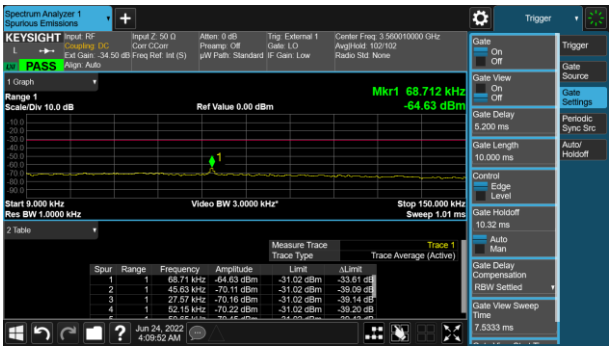
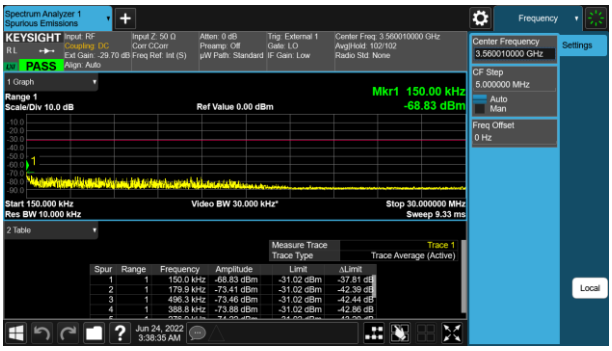
Test Model	Modulation	TX Port	Channel Frequency (MHz)	Signal BW (MHz)
3.2	QPSK/16QAM	2	3560 + 3650*	20 + 20

*Non-Contiguous

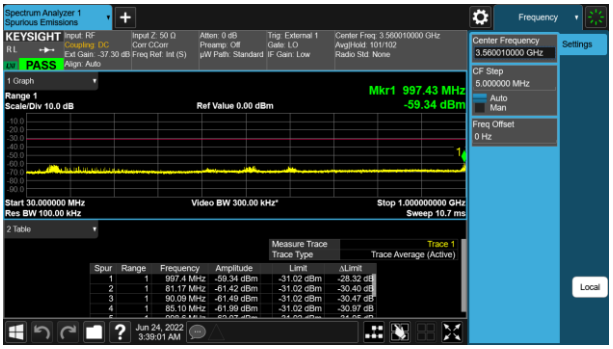
9 kHz – 150 kHz



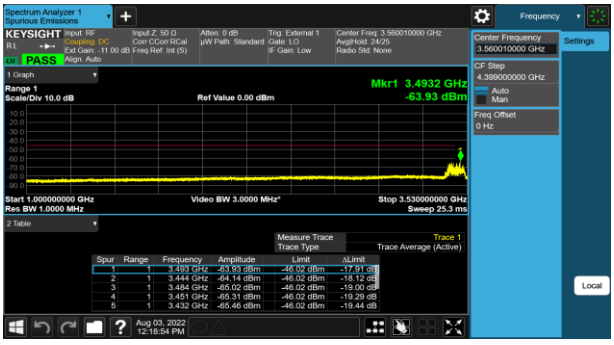
150 kHz – 30 MHz



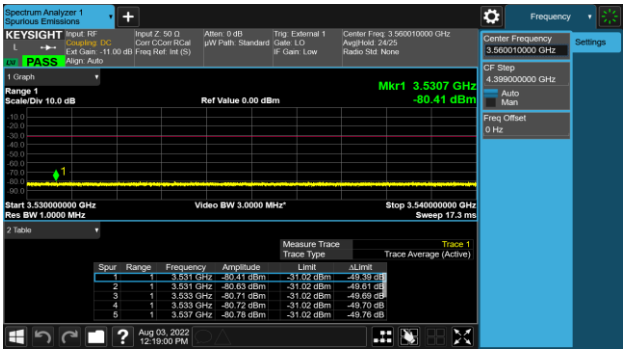
30 MHz – 1 GHz



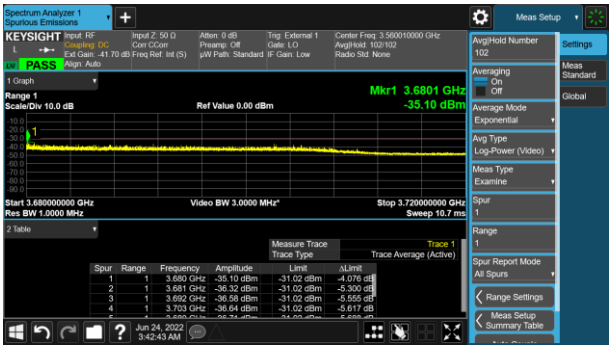
1 GHz – 3.53 GHz



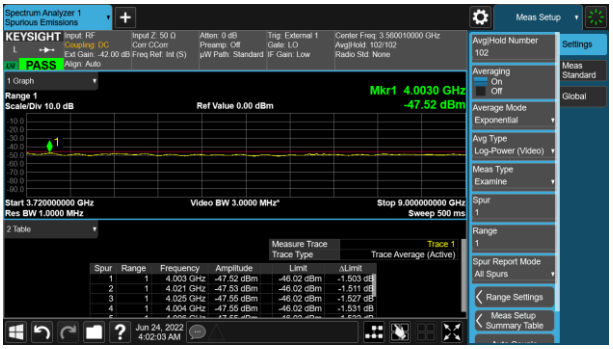
3.53 GHz – 3.54 GHz



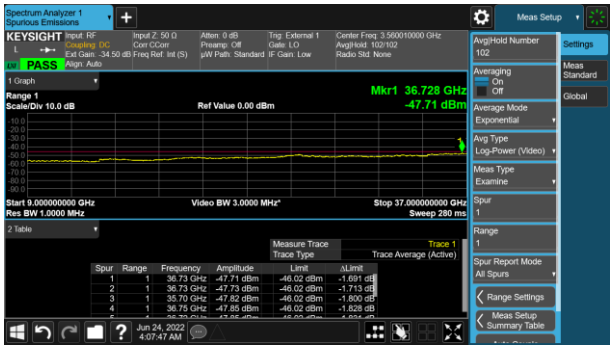
3.68 GHz – 3.72 GHz



3.72 GHz – 9 GHz



9 GHz – 37 GHz



Note: The limit for frequency ranges below 3530 MHz in the plots above is -46dBm, and the minimum margin is -17.91 dBm – 15.0 = 2.91 dBm. All other measurements in these plots have greater margin.

6. Section 2.1053 - Measurement Required: Field Strength of Spurious Radiation

The field strength measurements of radiated spurious emissions were made in an FCC registered 3-meter semi-anechoic chamber AR-5, (FCC Registration Number: 395774) **NVLAP** Lab Code: 100275-0 and IC (Filing Number: 6933F-5) which is maintained by Nokia Bell Labs in Murray Hill, New Jersey.

6.1 Spurious Radiation and Radiated Emissions Requirements.

This product meets Parts 2,15 and 96 requirements. FCC Part 15 Class B require emissions to be below 54.5 dBuV/m at 3m.

47CFR 96.41 (e)(1) (i) and KDB 940660 D01 Section 3.2 (b)(6) specified that the limits for the emissions outside the fundamental are as follows.

- within 0 MHz to 10 MHz above and below the assigned channel $\leqslant -13$ dBm/MHz,
- greater than 10 MHz above and below the assigned channel $\leqslant -25$ dBm/MHz,
- any emission below 3530 MHz and above 3720 MHz $\leqslant -40$ dBm/MHz.

Title 47CFR section 2.1053 contains the requirements for the levels of spurious radiation as a function of the EIRP of the unmodulated carrier. The reference level for the unmodulated carrier is calculated as the field produced by an isotropic radiator excited by the transmitter output power according to the following relation taken from Reference Data for Radio Engineers, page 27-7, 6th edition, IT&T Corp.

$$\mathbf{E = [(30*EIRP)^{1/2}] / R}$$

Where: E = Field Intensity in Volts/ meter R = Distance in meters = 3 m
P = Emission Power in Watts

Hence,

$$E\ (dB\mu V/m) = EIRP\ (dBm) - 20 \log d\ (m) + 104.77.$$

For EIRP = -13dBm/MHz, E = 82.2 dBµV/m,
For EIRP = -25dBm/MHz, E = 70.2 dBµV/m,
For EIRP = -40dBm/MHz, E = 55.2 dBµV/m.

