



SPOT CHECK EVALUATION

FCC ID : A4RGE9DP
Equipment : Phone
Applicant : Google LLC
1600 Amphitheatre Parkway,
Mountain View, California, 94043 USA
Standard : 47 CFR Part 2, 22(H), 24(E), 27, 90(R), 90(S), 96
FCC Part 15 Subpart C §15.209
FCC Part 15 Subpart C §15.225
FCC Part 15 Subpart C §15.247
FCC Part 15 Subpart E §15.407
FCC Part 15 Subpart F §15.519

We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

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TABLE OF CONTENTS

History of this test report.....	3
1. Introduction Section	4
2. Model Difference Information	5
3. Spot Check Verification Data Section	6
4. Reference detail Section	8
5. List of Measuring Equipment.....	9
6. Radiated Emission Setup Plots	
Appendix A. Conducted Test Results	
Appendix B. Setup Photographs	



History of this test report

Version	Description	Issue Date
01	Initial issue of report	Jun. 26, 2023
02	Revised n48 This report is an updated version, replacing the report issued on Jun. 26, 2023	Jul. 05, 2023
03	Revised n41/n77 power PC3 and worst EIRP table This report is an updated version, replacing the report issued on Jul. 05, 2023	Jul. 06, 2023
04	Revised n41 power PC3 and worst EIRP table This report is an updated version, replacing the report issued on Jul. 06, 2023	Jul. 13, 2023



1. Introduction Section

FCC ID: A4RG1MNW (parent model) and FCC ID: A4RGE9DP (variant model) use the same identical internal printed circuit board layouts, while the variant model mmWave does not support US band, details are available in the operational description. Based on their similarity, the FCC Part 15C (equipment class: DCD, DXX, DSS, DTS), FCC Part 15E (equipment class: NII, 6CD), FCC Part 15F (UWB) and FCC Part 22, 24, 27, 90, 96 (equipment class: PCE, CBE) reuse the original model's result and do spot-check, following the FCC KDB 484596 D01 v01. The spot check data in this report is used to justify the data reuse.

The applicant should take full responsibility that the test data as referenced in this report represent compliance for this FCC ID: A4RGE9DP.



2. Model Difference Information

A4RG1MNW and A4RGE9DP use the identical internal printed circuit board layout, and the difference in the components population:

- A4RGE9DP: 5G NR FR2 mmWave related components does not support US band.
- A4RGE9DP: Populated module and transceiver for FR1 n79 non-US band.

The detail of similarity and difference is illustrated in the operational description, and based on the information spot check on conducted power and emission was performed for ensure compliance



3. Spot Check Verification Data Section

Conducted power test and radiated spurious emission test configurations were selected from the worst cases identified in the parent model and tested to demonstrate the test data from original model remains representative for the variant model.

The variant FCC ID: A4RGE9DP which NR n41/n77 bands do not support HPUE so the maximum conducted power are smaller than the original model. The worst EIRP from n77 antenna 6 and n41 antenna 0 with maximum conducted power is attached in the test report among all n41/n77 configurations. Based on the RF parameter is still identical so the EBW from original model remains representative for the variant model.

Summary for power and RSE spot check for each FCC rule part is listed as below:

Test Item	Mode	A4RG1MNV Parent Worst Result	A4RGE9DP Variant Check Result	Difference (dB)
Conducted Power (dBm)	BT	20.96	20.77	0.19
	BLE	21.31	20.88	0.43
	WiFi 2.4GHz	24.67	24.19	0.48
	WiFi 5GHz	22.96	22.71	0.25
	WiFi 6GHz	22.88	22.67	0.21
	WWAN GPRS 850	32.51	32.42	0.09
	WWAN GPRS 1900	29.78	29.53	0.25
	WWAN WCDMA Band V	25.02	24.89	0.13
	WWAN WCDMA Band II	24.91	24.66	0.25
	WWAN WCDMA Band IV	24.97	24.53	0.44
	WWAN LTE Band 2	24.76	24.46	0.30
	WWAN LTE Band 5	24.42	24.32	0.10
	WWAN LTE Band 7	25.13	24.80	0.33
	WWAN LTE Band 48	22.92	22.79	0.13
	WWAN NR n5	24.97	24.79	0.18
	WWAN NR n7	25.26	25.14	0.12
	WWAN NR n25	24.76	24.71	0.05
	WWAN NR n77	26.99 (HPUE)	23.47 (no HPUE)	3.52



