

RF TEST REPORT

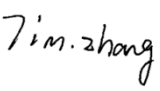
FCC ID: 2AN6E-FLY6PRO

According to

47 CFR FCC Part 15, Subpart E (Section 15.407)

ANSI C63.10:2013

Product Name : Fly6 PRO
Model No. : CE604
Trade Mark : CYCLIQ
Product No. : POC230803010-S001
Applicant : CYCLIQ PRODUCTS PTY LTD
PO Box 404, Subiaco, 6904, Australia
Receipt date : 2023.08.03
Test date : 2023.08.09~2023.08.18
Issued Date : 2023.08.25

Prepared By:	Checked By:	Approved By:	
Gavin Xu	Tim Zhang	Misue Su	
			

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Table of Contents

History of this test report.....	4
1. General Information	5
1.1 Applicant.....	5
1.2 Manufacturer.....	5
1.3 Basic Description of Equipment Under Test.....	5
2. Summary of Test Results	7
2.1 Summary of Test Items	7
2.2 Application of Standard.....	7
2.3 Test Instruments	8
2.4 Operation Mode	9
2.5 Test Condition	9
2.6 Duty Cycle of Test Signal	10
2.7 Measurement Uncertainty.....	18
2.8 Test Location.....	18
2.9 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED ..	19
2.10 SUPPORT UNITS.....	19
2.11 Deviation from Standards	19
2.12 Abnormalities from Standard Conditions.....	19
3. Test Procedure And Results	20
3.1 AC Power Line Conducted Emission	20
3.1.1 Limit.....	20
3.1.2 Test Procedure	20
3.1.3 Test Setup	20
3.1.4 Test Result	21
3.2 Radiated Emission	23
3.2.1 Limit.....	23
3.2.2 Test Procedure	24
3.2.3 Test Setup	25
3.2.4 Test Result	26
3.3 Spectrum Bandwidth.....	55

3.3.1	Limit.....	55
3.3.2	Test Procedure	55
3.3.3	Test Setup	56
3.3.4	Test Result	57
3.4	Conducted Output Power.....	73
3.4.1	Limit.....	73
3.4.2	Test Procedure	73
3.4.3	Test Setup	73
3.4.4	Table of Parameters of Text Software Setting.....	74
3.4.5	The Result.....	75
3.5	Power Spectral Density.....	76
3.5.1	Limit.....	76
3.5.2	Test Procedure	76
3.5.3	Test Setup	77
3.5.4	The Result.....	78

History of this test report

Original Report Issue Date: 2023.08.25

- No additional attachment
- Additional attachments were issued following record

Attachment No.	Issue Date	Description

1. General Information

1.1 Applicant

CYCLIQ PRODUCTS PTY LTD

PO Box 404, Subiaco, 6904, Australia

1.2 Manufacturer

CYCLIQ PRODUCTS PTY LTD

PO Box 404, Subiaco, 6904, Australia

1.3 Basic Description of Equipment Under Test

Items	Description	
Product Name	Fly6 PRO	
Model Number	CE604	
Trademark	CYCLIQ	
Power Supply	DC 3.85V from lithium battery	
Operating Temperature	5°C -35°C	
EUT Stage	○ Product Unit	● Final-Sample
Operating Band	5150MHz ~5250MHz	● IEEE 802.11a/n/ac (20MHz)
		● IEEE 802.11n/ac (40MHz)
		● IEEE 802.11ac (80MHz)
Product Type	IEEE 802.11a: WLAN (SISO) IEEE 802.11n: WLAN (SISO) IEEE 802.11ac: WLAN (SISO)	
Nominal Bandwidth	20MHz / 40MHz / 80MHz	
Modulation	OFDM	
Data Rate (Mbps)	IEEE 11a mode : 6/9/12/18/24/36/48/54 IEEE 11n mode : MCS0~MCS15 IEEE 11ac mode : MCS0~MCS9	
Antenna gain	3.67dBi	

Channel Information			
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	802.11a /n /ac (20MHz)	5180-5240	36-48
5150-5250	802.11n /ac (40MHz)	5190-5230	38-46
5150-5250	802.11ac (80MHz)	5210	42

Antenna Specification:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	AiBa	AB-W01	SMD	Ant	3.67

Note:

1. The antenna gain is provided by the manufacturer.
2. The antenna is for testing purposes only.
3. The antenna manufacture is Shenzhen Love Palladium Technology Co., Ltd.

2. Summary of Test Results

2.1 Summary of Test Items

47 CFR FCC Part 15, Subpart E (Section 15.407)			
Test item	Standard	Results	Remarks
AC Power Conducted Emission	15.207 15.407(b)	Pass	Meet the requirement of the limit
Radiated Emission	15.205(a) 15.209(a) 15.407(b)	Pass	Meet the requirement of the limit
Antenna Requirements	15.203	Compliance	Note
Spectrum Bandwidth	15.407(a) 15.407(e)	Pass	Meet the requirement of the limit
Maximum EIRP	15.407(a)	Pass	Meet the requirement of the limit
Power Spectral Density	15.407(a)	Pass	Meet the requirement of the limit
Note: The EUT has one SMD antenna arrangement which was permanently attached.			

2.2 Application of Standard

47 CFR FCC Part 15, Subpart E (Section 15.407)

KDB 789033 D02 General UNII Test Procedures New Rules v02r01

ANSI C63.10:2013

2.3 Test Instruments

Radiated Emissions						
No.	Equipment	Manufacturer	Type No.	Serial No.	Cal. date (yyyy/mm/dd)	Cal. Due date (yyyy/mm/dd)
1	Test receiver	Rohde&Schwarz	ESU	100184	2023/5/3	2024/5/2
2	Horn Antenna	Schwarzbeck	BBHA 9120 D	9120D-127 3	2023/4/23	2024/4/22
3	Low frequency amplifier	Unknown	LNA 0920N	2014	2023/5/3	2024/5/2
4	High frequency amplifier	Schwarzbeck	BBV 9718	284	2023/5/3	2024/5/2
5	Loop Antenna	Schwarzbeck	FMZB1519 B	00029	2022/7/4	2025/7/3
6	Log periodic antenna	Schwarzbeck	VULB 9168	1151	2023/4/23	2024/4/22
7	Horn Antenna	Schwarzbeck	BBHA 9120 D	9120D-127 3	2022/5/5	2025/5/4
8	Horn Antenna	Schwarzbeck	BBHA 9170	9170#685	2022/7/4	2025/7/3
9	Temp&Humidity Recorder	Meideshi	JR900	/	2023/5/3	2024/5/2
10	RF cable(966 chamber)9kHz-1 GHz	Unknown	Unknown	Unknown	2023/5/3	2024/5/2
11	RF cable(966 chamber)1GHz- 18GHz	Unknown	Unknown	Unknown	2023/5/3	2024/5/2
12	RF cable(966 chamber)18GHz -40GHz	Unknown	Unknown	Unknown	2023/5/3	2024/5/2
13	Test software	Farad Technology Co., Ltd	EZ-EMC	/	/	/
Conducted Emission						
1	Test receiver	Rohde&Schwarz	ESCI	100718	2023/5/3	2024/5/2
2	LISN	Rohde&Schwarz	ENV216	100075	2023/5/3	2024/5/2
3	Pulse limiter	Rohde&Schwarz	ESH3-Z2	102299	2023/5/3	2024/5/2
4	RF cable (9kHz-30MHz)	Unknown	Unknown	Unknown	2023/5/3	2024/5/2
5	Test software	Farad Technology Co., Ltd	EZ-EMC	/	/	/
RF Conducted Emission						
1	MXA Signal Analyzer	Keysight	N9021B	MY600801 69	2023/4/23	2024/4/22
2	RF Control Unit	dsuoft	JS0806-2	21G806044 9	2023/4/23	2024/4/22
3	power supply unit	dsuoft	JS0806-4A DC	N/A	2023/4/23	2024/4/22
4	VXG Signal Generator	Keysight	M9384B	MY612707 87	2023/4/23	2024/4/22
5	EXG Analog Signal Generator	Keysight	N5173B	MY591012 82	2023/4/23	2024/4/22
6	Test software	dsuoft	JS1120-3	/	/	/

2.4 Operation Mode

The EUT was supplied by and it was run in TX mode that was controlled by Master provided RF testing program. The worst case test result was showed in the report.

2.5 Test Condition

Applicable to	Environmental conditions	Input Power	Tested by
AC Power Conducted Emission	25°C, 53% RH	AC 120V/60Hz	Albert Fan
Radiated Emission	24°C, 51% RH	DC 3.85V	Albert Fan
Spectrum Bandwidth	24.4°C, 53% RH	DC 3.85V	Jason Huang
Conducted Power	24.4°C, 53% RH	DC 3.85V	Jason Huang
Power Spectral Density	24.4°C, 53% RH	DC 3.85V	Jason Huang

The applicant declare the operating environment of EUT as below:

Normal conditions: 120V AC, 5°C~35°C

2.6 Duty Cycle of Test Signal

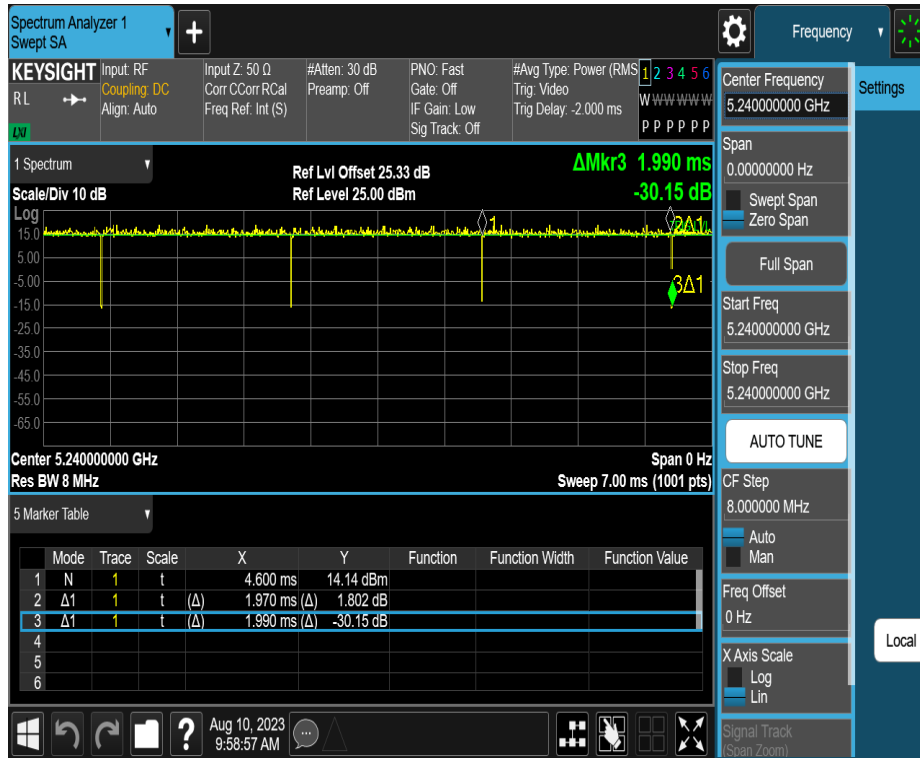
If duty cycle is $\geq 98\%$, duty factor is not required.

If duty cycle is $< 98\%$, duty factor shall be considered.

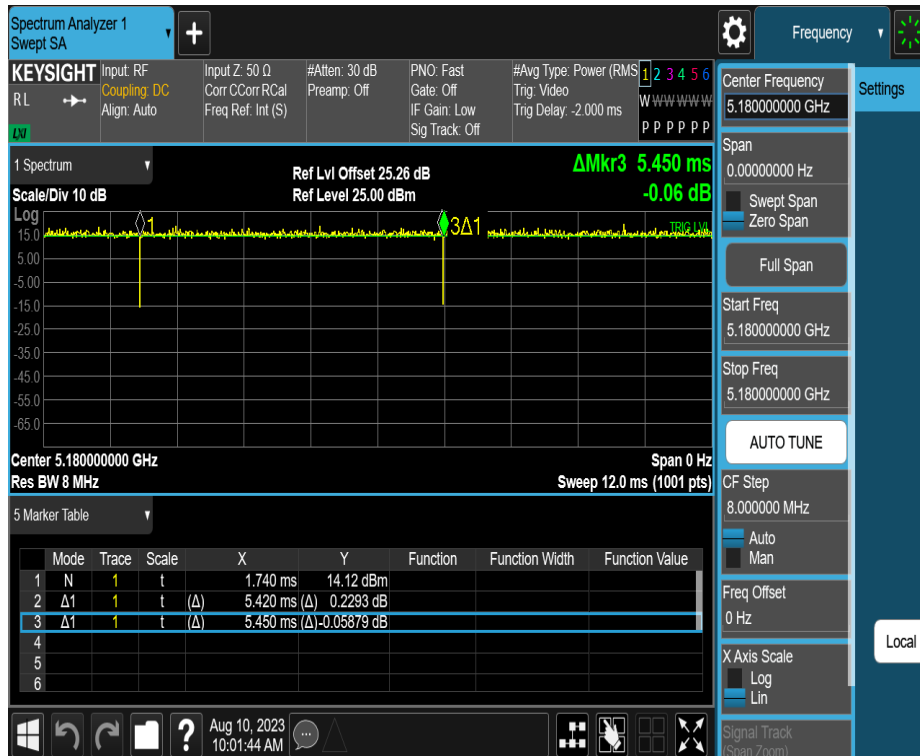
All the duty factor of other test mode have been considered.

Test Mode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
11A	Ant1	5180	1.98	2.00	99.00	---	---
		5200	1.98	2.00	99.00	---	---
		5240	1.97	1.99	98.99	---	---
11N20SISO	Ant1	5180	5.42	5.45	99.45	---	---
		5200	5.42	5.45	99.45	---	---
		5240	5.43	5.45	99.63	---	---
11N40SISO	Ant1	5190	5.43	5.45	99.63	---	---
		5230	5.42	5.44	99.63	---	---
11AC20SISO	Ant1	5180	5.42	5.45	99.45	---	---
		5200	5.43	5.45	99.63	---	---
		5240	5.43	5.45	99.63	---	---
11AC40SISO	Ant1	5190	5.43	5.44	99.82	---	---
		5230	5.43	5.44	99.82	---	---
11AC80SISO	Ant1	5210	5.42	5.44	99.63	---	---

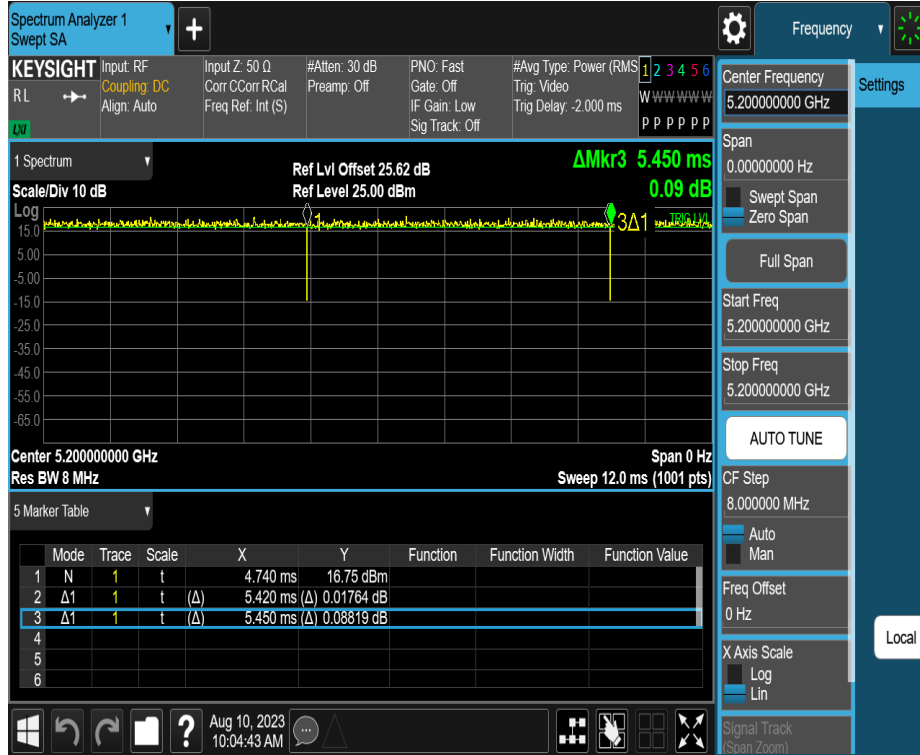
11A_Ant1_5240



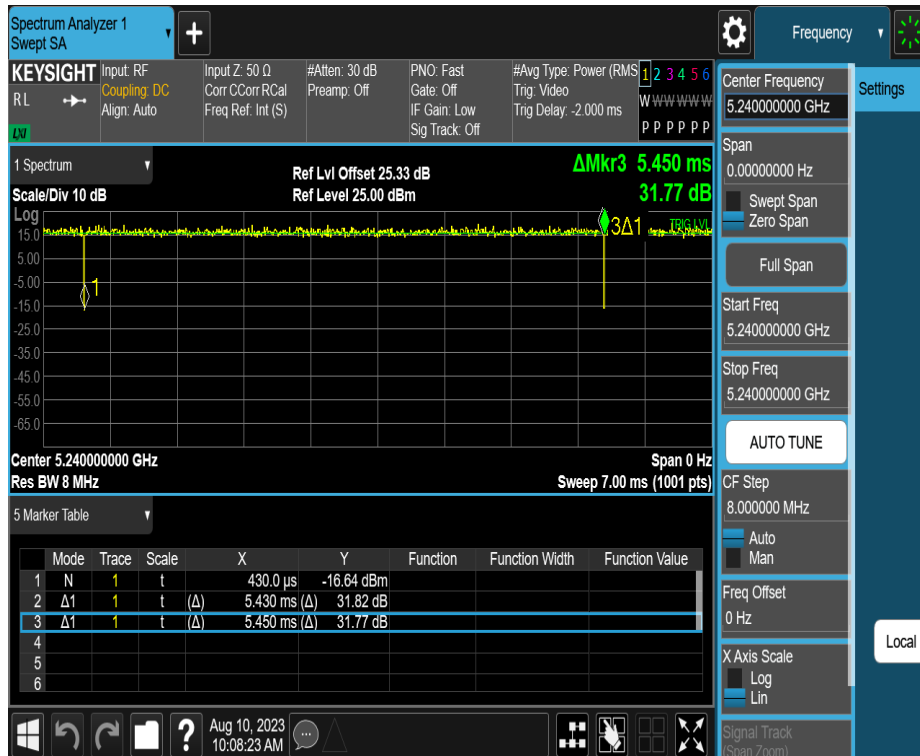
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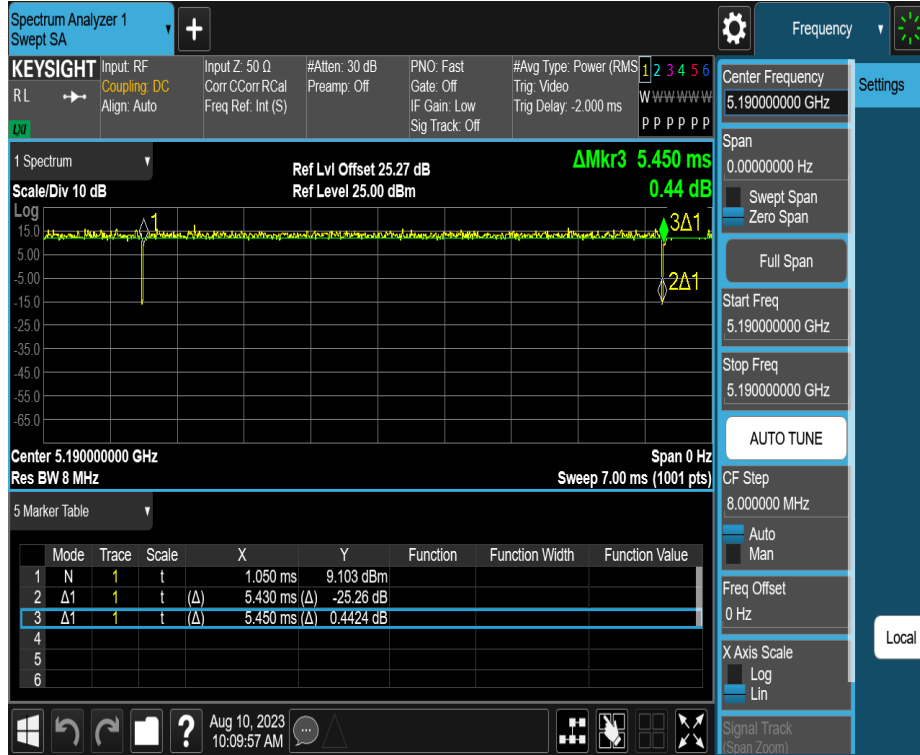
11N20SISO_Ant1_5200



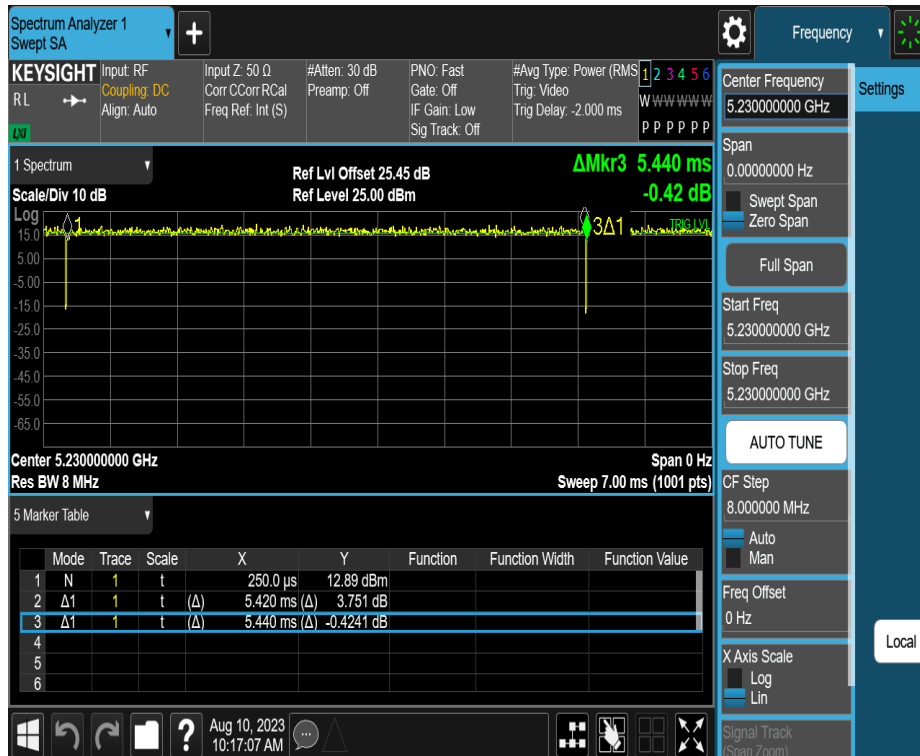
11N20SISO_Ant1_5240



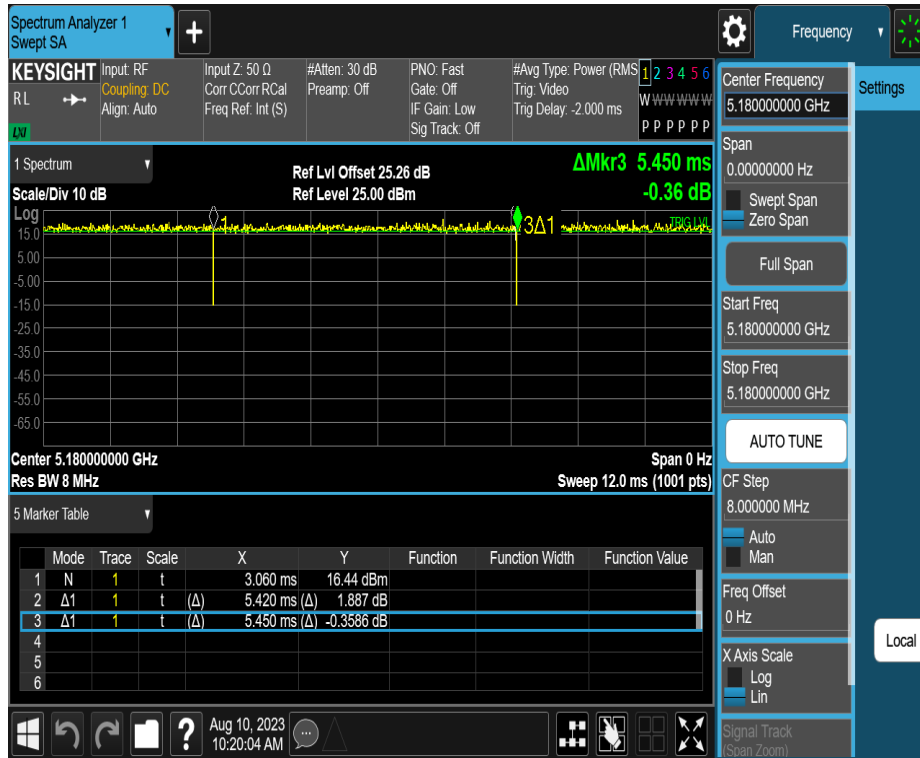
11N40SISO_Ant1_5190



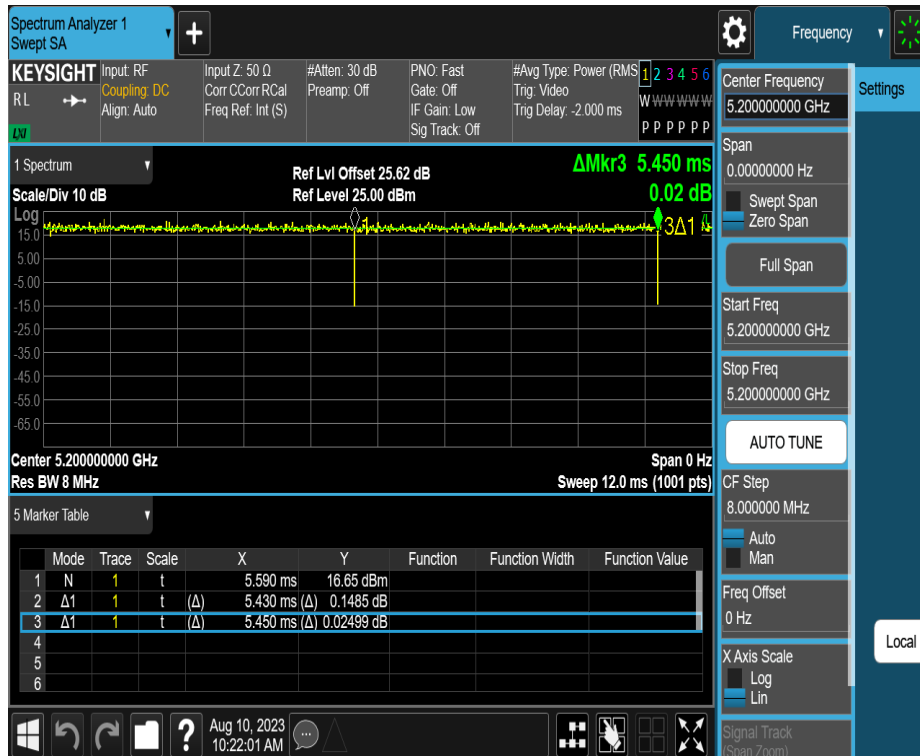
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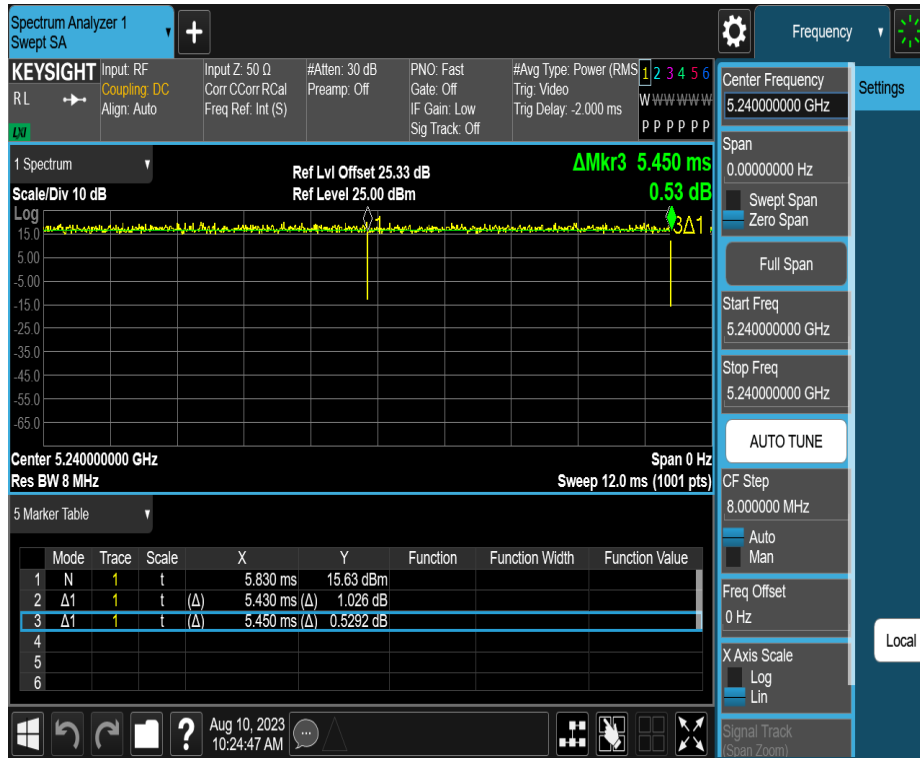
11AC20SISO_Ant1_5180



