



■ Test Result

Test Item		Maximum Conducted Output Power						
Test Mode		Mode 2: IEEE 802.11a Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5260.0	6M	17.77	0.060	17.90	0.062	20.85	0.122	≤ 24
5280.0		17.73	0.059	17.91	0.062	20.83	0.121	
5300.0		17.70	0.059	17.81	0.060	20.77	0.119	
5320.0		17.74	0.059	17.82	0.061	20.79	0.120	
5500.0		16.43	0.044	17.58	0.057	20.05	0.101	≤ 24
5520.0		16.53	0.045	17.55	0.057	20.08	0.102	
5540.0		16.63	0.046	17.67	0.058	20.19	0.105	
5560.0		16.41	0.044	17.35	0.054	19.92	0.098	
5580.0		16.37	0.043	17.25	0.053	19.84	0.096	
5600.0		16.46	0.044	17.61	0.058	20.08	0.102	
5620.0		16.48	0.044	17.61	0.058	20.09	0.102	
5640.0		16.47	0.044	17.73	0.059	20.16	0.104	
5660.0		16.16	0.041	17.80	0.060	20.07	0.102	
5680.0		16.14	0.041	17.78	0.060	20.05	0.101	
5700.0		15.42	0.035	17.21	0.053	19.42	0.087	
5260.0	54M	17.52	0.056	17.63	0.058	20.59	0.114	≤ 24
5280.0		17.49	0.056	17.63	0.058	20.57	0.114	
5300.0		17.43	0.055	17.59	0.057	20.52	0.113	
5320.0		17.45	0.056	17.53	0.057	20.50	0.112	
5500.0		16.09	0.041	17.25	0.053	19.72	0.094	≤ 24
5520.0		16.18	0.041	17.18	0.052	19.72	0.094	
5540.0		16.42	0.044	17.42	0.055	19.96	0.099	
5560.0		16.19	0.042	17.10	0.051	19.68	0.093	
5580.0		16.08	0.041	16.93	0.049	19.54	0.090	
5600.0		16.15	0.041	17.32	0.054	19.78	0.095	
5620.0		16.11	0.041	17.35	0.054	19.78	0.095	
5640.0		16.09	0.041	17.42	0.055	19.82	0.096	
5660.0		15.89	0.039	17.55	0.057	19.81	0.096	
5680.0		15.80	0.038	17.42	0.055	19.70	0.093	
5700.0		15.12	0.033	16.93	0.049	19.13	0.082	

Note: The relevant measured result has the offset with cable loss already.



Test Item		Maximum Conducted Output Power						
Test Mode		Mode 3: IEEE 802.11ac 20MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5260.0	13M	17.75	0.060	18.03	0.064	20.90	0.123	≤ 24
5280.0		17.77	0.060	18.03	0.064	20.91	0.123	
5300.0		17.82	0.061	17.98	0.063	20.91	0.123	
5320.0		17.76	0.060	17.93	0.062	20.86	0.122	
5500.0		16.96	0.050	18.44	0.070	20.77	0.119	≤ 24
5520.0		17.03	0.050	18.46	0.070	20.81	0.121	
5540.0		17.03	0.050	18.48	0.070	20.83	0.121	
5560.0		16.73	0.047	18.00	0.063	20.42	0.110	
5580.0		16.85	0.048	18.13	0.065	20.55	0.113	
5600.0		16.96	0.050	18.32	0.068	20.70	0.118	
5620.0		16.90	0.049	18.38	0.069	20.71	0.118	
5640.0		16.87	0.049	18.41	0.069	20.72	0.118	
5660.0		16.60	0.046	18.43	0.070	20.62	0.115	
5680.0		16.51	0.045	18.45	0.070	20.60	0.115	
5700.0		15.27	0.034	17.31	0.054	19.42	0.087	
5260.0	173.4M	17.47	0.056	17.80	0.060	20.65	0.116	≤ 24
5280.0		17.49	0.056	17.77	0.060	20.64	0.116	
5300.0		17.53	0.057	17.69	0.059	20.62	0.115	
5320.0		17.39	0.055	17.63	0.058	20.52	0.113	
5500.0		16.63	0.046	18.10	0.065	20.44	0.111	≤ 24
5520.0		16.80	0.048	18.14	0.065	20.53	0.113	
5540.0		16.78	0.048	18.09	0.064	20.49	0.112	
5560.0		16.40	0.044	17.63	0.058	20.07	0.102	
5580.0		16.52	0.045	17.80	0.060	20.22	0.105	
5600.0		16.65	0.046	18.00	0.063	20.39	0.109	
5620.0		16.60	0.046	18.04	0.064	20.39	0.109	
5640.0		16.49	0.045	18.13	0.065	20.40	0.110	
5660.0		16.30	0.043	18.08	0.064	20.29	0.107	
5680.0		16.19	0.042	18.14	0.065	20.28	0.107	
5700.0		15.00	0.032	17.09	0.051	19.18	0.083	

Note: The relevant measured result has the offset with cable loss already.



Test Item		Maximum Conducted Output Power						
Test Mode		Mode 4: IEEE 802.11ac 40MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0+1						FCC Limit (dBm))
		ANT-0		ANT-1		ANT-0+1		
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5270.0	27M	19.55	0.090	19.60	0.091	22.59	0.181	≤ 24
5310.0		14.33	0.027	14.50	0.028	17.43	0.055	
5510.0		15.61	0.036	16.73	0.047	19.22	0.083	≤ 24
5550.0		19.13	0.082	20.02	0.100	22.61	0.182	
5590.0		19.17	0.083	20.02	0.100	22.63	0.183	
5630.0		18.77	0.075	19.89	0.097	22.38	0.173	
5670.0		17.38	0.055	18.93	0.078	21.23	0.133	
5270.0	400M	19.22	0.084	19.38	0.087	22.31	0.170	≤ 24
5310.0		14.08	0.026	14.22	0.026	17.16	0.052	
5510.0		15.23	0.033	16.44	0.044	18.89	0.077	≤ 24
5550.0		18.82	0.076	19.78	0.095	22.34	0.171	
5590.0		18.83	0.076	19.73	0.094	22.31	0.170	
5630.0		18.48	0.070	19.59	0.091	22.08	0.161	
5670.0		17.05	0.051	18.62	0.073	20.92	0.123	

Test Item		Maximum Conducted Output Power						
Test Mode		Mode 5: IEEE 802.11ac 80MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5290.0	58.6M	12.33	0.017	12.70	0.019	15.53	0.036	≤ 24
5530.0		11.75	0.015	13.24	0.021	15.57	0.036	≤ 24
5610.0		17.81	0.060	19.06	0.081	21.49	0.141	
5290.0	866.6M	12.03	0.016	12.28	0.017	15.17	0.033	≤ 24
5530.0		11.38	0.014	13.00	0.020	15.28	0.034	≤ 24
5610.0		17.42	0.055	18.80	0.076	21.17	0.131	

Note: The relevant measured result has the offset with cable loss already.



Test Item		Transmit power control				
Test Mode		Mode 2: IEEE 802.11a Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1				FCC Limit (dBm)
		Max. Outup Power	G _{ANT} (dBi)	E.I.R.P.		
		(dBm)	(dBi)	(dBm)	(W)	
5260.0	6M	19.38	4.35	23.73	0.24	≤24
5280.0		19.33	4.35	23.68	0.23	
5300.0		19.33	4.35	23.68	0.23	
5320.0		19.27	4.35	23.62	0.23	
5500.0		19.56	4.35	23.91	0.25	
5520.0		19.19	4.35	23.54	0.23	
5540.0		19.25	4.35	23.60	0.23	
5560.0		19.39	4.35	23.74	0.24	
5580.0		19.47	4.35	23.82	0.24	
5600.0		19.62	4.35	23.97	0.25	
5620.0		19.61	4.35	23.96	0.25	
5640.0		19.61	4.35	23.96	0.25	
5660.0		19.52	4.35	23.87	0.24	
5680.0		19.51	4.35	23.86	0.24	
5700.0		19.42	4.35	23.77	0.24	
5260.0	54M	19.03	4.35	23.38	0.22	
5280.0		19.03	4.35	23.38	0.22	
5300.0		19.08	4.35	23.43	0.22	
5320.0		19.02	4.35	23.37	0.22	
5500.0		19.30	4.35	23.65	0.23	
5520.0		18.90	4.35	23.25	0.21	
5540.0		18.97	4.35	23.32	0.21	
5560.0		19.10	4.35	23.45	0.22	
5580.0		19.18	4.35	23.53	0.23	
5600.0		19.34	4.35	23.69	0.23	
5620.0		19.32	4.35	23.67	0.23	
5640.0		19.34	4.35	23.69	0.23	
5660.0		19.17	4.35	23.52	0.22	
5680.0		19.25	4.35	23.60	0.23	
5700.0		19.13	4.35	23.48	0.22	

Note: EIRP(dBm)=Conducted power(dBm) + G_{ANT} (dBi)



