



SGS-CSTC Standards Technical Services (Suzhou) Co., Ltd.

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Rev.: 01
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TEST REPORT

Application No.: SUCR2506000584AT
Applicant: WirelessMobility Automotive GmbH
Address of Applicant: Leopoldsweg 2, Bad Homburg 61348, Germany
Manufacturer: WirelessMobility Automotive GmbH
Address of Manufacturer: Leopoldsweg 2, Bad Homburg 61348, Germany
EUT Description: 5G Module
Model No.: WMC598E-GL
FCC ID: 2BH2C25WMC598EGL
Standards: 47 CFR Part 2.1091
FCC KDB 447498 D01 v06
Date of Receipt: June 24, 2025
Date of Issue: August 13, 2025

Test Result:	PASS*
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* In the configuration tested, the EUT complied with the standards specified above.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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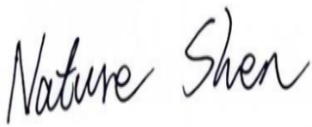


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Revision Record			
Version	Description	Date	Remark
01	Original	August 13, 2025	/

Authorized for issue by:				
Tested By				
		Nature Shen / Project Manager		
Approved By				
		Cloud Peng/Technical Manager		



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1 General Information

1.1 Client Information

Applicant:	WirelessMobility Automotive GmbH
Address of Applicant:	Leopoldsweg 2, Bad Homburg 61348, Germany
Manufacturer:	WirelessMobility Automotive GmbH
Address of Manufacturer:	Leopoldsweg 2, Bad Homburg 61348, Germany

1.2 Test Facility

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

- **A2LA (Certificate No. 6336.01)**

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 6336.01.

- **Innovation, Science and Economic Development Canada**

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0120.

IC#: 27594.

- **FCC –Designation Number: CN1312**

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. has been recognized as an accredited testing laboratory.

Designation Number: CN1312.

Test Firm Registration Number: 717327



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1.3 General Description of EUT

Hardware Version:	R1.0		
Software Version:	WMC598EGLBTR02A15M8G_OCPU		
HPUE Power Class:	Class 2: LTE Band 41; NR Band n41; NR Band n77; NR Band n78		
Antenna Type:	☒ External, ☐ Integrated		
Antenna Gain:	GSM850:	-2.68dBi	GSM1900: 0.25dBi
	WCDMA Band II:	0.25dBi	WCDMA Band IV: 1.47dBi
	WCDMA Band V:	2.68dBi	
	LTE Band 2:	0.25dBi	LTE Band 4: 1.47dBi
	LTE Band 5:	2.68dBi	LTE Band 7: 0.55dBi
	LTE Band 12:	-0.2dBi	LTE Band 13: 1.54dBi
	LTE Band 14:	2.42dBi	LTE Band 17: -0.2dBi
	LTE Band 25:	0.25dBi	LTE Band 26: 2.87dBi
	LTE Band 38:	-0.23dBi	LTE Band 41: 0.78dBi
	LTE Band 42:	3.3dBi	LTE Band 43: 2.59dBi
	LTE Band 48:	-3.65dBi	LTE Band 66: 1.47dBi
	LTE Band 71:	1.22dBi	LTE CA_5B: 2.68dBi
	LTE CA_12B:	-0.2dBi	LTE CA_7C: 0.55dBi
	LTE CA_41C:	0.78dBi	LTE CA_42C: 3.3dBi
	LTE CA_43C:	2.59dBi	LTE CA_48C: -3.65dBi
	LTE CA_48B:	-3.65dBi	LTE CA_66B: 1.47dBi
	LTE CA_66C:	1.47dBi	NR Band n2: 0.25dBi
	NR Band n5:	2.68dBi	NR Band n7: 0.55dBi
	NR Band n12:	-0.2dBi	NR Band n14: 2.42dBi
	NR Band n25:	0.25dBi	NR Band n26: 2.87dBi
	NR Band n38:	-0.23dBi	NR Band n41: 0.78dBi
	NR Band n48:	-3.65dBi	NR Band n66: 1.47dBi
	NR Band n70:	1.30dBi	NR Band n71: 1.22dBi
	NR Band n77:	2.59dBi	NR Band n78: 2.59dBi
	LTE CA: CA_7C; CA_66C; CA_66B; CA_5B; CA_48C; CA_48B; CA_43C; CA_42C; CA_41C; CA_12B; CA_7A-71A; CA_7A-26A; CA_7A-13A; CA_7A-12A; CA_66A-71A; CA_5A-7A; CA_5A-66A; CA_5A-25A; CA_4A-71A; CA_4A-5A; CA_4A-13A; CA_4A-12A; CA_2A-71A; CA_2A-5A; CA_2A-26A; CA_2A-17A; CA_2A-14A; CA_2A-13A; CA_2A-12A; CA_25A-26A; CA_14A-66A; CA_13A-66A; CA_12A-66A; CA_12A-25A; NR CA: CA_n7A-n78A;CA_n7A-n77A;CA_n66A-n78A;CA_n66A-n77A; CA_n5A-n78A;CA_n5A-n77A;CA_n2A-n77A;CA_n25A-n77A; CA_n71A-n78A;CA_n71A-n77A;CA_n41A-n71A;CA_n26A-n78A; CA_n25A-n78A;CA_n14A-n77A;CA_n12A-n77A;CA_n5A-n48A;		



