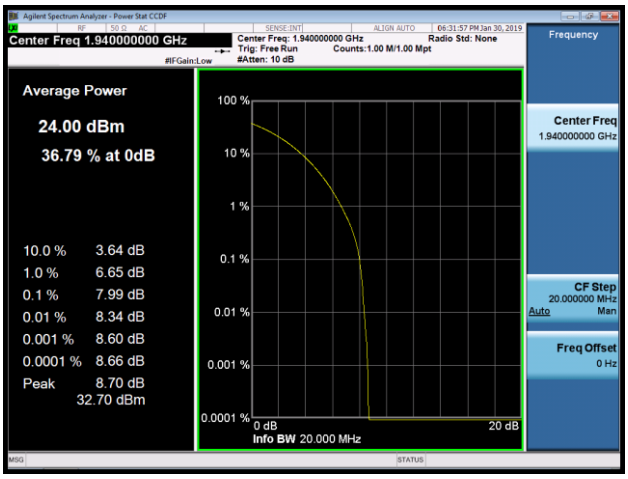
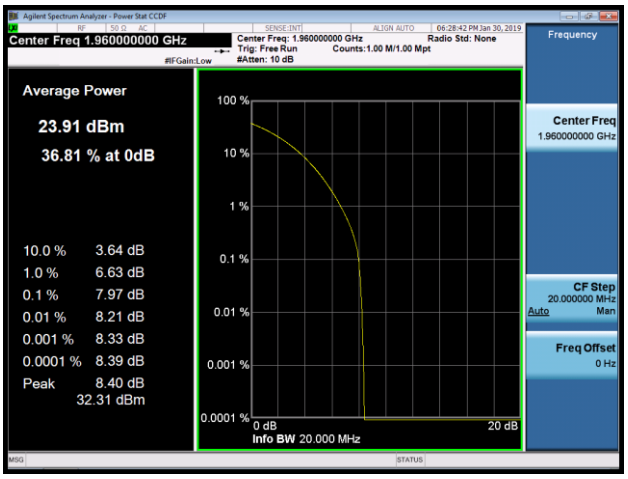
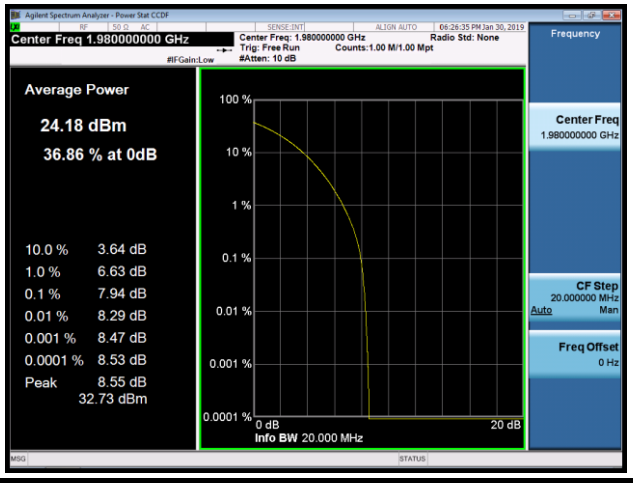
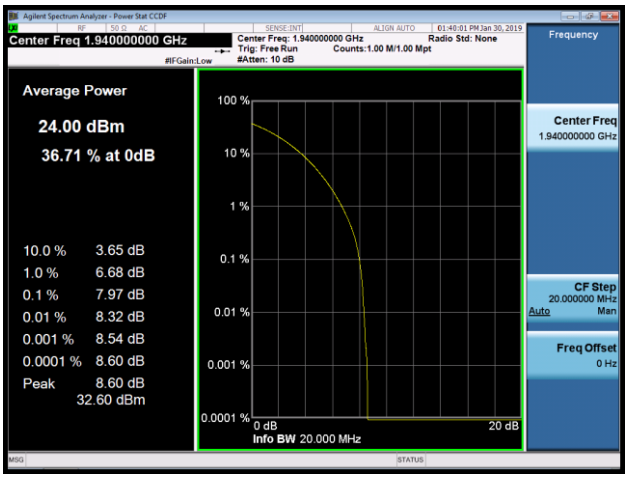
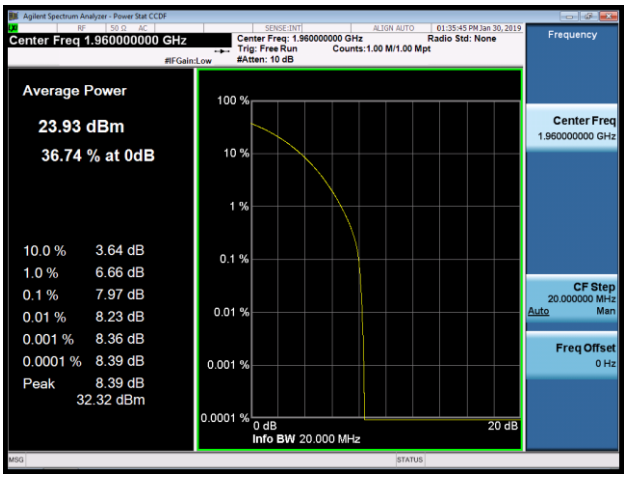
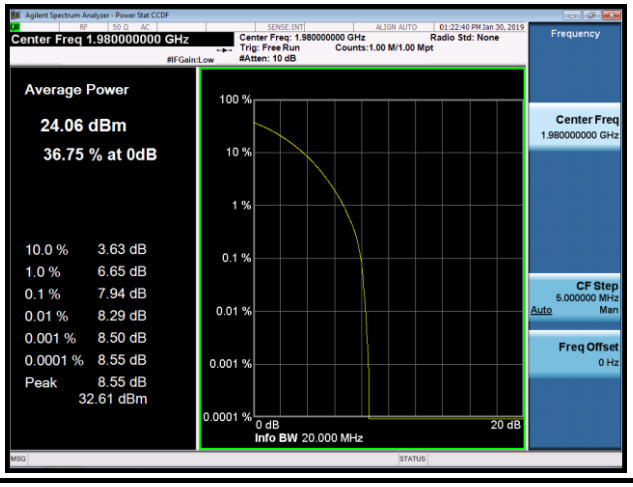
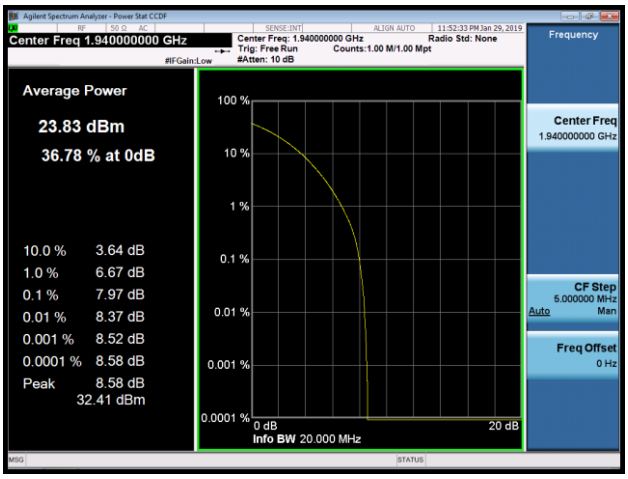
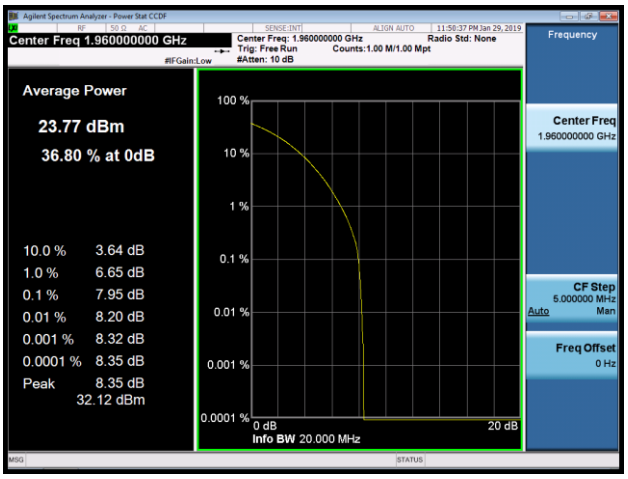
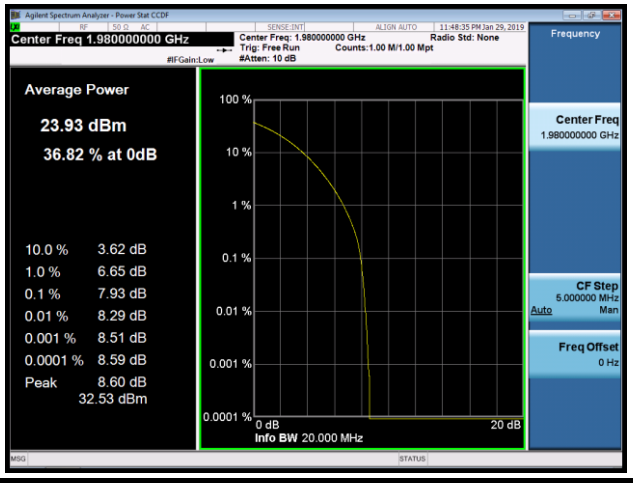
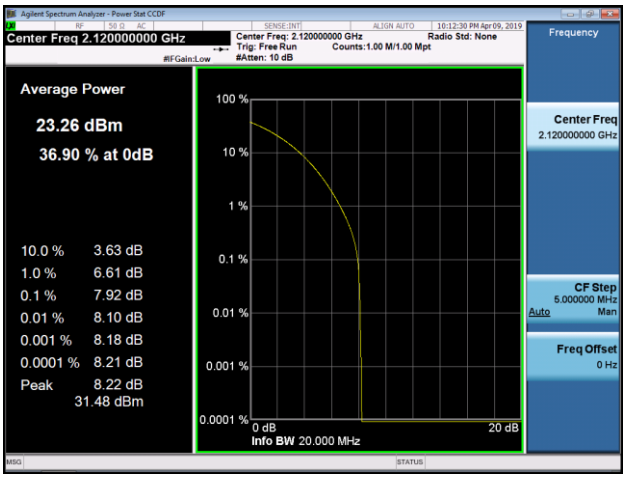
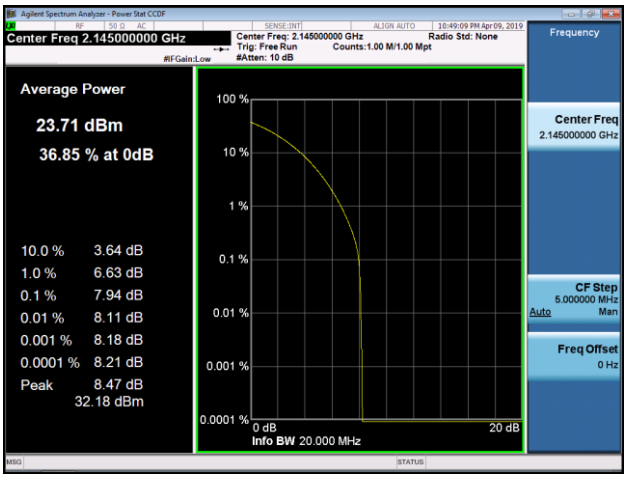
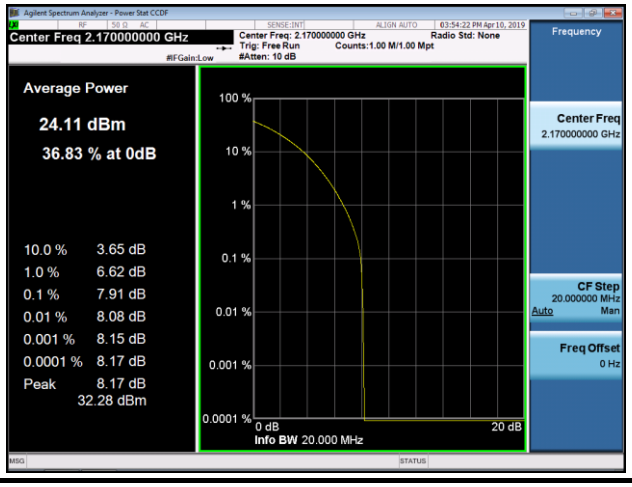
Peak to Average Ratio - Ant 1 (16QAM)	
20MHz Channel Bandwidth	
1940.0MHz	1960.0MHz
	
