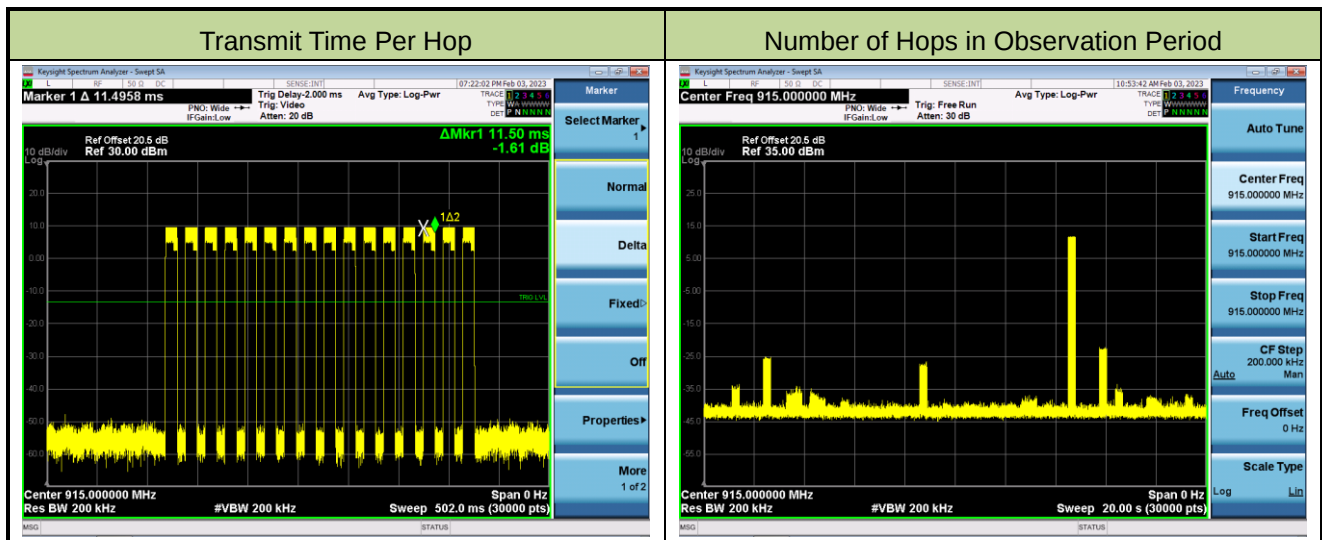


A.6 Time of Occupancy Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2023-02-03	Duplexer Type No.	KG100SAAMD
Data Rate	50kbps		

Channel No.	Frequency (MHz)	Transmit Time Per Hop (ms)	Observation Period (s)	Number of Hops in Observation Period	Time of Occupancy (ms)	Limit (ms)	Result
01~129	902.2~927.8	184	20	1	184	≤ 400	Pass

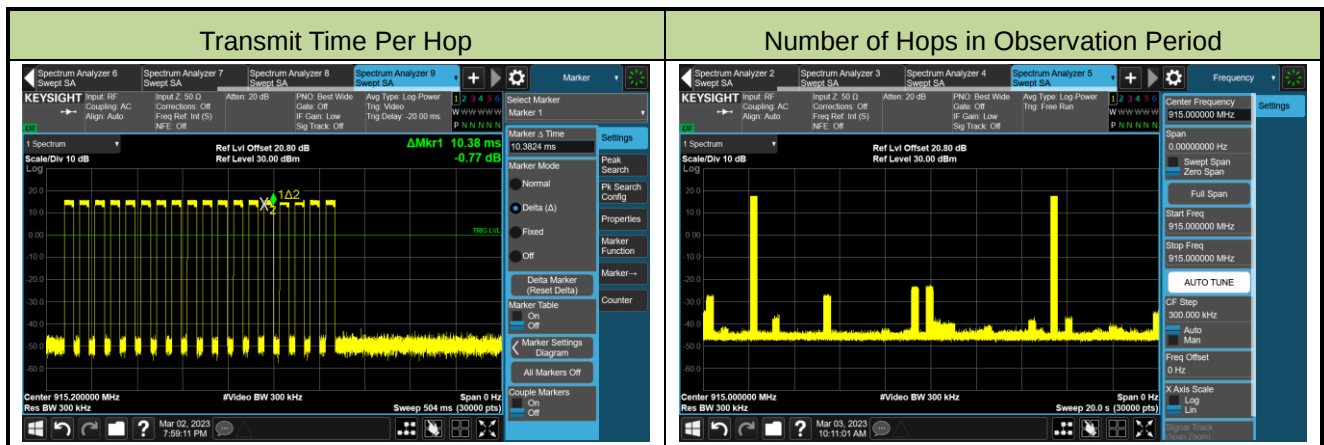
Note: Time of Occupancy (ms) = Transmit Time Per Hop (ms) * Number of Hops in Observation Period



Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2023-03-02 ~ 2023-03-03	Duplexer Type No.	KG100SAAMD
Data Rate	150kbps		

Channel No.	Frequency (MHz)	Transmit Time Per Hop (ms)	Observation Period (s)	Number of Hops in Observation Period	Time of Occupancy (ms)	Limit (ms)	Result
01~64	902.4~927.6	186.84	20	2	373.68	≤ 400	Pass

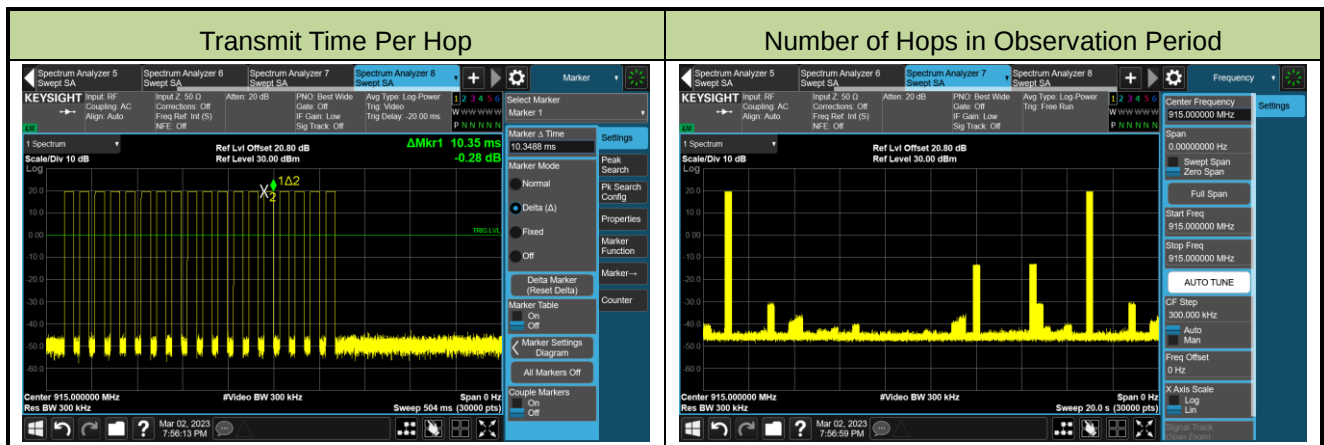
Note: Time of Occupancy (ms) = Transmit Time Per Hop (ms) * Number of Hops in Observation Period



Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2023-03-02	Duplexer Type No.	KG100SAAMD
Data Rate	250kbps		

Channel No.	Frequency (MHz)	Transmit Time Per Hop (ms)	Observation Period (s)	Number of Hops in Observation Period	Time of Occupancy (ms)	Limit (ms)	Result
01~51	902.5~927.5	186.3	20	2	372.6	≤ 400	Pass

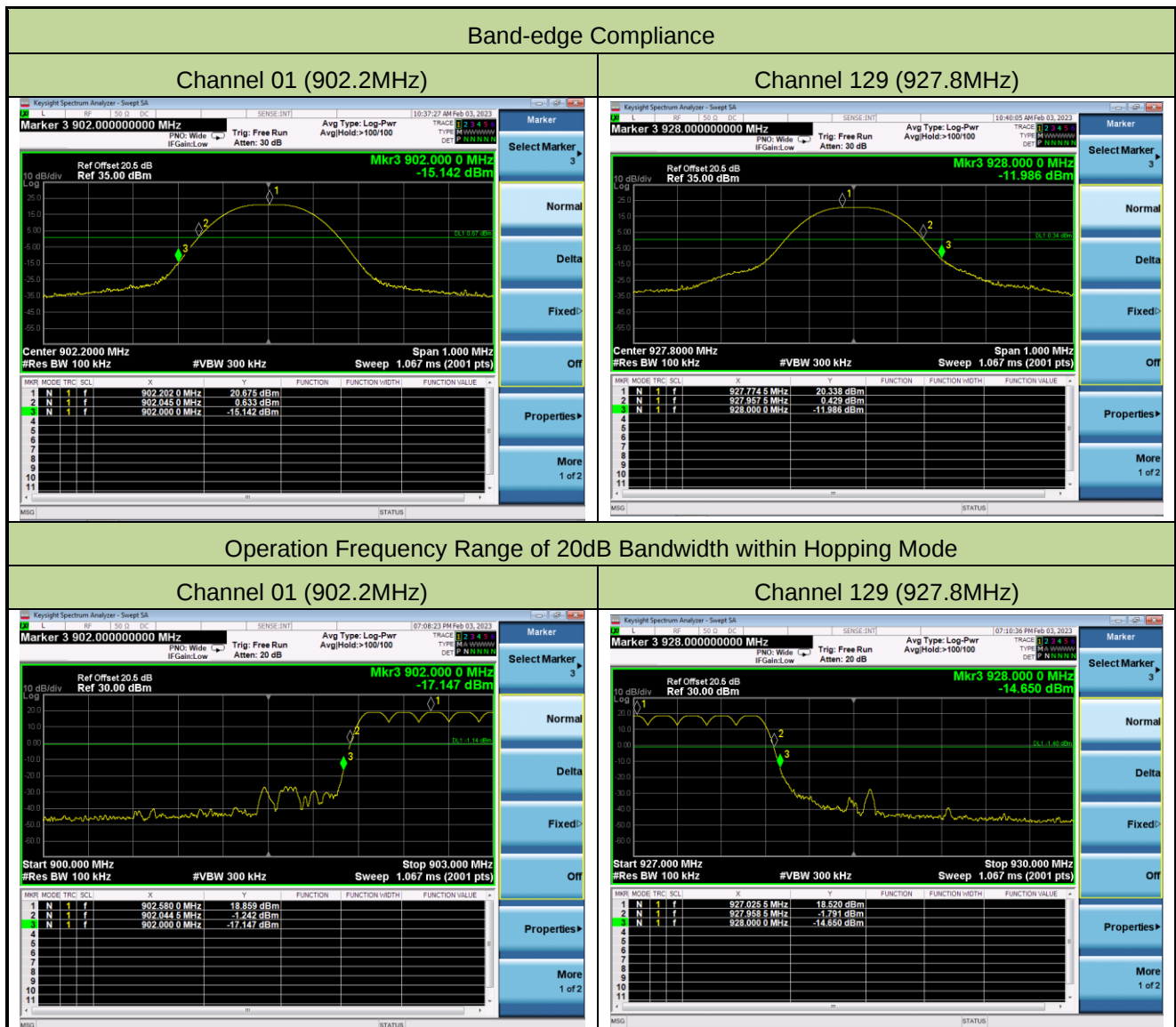
Note: Time of Occupancy (ms) = Transmit Time Per Hop (ms) * Number of Hops in Observation Period



A.7 Band-edge Compliance Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2023-02-03	Duplexer Type No.	KG100SAAMD
Date Rate	50kbps		

