TEST REPORT

Application No.:	SZCR2512005363TL
Applicant:	UAB Teltonika Networks
Address of Applicant:	K. Barsausko st. 66, Kaunas LT-51436 Lithuania
Manufacturer:	TELTONIKA NETWORKS, UAB
Address of Manufacturer:	K. Baršausko st. 66, LT-51436, Kaunas, Lithuania
Factory:	TELTONIKA EMS, UAB
Address of Factory:	Paluokesos st. 11, LT-33133, Molėtai, Lithuania
Equipment Under Test (EUT):	
EUT Name:	5G Wi-Fi 6 Router, LTE Wi-Fi 6 Router
Model No.:	RUTC54, RUTC16 ♣
♣	Please refer to section 3.2 of this report which indicates which model was actually tested and which were electrically identical.
Trade Mark:	TELTONIKA
FCC ID:	2AET4RUTC54
Standard(s) :	FCC Rules 47 CFR §2.1091
	KDB 447498 D04 interim General RF Exposure Guidance v01
Date of Receipt:	2025-12-04
Date of Evaluation:	2025-12-08 to 2026-04-10
Date of Issue:	2026-04-14
Evaluation Result:	**Pass***

* In the configuration evaluated, the EUT complied with the standards specified above.

Keny Xu
EMC Laboratory Manager

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Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		2026-04-14		Original

Authorized for issue by:				
		Charlie Dai **Charlie Dai/Project Engineer**		
		Eric Fu **Eric Fu/Reviewer**		

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2 Contents

SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch Environmental Laboratory
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3 General Information

3.1 General Description of E.U.T.

Product Type:	☐ Portable device
	☒ Mobile device
	☐ Fixed device

3.2 Details of E.U.T.

Power supply:	RUTC54: Power by switching adapter Model No.: ASSA67A-120200 Input: AC 100-240V, 50/60Hz, 0.8A Output: DC 12V, 2.0A RUTC16: Power by switching adapter Model No.: SJ-12020033 Input: AC 100-240V, 50/60Hz, 0.8A Output: DC 12V, 2.0A
For 2.4G WIFI:	
Operation Frequency:	802.11b/g/n(HT20)/ax(HEW20): 2412MHz to 2462MHz; 802.11n(HT40)/ax(HEW40): 2422MHz to 2452MHz
Modulation Type:	802.11b: DSSS (DBPSK, DQPSK, CCK); 802.11g/n: OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024-QAM)
Number of Channels:	802.11b/g/n(HT20)/ax(HEW20):11;802.11n(HT40)/ax(HEW40):7
Channel Spacing:	5MHz
Antenna Type:	RP-SMA Connector Dipole Antenna
Antenna Gain:	ANT1&ANT2: 3dBi

For 5G WIFI:	
Operation Frequency/Number of channels (20MHz):	U-NII-1: 5180-5240MHz (4 Channels); U-NII-2A: 5260-5320MHz (4 Channels); U-NII-2C: 5500-5700MHz (11 Channels); U-NII-3: 5745-5825MHz (5 Channels)
Operation Frequency/Number of channels/(40MHz):	U-NII-1: 5190-5230MHz (2 Channels); U-NII-2A: 5270-5310MHz (2 Channels); U-NII-2C: 5510-5670MHz (5 Channels); U-NII-3: 5755-5795MHz (2 Channels)
Operation Frequency/Number of channels (80MHz):	U-NII-1: 5210MHz (1 Channel); U-NII-2A: 5290MHz (1 Channels); U-NII-2C: 5530-5610MHz (2 Channels); U-NII-3: 5775MHz (1 Channel)
Operation Frequency/Number of channels (160MHz):	U-NII-1&2A: 5250MHz (1 Channel); U-NII-2C: 5570MHz (1 Channels)
Modulation Type:	802.11a: OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM); 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024-QAM)
Channel Spacing:	802.11a/n/ac/ax: 20MHz; 802.11n/ac/ax: 40MHz; 802.11ac/ax: 80MHz; 802.11ac/ax: 160MHz
DFS Function:	Master
Antenna Type:	RP-SMA Connector Dipole Antenna
Antenna Gain:	ANT1 & ANT2 & ANT3: 3dBi
For RUTC16 WCDMA/LTE:	Contains FCC ID: RI7LN920
For RUTC54 WCDMA/LTE/NR:	Contains FCC ID: RI7FN990A28

Remark:The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

3.3 Separation Distance

Minimum test separation distance:	20cm
Remark: This minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander.	

3.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

3.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI (Member No. 1937)

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• FCC –Designation Number: CN1336

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1336. Test Firm Registration Number: 787754.

• Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

3.6 Deviation from Standards

None

3.7 Abnormalities from Standard Conditions

None

4 FCC Radiofrequency radiation exposure limits

According to ANSI/IEEE C95.1-1992, the criteria listed in table shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310

TABLE 1 TO § 1.1310(E)(1)—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(i) Limits for Occupational/Controlled 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
(ii) 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.

