**PART 30 MEASUREMENT REPORT****Applicant Name:**

Apple Inc.
One Apple Park Way
Cupertino, CA 95014
United States

Date of Testing:

5/30/2022 – 9/16/2022

Test Site/Location:

Element Washington DC LLC, Morgan Hill, CA, USA

Test Report Serial No.:

1C2205090025-06-R1.BCG

FCC ID:

BCGA2435

APPLICANT:

Apple Inc.

Application Type:

Certification

Model:

A2435

EUT Type:

Tablet Device

FCC Classification:

Part 30 Mobile Transmitter (5GM)

FCC Rule Part(s):

30

Test Procedure(s):

ANSI C63.26-2015, KDB 842590 D01 v01r02

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in §2.947. Test results reported herein relate only to the item(s) tested.

This revised Test Report (S/N: 1C2205090025-06-R1.BCG) supersedes and replaces the previously issued test report on the same subject device for the same type of testing as indicated. Please discard or destroy the previously issued test report(s) and dispose of it accordingly.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.



RJ Ortanez
Executive Vice President



FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 1 of 999

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The following EUT Overview tables summarize and display the highest measured EIRP for each respective band and configuration. Section 7.3 of this report provides EIRP measurements for all configurations.

Band	Tx Frequency [MHz]	Bandwidth [MHz]	CCs Active	Waveform	Antenna Diversity	Modulation	EIRP		Emission Designator				
							Max Power [W]	Max Power [dBm]					
n258-R1	24275 - 24425	50	1	CP-OFDM	SISO	QPSK	0.217	23.37	47M4G7W				
						16QAM	0.193	22.85	47M3D7W				
						64QAM	0.130	21.13	47M3D7W				
				$\pi/2$ BPSK	0.500	26.99	45M9G7W						
				DFTs-OFDM	SISO	QPSK	0.500	26.99	45M9G7W				
						16QAM	0.284	24.53	46M1D7W				
			64QAM			0.195	22.90	45M9D7W					
			CP-OFDM	MIMO	QPSK	0.658	28.18	46M8G7W					
					16QAM	0.522	27.18	46M7D7W					
					64QAM	0.341	25.33	46M9D7W					
			50+50	2	DFTs-OFDM	SISO Dual Pol	$\pi/2$ BPSK	1.672	32.23	46M3G7W			
							QPSK	1.691	32.28	46M1G7W			
		16QAM					1.005	30.02	46M0D7W				
		CP-OFDM			SISO	64QAM	0.705	28.48	46M1D7W				
						QPSK	0.095	19.78	96M8G7W				
						16QAM	0.093	19.67	96M6D7W				
		50+50		2	DFTs-OFDM	SISO	64QAM	0.061	17.82	96M9D7W			
							$\pi/2$ BPSK	0.093	19.70	95M6G7W			
							QPSK	0.093	19.70	95M9G7W			
					CP-OFDM	MIMO	16QAM	0.093	19.67	95M6D7W			
							64QAM	0.074	18.67	95M6D7W			
							QPSK	0.228	23.58	96M3G7W			
		50+50+50	3	DFTs-OFDM	SISO Dual Pol	16QAM	0.229	23.61	95M9D7W				
						64QAM	0.158	21.98	96M0D7W				
						$\pi/2$ BPSK	0.324	25.11	94M8G7W				
				CP-OFDM	MIMO	QPSK	0.327	25.15	96M0G7W				
						16QAM	0.303	24.82	94M9D7W				
						64QAM	0.253	24.04	95M8D7W				
			50+50+50	3	DFTs-OFDM	SISO Dual Pol	QPSK	0.092	19.63	146M7G7W			
							16QAM	0.086	19.35	146M0D7W			
							64QAM	0.056	17.46	146M0D7W			
					CP-OFDM	MIMO	$\pi/2$ BPSK	0.092	19.64	145M7G7W			
							QPSK	0.092	19.65	144M7G7W			
							16QAM	0.092	19.63	145M0D7W			
		24300 - 24400	50+50+50+50	4	DFTs-OFDM	SISO Dual Pol	64QAM	0.068	18.34	145M0D7W			
							QPSK	0.236	23.74	145M7G7W			
							16QAM	0.214	23.31	145M0D7W			
					CP-OFDM	MIMO	64QAM	0.141	21.48	145M0D7W			
							$\pi/2$ BPSK	0.342	25.34	145M7G7W			
							QPSK	0.350	25.44	145M7G7W			
					50+50+50+50	4	DFTs-OFDM	SISO Dual Pol	16QAM	0.329	25.17	145M0D7W	
									64QAM	0.252	24.01	145M0D7W	
									QPSK	0.089	19.51	195M7G7W	
							CP-OFDM	MIMO	16QAM	0.089	19.50	196M0D7W	
									64QAM	0.058	17.65	195M0D7W	
									$\pi/2$ BPSK	0.089	19.52	194M7G7W	
				50+50+50+50			4	DFTs-OFDM	SISO	QPSK	0.090	19.52	194M7G7W
										16QAM	0.089	19.52	194M0D7W
	64QAM									0.072	18.57	195M0D7W	
	CP-OFDM							MIMO	QPSK	0.238	23.76	195M7G7W	
									16QAM	0.208	23.18	195M0D7W	
									64QAM	0.155	21.91	195M0D7W	
	100				1	DFTs-OFDM		SISO Dual Pol	$\pi/2$ BPSK	0.152	21.81	194M7G7W	
									QPSK	0.161	22.06	195M7G7W	
									16QAM	0.143	21.55	194M0D7W	
						CP-OFDM		SISO	64QAM	0.125	20.85	194M0D7W	
									QPSK	0.245	23.90	94M7G7W	
									16QAM	0.190	22.78	94M4D7W	
			100	1		DFTs-OFDM	SISO	64QAM	0.131	21.18	94M6D7W		
								$\pi/2$ BPSK	0.488	26.88	91M8G7W		
								QPSK	0.492	26.92	91M9G7W		
						CP-OFDM	MIMO	16QAM	0.277	24.43	91M9D7W		
								64QAM	0.199	23.00	91M7D7W		
								QPSK	0.664	28.22	93M9G7W		
	24300 - 24400				100+100	2	DFTs-OFDM	SISO Dual Pol	16QAM	0.537	27.30	94M6D7W	
									64QAM	0.342	25.34	94M0D7W	
									$\pi/2$ BPSK	1.728	32.38	92M4G7W	
							CP-OFDM	MIMO	QPSK	1.637	32.14	91M7G7W	
									16QAM	0.968	29.86	92M6D7W	
									64QAM	0.714	28.54	92M9D7W	
			100+100	2		DFTs-OFDM	SISO	QPSK	0.088	19.46	194M7G7W		
								16QAM	0.087	19.42	193M0D7W		
								64QAM	0.058	17.60	193M0D7W		
						CP-OFDM	MIMO	$\pi/2$ BPSK	0.088	19.46	191M7G7W		
								QPSK	0.088	19.47	191M7G7W		
								16QAM	0.088	19.44	191M0D7W		
					100+100	2	DFTs-OFDM	SISO Dual Pol	64QAM	0.069	18.42	191M0D7W	
									QPSK	0.216	23.35	193M7G7W	
									16QAM	0.222	23.47	192M0D7W	
							CP-OFDM	MIMO	64QAM	0.147	21.66	193M0D7W	
									$\pi/2$ BPSK	0.329	25.17	191M7G7W	
									QPSK	0.308	24.88	192M7G7W	

EUT Overview (Band n258, 24.25 – 24.45GHz)

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Band	Tx Frequency [MHz]	Bandwidth [MHz]	CCs Active	Waveform	Antenna Diversity	Modulation	EIRP		Emission Designator
							Max Power [W]	Max Power [dBm]	
n258-R2	24775 - 25225	50	1	CP-OFDM	SISO	QPSK	0.260	24.15	47M307W
						16QAM	0.205	23.13	47M307W
						64QAM	0.135	21.90	47M307W
				DFTs-OFDM	SISO	W2 BPSK	0.539	27.32	48M407W
						QPSK	0.532	27.28	48M407W
						16QAM	0.315	24.98	48M407W
				CP-OFDM	MIMO	64QAM	0.212	23.27	48M507W
						QPSK	0.732	28.64	49M707W
						16QAM	0.584	27.65	49M707W
				DFTs-OFDM	SISO Dual Pol	64QAM	0.380	25.80	49M707W
						W2 BPSK	1.642	32.15	49M707W
						QPSK	1.681	32.25	49M707W
		50+50	2	CP-OFDM	SISO	16QAM	0.566	29.85	49M707W
						64QAM	0.271	24.34	49M707W
						QPSK	0.771	24.34	49M707W
				CP-OFDM	MIMO	16QAM	0.254	24.06	50M507W
						64QAM	0.172	22.35	50M407W
						W2 BPSK	0.272	24.34	50M507W
				DFTs-OFDM	SISO Dual Pol	QPSK	0.328	25.15	50M707W
						16QAM	0.282	24.51	50M707W
						64QAM	0.252	24.01	50M707W
				CP-OFDM	SISO	QPSK	0.100	19.99	149M707W
						16QAM	0.082	18.66	149M707W
						64QAM	0.060	17.81	149M707W
		50+50+50	3	DFTs-OFDM	SISO	W2 BPSK	0.088	19.92	149M707W
						QPSK	0.100	20.01	149M707W
						16QAM	0.099	19.96	149M707W
				CP-OFDM	MIMO	64QAM	0.074	18.70	149M707W
						QPSK	0.284	24.54	149M707W
						16QAM	0.249	23.96	149M707W
				DFTs-OFDM	SISO Dual Pol	64QAM	0.167	22.22	149M707W
						W2 BPSK	0.335	25.25	149M707W
						QPSK	0.354	25.49	149M707W
				CP-OFDM	SISO	QPSK	0.251	23.99	149M707W
						16QAM	0.083	19.17	194M707W
						16QAM	0.082	19.16	194M707W
		50+50+50+50	4	CP-OFDM	SISO	64QAM	0.054	17.33	194M707W
						W2 BPSK	0.082	19.14	194M707W
						QPSK	0.083	19.19	194M707W
				DFTs-OFDM	SISO	16QAM	0.082	19.15	194M707W
						64QAM	0.066	18.17	194M707W
						QPSK	0.254	24.05	194M707W
				CP-OFDM	MIMO	16QAM	0.245	23.89	194M707W
						64QAM	0.168	22.24	194M707W
						W2 BPSK	0.320	25.05	194M707W
				DFTs-OFDM	SISO Dual Pol	QPSK	0.315	24.98	194M707W
						16QAM	0.286	24.57	194M707W
						64QAM	0.235	23.72	194M707W
		100	1	CP-OFDM	SISO	QPSK	0.259	24.13	94M707W
						16QAM	0.213	23.28	94M707W
						64QAM	0.135	21.29	94M707W
				DFTs-OFDM	SISO	W2 BPSK	0.537	27.30	94M707W
						QPSK	0.529	27.24	94M707W
						16QAM	0.305	24.84	94M707W
				CP-OFDM	MIMO	64QAM	0.168	22.26	94M707W
						QPSK	0.738	28.68	94M707W
						16QAM	0.600	27.78	94M707W
						64QAM	0.373	25.72	94M707W
				DFTs-OFDM	SISO Dual Pol	W2 BPSK	1.797	32.55	94M707W
						QPSK	1.624	32.61	94M707W
						16QAM	1.011	30.05	94M707W
		100+100	2	CP-OFDM	SISO	64QAM	0.218	25.56	94M707W
						QPSK	0.093	19.70	193M707W
						16QAM	0.084	19.71	193M707W
				DFTs-OFDM	SISO	64QAM	0.060	17.76	193M707W
						W2 BPSK	0.084	19.75	193M707W
						QPSK	0.084	19.74	193M707W
				CP-OFDM	MIMO	16QAM	0.084	19.72	193M707W
						64QAM	0.074	18.71	193M707W
						QPSK	0.237	23.74	193M707W
				DFTs-OFDM	SISO Dual Pol	16QAM	0.247	23.93	193M707W
						64QAM	0.160	22.05	193M707W
						W2 BPSK	0.302	24.80	193M707W
		100+100+100	3	CP-OFDM	SISO	QPSK	0.336	25.26	193M707W
						16QAM	0.286	24.56	193M707W
						64QAM	0.266	24.56	193M707W
				DFTs-OFDM	SISO	W2 BPSK	0.595	24.24	193M707W
						QPSK	0.095	19.76	292M707W
						16QAM	0.088	19.44	292M707W
						64QAM	0.056	17.52	292M707W
				CP-OFDM	MIMO	W2 BPSK	0.109	20.37	292M707W
						QPSK	0.095	19.78	292M707W
						16QAM	0.084	19.71	292M707W
				DFTs-OFDM	SISO Dual Pol	64QAM	0.071	18.48	292M707W
						QPSK	0.159	22.00	292M707W
						16QAM	0.146	21.65	292M707W
		100+100+100+100	4	CP-OFDM	SISO	64QAM	0.095	19.79	292M707W
						W2 BPSK	0.228	23.76	292M707W
						QPSK	0.232	23.66	292M707W
				DFTs-OFDM	SISO	16QAM	0.240	23.86	292M707W
						64QAM	0.172	22.36	292M707W
						QPSK	0.082	19.62	390M707W
				CP-OFDM	SISO	16QAM	0.080	19.55	390M707W
						64QAM	0.060	17.75	390M707W
						W2 BPSK	0.081	19.60	390M707W
				DFTs-OFDM	SISO	QPSK	0.081	19.60	390M707W
						16QAM	0.086	19.34	390M707W
						64QAM	0.074	18.70	390M707W
				CP-OFDM	MIMO	QPSK	0.213	23.29	390M707W
						16QAM	0.146	21.64	390M707W
						64QAM	0.084	19.72	390M707W
				DFTs-OFDM	SISO Dual Pol	W2 BPSK	0.186	22.69	390M707W
						QPSK	0.208	23.18	390M707W
						16QAM	0.180	22.55	390M707W
						64QAM	0.178	22.51	390M707W

EUT Overview (Band n258, 24.75 – 25.25GHz)

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Band	Tx Frequency [MHz]	Bandwidth [MHz]	CCs Active	Waveform	Antenna Diversity	Modulation	EIRP		Emission Designator
							Max Power [W]	Max Power [dBm]	
n261	27525 - 28325	50	1	CP-OFDM	SISO	QPSK	0.263	24.20	47M3G7W
						16QAM	0.204	23.10	47M3G7W
						64QAM	0.134	21.27	47M3G7W
						W2 BPSK	0.086	20.48	49M3G7W
						QPSK	0.874	29.41	49M3G7W
				DFTs-OFDM	SISO	16QAM	0.324	25.10	49M3G7W
						64QAM	0.205	23.12	49M3G7W
						QPSK	0.546	27.39	49M3G7W
						16QAM	0.417	26.20	49M3G7W
						64QAM	0.278	24.44	49M3G7W
			2	CP-OFDM	MIMO	W2 BPSK	2.921	34.66	49M3G7W
						QPSK	2.819	34.50	49M3G7W
						16QAM	1.555	22.19	49M3G7W
						64QAM	1.124	30.51	49M3G7W
						QPSK	0.054	17.32	96M7G7W
				DFTs-OFDM	SISO	16QAM	0.054	17.35	96M7G7W
						64QAM	0.036	15.58	96M7G7W
						W2 BPSK	0.059	17.71	96M7G7W
						QPSK	0.060	17.81	96M7G7W
						16QAM	0.060	17.76	96M7G7W
			3	CP-OFDM	MIMO	64QAM	0.048	16.80	96M7G7W
						QPSK	0.134	22.88	96M7G7W
						16QAM	0.190	22.78	96M7G7W
						64QAM	0.136	21.32	96M7G7W
						W2 BPSK	0.324	25.10	96M7G7W
				DFTs-OFDM	SISO	QPSK	0.333	25.23	96M7G7W
						16QAM	0.296	24.71	96M7G7W
						64QAM	0.254	24.04	96M7G7W
						QPSK	0.106	20.27	147M3G7W
						16QAM	0.097	19.87	147M3G7W
			4	CP-OFDM	SISO	64QAM	0.064	18.04	147M3G7W
						W2 BPSK	0.104	20.16	148M3G7W
						QPSK	0.104	20.17	148M3G7W
						16QAM	0.105	20.21	148M3G7W
						64QAM	0.077	18.98	148M3G7W
				DFTs-OFDM	MIMO	QPSK	0.403	26.05	148M3G7W
						16QAM	0.366	25.63	148M3G7W
						64QAM	0.249	23.96	148M3G7W
						W2 BPSK	0.407	26.10	148M3G7W
						QPSK	0.378	25.71	148M3G7W
			5	CP-OFDM	SISO	16QAM	0.365	25.62	148M3G7W
						64QAM	0.276	24.41	148M3G7W
						QPSK	0.097	19.85	195M3G7W
						16QAM	0.097	19.85	195M3G7W
						64QAM	0.063	18.00	195M3G7W
				DFTs-OFDM	SISO	W2 BPSK	0.098	19.92	195M3G7W
						QPSK	0.099	19.94	195M3G7W
						16QAM	0.097	19.86	195M3G7W
						64QAM	0.079	18.95	195M3G7W
						QPSK	0.387	25.88	195M3G7W
			6	CP-OFDM	MIMO	16QAM	0.312	24.94	195M3G7W
						64QAM	0.248	23.94	195M3G7W
						W2 BPSK	0.320	25.05	195M3G7W
						QPSK	0.328	25.16	195M3G7W
						16QAM	0.358	25.53	195M3G7W
				DFTs-OFDM	SISO	64QAM	0.258	24.12	195M3G7W
						QPSK	0.264	24.21	94M7G7W
						16QAM	0.200	23.01	94M7G7W
						64QAM	0.133	21.25	94M7G7W
						W2 BPSK	0.333	25.22	91M3G7W
			7	CP-OFDM	SISO	QPSK	0.330	25.19	91M3G7W
						16QAM	0.243	23.85	91M3G7W
						64QAM	0.137	21.37	92M3G7W
						QPSK	0.535	27.28	92M3G7W
						16QAM	0.461	25.54	94M3G7W
				DFTs-OFDM	MIMO	64QAM	0.273	24.37	94M3G7W
						W2 BPSK	1.812	32.58	92M3G7W
						QPSK	2.382	33.71	92M3G7W
						16QAM	1.317	31.20	92M3G7W
						64QAM	0.577	27.61	96M7G7W
			8	CP-OFDM	SISO	QPSK	0.103	20.12	193M3G7W
						16QAM	0.100	19.99	193M3G7W
						64QAM	0.066	18.22	193M3G7W
						W2 BPSK	0.101	20.06	193M3G7W
						QPSK	0.103	20.11	193M3G7W
				DFTs-OFDM	MIMO	16QAM	0.100	19.99	193M3G7W
						64QAM	0.081	18.08	193M3G7W
						QPSK	0.397	25.99	193M3G7W
						16QAM	0.344	25.37	193M3G7W
						64QAM	0.253	24.04	193M3G7W
			9	CP-OFDM	SISO	W2 BPSK	0.382	25.93	193M3G7W
						QPSK	0.400	26.02	193M3G7W
						16QAM	0.367	25.65	193M3G7W
						64QAM	0.210	24.91	193M3G7W
						QPSK	0.103	20.15	291M3G7W
				DFTs-OFDM	MIMO	16QAM	0.086	19.62	291M3G7W
						64QAM	0.063	18.00	291M3G7W
						W2 BPSK	0.103	20.12	292M3G7W
						QPSK	0.103	20.14	292M3G7W
						16QAM	0.103	20.12	292M3G7W
			10	CP-OFDM	SISO	64QAM	0.074	18.71	292M3G7W
						QPSK	0.181	22.58	294M3G7W
						16QAM	0.168	22.26	294M3G7W
						64QAM	0.247	23.93	294M3G7W
						W2 BPSK	0.182	22.61	290M3G7W
				DFTs-OFDM	MIMO	QPSK	0.182	22.60	290M3G7W
						16QAM	0.182	22.60	290M3G7W
						64QAM	0.294	24.68	290M3G7W
						QPSK	0.099	19.96	392M3G7W
						16QAM	0.098	19.93	392M3G7W
			11	CP-OFDM	SISO	W2 BPSK	0.064	18.05	393M3G7W
						QPSK	0.097	19.86	394M3G7W
						16QAM	0.097	19.88	393M3G7W
						64QAM	0.086	19.83	393M3G7W
						QPSK	0.078	18.90	393M3G7W
				DFTs-OFDM	MIMO	QPSK	0.170	22.82	393M3G7W
						16QAM	0.361	25.57	392M3G7W
						64QAM	0.110	20.41	394M3G7W
						W2 BPSK	0.176	22.45	393M3G7W
						QPSK	0.240	23.81	393M3G7W
						16QAM	0.258	25.54	393M3G7W
						64QAM	0.134	21.28	393M3G7W