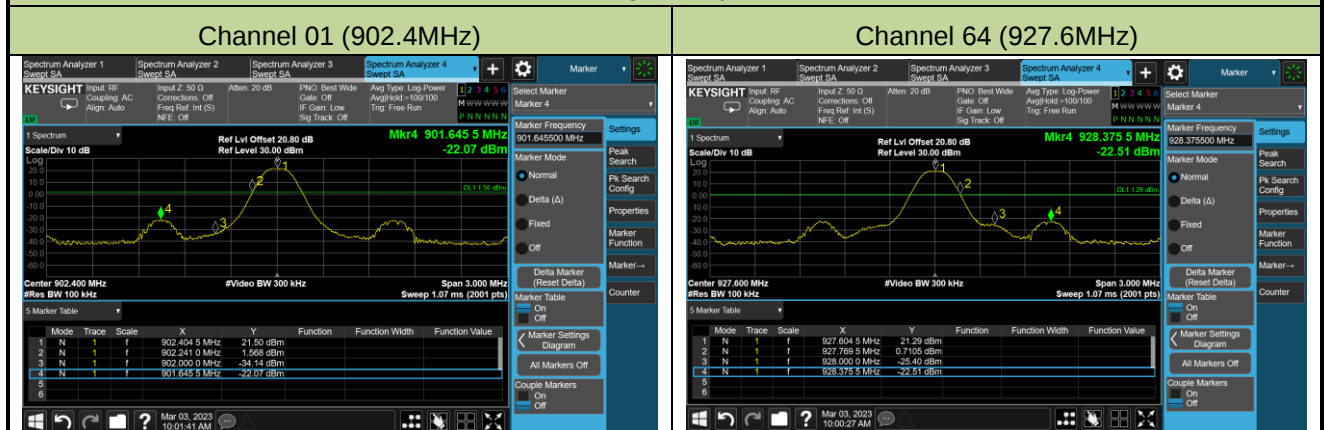
Channel No.	Frequency (MHz)	Limit	Result
01	902.2	20dBc	Pass
129	927.8	20dBc	Pass



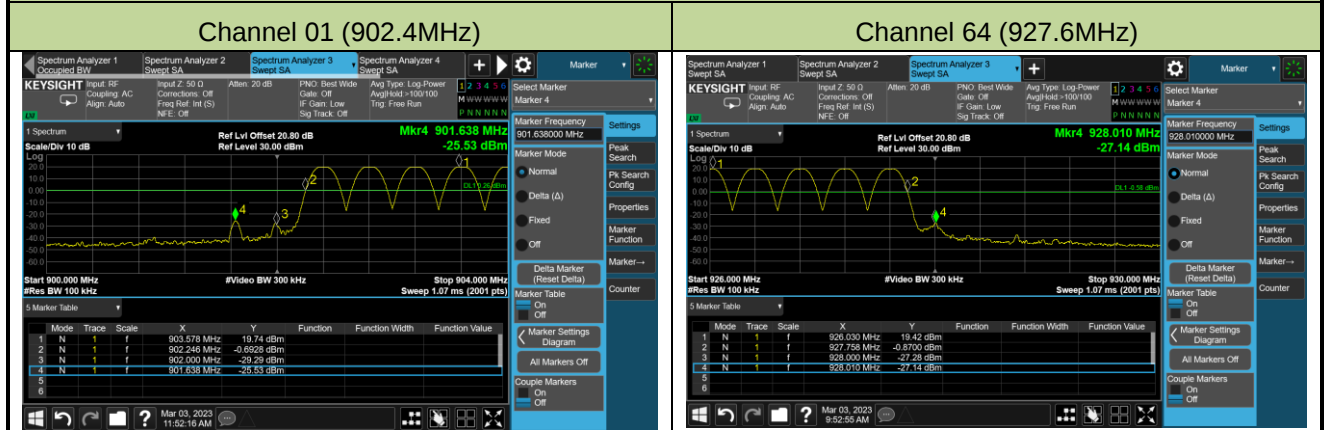
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2023-03-03	Duplexer Type No.	KG100SAAMD
Date Rate	150kbps		