The field strength of radiated spurious emissions measured was determined by

$$E\ (dB\mu V/m) = V_{meas}\ (dB\mu V) + \text{Cable Loss (dB)} + \text{Antenna Factor (dBi/m)}.$$

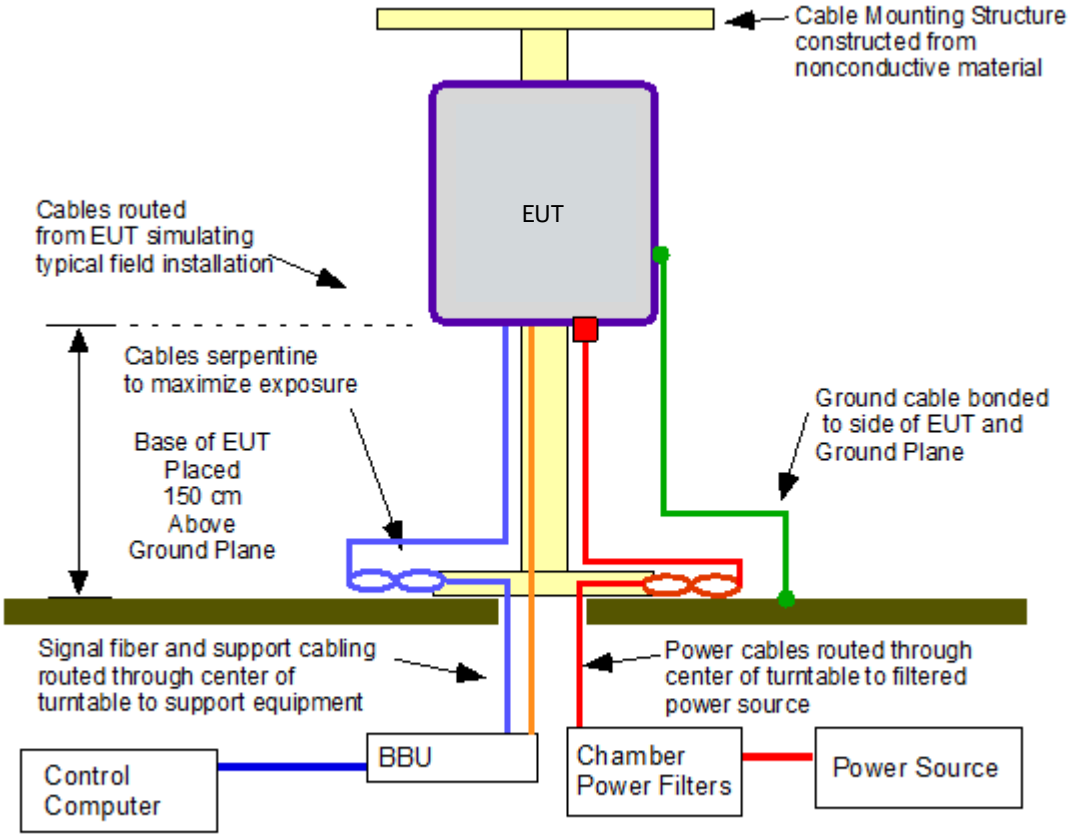
Field strength measurements of radiated spurious emissions were made in the 3m semi-anechoic chamber, AR-5 as detailed above. The recommendations of ANSI C63.4 and ANSI C63.26 were followed for EUT testing setup, cabling, and measurement approach and procedures. All the measurement equipment used, including antennas, was calibrated in accordance with ISO 9001 process. The EUT setup diagram is given in section 6.2.

6.2 Field Strength of Spurious Radiation Results:

This product meets Part 96 Requirements. For the Title 47CFR section 90.1323 and 2.1053 test, the field strength of any spurious radiation, measured at 3m, is required to be less than 102.23dBμV/meter. Emissions equal to or less than 82.23 dBμV/meter are not reportable and may be verified using field strength measurements with broadband antennas.

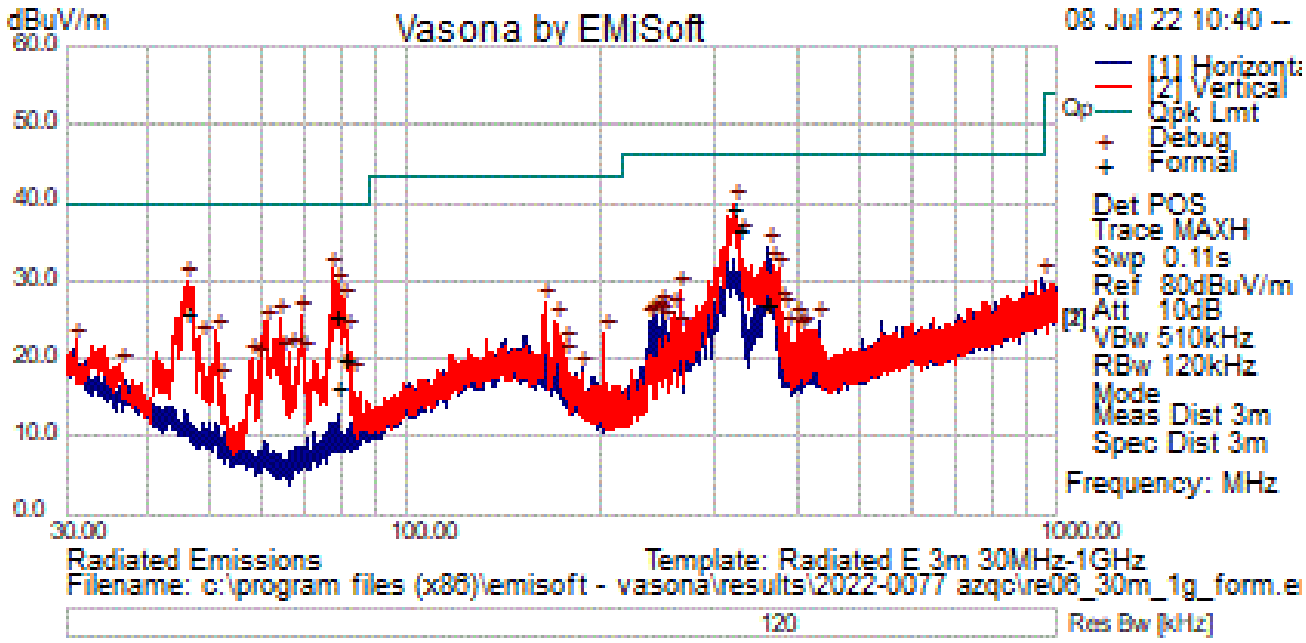
Over the out of band spectrum investigated from 10 MHz to beyond the tenth harmonic of the carrier (37GHz), no reportable spurious emissions were detected. Additionally, from 10 MHz to beyond the tenth harmonic of the carrier (37GHz), all non-transmit carrier emissions were below 54.5 dBμV/m. This demonstrates that the AirScale Micro RRH 3.5GHz 4T/4R 20W (AZQC), complies with FCC Part 15 Class B, and FCC Sections 2.1053, 90.1323 and 2.1057 of the Rules.

