MEASUREMENT REPORT

FCC ID	:	**2BH7FC260**
APPLICANT	:	**TP-Link Systems Inc.**
Application Type	:	**Certification**
Product	:	**Pan/Tilt AI Home Security Wi-Fi Camera**
Model No.	:	**Tapo C260**
Brand Name	:	**tapo**
FCC Classification	:	**Unlicensed National Information Infrastructure (UNII)**
FCC Rule Part(s)	:	**Part 15 Subpart E (Section 15.407)**
Test Procedure(s)	:	**ANSI C63.10-2013**
Received Date	:	**March 18, 2025**
Test Date	:	**March 27, 2025~ March 31, 2025**

Tested By : Kaunaz Lee
(Kaunaz Lee)

Reviewed By : Paddy Chen
(Paddy Chen)

Approved By : Chenz Ker
(Chenz Ker)

Testing Laboratory
3261

The test results only relate to the tested samples.
This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.10. Test results reported herein relate only to the item(s) tested.
The test report shall not be reproduced except in full without the written approval of MRT Technology (Taiwan) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2503TW0110-U4	1.0	Original Report	2025-05-09	
2503TW0110-U4	2.0	Correct the channel list	2025-05-14	

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Description Page

General Information

Applicant	TP-Link Systems Inc.
Applicant Address	10 Mauchly, Irvine, CA 92618
Manufacturer	TP-Link Systems Inc.
Manufacturer Address	10 Mauchly, Irvine, CA 92618
Test Site	MRT Technology (Taiwan) Co., Ltd
Test Site Address	No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C)
MRT FCC Registration No.	291082
FCC Rule Part(s)	Part 15 Subpart E (Section 15.407)

Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Fuxing Rd., Taoyuan, Taiwan (R.O.C)

- **MRT facility is a FCC registered (Reg. No. 291082) test facility with the site description report on file and is designated by the FCC as an Accredited Test Firm.**
- **MRT facility is an IC registered (MRT Reg. No. 21723) test laboratory with the site description on file at Industry Canada.**
- **MRT Lab is accredited to ISO 17025 by the Taiwan Accreditation Foundation (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC (Designation Number: TW3261), Industry Canada, EU and TELEC Rules.**

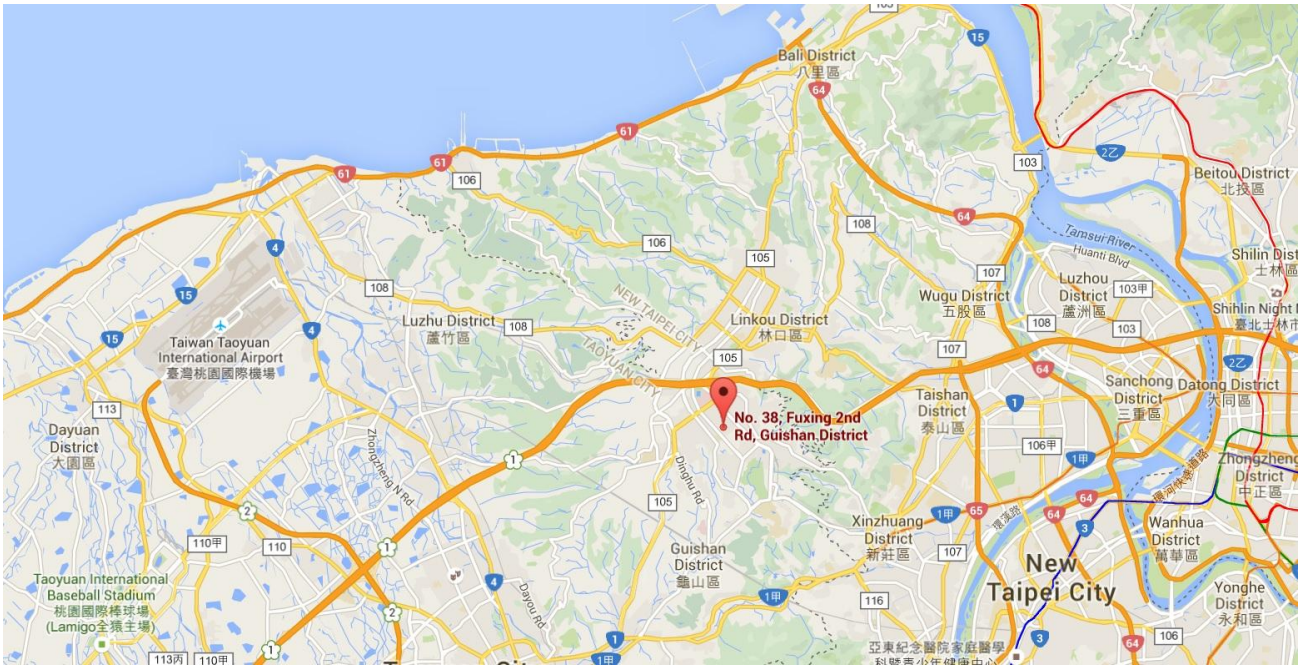
1. INTRODUCTION

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Industry Canada Certification and Engineering Bureau.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taoyuan City. These measurement tests were conducted at the MRT Technology (Taiwan) Co., Ltd. Facility located at No.38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 33377, Taiwan (R.O.C).



2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name:	Pan/Tilt AI Home Security Wi-Fi Camera
Model No.:	Tapo C260
Brand Name:	tapo
Specification:	WLAN: 802.11a/b/g/n WPAN: Bluetooth Single Mode
Test Sample Number	#1-1 (Conducted) #1-2 (Radiated)
Accessory	
Adapter	Brand: DEEVAN Model No: DSA-10PF06-05 FUS 050200 Input: AC 100-240V~50-60Hz, 0.3A Output: 5V⎓2A 10.0W

2.2. Product Specification Subjective to this Report

Frequency Range:	For 802.11a/n-HT20: 5180~5240MHz, 5260~5320MHz, 5500~5720MHz, 5745~5825MHz
Type of Modulation:	802.11a/n: OFDM
Data Rate:	802.11a: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 72.2Mbps

2.3. Operation Frequencies and Channel List

802.11 a/n-HT20

Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180 MHz	40	5200 MHz	44	5220 MHz
48	5240 MHz	52	5260 MHz	56	5280 MHz
60	5300 MHz	64	5320 MHz	100	5500 MHz
104	5520 MHz	108	5540 MHz	112	5560 MHz
116	5580 MHz	120	5600 MHz	124	5620 MHz
128	5640 MHz	132	5660 MHz	136	5680 MHz
140	5700 MHz	144	5720 MHz	149	5745 MHz
153	5765 MHz	157	5785 MHz	161	5805 MHz
165	5825 MHz	--	--	--	--

2.4. Description of Available Antennas

Antenna Type	Frequency Band (MHz)	Max Antenna Gain (dBi)
Dipole	2400 ~ 2483.5	0.00
	5150 ~ 5850	1.00

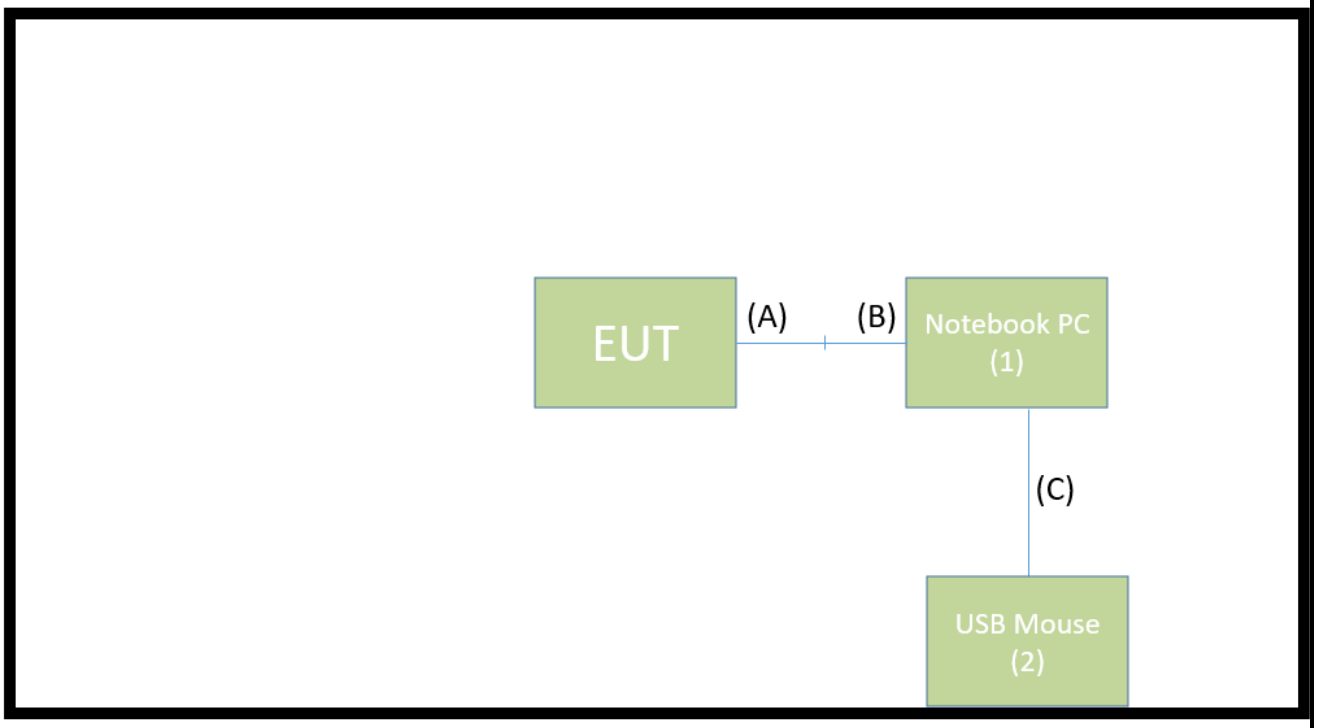
2.5. Test Mode

Mode 1: Transmit by 802.11a(6Mbps) (Ant 0)
Mode 2: Transmit by 802.11a(6Mbps) (Ant 1)
Mode 3: Transmit by 802.11n-HT20(MCS0) (Ant 0)
Mode 4: Transmit by 802.11n-HT20(MCS0) (Ant 1)
Remark: 1. For Radiated emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power.

