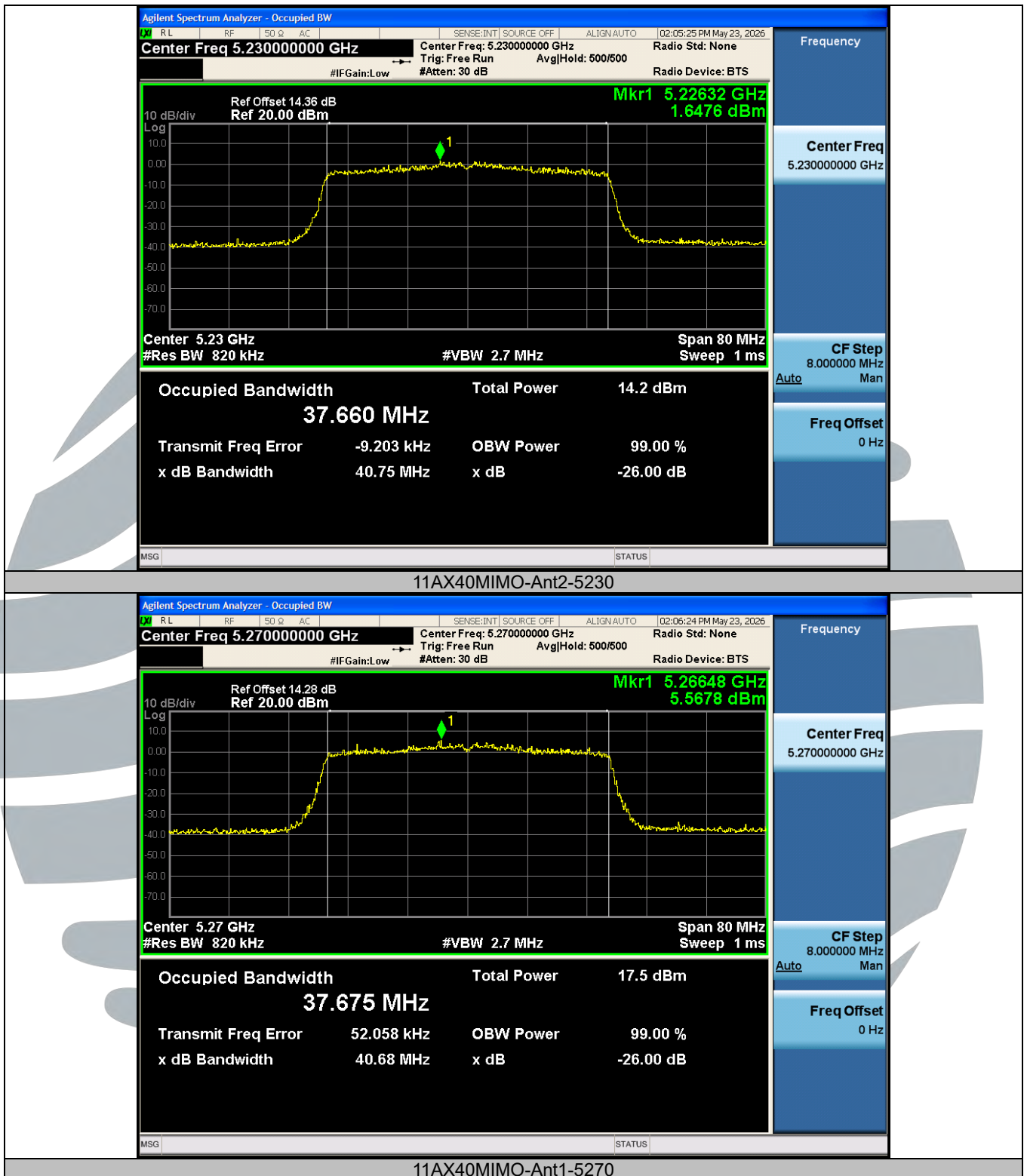
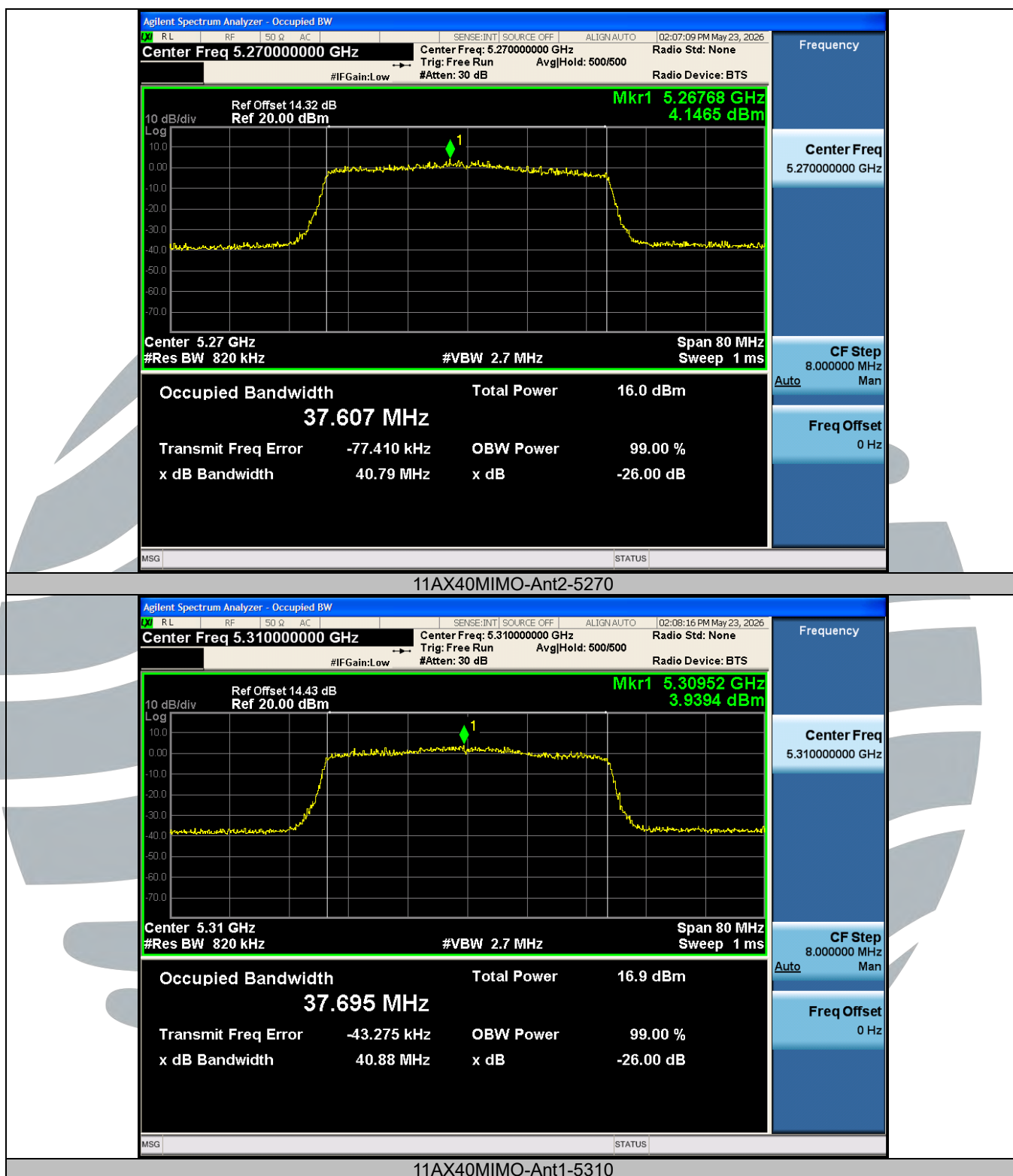




