TEST REPORT

Application No.:	SUCR2502000072IT
Applicant:	Shanghai Sunmi Technology Co.,Ltd.
Address of Applicant:	Room 505,No.388,Song Hu Road,Yang Pu District,Shanghai,China
Manufacturer:	Shanghai Sunmi Technology Co.,Ltd.
Address of Manufacturer:	Room 505,No.388,Song Hu Road,Yang Pu District,Shanghai,China
EUT Description:	Wireless Data Terminal
Model No.:	TF31A
Trade Mark:	SUNMI
FCC ID:	2AH25M3WH
Standards:	FCC 47 CFR Part 2, Subpart J FCC 47 CFR Part 15, Subpart C
Date of Receipt:	January 9, 2025
Date of Test:	March 8, 2025 to March 13, 2025
Date of Issue:	May 27, 2025
Test Result :	**PASS ***

* In the configuration tested, the EUT detailed in this report complied with the standards specified above.

Version

Revision Record			
Version	**Description**	***Date***	***Remark***
00	Original	May 27, 2025	/

Authorized for issue by:				
Tested By				
		Hayley Zhang / Project Manager		
Approved By				
		Cloud Peng/Technical Manager		

Contents

1 Test Summary

Radio Spectrum Technical Requirement				
Item	**Standard**	**Method**	**Requirement**	**Result**
Antenna Requirement	47 CFR Part 15, Subpart C 15.247	N/A	47 CFR Part 15, Subpart C 15.203 & 15.247(b)(4)	Pass

Radio Spectrum Matter Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass
Conducted Peak Output Power		ANSI C63.10 (2013) Section 11.9.2	47 CFR Part 15, Subpart C 15.247(b)(3)	Reference report SZCR231100354202
Minimum 6dB Bandwidth		ANSI C63.10 (2013) Section 11.8.1	47 CFR Part 15, Subpart C 15.247a(2)	
Power Spectrum Density		ANSI C63.10 (2013) Section 11.10.2	47 CFR Part 15, Subpart C 15.247(e)	
Conducted Band Edges Measurement		ANSI C63.10 (2013) Section 11.13.3.2	47 CFR Part 15, Subpart C 15.247(d)	
Conducted Spurious Emissions		ANSI C63.10 (2013) Section 11.11	47 CFR Part 15, Subpart C 15.247(d)	
Radiated Spurious Emissions Below 1GHz		ANSI C63.10 (2013) Section 6.4,6.5	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Radiated Spurious Emissions Above 1GHz		ANSI C63.10 (2013) Section 6.6	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass

Remark:

This test report (Report No.: SUCR250200007206 issue on May 8, 2025) is based on the original test report (Report No.: SZCR231100354202 issue by SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch on December 12, 2023).

Review this report and original report, this report just changing the parts according to the declaration letter from client.

Considering to the difference, pre-scan was performed on the sample in this report to find the items which can be influential to the result in the original test report for fully retest.

Therefore in this report the Conducted Emissions at AC Power Line (150kHz-30MHz), Radiated Spurious Emissions Below 1GHz and Radiated Spurious Emissions Above 1GHz were tested and other test data please refer to the previous report with report number SZCR231100354202 issue by SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch on December 12, 2023.

2 General Information

2.1 Details of E.U.T.

EUT Description:	Wireless Data Terminal
Model No.:	TF31A
Trade Mark:	SUNMI
Hardware Version:	V1.3
Software Version:	T602AA_EVT_14.0_SUNMI_202503131820.00-00
Power Supply:	3.87V from battery
Operation Frequency:	903.5MHz-926.5MHz (1MHz Channel Bandwidth) 905MHz-925MHz (2MHz Channel Bandwidth) 906MHz-922MHz (4MHz Channel Bandwidth)
Modulation Type:	OFDM with BPSK/QPSK/16QAM/64QAM
Number of Channels:	24 Channels for 802.11ah(1MHz Channel Bandwidth) 11 Channels for 802.11ah(2MHz Channel Bandwidth) 5 Channels for 802.11ah(4MHz Channel Bandwidth)
Rate:	0.15 to 3.0Mbps for 802.11ah(1MHz Channel Bandwidth) 0.65 to 6.5Mbps for 802.11ah(2MHz Channel Bandwidth) 1.35 to 13.5Mbps for 802.11ah(4MHz Channel Bandwidth)
Antenna Type:	FPC Antenna
Antenna Gain:	-0.03dBi
Remark: As above information is provided and confirmed by the applicant. SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.	

Channel list for 802.11ah			
Bandwidth (MHz)	Low Channel (MHz)	Middle Channel (MHz)	High Channel (MHz)
1	903.5	915.5	926.5
2	905	915	925
4	906	914	922

Selected test rate for 802.11ah			
Bandwidth (MHz)	Low Channel	Middle Channel	High Channel
1	MCS10	MCS10	MCS10
2	MCS0	MCS0	MCS0
4	MCS0	MCS0	MCS0

2.2 Environment Parameter

Environment Parameter	101 kPa Selected Values During Tests	
Relative Humidity	44-46 % RH Ambient	
Value	Temperature(°C)	Voltage(V)
NTNV	22~23	3.87
Note: NV:Normal Voltage NT:Normal Temperature		

2.3 Description of Support Units

The EUT has been tested as an independent unit.

2.4 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Conduction Emission	± 2.90dB (150kHz to 30MHz)
2	Radiated Emission	± 3.13dB (9k -30MHz)
		± 4.80dB (30M -1GHz)
		± 4.80dB (1GHz to 18GHz)
		± 4.80dB (Above 18GHz)

Remark:
The U_{lab} (lab Uncertainty) is less than $U_{cispr/ETSI}$ (CISPR/ETSI Uncertainty), so the test results
– compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
– non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

2.5 Test Location

Company:	SGS-CSTC Standards Technical Services (Suzhou) Co., Ltd.
Address:	South of No. 6 Plant, No. 1, Runsheng Road, Suzhou Industrial Park, Suzhou Area, China (Jiangsu) Pilot Free Trade Zone
Post code:	215000
Test engineer:	King-p Li

2.6 Test Facility

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

• A2LA (Certificate No. 6336.01)

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 6336.01.

• Innovation, Science and Economic Development Canada

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0120.

IC#: 27594.

• FCC –Designation Number: CN1312

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. has been recognized as an accredited testing laboratory.

Designation Number: CN1312.

Test Firm Registration Number: 717327

2.7 Deviation from Standards

None

2.8 Abnormalities from Standard Conditions

None

3 Equipment List

CE Test System					
Test Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal. date (yyyy/mm/dd)**	**Cal.Due date (yyyy/mm/dd)**
Test receiver	ROHDE&SCHWARZ	ESR7	SUWI-01-10-01	2025/01/15	2026/01/14
Temperature and humidity meter	MingGao	TH101B	SUWI-01-01-06	2025/02/13	2026/02/12
Artificial network	ROHDE&SCHWARZ	ENV216	SUWI-01-19-03	2024/05/06	2025/05/05
Artificial network	ROHDE&SCHWARZ	ENV216	SUWI-01-19-04	2024/05/06	2025/05/05
Measurement Software	Tonscend	JS32-CE 4.0.0.2	SUWI-02-09-05	NCR	NCR

9*6*6 Test Equipment					
Test Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal. date (yyyy/mm/dd)**	**Cal.Due date (yyyy/mm/dd)**
Semi-Anechoic Chamber	Brilliant-emc	N/A	SUWI-04-02-01	2023/06/03	2026/06/02
Temperature and humidity meter	MingGao	TH101B	SUWI-01-01-05	2025/02/13	2026/02/12
Signal Analyzer	ROHDE &SCHWARZ	FSW43	SUWI-01-02-04	2024/05/08	2025/05/07
Signal Analyzer	KEYSIGHT	N9020A	SUWI-01-02-07	2024/11/21	2025/11/20
Test receiver	ROHDE &SCHWARZ	ESR7	SUWI-01-10-01	2025/01/15	2026/01/14
Receiving antenna	SCHWRZBECK MESS-ELEKTRONIK	VULB 9168	SUWI-01-11-04	2023/11/25	2025/11/24
Receiving antenna	SCHWRZBECK MESS-ELEKTRONIK	BBHA 9120D	SUWI-01-11-02	2023/05/13	2025/05/12
Receiving antenna	SCHWRZBECK MESS-ELEKTRONIK	BBHA 9170	SUWI-01-11-03	2023/05/12	2025/05/11
Active Loop Antenna	SCHWRZBECK MESS-ELEKTRONIK	FMZB 1519B	SUWI-01-21-01	2023/05/13	2025/05/12
Amplifier	Tonscend	TAP9K3G40	SUWI-01-14-01	2025/01/16	2026/01/15
Amplifier	Tonscend	TAP01018050	SUWI-01-14-02	2025/01/16	2026/01/15
Amplifier	Tonscend	TAP18040048	SUWI-01-14-03	2025/01/20	2026/01/19
Measurement Software	Tonscend	JS32-RE V4.0.0.0	SUWI-02-09-04	NCR	NCR

Remark: NCR=No Calibration Requirement.

4 Radio Spectrum Technical Requirement

4.1 Antenna Requirement

4.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203 & 15.247(b)(4)

4.1.2 Conclusion

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

EUT Antenna:

The antenna is FPC Antenna and no consideration of replacement. The best case gain of the antenna is -0.03dBi.

Antenna location: Refer to internal photo.

5 Radio Spectrum Matter Test Results

5.1 Conducted Emissions at AC Power Line (150kHz-30MHz)

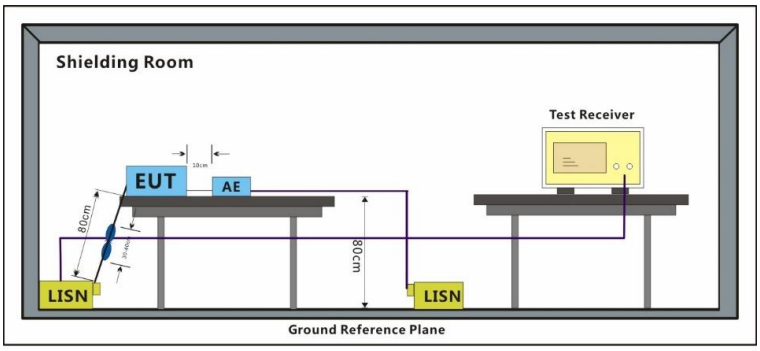
Test Requirement 47 CFR Part 15, Subpart C 15.207

Test Method: ANSI C63.10 (2013) Section 6.2

Limit:

Frequency of emission(MHz)	Conducted limit(dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
*Decreases with the logarithm of the frequency.		
Detector: Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz		

5.1.1 Test Setup Diagram



5.1.2 Measurement Procedure and Data

1) The mains terminal disturbance voltage test was conducted in a shielded room.

2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50μH + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.

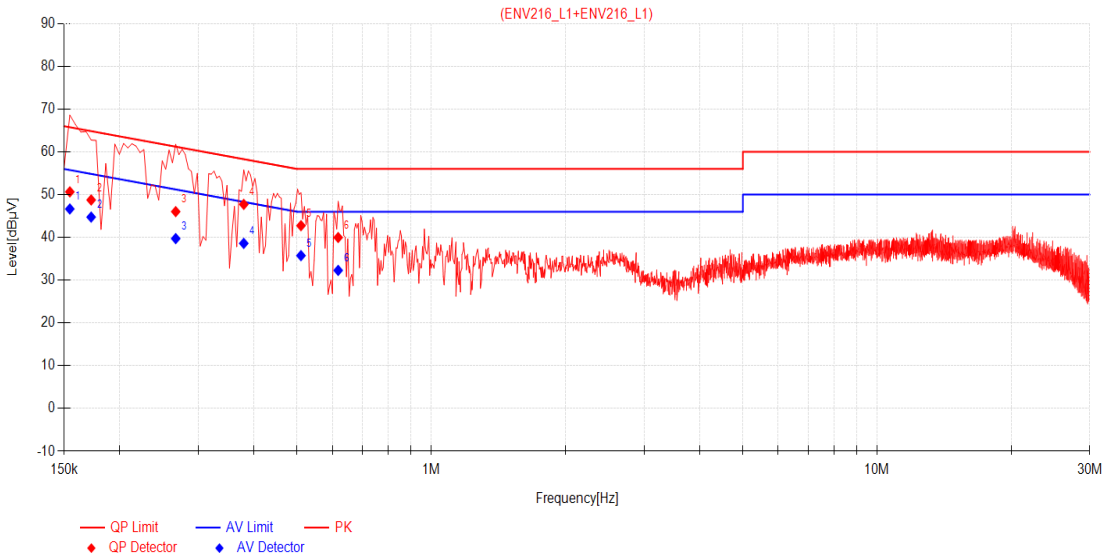
3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane.

4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.