Test Item		Transmit power control				
Test Mode		Mode 3: IEEE 802.11ac 20MHz Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1				FCC Limit (dBm)
		Max. Outup Power	G _{ANT} (dBi)	E.I.R.P.		
		(dBm)	(dBi)	(dBm)	(W)	
5260.0	13M	19.46	4.35	23.81	0.24	≤24
5280.0		19.48	4.35	23.83	0.24	
5300.0		19.45	4.35	23.80	0.24	
5320.0		19.38	4.35	23.73	0.24	
5500.0		19.19	4.35	23.54	0.23	
5520.0		19.31	4.35	23.66	0.23	
5540.0		19.37	4.35	23.72	0.24	
5560.0		19.52	4.35	23.87	0.24	
5580.0		19.53	4.35	23.88	0.24	
5600.0		19.21	4.35	23.56	0.23	
5620.0		19.24	4.35	23.59	0.23	
5640.0		19.22	4.35	23.57	0.23	
5660.0		19.58	4.35	23.93	0.25	
5680.0		19.59	4.35	23.94	0.25	
5700.0		19.42	4.35	23.77	0.24	
5260.0	173.4M	19.11	4.35	23.46	0.22	
5280.0		19.18	4.35	23.53	0.23	
5300.0		19.17	4.35	23.52	0.22	
5320.0		19.15	4.35	23.50	0.22	
5500.0		18.93	4.35	23.28	0.21	
5520.0		18.99	4.35	23.34	0.22	
5540.0		19.05	4.35	23.40	0.22	
5560.0		19.22	4.35	23.57	0.23	
5580.0		19.21	4.35	23.56	0.23	
5600.0		18.89	4.35	23.24	0.21	
5620.0		18.94	4.35	23.29	0.21	
5640.0		18.94	4.35	23.29	0.21	
5660.0		19.30	4.35	23.65	0.23	
5680.0		19.36	4.35	23.71	0.23	
5700.0		19.18	4.35	23.53	0.23	

Note: EIRP(dBm)=Conducted power(dBm) + G_{ANT} (dBi)



Test Item		Transmit power control				
Test Mode		Mode 4: IEEE 802.11ac 40MHz Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1				FCC Limit (dBm)
		Max. Outup Power	G _{ANT} (dBi)	E.I.R.P.		
		(dBm)	(dBi)	(dBm)	(W)	
5270.0	27M	19.63	4.35	23.98	0.25	≤24
5310.0		17.43	4.35	21.78	0.15	
5510.0		19.22	4.35	23.57	0.23	
5550.0		19.56	4.35	23.91	0.25	
5590.0		19.61	4.35	23.96	0.25	
5630.0		19.25	4.35	23.60	0.23	
5670.0		19.64	4.35	23.99	0.25	
5270.0	400M	19.36	4.35	23.71	0.24	
5310.0		17.16	4.35	21.51	0.14	
5510.0		18.89	4.35	23.24	0.21	
5550.0		19.22	4.35	23.57	0.23	
5590.0		19.33	4.35	23.68	0.23	
5630.0		18.97	4.35	23.32	0.21	
5670.0		19.36	4.35	23.71	0.24	

Test Item		Transmit power control				
Test Mode		Mode 5: IEEE 802.11ac 80MHz Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1				FCC Limit (dBm)
		Max. Outup Power	G _{ANT} (dBi)	E.I.R.P.		
		(dBm)	(dBi)	(dBm)	(W)	
5290.0	58.6M	15.53	4.35	19.88	0.10	≤24
5530.0		15.57	4.35	19.92	0.10	
5610.0		19.41	4.35	23.76	0.24	
5290.0	866.6M	15.17	4.35	19.52	0.09	
5530.0		15.28	4.35	19.63	0.09	
5610.0		19.14	4.35	23.49	0.22	

Note: EIRP(dBm)=Conducted power(dBm) + G_{ANT} (dBi)

Beamforming on

Test Item		Maximum Conducted Output Power						
Test Mode		Mode 2: IEEE 802.11a Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5260.0	6M	15.63	0.037	15.93	0.039	18.79	0.076	≤ 22.43
5280.0		15.62	0.036	15.96	0.039	18.80	0.076	
5300.0		15.62	0.036	15.92	0.039	18.78	0.076	
5320.0		15.64	0.037	15.82	0.038	18.74	0.075	
5500.0		14.40	0.028	15.57	0.036	18.03	0.064	≤ 22.37
5520.0		14.52	0.028	15.62	0.036	18.12	0.065	
5540.0		14.61	0.029	15.76	0.038	18.23	0.067	
5560.0		14.27	0.027	15.35	0.034	17.85	0.061	
5580.0		14.31	0.027	15.46	0.035	17.93	0.062	
5600.0		14.42	0.028	15.60	0.036	18.06	0.064	
5620.0		14.35	0.027	15.57	0.036	18.01	0.063	
5640.0		14.38	0.027	15.58	0.036	18.03	0.064	
5660.0		14.12	0.026	15.62	0.036	17.94	0.062	
5680.0		14.03	0.025	15.71	0.037	17.96	0.063	
5700.0		13.48	0.022	15.13	0.033	17.39	0.055	
5260.0	54M	15.39	0.035	15.69	0.037	18.55	0.072	≤ 22.43
5280.0		15.42	0.035	15.65	0.037	18.55	0.072	
5300.0		15.37	0.034	15.66	0.037	18.53	0.071	
5320.0		15.38	0.035	15.55	0.036	18.48	0.070	
5500.0		14.04	0.025	15.21	0.033	17.67	0.059	≤ 22.37
5520.0		14.19	0.026	15.25	0.033	17.76	0.060	
5540.0		14.37	0.027	15.42	0.035	17.94	0.062	
5560.0		13.99	0.025	15.03	0.032	17.55	0.057	
5580.0		13.95	0.025	15.21	0.033	17.64	0.058	
5600.0		14.13	0.026	15.26	0.034	17.74	0.059	
5620.0		14.08	0.026	15.28	0.034	17.73	0.059	
5640.0		14.02	0.025	15.32	0.034	17.73	0.059	
5660.0		13.80	0.024	15.33	0.034	17.64	0.058	
5680.0		13.78	0.024	15.44	0.035	17.70	0.059	
5700.0		13.12	0.021	14.84	0.030	17.07	0.051	

Note: The relevant measured result has the offset with cable loss already.



Test Item		Maximum Conducted Output Power						
Test Mode		Mode 3: IEEE 802.11ac 20MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5260.0	13M	15.72	0.037	15.99	0.040	18.87	0.077	≤ 22.64
5280.0		15.64	0.037	15.99	0.040	18.83	0.076	
5300.0		15.72	0.037	15.93	0.039	18.84	0.076	
5320.0		15.65	0.037	15.89	0.039	18.78	0.076	
5500.0		14.88	0.031	16.31	0.043	18.66	0.074	≤ 22.62
5520.0		15.04	0.032	16.40	0.044	18.78	0.076	
5540.0		15.06	0.032	16.44	0.044	18.81	0.076	
5560.0		14.75	0.030	16.03	0.040	18.45	0.070	
5580.0		14.75	0.030	16.11	0.041	18.49	0.071	
5600.0		14.85	0.031	16.36	0.043	18.68	0.074	
5620.0		14.87	0.031	16.34	0.043	18.68	0.074	
5640.0		14.83	0.030	16.30	0.043	18.64	0.073	
5660.0		14.55	0.029	16.38	0.043	18.57	0.072	
5680.0		14.41	0.028	16.40	0.044	18.53	0.071	
5700.0		13.31	0.021	15.39	0.035	17.48	0.056	
5260.0	173.4M	15.48	0.035	15.65	0.037	18.58	0.072	≤ 22.64
5280.0		15.36	0.034	15.62	0.036	18.50	0.071	
5300.0		15.42	0.035	15.59	0.036	18.52	0.071	
5320.0		15.38	0.035	15.59	0.036	18.50	0.071	
5500.0		14.59	0.029	15.95	0.039	18.33	0.068	≤ 22.62
5520.0		14.80	0.030	16.17	0.041	18.55	0.072	
5540.0		14.80	0.030	16.19	0.042	18.56	0.072	
5560.0		14.48	0.028	15.72	0.037	18.15	0.065	
5580.0		14.50	0.028	15.85	0.038	18.24	0.067	
5600.0		14.62	0.029	16.10	0.041	18.43	0.070	
5620.0		14.60	0.029	16.05	0.040	18.40	0.069	
5640.0		14.52	0.028	16.02	0.040	18.34	0.068	
5660.0		14.34	0.027	16.10	0.041	18.32	0.068	
5680.0		14.13	0.026	16.08	0.041	18.22	0.066	
5700.0		13.05	0.020	15.07	0.032	17.19	0.052	

Note: The relevant measured result has the offset with cable loss already.



