

Test report

352148-TRFEMC

Date of issue: June 13, 2018

Applicant:

Somewear Labs

Product:

Portable Hotspot

Model:

Somewear Global Hotspot

Specifications:

- ◆ FCC 47 CFR Part 15, Subpart C – §15.207
- ◆ FCC 47 CFR Part 15, Subpart C – §15.209

Lab and test locations

Company name	Nemko USA Inc.
Address	2210 Faraday Ave, Suite 150
City	Carlsbad
State	California
Postal code	92008
Country	USA
Telephone	+1 760 444 3500
Website	www.nemko.com
FCC Site Number	Test Firm Registration Number: 392943 Designation Number: US5058
ISED Test Site	2040B-3

Tested by	Andres Martinez, Wireless Engineer
Reviewed by	Chip Fleury, Wireless and Certification Supervisor
Review date	June 13, 2018
Reviewer signature	

Limits of responsibility

Note that the results contained in this report relate only to the items tested and were obtained in the period between the date of initial receipt of samples and the date of issue of the report.

This test report has been completed in accordance with the requirements of ISO/IEC 17025. All results contained in this report are within Nemko USA's ISO/IEC 17025 accreditation.

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Section 1 Report summary

1.1 Test specifications

FCC 47 CFR Part 15, Subpart C – §15.207
FCC 47 CFR Part 15, Subpart C – §15.209

Conducted emission limits; general requirements.
Radiated emission limits; general requirements.

1.2 Test methods

ANSI C64.10-2013

American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

1.3 Exclusions

None

1.4 Statement of compliance

In the configuration tested, the EUT was found compliant.

Testing was performed against all relevant requirements of the test standard. Results obtained indicate that the product under test complies in full with the requirements tested. The test results relate only to the items tested.

See "Summary of test results" for full details.

1.5 Test report revision history

Table 1.5-1: Test report revision history

Revision #	Details of changes made to test report
None	

Notes:

Section 2 Summary of test results

2.1 Radiated Emissions in simultaneous transmission.

Table 2.1-1: FCC 47 CFR Part 15, Subpart C §15.207 & §15.209

Test description	Verdict
FCC 15.209 - Radiated disturbance	Pass
FCC 15.109 - Conducted disturbance ¹	Not applicable

Notes: ¹ Conducted disturbance – As the EUT only charges through battery, this test isn't applicable.

Section 3 Equipment under test (EUT) details

3.1 Applicant

Company name	Somewear Labs
Address	1040 Mariposa Street
City	San Francisco
State	CA
Postal/Zip code	94107
Country	U.S.A.

3.2 Manufacturer

Company name	Somewear Labs
Address	1040 Mariposa Street
City	San Francisco
State	CA
Postal/Zip code	94107
Country	U.S.A.

3.3 Sample information

Receipt date	April 17, 2018
Nemko sample ID number	352148

3.4 EUT information

Product name	Somewear Labs
Model	Somewear Global Hotspot
Model variant	N/A
Serial number	Engineering Sample
Power requirements	1000mA Battery and Micro USB.
Description/theory of operation	The Somewear Hotspot is a Bluetooth and satellite transceiver that provides a Bluetooth enabled smartphone constant connectivity even outside cellular coverage. It supports the following functions: Two-way messaging, location sharing, weather updates, S.O.S.
Operational frequencies	Bluetooth: 2402GHz – 2480GHz, Satellite: 1616MHz – 1626.5MHz
Software details	V.1.3.0

3.5 EUT exercise and monitoring details

For FCC-Intentional emissions both modules, BT and SAT, were set to transmit mode while in battery mode. BT was set on Low Channel 2402MHz and Satellite was set to 1616MHz, Satellite - Model:9603N (FCC ID: Q639603, IC: 4629A-9603), BT - Model: BL652-SA (FCC ID: SQGBL652, IC: 3147A-BL652).

3.6 EUT setup details

Table 3.6-1: EUT sub assemblies

Description	Brand name	Model/Part number	Serial number
None			

Table 3.6-2: EUT interface ports

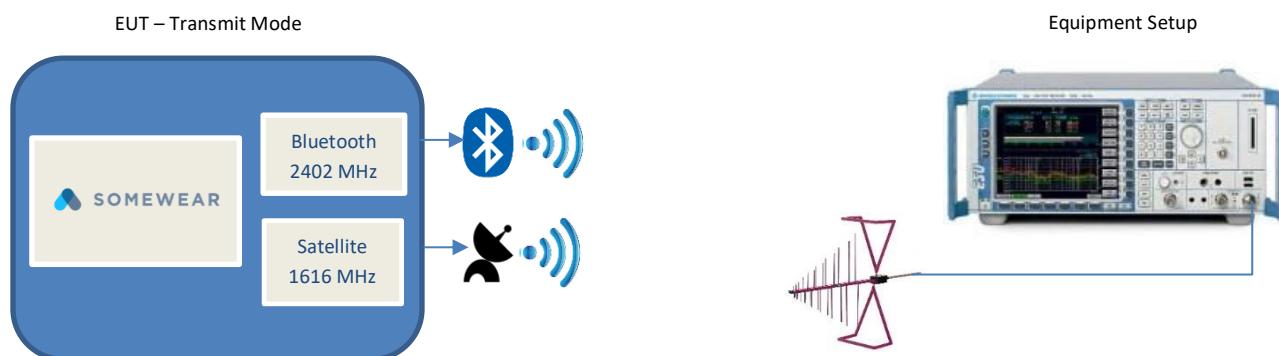
Description	Qty.
None	

Table 3.6-3: Support equipment

Description	Brand name	Model/Part number	Serial number	Rev.
MacBook Pro	Apple	Retina, 13-inch, Early 2015	N/A	N/A

Table 3.6-4: Inter-connection cables

Cable description	From	To	Length (m)
None			



Section 4 Engineering considerations

4.1 Modifications incorporated in the EUT

None

4.2 Technical judgment

None

4.3 Deviations from laboratory tests procedures

No deviations were made from laboratory procedures.