5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Remark: Level=Read Level+ Cable Loss+ LISN Factor

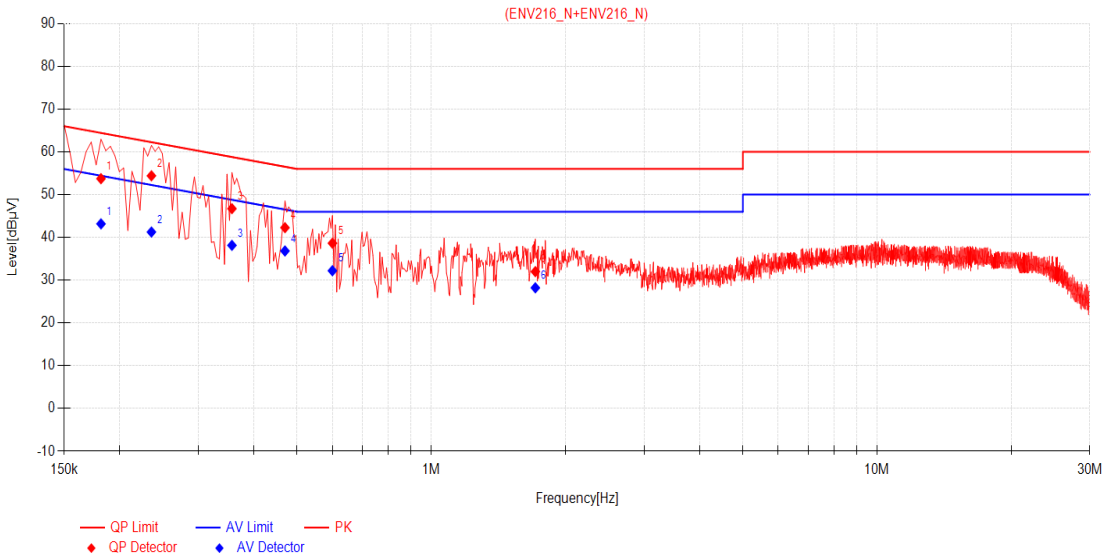
Test Mode: Line: Live line



Final Data List

NO.	Frequency [MHz]	Factor [dB]	QP Reading [dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.1545	10.20	40.45	50.65	65.75	15.10	36.45	46.65	55.75	9.10	PASS
2	0.1725	10.19	38.56	48.75	64.84	16.09	34.56	44.75	54.84	10.09	PASS
3	0.267	10.16	35.87	46.03	61.21	15.18	29.56	39.72	51.21	11.49	PASS
4	0.3795	10.16	37.56	47.72	58.29	10.57	28.45	38.61	48.29	9.68	PASS
5	0.51	10.18	32.56	42.74	56.00	13.26	25.56	35.74	46.00	10.26	PASS
6	0.618	10.20	29.78	39.98	56.00	16.02	22.09	32.29	46.00	13.71	PASS

Test Mode: Line: Neutral Line



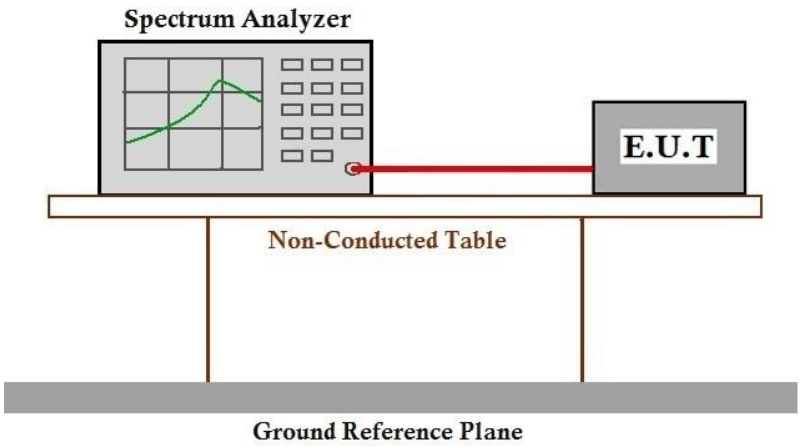
Final Data List											
NO.	Frequency [MHz]	Factor [dB]	QP Reading [dBµV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.1815	10.19	43.54	53.73	64.42	10.69	32.98	43.17	54.42	11.25	PASS
2	0.2355	10.17	44.23	54.40	62.25	7.85	31.09	41.26	52.25	10.99	PASS
3	0.357	10.16	36.56	46.72	58.80	12.08	27.98	38.14	48.80	10.66	PASS
4	0.4695	10.16	32.12	42.28	56.52	14.24	26.67	36.83	46.52	9.69	PASS
5	0.6	10.20	28.45	38.65	56.00	17.35	22.01	32.21	46.00	13.79	PASS
6	1.7115	10.13	21.87	32.00	56.00	24.00	18.09	28.22	46.00	17.78	PASS

5.2 Conducted Peak Output Power

Test Requirement 47 CFR Part 15, Subpart C 15.247(b)(3)
Test Method: ANSI C63.10 (2013) Section 11.9.2
Limit:

Frequency range(MHz)	Output power of the intentional radiator(watt)
902-928	1 for ≥50 hopping channels
	0.25 for 25≤ hopping channels <50
	1 for digital modulation
2400-2483.5	1 for ≥75 non-overlapping hopping channels
	0.125 for all other frequency hopping systems
	1 for digital modulation
5725-5850	1 for frequency hopping systems and digital modulation

5.2.1 Test Setup Diagram



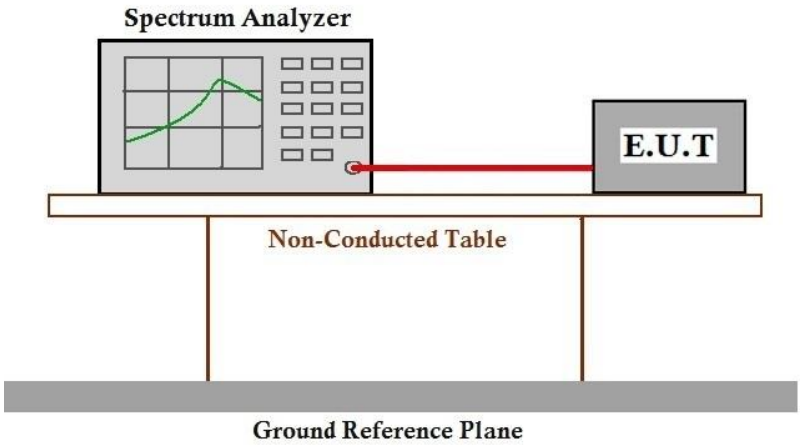
5.2.2 Measurement Procedure and Data

The detailed test data see: **Reference report SZCR231100354202**

5.3 Minimum 6dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.247a(2)
Test Method: ANSI C63.10 (2013) Section 11.8.1
Limit: ≥500 kHz

5.3.1 Test Setup Diagram



5.3.2 Measurement Procedure and Data

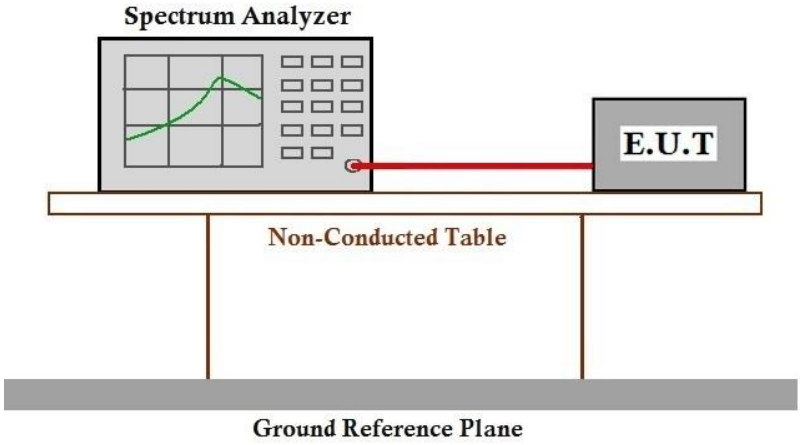
The detailed test data see: **Reference report SZCR231100354202**

5.4 Power Spectrum Density

Test Requirement 47 CFR Part 15, Subpart C 15.247(e)
Test Method: ANSI C63.10 (2013) Section 11.10.2
Limit:

≤8dBm in any 3 kHz band during any time interval of continuous transmission

5.4.1 Test Setup Diagram



5.4.2 Measurement Procedure and Data

The detailed test data see: **Reference report SZCR231100354202**

5.5 Conducted Band Edges Measurement

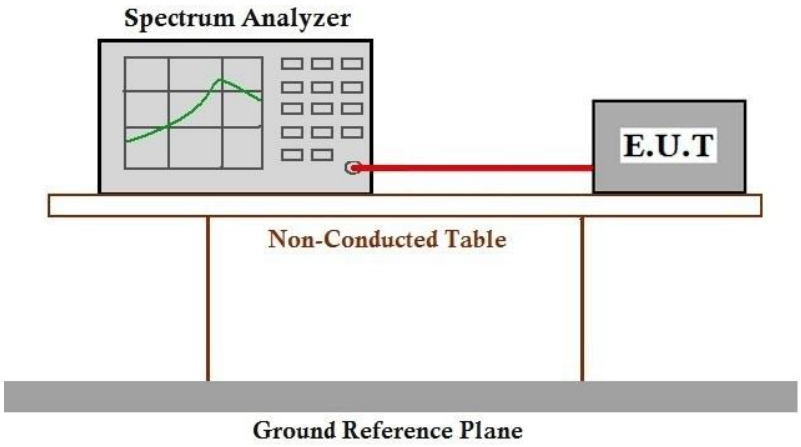
Test Requirement 47 CFR Part 15, Subpart C 15.247(d)

Test Method: ANSI C63.10 (2013) Section 11.13.3.2

Limit:

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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c).

5.5.1 Test Setup Diagram



5.5.2 Measurement Procedure and Data

The detailed test data see: **Reference report SZCR231100354202**

5.6 Conducted Spurious Emissions

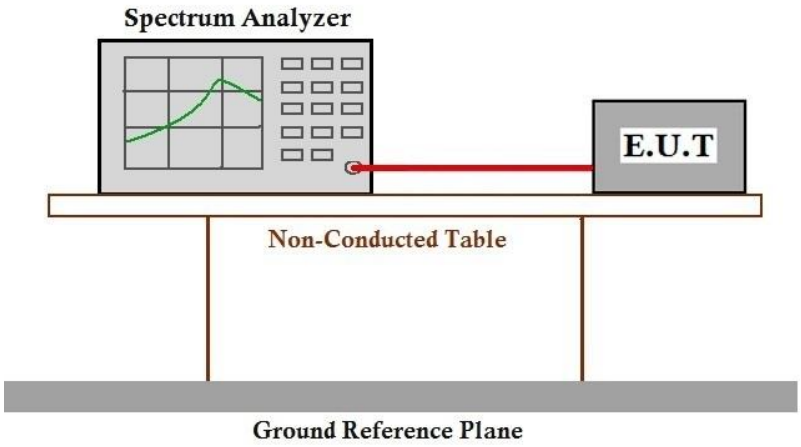
Test Requirement 47 CFR Part 15, Subpart C 15.247(d)

Test Method: ANSI C63.10 (2013) Section 11.11

Limit:

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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c).

5.6.1 Test Setup Diagram



5.6.2 Measurement Procedure and Data

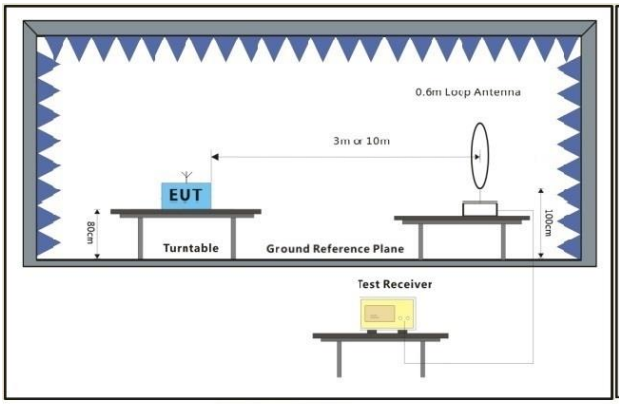
The detailed test data see: **Reference report SZCR231100354202**

5.7 Radiated Spurious Emissions Below 1GHz

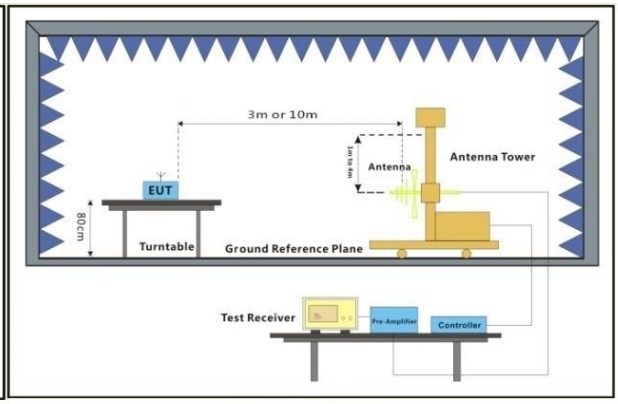
Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209
Test Method: ANSI C63.10 (2013) Section 6.4,6.5
Measurement Distance: 3m
Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
960-1000	500	3

5.7.1 Test Setup Diagram



Below 30MHz



30MHz-1GHz

5.7.2 Measurement Procedure and Data

a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using quasi-peak method as specified and then reported in a data sheet.

g. Test the EUT in the lowest channel, the middle channel, the Highest channel.

h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

2. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

3. All modes and channel bandwidths has been tested and we found 1MHz channel bandwidth has the worst test result, only record the worst test result.

5.7.3 Measurement Procedure and Data

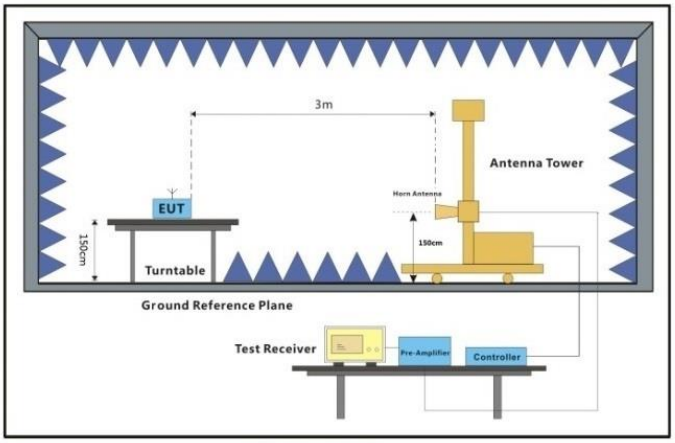
Please Refer to Appendix for Details

5.8 Radiated Spurious Emissions Above 1GHz

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209
Test Method: ANSI C63.10 (2013) Section 6.6
Measurement Distance: 3m
Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
Above 1000	500	3

5.8.1 Test Setup Diagram



Above 1GHz

5.8.2 Measurement Procedure and Data

a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.

g. Test the EUT in the lowest channel, the middle channel, the Highest channel.

h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

2. Scan from 1GHz to 25GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

4. All modes and channel bandwidths has been tested and we found 1MHz channel bandwidth has the worst test result, only record the worst test result.

