



SPOT CHECK EVALUATION

FCC ID : A4RGP4BC
Equipment : Phone
Applicant : Google LLC
1600 Amphitheatre Parkway,
Mountain View, California, 94043 USA
Standard : FCC Part 15 Subpart E §15.407

The product was received on Apr. 12, 2022 and testing was performed from Oct. 05, 2022 to Nov. 18, 2022. 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 spot check 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.

Louis Wu

Approved by: Louis Wu

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History of this test report

Version	Description	Issue Date
01	Initial issue of report	Nov. 30, 2022



1. Introduction Section

FCC ID: A4RGE2AE (parent model) and FCC ID: A4RGP4BC (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. Based on their similarity, the FCC Part 15E (equipment class: 6CD) 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: A4RGP4BC.



2. Model Difference Information

A4RGE2AE and A4RGP4BC use the identical internal printed circuit board layout, and the difference in the components population:

- A4RGP4BC: 5GNR 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 FCC rule part is listed as below:

Test Item	Mode	A4RGE2AE Parent Worst Result	A4RGP4BC Variant Check Result	Difference (dB)
Conducted Power (dBm)	WLAN 6GHz standard power client	24.44	24.12	-0.22

Test Item	Mode	ANT	A4RGE2AE Parent Worst Result	A4RGP4BC Variant Check Result	Difference (dB)
Radiated Spurious Emission (dBuV/m)	WLAN 6GHz standard power client	4+8	50.4	51.74	1.7

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)
15E	6CD	WiFi	5925~6425 6525~6875	A4RGE2AE	Original Grant	FR102919-17	A4RGP4BC



5. List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	TECPEL	DTM-303B	TP200886	N/A	Mar. 21, 2022	Oct. 28, 2022~ Nov. 18, 2022	Mar. 20, 2023	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W #010	RPR6W-2101 002(NO:123)	10MHz~8GHz	Jan. 13, 2022	Oct. 28, 2022~ Nov. 18, 2022	Jan. 12, 2023	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101905	10Hz - 40GHz	Aug. 03, 2022	Oct. 28, 2022~ Nov. 18, 2022	Aug. 02, 2023	Conducted (TH05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	May 13, 2022	Oct. 05, 2022 ~ Nov. 14, 2022	May 12, 2023	Radiation (03CH16-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 28, 2022	Oct. 05, 2022 ~ Nov. 14, 2022	Jun. 27, 2023	Radiation (03CH16-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	00993	18GHz-40GHz	Nov. 30, 2021	Oct. 05, 2022 ~ Nov. 14, 2022	Nov. 29, 2022	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1522	1GHz~18GHz	Mar. 10, 2022	Oct. 05, 2022 ~ Nov. 14, 2022	Mar. 09, 2023	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00802N1D01N-06	47020 & 06	30MHz~1GHz	Oct. 08, 2022	Oct. 08, 2022 ~ Nov. 14, 2022	Oct. 07, 2023	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY57290111	3Hz~26.5GHz	Dec. 15, 2021	Oct. 05, 2022 ~ Nov. 14, 2022	Dec. 14, 2022	Radiation (03CH16-HY)
Spectrum Analyzer	Keysigh	N9010A	MY55370526	10Hz~44GHz	Mar. 18, 2022	Oct. 05, 2022 ~ Nov. 14, 2022	Mar. 17, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	805935/4	N/A	Aug. 09, 2022	Oct. 05, 2022 ~ Nov. 14, 2022	Aug. 08, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	802434/4	N/A	Aug. 09, 2022	Oct. 05, 2022 ~ Nov. 14, 2022	Aug. 08, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	EC-A5-300-5 757	N/A	Aug. 09, 2022	Oct. 05, 2022 ~ Nov. 14, 2022	Aug. 08, 2023	Radiation (03CH16-HY)
Amplifier	SONOMA	310N	371607	9kHz~1GHz	Jul. 04, 2022	Oct. 05, 2022 ~ Nov. 14, 2022	Jul. 03, 2023	Radiation (03CH16-HY)
Preamplifier	EMEC	EM1G18G	060812	1GHz~18GHz	Dec. 27, 2021	Oct. 05, 2022 ~ Nov. 14, 2022	Dec. 26, 2022	Radiation (03CH16-HY)
Preamplifier	Keysight	83017A	MY53270264	1GHz~26.5GHz	Dec. 09, 2021	Oct. 05, 2022 ~ Nov. 14, 2022	Dec. 08, 2022	Radiation (03CH16-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 28, 2022	Oct. 05, 2022 ~ Nov. 14, 2022	Jun. 27, 2023	Radiation (03CH16-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Oct. 05, 2022 ~ Nov. 14, 2022	N/A	Radiation (03CH16-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Oct. 05, 2022 ~ Nov. 14, 2022	N/A	Radiation (03CH16-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Oct. 05, 2022 ~ Nov. 14, 2022	N/A	Radiation (03CH16-HY)
Software	Audix	E3 6.2009-8-24	RK-001136	N/A	N/A	Oct. 05, 2022 ~ Nov. 14, 2022	N/A	Radiation (03CH16-HY)

————THE END————