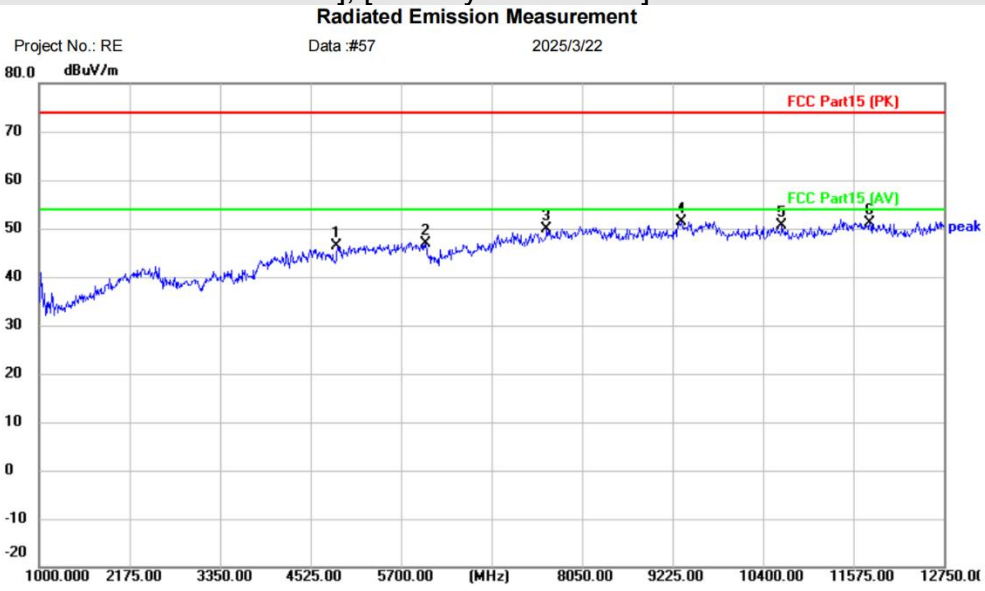
[Test mode: 802.11b TX middle channel]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT: Smart Camera
M/N: W10Z-U
Mode: 11B-2437
Note:

Polarization: ***Horizontal***
Power:

Temperature: (C)
Humidity: %RH

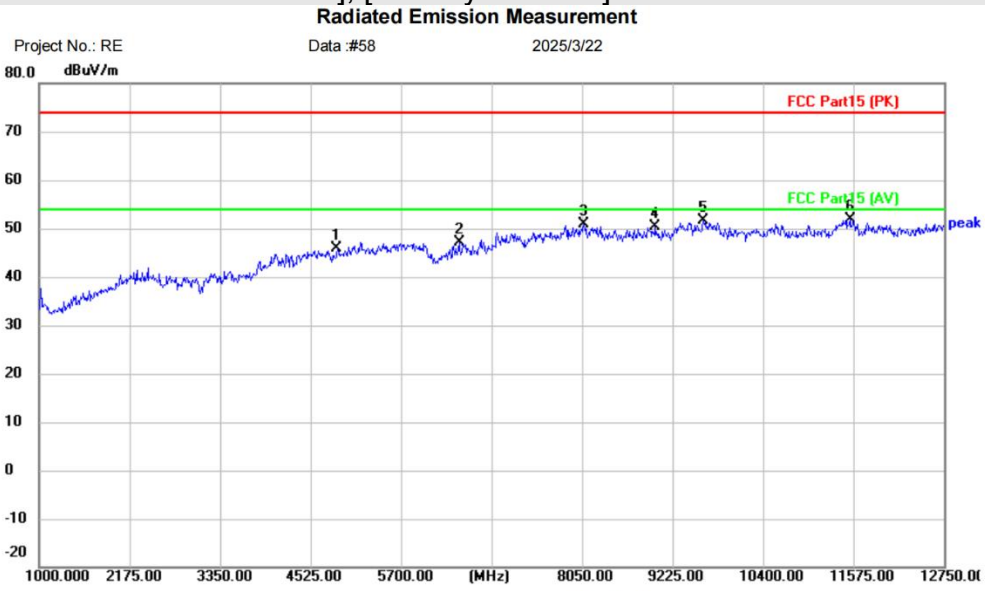
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4874.000	40.06	6.39	46.45	74.00	-27.55	peak	
2		6017.250	40.81	5.96	46.77	74.00	-27.23	peak	
3		7591.750	39.13	10.66	49.79	74.00	-24.21	peak	
4	*	9342.500	38.00	13.35	51.35	74.00	-22.65	peak	
5		10646.75	37.40	13.24	50.64	74.00	-23.36	peak	
6		11786.50	37.78	13.47	51.25	74.00	-22.75	peak	

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

Test Result: Pass

[Test mode: 802.11b TX middle channel]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT: Smart Camera
M/N: W10Z-U
Mode: 11B-2437
Note:

Polarization: *Vertical*
Power:

Temperature: (C)
Humidity: %RH

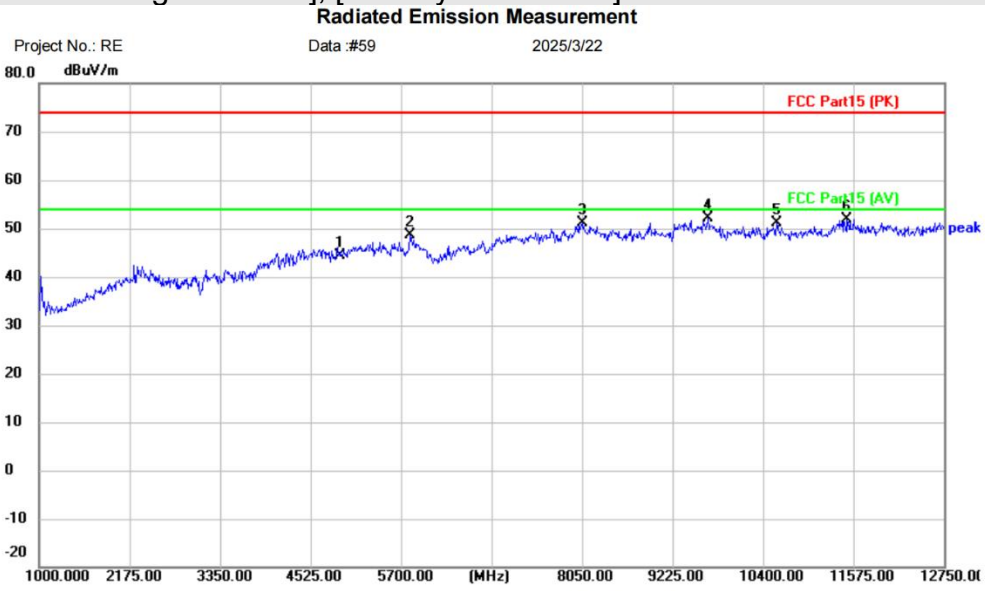
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4874.000	39.49	6.39	45.88	74.00	-28.12	peak	
2		6452.000	38.98	8.05	47.03	74.00	-26.97	peak	
3		8073.500	39.14	11.75	50.89	74.00	-23.11	peak	
4		9001.750	38.20	12.27	50.47	74.00	-23.53	peak	
5		9624.500	38.35	13.21	51.56	74.00	-22.44	peak	
6	*	11528.00	37.06	14.83	51.89	74.00	-22.11	peak	

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

Test Result: Pass

[Test mode: 802.11b TX High channel]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT: Smart Camera
M/N: W10Z-U
Mode: 11B-2462
Note:

Polarization: *Horizontal*
Power:

Temperature: (C)
Humidity: %RH

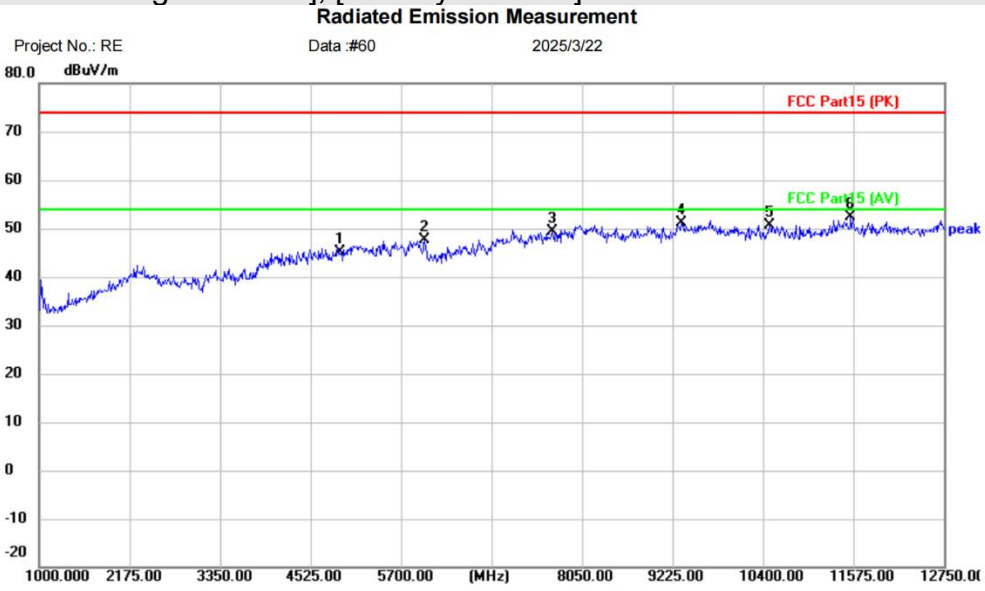
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4924.000	37.47	6.89	44.36	74.00	-29.64	peak	
2		5817.500	39.70	8.97	48.67	74.00	-25.33	peak	
3		8050.000	39.47	11.70	51.17	74.00	-22.83	peak	
4	*	9683.250	38.50	13.52	52.02	74.00	-21.98	peak	
5		10576.25	37.39	13.63	51.02	74.00	-22.98	peak	
6		11492.75	37.01	14.82	51.83	74.00	-22.17	peak	

