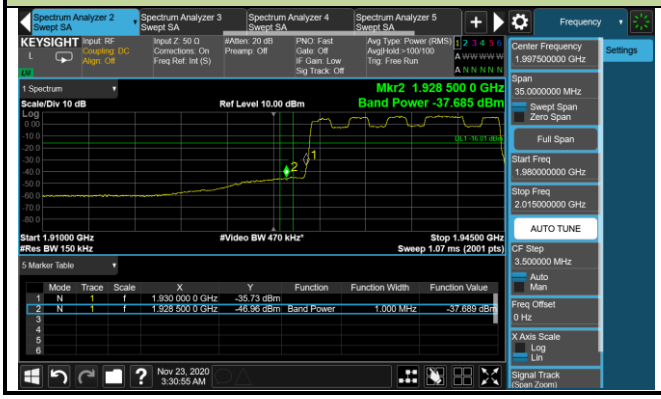
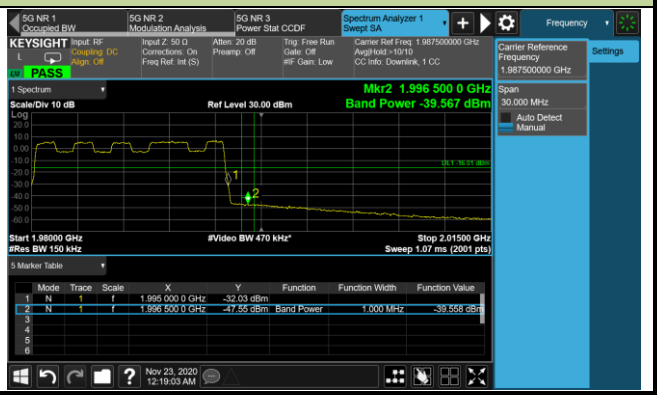
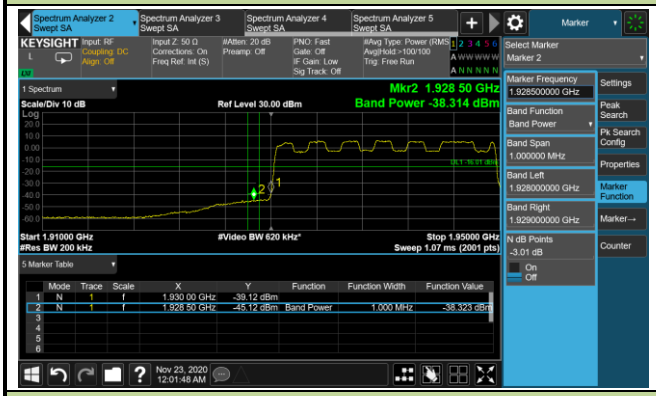
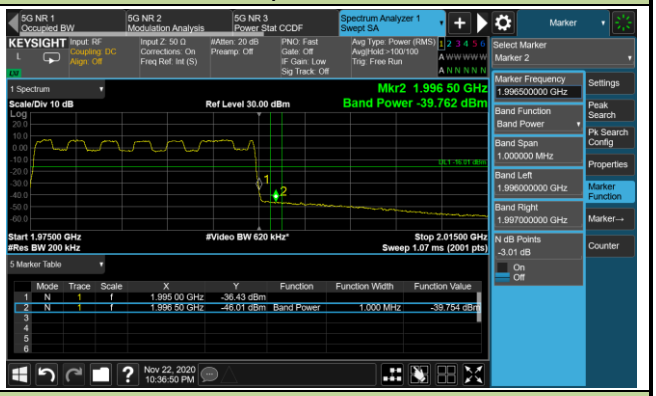
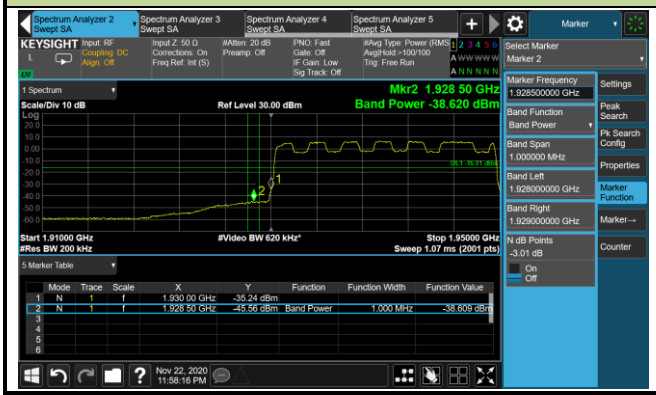
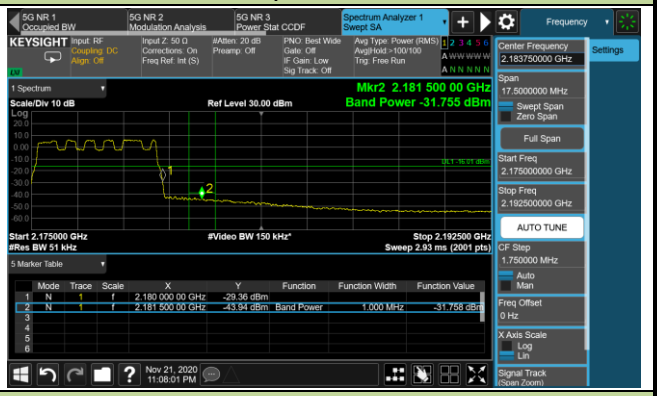
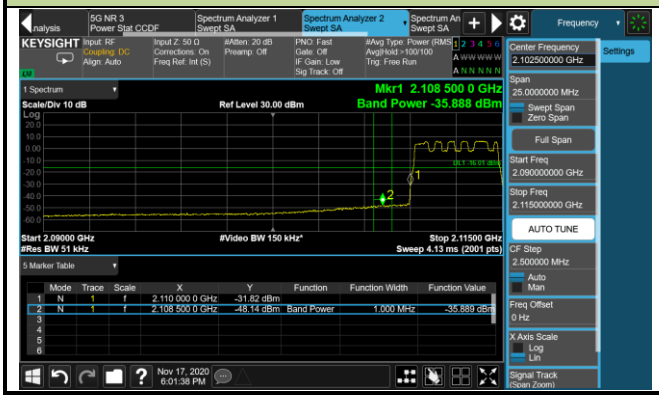
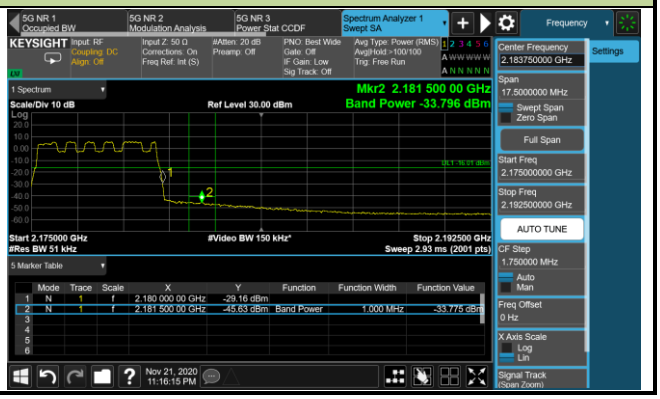
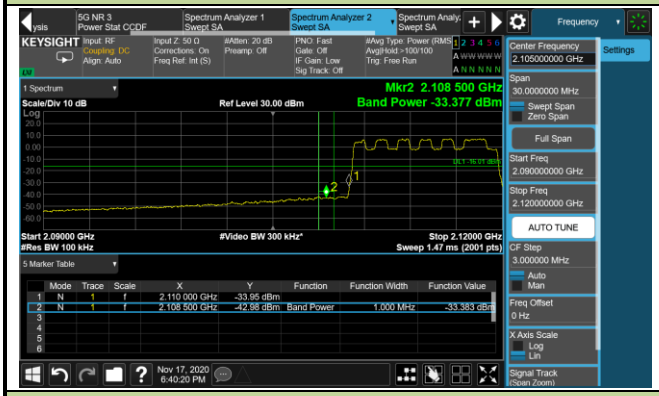
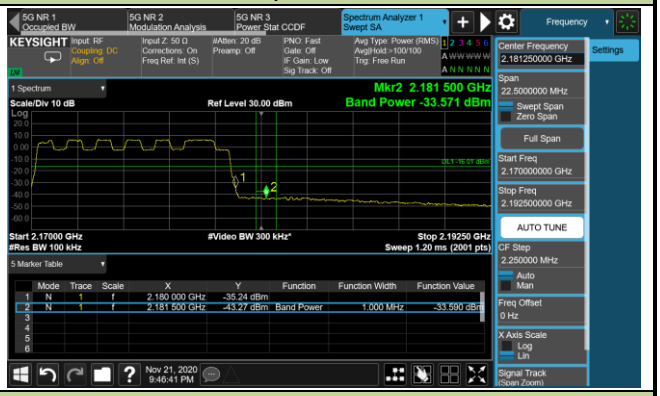
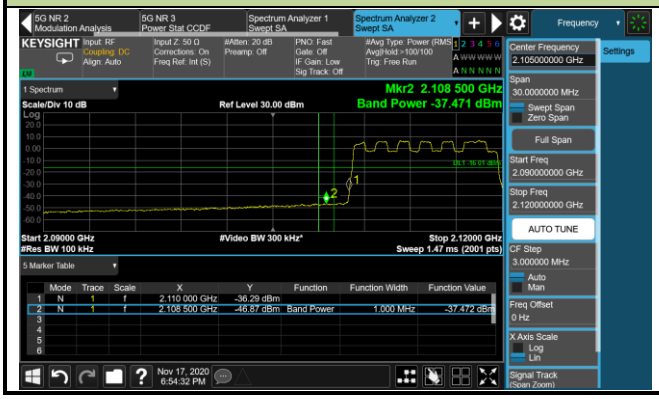
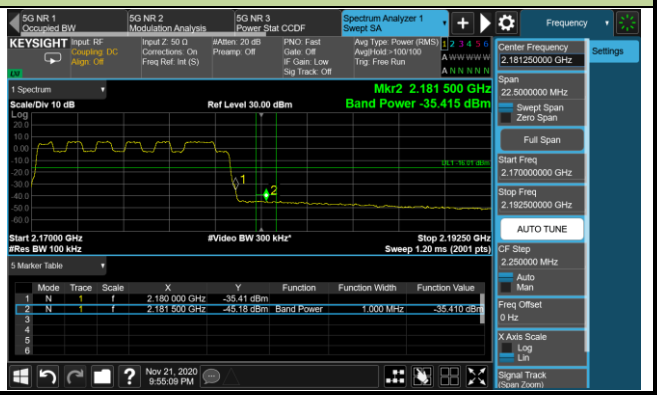
15MHz Channel Bandwidth - Ant 0	
Bottom Channel	Top Channel
	
