

Compliance Certification Services (Kunshan) Inc.

Report No.: KSCR230600109301

Page: 1 of 31

TEST REPORT

Application No.: KSCR2306001093AT
FCC ID: XIA-CFW4222A
Applicant: NetComm Wireless Pty Ltd
Address of Applicant: Level 5, 18-20 Orion Road, Lane Cove, NSW, Australia
Manufacturer: Casa Systems, Inc.
Address of Manufacturer: 100 Old River Road Andover, MA 01810
Equipment Under Test (EUT):
EUT Name: 5G Wi-Fi 6 Residential Gateway
Model No.: CFW-4222
Trade Mark:

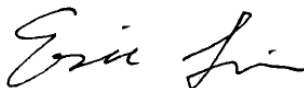


casa systems

Standard(s) : 47 CFR Part 2
47 CFR Part 96 subpart E
Date of Receipt: 2022-11-24
Date of Test: 2022-11-25 to 2022-11-30
Date of Issue: 2023-06-28

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



Eric Lin
Laboratory Manager



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Report No.: KSCR230600109301

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Revision Record			
Version	Description	Date	Remark
00	Increase n41/n77/n78 power by software	2023-06-28	Based on KSCR221100232701

Authorized for issue by:			
		<i>Damon Zhou</i>	
		Damon_Zhou/Project Engineer	
		<i>Eric Lin</i>	
		Eric Lin /Reviewer	



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2 Test Summary

Test Item	FCC Rule No.	Requirements	Verdict
Effective (Isotropic) Radiated Output Power Data	§2.1046 §96.41(b)	EIRP ≤ 23dBm/10MHz	PASS
Field strength of spurious radiation	§2.1051 §96.41(e)	Refer to clause 6.6	PASS

Remark: The device using a wireless module 'RG520N-NA' has been certified (FCC ID: XMR2022RG520NNA) . We just fully retest Effective (Isotropic) Radiated Output Power and Field Strength Of Spurious Radiation for this product, other test data reference to original module report 2204RSU037-U5(LTE) and 2209RSU052-U1 (NR)

Note: This report was an additional report copied from the report KSCR221100232701, new report increase n41/n77/n78 power by software, but it deemed to fulfil the RF requirements without testing.



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4 General Information

4.1 Details of E.U.T.

Power supply:	DC 12V by adapter
Adapter:	Model: KA36B-1203000US
	Rating: Input 100~240V 50/60Hz
	Output DC 12V 3000mA
Hardware Version:	V1.1
Software Version:	CFW4222-CS.NA
	LTE: Band 48
Operation Frequency Band:	NR: n48
	EN-DC: DC_5A_n48A
	LTE:48C
CA Under Test	NR: CA_n2A-n48A,CA_n12A-n48A,CA_n48A-n66A, CA_n48A-n71A
MIMO function	n48 Support 2*2 MIMO
	LTE: QPSK, 16QAM, 64QAM
Modulation Type:	NR: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256 QAM
LTE Power Class:	Level 3
SCS Information:	30KHz
Antenna Type:	External Antenna
Antenna Gain:	LTE B48:2.94dBi(Provide by Manufacturer)
	NR n48: 2.94dBi(Provide by Manufacturer);

4.2 Test Frequency

Test mode:	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD Band 48	5	3552.5	3625.0	3697.5
	10	3555.0	3625.0	3695.0
	15	3557.5	3625.0	3692.5
	20	3560.0	3625.0	3690.0



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Test mode:	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD Band 48C	10MHz-20MHz	3555.5-3569.9	3615.6-3630.0	3675.6-3690.0
	15MHz-20MHz	3557.8-3574.9	3557.8-3574.9	3672.9-3690.0
	20MHz-10MHz	3560.0-3574.5	3620.1-3634.5	3680.1-3694.5
	20MHz-15MHz	3560.0-3577.1	3617.6-3634.7	3675.1-3692.2
	20MHz-20MHz	3560.0-3579.8	3615.1-3634.9	3670.2-3690.0
	20MHz-5MHz	3560.0-3571.7	3622.5-3634.2	3685-3696.7
	5MHz-20MHz	3553.3-3565	3615.8-3627.5	3678.3-3690

Test mode:	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
NR FDD n48	5	3552.51	3625.005	3697.50
	10	3555.00	3624.99	3694.98
	15	3557.52	3624.99	3692.49
	20	3560.01	3624.99	3690.00
	40	3570.00	3624.99	3679.98

4.3 Test Environment

Environment Parameter	Selected Values During Tests	
Relative Humidity	52%	
Atmospheric Pressure:	1015Pa	
Temperature:	TL	-35°C
	TN	+20°C
	TH	+75°C
Voltage:	VL	3.3 V
	VN	3.8 V
	VH	4.3 V

NOTE: VL= lower extreme test voltage
 VN= nominal voltage
 VH= upper extreme test voltage
 TL= lower extreme test temperature
 TN= normal temperature



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TH= upper extreme test temperature

4.4 Description of Support Units

The EUT has been tested independent unit.



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4.5 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	$\pm 5.4 \times 10^{-8}$
2	Duty cycle	$\pm 0.3\%$
3	Occupied Bandwidth	$\pm 3\%$
4	RF conducted power	$\pm 0.8\text{dB}$
5	RF power density	$\pm 0.4\text{dB}$
6	Conducted Spurious emissions	$\pm 2.7\text{dB}$
7	Radiated Spurious emission test	$\pm 3.1\text{dB}$ (Below 1GHz)
		$\pm 4.4\text{dB}$ (Above 1GHz)
8	Temperature test	$\pm 1^\circ\text{C}$
9	Humidity test	$\pm 3\%$
10	Supply voltages	$\pm 1.5\%$
11	Time	$\pm 3\%$



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4.6 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

- 1.SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).
- 2.SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).

