TEST REPORT

Applicant	:	PETKIT Network Technology (Shanghai) Co., Ltd.
Address of Applicant	:	Room 4139, Building 2, 588 Zixing Road, Minhang District, Shanghai
Product Name	:	PETKIT YUMSHARE SOLO WITH CAMERA SMART PET FEEDER
Brand Name	:	PETKIT
Model Name	:	P571
Sample Acquisition Method	:	Sent by Client
Sample No.	:	E23060039-01#01 E23060039-01#02
FCC ID	:	2A72N-P571
Standards	:	FCC CFR47 Part 15, Subpart C

Date of Receipt	:	2023-06-15
Date of Test	:	2023-06-20~ 2023-07-29
Date of Issue	:	2023-07-31

Remark:

This report details the results of the testing carried out on one sample, the results contained in this report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

Prepared by: Erik. Yang (Erik Yang) Reviewed by: Jennifer Zhou (Jennifer Zhou) Approved by: Guoyou Chi (Authorized signatory: Guoyou Chi)

Contents

1 General Information

1.1 Testing Laboratory

Company Name	ICAS Testing Technology Service (Shanghai) Co., Ltd.
Address	No.1298 Pingan Rd, Minhang District, Shanghai, China
Telephone	0086 21-51682999
Fax	0086 21-54711112
Homepage	www.icasiso.com

1.2 Details of Application

Applicant Company Name	PETKIT Network Technology (Shanghai) Co., Ltd.
Address	Room 4139, Building 2, 588 Zixing Road, Minhang District, Shanghai
Contact Person	TingHe
Telephone	13916991059
Email	ting.he@petkit.com
Manufacturer Company Name	Dongguan Zhihang Electronic Technology Co., LTD.
Address	Room 701 ,Building 15, No.1, Pushi Road I, Qiaotou Town, Dongguan City, Guangdong Province, China.
Factory Company Name	Dongguan Zhihang Electronic Technology Co., LTD.
Address	Room 701 ,Building 15, No.1, Pushi Road I, Qiaotou Town, Dongguan City, Guangdong Province, China.

1.3 Details of EUT

Product Name	PETKIT YUMSHARE SOLO WITH CAMERA SMART PET FEEDER
Brand Name	PETKIT
Test Model Name	P571
FCC ID	2A72N-P571
Mode of Operation	WLAN 802.11b/g/n(HT20)
Output Power	IEEE 802.11b: 16.97dBm IEEE 802.11g: 14.03dBm IEEE 802.11n(20): 13.19dBm
Frequency Range	2400MHz ~ 2483.5MHz
Channel Separation	5 MHz
Number of channels	11
Modulation Type	DSSS, OFDM
Antenna Type	Internal Antenna
Antenna Gain	3.98dBi
Extreme Temperature Range	-10℃~ +55℃

Test Voltage	DC 5.9V Supply by AC Adapter (Model: TEKA-TB059200US)
Hardware Version	V1.0
Software Version	1.22
RF power setting in TEST SW	802.11b: REALTEK 11n 8188FU USB WLAN NIC Massproduction Kit _Power setting_ A(52) 802.11g: REALTEK 11n 8188FU USB WLAN NIC MassproductionKit _Power setting_ A(56) 802.11n20: EALTEK 11n 8188FU USB WLAN NIC Massproduction Kit _Power setting_ A(52)

Note:

1. The above information was declared by the manufacture.

2. For more details, please refer to the User's manual of the EUT.

Channel List

Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2.412GHz	5	2.432GHz	9	2.452GHz
2	2.417GHz	6	2.437GHz	10	2.457GHz
3	2.422GHz	7	2.442GHz	11	2.462GHz
4	2.427GHz	8	2.447GHz		

Note:

For 20MHz bandwidth system use Channel 1 to Channel 11

For 40MHz bandwidth system use Channel 3 to Channel 9

1.4 Test Methodology

47 CFR Part 15, Subpart C	Telecommunication-Radio Frequency Devices-Intentional Radiators
KDB Publication 558074 D01 v05r02	15.247 Meas Guidance.
ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices

Note(s):

All test items were verified and recorded according to the standards and without any addition/deviation/exclusion during the test.