Radiated Emission Setup



6.3 Transmitter Measurements of Radiated Spurious Emissions Plots

RE 30MHz – 1GHz



Test Information

Results Title	Radiated E 3m 30MHz-1GHz
File Name	re06a_30m_1g_form.emi
Test Laboratory	MH-AR5, 50%RH, 24C, 998mB
Test Engineer	NPA
Test Software	Vasona by EMISoft, version 6.061
Equipment	NOKIA
EUT Details	2022-0077 - AZQC 5G 20 MHz Multicarrier– FCC , 2x20 NR, non contig, 3560.01MHz TM1.1, 3649.99MHz TM1.1, 37dBm, -48Vdc power
Configuration	Radiated Emissions 30MHz - 1GHz, FCC Part 15 Class B limit, 3m measurement distance, offset bore, RCVR MXE E1218, Preamp E814, Ant E602, RBW 120KHz
Date	2022-07-08 10:43:24

Formal Data

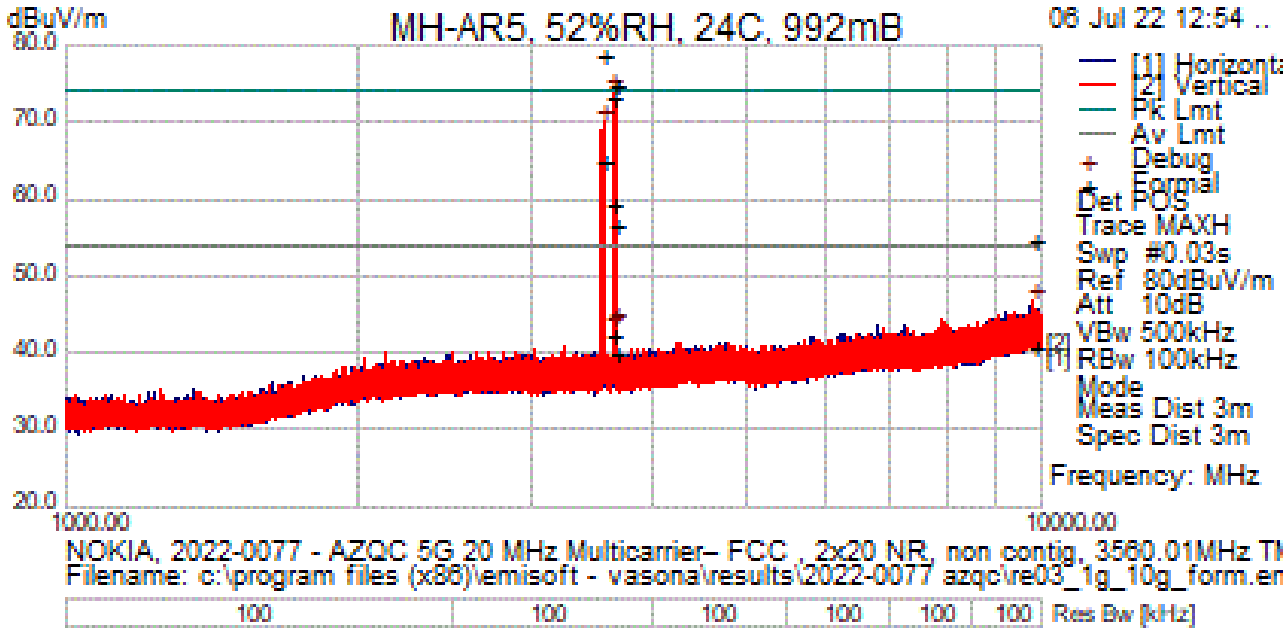
Freq. (MHz)	Raw (dBuV)	Cable (dB)	Factor (dB)	Level (dBuV/m)	Emission Type	Pol (H/V)	Ht (cm)	Az (deg)	Limit (dBuV/m)	Margin (dB)	Pass/ Fail	Comments
318.825	51.37	1.55	-13.52	39.40	QuasiMax	V	109	306	46.00	-6.60	Pass	
324.756	48.36	1.55	-13.40	36.51	QuasiMax	V	106	285	46.00	-9.49	Pass	
45.876	41.73	0.69	-16.33	26.09	QuasiMax	V	105	6	40.00	-13.91	Pass	
77.392	43.78	0.88	-19.06	25.60	QuasiMax	V	151	78	40.00	-14.40	Pass	
359.607	38.35	1.55	-12.74	27.16	QuasiMax	H	113	265	46.00	-18.84	Pass	
80.117	37.40	0.90	-18.42	19.88	QuasiMax	V	116	20	40.00	-20.12	Pass	
78.512	34.33	0.89	-18.79	16.43	QuasiMax	V	134	14	40.00	-23.57	Pass	

