO, low, U-NII-1	S01_AA01#S3.5	2025-03-19	Passed	Passed
WLAN n 20 MHz MIMO, low, U-NII-3	S01_AA01#S3.5	2025-03-22	Passed	Passed
WLAN n 40 MHz MIMO, high, U-NII-3	S01_AA01#S3.5	2025-01-07	Passed	Passed
WLAN n 40 MHz MIMO, high, U-NII-1	S01_AA01#S3.5	2025-03-19	Passed	Passed
WLAN n 40 MHz MIMO, low, U-NII-1	S01_AA01#S3.5	2025-03-19	Passed	Passed
WLAN n 40 MHz MIMO, low, U-NII-3	S01_AA01#S3.5	2025-01-07	Passed	Passed
WLAN a Diversity, low, U-NII-1	S01_AB01#S3.0	2025-03-17	Passed	Passed
WLAN ac 40 MHz MIMO, high, U-NII-1	S01_AB01#S3.0	2025-01-14	Passed	Passed

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Subpart E §15.407

FCC §15.407 (b), (1),(2),(3),(4)

Band Edge

The measurement was performed according to ANSI C63.10, chapter 6.6.5

Final Result

OP-Mode	Setup	Date	FCC	IC
Radio Technology, Operating Frequency, Subband				
WLAN ac 80 MHz MIMO, low, U-NII-3	S01_AB01#S3.0	2025-03-23	Passed	Passed
WLAN ax 20 MHz MIMO(SU), high, U-NII-3	S01_AB01#S3.0	2025-03-23	Passed	Passed
WLAN ax 40 MHz MIMO(SU), low, U-NII-1	S01_AB01#S3.0	2025-01-19	Passed	Passed
WLAN ax 20 MHz MIMO(MU), high, U-NII-3	S01_AB01#S3.0	2025-03-23	Passed	Passed
WLAN ax 40 MHz MIMO(MU), low, U-NII-1	S01_AB01#S3.0	2025-01-19	Passed	Passed
WLAN ax 80 MHz MIMO(SU), mid, U-NII-1	S01_AB01#S3.0	2025-03-17	Passed	Passed
WLAN n 40 MHz MIMO, high, U-NII-3	S01_AB01#S3.0	2025-03-23	Passed	Passed

N/A: Not applicable

N/P: Not performed

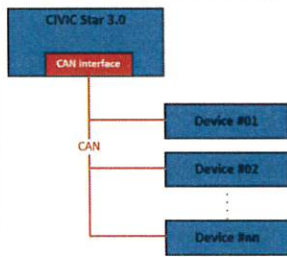
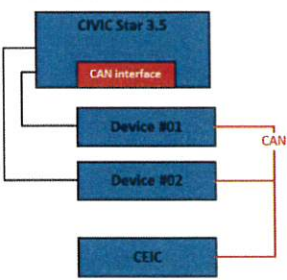
2 REVISION HISTORY / SIGNATURES

Report version control			
Version	Release date	Change Description	Version validity
initial	2025-04-15	--	invalid
rev01	2025-07-23	- the rest plots for "Spurious Radiated Emissions" measurements have been added.	valid

COMMENT:

The models BCI3L4PTR1 and BCI3L4PTN1 have identical RF parts, and the differences between them are declared in the "FCC_Declaration_of_Identity_BCI3L4PTN1_BCI3L4PTR1_V2_s" document. The results of the conducted measurements are listed in the report. "MDE_BOSCH_2411_FCC_09".

The EUT (Multimedia Equipment with WLAN and Bluetooth) supports two different software variants. The differences between these variants are explained in the following table:

Parameter	LS4T	LS4+T
SW-SKU	ABBC	AABC
GPU frequency	635 MHz	731 MHz
Software variant	Star 3.0	Star 3.5
Blockdiagram Star Architectures	The following block diagram shows the fundamental Star 3.0 architecture that uses the CAN interface. 	The following block diagram shows the fundamental Star 3.5 architecture that does not use the CAN interface, but it is assembled on the CIVIC device. 

The CAN interface is always built on both Star architectures, but only Star 3.0 uses the CAN interface.

Based on the previous table and the applicant's suggested test plan, the measurements were conducted as follows:

- Variant "Star 3.5": only tested for spurious emissions (Full testing)
- Variant "Star 3.0": only tested for spurious emissions (Spot checks only)



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(responsible for accreditation scope)
Dipl.-Ing. Daniel Gall



(responsible for testing and report)
BSc. Mhd Mouaz Saad

3 ADMINISTRATIVE DATA

3.1 TESTING LABORATORY

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

The test facility is accredited by the following accreditation organisation:

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

Responsible for accreditation scope: Dipl.-Ing. Daniel Gall
Report Template Version: 2025-02-28

3.2 PROJECT DATA

Responsible for testing and report: BSc. Mhd Mouaz Saad
Employees who performed the tests: documented internally at 7Layers
Date of Report: 2025-07-23
Testing Period: 2024-01-11 to 2025-07-19

3.3 APPLICANT DATA

Company Name: Robert Bosch GmbH
Address: Robert-Bosch-Platz 1, 70839 Gerlingen
Germany
Contact Person: Karin Silberhorn

3.4 MANUFACTURER DATA

Manufacturer 1

Company Name: Bosch Car Multimedia Portugal

Address: S.A. Rua Max Grundig
35-Lomar,
4705-820 Braga

Manufacturer 2

Company Name: Bosch Automotive Products (Suzhou) Co., Ltd.

Address: Changzhou Branch
No. 17, Long Men Road,
Wujin Hi-tech Industrial Zone
Changzhou, Jiangsu, P.R. China

4 TEST OBJECT DATA

4.1 GENERAL EUT DESCRIPTION

Kind of Device product description	Central In-Vehicle Infotainment Computer	
Product name	Multimedia Device with WLAN and Bluetooth	
Model name	BCI3L4PTR1(Star 3.5 / Star 3.0)	
Declared EUT data by the supplier		
Voltage Type	DC	
Voltage Level	12 VDC	
Tested Modulation Type	OFDM and OFDMA; supports Cyclic Delay Diversity (CDD)	
General product description	Central In-Vehicle Infotainment Computer Gen20x.i3 infotainment system is the main unit in the vehicle, which combines the instrument cluster and infotainment functionality. It supports Bluetooth classic (BT), Bluetooth Low Energy (BTLE) and Wi-Fi (2.4GHz(SISO) and 5GHz(MIMO only)). Supported WLAN modes are a, n, ac and ax with 20 MHz (mode a, n, ac, ax), 40 MHz (mode n, ac, ax) and 80MHz (mode ac, ax) BW. The ax Mode Supports MU-MIMO and OFDMA. The U-NII bands 1 and 3 are supported.	
Specific product description for the EUT	The EUT has the following modules for Bluetooth and WLAN:	
	ATC6QPL002(Chip02): Only BT and BTLE	ATC6QPL004(Chip01): BT, BTLE, Wi-Fi (2.4GHz and 5GHz).
Antenna / Gain	External	
	Antenna 3	Antenna 4
	5.1 dBi	5.1 dBi
EUT ports (connected cables during testing):	Main Connector A (incl. DC Power) (unshielded, 1m)	GNSS antenna (shielded, 1.5m)
	Main Connector B (unshielded, 1m)	BT/WLAN Antenna (shielded, 1.5m)
	Ethernet (shielded, 1.5m)	HD-BaseT (shielded, 1.5m)
	FM/AM/SDARS/Ref.-Antennas	USB 2.0 – TGS (shielded, 1.5m)
	Video-Out Displays (shielded, 1.5m)	USB 2.0 - MM-Box (shielded, 1.5m)
	CamsControl(shielded, 1.5m)	Video-in Cameras (shielded, 1.5m)
	USB 3.0 High Speed Flashing/CAM Logging (shielded, 1.5m)	
Tested Datarates	WLAN a: 6 Mbit WLAN n, ac, ax: MCS 0	
Special software used for testing	ADB shell.exe / civic_wlan_rta_tool_v2_11.exe	
Connection to AC main is supported	No (no direct or indirect connection)	

4.2 EUT MAIN COMPONENTS

Sample Name	Sample Code	Description
EUT A	DE1050027aa01	Radiated Sample
Sample Parameter	Value	
Serial No.	0018100	
HW Version	D5	
SW Version	E064.4	
Comment	BCI3L4PTR1 - Star 3.5	

Sample Name	Sample Code	Description
EUT B	DE1050028ab01	Radiated Sample
Sample Parameter	Value	
Serial No.	0017851	
HW Version	D5	
SW Version	E064.4	
Comment	BCI3L4PTR1 - Star 3.0	

Sample Name	Sample Code	Description
EUT C	DE1050028aa01	Radiated Sample
Sample Parameter	Value	
Serial No.	0017856	
HW Version	D5	
SW Version	E064.4	
Comment	BCI3L4PTR1 - Star 3.0	

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
ANC 1	Continental, RKE223E1GNS, DE1050025/026AUX01	GNSS Antenna + Antenna Cable (1.5m)
ANC 2	Mercedes-Benz, A1779052902, DE1050025/026AUX45	4x WIFI/BT Antenna + 4x Antenna Cable (1.5m)

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
AUX A	Bosch, -, -, -, -	2x Cable Harness

4.5 EUT SETUPS

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

Setup	Combination of EUTs	Description and Rationale
S01_AA01#S3.5	EUT A, ANC 1, ANC 2, AUX A	Radiated Setup
S01_AB01#S3.0	EUT B, ANC 1, ANC 2, AUX A	Radiated Setup
S01_AA01#S3.0	EUT C, ANC 1, ANC 2, AUX A	Radiated Setup

4.6 OPERATING MODES / TEST CHANNELS

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

4.6.1 TEST CHANNELS

U-NII-Subband 1 (5150 - 5250 MHz)			U-NII-Subband 3 (5725 - 5850 MHz)			Nom. BW
low	mid	high	low	mid	high	20 MHz
36	40	48	149	157	165	Ch.-No.
5180	5200	5240	5745	5785	5825	MHz

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

low	mid	high	low	mid	high	80 MHz
-	42	-	155	-	-	Ch.-No.
-	5210	-	5775	-	-	MHz

4.6.2 OPERATING MODES

- WLAN a-mode diversity
- WLAN n-mode MIMO (20, 40 MHz BW)
- WLAN ac-mode MIMO (20, 40 and 80 MHz BW)
- WLAN ax-mode MIMO (20, 40 and 80 MHz BW), support also the following modes:
 - o ax-mode MIMO **Single User (SU)** (not supported by all Test Channels)
 - o ax- mode MIMO **Multi User (MU)** (supported by all Test Channels)
- WLAN 2.4 GHz low: WLAN b-mode, channel (1) = 2412 MHz, Data Rate = 1 Mbps
- WLAN 2.4 GHz mid: WLAN b-mode, channel (6) = 2437 MHz, Data Rate = 1 Mbps
- BTLE high: GFSK, channel (39) = 2480 MHz, Data Rate = 1 Mbps
- BTLE mid: GFSK, channel (19) = 2440 MHz, Data Rate = 1 Mbps
- BT Classic high: 8-DPSK, channel (78) = 2480 MHz, Data Rate = 3 Mbps
- BT Classic low: 8-DPSK, channel (0) = 2402 MHz, Data Rate = 3 Mbps

Simultaneous Transmission:

Simultaneous Transmission A:

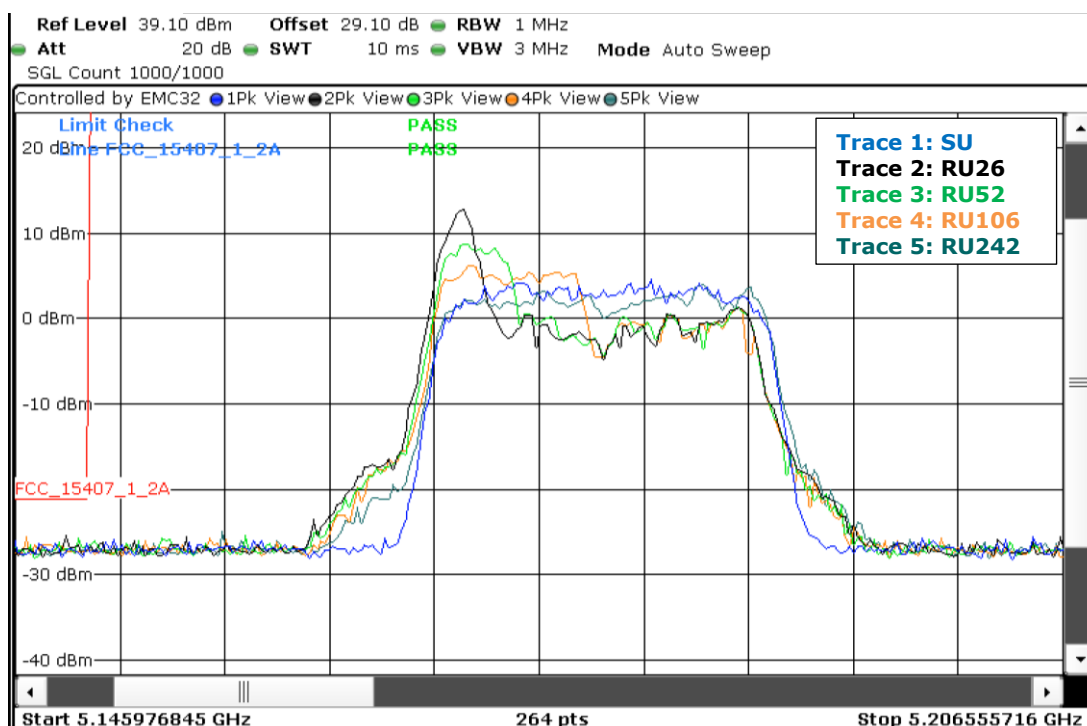
- o **Chip01:**
 - BTLE high
 - WLAN 2.4 GHz mid
 - WLAN ac40-mode MIMO, CH 38
- o **Chip02:**
 - BT Classic low

