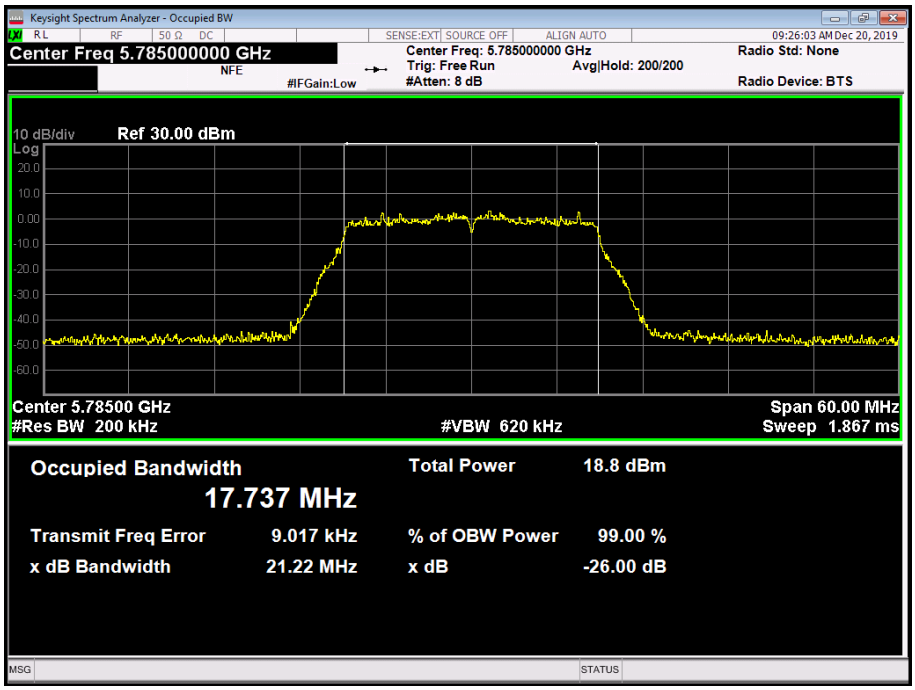

Figure 279 - 5785 MHz - 99% Occupied Bandwidth

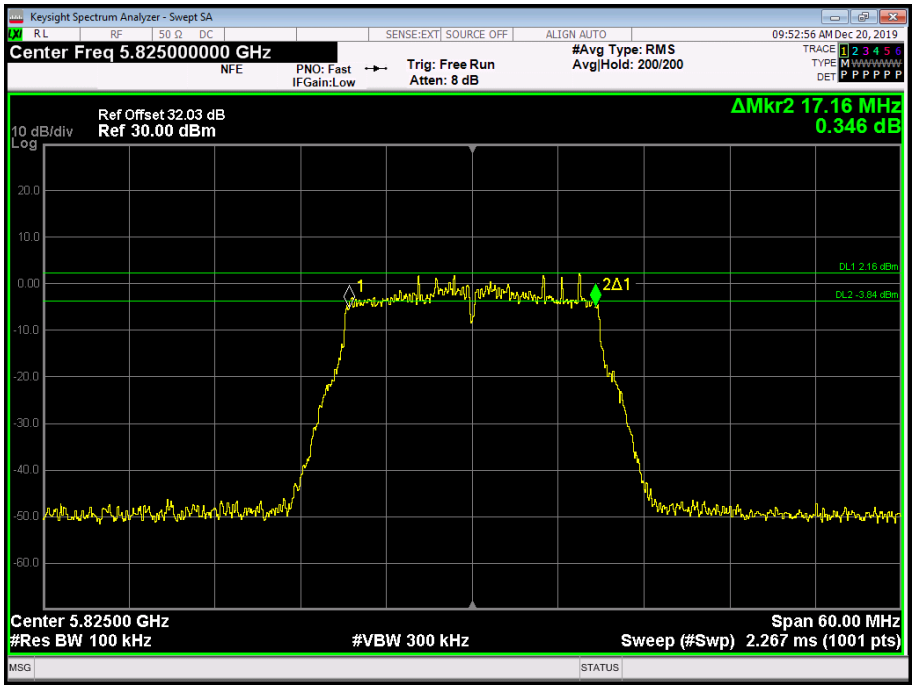

Figure 280 - 5825 MHz - 6 dB DTS Bandwidth

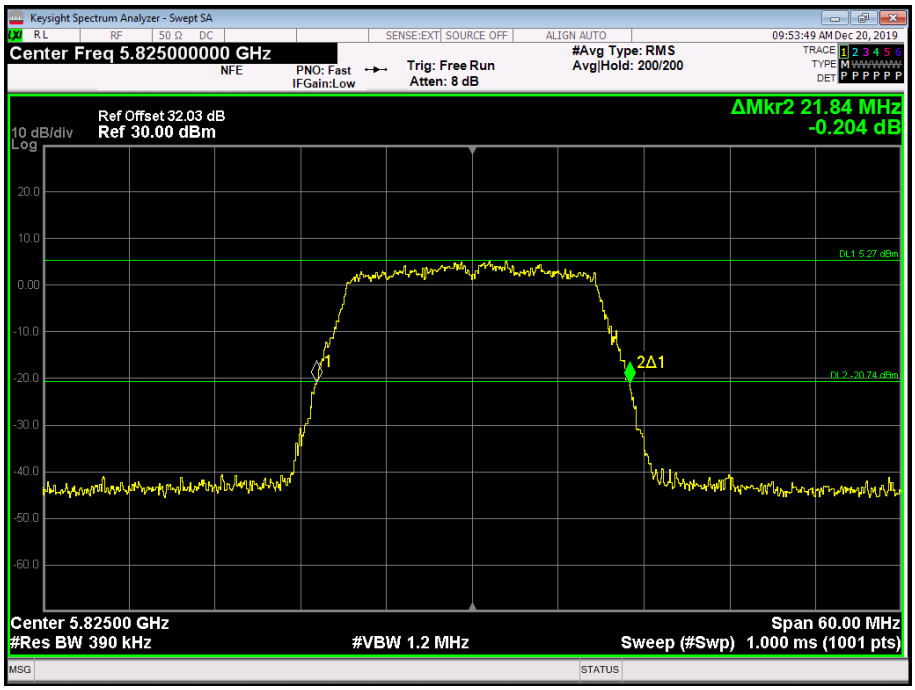

Figure 281 - 5825 MHz - 26 dB Emission Bandwidth

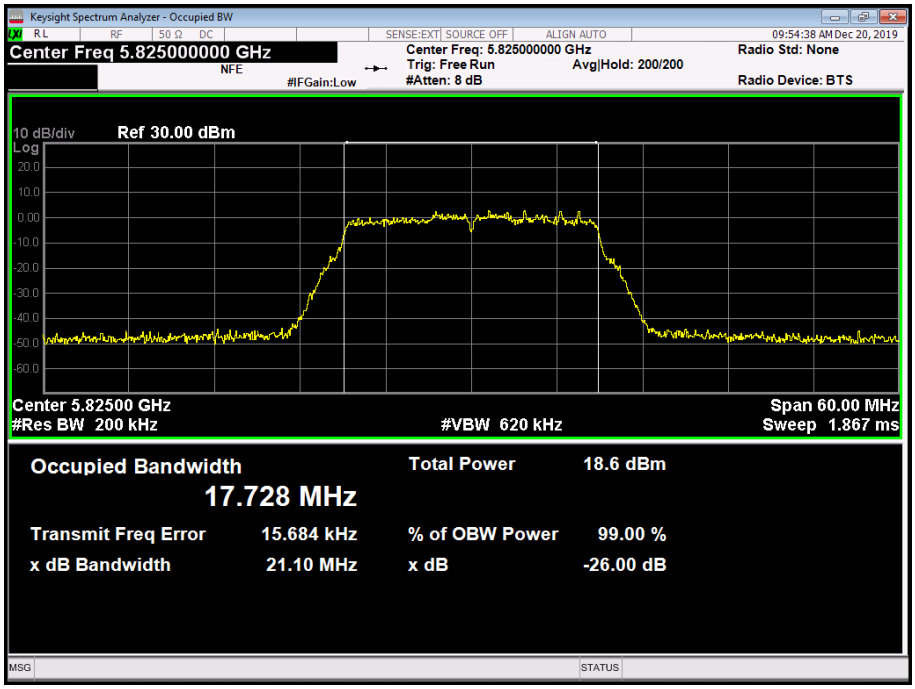

Figure 282 - 5825 MHz - 99% Occupied Bandwidth

Channel	Straddle	Bottom	Middle	Top
Frequency (MHz)	5720	5745	5785	5825
6 dB Bandwidth (MHz)	3.820	17.400	16.800	16.680
26 dB Bandwidth (MHz)	5.920	22.140	21.900	21.960
99% Bandwidth (MHz)	17.747	17.749	17.745	17.761

Table 197 - 802.11n / HT20 MCS0 / MIMO CDD / Cores 0+1

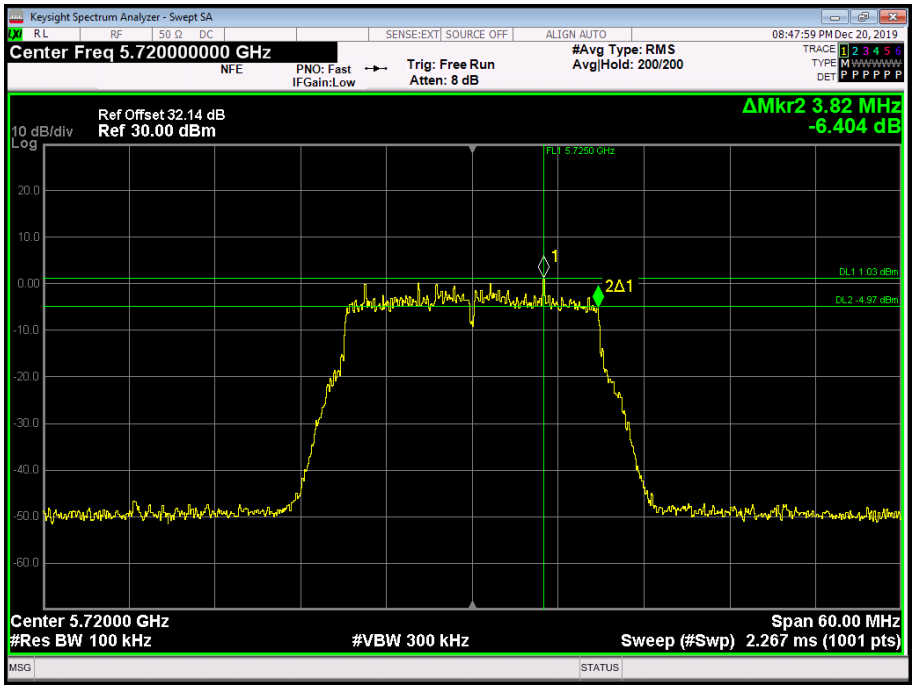

Figure 283 - 5720 MHz - 6 dB DTS Bandwidth

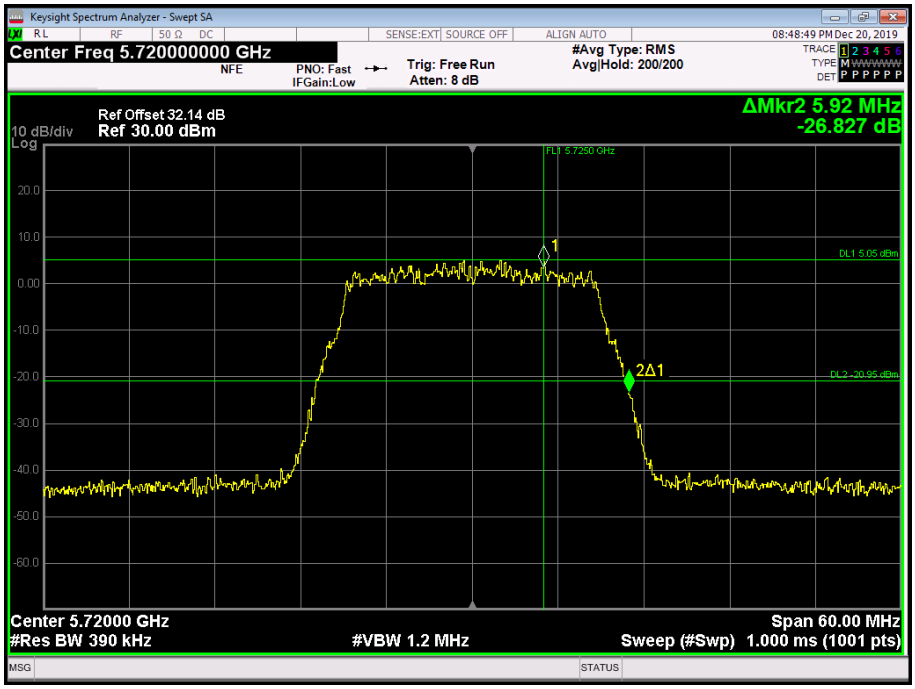

Figure 284 - 5720 MHz - 26 dB Emission Bandwidth

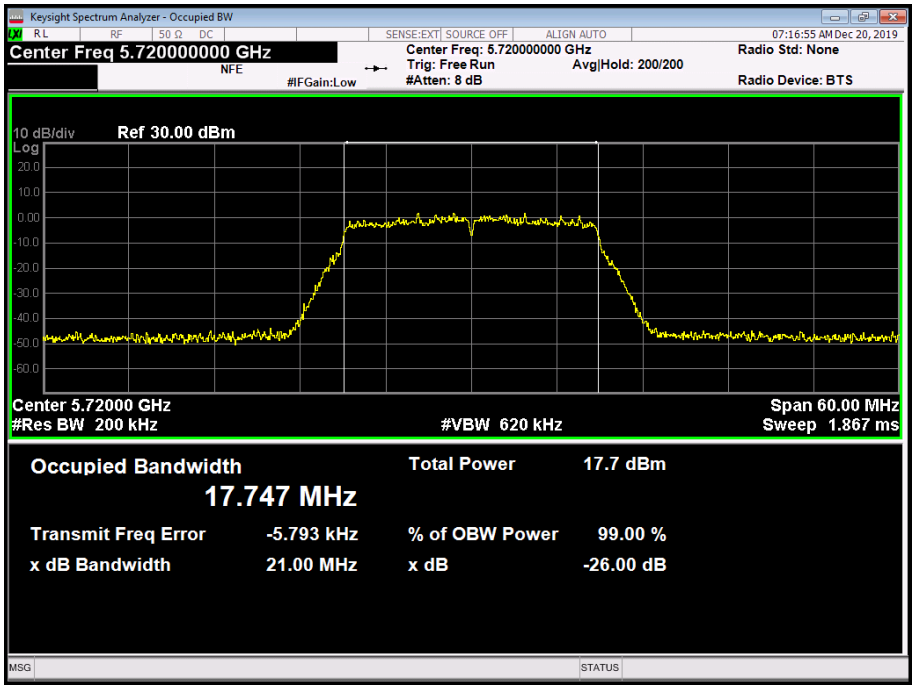

Figure 285 - 5720 MHz - 99% Occupied Bandwidth

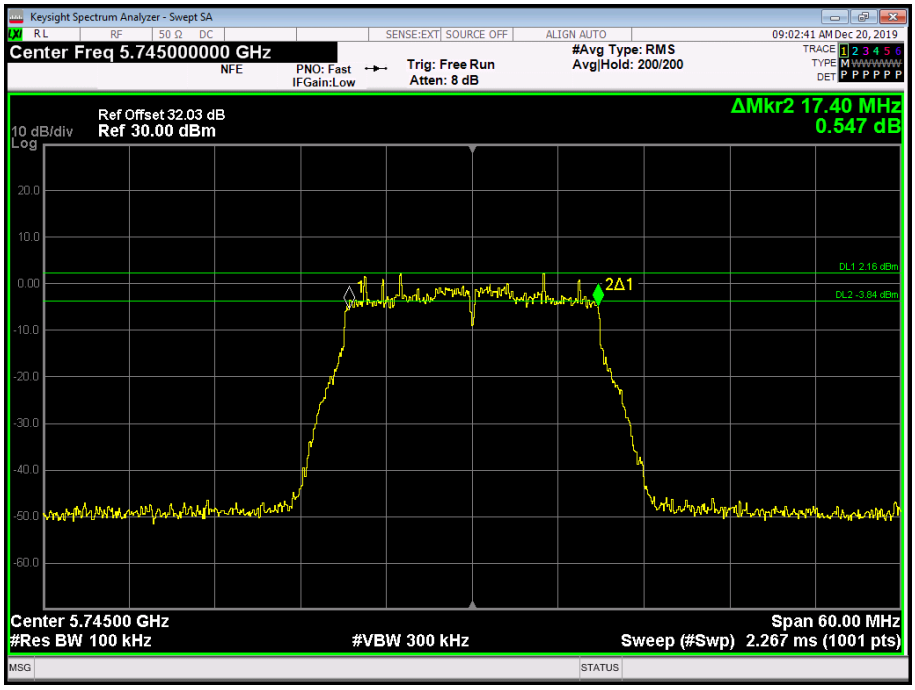

Figure 286 - 5745 MHz - 6 dB DTS Bandwidth

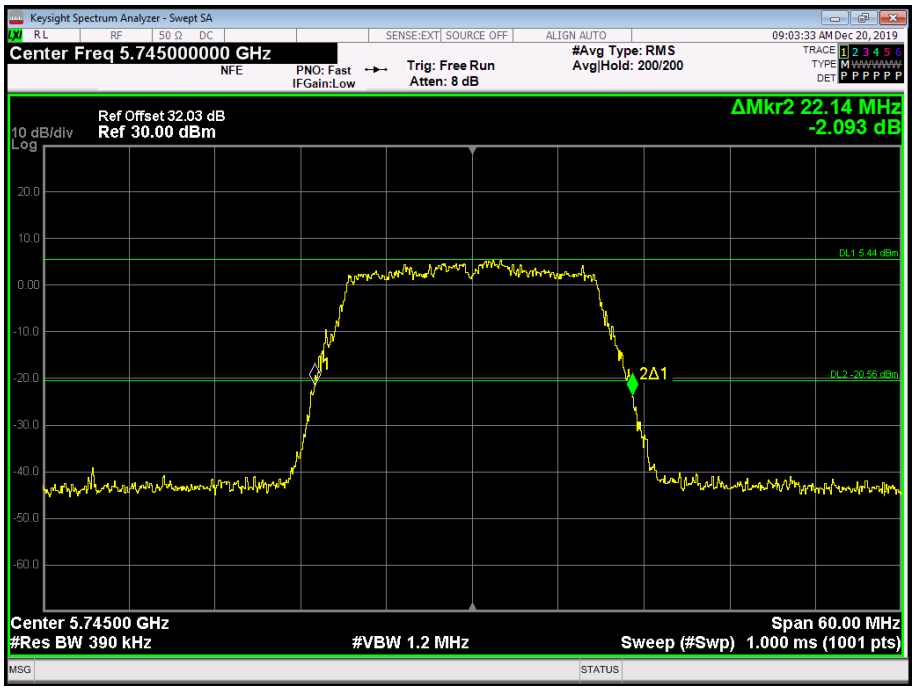

Figure 287 - 5745 MHz - 26 dB Emission Bandwidth

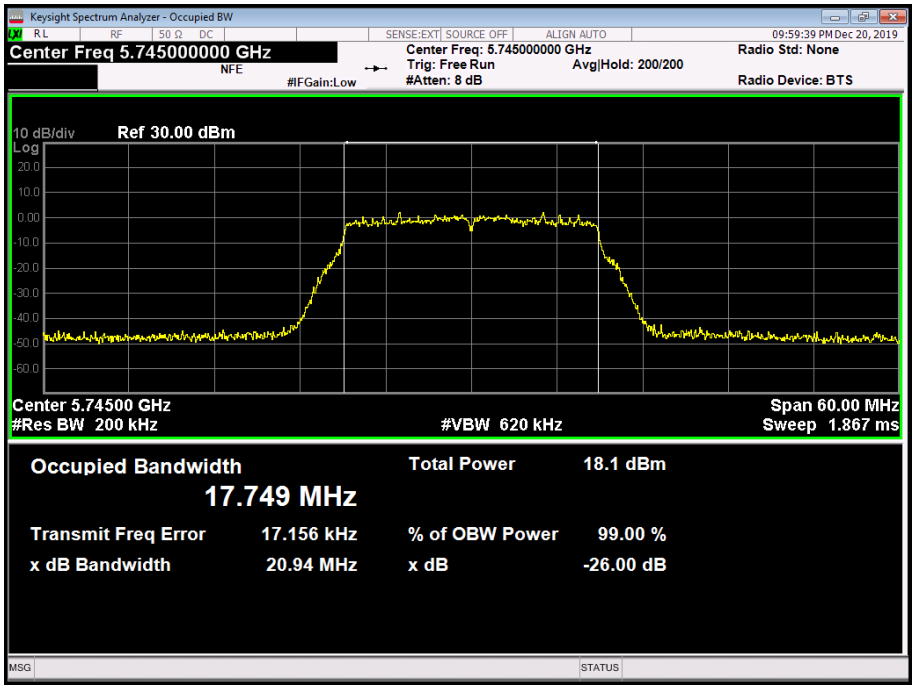

Figure 288 - 5745 MHz - 99% Occupied Bandwidth

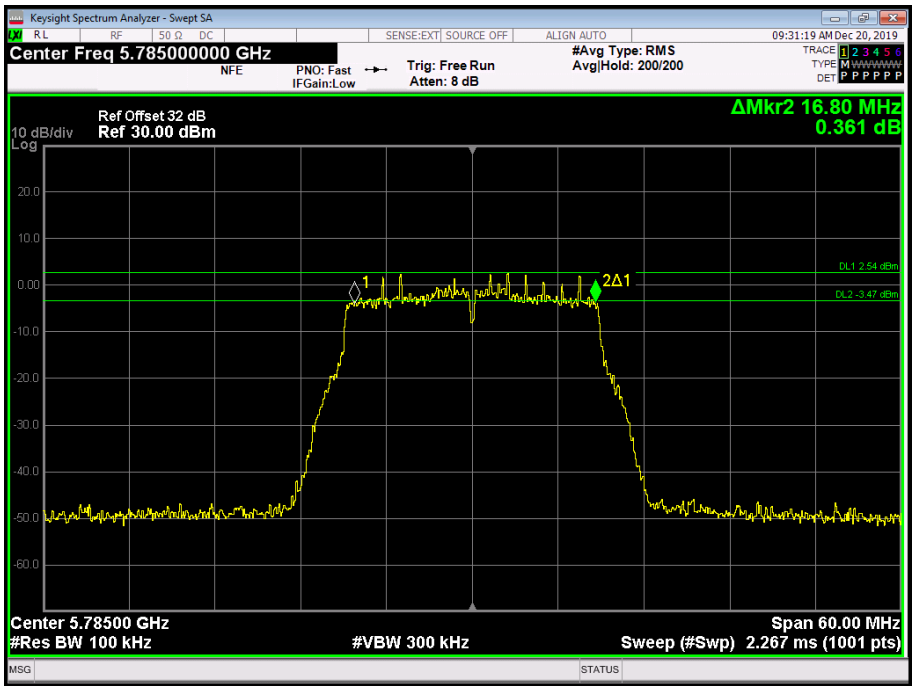

Figure 289 - 5785 MHz - 6 dB DTS Bandwidth

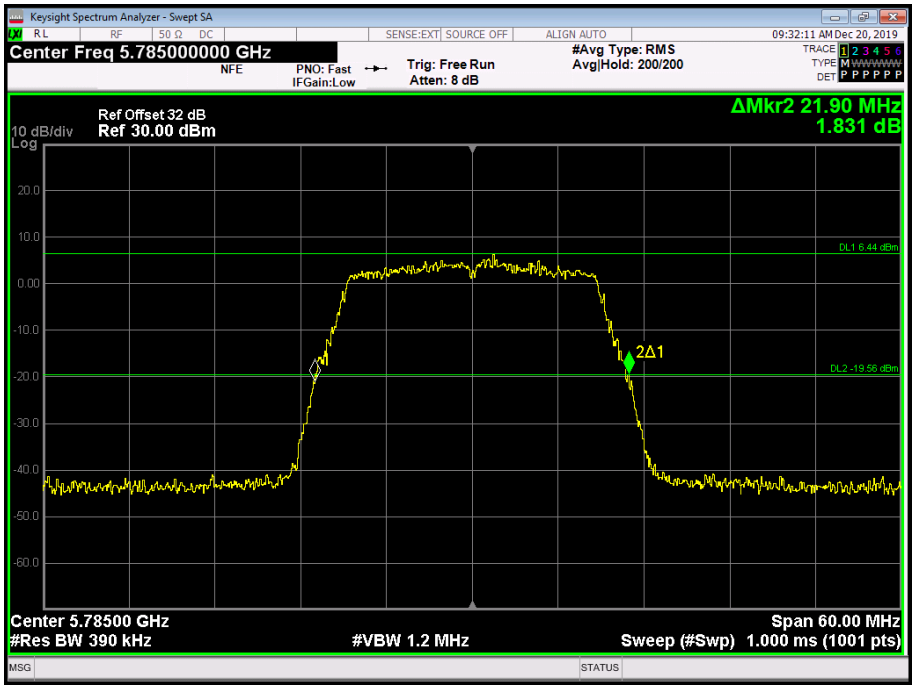

Figure 290 - 5785 MHz - 26 dB Emission Bandwidth

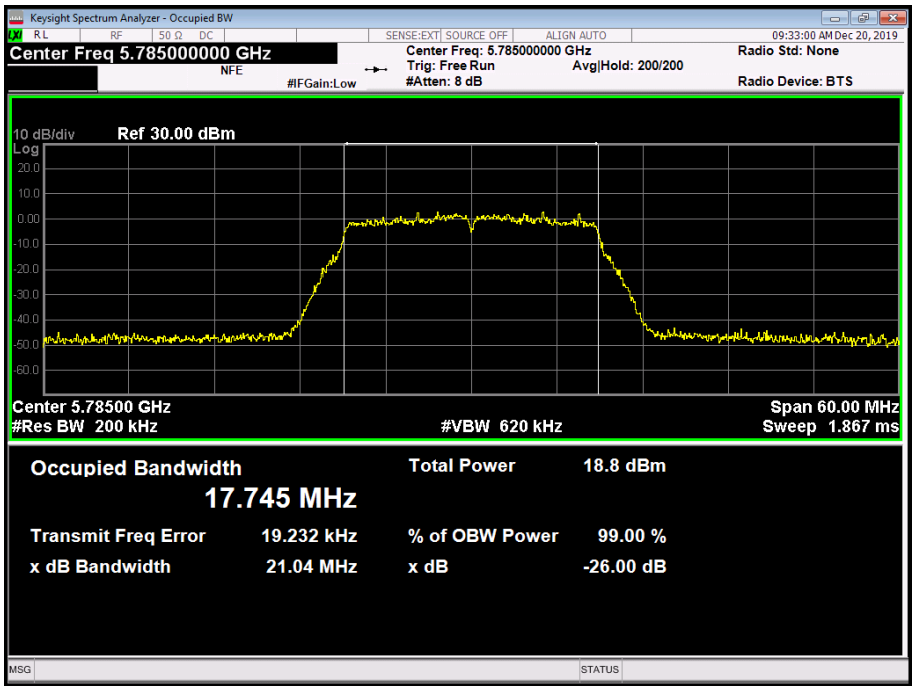

Figure 291 - 5785 MHz - 99% Occupied Bandwidth

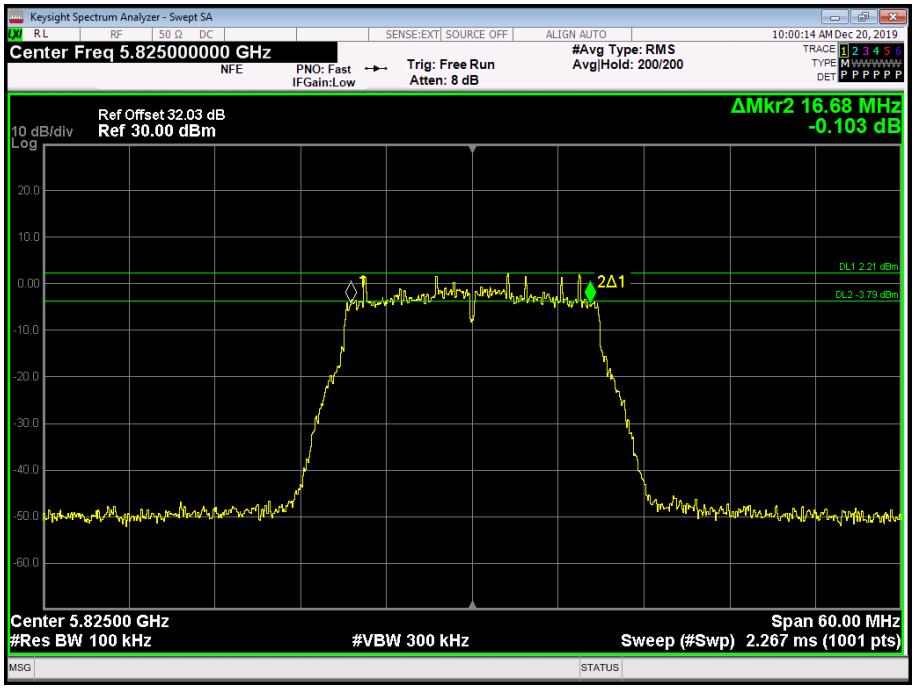

Figure 292 - 5825 MHz - 6 dB DTS Bandwidth

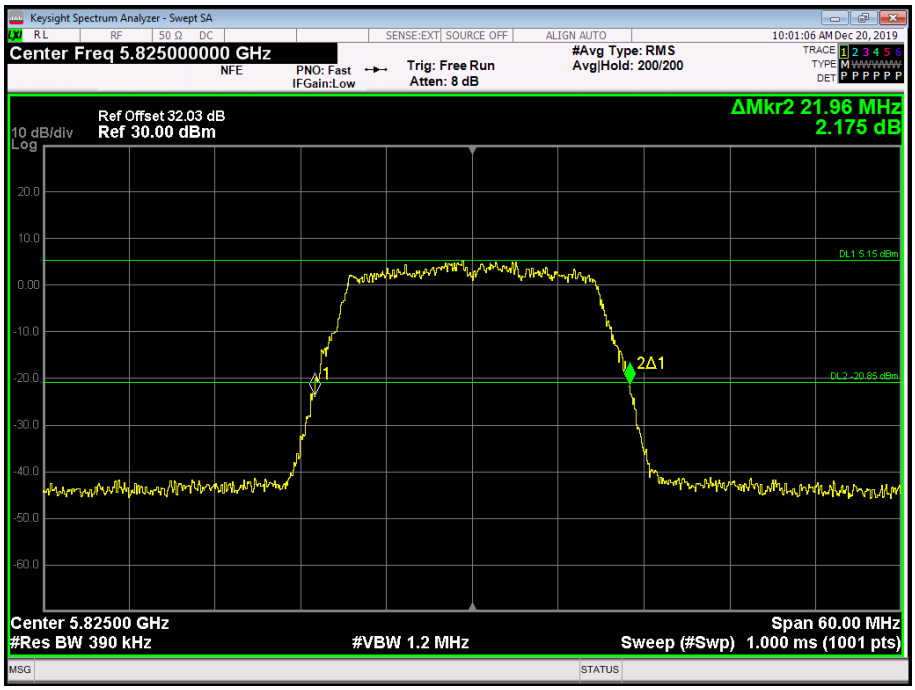

Figure 293 - 5825 MHz - 26 dB Emission Bandwidth

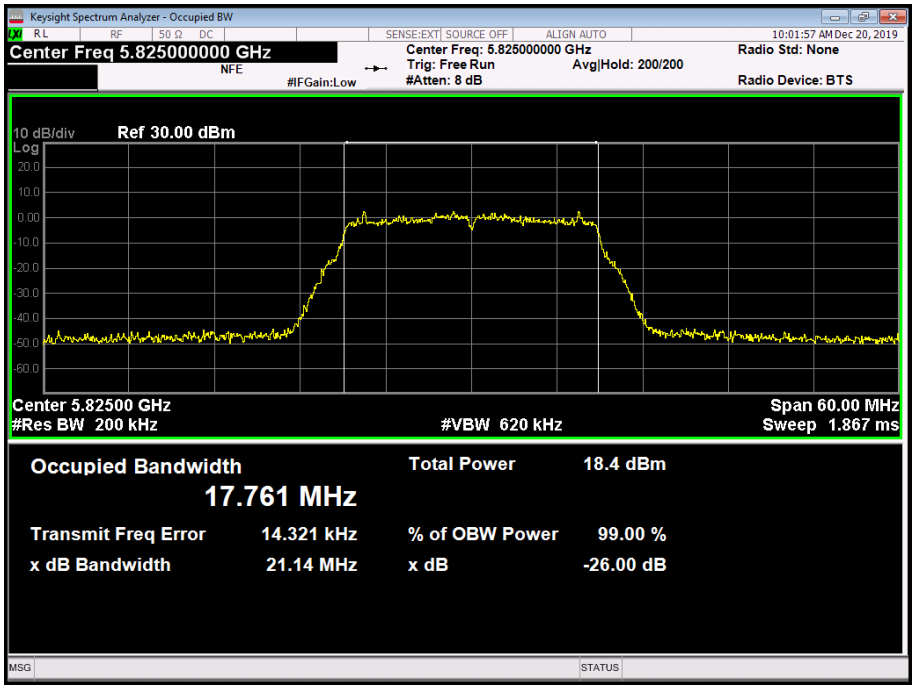

Figure 294 - 5825 MHz - 99% Occupied Bandwidth

Channel	Straddle	Bottom	Middle	Top
Frequency (MHz)	5720	5745	5785	5825
6 dB Bandwidth (MHz)	3.580	17.160	16.680	16.680
26 dB Bandwidth (MHz)	5.920	21.900	22.020	21.720
99% Bandwidth (MHz)	17.723	17.717	17.699	17.677

