

TEST REPORT

Report Number: 17070429HKG-005

Application for Original Grant of 47 CFR Part 15 Certification

Single New of RSS-247 Issue 2 Equipment

This report contains the data of 5GHz WLAN (WiFi) portion only.

FCC ID: LDK88321516

IC: 2461L-88321516

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TEST REPORT**GENERAL INFORMATION**

Applicant Name (FCC):	Cisco Systems Inc.
Applicant Address (FCC):	125 West Tasman Drive, San Jose, CA 95134-1706.
Applicant Name (IC):	Cisco System Canada Co.
Applicant Address (IC):	100 Midlefield Road, Unit 1, Scarborough ON, M1S 4M6 Canada.
FCC Specification Standard:	FCC Part 15, October 1, 2015 Edition
FCC ID:	LDK88321516
FCC Model(s):	CP-8832
IC Specification Standard:	RSS-247 Issue 2, February 2017 RSS-Gen Issue 4, November 2014
IC:	2461L-88321516
PMN:	CP-8832
HVIN:	CP-8832
Type of EUT:	Unlicensed National Information Infrastructure Transmitter
Description of EUT:	Cisco IP Conference Phone
Serial Number:	N/A
Sample Receipt Date:	July 07, 2017
Date of Test:	July 20, 2017 to August 15, 2017
Report Date:	August 21, 2017
Environmental Conditions:	Temperature: +10 to 40°C Humidity: 10 to 90%

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EXHIBIT 1 TEST RESULTS SUMMARY & STATEMENT OF COMPLIANCE

1.0 TEST RESULTS SUMMARY & STATEMENT OF COMPLIANCE

1.1 Summary of Test Results

TEST ITEMS	FCC PART 15 SECTION	RSS-247/ RSS-GEN# SECTION	RESULTS	DETAILS SEE SECTION
Antenna Requirement	15.407(a)	6.2.1.1/ 6.2.2.1/ 6.2.3.1/ 6.2.4.1	Pass	2.1
Max. Conducted Output Power (Peak)	15.407(a)	6.2.1.1/ 6.2.2.1/ 6.2.3.1/ 6.2.4.1	Pass	4.1
Transmit Power Control (TPC)	15.407(h)	6.2.1.1/ 6.2.2.1/ 6.2.3.1/ 6.2.4.1	N/A	See Remark
Min. 6dB RF Bandwidth	15.407(e)	6.2.4.1	Pass	4.2
Max. Power Density (average)	15.407(a)	6.2.4.1	Pass	4.3
Out of Band Antenna Conducted Emission	15.407(b)	6.2.1.2/ 6.2.2.2/ 6.2.3.2/ 6.2.4.2	Pass	4.4
Radiated Emission in Restricted Bands and Spurious Emissions	15.407(b), 15.209 & 15.109	6.2.1.2/ 6.2.2.2/ 6.2.3.2/ 6.2.4.2	Pass	4.6
AC Power Line Conducted Emission	15.207 & 15.107	7.2.4 [#]	Pass	4.7
Dynamic Frequency Selection(DFS)	15.407	6.3.1	Pass	4.10

Remark: not applicable if the EUT is <500mW (27dBm)

Note: Pursuant to FCC Part 15 Section 15.215(c), the 20dB bandwidth of the emission was contained within the frequency band designated (mentioned as above) which the EUT operated. The effects, if any, from frequency sweeping, frequency hopping, other modulation techniques and frequency stability over expected variations in temperature and supply voltage were considered.

1.2 Statement of Compliance

The equipment under test is found to be complying with the following standard:

FCC Part 15, October 1, 2015 Edition
RSS-247 Issue 2, February 2017
RSS-Gen Issue 4, November 2014

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EXHIBIT 2 GENERAL DESCRIPTION

2.0 GENERAL DESCRIPTION

2.1 Product Description

The CP-8832 is a Cisco IP Conference Phone. It is the next generation IP Conference Phone with Wireless Wi-Fi (802.11a/ac/b/g/n) connectivity as well as Wired RJ45 POE Ethernet support, Bluetooth connectivity, and DECT wireless microphone, as well as 3.5mm wired extension microphone support. The EUT was powered by 120AC adaptor or POE.

For the WLAN (WiFi) module:

For 2.400-2.4835GHz:

The Equipment Under Test (EUT) operates at frequency range of 2412MHz to 2462MHz with 11 channels. For 802.11b mode, it operates at frequency range of 2412.000MHz to 2462.000MHz with 11 channels. It transmits via Direct-sequence spread spectrum (DSSS) modulation. Maximum bit rate can be up to 11Mbps. For 802.11g mode, it operates at frequency range of 2412.000MHz to 2462.000MHz with 11 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can be up to 54Mbps.

For 802.11n (with 20MHz bandwidth) mode, it operates at frequency range of 2412.000MHz to 2462.000MHz with 11 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 65Mbps.

For 802.11n (with 40MHz bandwidth) mode, it operates at frequency range of 2422.000MHz to 2452.000MHz with 7 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 65Mbps.

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For 5.15-5.25GHz:

The Equipment Under Test (EUT) operates at frequency range of 5180MHz to 5240MHz with 4 channels.

For 802.11a mode, it operates at frequency range of 5180.00MHz to 5250.000MHz with 4 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can be up to 54Mbps.

For 802.11n (with 20MHz bandwidth) mode, it operates at frequency range of 5180.00MHz to 5250.000MHz with 4 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 65.0Mbps.

For 802.11n (with 40MHz bandwidth) mode, it operates at frequency range of 5190.00MHz to 5230.000MHz with 2 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 135.0Mbps.

For 802.11ac (with 20MHz bandwidth) mode, it operates at frequency range of 5180.00MHz to 5250.000MHz with 4 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 86.7Mbps.

For 802.11ac (with 40MHz bandwidth) mode, it operates at frequency range of 5190.00MHz to 5230.000MHz with 2 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 180Mbps.

For 802.11ac (with 80MHz bandwidth) mode, it operates at frequency 5210MHz. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 390Mbps.

For 5.25-5.35GHz:

The Equipment Under Test (EUT) operates at frequency range of 5260MHz to 5320MHz with 4 channels.

For 802.11a mode, it operates at frequency range of 5260.00MHz to 5320.000MHz with 4 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can be up to 54Mbps.

For 802.11n (with 20MHz bandwidth) mode, it operates at frequency range of 5260MHz to 5320MHz with 4 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 65Mbps.

For 802.11n (with 40MHz bandwidth) mode, it operates at frequency range of 5270.00MHz to 5310.000MHz with 2 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 135Mbps.

For 802.11ac (with 20MHz bandwidth) mode, it operates at frequency range of 5260MHz to 5320MHz with 4 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 86.7Mbps.

For 802.11ac (with 40MHz bandwidth) mode, it operates at frequency range of 5270.00MHz to 5310.000MHz with 2 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 180Mbps.

For 802.11ac (with 80MHz bandwidth) mode, it operates at frequency 5290MHz. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 390Mbps.

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For 5.47-5.725GHz:

The Equipment Under Test (EUT) operates at frequency range of 5500MHz to 5700MHz with 11 channels. For 802.11a mode, it operates at frequency range of 5500.00MHz to 5700.000MHz with 11 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can be up to 54Mbps.

For 802.11n (with 20MHz bandwidth) mode, it operates at frequency range of 5500MHz to 5700MHz with 11 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 65Mbps.

For 802.11n (with 40MHz bandwidth) mode, it operates at frequency range of 5510.00MHz to 5670.000MHz with 5 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 135Mbps.

For 802.11ac (with 20MHz bandwidth) mode, it operates at frequency range of 5500MHz to 5700MHz with 11 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 86.7Mbps.

For 802.11ac (with 40MHz bandwidth) mode, it operates at frequency range of 5510.00MHz to 5670.000MHz with 5 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 180Mbps.

For 802.11ac (with 80MHz bandwidth) mode, it operates at frequency range of 5530.00MHz to 5610.000MHz with 2 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 390Mbps.

For RSS-247:

Below channels will be disabled regarding to RSS-247 requirement:

1. 20MHz Channel: 120, 124, 128 (5600-5640MHz)
2. 40MHz Channel: 118, 126 (5590-5630MHz)
3. 80MHz Channel: 122 (5610MHz)

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For 5.725-5.850GHz:

The Equipment Under Test (EUT) operates at frequency range of 5745MHz to 5825MHz with 5 channels.

For 802.11a mode, it operates at frequency range of 5745.00MHz to 5825.000MHz with 5 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can be up to 54Mbps.

For 802.11n (with 20MHz bandwidth) mode, it operates at frequency range of 5745MHz to 5825MHz with 5 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 216.6Mbps.

For 802.11n (with 40MHz bandwidth) mode, it operates at frequency range of 5755.00MHz to 5795.000MHz with 2 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 450Mbps.

For 802.11ac (with 20MHz bandwidth) mode, it operates at frequency range of 5745MHz to 5825MHz with 5 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 260Mbps.

For 802.11ac (with 40MHz bandwidth) mode, it operates at frequency range of 5755.00MHz to 5795.000MHz with 2 channels. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 600Mbps.

For 802.11ac (with 80MHz bandwidth) mode, it operates at frequency 5775MHz. It transmits via Orthogonal Frequency Division Multiplexing (OFDM) modulation. Maximum bit rate can support up to 1300Mbps.

DFS description for 5250MHz to 5350MHz and 5470MHz to 5725MHz:

The operating mode of this device is Client mode without radar detection function.(IP based system)

The Highest output power of this EUT is 12.9dBm. (EIRP 16.52dBm)

As client declared the product tolerance is +/-3 dB

The Highest output power of this EUT is 15.9dBm. (EIRP 19.52dBm)

This product equipped with single antenna in SISO mode and the antenna gain are stated as below:

5150-5250 MHz: Antenna Gain = 3.62 dBi

5250-5350 MHz: Antenna Gain = 3.66 dBi

5470-5725 MHz: Antenna Gain = 3.10 dBi

5725-5850 MHz: Antenna Gain = 3.79 dBi

During the DFS test, below method is used for communication between Mater and Client device (EUT)"

Stream the the MPEG file "TestFile.mpg" specified by the FCC from the Master Device to the Client device (EUT) for IP based systems (Load based equipment) which dynamically allocate the talk/listen ratio.

Client confirmed that information regarding the parameters of the detected Radar Waveforms is not available to the end user.

For the Bluetooth module:

For Bluetooth 4.0 BLE mode, it occupies a frequency range from 2402MHz to 2480MHz (40 channels with channel spacing of 2MHz). It transmits via GFSK modulation.

For Bluetooth 3.0 mode, it occupies a frequency range from 2402MHz to 2480MHz (79 channels with channel spacing of 1MHz). It transmits via GFSK modulation.

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For the DECT Module:

It operates at frequency range of 1921.536MHz to 1928.448MHz with 5 channels (1921.536MHz, 1923.264MHz, 1924.992MHz, 1926.720MHz and 1928.448MHz) .

The antenna(s) used in the EUT is internal, integral. And the test sample is a prototype.

The circuit description is saved with filename: descri.pdf.

2.2 Test Methodology

Both AC power line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.10 (2013). Preliminary radiated scans and all radiated measurements were performed in radiated emission test sites. All Radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "**Justification Section**" of this Application. Antenna port conducted measurements were performed according to ANSI C63.10 (2013) and KDB Publication No.789033 D02 v01r04 (02-May-2017) All other measurements were made in accordance with the procedures in 47 CFR Part 2 and RSS-Gen Issue 4 (2014).

2.3 Test Facility

The radiated emission test site and antenna port conducted measurement facility used to collect the radiated data and conductive data are at Workshop No. 3, G/F., World-Wide Industrial Centre, 43-47 Shan Mei Street, Fo Tan, Sha Tin, N.T., Hong Kong. This test facility and site measurement data have been fully placed on file with the FCC and Industry Canada No.: 2042V-1.

2.4 Related Submittal(s) Grants

This is a single application for certification of a transceiver (WiFi portion)

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EXHIBIT 3 SYSTEM TEST CONFIGURATION

3.0 SYSTEM TEST CONFIGURATION

3.1 Justification

For radiated emissions testing, the equipment under test (EUT) was setup to transmit / receive continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables (if any) were manipulated to produce worst case emissions.

The EUT was powered by an AC Power Adaptor (Input: 100-240V, 50/60Hz, 0.5A; Output: 5V, 3A/ 9V, 2A/ 12V, 1.5A/ 15V, 1.2A), Model: AQ18A-59CFAC-H (Supplied by Client) adaptor.

For the measurements, the EUT was attached to a plastic stand if necessary and placed on the wooden turntable. If the base unit attached to peripherals, they were connected and operational (as typical as possible).

The signal was maximized through rotation and placement in the three orthogonal axes. The antenna height and polarization were varied during the search for maximum signal level. The antenna height was varied from 1 to 4 meters. Radiated emissions were taken at three meters unless the signal level was too low for measurement at that distance. If necessary, a pre-amplifier was used and/or the test was conducted at a closer distance.

For any intentional radiator powered by AC power line, measurements of the radiated signal level of the fundamental frequency component of the emission was performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage.

Radiated emission measurement for transmitter were performed from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

Emission that are directly caused by digital circuits in the transmit path and transmitter portion were measured, and the limit are according to FCC Part 15 Section 15.209 / RSS-247 2.5. Digital circuitries used to control additional functions other than the operation of the transmitter are subject to FCC Part 15 Section 15.109 / RSS-247 Section 5.5 Limits.

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3.1 Justification – Cont'd

Detector function for radiated emissions was in peak mode. Average readings, when required, were taken by measuring the duty cycle of the equipment under test and subtracting the corresponding amount in dB from the measured peak readings. A detailed description for the calculation of the average factor can be found in section 4.8.3.

Determination of pulse desensitization was made according to *Hewlett Packard Application Note 150-2, Spectrum Analysis... Pulsed RF*. The effective period (Teff) was referred to Exhibit 4.8.3. With the resolution bandwidth 1MHz and spectrum analyzer IF bandwidth 3dB, the pulse desensitization factor was 0dB.

