

Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

Referencing Test Data

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1. Original General Descriptions of EUT

Equipment		Referenced Device	Model Variant Device	
FCC ID		YAW529027	YAW529027-Z	
FCC Granted Date		Original: 01/25/2019, C2PC: 01/19/2022	NA	
Test Model		PVS6 PVS6		
RF characteristics		2TX WLAN 2.4GHz 2412 - 2462 MHz	2TX WLAN 2.4GHz 2412 – 2462 MHz	
		2TX WLAN 5GHz 5180 - 5240 MHz 5745 - 5825 MHz	2TX WLAN 5GHz 5180 - 5240 MHz 5745 - 5825 MHz	
		1Tx BT-EDR 2402 - 2480MHz 1Tx BT-LE 2402 - 2480MHz 1Tx Zigbee	1Tx BT-EDR 2402 - 2480MHz 1Tx BT-LE 2402 - 2480MHz	
	Difference	2405 – 2480MHz	4 10/0 7: 1 1 1 1 1 1 1 1 1	
Hardware	Difference Identical	With Zigbee component Identical internal printed circuit board layouts		
		Have a common design and components except Zigbee component WLAN 2.4GHz & 5GHz & BT CHIP : AP6398S		

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,

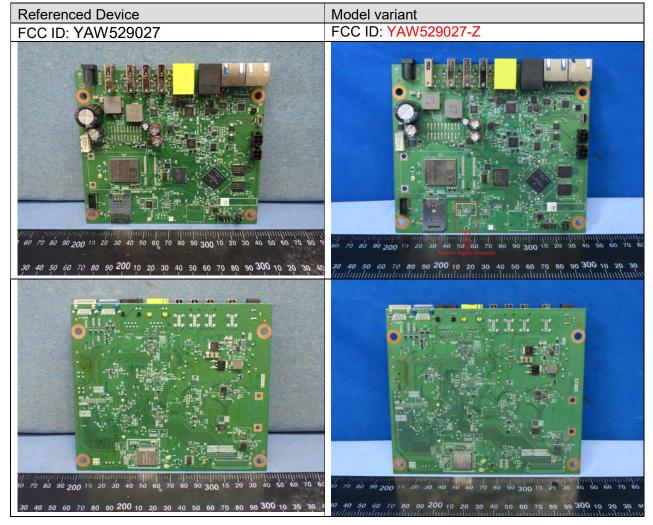
The printed circuit board layouts the same ; RF technologies the same (WiFi 2.4G & WiFi 5G & BT)

Difference: Remove Zigbee component



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3. Main board PCB Photos





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4. PSU PCB Photos

Referenced Device	Model variant
FCC ID: YAW529027	FCC ID: YAW529027-Z
5 50 60 70 80 90 200 19 20 30 40 50 60 70 80 90 300 10 20 30 40 50 60 70 80 90 400 10	all is the same with original.
60 70 80 90 200 10 20 30 40 50 60 70 80 90 300 10 20 30 40 50 60 70 80 90 4050	



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5. Referencing test items

Part 15C

FCC Clause	Test Items	Referenced Test Data	Note
15.247 (a)(1) / (b) Conducted Output Power		Y	
15.207 AC Power Line Conducted Emission		N	
15.247(a)(1) (iii)	Number of Hopping Frequency Used and Dwell Time on Each Channel	Y	
15.247(a)(1)	Hopping Channel Separation Spectrum Bandwidth of a Frequency Hopping Sequence Spread Spectrum System	Y	
15.205/ 15.209/ 15.247(d)	Radiated Emissions and Band Edge Measurement	Y	
15.247(d) Antenna Port Emission		Υ	
15.247(a)(2) 6dB bandwidth		Y	
15.247(e)	Power Density	Υ	

Part 15E

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

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6. Spot- Check Test Plan

Amount of test samples: 1 sample

Equipment	Rule Part	Test Items	Frequency Band	Test Modes	Test Channel
Class					
DTS	Part 15C	Conducted output power	2412-2462 MHz	802.11 b/g/n	Low/ Mid/ High
		Radiated emission -	1	One channel with	One channel with
		Band edge and Harmonics		maximum power among	maximum power
		(Above 1GHz)		802.11 b/g/n	
		Radiated emission]		
		(Below 1GHz)			
		AC Power Line			
		Conducted Emission			
DTS	Part 15C	Conducted output power	2402-2480 MHz	BT-LE	Low/ Mid/ High
		Radiated emission -		One channel with	One channel with
		Band edge and Harmonics		maximum power among	maximum power
		(Above 1GHz)		BT-LE GFSK	
		Radiated emission			
		(Below 1GHz)	_		
		AC Power Line			
7.00		Conducted Emission	0.400.0400.044		
DSS	Part 15C	Conducted output power	2402-2480 MHz	BT-EDR	Low/ Mid/ High
		Radiated emission -		All Channel retest	Low/ Mid/ High
		Band edge and Harmonics		(See Note 2)	
		(Above 1GHz)	1		
		Radiated emission		One channel with	One channel with
		(Below 1GHz)	_	maximum power among	maximum power
		AC Power Line		BT-EDR	
		Conducted Emission			
NII	Part 15E	Conducted output power	5400 5040MI	802.11 a/n/ac	Low/ Mid/ High for
			5180-5240MHz,		each sub band
			5745-5825MHz		
		Radiated emission -	_	One channel with	One channel with
		Band edge and Harmonics		maximum power among	maximum power
		(Above 1GHz)	1	802.11 a/n/ac	
		Radiated emission			
		(Below 1GHz)	1		
		AC Power Line			
		Conducted Emission			



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Note: RF Conducted output power were confirmed and the same as Referenced Device (FCC ID: YAW529027)

Note2: The standard has changed the test above 1G, so the data above BT-EDR is updated

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:
YAW529027 (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 up to 1GHz (Below 1GHz)	30MHz~1000MHz	+/- 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.
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.

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