Table 198 - 802.11n / HT20 MCS8 / MIMO SDM / Cores 0+1

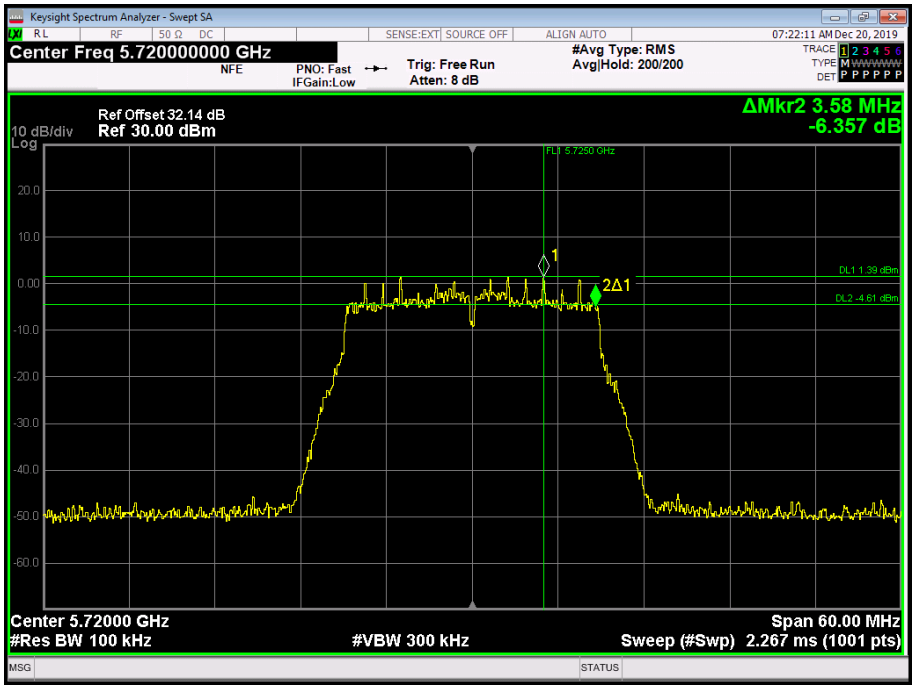

Figure 295 - 5720 MHz - 6 dB DTS Bandwidth

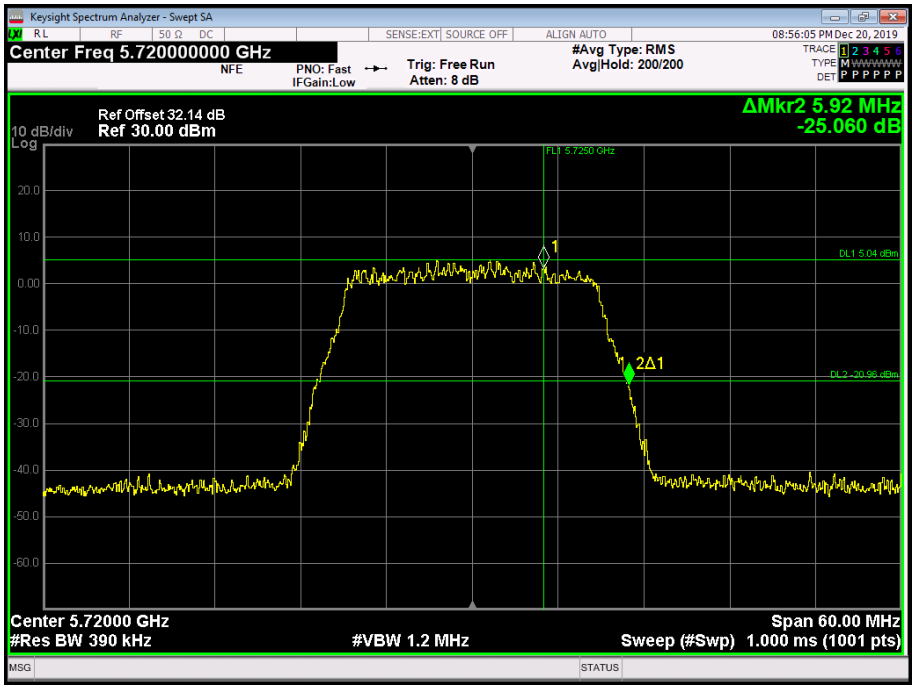

Figure 296 - 5720 MHz - 26 dB Emission Bandwidth

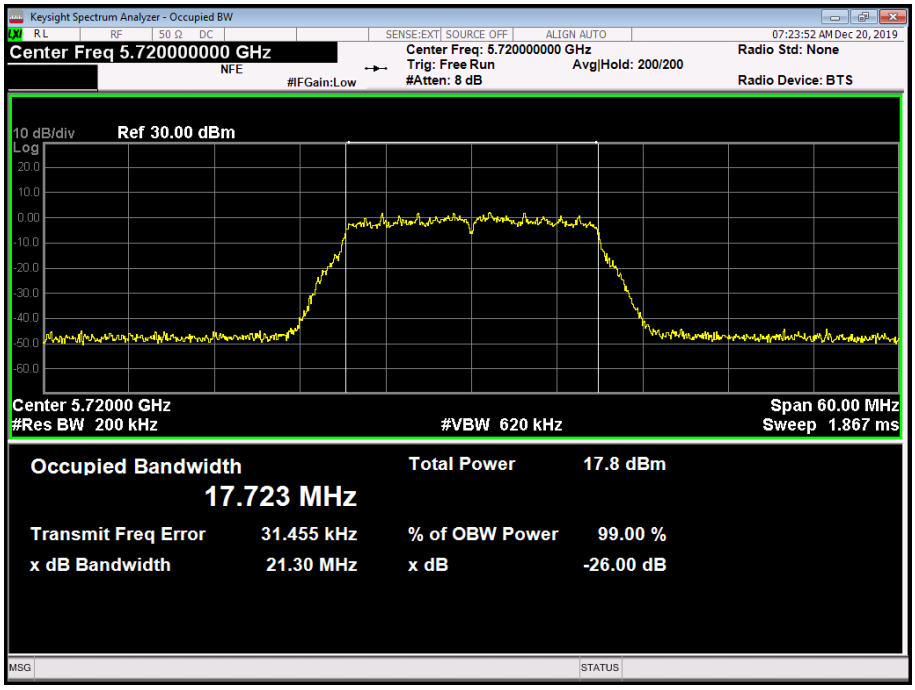

Figure 297 - 5720 MHz - 99% Occupied Bandwidth

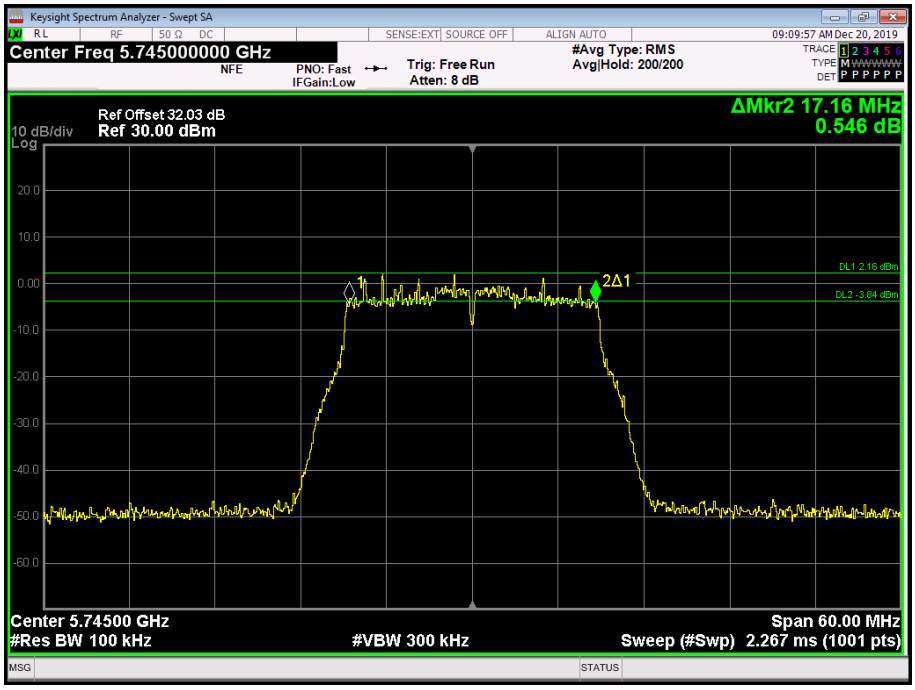

Figure 298 - 5745 MHz - 6 dB DTS Bandwidth

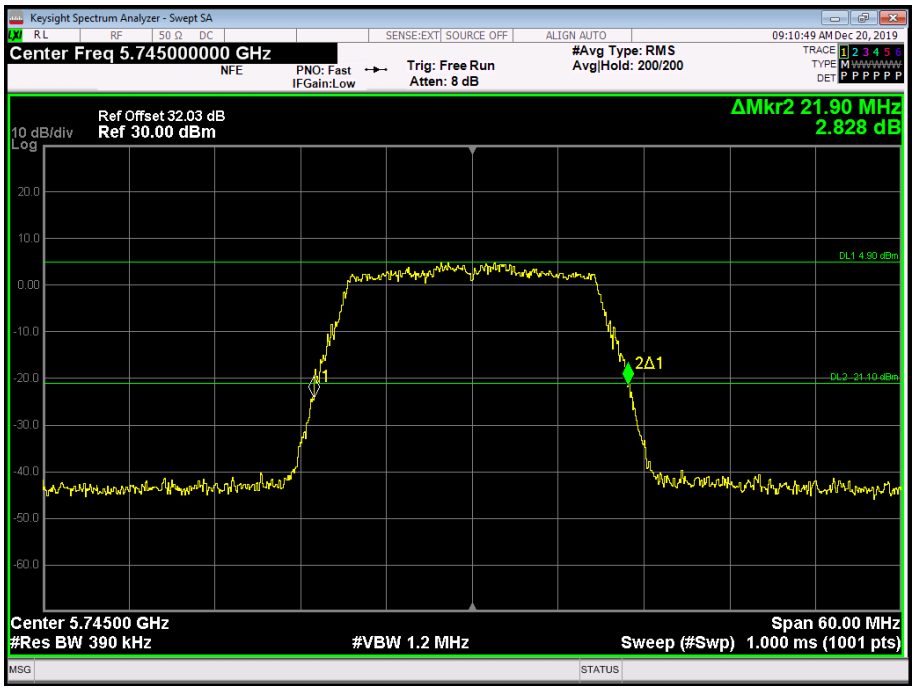

Figure 299 - 5745 MHz - 26 dB Emission Bandwidth

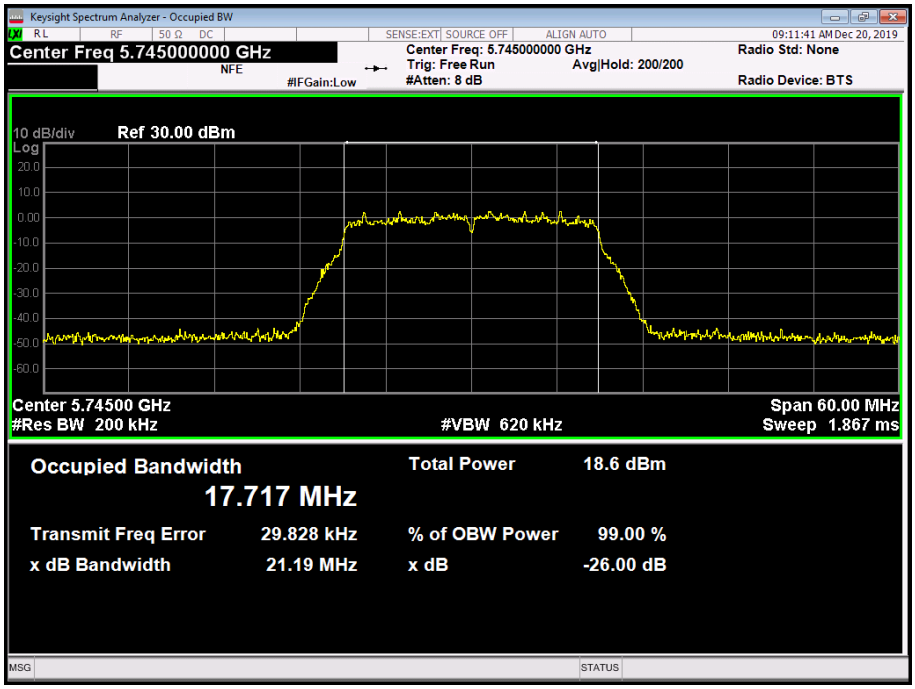

Figure 300 - 5745 MHz - 99% Occupied Bandwidth

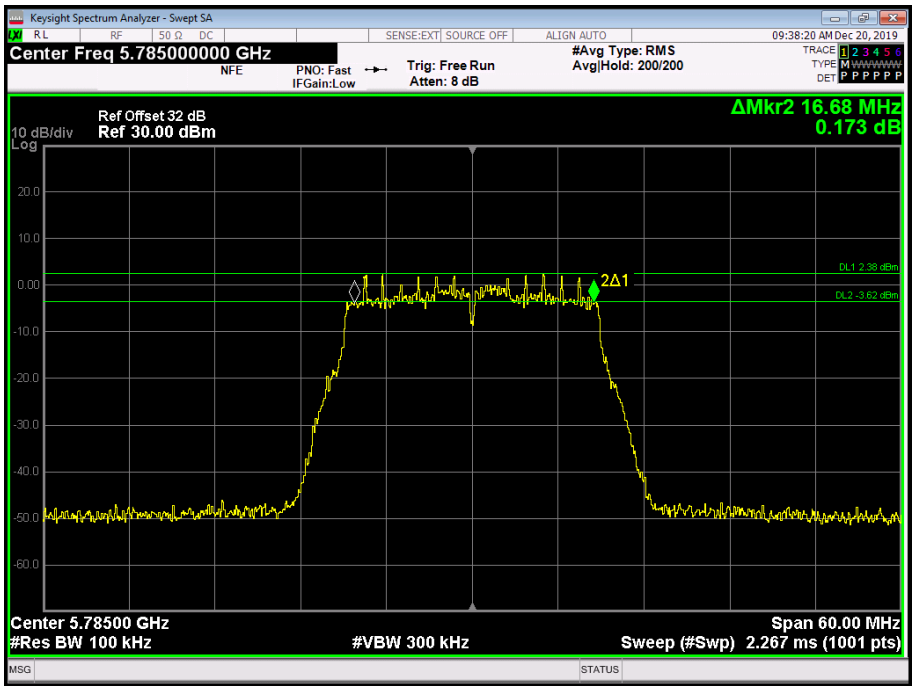

Figure 301 - 5785 MHz - 6 dB DTS Bandwidth

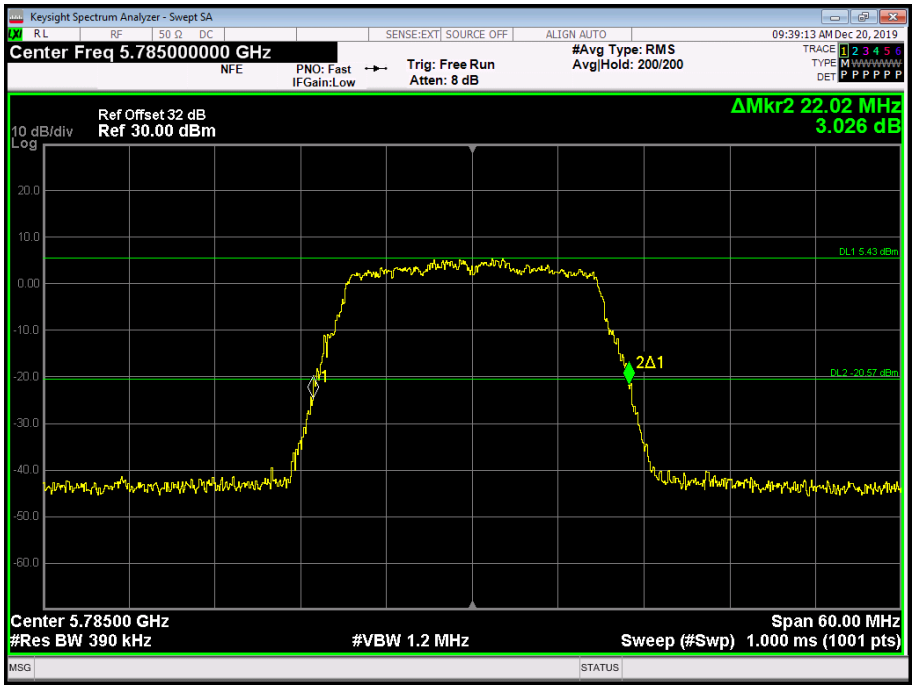

Figure 302 - 5785 MHz - 26 dB Emission Bandwidth

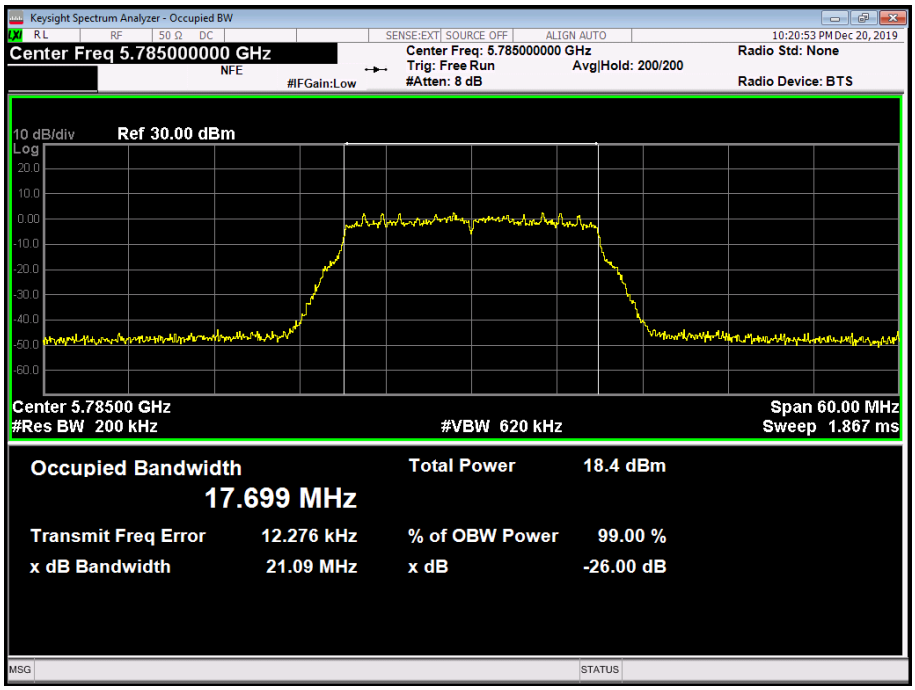

Figure 303 - 5785 MHz - 99% Occupied Bandwidth

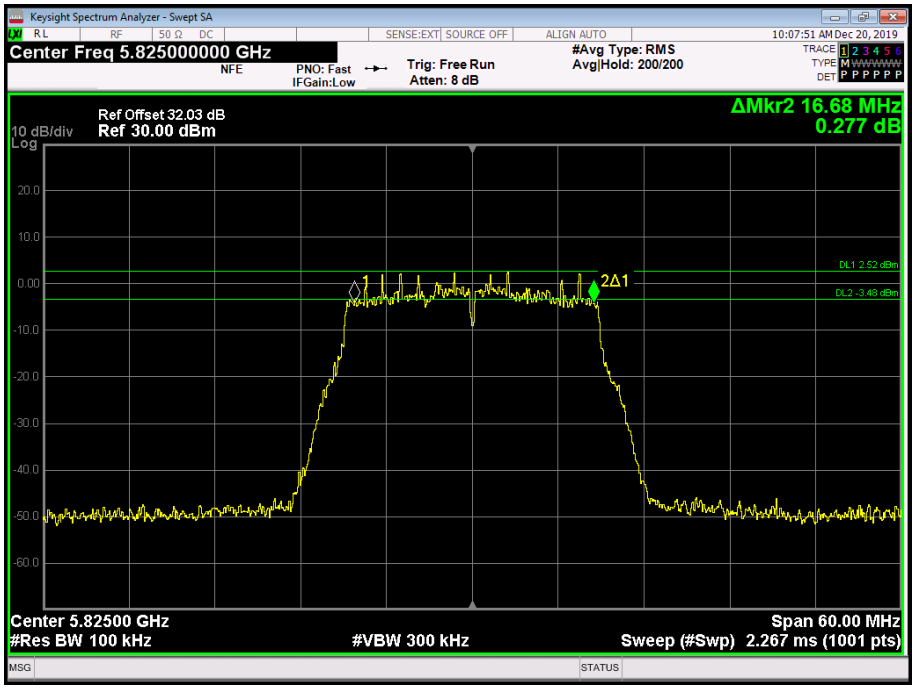

Figure 304 - 5825 MHz - 6 dB DTS Bandwidth

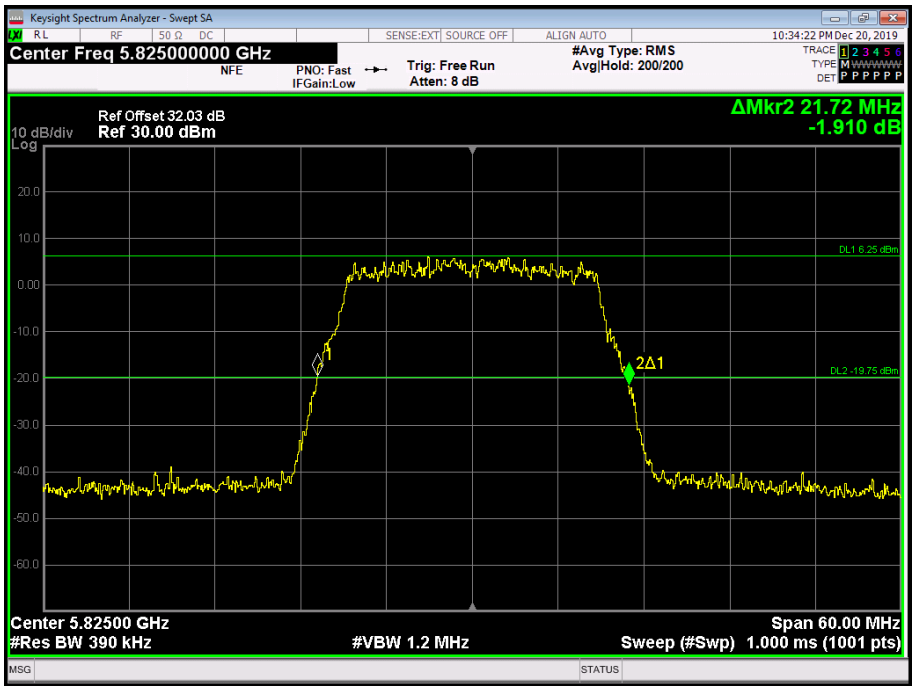

Figure 305 - 5825 MHz - 26 dB Emission Bandwidth

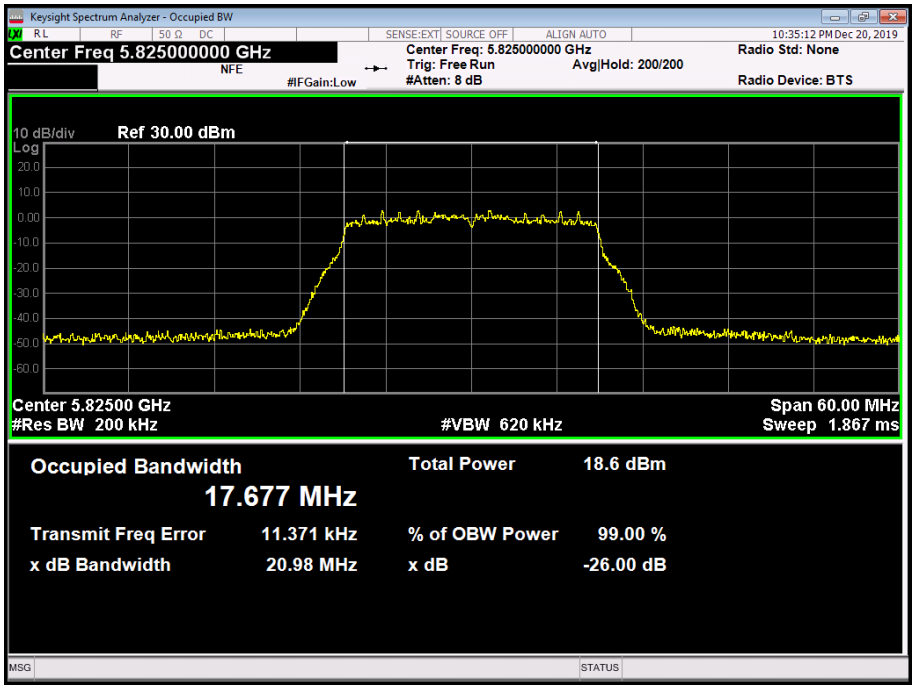

Figure 306 - 5825 MHz - 99% Occupied Bandwidth

Channel	Straddle	Bottom	Top
Frequency (MHz)	5710	5755	5795
6 dB Bandwidth (MHz)	2.640	35.640	35.400
26 dB Bandwidth (MHz)	5.040	40.680	40.320
99% Bandwidth (MHz)	36.098	36.115	36.063

Table 199 - 802.11n / HT40 MCS0 / SISO / Core 0

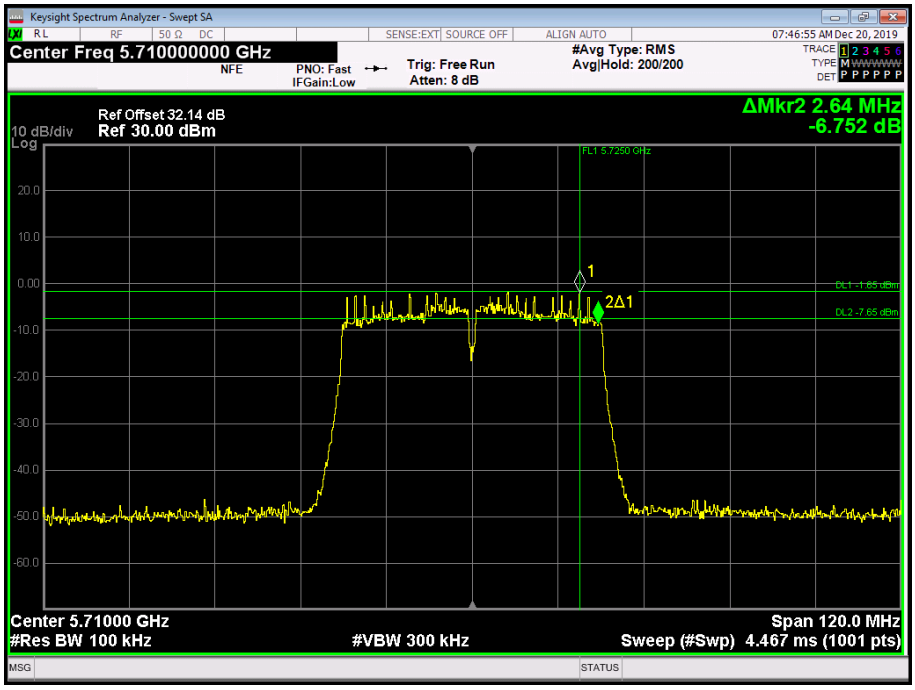

Figure 307 - 5710 MHz - 6 dB DTS Bandwidth

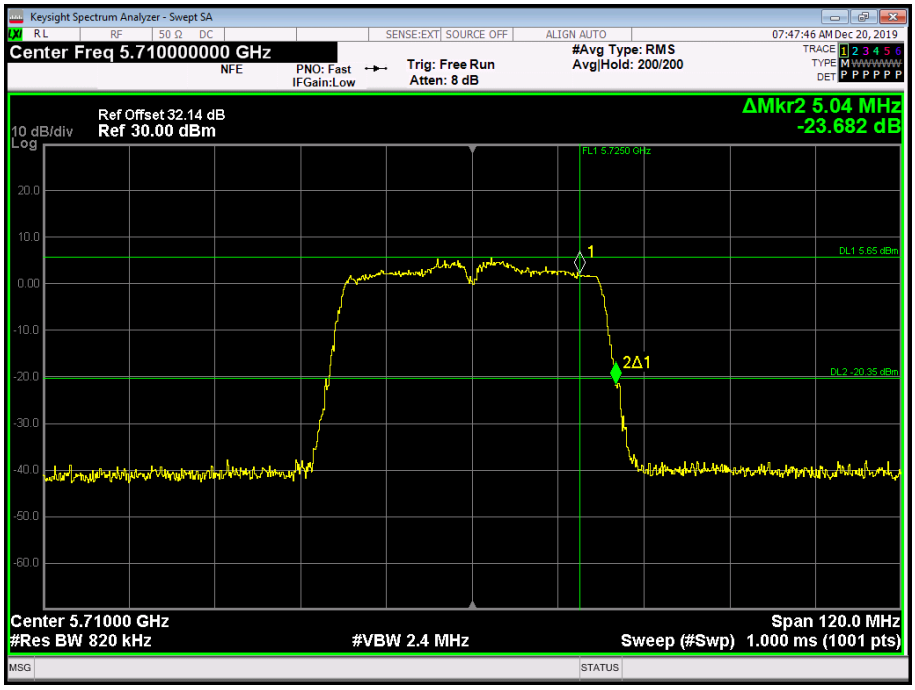

Figure 308 - 5710 MHz - 26 dB Emission Bandwidth

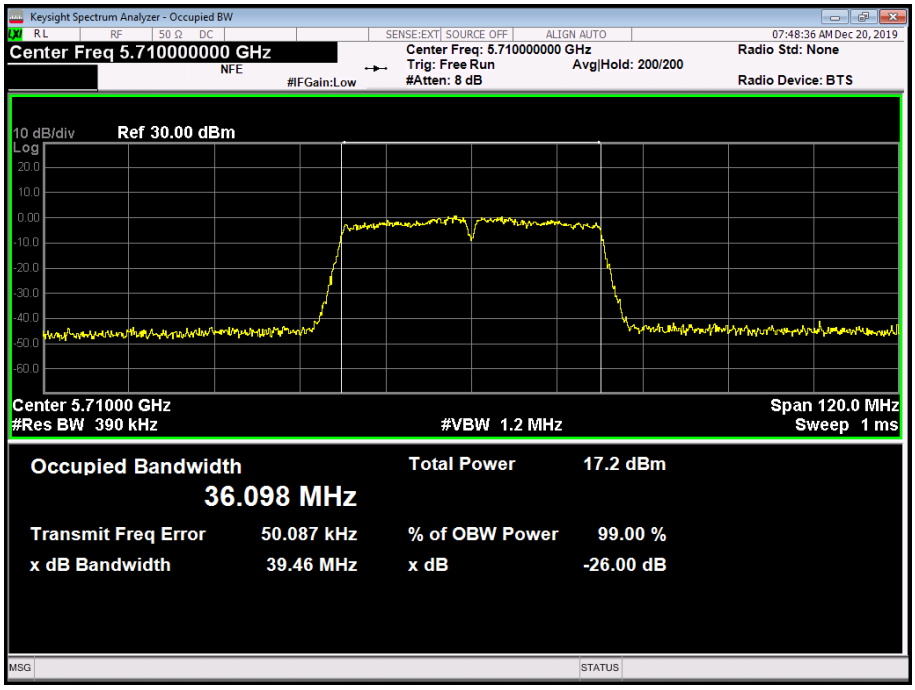

Figure 309 - 5710 MHz - 99% Occupied Bandwidth

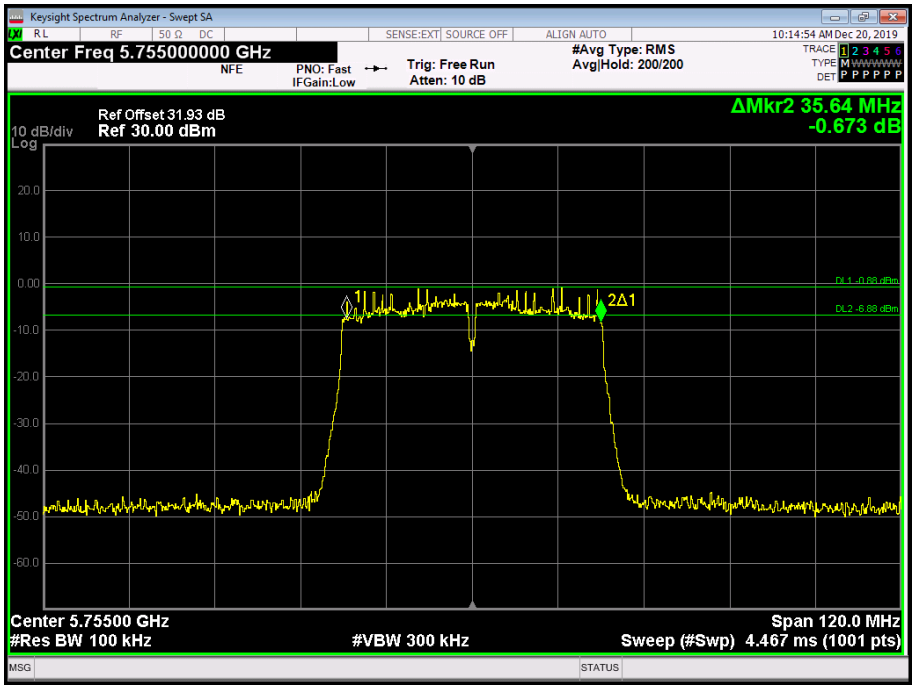

Figure 310 - 5755 MHz - 6 dB DTS Bandwidth

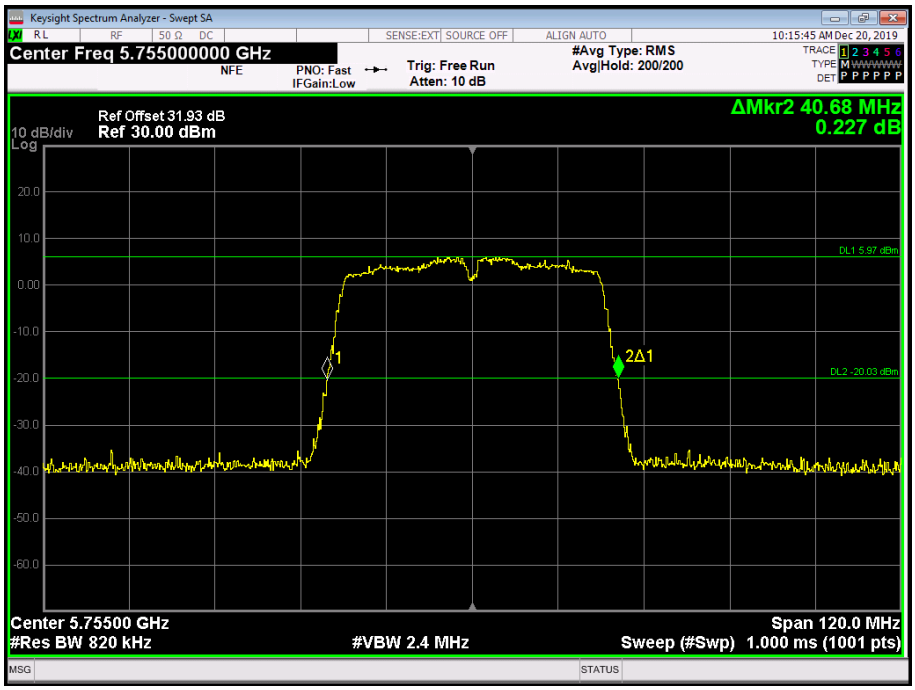

Figure 311 - 5755 MHz - 26 dB Emission Bandwidth

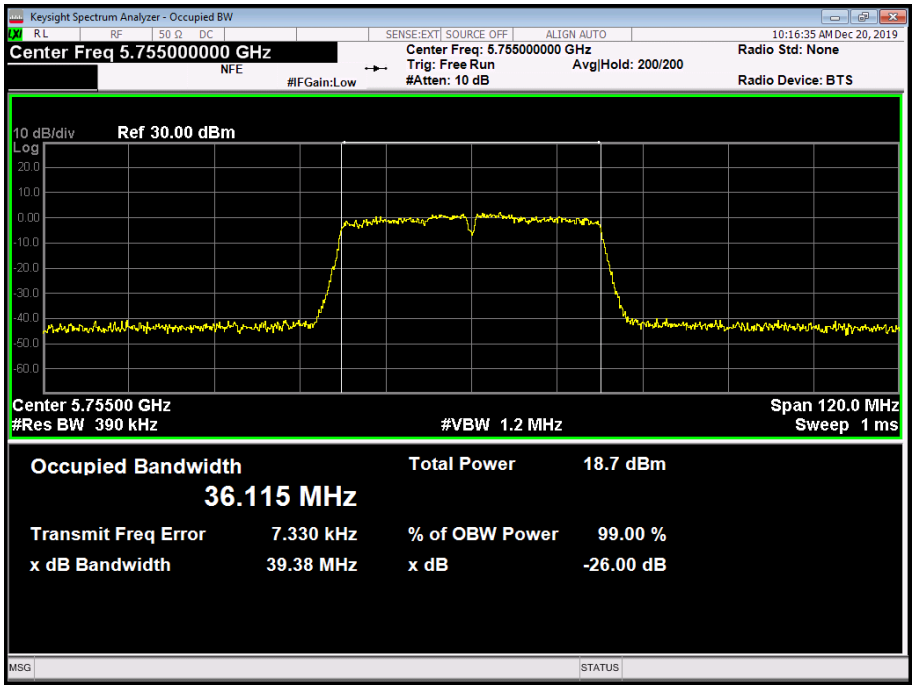

Figure 312 - 5755 MHz - 99% Occupied Bandwidth

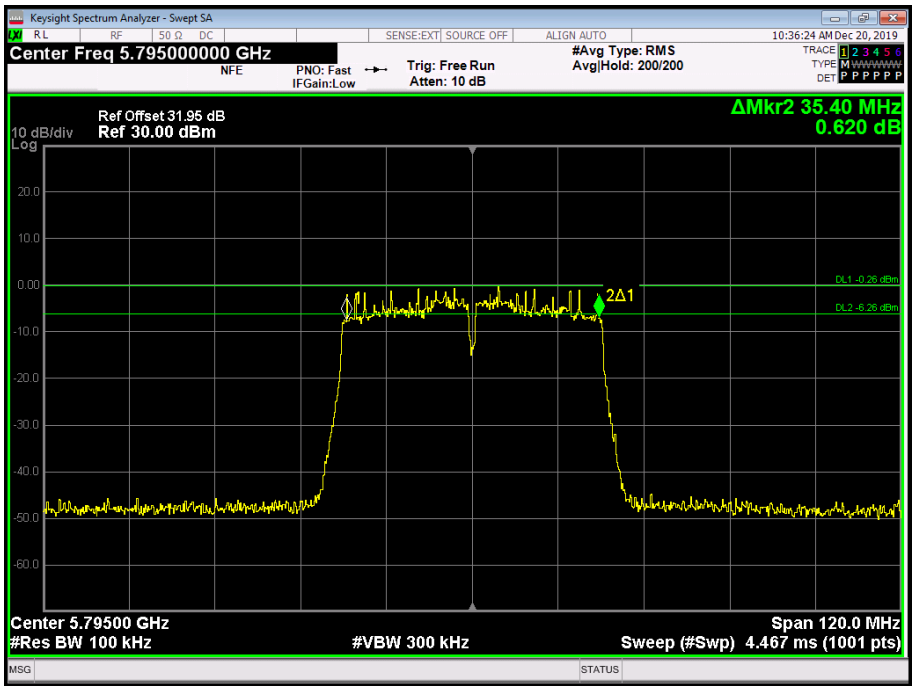

Figure 313 - 5795 MHz - 6 dB DTS Bandwidth

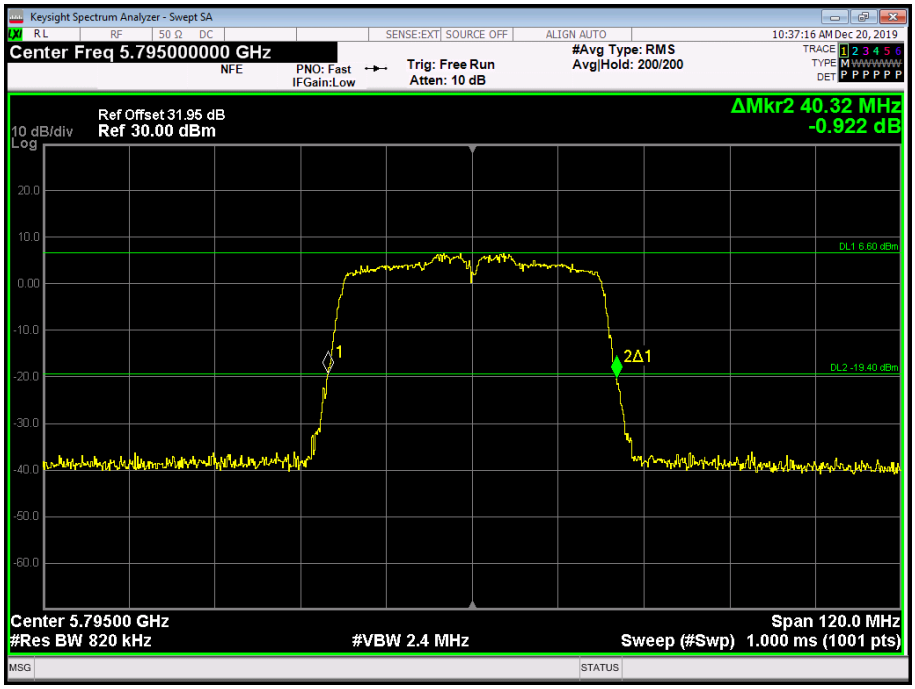

Figure 314 - 5795 MHz - 26 dB Emission Bandwidth

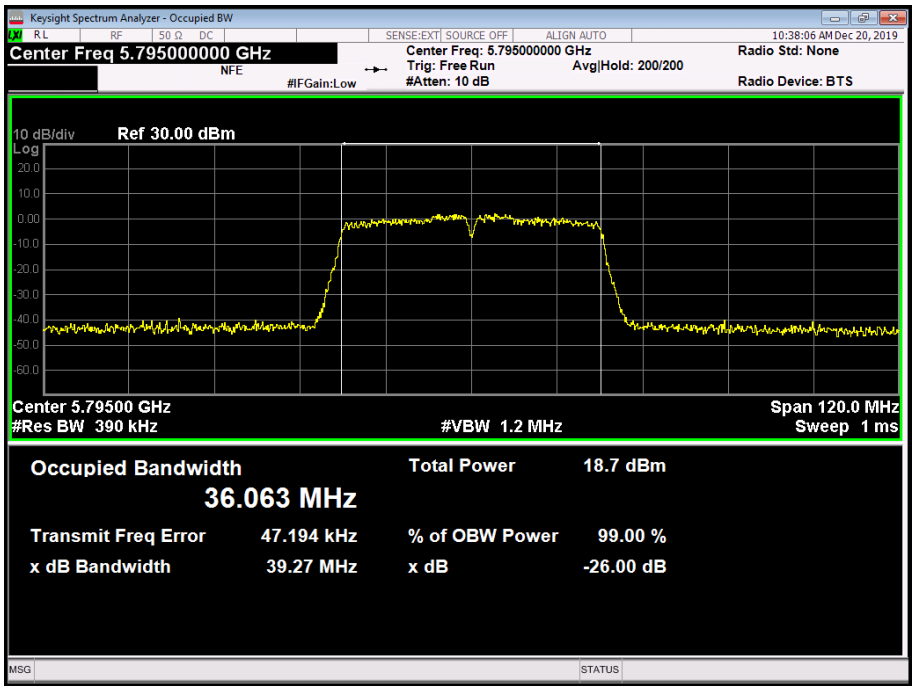

Figure 315 - 5795 MHz - 99% Occupied Bandwidth

Channel	Straddle	Bottom	Top
Frequency (MHz)	5710	5755	5795
6 dB Bandwidth (MHz)	2.640	35.280	35.400
26 dB Bandwidth (MHz)	5.040	40.440	40.560
99% Bandwidth (MHz)	36.148	36.124	36.072