1.5 Test Summary

Test Item	FCC Rules	Requirement	Result
Antenna Requirement	FCC Part 15.247(b)(4), Part 15.203	FCC Part 15.247(b)(4), Part 15.203	PASS
Maximum peak conducted output power	FCC Part 15.247(b)(3)	ANSI C63.10-2013, Clause 11.9.1 KDB 558074 D01 v05r02, Clause 8.3.1	PASS
6dB Bandwidth	FCC Part 15.247(a)(2)	ANSI C63.10-2013, Clause 11.8.1 KDB 558074 D01 v05r02, Clause 8.2	PASS
Maximum conducted output power spectral density	FCC Part 15.247(e)	ANSI C63.10-2013, Clause 11.10.2 KDB 558074 D01 v05r02, Clause 8.4	PASS
Conducted Spurious Emission & Authorized-band band-edge	FCC Part 15.247(d)	ANSI C63.10-2013, Clause 11.11.1(a) KDB 558074 D01 v05r02, Clause 8.5	PASS
Radiated Emission	FCC Part 15.247(d), 15.205, 15.209	ANSI C63.10-2013, Clause 11.12 KDB 558074 D01 v05r02, Clause 8.6	PASS
Band Edge (Restricted-band band-edge)	FCC Part 15.247(d), 15.205, 15.209	ANSI C63.10-2013, Clause 11.13 KDB 558074 D01 v05r02, Clause 8.7	PASS
Conducted Emission on AC Mains	FCC Part 15.207(a)	ANSI C63.10-2013, Clause 6.2	PASS

2 Test Condition

2.1 Environmental conditions

Temperature (°C)	18-25
Humidity (%RH)	40-65
Barometric Pressure (mbar)	960-1060

2.2 Equipment List

Name of Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	Keysight	N9020B	MY59260184	2022-08-02	2023-08-01
Spectrum Analyzer	Rohde & Schwarz	FSV40N	101450	2023-06-08	2024-06-07
Signal Generator	Rohde & Schwarz	SMR27	100184	2022-08-02	2023-08-01
EMI Test Receiver	Rohde & Schwarz	ESR 7	101911	2023-06-08	2024-06-07
EMI Test Receiver	Rohde & Schwarz	ESPI3	100173	2023-06-08	2024-06-07
V-network	SCHWARZBECK	NSLK8127	8127-902	2023-06-07	2024-06-06
Broadband Antenna	SCHWARZBECK	VULB9163	9163-1037	2023-03-22	2025-03-21
Horn Antenna-18G	SCHWARZBECK	BBHA9120 D	9120D-1775	2023-06-13	2025-06-12
Horn Antenna-40G	YINGLIAN	LB-180400-KF	N/A	2023-06-18	2025-06-17
Loop Antenna	SCHWARZBECK	FMZB 1513	/	2023-06-09	2024-06-08
Broadband Preamplifier	SCHWARZBECK	BBV 9718	346	2023-06-08	2024-06-07
EMC chamber 9*6*6（L*W*H)	CHANGNING	966	N/A	2023-06-08	2024-06-07
Test Software	BL	BL410_E	Version:1.0.0.117	N/A	N/A
Test Software	BL	BL410_R	Version:2.1.1.409	N/A	N/A

2.3 Measurement Uncertainty

The uncertainty is calculated using the methods suggested in the “Guide to the Expression of Uncertainty in measurement” (GUM) published by CISPR and ANSI. The reported uncertainty of measurement y ±U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95.45%.

Parameter		Uncertainty
Antenna Port Conducted Emission	< 1GHz	± 1.5 dB
	> 1GHz	± 1.5 dB
Radiated Emission	< 1GHz	± 5.00 dB
	> 1GHz	± 4.88 dB
Conducted Emission on AC Mains	150KHz-30MHz	± 2.68 dB
Occupied Channel Bandwidth		±5 %

3 Test Set-up and Operation Modes

3.1 Details of Test Mode

Using test software (Linux operation Command) was control EUT work in continuous transmitter and receiver mode. Select test channel as below:

For 802.11b/g/n (HT20)

Channel	Frequency
The lowest channel (CH1)	2412MHz
The middle channel (CH6)	2437MHz
The highest channel (CH11)	2462MHz

For 802.11n(HT40)

Channel	Frequency
The lowest channel (CH3)	2422MHz
The middle channel (CH6)	2437MHz
The highest channel (CH9)	2452MHz

Through Pre-scan under all rate at lowest channel, the data rate as below table described is the worst case, so we choose these data rate for test.