4.7 Test Facility

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

• A2LA

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

• FCC

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

• ISED

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

• VCCI

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

4.8 Deviation from Standards

None

4.9 Abnormalities from Standard Conditions

None



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5 Equipment List

NO	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date	Cal. Due date
RF Conducted Test						
1	Spectrum Analyzer	Keysight	N9020A	KUS1911E004-2	08/22/2022	08/21/2023
2	Spectrum Analyzer	R&S	FSV40	KUS1806E003	08/22/2022	08/21/2023
3	Spectrum Analyzer	Keysight	N9030B	KSEM021-1	01/22/2022	01/21/2023
4	Signal Generator	R&S	SMW200A	KSEM020-1	08/22/2022	08/21/2023
5	Signal Generator	Agilent	N5182A	KUS2001M001-1	08/22/2022	08/21/2023
6	Radio Communication Test Station	Anritsu	MT8000A	KSEM001-1	08/22/2022	08/21/2023
7	Radio Communication Analyzer	Anritsu	MT8821C	KSEM002-1	08/22/2022	08/21/2023
8	Universal Radio Communication Tester	R&S	CMW500	KUS1911E004-1	08/22/2022	08/21/2023
9	Switcher	CCSRF	FY562	KUS2001M001-3	08/22/2022	08/21/2023
10	AC Power Source	EXTECH	6605	KS301178	N.C.R	N.C.R
11	DC Power Supply	Agilent	E3632A	KS301180	N.C.R	N.C.R
12	Conducted Test Cable	Thermax	RF01-RF04	CZ301111-CZ301120	01/16/2022	01/15/2023
13	Temp. / Humidity Chamber	TERCHY	MHK-120AK	KS301190	04/01/2021	03/31/2023
14	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-5	04/01/2021	03/31/2023
15	Software	BST	TST-PASS	/	N/A	N/A
RF Radiated Test						
1	Spectrum Analyzer	R&S	FSV40	KUS1806E003	08/22/2022	08/21/2023
2	Universal Radio Communication Tester	R&S	CMW500	KSEM009-1	04/01/2022	03/31/2023
3	Signal Generator	Agilent	E8257C	KS301066	08/22/2022	08/21/2023
4	Loop Antenna	COM-POWER	AL-130R	KUS1806E001	04/13/2021	04/12/2023
5	Bilog Antenna	TESEQ	CBL 6112D	KUS1806E005	06/29/2021	06/28/2023
6	Bilog Antenna	SCHWARZBEC K	VULB9160	CZ301016	04/13/2021	04/12/2024
7	Horn-antenna(1-18GHz)	Schwarzbeck	BBHA9120D	KS301079	04/02/2022	04/01/2024
8	Horn-antenna(1-18GHz)	ETS-LINDGREN	3117	KS301186	02/22/2021	02/21/2023
9	Horn Antenna(18-40GHz)	Schwarzbeck	BBHA9170	CZ301058	03/22/2022	03/21/2023
10	Amplifier(30MHz~18GHz)	PANSHAN TECHNOLOGY	LNA:1~18G	KSEM010-1	01/22/2022	01/21/2023
11	Amplifier(18~40GHz)	COM-POWER	PAM-840A	KUS1710E001	01/22/2022	01/21/2023
12	RE Test Cable	REBES MICROWAVE	/	CZ301097	11/14/2021	11/13/2022
13	Radio Communication Test Station	Anritsu	MT8000A	KSEM001-1	08/22/2022	08/21/2023
14	Radio Communication Analyzer	Anritsu	MT8821C	KSEM002-1	08/22/2022	08/21/2023
15	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-4	01/04/2022	31/03/2023
16	Software	Faratronic	EZ_EMCC-v 3A1	/	N/A	N/A



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6 Radio Spectrum Matter Test Results

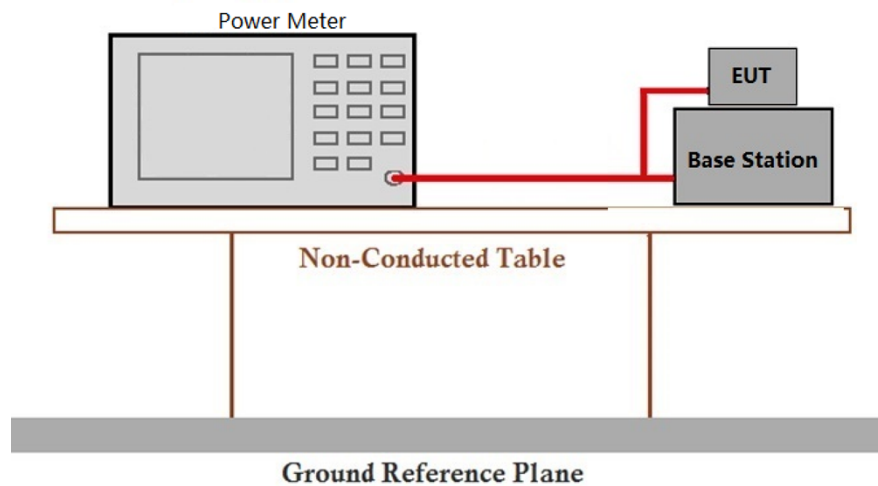
6.1 Effective (Isotropic) Radiated Output Power Data

Test Requirement: §2.1046; §96.41(b)
 Test Method: ANSI C63.26, KDB 971168 D01 v03
 Limit: EIRP ≤ 23dBm/10MHz

6.1.1 E.U.T. Operation

Operating Environment:
 Temperature: 21.5 °C Humidity: 53.5 % RH Atmospheric Pressure: 1020 mbar
 Test mode Tx mode, Keep the EUT in transmitting mode.

6.1.2 Test Setup Diagram



6.1.3 Measurement Data

Please refer to Appendix A for KSCR221100232701; Appendix B for KSCR221100232701



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6.2 Field strength of spurious radiation

Test Requirement: §2.1051, §96.41(e)
Test Method: ANSI C63.26, KDB 971168 D01 v03
Limit: Emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed -13 dBm/MHz within 0 to B megahertz (where B is the bandwidth in megahertz)
At all frequencies greater than B megahertz above the upper CBSD assigned channel edge and less than B megahertz below the lower CBSD-assigned channel edge, the conducted power of any End User Device emission shall not exceed -25 dBm/MHz
Emissions below 3530MHz or above 3720 MHz shall not exceed -40dBm/MHz

6.2.1 E.U.T. Operation

Operating Environment:
Temperature: 18.5 °C Humidity: 39.5 % RH Atmospheric Pressure: 1020 mbar
Test mode Tx mode, Keep the EUT in transmitting mode.