Section 5 Test conditions

5.1 Atmospheric conditions

Temperature	19.9 °C
Relative humidity	58.7 %
Air pressure	86–106 kPa

When it is impracticable to carry out tests under these conditions, a note to this effect stating the ambient temperature and relative humidity during the tests shall be recorded and stated.

5.2 Power supply range

The normal test voltage for equipment to be connected to the mains shall be the nominal mains voltage. For the purpose of the present document, the nominal voltage shall be the declared voltage, or any of the declared voltages $\pm 5\%$, for which the equipment was designed.

Section 6 Measurement uncertainty

6.1 Uncertainty of measurement

Nemko USA Inc. has calculated measurement uncertainty and is documented in EMC/MUC/001 "Uncertainty in EMC measurements." Measurement uncertainty was calculated using the methods described in CISPR 16-4 Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC measurements; as well as described in UKAS LAB34: The expression of Uncertainty in EMC Testing. Measurement uncertainty calculations assume a coverage factor of K=2 with 95% certainty.

Test name	Measurement uncertainty
Conducted spurious emissions	1.13 dB
Radiated spurious emissions	3.78 dB
Temperature	1 °C
Humidity	5 %

Section 7 Terms and definitions

7.1.1 Equipment type

Multimedia Equipment (MME)	Equipment that is information technology equipment, audio equipment, video equipment, broadcast receiver equipment, entertainment lighting control equipment or combinations of these.
Information technology equipment [ITE]	Equipment having a primary function of either (or a combination of) entry, storage, display, retrieval, transmission, processing, switching, or control of data and/or telecommunication messages and which may be equipped with one or more ports typically for information transfer. <ul style="list-style-type: none">- Examples include data processing equipment, office machines, electronic business equipment and telecommunication equipment.
Audio equipment	Equipment which has a primary function of either (or a combination of) generation, input, storage, play, retrieval, transmission, reception, amplification, processing, switching or control of audio signals
Video equipment	Equipment which has a primary function of either (or a combination of) generation, input, storage, display, play, retrieval, transmission, reception, amplification, processing, switching, or control of video signals.
Broadcast receiver equipment	Equipment containing a tuner that is intended for the reception of broadcast services <ul style="list-style-type: none">- These broadcast services are typically television and radio services, including terrestrial broadcast, satellite broadcast and/or cable transmission.
Entertainment lighting control equipment	Equipment generating or processing electrical signals for controlling the intensity, color, nature or direction of the light from a luminaire, where the intention is to create artistic effects in theatrical, televisual or musical productions and visual presentations.

7.2 General definitions, continued

7.1.2 Port type

AC mains power port	Port used to connect to the mains supply network
Antenna port	<ul style="list-style-type: none">Equipment with a DC power port which is powered by a dedicated AC/DC power converter is defined as AC mains powered equipment Port, other than a broadcast receiver tuner port (3.1.8), for connection of an antenna used for intentional transmission and/or reception of radiated RF energy.
Broadcast receiver tuner port	Port intended for the reception of a modulated RF signal carrying terrestrial, satellite and/or cable transmissions of audio and/or video broadcast and similar services <ul style="list-style-type: none">This port may be connected to an antenna, a cable distribution system, a VCR or similar device.
DC network power port	Port, not powered by a dedicated AC/DC power converter and not supporting communication, that connects to a DC supply network. <ul style="list-style-type: none">Equipment with a DC power port which is powered by a dedicated AC/DC power converter is considered to be AC mains powered equipment.DC power ports supporting communications are considered to be wired networks ports, for example Ethernet ports which include Power Over Ethernet (POE).
Enclosure port	Physical boundary of the EUT through which electromagnetic fields may radiate.
Optical fiber port	Port at which an optical fiber is connected to an equipment.
RF modulator output port	Port intended to be connected to a broadcast receiver tuner port to transmit a signal to the broadcast receiver.
Signal/control port	Port intended for the interconnection of components of an equipment under test, or between an equipment under test and local associated equipment and used in accordance with relevant functional specifications (for example for the maximum length of cable connected to it) <ul style="list-style-type: none">Examples include RS-232, Universal Serial Bus (USB), High-Definition Multimedia Interface (HDMI), IEEE Standard 1394 ("Fire Wire")
Wired network port	Point of connection for voice, data and signaling transfers intended to interconnect widely-dispersed systems by direct connection to a single-user or multi-user communication network (for example CATV, PSTN, ISDN, xDSL, LAN and similar networks) <ul style="list-style-type: none">These ports may support screened or unscreened cables and may also carry AC or DC power where this is an integral part of the telecommunication specification.

Section 8 Testing data

8.1 Radiated emission limits; Intentional Radiators.

8.1.1 References

Title 47 → Chapter I → Subchapter A → Part 15 → Subpart C → §15.209 / ANSI C63.4: 2014

(a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

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
Above 960	500	3

**Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz, however, operation within these frequency bands is permitted under other sections of this part, e.g., §§15.231 and 15.241.

(b) In the emission table above, the tighter limit applies at the band edges.

(c) The level of any unwanted emissions from an intentional radiator operating under these general provisions shall not exceed the level of the fundamental emission. For intentional radiators which operate under the provisions of other sections within this part and which are required to reduce their unwanted emissions to the limits specified in this table, the limits in this table are based on the frequency of the unwanted emission and not the fundamental frequency. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.

