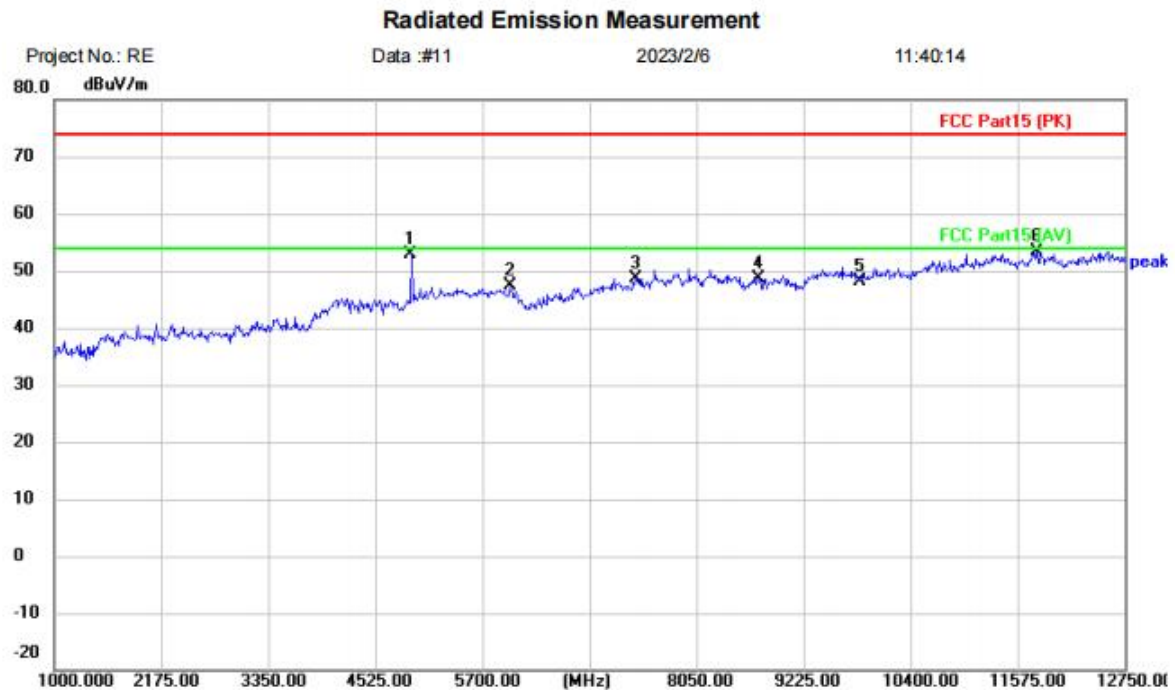


[TestMode: TX high channel]; [Polarity: Horizontal]

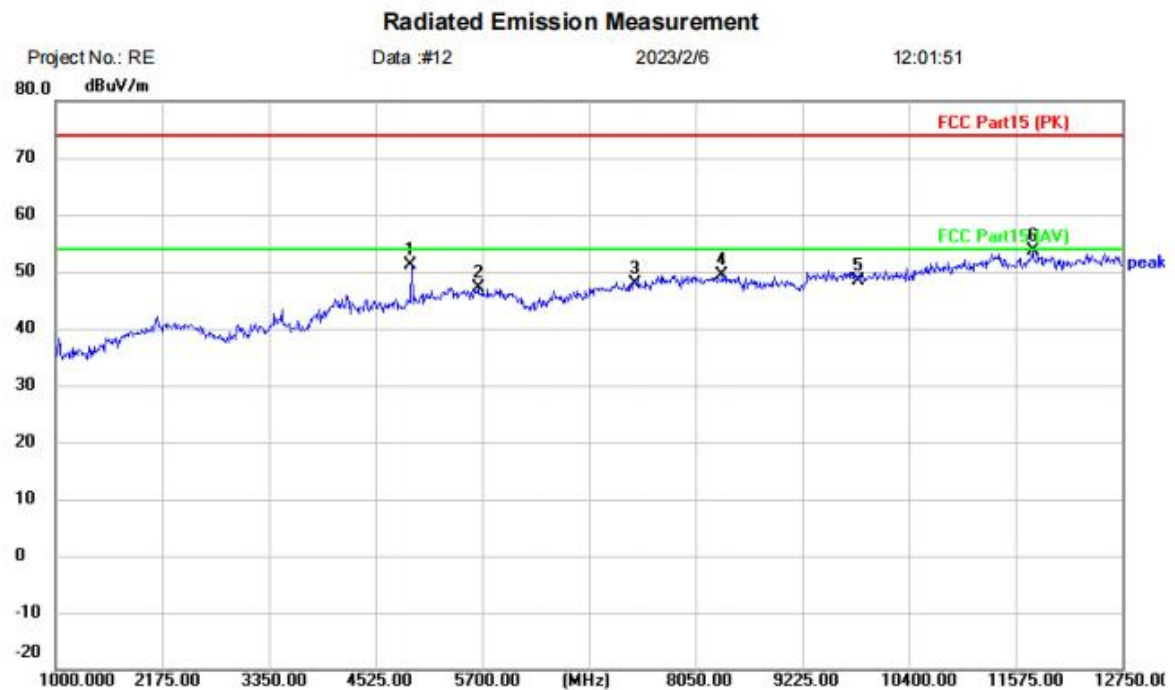


Site Polarization: **Horizontal** Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH
EUT: WI-FI Module
M/N: S20
Mode: 11N20 TX-H
Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4924.000	48.11	4.82	52.93	74.00	-21.07	peak	
2		6005.500	43.36	3.92	47.28	74.00	-26.72	peak	
3		7386.000	40.34	8.36	48.70	74.00	-25.30	peak	
4		8731.500	39.37	9.23	48.60	74.00	-25.40	peak	
5		9848.000	36.60	11.52	48.12	74.00	-25.88	peak	
6	*	11786.500	39.49	13.81	53.30	74.00	-20.70	peak	

Test Result: Pass

[TestMode: TX high channel]; [Polarity: Vertical]



Site Polarization: **Vertical** Temperature: (C)