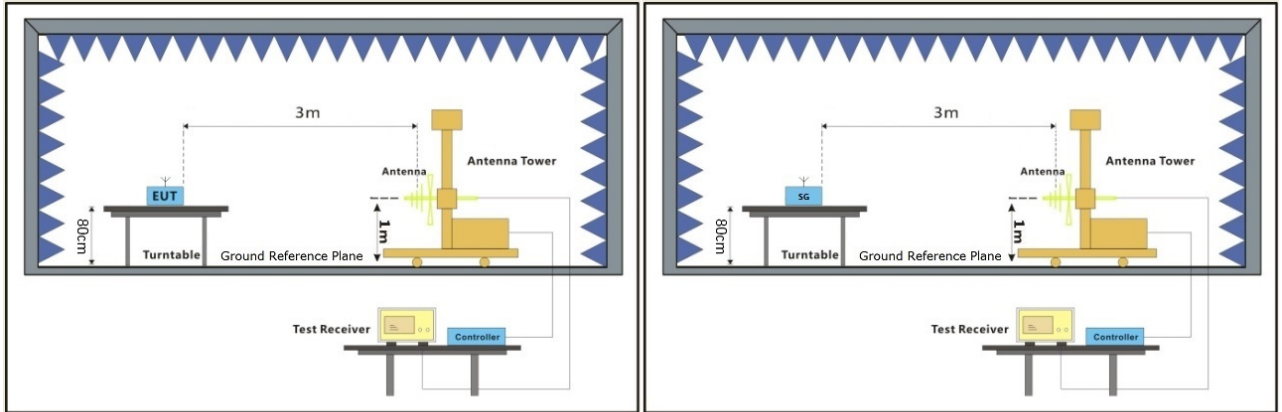


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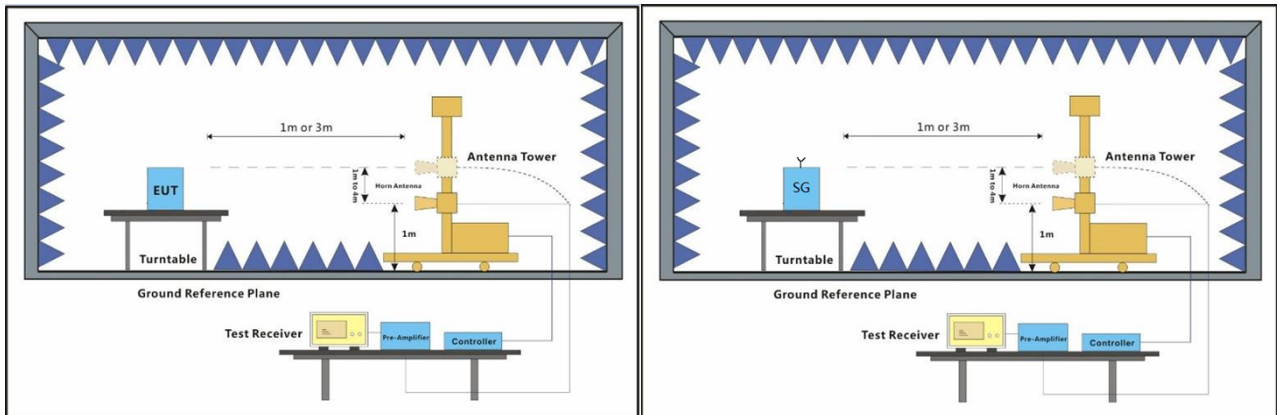
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6.2.2 Test Setup Diagram



EUT

Substiute Antenna+Signal Generator



EUT

Substiute Antenna+Signal Generator



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6.2.3 Measurement Procedure and Data

Test Procedure:

- (1) On a test site, the EUT shall be placed on a turntable and in the position closest to the normal use as declared by the user.
- (2) The test antenna shall be oriented initially for vertical polarization located 3m from the EUT to correspond to the transmitter.
- (3) The output of the antenna shall be connected to the measuring receiver and either a peak or quasi-peak detector was used for the measurement as indicated on the report. The detector selection is based on how close the emission level was approaching the limit.
- (4) The transmitter shall be switched on; if possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.
- (5) The test antenna shall be raised and lowered through the specified range of height until the measuring receiver detects a maximum signal level.
- (6) The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
- (7) The test antenna shall be raised and lowered again through the specified range of height until the measuring receiver detects a maximum signal level.
- (8) The maximum signal level detected by the measuring receiver shall be noted.
- (9) The measurement shall be repeated with the test antenna set to horizontal polarization.
- (10) Replace the antenna with a proper Antenna (substitution antenna).
- (11) The substitution antenna shall be oriented for vertical polarization and, if necessary, the length of the substitution antenna shall be adjusted to correspond to the frequency of transmitting.
- (12) The substitution antenna shall be connected to a calibrated signal generator.
- (13) If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
- (14) The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.
- (15) The input signal to substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.
- (16) The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
- (17) The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.



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LTE Band 48_ Low Channel									
Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7102.025	46.72	-43.66	36.35	-55.85	-40.00	15.85	215	210	Horizontal
8410.725	40.27	-41.42	37.35	-59.05	-40.00	19.05	154	16	Horizontal
9635.475	37.25	-39.30	38.40	-58.91	-40.00	18.91	145	165	Horizontal
10653.2700	33.91	-37.73	39.10	-59.98	-40.00	19.98	122	105	Horizontal
14204.3600	31.28	-35.33	40.23	-59.09	-40.00	19.09	135	90	Horizontal
17755.4500	34.01	-33.78	40.53	-54.49	-40.00	14.49	156	357	Horizontal

LTE Band 48_ Low Channel									
Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7102.025	54.63	-43.66	36.35	-47.94	-40.00	7.94	310	271	Vertical
8409.575	40.87	-41.41	37.35	-58.45	-40.00	18.45	132	360	Vertical
9283	38.01	-40.05	38.40	-58.90	-40.00	18.90	145	330	Vertical
10653.2700	34.47	-37.73	39.10	-59.42	-40.00	19.42	199	195	Vertical
14204.3600	30.26	-35.33	40.23	-60.11	-40.00	20.11	152	224	Vertical
17755.4500	34.11	-33.78	40.53	-54.39	-40.00	14.39	136	357	Vertical