(d) The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

(e) The provisions in §§15.31, 15.33, and 15.35 for measuring emissions at distances other than the distances specified in the above table, determining the frequency range over which radiated emissions are to be measured, and limiting peak emissions apply to all devices operated under this part.

(f) In accordance with §15.33(a), in some cases the emissions from an intentional radiator must be measured to beyond the tenth harmonic of the highest fundamental frequency designed to be emitted by the intentional radiator because of the incorporation of a digital device. If measurements above the tenth harmonic are so required, the radiated emissions above the tenth harmonic shall comply with the general radiated emission limits applicable to the incorporated digital device, as shown in §15.109 and as based on the frequency of the emission being measured, or, except for emissions contained in the restricted frequency bands shown in §15.205, the limit on spurious emissions specified for the intentional radiator, whichever is the higher limit. Emissions which must be measured above the tenth harmonic of the highest fundamental frequency designed to be emitted by the intentional radiator and which fall within the restricted bands shall comply with the general radiated emission limits in §15.109 that are applicable to the incorporated digital device.

8.1.2 Test summary

Verdict	Pass		
Test date	June 12, 2018	Temperature	21°C
Test engineer	Andres Martinez, Wireless Engineer	Air pressure	1001 mbar
Test location	10m semi anechoic chamber	Relative humidity	49 %

8.1.3 Notes

8.1.4 Setup details

EUT setup configuration	Table top
Test facility	3 m Semi anechoic chamber
Measuring distance	3 m
Antenna height variation	1–4 m
Turn table position	0–360°
Measurement details	A preview measurement was generated with receiver in continuous scan or sweep mode while the EUT was rotated and antenna adjusted to maximize radiated emission. Emissions detected within 6 dB or above limit were re-measured with the appropriate detector against the correlating limit and recorded as the final measurement.

Receiver/spectrum analyzer settings for frequencies below 1 GHz:

Resolution bandwidth	120 kHz
Video bandwidth	300 kHz
Detector mode	<ul style="list-style-type: none"> – Peak (Preview measurement) – Quasi-peak (Final measurement)
Trace mode	Max Hold
Measurement time	<ul style="list-style-type: none"> – 100 ms (Peak preview measurement) – 1000 ms (Quasi-peak final measurement)

Receiver/spectrum analyzer settings for frequencies above 1 GHz:

Resolution bandwidth	1 MHz
Video bandwidth	3 MHz
Detector mode	<ul style="list-style-type: none"> Peak (Preview measurement) Peak and CAverage (Final measurement)
Trace mode	Max Hold
Measurement time	<ul style="list-style-type: none"> – 100 ms (Peak preview measurement) – 100 ms (Peak and CAverage final measurement)

8.1.4 Setup details, continued

Table 8.1-1: Radiated disturbance equipment list

Equipment	Manufacturer	Model no.	Asset no.	Cal cycle	Next cal.
EMC Test Receiver	Rohde & Schwarz	ESU 40	E1121	1 yr.	4/28/2019
Antenna, Bilog	Schaffner-Chase	CBL6111C	1763	2 yr.	11/28/2018
Antenna, Horn	ETS	3117-PA	E1139	2 yr.	1/25/2020
Antenna, Horn	Sage	SAR-2309-42-S2	E1143	2 yr.	03/05/2020