Table 200 - 802.11n / HT40 MCS0 / MIMO CDD / Cores 0+1

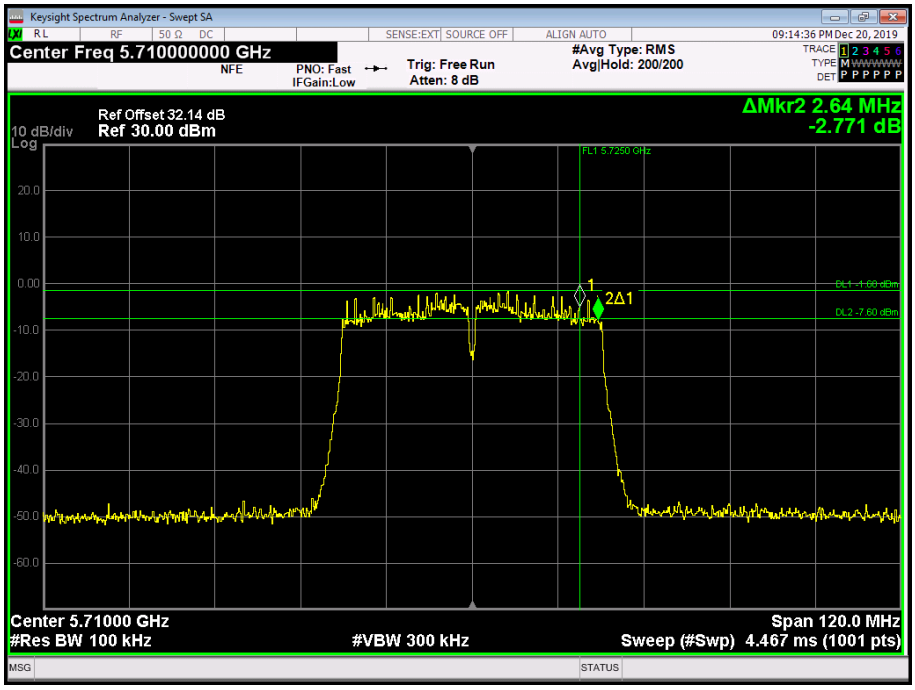

Figure 316 - 5710 MHz - 6 dB DTS Bandwidth

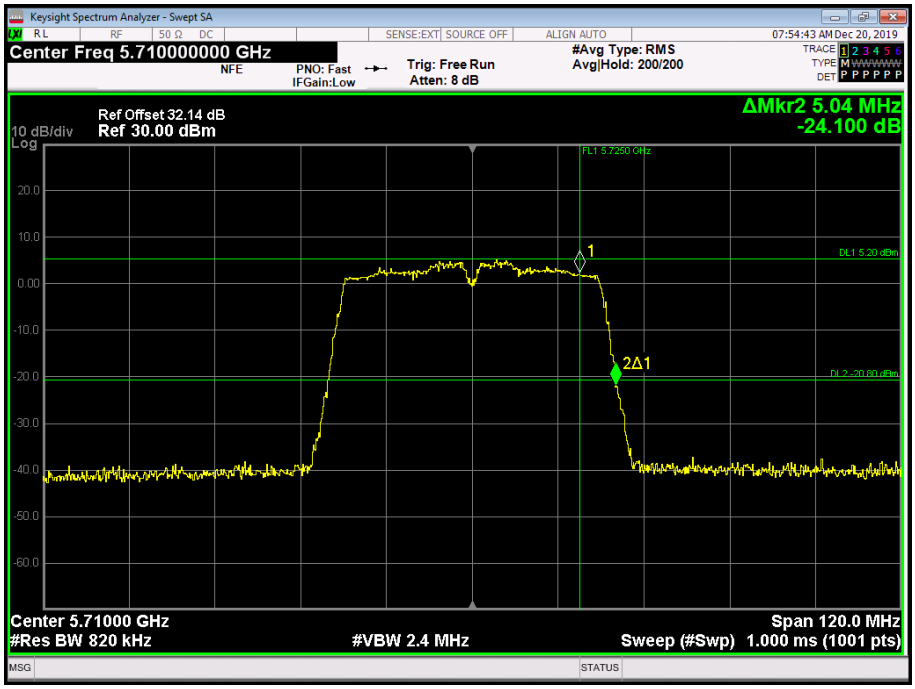

Figure 317 - 5710 MHz - 26 dB Emission Bandwidth

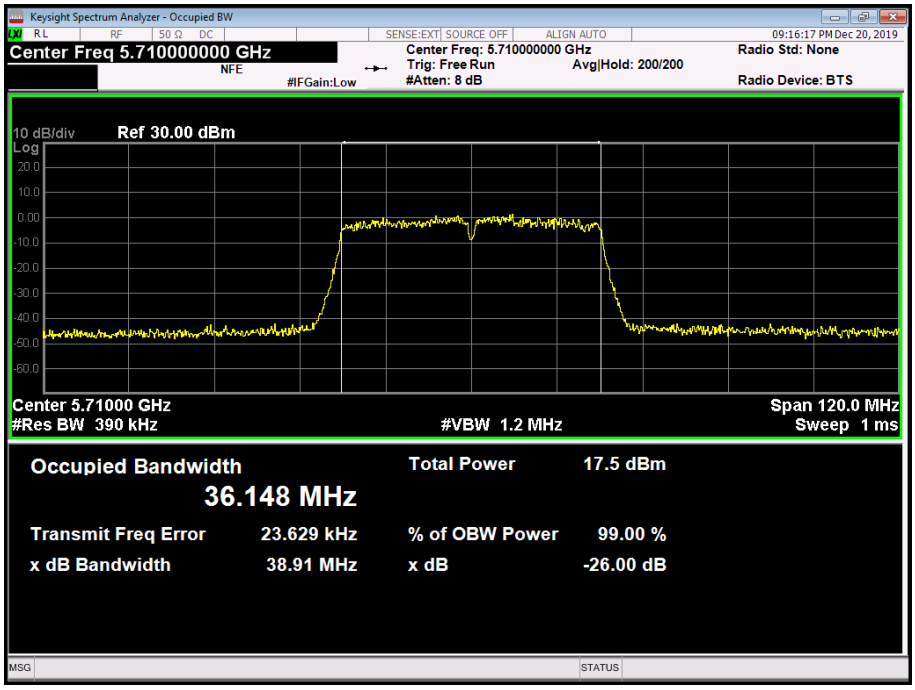

Figure 318 - 5710 MHz - 99% Occupied Bandwidth

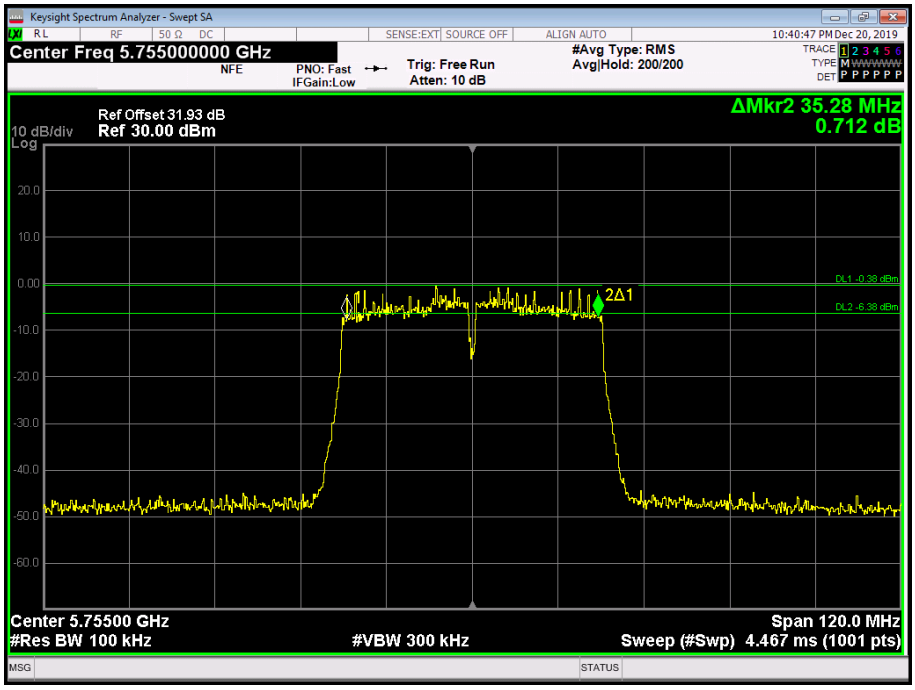

Figure 319 - 5755 MHz - 6 dB DTS Bandwidth

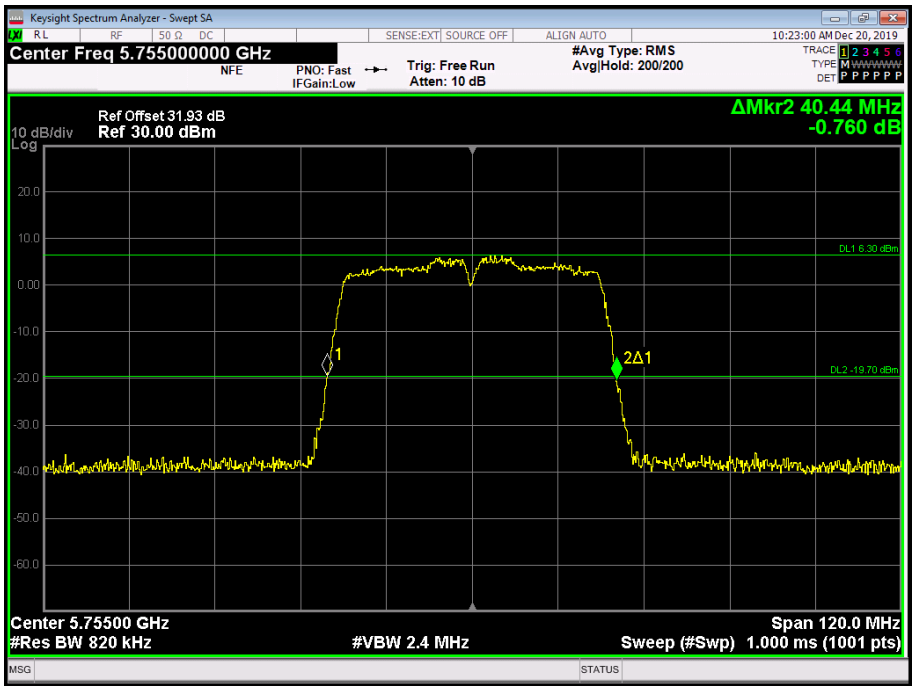

Figure 320 - 5755 MHz - 26 dB Emission Bandwidth

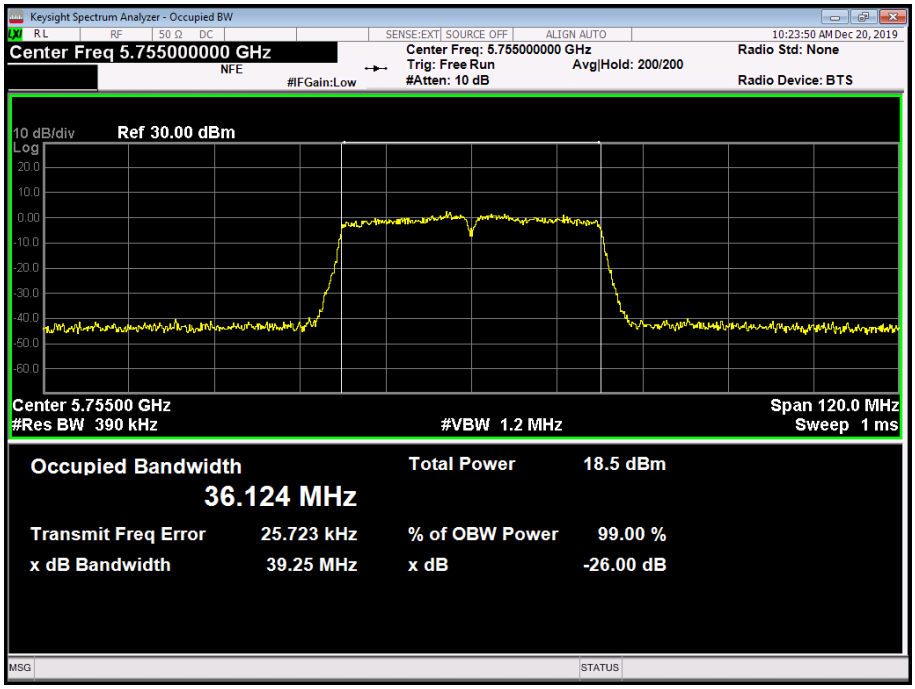

Figure 321 - 5755 MHz - 99% Occupied Bandwidth

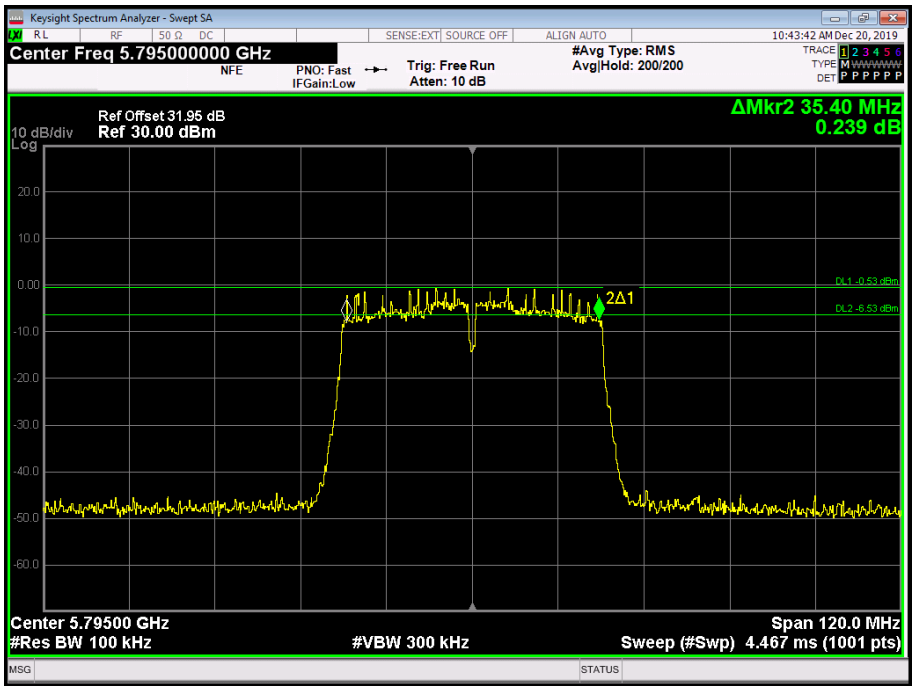

Figure 322 - 5795 MHz - 6 dB DTS Bandwidth

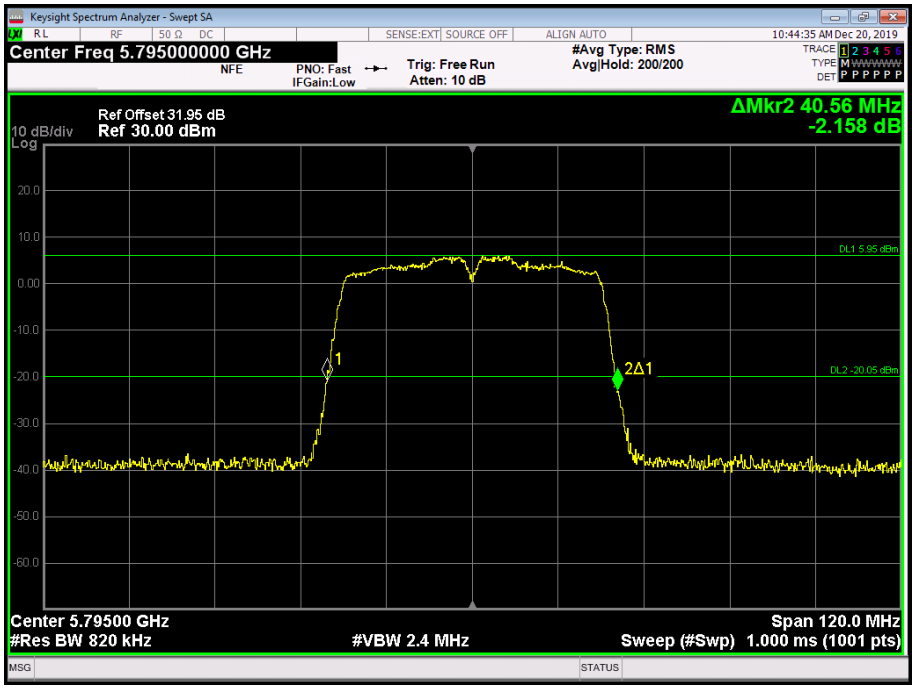

Figure 323 - 5795 MHz - 26 dB Emission Bandwidth

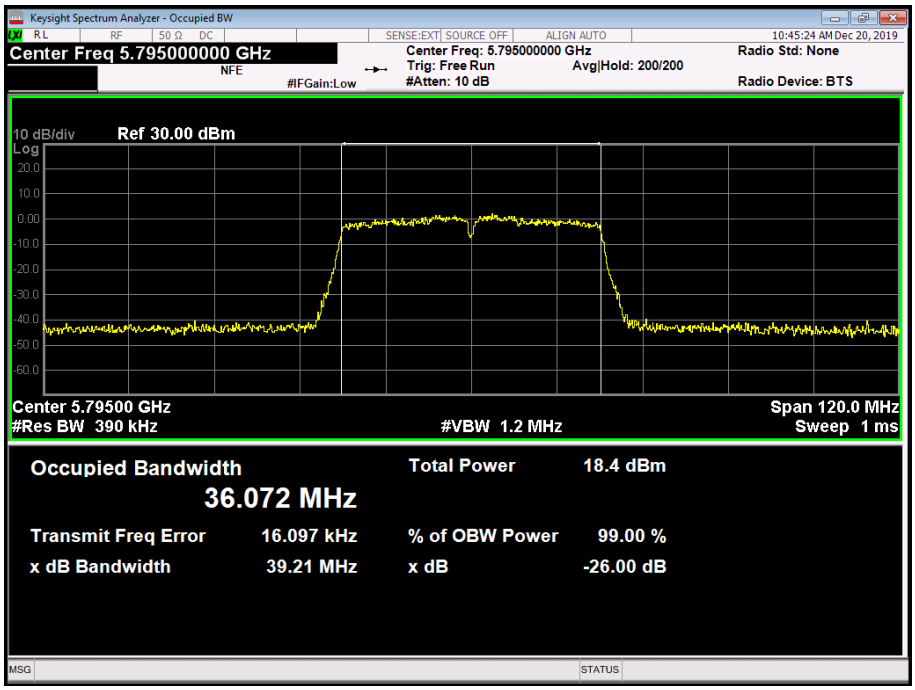

Figure 324 - 5795 MHz - 99% Occupied Bandwidth

Channel	Straddle	Bottom	Top
Frequency (MHz)	5710	5755	5795
6 dB Bandwidth (MHz)	2.760	35.400	35.280
26 dB Bandwidth (MHz)	5.040	40.320	40.320
99% Bandwidth (MHz)	36.128	36.127	36.131

Table 201 - 802.11n / HT40 MCS8 / MIMO SDM / Cores 0+1

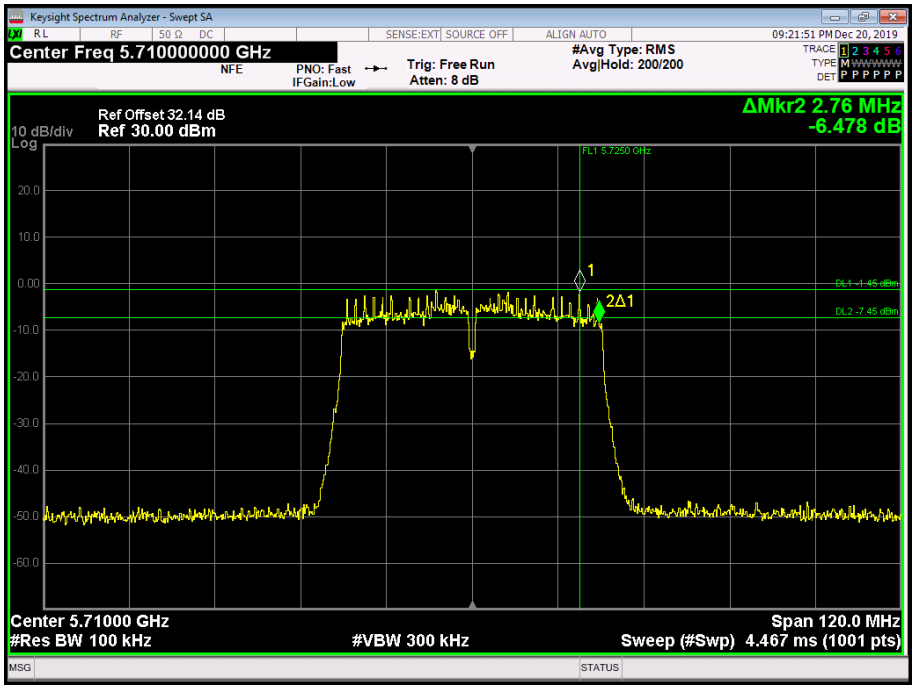

Figure 325 - 5710 MHz - 6 dB DTS Bandwidth

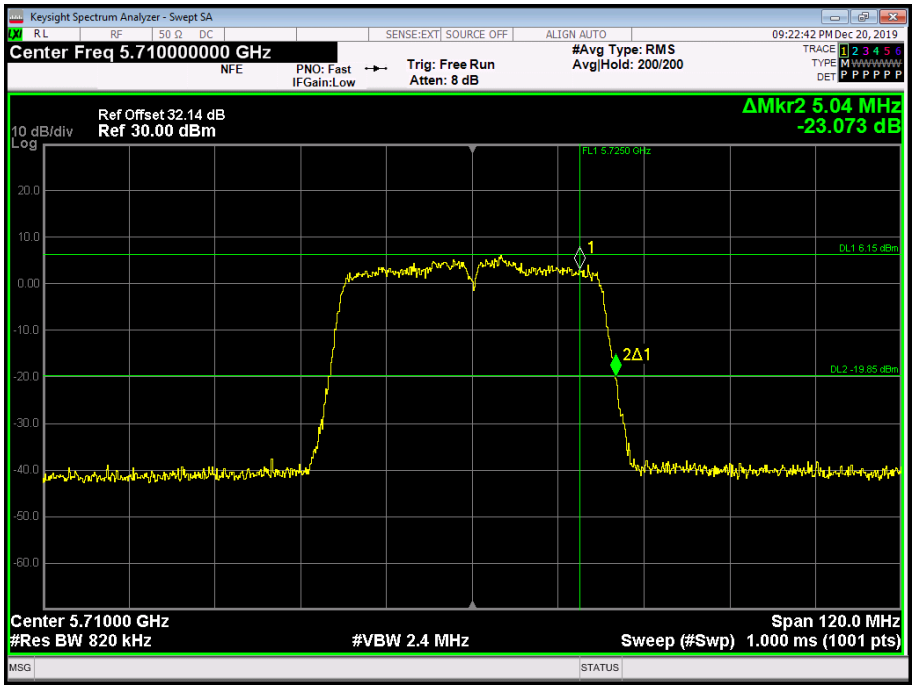

Figure 326 - 5710 MHz - 26 dB Emission Bandwidth

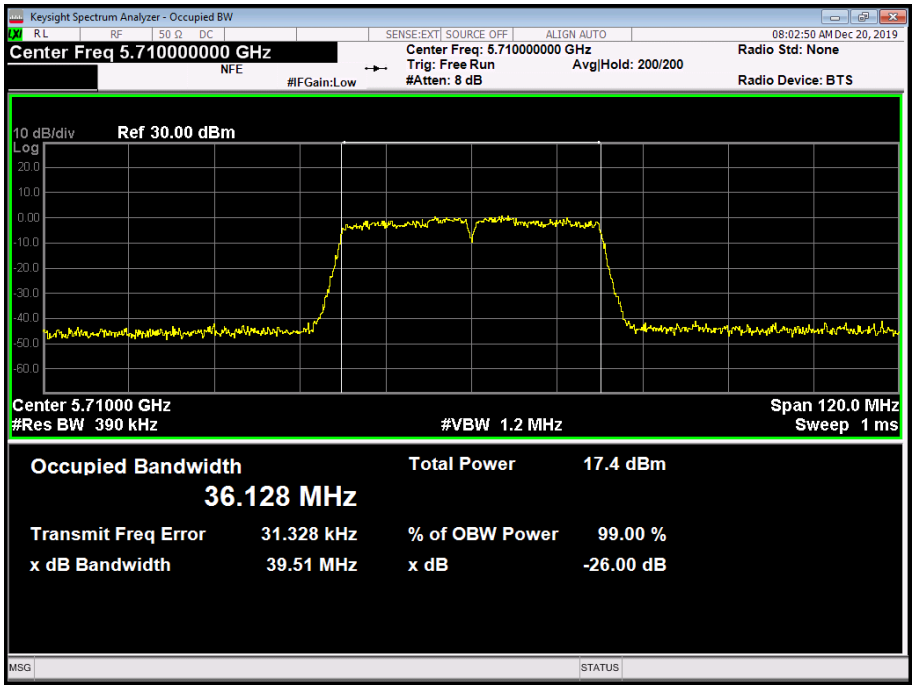

Figure 327 - 5710 MHz - 99% Occupied Bandwidth

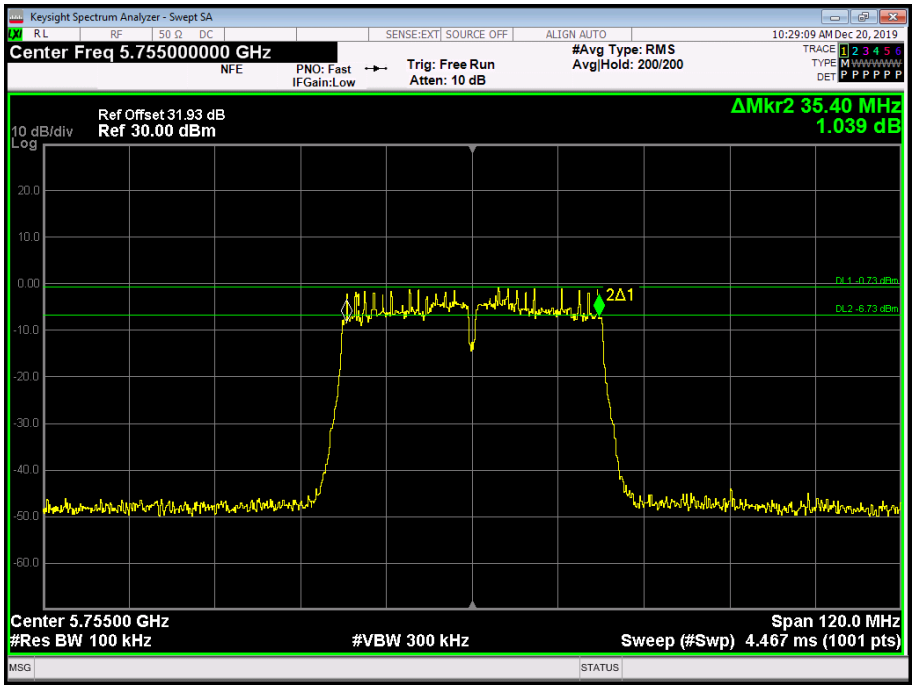

Figure 328 - 5755 MHz - 6 dB DTS Bandwidth

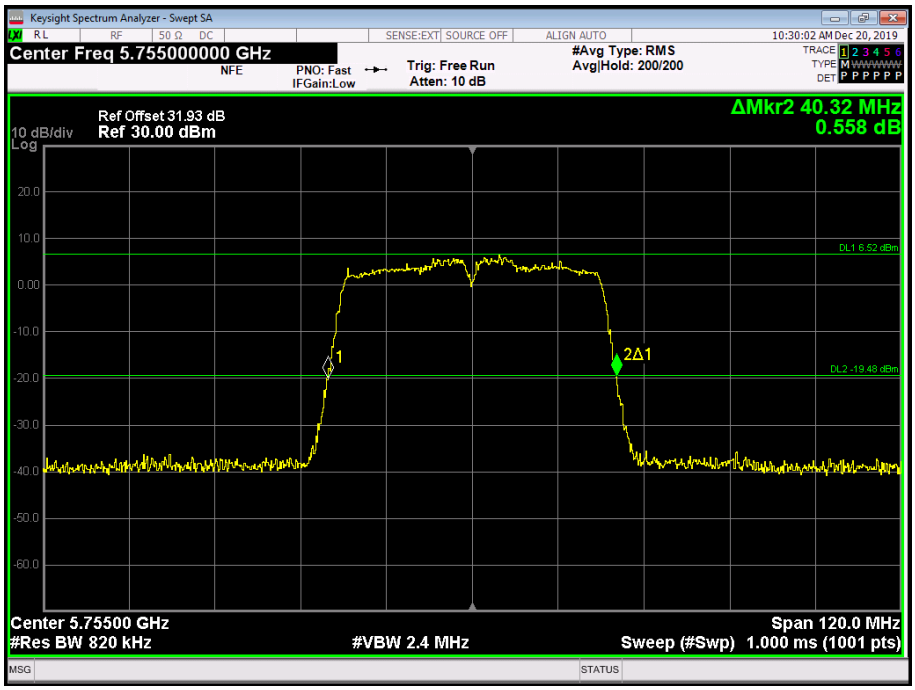

Figure 329 - 5755 MHz - 26 dB Emission Bandwidth

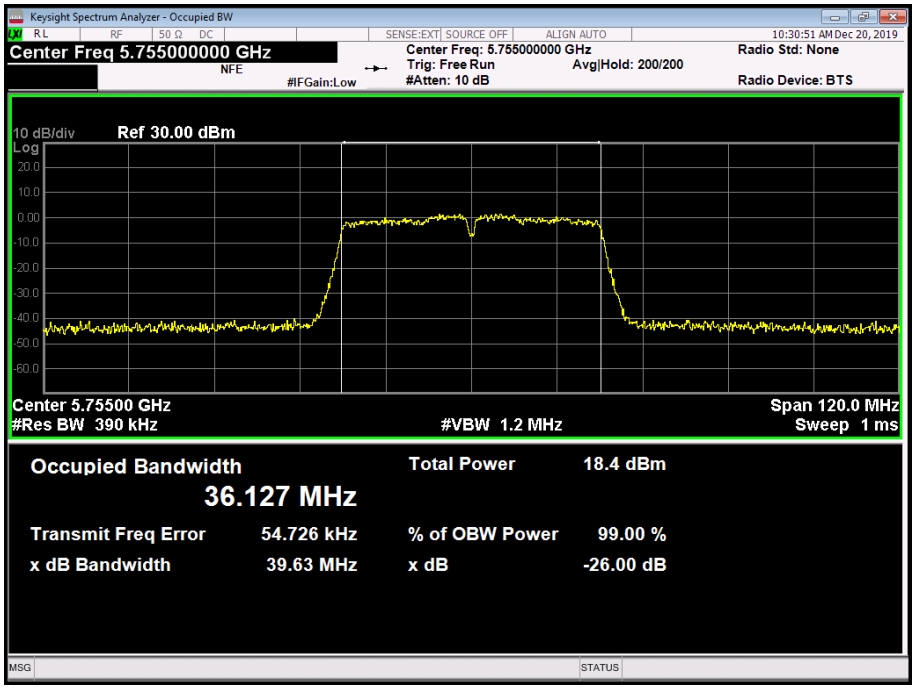

Figure 330 - 5755 MHz - 99% Occupied Bandwidth

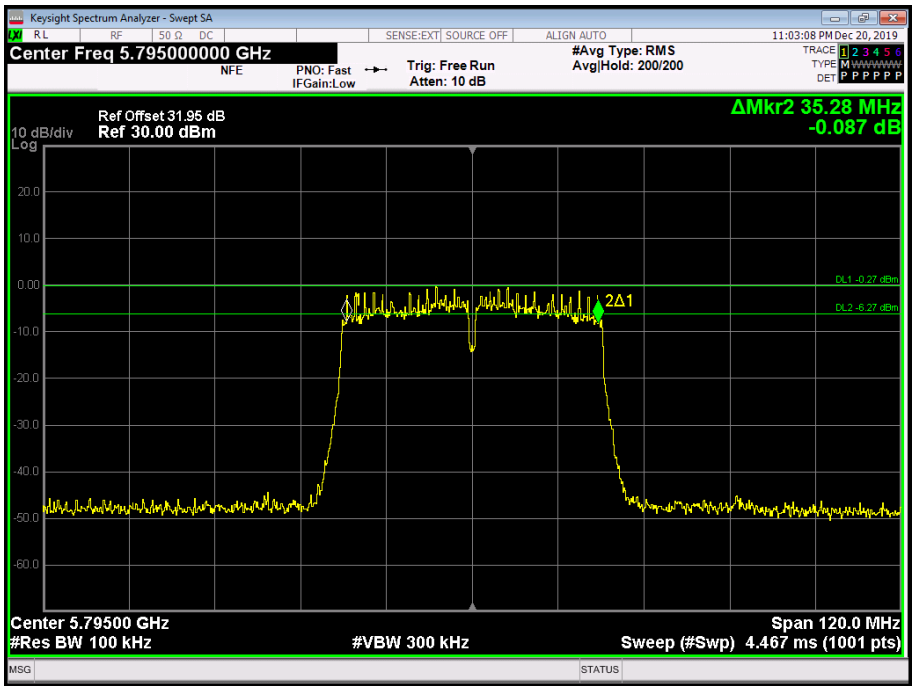

Figure 331 - 5795 MHz - 6 dB DTS Bandwidth

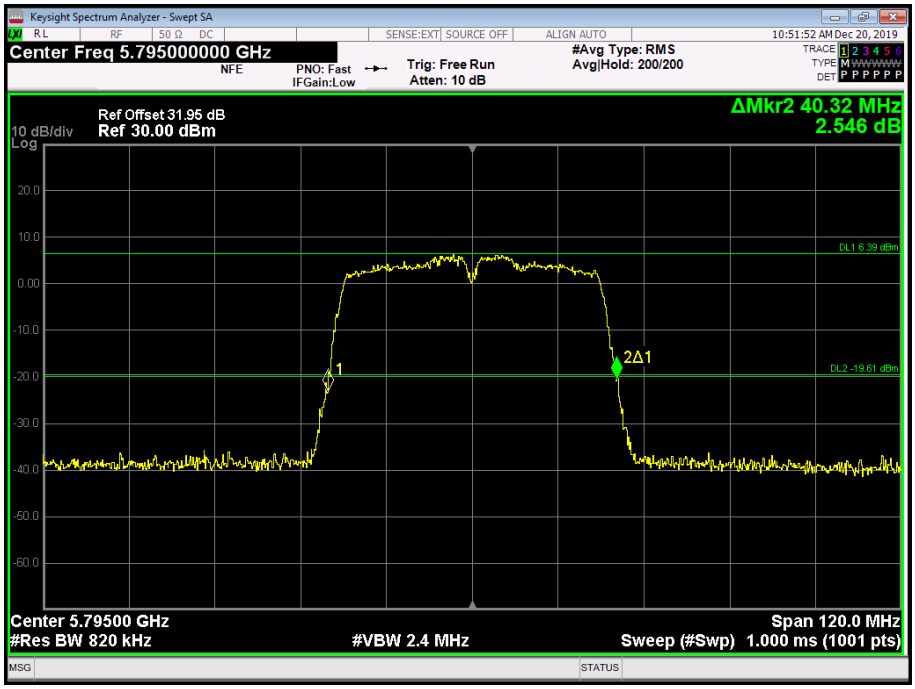

Figure 332 - 5795 MHz - 26 dB Emission Bandwidth

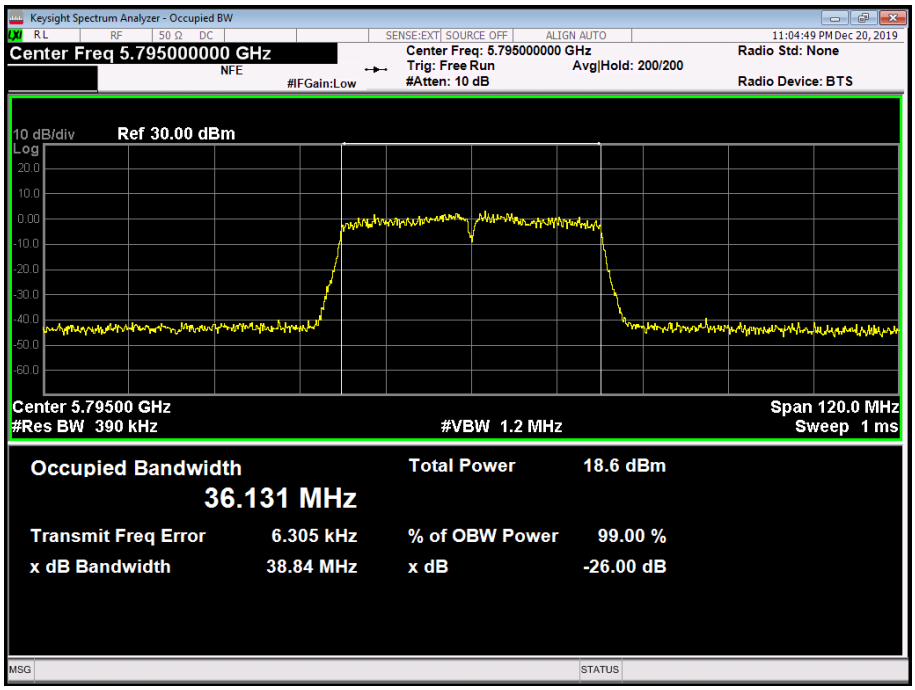

Figure 333 - 5795 MHz - 99% Occupied Bandwidth

Channel	Straddle	Bottom	Middle	Top
Frequency (MHz)	5720	5745	5785	5825
6 dB Bandwidth (MHz)	3.940	17.820	17.820	17.940
26 dB Bandwidth (MHz)	5.980	21.720	21.780	21.780
99% Bandwidth (MHz)	17.836	17.772	17.778	17.780