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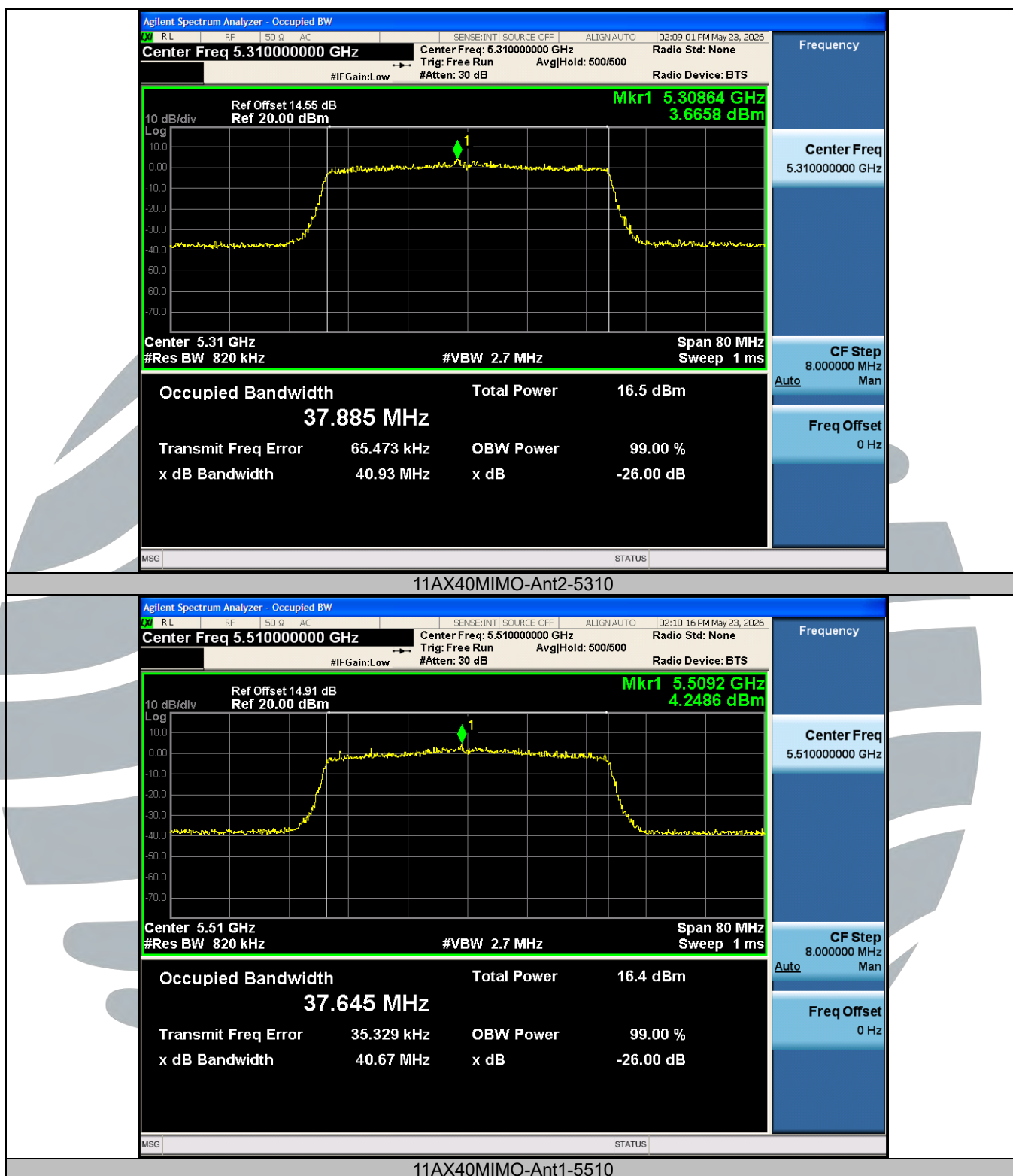
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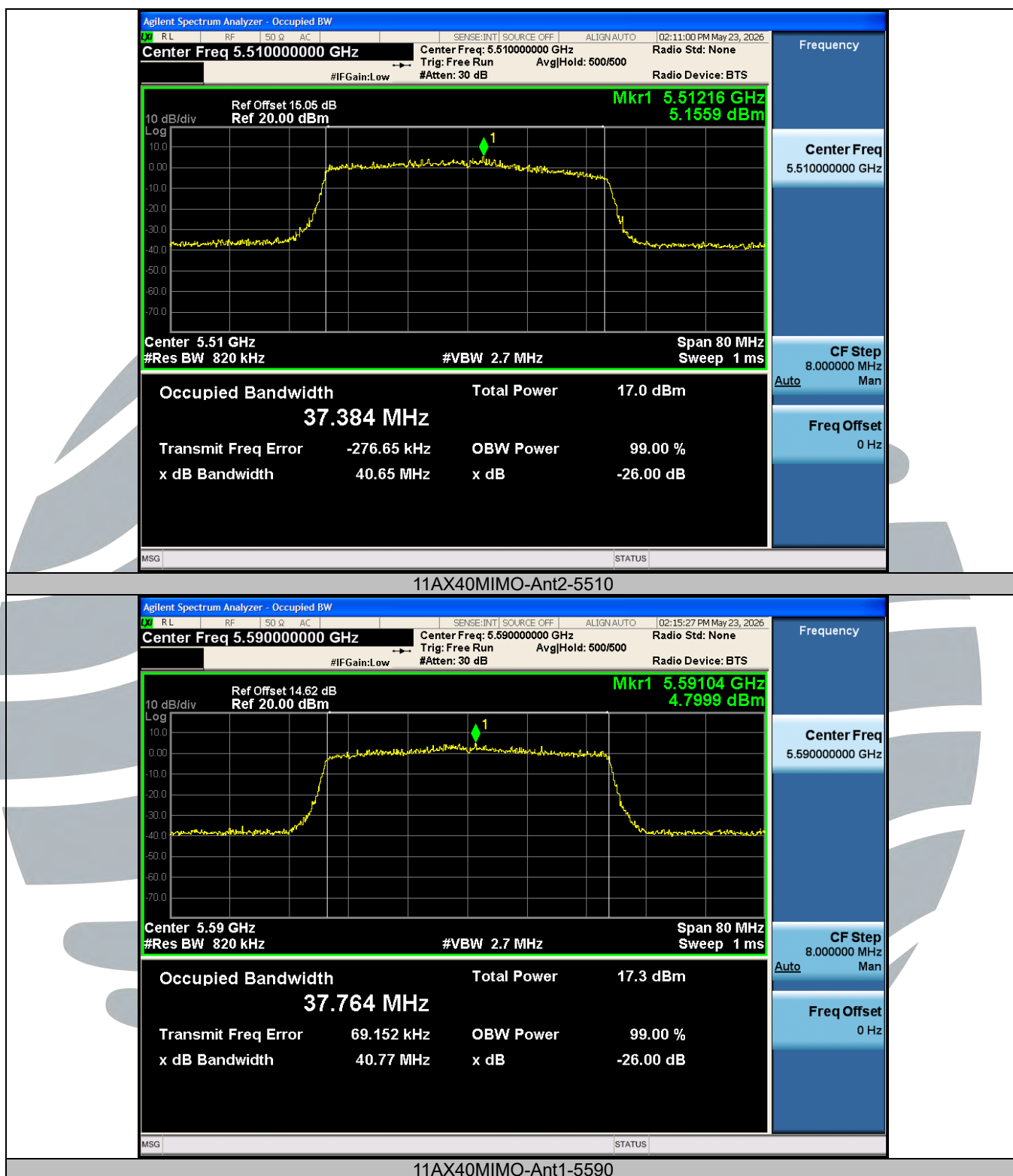
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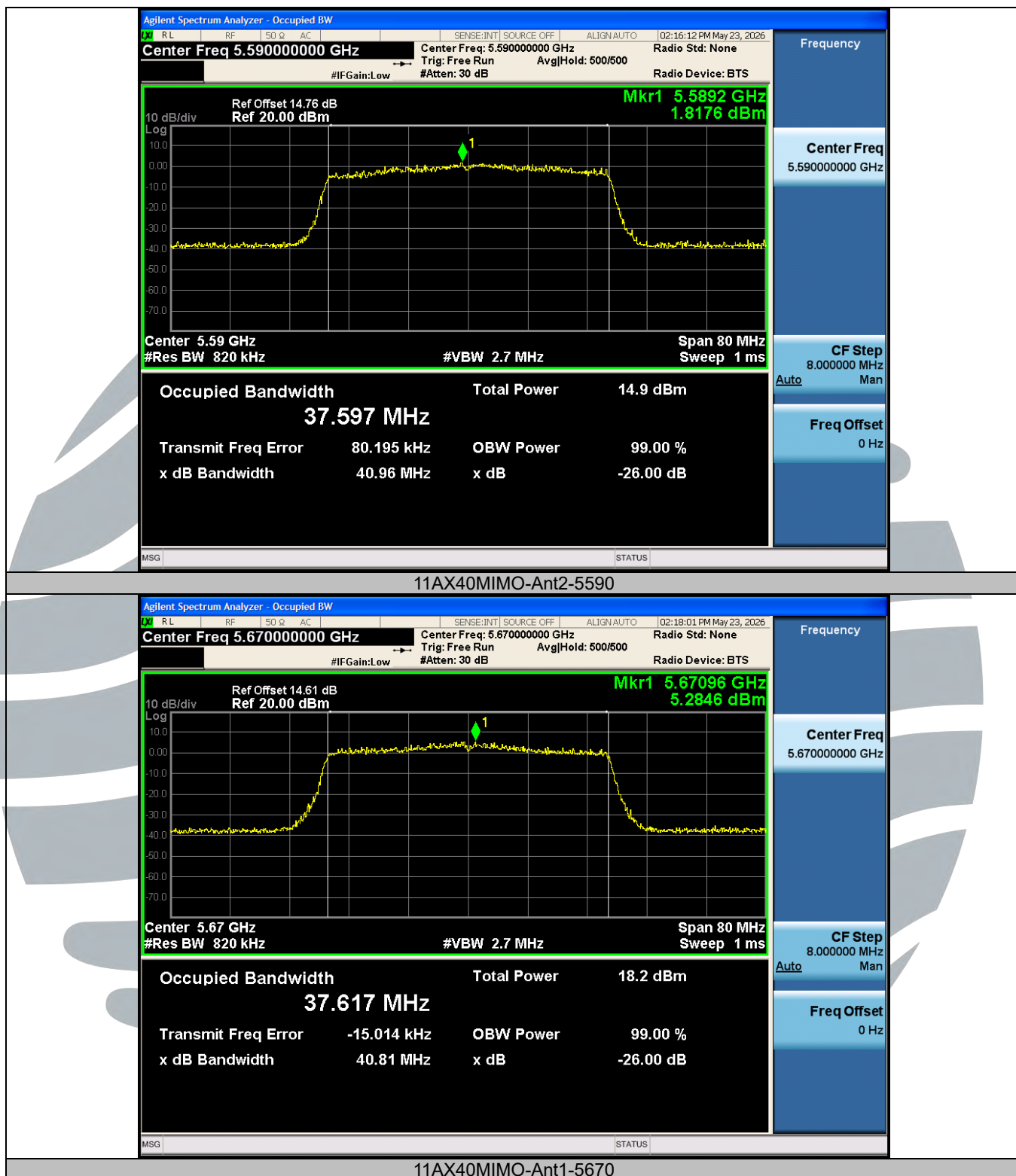
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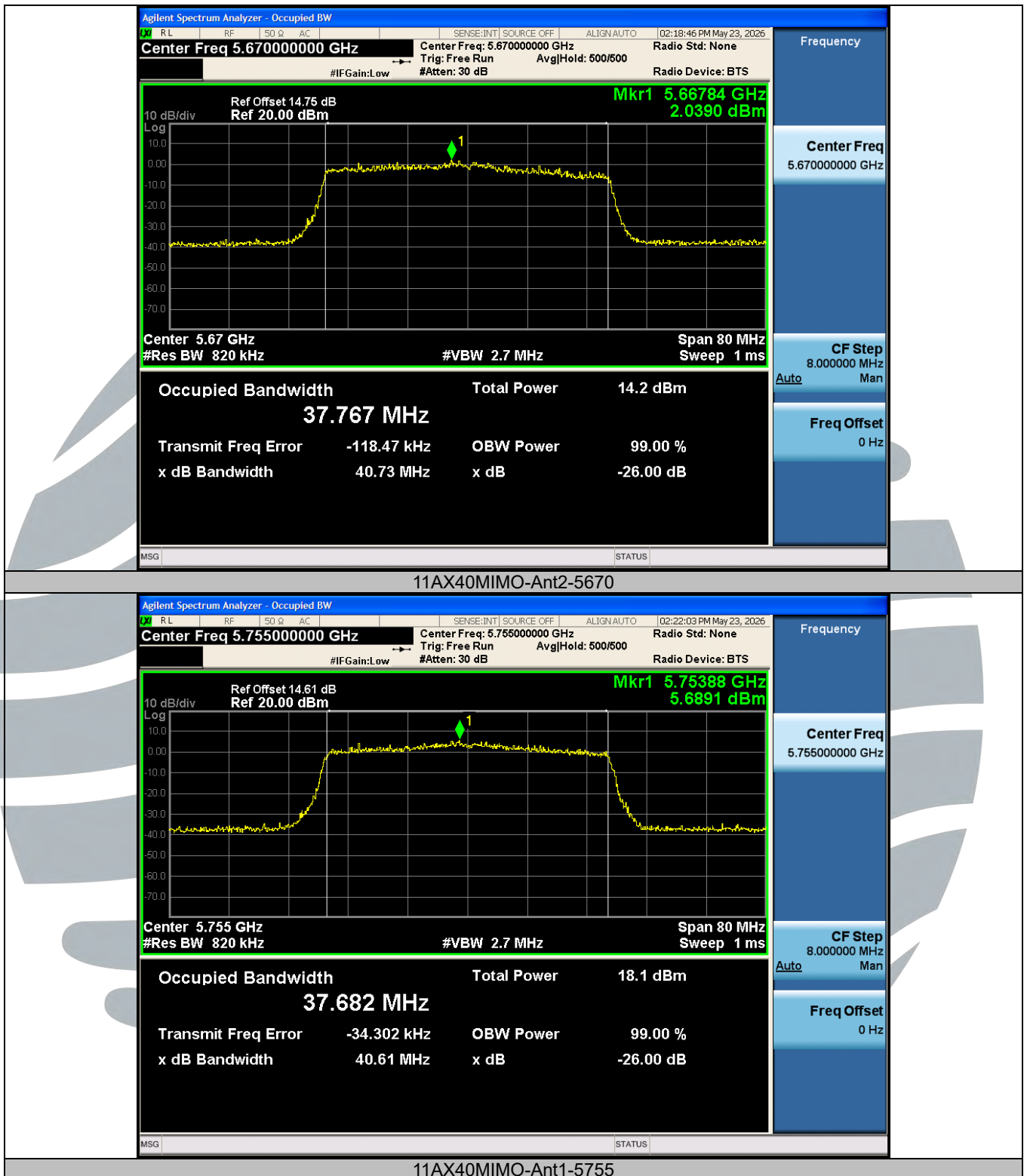
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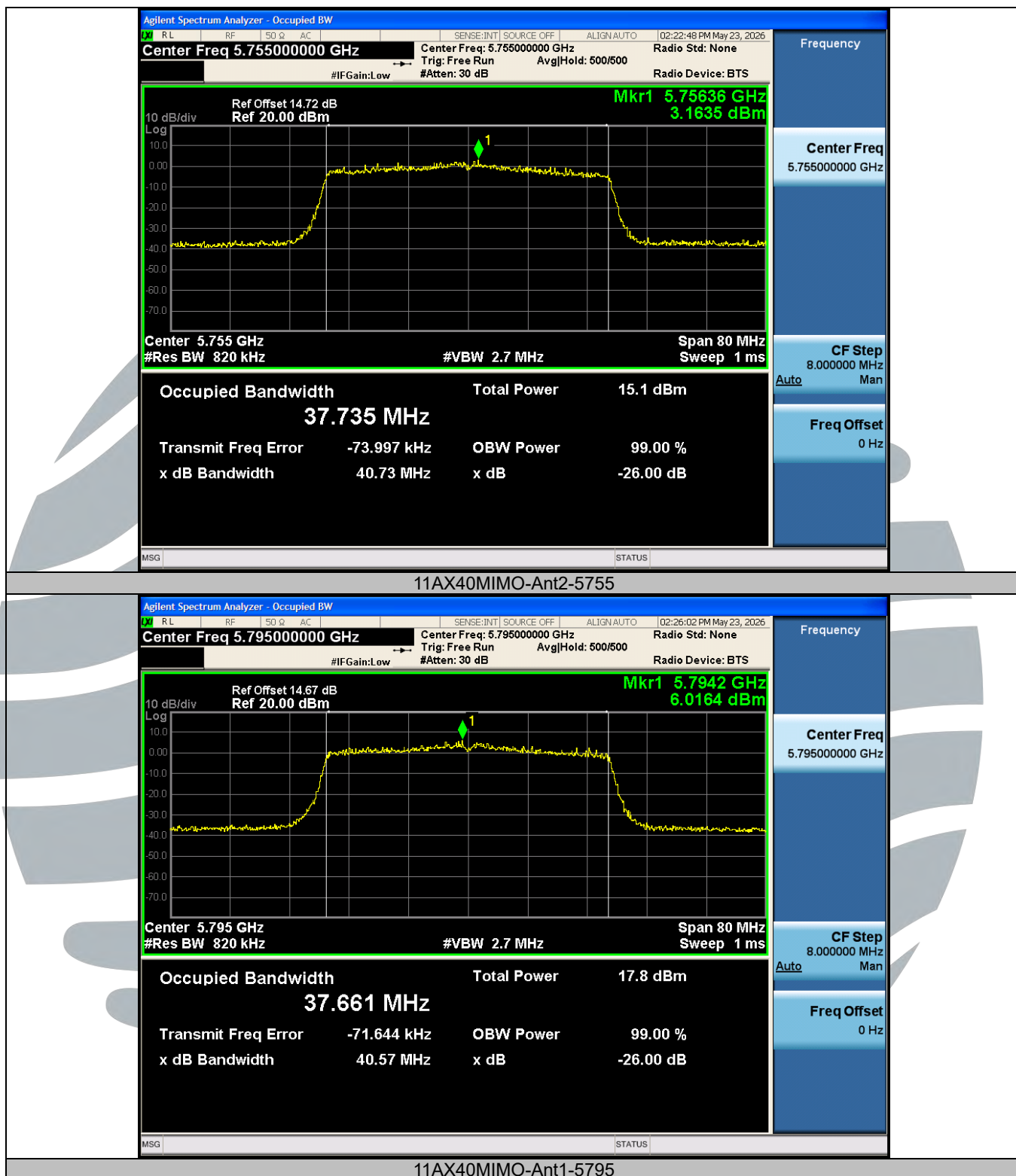
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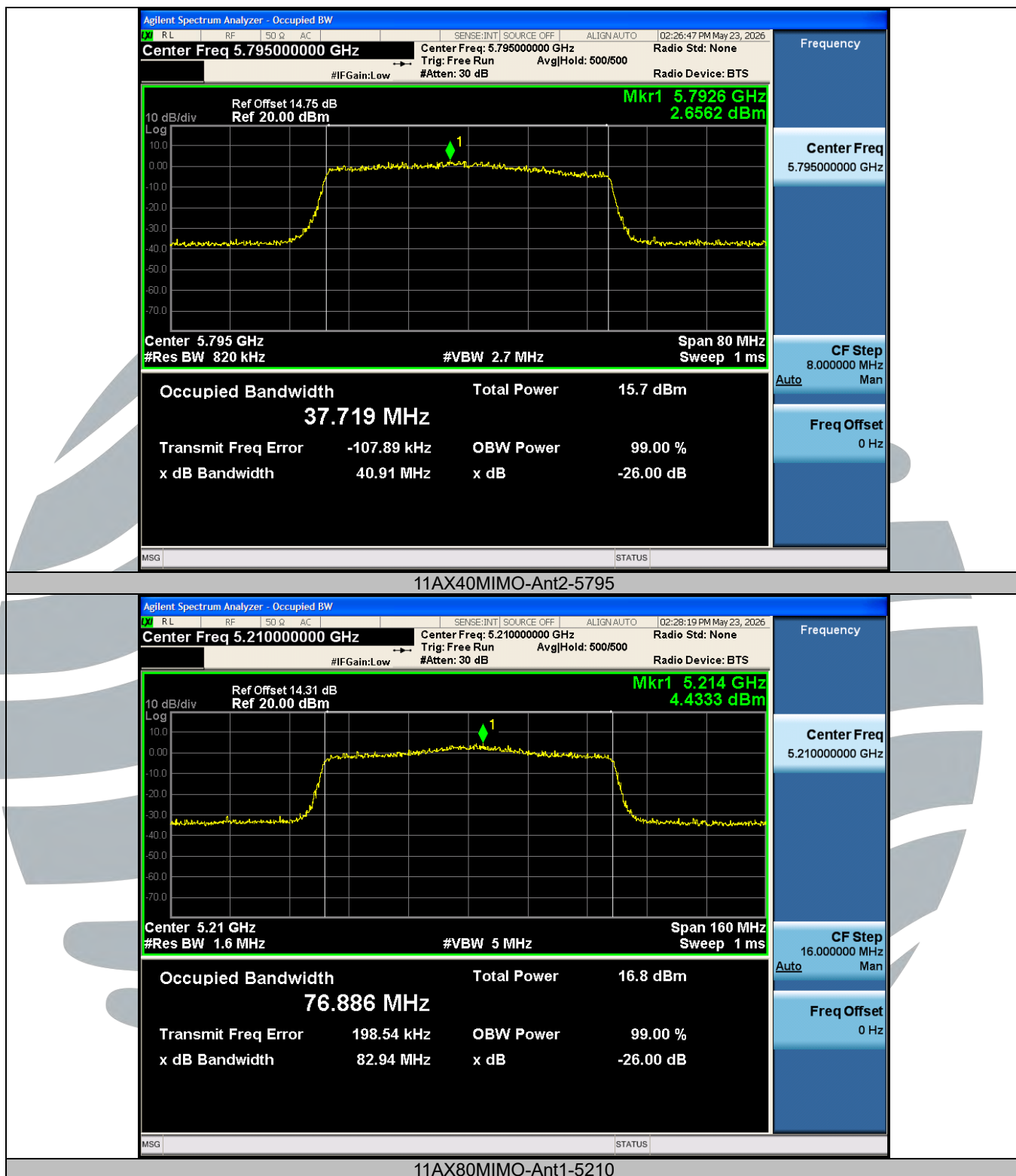
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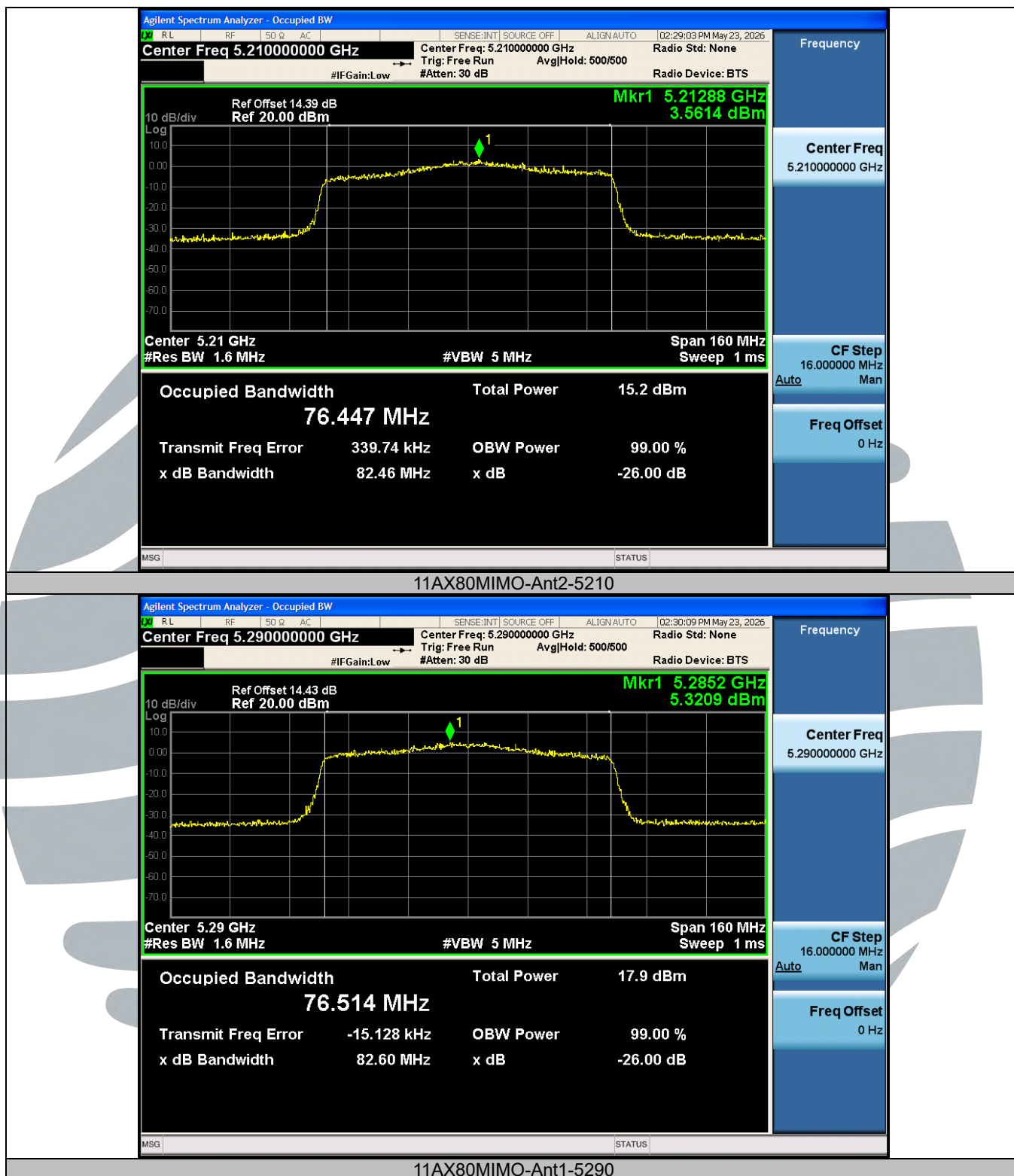
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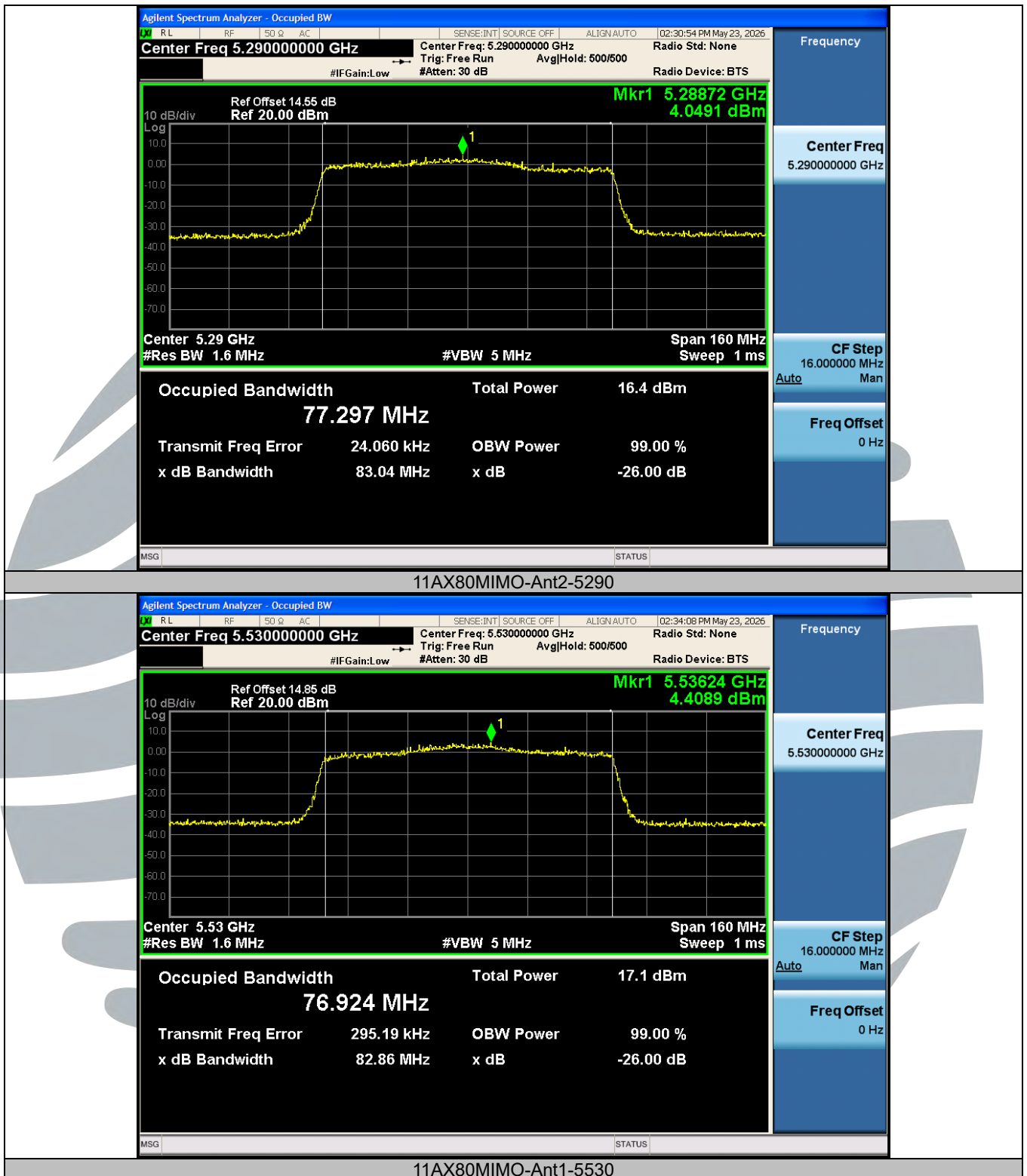
