

Produkte
Products

Prüfbericht - Nr.: 14045898 001		Seite 1 von 22	
<i>Test Report No.:</i>		<i>Page 1 of 22</i>	
Auftraggeber: <i>Client:</i>	Sensibo LTD. 3 Ahuzat Bait, Tel Aviv Israel, 6514302		
Gegenstand der Prüfung: <i>Test Item:</i>	Air conditioner remote controller with WiFi connectivity		
Bezeichnung: <i>Identification:</i>	SEN-SKY-01	Serien-Nr.: <i>Serial No.:</i>	Engineering sample
Wareneingangs-Nr.: <i>Receipt No.:</i>	A000410287 (002-003) A000452397 (006-007)	Eingangsdatum: <i>Date of Receipt:</i>	16.08.2016 07.11.2016
Prüfört: <i>Testing Location:</i>	TÜV Rheinland Hong Kong Ltd. 3/F., Fou Wah Industrial Building, 10-16 Pun Shan Street, Tsuen Wan, Hong Kong Hong Kong Productivity Council HKPC Building, 78 Tat Chee Avenue, Kowloon, Hong Kong		
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of test item at delivery:</i>	Test samples are not damaged and suitable for testing.		
Prüfgrundlage: <i>Test Specification:</i>	FCC Part 15 Subpart B FCC Part 15 Subpart C ANSI C63.4-2014 ANSI C63.10-2013		
Prüfergebnis: <i>Test Results:</i>	Das vorstehend beschriebene Gerät wurde geprüft und entspricht oben genannter Prüfgrundlage. The above mentioned product was tested and passed .		
Prüflaboratorium: <i>Testing Laboratory:</i>	TÜV Rheinland Hong Kong Ltd. 3-4, 11/F., Fou Wah Industrial Building, 10-16 Pun Shan Street, Tsuen Wan, Hong Kong		
geprüft/ tested by:		kontrolliert/ reviewed by:	
23.12.2016	Joey Leung Project Manager	23.12.2016	Sharon Li Department Manager
Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>	Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>
	Unterschrift <i>Signature</i>		Unterschrift <i>Signature</i>
Sonstiges: Other Aspects		FCC ID: 2AHCD-SKY-V01	
Abkürzungen:	P(ass) = entspricht Prüfgrundlage F(ail) = entspricht nicht Prüfgrundlage N/A = nicht anwendbar N/T = nicht getestet	Abbreviations:	P(ass) = passed F(ail) = failed N/A = not applicable N/T = not tested
<p>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.</p> <p><i>This test report 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 safety mark on this or similar products.</i></p>			

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Product information

Manufacturers declarations

	Transceiver
Operating frequency range	2412 - 2462 MHz
Type of modulation	802.11 b: DSSS (DBPSK/DQPSK/CCK) 802.11 g/n: OFDM (BPSK/QPSK/16QAM/64QAM)
Number of channels	11
Channel separation	5 MHz
Type of antenna	PCB Antenna
Antenna gain (dBi)	3 dBi
Power level	fix
Type of equipment	stand alone radio device
Connection to public utility power line	Yes
Nominal voltage	V _{nom} : 100-230 VDC
Independent Operation Modes	Transmitting

Product function and intended use

The Equipment Under Test (EUT) is an air conditioner remote controller embedded with WiFi connectivity. It is powered by AC/DC power adaptor. It supports IEEE 802.11 b/g/n (2.4GHz) wireless communication function.

FCC ID: 2AHCD-SKY-V01

Models	Product description
SEN-SKY-01	Air conditioner remote controller with WiFi connectivity

Submitted documents

Circuit Diagram
Block Diagram
Bill of material
User manual
Label

Independent Operation Modes

The basic operation mode is transmitting mode. For further information refer to User Manual

Related Submittal(s) Grants

This is a single application for certification of the transmitter.

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.