2.6. Configuration of Test System

The device was tested per the guidance ANSI C63.10: 2013was used to reference the appropriate EUT setup for radiated emissions testing and AC line conducted testing.

Connection Diagram



Signal Cable Type		Signal Cable Description
A	USB Cable	Shielded, 0.3m
B	USB Cable	Shielded, 1.0m

2.7. Test System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook PC	Lenovo	21DH00A3TW	N/A	N/A
2	USB Mouse	Logitech	M90	N/A	N/A

2.8. Description of Test Software

The test utility software used during testing was “altobeamWifi_ETF_V2.10.129”.

Note: Final power setting please refer to operational description.

2.9. Applied Standards

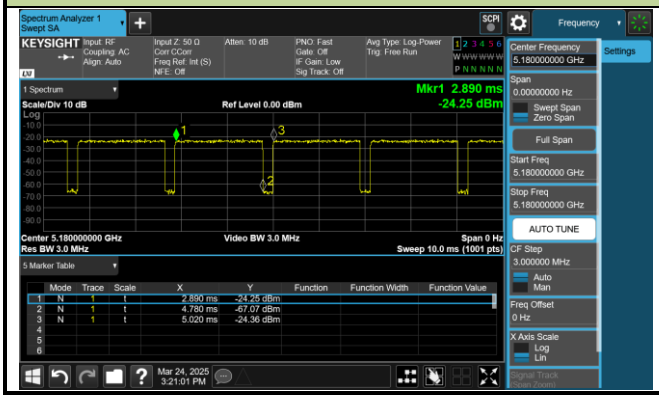
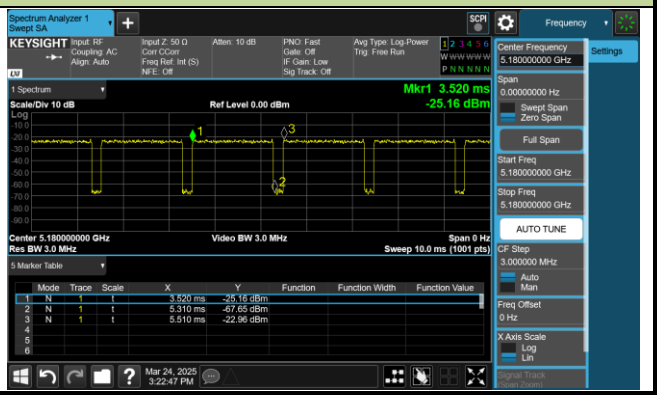
According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15.407
- KDB 789033 D02v02r01,
- ANSI C63.10-2013

2.10. Duty Cycle

5GHz (NII) operation is possible in 20MHz channel bandwidths. The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

Test Mode	Duty Cycle
802.11a	88.73%
802.11n-HT20	89.95%

Duty Cycle	
802.11a	802.11n-HT20
	

2.11. Test Configuration

This device was tested per the guidance of KDB 789033 D02v02r01. ANSI C63.10-2013 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing.

2.12. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

2.13. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase. However, when the device is so small wherein placement of the label with specified statement is not practical, only the FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.

3. DESCRIPTION OF TEST

3.1. Evaluation Procedure

The measurement procedures described in the American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices (ANSI C63.10-2013), and the guidance provided in KDB 789033 D02v02r01 were used in the measurement.

3.2. AC Line Conducted Emissions

The line-conducted facility is located inside an 9'x4'x3' shielded enclosure. A 1m x 2m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50uH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.
The EUT is powered from one LISN and the support equipment is powered from the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground-plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.
Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the receiver and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The receiver was scanned from 150kHz to 30MHz. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 9kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was also maximized by varying: power lines, the mode of operation or data exchange speed, or support equipment whichever determined the worst-case emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions are used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.
An extension cord was used to connect to a single LISN which powered by EUT. The extension cord was calibrated with LISN, the impedance and insertion loss are compliance with the requirements as stated in ANSI C63.10-2013.
Line conducted emissions test results are shown in Section 7.10.

3.3. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. A turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable.

For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up for frequencies below 1GHz was placed on top of the 0.8 meter high, 1 x 1.5 meter table; and test set-up for frequencies 1-40GHz was placed on top of the 1.5 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, clock speed, mode of operation or video resolution, if applicable, turntable azimuth, and receive antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions. According to 3dB Beam-Width of horn antenna, the horn antenna should be always directed to the EUT when rising height.

4. ANTENNA REQUIREMENTS

Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

- The antenna of the **Pan/Tilt AI Home Security Wi-Fi Camera,** is permanently attached.
- There are no provisions for connection to an external antenna.

Conclusion:

The EUT unit complies with the requirement of §15.203.

5. TEST EQUIPMENT CALIBRATION DATE

Conducted Emissions – SR6

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Two-Line V-Network	R&S	ENV216	MRTTWA00019	1 year	2026/3/5
Cable	Rosnol	N1C50-RG400-B 1C50-500CM	MRTTWE00013	1 year	2025/6/14
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2026/3/4

Radiated Emissions – AC1

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Active Loop Antenna	SCHWARZBECK	FMZB 1519B	MRTTWA00002	1 year	2025/5/7
Broadband TRILOG Antenna	SCHWARZBECK	VULB 9162	MRTTWA00086	1 year	2025/11/5
Broadband Hornantenna	SCHWARZBECK	BBHA 9120D	MRTTWA00003	1 year	2026/2/11
Broadband Preamplifier	SCHWARZBECK	BBV 9718	MRTTWA00005	1 year	2026/2/11
Breitband Hornantenna	SCHWARZBECK	BBHA 9170	MRTTWA00004	1 year	2026/3/27
Broadband Amplifier	SCHWARZBECK	BBV 9721	MRTTWA00006	1 year	2026/3/21
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2026/3/4
Signal Analyzer	R&S	FSV40	MRTTWA00007	1 year	2025/4/14
Antenna Cable	HUBERSUHNER	SF106	MRTTWE00010	1 year	2025/6/14
Cable	Rosnol	K1K50-UP0264-K1K50-4M	MRTTWE00012	1 year	2025/6/14
Temperature/Humidity Meter	TFA	35.1083	MRTTWA00050	1 year	2025/6/2

Conducted Test Equipment – SR6

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2025/9/24
EXA Signal Analyzer	KEYSIGHT	N9010B	MRTTWA00074	1 year	2025/8/12
USB Wideband Power Sensor	KEYSIGHT	U2021XA	MRTTWA00015	1 year	2026/3/12

Test Software

Software	Version	Function
e3	9.160520a	EMI Test Software
EMI	V3	EMI Test Software

6. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

AC Conducted Emission Measurement
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 150kHz~30MHz: ± 2.53dB
Radiated Emission Measurement
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 9kHz ~ 1GHz: ± 4.25dB 1GHz ~ 40GHz: ± 4.45dB
Conducted Power (Carrier Power / Power Density)
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ± 0.84dB
Conducted Spurious Emission
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)):± 2.65 dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ± 3.3%
Temp. / Humidity
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ±0.82°C/ ±3%
Frequency Error
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ±78.4Hz

7. TEST RESULT

7.1. Summary

FCC Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.407(a)	26dB Bandwidth	N/A	Conducted	Pass	Section 7.2
15.407(e)	6dB Bandwidth	≥ 500kHz		Pass	Section 7.3
15.407(a)(1)(i), (2), (3)	Maximum Conducted Output Power	Refer to Section 7.4		Pass	Section 7.4
15.407(h)(1)	Transmit Power Control	≤ 24 dBm		N/A	Section 7.5
15.407(a)(1)(i), (2), (3), (5)	Power Spectral Density	Refer to Section 7.7		Pass	Section 7.6
15.407(g)	Frequency Stability	N/A		Pass	Section 7.7
15.407(b)(1), (4)	Undesirable Emissions	≤ -27dBm/MHz EIRP ≤ -17dBm/MHz EIRP	Radiated	Pass	Section 7.8 & 7.9
15.205, 15.209 15.407(b)(8), (9), (10)	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Emissions in restricted bands must meet the radiated limits detailed in 15.209		Pass	
15.207	AC Conducted Emissions 150kHz - 30MHz	< FCC 15.207 limits	Line Conducted	Pass	Section 7.10

Notes:

1) Determining compliance is based on the test results met the regulation limits or requirements declared by clients, and the test results don't take into account the value of measurement uncertainty.
2) All channels, modes, and modulations/data rates were investigated among all UNII bands. The test results shown in the following sections represent the worst case emissions.
3) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.