5.8.3 Measurement Procedure and Data

Please Refer to Appendix for Details

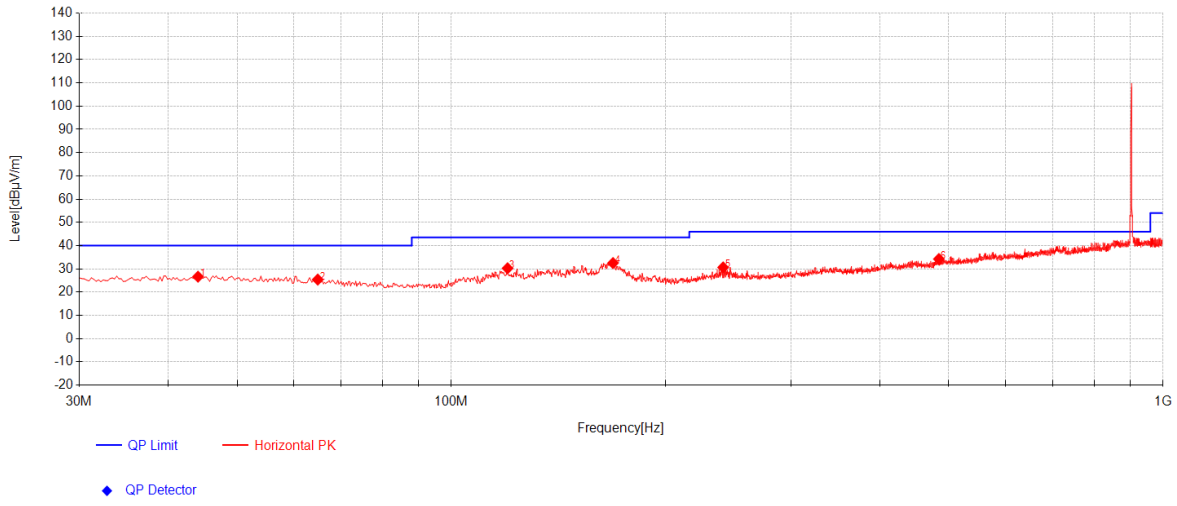
6 Test Setup Photo

Refer to Appendix A.2 WLAN Setup Photos.

7 Appendix

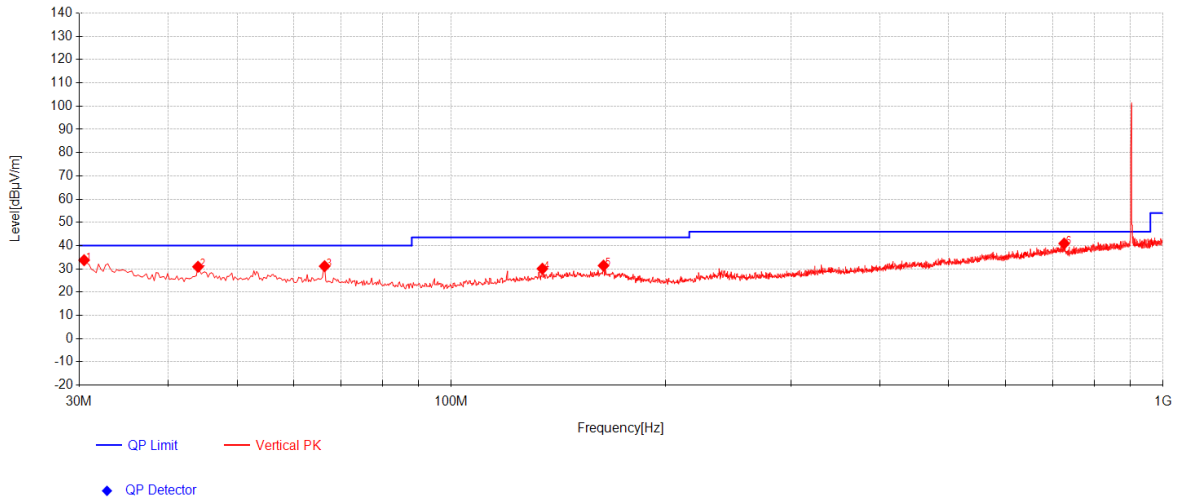
Radiated Spurious Emissions Below 1GHz

802.11ah_Channel BW 1M 903.5



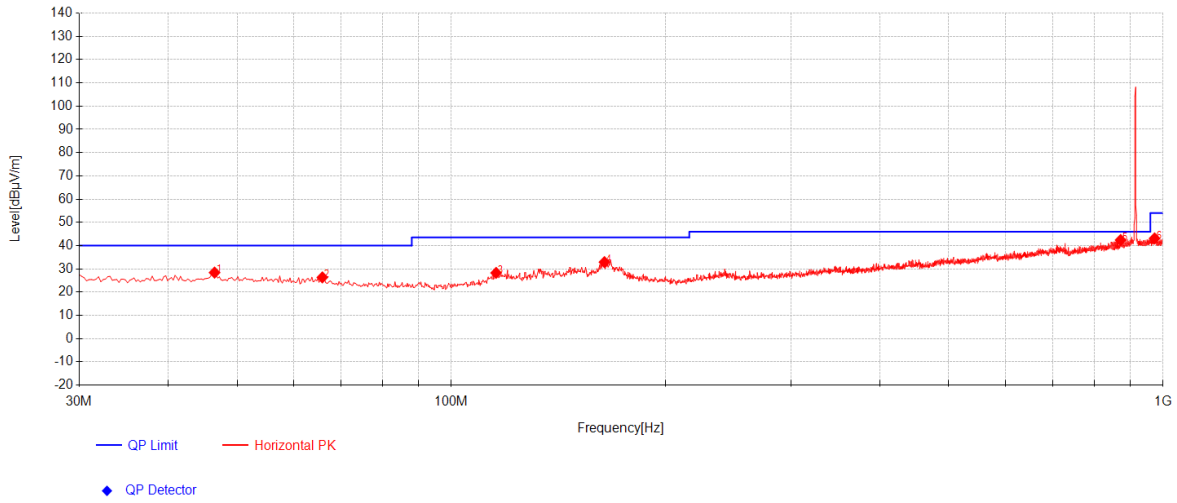
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	44.065	6.73	18.81	1.11	26.64	40.00	13.36	Horizontal
2	64.92	6.98	17.22	1.20	25.41	40.00	14.59	Horizontal
3	119.9675	12.20	16.79	1.27	30.26	43.50	13.24	Horizontal
4	168.71	12.28	18.45	1.78	32.51	43.50	10.99	Horizontal
5	240.975	12.10	16.64	1.89	30.63	46.00	15.37	Horizontal
6	484.2025	9.67	21.82	2.77	34.25	46.00	11.75	Horizontal

802.11ah_Channel BW 1M 903.5



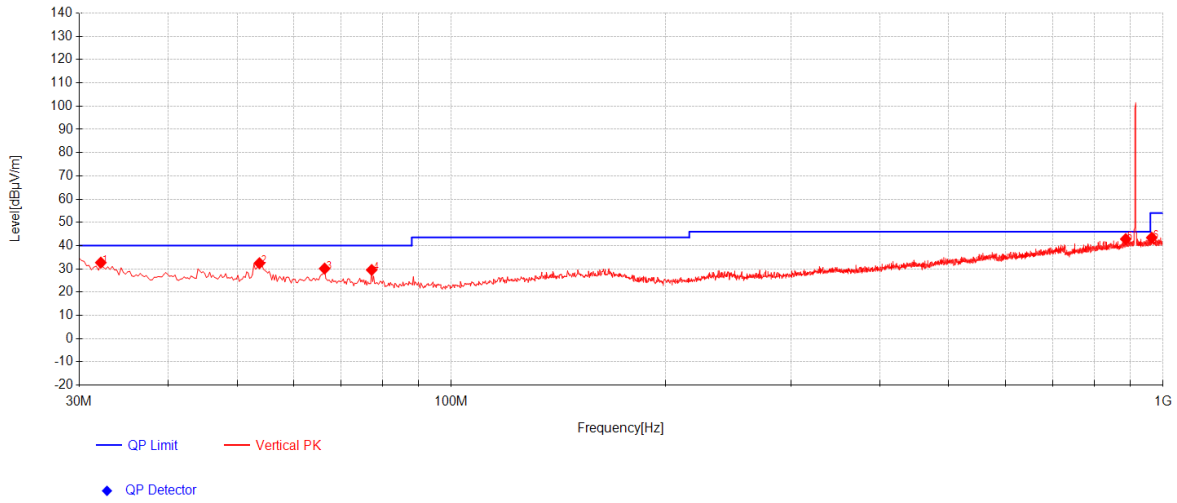
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	30.485	14.58	18.15	1.00	33.73	40.00	6.27	Vertical
2	44.065	11.01	18.81	1.11	30.92	40.00	9.08	Vertical
3	66.375	12.73	17.23	1.21	31.16	40.00	8.84	Vertical
4	134.275	10.53	18.28	1.26	30.07	43.50	13.43	Vertical
5	163.6175	10.91	18.80	1.70	31.41	43.50	12.09	Vertical
6	726.2175	11.84	25.80	3.28	40.92	46.00	5.08	Vertical

802.11ah_Channel BW 1M 915.5



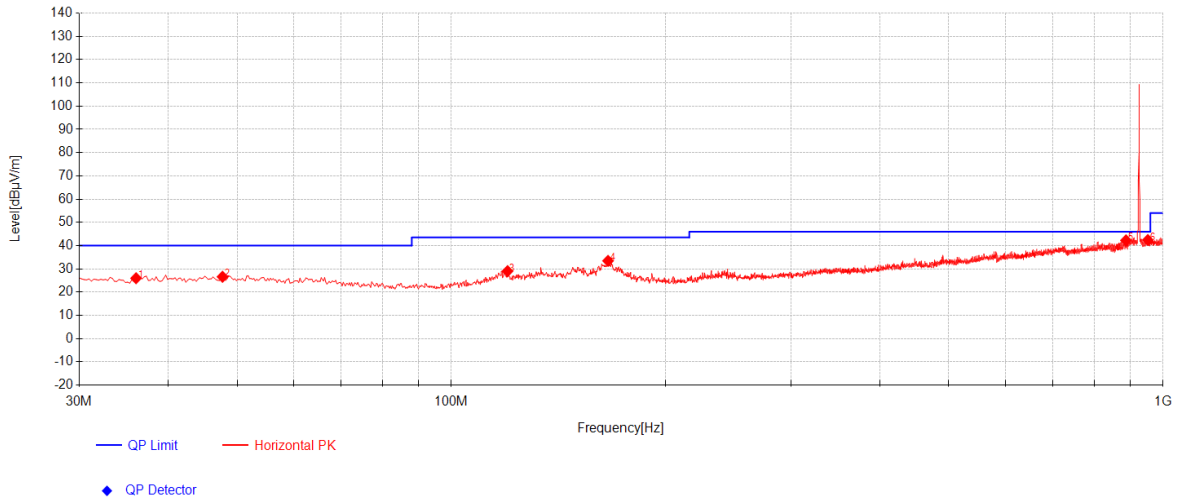
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	46.49	8.28	19.00	1.12	28.41	40.00	11.59	Horizontal
2	65.89	7.85	17.29	1.21	26.34	40.00	13.66	Horizontal
3	115.6025	10.77	16.22	1.30	28.29	43.50	15.21	Horizontal
4	164.1025	12.39	18.81	1.71	32.91	43.50	10.59	Horizontal
5	871.7175	12.00	27.40	3.00	42.41	46.00	3.59	Horizontal
6	973.0825	10.83	28.22	4.05	43.10	54.00	10.90	Horizontal

802.11ah_Channel BW 1M 915.5



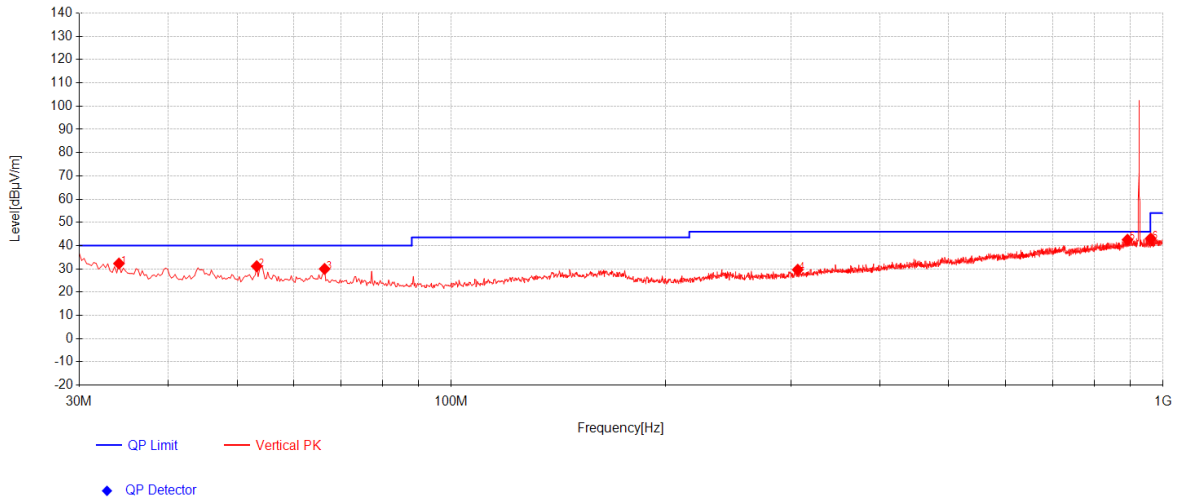
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	32.1825	13.58	18.10	1.02	32.70	40.00	7.30	Vertical
2	53.765	13.16	18.12	1.16	32.45	40.00	7.55	Vertical
3	66.375	11.70	17.23	1.21	30.13	40.00	9.87	Vertical
4	77.2875	12.88	15.37	1.27	29.53	40.00	10.47	Vertical
5	886.2675	11.43	27.53	3.87	42.82	46.00	3.18	Vertical
6	964.11	11.18	28.20	4.03	43.41	54.00	10.59	Vertical

