

Test report

Number T251-1034/24

Project file: C20242484

Date: 2024-12-09

Pages: 59

Product: Notecard

Type reference: NOTE-MBNAN

Ratings: VIO - 1.8 V or 3.3 V; 150 mA
VMODEM - 2.5 V to 5.5 V; 750 mA
(powered directly from a development board and AC/DC power supply
delivering 5 V d.c. to the board)

Trademark: /

Applicant: Blues Inc.
Harbor Street 50, 01944 Manchester, USA

Manufacturer: Blues Inc.
Harbor Street 50, 01944 Manchester, USA

Place of manufacture: Microtronics Technology Sdn. Bhd.
10 & 10A, Jalan Bayu, Kawasan Perindustrian Hasil, 81200 Johor Bahru,
Johor, Malaysia

Summary of testing

Testing method: 47 CFR Part 15, Subpart B (Clause 15.107 and 15.109)
in conjunction with ANSI C63.4:2014;
ICES-003, issue 7 in conjunction with ANSI C63.4-2014 amended as per
ANSI C63.4a-2017

Testing location: SIQ Ljubljana
Mašera-Spasičeva ulica 10, SI-1000 Ljubljana, Slovenia

Remarks: Date of receipt of test items: 2024-11-25
Number of items tested: 1
Date of performance of tests: 2024-11-27 – 2024-12-03
The test results presented in this report relate only to the items tested.
The test items were tested in the condition as received.
The product complies with the requirements of the testing methods.

Tested by: Aljaž Bajec

Approved by: Luka Tosetto

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1. General

Abbreviations and markings:

AC mains power port	Port used to connect to the mains supply network
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
Signal/control port	Port intended for the interconnection of components of an EUT, or between an EUT and local AE and used in accordance with relevant functional specifications
Port	Physical interface through which electromagnetic energy enters or leaves the EUT
Wired network port	Point of connection for voice, data and signalling 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).
AE associated equipment	Equipment needed to exercise and/or monitor the operation of the EUT
Equipment Under Test (EUT)	Multimedia equipment (MME) being evaluated for compliance with the requirements of EN 55032 standard
Highest internal frequency (F_x)	Highest fundamental frequency generated or used within the EUT or highest frequency at which it operates
ESD	Electrostatic Discharge
CDN	Coupling and Decoupling Network
RF	Radio Frequency

Possible test case verdicts:

Test does not apply to the tested sample:	N/A
Tested sample passed the requirements:	P (Pass)
Tested sample failed the requirements:	F (Fail)
Test was not performed:	N/P (Not performed)

Throughout this report a comma is used as the decimal separator. Numerical data taken from IEC standards are using a comma as the decimal separator.

History sheet:

Date:	Report No.:	Change:	Revision:
2024-12-09	T251-1034/24	Initial Test Report issued.	--

2. Measurement uncertainty

The following measurement uncertainty levels have been calculated according to the SIQ internal document EN208, as specified in CISPR 16-4-2 and EN 55016-4-2. The uncertainties represent an expanded uncertainty expressed at 95% confidence level using a coverage factor $k=2$.

The following measurement uncertainty has been included in test results as specified in each of the basic referenced standards as applicable.

Emission:

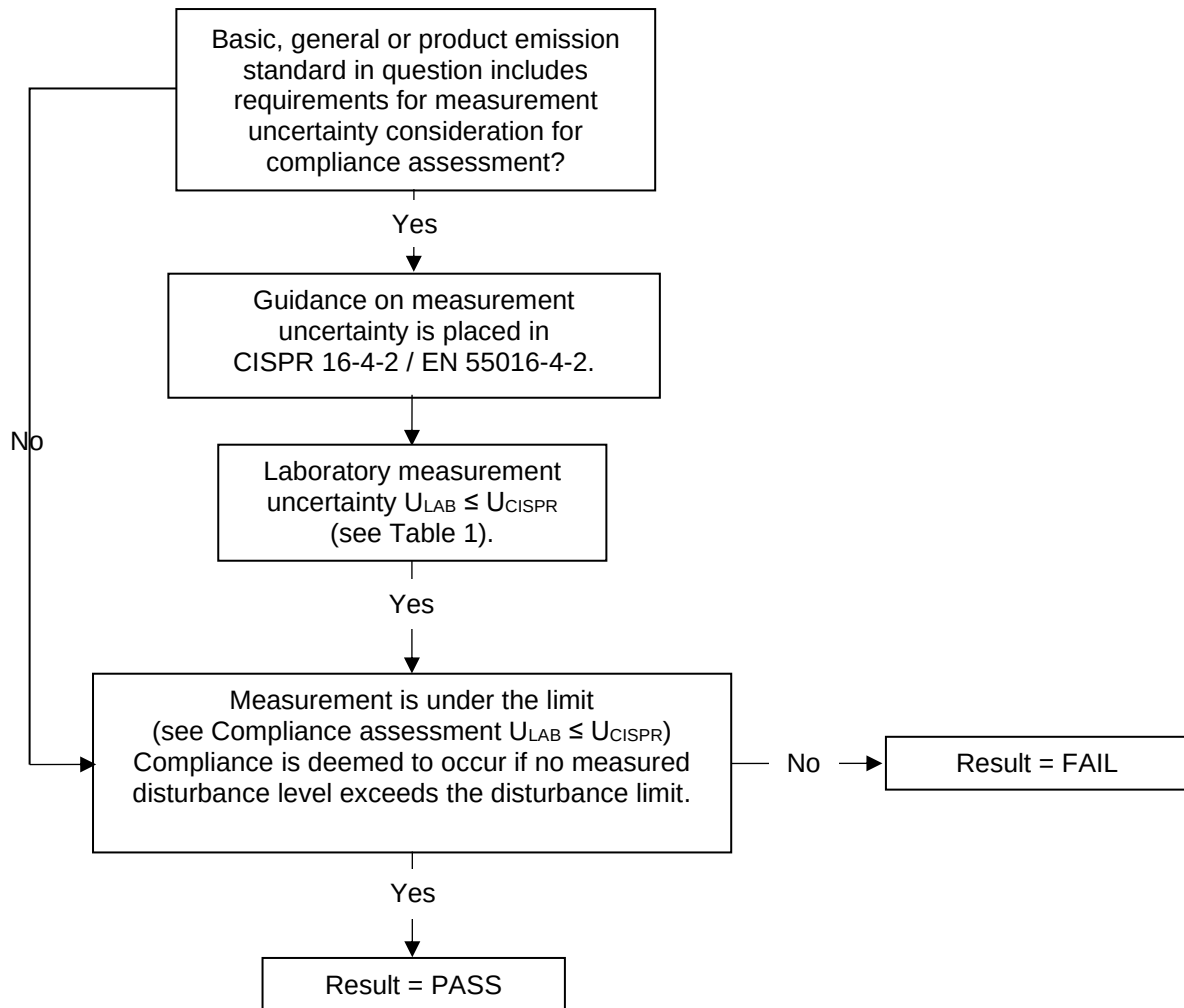
Measurement / test method		U_{LAB}	U_{CISPR}
Conducted emission measurement (unintentional radiator)	(150 kHz to 30 MHz)	2,7 dB	3,4 dB
	(30 MHz to 1000 MHz)	5,3 dB	6,3 dB
Radiated emission measurement (unintentional radiator)	(1 GHz to 6 GHz)	4,4 dB	5,2 dB
	(6 GHz to 18 GHz)	5,2 dB	5,5 dB
	(18 GHz to 26 GHz)	5,0 dB	N/A
	(26 GHz to 40 GHz)	5,7 dB	N/A

3. Decision rule

Application of decision rule and statement of conformity is defined in document TN023 Decision rule and measurement uncertainty.

As a general rule Pass/Fail decisions are based on simple acceptance rule and acceptance limits chosen based on simple acceptance ($w = 0$, $AL = TL$) except if a decision rule is governed by particular standard or guidance document.

Decision rule applicable for emission:



4. Product specific data

General description of test item: Device is a notecard for various machines to be built-in with 3 different LTE modules.

Product key:

NOTE-MBNAN contains Quectel EG915Q-NA wireless module

Power supply type:	Powered with AC/DC power supply and 5 V d.c. from the development board	
Hardware version:	2.2	
Firmware/software version:	7	
Mounting position:	☒	Table-top equipment:
	☐	Floor-standing equipment:
	☐	Wall/ceiling mounted equipment:
	☐	Hand-held equipment:
	☐	Other:
Highest Internal Operating Frequencies:	Name:	Frequency:
	The highest Tx frequency of the modem	1910 MHz

Port(s):

Port No.	Name	Type	Cable Length / m	Cable Shielded
0	Enclosure	N/E	/	/
1	AC power supply	AC	/	/
Note:	AC = AC mains power port N/E = Non-Electrical			

Configuration diagram:

/

Information to the user acc. to 47 CFR Part 15, Subpart B:

Clause	Requirement	Result - Remark	Verdict
§ 15.105	Information to the user		
15.105 (a)	For a Class A digital device or peripheral, the instructions furnished the user shall include the statement specified in 15.105 (a), placed in a prominent location in the text of the manual.	Class A digital device.	N/A
15.105 (b)	For a Class B digital device or peripheral, the instructions furnished the user shall include the statement specified in 15.105 (b), placed in a prominent location in the text of the manual.	Class B digital device.	P

Labelling and user manual requirements acc. to ICES-003 issue 7:

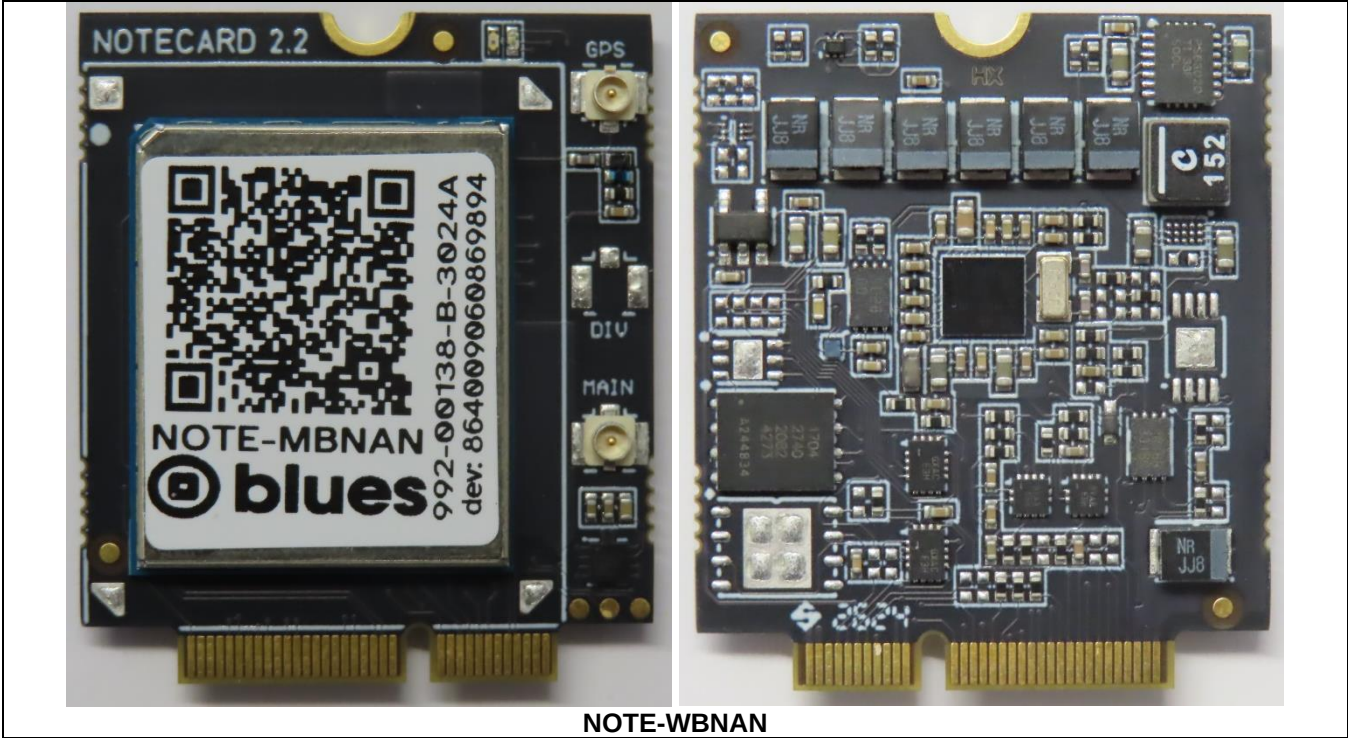
Clause	Requirement	Result - Remark	Verdict
4.2	Labelling and user manual requirements		
	ISED compliance label specified below shall be placed on the marking plate or manual: CAN ICES-003(*) / NMB-003(*) * Insert either "A" or "B", but not both, to identify the applicable Class of the device used for compliance verification.	Class B digital device.	P

NOTE: The information in this section has been provided by the applicant.