Test Item	Mode	ANT	A4RG1MNV Parent Worst Result	A4RGE9DP Variant Check Result	Difference (dB)
Field Strength (dBuV/m)	NFC 13.56MHz	-	24.84	23.33	1.51
	WPT 148.5kHz	-	-6.08	-8.05	1.97
	UWB_AoA_CH9	2	53.85	52.19	1.66
Radiated Spurious Emission (dBuV/m)	NFC 13.56MHz	-	33.68	31.67	2.01
	WPT 148.5kHz	-	32.52	29.75	2.77
	UWB_AoA_CH9	2	15.90	13.45	2.45
	BT	3+4	36.33	34.39	1.94
	BLE	3+4	52.36	52.14	0.22
	WiFi 2.4GHz	3+4	52.41	51.41	1.00
	WiFi 5GHz	3+4	65.77	64.79	0.98
	WiFi 6GHz	3+4	65.68	63.23	2.45
Radiated Spurious Emission (dBm)	WWAN GPRS 850	0	-41.99	-44.05	2.06
	WWAN GPRS 850	1	-57.68	-58.03	0.35
	WWAN GPRS 1900	2	-47.52	-49.45	1.93
	WWAN WCDMA Band V	0	-43.46	-43.67	0.21
	WWAN WCDMA Band II	2	-46.91	-47.10	0.19
	WWAN WCDMA Band IV	2	-49.37	-51.03	1.66
	WWAN LTE Band 2/25	2	-48.22	-49.96	1.74
	WWAN LTE Band 5/26	0	-39.95	-42.08	2.13
	WWAN LTE Band 7	2	-45.24	-45.89	0.65
	WWAN LTE Band 48	6	-51.69	-52.40	0.71
	WWAN LTE Band 48	7	-52.00	-54.08	2.08
	WWAN NR n5	0	-53.24	-54.19	0.95
	WWAN NR n7	2	-37.09	-38.59	1.50
	WWAN NR n25	2	-42.62	-43.65	1.03
	WWAN NR n77	5+7	-28.53	-31.48	2.95
		6	-28.86	-30.86	2.00
		7	-28.67	-30.07	1.40

Conclusion:

Radiated spurious emission test against the variant model based on the worst-case condition from the original model was performed in this filing to demonstrate the test data from original model remains representative for the variant model.

The spot check emission level is not degraded more than 3dB, and the margin to the limit is greater than 1.5dB, data referencing is justified according to the guidance in the KDB inquiry



4. Reference detail Section

Rule Part	Equipment Class	Wireless Technology	Frequency Band	Reference FCC ID (Parent)	Type Grant/ Permissive Change	Reference Title	FCC ID Filling (Variant)
15C	DXX	NFC	13.56MHz	A4RG1MNBW	Original Grant	FR2D0206-01D	A4RGE9DP
	DCD	WPT	110~148.5kHz	A4RG1MNBW	Original Grant	FR2D0206-01H	A4RGE9DP
	DSS	BT	2.4GHz	A4RG1MNBW	Original Grant	FR2D0206-01A	A4RGE9DP
	DTS	BLE	2.4GHz	A4RG1MNBW	Original Grant	FR2D0206-01B	A4RGE9DP
	DTS	WiFi	2.4GHz	A4RG1MNBW	Original Grant	FR2D0206-01C	A4RGE9DP
15E	NII	WiFi	5GHz	A4RG1MNBW	Original Grant	FR2D0206-01E FR2D0206-01G FR2D0206-01K FZ2D0206-01	A4RGE9DP
	6CD	WiFi	6GHz	A4RG1MNBW	Original Grant	FR2D0206-01I FR2D0206-01J	A4RGE9DP
15F	UWB	UWB	CH5 / CH9	A4RG1MNBW	Original Grant	FR2D0206-01F	A4RGE9DP
22, 24, 27, 90, 96	PCE CBE	GSM	GSM 850/1900	A4RG1MNBW	Original Grant	FG2D0206-01A	A4RGE9DP
		WCDMA	Band II, IV, V	A4RG1MNBW	Original Grant	FG2D0206-01A	A4RGE9DP
		LTE	2/4/5/7/12/13 /14/17/25/26 /30/38/41 /48/66/71 ULCA 5B/7C/ 41C/66B/66C	A4RG1MNBW	Original Grant	FG2D0206-01B FG2D0206-01F FG2D0206-01H	A4RGE9DP
		NR	n2/n5/n7/ n12/n25/n30/ n41/n66/n71/ n77/n78	A4RG1MNBW	Original Grant	FG2D0206-01C FG2D0206-01D FG2D0206-01E	A4RGE9DP