802.11ah_Channel BW 1M 926.5



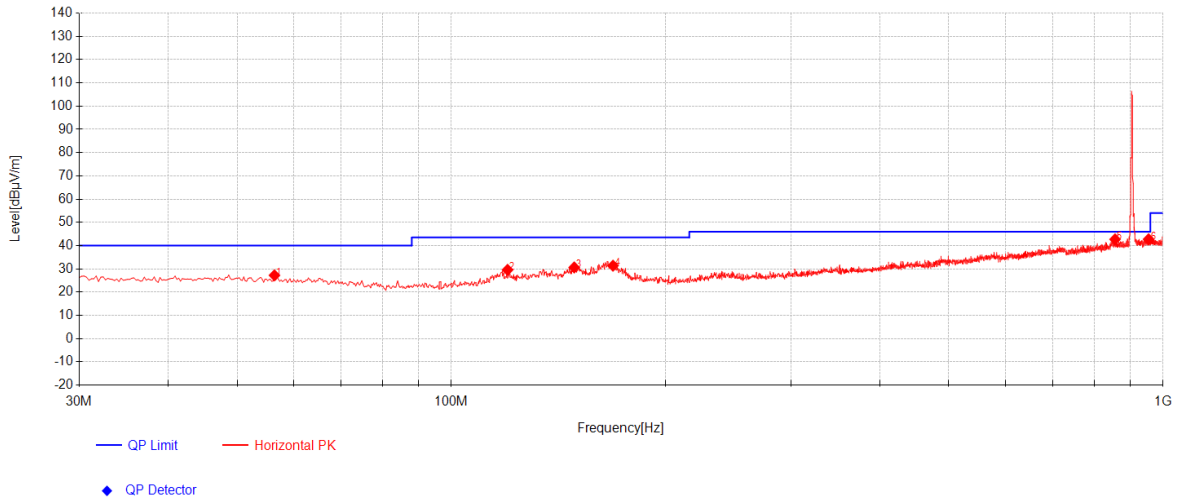
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	36.0625	6.62	18.31	1.05	25.98	40.00	14.02	Horizontal
2	47.7025	6.64	18.83	1.13	26.60	40.00	13.40	Horizontal
3	119.9675	10.97	16.79	1.27	29.03	43.50	14.47	Horizontal
4	166.0425	12.92	18.80	1.74	33.45	43.50	10.05	Horizontal
5	886.995	10.83	27.54	3.91	42.28	46.00	3.72	Horizontal
6	951.985	10.39	28.10	3.94	42.43	46.00	3.57	Horizontal

802.11ah_Channel BW 1M 926.5



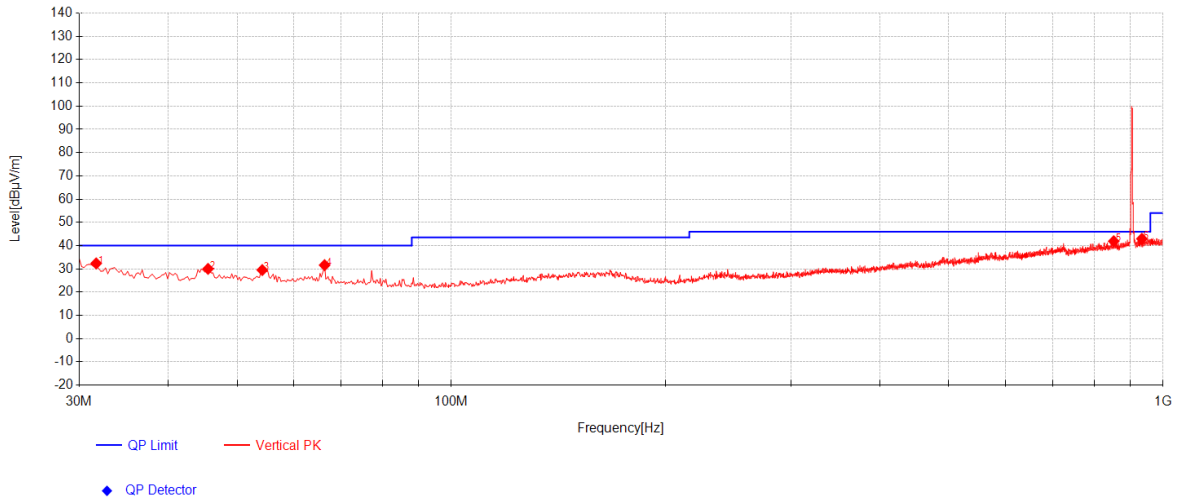
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	34.1225	13.06	18.20	1.03	32.29	40.00	7.71	Vertical
2	53.28	11.81	18.17	1.16	31.14	40.00	8.86	Vertical
3	66.375	11.54	17.23	1.21	29.97	40.00	10.03	Vertical
4	306.6925	9.09	18.57	1.98	29.63	46.00	16.37	Vertical
5	891.36	10.86	27.60	4.07	42.53	46.00	3.47	Vertical
6	960.9575	10.87	28.20	4.01	43.08	54.00	10.92	Vertical

802.11ah_Channel BW 2M 905



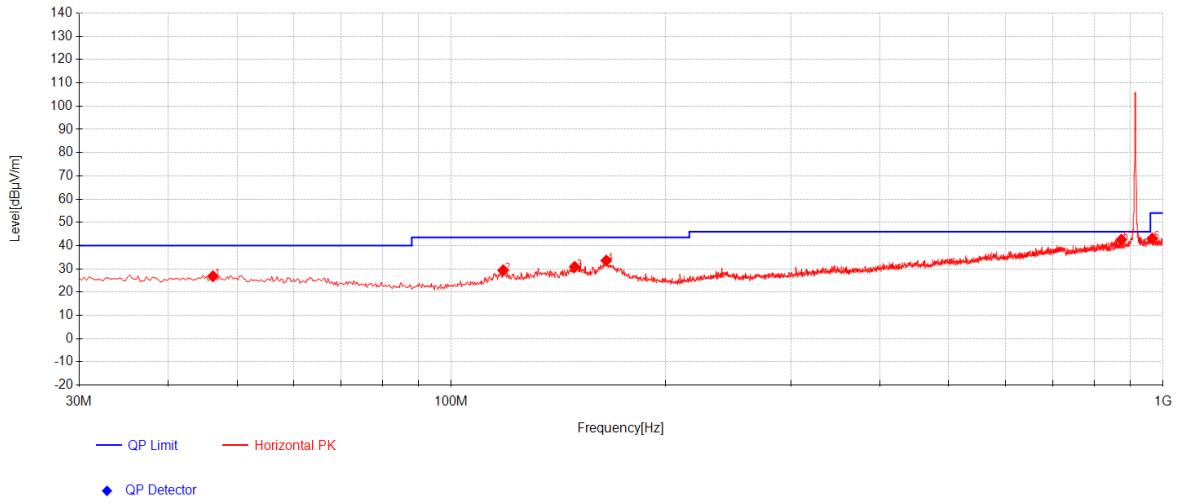
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	56.4325	7.89	18.16	1.17	27.22	40.00	12.78	Horizontal
2	119.9675	11.52	16.79	1.27	29.58	43.50	13.92	Horizontal
3	148.825	10.28	18.88	1.47	30.64	43.50	12.86	Horizontal
4	168.71	11.14	18.45	1.78	31.37	43.50	12.13	Horizontal
5	856.1975	12.13	27.15	3.43	42.71	46.00	3.29	Horizontal
6	954.41	10.68	28.10	3.96	42.74	46.00	3.26	Horizontal

802.11ah_Channel BW 2M 905



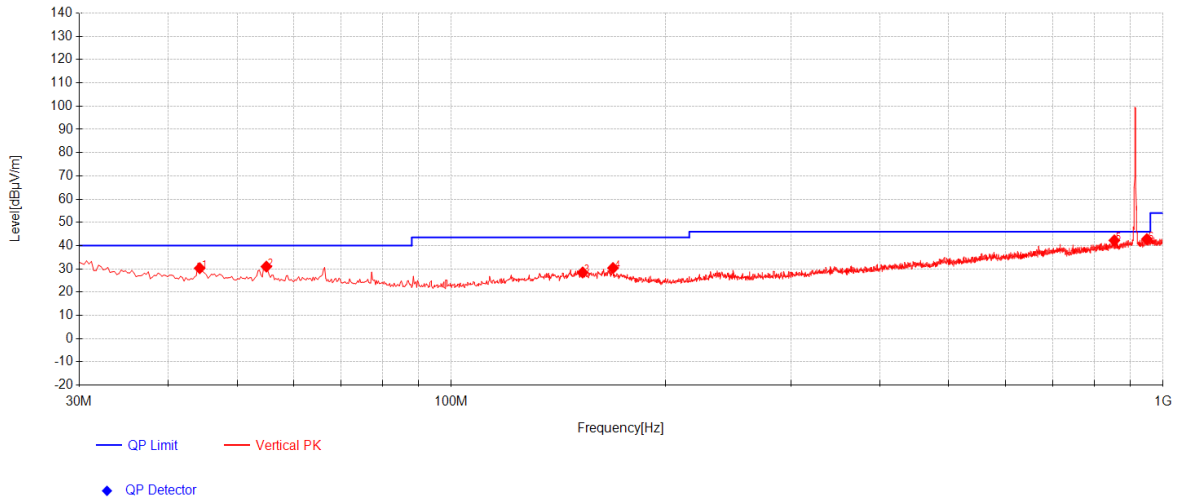
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	31.6975	13.21	18.13	1.01	32.35	40.00	7.65	Vertical
2	45.52	9.89	19.00	1.12	30.01	40.00	9.99	Vertical
3	54.25	10.21	18.13	1.16	29.50	40.00	10.50	Vertical
4	66.375	13.17	17.23	1.21	31.60	40.00	8.40	Vertical
5	852.56	11.23	27.10	3.57	41.90	46.00	4.10	Vertical
6	933.7975	11.38	27.85	3.71	42.94	46.00	3.06	Vertical

802.11ah_Channel BW 2M 915



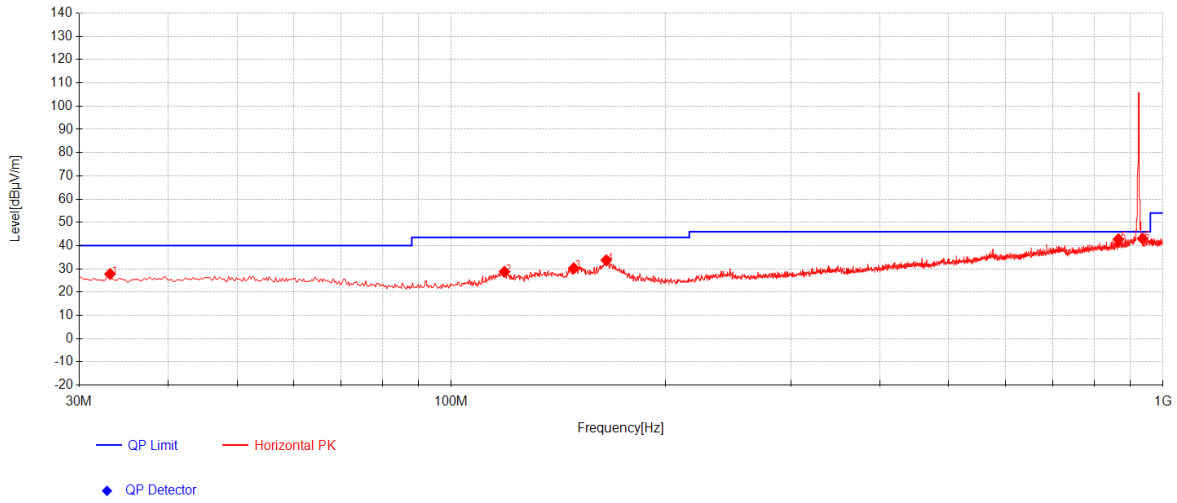
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	46.2475	6.65	19.05	1.12	26.82	40.00	13.18	Horizontal
2	118.27	11.61	16.53	1.28	29.42	43.50	14.08	Horizontal
3	149.0675	10.49	18.91	1.48	30.88	43.50	12.62	Horizontal
4	165.0725	12.96	18.89	1.72	33.58	43.50	9.92	Horizontal
5	873.9	11.90	27.53	3.13	42.57	46.00	3.43	Horizontal
6	965.565	10.85	28.19	4.04	43.08	54.00	10.92	Horizontal

802.11ah_Channel BW 2M 915



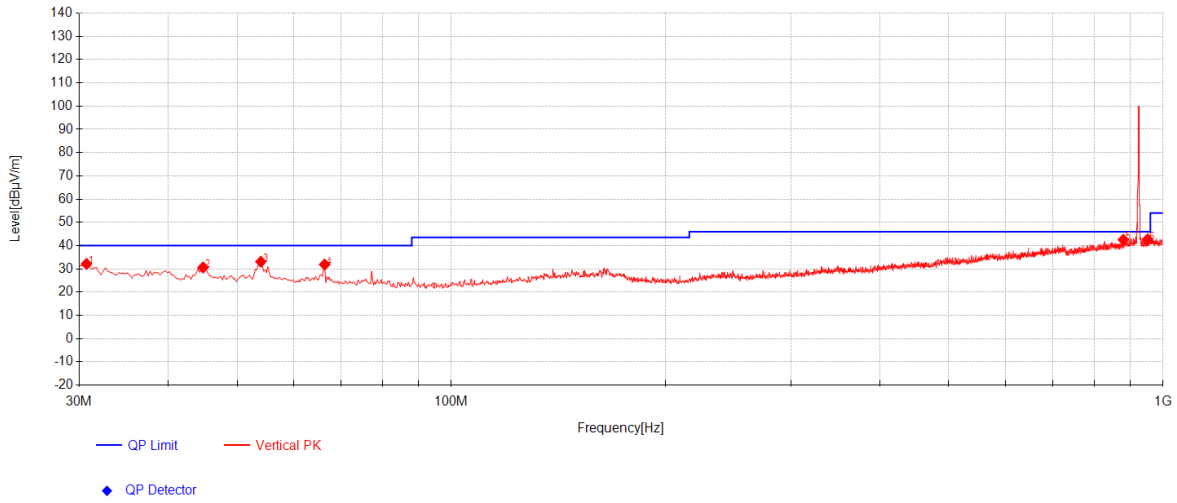
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	44.3075	10.35	18.83	1.11	30.29	40.00	9.71	Vertical
2	54.9775	11.61	18.20	1.17	30.98	40.00	9.02	Vertical
3	152.9475	8.12	18.81	1.54	28.46	43.50	15.04	Vertical
4	168.71	10.13	18.45	1.78	30.36	43.50	13.14	Vertical
5	854.2575	11.63	27.10	3.51	42.24	46.00	3.76	Vertical
6	949.075	10.79	28.10	3.91	42.80	46.00	3.20	Vertical