5. Equipment under test (EUT)

Product Type	Device	Manufacturer	Model No.	Comments
EUT	Notecard	Blues Inc.	NOTE-MBNAN	/
AE	Development board	/	NOTECARRIER – D V1.6	/
AE	Power supply	Rigol	DP832	/
Note: EUT = Equipment Under Test AE = Associated Equipment				

Pictures of EUT:



Pictures of associated equipment:

See pictures of test setups

Operating conditions:

Clause	Test	Connection type	Operating conditions
13.1	Conducted emission measurement (unintentional radiator)	Single phase	120 V; 60 Hz supplied to AC/DC power supply with 5 V d.c. to the development board
13.2	Radiated emission measurement (unintentional radiator)	Single phase	120 V; 60 Hz supplied to AC/DC power supply with 5 V d.c. to the development board

Operating modes:

No.	Operating mode
1	Command mode modem-test. Transmission from the LTE module is not enabled. Notecard is working as intended with LTE module turned on in standby.

Tested sample:

Sample number	Used for measurement
S202408506	All measurements

NOTE: samples are different only in display panel. Radiated emission was perform on both in addition to show compliance with the requirements.

6. Environmental conditions

The climatic conditions during the tests were within the following limits:

Ambient temperature: 15 °C to 35 °C

Relative humidity all other testing except Electrostatic Discharges (ESD): 15 % to 75 %

Atmospheric pressure: 860 mbar to 1060 mbar

7. ANSI C63.4 Subpart selection

Subpart B: Unintentional Radiators

Subpart C: Intentional Radiators

7.1 Class statement requirements

- The Class A statement cautions that operation of the device in a residential area is likely to cause harmful interference.
- The Class B statement offers several suggestions for minimizing interference to radio or TV receivers, including reorienting the receiving antenna and moving the Class B device farther away from the receiver.

7.2 Occupied bandwidth measurement

Fundamental frequency	Minimum resolution bandwidth
9 kHz to 30 MHz	1 kHz
30 to 1000 MHz	10 kHz
1000 MHz to 40 GHz	100 kHz

7.3 Quasi-peak detector

Frequency range	Bandwidth (-6dB)
10 Hz to 20 kHz	Full range (wideband)
10 kHz to 150 kHz	200 Hz
150 kHz to 30 MHz	9 kHz
30 MHz to 1 GHz	120 kHz

7.4 Peak, rms, and average detectors

Frequency range	Bandwidth (-6dB)
10 Hz to 20 kHz	10, 100, 1000 Hz
10 kHz to 150 kHz	1 and 10 kHz
150 kHz to 30 MHz	1 and 10 kHz
30 MHz to 1 GHz	10 and 100 kHz
1 GHz to 40 GHz	0.1, 1.0 and 10 MHz

8. Limits for all subparts

8.1 Subpart B: Unintentional Radiators

8.1.1 Conducted emission limits (according to FCC15):

CLASS B limits:

Frequency Range (MHz)	Limits (dB μ V)	
	Quasi-peak	Average
0.15 to 0.5	66 – 56*	56 – 46*
0.5 to 5.0	56	46
5.0 to 30.0	60	50

* Decreases with the logarithm of the frequency.

CLASS A limits:

Frequency Range (MHz)	Limits (dB μ V)	
	Quasi-peak	Average
0.15 to 0.5	79	66
0.5 to 30.0	73	60

8.1.2 Radiated emission limits (according to FCC15):

CLASS B limits:

Frequency Range (MHz)	Limits (dB μ V/m)	
	Test distance 3 m	
30 to 88	40	Quasi Peak
88 to 216	43.5	
216 to 960	46	
960 to 1000	54	
above 1000	54	Average
above 1000	74	Peak

CLASS A limits:

Frequency Range (MHz)	Limits (dB μ V/m)	
	Test distance 10 m	
30 to 88	39.1	Quasi Peak
88 to 216	43.5	
216 to 960	46.4	
960 to 1000	49.5	
above 1000	49.5	Average
above 1000	69.5	Peak

8.1.3 Radiated emission limits (according to ICES-003):

Frequency range 30 MHz – 1 GHz:

Frequency Range (MHz)	Class A (3 m) Quasi-peak (dB μ V/m)	Class A (10 m) Quasi-peak (dB μ V/m)	Class B (3 m) Quasi-peak (dB μ V/m)	Class B (10 m) Quasi-peak (dB μ V/m)
30 - 88	50.0	40.0	40.0	30.0
88 - 216	54.0	43.5	43.5	33.1
216 - 230	56.9	46.4	46.0	35.6
230 - 960	57.0	47.0	47.0	37.0
960 - 1000	60.0	49.5	54.0	43.5

8.1.4 Radiated emission limits (according to ICES-003 at and above 1 GHz; at 3 m):

Required highest measurement frequency for radiated emissions:

Highest internal frequency (F_x)	Highest measurements frequency (F_M)
$F_x \leq 108$ MHz	1 GHz
$108 \text{ MHz} < F_x \leq 500$ MHz	2 GHz
$500 \text{ MHz} < F_x \leq 1$ GHz	5 GHz
$F_x > 1$ GHz	5 x F_x up to a maximum of 40 GHz

Frequency range (GHz)	Class A Average dB(μ V/m)	Class A Peak dB(μ V/m)	Class B Average dB(μ V/m)	Class B Peak dB(μ V/m)
1 - F_M	60	80	54	74

8.2 Subpart C: Intentional Radiators

8.2.1 Conducted emission limits:

CLASS B limits:

Frequency Range (MHz)	Limits (dBµV)	
	Quasi-peak	Average
0.15 to 0.5	66 – 56*	56 – 46*
0.5 to 5.0	56	46
5.0 to 30.0	60	50

* Decreases with the logarithm of the frequency.

The shown limits in table 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:

- For carrier current systems 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.
- For all other carrier current systems: 1000 µV within the frequency band 535-1705 kHz, as measured using a 50 µH/50 ohms LISN.
- Carrier current systems operating below 30 MHz are also subject to the radiated emission limits as appropriate.

8.2.2 Radiated emission limits:

CLASS B limits:

Frequency Range (MHz)	Limits (dBµV/m)		Test distance (m)
0.009 to 0.490	$20 \cdot \log(2400/F(\text{kHz}))$	Quasi Peak	300
0.490 to 1.705	$20 \cdot \log(24000/F(\text{kHz}))$	Quasi Peak	30
1.705 to 30.0	29.5	Quasi Peak	30
30 to 88	40**	Quasi Peak	3
88 to 216	43.5**	Quasi Peak	3
216 to 960	46**	Quasi Peak	3
960 to 1000	54	Quasi Peak	3
above 1000	54	Average	3
above 1000	74	Peak	3

** Except as provided in paragraph below. 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.

Perimeter protection systems may operate in the 54-72 MHz and 76-88 MHz bands under the provisions of this section. The use of such perimeter protection systems is limited to industrial, business and commercial applications.

NOTE: For special limits refer to standard

9. Test equipment and their description

9.1 Other instrument information and auxiliary equipment

Description	Model No.	Bandwidth	Detector functions	Antenna factors	Cable loss	Range
Rohde-Schwarz, AMN	ENV216	/	/	/	/	9 kHz – 30 MHz
Rohde & Schwarz, Artificial main network	ESH 2-Z5	/	/	/	/	9 kHz – 30 MHz
EMI test receiver	ESU8	200Hz, 9kHz, 120kHz, 1MHz	Peak, Q-peak, Average, CAverage	/	/	20 Hz – 8 GHz
EMI test receiver	ESU26	200Hz, 9kHz, 120kHz, 1MHz	Peak, Q-peak, Average, CAverage	/	/	20 Hz – 26.5 GHz
EMI test receiver	ESW8	200Hz, 9kHz, 120kHz, 1MHz	Peak, Q-peak, Average, CAverage	/	/	1 Hz – 8 GHz
EMI test receiver	ESR7	200Hz, 9kHz, 120kHz, 1MHz	Peak, Q-peak, Average, CAverage	/	/	10 Hz – 7 GHz
Comtest Engineering, Semi Anechoic Chamber SAC 1	SAC 3m	/	/	/	/	30 MHz – 18 GHz
Comtest Engineering, Semi Anechoic Chamber SAC 2	SAC 3m	/	/	/	/	30 MHz – 18 GHz
Rohde & Schwarz, Horn Antenna	HF907 (SN 102508)	/	/	See section 3.2.2	/	0.8 GHz – 18 GHz
Rohde & Schwarz, Ultra Broadband Antenna	HL562E (SN 100842)	/	/	See section 3.2.2	/	30 MHz – 6 GHz
Rohde & Schwarz, Horn Antenna	HF907 (SN 102494)	/	/	See section 3.2.2	/	0.8 GHz – 18 GHz
Rohde & Schwarz, Ultra Broadband Antenna	HL562E (SN 100843)	/	/	See section 3.2.2	/	30 MHz – 6 GHz
Schwarzbeck, Biconical antenna	VHBB9124	/	/	See section 3.2.2	/	30 MHz – 300 MHz
Schwarzbeck, Log. - periodic antenna	VULP9118	/	/	See section 3.2.2	/	150 MHz – 1 GHz

9.1.1 Conducted emission cable (SIQ-K115)

Frequency (9kHz-30MHz)	Cable length (meters)	Loss (dB)
0.009000	4	0.0
0.010000	4	0.0
0.020000	4	0.0
0.030000	4	0.0
0.040000	4	0.0
0.050000	4	0.0
0.060000	4	0.0
0.070000	4	0.0
0.080000	4	0.0
0.090000	4	0.0
0.100000	4	0.0
0.200000	4	0.1
0.300000	4	0.0
0.400000	4	0.0
0.500000	4	0.0
0.600000	4	0.0
0.700000	4	0.0
0.800000	4	0.0
0.900000	4	0.0
1.000000	4	0.0
2.000000	4	0.1
3.000000	4	0.1
4.000000	4	0.1
5.000000	4	0.1
6.000000	4	0.1
7.000000	4	0.2
8.000000	4	0.2
9.000000	4	0.2
10.000000	4	0.2
20.000000	4	0.3
30.000000	4	0.3

9.1.2 Radiated emission attenuation

SAC1		SAC2	
Frequency (30 MHz – 6 GHz)	Attenuation (dB)	Frequency (30 MHz – 6 GHz)	Attenuation (dB)
30.00	0.40	30.00	0.41
35.00	0.43	35.00	0.44
40.00	0.46	40.00	0.47
45.00	0.49	45.00	0.50
50.00	0.52	50.00	0.53
55.00	0.55	55.00	0.55
60.00	0.57	60.00	0.58
65.00	0.59	65.00	0.60
70.00	0.62	70.00	0.63
75.00	0.64	75.00	0.65
80.00	0.66	80.00	0.67
85.00	0.68	85.00	0.70
90.00	0.71	90.00	0.72
95.00	0.73	95.00	0.73
100.00	0.75	100.00	0.76
125.00	0.84	125.00	0.85
150.00	0.93	150.00	0.94
175.00	1.00	175.00	1.01
200.00	1.07	200.00	1.09
225.00	1.14	225.00	1.18
250.00	1.20	250.00	1.23
275.00	1.27	275.00	1.31
300.00	1.33	300.00	1.38
325.00	1.37	325.00	1.48
350.00	1.43	350.00	1.51
375.00	1.49	375.00	1.58
400.00	1.54	400.00	1.62
425.00	1.59	425.00	1.69
450.00	1.65	450.00	1.74
475.00	1.68	475.00	1.82
500.00	1.72	500.00	1.85
525.00	1.79	525.00	1.93
550.00	1.85	550.00	1.98
575.00	1.85	575.00	2.03
600.00	1.95	600.00	2.05
625.00	1.97	625.00	2.16
650.00	2.00	650.00	2.15
675.00	2.05	675.00	2.33
700.00	2.10	700.00	2.25
725.00	2.13	725.00	2.30
750.00	2.19	750.00	2.34
775.00	2.21	775.00	2.44
800.00	2.27	800.00	2.50
825.00	2.31	825.00	2.56
850.00	2.34	850.00	2.55
875.00	2.36	875.00	2.56
900.00	2.41	900.00	2.63
925.00	2.43	925.00	2.70
950.00	2.54	950.00	2.76
975.00	2.52	975.00	2.78
1000.00	2.55	1000.00	2.84
1050.00	2.59	1050.00	2.87
1100.00	2.69	1100.00	2.96
1150.00	2.74	1150.00	3.14
1200.00	2.84	1200.00	3.08
1250.00	2.88	1250.00	3.16
1300.00	2.98	1300.00	3.33