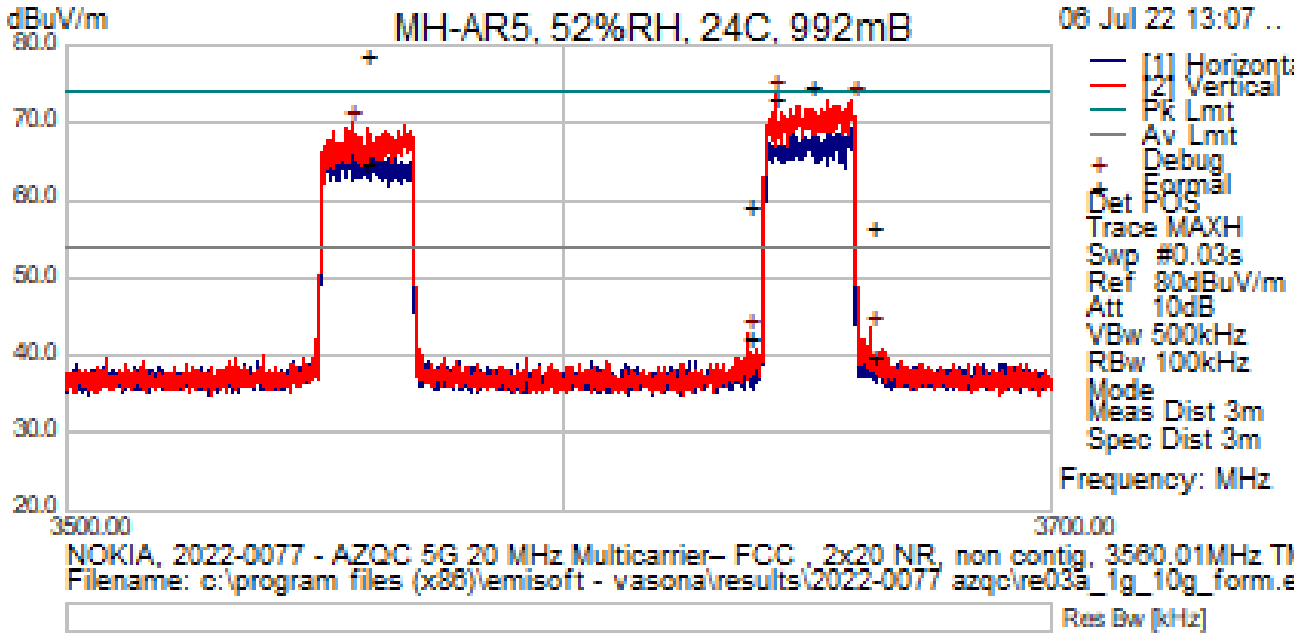
Preview Data

Freq. (MHz)	Raw (dBuV)	Cable (dB)	Factor (dB)	Level (dBuV/m)	Emission Type	Pol (H/V)	Ht (cm)	Az (deg)	Limit (dBuV/m)	Margin (dB)	Pass/ Fail	Comments
319.092333	51.80	1.55	-13.51	39.84	Debug	V	100	315	46.00	-6.16	Pass	
77.012667	49.69	0.88	-19.15	31.41	Debug	V	100	0	40.00	-8.59	Pass	
45.875667	45.68	0.69	-16.33	30.04	Debug	V	100	0	40.00	-9.96	Pass	
326.820	47.29	1.55	-13.37	35.47	Debug	V	100	315	46.00	-10.53	Pass	
78.694	47.24	0.89	-18.75	29.37	Debug	V	100	0	40.00	-10.63	Pass	
361.028667	45.55	1.55	-12.67	34.43	Debug	H	100	270	46.00	-11.57	Pass	
80.116667	45.00	0.90	-18.42	27.48	Debug	V	100	0	40.00	-12.52	Pass	
365.361333	42.82	1.55	-12.48	31.90	Debug	V	100	270	46.00	-14.10	Pass	
68.897	45.86	0.81	-21.00	25.67	Debug	V	100	90	40.00	-14.33	Pass	
374.544	41.96	1.55	-12.08	31.43	Debug	V	100	270	46.00	-14.57	Pass	
63.950	45.88	0.78	-21.49	25.17	Debug	V	100	45	40.00	-14.83	Pass	
60.943	45.28	0.76	-21.31	24.73	Debug	V	100	45	40.00	-15.27	Pass	
953.310667	31.08	2.72	-3.34	30.46	Debug	H	385	0	46.00	-15.54	Pass	
163.633667	37.15	1.26	-11.27	27.15	Debug	V	100	270	43.50	-16.35	Pass	
81.086667	40.86	0.91	-18.22	23.54	Debug	V	100	0	40.00	-16.46	Pass	
50.952	41.17	0.68	-18.33	23.52	Debug	V	100	315	40.00	-16.48	Pass	
264.610667	40.65	1.49	-13.24	28.90	Debug	V	200	135	46.00	-17.10	Pass	
48.300667	39.27	0.68	-17.30	22.64	Debug	V	100	45	40.00	-17.36	Pass	
30.970	30.78	0.75	-9.21	22.33	Debug	V	300	135	40.00	-17.67	Pass	
169.389	35.88	1.28	-12.27	24.88	Debug	V	100	270	43.50	-18.62	Pass	
376.031333	37.60	1.55	-12.03	27.13	Debug	V	100	270	46.00	-18.87	Pass	
66.342667	41.57	0.80	-21.36	21.01	Debug	V	100	45	40.00	-18.99	Pass	
69.640667	40.70	0.82	-20.90	20.62	Debug	V	100	0	40.00	-19.38	Pass	
247.571	37.28	1.46	-12.19	26.56	Debug	H	100	225	46.00	-19.44	Pass	
64.596667	41.26	0.78	-21.53	20.52	Debug	V	100	45	40.00	-19.48	Pass	
57.968333	40.12	0.74	-20.70	20.15	Debug	V	100	135	40.00	-19.85	Pass	
257.853	37.16	1.48	-12.59	26.05	Debug	V	100	270	46.00	-19.95	Pass	
380.008333	36.30	1.55	-11.91	25.95	Debug	V	100	270	46.00	-20.05	Pass	
202.045667	38.01	1.36	-16.09	23.28	Debug	V	300	90	43.50	-20.22	Pass	
242.979667	37.17	1.45	-12.90	25.72	Debug	H	100	180	46.00	-20.28	Pass	
59.326333	39.95	0.75	-21.07	19.63	Debug	V	100	45	40.00	-20.37	Pass	
239.520	37.45	1.44	-13.44	25.45	Debug	H	100	270	46.00	-20.55	Pass	
247.862	35.86	1.46	-12.14	25.18	Debug	H	100	225	46.00	-20.82	Pass	
36.369667	30.39	0.73	-11.96	19.16	Debug	V	100	315	40.00	-20.84	Pass	
236.351333	37.45	1.44	-13.95	24.94	Debug	H	185	225	46.00	-21.06	Pass	
432.000333	34.18	1.56	-10.85	24.88	Debug	H	185	270	46.00	-21.12	Pass	
400.022667	34.65	1.56	-11.34	24.87	Debug	V	100	270	46.00	-21.13	Pass	
249.802	35.09	1.46	-11.84	24.71	Debug	H	185	225	46.00	-21.29	Pass	
175.338333	33.95	1.30	-13.27	21.97	Debug	V	100	270	43.50	-21.53	Pass	
264.804667	35.74	1.49	-13.26	23.96	Debug	V	100	270	46.00	-22.04	Pass	
385.893	34.01	1.55	-11.74	23.82	Debug	V	100	270	46.00	-22.18	Pass	
407.330	33.38	1.56	-11.19	23.75	Debug	V	100	270	46.00	-22.25	Pass	
82.347667	34.75	0.92	-17.97	17.70	Debug	V	100	0	40.00	-22.30	Pass	
401.445333	32.94	1.56	-11.31	23.18	Debug	V	100	270	46.00	-22.82	Pass	
51.857333	34.95	0.69	-18.68	16.95	Debug	V	100	0	40.00	-23.05	Pass	
176.017333	32.08	1.30	-13.35	20.03	Debug	V	100	315	43.50	-23.47	Pass	
185.588	31.94	1.32	-14.50	18.76	Debug	H	100	270	43.50	-24.74	Pass	

Note: Preview data was measured using a peak detector to identify frequencies of interest for formal measurement. Formal data consist of all frequencies in the preview list within 6 dB of specification limit or the top six frequencies. Failure in preview data does not necessarily constitute failure in formal data.

RE 1GHz – 10GHz





Test Information

Results Title	Radiated E 3m 1-18GHz
File Name	re03a_1g_10g_form.emi
Test Laboratory	MH-AR5, 52%RH, 24C, 992mB
Test Engineer	NPA
Test Software	Vasona by EMISoft, version 6.061
Equipment	NOKIA
EUT Details	2022-0077 - AZQC 5G 20 MHz Multicarrier– (P) 474156A.101 (S) 1M181624805, FCC, 2x20 NR, non-contig, 3560.01MHz TM1.1, 3649.99MHz TM1.1, 37dBm, -48Vdc power
Configuration	Radiated Emissions 1GHz - 10GHz, FCC Part 15 Class B limit, 3m measurement distance, straight bore, RCVR ESW E1511, Preamp E1166, Ant E1073, AR5 Cables, 6dB pad E1572, Preview RBW 120KHz, RBW 1MHz Formal
Date	2022-07-06 13:07:32

Formal Data

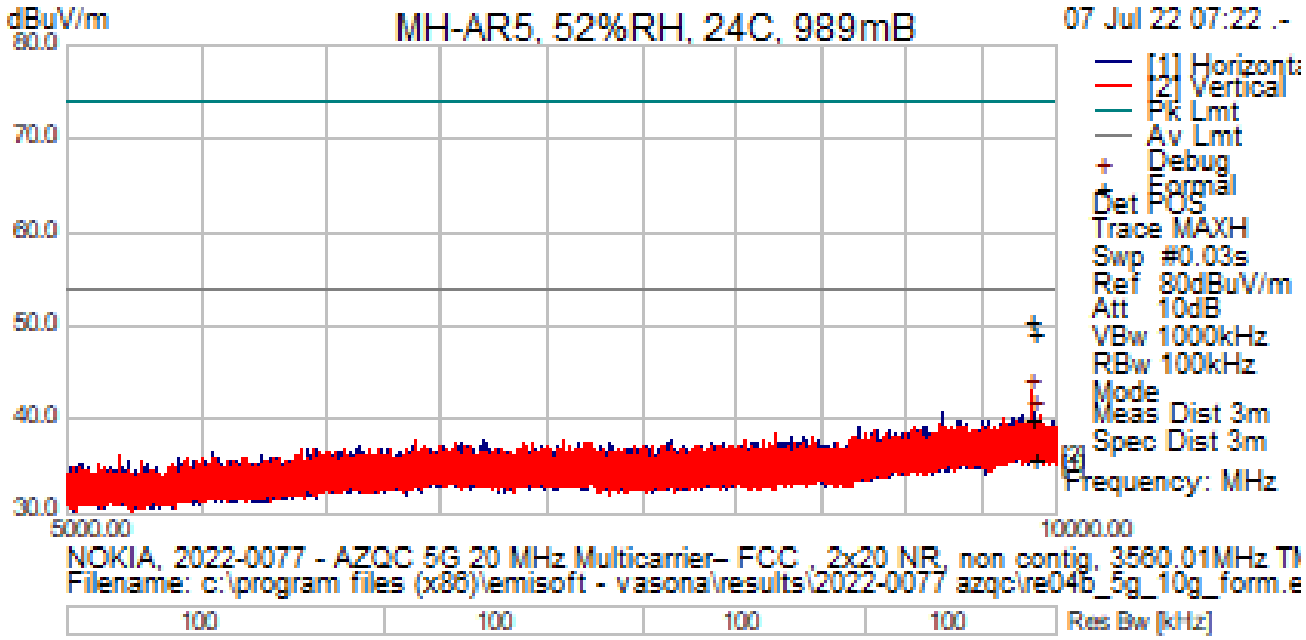
Freq. (MHz)	Raw (dBuV)	Cable (dB)	Factor (dB)	Level (dBuV/m)	Emission Type	Pol (H/V)	Ht (cm)	Az (deg)	Limit (dBuV/m)	Margin (dB)	Pass/ Fail	Comments
3650.028	69.94	9.26	-4.49	74.71	AvgMax	V	148	21	54.00	20.71	Fail	carrier
3642.950	68.59	9.25	-4.50	73.35	AvgMax	V	138	9	54.00	19.35	Fail	carrier
3650.028	83.71	9.26	-4.49	88.48	PeakMax	V	148	21	74.00	14.48	Fail	carrier
3642.950	82.83	9.25	-4.50	87.58	PeakMax	V	138	9	74.00	13.58	Fail	carrier
3559.928	60.40	9.20	-4.62	64.97	AvgMax	V	147	7	54.00	10.97	Fail	carrier
3559.928	74.20	9.20	-4.62	78.78	PeakMax	V	147	7	74.00	4.78	Fail	carrier
3637.398	37.64	9.25	-4.51	42.38	AvgMax	V	132	10	54.00	-11.62	Pass	EUT
9830.400	30.40	11.56	-1.04	40.92	AvgMax	V	305	79	54.00	-13.08	Pass	noise floor
3662.750	35.13	9.27	-4.47	39.93	AvgMax	V	132	8	54.00	-14.07	Pass	EUT
3637.398	54.77	9.25	-4.51	59.51	PeakMax	V	132	10	74.00	-14.49	Pass	EUT
3662.750	51.84	9.27	-4.47	56.64	PeakMax	V	132	8	74.00	-17.36	Pass	EUT
9830.400	44.31	11.56	-1.04	54.83	PeakMax	V	305	79	74.00	-19.17	Pass	noise floor