7.2. 26dB Bandwidth Measurement

7.2.1. Test Limit

N/A

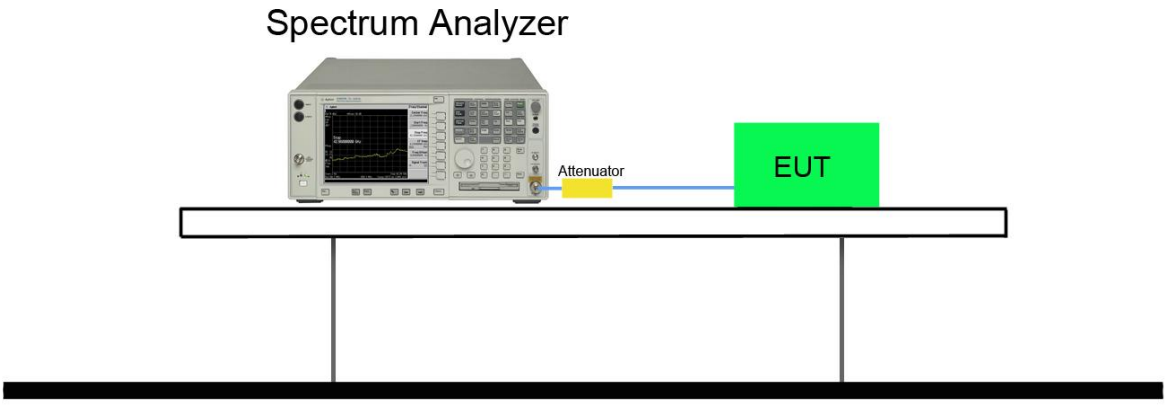
7.2.2. Test Procedure used

KDB 789033 D02v02r01- Section II)C.1) (26dB Bandwidth)
KDB 789033 D02v02r01- Section II)D) (99% Bandwidth)

7.2.3. Test Setting

1. The analyzers' automatic bandwidth measurement capability was used to perform the 26dB bandwidth measurement. The "X" dB bandwidth parameter was set to X = 26. The automatic bandwidth measurement function also has the capability of simultaneously measuring the 99% occupied bandwidth. The bandwidth measurement was not influenced by any intermediated power nulls in the fundamental emission.
2. RBW = approximately 1% of the emission bandwidth.
3. VBW ≥ 3 × RBW.
4. Detector = Peak.
5. Trace mode = max hold.

7.2.4. Test Setup



7.2.5. Test Result

Product	Pan/Tilt AI Home Security Wi-Fi Camera	Test Engineer	Jung
Test Site	SR6	Test Date	2025/3/27~2025/3/31
Test Item	26dB Bandwidth & 99% Bandwidth		

Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant 0					
802.11a	6Mbps	36	5180	31.090	16.805
802.11a	6Mbps	40	5200	39.170	19.704
802.11a	6Mbps	48	5240	35.180	19.600
802.11a	6Mbps	52	5260	33.930	19.753
802.11a	6Mbps	60	5300	35.090	18.793
802.11a	6Mbps	64	5320	23.860	16.461
802.11a	6Mbps	100	5500	20.890	16.568
802.11a	6Mbps	116	5580	34.800	19.435
802.11a	6Mbps	140	5700	18.830	16.393
802.11a	6Mbps	144	5720	34.880	18.859
802.11a	6Mbps	149	5745	37.360	19.621
802.11a	6Mbps	157	5785	35.370	19.727
802.11a	6Mbps	165	5825	34.140	19.787
802.11n-HT20	MCS0	36	5180	24.690	17.533
802.11n-HT20	MCS0	40	5200	32.970	18.243
802.11n-HT20	MCS0	48	5240	36.410	19.342
802.11n-HT20	MCS0	52	5260	35.040	18.867
802.11n-HT20	MCS0	60	5300	34.570	19.191
802.11n-HT20	MCS0	64	5320	21.310	17.481
802.11n-HT20	MCS0	100	5500	19.940	17.461
802.11n-HT20	MCS0	116	5580	34.740	19.116
802.11n-HT20	MCS0	140	5700	19.080	17.441
802.11n-HT20	MCS0	144	5720	35.510	18.917
802.11n-HT20	MCS0	149	5745	36.300	19.259
802.11n-HT20	MCS0	157	5785	35.190	18.259
802.11n-HT20	MCS0	165	5825	32.930	19.800

802.11a 26dB Bandwidth & 99% Bandwidth

Channel 36 (5180MHz)

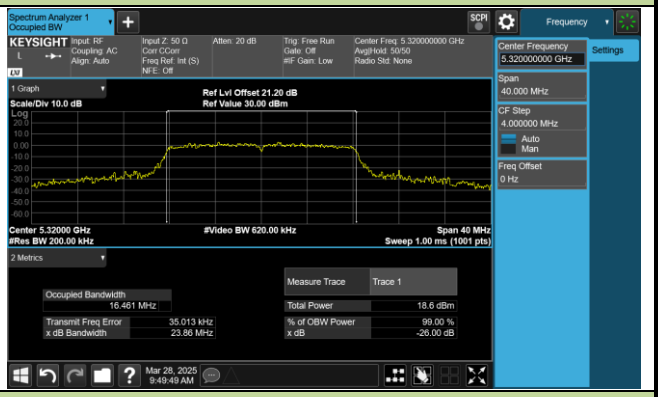
Channel 40 (5200MHz)

Channel 48 (5240MHz)

Channel 52 (5260MHz)

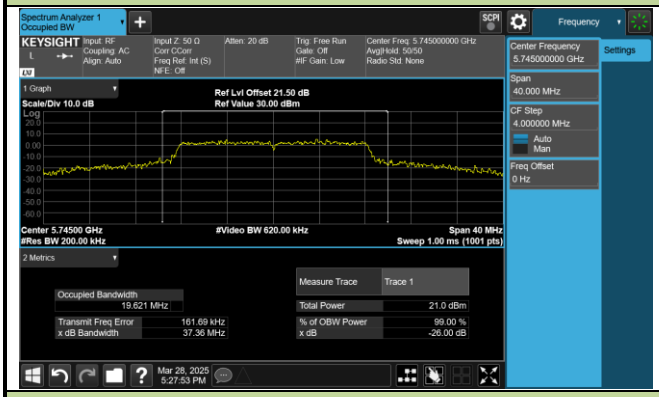
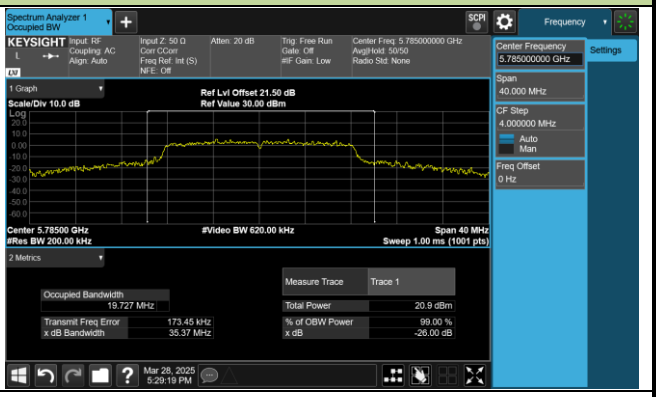
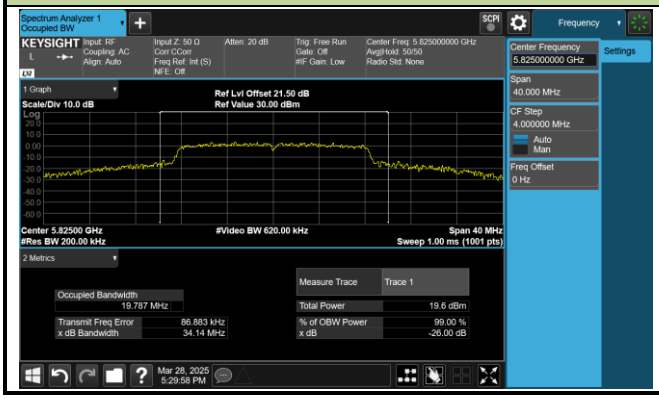
Channel 60 (5300MHz)

Channel 64 (5320MHz)



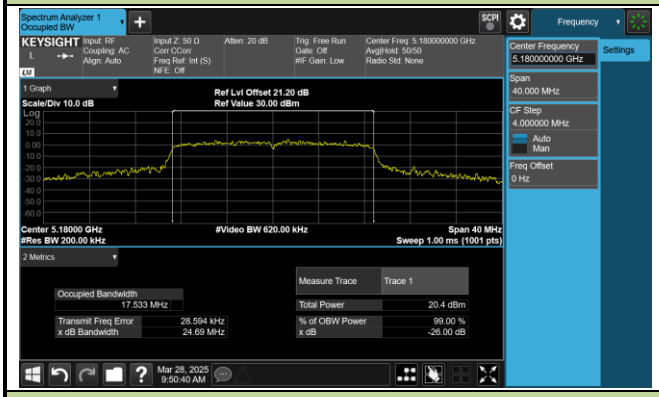
Channel 100 (5500MHz)

Channel 116 (5580MHz)

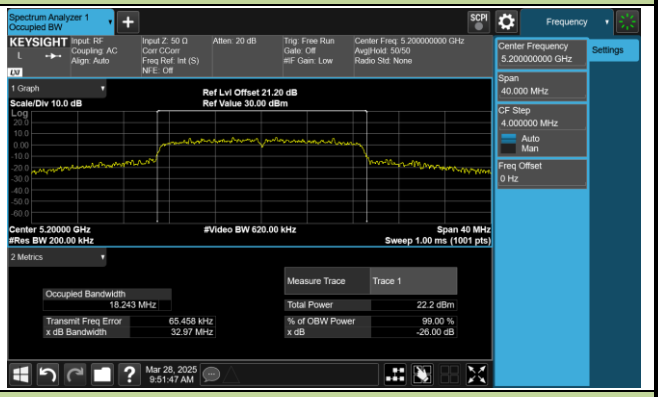
Channel 140 (5700MHz)	Channel 144 (5720MHz)
	
Channel 149 (5745MHz)	**Channel 157 (5785MHz)**
	
Channel 165 (5825MHz)	
	

802.11n-HT20 26dB Bandwidth & 99% Bandwidth

Channel 36 (5180MHz)



Channel 40 (5200MHz)

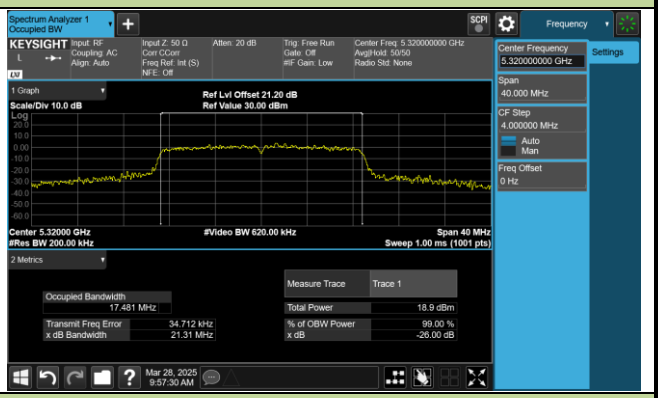


Channel 48 (5240MHz)