For AC line conducted emission test, the EUT along with its peripherals were placed on a 1.0m(W)x1.5m(L) and 0.8m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane. The EUT was connected to power mains through a line impedance stabilization network (LISN), which provided 50ohm coupling impedance for measuring instrument. The LISN housing, measuring instrument case, reference ground plane, and vertical ground plane were bounded together. The excess power cable between the EUT and the LISN was bundled.

All connecting cables of EUT and peripherals were manipulated to find the maximum emission.

Different data rates have been tested. Worst case is reported only.

All relevant operation modes have been tested, and the worst case data is included in this report.

All data rates were tested under normal mode of WiFi. Only the worst-case data is shown in the report for OFDM

3.2 EUT Exercising Software

The EUT exercise program (if any) used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use.

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3.3 Details of EUT and Description of Accessories

An adaptor (provided with the unit) was used to power the device. Its description is listed below.

- (1) Adaptor with cable in length of 1.8m, S/N: FCH2119D6L9 (Supplied by Client)

Description of Accessories:

- (1) AC Power Adaptor (Input: 100-240V, 50/60Hz, 0.5A; Output: 5V, 3A/ 9V, 2A/ 12V, 1.5A/ 15V, 1.2A), Model: AQ18A-59CFAC-H (Supplied by Client)
- (2) Bluetooth Headset, Model: BTE6, Brand: Jabra (Supplied by Client)
- (3) Wired Microphone, Brand: Cisco, with cable length of 2.1m (Supplied by Client)
- (4) DECT handset, Model: Speedphone 51, Brand: Deutsche Telekom (Supplied by Client)

3.4 Measurement Uncertainty

When determining of the test conclusion, the Measurement Uncertainty of test at a level of confidence of 95% has been considered. The values of the Measurement uncertainty for radiated emission test and RF conducted measurement test are $\pm 5.3\text{dB}$ and $\pm 0.99\text{dB}$ respectively. The value of the Measurement uncertainty for conducted emission test is $\pm 4.2\text{dB}$.

Uncertainty and Compliance - Unless the standard specifically states that measured values are to be extended by the measurement uncertainty in determining compliance, all compliance determinations are based on the actual measured value.

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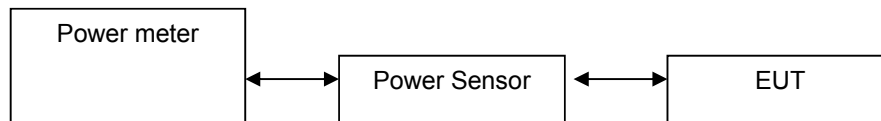
EXHIBIT 4 TEST RESULTS

4.0 TEST RESULTS

4.1 Maximum Conducted (peak) Output Power at Antenna Terminals

RF Conduct Measurement Test Setup

The figure below shows the test setup, which is utilized to make these measurements.



The antenna port of the EUT was connected to the input of a spectrum analyzer.

- ☒ The antenna power of the EUT was connected to the input of a power meter. Power was read directly and cable loss correction was added to the reading to obtain power at the EUT antenna terminals. The measurement procedure E.3.A (789033 D02 General UNII Test Procedures New Rules v01r04 Page 8) was used.
- ☐ The EUT should be configured to transmit continuously (at a minimum duty cycle of 98%) at full power over the measurement duration. The measurement procedure AVG1 was used.

IEEE 802.11ac (20MHz) (MCS0) Antenna Gain = 3.62 dBi (5150-5250 MHz), 3.66 dBi (5250-5350 MHz), 3.10 dBi (5470-5725 MHz), 3.79 dBi (5725-5850 MHz)

Frequency (MHz)	Conducted output power in dBm	EIRP in dBm	EIRP in mWatt
5180	9.3	12.92	19.6
5220	9.1	12.72	18.7
5240	8.8	12.42	17.5
5260	8.6	12.26	16.8
5300	7.7	11.36	13.7
5320	7.3	10.96	12.5
5500	7.4	10.5	11.2
5600	5.5	8.6	7.2
5700	7.3	10.4	11.0
5745	7.1	10.89	12.3
5785	5.6	9.39	8.7
5825	5.5	9.29	8.5

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IEEE 802.11ac (40MHz) (MCS0) Antenna Gain = 3.62 dBi (5150-5250 MHz), 3.66 dBi (5250-5350 MHz),
3.10 dBi (5470-5725 MHz), 3.79 dBi (5725-5850 MHz)

Frequency (MHz)	Conducted output power in dBm	EIRP in dBm	EIRP in mWatt
5190	8.3	11.92	15.6
5230	8.1	11.72	14.9
5270	7.8	11.46	14.0
5310	7.5	11.16	13.1
5510	7.6	10.7	11.7
5590	7.6	10.7	11.7
5670	8	11.1	12.9
5755	7.7	11.49	14.1
5795	7.5	11.29	13.5

IEEE 802.11ac (80MHz) (MCS0) Antenna Gain = 3.62 dBi (5150-5250 MHz), 3.66 dBi (5250-5350 MHz),
3.10 dBi (5470-5725 MHz), 3.79 dBi (5725-5850 MHz)

Frequency (MHz)	Conducted output power in dBm	EIRP in dBm	EIRP in mWatt
5210	8.4	12.02	15.9
5290	7.7	11.36	13.7
5530	7.8	10.9	12.3
5610	8.1	11.2	13.2
5775	7.8	11.59	14.4

IEEE 802.11a (20MHz) (OFDM, 9 Mbps) Antenna Gain = 3.62 dBi (5150-5250 MHz), 3.66 dBi (5250-5350 MHz),
3.10 dBi (5470-5725 MHz), 3.79 dBi (5725-5850 MHz)

Frequency (MHz)	Conducted output power in dBm	EIRP in dBm	EIRP in mWatt
5180	12.9	16.52	44.9
5220	12.8	16.42	43.9
5240	12.6	16.22	41.9
5260	12.2	15.86	38.5
5300	11.4	15.06	32.1
5320	11.1	14.76	29.9
5500	11.2	14.3	26.9
5600	9.2	12.3	17.0
5700	11.3	14.4	27.5
5745	11.2	14.99	31.6
5785	9.9	13.69	23.4
5825	9.6	13.39	21.8

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IEEE 802.11n (20MHz) (OFDM, MCS0) Antenna Gain = 3.62 dBi (5150-5250 MHz), 3.66 dBi (5250-5350 MHz), 3.10 dBi (5470-5725 MHz), 3.79 dBi (5725-5850 MHz)

Frequency (MHz)	Conducted output power in dBm	EIRP in dBm	EIRP in mWatt
5180	10.3	13.92	24.7
5220	10.2	13.82	24.1
5240	9.8	13.42	22.0
5260	9.4	13.06	20.2
5300	8.7	12.36	17.2
5320	8.2	11.86	15.3
5500	8.4	11.5	14.1
5600	6.4	9.5	8.9
5700	8.3	11.4	13.8
5745	8.1	11.89	15.5
5785	6.8	10.59	11.5
5825	9.6	13.39	21.8

IEEE 802.11n (40MHz) (OFDM, MCS0) Antenna Gain = 3.62 dBi (5150-5250 MHz), 3.66 dBi (5250-5350 MHz), 3.10 dBi (5470-5725 MHz), 3.79 dBi (5725-5850 MHz)

Frequency (MHz)	Conducted output power in dBm	EIRP in dBm	EIRP in mWatt
5190	9.1	12.72	18.7
5230	9	12.62	18.3
5270	8.8	12.46	17.6
5310	8.5	12.16	16.4
5510	8.4	11.5	14.1
5590	8.5	11.6	14.5
5670	8.7	11.8	15.1
5755	8.5	12.29	16.9
5795	8.5	12.29	16.9

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Cable loss : 0.5 dB External Attenuation : 0 dB

Cable loss, external attenuation: ☒ included in OFFSET function
☐ added to SA raw reading

IEEE 802.11ac (20MHz) (DSSS, 1 Mbps)
max. conducted (peak) output level = 12.92 dBm

IEEE 802.11ac (40MHz) (DSSS, 1 Mbps)
max. conducted (peak) output level = 11.92 dBm

IEEE 802.11ac (80MHz) (DSSS, 1 Mbps)
max. conducted (peak) output level = 12.02 dBm

IEEE 802.11a (20MHz) (OFDM, 9 Mbps)
max. conducted (peak) output level = 16.52 dBm

IEEE 802.11n (20MHz) (OFDM, MCS0)
max. conducted (peak) output level = 13.92 dBm

IEEE 802.11n (40MHz) (OFDM, MCS0)
max. conducted (peak) output level = 12.72 dBm

Limits for FCC:

5150-5250MHz:

1W (30dBm) for antennas with gains of 6dBi or less.(Master device)
250mW (24dBm) for antennas with gains of 6dBi or less.(Client device)

5250-5350MHz:

250mW (24dBm)

5470-5725MHz:

250mW (24dBm)

5725-5850MHz:

1W (30dBm) for antennas with gains of 6dBi or less.

Limits for RSS:

5150-5250MHz:

200mW (23dBm) for antennas with gains of 6dBi or less.

5250-5350MHz:

250mW (24dBm)

5470-5725MHz:

250mW (24dBm)

5725-5850MHz:

1W (30dBm) for antennas with gains of 6dBi or less.

TEST REPORT

4.2 Minimum 6dB RF Bandwidth

The antenna port of the EUT was connected to the input of a spectrum analyzer. The EBW measurement procedure was used. A PEAK output reading was taken, a DISPLAY line was drawn 6dB lower than PEAK level. The 6dB bandwidth was determined from where the channel output spectrum intersected the display line.

IEEE 802.11ac (20MHz) (MCS0)

Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
5180	17.65586	17.711443
5220	17.65586	17.711443
5240	17.65586	17.711443
5260	17.755611	17.910448
5300	17.65586	17.711443
5320	17.65586	17.910448
5500	17.755611	17.910448
5600	17.65586	17.711443
5700	17.65586	17.711443
5745	17.65586	17.910448
5785	17.65586	17.711443
5825	17.755611	17.910448

IEEE 802.11ac (40MHz) (MCS0)

Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
5190	36.454432	36.41791
5230	36.454432	36.41791
5270	36.454432	36.41791
5310	36.454432	36.41791
5510	36.454432	36.41791
5590	36.454432	36.41791
5670	36.454432	36.41791
5755	36.454432	36.41791
5795	36.454432	36.41791

IEEE 802.11ac (80MHz) (MCS0)

Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
5210	75.452842	75.76324
5290	75.452842	75.76324
5530	75.852592	75.76324
5610	75.852592	75.76324
5775	75.252967	76.261682

TEST REPORT

IEEE 802.11a (20MHz) (OFDM, 6Mbps)

Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
5180	16.458853	16.517413
5220	16.558603	16.517413
5240	16.458853	16.517413
5260	16.458853	16.517413
5300	16.458853	16.517413
5320	16.458853	16.517413
5500	16.558603	16.517413
5600	16.558603	16.517413
5700	16.558603	16.517413
5745	16.558603	16.517413
5785	16.458853	16.517413
5825	16.458853	16.517413

IEEE 802.11n (40MHz) (OFDM, MCS0)

Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
5190	36.554308	36.41791
5230	36.554308	36.41791
5270	36.554308	36.41791
5310	36.554308	36.119402
5510	36.554308	36.41791
5590	36.554308	36.41791
5670	36.454432	36.41791
5755	36.554308	36.41791
5795	36.554308	36.41791

TEST REPORT

IEEE 802.11n (20MHz) (OFDM, MCS0)

Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
5180	17.855361	17.711443
5220	17.855361	17.711443
5240	17.855361	17.711443
5260	17.855361	17.711443
5300	17.855361	17.711443
5320	17.855361	17.711443
5500	17.855361	17.711443
5600	17.855361	17.711443
5700	17.855361	17.711443

Limits:

For 5725-5850MHz:

6 dB bandwidth shall be at least 500kHz

The plots of 6dB RF bandwidth and occupied bandwidth are saved with filename : DATA.pdf

TEST REPORT

4.3 Maximum Power Spectral Density

Antenna output of the EUT was coupled directly to spectrum analyzer. The measurement procedure 10.2 PKPSD was used. If an external attenuator and/or cable was used, these losses are compensated for using the OFFSET function of the analyser.