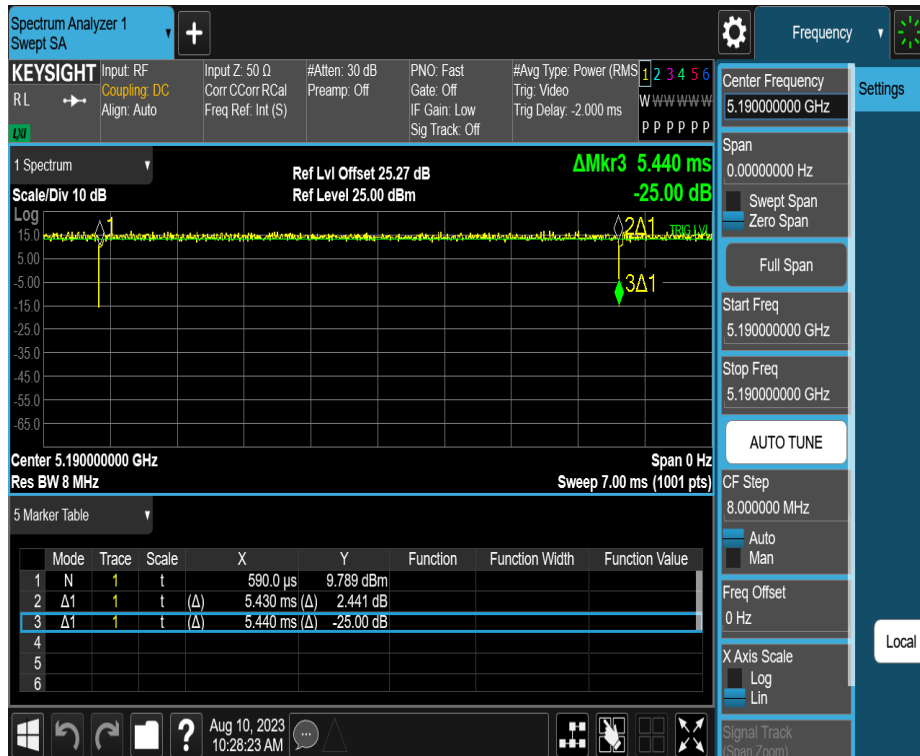
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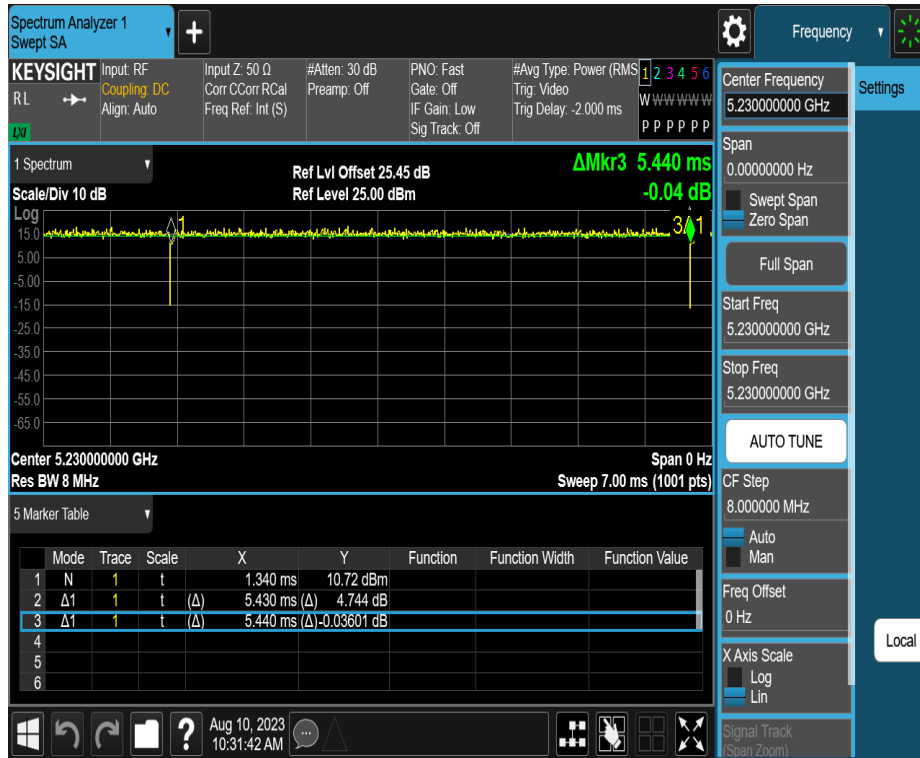
11AC20SISO_Ant1_5240



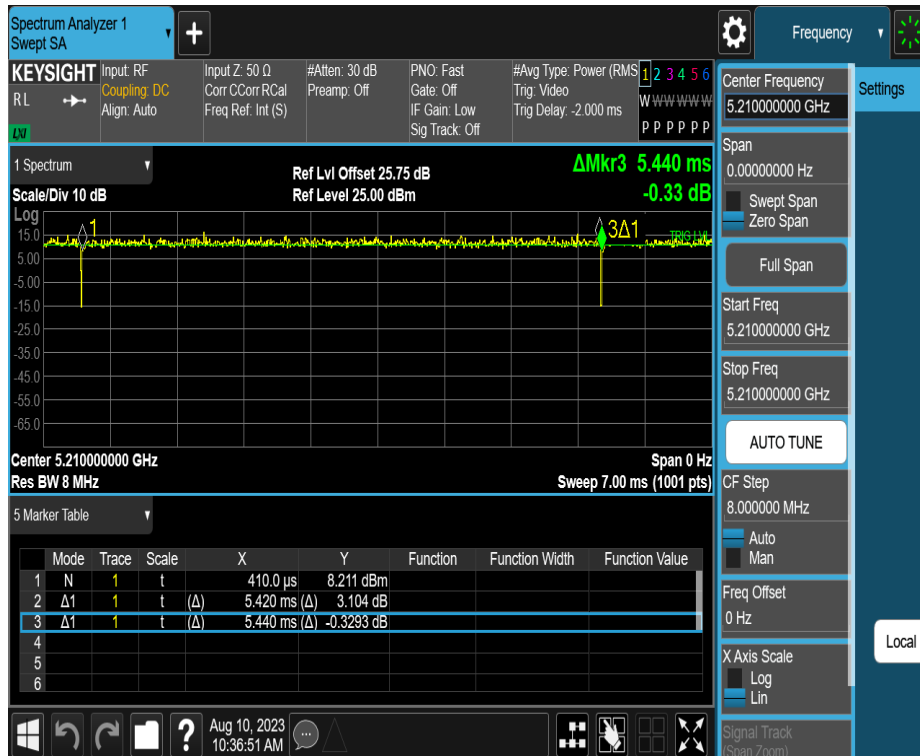
11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



11AC80SISO_Ant1_5210



2.7 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT.

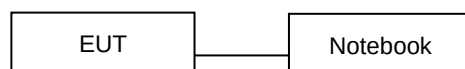
This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

Uncertainty	
Parameter	Uncertainty
Occupied Channel Bandwidth	$\pm 143.88\text{kHz}$
Power Spectral Density	$\pm 0.743\text{dB}$
Conducted Spurious Emission	$\pm 1.328\text{dB}$
RF power conducted	$\pm 0.384\text{dB}$
Conducted emission(9kHz~30MHz) AC main	$\pm 2.72\text{dB}$
Radiated emission(9kHz~30MHz)	$\pm 2.66\text{dB}$
Radiated emission (30MHz~1GHz)	$\pm 4.62\text{dB}$
Radiated emission (1GHz~18GHz)	$\pm 4.86\text{dB}$
Radiated emission (18GHz~40GHz)	$\pm 3.80\text{dB}$

2.8 Test Location

Company:	Shenzhen Haiyun Standard Technical CO., Ltd.
Address:	No. 110-113, 115, 116, Block B, Jinyuan Business Building, Bao'an District, Shenzhen, China
CNAS Registration Number:	CNAS L18252
CAB identifier:	CN0145
Company Number:	30427
A2LA Certificate Number:	6823.01
FCC Designation Number:	CN1340
Test Firm Registration Number.	457288
Telephone:	0755-26024411

2.9 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.10 SUPPORT UNITS

Support Equipment				
No.	Equipment	Brand Name	Model Name	Remarks
1	Notebook	Lenovo	Thinkbook 15	/
2	Adapter	Lenovo	ADLX65ULGC2A	/

2.11 Deviation from Standards

None

2.12 Abnormalities from Standard Conditions

None

3. Test Procedure And Results

3.1 AC Power Line Conducted Emission

3.1.1 Limit

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μ V)	Average Level dB(μ V)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.

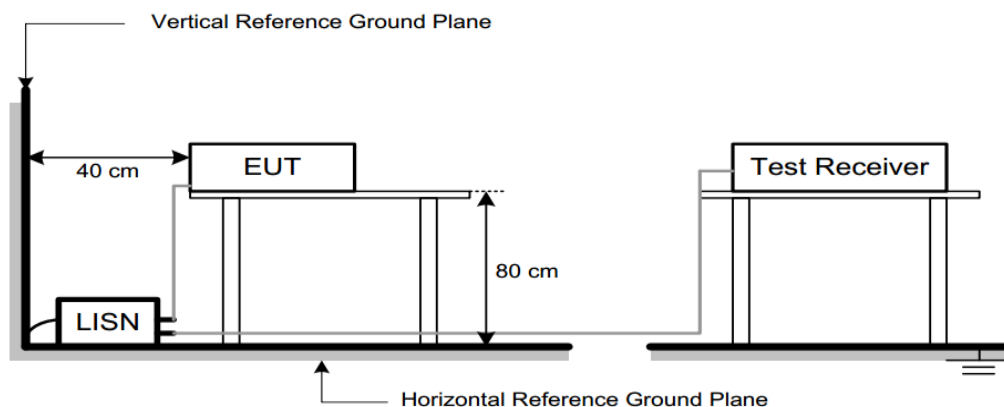
2. The lower limit shall apply at the transition frequencies.

3.1.2 Test Procedure

Test Method	
●Conducted Measurement	○Radiated Measurement
Test Channels	
○ Lowest, Middle and Highest Channel	○ Lowest and Highest Channel
Environmental conditions	
●Normal	○Normal and Extreme
Note: ●:Test ○:No Test	

- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

3.1.3 Test Setup



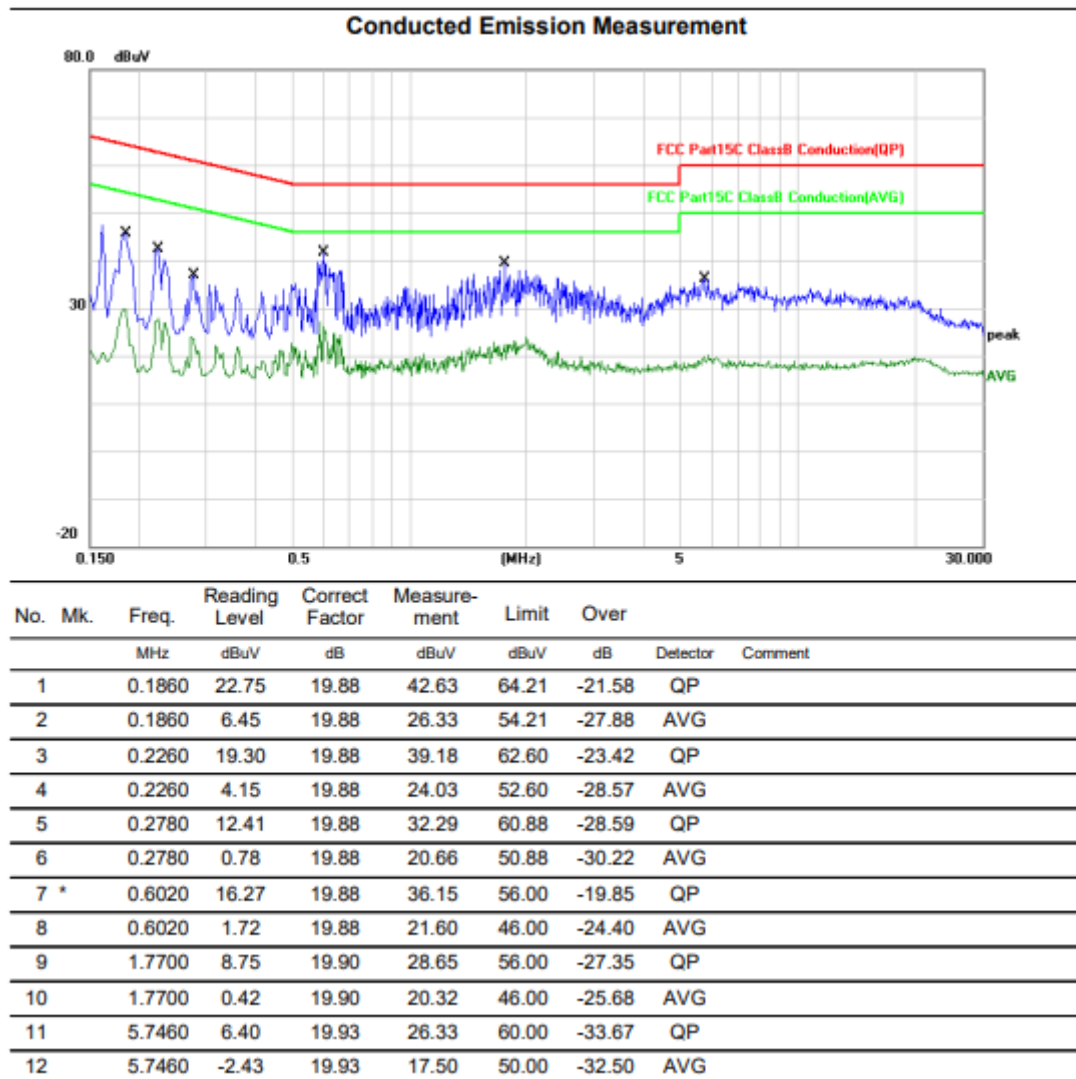
3.1.4 Test Result

Note:

1. Correct Factor = LISN Factor + Cable Loss + Pulse Limiter Factor, the value was added to Original Receiver Reading by the software automatically.
2. Measurement = Reading + Correct Factor.
3. Over = Measurement – Limit
4. The TX 11a Mode Channel 36 is found to be the worst case and recorded.

150kHz~30MHz	TX 11a Channel 36
--------------	-------------------

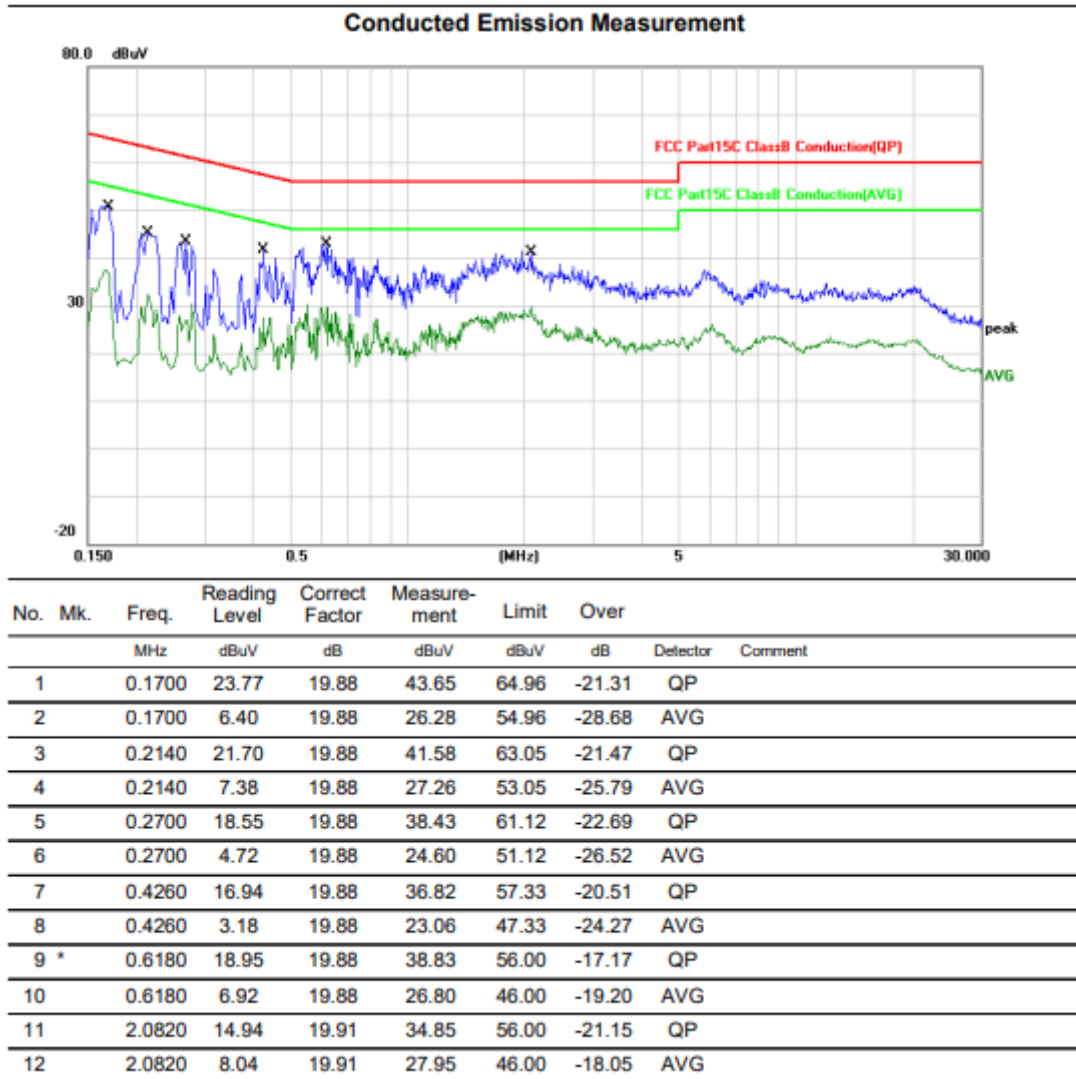
Line



150kHz~30MHz

TX 11a Channel 36

Neutral



3.2 Radiated Emission

3.2.1 Limit

1) Limit of radiated emission measurement:

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

Frequency (MHz)	Distance Meters(m)	Field Strength Limit	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V})/\text{m}$
0.009 – 0.49	300	2400/F(kHz)	-
0.490 – 1.705	30	24000/F(kHz)	-
1.705 – 30	30	30	-
30~88	3	100	40.0
88~216	3	150	43.5
216~960	3	200	46.0
960~1000	3	500	54.0
Above 1000	3	74.0 $\text{dB}(\mu\text{V})/\text{m}$ (Peak) 54.0 $\text{dB}(\mu\text{V})/\text{m}$ (Average)	

Note: (1) Emission level $\text{dB}\mu\text{V} = 20 \log$ Emission level $\mu\text{V/m}$

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

2) Limit of unwanted emission out of the restricted bands:

Frequency(MHz)	EIRP Limit(dBm/MHz)	Equivalent Field Strength at 3m($\text{dB}\mu\text{V/m}$)
5150-5250	-27	68.2
5250-5350	-27	68.2
5470-5725	-27	68.2
5725-5850	-27 NOTE (2)	68.2
	10 NOTE (2)	105.2
	15.6 NOTE (2)	110.8
	27 NOTE (2)	122.2

Note: (1) The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength: $E[\text{dB}\mu\text{V/m}] = \text{EIRP}[\text{dBm}] + 95.2$, for $d=3\text{m}$

(2) According to 15.407(b)(4)(i), all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

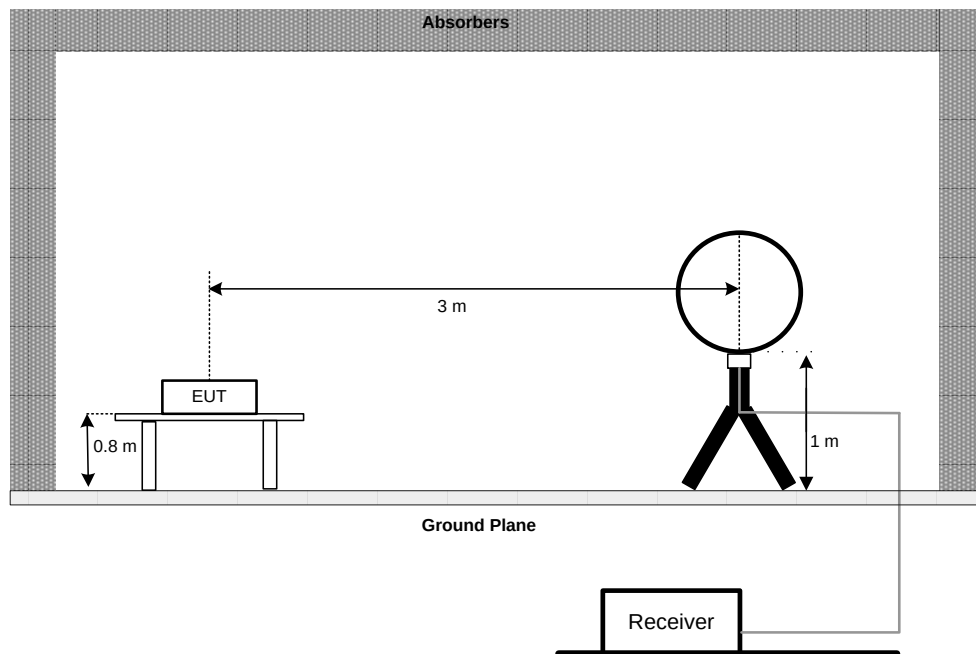
3.2.2 Test Procedure

Test Method	
○Conducted Measurement	●Radiated Measurement
Test Channels	
●Lowest, Middle and Highest Channel	○ Lowest and Highest Channel
Environmental conditions	
●Normal	○Normal and Extreme
Note:●:Test ○:No Test	

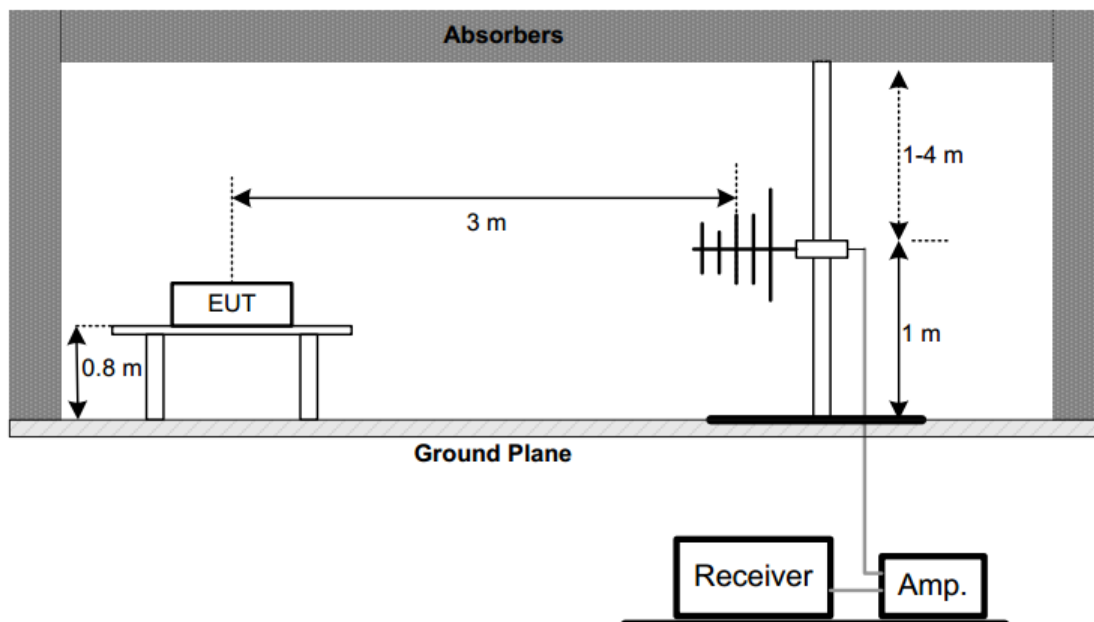
- a) The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
- b) The measuring distance of 3 m or 1.5m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- c) The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d) For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- e) The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
- f) The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- g) All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform. (below 1 GHz)
- h) All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1 GHz)
- i) For the actual test configuration, please refer to the related Item -EUT Test Photos.