LTE Band 48_ Mid Channel									
Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7232.1800	41.63	-43.52	36.58	-60.57	-40.00	20.57	215	318	Horizontal
8362.425	40.70	-41.56	37.28	-58.83	-40.00	18.83	145	150	Horizontal
9807.975	38.21	-39.07	38.23	-57.89	-40.00	17.89	165	270	Horizontal
10848.2700	33.82	-38.15	39.18	-60.40	-40.00	20.40	188	360	Horizontal
12195.95	33.82	-37.11	39.13	-59.43	-40.00	19.43	166	44	Horizontal
14464.3600	29.82	-34.53	40.03	-59.93	-40.00	19.93	251	30	Horizontal



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Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7231.975	44.79	-43.52	36.58	-57.41	-40.00	17.41	245	208	Vertical
8407.275	40.51	-41.40	37.35	-58.81	-40.00	18.81	185	74	Vertical
9213.425	38.11	-39.97	38.35	-58.77	-40.00	18.77	196	4	Vertical
10848.2700	35.37	-38.15	39.18	-58.85	-40.00	18.85	145	329	Vertical
12814.65	33.40	-36.66	39.64	-58.87	-40.00	18.87	175	359	Vertical
14464.3600	30.24	-34.53	40.03	-59.51	-40.00	19.51	146	179	Vertical

LTE Band 48_ High Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7361.925	45.37	-43.00	36.51	-56.37	-40.00	16.37	245	118	Horizontal
8348.625	40.72	-41.63	37.27	-58.90	-40.00	18.90	156	4	Horizontal
9226.075	38.06	-39.98	38.36	-58.82	-40.00	18.82	129	149	Horizontal
11043.2700	32.97	-37.66	39.08	-60.87	-40.00	20.87	148	209	Horizontal
12277.6	33.52	-36.75	39.11	-59.38	-40.00	19.38	157	360	Horizontal
14724.3600	30.90	-34.82	39.77	-59.41	-40.00	19.41	165	121	Horizontal

LTE Band 48_ High Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7362.1800	46.53	-42.99	36.51	-55.21	-40.00	15.21	245	208	Vertical
8639	39.73	-41.07	37.81	-58.78	-40.00	18.78	156	329	Vertical
9266.9	38.40	-40.03	38.39	-58.50	-40.00	18.50	300	360	Vertical
11043.2700	32.92	-37.66	39.08	-60.92	-40.00	20.92	126	104	Vertical
12816.375	33.54	-36.66	39.65	-58.73	-40.00	18.73	155	222	Vertical
14724.3600	30.36	-34.82	39.77	-59.95	-40.00	19.95	196	360	Vertical



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LTE Band 48C_ Low Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7102.1800	39.92	-43.66	36.35	-62.65	-40.00	22.65	125	0	Horizontal
8413.6	40.18	-41.43	37.36	-59.15	-40.00	19.15	148	151	Horizontal
8971.925	38.97	-40.88	38.18	-58.99	-40.00	18.99	159	73	Horizontal
10653.2700	33.21	-37.73	39.10	-60.68	-40.00	20.68	163	196	Horizontal
14204.3600	28.21	-35.33	40.23	-62.16	-40.00	22.16	259	17	Horizontal
17755.4500	32.88	-33.78	40.53	-55.62	-40.00	15.62	174	356	Horizontal

LTE Band 48C_ Low Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7102.1800	40.53	-43.66	36.35	-62.04	-40.00	22.04	155	91	Vertical
8402.675	40.04	-41.38	37.34	-59.27	-40.00	19.27	148	91	Vertical
8940.875	38.60	-40.89	38.16	-59.39	-40.00	19.39	196	316	Vertical
10653.2700	32.93	-37.73	39.10	-60.96	-40.00	20.96	125	356	Vertical
14204.3600	28.78	-35.33	40.23	-61.59	-40.00	21.59	184	151	Vertical
17755.4500	32.44	-33.78	40.53	-56.06	-40.00	16.06	175	0	Vertical

LTE Band 48C_ Mid Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7212.3800	39.40	-43.58	36.59	-62.84	-40.00	22.84	248	123	Horizontal
8321.6	39.61	-41.76	37.23	-60.18	-40.00	20.18	175	92	Horizontal
9003.55	38.44	-40.85	38.20	-59.47	-40.00	19.47	148	1	Horizontal
10818.5700	32.28	-38.35	39.21	-62.12	-40.00	22.12	195	301	Horizontal
12868.7	32.00	-36.79	39.70	-60.35	-40.00	20.35	186	210	Horizontal
14424.7600	28.61	-34.87	40.06	-61.45	-40.00	21.45	142	17	Horizontal



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Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7212.3800	39.62	-43.58	36.59	-62.62	-40.00	22.62	142	0	Vertical
8407.275	40.24	-41.40	37.35	-59.08	-40.00	19.08	155	46	Vertical
9422.15	37.19	-39.93	38.48	-59.51	-40.00	19.51	186	135	Vertical
10818.5700	32.45	-38.35	39.21	-61.95	-40.00	21.95	192	240	Vertical
12843.4	31.91	-36.73	39.67	-60.41	-40.00	20.41	143	255	Vertical
14424.7600	29.07	-34.87	40.06	-60.99	-40.00	20.99	170	226	Vertical

LTE Band 48C_ High Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7322.5800	39.75	-43.21	36.53	-62.18	-40.00	22.18	120	7	Horizontal
8412.45	40.41	-41.42	37.36	-58.92	-40.00	18.92	145	285	Horizontal
9807.975	37.35	-39.07	38.23	-58.75	-40.00	18.75	185	301	Horizontal
10983.8700	31.55	-37.62	39.08	-62.25	-40.00	22.25	174	272	Horizontal
12829.6	31.65	-36.69	39.66	-60.64	-40.00	20.64	196	16	Horizontal
14645.1600	29.14	-35.08	39.88	-61.33	-40.00	21.33	128	77	Horizontal