Simultaneous Transmission B:

- o **Chip01:**
 - BTLE mid
 - WLAN 2.4 GHz low
 - WLAN n40-mode MIMO, CH 38
- o **Chip02:**
 - BT Classic high

The test case RU26 represents the worst-case scenario for ax-mode MU, which is why MU mode was performed exclusively by RU26. (except by ax 80 MHz)

ax20-mode_CH36



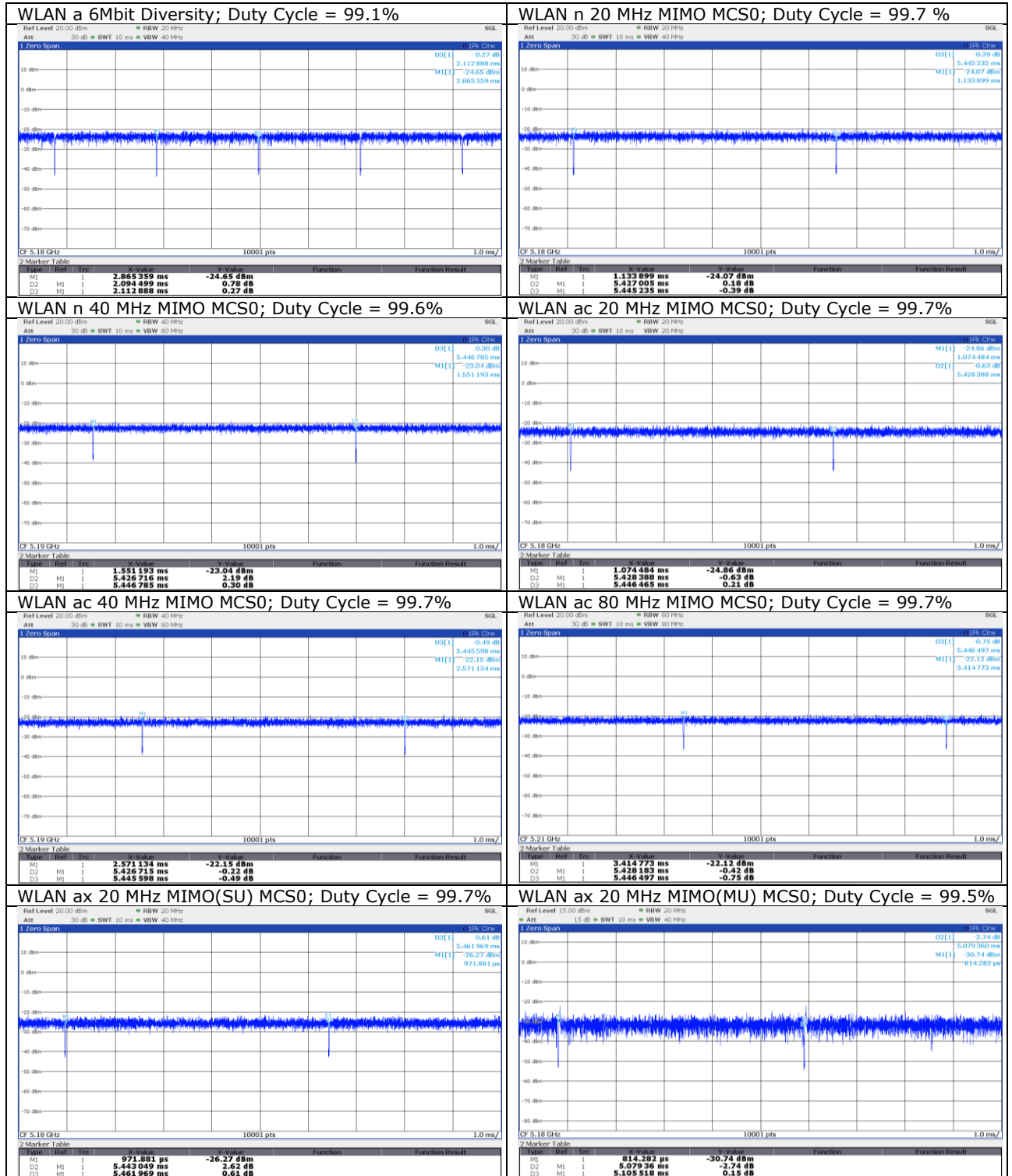
The supported test cases of the ax-mode MIMO MU by WLAN 5 GHz are in the following table:

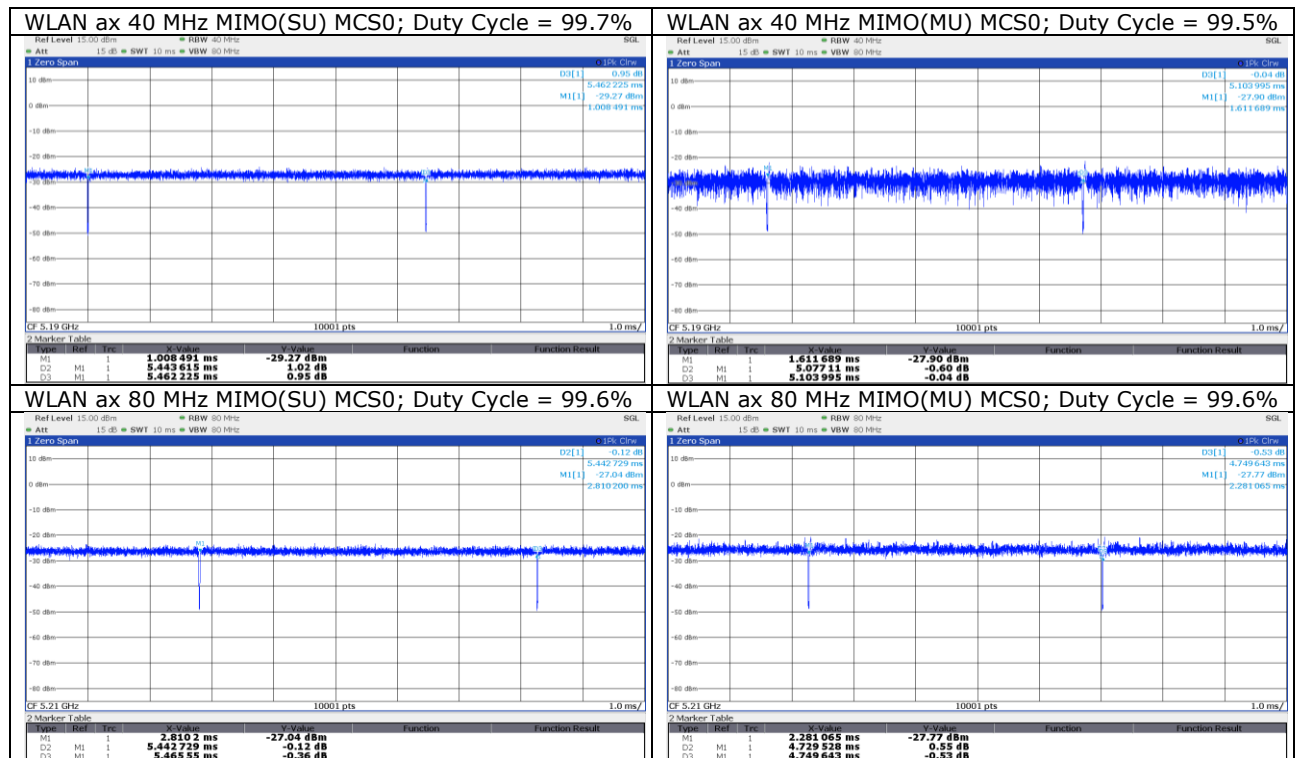
BW 20											
5180 [MHz]		5200 [MHz]		5240 [MHz]		5745 [MHz]		5785 [MHz]		5825 [MHz]	
SU/RU	RU offset	SU/RU	RU offset	SU/RU	RU offset	SU/RU	RU offset	SU/RU	RU offset	SU/RU	RU offset
SU	-	-	-	SU	-	SU	-	-	-	SU	-
RU26	0	RU26	4	RU26	8	RU26	0	RU26	4	RU26	8
RU52	37	-	-	RU52	40	RU52	37	-	-	RU52	40
RU106	53	-	-	RU106	54	RU106	53	-	-	RU106	54
RU242	61	-	-	RU242	61	RU242	61	-	-	RU242	61

BW 40							
5190 [MHz]		5230 [MHz]		5755 [MHz]		5795 [MHz]	
SU/RU	RU offset	SU/RU	RU offset	SU/RU	RU offset	SU/RU	RU offset
SU	-	SU	-	SU	-	SU	-
RU26	8	RU26	9	RU26	8	RU26	9
RU52	40	RU52	41	RU52	40	RU52	41
RU106	54	RU106	55	RU106	54	RU106	55
RU242	61	RU242	62	RU242	61	RU242	62
RU484	65	RU484	65	RU484	65	RU484	65

BW 80			
5210 [MHz]		5775 [MHz]	
SU/RU	RU offset	SU/RU	RU offset
SU	-	SU	-
RU996	67	RU996	67

4.7 DUTY CYCLE





4.8 PRODUCT LABELLING

4.8.1 FCC ID LABEL

Please refer to the documentation of the applicant.

4.8.2 LOCATION OF THE LABEL ON THE EUT

Please refer to the documentation of the applicant.

5 TEST RESULTS

5.1 UNDESIRABLE EMISSIONS; GENERAL FIELD STRENGTH LIMITS

Standard **FCC Part 15 Subpart E**

The test was performed according to:

ANSI C63.10, chapter 6.4, 6.5, 6.6.5

5.1.1 TEST DESCRIPTION

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:

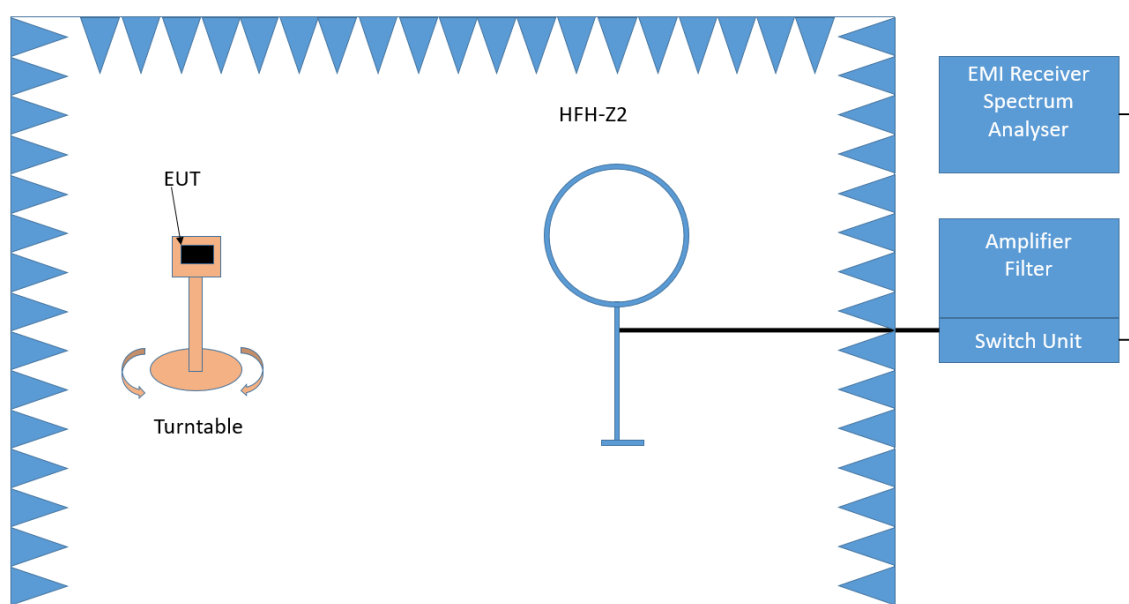
- < 30 MHz: Chapter 6.4
- 30 MHz – 1 GHz: Chapter 6.5
- > 1 GHz: Chapter 6.6 (procedure according 6.6.5 used)

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)

