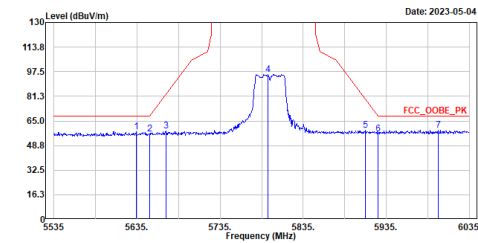


Site :HY-CB01
Condition :3m ,Horizontal
Mode :TX_ac40_5795MHz
TEST BY :Sam

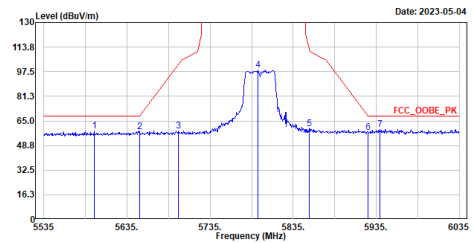


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5634.000	58.07	68.22	-10.15	42.00	16.07	Peak
2	5650.000	56.22	68.23	-12.01	40.03	16.19	Peak
3	5670.000	58.18	83.02	-24.84	41.77	16.41	Peak
4	5793.000	95.81	-----	-----	79.07	16.74	Peak
5	5910.000	58.84	79.32	-20.48	42.09	16.75	Peak
6	5925.000	56.22	68.23	-12.01	39.47	16.75	Peak
7	5997.500	58.64	68.22	-9.38	42.23	16.61	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

Site :HY-CB01
Condition :3m ,Vertical
Mode :TX_ac40_5795MHz
TEST BY :Sam

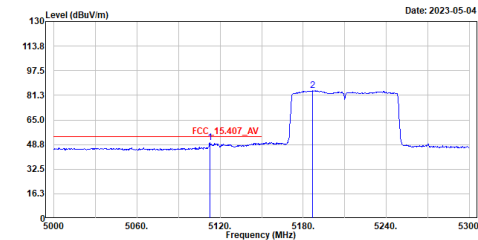


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5595.500	58.30	68.22	-9.92	42.52	15.78	Peak
2	5650.000	57.96	68.23	-10.27	41.77	16.19	Peak
3	5697.000	58.31	102.98	-44.67	41.67	16.64	Peak
4	5793.000	98.54	-----	-----	81.80	16.74	Peak
5	5854.500	59.65	111.94	-52.29	42.88	16.77	Peak
6	5925.000	57.34	68.23	-10.89	40.59	16.75	Peak
7	5939.500	59.58	68.22	-8.64	42.84	16.74	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

Site :HY-CB01
Condition :3m ,Horizontal
Mode :TX_ac80_5210MHz
TEST BY :Caster

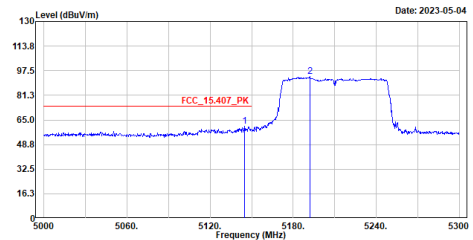


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5112.500	50.03	54.00	-3.97	35.21	14.82	Average
2	5186.900	84.16	-----	-----	69.25	14.91	Average

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

Site :HY-CB01
Condition :3m ,Horizontal
Mode :TX_ac80_5210MHz
TEST BY :Caster

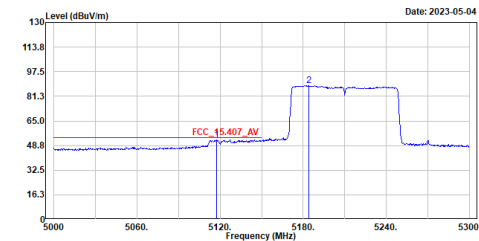


No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5144.900	60.74	74.00	-13.26	45.89	14.85	Peak
2	5192.000	93.74	-----	-----	78.83	14.91	Peak

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

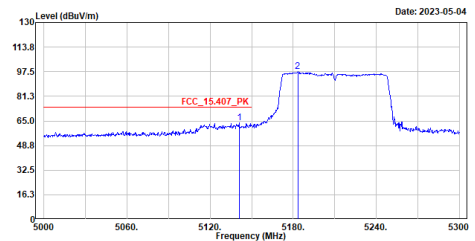
Site :HY-CB01
Condition :3m ,Vertical
Mode :TX_ac80_5210MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level		
			dBuV/m	dB	dBuV	dB	
1	5117.300	52.55	54.00	-1.45	37.73	14.82	Average
2	5183.900	88.18	-----	-----	73.28	14.90	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

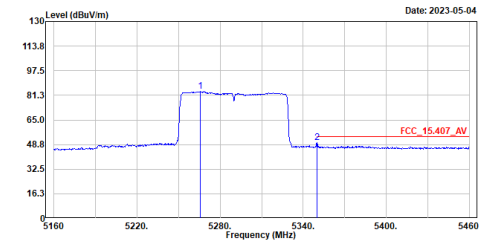
Site :HY-CB01
Condition :3m ,Vertical
Mode :TX_ac80_5210MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level		
			dBuV/m	dB	dBuV	dB	
1	5141.000	63.80	74.00	-10.20	48.95	14.85	Peak
2	5183.300	97.41	-----	-----	82.51	14.90	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