For Part 15B

- Client provides a test software and connection board to simulate the data transfer scenario. A Faraday's bag was also provide by client to eliminate the emission from the connection board during testing.

For part 15C

- Client provides a test mode sample which programmed with the maximum RF output power and worst case data-rate setting. The test mode sample also programmed to change the modulation and transmitting channel by pressing a button on the EUT. The setting of the RF output power expected by the customer shall be fixed on the firmware of the final end product.
- Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and data rate.

Below modulations and data rate was used during testing.

802.11 Protocol	Modulation Type	Data Rate
b	DSSS (CCK)	11 Mbit/s
g	OFDM (QPSK)	12 Mbit/s
n	OFDM (QPSK)	13 Mbit/s

Special Accessories and Auxiliary Equipment

The following adaptor provided by client was used as power supply for the EUT.

- Model: A062-0501000ID
- Input: 100-240VAC, 0.3A
- 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. The radiated emission measurements of the data transfer part were performed according to the procedures in ANSI C63.4-2014.

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:

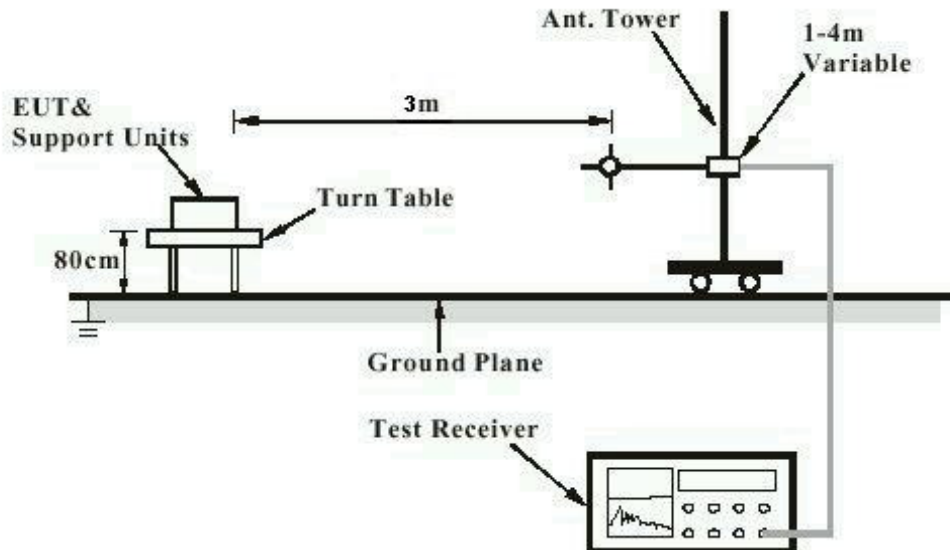
$$FS = R + AF + CF + FA - PA$$

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)

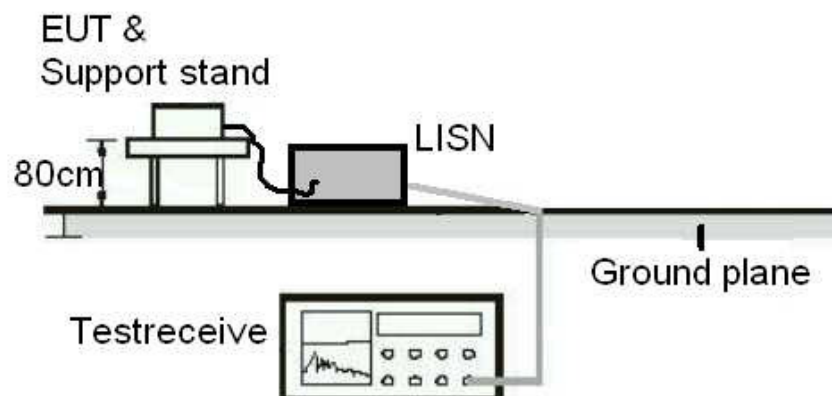
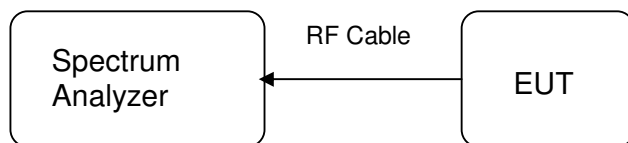


