



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

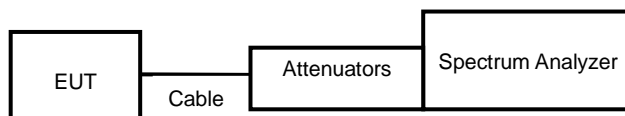
7.1. Test Limit

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

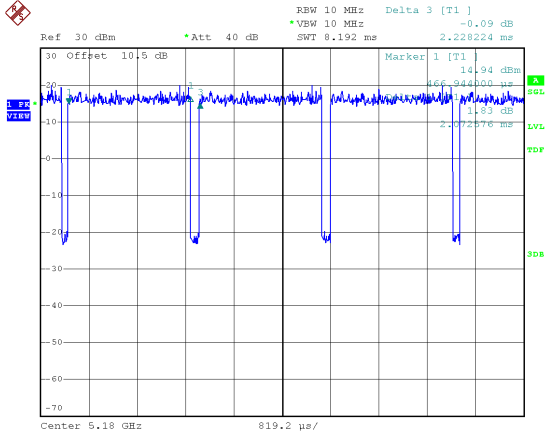
Modulation Type	On Time (ms)	Period Time (ms)	Duty Cycle (%)
802.11a,6M	2.07	2.23	93.01%
802.11ac VHT20	1.93	1.97	97.93%
802.11ac VHT40	0.95	1.07	89.37%
802.11ac VHT80	0.46	0.51	90.68%

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

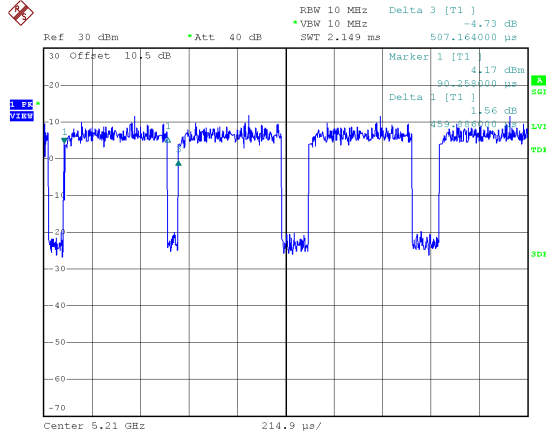


Modulation Type: 802.11a (6Mbps)



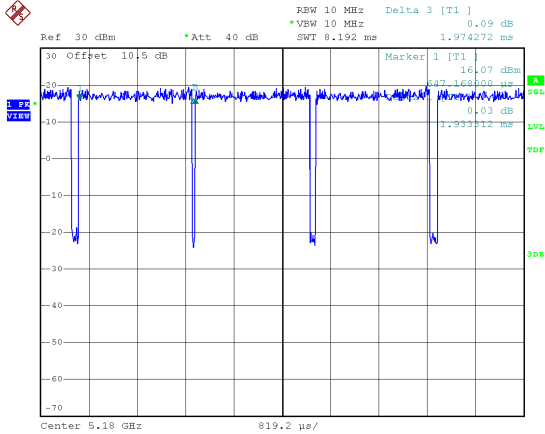
Date: 24.SEP.2024 14:40:40

Modulation Type: 802.11ac VHT80 (29.3Mbps)



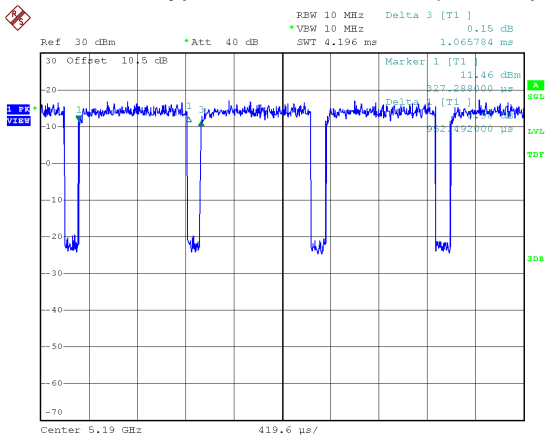
Date: 24.SEP.2024 16:47:48

Modulation Type: 802.11ac VHT20 (6.5Mbps)



Date: 24.SEP.2024 15:37:13

Modulation Type: 802.11ac VHT40 (13.5Mbps)



Date: 24.SEP.2024 16:19:52



8. 6dB Bandwidth & 99% Occupied Bandwidth

8.1. Test Limit

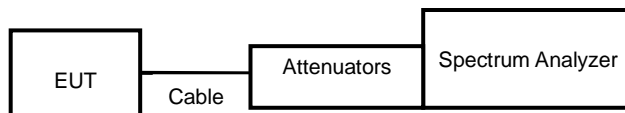
FCC §15.407

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)
11a	149	5745	16.32	0.50
11a	157	5785	16.29	0.50
11a	165	5825	16.32	0.50
11ac VHT20	149	5745	17.01	0.50
11ac VHT20	157	5785	16.77	0.50
11ac VHT20	165	5825	17.04	0.50
11ac VHT40	151	5755	35.16	0.50
11ac VHT40	159	5795	35.10	0.50
11ac VHT80	155	5775	75.12	0.50

In the 5.8G Band

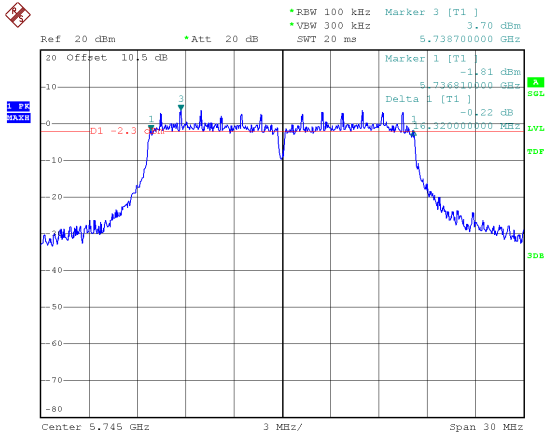
Modulation Type	Channel	Frequency (MHz)	99% Bandwidth(MHz)
11a	149	5745	16.83
11a	157	5785	16.80
11a	165	5825	16.80
11ac VHT20	149	5745	17.82
11ac VHT20	157	5785	17.73
11ac VHT20	165	5825	17.76
11ac VHT40	151	5755	36.48
11ac VHT40	159	5795	36.42
11ac VHT80	155	5775	75.36

UNII Emission Bandwidth Result (Extends across 5725MHz band)

Modulation Type	Data Rate / MCS	Frequency (MHz)	6dB Bandwidth(MHz)	99% Bandwidth(MHz)
11a	6 Mbps	5720	3.13	4.50
11ac VHT20	NSS1-MCS0	5720	3.38	4.75
11ac VHT40	NSS1-MCS0	5710	2.88	14.25
11ac VHT80	NSS1-MCS0	5690	2.75	34.25

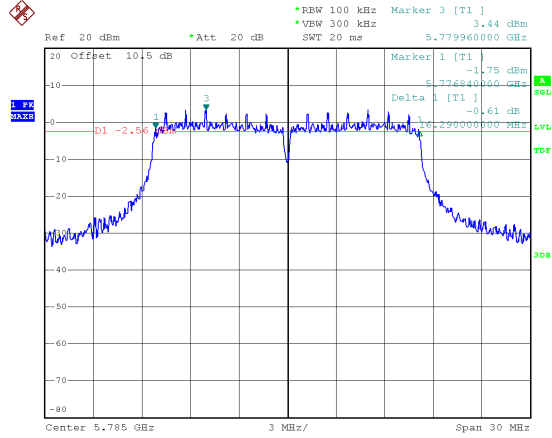


6dB Bandwidth Modulation Type: 802.11a CH149



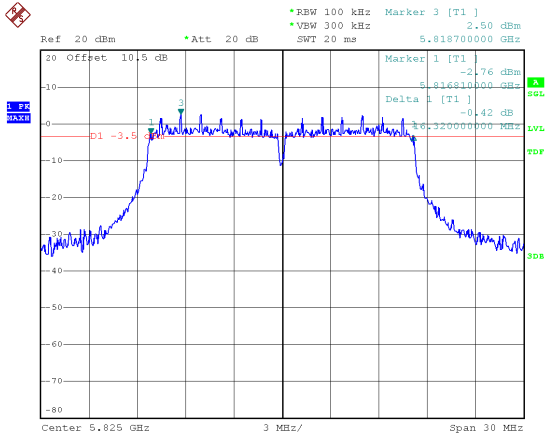
Date: 24.SEP.2024 15:28:00

Modulation Type: 802.11a CH157



Date: 24.SEP.2024 15:30:06

Modulation Type: 802.11a CH165

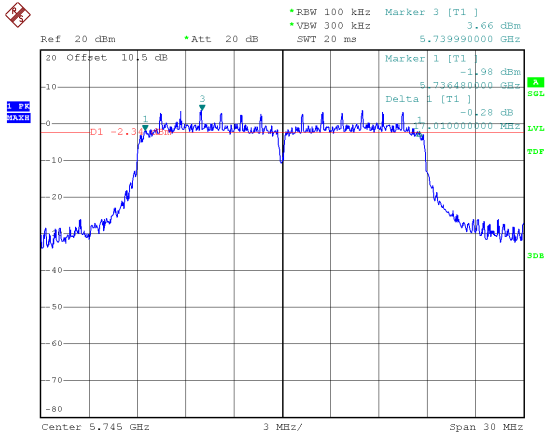


Date: 24.SEP.2024 15:32:06



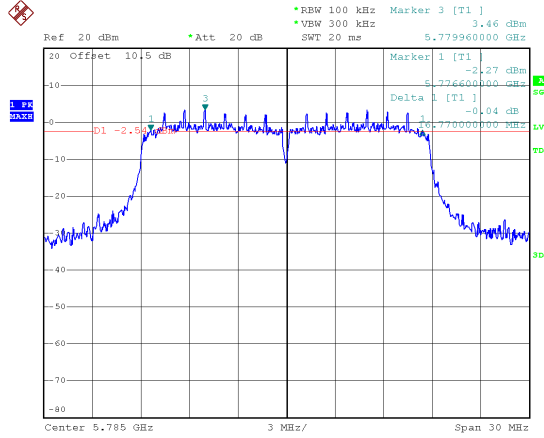
6dB Bandwidth

Modulation Type: 802.11ac VHT20 CH149



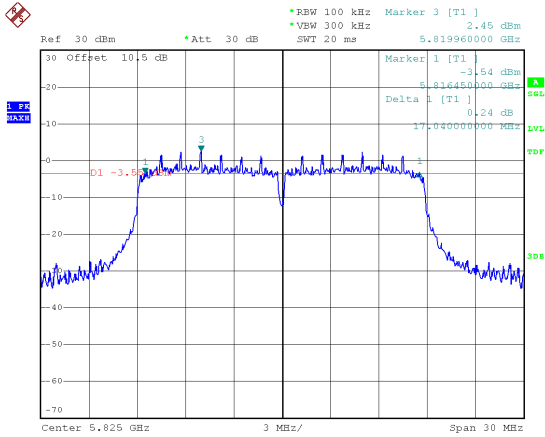
Date: 24.SEP.2024 16:10:08

Modulation Type: 802.11ac VHT20 CH157



Date: 24.SEP.2024 16:12:59

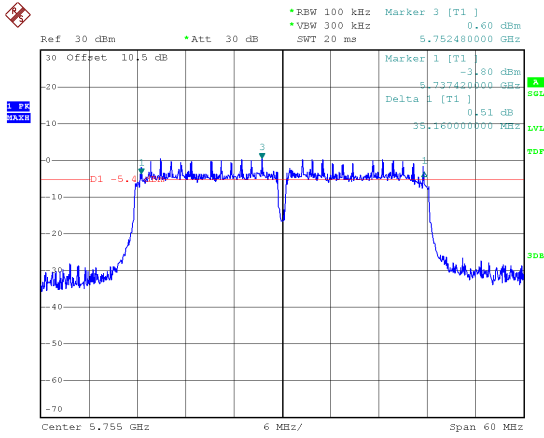
Modulation Type: 802.11ac VHT20 CH165



Date: 24.SEP.2024 16:15:47

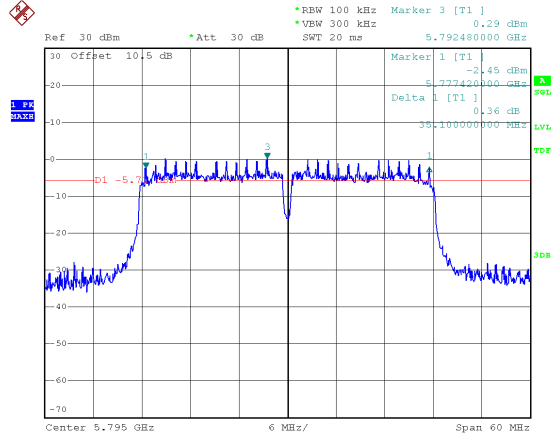


6dB Bandwidth
Modulation Type: 802.11ac VHT40 CH151



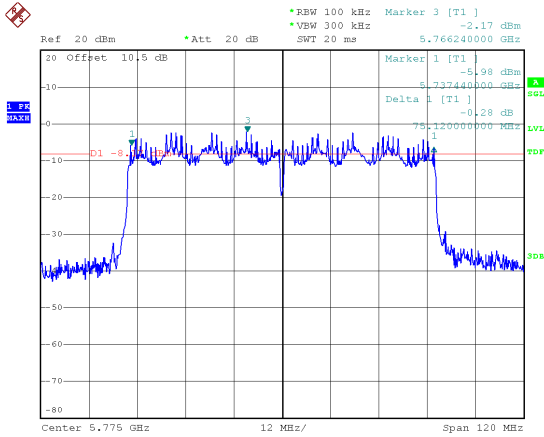
Date: 24.SEP.2024 16:42:30

Modulation Type: 802.11ac VHT40 CH159



Date: 24.SEP.2024 16:44:34

Modulation Type: 802.11ac VHT80 CH155

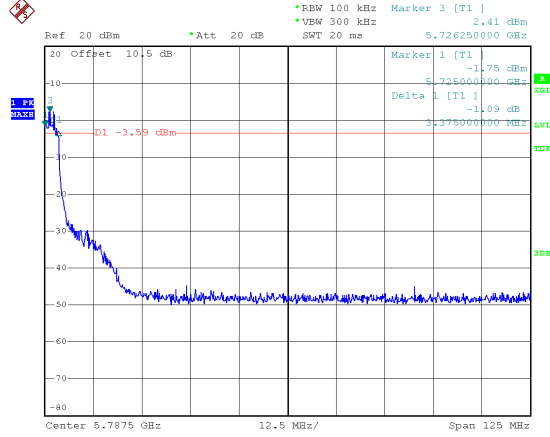
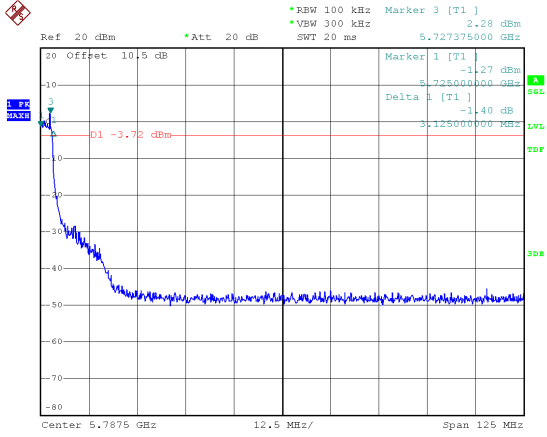


Date: 24.SEP.2024 17:06:38



6dB Bandwidth
Extends across 5725MHz Band, Straddle Channel
Modulation Type: 802.11a CH144

Modulation Type: 802.11ac VHT20 CH144

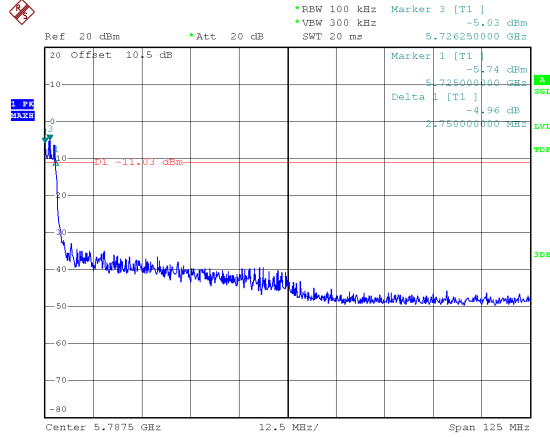
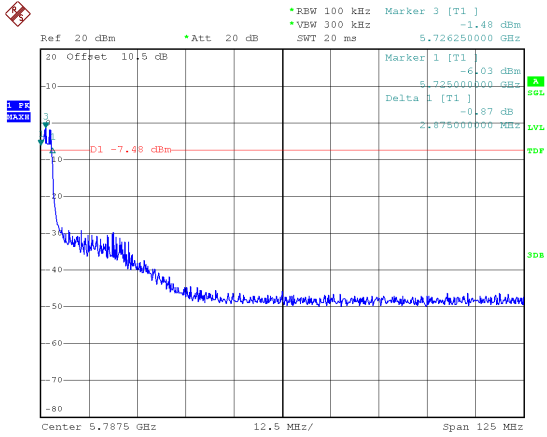


