SPOT CHECK EVALUATION

FCC ID	:	**A4RG025I**
Equipment	:	**Phone**
Model Name	:	**G025I, G025H**
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** **FCC Part 15 Subpart C §15.247** **FCC Part 15 Subpart C §15.225** **FCC Part 15 Subpart E §15.407**

We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications 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. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

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TABLE OF CONTENTS

History of this test report

Version	Description	Issued Date
01	Initial issue of report	Jul. 14, 2020
02	Revising description and spot check data.	Jul. 23, 2020

1. Introduction Section

FCC ID: A4RG025E (original model) and FCC ID: A4RG025I (variant model) are HW identical except components pop/depop for specific carrier band. Based on their similarity, the FCC Part 15C (equipment class: DTS, DSS, DXX) and FCC Part 15E (equipment class: NII) 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 applicant takes full responsibility that the test data as referenced in this report represent compliance for this FCC ID (FCC ID: A4RG025E).

2. Model Difference Information

The difference between FCC ID: A4RG025E(Parent) and FCC ID: A4RG025I(Variant) is as below:

The variant FCC ID has some changes in support for various bands through firmware:

- CDMA disabled by software;
- 5GNR support is limited to band n5 only for the variant model;
- HPUE is disabled in Band 41 for the variant model;
- HPUE is enabled in band 38.

The details of similarity and difference can be found in the Operating Description.

3. Spot Check Verification Data Section

Conducted power test and 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.

For the licensed bands (equipment codes PCE and CBE) we have submitted test reports for the parent model and variant model. The variant model report has full test data for Band 38 HPUE plus spot check data for the bands that are common to parent and variant. The power to be listed on the F-731 and FCC grants for the PCE bands are the values detailed in the parent report for the common bands and from the variant report for Bands 38 and 41.

Summary of the spot check for other technology:

Test Item	Mode	A4RG025E Worst Result	A4RG025I Worst Result	Difference (dB)
Average Conducted Power (dBm)	BT-3DH1	17.99	17.64	0.35
	BLE5.1(1/2Mbps)	12.40	12.00	0.40
	WLAN 2.4G(MIMO)	22.41	22.26	0.15
	WLAN 5G B1-3(MIMO)	20.53	20.32	0.21
	WLAN 5G B4 (MIMO)	21.17	21.07	0.10
	WWAN GSM(GPRS)(EDGE)850	32.15	32.45	-0.30
	WWAN GSM(GPRS)(EDGE)1900	29.00	29.44	-0.44
	WWAN WCDMA Band 2	24.58	24.45	0.13
	WWAN WCDMA Band 4	24.74	24.23	0.51
	WWAN WCDMA Band 5	24.14	24.08	0.06
	WWAN LTE Band 2	24.42	24.25	0.17
	WWAN LTE Band 4	24.88	24.23	0.65
	WWAN LTE Band 5	24.69	24.54	0.15
	WWAN LTE Band 7	24.98	24.57	0.41
	WWAN LTE Band 12	24.72	24.34	0.38
	WWAN LTE Band 13	24.05	23.97	0.08
	WWAN LTE Band 14	24.68	24.49	0.19
	WWAN LTE Band 17	24.85	24.40	0.45
	WWAN LTE Band 25	24.48	24.37	0.11
	WWAN LTE Band 26	24.78	24.52	0.26
	WWAN LTE Band 30	22.93	22.60	0.33
	WWAN LTE Band 38	24.64	24.65	-0.01
	WWAN LTE Band 38 (HPUE)	Not support	26.20	n/a
	WWAN LTE Band 41	24.84	24.31	0.53
	WWAN LTE Band 41 (HPUE)	26.57	Not support	n/a
	WWAN LTE Band 48	23.07	23.11	-0.04
	WWAN LTE Band 66	24.78	24.30	0.48
	WWAN LTE Band 71	24.77	24.39	0.38
	WWAN LTE CA 5B	25.66	25.41	0.25