802.11ah_Channel BW 2M 925



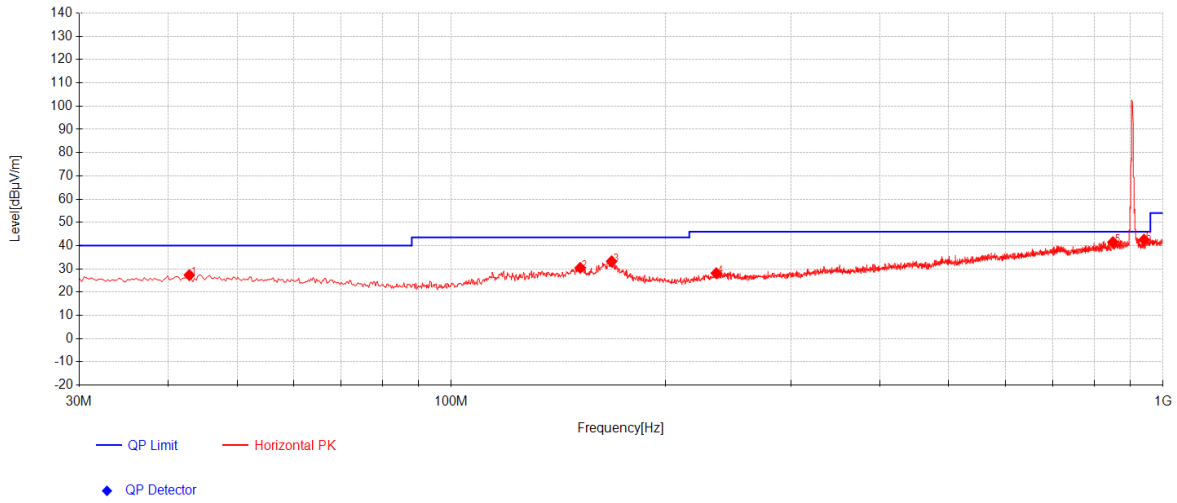
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	33.1525	8.65	18.12	1.02	27.79	40.00	12.21	Horizontal
2	118.755	10.88	16.58	1.28	28.73	43.50	14.77	Horizontal
3	148.5825	9.94	18.86	1.47	30.27	43.50	13.23	Horizontal
4	165.0725	13.09	18.89	1.72	33.71	43.50	9.79	Horizontal
5	865.655	12.30	27.39	3.07	42.75	46.00	3.25	Horizontal
6	935.7375	11.38	27.89	3.73	43.00	46.00	3.00	Horizontal

802.11ah_Channel BW 2M 925



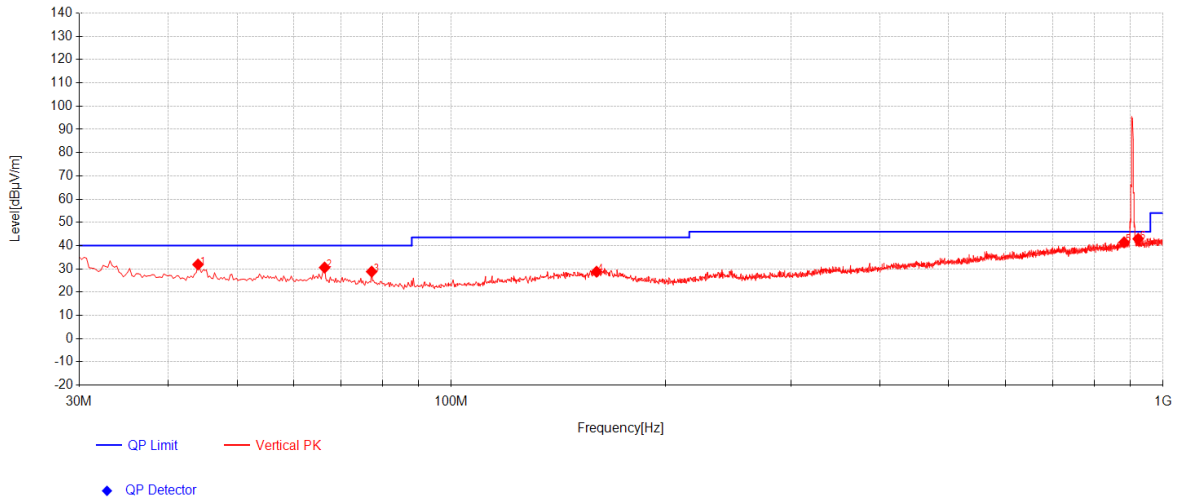
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	30.7275	12.97	18.17	1.01	32.15	40.00	7.85	Vertical
2	44.7925	10.63	18.88	1.11	30.62	40.00	9.38	Vertical
3	54.0075	13.84	18.10	1.16	33.10	40.00	6.90	Vertical
4	66.375	13.44	17.23	1.21	31.87	40.00	8.13	Vertical
5	879.4775	11.46	27.60	3.46	42.52	46.00	3.48	Vertical
6	951.2575	10.69	28.10	3.93	42.72	46.00	3.28	Vertical

802.11ah_Channel BW 4M 906



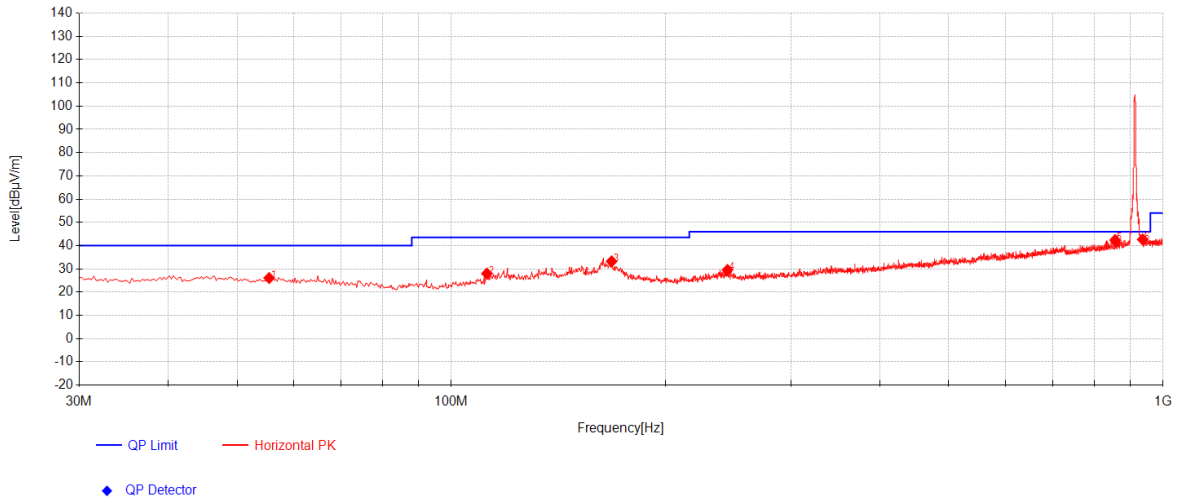
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	42.8525	7.43	18.79	1.10	27.31	40.00	12.69	Horizontal
2	151.735	9.97	18.95	1.52	30.44	43.50	13.06	Horizontal
3	167.9825	12.69	18.80	1.77	33.26	43.50	10.24	Horizontal
4	235.64	9.68	16.60	1.85	28.13	46.00	17.87	Horizontal
5	850.3775	10.73	27.10	3.66	41.49	46.00	4.51	Horizontal
6	940.345	10.91	27.82	3.79	42.53	46.00	3.47	Horizontal

802.11ah_Channel BW 4M 906



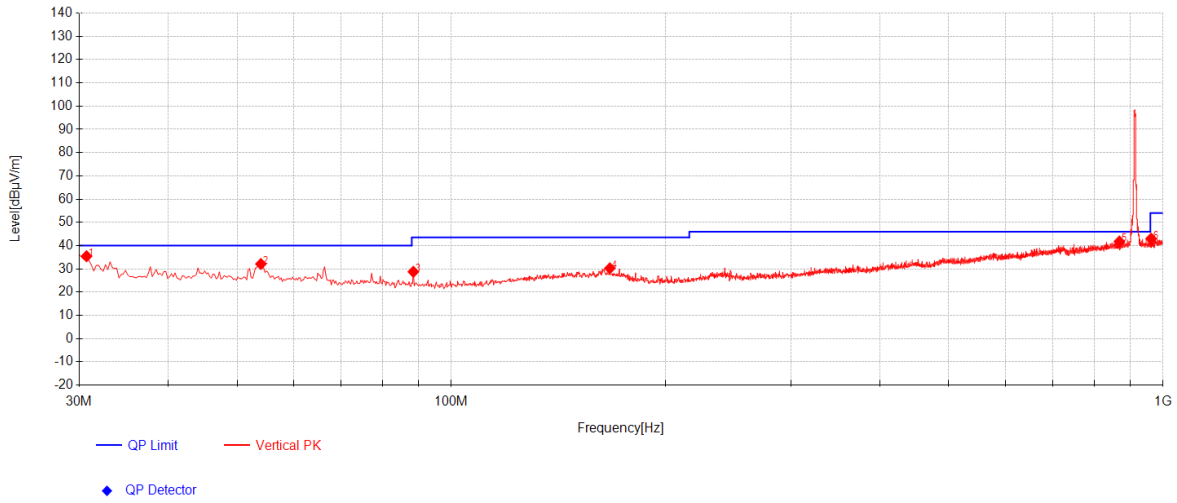
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	44.065	11.97	18.81	1.11	31.88	40.00	8.12	Vertical
2	66.375	12.13	17.23	1.21	30.56	40.00	9.44	Vertical
3	77.2875	12.17	15.37	1.27	28.82	40.00	11.18	Vertical
4	159.98	8.35	18.80	1.64	28.80	43.50	14.70	Vertical
5	881.66	10.26	27.57	3.59	41.42	46.00	4.58	Vertical
6	922.6425	11.38	27.85	3.72	42.94	46.00	3.06	Vertical

802.11ah_Channel BW 4M 914



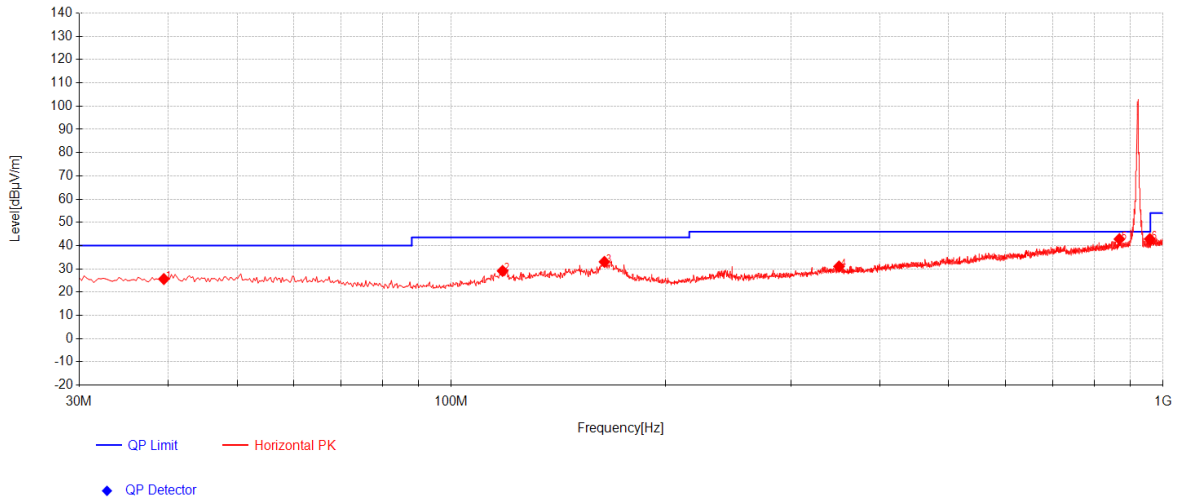
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	55.4625	6.71	18.20	1.17	26.08	40.00	13.92	Horizontal
2	112.2075	10.86	15.80	1.32	27.98	43.50	15.52	Horizontal
3	167.9825	12.67	18.80	1.77	33.24	43.50	10.26	Horizontal
4	244.37	10.84	16.77	1.91	29.53	46.00	16.47	Horizontal
5	856.44	11.82	27.16	3.42	42.40	46.00	3.60	Horizontal
6	936.2225	11.03	27.88	3.74	42.65	46.00	3.35	Horizontal

802.11ah_Channel BW 4M 914



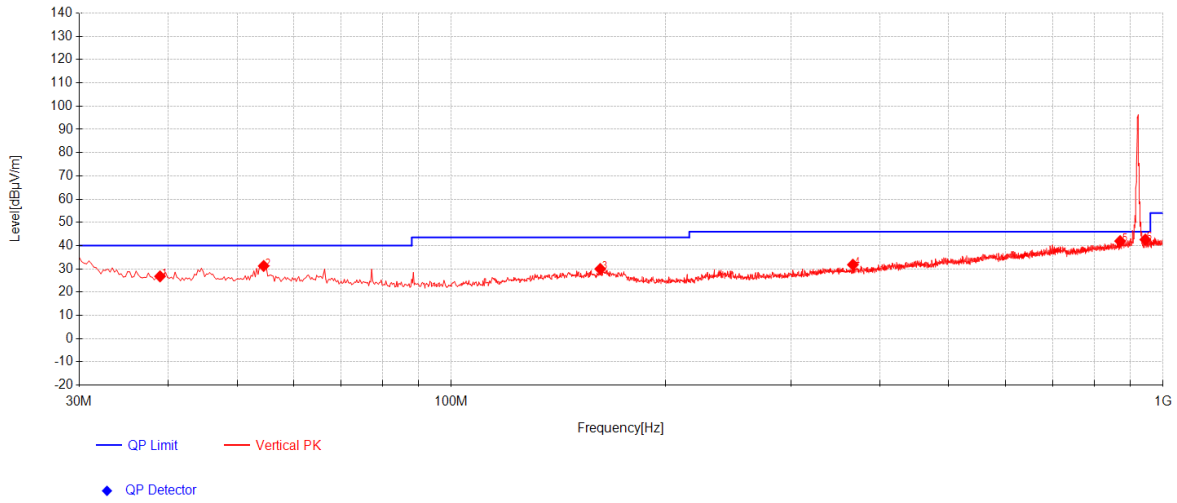
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	30.7275	16.28	18.17	1.01	35.46	40.00	4.54	Vertical
2	54.0075	12.84	18.10	1.16	32.10	40.00	7.90	Vertical
3	88.4425	12.84	14.56	1.36	28.75	43.50	14.75	Vertical
4	167.0125	9.82	18.70	1.75	30.27	43.50	13.23	Vertical
5	868.3225	11.48	27.33	2.96	41.78	46.00	4.22	Vertical
6	962.17	10.78	28.20	4.02	43.00	54.00	11.00	Vertical