1980.0MHz	
	

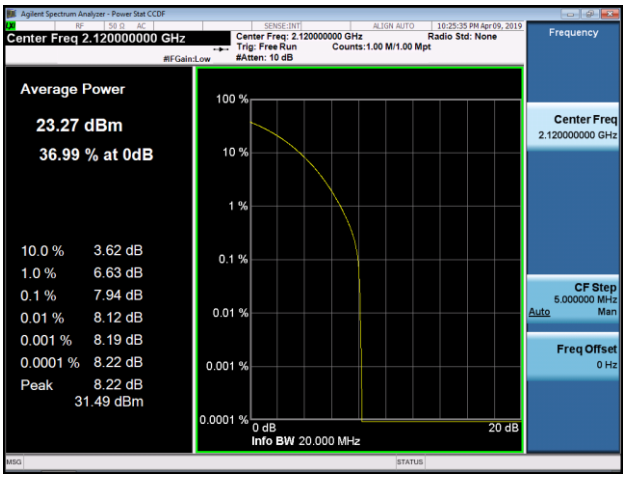
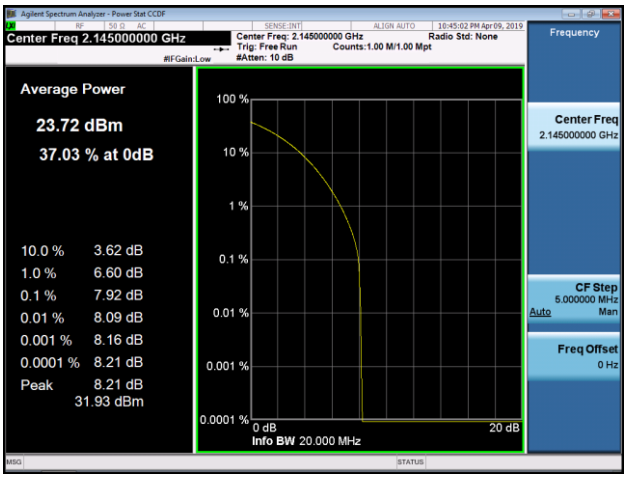
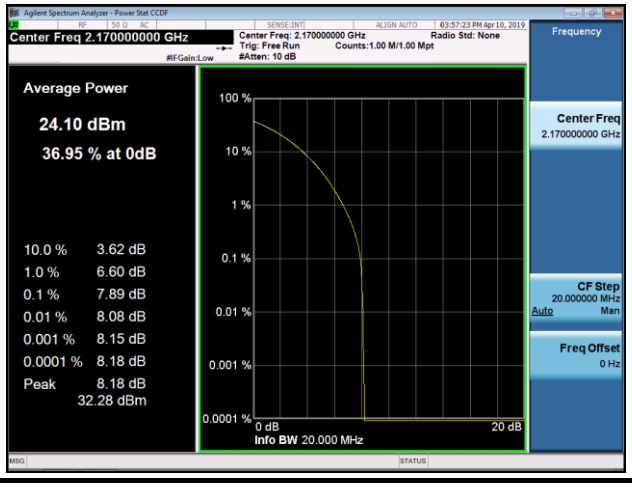
Peak to Average Ratio - Ant 1 (64QAM)	
20MHz Channel Bandwidth	
1940.0MHz	1960.0MHz
	