3.2.3 Test Setup

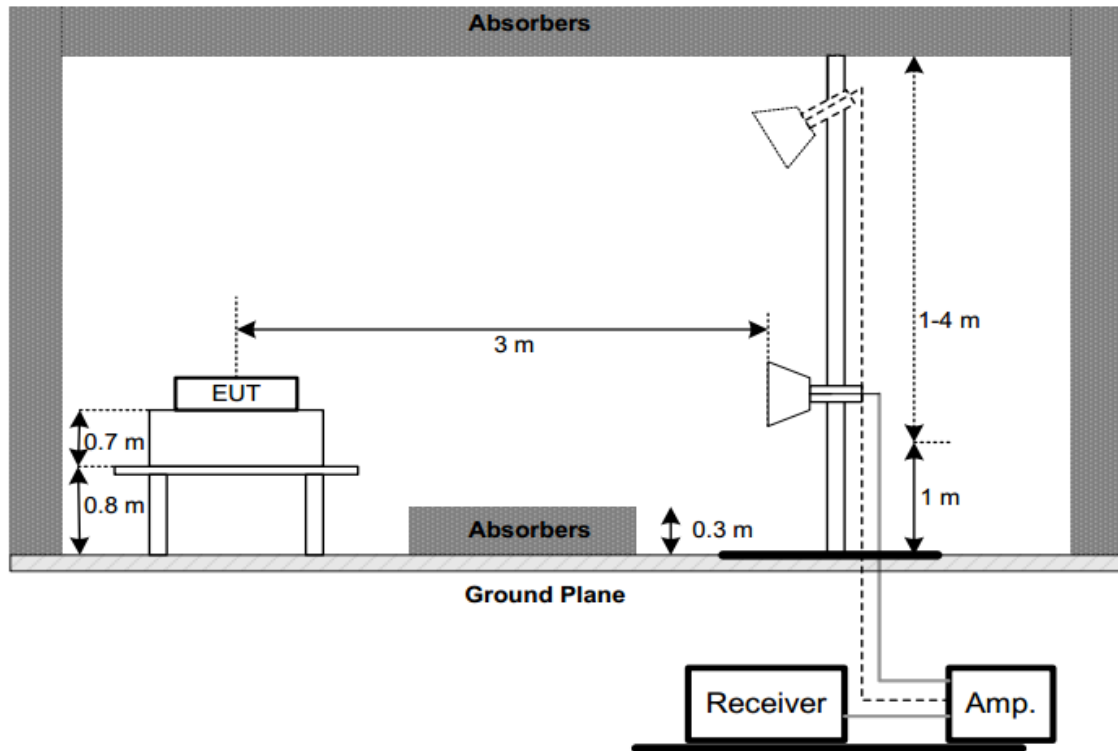
(A) Radiated Emission Test Set-Up Frequency Below 30 MHz



(B) Radiated Emission Test Set-Up Frequency 30 MHz-1000 MHz



(C) Radiated Emission Test Set-Up Frequency Above 1 GHz



3.2.4 Test Result

1) Radiated emission: 9kHz-30MHz

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not recorded in this report.

2) Radiated emission: 30MHz-1G

Note:

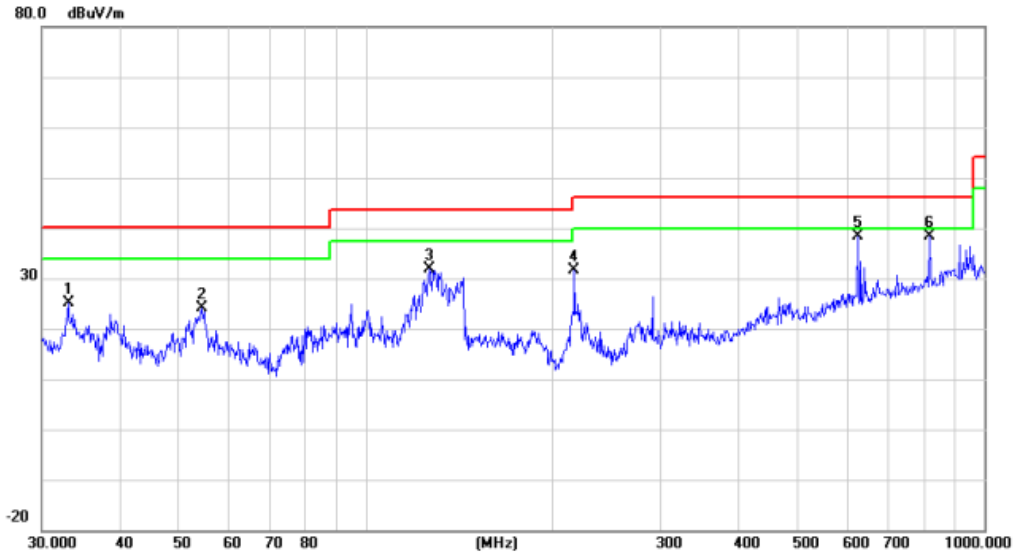
1. Measurement = Reading + Correct Factor.
2. Over = Measurement – Limit
3. The TX 11a Mode Channel 36 is found to be the worst case and recorded.

Below 1G (30MHz~1GHz)

TX 11a Channel 36

VERTICAL

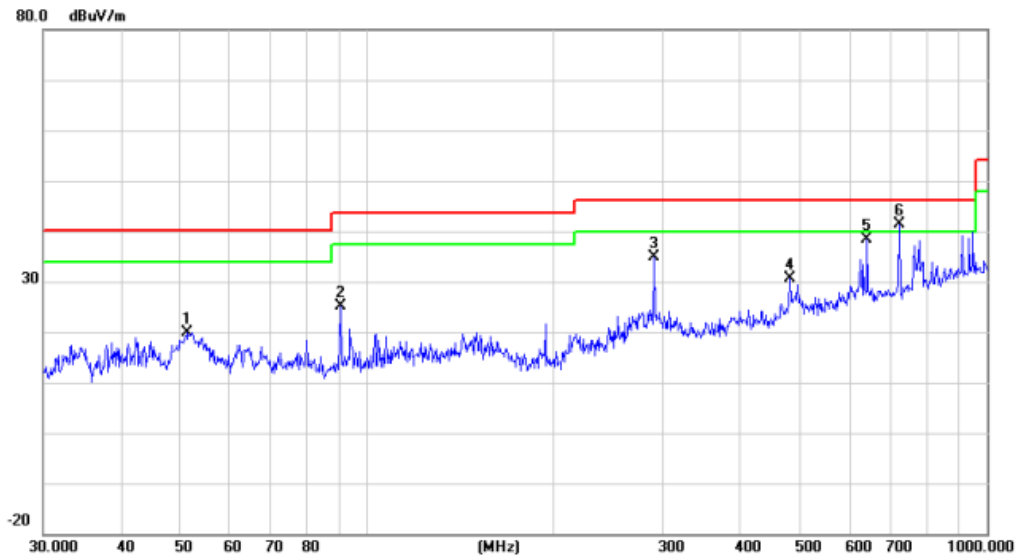
Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		33.0950	36.96	-11.91	25.05	40.00	-14.95	QP
2		54.4516	35.65	-11.51	24.14	40.00	-15.86	QP
3		126.7723	42.37	-10.51	31.86	43.50	-11.64	QP
4		217.5443	42.44	-10.84	31.60	46.00	-14.40	QP
5	*	625.0780	38.61	-0.21	38.40	46.00	-7.60	QP
6		815.9678	35.14	3.16	38.30	46.00	-7.70	QP

HORIZONTAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1		51.3005	31.05	-11.16	19.89	40.00	-20.11	QP
2		90.5374	39.77	-14.64	25.13	43.50	-18.37	QP
3		290.0172	43.43	-8.49	34.94	46.00	-11.06	QP
4		480.5276	34.68	-3.93	30.75	46.00	-15.25	QP
5		640.6110	38.25	0.02	38.27	46.00	-7.73	QP
6 *		721.7260	39.94	1.36	41.30	46.00	-4.70	QP

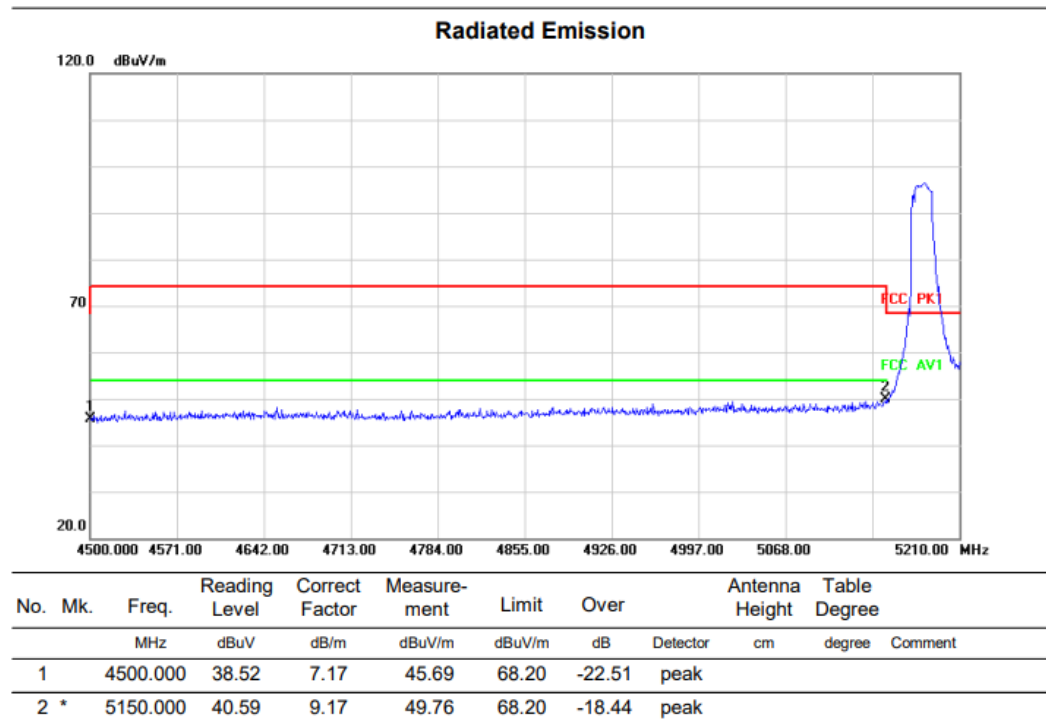
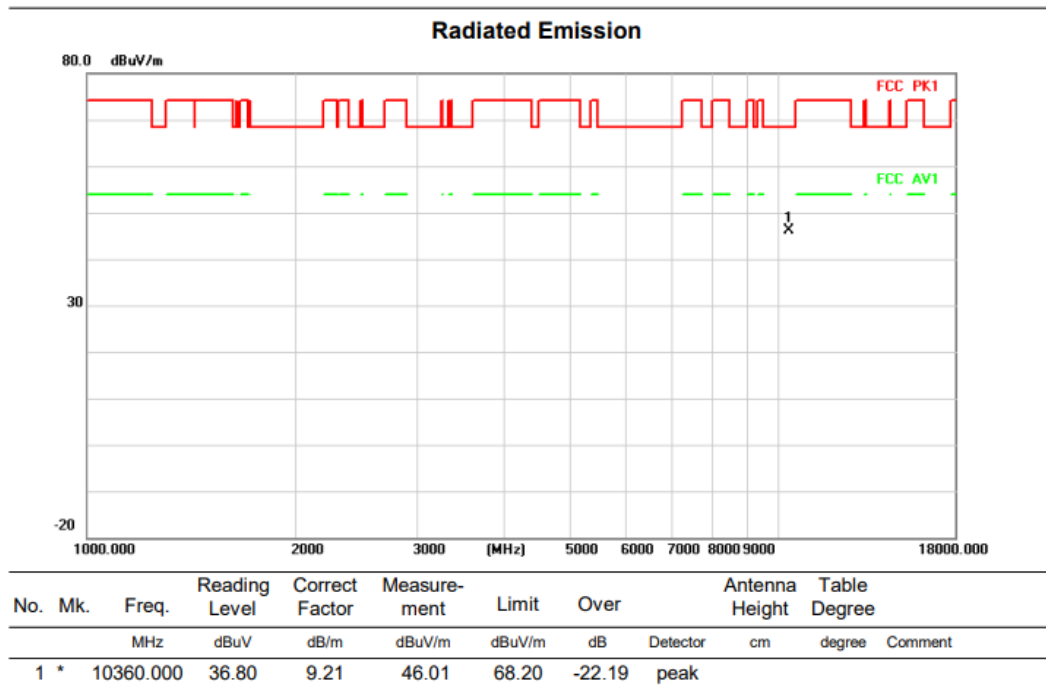
3) Radiated emission: Above 1G

Note:

1. Measurement = Reading + Correct Factor.
2. Over = Measurement – Limit

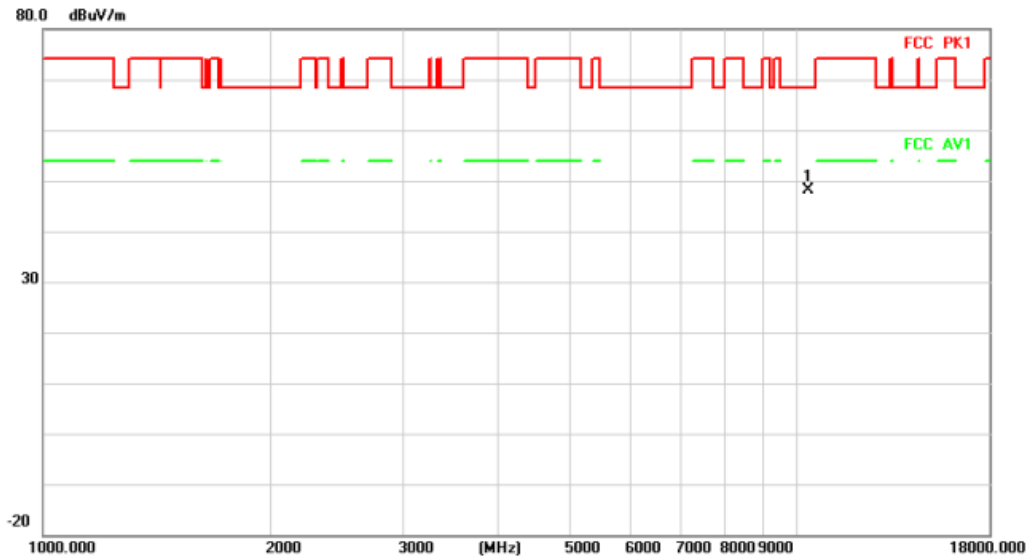
Above 1G (1GHz~18GHz)	Test mode:11A	Test Channel:36
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VERTICAL



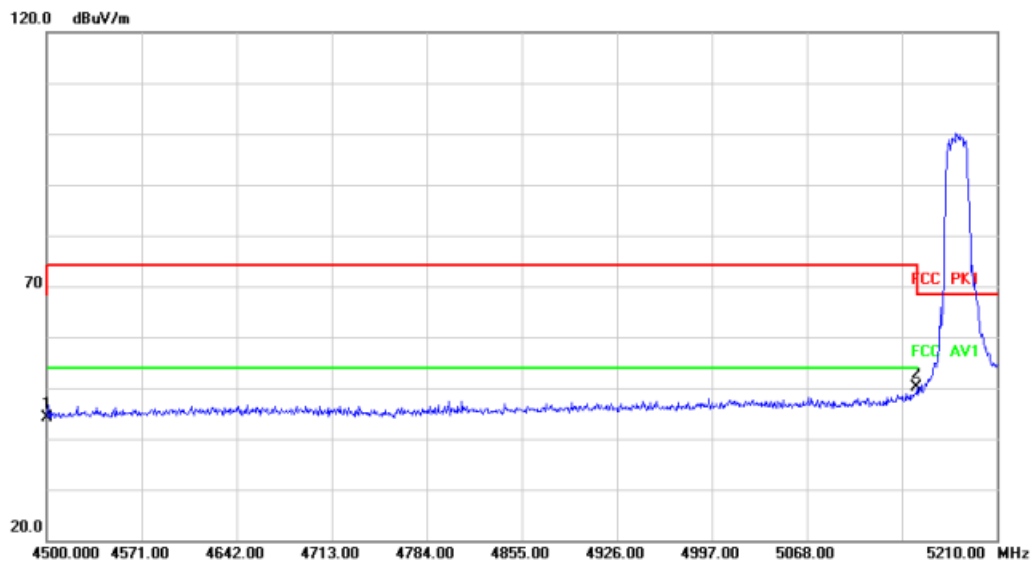
HORIZONTAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	10360.000	38.98	9.21	48.19	68.20	-20.01	peak		

Radiated Emission



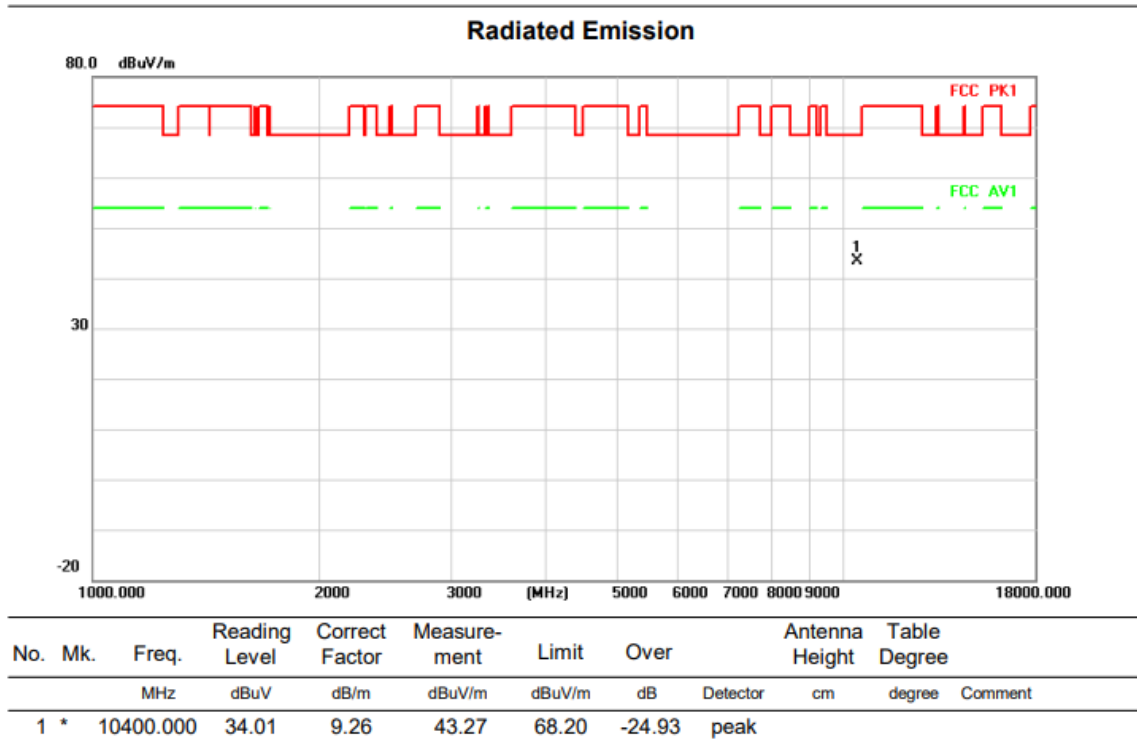
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		4500.000	36.96	7.17	44.13	68.20	-24.07	peak		
2	*	5150.000	40.89	9.17	50.06	68.20	-18.14	peak		

Above 1G (1GHz~18GHz)

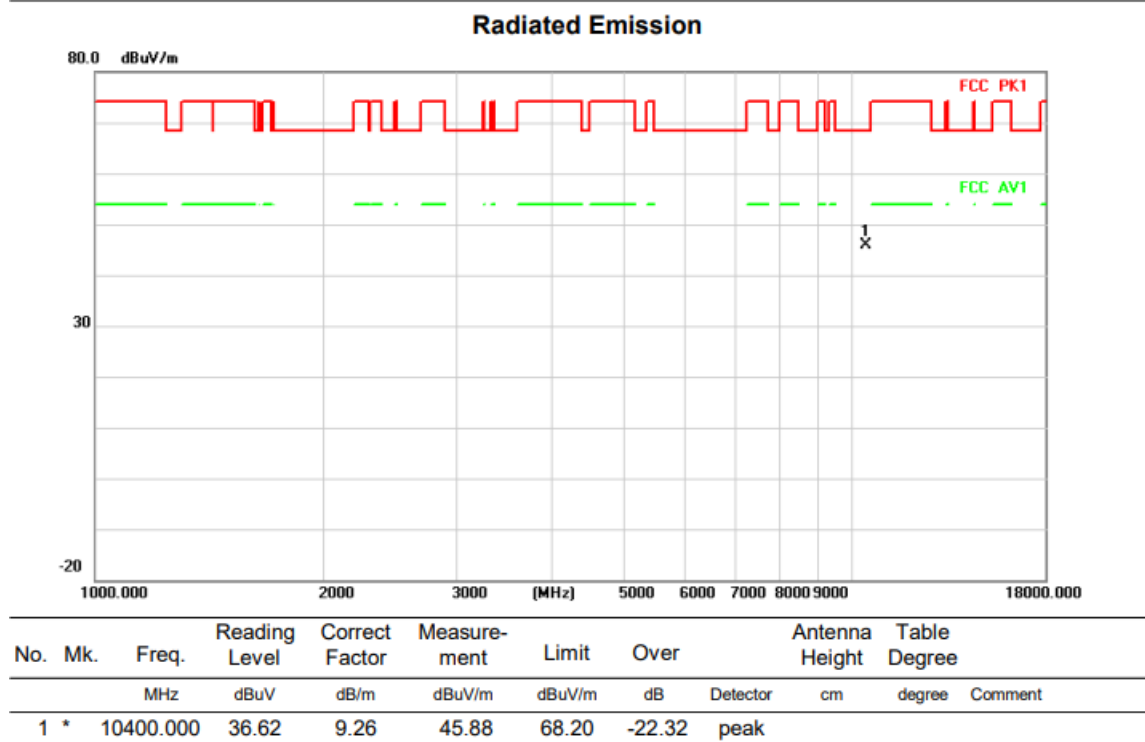
Test mode: 11A

Test Channel:40

VERTICAL



HORIZONTAL



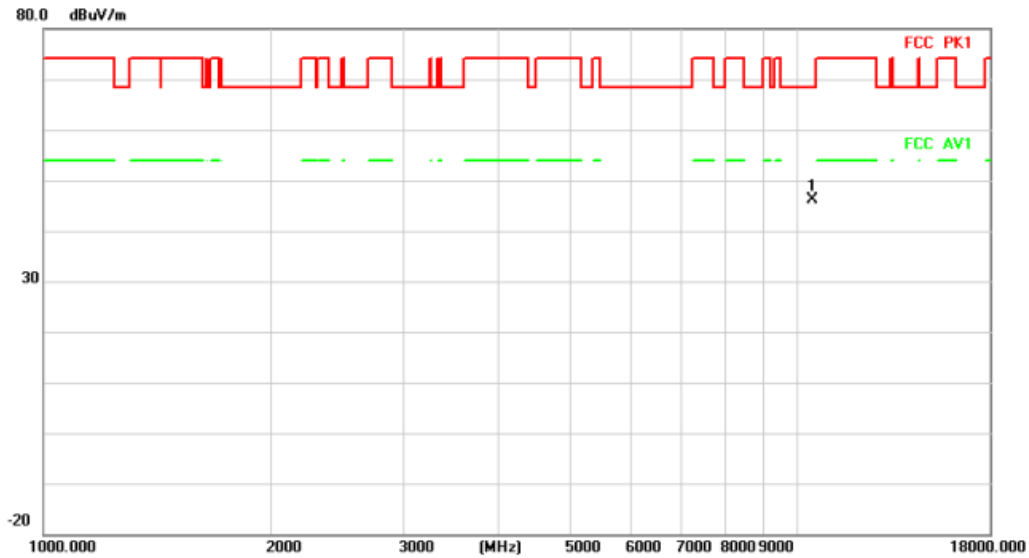
Above 1G (1GHz~18GHz)

Test mode: 11A

Test Channel:48

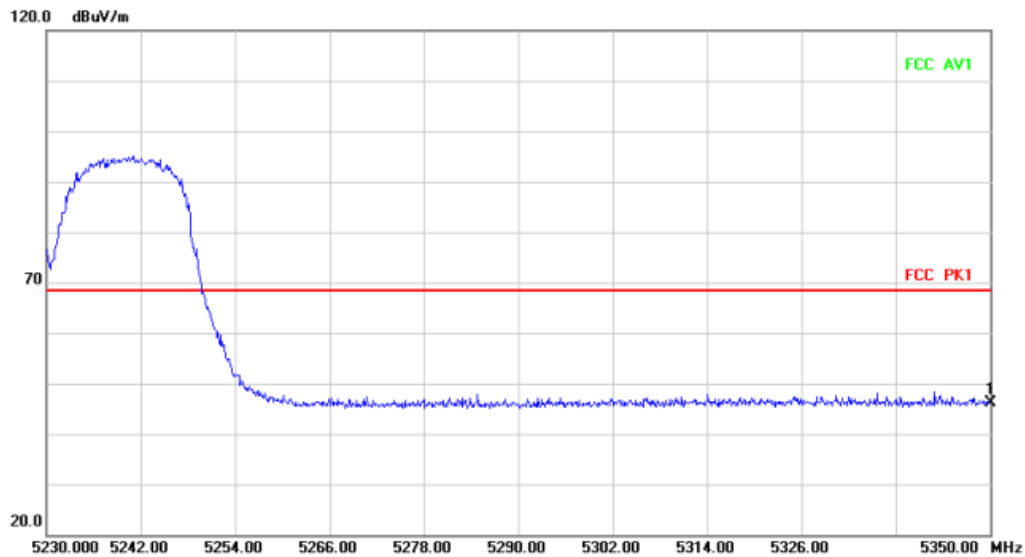
VERTICAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	10480.000	36.87	9.37	46.24	68.20	-21.96	peak		Comment

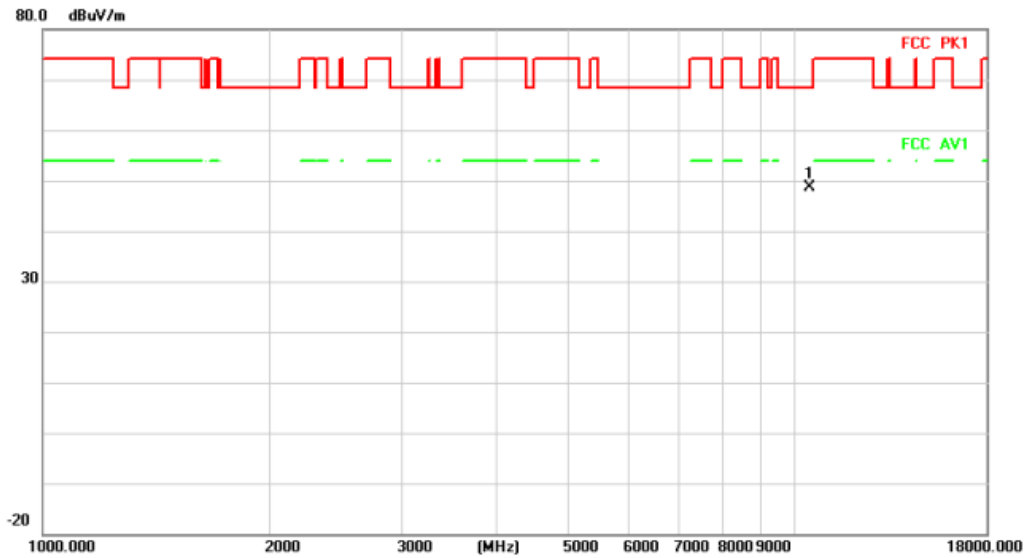
Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	5350.000	36.93	9.30	46.23	68.20	-21.97	peak		Comment