5. List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 17, 2022	Jun. 09, 2023 ~Jun. 20, 2023	Nov. 16, 2023	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I00054SNO 12 (NO:113)	10MHz~6GHz	Dec. 13, 2022	Jun. 09, 2023 ~Jun. 20, 2023	Dec. 12, 2023	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101905	10Hz - 40GHz(amp)	Aug. 03, 2022	Jun. 09, 2023 ~Jun. 20, 2023	Aug. 02, 2023	Conducted (TH05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Sep. 20, 2022	Jun. 09, 2023 ~Jun. 20, 2023	Sep. 19, 2023	Radiation (03CH22-HY)
Bilog Antenna with 6dB pad	TESEQ & WOKEN	CBL 6111D & 00802N1D-06	63304 & 002	N/A	Oct. 04, 2022	Jun. 09, 2023 ~Jun. 20, 2023	Oct. 03, 2023	Radiation (03CH22-HY)
Amplifier	SONOMA	310N	421581	N/A	Jul. 16, 2022	Jun. 09, 2023 ~Jun. 20, 2023	Jul. 15, 2023	Radiation (03CH22-HY)
Double Ridged Guide Horn Antenna	RFSPIN	DRH18-E	LE2C05A18E N	1GHz~18GHz	Jul. 06, 2022	Jun. 09, 2023 ~Jun. 20, 2023	Jul. 05, 2023	Radiation (03CH22-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	00991	18GHz~40GHz	May 14, 2022	Jun. 09, 2023 ~Jun. 20, 2023	May 13, 2023	Radiation (03CH22-HY)
Amplifier	EMEC	EM01G18GA	060877	N/A	Sep. 29, 2022	Jun. 09, 2023 ~Jun. 20, 2023	Sep. 28, 2023	Radiation (03CH22-HY)
Preamplifier	EMEC	EM18G40G	060872	18-40GHz	Sep. 28, 2022	Jun. 09, 2023 ~Jun. 20, 2023	Sep. 27, 2023	Radiation (03CH22-HY)
Signal Analyzer	Keysight	N9010B	MY60241058	N/A	Jul. 07, 2022	Jun. 09, 2023 ~Jun. 20, 2023	Jul. 06, 2023	Radiation (03CH22-HY)
Hygrometer	TECPEL	DTM-303B	TP140325	N/A	Nov. 07, 2022	Jun. 09, 2023 ~Jun. 20, 2023	Nov. 06, 2023	Radiation (03CH22-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Jun. 09, 2023 ~Jun. 20, 2023	N/A	Radiation (03CH22-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Jun. 09, 2023 ~Jun. 20, 2023	N/A	Radiation (03CH22-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Jun. 09, 2023 ~Jun. 20, 2023	N/A	Radiation (03CH22-HY)
Software	Audix	E3 6.09824_2019 122	RK-002347	N/A	N/A	Jun. 09, 2023 ~Jun. 20, 2023	N/A	Radiation (03CH22-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9kHz~30MHz	Mar. 07, 2023	Jun. 09, 2023 ~Jun. 20, 2023	Mar. 06, 2024	Radiation (03CH22-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804390/2,804 611/2,804615/ 2	N/A	Oct. 25, 2022	Jun. 09, 2023 ~Jun. 20, 2023	Oct. 24, 2023	Radiation (03CH22-HY)



Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power) and ERP/EIRP

NR n41 Maximum Average Power [dBm] (GT - LC = -0.1 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
10	1	1	PI/2 BPSK	22.44	22.08	22.71	22.64	0.1837		
10	1	22		22.36	22.09	22.69				
10	12	6		22.42	22.09	22.71				
10	1	0		21.89	21.48	22.17				
10	1	23		21.83	21.55	22.17				
10	24	0		21.89	21.57	22.20				
10	1	1	QPSK	22.42	22.17	22.70				
10	1	22		22.43	22.17	22.74				
10	12	6		22.46	22.11	22.72				
10	1	0		21.39	21.09	21.69				
10	1	23		21.41	21.10	21.68				
10	24	0		21.41	21.10	21.71				
10	1	1	16-QAM	21.36	21.10	21.63	21.53	0.1422		
10	1	1	64-QAM	19.88	19.63	20.33				
10	1	1	256-QAM	17.84	17.72	18.24				
Limit	EIRP < 2W			Result			Pass			

