

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

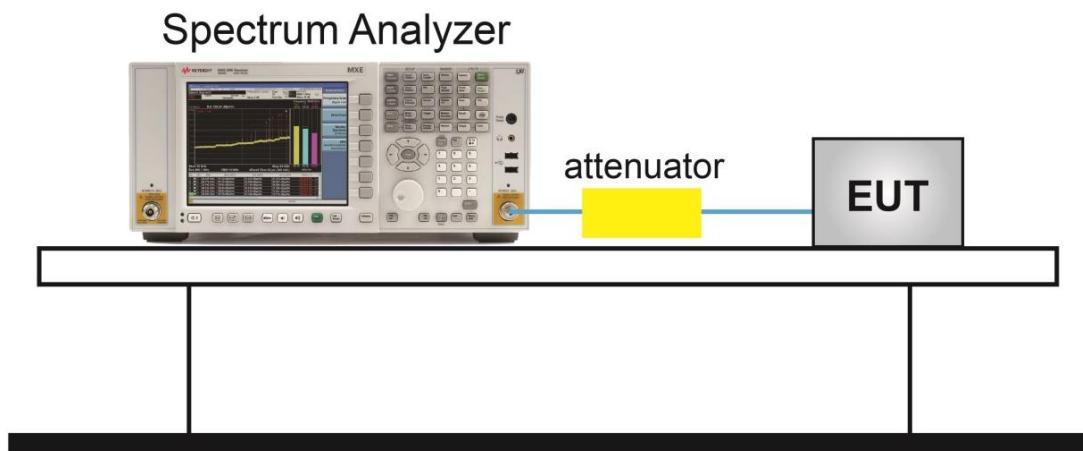
KDB 971168 D01v03r01 - Section 5.7

ANSI C63.26-2015 - Section 5.2.6

6.6.3. Test Setting

1. Set the analyzer center frequency to the OBW center frequency;
2. Set the span to $2 \times$ to $3 \times$ the OBW;
3. Set the RBW to the specified reference bandwidth;
4. Set the VBW $\geq 3 \times$ RBW;
5. Detector = peak;
6. Sweep time $\geq 10 \times$ (number of points in sweep) \times (transmission symbol period);
7. Trace mode = max hold;
8. Allow trace to fully stabilize and view the trace;
9. Use the peak marker function to determine the maximum amplitude level (P_{PK}) within the specified reference bandwidth (PSD);
10. Select trace 2 and change Detector = power averaging (rms);
11. Trace mode = trace average;
12. Use the peak marker function to determine the maximum amplitude level (P_{AV}) within the specified reference bandwidth (PSD);
13. Calculate the PAPR (dB) = P_{PK} (dBm) – P_{AV} (dBm).

6.6.4. Test Setup



6.6.5. Test Result

Product	AirScale Indoor Radio ASiR 5G-pRRH	Test Engineer	Peter Xu
Test Site	SR2	Test Date	2019/08/20 ~ 2019/08/21
Test Item	Peak to Average Ratio, 100MHz Bandwidth		

Frequency (MHz)	Bandwidth (MHz)	Peak to Average Ratio (dB)				Limit (dBm)	Result
		Ant 0	Ant 1	Ant 2	Ant 3		
QPSK							
2546.0	100	9.86	9.94	8.13	10.18	≤ 13.00	Pass
2593.0	100	9.19	9.47	8.77	9.28	≤ 13.00	Pass
2640.0	100	10.49	9.29	10.66	10.66	≤ 13.00	Pass
16QAM							
2546.0	100	9.77	12.36	9.95	9.28	≤ 13.00	Pass
2593.0	100	9.47	9.34	9.72	9.10	≤ 13.00	Pass
2640.0	100	9.78	11.11	9.46	9.55	≤ 13.00	Pass
64QAM							
2546.0	100	10.79	10.08	10.70	11.61	≤ 13.00	Pass
2593.0	100	9.16	10.49	9.84	10.93	≤ 13.00	Pass
2640.0	100	10.19	8.90	10.16	10.38	≤ 13.00	Pass
256QAM							
2546.0	100	11.95	11.87	12.55	12.50	≤ 13.00	Pass
2593.0	100	11.88	12.11	11.70	12.29	≤ 13.00	Pass
2640.0	100	12.08	11.94	12.36	11.52	≤ 13.00	Pass