1980.0MHz	
	

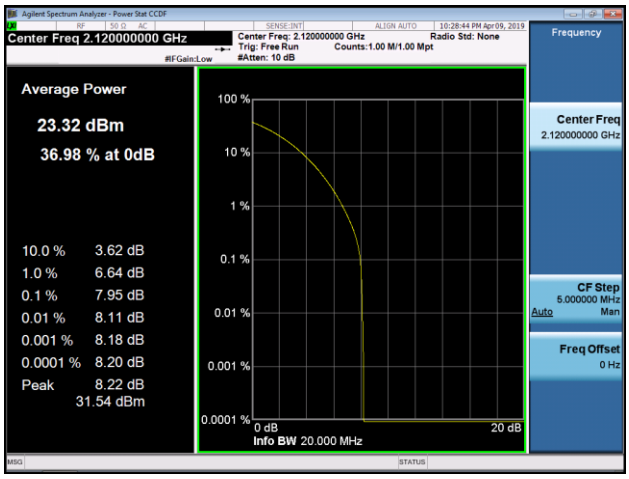
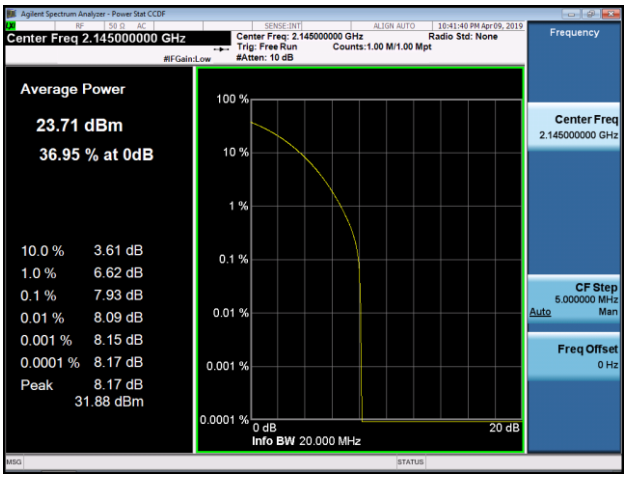
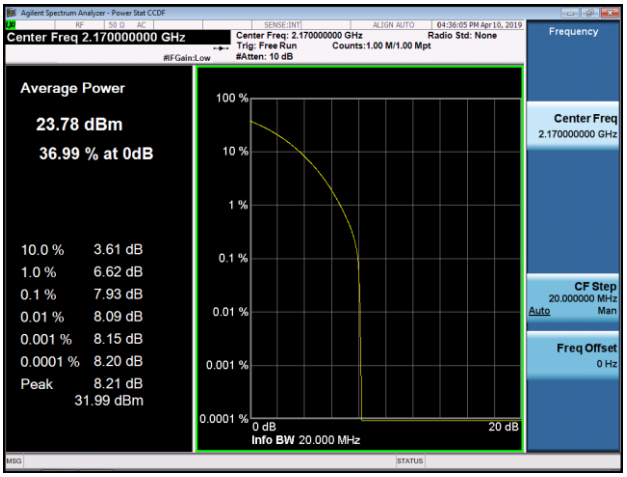
Peak to Average Ratio - Ant 1 (256QAM)	
20MHz Channel Bandwidth	
1940.0MHz	1960.0MHz
	
1980.0MHz	
	

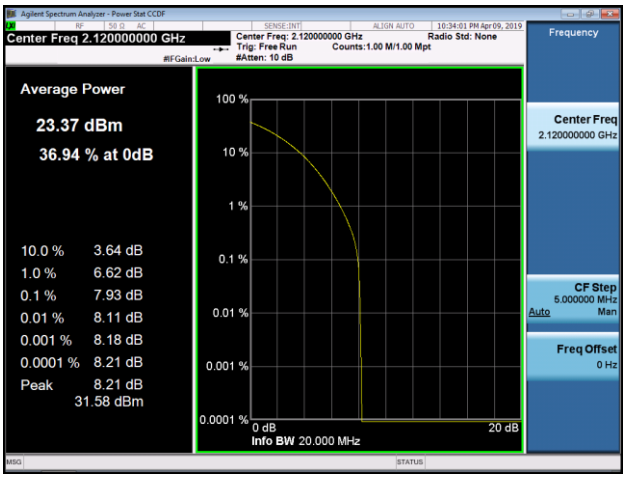
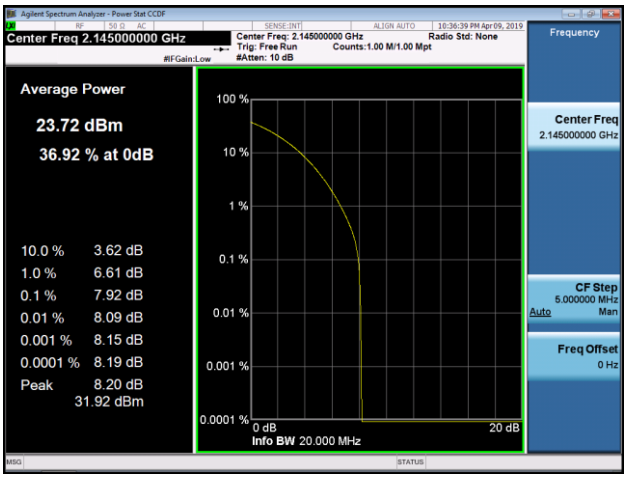
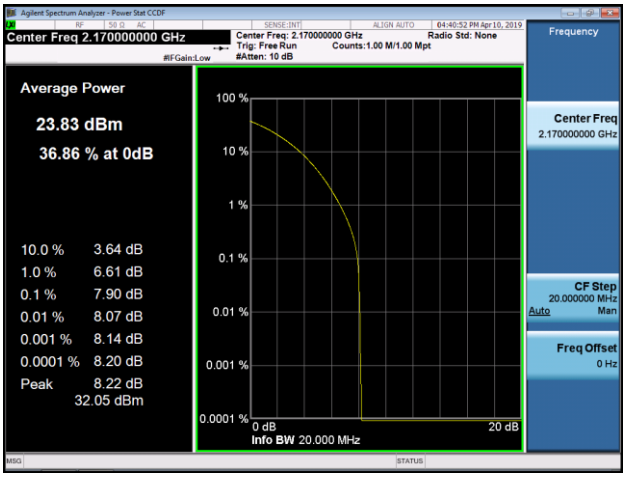
Product	AirScale Indoor Radio ASiR-pRRH	Test Engineer	Peter Xu
Test Site	SR2	Test Date	2019/04/09
Test Item	Peak to Average Ratio - LTE Band 66		

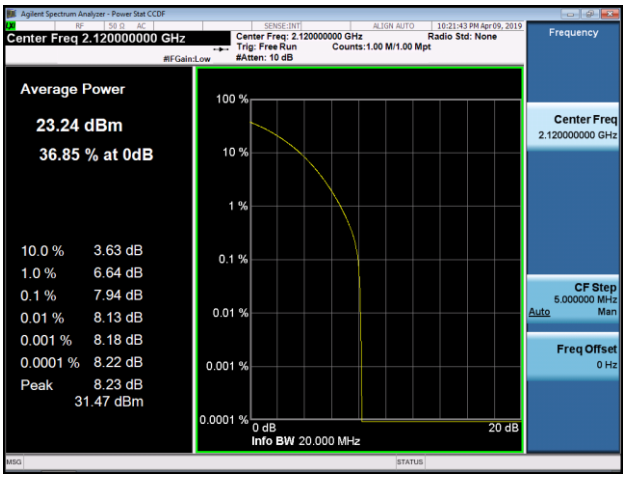
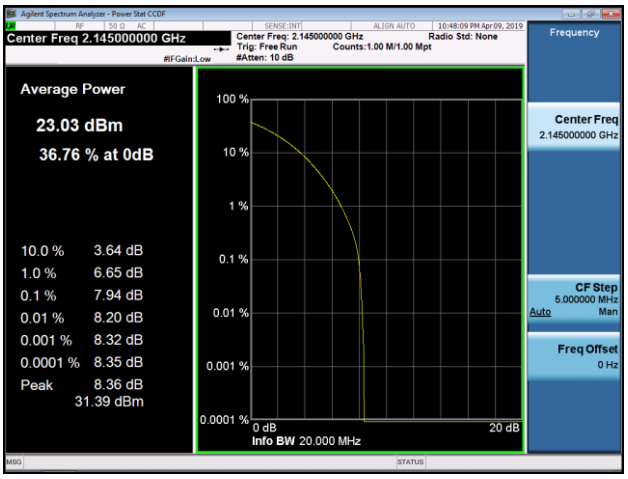
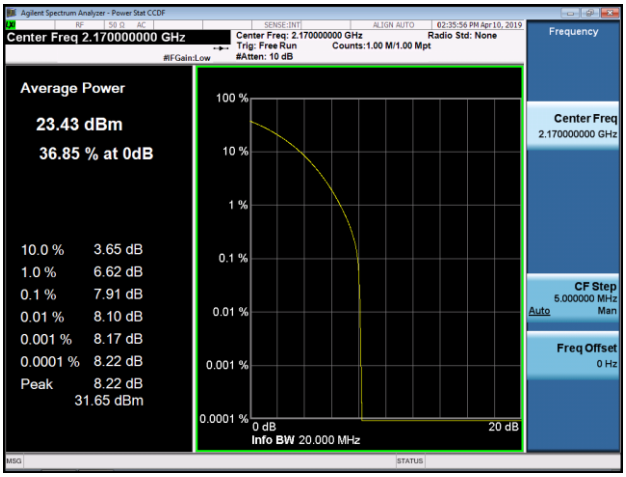
Channel	Frequency (MHz)	Channel Bandwidth (MHz)	Peak to Average Ratio (dB)		Limit (dBm)	Result
			Ant 0	Ant 1		
QPSK						
66536	2120.0	20	7.92	7.94	≤ 13.00	Pass
66786	2145.0	20	7.94	7.94	≤ 13.00	Pass
67036	2170.0	20	7.91	7.91	≤ 13.00	Pass
16QAM						
66536	2120.0	20	7.94	7.95	≤ 13.00	Pass
66786	2145.0	20	7.92	7.92	≤ 13.00	Pass
67036	2170.0	20	7.89	7.90	≤ 13.00	Pass
64QAM						
66536	2120.0	20	7.95	7.95	≤ 13.00	Pass
66786	2145.0	20	7.93	7.94	≤ 13.00	Pass
67036	2170.0	20	7.93	7.92	≤ 13.00	Pass
256QAM						
66536	2120.0	20	7.93	7.95	≤ 13.00	Pass
66786	2145.0	20	7.92	7.94	≤ 13.00	Pass
67036	2170.0	20	7.90	7.90	≤ 13.00	Pass