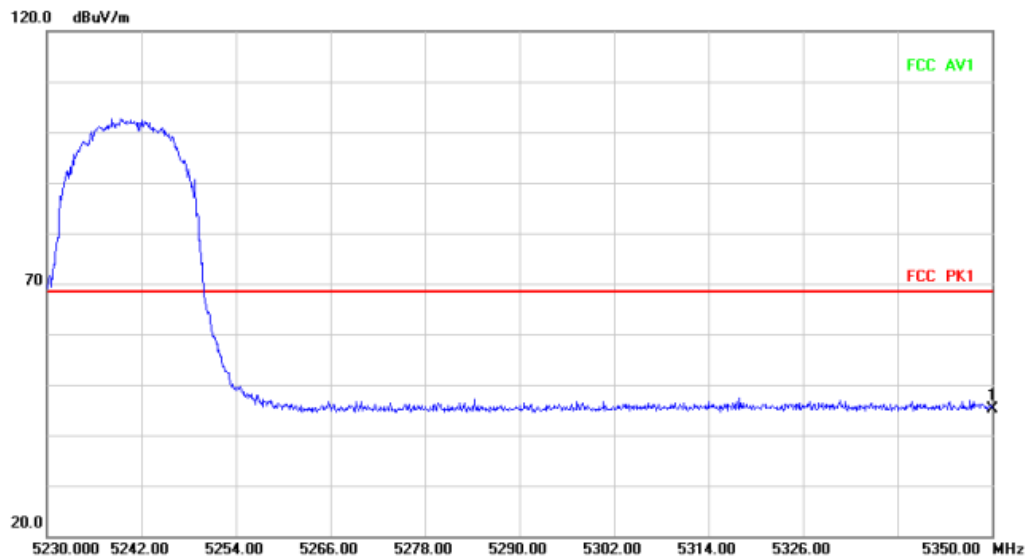
HORIZONTAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	10480.000	39.19	9.37	48.56	68.20	-19.64	peak		Comment

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	5350.000	35.83	9.30	45.13	68.20	-23.07	peak		Comment

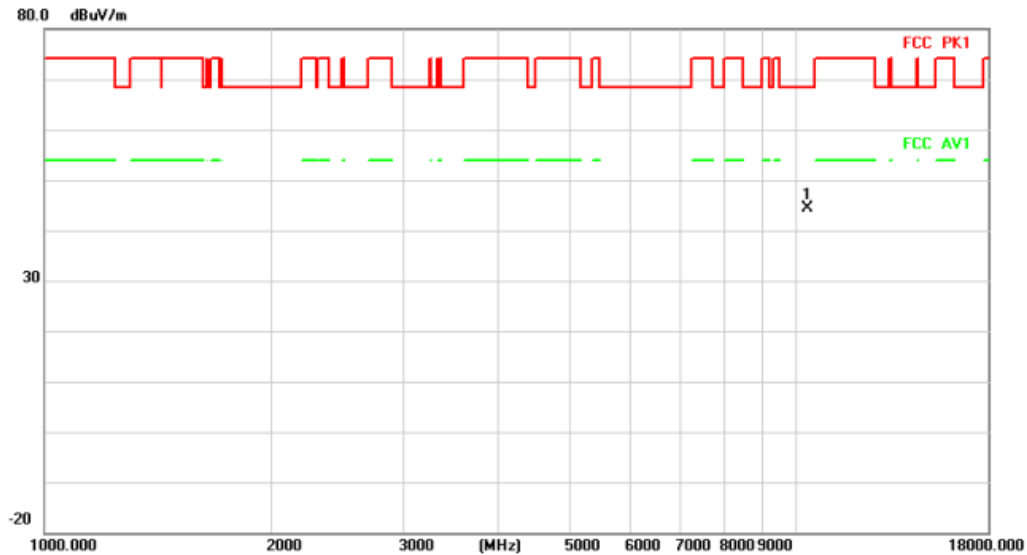
Above 1G (1GHz~18GHz)

Test mode: 11N20SISO

Test Channel:36

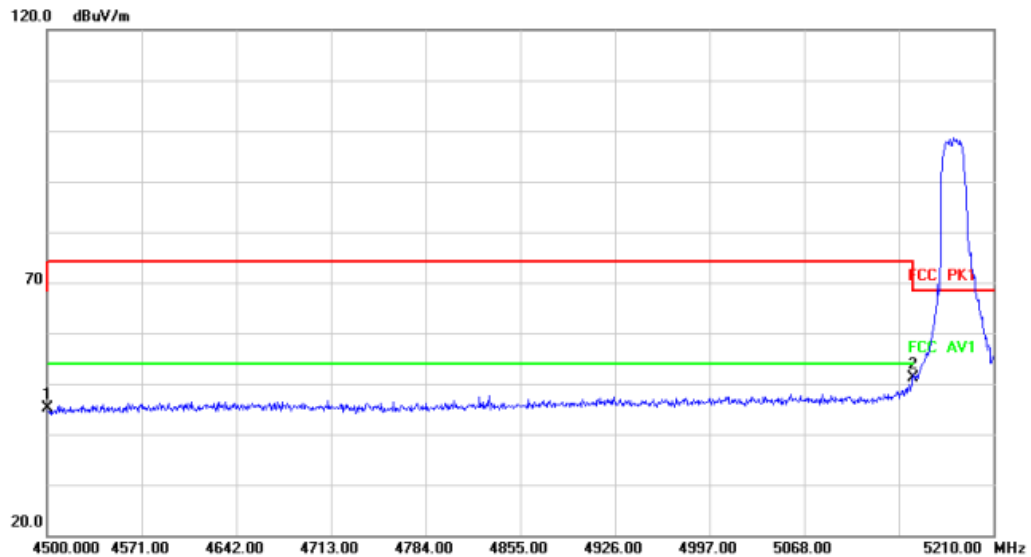
VERTICAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	10360.000	35.15	9.21	44.36	68.20	-23.84	peak		

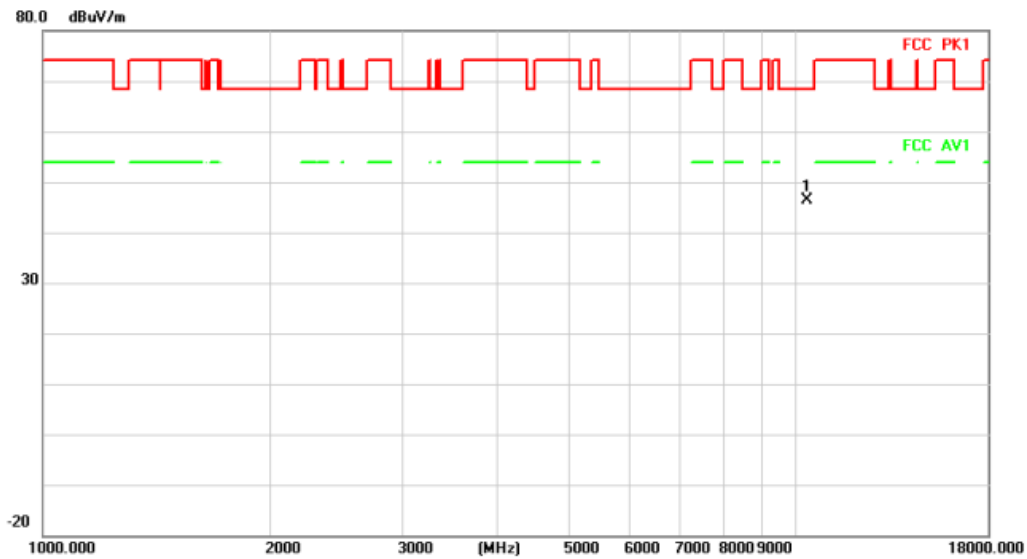
Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		4500.000	37.99	7.17	45.16	68.20	-23.04	peak		
2	*	5150.000	42.02	9.17	51.19	68.20	-17.01	peak		

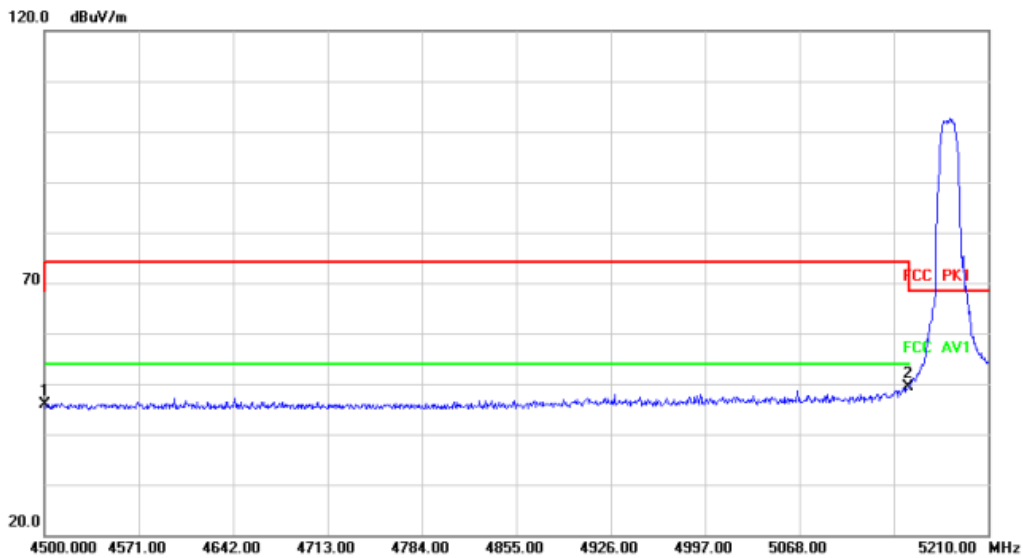
HORIZONTAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	10360.000	37.29	9.21	46.50	68.20	-21.70	peak		Comment

Radiated Emission



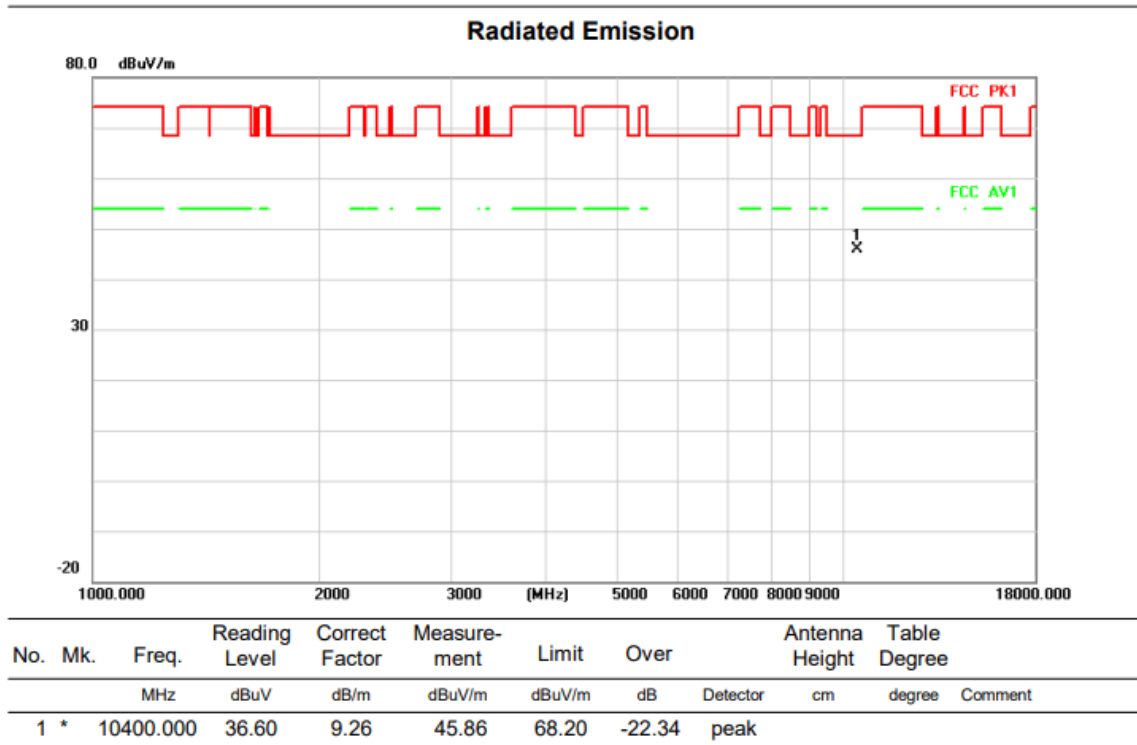
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		4500.000	38.82	7.17	45.99	68.20	-22.21	peak		Comment
2	*	5150.000	40.24	9.17	49.41	68.20	-18.79	peak		Comment

Above 1G (1GHz~18GHz)

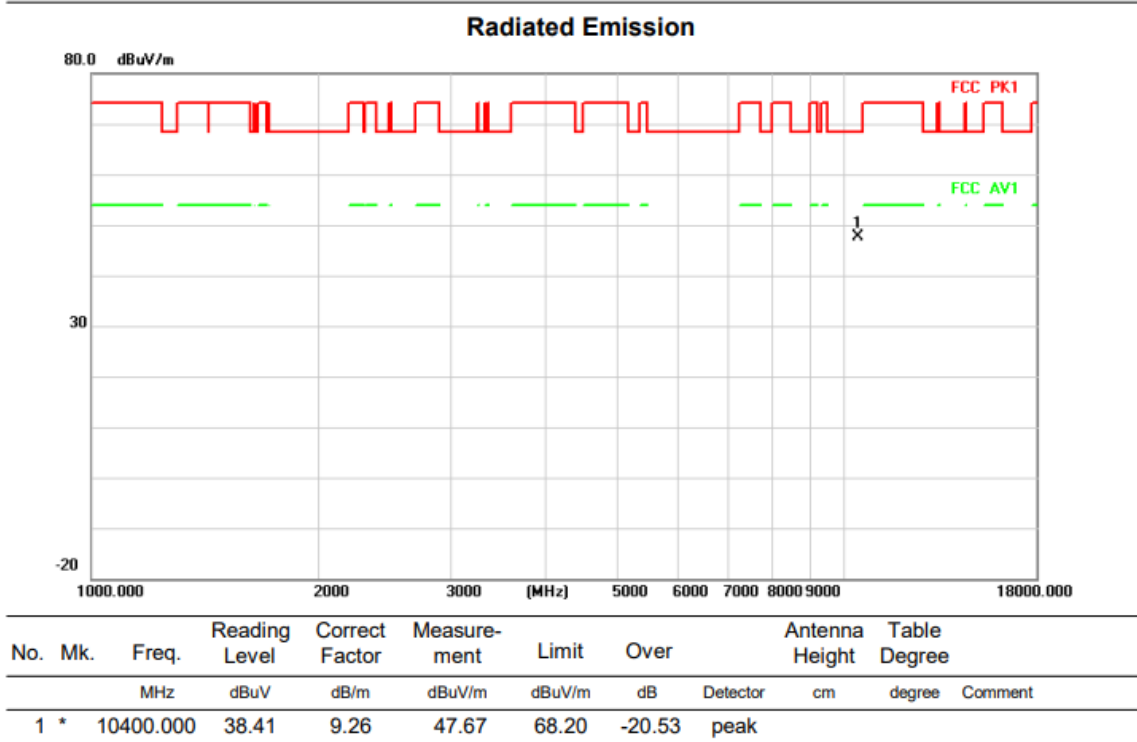
Test mode: 11N20SISO

Test Channel:40

VERTICAL



HORIZONTAL



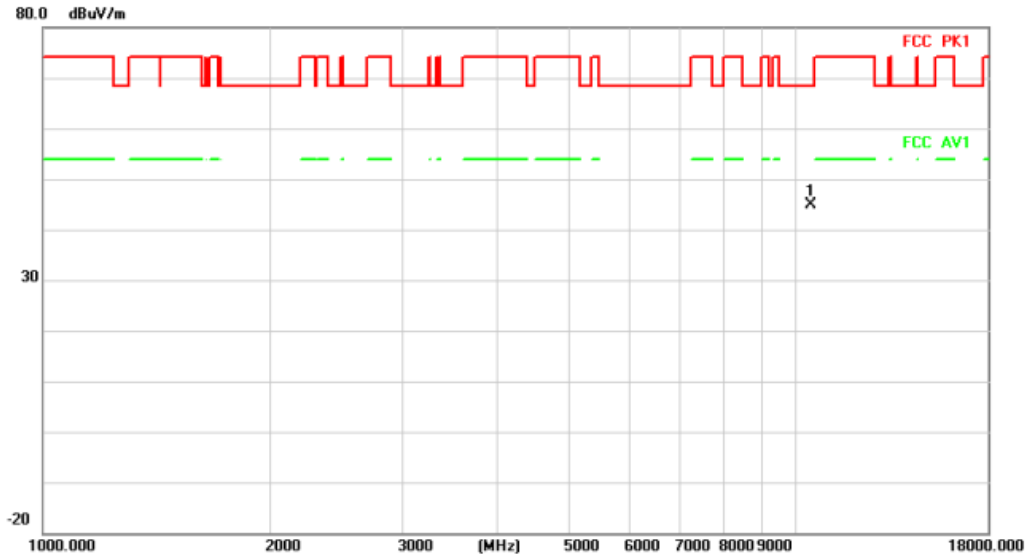
Above 1G (1GHz~18GHz)

Test mode: 11N20SISO

Test Channel:48

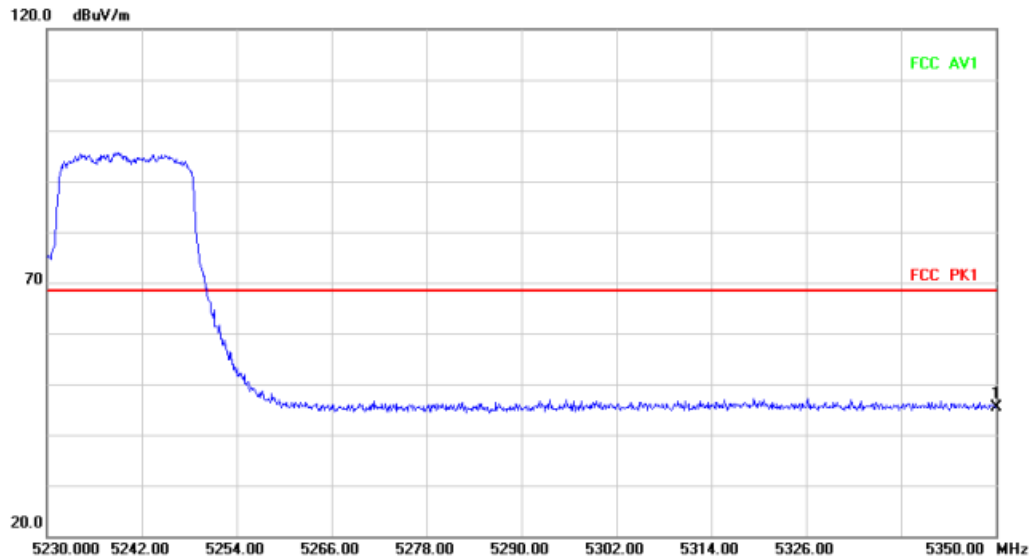
VERTICAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	10480.000	35.51	9.37	44.88	68.20	-23.32	peak		

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	5350.000	36.18	9.30	45.48	68.20	-22.72	peak		

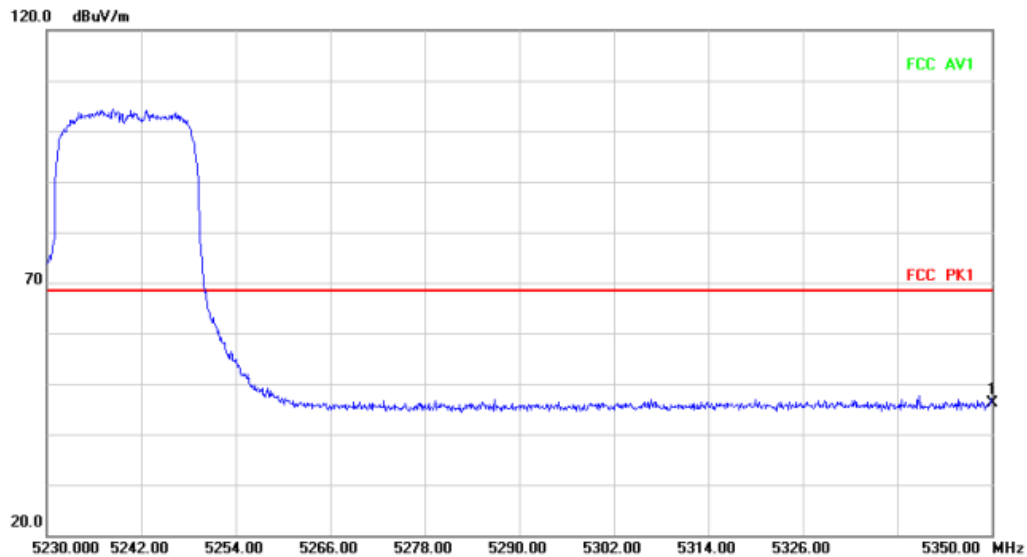
HORIZONTAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	10480.000	36.99	9.37	46.36	68.20	-21.84	peak		Comment

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	5350.000	36.78	9.30	46.08	68.20	-22.12	peak		Comment

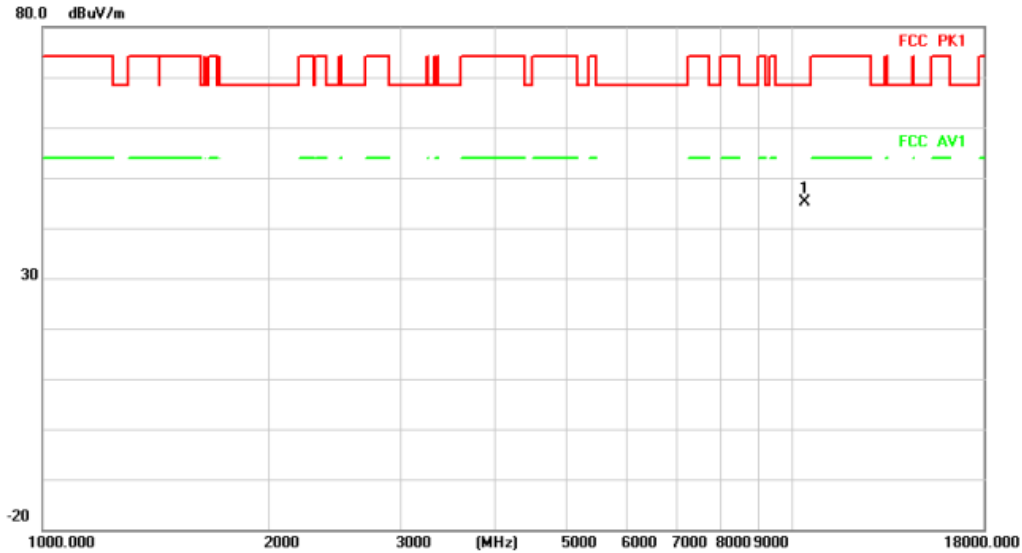
Above 1G (1GHz~18GHz)

Test mode: 11N40SISO

Test Channel:38

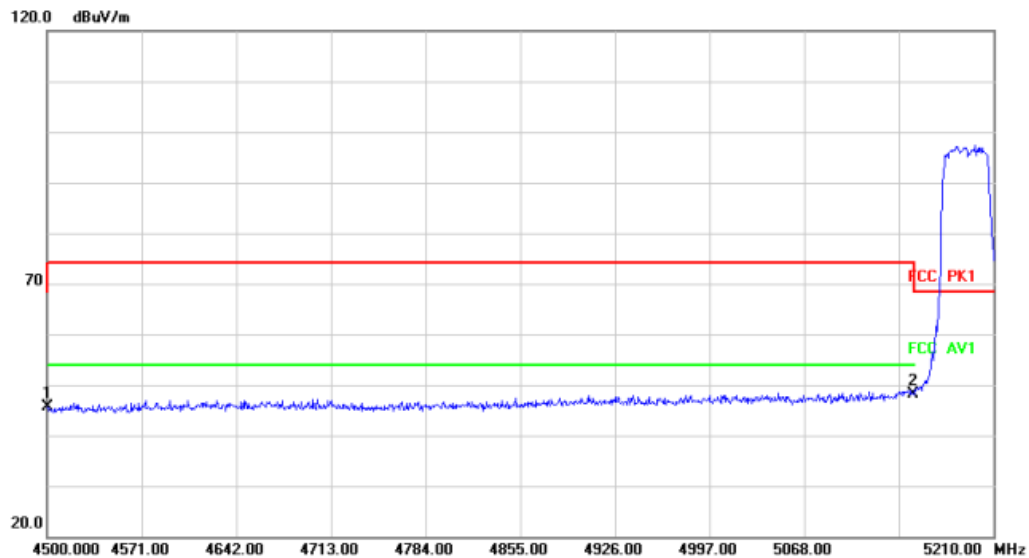
VERTICAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	10380.000	35.86	9.24	45.10	68.20	-23.10	peak		

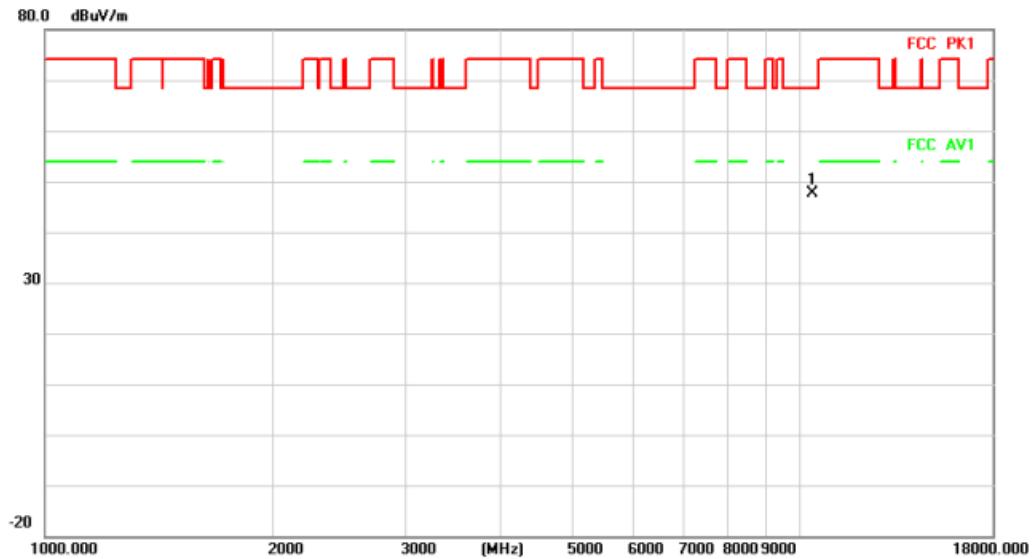
Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		4500.000	38.38	7.17	45.55	68.20	-22.65	peak		
2	*	5150.000	38.92	9.17	48.09	68.20	-20.11	peak		

