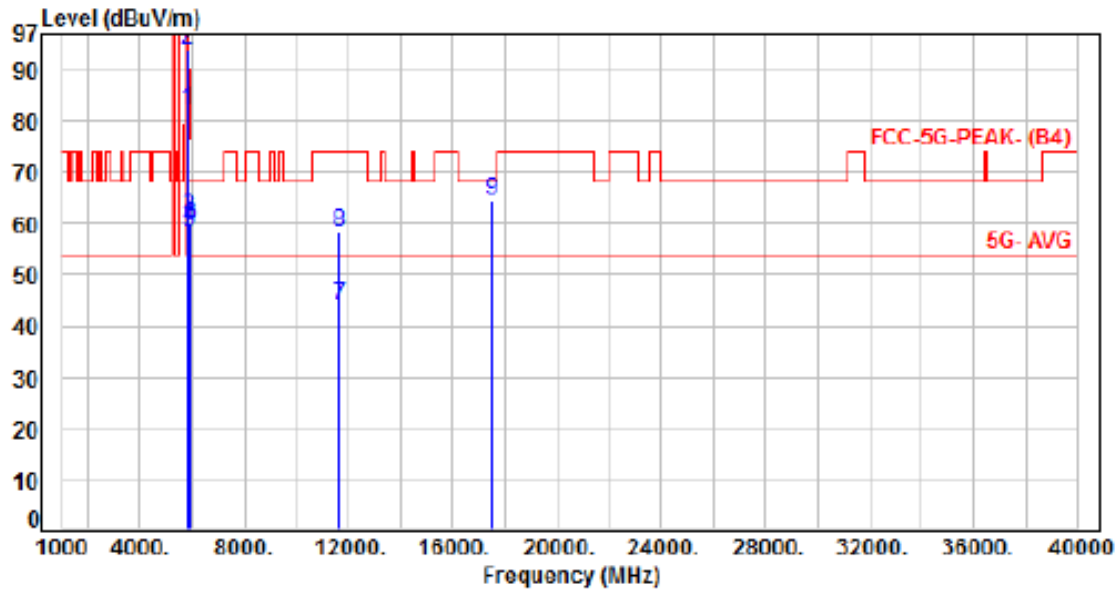




Power	:	From Adapter (AC 120V / 60Hz)	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 1, Band 4, CH165		:	

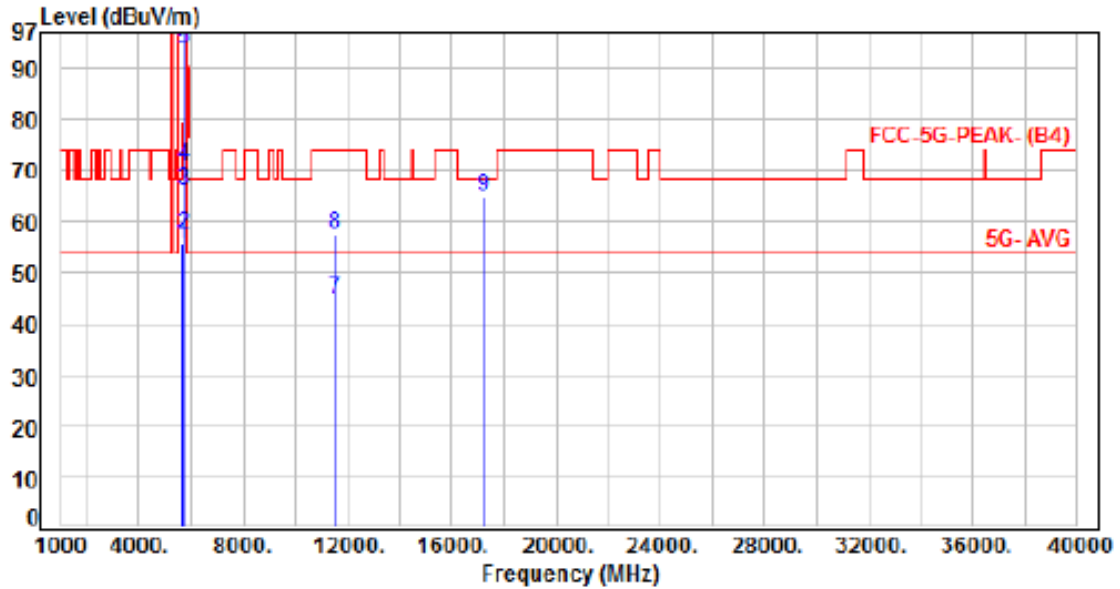


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5825.00	6.69	75.61	82.30	200.00	-117.70	Average	103	138	P
2	5825.00	6.69	87.39	94.08	200.00	-105.92	Peak	103	138	P
3	5850.00	6.76	54.61	61.37	122.20	-60.83	Peak	103	138	P
4	5855.00	6.78	52.55	59.33	110.00	-51.47	Peak	103	138	P
5	5875.00	6.83	51.59	58.42	105.20	-46.78	Peak	103	138	P
6	5925.00	6.97	52.61	59.58	68.20	-8.62	Peak	103	138	P
7	11650.00	15.44	28.52	43.96	54.00	-10.04	Average	100	122	P
8	11650.00	15.44	42.74	58.18	74.00	-15.82	Peak	100	122	P
9	17475.00	22.45	42.06	64.51	68.20	-3.69	Peak	100	345	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	:	From Adapter (AC 120V / 60Hz)	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 4, Band 4, CH149		:	

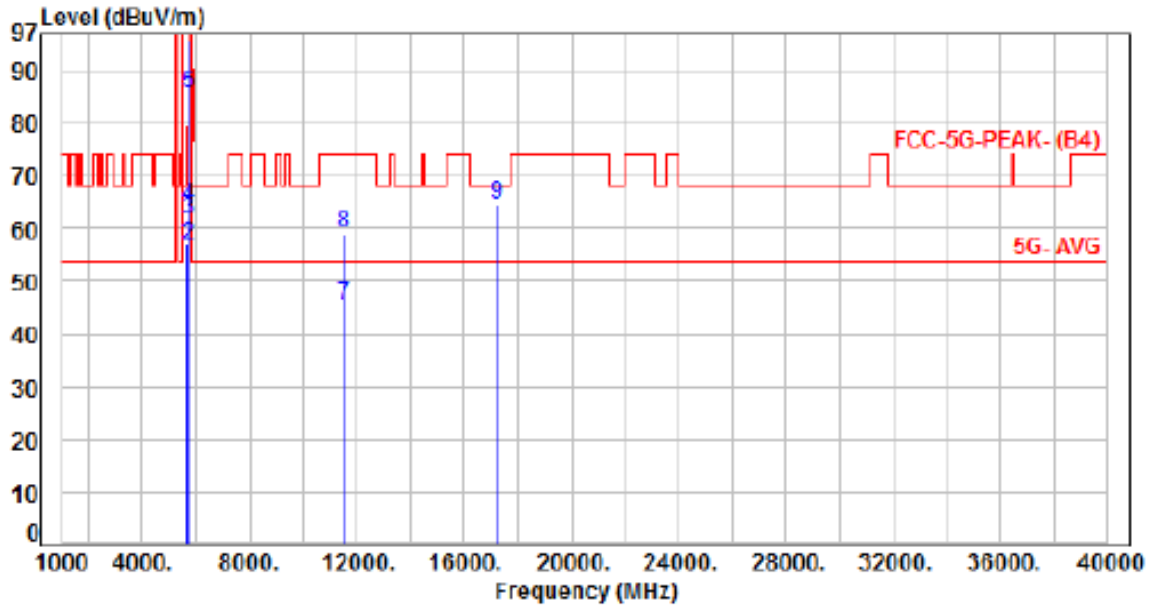


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	6.52	49.33	55.85	68.20	-12.35	Peak	121	18	P
2	5700.00	6.56	50.93	57.49	105.20	-47.71	Peak	121	18	P
3	5720.00	6.61	59.43	66.04	110.80	-44.76	Peak	121	18	P
4	5725.00	6.63	64.30	70.93	122.20	-51.27	Peak	121	18	P
5	5745.00	6.68	86.98	93.66	200.00	-106.34	Average	121	18	P
6	5745.00	6.68	97.21	103.89	200.00	-96.11	Peak	121	18	P
7	11490.00	15.08	29.51	44.59	54.00	-9.41	Average	100	91	P
8	11490.00	15.08	42.55	57.63	74.00	-16.37	Peak	100	91	P
9	17235.00	20.94	44.04	64.98	68.20	-3.22	Peak	100	312	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	:	From Adapter (AC 120V / 60Hz)	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 4, Band 4, CH149		:	