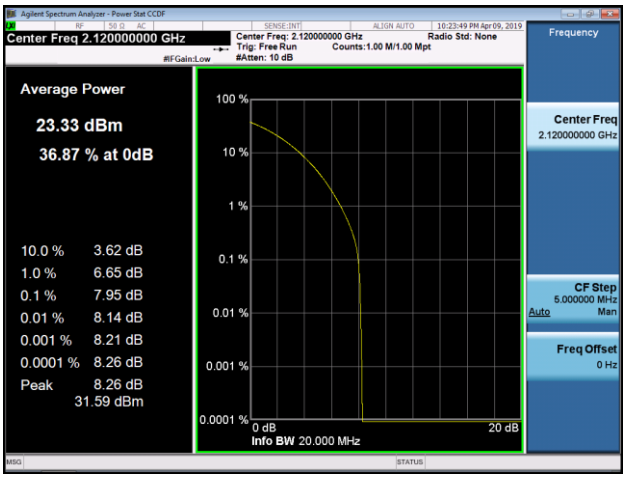
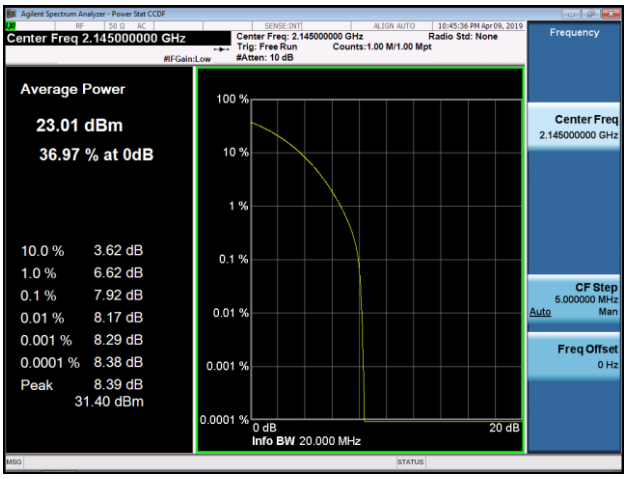
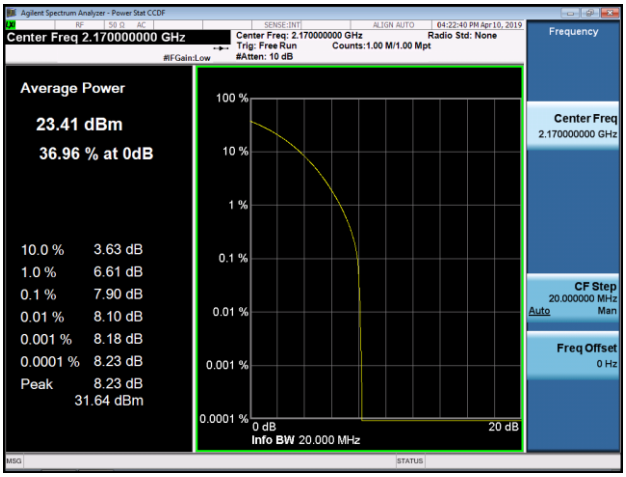
Peak to Average Ratio - Ant 0 (QPSK)	
20MHz Channel Bandwidth	
2120.0MHz	2145.0MHz
	
2170.0MHz	
	

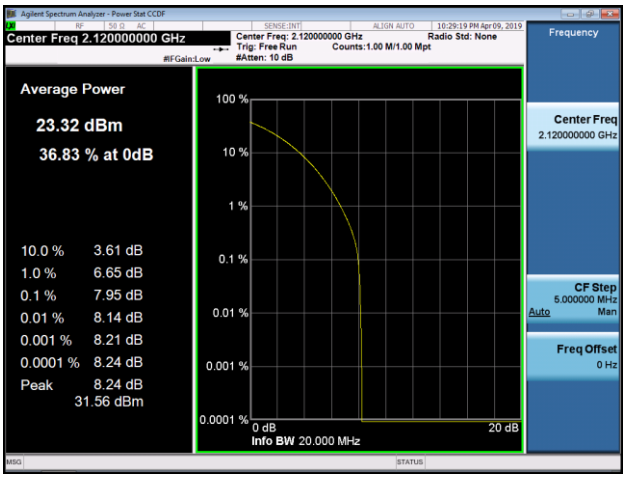
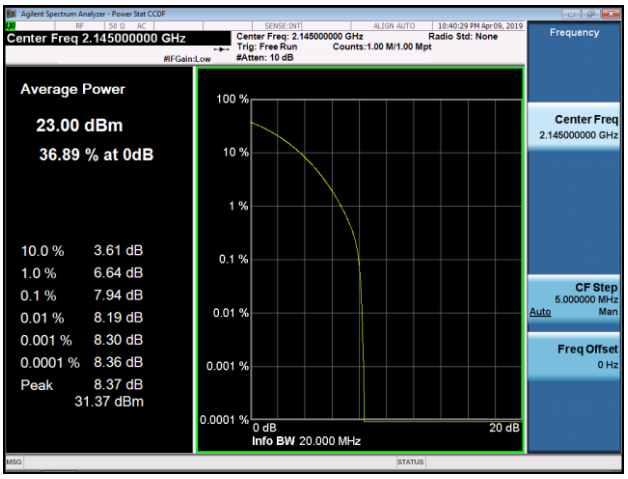
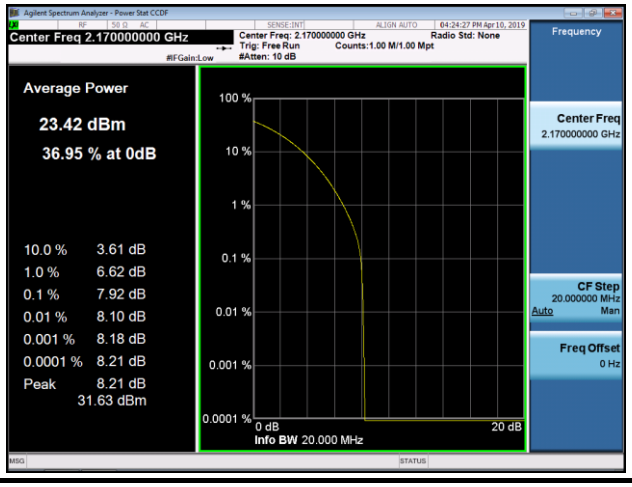
Peak to Average Ratio - Ant 0 (16QAM)	
20MHz Channel Bandwidth	
2120.0MHz	2145.0MHz
	