5 Measurement and Calculation

5.1 Maximum transmit power

For WIFI (RUTC16 & RUTC54):

Antenna Gain: ANT1&ANT2&ANT3: 3dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

Mode	DG (dBi)	Max.Power	EIRP (dBm)	EIRP (mW)	Distance (cm)	S (mW/cm²)	S Limit (mW/cm²)	Ratio
2.4G WIFI	3	16.41	19.41	87.29713684	20	0.01736717	1	0.0173672
5G WIFI	3	19.2	22.2	165.9586907	20	0.03301636	1	0.0330164

The Power Data is based on the RF Test Report SZCR251200536302 & SZCR251200536303.

For RUTC16 WCDMA/LTE (Contains FCC ID: RI7LN920):

Mode	Gain (dBi)	Max.Power	Max.Power (dBm)	EIRP (mW)	Distance (cm)	S (mW/cm²)	S Limit (mW/cm²)	Ratio
WCDMA B2	1.41	24.5	25.91	389.9419867	20	0.07757631	1	0.0775763
WCDMA B4	1.32	24.5	25.82	381.9442708	20	0.07598522	1	0.0759852
WCDMA B5	1.82	24.5	26.32	428.5485204	20	0.08525682	0.549	0.1552948
LTE Band 2	1.41	23.5	24.91	309.7419299	20	0.06162105	1	0.0616211
LTE Band 4	1.32	23.5	24.82	303.3891184	20	0.06035721	1	0.0603572
LTE Band 5	1.82	24	25.82	381.9442708	20	0.07598522	0.549	0.1384066
LTE Band 7	2.62	24	26.62	459.1980128	20	0.09135433	1	0.0913543
LTE Band 12	2.7	23.5	26.2	416.8693835	20	0.08293333	0.466	**0.1779685**
LTE Band 13	2.52	23.5	26.02	399.9447498	20	0.07956629	0.518	0.1536029
LTE Band 14	2.37	23.5	25.87	386.3669771	20	0.07686509	0.525	0.1464097
LTE Band 17	2.7	23.5	26.2	416.8693835	20	0.08293333	0.469	0.1768301
LTE Band 25	1.65	23.5	25.15	327.3406949	20	0.06512221	1	0.0651222
LTE Band 26	2.27	23.5	25.77	377.5721909	20	0.07511543	0.543	0.1383341
LTE Band 30	-0.19	23	23	199.5262315	20	0.03969439	1	0.0396944
LTE Band 38	1.32	23.5	24.82	303.3891184	20	0.06035721	1	0.0603572
LTE Band 41	1.85	26.5	28.35	683.9116473	20	0.13605958	1	0.1360596
LTE Band 48	0.21	22	22.21	166.341265	20	0.03309247	1	0.0330925
LTE Band 66	1.32	23.5	24.82	303.3891184	20	0.06035721	1	0.0603572
LTE Band 71	2.06	23.5	25.56	359.7493352	20	0.07156969	0.442	0.1619224

Note: The above power data is from the module report with FCC ID: RI7LN920. (Report No. ER/2021/A0031-01)

For RUTC54 WCDMA/LTE/NR (Contains FCC ID: RI7FN990A28)