IEEE 802.11a (20MHz) (OFDM, 6 Mbps)

Frequency (MHz)	Conducted PSD in 100kHz (dBm)	EIRP PSD in 100kHz (dBm)
5180	-0.611	3.009
5220	-0.61	3.01
5240	-0.762	2.858
5260	-1.246	2.414
5300	-2.051	1.609
5320	-2.339	1.321
5500	-1.726	1.374
5600	-3.69	-0.59
5700	-1.563	1.537
Frequency (MHz)	Conducted PSD in 500kHz (dBm)	EIRP PSD in 500kHz (dBm)
5745	-5.104	-1.314
5785	-6.388	-2.598
5825	-6.795	-3.005

IEEE 802.11ac (20MHz) (MCS0)

Frequency (MHz)	Conducted PSD in 100kHz (dBm)	EIRP PSD in 100kHz (dBm)
5180	-4.645	-1.025
5220	-4.952	-1.332
5240	-5.125	-1.505
5260	-5.406	-1.746
5300	-6.132	-2.472
5320	-6.607	-2.947
5500	-6.076	-2.976
5600	-8.081	-4.981
5700	-5.918	-2.818
Frequency (MHz)	Conducted PSD in 500kHz (dBm)	EIRP PSD in 500kHz (dBm)
5745	-9.984	-6.194
5785	-11.707	-7.917
5825	-11.682	-7.892

TEST REPORT

IEEE 802.11ac (40MHz) (MCS0)

Frequency (MHz)	Conducted PSD in 100kHz (dBm)	EIRP PSD in 100kHz (dBm)
5190	-8.573	-4.953
5230	-8.791	-5.171
5270	-9.136	-5.476
5310	-9.436	-5.776
5510	-8.823	-5.723
5590	-8.824	-5.724
5670	-8.398	-5.298
Frequency (MHz)	Conducted PSD in 500kHz (dBm)	EIRP PSD in 500kHz (dBm)
5755	-12.342	-8.552
5795	-12.501	-8.711

IEEE 802.11ac (80MHz) (MCS0)

Frequency (MHz)	Conducted PSD in 100kHz (dBm)	EIRP PSD in 100kHz (dBm)
5210	-10.375	-6.755
5290	-11.143	-7.483
5530	-11.083	-7.983
5610	-10.767	-7.667
Frequency (MHz)	Conducted PSD in 500kHz (dBm)	EIRP PSD in 500kHz (dBm)
5775	-13.934	-10.144

IEEE 802.11n (20MHz) (OFDM, MCS0)

Frequency (MHz)	Conducted PSD in 100kHz (dBm)	EIRP PSD in 100kHz (dBm)
5180	-3.54	0.08
5220	-3.669	-0.049
5240	-3.984	-0.364
5260	-4.46	-0.8
5300	-5.177	-1.517
5320	-5.696	-2.036
5500	-4.918	-1.818
5600	-6.855	-3.755
5700	-5.009	-1.909
Frequency (MHz)	Conducted PSD in 500kHz (dBm)	EIRP PSD in 500kHz (dBm)
5745	-8.64	-4.85
5785	-10.058	-6.268
5825	-10.182	-6.392

TEST REPORT

IEEE 802.11n (40MHz) (OFDM, MCS0)

Frequency (MHz)	Conducted PSD in 100kHz (dBm)	EIRP PSD in 100kHz (dBm)
5190	-7.559	-3.939
5230	-7.67	-4.05
5270	-7.816	-4.156
5310	-8.196	-4.536
5510	-7.783	-4.683
5590	-7.906	-4.806
5670	-7.525	-4.425
Frequency (MHz)	Conducted PSD in 500kHz (dBm)	EIRP PSD in 500kHz (dBm)
5755	-10.922	-7.132
5795	-11.037	-7.247

Cable Loss: 0.5 dB

Limit:

For U-NII-1:

☒ FCC:

17dBm/MHz for Master device.

11dBm/MHz for mobile/portable device.

RSS:

10dBm/MHz E.I.R.P

For U-NII-2:

☒ FCC:

11dBm/MHz

RSS:

11dBm/MHz

For U-NII-3:

☒ FCC:

30dBm/500kHz.

RSS:

30dBm/500kHz.

The test data are saved with filename: DATA.pdf

TEST REPORT

4.4 Out of Band Conducted Emissions

The measurement procedures under sections 2G of 789033 D02 General UNII Test Procedures New Rules v01r04 was used.

Furthermore, Integration Method for measuring bandedge emissions was incorporated in the test of the edge at 1MHz.

Limits:

For UNII-1:

All spurious emission outside 5150-5350MHz should be less than -27dBm/MHz for master device.

For UNII-2A:

All spurious emission outside 5150-5350MHz should be less than -27dBm/MHz for master device.

For UNII-2C:

All spurious emission outside 5470-5725MHz should be less than -27dBm/MHz for master device.

For UNII-3:

FCC:

All emissions shall be limited to a level of -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, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

RSS:

Devices operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following:

- a. 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/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.

The test data is saved with filename: DATA_SPURIOUS.pdf

TEST REPORT

4.5 Field Strength Calculation

The field strength is calculated by adding the reading on the Spectrum Analyzer to the factors associated with preamplifiers (if any), antennas, cables, pulse desensitization and average factors (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below.

$$FS = RA + AF + CF - AG + PD + AV$$

Where FS = Field Strength in dB μ V/m

RA = Receiver Amplitude (including preamplifier) in dB μ V

CF = Cable Attenuation Factor in dB

AF = Antenna Factor in dB

AG = Amplifier Gain in dB

PD = Pulse Desensitization in dB

AV = Average Factor in -dB

In the radiated emission table which follows, the reading shown on the data table may reflect the preamplifier gain. An example of the calculations, where the reading does not reflect the preamplifier gain, follows:

$$FS = RA + AF + CF - AG + PD + AV$$

Example

Assume a receiver reading of 62.0 dB μ V is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29.0 dB is subtracted. The pulse desensitization factor of the spectrum analyzer is 0.0 dB, and the resultant average factor is -10.0 dB. The net field strength for comparison to the appropriate emission limit is 32.0 dB μ V/m. This value in dB μ V/m is converted to its corresponding level in μ V/m.

$$RA = 62.0 \text{ dB}\mu\text{V}$$

$$AF = 7.4 \text{ dB}$$

$$CF = 1.6 \text{ dB}$$

$$AG = 29.0 \text{ dB}$$

$$PD = 0.0 \text{ dB}$$

$$AV = -10 \text{ dB}$$

$$FS = 62.0 + 7.4 + 1.6 - 29.0 + 0.0 + (-10.0) = 32.0 \text{ dB}\mu\text{V/m}$$

$$\text{Level in } \mu\text{V/m} = \text{Common Antilogarithm } [(32.0 \text{ dB}\mu\text{V/m})/20] = 39.8 \mu\text{V/m}$$

TEST REPORT

4.6 Transmitter Radiated Emissions in Restricted Bands and Spurious Emissions

Data is included of the worst case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included.

The data on the following pages list the significant emission frequencies, the limit and the margin of compliance.

4.6.1 Radiated Emission Configuration Photograph

Worst Case Restricted Band Radiated Emission
at

10640 MHz

The worst case radiated emission configuration photographs are saved with filename: config photos.pdf

4.6.2 Radiated Emission Data

The data in below tables list the significant emission frequencies, the limit and the margin of compliance.

Judgement -

Passed by 0.3 dB margin

TEST REPORT

RADIATED EMISSION DATA

Frequency: 5180MHz
IEEE 802.11A (20MHz) (OFDM,6MBs)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	47.7	33	35.7	50.4	0	50.4	54.0	-3.6
H	15540.000	47.7	33	37.7	52.4	0	52.4	54.0	-1.6
H	20720.000	47.6	33	37.7	52.3	0	52.3	54.0	-1.7

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	47.7	33	35.7	50.4	74.0	-23.6
H	15540.000	47.7	33	37.7	52.4	74.0	-21.6
H	20720.000	47.6	33	37.7	52.3	74.0	-21.7

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

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Frequency: 5220MHz
IEEE 802.11A (20MHz) (OFDM,6MBps)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	15660.000	45.0	33	37.7	49.7	0	49.7	54.0	-4.3
H	20880.000	47.4	33	37.7	52.1	0	52.1	54.0	-1.9
V	31320.000	44.0	33	42.1	53.1	0	53.1	54.0	-0.9

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	15660.000	45.0	33	37.7	49.7	74.0	-24.3
H	20880.000	47.4	33	37.7	52.1	74.0	-21.9
H	31320.000	44.0	33	42.1	53.1	74.0	-20.9

- NOTES:
1. Peak detector is used for the emission measurement.
 - a. Average detector is used for the average data of emission measurement
 - b. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 - c. Negative value in the margin column shows emission below limit.
 - d. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5240MHz
IEEE 802.11A (20MHz) (OFDM,6MBps)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	48.0	33	35.7	50.7	0	50.7	54.0	-3.3
H	15720.000	45.0	33	37.7	49.7	0	49.7	54.0	-4.3
H	20960.000	46.0	33	37.7	50.7	0	50.7	54.0	-3.3
V	31440.000	43.5	33	42.1	52.6	0	52.6	54.0	-1.4

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	48.0	33	35.7	50.7	74.0	-23.3
H	15720.000	45.0	33	37.7	49.7	74.0	-24.3
H	20960.000	46.0	33	37.7	50.7	74.0	-23.3
H	31440.000	43.5	33	42.1	52.6	74.0	-21.4

- NOTES:
1. Peak detector is used for the emission measurement.
 - a. Average detector is used for the average data of emission measurement
 - b. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 - c. Negative value in the margin column shows emission below limit.
 - d. Horn antenna is used for the emission over 1000MHz.
 - e. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 - f. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5260MHz
IEEE 802.11A (20MHz) (OFDM,6MBps)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	47.7	33	35.7	50.4	0	50.4	54.0	-3.6
H	15780.000	44.8	33	37.7	49.5	0	49.5	54.0	-4.5
H	21040.000	43.7	33	37.9	48.6	0	48.6	54.0	-5.4
V	31560.000	42.8	33	40.4	50.2	0	50.2	54.0	-3.8

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	47.7	33	35.7	50.4	74.0	-23.6
H	15780.000	44.8	33	37.7	49.5	74.0	-24.5
H	21040.000	43.7	33	37.9	48.6	74.0	-25.4
H	31560.000	42.8	33	40.4	50.2	74.0	-23.8

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5300MHz
IEEE 802.11A (20MHz) (OFDM,6MBps)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	10600.000	45.7	33	40.4	53.1	0	53.1	54.0	-0.9
H	15900.000	44.8	33	37.7	49.5	0	49.5	54.0	-4.5
H	21200.000	43.7	33	37.9	48.6	0	48.6	54.0	-5.4
V	31800.000	42.8	33	40.4	50.2	0	50.2	54.0	-3.8

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	10600.000	45.7	33	40.4	53.1	74.0	-20.9
H	15900.000	44.8	33	37.7	49.5	74.0	-24.5
H	21200.000	43.7	33	37.9	48.6	74.0	-25.4
H	31800.000	42.8	33	40.4	50.2	74.0	-23.8

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5320MHz
IEEE 802.11A (20MHz) (OFDM,6MBps)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	47.8	33	35.7	50.5	0	50.5	54.0	-3.5
H	10640.000	45.7	33	40.4	53.1	0	53.1	54.0	-0.9
H	15960.000	46.0	33	37.7	50.7	0	50.7	54.0	-3.3
H	21280.000	46.5	33	37.9	51.4	0	51.4	54.0	-2.6

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dB μV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	47.8	33	35.7	50.5	74.0	-23.5
H	10640.000	45.7	33	40.4	53.1	74.0	-20.9
H	15960.000	46.0	33	37.7	50.7	74.0	-23.3
H	21280.000	46.5	33	37.9	51.4	74.0	-22.6

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5500MHz
IEEE 802.11A (20MHz) (OFDM,6MBps)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11000.000	43.4	33	40.8	51.2	0	51.2	54.0	-2.8

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11000.000	43.4	33	40.8	51.2	74.0	-22.8

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5600MHz
IEEE 802.11A (20MHz) (OFDM,6MBps)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11200.000	44.6	33	40.8	52.4	0	52.4	54.0	-1.6
H	22400.000	48.2	33	38.2	53.4	0	53.4	54.0	-0.6

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11200.000	44.6	33	40.8	52.4	74.0	-21.6
H	22400.000	48.2	33	38.2	53.4	74.0	-20.6

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5700MHz
IEEE 802.11A (20MHz) (OFDM,6MBps)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11400.000	45.6	33	40.8	53.4	0	53.4	54.0	-0.6
H	22800.000	45.7	33	38.3	51.0	0	51.0	54.0	-3.0

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11400.000	45.6	33	40.8	53.4	74.0	-20.6
H	22800.000	45.7	33	38.3	51.0	74.0	-23.0

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5745MHz
IEEE 802.11A (20MHz) (OFDM,6MBps)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11490.000	44.9	33	40.8	52.7	0	52.7	54.0	-1.3
H	22980.000	44.8	33	38.3	50.1	0	50.1	54.0	-3.9

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11490.000	44.9	33	40.8	52.7	74.0	-21.3
H	22980.000	44.8	33	38.3	50.1	74.0	-23.9

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5785MHz
IEEE 802.11A (20MHz) (OFDM,6MBps)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11490.000	40.5	33	40.8	48.3	0	48.3	54.0	-5.7
H	22980.000	44.8	33	38.3	50.1	0	50.1	54.0	-3.9

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11490.000	40.5	33	40.8	48.3	74.0	-25.7
H	22980.000	44.8	33	38.3	50.1	74.0	-23.9

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5825MHz
IEEE 802.11A (20MHz) (OFDM,6Mbps)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11650.000	41.8	33	40.5	49.3	0	49.3	54.0	-4.7
H	23300.000	46.7	33	38.6	52.3	0	52.3	54.0	-1.7

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11650.000	41.8	33	40.5	49.3	74.0	-24.7
H	23300.000	46.7	33	38.6	52.3	74.0	-21.7

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5180MHz
IEEE 802.11N (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	49.1	33	35.7	51.8	0	51.8	54.0	-2.2
H	15540.000	43.6	33	37.7	48.3	0	48.3	54.0	-5.7
H	20720.000	45.8	33	37.7	50.5	0	50.5	54.0	-3.5

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	49.1	33	35.7	51.8	74.0	-22.2
H	15540.000	43.6	33	37.7	48.3	74.0	-25.7
H	20720.000	45.8	33	37.7	50.5	74.0	-23.5

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5220MHz
IEEE 802.11N (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	15660.000	46.9	33	37.7	51.6	0	51.6	54.0	-2.4
H	20880.000	45.4	33	37.7	50.1	0	50.1	54.0	-3.9
V	31320.000	43.7	33	42.1	52.8	0	52.8	54.0	-1.2

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	15660.000	46.9	33	37.7	51.6	74.0	-22.4
H	20880.000	45.4	33	37.7	50.1	74.0	-23.9
H	31320.000	43.7	33	42.1	52.8	74.0	-21.2

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5240MHz
IEEE 802.11N (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	49.7	33	35.7	52.4	0	52.4	54.0	-1.6
H	15720.000	44.6	33	37.7	49.3	0	49.3	54.0	-4.7
H	20960.000	47.4	33	37.7	52.1	0	52.1	54.0	-1.9
V	31440.000	41.7	33	42.1	50.8	0	50.8	54.0	-3.2

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	49.7	33	35.7	52.4	74.0	-21.6
H	15720.000	44.6	33	37.7	49.3	74.0	-24.7
H	20960.000	47.4	33	37.7	52.1	74.0	-21.9
H	31440.000	41.7	33	42.1	50.8	74.0	-23.2