1350.00	3.11	1350.00	3.38
1400.00	3.12	1400.00	3.33
1450.00	3.20	1450.00	3.56
1500.00	3.25	1500.00	3.57
1600.00	3.39	1600.00	3.71
1650.00	3.42	1650.00	3.70
1700.00	3.60	1700.00	3.78
1750.00	3.53	1750.00	3.81
1800.00	3.59	1800.00	3.93
1850.00	3.66	1850.00	4.07
1900.00	3.67	1900.00	4.00
1950.00	3.72	1950.00	4.18
2000.00	3.77	2000.00	4.08
2050.00	3.91	2050.00	4.16
2100.00	3.87	2100.00	4.26
2150.00	3.89	2150.00	4.27
2200.00	3.99	2200.00	4.31
2250.00	3.99	2250.00	4.39
2300.00	4.02	2300.00	4.49
2350.00	4.10	2350.00	4.55
2400.00	4.20	2400.00	4.57
2450.00	4.40	2450.00	4.62
2500.00	4.20	2500.00	4.74
2550.00	4.24	2550.00	4.72
2600.00	4.30	2600.00	4.84
2650.00	4.37	2650.00	4.77
2700.00	4.40	2700.00	4.81
2750.00	4.47	2750.00	4.90
2800.00	4.50	2800.00	5.00
2850.00	4.52	2850.00	4.98
2900.00	4.59	2900.00	5.06
2950.00	4.77	2950.00	5.07
3000.00	4.65	3000.00	5.15
3050.00	4.72	3050.00	5.23
3100.00	4.78	3100.00	5.34
3150.00	4.80	3150.00	5.25
3200.00	4.83	3200.00	5.33
3250.00	4.91	3250.00	5.38
3300.00	4.98	3300.00	5.48
3350.00	4.87	3350.00	5.48
3400.00	4.98	3400.00	5.52
3450.00	5.01	3450.00	5.76
3500.00	5.14	3500.00	5.55
3550.00	5.18	3550.00	5.60
3600.00	5.15	3600.00	5.64
3650.00	5.20	3650.00	5.78
3700.00	5.29	3700.00	5.74
3750.00	5.40	3750.00	5.86
3800.00	5.33	3800.00	5.82
3850.00	5.32	3850.00	5.88
3900.00	5.37	3900.00	5.89
3950.00	5.41	3950.00	5.95
4000.00	5.65	4000.00	6.02
4050.00	5.84	4050.00	6.07
4100.00	5.69	4100.00	6.01
4150.00	5.65	4150.00	6.10
4200.00	5.71	4200.00	6.17
4250.00	5.65	4250.00	6.19
4300.00	5.75	4300.00	6.27
4350.00	5.59	4350.00	6.32
4400.00	5.96	4400.00	6.41
4450.00	5.81	4450.00	6.53

4500.00	6.02	4500.00	6.51
4550.00	5.93	4550.00	6.46
4600.00	5.90	4600.00	6.61
4650.00	6.03	4650.00	6.82
4700.00	5.96	4700.00	6.60
4750.00	6.47	4750.00	6.63
4800.00	6.07	4800.00	6.78
4850.00	6.36	4850.00	6.69
4900.00	6.05	4900.00	6.77
4950.00	6.81	4950.00	6.95
5000.00	6.25	5000.00	6.96
5050.00	6.41	5050.00	6.88
5100.00	6.67	5100.00	6.92
5150.00	6.65	5150.00	6.99
5200.00	6.31	5200.00	6.98
5250.00	7.40	5250.00	7.05
5300.00	6.48	5300.00	7.26
5350.00	6.68	5350.00	7.22
5400.00	7.07	5400.00	7.44
5450.00	6.86	5450.00	7.19
5500.00	6.65	5500.00	7.29
5550.00	6.71	5550.00	7.32
5600.00	6.72	5600.00	7.48
5650.00	6.69	5650.00	7.37
5700.00	6.87	5700.00	7.43
5750.00	6.89	5750.00	7.35
5800.00	6.92	5800.00	7.52
5850.00	6.90	5850.00	7.48
5900.00	6.89	5900.00	7.53
5950.00	6.95	5950.00	7.58
6000.00	7.00	6000.00	7.69

Frequency (1 GHz – 40 GHz)	Attenuation (dB)
1006.35	0.8
1056.67	0.8
1109.50	0.8
1164.98	0.8
1223.23	0.9
1284.39	0.9
1348.61	0.9
1416.04	0.9
1486.84	1.0
1561.18	1.0
1639.24	1.0
1721.21	1.0
1807.27	1.1
1897.63	1.1
1992.51	1.1
2092.14	1.2
2196.74	1.2
2306.58	1.2
2421.91	1.3
2543.01	1.3
2670.16	1.3
2803.66	1.4
2943.85	1.4
3091.04	1.4
3245.59	1.5
3407.87	1.5
3578.26	1.5
3757.18	1.6
3945.04	1.6
4142.29	1.7
4349.40	1.7
4566.87	1.8
4795.22	1.8
5034.98	1.9
5286.73	1.9
5551.06	2.0
5828.62	2.0
6120.05	2.1
6426.05	2.1
6747.35	2.2
7084.72	2.4
7438.96	2.4
7810.90	2.5
8201.45	2.5
8611.52	2.6
9042.10	2.7
9494.20	2.8
9968.91	2.8
10467.36	2.9
10990.73	3.1
11540.26	3.1
12117.28	3.2
12723.14	3.3
13359.30	3.4
14027.26	3.6
14728.63	3.8
15465.06	3.9
16238.31	3.9
17050.23	4.1
17902.74	4.2
18797.87	5.0

19737.77	4.8
20724.66	4.7
21760.89	4.8
22848.93	4.9
23991.38	5.3
25190.95	5.4
26450.49	5.8
27773.02	5.9
29161.67	6.5
30619.76	6.2
32150.74	6.6
33758.28	8.5
35446.19	7.3
37218.50	8.5
39079.43	7.5
40000.00	8.1

9.2 Antenna factors

9.2.1 Antenna HL562E

Frequency (MHz)	Antenna factor HL562E (SN 100843)	Antenna factor HL562E (SN 100842)
30.00	18.86	18.95
31.00	18.27	18.43
32.00	17.68	17.88
33.00	17.11	17.33
34.00	16.57	16.79
35.00	16.00	16.23
36.00	15.41	15.67
37.00	14.84	15.10
38.00	14.25	14.53
39.00	13.65	13.94
40.00	13.04	13.34
41.00	12.40	12.72
42.00	11.77	12.07
43.00	11.09	11.42
44.00	10.41	10.72
45.00	9.71	10.02
46.00	9.00	9.30
47.00	8.28	8.58
48.00	7.57	7.84
49.00	6.87	7.13
50.00	6.22	6.44
51.00	5.60	5.81
52.00	5.07	5.26
53.00	4.64	4.83
54.00	4.35	4.54
55.00	4.19	4.41
56.00	4.17	4.45
57.00	4.30	4.59
58.00	4.54	4.79
59.00	4.84	5.07
60.00	5.17	5.38
61.00	5.50	5.66
62.00	5.79	5.88
63.00	6.06	6.15
64.00	6.33	6.53
65.00	6.59	6.89
66.00	6.85	7.18
67.00	7.09	7.41
68.00	7.32	7.63
69.00	7.55	7.82
70.00	7.75	7.99
71.00	7.93	8.15
72.00	8.10	8.27
73.00	8.24	8.37
74.00	8.38	8.48
75.00	8.51	8.63
76.00	8.62	8.78
77.00	8.74	8.90
78.00	8.85	9.00
79.00	8.96	9.09
80.00	9.05	9.18
81.00	9.14	9.24
82.00	9.21	9.29
83.00	9.27	9.36
84.00	9.33	9.41

85.00	9.39	9.46
86.00	9.43	9.51
87.00	9.48	9.57
88.00	9.49	9.60
89.00	9.52	9.63
90.00	9.54	9.68
91.00	9.57	9.73
92.00	9.60	9.77
93.00	9.63	9.82
94.00	9.66	9.87
95.00	9.70	9.92
96.00	9.74	9.97
97.00	9.79	10.03
98.00	9.85	10.10
99.00	9.92	10.18
100.00	9.99	10.25
101.00	10.05	10.33
102.00	10.16	10.42
103.00	10.23	10.50
104.00	10.32	10.58
105.00	10.40	10.65
106.00	10.48	10.73
107.00	10.53	10.79
108.00	10.55	10.84
109.00	10.55	10.87
110.00	10.54	10.89
111.00	10.53	10.91
112.00	10.54	10.93
113.00	10.54	10.94
114.00	10.53	10.93
115.00	10.52	10.90
116.00	10.49	10.87
117.00	10.48	10.84
118.00	10.44	10.78
119.00	10.38	10.72
120.00	10.32	10.63
121.00	10.26	10.52
122.00	10.21	10.41
123.00	10.16	10.30
124.00	10.02	10.26
125.00	10.06	10.21
126.00	10.01	10.10
127.00	9.93	9.98
128.00	9.71	9.86
129.00	9.74	9.89
130.00	9.70	9.87
131.00	9.61	9.78
132.00	9.52	9.68
133.00	9.44	9.58
134.00	9.35	9.47
135.00	9.25	9.36
136.00	9.16	9.26
137.00	9.07	9.16
138.00	8.97	9.05
139.00	8.88	8.95
140.00	8.79	8.85
141.00	8.70	8.74
142.00	8.60	8.65
143.00	8.51	8.55
144.00	8.42	8.46
145.00	8.34	8.38
146.00	8.26	8.31
147.00	8.18	8.23

148.00	8.11	8.17
149.00	8.04	8.11
150.00	7.97	8.06
151.00	7.92	8.02
152.00	7.88	8.00
153.00	7.84	7.97
154.00	7.82	7.98
155.00	7.83	8.03
156.00	7.87	8.07
157.00	7.88	8.05
158.00	7.89	8.05
159.00	7.88	8.06
160.00	7.87	8.08
161.00	7.88	8.12
162.00	7.89	8.14
163.00	7.91	8.17
164.00	7.94	8.19
165.00	7.98	8.22
166.00	8.03	8.24
167.00	8.09	8.24
168.00	8.14	8.37
169.00	8.21	8.46
170.00	8.31	8.54
171.00	8.39	8.64
172.00	8.48	8.71
173.00	8.59	8.81
174.00	8.76	8.92
175.00	8.95	9.06
176.00	9.17	9.23
177.00	9.37	9.42
178.00	9.42	9.50
179.00	9.24	9.39
180.00	8.88	9.09
181.00	8.48	8.70
182.00	8.16	8.37
183.00	7.94	8.14
184.00	7.82	8.01
185.00	7.74	7.93
186.00	7.70	7.89
187.00	7.69	7.89
188.00	7.69	7.91
189.00	7.72	7.97
190.00	7.78	8.05
191.00	7.81	8.01
192.00	7.78	7.97
193.00	7.77	7.97
194.00	7.80	8.01
195.00	7.85	8.07
196.00	7.91	8.14
197.00	7.98	8.21
198.00	8.05	8.26
199.00	8.14	8.25
200.00	8.22	8.49
202.00	8.41	8.65
204.00	8.56	8.77
206.00	8.68	8.88
208.00	8.79	8.98
210.00	8.85	9.06
212.00	8.84	9.02
214.00	8.80	8.96
216.00	8.67	8.83
218.00	8.40	8.56
220.00	8.28	8.41

222.00	8.43	8.55
224.00	8.69	8.79
226.00	8.91	9.04
228.00	9.09	9.21
230.00	9.25	9.36
232.00	9.39	9.48
234.00	9.52	9.60
236.00	9.68	9.71
238.00	9.76	9.82
240.00	9.83	9.91
242.00	9.83	9.93
244.00	9.83	9.94
246.00	9.86	9.97
248.00	9.91	10.01
250.00	10.00	10.03
252.00	10.04	10.16
254.00	10.13	10.25
256.00	10.22	10.34
258.00	10.31	10.42
260.00	10.39	10.51
262.00	10.48	10.60
264.00	10.50	10.61
266.00	10.54	10.63
268.00	10.61	10.70
270.00	10.67	10.77
272.00	10.73	10.82
274.00	10.79	10.89
276.00	10.85	10.95
278.00	10.92	11.02
280.00	11.00	11.07
282.00	11.08	11.16
284.00	11.14	11.23
286.00	11.20	11.28
288.00	11.26	11.33
290.00	11.30	11.37
292.00	11.37	11.40
294.00	11.43	11.44
296.00	11.46	11.49
298.00	11.52	11.54
300.00	11.64	11.65
302.00	11.77	11.82
304.00	11.81	11.91
306.00	11.83	11.93
308.00	11.87	11.95
310.00	11.91	11.99
312.00	11.97	12.03
314.00	12.02	12.12
316.00	12.09	12.20
318.00	12.16	12.26
320.00	12.21	12.33
322.00	12.27	12.39
324.00	12.34	12.46
326.00	12.38	12.49
328.00	12.39	12.48
330.00	12.41	12.49
332.00	12.46	12.57
334.00	12.54	12.67
336.00	12.58	12.65
338.00	12.66	12.69
340.00	12.72	12.78
342.00	12.76	12.82
344.00	12.81	12.87
346.00	12.87	12.93

