

Power Density Measurement Report

for Comparison with PD Simulation in Netgear Netgear 5G MHS Travel Router

RF Exposure Compliance Test Report - Part 0

FCC ID	: PY321100529
Equipment	: Netgear 5G MHS Travel Router
Brand Name	: Netgear
Model Name	: MR6500
Applicant	: Netgear, Inc. 350 E. Plumeria Drive, San Jose CA 95134, USA
Standard	: FCC 47 CFR Part 2 (2.1093)

We, SPORTON INTERNATIONAL INC have been evaluated in accordance with 47 CFR Part 2.1093 for the device and pass the limit.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Gua Unang.

Approved by: Cona Huang / Deputy Manager

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Version	Description	Issued Date
01	Initial issue of report	Jan. 24, 2022

History of this test report



1. <u>Summary</u>

The maximum measured average power density found during testing for Netgear, Inc., Netgear 5G MHS Travel Router, are as follows.

Standalone transmission					
RF Transmitter	Measured PD (mW/cm²)				
5G FR2	0.727				
Test Date	2021/10/26 ~ 2021/11/11				

2. Guidance Applied

The Power Density testing specification, method, and procedure for this device is in accordance with the following standard, below KDB may not include TAF scope:

- FCC 47 CFR Part 2.1091
- FCC 47 CFR Part 2.1093
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06
- FCC KDB 941225 D06 Hotspot Mode SAR v02r01
- TCBC workshop notes
- IEC Draft TR 63170

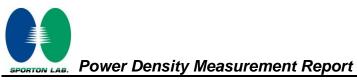


3. Equipment Under Test (EUT) Information

3.1 General Information

Product Feature & Specification					
Equipment Name	Netgear 5G MHS Travel Router				
Brand Name	Netgear				
Model Name	MR6500				
FCC ID	PY321100529				
Wireless Technology and Frequency Range	LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 30: 2305 MHz ~ 2315 MHz LTE Band 48: 3550 MHz ~ 2315 MHz LTE Band 66: 1710 MHz ~ 1780 MHz SG NR n2 : 1850 MHz ~ 1910 MHz SG NR n5 : 824 MHz ~ 849 MHz SG NR n12 : 699 MHz ~ 716 MHz SG NR n12 : 699 MHz ~ 718 MHz SG NR n12 : 699 MHz ~ 718 MHz SG NR n30: 2305 MHz ~ 2315 MHz SG NR n66 : 1710 MHz ~ 1780 MHz SG NR n66 : 1710 MHz ~ 1780 MHz SG NR n66 : 1710 MHz ~ 1780 MHz SG NR n66 : 1710 MHz ~ 24315 MHz SG NR n66 : 1710 MHz ~ 2505 MHz ~ 3980 MHz SG NR n260: 37GHz ~ 40GHz WLAN 2.4GHz Band: 5150 MHz ~ 5250 MHz WLAN 5.6 GHz Band: 5150 MHz ~ 5350 MHz WLAN 5.6 GHz Band: 5725 MHz ~ 5350 MHz WLAN 5.8 GHz Band: 5725 MHz ~ 5850 MHz WLAN 5.8 GHz Band: 5725 MHz ~ 5850 MHz WLAN 6.6 : 5925 MHz ~ 6425 MHz ~ 6525 MHz, 6525 MHz ~ 6875 MHz, 6875 MHz ~ 7125 MHz				
Mode	LTE: QPSK, 16QAM, 64QAM, 256QAM 5G FR1: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM/256QAM 5G FR2: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM WLAN: 802.11a/b/g/n/ac/ax HT20/HT40/VHT20/VHT40/VHT80/VHT160/HE20/HE40/HE80/HE160				

Reviewed by: <u>Jason Wang</u> Report Producer: <u>Carlie Tsai</u>



4. <u>RF Exposure Limits</u>

4.1 Uncontrolled Environment

Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

4.2 Controlled Environment

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. The exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure his or her exposure by leaving the area or by some other appropriate means.

The criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure above 6GHz to radio frequency (RF) radiation as specified in §1.1310.