LTE Band 48C_ High Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7322.5800	39.50	-43.21	36.53	-62.43	-40.00	22.43	178	332	Vertical
8692.475	39.60	-41.31	37.90	-59.06	-40.00	19.06	198	6	Vertical
9619.95	36.39	-39.26	38.42	-59.71	-40.00	19.71	145	90	Vertical
10983.8700	31.63	-37.62	39.08	-62.17	-40.00	22.17	122	16	Vertical
13337.9	31.59	-36.66	40.08	-60.25	-40.00	20.25	236	147	Vertical
14645.1600	28.82	-35.08	39.88	-61.65	-40.00	21.65	251	147	Vertical



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NR CA N2A-N48A Low Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
3702.1800	35.81	-21.64	29.98	-51.12	-40.00	11.12	215	329	Horizontal
5553.2700	29.31	-18.93	32.97	-51.91	-40.00	11.91	142	71	Horizontal
7010.1800	41.72	-43.06	36.11	-60.49	-40.00	20.49	132	74	Horizontal
7404.3600	40.94	-42.81	36.49	-60.64	-40.00	20.64	126	2	Horizontal
10515.2700	34.72	-38.64	38.98	-60.21	-40.00	20.21	158	2	Horizontal
14020.3600	31.46	-35.04	40.15	-58.69	-40.00	18.69	169	165	Horizontal

NR CA N2A-N48A Low Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
5553.2700	29.38	-18.93	32.97	-51.84	-40.00	11.84	245	169	Vertical
7010.1800	40.22	-43.06	36.11	-61.99	-40.00	21.99	125	240	Vertical
7404.3600	40.42	-42.81	36.49	-61.16	-40.00	21.16	132	286	Vertical
8813.8	39.75	-41.11	38.09	-58.53	-40.00	18.53	165	1	Vertical
10515.2700	35.93	-38.64	38.98	-59.00	-40.00	19.00	158	194	Vertical
14020.3600	30.94	-35.04	40.15	-59.21	-40.00	19.21	145	209	Vertical

NR CA N2A-N48A Mid Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
3742.1800	28.19	-21.54	30.12	-58.49	-40.00	18.49	169	109	Horizontal
5613.2700	28.86	-18.72	33.07	-52.05	-40.00	12.05	145	308	Horizontal
7160.1800	40.57	-43.63	36.50	-61.82	-40.00	21.82	126	6	Horizontal
7484.3600	39.61	-43.11	36.45	-62.31	-40.00	22.31	155	117	Horizontal
10740.2700	35.32	-37.89	39.17	-58.66	-40.00	18.66	184	42	Horizontal
14320.3600	33.52	-35.70	40.14	-57.30	-40.00	17.30	175	0	Horizontal



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NR CA N2A-N48A Mid Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
3742.1800	33.96	-21.54	30.12	-52.72	-40.00	12.72	215	342	Vertical
5613.2700	29.18	-18.72	33.07	-51.73	-40.00	11.73	132	360	Vertical
7160.1800	40.24	-43.63	36.50	-62.15	-40.00	22.15	126	6	Vertical
7484.3600	39.64	-43.11	36.45	-62.28	-40.00	22.28	155	356	Vertical
10740.2700	34.21	-37.89	39.17	-59.77	-40.00	19.77	147	254	Vertical
14320.3600	33.52	-35.70	40.14	-57.30	-40.00	17.30	196	0	Vertical

NR CA N2A-N48A High Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
3782.1800	27.90	-21.44	30.27	-58.53	-40.00	18.53	255	340	Horizontal
5673.2700	29.31	-18.73	33.29	-51.38	-40.00	11.38	142	230	Horizontal
7310.1800	39.97	-43.27	36.54	-62.02	-40.00	22.02	133	56	Horizontal
7564.3600	40.03	-42.89	36.41	-61.71	-40.00	21.71	256	316	Horizontal
10965.2700	33.90	-37.67	39.10	-59.93	-40.00	19.93	299	255	Horizontal
14620.3600	32.18	-35.23	39.91	-58.40	-40.00	18.40	148	6	Horizontal

NR CA N2A-N48A High Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
3782.1800	29.57	-21.44	30.27	-56.86	-40.00	16.86	211	360	Vertical
5673.2700	29.37	-18.73	33.29	-51.32	-40.00	11.32	142	169	Vertical
7310.1800	39.64	-43.27	36.54	-62.35	-40.00	22.35	132	0	Vertical
7564.3600	39.72	-42.89	36.41	-62.02	-40.00	22.02	156	225	Vertical
10965.2700	34.26	-37.67	39.10	-59.57	-40.00	19.57	215	2	Vertical
14620.3600	32.37	-35.23	39.91	-58.21	-40.00	18.21	189	103	Vertical



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NR CA N12A-N48A Low Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1399.6800	28.96	-25.24	25.62	-65.92	-40.00	25.92	254	239	Horizontal
2099.5200	29.08	-24.20	26.99	-63.39	-40.00	23.39	126	109	Horizontal
2799.3600	29.59	-22.56	28.48	-59.75	-40.00	19.75	132	4	Horizontal
7010.1800	41.16	-43.06	36.11	-61.05	-40.00	21.05	155	301	Horizontal
10515.2700	35.22	-38.64	38.98	-59.71	-40.00	19.71	169	270	Horizontal
14020.3600	32.03	-35.04	40.15	-58.12	-40.00	18.12	192	73	Horizontal

NR CA N12A-N48A Low Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1399.6800	28.92	-25.24	25.62	-65.96	-40.00	25.96	255	360	Vertical
2099.5200	28.80	-24.20	26.99	-63.67	-40.00	23.67	148	87	Vertical
2799.3600	29.76	-22.56	28.48	-59.58	-40.00	19.58	156	287	Vertical
7010.1800	40.81	-43.06	36.11	-61.40	-40.00	21.40	136	44	Vertical
10515.2700	35.21	-38.64	38.98	-59.72	-40.00	19.72	256	195	Vertical
14020.3600	33.16	-35.04	40.15	-56.99	-40.00	16.99	291	0	Vertical

NR CA N12A-N48A Mid Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1401.6800	29.20	-25.24	25.62	-65.68	-40.00	25.68	155	159	Horizontal
2102.5200	29.07	-24.20	27.00	-63.38	-40.00	23.38	142	159	Horizontal
2803.3600	29.14	-22.58	28.50	-60.20	-40.00	20.20	128	358	Horizontal
7160.1800	41.14	-43.63	36.50	-61.25	-40.00	21.25	199	91	Horizontal
10740.2700	35.60	-37.89	39.17	-58.38	-40.00	18.38	166	1	Horizontal
14320.3600	34.62	-35.70	40.14	-56.20	-40.00	16.20	138	227	Horizontal



