

Report No.: SUCR250500040804

Rev.: 01 Page: 1 of 10

TEST REPORT

Application No.: SUCR2505000408MO

Applicant: Continental Automotive Systems, Inc.

Address of Applicant: 21440 West Lake Cook, Deer Park, Illinois 60010, USA

Manufacturer: Continental Automotive Systems, Inc.

Address of Manufacturer: 21440 West Lake Cook, Deer Park, Illinois 60010, USA

EUT Description: FE5NAR191
Model No.: FE5NAR191
Trade Mark: Continental

FCC ID: LHJ-FE5NAR191
Standards: 47 CFR Part 2.1091

FCC KDB 447498 D01 v06

Date of Receipt: 2025/06/17 **Date of Issue:** 2024/06/21

Test Result: PASS*

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

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.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone:(86-755) 8307 1443, or email: CN.Doccheck@sgs.com

Report Template No./Rev: SUWI-TRF-RF/v01

^{*} In the configuration tested, the EUT complied with the standards specified above.



Report No.: SUCR250500040804

Rev.: 01 Page: 2 of 10

1 Version

Revision Record										
Version	Description	Date	Remark							
01	Original	2025/06/21	/							

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



Report No.: SUCR250500040804

Rev.: 01 Page: 3 of 10

Contents

1	Vers	sion	Error! Bookmark not defined.
2	Gen	neral Information	4
	2.1	Client Information	4
		Test Facility	
	2.3	General Description of EUT	5
3	RF	Exposure Evaluation	7
	3.1	RF Exposure Compliance Requirement	7
	3.1.	1 Limits	7
	3.1.	2 Test Procedure	8
	3.1.	3 EUT RF Exposure Evaluation	8



Report No.: SUCR250500040804

Rev.: 01 Page: 4 of 10

2 General Information

2.1 Client Information

Applicant:	Continental Automotive Systems, Inc.
Address of Applicant:	21440 West Lake Cook, Deer Park, Illinois 60010, USA
Manufacturer:	Continental Automotive Systems, Inc.
Address of Manufacturer:	21440 West Lake Cook, Deer Park, Illinois 60010, USA