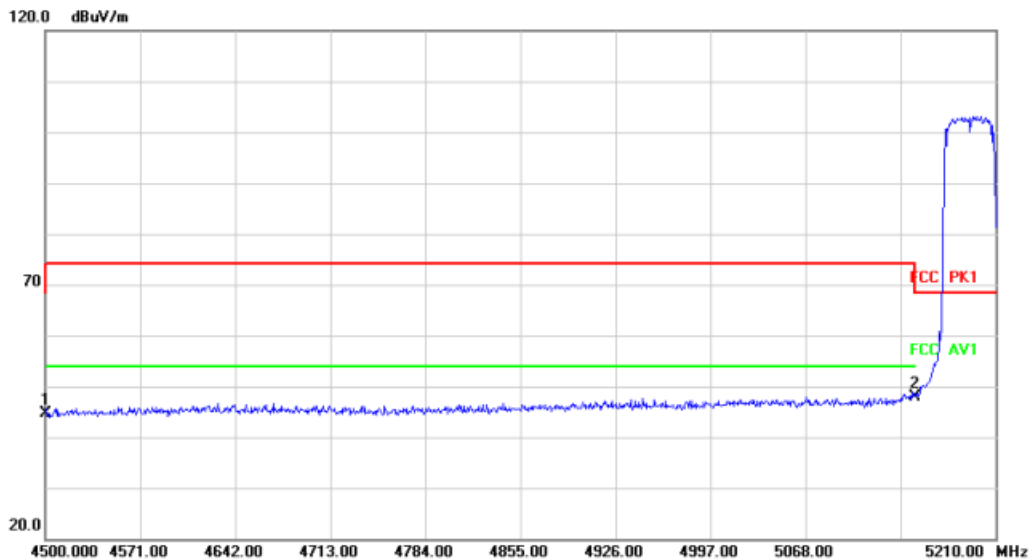
HORIZONTAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1	*	10380.000	38.50	9.24	47.74	68.20	-20.46	peak	

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1		4500.000	37.48	7.17	44.65	68.20	-23.55	peak	
2	*	5150.000	38.74	9.17	47.91	68.20	-20.29	peak	

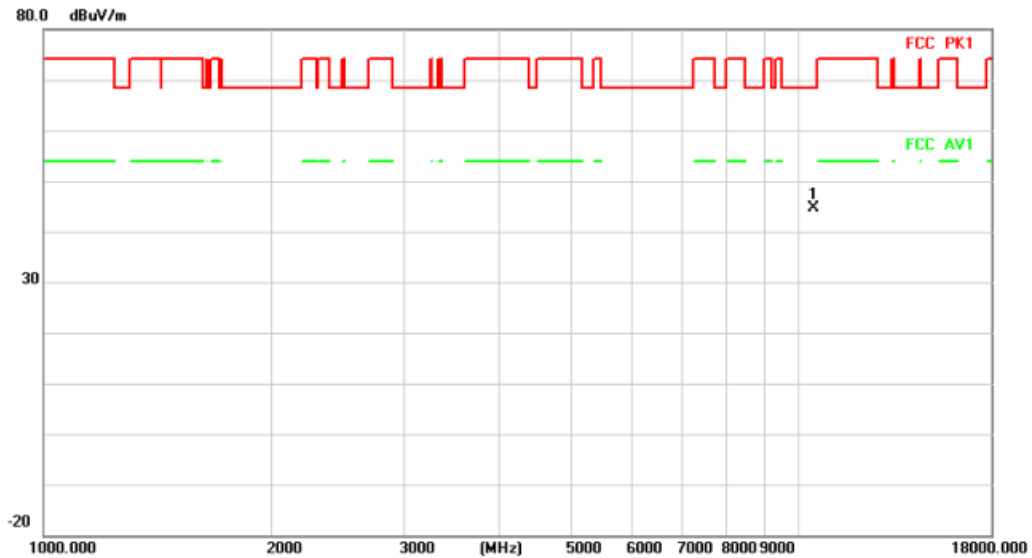
Above 1G (1GHz~18GHz)

Test mode: 11N40SISO

Test Channel:46

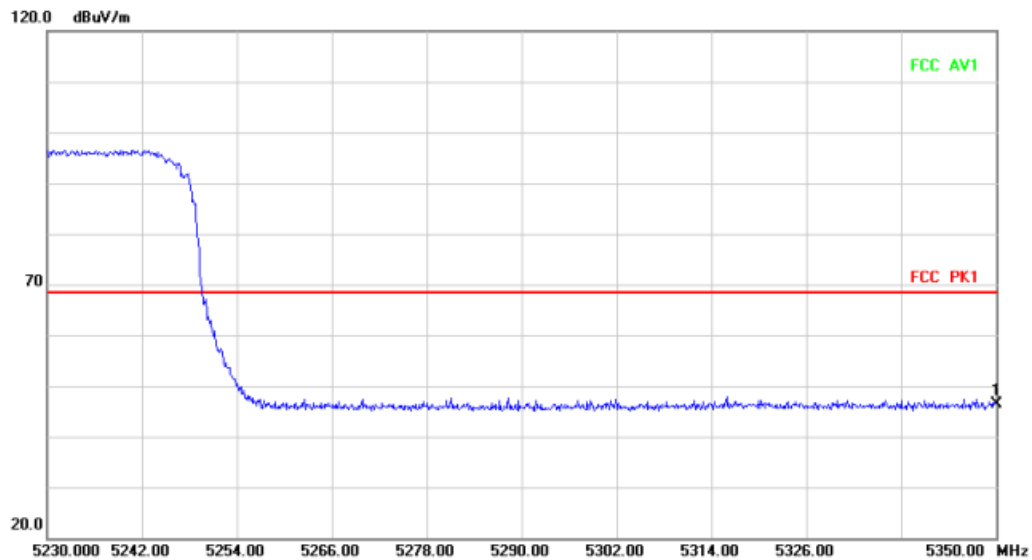
VERTICAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	10460.000	35.25	9.34	44.59	68.20	-23.61	peak		

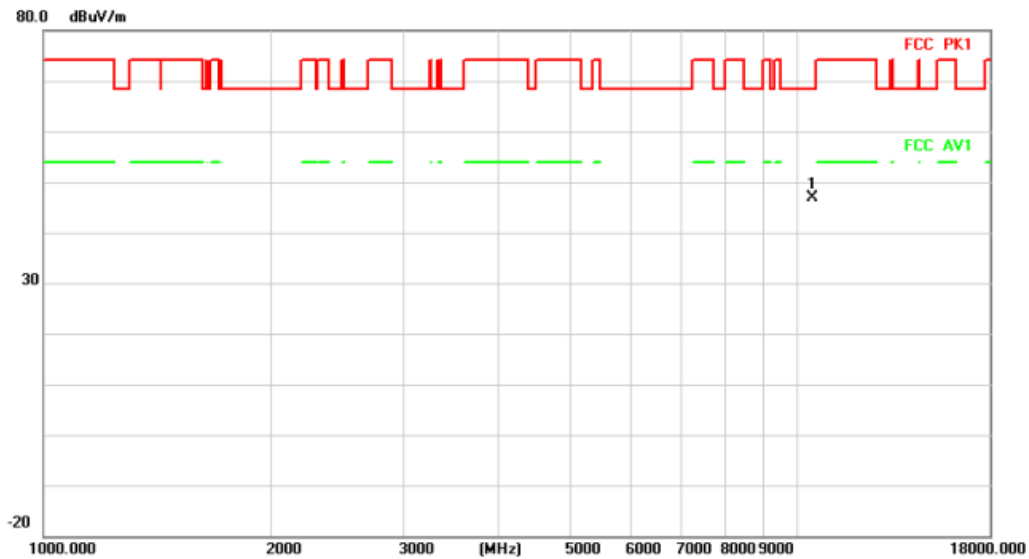
Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	5350.000	37.15	9.30	46.45	68.20	-21.75	peak		

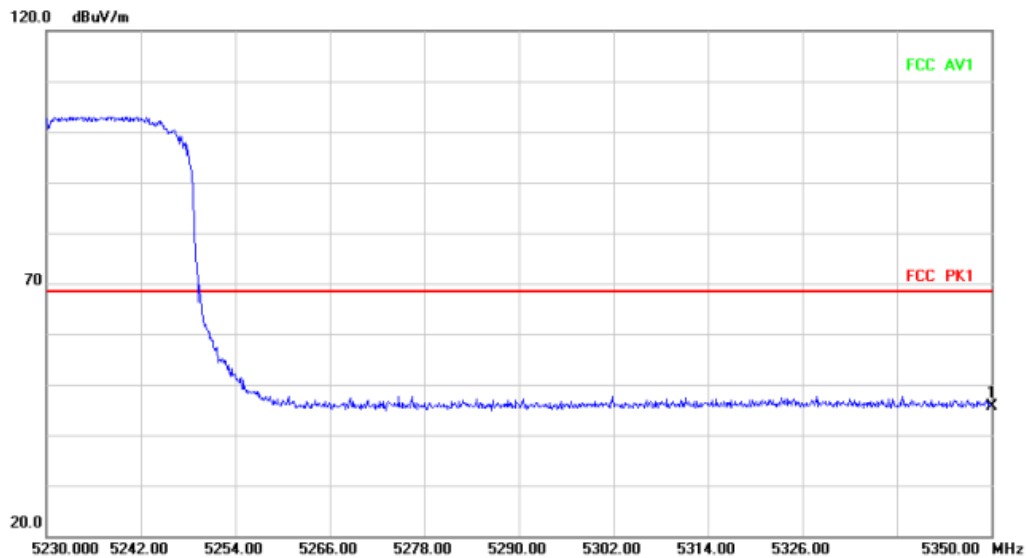
HORIZONTAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	10460.000	37.50	9.34	46.84	68.20	-21.36	peak		Comment

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	5350.000	36.44	9.30	45.74	68.20	-22.46	peak		Comment

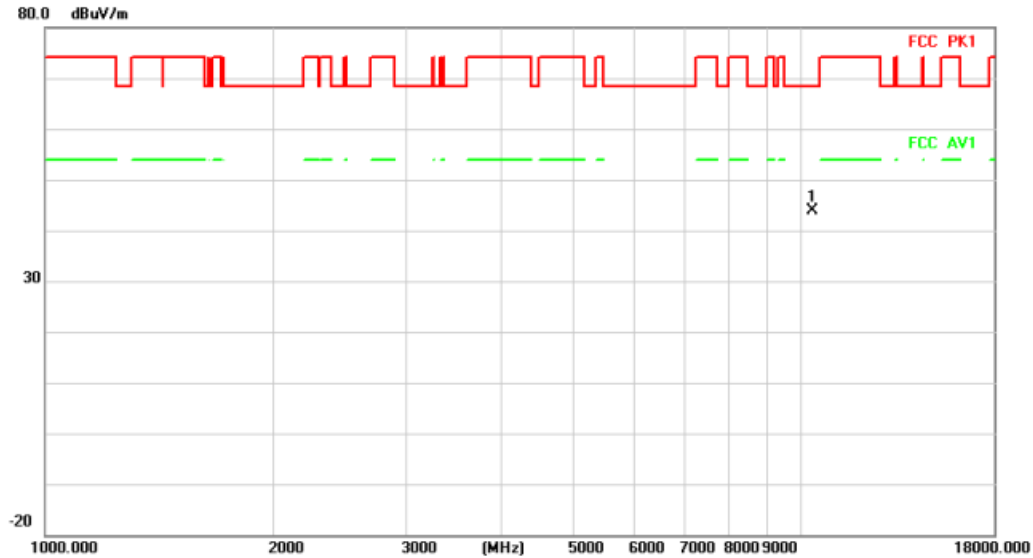
Above 1G (1GHz~18GHz)

Test mode: 11AC20SISO

Test Channel:36

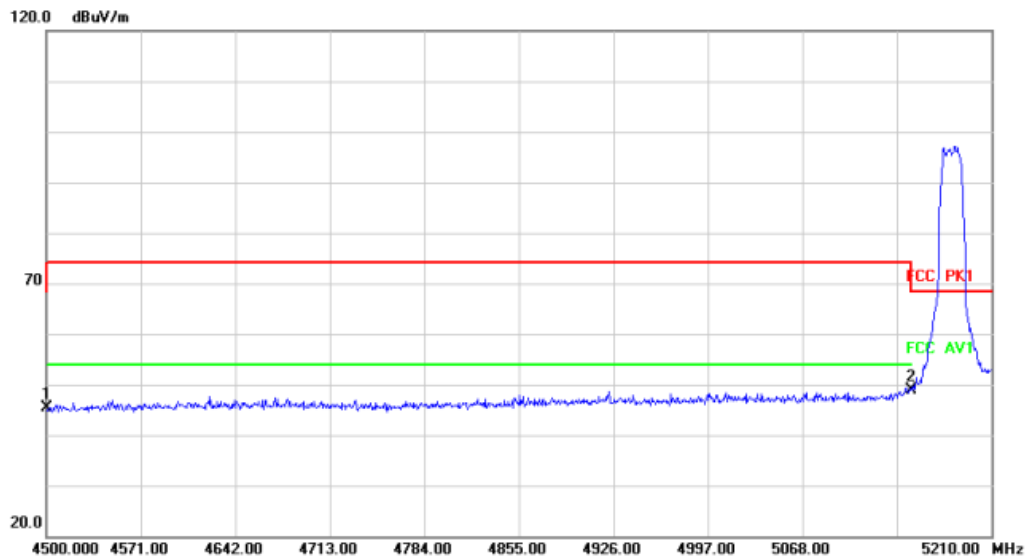
VERTICAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1	*	10360.000	34.73	9.21	43.94	68.20	-24.26	peak	

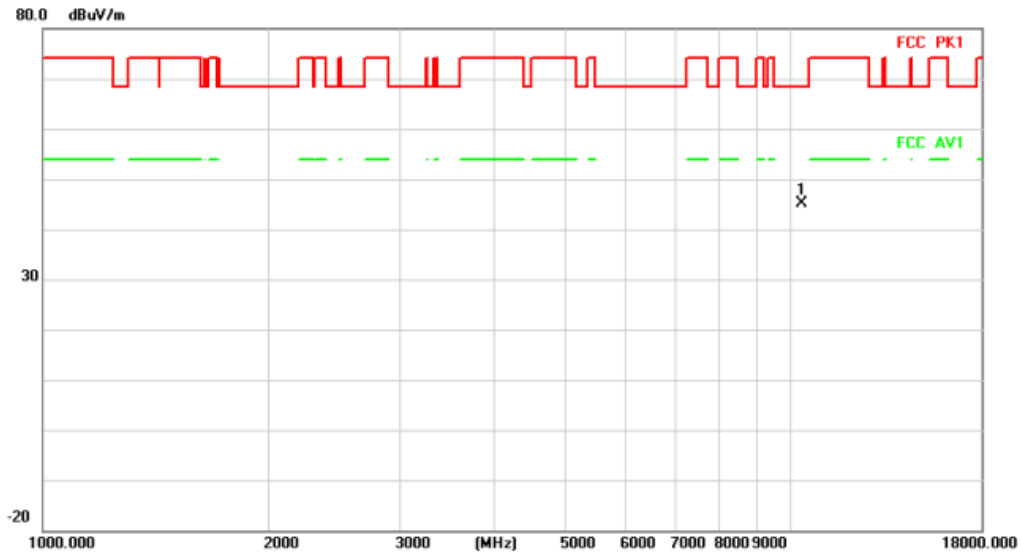
Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1		4500.000	38.15	7.17	45.32	68.20	-22.88	peak	
2	*	5150.000	39.77	9.17	48.94	68.20	-19.26	peak	

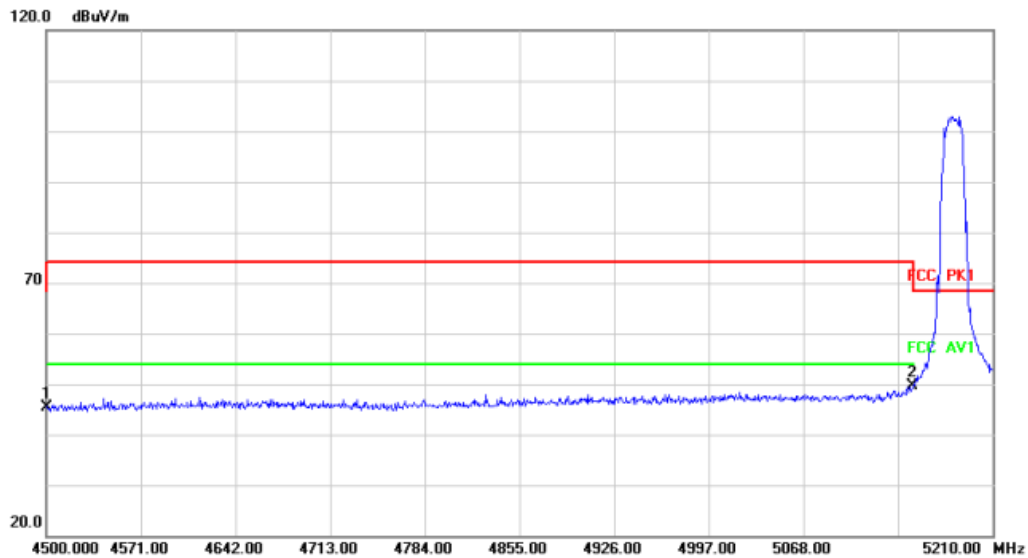
HORIZONTAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1	*	10360.000	35.90	9.21	45.11	68.20	-23.09	peak	

Radiated Emission



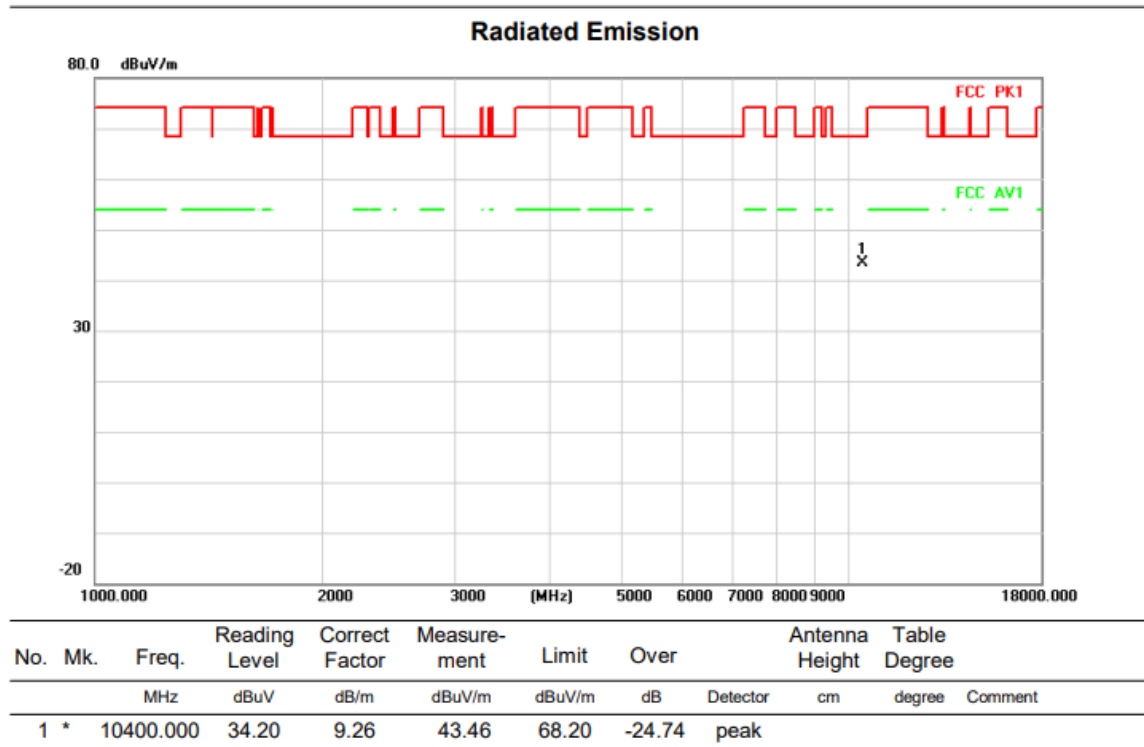
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1		4500.000	38.16	7.17	45.33	68.20	-22.87	peak	
2	*	5150.000	40.50	9.17	49.67	68.20	-18.53	peak	

Above 1G (1GHz~18GHz)

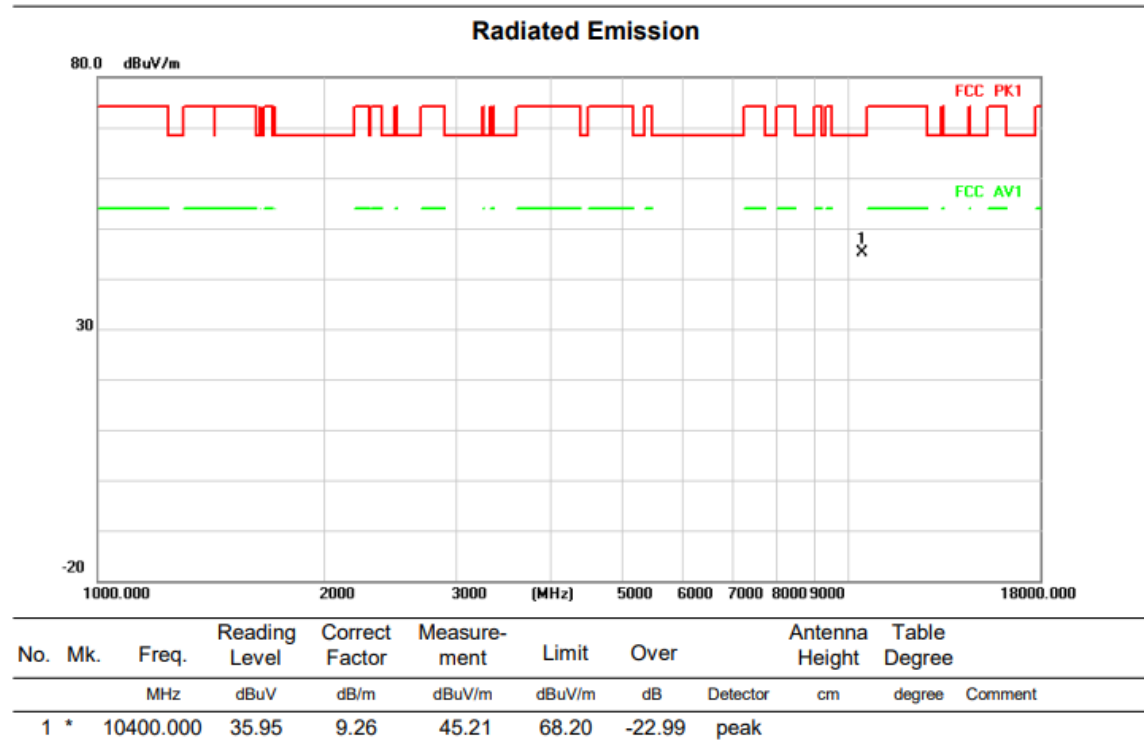
Test mode: 11AC20SISO

Test Channel:40

VERTICAL



HORIZONTAL



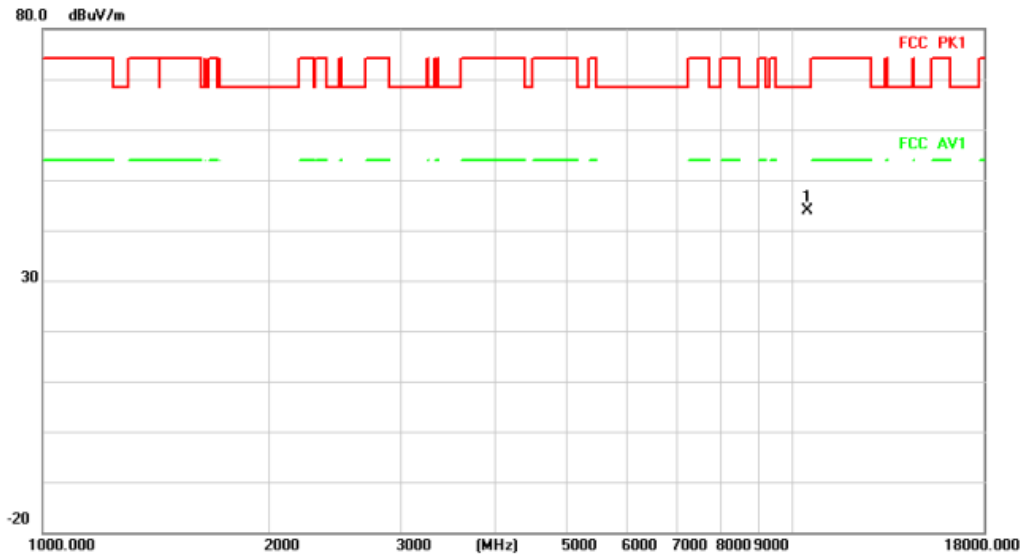
Above 1G (1GHz~18GHz)

Test mode: 11AC20SISO

Test Channel:48

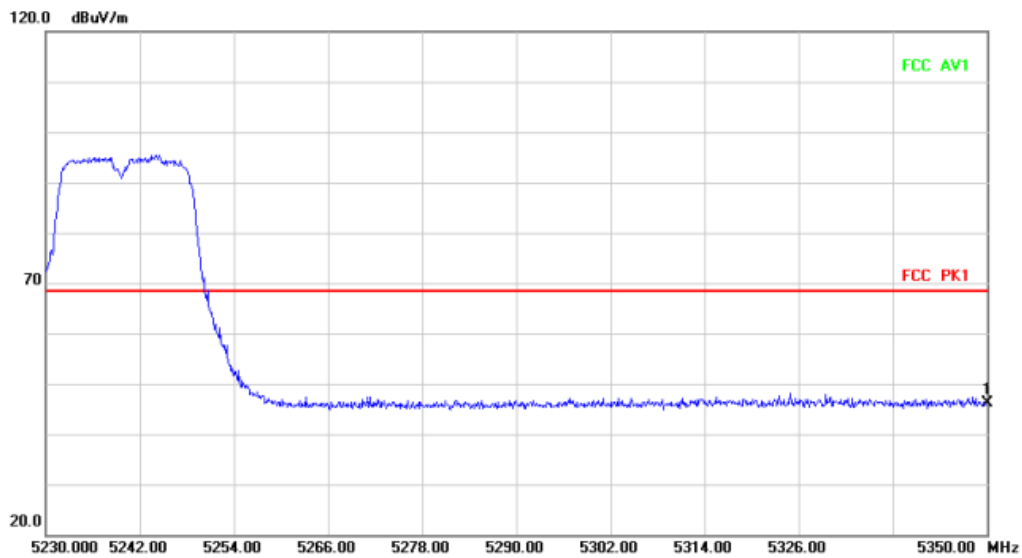
VERTICAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	10480.000	34.45	9.37	43.82	68.20	-24.38	peak		