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Band	Tx Frequency [MHz]	Bandwidth [MHz]	CCs Active	Waveform	Antenna Diversity	Modulation	EIRP		Emission Designator
							Max Power [W]	Max Power [dBm]	
37025 - 39975	50	1	CP-OFDM	SISO	QPSK	0.246	23.91	46M1G7W	
					16QAM	0.221	23.44	46M3D7W	
					64QAM	0.139	21.44	46M3D7W	
				DFTs-OFDM	SISO	16QAM	0.594	27.74	46M3D7W
						QPSK	0.593	27.73	46M3D7W
						16QAM	0.346	25.39	46M3D7W
			CP-OFDM	MIMO	64QAM	0.227	23.56	46M3D7W	
					QPSK	0.413	26.16	46M3G7W	
					16QAM	0.261	24.16	46M3D7W	
				DFTs-OFDM	SISO Dual Pol	64QAM	0.298	24.74	46M3D7W
						16QAM	1.160	30.64	46M3G7W
						QPSK	1.154	30.62	46M3G7W
		50+50	CP-OFDM	SISO	16QAM	0.704	28.48	46M3D7W	
					64QAM	0.475	26.77	46M3D7W	
					QPSK	0.114	20.58	96M3G7W	
				DFTs-OFDM	SISO	16QAM	0.106	20.21	96M3D7W
						64QAM	0.073	18.65	98M3D7W
						16QAM	0.110	20.40	96M3G7W
			CP-OFDM	MIMO	QPSK	0.111	20.44	97M1G7W	
					16QAM	0.111	20.43	97M3D7W	
					64QAM	0.089	19.49	97M3D7W	
				DFTs-OFDM	SISO Dual Pol	QPSK	0.203	23.08	96M3G7W
						16QAM	0.197	22.94	96M3D7W
						64QAM	0.129	21.10	96M7D7W
		50+50+50	CP-OFDM	SISO Dual Pol	16QAM	0.190	22.75	95M3G7W	
					QPSK	0.195	22.91	95M3G7W	
					16QAM	0.183	22.62	96M3D7W	
				DFTs-OFDM	SISO	64QAM	0.158	21.99	96M3D7W
						QPSK	0.110	20.40	150M3G7W
						16QAM	0.106	20.26	158M7D7W
			CP-OFDM	SISO	64QAM	0.074	18.71	148M3D7W	
					16QAM	0.110	20.41	147M3D7W	
					16QAM	0.112	20.49	147M3D7W	
				DFTs-OFDM	SISO	16QAM	0.109	20.39	147M3D7W
						QPSK	0.091	19.61	159M7D7W
						QPSK	0.207	23.15	147M3D7W
		50+50+50+50	CP-OFDM	MIMO	16QAM	0.183	22.63	147M3D7W	
					64QAM	0.139	21.42	148M7D7W	
					16QAM	0.235	23.23	149M3G7W	
				DFTs-OFDM	SISO Dual Pol	QPSK	0.234	23.69	147M3D7W
						16QAM	0.223	23.67	148M3D7W
						64QAM	0.186	22.70	149M7D7W
			CP-OFDM	SISO	QPSK	0.113	20.53	198M3D7W	
					16QAM	0.108	20.34	198M7D7W	
					64QAM	0.075	18.75	199M3D7W	
				DFTs-OFDM	SISO	16QAM	0.114	20.56	197M3D7W
						QPSK	0.113	20.53	197M3D7W
						16QAM	0.113	20.54	198M7D7W
		100	CP-OFDM	MIMO	16QAM	0.092	19.63	197M3D7W	
					QPSK	0.221	23.45	197M3D7W	
					16QAM	0.191	22.81	197M7D7W	
				DFTs-OFDM	SISO Dual Pol	64QAM	0.145	21.60	197M7D7W
						16QAM	0.216	23.33	196M3G7W
						QPSK	0.242	23.84	196M3G7W
			CP-OFDM	SISO	16QAM	0.224	23.50	196M7D7W	
					64QAM	0.193	22.85	196M7D7W	
					QPSK	0.257	24.09	92M4G7W	
				DFTs-OFDM	SISO	16QAM	0.217	23.36	92M3D7W
						64QAM	0.144	21.57	93M7D7W
						16QAM	0.589	27.70	91M3G7W
		100+100	CP-OFDM	MIMO	QPSK	0.599	27.78	92M3G7W	
					16QAM	0.346	25.39	91M3D7W	
					16QAM	0.229	23.59	92M1D7W	
				DFTs-OFDM	SISO Dual Pol	QPSK	0.579	27.62	92M3G7W
						16QAM	0.460	26.62	92M4D7W
						64QAM	0.300	24.77	92M5D7W
			CP-OFDM	SISO	16QAM	1.287	31.10	94M1G7W	
					QPSK	1.316	31.19	94M4G7W	
					16QAM	0.762	28.82	92M4D7W	
				DFTs-OFDM	SISO	64QAM	0.520	27.46	92M2D7W
						QPSK	0.118	20.73	194M3G7W
						16QAM	0.111	20.45	194M7D7W
		100+100+100	CP-OFDM	SISO	16QAM	0.076	18.80	196M7D7W	
					64QAM	0.116	20.64	192M3G7W	
					QPSK	0.120	20.78	192M3G7W	
				DFTs-OFDM	SISO	16QAM	0.114	20.58	192M3D7W
						64QAM	0.095	19.77	192M7D7W
						QPSK	0.238	23.77	193M7D7W
			CP-OFDM	MIMO	16QAM	0.215	23.32	192M7D7W	
					64QAM	0.148	21.71	192M7D7W	
					16QAM	0.258	24.12	191M3G7W	
				DFTs-OFDM	SISO Dual Pol	QPSK	0.264	24.21	192M3G7W
						16QAM	0.228	23.58	191M7D7W
						64QAM	0.186	22.96	193M7D7W
		CP-OFDM	SISO		QPSK	0.110	20.42	299M3D7W	
					16QAM	0.107	20.28	299M7D7W	
					64QAM	0.074	18.71	294M7D7W	
			DFTs-OFDM	SISO	16QAM	0.110	20.41	303M3G7W	
					QPSK	0.112	20.49	299M3D7W	
					16QAM	0.109	20.39	298M7D7W	
		CP-OFDM		MIMO	16QAM	0.091	19.60	301M7D7W	
					QPSK	0.133	21.24	294M3G7W	
					16QAM	0.212	23.25	296M7D7W	
			DFTs-OFDM	SISO Dual Pol	16QAM	0.145	21.62	294M7D7W	
					16QAM	0.203	23.08	293M3G7W	
					QPSK	0.200	23.01	295M3G7W	
		CP-OFDM		SISO	16QAM	0.153	21.84	293M7D7W	
					64QAM	0.137	21.36	293M7D7W	
					QPSK	0.112	20.49	393M3G7W	
			100+100+100+100	CP-OFDM	SISO	16QAM	0.109	20.36	393M7D7W
						64QAM	0.106	20.24	394M7D7W
						16QAM	0.111	20.45	391M7D7W
		DFTs-OFDM			SISO	QPSK	0.112	20.49	391M3D7W
						16QAM	0.110	20.40	391M7D7W
						64QAM	0.103	20.13	391M7D7W
		CP-OFDM		MIMO	QPSK	0.145	21.61	399M3G7W	
					16QAM	0.212	23.27	404M3D7W	
					16QAM	0.148	21.71	398M7D7W	
				DFTs-OFDM	SISO Dual Pol	16QAM	0.161	22.07	393M3G7W
						QPSK	0.152	21.82	393M7D7W
						16QAM	0.230	23.62	396M7D7W
		DFTs-OFDM	SISO Dual Pol	16QAM	0.128	21.06	395M7D7W		

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1.0 INTRODUCTION

1.1 Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission.

1.2 Element Washington DC LLC Test Location

These measurement tests were conducted at the Element Washington DC LLC facility located at 18855 Adams Court, Morgan Hill, CA 95037. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014 and KDB 414788 D01 v01r01.

1.3 Test Facility / Accreditations

Measurements were performed at PCTEST located in Morgan Hill, CA 95037, U.S.A.

- Element Washington DC LLC is an ISO 17025-2017 accredited test facility under the American Association for Laboratory Accreditation (A2LA) with Certificate number 2041.02 for Specific Absorption Rate (SAR), Hearing Aid Compatibility (HAC) testing, where applicable, and Electromagnetic Compatibility (EMC) testing for FCC and Innovation, Science, and Economic Development Canada rules.
- Element Washington DC LLC TCB is a Telecommunication Certification Body (TCB) accredited to ISO/IEC 17065-2012 by A2LA (Certificate number 2041.03) in all scopes of FCC Rules and ISED Standards (RSS).
- Element Washington DC LLC facility is a registered (22831) test laboratory with the site description on file with ISED.
- Element Washington DC LLC is a Recognized U.S. Certification Assessment Body (CAB # US0110) for ISED Canada as designated by NIST under the U.S. and Canada Mutual Recognition Agreement.

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2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **Apple Tablet Device FCC ID: BCGA2435**. The test data contained in this report pertains only to the emissions due to the EUT's 5G mmWave function.

Test Device Serial No.: VPQ4QD4YHX, NJMJ6DJ4R0, FRXPW1F4YK

2.2 Device Capabilities

This device contains the following capabilities:

850/1700/1900 WCDMA/HSPA, Multi-band LTE, 5G NR (FR1/FR2), 802.11b/g/n/ax WLAN, 802.11a/n/ac/ax UNII, 802.11a/ax WiFi 6E, Bluetooth (1x, EDR, LE1M, LE2M, HDR4, HDR8), WPT, NB UNII (1x, HDR4, HDR8)

This device supports BT Beamforming

The EUT supports up to 4CC for UL. For each CC, the EUT supports both 50MHz bandwidth and 100MHz bandwidth. The EUT supports a subcarrier spacing (SCS) of 120kHz with two transmission schemes, CP-OFDM and DFT-s-OFDM, with pi/2-BPSK, QPSK, 16-QAM, and 64-QAM modulations. Different Beam IDs are supported, each corresponding to a different position in space for each antenna.

EUT supports both CP-OFDM and DFTs-OFDM waveforms. Below are the possible FR2 configurations. Throughout the report "SISO Dual Pol" term is used for MIMO DFTs-OFDM configuration.

FR2 Configurations		SISO CP-OFDM			SISO DFTs-OFDM			MIMO CP-OFDM			SISO Dual Pol (MIMO DFTs-OFDM)		
		Ant M0	Ant M2	Ant M3	Ant M0	Ant M2	Ant M3	Ant M0	Ant M2	Ant M3	Ant M0	Ant M2	Ant M3
n258	24.25-24.45GHz 24.75-25.25GHz	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
n261	27.5-28.35 GHz	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
n260	37-40 GHz	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Table 2-1. FR2 Configurations

✓ = Support ; ✗ = NOT Support

SISO = Single Input Single Output

MIMO = Multiple Input Multiple Output

CP-OFDM = Cyclic Prefix – Orthogonal Frequency Division Multiplexing

DFTs-OFDM = Discrete Fourier Transform Spread – Orthogonal Frequency Division Multiplexing

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2.3 Antenna Description

The EUT contains three patch antennas, referred to herein as Ant M0, Ant M2 and Ant M3. Different Beam IDs are supported, each corresponding to a different position in space for each antenna. OEM provided Beam IDs using EIRP Simulation that yields highest EIRP for each antenna per FR2 band. Below are the worst case Beam IDs per manufacturer.

Band n261		
Antenna	Peak Beam ID	Paired Beam ID
Ant M0	46	174
Ant M2	50	178
Ant M3	54	182

Table 2-2. Band n261 Worst Case Beam IDs

Band n260		
Antenna	Peak Beam ID	Paired Beam ID
Ant M0	47	175
Ant M2	50	178
Ant M3	41	169

Table 2-3. Band n260 Worst Case Beam IDs

Band n258		
Antenna	Peak Beam ID	Paired Beam ID
Ant M0	59	187
Ant M2	50	178
Ant M3	55	183

Table 2-4. Band n258 Worst Case Beam IDs

2.4 Test Support Equipment

1	Apple MacBook Pro	Model: A2141	S/N: C02DV7VKMD6T
	w/AC/DC Adapter	Model: A2166	S/N: N/A
2	Apple USB-C Cable	Model: Spartan	S/N: 000MKTR02U
3	USB-C Cable	Model: A246	S/N: N/A
	w/ AC Adapter	Model: A2305	S/N: N/A
4	Apple Pencil	Model: N/A	S/N: GQXGSXBJKM9
5	DC Power Supply	Model: KPS3010D	S/N: N/A

Table 2-5. Test Support Equipment List

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2.5 Test Configuration

The EUT was tested per the guidance of ANSI C63.26-2015 and KDB 842590 D01 v01r02. See Section 7.0 of this test report for a description of the radiated tests.

During testing, non-signaling standalone mode was used to operate the transmitter. Peak Beam ID was used for SISO operation and MIMO operation was achieved by enabling two Beam IDs at the same time, one Peak Beam ID and one corresponding Paired Beam ID, as provided in Section 2.3. Worst case Beam IDs yielding highest EIRP was used for all testing provided in this report.

2.6 Software and Firmware

The test was conducted with firmware version 20A8359 installed on the EUT.

2.7 EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and no modifications were made during testing.

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3.0 DESCRIPTION OF TESTS

3.1 Measurement Procedure

The measurement procedures described in the document titled "American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services" (ANSI C63.26-2015) and the guidance provided in KDB 842590 D01 v01r02 were used in the measurement of the EUT.

3.2 Radiated Power and Radiated Spurious Emissions

§30.202, §30.203

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements from 30MHz - 18GHz, when necessary for radiated emissions measurements in the spurious domain. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. The test site inside the chamber is a 6m x 5.2m elliptical, obstruction-free area in accordance with Figure 5.7 of Clause 5 in ANSI C63.4-2014. Absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections for measurements above 1GHz. For measurements below 1GHz, the absorbers are removed. A raised turntable is used for radiated measurement. The turn table is a continuously rotatable, remote-controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm tall test table made of Styrodur is placed on top of the turn table. A Styrodur pedestal is placed on top of the test table to bring the total table height to 1.5m for measurements above 1GHz.

Radiated power (EIRP) measurements and radiated spurious emissions above 18GHz were performed in a Shielded Anechoic Chamber conforming to the site validation requirements of CISPR 16-1-4 (Figure 3-5). RSE Measurements from 9kHz - 18GHz were performed in a semi anechoic chamber (SAC) conforming to the site validation requirements of CISPR 16-1-4 (Figure 3-2, Figure 3-3, and Figure 3-4). A positioner was used to manipulate the EUT through several positions in space by rotating about the roll axis as shown in the figure below. The positioner was mounted on top of a turntable bringing the total EUT height to 1.5m.

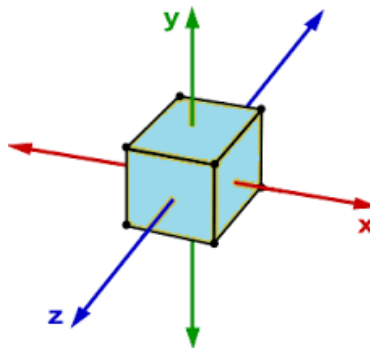


Figure 3-1. Rotation of the EUT Through Three Orthogonal Planes

Per KDB 414788 D01 v01r01, radiated emission test sites other than open-field test sites (e.g., shielded anechoic chambers), may be employed for emission measurements below 30MHz (Figure 3-2) if characterized so that the measurements correspond to those obtained at an open-field test site. To determine test site equivalency, a reference sample transmitting at 149kHz was measured on an open field test site (asphalt with no ground plane) and then measured in the 3m semi-anechoic chamber. A calibrated 60cm loop antenna was used while the reference device was rotated through the X, Y and Z axis in order to capture the worst case level. A maximum deviation of 2.77dB at 149kHz was measured when comparing the 3 meter semi-anechoic chamber to the open field site.

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Test Site Diagrams

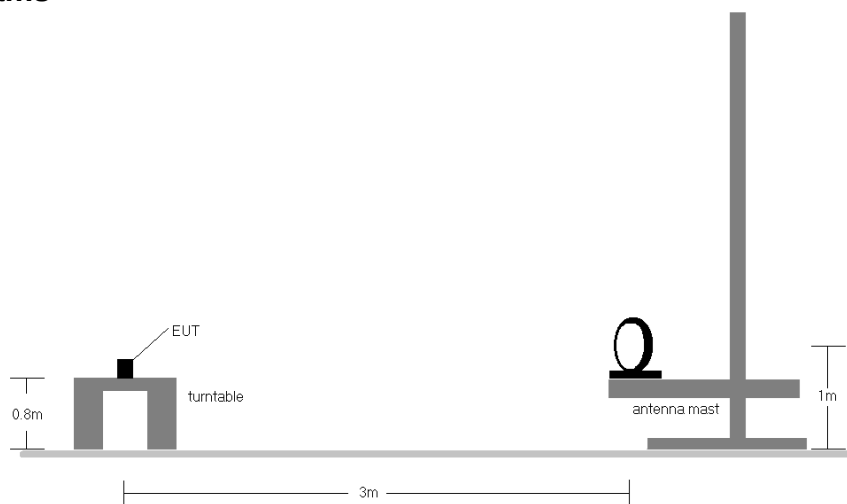


Figure 3-2. Test Site Diagram (9kHz - 30MHz)

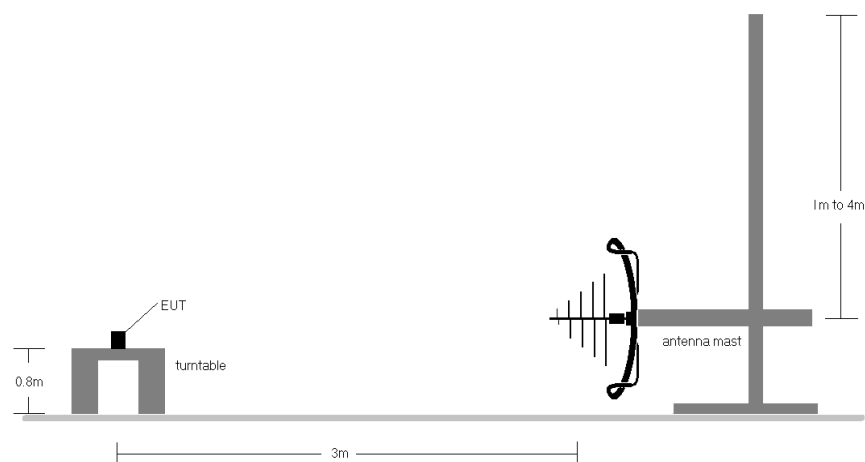


Figure 3-3. Test Site Diagram (30MHz - 1GHz)