NR n41 Maximum Average Power [dBm] (GT - LC = -0.1 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
100	1	1	PI/2 BPSK	22.85	22.46	22.50	22.90	0.1950		
100	1	271		22.25	22.72	22.99				
100	135	67		22.09	22.20	22.60				
100	1	0		22.31	21.94	22.00				
100	1	272		21.70	22.23	22.52				
100	270	0		21.55	21.76	22.15				
100	1	1	QPSK	22.81	22.49	22.54				
100	1	271		22.23	22.77	23.00				
100	135	67		22.08	22.18	22.62				
100	1	0		21.82	21.48	21.50				
100	1	272		21.23	21.76	22.03				
100	270	0		21.14	21.27	21.63				
100	1	1	16-QAM	21.76	21.41	21.49	21.66	0.1466		
100	1	1	64-QAM	20.26	20.06	20.08				
100	1	1	256-QAM	18.40	17.89	18.02				
Limit	EIRP < 2W			Result			Pass			



n77 Ant. 6

Conducted Output Power(Average power) and ERP/EIRP

Part 270 NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
10	1	1	PI/2 BPSK	23.13	23.32	23.01	23.92	0.2466		
10	1	22		22.89	23.04	22.92				
10	12	6		23.00	23.16	23.03				
10	1	0		22.68	22.70	22.53				
10	1	23		22.51	22.47	22.43				
10	24	0		22.47	22.48	22.37				
10	1	1	QPSK	23.15	23.09	23.09				
10	1	22		23.07	23.10	23.01				
10	12	6		22.98	23.11	22.99				
10	1	0		22.10	22.24	21.98				
10	1	23		22.06	21.88	22.03				
10	24	0		21.95	22.17	22.04				
10	1	1	16-QAM	22.20	22.30	21.94	22.90	0.195		
10	1	1	64-QAM	20.46	20.62	20.25				
10	1	1	256-QAM	18.58	18.65	18.45				
Limit	EIRP < 1W			Result			Pass			

Part 270 NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
15	1	1	PI/2 BPSK	23.33	23.04	23.05	23.93	0.2472		
15	1	36		23.31	23.09	23.10				
15	18	9		23.15	23.09	23.06				
15	1	0		22.79	22.46	22.51				
15	1	37		22.67	22.57	22.46				
15	36	0		22.59	22.56	22.63				
15	1	1	QPSK	23.29	23.10	23.06				
15	1	36		23.26	23.06	22.96				
15	18	9		22.72	23.12	23.00				
15	1	0		22.29	22.13	22.12				
15	1	37		22.25	22.10	22.02				
15	36	0		22.10	22.08	21.98				
15	1	1	16-QAM	22.16	22.19	22.09	22.79	0.1901		
15	1	1	64-QAM	20.81	20.52	20.80				
15	1	1	256-QAM	18.73	18.56	18.60				
Limit	EIRP < 1W			Result			Pass			



Part 270 NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
20	1	1	PI/2 BPSK	23.15	23.05	23.16	23.89	0.2449		
20	1	49		23.11	23.02	23.01				
20	25	12		23.03	23.01	22.93				
20	1	0		22.81	22.50	22.61				
20	1	50		22.76	22.63	22.39				
20	50	0		22.62	22.61	22.46				
20	1	1	QPSK	23.26	23.01	23.19				
20	1	49		23.29	23.14	22.90				
20	25	12		23.20	22.98	22.95				
20	1	0		22.23	22.08	22.17				
20	1	50		22.24	22.17	21.94				
20	50	0		22.03	22.05	21.93				
20	1	1	16-QAM	22.33	22.01	22.16	22.93	0.1963		
20	1	1	64-QAM	20.68	20.65	20.56				
20	1	1	256-QAM	18.81	18.29	18.64				
Limit	EIRP < 1W			Result			Pass			

Part 270 NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
25	1	1	PI/2 BPSK	23.39	22.99	23.18	24.05	0.2541		
25	1	63		23.17	22.80	23.01				
25	32	16		23.45	23.01	23.03				
25	1	0		22.91	22.49	22.59				
25	1	64		22.61	22.43	22.40				
25	64	0		22.95	22.49	22.50				
25	1	1	QPSK	23.41	22.95	23.04				
25	1	63		23.24	22.85	22.98				
25	32	16		23.31	23.03	23.08				
25	1	0		22.31	22.02	22.12				
25	1	64		22.12	21.77	21.79				
25	64	0		22.25	22.00	22.02				
25	1	1	16-QAM	22.27	22.09	22.12	22.87	0.1936		
25	1	1	64-QAM	20.60	20.55	20.72				
25	1	1	256-QAM	18.68	18.38	18.45				
Limit	EIRP < 1W			Result			Pass			