General Population Basic restriction for power density for frequencies between 1.5GHz and 100 GHz is 1.0 mW/cm² = 10 W/m^2

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)	
	(A) Limits for O	ccupational/Controlled Expo	sures	Real Providence of the second se	
0.3-3.0	614	1.63	*(100)	6	
3.0-30	1842/	f 4.89/	f *(900/f2)	6	
30-300	61.4	0.163	1.0	6	
300-1500			f/300	6	
1500-100,000			5	6	
	(B) Limits for Gene	ral Population/Uncontrolled	Exposure		
0.3-1.34	614	1.63	*(100)	30	
1.34-30	824/	f 2.19/	f *(180/f2)	30	
30-300	27.5	0.073	0.2	30	
300-1500			f/1500	30	
1500-100,000			1.0	30	

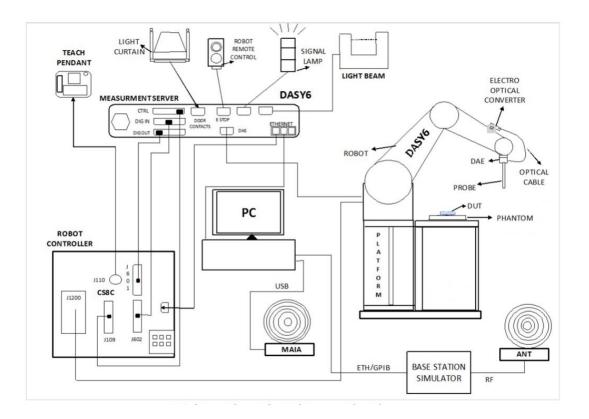
Table 1



5. System Description and Setup

The system to be used for the near field power density measurement

- SPEAG DASY6 system
- SPEAG cDASY6 5G module software
- EUmmWVx probe
- 5G Phantom cover





5.1 <u>EUmmWave Probe / E-Field 5G Probe</u>

The probe design allows measurements at distances as small as 2 mm from the sensors to the surface of the device under test (DUT). The typical sensor to probe tip distance is 1.5 mm.

Frequency	750 MHz – 110 GHz			
Probe Overall Length	320 mm			
Probe Body Diameter	8.0 mm			
Tip Length	23.0 mm			
Tip Diameter	8.0 mm			
Probe's two dipoles length	0.9 mm – Diode loaded			
Dynamic Range	< 20 V/m - 10000 V/m with PRE-10 (min < 50 V/m - 3000 V/m)			
Position Precision	< 0.2 mm			
Distance between diode sensors and probe's tip	1.5 mm			
Minimum Mechanical separation between probe tip and a Surface	0.5 mm			
Applications	E-field measurements of 5G devices and other mm-wave transmitters operating above 10GHz in < 2 mm distance from device (free-space) Power density, H-field and far-field analysis using total field reconstruction.			
Compatibility	cDASY6 + 5G-Module SW1.0 and higher			
	sensor device			



5.2 Data Acquisition Electronics (DAE)

The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock.

The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.



5.3 Scan configuration

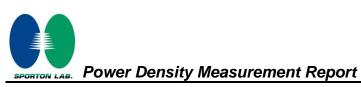
Fine-resolution scans on 2 different planes are performed to reconstruct the E- and H-fields as well as the power density; the z-distance between the 2 planes is set to $\lambda/4$.

The (x, y) grid step is also set $\lambda/4$, the grid extent is set to sufficiently large to identify the field pattern and the peak.

6. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration		
Manufacturer	Name of Equipment	Name of Equipment Type/model Senai Number		Last Cal.	Due Date	
SPEAG	5G Verification Source	30GHz	1009	May. 25, 2021	May. 24, 2022	
SPEAG	EUmmWV Probe Tip Protection	EUmmWV3	9424	Mar. 23, 2021	Mar. 22, 2022	
SPEAG	EUmmWV Probe Tip Protection	EUmmWV4	9441	Nov. 24, 2021	Nov. 23, 2022	
SPEAG	Data Acquisition Electronics	DAE4	853	Jul. 14, 2021	Jul. 13, 2022	
SPEAG	Data Acquisition Electronics	DAE4	699	Feb. 16, 2021	Feb. 15, 2022	
Testo	Hygro meter	608-H1	45196600	Oct. 22, 2021	Oct. 21, 2022	
Aglient	Spectrum Analyzer	E4408B	MY44211028	Aug. 19, 2021	Aug. 18, 2022	
Custom Microwave	Standard Horn antenna	M15RH	V91113-A	NCR	NCR	



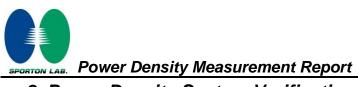


7. System Verification Source

The System Verification sources at 30 GHz and above comprise horn-antennas and very stable signal generators.