Diagram of Equipment Configuration for Antenna-port Conducted Measurement (if applicable)



List of Test and Measurement Instruments

Hong Kong Productivity Council (Registration number: 90656)

Radiated Emission

Equipment	Manufacturer	Type	S/N	Cal. Date	Due Date
Semi-anechoic Chamber	Frankonia	Nil	Nil	25 Apr 2016	25 Apr 2017
Test Receiver	R & S	ESU40	100190	26 Jul 2016	26 Jul 2017
Bi-conical Antenna	R & S	HK116	100241	01 Sep 2015	01 Sep 2017
Log Periodic Antenna	R & S	HL223	841516/017	01 Sep 2015	01 Sep 2017
Coaxial cable	Harbour	LL335	N/A	10 Jun 2016	10 Jun 2018
Microwave amplifier 0.5-26.5GHz, 25dB gain	HP	83017A	3950M00241	18 Jul 2016	18 Jul 2018
High Pass Filter (cutoff freq. =1000MHz)	Trilithic	23042	9829213	28 Oct 2015	28 Oct 2017
Horn Antenna	EMCO	3115	9002-3347	26 Aug 2015	26 Aug 2017
Active Loop Antenna	EMCO	6502	9107-2651	27 Oct 2016	27 Oct 2017

Conducted Emission

Equipment	Manufacturer	Type	S/N	Cal. Date	Due Date
Test Receiver	R & S	ESU40	100190	26 Jul 2016	26 Jul 2017
RF Voltage Probe	Schwarzbeck	TK9416	None	11 Feb 2016	11 Feb 2017
LISN	R&S	ESH3-Z5	849876/027	15 Jun 2016	15 Jun 2017
Double Shield Cable	Radiall	RG142	Nil	14 Sep 2015	14 Sep 2017
Pulse Limiter	R&S	ESH3-Z2	Nil	03 Jun 2016	03 Jun 2018

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Conducted Radio Frequency Measurement

Equipment	Manufacturer	Type	S/N	Cal. Date	Due Date
Spectrum Analyzer	R & S	FSP30	100610	19 Jan 2016	19 Jan 2017

Measurement Uncertainty

The estimated combined standard uncertainty for power-line conducted emissions measurements is $\pm 3.43\text{dB}$.

The estimated combined standard uncertainty for radiated emissions measurements is $\pm 5.10\text{dB}$ (30MHz to 200MHz) and $\pm 5.08\text{dB}$ (200MHz to 1000MHz) and is $\pm 5.10\text{dB}$ (30MHz to 200MHz) and $\pm 5.08\text{dB}$ (above 1GHz).

The estimated combined standard uncertainty for antenna conducted emission is $\pm 1.56\text{dB}$

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 B

FCC 15.107 – Conducted Emission on AC Mains						Pass
Test Specification : ANSI C63.4 – 2014 Mode of operation : Wi-Fi connected + data transfer mode Port of testing : AC Mains input port of power supply Detector : Quasi-peak and Average RBW : 9 kHz Supply voltage : 120Vac 60Hz Temperature : 23°C Humidity : 50%						
Requirement: 15.107(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	No peak found	---	---	66 - 56	56 - 46	Pass
> 0.5 - 5	1.043	33.8	22.7	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	No peak found	---	---	66 - 56	56 - 46	Pass
> 0.5 - 5	0.522	39.7	28.2	56	46	Pass
> 5 - 30	No peak found	---	---	60	50	Pass

