



HERMON LABORATORIES

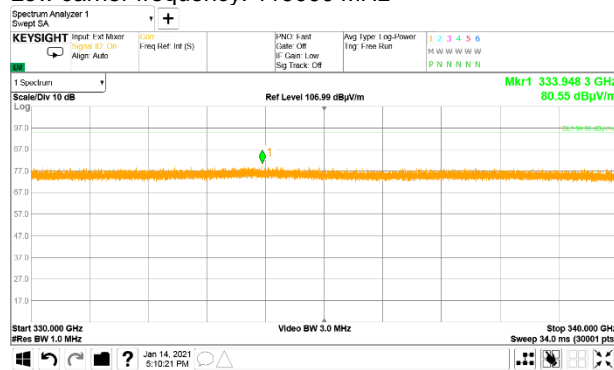
Report ID: NETRAD\_FCC.41599\_Rev2

Date of Issue: 8-Apr-21

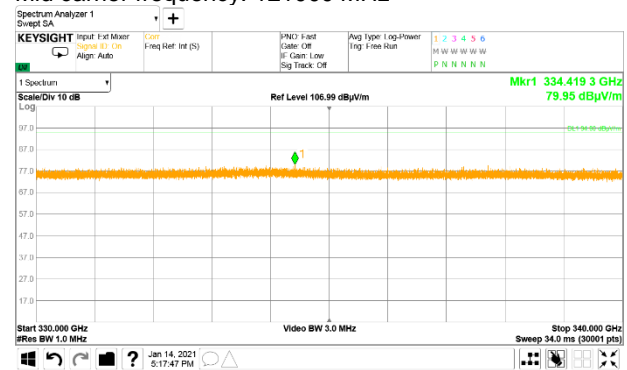
<b>Test specification:</b>		<b>Section 15.258(c)(3), Out of band radiated emissions above 40 GHz up to 370 GHz</b>	
<b>Test procedure:</b>		ANSI C63.10, Sections 9.9, 9.12	
<b>Test mode:</b>		<b>Verdict:</b> PASS	
<b>Date(s):</b>			
04-Jan-21			
<b>Temperature:</b> 22 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1014 hPa	<b>Power:</b> 5 VDC
<b>Remarks:</b>			

### Plot 7.5.33 Spurious emission measurements in 330 - 340 GHz range

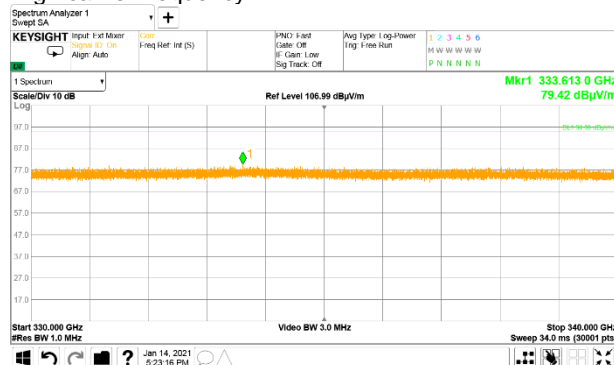
TEST SITE:  
TEST DISTANCE:  
MODULATION:  
ANTENNA POLARIZATION:  
DETECTOR: Peak  
Low carrier frequency: 119000 MHz



Customer Premises  
1 m  
CW  
Vertical and Horizontal  
RBW = 1 MHz; VBW = 3 MHz  
Mid carrier frequency: 121000 MHz



High carrier frequency:



122980 MHz

Note: Will be applied limit 94.84 dBuV/m



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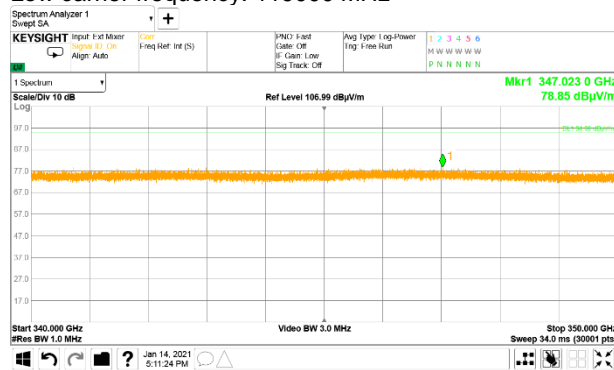
Report ID: NETRAD\_FCC.41599\_Rev2

Date of Issue: 8-Apr-21

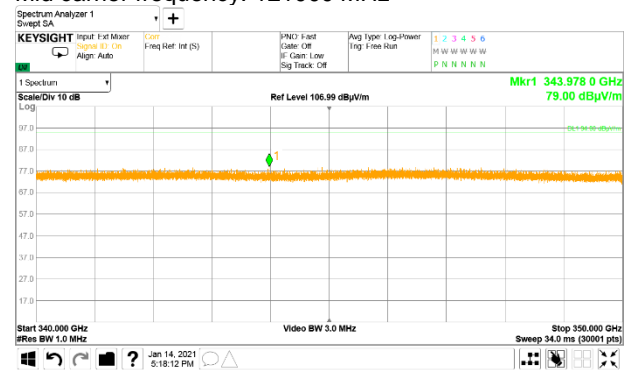
<b>Test specification:</b>		<b>Section 15.258(c)(3), Out of band radiated emissions above 40 GHz up to 370 GHz</b>	
<b>Test procedure:</b>		ANSI C63.10, Sections 9.9, 9.12	
<b>Test mode:</b>		Compliance	<b>Verdict:</b> PASS
<b>Date(s):</b>		04-Jan-21	
<b>Temperature:</b> 22 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1014 hPa	<b>Power:</b> 5 VDC
<b>Remarks:</b>			