2.2 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





Report No.: SUCR250500040804

Rev.: 01 Page: 5 of 10

2.3 General Description of EUT

FE5NAR191										
FE5NAR191										
Continental										
P2.0										
MODEMSA515M_L	_E2.1_3.4.1.4									
DC 14V										
⊠External, □Integrated										
LTE Band 41; NR E	LTE Band 41; NR Band n41;NR Band n77									
GSM850:	2.56dBi (Ant1)	GSM1900:	1.93dBi (Ant1)							
WCDMA Band II:	1.93dBi (Ant1)	WCDMA Band IV:	1.93dBi (Ant1)							
WCDMA Band V:	2.56dBi (Ant1)									
LTE Band 2:	1.93dBi (Ant1)	LTE Band 4:	1.93dBi (Ant1)							
LTE Band 5:	2.56dBi (Ant1)	LTE Band 7:	1.24dBi (Ant1)							
LTE Band 12:	-0.32dBi (Ant1)	LTE Band 13:	-0.32dBi (Ant1)							
LTE Band 14:	-0.32dBi (Ant1)	LTE Band 17:	-0.32dBi (Ant1)							
LTE Band 25:	1.93dBi (Ant1)	LTE Band 26:	2.56dBi (Ant1)							
LTE Band 41:	1.24dBi (Ant1)	LTE Band 66:	1.93dBi (Ant1)							
LTE Band 71:	0.94dBi (Ant1)									
NR Band n2:	1.93dBi (Ant1)	NR Band n5:	2.56dBi (Ant1)							
NR Band n25:	1.93dBi (Ant1)	NR Band n41:	1.24dBi (Ant1)							
NR Band n66:	1.93dBi (Ant1)	NR Band n71:	0.91dBi (Ant1)							
NR Band n77:	-0.84dBi (Ant2)									
LTE CA: CA_5A-41	A									
ENDC:										
DC_12A_n77A;DC_13A_n77A;DC_14A_n77A;DC_26A_n77A										
DC_2A_n77A;DC_5A_n77A;DC_7A_n77A;DC_66A_n77A										
DC_41A_n77A; DC_5A_n2A;DC_12A_n2A;DC_13A_n2A										
DC_14A_n2A;DC_7	71A_n2A;DC_7A_n5A	x;DC_2A_n5A								
DC_66A_n5A;DC {	5A_n41A;DC_12A n4	1A;DC_26A_n41A								
	FE5NAR191 Continental P2.0 MODEMSA515M_L DC 14V External, Integ LTE Band 41; NR E GSM850: WCDMA Band II: WCDMA Band V: LTE Band 5: LTE Band 12: LTE Band 12: LTE Band 14: LTE Band 25: LTE Band 17: NR Band n2: NR Band n2: NR Band n2: NR Band n66: NR Band n77: LTE CA: CA_5A-41: ENDC: DC_12A_n77A;DC_5 DC_41A_n77A; DC_5 DC_41A_n77A; DC_5 DC_14A_n2A;DC_5 DC_14A_n2A;DC_5 DC_71A_n41A;DC_5 DC_71A_n41A;DC_5	FE5NAR191 Continental P2.0 MODEMSA515M_LE2.1_3.4.1.4 DC 14V □External, □Integrated LTE Band 41; NR Band n41;NR Band n3 GSM850: 2.56dBi (Ant1) WCDMA Band II: 1.93dBi (Ant1) WCDMA Band V: 2.56dBi (Ant1) LTE Band 2: 1.93dBi (Ant1) LTE Band 5: 2.56dBi (Ant1) LTE Band 12: -0.32dBi (Ant1) LTE Band 14: -0.32dBi (Ant1) LTE Band 25: 1.93dBi (Ant1) LTE Band 41: 1.24dBi (Ant1) LTE Band 41: 1.24dBi (Ant1) LTE Band 71: 0.94dBi (Ant1) NR Band n2: 1.93dBi (Ant1) NR Band n2: 1.93dBi (Ant1) NR Band n66: 1.93dBi (Ant1) NR Band n66: 1.93dBi (Ant1) NR Band n77: -0.84dBi (Ant2) LTE CA: CA_5A-41A ENDC: DC_12A_n77A;DC_13A_n77A;DC_14A_ DC_2A_n77A;DC_5A_n77A;DC_7A_n77 DC_41A_n77A; DC_5A_n2A;DC_7A_n5A_ DC_66A_n5A;DC_5A_n41A;DC_12A_n4_ DC_71A_n41A;DC_5A_n66A;DC_12A_n4_ DC_71A_n41A;DC_5A_n66A;DC_12A_n4_	FE5NAR191 Continental P2.0 MODEMSA515M_LE2.1_3.4.1.4 DC 14V ⊠External, □Integrated LTE Band 41; NR Band n41;NR Band n77 GSM850: 2.56dBi (Ant1) WCDMA Band II: 1.93dBi (Ant1) WCDMA Band IV: WCDMA Band V: 2.56dBi (Ant1) LTE Band 4: LTE Band 2: 1.93dBi (Ant1) LTE Band 7: LTE Band 12: -0.32dBi (Ant1) LTE Band 13: LTE Band 14: -0.32dBi (Ant1) LTE Band 26: LTE Band 25: 1.93dBi (Ant1) LTE Band 26: LTE Band 41: 1.24dBi (Ant1) LTE Band 66: LTE Band 71: 0.94dBi (Ant1) NR Band n6: NR Band n2: 1.93dBi (Ant1) NR Band n5: NR Band n66: 1.93dBi (Ant1) NR Band n71: NR Band n77: -0.84dBi (Ant2) NR Band n77: -0.84dBi (Ant2) LTE CA: CA_5A-41A ENDC: DC_12A_n77A;DC_13A_n77A;DC_14A_n77A;DC_26A_n77A DC_2A_n77A;DC_5A_n77A;DC_7A_n77A;DC_66A_n77A							



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.apx.and, conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx.attention is drawn to the limitation of liability, indemification and jurisdiction issues define therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration (orgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) are retained for 30 days only.

South of No. 6 Plant, No. 1, Runsheng Road, Suchou Industrial Park, Suchou Area, Chine (Jiangsu) Pilot Fee Trade Zone 215000 中国 - 苏州 - 中国(江苏)自由贸易试验区苏州片区苏州工业园区润胜路1号的6号厂房南部 邮编: 215000

t (86-512) 62992980 t (86-512) 62992980



Report No.: SUCR250500040804

Rev.: 01 Page: 6 of 10

 $DC_66A_n71A; DC_2A_n41A; DC_4A_n41A; DC_25A_n41A; DC_66A_n41A;$

DC_4A_n41A;DC_14A_n77A; DC_12A_n77A;

Note:

The antenna gain are derived from the gain information report provided by the manufacturer.

Remark:

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.



Inless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed worled a vailable on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.sapx and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.sapx tkention is drawn to the limitation of liability, indeminification and jurisdiction issues defined therein. Any holder of this document is divised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of illent's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a ransaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or faisification of the content on ppearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the seults shown in this test report refer only to the sample(s) setzed and such sample(s) are retained for 30 days only.