15MHz Channel Bandwidth - Ant 1	
Bottom Channel	Top Channel
	

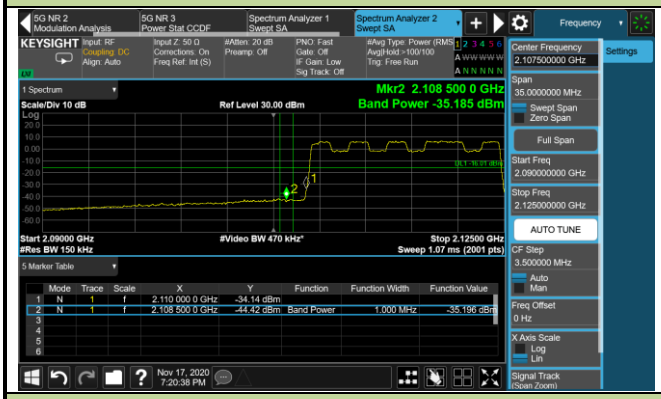
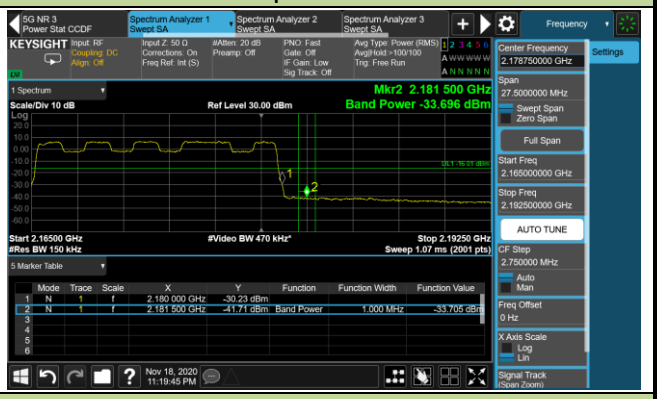
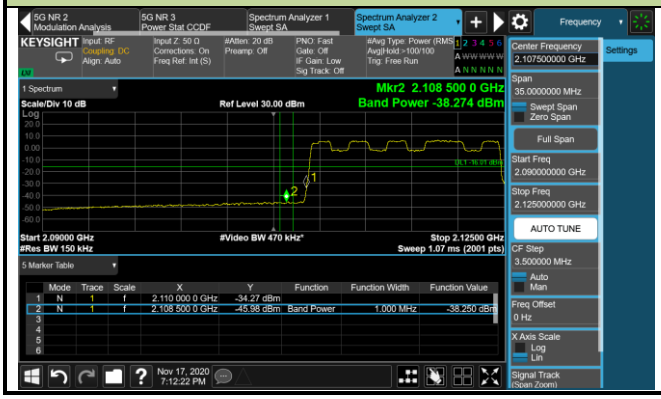
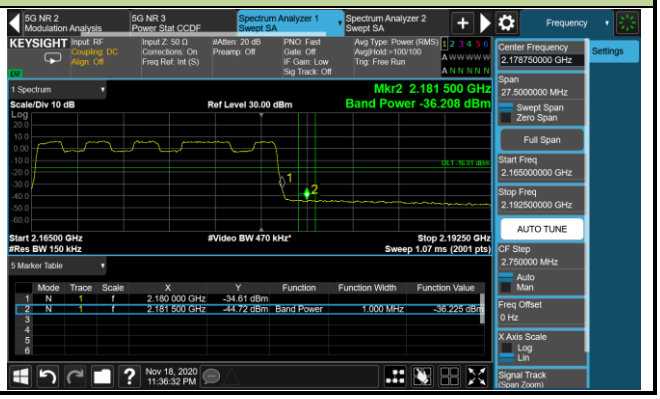
20MHz Channel Bandwidth - Ant 0	
Bottom Channel	Top Channel
	
20MHz Channel Bandwidth - Ant 1	
Bottom Channel	Top Channel
	

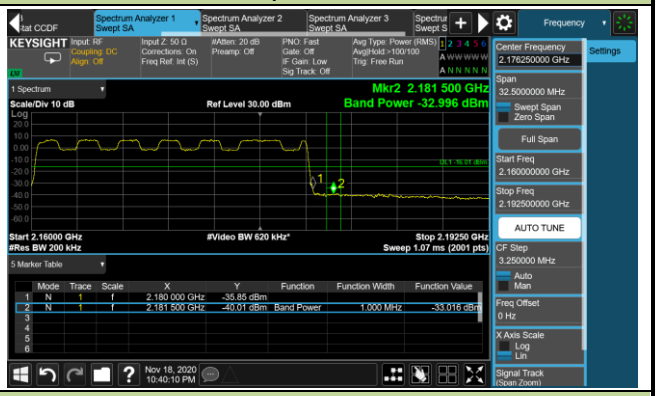
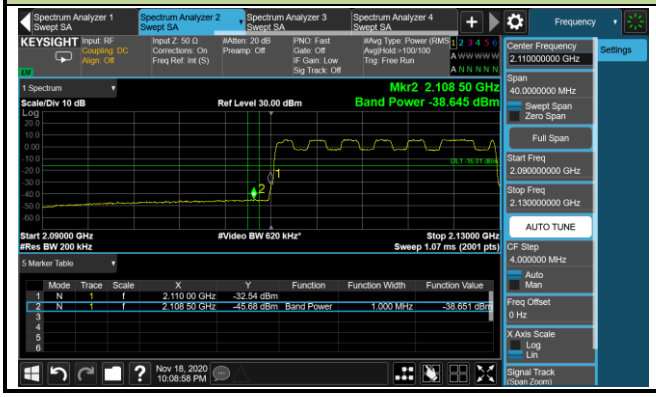
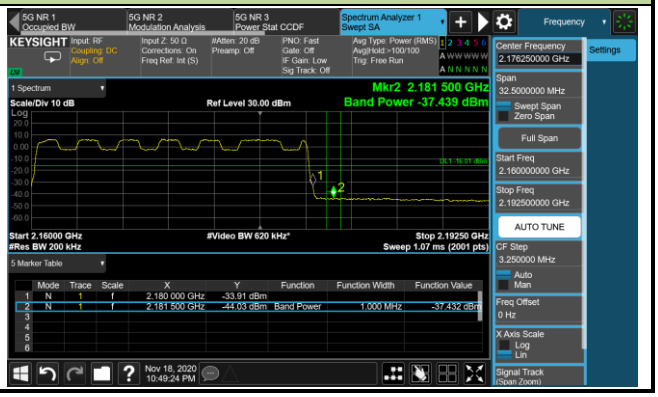
Product	AirScale Indoor Radio ASiR-pRRH	Test Engineer	Peter Xu
Test Site	SR2	Test Date	2020/11/17 ~ 2020/12/30
Test Configuration	n66, QPSK		