Table 202 - 802.11ac / VHT20 MCS0x1 / MIMO TxBF / Cores 0+1

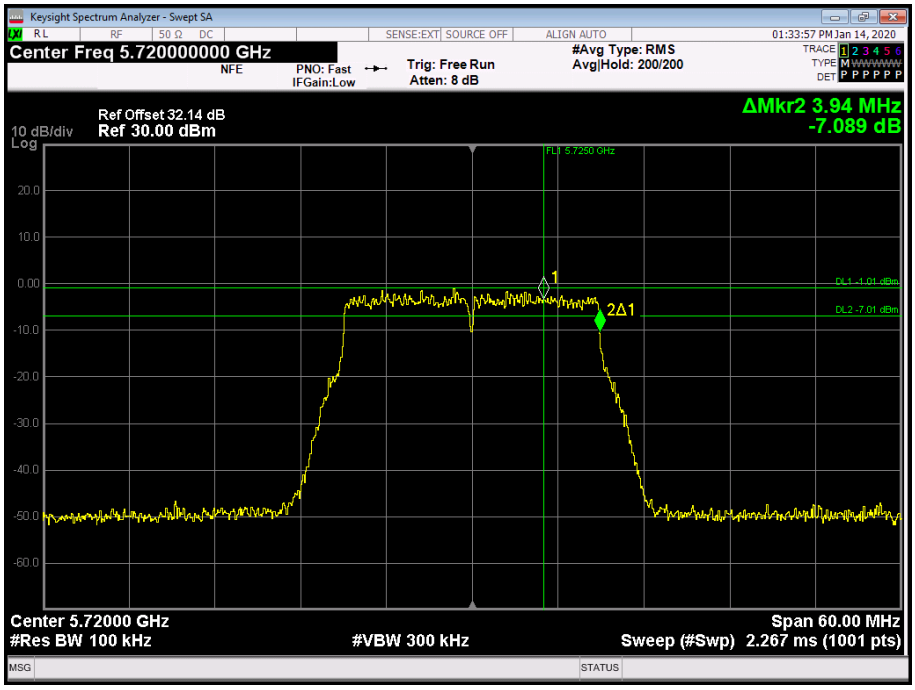

Figure 334 - 5720 MHz - 6 dB DTS Bandwidth

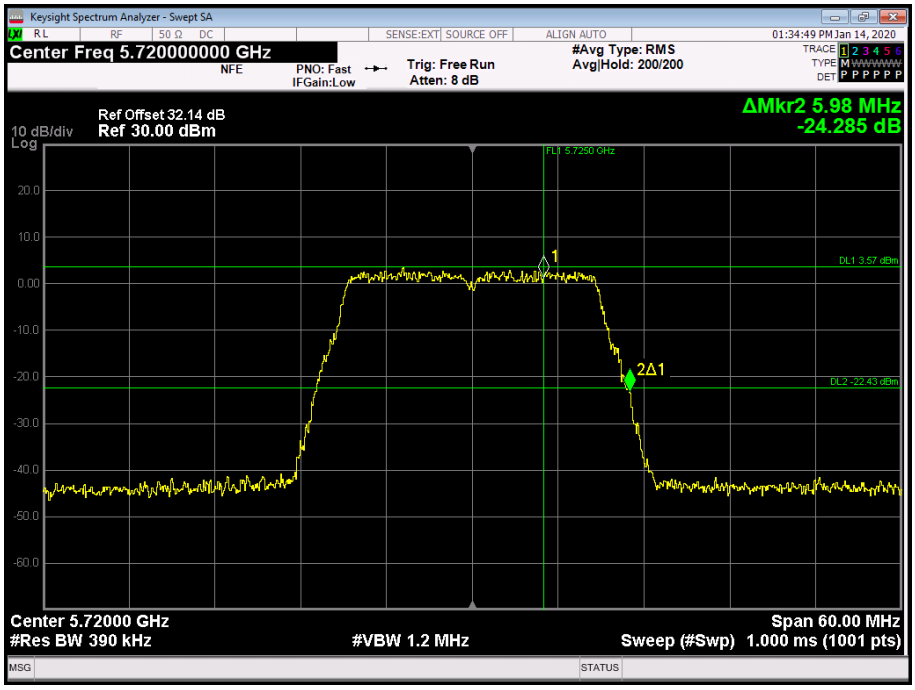

Figure 335 - 5720 MHz - 26 dB Emission Bandwidth

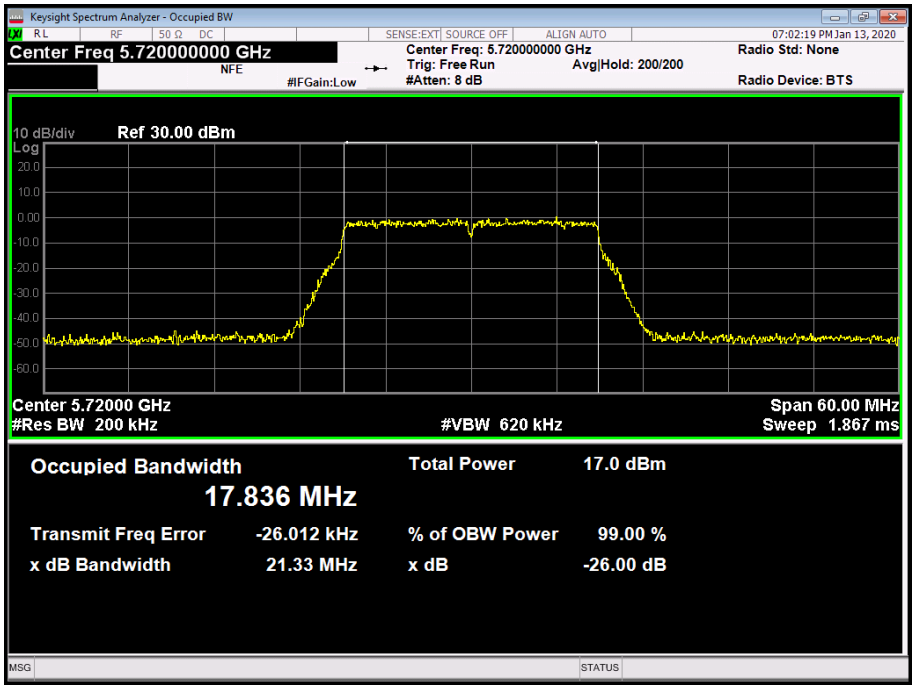

Figure 336 - 5720 MHz - 99% Occupied Bandwidth

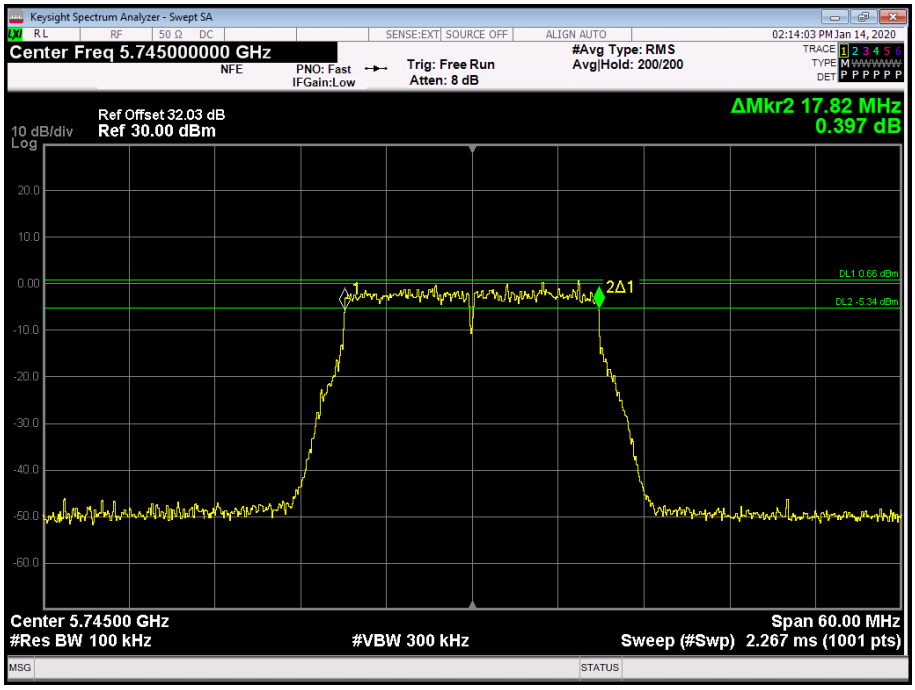

Figure 337 - 5745 MHz - 6 dB DTS Bandwidth

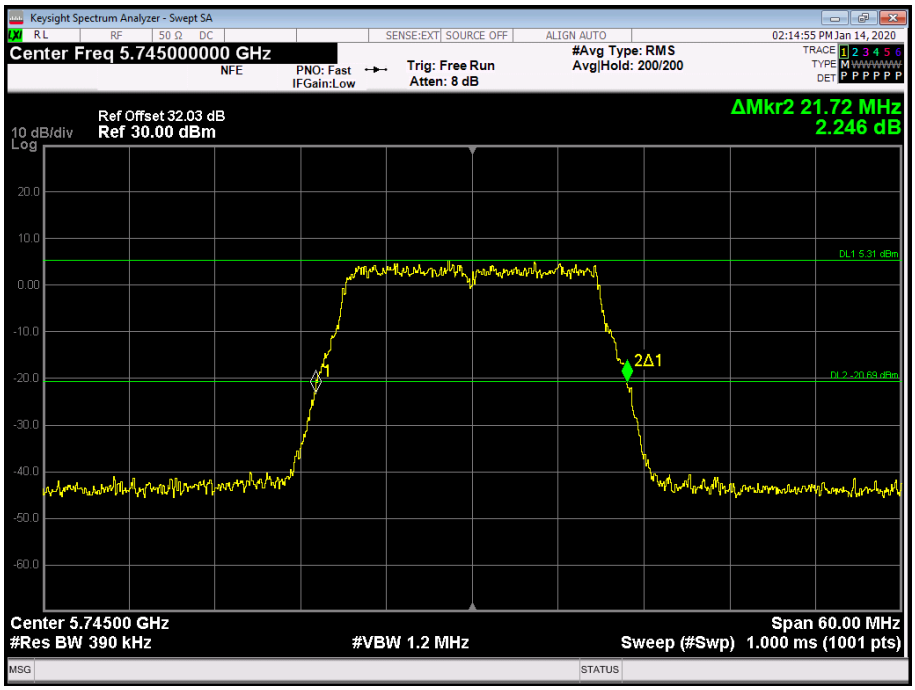

Figure 338 - 5745 MHz - 26 dB Emission Bandwidth

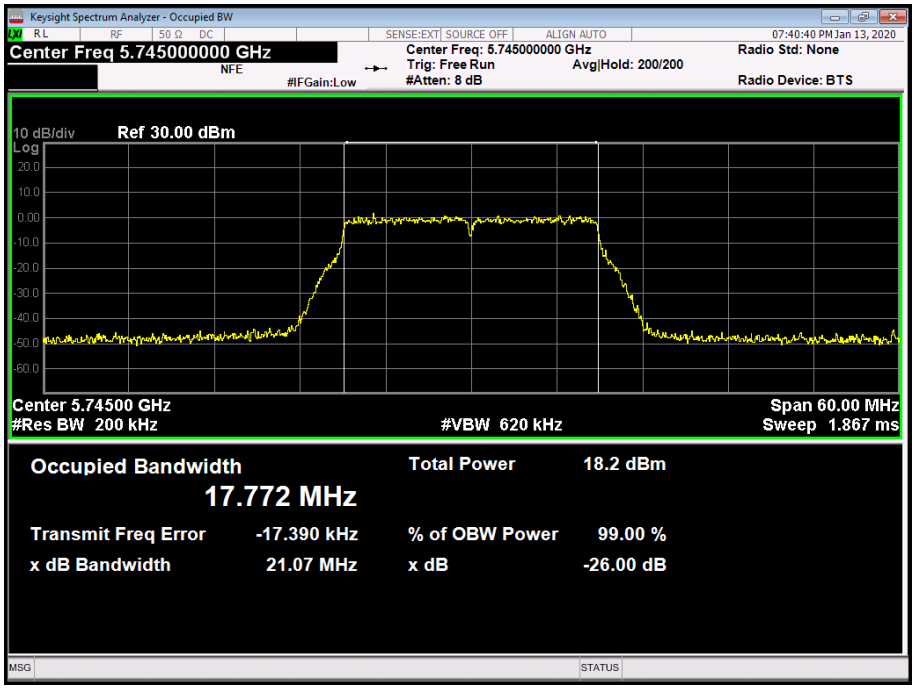

Figure 339 - 5745 MHz - 99% Occupied Bandwidth

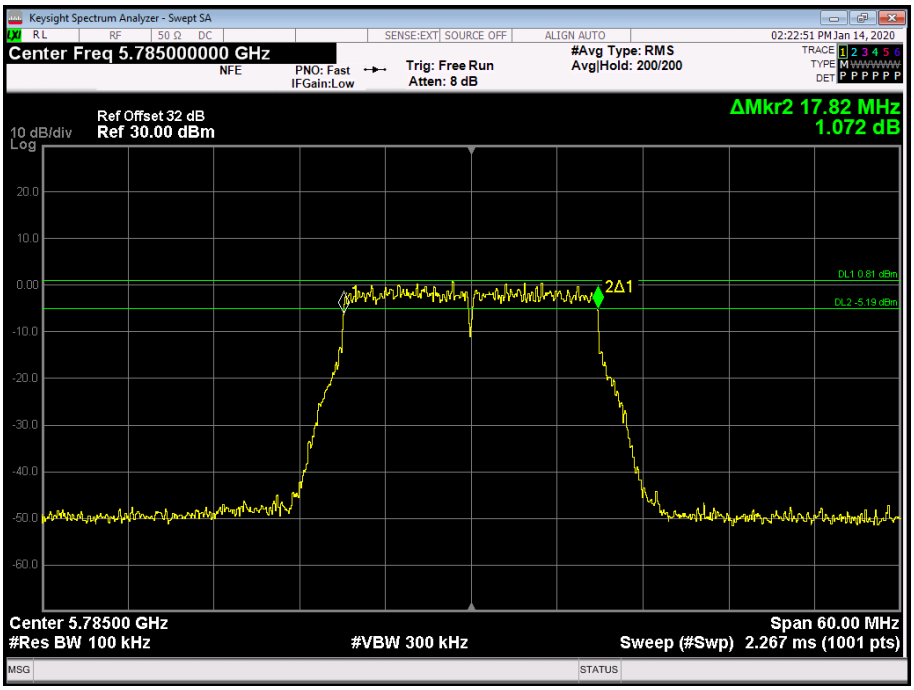

Figure 340 - 5785 MHz - 6 dB DTS Bandwidth

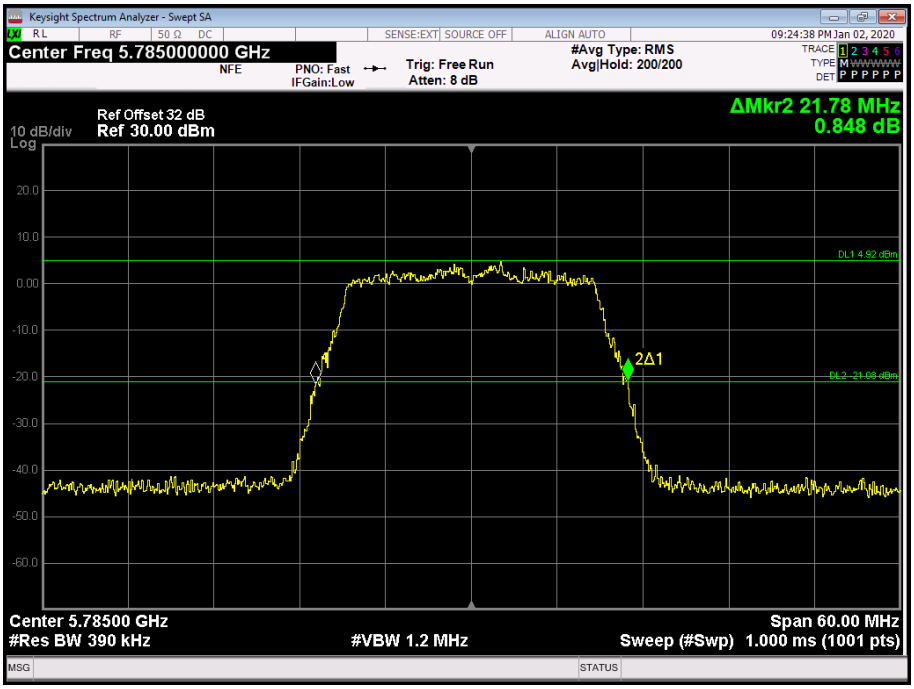

Figure 341 - 5785 MHz - 26 dB Emission Bandwidth

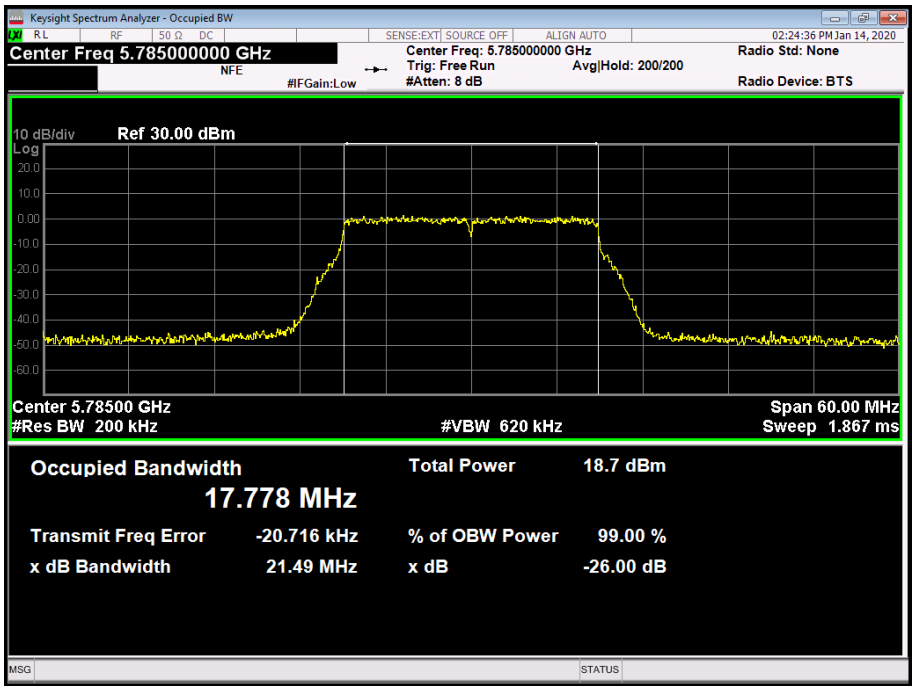

Figure 342 - 5785 MHz - 99% Occupied Bandwidth

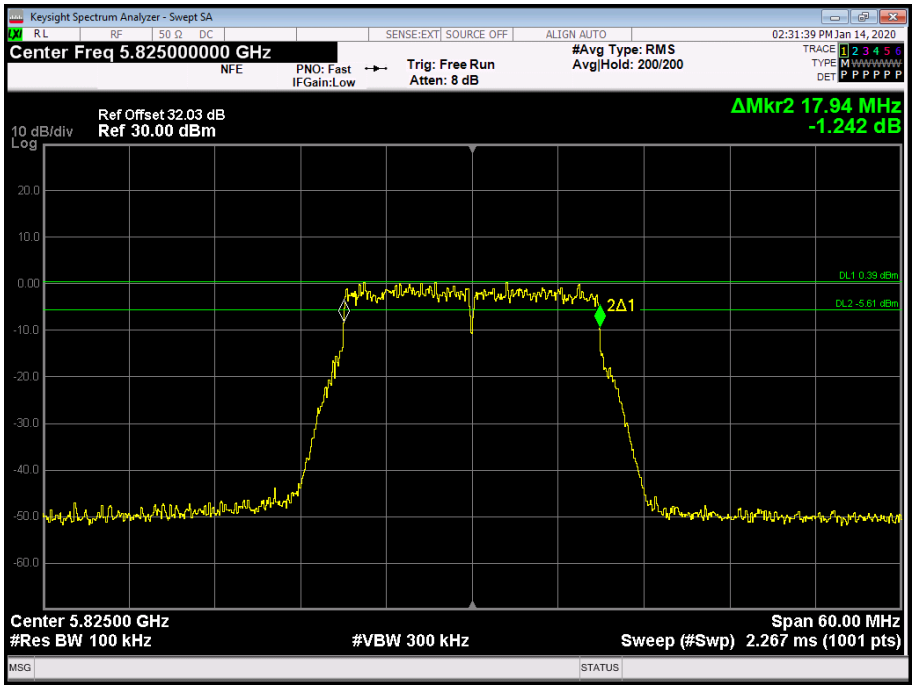

Figure 343 - 5825 MHz - 6 dB DTS Bandwidth

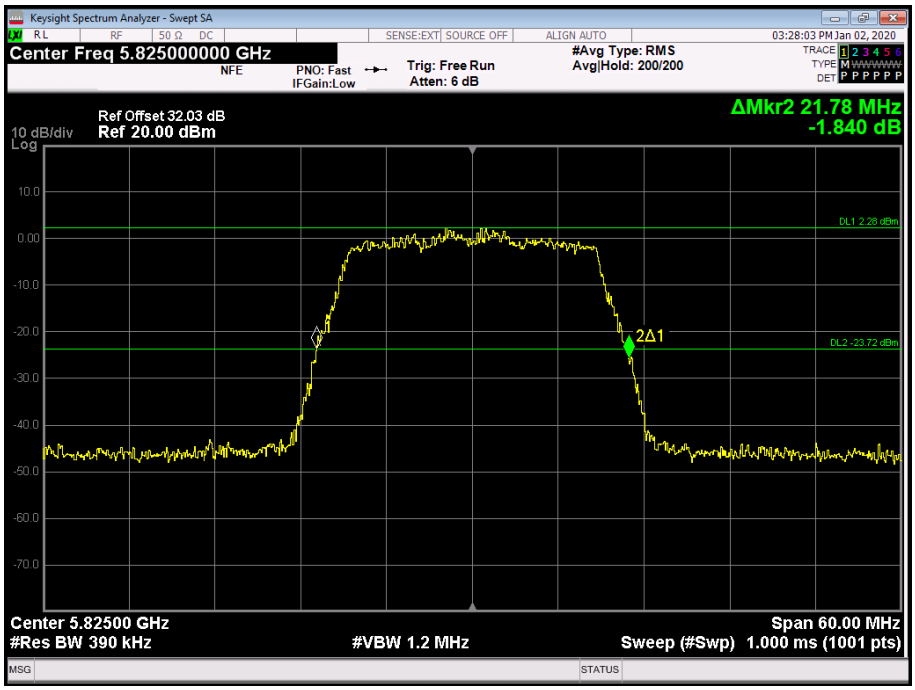

Figure 344 - 5825 MHz - 26 dB Emission Bandwidth

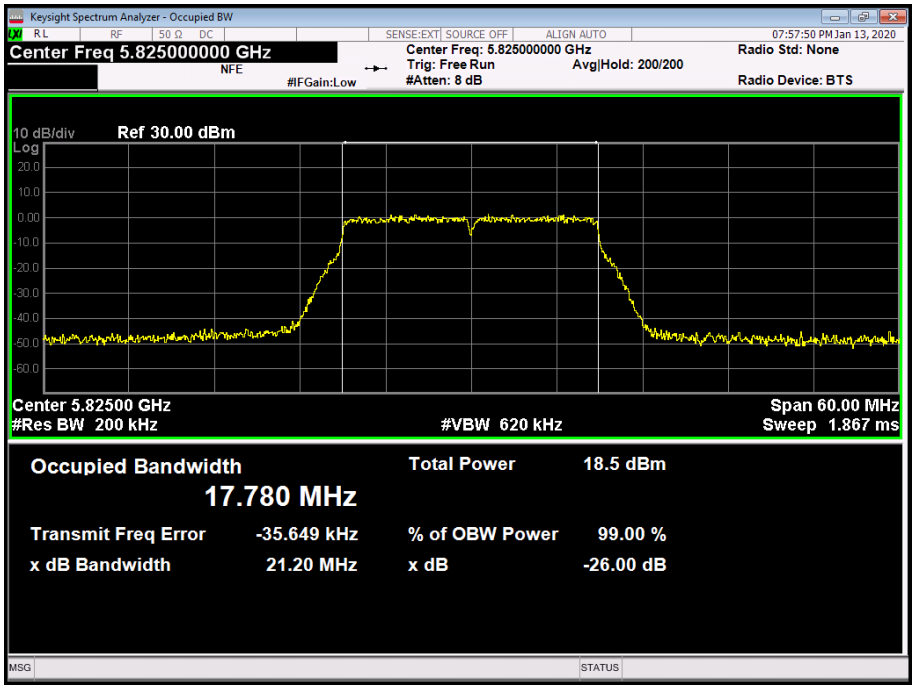

Figure 345 - 5825 MHz - 99% Occupied Bandwidth

Channel	Straddle	Bottom	Top
Frequency (MHz)	5710	5755	5795
6 dB Bandwidth (MHz)	3.360	36.720	36.600
26 dB Bandwidth (MHz)	5.160	40.440	40.200
99% Bandwidth (MHz)	36.306	36.331	36.234

Table 203 - 802.11ac / VHT40 MCS0x1 / MIMO TxBF / Cores 0+1

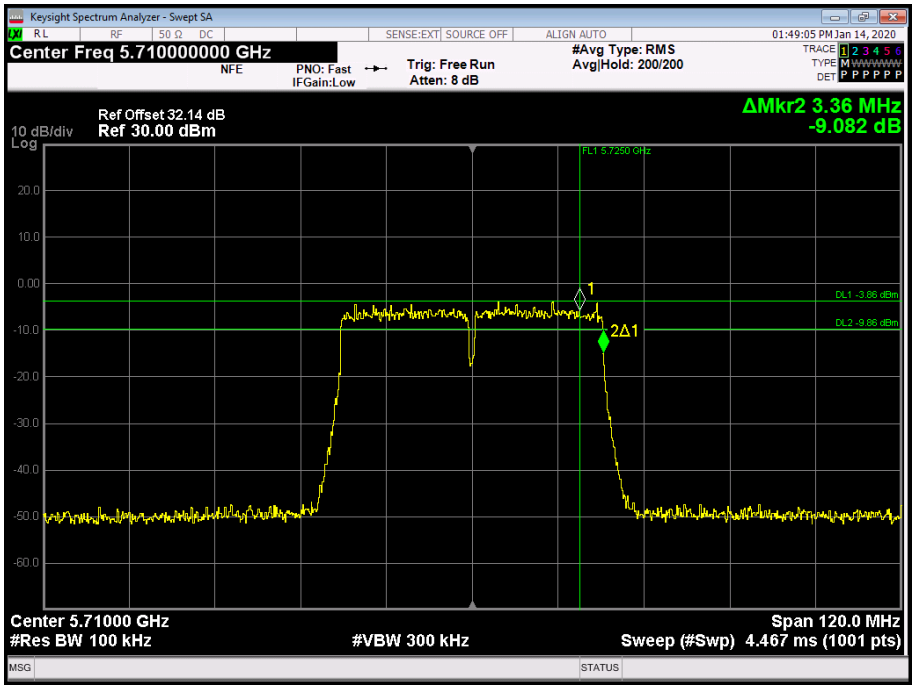

Figure 346 - 5710 MHz - 6 dB DTS Bandwidth

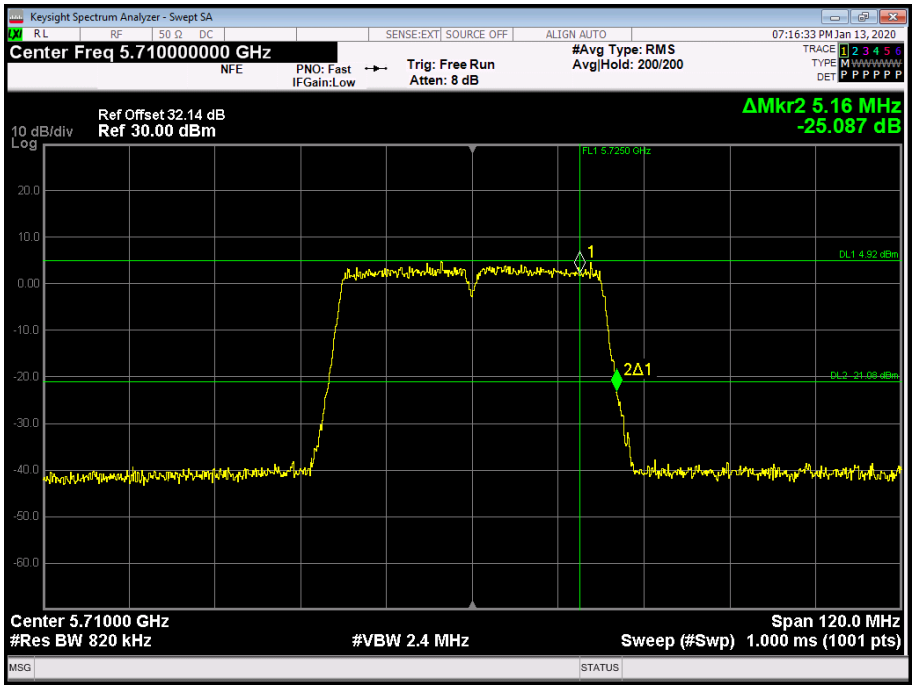

Figure 347 - 5710 MHz - 26 dB Emission Bandwidth

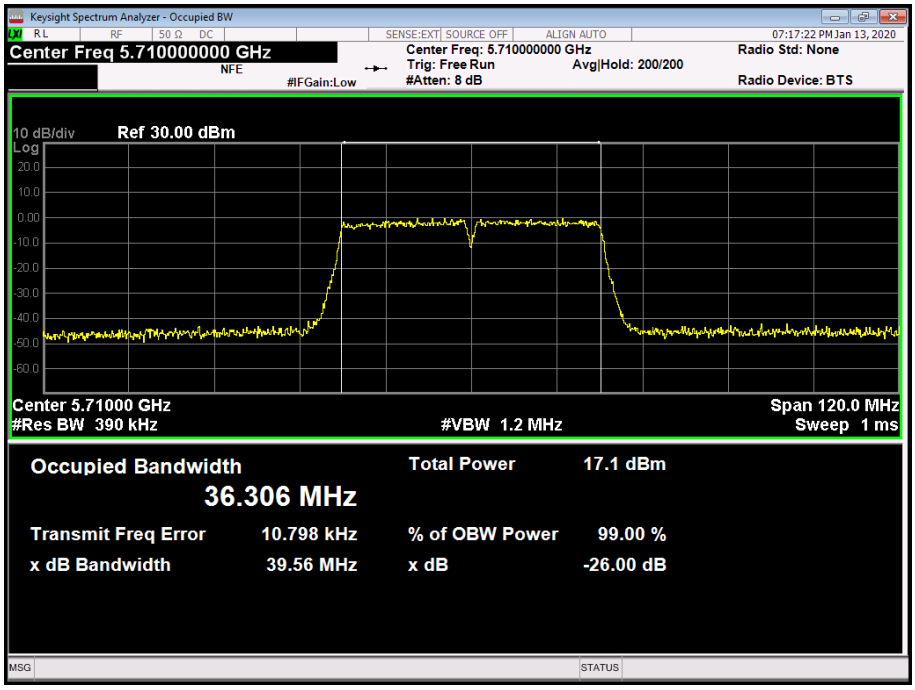

Figure 348 - 5710 MHz - 99% Occupied Bandwidth

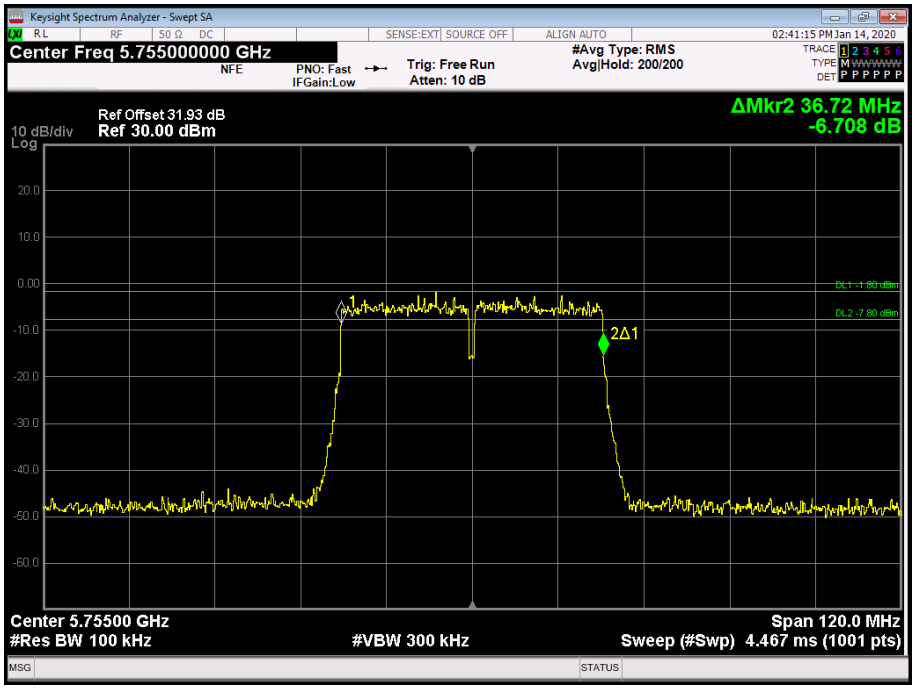

Figure 349 - 5755 MHz - 6 dB DTS Bandwidth

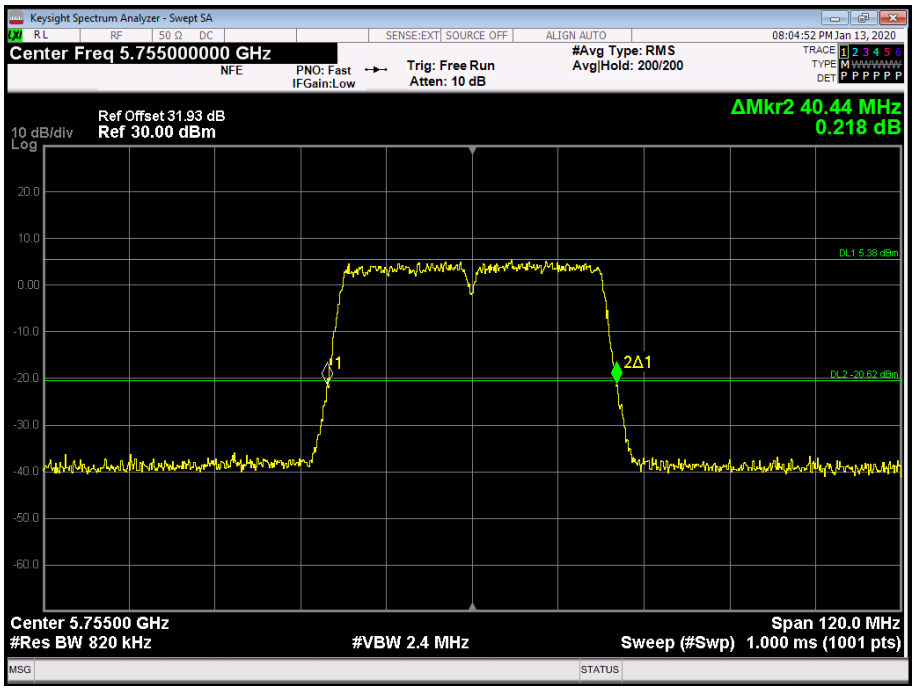

Figure 350 - 5755 MHz - 26 dB Emission Bandwidth

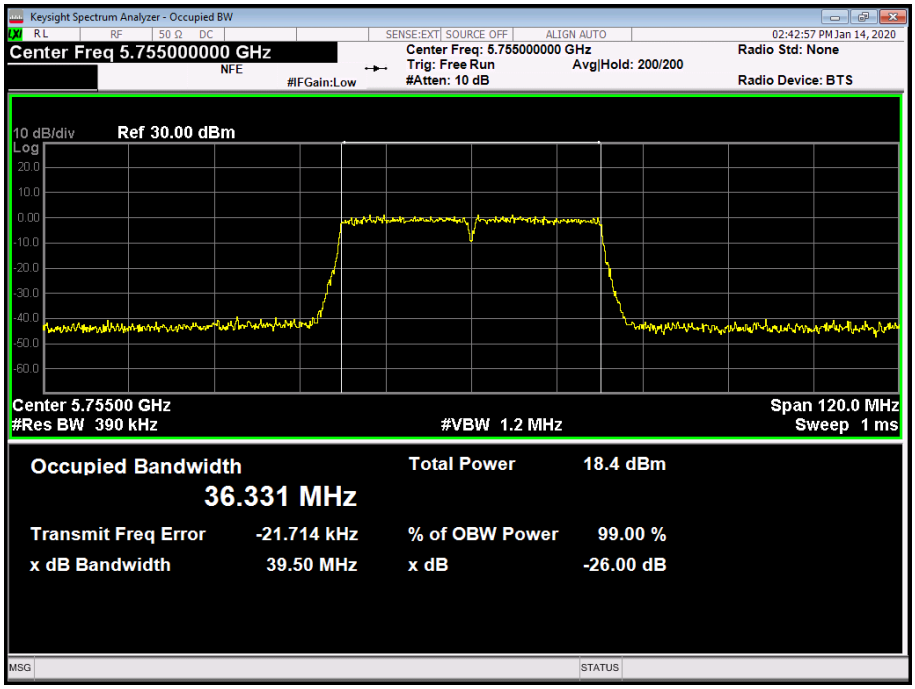

Figure 351 - 5755 MHz - 99% Occupied Bandwidth

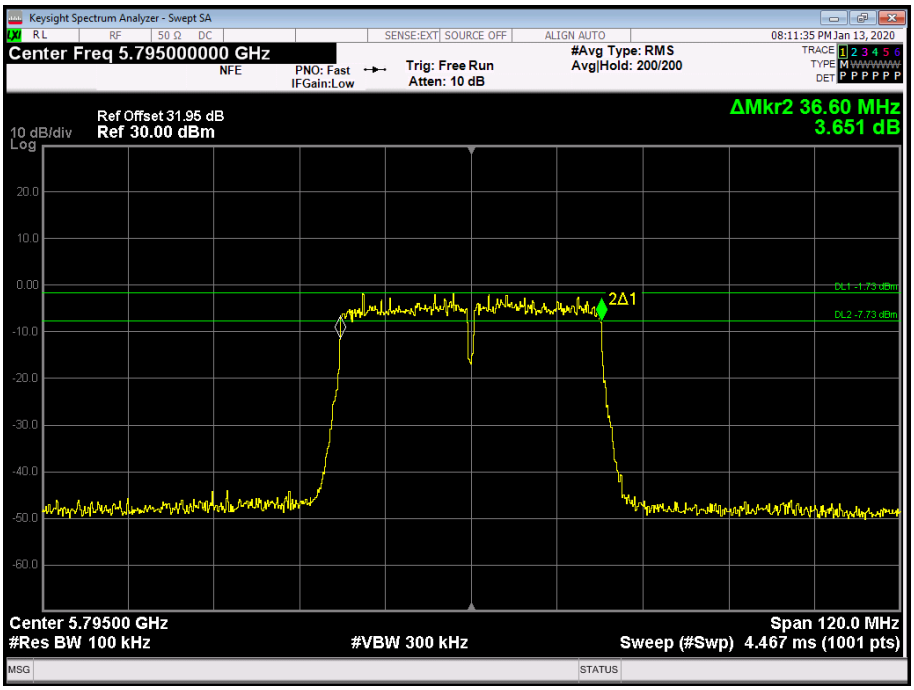

Figure 352 - 5795 MHz - 6 dB DTS Bandwidth

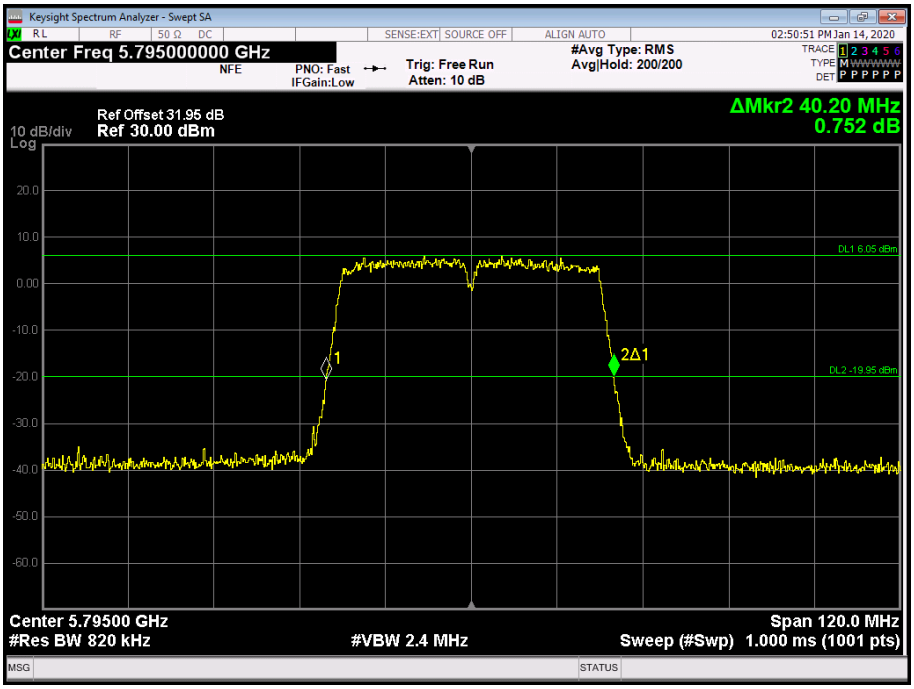

Figure 353 - 5795 MHz - 26 dB Emission Bandwidth

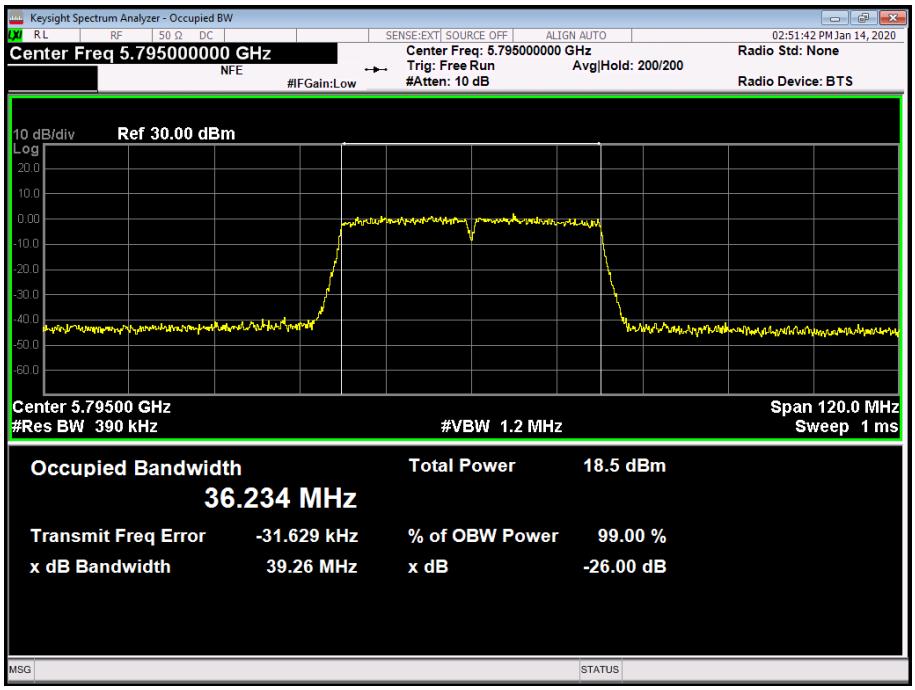

Figure 354 - 5795 MHz - 99% Occupied Bandwidth

Channel	Straddle	Middle
Frequency (MHz)	5690	5775
6 dB Bandwidth (MHz)	2.920	75.600
26 dB Bandwidth (MHz)	5.800	81.600
99% Bandwidth (MHz)	75.536	75.504