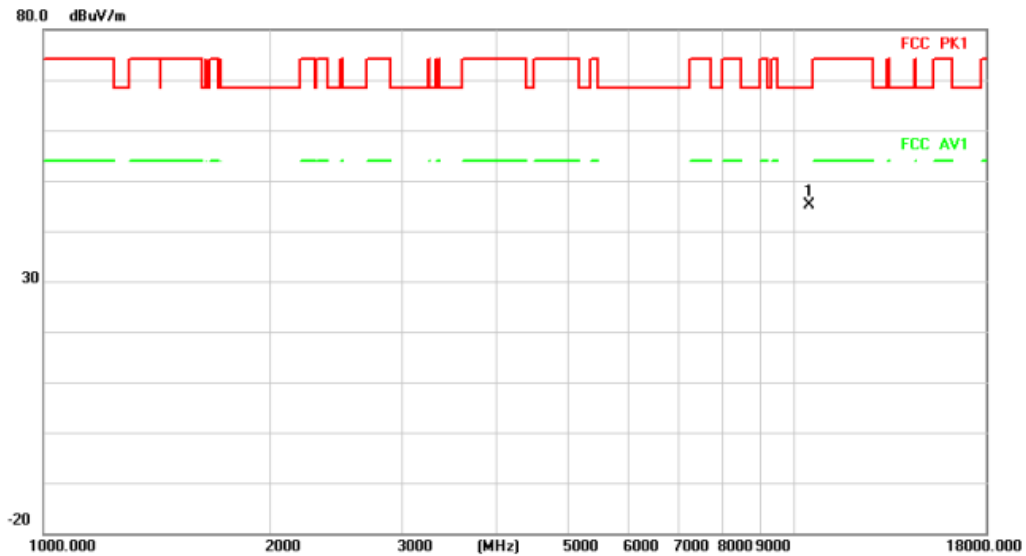
Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	5350.000	36.89	9.30	46.19	68.20	-22.01	peak		

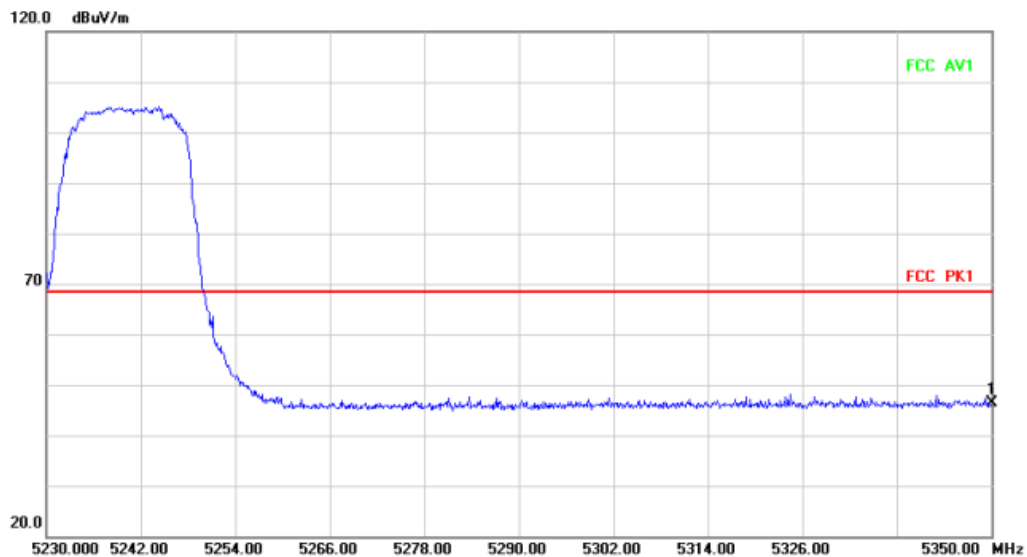
HORIZONTAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	10480.000	35.65	9.37	45.02	68.20	-23.18	peak		Comment

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	5350.000	36.99	9.30	46.29	68.20	-21.91	peak		Comment

Above 1G (1GHz~18GHz)

Test mode: 11AC40SISO

Test Channel:38

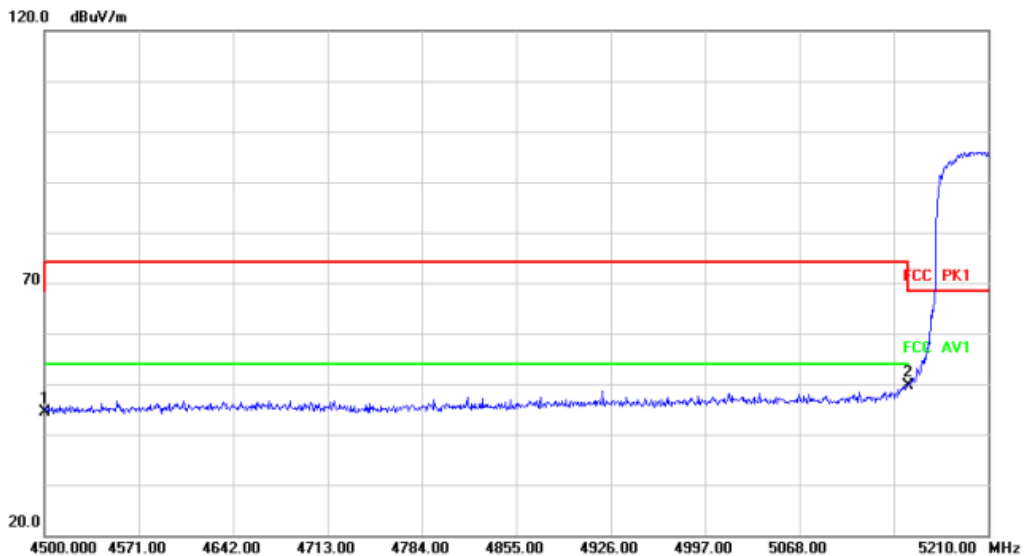
VERTICAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	10380.000	35.09	9.24	44.33	68.20	-23.87	peak		

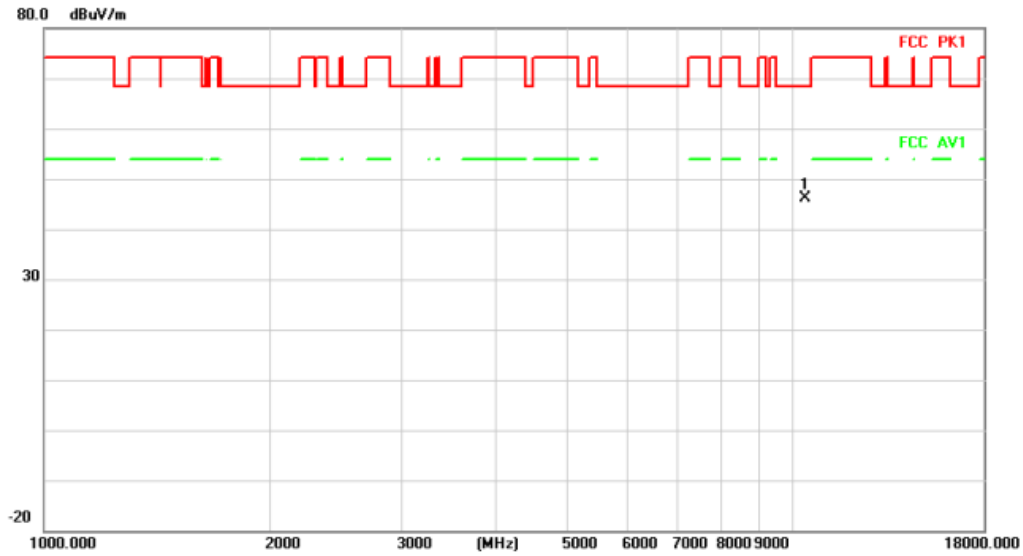
Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		4500.000	37.32	7.17	44.49	68.20	-23.71	peak		
2	*	5150.000	40.54	9.17	49.71	68.20	-18.49	peak		

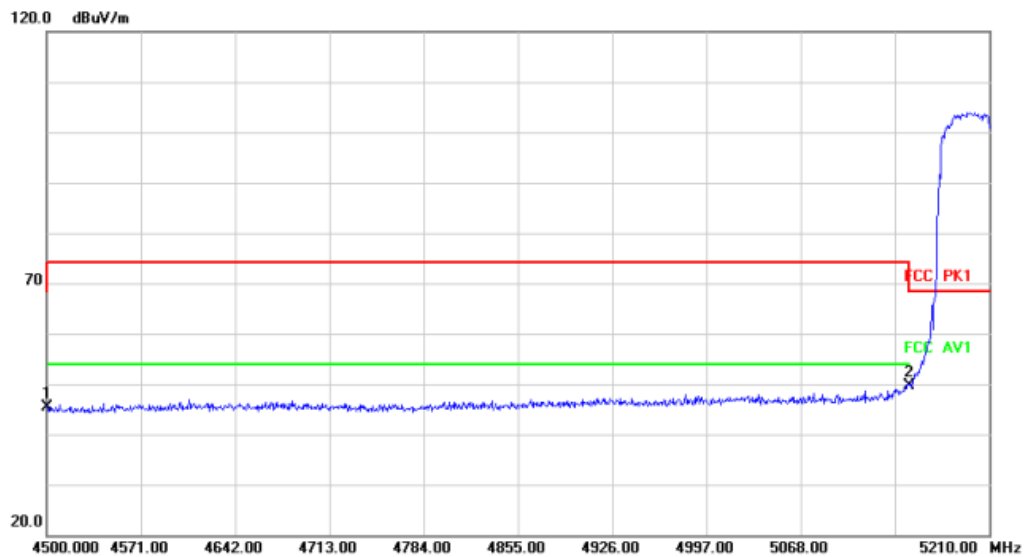
HORIZONTAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1	*	10380.000	36.91	9.24	46.15	68.20	-22.05	peak	

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1		4500.000	38.19	7.17	45.36	68.20	-22.84	peak	
2	*	5150.000	40.34	9.17	49.51	68.20	-18.69	peak	

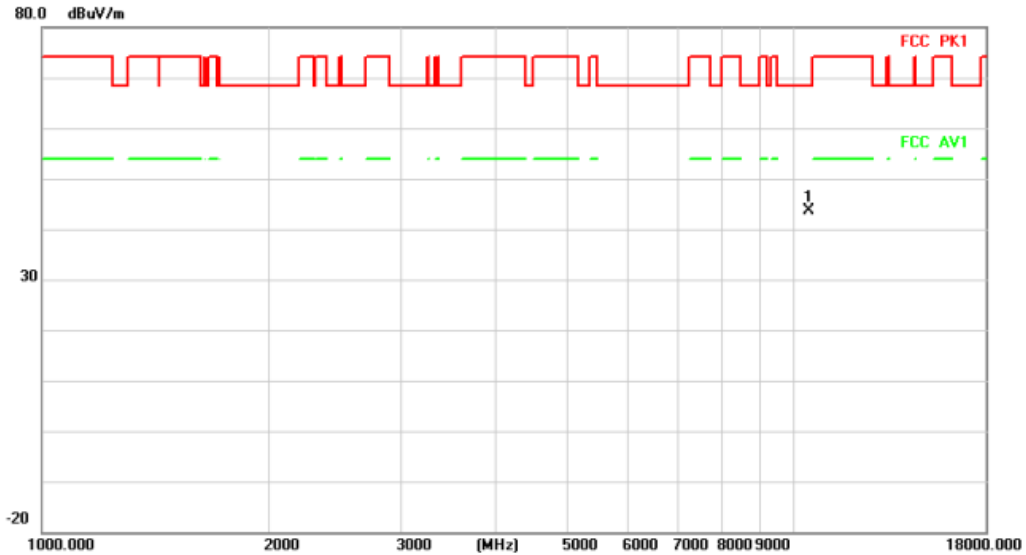
Above 1G (1GHz~18GHz)

Test mode: 11AC40SISO

Test Channel:46

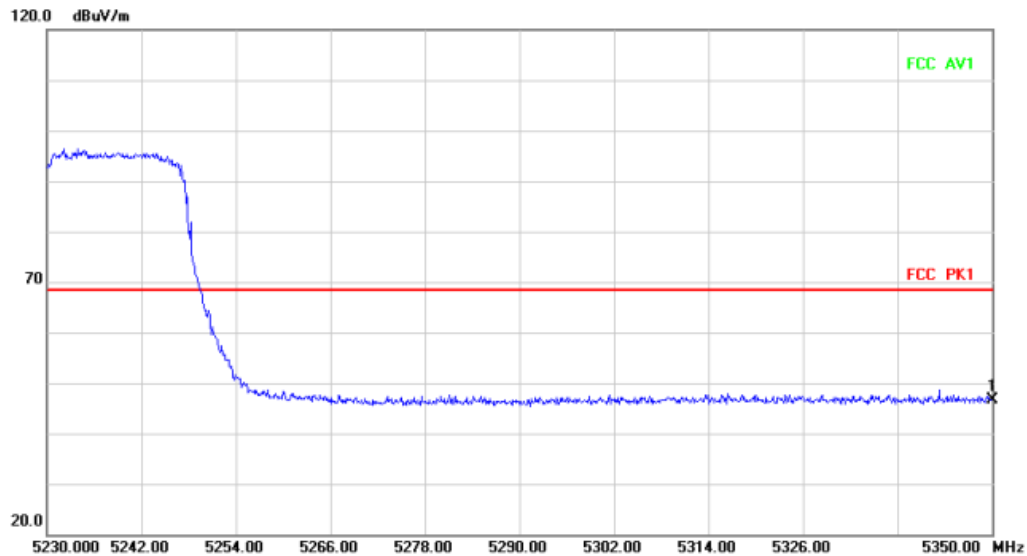
VERTICAL

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	10460.000	34.36	9.34	43.70	68.20	-24.50	peak		

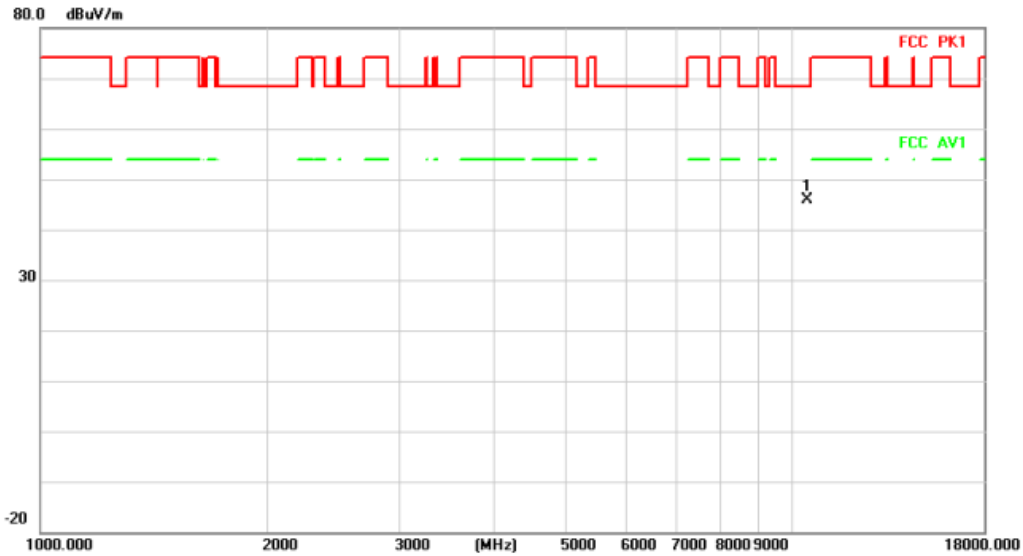
Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	5350.000	37.39	9.30	46.69	68.20	-21.51	peak		

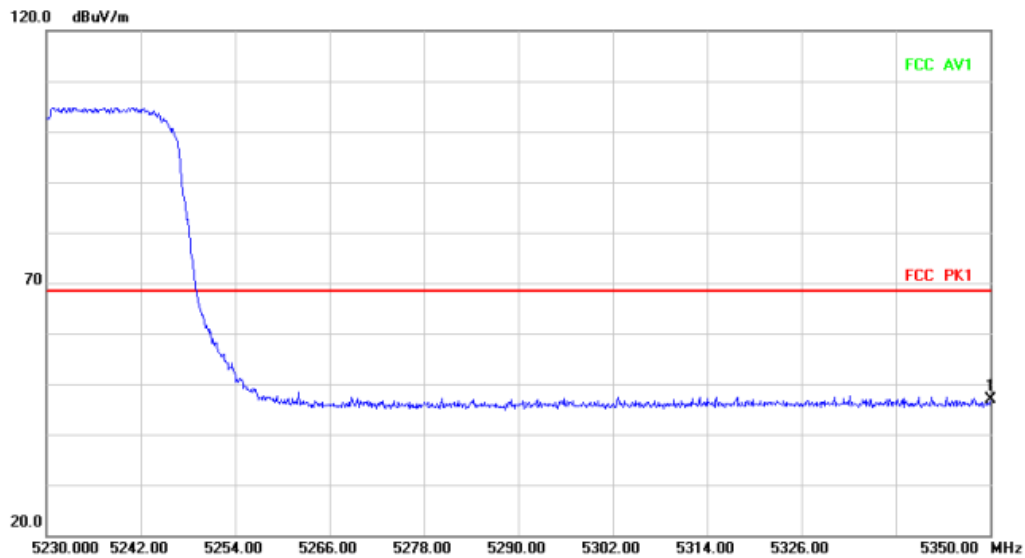
HORIZONTALA

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	10460.000	36.55	9.34	45.89	68.20	-22.31	peak		Comment

Radiated Emission



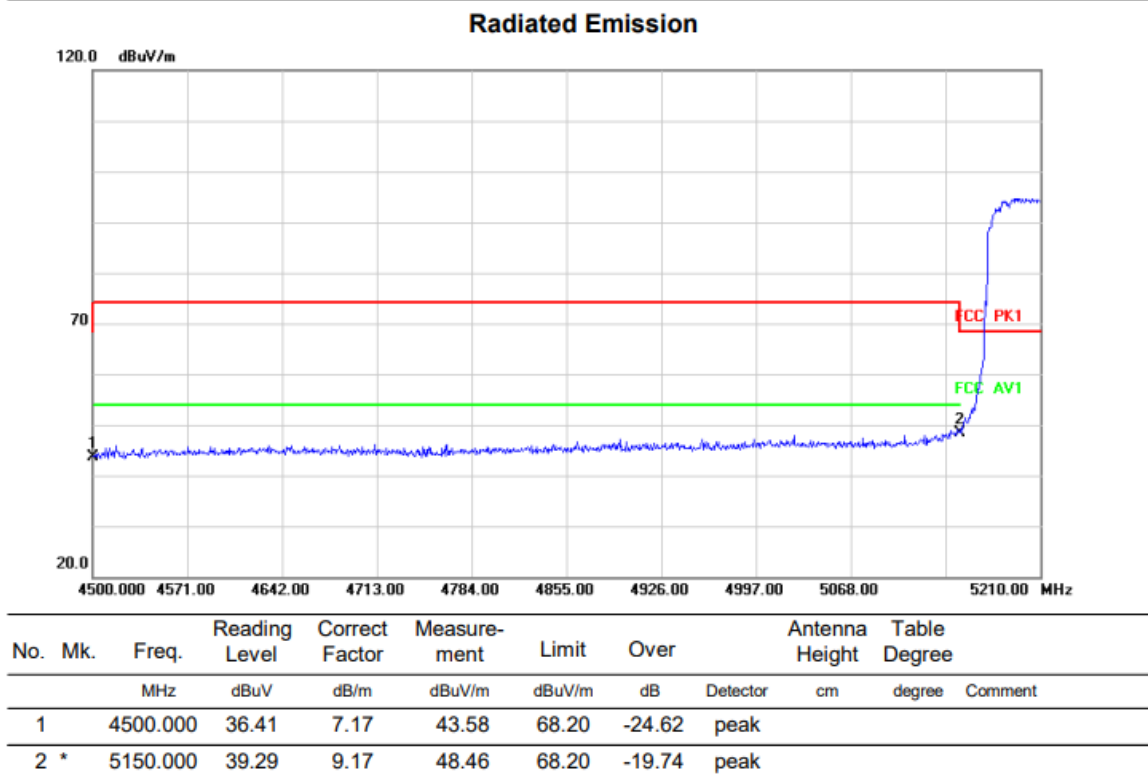
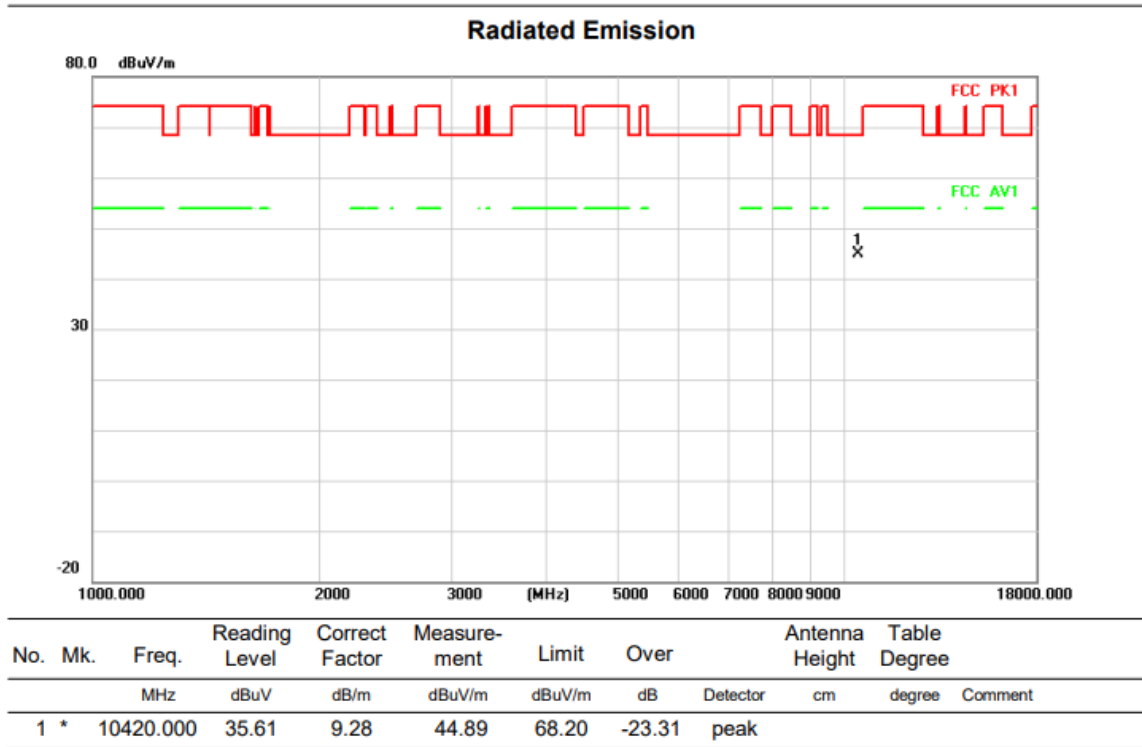
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	5350.000	37.56	9.30	46.86	68.20	-21.34	peak		Comment

Above 1G (1GHz~18GHz)