Date: 24.SEP.2024 15:23:41

Date: 24.SEP.2024 16:06:40

Modulation Type: 802.11ac VHT40 CH142

Modulation Type: 802.11ac VHT80 CH138

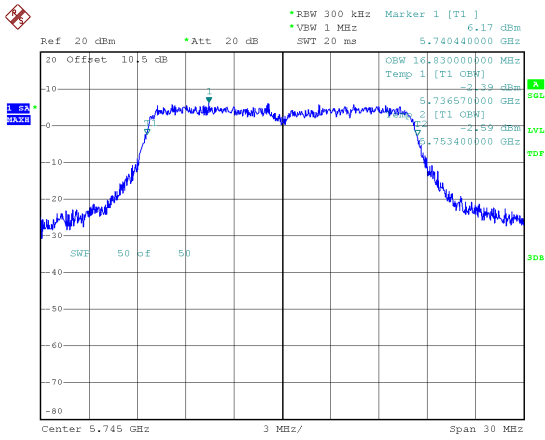


Date: 24.SEP.2024 16:39:09

Date: 24.SEP.2024 17:03:11

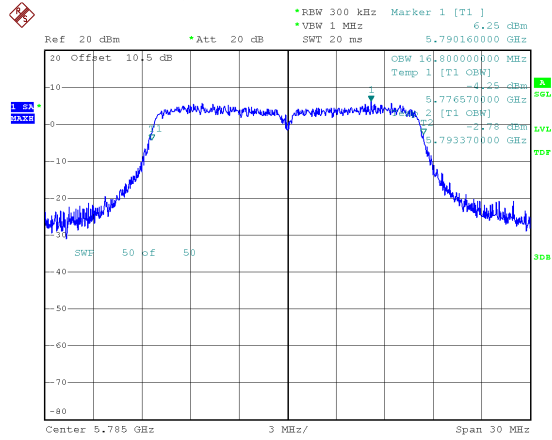


99% Bandwidth
Modulation Type: 802.11a CH149



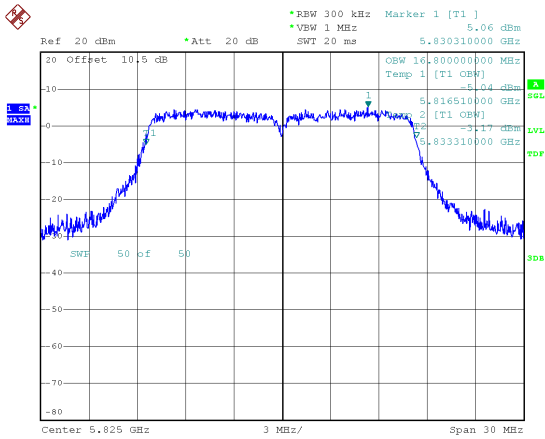
Date: 24.SEP.2024 15:27:36

Modulation Type: 802.11a CH157



Date: 24.SEP.2024 15:29:42

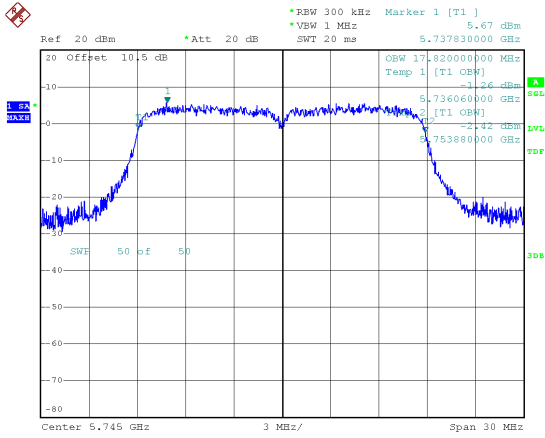
Modulation Type: 802.11a CH165



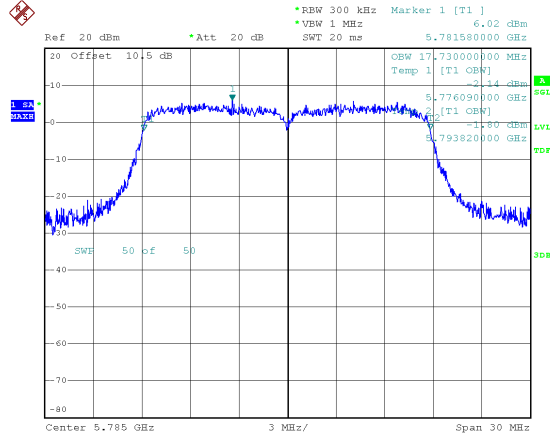
Date: 24.SEP.2024 15:31:43



99% Bandwidth
Modulation Type: 802.11ac VHT20 CH149



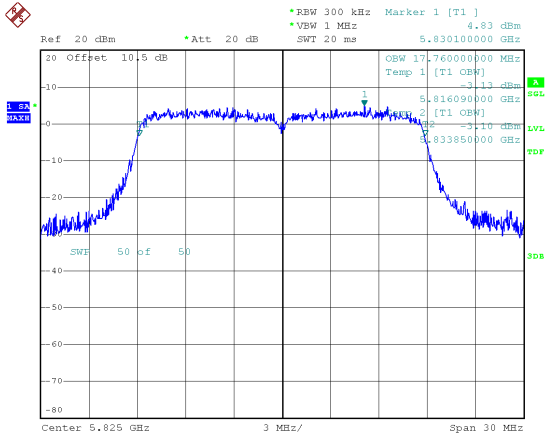
Modulation Type: 802.11ac VHT20 CH157



Date: 24.SEP.2024 16:09:44

Date: 24.SEP.2024 16:12:35

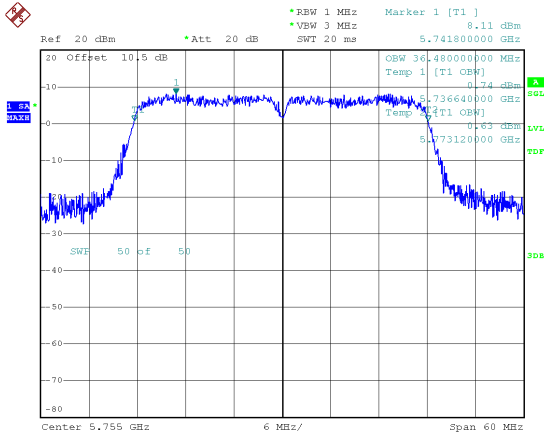
Modulation Type: 802.11ac VHT20 CH165



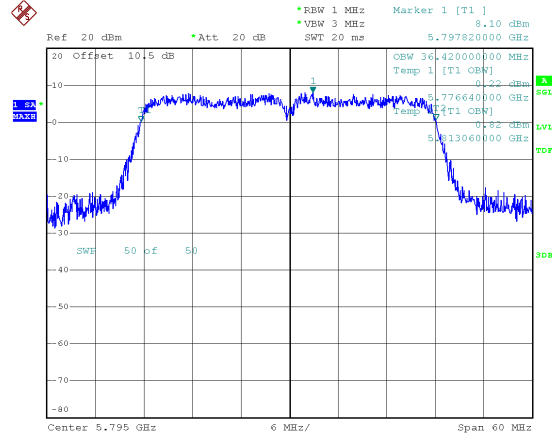
Date: 24.SEP.2024 16:14:23



99% Bandwidth
Modulation Type: 802.11ac VHT40 CH151



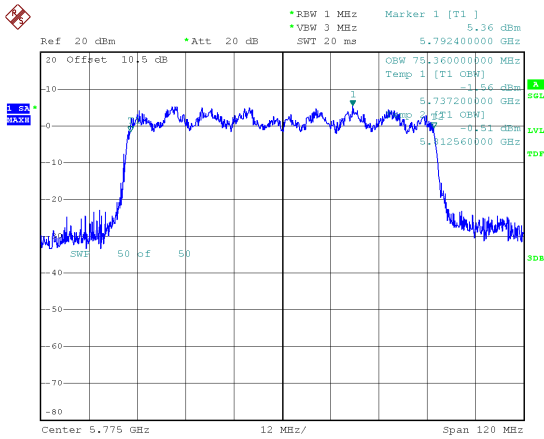
Modulation Type: 802.11ac VHT40 CH159



Date: 24.SEP.2024 16:41:31

Date: 24.SEP.2024 16:44:10

Modulation Type: 802.11ac VHT80 CH155

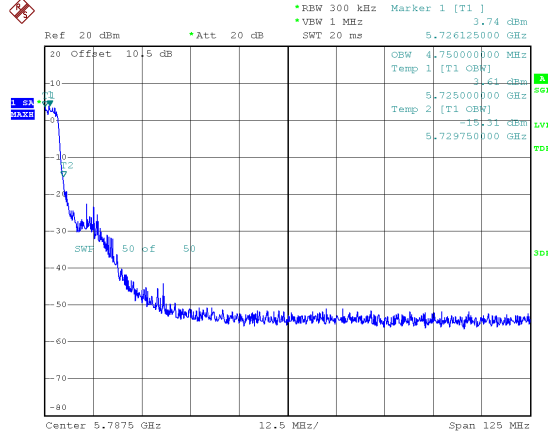
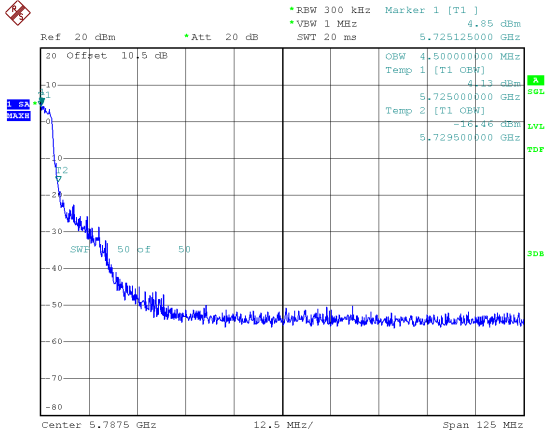


Date: 24.SEP.2024 17:06:14



99% Bandwidth
Extends across 5725MHz Band, Straddle Channel
Modulation Type: 802.11a CH144

Modulation Type: 802.11ac VHT20 CH144

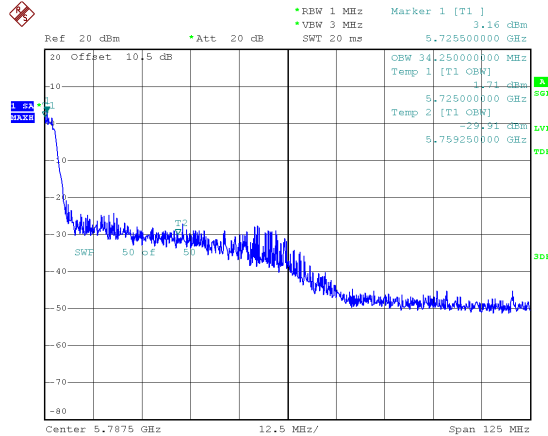
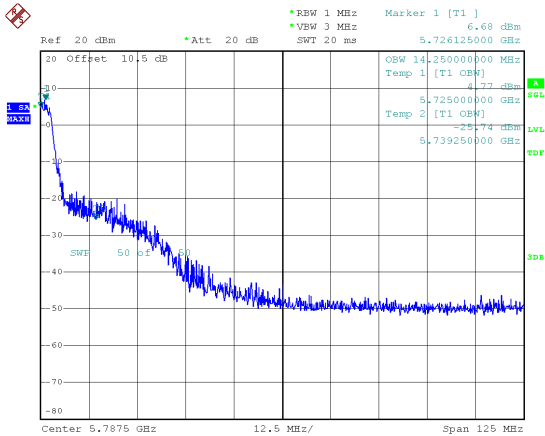


Date: 24.SEP.2024 15:22:52

Date: 24.SEP.2024 16:05:51

Modulation Type: 802.11ac VHT40 CH142

Modulation Type: 802.11ac VHT80 CH138



Date: 24.SEP.2024 16:38:19

Date: 24.SEP.2024 17:02:21



9. 26dB Bandwidth & 99% Occupied Bandwidth

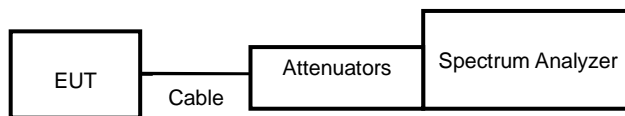
9.1. Test Limit

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 x 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)
11a	36	5180	22.95
11a	40	5200	23.25
11a	48	5240	21.65
11ac VHT20	36	5180	22.05
11ac VHT20	40	5200	23.1
11ac VHT20	48	5240	22.5
11ac VHT40	38	5190	46.5
11ac VHT40	46	5230	54.2
11ac VHT80	42	5210	82.24



In the 5.3G Band

Mode	Channel	Frequency (MHz)	26dB Bandwidth(MHz)
11a	52	5260	22.4
11a	60	5300	22.9
11a	64	5320	21.45
11ac VHT20	52	5260	22.9
11ac VHT20	60	5300	22.8
11ac VHT20	64	5320	23.55
11ac VHT40	54	5270	52.4
11ac VHT40	62	5310	43.4
11ac VHT80	58	5290	81.6

In the 5.5G Band

Mode	Channel	Frequency (MHz)	26dB Bandwidth(MHz)
11a	100	5500	23.6
11a	120	5600	26.7
11a	140	5700	21.4
11ac VHT20	100	5500	27.65
11ac VHT20	120	5600	24.05
11ac VHT20	140	5700	23.9
11ac VHT40	102	5510	58.1
11ac VHT40	118	5590	66.9
11ac VHT40	134	5670	47.2
11ac VHT80	106	5530	88.8
11ac VHT80	122	5610	83.68

UNII Emission Bandwidth Result (Within 5470-5725MHz band)			
Modulation Type	Data Rate / MCS	Frequency (MHz)	26dB Bandwidth(MHz)
11a	6 Mbps	5720	15.56
11ac VHT20	NSS1-MCS0	5720	15.56
11ac VHT40	NSS1-MCS0	5710	36.47
11ac VHT80	NSS1-MCS0	5690	76.25



In the 5.2G Band

Mode	Channel	Frequency (MHz)	99% Bandwidth(MHz)
11a	36	5180	16.92
11a	40	5200	16.89
11a	48	5240	16.92
11ac VHT20	36	5180	17.85
11ac VHT20	40	5200	17.82
11ac VHT20	48	5240	17.82
11ac VHT40	38	5190	36.54
11ac VHT40	46	5230	36.66
11ac VHT80	42	5210	75.36

In the 5.3G Band

Mode	Channel	Frequency (MHz)	99% Bandwidth(MHz)
11a	52	5260	16.95
11a	60	5300	16.80
11a	64	5320	16.83
11ac VHT20	52	5260	17.79
11ac VHT20	60	5300	17.85
11ac VHT20	64	5320	17.85
11ac VHT40	54	5270	36.48
11ac VHT40	62	5310	36.36
11ac VHT80	58	5290	75.48



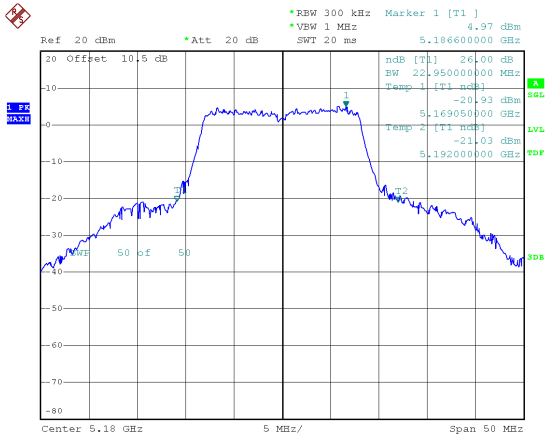
In the 5.5G Band

Mode	Channel	Frequency (MHz)	99% Bandwidth(MHz)
11a	100	5500	16.86
11a	120	5600	17.01
11a	140	5700	16.86
11ac VHT20	100	5500	17.94
11ac VHT20	120	5600	17.94
11ac VHT20	140	5700	17.76
11ac VHT40	102	5510	36.54
11ac VHT40	118	5590	36.78
11ac VHT40	134	5670	36.60
11ac VHT80	106	5530	75.48
11ac VHT80	122	5610	75.48

UNII Emission Bandwidth Result (Within 5470-5725MHz band)			
Modulation Type	Data Rate / MCS	Frequency (MHz)	99% Bandwidth(MHz)
11a	6 Mbps	5720	13.52
11ac VHT20	NSS1-MCS0	5720	14.03
11ac VHT40	NSS1-MCS0	5710	33.41
11ac VHT80	NSS1-MCS0	5690	72.68