Limit: FCC Part15 (PK) Power: Humidity: %RH

EUT: WI-FI Module

M/N: S20

Mode: 11N20 TX-H

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4924.000	46.40	4.82	51.22	74.00	-22.78	peak	
2		5653.000	40.29	6.76	47.05	74.00	-26.95	peak	
3		7386.000	39.46	8.36	47.82	74.00	-26.18	peak	
4		8343.750	40.21	9.05	49.26	74.00	-24.74	peak	
5		9848.000	36.95	11.52	48.47	74.00	-25.53	peak	
6	*	11763.000	39.79	13.80	53.59	74.00	-20.41	peak	

Test Result: Pass

12 RADIATED EMISSIONS WHICH FALL IN THE RESTRICTED BANDS

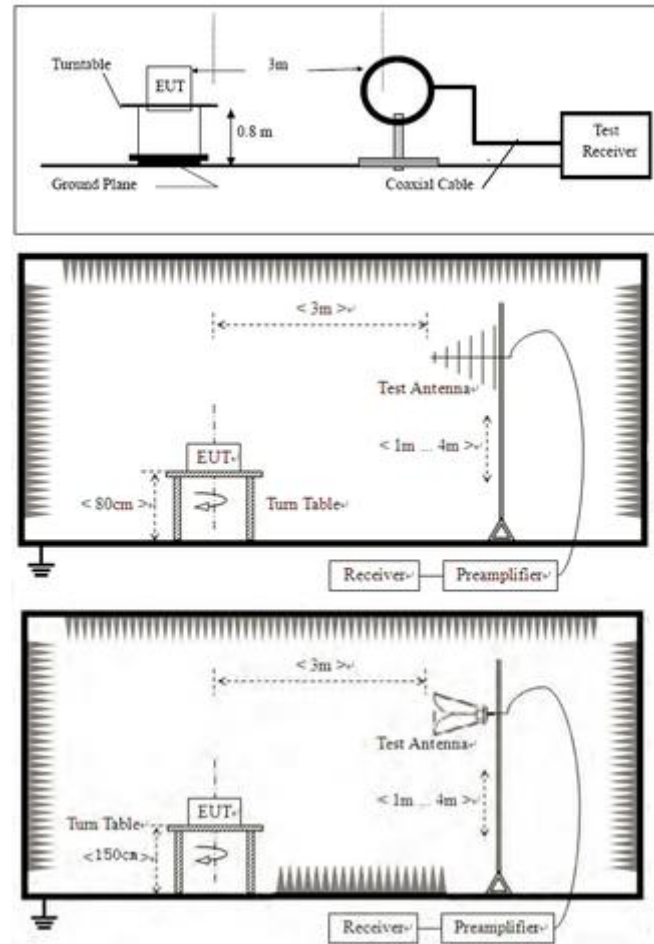
Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 6.10.5
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Charlie
Temperature	25℃
Humidity	60%

12.1 LIMITS

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.

12.2 BLOCK DIAGRAM OF TEST SETUP



12.3 PROCEDURE

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

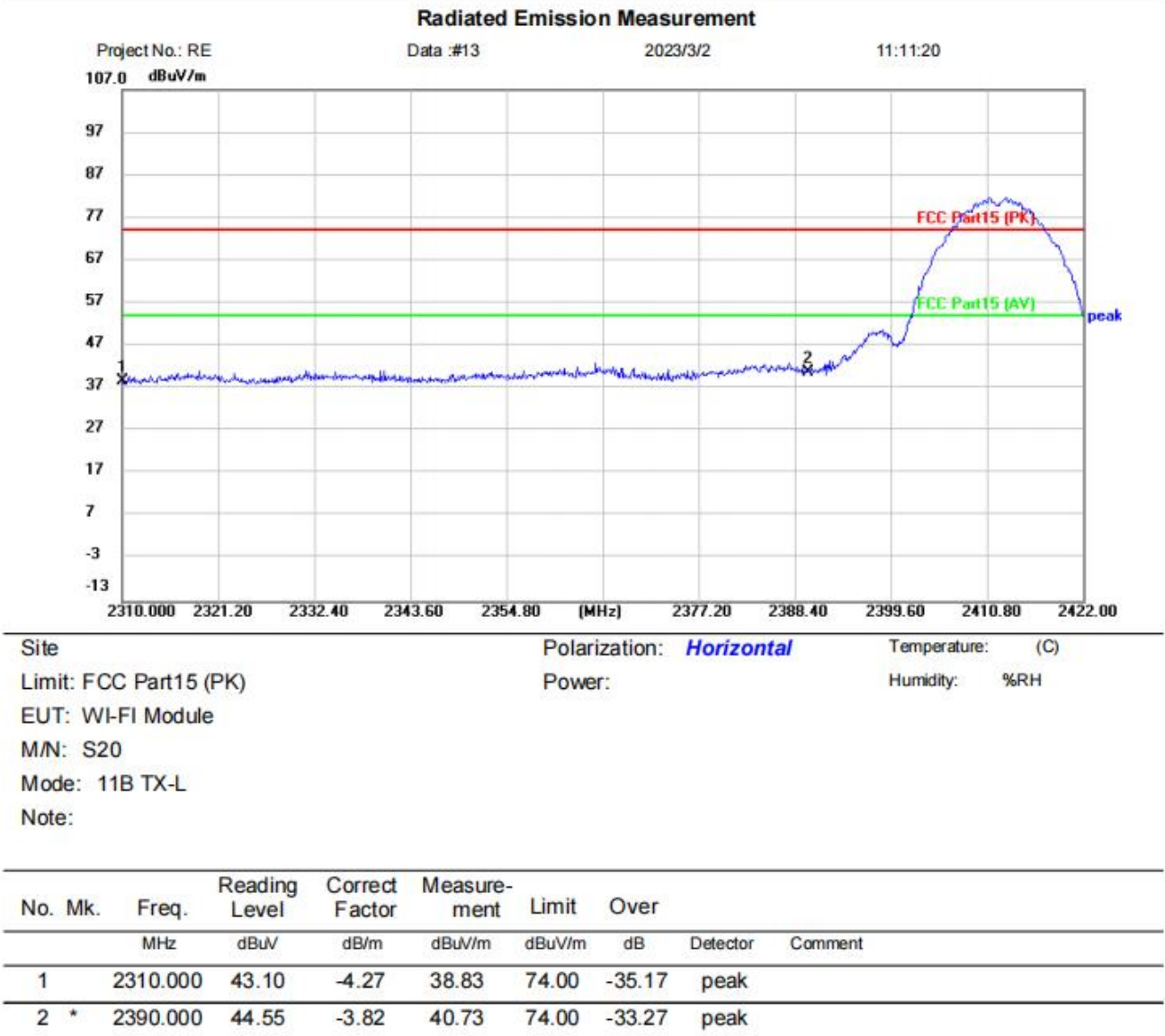
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

Remark 1: $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamp Factor}$

Remark 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.