Model	Ka-band horn antenna
Calibrated frequency:	30 GHz at 10mm from the case surface
Frequency accuracy	± 100 MHz
E-field polarization	linear
Harmonics	-20 dBc
Total radiated power	14 dBm
Power stability	0.05 dB
Power consumption	5 W
Size	00 x 100 x 100 mm
Weight	1 kg





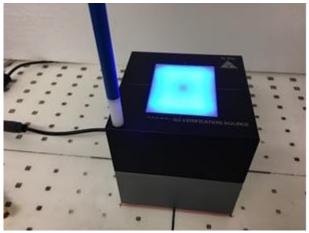
8. Power Density System Verification

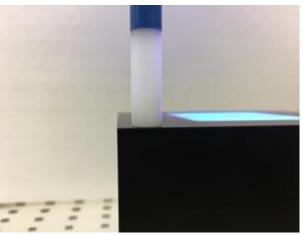
The system performance check verifies that the system operates within its specifications.

The EUT is replaced by a calibrated source, the same spatial resolution, measurement region and the test separation used in the calibration was applied to system check. Through visual inspection into the measured power density distribution, both spatially (shape) and numerically (level) have no noticeable difference. The measured results should be within 0.66dB of the calibrated targets.

Frequency [GHz]	Grid step	Grid extent X/Y [mm]	Measurement points
10	$0.25 \left(\frac{\lambda}{4}\right)$	120/120	16×16
30	$0.25~(\frac{\tilde{\lambda}}{4})$	60/60	24×24
60	$0.25~(\frac{\hat{\lambda}}{4})$	32.5/32.5	26×26
90	$0.25~(\frac{\lambda}{4})$	30/30	36 imes 36

Settings for measurement of verification sources





Verification Setup photo

9. System Verification Results

Frequency (GHz)	5G Verification Source	Probe S/N	DAE S/N	Distance (mm)	Measured 4 cm^2 (W/m^2)	Targeted 4 cm^2 (W/m^2)	Deviation (dB)	Date
30G	30GHz_1009	EUmmWV3-SN9441	DAE4-SN853	10mm	31.9	29.5	0.34	2021/10/26
30G	30GHz_1009	EUmmWV3-SN9424	DAE4-SN699	10mm	32	29.5	0.35	2021/11/8



9.1 Computation of the Electric Field Polarization Ellipse

For the numerical description of an arbitrarily oriented ellipse in three-dimensional space, five parameters are needed: the semi-major axis (a), the semi-minor axis (b), two angles describing the orientation of the normal vector of the ellipse (\emptyset , θ), and one angle describing the tilt of the semi-major axis (ψ). For the two extreme cases, i.e., circular and linear polarizations, three parameters only (a, \emptyset and θ) are sufficient for the description of the incident field.

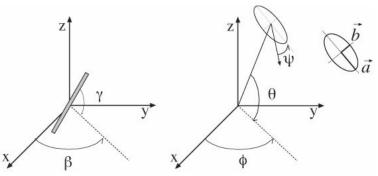


Illustration of the angles used for the numerical description of the sensor and the orientation of an ellipse in 3-D space.

For the reconstruction of the ellipse parameters from measured data, the problem can be reformulated as a nonlinear search problem. The semi-major and semi-minor axes of an elliptical field can be expressed as functions of the three angles (\emptyset , θ and ψ). The parameters can be uniquely determined towards minimizing the error based on least-squares for the given set of angles and the measured data. In this way, the number of free parameters is reduced from five to three, which means that at least three sensor readings are necessary to gain sufficient information for the reconstruction of the ellipse parameters. However, to suppress the noise and increase the reconstruction accuracy, it is desirable that the system of equations be over determined. The solution to use a probe consisting of two sensors angled by r_1 and r_2 toward the probe axis and to perform measurements at three angular positions of the probe, i.e., at β_1 , β_2 and β_3 , results in over-determinations by a factor of two. If there is a need for more information or increased accuracy, more rotation angles can be added. The reconstruction of the ellipse parameters can be separated into linear and non-linear parts that are best solved by the Givens algorithm combined with a downhill simplex algorithm. To minimize the mutual coupling, sensor angles are set with a shift of 90 degree ($r_2 = r_1 + 90$ degree), and to simplify, the first rotation angle of the probe (β_1) can be set to 0 degree.