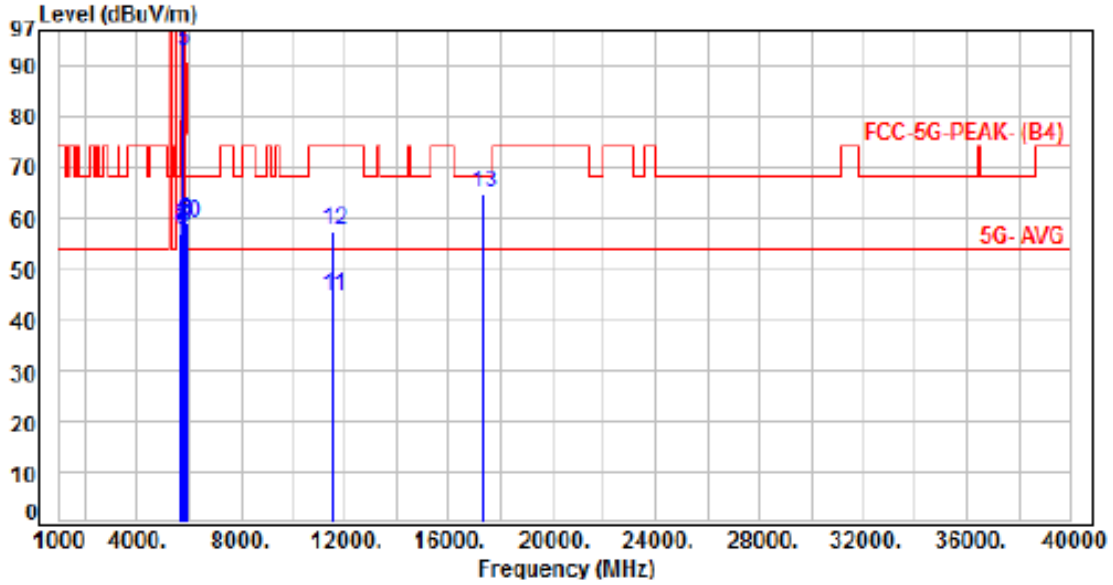


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	6.52	50.77	57.29	68.20	-10.91	Peak	310	145	P
2	5700.00	6.56	50.28	56.84	105.20	-48.36	Peak	310	145	P
3	5720.00	6.61	55.17	61.78	110.00	-49.02	Peak	310	145	P
4	5725.00	6.63	57.67	64.30	122.20	-57.90	Peak	310	145	P
5	5745.00	6.68	79.04	85.72	200.00	-114.28	Average	310	145	P
6	5745.00	6.68	89.19	95.87	200.00	-104.13	Peak	310	145	P
7	11490.00	15.08	30.37	45.45	54.00	-8.55	Average	100	136	P
8	11490.00	15.08	43.89	58.97	74.00	-15.03	Peak	100	136	P
9	17235.00	20.94	43.44	64.38	68.20	-3.82	Peak	100	334	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: From Adapter (AC 120V / 60Hz)	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, Band 4, CH157		:

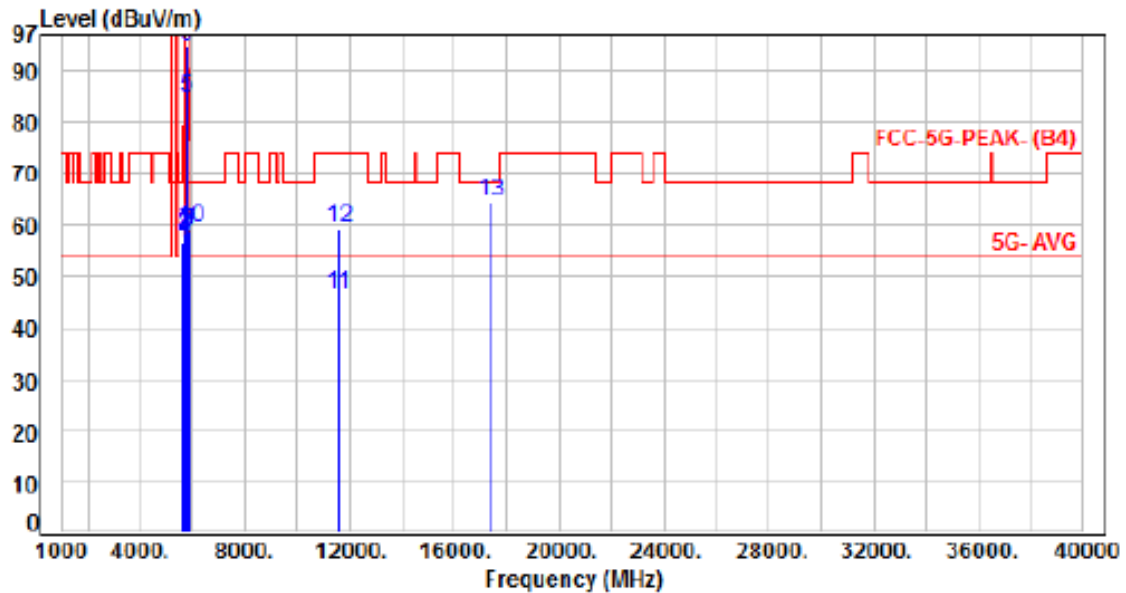


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	6.52	50.19	56.71	68.20	-11.49	Peak	100	16	P
2	5700.00	6.56	51.91	58.47	105.20	-46.73	Peak	100	16	P
3	5720.00	6.61	51.09	57.70	110.80	-53.10	Peak	100	16	P
4	5725.00	6.63	51.78	58.41	122.20	-63.79	Peak	100	16	P
5	5785.00	6.64	86.25	92.89	200.00	-107.11	Average	100	16	P
6	5785.00	6.64	96.33	102.97	200.00	-97.03	Peak	100	16	P
7	5850.00	6.76	52.18	58.94	122.20	-63.26	Peak	100	16	P
8	5855.00	6.78	52.61	59.39	110.80	-51.41	Peak	100	16	P
9	5875.00	6.83	51.47	58.30	105.20	-46.90	Peak	100	16	P
10	5925.00	6.97	52.19	59.16	68.20	-9.04	Peak	100	16	P
11	11570.00	15.32	29.45	44.77	54.00	-9.23	Average	100	108	P
12	11570.00	15.32	42.17	57.49	74.00	-16.51	Peak	100	108	P
13	17355.00	21.54	43.52	65.06	68.20	-3.14	Peak	100	303	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	:	From Adapter (AC 120V / 60Hz)	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 4, Band 4, CH157		:	

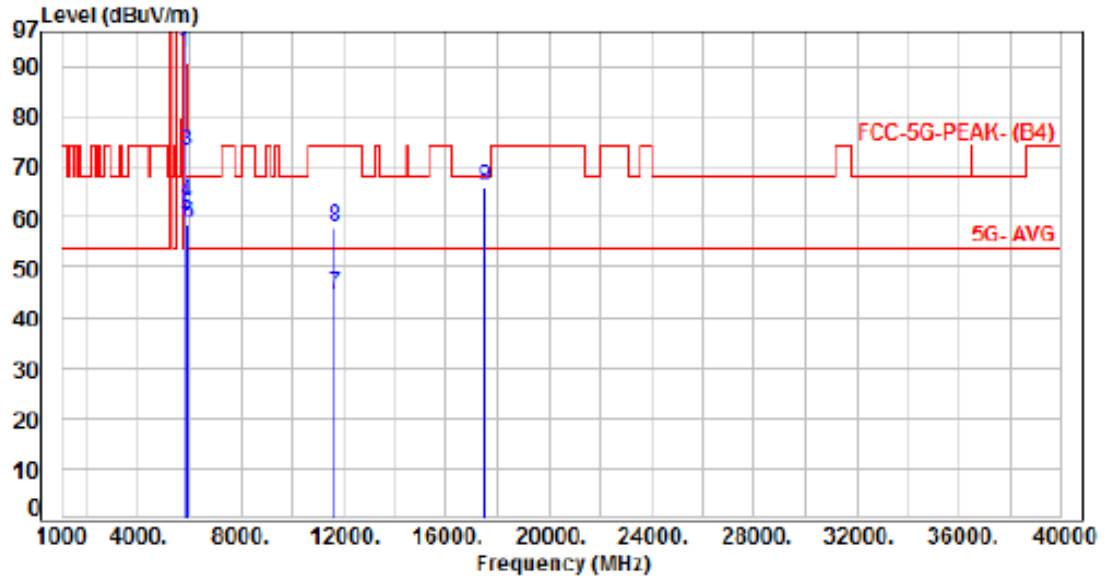


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	6.52	50.01	56.53	68.20	-11.67	Peak	304	146	P
2	5700.00	6.56	51.25	57.81	105.20	-47.39	Peak	304	146	P
3	5720.00	6.61	51.69	58.30	110.80	-52.50	Peak	304	146	P
4	5725.00	6.63	50.88	57.51	122.20	-64.69	Peak	304	146	P
5	5785.00	6.64	78.21	84.85	200.00	-115.15	Average	304	146	P
6	5785.00	6.64	88.12	94.76	200.00	-105.24	Peak	304	146	P
7	5850.00	6.76	51.82	58.58	122.20	-63.62	Peak	304	146	P
8	5855.00	6.78	52.02	58.80	110.80	-52.00	Peak	304	146	P
9	5875.00	6.83	51.67	58.50	105.20	-46.70	Peak	304	146	P
10	5925.00	6.97	52.42	59.39	68.20	-8.81	Peak	304	146	P
11	11570.00	15.32	31.07	46.39	54.00	-7.61	Average	100	138	P
12	11570.00	15.32	43.94	59.26	74.00	-14.74	Peak	100	138	P
13	17355.00	21.54	43.07	64.61	68.20	-3.59	Peak	100	327	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	:	From Adapter (AC 120V / 60Hz)	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 4, Band 4, CH165		:	