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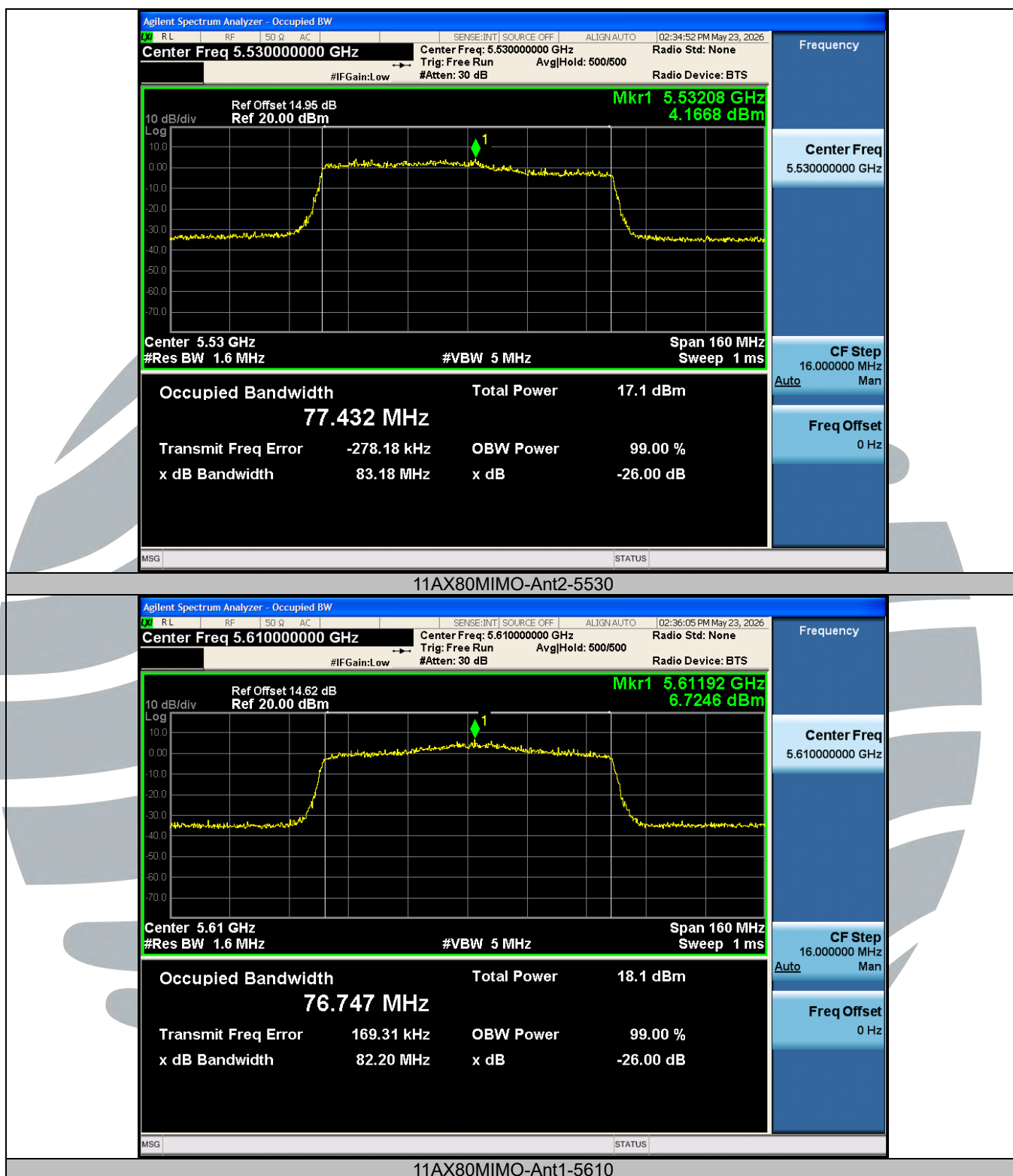
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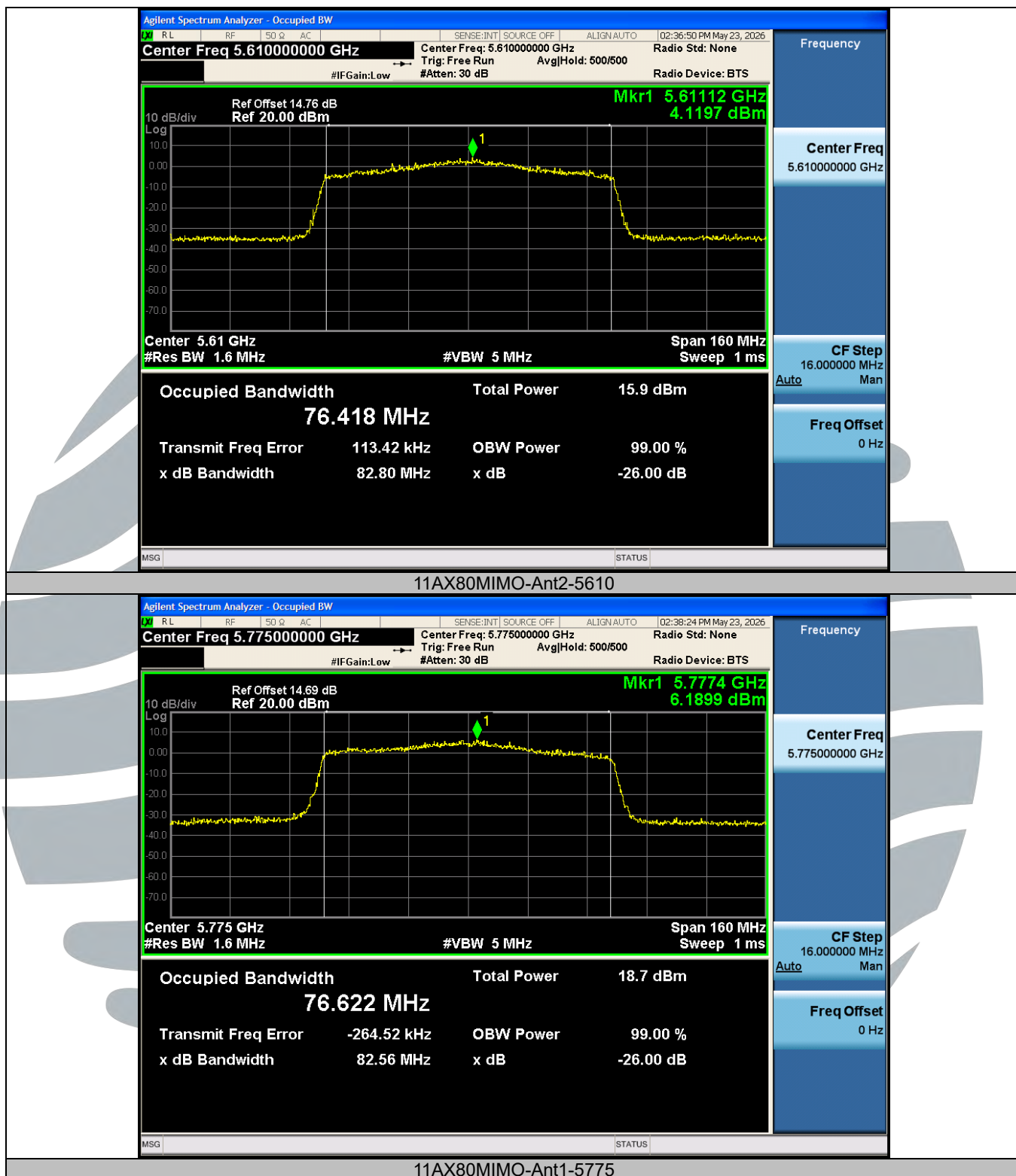
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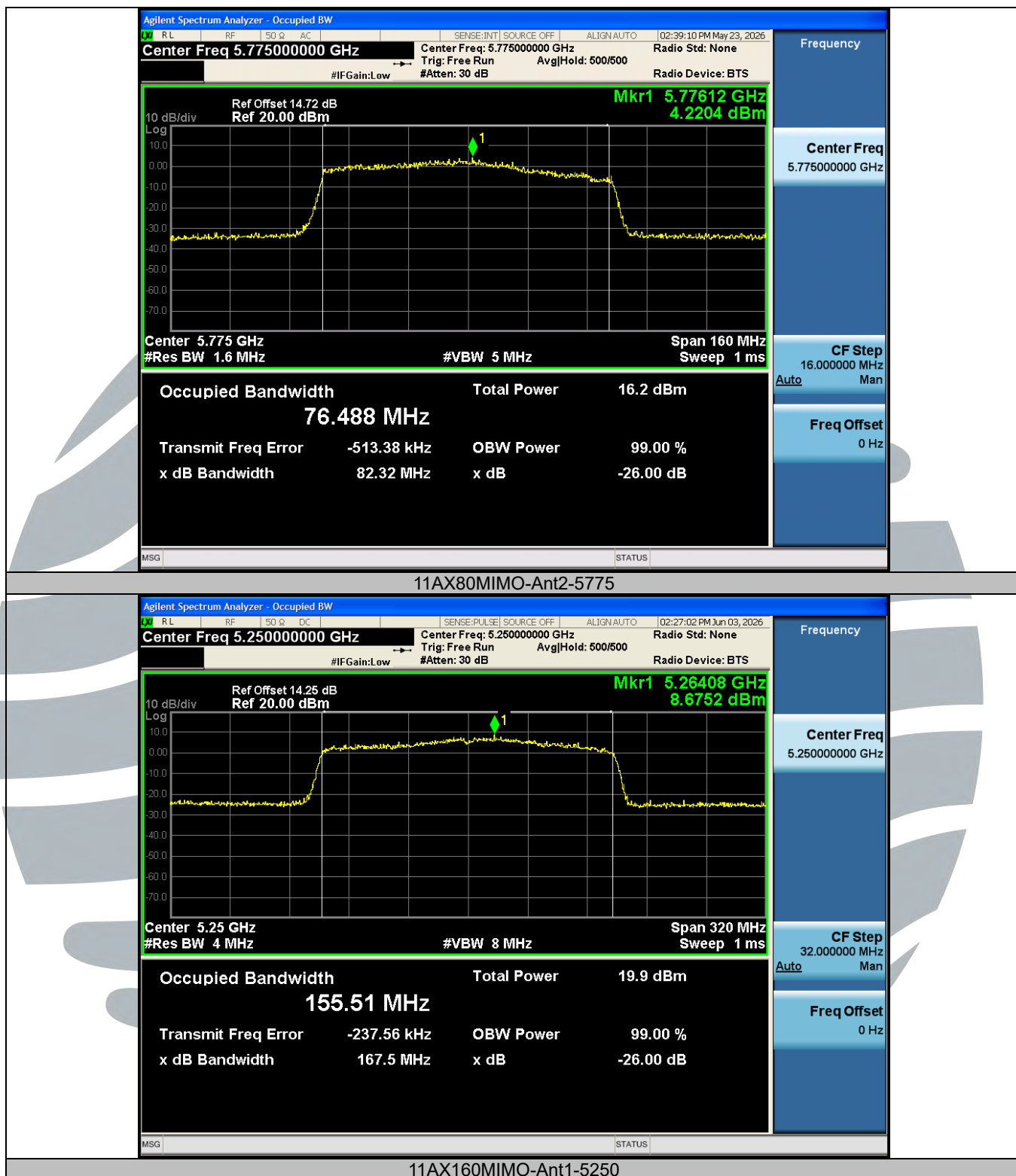
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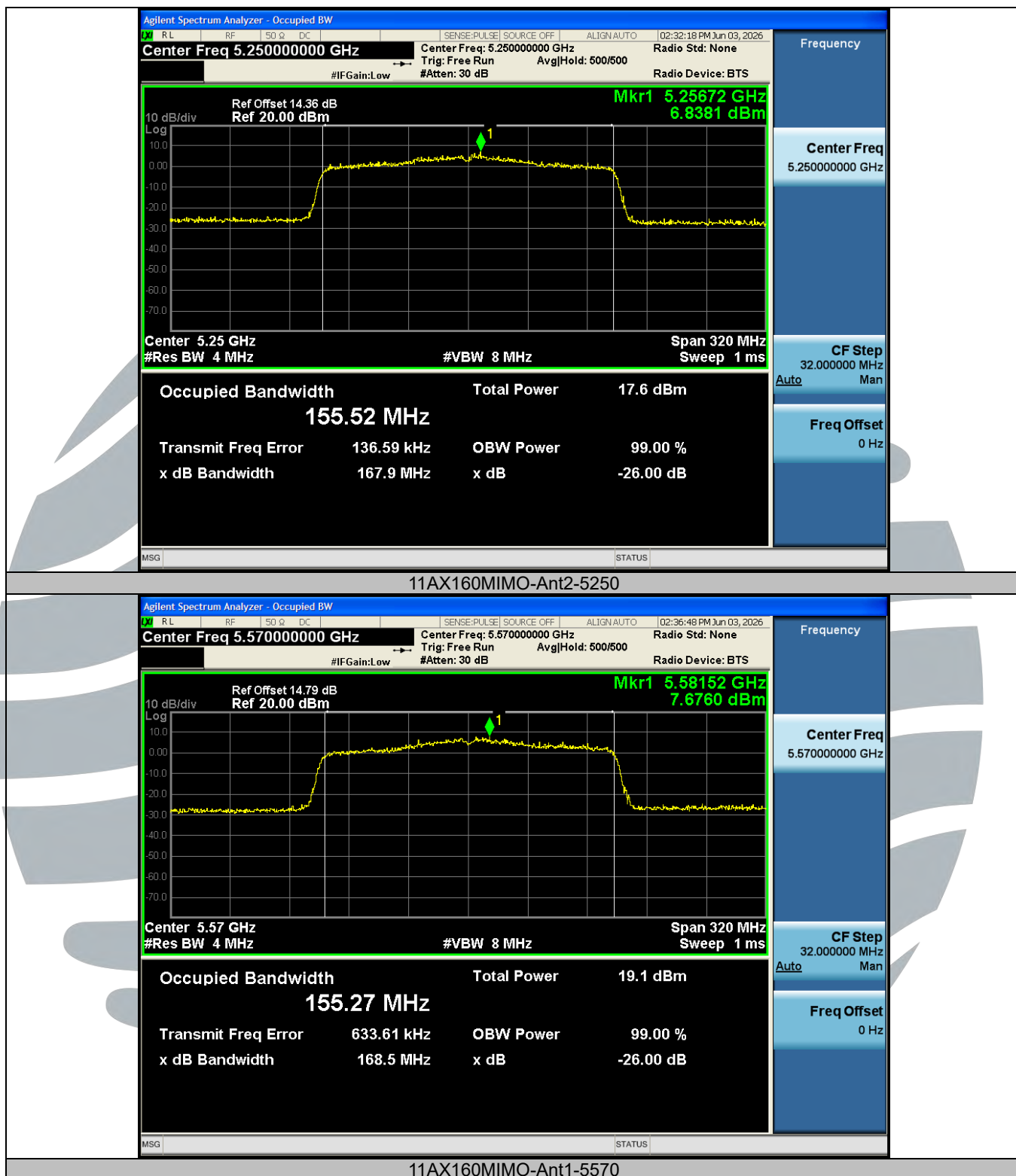
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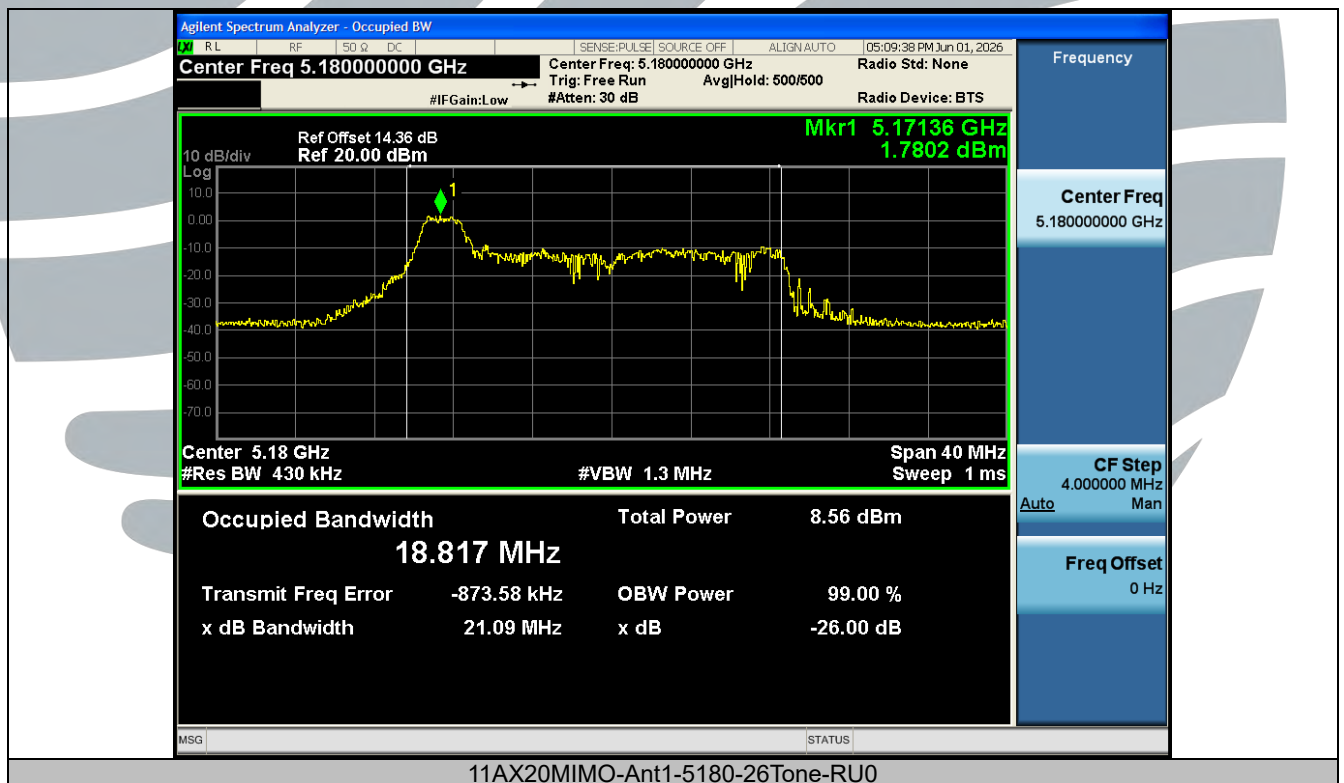
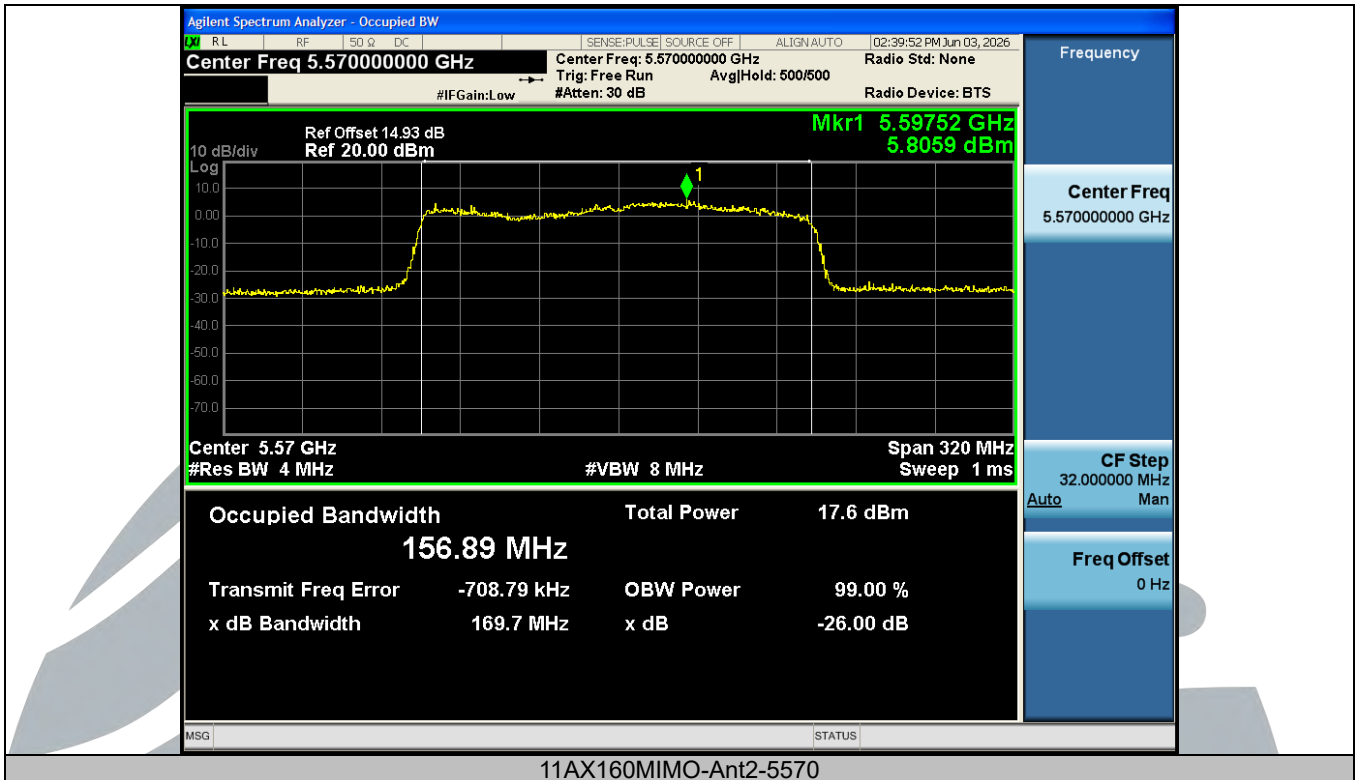
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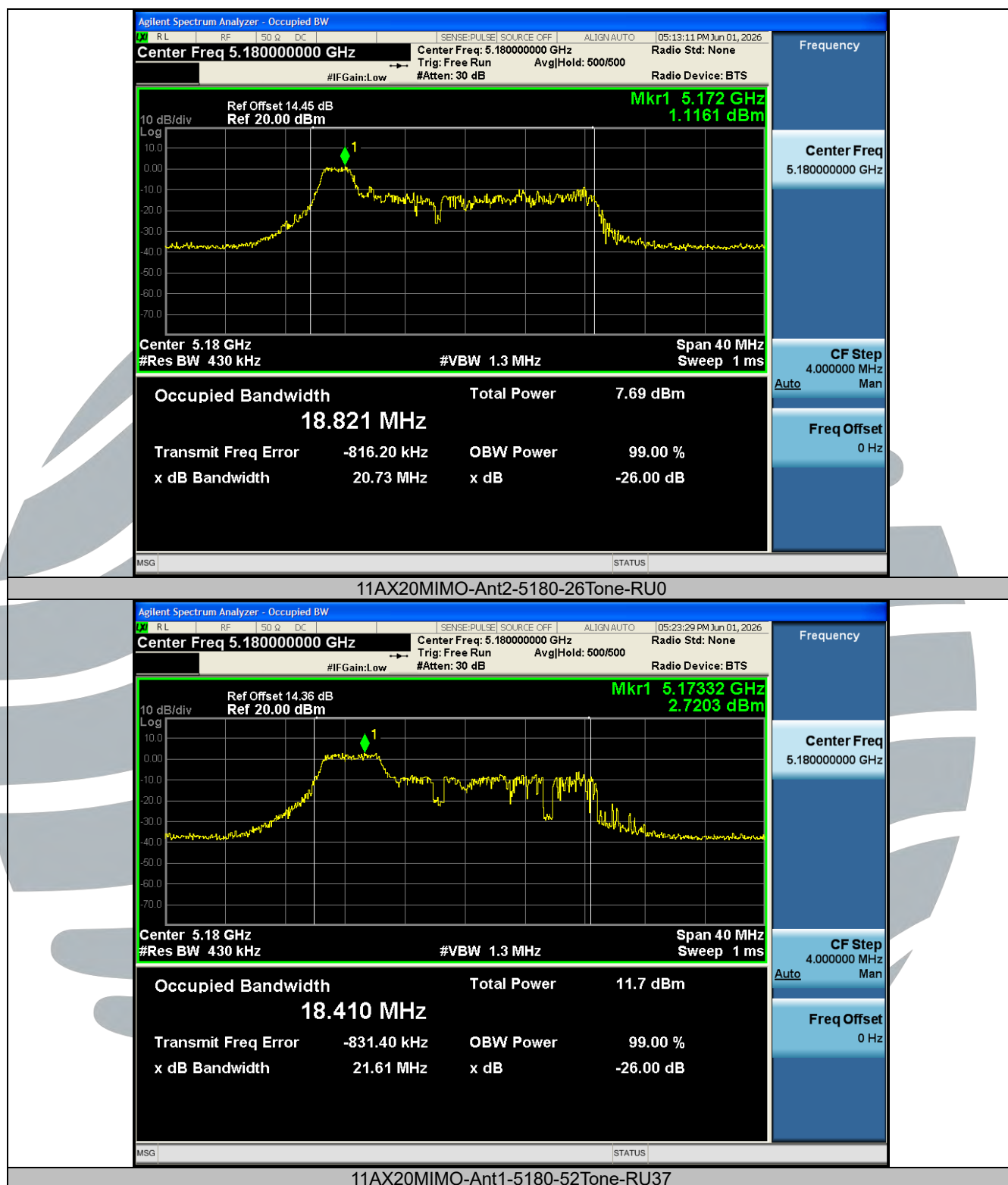
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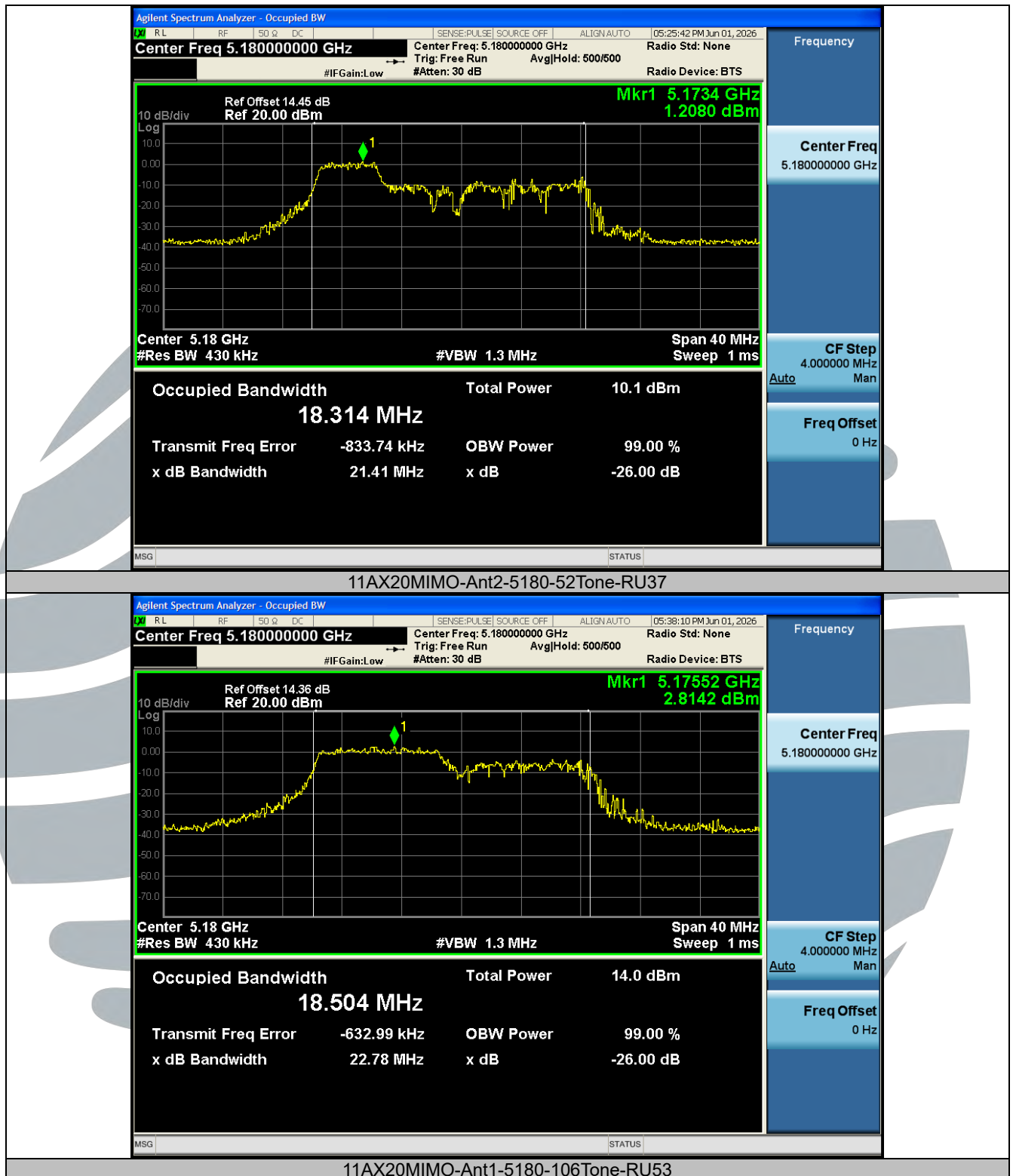
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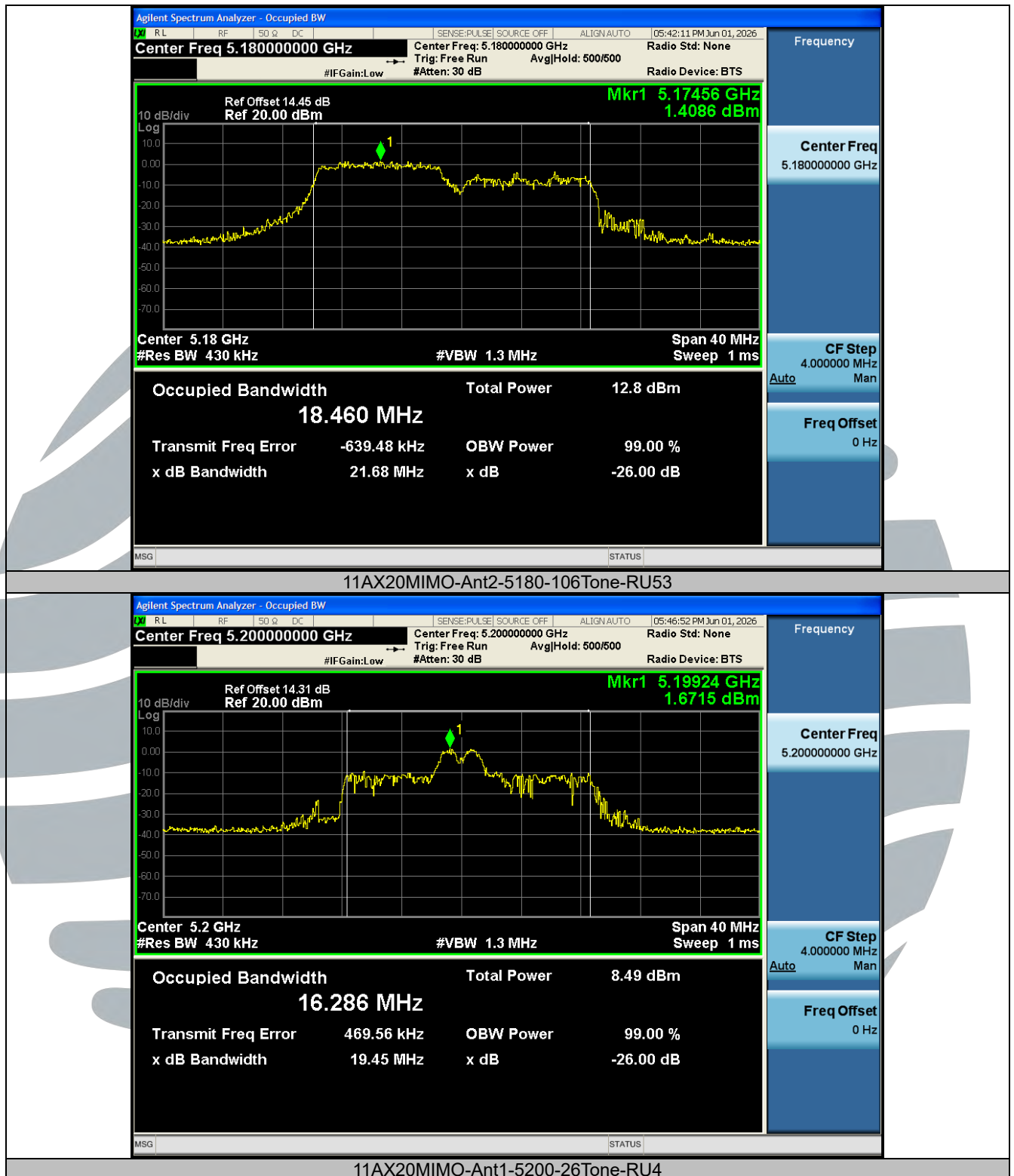