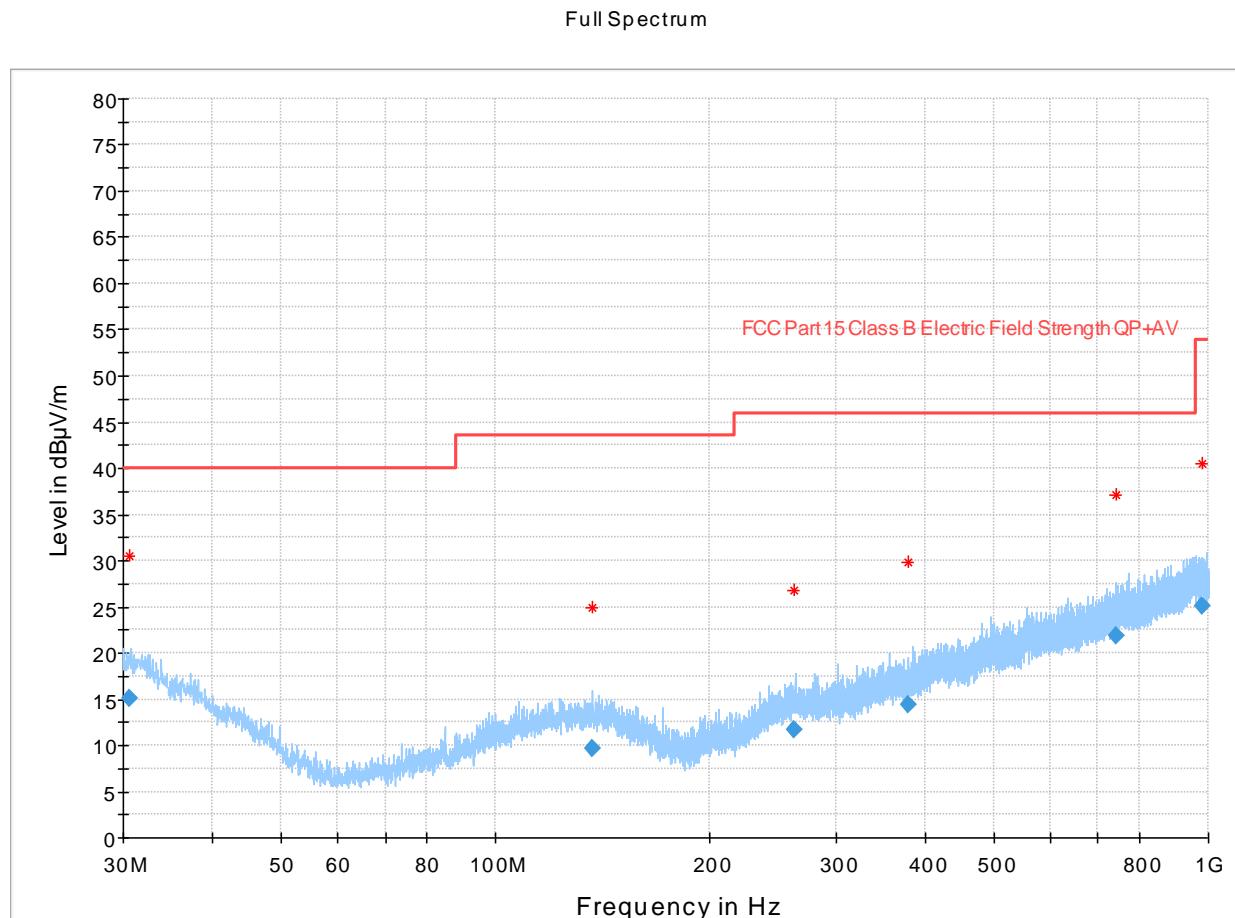
Notes: None

Table 8.1-2: Radiated disturbance test software details

Manufacturer of Software	Details
R&S	EMC32 V10.00.00

Notes: None

8.1.5 Test data Radiated Emissions 30MHz-1000MHz (FCC 15.209)



The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

Note: A 2.4GHz Notch Filter was used.

Figure 8.1-1: Radiated disturbance spectral plot 3m (30MHz to 1000MHz)

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.560000	15.02	40.00	24.98	5000.0	120.000	237.9	V	72.0	20.4
136.491500	9.69	43.50	33.81	5000.0	120.000	402.7	V	42.0	13.8
262.521500	11.68	46.00	34.32	5000.0	120.000	146.3	H	0.0	15.9
378.286000	14.44	46.00	31.56	5000.0	120.000	267.1	H	175.0	18.4
740.877000	21.93	46.00	24.07	5000.0	120.000	283.9	V	84.0	25.4
981.184500	25.04	53.90	28.86	5000.0	120.000	341.7	V	206.0	28.4

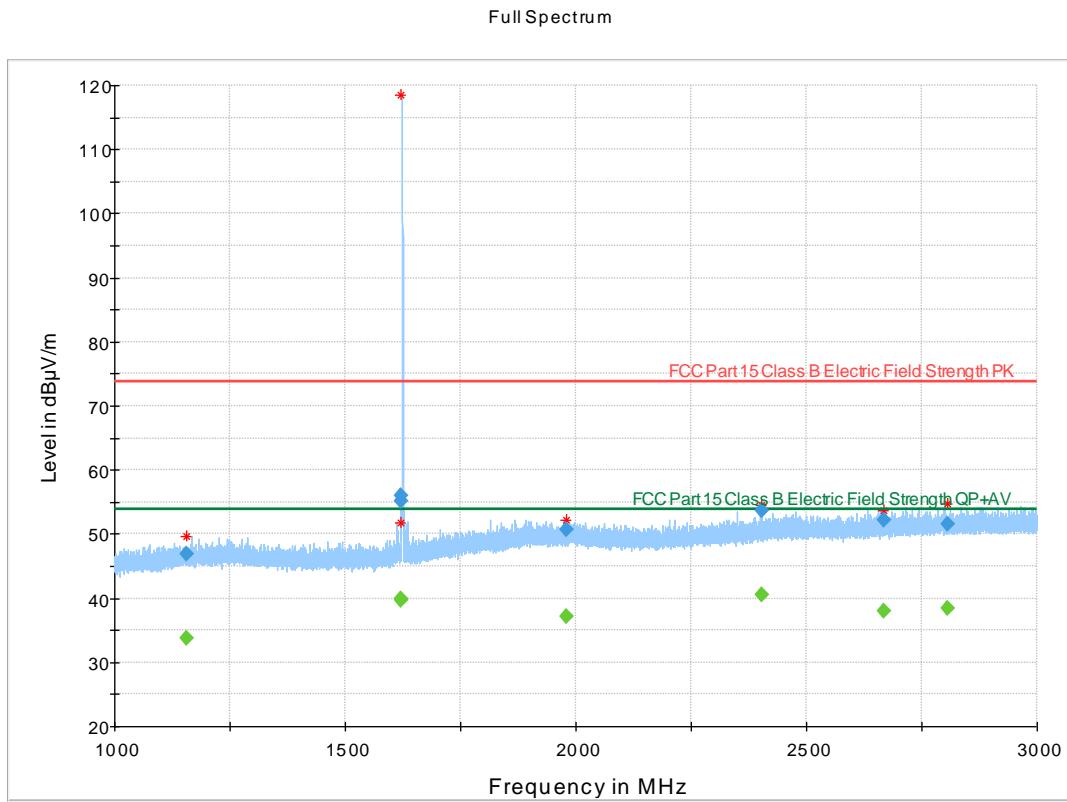
Table 8.1-1: Radiated disturbance (Quasi-Peak) 3m results

Notes: ¹ Field strength (dB μ V/m) = receiver/spectrum analyzer value (dB μ V) + correction factor (dB)

² Correction factors = antenna factor ACF (dB) + cable loss (dB)

³ The maximum measured value observed over a period of 15 seconds was recorded.

8.1.6 Test data, Radiated Emissions 1GHz - 3GHz (FCC15.209)



The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

Note: A 2.4GHz Notch Filter was used.

Note: Emissions at 1621.66MHz and 1622MHz are fundamental from the satellite transmitter.