2170.0MHz	
	

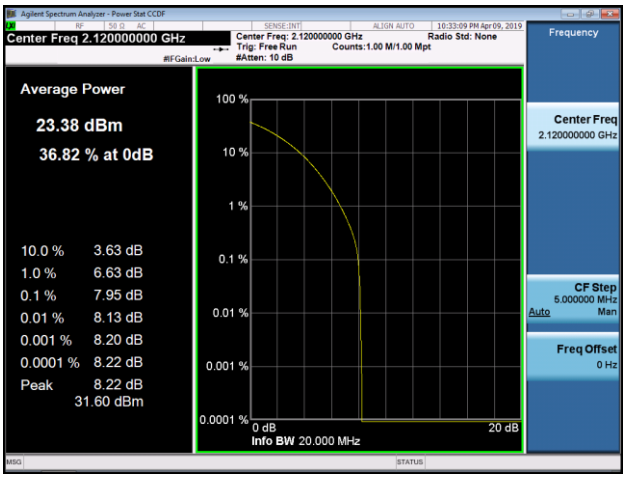
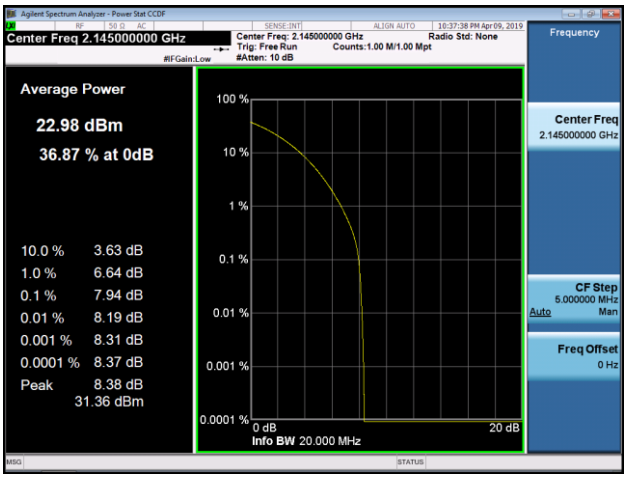
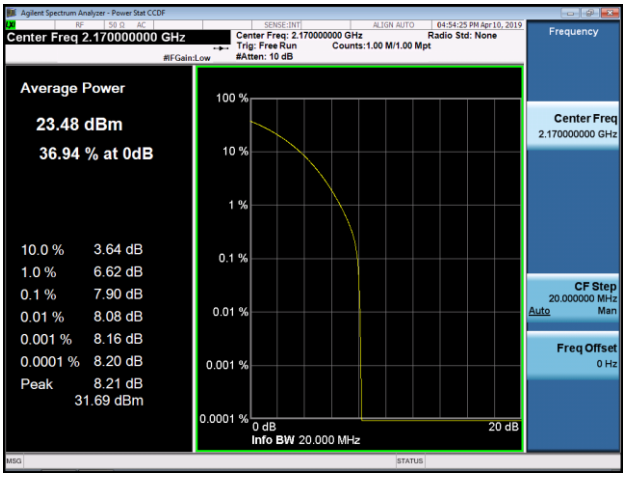
Peak to Average Ratio - Ant 0 (64QAM)	
20MHz Channel Bandwidth	
2120.0MHz	2145.0MHz
	
2170.0MHz	
	

Peak to Average Ratio - Ant 0 (256QAM)	
20MHz Channel Bandwidth	
2120.0MHz	2145.0MHz
	
2170.0MHz	
	

Peak to Average Ratio - Ant 1 (QPSK)	
20MHz Channel Bandwidth	
2120.0MHz	2145.0MHz
	
2170.0MHz	
	

Peak to Average Ratio - Ant 1 (16QAM)	
20MHz Channel Bandwidth	
2120.0MHz	2145.0MHz
	
2170.0MHz	
	

Peak to Average Ratio - Ant 1 (64QAM)	
20MHz Channel Bandwidth	
2120.0MHz	2145.0MHz
	
2170.0MHz	
	

Peak to Average Ratio - Ant 1 (256QAM)	
20MHz Channel Bandwidth	
2120.0MHz	2145.0MHz
	
2170.0MHz	
	

6.7. Conducted Spurious Emissions

6.7.1.Test Limit

In the FCC 24.238 and FCC 27.53(h), 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

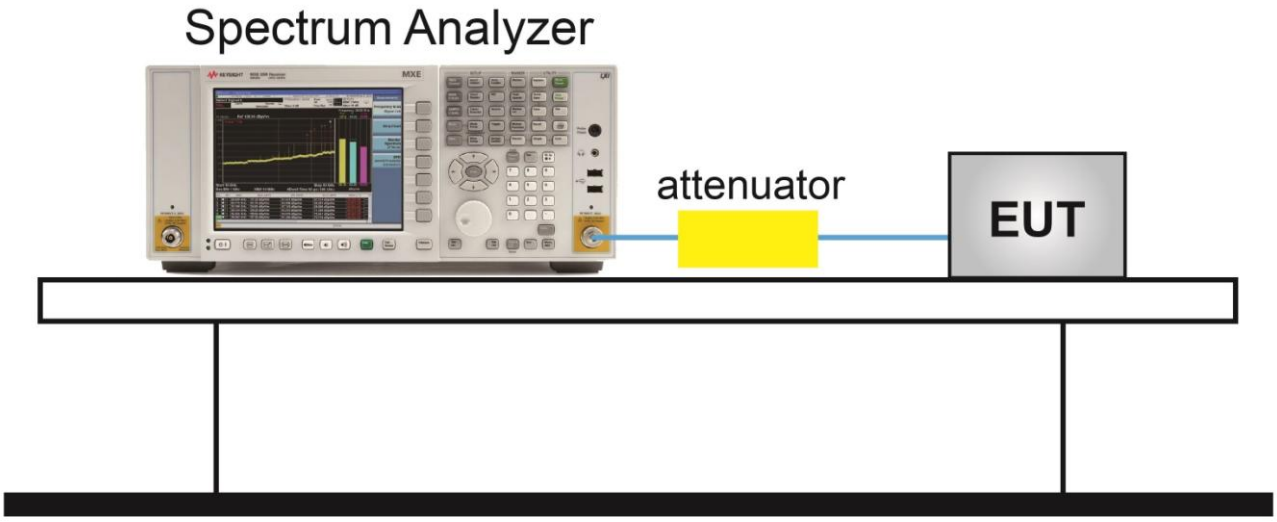
KDB 971168 D01v03r01 - Section 6

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



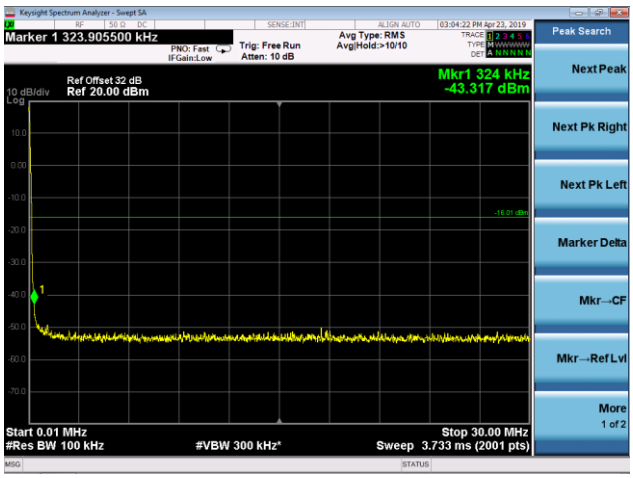
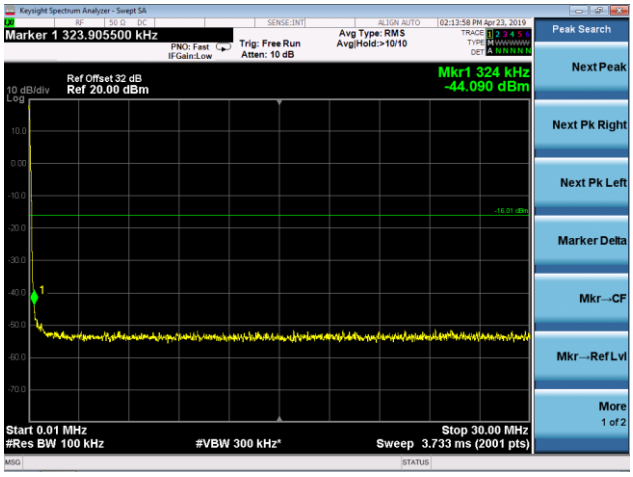
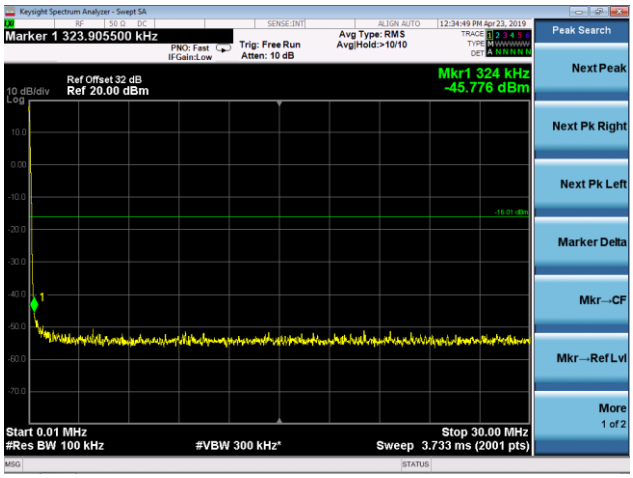
6.7.5.Test Result