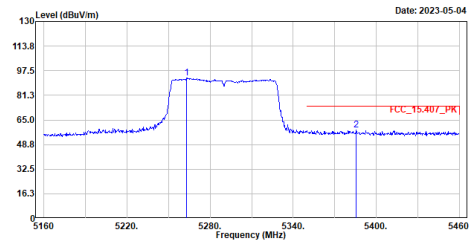
Site :HY-CB01
Condition :3m ,Horizontal
Mode :TX_ac80_5290MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level		
			dBuV/m	dB	dBuV	dB	
1	5265.600	83.71	-----	-----	68.82	14.89	Average
2	5350.200	49.85	54.00	-4.15	34.86	14.99	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

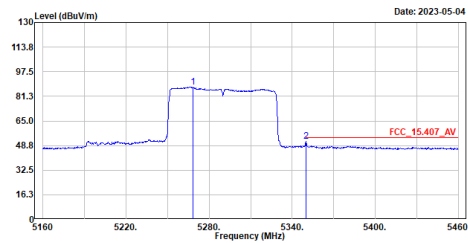
Site :HY-CB01
Condition :3m ,Horizontal
Mode :TX_ac80_5290MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level		
			dBuV/m	dB	dBuV	dB	
1	5263.200	92.72	-----	-----	77.84	14.88	Peak
2	5385.600	58.29	74.00	-15.71	43.33	14.96	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

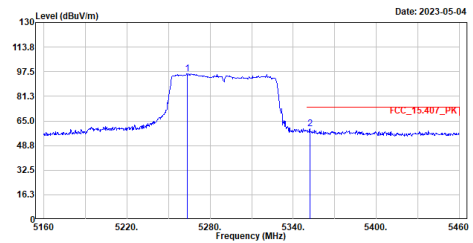
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ac80_5290MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5268.600	87.46	-----	-----	72.56	14.90	Average
2	5350.200	51.29	54.00	-2.71	36.30	14.99	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

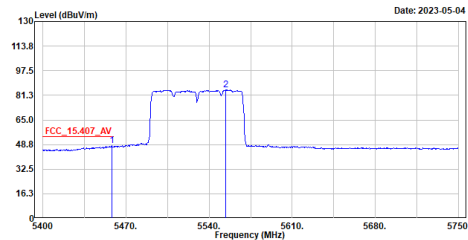
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ac80_5290MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5263.500	96.18	-----	-----	81.30	14.88	Peak
2	5352.000	59.63	74.00	-14.37	44.64	14.99	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

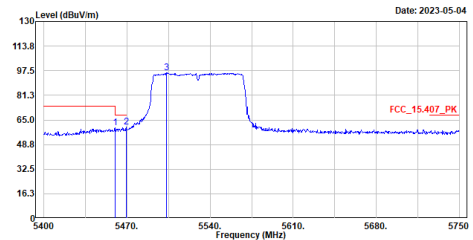
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ac80_5530MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5458.100	47.86	54.00	-6.14	32.71	15.15	Average
2	5554.000	84.91	-----	-----	69.29	15.62	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

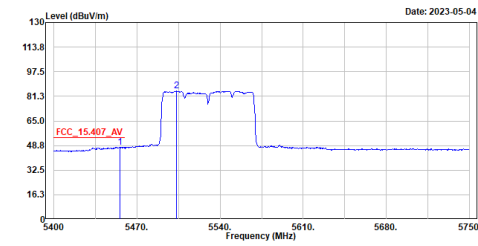
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ac80_5530MHz
TEST BY :Caster



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB	
1	5459.850	59.62	74.00	-14.38	44.45	15.17	Peak
2	5469.300	60.23	68.22	-7.99	45.01	15.22	Peak
3	5503.250	96.20	-----	-----	80.77	15.43	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

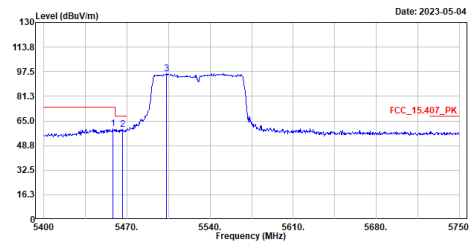
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ac80_5530MHz
TEST BY :Caster



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5455.650	47.74	54.00	-6.26	32.61	15.13	Average
2	5503.250	84.64	-----	-----	69.21	15.43	Average

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

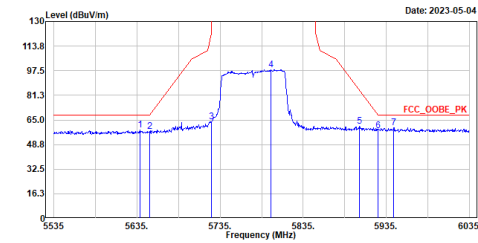
Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ac80_5530MHz
TEST BY :Caster



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5458.450	59.93	74.00	-14.07	44.78	15.15	Peak
2	5466.500	59.38	68.22	-8.84	44.17	15.21	Peak
3	5503.250	96.25	-----	-----	80.82	15.43	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