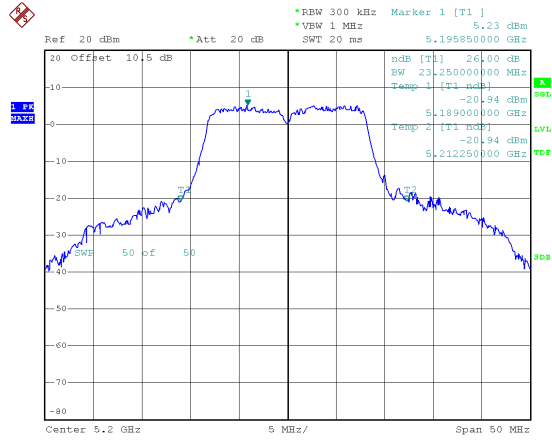


26dB Bandwidth
Modulation Type: 802.11a CH36



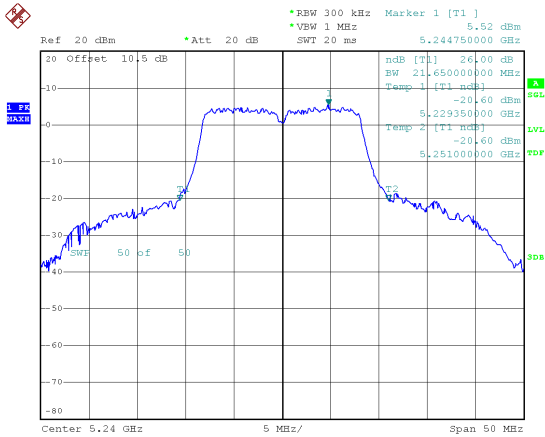
Date: 24.SEP.2024 14:43:40

Modulation Type: 802.11a CH40



Date: 24.SEP.2024 14:46:41

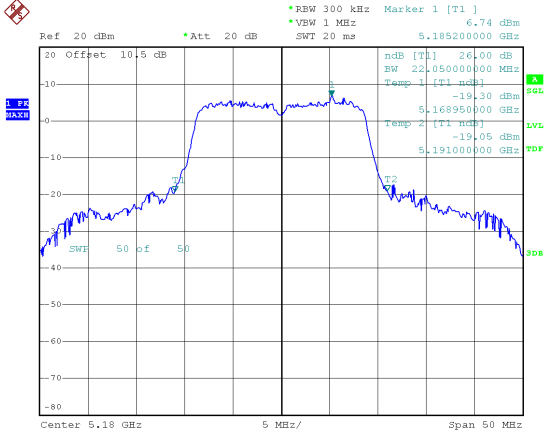
Modulation Type: 802.11a CH48



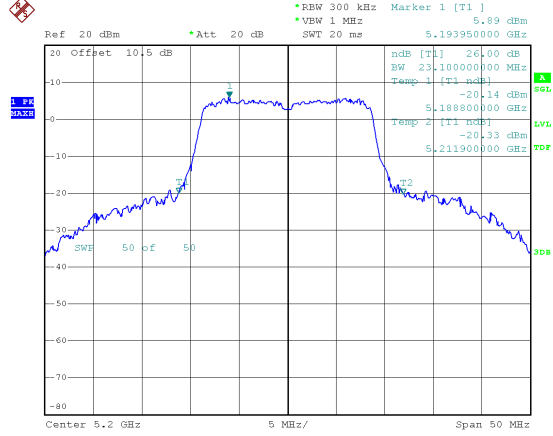
Date: 24.SEP.2024 14:56:59



26dB Bandwidth
Modulation Type: 802.11ac VHT20 CH36



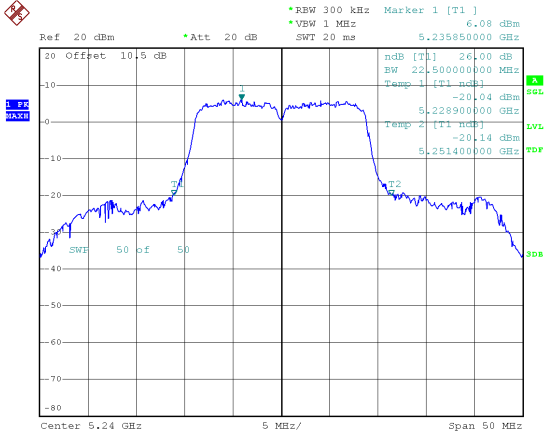
Modulation Type: 802.11ac VHT20 CH40



Date: 24.SEP.2024 15:39:09

Date: 24.SEP.2024 15:40:59

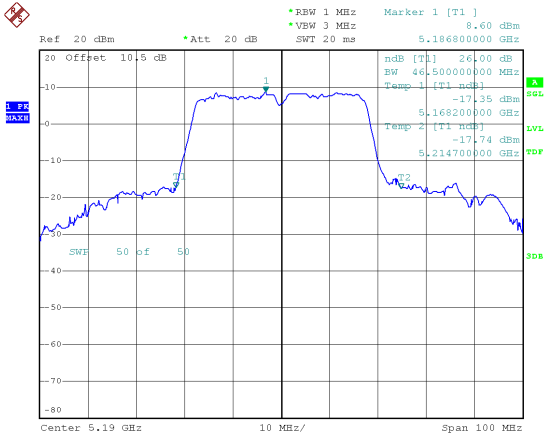
Modulation Type: 802.11ac VHT20 CH48



Date: 24.SEP.2024 15:44:09

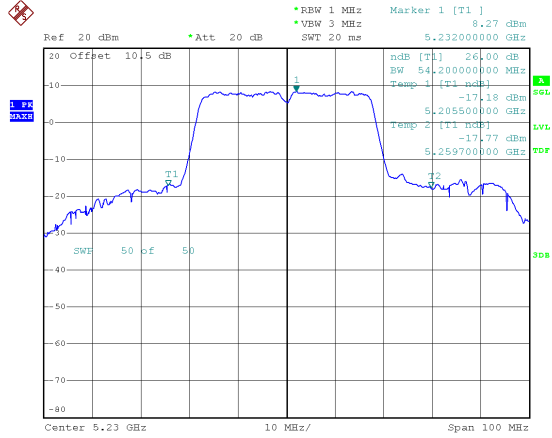


26dB Bandwidth
Modulation Type: 802.11ac VHT40 CH38



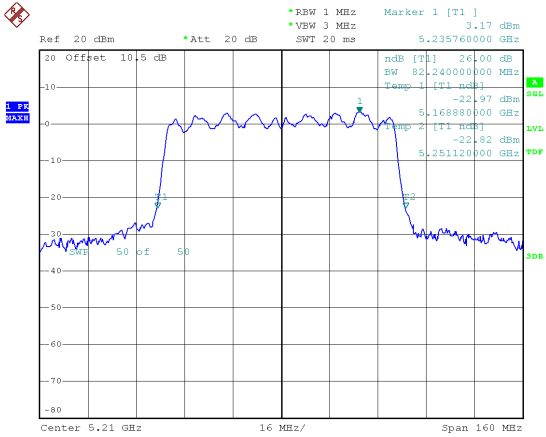
Date: 24.SEP.2024 16:21:17

Modulation Type: 802.11ac VHT40 CH46



Date: 24.SEP.2024 16:24:39

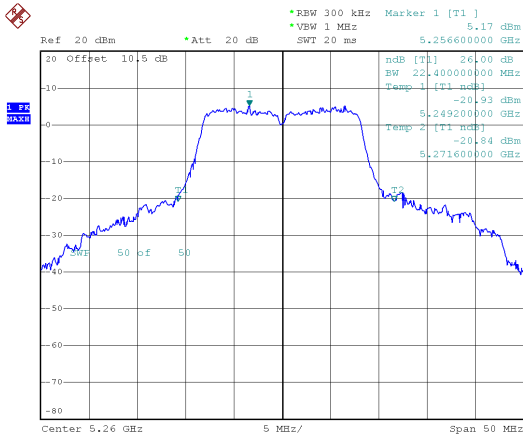
Modulation Type: 802.11ac VHT80 CH42



Date: 24.SEP.2024 16:49:52

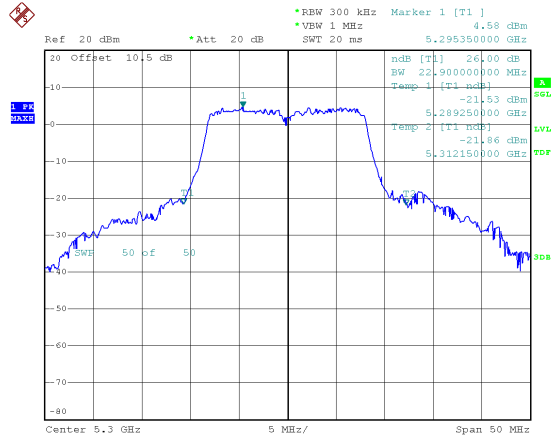


26dB Bandwidth
Modulation Type: 802.11a CH52



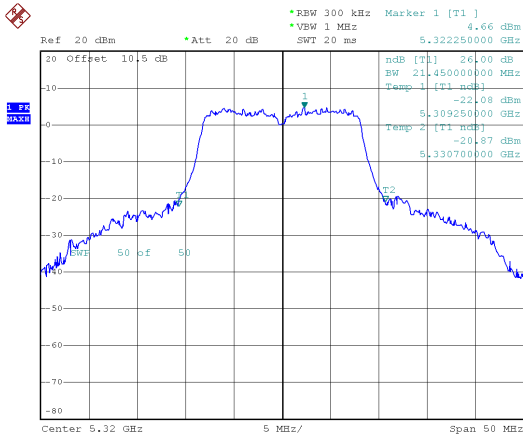
Date: 24.SEP.2024 14:59:32

Modulation Type: 802.11a CH60



Date: 24.SEP.2024 15:03:03

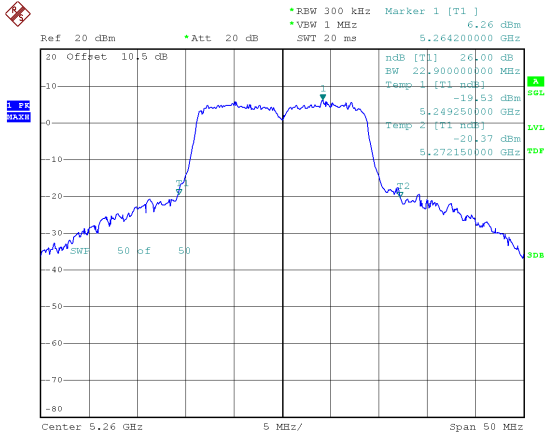
Modulation Type: 802.11a CH64



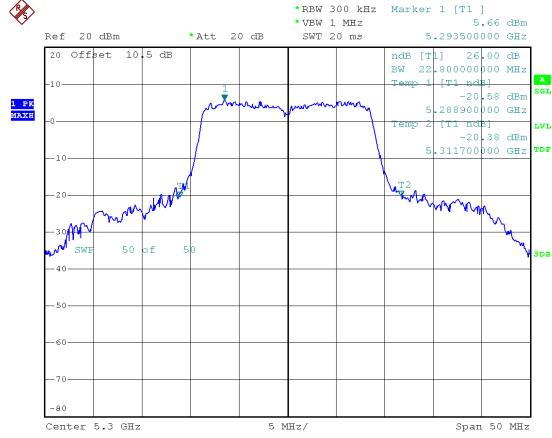
Date: 24.SEP.2024 15:05:42



26dB Bandwidth
Modulation Type: 802.11ac VHT20 CH52



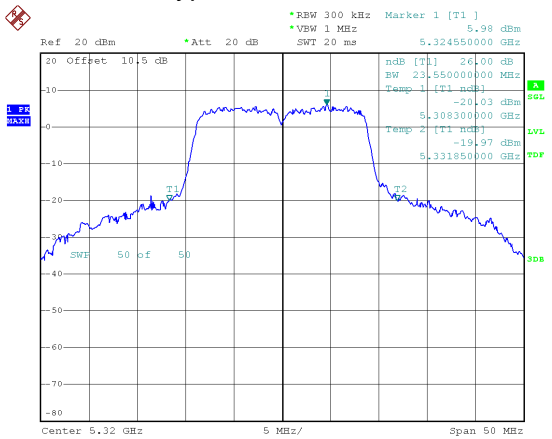
Modulation Type: 802.11ac VHT20 CH60



Date: 24.SEP.2024 15:46:15

Date: 24.SEP.2024 15:48:24

Modulation Type: 802.11ac VHT20 CH64

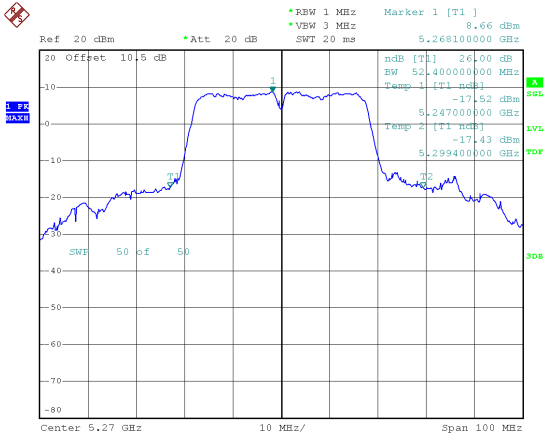


Date: 24.SEP.2024 15:50:53



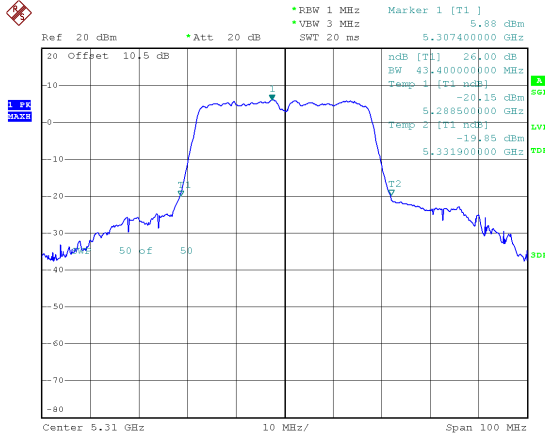
26dB Bandwidth

Modulation Type: 802.11ac VHT40 CH54



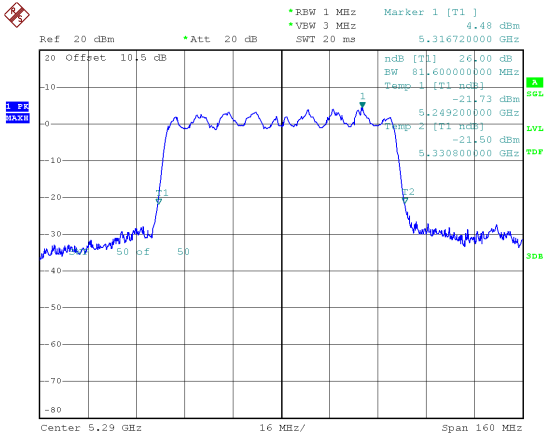
Date: 24.SEP.2024 16:26:32

Modulation Type: 802.11ac VHT40 CH62



Date: 24.SEP.2024 16:28:37

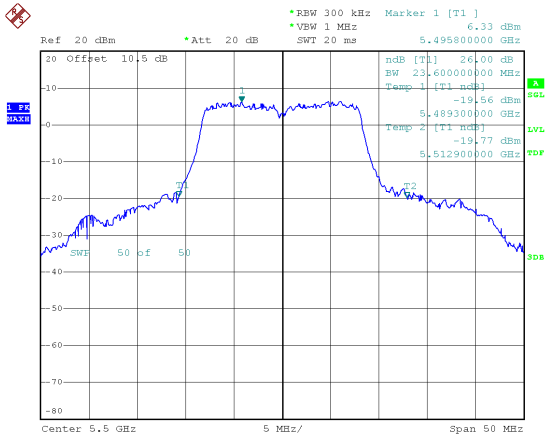
Modulation Type: 802.11ac VHT80 CH58



Date: 24.SEP.2024 16:53:32

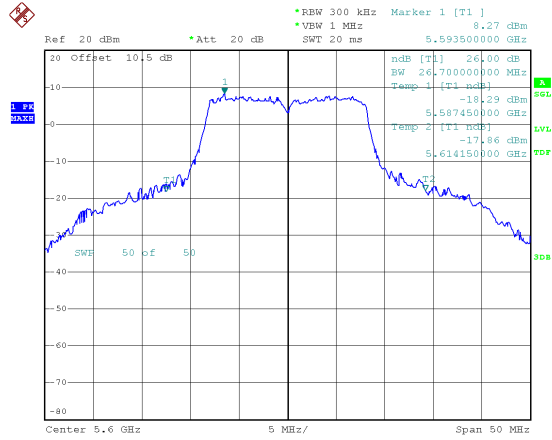


26dB Bandwidth
Modulation Type: 802.11a CH100



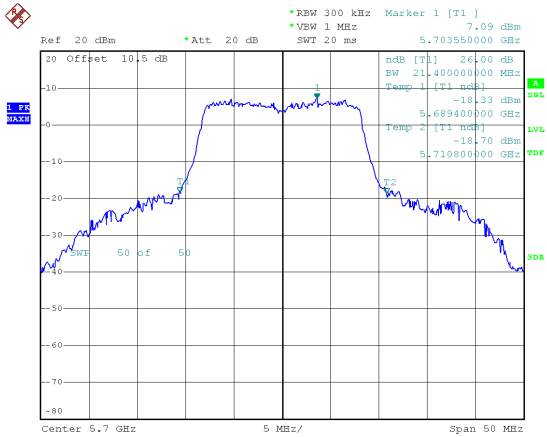
Date: 24.SEP.2024 15:08:08

Modulation Type: 802.11a CH120



Date: 24.SEP.2024 15:17:59

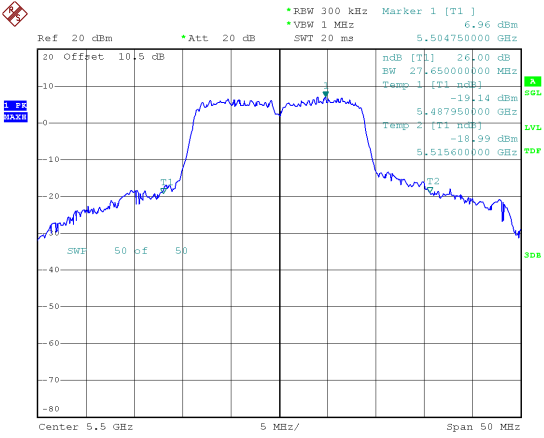
Modulation Type: 802.11a CH140



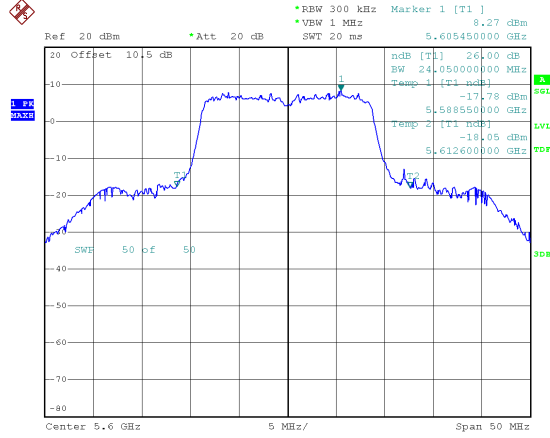
Date: 24.SEP.2024 15:20:03



26dB Bandwidth
Modulation Type: 802.11ac VHT20 CH100



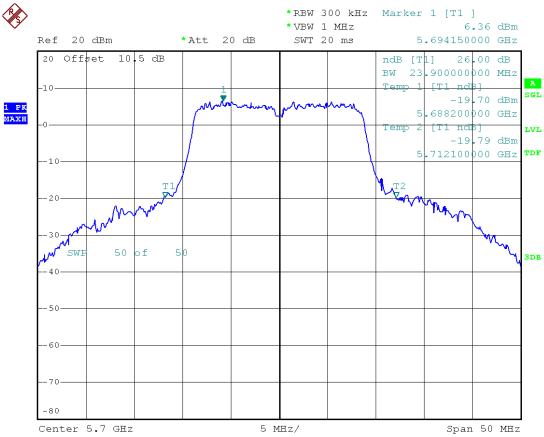
Modulation Type: 802.11ac VHT20 CH120



Date: 24.SEP.2024 15:58:21

Date: 24.SEP.2024 16:00:26

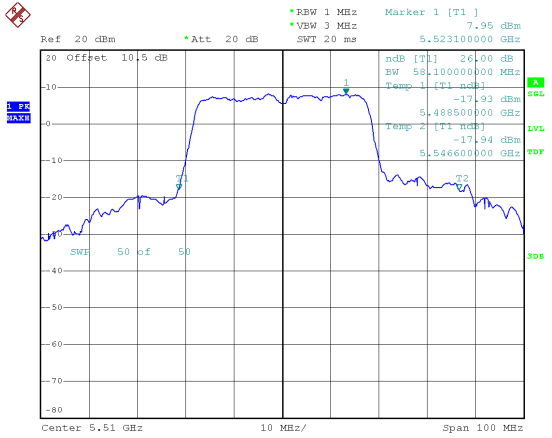
Modulation Type: 802.11ac VHT20 CH140



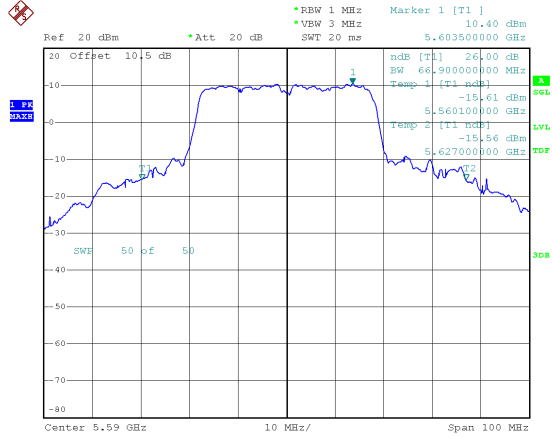
Date: 24.SEP.2024 16:03:06



26dB Bandwidth
Modulation Type: 802.11ac VHT40 CH102



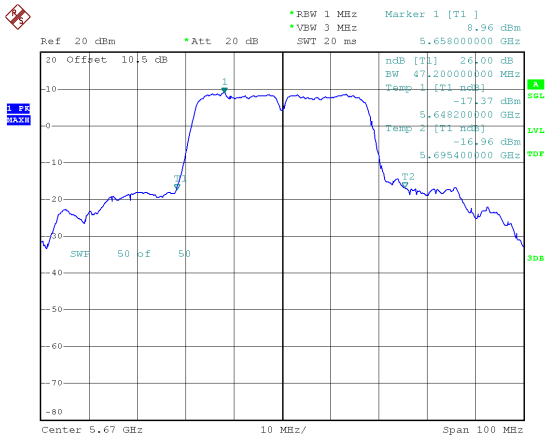
Modulation Type: 802.11ac VHT40 CH118



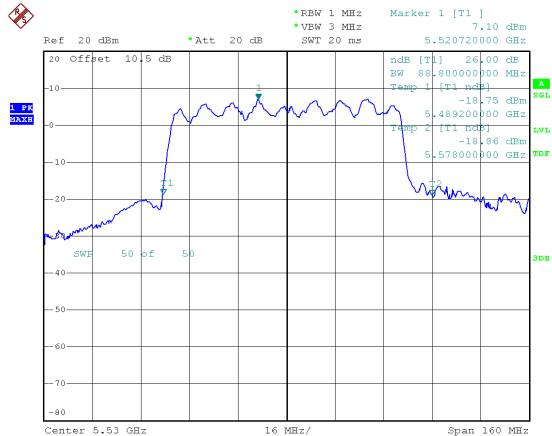
Date: 24.SEP.2024 16:31:15

Date: 24.SEP.2024 16:34:27

Modulation Type: 802.11ac VHT40 CH134



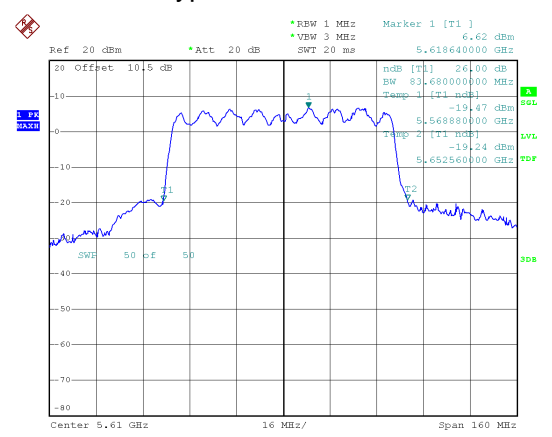
Modulation Type: 802.11ac VHT80 CH106



Date: 24.SEP.2024 16:36:16

Date: 24.SEP.2024 16:58:20

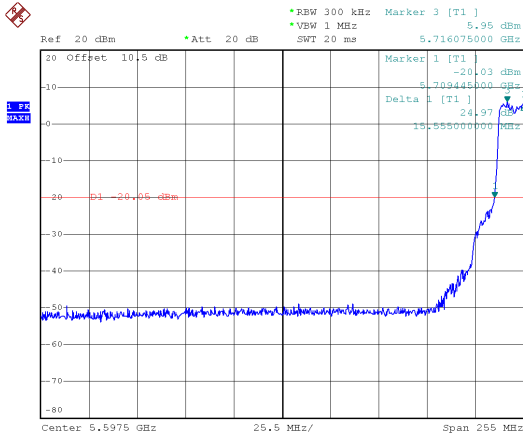
Modulation Type: 802.11ac VHT80 CH122



Date: 24.SEP.2024 17:00:28

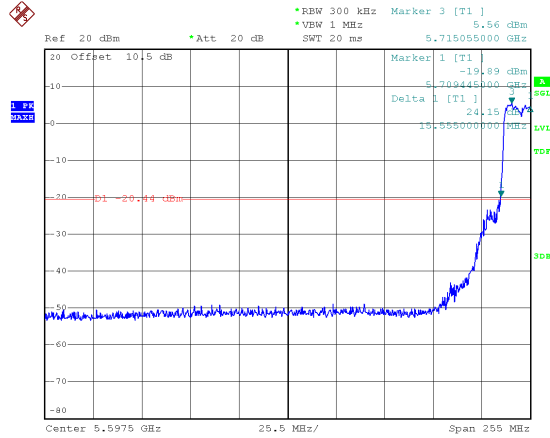


26dB Bandwidth
Within 5470-5725MHz Band, Straddle Channel
Modulation Type: 802.11a CH144