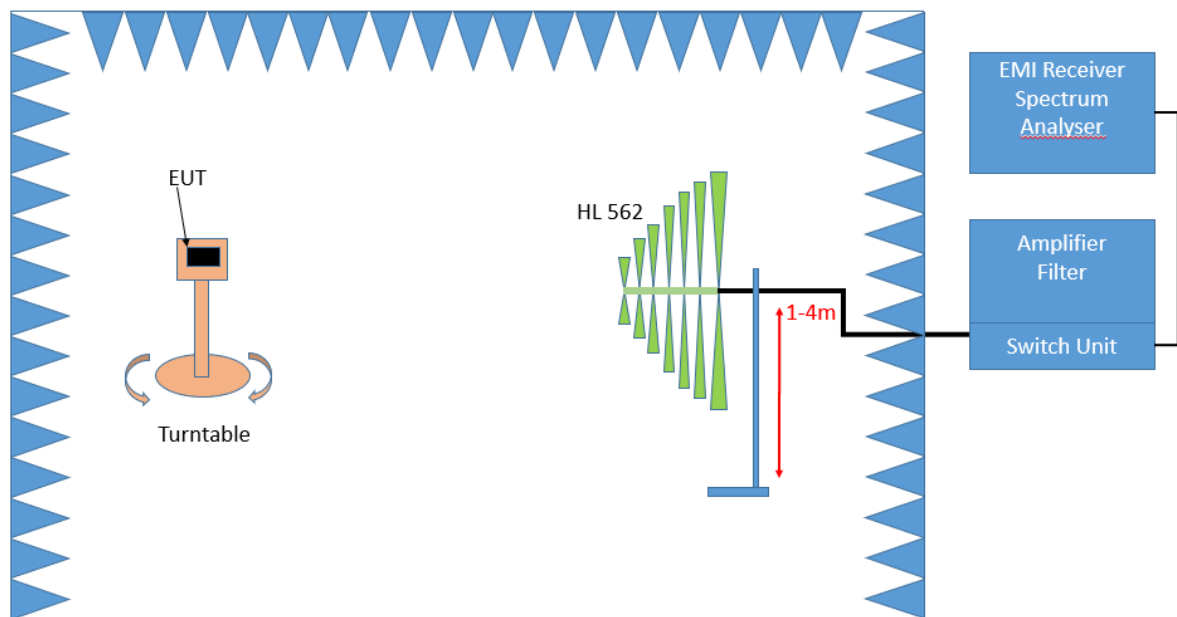
Intention of this step is, to determine the radiated EMI-profile of the EUT. Afterwards the relevant emissions for the final measurement are identified.

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

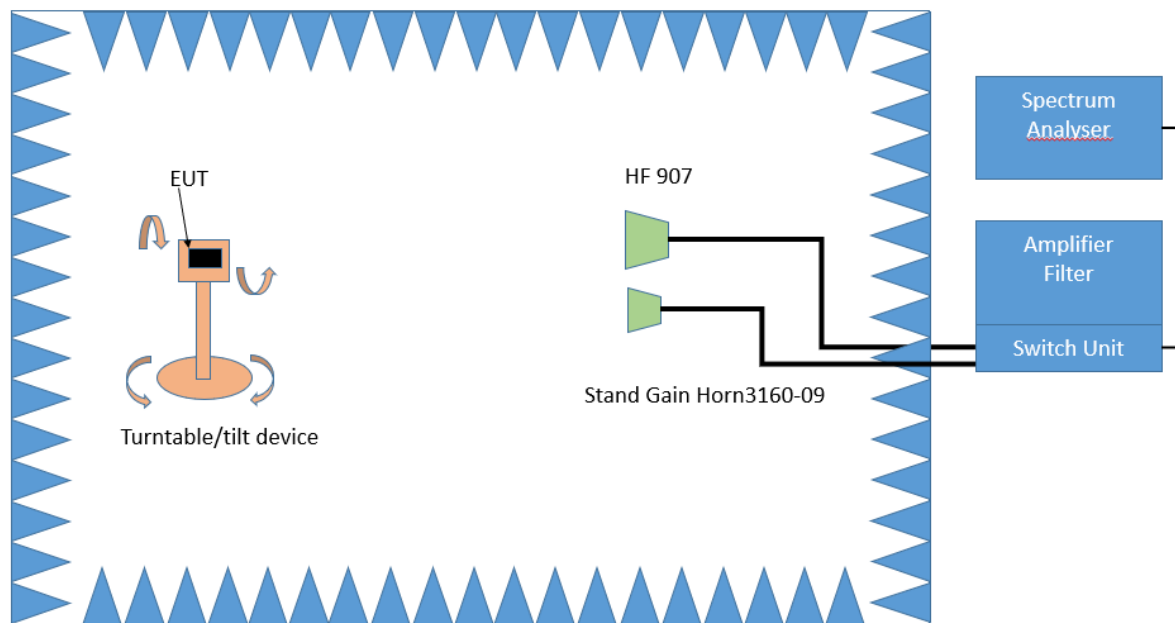
After the measurement a plot will be generated which contains a diagram with the results of the preliminary scan and a chart with the frequencies and values of the results of the final measurement.

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:

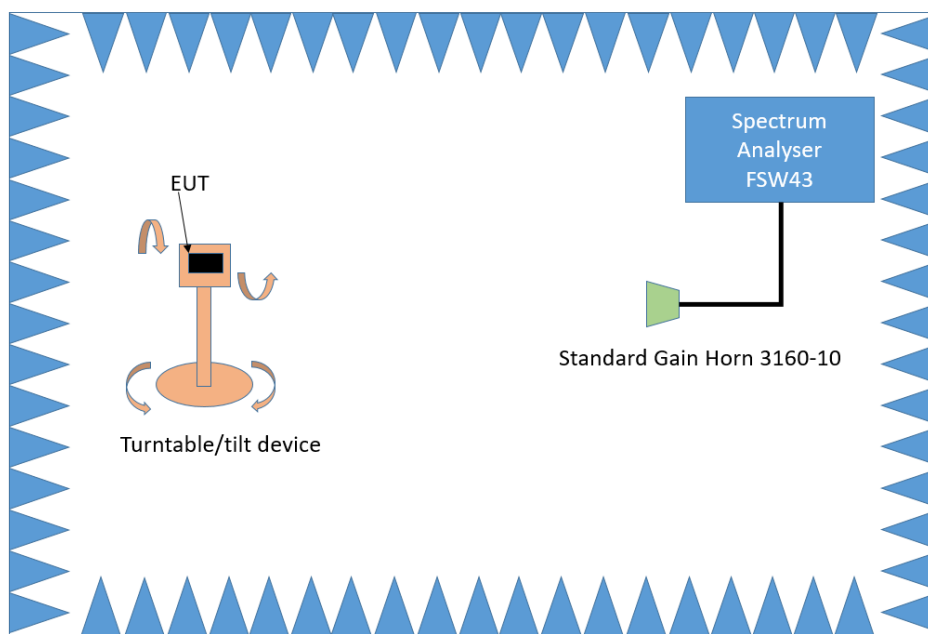
Spectrum analyser settings for step 3:

- 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

5.1.2 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)(4)

For transmitters operating in the 5725–5850 MHz band:

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

B) IC

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

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

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

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

- 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 Bm/MHz at 5 MHz above or below the band edges;

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

C) FCC & IC

FCC Part 15 Subpart E, §15.405

The provisions of §§ 15.203 and 15.205 are included.

§15.407 (b)(6)

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

§15.407 (b)(7)

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

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

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

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

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

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

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

Used conversion factor:

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

Limit types (in result tables):

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

UE – "Undesirable Emission Limit" according FCC §15.407

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

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

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

5.1.3 TEST PROTOCOL

(S01 AA01#S3.5):

Ambient temperature: 19 - 23 °C
 Air Pressure: 998 - 1020 hPa
 Humidity: 33 - 47 %

WLAN a-Mode; 20 MHz; 6 Mbit/s; Diversity
 Applied duty cycle correction (AV): 0.1 dB

Ch. No.	Ch. Center Freq. [MHz]	Spurious Freq. [MHz]	Spurious Level [dBμV/m]	Detector	RBW [kHz]	Limit [dBμV/m]	Margin [dB]	Limit Type
36	5180*	- - -	- - -	- - -	1000	- - -	- - -	- - -
40	5200	160.5	34.8	QP	120	43.5	8.7	RB
40	5200	355.9	32.3	QP	120	46.0	13.7	RB
40	5200	382.6	35.9	QP	120	46.0	10.1	RB
40	5200	615.0	34.8	QP	120	46.0	11.2	RB
40	5200	711.8	34.6	QP	120	46.0	11.4	RB
40	5200	730.3	22.7	QP	120	46.0	23.3	RB
48	5240*	- - -	- - -	- - -	1000	- - -	- - -	- - -
149	5745*	- - -	- - -	- - -	1000	- - -	- - -	- - -
157	5785	160.5	32.3	QP	120	43.5	11.2	RB
157	5785	348.3	27.6	QP	120	46.0	18.4	RB
157	5785	378.3	35.8	QP	120	46.0	10.2	RB
157	5785	614.0	37.5	QP	120	46.0	8.6	RB
157	5785	711.8	33.3	QP	120	46.0	12.7	RB
157	5785	730.0	31.0	QP	120	46.0	15.1	RB
157	5785	2370.6	43.8	AV	1000	54.0	10.2	RB
157	5785	2370.6	57.6	PEAK	1000	74.0	16.4	RB
165	5825	2363.6	39.6	AV	1000	54.0	14.4	RB
165	5825	2363.6	52.6	PEAK	1000	74.0	21.4	RB
165	5825	2731.8	39.0	AV	1000	54.0	15.0	RB
165	5825	2731.8	51.9	PEAK	1000	74.0	22.1	RB

WLAN n-Mode; 20 MHz; MCS 0; 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
36	5180	1758.0	49.3	PEAK	1000	68.2	18.9	UE
40	5200	2360.4	38.0	AV	1000	54.0	16.0	RB
40	5200	2360.4	50.7	PEAK	1000	74.0	23.3	RB
48	5240	2362.3	56.2	PEAK	1000	74.0	17.8	RB
48	5240	2362.3	42.5	AV	1000	54.0	11.5	RB
48	5240	5064.7	57.6	PEAK	1000	74.0	16.4	RB
48	5240	5064.7	44.9	AV	1000	54.0	9.1	RB
149	5745*	- - -	- - -	- - -	1000	- - -	- - -	- - -
157	5785*	- - -	- - -	- - -	1000	- - -	- - -	- - -
165	5825*	- - -	- - -	- - -	1000	- - -	- - -	- - -

WLAN n-Mode; 40 MHz; MCS 8; 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
38	5190	81.4	29.0	QP	120	40.0	11.0	RB
38	5190	108.2	28.2	QP	120	43.5	15.3	RB
38	5190	265.8	37.4	QP	120	46.0	8.6	RB
38	5190	288.1	30.9	QP	120	46.0	15.1	RB
38	5190	335.6	23.1	QP	120	46.0	22.9	RB

38	5190	396.3	24.3	QP	120	46.0	21.7	RB
38	5190	508.8	34.5	QP	120	46.0	11.5	RB
38	5190	600.2	27.9	QP	120	46.0	18.1	RB
38	5190	693.8	36.9	QP	120	46.0	9.1	RB
38	5190	875.0	35.3	QP	120	46.0	10.7	RB
38	5190	2366.0	40.1	AV	1000	54.0	13.9	RB
38	5190	2366.0	53.6	PEAK	1000	74.0	20.4	RB
46	5230	2367.9	38.6	AV	1000	54.0	15.4	RB
46	5230	2367.9	51.5	PEAK	1000	74.0	22.5	RB
151	5755	1714.4	49.0	PEAK	1000	68.2	19.2	UE
151	5755	1944.5	50.8	PEAK	1000	68.2	17.4	UE
159	5795	90.0	18.5	QP	120	43.5	25.0	RB
159	5795	108.2	13.3	QP	120	43.5	30.2	RB
159	5795	155.3	14.9	QP	120	43.5	28.6	RB
159	5795	180.3	19.1	QP	120	43.5	24.4	RB
159	5795	244.3	25.3	QP	120	46.0	20.7	RB
159	5795	314.0	32.5	QP	120	46.0	13.5	RB
159	5795	360.0	25.1	QP	120	46.0	20.9	RB
159	5795	405.3	26.5	QP	120	46.0	19.5	RB
159	5795	419.3	25.6	QP	120	46.0	20.4	RB
159	5795	639.7	35.2	QP	120	46.0	10.8	RB
159	5795	662.3	32.2	QP	120	46.0	13.8	RB
159	5795	711.8	31.3	QP	120	46.0	14.7	RB
159	5795	747.8	28.7	QP	120	46.0	17.3	RB
159	5795	851.0	25.0	QP	120	46.0	21.0	RB
159	5795	875.0	36.1	QP	120	46.0	9.9	RB
159	5795	1741.8	49.3	PEAK	1000	68.2	18.9	UE
159	5795	2366.8	39.9	AV	1000	54.0	14.1	RB
159	5795	2366.8	52.8	PEAK	1000	74.0	21.2	RB