Channel No.	Frequency (MHz)	Limit	Result
01	902.4	20dBc	Pass
64	927.6	20dBc	Pass

Band-edge Compliance

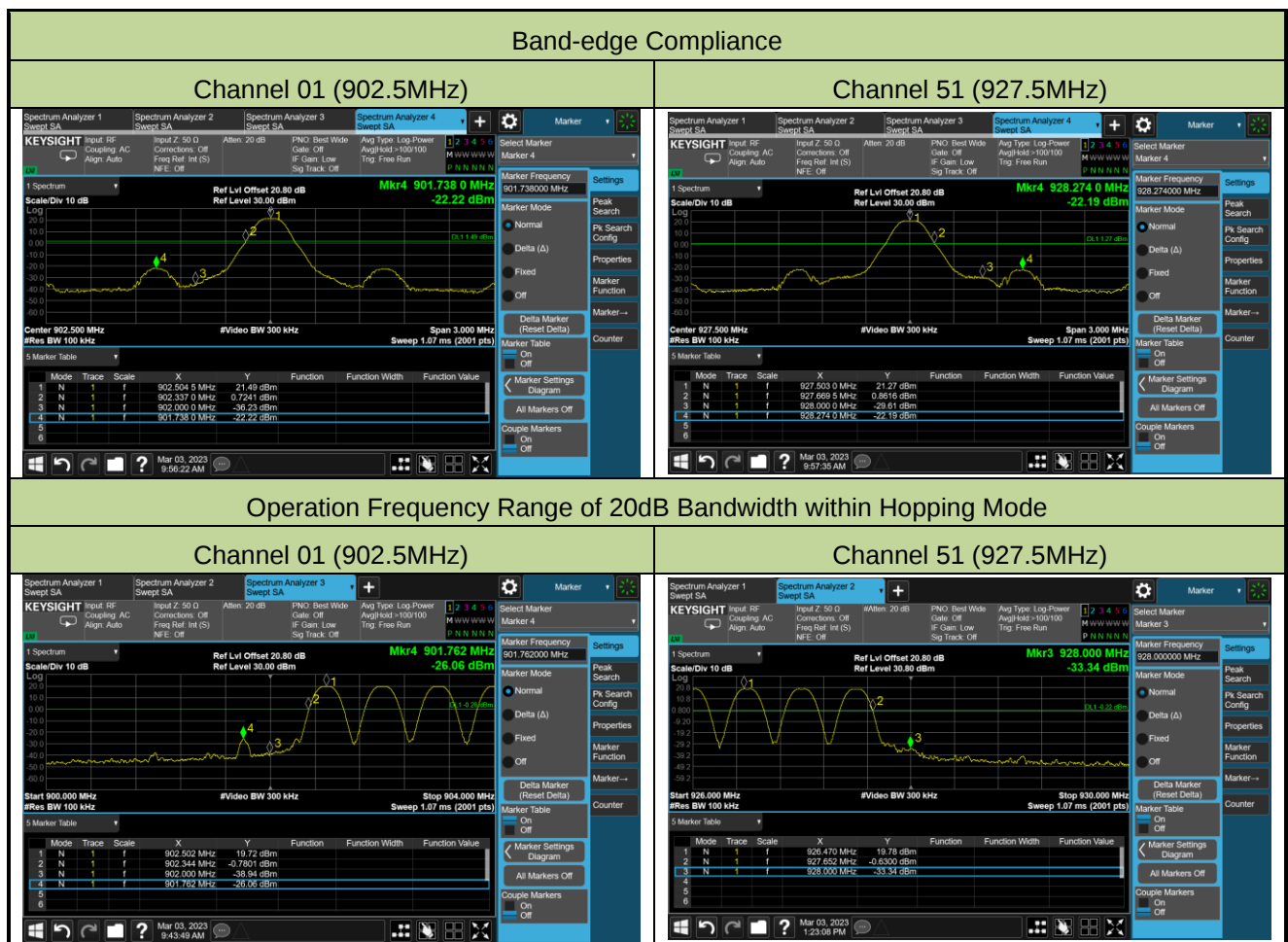


Operation Frequency Range of 20dB Bandwidth within Hopping Mode



Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2023-03-03	Duplexer Type No.	KG100SAAMD
Date Rate	250kbps		

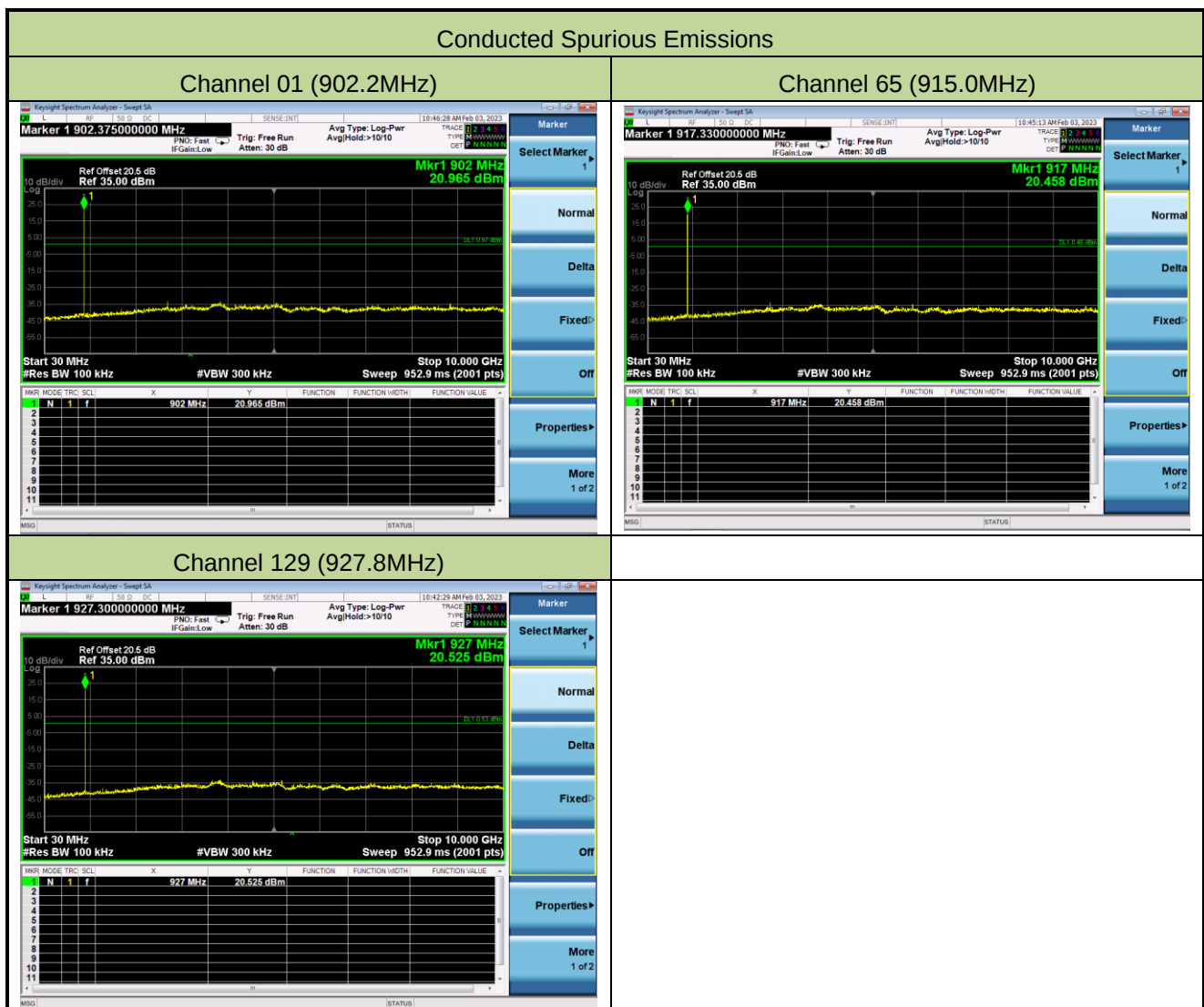
Channel No.	Frequency (MHz)	Limit	Result
01	902.5	20dBc	Pass
51	927.5	20dBc	Pass



A.8 Conducted Spurious Emissions Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2023-02-03	Duplexer Type No.	KG100SAAMD
Data Rate	50kbps		

Channel No.	Frequency (MHz)	Limit (MHz)	Result
01	902.2	20dBc	Pass
65	915.0	20dBc	Pass
129	927.8	20dBc	Pass



A.9 Radiated Spurious Emission Test Result

KG100SABMD (50kbps):

Test Site	WZ-AC1	Test Engineer	Charles Zhang
Test Date	2023-02-10		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-10GHz, there is not show in the report.		