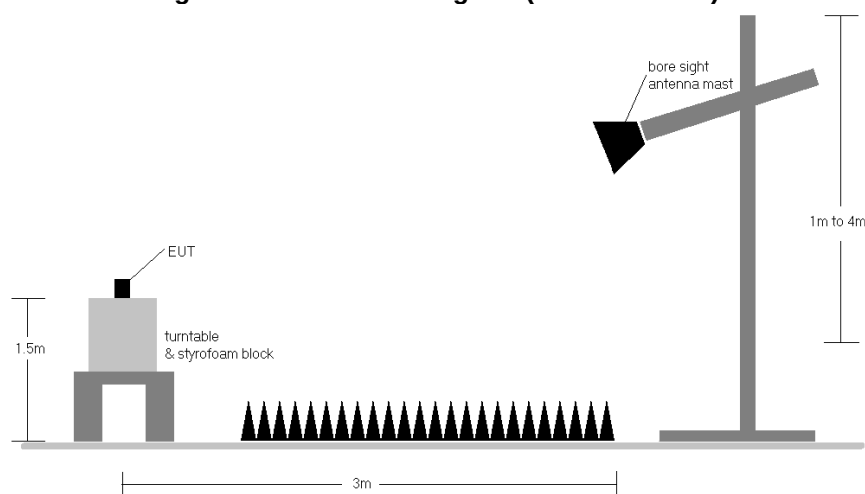


Figure 3-4. Test Site Diagram (1GHz - 18GHz)

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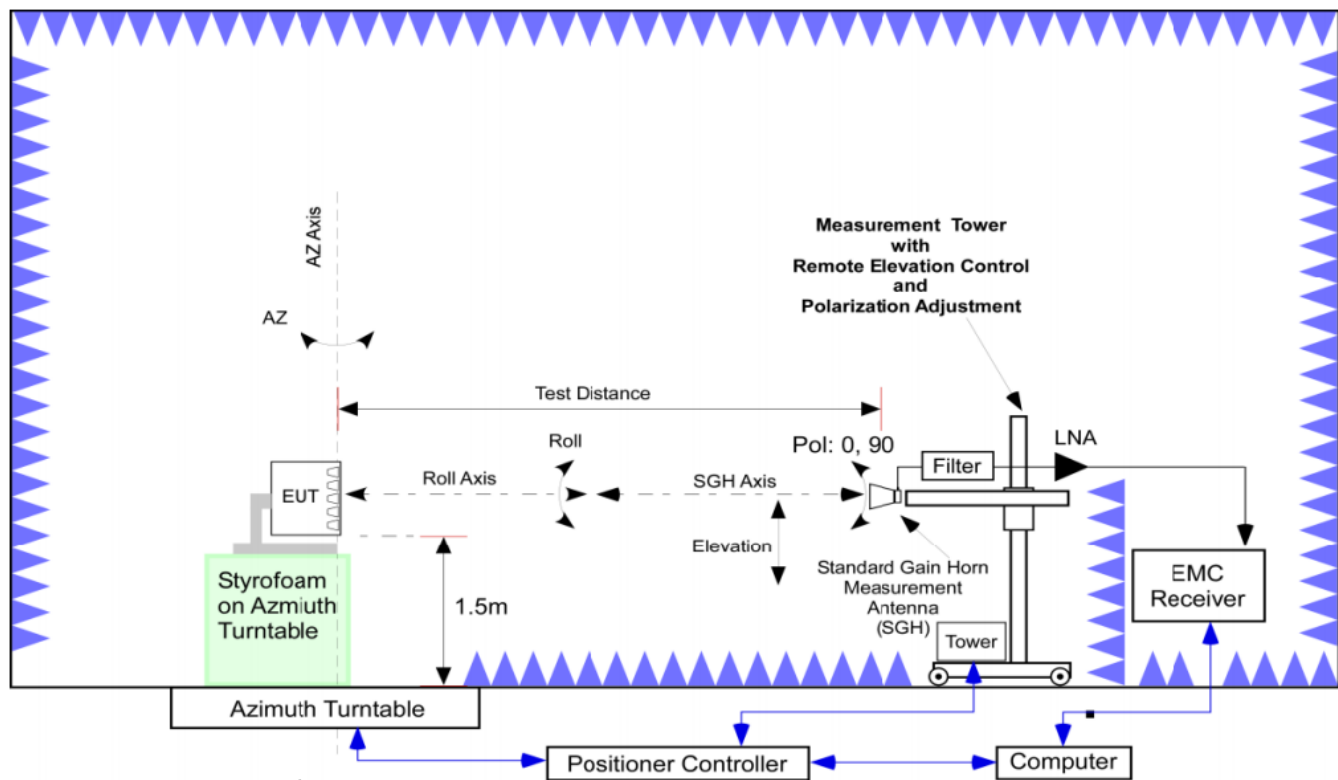


Figure 3-5. Test Site Diagram (Above 18GHz)

The equipment under test was transmitting while connected to its integral antenna and is placed on a turntable. The measurement antenna is in the far field of the EUT per formula $2D^2/\lambda$ where D is the larger between the dimension of the measurement antenna and the transmitting antenna of the EUT. In this case, "D" is the largest dimension of the measurement antenna. The EUT is manipulated through all orthogonal planes representative of its typical use to achieve the highest reading on the receive spectrum analyzer.

Frequency Range (GHz)	Wavelength (cm)	Farfield Distance (m)	Measurement Distance (m)
18-40	0.750	0.65	1.00
40-60	0.500	0.99	1.00
60-90	0.333	0.71	1.00
90-140	0.214	0.54	1.00
140-200	0.150	0.32	1.00

Table 3-1. Far-Field Distance & Measurement Distance per Frequency Range

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Radiated power levels are investigated while the receive antenna was rotated through all angles to determine the worst case polarization/positioning.

The maximized power level is recorded using the spectrum analyzer “Channel Power” function with the integration bandwidth set to the emissions’ occupied bandwidth. The EIRP is calculated from the raw power level measured with the spectrum analyzer using the formulas shown below.

Effective Isotropic Radiated Power Sample Calculation

For Effective Isotropic Radiated Power (EIRP) measurements and calculations, conversion method is used per the formulas in KDB 971168 Section 5.8.4. Field Strength (EIRP) is calculated using the following formulas:

$$\begin{aligned}\text{Field Strength [dB}\mu\text{V/m]} &= \text{Measured amplitude level}_{[\text{dBm}]} + \text{Antenna Factor}_{[\text{dB/m}]} + \text{Cable Loss}_{[\text{dB}]} + 107; \\ &= -32.74 \text{ dBm} + 40.7 \text{ dB/m} + 8.78 \text{ dB} + 107 = 123.74 \text{ dB}\mu\text{V/m} \\ \text{e.i.r.p. [dBm]} &= \text{Field Strength}_{[\text{dB}\mu\text{V/m}]} + 20\log_{10}(D) - 104.8; \\ &= 123.74 - 104.8 \\ &= 18.94 \text{ dBm}\end{aligned}$$

Where D is the measurement distance in meters and D=1m in above example.

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4.0 MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.23-2012. All measurement uncertainty values are shown with a coverage factor of $k = 2$ to indicate a 95% level of confidence. The measurement uncertainty shown below meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Contribution	Expanded Uncertainty ($\pm$ dB)
Radiated Disturbance (<30MHz)	4.38
Radiated Disturbance (30MHz-1GHz)	4.75
Radiated Disturbance (1GHz-18GHz)	5.20
Radiated Disturbance (>18GHz)	5.71

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5.0 TEST EQUIPMENT CALIBRATION DATA

Test Equipment Calibration is traceable to an accredited ISO/IEC 17025 calibration facility. Measurements antennas used during testing were calibrated in accordance to the requirements of ANSI C63.5-2017.

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Agilent Technologies	N9030A	3Hz-44GHz PXA Signal Analyzer	6/10/2022	Annual	6/10/2023	MY49430244
ATM	180-442A-KF	20dB Nominal Gain Horn Antenna	1/19/2022	Annual	1/19/2023	T058701-02
ESPEC	SU-241	Tabletop Temperature Chamber	10/26/2021	Annual	10/26/2022	92009574
ETS-Lindgren	3142E	BiConiLog Antenna (30MHz - 6GHz)	10/21/2021	Annual	10/21/2022	208204
ETS-Lindgren	3117	Double Ridged Guide Antenna (1-18 GHz)	5/11/2022	Annual	5/11/2023	205956
Eravant	SAR-2309-19-S2	WR-19 Horn Antenna, 23 dBi Gain (40-60 GHz)	3/9/2022	Biennial	3/9/2023	17314-01
Eravant	SAR-2309-12-S2	WR-12 Horn Antenna, 23 dBi Gain (60-90 GHz)	3/9/2022	Biennial	3/9/2023	17315-01
Eravant	SAR-2309-08-S2	WR-08 Horn Antenna, 23 dBi Gain (90-140 GHz)	3/9/2022	Biennial	3/9/2023	01719-07
Eravant	SAR-2309-05-S2	WR-05 Horn Antenna, 23 dBi Gain (140-220 GHz)	3/9/2022	Biennial	3/9/2023	01672-15
Rohde & Schwarz	TS-PR8	Pre-Amplifier (30MHz - 8GHz)	1/6/2022	Annual	1/6/2023	102327
Rohde & Schwarz	TS-PR18	Pre-Amplifier (1GHz - 18GHz)	1/6/2022	Annual	1/6/2023	101639
Rohde & Schwarz	TS-PR1840	Pre-Amplifier (18GHz - 40GHz)	4/18/2022	Annual	4/18/2023	100050
Rohde & Schwarz	FSW43	Signal and Spectrum Analyzer	5/19/2022	Annual	5/19/2023	104093
Rohde & Schwarz	ESW44	EMI Test Receiver	1/10/2022	Annual	1/10/2023	101867
Rohde & Schwarz	HFH2-Z2	Loop Antenna	4/13/2022	Annual	4/13/2023	100546
Rohde & Schwarz	TC-TA18	Cross Polarized Vivaldi Antenna (400MHz-18GHz)	1/25/2022	Annual	1/25/2023	101063
Virginia Diodes Inc	SAX	SAX Module (40-60 GHz)	1/12/2021	Biennial	1/12/2023	SAX 782
Virginia Diodes Inc	SAX	SAX Module (60-90 GHz)	11/25/2020	Biennial	11/25/2022	SAX 783
Virginia Diodes Inc	SAX	SAX Module (90-140 GHz)	12/2/2020	Biennial	12/2/2022	SAX 784
Virginia Diodes Inc	SAX	SAX Module (140-220 GHz)	2/3/2021	Biennial	2/3/2023	SAX 785

Table 5-1. Test Equipment

Notes:

- For equipment listed above that has a calibration date or calibration due date that falls within the test date range, care was taken to ensure that this equipment was used after the calibration date and before the calibration due date.

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6.0 SAMPLE CALCULATIONS

Emission Designator

$\pi/2$ BPSK/ QPSK Modulation

Emission Designator = 800MG7W

BW = 800 MHz

G = Phase Modulation

7 = Quantized/Digital Info

W = Combination of any

QAM Modulation

Emission Designator = 802MD7W

BW = 802 MHz

D = Amplitude/Angle Modulated

7 = Quantized/Digital Info

W = Combination of any

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7.0 TEST RESULTS

7.1 Summary

Company Name: Apple Inc.
 FCC ID: BCGA2435
 FCC Classification: Part 30 Mobile Transmitter (5GM)
 Mode(s): TDD

Test Condition	Test Description	FCC Part Section(s)	Test Limit	Test Result	Reference
RADIATED	Occupied Bandwidth	2.1049	N/A	PASS	Section 7.2
	Equivalent Isotropic Radiated Power	2.1046, 30.202	43 dBm	PASS	Section 7.3
	Spurious Emissions	2.1053, 30.203	-13 dBm/MHz for all out-of-band emissions	PASS	Section 7.4
	Out-of-Band Emissions at the Band Edge	30.203	-13 dBm/MHz for all out-of-band emissions, -5dBm/MHz from the band edge up to 10% of the channel BW	PASS	Section 7.5
	Frequency Stability	2.1055	Fundamental emissions stay within authorized frequency block over the temperature and voltage range as tested	PASS	Section 7.6

Table 7-1. Summary of Radiated Test Results

Notes:

- 1) All modes of operation and modulations were investigated. The test results shown in the following sections represent the worst case emissions.
- 2) This report contains references to "n258-R1" and "n258-R2". These correspond to n258 Range 1, operating from 24.25 – 24.45GHz, and n258 Range 2, operating from 24.75 – 25.25GHz, respectively, as defined in Part 30.4(a).
- 3) Per 2.1057(a)(2), spurious emissions were investigated up to 100GHz for n258-R1, n258-R2 and n261. Per 2.1057(a)(3), spurious emissions were investigated up to 200GHz for n260.
- 4) "CC" refers to "Component Carriers".
- 5) OEM provided worst Beam IDs using EIRP Simulation that yields highest EIRP were used for testing.
- 6) All testing was performed using non-signaling standalone mode at continuous Tx operation (100% duty cycle).
- 7) The CP-OFDM and DFT-s-OFDM transmission schemes were investigated fully for each test type and only the worst case data is included.
- 8) The analyzer plots were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables, antenna factor, and distance correction.

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7.2 Occupied Bandwidth

S2.1049

Test Overview

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured. All modes of operation were investigated and the worst case configuration results are reported in this section.

Test Procedure Used

ANSI C63.26-2015 Section 5.4.3
KDB 842590 D01 v01r02 Section 4.3

Test Settings

1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99% occupied bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = 1 – 5% of the expected OBW
3. VBW $\geq 3 \times$ RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. The trace was allowed to stabilize
8. If necessary, steps 2 – 7 were repeated after changing the RBW such that it would be within 1 – 5% of the 99% occupied bandwidth observed in Step 7

Test Notes

1. The EUT supports CP-OFDM and DFT-s-OFDM waveforms. All configurations were investigated and tabular data has been reported for all three antennas (M0, M2, M3).
2. Due to similar occupied bandwidth results between all three antennas, only Ant M0 occupied bandwidth plots have been included in this section.
3. The EUT and measurement equipment were set up as shown in the diagram in Figure 3-5.

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7.2.1 Band n258-R1

Bandwidth [MHz]	CCs Active	Channel	Frequency [MHz]	Waveform	Modulation	Beam Polarization	Beam ID	Antenna Diversity	OBW [MHz]
50	1	Mid	24349.92	CP-OFDM	QPSK	H	59	SISO	47.36
		Mid	24349.92	CP-OFDM	16QAM	H	59	SISO	47.29
		Mid	24349.92	CP-OFDM	64QAM	H	59	SISO	47.33
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	H	59	SISO	45.91
		Mid	24349.92	DFT-s-OFDM	QPSK	H	59	SISO	45.90
		Mid	24349.92	DFT-s-OFDM	16QAM	H	59	SISO	46.06
		Mid	24349.92	DFT-s-OFDM	64QAM	H	59	SISO	45.91
		Mid	24349.92	CP-OFDM	QPSK	H	59 + 187	MIMO	46.84
		Mid	24349.92	CP-OFDM	16QAM	H	59 + 187	MIMO	46.74
		Mid	24349.92	CP-OFDM	64QAM	H	59 + 187	MIMO	46.94
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	H	59 + 187	SISO Dual Pol	46.25
		Mid	24349.92	DFT-s-OFDM	QPSK	H	59 + 187	SISO Dual Pol	46.13
		Mid	24349.92	DFT-s-OFDM	16QAM	H	59 + 187	SISO Dual Pol	45.95
		Mid	24349.92	DFT-s-OFDM	64QAM	H	59 + 187	SISO Dual Pol	46.15
50+50	2	Mid	24349.92	CP-OFDM	QPSK	H	59	SISO	96.82
		Mid	24349.92	CP-OFDM	16QAM	H	59	SISO	96.60
		Mid	24349.92	CP-OFDM	64QAM	H	59	SISO	96.91
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	H	59	SISO	95.62
		Mid	24349.92	DFT-s-OFDM	QPSK	H	59	SISO	95.93
		Mid	24349.92	DFT-s-OFDM	16QAM	H	59	SISO	95.63
		Mid	24349.92	DFT-s-OFDM	64QAM	H	59	SISO	95.59
		Mid	24349.92	CP-OFDM	QPSK	H	59 + 187	MIMO	96.34
		Mid	24349.92	CP-OFDM	16QAM	H	59 + 187	MIMO	95.86
		Mid	24349.92	CP-OFDM	64QAM	H	59 + 187	MIMO	95.99
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	H	59 + 187	SISO Dual Pol	94.77
		Mid	24349.92	DFT-s-OFDM	QPSK	H	59 + 187	SISO Dual Pol	95.95
		Mid	24349.92	DFT-s-OFDM	16QAM	H	59 + 187	SISO Dual Pol	94.93
		Mid	24349.92	DFT-s-OFDM	64QAM	H	59 + 187	SISO Dual Pol	95.84
50+50+50	3	Mid	24349.92	CP-OFDM	QPSK	H	59	SISO	146.41
		Mid	24349.92	CP-OFDM	16QAM	H	59	SISO	145.95
		Mid	24349.92	CP-OFDM	64QAM	H	59	SISO	146.27
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	H	59	SISO	145.32
		Mid	24349.92	DFT-s-OFDM	QPSK	H	59	SISO	144.76
		Mid	24349.92	DFT-s-OFDM	16QAM	H	59	SISO	145.11
		Mid	24349.92	DFT-s-OFDM	64QAM	H	59	SISO	145.09
		Mid	24349.92	CP-OFDM	QPSK	H	59 + 187	MIMO	145.31
		Mid	24349.92	CP-OFDM	16QAM	H	59 + 187	MIMO	145.80
		Mid	24349.92	CP-OFDM	64QAM	H	59 + 187	MIMO	145.67
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	H	59 + 187	SISO Dual Pol	145.51
		Mid	24349.92	DFT-s-OFDM	QPSK	H	59 + 187	SISO Dual Pol	145.31
		Mid	24349.92	DFT-s-OFDM	16QAM	H	59 + 187	SISO Dual Pol	145.31
		Mid	24349.92	DFT-s-OFDM	64QAM	H	59 + 187	SISO Dual Pol	145.61
50+50+50+50	4	Mid	24349.92	CP-OFDM	QPSK	H	59	SISO	195.94
		Mid	24349.92	CP-OFDM	16QAM	H	59	SISO	196.01
		Mid	24349.92	CP-OFDM	64QAM	H	59	SISO	195.77
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	H	59	SISO	194.71
		Mid	24349.92	DFT-s-OFDM	QPSK	H	59	SISO	194.79
		Mid	24349.92	DFT-s-OFDM	16QAM	H	59	SISO	194.77
		Mid	24349.92	DFT-s-OFDM	64QAM	H	59	SISO	194.97
		Mid	24349.92	CP-OFDM	QPSK	H	59 + 187	MIMO	195.82
		Mid	24349.92	CP-OFDM	16QAM	H	59 + 187	MIMO	195.51
		Mid	24349.92	CP-OFDM	64QAM	H	59 + 187	MIMO	195.90
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	H	59 + 187	SISO Dual Pol	194.85
		Mid	24349.92	DFT-s-OFDM	QPSK	H	59 + 187	SISO Dual Pol	195.07
		Mid	24349.92	DFT-s-OFDM	16QAM	H	59 + 187	SISO Dual Pol	194.34
		Mid	24349.92	DFT-s-OFDM	64QAM	H	59 + 187	SISO Dual Pol	194.42

Table 7-2. Ant M0 Occupied Bandwidths (n258-R1 – 50MHz)