WLAN ac-Mode; 40 MHz; MCS 0; 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
38	5190*	- - -	- - -	- - -	1000	- - -	- - -	- - -
46	5230	2368.1	53.5	PEAK	1000	74.0	20.5	RB
46	5230	2368.1	40.1	AV	1000	54.0	13.9	RB
46	5230	5098.3	57.2	PEAK	1000	74.0	16.8	RB
46	5230	5098.3	44.2	AV	1000	54.0	9.8	RB
151	5755	1721.0	35.4	AV	1000	54.0	18.6	RB
151	5755	1721.0	48.1	PEAK	1000	74.0	25.9	RB
151	5755	2368.5	37.8	AV	1000	54.0	16.2	RB
151	5755	2368.5	50.4	PEAK	1000	74.0	23.6	RB
159	5795	2371.3	38.4	AV	1000	54.0	15.6	RB
159	5795	2371.3	50.9	PEAK	1000	74.0	23.1	RB
159	5795	4805.8	45.0	AV	1000	54.0	9.0	RB
159	5795	4805.8	58.2	PEAK	1000	74.0	15.8	RB

WLAN ax-Mode; 20 MHz; MCS 0; MIMO(SU)

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
36	5180*	- - -	- - -	- - -	1000	- - -	- - -	- - -
165	5825*	- - -	- - -	- - -	1000	- - -	- - -	- - -

WLAN ax-Mode; 40 MHz; MCS 0; MIMO(SU)

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
38	5190*	---	---	---	1000	---	---	---
159	5795*	---	---	---	1000	---	---	---

WLAN ax-Mode; 80 MHz; MCS 0; MIMO(SU)

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
42	5210*	---	---	---	1000	---	---	---
155	5775*	---	---	---	1000	---	---	---

WLAN ax-Mode; 20 MHz; MCS 0; MIMO(MU)

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
36	5180*	---	---	---	1000	---	---	---
165	5825*	---	---	---	1000	---	---	---

WLAN ax-Mode; 40 MHz; MCS 0; MIMO(MU)

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
38	5190*	---	---	---	1000	---	---	---
159	5795*	---	---	---	1000	---	---	---

WLAN ax-Mode; 80 MHz; MCS 0; MIMO(MU)

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
42	5210*	---	---	---	1000	---	---	---
155	5775*	---	---	---	1000	---	---	---

Simultaneous Transmission A

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
38	5190*	---	---	---	1000	---	---	---

(S01 AA01#S3.0 / S01 AB01#S3.0):

Ambient temperature: 19 - 23 °C
 Air Pressure: 998 - 1020 hPa
 Humidity: 33 - 47 %

WLAN a-Mode; 20 MHz; 6 Mbit/s; Diversity
 Applied duty cycle correction (AV): 0.1 dB

Ch. No.	Ch. Center Freq. [MHz]	Spurious Freq. [MHz]	Spurious Level [dBμV/m]	Detector	RBW [kHz]	Limit [dBμV/m]	Margin [dB]	Limit Type
36	5180*	- - -	- - -	- - -	1000	- - -	- - -	- - -
40	5200	33.3	17.3	QP	120	40.0	22.8	RB
40	5200	117.5	22.6	QP	120	43.5	20.9	RB
40	5200	119.9	29.1	QP	120	43.5	14.4	RB
40	5200	162.2	26.9	QP	120	43.5	16.6	RB
40	5200	180.0	24.0	QP	120	43.5	19.6	RB
40	5200	216.3	21.8	QP	120	46.0	24.2	RB
40	5200	270.1	11.1	QP	120	46.0	34.9	RB
40	5200	342.2	22.3	QP	120	46.0	23.7	RB
40	5200	405.0	29.0	QP	120	46.0	17.0	RB
40	5200	480.3	33.2	QP	120	46.0	12.8	RB
40	5200	525.1	28.7	QP	120	46.0	17.3	RB
40	5200	621.6	32.9	QP	120	46.0	13.1	RB
40	5200	694.1	34.3	QP	120	46.0	11.7	RB
40	5200	875.0	34.9	QP	120	46.0	11.1	RB

WLAN n-Mode; 40 MHz; MCS 0; 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
38	5190	65.7	5.0	QP	120	40.0	35.0	RB
38	5190	120.0	26.2	QP	120	43.5	17.3	RB
38	5190	165.1	32.0	QP	120	43.5	11.5	RB
38	5190	349.0	35.0	QP	120	46.0	11.1	RB
38	5190	475.1	33.8	QP	120	46.0	12.2	RB
38	5190	621.6	29.9	QP	120	46.0	16.2	RB
38	5190	693.8	39.4	QP	120	46.0	6.6	RB
38	5190	875.0	35.6	QP	120	46.0	10.4	RB
159	5795*	- - -	- - -	- - -	1000	- - -	- - -	- - -

WLAN ac-Mode; 40 MHz; MCS 0; 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
46	5230*	- - -	- - -	- - -	1000	- - -	- - -	- - -

WLAN ax-Mode; 20 MHz; MCS 0; MIMO(SU)
 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
165	5825*	- - -	- - -	- - -	1000	- - -	- - -	- - -

WLAN ax-Mode; 40 MHz; MCS 0; MIMO(SU)

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
38	5190	5020.5	44.2	AV	1000	54.0	9.8	RB
38	5190	5020.5	57.7	PEAK	1000	74.0	16.3	RB
38	5190	25821.1	54.6	PEAK	1000	68.2	13.6	UE

WLAN ax-Mode; 20 MHz; MCS 0; MIMO(MU)

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
36	5180	66.9	25.9	QP	120	40.0	14.1	RB
36	5180	119.9	31.9	QP	120	43.5	11.6	RB
36	5180	172.1	30.0	QP	120	43.5	13.5	RB
36	5180	348.9	37.4	QP	120	46.0	8.6	RB
36	5180	489.0	33.6	QP	120	46.0	12.5	RB
36	5180	693.7	39.2	QP	120	46.0	6.8	RB
36	5180	875.0	34.9	QP	120	46.0	11.2	RB
165	5825*	- - -	- - -	- - -	1000	- - -	- - -	- - -

WLAN ax-Mode; 40 MHz; MCS 0; MIMO(MU)

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
38	5190*	- - -	- - -	- - -	1000	- - -	- - -	- - -

Simultaneous Transmission B

Applied duty cycle correction (AV): 0.0 dB

Ch. No.	Ch. Center Freq. [MHz]	Spurious Freq. [MHz]	Spurious Level [dBμV/m]	Detector	RBW [kHz]	Limit [dBμV/m]	Margin [dB]	Limit Type
38	5190	5025.2	28.1	AV	1000	54.0	25.9	RB
38	5190	5064.7	42.5	PEAK	1000	74.0	31.5	RB
38	5190	5091.0	42.1	PEAK	1000	74.0	31.9	RB
38	5190	5128.9	42.7	PEAK	1000	74.0	31.3	RB
38	5190	5144.3	42.7	PEAK	1000	74.0	31.3	RB

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

- The measurements have been fully performed only on worst-case modes (WLAN a Diversity and WLAN n40 MIMO).

***) no peaks have been found for these operating channels /operating modes**

Comment:

- At least spurious emissions that exceed the limit values, that come within 20 dB below these values are listed in the table above.

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

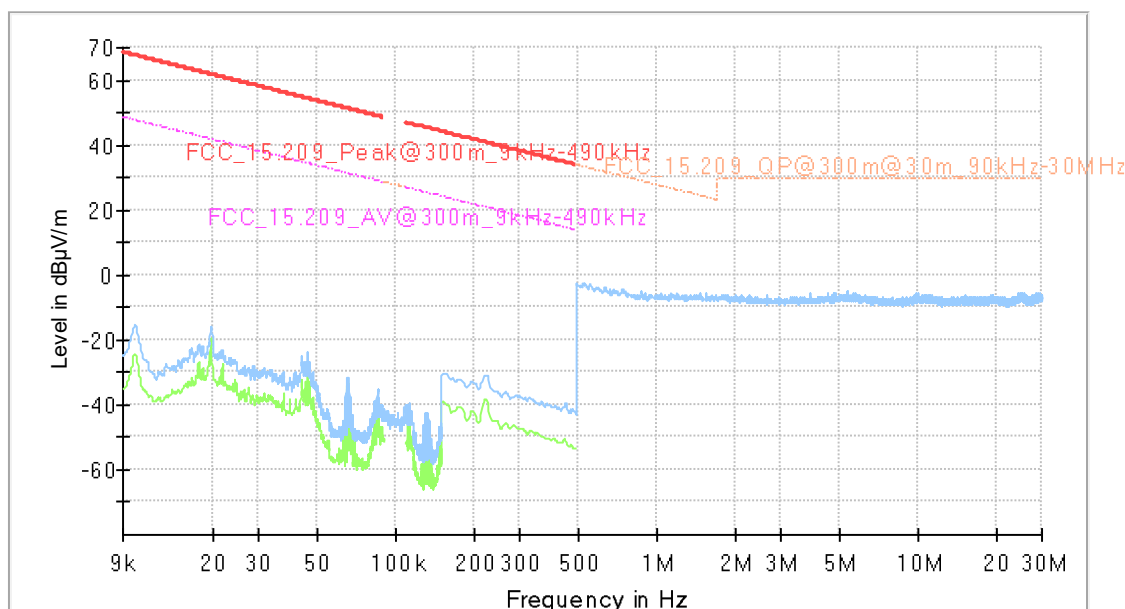
Trace:

blue = Peak (9 kHz - 40 GHz)
 green = AV (9 kHz - 30 MHz and 1 - 26 GHz), QP (30 MHz - 1 GHz)

Marker:

Star = critical frequency, Rhombus = final Results

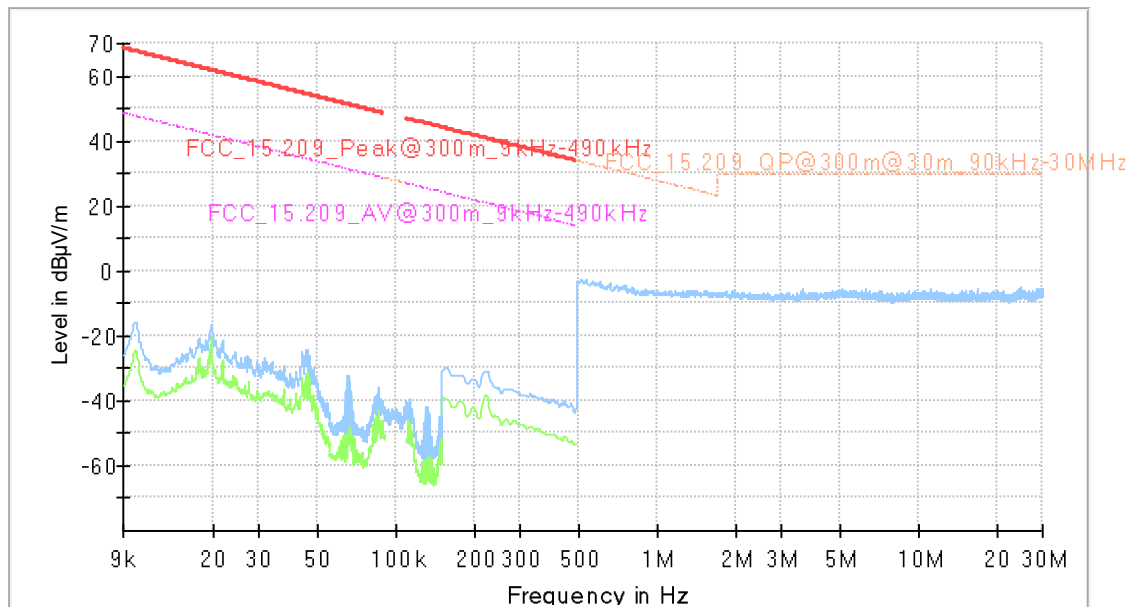
Modulation= WLAN a Diversity, Operating Channel = low, Subband = U-NII-1,
 Measurement range = 9 kHz - 30 MHz
 (S01_AA01#S3.5)



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)
---	---	---	---	---	---	---	---	---	---