Test Item		Maximum Conducted Output Power						
Test Mode		Mode 4: IEEE 802.11ac 40MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5270.0	27M	17.26	0.053	17.50	0.056	20.39	0.109	≤ 22.64
5310.0		12.28	0.017	12.43	0.017	15.37	0.034	
5510.0		13.51	0.022	14.75	0.030	17.18	0.052	≤ 22.64
5550.0		17.02	0.050	17.95	0.062	20.52	0.113	
5590.0		17.11	0.051	18.04	0.064	20.61	0.115	
5630.0		16.74	0.047	17.86	0.061	20.35	0.108	
5670.0		15.33	0.034	16.85	0.048	19.17	0.083	
5270.0	400M	16.92	0.049	17.16	0.052	20.05	0.101	≤ 22.64
5310.0		12.03	0.016	12.13	0.016	15.09	0.032	≤ 22.64
5510.0		13.22	0.021	14.49	0.028	16.91	0.049	
5550.0		16.80	0.048	17.58	0.057	20.22	0.105	
5590.0		16.86	0.049	17.81	0.060	20.37	0.109	
5630.0		16.42	0.044	17.56	0.057	20.04	0.101	
5670.0		14.99	0.032	16.63	0.046	18.90	0.078	

Test Item		Maximum Conducted Output Power						
Test Mode		Mode 5: IEEE 802.11ac 80MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5290.0	58.6M	10.35	0.011	10.58	0.011	13.48	0.022	≤ 22.64
5530.0		9.72	0.009	11.18	0.013	13.52	0.022	≤ 22.64
5610.0		15.81	0.038	16.93	0.049	19.42	0.087	
5290.0	866.6M	10.11	0.010	10.35	0.011	13.24	0.021	≤ 22.64
5530.0		9.42	0.009	10.82	0.012	13.19	0.021	≤ 22.64
5610.0		15.55	0.036	16.69	0.047	19.17	0.083	

Note: The relevant measured result has the offset with cable loss already.



Test Item		Transmit power control				
Test Mode		Mode 2: IEEE 802.11a Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1				FCC Limit (dBm)
		Max. Outup Power	Directional Gain	E.I.R.P.		
		(dBm)	(dBi)	(dBm)	(W)	
5260.0	6M	16.26	7.36	23.62	0.230	≤24
5280.0		16.19	7.36	23.55	0.226	
5300.0		16.22	7.36	23.58	0.228	
5320.0		16.12	7.36	23.48	0.223	
5500.0		16.56	7.36	23.92	0.246	
5520.0		16.62	7.36	23.98	0.250	
5540.0		16.25	7.36	23.61	0.230	
5560.0		16.40	7.36	23.76	0.238	
5580.0		16.47	7.36	23.83	0.241	
5600.0		16.51	7.36	23.87	0.244	
5620.0		16.51	7.36	23.87	0.244	
5640.0		16.55	7.36	23.91	0.246	
5660.0		16.31	7.36	23.67	0.233	
5680.0		16.32	7.36	23.68	0.233	
5700.0		16.36	7.36	23.72	0.236	
5260.0	54M	15.94	7.36	23.30	0.214	
5280.0		15.92	7.36	23.28	0.213	
5300.0		15.95	7.36	23.31	0.214	
5320.0		15.84	7.36	23.20	0.209	
5500.0		16.26	7.36	23.62	0.230	
5520.0		16.35	7.36	23.71	0.235	
5540.0		15.96	7.36	23.32	0.215	
5560.0		16.11	7.36	23.47	0.223	
5580.0		16.21	7.36	23.57	0.227	
5600.0		16.20	7.36	23.56	0.227	
5620.0		16.22	7.36	23.58	0.228	
5640.0		16.33	7.36	23.69	0.234	
5660.0		16.10	7.36	23.46	0.222	
5680.0		16.04	7.36	23.40	0.219	
5700.0		16.09	7.36	23.45	0.221	

Note: EIRP(dBm)=Conducted power(dBm) + Directional Gain (dBi)



Test Item		Transmit power control				
Test Mode		Mode 3: IEEE 802.11ac 20MHz Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1				FCC Limit (dBm)
		Max. Outup Power	Directional Gain	E.I.R.P.		
		(dBm)	(dBi)	(dBm)	(W)	
5260.0	13M	16.31	7.36	23.67	0.233	≤ 24
5280.0		16.30	7.36	23.66	0.232	
5300.0		16.31	7.36	23.67	0.233	
5320.0		16.23	7.36	23.59	0.228	
5500.0		16.21	7.36	23.57	0.227	
5520.0		16.28	7.36	23.64	0.231	
5540.0		16.37	7.36	23.73	0.236	
5560.0		16.48	7.36	23.84	0.242	
5580.0		16.59	7.36	23.95	0.248	
5600.0		16.57	7.36	23.93	0.247	
5620.0		16.56	7.36	23.92	0.246	
5640.0		16.58	7.36	23.94	0.248	
5660.0		16.44	7.36	23.80	0.240	
5680.0		16.47	7.36	23.83	0.241	
5700.0		16.46	7.36	23.82	0.241	
5260.0	173.4M	16.03	7.36	23.39	0.218	
5280.0		16.04	7.36	23.40	0.219	
5300.0		16.00	7.36	23.36	0.217	
5320.0		15.97	7.36	23.33	0.215	
5500.0		15.93	7.36	23.29	0.213	
5520.0		16.01	7.36	23.37	0.218	
5540.0		16.10	7.36	23.46	0.222	
5560.0		16.19	7.36	23.55	0.226	
5580.0		16.23	7.36	23.59	0.229	
5600.0		16.32	7.36	23.68	0.234	
5620.0		16.31	7.36	23.67	0.233	
5640.0		16.24	7.36	23.60	0.229	
5660.0		16.18	7.36	23.54	0.226	
5680.0		16.16	7.36	23.52	0.225	
5700.0		16.20	7.36	23.56	0.227	

Note: EIRP(dBm)=Conducted power(dBm) + Directional Gain (dBi)



Test Item		Transmit power control				
Test Mode		Mode 4: IEEE 802.11ac 40MHz Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1				FCC Limit (dBm)
		Max. Outup Power	Directional Gain	E.I.R.P.		
		(dBm)	(dBi)	(dBm)	(W)	
5270.0	27M	16.43	7.36	23.79	0.239	≤24
5310.0		15.37	7.36	22.73	0.187	
5510.0		16.21	7.36	23.57	0.228	
5550.0		16.44	7.36	23.80	0.240	
5590.0		16.52	7.36	23.88	0.244	
5630.0		16.58	7.36	23.94	0.248	
5670.0		16.50	7.36	23.86	0.243	
5270.0	400M	16.17	7.36	23.53	0.226	
5310.0		15.08	7.36	22.44	0.175	
5510.0		15.91	7.36	23.27	0.212	
5550.0		16.14	7.36	23.50	0.224	
5590.0		16.28	7.36	23.64	0.231	
5630.0		16.24	7.36	23.60	0.229	
5670.0		16.19	7.36	23.55	0.227	

Test Item		Transmit power control				
Test Mode		Mode 5: IEEE 802.11ac 80MHz Continuous TX mode				
Frequency (MHz)	Data Rate	ANT-0+1				FCC Limit (dBm)
		Max. Outup Power	Directional Gain	E.I.R.P.		
		(dBm)	(dBi)	(dBm)	(W)	
5290.0	58.6M	13.48	7.36	20.84	0.121	≤ 24
5530.0		13.52	7.36	20.88	0.123	
5610.0		16.38	7.36	23.74	0.237	
5290.0	866.6M	13.21	7.36	20.57	0.114	
5530.0		13.20	7.36	20.56	0.114	
5610.0		16.05	7.36	23.41	0.219	

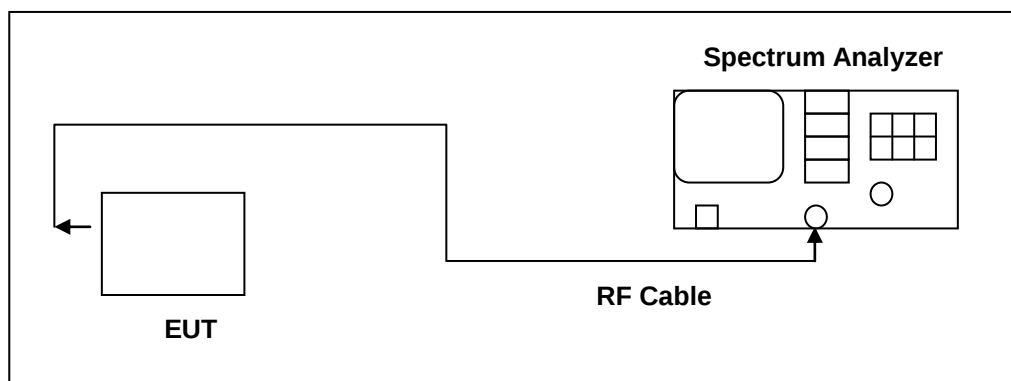
Note: EIRP(dBm)=Conducted power(dBm) + Directional Gain (dBi)

4.4. 26dB RF Bandwidth Measurement

■ Limit

N/A

■ Test Setup



■ Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY45300744	12/19/2016	1 year
Microwave Cable	EMCI	EMC104-SM-SM-1 500	140303	02/22/2017	1 year
Test Site	ATL	TE05	TE05	N.C.R.	-----

Note: N.C.R. = No Calibration Request.