348.00	12.93	12.99
350.00	13.01	13.05
352.00	13.09	13.13
354.00	13.17	13.20
356.00	13.23	13.27
358.00	13.28	13.34
360.00	13.32	13.38
362.00	13.38	13.41
364.00	13.44	13.44
366.00	13.49	13.49
368.00	13.55	13.55
370.00	13.63	13.64
372.00	13.73	13.75
374.00	13.78	13.80
376.00	13.82	13.83
378.00	13.85	13.87
380.00	13.89	13.90
382.00	13.93	13.95
384.00	14.00	14.02
386.00	14.06	14.09
388.00	14.13	14.14
390.00	14.22	14.17
392.00	14.23	14.27
394.00	14.29	14.33
396.00	14.35	14.40
398.00	14.41	14.47
400.00	14.45	14.50
402.00	14.50	14.51
404.00	14.54	14.51
406.00	14.57	14.52
408.00	14.62	14.56
410.00	14.68	14.63
412.00	14.73	14.74
414.00	14.79	14.86
416.00	14.84	14.94
418.00	14.86	14.98
420.00	14.88	14.99
422.00	14.89	15.01
424.00	14.93	15.04
426.00	14.97	15.07
428.00	15.01	15.11
430.00	15.06	15.16
432.00	15.11	15.20
434.00	15.16	15.26
436.00	15.21	15.28
438.00	15.26	15.36
440.00	15.31	15.40
442.00	15.36	15.45
444.00	15.41	15.49
446.00	15.47	15.54
448.00	15.54	15.60
450.00	15.57	15.66
452.00	15.62	15.70
454.00	15.66	15.73
456.00	15.72	15.78
458.00	15.79	15.84
460.00	15.89	15.95
462.00	15.99	16.10
464.00	16.08	16.19
466.00	16.12	16.20
468.00	16.15	16.21
470.00	16.16	16.22
472.00	16.16	16.22

474.00	16.17	16.23
476.00	16.19	16.25
478.00	16.22	16.28
480.00	16.27	16.31
482.00	16.31	16.36
484.00	16.37	16.41
486.00	16.45	16.48
488.00	16.50	16.59
490.00	16.55	16.63
492.00	16.60	16.68
494.00	16.63	16.72
496.00	16.64	16.75
498.00	16.65	16.78
500.00	16.66	16.77
502.00	16.67	16.77
504.00	16.66	16.77
506.00	16.65	16.75
508.00	16.65	16.73
510.00	16.66	16.73
512.00	16.69	16.78
514.00	16.75	16.88
516.00	16.84	16.96
518.00	16.89	17.00
520.00	16.91	16.99
522.00	16.92	16.97
524.00	16.92	16.95
526.00	16.93	16.95
528.00	16.94	16.97
530.00	16.95	16.99
532.00	16.97	17.00
534.00	16.98	17.01
536.00	17.00	17.02
538.00	17.01	17.04
540.00	17.04	17.06
542.00	17.06	17.09
544.00	17.10	17.11
546.00	17.14	17.18
548.00	17.17	17.21
550.00	17.20	17.25
552.00	17.25	17.29
554.00	17.30	17.34
556.00	17.33	17.39
558.00	17.36	17.44
560.00	17.39	17.47
562.00	17.42	17.51
564.00	17.45	17.52
566.00	17.47	17.54
568.00	17.51	17.57
570.00	17.57	17.63
572.00	17.64	17.69
574.00	17.75	17.79
576.00	17.86	17.90
578.00	17.96	17.99
580.00	18.02	18.04
582.00	18.04	18.07
584.00	18.04	18.08
586.00	18.04	18.08
588.00	18.04	18.09
590.00	18.04	18.09
592.00	18.06	18.10
594.00	18.07	18.10
596.00	18.08	18.11
598.00	18.10	18.13

600.00	18.13	18.15
602.00	18.17	18.18
604.00	18.20	18.20
606.00	18.23	18.22
608.00	18.26	18.24
610.00	18.28	18.24
612.00	18.31	18.25
614.00	18.33	18.27
616.00	18.35	18.34
618.00	18.36	18.35
620.00	18.37	18.36
622.00	18.38	18.37
624.00	18.39	18.37
626.00	18.40	18.37
628.00	18.40	18.37
630.00	18.41	18.37
632.00	18.43	18.39
634.00	18.43	18.42
636.00	18.45	18.45
638.00	18.48	18.47
640.00	18.52	18.51
642.00	18.57	18.57
644.00	18.65	18.66
646.00	18.73	18.79
648.00	18.79	18.93
650.00	18.86	19.08
652.00	18.91	19.17
654.00	18.96	19.22
656.00	18.98	19.19
658.00	18.99	19.17
660.00	18.99	19.13
662.00	18.99	19.10
664.00	18.98	19.09
666.00	18.98	19.08
668.00	18.99	19.08
670.00	19.01	19.09
672.00	19.00	19.10
674.00	19.00	19.11
676.00	18.99	19.13
678.00	19.00	19.14
680.00	19.02	19.16
682.00	19.04	19.19
684.00	19.07	19.21
686.00	19.09	19.24
688.00	19.10	19.26
690.00	19.12	19.28
692.00	19.14	19.30
694.00	19.15	19.34
696.00	19.18	19.38
698.00	19.20	19.42
700.00	19.22	19.44
702.00	19.25	19.44
704.00	19.28	19.44
706.00	19.30	19.44
708.00	19.35	19.45
710.00	19.40	19.46
712.00	19.46	19.48
714.00	19.51	19.49
716.00	19.55	19.51
718.00	19.59	19.56
720.00	19.63	19.61
722.00	19.70	19.68
724.00	19.78	19.76

726.00	19.86	19.84
728.00	19.94	19.93
730.00	20.02	20.04
732.00	20.06	20.12
734.00	20.08	20.16
736.00	20.07	20.15
738.00	20.04	20.09
740.00	20.01	20.05
742.00	19.99	19.99
744.00	19.98	19.97
746.00	19.97	19.94
748.00	19.95	19.94
750.00	19.94	19.93
752.00	19.93	19.92
754.00	19.93	19.93
756.00	19.95	19.94
758.00	19.95	19.96
760.00	19.98	19.97
762.00	20.00	19.98
764.00	20.02	19.99
766.00	20.04	20.01
768.00	20.09	20.02
770.00	20.13	20.04
772.00	20.18	20.06
774.00	20.22	20.10
776.00	20.22	20.17
778.00	20.24	20.20
780.00	20.25	20.22
782.00	20.27	20.24
784.00	20.27	20.24
786.00	20.28	20.24
788.00	20.28	20.23
790.00	20.30	20.24
792.00	20.31	20.25
794.00	20.32	20.25
796.00	20.32	20.26
798.00	20.35	20.29
800.00	20.39	20.32
802.00	20.43	20.39
804.00	20.48	20.45
806.00	20.52	20.56
808.00	20.57	20.65
810.00	20.66	20.77
812.00	20.74	20.87
814.00	20.80	20.94
816.00	20.83	20.95
818.00	20.84	20.96
820.00	20.85	20.93
822.00	20.84	20.90
824.00	20.81	20.89
826.00	20.82	20.86
828.00	20.81	20.86
830.00	20.81	20.87
832.00	20.82	20.86
834.00	20.84	20.86
836.00	20.85	20.86
838.00	20.86	20.87
840.00	20.86	20.88
842.00	20.85	20.88
844.00	20.85	20.90
846.00	20.84	20.91
848.00	20.86	20.93
850.00	20.89	20.93

852.00	20.91	20.94
854.00	20.94	20.95
856.00	20.96	20.96
858.00	20.98	20.98
860.00	21.01	20.99
862.00	21.04	21.02
864.00	21.08	21.05
866.00	21.12	21.09
868.00	21.14	21.12
870.00	21.14	21.14
872.00	21.16	21.19
874.00	21.19	21.23
876.00	21.23	21.28
878.00	21.25	21.31
880.00	21.29	21.34
882.00	21.33	21.36
884.00	21.37	21.38
886.00	21.40	21.41
888.00	21.45	21.43
890.00	21.49	21.44
892.00	21.51	21.45
894.00	21.55	21.46
896.00	21.58	21.46
898.00	21.61	21.48
900.00	21.65	21.51
902.00	21.70	21.55
904.00	21.76	21.61
906.00	21.83	21.70
908.00	21.90	21.78
910.00	21.95	21.87
912.00	21.98	21.92
914.00	21.98	21.94
916.00	21.97	21.93
918.00	21.96	21.90
920.00	21.94	21.88
922.00	21.92	21.84
924.00	21.88	21.80
926.00	21.85	21.79
928.00	21.82	21.77
930.00	21.81	21.77
932.00	21.80	21.78
934.00	21.79	21.77
936.00	21.79	21.75
938.00	21.78	21.74
940.00	21.80	21.73
942.00	21.80	21.74
944.00	21.82	21.75
946.00	21.84	21.75
948.00	21.86	21.76
950.00	21.88	21.77
952.00	21.91	21.78
954.00	21.93	21.80
956.00	21.96	21.80
958.00	22.00	21.81
960.00	22.03	21.81
962.00	22.07	21.81
964.00	22.12	21.83
966.00	22.15	21.86
968.00	22.16	21.95
970.00	22.16	22.00
972.00	22.18	22.01
974.00	22.20	22.01
976.00	22.23	22.02

978.00	22.26	22.03
980.00	22.29	22.04
982.00	22.32	22.07
984.00	22.35	22.09
986.00	22.39	22.13
988.00	22.42	22.15
990.00	22.43	22.20
992.00	22.42	22.27
994.00	22.44	22.36
996.00	22.46	22.42
998.00	22.48	22.47
1000.00	22.52	22.54

9.2.2 Antenna HF907

Frequency (GHz)	Antenna factor HF907 (SN 102494)	Antenna factor HF907 (SN 102508)
1.00	24.3	24.26
1.01	24.4	24.28
1.02	24.4	24.30
1.03	24.4	24.31
1.04	24.4	24.33
1.05	24.4	24.34
1.06	24.4	24.33
1.07	24.4	24.34
1.08	24.4	24.35
1.09	24.4	24.36
1.10	24.4	24.35
1.11	24.4	24.37
1.12	24.4	24.39
1.13	24.4	24.39
1.14	24.4	24.39
1.15	24.4	24.38
1.16	24.4	24.38
1.17	24.3	24.35
1.18	24.3	24.33
1.19	24.3	24.33
1.20	24.3	24.30
1.21	24.2	24.29
1.22	24.2	24.29
1.23	24.2	24.29
1.24	24.3	24.32
1.25	24.3	24.35
1.26	24.4	24.40
1.27	24.5	24.48
1.28	24.5	24.53
1.29	24.6	24.60
1.30	24.7	24.68
1.31	24.8	24.73
1.32	24.8	24.78
1.33	24.9	24.84
1.34	24.9	24.87
1.35	24.9	24.88
1.36	24.9	24.90
1.37	24.9	24.92
1.38	24.9	24.93
1.39	24.9	24.94
1.40	25.0	24.96
1.41	25.0	25.01
1.42	25.1	25.06
1.43	25.1	25.12
1.44	25.2	25.21
1.45	25.3	25.32
1.46	25.4	25.44
1.47	25.5	25.55
1.48	25.6	25.65
1.49	25.7	25.76
1.50	25.8	25.85
1.51	25.9	25.93
1.52	26.0	25.99
1.53	26.1	26.06
1.54	26.1	26.11
1.55	26.2	26.14
1.56	26.3	26.16
1.57	26.3	26.20

1.58	26.4	26.23
1.59	26.4	26.24
1.60	26.4	26.25
1.61	26.4	26.27
1.62	26.4	26.28
1.63	26.4	26.29
1.64	26.4	26.29
1.65	26.4	26.32
1.66	26.4	26.36
1.67	26.4	26.38
1.68	26.4	26.41
1.69	26.4	26.45
1.70	26.4	26.49
1.71	26.5	26.52
1.72	26.5	26.53
1.73	26.5	26.59
1.74	26.5	26.63
1.75	26.6	26.66
1.76	26.6	26.73
1.77	26.6	26.79
1.78	26.7	26.87
1.79	26.7	26.94
1.80	26.8	26.99
1.81	26.8	27.07
1.82	26.9	27.12
1.83	26.9	27.15
1.84	27.0	27.18
1.85	27.0	27.19
1.86	27.1	27.22
1.87	27.1	27.23
1.88	27.2	27.24
1.89	27.2	27.30
1.90	27.3	27.35
1.91	27.4	27.42
1.92	27.5	27.50
1.93	27.6	27.60
1.94	27.7	27.74
1.95	27.9	27.85
1.96	28.0	27.97
1.97	28.1	28.09
1.98	28.2	28.21
1.99	28.3	28.30
2.00	28.4	28.36
2.01	28.5	28.42
2.02	28.5	28.48
2.03	28.5	28.50
2.04	28.5	28.48
2.05	28.5	28.48
2.06	28.5	28.48
2.07	28.4	28.41
2.08	28.4	28.37
2.09	28.3	28.32
2.10	28.3	28.26
2.11	28.2	28.19
2.12	28.1	28.13
2.13	28.1	28.08
2.14	28.1	28.06
2.15	28.0	28.03
2.16	28.0	28.03
2.17	28.0	28.06
2.18	28.1	28.08
2.19	28.1	28.11
2.20	28.1	28.14