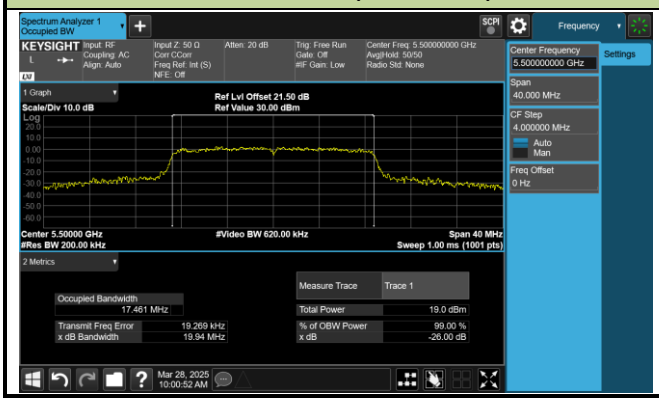
Channel 52 (5260MHz)

Channel 60 (5300MHz)

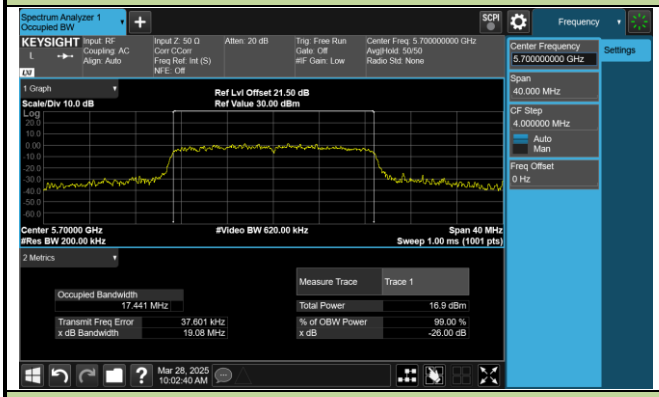
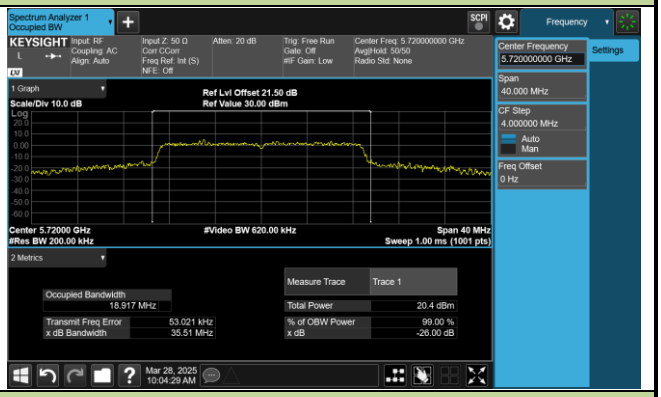
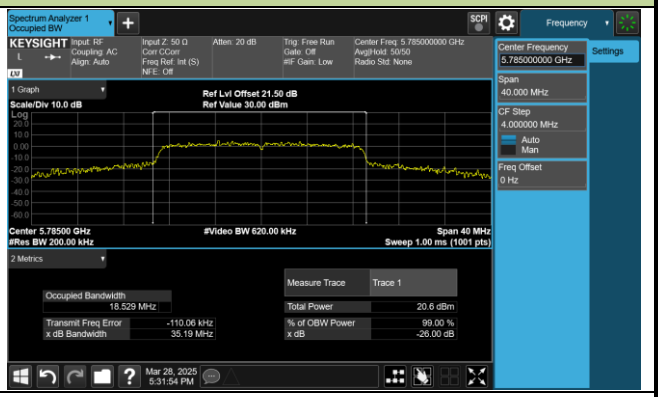
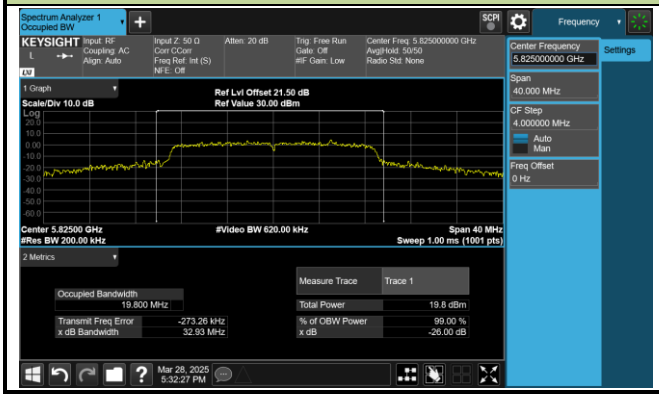
Channel 64 (5320MHz)



Channel 100 (5500MHz)



Channel 116 (5580MHz)

Channel 140 (5700MHz)	Channel 144 (5720MHz)
	
Channel 149 (5745MHz)	**Channel 157 (5785MHz)**
	
Channel 165 (5825MHz)	
	

Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant 1					
802.11a	6Mbps	36	5180	19.170	16.516
802.11a	6Mbps	40	5200	34.690	19.128
802.11a	6Mbps	48	5240	33.220	18.522
802.11a	6Mbps	52	5260	34.370	19.598
802.11a	6Mbps	60	5300	33.150	19.592
802.11a	6Mbps	64	5320	20.860	16.536
802.11a	6Mbps	100	5500	30.160	16.570
802.11a	6Mbps	116	5580	34.100	19.599
802.11a	6Mbps	140	5700	18.830	16.478
802.11a	6Mbps	144	5720	33.100	18.462
802.11a	6Mbps	149	5745	34.950	19.413
802.11a	6Mbps	157	5785	34.720	19.481
802.11a	6Mbps	165	5825	33.600	19.979
802.11n-HT20	MCS0	36	5180	19.220	17.461
802.11n-HT20	MCS0	40	5200	36.300	19.481
802.11n-HT20	MCS0	48	5240	32.690	18.039
802.11n-HT20	MCS0	52	5260	35.960	19.388
802.11n-HT20	MCS0	60	5300	32.720	18.844
802.11n-HT20	MCS0	64	5320	25.450	17.541
802.11n-HT20	MCS0	100	5500	29.120	17.626
802.11n-HT20	MCS0	116	5580	37.450	19.552
802.11n-HT20	MCS0	140	5700	19.080	17.434
802.11n-HT20	MCS0	144	5720	33.060	18.646
802.11n-HT20	MCS0	149	5745	34.160	18.483
802.11n-HT20	MCS0	157	5785	36.040	18.376
802.11n-HT20	MCS0	165	5825	36.310	19.832

802.11a 26dB Bandwidth & 99% Bandwidth

Channel 36 (5180MHz)

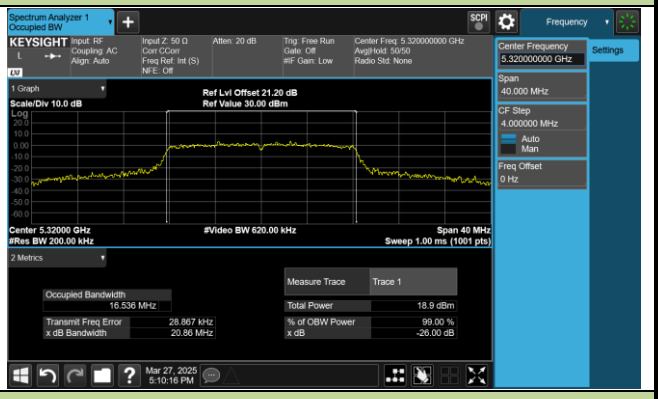
Channel 40 (5200MHz)

Channel 48 (5240MHz)

Channel 52 (5260MHz)

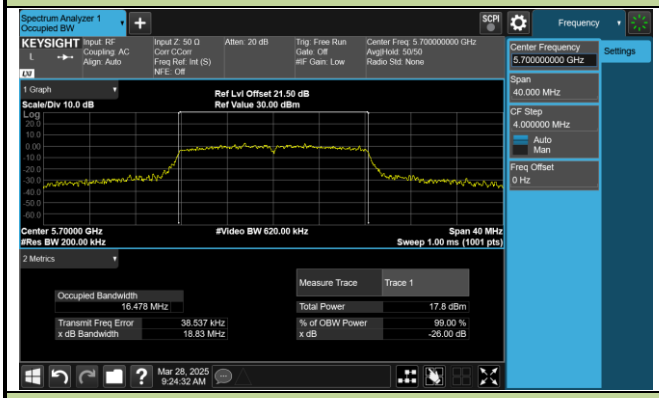
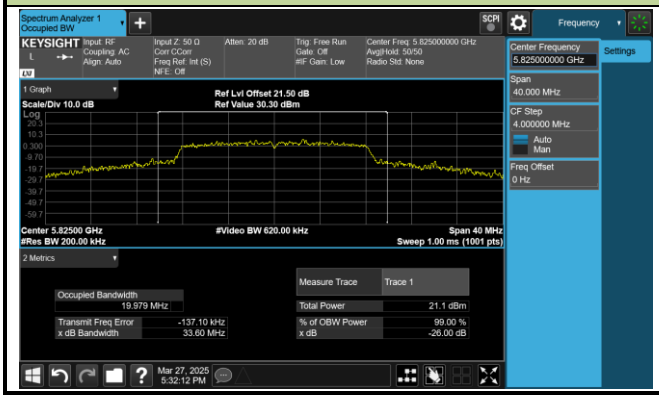
Channel 60 (5300MHz)

Channel 64 (5320MHz)