South of No. 6 Pfart, No. 1, Runsheng Read, Suchou Industrial Park, Suchou Area, China (langsu) Pilot Free Trade Zone 215000 中国 - 苏州 - 中国(江苏)自由贸易试验区苏州片区苏州工业园区润胜路1号的6号厂房南部 邮编: 215000 t (86–512) 62992980 t (86–512) 62992980



SUCR250500040804 Report No.:

Rev.: 01 Page: 7 of 10

3 RF Exposure Evaluation

3.1 RF Exposure Compliance Requirement

3.1.1 Limits

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm2)	Averaging time (minutes)								
	(A) Limits for Occupational/Controlled Exposures											
0.3-3.0	0.3-3.0 614 1.63 *(100)											
3.0-30	1842/f	4.89/f	*(900/f2)	6								
30-300	61.4	0.163	1.0	6								
300-1500	1	1	f/300	6								
1500-100,000	1	1	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/f2)	30								
30-300	27.5	0.073	0.2	30								
300-1500	1	1	f/1500	30								
1500-100,000	1	1	1.0	30								

F=frequency in MHz

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: $Pd = (Pout*G)/(4*Pi*R^2)$

Where

Pd = power density in mW/cm2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

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

Pd id 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.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service p overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx.and, for electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the lin Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate partie transaction from exercising all their rights and obligations under the transaction document. This document cannot be repre except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the company appearance of this document is unlawful and offenders may be prosecuted to the fullest extra of the law. Unless otherwise stat results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

South of No. 6 Plant, No. 1, Runsheng Road, Suzhou Industrial Park, Suzhou Area, China (Jiangsu) Pilot Free Trade Zone 215000 中国・苏州・中国(江苏)自由贸易试验区苏州片区苏州工业园区润胜路1号的6号厂房南部 邮编: 215000

t (86-512) 62992980 www.sgsgroup.com.cn t (86-512) 62992980 sgs.china@sgs.com

^{*=}Plane-wave equivalent power density



Report No.: SEWA2310000127RG04

Rev.: 01 Page: 8 of 10

3.1.2 Test Procedure

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

3.1.3 EUT RF Exposure Evaluation

Output Power Into Antenna & RF Exposure Evaluation Distance:

This confirmed that the device comply with MPE limit.

11113 001111	This confirmed that the device comply with MPE limit.										
Operating Band	Frequen cy (MHz)	Anten na Gain (dBi)	Max Conduct ed Power (dBm)	EIRP(E RP) (dBm)	EIRP(E RP) Limit (dBm)	Power Density at R = 20 cm (mW/c m2)	Limit (mW/c m2)	Gain accordin g to EIRP(E RP) (dBi)	Gain accordi ng to Pd (dBi)	Max Gain Allowe d (dBi)	conclusi on
GSM850	824.2	2.56	33.50	33.91	38.45	0.0968	0.5495	7.10	10.10	7.10	Pass
GSM1900	1850.2	1.93	30.50	32.43	33.00	0.0419	1.0000	2.50	15.70	2.50	Pass
WCDMA Band II	1852.4	1.93	24.00	25.93	33.00	0.0779	1.0000	9.00	13.01	9.00	Pass
WCDMA Band IV	1712.4	1.93	24.00	25.93	30.00	0.0779	1.0000	6.00	13.01	6.00	Pass
WCDMA Band V	826.4	2.56	24.00	24.41	38.45	0.0901	0.5509	16.60	10.42	10.42	Pass
LTE Band 2	1850.7	1.93	24.00	25.93	33.00	0.0779	1.0000	9.00	13.01	9.00	Pass
LTE Band 4	1710.7	1.93	24.00	25.93	30.00	0.0779	1.0000	6.00	13.01	6.00	Pass
LTE Band 5	824.7	2.56	24.00	24.41	38.45	0.0901	0.5498	16.60	10.41	10.41	Pass
LTE Band 7	2502.5	1.24	24.00	25.24	33.00	0.0665	1.0000	9.00	13.01	9.00	Pass
LTE Band 12	699.7	-0.32	24.00	21.53	34.77	0.0464	0.4665	12.92	9.70	9.70	Pass
LTE Band 13	779.5	-0.32	24.00	21.53	34.77	0.0464	0.5197	12.92	10.16	10.16	Pass
LTE Band 14	790.5	-0.32	24.00	21.53	34.77	0.0464	0.5270	12.92	10.23	10.23	Pass
LTE Band 17	706.5	-0.32	24.00	21.53	34.77	0.0464	0.4710	12.92	9.74	9.74	Pass
LTE Band 25	1850.7	1.93	24.00	25.93	33.00	0.0779	1.0000	9.00	13.01	9.00	Pass
LTE Band 26 (814-824)	814.7	2.56	24.00	NA	NA	0.0901	0.5431	NA	10.36	10.36	Pass
LTE Band 26 (824-849)	824.7	2.56	24.00	24.41	38.45	0.0901	0.5498	16.60	10.41	10.41	Pass
LTE Band 41	2498.5	1.24	24.00	25.24	33.00	0.0665	1.0000	9.00	13.01	9.00	Pass
LTE Band 41(HPUE)	2498.5	1.24	27.00	28.24	33.00	0.1327	1.0000	6.00	10.01	6.00	Pass
LTE Band 66	1710.7	1.93	24.00	25.93	30.00	0.0779	1.0000	6.00	13.01	6.00	Pass
LTE Band 71	665.5	0.94	24.00	22.79	34.77	0.0620	0.4437	12.92	9.48	9.48	Pass
NR Band n2	1852.5	1.93	24.00	25.93	33.00	0.0779	1.0000	9.00	13.01	9.00	Pass
NR Band n5	826.5	2.56	24.00	24.41	38.45	0.0901	0.5510	16.60	10.42	10.42	Pass
NR Band	1852.5	1.93	24.00	25.93	33.00	0.0779	1.0000	9.00	13.01	9.00	Pass