Preview Data

Freq. (MHz)	Raw (dBuV)	Cable (dB)	Factor (dB)	Level (dBuV/m)	Emission Type	Pol (H/V)	Ht (cm)	Az (deg)	Limit (dBuV/m)	Margin (dB)	Pass/ Fail	Comments
3642.950	69.06	9.25	-4.50	73.82	Debug	V	100	0	54.00	19.82	Fail	
3658.850	68.32	9.27	-4.48	73.11	Debug	V	100	0	54.00	19.11	Fail	
3556.800	65.39	9.20	-4.63	69.96	Debug	V	100	0	54.00	15.96	Fail	
9830.400	36.11	11.56	-1.04	46.63	Debug	V	100	180	54.00	-7.37	Pass	
3662.750	38.64	9.27	-4.47	43.43	Debug	V	100	0	54.00	-10.57	Pass	
3637.398	38.10	9.25	-4.51	42.84	Debug	V	100	317	54.00	-11.16	Pass	

Note: Preview data was measured using a peak detector to identify frequencies of interest for formal measurement. Formal data consist of all frequencies in the preview list within 6 dB of specification limit or the top six frequencies. Failure in preview data does not necessarily constitute failure in formal data.

RE 5GHz – 10GHz



Test Information

Results Title	Radiated E 3m 1-18GHz
File Name	re04b_5g_10g_form.emi
Test Laboratory	MH-AR5, 52%RH, 24C, 989mB
Test Engineer	NPA
Test Software	Vasona by EMISoft, version 6.061
Equipment	NOKIA
EUT Details	2022-0077 - AZQC 5G 20 MHz Multicarrier– (P) 474156A.101 (S) 1M181624805, FCC, 2x20 NR, non-contig, 3560.01MHz TM1.1, 3649.99MHz TM1.1, 37dBm, -48Vdc power
Configuration	Radiated Emissions 5GHz - 10GHz, FCC Part 15 Class B limit, 3m measurement distance, straight bore, RCVR ESW E1511, Preamp E1166, Ant E1073, AR5 Cables, HPF E1480, Preview RBW 120KHz, RBW 1MHz Formal
Date	2022-07-07 07:22:51

Formal Data

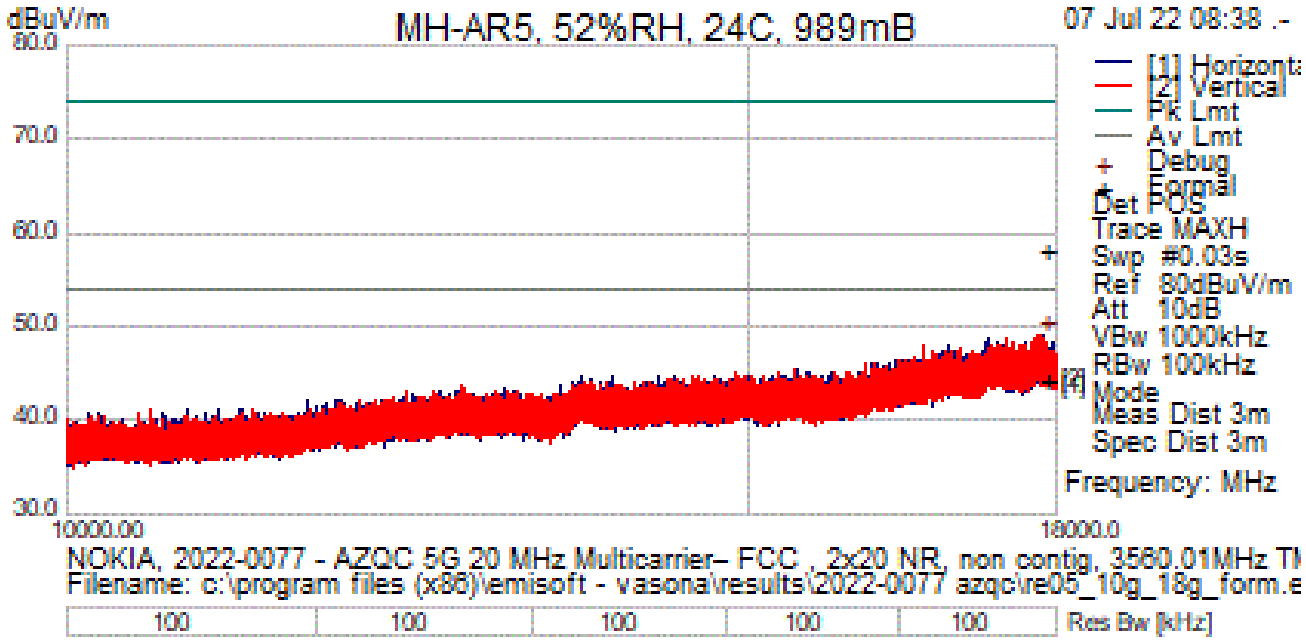
Freq. (MHz)	Raw (dBuV)	Cable (dB)	Factor (dB)	Level (dBuV/m)	Emission Type	Pol (H/V)	Ht (cm)	Az (deg)	Limit (dBuV/m)	Margin (dB)	Pass/ Fail	Comments
9830.399	45.51	6.32	-1.04	50.79	PeakMax	V	147	239	74.00	-23.21	Pass	
9856.292	43.97	6.32	-1.01	49.28	PeakMax	H	100	293	74.00	-24.72	Pass	Noise Floor
9830.399	34.75	6.32	-1.04	40.03	AvgMax	V	147	239	54.00	-13.97	Pass	
9856.292	30.32	6.32	-1.01	35.64	AvgMax	H	100	293	54.00	-18.36	Pass	Noise Floor

Preview Data

Freq. (MHz)	Raw (dBuV)	Cable (dB)	Factor (dB)	Level (dBuV/m)	Emission Type	Pol (H/V)	Ht (cm)	Az (deg)	Limit (dBuV/m)	Margin (dB)	Pass/ Fail	Comments
9830.416667	37.65	6.32	-1.04	42.93	Debug	V	100	180	54.00	-11.07	Pass	
9856.291667	35.40	6.32	-1.01	40.71	Debug	H	100	315	54.00	-13.29	Pass	

Note: Preview data was measured using a peak detector to identify frequencies of interest for formal measurement. Formal data consist of all frequencies in the preview list within 6 dB of specification limit or the top six frequencies. Failure in preview data does not necessarily constitute failure in formal data.