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NR CA N12A-N48A Mid Channel									
Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1401.6800	29.01	-25.24	25.62	-65.87	-40.00	25.87	256	356	Vertical
2102.5200	28.90	-24.20	27.00	-63.55	-40.00	23.55	148	269	Vertical
2803.3600	29.13	-22.58	28.50	-60.21	-40.00	20.21	196	279	Vertical
7160.1800	41.18	-43.63	36.50	-61.21	-40.00	21.21	253	357	Vertical
10740.2700	35.12	-37.89	39.17	-58.86	-40.00	18.86	163	29	Vertical
14320.3600	34.65	-35.70	40.14	-56.17	-40.00	16.17	215	270	Vertical

NR CA N12A-N48A High Channel									
Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1403.6800	28.73	-25.24	25.61	-66.15	-40.00	26.15	211	360	Horizontal
2105.5200	29.01	-24.19	27.02	-63.43	-40.00	23.43	145	3	Horizontal
2807.3600	29.22	-22.59	28.51	-60.12	-40.00	20.12	126	109	Horizontal
7310.1800	40.55	-43.27	36.54	-61.44	-40.00	21.44	253	89	Horizontal
10965.2700	35.38	-37.67	39.10	-58.45	-40.00	18.45	269	3	Horizontal
14620.3600	33.98	-35.23	39.91	-56.60	-40.00	16.60	291	17	Horizontal

NR CA N12A-N48A High Channel									
Frequency [MHz]	Reading [dBµV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1403.6800	28.58	-25.24	25.61	-66.30	-40.00	26.30	155	289	Vertical
2105.5200	29.17	-24.19	27.02	-63.27	-40.00	23.27	142	139	Vertical
2807.3600	29.69	-22.59	28.51	-59.65	-40.00	19.65	185	4	Vertical
7310.1800	40.32	-43.27	36.54	-61.67	-40.00	21.67	196	64	Vertical
10965.2700	34.93	-37.67	39.10	-58.90	-40.00	18.90	136	0	Vertical
14620.3600	33.35	-35.23	39.91	-57.23	-40.00	17.23	248	1	Vertical



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NR CA N48A-N66A Low Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
3422.1800	29.10	-21.73	29.45	-58.44	-40.00	18.44	256	326	Horizontal
5133.2700	28.87	-19.18	32.95	-52.61	-40.00	12.61	145	245	Horizontal
6844.3600	41.16	-43.72	35.89	-61.93	-40.00	21.93	136	356	Horizontal
7010.1800	41.04	-43.06	36.11	-61.17	-40.00	21.17	259	42	Horizontal
10515.2700	34.67	-38.64	38.98	-60.26	-40.00	20.26	148	6	Horizontal
14020.3600	32.52	-35.04	40.15	-57.63	-40.00	17.63	199	16	Horizontal

NR CA N48A-N66A Low Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
3422.1800	29.61	-21.73	29.45	-57.93	-40.00	17.93	255	360	Vertical
5133.2700	29.08	-19.18	32.95	-52.40	-40.00	12.40	156	219	Vertical
6844.3600	41.70	-43.72	35.89	-61.39	-40.00	21.39	136	356	Vertical
7010.1800	41.06	-43.06	36.11	-61.15	-40.00	21.15	299	208	Vertical
10515.2700	35.41	-38.64	38.98	-59.52	-40.00	19.52	142	208	Vertical
14020.3600	31.92	-35.04	40.15	-58.23	-40.00	18.23	166	0	Vertical

NR CA N48A-N66A Mid Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
3472.1800	30.99	-21.49	29.50	-56.27	-40.00	16.27	245	359	Horizontal
5208.2700	29.22	-19.00	32.98	-52.06	-40.00	12.06	185	191	Horizontal
6944.3600	41.35	-43.50	36.01	-61.39	-40.00	21.39	169	3	Horizontal
7160.1800	40.80	-43.63	36.50	-61.59	-40.00	21.59	192	331	Horizontal
10740.2700	35.46	-37.89	39.17	-58.52	-40.00	18.52	142	227	Horizontal
14320.3600	33.78	-35.70	40.14	-57.04	-40.00	17.04	136	256	Horizontal



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NR CA N48A-N66A Mid Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
3472.1800	32.37	-21.49	29.50	-54.89	-40.00	14.89	255	30	Vertical
5208.2700	29.11	-19.00	32.98	-52.17	-40.00	12.17	145	249	Vertical
6944.3600	40.99	-43.50	36.01	-61.75	-40.00	21.75	162	72	Vertical
7160.1800	40.65	-43.63	36.50	-61.74	-40.00	21.74	132	357	Vertical
10740.2700	34.97	-37.89	39.17	-59.01	-40.00	19.01	155	0	Vertical
14320.3600	34.49	-35.70	40.14	-56.33	-40.00	16.33	185	146	Vertical

NR CA N48A-N66A High Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
3522.1800	35.78	-21.41	29.54	-51.35	-40.00	11.35	248	355	Horizontal
5283.2700	29.14	-18.82	32.91	-52.03	-40.00	12.03	156	360	Horizontal
7044.3600	41.46	-43.29	36.20	-60.89	-40.00	20.89	192	28	Horizontal
7310.1800	39.98	-43.27	36.54	-62.01	-40.00	22.01	175	313	Horizontal
10965.2700	34.91	-37.67	39.10	-58.92	-40.00	18.92	142	0	Horizontal
14620.3600	33.42	-35.23	39.91	-57.16	-40.00	17.16	136	0	Horizontal

NR CA N48A-N66A High Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
3522.1800	35.87	-21.41	29.54	-51.26	-40.00	11.26	245	360	Vertical
5283.2700	29.24	-18.82	32.91	-51.93	-40.00	11.93	155	80	Vertical
7044.3600	40.97	-43.29	36.20	-61.38	-40.00	21.38	169	356	Vertical
7310.1800	41.00	-43.27	36.54	-60.99	-40.00	20.99	291	195	Vertical
10965.2700	34.82	-37.67	39.10	-59.01	-40.00	19.01	148	272	Vertical
14620.3600	32.94	-35.23	39.91	-57.64	-40.00	17.64	175	195	Vertical