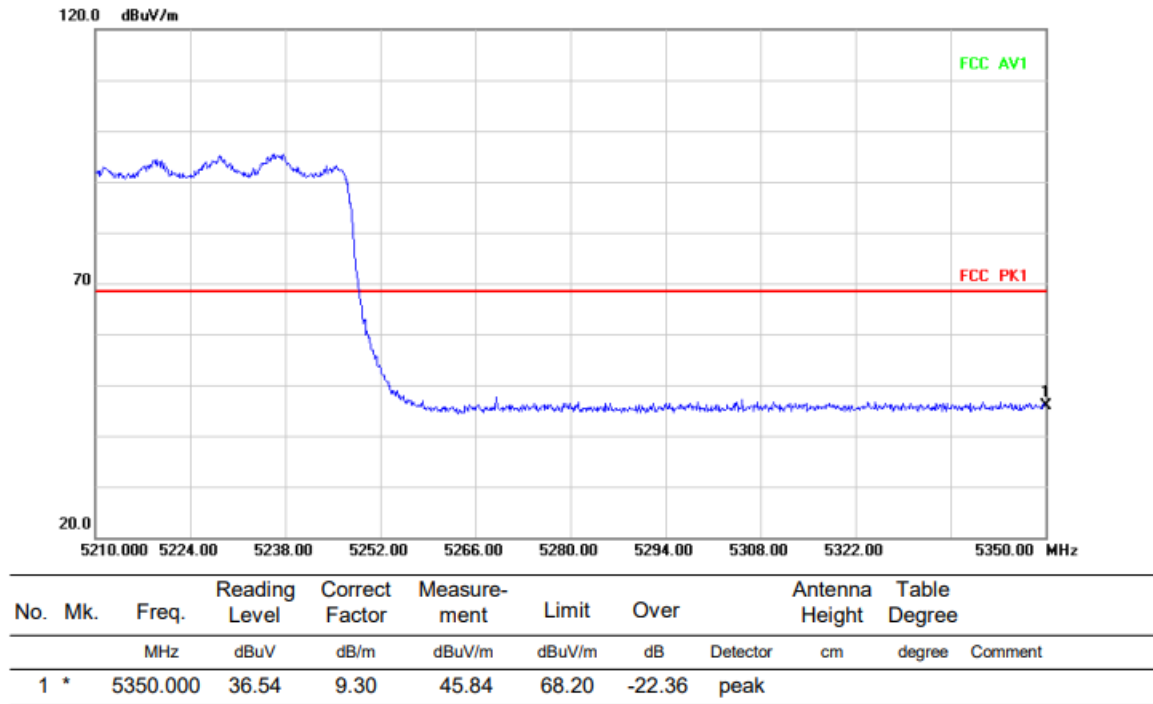
Test mode: 11AC80SISO

Test Channel:42

VERTICAL

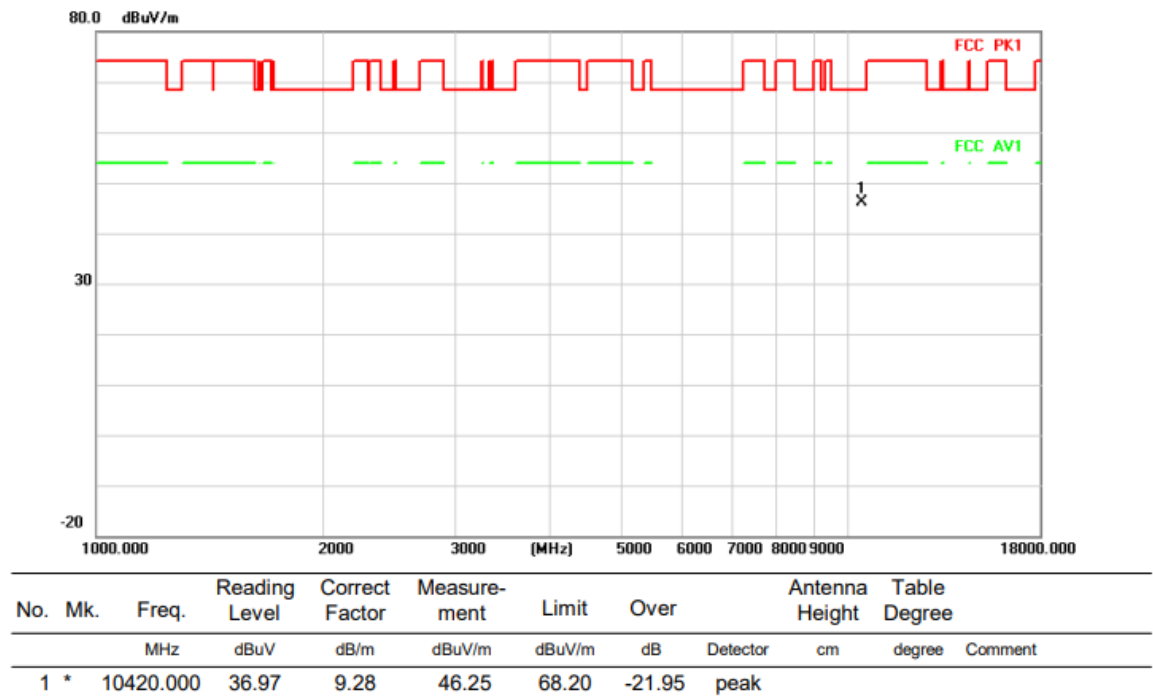


Radiated Emission

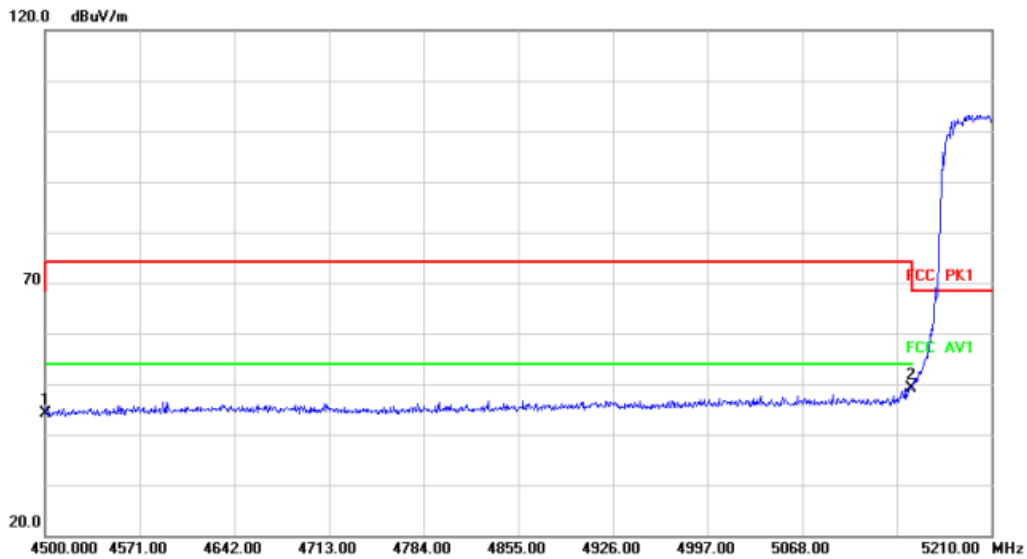


HORIZONTAL

Radiated Emission

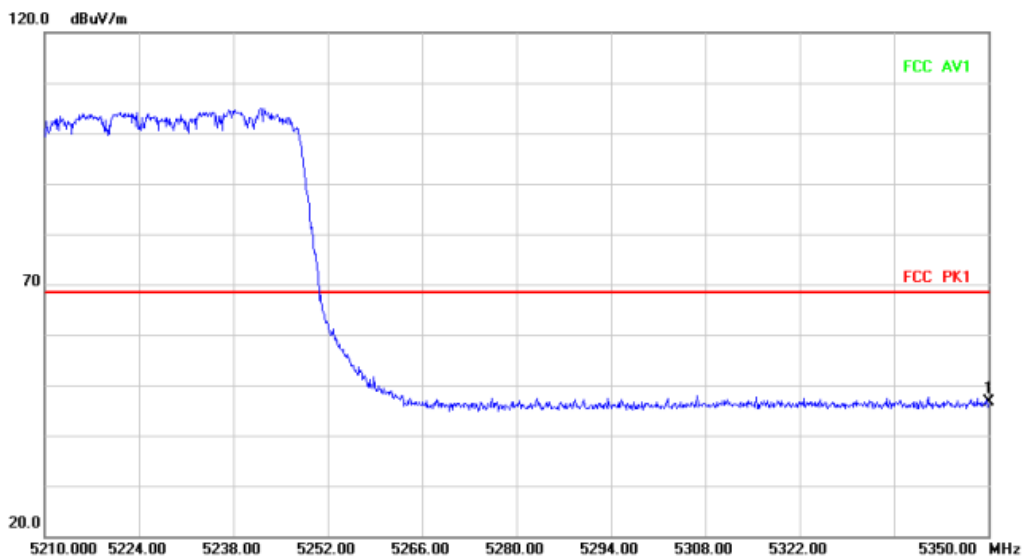


Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		4500.000	37.04	7.17	44.21	68.20	-23.99	peak		
2	*	5150.000	39.91	9.17	49.08	68.20	-19.12	peak		

Radiated Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	5350.000	37.42	9.30	46.72	68.20	-21.48	peak		

The high frequency, which started from 18GHz to 40GHz, was pre-scanned and the result which was 20dB lower than the limit line was not recorded in this report.

3.3 Spectrum Bandwidth

3.3.1 Limit

FCC Part15, Subpart E (15.407)			
Section	Test Item	Limit	Frequency Range (MHz)
15.407(a)	26 dB Bandwidth	-	5150-5250
	26 dB Bandwidth	-	5250-5350
15.407(e)	26 dB Bandwidth	-	5470-5725
	26 dB Bandwidth	-	5725-5850
	6 dB Bandwidth	Minimum 500 kHz	5725-5850

3.3.2 Test Procedure

Test Method	
●Conducted Measurement	○Radiated Measurement
Test Channels	
●Lowest, Middle and Highest Channel	○ Lowest and Highest Channel
Environmental conditions	
●Normal	○Normal and Extreme
Note:●:Test ○:No Test	

a) The EUT was directly connected to the tonscond test system and antenna output port as show in the block diagram below.

b) the spectrum analyser is set as follow:

For 26 dB Bandwidth

Centre Frequency	The centre frequency of the channel under test
RBW	$\geq 1\% \times \text{Nominal Channel Bandwidth}$
VBW	$\geq 3 \times \text{RBW}$
Frequency span	$2 \times \text{Nominal Channel Bandwidth}$
Detector Mode	Peak
Trace Mode	Max Hold
Sweep Time	Auto Couple

For 6 dB Bandwidth

Centre Frequency	The centre frequency of the channel under test
RBW	100 kHz
VBW	300 kHz
Frequency span	$2 \times \text{Nominal Channel Bandwidth}$
Detector Mode	Peak
Trace Mode	Max Hold
Sweep Time	Auto Couple

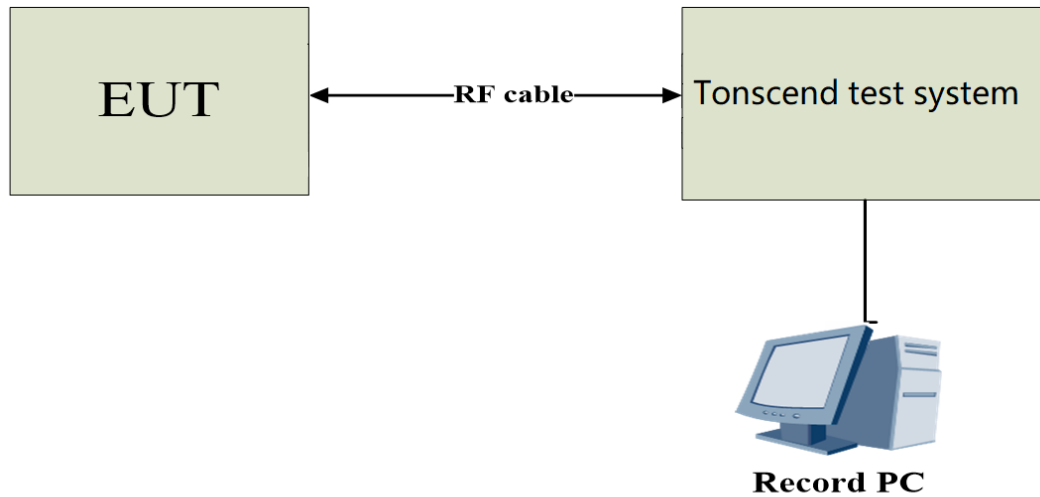
c) Wait for the trace to stabilize then find the peak value of the trace and place the analyser marker

on this peak.

d) Use the -26/-6dB bandwidth function of the spectrum analyser to measure the -26/-6dB Bandwidth of the EUT. This value shall be recorded.

e) Make sure that the power envelope is sufficiently above the noise floor of the analyser to avoid the noise signals left and right from the power envelope being taken into account by this measurement.

3.3.3 Test Setup

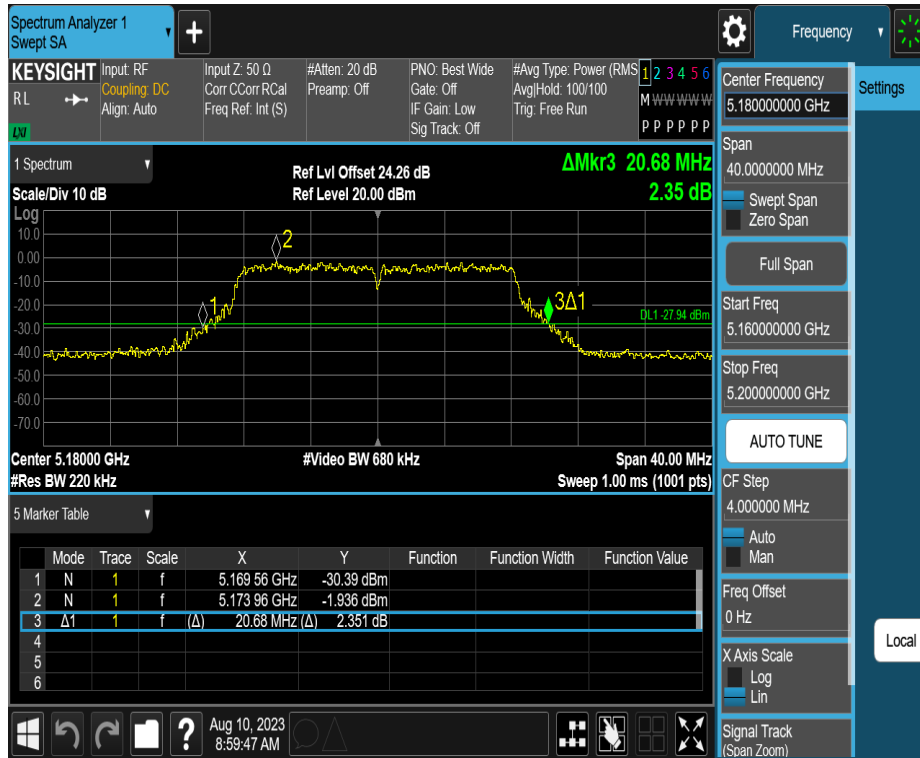


3.3.4 Test Result

3.3.5.1 26 dB Bandwidth

Test Mode	Antenna	Freq(MHz)	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	20.680	5169.560	5190.240	---	---
		5200	20.840	5189.400	5210.240	---	---
		5240	20.040	5230.040	5250.080	---	---
11N20SISO	Ant1	5180	21.160	5169.520	5190.680	---	---
		5200	20.840	5189.640	5210.480	---	---
		5240	20.720	5229.560	5250.280	---	---
11N40SISO	Ant1	5190	40.320	5170.000	5210.320	---	---
		5230	41.840	5209.280	5251.120	---	---
11AC20SISO	Ant1	5180	20.960	5169.360	5190.320	---	---
		5200	20.800	5189.760	5210.560	---	---
		5240	20.520	5229.720	5250.240	---	---
11AC40SISO	Ant1	5190	41.200	5169.200	5210.400	---	---
		5230	41.920	5209.360	5251.280	---	---
11AC80SISO	Ant1	5210	80.480	5170.640	5251.120	---	---

11A_Ant1_5180



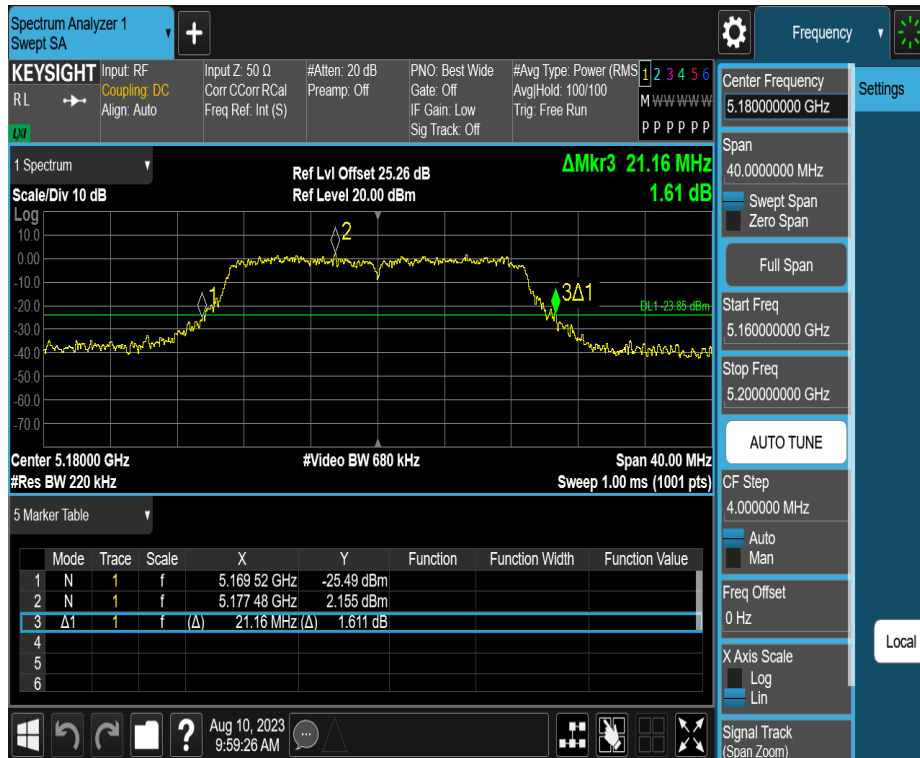
11A_Ant1_5200



11A_Ant1_5240



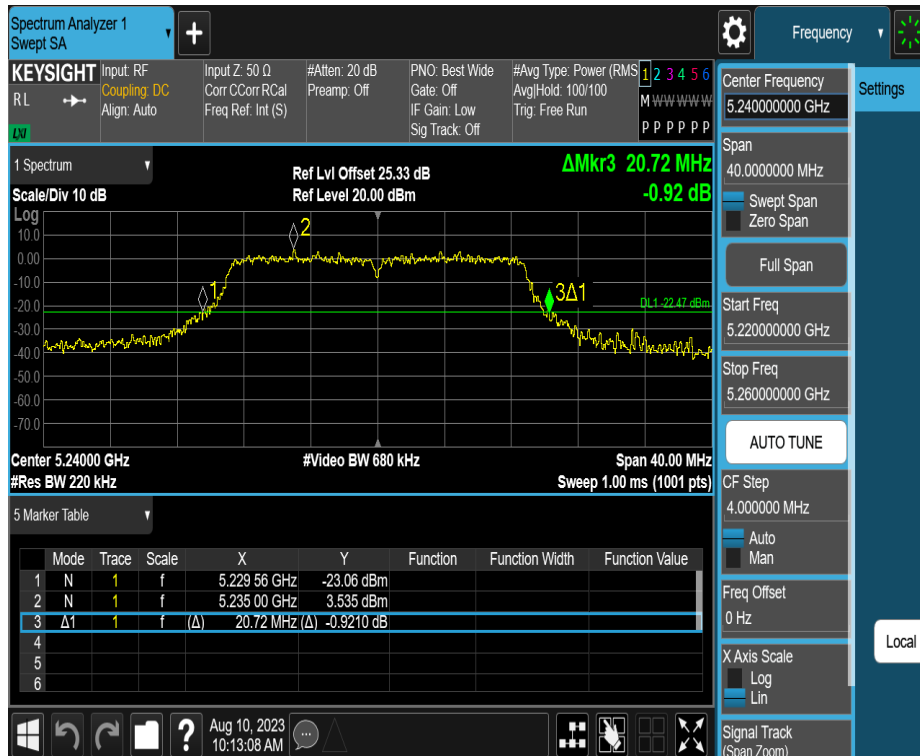
11N20SISO_Ant1_5180



11N20SISO_Ant1_5200



11N20SISO_Ant1_5240



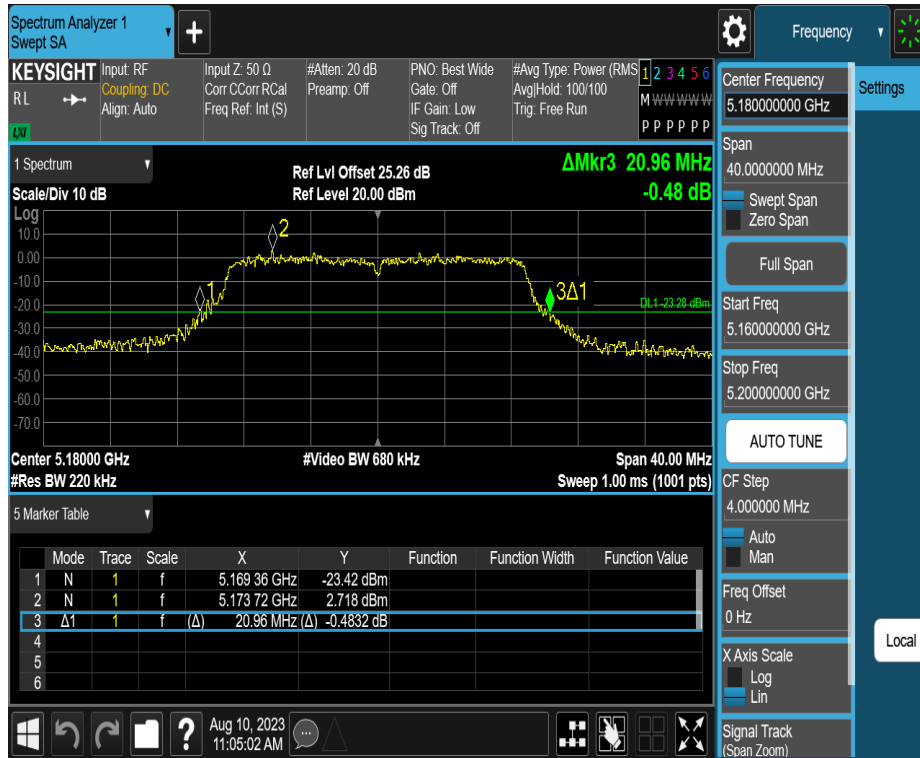
11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



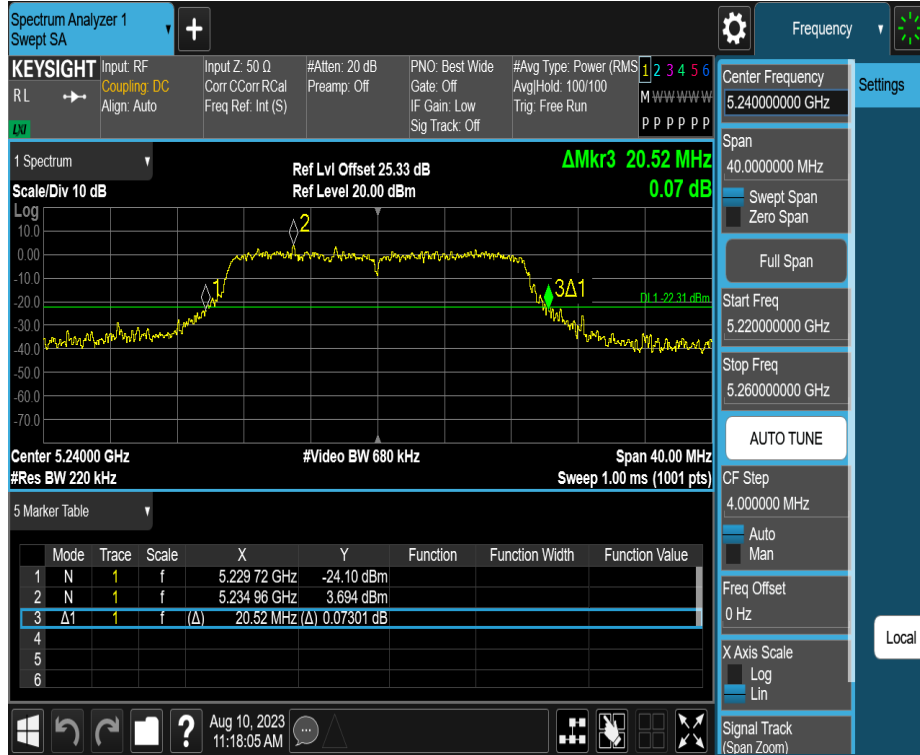
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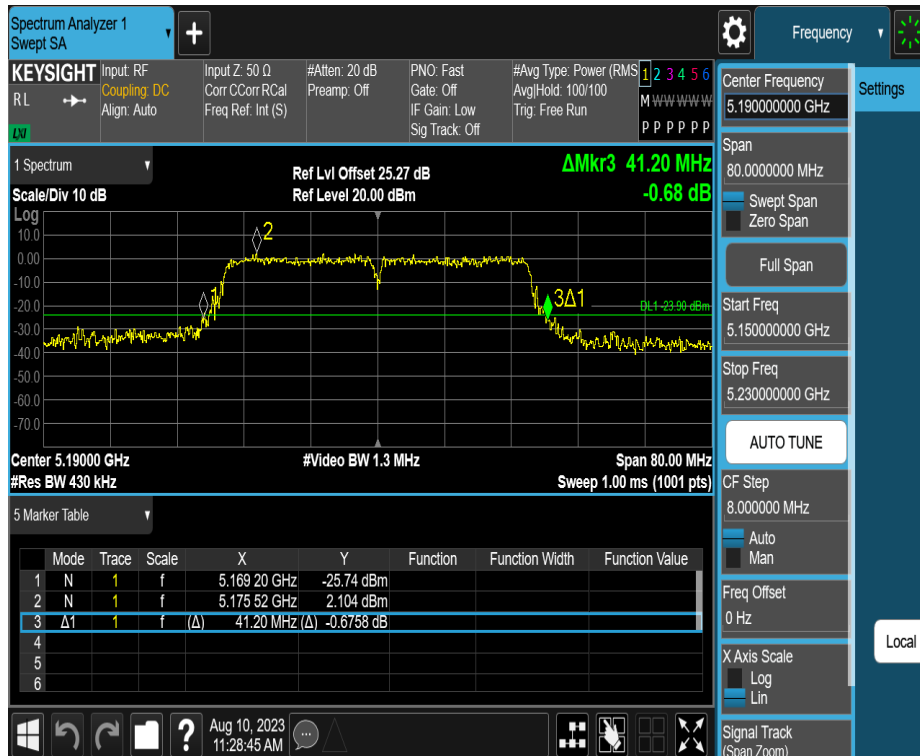
11AC20SISO_Ant1_5200



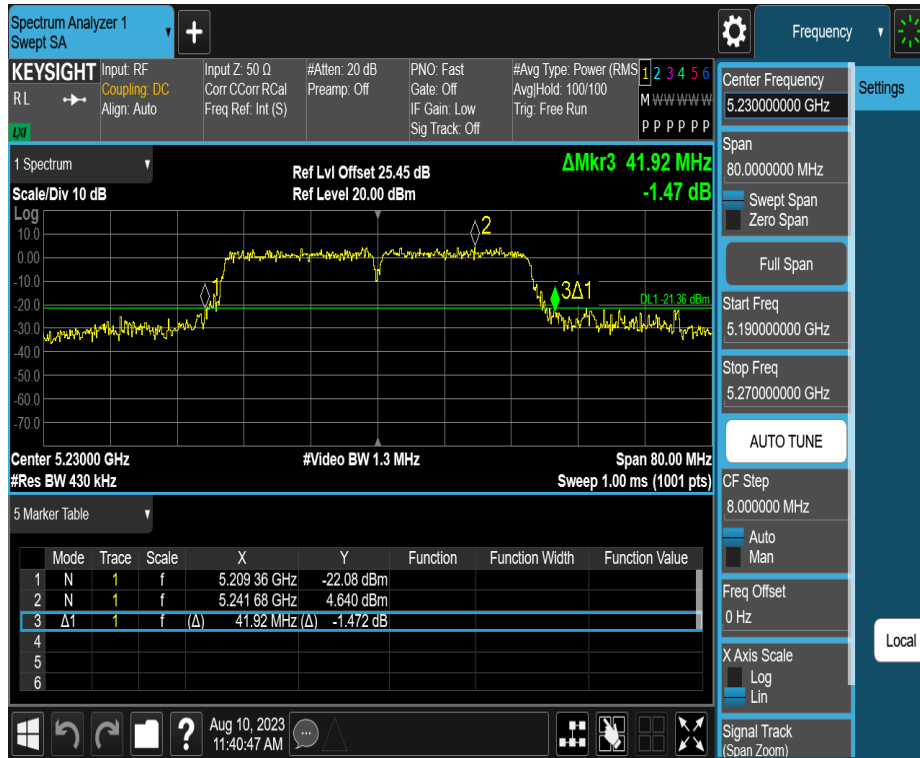
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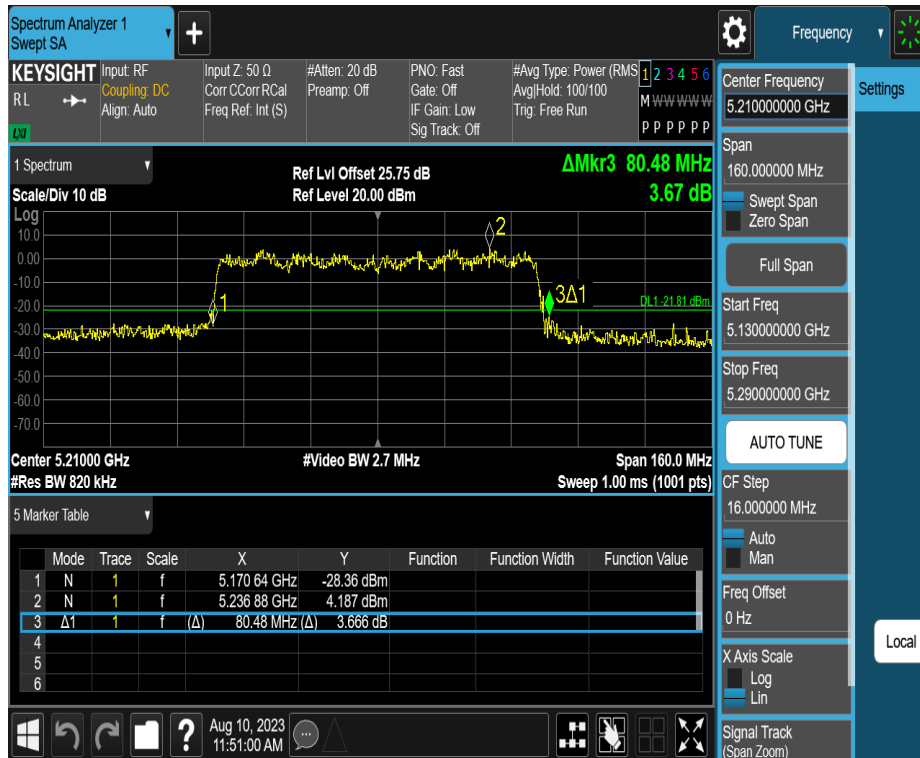
11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