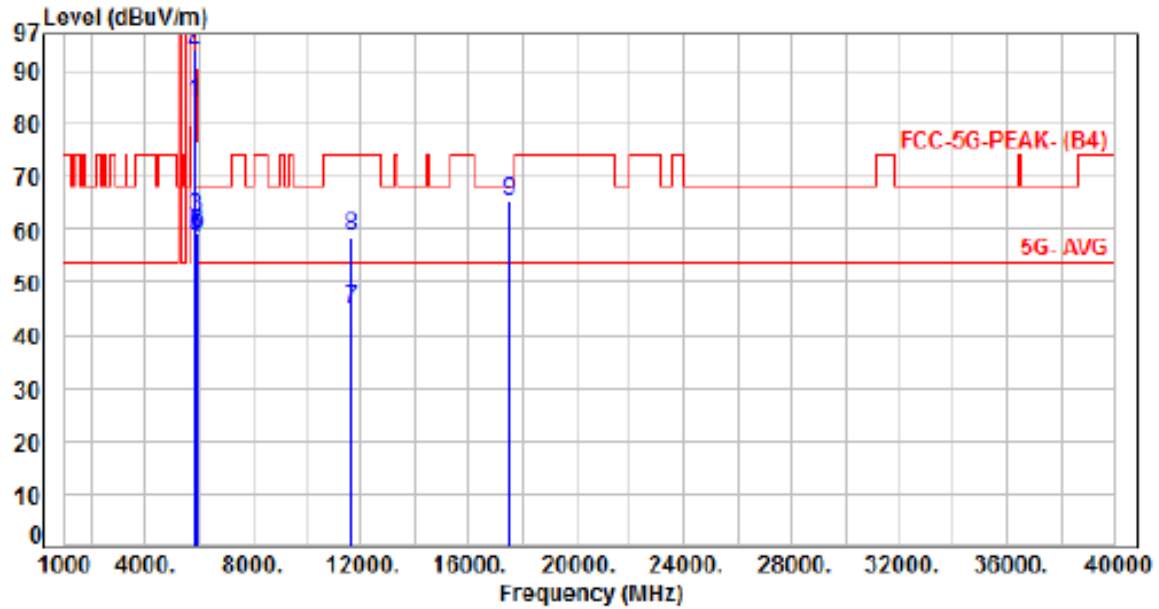


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5825.00	6.69	85.75	92.44	200.00	-107.56	Average	100	152	P
2	5825.00	6.69	95.99	102.68	200.00	-97.32	Peak	100	152	P
3	5850.00	6.76	66.28	73.04	122.20	-49.16	Peak	100	152	P
4	5855.00	6.78	56.41	63.19	110.80	-47.61	Peak	100	152	P
5	5875.00	6.83	53.18	60.01	105.20	-45.19	Peak	100	152	P
6	5925.00	6.97	51.53	58.50	68.20	-9.70	Peak	100	152	P
7	11650.00	15.44	29.03	44.47	54.00	-9.53	Average	100	117	P
8	11650.00	15.44	42.44	57.88	74.00	-16.12	Peak	100	117	P
9	17475.00	22.45	43.46	65.91	68.20	-2.29	Peak	100	309	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	:	From Adapter (AC 120V / 60Hz)	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 4, Band 4, CH165		:	

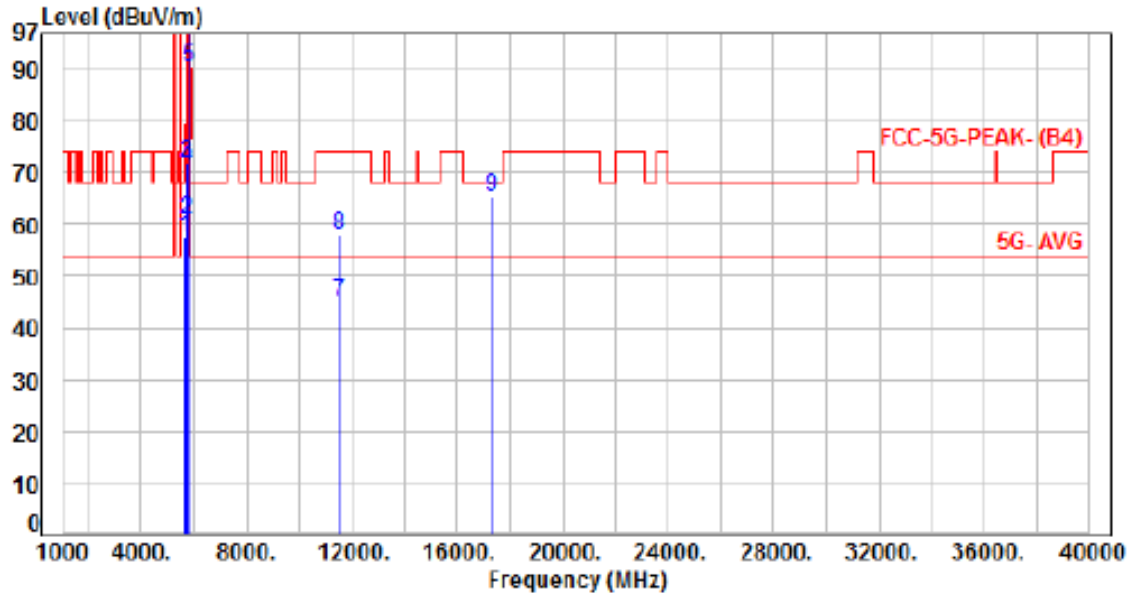


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5825.00	6.69	77.29	83.98	200.00	-116.02	Average	104	138	P
2	5825.00	6.69	87.42	94.11	200.00	-105.89	Peak	104	138	P
3	5850.00	6.76	55.55	62.31	122.20	-59.89	Peak	104	138	P
4	5855.00	6.78	51.57	58.35	110.80	-52.45	Peak	104	138	P
5	5875.00	6.83	51.95	58.78	105.20	-46.42	Peak	104	138	P
6	5925.00	6.97	52.49	59.46	68.20	-8.74	Peak	104	138	P
7	11650.00	15.44	29.56	45.00	54.00	-9.00	Average	100	130	P
8	11650.00	15.44	43.06	58.50	74.00	-15.50	Peak	100	130	P
9	17475.00	22.45	42.94	65.39	68.20	-2.81	Peak	100	333	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	:	From Adapter (AC 120V / 60Hz)	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 5, Band 4, CH151		:	

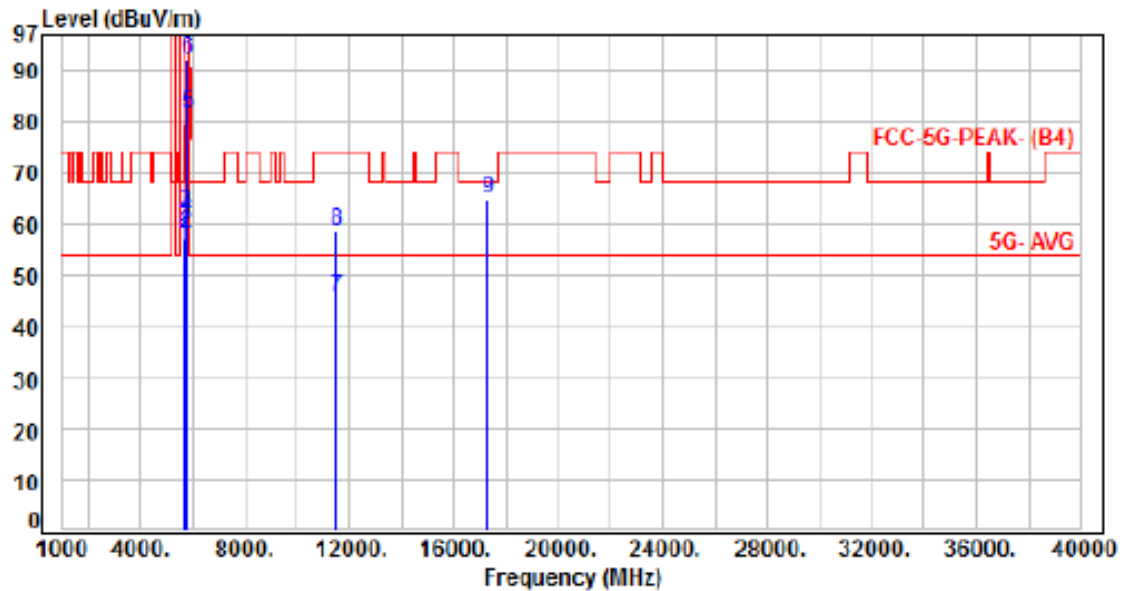


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	6.52	50.93	57.45	68.20	-10.75	Peak	100	152	P
2	5700.00	6.56	54.42	60.98	105.20	-44.22	Peak	100	152	P
3	5720.00	6.61	65.32	71.93	110.00	-38.07	Peak	100	152	P
4	5725.00	6.63	64.55	71.18	122.20	-51.02	Peak	100	152	P
5	5755.00	6.68	83.77	90.45	200.00	-109.55	Average	100	152	P
6	5755.00	6.68	93.52	100.20	200.00	-99.80	Peak	100	152	P
7	11510.00	15.14	29.74	44.88	54.00	-9.12	Average	100	89	P
8	11510.00	15.14	42.88	58.02	74.00	-15.98	Peak	100	89	P
9	17265.00	21.10	44.05	65.15	68.20	-3.05	Peak	100	318	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	:	From Adapter (AC 120V / 60Hz)	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 5, Band 4, CH151		:	