■ Test Procedure

The test is performed in accordance with KDB789033: D02 General UNII Test Procedures New Rules v01r04, Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Subpart E.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	>26dB Bandwidth
RBW	Approximately 1% of the emission bandwidth
VBW	VBW > RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

Test Result

Test Item	26dB RF Bandwidth	
Test Mode	Mode 2: IEEE 802.11a Continuous TX mode	
Frequency (MHz)	26dB Bandwidth (MHz)	
	ANT-0	ANT-1
5260.0	34.950	39.990
5280.0	25.390	25.330
5320.0	29.200	30.150
5500.0	32.490	32.620
5560.0	32.520	33.820
5700.0	26.540	27.740

Test Item	26dB RF Bandwidth	
Test Mode	Mode 3: IEEE 802.11ac 20MHz Continuous TX mode	
Frequency (MHz)	26dB Bandwidth (MHz)	
	ANT-0	ANT-1
5260.0	25.720	26.070
5280.0	25.570	26.010
5320.0	25.780	25.590
5500.0	27.710	27.210
5560.0	35.320	38.170
5700.0	25.300	27.660



Test Item	26dB RF Bandwidth	
Test Mode	Mode 4: IEEE 802.11ac 40MHz Continuous TX mode	
Frequency (MHz)	26dB Bandwidth (MHz)	
	ANT-0	ANT-1
5270.0	57.260	58.580
5310.0	40.770	40.810
5510.0	46.020	46.400
5550.0	61.520	77.230
5670.0	83.340	85.430

Test Item	26dB RF Bandwidth	
Test Mode	Mode 5: IEEE 802.11ac 80MHz Continuous TX mode	
Frequency (MHz)	26dB Bandwidth (MHz)	
	ANT-0	ANT-1
5290.0	87.850	86.300
5530.0	88.310	86.150
5610.0	88.360	88.190



Beamforming on

Test Item	26dB RF Bandwidth	
Test Mode	Mode 2: IEEE 802.11a Continuous TX mode	
Frequency (MHz)	26dB Bandwidth (MHz)	
	ANT-0	ANT-1
5260.0	19.350	18.990
5280.0	19.220	19.060
5320.0	19.220	19.020
5500.0	19.250	18.800
5560.0	19.500	18.740
5700.0	19.210	18.820

Test Item	26dB RF Bandwidth	
Test Mode	Mode 3: IEEE 802.11ac 20MHz Continuous TX mode	
Frequency (MHz)	26dB Bandwidth (MHz)	
	ANT-0	ANT-1
5260.0	20.260	19.990
5280.0	20.270	19.970
5320.0	20.290	20.070
5500.0	20.340	19.870
5560.0	20.330	19.970
5700.0	20.230	19.930



Test Item	26dB RF Bandwidth	
Test Mode	Mode 4: IEEE 802.11ac 40MHz Continuous TX mode	
Frequency (MHz)	26dB Bandwidth (MHz)	
	ANT-0	ANT-1
5270.0	40.570	39.780
5310.0	40.340	39.920
5510.0	40.370	39.710
5550.0	40.260	39.780
5670.0	40.090	39.790

Test Item	26dB RF Bandwidth	
Test Mode	Mode 5: IEEE 802.11ac 80MHz Continuous TX mode	
Frequency (MHz)	26dB Bandwidth (MHz)	
	ANT-0	ANT-1
5290.0	88.050	85.330
5530.0	87.510	86.390
5610.0	87.970	84.870



■ Test Graphs

Mode 2: IEEE 802.11a Continuous TX mode_ANT-0

5260



5280



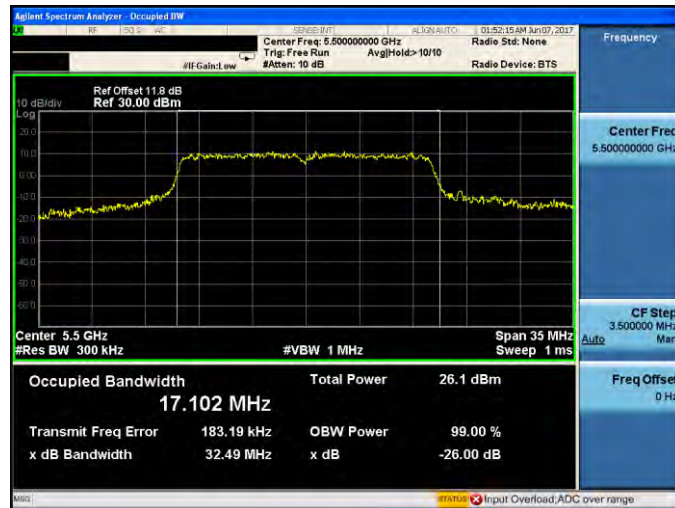
5320





Mode 2: IEEE 802.11a Continuous TX mode_ANT-0

5500



5560



5700



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Mode 3: IEEE 802.11ac 20MHz Continuous TX mode_ANT-0	
5500	Ref Offset 11.8 dB Ref 30.00 dBm Center 5.5 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 17.847 MHz Total Power 25.9 dBm Transmit Freq Error 39.418 kHz OBW Power 99.00 % x dB Bandwidth 27.71 MHz x dB -26.00 dB Frequency Center Freq 5.50000000 GHz CF Step 3.000000 MHz Freq Offset 0 Hz Input Overload, ADC over range
5560	Ref Offset 11.8 dB Ref 30.00 dBm Center 5.56 GHz #Res BW 300 kHz #VBW 1 MHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 18.105 MHz Total Power 26.8 dBm Transmit Freq Error 58.913 kHz OBW Power 99.00 % x dB Bandwidth 35.32 MHz x dB -26.00 dB Frequency Center Freq 5.56000000 GHz CF Step 4.000000 MHz Freq Offset 0 Hz Input Overload, ADC over range
5700	Ref Offset 11.8 dB Ref 30.00 dBm Center 5.7 GHz #Res BW 300 kHz #VBW 1 MHz Span 30 MHz Sweep 1 ms Occupied Bandwidth 17.718 MHz Total Power 25.8 dBm Transmit Freq Error -10.932 kHz OBW Power 99.00 % x dB Bandwidth 25.30 MHz x dB -26.00 dB Frequency Center Freq 5.70000000 GHz CF Step 3.000000 MHz Freq Offset 0 Hz Input Overload, ADC over range

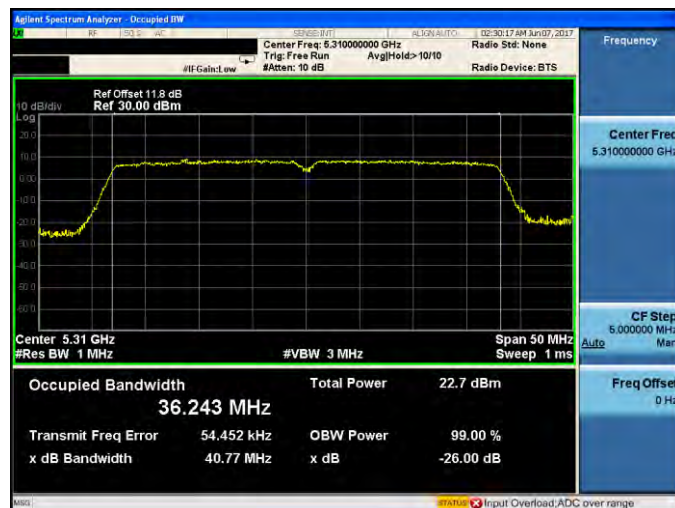


Mode 4: IEEE 802.11ac 40MHz Continuous TX mode_ANT-0

5270



5310



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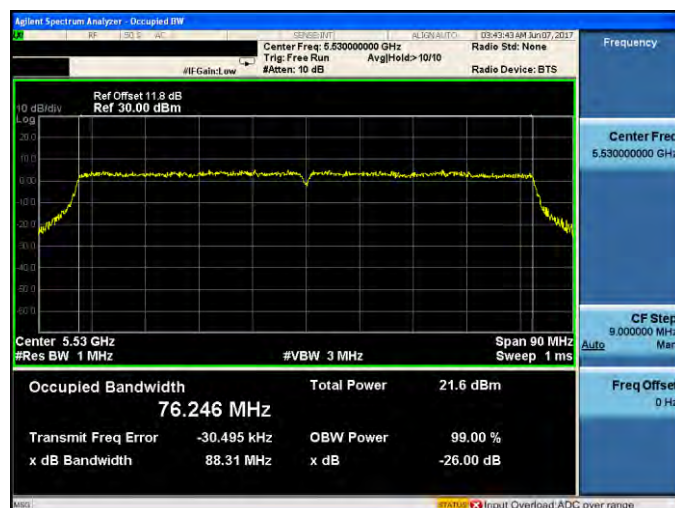