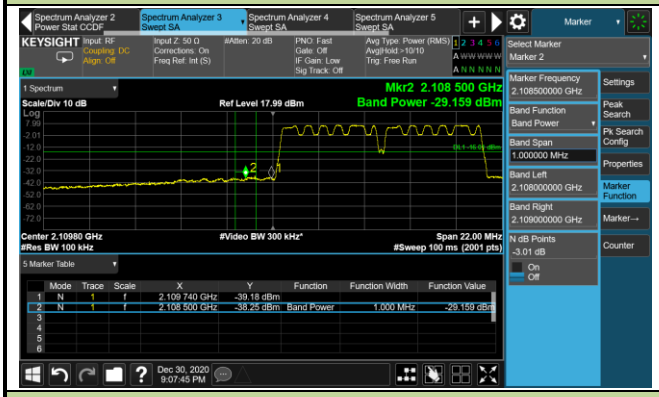
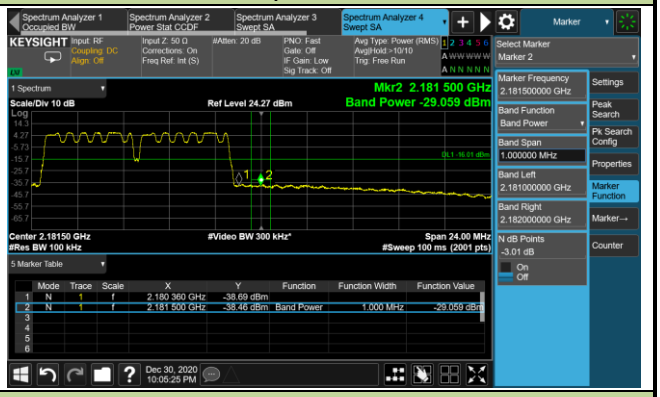
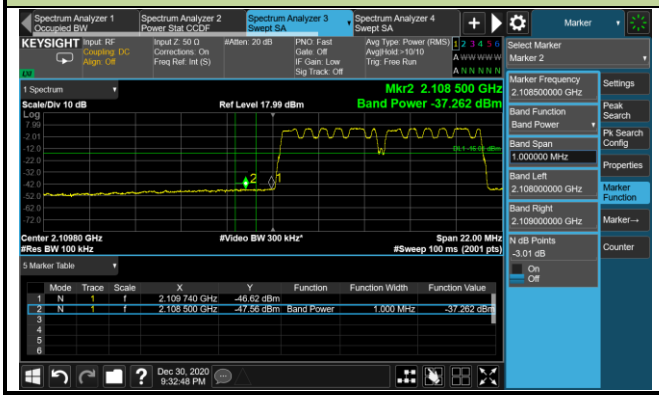
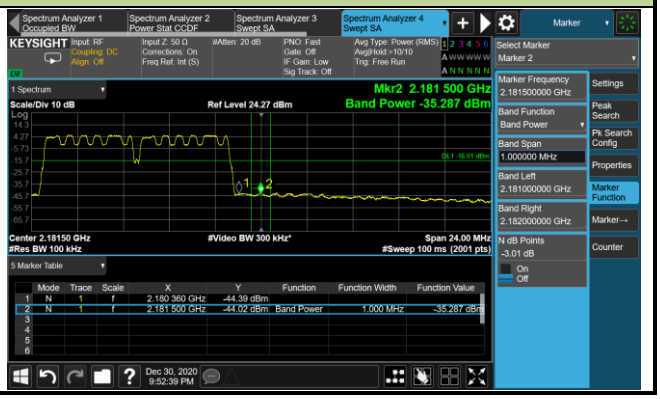
Frequency (MHz)	Channel Bandwidth (MHz)	Max Band Edge (dBm)		Limit (dBm)	Result
		Ant 0	Ant 1		
2112.5	5	-32.40	-31.82	≤ -16.01	Pass
2177.5	5	-29.36	-29.16	≤ -16.01	Pass
2115.0	10	-33.38	-36.29	≤ -16.01	Pass
2175.0	10	-33.59	-35.41	≤ -16.01	Pass
2117.5	15	-34.14	-34.27	≤ -16.01	Pass
2172.5	15	-30.23	-34.61	≤ -16.01	Pass
2120.0	20	-34.51	-32.54	≤ -16.01	Pass
2170.0	20	-33.02	-33.91	≤ -16.01	Pass
2112.5 + 2117.5	5 + 5	-29.16	-37.26	≤ -16.01	Pass
2172.5 + 2177.5	5 + 5	-29.06	-35.29	≤ -16.01	Pass
2115.0 + 2125.0	10 + 10	-31.50	-38.12	≤ -16.01	Pass
2165.0 + 2175.0	10 + 10	-29.15	-37.80	≤ -16.01	Pass
2117.5 + 2132.5	15 + 15	-34.22	-39.02	≤ -16.01	Pass
2157.5 + 2172.5	15 + 15	-25.83	-26.43	≤ -16.01	Pass
2120.0 + 2140.0	20 + 20	-19.28	-19.66	≤ -16.01	Pass
2150.0 + 2170.0	20 + 20	-36.17	-38.59	≤ -16.01	Pass

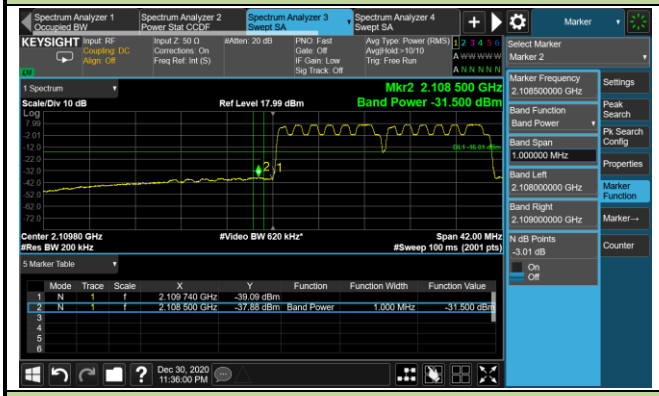
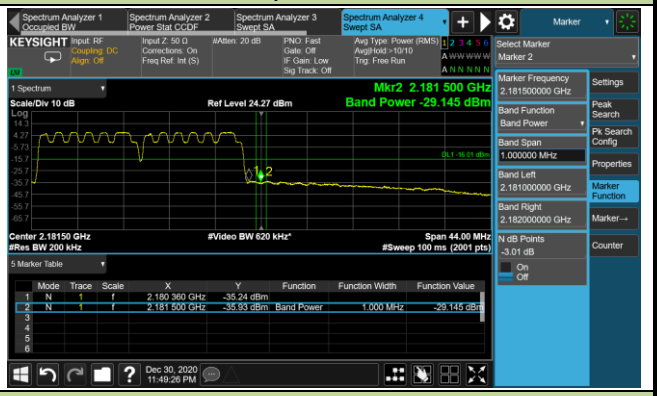
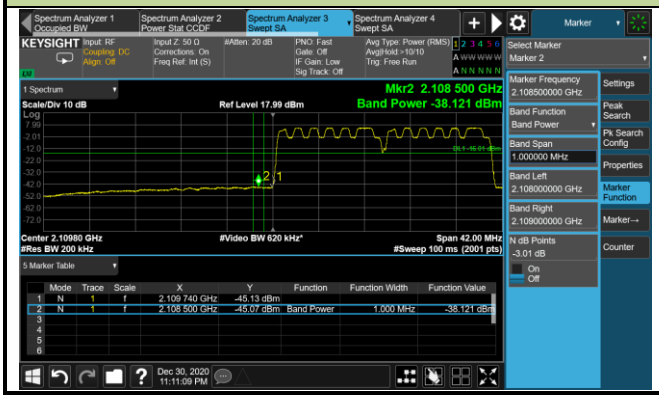
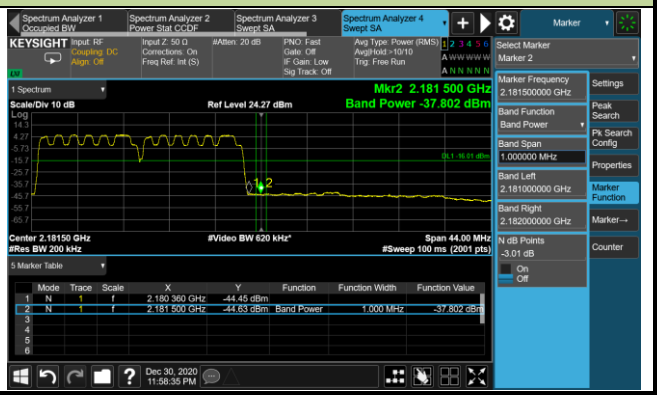
5MHz Channel Bandwidth - Ant 0	
Bottom Channel	Top Channel
	