12.4 TEST DATA

[TestMode: TX b low channel]; [Polarity: Horizontal]



Test Result: Pass

[TestMode: TX b low channel]; [Polarity: Vertical]

Radiated Emission Measurement

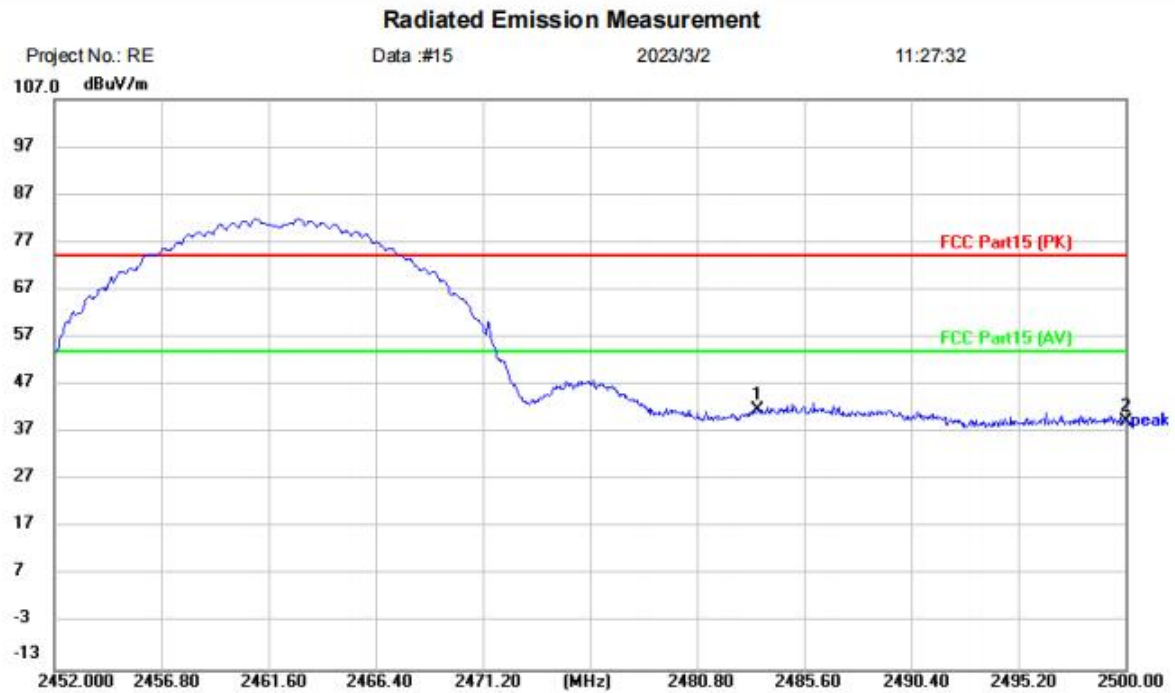


Site Polarization: **Vertical** Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH
EUT: WI-FI Module
M/N: S20
Mode: 11B TX-L
Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2310.000	42.94	-4.27	38.67	74.00	-35.33	peak	
2	*	2390.000	48.62	-3.82	44.80	74.00	-29.20	peak	

Test Result: Pass

[TestMode: TX b high channel]; [Polarity: Vertical]



Site Polarization: **Horizontal** Temperature: (C)