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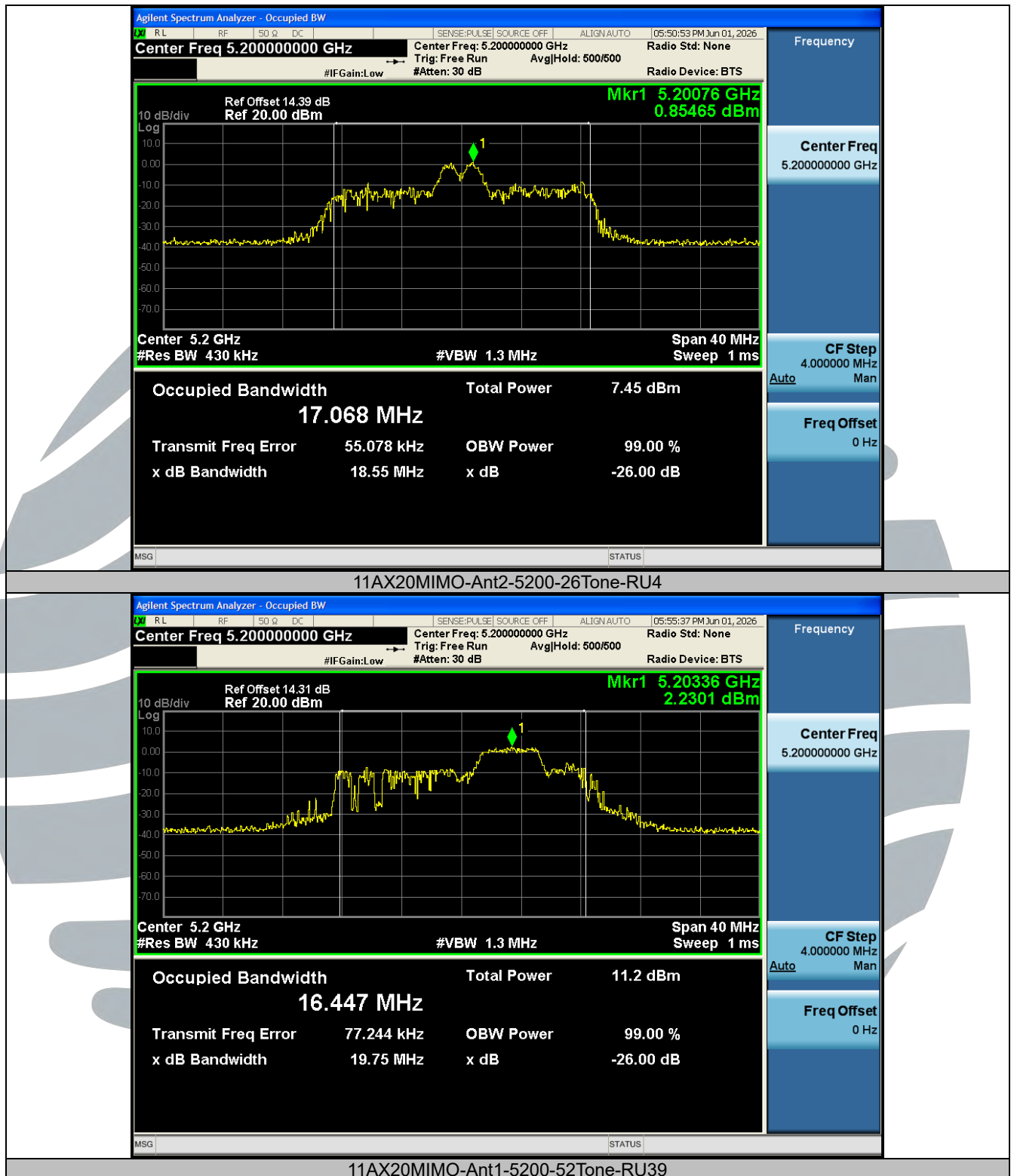
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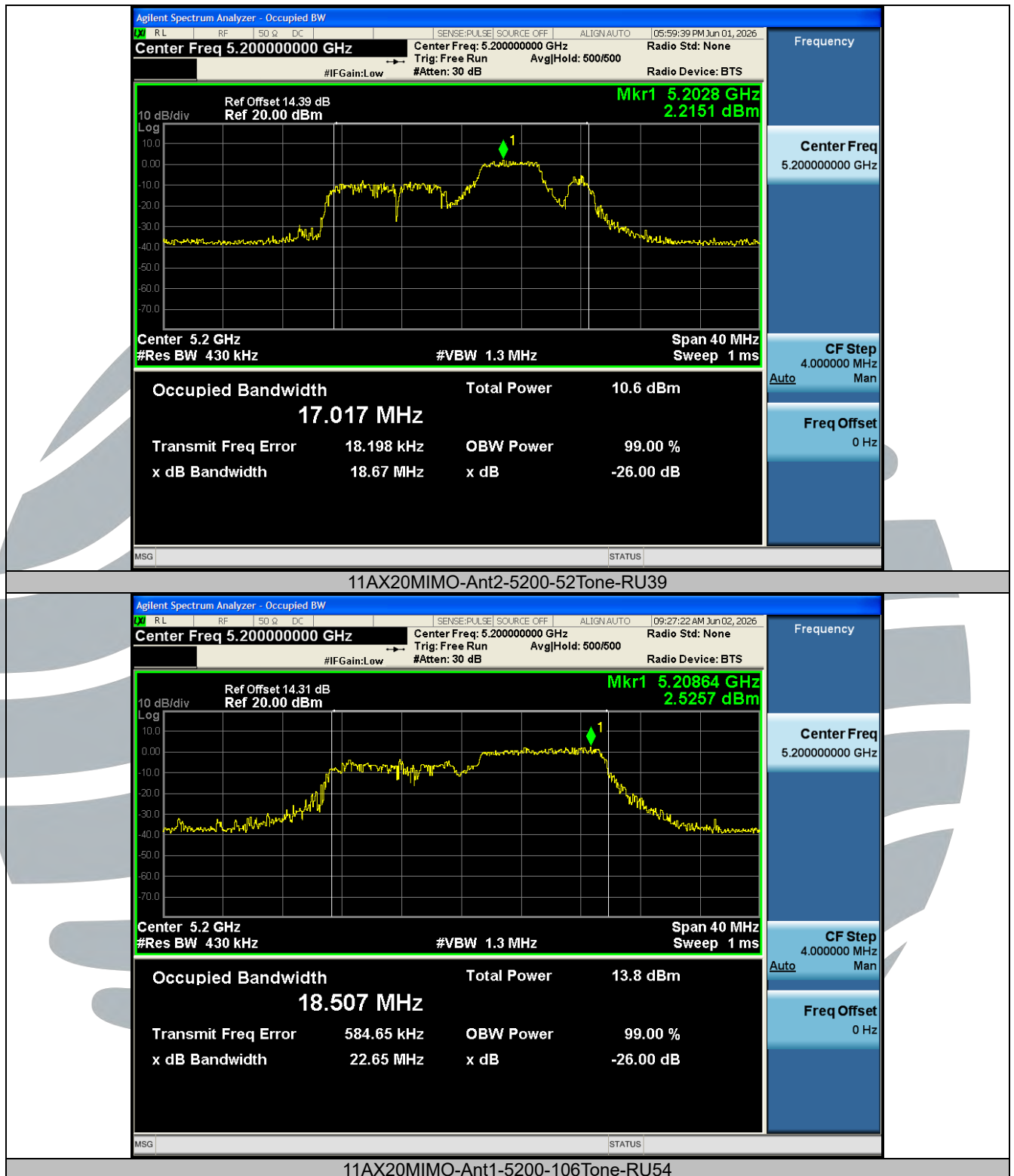
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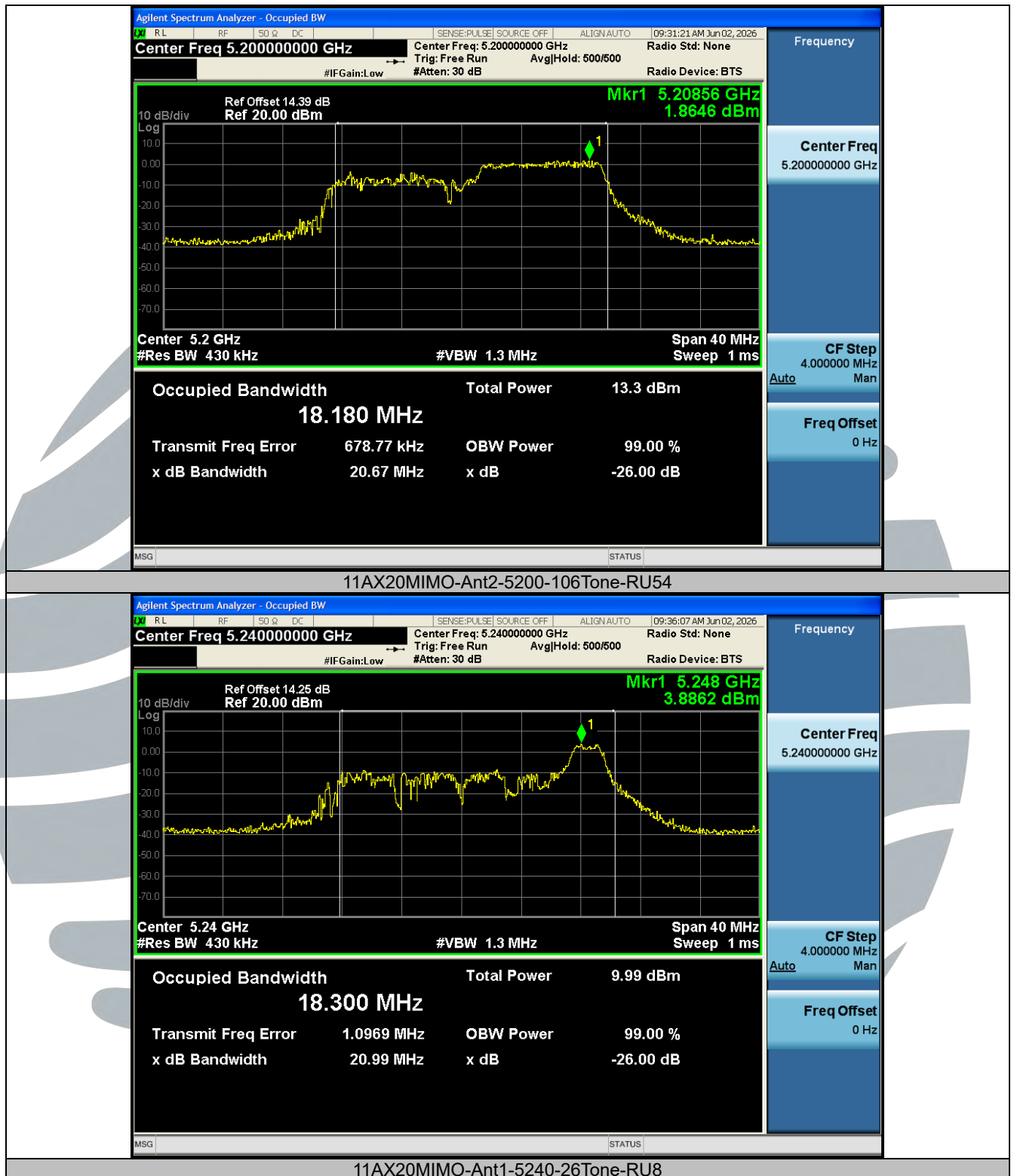
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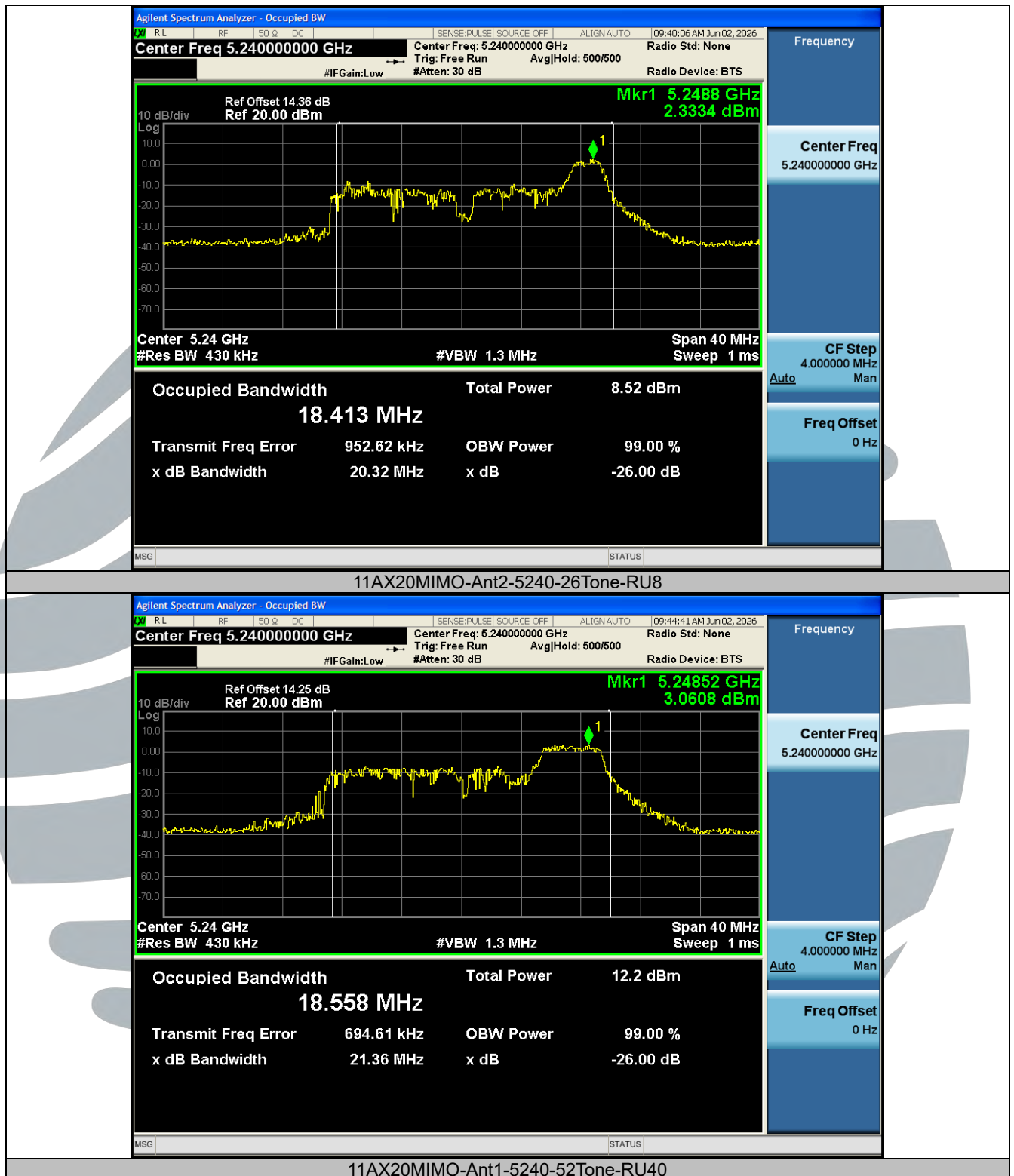
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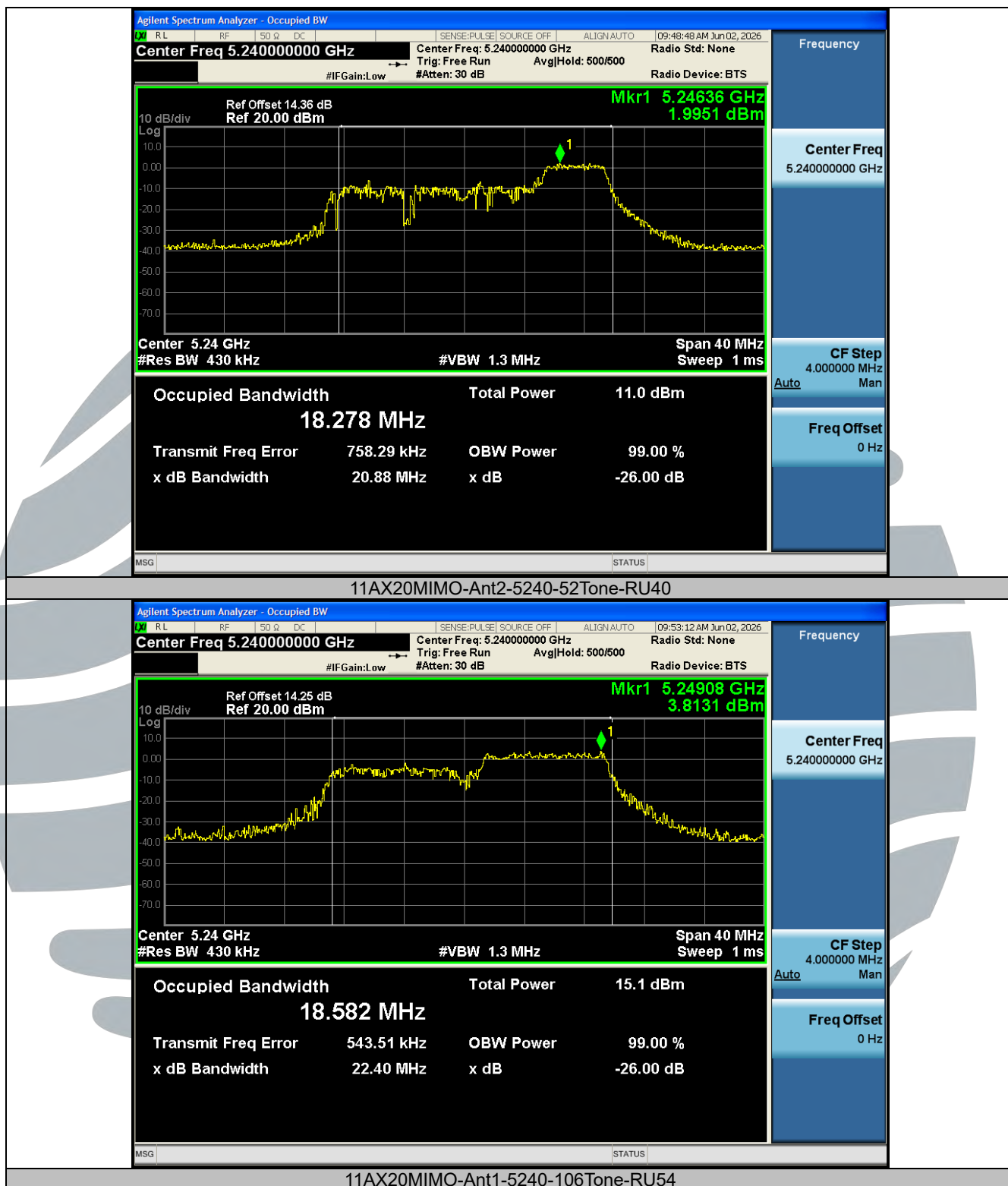
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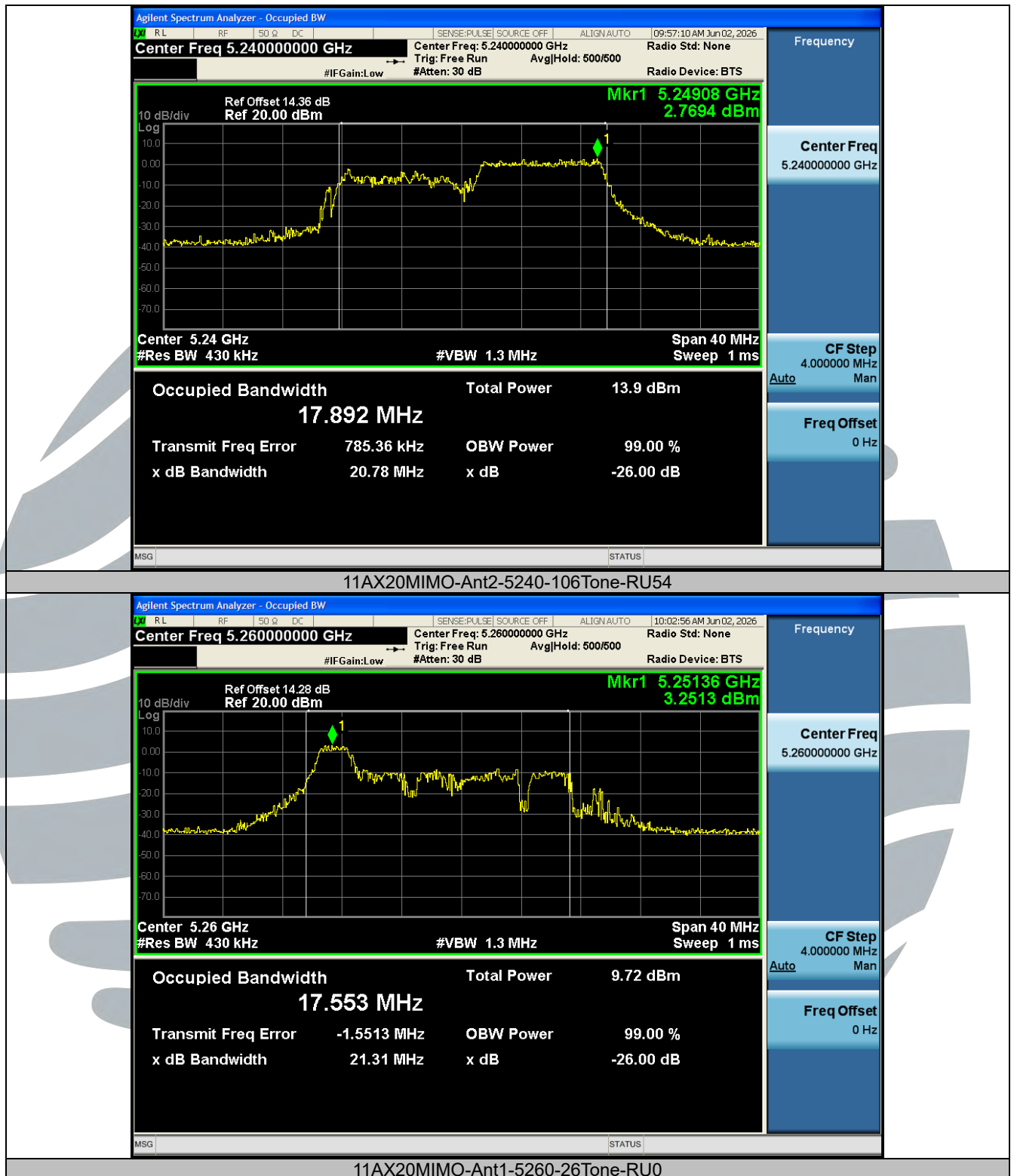
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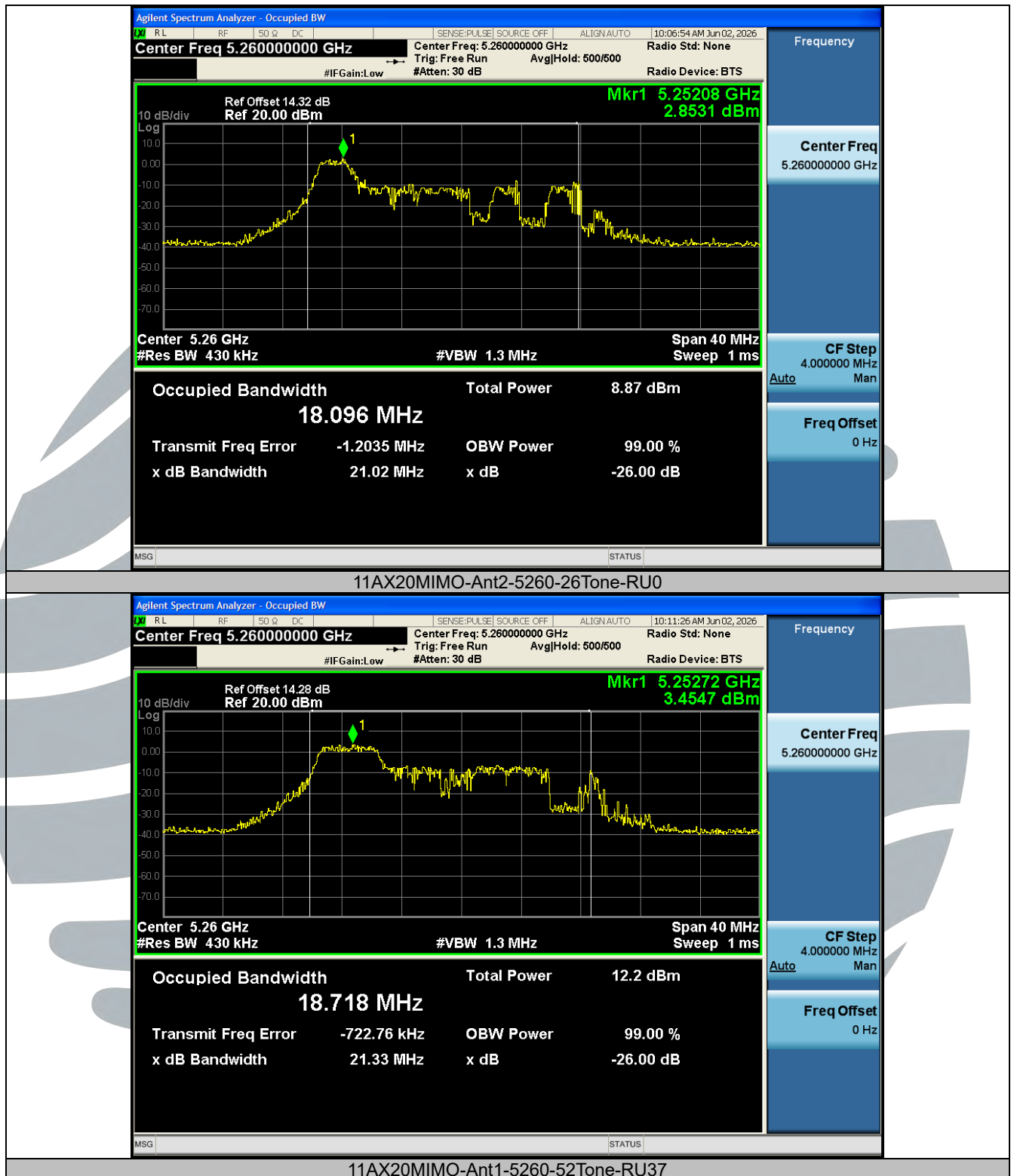
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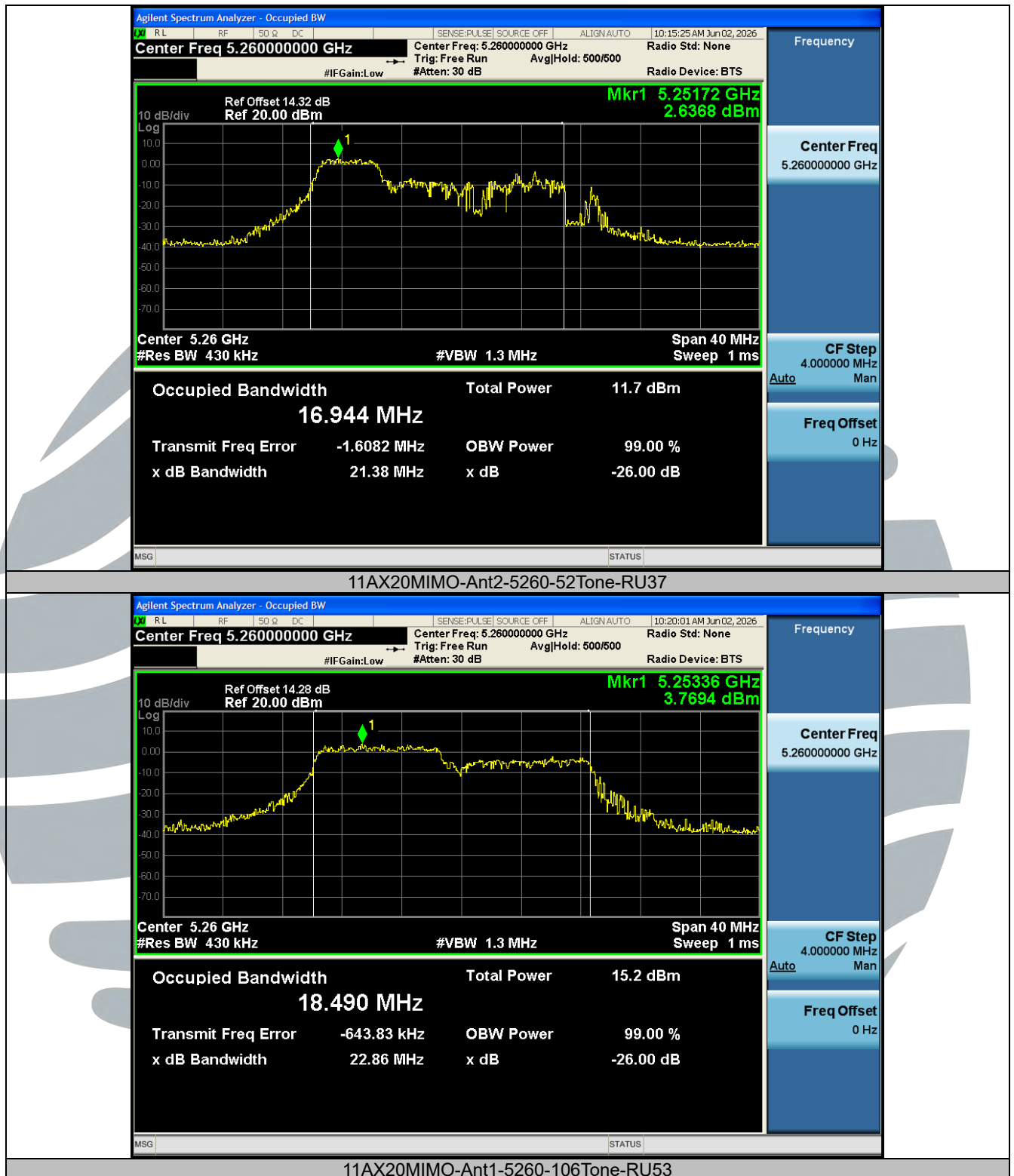
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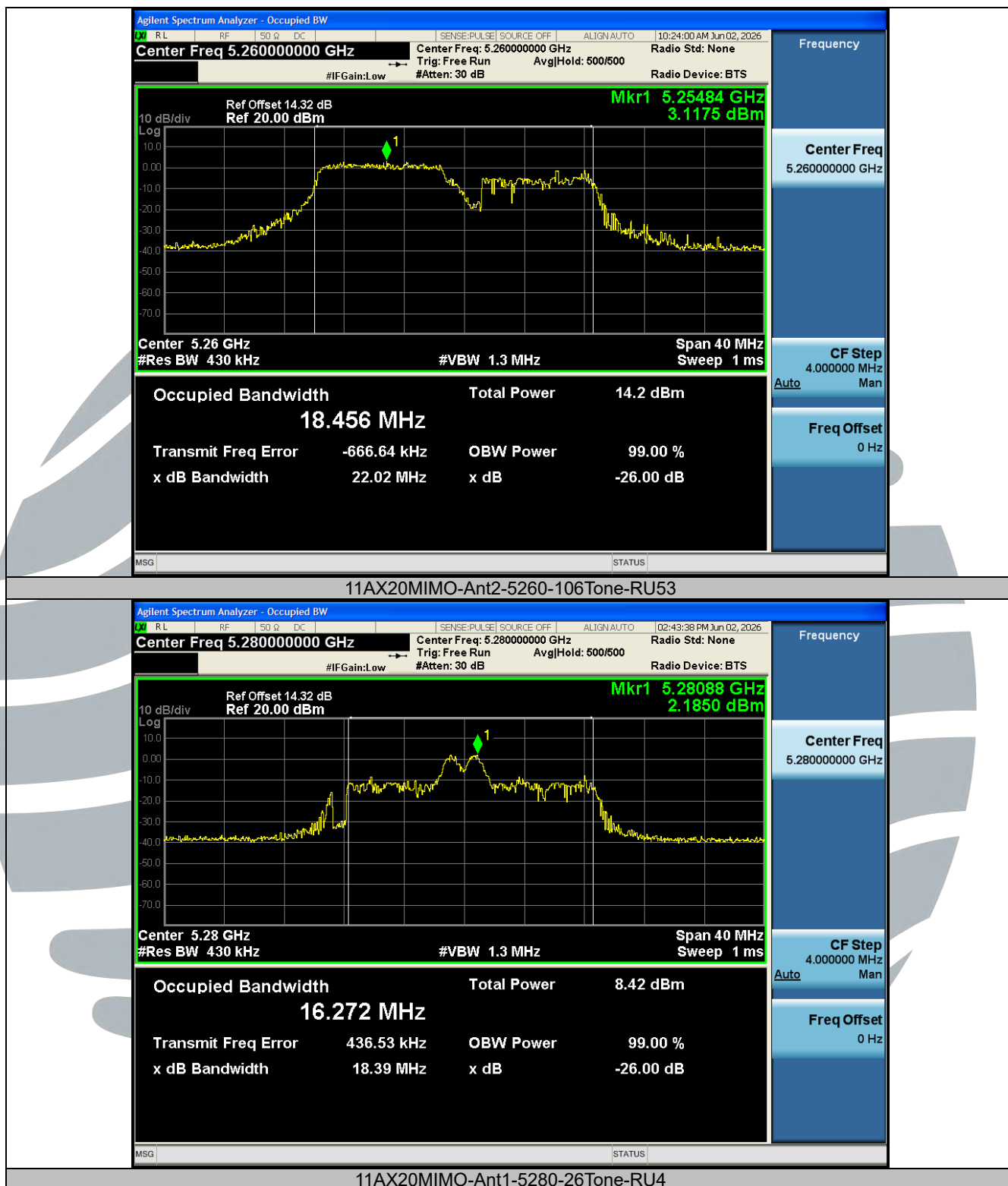