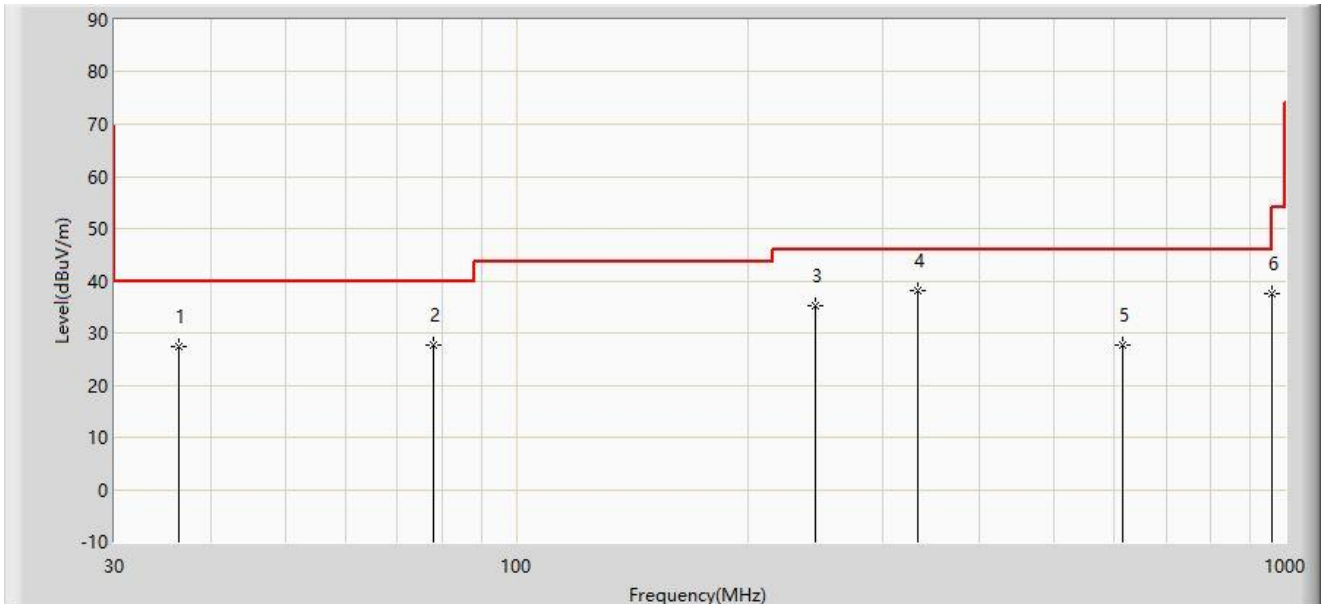
Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	2705.5	54.3	-2.7	51.6	74.0	-22.4	Peak	Horizontal
	2705.5	54.2	-2.7	51.5	54.0	-2.5	Average	Horizontal
	5414.5	41.8	3.6	45.4	74.0	-28.6	Peak	Horizontal
	9023.5	38.2	10.4	48.6	74.0	-25.4	Peak	Horizontal
	2705.5	46.1	-2.7	43.4	74.0	-30.6	Peak	Vertical
	8119.0	37.5	8.7	46.2	74.0	-27.8	Peak	Vertical
	9023.5	38.0	10.4	48.4	74.0	-25.6	Peak	Vertical
65	1193.5	52.1	-6.8	45.3	74.0	-28.7	Peak	Horizontal
	2746.0	53.4	-2.5	50.9	74.0	-23.1	Peak	Horizontal
	8236.0	38.5	8.5	47.0	74.0	-27.0	Peak	Horizontal
	2746.0	45.0	-2.5	42.5	74.0	-31.5	Peak	Vertical
	4573.0	38.8	2.0	40.8	74.0	-33.2	Peak	Vertical
	8236.0	39.4	8.5	47.9	74.0	-26.1	Peak	Vertical
129	1054.0	53.3	-7.4	45.9	74.0	-28.1	Peak	Horizontal
	2782.0	50.3	-2.4	47.9	74.0	-26.1	Peak	Horizontal
	4654.0	37.1	2.4	39.5	74.0	-34.5	Peak	Horizontal
	1108.0	45.6	-7.3	38.3	74.0	-35.7	Peak	Vertical
	2782.0	42.5	-2.4	40.1	74.0	-33.9	Peak	Vertical
	7682.5	38.5	7.8	46.3	74.0	-27.7	Peak	Vertical

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor ((dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

The Result of Radiated Emission below 1GHz:

Site: WZ-AC1	Test Date: 2023-02-02
Limit: FCC_Part15.209_RSE(3m)	Engineer: Bob Zhang
Probe: VULB 9168_25-2000MHz	Polarity: Horizontal
EUT: Wireless Module for Amazon Sidewalk (900MHz & Bluetooth)	Power: By PC
Test Mode: Transmit at 902.2MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		36.305	27.282	9.421	-12.718	40.000	17.862	PK
2		78.015	27.733	13.180	-12.267	40.000	14.552	PK
3		245.340	35.104	18.575	-10.896	46.000	16.529	PK
4	*	332.640	38.103	18.671	-7.897	46.000	19.432	PK
5		614.000	27.701	1.969	-18.299	46.000	25.732	PK
6		960.000	37.543	7.764	-8.457	46.000	29.779	PK

Note 1: " * ", means this data is the worst emission level.

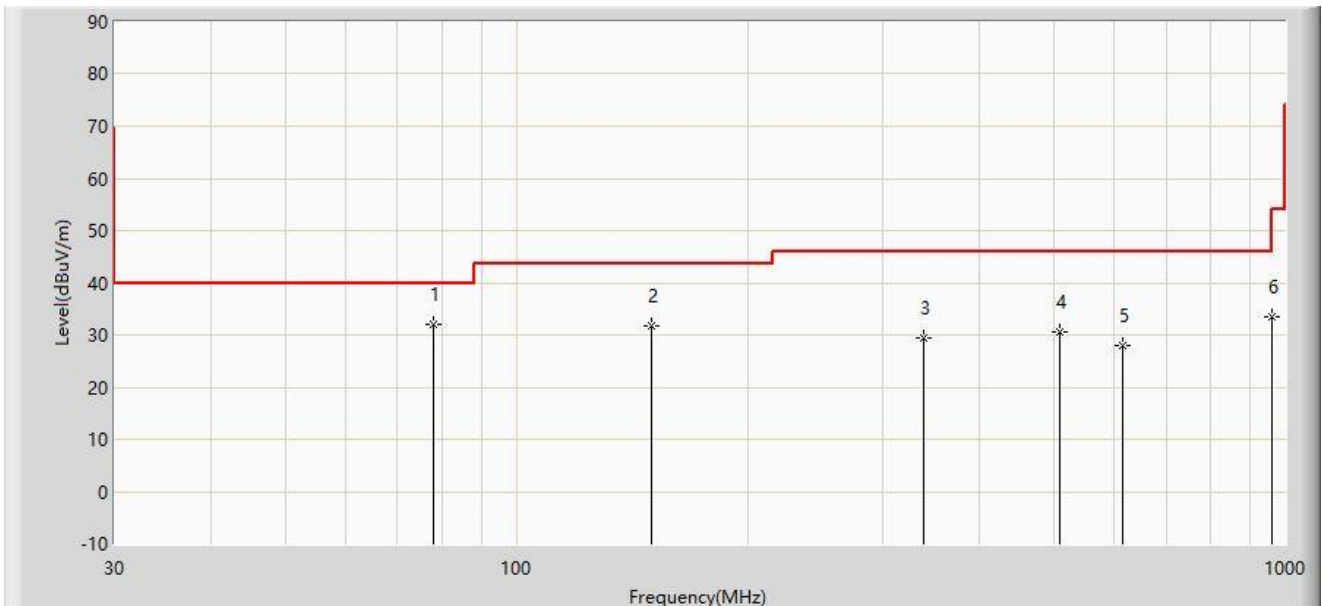
Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note 4: Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