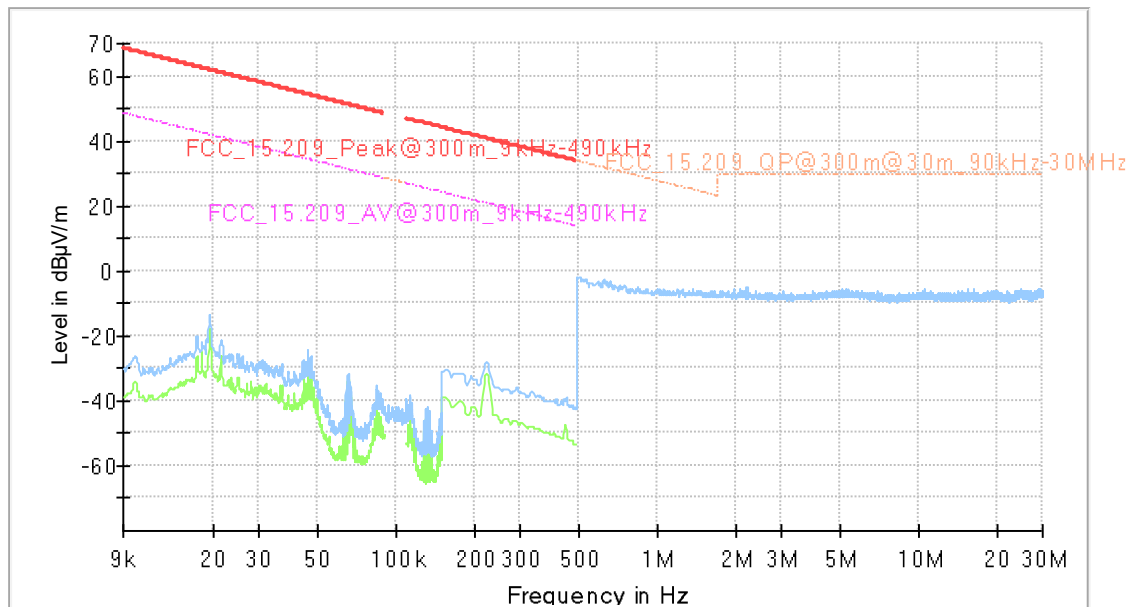
Modulation= WLAN a Diversity, Operating Channel = low, Subband = U-NII-3,
 Measurement range = 9 kHz - 30 MHz
 (S01_AA01#S3.5)



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)
---	---	---	---	---	---	---	---	---	---

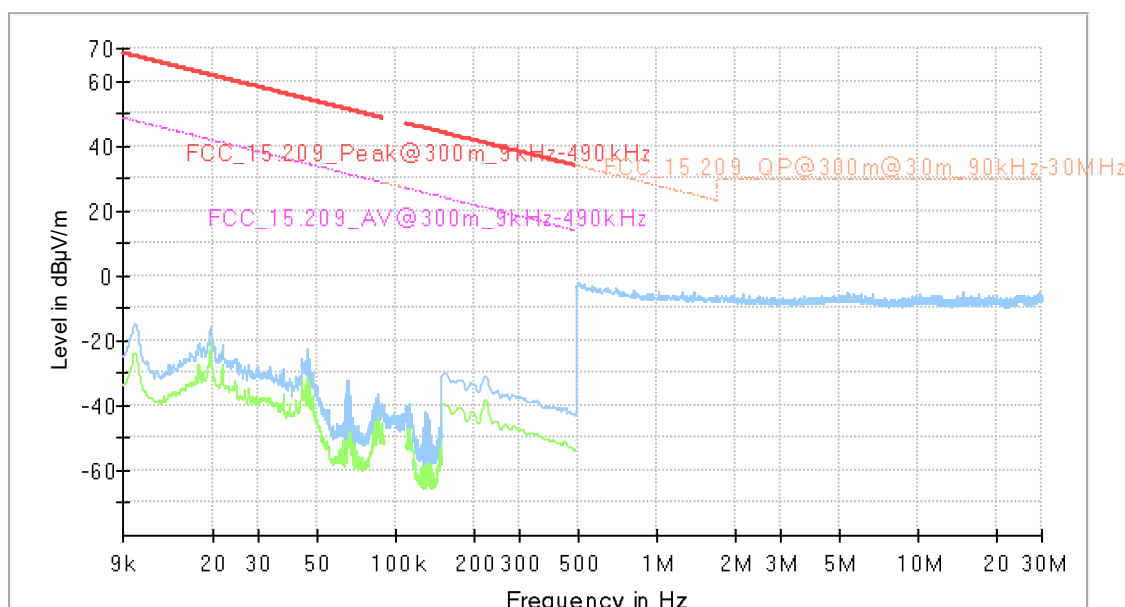
Modulation= WLAN a Diversity, Operating Channel = low, Subband = U-NII-1,
 Measurement range = 9 kHz - 30 MHz
 (S01_AA01#S3.0)



Final_Result

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

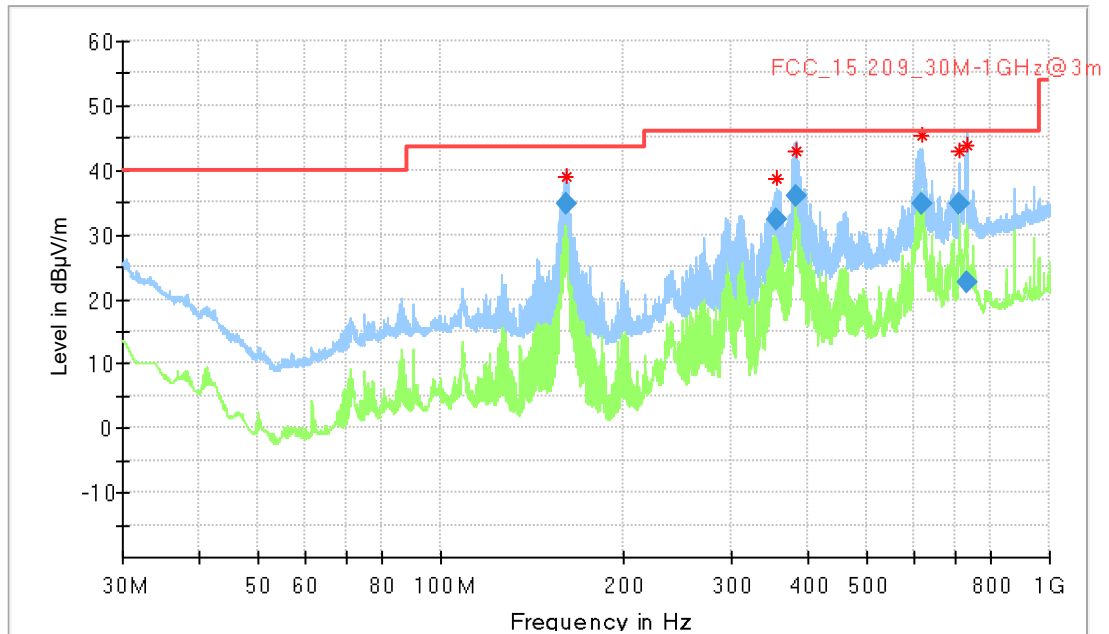
Modulation= WLAN n40 MIMO, Operating Channel = low, Subband = U-NII-1,
 Measurement range = 9 kHz - 30 MHz
 (S01_AA01#S3.5)



Final_Result

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

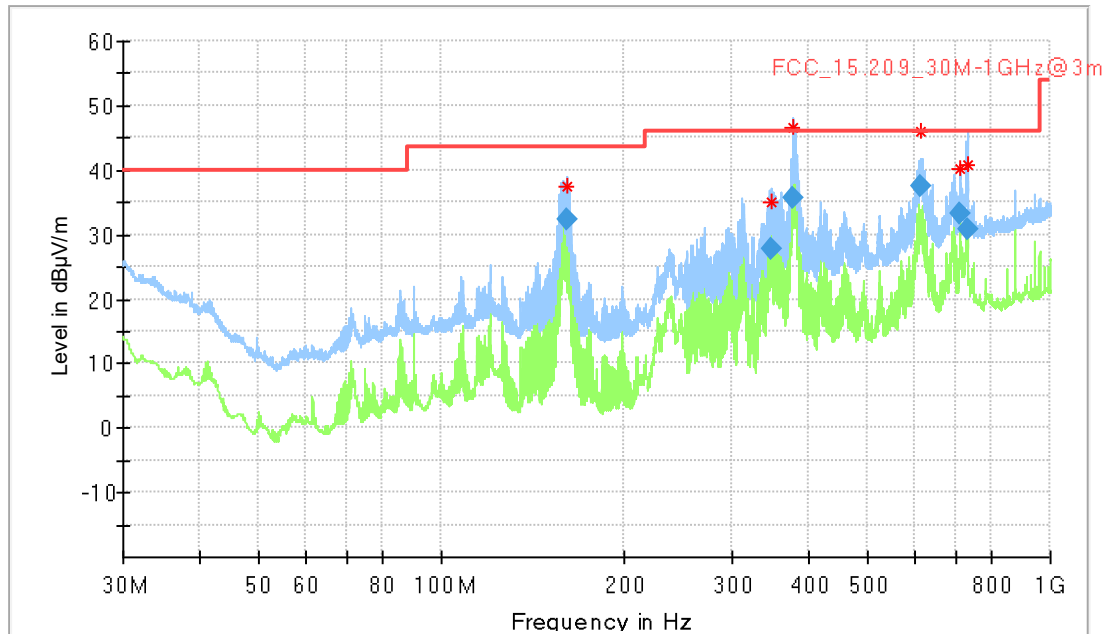
Radio Technology = WLAN a Diversity, Operating Frequency = mid, Subband = U-NII-1,
Measurement range = 30 MHz - 1 GHz
(S01_AA01#S3.5)



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)
160.500000	34.79	43.50	8.71	1000.0	120.000	102.0	V	-162.0	9.9
355.860000	32.34	46.00	13.66	1000.0	120.000	113.0	H	-20.0	16.6
382.590000	35.88	46.00	10.12	1000.0	120.000	130.0	V	12.0	17.4
614.970000	34.77	46.00	11.23	1000.0	120.000	103.0	H	67.0	23.1
711.750000	34.61	46.00	11.39	1000.0	120.000	120.0	H	111.0	24.9
730.260000	22.67	46.00	23.33	1000.0	120.000	181.0	V	-162.0	25.4

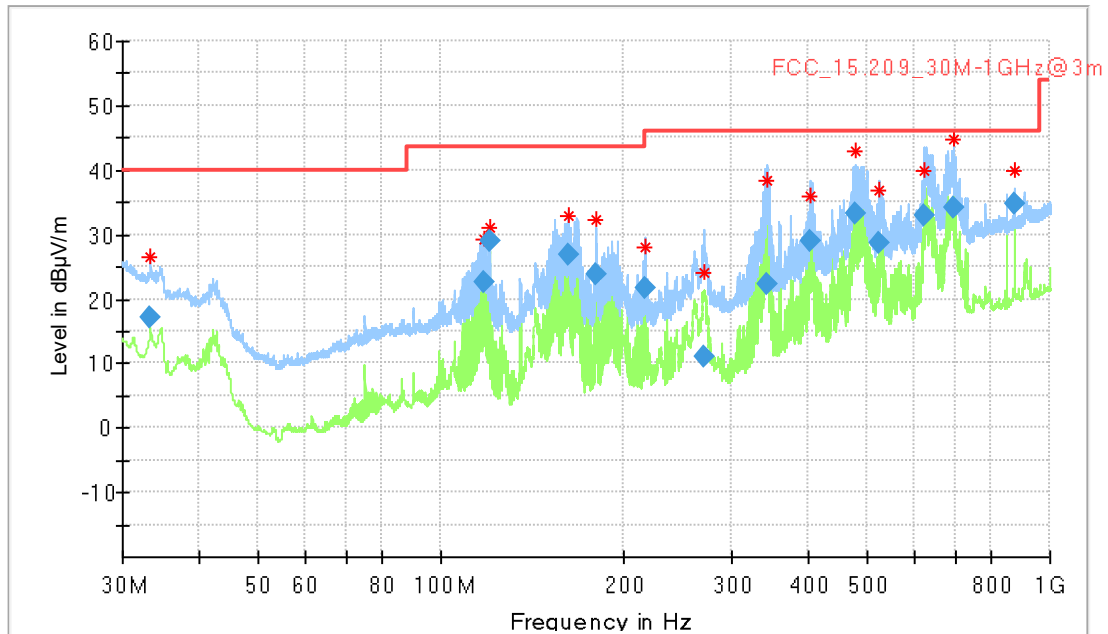
Radio Technology = WLAN a Diversity, Operating Frequency = mid, Subband = U-NII-3,
 Measurement range = 30 MHz - 1 GHz
 (S01_AA01#S3.5)



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)
160.500000	32.27	43.50	11.23	1000.0	120.000	104.0	V	-194.0	9.9
348.300000	27.63	46.00	18.37	1000.0	120.000	107.0	H	-173.0	16.2
378.270000	35.79	46.00	10.21	1000.0	120.000	122.0	V	15.0	17.3
614.040000	37.45	46.00	8.55	1000.0	120.000	100.0	H	90.0	23.1
711.840000	33.34	46.00	12.66	1000.0	120.000	103.0	H	103.0	24.9
730.020000	30.95	46.00	15.05	1000.0	120.000	110.0	H	-62.0	25.4