5MHz Channel Bandwidth - Ant 1	
Bottom Channel	Top Channel
	

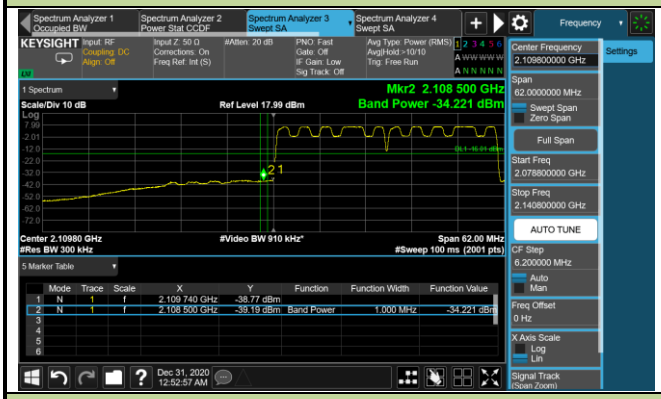
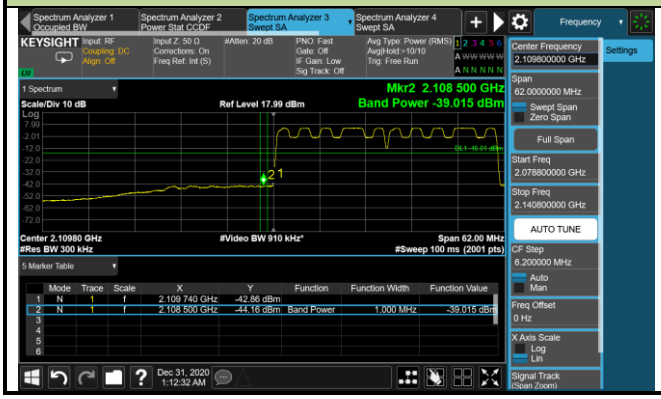
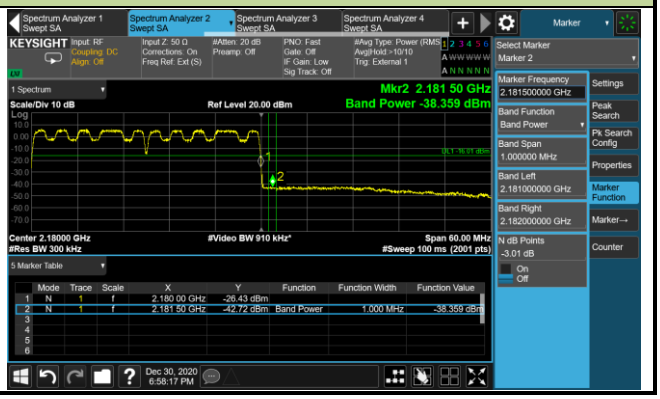
10MHz Channel Bandwidth - Ant 0	
Bottom Channel	Top Channel
	
10MHz Channel Bandwidth - Ant 1	
Bottom Channel	Top Channel
	

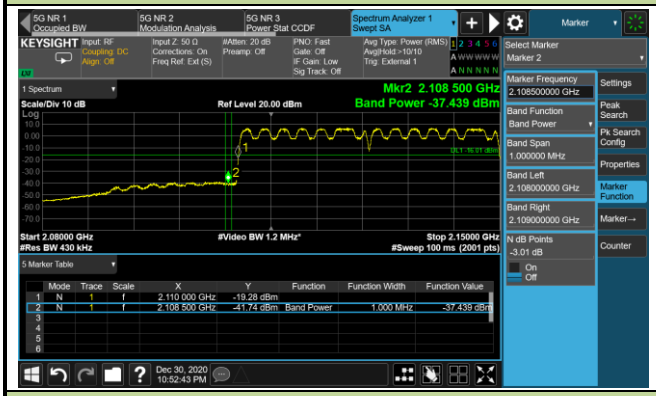
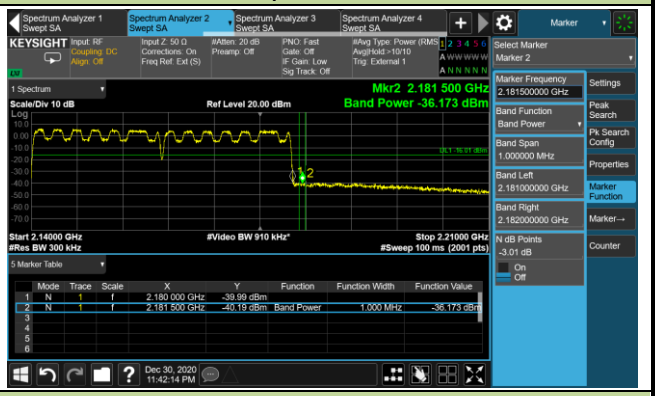
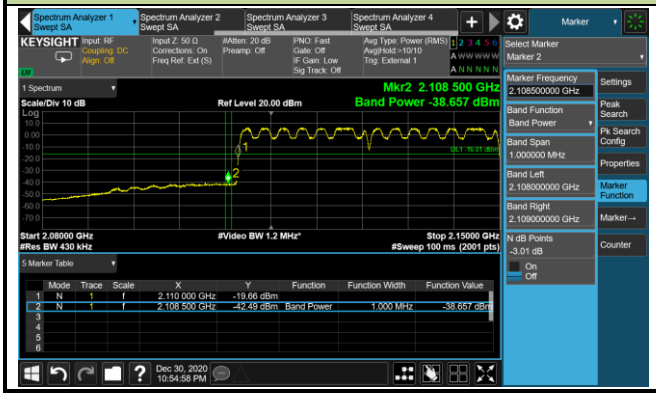
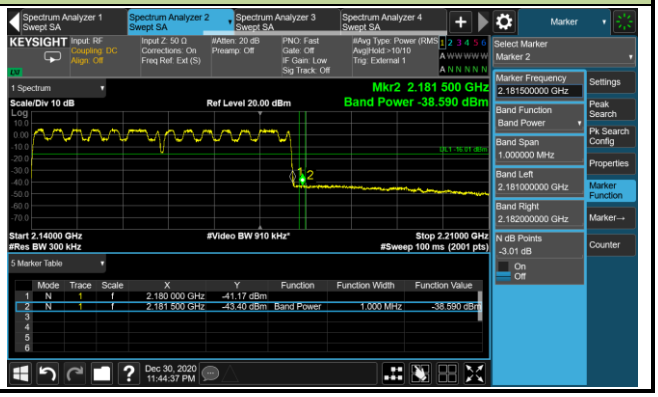
15MHz Channel Bandwidth - Ant 0	
Bottom Channel	Top Channel
	