2.21	28.2	28.18
2.22	28.2	28.22
2.23	28.2	28.24
2.24	28.2	28.25
2.25	28.3	28.27
2.26	28.3	28.28
2.27	28.3	28.28
2.28	28.3	28.28
2.29	28.3	28.30
2.30	28.3	28.31
2.31	28.3	28.32
2.32	28.3	28.35
2.33	28.3	28.39
2.34	28.3	28.41
2.35	28.4	28.45
2.36	28.4	28.48
2.37	28.4	28.51
2.38	28.5	28.55
2.39	28.5	28.58
2.40	28.5	28.63
2.41	28.6	28.68
2.42	28.6	28.73
2.43	28.7	28.80
2.44	28.8	28.87
2.45	28.8	28.94
2.46	28.9	29.02
2.47	29.0	29.10
2.48	29.1	29.16
2.49	29.1	29.21
2.50	29.2	29.25
2.51	29.2	29.30
2.52	29.2	29.31
2.53	29.3	29.33
2.54	29.3	29.35
2.55	29.3	29.38
2.56	29.4	29.41
2.57	29.4	29.44
2.58	29.4	29.48
2.59	29.5	29.54
2.60	29.5	29.60
2.61	29.6	29.65
2.62	29.6	29.70
2.63	29.7	29.76
2.64	29.7	29.79
2.65	29.8	29.81
2.66	29.8	29.83
2.67	29.8	29.83
2.68	29.8	29.81
2.69	29.8	29.78
2.70	29.7	29.74
2.71	29.7	29.69
2.72	29.6	29.63
2.73	29.6	29.57
2.74	29.5	29.53
2.75	29.5	29.48
2.76	29.4	29.44
2.77	29.4	29.42
2.78	29.4	29.40
2.79	29.4	29.40
2.80	29.4	29.42
2.81	29.4	29.44
2.82	29.5	29.48
2.83	29.5	29.52

2.84	29.6	29.57
2.85	29.6	29.61
2.86	29.6	29.65
2.87	29.7	29.71
2.88	29.7	29.75
2.89	29.8	29.78
2.90	29.8	29.82
2.91	29.8	29.87
2.92	29.9	29.92
2.93	29.9	29.97
2.94	30.0	30.03
2.95	30.1	30.11
2.96	30.2	30.20
2.97	30.2	30.28
2.98	30.3	30.36
2.99	30.4	30.48
3.00	30.5	30.60
3.05	31.0	31.13
3.10	31.5	31.58
3.15	31.7	31.70
3.20	31.7	31.71
3.25	31.7	31.69
3.30	31.7	31.68
3.35	31.8	31.74
3.40	31.7	31.74
3.45	31.8	31.81
3.50	31.9	31.91
3.55	31.9	31.95
3.60	32.0	32.06
3.65	32.2	32.30
3.70	32.4	32.51
3.75	32.5	32.60
3.80	32.8	32.79
3.85	33.0	33.02
3.90	32.9	32.90
3.95	32.8	32.72
4.00	32.9	32.82
4.05	33.1	33.00
4.10	33.1	33.08
4.15	33.2	33.15
4.20	33.5	33.48
4.25	33.8	33.80
4.30	33.9	33.97
4.35	33.8	33.91
4.40	33.7	33.76
4.45	33.7	33.70
4.50	33.6	33.57
4.55	33.4	33.40
4.60	33.4	33.29
4.65	33.5	33.37
4.70	33.7	33.57
4.75	33.8	33.71
4.80	34.0	33.87
4.85	34.1	34.07
4.90	34.3	34.27
4.95	34.4	34.33
5.00	34.3	34.25
5.05	34.1	34.11
5.10	34.0	33.99
5.15	33.9	33.90
5.20	33.9	33.82
5.25	33.9	33.83
5.30	34.0	33.91

5.35	34.2	34.07
5.40	34.3	34.22
5.45	34.4	34.33
5.50	34.4	34.41
5.55	34.4	34.40
5.60	34.3	34.31
5.65	34.2	34.21
5.70	34.1	34.11
5.75	34.1	34.03
5.80	34.1	34.06
5.85	34.3	34.18
5.90	34.4	34.34
5.95	34.5	34.45
6.00	34.6	34.55
6.05	34.8	34.69
6.10	34.8	34.76
6.15	34.8	34.75
6.20	34.7	34.69
6.25	34.7	34.64
6.30	34.7	34.66
6.35	34.8	34.73
6.40	34.8	34.78
6.45	34.9	34.87
6.50	35.1	35.02
6.55	35.2	35.16
6.60	35.3	35.24
6.65	35.3	35.20
6.70	35.2	35.15
6.75	35.3	35.15
6.80	35.3	35.18
6.85	35.2	35.17
6.90	35.2	35.17
6.95	35.4	35.32
7.00	35.6	35.50
7.05	35.6	35.60
7.10	35.7	35.64
7.15	35.7	35.68
7.20	35.8	35.73
7.25	35.7	35.65
7.30	35.6	35.55
7.35	35.6	35.52
7.40	35.7	35.60
7.45	35.8	35.71
7.50	35.9	35.81
7.55	36.0	35.94
7.60	36.2	36.14
7.65	36.3	36.29
7.70	36.3	36.31
7.75	36.2	36.26
7.80	36.2	36.24
7.85	36.2	36.24
7.90	36.2	36.19
7.95	36.1	36.16
8.00	36.2	36.20
8.05	36.3	36.31
8.10	36.4	36.42
8.15	36.4	36.50
8.20	36.5	36.59
8.25	36.5	36.64
8.30	36.5	36.62
8.35	36.5	36.62
8.40	36.5	36.58
8.45	36.4	36.54

8.50	36.4	36.53
8.55	36.5	36.55
8.60	36.6	36.65
8.65	36.7	36.72
8.70	36.7	36.80
8.75	36.8	36.90
8.80	36.9	37.00
8.85	36.9	37.03
8.90	36.9	36.96
8.95	36.8	36.92
9.00	36.8	36.88
9.05	36.8	36.84
9.10	36.7	36.81
9.15	36.8	36.82
9.20	36.9	36.90
9.25	37.0	36.99
9.30	37.0	37.07
9.35	37.1	37.11
9.40	37.1	37.14
9.45	37.2	37.18
9.50	37.1	37.14
9.55	37.0	37.06
9.60	37.0	37.00
9.65	37.0	37.00
9.70	37.0	37.02
9.75	37.0	37.05
9.80	37.0	37.06
9.85	37.1	37.13
9.90	37.2	37.20
9.95	37.2	37.23
10.00	37.2	37.20
10.05	37.2	37.19
10.10	37.2	37.18
10.15	37.2	37.16
10.20	37.1	37.12
10.25	37.1	37.09
10.30	37.1	37.10
10.35	37.2	37.16
10.40	37.2	37.18
10.45	37.2	37.18
10.50	37.2	37.20
10.55	37.2	37.22
10.60	37.2	37.21
10.65	37.2	37.18
10.70	37.1	37.15
10.75	37.1	37.15
10.80	37.2	37.16
10.85	37.2	37.19
10.90	37.2	37.24
10.95	37.3	37.28
11.00	37.3	37.34
11.05	37.3	37.36
11.10	37.3	37.35
11.15	37.3	37.34
11.20	37.3	37.34
11.25	37.3	37.31
11.30	37.2	37.33
11.35	37.2	37.31
11.40	37.3	37.33
11.45	37.3	37.38
11.50	37.4	37.45
11.55	37.4	37.48
11.60	37.4	37.50

11.65	37.4	37.52
11.70	37.4	37.52
11.75	37.4	37.51
11.80	37.4	37.48
11.85	37.4	37.47
11.90	37.4	37.50
11.95	37.4	37.54
12.00	37.5	37.57
12.05	37.5	37.59
12.10	37.5	37.64
12.15	37.6	37.69
12.20	37.6	37.72
12.25	37.6	37.69
12.30	37.6	37.67
12.35	37.6	37.67
12.40	37.6	37.69
12.45	37.6	37.70
12.50	37.7	37.72
12.55	37.7	37.76
12.60	37.8	37.79
12.65	37.8	37.86
12.70	37.9	37.92
12.75	37.9	37.92
12.80	37.9	37.95
12.85	38.0	37.99
12.90	38.0	38.04
12.95	38.1	38.05
13.00	38.1	38.09
13.05	38.2	38.16
13.10	38.3	38.23
13.15	38.3	38.29
13.20	38.5	38.39
13.25	38.5	38.48
13.30	38.6	38.54
13.35	38.6	38.60
13.40	38.7	38.66
13.45	38.8	38.72
13.50	38.8	38.78
13.55	38.9	38.85
13.60	39.0	38.92
13.65	39.1	39.02
13.70	39.2	39.13
13.75	39.4	39.27
13.80	39.5	39.37
13.85	39.6	39.48
13.90	39.7	39.61
13.95	39.8	39.73
14.00	39.9	39.82
14.05	39.9	39.85
14.10	40.0	39.92
14.15	40.0	40.00
14.20	40.1	40.10
14.25	40.2	40.18
14.30	40.3	40.26
14.35	40.3	40.38
14.40	40.4	40.51
14.45	40.5	40.62
14.50	40.5	40.70
14.55	40.6	40.77
14.60	40.6	40.82
14.65	40.7	40.89
14.70	40.7	40.93
14.75	40.7	40.94

14.80	40.7	40.91
14.85	40.7	40.96
14.90	40.8	40.97
14.95	40.7	40.97
15.00	40.8	40.97
15.05	40.8	40.98
15.10	40.8	41.00
15.15	40.9	41.08
15.20	40.9	41.11
15.25	40.9	41.13
15.30	40.9	41.16
15.35	40.9	41.18
15.40	40.9	41.19
15.45	40.9	41.18
15.50	40.9	41.16
15.55	40.9	41.15
15.60	40.8	41.14
15.65	40.9	41.14
15.70	40.9	41.14
15.75	40.9	41.16
15.80	40.9	41.18
15.85	41.0	41.21
15.90	41.1	41.26
15.95	41.1	41.29
16.00	41.1	41.31
16.05	41.2	41.33
16.10	41.2	41.37
16.15	41.2	41.40
16.20	41.2	41.43
16.25	41.3	41.46
16.30	41.3	41.48
16.35	41.4	41.52
16.40	41.5	41.58
16.45	41.5	41.64
16.50	41.6	41.70
16.55	41.7	41.77
16.60	41.8	41.86
16.65	41.9	41.92
16.70	42.0	42.03
16.75	42.1	42.15
16.80	42.2	42.26
16.85	42.3	42.33
16.90	42.4	42.45
16.95	42.5	42.55
17.00	42.5	42.63
17.05	42.5	42.74
17.10	42.5	42.81
17.15	42.6	42.89
17.20	42.6	42.96
17.25	42.7	43.04
17.30	42.8	43.13
17.35	42.8	43.18
17.40	42.9	43.27
17.45	43.0	43.35
17.50	43.1	43.43
17.55	43.1	43.49
17.60	43.2	43.57
17.65	43.3	43.66
17.70	43.3	43.72
17.75	43.4	43.80
17.80	43.5	43.88
17.85	43.5	43.96
17.90	43.7	44.06



17.95	43.8	44.14
18.00	43.9	44.26

9.2.3 Horn Antenna EMCO 3116

Frequency (GHz)	Antenna factor EMCO 3116
18.000	44.86
18.100	44.88
18.200	44.94
18.300	44.97
18.400	44.95
18.500	44.86
18.600	44.90
18.700	45.04
18.800	45.11
18.900	45.20
19.000	45.23
19.100	45.24
19.200	45.07
19.300	45.01
19.400	45.02
19.500	45.07
19.600	44.96
19.700	44.94
19.800	45.00
19.900	44.83
20.000	44.72
20.100	44.70
20.200	44.68
20.300	44.53
20.400	44.44
20.500	44.48
20.600	44.54
20.700	44.37
20.800	44.25
20.900	44.36
21.000	44.42
21.100	44.35
21.200	44.38
21.300	44.34
21.400	44.30
21.500	44.20
21.600	44.22
21.700	44.25
21.800	44.31
21.900	44.31
22.000	44.44
22.100	44.67
22.200	44.68
22.300	44.68
22.400	44.87
22.500	44.79
22.600	44.68
22.700	44.84
22.800	44.91
22.900	44.84
23.000	44.95
23.100	44.97
23.200	45.14
23.300	45.20
23.400	45.35
23.500	45.45
23.600	45.55
23.700	45.70
23.800	45.75