Radiated disturbance spectral plot 3m (1GHz – 3GHz)

Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1156.933333	---	33.72	53.90	20.18	5000.0	1000.000	251.5	H	82.0	16.2
1156.933333	46.85	---	73.90	27.05	5000.0	1000.000	251.5	H	82.0	16.2
1621.666667	55.96	---	73.90	17.94	5000.0	1000.000	113.9	V	162.0	16.3
1621.666667	---	39.86	53.90	14.04	5000.0	1000.000	113.9	V	162.0	16.3
1622.000000	---	39.81	53.90	14.09	5000.0	1000.000	269.9	V	270.0	16.3
1622.000000	55.21	---	73.90	18.69	5000.0	1000.000	269.9	V	270.0	16.3
1980.200000	50.74	---	73.90	23.16	5000.0	1000.000	345.9	V	234.0	19.4
1980.200000	---	37.09	53.90	16.81	5000.0	1000.000	345.9	V	234.0	19.4
2402.200000	---	40.48	53.90	13.42	5000.0	1000.000	109.3	V	192.0	20.2
2402.200000	53.59	---	73.90	20.31	5000.0	1000.000	109.3	V	192.0	20.2
2667.666667	52.13	---	73.90	21.77	5000.0	1000.000	236.9	V	162.0	21.1
2667.666667	---	38.03	53.90	15.87	5000.0	1000.000	236.9	V	162.0	21.1

Radiated disturbance results 3m (Quasi-Peak)

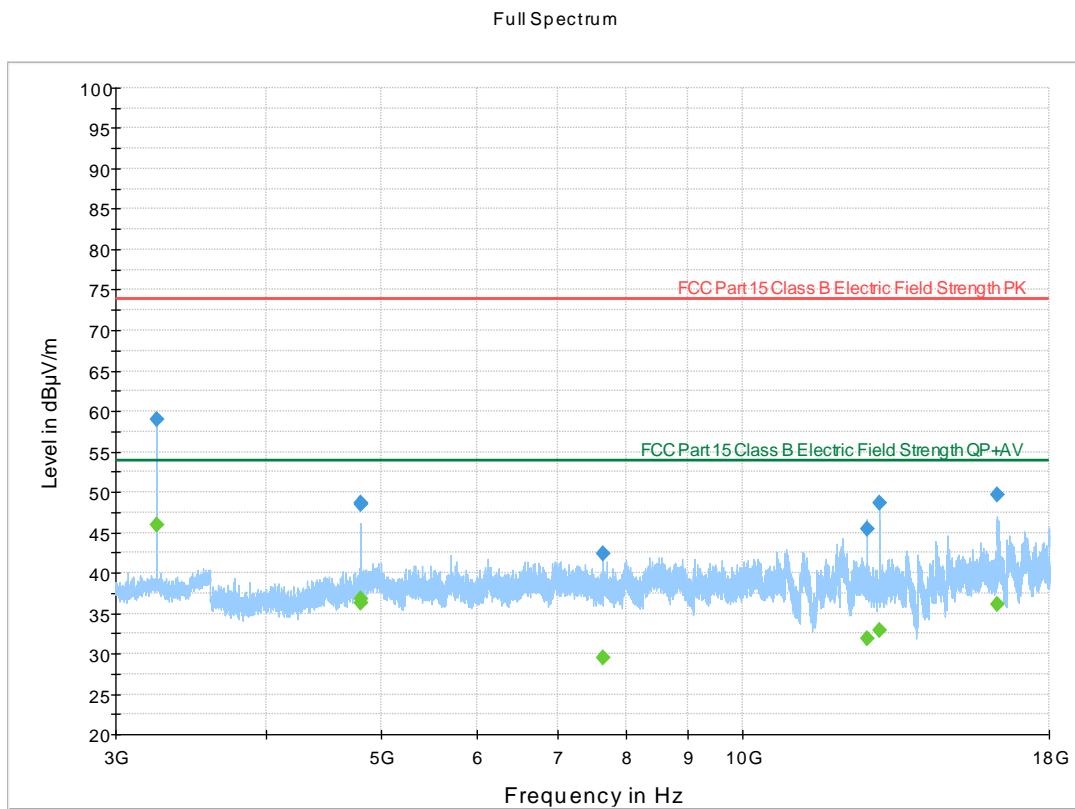
Notes:

¹ Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)

² Correction factors = antenna factor ACF (dB) + cable loss (dB) – amplifier gain (dB)

³ The maximum measured value observed over a period of 15 seconds was recorded.

8.1.7 Test data, Radiated Emissions 3GHz - 18GHz (FCC15.209)



The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

Note: A 2.4GHz Notch Filter was used and a 2.5GHz high pass filter.

Radiated disturbance spectral plot 3m (3GHz – 18GHz)

Frequency (MHz)	MaxPeak (dB μ V/m)	CAverage (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
3248.000000	58.90	---	73.90	33.58	5000.0	1000.000	236.7	V	26.0	-7.1
3248.000000	---	45.90	53.90	26.68	5000.0	1000.000	236.7	V	26.0	-7.1
4803.700000	---	36.72	53.90	17.18	5000.0	1000.000	112.7	V	245.0	-2.0
4803.700000	48.71	---	73.90	25.19	5000.0	1000.000	112.7	V	245.0	-2.0
4804.400000	---	36.21	53.90	17.69	5000.0	1000.000	150.4	H	218.0	-2.0
4804.400000	48.54	---	73.90	25.36	5000.0	1000.000	150.4	H	218.0	-2.0
7645.100000	42.43	---	73.90	31.47	5000.0	1000.000	121.9	V	123.0	0.3
7645.100000	---	29.55	53.90	24.35	5000.0	1000.000	121.9	V	123.0	0.3
12683.300000	45.36	---	73.90	28.54	5000.0	1000.000	389.7	V	304.0	5.9
12683.300000	---	31.87	53.90	22.03	5000.0	1000.000	389.7	V	304.0	5.9
12992.700000	48.68	---	73.90	25.22	5000.0	1000.000	202.9	V	224.0	6.3
12992.700000	---	32.89	53.90	21.01	5000.0	1000.000	202.9	V	224.0	6.3
16298.100000	49.65	---	73.90	24.25	5000.0	1000.000	256.3	H	253.0	10.5
16298.100000	---	36.13	53.90	17.77	5000.0	1000.000	256.3	H	253.0	10.5