15MHz Channel Bandwidth - Ant 1	
Bottom Channel	Top Channel
	

20MHz Channel Bandwidth - Ant 0	
Bottom Channel	Top Channel
	
20MHz Channel Bandwidth - Ant 1	
Bottom Channel	Top Channel
	

5 + 5MHz Channel Bandwidth - Ant 0	
Bottom Channel	Top Channel
	
5 + 5MHz Channel Bandwidth - Ant 1	
Bottom Channel	Top Channel
	

10 + 10MHz Channel Bandwidth - Ant 0	
Bottom Channel	Top Channel
	
10 + 10MHz Channel Bandwidth - Ant 1	
Bottom Channel	Top Channel
	

15 + 15MHz Channel Bandwidth - Ant 0	
Bottom Channel	Top Channel
	
15 + 15MHz Channel Bandwidth - Ant 1	
Bottom Channel	Top Channel
	

20 + 20MHz Channel Bandwidth - Ant 0	
Bottom Channel	Top Channel
	
20 + 20MHz Channel Bandwidth - Ant 1	
Bottom Channel	Top Channel
	

6.6. Peak to Average Ratio

6.6.1.Test Limit

In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

6.6.2.Test Procedure Used

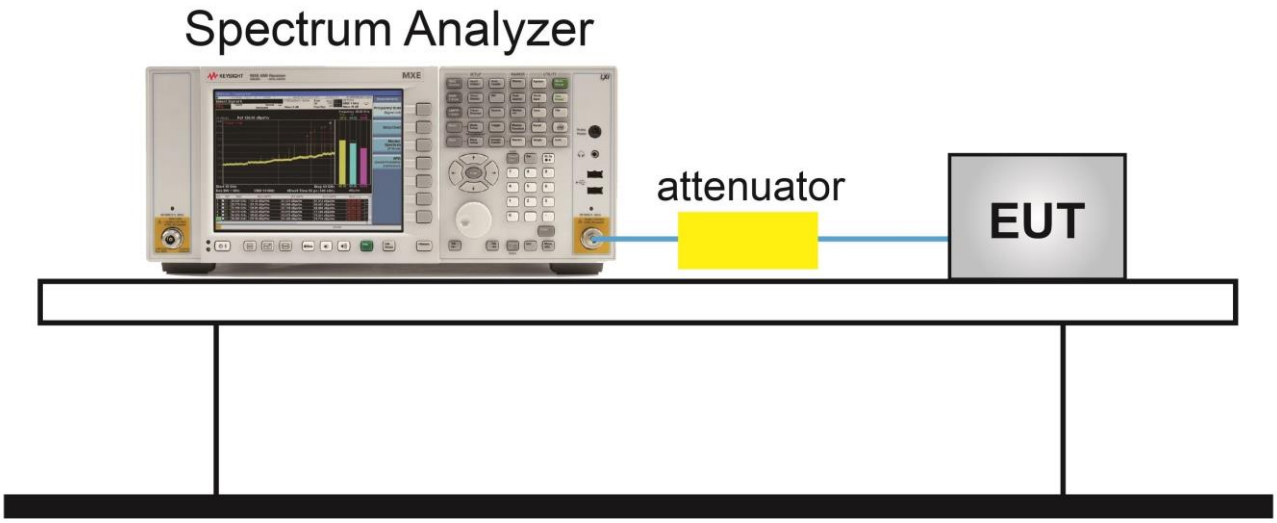
KDB 971168 D01v03r01 - Section 5.7

ANSI C63.26-2015 - Section 5.2.6

6.6.3.Test Setting

1. Set the resolution / measurement bandwidth ≥ signal's occupied bandwidth.
2. Set the number of counts to a value that stabilizes the measured CCDF curve.
3. Record the maximum PARR level associated with a probability of 0.1%.

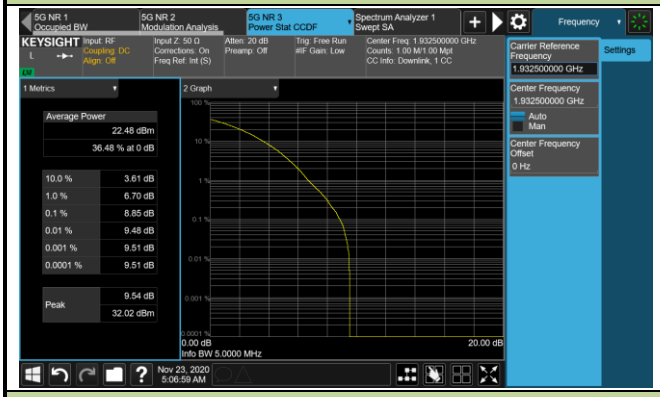
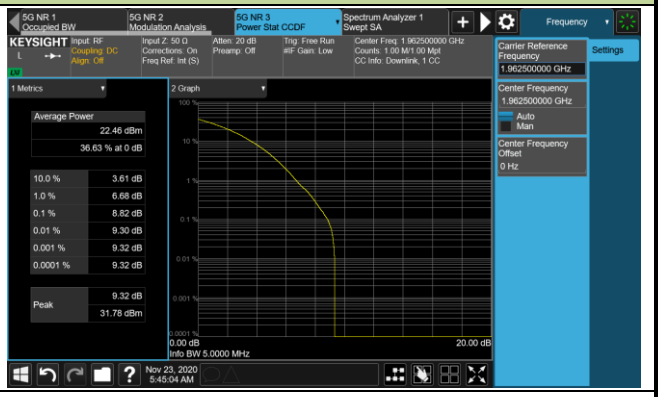
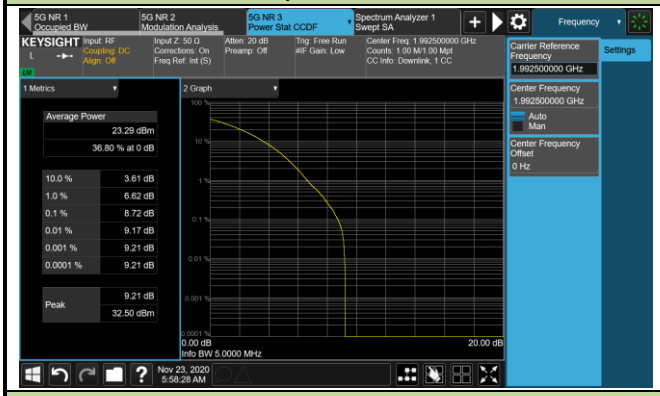
6.6.4.Test Setup

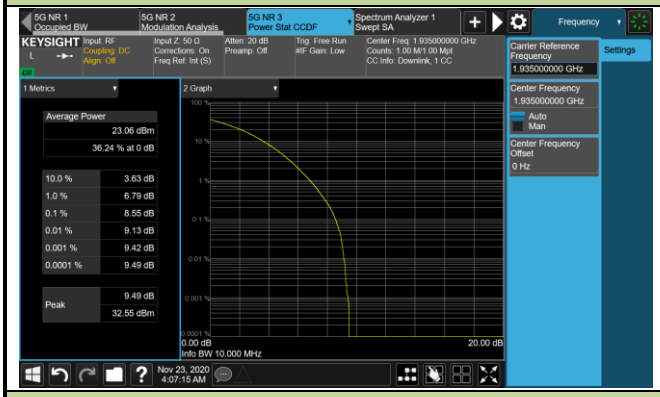
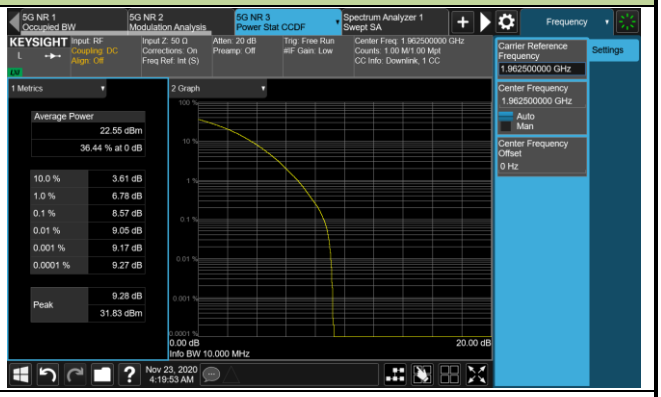
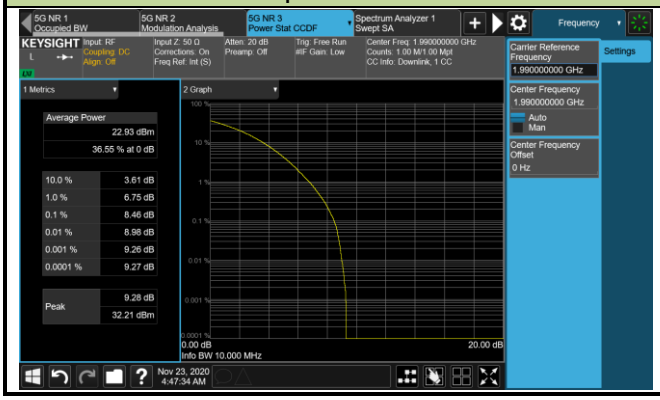