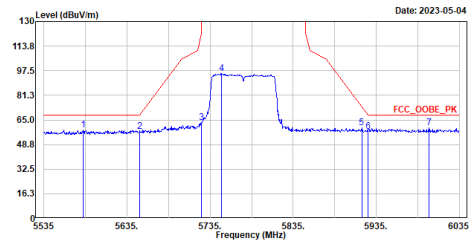
Site :HY-CB01
Condition :3m ,HORIZONTAL
Mode :TX_ac80_5775MHz
TEST BY :Caster



No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5639.000	58.36	68.22	-9.86	42.25	16.11	Peak
2	5650.000	57.52	68.23	-10.71	41.33	16.19	Peak
3	5725.000	64.02	122.20	-58.18	47.34	16.68	Peak
4	5796.000	98.33	-----	-----	81.59	16.74	Peak
5	5903.000	60.91	84.50	-23.59	44.16	16.75	Peak
6	5925.000	58.08	68.23	-10.15	41.33	16.75	Peak
7	5944.000	59.73	68.22	-8.49	42.99	16.74	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

Site :HY-CB01
Condition :3m ,VERTICAL
Mode :TX_ac80_5775MHz
TEST BY :Caster

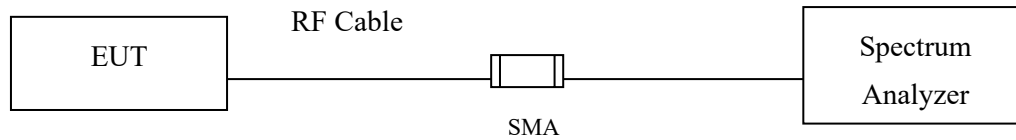


No.	Frequency MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Factor dB	Remark
1	5582.500	58.52	68.22	-9.70	42.80	15.72	Peak
2	5650.000	57.38	68.23	-10.85	41.19	16.19	Peak
3	5725.000	63.04	122.20	-59.16	46.36	16.68	Peak
4	5748.500	95.67	-----	-----	78.95	16.72	Peak
5	5917.500	59.82	73.77	-13.95	43.07	16.75	Peak
6	5925.000	57.50	68.23	-10.73	40.75	16.75	Peak
7	5998.500	59.69	68.22	-8.53	43.09	16.60	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

7. 6 dB Occupied Bandwidth

7.1. Test Setup



7.2. Limits

For the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz

7.3. Test Procedure

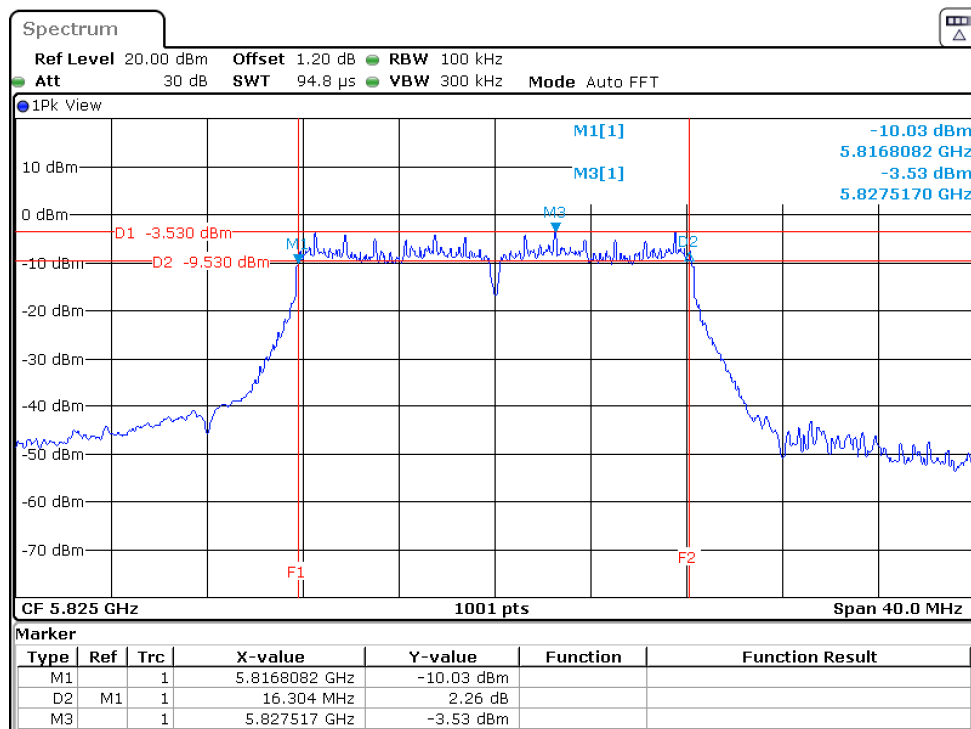
The EUT was setup to ANSI C63.10, 2013; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

7.4. Test Result of 6 dB Occupied Bandwidth

Product : PanaCast 50 Video Bar System
 Test Item : 6 dB Occupied Bandwidth Data
 Test Mode : Transmit (802.11a)
 Test Date : 2023/03/27

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745	16344	>500	Pass
157	5785	16304	>500	Pass
165	5825	16304	>500	Pass