Part 270 NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
30	1	1	PI/2 BPSK	23.24	23.11	23.33	23.97	0.2495		
30	1	76		23.08	22.89	23.15				
30	36	18		23.37	22.97	23.10				
30	1	0		22.75	22.52	22.77				
30	1	77		22.54	22.25	22.55				
30	75	0		22.79	22.47	22.65				
30	1	1	QPSK	23.32	23.00	23.18				
30	1	76		23.12	22.80	23.10				
30	36	18		23.24	23.11	23.11				
30	1	0		22.34	22.01	22.14				
30	1	77		22.04	21.97	21.98				
30	75	0		22.31	21.96	22.20				
30	1	1	16-QAM	22.36	22.97	22.34	23.57	0.2275		
30	1	1	64-QAM	20.82	20.59	20.73				
30	1	1	256-QAM	18.64	18.47	18.73				
Limit	EIRP < 1W			Result			Pass			

Part 270 NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
40	1	1	PI/2 BPSK	23.29	23.18	23.17	23.96	0.2489		
40	1	104		23.19	22.65	22.83				
40	50	25		23.25	23.10	23.13				
40	1	0		22.86	22.59	22.78				
40	1	105		22.49	22.23	22.36				
40	100	0		22.86	22.40	22.68				
40	1	1	QPSK	23.36	23.09	23.24				
40	1	104		23.03	22.83	22.87				
40	50	25		23.34	23.04	23.13				
40	1	0		22.37	22.25	22.22				
40	1	105		21.97	21.86	21.98				
40	100	0		22.40	22.12	22.17				
40	1	1	16-QAM	22.44	22.09	22.29	23.04	0.2014		
40	1	1	64-QAM	20.97	20.60	20.67				
40	1	1	256-QAM	18.70	18.64	18.75				
Limit	EIRP < 1W			Result			Pass			



Part 270 NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
50	1	1	PI/2 BPSK	23.16	23.20	23.15	23.87	0.2438		
50	1	131		22.95	22.89	23.01				
50	64	32		23.11	23.09	23.26				
50	1	0		22.89	22.74	22.75				
50	1	132		22.54	22.49	22.47				
50	128	0		22.70	22.42	22.70				
50	1	1	QPSK	23.27	23.17	23.15				
50	1	131		22.96	22.91	22.89				
50	64	32		23.20	23.02	23.14				
50	1	0		22.31	22.30	22.14				
50	1	132		22.03	21.94	21.98				
50	128	0		22.14	22.09	22.11				
50	1	1	16-QAM	22.26	22.27	22.18	22.87	0.1936		
50	1	1	64-QAM	20.73	20.81	20.70				
50	1	1	256-QAM	18.55	18.71	18.76				
Limit	EIRP < 1W			Result			Pass			

Part 270 NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
60	1	1	PI/2 BPSK	23.39	22.97	23.18	23.99	0.2506		
60	1	160		22.92	22.89	22.75				
60	81	40		23.27	23.11	23.18				
60	1	0		22.87	22.62	22.70				
60	1	161		22.42	22.36	22.32				
60	162	0		22.71	22.45	22.63				
60	1	1	QPSK	23.33	23.03	23.15				
60	1	160		22.89	22.78	22.76				
60	81	40		23.30	22.99	23.11				
60	1	0		22.36	22.00	22.14				
60	1	161		22.05	21.74	21.92				
60	162	0		22.07	21.96	22.06				
60	1	1	16-QAM	22.46	22.21	22.27	23.06	0.2023		
60	1	1	64-QAM	20.77	20.49	20.83				
60	1	1	256-QAM	18.85	18.47	18.63				
Limit	EIRP < 1W			Result			Pass			



Part 270 NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
70	1	1	PI/2 BPSK	23.18	23.14	23.07	23.88	0.2443		
70	1	187		22.57	22.72	22.86				
70	90	45		23.11	23.04	23.07				
70	1	0		22.92	22.63	22.75				
70	1	188		22.04	22.29	22.24				
70	180	0		22.48	22.60	22.62				
70	1	1	QPSK	23.28	23.04	23.06				
70	1	187		22.66	22.73	22.78				
70	90	45		23.16	23.13	23.11				
70	1	0		22.26	22.09	22.22				
70	1	188		21.55	21.79	21.81				
70	180	0		22.16	21.93	22.20				
70	1	1	16-QAM	22.36	22.26	22.17	22.96	0.1977		
70	1	1	64-QAM	20.92	20.52	20.52				
70	1	1	256-QAM	18.89	18.60	18.61				
Limit	EIRP < 1W			Result			Pass			