802.11ah_Channel BW 4M 922



Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	39.4575	5.87	18.69	1.07	25.63	40.00	14.37	Horizontal
2	118.0275	11.35	16.50	1.28	29.14	43.50	14.36	Horizontal
3	164.1025	12.50	18.81	1.71	33.02	43.50	10.48	Horizontal
4	350.585	9.06	19.46	2.50	31.03	46.00	14.97	Horizontal
5	868.3225	12.50	27.33	2.96	42.80	46.00	3.20	Horizontal
6	958.0475	10.73	28.16	3.98	42.88	46.00	3.12	Horizontal

802.11ah_Channel BW 4M 922



Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	38.9725	7.12	18.60	1.07	26.79	40.00	13.21	Vertical
2	54.4925	11.96	18.15	1.17	31.27	40.00	8.73	Vertical
3	161.92	9.20	19.10	1.67	29.97	43.50	13.53	Vertical
4	366.59	9.91	19.53	2.35	31.79	46.00	14.21	Vertical
5	870.2625	11.73	27.32	2.92	41.96	46.00	4.04	Vertical
6	944.225	10.72	28.05	3.84	42.62	46.00	3.38	Vertical

Remark:

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier gain. The basic equation with a sample calculation is as follows:

   Level = Reading(dBµV) + AF(dB/m) + Factor(dB):

   AF = Antenna Factor(dB/m)

   Factor = Cable Factor(dB) - Preamplifier gain(dB)

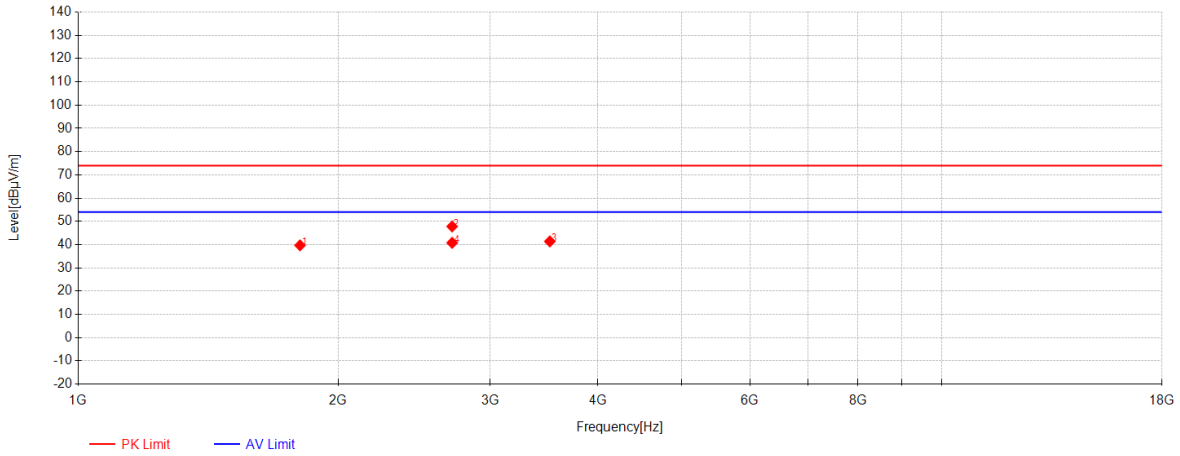
   Margin = Limit(dBµV/m) – Level(dBµV/m)

2) All channels have been tested, but only the worst case data displayed in this report.

3) Both peak and average measured complies with the limit line, so test result is "PASS"

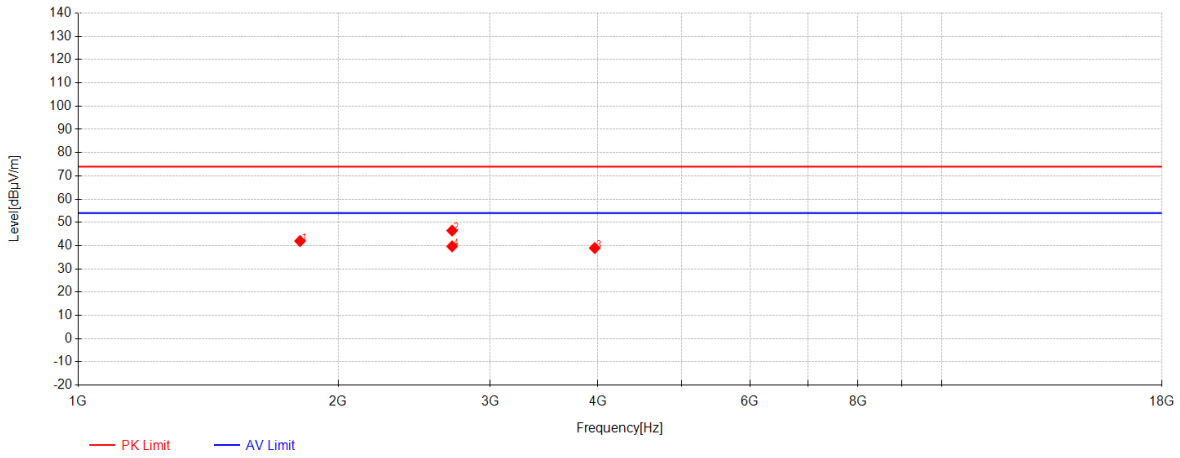
Radiated Spurious Emissions Above 1GHz

802.11ah_Channel BW 1M 903.5



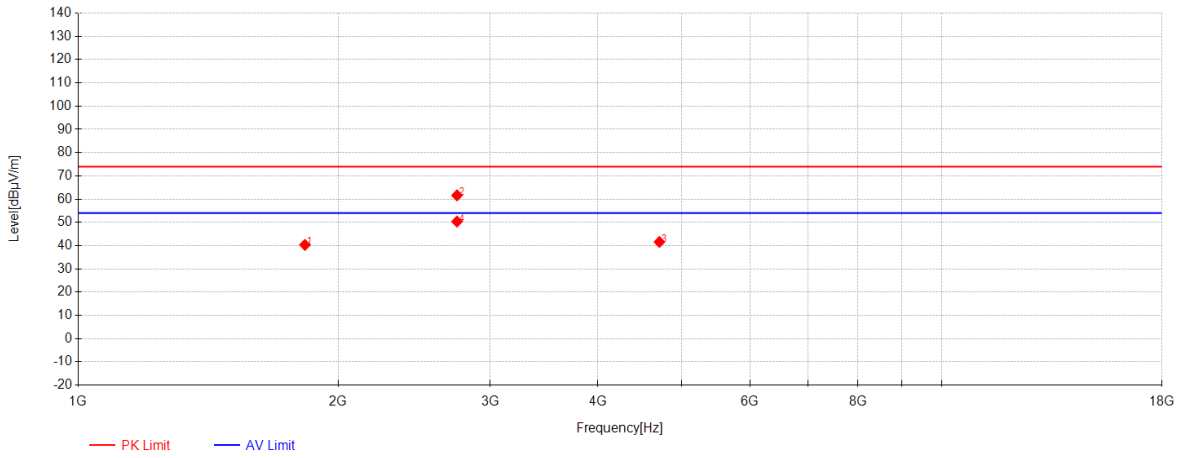
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	1807.075	61.43	24.66	-46.40	39.69	74.00	34.31	Horizontal
2	2710.625	64.14	28.28	-44.61	47.81	74.00	26.19	Horizontal
3	3517.7	55.04	29.66	-43.31	41.39	74.00	32.61	Horizontal
4	2711.05	57.09	28.29	-44.61	40.77	54.00	13.23	Horizontal

802.11ah_Channel BW 1M 903.5



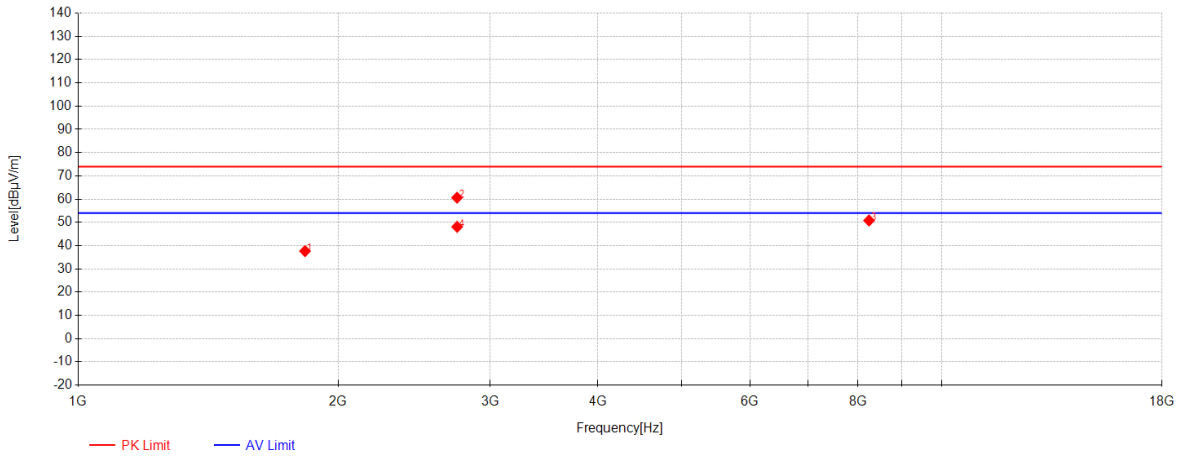
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	1807.075	63.72	24.66	-46.40	41.98	74.00	32.02	Vertical
2	2710.625	62.79	28.28	-44.61	46.46	74.00	27.54	Vertical
3	3965.225	50.63	31.18	-42.84	38.97	74.00	35.03	Vertical
4	2710.625	56.02	28.28	-44.61	39.69	54.00	14.31	Vertical

802.11ah_Channel BW 1M 915.5



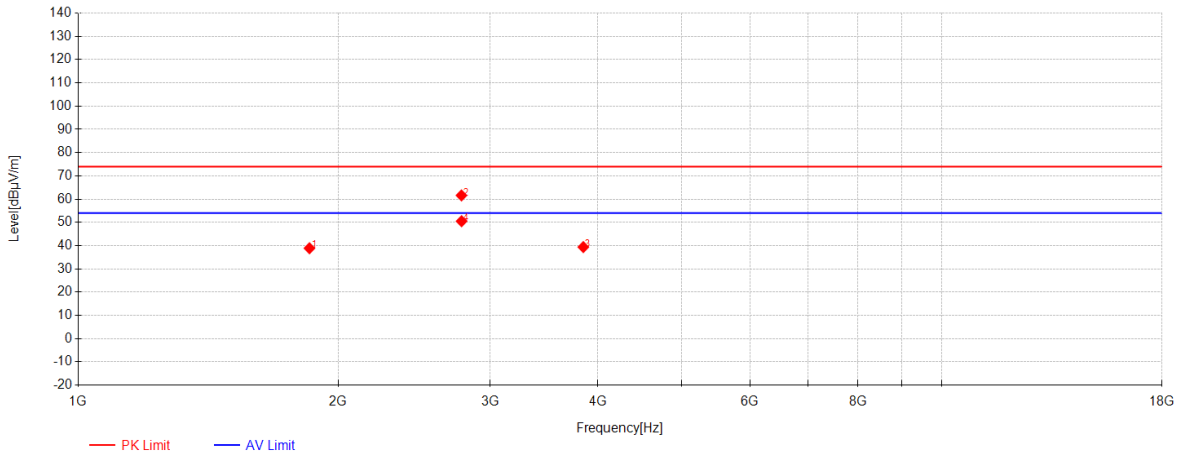
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	1830.875	61.80	24.86	-46.35	40.31	74.00	33.69	Horizontal
2	2746.325	77.74	28.43	-44.54	61.63	74.00	12.37	Horizontal
3	4711.525	50.51	32.57	-41.48	41.59	74.00	32.41	Horizontal
4	2746.325	66.46	28.43	-44.54	50.35	54.00	3.65	Horizontal

802.11ah_Channel BW 1M 915.5



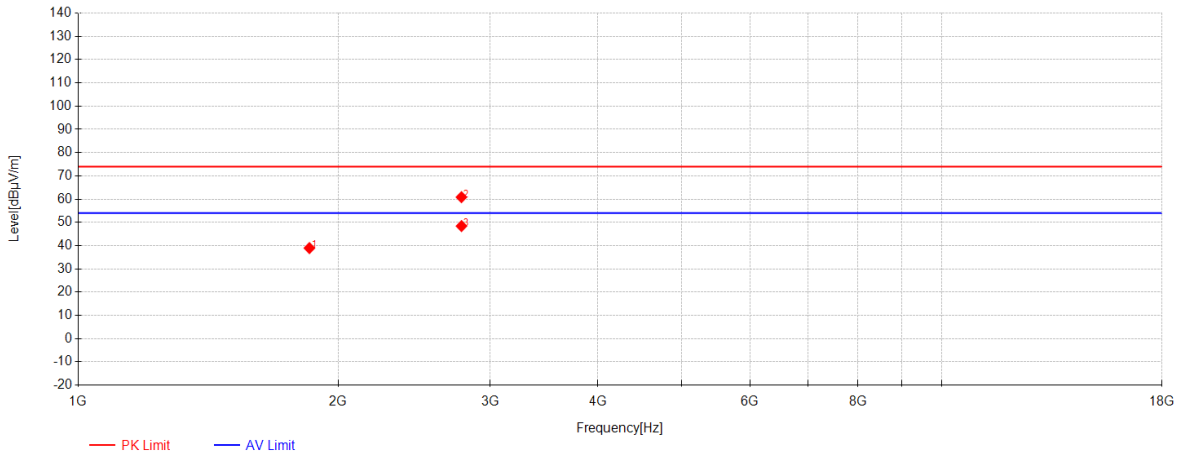
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	1831.3	59.12	24.87	-46.35	37.63	74.00	36.37	Vertical
2	2746.75	76.72	28.44	-44.54	60.62	74.00	13.38	Vertical
3	8240.3	49.72	37.22	-36.13	50.81	74.00	23.19	Vertical
4	2747.175	64.19	28.44	-44.54	48.09	54.00	5.91	Vertical