Limit: FCC Part15 (PK) Power: Humidity: %RH

EUT: WI-FI Module

M/N: S20

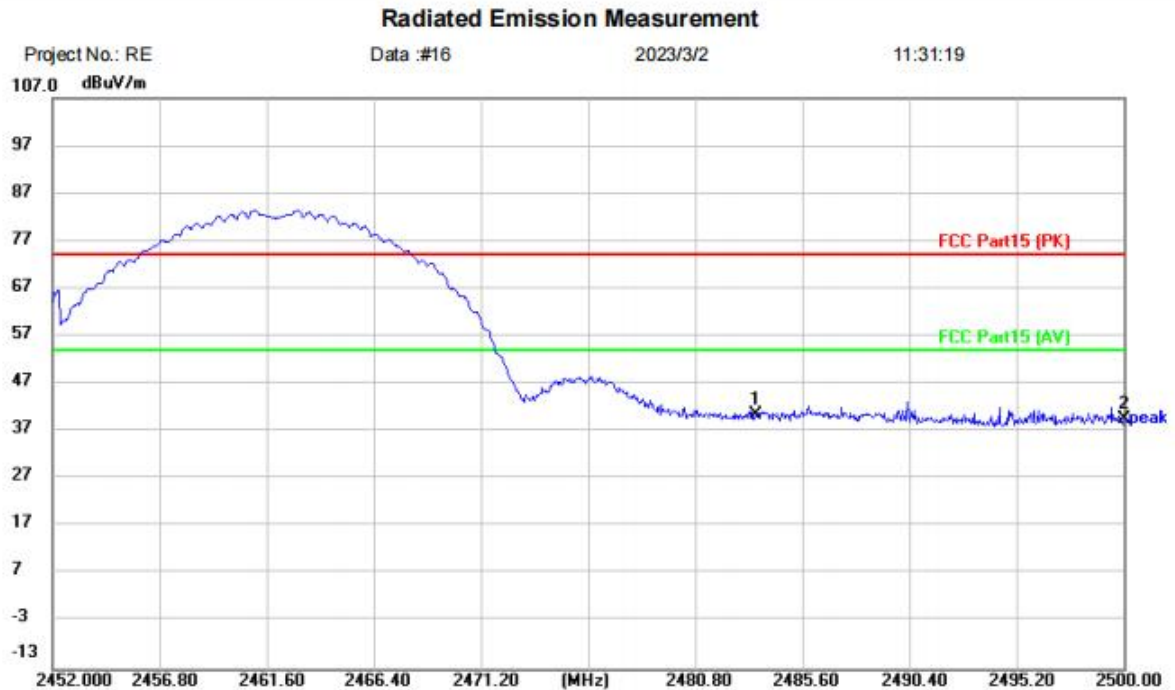
Mode: 11B TX-H

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2483.500	45.68	-3.96	41.72	74.00	-32.28	peak	
2		2500.000	43.46	-4.00	39.46	74.00	-34.54	peak	

Test Result: Pass

[TestMode: TX b high channel]; [Polarity: Vertical]



Site: Polarization: **Vertical** Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH
EUT: WI-FI Module
M/N: S20
Mode: 11B TX-H
Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2483.500	44.62	-3.96	40.66	74.00	-33.34	peak	
2		2500.000	43.62	-4.00	39.62	74.00	-34.38	peak	

Test Result: Pass

[TestMode: TX g low channel]; [Polarity: Horizontal]

Radiated Emission Measurement



Site Polarization: **Horizontal** Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH
EUT: WI-FI Module
M/N: S20
Mode: 11G TX-L
Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2310.000	42.64	-4.27	38.37	74.00	-35.63	peak	
2	*	2390.000	49.65	-3.82	45.83	74.00	-28.17	peak	

Test Result: Pass

[TestMode: TX g low channel]; [Polarity: Vertical]

Radiated Emission Measurement

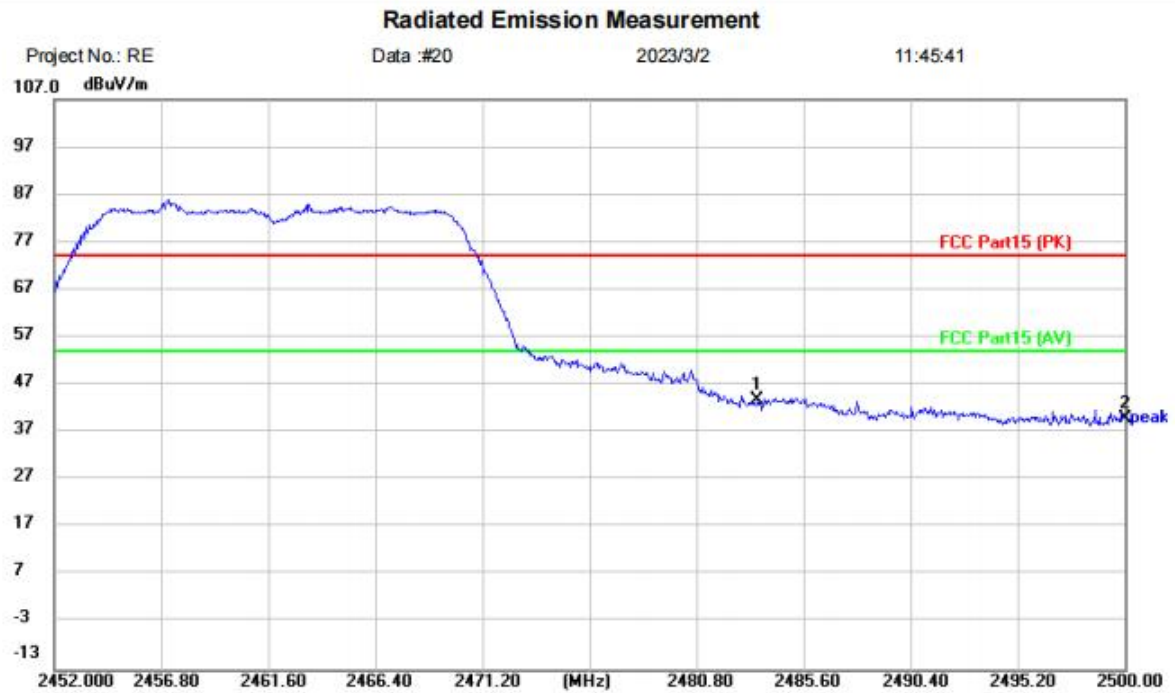


Site Polarization: **Vertical** Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH
EUT: WI-FI Module
M/N: S20
Mode: 11G TX-L
Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2310.000	43.79	-4.27	39.52	74.00	-34.48	peak	
2	*	2390.000	52.40	-3.82	48.58	74.00	-25.42	peak	

Test Result: Pass

[TestMode: TX g high channel]; [Polarity: Vertical]