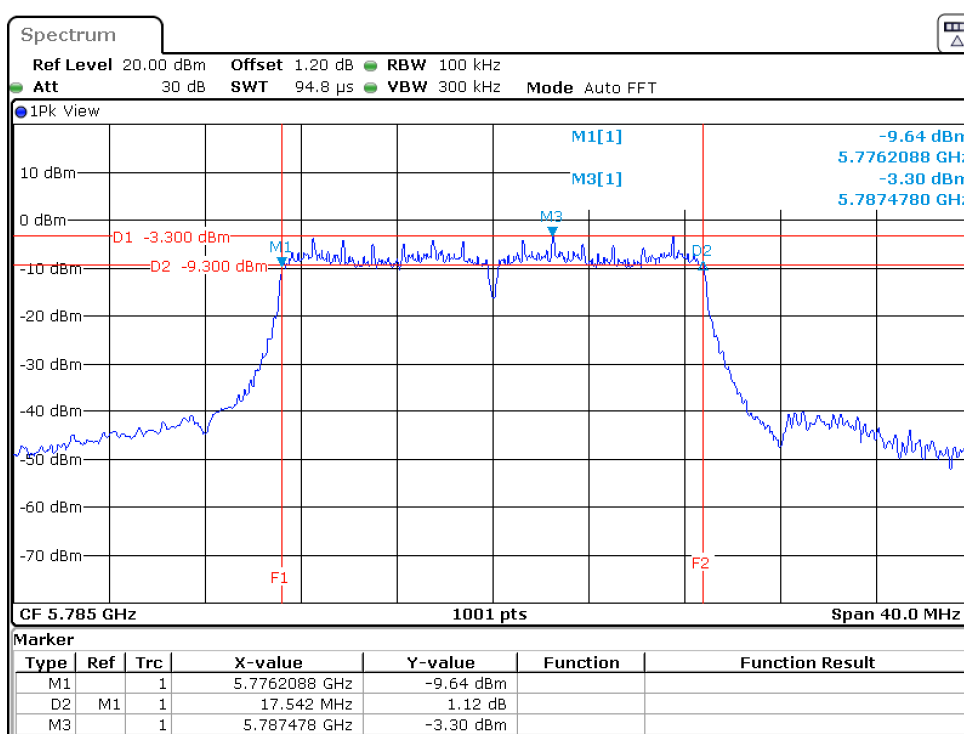
Figure Channel 165



Product : PanaCast 50 Video Bar System
 Test Item : 6 dB Occupied Bandwidth Data
 Test Mode : Transmit (802.11n-20MHz)
 Test Date : 2023/03/27

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745	17542	>500	Pass
157	5785	17542	>500	Pass
165	5825	17582	>500	Pass

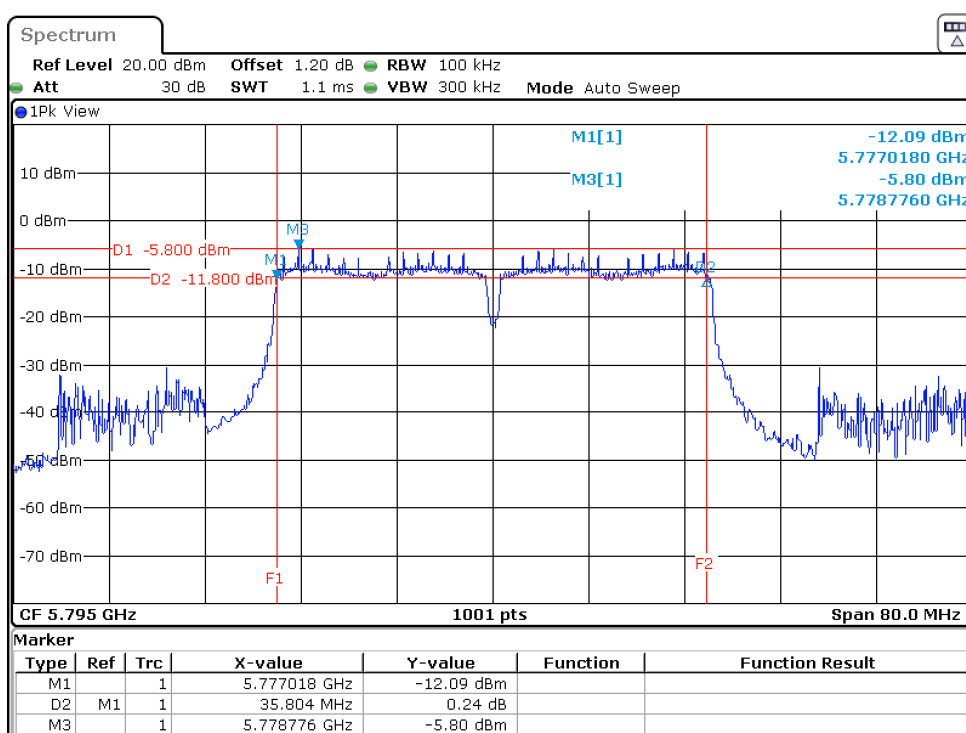
Figure Channel 157



Product : PanaCast 50 Video Bar System
 Test Item : 6 dB Occupied Bandwidth Data
 Test Mode : Transmit (802.11n-40MHz)
 Test Date : 2023/03/27

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755	35804	>500	Pass
159	5795	35804	>500	Pass