Radiated disturbance results 3m (Quasi-Peak)

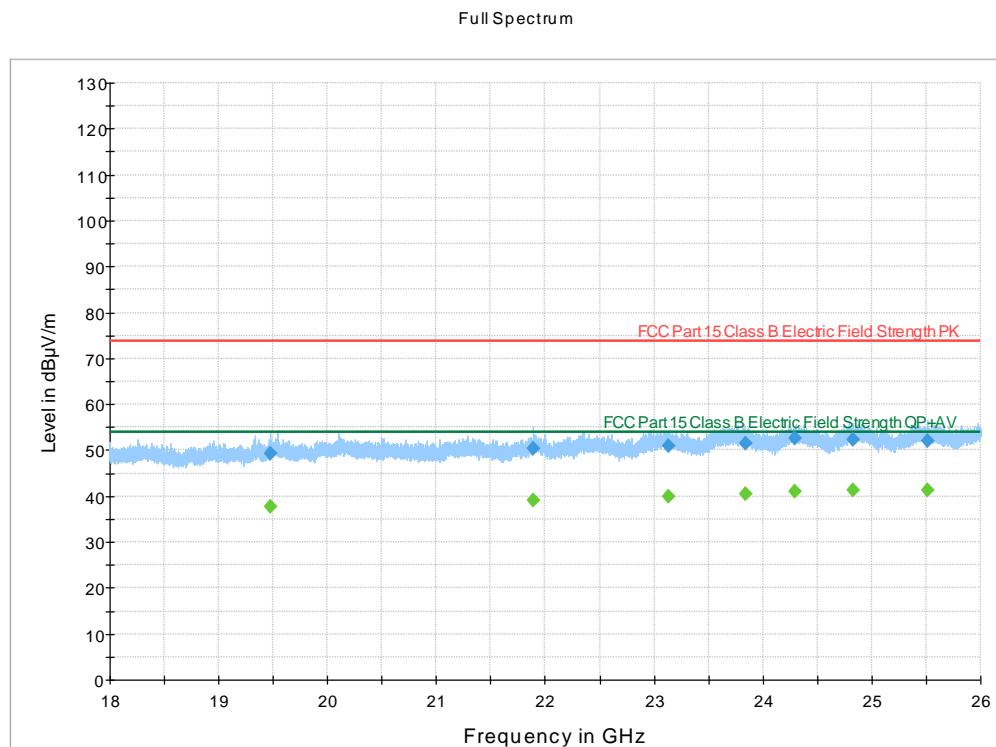
Notes:

¹ Field strength (dB μ V/m) = receiver/spectrum analyzer value (dB μ V) + correction factor (dB)

² Correction factors = antenna factor ACF (dB) + cable loss (dB) – amplifier gain (dB)

³ The maximum measured value observed over a period of 15 seconds was recorded.

8.1.8 Test data, Radiated Emissions 18GHz - 26GHz (FCC15.209)



The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators.

Radiated disturbance spectral plot 3m (18GHz – 26GHz)

Frequency (MHz)	MaxPeak (dB μ V/m)	CAverage (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
19476.816667	49.28	---	73.90	24.62	10.0	1000.000	144.6	V	2.0	38.6
19476.816667	---	37.72	53.90	16.18	10.0	1000.000	144.6	V	2.0	38.6
21885.283333	50.41	---	73.90	23.49	10.0	1000.000	115.4	H	23.0	39.4
21885.283333	---	39.19	53.90	14.71	10.0	1000.000	115.4	H	23.0	39.4
23130.000000	51.07	---	73.90	22.83	10.0	1000.000	155.5	H	73.0	40.0
23130.000000	---	39.86	53.90	14.04	10.0	1000.000	155.5	H	73.0	40.0
23837.800000	51.39	---	73.90	22.51	10.0	1000.000	159.1	V	6.0	40.2
23837.800000	---	40.55	53.90	13.35	10.0	1000.000	159.1	V	6.0	40.2
24292.950000	---	40.94	53.90	12.96	10.0	1000.000	153.3	H	207.0	40.3
24292.950000	52.70	---	73.90	21.20	10.0	1000.000	153.3	H	207.0	40.3
24833.016667	---	41.29	53.90	12.61	10.0	1000.000	171.9	H	142.0	40.7
24833.016667	52.24	---	73.90	21.66	10.0	1000.000	171.9	H	142.0	40.7
25507.500000	---	41.36	53.90	12.54	10.0	1000.000	162.4	H	207.0	40.7
25507.500000	52.02	---	73.90	21.88	10.0	1000.000	162.4	H	207.0	40.7

Radiated disturbance results 3m (Quasi-Peak)