### Plot 7.5.34 Spurious emission measurements in 340 - 350 GHz range

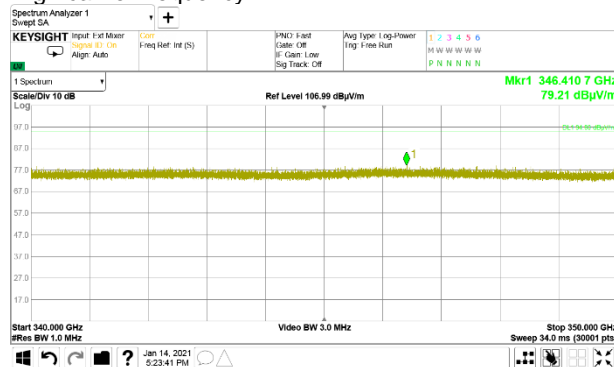
TEST SITE:  
TEST DISTANCE:  
MODULATION:  
ANTENNA POLARIZATION:  
DETECTOR: Peak  
Low carrier frequency: 119000 MHz



Customer Premises  
1 m  
CW  
Vertical and Horizontal  
RBW = 1 MHz; VBW = 3 MHz  
Mid carrier frequency: 121000 MHz



High carrier frequency:



122980 MHz

Note: Will be applied limit 94.84 dBuV/m



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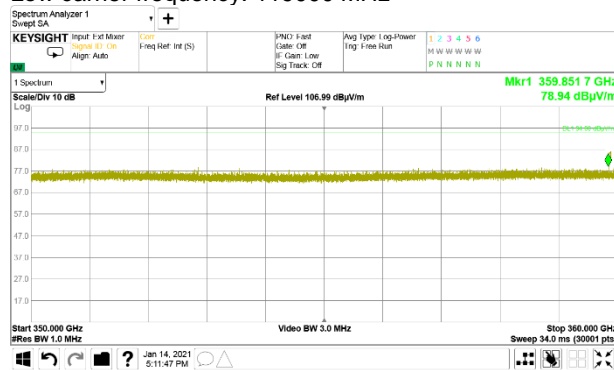
Report ID: NETRAD\_FCC.41599\_Rev2

Date of Issue: 8-Apr-21

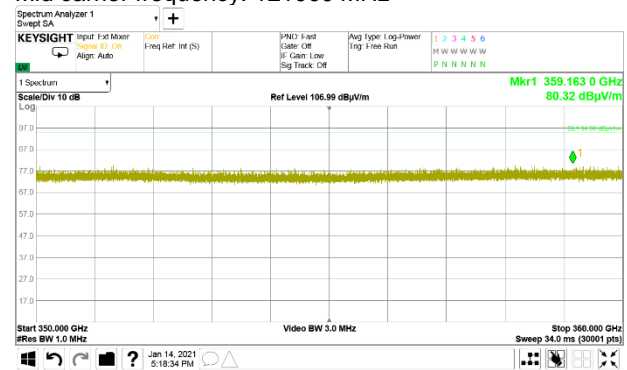
<b>Test specification:</b>		<b>Section 15.258(c)(3), Out of band radiated emissions above 40 GHz up to 370 GHz</b>	
<b>Test procedure:</b>		ANSI C63.10, Sections 9.9, 9.12	
<b>Test mode:</b>		Compliance	<b>Verdict:</b> PASS
<b>Date(s):</b>		04-Jan-21	
<b>Temperature:</b> 22 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1014 hPa	<b>Power:</b> 5 VDC
<b>Remarks:</b>			

### Plot 7.5.35 Spurious emission measurements in 350 - 360 GHz range

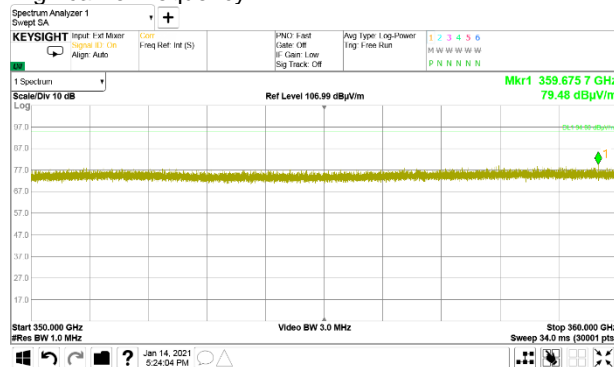
TEST SITE:  
TEST DISTANCE:  
MODULATION:  
ANTENNA POLARIZATION:  
DETECTOR: Peak  
Low carrier frequency: 119000 MHz



Customer Premises  
1 m  
CW  
Vertical and Horizontal  
RBW = 1 MHz; VBW = 3 MHz  
Mid carrier frequency: 121000 MHz



High carrier frequency:



122980 MHz

Note: Will be applied limit 94.84 dBuV/m



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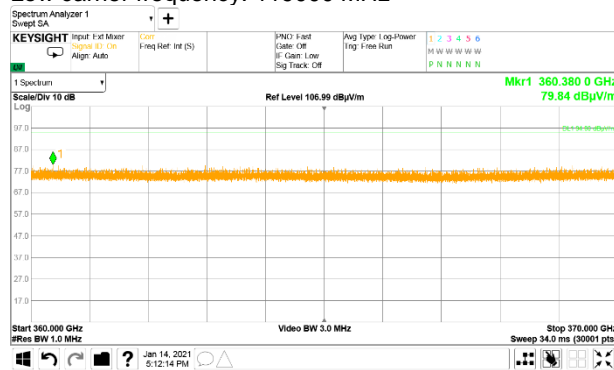
Report ID: NETRAD\_FCC.41599\_Rev2

Date of Issue: 8-Apr-21

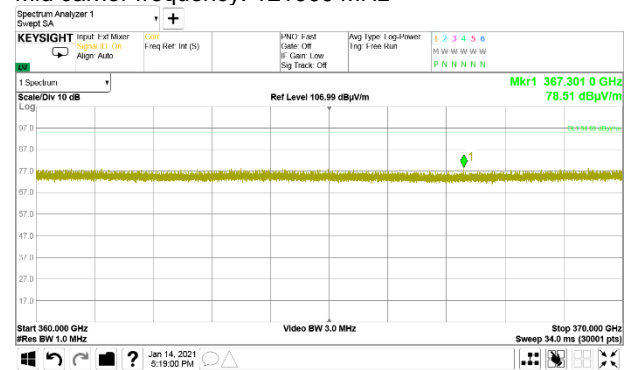
<b>Test specification:</b>		<b>Section 15.258(c)(3), Out of band radiated emissions above 40 GHz up to 370 GHz</b>	
<b>Test procedure:</b>		ANSI C63.10, Sections 9.9, 9.12	
<b>Test mode:</b>		<b>Verdict:</b> PASS	
<b>Date(s):</b>			
04-Jan-21			
<b>Temperature:</b> 22 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1014 hPa	<b>Power:</b> 5 VDC
<b>Remarks:</b>			

### Plot 7.5.36 Spurious emission measurements in 360 - 370 GHz range

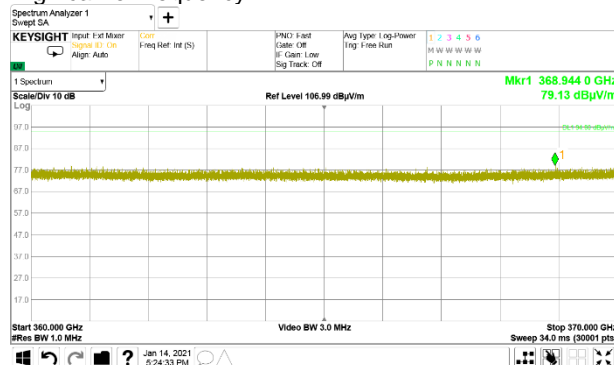
TEST SITE:  
TEST DISTANCE:  
MODULATION:  
ANTENNA POLARIZATION:  
DETECTOR: Peak  
Low carrier frequency: 119000 MHz



Customer Premises  
1 m  
CW  
Vertical and Horizontal  
RBW = 1 MHz; VBW = 3 MHz  
Mid carrier frequency: 121000 MHz



High carrier frequency:



122980 MHz

Note: Will be applied limit 94.84 dBuV/m



<b>Test specification:</b> Section 15.258(d),Frequency stability			
<b>Test procedure:</b> ANSI C63.10, Section 6.8			
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS	
<b>Date(s):</b> 05-Jan-21			
<b>Temperature:</b> 24.2 °C	<b>Relative Humidity:</b> 49 %	<b>Air Pressure:</b> 1011 hPa	<b>Power:</b> 5 VDC
<b>Remarks:</b>			

## 7.6 Frequency stability test

### 7.6.1 General

This test was performed to measure frequency stability of transmitter RF carrier. Specification test limits are given in Table 7.6.1.

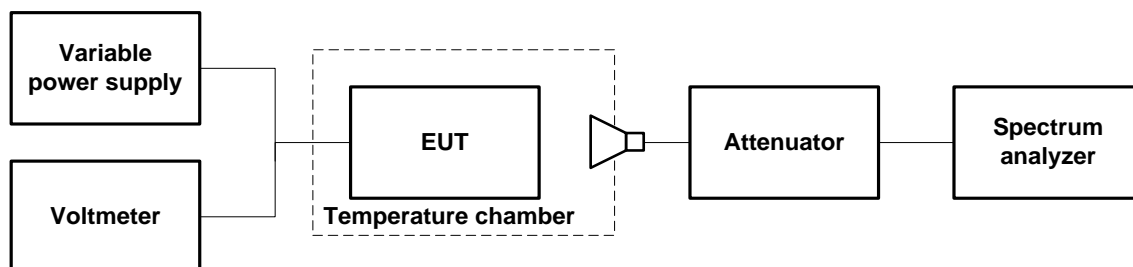
Table 7.6.1 Frequency stability limits

Assigned frequency, MHz	Maximum allowed frequency displacement
119000	NA
121000	
122980	