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

Test Result: Pass

[Test mode: 802.11b TX High channel]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT: Smart Camera
M/N: W10Z-U
Mode: 11B-2462
Note:

Polarization: *Vertical*
Power:

Temperature: (C)
Humidity: %RH

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4924.000	38.27	6.89	45.16	74.00	-28.84	peak	
2		6005.500	41.82	5.84	47.66	74.00	-26.34	peak	
3		7662.250	38.95	10.47	49.42	74.00	-24.58	peak	
4		9342.500	37.74	13.35	51.09	74.00	-22.91	peak	
5		10482.25	37.04	13.71	50.75	74.00	-23.25	peak	
6	*	11539.75	37.51	14.83	52.34	74.00	-21.66	peak	

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

Test Result: Pass

6.9 Radiated emissions which fall in the restricted bands

Test Standard	47 CFR Part 15, Subpart C 15.247(d)
Test Method	ANSI C63.10 (2013) Section 6.12
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX

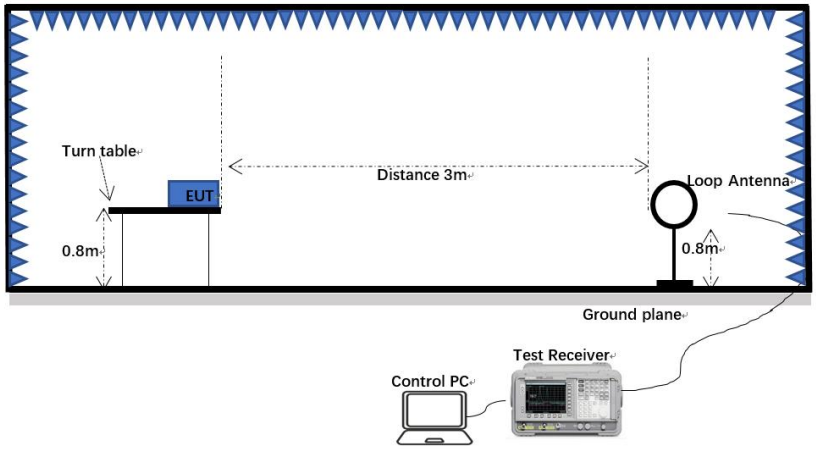
6.9.1 Limit

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

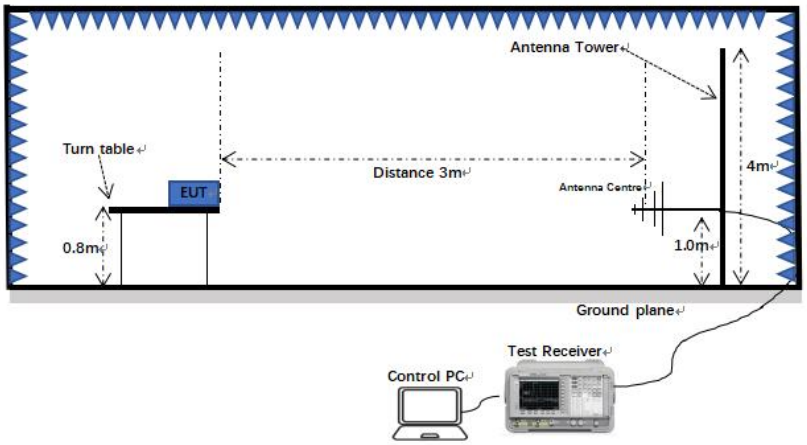
Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

6.9.2 Test setup

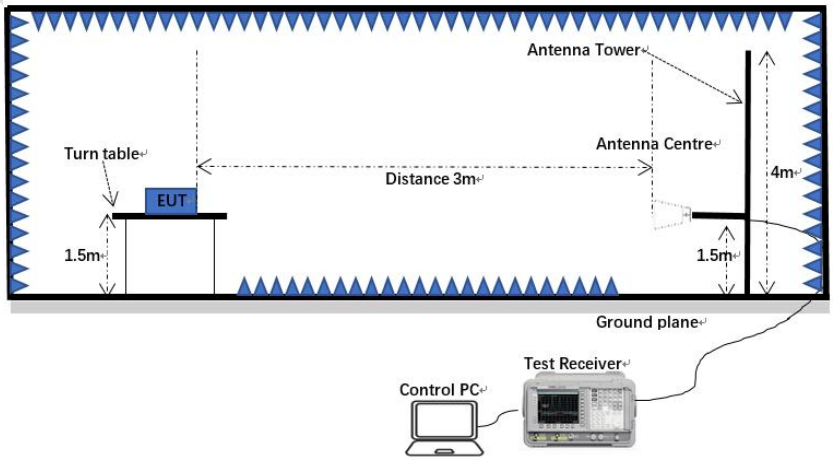
Below 1GHz：



30MHz-1GHz：



Above 1GHz：



6.9.3 Procedure

a) For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b) For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

c) The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

d) The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

e) For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

f) The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

g) If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

h) Test the EUT in the lowest channel, the middle channel, the highest channel.

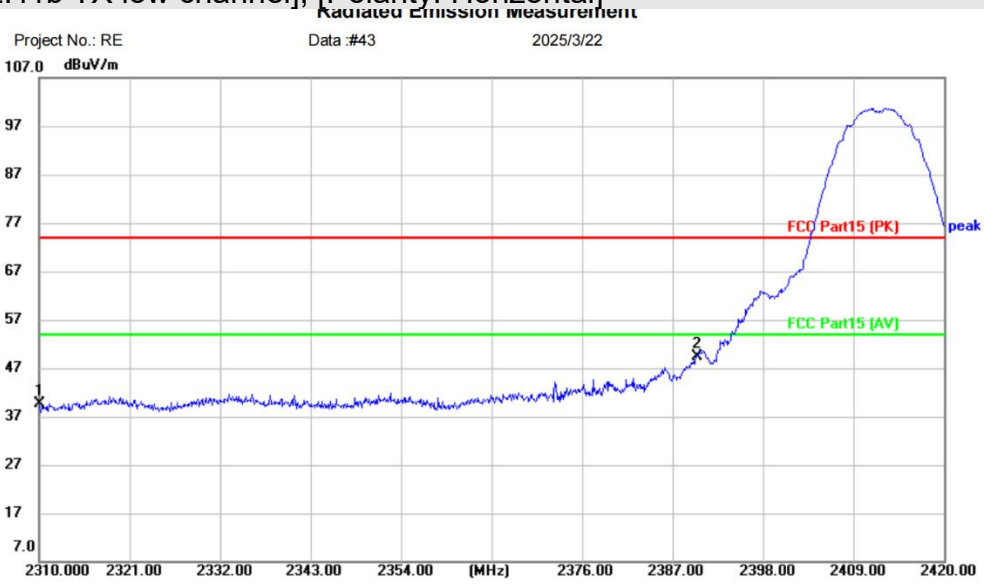
i) The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

j) Repeat above procedures until all frequencies measured was complete.

Note 1: Level (dBuV) = Reading (dBuV) + Factor (dB/m)
Note 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

6.9.4 Test data

[Test mode: 802.11b TX low channel]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT: Smart Camera
M/N: W10Z-U
Mode: 11B-2412
Note:

Polarization: *Horizontal*
Power:

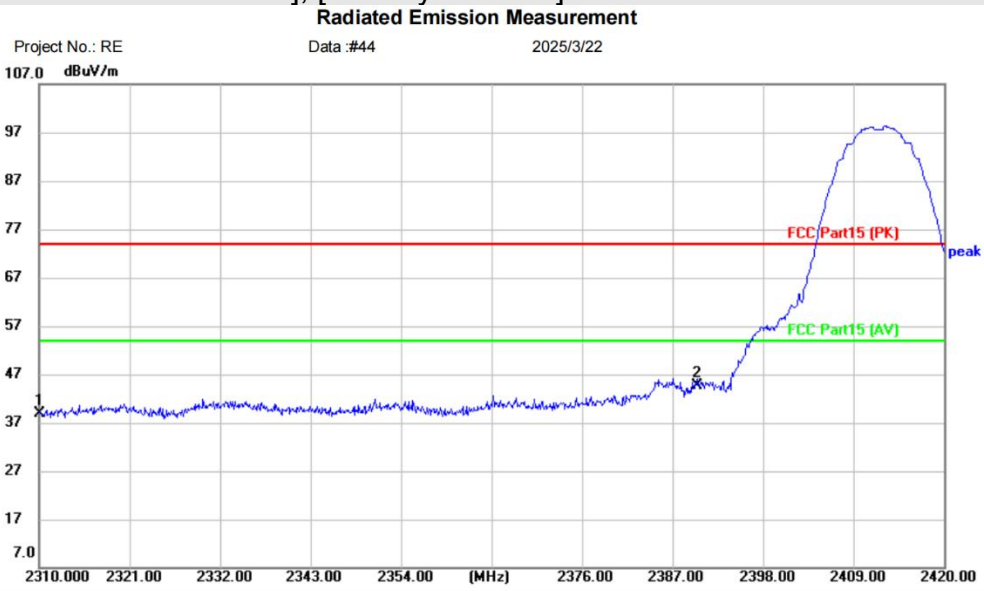
Temperature: (C)
Humidity: %RH

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2310.000	42.58	-2.87	39.71	74.00	-34.29	peak	
2	*	2390.000	51.93	-2.44	49.49	74.00	-24.51	peak	