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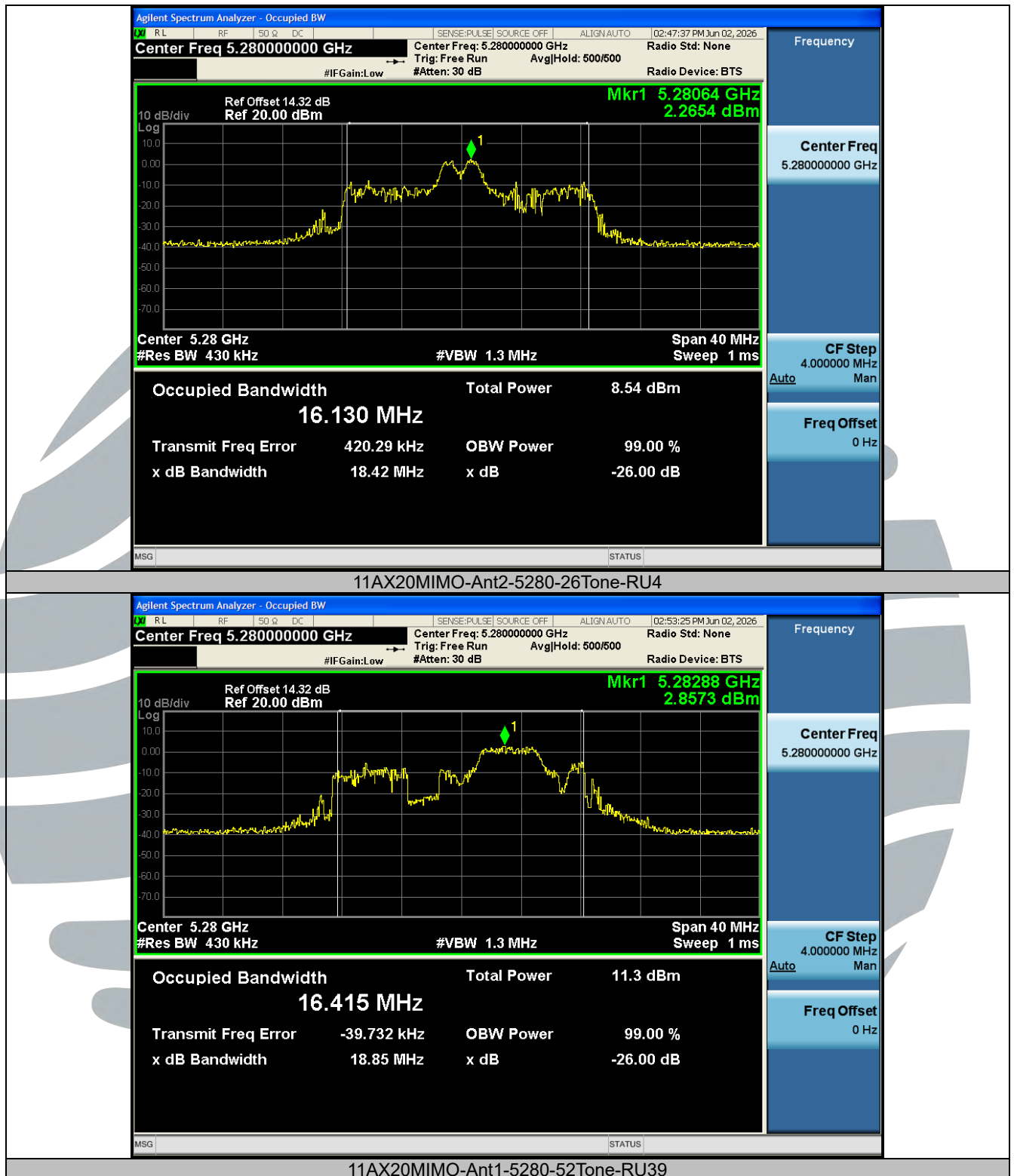
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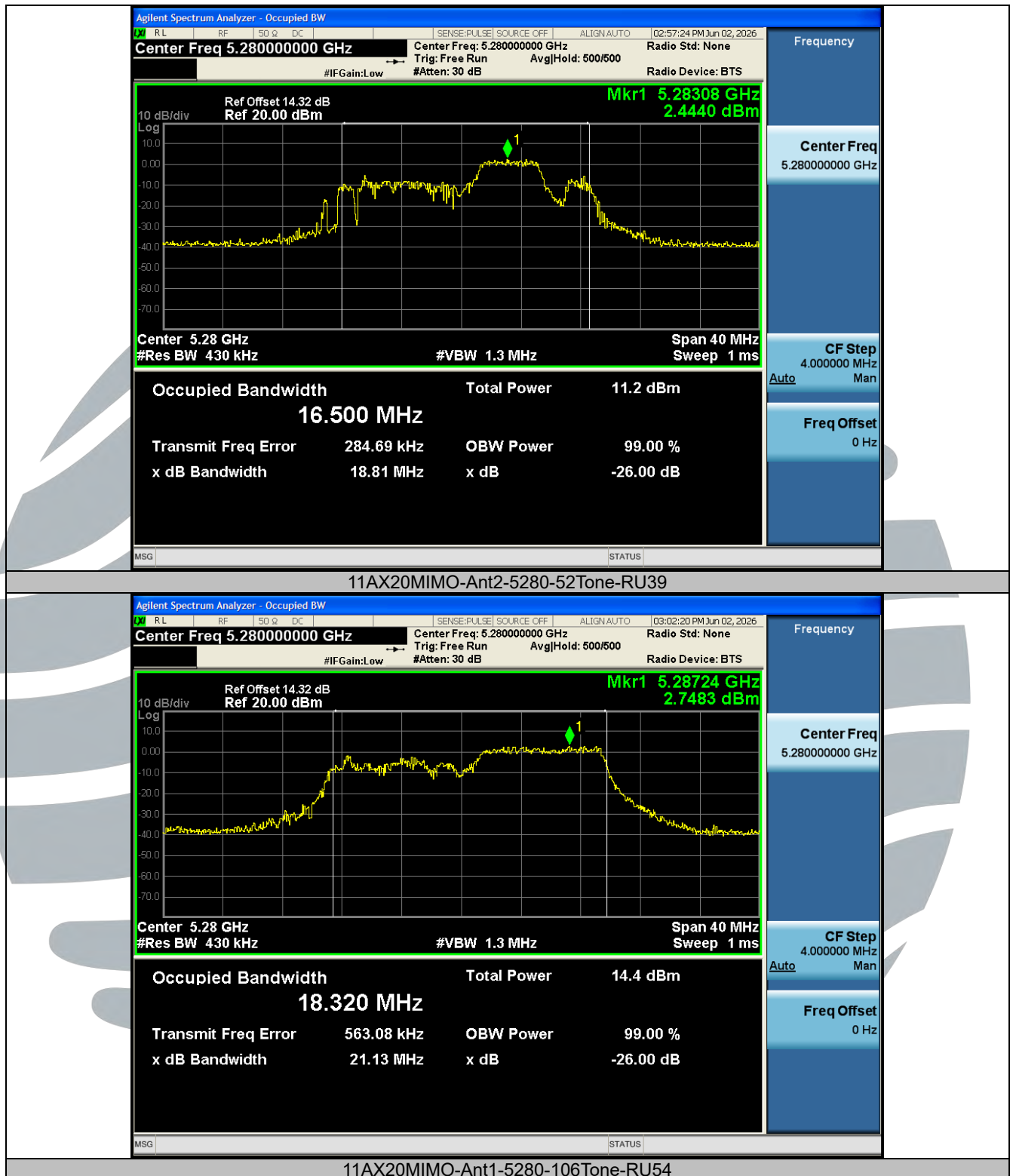
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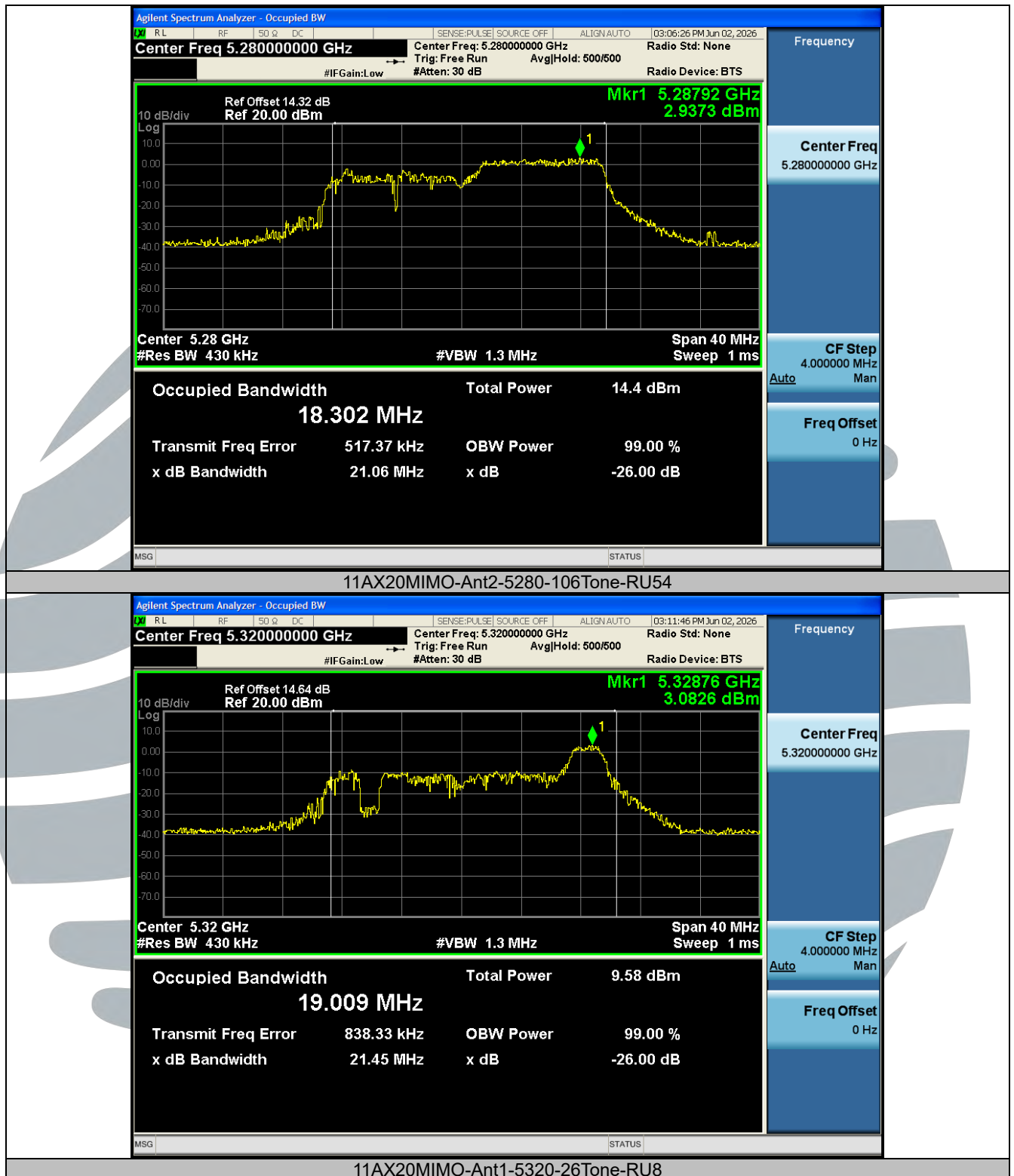
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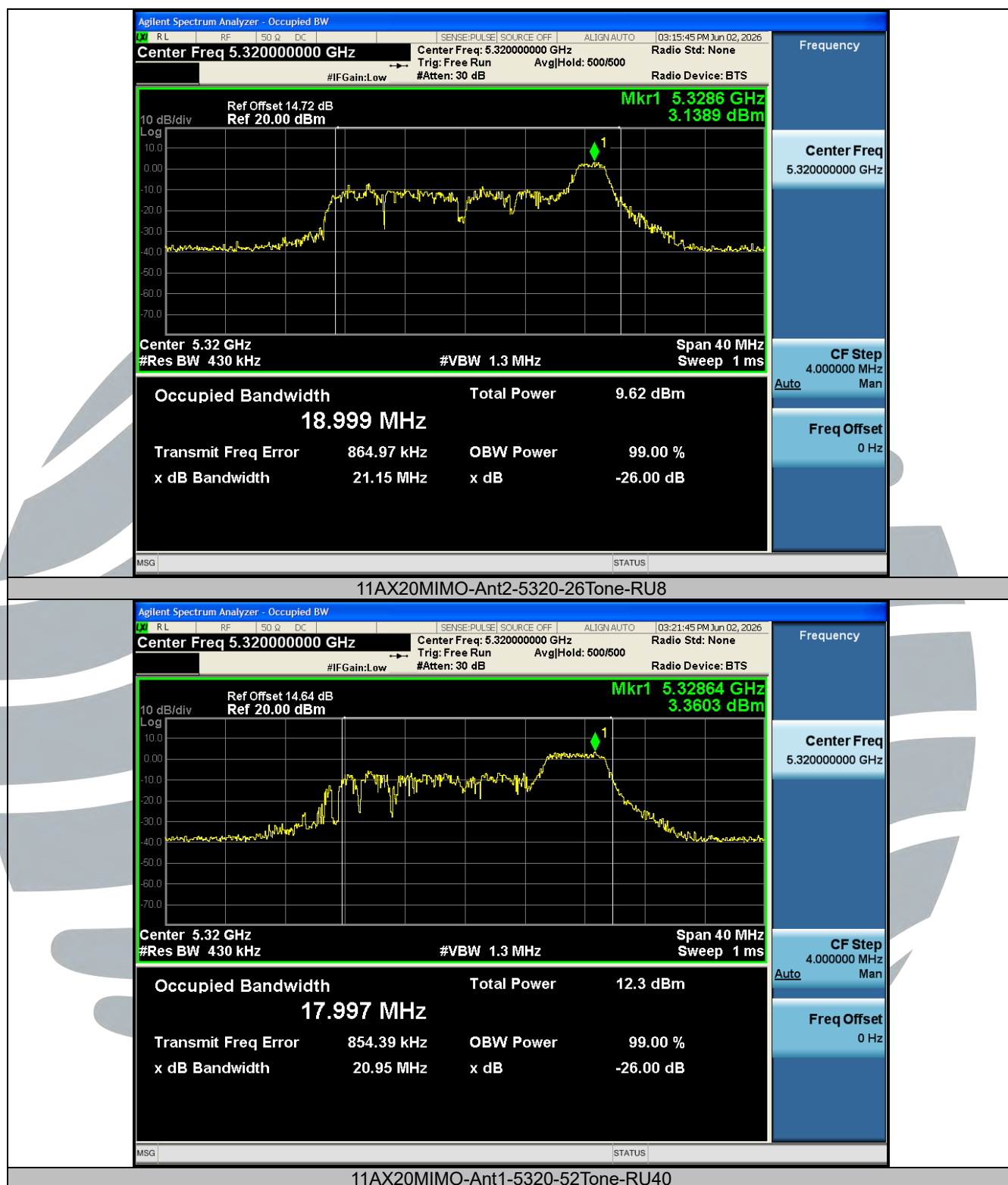
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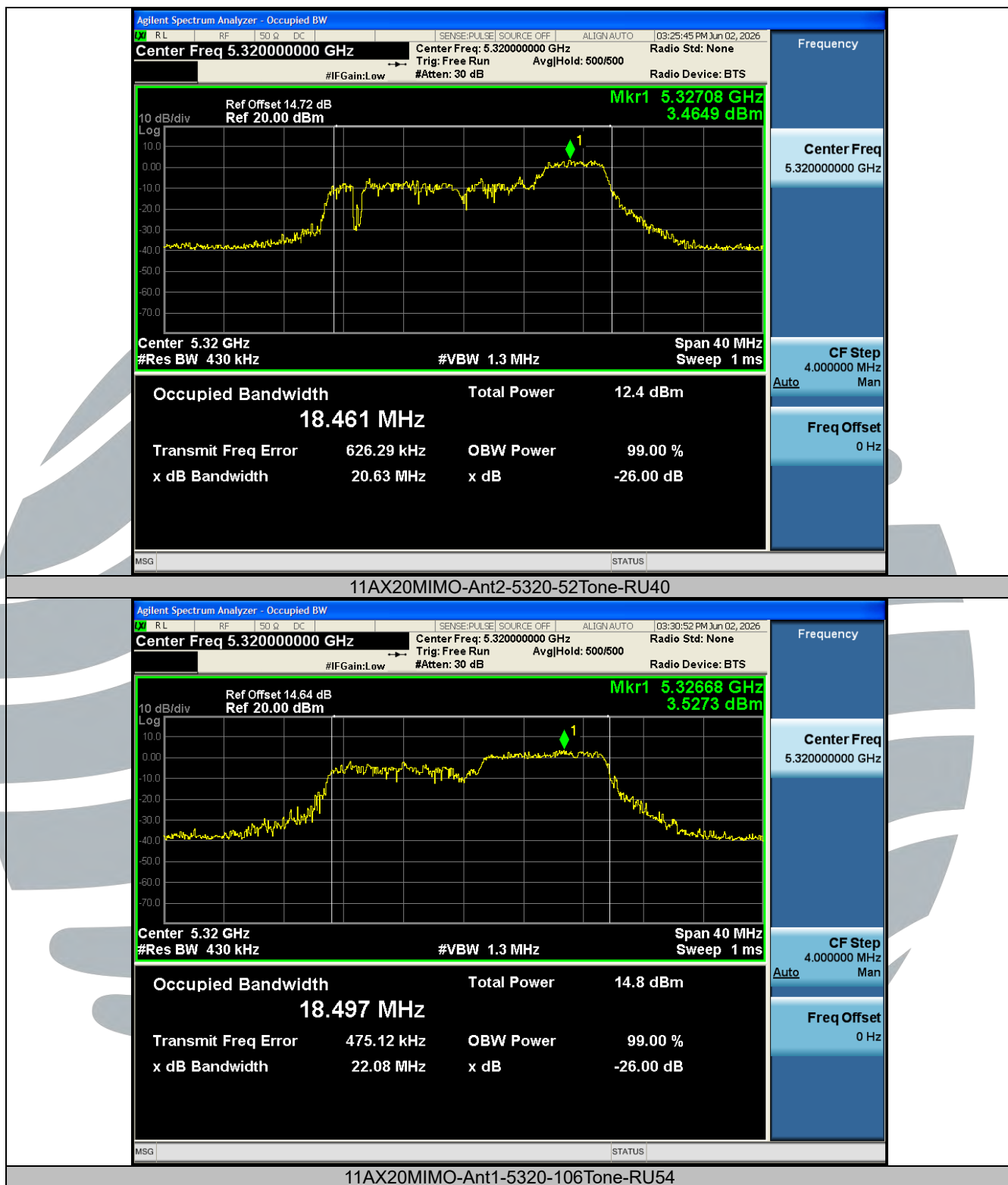
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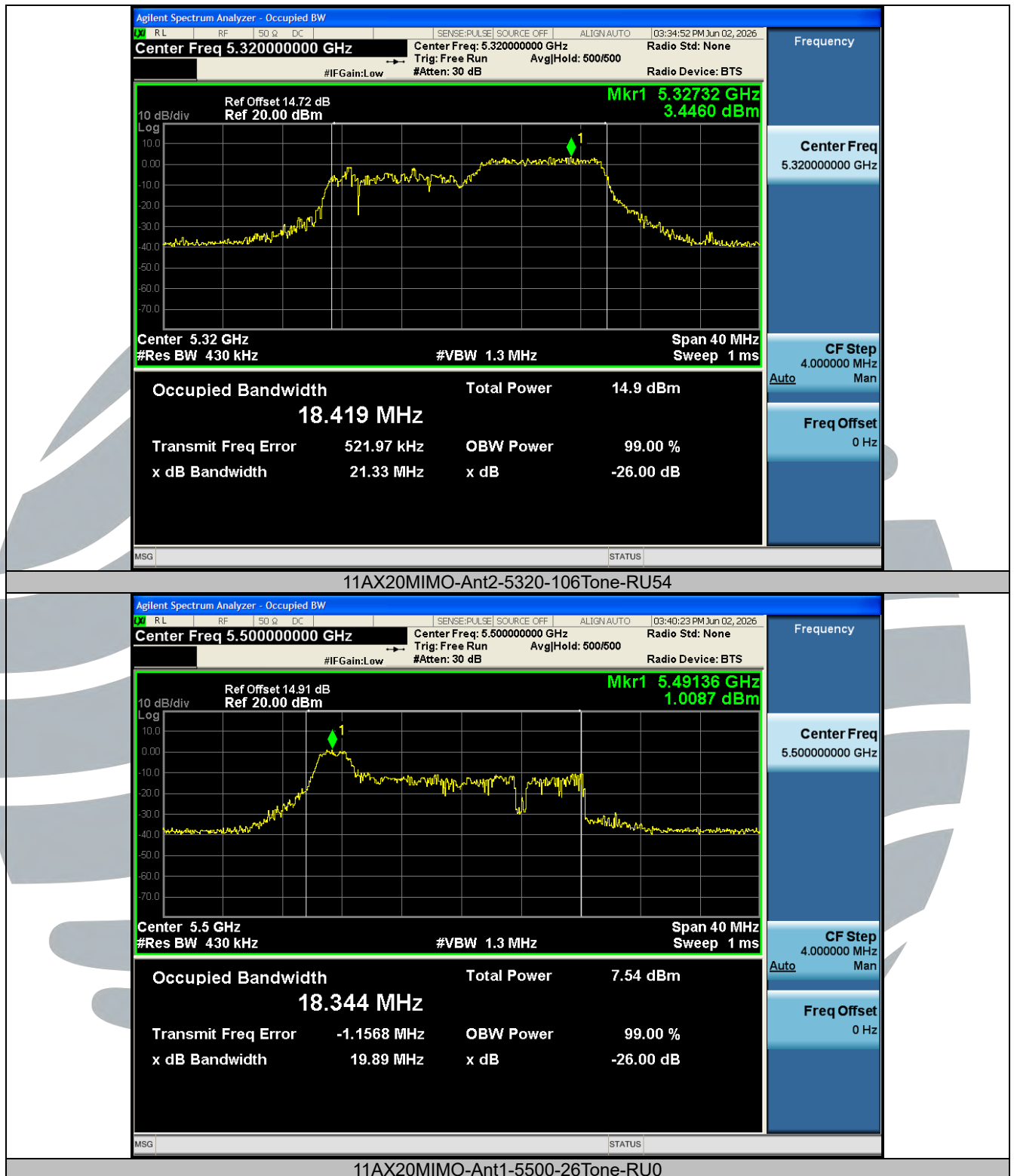
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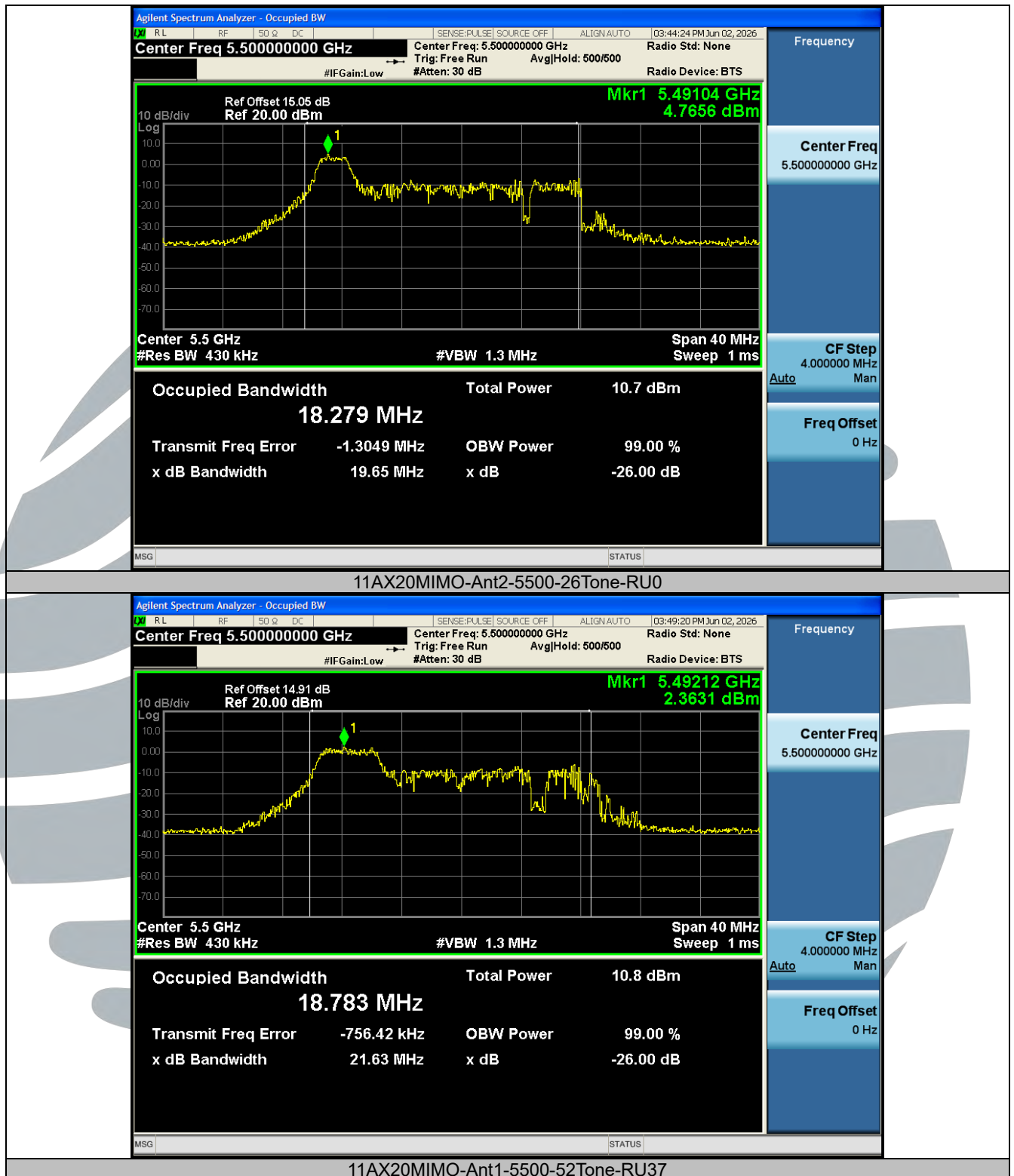
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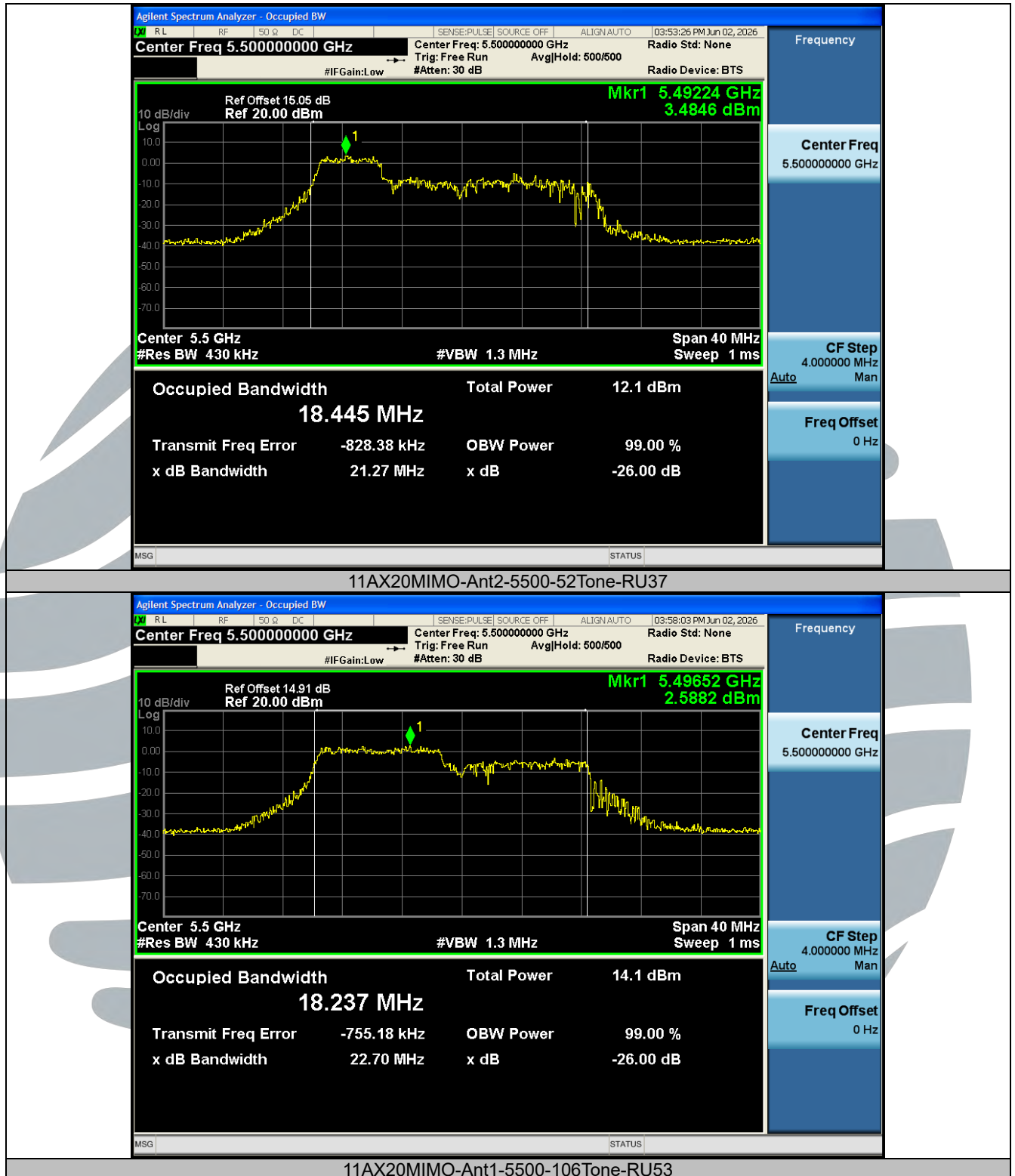