Mode 5: IEEE 802.11ac 80MHz Continuous TX mode_ANT-0

5290



5530



5610



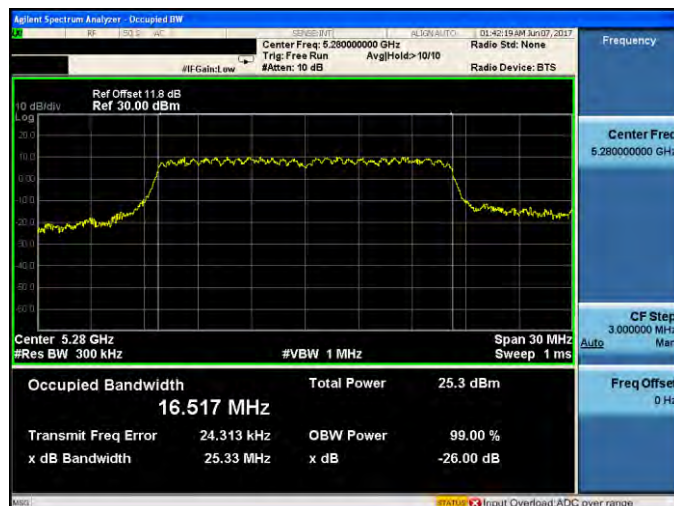


Mode 2: IEEE 802.11a Continuous TX mode_ANT-1

5260



5280



5320



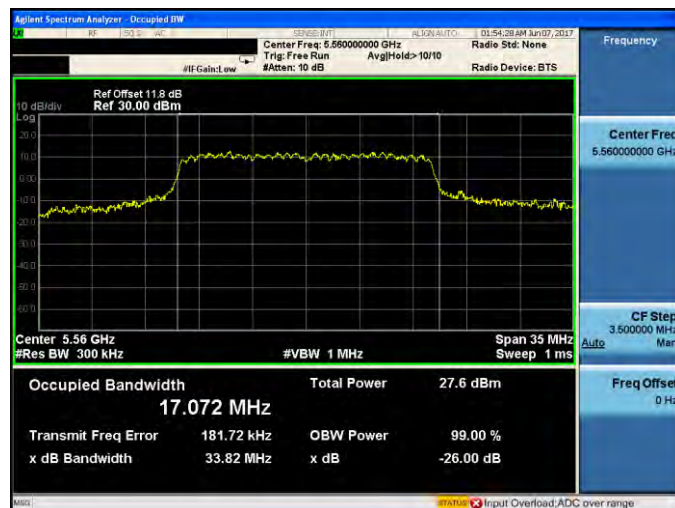


Mode 2: IEEE 802.11a Continuous TX mode_ANT-1

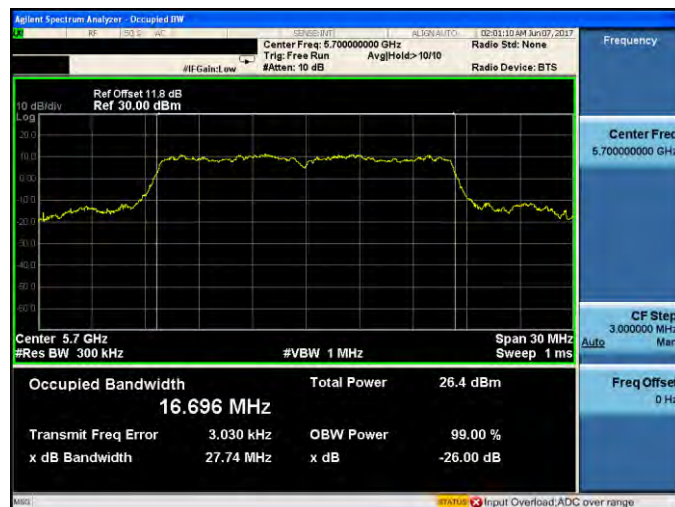
5500



5560



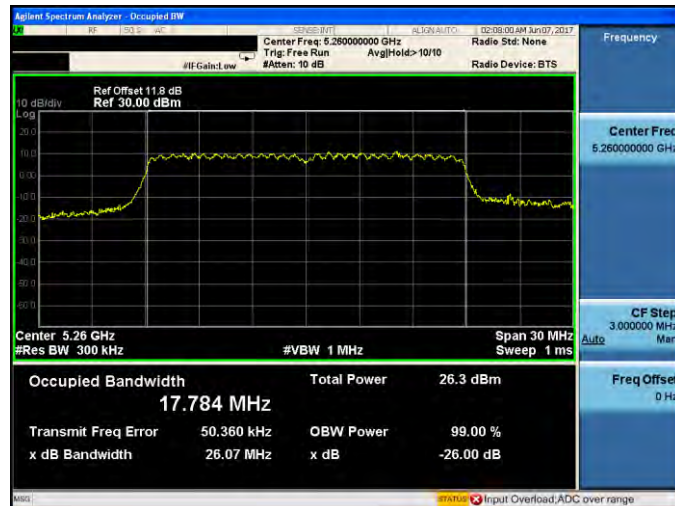
5700



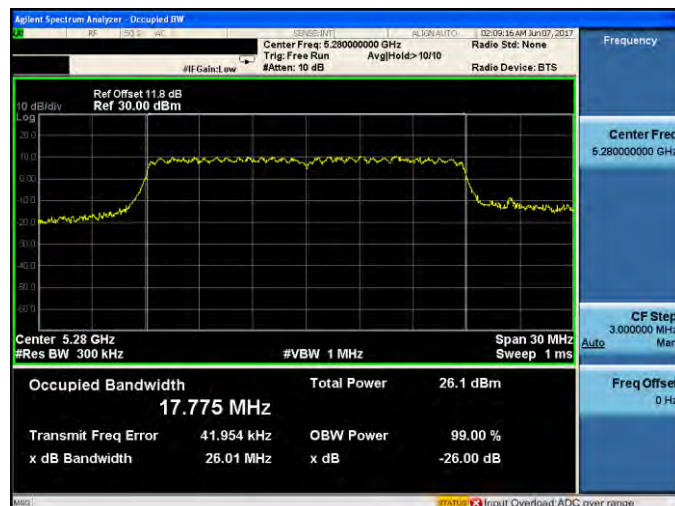


Mode 3: IEEE 802.11ac 20MHz Continuous TX mode_ANT-1

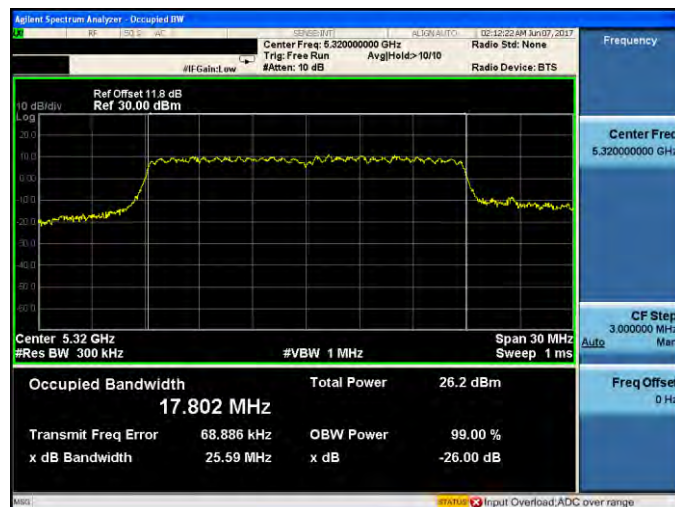
5260



5280



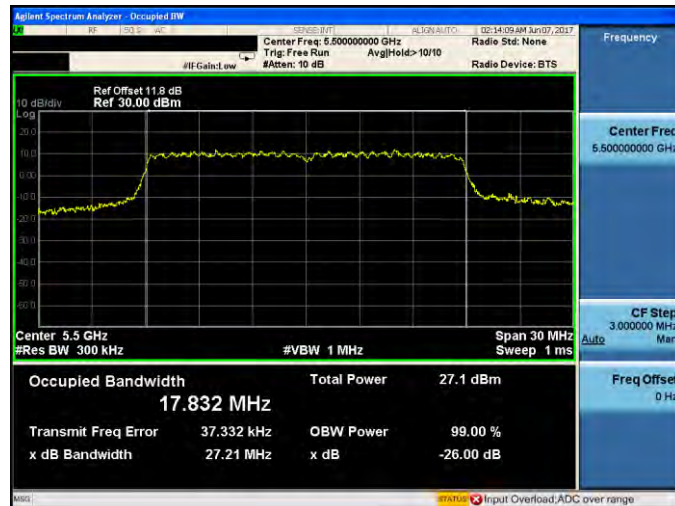
5320



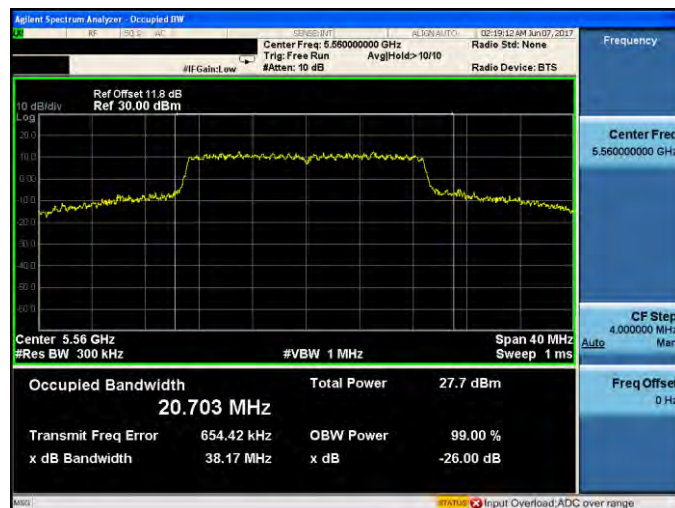


Mode 3: IEEE 802.11ac 20MHz Continuous TX mode_ANT-1

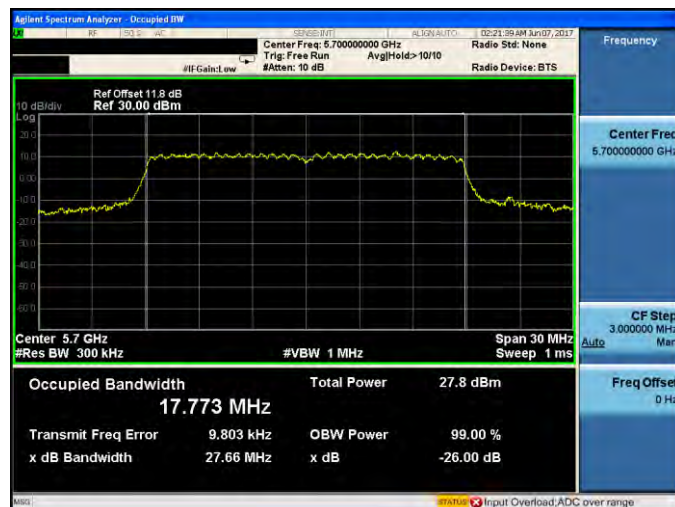
5500



5560



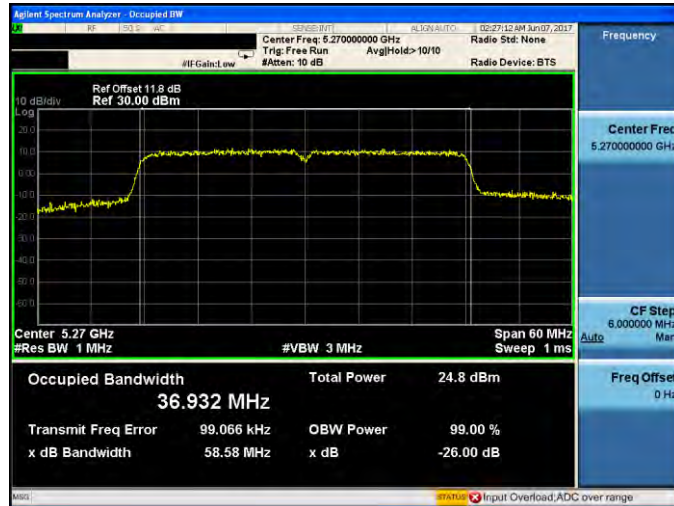
5700





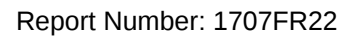
Mode 4: IEEE 802.11ac 40MHz Continuous TX mode_ANT-1

5270



5310



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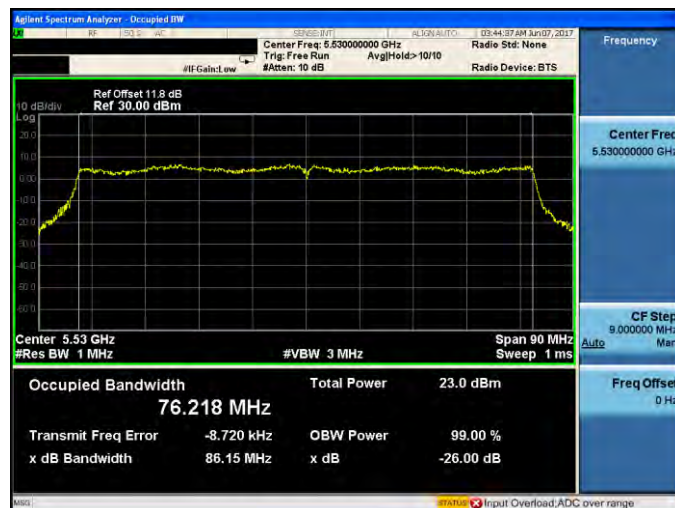