*:Maximum data x:Over limit !:over margin 〈Reference Only
Receiver: ESR_1 Spectrum Analyzer: FSP40

Test Result: Pass

[Test mode: 802.11b TX low channel]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT: Smart Camera
M/N: W10Z-U
Mode: 11B-2412
Note:

Polarization: *Vertical*
Power:

Temperature: (C)
Humidity: %RH

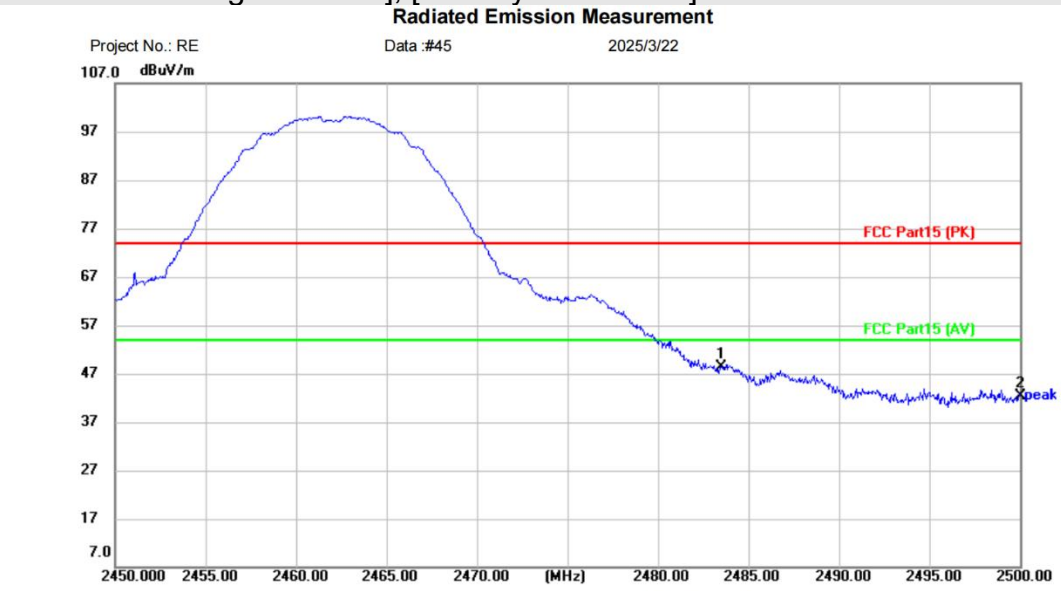
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2310.000	41.82	-2.87	38.95	74.00	-35.05	peak	
2	*	2390.000	47.01	-2.44	44.57	74.00	-29.43	peak	

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

Test Result: Pass

[Test mode: 802.11b TX High channel]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT: Smart Camera
M/N: W10Z-U
Mode: 11B-2462
Note:

Polarization: ***Horizontal***
Power:

Temperature: (C)
Humidity: %RH

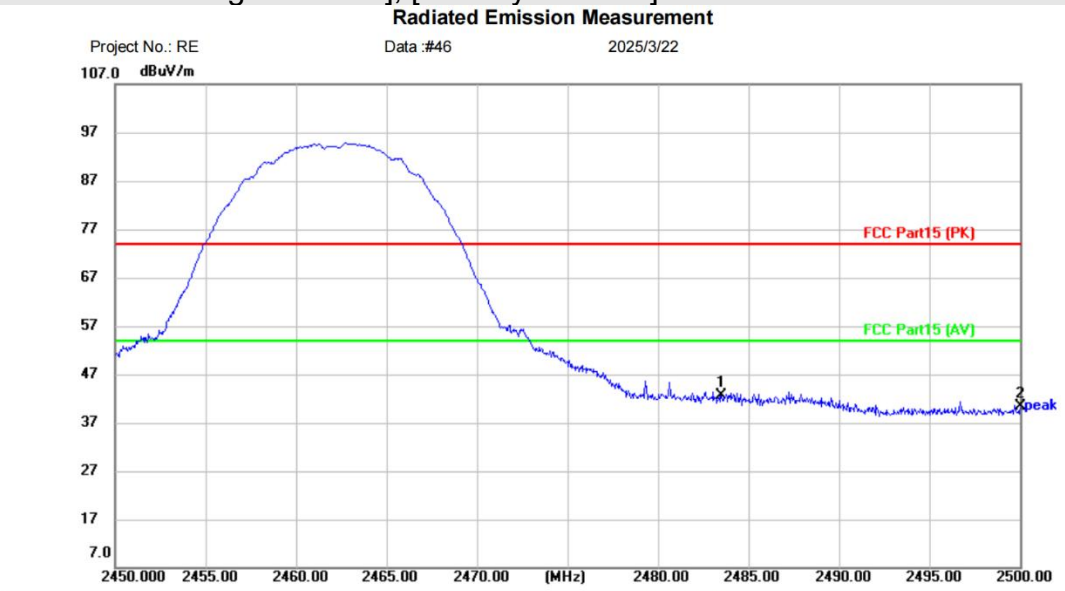
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2483.500	51.24	-2.91	48.33	74.00	-25.67	peak	
2		2500.000	45.37	-3.00	42.37	74.00	-31.63	peak	

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

Test Result: Pass

[Test mode: 802.11b TX High channel]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT: Smart Camera
M/N: W10Z-U
Mode: 11B-2462
Note:

Polarization: *Vertical*
Power:

Temperature: (C)
Humidity: %RH

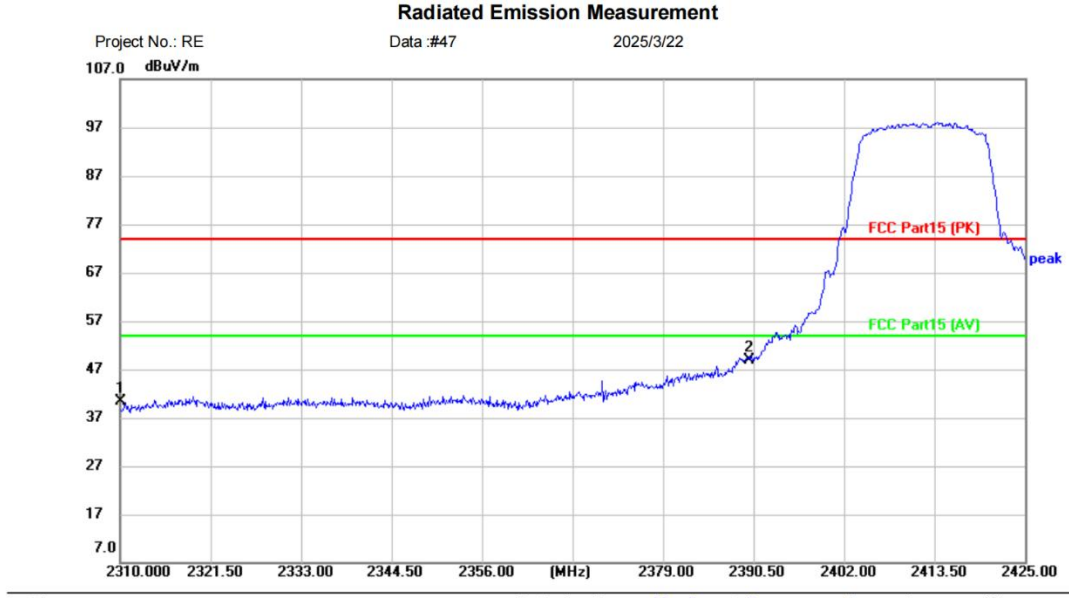
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2483.500	45.54	-2.91	42.63	74.00	-31.37	peak	
2		2500.000	43.33	-3.00	40.33	74.00	-33.67	peak	

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

Test Result: Pass

[Test mode: 802.11g TX low channel]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT: Smart Camera
M/N: W10Z-U
Mode: 11G-2412
Note:

Polarization: *Horizontal*
Power:

Temperature: (C)
Humidity: %RH

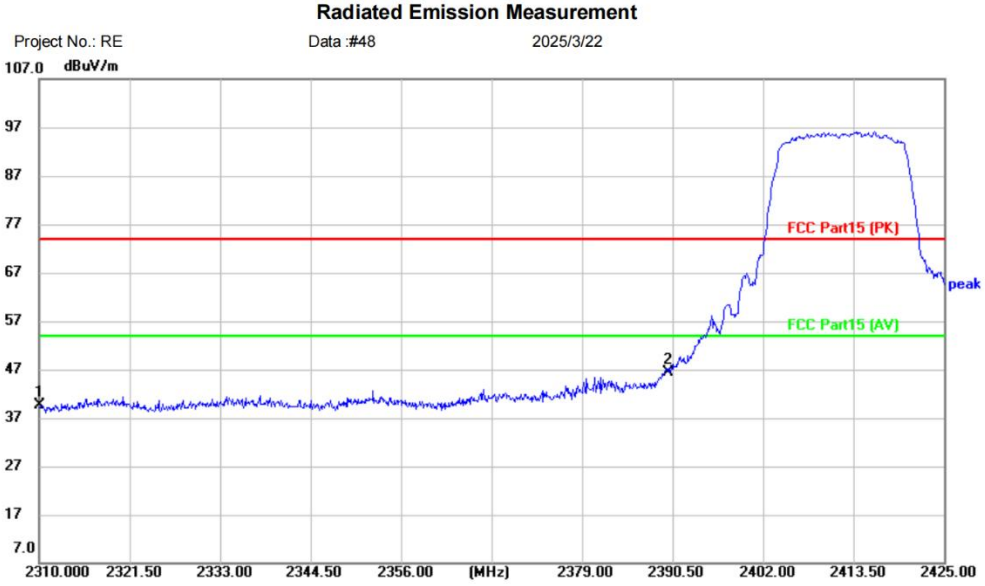
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2310.000	43.30	-2.87	40.43	74.00	-33.57	peak	
2	*	2390.000	51.23	-2.44	48.79	74.00	-25.21	peak	

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

Test Result: Pass

[Test mode: 802.11g TX low channel]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT: Smart Camera
M/N: W10Z-U
Mode: 11G-2412
Note:

Polarization: *Vertical*
Power:

Temperature: (C)
Humidity: %RH

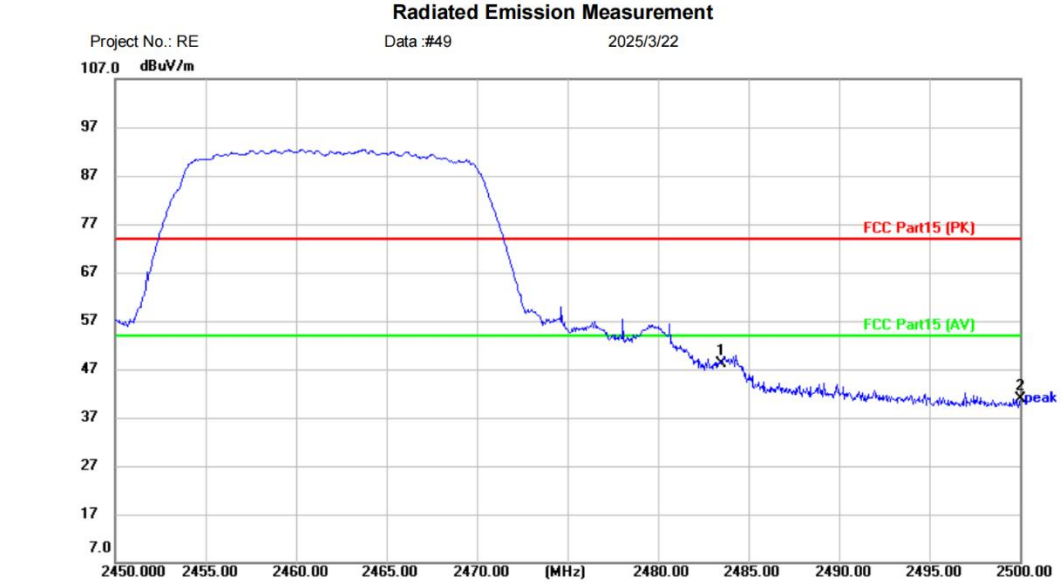
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2310.000	42.43	-2.87	39.56	74.00	-34.44	peak	
2	*	2390.000	48.80	-2.44	46.36	74.00	-27.64	peak	

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

Test Result: Pass

[Test mode: 802.11g TX High channel]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT: Smart Camera
M/N: W10Z-U
Mode: 11G-2462
Note:

Polarization: ***Horizontal***
Power:

Temperature: (C)
Humidity: %RH

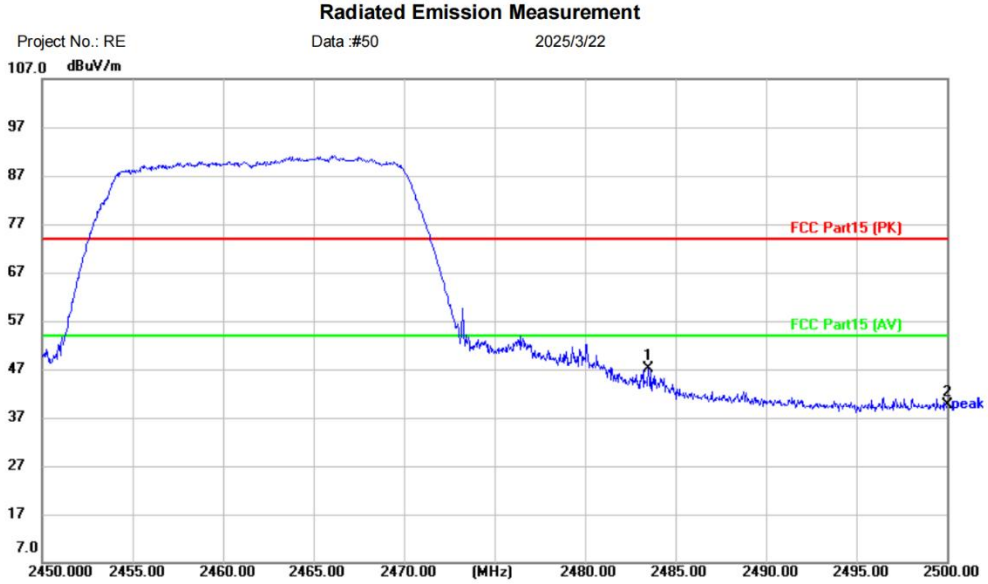
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2483.500	51.00	-2.91	48.09	74.00	-25.91	peak	
2		2500.000	43.78	-3.00	40.78	74.00	-33.22	peak	

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

Test Result: Pass

[Test mode: 802.11g TX High channel]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT: Smart Camera
M/N: W10Z-U
Mode: 11G-2462
Note:

Polarization: *Vertical*
Power:

Temperature: (C)
Humidity: %RH

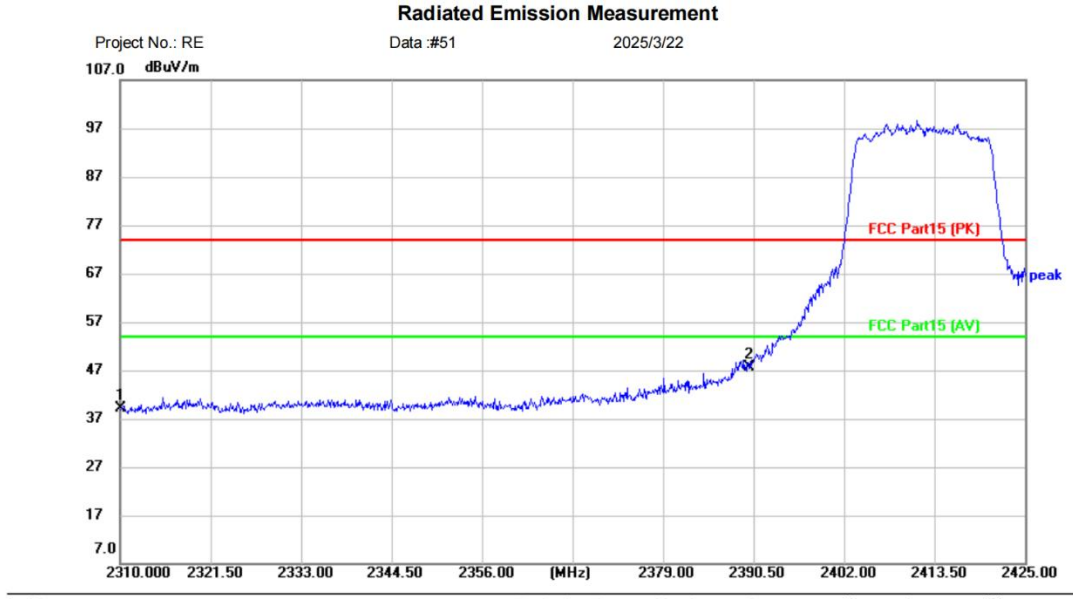
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2483.500	50.00	-2.91	47.09	74.00	-26.91	peak	
2		2500.000	42.60	-3.00	39.60	74.00	-34.40	peak	

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

Test Result: Pass

[Test mode: 802.11n20 TX low channel]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT: Smart Camera
M/N: W10Z-U
Mode: 11N20-2412
Note:

Polarization: *Horizontal*
Power:

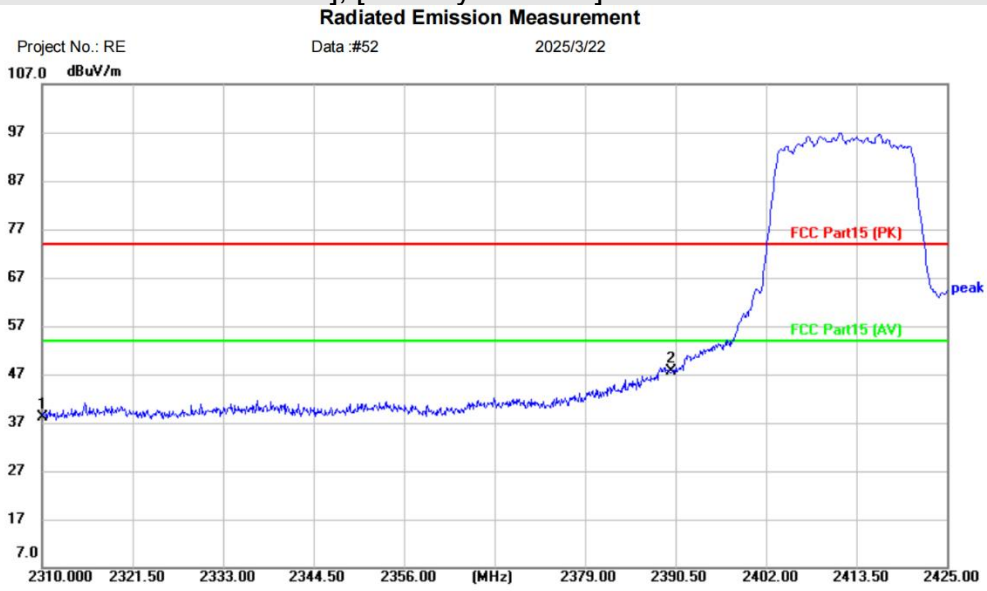
Temperature: (C)
Humidity: %RH

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2310.000	42.05	-2.87	39.18	74.00	-34.82	peak	
2	*	2390.000	50.08	-2.44	47.64	74.00	-26.36	peak	

*:Maximum data x:Over limit !:over margin 〈Reference Only
Receiver: ESR_1 Spectrum Analyzer: FSP40

Test Result: Pass

[Test mode: 802.11n20 TX low channel]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT: Smart Camera
M/N: W10Z-U
Mode: 11N20-2412
Note:

Polarization: *Vertical*
Power:

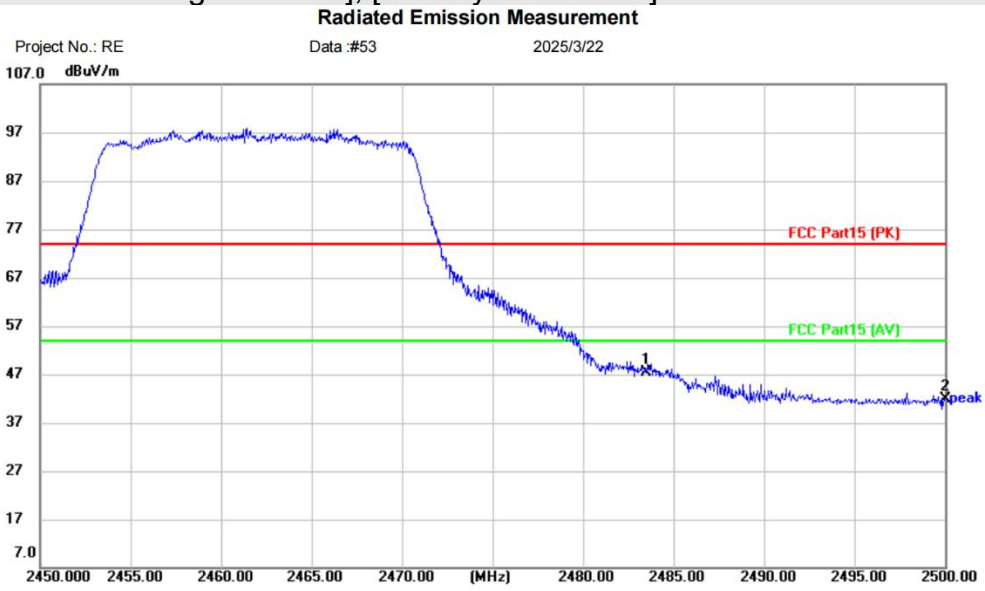
Temperature: (C)
Humidity: %RH

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2310.000	41.08	-2.87	38.21	74.00	-35.79	peak	
2	*	2390.000	50.14	-2.44	47.70	74.00	-26.30	peak	

*:Maximum data x:Over limit !:over margin 〈Reference Only
Receiver: ESR_1 Spectrum Analyzer: FSP40

Test Result: Pass

[Test mode: 802.11n20 TX High channel]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT: Smart Camera
M/N: W10Z-U
Mode: 11N20-2462
Note:

Polarization: ***Horizontal***
Power:

Temperature: (C)
Humidity: %RH

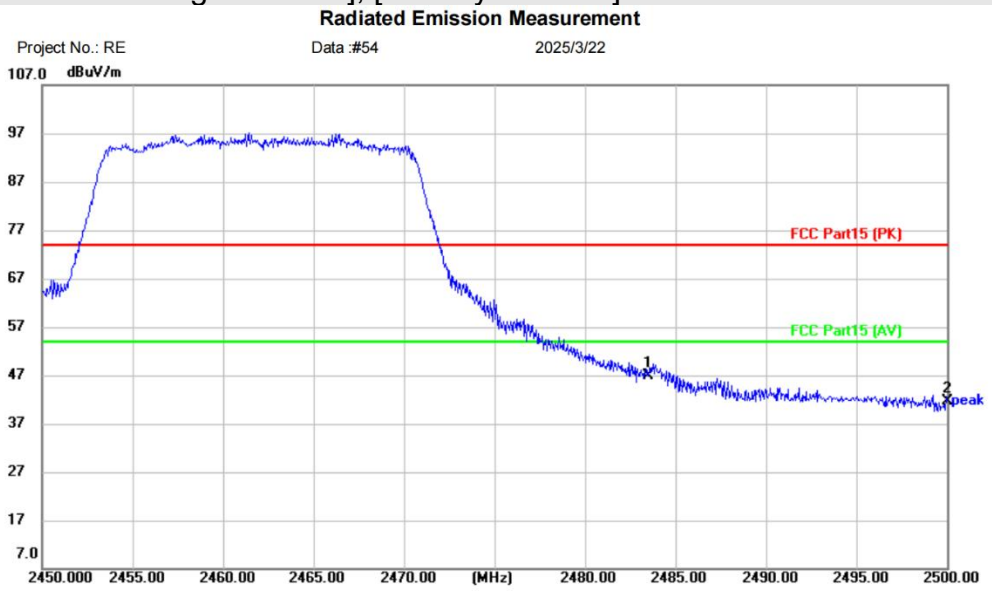
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2483.500	50.26	-2.91	47.35	74.00	-26.65	peak	
2		2500.000	44.80	-3.00	41.80	74.00	-32.20	peak	

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

Test Result: Pass

[Test mode: 802.11n20 TX High channel]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT: Smart Camera
M/N: W10Z-U
Mode: 11N20-2462
Note:

Polarization: *Vertical*
Power:

Temperature: (C)
Humidity: %RH

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2483.500	49.71	-2.91	46.80	74.00	-27.20	peak	
2		2500.000	44.58	-3.00	41.58	74.00	-32.42	peak	

*:Maximum data x:Over limit !:over margin 〈Reference Only
Receiver: ESR_1 Spectrum Analyzer: FSP40

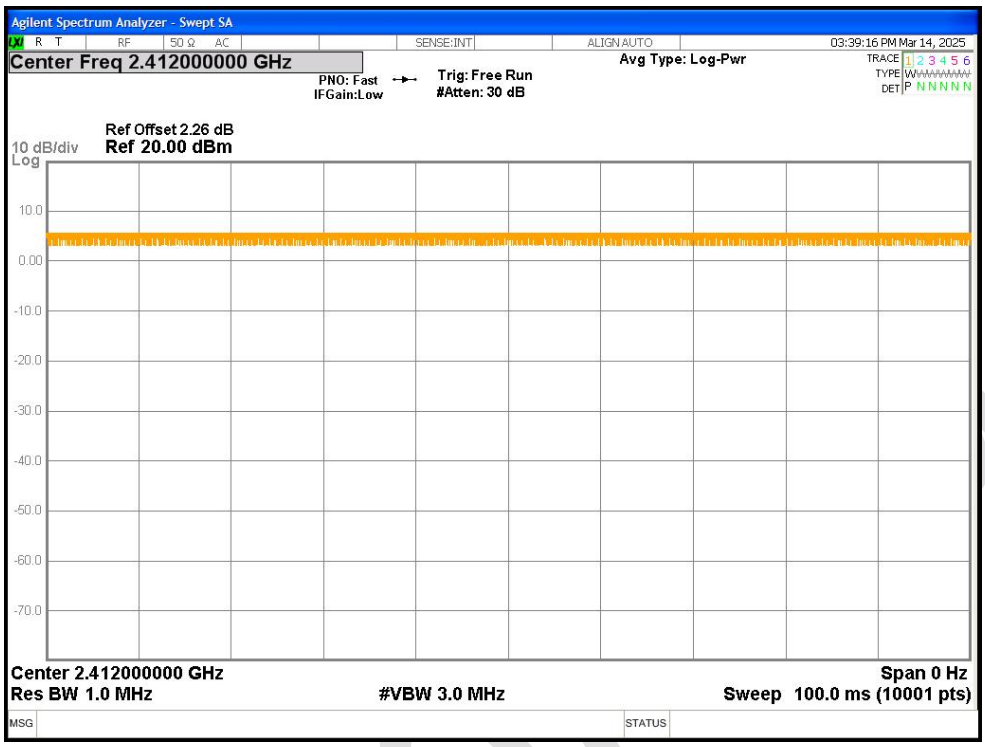
Test Result: Pass

7 Appendix A

7.1 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	b	2412	Ant1	100	0
NVNT	b	2437	Ant1	100	0
NVNT	b	2462	Ant1	100	0
NVNT	g	2412	Ant1	100	0
NVNT	g	2437	Ant1	100	0
NVNT	g	2462	Ant1	100	0
NVNT	n20	2412	Ant1	100	0
NVNT	n20	2437	Ant1	100	0
NVNT	n20	2462	Ant1	100	0