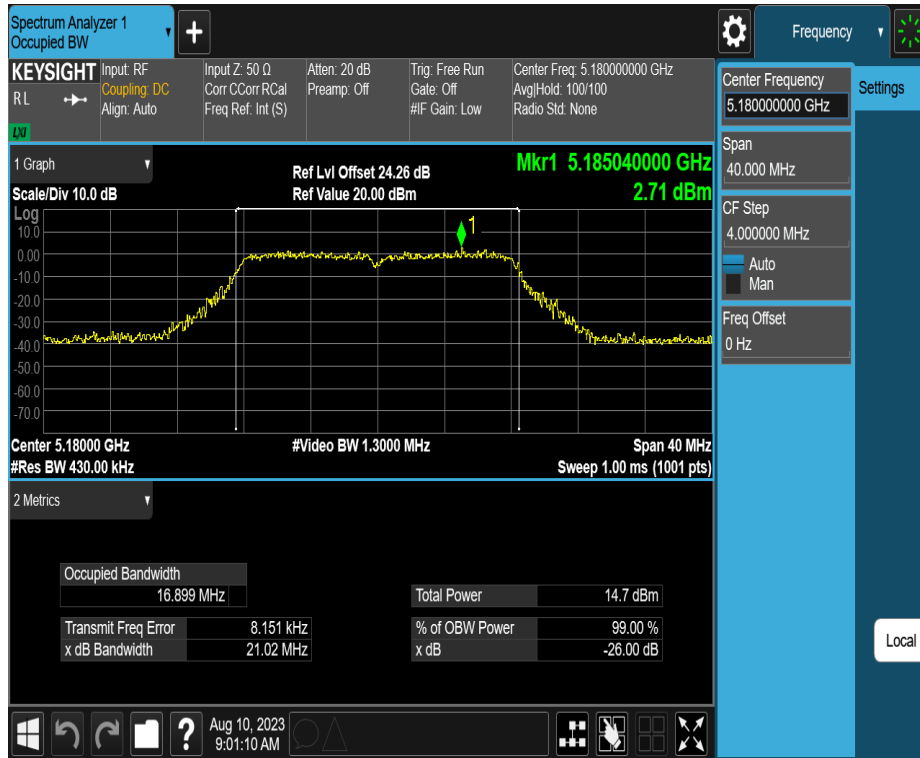
11AC80SISO_Ant1_5210



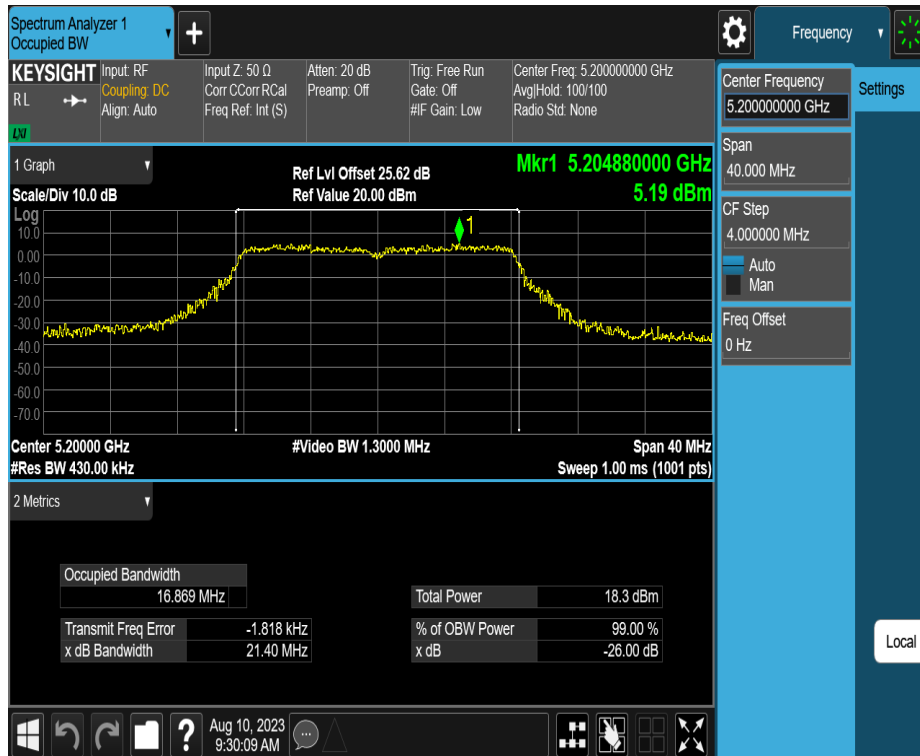
3.3.5.2 Occupied channel bandwidth

Test Mode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	16.899	5171.5587	5188.4577	---	---
		5200	16.869	5191.5637	5208.4327	---	---
		5240	16.976	5231.4694	5248.4454	---	---
11N20SISO	Ant1	5180	17.831	5171.0480	5188.8790	---	---
		5200	17.956	5191.0045	5208.9605	---	---
		5240	17.863	5231.0360	5248.8990	---	---
11N40SISO	Ant1	5190	36.470	5171.7216	5208.1916	---	---
		5230	36.274	5211.8906	5248.1646	---	---
11AC20SISO	Ant1	5180	17.911	5171.0001	5188.9111	---	---
		5200	17.869	5191.0621	5208.9311	---	---
		5240	17.826	5231.0609	5248.8869	---	---
11AC40SISO	Ant1	5190	36.335	5171.7438	5208.0788	---	---
		5230	36.341	5211.8373	5248.1783	---	---
11AC80SISO	Ant1	5210	75.624	5172.2658	5247.8898	---	---

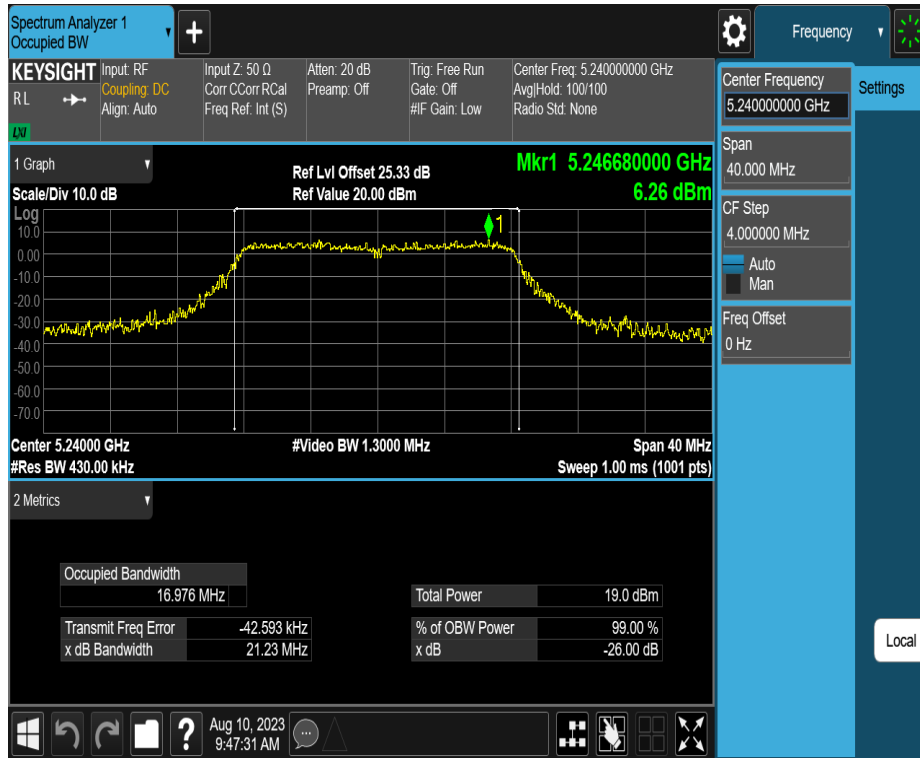
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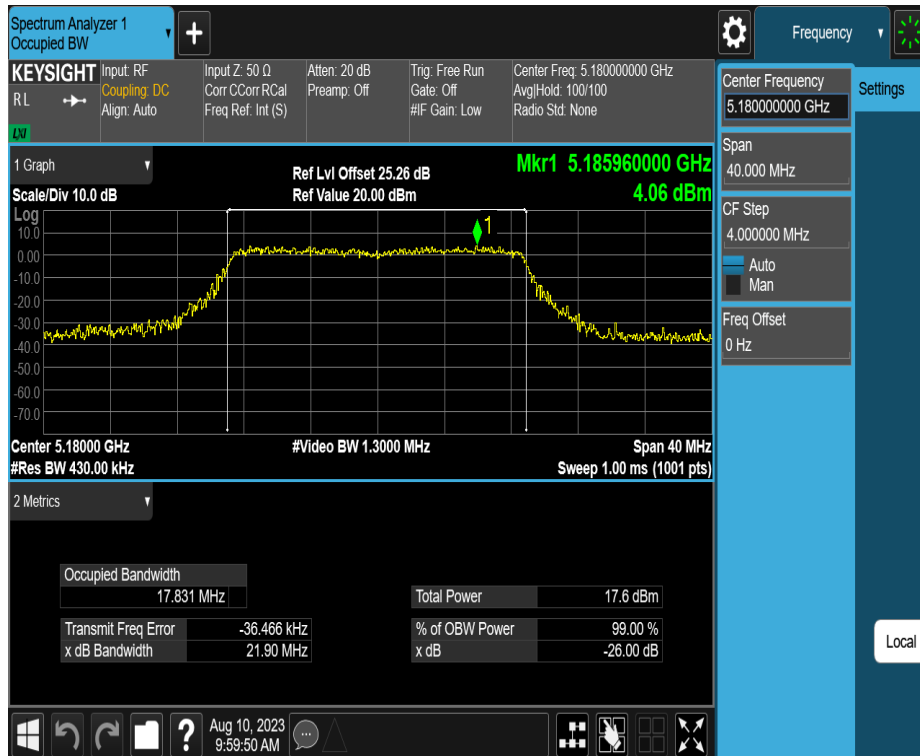
11A_Ant1_5200



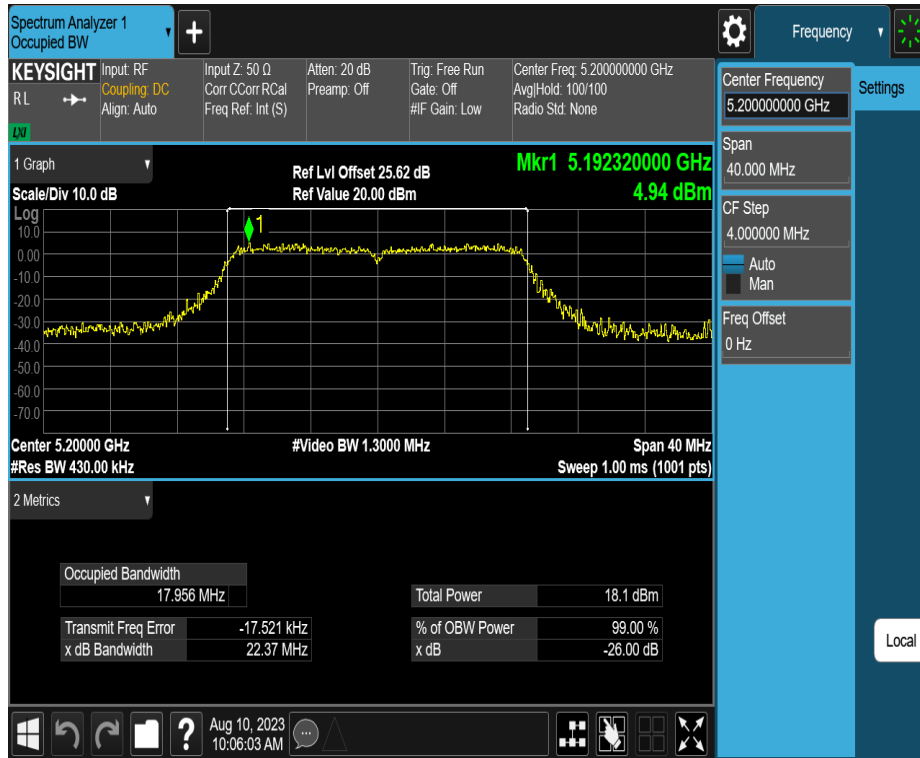
11A_Ant1_5240



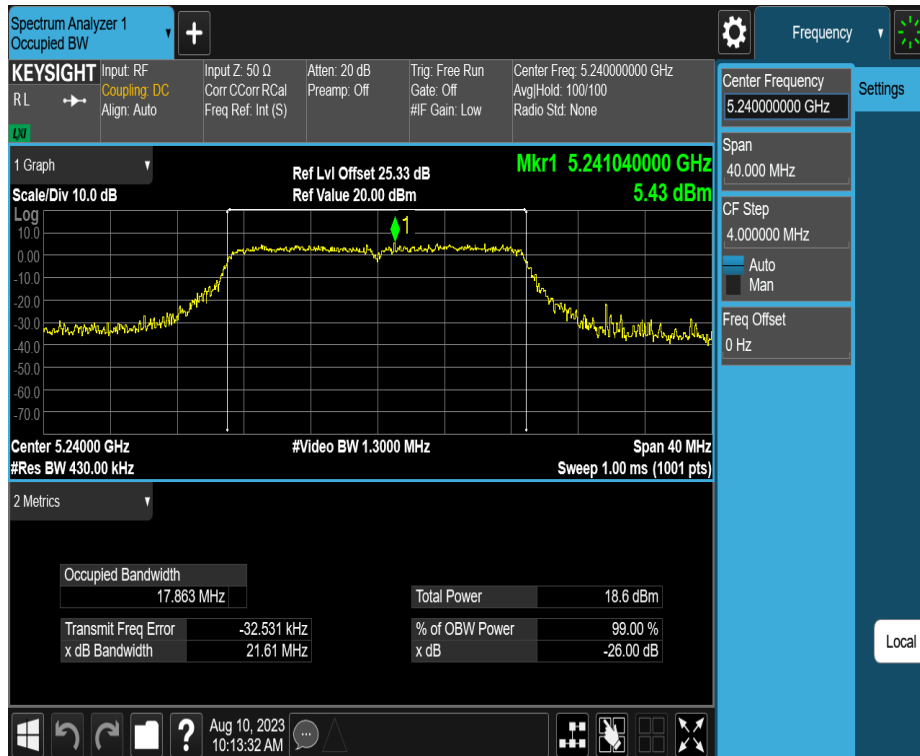
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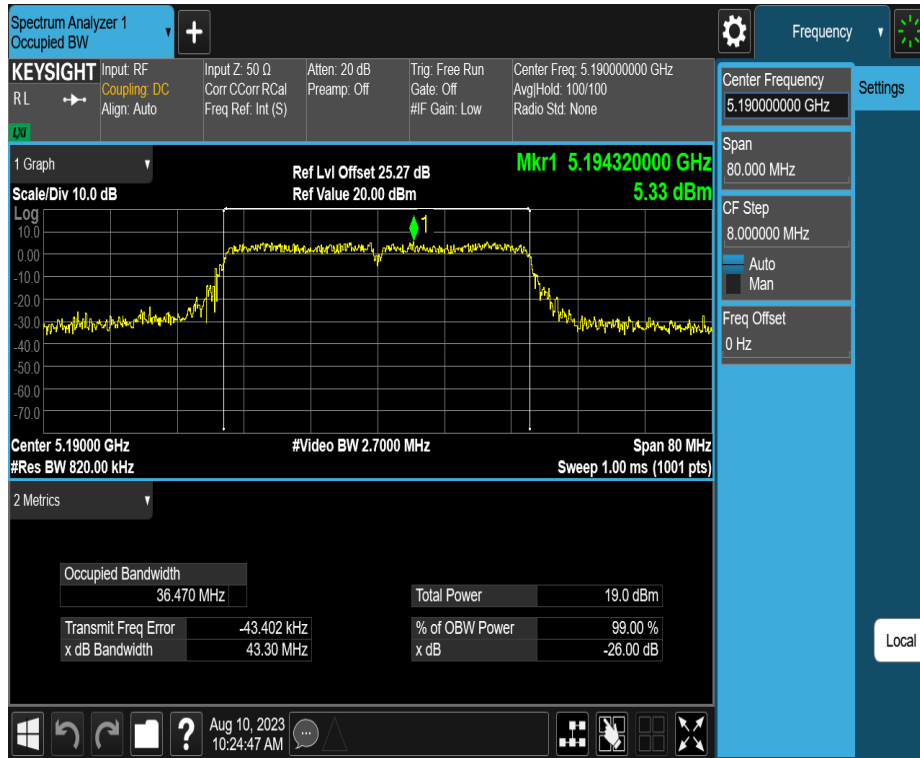
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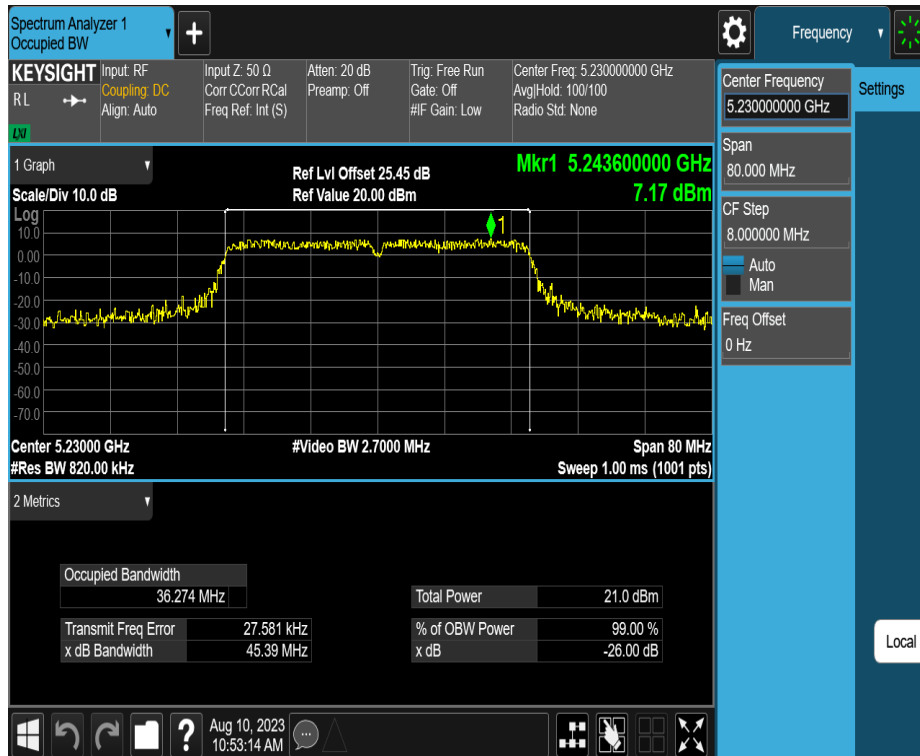
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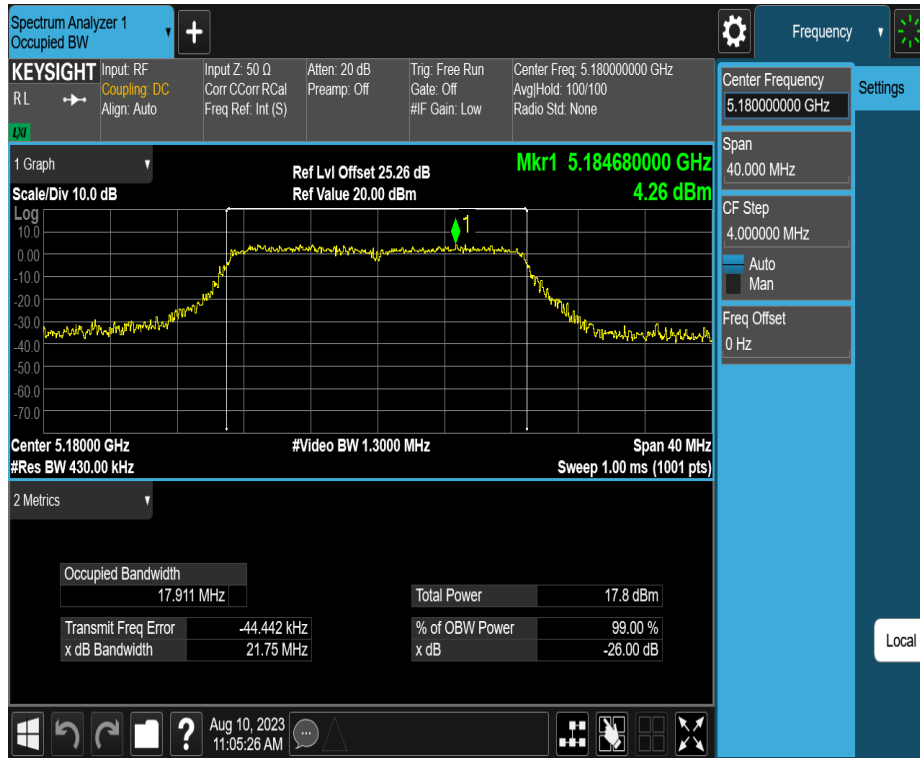
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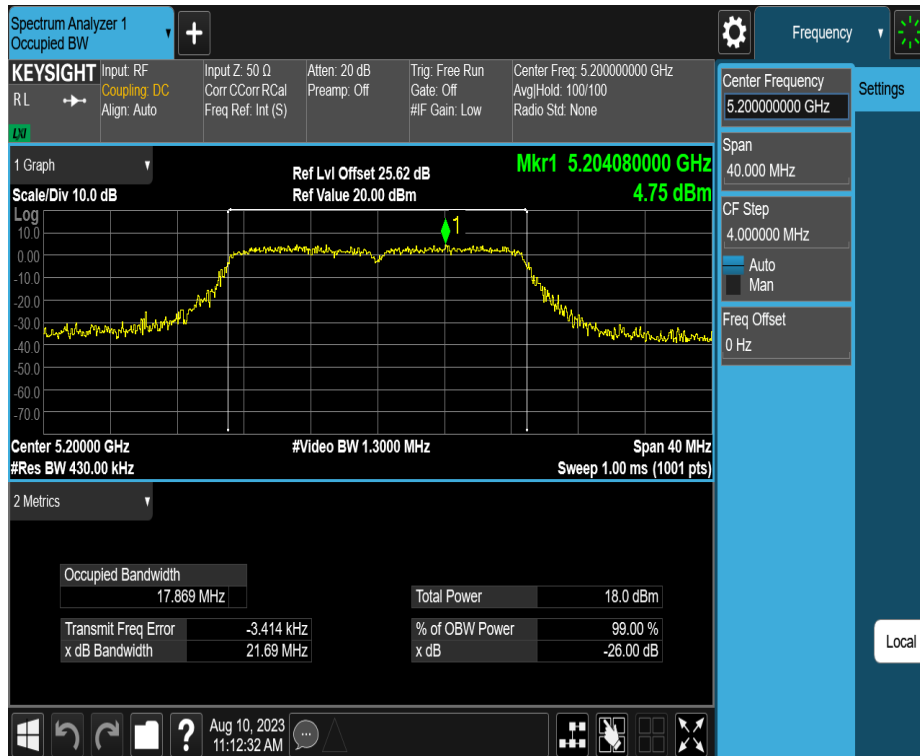
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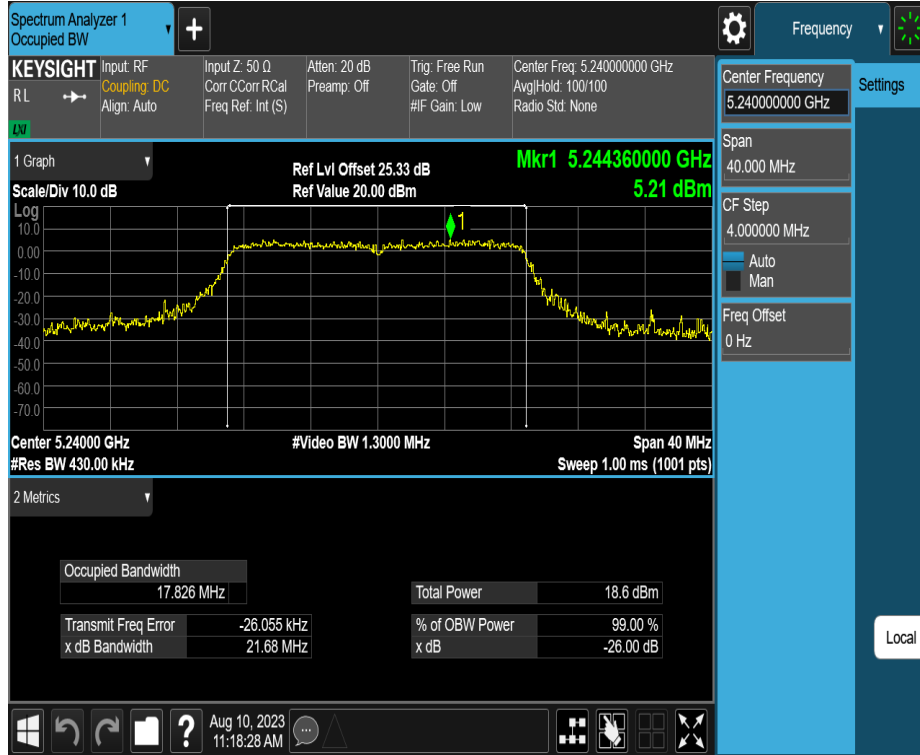
11AC20SISO_Ant1_5180



11AC20SISO_Ant1_5200



11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190