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5260MHz
IEEE 802.11N (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	48.5	33	35.7	51.2	0	51.2	54.0	-2.8
H	15780.000	45.6	33	37.7	50.3	0	50.3	54.0	-3.7
H	21040.000	47.9	33	37.9	52.8	0	52.8	54.0	-1.2
V	31560.000	42.8	33	40.4	50.2	0	50.2	54.0	-3.8

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	48.5	33	35.7	51.2	74.0	-22.8
H	15780.000	45.6	33	37.7	50.3	74.0	-23.7
H	21040.000	47.9	33	37.9	52.8	74.0	-21.2
H	31560.000	42.8	33	40.4	50.2	74.0	-23.8

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5300MHz
IEEE 802.11N (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	10600.000	42.8	33	40.4	50.2	0	50.2	54.0	-3.8
H	15900.000	48.7	33	37.7	53.4	0	53.4	54.0	-0.6
H	21200.000	47.2	33	37.9	52.1	0	52.1	54.0	-1.9
V	31800.000	45.7	33	40.4	53.1	0	53.1	54.0	-0.9

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	10600.000	42.8	33	40.4	50.2	74.0	-23.8
H	15900.000	48.7	33	37.7	53.4	74.0	-20.6
H	21200.000	47.2	33	37.9	52.1	74.0	-21.9
H	31800.000	45.7	33	40.4	53.1	74.0	-20.9

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5320MHz
IEEE 802.11N (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	49.4	33	35.7	52.1	0	52.1	54.0	-1.9
H	10640.000	42.8	33	40.4	50.2	0	50.2	54.0	-3.8
H	15960.000	43.6	33	37.7	48.3	0	48.3	54.0	-5.7
H	21280.000	47.2	33	37.9	52.1	0	52.1	54.0	-1.9

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	49.4	33	35.7	52.1	74.0	-21.9
H	10640.000	42.8	33	40.4	50.2	74.0	-23.8
H	15960.000	43.6	33	37.7	48.3	74.0	-25.7
H	21280.000	47.2	33	37.9	52.1	74.0	-21.9

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5500MHz
IEEE 802.11N (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11000.000	43.4	33	40.8	51.2	0	51.2	54.0	-2.8

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11000.000	43.4	33	40.8	51.2	74.0	-22.8

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5600MHz
IEEE 802.11N (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11200.000	45.4	33	40.8	53.2	0	53.2	54.0	-0.8
H	22400.000	44.9	33	38.2	50.1	0	50.1	54.0	-3.9

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11200.000	45.4	33	40.8	53.2	74.0	-20.8
H	22400.000	44.9	33	38.2	50.1	74.0	-23.9

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5700MHz
IEEE 802.11N (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11400.000	45.6	33	40.8	53.4	0	53.4	54.0	-0.6
H	22800.000	47.0	33	38.3	52.3	0	52.3	54.0	-1.7

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11400.000	45.6	33	40.8	53.4	74.0	-20.6
H	22800.000	47.0	33	38.3	52.3	74.0	-21.7

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5745MHz
IEEE 802.11N (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11490.000	43.5	33	40.8	51.3	0	51.3	54.0	-2.7
H	22980.000	46.0	33	38.3	51.3	0	51.3	54.0	-2.7

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11490.000	43.5	33	40.8	51.3	74.0	-22.7
H	22980.000	46.0	33	38.3	51.3	74.0	-22.7

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5785MHz
IEEE 802.11N (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11490.000	42.5	33	40.8	50.3	0	50.3	54.0	-3.7
H	22980.000	47.4	33	38.3	52.7	0	52.7	54.0	-1.3

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11490.000	42.5	33	40.8	50.3	74.0	-23.7
H	22980.000	47.4	33	38.3	52.7	74.0	-21.3

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5825MHz
IEEE 802.11N (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11650.000	42.8	33	40.5	50.3	0	50.3	54.0	-3.7

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11650.000	42.8	33	40.5	50.3	74.0	-23.7

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5180MHz
IEEE 802.11AC (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	47.5	33	35.7	50.2	0	50.2	54.0	-3.8
H	15540.000	43.2	33	37.7	47.9	0	47.9	54.0	-6.1
H	20720.000	44.8	33	37.7	49.5	0	49.5	54.0	-4.5

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	47.5	33	35.7	50.2	74.0	-23.8
H	15540.000	43.2	33	37.7	47.9	74.0	-26.1
H	20720.000	44.8	33	37.7	49.5	74.0	-24.5

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5220MHz
IEEE 802.11AC (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	15660.000	46.9	33	37.7	51.6	0	51.6	54.0	-2.4
H	20880.000	47.6	33	37.7	52.3	0	52.3	54.0	-1.7
V	31320.000	42.4	33	42.1	51.5	0	51.5	54.0	-2.5

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	15660.000	46.9	33	37.7	51.6	74.0	-22.4
H	20880.000	47.6	33	37.7	52.3	74.0	-21.7
H	31320.000	42.4	33	42.1	51.5	74.0	-22.5

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5240MHz
IEEE 802.11AC (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	48.6	33	35.7	51.3	0	51.3	54.0	-2.7
H	15720.000	46.5	33	37.7	51.2	0	51.2	54.0	-2.8
H	20960.000	45.9	33	37.7	50.6	0	50.6	54.0	-3.4
V	31440.000	43.6	33	42.1	52.7	0	52.7	54.0	-1.3

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	48.6	33	35.7	51.3	74.0	-22.7
H	15720.000	46.5	33	37.7	51.2	74.0	-22.8
H	20960.000	45.9	33	37.7	50.6	74.0	-23.4
H	31440.000	43.6	33	42.1	52.7	74.0	-21.3

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5260MHz
IEEE 802.11AC (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	47.5	33	35.7	50.2	0	50.2	54.0	-3.8
H	15780.000	43.6	33	37.7	48.3	0	48.3	54.0	-5.7
H	21040.000	48.3	33	37.9	53.2	0	53.2	54.0	-0.8
V	31560.000	43.6	33	40.4	51.0	0	51.0	54.0	-3.0

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	47.5	33	35.7	50.2	74.0	-23.8
H	15780.000	43.6	33	37.7	48.3	74.0	-25.7
H	21040.000	48.3	33	37.9	53.2	74.0	-20.8
H	31560.000	43.6	33	40.4	51.0	74.0	-23.0

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5300MHz
IEEE 802.11AC (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	10600.000	43.9	33	40.4	51.3	0	51.3	54.0	-2.7
H	15900.000	48.0	33	37.7	52.7	0	52.7	54.0	-1.3
H	21200.000	44.4	33	37.9	49.3	0	49.3	54.0	-4.7
V	31800.000	45.0	33	40.4	52.4	0	52.4	54.0	-1.6

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	10600.000	43.9	33	40.4	51.3	74.0	-22.7
H	15900.000	48.0	33	37.7	52.7	74.0	-21.3
H	21200.000	44.4	33	37.9	49.3	74.0	-24.7
H	31800.000	45.0	33	40.4	52.4	74.0	-21.6

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5320MHz
IEEE 802.11AC (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	49.4	33	35.7	52.1	0	52.1	54.0	-1.9
H	10640.000	46.3	33	40.4	53.7	0	53.7	54.0	-0.3
H	15960.000	43.6	33	37.7	48.3	0	48.3	54.0	-5.7
H	21280.000	46.3	33	37.9	51.2	0	51.2	54.0	-2.8

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	49.4	33	35.7	52.1	74.0	-21.9
H	10640.000	46.3	33	40.4	53.7	74.0	-20.3
H	15960.000	43.6	33	37.7	48.3	74.0	-25.7
H	21280.000	46.3	33	37.9	51.2	74.0	-22.8

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5500MHz
IEEE 802.11AC (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11000.000	45.8	33	40.8	53.6	0	53.6	54.0	-0.4

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11000.000	45.8	33	40.8	53.6	74.0	-20.4

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5600MHz
IEEE 802.11AC (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11200.000	40.7	33	40.8	48.5	0	48.5	54.0	-5.5
H	22400.000	47.1	33	38.2	52.3	0	52.3	54.0	-1.7

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11200.000	40.7	33	40.8	48.5	74.0	-25.5
H	22400.000	47.1	33	38.2	52.3	74.0	-21.7

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5700MHz
IEEE 802.11AC (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11400.000	42.4	33	40.8	50.2	0	50.2	54.0	-3.8
H	22800.000	46.8	33	38.3	52.1	0	52.1	54.0	-1.9

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11400.000	42.4	33	40.8	50.2	74.0	-23.8
H	22800.000	46.8	33	38.3	52.1	74.0	-21.9

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5745MHz
IEEE 802.11AC (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11490.000	44.9	33	40.8	52.7	0	52.7	54.0	-1.3
H	22980.000	42.8	33	38.3	48.1	0	48.1	54.0	-5.9

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11490.000	44.9	33	40.8	52.7	74.0	-21.3
H	22980.000	42.8	33	38.3	48.1	74.0	-25.9

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5785MHz
IEEE 802.11AC (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11490.000	45.0	33	40.8	52.8	0	52.8	54.0	-1.2
H	22980.000	43.5	33	38.3	48.8	0	48.8	54.0	-5.2

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11490.000	45.0	33	40.8	52.8	74.0	-21.2
H	22980.000	43.5	33	38.3	48.8	74.0	-25.2

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5825MHz
IEEE 802.11AC (20MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11650.000	43.8	33	40.5	51.3	0	51.3	54.0	-2.7

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11650.000	43.8	33	40.5	51.3	74.0	-22.7

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5190MHz
IEEE 802.11n (40MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	46.7	33	35.7	49.4	0	49.4	54.0	-4.6
H	15570.000	47.1	33	37.7	51.8	0	51.8	54.0	-2.2
H	20760.000	47.7	33	37.7	52.4	0	52.4	54.0	-1.6

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	46.7	33	35.7	49.4	74.0	-24.6
H	15570.000	47.1	33	37.7	51.8	74.0	-22.2
H	20760.000	47.7	33	37.7	52.4	74.0	-21.6

- NOTES:
1. Peak detector is used for the emission measurement.
 9. Average detector is used for the average data of emission measurement
 10. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 11. Negative value in the margin column shows emission below limit.
 12. Horn antenna is used for the emission over 1000MHz.
 9. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 10. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 11. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5230MHz
IEEE 802.11n (40MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	47.7	33	35.7	50.4	0	50.4	54.0	-3.6
H	15690.000	48.3	33	37.7	53.0	0	53.0	54.0	-1.0
H	20920.000	47.7	33	37.7	52.4	0	52.4	54.0	-1.6
H	31380.000	41.9	33	42.1	51.0	0	51.0	54.0	-3.0

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	47.7	33	35.7	50.4	74.0	-23.6
H	15690.000	48.3	33	37.7	53.0	74.0	-21.0
H	20920.000	47.7	33	37.7	52.4	74.0	-21.6
H	31380.000	41.9	33	42.1	51.0	74.0	-23.0

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5270MHz
IEEE 802.11n (40MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	46.2	33	35.7	48.9	0	48.9	54.0	-5.1
H	15810.000	46.7	33	37.7	51.4	0	51.4	54.0	-2.6
H	21080.000	47.7	33	37.9	52.6	0	52.6	54.0	-1.4
H	31620.000	43.3	33	40.4	50.7	0	50.7	54.0	-3.3

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	46.2	33	35.7	48.9	74.0	-25.1
H	15810.000	46.7	33	37.7	51.4	74.0	-22.6
H	21080.000	47.7	33	37.9	52.6	74.0	-21.4
H	31620.000	43.3	33	40.4	50.7	74.0	-23.3

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5310MHz
IEEE 802.11n (40MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	48.2	33	35.7	50.9	0	50.9	54.0	-3.1
H	10620.000	44.0	33	40.4	51.4	0	51.4	54.0	-2.6
H	15930.000	45.0	33	37.7	49.7	0	49.7	54.0	-4.3

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	48.2	33	35.7	50.9	74.0	-23.1
H	10620.000	44.0	33	40.4	51.4	74.0	-22.6
H	15930.000	45.0	33	37.7	49.7	74.0	-24.3

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5510MHz
IEEE 802.11n (40MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11020.000	44.5	33	40.8	52.3	0	52.3	54.0	-1.7
H	22040.000	45.5	33	38.2	50.7	0	50.7	54.0	-3.3

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11020.000	44.5	33	40.8	52.3	74.0	-21.7
H	22040.000	45.5	33	38.2	50.7	74.0	-23.3

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5590MHz
IEEE 802.11n (40MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
<i>H</i>	<i>11180.000</i>	<i>43.9</i>	<i>33</i>	<i>40.8</i>	<i>51.7</i>	<i>0</i>	<i>51.7</i>	<i>54.0</i>	<i>-2.3</i>
<i>H</i>	<i>22360.000</i>	<i>46.9</i>	<i>33</i>	<i>38.2</i>	<i>52.1</i>	<i>0</i>	<i>52.1</i>	<i>54.0</i>	<i>-1.9</i>

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
<i>H</i>	<i>11180.000</i>	<i>43.9</i>	<i>33</i>	<i>40.8</i>	<i>51.7</i>	<i>74.0</i>	<i>-22.3</i>
<i>H</i>	<i>22360.000</i>	<i>46.9</i>	<i>33</i>	<i>38.2</i>	<i>52.1</i>	<i>74.0</i>	<i>-21.9</i>

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by ***bold italic***) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5670MHz
IEEE 802.11n (40MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11340.000	43.9	33	40.8	51.7	0	51.7	54.0	-2.3
H	22680.000	44.3	33	38.3	49.6	0	49.6	54.0	-4.4

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11340.000	43.9	33	40.8	51.7	74.0	-22.3
H	22680.000	44.3	33	38.3	49.6	74.0	-24.4

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5755MHz
IEEE 802.11n (40MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11510.000	45.6	33	40.5	53.1	0	53.1	54.0	-0.9
H	23020.000	44.5	33	38.6	50.1	0	50.1	54.0	-3.9