Table 204 - 802.11ac / VHT80 MCS0x1 / SISO / Core 0

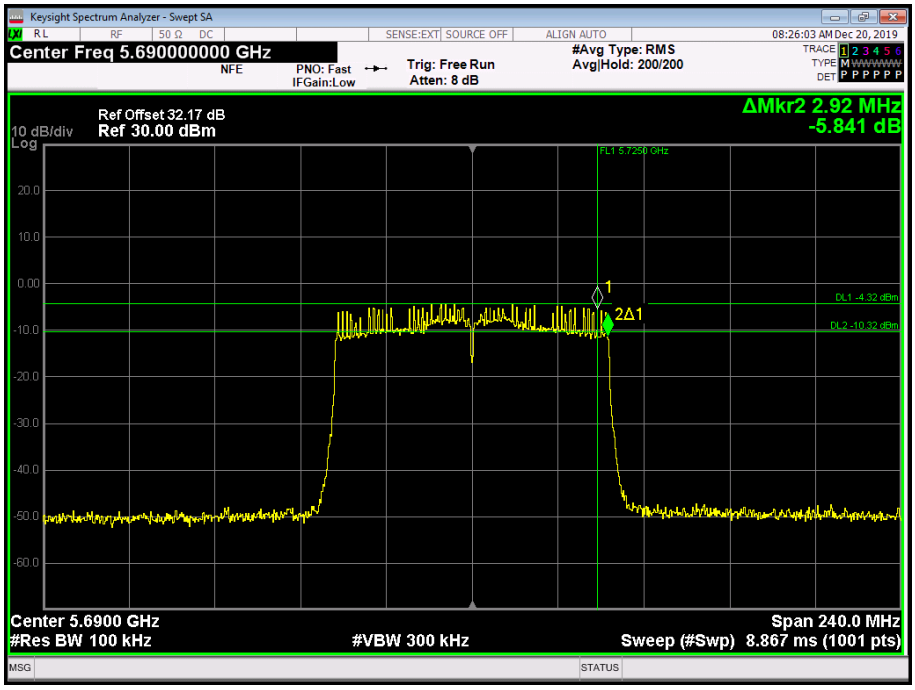

Figure 355 - 5690 MHz - 6 dB DTS Bandwidth

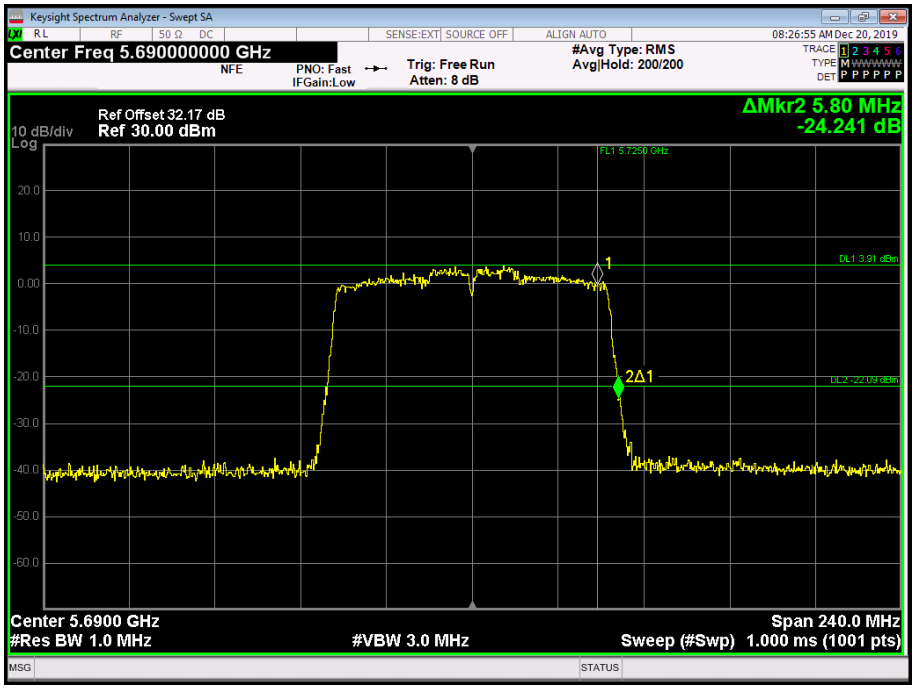

Figure 356 - 5690 MHz - 26 dB Emission Bandwidth

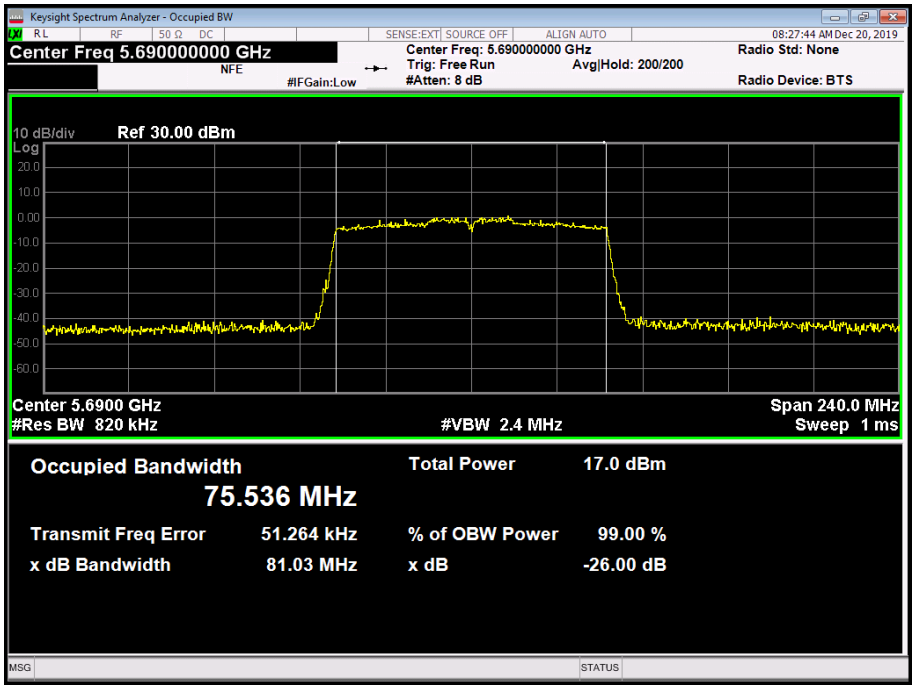

Figure 357 - 5690 MHz - 99% Occupied Bandwidth

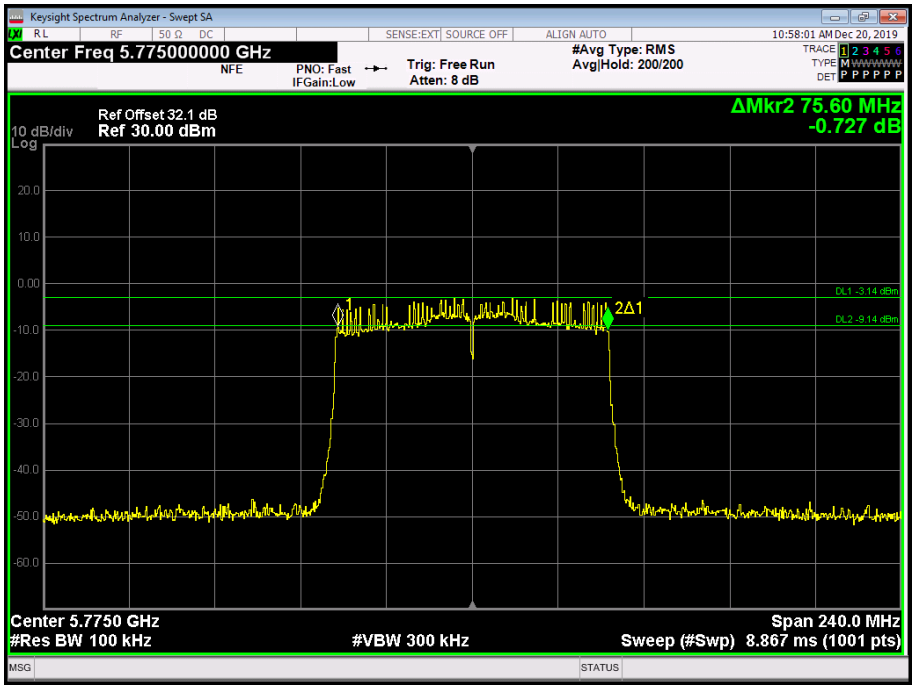

Figure 358 - 5775 MHz - 6 dB DTS Bandwidth

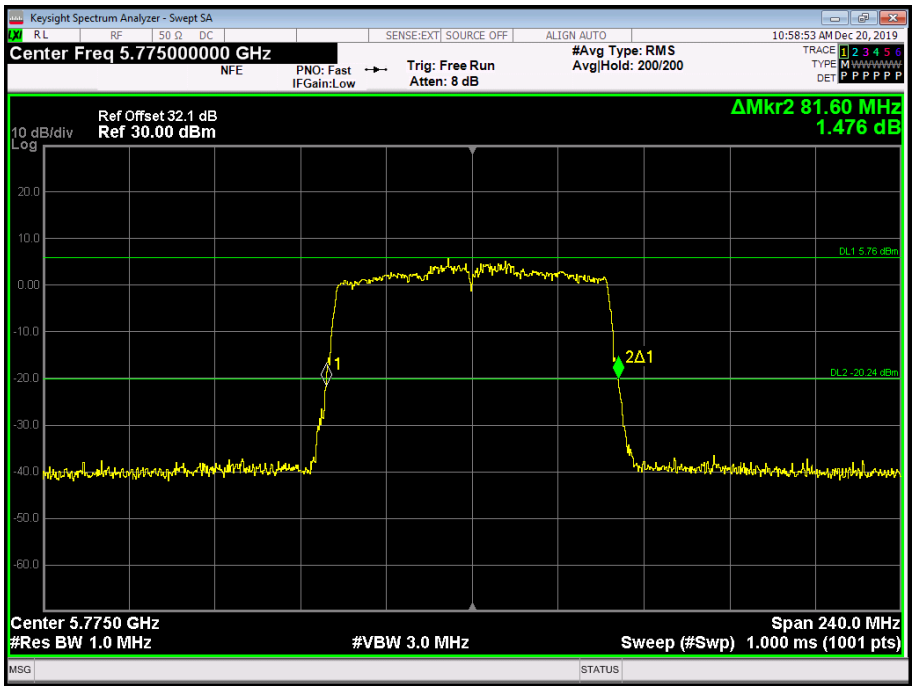

Figure 359 - 5775 MHz - 26 dB Emission Bandwidth

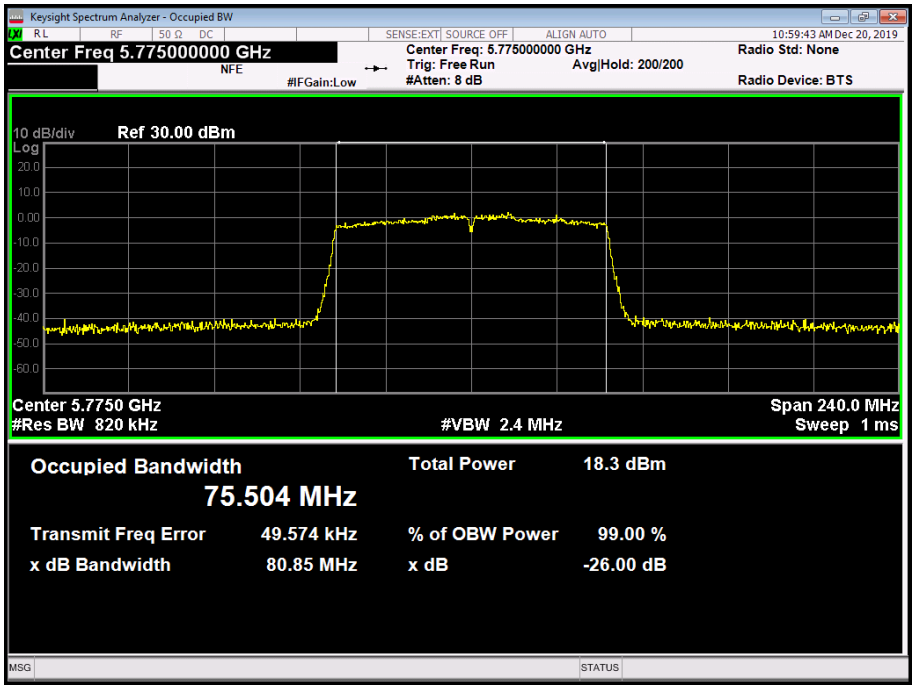

Figure 360 - 5775 MHz - 99% Occupied Bandwidth

Channel	Straddle	Middle
Frequency (MHz)	5690	5775
6 dB Bandwidth (MHz)	2.920	75.360
26 dB Bandwidth (MHz)	5.800	81.360
99% Bandwidth (MHz)	75.509	75.533

Table 205 - 802.11ac / VHT80 MCS0x1 / MIMO CDD / Cores 0+1

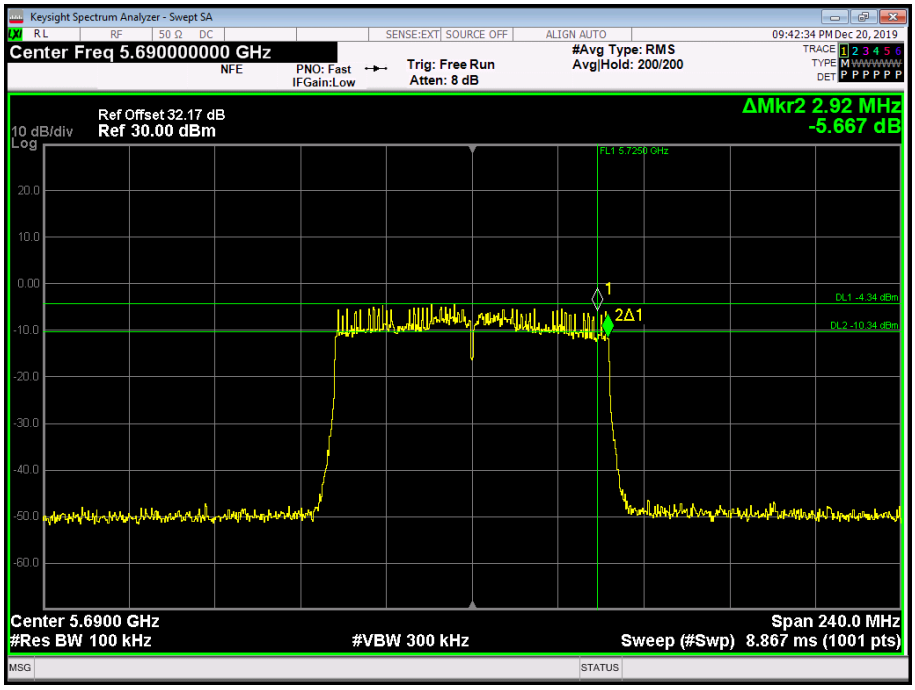

Figure 361 - 5690 MHz - 6 dB DTS Bandwidth

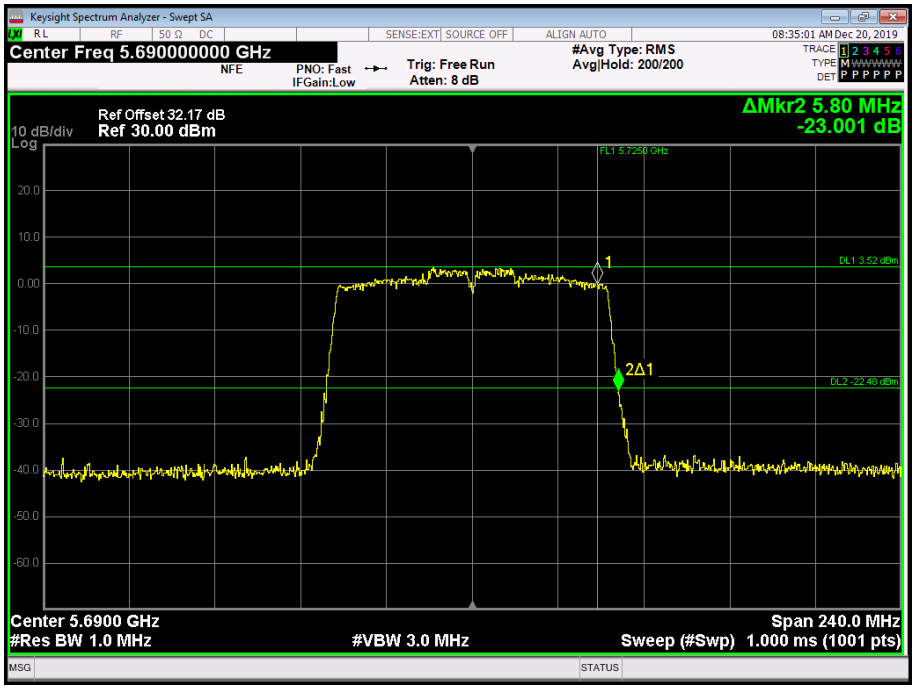

Figure 362 - 5690 MHz - 26 dB Emission Bandwidth

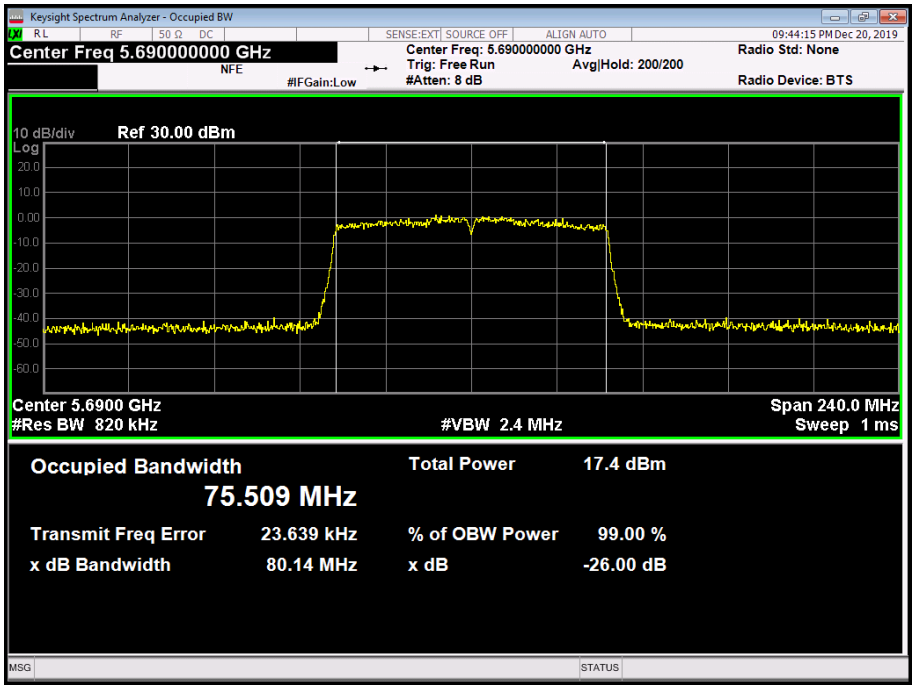

Figure 363 - 5690 MHz - 99% Occupied Bandwidth

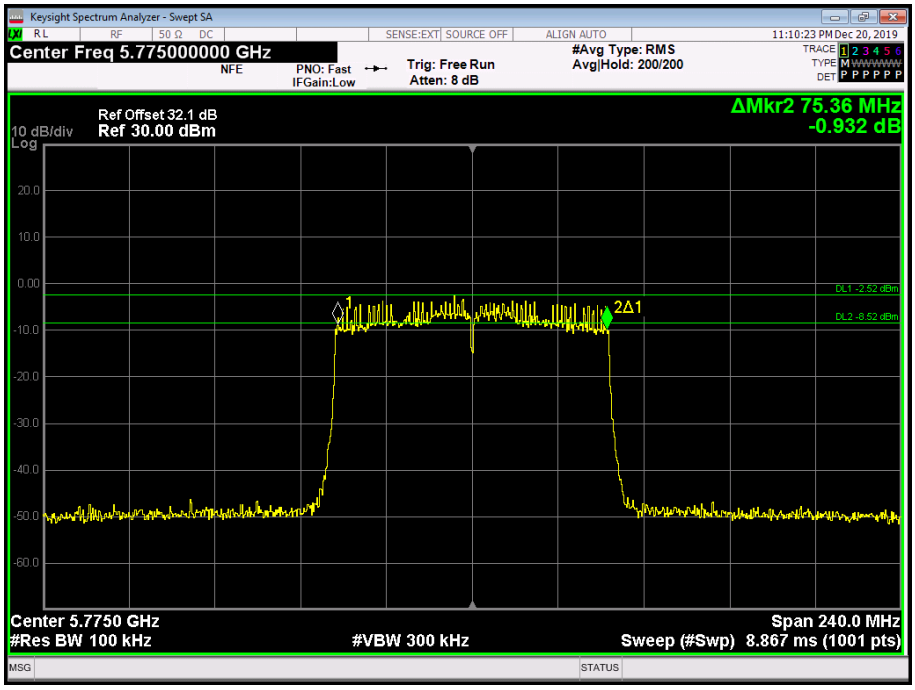

Figure 364 - 5775 MHz - 6 dB DTS Bandwidth

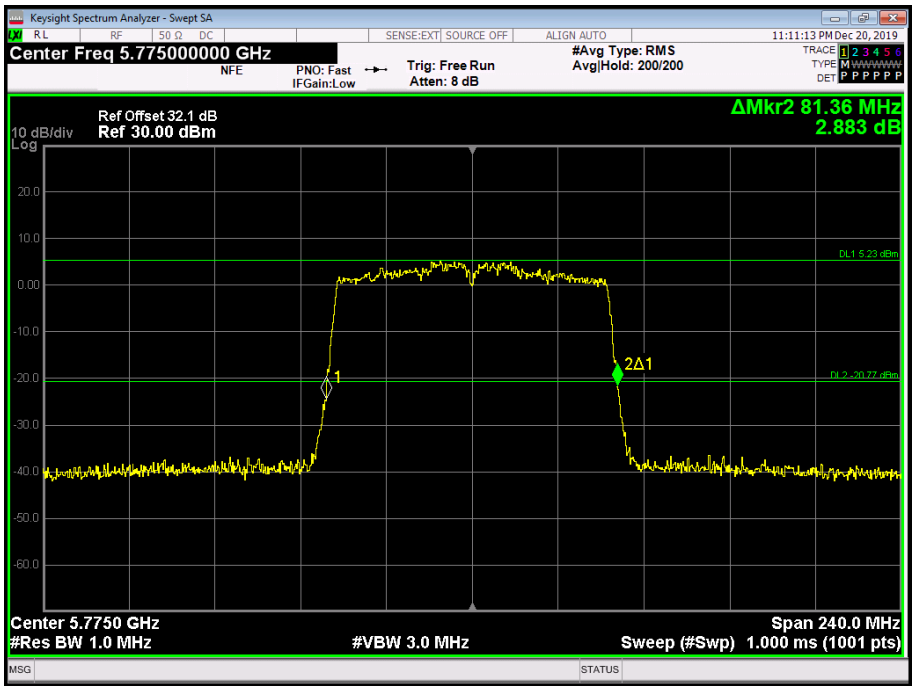

Figure 365 - 5775 MHz - 26 dB Emission Bandwidth

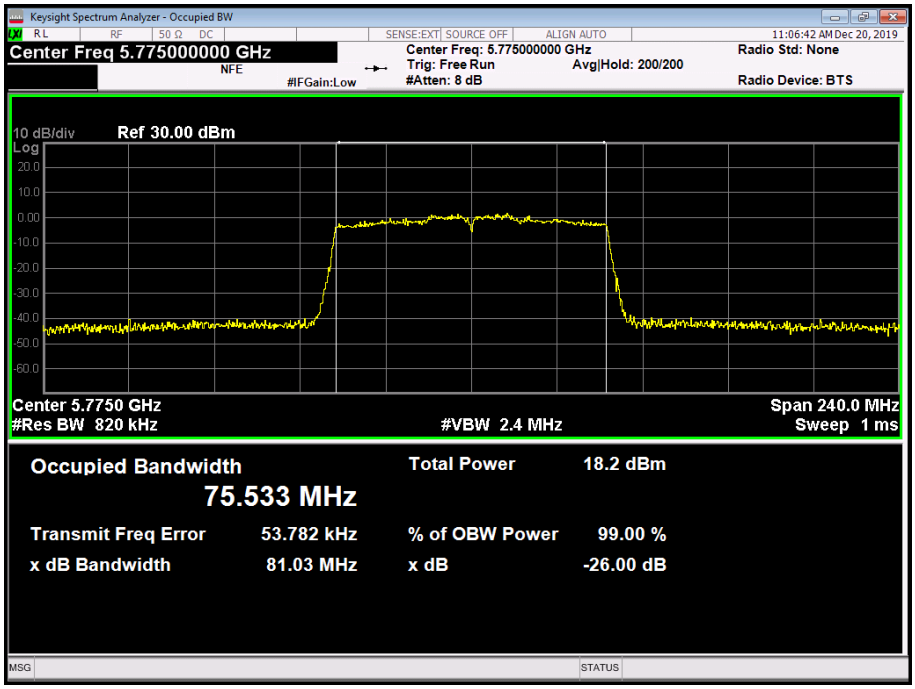

Figure 366 - 5775 MHz - 99% Occupied Bandwidth

Channel	Straddle	Middle
Frequency (MHz)	5690	5775
6 dB Bandwidth (MHz)	2.920	75.600
26 dB Bandwidth (MHz)	6.040	81.840
99% Bandwidth (MHz)	75.555	75.502

Table 206 - 802.11ac / VHT80 MCS0x2 / MIMO SDM / Cores 0+1

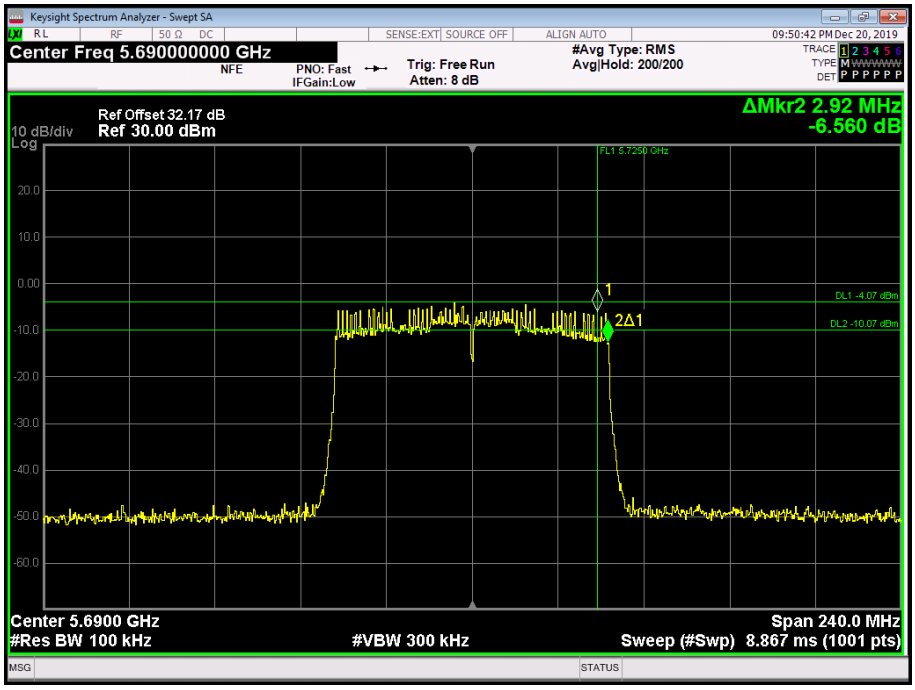

Figure 367 - 5690 MHz - 6 dB DTS Bandwidth

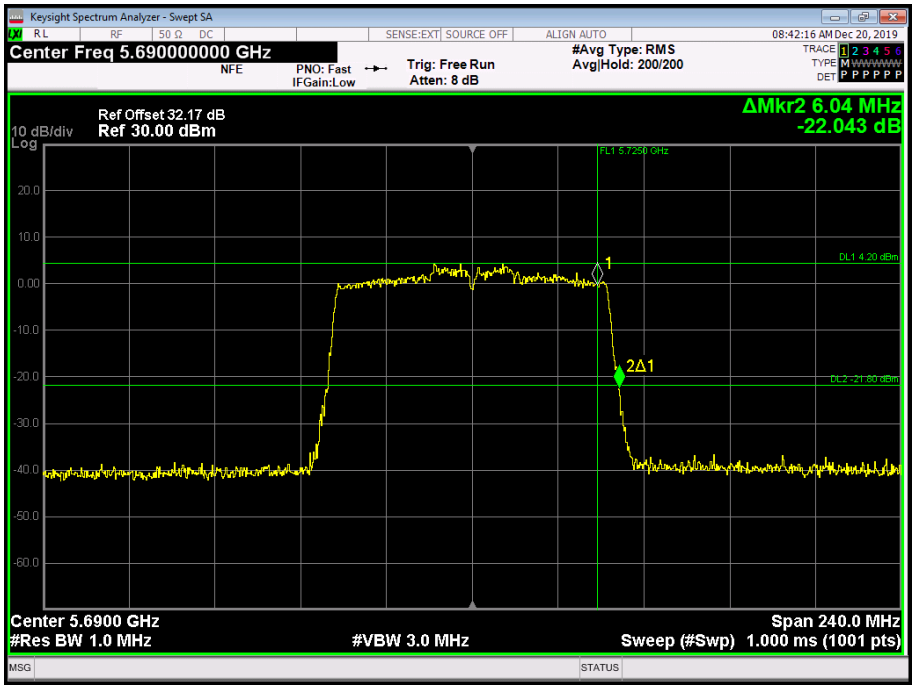

Figure 368 - 5690 MHz - 26 dB Emission Bandwidth

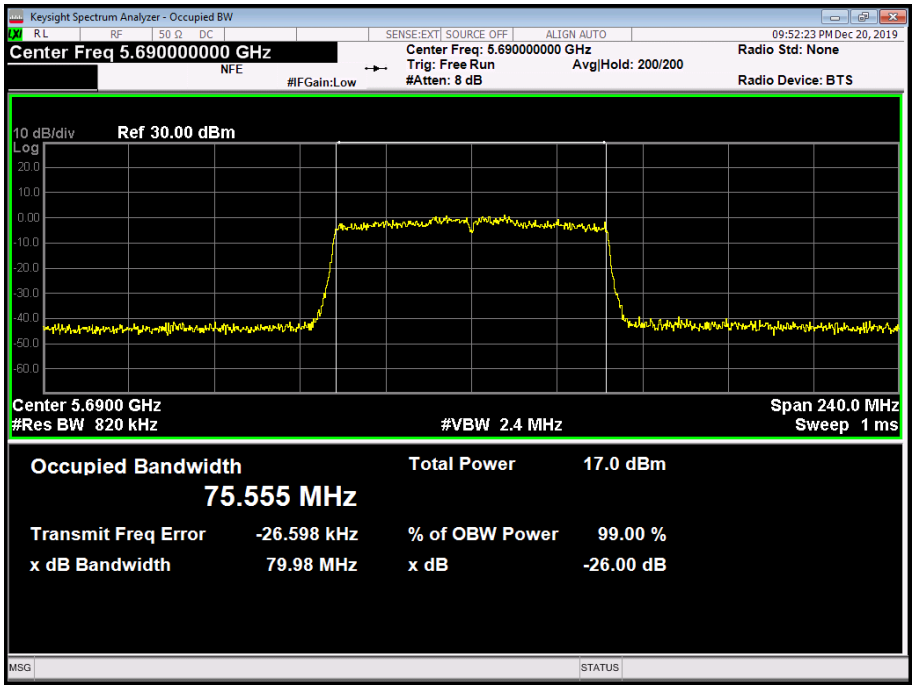

Figure 369 - 5690 MHz - 99% Occupied Bandwidth

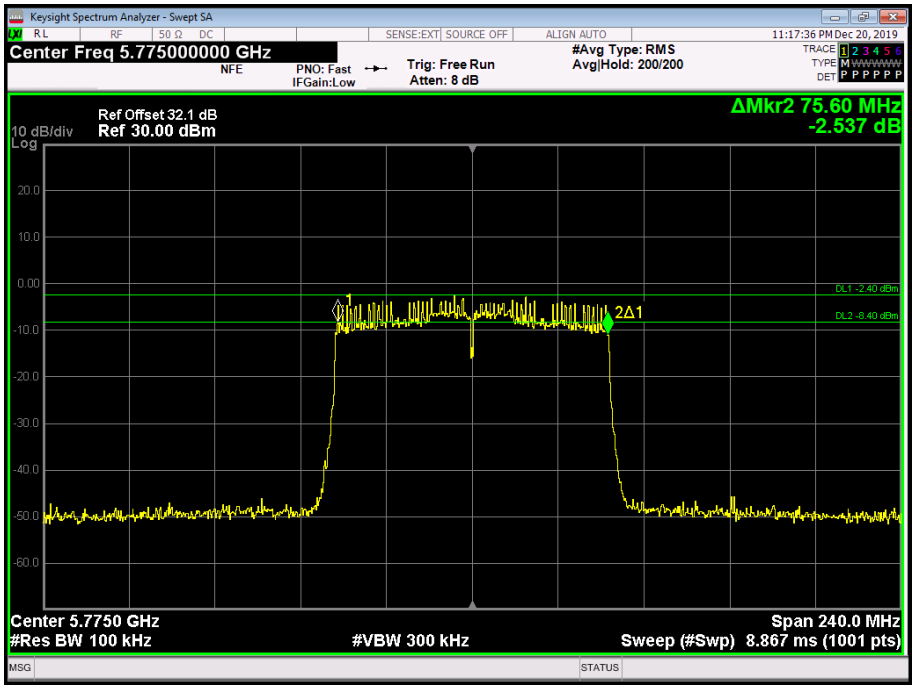

Figure 370 - 5775 MHz - 6 dB DTS Bandwidth

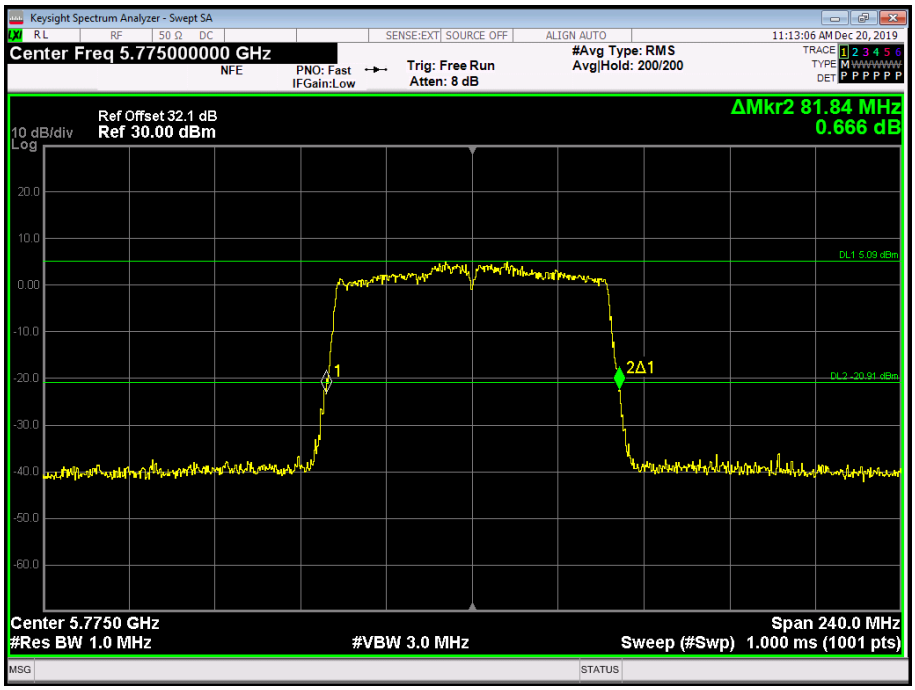

Figure 371 - 5775 MHz - 26 dB Emission Bandwidth

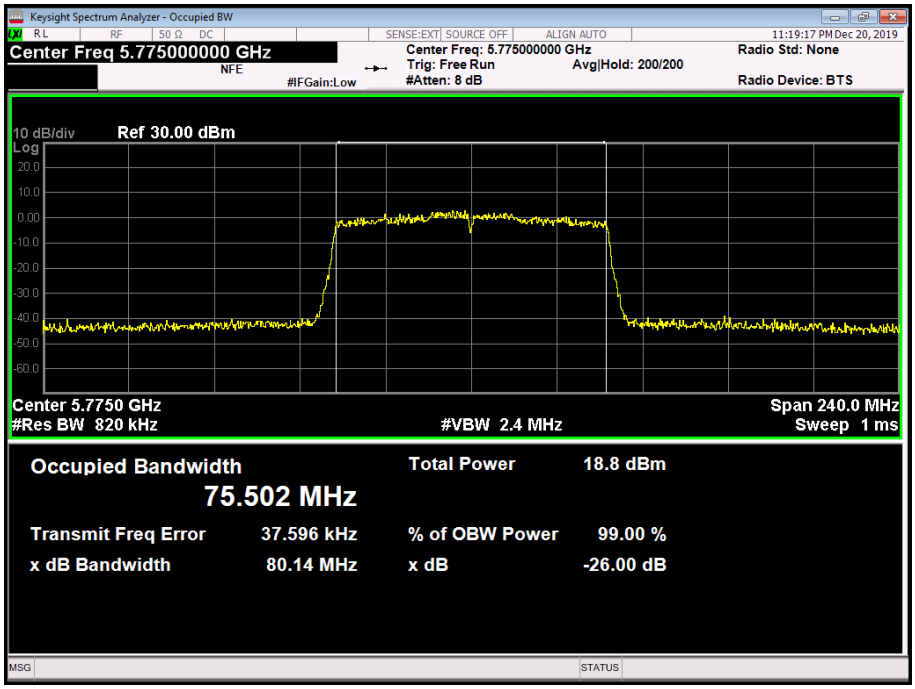

Figure 372 - 5775 MHz - 99% Occupied Bandwidth

Channel	Straddle	Middle
Frequency (MHz)	5690	5775
6 dB Bandwidth (MHz)	3.160	76.800
26 dB Bandwidth (MHz)	5.800	81.840
99% Bandwidth (MHz)	75.875	75.803