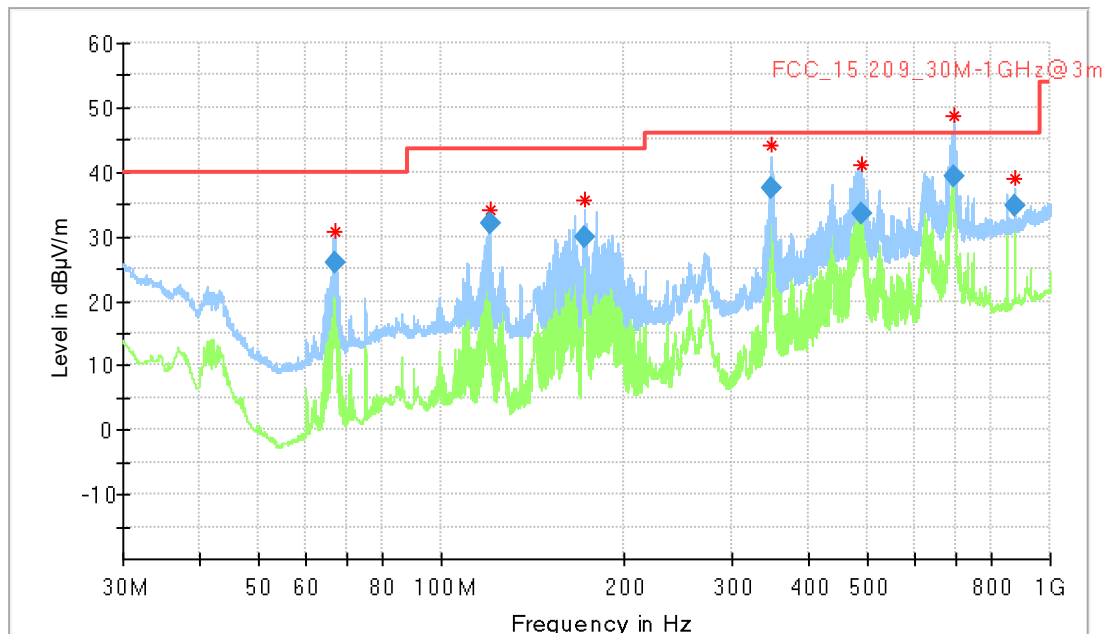
Radio Technology = WLAN a Diversity, Operating Frequency = mid, Subband = U-NII-1,
Measurement range = 30 MHz - 1 GHz
(S01_AA01#S3.0)



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)
33.330000	17.25	40.00	22.75	1000.0	120.000	103.0	V	-89.0	17.7
117.450000	22.61	43.50	20.89	1000.0	120.000	266.0	H	111.0	12.0
119.940000	29.07	43.50	14.43	1000.0	120.000	227.0	H	-62.0	12.0
162.240000	26.86	43.50	16.64	1000.0	120.000	114.0	V	-2.0	9.9
180.000000	23.95	43.50	19.55	1000.0	120.000	102.0	V	-24.0	11.2
216.330000	21.79	46.00	24.21	1000.0	120.000	114.0	V	-198.0	11.4
270.060000	11.07	46.00	34.93	1000.0	120.000	102.0	V	-88.0	13.5
342.240000	22.29	46.00	23.71	1000.0	120.000	105.0	H	46.0	16.0
405.000000	28.96	46.00	17.04	1000.0	120.000	102.0	H	98.0	18.2
480.330000	33.22	46.00	12.78	1000.0	120.000	110.0	H	51.0	20.4
525.060000	28.67	46.00	17.33	1000.0	120.000	100.0	H	92.0	21.3
621.630000	32.91	46.00	13.09	1000.0	120.000	107.0	H	89.0	23.2
694.080000	34.28	46.00	11.72	1000.0	120.000	107.0	H	-91.0	24.6
874.980000	34.89	46.00	11.11	1000.0	120.000	120.0	V	91.0	27.4

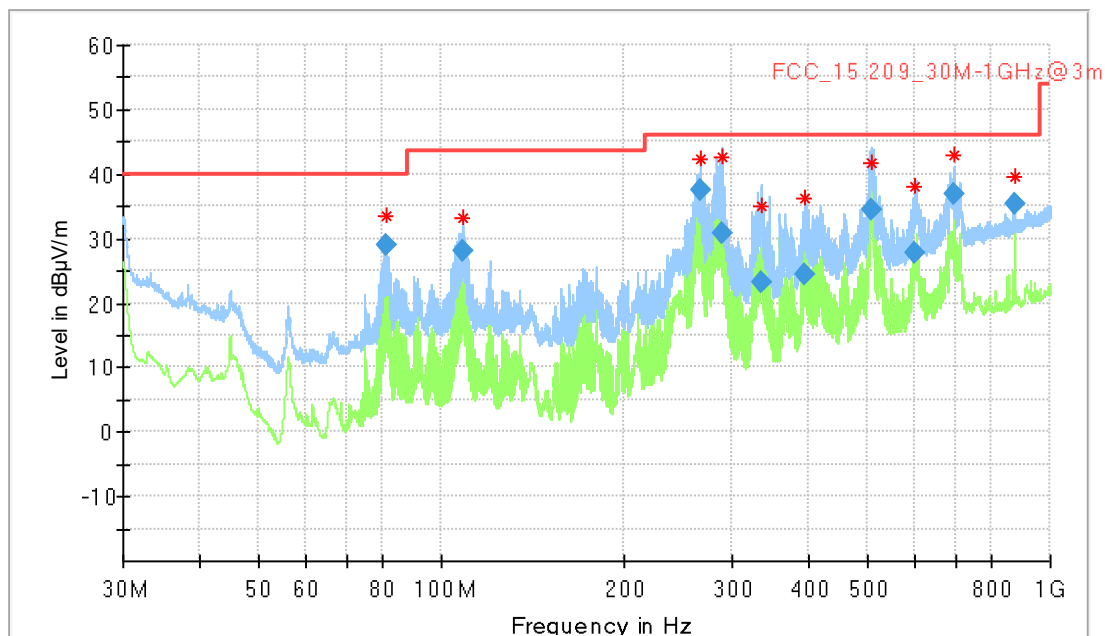
Radio Technology = WLAN ax20 MIMO(MU), Operating Frequency = low, Subband = U-NII-1,
Measurement range = 30 MHz - 1 GHz
(S01_AA01#S3.0)



Final Result

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
66.870000	25.94	40.00	14.06	1000.0	120.000	141.0	V	-94.0	8.2
119.940000	31.87	43.50	11.63	1000.0	120.000	217.0	H	-79.0	12.0
172.110000	29.96	43.50	13.54	1000.0	120.000	172.0	H	-84.0	10.5
348.930000	37.38	46.00	8.62	1000.0	120.000	118.0	H	-197.0	16.2
489.030000	33.55	46.00	12.45	1000.0	120.000	111.0	H	64.0	20.7
693.690000	39.19	46.00	6.81	1000.0	120.000	100.0	H	-17.0	24.5
875.010000	34.85	46.00	11.15	1000.0	120.000	116.0	V	63.0	27.4

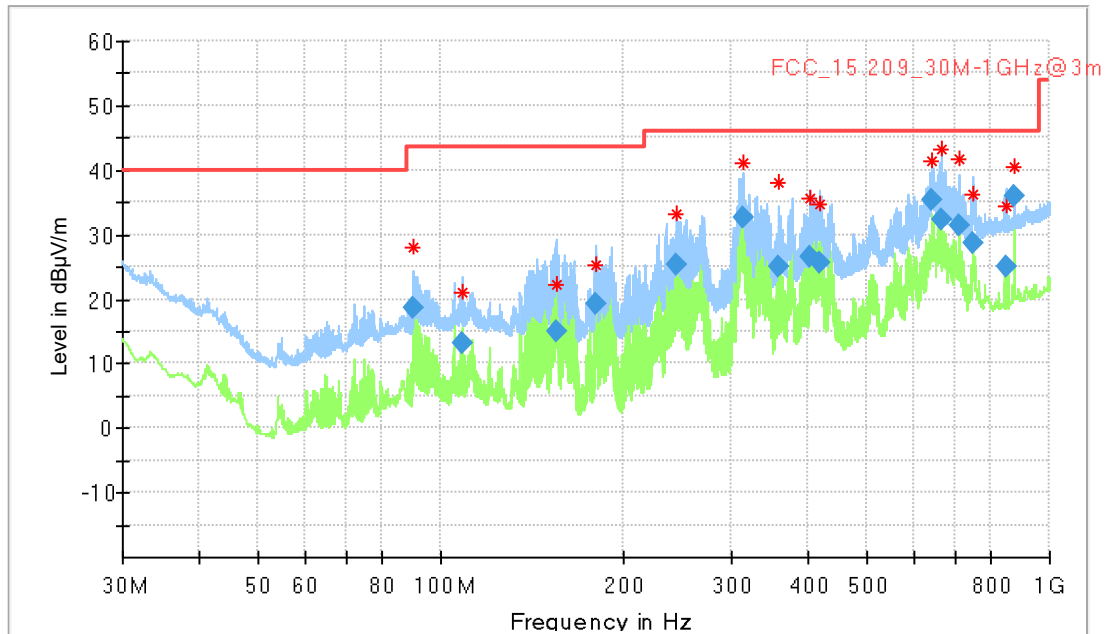
Radio Technology = WLAN n40 MIMO, Operating Frequency = low, Subband = U-NII-1,
Measurement range = 30 MHz - 1 GHz
(S01_AA01#S3.5)



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)
81.420000	28.96	40.00	11.04	1000.0	120.000	119.0	V	167.0	10.7
108.180000	28.19	43.50	15.31	1000.0	120.000	112.0	V	-58.0	12.1
265.770000	37.38	46.00	8.62	1000.0	120.000	103.0	H	260.0	13.4
288.120000	30.94	46.00	15.06	1000.0	120.000	114.0	V	-119.0	14.2
335.580000	23.14	46.00	22.86	1000.0	120.000	107.0	H	122.0	15.9
396.300000	24.26	46.00	21.74	1000.0	120.000	108.0	H	-114.0	17.9
508.830000	34.47	46.00	11.53	1000.0	120.000	117.0	H	15.0	21.0
600.150000	27.87	46.00	18.13	1000.0	120.000	226.0	H	-48.0	22.9
693.810000	36.86	46.00	9.14	1000.0	120.000	100.0	V	-76.0	24.5
875.010000	35.26	46.00	10.74	1000.0	120.000	120.0	V	88.0	27.4

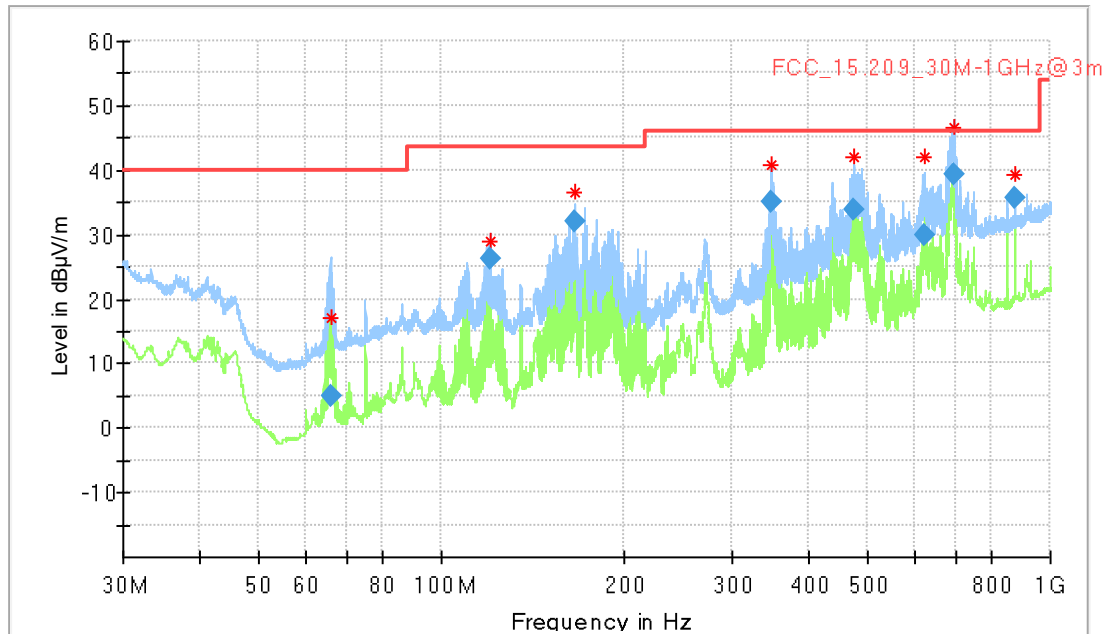
Radio Technology = WLAN n40 MIMO, Operating Frequency = high, Subband = U-NII-3,
Measurement range = 30 MHz - 1 GHz
(S01_AA01#S3.5)