FCC 15.109 – Radiated Emissions		Pass
Test Specification : ANSI C63.4-2014 Mode of operation : Wi-Fi connected + Data transfer mode Port of testing : Enclosure Detector : Quasi-Peak RBW/VBW : 120 kHz for f < 1 GHz Supply voltage : 5VDC by external power supply Frequency range : 30MHz – 1GHz Temperature : 23°C Humidity : 50%		
Requirement:	The field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the radiated limits shown in §15.109(a).	
Results:	Pass	
Vertical Polarization		
Freq MHz	Level dBuV/m	Limit dBuV/m
32.008	28.2	40.0
96.025	34.0	43.5
597.530	30.9	46.0
Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
96.025	37.6	43.5
192.009	30.8	43.5
597.950	30.6	46.0

Results FCC Part 15 – Subpart C

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 PCB antenna b) Manufacturer and model no: N/A c) Peak Gain: 3 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	

FCC 15.207 – Conducted Emission on AC Mains						Pass
Test Specification : ANSI C63.10 – 2013 Mode of operation : Wi-Fi connected + data transfer mode Port of testing : AC Mains input port of power supply Detector : Quasi-peak and Average RBW : 9 kHz 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	No peak found	---	---	66 - 56	56 - 46	Pass
> 0.5 - 5	1.043	33.8	22.7	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	No peak found	---	---	66 - 56	56 - 46	Pass
> 0.5 - 5	0.522	39.7	28.2	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

FCC 15.247 (a)(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 : KDB 558074 D01 v03r05 (Clause 8.1) Port of testing : Temporary antenna port Mode of operation : TX mode Detector : Peak RBW/VBW : 100KHz/ 300KHz 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 (MHz)
2412	2406.850	2416.850	10.00
2437	2431.850	2441.850	10.00
2462	2456.850	2466.850	10.00
802.11G			
Channel frequency (MHz)	6 dB left (MHz)	6 dB right (MHz)	6dB bandwidth (MHz)
2412	2404.350	2419.550	15.20
2437	2429.350	2444.550	15.20
2462	2454.350	2469.550	15.20
802.11N			
Channel frequency (MHz)	6 dB left (MHz)	6 dB right (MHz)	6dB bandwidth (kHz)
2412	2404.350	2419.550	15.20
2437	2429.300	2444.550	15.25
2462	2454.350	2469.550	15.20

FCC 15.247(b)(3) – Maximum Conducted (Average) 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 : KDB 558074 D01 v03r05 (Clause 9.2.2.6) Port of testing : Temporary antenna port Mode of operation : TX mode Detector : RMS Supply voltage : 120VAC Duty Cycle : 56% - 69% Temperature : 23°C Humidity : 50%			
Results: For test protocols please refer to Appendix 1			
802.11B			
Frequency (MHz)	Measured Output Power (dBm)	Limit (W/dBm)	Verdict
2412	11.63	1 / 30.0	Pass
2437	12.94	1 / 30.0	Pass
2462	13.32	1 / 30.0	Pass
802.11G			
Frequency (MHz)	Measured Output Power (dBm)	Limit (W/dBm)	Verdict
2412	10.95	1 / 30.0	Pass
2437	13.70	1 / 30.0	Pass
2462	12.27	1 / 30.0	Pass
802.11N			
Frequency (MHz)	Measured Output Power (dBm)	Limit (W/dBm)	Verdict
2412	9.90	1 / 30.0	Pass
2437	12.74	1 / 30.0	Pass
2462	11.28	1 / 30.0	Pass