### 7.6.2 Test procedure

- 7.6.2.1** The EUT was set up as shown in Figure 7.6.1, energized and its proper operation was checked.
- 7.6.2.2** The EUT power was turned off. Temperature within test chamber was set to +30°C and a period of time sufficient to stabilize all of the oscillator circuit components was allowed.
- 7.6.2.3** The EUT was powered on and carrier frequency was measured at start up moment and then every minute until frequency had been stabilized or 10 minutes elapsed whichever reached the last. The EUT was powered off.
- 7.6.2.4** The above procedure was repeated at 0°C and at the lowest test temperature.
- 7.6.2.5** The EUT was powered on and carrier frequency was measured at start up moment and at the end of stabilization period at the rest of test temperatures and voltages. The EUT was powered off.
- 7.6.2.6** Frequency displacement was calculated and compared with the limit as provided in Table 7.6.2.

Figure 7.6.1 Frequency stability test setup





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<b>Test specification:</b> Section 15.258(d),Frequency stability			
<b>Test procedure:</b> ANSI C63.10, Section 6.8			
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS	
<b>Date(s):</b> 05-Jan-21			
<b>Temperature:</b> 24.2 °C	<b>Relative Humidity:</b> 49 %	<b>Air Pressure:</b> 1011 hPa	<b>Power:</b> 5 VDC
<b>Remarks:</b>			

Table 7.6.2 Frequency stability test results

OPERATING FREQUENCY: 116000 – 123000 MHz  
 NOMINAL POWER VOLTAGE: 5 V  
 TEMPERATURE STABILIZATION PERIOD: 20 min  
 POWER DURING TEMPERATURE TRANSITION: Off  
 SPECTRUM ANALYZER MODE: Counter  
 RESOLUTION BANDWIDTH: 3 kHz  
 VIDEO BANDWIDTH: 10 kHz  
 MODULATION: Unmodulated

T, °C		Voltage, V	Frequency, MHz							Max frequency drift, kHz	
			Start up	1 <sup>st</sup> min	2 <sup>nd</sup> min	3 <sup>rd</sup> min	4 <sup>th</sup> min	5 <sup>th</sup> min	10 <sup>th</sup> min	Positive	Negative
Low frequency 119.000 GHz											
-20	nominal	118999.344	118999.376	118999.368	118999.370	118999.374	118999.378	118999.386	420	0	
-10	nominal	118999.384	NA	NA	NA	NA	NA	118999.282	418	0	
0	nominal	118999.184	118999.190	118999.200	118999.182	118999.186	118999.178	118999.206	240	0	
10	nominal	118999.230	NA	NA	NA	NA	NA	118999.840	874	0	
20	+15%	118999.147	NA	NA	NA	NA	NA	118998.996	181	0	
20	nominal	118999.082	NA	NA	NA	NA	NA	118998.966	116	0	
20	-15%	118999.287	NA	NA	NA	NA	NA	118999.109	321	0	
30	nominal	118999.307	118999.378	118999.247	118999.159	118999.364	118999.583	118999.432	617	0	
40	nominal	118999.915	NA	NA	NA	NA	NA	118999.691	949	0	
50	nominal	118998.899	NA	NA	NA	NA	NA	118998.866	0	-100	
Mid frequency 121.000 GHz											
-20	nominal	120999.836	120999.828	120999.826	120999.822	120999.830	120999.816	120999.800	381	0	
-10	nominal	120999.766	NA	NA	NA	NA	NA	120999.808	353	0	
0	nominal	120999.592	120999.600	120999.584	120999.588	120999.592	120999.598	120999.602	147	0	
10	nominal	120999.410	NA	NA	NA	NA	NA	120999.251	0	-204	
20	+15%	120999.146	NA	NA	NA	NA	NA	120999.333	0	-309	
20	nominal	120999.190	NA	NA	NA	NA	NA	120999.455	0	-265	
20	-15%	120999.603	NA	NA	NA	NA	NA	120999.751	296	0	
30	nominal	120999.228	120999.105	120999.317	120999.290	120999.560	120999.780	120999.810	355	-350	
40	nominal	120999.598	NA	NA	NA	NA	NA	120999.699	244	0	
50	nominal	120999.232	NA	NA	NA	NA	NA	120999.224	0	-231	
High frequency 122.980 GHz											
-20	nominal	122979.142	122979.128	122979.126	122979.114	122979.118	122979.068	122979.112	312	0	
-10	nominal	122978.899	NA	NA	NA	NA	NA	122978.964	134	0	
0	nominal	122978.912	122978.822	122978.924	122978.892	122978.916	122978.878	122978.893	94	-8	
10	nominal	122978.306	NA	NA	NA	NA	NA	122978.504	0	-524	
20	+15%	122978.527	NA	NA	NA	NA	NA	122978.225	0	-605	
20	nominal	122978.585	NA	NA	NA	NA	NA	122978.830	0	-245	
20	-15%	122978.330	NA	NA	NA	NA	NA	122978.653	0	-500	
30	nominal	122978.570	122978.434	122978.516	122978.599	122978.601	122978.540	122978.829	0	-396	
40	nominal	122978.210	NA	NA	NA	NA	NA	122978.899	69	-620	
50	nominal	122978.496	NA	NA	NA	NA	NA	122978.504	0	-334	

## Reference numbers of test equipment used

HL 5376	HL 3433	HL 0747	HL 3536	HL 5391			
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Full description is given in Appendix A.