9.2 Total Field and Power Flux Density Reconstruction

Computation of the power density in general requires knowledge of the electric and magnetic field amplitudes and phases in the plane of incidence. Reconstruction of these quantities from pseudo-vector E-field measurements is feasible, as they are constrained by Maxwell's equations. SPEAG have developed a reconstruction approach based on the Gerchberg-Saxton algorithm, which benefits from the availability of the E-field polarization ellipse information obtained with the EUmmWV2 probe.

The average of the reconstructed power density is evaluated over a circular area in each measurement plane. Two average power density values can be computed, the average total power density and the average incident power density, and the average total power density is used to determine compliance.

- $|Re{S}|$ is the total Poynting vector
- $\mathbf{n} \cdot Re\{S\}$ is the normal Poything vector

The software post-processing reports to values, "S avg tot" and "S avg inc". "S avg tot" represents average total power density (all three xyz components included), and "S avg inc" represents average normal power density. The average total power density "S avg tot" is reported to determine the device compliance.



9.3 Test Positions

Exposure			Measureme	ent Position		
Position	Front 10mm	Back 10mm	Left Side Right Side 10mm 10mm		Top Side 10mm	Bottom Side 10mm
Antenna Module 0	Yes	Yes	Yes	Yes	Yes	Yes
Antenna Module 1	Yes	Yes	Yes	Yes	Yes	Yes

10. <u>RF Exposure Evaluation Results</u>

General Note:

- 1. The PD test was performed of a 10mm separation between sensor and EUT surface
- 2. According to TCBC Workshop in October 2018, 4 cm² averaging area are used.
- 3. The test duty cycle was 100 % and it was confirmed by the manufacturer that the device was driven at this test duty cycle. The power density results were use this duty cycle of 100 % to evaluate the final production.
- 4. Power density simulations of all beams and surfaces were performed by the manufacturer. Details of these simulations and modeling validation can be found in the Power Density Simulation Report. Following Table includes a summary of the validation results to support worst-case housing influence quantification in power density characterization for this model With an input power of 6 dBm for n260 band, PD measurements are conducted for at least one single beam per antenna type and per antenna module (0,1) on worst-surface(s) . PD measurements are performed at mid channel of each mmW band and with CW modulation.
- 5. Following PD value will be used to determine worst-case housing influence ad correlate of PD distribution between simulation and measurement.

Test Number	Antenna Module	Beam ID 1	Beam ID 2	Band	Frequency (GHz)	Exposure Surface	Input Power Level (dB)	Test Separation	Modulation	Measured results Savg inc 4cm^2 (W/m2)	Measured results Savg tot 4cm^2 (W/m2)
1	Module 0	31	-	n260	38.5	Left Side	6	10mm	CW	6.81	7.27
2	Module 0	31	-	n260	38.5	Top surface	6	10mm	CW	1.88	2.08
3	Module 0	31	-	n260	38.5	Bottom surface	6	10mm	CW	1.21	1.59
4	Module 0	-	159	n260	38.5	Left Side	6	10mm	CW	6.79	7.16
5	Module 0	-	159	n260	38.5	Top surface	6	10mm	CW	1.81	1.96
6	Module 0	-	159	n260	38.5	Bottom surface	6	10mm	CW	1.33	1.4
7	Module 1	36	-	n260	38.5	Right Side	6	10mm	CW	5.96	6.58
8	Module 1	36	-	n260	38.5	Top surface	6	10mm	CW	1.27	1.42
9	Module 1	36	-	n260	38.5	Bottom surface	6	10mm	CW	1.09	1.25
10	Module 1	-	164	n260	38.5	Right Side	6	10mm	CW	6.57	7.09
11	Module 1	-	164	n260	38.5	Тор	6	10mm	CW	1.09	1.59
12	Module 1	-	164	n260	38.5	Bottom	6	10mm	CW	1.73	1.84