FCC 15.247(e) – 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 : KDB 558074 D01 v03r05 (Clause 10.7) Port of testing : Temporary antenna port Mode of operation : TX mode Detector : RMS RBW/VBW : 100 KHz / $\geq 3 \times \text{RBW}$ Span : $\geq 1.5 \times \text{OBW}$ Supply voltage : 120VAC Temperature : 23°C Humidity : 50%			
Results: For test protocols please refer to Appendix 1.			
802.11B			
Operating Frequency (MHz)	Measured Power Density (dBm)	Limit (dBm)	Verdict
2412	-2.13	8.0	Pass
2437	-0.82	8.0	Pass
2462	-0.53	8.0	Pass
802.11G			
Operating Frequency (MHz)	Measured Power Density (dBm)	Limit (dBm)	Verdict
2412	-3.67	8.0	Pass
2437	-0.82	8.0	Pass
2462	-2.29	8.0	Pass
802.11N			
Operating Frequency (MHz)	Measured Power Density (dBm)	Limit (dBm)	Verdict
2412	-5.62	8.0	Pass
2437	-3.24	8.0	Pass
2462	-3.97	8.0	Pass

FCC 15.247(d) – Spurious Conducted Emissions						Pass
Test Specification : KDB 558074 D01 v03r05 (Clause 11.0) Mode of operation : TX mode Port of testing : Temporary antenna port Detector : Peak RBW/VBW : 100 kHz / 300 kHz Supply voltage : 120VAC Temperature : 23 °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	2396.400	-42.51	-1.78	40.73	Pass	
2437	9280.000	-49.06	-0.41	48.65	Pass	
2462	2487.500	-48.60	-0.01	48.59	Pass	
802.11G						
Operating frequency (MHz)	Spurious frequency (MHz)	Spurious Level (dBm)	Reference value (dBm)	Delta (dB)	Verdict	
2412	2400.000	-35.95	-3.67	32.28	Pass	
2437	7440.000	-49.74	-0.64	49.10	Pass	
2462	2484.300	-46.16	-2.13	44.03	Pass	
802.11N						
Operating frequency (MHz)	Spurious frequency (MHz)	Spurious Level (dBm)	Reference value (dBm)	Delta (dB)	Verdict	
2412	2400.000	-35.48	-3.87	31.61	Pass	
2437	9260.000	-49.92	-0.76	49.16	Pass	
2462	2483.600	-45.90	-2.14	43.76	Pass	

FCC 15.205 – Radiated Emissions in Restricted Frequency Bands			Pass
Test Specification : ANSI C63.10 – 2013 Mode of operation : TX mode Port of testing : Enclosure Detector : Peak RBW/VBW : 100 kHz / 300 kHz for $f < 1$ GHz 1 MHz / 3 MHz for $f > 1$ GHz 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	
4018.750	56.91	74.0 / P	
4021.154	39.09	54.0 / A	
4823.984	59.20	74.0 / P	
4823.888	41.26	54.0 / A	
2390.000	48.00	74.0 / P	
2390.000	34.33	54.0 / A	
Mode: 802.11B 2412MHz TX		Horizontal Polarization	
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m	
4019.599	59.28	74.0 / P	
4020.561	41.77	54.0 / A	
4823.891	61.09	74.0 / P	
4823.730	41.15	54.0 / A	
2390.000	48.02	74.0 / P	
2390.000	34.01	54.0 / A	
Mode: 802.11B 2437 MHz TX		Vertical Polarization	
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m	
4059.599	57.04	74.0 / P	
4060.913	40.80	54.0 / A	
4873.666	58.91	74.0 / P	
4873.858	42.19	54.0 / A	