<b>Test specification:</b> <b>Section 15.203, Antenna requirement</b>			
<b>Test procedure:</b> Visual inspection / supplier declaration			
<b>Test mode:</b> Compliance		<b>Verdict:</b> <b>PASS</b>	
<b>Date(s):</b> 03-Feb-21			
<b>Temperature:</b> 24 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1010 hPa	<b>Power:</b> 5 VDC
<b>Remarks:</b>			

## 7.7 Antenna requirements

The EUT was verified for compliance with antenna requirements. A transmitter shall be designed to ensure that no antenna other than that furnished by the responsible party will be used with the device. It may be either permanently attached or employs a unique antenna connector for every antenna proposed for use with the EUT. This requirement does not apply to professionally installed transmitters.

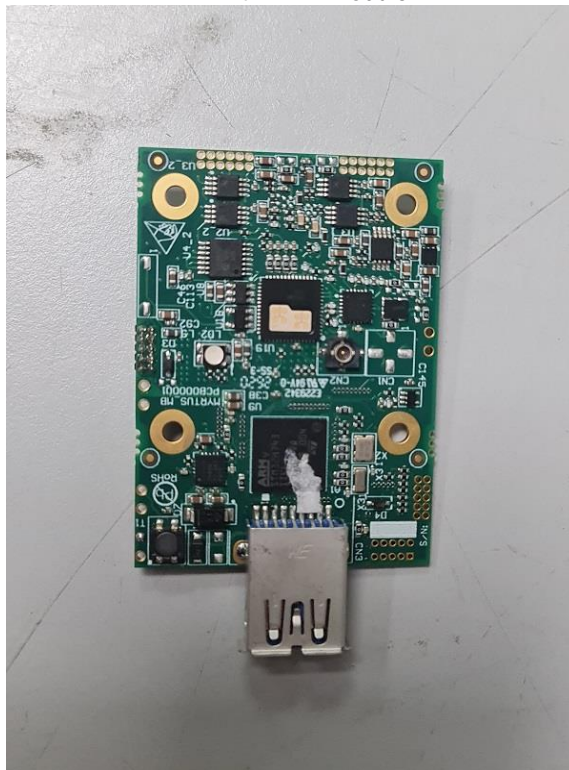
The rationale for compliance with the above requirements was either visual inspection results or supplier declaration. The summary of results is provided in Table 7.7.1.

**Table 7.7.1 Antenna requirements**

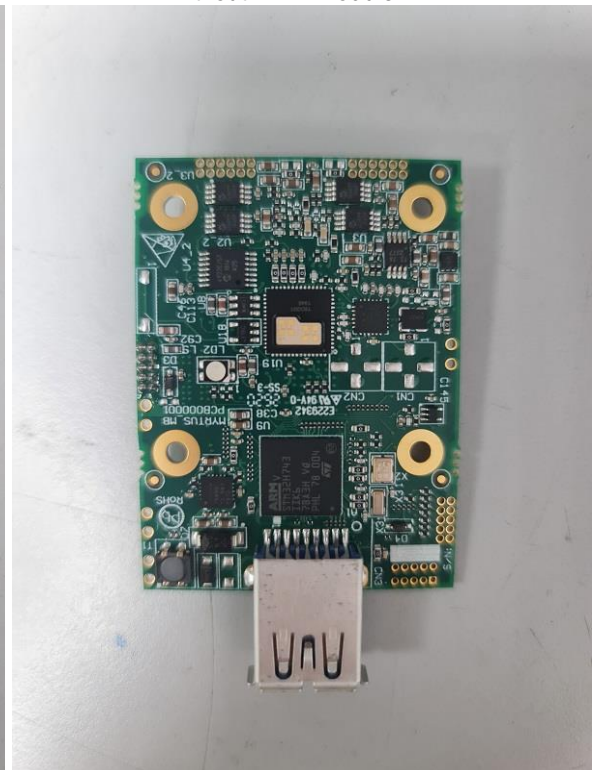
Requirement	Rationale	Verdict
The transmitter antenna is permanently attached	Visual inspection	Comply
The transmitter employs a unique antenna connector	NA	
The transmitter requires professional installation	NA	