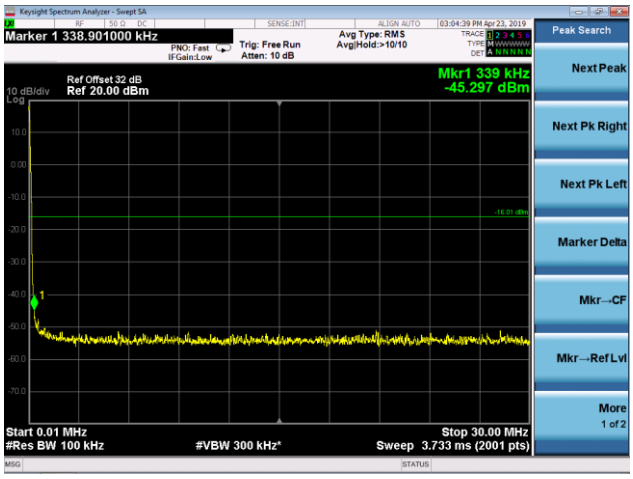
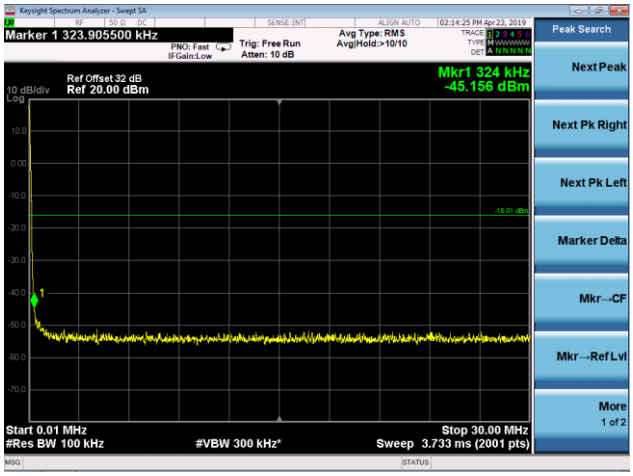
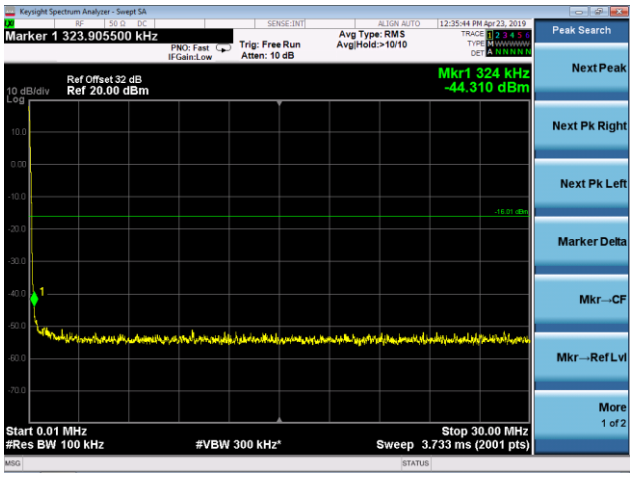
Product	AirScale Indoor Radio ASiR-pRRH	Test Engineer	Peter Xu
Test Site	SR2	Test Date	2019/03/14 ~ 2019/05/14
Test Item	Conducted Spurious Emissions - LTE Band 2, Single Carrier		

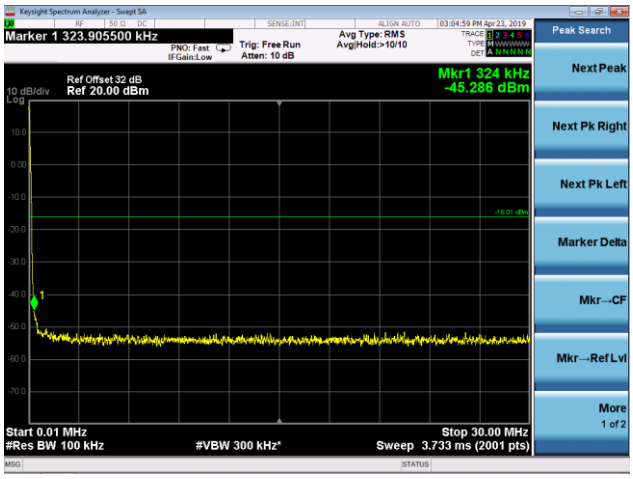
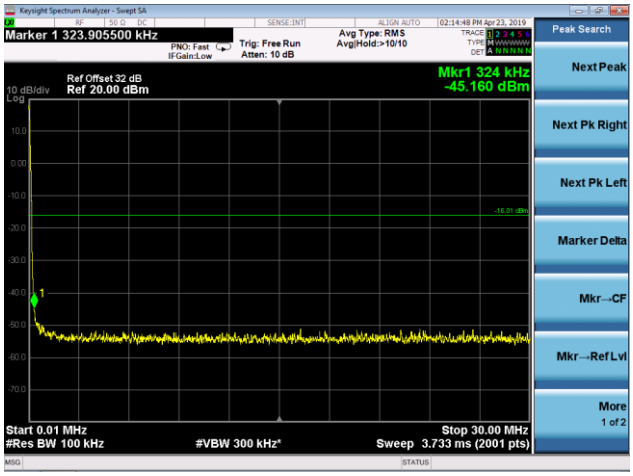
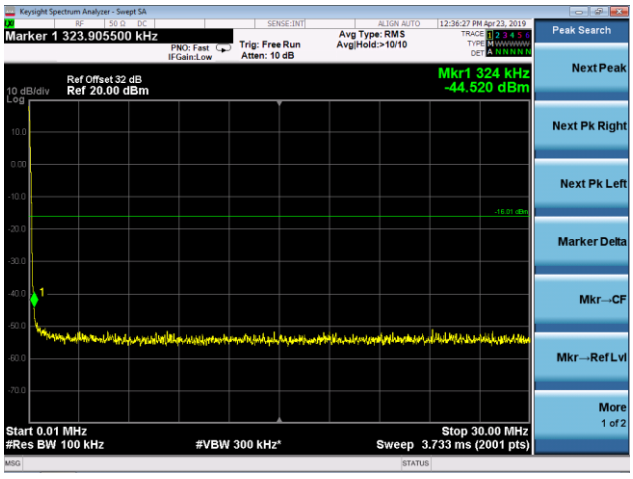
Channel	Frequency (MHz)	Channel Bandwidth (MHz)	Frequency Range (MHz)	Max Spurious Emissions (dBm)		Limit (dBm)	Result
				Ant 0	Ant 1		
QPSK							
625	1932.5	5	0.009 ~ 30	-43.32	-44.33	≤ -16.01	Pass
			30 ~ 26500	-31.71	-32.24	≤ -16.01	Pass
900	1960.0	5	0.009 ~ 30	-44.09	-45.00	≤ -16.01	Pass
			30 ~ 26500	-32.93	-32.75	≤ -16.01	Pass
1175	1987.5	5	0.009 ~ 30	-45.78	-44.73	≤ -16.01	Pass
			30 ~ 26500	-34.18	-34.32	≤ -16.01	Pass
650	1935.0	10	0.009 ~ 30	-45.30	-43.34	≤ -16.01	Pass
			30 ~ 26500	-31.29	-31.27	≤ -16.01	Pass
900	1960.0	10	0.009 ~ 30	-45.16	-43.46	≤ -16.01	Pass
			30 ~ 26500	-32.74	-32.34	≤ -16.01	Pass
1150	1985.0	10	0.009 ~ 30	-44.31	-44.68	≤ -16.01	Pass
			30 ~ 26500	-32.87	-32.94	≤ -16.01	Pass
675	1937.5	15	0.009 ~ 30	-45.29	-44.64	≤ -16.01	Pass
			30 ~ 26500	-31.77	31.69	≤ -16.01	Pass
900	1960.0	15	0.009 ~ 30	-45.16	-44.52	≤ -16.01	Pass
			30 ~ 26500	-31.88	-32.18	≤ -16.01	Pass
1125	1982.5	15	0.009 ~ 30	-44.52	-44.87	≤ -16.01	Pass
			30 ~ 26500	-32.55	-32.51	≤ -16.01	Pass
700	1940.0	20	0.009 ~ 30	-43.71	-44.27	≤ -16.01	Pass
			30 ~ 26500	-31.02	-30.93	≤ -16.01	Pass
900	1960.0	20	0.009 ~ 30	-42.51	-44.65	≤ -16.01	Pass
			30 ~ 26500	-31.85	-31.82	≤ -16.01	Pass
1100	1980.0	20	0.009 ~ 30	-42.59	-44.00	≤ -16.01	Pass
			30 ~ 26500	-32.53	-32.57	≤ -16.01	Pass