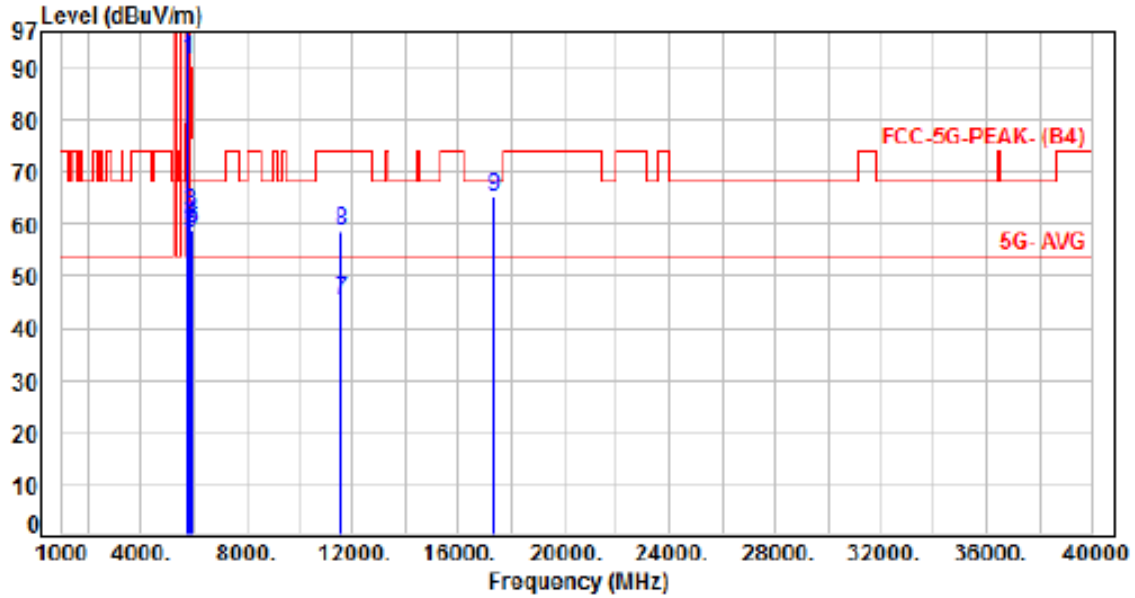


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	6.52	50.48	57.00	68.20	-11.20	Peak	305	154	P
2	5700.00	6.56	51.77	58.33	105.20	-46.87	Peak	305	154	P
3	5720.00	6.61	55.63	62.24	110.80	-48.56	Peak	305	154	P
4	5725.00	6.63	54.66	61.29	122.20	-60.91	Peak	305	154	P
5	5755.00	6.68	74.96	81.64	200.00	-118.36	Average	305	154	P
6	5755.00	6.68	85.42	92.10	200.00	-107.90	Peak	305	154	P
7	11510.00	15.14	30.72	45.86	54.00	-8.14	Average	100	136	P
8	11510.00	15.14	43.44	58.58	74.00	-15.42	Peak	100	136	P
9	17265.00	21.10	43.99	65.09	68.20	-3.11	Peak	100	302	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: From Adapter (AC 120V / 60Hz)	Pol/Phase	: VERTICAL
Test Mode	: Mode 5, Band 4, CH159		:

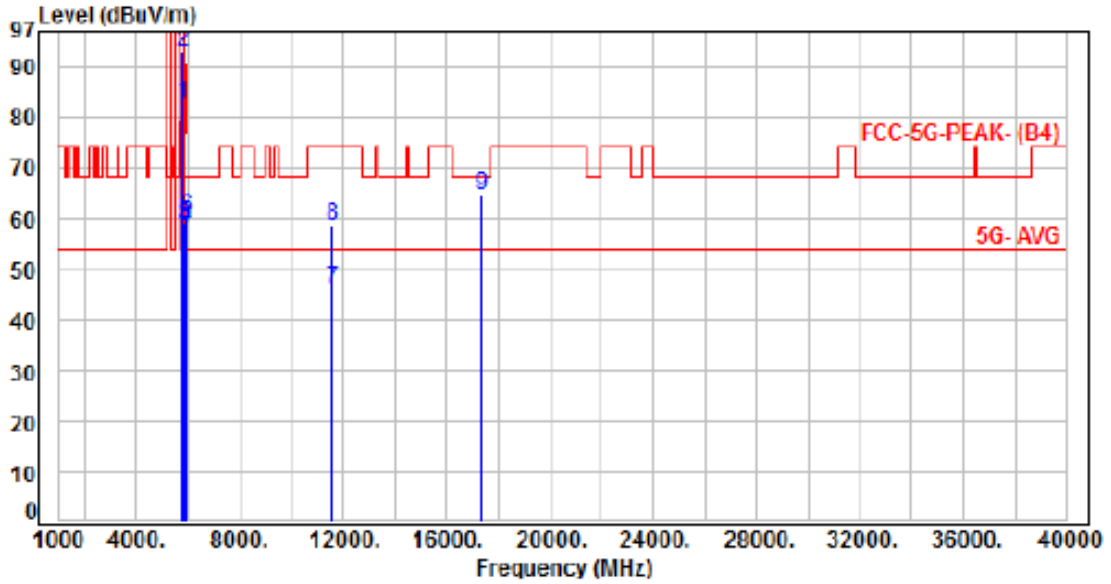


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5795.00	6.63	85.34	91.97	200.00	-108.03	Average	100	152	P
2	5795.00	6.63	94.27	100.90	200.00	-99.10	Peak	100	152	P
3	5850.00	6.76	55.68	62.44	122.20	-59.76	Peak	100	152	P
4	5855.00	6.78	53.28	60.06	110.00	-50.74	Peak	100	152	P
5	5875.00	6.83	51.50	58.33	105.20	-46.87	Peak	100	152	P
6	5925.00	6.97	52.04	59.01	68.20	-9.19	Peak	100	152	P
7	11590.00	15.37	30.11	45.48	54.00	-8.52	Average	100	115	P
8	11590.00	15.37	43.39	58.76	74.00	-15.24	Peak	100	115	P
9	17385.00	21.67	43.53	65.20	68.20	-3.00	Peak	100	320	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	:	From Adapter (AC 120V / 60Hz)	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 5, Band 4, CH159		:	

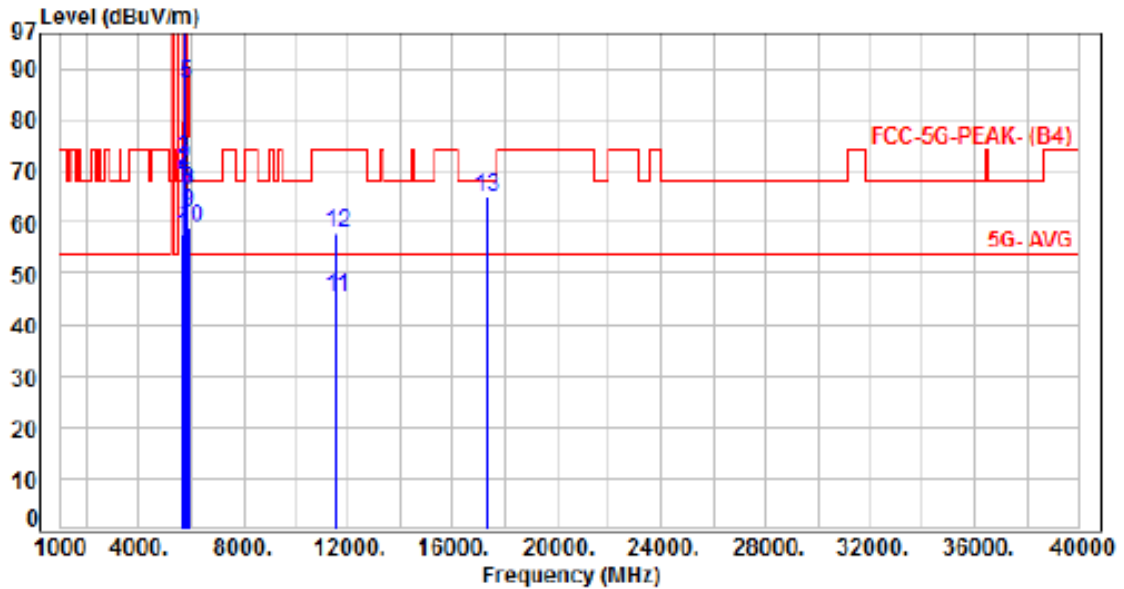


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5795.00	6.63	75.96	82.59	200.00	-117.41	Average	278	160	P
2	5795.00	6.63	86.17	92.80	200.00	-107.20	Peak	278	160	P
3	5850.00	6.76	51.93	58.69	122.20	-63.51	Peak	278	160	P
4	5855.00	6.78	51.42	58.20	110.80	-52.60	Peak	278	160	P
5	5875.00	6.83	52.29	59.12	105.20	-46.08	Peak	278	160	P
6	5925.00	6.97	53.07	60.04	68.20	-8.16	Peak	278	160	P
7	11590.00	15.37	30.63	46.00	54.00	-8.00	Average	100	144	P
8	11590.00	15.37	43.12	58.49	74.00	-15.51	Peak	100	144	P
9	17385.00	21.67	42.99	64.66	68.20	-3.54	Peak	100	297	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	:	From Adapter (AC 120V / 60Hz)	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 6, Band 4, CH155		:	