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11510.000	45.6	33	40.5	53.1	74.0	-20.9
H	23020.000	44.5	33	38.6	50.1	74.0	-23.9

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5795MHz
IEEE 802.11n (40MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11590.000	43.8	33	40.5	51.3	0	51.3	54.0	-2.7

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11590.000	43.8	33	40.5	51.3	74.0	-22.7

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth

TEST REPORT

Frequency: 5190MHz
IEEE 802.11ac (40MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	47.4	33	35.7	50.1	0	50.1	54.0	-3.9
H	15570.000	47.2	33	37.7	51.9	0	51.9	54.0	-2.1
H	20760.000	47.6	33	37.7	52.3	0	52.3	54.0	-1.7

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	47.4	33	35.7	50.1	74.0	-23.9
H	15570.000	47.2	33	37.7	51.9	74.0	-22.1
H	20760.000	47.6	33	37.7	52.3	74.0	-21.7

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5230MHz
IEEE 802.11ac (40MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	45.5	33	35.7	48.2	0	48.2	54.0	-5.8
H	15690.000	45.4	33	37.7	50.1	0	50.1	54.0	-3.9
H	20920.000	46.4	33	37.7	51.1	0	51.1	54.0	-2.9
H	31380.000	42.9	33	42.1	52.0	0	52.0	54.0	-2.0

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	45.5	33	35.7	48.2	74.0	-25.8
H	15690.000	45.4	33	37.7	50.1	74.0	-23.9
H	20920.000	46.4	33	37.7	51.1	74.0	-22.9
H	31380.000	42.9	33	42.1	52.0	74.0	-22.0

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5270MHz
IEEE 802.11ac (40MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	47.4	33	35.7	50.1	0	50.1	54.0	-3.9
H	15810.000	47.6	33	37.7	52.3	0	52.3	54.0	-1.7
H	21080.000	47.1	33	37.9	52.0	0	52.0	54.0	-2.0
H	31620.000	44.2	33	40.4	51.6	0	51.6	54.0	-2.4

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	47.4	33	35.7	50.1	74.0	-23.9
H	15810.000	47.6	33	37.7	52.3	74.0	-21.7
H	21080.000	47.1	33	37.9	52.0	74.0	-22.0
H	31620.000	44.2	33	40.4	51.6	74.0	-22.4

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5310MHz
IEEE 802.11ac (40MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	47.3	33	35.7	50.0	0	50.0	54.0	-4.0
H	10620.000	45.1	33	40.4	52.5	0	52.5	54.0	-1.5
H	15930.000	46.6	33	37.7	51.3	0	51.3	54.0	-2.7
H	21240.000	44.8	33	37.9	49.7	0	49.7	54.0	-4.3

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	47.3	33	35.7	50.0	74.0	-24.0
H	10620.000	45.1	33	40.4	52.5	74.0	-21.5
H	15930.000	46.6	33	37.7	51.3	74.0	-22.7
H	21240.000	44.8	33	37.9	49.7	74.0	-24.3

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5510MHz
IEEE 802.11ac (40MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11020.000	42.4	33	40.8	50.2	0	50.2	54.0	-3.8
H	22040.000	47.1	33	38.2	52.3	0	52.3	54.0	-1.7

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11020.000	42.4	33	40.8	50.2	74.0	-23.8
H	22040.000	47.1	33	38.2	52.3	74.0	-21.7

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5590MHz
IEEE 802.11ac (40MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11180.000	42.2	33	40.8	50.0	0	50.0	54.0	-4.0
H	22360.000	46.5	33	38.2	51.7	0	51.7	54.0	-2.3

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11180.000	42.2	33	40.8	50.0	74.0	-24.0
H	22360.000	46.5	33	38.2	51.7	74.0	-22.3

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5670MHz
IEEE 802.11ac (40MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11340.000	42.8	33	40.8	50.6	0	50.6	54.0	-3.4
H	22680.000	43.2	33	38.3	48.5	0	48.5	54.0	-5.5

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11340.000	42.8	33	40.8	50.6	74.0	-23.4
H	22680.000	43.2	33	38.3	48.5	74.0	-25.5

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5755MHz
IEEE 802.11ac (40MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11510.000	42.2	33	40.5	49.7	0	49.7	54.0	-4.3
H	23020.000	44.5	33	38.6	50.1	0	50.1	54.0	-3.9

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11510.000	42.2	33	40.5	49.7	74.0	-24.3
H	23020.000	44.5	33	38.6	50.1	74.0	-23.9

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5795MHz
IEEE 802.11ac (40MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11590.000	42.6	33	40.5	50.1	0	50.1	54.0	-3.9

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11590.000	42.6	33	40.5	50.1	74.0	-23.9

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5210MHz
IEEE 802.11ac (80MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	48.6	33	35.7	51.3	0	51.3	54.0	-2.7
H	15630.000	45.4	33	37.7	50.1	0	50.1	54.0	-3.9
H	20840.000	48.0	33	37.7	52.7	0	52.7	54.0	-1.3
H	31260.000	43.0	33	42.1	52.1	0	52.1	54.0	-1.9
H	36470.000	42.7	33	41.7	51.4	0	51.4	54.0	-2.6

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5150.000	48.6	33	35.7	51.3	74.0	-22.7
H	15630.000	45.4	33	37.7	50.1	74.0	-23.9
H	20840.000	48.0	33	37.7	52.7	74.0	-21.3
H	31260.000	43.0	33	42.1	52.1	74.0	-21.9
H	36470.000	42.7	33	41.7	51.4	74.0	-22.6

- NOTES:
1. Peak detector is used for the emission measurement.
 13. Average detector is used for the average data of emission measurement
 14. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 15. Negative value in the margin column shows emission below limit.
 16. Horn antenna is used for the emission over 1000MHz.
 12. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 13. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 14. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5290MHz
IEEE 802.11ac (80MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	49.1	33	35.7	51.8	0	51.8	54.0	-2.2
H	15870.000	47.6	33	37.7	52.3	0	52.3	54.0	-1.7
H	21160.000	48.8	33	37.9	53.7	0	53.7	54.0	-0.3
H	31740.000	44.3	33	40.4	51.7	0	51.7	54.0	-2.3

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	5350.000	49.1	33	35.7	51.8	74.0	-22.2
H	15870.000	47.6	33	37.7	52.3	74.0	-21.7
H	21160.000	48.8	33	37.9	53.7	74.0	-20.3
H	31740.000	44.3	33	40.4	51.7	74.0	-22.3

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5530MHz
IEEE 802.11ac (80MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11060.000	41.5	33	40.8	49.3	0	49.3	54.0	-4.7
H	22120.000	45.5	33	38.2	50.7	0	50.7	54.0	-3.3

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11060.000	41.5	33	40.8	49.3	74.0	-24.7
H	22120.000	45.5	33	38.2	50.7	74.0	-23.3

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5610MHz
IEEE 802.11ac (80MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11220.000	44.9	33	40.8	52.7	0	52.7	54.0	-1.3
H	22440.000	46.6	33	38.2	51.8	0	51.8	54.0	-2.2

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11220.000	44.9	33	40.8	52.7	74.0	-21.3
H	22440.000	46.6	33	38.2	51.8	74.0	-22.2

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Frequency: 5775MHz
IEEE 802.11ac (80MHz) (MCS0)

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Factor (dB)	Calculated at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
H	11550.000	45.6	33	40.5	53.1	0	53.1	54.0	-0.9
H	23100.000	46.5	33	38.6	52.1	0	52.1	54.0	-1.9

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
H	11550.000	45.6	33	40.5	53.1	74.0	-20.9
H	23100.000	46.5	33	38.6	52.1	74.0	-21.9

- NOTES:
1. Peak detector is used for the emission measurement.
 2. Average detector is used for the average data of emission measurement
 3. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 4. Negative value in the margin column shows emission below limit.
 5. Horn antenna is used for the emission over 1000MHz.
 6. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.
 7. For the measurement of radiated emission, summation method was used which numerical integrating (in terms of linear power) over the transmitter occupied bandwidth.
 8. For the linear power measurement, data in 1MHz spacing was collected by spectrum analyzer with 1MHz resolution bandwidth.

TEST REPORT

Mode: WiFi On with Dect phone by POE

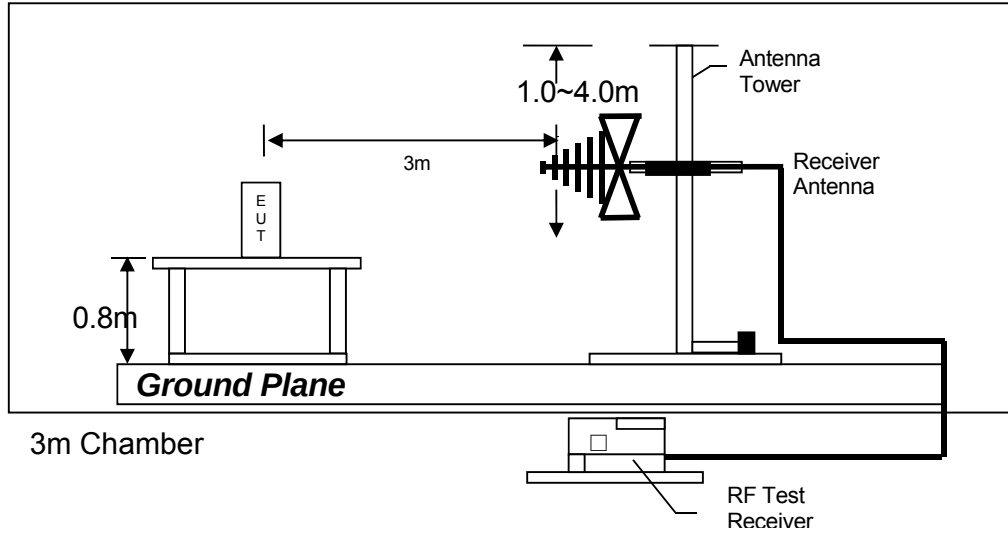
Polarization	Frequency (MHz)	Reading (dBμV)	Pre-amp (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
V	73.165	48.2	16	6.0	38.2	40.0	-1.8
V	115.481	44.2	16	14.0	42.2	43.5	-1.3

- NOTES:
1. Peak detector is used for the emission measurement.
 2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 3. Negative value in the margin column shows emission below limit.
 4. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-Gen Section 8.10.

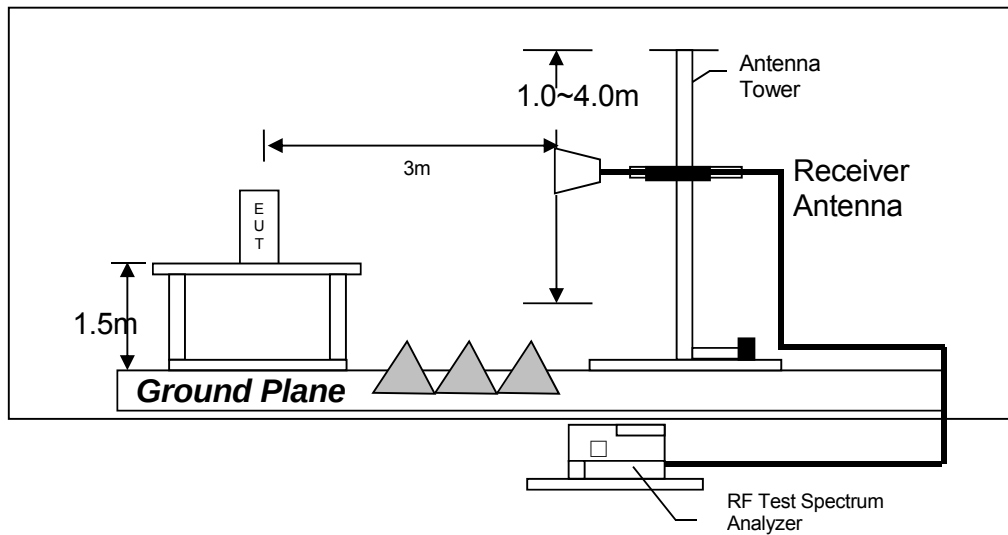
TEST REPORT

4.6.3 Radiated Emission Test Setup

The figure below shows the test setup, which is utilized to make these measurements.



Test setup of radiated emissions up to 1GHz



Test setup of radiated emissions above 1GHz

TEST REPORT

4.6.4 Transmitter Duty Cycle Calculation

Not applicable – No average factor is required.

TEST REPORT

4.7 AC Power Line Conducted Emission

- ☐ Not applicable – EUT is only powered by battery for operation.
- ☒ EUT connects to AC power line. Emission Data is listed in following pages.
- ☐ Base Unit connects to AC power line and has transmission. Handset connects to AC power line but has no transmission. Emission Data of Base Unit is listed in following pages.