Note 5: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Site: WZ-AC1	Test Date: 2023-02-02
Limit: FCC_Part15.209_RSE(3m)	Engineer: Bob Zhang
Probe: VULB 9168_25-2000MHz	Polarity: Vertical
EUT: Wireless Module for Amazon Sidewalk (900MHz & Bluetooth)	Power: By PC
Test Mode: Transmit at 902.2MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB/m)	Type
1	*	78.015	31.951	17.398	-8.049	40.000	14.552	PK
2		149.795	31.865	13.875	-11.635	43.500	17.990	PK
3		338.945	29.380	9.871	-16.620	46.000	19.509	PK
4		508.210	30.441	7.140	-15.559	46.000	23.301	PK
5		614.000	27.989	2.257	-18.011	46.000	25.732	PK
6		960.000	33.393	3.614	-12.607	46.000	29.779	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note 4: Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

Note 5: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

KG100SAAMD (50kbps):

Test Site	WZ-AC1	Test Engineer	Charles Zhang
Test Date	2023-02-10		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-10GHz, there is not show in the report.		

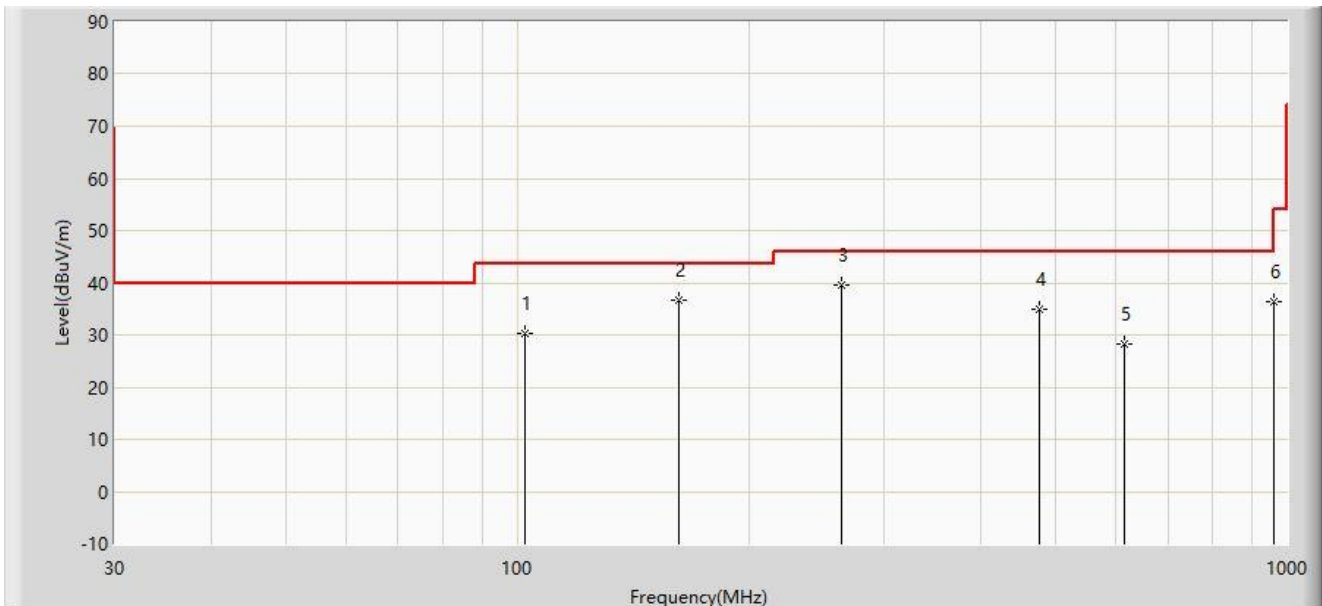
Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	1049.5	54.0	-7.5	46.5	74.0	-27.5	Peak	Horizontal
	2705.5	51.6	-2.7	48.9	74.0	-25.1	Peak	Horizontal
	7642.0	37.8	7.9	45.7	74.0	-28.3	Peak	Horizontal
	2705.5	42.6	-2.7	39.9	74.0	-34.1	Peak	Vertical
	4195.0	37.6	1.0	38.6	74.0	-35.4	Peak	Vertical
	7538.5	37.5	8.2	45.7	74.0	-28.3	Peak	Vertical
65	1049.5	55.1	-7.5	47.6	74.0	-26.4	Peak	Horizontal
	2746.0	46.0	-2.5	43.5	74.0	-30.5	Peak	Horizontal
	7372.0	38.0	8.3	46.3	74.0	-27.7	Peak	Horizontal
	1441.0	44.2	-5.8	38.4	74.0	-35.6	Peak	Vertical
	4006.0	38.6	0.5	39.1	74.0	-34.9	Peak	Vertical
	7660.0	37.7	7.8	45.5	74.0	-28.5	Peak	Vertical
129	1054.0	54.1	-7.4	46.7	74.0	-27.3	Peak	Horizontal
	2782.0	43.1	-2.4	40.7	74.0	-33.3	Peak	Horizontal
	9388.0	36.7	12.0	48.7	74.0	-25.3	Peak	Horizontal
	2732.5	40.6	-2.6	38.0	74.0	-36.0	Peak	Vertical
	4681.0	37.5	2.3	39.8	74.0	-34.2	Peak	Vertical
	7646.5	37.7	7.9	45.6	74.0	-28.4	Peak	Vertical