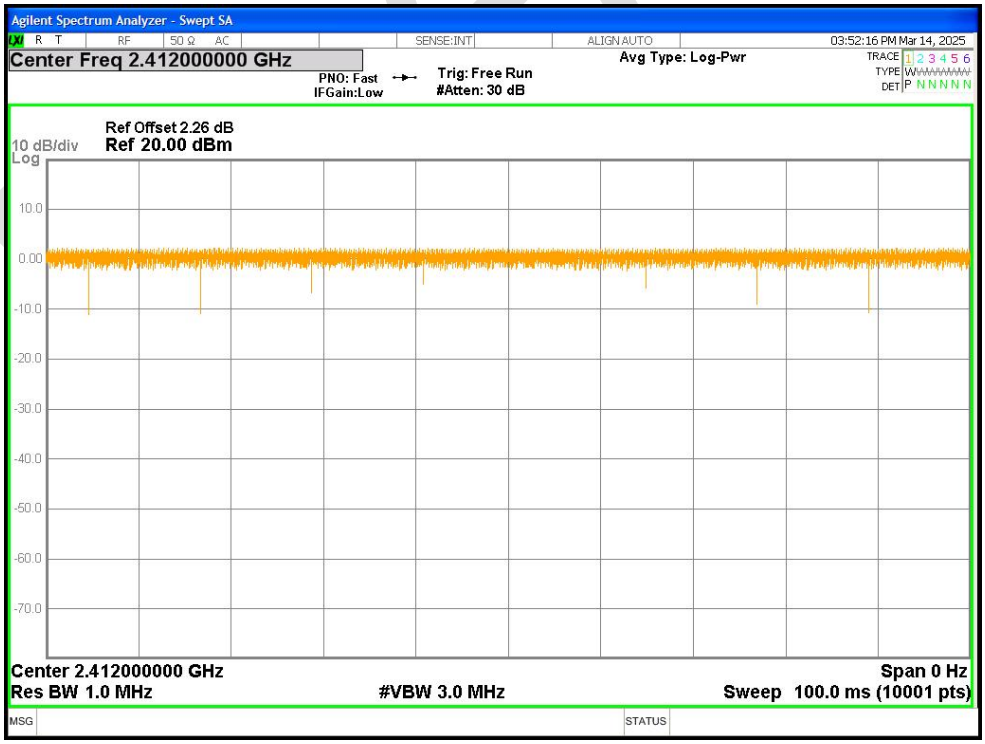
Duty Cycle NVNT b 2412MHz Ant1



Duty Cycle NVNT b 2437MHz Ant1

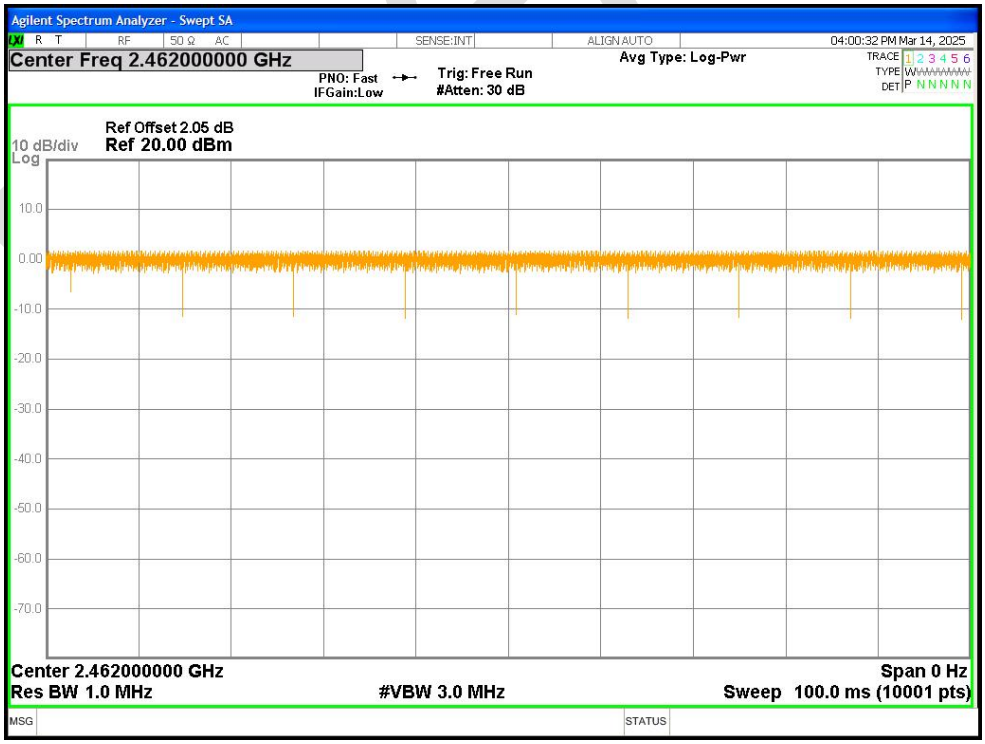
Duty Cycle NVNT b 2462MHz Ant1

Duty Cycle NVNT g 2412MHz Ant1



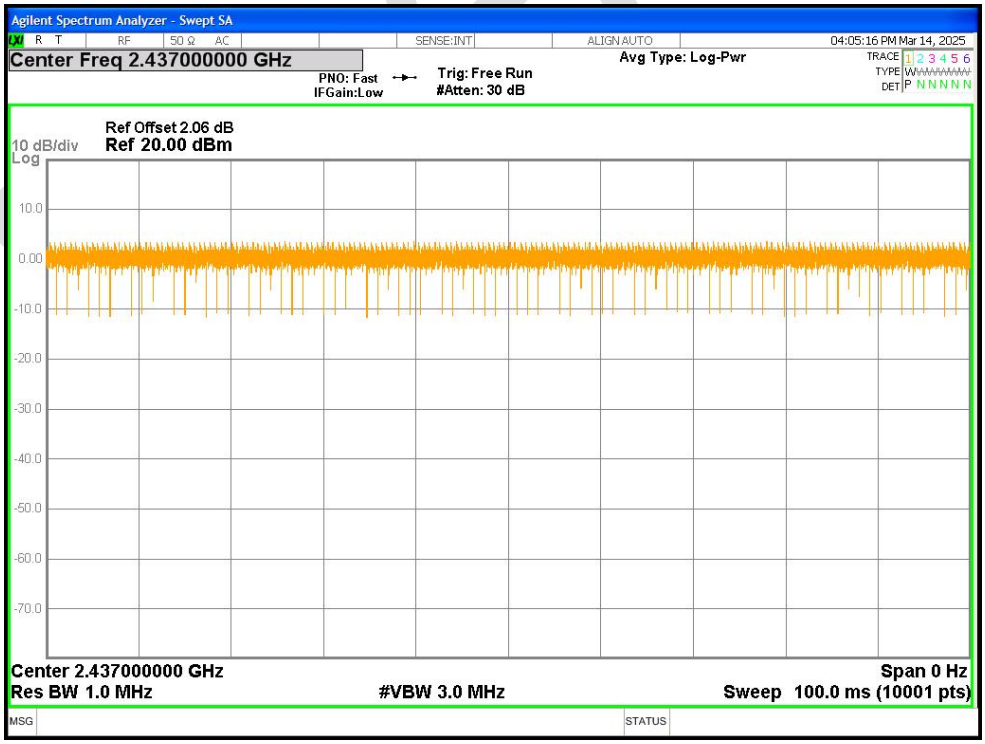
Duty Cycle NVNT g 2437MHz Ant1

Duty Cycle NVNT g 2462MHz Ant1

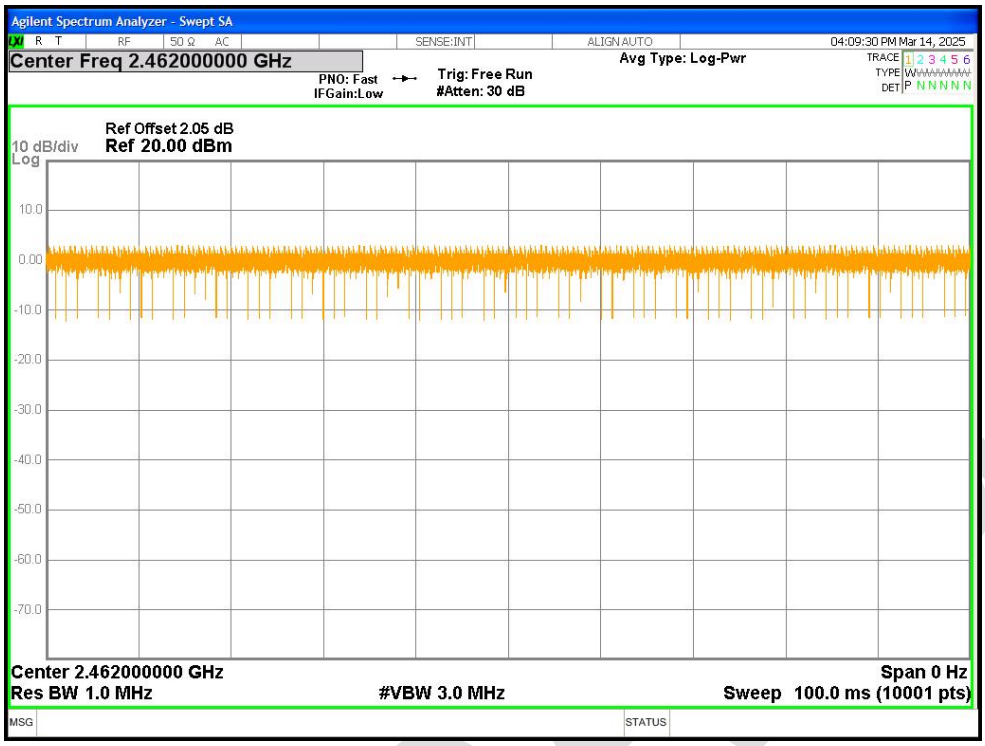


Duty Cycle NVNT n20 2412MHz Ant1

Duty Cycle NVNT n20 2437MHz Ant1