Type	Data rate
802.11b	11Mbps
802.11g	18Mbps
802.11n(20M)	MCS3

The basic operation modes are:

A. On
   1. WLAN mode
      a. Transmitting
         i. Low Channel
         ii. Middle Channel
         iii. High Channel
      b. Receiving

B. Standby

C. Off

3.2 Special Accessories and Auxiliary Equipment

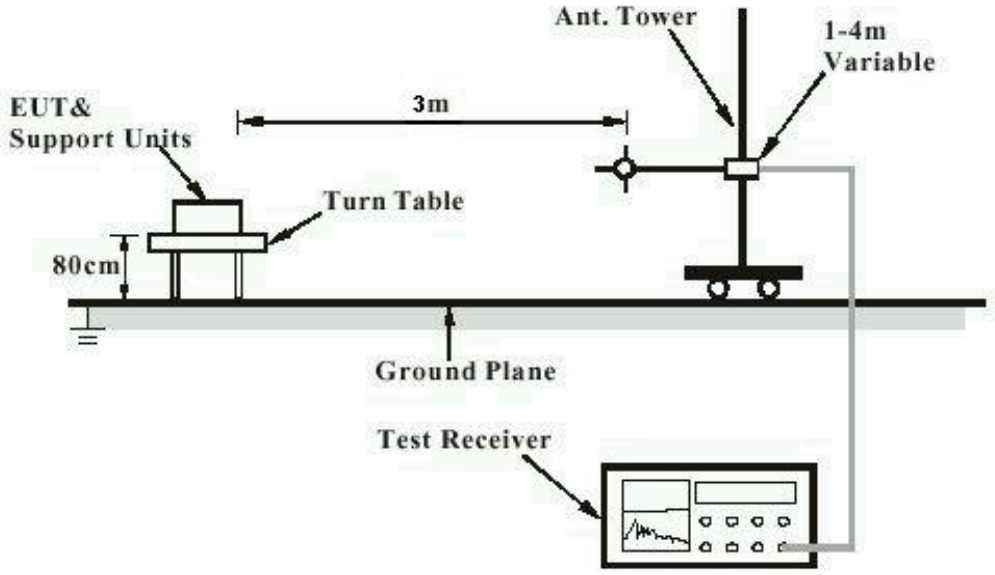
Description	Manufacturer	Model Name	Serial No.
AC ADAPTER	TEKA	TEKA-TB059200US	Input: AC 100-240V 50/60Hz 0.35A Max; Output: DC 5.9V 2A
Laptop	Lenovo	TP00083A	N/A
USB Cable	N/A	N/A	1.00m Unshielded

3.3 Support Software

Description	Manufacturer	Software Name
Software	N/A	REALTEK 11n 8188FU USB WLAN NIC Massproduction Kit

3.4 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test



Note: Measurements above 1GHz are done with a table height of 1.5m. In addition, there is RF absorbing material on the floor of the test site for above 1GHz measurement.

Diagram of Measurement Equipment Configuration for Conduction Measurement

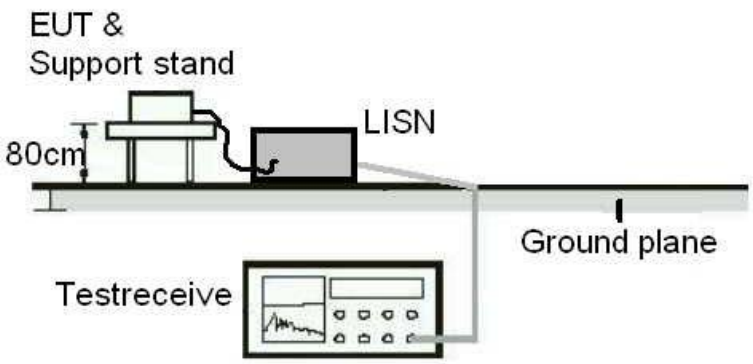
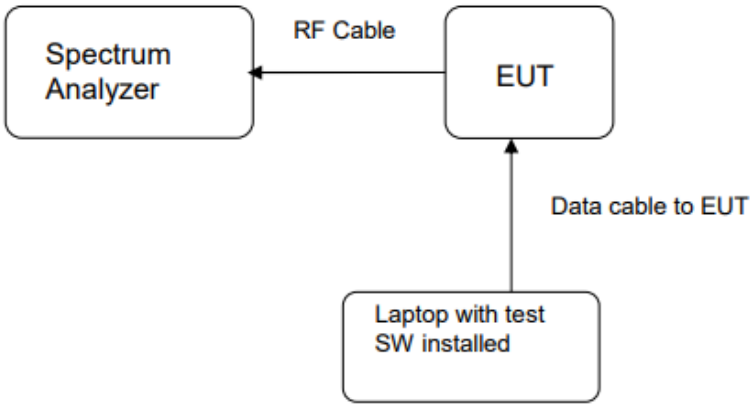