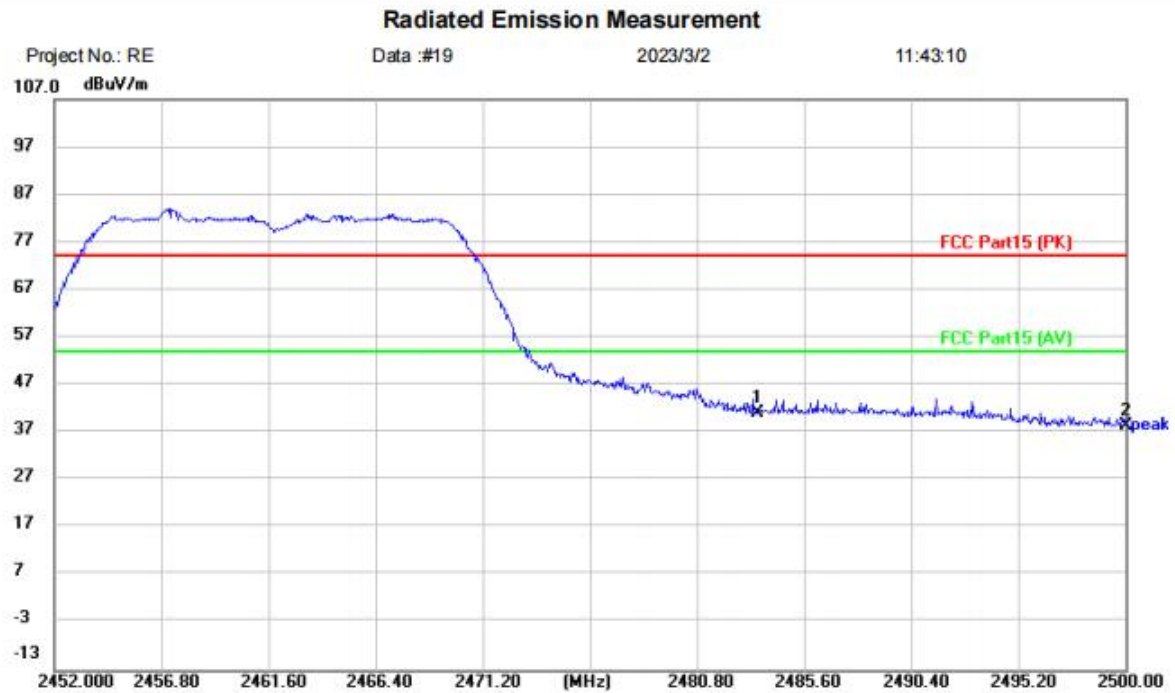


Site Polarization: **Vertical** Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH
EUT: WI-FI Module
M/N: S20
Mode: 11G TX-H
Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2483.500	47.73	-3.96	43.77	74.00	-30.23	peak	
2		2500.000	44.09	-4.00	40.09	74.00	-33.91	peak	

Test Result: Pass

[TestMode: TX g high channel]; [Polarity: Horizontal]



Site Polarization: **Horizontal** Temperature: (C)

Limit: FCC Part15 (PK) Power: Humidity: %RH

EUT: WI-FI Module

M/N: S20

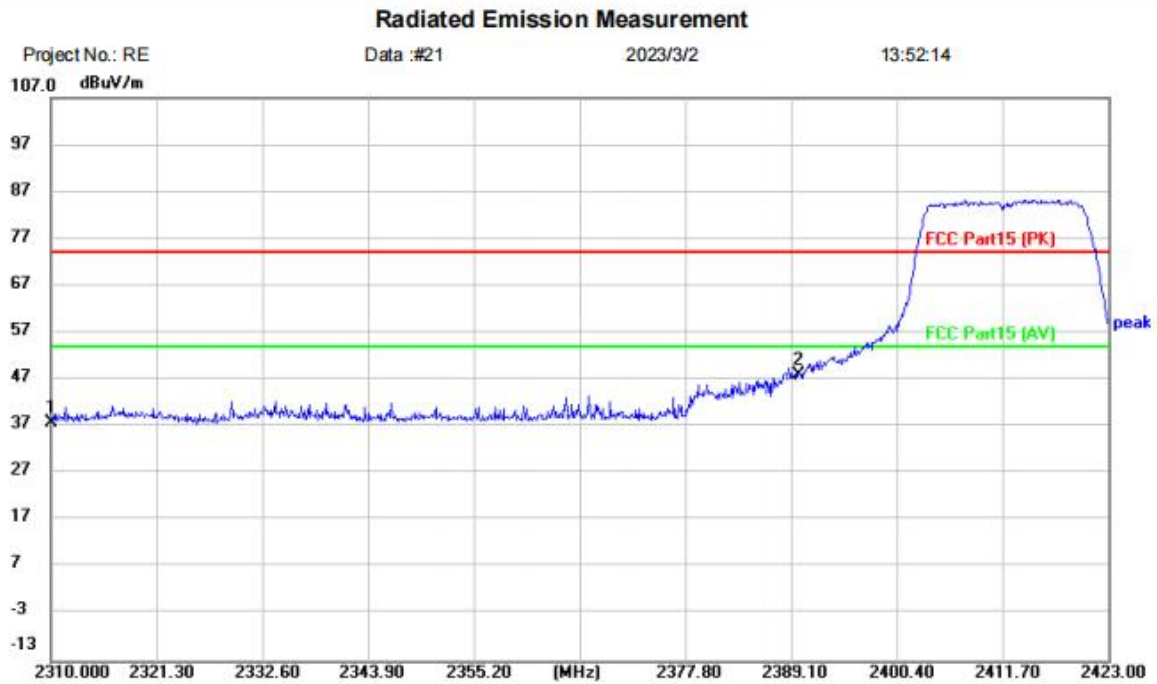
Mode: 11G TX-H

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2483.500	45.19	-3.96	41.23	74.00	-32.77	peak	
2		2500.000	42.35	-4.00	38.35	74.00	-35.65	peak	

Test Result: Pass

[TestMode: TX n20 low channel]; [Polarity: Horizontal]

