

RF EXPOSURE REPORT

CERTIFICATE OF CONFORMITY

FCC Rule Part: FCC Part 2 (Section 2.1091)

Report No.: MFBCKS-WTW-P25110023

FCC ID: UXX-FE990B40NA

Product: 5G NR Module

Brand: Ericsson

Model No.: FE990B40-NAD

Received Date: 2025/9/23

Test Date: 2025/12/5

Issued Date: 2026/1/14

Applicant: Ericsson Enterprise Wireless Solutions, Inc.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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FCC Registration /

Designation Number: 788550 / TW0003

Approved by:

Jeremy Lin

Date:

2026/1/14

Jeremy Lin / Project Engineer

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Prepared by : Pettie Chen / Senior Specialist

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Release Control Record

Issue No.	Description	Date Issued
MFBACKS-WTW-P25110023	Original release.	2026/1/14

1 Certificate

Product: 5G NR Module

Brand: Ericsson

Test Model: FE990B40-NAD

Sample Status: Engineering sample

Applicant: Ericsson Enterprise Wireless Solutions, Inc.

Test Date: 2025/12/5

FCC Rule Part: FCC Part 2 (Section 2.1091)

Standard: KDB 447498 D04 Interim General RF Exposure Guidance v01

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

2 Applicable RF Exposure Limit

§ 1.1310 Radiofrequency radiation exposure limits.

(a) Specific absorption rate (SAR) shall be used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in § 1.1307(b) of this part within the frequency range of 100 kHz to 6 GHz (inclusive).

(b) The SAR limits for occupational/controlled exposure are 0.4 W/kg, as averaged over the whole body, and a peak spatial-average SAR of 8 W/kg, averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the parts of the human body treated as extremities, such as hands, wrists, feet, ankles, and pinnae, where the peak spatial-average SAR limit for occupational/controlled exposure is 20 W/kg, averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). Exposure may be averaged over a time period not to exceed 6 minutes to determine compliance with occupational/controlled SAR limits.

(c) The SAR limits for general population/uncontrolled exposure are 0.08 W/kg, as averaged over the whole body, and a peak spatial-average SAR of 1.6 W/kg, averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the parts of the human body treated as extremities, such as hands, wrists, feet, ankles, and pinnae, where the peak spatial-average SAR limit is 4 W/kg, averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). Exposure may be averaged over a time period not to exceed 30 minutes to determine compliance with general population/uncontrolled SAR limits.

(e) Maximum Permissible Exposure (MPE) to radiofrequency electromagnetic fields

➤ Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (minutes)
Limits For General Population / Uncontrolled Exposure				
0.3-1.34	614	1.63	(100)*	<30
1.34-30	824/f	2.19/f	(180/f ²)*	<30
30-300	27.5	0.073	0.2	<30
300-1,500	...	...	f/1500	<30
1,500-100,000	...	...	1.0	<30

f = frequency in MHz. * = Plane-wave equivalent power density.

➤ Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (minutes)
Limits For General Population / Uncontrolled Exposure				
0.3-3.0	614	1.63	*(100)	≤6
3.0-30	1842/f	4.89/f	*(900/f ²)	<6
30-300	61.4	0.163	1.0	<6
300-1,500	...	...	f/300	<6
1,500-100,000	...	...	5	<6

f = frequency in MHz. * = Plane-wave equivalent power density.

MPE-based Exemption – §1.1307(b)(3)(i)(B)

- For mobile devices that are not exempt per Table 1 of §1.1307(b)(1)(i)(C) and device at distances from 20 cm to 40 cm and in 0.3 GHz to 6 GHz. The MPE-based test exemption condition is in terms of ERP, defined as the product of the maximum antenna gain and the delivered maximum time-averaged power.