	WWAN LTE CA 66B	25.69	25.66	0.03
	WWAN LTE CA 66C	25.64	25.61	0.03
	WWAN LTE CA 7C	25.68	25.55	0.13
	WWAN LTE CA 41C	25.49	25.45	0.04
	WWAN LTE CA 48C	16.78	16.53	0.25
	WWAN NR n5	24.08	23.85	0.23
Radiated Spurious Emission (Band Edge) (dBuV/m)	BT	55.79	55.33	0.46
	BLE5.1(2Mbps)	48.76	46.47	2.29
	WLAN 2.4G(MIMO)	52.05	51.44	0.61
	WLAN 5G B1-3(MIMO)	52.33	52.39	-0.06
	WLAN 5G B4 (MIMO)	49.74	51.46	-1.72
Radiated Spurious Emission (Harmonic) (dBuV/m)	BT	57.45	52.04	5.41
	BLE5.0(2Mbps)	46.16	41.90	4.26
	WLAN 2.4G(MIMO)	43.26	49.23	-5.97
	WLAN 5G B1-3(MIMO)	49.01	48.57	0.44
	WLAN 5G B4 (MIMO)	49.66	48.54	1.12
	NFC RSE (30MHz to1GHz)	34.47	33.21	1.26
Radiated Spurious Emission (Harmonic) (dBm)	WWAN GSM(GPRS)(EDGE)850	-38.98	-36.36	-2.62
	WWAN GSM(GPRS)(EDGE)1900	-38.65	-44.50	5.85
	WWAN LTE Band 13	-60.61	-61.81	1.20
	WWAN LTE Band 14	-56.46	-58.33	1.87
	WWAN LTE Band 26	-53.88	-49.51	-4.37
	WWAN LTE Band 30	-43.18	-47.04	3.86
	WWAN LTE Band 38 (HPUE)	Not support	-44.82	n/a
	WWAN LTE Band 48	-44.02	-43.62	-0.40
	WWAN NR n5	-47.20	-47.33	0.13

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.

Based on the spot check test result, the test data from the original model is representative for the variant model. The power level and RSE spot check are shown within expected level compliant to limit line,

We confirm that the test data reuse policy of FCC KDB 484596 D01 Referencing Test Data v01 has been followed and take full responsibility that the test data as referenced rom the parent model report represents compliance for the new FCC ID.

SAR testing, including the Part 2 Qualcomm Smart Transmit evaluation, has been fully tested on the variant model.

4. Reference detail Section

Rule Part	Equipment Class	Wireless Technology	Frequency Band (MHz)	Reference FCC ID	Type Grant/ Permissive Change	Reference Title	FCC ID Filling
15C	DSS	Bluetooth	2400~2483.5	A4RG025E	Original Grant	FCC RF Test Report	A4RG025I
	DTS	Bluetooth-LE Wi-Fi	2400~2483.5	A4RG025E	Original Grant	FCC RF Test Report	A4RG025I
	DXX	NFC	13.56	A4RG025E	Original Grant	FCC RF Test Report	A4RG025I
15E	NII	Wi-Fi	5150~5250 5250~5350 5470~5725 5725~5850	A4RG025E	Original Grant	FCC RF Test Report	A4RG025I
		DFS	5250~5350 5470~5725	A4RG025E	Original Grant	FCC RF Test Report	A4RG025I
22, 24, 27, 90, 96	PCE, CBE	GSM/WCDMA	GSM 850/1900 WCDMA B2/4/5	A4RG025E	Original Grant	FCC RF Test Report	A4RG025I
		LTE	LTE B2/4/5/7/12/13 /14/17/25/26/ 30/38/41/48/66 /71	A4RG025E	Original Grant	FCC RF Test Report	A4RG025I
		NR (EN-DC)	EN-DC 7A-n5A	A4RG025E	Original Grant	FCC RF Test Report	A4RG025I

END of this report