Mode 5: IEEE 802.11ac 80MHz Continuous TX mode_ANT-1

5290



5530



5610





Beamforming on

Mode 2: IEEE 802.11a Continuous TX mode _ANT-0

5260



5280



5320





Mode 2: IEEE 802.11a Continuous TX mode_ANT-0

5500



5560



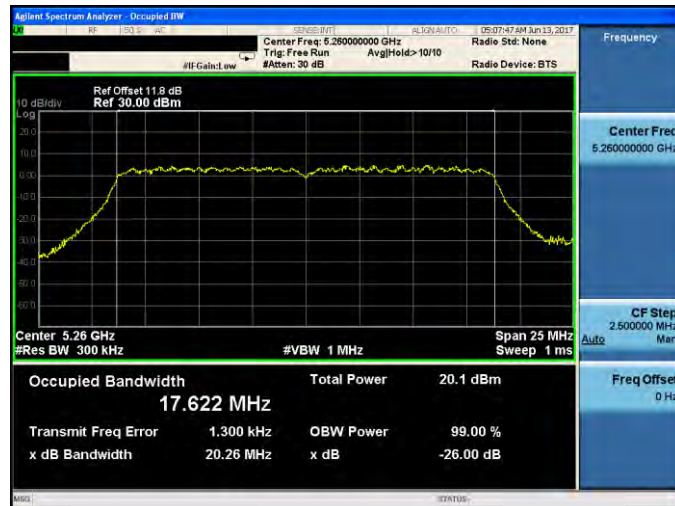
5700





Mode 3: IEEE 802.11ac 20MHz Continuous TX mode_ANT-0

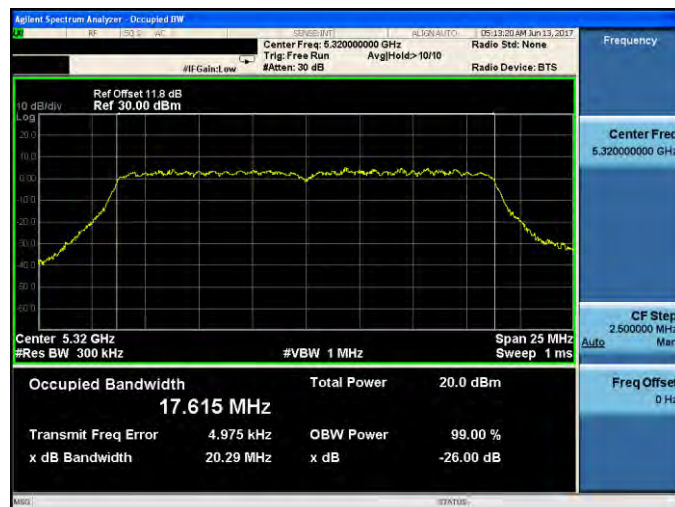
5260



5280



5320





Mode 3: IEEE 802.11ac 20MHz Continuous TX mode_ANT-0

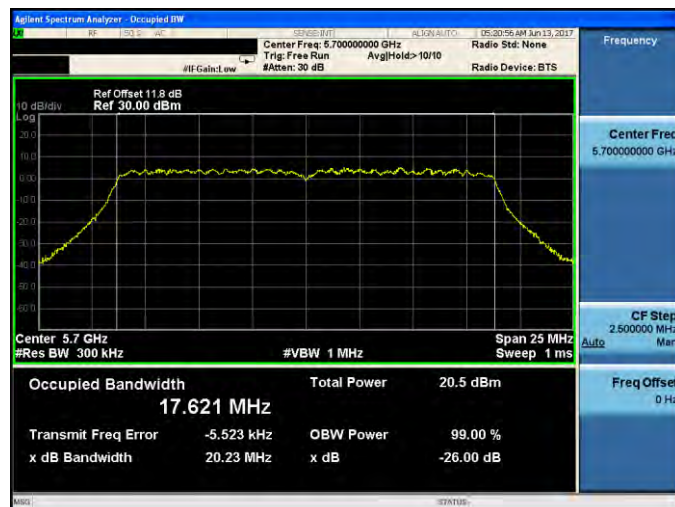
5500



5560



5700





Mode 4: IEEE 802.11ac 40MHz Continuous TX mode_ANT-0

5270



5310





Mode 4: IEEE 802.11ac 40MHz Continuous TX mode_ANT-0

5510



5550



5670





Mode 5: IEEE 802.11ac 80MHz Continuous TX mode_ANT-0

5290



5530



5610





Mode 2: IEEE 802.11a Continuous TX mode_ANT-1

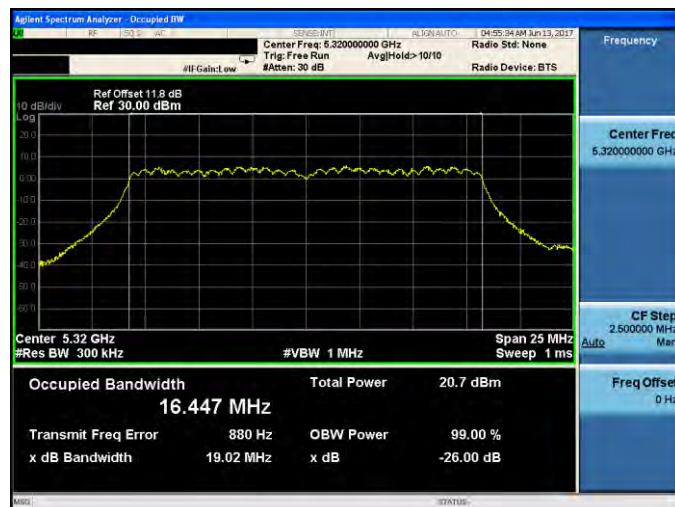
5260



5280



5320





Mode 2: IEEE 802.11a Continuous TX mode_ANT-1

5500



5560



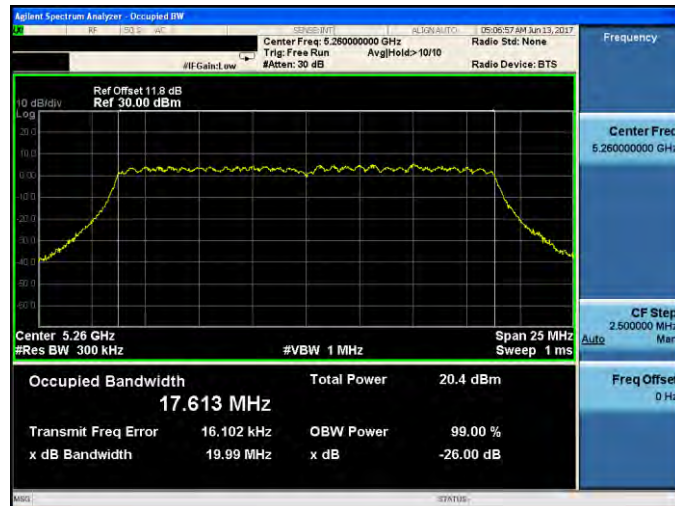
5700





Mode 3: IEEE 802.11ac 20MHz Continuous TX mode_ANT-1

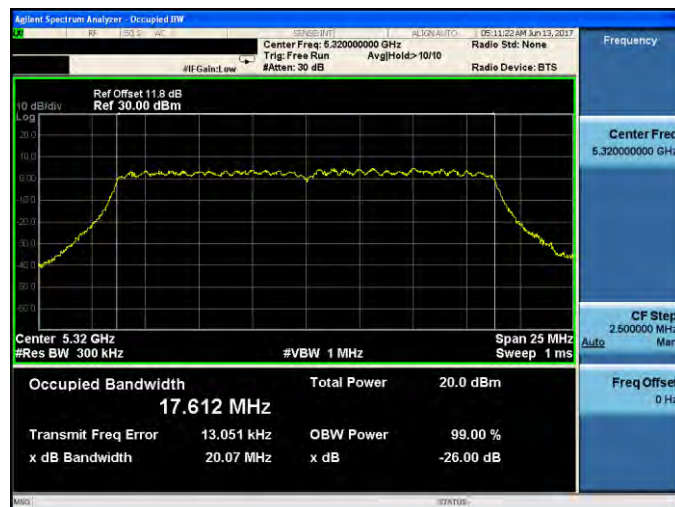
5260

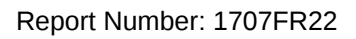


5280



5320



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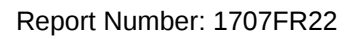
Mode 4: IEEE 802.11ac 40MHz Continuous TX mode_ANT-1

5270



5310



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Mode 5: IEEE 802.11ac 80MHz Continuous TX mode_ANT-1

5290



5530



5610



4.5. Peak Power Spectral Density Measurement

■ Limit

Conducted power spectral density

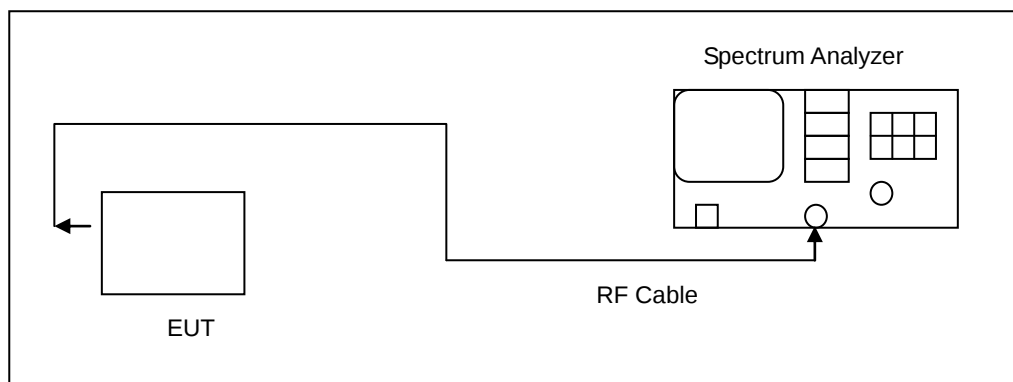
Frequency Range	FCC Limit
5.250 ~ 5.350 GHz	11 dBm/MHz
5.470 ~ 5.725 GHz	11 dBm/MHz

According FCC KDB 662911 D01 v02r01 – for power measurements on IEEE802.11 devices,

* CDD/BF mode : Directional Gain = $10 \cdot \log\{[10^{G1/20} + 10^{G2/20} + \dots + 10^{Gn/20}]^2 / N\} = 7.36 \text{ dBi} > 6 \text{ dBi}$

* CDD /BF mode power limit shall be reduced = $11 - 1.36 = 9.64 \text{ dBm/MHz}$

■ Test Setup



■ Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Spectrum Analyzer	Agilent	E4445A	MY45300744	12/19/2016	1 year
Test Site	ATL	TE05	TE05	N.C.R.	-----

Note: N.C.R. = No Calibration Request.

**■ Test Procedure**

The test is performed in accordance with KDB789033: D02 General UNII Test Procedures New Rules v01r04, Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Subpart E.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	1 MHz (5725 ~ 5850MHz use 100 kHz)