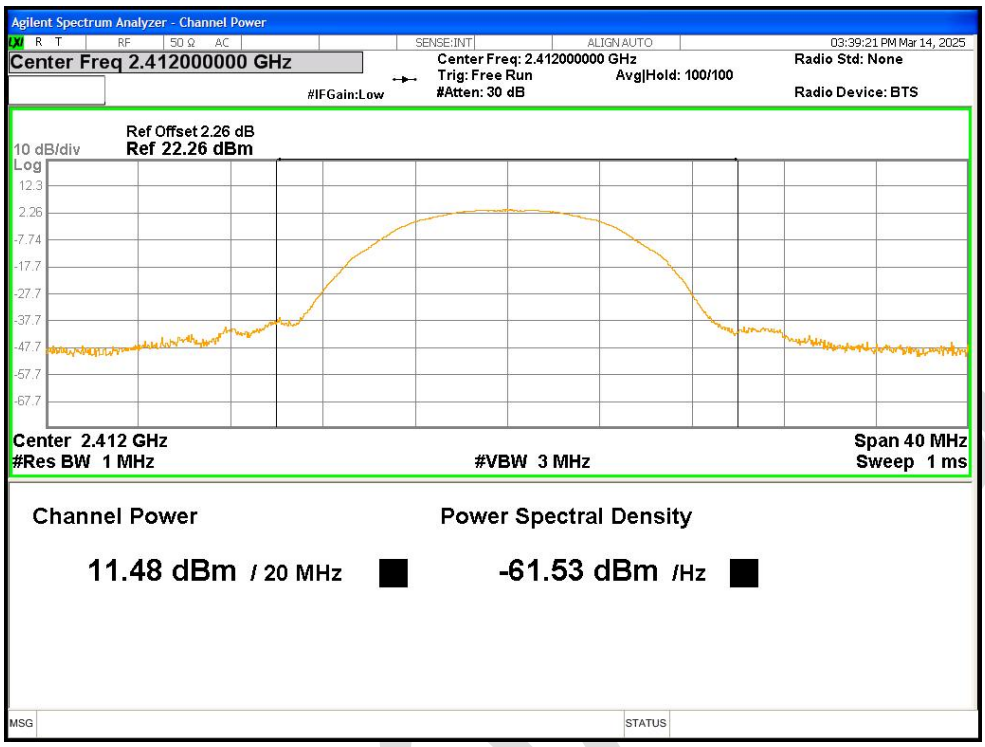
Duty Cycle NVNT n20 2462MHz Ant1



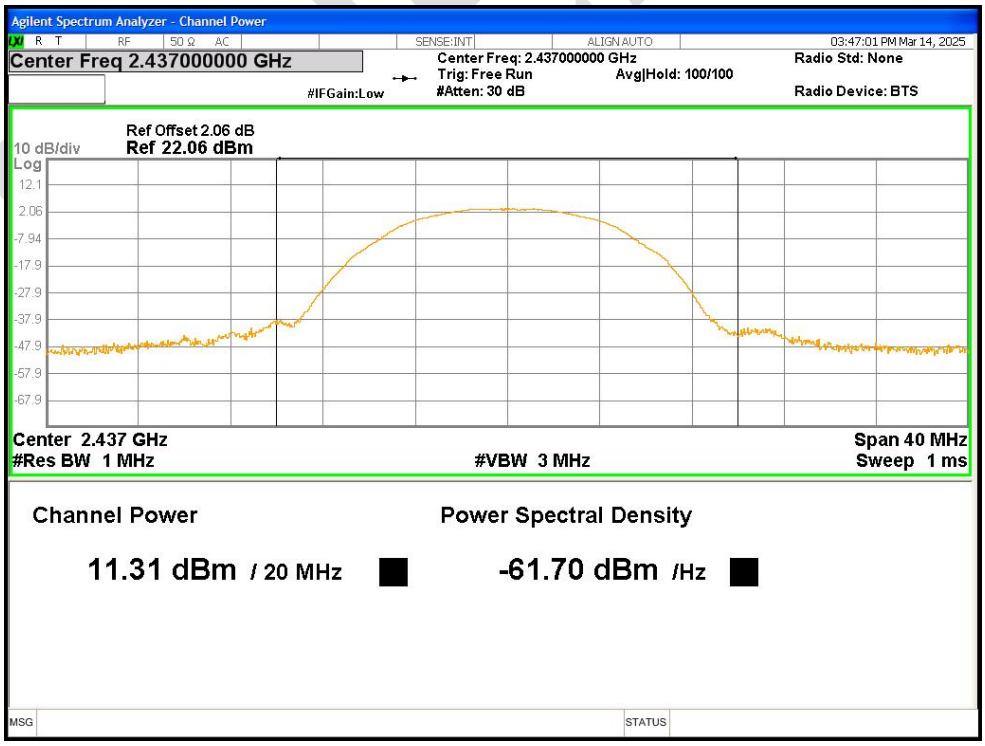
7.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	11.483	30	Pass
NVNT	b	2437	Ant1	11.306	30	Pass
NVNT	b	2462	Ant1	10.826	30	Pass
NVNT	g	2412	Ant1	11.429	30	Pass
NVNT	g	2437	Ant1	11.305	30	Pass
NVNT	g	2462	Ant1	10.876	30	Pass
NVNT	n20	2412	Ant1	11.694	30	Pass
NVNT	n20	2437	Ant1	11.57	30	Pass
NVNT	n20	2462	Ant1	11.053	30	Pass