4.7.1 AC Power Line Conducted Emission Configuration Photograph

Worst Case Line-Conducted Configuration
at

685.5 kHz

The worst case line conducted configuration photographs are attached in the Appendix and saved with filename: config photos.pdf

4.7.2 AC Power Line Conducted Emission Data

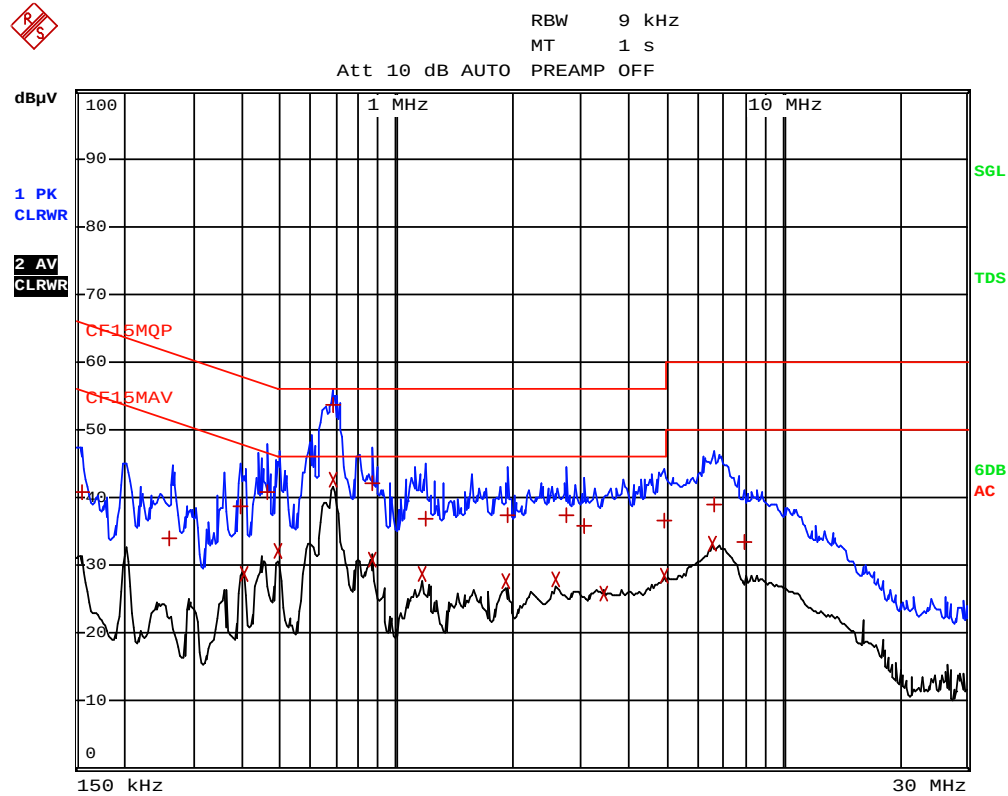
The plot(s) and data in the following pages list the significant emission frequencies, the limit and the margin of compliance.

Passed by 2.43 dB margin compare with Quasi-peak limit

TEST REPORT

AC POWER LINE CONDUCTED EMISSION

Worst Case: WiFi On with Dect phone by POE



Date: 10.AUG.2017 16:33:33

TEST REPORT

Worst Case: WiFi On with Dect phone by POE

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	CF15MQP			
Trace2:	CF15MAV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1 Quasi Peak	154.5 kHz	40.91	L1	-24.83
1 Quasi Peak	262.5 kHz	34.03	N	-27.31
1 Quasi Peak	393 kHz	38.83	N	-19.16
2 CISPR Average	402 kHz	28.80	L1	-19.00
1 Quasi Peak	460.5 kHz	40.81	N	-15.87
2 CISPR Average	492 kHz	32.15	N	-13.97
1 Quasi Peak	685.5 kHz	53.56	L1	-2.43
2 CISPR Average	685.5 kHz	42.65	L1	-3.34
1 Quasi Peak	865.5 kHz	42.16	N	-13.83
2 CISPR Average	865.5 kHz	30.91	L1	-15.08
2 CISPR Average	1.167 MHz	28.86	L1	-17.13
1 Quasi Peak	1.1895 MHz	37.00	N	-18.99
2 CISPR Average	1.932 MHz	27.56	N	-18.44
1 Quasi Peak	1.9455 MHz	37.45	N	-18.54
2 CISPR Average	2.589 MHz	27.99	L1	-18.00
1 Quasi Peak	2.76 MHz	37.36	L1	-18.63
1 Quasi Peak	3.066 MHz	35.75	N	-20.24
2 CISPR Average	3.453 MHz	25.97	L1	-20.02
1 Quasi Peak	4.9245 MHz	36.60	L1	-19.39
2 CISPR Average	4.9335 MHz	28.38	L1	-17.61

Date: 10.AUG.2017 16:33:18

TEST REPORT

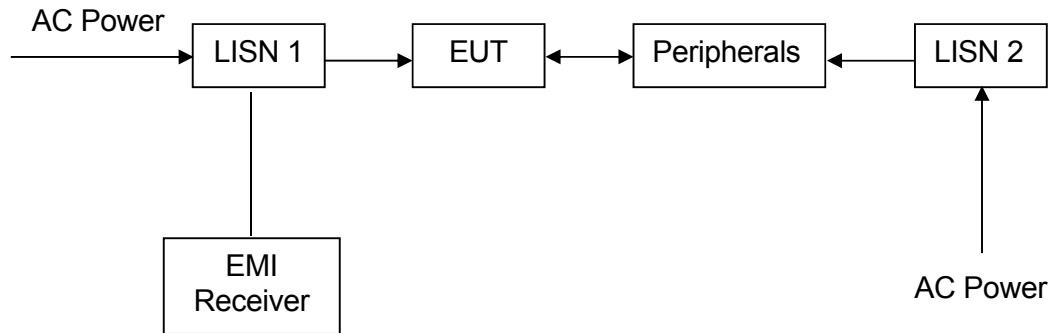
Worst Case: WiFi On with Dect phone by POE

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	CF15MQP			
Trace2:	CF15MAV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBμV		DELTA LIMIT dB
2 CISPR Average	6.612 MHz	33.31	N	-16.68
1 Quasi Peak	6.6435 MHz	39.08	N	-20.91
1 Quasi Peak	8.0025 MHz	33.56	N	-26.43

Date: 10.AUG.2017 16:33:28

TEST REPORT

4.7.3 Conducted Emission Test Setup



TEST REPORT

4.8 Frequency Stability Requirement

Frequency (MHz)	Mode	Measured Value (ppm) (0°C)	Measured Value (ppm) (10°C)	Measured Value (ppm) (20°C)	Measured Value (ppm) (30°C)	Measured Value (ppm) (40°C)	Measured Value (ppm) (50°C)
5180	A	0.804	0.952	4.054	4.102	3.840	3.700
5260		0.799	0.854	4.021	4.125	3.754	3.654
5500		0.755	0.825	4.025	4.258	3.574	3.655
5745		0.725	0.854	4.090	4.894	3.842	4.418

Temperature (°C)	Frequency (MHz)	Mode	Measured Value (ppm) 120VAC	Measured Value (ppm) 138VAC	Measured Value (ppm) 102VAC
25	5180	A	4.054	4.601	3.893
25	5260		3.954	4.215	3.548
25	5745		3.845	4.871	3.452
25	5745		4.09	3.568	4.496

The Maximum value is +4.894ppm.

It is proved that the frequency stability such that an emission is maintained within the band of operation under all condition.

4.9 U-NII1 99% Bandwidth Requirement

For the case if a channel operating in U-NII 1 band has a 26-dB bandwidth that straddles into U-NII 2A band but its 99% occupied power bandwidth does not. For this rare case, DFS requirement does not apply.

The plots of U-NII1 99% bandwidth is saved with filename: DATA.pdf proved that no further test for DFS.

TEST REPORT

4.10 DFS Channel Shutdown and Non-occupancy period.

According to standard 905462 DO2 UNII DFS Compliance procedures New Pules v02 section 5.1.1 and 5.1.2.

Master Devices

- a) The *Master Device* will use DFS in order to detect *Radar Waveforms* with received signal strength above the *DFS Detection Threshold* in the 5250 - 5350 MHz and 5470- 5725 MHz bands. DFS is not required in the 5150 - 5250 MHz or 5725 - 5825 MHz bands.
- b) Before initiating a network on a *Channel*, the *Master Device* will perform a *Channel Availability Check* for a specified time duration (*Channel Availability Check Time*) to ensure that there is no radar system operating on the *Channel*, using DFS described under subsection a) above.
- c) The *Master Device* initiates a U-NII network by transmitting control signals that will enable other U-NII devices to *Associate* with the *Master Device*.
- d) During normal operation, the *Master Device* will monitor the *Channel (In-Service Monitoring)* to ensure that there is no radar system operating on the *Channel*, using DFS described under a).
- e) If the *Master Device* has detected a *Radar Waveform* during *In-Service Monitoring* as described under d), the *Operating Channel* of the U-NII network is no longer an *Available Channel*. The *Master Device* will instruct all associated *Client Device(s)* to stop transmitting on this *Channel* within the *Channel Move Time*. The transmissions during the *Channel Move Time* will be limited to the *Channel Closing Transmission Time*.
- f) Once the *Master Device* has detected a *Radar Waveform* it will not utilize the *Channel* for the duration of the *Non-Occupancy Period*. 3
- g) If the *Master Device* delegates the *In-Service Monitoring* to a *Client Device*, then the combination will be tested to the requirements described under d) through f) above.

TEST REPORT

Client Devices

- a) A *Client Device* will not transmit before having received appropriate control signals from a *Master Device*.
- b) A *Client Device* will stop all its transmissions whenever instructed by a *Master Device* to which it is associated and will meet the *Channel Move Time* and *Channel Closing Transmission Time* requirements. The *Client Device* will not resume any transmissions until it has again received control signals from a *Master Device*.
- c) If a *Client Device* is performing *In-Service Monitoring* and detects a *Radar Waveform* above the *DFS Detection Threshold*, it will inform the *Master Device*. This is equivalent to the *Master Device* detecting the *Radar Waveform* and d) through f) of section 5.1.1 apply.
- d) Irrespective of *Client Device* or *Master Device* detection the *Channel Move Time* and *Channel Closing Transmission Time* requirements remain the same.
- e) The client test frequency must be monitored to ensure no transmission of any type has occurred for 30 minutes. Note: If the client moves with the master, the device is considered compliant if nothing appears in the client non-Occupancy period test. For devices that shut down (rather than moving channels), no beacons should appear.

4.10.1 Applicability of DFS requirement during normal operation.

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

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client Without Radar Detection
<i>U-NII Detection Bandwidth and Statistical Performance Check</i>	All BW modes must be tested	Not required
<i>Channel Move Time and Channel Closing Transmission Time</i>	Test using widest BW mode available	Test using the widest BW mode available for the link
<i>All other tests</i>	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.		

The operational behavior and individual DFS requirements that are associated with these modes are as follows:

TEST REPORT

4.10.2 Response Requirements

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

TEST REPORT

4.10.3 Short pulse Radar test Wave forms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	Roundup $\left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \right\}$	60%	30
		Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120
Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.					

TEST REPORT

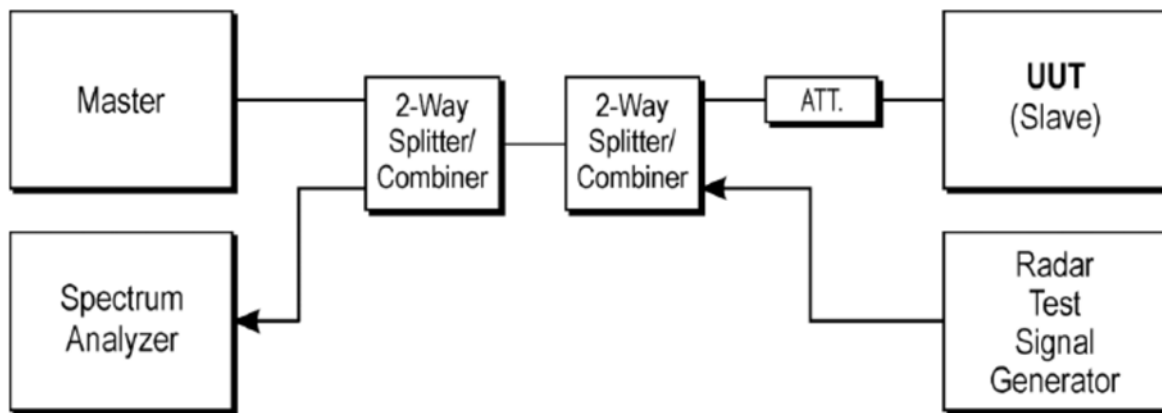
4.10.5 Calibration Setup and DFS Test Results

4.10.5.1 Calibration of Radar Waveform

4.10.5.2 Calibration Procedure:

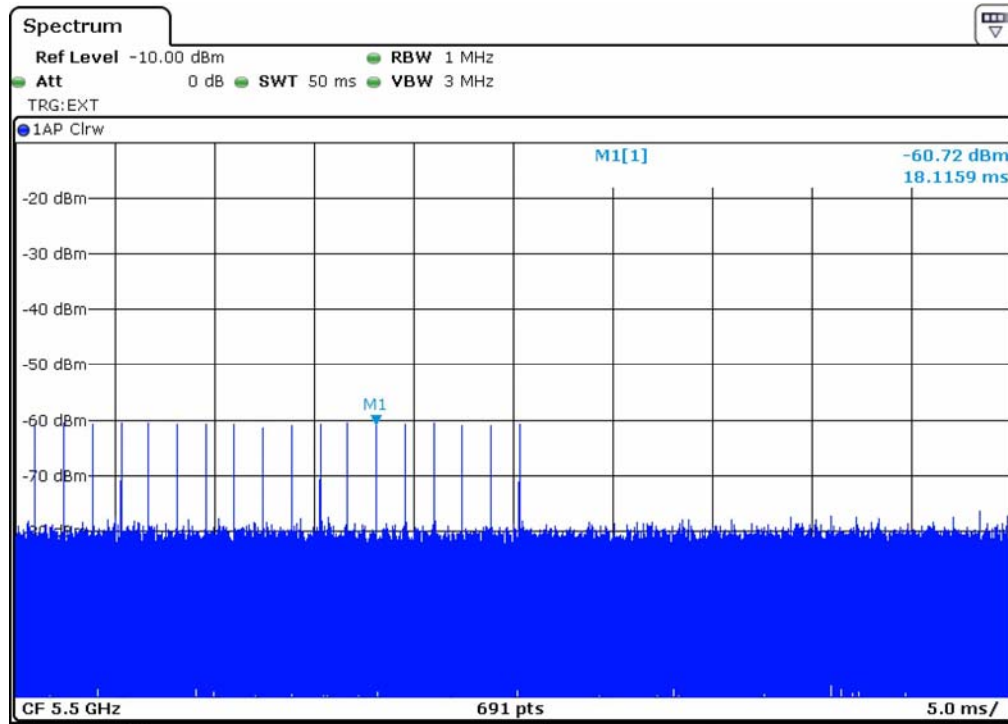
The Interference Radar Detection Threshold Level is $-62\text{dBm} + 0\text{dBi} + 1\text{dB} = -61\text{dBm}$ that had been taken into account the output power range and antenna gain. The following equipment setup was used to calibrate the conducted Radar Waveform. A vector signal generator was utilized to establish the test signal level for radar type 0. During this process there were no transmissions by either the Master or client device. The Spectrum analyzer was switched was used. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 1MHz or 3MHz respectively to measure the type 0 radar waveform. The spectrum analyzer had offset to compensate and RF cable loss. The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was -61dBm . Capture the spectrum analyzer plots on short pulse radar waveform.