**Photograph 7.7.1 Antenna assembly**

With Wi-Fi Module



Without Wi-Fi Module



## 8 APPENDIX A Test equipment and ancillaries used for tests

HL No	Description	Manufacturer	Model	Ser. No.	Last Cal./ Check	Due Cal./ Check
0446	Antenna, Loop, Active, 10 (9) kHz - 30 MHz	EMCO	6502	2857	24-Feb-20	24-Feb-21
0747	Mixer, Millimeter Wave Harmonic 90 - 140 GHz	Oleson Microwave Labs	M08HW	F80429-1	19-May-20	19-May-23
0748	Mixer Millimeter Wave Harmonic 60 - 90 GHz	Oleson Microwave Labs	M12 HW	E 804 29-1	19-May-20	19-May-23
0770	Antenna Standard Gain Horn, 40-60 GHz WR-19, U-band, 24 dB mid-band gain	Quinstar Technology	QWH-1900-AA	118	22-Nov-20	22-Nov-21
0771	Antenna Standard Gain Horn, 60-90 GHz, WR-12, 24 dB mid-band gain	Quinstar Technology	QWH-1200-AA	111	05-Aug-20	05-Aug-21
1304	Transition waveguide ET28S - 8R	Custom Microwave	ET28S - 8R		17-Nov-20	17-Nov-21
1312	Mixer Millimeter Wave Harmonic 140-220 GHz	Oleson Microwave Labs	M05HWD	G91112-1	19-May-20	19-May-23
3235	Harmonic mixer 40 to 60 GHz	Agilent Technologies	11970U	MY30030182	30-Jan-20	30-Jan-23
3296	Tapered transition, WR-28, UG-599 to WR-10, UG-387 (26.5-40 GHz to 75-100 GHz)	Quinstar Technology	QWP-AW0000	10381006	17-Nov-20	17-Nov-21
3329	Antenna Standard Gain Horn, 140-220 GHz, WR-5, 24 dB mid-band gain	Quinstar Technology			22-Nov-20	22-Nov-21
3433	Test Cable , DC-18 GHz, 1.5 m, SMA - SMA	Mini-Circuits	CBL-5FT-SMSM+	25679	13-Apr-20	13-Apr-21
3536	Antenna Standard Gain Horn, 90-140 GHz, WR-8, 24 dB mid-band gain	Quinstar Technology	QWH-FPRR00	11159004001	22-Nov-20	22-Nov-21
3901	Microwave Cable Assembly, 40.0 GHz, 3.5 m, SMA/SMA	Huber-Suhner	SUCOFL EX 102A	1225/2A	06-Apr-20	06-Apr-21
3903	Microwave Cable Assembly, 40.0 GHz, 1.5 m, SMA/SMA	Huber-Suhner	SUCOFL EX 102A	1226/2A	06-Apr-20	06-Apr-21
4023	Diplexer for use OML mixers with Agilent spectrum analyzer	Oleson Microwave Labs	DPL.26	NA	01-Apr-20	01-Apr-21
4338	Reject Band Filter, 50 Ohm, 0 to 2170 and 3000 to 18000 MHz, SMA-FM / SMA-M	Micro-Tronics	BRM 50702-02	023	05-Jun-19	05-Jun-21
4933	Active Horn Antenna, 1 GHz to 18 GHz	COM-POWER CORPORATION	AHA-118	701046	26-Jan-21	26-Jan-22
4956	Active horn antenna, 18 to 40 GHz	COM-POWER CORPORATION	AHA-840	105004	26-Jan-21	26-Jan-22





HL No	Description	Manufacturer	Model	Ser. No.	Last Cal./ Check	Due Cal./ Check
5085	Attenuator, 4 dB, DC - 6 GHz, 1 W	Mini-Circuits	UNAT-4+	NA	22-May-20	22-May-21
5111	RF cable, 40 GHz, 5.5 m, K-type	Huber-Suhner	SF102EA/11SK/11SK/5500M	502493/2EA	03-Aug-20	03-Aug-21
5288	Trilog Antenna, 25 MHz - 8 GHz, 100W	Frankonia	ALX-8000E	00809	08-Feb-19	08-Feb-22
5371	EXG Analog Signal Generator, 9 kHz - 40 GHz	Keysight Technologies	N5173B	MY57280540	25-Aug-20	25-Aug-21
5372	MXE EMI receiver, 3 Hz to 44 GHz	Keysight Technologies	N9038A	MY57290155	10-Aug-20	10-Aug-21
5373	Millimeter-wave Signal Generator E8257DV08 WR8.0SGX ATO64975 90-140GHz	Keysight Technologies	E8257DV08	US53250008	30-Dec-99	30-Dec-00
5376	EXA Signal Analyzer, 10 Hz - 32 GHz	Keysight Technologies	N9010B	MY57470404	30-Dec-99	30-Dec-00
5380	Waveguide Harmonic Mixer 55-90GHz	Keysight Technologies	M1971E	MY56130239	13-Nov-20	13-Nov-22
5391	Temperature/Humidity Cycle Chamber, -77 - +177 deg., Humidity Range 20% RH to 95% RH	Thermotron	SM-8C	27737	19-Aug-20	19-Aug-21
5409	RF cable, 40 GHz, SMA-SMA, 2 m	Huber-Suhner	SF102EA/11SK/11SK/2000M	503973/2EA	03-Aug-20	03-Aug-21
5669	Cable SF126EA/11N(x2)/3.0M, 18 GHz	Huber-Suhner	SF126EA	506775/126EA	25-Oct-20	25-Oct-21
5670	Cable SF126EA/11N(x2)/3M, 18 GHz	Huber-Suhner	SF126EA	506774/126EA	25-Oct-20	25-Oct-21

## 9 APPENDIX B Test equipment correction factors

### 9.1.1 HL 0446: Active Loop Antenna EMCO, model: 6502, s/n 2857

Frequency,	Measured antenna factor, dBS/m	Measurement uncertainty, dB
10	-33.4	±1.0
20	-37.8	±1.0
50	-40.5	±1.0
75	-41.0	±1.0
100	-41.2	±1.0
150	-41.2	±1.0
250	-41.1	±1.0
500	-41.2	±1.0
750	-41.3	±1.0
1000	-41.3	±1.0

Frequency,	Measured antenna factor, dBS/m	Measurement uncertainty, dB
2000	-41.4	±1.0
3000	-41.4	±1.0
4000	-41.5	±1.0
5000	-41.5	±1.0
10000	-41.7	±1.0
15000	-42.1	±1.0
20000	-42.7	±1.0
25000	-44.2	±1.0
30000	-45.8	±1.0

The antenna factor shall be added to receiver reading in dB $\mu$ V to obtain field strength in dB $\mu$ A/m.