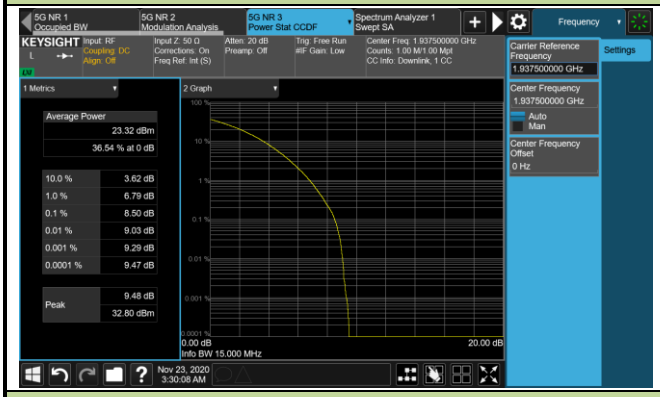
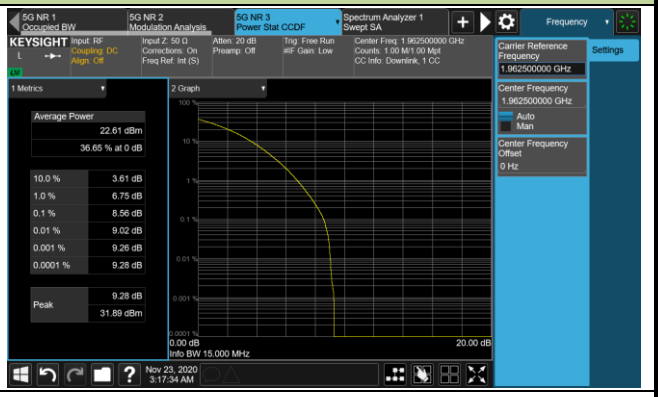
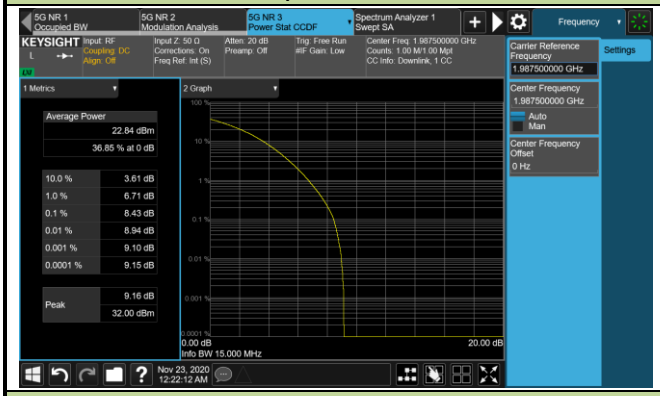
6.6.5.Test Result

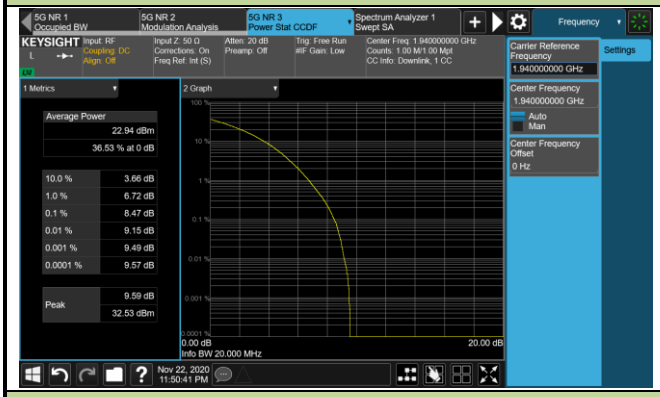
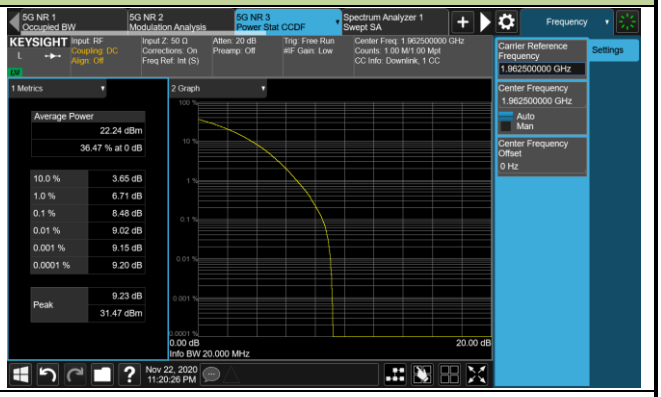
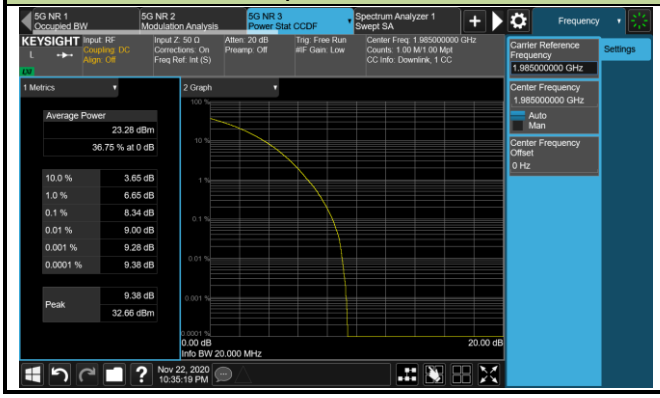
Product	AirScale Indoor Radio ASiR-pRRH	Test Engineer	Peter Xu
Test Site	SR2	Test Date	2020/11/23
Test Configuration	n25 (Single Carrier), QPSK		

Frequency (MHz)	Bandwidth (MHz)	Peak to Average Ratio (dB)	Limit (dB)	Result
1932.5	5	8.85	≤ 13.00	Pass
1962.5	5	8.82	≤ 13.00	Pass
1992.5	5	8.72	≤ 13.00	Pass
1935.0	10	8.55	≤ 13.00	Pass
1962.5	10	8.57	≤ 13.00	Pass
1990.0	10	8.46	≤ 13.00	Pass
1937.5	15	8.50	≤ 13.00	Pass
1962.5	15	8.56	≤ 13.00	Pass
1987.5	15	8.43	≤ 13.00	Pass
1940.0	20	8.47	≤ 13.00	Pass
1962.5	20	8.48	≤ 13.00	Pass
1985.0	20	8.34	≤ 13.00	Pass

5MHz Channel Bandwidth	
Bottom Channel	Middle Channel
	
Top Channel	
	

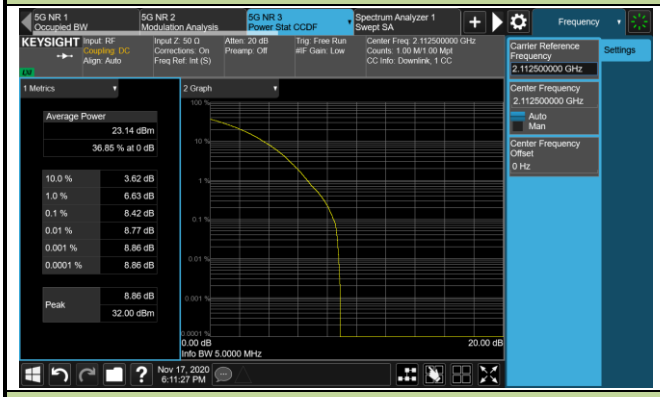
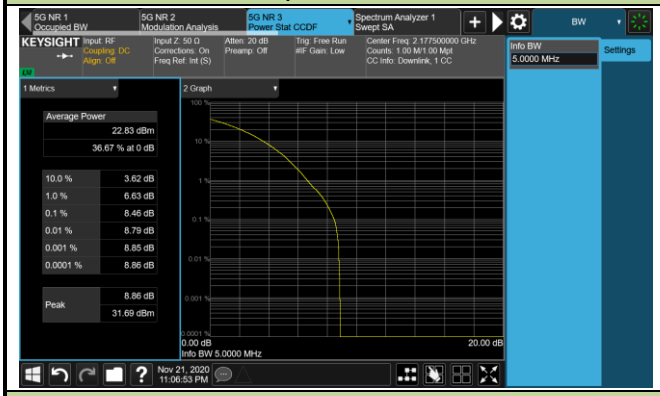
10MHz Channel Bandwidth	
Bottom Channel	Middle Channel
	
Top Channel	
	

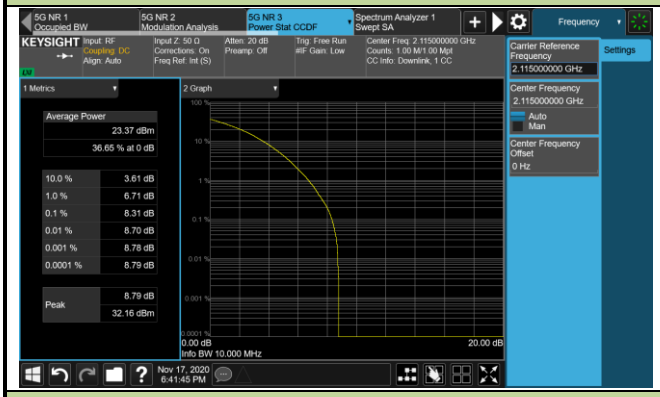
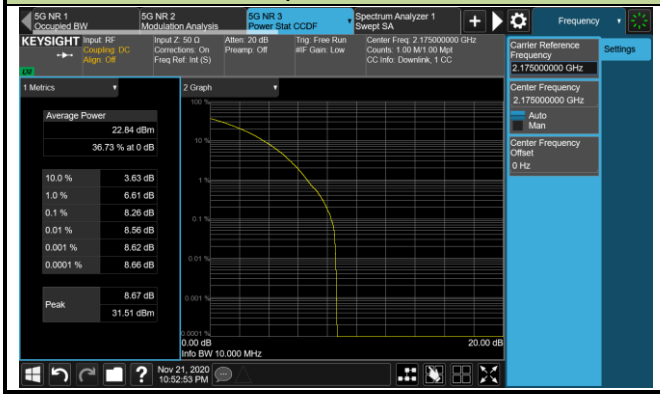
15MHz Channel Bandwidth	
Bottom Channel	Middle Channel
	