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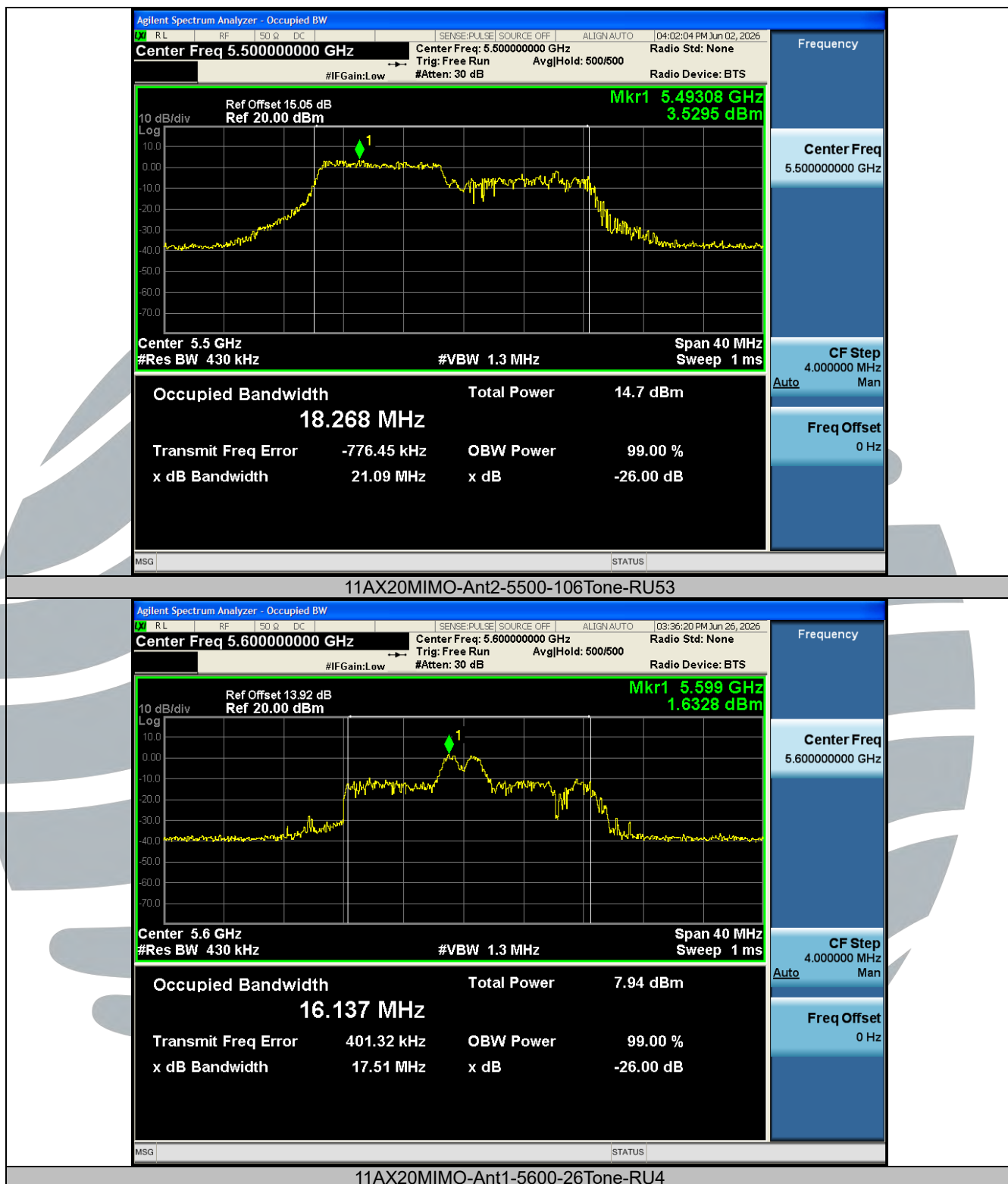
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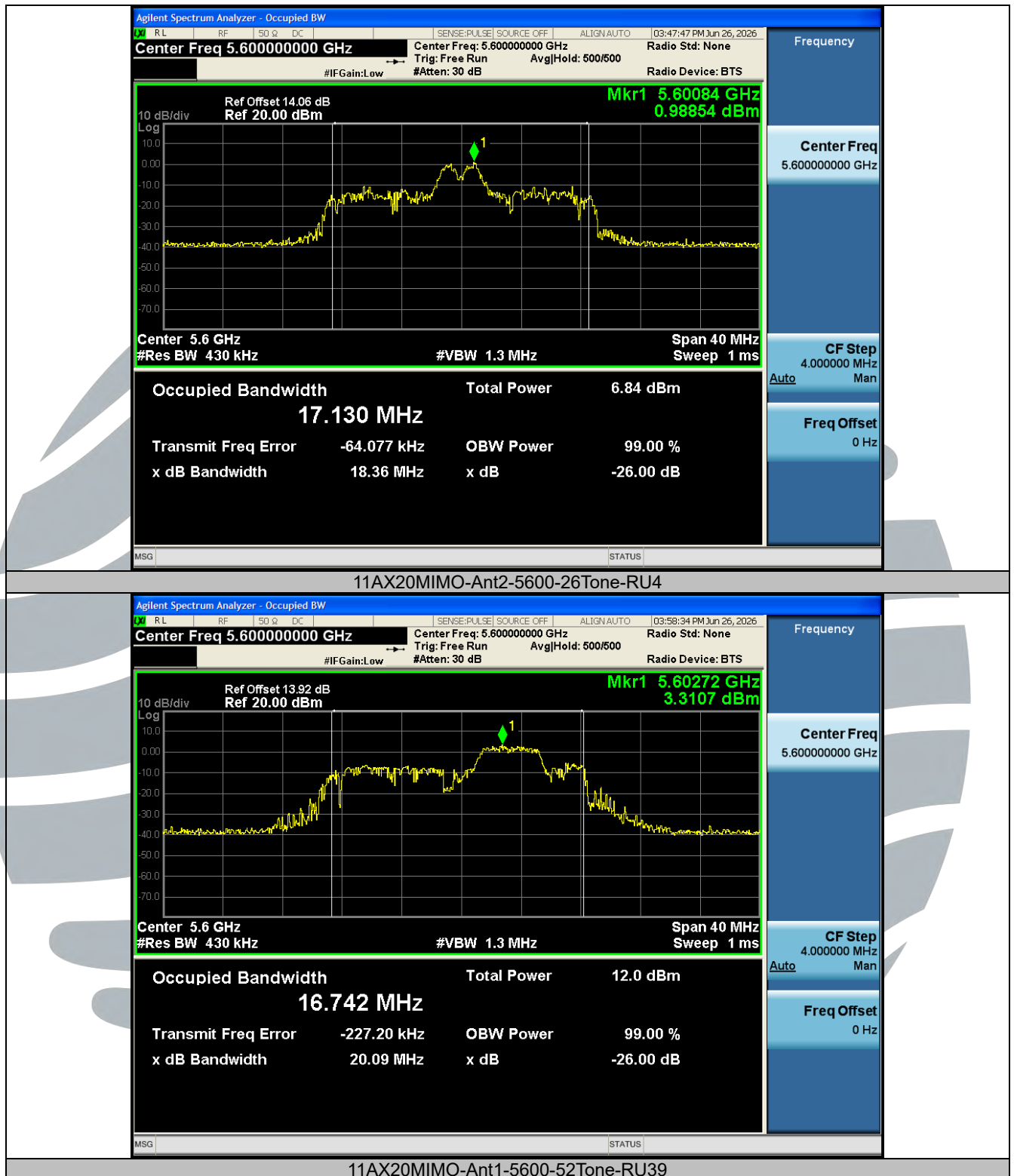
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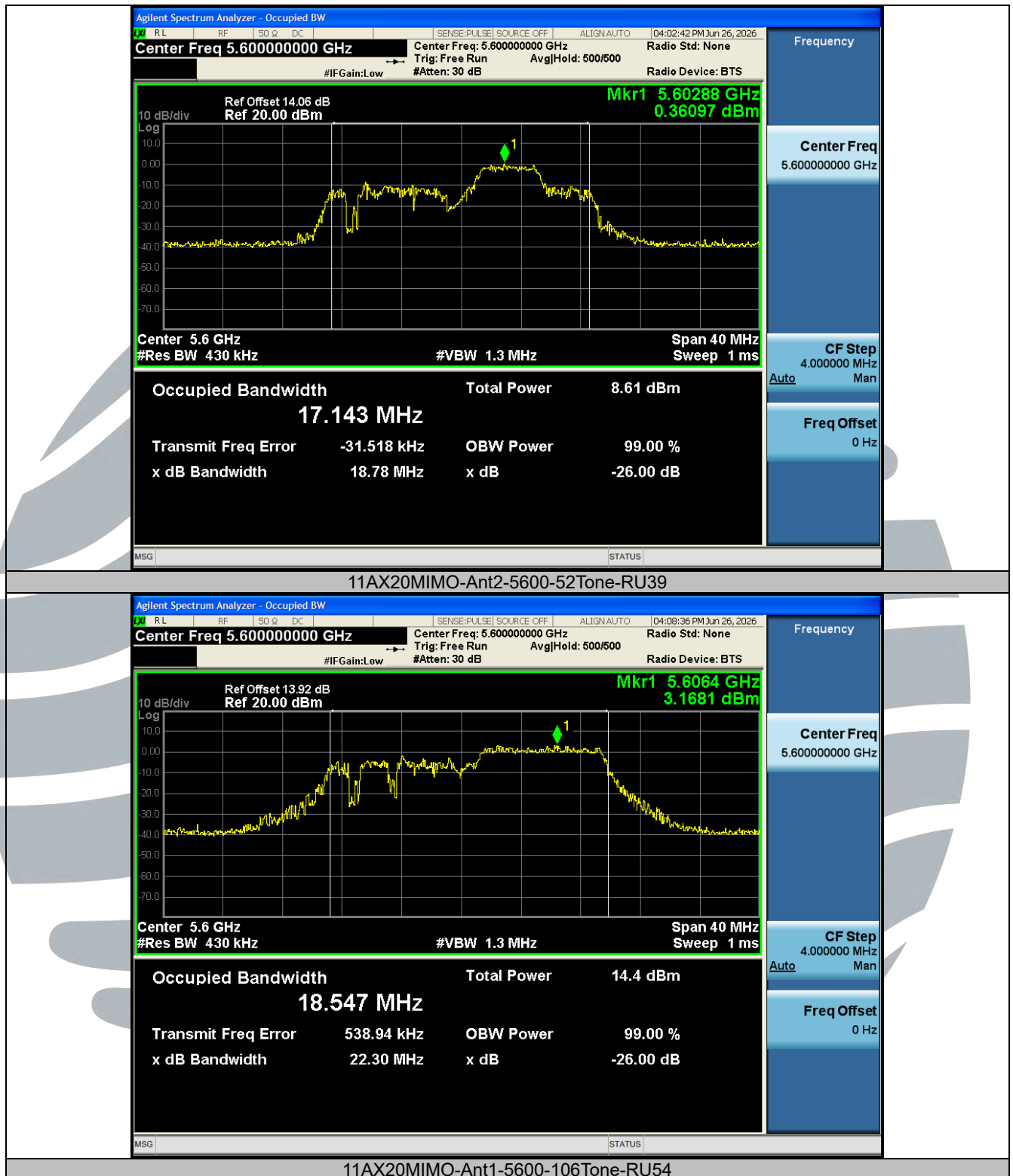
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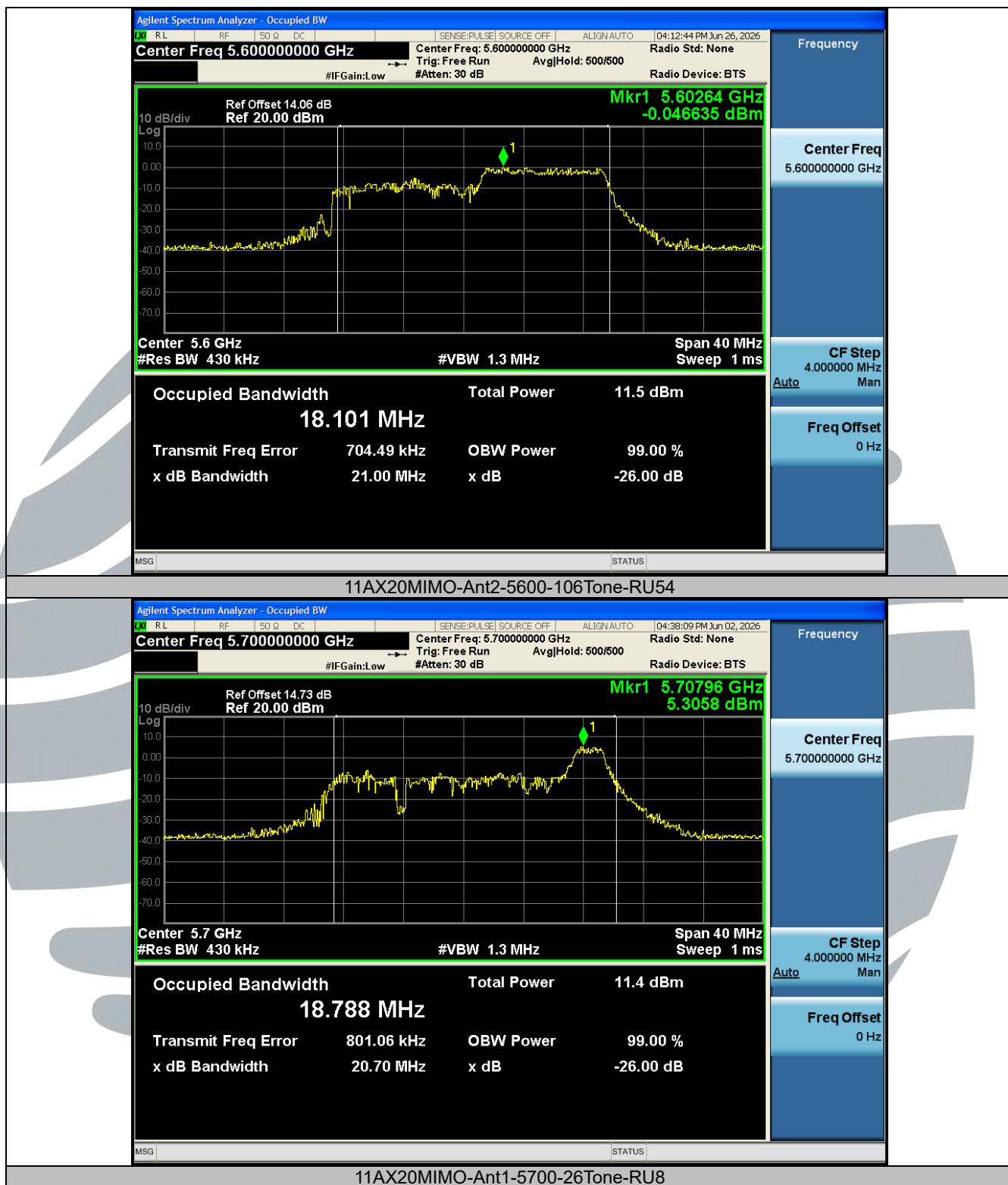
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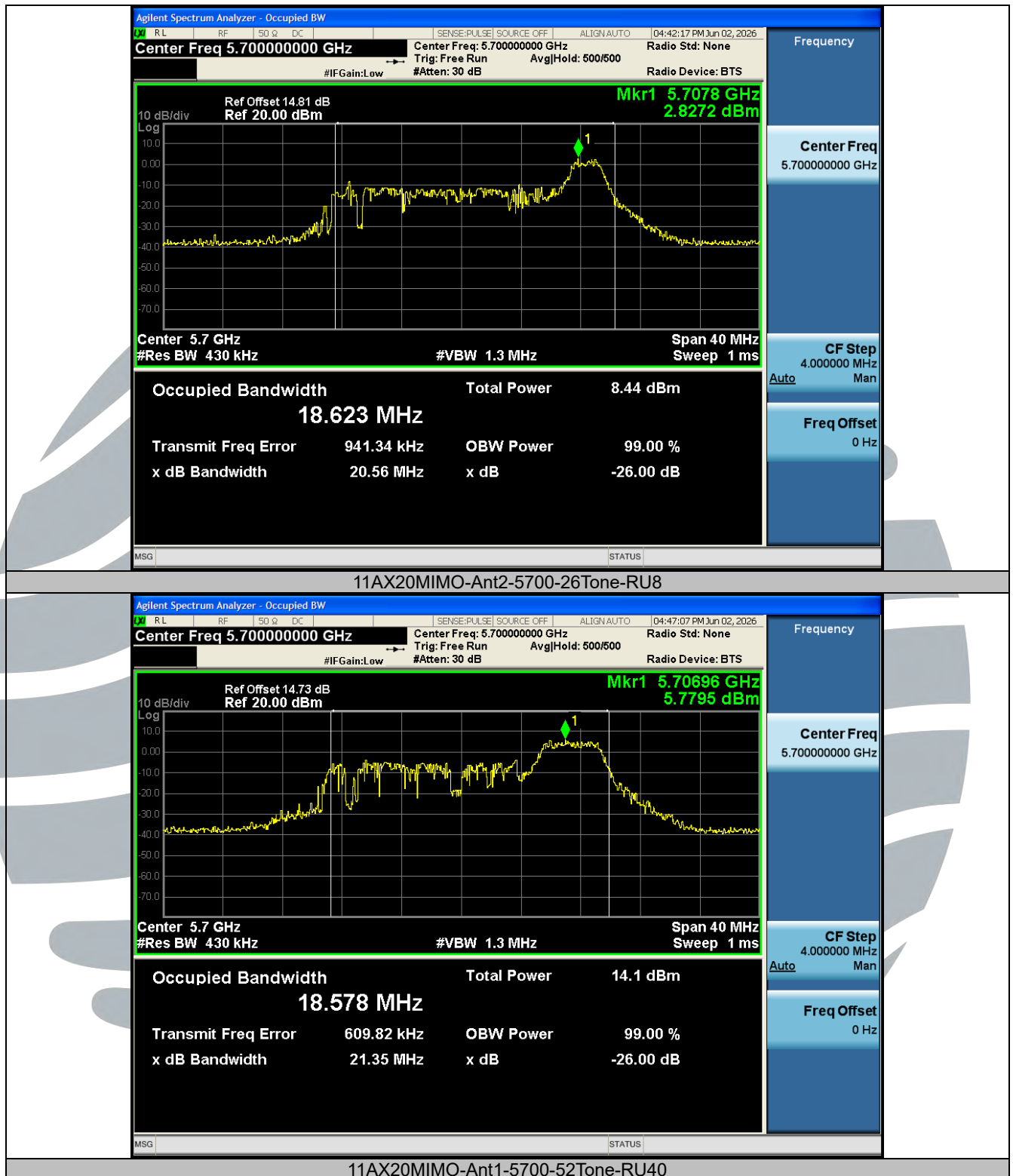
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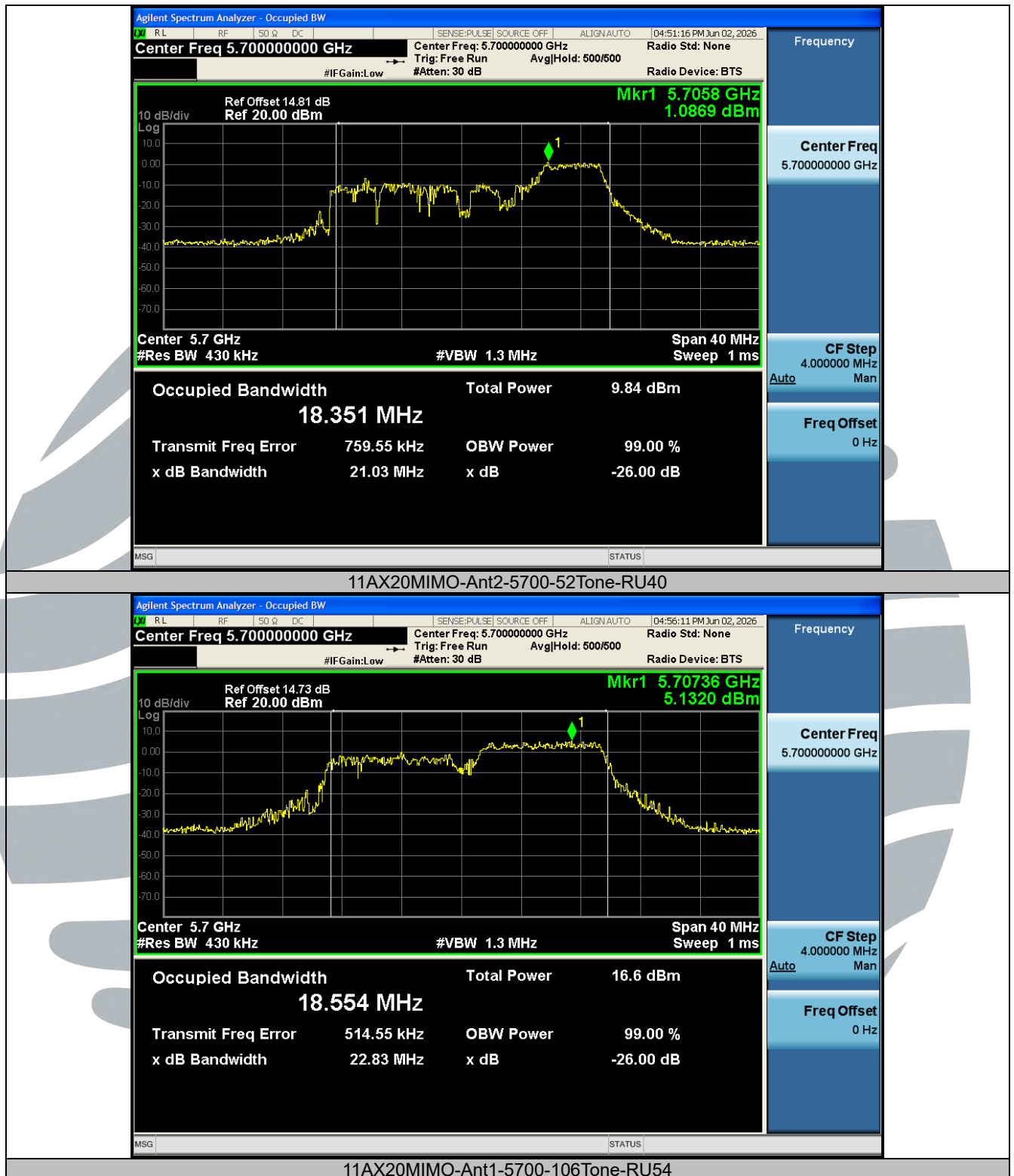
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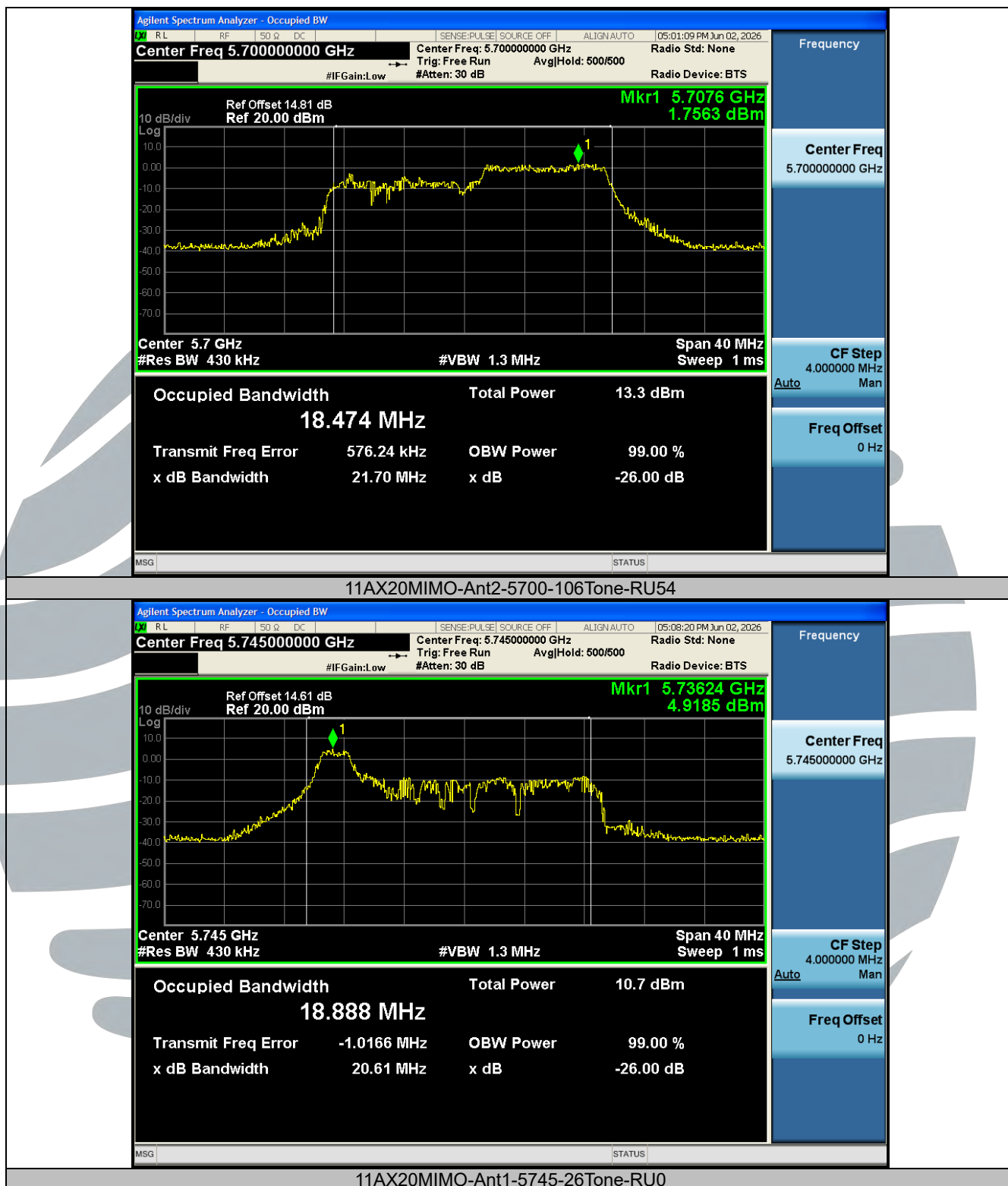
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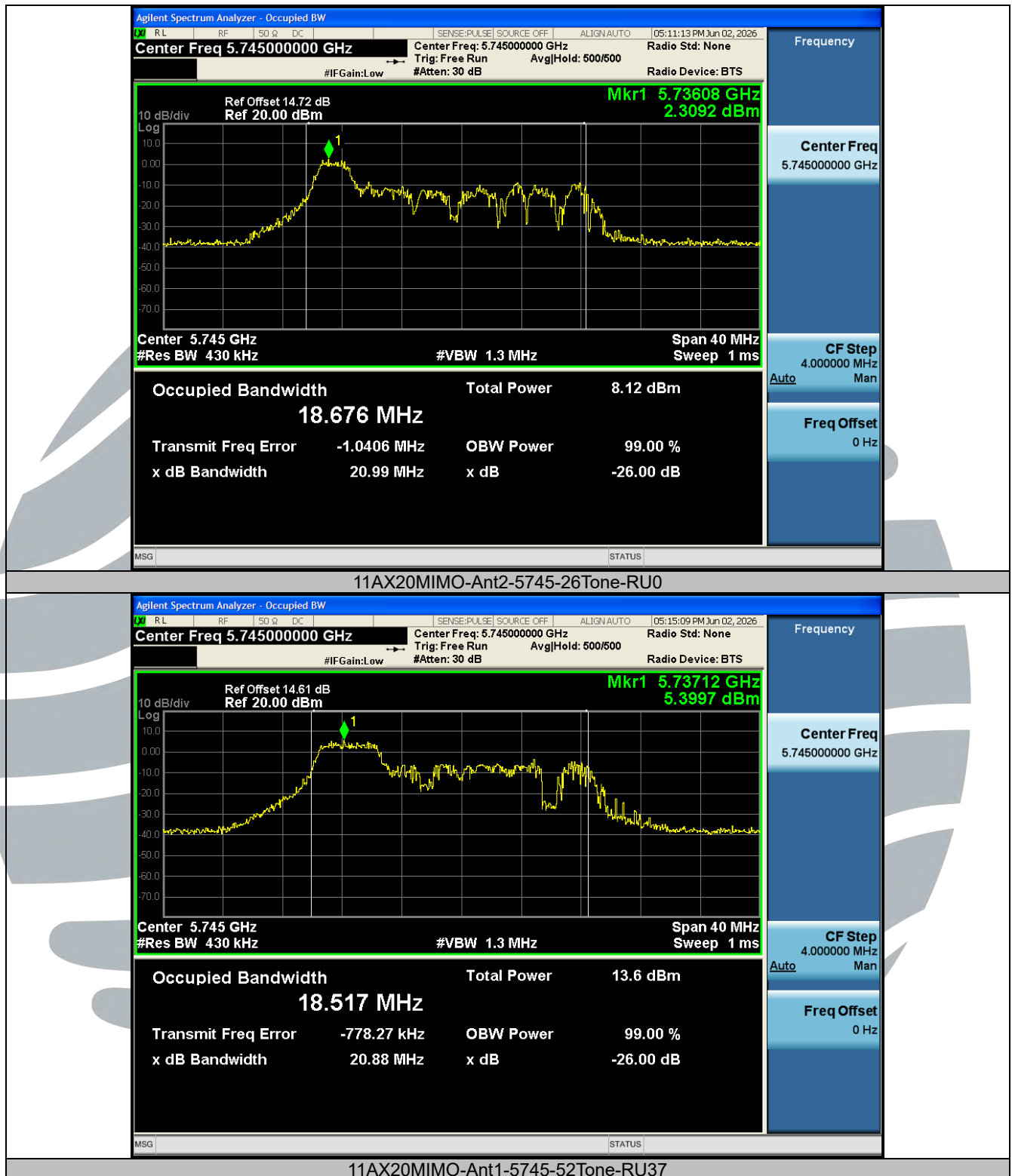
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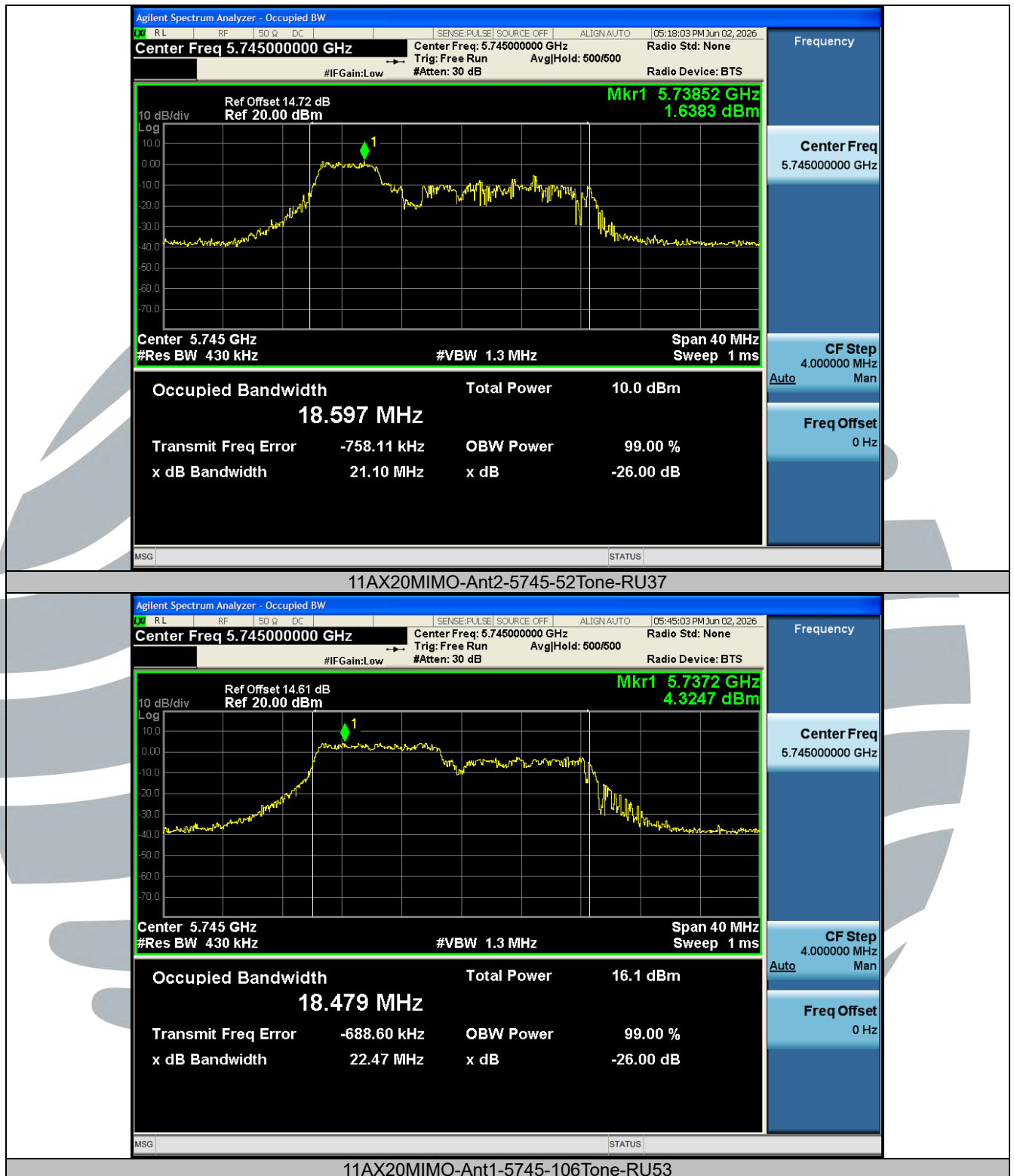