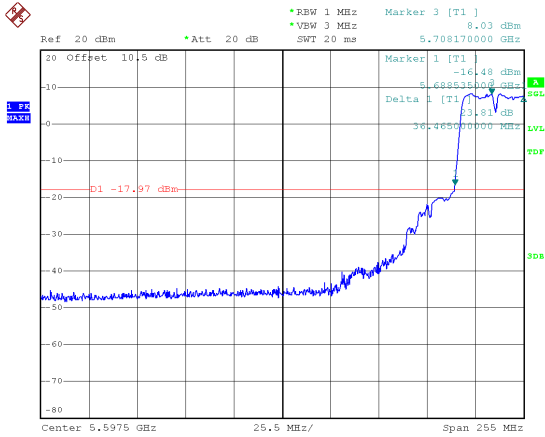
Date: 24.SEP.2024 15:23:16

Modulation Type: 802.11ac VHT20 CH144



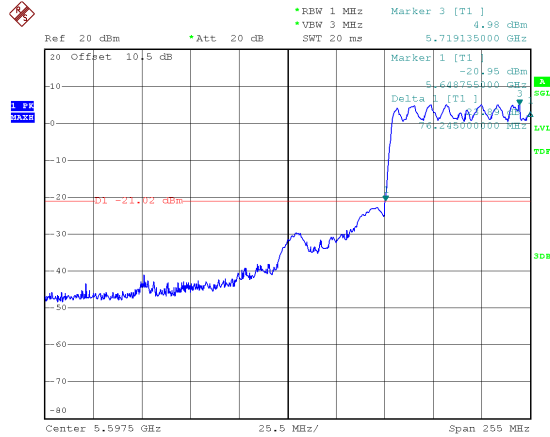
Date: 24.SEP.2024 16:06:15

Modulation Type: 802.11ac VHT40 CH142



Date: 24.SEP.2024 16:38:43

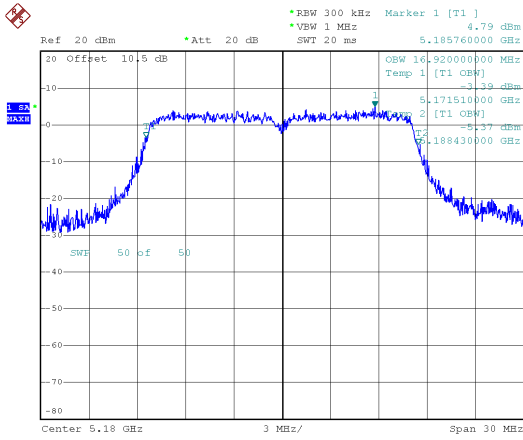
Modulation Type: 802.11ac VHT80 CH138



Date: 24.SEP.2024 17:02:45

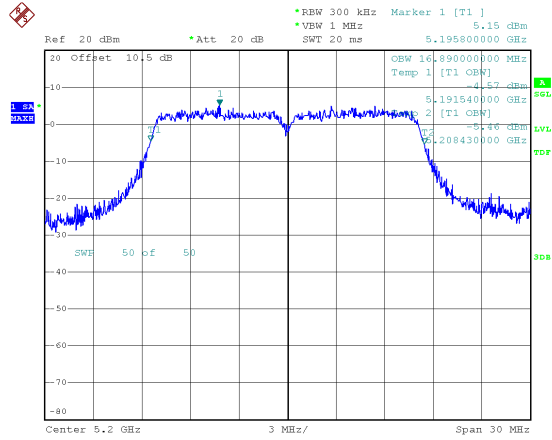


99% Bandwidth
Modulation Type: 802.11a CH36



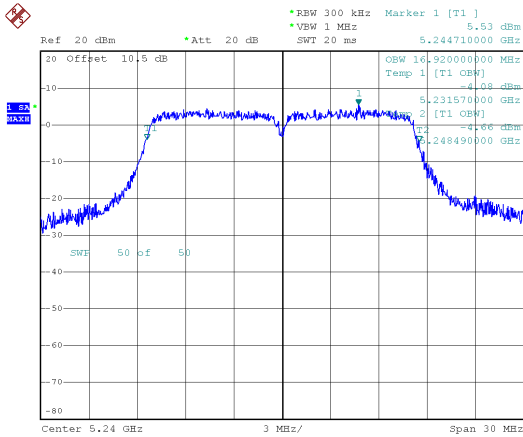
Date: 24.SEP.2024 14:43:16

Modulation Type: 802.11a CH40



Date: 24.SEP.2024 14:46:17

Modulation Type: 802.11a CH48

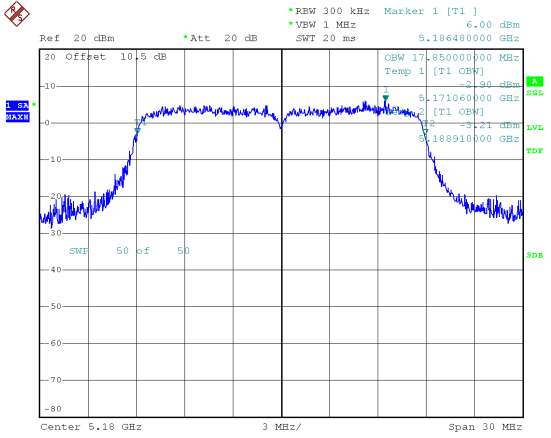


Date: 24.SEP.2024 14:56:28



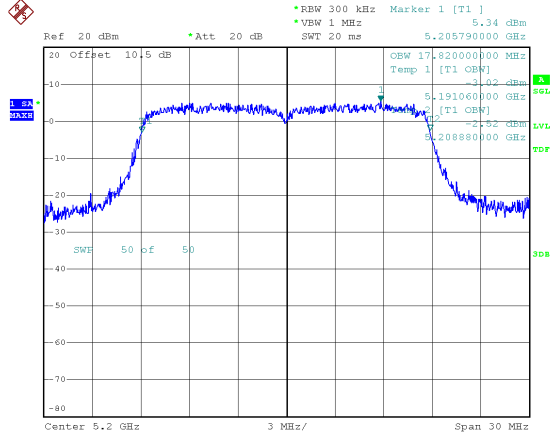
99% Bandwidth

Modulation Type: 802.11ac VHT20 CH36



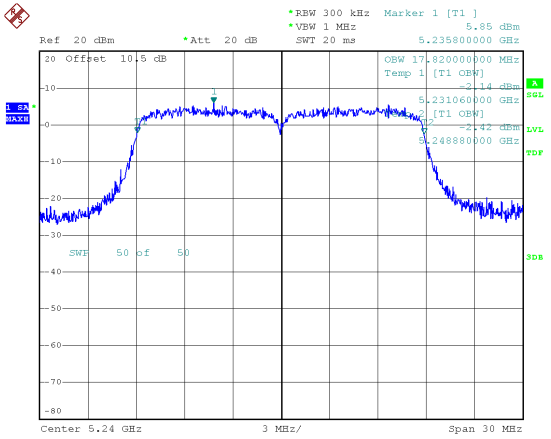
Date: 24.SEP.2024 15:38:45

Modulation Type: 802.11ac VHT20 CH40



Date: 24.SEP.2024 15:40:35

Modulation Type: 802.11ac VHT20 CH48

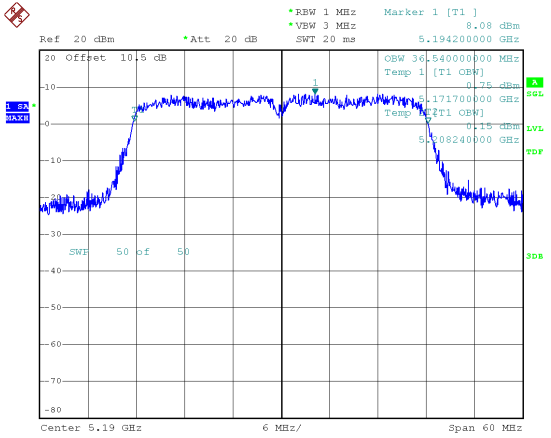


Date: 24.SEP.2024 15:43:28



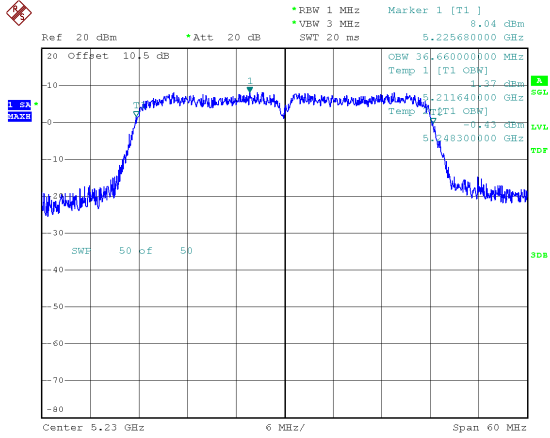
99% Bandwidth

Modulation Type: 802.11ac VHT40 CH38



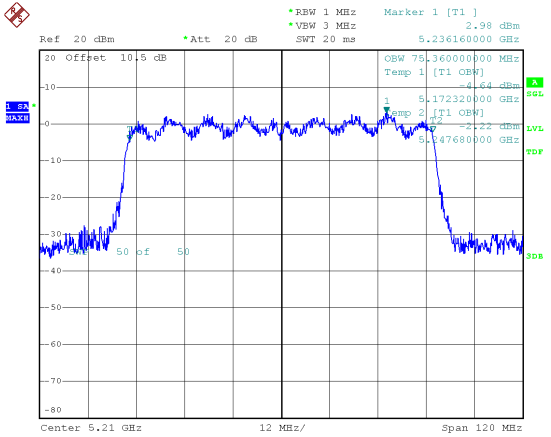
Date: 24.SEP.2024 16:20:53

Modulation Type: 802.11ac VHT40 CH46



Date: 24.SEP.2024 16:24:12

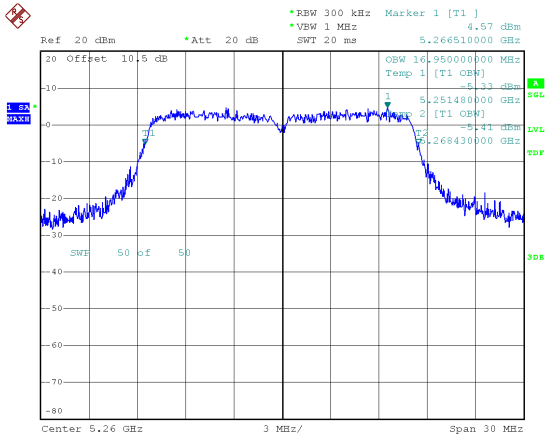
Modulation Type: 802.11ac VHT80 CH42



Date: 24.SEP.2024 16:48:54

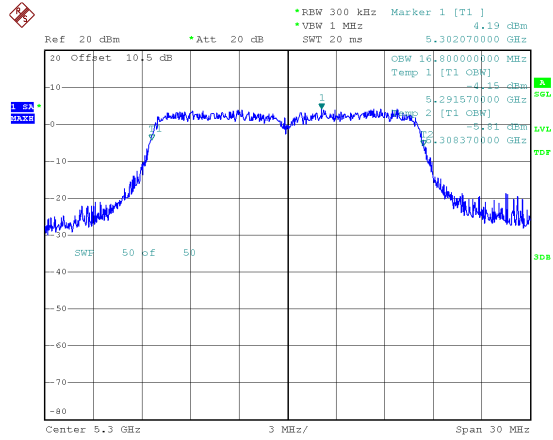


99% Bandwidth
Modulation Type: 802.11a CH52



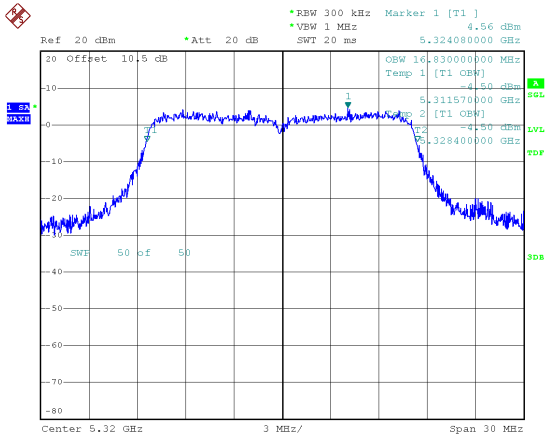
Date: 24.SEP.2024 14:59:08

Modulation Type: 802.11a CH60



Date: 24.SEP.2024 15:02:38

Modulation Type: 802.11a CH64

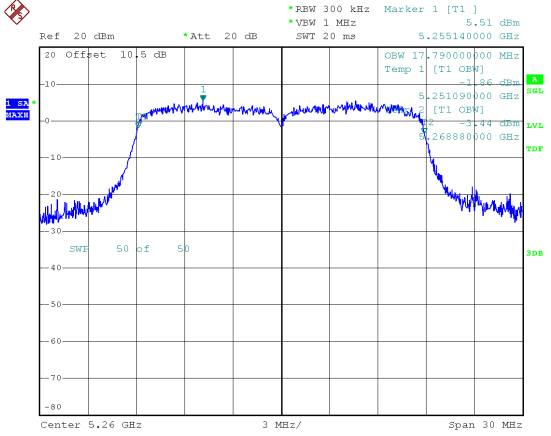


Date: 24.SEP.2024 15:05:18



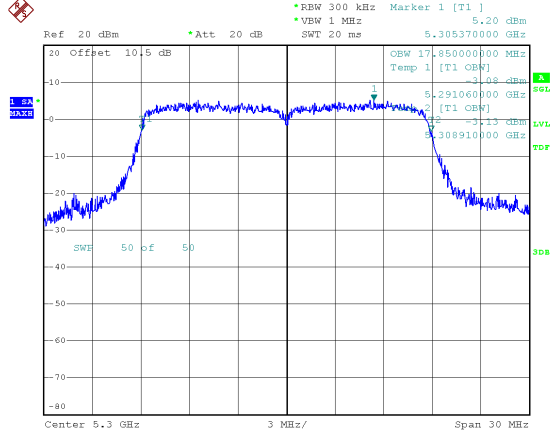
99% Bandwidth

Modulation Type: 802.11ac VHT20 CH52



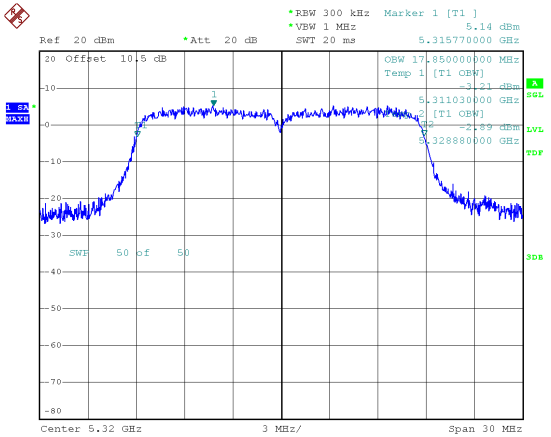
Date: 24.SEP.2024 15:45:51

Modulation Type: 802.11ac VHT20 CH60



Date: 24.SEP.2024 15:48:00

Modulation Type: 802.11ac VHT20 CH64

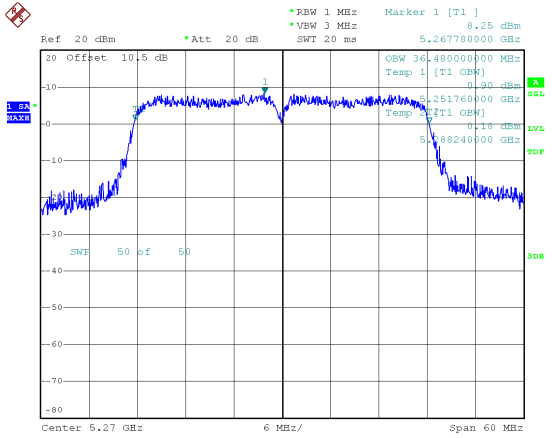


Date: 24.SEP.2024 15:50:29

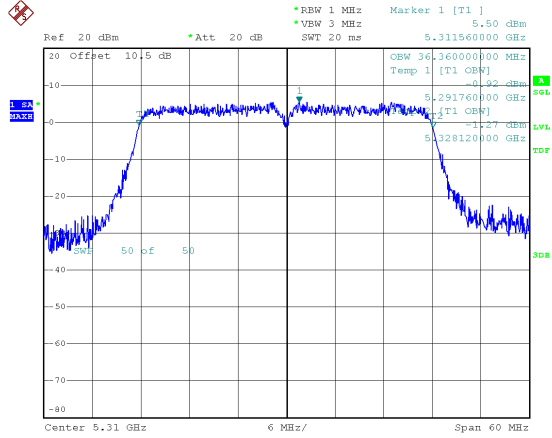