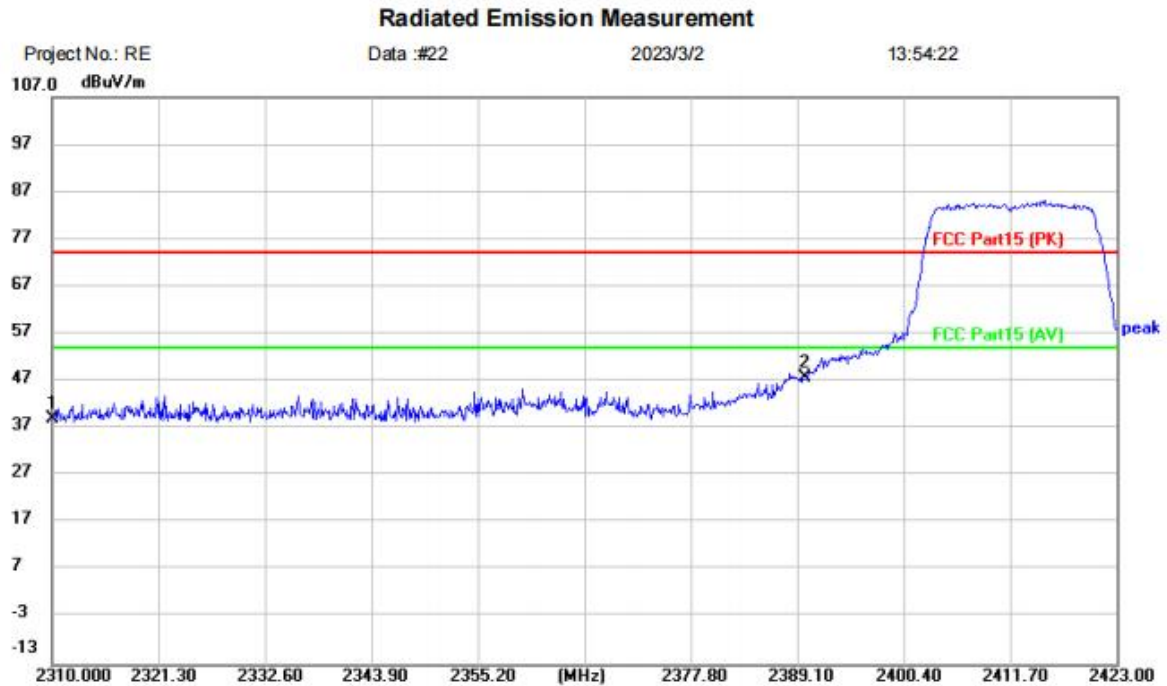


Site: Polarization: **Horizontal** Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH
EUT: WI-FI Module
M/N: S20
Mode: 11N20 TX-L
Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2310.000	42.19	-4.27	37.92	74.00	-36.08	peak	
2	*	2390.000	52.00	-3.82	48.18	74.00	-25.82	peak	

Test Result: Pass

[TestMode: TX n20 low channel]; [Polarity: Vertical]

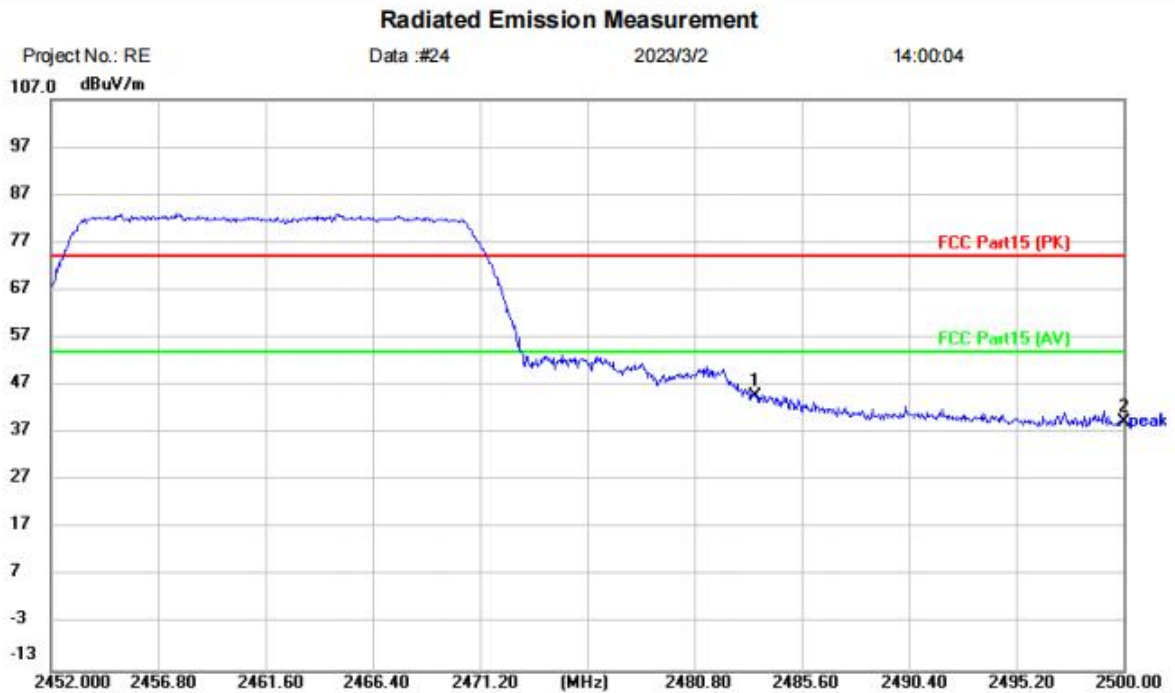


Site Polarization: **Vertical** Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH
EUT: WI-FI Module
M/N: S20
Mode: 11N20 TX-L
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		2310.000	43.46	-4.27	39.19	74.00	-34.81	peak	
2	*	2390.000	51.45	-3.82	47.63	74.00	-26.37	peak	

Test Result: Pass

[TestMode: TX n20 high channel]; [Polarity: Vertical]



Site: Polarization: **Vertical** Temperature: (C)