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor ((dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

The Result of Radiated Emission below 1GHz:

Site: WZ-AC1	Test Date: 2023-02-02
Limit: FCC_Part15.209_RSE(3m)	Engineer: Bob Zhang
Probe: VULB 9168_25-2000MHz	Polarity: Horizontal
EUT: Wireless Module for Amazon Sidewalk (900MHz & Bluetooth)	Power: By PC
Test Mode: Transmit at 902.2MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		102.265	30.350	16.772	-13.150	43.500	13.579	PK
2		161.920	36.777	18.650	-6.723	43.500	18.127	PK
3	*	263.770	39.671	22.582	-6.329	46.000	17.089	PK
4		477.655	35.056	12.295	-10.944	46.000	22.761	PK
5		614.000	28.131	2.399	-17.869	46.000	25.732	PK
6		960.000	36.505	6.726	-9.495	46.000	29.779	PK

Note 1: " * ", means this data is the worst emission level.

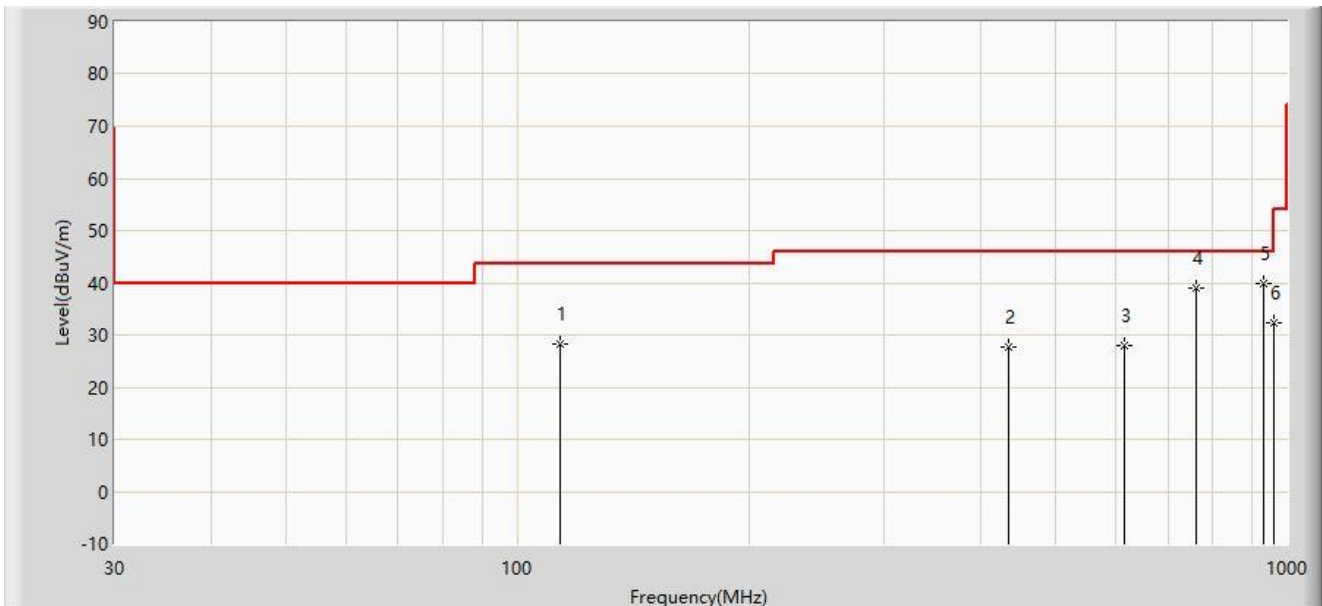
Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note 4: Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

Note 5: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Site: WZ-AC1	Test Date: 2023-02-02
Limit: FCC_Part15.209_RSE(3m)	Engineer: Bob Zhang
Probe: VULB 9168_25-2000MHz	Polarity: Vertical
EUT: Wireless Module for Amazon Sidewalk (900MHz & Bluetooth)	Power: By PC
Test Mode: Transmit at 902.2MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		113.905	28.374	13.256	-15.126	43.500	15.118	PK
2		434.005	27.750	5.876	-18.250	46.000	21.873	PK
3		614.000	27.921	2.189	-18.079	46.000	25.732	PK
4		760.410	38.998	10.759	-7.002	46.000	28.239	PK
5	*	934.040	39.962	10.187	-6.038	46.000	29.775	PK
6		960.000	32.408	2.629	-13.592	46.000	29.779	PK

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

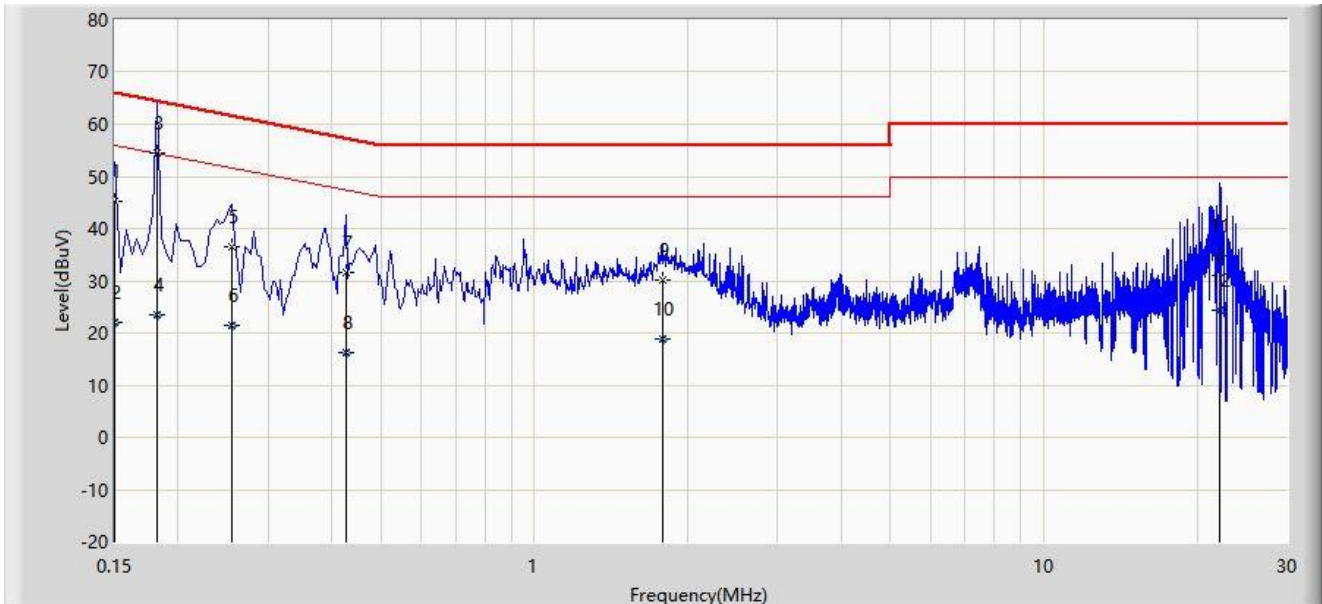
Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note 4: Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