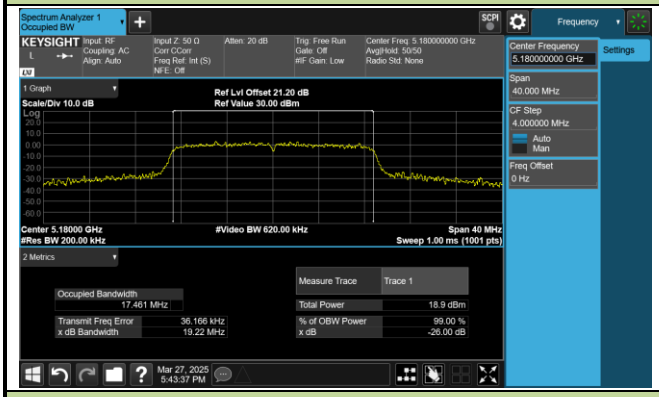
Channel 100 (5500MHz)

Channel 116 (5580MHz)

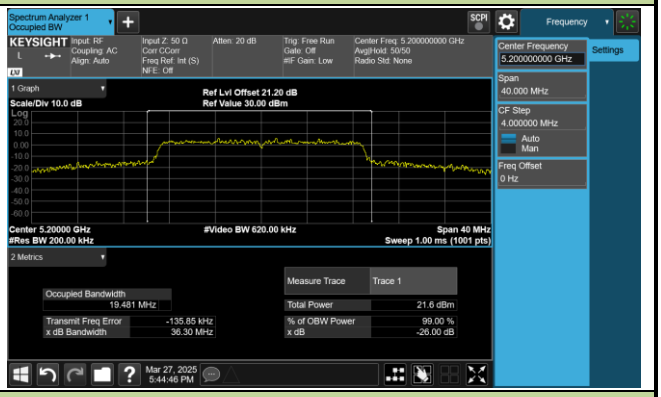
Channel 140 (5700MHz)	Channel 144 (5720MHz)
	
Channel 149 (5745MHz)	**Channel 157 (5785MHz)**
	
Channel 165 (5825MHz)	
	

802.11n-HT20 26dB Bandwidth & 99% Bandwidth

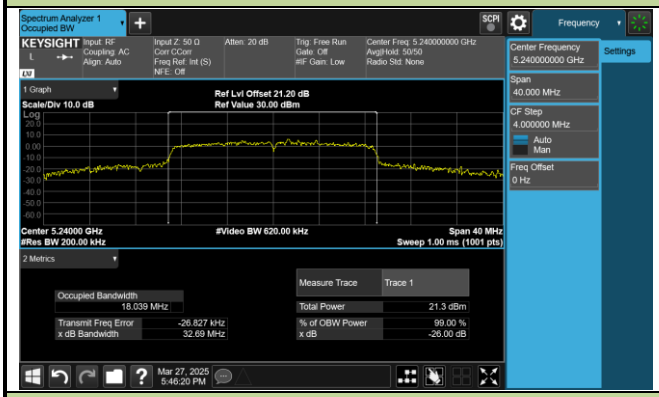
Channel 36 (5180MHz)



Channel 40 (5200MHz)



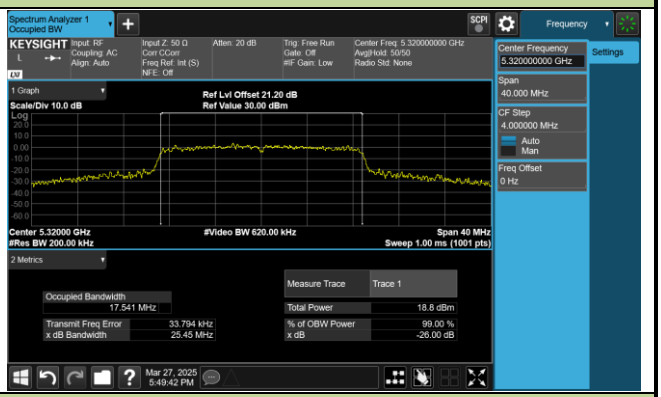
Channel 48 (5240MHz)



Channel 52 (5260MHz)

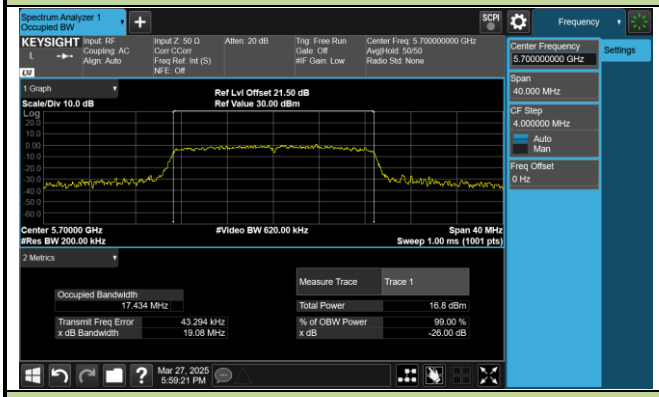
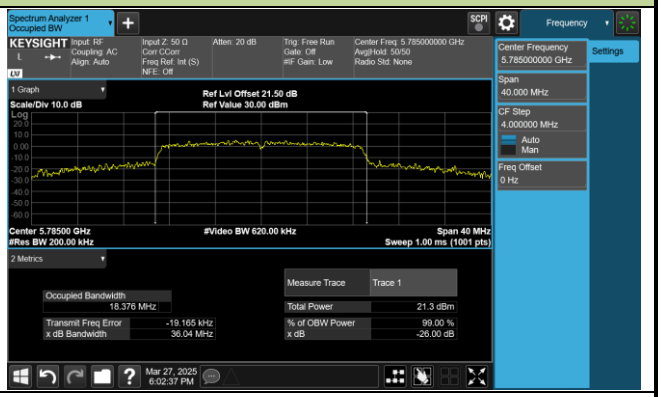
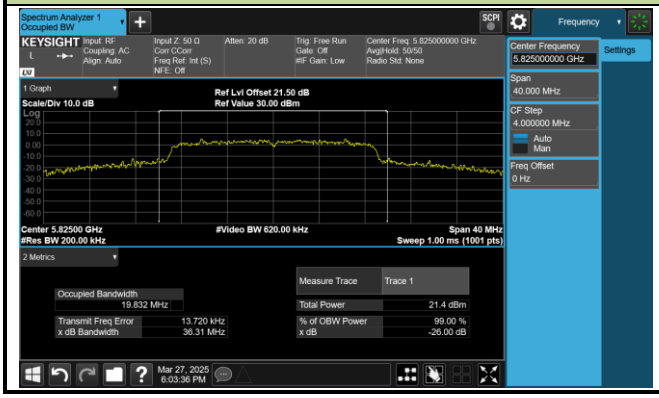
Channel 60 (5300MHz)

Channel 64 (5320MHz)



Channel 100 (5500MHz)

Channel 116 (5580MHz)

Channel 140 (5700MHz)	Channel 144 (5720MHz)
	
Channel 149 (5745MHz)	**Channel 157 (5785MHz)**
	
Channel 165 (5825MHz)	
	

7.3. 6dB Bandwidth Measurement

7.3.1. Test Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

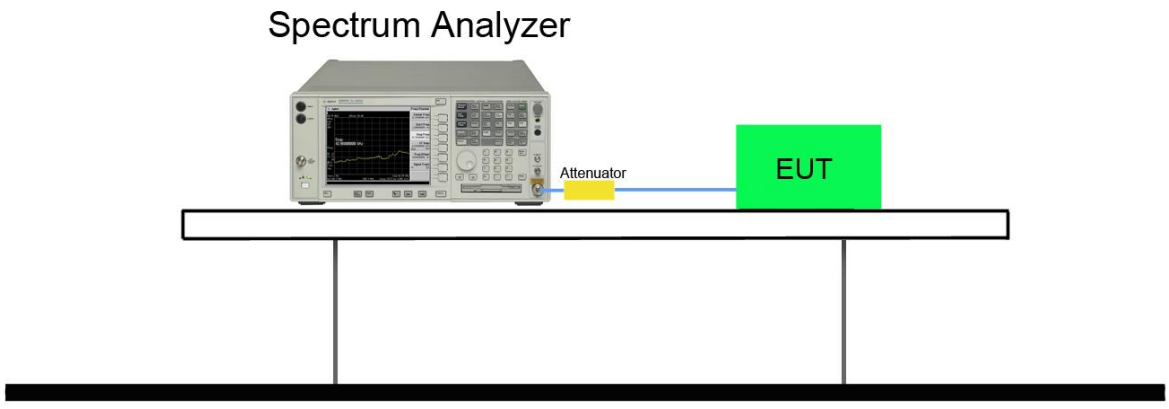
7.3.2. Test Procedure used

KDB 789033 D02v02r01 - Section C.2

7.3.3. Test Setting

1. Set center frequency to the nominal EUT channel center frequency.
2. RBW = 100 kHz.
3. VBW ≧ 3 × RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

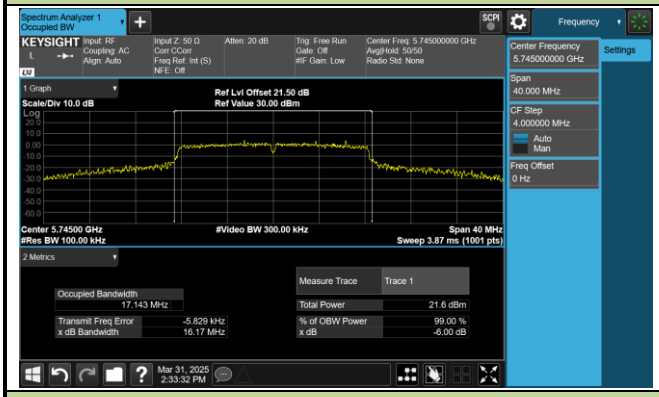
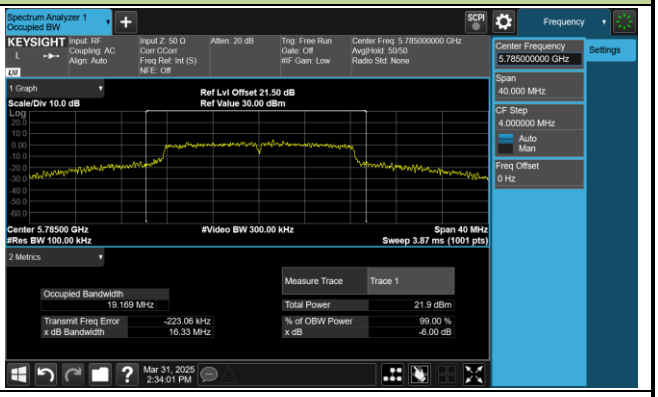
7.3.4. Test Setup

