

Prüfbericht-Nr.: <i>Test Report No.:</i>	NN205U3D 001	Auftrags-Nr.: <i>Order No.:</i>	158216672	Seite 1 von 24 <i>Page 1 of 24</i>	
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	10.09.2020		
Auftraggeber: <i>Client:</i>	Ambi Labs Limited 11F, Loon Kee Building, 267-275 Des Voeux Road Central, Sheung Wan, Hong Kong				
Prüfgegenstand: <i>Test item:</i>	Air-Conditioner & Heat Pump Controller - Ambi Climate Mini				
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	AM01				
Auftrags-Inhalt: <i>Order content:</i>	US FCC Certification; ISED Canada Certification				
Prüfgrundlage: <i>Test specification:</i>	FCC Part 15 Subpart C, ANSI C63.10-2013 RSS-247 Issue 2, RSS-Gen Issue 5				
Wareneingangsdatum: <i>Date of receipt:</i>	15.07.2020				
Prüfmuster-Nr.: <i>Test sample No.:</i>	A002866880-001~002				
Prüfzeitraum: <i>Testing period:</i>	17.07.2020 - 14.09.2020				
Ort der Prüfung: <i>Place of testing:</i>	Hong Kong				
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland Hong Kong Ltd.				
Prüfergebnis*: <i>Test result*:</i>	Pass				
geprüft von / tested by:		kontrolliert von / reviewed by:			
07.10.2020	Mika Chan Project Manager	07.10.2020	Sharon Li Senior Manager		
Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>	Unterschrift <i>Signature</i>
Sonstiges / Other:		FCC ID: 2AL4KACM1 IC: 20530-ACM1			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested					
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>					

Table of Content

	Page
Cover Page	1
Table of Content	2
Product information.....	4
Manufacturers declarations	4
Product function and intended use	4
Submitted documents.....	4
Independent Operation Modes	4
Related Submittal(s) Grants	5
Remark	5
Test Set-up and Operation Mode.....	6
Principle of Configuration Selection	6
Test Operation and Test Software.....	6
Special Accessories and Auxiliary Equipment.....	6
Countermeasures to achieve EMC Compliance.....	6
Test Methodology	7
Radiated Emission	7
Field Strength Calculation.....	7
Test Setup Diagram	8
Test Facility	10
Test Laboratory Information	10
List of Test and Measurement Instruments.....	11
Measurement Uncertainty	12
Results FCC Part 15 – Subpart C / RSS-247 Issue 2.....	13
FCC 15.203 – Antenna Requirement 1.....	Pass..... 13
FCC 15.204 – Antenna Requirement 2.....	N/A..... 13
RSS-Gen 6.3 – External Control.....	Pass..... 13
RSS-Gen 8.3 – Antenna Requirement	Pass..... 13
FCC 15.207/ RSS-Gen 8.8 – Conducted Emission on AC Mains.....	Pass..... 14
FCC 15.247 (a)(2) / RSS-247 5.2 – 6dB Bandwidth Measurement.....	Pass..... 15

FCC 15.247(b)(3) / RSS-247 5.4 – Maximum Peak Couducted Output Power.....	Pass.....	16
FCC 15.247(e) / RSS-247 5.2 – Power Spectral Density	Pass.....	17
FCC 15.247(d) / RSS-247 5.5 – Spurious Conducted Emissions	Pass.....	18
FCC 15.205/ RSS-Gen 8.9 – Radiated Emissions in Restricted Frequency Bands	Pass.....	19
Appendix 1 – Test protocols		46 pages
Appendix 2 – Test setup		2 pages
Appendix 3 – EUT External Photos		4 pages
Appendix 4 – EUT Internal Photos		5 pages
Appendix 5 – RF exposure information.....		3 pages

Product information

Manufacturers declarations

	Transceiver
Operating frequency range	2412 - 2462 MHz
Type of modulation	802.11b: DSSS 802.11g: OFDM 802.11n-HT20: OFDM 802.11n-HT40: OFDM
Number of channels	802.11b: Ch 1-11 802.11g: Ch 1-11 802.11n-HT20: Ch 1-11 802.11n-HT40: Ch 3-9
Channel separation	5 MHz
Type of antenna	Integral Antenna
Antenna gain (dBi)	3.0 dBi
Power level	fix
Type of equipment	stand alone radio device
Connection to public utility power line	Yes
Nominal voltage	V _{nom} : 100-240VAC
Independent Operation Modes	Transmitting

Product function and intended use

The equipment under test (EUT) is an Air-Conditioner & Heat Pump Controller with 2.4GHz Wi-Fi connectivity. It supports Wi-Fi IEEE 802.11b/g/n(HT20)/ n(HT40). It is powered by 100-240VAC.