VBW	3 MHz (5725 ~ 5850MHz use 300 kHz)
Detector	RMS
Trace	AVERAGE
Sweep Time	Auto
Trace Average	100 times
Note: If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/100\text{kHz})$ to the measured result.	

Test Result

Test Item	Conducted power spectral density			
Test Mode	Mode 2: IEEE 802.11a Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5260.0	6.101	0.123	6.224	≤9.64
5280.0	5.799	0.123	5.922	
5320.0	6.058	0.123	6.181	
5500.0	5.131	0.123	5.254	≤9.64
5560.0	5.269	0.123	5.392	
5700.0	5.240	0.123	5.363	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5260.0	6.205	0.123	6.328	≤9.64
5280.0	6.504	0.123	6.627	
5320.0	6.247	0.123	6.370	
5500.0	6.864	0.123	6.987	≤9.64
5560.0	6.878	0.123	7.001	
5700.0	7.017	0.123	7.140	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5260.0	9.287			≤9.64
5280.0	9.299			
5320.0	9.287			
5500.0	9.217			≤9.64
5560.0	9.281			
5700.0	9.352			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Test Item	Conducted power spectral density			
Test Mode	Mode 3: IEEE 802.11ac 20MHz Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5260.0	5.899	0.101	6.000	≤ 9.64
5280.0	6.119	0.101	6.220	
5320.0	6.138	0.101	6.239	
5500.0	5.671	0.101	5.772	≤ 9.64
5560.0	5.458	0.101	5.559	
5700.0	4.968	0.101	5.069	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5260.0	6.062	0.101	6.163	≤ 9.64
5280.0	6.582	0.101	6.683	
5320.0	6.280	0.101	6.381	
5500.0	6.837	0.101	6.938	≤ 9.64
5560.0	6.683	0.101	6.784	
5700.0	6.865	0.101	6.966	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5260.0	9.093			≤ 9.64
5280.0	9.468			
5320.0	9.321			
5500.0	9.404			≤ 9.64
5560.0	9.225			
5700.0	9.131			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Test Item	Conducted power spectral density			
Test Mode	Mode 4: IEEE 802.11ac 40MHz Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5270.0	5.906	0.202	6.108	≤9.64
5310.0	3.506	0.202	3.708	
5510.0	5.250	0.202	5.452	≤9.64
5550.0	5.287	0.202	5.489	
5670.0	5.158	0.202	5.360	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5270.0	5.963	0.202	6.165	≤9.64
5310.0	3.359	0.202	3.561	
5510.0	6.272	0.202	6.474	≤9.64
5550.0	7.257	0.202	7.459	
5670.0	6.923	0.202	7.125	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5270.0	9.147			≤9.64
5310.0	6.645			
5510.0	9.003			≤9.64
5550.0	9.595			
5670.0	9.342			

Note: Method SA-2, Power density = measured result + $10\log(1/\text{duty cycle})$ + Conversion ratio = measured result + duty factor.