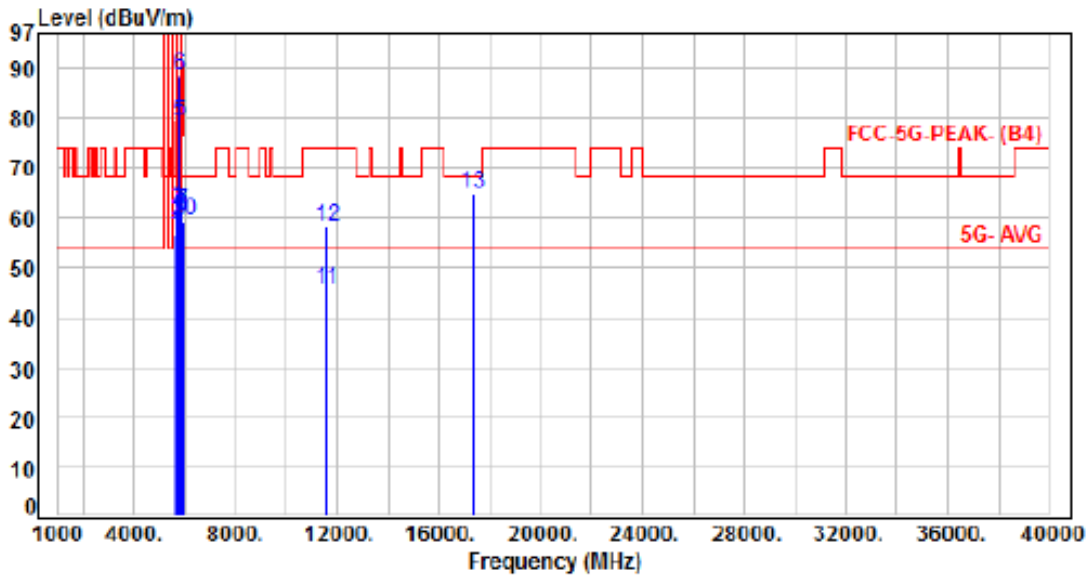


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	6.52	50.87	57.39	68.20	-10.81	Peak	100	152	P
2	5700.00	6.56	63.53	70.09	105.20	-35.11	Peak	100	152	P
3	5720.00	6.61	65.54	72.15	110.80	-38.65	Peak	100	152	P
4	5725.00	6.63	62.06	68.69	122.20	-53.51	Peak	100	152	P
5	5775.00	6.65	80.41	87.06	200.00	-112.94	Average	100	152	P
6	5775.00	6.65	90.95	97.60	200.00	-102.40	Peak	100	152	P
7	5850.00	6.76	58.64	65.40	122.20	-56.80	Peak	100	152	P
8	5855.00	6.78	59.51	66.29	110.80	-44.51	Peak	100	152	P
9	5875.00	6.83	55.00	61.83	105.20	-43.37	Peak	100	152	P
10	5925.00	6.97	52.05	59.02	68.20	-9.18	Peak	100	152	P
11	11550.00	15.26	30.01	45.27	54.00	-8.73	Average	100	98	P
12	11550.00	15.26	42.66	57.92	74.00	-16.08	Peak	100	98	P
13	17325.00	21.41	43.68	65.09	68.20	-3.11	Peak	100	291	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	:	From Adapter (AC 120V / 60Hz)	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 6, Band 4, CH155		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5650.00	6.52	49.92	56.44	68.20	-11.76	Peak	297	164	P
2	5700.00	6.56	52.68	59.24	105.20	-45.96	Peak	297	164	P
3	5720.00	6.61	54.83	61.44	110.80	-49.36	Peak	297	164	P
4	5725.00	6.63	54.06	60.69	122.20	-61.51	Peak	297	164	P
5	5775.00	6.65	72.63	79.28	200.00	-120.72	Average	297	164	P
6	5775.00	6.65	81.75	88.40	200.00	-111.60	Peak	297	164	P
7	5850.00	6.76	54.63	61.39	122.20	-60.81	Peak	297	164	P
8	5855.00	6.78	53.74	60.52	110.80	-50.28	Peak	297	164	P
9	5875.00	6.83	52.89	59.72	105.20	-45.48	Peak	297	164	P
10	5925.00	6.97	52.28	59.25	68.20	-8.95	Peak	297	164	P
11	11550.00	15.26	30.42	45.68	54.00	-8.32	Average	100	103	P
12	11550.00	15.26	43.05	58.31	74.00	-15.69	Peak	100	103	P
13	17325.00	21.41	43.36	64.77	68.20	-3.43	Peak	100	319	P

Note: Level=Reading+Factor
 Margin=Level-Limit
 Factor=Antenna Factor + cable loss - Amplifier Factor



6.7. Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.09000 – 0.11000	16.42000 – 16.42300	399.9 – 410.0	4.500 – 5.150
0.49500 – 0.505**	16.69475 – 16.69525	608.0 – 614.0	5.350 – 5.460
2.17350 – 2.19050	16.80425 – 16.80475	960.0 – 1240.0	7.250 – 7.750
4.12500 – 4.12800	25.50000 – 25.67000	1300.0 – 1427.0	8.025 – 8.500
4.17725 – 4.17775	37.50000 – 38.25000	1435.0 – 1626.5	9.000 – 9.200
4.20725 – 4.20775	73.00000 – 74.60000	1645.5 – 1646.5	9.300 – 9.500
6.21500 – 6.21800	74.80000 – 75.20000	1660.0 – 1710.0	10.600 – 12.700
6.26775 – 6.26825	108.00000 – 121.94000	1718.8 – 1722.2	13.250 – 13.400
6.31175 – 6.31225	123.00000 – 138.00000	2200.0 – 2300.0	14.470 – 14.500
8.29100 – 8.29400	149.90000 – 150.05000	2310.0 – 2390.0	15.350 – 16.200
8.36200 – 8.36600	156.52475 – 156.52525	2483.5 – 2500.0	17.700 – 21.400
8.37625 – 8.38675	156.70000 – 156.90000	2655.0 – 2900.0	22.010 – 23.120
8.41425 – 8.41475	162.01250 – 167.17000	3260.0 – 3267.0	23.600 – 24.000
12.29000 – 12.29300	167.72000 – 173.20000	3332.0 – 3339.0	31.200 – 31.800
12.51975 – 12.52025	240.00000 – 285.00000	3345.8 – 3358.0	36.430 – 36.500
12.57675 – 12.57725	322.00000 – 335.40000	3600.0 – 4400.0	Above 38.6
13.36000 – 13.41000			

** : Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz



7. On Time, Duty Cycle and Measurement methods

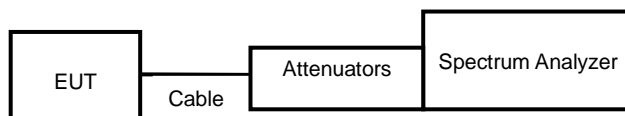
7.1. Test Limit

None; for reporting purposes only.

7.2. Test Procedure

KDB 789033 Zero-Span Spectrum Analyzer Method.

7.3. Test Setup Layout



7.4. Test Result and Data

Modulation Type	On Time (ms)	Period Time (ms)	Duty Cycle (%)
802.11a,6M	2.03	2.06	98.55%
802.11ac VHT20	1.91	1.94	98.45%
802.11ac VHT40	0.94	0.97	96.62%
802.11ac VHT80	0.46	0.49	93.16%

7.5. Measurement Methods

26 dB and 6dB Emission BW	KDB 789033 D02 v02r01, Section C
99% Occupied BW	KDB 789033 D02 v02r01, Section D
Conducted Output Power	KDB 789033 D02 v02r01, Section E.2.d and E.3.b (Method PM-G)
Power Spectral Density	KDB 789033 D02 v02r01, Section F
Unwanted emissions in restricted bands	KDB 789033 D02 v02r01, Sections G and H
Unwanted emissions in non-restricted bands	KDB 789033 D02 v02r01, Sections G and H



Modulation Type: 802.11a (6Mbps)



Modulation Type: 802.11ac VHT80 (29.3Mbps)



Modulation Type: 802.11ac VHT20 (6.5Mbps)



Modulation Type: 802.11ac VHT40 (13.5Mbps)





8. 6dB Bandwidth & 99% Occupied Bandwidth

8.1. Test Limit

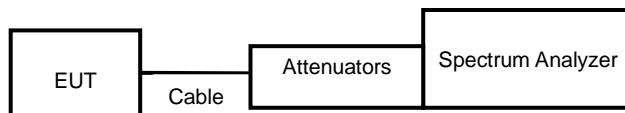
FCC §15.407

The minimum 6 dB bandwidth shall be at least 500 kHz.

8.2. Test Procedure

Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW set to 100KHz, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

8.3. Test Setup Layout





8.4. Test Result and Data

In the 5.8G Band

Modulation Type	Channel	Frequency (MHz)	6dB Bandwidth(MHz)		Minimum Limit (MHz)
			ANT A	ANT B	
11a	149	5745	15.64	16.29	0.50
11a	157	5785	15.34	16.04	0.50
11a	165	5825	15.34	16.31	0.50
11ac VHT20	149	5745	15.72	16.66	0.50
11ac VHT20	157	5785	15.34	15.71	0.50
11ac VHT20	165	5825	16.64	15.15	0.50
11ac VHT40	151	5755	35.93	36.03	0.50
11ac VHT40	159	5795	35.72	36.05	0.50
11ac VHT80	155	5775	75.13	75.08	0.50

In the 5.8G Band

Modulation Type	Channel	Frequency (MHz)	99% Bandwidth(MHz)	
			ANT A	ANT B
11a	149	5745	18.66	20.33
11a	157	5785	18.13	20.71
11a	165	5825	19.77	21.87
11ac VHT20	149	5745	19.10	20.61
11ac VHT20	157	5785	18.92	20.55
11ac VHT20	165	5825	20.56	18.17
11ac VHT40	151	5755	36.90	37.42
11ac VHT40	159	5795	36.54	41.19
11ac VHT80	155	5775	76.14	76.73



ANT A 6dB Bandwidth
Modulation Type: 802.11a (6Mbps)
CH149

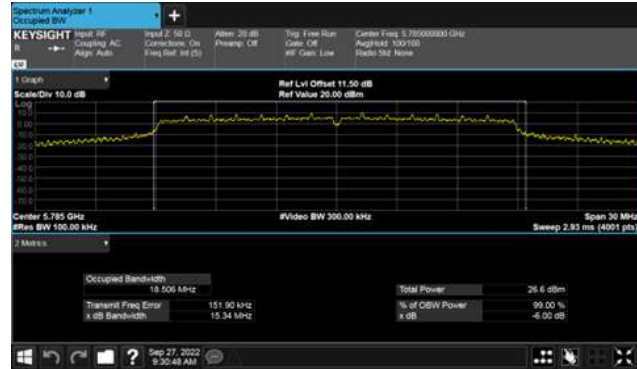
Modulation Type: 802.11ac, VHT20 (6.5Mbps)
CH149