99% Bandwidth

Modulation Type: 802.11ac VHT40 CH54



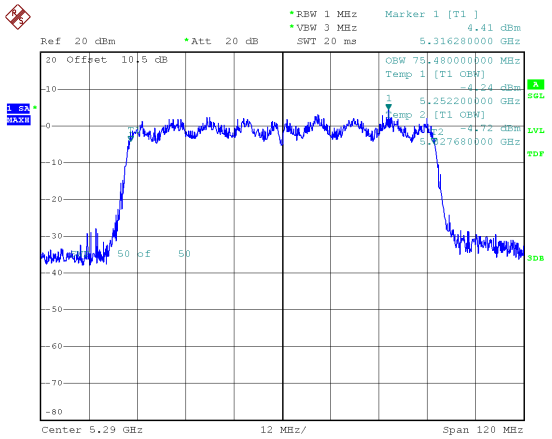
Modulation Type: 802.11ac VHT40 CH62



Date: 24.SEP.2024 16:26:08

Date: 24.SEP.2024 16:28:12

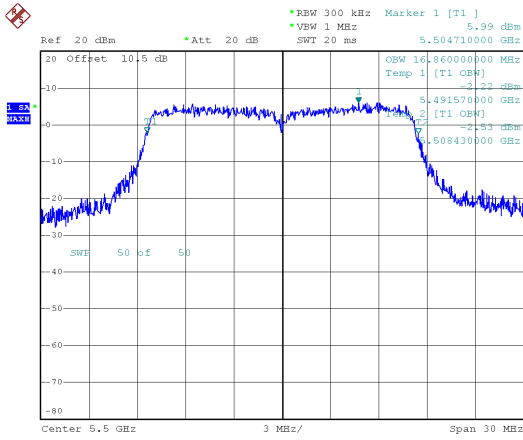
Modulation Type: 802.11ac VHT80 CH58



Date: 24.SEP.2024 16:53:07

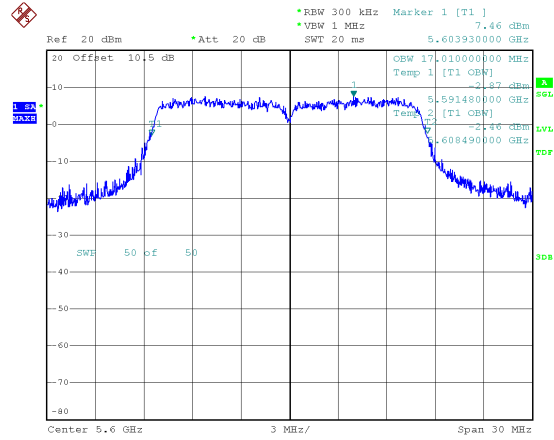


99% Bandwidth
Modulation Type: 802.11a CH100



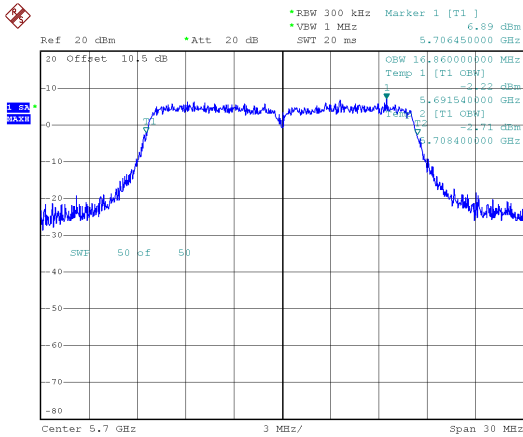
Date: 24.SEP.2024 15:07:44

Modulation Type: 802.11a CH120



Date: 24.SEP.2024 15:17:35

Modulation Type: 802.11a CH140

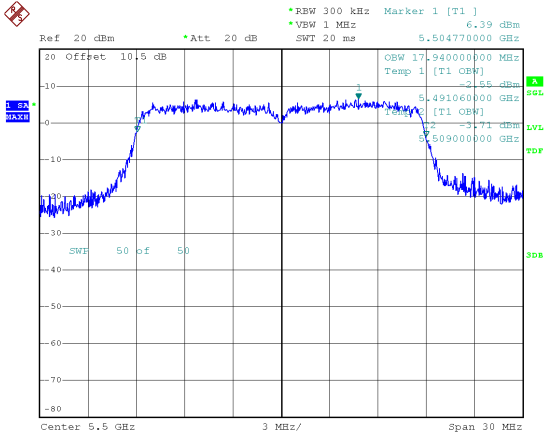


Date: 24.SEP.2024 15:19:39



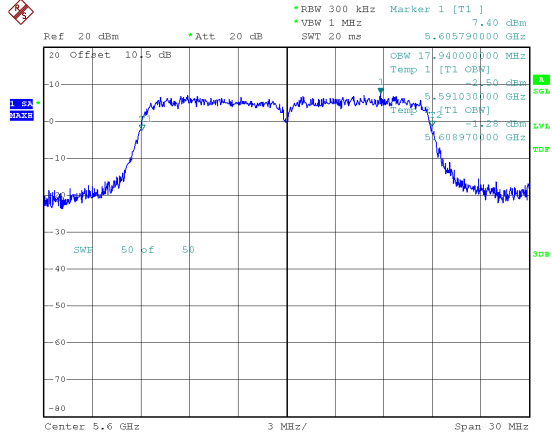
99% Bandwidth

Modulation Type: 802.11ac VHT20 CH100



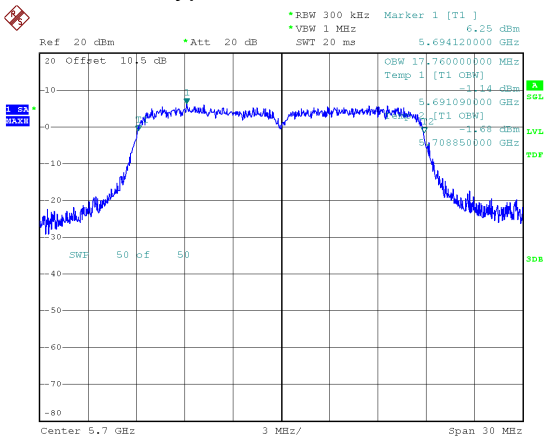
Date: 24.SEP.2024 15:57:57

Modulation Type: 802.11ac VHT20 CH120



Date: 24.SEP.2024 16:00:02

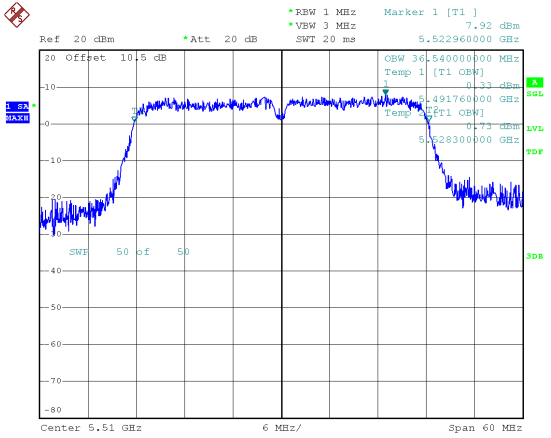
Modulation Type: 802.11ac VHT20 CH140



Date: 24.SEP.2024 16:02:42

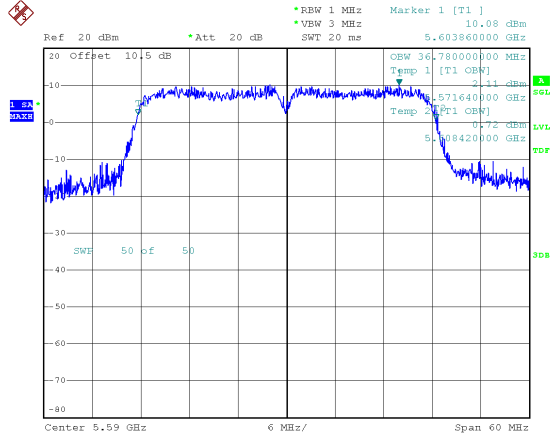


99% Bandwidth
Modulation Type: 802.11ac VHT40 CH102



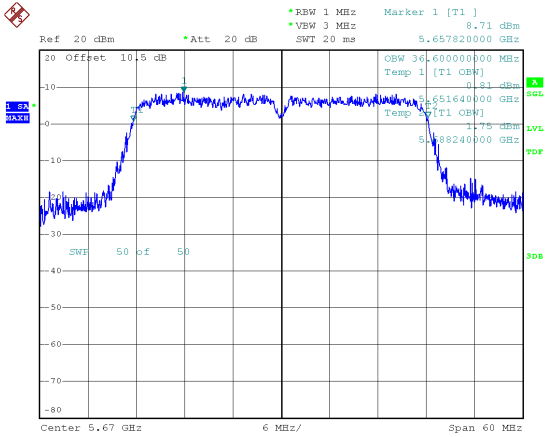
Date: 24.SEP.2024 16:30:51

Modulation Type: 802.11ac VHT40 CH118



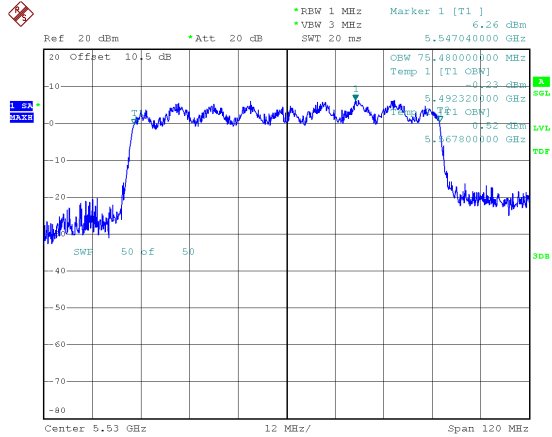
Date: 24.SEP.2024 16:34:02

Modulation Type: 802.11ac VHT40 CH134



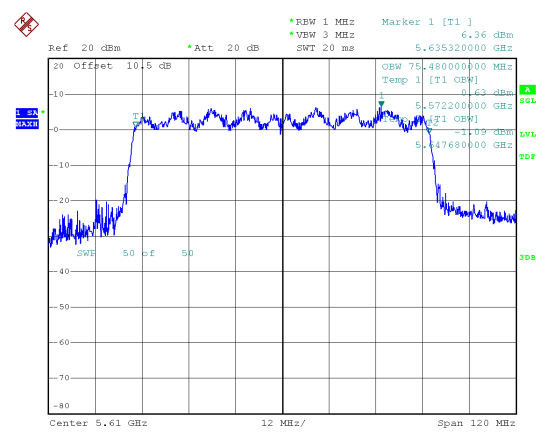
Date: 24.SEP.2024 16:35:52

Modulation Type: 802.11ac VHT80 CH106



Date: 24.SEP.2024 16:57:56

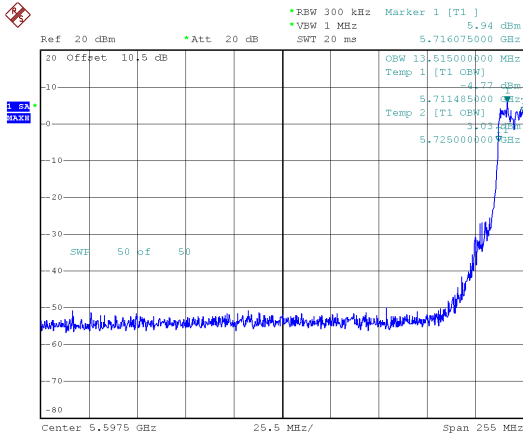
Modulation Type: 802.11ac VHT80 CH122



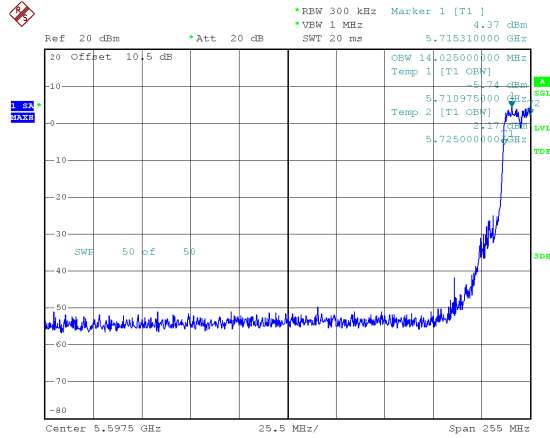
Date: 24.SEP.2024 17:00:04



99% Bandwidth
Within 5470-5725MHz Band, Straddle Channel
Modulation Type: 802.11a CH144



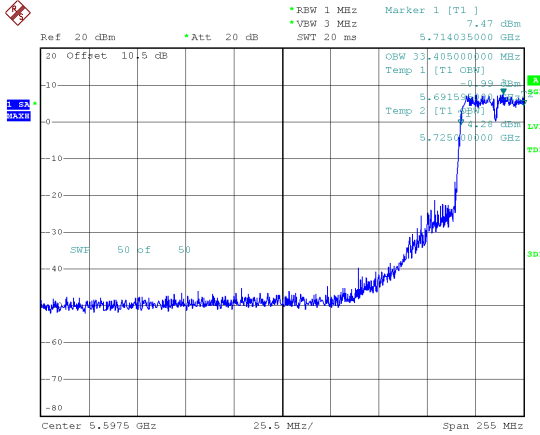
Modulation Type: 802.11ac VHT20 CH144



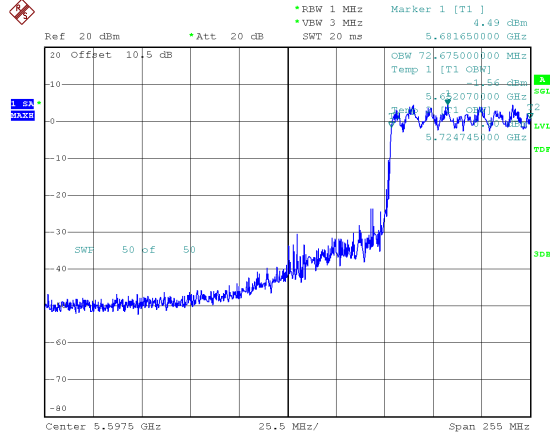
Date: 24.SEP.2024 15:22:32

Date: 24.SEP.2024 16:05:31

Modulation Type: 802.11ac VHT40 CH142



Modulation Type: 802.11ac VHT80 CH138



Date: 24.SEP.2024 16:37:59

Date: 24.SEP.2024 17:02:01



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.