Note 5: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

A.10 AC Conducted Emissions Test Result

Site: WZ-SR2	Test Date: 2023-02-14
Limit: FCC_Part15.207_CE_AC Power	Engineer: Helen Han
Probe: ENV216_101683_Filter Off_C	Polarity: Line
EUT: Wireless Module for Amazon Sidewalk (900MHz & Bluetooth)	Power by PC
Test Mode: Transmit at 915MHz	



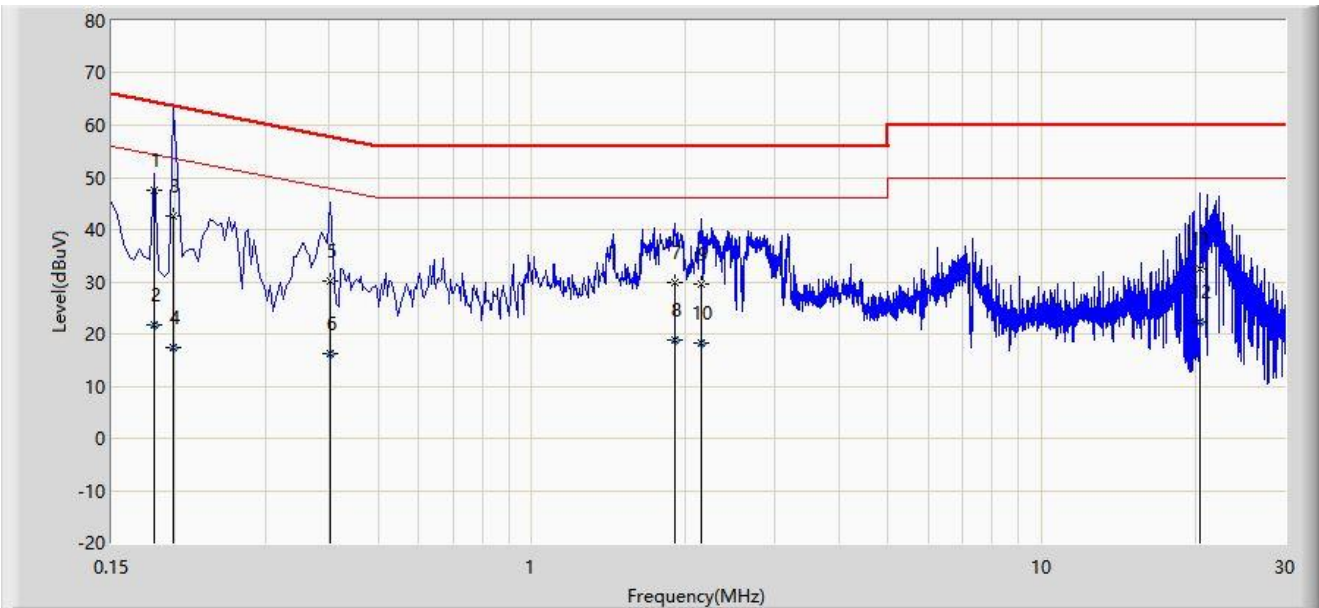
No	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1		0.150	45.301	35.573	-20.699	66.000	9.728	QP
2		0.150	22.140	12.413	-33.860	56.000	9.728	AV
3	*	0.182	54.578	44.848	-9.816	64.394	9.730	QP
4		0.182	23.408	13.678	-30.986	54.394	9.730	AV
5		0.254	36.556	26.815	-25.069	61.625	9.741	QP
6		0.254	21.455	11.714	-30.170	51.625	9.741	AV
7		0.426	31.667	21.892	-25.663	57.330	9.776	QP
8		0.426	16.140	6.365	-31.190	47.330	9.776	AV
9		1.782	30.167	20.325	-25.833	56.000	9.842	QP
10		1.782	18.797	8.955	-27.203	46.000	9.842	AV
11		22.094	34.668	23.776	-25.332	60.000	10.892	QP
12		22.094	24.437	13.545	-25.563	50.000	10.892	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB).

Note 3: Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

Site: WZ-SR2	Test Date: 2023-02-14
Limit: FCC_Part15.207_CE_AC Power	Engineer: Helen Han
Probe: ENV216_101683_Filter Off_C	Polarity: Neutral
EUT: Wireless Module for Amazon Sidewalk (900MHz & Bluetooth)	Power by PC
Test Mode: Transmit at 915MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1	*	0.182	47.666	37.900	-16.728	64.394	9.767	QP
2		0.182	21.763	11.996	-32.631	54.394	9.767	AV
3		0.198	42.575	32.805	-21.119	63.694	9.770	QP
4		0.198	17.332	7.562	-36.363	53.694	9.770	AV
5		0.402	30.081	20.271	-27.731	57.812	9.810	QP
6		0.402	16.233	6.422	-31.579	47.812	9.810	AV
7		1.914	29.813	19.955	-26.187	56.000	9.858	QP
8		1.914	18.715	8.857	-27.285	46.000	9.858	AV
9		2.146	29.647	19.761	-26.353	56.000	9.885	QP
10		2.146	18.245	8.360	-27.755	46.000	9.885	AV
11		20.414	32.346	21.524	-27.654	60.000	10.821	QP
12		20.414	22.240	11.418	-27.760	50.000	10.821	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB).

Note 3: Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

Appendix B - Test Setup Photograph

Refer to “2211RSU051-UT” file.

Appendix C - EUT Photograph

Refer to “ 2211RSU051-UE” file.

_____ The End _____