



# SPOT CHECK EVALUATION

FCC ID : A4RGB7N6  
Equipment : Phone  
Model Name : GB7N6, GR1YH  
Applicant : Google LLC  
1600 Amphitheatre Parkway,  
Mountain View, California, 94043 USA  
Standard : 47 CFR Part 2, 22(H), 24(E), 27(D), 27(L) , 90(R), 90(S), 96

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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## History of this test report

Version	Description	Issued Date
01	Initial issue of report	Aug. 11, 2021



## **1. Introduction Section**

FCC ID: A4RG9S9B (parent model) and FCC ID: A4RGB7N6 (variant model) use the same identical internal printed circuit board layouts, while the variant model depopulates mmwave related components, details are available in the operational description. Due to the design similarity, and referencing to KDB 484596 D01 v01, Part 22/24/27/90/96 EMC/RF data reuse for the WWAN antenna is requested and 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 (FCC ID: A4RGB7N6).



## **2. Model Difference Information**

A4RG9S9B and A4RGB7N6 use the identical internal printed circuit board layout, and the difference in the components population:

- A4RGB7N6: 5G NR FR2 mmWave related components are depopulated.

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.

Summary for power and RSE spot check for each rule entry and technology is listed as below:

Test Item	Mode	A4RG9S9B Parent Worst Result	A4R GB7N6 Variant Check Result	Difference (dB)
<b>Conducted Power (dBm)</b>	WWAN GSM 850	32.68	32.61	0.07
	WWAN GPRS 1900	30.43	30.16	0.27
	WWAN WCDMA Band V	24.73	24.57	0.16
	WWAN WCDMA Band II	24.82	24.85	-0.03
	WWAN WCDMA Band IV	24.63	24.33	0.30
	WWAN LTE Band 2	24.32	24.36	-0.04
	WWAN LTE Band 4	24.30	24.00	0.30
	WWAN LTE Band 5	24.22	24.31	-0.09
	WWAN LTE Band 7	24.35	24.20	0.15
	WWAN LTE Band 12	24.42	24.23	0.19
	WWAN LTE Band 13	24.23	24.19	0.04
	WWAN LTE Band 14	24.30	24.14	0.16
	WWAN LTE Band 17	24.41	24.31	0.10
	WWAN LTE Band 25	24.33	24.20	0.13
	WWAN LTE Band 26	24.34	24.21	0.13
	WWAN LTE Band 30	24.24	24.28	-0.04
	WWAN LTE Band 38 HPUE	26.23	25.96	0.27
	WWAN LTE Band 41 HPUE	26.25	26.16	0.09
	WWAN LTE Band 48	23.28	23.36	-0.08
	WWAN LTE Band 66	24.35	24.33	0.02
	WWAN LTE Band 71	24.35	24.38	-0.03
	WWAN NR n5	24.63	24.53	0.10
	WWAN NR n7	24.58	24.33	0.25
	WWAN NR n12	24.82	24.83	-0.01
	WWAN NR n25	24.82	24.87	-0.05
	WWAN NR n41 HPUE	27.17	27.15	0.02
	WWAN NR n66	24.95	24.78	0.17
	WWAN NR n71	24.85	24.69	0.16
	WWAN NR n77 (27O)	27.16	27.06	0.10
	WWAN NR n77 (27Q)	26.78	26.80	-0.02



Test Item	Mode	ANT	ASDIV	A4RG9S9B Parent Worst Result	A4R GB7N6 Variant Check Result	Difference (dB)
<b>Radiated Spurious Emission (dBm)</b>	WWAN GSM 850	0	0	-25.60	-24.63	-0.97
	WWAN GSM 850	1	1	-42.07	-48.25	6.18
	WWAN GPRS 1900	0	1	-30.91	-33.99	3.08
	WWAN WCDMA Band V	1	1	-50.50	-54.78	4.28
	WWAN WCDMA Band II	0	1	-45.60	-47.79	2.19
	WWAN WCDMA Band IV	0	1	-44.94	-45.16	0.22
	WWAN LTE Band 7	0	1	-43.05	-46.73	3.68
	WWAN LTE Band 12	0	0	-25.64	-30.01	4.37
	WWAN LTE Band 12	1	1	-57.77	-57.57	-0.20
	WWAN LTE Band 13	0	0	-47.65	-51.41	3.76
	WWAN LTE Band 13	1	1	-56.59	-56.52	-0.07
	WWAN LTE Band 14	0	0	-36.69	-37.21	0.52
	WWAN LTE Band 14	1	1	-46.66	-48.16	2.50
	WWAN LTE Band 25	0	1	-37.38	-38.53	1.15
	WWAN LTE Band 26	0	0	-38.02	-38.42	0.40
	WWAN LTE Band 26	1	1	-57.07	-57.22	0.15
	WWAN LTE Band 30	2	0	-44.81	-47.90	3.09
	WWAN LTE Band 41 HPUE	0	1	-42.60	-45.88	3.28
	WWAN LTE Band 48	6	0	-43.51	-45.47	1.96
	WWAN LTE Band 66	0	1	-39.50	-41.45	1.95
	WWAN LTE Band 71	0	0	-48.72	-50.66	1.94
	WWAN LTE Band 71	1	1	-58.46	-58.50	0.04
	WWAN NR n5	1	1	-35.68	-39.16	3.48
	WWAN NR n7	0	1	-43.04	-43.61	0.57
	WWAN NR n12	0	0	-39.54	-41.87	2.33
	WWAN NR n12	1	1	-44.89	-45.13	0.24
	WWAN NR n25	0	1	-47.12	-48.99	1.87
	WWAN NR n41 HPUE	5	0	-29.40	-29.69	0.29
	WWAN NR n66	0	1	-41.93	-44.64	2.71
	WWAN NR n71	1	1	-37.00	-41.32	4.32
	WWAN NR n77 (27O)	2	1	-35.38	-35.26	-0.12
	WWAN NR n77 (27Q)	6	0	-35.34	-38.36	3.02



**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 (MHz)	Reference FCC ID (Parent)	Type Grant/ Permissive Change	Reference Title	FCC ID Filling (Variant)
22, 24, 27, 90, 96	PCE CBE	GSM	GSM 850/1900	A4RG9S9B	Original Grant	FG0D2942-04A	A4RGB7N6
		WCDMA	Band II, IV, V	A4RG9S9B	Original Grant	FG0D2942-04A	A4RGB7N6
		LTE	2/4/5/7/12/13 /14/17/25/26 /30/38/41 /48/66/71 ULCA 5B/7C/ 41C/66B/66C	A4RG9S9B	Original Grant	FG0D2942-04B FG0D2942-04D FG0D2942-04E FG0D2942-04F FG0D2942-04G FG0D2942-04L	A4RGB7N6
		NR	n2/n5/n7/ n12/n25/n30/ n38/n41/n66/ n71/n77	A4RG9S9B	Original Grant	FG0D2942-04C FG0D2942-04H FG0D2942-04I FG0D2942-04J	A4RGB7N6

END of this report