RE 10GHz – 18GHz



Test Information

Results Title	Radiated E 3m 1-18GHz
File Name	re05a_10g_18g_form.emi
Test Laboratory	MH-AR5, 52%RH, 24C, 989mB
Test Engineer	NPA
Test Software	Vasona by EMISoft, version 6.061
Equipment	NOKIA
EUT Details	2022-0077 - AZQC 5G 20 MHz Multicarrier– (P) 474156A.101 (S) 1M181624805, FCC, 2x20 NR, non-contig, 3560.01MHz TM1.1, 3649.99MHz TM1.1, 37dBm, -48Vdc power
Configuration	Radiated Emissions 10GHz - 18GHz, FCC Part 15 Class B limit, 3m measurement distance, straight bore, RCVR ESW E1511, Preamp E1166, Ant E1073, AR5 Cables, HPF E1480, Preview RBW 120KHz, RBW 1MHz Formal
Date	2022-07-07 08:39:57

Formal Data

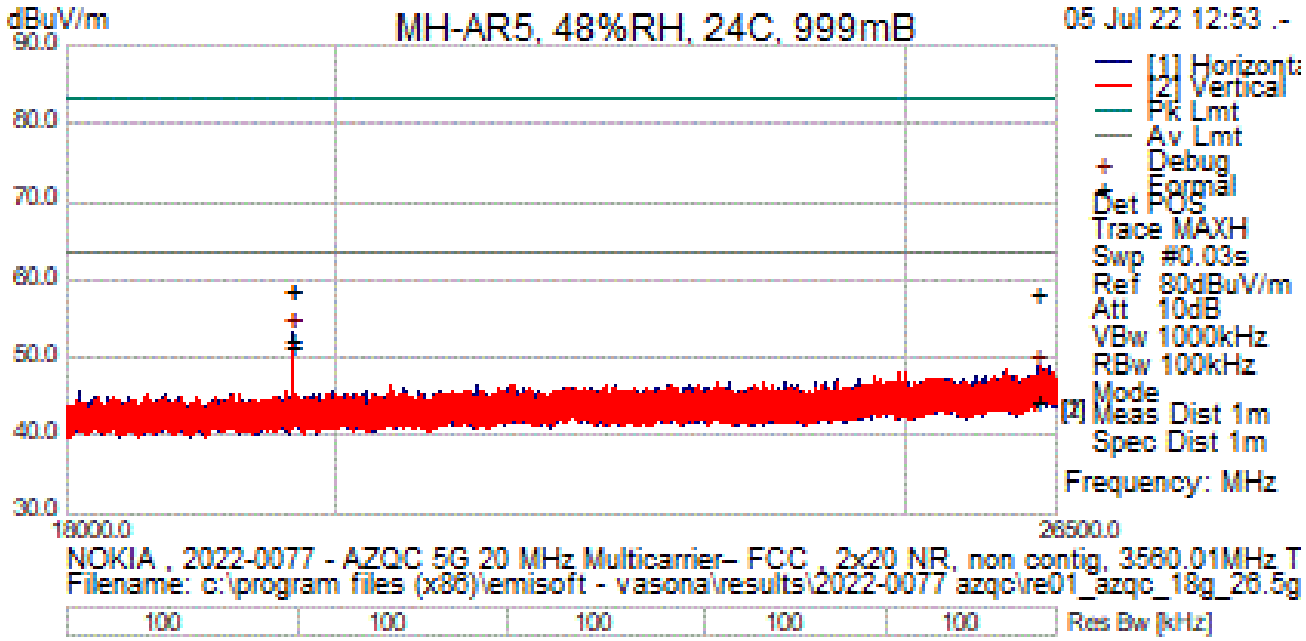
Freq. (MHz)	Raw (dBuV)	Cable (dB)	Factor (dB)	Level (dBuV/m)	Emission Type	Pol (H/V)	Ht (cm)	Az (deg)	Limit (dBuV/m)	Margin (dB)	Pass/ Fail	Comments
17884.160	30.23	8.92	5.13	44.28	AvgMax	H	295	0	54.00	-9.72	Pass	Noise Floor
17884.160	44.06	8.92	5.13	58.11	PeakMax	H	295	0	74.00	-15.89	Pass	

Preview Data

Freq. (MHz)	Raw (dBuV)	Cable (dB)	Factor (dB)	Level (dBuV/m)	Emission Type	Pol (H/V)	Ht (cm)	Az (deg)	Limit (dBuV/m)	Margin (dB)	Pass/ Fail	Comments
17884.160	34.97	8.92	5.13	49.02	Debug	H	300	0	54.00	-4.98	Pass	

Note: Preview data was measured using a peak detector to identify frequencies of interest for formal measurement. Formal data consist of all frequencies in the preview list within 6 dB of specification limit or the top six frequencies. Failure in preview data does not necessarily constitute failure in formal data.

RE 18 GHz – 26.5 GHz



Test Information

Results Title	Radiated E 1m 18-26.5GHz
File Name	re01a_azqc_18g_26.5g_form.emi
Test Laboratory	MH-AR5, 48%RH, 24C, 999mB
Test Engineer	NPA
Test Software	Vasona by EMISoft, version 6.061
Equipment	NOKIA
EUT Details	2022-0077 - AZQC 5G 20 MHz Multicarrier– FCC (P) 474156A.101 (S) 1M181624805, 2x20 NR, non-contig, 3560.01MHz TM1.1, 3649.99MHz TM1.1, 37dBm, -48Vdc power
Configuration	Radiated Emissions 18GHz - 26.5GHz, FCC Part 15 Class B limit, 1m measurement distance, straight bore, RCVR ESW E1511, Preamp E1387, Ant E1527, Cables E1528 & E1529, Preview RBW 120KHz, RBW 1MHz Formal
Date	2022-07-05 12:55:37

Formal Data

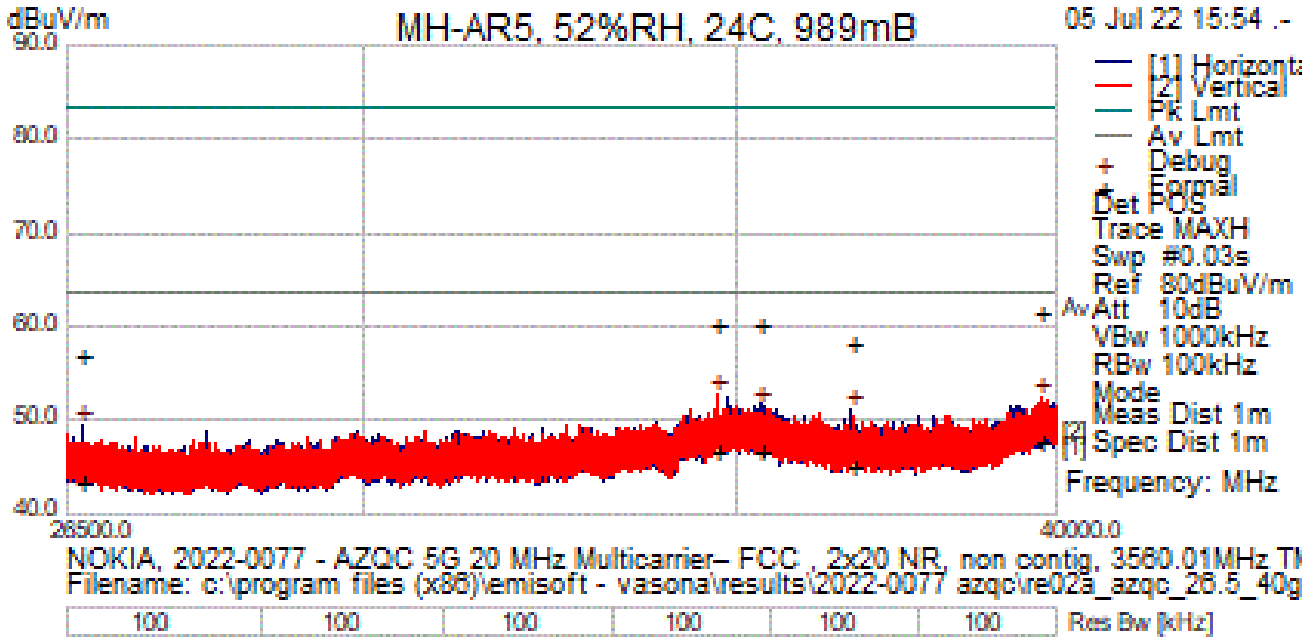
Freq. (MHz)	Raw (dBuV)	Cable (dB)	Factor (dB)	Level (dBuV/m)	Emission Type	Pol (H/V)	Ht (cm)	Az (deg)	Limit (dBuV/m)	Margin (dB)	Pass/ Fail	Comments
19660.765	50.32	10.51	-8.33	52.50	AvgMax	H	100	1	63.50	-11.00	Pass	
19660.843	49.36	10.51	-8.33	51.53	AvgMax	V	100	17	63.50	-11.97	Pass	
26316.456	37.34	12.46	-5.16	44.64	AvgMax	H	174	167	63.50	-18.86	Pass	Noise floor
19660.843	56.75	10.51	-8.33	58.93	PeakMax	V	100	17	83.50	-24.57	Pass	
19660.765	56.75	10.51	-8.33	58.92	PeakMax	H	100	1	83.50	-24.58	Pass	
26316.456	50.91	12.46	-5.16	58.21	PeakMax	H	174	167	83.50	-25.29	Pass	Noise floor