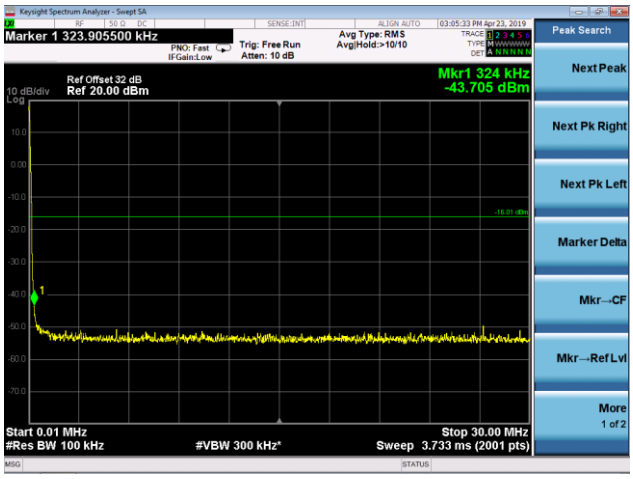
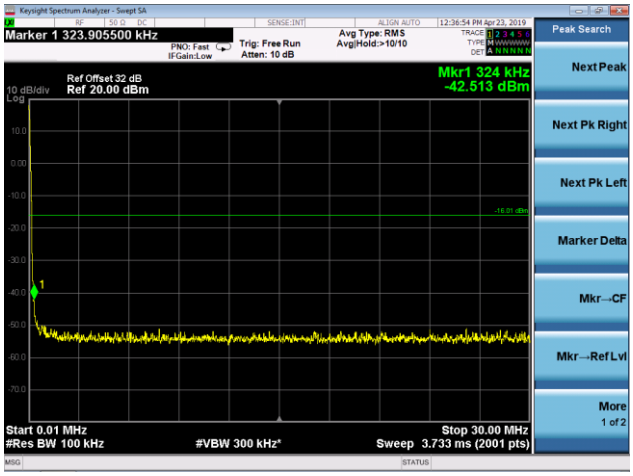
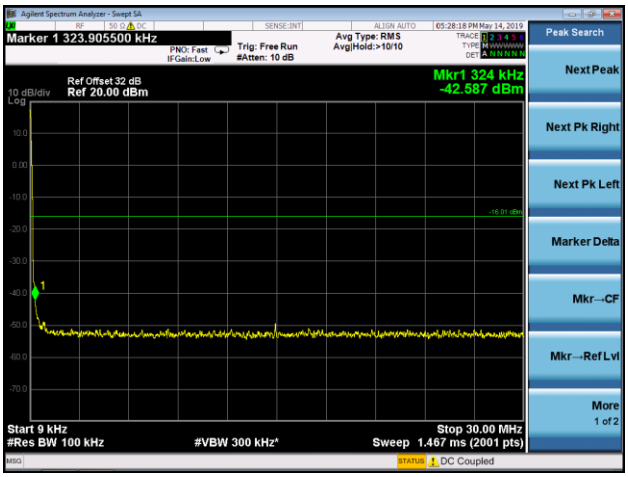
Product	AirScale Indoor Radio ASiR-pRRH	Test Engineer	Peter Xu
Test Site	SR2	Test Date	2019/03/14 ~ 2019/05/14
Test Item	Conducted Spurious Emissions - LTE Band 2, Multi Carrier		

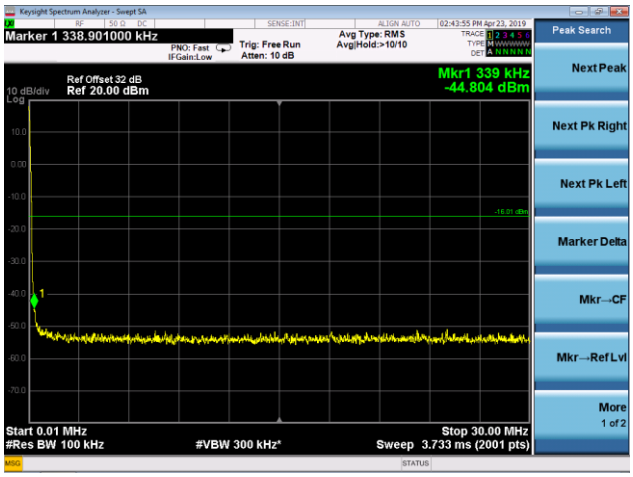
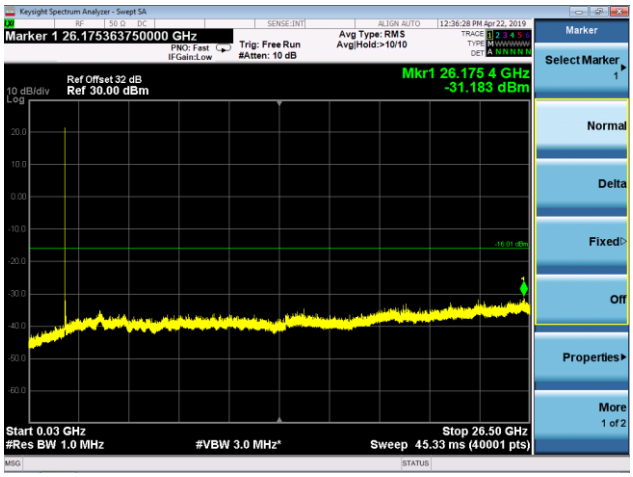
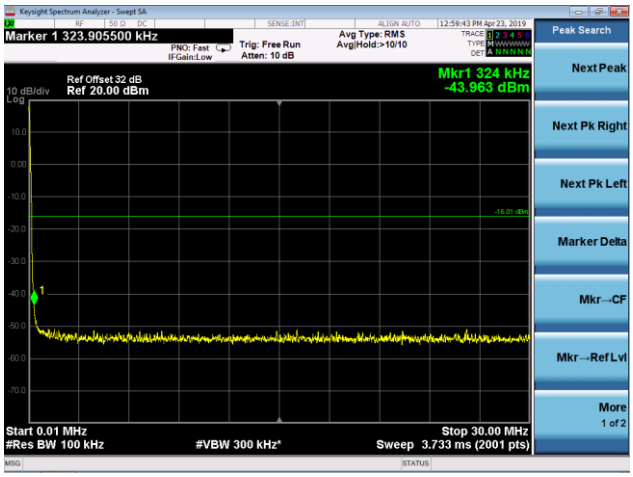
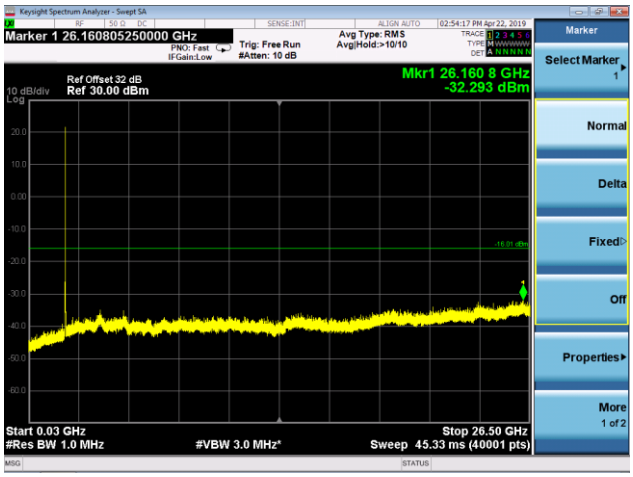
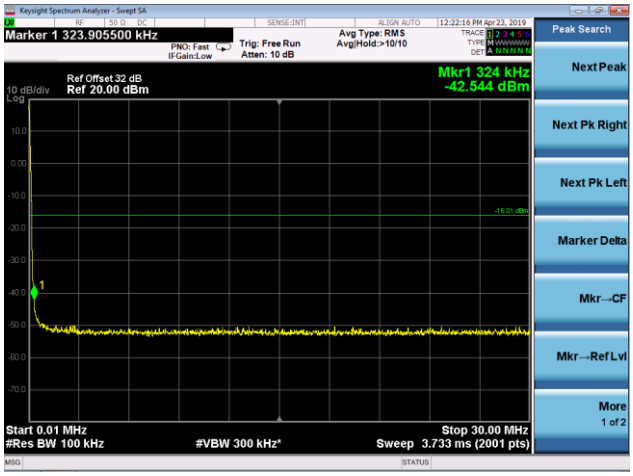
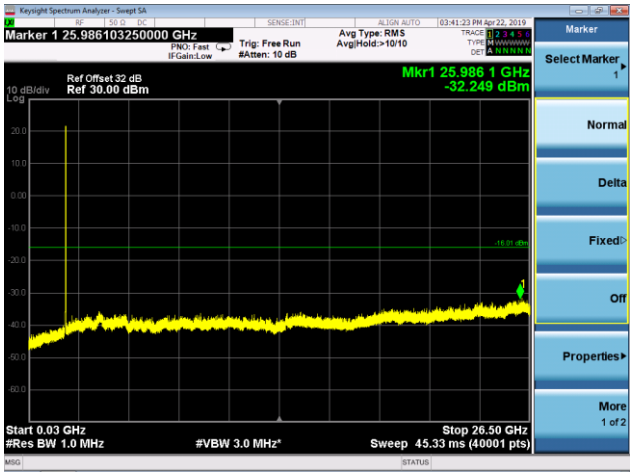
Channel	Frequency (MHz)	Channel Bandwidth (MHz)	Frequency Range (MHz)	Max Spurious Emissions (dBm)		Limit (dBm)	Result
				Ant 0	Ant 1		
QPSK							
625+675	1932.5+1937.5	5+5	0.009 ~ 30	-44.80	-44.83	≤ -16.01	Pass
			30 ~ 26500	-31.18	-31.67	≤ -16.01	Pass
850+900	1955.0+1960.0	5+5	0.009 ~ 30	-43.96	-44.93	≤ -16.01	Pass
			30 ~ 26500	-32.29	-32.99	≤ -16.01	Pass
11250+11750	1982.5+1987.5	5+5	0.009 ~ 30	-42.54	-43.26	≤ -16.01	Pass
			30 ~ 26500	-32.25	-31.92	≤ -16.01	Pass
650+750	1935.0+1945.0	10+10	0.009 ~ 30	-44.20	-44.34	≤ -16.01	Pass
			30 ~ 26500	-32.46	-33.20	≤ -16.01	Pass
800 + 900	1950.0+1960.0	10+10	0.009 ~ 30	-45.04	-44.80	≤ -16.01	Pass
			30 ~ 26500	-32.90	-32.36	≤ -16.01	Pass
1050 + 1150	1975.0+1985.0	10+10	0.009 ~ 30	-43.94	-44.93	≤ -16.01	Pass
			30 ~ 26500	-32.87	-34.16	≤ -16.01	Pass
675+825	1937.5+1952.5	15+15	0.009 ~ 30	-45.09	-43.45	≤ -16.01	Pass
			30 ~ 26500	-30.18	-29.84	≤ -16.01	Pass
750+900	1945.0+1960.0	15+15	0.009 ~ 30	-46.29	-43.79	≤ -16.01	Pass
			30 ~ 26500	-29.85	-30.42	≤ -16.01	Pass
975+1125	1967.5+1982.5	15+15	0.009 ~ 30	-44.21	-43.63	≤ -16.01	Pass
			30 ~ 26500	-30.78	-30.26	≤ -16.01	Pass
700+900	1940.0+1960.0	20+20	0.009 ~ 30	-44.78	-43.43	≤ -16.01	Pass
			30 ~ 26500	-31.00	-29.46	≤ -16.01	Pass
900+1100	1960.0+1980.0	20+20	0.009 ~ 30	-44.16	-44.85	≤ -16.01	Pass
			30 ~ 26500	-31.47	-30.84	≤ -16.01	Pass