- 6. Then prove all other surface(s) near-by the mmW module, i.e., surface(s) not selected in above, is not required for housing material loss quantification (in other words, these non-evaluated surfaces have no influence on the determined *input.power.limit*) by:
 - i. Scale the simulated 4cm²-averaged PD values for all single beams to correspond to their *sim.powerlimit* was referred to PD simulation report, and identify the worst-PD beam per each non-selected surface.
 - ii. Measure 4cm²-averaged PD at *input.power.limit* for the identified worst-PD beam at each non-selected surface
 - iii. Demonstrate all measured 4cm²-averaged PD values are below *PD_design_target*.

4cm²-averaged PD for the selected beams on non-selected surfaces for Δ_{min} determination

Antenna Module	Beam ID 1	Beam ID 2	Band	Frequency (GHz)	Exposure Surface	Input Power limit (dB)	Meas. 4 cm2 avg. PD (W/m2)
Module 0	29	-	n260	38.5	Front side	5.89	0.210
Module 0	-	161	n260	38.5	Back side	5.80	0.076
Module 0	-	145	n260	38.5	Right side	9.58	0.036
Module 0	29	-	n260	38.5	Top Surface	5.89	0.766
Module 0	29	-	n260	38.5	Bottom Surface	5.89	0.928
Module 1	-	156	n260	38.5	Front side	5.58	0.039
Module 1	24	-	n260	38.5	Back side	6.64	0.335
Module 1	-	152	n260	38.5	Left side	5.95	0.029
Module 1	24	-	n260	38.5	Top Surface	6.64	0.834
Module 1	18	-	n260	38.5	Bottom Surface	9.68	0.985

7. Following PD test results will be used to determine combined PD at worst-case location for device with 2 QTMs verification, detail verification result refer to PD simulation report.

Antenna Module	Beam ID 1	Beam ID 2	Band	Frequency (GHz)	Exposure Surface	Input Power limit (dB)	Meas. 4 cm2 avg. PD (W/m2)
Module 0	-	145	n260	38.5	Left side	9.58	2.400
Module 1	13	-	n260	38.5	Right side	10.4	3.200

Test Engineer : Carter Jhuang and Ken Lin



11. Input Power limit

n	2	6	n	
	~	υ	υ	

Module ID	Dair ID	Poom ID	Input_Power_Limit(dBm)
	Pair ID	Beam ID	11.83
0		1 3	11.83
0		5	10.92
0		7	11.52
		9	
0			11.71
0		14	8.94
0		15	7.51
0		16	7.7
0		17	10.17
0		21	8.2
0		22	7.19
0		23	8.39
0		29	5.89
0		30	4.41
0		31	3.31
0		32	4.32
0		33	5.24
0		38	5.17
0		39	3.5
0		40	3.86
0		41	5.04
0		129	11.99
0		131	11.32
0		133	10.59
0		135	11.19
0		137	11.18
0		142	9.63
0		143	7.67
0		144	6.92
0		145	9.58
0		149	8.52
0		150	6.87
0		151	7.74
0		157	5.06
0		158	4.68
0		159	3.18
0		160	4.21
0		161	5.8
0		166	4.76
0		167	3.54
0		168	3.33
0		169	4.91
0	129	1	8.43
0	131	3	7.78
0	133	5	7.33
0	135	7	7.76
0	137	9	8.03
0	142	14	6.26
0	143	15	3.93
0	144	16	2.82
0	145	17	7.23
0	149	21	5.95
-			