Diagram of Measurement Equipment Configuration for Transmitter Measurement



4 Test Results

4.1 Transmitter Requirement & Test Suites

4.1.1 Antenna Requirement

RESULT: **PASS**

Test standard	:	FCC Part 15.247(b)(4), Part 15.203
Requirement	:	The use of approved antennas only with directional gains that do not exceed 6dBi

According to the manufacturer declaration, the EUT has an antenna with a directional gain of 3.98dBi. The antenna is a Internal antenna with no possibility of replacement with a non-approved antenna by the end-user.

Therefore, the EUT is considered to comply with this provision.

4.1.2 Maximum peak conducted output power

RESULT: **PASS**

Test standard	:	FCC Part 15.247(b)(3)
Requirement	:	ANSI C63.10-2013, Clause 11.9.1 KDB 558074 D01 v05r02, Clause 8.3.1
Kind of test site	:	Shielded room

Test setup

Test Channel	:	Low/Middle/High
Operation Mode	:	A.1.a
Ambient temperature	:	23.8℃
Relative humidity	:	46%

Table 1: Maximum peak conducted output power

Test Mode	Test Channel (MHz)	Maximum peak conducted output power		Limit (W)
		(dBm)	(mW)	
802.11b	2412	15.74	37.50	≤1
	2437	16.97	49.77	
	2462	15.92	39.08	
802.11g	2412	14.03	25.29	
	2437	13.63	23.07	
	2462	12.61	18.24	
802.11n(HT20)	2412	13.19	20.84	
	2437	11.96	15.70	
	2462	11.38	13.74	

4.1.3 6dB Bandwidth

RESULT: **PASS**

Test standard : FCC Part 15.247(a)(2)
Requirement : ANSI C63.10-2013, Clause 11.8.1
KDB 558074 D01 v05r02, Clause 8.2
Kind of test site : Shielded room

Test setup

Test Channel : Low/Middle/High
Operation Mode : A.1.a
Ambient temperature : 23.8°C
Relative humidity : 46%

Table 2: 6dB Bandwidth

Test Mode	Test Channel (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
802.11b	2412	7.68	≥0.5
	2437	8.16	
	2462	7.92	
802.11g	2412	16.54	
	2437	16.55	
	2462	16.52	
802.11n(HT20)	2412	17.77	
	2437	17.78	
	2462	17.76	