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Bandwidth (MHz)	CCs Active	Channel	Frequency [MHz]	Waveform	Modulation	Beam Polarization	Beam ID	Antenna Diversity	OBW [MHz]
100	1	Mid	24349.92	CP-OFDM	QPSK	H	59	SISO	94.68
		Mid	24349.92	CP-OFDM	16QAM	H	59	SISO	94.44
		Mid	24349.92	CP-OFDM	64QAM	H	59	SISO	94.64
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	H	59	SISO	91.83
		Mid	24349.92	DFT-s-OFDM	QPSK	H	59	SISO	91.94
		Mid	24349.92	DFT-s-OFDM	16QAM	H	59	SISO	91.87
		Mid	24349.92	DFT-s-OFDM	64QAM	H	59	SISO	91.69
		Mid	24349.92	CP-OFDM	QPSK	H	59 + 187	MIMO	93.94
		Mid	24349.92	CP-OFDM	16QAM	H	59 + 187	MIMO	94.58
		Mid	24349.92	CP-OFDM	64QAM	H	59 + 187	MIMO	94.00
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	H	59 + 187	SISO Dual Pol	92.44
		Mid	24349.92	DFT-s-OFDM	QPSK	H	59 + 187	SISO Dual Pol	91.73
		Mid	24349.92	DFT-s-OFDM	16QAM	H	59 + 187	SISO Dual Pol	92.60
		Mid	24349.92	DFT-s-OFDM	64QAM	H	59 + 187	SISO Dual Pol	92.85
100+100	2	Mid	24349.92	CP-OFDM	QPSK	H	59	SISO	193.96
		Mid	24349.92	CP-OFDM	16QAM	H	59	SISO	193.73
		Mid	24349.92	CP-OFDM	64QAM	H	59	SISO	193.80
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	H	59	SISO	190.99
		Mid	24349.92	DFT-s-OFDM	QPSK	H	59	SISO	191.57
		Mid	24349.92	DFT-s-OFDM	16QAM	H	59	SISO	191.61
		Mid	24349.92	DFT-s-OFDM	64QAM	H	59	SISO	191.05
		Mid	24349.92	CP-OFDM	QPSK	H	59 + 187	MIMO	193.23
		Mid	24349.92	CP-OFDM	16QAM	H	59 + 187	MIMO	192.78
		Mid	24349.92	CP-OFDM	64QAM	H	59 + 187	MIMO	193.23
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	H	59 + 187	SISO Dual Pol	191.92
		Mid	24349.92	DFT-s-OFDM	QPSK	H	59 + 187	SISO Dual Pol	192.51
		Mid	24349.92	DFT-s-OFDM	16QAM	H	59 + 187	SISO Dual Pol	191.92
		Mid	24349.92	DFT-s-OFDM	64QAM	H	59 + 187	SISO Dual Pol	191.76

Table 7-3. Ant M0 Occupied Bandwidths (n258-R1 – 100MHz)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Bandwidth (MHz)	CCs Active	Channel	Frequency [MHz]	Waveform	Modulation	Beam Polarization	Beam ID	Antenna Diversity	OBW [MHz]
50	1	Mid	24349.92	CP-OFDM	QPSK	V	50	SISO	47.31
		Mid	24349.92	CP-OFDM	16QAM	V	50	SISO	47.31
		Mid	24349.92	CP-OFDM	64QAM	V	50	SISO	47.15
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	50	SISO	45.93
		Mid	24349.92	DFT-s-OFDM	QPSK	V	50	SISO	45.74
		Mid	24349.92	DFT-s-OFDM	16QAM	V	50	SISO	46.03
		Mid	24349.92	DFT-s-OFDM	64QAM	V	50	SISO	45.90
		Mid	24349.92	CP-OFDM	QPSK	V	50 + 178	MIMO	46.83
		Mid	24349.92	CP-OFDM	16QAM	V	50 + 178	MIMO	46.70
		Mid	24349.92	CP-OFDM	64QAM	V	50 + 178	MIMO	46.66
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	50 + 178	SISO Dual Pol	44.78
		Mid	24349.92	DFT-s-OFDM	QPSK	V	50 + 178	SISO Dual Pol	44.76
50+50	2	Mid	24349.92	DFT-s-OFDM	16QAM	V	50 + 178	SISO Dual Pol	44.44
		Mid	24349.92	DFT-s-OFDM	64QAM	V	50 + 178	SISO Dual Pol	44.57
		Mid	24349.92	CP-OFDM	QPSK	V	50	SISO	96.95
		Mid	24349.92	CP-OFDM	16QAM	V	50	SISO	97.14
		Mid	24349.92	CP-OFDM	64QAM	V	50	SISO	96.87
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	50	SISO	95.42
		Mid	24349.92	DFT-s-OFDM	QPSK	V	50	SISO	95.69
		Mid	24349.92	DFT-s-OFDM	16QAM	V	50	SISO	95.89
		Mid	24349.92	DFT-s-OFDM	64QAM	V	50	SISO	95.79
		Mid	24349.92	CP-OFDM	QPSK	V	50 + 178	MIMO	95.94
		Mid	24349.92	CP-OFDM	16QAM	V	50 + 178	MIMO	95.92
		Mid	24349.92	CP-OFDM	64QAM	V	50 + 178	MIMO	95.55
50+50+50	3	Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	50 + 178	SISO Dual Pol	95.31
		Mid	24349.92	DFT-s-OFDM	QPSK	V	50 + 178	SISO Dual Pol	95.41
		Mid	24349.92	DFT-s-OFDM	16QAM	V	50 + 178	SISO Dual Pol	94.66
		Mid	24349.92	DFT-s-OFDM	64QAM	V	50 + 178	SISO Dual Pol	94.57
		Mid	24349.92	CP-OFDM	QPSK	V	50	SISO	146.12
		Mid	24349.92	CP-OFDM	16QAM	V	50	SISO	146.60
		Mid	24349.92	CP-OFDM	64QAM	V	50	SISO	146.28
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	50	SISO	145.00
		Mid	24349.92	DFT-s-OFDM	QPSK	V	50	SISO	145.35
		Mid	24349.92	DFT-s-OFDM	16QAM	V	50	SISO	145.53
		Mid	24349.92	DFT-s-OFDM	64QAM	V	50	SISO	145.79
		Mid	24349.92	CP-OFDM	QPSK	V	50 + 178	MIMO	145.33
50+50+50+50	4	Mid	24349.92	CP-OFDM	16QAM	V	50 + 178	MIMO	145.63
		Mid	24349.92	CP-OFDM	64QAM	V	50 + 178	MIMO	145.74
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	50 + 178	SISO Dual Pol	143.29
		Mid	24349.92	DFT-s-OFDM	QPSK	V	50 + 178	SISO Dual Pol	143.61
		Mid	24349.92	DFT-s-OFDM	16QAM	V	50 + 178	SISO Dual Pol	143.34
		Mid	24349.92	DFT-s-OFDM	64QAM	V	50 + 178	SISO Dual Pol	143.92
		Mid	24349.92	CP-OFDM	QPSK	V	50	SISO	196.03
		Mid	24349.92	CP-OFDM	16QAM	V	50	SISO	196.52
		Mid	24349.92	CP-OFDM	64QAM	V	50	SISO	196.32
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	50	SISO	194.53
		Mid	24349.92	DFT-s-OFDM	QPSK	V	50	SISO	195.11
		Mid	24349.92	DFT-s-OFDM	16QAM	V	50	SISO	194.63
		Mid	24349.92	DFT-s-OFDM	64QAM	V	50	SISO	194.51
		Mid	24349.92	CP-OFDM	QPSK	V	50 + 178	MIMO	194.41
		Mid	24349.92	CP-OFDM	16QAM	V	50 + 178	MIMO	194.97
		Mid	24349.92	CP-OFDM	64QAM	V	50 + 178	MIMO	194.72
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	50 + 178	SISO Dual Pol	193.63
		Mid	24349.92	DFT-s-OFDM	QPSK	V	50 + 178	SISO Dual Pol	192.87
		Mid	24349.92	DFT-s-OFDM	16QAM	V	50 + 178	SISO Dual Pol	193.31
		Mid	24349.92	DFT-s-OFDM	64QAM	V	50 + 178	SISO Dual Pol	193.85

Table 7-4. Ant M2 Occupied Bandwidths (n258-R1 – 50MHz)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device		Page 22 of 999

Bandwidth (MHz)	CCs Active	Channel	Frequency [MHz]	Waveform	Modulation	Beam Polarization	Beam ID	Antenna Diversity	OBW [MHz]
100	1	Mid	24349.92	CP-OFDM	QPSK	V	50	SISO	94.54
		Mid	24349.92	CP-OFDM	16QAM	V	50	SISO	94.49
		Mid	24349.92	CP-OFDM	64QAM	V	50	SISO	94.51
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	50	SISO	91.91
		Mid	24349.92	DFT-s-OFDM	QPSK	V	50	SISO	91.66
		Mid	24349.92	DFT-s-OFDM	16QAM	V	50	SISO	91.67
		Mid	24349.92	DFT-s-OFDM	64QAM	V	50	SISO	91.63
		Mid	24349.92	CP-OFDM	QPSK	V	50 + 178	MIMO	94.71
		Mid	24349.92	CP-OFDM	16QAM	V	50 + 178	MIMO	94.83
		Mid	24349.92	CP-OFDM	64QAM	V	50 + 178	MIMO	94.54
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	50 + 178	SISO Dual Pol	92.51
		Mid	24349.92	DFT-s-OFDM	QPSK	V	50 + 178	SISO Dual Pol	92.11
		Mid	24349.92	DFT-s-OFDM	16QAM	V	50 + 178	SISO Dual Pol	92.32
100+100	2	Mid	24349.92	DFT-s-OFDM	64QAM	V	50 + 178	SISO Dual Pol	92.38
		Mid	24349.92	CP-OFDM	QPSK	V	50	SISO	193.65
		Mid	24349.92	CP-OFDM	16QAM	V	50	SISO	193.85
		Mid	24349.92	CP-OFDM	64QAM	V	50	SISO	194.11
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	50	SISO	191.33
		Mid	24349.92	DFT-s-OFDM	QPSK	V	50	SISO	191.42
		Mid	24349.92	DFT-s-OFDM	16QAM	V	50	SISO	191.55
		Mid	24349.92	DFT-s-OFDM	64QAM	V	50	SISO	191.47
		Mid	24349.92	CP-OFDM	QPSK	V	50 + 178	MIMO	192.62
		Mid	24349.92	CP-OFDM	16QAM	V	50 + 178	MIMO	194.96
		Mid	24349.92	CP-OFDM	64QAM	V	50 + 178	MIMO	194.19
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	50 + 178	SISO Dual Pol	191.07
		Mid	24349.92	DFT-s-OFDM	QPSK	V	50 + 178	SISO Dual Pol	190.95
		Mid	24349.92	DFT-s-OFDM	16QAM	V	50 + 178	SISO Dual Pol	190.99
		Mid	24349.92	DFT-s-OFDM	64QAM	V	50 + 178	SISO Dual Pol	191.11

Table 7-5. Ant M2 Occupied Bandwidths (n258-R1 – 100MHz)

FCC ID: BCGA2435	 PART 30 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 23 of 999

Bandwidth (MHz)	CCs Active	Channel	Frequency [MHz]	Waveform	Modulation	Beam Polarization	Beam ID	Antenna Diversity	OBW [MHz]
50	1	Mid	24349.92	CP-OFDM	QPSK	V	55	SISO	47.43
		Mid	24349.92	CP-OFDM	16QAM	V	55	SISO	47.39
		Mid	24349.92	CP-OFDM	64QAM	V	55	SISO	47.34
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	55	SISO	46.13
		Mid	24349.92	DFT-s-OFDM	QPSK	V	55	SISO	45.87
		Mid	24349.92	DFT-s-OFDM	16QAM	V	55	SISO	45.72
		Mid	24349.92	DFT-s-OFDM	64QAM	V	55	SISO	45.97
		Mid	24349.92	CP-OFDM	QPSK	V	55 + 183	MIMO	45.33
		Mid	24349.92	CP-OFDM	16QAM	V	55 + 183	MIMO	45.61
		Mid	24349.92	CP-OFDM	64QAM	V	55 + 183	MIMO	45.11
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	55 + 183	SISO Dual Pol	44.51
		Mid	24349.92	DFT-s-OFDM	QPSK	V	55 + 183	SISO Dual Pol	44.59
		Mid	24349.92	DFT-s-OFDM	16QAM	V	55 + 183	SISO Dual Pol	44.28
50+50	2	Mid	24349.92	DFT-s-OFDM	64QAM	V	55 + 183	SISO Dual Pol	44.65
		Mid	24349.92	CP-OFDM	QPSK	V	55	SISO	96.95
		Mid	24349.92	CP-OFDM	16QAM	V	55	SISO	96.95
		Mid	24349.92	CP-OFDM	64QAM	V	55	SISO	97.20
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	55	SISO	95.69
		Mid	24349.92	DFT-s-OFDM	QPSK	V	55	SISO	95.75
		Mid	24349.92	DFT-s-OFDM	16QAM	V	55	SISO	95.43
		Mid	24349.92	DFT-s-OFDM	64QAM	V	55	SISO	95.63
		Mid	24349.92	CP-OFDM	QPSK	V	55 + 183	MIMO	95.10
		Mid	24349.92	CP-OFDM	16QAM	V	55 + 183	MIMO	94.61
		Mid	24349.92	CP-OFDM	64QAM	V	55 + 183	MIMO	95.34
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	55 + 183	SISO Dual Pol	94.91
		Mid	24349.92	DFT-s-OFDM	QPSK	V	55 + 183	SISO Dual Pol	94.92
50+50+50	3	Mid	24349.92	DFT-s-OFDM	16QAM	V	55 + 183	SISO Dual Pol	94.80
		Mid	24349.92	DFT-s-OFDM	64QAM	V	55 + 183	SISO Dual Pol	95.18
		Mid	24349.92	CP-OFDM	QPSK	V	55	SISO	146.35
		Mid	24349.92	CP-OFDM	16QAM	V	55	SISO	146.40
		Mid	24349.92	CP-OFDM	64QAM	V	55	SISO	146.41
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	55	SISO	145.16
		Mid	24349.92	DFT-s-OFDM	QPSK	V	55	SISO	145.71
		Mid	24349.92	DFT-s-OFDM	16QAM	V	55	SISO	145.23
		Mid	24349.92	DFT-s-OFDM	64QAM	V	55	SISO	145.02
		Mid	24349.92	CP-OFDM	QPSK	V	55 + 183	MIMO	143.83
		Mid	24349.92	CP-OFDM	16QAM	V	55 + 183	MIMO	143.83
		Mid	24349.92	CP-OFDM	64QAM	V	55 + 183	MIMO	143.68
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	55 + 183	SISO Dual Pol	144.56
50+50+50+50	4	Mid	24349.92	DFT-s-OFDM	QPSK	V	55 + 183	SISO Dual Pol	144.48
		Mid	24349.92	DFT-s-OFDM	16QAM	V	55 + 183	SISO Dual Pol	144.68
		Mid	24349.92	DFT-s-OFDM	64QAM	V	55 + 183	SISO Dual Pol	144.78
		Mid	24349.92	CP-OFDM	QPSK	V	55	SISO	195.97
		Mid	24349.92	CP-OFDM	16QAM	V	55	SISO	196.36
		Mid	24349.92	CP-OFDM	64QAM	V	55	SISO	196.24
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	55	SISO	194.90
		Mid	24349.92	DFT-s-OFDM	QPSK	V	55	SISO	194.51
		Mid	24349.92	DFT-s-OFDM	16QAM	V	55	SISO	194.72
		Mid	24349.92	DFT-s-OFDM	64QAM	V	55	SISO	194.51
		Mid	24349.92	CP-OFDM	QPSK	V	55 + 183	MIMO	193.41
		Mid	24349.92	CP-OFDM	16QAM	V	55 + 183	MIMO	193.53
		Mid	24349.92	CP-OFDM	64QAM	V	55 + 183	MIMO	194.12
50+50+50+50	4	Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	55 + 183	SISO Dual Pol	194.83
		Mid	24349.92	DFT-s-OFDM	QPSK	V	55 + 183	SISO Dual Pol	194.95
		Mid	24349.92	DFT-s-OFDM	16QAM	V	55 + 183	SISO Dual Pol	194.62
50+50+50+50	4	Mid	24349.92	DFT-s-OFDM	64QAM	V	55 + 183	SISO Dual Pol	195.18

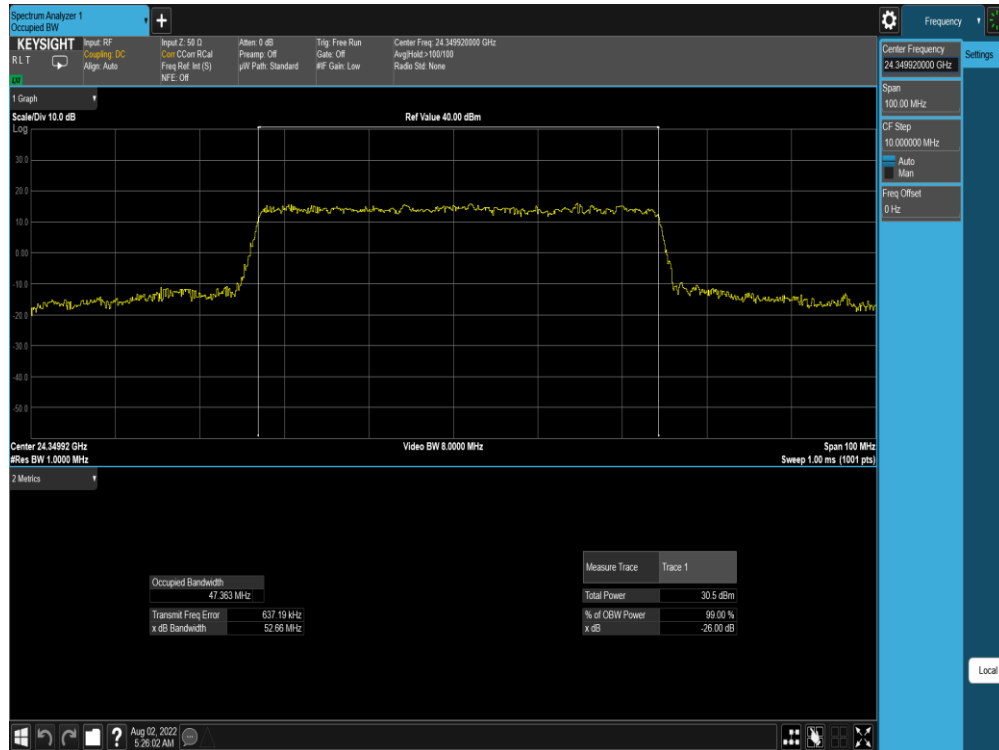
Table 7-6. Ant M3 Occupied Bandwidths (n258-R1 – 50MHz)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 24 of 999