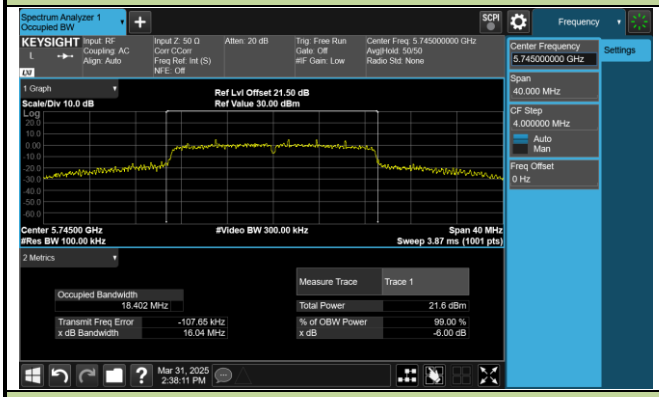
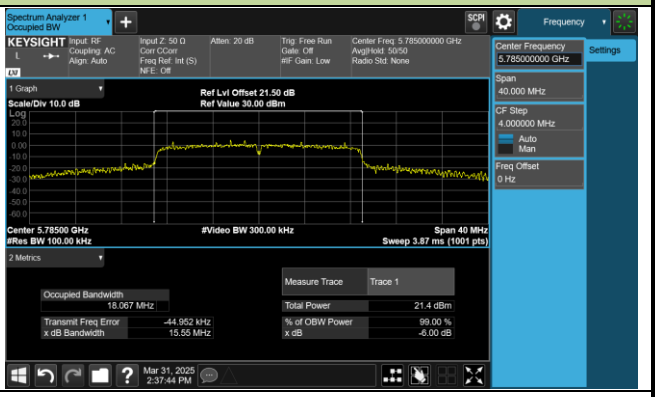
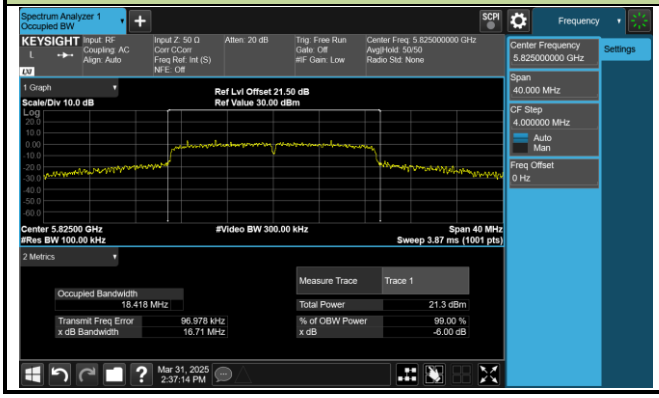


7.3.5. Test Result

Product	Pan/Tilt AI Home Security Wi-Fi Camera	Test Engineer	Jung
Test Site	SR6	Test Date	2025/3/28~2025/3/31
Test Item	6dB Bandwidth		

Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 0						
802.11a	6Mbps	149	5745	16.170	≥ 0.5	Pass
802.11a	6Mbps	157	5785	16.330	≥ 0.5	Pass
802.11a	6Mbps	165	5825	16.350	≥ 0.5	Pass
802.11n-HT20	MCS0	149	5745	16.040	≥ 0.5	Pass
802.11n-HT20	MCS0	157	5785	15.550	≥ 0.5	Pass
802.11n-HT20	MCS0	165	5825	16.710	≥ 0.5	Pass

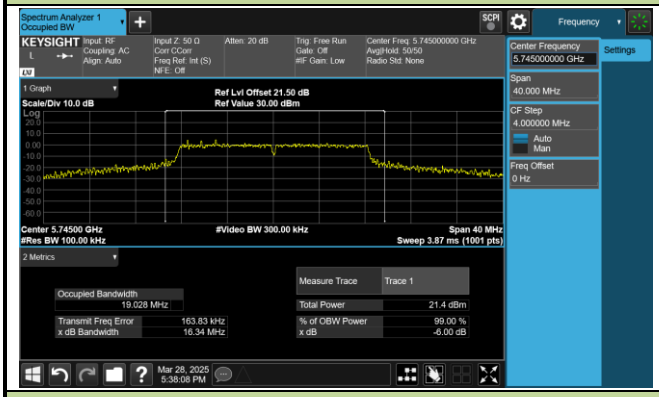
802.11a 6dB Bandwidth	
Channel 149 (5745MHz)	Channel 157 (5785MHz)
	
Channel 165 (5825MHz)	
	

802.11n-HT20 6dB Bandwidth	
Channel 149 (5745MHz)	Channel 157 (5785MHz)
	
Channel 165 (5825MHz)	
	

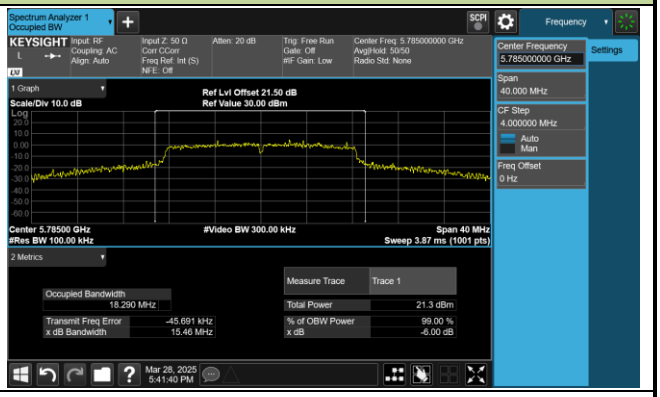
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 1						
802.11a	6Mbps	149	5745	16.340	≥ 0.5	Pass
802.11a	6Mbps	157	5785	15.460	≥ 0.5	Pass
802.11a	6Mbps	165	5825	16.350	≥ 0.5	Pass
802.11n-HT20	MCS0	149	5745	16.940	≥ 0.5	Pass
802.11n-HT20	MCS0	157	5785	13.800	≥ 0.5	Pass
802.11n-HT20	MCS0	165	5825	12.300	≥ 0.5	Pass

802.11a 6dB Bandwidth

Channel 149 (5745MHz)



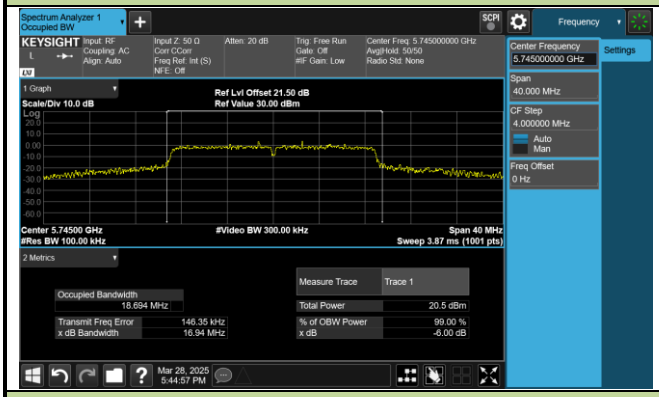
Channel 157 (5785MHz)



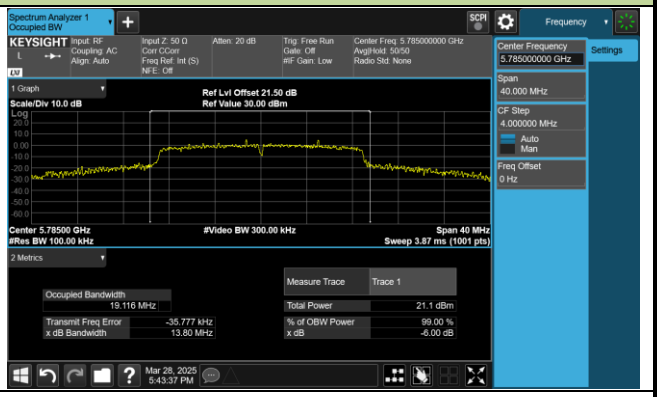
Channel 165 (5825MHz)

802.11n-HT20 6dB Bandwidth

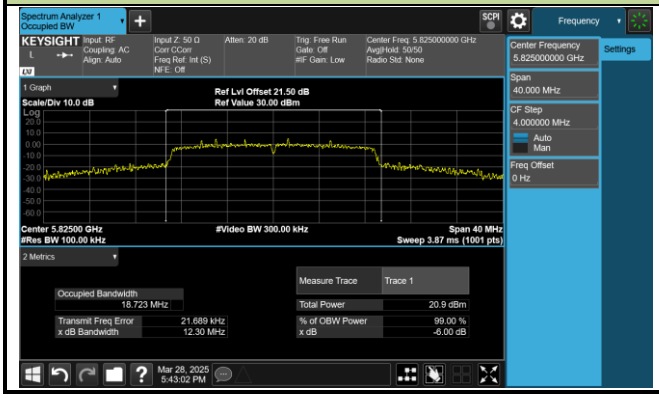
Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)



7.4. Output Power Measurement

7.4.1. Test Limit

For the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi.
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.
For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm).
If transmitting antennas of directional gain greater than 6dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