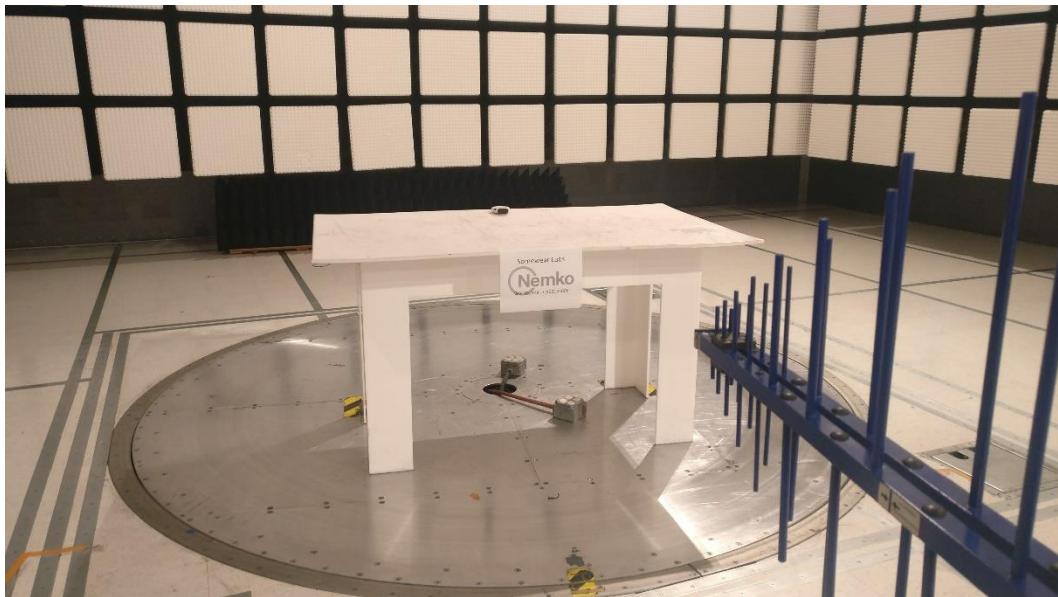
Notes:

¹ Field strength (dB μ V/m) = receiver/spectrum analyzer value (dB μ V) + correction factor (dB)

² Correction factors = antenna factor ACF (dB) + cable loss (dB) – amplifier gain (dB)

³ The maximum measured value observed over a period of 15 seconds was recorded.

8.1.9 Radiated Emissions Setup photos



Front Picture - Radiated disturbance 30MHz-1000MHz



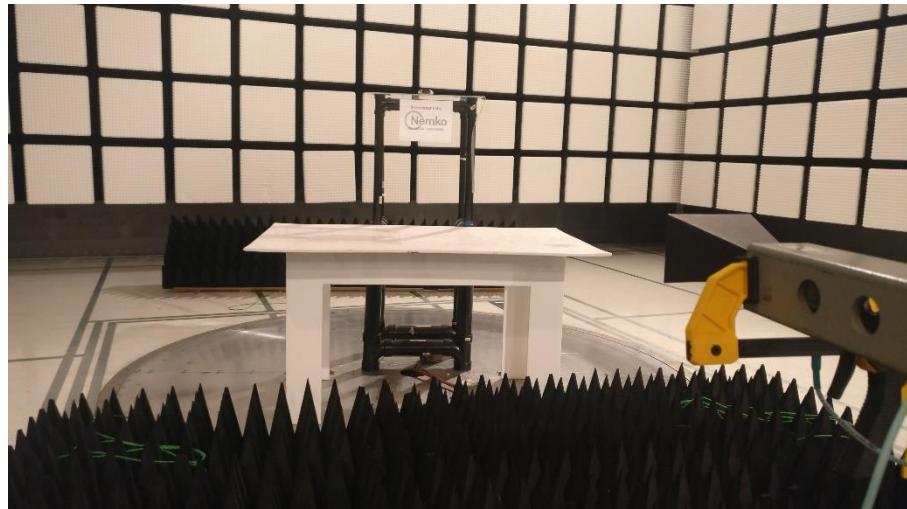
Back Picture - Radiated disturbance 30MHz-1000MHz



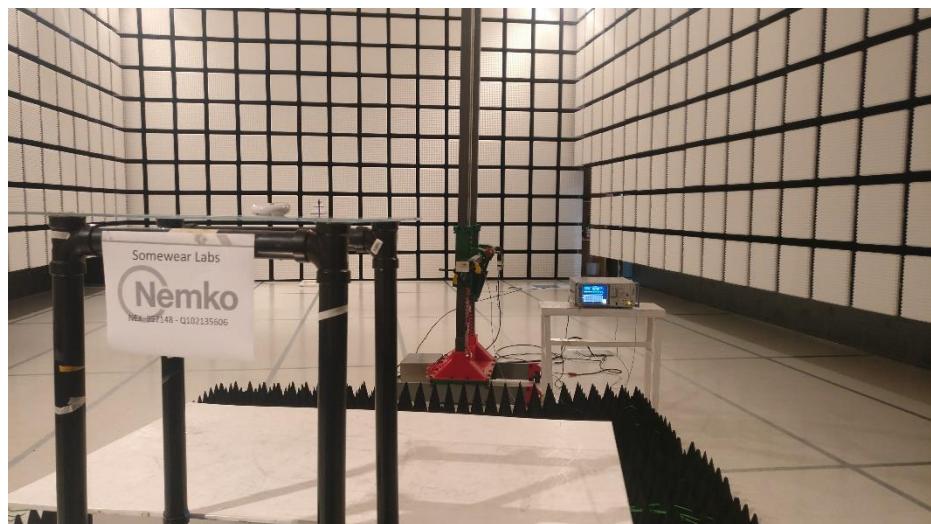
Front Picture - Radiated disturbance 1GHz - 18GHz



Back Picture - Radiated disturbance 1GHz - 18GHz



Front Picture - Radiated disturbance 18GHz - 26GHz



Back Picture - Radiated disturbance 18GHz - 26GHz

8.2 Conducted emission limits; Intentional Radiators.

8.2.1 References

Title 47 → Chapter I → Subchapter A → Part 15 → Subpart C → §15.207 / ANSI C63.4: 2014

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

(b) The limit shown in paragraph (a) of this section shall not apply to carrier current systems operating as intentional radiators on frequencies below 30 MHz in lieu thereof, these carrier current systems shall be subject to the following standards:

(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000 μ V within the frequency band 535-1705 kHz, as measured using a 50 μ H/50 ohms LISN.