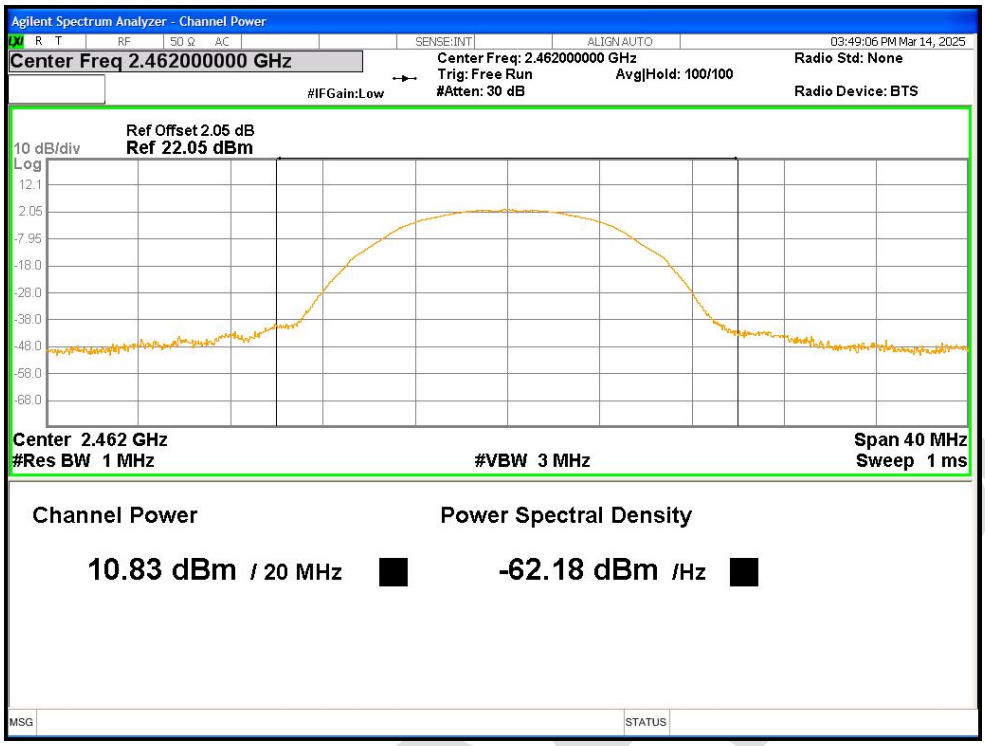
Power NVNT b 2412MHz Ant1



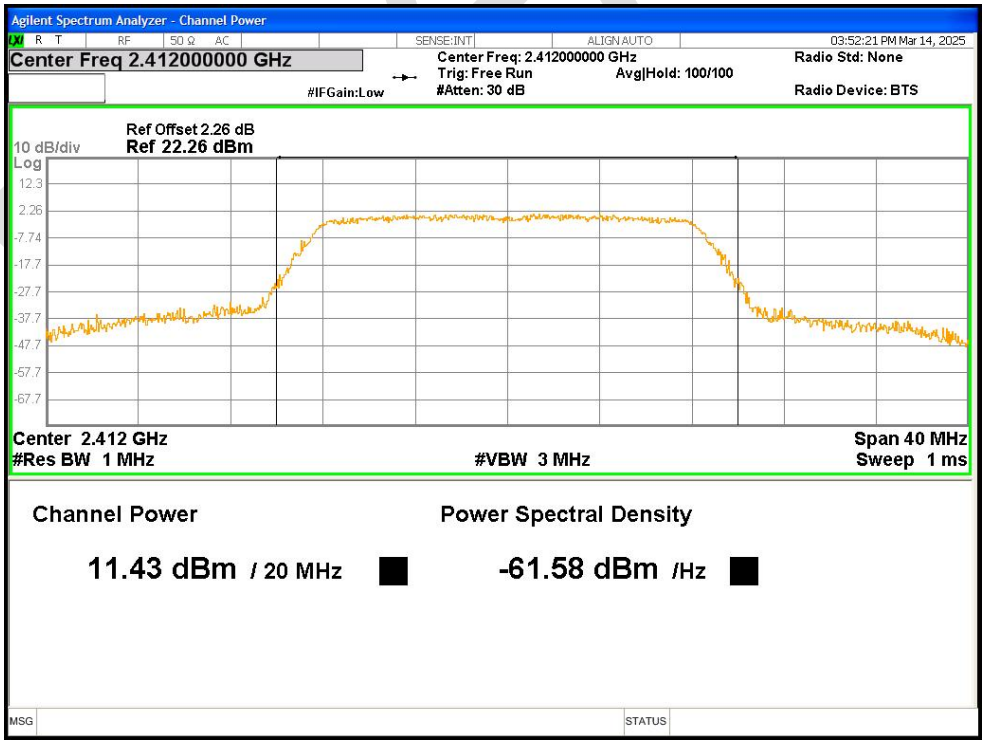
Power NVNT b 2437MHz Ant1



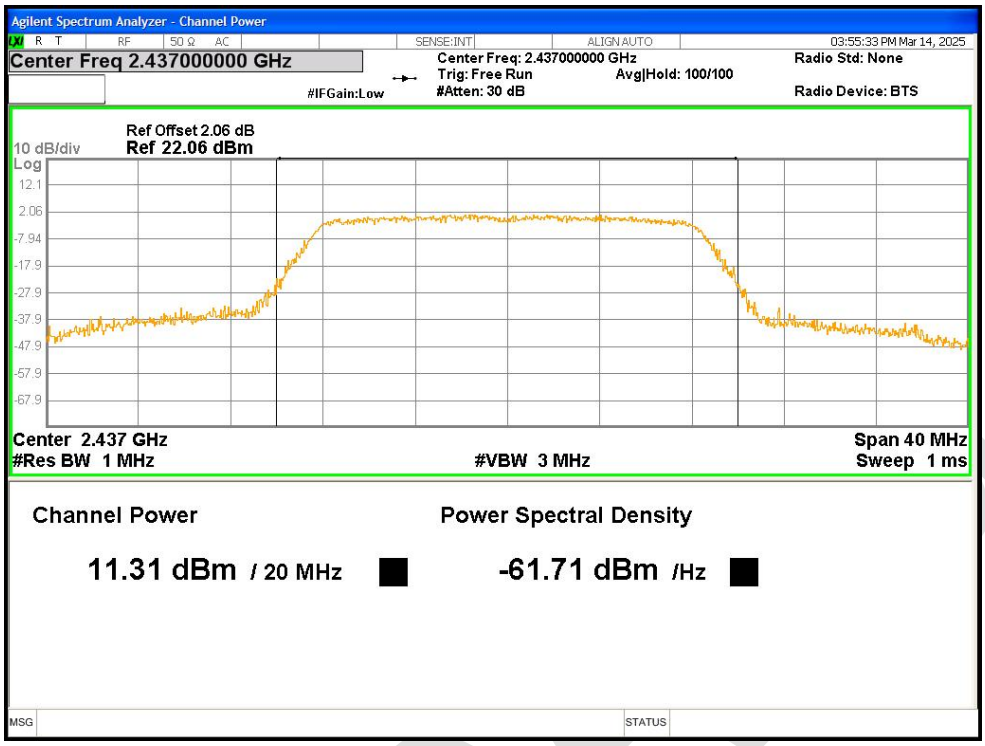
Power NVNT b 2462MHz Ant1



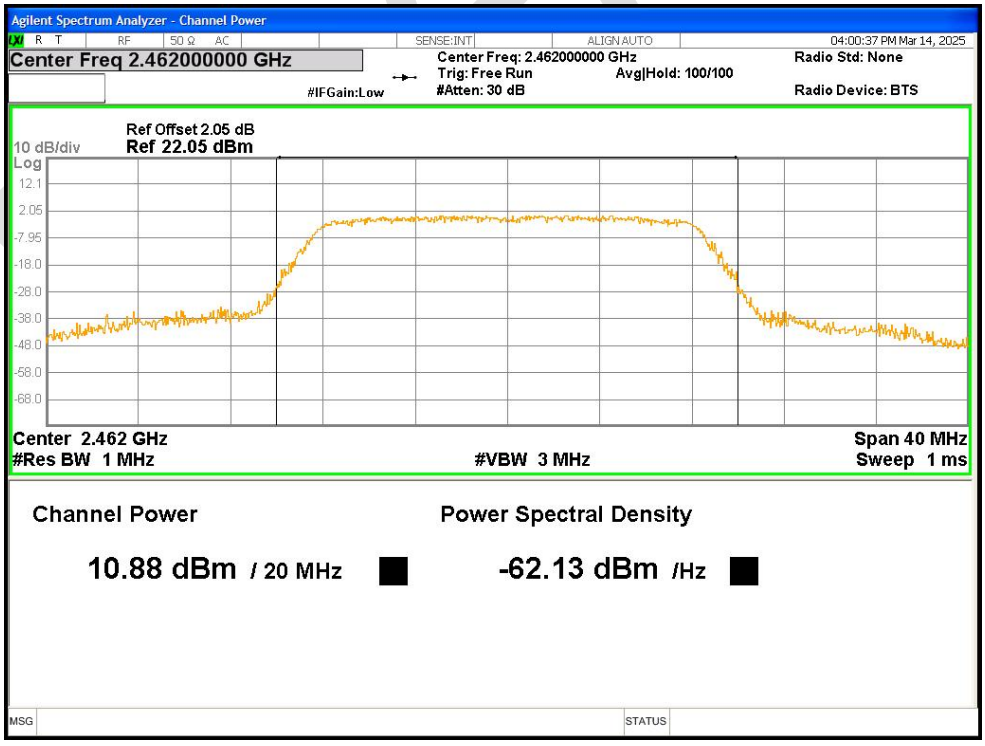
Power NVNT g 2412MHz Ant1



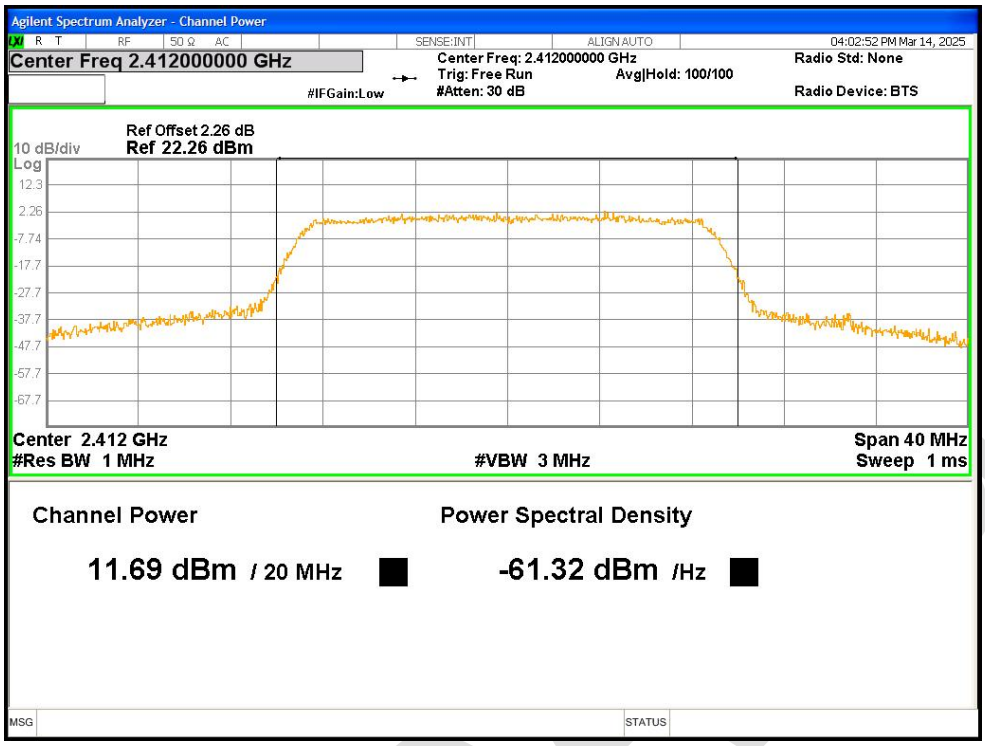
Power NVNT g 2437MHz Ant1



Power NVNT g 2462MHz Ant1



Power NVNT n20 2412MHz Ant1



Power NVNT n20 2437MHz Ant1