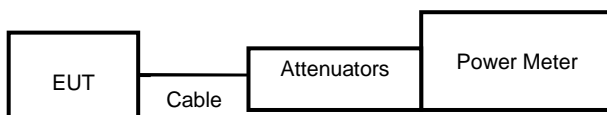


Frequency Band	Limit
<input checked="" type="checkbox"/> 5.25-5.35 GHz	The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional 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 checked="" 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.

10.3. Test Setup Layout



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

Modulation Type	Data Rate	Setting	CH	Frequency (MHz)	Measured value of each antenna port (dBm)	Total power (dBm)	Total power (mW)	FCC Limit (dBm)
11a	6 Mbps	Default	36	5180	14.19	14.19	26.242	24.00
11a	6 Mbps	Default	40	5200	14.56	14.56	28.576	24.00
11a	6 Mbps	Default	48	5240	14.63	14.63	29.040	24.00
11ac VHT20	NSS1-MCS0	Default	36	5180	15.01	15.01	31.696	24.00
11ac VHT20	NSS1-MCS0	Default	40	5200	15.31	15.31	33.963	24.00
11ac VHT20	NSS1-MCS0	Default	48	5240	15.46	15.46	35.156	24.00
11ac VHT40	NSS1-MCS0	49	38	5190	13.06	13.06	20.230	24.00
11ac VHT40	NSS1-MCS0	Default	46	5230	15.24	15.24	33.420	24.00
11ac VHT80	NSS1-MCS0	44	42	5210	12.28	12.28	16.904	24.00

In the 5.3G Band

Modulation Type	Data Rate	Setting	CH	Frequency (MHz)	Measured value of each antenna port (dBm)	Total power (dBm)	Total power (mW)	FCC Limit (dBm)
11a	6 Mbps	Default	52	5260	14.03	14.03	25.293	24.00
11a	6 Mbps	Default	60	5300	14.08	14.08	25.586	24.00
11a	6 Mbps	Default	64	5320	14.23	14.23	26.485	24.00
11ac VHT20	NSS1-MCS0	Default	52	5260	15.27	15.27	33.651	24.00
11ac VHT20	NSS1-MCS0	Default	60	5300	15.23	15.23	33.343	24.00
11ac VHT20	NSS1-MCS0	Default	64	5320	15.31	15.31	33.963	24.00
11ac VHT40	NSS1-MCS0	Default	54	5270	15.63	15.63	36.559	24.00
11ac VHT40	NSS1-MCS0	46	62	5310	12.72	12.72	18.707	24.00
11ac VHT80	NSS1-MCS0	43	58	5290	11.90	11.90	15.488	24.00



In the 5.5G Band

Modulation Type	Data Rate	Setting	CH	Frequency (MHz)	Measured value of each antenna port (dBm)	Total power (dBm)	Total power (mW)	FCC Limit (dBm)
11a	6 Mbps	Default	100	5500	14.74	14.74	29.785	24.00
11a	6 Mbps	Default	120	5600	14.67	14.67	29.309	24.00
11a	6 Mbps	Default	140	5700	13.54	13.54	22.594	24.00
11ac VHT20	NSS1-MCS0	Default	100	5500	14.84	14.84	30.479	24.00
11ac VHT20	NSS1-MCS0	Default	120	5600	14.94	14.94	31.189	24.00
11ac VHT20	NSS1-MCS0	Default	140	5700	13.79	13.79	23.933	24.00
11ac VHT40	NSS1-MCS0	48	102	5510	13.40	13.40	21.878	24.00
11ac VHT40	NSS1-MCS0	Default	118	5590	15.14	15.14	32.659	24.00
11ac VHT40	NSS1-MCS0	Default	134	5670	13.70	13.70	23.442	24.00
11ac VHT80	NSS1-MCS0	Default	106	5530	14.61	14.61	28.907	24.00
11ac VHT80	NSS1-MCS0	Default	122	5610	14.16	14.16	26.062	24.00

In the 5.8G Band

Modulation Type	Data Rate	Setting	CH	Frequency (MHz)	Measured value of each antenna port (dBm)	Total power (dBm)	Total power (mW)	FCC Limit (dBm)
11a	6 Mbps	Default	149	5745	13.20	13.20	20.893	30.00
11a	6 Mbps	Default	157	5785	13.12	13.12	20.512	30.00
11a	6 Mbps	Default	165	5825	12.69	12.69	18.578	30.00
11ac VHT20	NSS1-MCS0	Default	149	5745	13.55	13.55	22.646	30.00
11ac VHT20	NSS1-MCS0	Default	157	5785	13.41	13.41	21.928	30.00
11ac VHT20	NSS1-MCS0	Default	165	5825	12.64	12.64	18.365	30.00
11ac VHT40	NSS1-MCS0	Default	151	5755	13.75	13.75	23.714	30.00
11ac VHT40	NSS1-MCS0	Default	159	5795	14.26	14.26	26.669	30.00
11ac VHT80	NSS1-MCS0	Default	155	5775	13.20	13.20	20.893	30.00



FCC Maximum Conducted Output Power (Within 5470-5725MHz band) RF Output Power(dBm)									
Setting	Modulation Type	Data Rate	Freq. (MHz)	W/O Duty Factor Measured value of each antenna port (dBm)	W/O duty factor Total power (dBm)	Duty Factor (dB)	With duty factor Total power (mW)	With duty factor Total power (dBm)	FCC Limit (dBm)
Default	11a	6M	5720	11.41	11.41	0.31	14.859	11.72	22.92
Default	11ac VHT20	NSS1-MCS0	5720	11.16	11.16	0.09	13.335	11.25	22.92
Default	11ac VHT40	NSS1-MCS0	5710	11.60	11.60	0.49	16.181	12.09	24.00
Default	11ac VHT80	NSS1-MCS0	5690	9.99	9.99	0.42	10.990	10.41	24.00

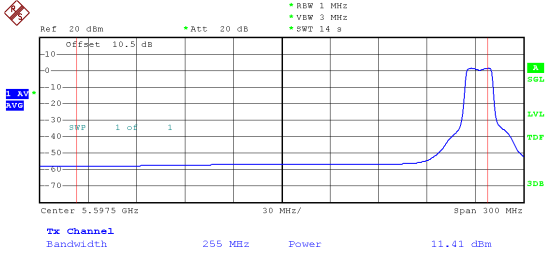
FCC Maximum Conducted Output Power (Extends across 5725MHz band) RF Output Power(dBm)									
Setting	Modulation Type	Data Rate	Freq. (MHz)	W/O Duty Factor Measured value of each antenna port (dBm)	W/O duty factor Total power (dBm)	Duty Factor (dB)	With duty factor Total power (mW)	With duty factor Total power (dBm)	FCC Limit (dBm)
Default	11a	6M	5720	5.45	5.45	0.31	3.767	5.76	30.00
Default	11ac VHT20	NSS1-MCS0	5720	5.56	5.56	0.09	3.673	5.65	30.00
Default	11ac VHT40	NSS1-MCS0	5710	0.66	0.66	0.49	1.303	1.15	30.00
Default	11ac VHT80	NSS1-MCS0	5690	-4.30	-4.30	0.42	0.409	-3.88	30.00

Channel	Setting	Modulation Type	Date Rate	Frequency (MHz)	Avg Power Output (dBm)	Total Power (dBm)
Meter power (for full power)						
Ch144	Default	11a	6 Mbps	5720MHz	12.89	12.89
Ch144	Default	11ac VHT20	NSS1-MCS0	5720MHz	12.93	12.93
Ch142	Default	11ac VHT40	NSS1-MCS0	5710MHz	13.14	13.14
Ch138	Default	11ac VHT80	NSS1-MCS0	5690MHz	12.86	12.86

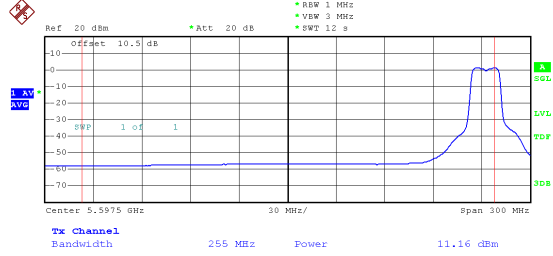
Note: Power Meter Average power is for reference only.



Within 5470-5725MHz Band, Straddle Channel
Modulation Type: 802.11a CH144

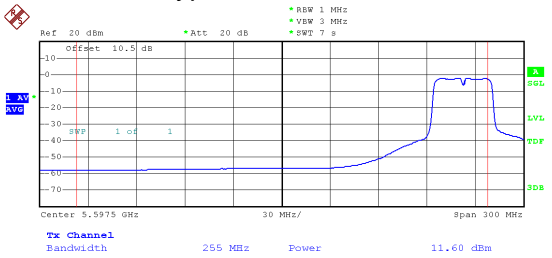


Modulation Type: 802.11ac VHT20 CH144



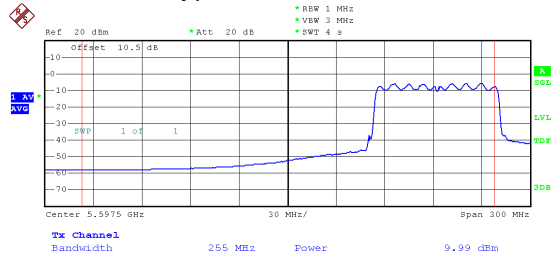
Date: 24.SEP.2024 15:24:19

Modulation Type: 802.11ac VHT40 CH142



Date: 24.SEP.2024 16:07:14

Modulation Type: 802.11ac VHT80 CH138

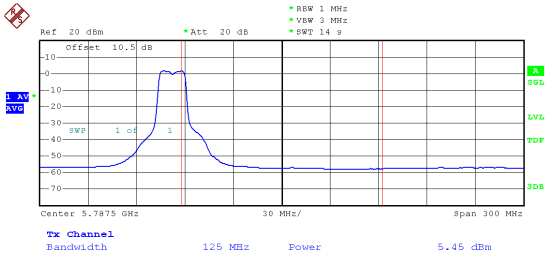


Date: 24.SEP.2024 16:39:33

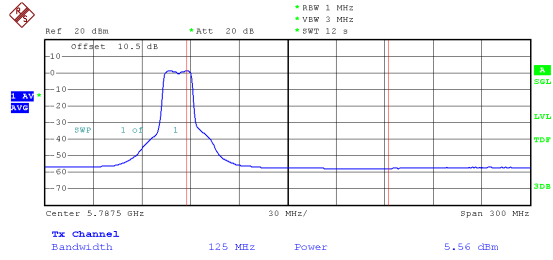
Date: 24.SEP.2024 17:03:29



Extends across 5725MHz band, Straddle Channel
Modulation Type: 802.11a CH144

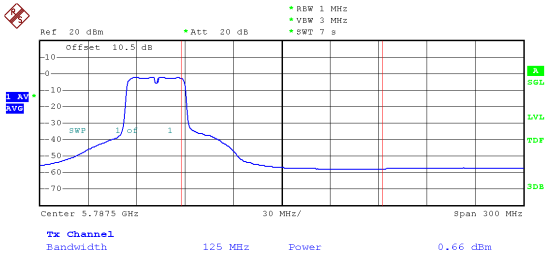


Modulation Type: 802.11ac VHT20 CH144



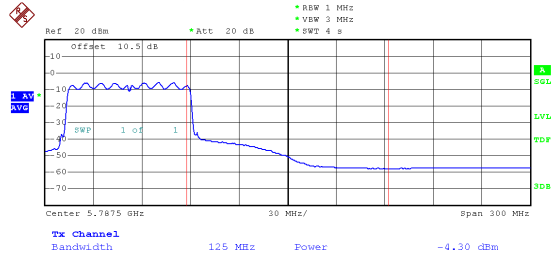
Date: 24.SEP.2024 15:24:56

Modulation Type: 802.11ac VHT40 CH142



Date: 24.SEP.2024 16:07:47

Modulation Type: 802.11ac VHT80 CH138



Date: 24.SEP.2024 16:39:56

Date: 24.SEP.2024 17:03:46



11. Power Spectral Density

11.1. Test Limit

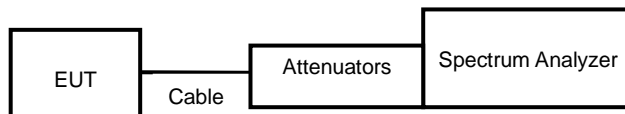
PSD:

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 checked="" type="checkbox"/>	5.725~5.85 GHz	11 dBm/MHz
<input checked="" 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

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)
11a	36	5180	2.44	2.44	0.31	2.75	11.00
11a	40	5200	2.82	2.82	0.31	3.13	11.00
11a	48	5240	2.80	2.80	0.31	3.11	11.00
11ac VHT20	36	5180	2.43	2.43	0.09	2.52	11.00
11ac VHT20	40	5200	2.68	2.68	0.09	2.77	11.00
11ac VHT20	48	5240	2.52	2.52	0.09	2.61	11.00
11ac VHT40	38	5190	-2.58	-2.58	0.49	-2.09	11.00
11ac VHT40	46	5230	-0.52	-0.52	0.49	-0.03	11.00
11ac VHT80	42	5210	-5.83	-5.83	0.42	-5.41	11.00

In the 5.3G 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)
11a	52	5260	2.53	2.53	0.31	2.84	11.00
11a	60	5300	2.60	2.60	0.31	2.91	11.00
11a	64	5320	2.66	2.66	0.31	2.97	11.00
11ac VHT20	52	5260	2.40	2.40	0.09	2.49	11.00
11ac VHT20	60	5300	2.44	2.44	0.09	2.53	11.00
11ac VHT20	64	5320	2.45	2.45	0.09	2.54	11.00
11ac VHT40	54	5270	-0.61	-0.61	0.49	-0.12	11.00
11ac VHT40	62	5310	-3.19	-3.19	0.49	-2.70	11.00
11ac VHT80	58	5290	-6.46	-6.46	0.42	-6.04	11.00



In the 5.5G Band

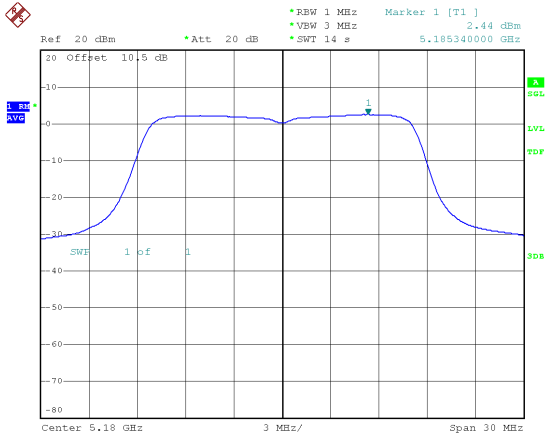
Modulation Type	Channel	Frequency (MHz)	Meas PSD (dBm/MHz)	Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)
11a	100	5500	3.18	3.18	0.31	3.49	11.00
11a	120	5600	4.57	4.57	0.31	4.88	11.00
11a	140	5700	3.39	3.39	0.31	3.70	11.00
11a	144	5720	2.56	2.56	0.31	2.87	11.00
11ac VHT20	100	5500	3.49	3.49	0.09	3.58	11.00
11ac VHT20	120	5600	4.30	4.30	0.09	4.39	11.00
11ac VHT20	140	5700	3.05	3.05	0.09	3.14	11.00
11ac VHT20	144	5720	2.18	2.18	0.49	2.67	11.00
11ac VHT40	102	5510	-1.04	-1.04	0.49	-0.55	11.00
11ac VHT40	118	5590	1.16	1.16	0.49	1.65	11.00
11ac VHT40	134	5670	-0.55	-0.55	0.49	-0.06	11.00
11ac VHT40	142	5710	-0.97	-0.97	0.49	-0.48	11.00
11ac VHT80	106	5530	-2.27	-2.27	0.42	-1.85	11.00
11ac VHT80	122	5610	-2.57	-2.57	0.42	-2.15	11.00
11ac VHT80	138	5690	-4.13	-4.13	0.42	-3.71	11.00

In the 5.8G Band

Modulation Type	Channel	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)
11a	149	5745	3.10	3.10	0.31	-3.01	0.40	30.00
11a	157	5785	2.89	2.89	0.31	-3.01	0.19	30.00
11a	165	5825	1.98	1.98	0.31	-3.01	-0.72	30.00
11ac VHT20	149	5745	2.74	2.74	0.09	-3.01	-0.18	30.00
11ac VHT20	157	5785	2.49	2.49	0.09	-3.01	-0.43	30.00
11ac VHT20	165	5825	1.60	1.60	0.09	-3.01	-1.32	30.00
11ac VHT40	151	5755	-0.48	-0.48	0.49	-3.01	-3.00	30.00
11ac VHT40	159	5795	-0.90	-0.90	0.49	-3.01	-3.42	30.00
11ac VHT80	155	5775	-3.71	-3.71	0.42	-3.01	-6.30	30.00