Preview Data

Freq. (MHz)	Raw (dBuV)	Cable (dB)	Factor (dB)	Level (dBuV/m)	Emission Type	Pol (H/V)	Ht (cm)	Az (deg)	Limit (dBuV/m)	Margin (dB)	Pass/ Fail	Comments
19660.843	51.00	10.50	-8.30	53.20	Debug	H	100	0	63.50	-10.30	Pass	
26316.456	41.40	12.50	-5.20	48.74	Debug	H	100	0	63.50	-14.80	Pass	
19660.843	51.00	10.50	-8.30	53.20	Debug	V	100	0	63.50	-10.30	Pass	

Note: Preview data was measured using a peak detector to identify frequencies of interest for formal measurement. Formal data consist of all frequencies in the preview list within 6 dB of specification limit or the top six frequencies. Failure in preview data does not necessarily constitute failure in formal data.

RE 26.5 GHz – 40 GHz



Test Information

Results Title	Radiated E 1m 18-26.5GHz
File Name	re02b_azqc_26.5_40g_form.emi
Test Laboratory	MH-AR5, 52%RH, 24C, 989mB
Test Engineer	NPA
Test Software	Vasona by EMISoft, version 6.061
Equipment	NOKIA
EUT Details	2022-0077 - AZQC 5G 20 MHz Multicarrier– FCC (P) 474156A.101 (S) 1M181624805, 2x20 NR, non-contig, 3560.01MHz TM1.1, 3649.99MHz TM1.1, 37dBm, -48Vdc power
Configuration	Radiated Emissions 26.5GHz - 40GHz, FCC Part 15 Class B limit, 1m measurement distance, straight bore, RCVR ESW E1511, Preamp E1387, Ant E1527, Cables E1528 & E1529, Preview RBW 120KHz, RBW 1MHz Formal
Date	2022-07-06 07:10:09

Formal Data

Freq. (MHz)	Raw (dBuV)	Cable (dB)	Factor (dB)	Level (dBuV/m)	Emission Type	Pol (H/V)	Ht (cm)	Az (deg)	Limit (dBuV/m)	Margin (dB)	Pass/ Fail	Comments
39750.925	38.28	15.45	-5.95	47.78	AvgMax	V	140	169	63.50	-15.72	Pass	Noise floor
35374.150	39.14	14.23	-6.44	46.94	AvgMax	H	100	114	63.50	-16.56	Pass	
34747.225	38.48	14.11	-5.68	46.91	AvgMax	V	173	149	63.50	-16.59	Pass	
36729.025	39.09	14.48	-8.57	45.00	AvgMax	H	150	194	63.50	-18.50	Pass	
26682.025	36.03	12.47	-5.06	43.43	AvgMax	H	136	268	63.50	-20.07	Pass	
39750.925	52.11	15.45	-5.95	61.61	PeakMax	V	140	169	83.50	-21.89	Pass	
35374.150	52.67	14.23	-6.44	60.46	PeakMax	H	100	114	83.50	-23.04	Pass	
34747.225	51.84	14.11	-5.68	60.27	PeakMax	V	173	149	83.50	-23.23	Pass	
36729.025	52.49	14.48	-8.57	58.40	PeakMax	H	150	194	83.50	-25.10	Pass	
26682.025	49.51	12.47	-5.06	56.92	PeakMax	H	136	268	83.50	-26.58	Pass	

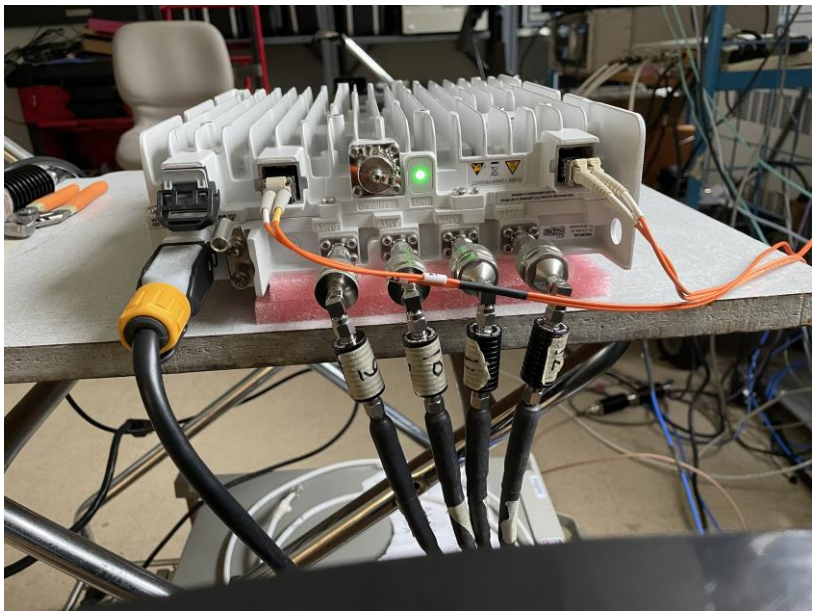
Preview Data

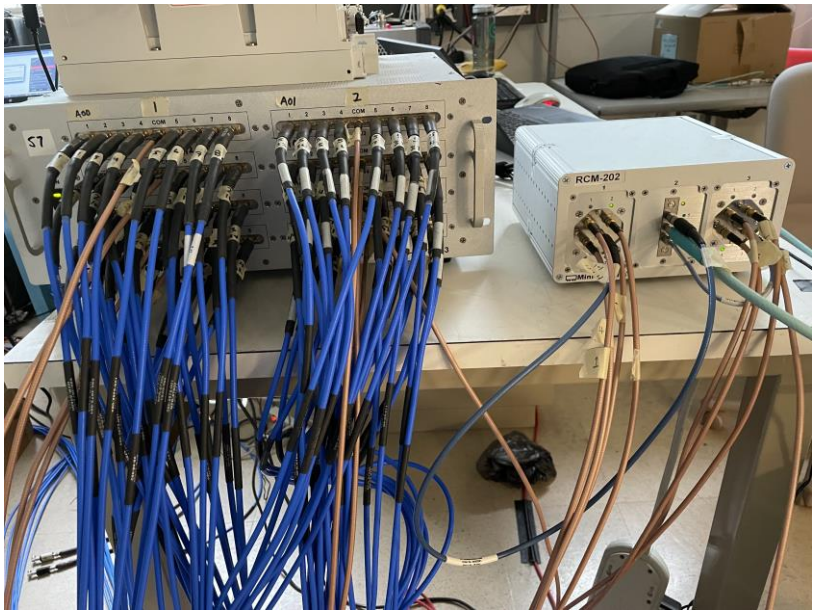
Freq. (MHz)	Raw (dBuV)	Cable (dB)	Factor (dB)	Level (dBuV/m)	Emission Type	Pol (H/V)	Ht (cm)	Az (deg)	Limit (dBuV/m)	Margin (dB)	Pass/ Fail	Comments
34747.225	44.46	14.11	-5.68	52.89	Debug	V	200	242	63.50	-10.61	Pass	
39750.925	43.03	15.45	-5.95	52.53	Debug	V	200	88	63.50	-10.97	Pass	
35374.150	43.86	14.23	-6.44	51.65	Debug	H	100	286	63.50	-11.85	Pass	
36729.025	45.15	14.48	-8.57	51.06	Debug	H	200	88	63.50	-12.44	Pass	
26682.025	42.10	12.47	-5.06	49.50	Debug	H	100	0	63.50	-14.00	Pass	

Note: Preview data was measured using a peak detector to identify frequencies of interest for formal measurement. Formal data consist of all frequencies in the preview list within 6 dB of specification limit or the top six frequencies. Failure in preview data does not necessarily constitute failure in formal data.