CH157



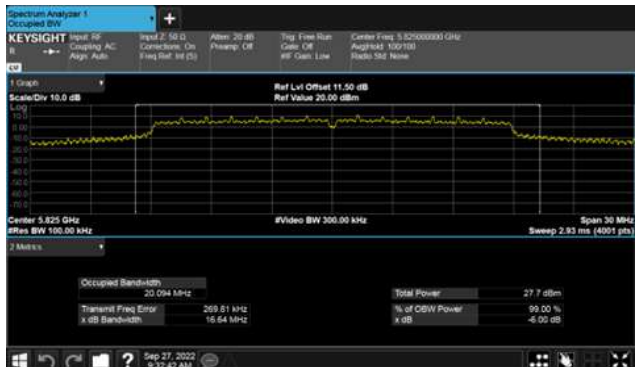
CH157



CH165



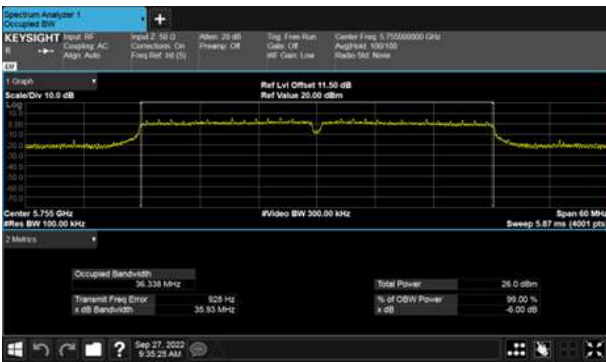
CH165





ANT A 6dB Bandwidth
Modulation Type: 802.11ac, VHT40 (13.5Mbps)
CH151

Modulation Type: 802.11ac, VHT80 (29.3Mbps)
CH155



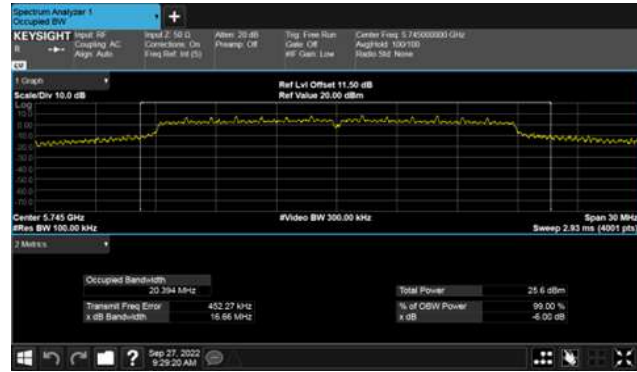
CH159





ANT B 6dB Bandwidth
Modulation Type: 802.11a (6Mbps)
CH149

Modulation Type: 802.11ac, VHT20 (6.5Mbps)
CH149



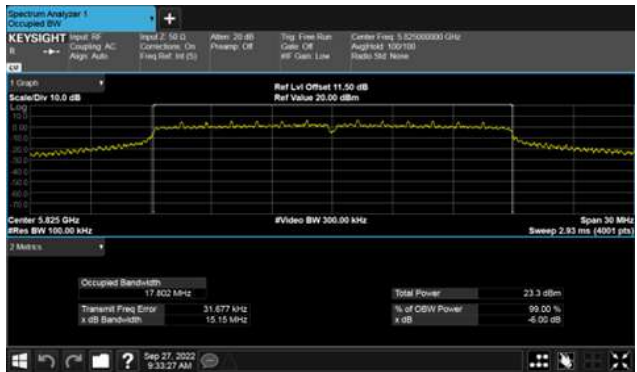
CH157

CH157



CH165

CH165





ANT B 6dB Bandwidth
Modulation Type: 802.11ac, VHT40 (13.5Mbps)
CH151

Modulation Type: 802.11ac, VHT80 (29.3Mbps)
CH155



CH159





ANT A 99% Occupied Bandwidth
Modulation Type: 802.11a (6Mbps)
CH149

Modulation Type: 802.11ac, VHT20 (6.5Mbps)
CH149



CH157



CH157



CH165



CH165





ANT A 99% Occupied Bandwidth
Modulation Type: 802.11ac, VHT40 (13.5Mbps)
CH151

Modulation Type: 802.11ac, VHT80 (29.3Mbps)
CH155



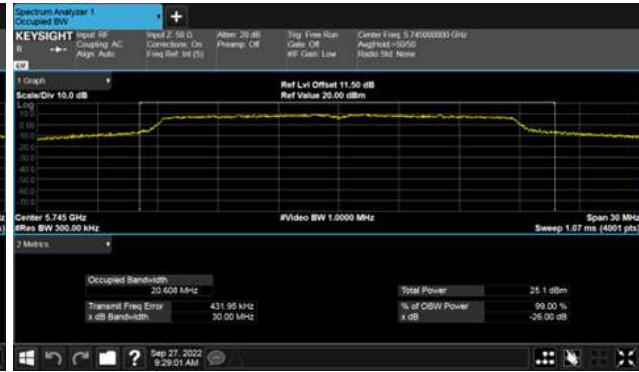
CH159





ANT B 99% Occupied Bandwidth
Modulation Type: 802.11a (6Mbps)
CH149

Modulation Type: 802.11ac, VHT20 (6.5Mbps)
CH149



CH157



CH157



CH165



CH165





ANT B 99% Occupied Bandwidth
Modulation Type: 802.11ac, VHT40 (13.5Mbps)
CH151

Modulation Type: 802.11ac, VHT80 (29.3Mbps)
CH155



CH159





9. 26dB Bandwidth & 99% Occupied Bandwidth

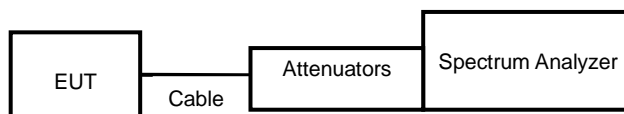
9.1. Test Limit

None; for reporting purposes only.

9.2. Test Procedure

Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW = approximately 1% of the emission bandwidth, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

9.3. Test Setup Layout



9.4. Test Result and Data

In the 5.2G Band

Mode	Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
			ANT A	ANT B
11a	36	5180	25.82	30.00
11a	40	5200	28.35	30.00
11a	48	5240	27.12	30.00
11ac VHT20	36	5180	26.81	30.00
11ac VHT20	40	5200	27.59	30.00
11ac VHT20	48	5240	27.84	30.00
11ac VHT40	38	5190	41.73	42.35
11ac VHT40	46	5230	50.59	60.00
11ac VHT80	42	5210	84.51	84.08

Modulation Type	Channel	Frequency (MHz)	99% Bandwidth(MHz)	
			ANT A	ANT B
11a	36	5180	16.92	20.49
11a	40	5200	17.10	21.92
11a	48	5240	16.99	17.10
11ac VHT20	36	5180	18.02	20.79
11ac VHT20	40	5200	18.13	22.04
11ac VHT20	48	5240	18.06	18.15
11ac VHT40	38	5190	36.50	36.58
11ac VHT40	46	5230	36.72	39.06
11ac VHT80	42	5210	75.57	75.64



ANT A 26dB Bandwidth Band 1
Modulation Type: 802.11a (6Mbps)
CH36

802.11ac VHT20 (6.5Mbps)
CH36



CH40

CH40



CH48

CH48





ANT A 26dB Bandwidth Band 1

Modulation Type: 802.11ac VHT40 (13.5Mbps) CH38



Modulation Type: 802.11ac VHT80 (29.3Mbps) CH42



CH46





ANT B 26dB Bandwidth Band 1
Modulation Type: 802.11a (6Mbps)
CH36

802.11ac VHT20 (6.5Mbps)
CH36



CH40

CH40



CH48

CH48





ANT B 26dB Bandwidth Band 1

Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH38



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH42



CH46





ANT A 99% Bandwidth Band 1
Modulation Type: 802.11a (6Mbps)
CH36



802.11ac VHT20 (6.5Mbps)
CH36



CH40



CH40



CH48



CH48





ANT A 99% Bandwidth Band 1
Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH38



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH42



CH46





ANT B 99% Bandwidth Band 1
Modulation Type: 802.11a (6Mbps)
CH36

802.11ac VHT20 (6.5Mbps)
CH36



CH40



CH40



CH48



CH48





ANT B 99% Bandwidth Band 1
Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH38



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH42



CH46





10. Average Power

10.1. Test Limit

Output Power:

Frequency Band	Limit	
<input checked="" type="checkbox"/> 5.15~5.25GHz		
Operating Mode		
<input type="checkbox"/>	Outdoor access point	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30degrees as measured from the horizon must not exceed 125 mW (21 dBm).
<input type="checkbox"/>	Indoor access point	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
<input type="checkbox"/>	Fixed point-to-point access points	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm). Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi.
<input checked="" type="checkbox"/>	client devices	The maximum conducted output power over the frequency band of operation shall not exceed 250 mW (24dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.