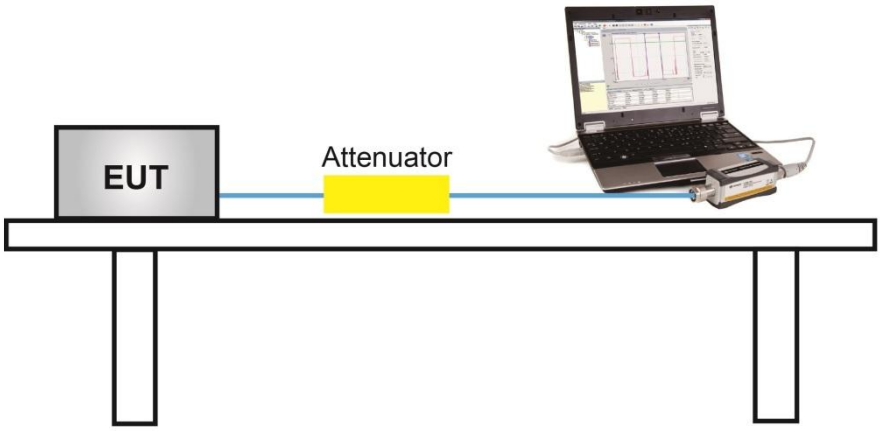
7.4.2. Test Procedure Used

KDB 789033 D02v02r01 - Section E) 3) b) Method PM-G

7.4.3. Test Setting

Average power measurements were perform only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

7.4.4. Test Setup



7.4.5. Test Result

Product	Pan/Tilt AI Home Security Wi-Fi Camera	Test Engineer	Jung
Test Site	SR6	Test Date	2025/3/27~2025/3/31
Test Item	CDD Mode		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Average Power Limit (dBm)	Result
11a	6Mbps	36	5180	16.76	≤ 30.00	Pass
11a	6Mbps	40	5200	17.32	≤ 30.00	Pass
11a	6Mbps	48	5240	18.11	≤ 30.00	Pass
11a	6Mbps	52	5260	16.92	≤ 23.98	Pass
11a	6Mbps	60	5300	15.44	≤ 23.98	Pass
11a	6Mbps	64	5320	13.45	≤ 23.98	Pass
11a	6Mbps	100	5500	14.04	≤ 23.98	Pass
11a	6Mbps	116	5580	14.21	≤ 23.98	Pass
11a	6Mbps	140	5700	11.05	≤ 23.98	Pass
11a	6Mbps	144	5720	14.65	≤ 23.98	Pass
11a	6Mbps	149	5745	15.25	≤ 30.00	Pass
11a	6Mbps	157	5785	15.66	≤ 30.00	Pass
11a	6Mbps	165	5825	15.39	≤ 30.00	Pass
11n-HT20	MCS0	36	5180	15.84	≤ 30.00	Pass
11n-HT20	MCS0	40	5200	17.10	≤ 30.00	Pass
11n-HT20	MCS0	48	5240	16.85	≤ 30.00	Pass
11n-HT20	MCS0	52	5260	16.48	≤ 23.98	Pass
11n-HT20	MCS0	60	5300	16.31	≤ 23.98	Pass
11n-HT20	MCS0	64	5320	14.34	≤ 23.98	Pass
11n-HT20	MCS0	100	5500	14.52	≤ 23.98	Pass
11n-HT20	MCS0	116	5580	15.21	≤ 23.98	Pass
11n-HT20	MCS0	140	5700	11.49	≤ 23.98	Pass
11n-HT20	MCS0	144	5720	14.43	≤ 23.98	Pass
11n-HT20	MCS0	149	5745	15.79	≤ 30.00	Pass
11n-HT20	MCS0	157	5785	15.67	≤ 30.00	Pass
11n-HT20	MCS0	165	5825	15.73	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 1 Average Power (dBm)	Average Power Limit (dBm)	Result
11a	6Mbps	36	5180	14.11	≤ 30.00	Pass
11a	6Mbps	40	5200	15.74	≤ 30.00	Pass
11a	6Mbps	48	5240	15.31	≤ 30.00	Pass
11a	6Mbps	52	5260	15.31	≤ 23.98	Pass
11a	6Mbps	60	5300	15.23	≤ 23.98	Pass
11a	6Mbps	64	5320	13.64	≤ 23.98	Pass
11a	6Mbps	100	5500	15.43	≤ 23.98	Pass
11a	6Mbps	116	5580	14.82	≤ 23.98	Pass
11a	6Mbps	140	5700	13.48	≤ 23.98	Pass
11a	6Mbps	144	5720	15.08	≤ 23.98	Pass
11a	6Mbps	149	5745	16.47	≤ 30.00	Pass
11a	6Mbps	157	5785	17.15	≤ 30.00	Pass
11a	6Mbps	165	5825	16.22	≤ 30.00	Pass
11n-HT20	MCS0	36	5180	14.36	≤ 30.00	Pass
11n-HT20	MCS0	40	5200	15.46	≤ 30.00	Pass
11n-HT20	MCS0	48	5240	15.36	≤ 30.00	Pass
11n-HT20	MCS0	52	5260	15.74	≤ 23.98	Pass
11n-HT20	MCS0	60	5300	15.37	≤ 23.98	Pass
11n-HT20	MCS0	64	5320	13.57	≤ 23.98	Pass
11n-HT20	MCS0	100	5500	15.17	≤ 23.98	Pass
11n-HT20	MCS0	116	5580	14.22	≤ 23.98	Pass
11n-HT20	MCS0	140	5700	12.68	≤ 23.98	Pass
11n-HT20	MCS0	144	5720	15.50	≤ 23.98	Pass
11n-HT20	MCS0	149	5745	17.25	≤ 30.00	Pass
11n-HT20	MCS0	157	5785	17.41	≤ 30.00	Pass
11n-HT20	MCS0	165	5825	17.18	≤ 30.00	Pass

7.5. Transmit Power Control

7.5.1. Test Limit

The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm.

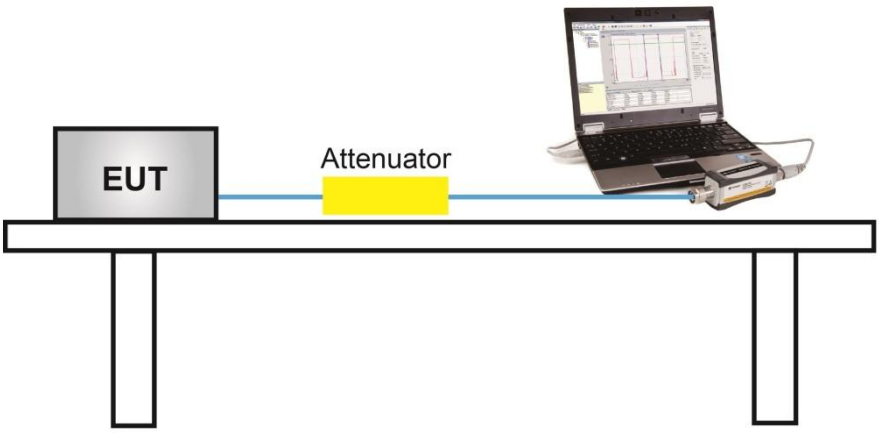
7.5.2. Test Procedure Used

KDB 789033 D02v02r01- Section E)3)b) Method PM-G

7.5.3. Test Setting

Average power measurements were perform only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

7.5.4. Test Setup



7.5.5. Test Result

A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW

7.6. Power Spectral Density Measurement

7.6.1. Test Limit

For the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

If transmitting antennas of directional gain greater than 6dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

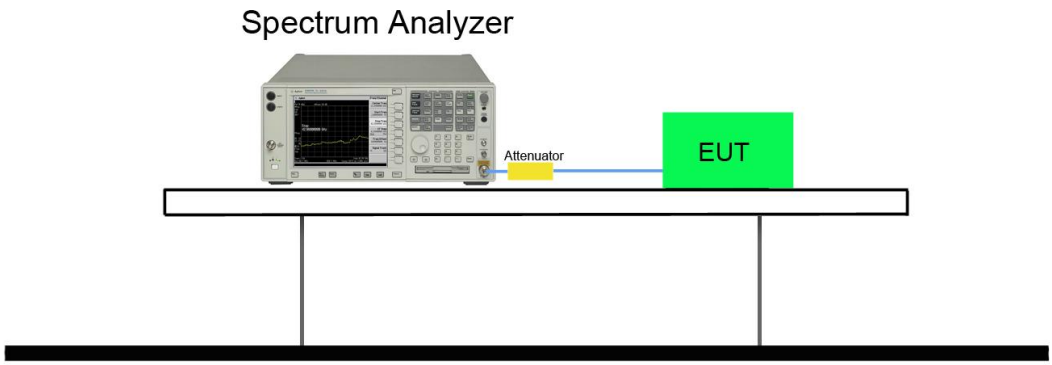
7.6.2. Test Procedure Used

KDB 789033 D02v02r01 - Section F

7.6.3. Test Setting

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz, if measurement bandwidth of Maximum PSD is specified in 500 kHz,
4. RBW = 510 kHz
5. VBW = 3MHz
6. Number of sweep points ≥ 2 × (span / RBW)
7. Detector = power averaging (Average)
8. Sweep time = auto
9. Trigger = free run
10. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
11. Add 10*log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add 10*log(1/0.25) = 6 dB if the duty cycle is 25 percent.