Figure 1: 6dB Bandwidth, 802.11b, 2412MHz

Figure 2: 6dB Bandwidth, 802.11b, 2437MHz

Figure 3: 6dB Bandwidth, 802.11b, 2462MHz

Figure 4: 6dB Bandwidth, 802.11g, 2412MHz

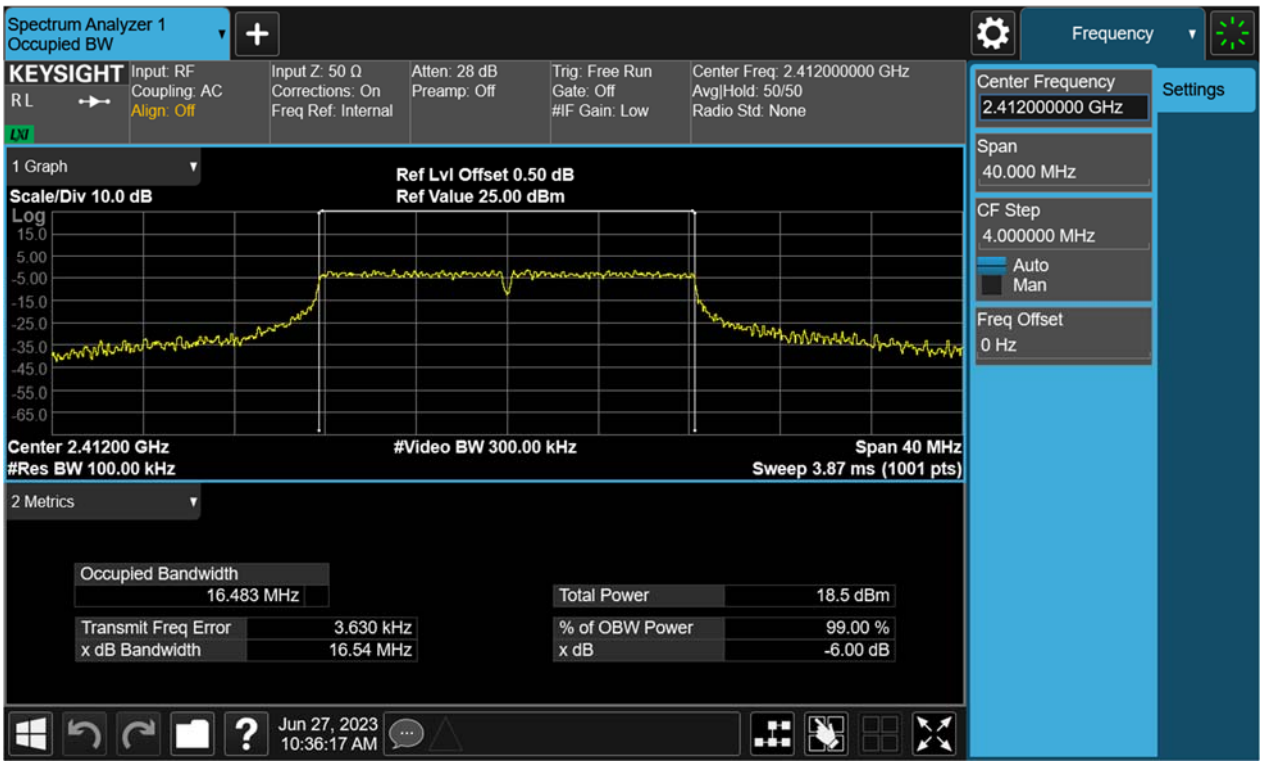


Figure 5: 6dB Bandwidth, 802.11g, 2437MHz