Frequency Band	Limit
<input type="checkbox"/> 5.25-5.35 GHz	The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
<input type="checkbox"/> 5.470-5.725 GHz	
<input checked="" type="checkbox"/> 5.725~5.85 GHz	

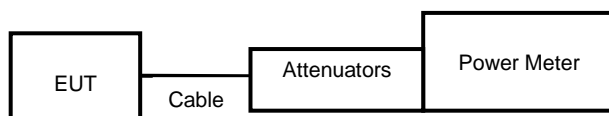
10.2. Test Procedure

According to the methods defined in ANSI C63.10-2013 Section 12.3

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

10.3. Test Setup Layout



**10.4. Test Result and Data**

In the 5.2G Band

Modulation Type	Data Rate	Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT A	ANT B			
11a	6 Mbps	18	36	5180	17.35	18.22	20.82	120.699	24.00
11a	6 Mbps	18.5	40	5200	17.55	18.43	21.02	126.548	24.00
11a	6 Mbps	19	48	5240	17.76	18.61	21.22	132.314	24.00
11ac VHT20	NSS1-MCS0	18	36	5180	17.35	18.15	20.78	119.638	24.00
11ac VHT20	NSS1-MCS0	19	40	5200	17.89	18.86	21.41	138.431	24.00
11ac VHT20	NSS1-MCS0	19	48	5240	17.49	18.41	20.98	125.447	24.00
11ac VHT40	NSS1-MCS0	13	38	5190	12.22	13.12	15.70	37.184	24.00
11ac VHT40	NSS1-MCS0	19	46	5230	18.34	18.73	21.55	142.879	24.00
11ac VHT80	NSS1-MCS0	13	42	5210	12.54	13.38	15.99	39.724	24.00

In the 5.8G Band

Modulation Type	Data Rate	Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT A	ANT B			
11a	6 Mbps	20	149	5745	17.82	18.57	21.22	132.479	30.00
11a	6 Mbps	20	157	5785	18.12	18.65	21.40	138.146	30.00
11a	6 Mbps	21	165	5825	19.11	19.64	22.39	173.515	30.00
11ac VHT20	NSS1-MCS0	20	149	5745	18.11	18.49	21.31	135.346	30.00
11ac VHT20	NSS1-MCS0	20	157	5785	18.02	18.67	21.37	137.008	30.00
11ac VHT20	NSS1-MCS0	21	165	5825	19.02	19.65	22.36	172.057	30.00
11ac VHT40	NSS1-MCS0	19	151	5755	17.63	18.56	21.13	129.722	30.00
11ac VHT40	NSS1-MCS0	20	159	5795	18.59	19.34	21.99	158.178	30.00
11ac VHT80	NSS1-MCS0	19	155	5775	17.23	18.12	20.71	117.708	30.00



11. Power Spectral Density

11.1. Test Limit

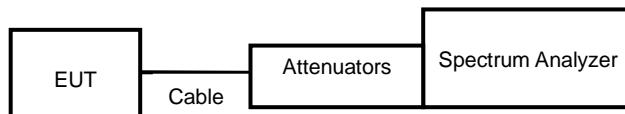
PSD:

Frequency Band		Limit
<input checked="" type="checkbox"/>	5.15~5.25GHz	
	Operating Mode	
<input type="checkbox"/>	Outdoor access point	17 dBm/MHz
<input type="checkbox"/>	Indoor access point	17 dBm/MHz
<input type="checkbox"/>	Fixed point-to-point access points	17 dBm/MHz
<input checked="" type="checkbox"/>	Mobile and portable client devices	11 dBm/MHz
<input type="checkbox"/>	5.725~5.85 GHz	11 dBm/MHz
<input type="checkbox"/>	5.470-5.725 GHz	11 dBm/MHz
<input checked="" type="checkbox"/>	5.725~5.85 GHz	30 dBm/500kHz

11.2. Test Procedure

Reference to KDB789033 D02 General UNII Test Procedures New Rules v02r01

11.3. Test Setup Layout



**11.4. Test Result and Data****In the 5.2G Band**

In the 5.2G Band

Modulation Type	Channel	Frequency (MHz)	Meas PSD (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)
			ANT A	ANT B				
11a	36	5180	7.33	7.95	10.66	0.00	10.66	11.00
11a	40	5200	7.43	8.19	10.84	0.00	10.84	11.00
11a	48	5240	7.38	8.42	10.94	0.00	10.94	11.00
11ac VHT20	36	5180	7.03	7.36	10.21	0.00	10.21	11.00
11ac VHT20	40	5200	7.54	8.04	10.81	0.00	10.81	11.00
11ac VHT20	48	5240	6.89	8.22	10.62	0.00	10.62	11.00
11ac VHT40	38	5190	-1.18	-0.01	2.46	0.15	2.61	11.00
11ac VHT40	46	5230	4.23	4.74	7.50	0.15	7.65	11.00
11ac VHT80	42	5210	-4.82	-3.47	-1.08	0.31	-0.77	11.00

In the 5.8G Band

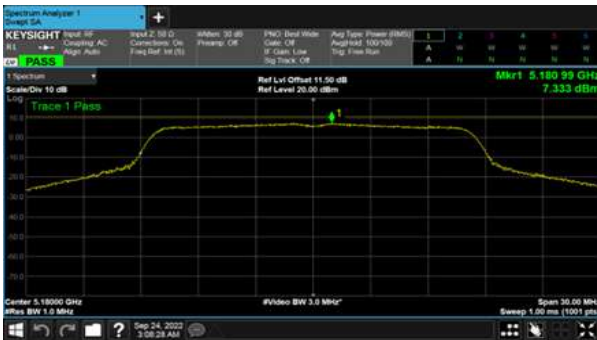
Modulation Type	Channel (MHz)	Frequency (MHz)	Meas PSD (dBm/MHz)		Sum chain (dBm)	Duty Cycle CF(dB)	10log(500KHz/RBW) CF (dB)	Total Corr'd PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)
			ANT A	ANT B					
11a	149	5745	8.48	7.33	10.95	0.00	-3.01	7.94	30.00
11a	157	5785	8.47	7.34	10.95	0.00	-3.01	7.94	30.00
11a	165	5825	9.54	8.42	12.03	0.00	-3.01	9.02	30.00
11ac VHT20	149	5745	8.36	7.01	10.75	0.00	-3.01	7.74	30.00
11ac VHT20	157	5785	8.13	7.11	10.66	0.00	-3.01	7.65	30.00
11ac VHT20	165	5825	9.05	4.78	10.43	0.00	-3.01	7.42	30.00
11ac VHT40	151	5755	4.27	3.30	6.82	0.15	-3.01	3.96	30.00
11ac VHT40	159	5795	1.31	4.67	6.32	0.15	-3.01	3.45	30.00
11ac VHT80	155	5775	0.73	-0.16	3.32	0.31	-3.01	0.62	30.00



ANT A

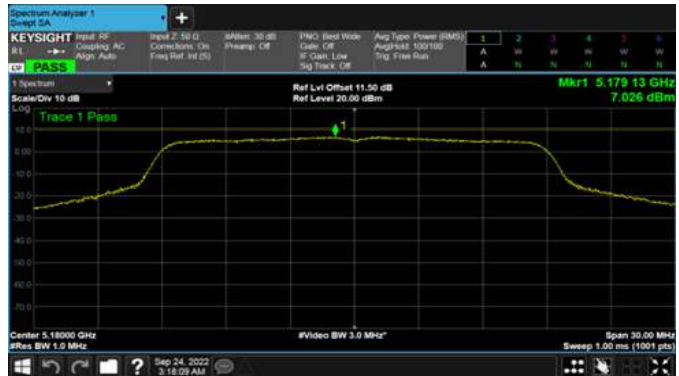
Modulation Type: 802.11a (6Mbps)

CH36



Modulation Type: 802.11ac VHT20 (6.5Mbps)

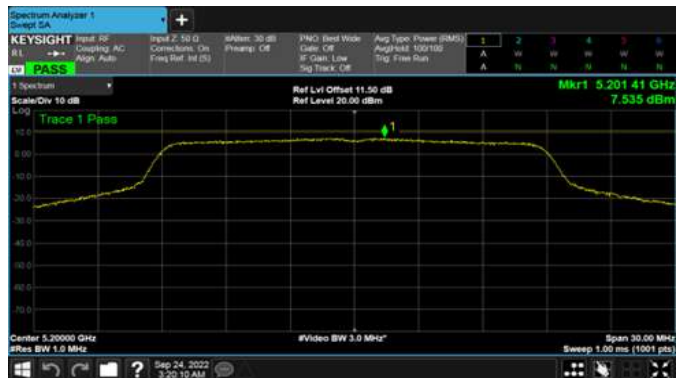
CH36



CH40



CH40



CH48



CH48





ANT A

Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH38



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH42



CH46





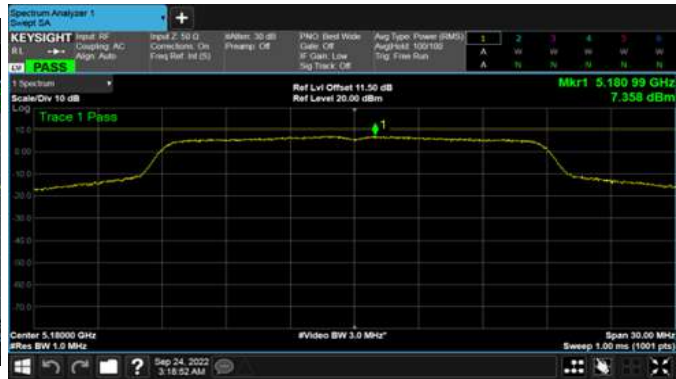
ANT B

Modulation Type: 802.11a (6Mbps)

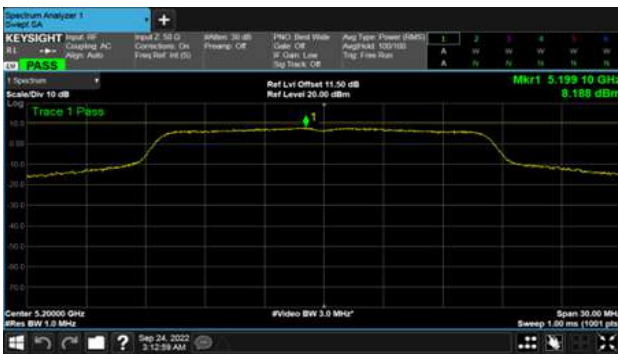
CH36

Modulation Type: 802.11ac VHT20 (6.5Mbps)