FCC ID: 2AL4KACM1/ IC: 20530-ACM1

Models	Product description
AM01	Air-Conditioner & Heat Pump Controller - Ambi Climate Mini

Submitted documents

Circuit Diagram
Block Diagram
Technical Description
User manual
Label

Independent Operation Modes

The basic operation modes are:

- Transmitting mode.

For further information refer to User Manual

Related Submittal(s) Grants

This is a single application for certification of the transmitter.
Others digital function which is independent from the transmitter is authorized under verification procedure
(refer to test report NN20KNGF 001)

Remark

The test results in this test report are only relevant to the tested sample and does not involve any assessment in the production.

Test Set-up and Operation Mode

Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

Test Operation and Test Software

Test operation should refer to test methodology.

- During test, Channel & Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power was selected according to the instruction given by the manufacturer. The setting of the RF output power expected by the customer shall be fixed on the firmware of the final end product.

Special Accessories and Auxiliary Equipment

- AC-DC adaptor Model: KA0601A-0501000USU Input: 100-240 VAC 50/60 Hz 0.2A Output: 5.0VDC 1000mA)

Countermeasures to achieve EMC Compliance

- none

Test Methodology

Radiated Emission

The radiated emission measurements of the transmitter part were performed according to the procedures in ANSI C63.10-2013.

For measurement below 1GHz - the equipment under test (EUT) was placed at the middle of the 80 cm height turntable. For measurement above 1GHz - the EUT was placed at the middle of the 1.5 m height turntable and RF absorbing material was placed on ground plane between turntable and measuring antenna. During the testing, the EUT was operated standalone and arranged for maximum emissions. The EUT was tested in three orthogonal planes.

The investigation is performed with the EUT rotated 360 °, the antenna height scanned between 1m and 4m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations. Repeat the measurement steps until the maximum emissions were obtained.

All radiated tests were performed at an antenna to EUT with 3 meters distance, unless stated otherwise in particular parts of this test report.

Field Strength Calculation

The field strength at 3 m was established by adding the meter reading of the spectrum analyzer to the factors associated with antenna correction factor, cable loss, preamplifiers and filter attenuation.

The equation is expressed as follow:

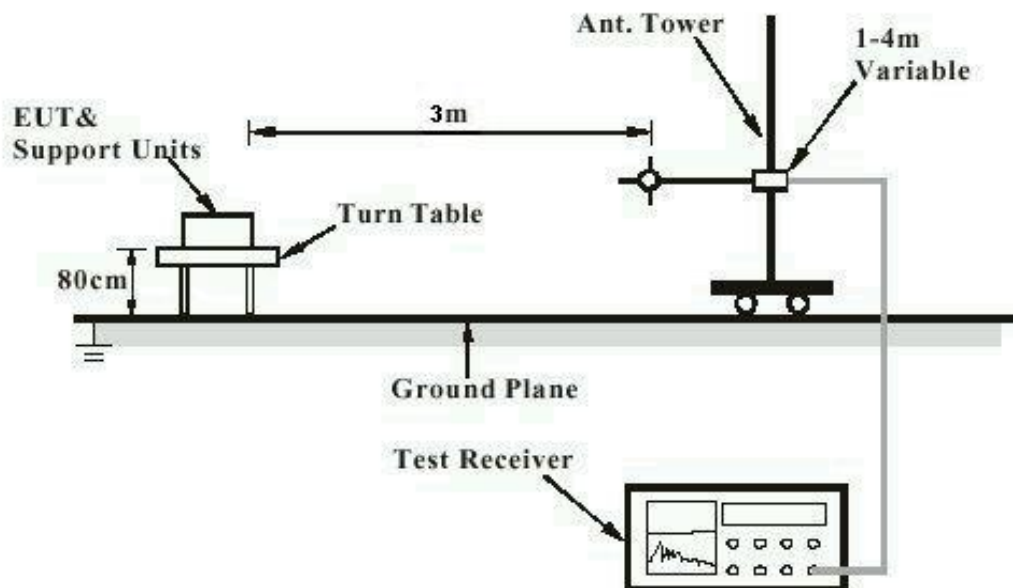
$$FS = R + AF + CF + FA - PA$$

Where FS = Field Strength in dBuV/m at 3 meters.
R = Reading of Spectrum Analyzer in dBuV.
AF = Antenna Factor in dB.
CF = Cable Attenuation Factor in dB.
FA = Filter Attenuation Factor in dB.
PA = Preamplifier Factor in dB.

FA and PA are only be used for the measuring frequency above 1 GHz.

Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test



Note: Measurements above 1 GHz are done with a table height of 1.5m. In addition, there is RF absorbing material on the floor of the test site for above 1GHz measurement.

Diagram of Measurement Equipment Configuration for Mains Conduction Measurement (if applicable)

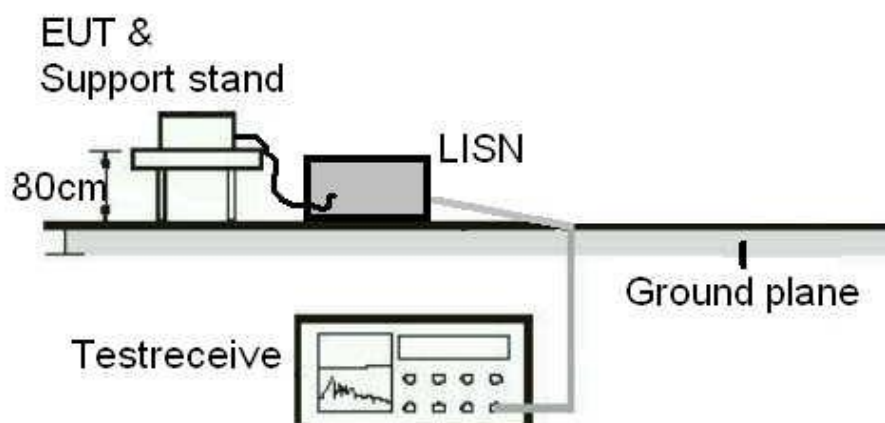
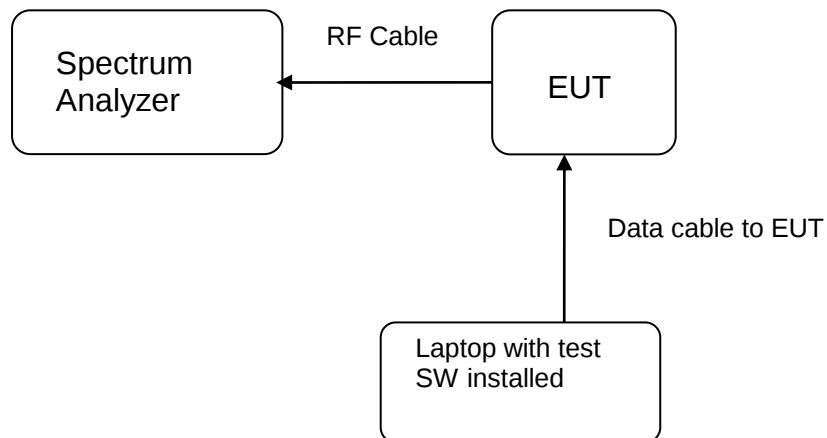


Diagram of Equipment Configuration for Antenna-port Conducted Measurement (if applicable)



Test Facility

Test Laboratory Information

TÜV Rheinland Hong Kong Ltd.