(3) Carrier current systems operating below 30 MHz are also subject to the radiated emission limits in §15.205, §15.209, §15.221, §15.223, or §15.227, as appropriate.

(c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, AC adapters or battery eliminators or that connect to the AC power lines indirectly, obtaining their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

8.2.2 8.2.2 Conducted Emissions Test summary

Verdict	Not applicable		
Test date	June 12, 2018	Temperature	23 °C
Test engineer	Andres Martinez, Wireless Engineer	Air pressure	1000 mbar
Test location	Ground Plane	Relative humidity	56

8.2.3 Notes

Not applicable. EUT can only be charge by a Li-Ion battery.

Section 9 EUT photos

9.1 External photos

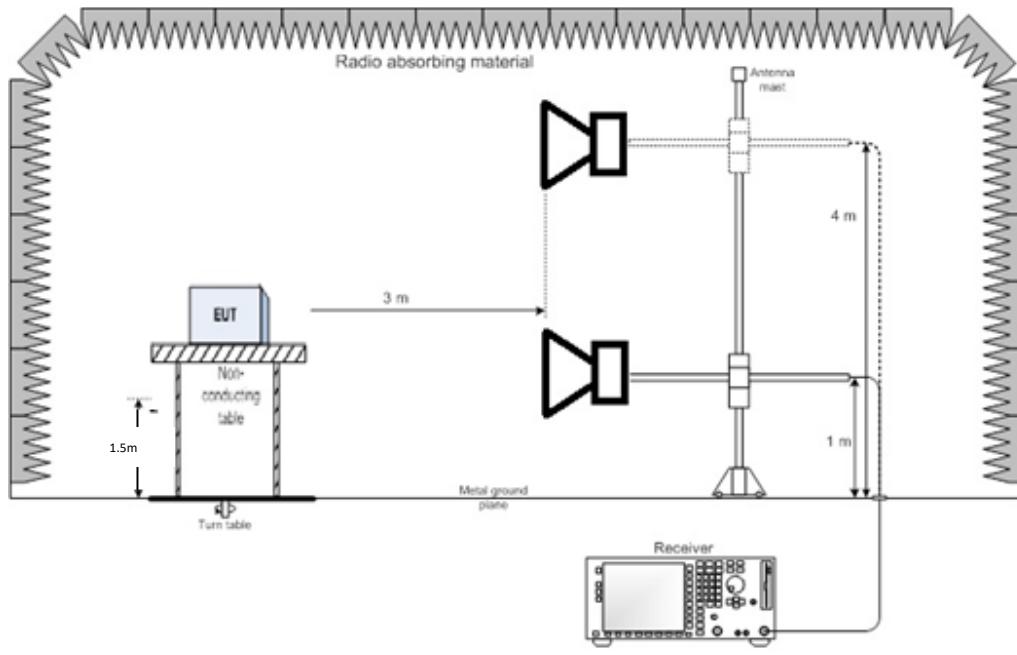
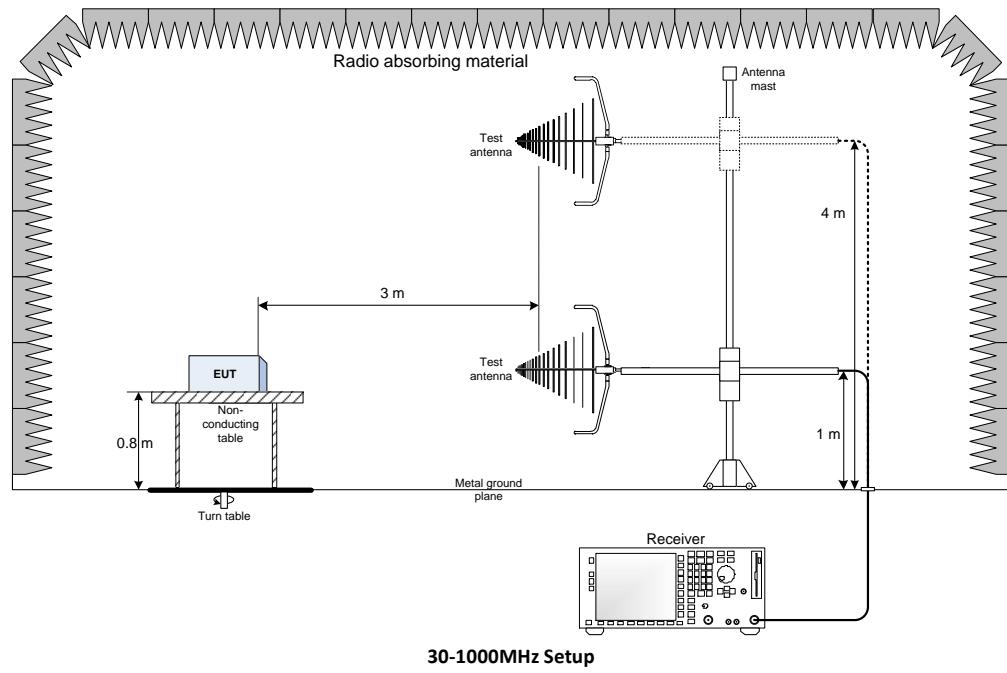


Front Image - EUT



Back Image- EUT

Section 10 Block diagrams of test set-ups



Thank you for choosing