Table 207 - 802.11ac / VHT80 MCS0x1 / MIMO TxBF / Cores 0+1

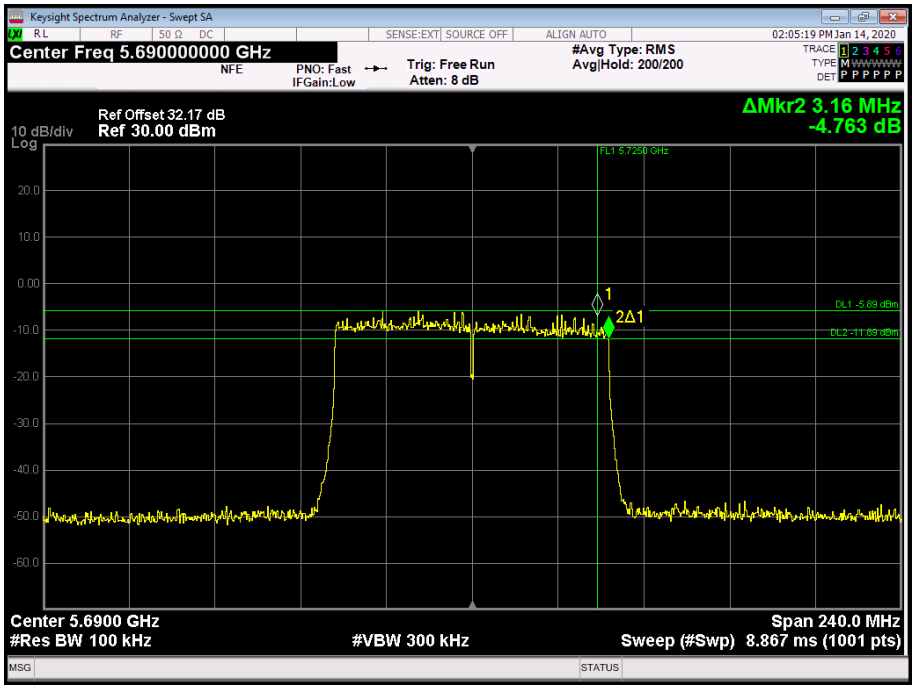

Figure 373 - 5690 MHz - 6 dB DTS Bandwidth

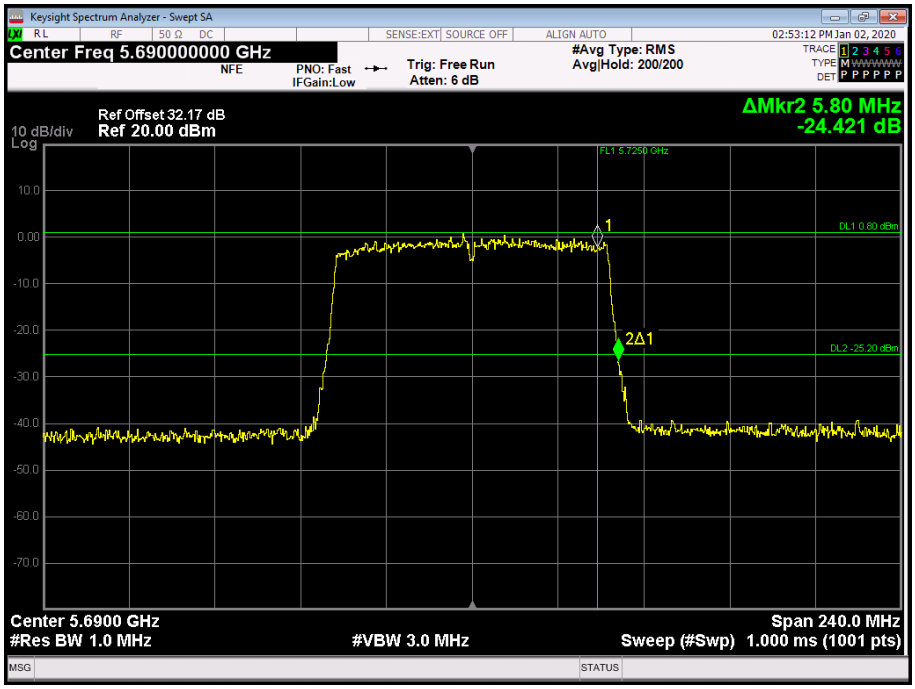

Figure 374 - 5690 MHz - 26 dB Emission Bandwidth

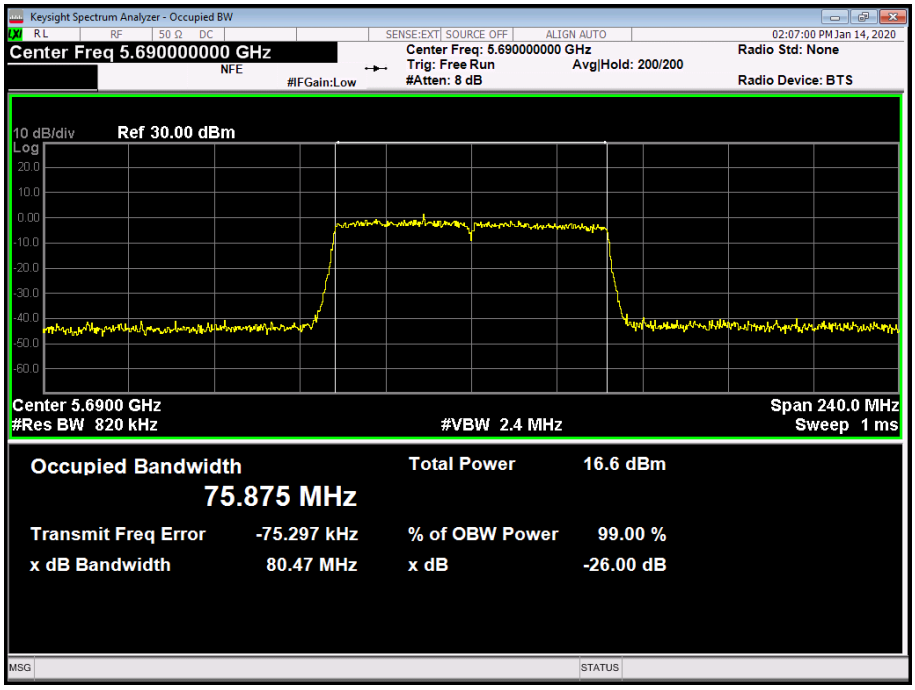

Figure 375 - 5690 MHz - 99% Occupied Bandwidth

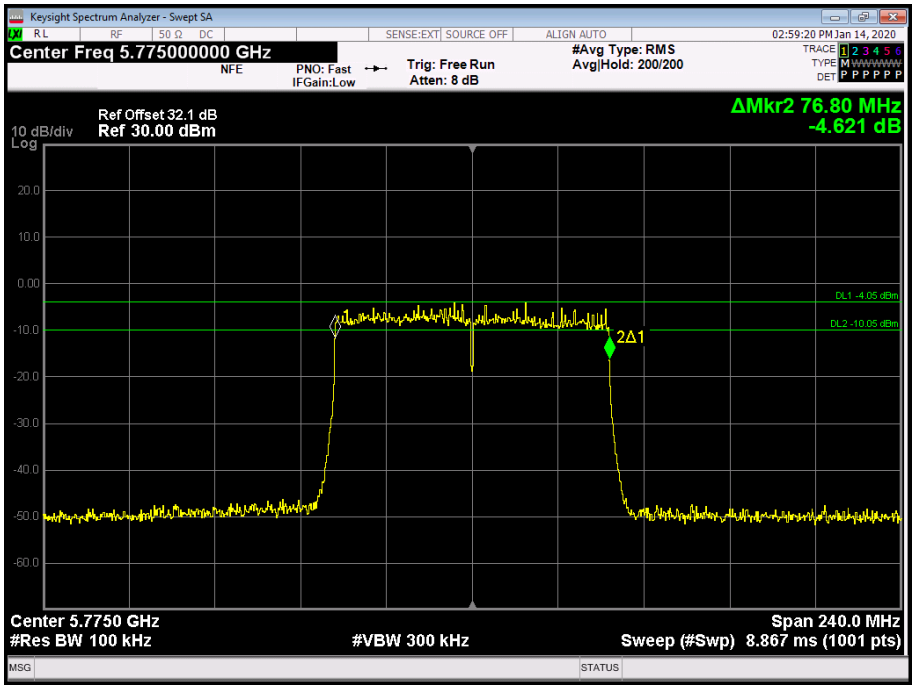

Figure 376 - 5775 MHz - 6 dB DTS Bandwidth

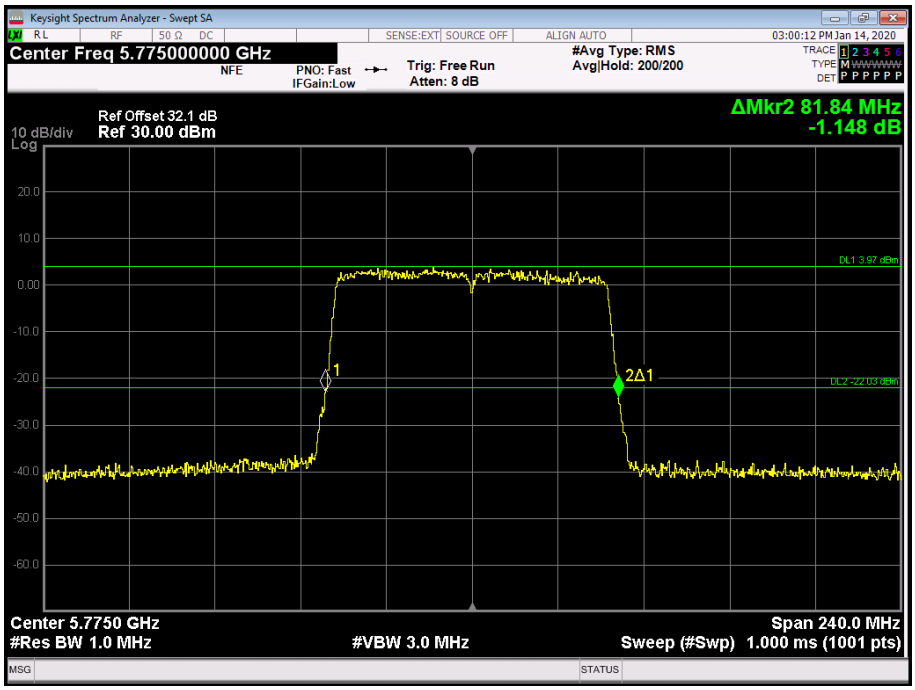

Figure 377 - 5775 MHz - 26 dB Emission Bandwidth

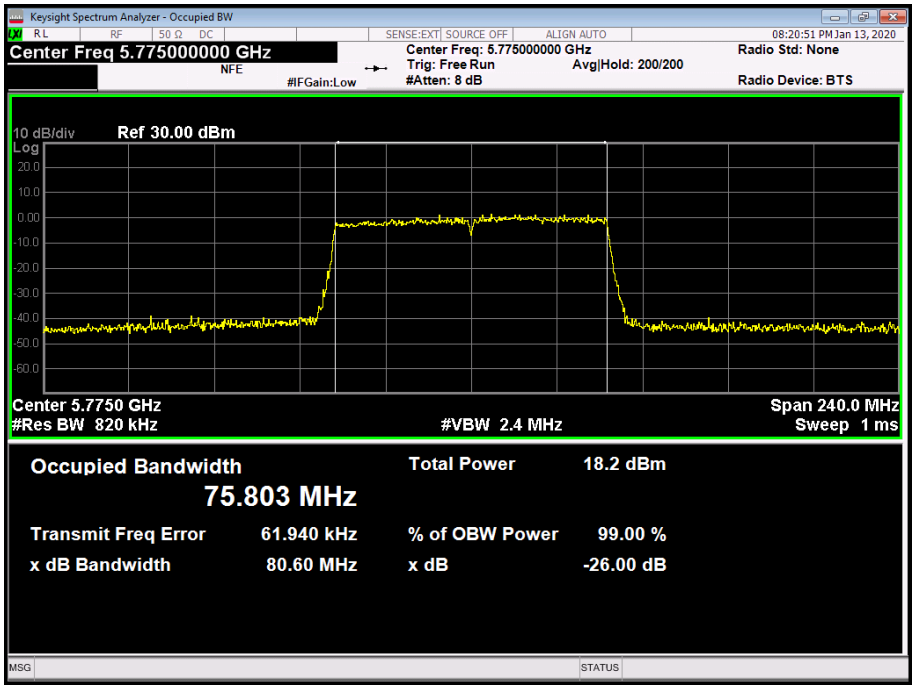

Figure 378 - 5775 MHz - 99% Occupied Bandwidth

FCC Part 15E, Limit Clause 15.407 and ISEDC RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1, 6.2.4.1

5150 MHz to 5250 MHz: None specified.
5250 MHz to 5350 MHz: None specified.
5470 MHz to 5725 MHz: None specified.
5725 MHz to 5850 MHz: > 500 kHz.

ISEDC Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

5150 MHz to 5250 MHz: None specified.
5250 MHz to 5350 MHz: None specified.
5470 MHz to 5725 MHz: None specified.
5725 MHz to 5850 MHz: The minimum 6 dB bandwidth shall be at least 500 kHz.

2.3.7 Test Location and Test Equipment Used

This test was carried out in RF Laboratory 1.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
Rubidium Standard	Rohde & Schwarz	XSRM	1316	6	16-Apr-2020
Hygrometer	Rotronic	I-1000	3220	12	25-Sep-2020
Network Analyser	Rohde & Schwarz	ZVA 40	3548	12	11-Dec-2020
1800-6000 MHz Power Splitter	Mini-Circuits	ZN2PD-63-S+	4055	-	O/P Mon
Calibration Unit	Rohde & Schwarz	ZV-Z54	4368	12	28-Nov-2020
Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	16-Apr-2020
2 metre SMA Cable	Florida Labs	SMS-235SP-78.8-SMS	4517	12	12-Nov-2020
PXA Signal Analyser	Keysight Technologies	N9030A	4653	12	06-Feb-2020
Power splitter - 2 port	Mini-Circuits	ZN2PD-63-S+	4743	12	23-Sep-2020
Power splitter - 4 port	Mini-Circuits	ZN4PD1-63-S+	4744	12	23-Sep-2020
EXA	Keysight Technologies	N9010B	4969	24	21-Jan-2020
Cable (40 GHz)	Rosenberger	LU1-001-1000	5022	12	12-Nov-2020
Cable (18 GHz)	Rosenberger	LU7-071-2000	5108	12	06-Oct-2020
USB Power Sensor	Boonton	RTP5006	5184	12	06-Jan-2021
Power Splitter, 4 way	Mini-Circuits	ZN4PD1-63-S+	5235	-	O/P Mon
Power Splitter, 4 way	Mini-Circuits	ZN4PD1-63-S+	5236	-	O/P Mon
USB Power Sensor	Boonton	RTP5006	5280	12	09-Apr-2020

Table 208

O/P Mon – Output Monitored using calibrated equipment

2.4 Authorised Band Edges

2.4.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (b)
ISEDC RSS-247, Clause 6.2

2.4.2 Equipment Under Test and Modification State

A2289, S/N: C02ZG009P09V - Modification State 0

2.4.3 Date of Test

03-November-2019 to 17-December-2019

2.4.4 Test Method

The test was performed in accordance with ANSI C63.10, clause 6.6.

For U-NII-2C channels, the limit line on the following plots equates to -27 dBm/MHz. EIRP was converted to field strength at 3 m using the following formula:

Field Strength (dBµV/m at 3 m) = EIRP (dBm) + 95.2 dB

Authorised band edge measurements were performed, with the device operating in SISO and MIMO configurations, across the various modes supported by the device.

Further measurements are held on file by TÜV SÜD and are available if required.

2.4.5 Environmental Conditions

Ambient Temperature	21.8 °C
Relative Humidity	50.9 %

2.4.6 Test Results

5 GHz WLAN

Mode	Data Rate/Modulation Coding Scheme	Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBuV/m)
802.11a, Core 0	6 Mbps	5500	5470	61.68
802.11n HT20 Core 0	MCS0	5500	5470	63.70
802.11a, Core 0	6 Mbps	5700	5725	63.43
802.11n HT20 Core 0	MCS0	5700	5725	63.62
802.11a, Core 0	6 Mbps	5745	5725	59.35
802.11n HT20 Core 0	MCS0	5745	5725	60.04
802.11a, Core 0	6 Mbps	5825	5850	58.10
802.11n HT20 Core 0	MCS0	5825	5850	60.02

Table 209- SISO

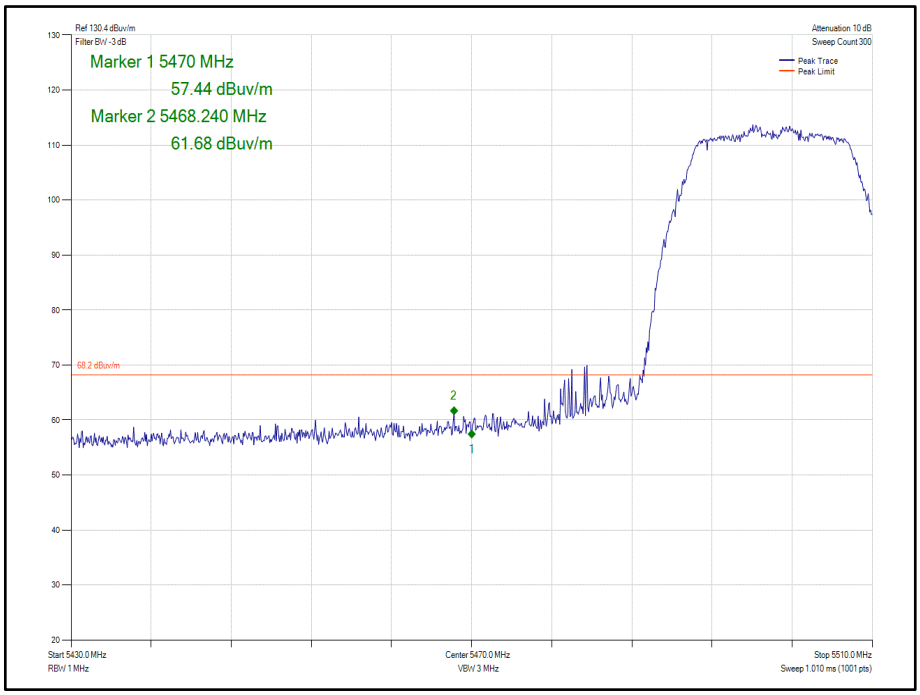

Figure 379 - 802.11a Core 0 - 5500 MHz
Band Edge Frequency 5470 MHz

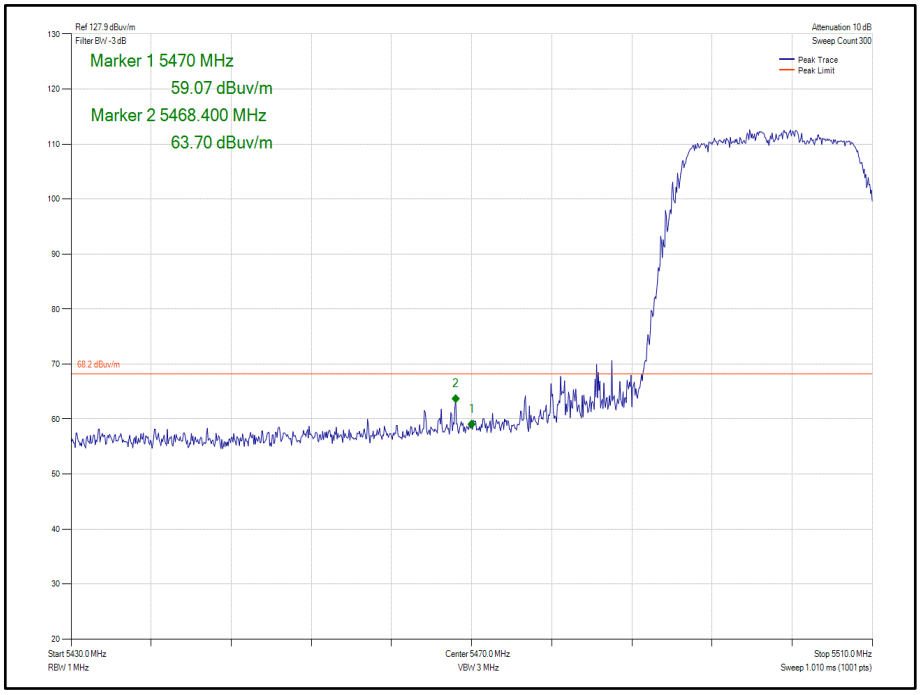

Figure 380 - 802.11n HT20 Core 0 - 5500 MHz
Band Edge Frequency 5470 MHz

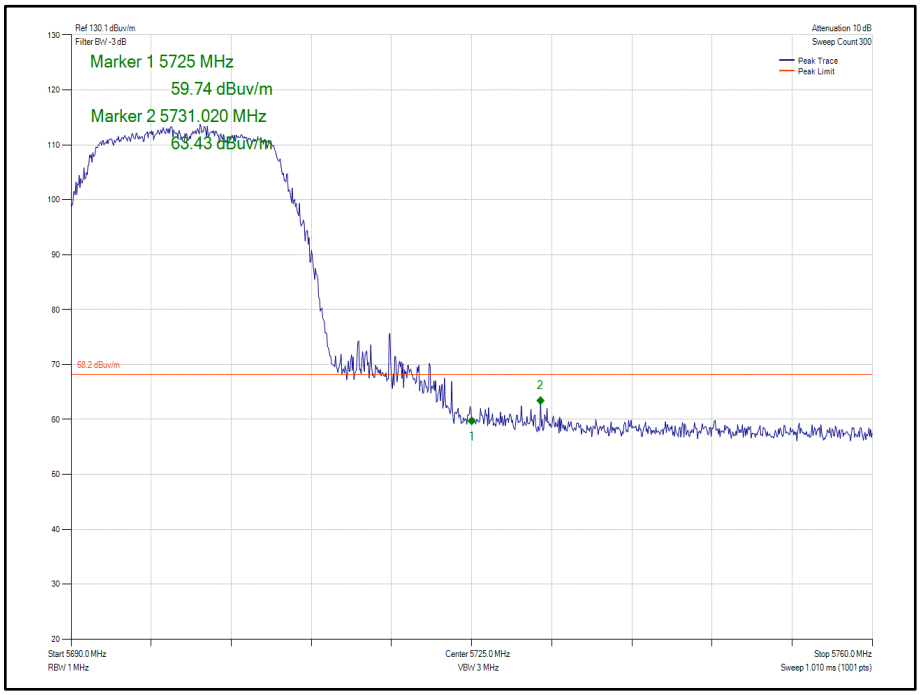

Figure 381 - 802.11a Core 0 - 5700 MHz Band Edge Frequency 5725 MHz

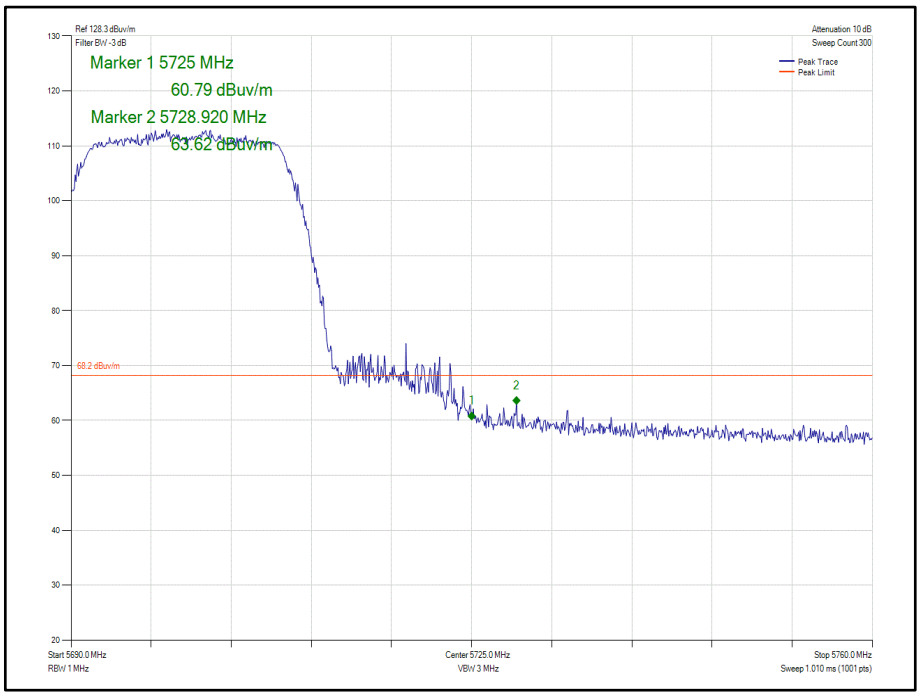

Figure 382 - 802.11n HT20 Core 0 - 5700 MHz Band Edge Frequency 5725 MHz

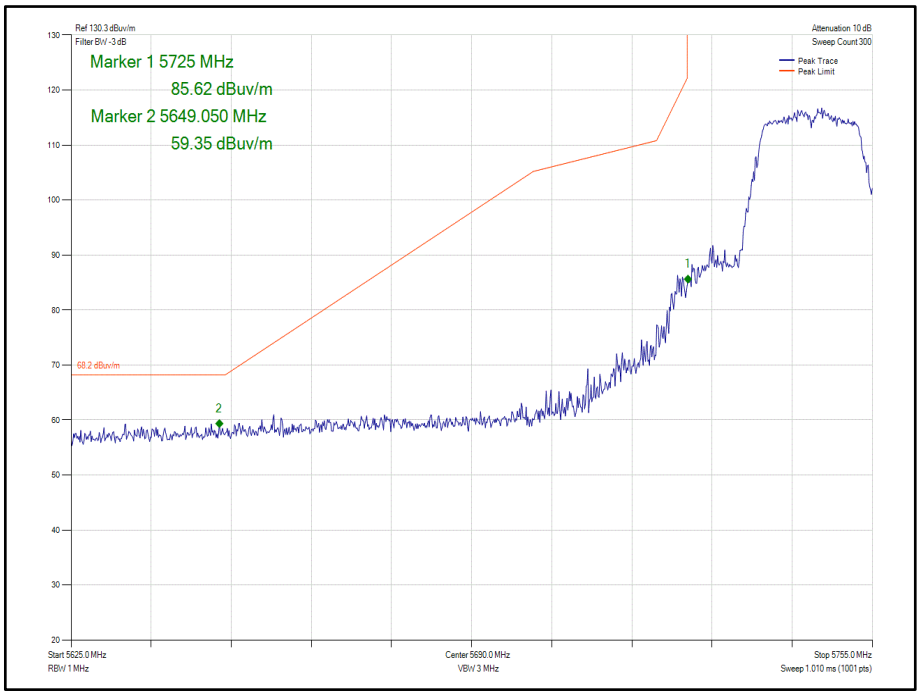

Figure 383 - 802.11a Core 0 - 5745 MHz Band Edge Frequency 5725 MHz

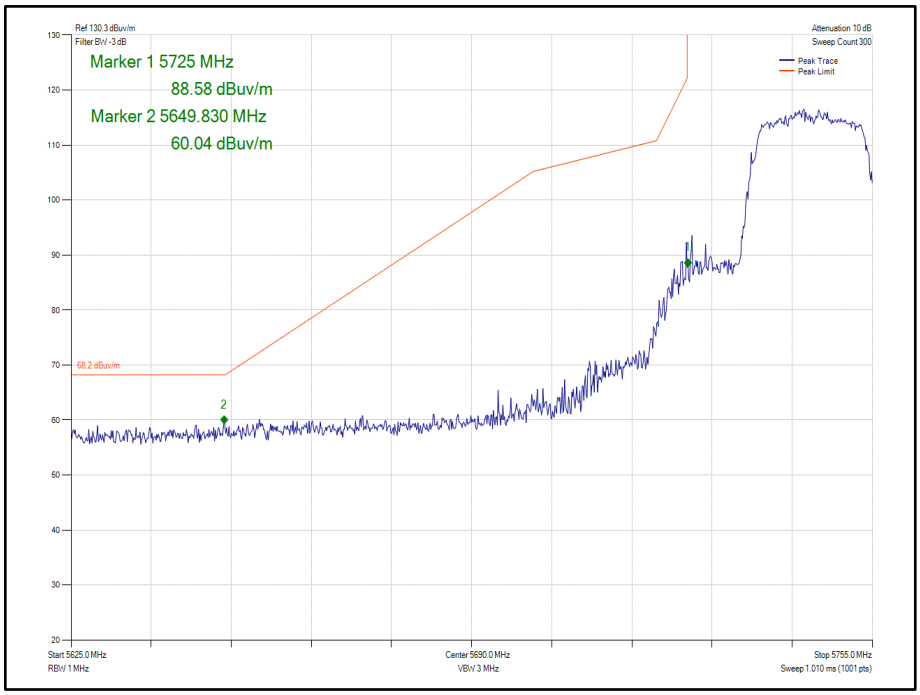

Figure 384 - 802.11n HT20 Core 0 - 5745 MHz Band Edge Frequency 5725 MHz

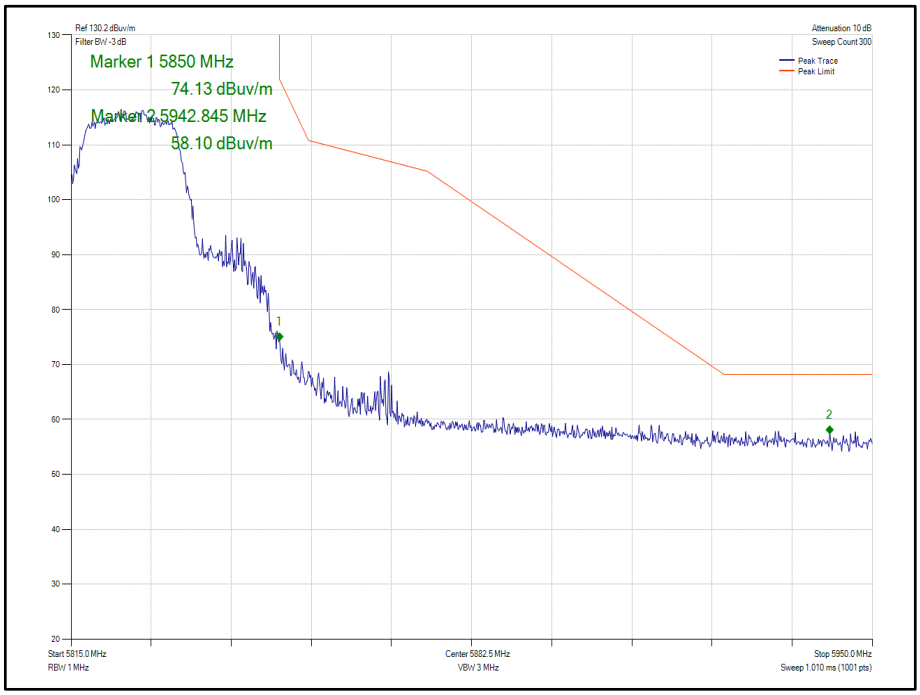

Figure 385 - 802.11a Core 0 - 5825 MHz Band Edge Frequency 5850 MHz

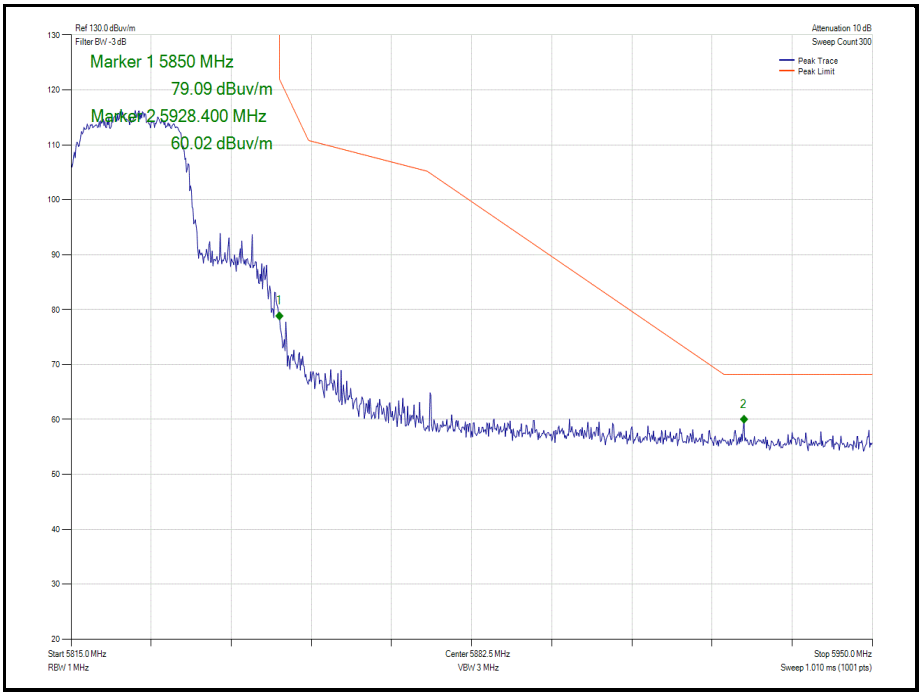

Figure 386 - 802.11n HT20 Core 0 - 5825 MHz Band Edge Frequency 5850 MHz

Mode	Modulation Coding Scheme	Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBuV/m)
802.11n HT20 CDD Cores 0-1	MCS0	5500	5470	62.38
802.11n HT20 SDM Cores 0-1	MCS0	5500	5470	61.21
802.11n HT20 CDD Cores 0-1	MCS0	5700	5725	62.75
802.11n HT20 SDM Cores 0-1	MCS0	5700	5725	61.15
802.11n HT20 CDD Cores 0-1	MCS0	5745	5725	60.94
802.11n HT20 SDM Cores 0-1	MCS0	5745	5725	62.59
802.11n HT20 CDD Cores 0-1	MCS0	5825	5850	59.58
802.11n HT20 SDM Cores 0-1	MCS0	5825	5850	59.51

Table 210 – MIMO 2 TX

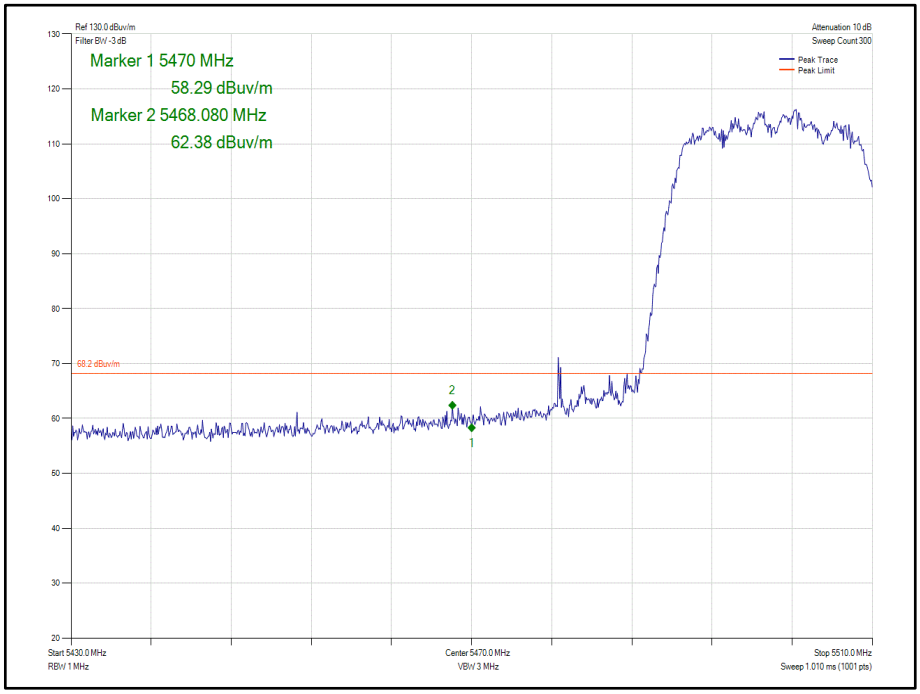

Figure 387 - 802.11n HT20 CDD Cores 0-1 - 5500 MHz Band Edge Frequency 5470 MHz

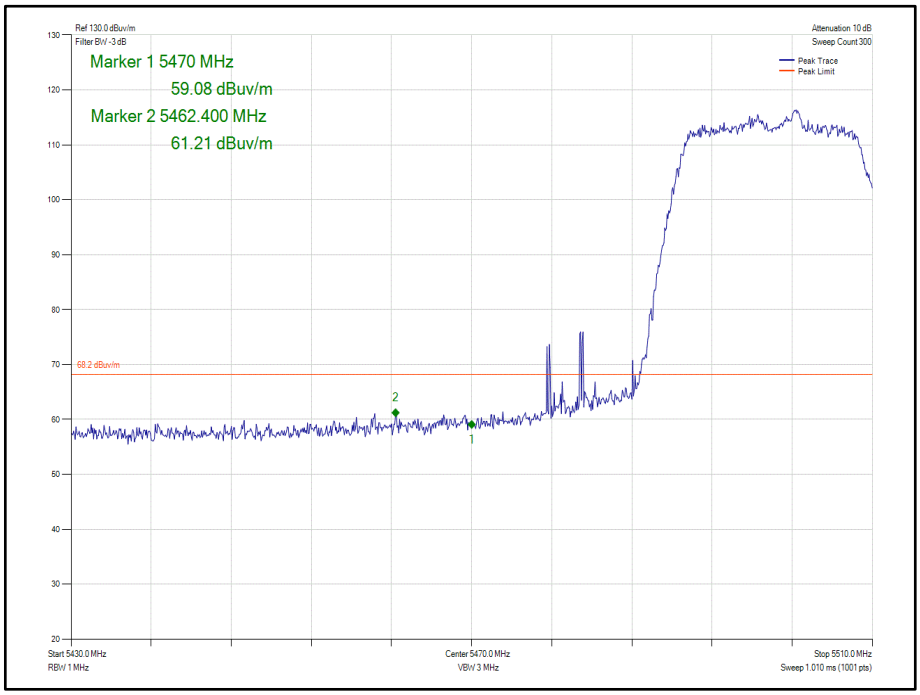

Figure 388 - 802.11n HT20 SDM Cores 0-1 - 5500 MHz Band Edge Frequency 5470 MHz

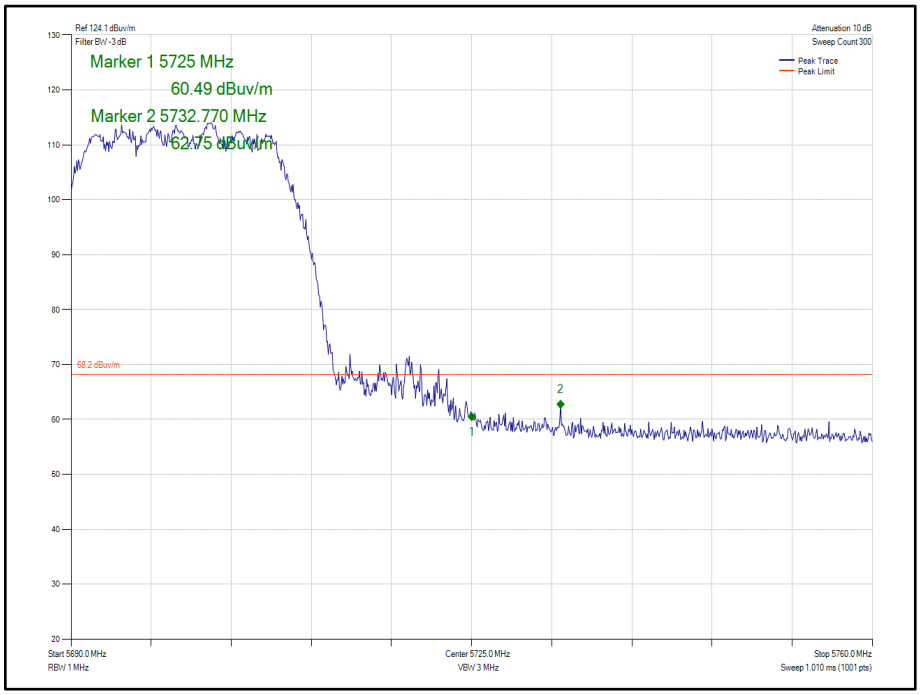

Figure 389 - 802.11n HT20 CDD Cores 0-1 - 5700 MHz Band Edge Frequency 5725 MHz

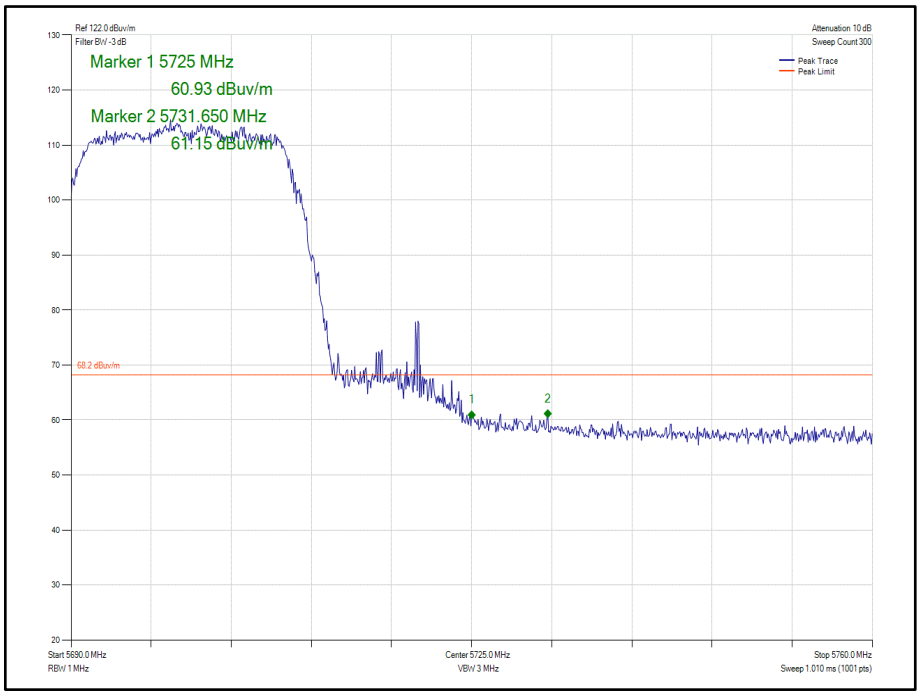

Figure 390 - 802.11n HT20 SDM Cores 0-1 - 5700 MHz Band Edge Frequency 5725 MHz

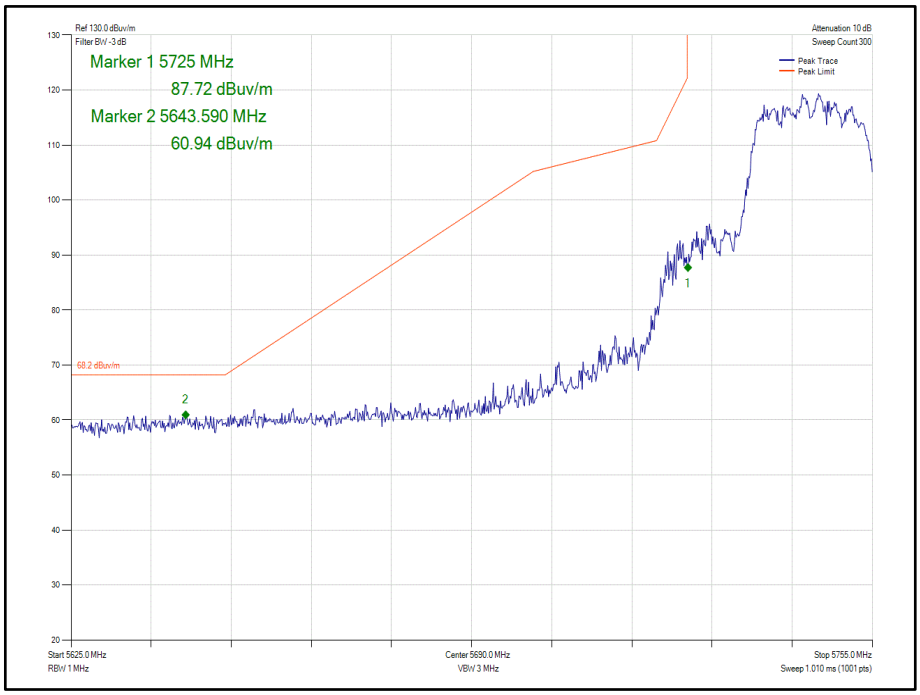

Figure 391 - 802.11n HT20 CDD Cores 0-1 - 5745 MHz Band Edge Frequency 5725 MHz

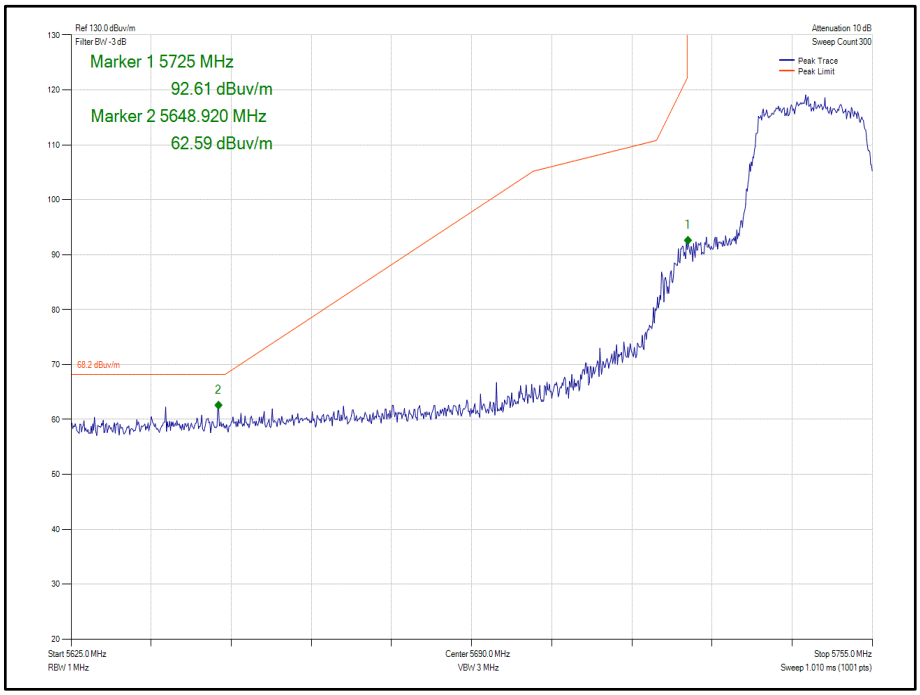

Figure 392 - 802.11n HT20 SDM Cores 0-1 - 5745 MHz Band Edge Frequency 5725 MHz

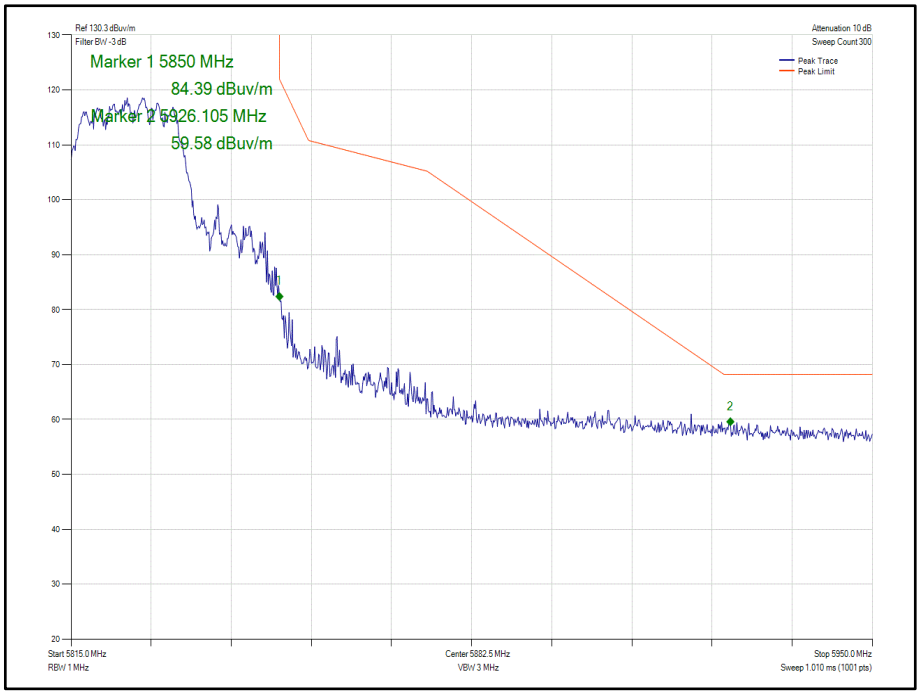

Figure 393 - 802.11n HT20 CDD Cores 0-1 - 5825 MHz Band Edge Frequency 5850 MHz

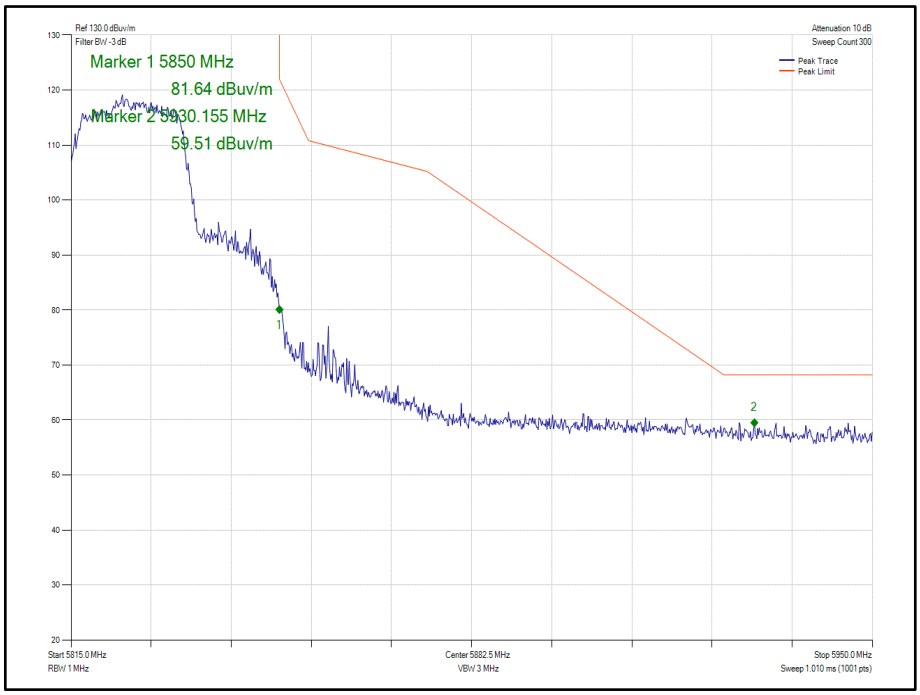

Figure 394 - 802.11n HT20 SDM Cores 0-1 - 5825 MHz Band Edge Frequency 5850 MHz

Mode	Modulation Coding Scheme	Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBuV/m)
802.11n HT40 Core 0	MCS0	5510	5470	63.55
802.11n HT40 Core 0	MCS0	5670	5725	63.21
802.11n HT40 Core 0	MCS0	5755	5725	62.23
802.11n HT40 Core 0	MCS0	5795	5850	58.30