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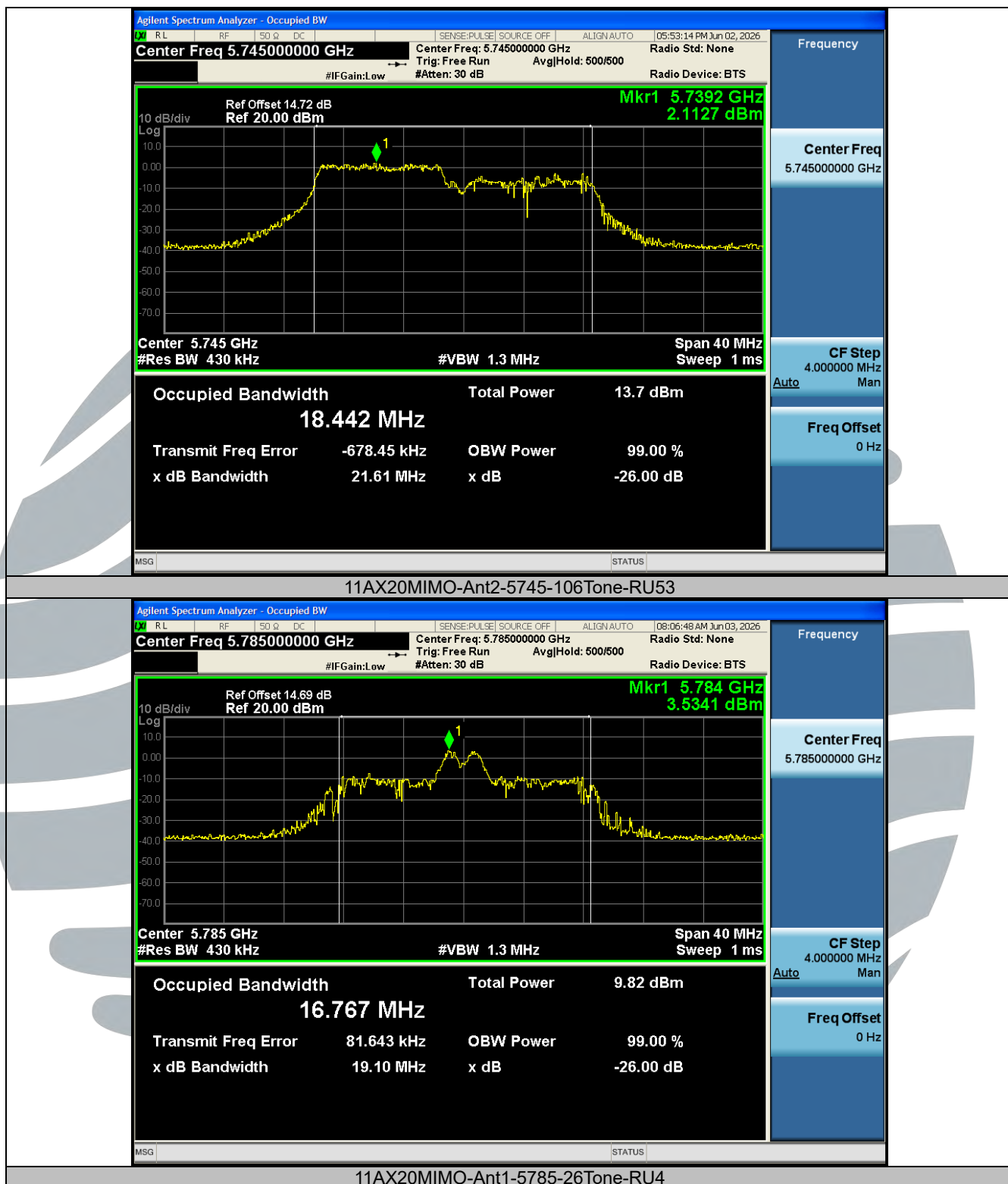
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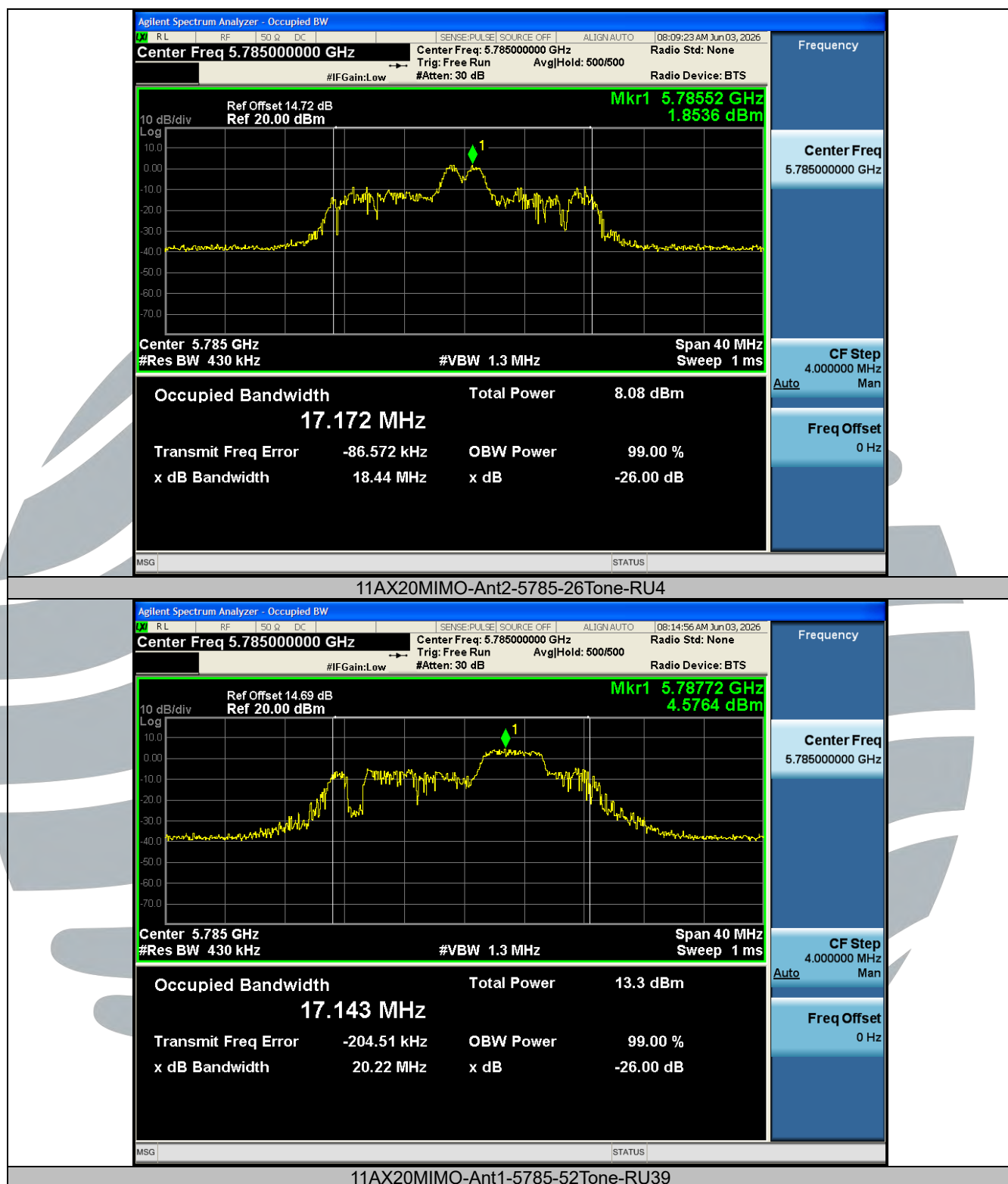
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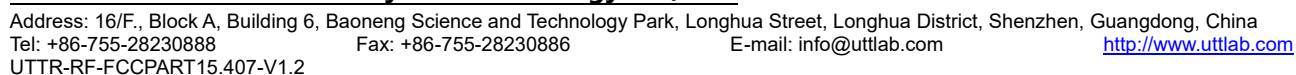
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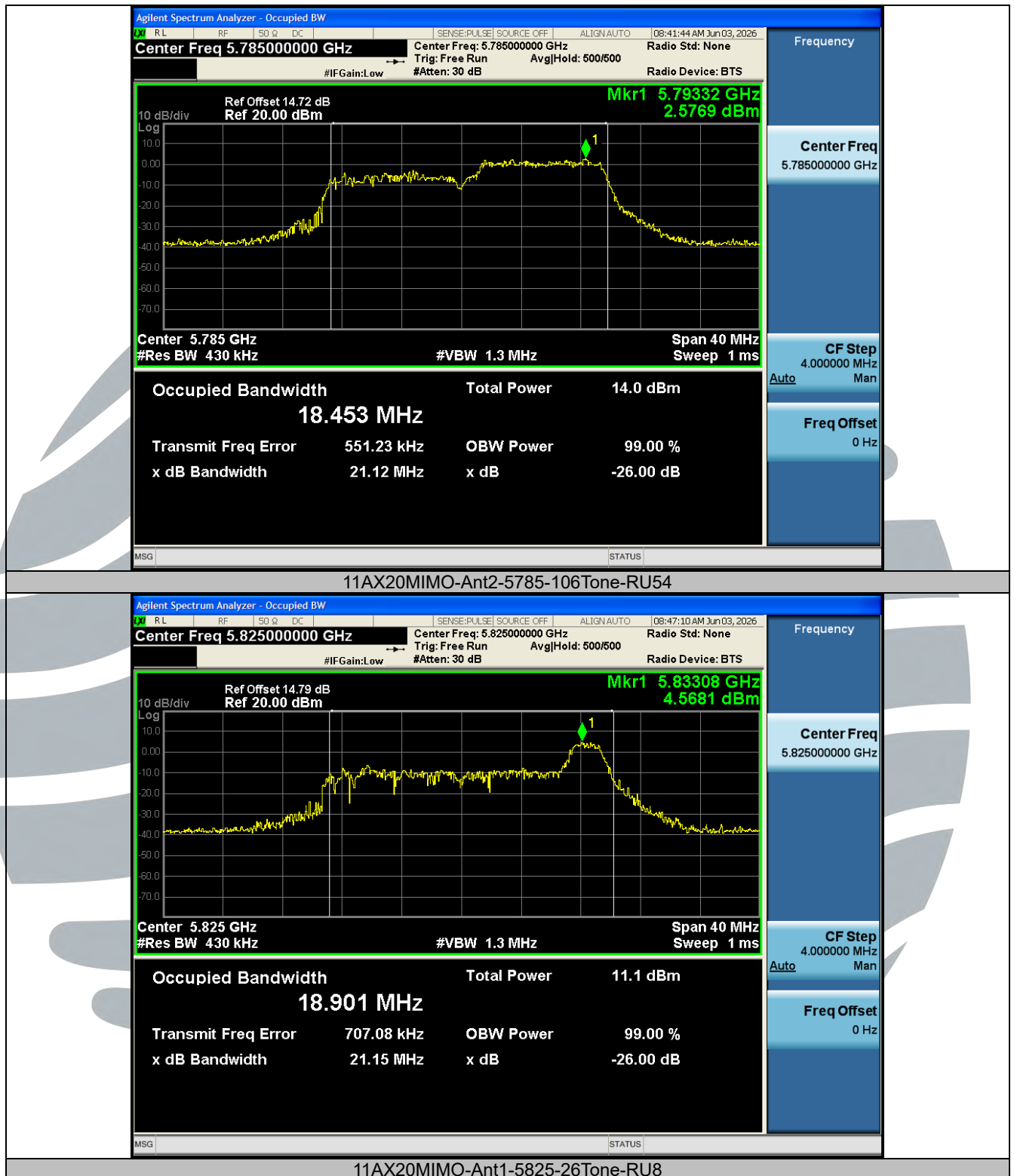
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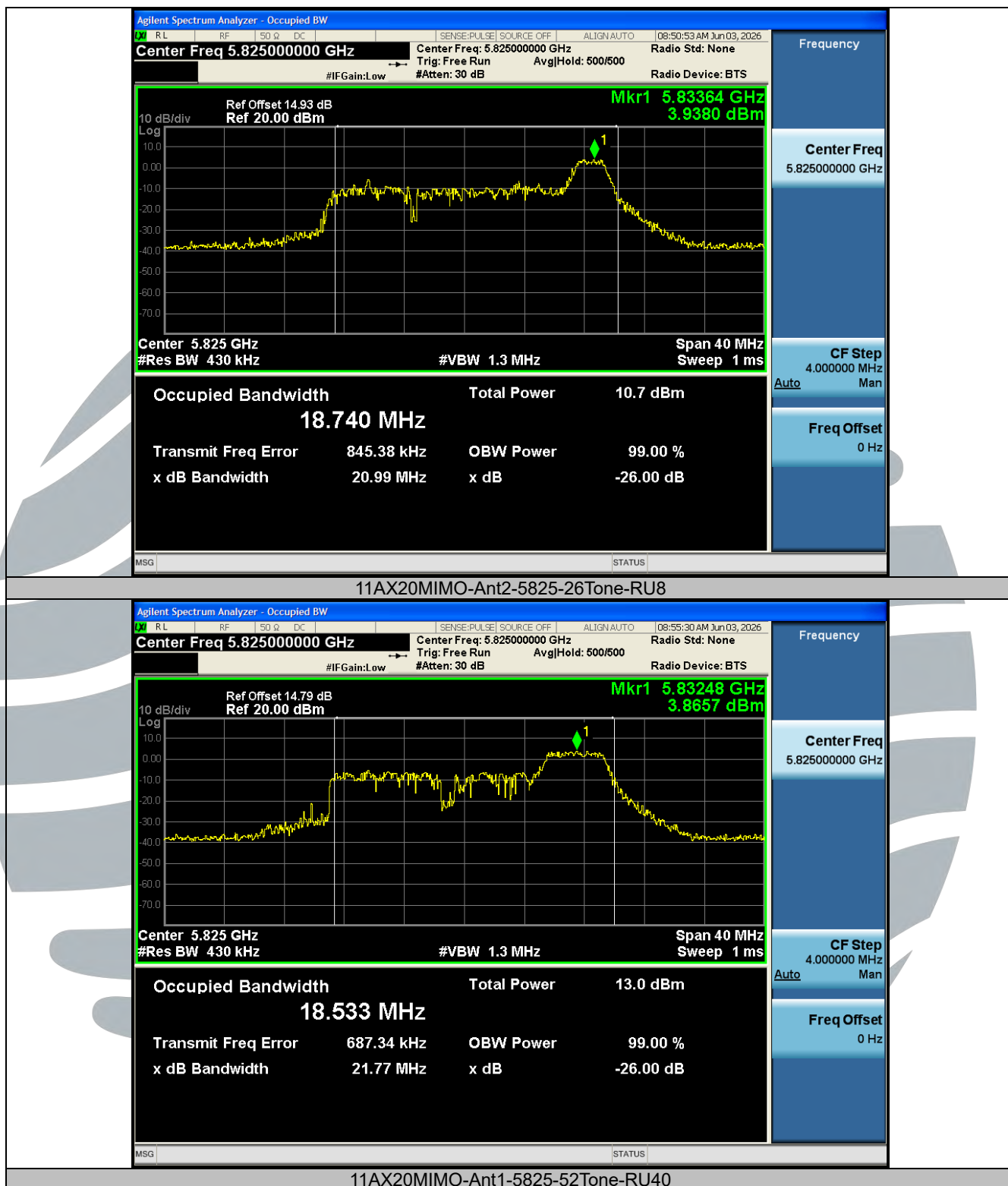
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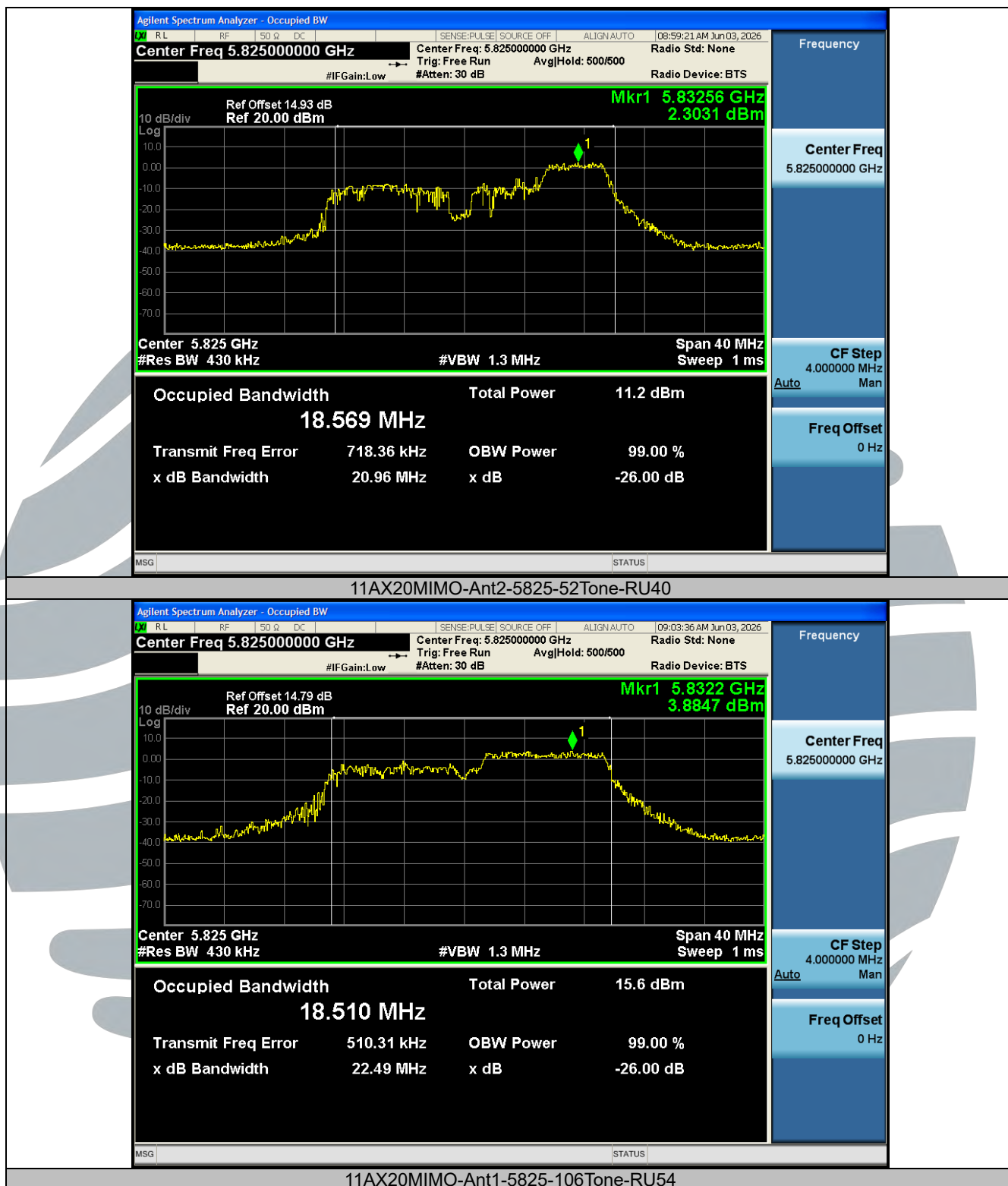
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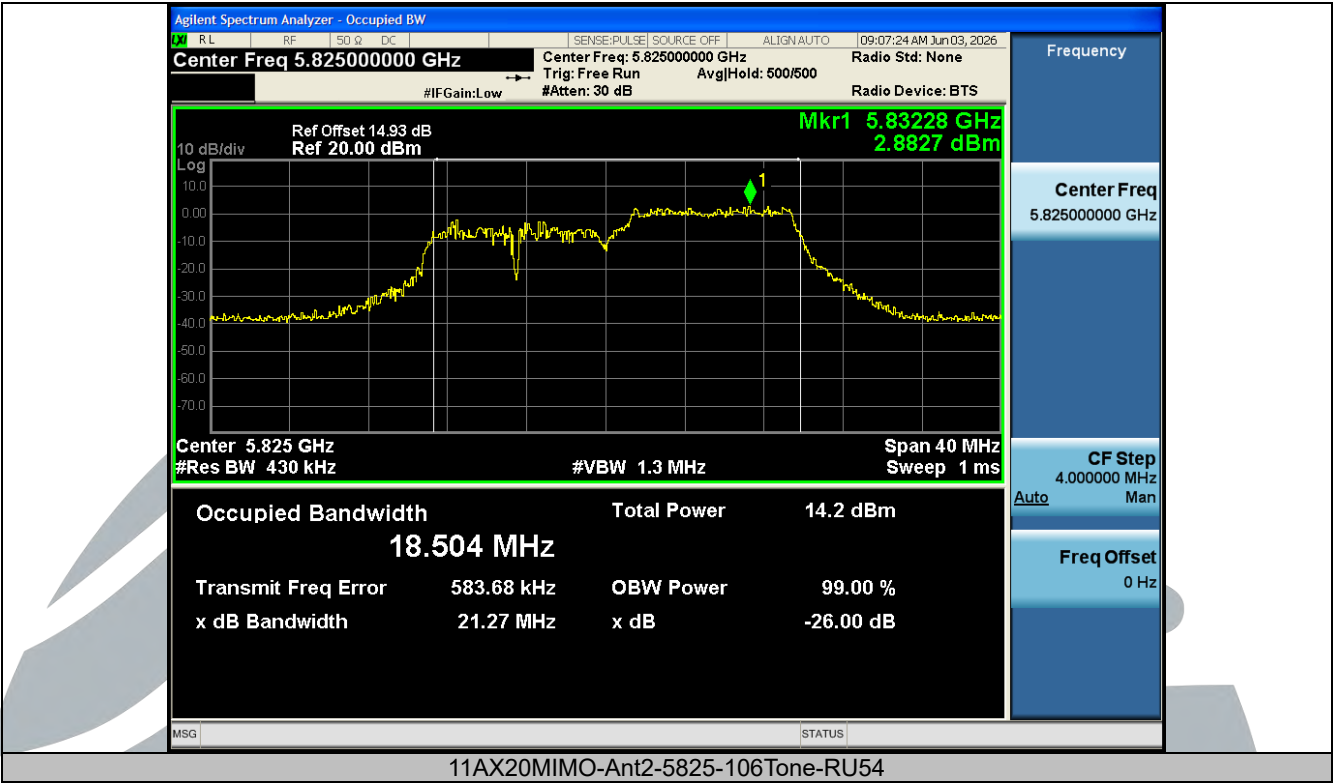
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5.6 MAXIMUM CONDUCTED OUTPUT POWER