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases}$$

3 Test Results

Environmental Conditions:	25°C, 65% RH	Tested By:	Charles Hsiao
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LTE

MPE-based Exemption §1.1307(b)(3)(i)(B)							
Operation Mode	Frequency Band (MHz)	Average Power (mW)	Antenna Gain (dBi)	Maximum ERP (mW)	Distance (cm)	Limit Threshold (mW)	Test Result
LTE Band 2	1850-1910	187.932	3.1	233.884	20	3060	Pass
LTE Band 4	1710-1755	199.526	2.67	224.905	20	3060	Pass
LTE Band 5	824-849	215.278	2.881	254.741	20	1680.96	Pass
LTE Band 7	2500-2570	184.927	4.502	317.834	20	3060	Pass
LTE Band 12	699-716	206.063	2.927	246.434	20	1425.96	Pass
LTE Band 13	777-787	214.783	2.721	244.963	20	1585.08	Pass
LTE Band 14	788-798	195.884	2.821	228.612	20	1607.52	Pass
LTE Band 17	703-716	155.597	2.927	186.081	20	1434.12	Pass
LTE Band 25	1850-1915	193.197	3.1	240.436	20	3060	Pass
LTE Band 26	824-849	151.705	2.881	179.515	20	1680.96	Pass
LTE Band 26	814-824	148.936	2.881	176.238	20	1660.56	Pass
LTE Band 30	2305-2315	72.277	4.622	127.703	20	3060	Pass
LTE Band 38 PC2	2570-2620	375.837	4.462	640.029	20	3060	Pass
LTE Band 38 PC3	2570-2620	191.867	4.462	326.738	20	3060	Pass
LTE Band 41 PC3	2496-2690	223.357	4.602	392.825	20	3060	Pass
LTE Band 41 PC2	2496-2690	377.572	4.602	664.048	20	3060	Pass
LTE Band 42	3450-3550	116.681	4.331	192.797	20	3060	Pass
LTE Band 43	3700-3800	66.527	4.377	111.096	20	3060	Pass
LTE Band 48	3550-3700	63.387	4.391	106.194	20	3060	Pass
LTE Band 66	1710-1780	197.242	2.67	222.331	20	3060	Pass
LTE Band 71	663-698	153.815	2.697	174.582	20	1352.52	Pass

NR-SISO

MPE-based Exemption §1.1307(b)(3)(i)(B)							
Operation Mode	Frequency Band (MHz)	Average Power (mW)	Antenna Gain (dBi)	Maximum ERP (mW)	Distance (cm)	Limit Threshold (mW)	Test Result
NR Band 2	1850-1910	227.51	3.1	283.14	20	3060	Pass
NR Band 5	824-849	219.28	2.881	259.477	20	1680.96	Pass
NR Band 7	2500-2570	215.774	4.502	370.851	20	3060	Pass
NR Band 12	699-716	213.796	2.927	255.682	20	1425.96	Pass
NR Band 13	777-787	219.786	2.721	250.669	20	1585.08	Pass
NR Band 14	788-798	217.771	2.821	254.156	20	1607.52	Pass
NR Band 25	1850-1915	242.103	3.1	301.301	20	3060	Pass
NR Band 26	824-849	239.883	2.881	283.857	20	1680.96	Pass
NR Band 26	814-824	239.332	2.881	283.205	20	1660.56	Pass
NR Band 30	2305-2315	71.285	4.622	125.95	20	3060	Pass
NR Band 38	2570-2620	224.388	4.462	382.12	20	3060	Pass
NP Band 41 PC3	2496-2690	214.783	4.602	377.746	20	3060	Pass
NR Band 41 PC2	2496-2690	438.531	4.602	771.259	20	3060	Pass
NR Band 48	3550-3700	66.834	4.391	111.969	20	3060	Pass
NR Band 66	1710-1780	234.423	2.67	264.241	20	3060	Pass
NR Band 70	1697.5-1707.5	198.609	2.72	226.464	20	3060	Pass
NR Band 71	663-698	216.77	2.697	245.866	20	1352.52	Pass
NR Band 77 PC3	3450-3550	190.546	4.377	318.2	20	3060	Pass
NR Band 77 PC2	3450-3550	219.28	4.377	366.184	20	3060	Pass
NR Band 77 PC3	3700-3980	190.108	4.377	317.468	20	3060	Pass
NR Band 77 PC2	3700-3980	219.28	4.377	366.184	20	3060	Pass
NR Band 78 PC3	3450-3550	179.887	4.377	300.4	20	3060	Pass
NR Band 78 PC2	3450-3550	226.986	4.377	379.052	20	3060	Pass
NR Band 78 PC3	3700-3800	177.419	4.377	296.278	20	3060	Pass
NR Band 78 PC2	3700-3800	224.388	4.377	374.714	20	3060	Pass