Table 211 - SISO

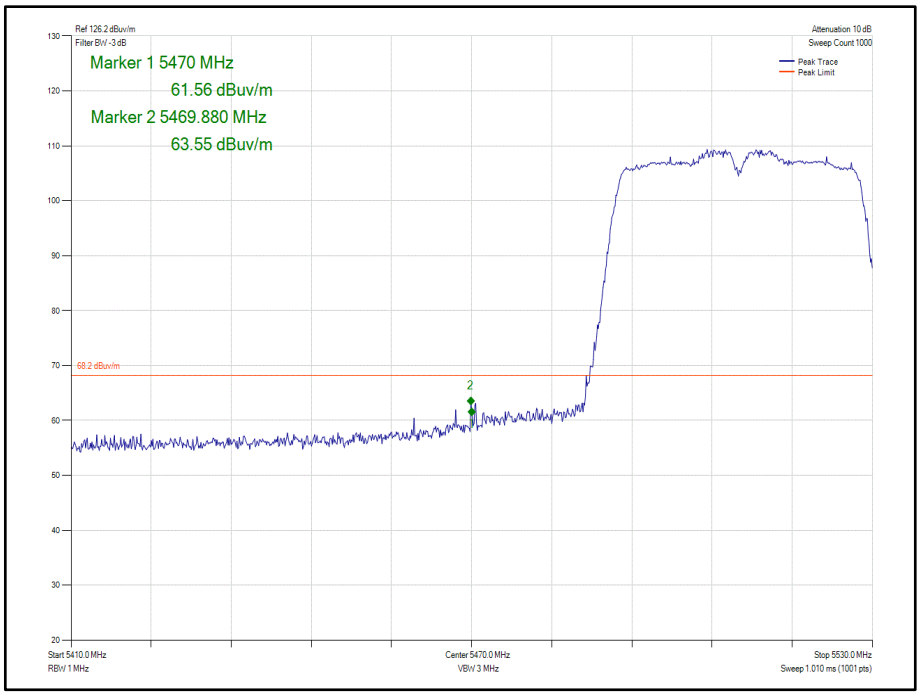

Figure 395 - 802.11n HT40 Core 0 - 5510 MHz Band Edge Frequency 5470 MHz

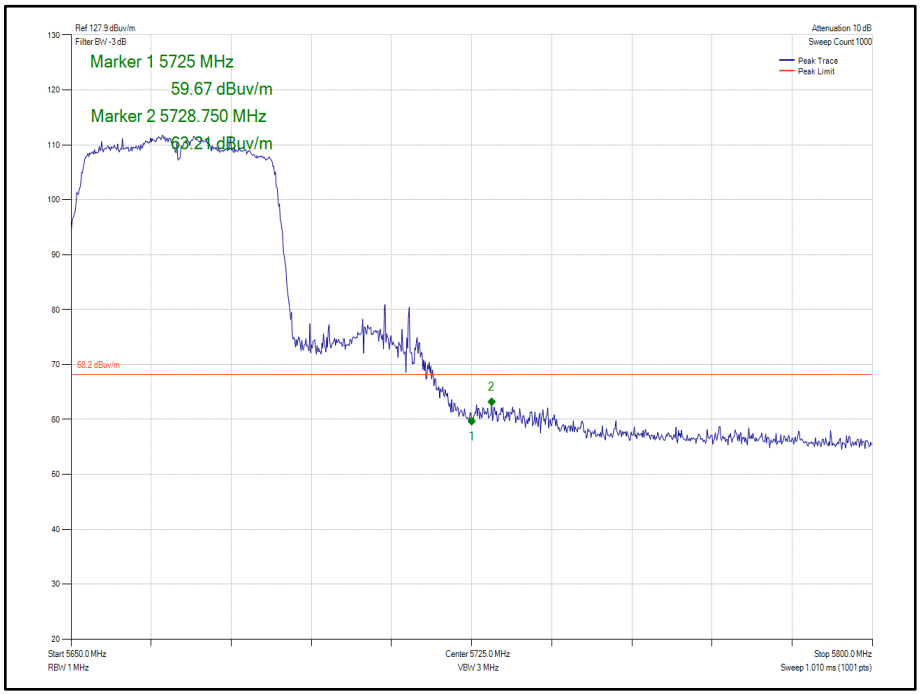

Figure 396 - 802.11n HT40 Core 0 - 5670 MHz Band Edge Frequency 5725 MHz

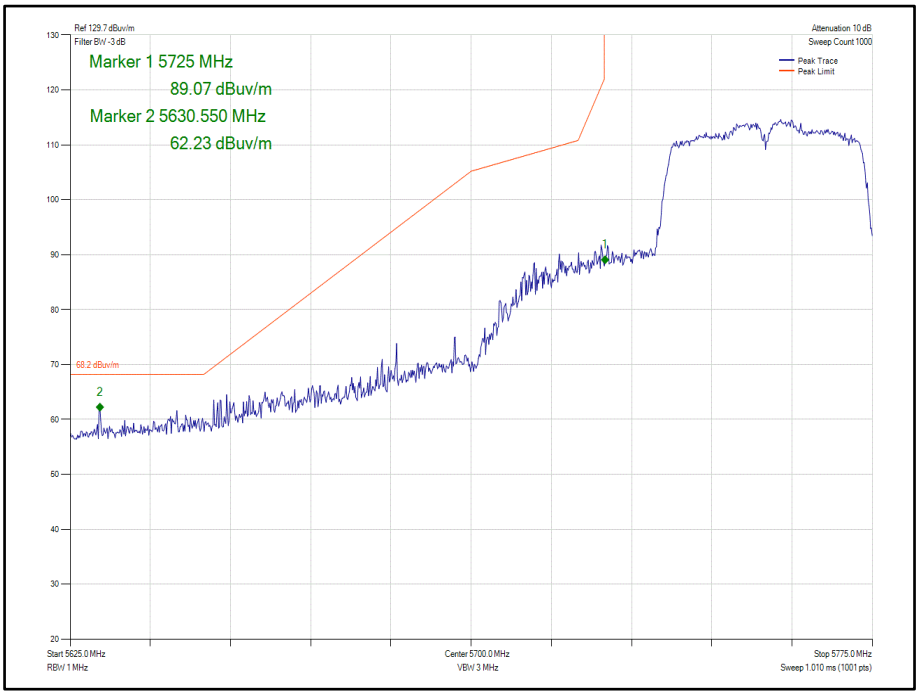

Figure 397 - 802.11n HT40 Core 0 - 5755 MHz Band Edge Frequency 5725 MHz

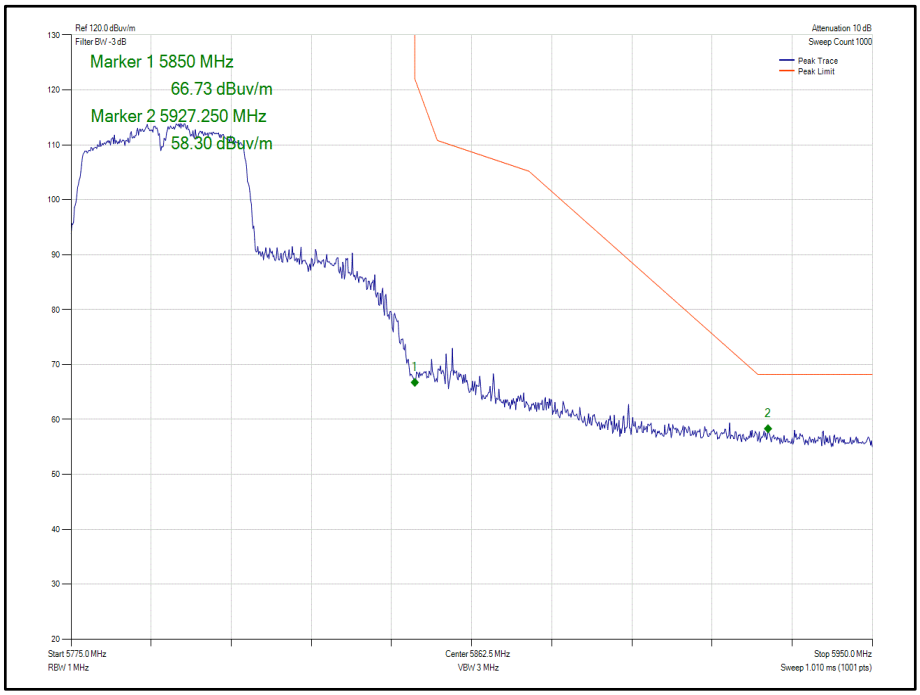

Figure 398 - 802.11n HT40 Core 0 - 5795 MHz
Band Edge Frequency 5850 MHz

Mode	Modulation Coding Scheme	Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBuV/m)
802.11n HT40 CDD Cores 0-1	MCS0	5510	5470	63.23
802.11n HT40 SDM Cores 0-1	MCS0	5510	5470	63.11
802.11n HT40 CDD Cores 0-1	MCS0	5670	5725	63.17
802.11n HT40 SDM Cores 0-1	MCS0	5670	5725	63.13
802.11n HT40 CDD Cores 0-1	MCS0	5755	5725	63.05
802.11n HT40 SDM Cores 0-1	MCS0	5755	5725	63.16
802.11n HT40 CDD Cores 0-1	MCS0	5795	5850	61.00
802.11n HT40 SDM Cores 0-1	MCS0	5795	5850	60.71

Table 212 – MIMO 2TX

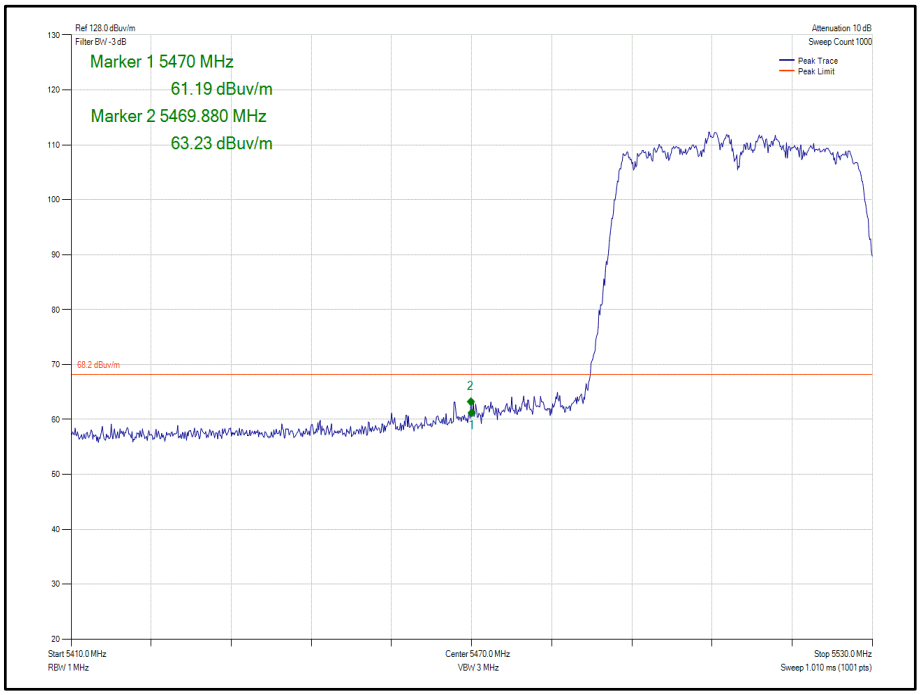

Figure 399 - 802.11n HT40 CDD Cores 0-1 - 5510 MHz Band Edge Frequency 5470 MHz

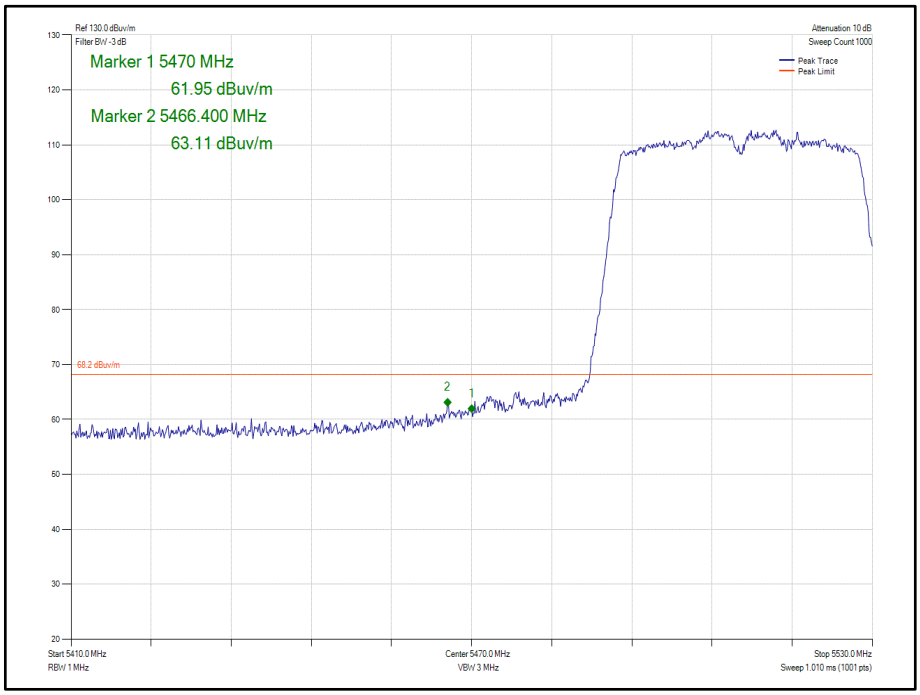

Figure 400 - 802.11n HT40 SDM Cores 0-1 - 5510 MHz Band Edge Frequency 5470 MHz

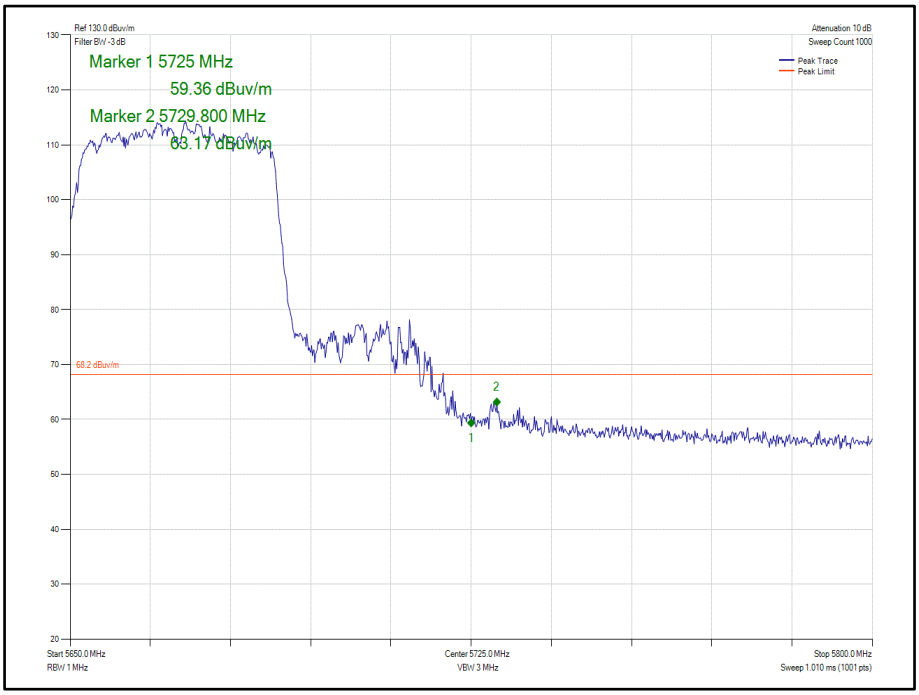

Figure 401 - 802.11n HT40 CDD Cores 0-1 - 5670 MHz Band Edge Frequency 5725 MHz

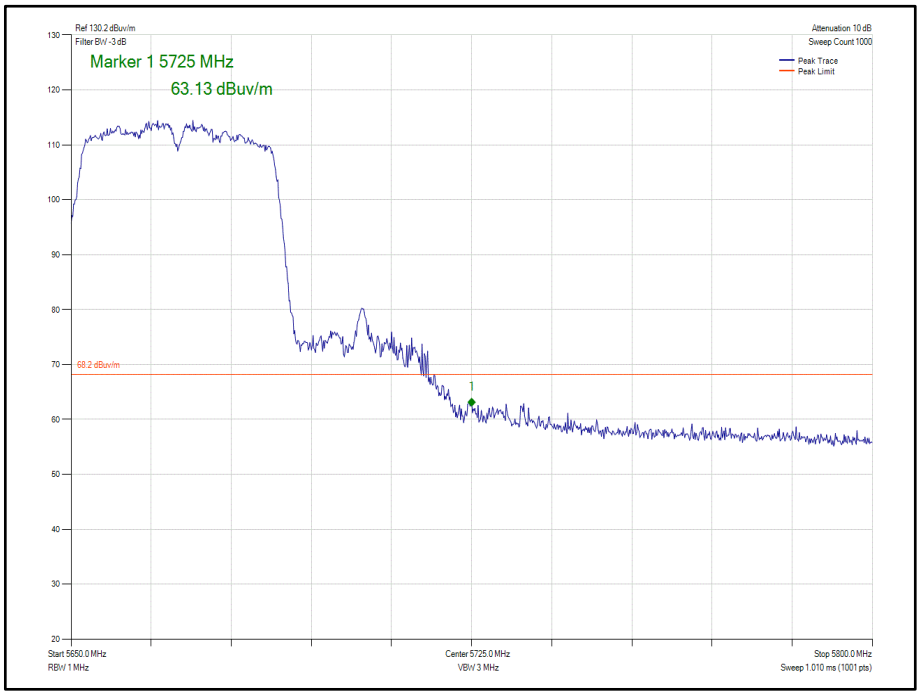

Figure 402 - 802.11n HT40 SDM Cores 0-1 - 5670 MHz Band Edge Frequency 5725 MHz

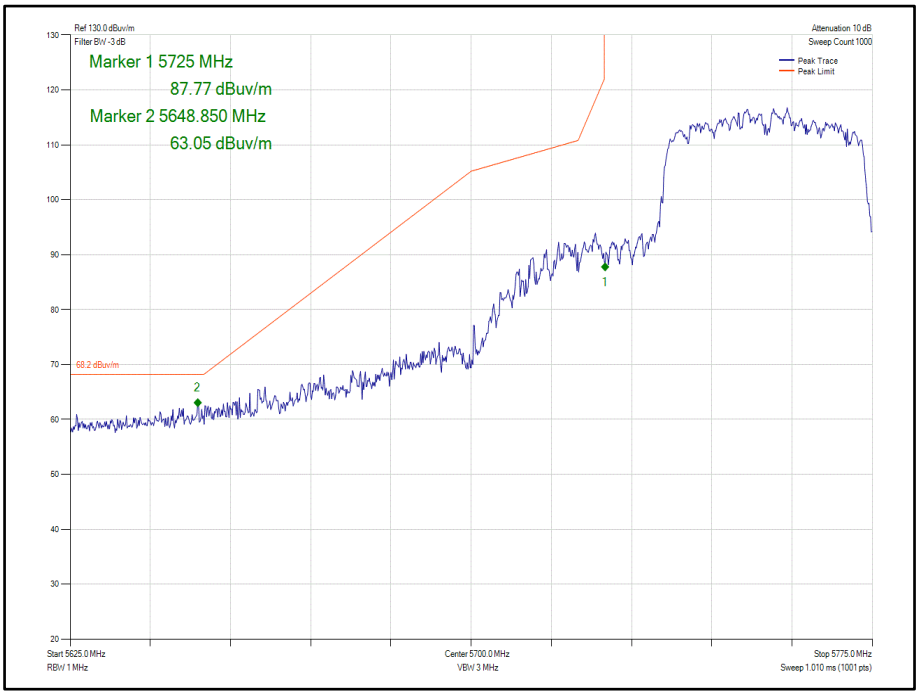

Figure 403 - 802.11n HT40 CDD Cores 0-1 - 5755 MHz Band Edge Frequency 5725 MHz

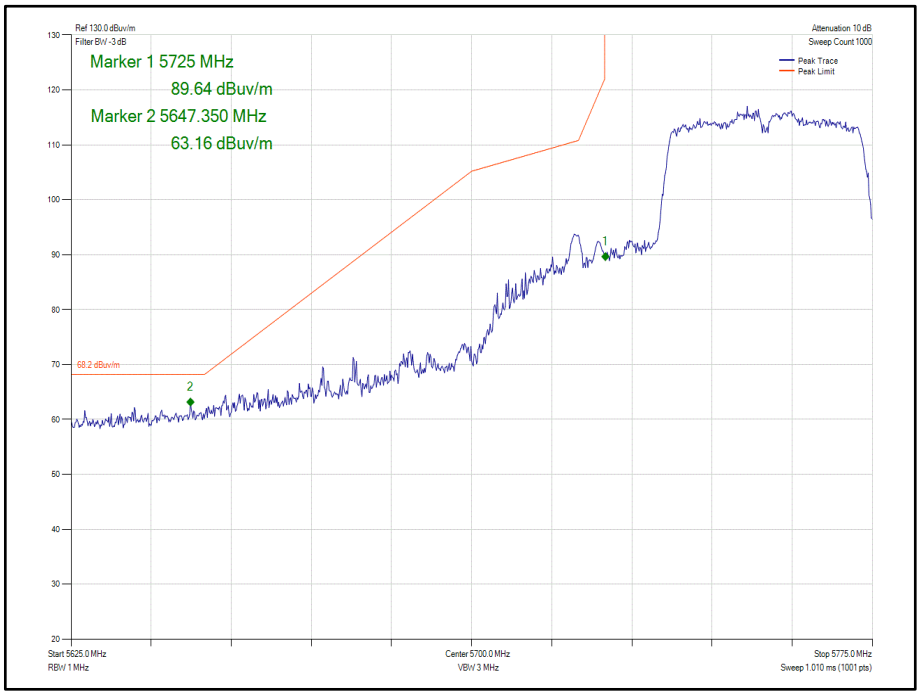

Figure 404 - 802.11n HT40 SDM Cores 0-1 - 5755 MHz Band Edge Frequency 5725 MHz

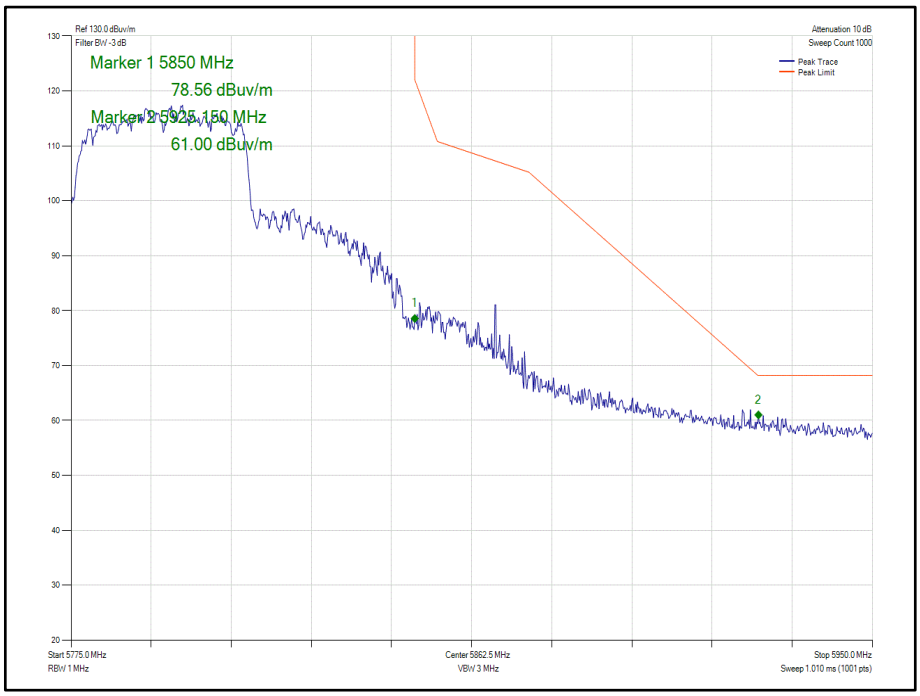

Figure 405 - 802.11n HT40 CDD Cores 0-1 - 5795 MHz Band Edge Frequency 5850 MHz

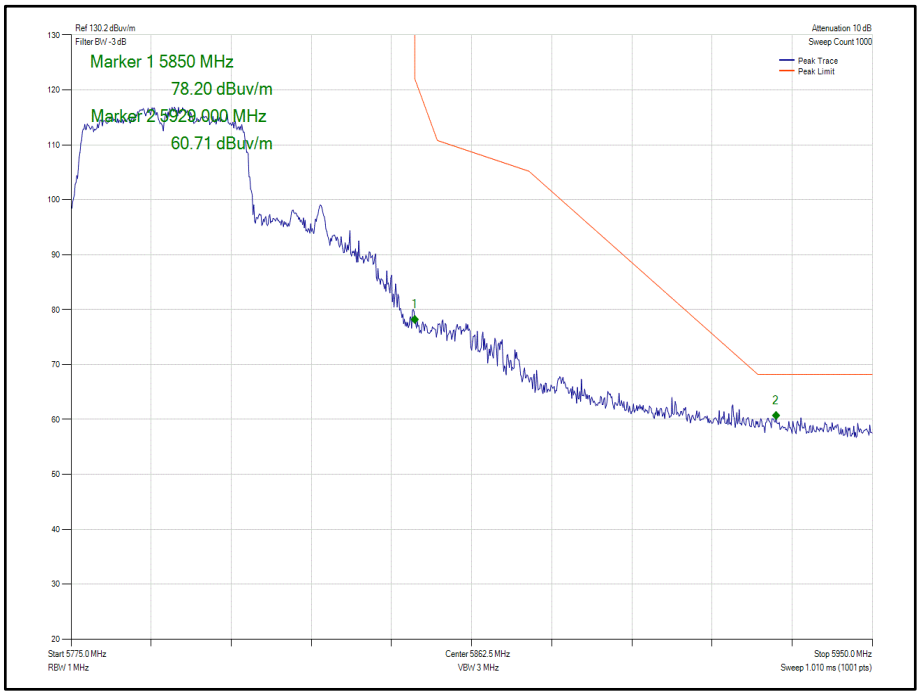

Figure 406 - 802.11n HT40 SDM Cores 0-1 - 5795 MHz Band Edge Frequency 5850 MHz

Mode	Modulation Coding Scheme	Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBuV/m)
802.11ac VHT80 Core 0	MCS0x1	5530	5470	63.14
802.11ac VHT80 Core 0	MCS0x1	5610	5725	63.01
802.11ac VHT80 Core 0	MCS0x1	5775	5725	63.17
802.11ac VHT80 Core 0	MCS0x1	5775	5850	63.32

Table 213 - SISO

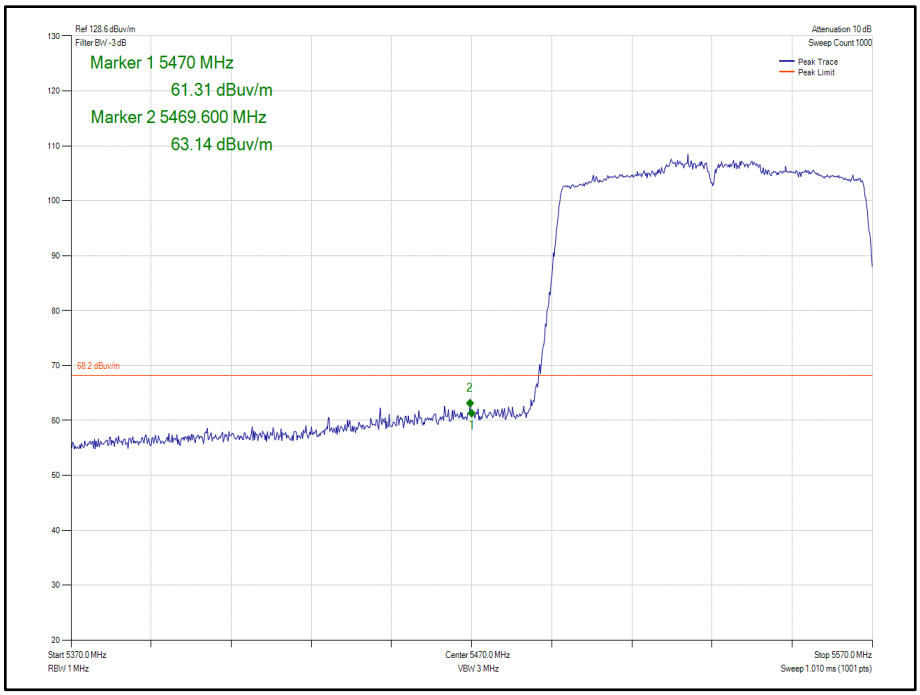

Figure 407 - 802.11ac VHT80 Core 0 - 5530 MHz Band Edge Frequency 5470 MHz

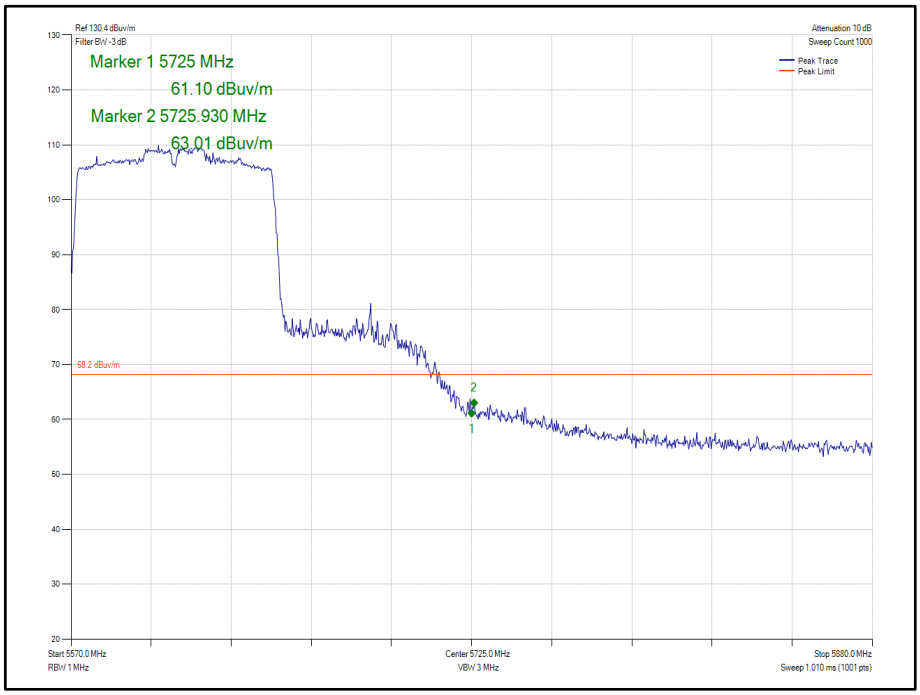

Figure 408 - 802.11ac VHT80 Core 0 - 5610 MHz Band Edge Frequency 5725 MHz

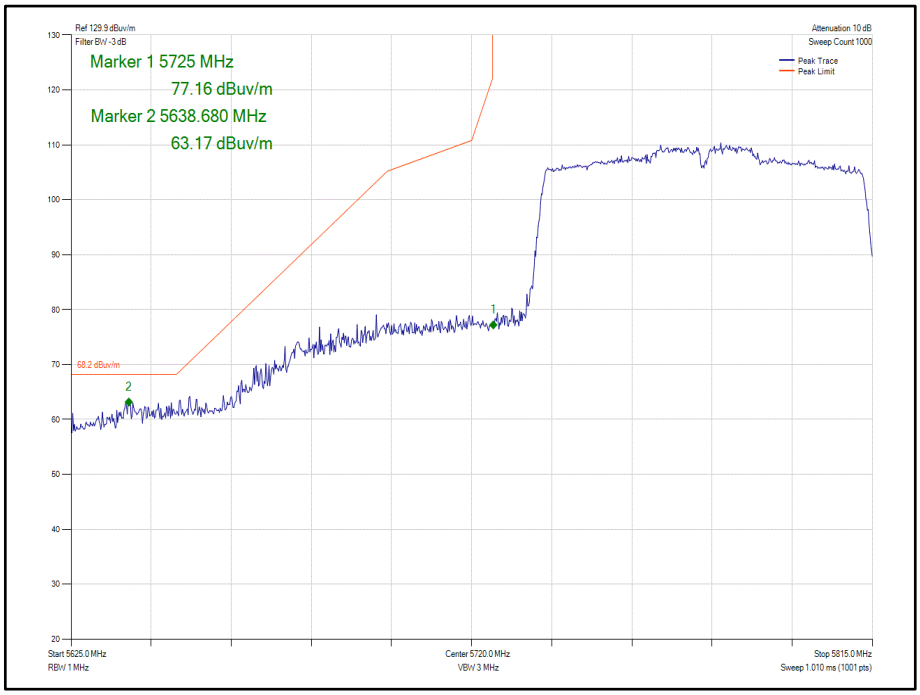

Figure 409 - 802.11ac VHT80 Core 0 - 5775 MHz Band Edge Frequency 5725 MHz

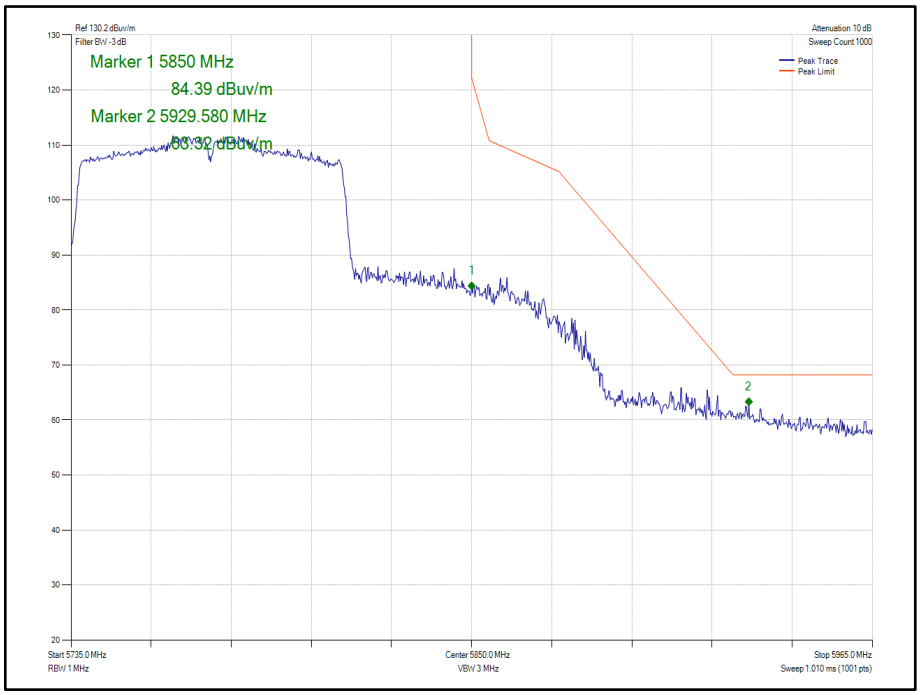

Figure 410 - 802.11ac VHT80 Core 0 - 5775 MHz Band Edge Frequency 5850 MHz

Mode	Modulation Coding Scheme	Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBuV/m)
802.11ac VHT80 CDD Cores 0-1	MCS0x1	5530	5470	63.59
802.11ac VHT80 SDM Cores 0-1	MCS0x1	5530	5470	63.60
802.11ac VHT80 CDD Cores 0-1	MCS0x1	5610	5725	63.57
802.11ac VHT80 SDM Cores 0-1	MCS0x1	5610	5725	63.23
802.11ac VHT80 CDD Cores 0-1	MCS0x1	5775	5725	63.54
802.11ac VHT80 SDM Cores 0-1	MCS0x1	5775	5725	63.29
802.11ac VHT80 CDD Cores 0-1	MCS0x1	5775	5850	63.06
802.11ac VHT80 SDM Cores 0-1	MCS0x1	5775	5850	63.15