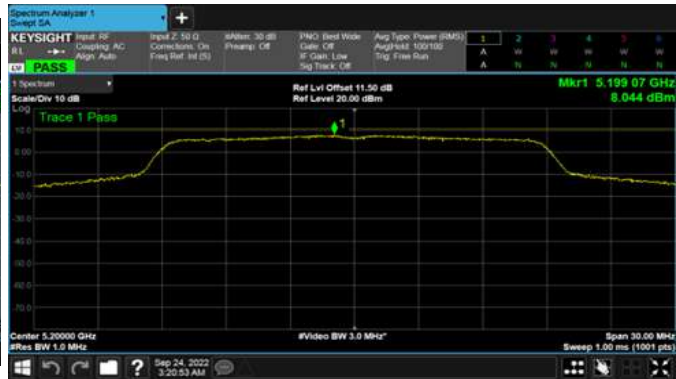
CH36



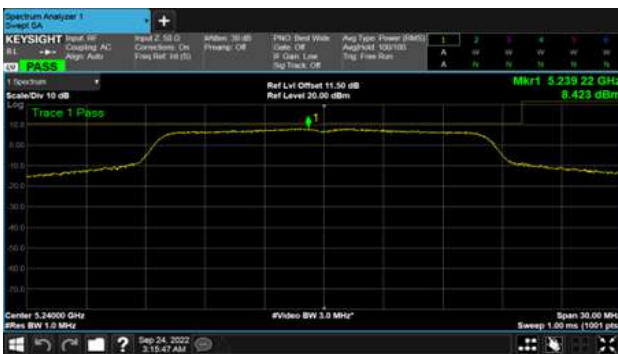
CH40



CH40



CH48



CH48





ANT B

Modulation Type: 802.11ac VHT40 (13.5Mbps)

CH38



Modulation Type: 802.11ac VHT80 (29.3Mbps)

CH42



CH46

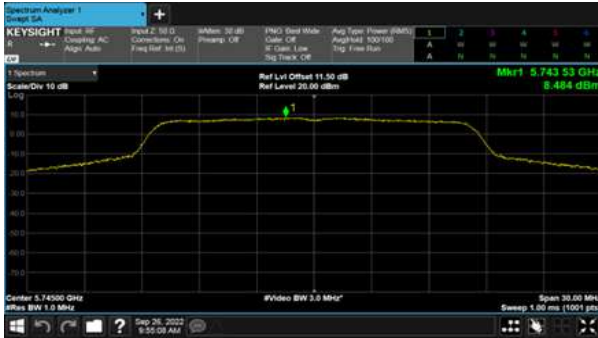




ANT A

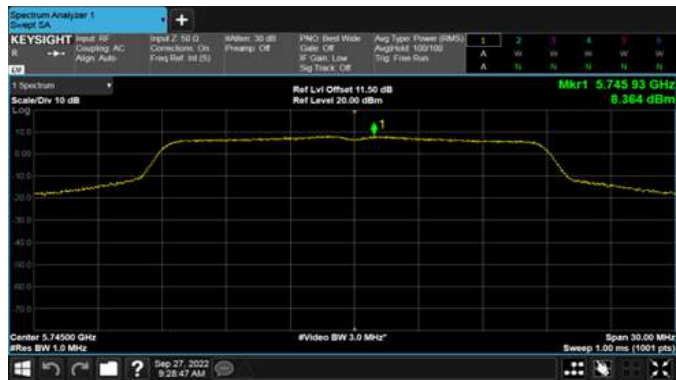
Modulation Type: 802.11a (6Mbps)

CH149



Modulation Type: 802.11ac VHT20 (6.5Mbps)

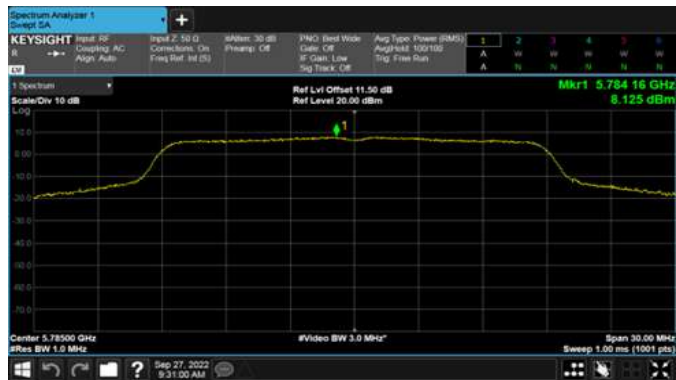
CH149



CH157



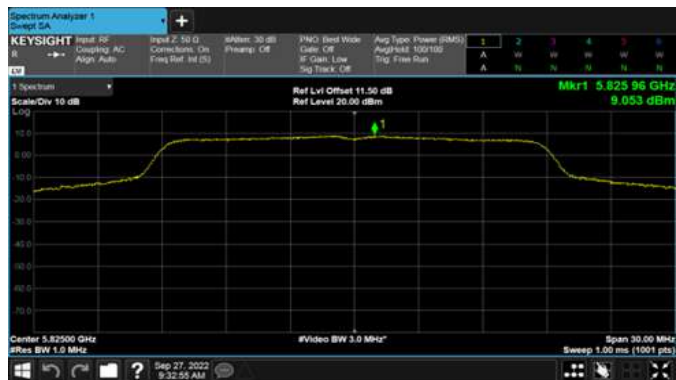
CH157



CH165



CH165





ANT A

Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH151



Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH155



CH159





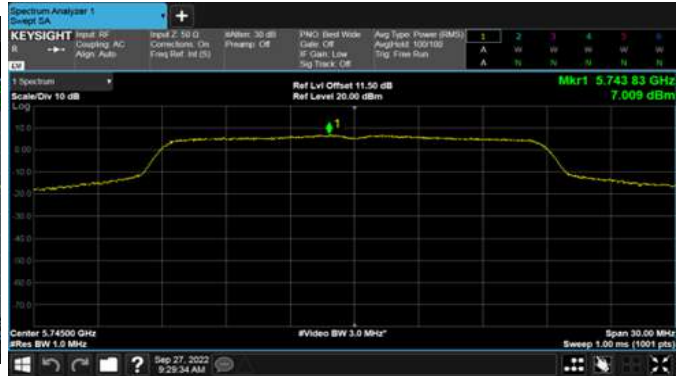
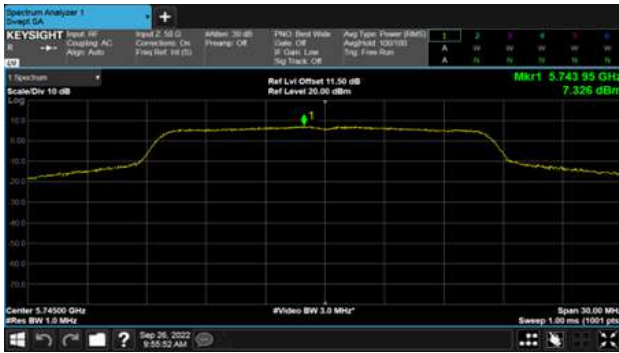
ANT B

Modulation Type: 802.11a (6Mbps)

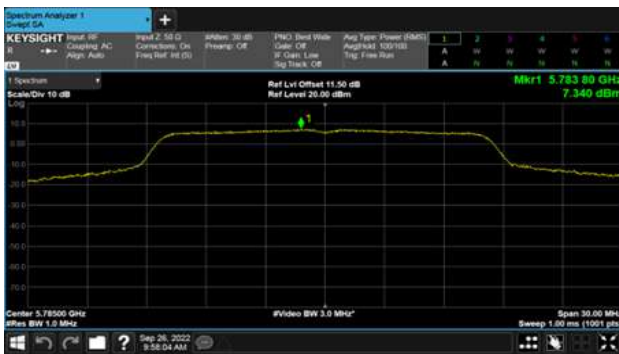
CH149

Modulation Type: 802.11ac VHT20 (6.5Mbps)

CH149



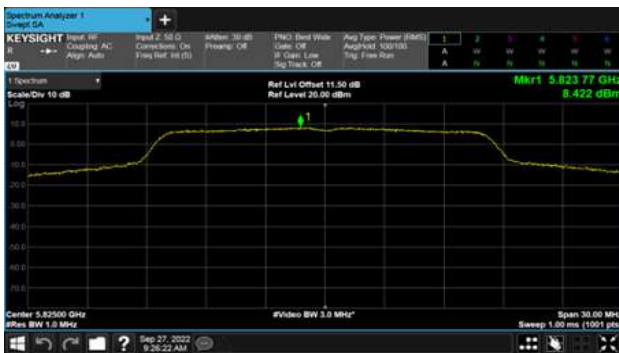
CH157



CH157



CH165



CH165

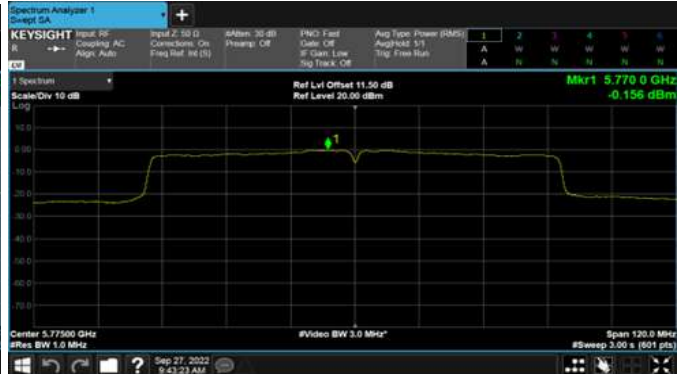




ANT B

Modulation Type: 802.11ac VHT40 (13.5Mbps)
CH151

Modulation Type: 802.11ac VHT80 (29.3Mbps)
CH155



CH159