4.10.5.3 Conducted Setup



TEST REPORT

4.10.7 Radar Waveform Calibration Result



4.10.8 Test Deviation

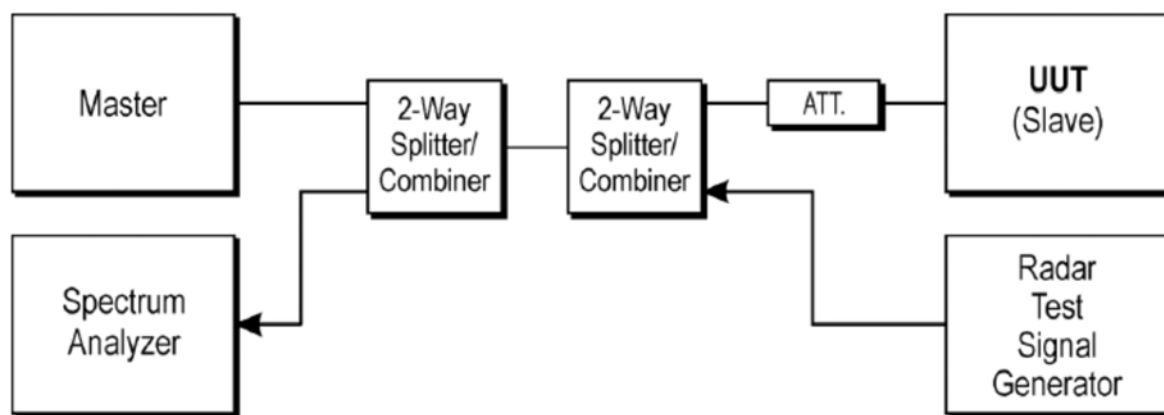
There is no deviation with the original standard.

TEST REPORT

10.11.1 Test Procedures

1. The radar pulse generator is setup to provide a pulse at frequency that the Master and Client are operating. A type 0 radar pulse with a 1us pulse width and a 1428 us PRI is used for the testing.
2. The vector signal generator is adjusted to provide the radar burst (18 pulses) at a level approximately -62dBm at the antenna of the Master device.
3. An external trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.
4. A U-NII device operating as a Client Device (EUT) will associate with the Master at same channel. The MPEG file "TestFile.mpg" specified by the FCC is streamed from the "file computer" through the master to the client device (EUT).
5. When a radar burst with a level equal to the DFS Detection Threshold + 1dB is generated on the operating Channel of the U-NII device. At time T0 the Radar Waveform generator sends a Burst of pulse of the radar waveform at Detection Threshold +1dB.
6. Observe the transmission of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the EUT during the observation time. One 20seconds plot is reported for the short pulse Radar Type 0. The plot for the short pulse radar types start at the end of the radar burst.
7. Measurement of the aggregate duration of the Channel Closing Transmission Time method:
Center Frequency: operating frequency
Span: Zero
RBW: 1MHz
VBW: 3MHz
Sweep Time: 32Sec
Detector: Max Peak
Sweep: Single.
8. Measure the EUT for more than 30minutes following the Channel move time to verify the no transmission or beacons occur on this Channel.

4.11.2 Test Setup



4.11.3 Test Deviation

There is no deviation with the original standard.

TEST REPORT

4.11.4 Test result

Mode : 802.11AC VHT 80

Measurement Summary

DUT Frequency (MHz)	Radar Type No.	Type of Measurement value	Overall Result
5290.000000	0	Channel Move Time	PASS
5290.000000	0	Channel Closing Transmission Time	PASS
5290.000000	0	Non-occupancy period	PASS

Channel Move Time Detailed Results

DUT Frequency (MHz)	Radar Type No.	CMT Tx Time (s)	CMT Limit (s)	CMT Result	CMT Comment
5290.000000	0	1.005	10.000	PASS	Tx Time value is last trailing edge found within sweep. See Note 1.

Channel Closing Transmission Time Detailed Results

DUT Frequency (MHz)	Radar Type No.	CCTT Type of Value	CCTT No. of Pulses found	CCTT Tx Time (ms)	CCTT Tx Time Limit (ms)	CCTT Result
5290.000000	0	first 200 ms	7	0.356	200.000	PASS
5290.000000	0	remaining 10 second period	19	1.464	60.000	PASS

(continuation of the "Channel Closing Transmission Time Detailed Results" table from column 7 ...)

DUT Frequency (MHz)	CCTT Comment
5290.000000	See Note 1.
5290.000000	See Note 1.

Non-occupancy period Detailed Results

DUT Frequency (MHz)	Radar Type No.	NOP No. of Pulses found	NOP No. of Pulses Limit	NOP Tx Time (s)	NOP Tx Time Limit (s)	NOP Result	NOP Comment
5290.000000	0	0	0	0.000	0.000	PASS	

Transmitting Test Detailed Results

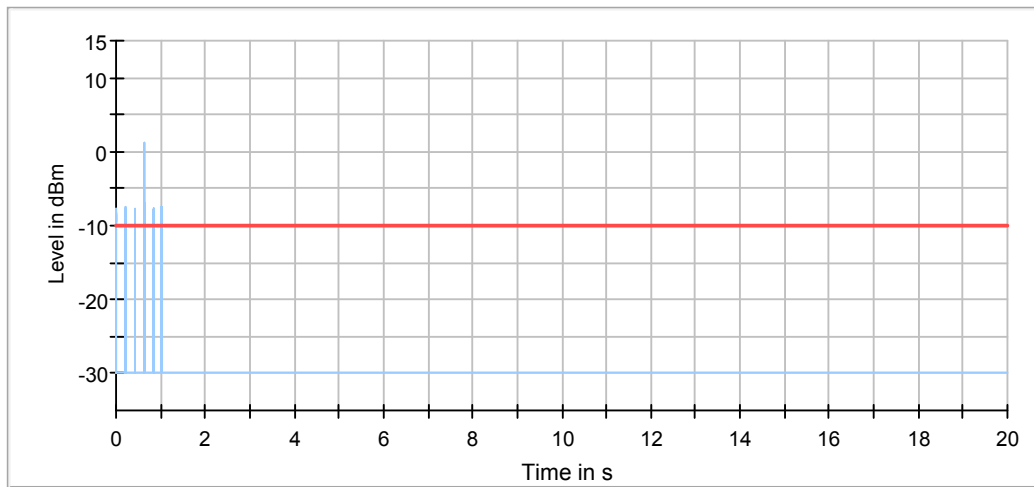
DUT Frequency (MHz)	Tx-Test Tx Time (s)	Tx-Test No. of Pulses found	Tx-Test Result	Tx-Test Comment
5290.000000	---		---	not performed / not finished

Additional Information

Note	Description
Note 1:	Because of the radar pulse event at the beginning, the investigation of the trace begins with an offset of 28.7 ms conforming to the end of the Radar burst.
Note 2:	-

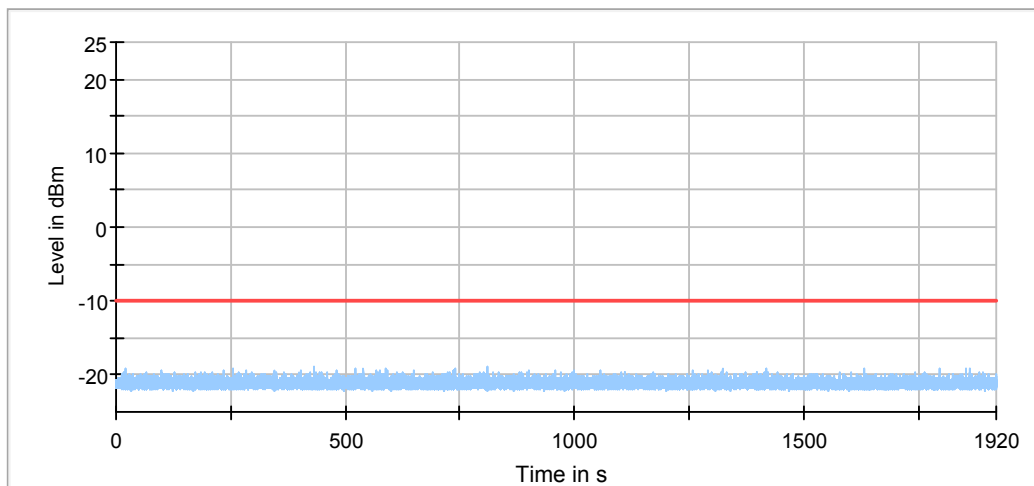
TEST REPORT

Channel Move Time



— In-Service Monitoring Channel Move Time — Threshold

Channel Closing Transmission Time



— In-Service Monitoring Non-occupancy period — Threshold

TEST REPORT

Mode : 802.11AC VHT 80

Measurement Summary

DUT Frequency (MHz)	Radar Type No.	Type of Measurement value	Overall Result
5530.000000	0	Channel Move Time	PASS
5530.000000	0	Channel Closing Transmission Time	PASS
5530.000000	0	Non-occupancy period	PASS

Channel Move Time Detailed Results

DUT Frequency (MHz)	Radar Type No.	CMT Tx Time (s)	CMT Limit (s)	CMT Result	CMT Comment
5530.000000	0	0.000	10.000	PASS	Tx Time value is last trailing edge found within sweep. See Note 1.

Channel Closing Transmission Time Detailed Results

DUT Frequency (MHz)	Radar Type No.	CCTT Type of Value	CCTT No. of Pulses found	CCTT Tx Time (ms)	CCTT Tx Time Limit (ms)	CCTT Result
5530.000000	0	first 200 ms	0	0.000	200.000	PASS
5530.000000	0	remaining 10 second period	0	0.000	60.000	PASS

(continuation of the "Channel Closing Transmission Time Detailed Results" table from column 7 ...)

DUT Frequency (MHz)	CCTT Comment
5530.000000	See Note 1.
5530.000000	See Note 1.

Non-occupancy period Detailed Results

DUT Frequency (MHz)	Radar Type No.	NOP No. of Pulses found	NOP No. of Pulses Limit	NOP Tx Time (s)	NOP Tx Time Limit (s)	NOP Result	NOP Comment
5530.000000	0	0	0	0.000	0.000	PASS	

Transmitting Test Detailed Results

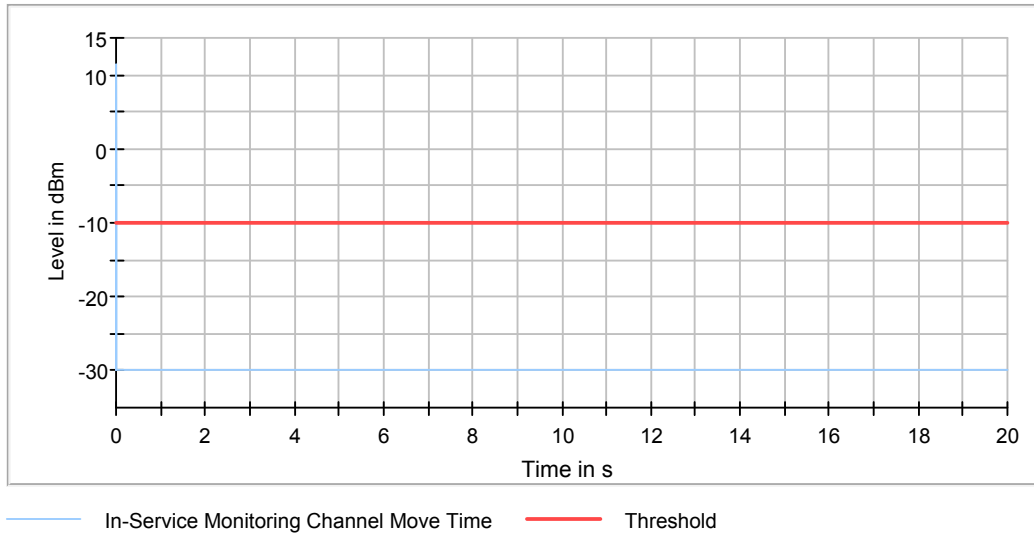
DUT Frequency (MHz)	Tx-Test Tx Time (s)	Tx-Test No. of Pulses found	Tx-Test Result	Tx-Test Comment
5530.000000	---		---	not performed / not finished

Additional Information

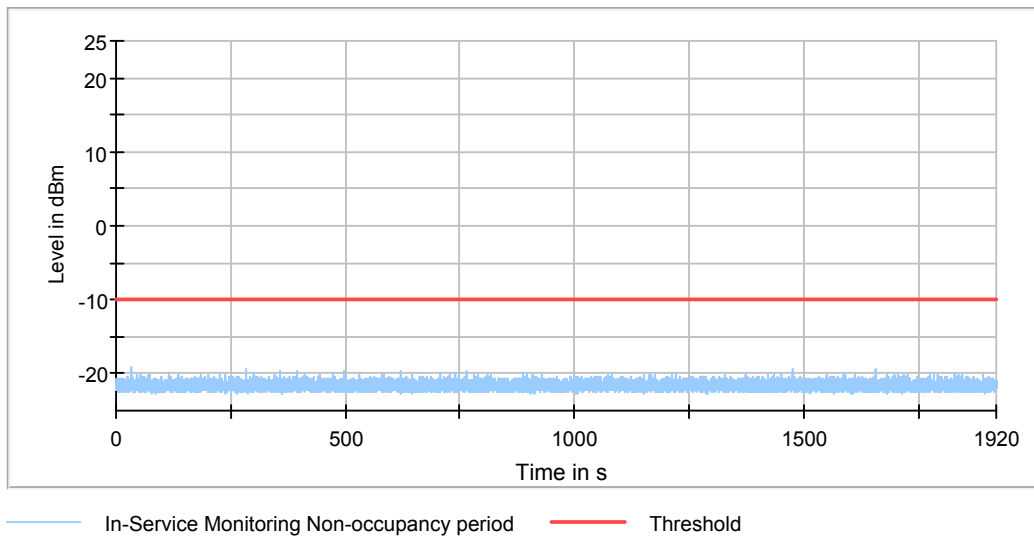
Note	Description
Note 1:	Because of the radar pulse event at the beginning, the investigation of the trace begins with an offset of 28.7 ms conforming to the end of the Radar burst.
Note 2:	-

TEST REPORT

Channel Move Time



Channel Closing Transmission Time



TEST REPORT

Mode : 802.11AC VHT 80

Measurement Summary

DUT Frequency (MHz)	Radar Type No.	Type of Measurement value	Overall Result	Overall Comment
5610.000000	0	Channel Move Time	PASS	
5610.000000	0	Channel Closing Transmission Time	PASS	
5610.000000	0	Non-occupancy period	PASS	

Channel Move Time Detailed Results

DUT Frequency (MHz)	Radar Type No.	CMT Tx Time (s)	CMT Limit (s)	CMT Result	CMT Comment
5610.000000	0	0.000	10.000	PASS	Tx Time value is last trailing edge found within sweep. See Note 1.