Address: 3-4, 11/F., Fou Wah Industrial Building, 10-16 Pun Shan Street, Tsuen Wan, N.T., Hong Kong

Tel.: +852 2192 1000

Fax: +852 2192 1001

Email service-gc@tuv.com

Web: www.tuv.com

The test facility is recognized or accredited by the following organizations:

FCC

Type	: Accredited Test Firm
Designation Number	: HK0013
Test Firm Registration Number	: 371735
Scope	: Intentional Radiators

Industry Canada

Type	: Accredited Test Firm
CAB identifier	: HK0013
ISED number	: 26152
Scope	: RSS-Gen, RSS-210, RSS-247

List of Test and Measurement Instruments

Radiated Emission

Equipment	Manufacturer	Type	Cal. Date	Due Date
Semi-anechoic Chamber	Frankonia	Nil	20 Mar 2020	20 Mar 2021
Test Receiver	R & S	ESU40	10 Oct 2019	10 Oct 2020
Bi-conical Antenna	R & S	HK116	07 Mar 2019	07 Mar 2021
Log Periodic Antenna	R & S	HL223	06 Mar 2019	06 Mar 2021
Standard Gain Horn	ETS-Lindgren	3160-07	04 Sep 2020	04 Sep 2021
Standard Gain Horn	ETS-Lindgren	3160-08	26 Sep 2020	26 Sep 2021
Standard Gain Horn	ETS-Lindgren	3160-10	03 Oct 2018	03 Oct 2020
Double-Ridged Waveguide Horn	EMCO	3116	05 Oct 2018	05 Oct 2020
Double-Ridged Waveguide Horn	EMCO	3117	30 Aug 2019	30 Aug 2021
Coaxial cable	Huber+Suhner	CNM-NMCMILX800-473	04 Oct 2018	04 Oct 2020
High Frequency Cable	Pasternack	PE3VNA4001-3M	29 Jan 2019	29 Jan 2021
Microwave Preamplifier	COM-POWER Corporation	PAM-118A	06 Mar 2020	06 Mar 2021
Preamplifier 18GHz to 40GHz with cable (EMC656)	A.H. Systems, Inc.	PAM-1840VH	30 Jan 2019	30 Jan 2021
High Pass Filter (cutoff freq. =1000MHz)	Trilithic	23042	30 Oct 2019	30 Oct 2021

AC Mains Conducted Emission

Equipment	Manufacturer	Type	Cal. Date	Due Date
Test Receiver	R & S	ESU40	10 Oct 2019	10 Oct 2020
LISN	R&S	ENV216	09 Aug 2020	09 Aug 2021
Double Shield Cable	Huber+ Suhner	RG223/U-01	20 May 2019	20 May 2021

Radio Test

Equipment	Manufacturer	Type	Cal. Date	Due Date
Spectrum Analyzer	R & S	FSP30	14 Aug 2020	14 Aug 2021

Measurement Uncertainty

The estimated combined standard uncertainty for power-line conducted emissions measurements is $\pm 2.42\text{dB}$.

The estimated combined standard uncertainty for radiated emissions measurements is $\pm 4.81\text{dB}$ (9kHz to 30MHz) and $\pm 4.62\text{dB}$ (30MHz to 200MHz) and $\pm 5.67\text{dB}$ (200MHz to 1000MHz) and is $\pm 5.07\text{dB}$ (1GHz to 8.2GHz) and $\pm 4.58\text{dB}$ (8.2GHz to 12.4GHz) and $\pm 4.78\text{dB}$ (12.4GHz to 18GHz)

The estimated combined standard uncertainty for antenna conducted emission is $\pm 2.1\text{dB}$

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor of $k=2$, which for the level of confidence is approximately 95%.

Results FCC Part 15 – Subpart C / RSS-247 Issue 2

FCC 15.203 – Antenna Requirement 1		Pass
FCC Requirement:	No antenna other than that furnished by the responsible party shall be used with the device	
Results:	a) Antenna type: Integral antenna b) Manufacturer and model no: N/A c) Peak Gain: 3.0 dBi	
Verdict:	Pass	

FCC 15.204 – Antenna Requirement 2		N/A
FCC Requirement:	An intentional radiator may be operated only with the antenna with which it is authorized. If an antenna is marketed with the intentional radiator, it shall be of a type which is authorized with the intentional radiator.	
Results:	Only one integral antenna can be used.	
Verdict:	N/A	

RSS-Gen 6.3 – External Control		Pass
IC Requirement:	The device shall not have any external controls accessible to the user that enable it to be adjusted, selected or programmed to operate in violation of the limits prescribed in the applicable RSS.	
Results:	The device does not have any transmitter external controls accessible to the user that can be adjusted and operated in violation of the limits of this standard.	
Verdict:	Pass	