Figure 6: 6dB Bandwidth, 802.11g, 2462MHz

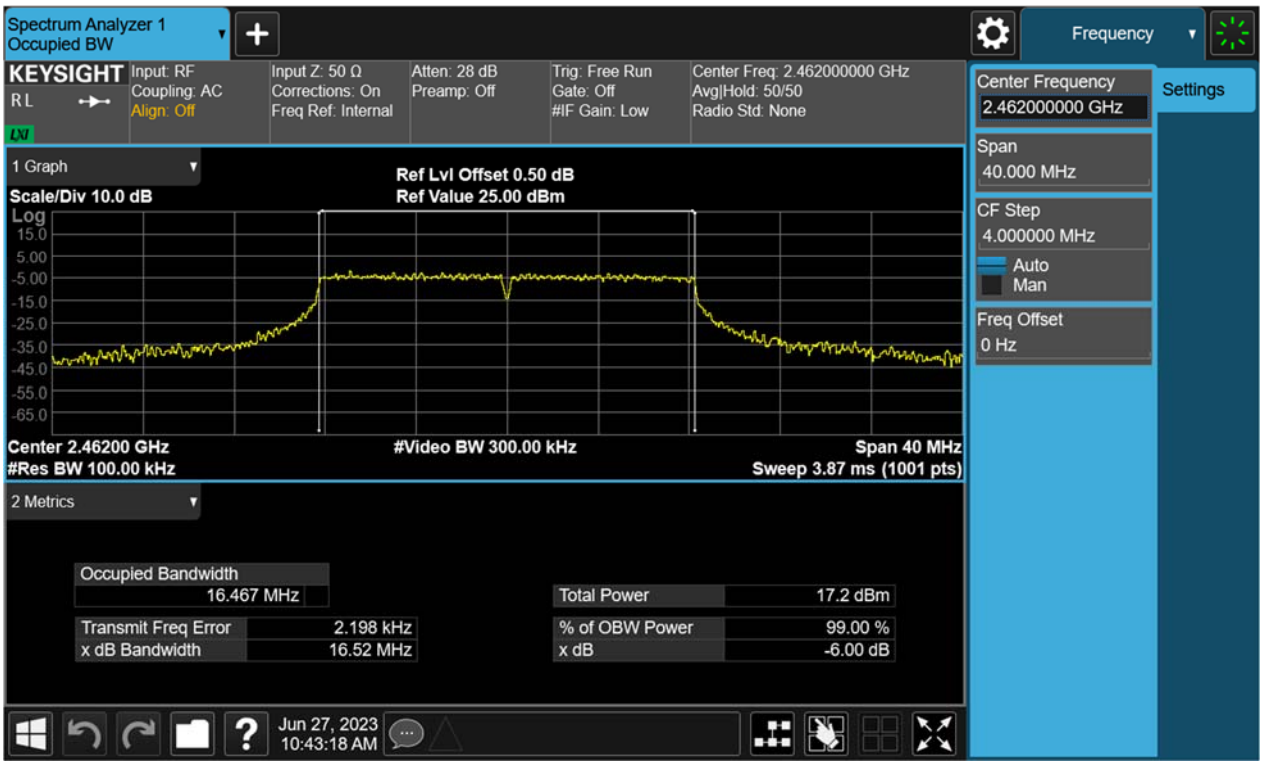


Figure 7: 6dB Bandwidth, 802.11n(HT20), 2412MHz

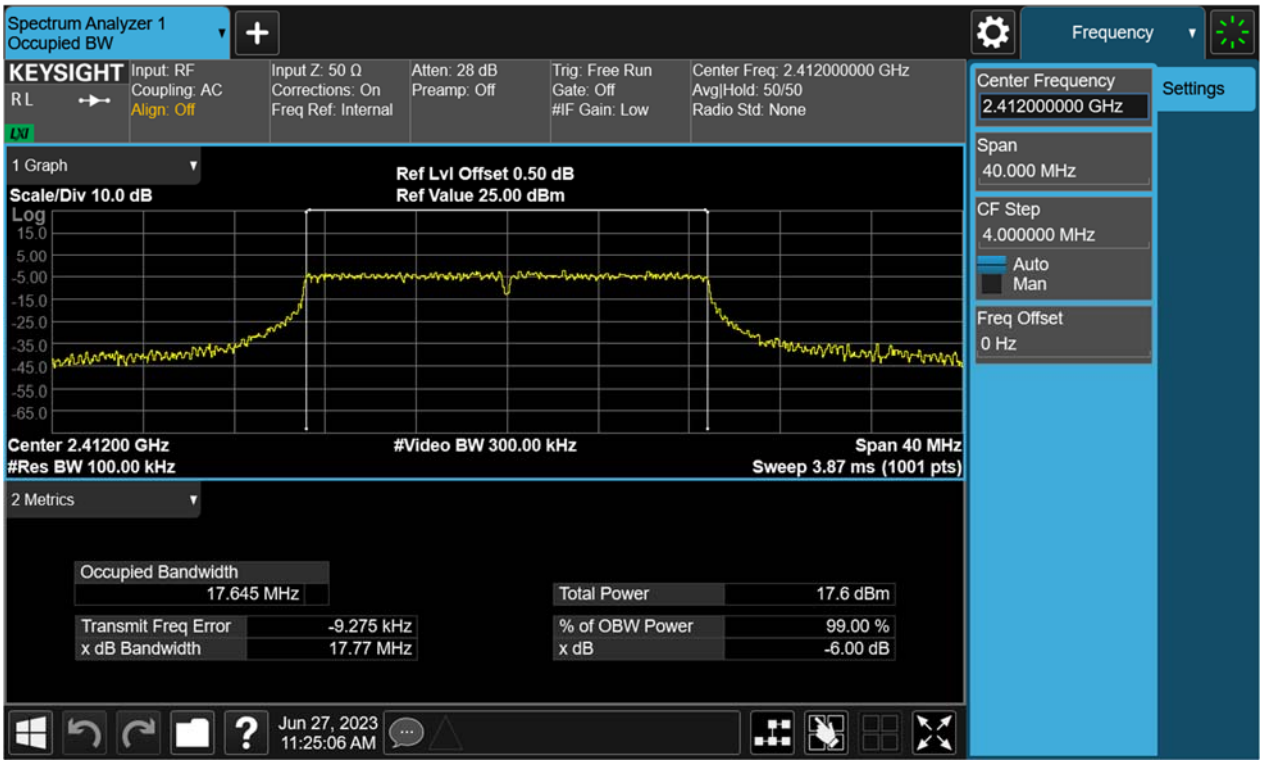


Figure 8: 6dB Bandwidth, 802.11n(HT20), 2437MHz

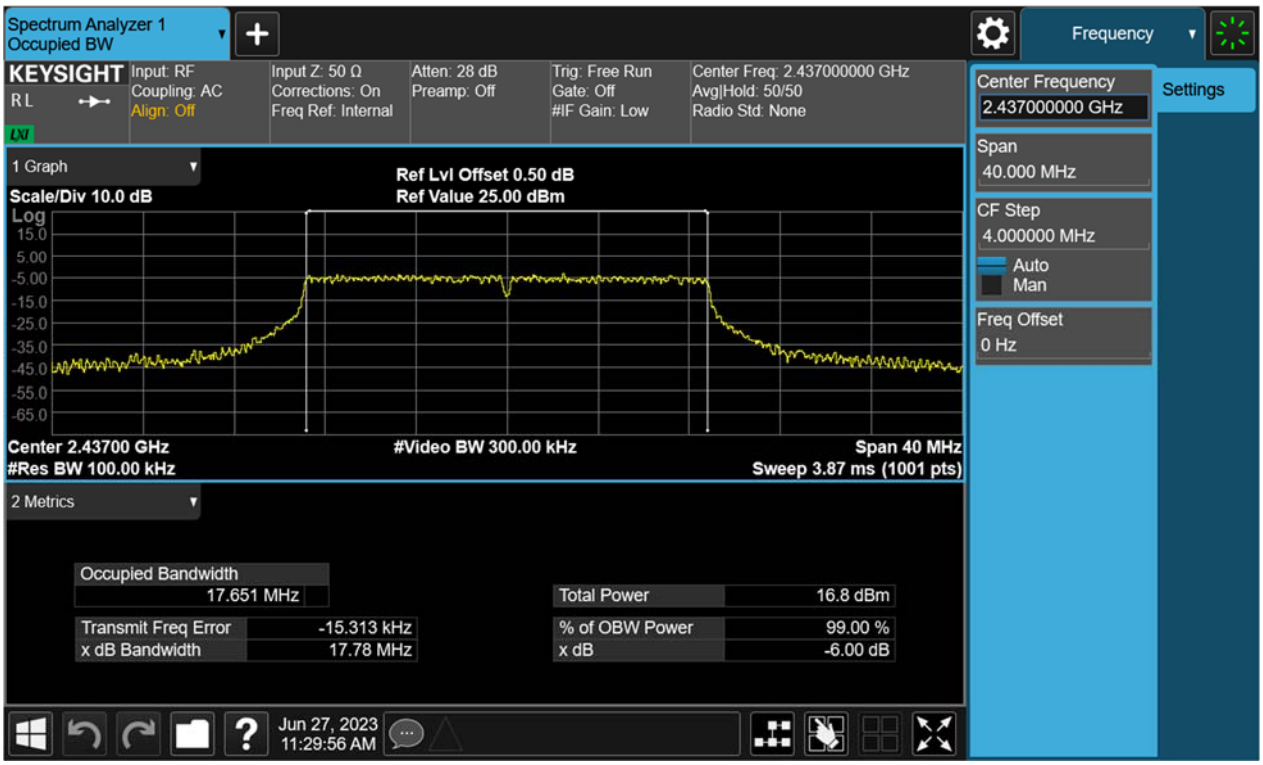


Figure 9: 6dB Bandwidth, 802.11n(HT20), 2462MHz

4.1.4 Maximum conducted output power spectral density

RESULT: **PASS**

Test standard : FCC Part 15.247(e)
Requirement : ANSI C63.10-2013, Clause 11.10.2
KDB 558074 D01 v05r02, Clause 8.4
Kind of test site : Shielded room