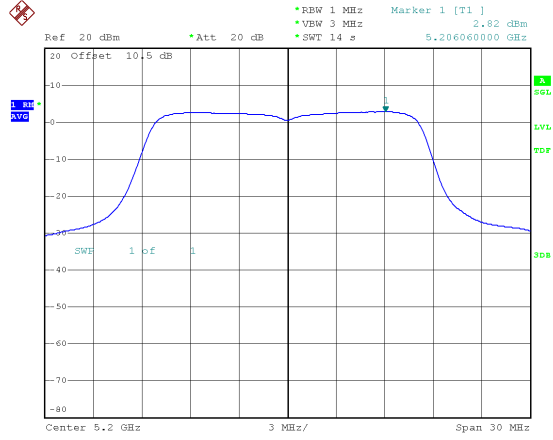


Modulation Type: 802.11a CH36



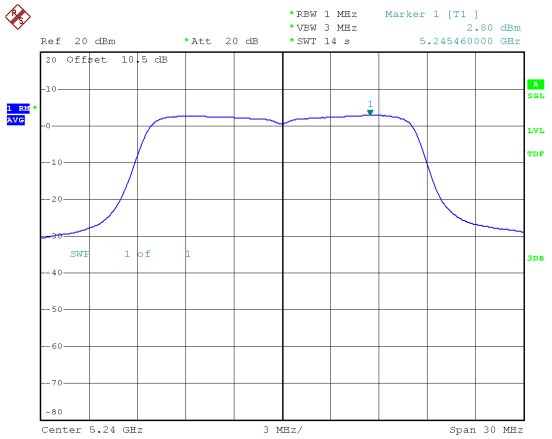
Date: 24.SEP.2024 15:10:49

Modulation Type: 802.11a CH40



Date: 24.SEP.2024 15:11:47

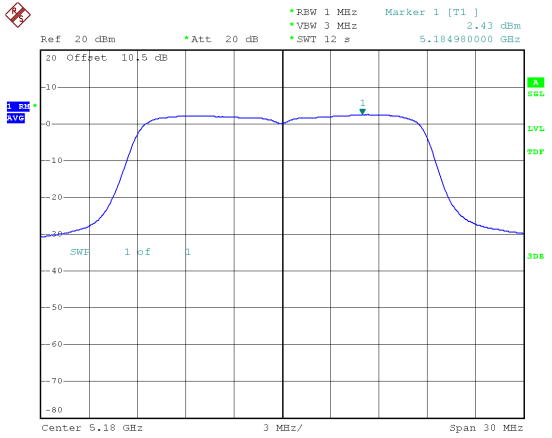
Modulation Type: 802.11a CH48



Date: 24.SEP.2024 15:12:45

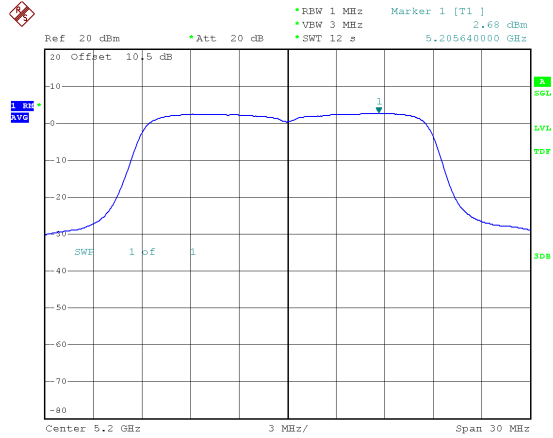


Modulation Type: 802.11ac VHT20 CH36



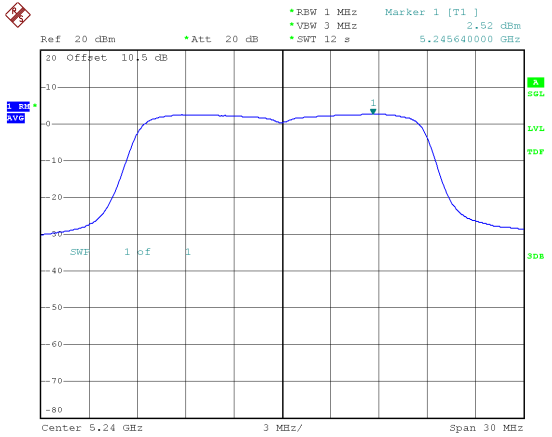
Date: 24.SEP.2024 15:39:34

Modulation Type: 802.11ac VHT20 CH40



Date: 24.SEP.2024 15:41:23

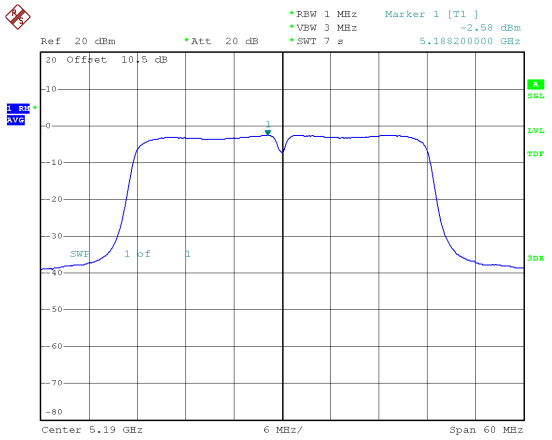
Modulation Type: 802.11ac VHT20 CH48



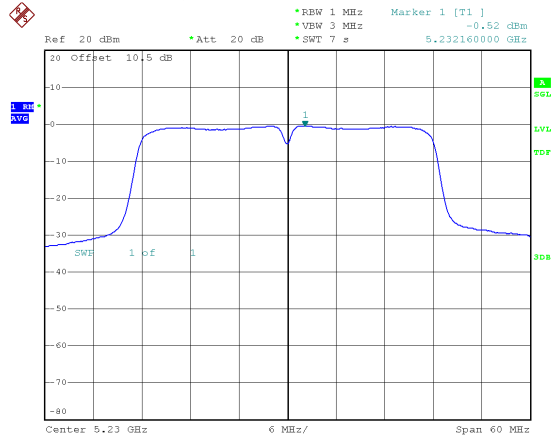
Date: 24.SEP.2024 15:53:49



Modulation Type: 802.11ac VHT40 CH38



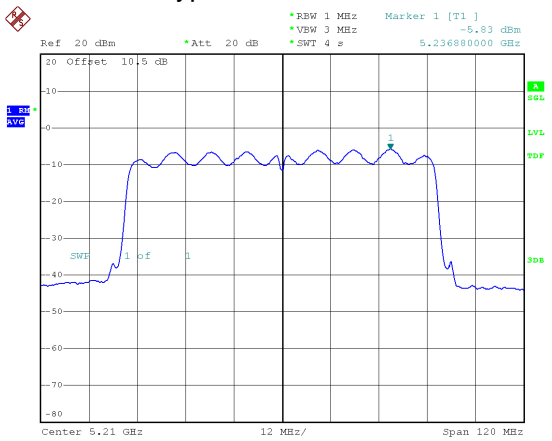
Modulation Type: 802.11ac VHT40 CH46



Date: 24.SEP.2024 16:22:50

Date: 24.SEP.2024 16:24:59

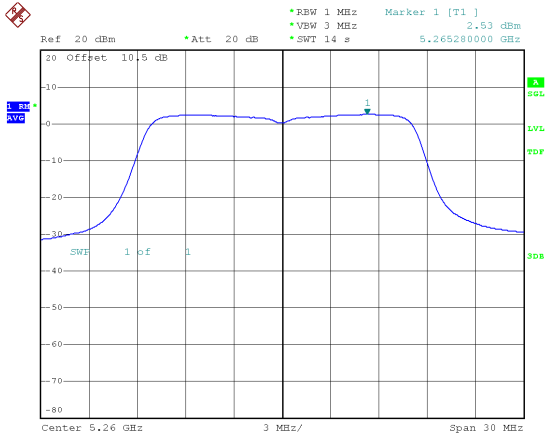
Modulation Type: 802.11ac VHT80 CH42



Date: 24.SEP.2024 16:50:09

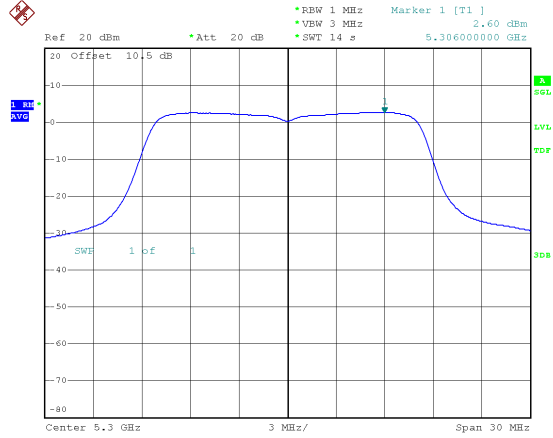


Modulation Type: 802.11a CH52



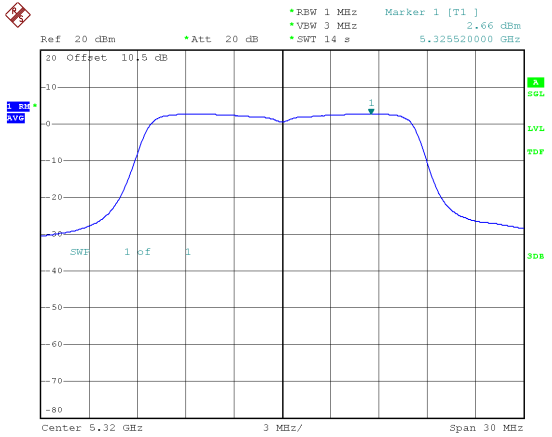
Date: 24.SEP.2024 15:13:50

Modulation Type: 802.11a CH60



Date: 24.SEP.2024 15:15:02

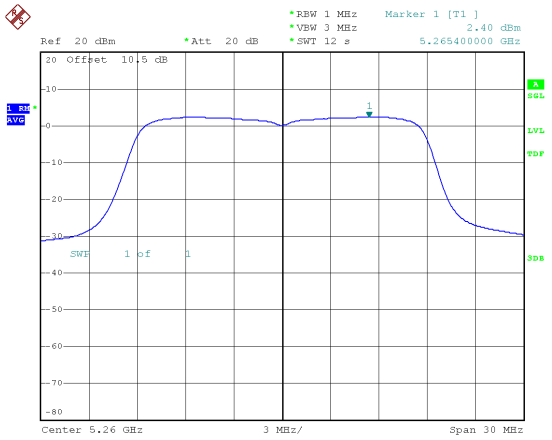
Modulation Type: 802.11a CH64



Date: 24.SEP.2024 15:15:57

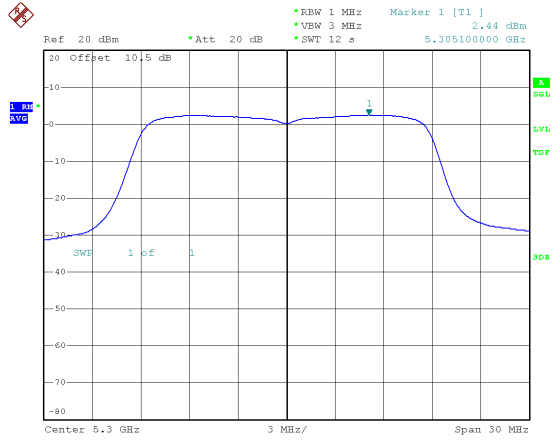


Modulation Type: 802.11ac VHT20 CH52



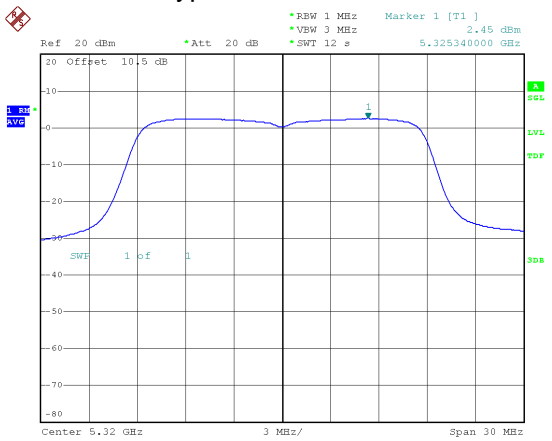
Date: 24.SEP.2024 15:54:54

Modulation Type: 802.11ac VHT20 CH60



Date: 24.SEP.2024 15:55:55

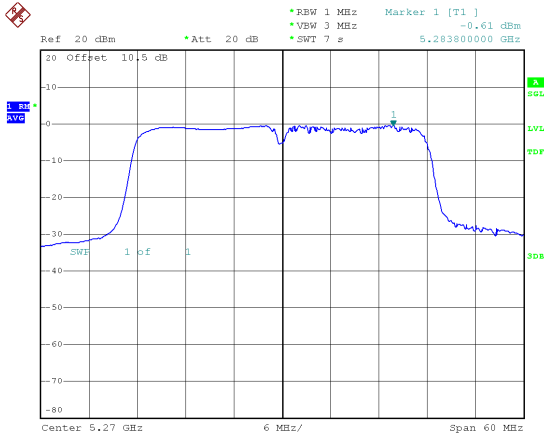
Modulation Type: 802.11ac VHT20 CH64



Date: 24.SEP.2024 15:56:55

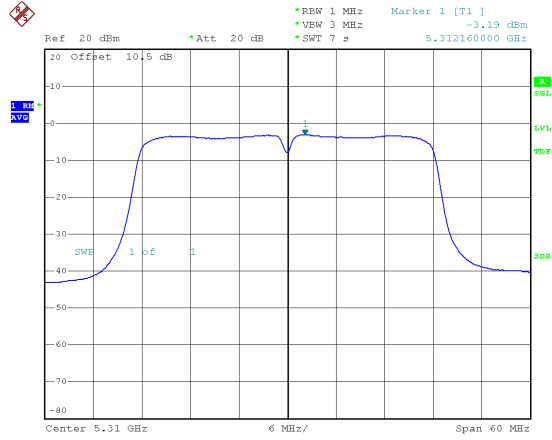


Modulation Type: 802.11ac VHT40 CH54



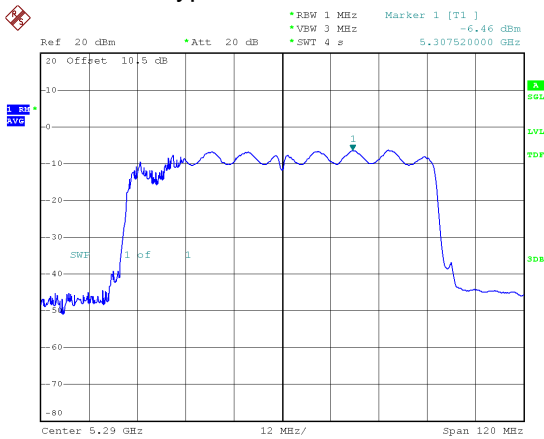
Date: 24.SEP.2024 16:26:51

Modulation Type: 802.11ac VHT40 CH62



Date: 24.SEP.2024 16:28:56

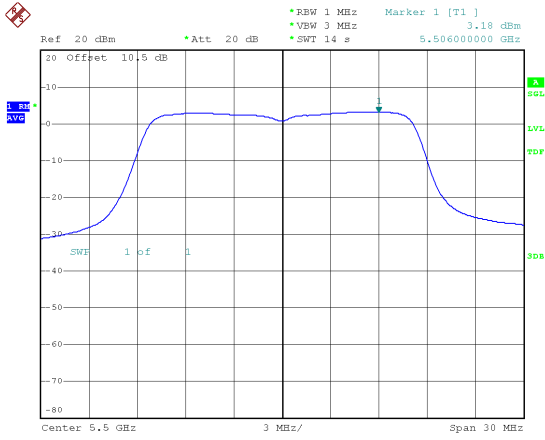
Modulation Type: 802.11ac VHT80 CH58



Date: 24.SEP.2024 16:55:22

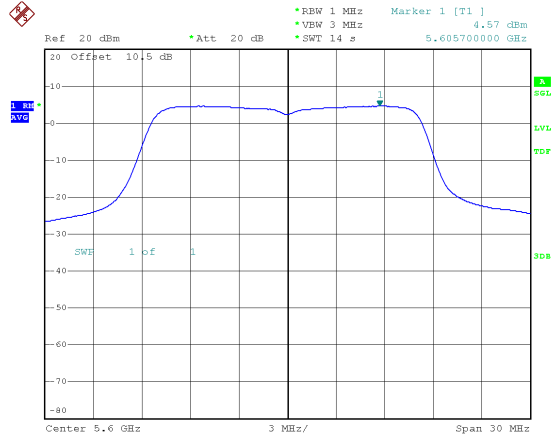


Modulation Type: 802.11a CH100



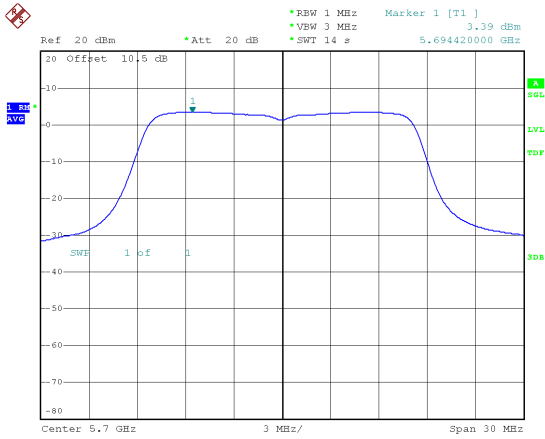
Date: 24.SEP.2024 15:08:34

Modulation Type: 802.11a CH120



Date: 24.SEP.2024 15:18:25

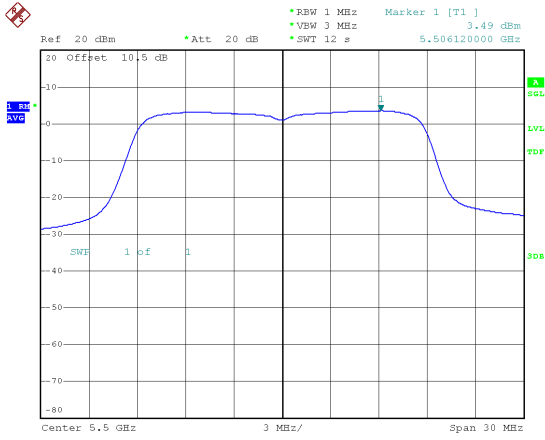
Modulation Type: 802.11a CH140



Date: 24.SEP.2024 15:20:30

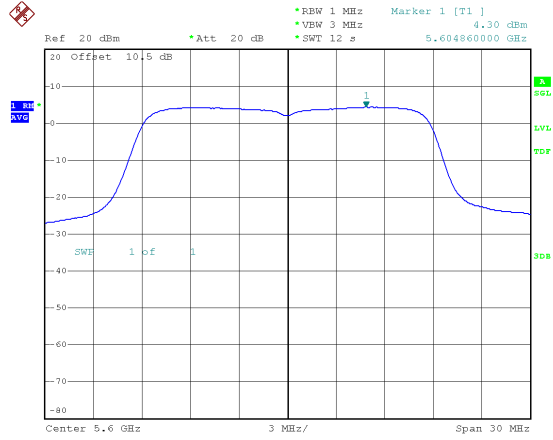