Mode: 802.11B 2437 MHz TX			Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m	Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4063.702	59.57	74.0 / P	4063.702	59.57	74.0 / P
4064.663	39.27	54.0 / A	4064.663	39.27	54.0 / A
Mode: 802.11B 2462MHz TX			Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m	Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4103.718	57.69	74.0 / P	4103.718	57.69	74.0 / P
4103.814	41.40	54.0 / A	4103.814	41.40	54.0 / A
4923.686	58.40	74.0 / P	4923.686	58.40	74.0 / P
4923.910	42.24	54.0 / A	4923.910	42.24	54.0 / A
2484.108	46.43	74.0 / P	2484.108	46.43	74.0 / P
2484.108	33.27	54.0 / A	2484.108	33.27	54.0 / A
Mode: 802.11B 2462 MHz TX			Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m	Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4106.667	55.60	74.0 / P	4106.667	55.60	74.0 / P
4103.974	39.77	54.0 / A	4103.974	39.77	54.0 / A
4924.006	57.81	74.0 / P	4924.006	57.81	74.0 / P
4923.910	40.62	54.0 / A	4923.910	40.62	54.0 / A
2496.800	47.67	74.0 / P	2496.800	47.67	74.0 / P
2496.800	33.42	54.0 / A	2496.800	33.42	54.0 / A
Mode: 802.11G 2412MHz TX			Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m	Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4021.863	54.50	74.0 / P	4021.863	54.50	74.0 / P
4021.426	39.84	54.0 / A	4021.426	39.84	54.0 / A
4823.459	55.20	74.0 / P	4823.459	55.20	74.0 / P
4820.521	40.73	54.0 / A	4820.521	40.73	54.0 / A
2390.000	56.30	74.0 / P	2390.000	56.30	74.0 / P
2390.000	34.31	54.0 / A	2390.000	34.31	54.0 / A
Mode: 802.11G 2412MHz TX			Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m	Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4827.050	58.10	74.0 / P	4827.050	58.10	74.0 / P
4830.950	40.29	54.0 / A	4830.950	40.29	54.0 / A
2390.000	52.12	74.0 / P	2390.000	52.12	74.0 / P
2390.000	34.00	54.0 / A	2390.000	34.00	54.0 / A
Mode: 802.11G 2437 MHz TX			Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m	Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4064.088	56.35	74.0 / P	4064.088	56.35	74.0 / P
4064.763	39.06	54.0 / A	4064.763	39.06	54.0 / A

Mode: 802.11G 2437 MHz TX			Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m	Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4872.575	56.89	74.0 / P	4872.750	40.71	54.0 / A
Mode: 802.11G 2462MHz TX			Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m	Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4104.625	56.07	74.0 / P	4104.063	39.58	54.0 / A
2483.583	53.05	74.0 / P	2483.500	33.83	54.0 / A
Mode: 802.11G 2462 MHz TX			Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m	Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4924.750	59.45	74.0 / P	4922.875	40.92	54.0 / A
2483.954	56.46	74.0 / P	2483.500	33.75	54.0 / A
Mode: 802.11N 2412MHz TX			Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m	Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4020.663	55.91	74.0 / P	4021.351	39.32	54.0 / A
4823.250	56.11	74.0 / P	4831.063	40.19	54.0 / A
2390.000	54.81	74.0 / P	2390.000	34.43	54.0 / A
Mode: 802.11N 2412MHz TX			Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m	Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4822.563	56.43	74.0 / P	4822.500	40.31	54.0 / A
2390.000	49.85	74.0 / P	2390.000	33.99	54.0 / A
Mode: 802.11N 2437 MHz TX			Vertical Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m	Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4055.950	55.80	74.0 / P	4064.138	39.96	54.0 / A
4869.438	57.43	74.0 / P	4872.313	41.15	54.0 / A
Mode: 802.11N 2437 MHz TX			Horizontal Polarization		
Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m	Freq MHz	Level dBuV/m	Limit/ Detector dBuV/m
4875.250	59.03	74.0 / P	4872.750	41.61	54.0 / A

Mode: 802.11N 2462MHz TX			Vertical Polarization		
Freq MHz		Level dBuV/m		Limit/ Detector dBuV/m	
4100.567		55.53		74.0 / P	
4107.192		39.83		54.0 / A	
2483.500		57.40		74.0 / P	
2483.500		33.64		54.0 / A	
Mode: 802.11N 2462 MHz TX			Horizontal Polarization		
Freq MHz		Level dBuV/m		Limit/ Detector dBuV/m	
4916.625		57.14		74.0 / P	
4923.000		41.27		54.0 / A	
2483.541		54.42		74.0 / P	
2483.500		34.20		54.0 / A	