Test setup
Test Channel : Low/Middle/High
Operation Mode : A.1.a
Ambient temperature : 23.8°C
Relative humidity : 46%

Table 3: Maximum peak conducted output power

Test Mode	Test Channel (MHz)	Maximum peak conducted output power (dBm/3kHz)	Limit (dBm/3kHz)
802.11b	2412	-8.14	≤8
	2437	-7.44	
	2462	-8.31	
802.11g	2412	-14.46	
	2437	-15.12	
	2462	-15.95	
802.11n(HT20)	2412	-15.93	
	2437	-16.75	
	2462	-17.45	

Figure 13: Power Spectral Density, 802.11b, 2412MHz

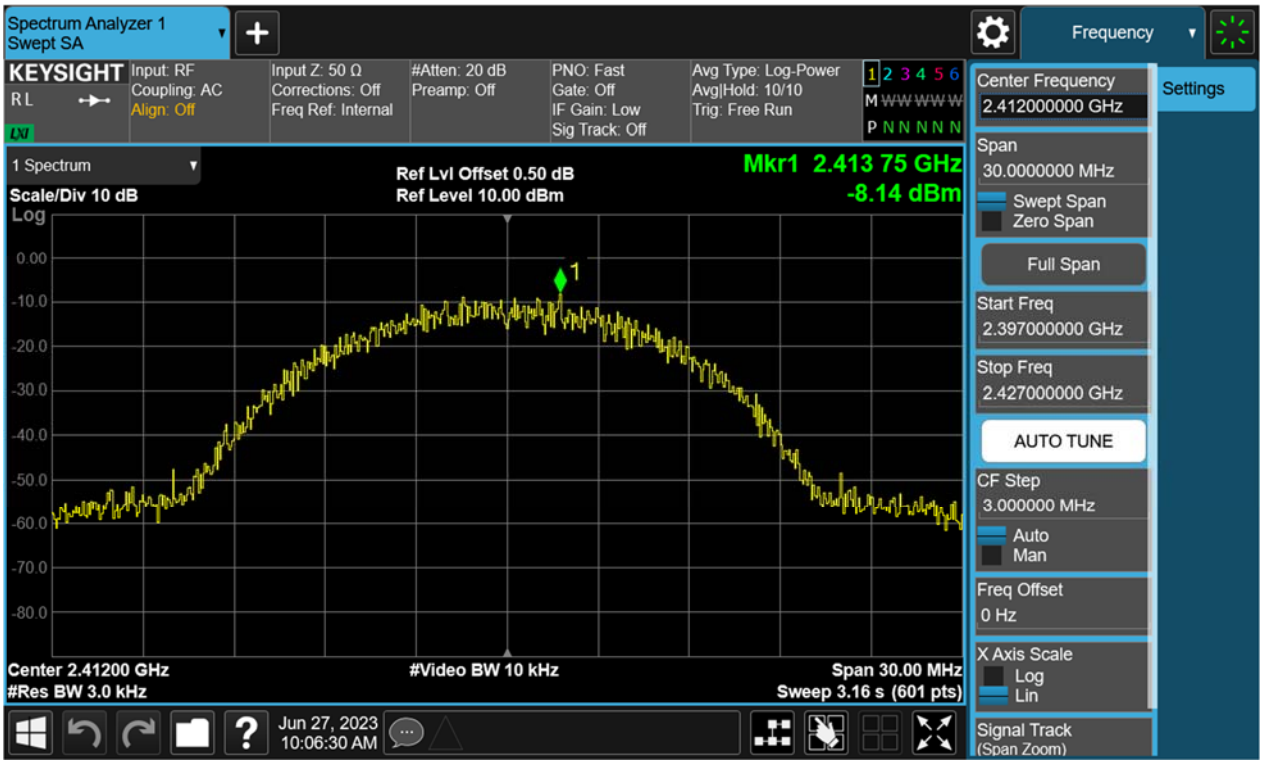


Figure 14: Power Spectral Density, 802.11b, 2437MHz