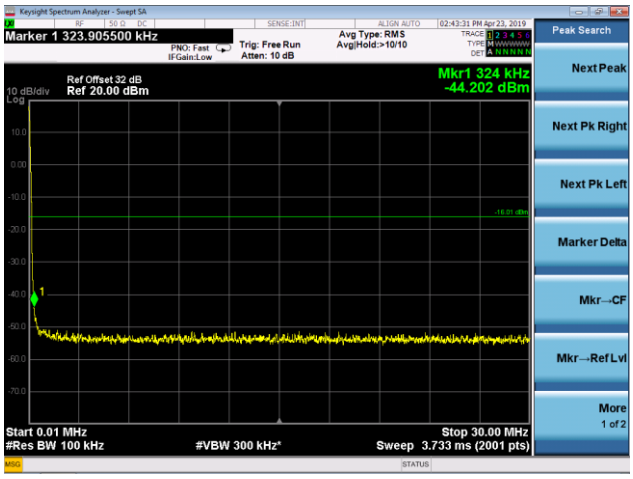
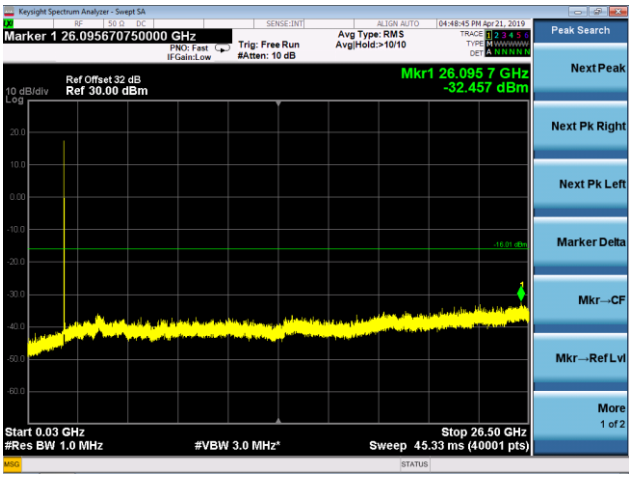
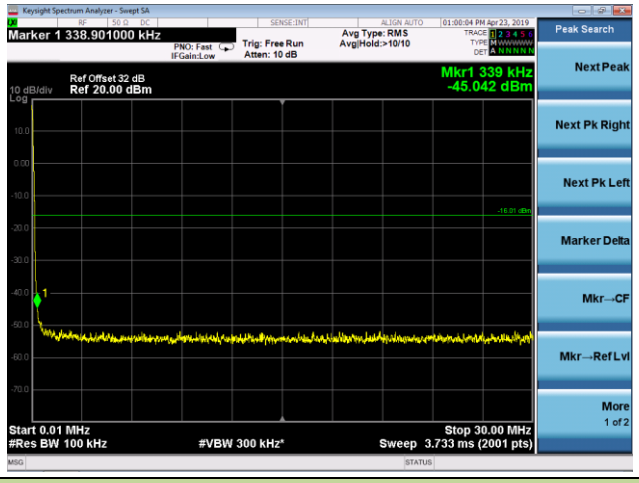
Conducted Spurious Emissions - Ant 0 (QPSK)	
5MHz Channel Bandwidth	
1932.5MHz	
9kHz ~ 30MHz	30MHz ~ 26.5GHz
	
1960.0MHz	
9kHz ~ 30MHz	30MHz ~ 26.5GHz
	
1987.5MHz	
9kHz ~ 30MHz	30MHz ~ 26.5GHz
	

10MHz Channel Bandwidth	
1935.0MHz	
9kHz ~ 30MHz	30MHz ~ 26.5GHz
	
1960.0MHz	
9kHz ~ 30MHz	30MHz ~ 26.5GHz
	
1985.0MHz	
9kHz ~ 30MHz	30MHz ~ 26.5GHz
	

15MHz Channel Bandwidth	
1937.5MHz	
9kHz ~ 30MHz	30MHz ~ 26.5GHz
	
1960.0MHz	
9kHz ~ 30MHz	30MHz ~ 26.5GHz
	
1982.5MHz	
9kHz ~ 30MHz	30MHz ~ 26.5GHz
	

20MHz Channel Bandwidth	
1940.0MHz	
9kHz ~ 30MHz	30MHz ~ 26.5GHz
	
1960.0MHz	
9kHz ~ 30MHz	30MHz ~ 26.5GHz
	
1980.0MHz	
9kHz ~ 30MHz	30MHz ~ 26.5GHz
	

5 + 5MHz Channel Bandwidth	
1932.5MHz + 1937.5MHz	
9kHz ~ 30MHz	30MHz ~ 26.5GHz
	
1955.0MHz + 1960.0MHz	
9kHz ~ 30MHz	30MHz ~ 26.5GHz
	
1982.5MHz + 1987.5MHz	
9kHz ~ 30MHz	30MHz ~ 26.5GHz
	

10 + 10MHz Channel Bandwidth	
1935.0MHz + 1945.0MHz	
9kHz ~ 30MHz	30MHz ~ 26.5GHz
	
1950.0MHz + 1960.0MHz	
9kHz ~ 30MHz	30MHz ~ 26.5GHz
	
1975.0MHz + 1985.0MHz	
9kHz ~ 30MHz	30MHz ~ 26.5GHz