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	CA_n48A-n66A;CA_n2A-n48A;CA_n7A-n71A;CA_n7A-n26A; CA_n7A-n12A;CA_n70A-n78A;CA_n70A-n77A;CA_n70A-n71A; CA_n66A-n71A;CA_n5A-n7A;CA_n5A-n66A;CA_n5A-n41A; CA_n5A-n25A;CA_n48A-n71A;CA_n2A-n78A;CA_n2A-n71A; CA_n2A-n5A;CA_n2A-n14A;CA_n2A-n12A;CA_n26A-n77A; CA_n26A-n70A;CA_n26A-n66A;CA_n25A-n71A;CA_n25A-n48A; CA_n14A-n66A;CA_n12A-n78A;CA_n12A-n66A; CA_n12A-n48A;CA_n12A-n48A;CA_n12A-n25A; ENDC: DC_2A_n5A;DC_2A_n71A;DC_2A_n77A;DC_2A_n78A;DC_5A_n2A; DC_5A_n66A;DC_5A_n77A;DC_5A_n78A;DC_7A_n5A;DC_7A_n78A; DC_12A_n66A;DC_12A_n78A;DC_13A_n2A;DC_13A_n66A;DC_13A_n77A; DC_14A_n2A;DC_14A_n66A;DC_26A_n41A;DC_26A_n78A; DC_38A_n78A;DC_41A_n77A;DC_41A_n78A;DC_48A_n5A; DC_48A_n66A;DC_66A_n5A;DC_66A_n71A;DC_66A_n78A;
	Note: The antenna gain are derived from the gain information report provided by the manufacturer.
Remark: 1.As above information is provided and confirmed by the applicant. SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information. 2.The WMC598E-GL product is available in two memory configuration versions. Except for the difference in memory specifications, the remaining hardware, functions, and performance parameters of the two versions are completely consistent, and the memory difference does not affect the RF performance of the product.	



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2 RF Exposure Evaluation

2.1 RF Exposure Compliance Requirement

2.1.1 Limits

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
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
300-1500	/	/	f/300	6
1500-100,000	/	/	5	6
(B) 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
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

F=frequency in MHz
 *=Plane-wave equivalent power density
 RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

Friis Formula

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

2.1.2 Test Procedure

Software provided by client enabled the EUT to transmit data at lowest, middle and highest channel individually



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2.1.3 EUT RF Exposure Evaluation

Output Power Into Antenna & RF Exposure Evaluation Distance:

This confirmed that the device comply with MPE limit.