RSS-Gen 8.3 – Antenna Requirement		Pass
IC Requirement:	When a measurement at the antenna connector is used to determine RF output power, the effective gain of the device's antenna shall be stated, based on measurement or on data from the antenna manufacturer.	
Results:	a) Antenna type: Fixed Integral antenna b) Manufacturer: N/A c) model no: N/A d) Gain with reference to an isotropic radiator: 3.0 dBi	
Verdict:	Pass	

FCC 15.207/ RSS-Gen 8.8 – Conducted Emission on AC Mains						Pass
Test Specification : ANSI C63.10-2013 Test date : 26.08.2020 Mode of operation : Wi-Fi On + IR On mode Port of testing : AC Mains input port of power supply Supply voltage : 120Vac 60Hz Temperature : 23°C Humidity : 50%						
Requirement: 15.207(a)						
Results: Pass						
Live measurement						
Frequency range (MHz)	Frequency (MHz)	Quasi-peak dBµV	Average dBµV	Limit QP (dBµV)	Limit AV (dBµV)	Verdict
0,15 – 0,5	0.162	44.0	28.4	66 - 56	56 - 46	Pass
	0.446	39.9	32.4	66 - 56	56 - 46	Pass
> 0,5 - 5	No peak found	---	---	56	46	Pass
> 5 - 30	No peak found	---	---	60	50	Pass
Neutral measurement						
Frequency range (MHz)	Frequency (MHz)	Quasi-peak dBµV	Average dBµV	Limit QP (dBµV)	Limit AV (dBµV)	Verdict
0,15 – 0,5	0.150	45.5	32.4	66 - 56	56 - 46	Pass
	0.450	37.9	28.8	66 - 56	56 - 46	Pass
> 0,5 - 5	No peak found	---	---	56	46	Pass
> 5 - 30	No peak found	---	---	60	50	Pass
Results: Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and data rate. The radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150kHz to 30MHz does not exceed the limits. For test Results plots refer to Appendix 1, page 2.						

FCC 15.247 (a)(2) / RSS-247 5.2 – 6dB Bandwidth Measurement			Pass
FCC Requirement: Systems using digital modulation techniques may operate in the 902 – 928 MHz, 2400 – 2483.5 MHz, and 5725 – 5850 MHz bands. The minimum 6dB bandwidth shall be at least 500kHz.			
Test Specification : ANSI C63.10 – 2013 Test date : 15.08.2020 Mode of operation : Tx mode Port of testing : Temporary antenna port Supply voltage : 120VAC Temperature : 23°C Humidity : 50%			
Results: For test protocols please refer to Appendix 1			
802.11b			
Channel frequency (MHz)	6 dB left (MHz)	6 dB right (MHz)	6dB bandwidth (kHz)
2412	2406.950	2417.000	10050
2437	2431.950	2442.000	10050
2462	2456.950	2466.600	9650
802.11g			
Channel frequency (MHz)	6 dB left (MHz)	6 dB right (MHz)	6dB bandwidth (kHz)
2412	2403.800	2420.200	16400
2437	2428.750	2445.150	16400
2462	2453.750	2469.950	16200
802.11n-HT20			
Channel frequency (MHz)	6 dB left (MHz)	6 dB right (MHz)	6dB bandwidth (kHz)
2412	2403.150	2420.850	17700
2437	2428.150	2445.550	17400
2462	2453.200	2470.450	17250
802.11n-HT40			
Channel frequency (MHz)	6 dB left (MHz)	6 dB right (MHz)	6dB bandwidth (kHz)
2422	2403.700	2439.900	36200
2437	2418.700	2454.300	35600
2452	2433.700	2469.600	35900