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ORTON LAB. I OWEI DEIIS			Report No FA1900
0	150	22	3.41
0	151	23	3.16
0	157	29	1.19
0	158	30	0.91
0	159	31	-0.15
0	160	32	0.41
0	161	33	1.34
0	166	38	1
0	167	39	0.12
0		40	0.12
	168		
0	169	41	0.87
1		0	12
1		2	11.73
1		4	11.01
1		6	11.51
11		8	12.01
1		10	8.56
1		11	7.64
1		12	7.5
1		13	10.4
1		18	9.68
1		19	7.86
1		20	8.35
1		24	6.64
1		25	5.17
1		26	3.76
1		27	4.46
1		28	5.77
1		34	5.86
			4.85
1		35	
1		36	3.5
1		37	5.43
1		128	11.3
1		130	11.41
1		132	10.7
1		134	11.53
1		136	12.07
1		138	10.29
1		139	7.42
1		140	7.11
1		141	9.58
1		146	8.8
1		147	7.1
1		148	9.26
1		152	5.95
1		153	4.59
1		154	3.46
1		155	3.71
1		155	5.58
			5.38
1		162	
1		163	4.82
1		164	3.33
1		165	4.61
1	128	0	8.09
1	130	2	7.96
1	132	4	7.43

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1	134	6	7.89
4			1.55
l	136	8	8.56
1	138	10	5.38
1	139	11	3.86
1	140	12	3.34
1	141	13	4.73
1	146	18	6.25
1	147	19	3.85
1	148	20	6.14
1	152	24	2
1	153	25	0.98
1	154	26	0.24
1	155	27	0.15
1	156	28	1.48
1	162	34	1.26
1	163	35	1.06
1	164	36	0.11
1	165	37	0.76



12. Uncertainty Assessment

The budget is valid for evaluation distances > $\lambda/2\pi$. For specific tests and configurations, the Uncertainty could be considerably smaller.

Error Description	valuation Distances to the Uncertainty Value (±dB)	Probability	Divisor	(Ci)	Standar Uncertair (±dB)
Uncertai	inty terms dependent on t	he measurement sy	vstem		
Probe Calibration	0.49	Ν	1	1	0.49
Probe correction	0.00	R	1.732	1	0.00
Frequency response (BW \leq 1 GHz)	0.20	R	1.732	1	0.12
Sensor cross coupling	0.00	R	1.732	1	0.00
Isotropy	0.50	R	1.732	1	0.29
Linearity	0.20	R	1.732	1	0.12
Probe scattering	0.00	R	1.732	1	0.00
Probe positioning offset	0.30	R	1.732	1	0.17
Probe positioning repeatability	0.04	R	1.732	1	0.02
Sensor mechanical offset	0.00	R	1.732	1	0.00
Probe spatial resolution	0.00	R	1.732	1	0.00
Field impedance dependence	0.00	R	1.732	1	0.00
Amplitude and phase drift	0.00	R	1.732	1	0.00
Amplitude and phase noise	0.04	R	1.732	1	0.02
Measurement area truncation	0.00	R	1.732	1	0.00
Data acquisition	0.03	Ν	1	1	0.03
Sampling	0.00	R	1.732	1	0.00
Field reconstruction	0.60	R	1.732	1	0.35
Forward transformation	0.00	R	1.732	1	0.00
Power density scaling	0.00	R	1.732	1	0.00
Spatial averaging	0.10	R	1.732	1	0.06
System detection limit	0.04	R	1.732	1	0.02
Uncertainty t	erms dependent on the D	UT and environmen	tal factors		
Probe coupling with DUT	0.00	R	1.732	1	0.0
Modulation response	0.40	R	1.732	1	0.2
Integration time	0.00	R	1.732	1	0.0
Response time	0.00	R	1.732	1	0.0
Device holder influence	0.10	R	1.732	1	0.1
DUT alignment	0.00	R	1.732	1	0.0
RF ambient conditions	0.04	R	1.732	1	0.0
Ambient reflections	0.04	R	1.732	1	0.0
Immunity / secondary reception	0.00	R	1.732	1	0.0
Drift of the DUT		R	1.732	1	
Cor	nbined Std. Uncertainty	• 			0.76 dE
Expan	ded STD Uncertainty (95%	b)			1.52 dB

Comments and Explanations: The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.



13. <u>References</u>

- [1] FCC 47 CFR Part 2 "Frequency Allocations and Radio Treaty Matters; General Rules and Regulations"
- [2] FCC KDB 447498 D01 v06, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Oct 2015
- [3] FCC KDB 865664 D02 v01r02, "RF Exposure Compliance Reporting and Documentation Considerations" Oct 2015.
- [4] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.