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NR CA N48A-N71A Low Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1328.1800	28.52	-24.81	25.61	-65.94	-40.00	25.94	155	98	Horizontal
1992.2700	29.18	-24.47	26.60	-63.95	-40.00	23.95	126	359	Horizontal
2656.3600	29.67	-22.84	28.21	-60.22	-40.00	20.22	236	189	Horizontal
7010.1800	41.05	-43.06	36.11	-61.16	-40.00	21.16	259	146	Horizontal
10515.2700	35.12	-38.64	38.98	-59.81	-40.00	19.81	145	193	Horizontal
14020.3600	32.52	-35.04	40.15	-57.63	-40.00	17.63	188	72	Horizontal

NR CA N48A-N71A Low Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1328.1800	28.38	-24.81	25.61	-66.08	-40.00	26.08	211	106	Vertical
1992.2700	29.00	-24.47	26.60	-64.13	-40.00	24.13	154	234	Vertical
2656.3600	29.91	-22.84	28.21	-59.98	-40.00	19.98	156	360	Vertical
7010.1800	41.63	-43.06	36.11	-60.58	-40.00	20.58	330	189	Vertical
10515.2700	35.06	-38.64	38.98	-59.87	-40.00	19.87	185	37	Vertical
14020.3600	32.42	-35.04	40.15	-57.73	-40.00	17.73	196	13	Vertical

NR CA N48A-N71A Mid Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1343.1800	28.04	-24.90	25.61	-66.51	-40.00	26.51	245	328	Horizontal
2014.7700	28.91	-24.43	26.69	-64.08	-40.00	24.08	166	30	Horizontal
2686.3600	29.46	-22.85	28.26	-60.38	-40.00	20.38	215	318	Horizontal
7160.1800	40.97	-43.63	36.50	-61.42	-40.00	21.42	188	211	Horizontal
10740.2700	34.77	-37.89	39.17	-59.21	-40.00	19.21	169	1	Horizontal
14320.3600	33.93	-35.70	40.14	-56.89	-40.00	16.89	142	225	Horizontal



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NR CA N48A-N71A Mid Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1343.1800	28.10	-24.90	25.61	-66.45	-40.00	26.45	283	41	Vertical
2014.7700	28.90	-24.43	26.69	-64.09	-40.00	24.09	263	59	Vertical
2686.3600	29.72	-22.85	28.26	-60.12	-40.00	20.12	251	239	Vertical
7160.1800	41.30	-43.63	36.50	-61.09	-40.00	21.09	155	133	Vertical
10740.2700	35.10	-37.89	39.17	-58.88	-40.00	18.88	192	44	Vertical
14320.3600	33.51	-35.70	40.14	-57.31	-40.00	17.31	187	344	Vertical

NR CA N48A-N71A High Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1358.1800	29.03	-24.99	25.61	-65.60	-40.00	25.60	245	218	Horizontal
2037.2700	28.79	-24.37	26.77	-64.07	-40.00	24.07	136	69	Horizontal
2716.3600	29.64	-22.80	28.32	-60.09	-40.00	20.09	256	117	Horizontal
7310.1800	41.12	-43.27	36.54	-60.87	-40.00	20.87	291	0	Horizontal
10965.2700	34.66	-37.67	39.10	-59.17	-40.00	19.17	147	44	Horizontal
14620.3600	32.71	-35.23	39.91	-57.87	-40.00	17.87	158	356	Horizontal

NR CA N48A-N71A High Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1358.1800	28.82	-24.99	25.61	-65.81	-40.00	25.81	211	11	Vertical
2037.2700	28.68	-24.37	26.77	-64.18	-40.00	24.18	145	319	Vertical
2716.3600	29.59	-22.80	28.32	-60.14	-40.00	20.14	156	359	Vertical
7310.1800	40.44	-43.27	36.54	-61.55	-40.00	21.55	136	104	Vertical
10965.2700	35.15	-37.67	39.10	-58.68	-40.00	18.68	222	316	Vertical
14620.3600	33.16	-35.23	39.91	-57.42	-40.00	17.42	188	2	Vertical



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NR NSA 5A-N48A Low Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7010.1800	40.60	-43.06	36.11	-61.61	-40.00	21.61	111	1	Horizontal
8814.95	40.45	-41.11	38.09	-57.83	-40.00	17.83	188	269	Horizontal
10515.2700	35.47	-38.64	38.98	-59.46	-40.00	19.46	265	7	Horizontal
11254.675	37.22	-36.94	39.11	-55.87	-40.00	15.87	142	117	Horizontal
14020.3600	32.79	-35.04	40.15	-57.36	-40.00	17.36	135	283	Horizontal
17525.4500	33.76	-33.81	39.28	-56.03	-40.00	16.03	192	178	Horizontal

NR NSA 5A-N48A Low Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7010.1800	41.33	-43.06	36.11	-60.88	-40.00	20.88	215	148	Vertical
8340.575	41.87	-41.67	37.26	-57.80	-40.00	17.80	136	356	Vertical
10515.2700	36.28	-38.64	38.98	-58.65	-40.00	18.65	198	344	Vertical
11249.5	37.15	-36.91	39.11	-55.91	-40.00	15.91	147	16	Vertical
14020.3600	32.90	-35.04	40.15	-57.25	-40.00	17.25	152	270	Vertical
17525.4500	33.72	-33.81	39.28	-56.07	-40.00	16.07	146	165	Vertical

NR NSA 5A-N48A Mid Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7160.1800	40.83	-43.63	36.50	-61.56	-40.00	21.56	245	346	Horizontal
8383.125	41.25	-41.45	37.31	-58.16	-40.00	18.16	215	16	Horizontal
9421.575	39.52	-39.93	38.48	-57.18	-40.00	17.18	135	240	Horizontal
10740.2700	35.42	-37.89	39.17	-58.56	-40.00	18.56	218	181	Horizontal
14320.3600	34.92	-35.70	40.14	-55.90	-40.00	15.90	175	346	Horizontal
17900.4500	34.44	-34.80	41.54	-54.08	-40.00	14.08	169	270	Horizontal