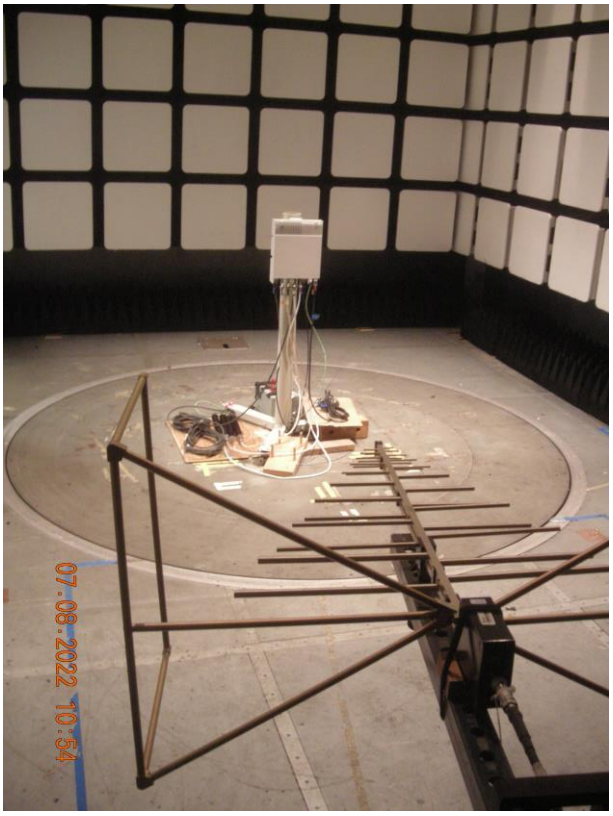
Photographs

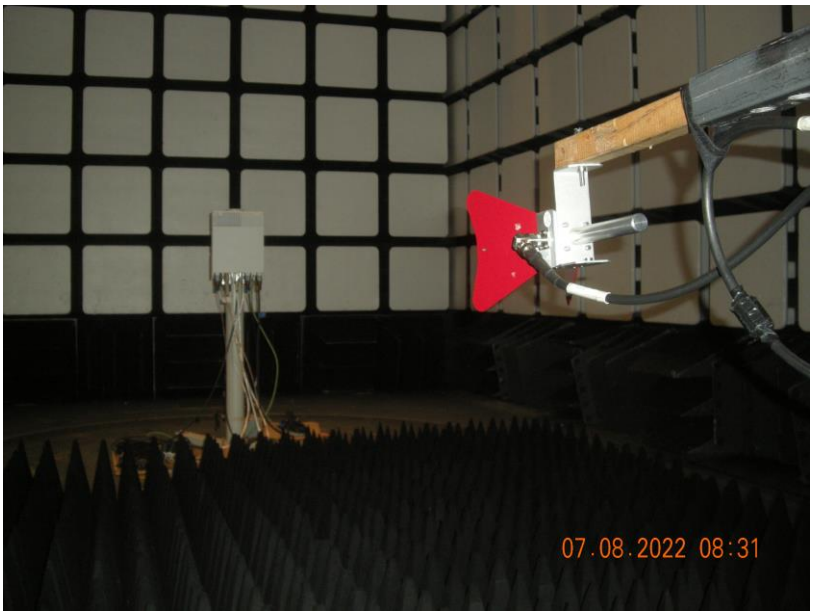
Radio Test




RCM-202

Radiated Emission Test





Test Equipment

Radio Test Equipment

Asset ID	Manufacturer	Type	Description	Model	Serial	Calibration Date	Calibration Due
E896	Agilent Technologies	Network Analyzer	10 MHz - 40 GHz	N5230C	MY49000897	2021-03-03	2023-03-03
E1338	KeySight Technologies	MXA Signal Analyzer		N9020B	MY57430927	2021-01-07	2023-01-07
E1212	RLC Electronics Inc	Filter, High Pass	10 - 30 GHz, 2W, 5dB	F-19414	1444002	CNR-V	CNR-V
E1156	Weinschel	Attenuator	10dB 0.05GHz-26GHz 25W	74-10-12	1069	CNR-V	CNR-V
E1154	Weinschel	Attenuator	30dB 25W 0.05GHz-26GHz	74-30-12	1065	CNR-V	CNR-V
	Utiflex Micro-coax	RF Cable		MFR6 64639 858616-001	UFB142A-Q-0760-2002G0	NA	NA
		Attenuator	30dB 10W DC-6GHz	P/N:ZSJ30-10RS-6TA		NA	NA

CNR-V: Calibration Not Required, Must Be Verified
Test Dates: 6/21/2022 – 6/24/2022

Radiated Emission Test Equipment

Asset ID	Manufacturer	Type	Description	Model	Serial	Calibration Date	Calibration Due
E602	A.H. Systems Inc.	Bilogical Antenna	25 - 2000 MHz	SAS-521-2	410	2021-09-21	2023-09-21
E1166	Agilent Technologies	Pre-Amplifier	Pre-Amplifier 1-26.5GHz	8449B	3008A01740	2021-01-12	2023-01-12
E1073	ETS Lindgren	Horn Antenna	Double-Ridged Waveguide Horn 1-18 GHz	3117	00135198	2022-01-04	2024-01-04
E1480	Reactel, Inc.	Filter, High Pass	DC - 4.3 GHz	11HS-X4.3GS11	SN20-02	N/A	N/A
E1572	Weinschel	Attenuator	0-18 GHz, 6dB, 5W	WA2-6-0304	N/A	2021-12-01	2022-12-01
E1527	ETS Lindgren	Horn Antenna	Double Ridged Horn 10-40 GHz	3116C	00227823	2020-08-13	2022-08-13
E1188	Extech	Data Logger	Barometric Preasure/Humd/Temp Logger	SD700	Q774046	2020-11-12	2022-11-12
E1218	KeySight Technologies	EMI Receiver	MXE EMI Receiver 44 GHz	N9038A	MY54130037	2021-12-29	2023-12-29

Asset ID	Manufacturer	Type	Description	Model	Serial	Calibration Date	Calibration Due
E1511	Rohde & Schwarz	Test Receiver	EMI Test Receiver 2 Hz - 44 GHz	ESW44	101965	2021-04-07	2023-04-07
E1529	Micro-Coax	Cable	1-40 GHz, 2.92 (m)+2.92 (m), 237 inch., armor, 90 degree bent	UFB142A-0-2370-2002G0	SFC235841	N/A	N/A
E1528	Micro-Coax	Cable	1-40 GHz, 2.92 (m)+2.92 (m), 36 inch., armor, 90 degree bent	UFB142A-Q-0360-2002GO	SFC235840	N/A	N/A
E1387	Miteq	Pre-Amplifier	18 GHz-40 GHz, 45dBm	TTA1840-35-HG	2034	2020-08-28	2022-08-28
E814	Sonoma Instrument Co.	Amplifier	9kHz-1GHz	310N	186747	2020-09-23	2022-09-23
E1125	York EMC Services	Site Source	3M High Frequency 900MHz- 40GHz	CGE03KIT01	1224	N/A	N/A

CNR-V: Calibration Not Required, Must Be Verified
Test Dates: 7/5/2022 – 7/8/2022

7. NVLAP Certificate of Accreditation

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 100275-0

Nokia, Global Product Compliance Lab
Murray Hill, NJ

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Electromagnetic Compatibility & Telecommunications

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2021-09-24 through 2022-09-30
Effective Dates

For the National Voluntary Laboratory Accreditation Program