Limit: FCC Part15 (PK) Power: Humidity: %RH

EUT: WI-FI Module

M/N: S20

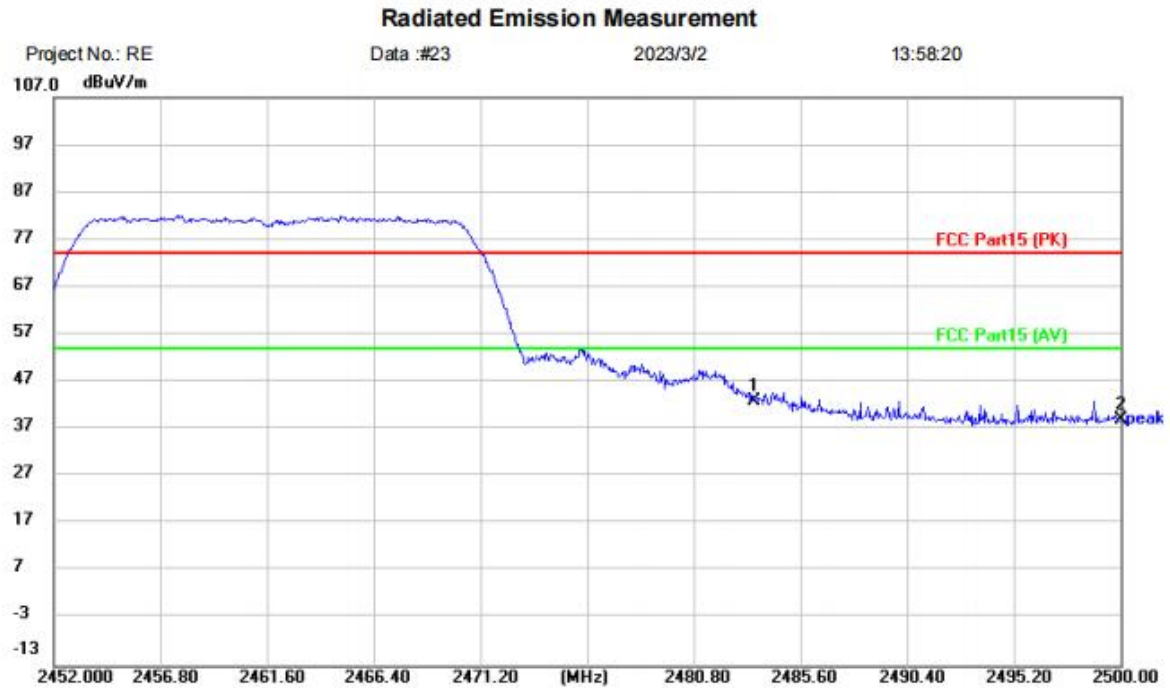
Mode: 11N20 TX-H

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
1	*	2483.500	48.70	-3.96	44.74	74.00	-29.26	peak	
2		2500.000	43.39	-4.00	39.39	74.00	-34.61	peak	

Test Result: Pass

[TestMode: TX n20 high channel]; [Polarity: Horizontal]

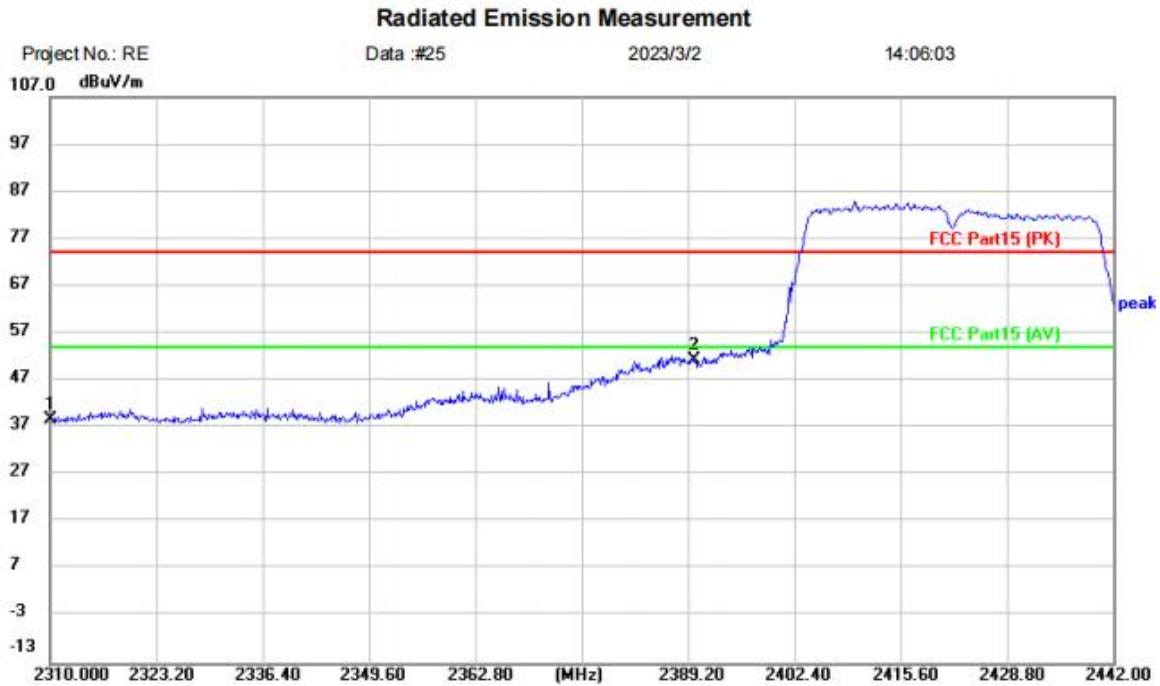


Site Polarization: **Horizontal** Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH
EUT: WI-FI Module
M/N: S20
Mode: 11N20 TX-H
Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2483.500	46.87	-3.96	42.91	74.00	-31.09	peak	
2		2500.000	42.97	-4.00	38.97	74.00	-35.03	peak	

Test Result: Pass

[TestMode: TX n40 low channel]; [Polarity: Horizontal]