Part 270 NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
80	1	1	PI/2 BPSK	23.37	23.30	23.36	23.99	0.2506		
80	1	215		22.90	22.62	22.83				
80	108	54		23.35	22.92	23.10				
80	1	0		22.97	22.85	22.78				
80	1	216		22.25	22.14	22.33				
80	216	0		22.87	22.46	22.71				
80	1	1	QPSK	23.39	23.22	23.15				
80	1	215		22.91	22.65	22.77				
80	108	54		23.36	22.92	23.23				
80	1	0		22.52	22.24	22.36				
80	1	216		21.87	21.74	21.77				
80	216	0		22.20	21.99	22.10				
80	1	1	16-QAM	22.27	22.47	22.17	23.07	0.2028		
80	1	1	64-QAM	21.01	20.79	20.79				
80	1	1	256-QAM	19.08	18.68	18.86				
Limit	EIRP < 1W			Result			Pass			



Part 270 NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
90	1	1	PI/2 BPSK	23.26	23.32	23.20	23.96	0.2489		
90	1	243		22.56	22.75	22.71				
90	120	60		23.26	23.09	23.07				
90	1	0		22.88	22.92	22.74				
90	1	244		22.06	22.29	22.28				
90	243	0		22.77	22.50	22.48				
90	1	1	QPSK	23.36	23.34	23.10				
90	1	243		22.76	22.64	22.71				
90	120	60		23.26	22.92	22.98				
90	1	0		22.58	22.42	22.23				
90	1	244		21.65	21.73	21.72				
90	243	0		22.28	22.03	21.97				
90	1	1	16-QAM	22.45	22.17	22.25	23.05	0.2018		
90	1	1	64-QAM	20.98	20.85	20.90				
90	1	1	256-QAM	18.95	19.03	18.72				
Limit	EIRP < 1W			Result			Pass			

Part 270 NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
100	1	1	PI/2 BPSK	23.47	23.29	23.16	24.07	0.2553		
100	1	271		22.77	22.46	22.66				
100	135	67		23.21	22.89	23.00				
100	1	0		22.97	22.95	22.76				
100	1	272		22.20	22.04	22.21				
100	270	0		22.55	22.43	22.44				
100	1	1	QPSK	23.32	23.31	23.27				
100	1	271		22.70	22.68	22.65				
100	135	67		23.28	23.02	22.95				
100	1	0		22.53	22.32	22.26				
100	1	272		21.79	21.63	21.76				
100	270	0		22.15	22.03	21.97				
100	1	1	16-QAM	22.33	22.38	22.31	22.98	0.1986		
100	1	1	64-QAM	20.96	20.02	20.90				
100	1	1	256-QAM	19.08	18.98	18.91				
Limit	EIRP < 1W			Result			Pass			



Part 27Q NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
10	1	1	PI/2 BPSK	23.06	23.21	23.24	24.01	0.2518		
10	1	22		23.33	23.36	23.15				
10	12	6		23.24	23.41	23.08				
10	1	0		19.70	19.56	19.62				
10	1	23		19.64	19.81	19.46				
10	24	0		22.67	22.94	22.64				
10	1	1	QPSK	23.18	23.17	23.21				
10	1	22		23.30	23.34	23.12				
10	12	6		23.31	23.34	23.01				
10	1	0		19.72	19.69	19.73				
10	1	23		19.69	19.88	19.58				
10	24	0		22.33	22.36	21.95				
10	1	1	16-QAM	22.16	22.28	22.21	22.88	0.1941		
10	1	1	64-QAM	20.53	20.79	20.79				
10	1	1	256-QAM	18.40	18.73	18.56				
Limit	EIRP < 1W			Result			Pass			

Part 27Q NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
15	1	1	PI/2 BPSK	23.23	23.19	23.33	24.02	0.2523		
15	1	36		23.19	23.38	23.27				
15	18	9		23.24	23.20	23.21				
15	1	0		19.60	19.60	19.63				
15	1	37		19.66	19.82	19.67				
15	36	0		22.71	22.72	22.70				
15	1	1	QPSK	23.24	23.12	23.25				
15	1	36		23.32	23.42	23.16				
15	18	9		23.20	23.10	23.20				
15	1	0		19.74	19.72	19.66				
15	1	37		19.74	19.92	19.70				
15	36	0		22.20	22.22	22.34				
15	1	1	16-QAM	22.09	22.22	22.28	22.88	0.1941		
15	1	1	64-QAM	20.77	20.55	20.70				
15	1	1	256-QAM	18.63	18.60	18.90				
Limit	EIRP < 1W			Result			Pass			