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)
90.030000	18.48	43.50	25.02	1000.0	120.000	124.0	V	-152.0	11.2
108.180000	13.26	43.50	30.24	1000.0	120.000	129.0	V	255.0	12.1
155.250000	14.91	43.50	28.59	1000.0	120.000	105.0	V	182.0	9.8
180.270000	19.12	43.50	24.38	1000.0	120.000	110.0	V	61.0	11.1
244.260000	25.30	46.00	20.70	1000.0	120.000	108.0	V	36.0	12.5
314.010000	32.51	46.00	13.49	1000.0	120.000	113.0	H	11.0	15.1
359.970000	25.07	46.00	20.93	1000.0	120.000	120.0	H	103.0	16.7
405.330000	26.51	46.00	19.49	1000.0	120.000	232.0	H	87.0	18.2
419.280000	25.64	46.00	20.36	1000.0	120.000	115.0	H	-166.0	18.6
639.690000	35.23	46.00	10.77	1000.0	120.000	130.0	H	224.0	23.6
662.310000	32.19	46.00	13.81	1000.0	120.000	111.0	H	-82.0	24.1
711.750000	31.28	46.00	14.72	1000.0	120.000	119.0	H	77.0	24.9
747.840000	28.67	46.00	17.33	1000.0	120.000	108.0	H	195.0	25.5
851.040000	24.96	46.00	21.04	1000.0	120.000	213.0	H	90.0	27.0
874.980000	36.07	46.00	9.93	1000.0	120.000	120.0	V	91.0	27.4

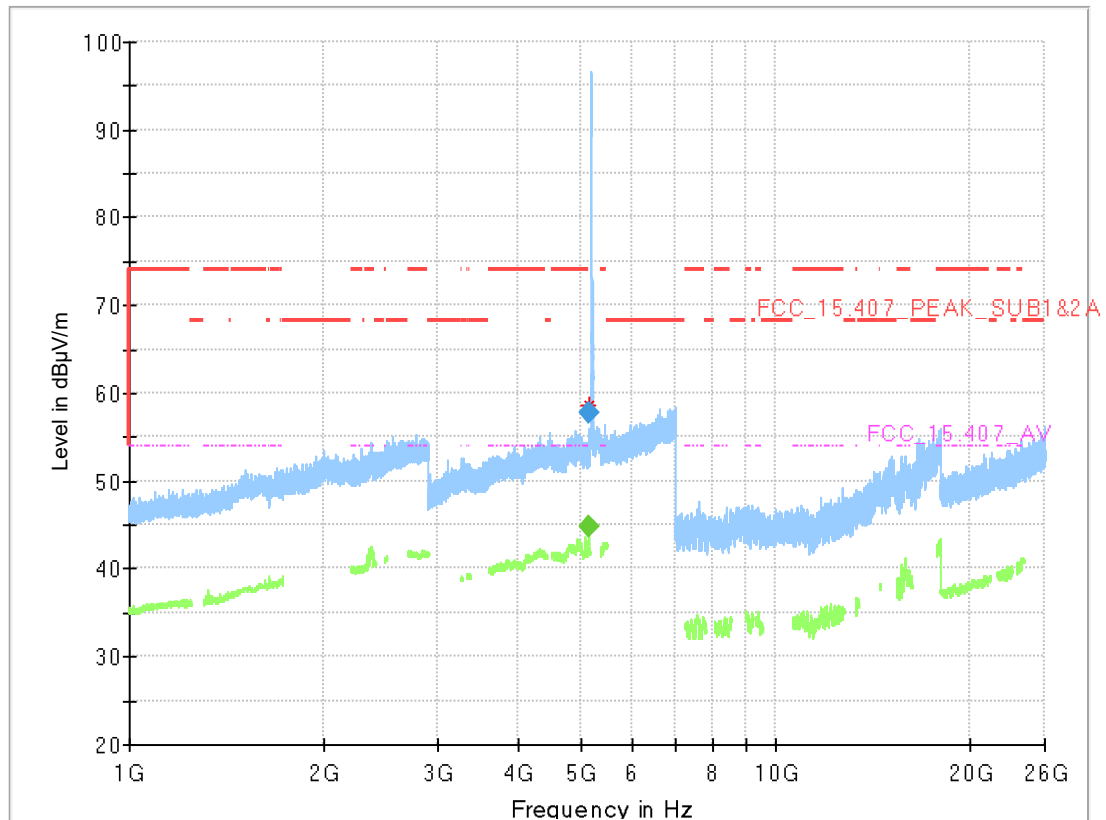
Radio Technology = WLAN n40 MIMO, Operating Frequency = low, Subband = U-NII-1,
Measurement range = 30 MHz - 1 GHz
(S01_AA01#S3.0)



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)
65.700000	4.96	40.00	35.04	1000.0	120.000	191.0	V	-138.0	7.9
119.970000	26.21	43.50	17.29	1000.0	120.000	136.0	V	13.0	12.0
165.120000	31.98	43.50	11.52	1000.0	120.000	155.0	H	-94.0	10.0
348.960000	34.95	46.00	11.05	1000.0	120.000	113.0	H	-198.0	16.2
475.110000	33.80	46.00	12.20	1000.0	120.000	100.0	H	55.0	20.3
621.600000	29.85	46.00	16.15	1000.0	120.000	133.0	H	61.0	23.2
693.750000	39.39	46.00	6.61	1000.0	120.000	100.0	H	-6.0	24.5
874.980000	35.57	46.00	10.43	1000.0	120.000	117.0	V	94.0	27.4

Radio Technology = WLAN a Diversity, Operating Frequency = low, Subband = U-NII-1,
Measurement range = 1 GHz - 26 GHz
(S01_AA01#S3.5)

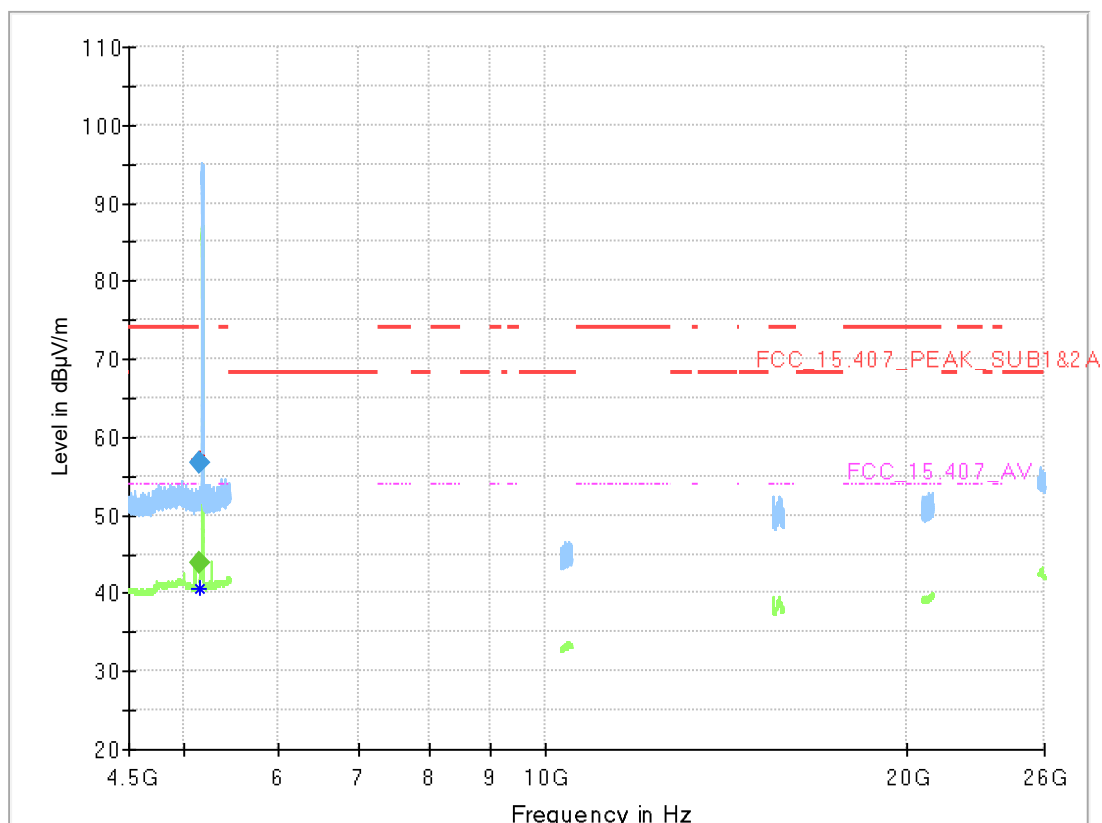


Final Result

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)
5150.000	---	44.7	---	---	1000.0	1000.000	150.0	H	-79.0	12.0	15.0
5150.000	57.7	---	---	---	1000.0	1000.000	150.0	H	-79.0	12.0	15.0

(Note: the peak at 5180 MHz is the wanted signal)

Radio Technology = WLAN a Diversity, Operating Frequency = low, Subband = U-NII-1,
Measurement range = 4.5 GHz - 26 GHz (only Harmonics)
(S01_AB01#S3.0)

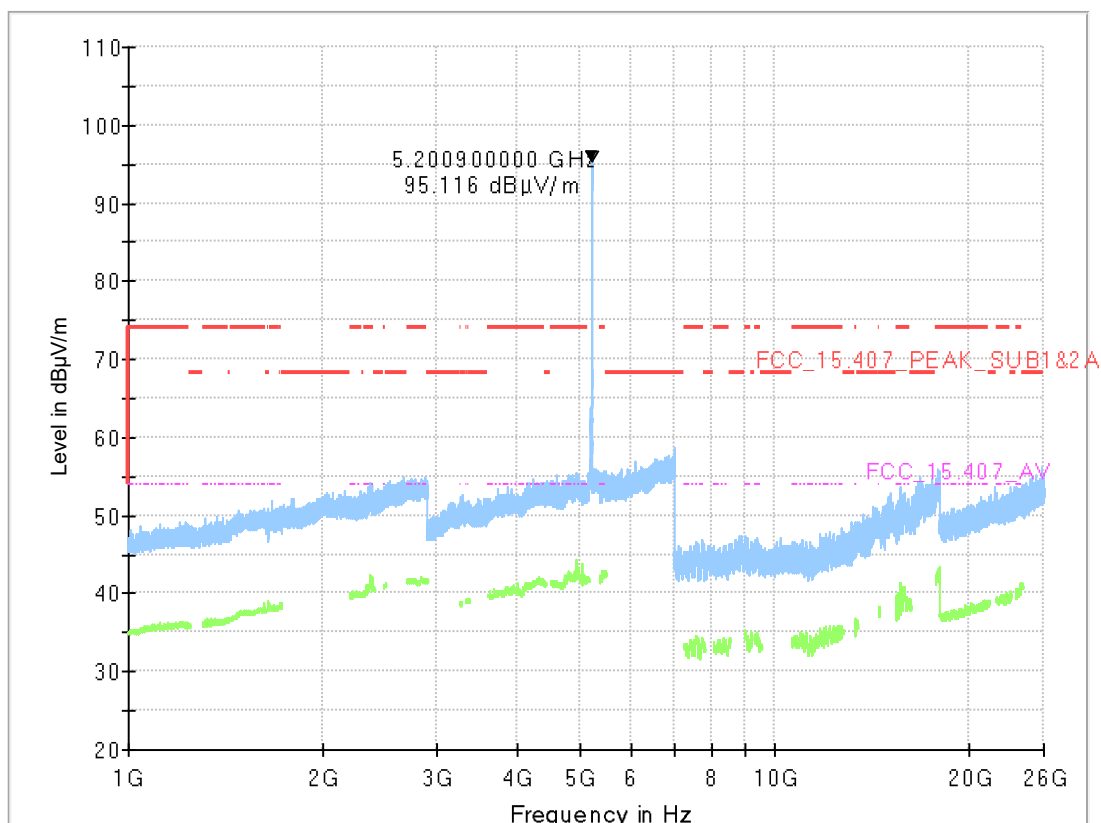


Final Result

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)
5148.538	---	44.0	54.00	10.04	1000.0	1000.000	150.0	V	-138.0	82.0	15.0
5148.538	56.6	---	74.00	17.37	1000.0	1000.000	150.0	V	-138.0	82.0	15.0

(Note: the peak at 5180 MHz is the wanted signal)

Radio Technology = WLAN a Diversity, Operating Frequency = mid, Subband = U-NII-1,
Measurement range = 1 GHz - 26 GHz
(S01_AA01#S3.5)