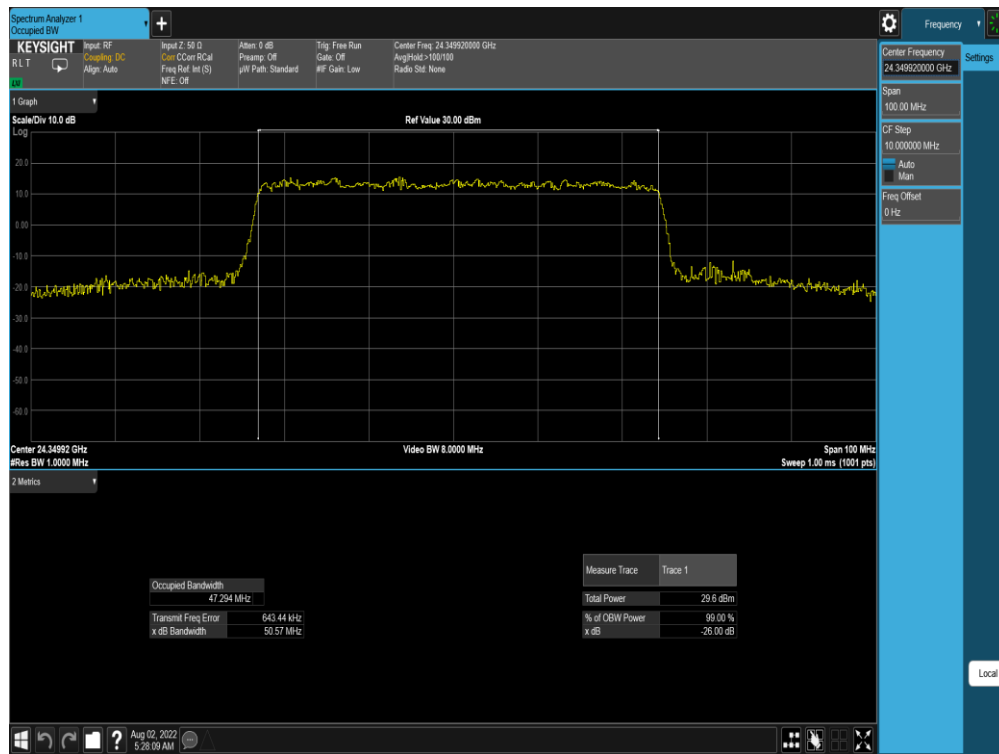
Bandwidth [MHz]	CCs Active	Channel	Frequency [MHz]	Waveform	Modulation	Beam Polarization	Beam ID	Antenna Diversity	OBW [MHz]
100	1	Mid	24349.92	CP-OFDM	QPSK	V	55	SISO	94.60
		Mid	24349.92	CP-OFDM	16QAM	V	55	SISO	94.65
		Mid	24349.92	CP-OFDM	64QAM	V	55	SISO	94.81
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	55	SISO	91.87
		Mid	24349.92	DFT-s-OFDM	QPSK	V	55	SISO	91.68
		Mid	24349.92	DFT-s-OFDM	16QAM	V	55	SISO	91.52
		Mid	24349.92	DFT-s-OFDM	64QAM	V	55	SISO	91.84
		Mid	24349.92	CP-OFDM	QPSK	V	55 + 183	MIMO	93.90
		Mid	24349.92	CP-OFDM	16QAM	V	55 + 183	MIMO	93.78
		Mid	24349.92	CP-OFDM	64QAM	V	55 + 183	MIMO	94.00
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	55 + 183	SISO Dual Pol	92.31
		Mid	24349.92	DFT-s-OFDM	QPSK	V	55 + 183	SISO Dual Pol	92.33
		Mid	24349.92	DFT-s-OFDM	16QAM	V	55 + 183	SISO Dual Pol	92.19
100+100	2	Mid	24349.92	DFT-s-OFDM	64QAM	V	55 + 183	SISO Dual Pol	92.31
		Mid	24349.92	CP-OFDM	QPSK	V	55	SISO	193.60
		Mid	24349.92	CP-OFDM	16QAM	V	55	SISO	193.86
		Mid	24349.92	CP-OFDM	64QAM	V	55	SISO	194.01
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	55	SISO	191.13
		Mid	24349.92	DFT-s-OFDM	QPSK	V	55	SISO	191.28
		Mid	24349.92	DFT-s-OFDM	16QAM	V	55	SISO	191.30
		Mid	24349.92	DFT-s-OFDM	64QAM	V	55	SISO	191.82
		Mid	24349.92	CP-OFDM	QPSK	V	55 + 183	MIMO	192.74
		Mid	24349.92	CP-OFDM	16QAM	V	55 + 183	MIMO	193.37
		Mid	24349.92	CP-OFDM	64QAM	V	55 + 183	MIMO	193.71
		Mid	24349.92	DFT-s-OFDM	$\pi/2$ BPSK	V	55 + 183	SISO Dual Pol	191.87
		Mid	24349.92	DFT-s-OFDM	QPSK	V	55 + 183	SISO Dual Pol	192.00
		Mid	24349.92	DFT-s-OFDM	16QAM	V	55 + 183	SISO Dual Pol	191.92
		Mid	24349.92	DFT-s-OFDM	64QAM	V	55 + 183	SISO Dual Pol	192.11

Table 7-7. Ant M3 Occupied Bandwidths (n258-R1 – 100MHz)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device		Page 25 of 999

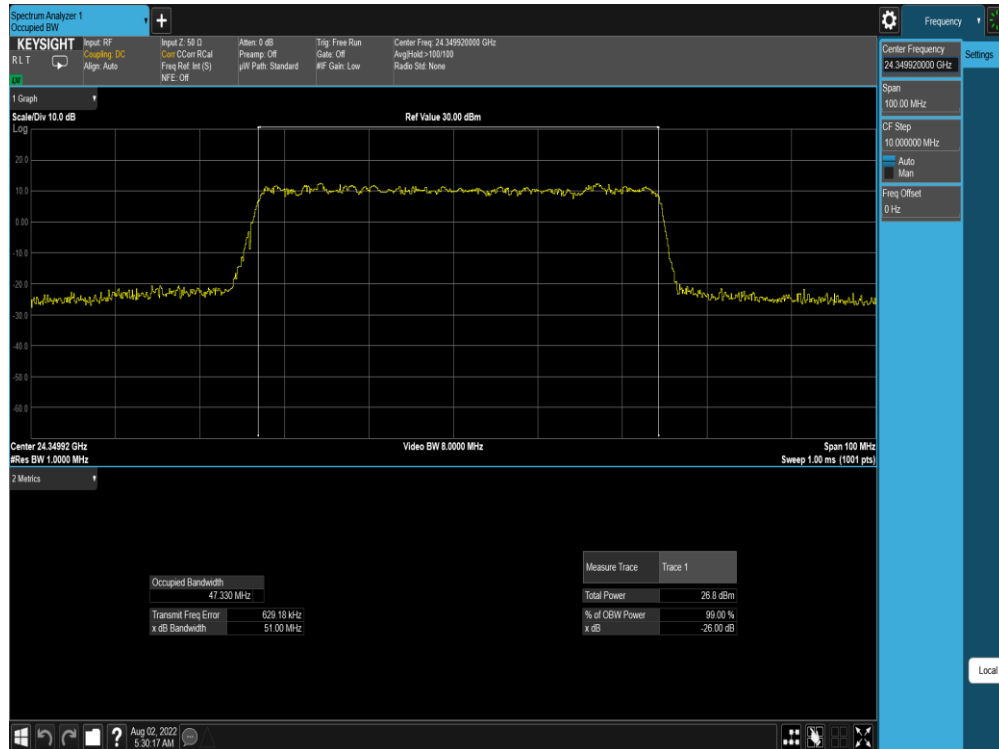


Plot 7-1. Ant M0 OBW (Band n258-R1-50MHz-1CC SISO CP-OFDM – QPSK – Mid Channel)

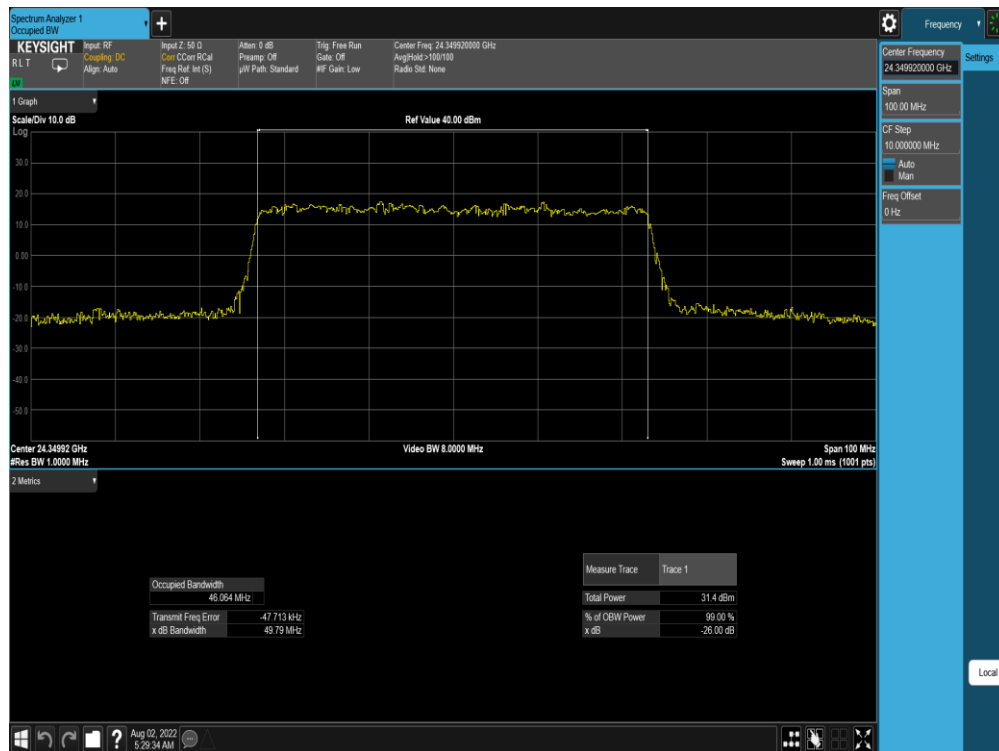
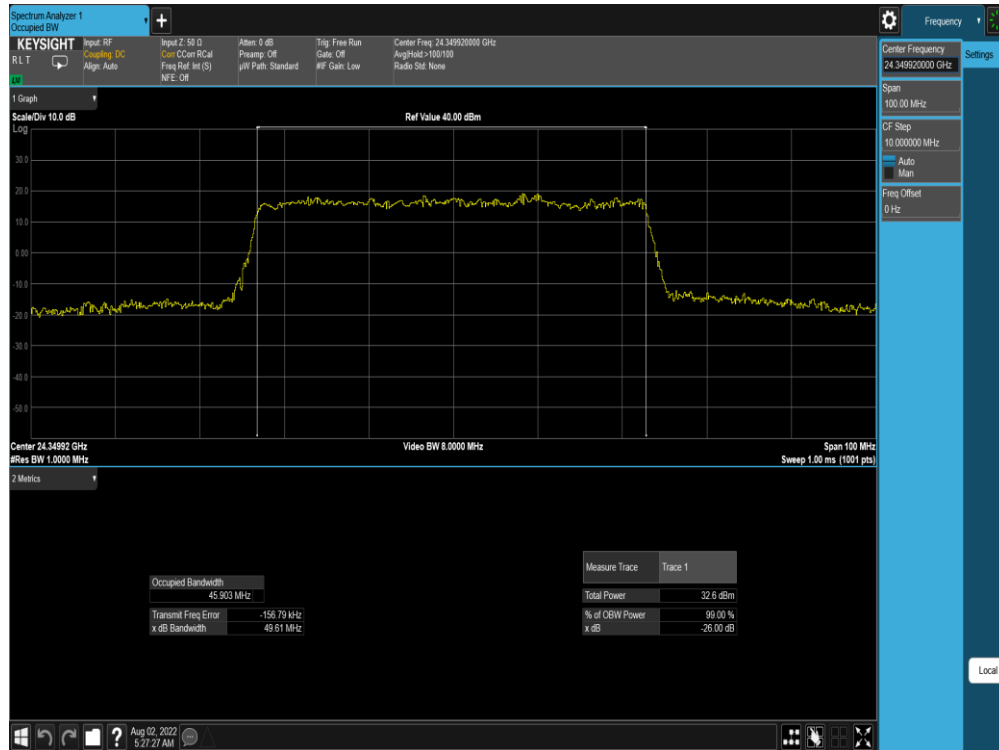


Plot 7-2. Ant M0 OBW (Band n258-R1-50MHz-1CC SISO CP-OFDM – 16QAM – Mid Channel)

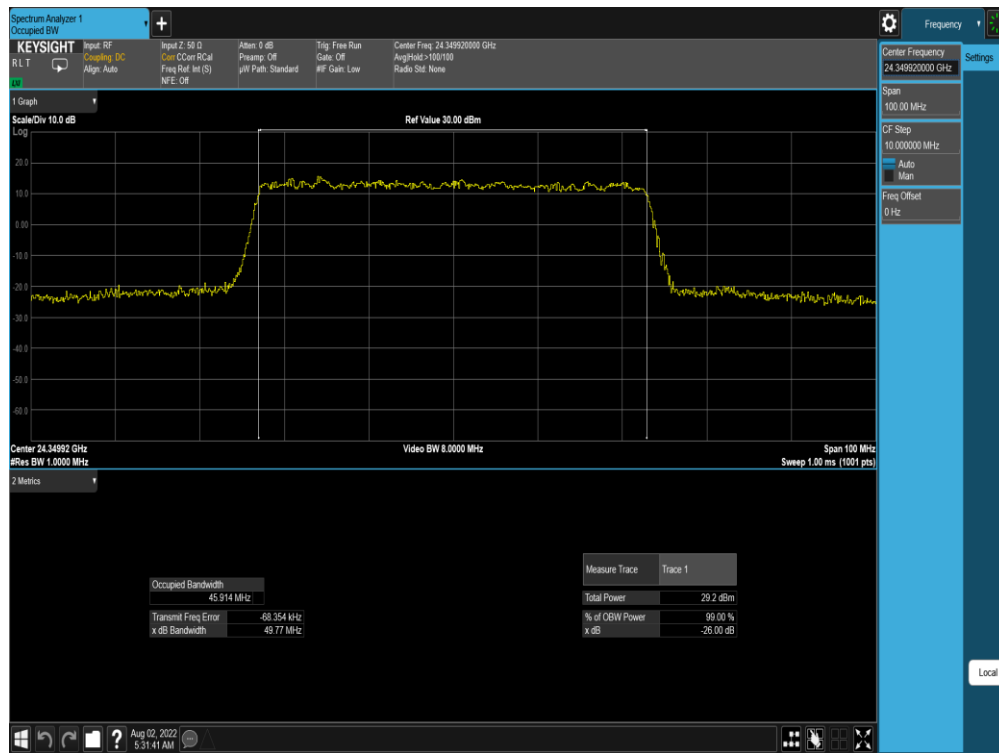
FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 26 of 999



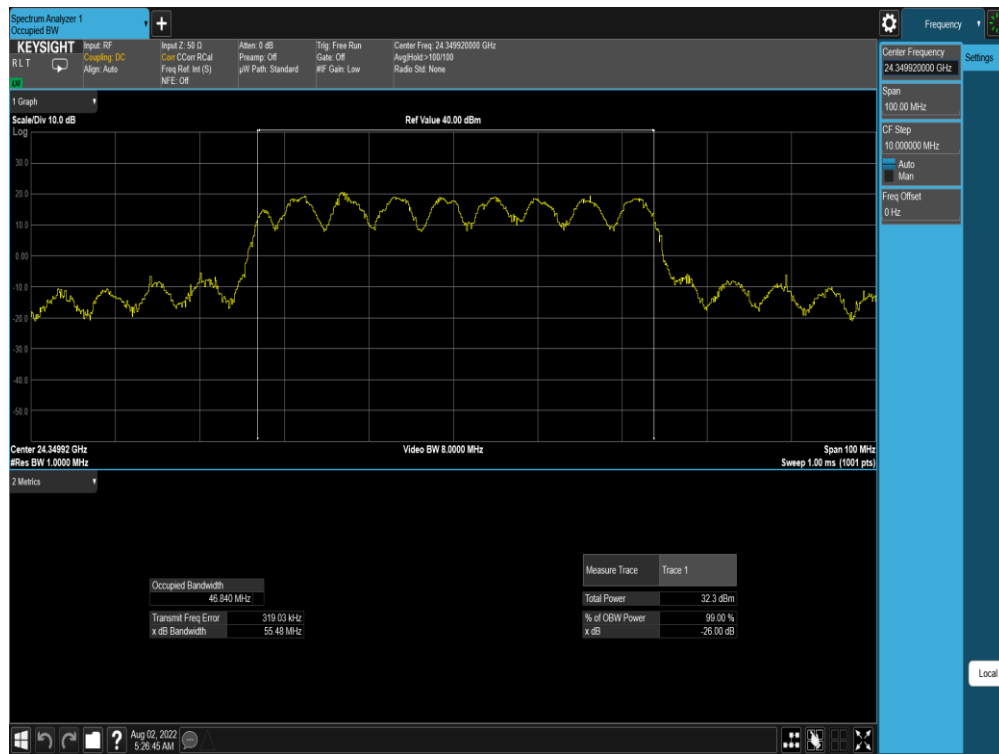
FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 27 of 999



FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 28 of 999



Plot 7-7. Ant M0 OBW (Band n258-R1-50MHz-1CC SISO DFTs-OFDM – 64QAM – Mid Channel)

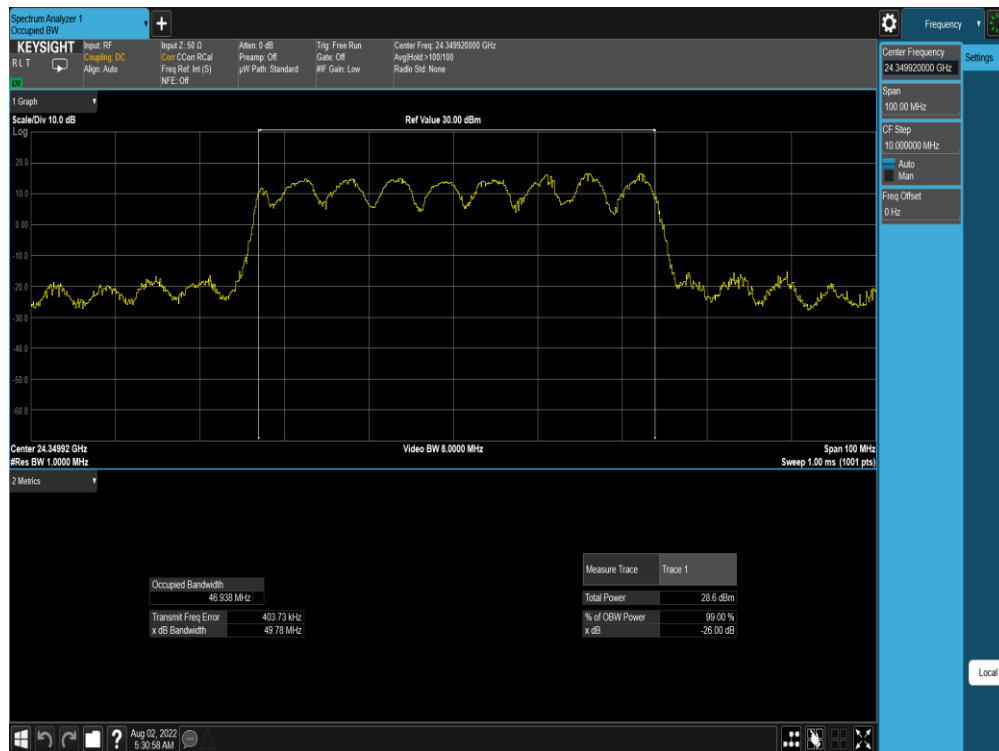


Plot 7-8. Ant M0 OBW (Band n258-R1-50MHz-1CC MIMO CP-OFDM – QPSK – Mid Channel)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 29 of 999