Part 27Q NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
20	1	1	PI/2 BPSK	23.29	23.14	23.35	24.01	0.2518		
20	1	49		23.20	23.41	23.07				
20	25	12		23.25	23.13	23.26				
20	1	0		19.64	19.72	19.78				
20	1	50		19.56	19.57	19.50				
20	50	0		22.89	22.58	22.65				
20	1	1	QPSK	23.21	23.27	23.24				
20	1	49		23.30	23.40	23.05				
20	25	12		23.24	23.11	23.20				
20	1	0		19.67	19.61	19.75				
20	1	50		19.79	19.70	19.69				
20	50	0		22.22	22.21	22.24				
20	1	1	16-QAM	22.31	22.19	22.13	22.91	0.1954		
20	1	1	64-QAM	20.62	20.55	20.79				
20	1	1	256-QAM	18.78	18.54	18.47				
Limit	EIRP < 1W			Result			Pass			

Part 27Q NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
25	1	1	PI/2 BPSK	23.30	23.21	23.42	24.02	0.2523		
25	1	63		23.27	23.05	23.07				
25	32	16		23.38	23.21	23.04				
25	1	0		19.75	19.62	19.68				
25	1	64		19.67	19.69	19.35				
25	64	0		22.78	22.57	22.54				
25	1	1	QPSK	23.35	23.12	23.35				
25	1	63		23.21	23.07	22.98				
25	32	16		23.37	23.06	23.22				
25	1	0		19.70	19.66	19.81				
25	1	64		19.67	19.55	19.42				
25	64	0		22.28	22.19	22.05				
25	1	1	16-QAM	22.18	22.23	22.26	22.86	0.1932		
25	1	1	64-QAM	20.67	20.68	20.65				
25	1	1	256-QAM	18.91	18.55	18.74				
Limit	EIRP < 1W			Result			Pass			



Part 27Q NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
30	1	1	PI/2 BPSK	23.11	23.17	23.34	24.03	0.2529		
30	1	76		23.17	23.06	23.17				
30	36	18		23.13	23.26	23.18				
30	1	0		19.68	19.75	19.94				
30	1	77		19.59	19.63	19.59				
30	75	0		22.76	22.64	22.73				
30	1	1	QPSK	23.08	23.34	23.43				
30	1	76		23.14	23.25	23.29				
30	36	18		23.22	23.25	23.39				
30	1	0		19.63	19.78	19.90				
30	1	77		19.63	19.53	19.70				
30	75	0		22.27	22.12	22.23				
30	1	1	16-QAM	22.25	22.23	22.40	23	0.1995		
30	1	1	64-QAM	20.84	20.85	21.06				
30	1	1	256-QAM	18.63	18.78	18.94				
Limit	EIRP < 1W			Result			Pass			

Part 27Q NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
40	1	1	PI/2 BPSK	23.26	23.31	23.30	24.03	0.2529		
40	1	104		23.17	23.35	22.97				
40	50	25		23.24	23.11	23.20				
40	1	0		19.75	19.77	19.70				
40	1	105		19.42	19.73	19.43				
40	100	0		22.70	22.69	22.61				
40	1	1	QPSK	23.28	23.43	23.29				
40	1	104		23.20	23.28	23.11				
40	50	25		23.35	23.28	23.29				
40	1	0		19.81	19.84	19.77				
40	1	105		19.47	19.62	19.44				
40	100	0		22.23	22.25	22.18				
40	1	1	16-QAM	22.23	22.35	22.35	22.95	0.1972		
40	1	1	64-QAM	20.80	21.07	20.91				
40	1	1	256-QAM	18.70	18.88	18.82				
Limit	EIRP < 1W			Result			Pass			



Part 27Q NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
50	1	1	PI/2 BPSK	23.29	23.45	23.32	24.05	0.2541		
50	1	131		22.92	23.18	23.01				
50	64	32		23.22	23.24	23.45				
50	1	0		19.69	19.76	20.09				
50	1	132		19.38	19.56	19.52				
50	128	0		22.74	22.60	22.97				
50	1	1	QPSK	23.28	23.38	23.32				
50	1	131		22.88	23.10	22.96				
50	64	32		23.25	23.16	23.32				
50	1	0		19.69	19.94	19.88				
50	1	132		19.40	19.70	19.35				
50	128	0		22.27	22.22	22.44				
50	1	1	16-QAM	22.25	22.46	22.57	23.17	0.2075		
50	1	1	64-QAM	20.65	20.78	21.16				
50	1	1	256-QAM	18.63	18.80	19.00				
Limit	EIRP < 1W			Result			Pass			