802.11ah_Channel BW 1M 926.5



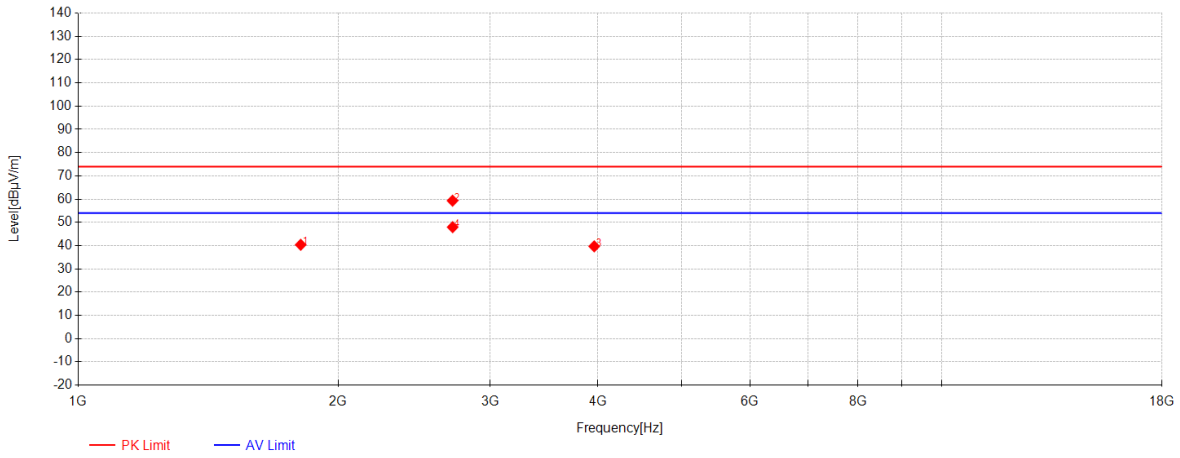
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	1852.975	60.15	25.05	-46.31	38.89	74.00	35.11	Horizontal
2	2779.05	77.51	28.57	-44.48	61.60	74.00	12.40	Horizontal
3	3846.225	51.56	30.78	-42.95	39.38	74.00	34.62	Horizontal
4	2779.9	66.41	28.58	-44.48	50.51	54.00	3.49	Horizontal

802.11ah_Channel BW 1M 926.5



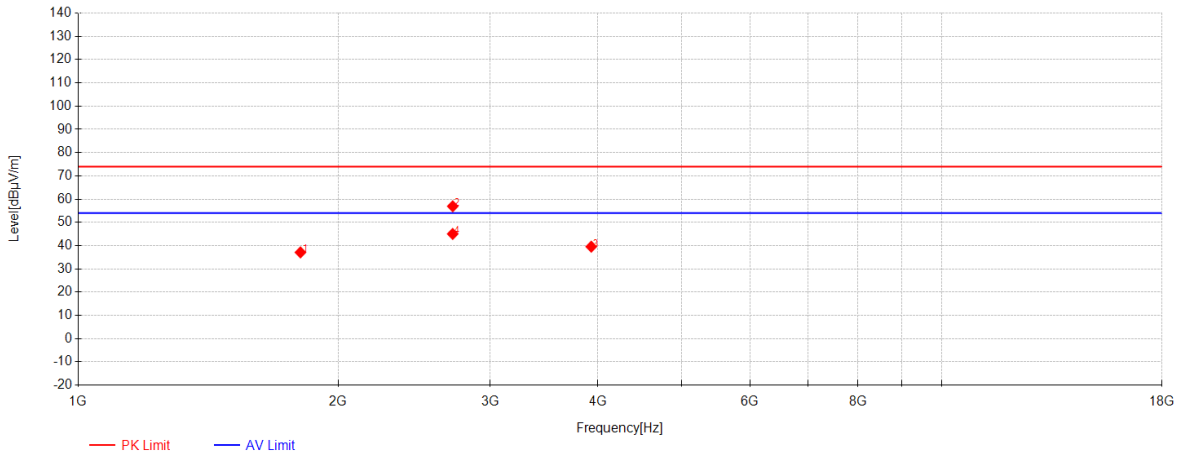
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	1852.975	60.21	25.05	-46.31	38.95	74.00	35.05	Vertical
2	2779.05	76.77	28.57	-44.48	60.86	74.00	13.14	Vertical
3	2779.475	64.32	28.57	-44.48	48.41	54.00	5.59	Vertical

802.11ah_Channel BW 2M 905



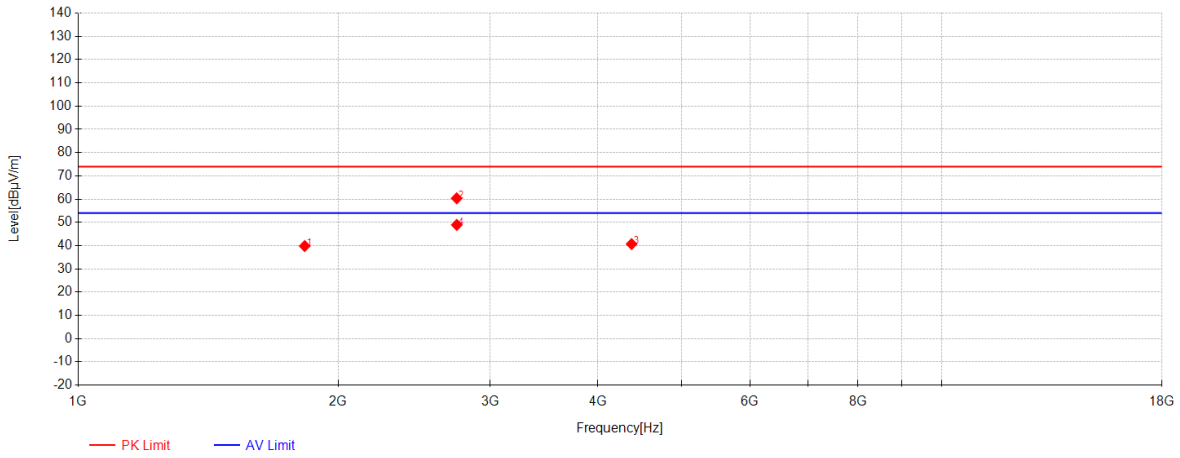
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	1810.05	62.08	24.69	-46.39	40.37	74.00	33.63	Horizontal
2	2714.025	75.63	28.30	-44.60	59.33	74.00	14.67	Horizontal
3	3959.7	51.38	31.16	-42.85	39.69	74.00	34.31	Horizontal
4	2714.45	64.24	28.30	-44.60	47.94	54.00	6.06	Horizontal

802.11ah_Channel BW 2M 905



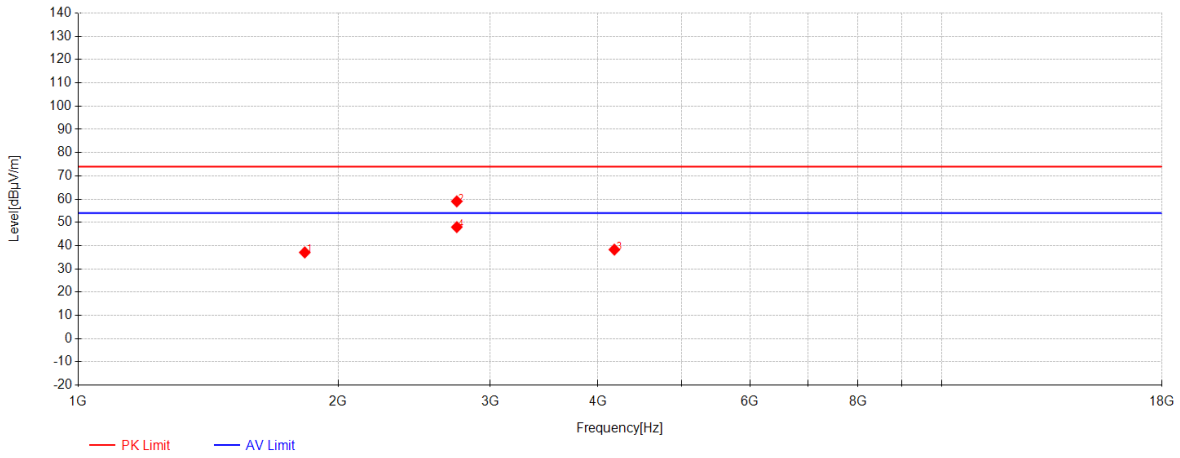
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	1809.2	58.82	24.68	-46.39	37.10	74.00	36.90	Vertical
2	2715.3	73.22	28.30	-44.60	56.92	74.00	17.08	Vertical
3	3928.675	51.37	31.06	-42.87	39.56	74.00	34.44	Vertical
4	2714.875	61.33	28.30	-44.60	45.03	54.00	8.97	Vertical

802.11ah_Channel BW 2M 915



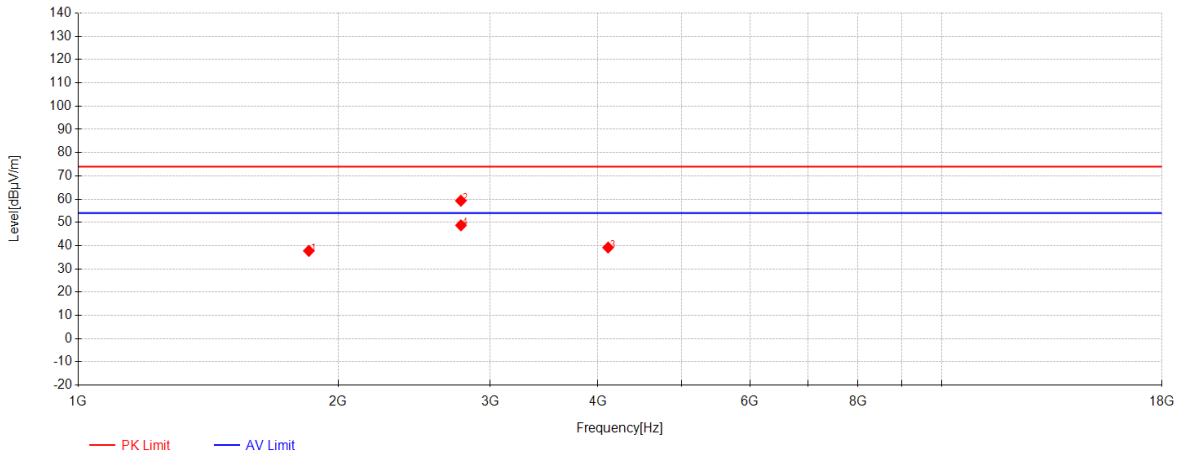
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	1829.6	61.33	24.85	-46.36	39.82	74.00	34.18	Horizontal
2	2744.2	76.47	28.43	-44.55	60.35	74.00	13.65	Horizontal
3	4374.5	50.90	31.90	-42.12	40.68	74.00	33.32	Horizontal
4	2744.625	65.05	28.43	-44.55	48.93	54.00	5.07	Horizontal

802.11ah_Channel BW 2M 915



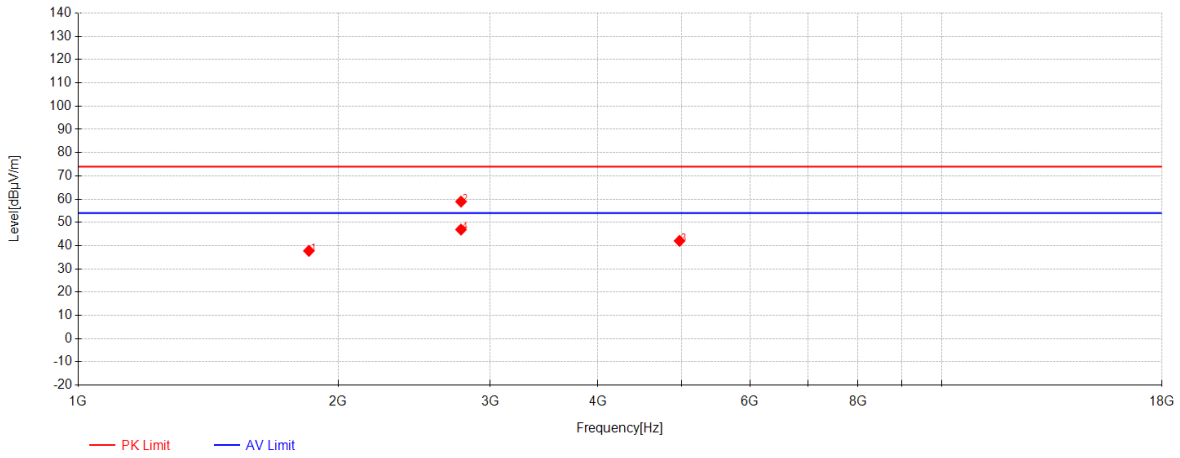
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	1830.025	58.58	24.86	-46.36	37.08	74.00	36.92	Vertical
2	2744.625	75.15	28.43	-44.55	59.03	74.00	14.97	Vertical
3	4178.575	49.06	31.59	-42.36	38.28	74.00	35.72	Vertical
4	2745.05	64.09	28.43	-44.54	47.97	54.00	6.03	Vertical

