

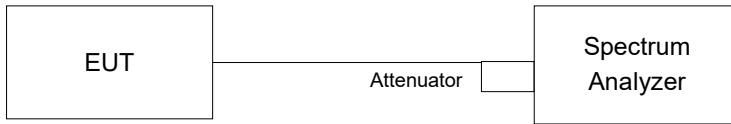


BUREAU
VERITAS

Reference No.: W7L-P24040002RF03

1.4 Emission Bandwidth Measurement

1.4.1 Test Setup



1.4.2 Test Procedure

For 99% Occupied Bandwidth

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to sampling. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

For 26dB Bandwidth

- a. Set RBW = approximately 1% of the emission bandwidth.
- b. Set the VBW > RBW.
- c. Detector = Peak.
- d. Trace mode = max hold.
- e. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.



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1.4.3 Test Result

99% Occupied Bandwidth

Under control of Indoor AP:

SISO 802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)		
		Chain 8	Chain 9	Limit (MHz)
1	5955	16.354	16.327	320
45	6175	16.370	16.332	320
93	6415	16.360	16.382	320
97	6435	16.326	16.337	320
105	6475	16.342	16.338	320
113	6515	16.347	16.348	320
117	6535	16.350	16.342	320
153	6715	16.333	16.355	320
181	6855	16.369	16.343	320
185	6875	16.353	16.320	320
213	7015	16.354	16.359	320
229	7095	16.334	16.361	320
233	7115	16.357	16.331	320



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SISO 802.11ax (HE20)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)		
		Chain 8	Chain 9	Limit (MHz)
1	5955	18.843	18.870	320
45	6175	18.856	18.818	320
93	6415	18.893	18.870	320
97	6435	18.834	18.852	320
105	6475	18.900	18.905	320
113	6515	18.869	18.903	320
117	6535	18.862	18.912	320
153	6715	18.848	18.879	320
181	6855	18.850	18.871	320
185	6875	18.855	18.907	320
213	7015	18.894	18.834	320
229	7095	18.837	18.908	320
233	7115	18.886	18.855	320

SISO 802.11ax (HE40)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)		
		Chain 8	Chain 9	Limit (MHz)
3	5965	37.621	37.525	320
43	6165	37.592	37.634	320
91	6405	37.534	37.541	320
99	6445	37.635	37.538	320
107	6485	37.528	37.599	320
115	6525	37.574	37.667	320
123	6565	37.573	37.477	320
155	6725	37.585	37.554	320
179	6845	37.597	37.608	320
187	6885	37.513	37.650	320
211	7005	37.569	37.639	320
227	7085	37.604	37.524	320



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SISO 802.11ax (HE80)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)		
		Chain 8	Chain 9	Limit (MHz)
7	5985	76.533	76.570	320
39	6145	76.416	76.712	320
87	6385	76.611	76.706	320
103	6465	76.721	76.949	320
119	6545	76.692	77.053	320
135	6625	76.728	76.807	320
151	6705	76.661	76.723	320
167	6785	76.619	76.825	320
183	6865	76.873	77.077	320
199	6945	76.702	76.852	320
215	7025	76.650	76.848	320

SISO 802.11ax (HE160)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)		
		Chain 8	Chain 9	Limit (MHz)
15	6025	154.390	154.550	320
47	6185	154.830	154.380	320
79	6345	154.480	153.880	320
111	6505	154.570	155.150	320
143	6665	155.000	154.810	320
175	6825	155.430	154.780	320
207	6985	154.360	154.650	320



Reference No.: W7L-P24040002RF03

MIMO 802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)		
		Chain 8	Chain 9	Limit (MHz)
1	5955	16.329	16.344	320
45	6175	16.325	16.339	320
93	6415	16.310	16.303	320
97	6435	16.349	16.320	320
105	6475	16.351	16.315	320
113	6515	16.345	16.323	320
117	6535	16.332	16.306	320
153	6715	16.315	16.328	320
181	6855	16.317	16.295	320
185	6875	16.325	16.323	320
213	7015	16.352	16.335	320
229	7095	16.370	16.313	320
233	7115	16.364	16.326	320

MIMO 802.11ax (HE20)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)		
		Chain 8	Chain 9	Limit (MHz)
1	5955	18.918	18.823	320
45	6175	18.866	18.876	320
93	6415	18.904	18.880	320
97	6435	18.864	18.873	320
105	6475	18.851	18.889	320
113	6515	18.887	18.868	320
117	6535	18.879	18.891	320
153	6715	18.860	18.849	320
181	6855	18.931	18.892	320
185	6875	18.890	18.905	320
213	7015	18.874	18.885	320



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229	7095	18.884	18.886	320
233	7115	18.874	18.856	320

MIMO 802.11ax (HE40)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)		
		Chain 8	Chain 9	Limit (MHz)
3	5965	37.727	37.501	320
43	6165	37.540	37.638	320
91	6405	37.639	37.567	320
99	6445	37.665	37.569	320
107	6485	37.507	37.585	320
115	6525	37.650	37.602	320
123	6565	37.559	37.645	320
155	6725	37.643	37.586	320
179	6845	37.573	37.670	320
187	6885	37.587	37.697	320
211	7005	37.592	37.488	320
227	7085	37.607	37.683	320

MIMO 802.11ax (HE80)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)		
		Chain 8	Chain 9	Limit (MHz)
7	5985	76.743	76.639	320
39	6145	76.699	76.799	320
87	6385	76.612	76.512	320
103	6465	76.623	76.851	320
119	6545	76.859	76.858	320
135	6625	76.804	77.025	320
151	6705	76.658	76.870	320
167	6785	76.879	76.716	320
183	6865	76.685	76.952	320
199	6945	76.755	76.725	320
215	7025	76.655	76.825	320



Reference No.: W7L-P24040002RF03

MIMO 802.11ax (HE160)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)		
		Chain 8	Chain 9	Limit (MHz)
15	6025	153.950	154.790	320
47	6185	155.140	155.440	320
79	6345	155.320	155.250	320
111	6505	155.320	155.000	320
143	6665	155.140	155.150	320
175	6825	155.100	155.640	320
207	6985	155.230	155.100	320