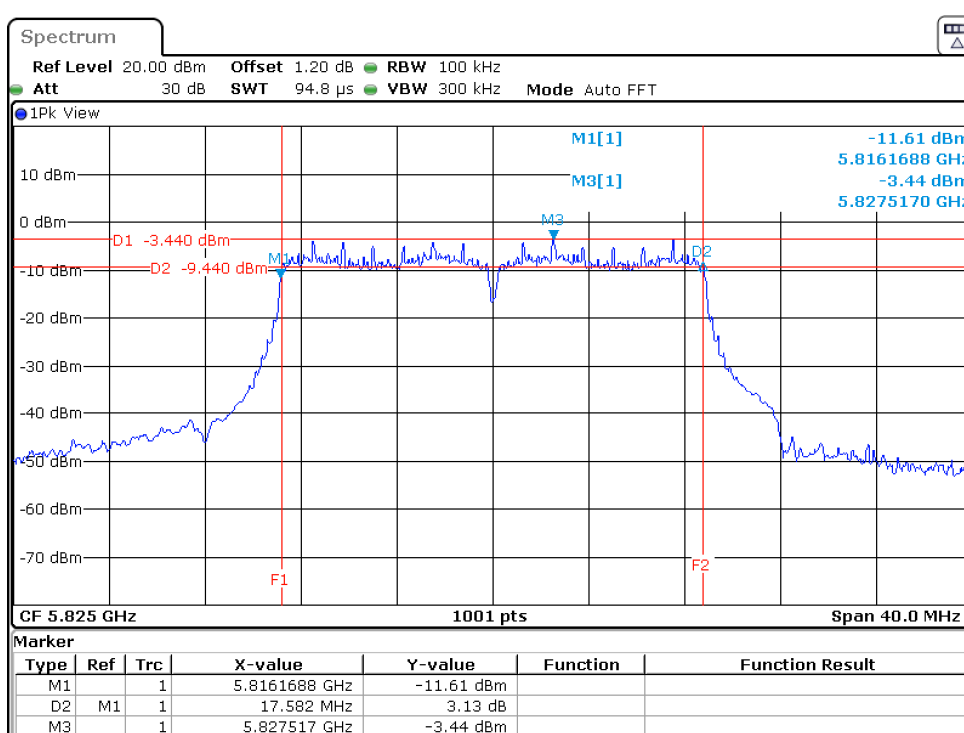
Figure Channel 159



Product : PanaCast 50 Video Bar System
 Test Item : 6 dB Occupied Bandwidth Data
 Test Mode : Transmit (802.11ac-20MHz)
 Test Date : 2023/03/27

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745	17582	>500	Pass
157	5785	17582	>500	Pass
165	5825	17582	>500	Pass

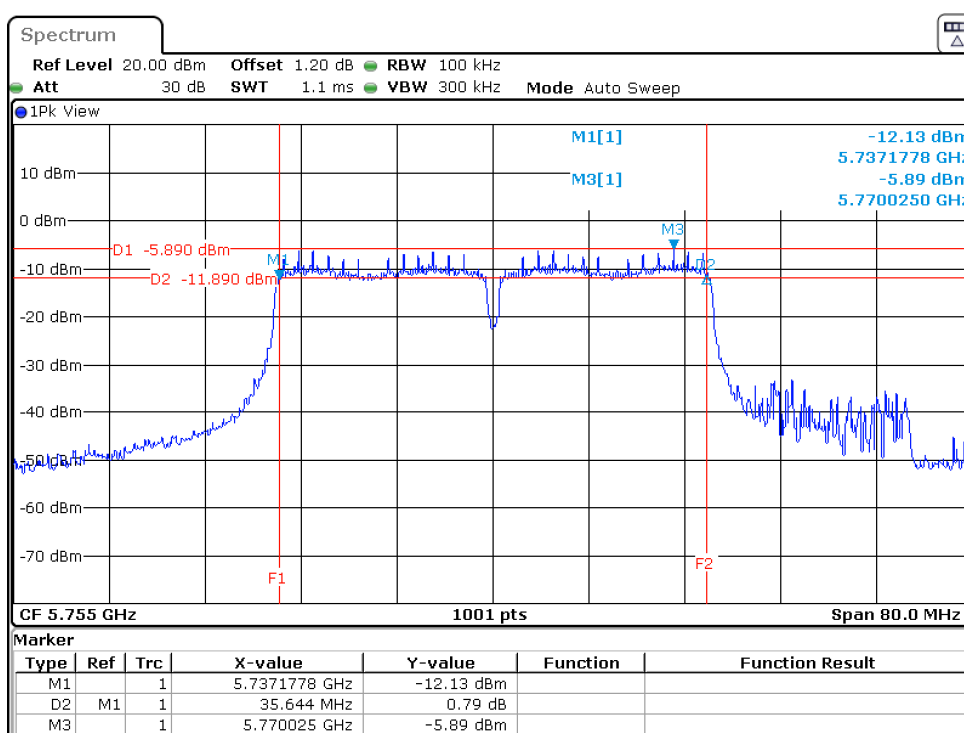
Figure Channel 165



Product : PanaCast 50 Video Bar System
 Test Item : 6 dB Occupied Bandwidth Data
 Test Mode : Transmit (802.11ac-40MHz)
 Test Date : 2023/03/27

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755	35644	>500	Pass
159	5795	35804	>500	Pass