Channel Closing Transmission Time Detailed Results

DUT Frequency (MHz)	Radar Type No.	CCTT Type of Value	CCTT No. of Pulses found	CCTT Tx Time (ms)	CCTT Tx Time Limit (ms)	CCTT Result
5610.000000	0	first 200 ms	0	0.000	200.000	PASS
5610.000000	0	remaining 10 second period	0	0.000	60.000	PASS

(continuation of the "Channel Closing Transmission Time Detailed Results" table from column 7 ...)

DUT Frequency (MHz)	CCTT Comment
5610.000000	See Note 1.
5610.000000	See Note 1.

Non-occupancy period Detailed Results

DUT Frequency (MHz)	Radar Type No.	NOP No. of Pulses found	NOP No. of Pulses Limit	NOP Tx Time (s)	NOP Tx Time Limit (s)	NOP Result	NOP Comment
5610.000000	0	0	0	0.000	0.000	PASS	

Transmitting Test Detailed Results

DUT Frequency (MHz)	Tx-Test Tx Time (s)	Tx-Test No. of Pulses found	Tx-Test Result	Tx-Test Comment
5610.000000	---		---	not performed / not finished

Additional Information

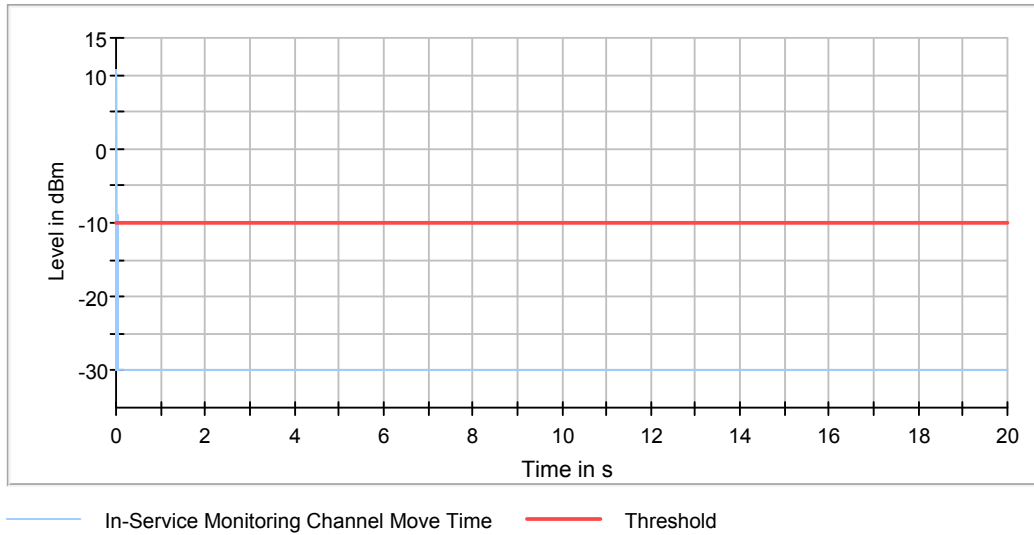
Note	Description
Note 1:	Because of the radar pulse event at the beginning, the investigation of the trace begins with an offset of 28.7 ms conforming to the end of the Radar burst.
Note 2:	-

DFS Channel Shutdown and Non-Occupancy period

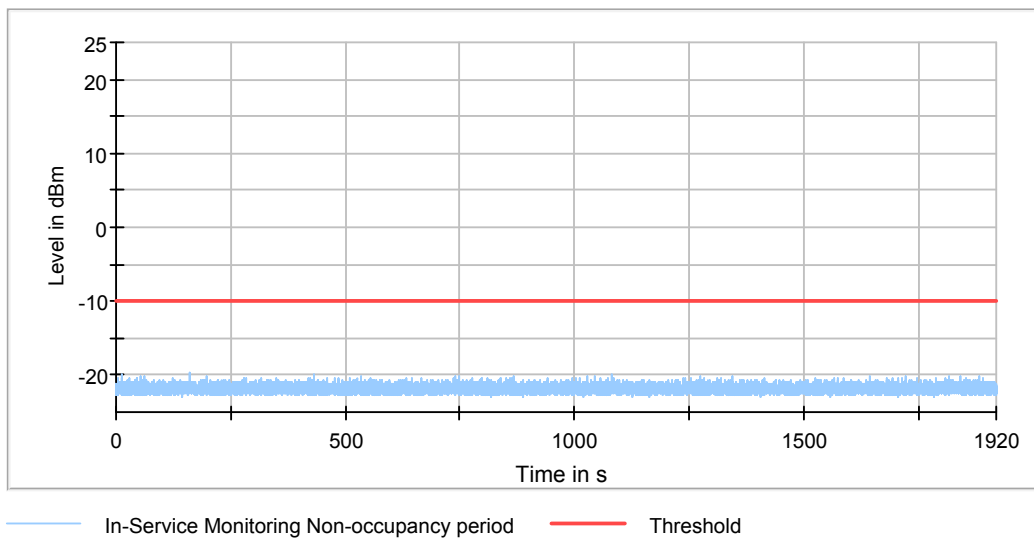
DUT Frequency (MHz)	CCTT (s)	Limit CCTT (s)	Non Occupancy Time (s)	Limit Non Occupancy Time (s)	Result	Comment
5610.000000	0.000	1.000	1860.062	1800.000	PASS	

TEST REPORT

Channel Move Time

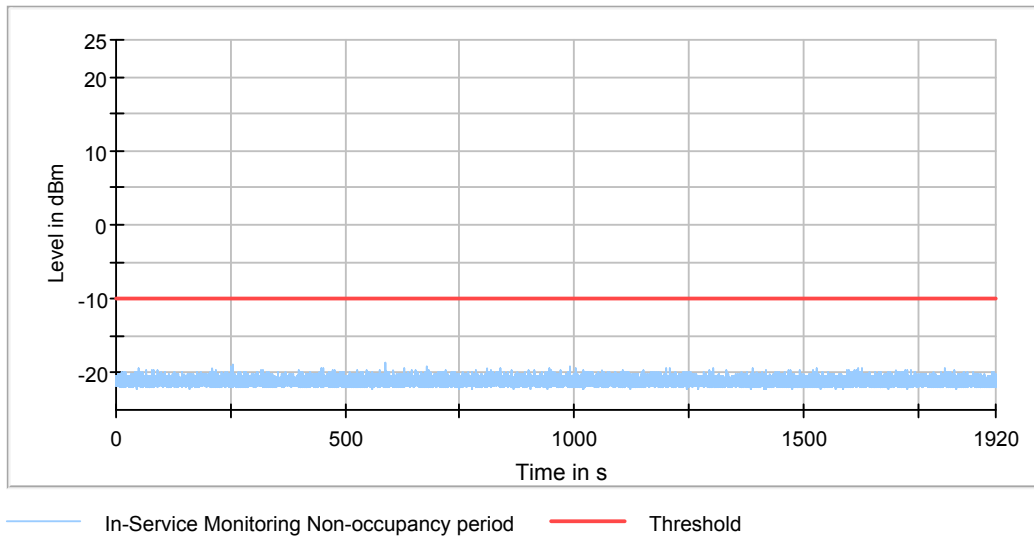


Channel Closing Transmission Time

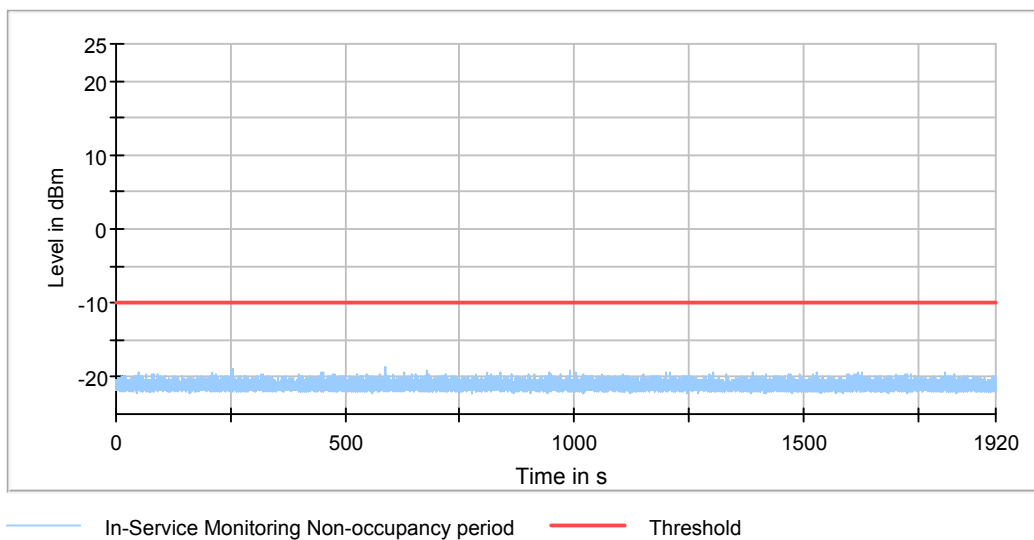


TEST REPORT

4.11.5 Noise floor of the Testing equipment



4.11.6 Spot of EUT without companion device



The configuration photographs is saved with filename: DFS_PHOTO.pdf

TEST REPORT

EXHIBIT 5 EQUIPMENT LIST

5.0 EQUIPMENT LIST

1) Radiated Emissions Test

Equipment	Biconical Antenna	EMI Test Receiver (9kHz to 26.5GHz)	Double Ridged Guide Antenna
Registration No.	EW-0571	EW-3156	EW-0194
Manufacturer	EMCO	ROHDESCHWARZ	EMCO
Model No.	3104C	ESR26	3115
Calibration Date	May. 18, 2016	Dec. 06, 2016	Aug. 10, 2016
Calibration Due Date	Nov. 18, 2017	Dec. 06, 2017	Feb. 10, 2018

Equipment	Log Periodic Antenna	Pyramidal Horn Antenna	Spectrum Analyzer
Registration No.	EW-0447	EW-0905	EW-2249
Manufacturer	EMCO	EMCO	R&S
Model No.	3146	3160-09	FSP30
Calibration Date	May. 18, 2016	Feb. 12, 2016	Dec. 23, 2016
Calibration Due Date	Nov. 18, 2017	Aug. 12, 2017	Nov. 27, 2017

Equipment	Active Loop H-field (9kHz to 30MHz)	RF Cable 9kHz to 1000MHz	RF Cable (up to 40GHz)
Registration No.	EW-2313	EW-3170	EW-3155
Manufacturer	ELECTROMETRI	N/A	N/A
Model No.	EM-6876	9kHz to 1000MHz	1-40 GHz
Calibration Date	May. 18, 2016	Mar. 20, 2017	Dec. 05, 2016
Calibration Due Date	Nov. 18, 2017	Mar. 20, 2018	Dec. 05, 2017

Equipment	Solid State Low Noise Preamplifier Assembly (1 - 18)GHz	RF Pre-amplifier 3 pcs (9kHz to 40GHz)	Notch Filter (cutoff frequency 2.4GHz to 2.5GHz)
Registration No.	EW-3229	EW-3006	EW-3155
Manufacturer	BONN ELEKTRO	SCHWARZBECK	MICROTRONICS
Model No.	BLMA 0118-5G	BBV 9744	BRM50701-02
Calibration Date	Oct. 24, 2016	Mar. 23, 2017	May. 26, 2017
Calibration Due Date	Oct. 24, 2017	Mar. 23, 2018	May. 26, 2018

2) Conducted Emissions Test

Equipment	EMI Test Receiver	RF Cable 9kHz to 1000MHz	LISN
Registration No.	EW-3156	EW-3170	EW-2874
Manufacturer	ROHDESCHWARZ	N/A	R&S
Model No.	ESR26	9kHz to 1000MHz	ENV-216
Calibration Date	Dec. 06, 2016	Mar. 20, 2017	Mar. 16, 2017
Calibration Due Date	Dec. 06, 2017	Mar. 20, 2018	Mar. 16, 2018

TEST REPORT

3) Conductive Measurement Test

Equipment	Spectrum Analyzer	Vector Signal Generator(DFS)	Power sensor with combiner
Registration No.	EW-3016	EW-3063	EW-3064
Manufacturer	R&S	R&S	R&S
Model No.	FSV40	SMBV100A	OSP-B157
Calibration Date	Jul. 20, 2017	Jul. 27, 2017	Jul. 25, 2017
Calibration Due Date	Jul, 20, 2018	Jul, 27, 2018	Jul, 25, 2018