Top Channel	
	

20MHz Channel Bandwidth	
Bottom Channel	Middle Channel
	
Top Channel	
	

Product	AirScale Indoor Radio ASiR-pRRH	Test Engineer	Peter Xu
Test Site	SR2	Test Date	2020/11/17 ~ 2020/12/30
Test Configuration	n66 (Single Carrier), QPSK		

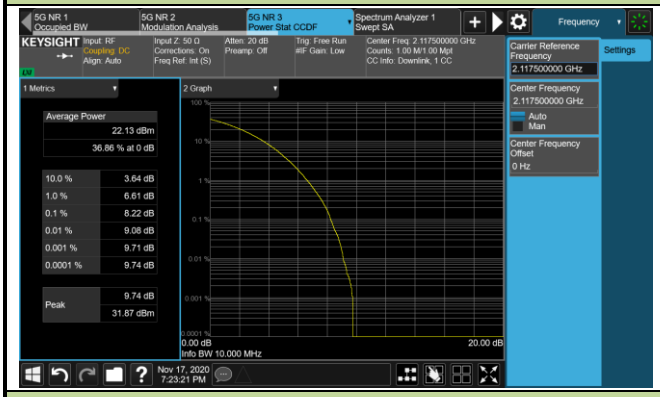
Frequency (MHz)	Bandwidth (MHz)	Peak to Average Ratio (dB)	Limit (dB)	Result
2112.5	5	8.42	≤ 13.00	Pass
2145.0	5	8.64	≤ 13.00	Pass
2177.5	5	8.46	≤ 13.00	Pass
2115.0	10	8.31	≤ 13.00	Pass
2145.0	10	8.41	≤ 13.00	Pass
2175.0	10	8.26	≤ 13.00	Pass
2117.5	15	8.22	≤ 13.00	Pass
2145.0	15	8.49	≤ 13.00	Pass
2172.5	15	8.16	≤ 13.00	Pass
2120.0	20	8.32	≤ 13.00	Pass
2145.0	20	8.45	≤ 13.00	Pass
2170.0	20	8.10	≤ 13.00	Pass

5MHz Channel Bandwidth	
Bottom Channel	Middle Channel
	
Top Channel	
	

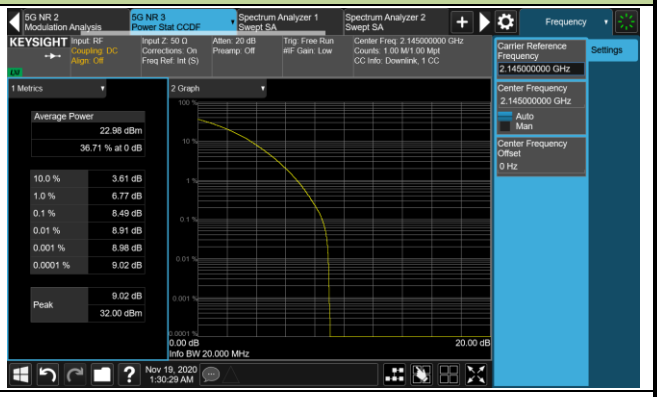
10MHz Channel Bandwidth	
Bottom Channel	Middle Channel
	
Top Channel	
	

15MHz Channel Bandwidth

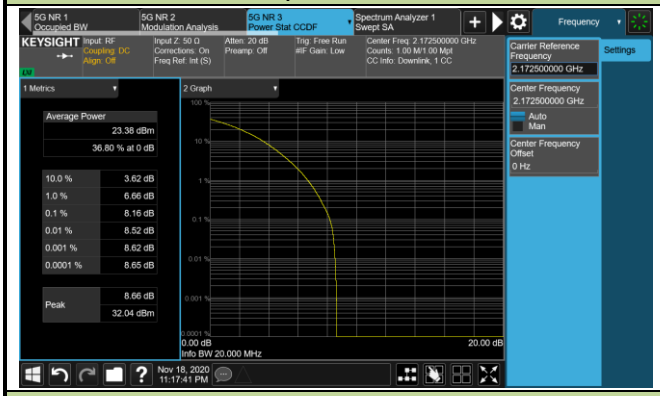
Bottom Channel



Middle Channel

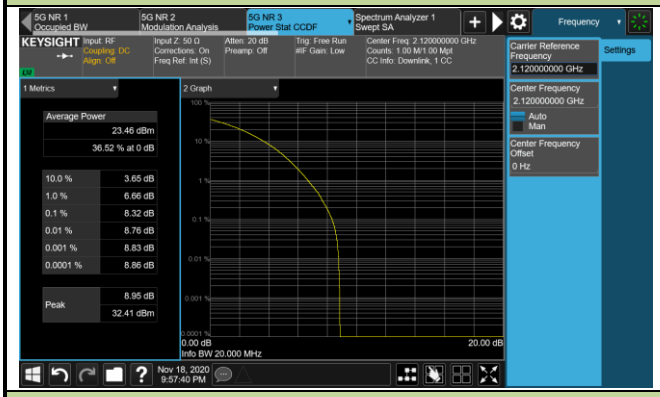


Top Channel

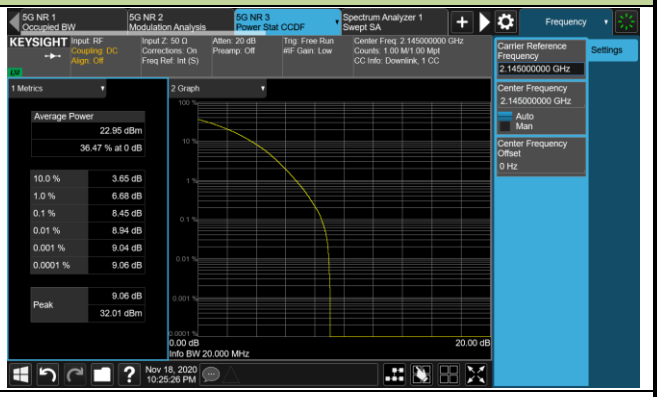


20MHz Channel Bandwidth

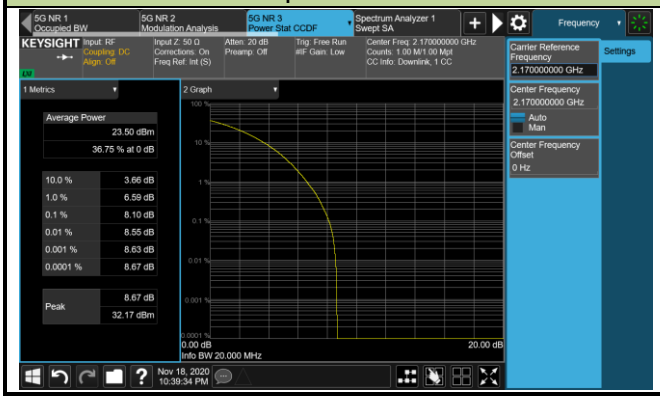
Bottom Channel



Middle Channel



Top Channel



6.7. Conducted Spurious Emissions

6.7.1.Test Limit

In the FCC 24.238, on any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) at least 43 + 10*log(P) dB, the emission limit equal to -13dBm.

Note: This device can be impelement MIMO function, so the limit os spurious emissions needs to be reduced 10*log($Numbers_{Ant}$) according to FCC KDB 662911 D01 guidance.