802.11ah_Channel BW 2M 925



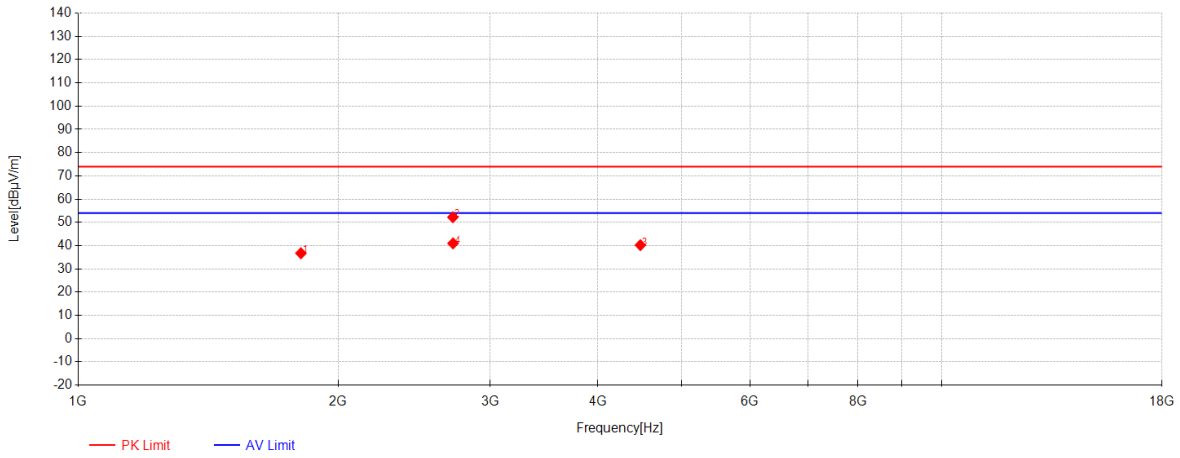
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	1850	59.05	25.03	-46.32	37.75	74.00	36.25	Horizontal
2	2774.8	75.24	28.55	-44.49	59.31	74.00	14.69	Horizontal
3	4109.3	50.08	31.47	-42.37	39.19	74.00	34.81	Horizontal
4	2775.225	64.67	28.56	-44.49	48.74	54.00	5.26	Horizontal

802.11ah_Channel BW 2M 925



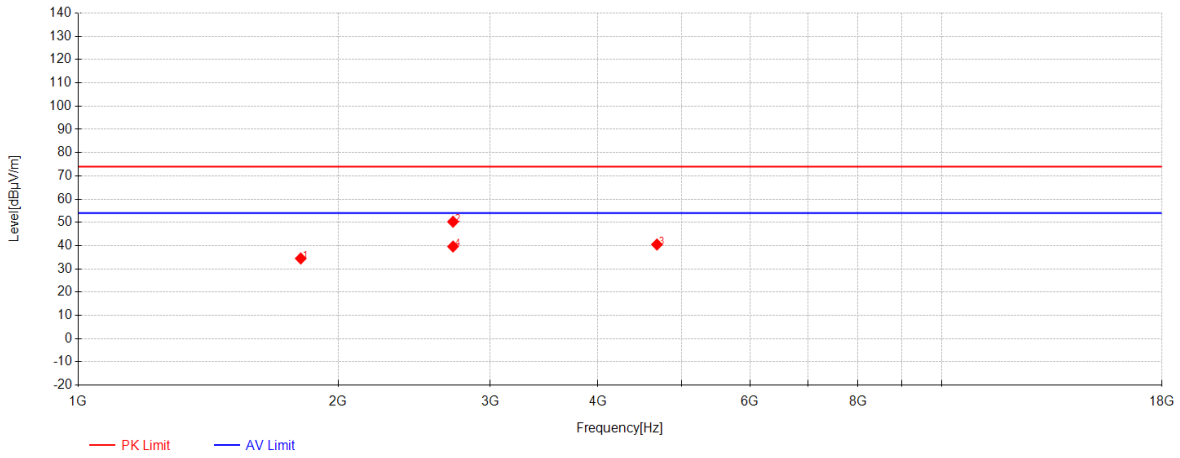
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	1850.425	59.06	25.03	-46.32	37.77	74.00	36.23	Vertical
2	2776.075	74.87	28.56	-44.49	58.94	74.00	15.06	Vertical
3	4971.625	50.23	33.14	-41.32	42.05	74.00	31.95	Vertical
4	2775.65	62.83	28.56	-44.49	46.90	54.00	7.10	Vertical

802.11ah_Channel BW 4M 906



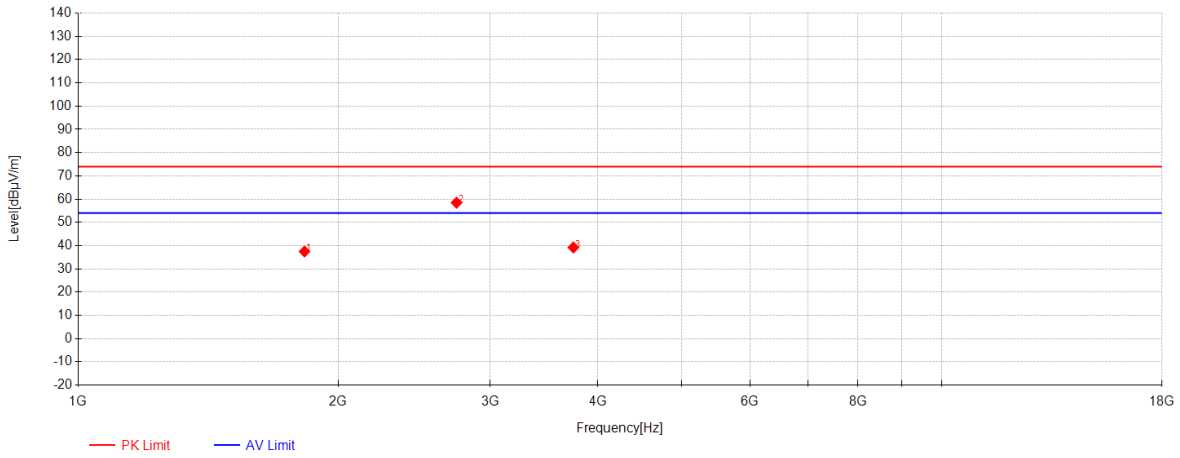
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	1811.325	58.41	24.70	-46.39	36.72	74.00	37.28	Horizontal
2	2716.15	68.51	28.31	-44.60	52.22	74.00	21.78	Horizontal
3	4478.625	50.21	32.07	-42.06	40.21	74.00	33.79	Horizontal
4	2717.425	57.25	28.31	-44.60	40.97	54.00	13.03	Horizontal

802.11ah_Channel BW 4M 906



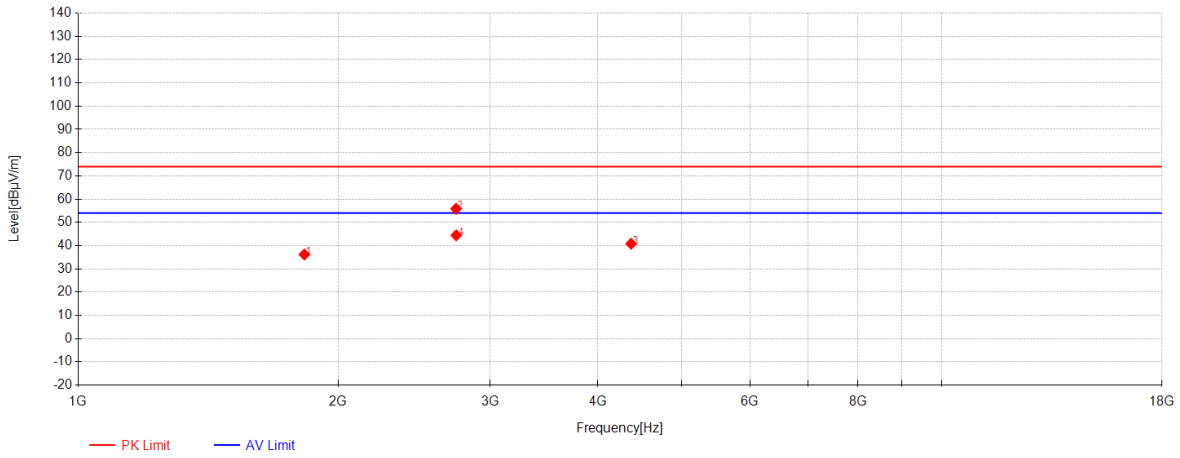
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	1810.475	56.19	24.69	-46.39	34.49	74.00	39.51	Vertical
2	2717.425	66.56	28.31	-44.60	50.28	74.00	23.72	Vertical
3	4680.925	49.52	32.50	-41.54	40.48	74.00	33.52	Vertical
4	2717.425	55.89	28.31	-44.60	39.61	54.00	14.39	Vertical

802.11ah_Channel BW 4M 914



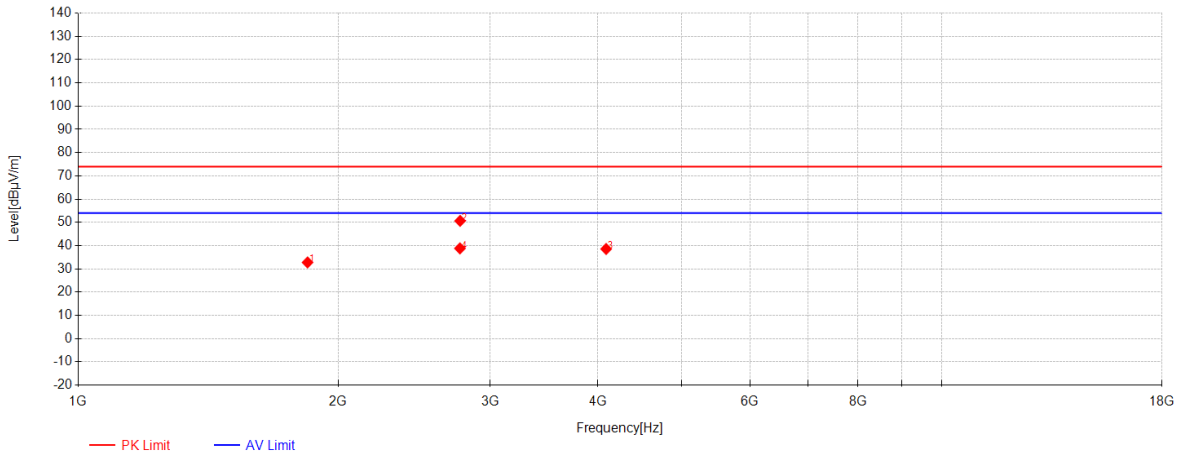
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	1828.75	58.99	24.84	-46.36	37.48	74.00	36.52	Horizontal
2	2742.925	74.59	28.42	-44.55	58.46	74.00	15.54	Horizontal
3	3745.5	51.86	30.43	-43.10	39.20	74.00	34.80	Horizontal

802.11ah_Channel BW 4M 914



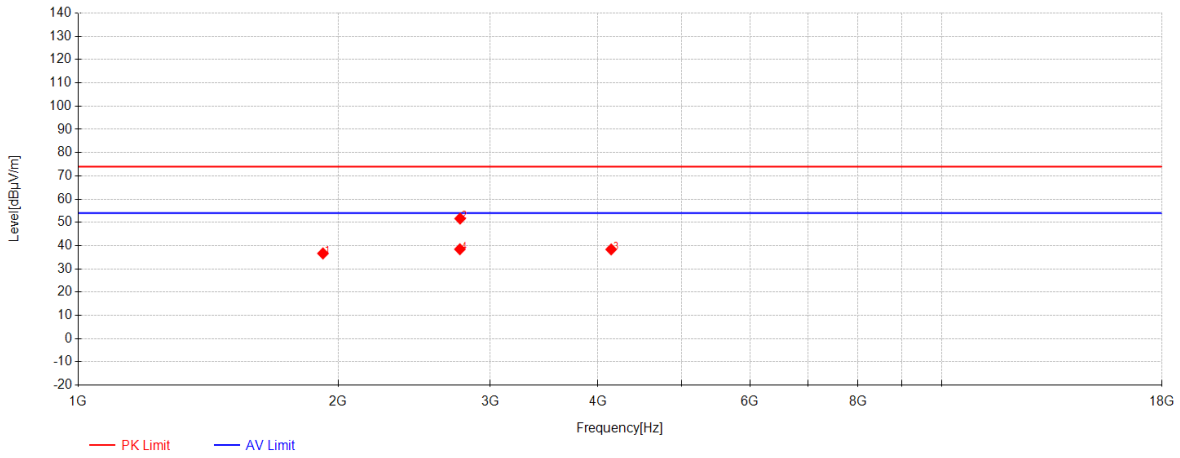
Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	1828.325	57.71	24.84	-46.36	36.19	74.00	37.81	Vertical
2	2739.95	72.00	28.41	-44.55	55.85	74.00	18.15	Vertical
3	4368.975	51.06	31.89	-42.13	40.82	74.00	33.18	Vertical
4	2740.8	60.58	28.41	-44.55	44.44	54.00	9.56	Vertical

802.11ah_Channel BW 4M 922



Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	1843.625	54.13	24.97	-46.33	32.77	74.00	41.23	Horizontal
2	2769.275	66.62	28.53	-44.50	50.65	74.00	23.35	Horizontal
3	4087.625	49.56	31.44	-42.43	38.57	74.00	35.43	Horizontal
4	2768	54.80	28.53	-44.50	38.82	54.00	15.18	Horizontal

802.11ah_Channel BW 4M 922



Final Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	1920.975	57.20	25.63	-46.18	36.65	74.00	37.35	Vertical
2	2769.275	67.62	28.53	-44.50	51.65	74.00	22.35	Vertical
3	4142.875	49.22	31.53	-42.37	38.38	74.00	35.62	Vertical
4	2767.575	54.43	28.52	-44.50	38.45	54.00	15.55	Vertical

Remark:

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier gain. The basic equation with a sample calculation is as follows:

   Level = Reading(dBµV) + AF(dB/m) + Factor(dB):

   AF = Antenna Factor(dB/m)

   Factor = Cable Factor(dB) - Preamplifier gain(dB)

   Margin = Limit(dBµV/m) – Level(dBµV/m)

2) Both peak and average measured complies with the limit line, so test result is "PASS"

---End of Report---