9.1.2 HL 4933: Active Horn Antenna  
COM-POWER CORPORATION, model: AHA-118, s/n 701046

Frequency, MHz	Measured antenna factor (with preamplifier), dB/m
1000	-16.1
1500	-15.1
2000	-10.9
2500	-11.9
3000	-11.1
3500	-10.6
4000	-8.6
4500	-8.3
5000	-5.9
5500	-5.7
6000	-3.3
6500	-4.0
7000	-2.2
7500	-1.7
8000	1.1
8500	-0.8
9000	-1.5
9500	-0.2

Frequency, MHz	Measured antenna factor (with preamplifier), dB/m
10000	1.8
10500	1.0
11000	0.3
11500	-0.5
12000	3.1
12500	1.4
13000	-0.3
13500	-0.4
14000	2.5
14500	2.2
15000	1.9
15500	0.5
16000	2.1
16500	1.2
17000	0.6
17500	3.1
18000	4.2

The antenna factor shall be added to receiver reading in dB $\mu$ V to obtain field strength in dB $\mu$ V/m.

9.1.3 HL 4956: Active horn antenna  
COM-POWER Corp., model: AHA-840, s/n 105004

Frequency, MHz	Measured antenna factor, dB/m	Frequency, MHz	Measured antenna factor, dB/m
18000	5.1	29500	1.4
18500	3.6	30000	2.9
19000	2.2	30500	2.9
19500	0.7	31000	2.9
20000	0.7	31500	1.2
20500	0.8	32000	0.7
21000	0.5	32500	0.2
21500	-1.3	33000	-1.7
22000	-2.1	33500	-2.2
22500	-2.0	34000	2.3
23000	-1.6	34500	-1.1
23500	-2.9	35000	0.7
24000	-2.3	35500	-1.1
24500	-2.6	36000	0.1
25000	-1.8	36500	1.4
25500	-1.2	37000	3.7
26000	-0.5	37500	5.8
26500	-1.2	38000	6.6
27000	-0.1	38500	7.3
27500	-1.0	39000	6.5
28000	-0.7	39500	7.3
28500	0.5	40000	7.1

The antenna factor shall be added to receiver reading in dB $\mu$ V to obtain field strength in dB $\mu$ V/m.

9.1.4 HL 5288: Trilog Antenna  
Frankonia, model: ALX-8000E, s/n: 00809

30-1000 MHz

Frequency, MHz	Antenna factor, dB/m
30	14.96
35	15.33
40	16.37
45	17.56
50	17.95
60	16.87
70	13.22
80	10.56
90	13.61
100	15.46
120	14.03
140	12.23

Frequency, MHz	Antenna factor, dB/m
160	12.67
180	13.34
200	15.40
250	16.42
300	17.28
400	19.98
500	21.11
600	22.90
700	24.13
800	25.25
900	26.35
1000	27.18

The antenna factor shall be added to receiver reading in dB $\mu$ V to obtain field strength in dB $\mu$ V/m.

above 1000 MHz

Frequency, MHz	Antenna factor, dB/m
1000	26.9
1100	28.1
1200	28.4
1300	29.6
1400	29.1
1500	30.4
1600	30.7
1700	31.5
1800	32.3
1900	32.6
2000	32.5
2100	32.9
2200	33.5
2300	33.2
2400	33.7
2500	34.6
2600	34.7
2700	34.6
2800	35.0
2900	35.5
3000	36.2
3100	36.8
3200	36.8
3300	37.0
3400	37.5
3500	38.2

Frequency, MHz	Antenna factor, dB/m
3600	38.9
3700	39.4
3800	39.4
3900	39.6
4000	39.7
4100	39.8
4200	40.5
4300	40.9
4400	41.1
4500	41.4
4600	41.3
4700	41.6
4800	41.9
4900	42.3
5000	42.7
5100	43.0
5200	42.9
5300	43.5
5400	43.6
5500	44.3
5600	44.7
5700	45.0
5800	45.0
5900	45.3
6000	45.9

The antenna factor shall be added to receiver reading in dB $\mu$ V to obtain field strength in dB $\mu$ V/m.