The limit is adjusted to -13dBm - 10 * log(2) = -16.01dBm

6.7.2.Test Procedure Used

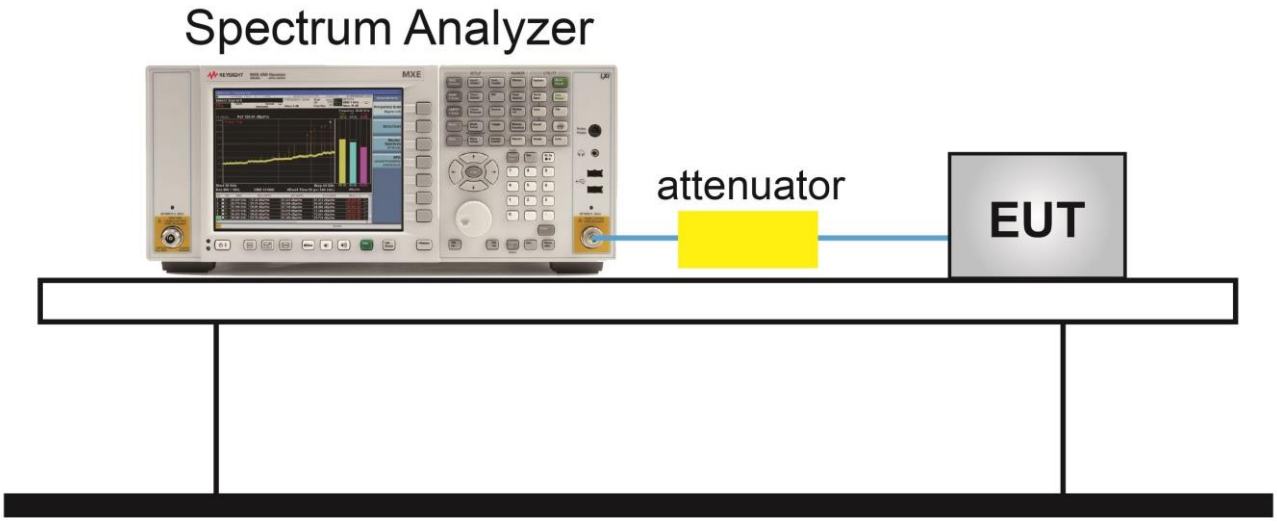
KDB 971168 D01v03r01 - Section 6

ANSI C63.26-2015 - Section 6.4.4.2

6.7.3.Test Setting

1. Set the analyzer frequency to low or high channel.
2. RBW = 100kHz or 1MHz
3. VBW ≥ 3*RBW
4. Sweep time = auto
5. Detector = power averaging (rms)
6. Set sweep trigger to "free run."
7. Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple. To accurately determine the average power over the on and off time of the transmitter, it can be necessary to increase the number of traces to be averaged above 100, or if using a manually configured sweep time, increase the sweep time.

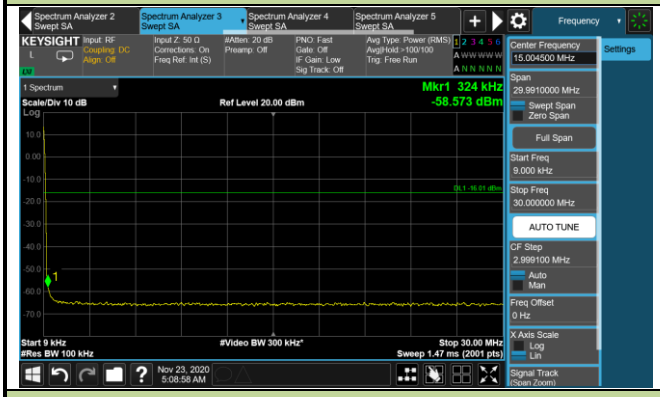
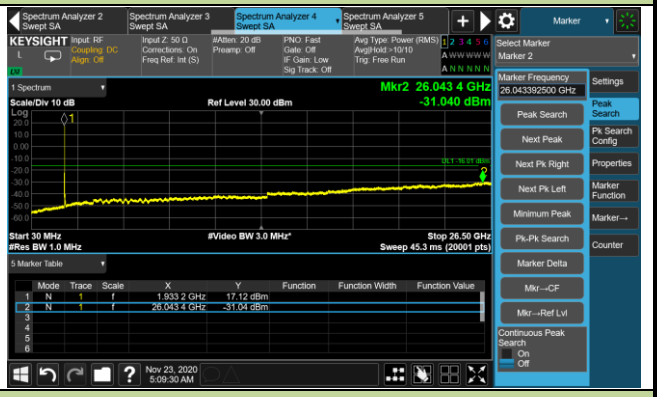
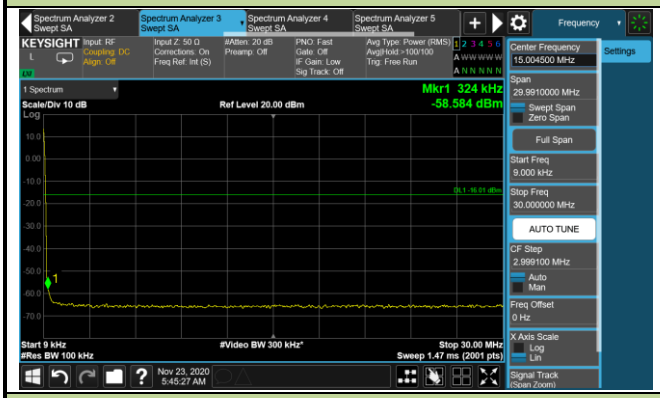
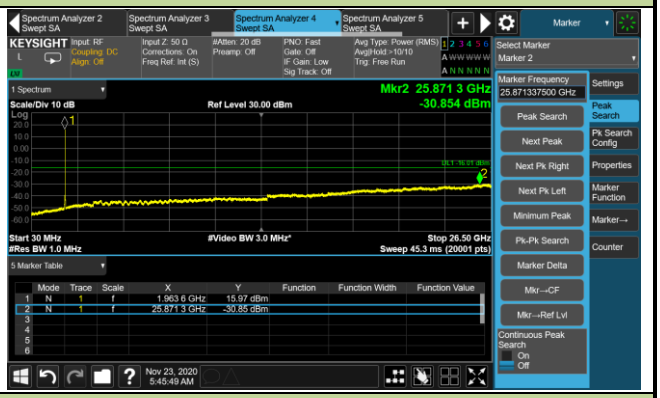
6.7.4.Test Setup



6.7.5.Test Result

Product	AirScale Indoor Radio ASiR-pRRH	Test Engineer	Peter Xu
Test Site	SR2	Test Date	2020/11/23
Test Configuration	n25 (Single Carrier), QPSK		

Frequency (MHz)	Channel Bandwidth (MHz)	Frequency Range (MHz)	Max Spurious Emissions (dBm)	Limit (dBm)	Result
1932.5	5	0.009 ~ 30	-58.573	≤ -16.01	Pass
		30 ~ 27000	-31.040	≤ -16.01	Pass
1962.5	5	0.009 ~ 30	-58.584	≤ -16.01	Pass
		30 ~ 27000	-30.854	≤ -16.01	Pass
1992.5	5	0.009 ~ 30	-58.574	≤ -16.01	Pass
		30 ~ 27000	-29.367	≤ -16.01	Pass
1935.0	10	0.009 ~ 30	-65.457	≤ -16.01	Pass
		30 ~ 27000	-31.525	≤ -16.01	Pass
1962.5	10	0.009 ~ 30	-58.666	≤ -16.01	Pass
		30 ~ 27000	-30.427	≤ -16.01	Pass
1990.0	10	0.009 ~ 30	-57.437	≤ -16.01	Pass
		30 ~ 27000	-30.451	≤ -16.01	Pass
1937.5	15	0.009 ~ 30	-65.827	≤ -16.01	Pass
		30 ~ 27000	-30.666	≤ -16.01	Pass
1962.5	15	0.009 ~ 30	-58.947	≤ -16.01	Pass
		30 ~ 27000	-31.497	≤ -16.01	Pass
1987.5	15	0.009 ~ 30	-59.066	≤ -16.01	Pass
		30 ~ 27000	-31.618	≤ -16.01	Pass
1940.0	20	0.009 ~ 30	-58.860	≤ -16.01	Pass
		30 ~ 27000	-31.979	≤ -16.01	Pass
1962.5	20	0.009 ~ 30	-58.932	≤ -16.01	Pass
		30 ~ 27000	-31.056	≤ -16.01	Pass
1985.0	20	0.009 ~ 30	-59.110	≤ -16.01	Pass
		30 ~ 27000	-31.741	≤ -16.01	Pass

5MHz Channel Bandwidth	
Bottom Channel	
9kHz ~ 30MHz	30MHz ~ 27.0GHz
	
Middle Channel	
9kHz ~ 30MHz	30MHz ~ 27.0GHz
	
Top Channel	
9kHz ~ 30MHz	30MHz ~ 27.0GHz