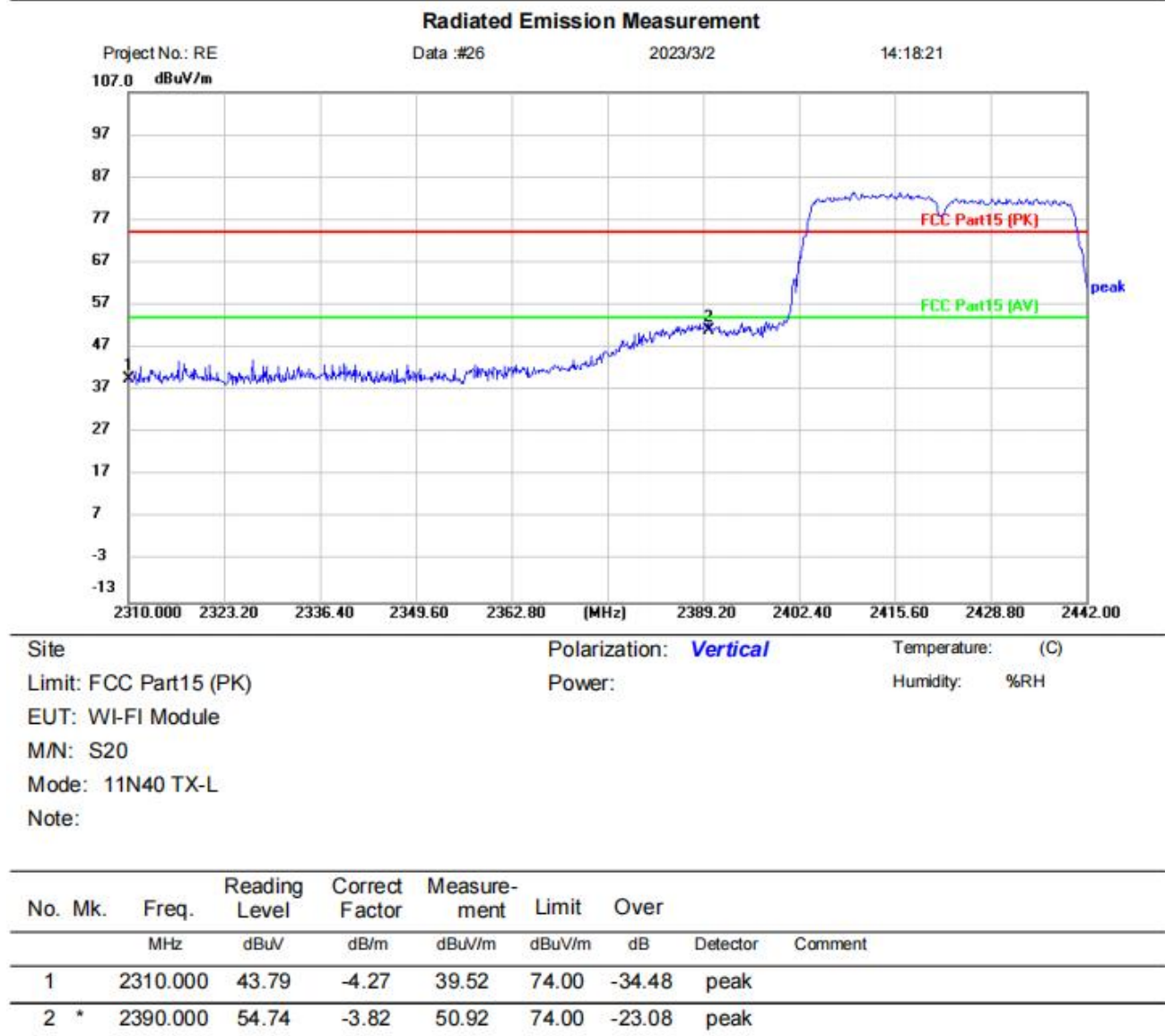


Site Polarization: **Horizontal** Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH
EUT: WI-FI Module
M/N: S20
Mode: 11N40 TX-L
Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2310.000	43.05	-4.27	38.78	74.00	-35.22	peak	
2	*	2390.000	55.29	-3.82	51.47	74.00	-22.53	peak	

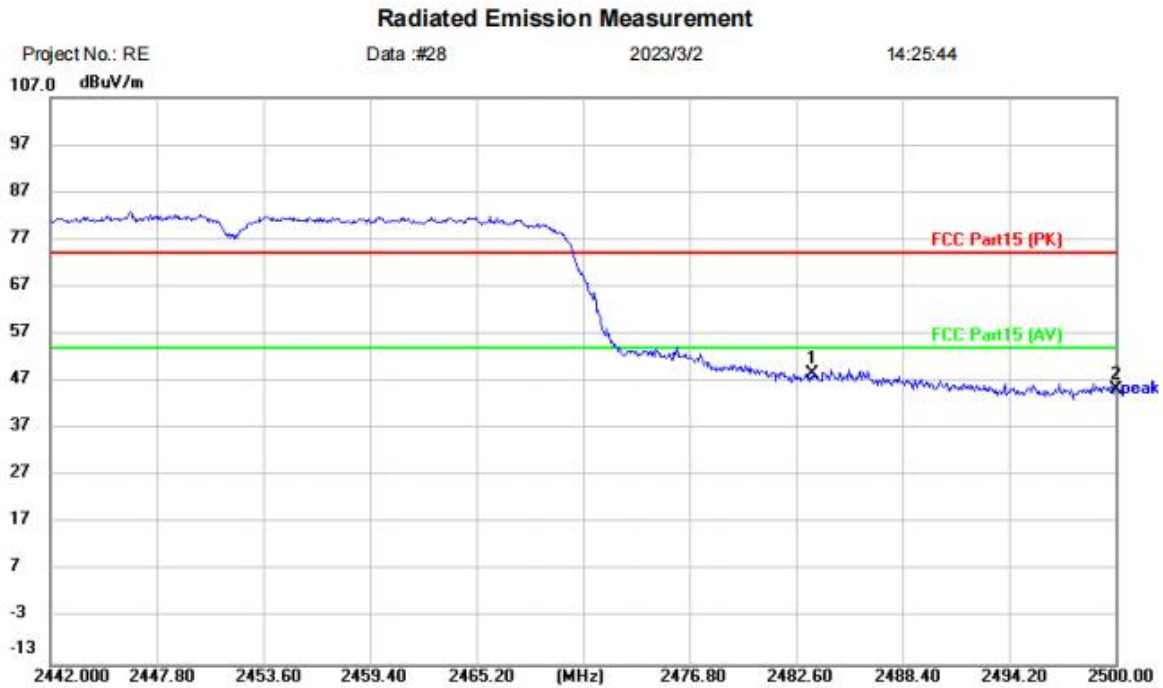
Test Result: Pass

[TestMode: TX n40 low channel]; [Polarity: Vertical]



Test Result: Pass

[TestMode: TX n40 high channel]; [Polarity: Vertical]



Site Polarization: **Vertical** Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH
EUT: WI-FI Module
M/N: S20
Mode: 11N40 TX-H
Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	2483.500	52.75	-3.96	48.79	74.00	-25.21	peak	
2		2500.000	49.48	-4.00	45.48	74.00	-28.52	peak	

Test Result: Pass