FCC 15.247(b)(3) / RSS-247 5.4 – Maximum Peak Couducted Output Power			Pass
FCC Requirement: For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850MHz bands: 1 Watt (30dBm)			
Test Specification : ANSI C63.10 – 2013 Test date : 10.09.2020 Mode of operation : Tx mode Port of testing : Temporary antenna port Supply voltage : 120VAC Temperature : 24°C Humidity : 50%			
Results: Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and data rate. The worst cases is found in 1Mbps, 6Mbps, 6.5Mbps and 13.5Mbps respectively.			
802.11b			
Frequency (MHz)	Measured Output Power (dBm)	Limit (W/dBm)	Verdict
2412	8.60	1 / 30.0	Pass
2437	9.69	1 / 30.0	Pass
2462	8.38	1 / 30.0	Pass
802.11g			
Frequency (MHz)	Measured Output Power (dBm)	Limit (W/dBm)	Verdict
2412	16.99	1 / 30.0	Pass
2437	16.35	1 / 30.0	Pass
2462	16.28	1 / 30.0	Pass
802.11n-HT20			
Frequency (MHz)	Measured Output Power (dBm)	Limit (W/dBm)	Verdict
2412	15.88	1 / 30.0	Pass
2437	16.43	1 / 30.0	Pass
2462	16.10	1 / 30.0	Pass
802.11n-HT40			
Frequency (MHz)	Measured Output Power (dBm)	Limit (W/dBm)	Verdict
2422	14.91	1 / 30.0	Pass
2437	15.03	1 / 30.0	Pass
2452	15.52	1 / 30.0	Pass

FCC 15.247(e) / RSS-247 5.2 – Power Spectral Density			Pass
FCC Requirement: For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.			
Test Specification : ANSI C63.10 – 2013 Test date : 09.09.2020 Mode of operation : Tx mode Port of testing : Temporary antenna port Supply voltage : 120VAC Temperature : 24°C Humidity : 50%			
Results: For test protocols please refer to Appendix 1.			
802.11b			
Operating frequency (MHz)	Power density (dBm)	Limit (dBm)	Verdict
2412	-2.24	8.0	Pass
2437	-0.82	8.0	Pass
2462	-2.48	8.0	Pass
802.11g			
Operating frequency (MHz)	Power density (dBm)	Limit (dBm)	Verdict
2412	-6.77	8.0	Pass
2437	-7.39	8.0	Pass
2462	-7.15	8.0	Pass
802.11n-HT20			
Operating frequency (MHz)	Power density (dBm)	Limit (dBm)	Verdict
2412	-7.51	8.0	Pass
2437	-6.82	8.0	Pass
2462	-7.65	8.0	Pass
802.11n-HT40			
Operating frequency (MHz)	Power density (dBm)	Limit (dBm)	Verdict
2422	-11.27	8.0	Pass
2437	-10.89	8.0	Pass
2452	-10.49	8.0	Pass

FCC 15.247(d) / RSS-247 5.5 – Spurious Conducted Emissions						Pass
Test Specification : ANSI C63.10 – 2013 Test date : 09.09.2020 Mode of operation : Tx mode Port of testing : Temporary antenna port Supply voltage : 120VAC Temperature : 24°C Humidity : 50%						
FCC Requirement: In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.						
Results: Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and data rate. Only the worst cases is shown below. For test protocols refer to Appendix 1						
802.11b						
Operating frequency (MHz)	Spurious frequency (MHz)	Spurious Level (dBm)	Reference value (dBm)	Delta (dB)	Verdict	
2412	24256	-41.05	-2.24	38.81	Pass	
2437	24592	-41.33	-0.82	40.51	Pass	
2462	24568	-40.14	-2.48	37.66	Pass	
802.11g						
Operating frequency (MHz)	Spurious frequency (MHz)	Spurious Level (dBm)	Reference value (dBm)	Delta (dB)	Verdict	
2412	24616	-40.93	-6.77	34.16	Pass	
2437	24256	-40.65	-7.39	33.26	Pass	
2462	24616	-39.87	-7.15	32.72	Pass	
802.11n-HT20						
Operating frequency (MHz)	Spurious frequency (MHz)	Spurious Level (dBm)	Reference value (dBm)	Delta (dB)	Verdict	
2412	24664	-40.53	-7.51	33.02	Pass	
2437	24208	-40.28	-6.82	33.46	Pass	
2462	24648	-40.84	-7.65	33.19	Pass	
802.11n-HT40						
Operating frequency (MHz)	Spurious frequency (MHz)	Spurious Level (dBm)	Reference value (dBm)	Delta (dB)	Verdict	
2412	24568	-40.61	-11.27	29.34	Pass	
2437	23128	-40.05	-10.89	29.16	Pass	
2462	24616	-40.25	-10.49	29.76	Pass	