Part 27Q NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
60	1	1	PI/2 BPSK	23.23	23.35	23.34	24.02	0.2523		
60	1	160		23.21	23.09	22.91				
60	81	40		23.38	23.11	23.42				
60	1	0		19.76	19.79	19.76				
60	1	161		19.42	19.52	19.38				
60	162	0		22.85	22.78	22.83				
60	1	1	QPSK	23.31	23.21	23.35				
60	1	160		23.20	22.89	22.92				
60	81	40		23.21	23.22	23.31				
60	1	0		19.84	19.81	19.78				
60	1	161		19.41	19.46	19.37				
60	162	0		22.32	22.31	22.26				
60	1	1	16-QAM	22.38	22.28	22.24	22.98	0.1986		
60	1	1	64-QAM	20.85	20.68	20.69				
60	1	1	256-QAM	18.87	18.62	18.72				
Limit	EIRP < 1W			Result			Pass			



Part 27Q NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
70	1	1	PI/2 BPSK	23.12	23.38	23.33	24	0.2512		
70	1	187		23.01	22.89	22.79				
70	90	45		23.10	23.14	23.05				
70	1	0		19.74	19.93	19.75				
70	1	188		19.59	19.37	19.46				
70	180	0		22.62	22.70	22.51				
70	1	1	QPSK	23.27	23.40	23.25				
70	1	187		23.00	22.95	22.81				
70	90	45		23.05	23.19	23.13				
70	1	0		19.77	19.81	19.77				
70	1	188		19.59	19.40	19.38				
70	180	0		22.10	22.06	22.19				
70	1	1	16-QAM	22.30	22.33	22.26	22.93	0.1963		
70	1	1	64-QAM	20.69	20.91	20.93				
70	1	1	256-QAM	18.62	18.92	18.91				
Limit	EIRP < 1W			Result			Pass			

Part 27Q NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
80	1	1	PI/2 BPSK	23.12	23.40	23.29	24.03	0.2529		
80	1	215		22.63	22.66	22.58				
80	108	54		23.10	23.08	23.37				
80	1	0		19.80	19.83	19.88				
80	1	216		19.31	19.25	19.17				
80	216	0		22.59	22.65	22.89				
80	1	1	QPSK	23.18	23.33	23.30				
80	1	215		22.65	22.71	22.73				
80	108	54		23.14	23.09	23.43				
80	1	0		19.76	19.88	19.96				
80	1	216		19.35	19.35	19.20				
80	216	0		22.02	22.15	22.36				
80	1	1	16-QAM	22.09	22.10	22.29	22.89	0.1945		
80	1	1	64-QAM	20.68	20.84	20.67				
80	1	1	256-QAM	18.88	18.90	19.02				
Limit	EIRP < 1W			Result			Pass			



Part 27Q NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
90	1	1	PI/2 BPSK	23.28	23.34	23.33	24.04	0.2535		
90	1	243		22.86	22.76	22.80				
90	120	60		23.20	23.16	23.23				
90	1	0		19.75	19.93	19.85				
90	1	244		19.39	19.46	19.27				
90	243	0		22.64	22.69	22.57				
90	1	1	QPSK	23.24	23.44	23.34				
90	1	243		22.77	22.84	22.77				
90	120	60		23.09	23.14	23.18				
90	1	0		19.69	19.99	19.83				
90	1	244		19.44	19.38	19.33				
90	243	0		22.19	22.18	22.10				
90	1	1	16-QAM	22.17	22.50	22.37	23.1	0.2042		
90	1	1	64-QAM	20.80	20.78	20.83				
90	1	1	256-QAM	18.78	18.82	18.65				
Limit	EIRP < 1W			Result			Pass			

Part 27Q NR n77 Maximum Average Power [dBm] (GT - LC = 0.6 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
100	1	1	PI/2 BPSK	-	23.46	-	24.06	0.2547		
100	1	271		-	22.57	-				
100	135	67		-	23.20	-				
100	1	0		-	19.75	-				
100	1	272		-	19.20	-				
100	270	0		-	22.62	-				
100	1	1	QPSK	-	23.18	-				
100	1	271		-	22.80	-				
100	135	67		-	23.05	-				
100	1	0		-	19.80	-				
100	1	272		-	19.22	-				
100	270	0		-	22.01	-				
100	1	1	16-QAM	-	22.16	-	22.76	0.1888		
100	1	1	64-QAM	-	20.72	-				
100	1	1	256-QAM	-	18.82	-				
Limit	EIRP < 1W			Result			Pass			

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