23.900	45.77
24.000	45.83
24.100	45.85
24.200	45.73
24.300	45.92
24.400	45.83
24.500	45.81
24.600	45.98
24.700	46.12
24.800	46.23
24.900	46.34
25.000	46.36
25.100	46.43
25.200	46.53
25.300	46.49
25.400	46.33
25.500	46.40
25.600	46.34
25.700	46.12
25.800	46.27
25.900	46.19
26.000	46.16
26.100	46.33
26.200	46.32
26.300	46.55
26.400	46.70
26.500	46.68
26.600	46.76
26.700	46.70
26.800	46.57
26.900	46.74
27.000	46.56
27.100	46.40
27.200	46.60
27.300	46.61
27.400	46.69
27.500	46.71
27.600	46.82
27.700	46.84
27.800	46.85
27.900	47.02
28.000	47.07
28.100	47.02
28.200	46.99
28.300	47.02
28.400	47.06
28.500	46.94
28.600	46.88
28.700	47.06
28.800	47.00
28.900	46.96
29.000	47.03
29.100	46.94
29.200	46.95
29.300	46.86
29.400	46.90
29.500	47.05
29.600	46.90
29.700	46.80
29.800	46.95
29.900	46.79
30.000	46.78
30.100	46.76

30.200	46.78
30.300	46.76
30.400	46.80
30.500	46.90
30.600	46.99
30.700	46.97
30.800	46.99
30.900	47.06
31.000	47.18
31.100	47.26
31.200	47.28
31.300	47.32
31.400	47.35
31.500	47.47
31.600	47.54
31.700	47.64
31.800	47.69
31.900	47.74
32.000	47.93
32.100	48.23
32.200	48.17
32.300	48.32
32.400	48.51
32.500	48.50
32.600	48.56
32.700	48.80
32.800	48.90
32.900	49.28
33.000	49.46
33.100	49.76
33.200	49.83
33.300	50.07
33.400	50.49
33.500	50.68
33.600	50.81
33.700	50.89
33.800	51.11
33.900	51.15
34.000	51.22
34.100	51.46
34.200	51.56
34.300	51.79
34.400	51.81
34.500	51.93
34.600	52.17
34.700	52.19
34.800	52.45
34.900	52.66
35.000	52.59
35.100	52.55
35.200	52.41
35.300	52.30
35.400	52.27
35.500	52.05
35.600	52.00
35.700	51.94
35.800	51.94
35.900	51.68
36.000	51.64
36.100	51.51
36.200	51.28
36.300	51.18
36.400	51.29

36.500	51.19
36.600	51.05
36.700	50.78
36.800	50.80
36.900	50.68
37.000	50.57
37.100	50.65
37.200	50.76
37.300	50.73
37.400	50.86
37.500	50.98
37.600	51.16
37.700	51.29
37.800	51.57
37.900	51.58
38.000	51.98
38.100	52.34
38.200	52.34
38.300	52.66
38.400	52.86
38.500	52.96
38.600	53.24
38.700	53.66
38.800	53.81
38.900	53.92
39.000	54.09
39.100	54.02
39.200	53.93
39.300	53.75
39.400	53.75
39.500	53.62
39.600	53.36
39.700	53.54
39.800	53.28
39.900	53.27
40.000	53.34

10. Conversion factors and other formulas

Unit	Conversion unit	Formula of conversion
dB μ V	dB μ V/m	dB μ V/m = dB μ V + AF
μ V/m	dB μ V/m	dB μ V/m = 20log(X(μ V/m)/1 μ V)

	Test distance stated in standard	Test distance of measurement	Conversion factor
Class B	3 m	3 m	/
Class A	10 m	3 m	20dB/decade

11. General and special conditions description

11.1 General condition description

Interconnect and power cabling (or wiring):

11.1.1 Test arrangement for conducted emissions

Interconnecting cables that hang closer than 40 cm to the ground-plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω . LISN can be placed on top of, or immediately beneath, reference ground-plane.

All other equipment powered from additional LISN(s).

Multiple outlet strip can be used for multiple power cords of non-EUT equipment.

LISN at least 80 cm from nearest part of EUT chassis.

Cables of hand-operated devices, such as keyboards, mice, etc.. shall be placed as for normal use.

Non-EUT components of EUT system being tested.

Rear of EUT, including peripherals, shall all be aligned and flush with rear of tabletop.

Rear of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground-plane.

11.1.2 Test arrangement for conducted emissions- floor-standing equipment

Excess I/O cables shall be bundled in the center. If bundling is not possible, the cables shall be arranged in serpentine fashion. Bundling shall not exceed 40 cm in length.

Excess power cords shall be bundled in the center or shortened to appropriate length.

I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. If bundling is not possible, the cable shall be arranged in serpentine fashion.

EUT and all cables shall be insulated, if required, from the ground-plane by up to 12 mm of insulating material.

EUT connected to one LISN. LISN can be placed on top of, or immediately beneath, the ground-plane.

All other equipment powered from a second LISN or additional LISN(s).

Multiple outlet strip can be used for multiple power cords of non-EUT equipment.

11.1.3 Test arrangement for radiated emissions tabletop equipment

Interconnecting cables that hang closer than 40 cm to the ground-plane shall be folded back and forth in the center, forming a bundle 30 to 40 cm long.

I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated if required using the correct terminating impedance. The total length shall not exceed 1 m.

If LISNs are kept in the test setup for radiated emissions, it is preferred that they be installed under the ground-plane with the receptacle flush with the ground-plane.

Cables of hand-operated devices, such as keyboards, mice, etc.. shall be placed as for normal use.

Non-EUT components of EUT system being tested.

Rear of EUT, including peripherals, shall all be aligned and flush with rear of tabletop.

No vertical conducting plane used.

Power cords drape to the floor and are routed over to receptacle.

11.1.4 Test arrangement for radiated emissions floor-standing equipment

Excess I/O cables shall be bundled in center. If bundling is not possible, the cables shall be arranged in serpentine fashion. Bundling not to exceed 40 cm in length.

Excess power cords shall be bundled in the center or shortened to appropriate length.

I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. If bundling is not possible, the cable shall be arranged in a serpentine fashion.

EUT and all cables shall be insulated, if required, from the ground-plane by up to 12 mm of insulating material.

If LISNs are kept in the test setup for radiated emissions, it is preferred that they be installed under the ground-plane with the receptacle flush with the ground plane.

Overhead cable trays and suspended ceilings:

11.1.5 Test arrangement for floor-standing equipment

Only one vertical riser may be used where typical of system under test.

Excess power cord shall be bundled in the center or shortened to appropriate length.

EUT and cables shall be insulated from ground-plane by up to 12 mm. Where the manual has specified or there exists a code of practice for installation of the EUT, the test arrangement shall allow the use of this practice for the tests.

Power cords being measured connected to one LISN. All other system power cords powered through other LISN(s). A multiple receptacle strip may be used for other power cords.

For *conducted* tests, the LISNs may be placed on top of or immediately beneath and bonded directly to the ground-plane. For *radiated* tests, the LISN(s), if used, should be installed under, with the receptacle flush with the ground-plane.

11.1.6 Placement and manipulation of interconnect cabling (or wiring) of tabletop equipment

LISN(s) may have to be positioned to the side of the table to meet the criterion that the LISN receptacle shall be 80 cm away from the EUT. LISN(s) may be above ground-plane only for conducted emission measurements.

Accessories, such as ac power adapter, if typically table-mounted, shall occupy peripheral positions as is applicable.

Accessories, which are typically floor-mounted, shall occupy a floor position directly below the portion of the EUT to which they are typically connected.

Table length may be extended beyond 1.5 m with peripherals aligned with the back edge. The table depth may be extended beyond 1 m. The 40 cm distance to the vertical conducting plane shall be maintained for conducted emission testing.

Placement of wall-mounted equipment:

11.1.7 Test configuration/arrangement for combination floor-standing and tabletop equipment

Interconnecting cables that hang closer than 40 cm to the ground-plane shall be folded back and forth in the center, forming a bundle 30 to 40 cm long.

I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated if required using the correct terminating impedance.

If LISNs are kept in the test setup for radiated emissions, it is preferred that they be installed under the ground-plane with the receptacle flush with the ground-plane.

Cables of hand-operated devices, such as keyboards, mice, etc.. have to be placed as for normal use.

Non-EUT components of EUT system being tested.

I/O cable to floor-standing unit drapes to the ground-plane and shortened or excess bundled. Cables not reaching the metal ground-plane are draped to the height of the connector or 40 cm, whichever is lower.

Power cords and signal cables shall drape to the floor. No extension cords shall be used to the power receptacles.

The floor-standing unit can be placed under the table if its height permits.

11.2 Special condition description

If for some reason the above measurement conditions can't be met, the description below should be used as an appropriate measurement condition and placement.

(Description is written additionally as the measurements differ – all is within test procedure)

12. Verdict summary section

STANDARDS (details on first page)	PERFORMED ¹⁾	CONCLUSION ¹⁾
47 CFR Part 15. Subpart B (Clause 15.107 and 15.109) in conjunction with ANSI C63.4:2014	YES	P
ICES-003, issue 07 in conjunction with ANSI C63.4:2014	YES	P
¹⁾ See details in table(s) below		

Test (emission)	Referenced standard	Clause within the report	Class	Conclusion
Conducted emission measurement	ICES-003, issue 07 in conjunction with ANSI C63.4:2014 amended as per ANSI C63.4a-2017	13.1	B	P
Conducted emission measurement	47 CFR Part 15, Subpart B (Clause 15.107) in conjunction with ANSI C63.4:2014	13.1	B	P
Radiated emission measurement	ICES-003, issue 07 in conjunction with ANSI C63.4:2014 amended as per ANSI C63.4a-2017	13.2	B	P
Radiated emission measurement	47 CFR Part 15, Subpart B (Clause 15.109) in conjunction with ANSI C63.4:2014	13.2	B	P

NOTE: no non-standard test method used

13. Emission

13.1 Conducted emission measurement (unintentional radiator)

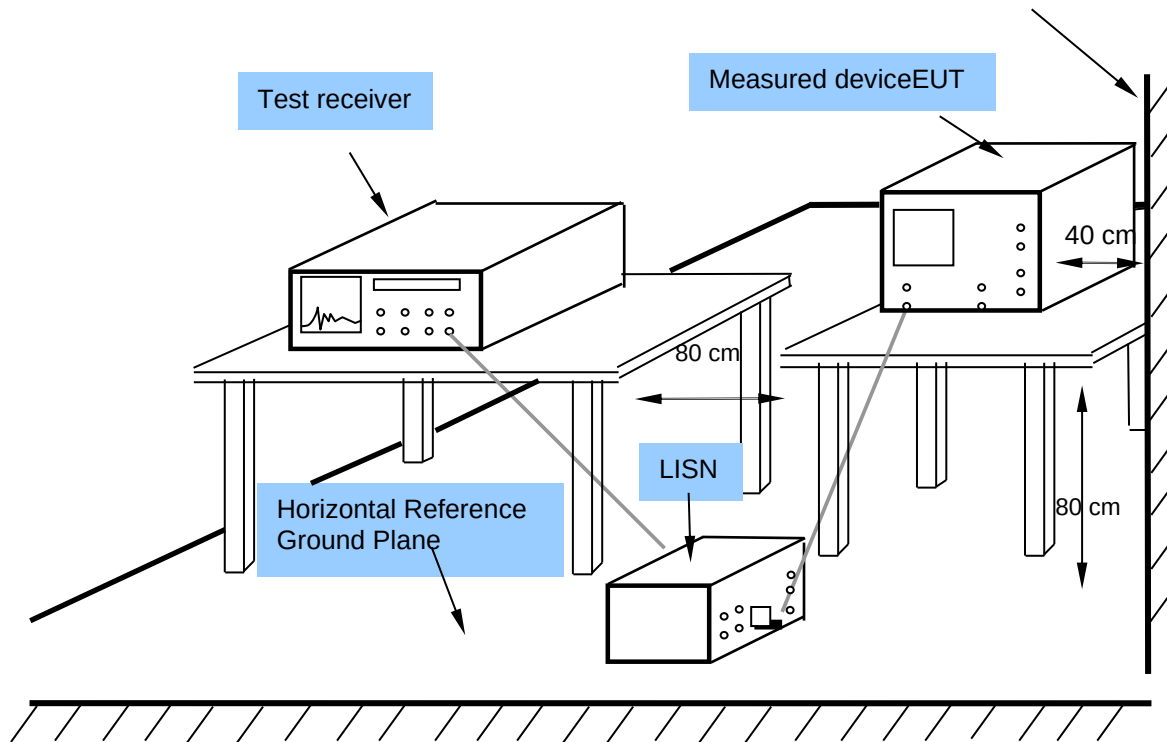
13.1.1 Test instruments

Description	Model No.	SIQ No.	Last calibration	Calibrated until	Used
Rohde-Schwarz, EMI test receiver	ESW44	EM0291	2023-03	2024-09	X
Rohde & Schwarz, Artificial main network	ENV216	EM0009	2022-06	2025-06	X

13.1.2 Test procedure

- The EUT is placed on a non-conductive 0.8 meters high table, 0.4 meters from the vertical conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). LISN provide 50 Ohm / 50 μ H + 5 Ohm of coupling impedance for the measuring instrument.
- Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition.
- AC power lines of EUT are checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz is searched using PEAK, QUASI-PEAK and AVERAGE function of the receiver. Bandwidth is set to 9 kHz.
- If applicable functions are changed (data transfer speed, clock speed....) it should be noted in the test report.