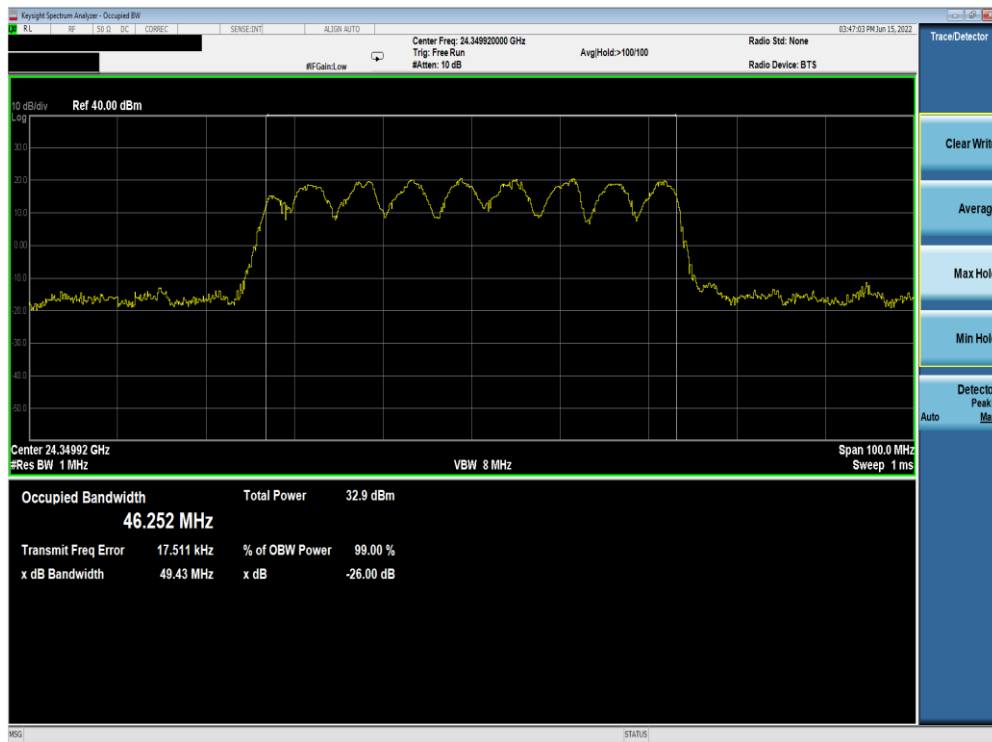


Plot 7-9. Ant M0 OBW (Band n258-R1-50MHz-1CC MIMO CP-OFDM – 16QAM – Mid Channel)

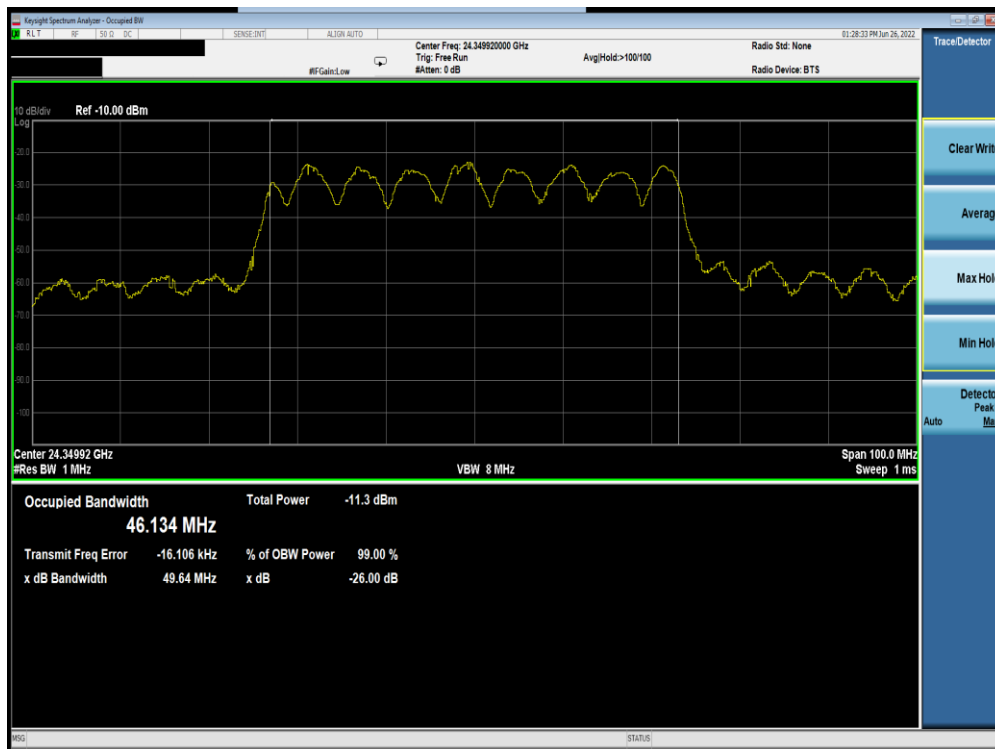


Plot 7-10. Ant M0 OBW (Band n258-R1-50MHz-1CC MIMO CP-OFDM – 64QAM – Mid Channel)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device		Page 30 of 999

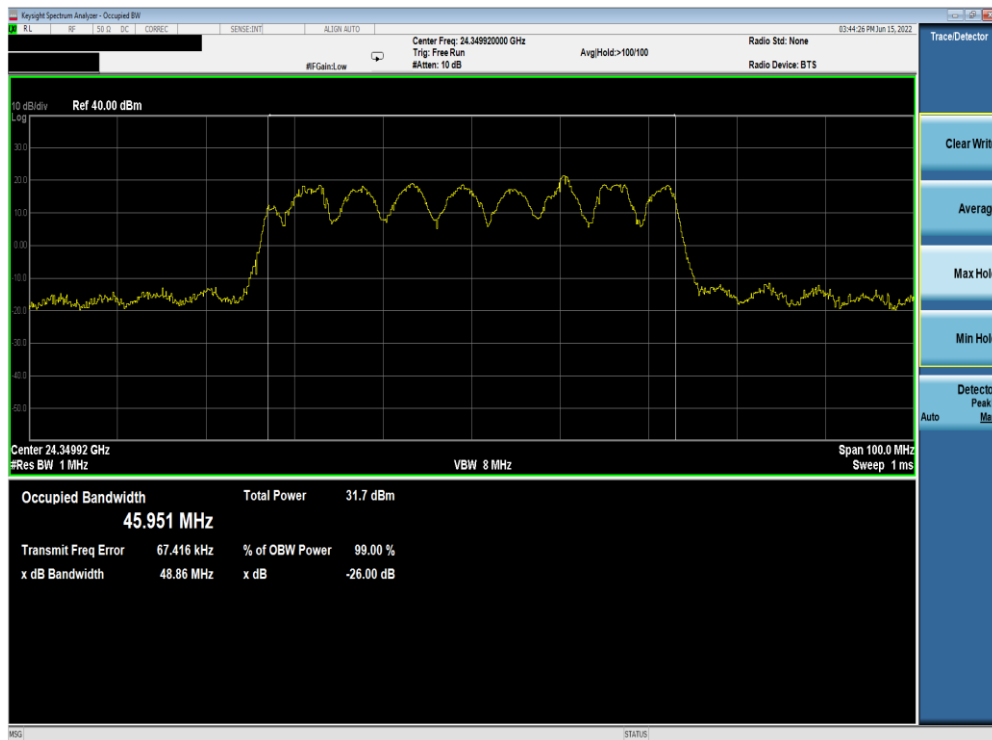


Plot 7-11. Ant M0 OBW (Band n258-R1-50MHz-1CC SISO Dual Pol DFTs-OFDM – $\pi/2$ BPSK – Mid Channel)



Plot 7-12. Ant M0 OBW (Band n258-R1-50MHz-1CC SISO Dual Pol DFTs-OFDM – QPSK – Mid Channel)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 31 of 999

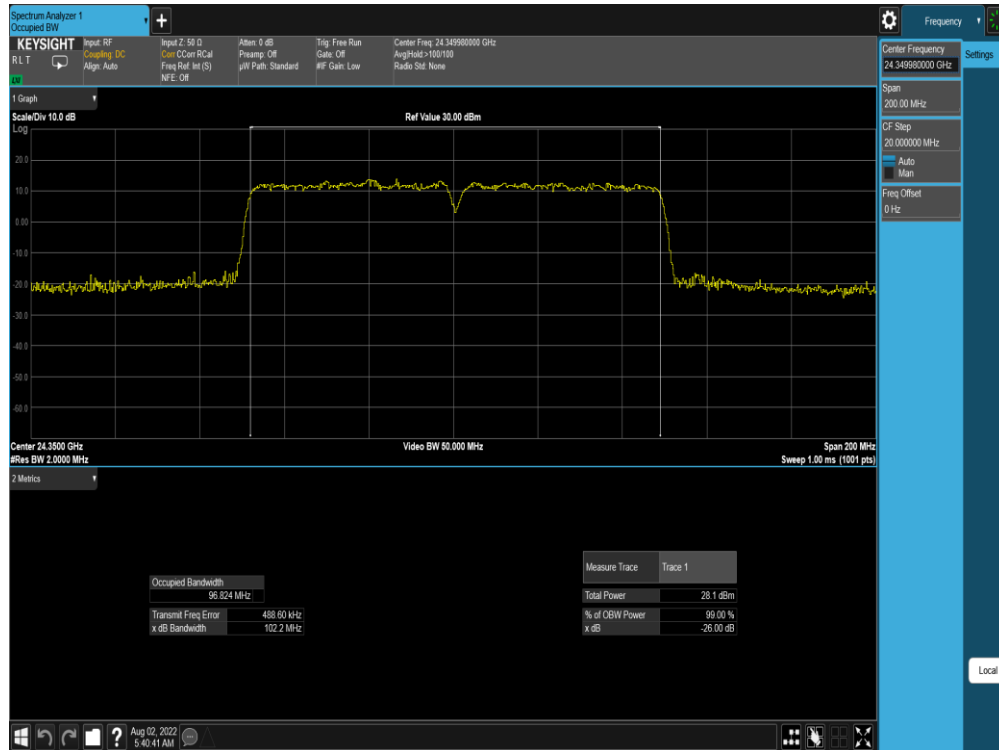


Plot 7-13. Ant M0 OBW (Band n258-R1-50MHz-1CC SISO Dual Pol DFTs-OFDM – 16QAM – Mid Channel)



Plot 7-14. Ant M0 OBW (Band n258-R1-50MHz-1CC SISO Dual Pol DFTs-OFDM – 64QAM – Mid Channel)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 32 of 999

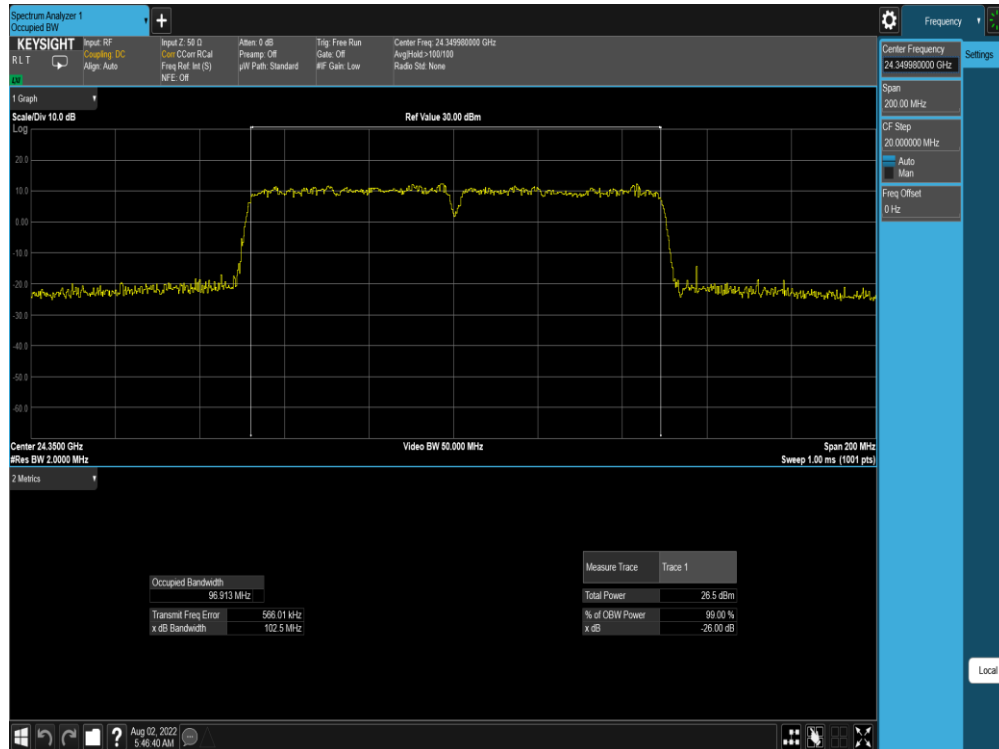


Plot 7-15. Ant M0 OBW (Band n258-R1-50MHz-2CC SISO CP-OFDM – QPSK – Mid Channel)

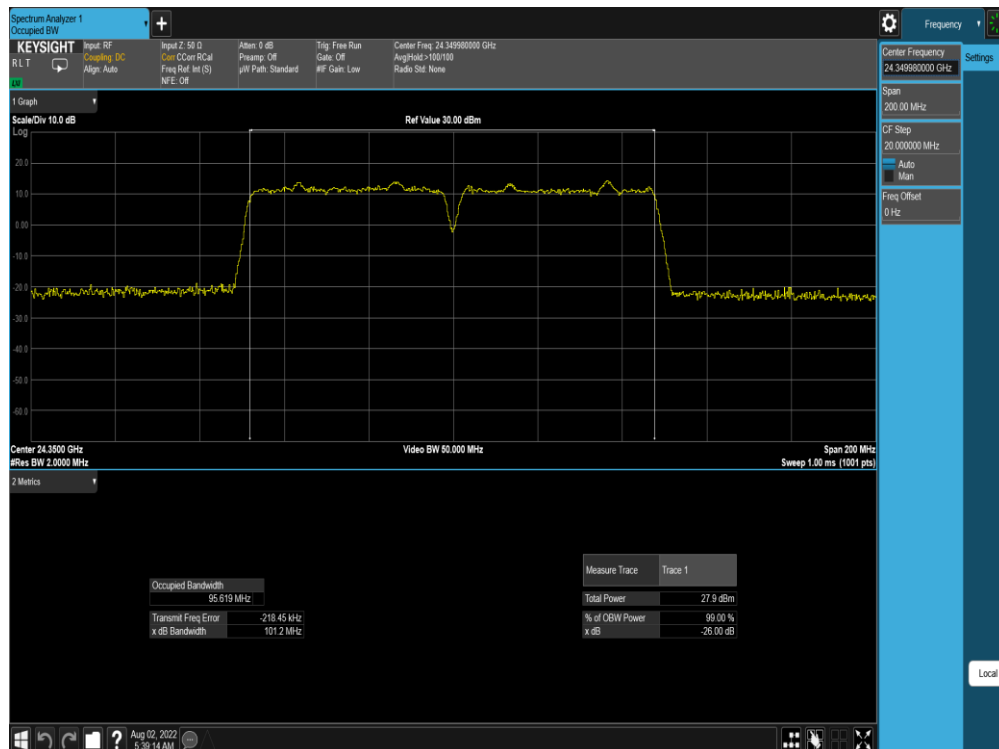


Plot 7-16. Ant M0 OBW (Band n258-R1-50MHz-2CC SISO CP-OFDM – 16QAM – Mid Channel)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 33 of 999

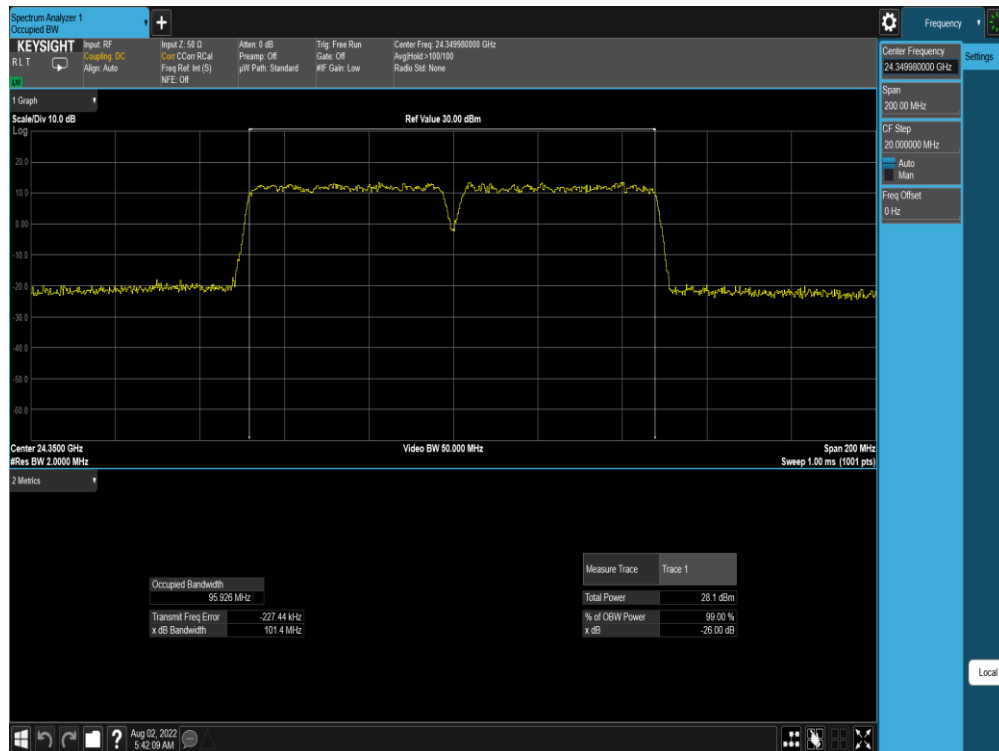


Plot 7-17. Ant M0 OBW (Band n258-R1-50MHz-2CC SISO CP-OFDM – 64QAM – Mid Channel)



Plot 7-18. Ant M0 OBW (Band n258-R1-50MHz-2CC SISO DFTs-OFDM – $\pi/2$ BPSK – Mid Channel)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 34 of 999	

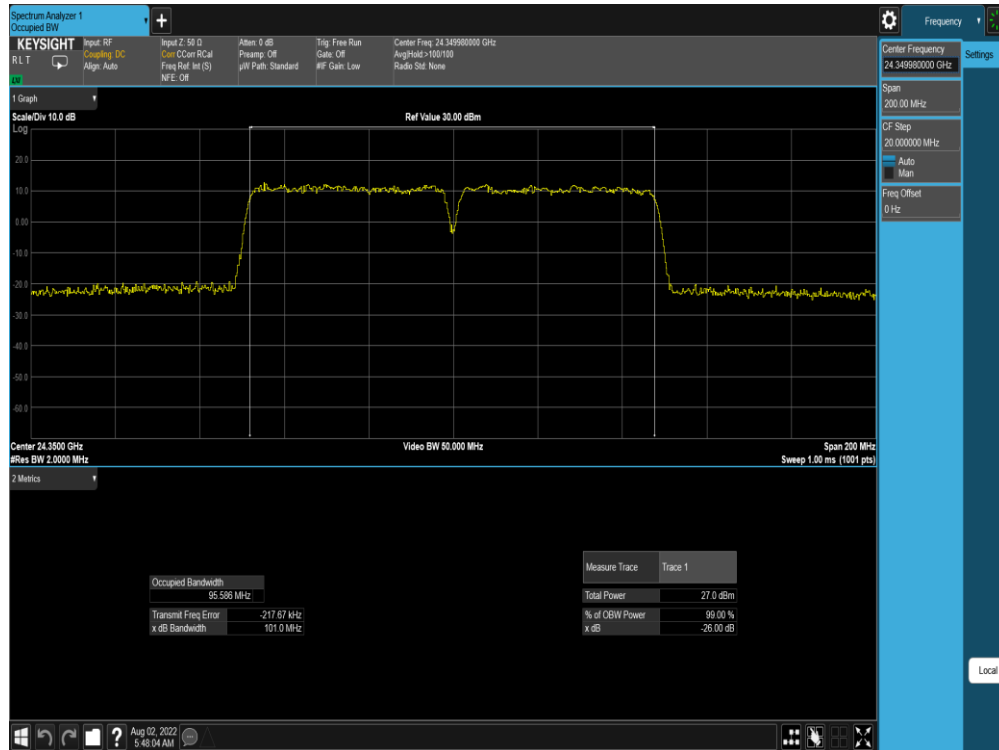


Plot 7-19. Ant M0 OBW (Band n258-R1-50MHz-2CC SISO DFTs-OFDM – QPSK – Mid Channel)



Plot 7-20. Ant M0 OBW (Band n258-R1-50MHz-2CC SISO DFTs-OFDM – 16QAM – Mid Channel)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 35 of 999