NR-MIMO

MPE-based Exemption §1.1307(b)(3)(i)(B)							
Operation Mode	Frequency Band (MHz)	Average Power (mW)	Antenna Gain (dBi)	Maximum ERP (mW)	Distance (cm)	Limit Threshold (mW)	Test Result
NR Band 2 PC2	1850-1910	319.89	3.1	398.108	20	3060	Pass
NR Band 2 PC3	1850-1910	225.944	3.1	281.191	20	3060	Pass
NR Band 5	824-849	164.437	2.881	194.581	20	1680.96	Pass
NR Band 7	2500-2570	159.956	4.502	274.916	20	3060	Pass
NR Band 25 PC2	1850-1915	322.849	3.1	401.79	20	3060	Pass
NR Band 25 PC3	1850-1915	237.137	3.1	295.12	20	3060	Pass
NR Band 30	2305-2315	70.632	4.622	124.796	20	3060	Pass
NR Band 38	2570-2620	160.694	4.462	273.653	20	3060	Pass
NR Band 41 PC3	2496-2690	246.037	4.602	432.713	20	3060	Pass
NR Band 41 PC2	2496-2690	381.944	4.602	671.738	20	3060	Pass
NR Band 41 PC1.5	2496-2690	672.977	4.602	1183.587	20	3060	Pass
NR Band 48	3550-3700	66.374	4.391	111.198	20	3060	Pass
NR Band 66 PC3	1710-1780	231.739	2.67	261.216	20	3060	Pass
NR Band 66 PC2	1710-1780	334.195	2.67	376.704	20	3060	Pass
NR Band 70	1695-1710	148.594	2.72	169.434	20	3060	Pass
NR Band 71 PC3	663-698	244.906	2.7	277.971	20	1352.52	Pass
NR Band 71 PC2	663-698	335.738	2.697	380.066	20	1352.52	Pass
NR Band 77 PC3	3450-3550	152.757	4.377	255.095	20	3060	Pass
NR Band 77 PC2	3450-3550	154.882	4.377	258.643	20	3060	Pass
NR Band 77 PC1.5	3450-3550	298.538	4.377	498.54	20	3060	Pass
NR Band 77 PC3	3700-3980	296.483	4.377	495.108	20	3060	Pass
NR Band 77 PC2	3700-3980	145.546	4.377	243.053	20	3060	Pass
NR Band 77 PC1.5	3700-3980	296.483	4.377	495.108	20	3060	Pass
NR Band 78 PC3	3450-3550	145.211	4.377	242.493	20	3060	Pass
NR Band 78 PC2	3450-3550	295.121	4.377	492.833	20	3060	Pass
NR Band 78 PC1.5	3450-3550	302.691	4.377	505.475	20	3060	Pass
NR Band 78 PC3	3700-3800	144.544	4.377	241.379	20	3060	Pass
NR Band 78 PC2	3700-3800	291.743	4.377	487.192	20	3060	Pass
NR Band 78 PC1.5	3700-3800	301.995	4.377	504.313	20	3060	Pass

4 Conclusion

Source-base time average power is below Exemption Criteria and/or Routine Evaluation MPE thresholds, therefore the device is compliant FCC RF exposure requirement.

5 Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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The address and road map of all our labs can be found in our web site also.

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