FCC 15.205/ RSS-Gen 8.9 – Radiated Emissions in Restricted Frequency Bands		Pass
Test Specification : ANSI C63.10 – 2013 Test Specification : 15.08.2020 Mode of operation : Tx mode Port of testing : Enclosure Frequency range : 9kHz – 25GHz Supply voltage : 120VAC Temperature : 23°C Humidity : 50%		
FCC Requirement: In any 100kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in section 15.205(a), must also comply with the radiated emission limits specified in section 15.205(c).		
Results: Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and data rate. All three transmit frequency modes comply with the field strength within the restricted bands. There is no spurious found below 30MHz.		
Mode: 802.11b@2412MHz TX Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
50.40	26.1	40.0 / QP
579.997	30.7	46.0 / QP
2390.00	39.9	74.0 / PK
2390.00	26.8	54.0 / AV
2400.00	42.3	74.0 / PK
2400.00	31.4	54.0 / AV
4824.00	42.2	74.0 / PK
4824.00	28.7	54.0 / AV
Mode: 802.11b@2412 MHz TX Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
1206.00	42.9	74.0 / PK
1206.00	32.8	54.0 / AV
2390.00	40.4	74.0 / PK
2390.00	27.1	54.0 / AV
2400.00	46.5	74.0 / PK
2400.00	37.3	54.0 / AV
4824.00	42.0	74.0 / PK
4824.00	28.4	54.0 / AV
Mode: 802.11b@2437 MHz TX Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
50.40	26.2	40.0 / QP
483.320	24.2	46.0 / QP
4873.99	42.5	74.0 / PK

4873.99	30.1	54.0 / AV
Mode: 802.11b@2437 MHz TX Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
1218.48	46.8	74.0 / PK
1218.48	37.7	54.0 / AV
4874.00	41.6	74.0 / PK
4874.00	28.5	54.0 / AV
Mode: 802.11b@2462 MHz TX Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
50.37	26.1	40.0 / QP
434.99	29.9	46.0 / QP
1230.98	50.2	74.0 / PK
1230.98	41.9	54.0 / AV
2483.50	40.7	74.0 / PK
2483.50	27.2	54.0 / AV
4924.00	42.6	74.0 / PK
4924.00	31.9	54.0 / AV
Mode: 802.11b@2462 MHz TX Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
628.34	31.2	46.0 / QP
1230.99	41.9	74.0 / PK
1230.99	31.0	54.0 / AV
2483.50	40.5	74.0 / PK
2483.50	26.8	54.0 / AV
4924.00	43.0	74.0 / PK
4924.00	31.4	54.0 / AV
Mode: 802.11g@2412 MHz TX Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
50.37	26.0	40.0 / QP
555.83	35.6	46.0 / QP
2390.00	44.1	74.0 / PK
2390.00	30.3	54.0 / AV
2400.00	57.4	74.0 / PK
2400.00	38.9	54.0 / AV
4824.00	42.6	74.0 / PK
4824.00	28.1	54.0 / AV
Mode: 802.11g@2412 MHz TX Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
676.67	34.2	46.0 / QP
1205.98	43.4	74.0 / PK
1205.98	30.8	54.0 / AV
2390.00	48.7	74.0 / PK
2390.00	33.2	54.0 / AV
2400.00	65.1	74.0 / PK

2400.00	45.8	54.0 / AV
4824.00	42.0	74.0 / PK
4824.00	28.1	54.0 / AV
Mode: 802.11g@2437 MHz TX Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
50.31	25.9	40.0 / QP
579.99	33.5	46.0 / QP
1218.49	37.9	74.0 / PK
1218.49	23.8	54.0 / AV
4874.00	42.2	74.0 / PK
4874.00	28.1	54.0 / AV
Mode: 802.11g@2437 MHz TX Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
1218.49	46.4	74.0 / PK
1218.49	34.2	54.0 / AV
4874.00	42.0	74.0 / PK
4874.00	28.2	54.0 / AV
Mode: 802.11g@2462MHz TX Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
50.34	26.0	40.0 / QP
1230.99	40.6	74.0 / PK
1230.99	27.7	54.0 / AV
2483.50	40.8	74.0 / PK
2483.50	27.3	54.0 / AV
4924.00	41.9	74.0 / PK
4924.00	28.2	54.0 / AV
Mode: 802.11g@2462 MHz TX Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
1230.99	49.9	74.0 / PK
1230.99	37.8	54.0 / AV
2483.50	49.6	74.0 / PK
2483.50	32.5	54.0 / AV
4924.00	42.0	74.0 / PK
4924.00	28.3	54.0 / AV
Mode: 802.11n-HT20@2412MHz TX Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
50.58	26.1	40.0 / QP
531.68	32.6	46.0 / QP
1205.98	37.0	74.0 / PK
1205.98	24.0	54.0 / AV
2390.00	47.6	74.0 / PK
2390.00	30.5	54.0 / AV
2400.00	58.4	74.0 / PK
2400.00	39.2	54.0 / AV