Plot 7-21. Ant M0 OBW (Band n258-R1-50MHz-2CC SISO DFTs-OFDM – 64QAM – Mid Channel)



Plot 7-22. Ant M0 OBW (Band n258-R1-50MHz-2CC MIMO CP-OFDM – QPSK – Mid Channel)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 36 of 999



Plot 7-23. Ant M0 OBW (Band n258-R1-50MHz-2CC MIMO CP-OFDM – 16QAM – Mid Channel)



Plot 7-24. Ant M0 OBW (Band n258-R1-50MHz-2CC MIMO CP-OFDM – 64QAM – Mid Channel)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 37 of 999



FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 38 of 999	

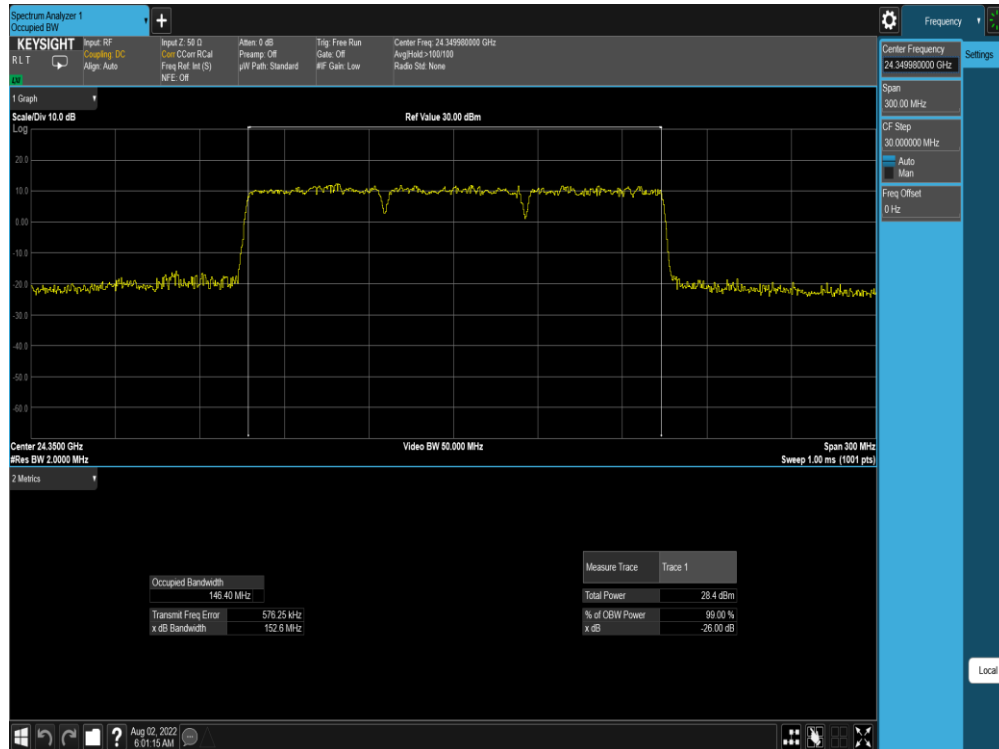


Plot 7-27. Ant M0 OBW (Band n258-R1-50MHz-2CC SISO Dual Pol DFTs-OFDM – 16QAM – Mid Channel)

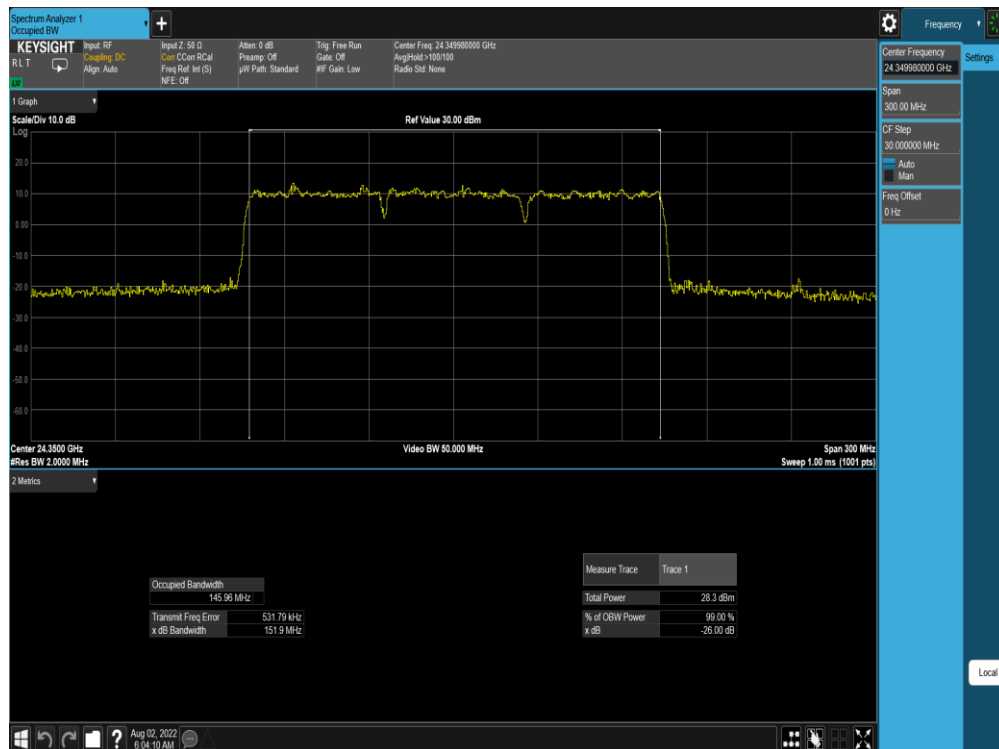


Plot 7-28. Ant M0 OBW (Band n258-R1-50MHz-2CC SISO Dual Pol DFTs-OFDM – 64QAM – Mid Channel)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
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Plot 7-29. Ant M0 OBW (Band n258-R1-50MHz-3CC SISO CP-OFDM – QPSK – Mid Channel)

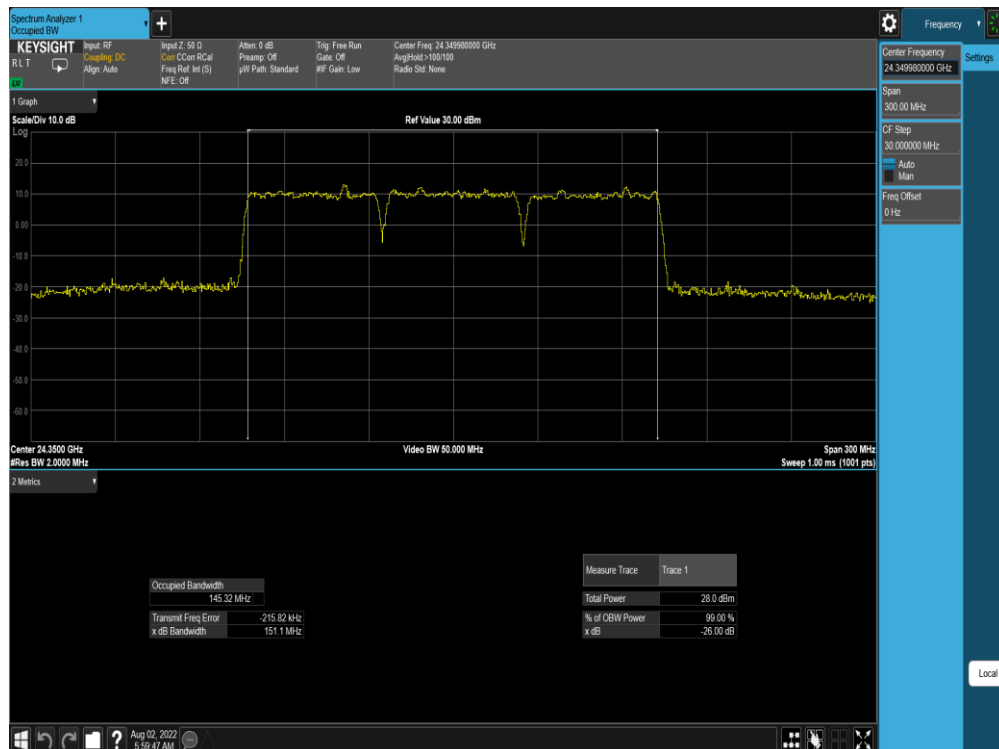


Plot 7-30. Ant M0 OBW (Band n258-R1-50MHz-3CC SISO CP-OFDM – 16QAM – Mid Channel)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 40 of 999

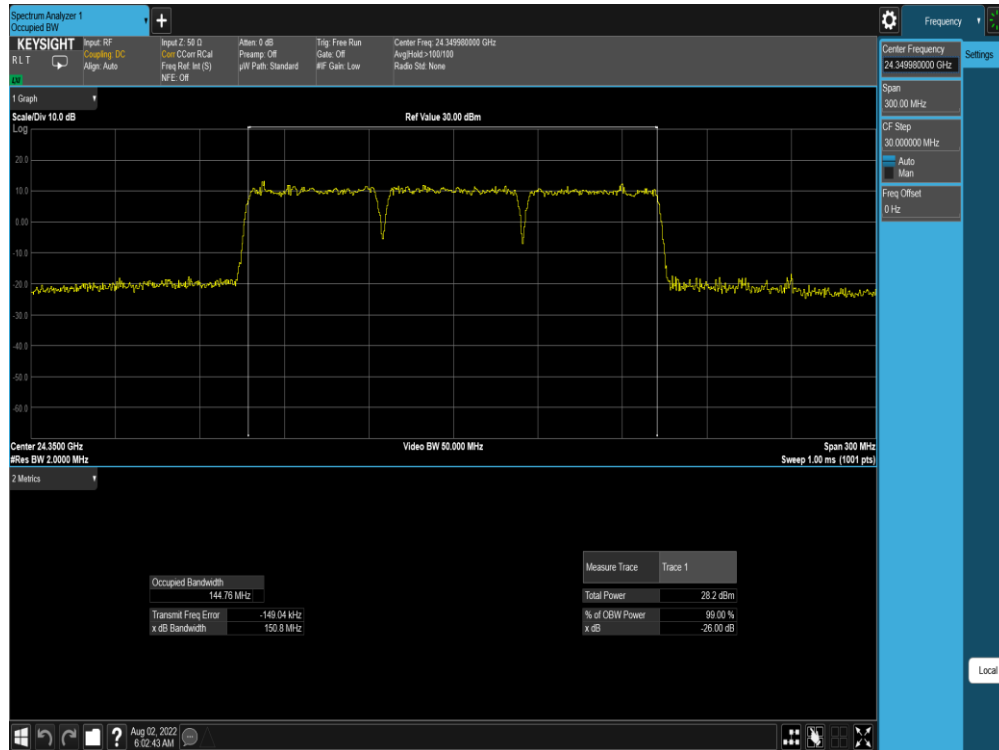


Plot 7-31. Ant M0 OBW (Band n258-R1-50MHz-3CC SISO CP-OFDM – 64QAM – Mid Channel)

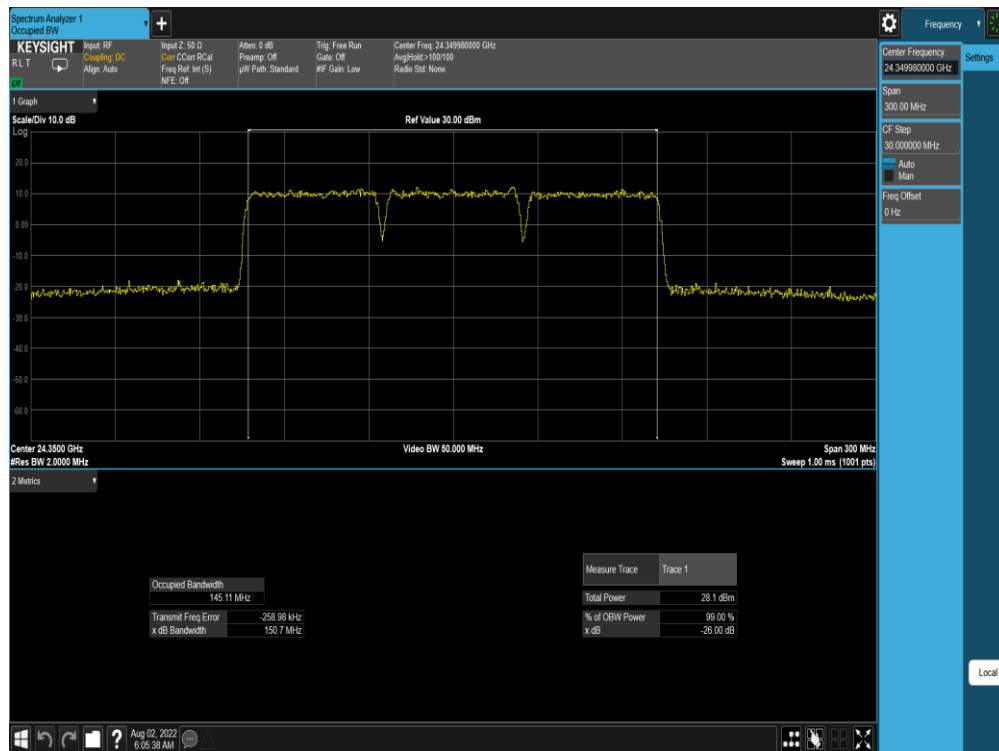


Plot 7-32. Ant M0 OBW (Band n258-R1-50MHz-3CC SISO DFTs-OFDM – $\pi/2$ BPSK – Mid Channel)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 41 of 999	

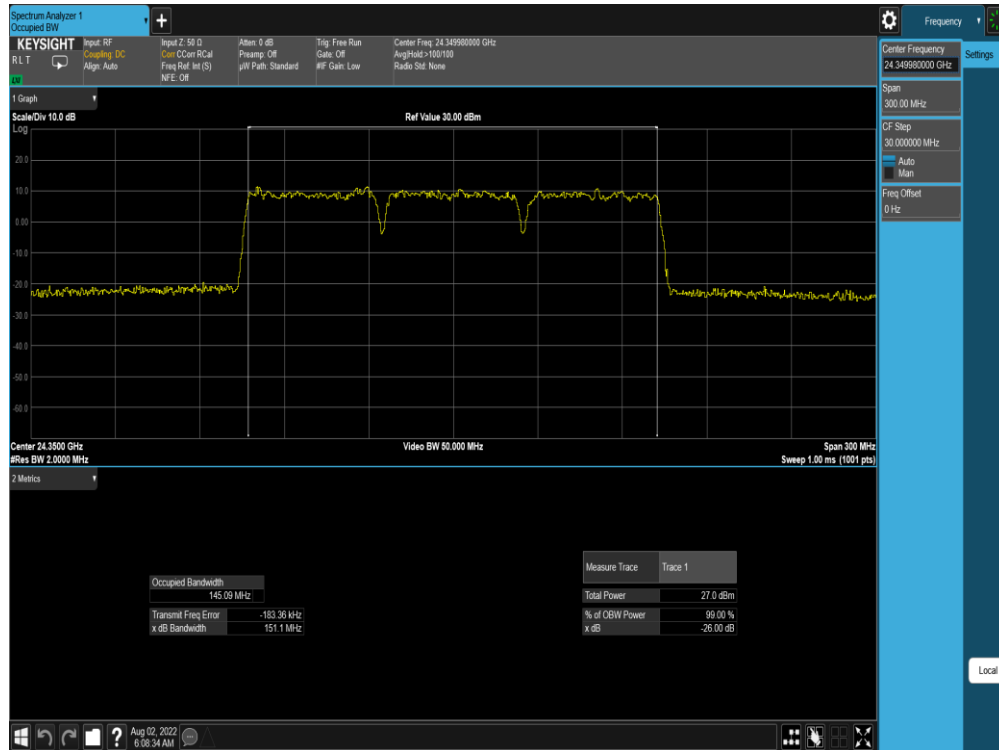


Plot 7-33. Ant M0 OBW (Band n258-R1-50MHz-3CC SISO DFTs-OFDM – QPSK – Mid Channel)



Plot 7-34. Ant M0 OBW (Band n258-R1-50MHz-3CC SISO DFTs-OFDM – 16QAM – Mid Channel)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
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Plot 7-35. Ant M0 OBW (Band n258-R1-50MHz-3CC SISO DFTs-OFDM – 64QAM – Mid Channel)



Plot 7-36. Ant M0 OBW (Band n258-R1-50MHz-3CC MIMO CP-OFDM – QPSK – Mid Channel)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 43 of 999

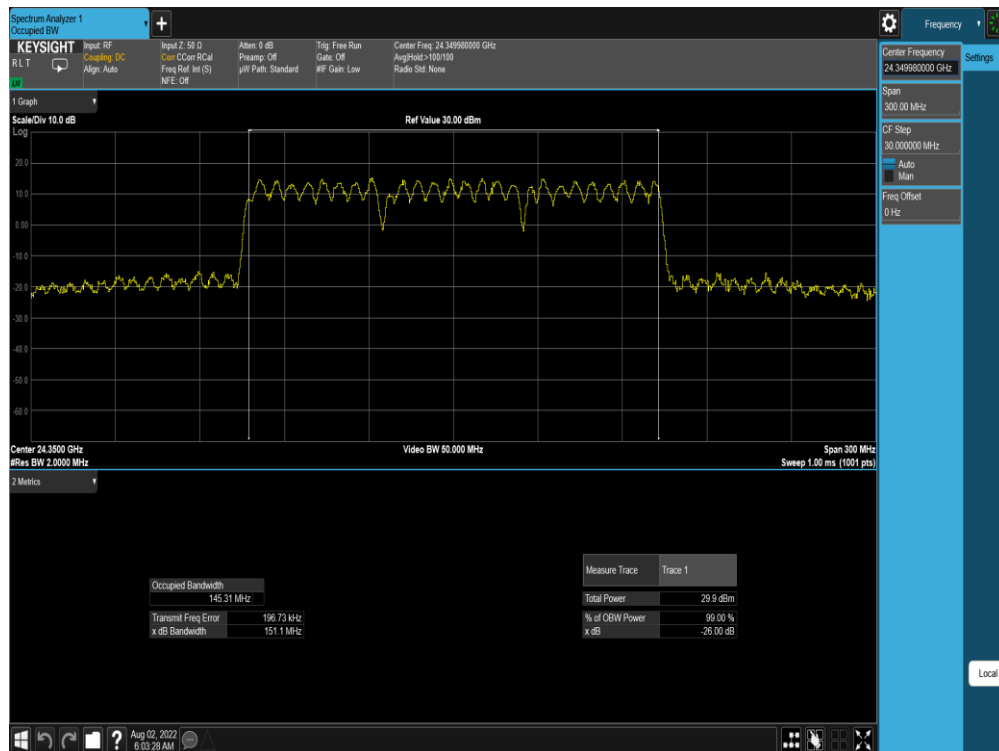


Plot 7-37. Ant M0 OBW (Band n258-R1-50MHz-3CC MIMO CP-OFDM – 16QAM – Mid Channel)



Plot 7-38. Ant M0 OBW (Band n258-R1-50MHz-3CC MIMO CP-OFDM – 64QAM – Mid Channel)