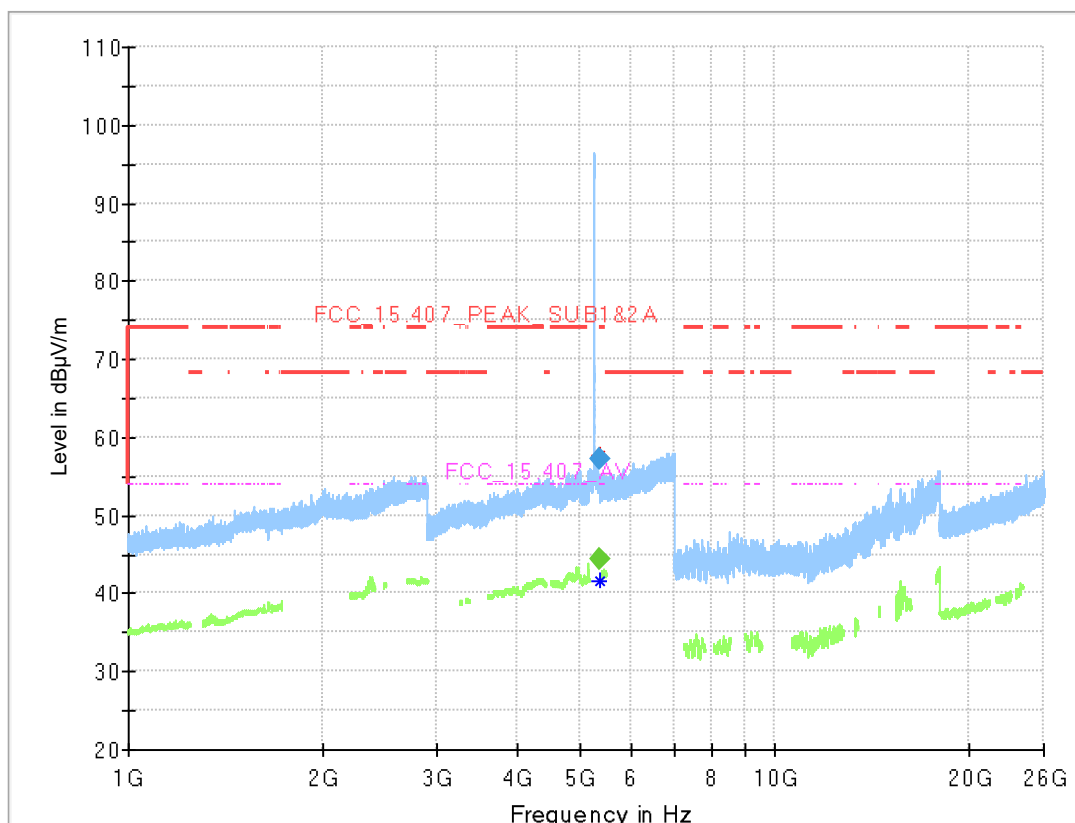


Final Result

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)
---	---	---	---	---	---	---	---	---	---	---	---

(Note: the peak at 5200 MHz is the wanted signal)

Radio Technology = WLAN a Diversity, Operating Frequency = high, Subband = U-NII-1,
 Measurement range = 1 GHz - 26 GHz
 (S01_AA01#S3.5)

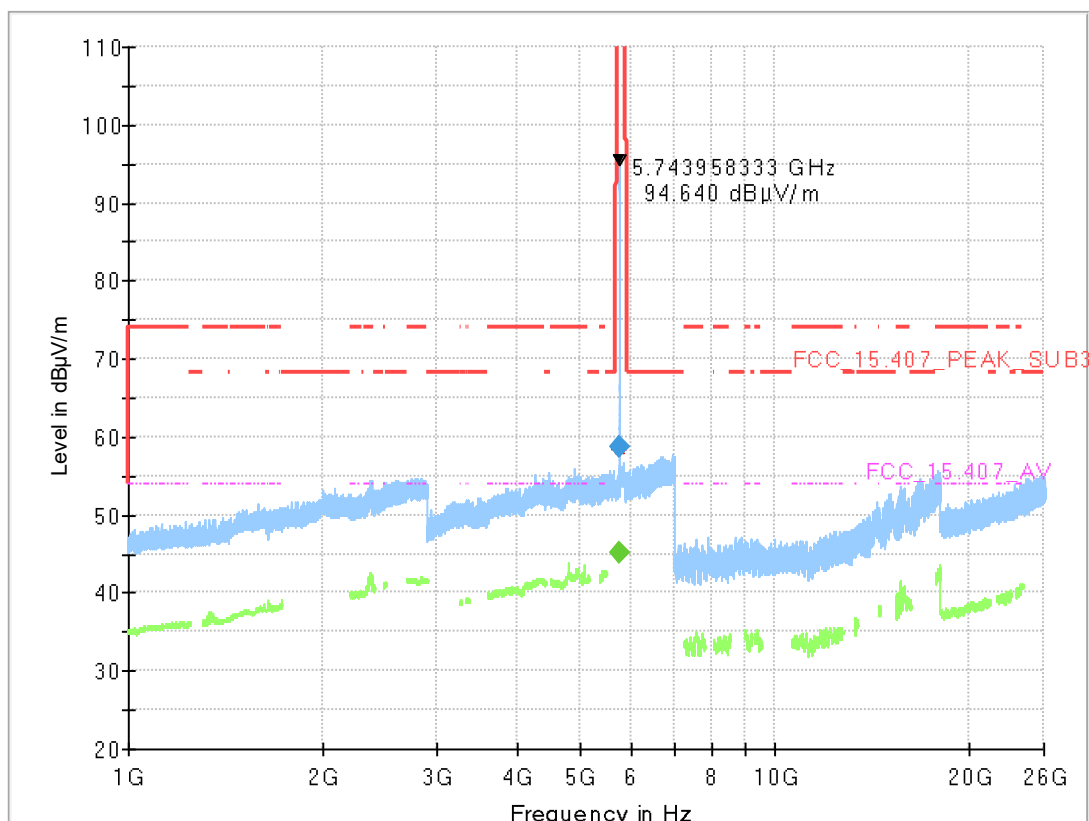


Final Result

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)
5351.650	---	44.4	54.00	9.62	1000.0	1000.000	150.0	V	-1.0	6.0	15.2
5351.650	57.3	---	74.00	16.68	1000.0	1000.000	150.0	V	-1.0	6.0	15.2

(Note: the peak at 5240 MHz is the wanted signal)

Radio Technology = WLAN a Diversity, Operating Frequency = low, Subband = U-NII-3,
Measurement range = 1 GHz - 26 GHz
(S01_AA01#S3.5)

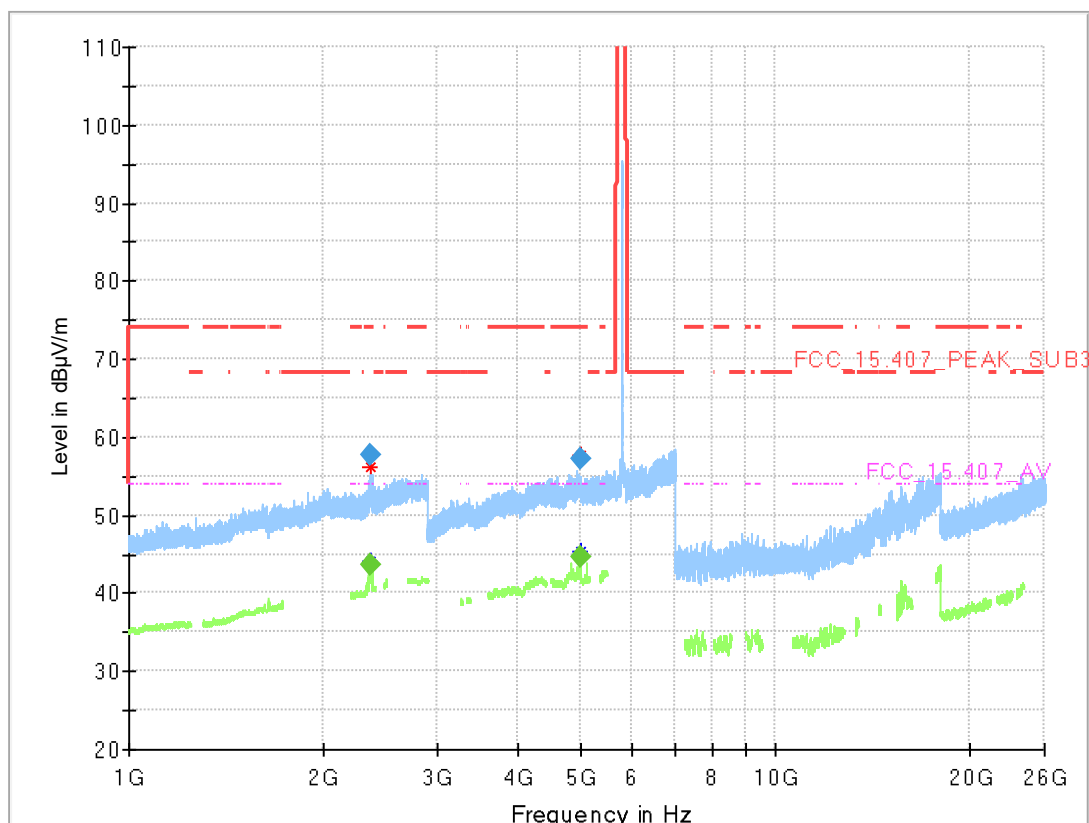


Final Result

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)
5724.500	---	45.1	---	---	1000.0	1000.000	150.0	V	91.0	105.0	15.7
5724.500	58.6	---	121.06	62.45	1000.0	1000.000	150.0	V	91.0	105.0	15.7

(Note: the peak at 5745 MHz is the wanted signal)

Radio Technology = WLAN a Diversity, Operating Frequency = mid, Subband = U-NII-3,
Measurement range = 1 GHz - 26 GHz
(S01_AA01#S3.5)

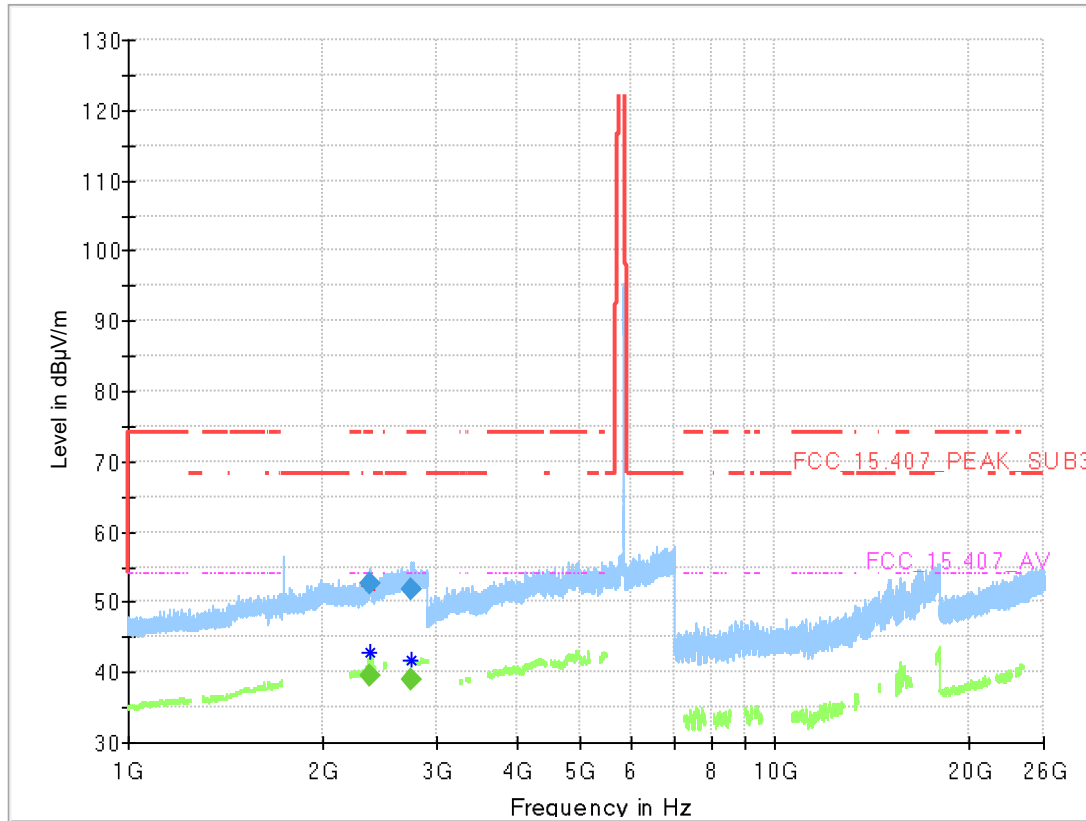


Final Result

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)
2370.560	---	43.7	54.00	10.34	1000.0	1000.000	150.0	H	-47.0	97.0	7.7
2370.560	57.6	---	74.00	16.36	1000.0	1000.000	150.0	H	-47.0	97.0	7.7
5002.288	---	44.6	54.00	9.36	1000.0	1000.000	150.0	V	-143.0	83.0	15.1
5002.288	57.2	---	74.00	16.77	1000.0	1000.000	150.0	V	-143.0	83.0	15.1

(Note: the peak at 5785 MHz is the wanted signal)

Radio Technology = WLAN a Diversity, Operating Frequency = high, Subband = U-NII-3,
Measurement range = 1 GHz - 26 GHz
(S01_AA01#S3.5)



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)
2363.600	---	39.5	54.00	14.48	1000.0	1000.000	150.0	V	-41.0	105.0	7.6
2363.600	52.6	---	74.00	21.40	1000.0	1000.000	150.0	V	-41.0	105.0	7.6
2731.790	---	38.9	54.00	15.14	1000.0	1000.000	150.0	V	-50.0	96.0	8.8
2731.790	51.9	---	74.00	22.14	1000.0	1000.000	150.0	V	-50.0	96.0	8.8

(Note: the peak at 5825 MHz is the wanted signal)