Band	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Distance R (cm)	Power Density (W/m ²)	Limit (W/m ²)	Result
GSM850	824.2	35	-2.68	32.32	20.0	0.409	2.58	Pass
GSM1900	1850.2	32	0.25	32.25	20.0	0.402	4.48	Pass
WCDMA Band II	1852.4	25	0.25	25.25	20.0	0.666	4.48	Pass
WCDMA Band IV	1712.4	25	1.47	26.47	20.0	0.883	4.25	Pass
WCDMA Band V	826.4	25	2.68	27.68	20.0	1.166	2.58	Pass
LTE Band 2	1850.7	25	0.25	25.25	20.0	0.666	4.48	Pass
LTE Band 4	1710.7	25	1.47	26.47	20.0	0.883	4.24	Pass
LTE Band 5/LTE CA_5B	824.7	25	2.68	27.68	20.0	1.166	2.58	Pass
LTE Band 7/LTE CA_7C	2502.5	25	0.55	25.55	20.0	0.714	5.50	Pass
LTE Band 12/LTE CA_12B	699.7	25	-0.2	24.80	20.0	0.601	2.30	Pass
LTE Band 13	779.5	25	1.54	26.54	20.0	0.897	2.48	Pass
LTE Band 14	790.5	25	2.42	27.42	20.0	1.098	2.50	Pass
LTE Band 17	706.5	25	-0.2	24.80	20.0	0.601	2.32	Pass
LTE Band 25	1850.7	25	0.25	25.25	20.0	0.666	4.48	Pass
LTE Band 26(814-824)	816.5	25	2.87	27.87	20.0	1.218	2.56	Pass
LTE Band 26(824-849)	824.7	25	2.87	27.87	20.0	1.218	2.58	Pass
LTE Band 38	2572.5	25	-0.23	24.77	20.0	0.597	5.61	Pass
LTE Band 41/LTE CA_41C (PC2)	2502.5	28	0.78	28.78	20.0	1.502	5.50	Pass
LTE Band 42/LTE CA_42C(3450-3550)	3452.5	25	3.3	28.30	20.0	1.345	6.86	Pass
LTE Band 43/LTE CA_43C(3700-3800)	3602.5	25	2.59	27.59	20.0	1.142	7.06	Pass
LTE Band 48/LTE CA_48B/LTE CA_48C	3552.5	25	-3.65	21.35	20.0	0.271	6.99	Pass
LTE Band 66/LTE CA_66B/LTE CA_66C	1710.7	25	1.47	26.47	20.0	0.883	4.24	Pass
LTE Band 71	665.5	25	1.22	26.22	20.0	0.833	2.23	Pass
NR Band n2	1852.5	25	0.25	25.25	20.0	0.666	4.48	Pass
NR Band n5	826.5	25	2.68	27.68	20.0	1.166	2.58	Pass
NR Band n7	2502.5	25	0.55	25.55	20.0	0.714	5.50	Pass
NR Band n12	701.5	25	-0.2	24.80	20.0	0.601	2.31	Pass
NR Band n14	790.5	25	2.42	27.42	20.0	1.098	2.50	Pass
NR Band n25	1852.5	25	0.25	25.25	20.0	0.666	4.48	Pass
NR Band n26(814-824)	816.5	25	2.87	27.87	20.0	1.218	2.56	Pass
NR Band n26(824-849)	824.7	25	2.87	27.87	20.0	1.218	2.58	Pass
NR Band n38	2575	25	-0.23	24.77	20.0	0.597	5.61	Pass
NR Band n41(PC2)	2501	28	0.78	28.78	20.0	1.502	5.50	Pass
NR Band n48	3555	25	-3.65	21.35	20.0	0.271	6.99	Pass
NR Band n66	1712.5	25	1.47	26.47	20.0	0.883	4.25	Pass
NR Band n70	1697.5	25	1.3	26.30	20.0	0.849	4.22	Pass
NR Band n71	665.5	25	1.22	26.22	20.0	0.833	2.23	Pass
NR Band n77(3450-3550) (PC2)	3455	27	2.59	29.59	20.0	1.810	6.86	Pass
NR Band n77(3700-3980) (PC2)	3707.5	27	2.59	29.59	20.0	1.810	7.20	Pass
NR Band n78(3450-3550) (PC2)	3455	27	2.59	29.59	20.0	1.810	6.86	Pass
NR Band n78(3700-3800) (PC2)	3705	27	2.59	29.59	20.0	1.810	7.20	Pass



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Due to the EUT support NR ENDC and CA

Both LTE and NR/LTE band can transmit simultaneously, the formula of the calculated the MPE is:

$$\sum_{i=1}^n \frac{S_{E_i} (duty factor)}{MPE_{E_i}} < 1$$

NOTE The corresponding MEs must be expressed in terms of power density in the above summation

Therefore, the worst-case (CA_n26A-n78A) situation is $0.4758+0.2974=0.7732$, which is less than "1", this confirmed that the device comply with MPE limit.

----End of Report---