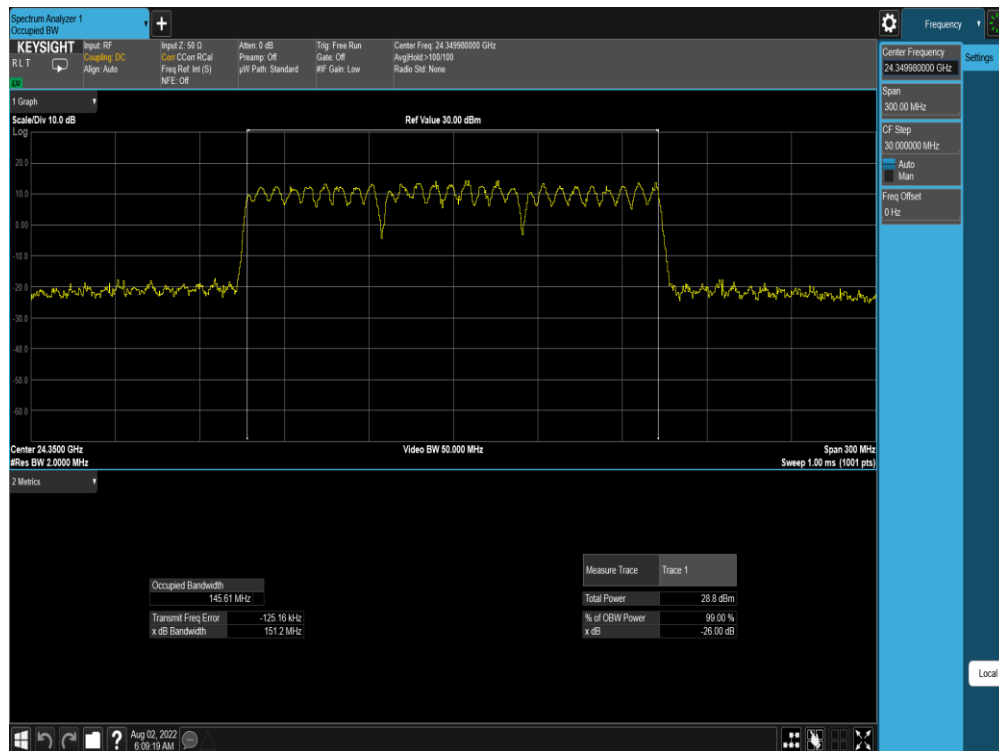
FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 44 of 999



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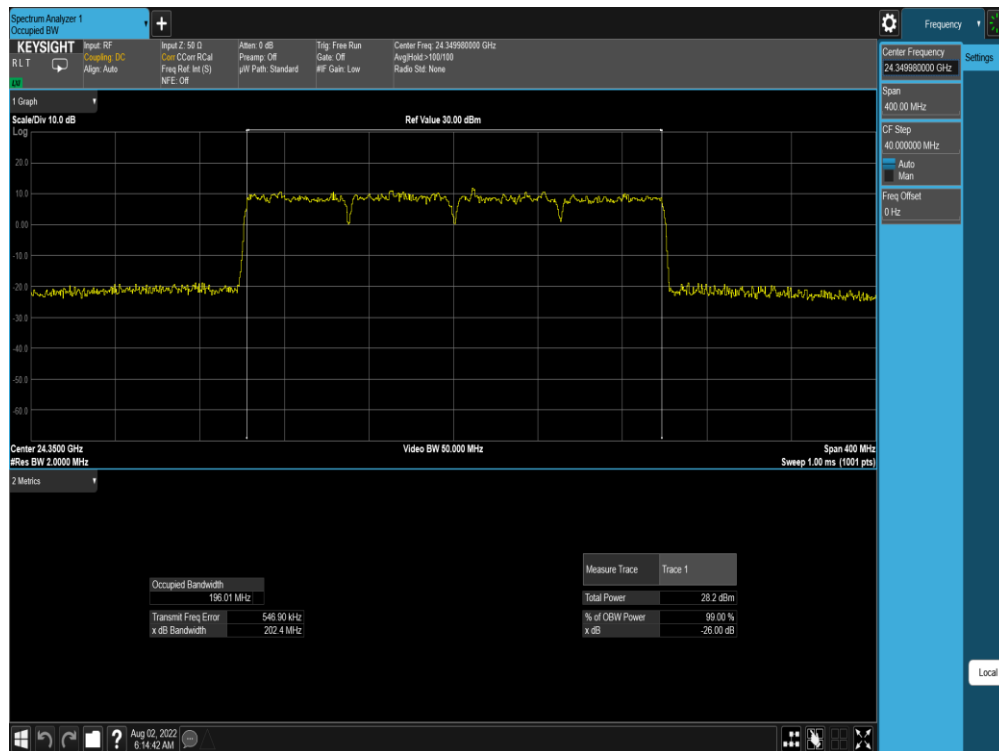
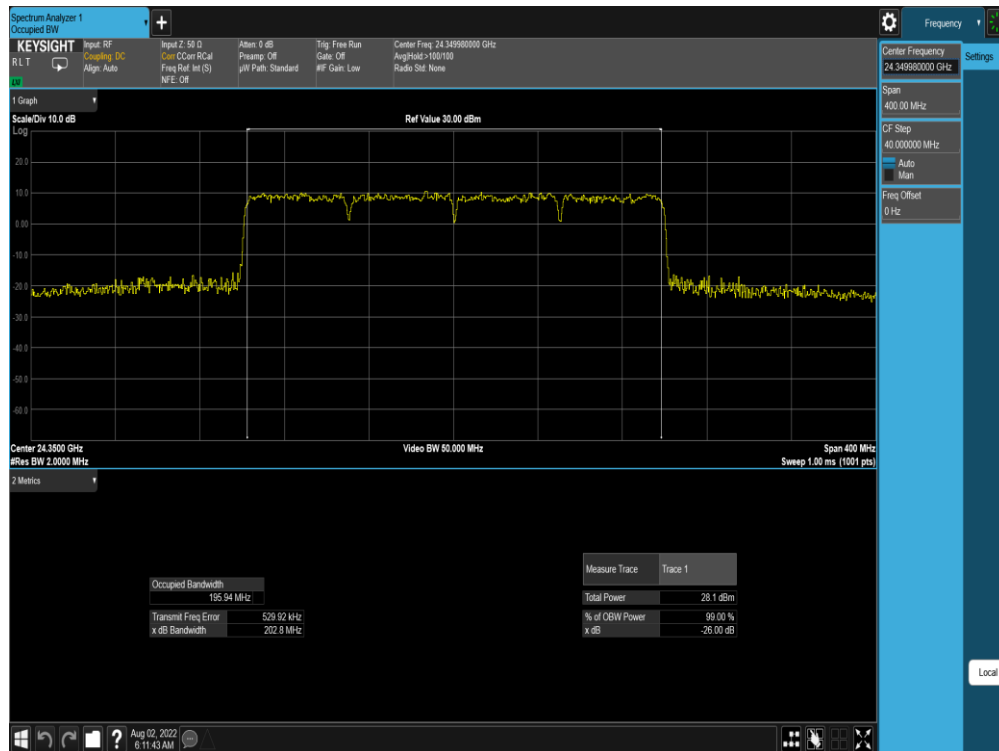


Plot 7-41. Ant M0 OBW (Band n258-R1-50MHz-3CC SISO Dual Pol DFTs-OFDM – 16QAM – Mid Channel)

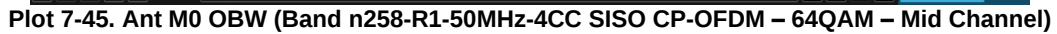


Plot 7-42. Ant M0 OBW (Band n258-R1-50MHz-3CC SISO Dual Pol DFTs-OFDM – 64QAM – Mid Channel)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
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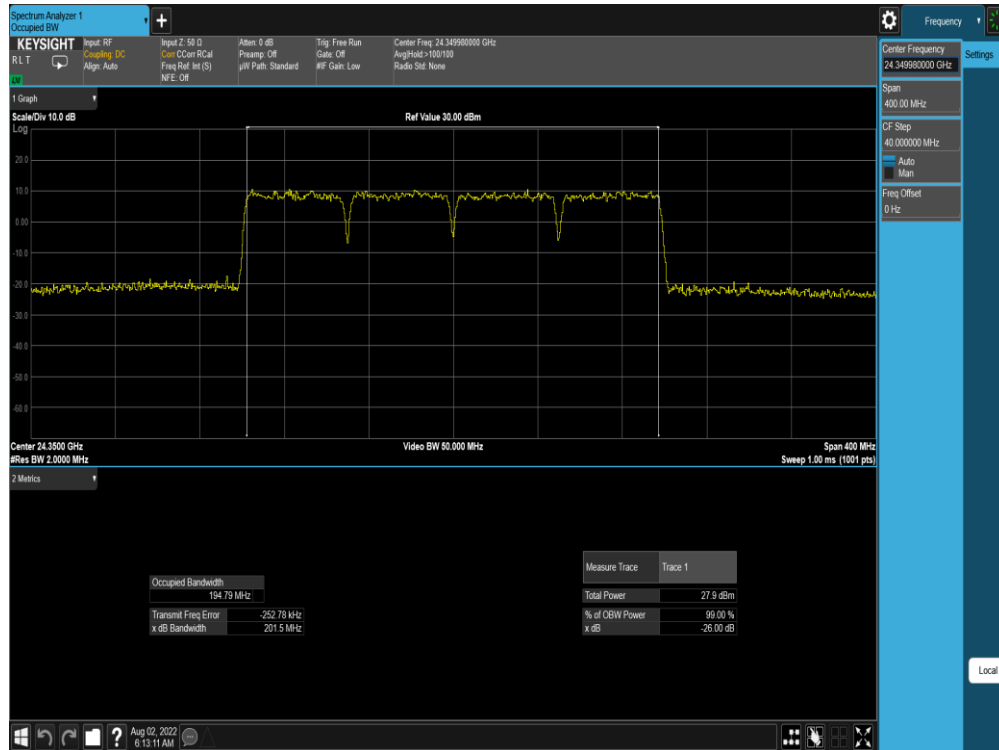


FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device		Page 47 of 999

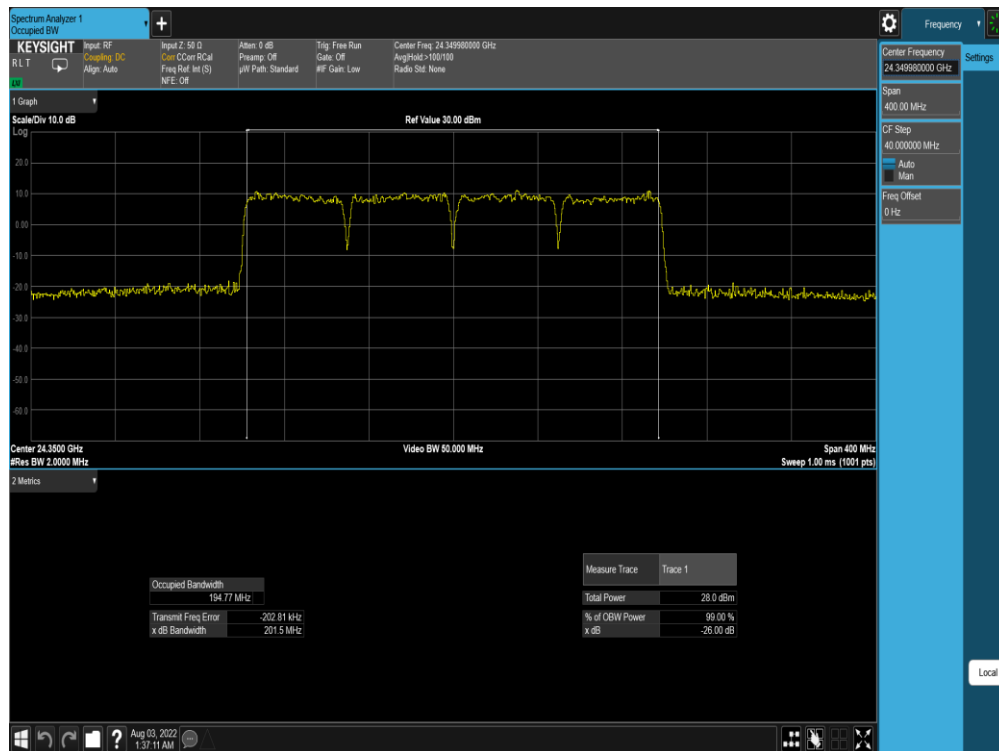


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Plot 7-47. Ant M0 OBW (Band n258-R1-50MHz-4CC SISO DFTs-OFDM – QPSK – Mid Channel)

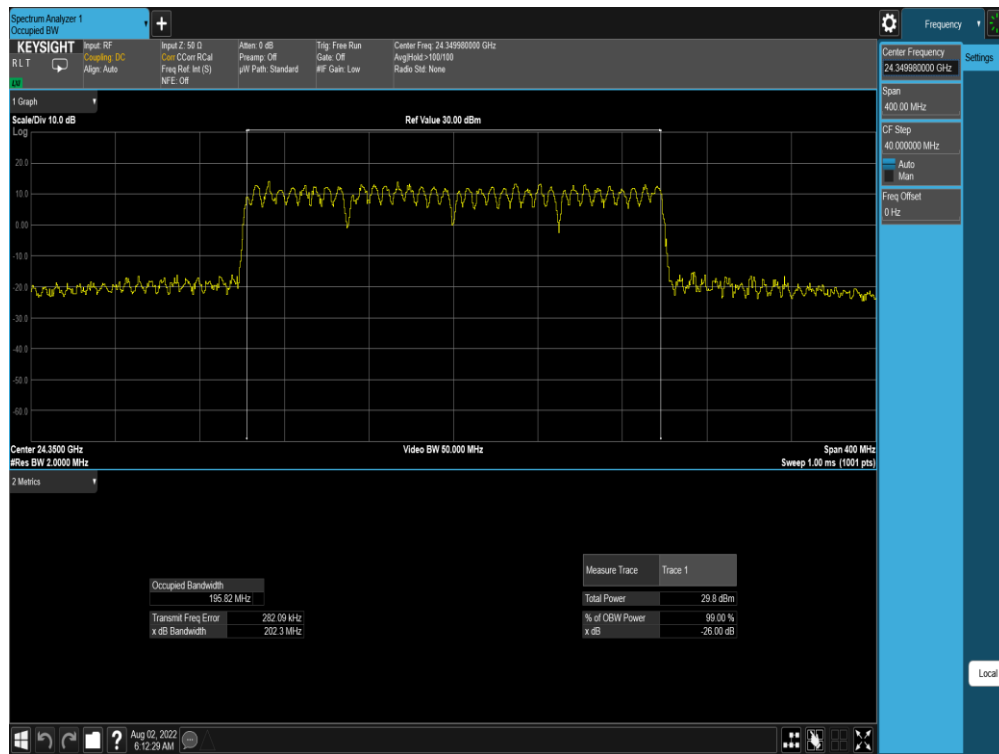


Plot 7-48. Ant M0 OBW (Band n258-R1-50MHz-4CC SISO DFTs-OFDM – 16QAM – Mid Channel)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 49 of 999



Plot 7-49. Ant M0 OBW (Band n258-R1-50MHz-4CC SISO DFTs-OFDM – 64QAM – Mid Channel)

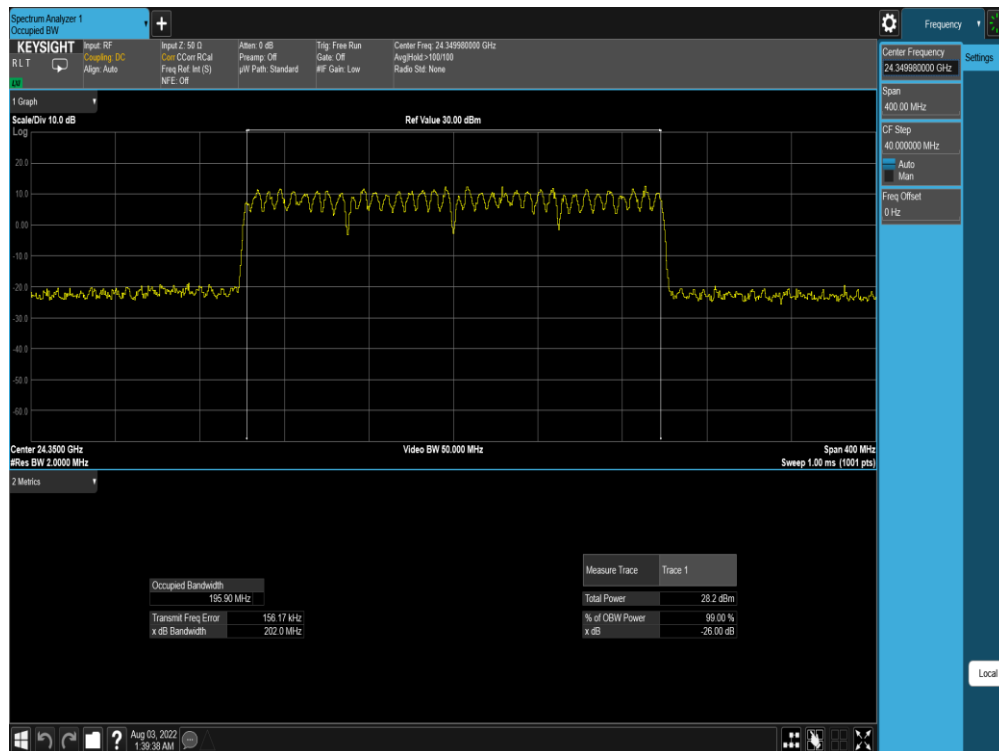


Plot 7-50. Ant M0 OBW (Band n258-R1-50MHz-4CC MIMO CP-OFDM – QPSK – Mid Channel)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090025-06-R1.BCG	Test Dates: 5/30/2022 – 9/16/2022	EUT Type: Tablet Device	Page 50 of 999

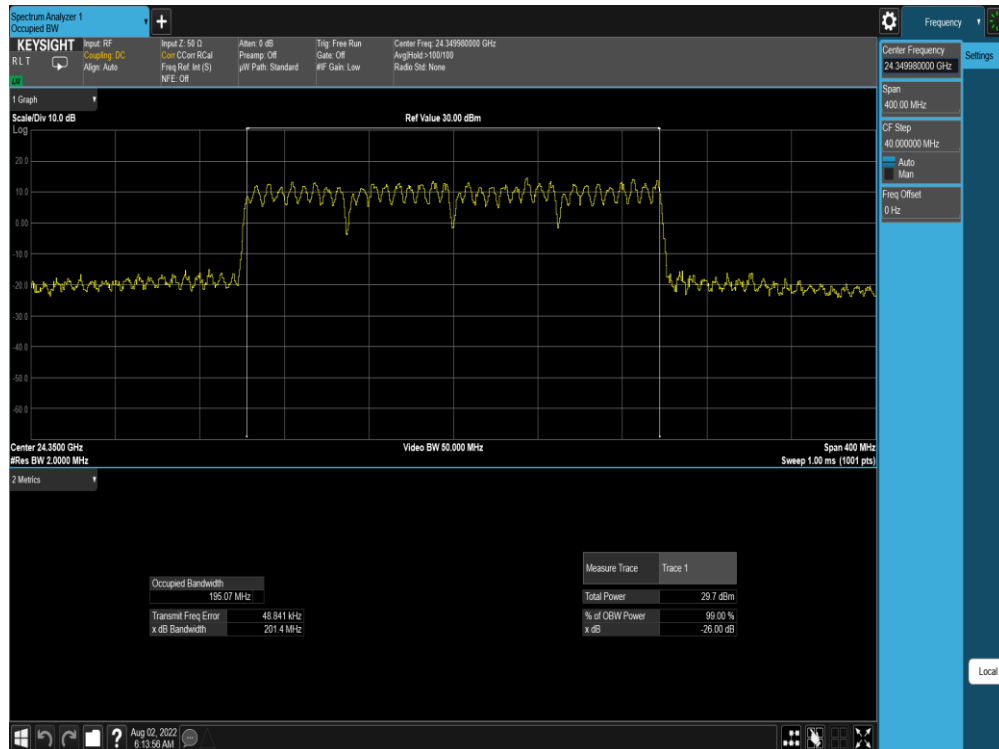


Plot 7-51. Ant M0 OBW (Band n258-R1-50MHz-4CC MIMO CP-OFDM – 16QAM – Mid Channel)



Plot 7-52. Ant M0 OBW (Band n258-R1-50MHz-4CC MIMO CP-OFDM – 64QAM – Mid Channel)

FCC ID: BCGA2435		PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
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