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NR NSA 5A-N48A Mid Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7160.1800	40.76	-43.63	36.50	-61.63	-40.00	21.63	211	138	Vertical
8346.9	41.82	-41.64	37.26	-57.81	-40.00	17.81	145	357	Vertical
9411.225	39.69	-39.92	38.49	-57.01	-40.00	17.01	125	357	Vertical
10740.2700	35.85	-37.89	39.17	-58.13	-40.00	18.13	183	258	Vertical
14320.3600	35.43	-35.70	40.14	-55.39	-40.00	15.39	236	357	Vertical
17900.4500	35.48	-34.80	41.54	-53.04	-40.00	13.04	100	0	Vertical

NR NSA 5A-N48A High Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7310.1800	40.00	-43.27	36.54	-61.99	-40.00	21.99	245	356	Horizontal
8366.45	41.50	-41.54	37.29	-58.01	-40.00	18.01	126	0	Horizontal
9300.25	39.69	-40.07	38.42	-57.22	-40.00	17.22	235	356	Horizontal
10965.2700	35.40	-37.67	39.10	-58.43	-40.00	18.43	185	132	Horizontal
12713.45	36.20	-36.80	39.48	-56.38	-40.00	16.38	198	85	Horizontal
14620.3600	33.06	-35.23	39.91	-57.52	-40.00	17.52	173	254	Horizontal

NR NSA 5A-N48A High Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7310.1800	40.47	-43.27	36.54	-61.52	-40.00	21.52	215	357	Vertical
8355.525	41.71	-41.59	37.27	-57.87	-40.00	17.87	145	286	Vertical
9315.775	39.53	-40.05	38.43	-57.35	-40.00	17.35	129	317	Vertical
10965.2700	34.68	-37.67	39.10	-59.15	-40.00	19.15	186	16	Vertical
12659.975	36.52	-36.98	39.38	-56.33	-40.00	16.33	174	3	Vertical
14620.3600	33.17	-35.23	39.91	-57.41	-40.00	17.41	153	331	Vertical



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NR SA Band48 Low Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7010.1800	40.65	-43.06	36.11	-61.56	-40.00	21.56	248	356	Horizontal
8399.225	40.51	-41.37	37.33	-58.79	-40.00	18.79	159	8	Horizontal
9410.65	38.71	-39.92	38.49	-57.99	-40.00	17.99	186	356	Horizontal
10515.2700	35.11	-38.64	38.98	-59.82	-40.00	19.82	174	0	Horizontal
14020.3600	31.50	-35.04	40.15	-58.65	-40.00	18.65	152	104	Horizontal
17525.4500	32.69	-33.81	39.28	-57.10	-40.00	17.10	146	209	Horizontal

NR SA Band48 Low Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7010.1800	40.46	-43.06	36.11	-61.75	-40.00	21.75	222	225	Vertical
8361.275	40.84	-41.56	37.28	-58.70	-40.00	18.70	256	28	Vertical
10515.2700	35.05	-38.64	38.98	-59.88	-40.00	19.88	145	6	Vertical
12837.65	35.11	-36.71	39.67	-57.20	-40.00	17.20	136	16	Vertical
14020.3600	31.17	-35.04	40.15	-58.98	-40.00	18.98	259	1	Vertical
17525.4500	34.14	-33.81	39.28	-55.65	-40.00	15.65	191	103	Vertical

NR SA Band48 Mid Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7160.1800	40.50	-43.63	36.50	-61.89	-40.00	21.89	254	104	Horizontal
8346.325	40.86	-41.64	37.26	-58.78	-40.00	18.78	129	164	Horizontal
9415.25	38.58	-39.93	38.49	-58.12	-40.00	18.12	266	1	Horizontal
10740.2700	35.17	-37.89	39.17	-58.81	-40.00	18.81	251	356	Horizontal
14320.3600	33.20	-35.70	40.14	-57.62	-40.00	17.62	199	287	Horizontal
17900.4500	34.31	-34.80	41.54	-54.21	-40.00	14.21	143	287	Horizontal



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NR SA Band48 Mid Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7160.1800	40.32	-43.63	36.50	-62.07	-40.00	22.07	245	8	Vertical
8406.7	41.04	-41.40	37.34	-58.27	-40.00	18.27	159	226	Vertical
10740.2700	34.43	-37.89	39.17	-59.55	-40.00	19.55	146	104	Vertical
12820.975	34.80	-36.67	39.65	-57.48	-40.00	17.48	233	316	Vertical
14320.3600	33.61	-35.70	40.14	-57.21	-40.00	17.21	261	0	Vertical
17900.4500	34.04	-34.80	41.54	-54.48	-40.00	14.48	145	316	Vertical

NR SA Band48 High Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7310.1800	40.53	-43.27	36.54	-61.46	-40.00	21.46	255	197	Horizontal
8412.45	41.59	-41.42	37.36	-57.74	-40.00	17.74	146	60	Horizontal
9807.975	38.19	-39.07	38.23	-57.91	-40.00	17.91	259	316	Horizontal
10965.2700	34.55	-37.67	39.10	-59.28	-40.00	19.28	184	152	Horizontal
12838.225	34.77	-36.72	39.67	-57.54	-40.00	17.54	175	74	Horizontal
14620.3600	32.29	-35.23	39.91	-58.29	-40.00	18.29	132	166	Horizontal

NR SA Band48 High Channel									
Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
7310.1800	40.56	-43.27	36.54	-61.43	-40.00	21.43	211	104	Vertical
8403.825	41.20	-41.39	37.34	-58.11	-40.00	18.11	185	104	Vertical
9410.075	38.37	-39.92	38.49	-58.33	-40.00	18.33	169	181	Vertical
10965.2700	34.14	-37.67	39.10	-59.69	-40.00	19.69	192	181	Vertical
12842.825	34.79	-36.73	39.67	-57.52	-40.00	17.52	174	150	Vertical
14620.3600	32.87	-35.23	39.91	-57.71	-40.00	17.71	153	58	Vertical

Remark:

1) Pretest was performed at the EUT in required band,channel,modulation,bandwidth, and only the data of the worst case showed in the test report.



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7 Test Setup Photographs

Refer to the < Test Setup photos>.

- End of the Report -



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