Test Requirement: FCC 47 CFR Part 15 Subpart E Section 15.407 (a)(1)(2)(3)

Test Method: KDB 789033 D02 v02r01 Section E.3.a(Method PM)

Limits:

1. For the band 5.15-5.25 GHz.
 - (i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. 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 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).
 - (ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. 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.
 - (iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. 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. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.
 - (iv) For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. 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.
2. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. 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.
3. For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. 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. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Test Procedure:

1. Connected the EUT's antenna port to measure device by 10dB attenuator.
2. Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of Tx on burst.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

Test Setup: Refer to section 4.5.3 for details.

Instruments Used: Refer to section 3 for details

Test Mode: Transmitter mode

Test Results: Pass

Test Data:

Antenna gain and the maximum output power limit.

Frequency Band (MHz)	Antenna Gain (dBi)		Correlated Directional gain (dBi)	Power Limits (dBm)
	Ant. 5 (Chain 0)	Ant. 6(Chain 1)		
U-NII-1	0.42	0.97	3.71	23.98
U-NII-2A	0.42	0.97	3.71	23.98
U-NII-2C	-0.91	-0.02	2.56	23.98
U-NII-3	-1.12	-0.62	2.14	30.0

Unequal antenna gains, with equal transmit powers. Directional gain is to be computed as follows:

If transmit signals are correlated, then

Directional gain = $10 \cdot \log_{10}[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N]$ dBi [Note the "20"s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]

For U-NII-2A Band:

For IEEE 802.11a, the minimum 26 dB emission bandwidth is 18.63 MHz

$11 \text{ dBm} + 10 \log_{10}(18.63) = 23.70 \text{ dBm} < 23.98 \text{ dBm} (250\text{mW})$

So the 23.70 dB limit applicable

For IEEE 802.11n-HT20/ac-VHT20, the minimum 26 dB emission bandwidth is 19.7 MHz

$11 \text{ dBm} + 10 \log_{10}(19.7) = 23.94 \text{ dBm} < 23.98 \text{ dBm} (250\text{mW})$

So the 23.94 dB limit applicable

For IEEE 802.11ax-HE20_SU, the minimum 26 dB emission bandwidth is 20.46 MHz

$11 \text{ dBm} + 10 \log_{10}(20.46) = 24.11 \text{ dBm} > 23.98 \text{ dBm} (250\text{mW})$

So the 23.98 dB limit applicable

For IEEE 802.11ax-HE20_Partial RU, the minimum 26 dB emission bandwidth is 17.31 MHz

$11 \text{ dBm} + 10 \log_{10}(17.31) = 23.38 \text{ dBm} > 23.98 \text{ dBm} (250\text{mW})$

So the 23.38 dB limit applicable

For IEEE 802.11n-HT40/ac-VHT40/ac-VHT80/ac-VHT160/ax-HE80/ax-HE160, the minimum 26 dB emission bandwidth is 38.81 MHz

$11 \text{ dBm} + 10 \log_{10}(38.81) = 26.89 \text{ dBm} > 23.98 \text{ dBm} (250\text{mW})$

So the 23.98 dB limit applicable

For U-NII-2C Band:

For IEEE 802.11 a, the minimum 26 dB emission bandwidth is 21.24 MHz

$11 \text{ dBm} + 10 \log_{10}(18.81) = 23.74 \text{ dBm} < 23.98 \text{ dBm} (250\text{mW})$

So the 23.74 dB limit applicable

For IEEE 802.11n-HT20/ac-VHT20, the minimum 26 dB emission bandwidth is 21.89 MHz

$11 \text{ dBm} + 10 \log_{10}(19.72) = 23.95 \text{ dBm} < 23.98 \text{ dBm} (250\text{mW})$

So the 23.95 dB limit applicable

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For IEEE 802.11ax-HE20_SU, the minimum 26 dB emission bandwidth is 20.26 MHz
 $11 \text{ dBm} + 10\log_{10}(20.26) = 24.01 \text{ dBm} > 23.98 \text{ dBm} (250\text{mW})$
 So the 23.98 dB limit applicable

For IEEE 802.11ax-HE20_Partial RU, the minimum 26 dB emission bandwidth is 17.66 MHz
 $11 \text{ dBm} + 10\log_{10}(17.66) = 23.47 \text{ dBm} < 23.98 \text{ dBm} (250\text{mW})$
 So the 23.47 dB limit applicable

For IEEE 802.11n-HT40/ac-VHT40/ac-VHT80/ac-VHT160/ax-HE80/ax-HE160, the minimum 26 dB emission bandwidth is 38.91 MHz
 $11 \text{ dBm} + 10\log_{10}(38.91) = 26.90 \text{ dBm} > 23.98 \text{ dBm} (250\text{mW})$
 So the 23.98 dB limit applicable

Test Mode	RU&Index	Freq. [MHz]	Meas. Value (dBm)		Corr'd Value (dBm)			Limit [dBm]	Verdict
			Chain 0	Chain 1	Chain 0	Chain 1	Total		
11A	---	5180	13.09	12.58	13.13	12.62	--	≤23.98	PASS
11A	---	5200	13.11	12.97	13.15	13.01	--	≤23.98	PASS
11A	---	5240	13.17	12.94	13.21	12.98	--	≤23.98	PASS
11A	---	5260	12.97	12.98	13.01	13.02	--	≤23.70	PASS
11A	---	5280	13.03	13.10	13.07	13.14	--	≤23.70	PASS
11A	---	5320	13.09	12.93	13.13	12.97	--	≤23.70	PASS
11A	---	5500	12.98	12.81	13.02	12.85	--	≤23.74	PASS
11A	---	5600	12.94	13.18	12.98	13.22	--	≤23.74	PASS
11A	---	5700	12.79	12.77	12.83	12.81	--	≤23.74	PASS
11A	---	5745	13.04	12.76	13.08	12.80	--	≤30.00	PASS
11A	---	5785	13.15	12.89	13.19	12.93	--	≤30.00	PASS
11A	---	5825	12.91	13.07	12.95	13.11	--	≤30.00	PASS
11N20MIMO	---	5180	10.79	7.64	10.81	7.66	12.52	≤23.98	PASS
11N20MIMO	---	5200	10.65	7.69	10.67	7.71	12.45	≤23.98	PASS
11N20MIMO	---	5240	10.90	8.03	10.92	8.05	12.73	≤23.98	PASS
11N20MIMO	---	5260	10.08	8.15	10.10	8.17	12.25	≤23.94	PASS
11N20MIMO	---	5280	10.33	8.71	10.35	8.73	12.63	≤23.94	PASS
11N20MIMO	---	5320	9.49	9.42	9.51	9.44	12.49	≤23.94	PASS
11N20MIMO	---	5500	9.51	9.19	9.53	9.21	12.38	≤23.95	PASS
11N20MIMO	---	5600	10.60	7.65	10.62	7.67	12.40	≤23.95	PASS
11N20MIMO	---	5700	10.64	7.31	10.66	7.33	12.32	≤23.95	PASS
11N20MIMO	---	5745	10.86	7.22	10.88	7.24	12.44	≤30.00	PASS
11N20MIMO	---	5785	9.98	8.61	10.00	8.63	12.38	≤30.00	PASS
11N20MIMO	---	5825	10.17	8.89	10.19	8.91	12.61	≤30.00	PASS
11N40MIMO	---	5190	10.25	6.94	10.27	6.96	11.93	≤23.98	PASS
11N40MIMO	---	5230	10.34	7.26	10.36	7.28	12.10	≤23.98	PASS
11N40MIMO	---	5270	9.90	7.96	9.92	7.98	12.07	≤23.98	PASS
11N40MIMO	---	5310	8.94	8.66	8.96	8.68	11.83	≤23.98	PASS
11N40MIMO	---	5510	8.80	8.56	8.82	8.58	11.71	≤23.98	PASS
11N40MIMO	---	5590	9.95	7.02	9.97	7.04	11.76	≤23.98	PASS
11N40MIMO	---	5670	10.27	6.83	10.29	6.85	11.91	≤23.98	PASS
11N40MIMO	---	5755	10.05	7.26	10.07	7.28	11.91	≤30.00	PASS
11N40MIMO	---	5795	9.43	7.75	9.45	7.77	11.70	≤30.00	PASS
11AC20MIMO	---	5180	10.77	7.64	10.79	7.66	12.51	≤23.98	PASS
11AC20MIMO	---	5200	10.56	7.62	10.58	7.64	12.36	≤23.98	PASS
11AC20MIMO	---	5240	10.43	7.58	10.45	7.60	12.27	≤23.98	PASS
11AC20MIMO	---	5260	10.15	8.11	10.17	8.13	12.28	≤23.94	PASS
11AC20MIMO	---	5280	10.01	8.65	10.03	8.67	12.41	≤23.94	PASS
11AC20MIMO	---	5320	9.34	9.35	9.36	9.37	12.38	≤23.94	PASS
11AC20MIMO	---	5500	9.41	9.66	9.43	9.68	12.57	≤23.95	PASS
11AC20MIMO	---	5600	10.64	7.72	10.66	7.74	12.45	≤23.95	PASS
11AC20MIMO	---	5700	10.76	7.68	10.78	7.70	12.52	≤23.95	PASS
11AC20MIMO	---	5745	10.88	7.54	10.90	7.56	12.55	≤30.00	PASS
11AC20MIMO	---	5785	10.53	8.57	10.55	8.59	12.69	≤30.00	PASS
11AC20MIMO	---	5825	10.16	8.86	10.18	8.88	12.59	≤30.00	PASS

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Test Mode	RU&Index	Freq. [MHz]	Meas. Value (dBm)		Corr'd Value (dBm)			Limit [dBm]	Verdict
			Chain 0	Chain 1	Chain 0	Chain 1	Total		
11AC40MIMO	---	5190	10.34	6.99	10.36	7.01	12.01	≤23.98	PASS
11AC40MIMO	---	5230	10.39	7.48	10.41	7.50	12.20	≤23.98	PASS
11AC40MIMO	---	5270	9.99	8.14	10.01	8.16	12.19	≤23.98	PASS
11AC40MIMO	---	5310	9.12	8.88	9.14	8.90	12.03	≤23.98	PASS
11AC40MIMO	---	5510	8.90	8.65	8.92	8.67	11.81	≤23.98	PASS
11AC40MIMO	---	5590	10.41	7.50	10.43	7.52	12.22	≤23.98	PASS
11AC40MIMO	---	5670	10.57	6.80	10.59	6.82	12.11	≤23.98	PASS
11AC40MIMO	---	5755	10.18	6.72	10.20	6.74	11.82	≤30.00	PASS
11AC40MIMO	---	5795	9.65	8.46	9.67	8.48	12.13	≤30.00	PASS
11AC80MIMO	---	5210	10.28	6.77	10.30	6.79	11.90	≤23.98	PASS
11AC80MIMO	---	5290	9.73	8.10	9.75	8.12	12.02	≤23.98	PASS
11AC80MIMO	---	5530	9.43	8.67	9.45	8.69	12.10	≤23.98	PASS
11AC80MIMO	---	5610	10.17	7.87	10.19	7.89	12.20	≤23.98	PASS
11AC80MIMO	---	5775	9.83	7.63	9.85	7.65	11.90	≤30.00	PASS
11AC160MIMO	---	5250	10.12	7.56	10.13	7.57	12.05	≤23.98	PASS
11AC160MIMO	---	5570	9.50	7.80	9.51	7.81	11.75	≤23.98	PASS
11AX20MIMO	SU	5180	10.39	7.06	10.41	7.08	12.07	≤23.98	PASS
11AX20MIMO	SU	5200	10.21	7.25	10.23	7.27	12.01	≤23.98	PASS
11AX20MIMO	SU	5240	10.19	7.59	10.21	7.61	12.11	≤23.98	PASS
11AX20MIMO	SU	5260	9.78	8.10	9.80	8.12	12.05	≤23.98	PASS
11AX20MIMO	SU	5280	9.94	8.25	9.96	8.27	12.21	≤23.98	PASS
11AX20MIMO	SU	5320	9.09	8.96	9.11	8.98	12.06	≤23.98	PASS
11AX20MIMO	SU	5500	8.69	8.76	8.71	8.78	11.76	≤23.98	PASS
11AX20MIMO	SU	5600	10.26	7.17	10.28	7.19	12.01	≤23.98	PASS
11AX20MIMO	SU	5700	10.46	6.98	10.48	7.00	12.09	≤23.98	PASS
11AX20MIMO	SU	5745	10.40	6.69	10.42	6.71	11.96	≤30.00	PASS
11AX20MIMO	SU	5785	9.59	7.69	9.61	7.71	11.77	≤30.00	PASS
11AX20MIMO	SU	5825	9.27	8.01	9.29	8.03	11.72	≤30.00	PASS
11AX20MIMO	106RU53	5180	7.51	4.04	7.54	4.07	9.15	≤23.98	PASS
11AX20MIMO	106RU54	5200	7.08	4.85	7.11	4.88	9.15	≤23.98	PASS
11AX20MIMO	106RU54	5240	6.68	5.27	6.71	5.30	9.07	≤23.98	PASS
11AX20MIMO	106RU53	5260	7.24	5.21	7.27	5.24	9.38	≤23.38	PASS
11AX20MIMO	106RU54	5280	5.46	5.47	5.49	5.50	8.51	≤23.38	PASS
11AX20MIMO	106RU54	5320	-0.75	1.91	-0.72	1.94	3.82	≤23.38	PASS
11AX20MIMO	106RU53	5500	5.63	5.67	5.66	5.70	8.69	≤23.47	PASS
11AX20MIMO	106RU54	5600	6.89	4.16	6.92	4.19	8.78	≤23.47	PASS
11AX20MIMO	106RU54	5700	7.80	3.75	7.83	3.78	9.27	≤23.47	PASS
11AX20MIMO	106RU53	5745	7.21	4.40	7.24	4.43	9.07	≤30.00	PASS
11AX20MIMO	106RU54	5785	6.26	4.73	6.29	4.76	8.60	≤30.00	PASS
11AX20MIMO	106RU54	5825	6.58	4.95	6.61	4.98	8.88	≤30.00	PASS
11AX20MIMO	52RU37	5180	3.73	1.51	3.75	1.53	5.79	≤23.98	PASS
11AX20MIMO	52RU39	5200	3.56	1.07	3.58	1.09	5.52	≤23.98	PASS
11AX20MIMO	52RU40	5240	2.00	1.47	2.02	1.49	4.77	≤23.98	PASS
11AX20MIMO	52RU37	5260	2.99	1.89	3.01	1.91	5.51	≤23.38	PASS
11AX20MIMO	52RU39	5280	2.10	2.05	2.12	2.07	5.11	≤23.38	PASS
11AX20MIMO	52RU40	5320	2.18	-4.02	2.20	-4.00	3.13	≤23.38	PASS
11AX20MIMO	52RU37	5500	1.92	-1.46	1.94	-1.44	3.58	≤23.47	PASS
11AX20MIMO	52RU39	5600	2.43	0.55	2.45	0.57	4.62	≤23.47	PASS
11AX20MIMO	52RU40	5700	4.40	0.10	4.42	0.12	5.79	≤23.47	PASS
11AX20MIMO	52RU37	5745	4.14	0.27	4.16	0.29	5.65	≤30.00	PASS
11AX20MIMO	52RU39	5785	3.15	-0.17	3.17	-0.15	4.83	≤30.00	PASS
11AX20MIMO	52RU40	5825	3.14	1.01	3.16	1.03	5.23	≤30.00	PASS
11AX20MIMO	26RU0	5180	0.44	-2.48	0.46	-2.46	2.25	≤23.98	PASS
11AX20MIMO	26RU4	5200	0.71	-2.54	0.73	-2.52	2.41	≤23.98	PASS
11AX20MIMO	26RU8	5240	1.71	-2.75	1.73	-2.73	3.06	≤23.98	PASS
11AX20MIMO	26RU0	5260	1.12	-1.21	1.14	-1.19	3.14	≤23.38	PASS
11AX20MIMO	26RU4	5280	-1.37	-1.38	-1.35	-1.36	1.66	≤23.38	PASS
11AX20MIMO	26RU8	5320	0.00	-1.12	0.02	-1.10	2.51	≤23.38	PASS
11AX20MIMO	26RU0	5500	-4.19	1.26	-4.17	1.28	2.37	≤23.47	PASS
11AX20MIMO	26RU4	5600	0.04	-1.08	0.06	-1.06	2.55	≤23.47	PASS

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Test Mode	RU&Index	Freq. [MHz]	Meas. Value (dBm)		Corr'd Value (dBm)			Limit [dBm]	Verdict
			Chain 0	Chain 1	Chain 0	Chain 1	Total		
11AX20MIMO	26RU8	5700	-0.18	-1.54	-0.16	-1.52	2.22	≤23.47	PASS
11AX20MIMO	26RU0	5745	-1.52	-1.92	-1.50	-1.90	1.31	≤30.00	PASS
11AX20MIMO	26RU4	5785	-0.87	-2.56	-0.85	-2.54	1.40	≤30.00	PASS
11AX20MIMO	26RU8	5825	0.56	0.04	0.58	0.06	3.34	≤30.00	PASS
11AX40MIMO	SU	5190	10.27	7.01	10.29	7.03	11.97	≤23.98	PASS
11AX40MIMO	SU	5230	10.06	7.43	10.08	7.45	11.97	≤23.98	PASS
11AX40MIMO	SU	5270	9.95	8.33	9.97	8.35	12.25	≤23.98	PASS
11AX40MIMO	SU	5310	9.27	9.16	9.29	9.18	12.25	≤23.98	PASS
11AX40MIMO	SU	5510	9.34	8.78	9.36	8.80	12.10	≤23.98	PASS
11AX40MIMO	SU	5590	10.28	7.40	10.30	7.42	12.10	≤23.98	PASS
11AX40MIMO	SU	5670	10.27	6.86	10.29	6.88	11.92	≤23.98	PASS
11AX40MIMO	SU	5755	9.96	7.02	9.98	7.04	11.76	≤30.00	PASS
11AX40MIMO	SU	5795	9.64	8.49	9.66	8.51	12.13	≤30.00	PASS
11AX80MIMO	SU	5210	10.54	7.28	10.56	7.30	12.24	≤23.98	PASS
11AX80MIMO	SU	5290	9.57	8.00	9.59	8.02	11.89	≤23.98	PASS
11AX80MIMO	SU	5530	8.89	8.61	8.91	8.63	11.78	≤23.98	PASS
11AX80MIMO	SU	5610	10.15	7.31	10.17	7.33	11.99	≤23.98	PASS
11AX80MIMO	SU	5775	9.73	7.58	9.75	7.60	11.82	≤30.00	PASS
11AX160MIMO	SU	5250	10.17	7.61	10.18	7.62	12.10	≤23.98	PASS
11AX160MIMO	SU	5570	9.42	8.44	9.44	8.45	11.98	≤23.98	PASS

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5.7 PEAK POWER SPECTRAL DENSITY

Test Requirement: FCC 47 CFR Part 15 Subpart E Section 15.407 (a)(1)(2)(3)

Test Method: KDB 789033 D02 v02r01 Section F

Limits:

1. For the band 5.15-5.25 GHz.
 - (i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. 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 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).
 - (ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. 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.
 - (iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. 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. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.
 - (iv) For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. 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.
2. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. 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.
3. For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. 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. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.