## 10 APPENDIX C Measurement uncertainties

### Expanded uncertainty at 95% confidence in Hermon Labs EMC measurements

Test description	Expanded uncertainty
Conducted emissions with LISN	9 kHz to 150 kHz: $\pm 3.9$ dB 150 kHz to 30 MHz: $\pm 3.8$ dB
Radiated emissions at 10 m measuring distance Horizontal polarization  Vertical polarization	Biconilog antenna: $\pm 5.0$ dB Biconical antenna: $\pm 5.0$ dB Log periodic antenna: $\pm 5.1$ dB Double ridged horn antenna: $\pm 5.3$ dB Biconilog antenna: $\pm 5.5$ dB Biconical antenna: $\pm 5.5$ dB Log periodic antenna: $\pm 5.6$ dB Double ridged horn antenna: $\pm 5.8$ dB
Radiated emissions at 3 m measuring distance Horizontal polarization  Vertical polarization	Biconilog antenna: $\pm 5.3$ dB Biconical antenna: $\pm 5.0$ dB Log periodic antenna: $\pm 5.3$ dB Double ridged horn antenna: $\pm 5.3$ dB Biconilog antenna: $\pm 6.0$ dB Biconical antenna: $\pm 5.7$ dB Log periodic antenna: $\pm 6.0$ dB Double ridged horn antenna: $\pm 6.0$ dB
Conducted emissions at RF antenna connector	9 kHz to 2.9 GHz: $\pm 2.6$ dB 2.9 GHz to 6.46 GHz: $\pm 3.5$ dB 6.46 GHz to 13.2 GHz: $\pm 4.3$ dB 13.2 GHz to 22.0 GHz: $\pm 5.0$ dB 22.0 GHz to 26.8 GHz: $\pm 5.5$ dB 26.8 GHz to 40.0 GHz: $\pm 4.8$ dB

Hermon Laboratories is accredited by A2LA for calibration according to present requirements of ISO/IEC 17025 and NCSL Z540-1. The accreditation is granted to perform calibration of parameters that are listed in the Scope of Hermon Laboratories Accreditation.

Hermon Laboratories calibrates its reference and transfer standards by calibration laboratories accredited to ISO/IEC 17025 by a mutually recognized Accreditation Body or by a recognized national metrology institute. All reference and transfer standards used in the calibration system are traceable to national or international standards.

In-house calibration of all test and measurement equipment is performed on a regular basis according to Hermon Laboratories calibration procedures, manufacturer calibration/verification procedures or procedures defined in the relevant standards. The Hermon Laboratories test and measurement equipment is calibrated within the tolerances specified by the manufacturers and/or by the relevant standards.

## 11 APPENDIX D Test laboratory description

Tests were performed at Hermon Laboratories Ltd., which is a fully independent, private, EMC, Radio, Safety, Environmental and Telecommunication testing facility.

Hermon Laboratories is recognized and accredited by the Federal Communications Commission (USA) for relevant parts of Code of Federal Regulations 47 (CFR 47), Test Firm Registration Number is 927748, Designation Number is IL1001; Recognized by Innovation, Science and Economic Development Canada for wireless and terminal testing (ISED), ISED #2186A, CAB identifier is IL1001; Certified by VCCI, Japan (the registration numbers are R-10808 for OATS, R-1082 for anechoic chamber, G-10869 for RE measurements above 1 GHz, C-10845 for conducted emissions site and T-11606 for conducted emissions at telecommunication ports).

The laboratory is accredited by American Association for Laboratory Accreditation (USA) according to ISO/IEC 17025 for electromagnetic compatibility, product safety, telecommunications testing, environmental simulation and calibration (for exact scope please refer to Certificate No. 839.01, 839.03 and 839.04).

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Person for contact: Mr. Michael Nikishin, EMC&Radio group manager

## 12 APPENDIX E Specification references

47CFR part 15: 2019	Radio Frequency Devices.
ANSI C63.10: 2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

## 13 APPENDIX F Manufacturer's declaration



### Declaration of identity between Neteera models 130H/131H and models H/W

The Neteera devices, models 130H, 131H, 130W and 131W, are identical in components, assembly, technical specifications and performance operation principles, except the following distinctions:

- The 130H/130W models include a WiFi module, whereas the 131H/131W do not.
- The 130W/131W models are intended for use for wellness purposes, and not intended for medical use.

Reviewed and Confirmed By			
Name	Position	Date	Signature
Hanna Riez	Product manager	2021 Jan 20	<i>Hanna Riez</i>
Itai Efrat	HW engineer	2021 Jan 20	<i>Itai Efrat</i>
Shahar Yaron	VP product	2021 Jan 20	<i>Shahar Yaron</i>
Yael Himmel	Regulatory Manager	2021 Jan 20	<i>Yael Himmel</i>

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## 14 APPENDIX G Abbreviations and acronyms

A	ampere
AC	alternating current
AVRG	average (detector)
BB	broad band
cm	centimeter
dB	decibel
dBm	decibel referred to one milliwatt
dB( $\mu$ V)	decibel referred to one microvolt
dB( $\mu$ V/m)	decibel referred to one microvolt per meter
DC	direct current
EMC	electromagnetic compatibility
EMI	electromagnetic interference
EN	European Norm
EUT	equipment under test
GHz	gigahertz
GND	ground
H	height
HL	Hermon laboratories
Hz	hertz
k	kilo
kHz	kilohertz
kV	kilovolt
L	length
m	meter
MHz	megahertz
min	minute
mm	millimeter
ms	millisecond
$\mu$ s	microsecond
NA	not applicable
NB	narrow band
OATS	open area test site
OBW	occupied bandwidth
OC	operating channel
OCW	operating channel bandwidth
OFB	operational frequency band
$\Omega$	Ohm
QP	quasi-peak
PM	pulse modulation
PS	power supply
RBW	resolution bandwidth
RBW <sub>REF</sub>	reference resolution bandwidth
RE	radiated emission
RF	radio frequency
rms	root mean square
s	second
V	volt
W	width

END OF DOCUMENT