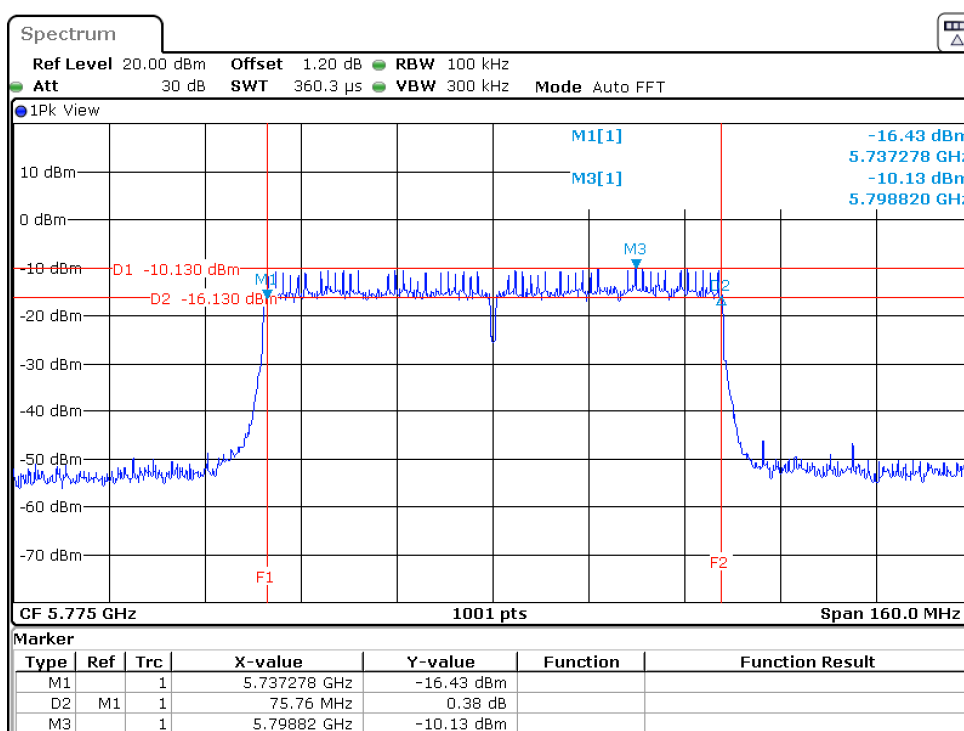
Figure Channel 151



Product : PanaCast 50 Video Bar System
 Test Item : 6 dB Occupied Bandwidth Data
 Test Mode : Transmit (802.11ac-80MHz)
 Test Date : 2023/03/27

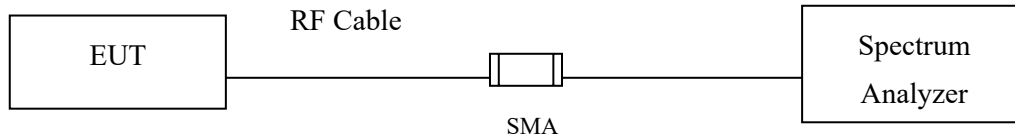
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
155	5775	75760	>500	Pass

Figure Channel 155



8. Duty Cycle

8.1. Test Setup



8.2. Test Procedure

The EUT was setup according to ANSI C63.10 2013; tested according to U-NII test procedure of KDB789033 for compliance to FCC 47CFR 15.407 requirements.

8.3. Test Result of Duty Cycle

Product : PanaCast 50 Video Bar System
Test Item : Duty Cycle
Test Mode : Transmit

Duty Cycle Formula:

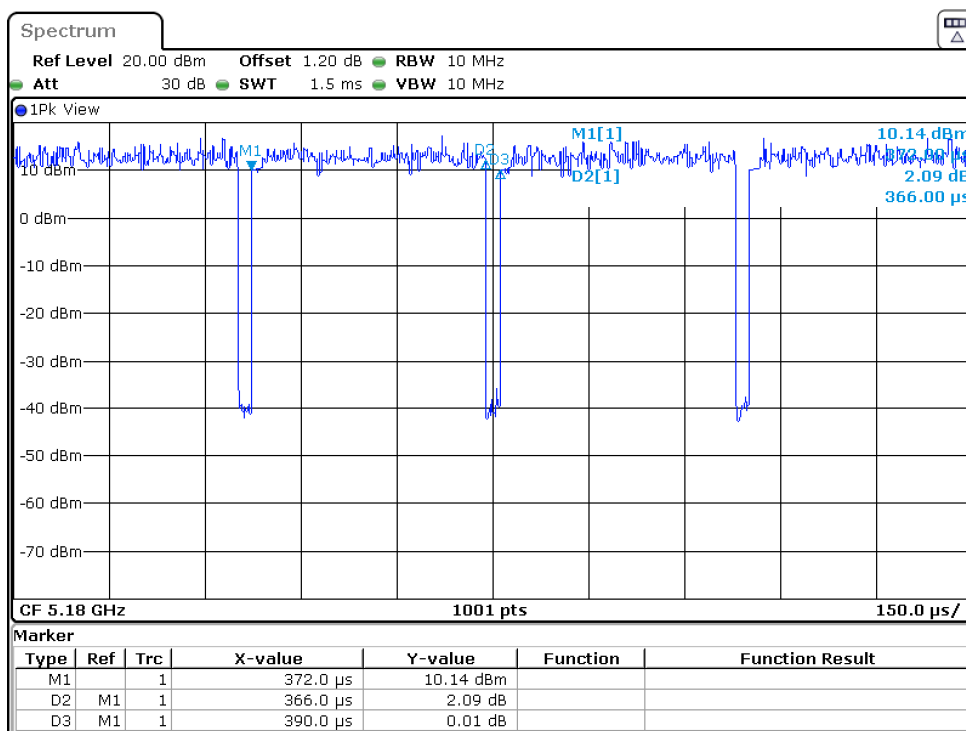
Duty Cycle = $Ton / (Ton + Toff)$

Duty Factor = $10 \text{ Log } (1/\text{Duty Cycle})$

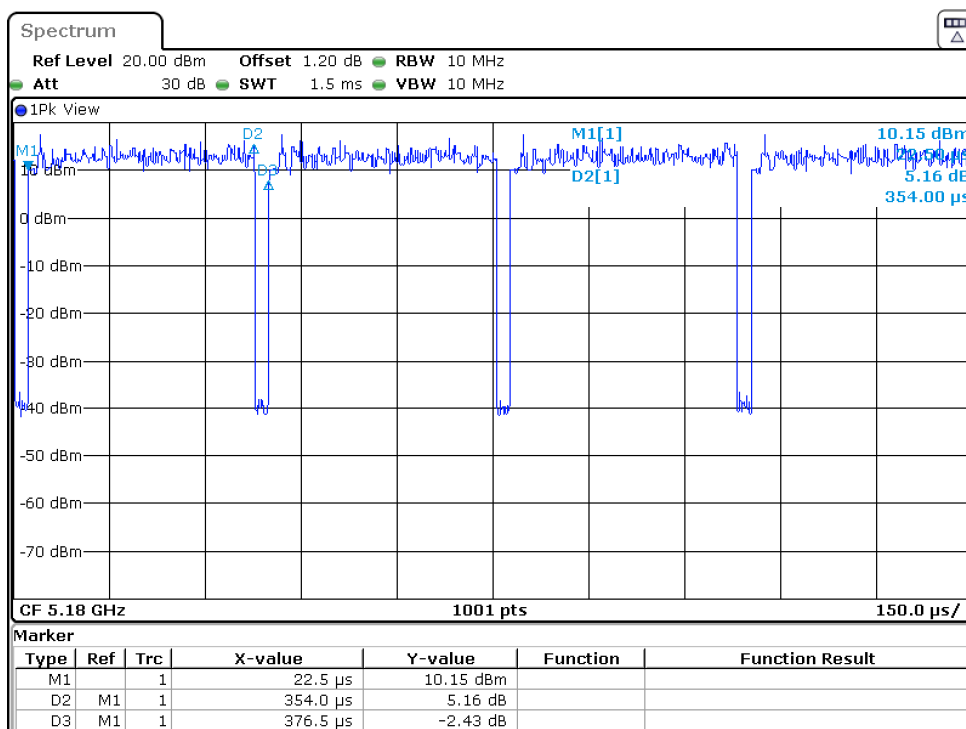
Results:

5 GHz band	Ton (ms)	Ton + Toff (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11 a	0.3660	0.3900	93.85	0.28
802.11 n20	0.3540	0.3765	94.02	0.27
802.11 n40	0.1905	0.2145	88.81	0.52
802.11 ac20	0.3630	0.3855	94.16	0.26
802.11 ac40	0.1950	0.2175	89.66	0.47
802.11 ac80	0.1095	0.1335	82.02	0.86

