Referencing Test Data

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1. Original General Descriptions of EUT

Equipment		Referenced Device	Model Variant Device
FCC ID		2AHKM-ARIA3411	2AHKM-ARIA34118
FCC Granted Date		Original: 2022/02/16 C2PC: 2022/05/18	NA
Test Model		ARIA3411	ARIA34118
Series Model		OS3411	OS3411
RF characteristics		2TX WLAN 2.4GHz 2412 - 2462 MHz	2TX WLAN 2.4GHz 2412 – 2462 MHz
		2TX WLAN 5GHz 5180 - 5240 MHz 5260 - 5320 MHz 5500 - 5720 MHz 5745 - 5825 MHz	2TX WLAN 5GHz 5180 - 5240 MHz 5260 - 5320 MHz 5500 - 5720 MHz 5745 - 5825 MHz
		4Tx WLAN 6GHz 6115 - 6415 MHz 6435 - 6525 MHz 6525 - 6875 MHz 6875 - 7095 MHz	4Tx WLAN 6GHz 6115 - 6415 MHz 6435 - 6525 MHz 6525 - 6875 MHz 6875 - 7095 MHz
		1Tx BT-LE 2402 - 2480MHz	1Tx BT-LE 2402 - 2480MHz
Hardware	Difference	n.a	n.a
	Identical	Identical internal printed circuit board layouts and have a common design and components	
Difference		All RF characteristics are Identical and do not change any printed circuit board layouts/components, except WLAN 6GHz has improved to higher EIRP and meet the standard requirement.	

Variant spot-check test results are within the tune-up tolerance range specified and are compliant with applicable rule part(s).

2. Form Factor and Photos

base on FCC KDB guidance 484596 Rules ,
The printed circuit board layouts the same
Difference : n.a

3. Main board PCB Photos

The Main board PCB is Identical and does not any change layouts and components.

4. PSU PCB Photos

The PSU PCB is Identical and does not any change layouts and components.

5. Referencing test items

Part 15C for WLAN 2.4GHz, BT-LE

FCC Clause	Test Items	Referenced Test Data	Note
15.247 (a)(1) / (b)	Conducted Output Power	Y	
15.207	AC Power Line Conducted Emission	Y	
15.247(a)(1) (iii)	Number of Hopping Frequency Used and Dwell Time on Each Channel	Not Applicable	
15.247(a)(1)	1. Hopping Channel Separation 2. Spectrum Bandwidth of a Frequency Hopping Sequence Spread Spectrum System	Not Applicable	
15.205/ 15.209/ 15.247(d)	Radiated Emissions and Band Edge Measurement	Y	
15.247(d)	Antenna Port Emission	Y	
15.247(a)(2)	6dB bandwidth	Y	
15.247(e)	Power Density	Y	

Part 15E for WLAN 5GHz

FCC Clause	Test Items	Referenced Test Data	Note
15.407(a)(1/2/3)	Conducted Output Power	Y	
15.207	AC Power Line Conducted Emission	Y	
15.407(b) (1/2/3/4 (i/ii)	Radiated Emissions and Band Edge Measurement	Y	
15.407(a)(1/2/3)	26dBc bandwidth	Y	
-	99% Occupied bandwidth	Y	
15.407(e)	6dB bandwidth	Y	
15.407(a)(1/2/3)	Power Density	Y	
15.407(g)	Frequency Stability	Y	
15.407(h)	Dynamic Frequency Selection (DFS)	N	retested

Part 15E for WLAN 6GHz

FCC Clause	Test Items	Referenced Test Data	Note
15.407(a)(5)(6)	RF Output Power	N	retested
15.407(a)(5)(6)	Power Spectral Density	N	retested
15.407(a)(10)	Occupied Bandwidth	N	retested
15.407(b)(9)	AC Power Conducted Emissions	N	retested
15.407(b)(9)	Unwanted Emissions below 1 GHz	N	retested
15.407(b)(6) 15.407(b)(10)	Unwanted Emissions above 1 GHz	N	retested
15.407(b)(7)	In-Band Emission Mask	N	retested
15.407(d)(6)	Contention-based Protocol	N	retested
15.407(g)	Frequency Stability	N	retested
15.407(d)	Operational restrictions for 6 GHz U-NII devices	N	retested
15.203	Antenna Requirement	N	retested
---	Emission Bandwidth	N	retested

Variant spot-check test results are within the tune-up tolerance range specified and are compliant with applicable rule part(s).

6. Spot- Check Test Plan

Amount of test samples: 1 sample

Equipment Class	Rule Part	Test Items	Frequency Band	Test Modes	Test Channel
DTS	Part 15C	Conducted output power	2412-2462 MHz	802.11 b/g/n/ax	Low/ Mid/ High
		Radiated emission –Band edge and Harmonics (Above 1GHz)		One channel with maximum power among 802.11 b/g/n/ax	One channel with maximum power
DTS	Part 15C	Conducted output power	2402-2480 MHz	BT-LE 1M	Low/ Mid/ High
		Radiated emission – Band edge and Harmonics (Above 1GHz)		One channel with maximum power among BT-LE GFSK	One channel with maximum power
NII	Part 15E	Conducted output power	5180-5240 MHz 5260-5320 MHz 5500-5720 MHz 5745-5825 MHz	802.11 a/n/ac/ax	Low/ Mid/ High for each sub band
		Radiated emission – Band edge and Harmonics (Above 1GHz)		One channel with maximum power among 802.11 a/n/ac/ax	One channel with maximum power
		DFS (retest all test items)	5260-5320 MHz 5500-5720 MHz	802.11 a/n/ac/ax	Refer KDB905462 D02
6ID 6PP	Part 15E	All test items need to retest	6115-6415MHz 6435-6525 MHz 6525-6875 MHz 6875-7095 MHz	802.11 a/n/ac/ax	Low/ Mid/ High for each sub band

Note: RF Conducted output power were confirmed and the same as Referenced Device (FCC ID: 2AHKM-ARIA3411)

Variant spot-check test results are within the tune-up tolerance range specified and are compliant with applicable rule part(s).

Original Report Test Data:
Please find attached the PDF File:
2AHKM-ARIA3411 (Referenced Device) original Data.PDF

7. Acceptance criteria for spot check

Test Items	Frequency	Deviation Tolerance	Acceptance criteria
Conducted Output power	All operating band	-0.5 dB	The test result compare to the test result of Referenced device must be within Deviation Tolerance and must be lower than limitation for each operating band.
Spurious Emission above 1GHz	1GHz~40GHz	+/- 3.0 dB	The worst value of test result for variant device compare to the test result of Referenced device must be within Deviation Tolerance and must be lower than limitation.

Note: For DFS test item and 6ID,6PP all test items are completely retest.

Variant spot-check test results are within the tune-up tolerance range specified and are compliant with applicable rule part(s).