7.6.4. Test Setup



7.6.5. Test Result

Product	Pan/Tilt AI Home Security Wi-Fi Camera	Test Engineer	Jung
Test Site	SR6	Test Date	2025/3/27~2025/3/31
Test Item	Power Spectral Density (U-NII- 1/-2a / -2c) CDD Mode		

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/MHz)	Duty Cycle (%)	Ant 0 Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)	Result
11a	6Mbps	36	5180	4.371	88.73%	4.890	≤ 11.00	Pass
11a	6Mbps	40	5200	5.391	88.73%	5.910	≤ 11.00	Pass
11a	6Mbps	48	5240	5.875	88.73%	6.394	≤ 11.00	Pass
11a	6Mbps	52	5260	5.537	88.73%	6.056	≤ 11.00	Pass
11a	6Mbps	60	5300	4.521	88.73%	5.040	≤ 11.00	Pass
11a	6Mbps	64	5320	2.174	88.73%	2.693	≤ 11.00	Pass
11a	6Mbps	100	5500	2.952	88.73%	3.471	≤ 11.00	Pass
11a	6Mbps	116	5580	3.527	88.73%	4.046	≤ 11.00	Pass
11a	6Mbps	140	5700	0.263	88.73%	0.782	≤ 11.00	Pass
11a	6Mbps	144	5720	3.844	88.73%	4.363	≤ 11.00	Pass
11n-HT20	MCS0	36	5180	3.544	89.95%	4.004	≤ 11.00	Pass
11n-HT20	MCS0	40	5200	5.331	89.95%	5.791	≤ 11.00	Pass
11n-HT20	MCS0	48	5240	5.349	89.95%	5.809	≤ 11.00	Pass
11n-HT20	MCS0	52	5260	4.864	89.95%	5.324	≤ 11.00	Pass
11n-HT20	MCS0	60	5300	4.724	89.95%	5.184	≤ 11.00	Pass
11n-HT20	MCS0	64	5320	1.921	89.95%	2.381	≤ 11.00	Pass
11n-HT20	MCS0	100	5500	1.959	89.95%	2.419	≤ 11.00	Pass
11n-HT20	MCS0	116	5580	3.524	89.95%	3.984	≤ 11.00	Pass
11n-HT20	MCS0	140	5700	-0.189	89.95%	0.271	≤ 11.00	Pass
11n-HT20	MCS0	144	5720	2.816	89.95%	3.276	≤ 11.00	Pass

Note 1: the total PSD (dBm/MHz) = 10*log {$10^{(\text{Ant 0 PSD}/10)}$} + 10*log (1/Duty Cycle)(dBm/MHz).

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	Ant 1 PSD (dBm/MHz)	Duty Cycle (%)	Ant1 Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)	Result
11a	6Mbps	36	5180	2.484	88.73%	3.003	≤ 11.00	Pass
11a	6Mbps	40	5200	4.215	88.73%	4.734	≤ 11.00	Pass
11a	6Mbps	48	5240	4.917	88.73%	5.436	≤ 11.00	Pass
11a	6Mbps	52	5260	5.082	88.73%	5.601	≤ 11.00	Pass
11a	6Mbps	60	5300	4.541	88.73%	5.060	≤ 11.00	Pass
11a	6Mbps	64	5320	2.424	88.73%	2.943	≤ 11.00	Pass
11a	6Mbps	100	5500	3.239	88.73%	3.758	≤ 11.00	Pass
11a	6Mbps	116	5580	3.752	88.73%	4.271	≤ 11.00	Pass
11a	6Mbps	140	5700	1.408	88.73%	1.927	≤ 11.00	Pass
11a	6Mbps	144	5720	4.201	88.73%	4.720	≤ 11.00	Pass
11n-HT20	MCS0	36	5180	1.896	89.95%	2.356	≤ 11.00	Pass
11n-HT20	MCS0	40	5200	3.942	89.95%	4.402	≤ 11.00	Pass
11n-HT20	MCS0	48	5240	4.587	89.95%	5.047	≤ 11.00	Pass
11n-HT20	MCS0	52	5260	4.472	89.95%	4.932	≤ 11.00	Pass
11n-HT20	MCS0	60	5300	3.989	89.95%	4.449	≤ 11.00	Pass
11n-HT20	MCS0	64	5320	2.470	89.95%	2.930	≤ 11.00	Pass
11n-HT20	MCS0	100	5500	3.266	89.95%	3.726	≤ 11.00	Pass
11n-HT20	MCS0	116	5580	3.047	89.95%	3.507	≤ 11.00	Pass
11n-HT20	MCS0	140	5700	0.328	89.95%	0.788	≤ 11.00	Pass
11n-HT20	MCS0	144	5720	3.925	89.95%	4.385	≤ 11.00	Pass

Note 1:

the total PSD (dBm/MHz) = 10*log {$10^{(\text{Ant 1 PSD}/10)}$} + 10*log (1/Duty Cycle)(dBm/MHz).

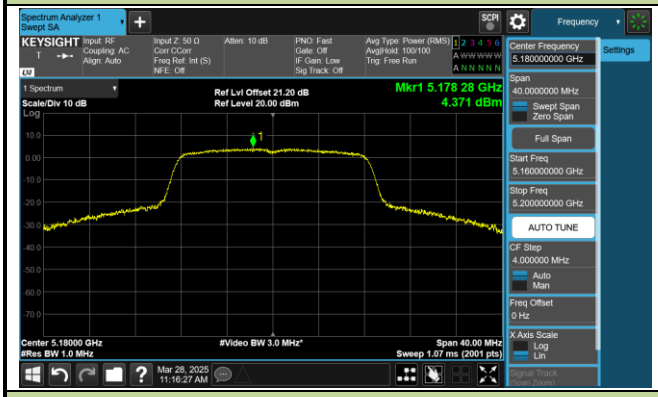
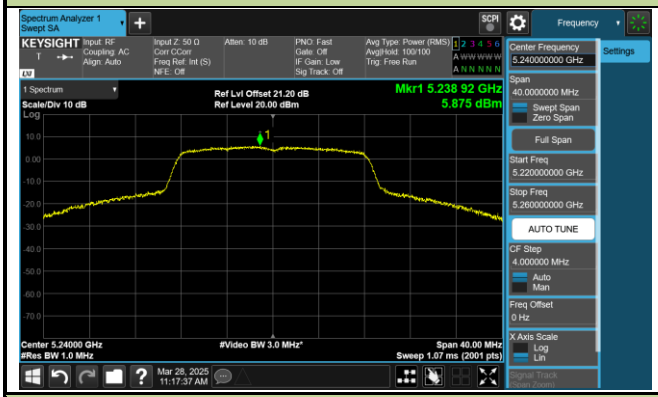
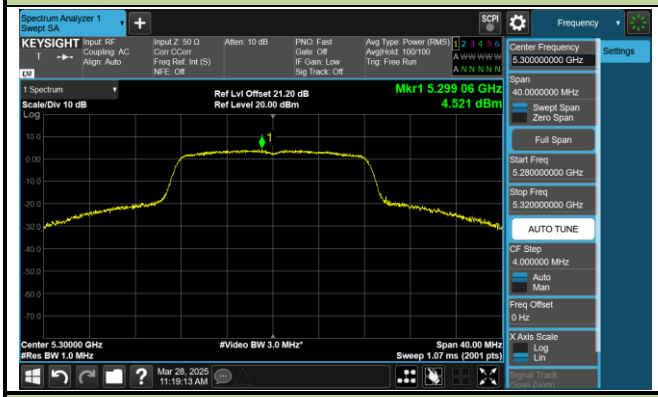
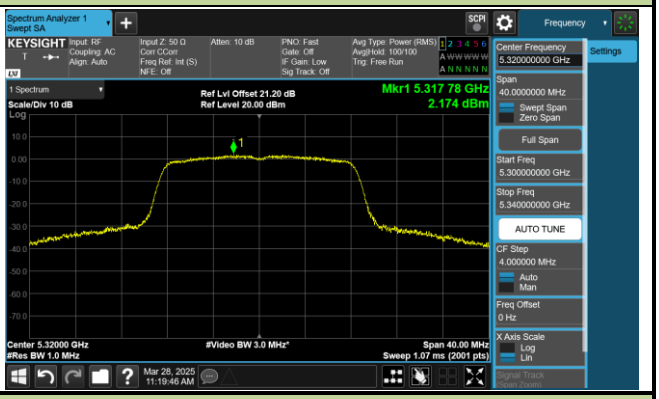
Product	Pan/Tilt AI Home Security Wi-Fi Camera	Test Engineer	Jung
Test Site	SR6	Test Date	2025/3/27~2025/3/31
Test Item	Power Spectral Density (U-NII-3) CDD Mode		

Test Mode	Data Rate/ MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/510KHz)	Duty Cycle (%)	Ant 0 Total PSD (dBm/ 510KHz)	Limit (dBm/ 500kHz)	Result
11a	6Mbps	149	5745	1.706	88.73%	2.225	≤ 30.00	Pass
11a	6Mbps	157	5785	2.324	88.73%	2.843	≤ 30.00	Pass
11a	6Mbps	165	5825	1.700	88.73%	2.219	≤ 30.00	Pass
11n-HT20	MCS0	149	5745	1.791	89.95%	2.251	≤ 30.00	Pass
11n-HT20	MCS0	157	5785	1.681	89.95%	2.141	≤ 30.00	Pass
11n-HT20	MCS0	165	5825	1.641	89.95%	2.101	≤ 30.00	Pass

Note 1: The total PSD (dBm/510kHz) = 10*log {$10^{(\text{Ant 0 PSD}/10)}$} (dBm/510kHz) + 10*log (1/Duty Cycle).

Test Mode	Data Rate/ MCS	Ch. No.	Freq. (MHz)	Ant 1 PSD (dBm/510KHz)	Duty Cycle (%)	Ant1 Total PSD (dBm/ 510KHz)	Limit (dBm/ 500kHz)	Result
11a	6Mbps	149	5745	1.380	88.73%	1.899	≤ 30.00	Pass
11a	6Mbps	157	5785	2.365	88.73%	2.884	≤ 30.00	Pass
11a	6Mbps	165	5825	2.053	88.73%	2.572	≤ 30.00	Pass
11n-HT20	MCS0	149	5745	1.808	89.95%	2.268	≤ 30.00	Pass
11n-HT20	MCS0	157	5785	1.891	89.95%	2.351	≤ 30.00	Pass
11n-HT20	MCS0	165	5825	2.227	89.95%	2.687	≤ 30.00	Pass

Note 1: The total PSD (dBm/510kHz) = 10*log {$10^{(\text{Ant 1 PSD}/10)}$} (dBm/510kHz) + 10*log (1/Duty Cycle).

802.11a Power Spectral Density - Ant 0	
Channel 36 (5180MHz)	Channel 40 (5200MHz)
	
Channel 48 (5240MHz)	Channel 52 (5260MHz)
	
Channel 60 (5300MHz)	Channel 64 (5320MHz)
	
Channel 100 (5500MHz)	Channel 116 (5580MHz)