4824.00	41.9	74.0 / PK
4824.00	28.2	54.0 / AV
Mode: 802.11n-HT20@2412 MHz TX Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
1205.98	43.5	74.0 / PK
1205.98	31.6	54.0 / AV
2390.00	53.9	74.0 / PK
2390.00	33.9	54.0 / AV
2400.00	64.8	74.0 / PK
2400.00	45.1	54.0 / AV
4824.00	42.8	74.0 / PK
4824.00	28.2	54.0 / AV
Mode: 802.11n-HT20@2437 MHz TX Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
50.76	26.6	40.0 / QP
604.16	27.1	46.0 / QP
1218.50	37.7	74.0 / PK
1218.50	22.9	54.0 / AV
4874.00	41.7	74.0 / PK
4874.00	28.1	54.0 / AV
Mode: 802.11n-HT20@2437 MHz TX Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
700.85	27.2	46.0 / QP
1218.50	45.4	74.0 / PK
1218.50	33.5	54.0 / AV
4874.00	41.4	74.0 / PK
4874.00	28.0	54.0 / AV
Mode: 802.11n-HT20@2462MHz TX Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
50.10	25.8	40.0 / QP
1231.00	39.3	74.0 / PK
1231.00	26.6	54.0 / AV
2483.50	48.3	74.0 / PK
2483.50	30.3	54.0 / AV
4924.00	41.5	74.0 / PK
4924.00	28.2	54.0 / AV
Mode: 802.11n-HT20@2462 MHz TX Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
1231.00	48.8	74.0 / PK
1231.00	36.7	54.0 / AV
2483.50	54.1	74.0 / PK
2483.50	33.9	54.0 / AV
4924.00	41.4	74.0 / PK
4924.00	27.9	54.0 / AV

Mode: 802.11n-HT40@2422 MHz TX Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
50.04	25.8	40.0 / QP
897.74	27.3	46.0 / QP
2390.00	48.5	74.0 / PK
2390.00	31.8	54.0 / AV
2400.00	52.1	74.0 / PK
2400.00	37.4	54.0 / AV
4844.00	42.4	74.0 / PK
4844.00	28.1	54.0 / AV
Mode: 802.11n-HT40@2422 MHz TX Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
1211.00	39.8	74.0 / PK
1211.00	29.5	54.0 / AV
2390.00	50.5	74.0 / PK
2390.00	33.6	54.0 / AV
2400.00	54.7	74.0 / PK
2400.00	39.8	54.0 / AV
4844.00	42.5	74.0 / PK
4844.00	28.2	54.0 / AV
Mode: 802.11n-HT40@2437 MHz TX Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
50.04	25.7	40.0 / QP
579.99	20.5	46.0 / QP
4874.00	41.9	74.0 / PK
4874.00	28.0	54.0 / AV
Mode: 802.11n-HT40@2437 MHz TX Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
628.33	20.7	46.0 / QP
1228.50	42.0	74.0 / PK
1228.50	30.5	54.0 / AV
4874.00	41.6	74.0 / PK
4874.00	28.0	54.0 / AV
Mode: 802.11n-HT40@2452 MHz TX Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
50.04	25.9	40.0 / QP
2483.50	46.2	74.0 / PK
2483.50	30.1	54.0 / AV
4904.00	41.8	74.0 / PK
4904.00	27.8	54.0 / AV

Mode: 802.11n-HT40@2452 MHz TX Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
1226.00	44.9	74.0 / PK
1226.00	32.6	54.0 / AV
2483.50	51.2	74.0 / PK
2483.50	33.3	54.0 / AV
4904.00	41.8	74.0 / PK
4904.00	27.7	54.0 / AV