Test Item	Conducted power spectral density			
Test Mode	Mode 5: IEEE 802.11ac 80MHz Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5290.0	-3.458	0.625	-2.833	≤ 9.64
5530.0	-2.017	0.625	-1.392	≤ 9.64
5610.0	0.801	0.625	1.426	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5290.0	-3.088	0.625	-2.463	≤ 9.64
5530.0	0.138	0.625	0.763	≤ 9.64
5610.0	2.498	0.625	3.123	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5290.0	0.366			≤ 9.64
5530.0	2.828			≤ 9.64
5610.0	5.367			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Beamforming on

Test Item	Conducted power spectral density			
Test Mode	Mode 2: IEEE 802.11a Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5260.0	4.050	0.124	4.174	≤9.64
5280.0	3.630	0.124	3.754	
5320.0	3.935	0.124	4.059	
5500.0	3.061	0.124	3.185	≤9.64
5560.0	3.051	0.124	3.175	
5700.0	3.421	0.124	3.545	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5260.0	4.188	0.124	4.312	≤9.64
5280.0	4.171	0.124	4.295	
5320.0	4.376	0.124	4.500	
5500.0	4.400	0.124	4.524	≤9.64
5560.0	4.938	0.124	5.062	
5700.0	5.047	0.124	5.171	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5260.0	7.254			≤9.64
5280.0	7.043			
5320.0	7.295			
5500.0	6.916			≤9.64
5560.0	7.231			
5700.0	7.444			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Test Item	Conducted power spectral density			
Test Mode	Mode 3: IEEE 802.11ac 20MHz Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5260.0	3.646	0.439	4.085	≤9.64
5280.0	4.013	0.439	4.452	
5320.0	3.981	0.439	4.420	
5500.0	3.686	0.439	4.125	≤9.64
5560.0	3.555	0.439	3.994	
5700.0	2.872	0.439	3.311	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5260.0	4.097	0.439	4.536	≤9.64
5280.0	4.357	0.439	4.796	
5320.0	4.115	0.439	4.554	
5500.0	4.936	0.439	5.375	≤9.64
5560.0	4.536	0.439	4.975	
5700.0	5.011	0.439	5.450	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5260.0	7.327			≤9.64
5280.0	7.638			
5320.0	7.498			
5500.0	7.805			≤9.64
5560.0	7.522			
5700.0	7.521			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Test Item	Conducted power spectral density			
Test Mode	Mode 4: IEEE 802.11ac 40MHz Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5270.0	3.910	0.621	4.531	≤9.64
5310.0	1.383	0.621	2.004	
5510.0	3.091	0.621	3.712	≤9.64
5550.0	3.376	0.621	3.997	
5670.0	3.267	0.621	3.888	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5270.0	4.003	0.621	4.624	≤9.64
5310.0	1.450	0.621	2.071	
5510.0	4.205	0.621	4.826	≤9.64
5550.0	5.077	0.621	5.698	
5670.0	5.138	0.621	5.759	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5270.0	7.589			≤9.64
5310.0	5.048			
5510.0	7.315			≤9.64
5550.0	7.941			
5670.0	7.934			

Note: Method SA-2, Power density = measured result + $10\log(1/\text{duty cycle})$ + Conversion ratio = measured result + duty factor.

Test Item	Conducted power spectral density			
Test Mode	Mode 5: IEEE 802.11ac 80MHz Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5290.0	-5.501	1.181	-4.320	≤ 9.64
5530.0	-4.024	1.181	-2.843	≤ 9.64
5610.0	-1.035	1.181	0.146	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5290.0	-4.920	1.181	-3.739	≤ 9.64
5530.0	-1.680	1.181	-0.499	≤ 9.64
5610.0	0.372	1.181	1.553	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5290.0	-1.009			≤ 9.64
5530.0	1.496			≤ 9.64
5610.0	3.917			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.



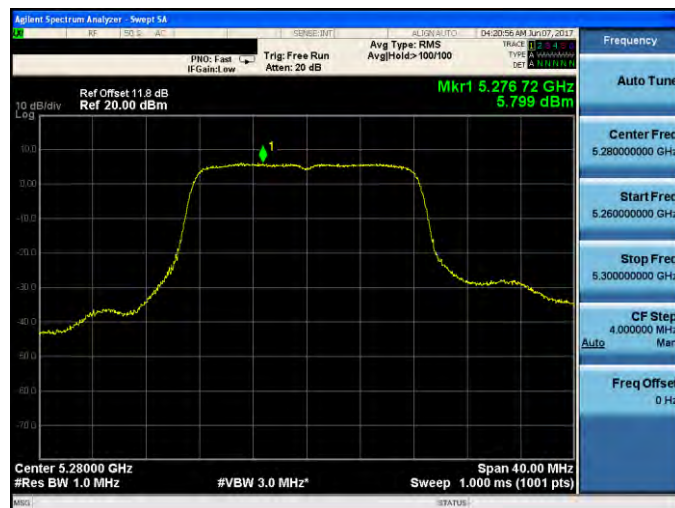
■ Test Graphs

Mode 2: IEEE 802.11a Continuous TX mode_ANT-0

5260



5280



5320





Mode 2: IEEE 802.11a Continuous TX mode_ANT-0

5500



5560



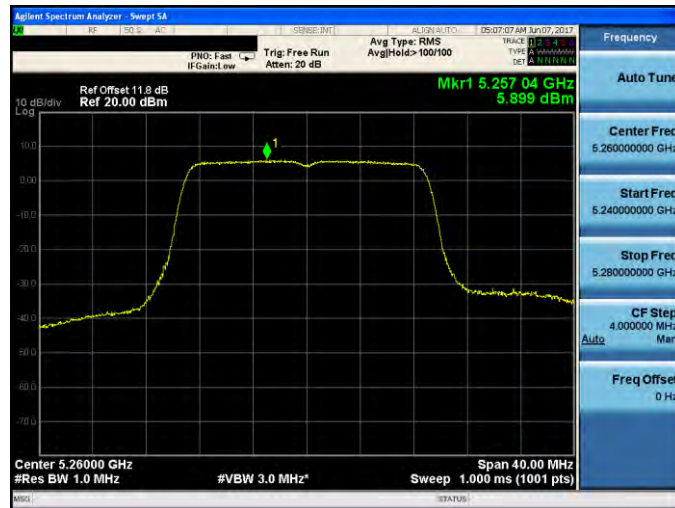
5700





Mode 3: IEEE 802.11ac 20MHz Continuous TX mode_ ANT-0

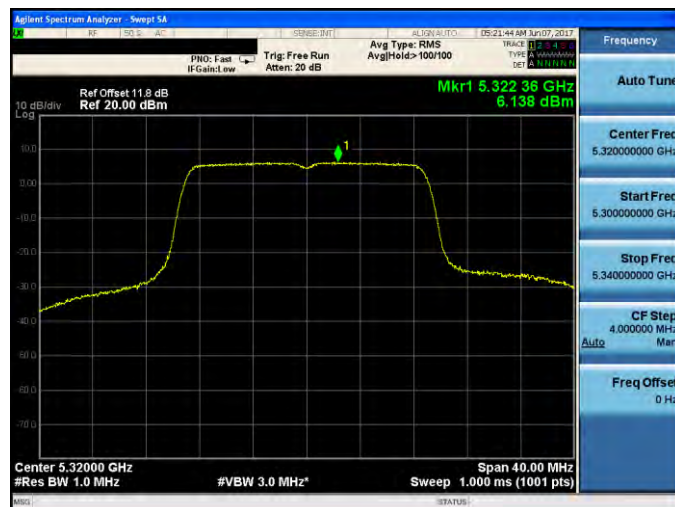
5260



5280



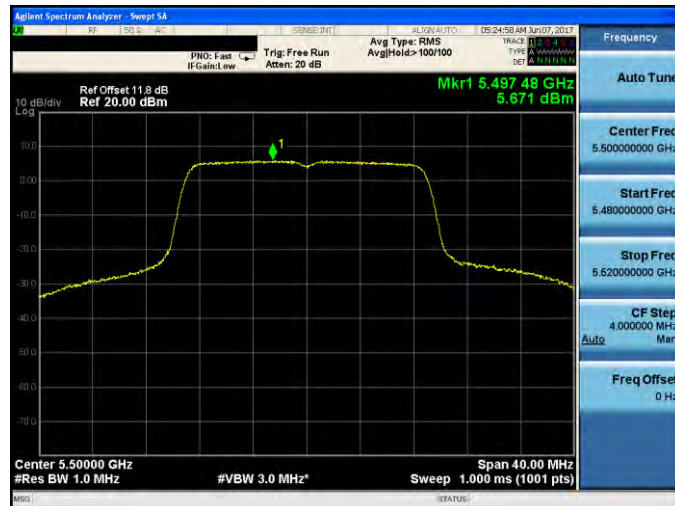
5320





Mode 3: IEEE 802.11ac 20MHz Continuous TX mode_ANT-0

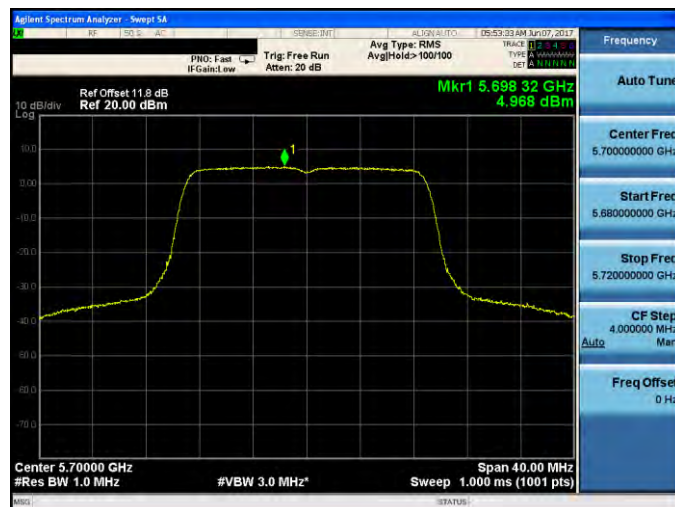
5500



5560



5700





Mode 4: IEEE 802.11ac 40MHz Continuous TX mode_ ANT-0	
5270	
5310	