13.1.3 Test setup



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

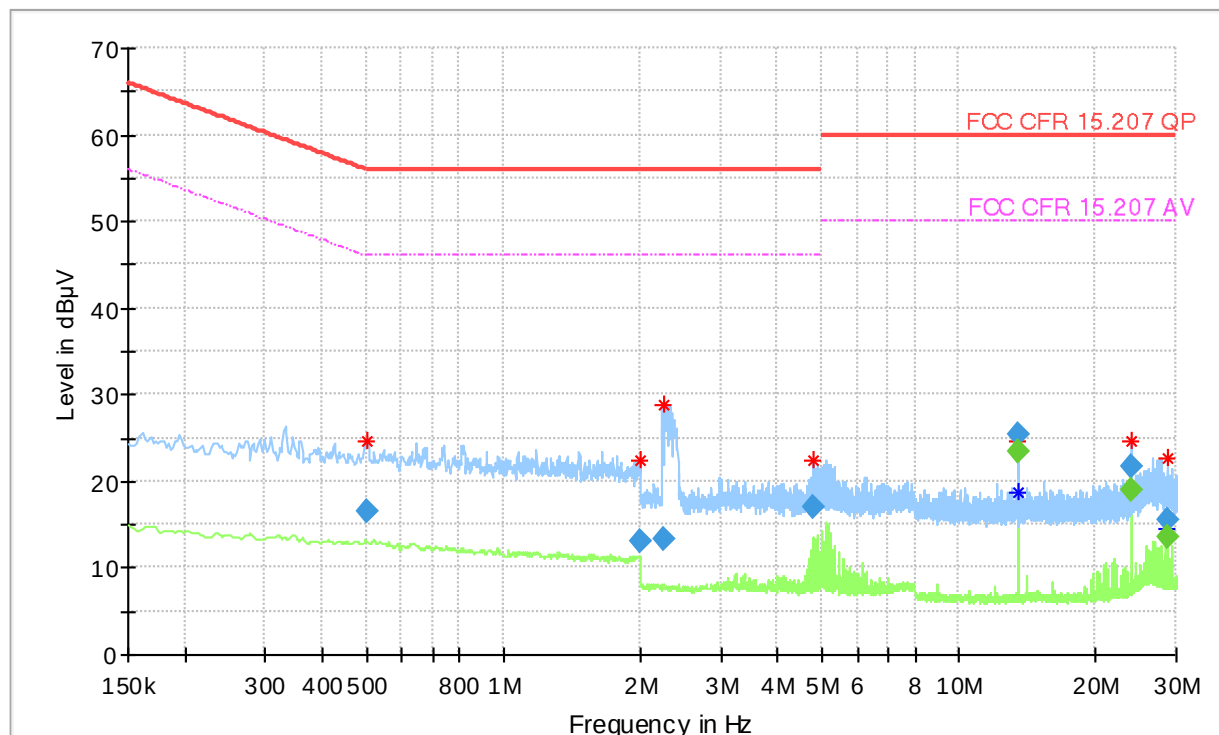
13.1.4 Test results (according to FCC Part15, Subpart B and ICES-003)

Operating mode(s):	1
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CONDUCTED EMISSION

EUT Information

EUT: NOTE-MBNAN
Operating mode: Uin: 120V / 60Hz
Line: L + N



— Preview Result 2-AVG — Preview Result 1-PK+ * Critical_Freqs AVG
* Critical_Freqs PK+ — FCC CFR 15.207 QP - - - FCC CFR 15.207 AV
◆ Final_Result QPK ◆ Final_Result CAV

Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
13.560000	---	23.33	50.00	26.67	1000.0	9.000	L1	ON	9.8
24.000000	---	19.02	50.00	30.98	1000.0	9.000	L1	ON	10.0
13.560000	25.44	---	60.00	34.56	1000.0	9.000	L1	ON	9.8
28.684500	---	13.56	50.00	36.44	1000.0	9.000	N	ON	10.1
24.000000	21.76	---	60.00	38.24	1000.0	9.000	L1	ON	10.0
4.771500	17.09	---	56.00	38.91	1000.0	9.000	L1	ON	9.8
0.503250	16.63	---	56.00	39.37	1000.0	9.000	L1	ON	10.1
2.242500	13.30	---	56.00	42.70	1000.0	9.000	N	ON	9.8
1.995000	13.14	---	56.00	42.86	1000.0	9.000	N	ON	9.8
28.684500	15.52	---	60.00	44.48	1000.0	9.000	N	ON	10.1

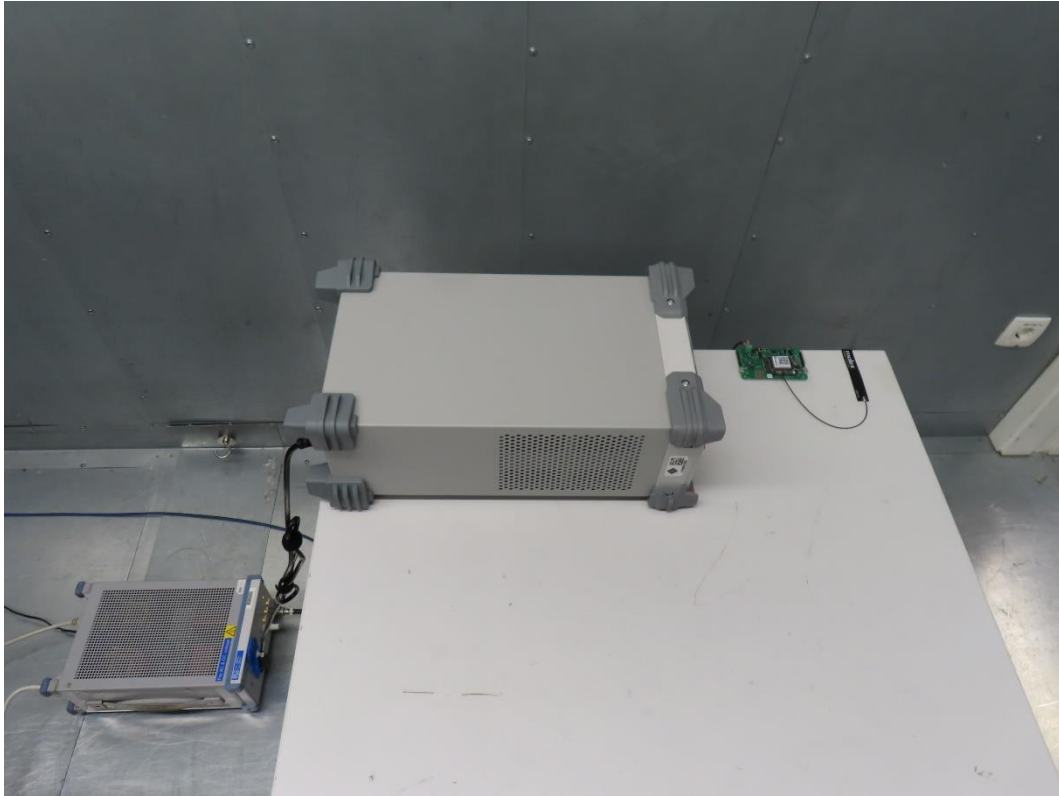


Figure 1: Conducted emission measurement

13.2 Radiated emission measurement (unintentional radiator)

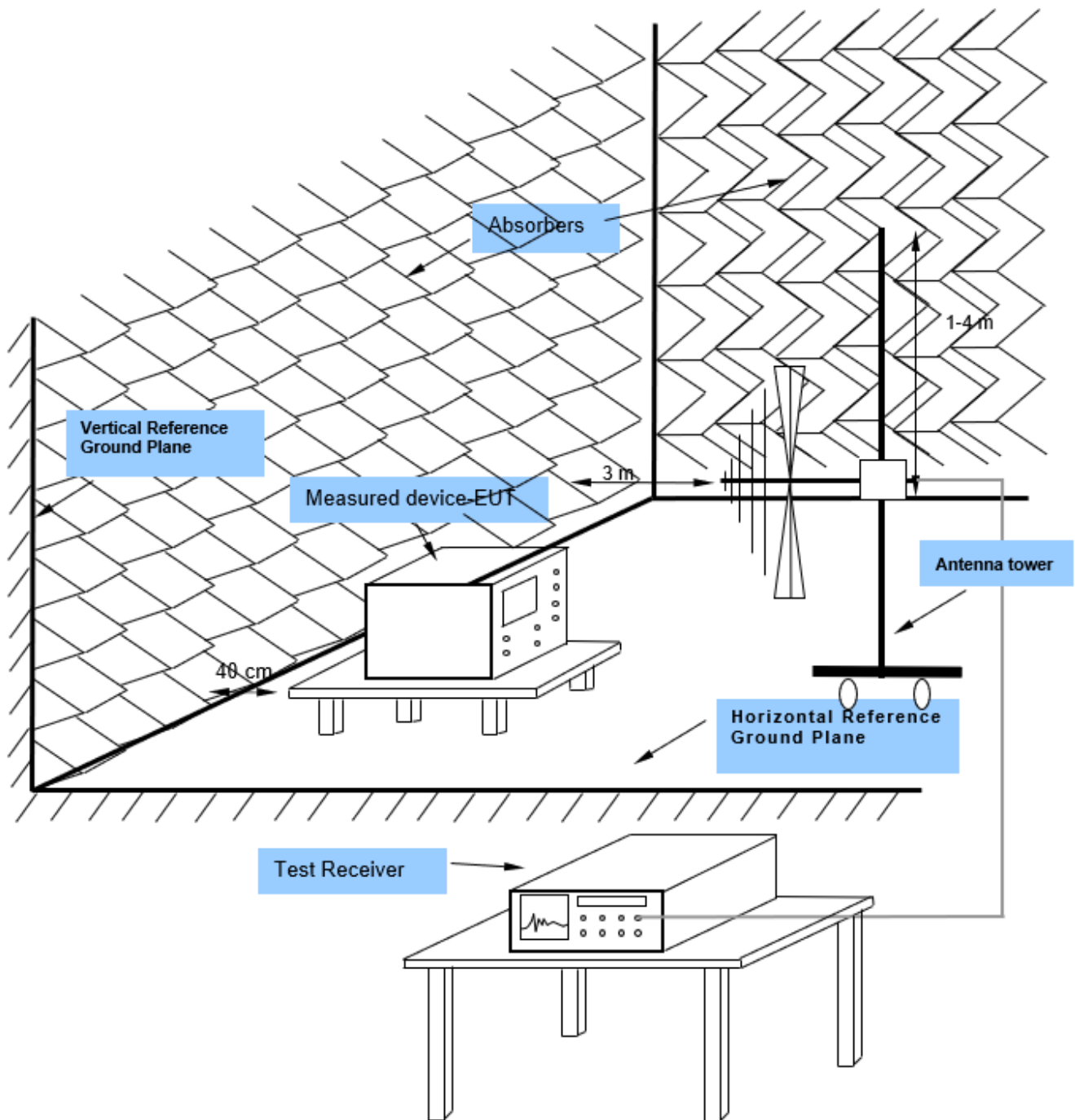
13.2.1 Test instruments

Description	Model No.	SIQ No.	Last calibration	Calibrated until	Used
Rohde-Schwarz, EMI test receiver	ESW44	EM0291	2023-03	2024-09	X
Comtest Engineering, Semi Anechoic Chamber SAC 1	SAC 3m	EM0145	2022-04	2025-04	X
Rohde & Schwarz, Ultra Broadband Antenna	HL562E	EM0140	2023-07	2025-07	X
Rohde & Schwarz, Horn Antenna	HF907	EM0141	2023-06	2025-06	X
Horn Antenna, EMCO	3116	EM0179	2021-10	2024-10	X
Maturo, Turn table (2 m diameter)	TT 2.0 SI	/	N/A	N/A	X
Maturo, Bore-sight antenna mast	BAM-4.0-P	/	N/A	N/A	X
Maturo, Multi-channel positioning equipment	Maturo NCD	/	N/A	N/A	X

13.2.2 Test procedure

- The EUT was placed on the top of a rotating table 0.8 meters above the ground in an Anechoic Chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 m and 1 m away from the interference-receiving antenna, which was mounted on the top of variable-height antenna tower.
- The antenna is a broadband antenna, and its 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.
- 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 and the turn table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to PEAK and QUASI-PEAK Detect Function and Specified Bandwidth with Maximum Hold Mode.
- The highest points would be re-tested one by one using the quasi-peak method.