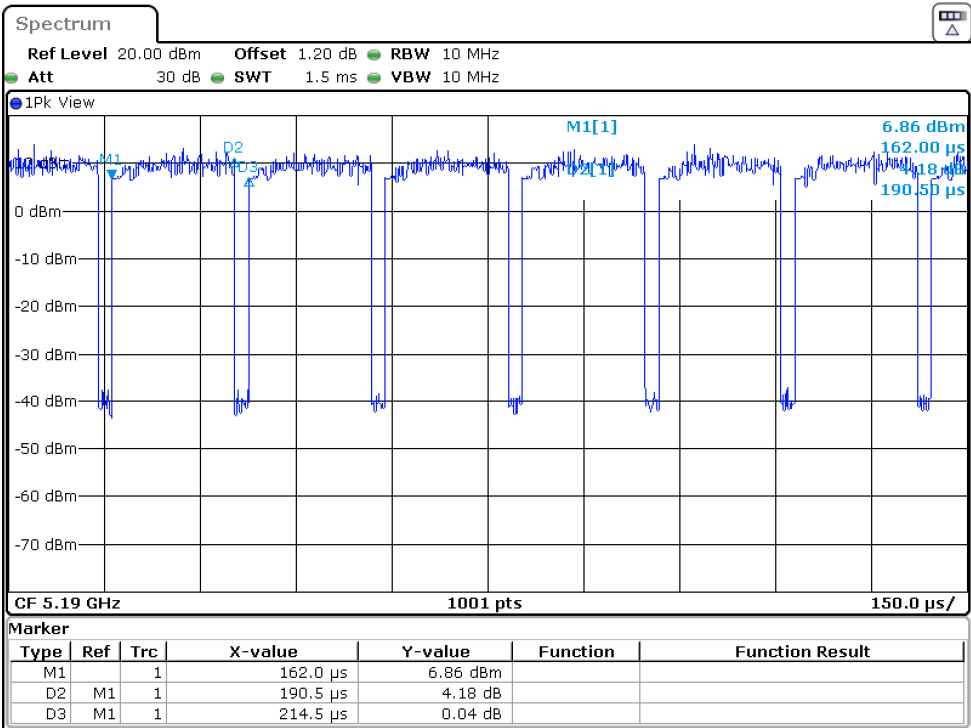
802.11a



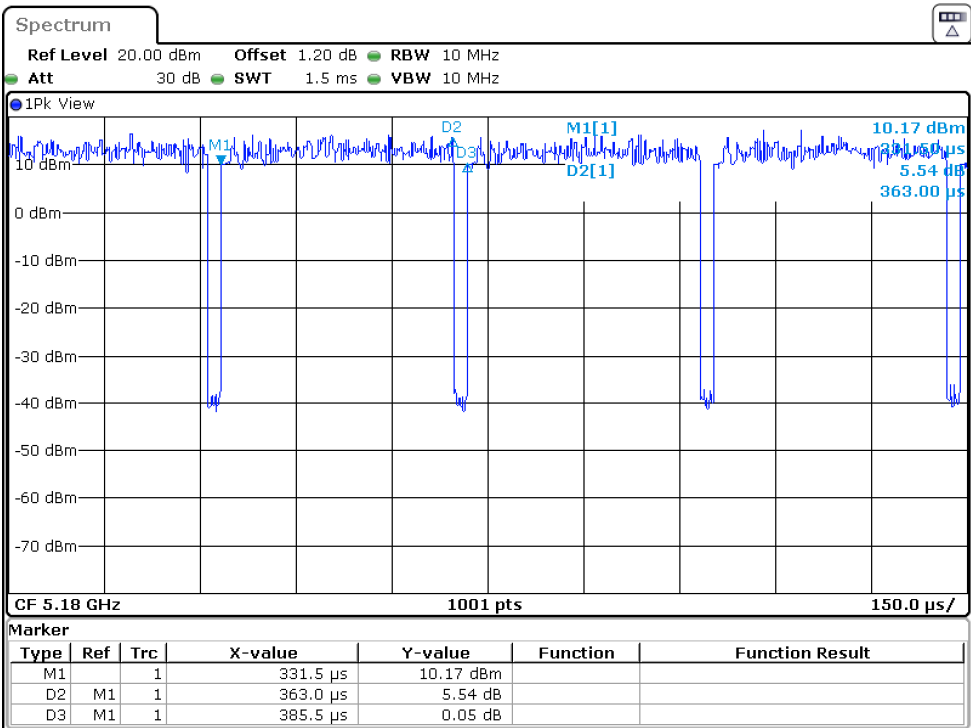
802.11n20



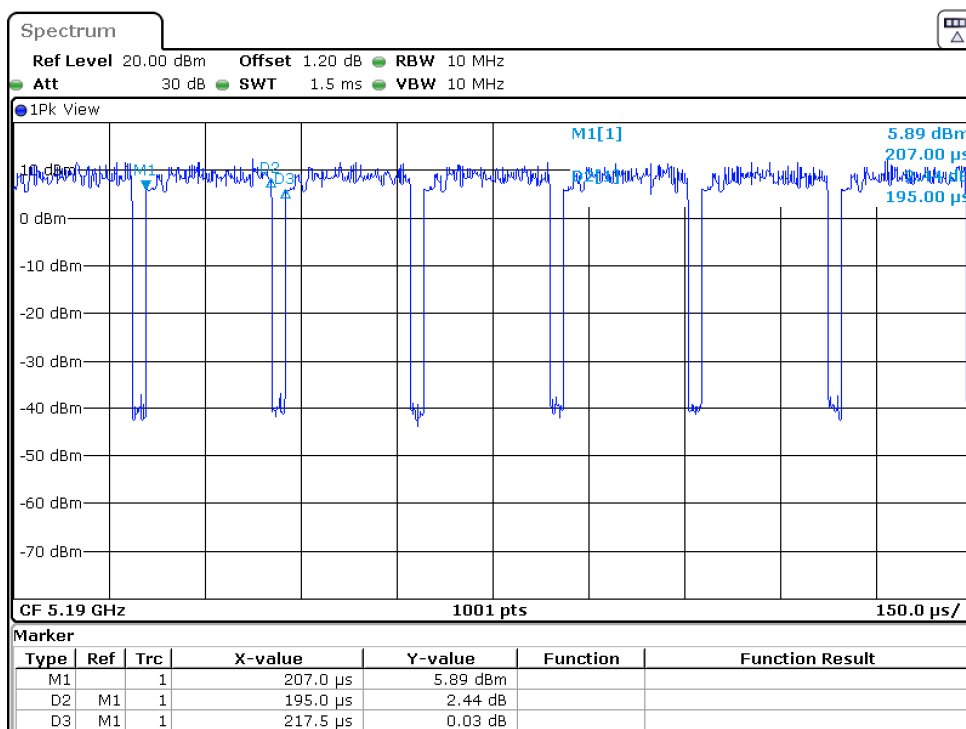
802.11n40



802.11ac20



802.11ac40



802.11ac80