Mode	Gain (dBi)	Max.Power	Max.Power (dBm)	EIRP (mW)	Distance (cm)	S (mW/cm²)	S Limit (mW/cm²)	Ratio
WCDMA B2	1.41	24.5	25.91	389.9419867	20	0.07757631	1	0.0775763
WCDMA B4	1.32	24.5	25.82	381.9442708	20	0.07598522	1	0.0759852
WCDMA B5	1.82	24.5	26.32	428.5485204	20	0.08525682	0.549	0.1552948
LTE Band 2	1.41	24	25.41	347.5361614	20	0.06913996	1	0.06914
LTE Band 4	1.32	24	25.32	340.4081897	20	0.0677219	1	0.0677219
LTE Band 5	1.82	24	25.82	381.9442708	20	0.07598522	0.549	0.1384066
LTE Band 7	2.62	24	26.62	459.1980128	20	0.09135433	1	0.0913543
LTE Band 12	2.7	24	26.7	467.7351413	20	0.09305273	0.466	**0.199684**
LTE Band 13	2.52	24	26.52	448.7453899	20	0.08927485	0.518	0.1723453
LTE Band 14	2.37	24	26.37	433.5108784	20	0.08624405	0.525	0.1642744
LTE Band 17	2.7	24	26.7	467.7351413	20	0.09305273	0.469	0.1984067
LTE Band 25	1.65	24	25.65	367.2823005	20	0.07306832	1	0.0730683
LTE Band 26	2.27	24	26.27	423.642966	20	0.08428089	0.543	0.1552134
LTE Band 30	-0.19	23	23	199.5262315	20	0.03969439	1	0.0396944
LTE Band 38	1.32	24	25.32	340.4081897	20	0.0677219	1	0.0677219
LTE Band 41	1.85	26.5	28.35	683.9116473	20	0.13605958	1	0.1360596
LTE Band 42	0.11	22.5	22.61	182.3895702	20	0.03628517	1	0.0362852
LTE Band 43	0.24	22.5	22.74	187.9316817	20	0.03738773	1	0.0373877
LTE Band 48	0.21	22.5	22.71	186.6379691	20	0.03713036	1	0.0371304
LTE Band 66	1.32	24	25.32	340.4081897	20	0.0677219	1	0.0677219
LTE Band 71	2.06	24	26.06	403.645393	20	0.08030251	0.442	0.1816799
NR Band 2	1.41	24.5	25.91	389.9419867	20	0.07757631	1	0.0775763
NR Band 5	1.82	24.5	26.32	428.5485204	20	0.08525682	0.549	0.1552948
NR Band 7	2.62	24.5	27.12	515.2286446	20	0.10250124	1	0.1025012
NR Band 25	1.65	24.5	26.15	412.0975191	20	0.081984	1	0.081984
NR Band 30	-0.19	23	23	199.5262315	20	0.03969439	1	0.0396944
NR Band 38	1.32	25	26.32	428.5485204	20	0.08525682	1	0.0852568
NR Band 41	1.85	27.5	29.35	860.9937522	20	0.17128886	1	0.1712889
NR Band 48	0.21	22.5	22.71	186.6379691	20	0.03713036	1	0.0371304
NR Band 66	1.32	24.5	25.82	381.9442708	20	0.07598522	1	0.0759852
NR Band 71	2.06	24.5	26.56	452.8975799	20	0.0901009	0.442	**0.2038482**
NR Band 77	0.34	27.5	27.84	608.1350013	20	0.12098433	1	0.1209843
NR Band 78	0.29	27.5	27.79	601.1737375	20	0.11959944	1	0.1195994

Note: The above power data is from the module report with FCC ID: RI7FN990A28 (Report No. FA270608-01).

Exposure condition for simultaneous transmission operations

Either SAR-based or MPE-based exemption may be considered for test exemption for fixed, mobile, or portable device exposure conditions; therefore, the contributions from each exemption in conjunction with the measured SAR (Evaluatedk term) shall be used to determine exemption for simultaneous transmission according to Formula (C.1) [repeated from § 1.1307(b)(3)(ii)(B)].

$$\sum_{i=1}^{a}\frac{P_i}{P_{\mathrm{th},i}}+\sum_{j=1}^{b}\frac{ERP_j}{ERP_{\mathrm{th},j}}+\sum_{k=1}^{c}\frac{Evaluated_k}{Exposure\ Limit_k}\leq 1 \qquad (C.1)$$

Remark:

a -number of fixed, mobile, or portable RF sources claiming exemption using the §1.1307(b)(3)(i)(B) formula for Pth, including existing exempt transmitters and those being added.

b -number of fixed, mobile, or portable RF sources claiming exemption using the applicable § 1.1307(b)(3)(i)(C) Table 1 formula for Threshold ERP, including existing exempt transmitters and those being added.

c -number of existing fixed, mobile, or portable RF sources with known evaluation for the specified minimum distance.

Pi -the available maximum time-averaged power or the ERP, whichever is greater, for fixed, mobile, or portable RF source i at a distance between 0.5 cm and 40 cm (inclusive).

Pth,i -the exemption threshold power (Pth) according to the § 1.1307(b)(3)(i)(B) formula for fixed, mobile, or portable RF source i.

ERPj -the available maximum time-averaged power or the ERP, whichever is greater, of fixed, mobile, or portable RF source j. ERPth,j -exemption threshold ERP for fixed, mobile, or portable RF source j, at a distance of at least λ/2π, according to the applicable § 1.1307(b)(3)(i)(C) Table 1 formula at the location in question.

Evaluated$_k$ -the maximum reported SAR or MPE of fixed, mobile, or portable RF source k either in the device or at the transmitter site from an existing evaluation.

Exposure Limit$_k$ -either the general population/uncontrolled maximum permissible exposure (MPE) or specific absorption rate (SAR) limit for each fixed, mobile, or portable sources, as applicable

For RUTC16: The Max. sum of the ratios = 5G WIFI+ LTE/NR= 0.033 +0.178 = 0.211 < 1

For RUTC54: The Max. sum of the ratios = 5G WIFI+ LTE/NR= 0.033 +0.204 = 0.237 < 1

Therefore, the device is to qualify for simultaneous transmission SAR test exemption, the exemption report is in lieu of the SAR report.

So, the device is to qualify for SAR test exemption, the exemption report is in lieu of the SAR report.

6 EUT Constructional Details (EUT Photos)

Refer to Appendix – External and Internal Photos for SZCR2512005363TL.

-End of the Report-