Modulation Type: 802.11ac VHT20 CH100



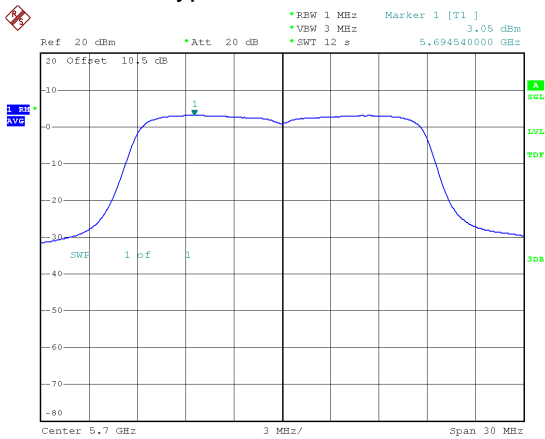
Date: 24.SEP.2024 15:58:46

Modulation Type: 802.11ac VHT20 CH120



Date: 24.SEP.2024 16:00:50

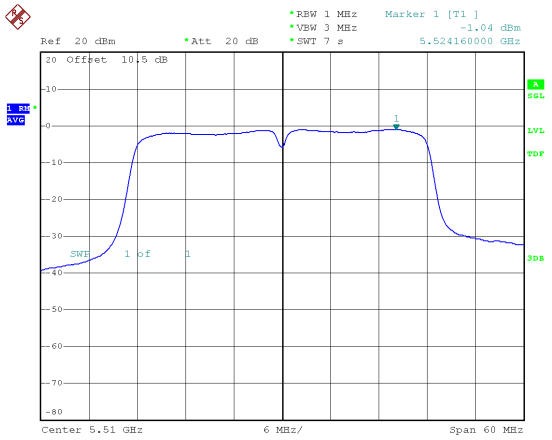
Modulation Type: 802.11ac VHT20 CH140



Date: 24.SEP.2024 16:03:30

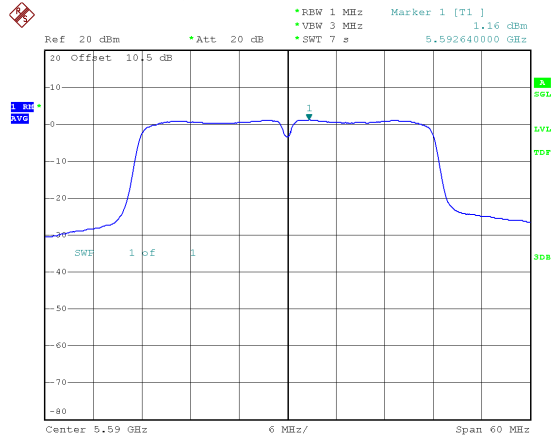


Modulation Type: 802.11ac VHT40 CH102



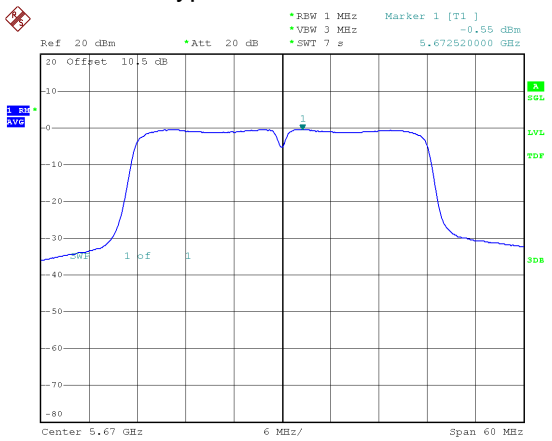
Date: 24.SEP.2024 16:31:56

Modulation Type: 802.11ac VHT40 CH118



Date: 24.SEP.2024 16:34:46

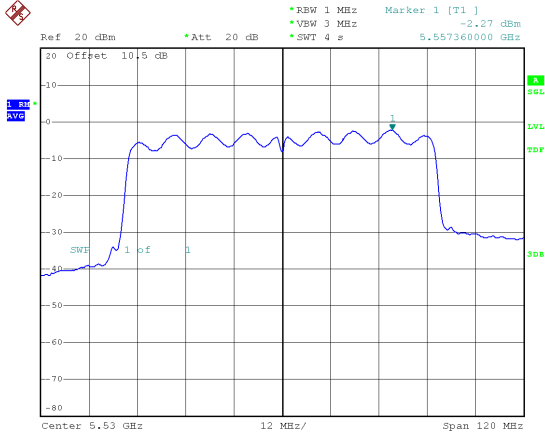
Modulation Type: 802.11ac VHT40 CH134



Date: 24.SEP.2024 16:36:35

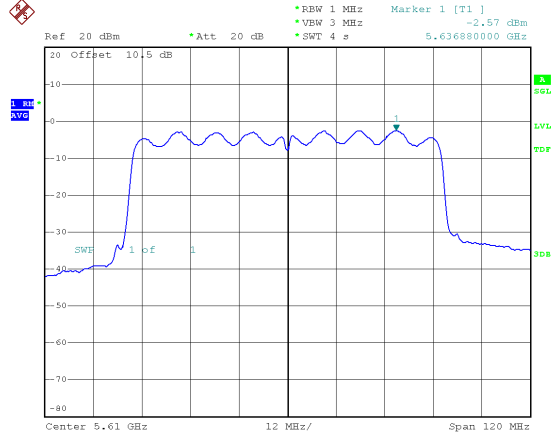


Modulation Type: 802.11ac VHT80 CH106



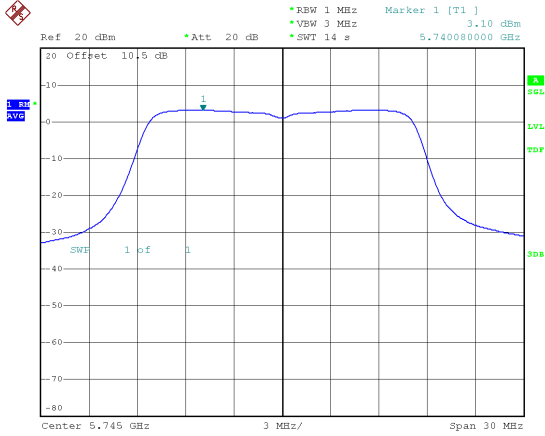
Date: 24.SEP.2024 16:58:37

Modulation Type: 802.11ac VHT80 CH122



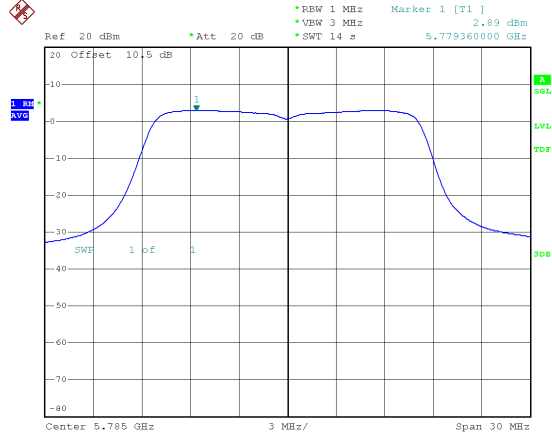
Date: 24.SEP.2024 17:00:45

Modulation Type: 802.11a CH149



Date: 24.SEP.2024 15:28:27

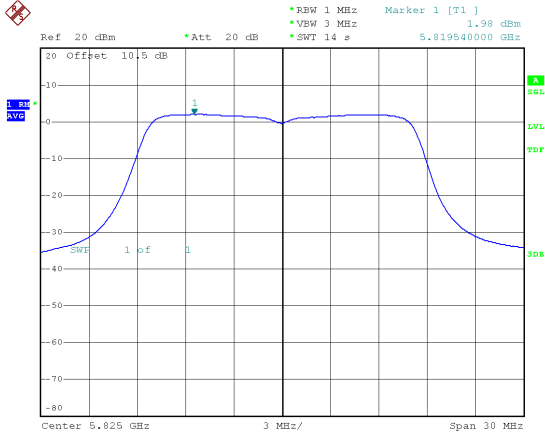
Modulation Type: 802.11a CH157



Date: 24.SEP.2024 15:30:34

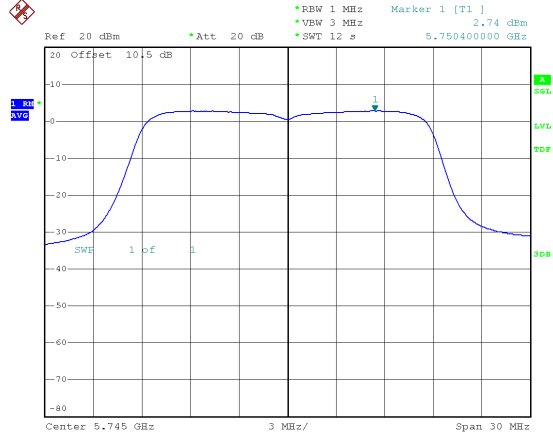


Modulation Type: 802.11a CH165



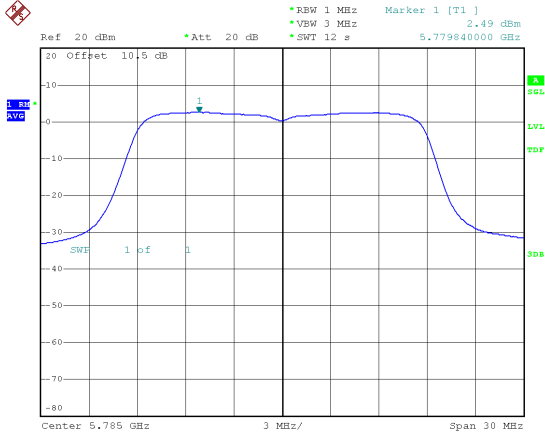
Date: 24.SEP.2024 15:32:34

Modulation Type: 802.11ac VHT20 CH149



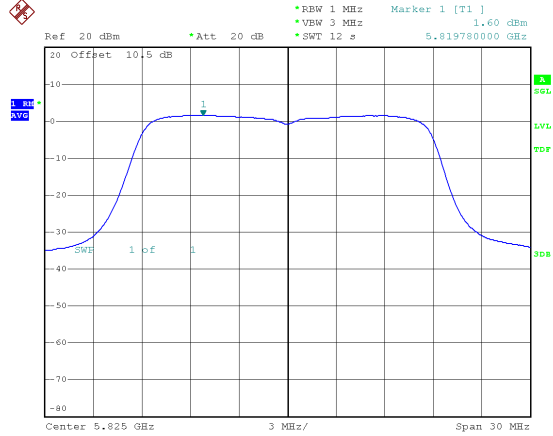
Date: 24.SEP.2024 16:10:33

Modulation Type: 802.11ac VHT20 CH157



Date: 24.SEP.2024 16:13:24

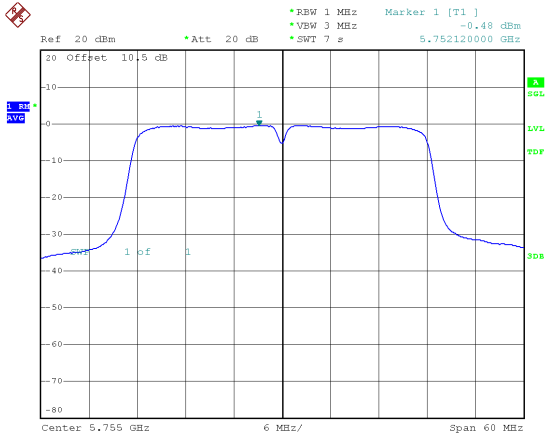
Modulation Type: 802.11ac VHT20 CH165



Date: 24.SEP.2024 16:16:12

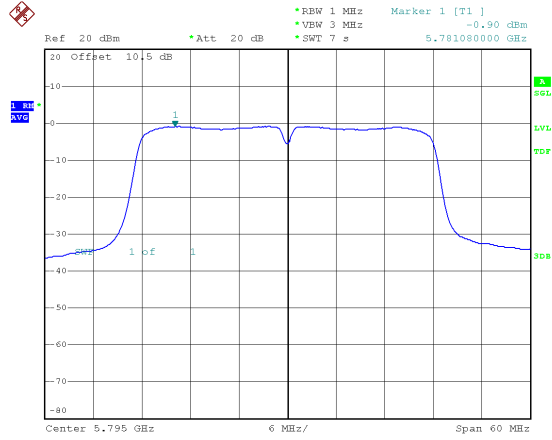


Modulation Type: 802.11ac VHT40 CH151



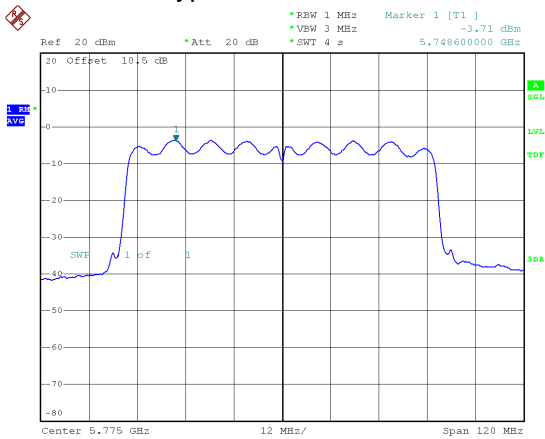
Date: 24.SEP.2024 16:42:51

Modulation Type: 802.11ac VHT40 CH159



Date: 24.SEP.2024 16:44:55

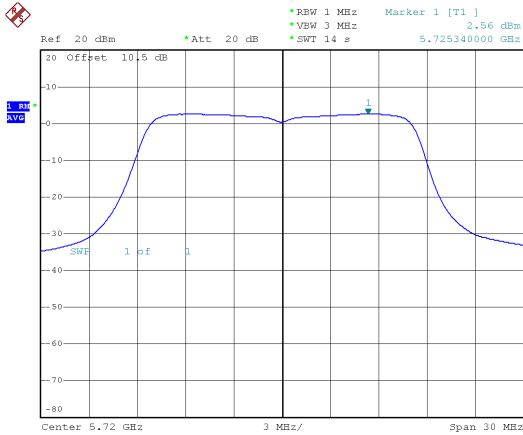
Modulation Type: 802.11ac VHT80 CH155



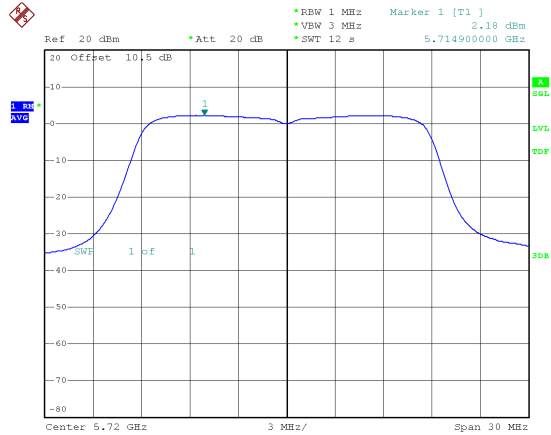
Date: 24.SEP.2024 17:06:56



Straddle Channel
Modulation Type: 802.11a CH144
ANT A

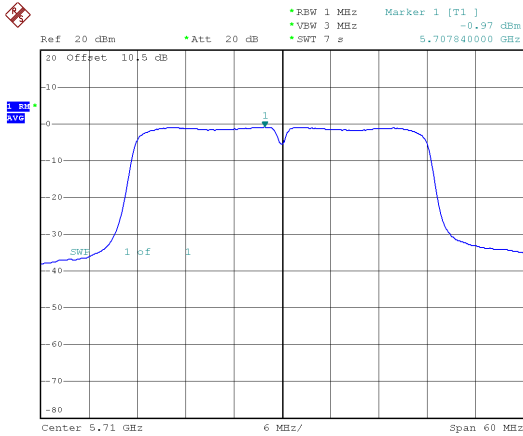


Modulation Type: 802.11ac VHT20 CH144
ANT A



Date: 24.SEP.2024 15:25:23

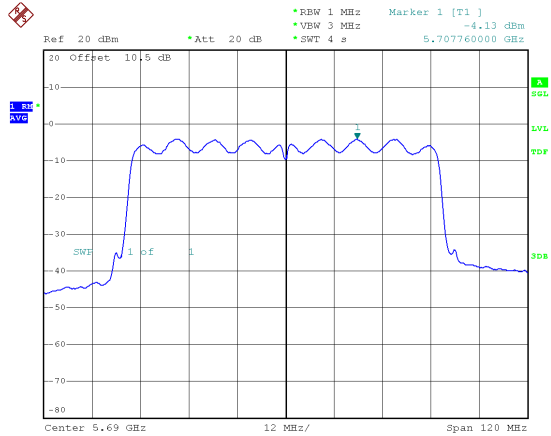
802.11ac VHT40 CH142



Date: 24.SEP.2024 16:40:15

Date: 24.SEP.2024 16:08:11

802.11ac VHT80 CH138



Date: 24.SEP.2024 17:04:02

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