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printer overleaf, available on request or accessible at https://www.sgs.com/en/Terms-and-Conditions.aspx.and, for electronic format documents subject to Terms and Conditions for Electronic Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to it transaction from exercising all their rights and obligations under the transaction document comment cannot be reproduce except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. 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.

South of No. 6 Pfart, No. 1, Runsheng Read, Suchou Industrial Park, Suchou Area, China (langsu) Pilot Free Trade Zone 215000 中国 - 苏州 - 中国(江苏)自由贸易试验区苏州片区苏州工业园区润胜路1号的6号厂房南部 邮编: 215000 t (86-512) 62992980 t (86-512) 62992980



Report No.: SUCR250500040804

Rev.: 01 Page: 9 of 10

n25											
NR Band n41	2506.0	1.24	24.00	25.24	33.00	0.0665	1.0000	9.00	13.01	9.00	Pass
NR Band n41(HPUE)	2506.0	1.24	27.00	28.24	33.00	0.1327	1.0000	6.00	10.01	6.00	Pass
NR Band n66	1712.5	1.93	24.00	25.93	30.00	0.0779	1.0000	6.00	13.01	6.00	Pass
NR Band n71	665.5	0.91	24.00	22.76	34.77	0.0616	0.4437	12.92	9.48	9.48	Pass
NR Band n77 (3450- 3550)	3460.0	-0.84	24.00	23.16	30.00	0.0412	1.0000	6.00	13.01	6.00	Pass
NR Band n77 (3450- 3550)(HP UE)	3460.0	-0.84	27.00	26.16	30.00	0.0822	1.0000	3.00	10.01	3.00	Pass
NR Band n77 (3700- 3980)	3710.0	-0.84	24.00	23.16	30.00	0.0412	1.0000	6.00	13.01	6.00	Pass
NR Band n77 (3700- 3980)(HP UE)	3710.0	-0.84	27.00	26.16	30.00	0.0822	1.0000	3.00	10.01	3.00	Pass



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printer overleaf, available on request or accessible at https://www.sgs.com/en/Terms-and-Conditions.aspx.and, for electronic format documents subject to Terms and Conditions for Electronic Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to it transaction from exercising all their rights and obligations under the transaction document comment cannot be reproduce except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. 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.

South of No. 6 Plant, No. 1, Runsheng Road, Suchou Industria Park, Suchou Area, China (Jangsu) Pilot Free Trade Zone 215000 中国 - 苏州 - 中国(江苏)自由贸易试验区苏州片区苏州工业园区润胜路1号的6号厂房南部 邮编: 215000 t (86-512) 62992980 t (86-512) 62992980



Report No.: SEWA2310000127RG04

Rev.: 01 10 of 10 Page:

Remark: Frame-average power=Burst power+ Division Factors (-9.19)

Due to the EUT support NR ENDC and CA

$$\sum_{i=1}^{n} \frac{S_{E_{i}}(dutyfactor)}{MPE_{E_{i}}} < 1$$

Both LTE and NR/LTE band can transmit simultaneously, the formula of the calculated the MPE is: NOTE The corresponding MEs must be expressed in terms of power density in the above summation Therefore, the worst-case(DC_26A_n41A) situation is 0.1659+0.1327=0.2986, which is less than "1", this confirmed that the device comply with MPE limit.

---End of Report---



South of No. 6 Plant, No. 1, Runsheng Road, Suzhou Industrial Park, Suzhou Area, China (Jiangsu) Pilot Free Trade Zone 215000 中国。苏州。中国(江苏)自由贸易试验区苏州片区苏州工业园区润胜路1号的6号厂房南部 邮编: 215000

t (86-512) 62992980 t (86-512) 62992980