13.2.3 Test setup



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

13.2.4 Test results (according 47 CFR part 15 Subpart B and to ICES-003)

Operating mode(s):	1
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Radiated emission

EUT Information

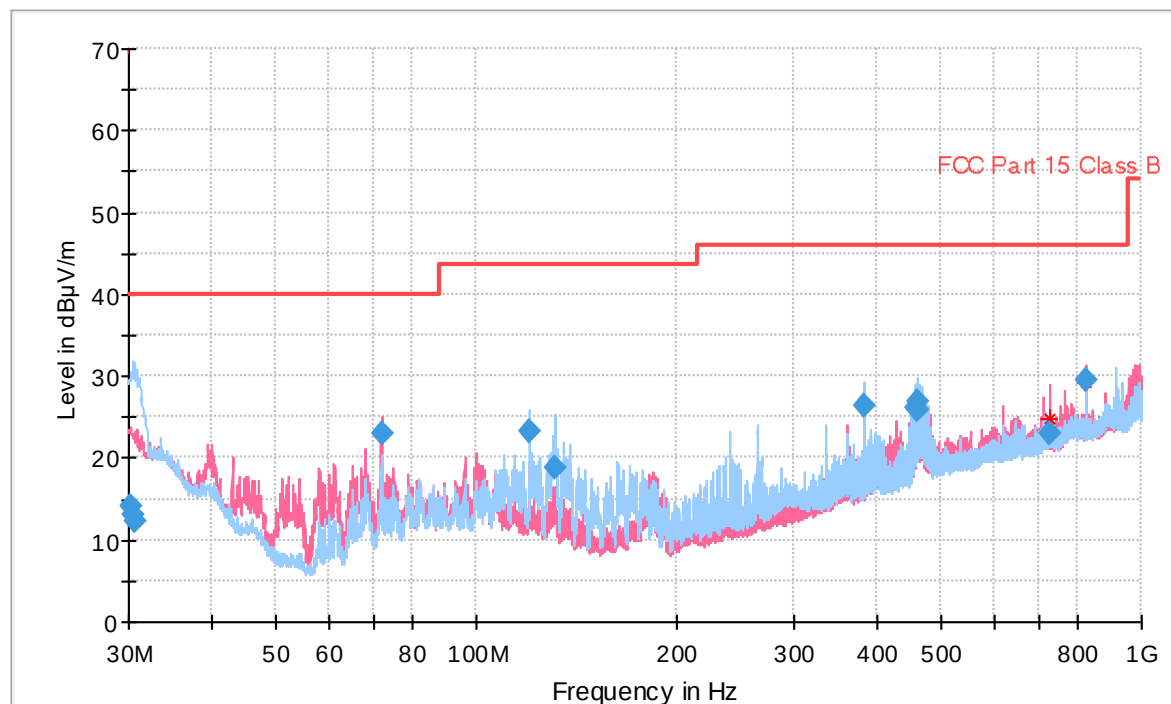
EUT:

NOTE-MBNAN

Operating mode:

Uin: 120 V / 60 Hz

Full Spectrum



— Preview Result 1V-PK+ — Preview Result 1H-PK+ * Critical_Freqs PK+
— FCC Part 15 Class B ◆ Final_Result QPK

Final Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth h (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
822.840000	29.60	46.00	16.40	1000.0	120.000	125.0	V	19.0	21.9
72.000000	23.07	40.00	16.93	1000.0	120.000	125.0	V	128.0	8.7
459.000000	26.96	46.00	19.04	1000.0	120.000	199.0	H	228.0	16.6
384.000000	26.34	46.00	19.66	1000.0	120.000	100.0	H	92.0	14.5
455.970000	26.04	46.00	19.96	1000.0	120.000	199.0	H	237.0	16.4
461.970000	25.89	46.00	20.11	1000.0	120.000	198.0	H	245.0	16.8
120.000000	23.31	43.50	20.19	1000.0	120.000	250.0	H	49.0	11.1
728.100000	22.89	46.00	23.11	1000.0	120.000	129.0	V	0.0	21.0
131.250000	18.75	43.50	24.75	1000.0	120.000	275.0	H	169.0	10.4
30.180000	14.05	40.00	25.95	1000.0	120.000	178.0	H	96.0	19.6
30.510000	13.04	40.00	26.96	1000.0	120.000	200.0	H	96.0	19.4
30.780000	12.21	40.00	27.79	1000.0	120.000	175.0	H	96.0	19.2

EUT Information

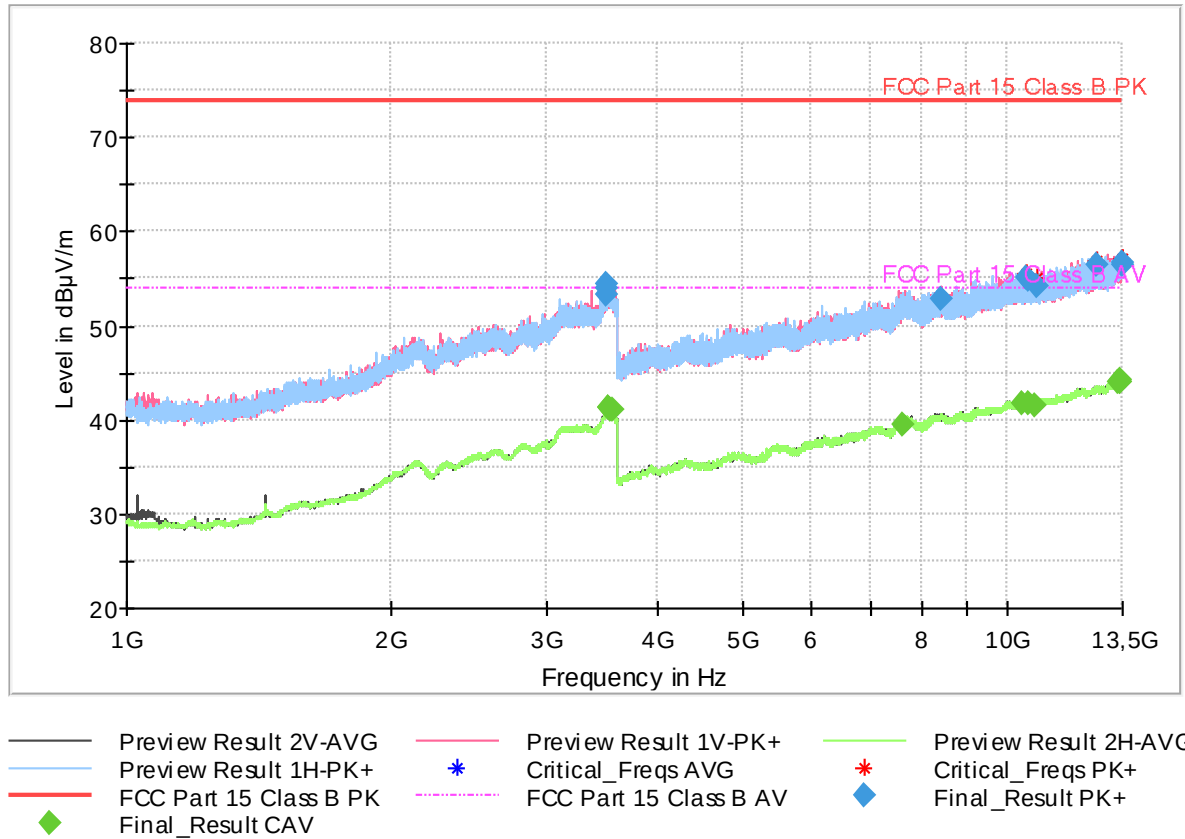
EUT:

Operating mode:

NOTE-MBNAN

Uin: 120 V / 60 Hz

Full Spectrum



Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
13460.00000	---	44.20	54.00	9.80	125.0	V	3.0
13440.00000	---	44.07	54.00	9.93	125.0	H	0.0
13409.25000	---	44.07	54.00	9.93	104.0	V	0.0
13357.75000	---	44.04	54.00	9.96	125.0	V	0.0
10584.75000	---	41.74	54.00	12.26	125.0	H	357.0
10409.75000	---	41.62	54.00	12.38	125.0	V	0.0
10718.50000	---	41.45	54.00	12.55	150.0	H	0.0
3519.000000	---	41.31	54.00	12.69	125.0	H	0.0
3525.500000	---	41.27	54.00	12.73	100.0	H	0.0
3548.750000	---	41.06	54.00	12.94	104.0	H	0.0
3557.000000	---	40.99	54.00	13.01	125.0	H	3.0
7585.000000	---	39.37	54.00	14.63	100.0	H	357.0
13482.75000	56.58	---	74.00	17.42	116.0	V	0.0
13488.25000	56.41	---	74.00	17.59	142.0	V	358.0
12619.25000	56.40	---	74.00	17.60	116.0	H	0.0
10481.25000	55.10	---	74.00	18.90	100.0	H	0.0
10562.75000	54.85	---	74.00	19.15	125.0	H	3.0
3510.750000	54.42	---	74.00	19.58	117.0	H	357.0
10786.75000	54.19	---	74.00	19.81	175.0	H	3.0
3495.750000	53.90	---	74.00	20.10	118.0	H	357.0
3502.250000	53.26	---	74.00	20.74	129.0	V	358.0
8391.000000	52.87	---	74.00	21.13	166.0	V	0.0

NOTE: Limit line for 47 CFR part 15 Subpart B, covers ICES-003.



Figure 2: Radiated emission measurement – up to 1 GHz

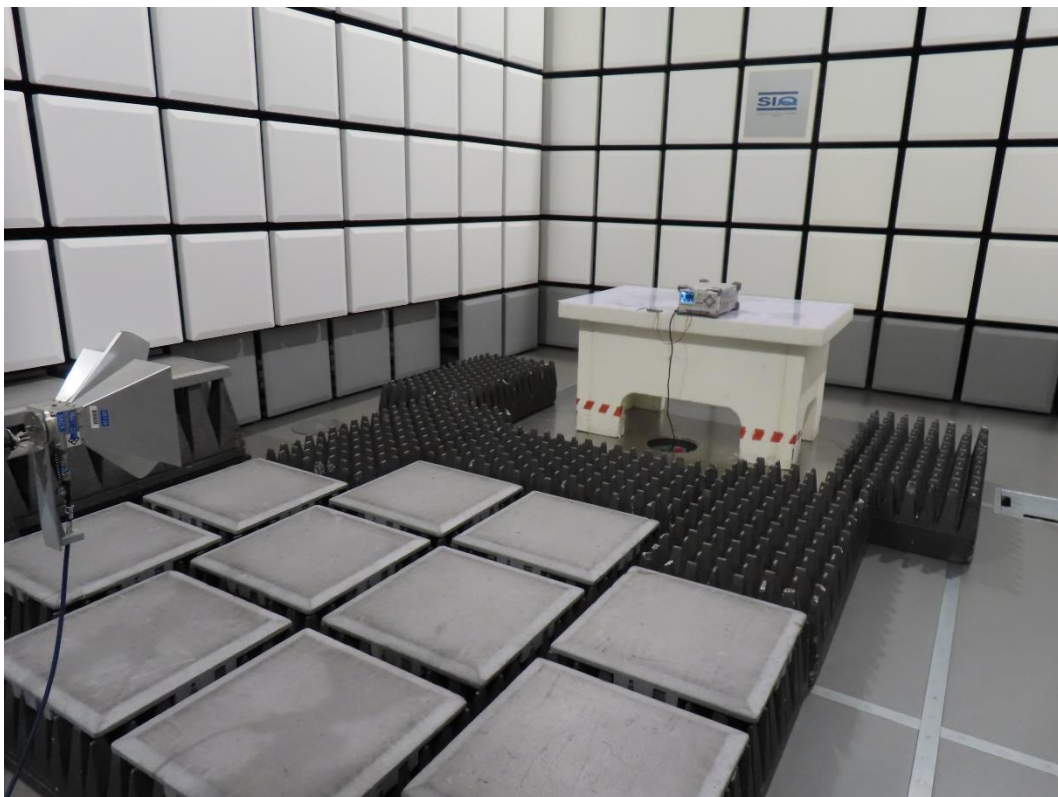


Figure 3: Radiated emission measurement – over 1 GHz

-----END OF TEST REPORT-----