Table 214 – MIMO 2TX

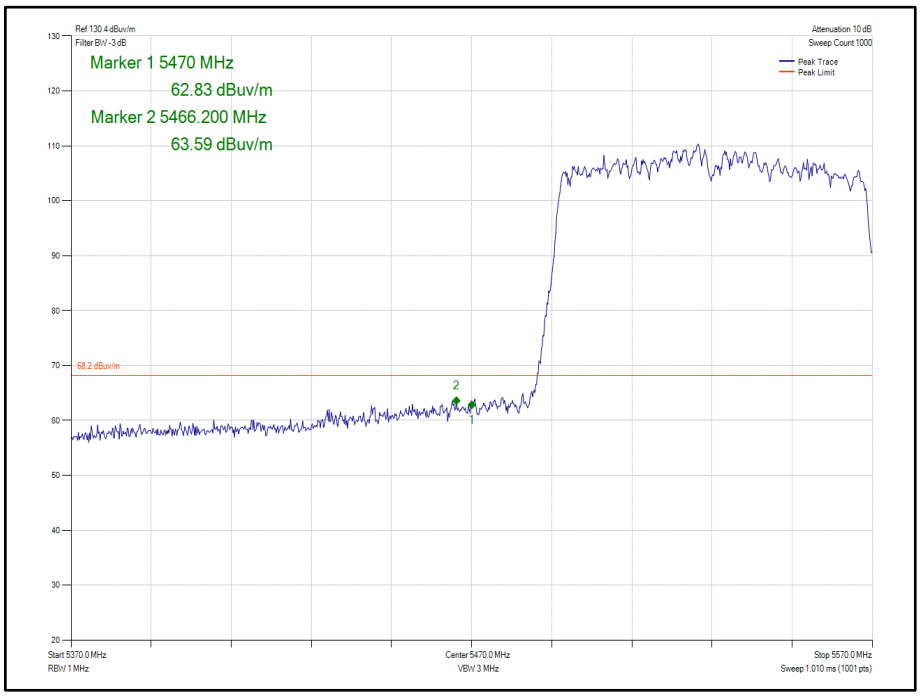

Figure 411 - 802.11ac VHT80 CDD Cores 0-1 - 5530 MHz Band Edge Frequency 5470 MHz

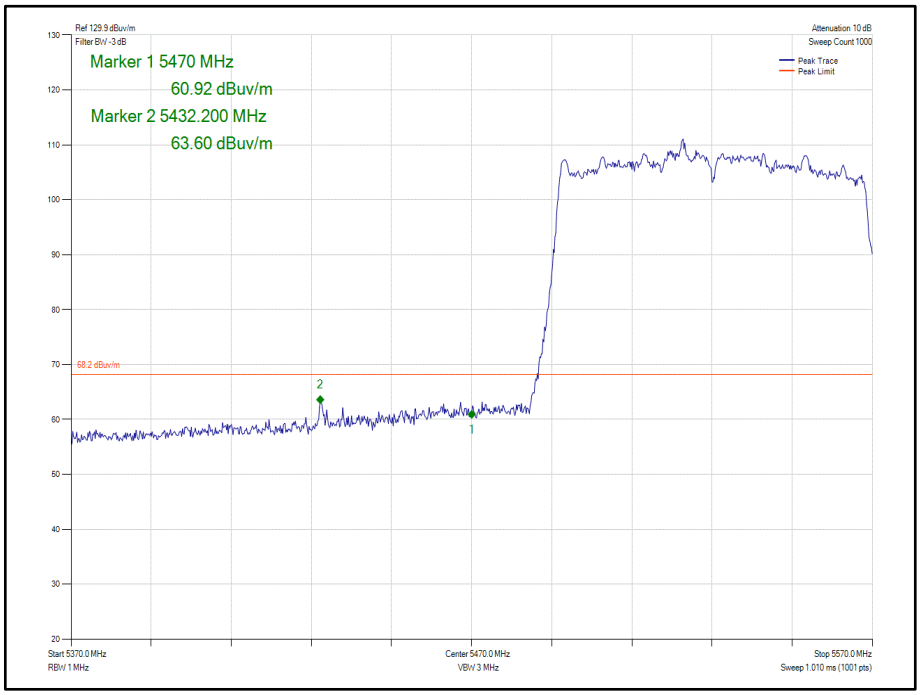

Figure 412 - 802.11ac VHT80 SDM Cores 0-1 - 5530 MHz Band Edge Frequency 5470 MHz

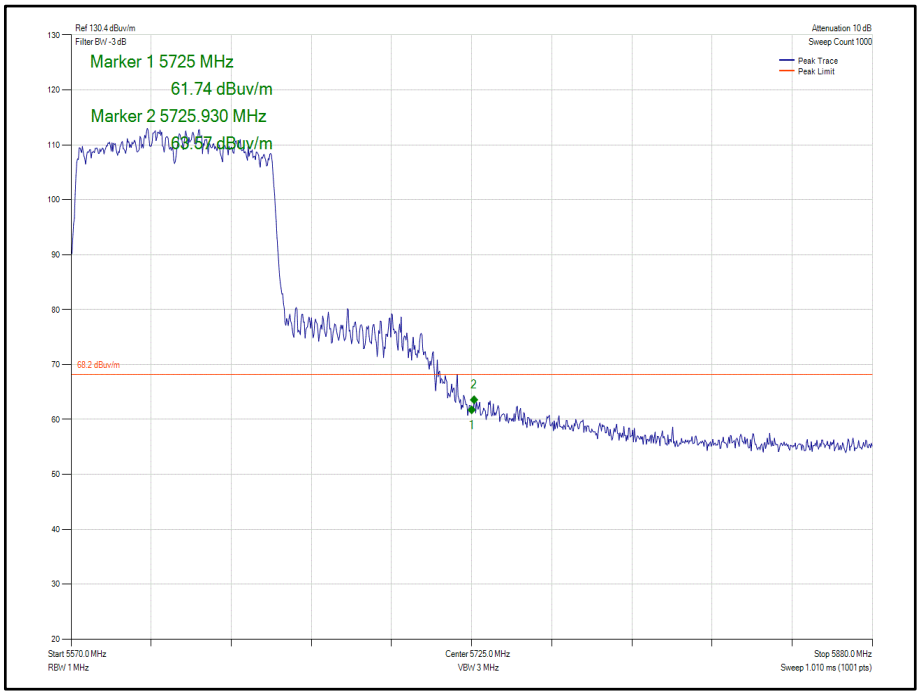

Figure 413 - 802.11ac VHT80 CDD Cores 0-1 - 5610 MHz Band Edge Frequency 5725 MHz

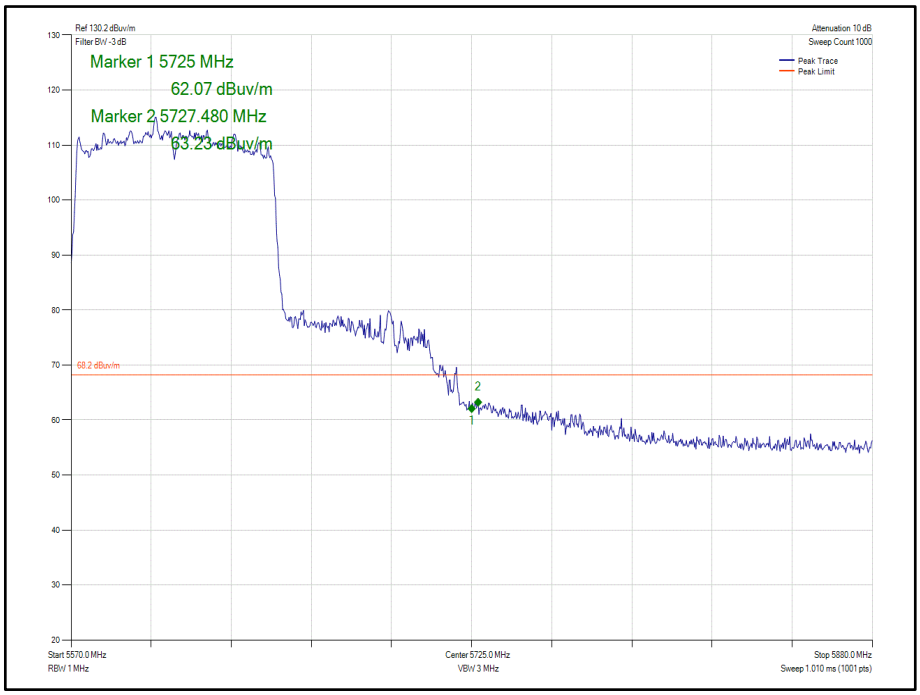

Figure 414 - 802.11ac VHT80 SDM Cores 0-1 - 5610 MHz Band Edge Frequency 5725 MHz

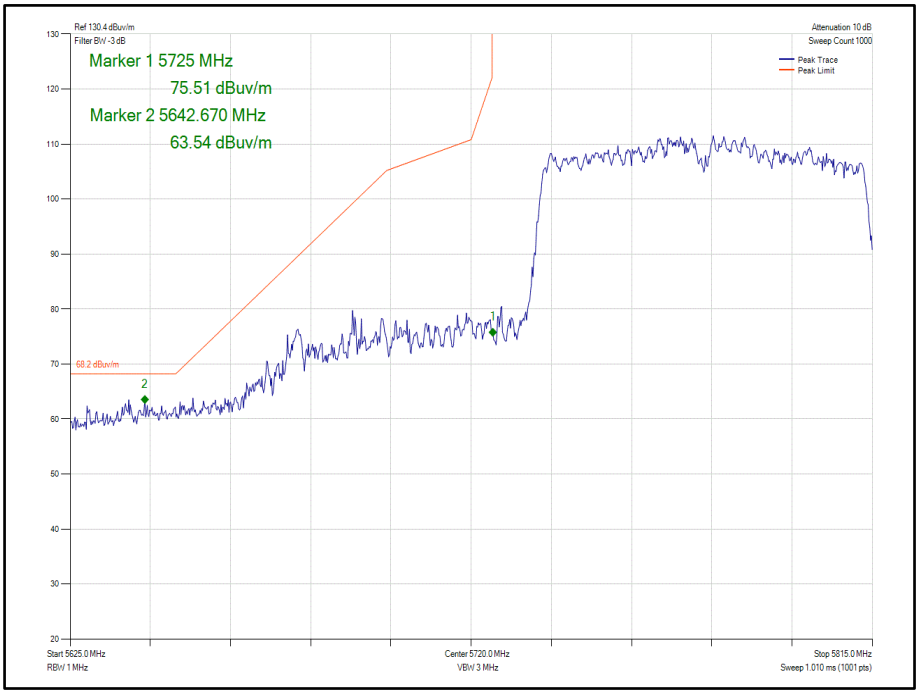

Figure 415 - 802.11ac VHT80 CDD Cores 0-1 - 5775 MHz Band Edge Frequency 5725 MHz

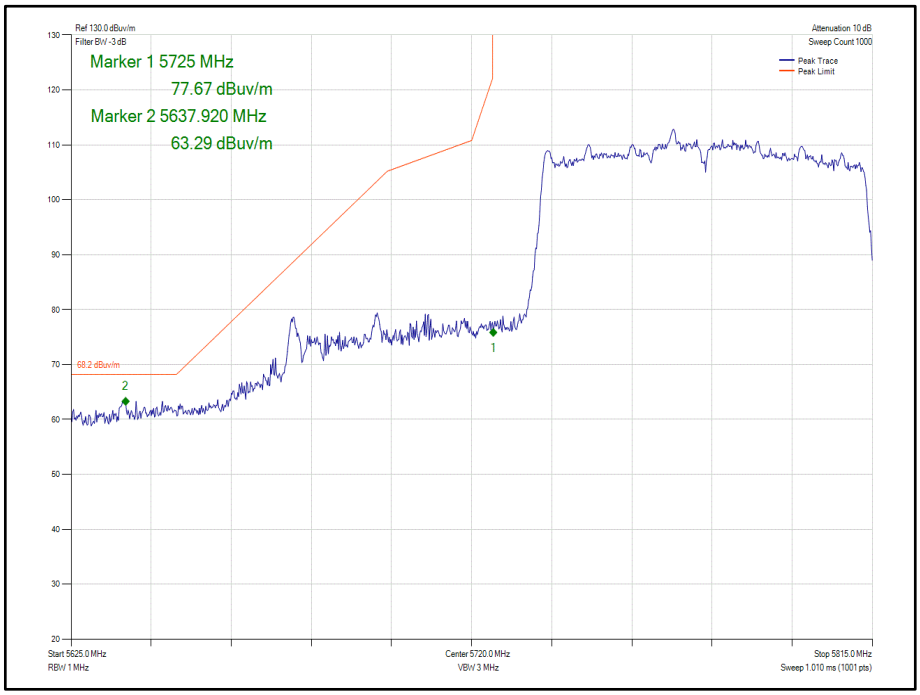

Figure 416 - 802.11ac VHT80 SDM Cores 0-1 - 5775 MHz Band Edge Frequency 5725 MHz

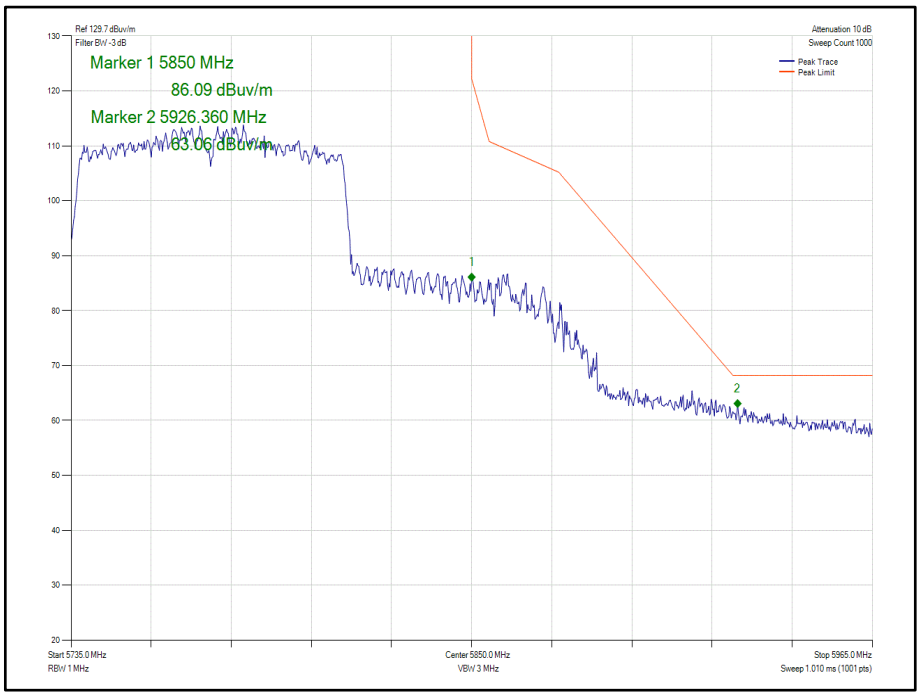

Figure 417 - 802.11ac VHT80 CDD Cores 0-1 - 5775 MHz Band Edge Frequency 5850 MHz

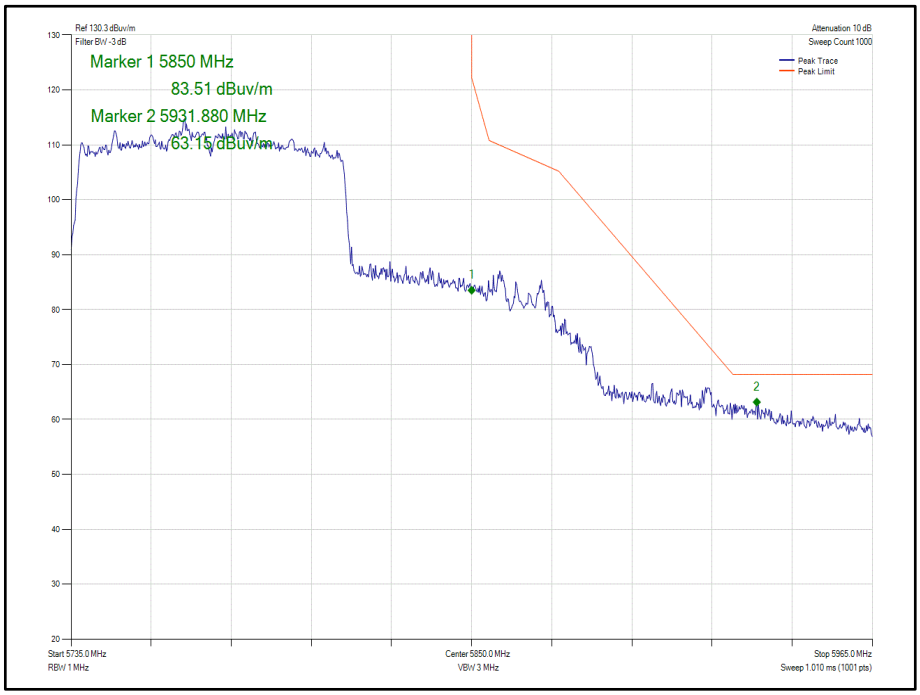

Figure 418 - 802.11ac VHT80 SDM Cores 0-1 - 5775 MHz Band Edge Frequency 5850 MHz

FCC 47 CFR Part 15E, Limit Clause 15.407(b)(1)(2)(3)(4)

For transmitters operating in the 5.15-5.25 GHz band: ≤-27 dBm/MHz outside 5150-5350 MHz.

For transmitters operating in the 5.25-5.35 GHz band: ≤-27 dBm/MHz outside 5150-5350 MHz.

For transmitters operating in the 5.47-5.725 GHz band: ≤-27 dBm/MHz outside 5470-5725 MHz

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

ISEDC RSS-247, Limit Clause 6.2.1.2, 6.2.2.2, 6.2.3.2 and 6.2.4.2

For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB.

For transmitters with operating frequencies in the bands 5250-5350 MHz and 5470-5725 MHz, all emissions outside the band 5250-5350 MHz and 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p.

Devices operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following:

a) 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edges;

b) 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges;

c) 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edges; and

d) -27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.

2.4.7 Test Location and Test Equipment Used

This test was carried out in RF Chamber 11.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
10dB/1W SMA Attenuator dc - 18GHz	Sealectro	60-674-1010-89	395	-	O/P Mon
1GHz to 8GHz Low Noise Amplifier	Wright Technologies	APS04-0085	4365	12	14-Nov-2020
Cable (Rx, Km-Km 2m)	Scott Cables	KPS-1501-2000-KPS	4526	6	11-Dec-2019*
Double Ridge Broadband Horn Antenna	Schwarzbeck	BBHA 9120 B	4848	12	11-Mar-2020
Hygrometer	Rotronic	HP21	4989	12	02-May-2020
EMI Test Receiver	Rohde & Schwarz	ESW44	5084	12	28-Nov-2020
8m N-Type RF Cable	Teledyne	PR90-088-8MTR	5095	12	04-Dec-2019*
Cable (18 GHz)	Rosenberger	LU7-071-1000	5103	12	06-Oct-2020
Cable (18 GHz)	Rosenberger	LU7-071-1000	5104	12	09-Dec-2020
Cable (18 GHz)	Rosenberger	LU7-071-1000	5105	12	06-Oct-2020
Cable (18 GHz)	Rosenberger	LU7-071-2000	5107	12	06-Oct-2020
EmX Emissions Software	TUV SUD	EmX, V.V1.5.2	5125	-	N/A - Software
Screened Room (11)	Rainford	Rainford	5136	36	01-Nov-2021
Mast and Turntable Controller	Maturo	Maturo NCD	5159	-	TU
Turntable	Maturo	TT 15WF	5160	-	TU
8 Meter Cable	Teledyne	PR90-088-8MTR	5212	12	30-Aug-2020
Horn Antenna (1-10GHz)	Schwarzbeck	BBHA 9120 B	5215	12	11-Mar-2020
Pre Amp 1 – 26.5 GHz	Agilent Technologies	8449B	5445	-	O/P Mon

Table 215

*All equipment used for testing was within its calibration period at the time of test.

TU - Traceability Unscheduled
O/P Mon - Output Monitored using calibrated equipment

2.5 Restricted Band Edges

2.5.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.205
ISEDC RSS-GEN, Clause 8.10

2.5.2 Equipment Under Test and Modification State

A2289, S/N: C02ZG009P09V - Modification State 0

2.5.3 Date of Test

03-November-2019 to 17-December-2019

2.5.4 Test Method

The test was performed in accordance with ANSI C63.10, clause 6.10.5.

Restricted band edge measurements were performed, with the device operating in SISO and MIMO, across the various modes supported by the device.

Where duty cycle corrections were required for average results, these are included in the result tables, but are not included in the plots.

Further measurements are held on file by TÜV SÜD and are available if required.

2.5.5 Environmental Conditions

Ambient Temperature	21.8 °C
Relative Humidity	50.9 %

2.5.6 Test Results

5 GHz WLAN

Mode	Data Rate/Modulation Coding Scheme	Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBµV/m)	Average Level (dBµV/m)
802.11a Core 0	6 Mbps	5180	5150	60.01	49.15
802.11n HT20 Core 0	MCS0	5180	5150	60.08	49.70
802.11a Core 0	6 Mbps	5320	5350	60.66	50.20
802.11n HT20 Core 0	MCS0	5320	5350	60.62	50.43
802.11a Core 0	6 Mbps	5500	5460	57.81	46.29
802.11n HT20 Core 0	MCS0	5500	5460	57.75	46.76

Table 216-SISO

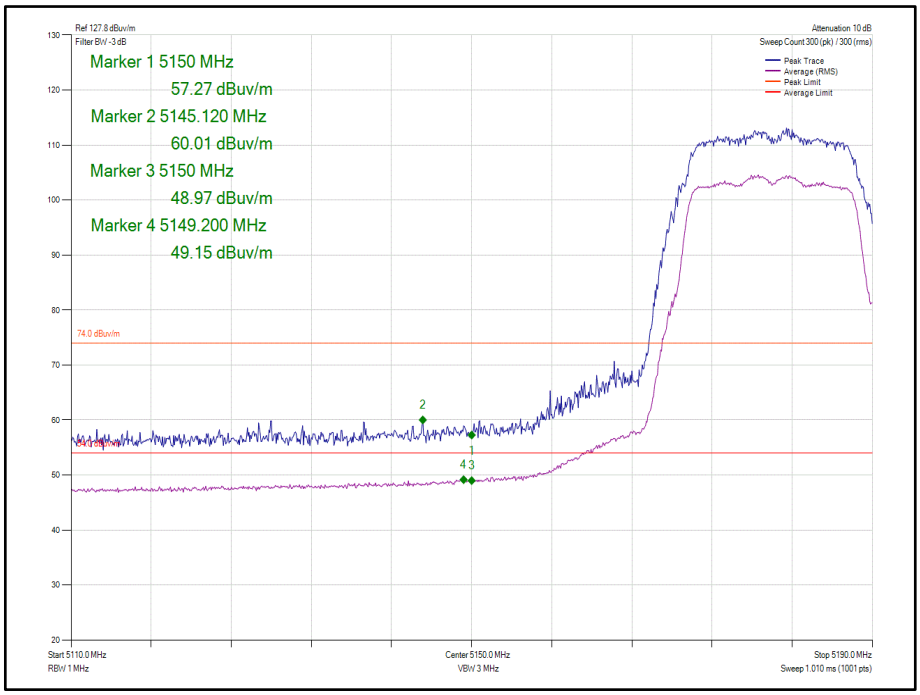

Figure 419 - 802.11a Core 0 - 5180 MHz
Band Edge Frequency 5150 MHz

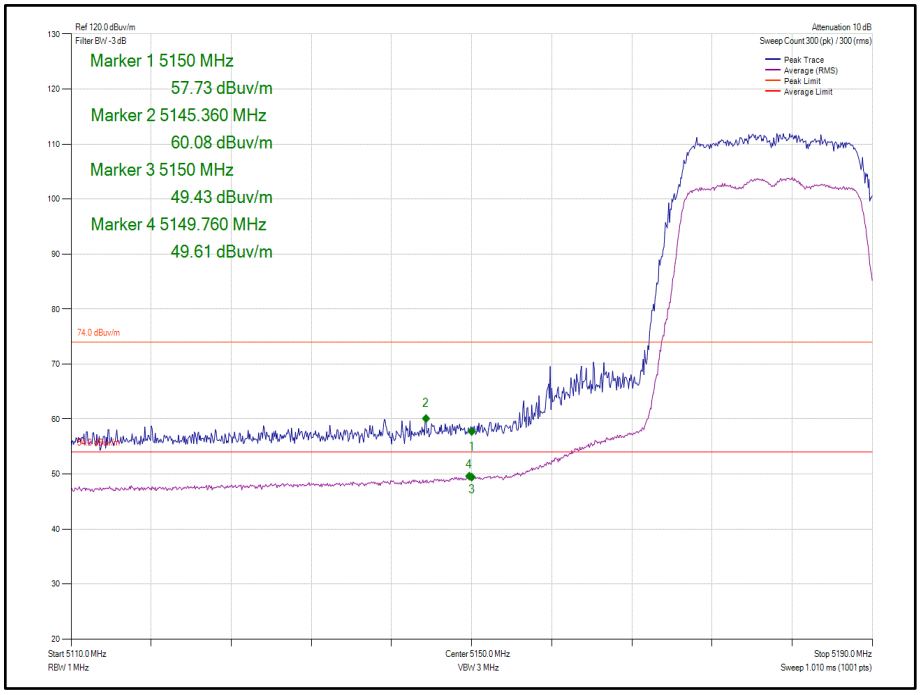

Figure 420 - 802.11n HT20 Core 0 - 5180 MHz
Band Edge Frequency 5150 MHz

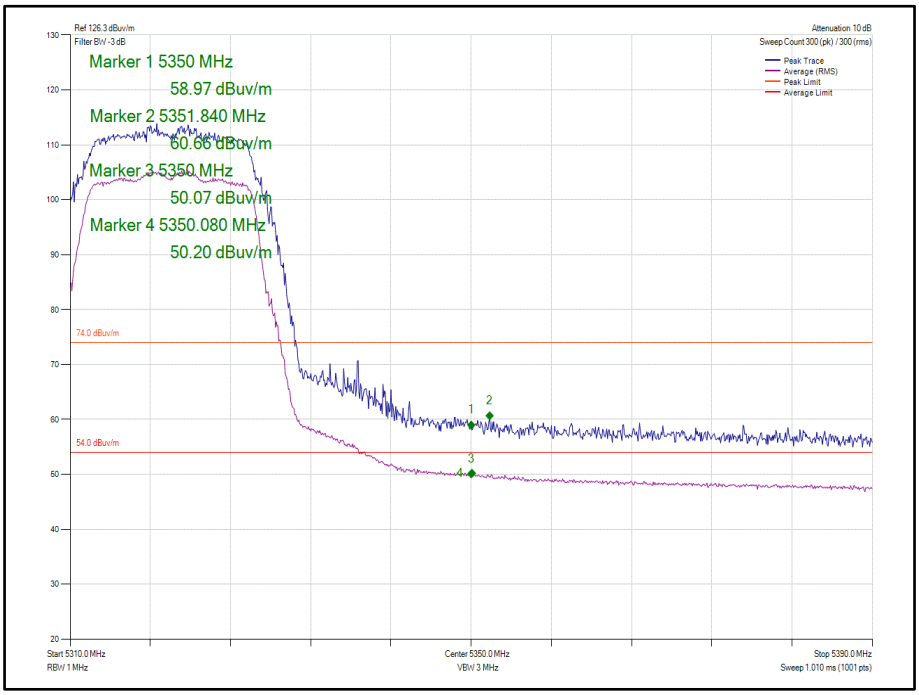

Figure 421 - 802.11a Core 0 - 5320 MHz
Band Edge Frequency 5350 MHz

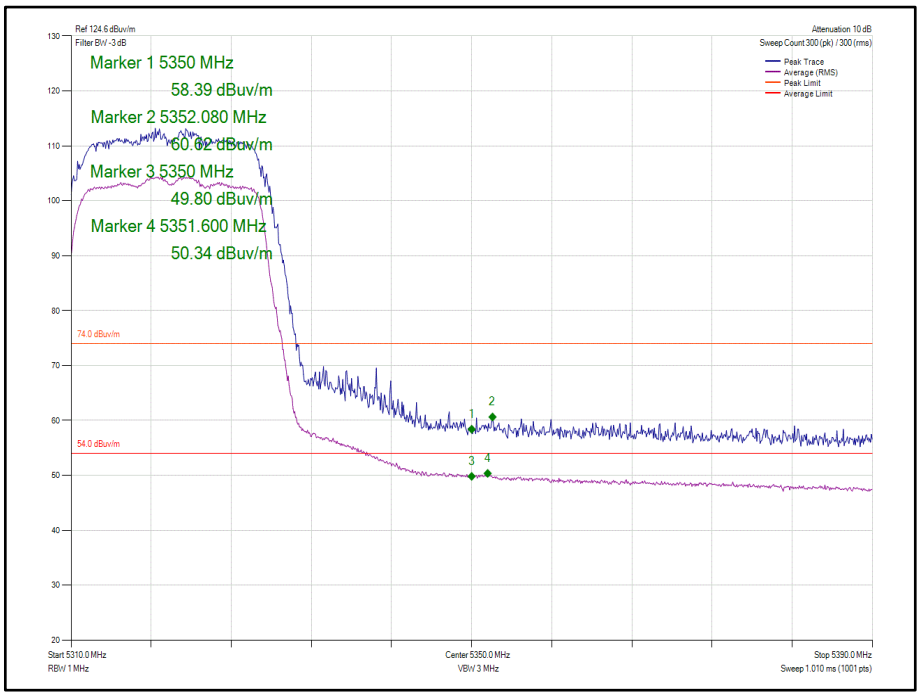

Figure 422 - 802.11n HT20 Core 0 - 5320 MHz
Band Edge Frequency 5350 MHz

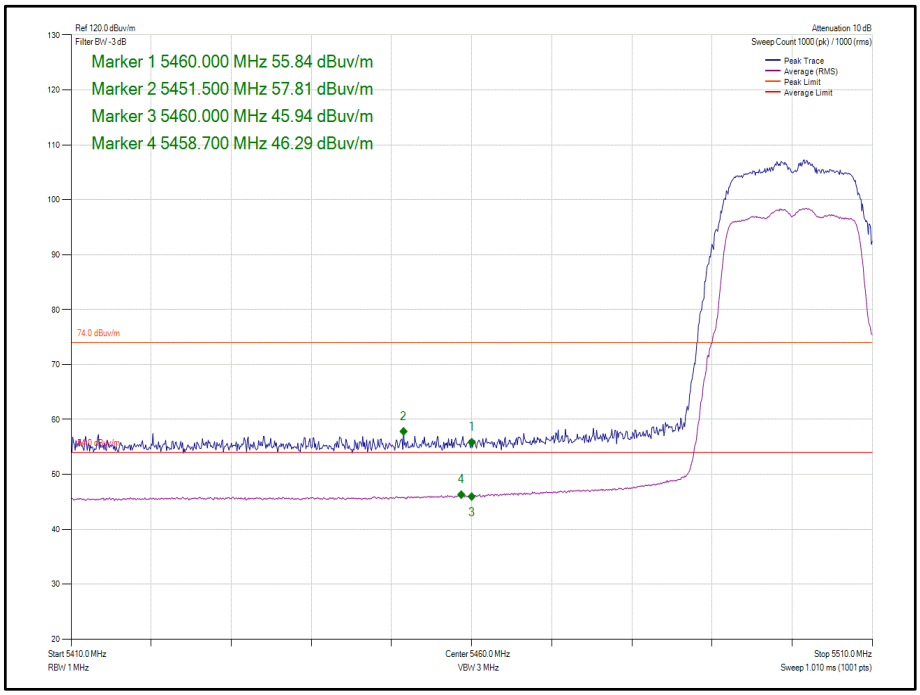

Figure 423 - 802.11a Core 0 - 5500 MHz
Band Edge Frequency 5460 MHz

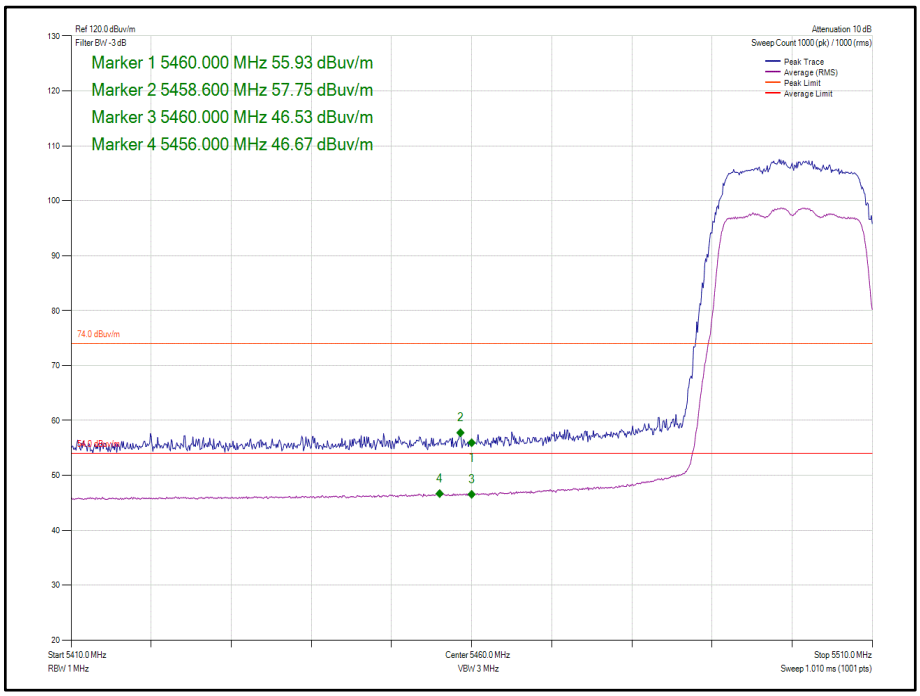

Figure 424 - 802.11n HT20 Core 0 - 5500 MHz
Band Edge Frequency 5460 MHz

Mode	Modulation Coding Scheme	Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBµV/m)	Average Level (dBµV/m)
802.11n HT20 CDD Cores 0-1	MCS0	5180	5150	59.94	49.85
802.11n HT20 SDM Cores 0-1	MCS0	5180	5150	60.85	49.59
802.11n HT20 CDD Cores 0-1	MCS0	5320	5350	62.07	50.64
802.11n HT20 SDM Cores 0-1	MCS0	5320	5350	61.45	50.52
802.11n HT20 CDD Cores 0-1	MCS0	5500	5460	58.86	47.56
802.11n HT20 SDM Cores 0-1	MCS0	5500	5460	58.64	47.37

Table 217– MIMO 2TX

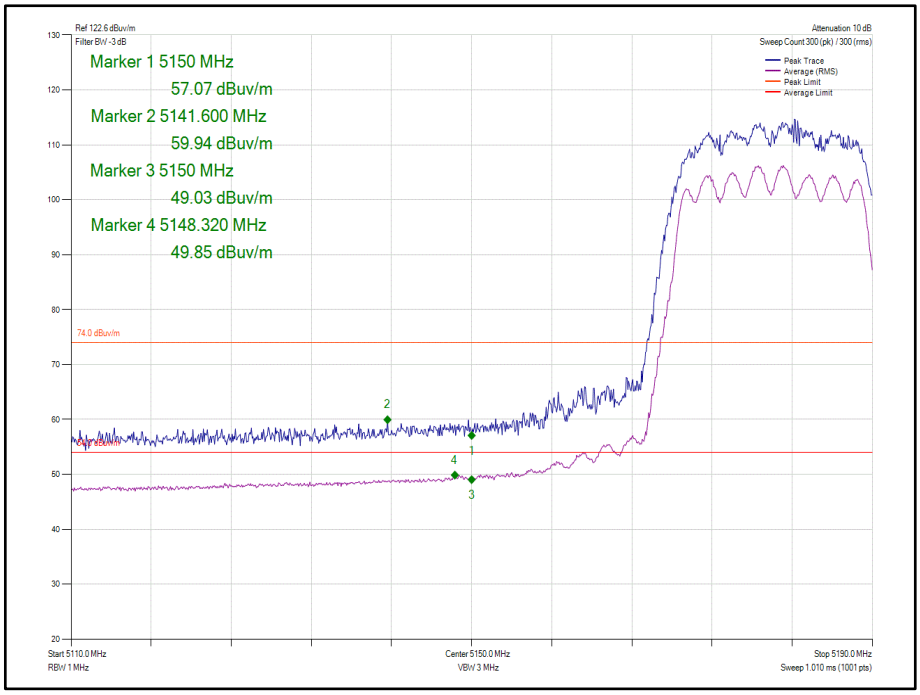

Figure 425 - 802.11n HT20 CDD Cores 0-1 - 5180 MHz Band Edge Frequency 5150 MHz

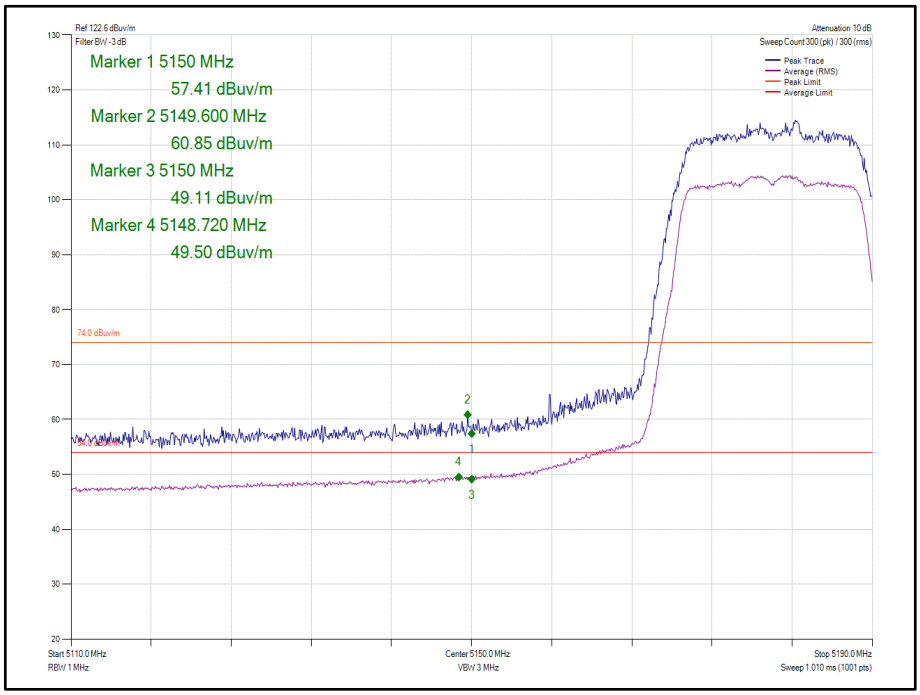

Figure 426 - 802.11n HT20 SDM Cores 0-1 - 5180 MHz
Band Edge Frequency 5150 MHz

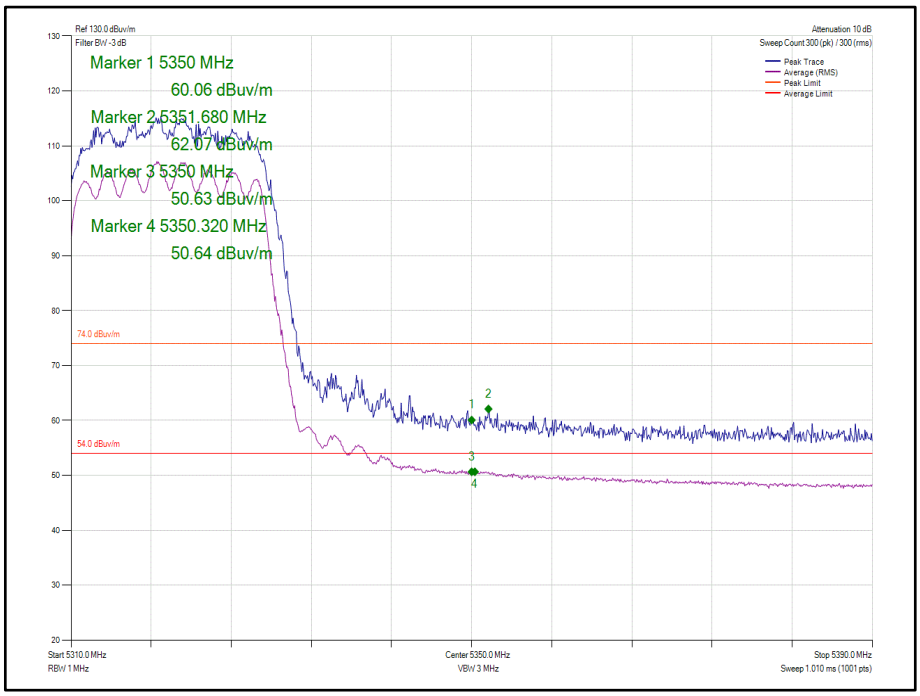

Figure 427 - 802.11n HT20 CDD Cores 0-1 - 5320 MHz
Band Edge Frequency 5350 MHz