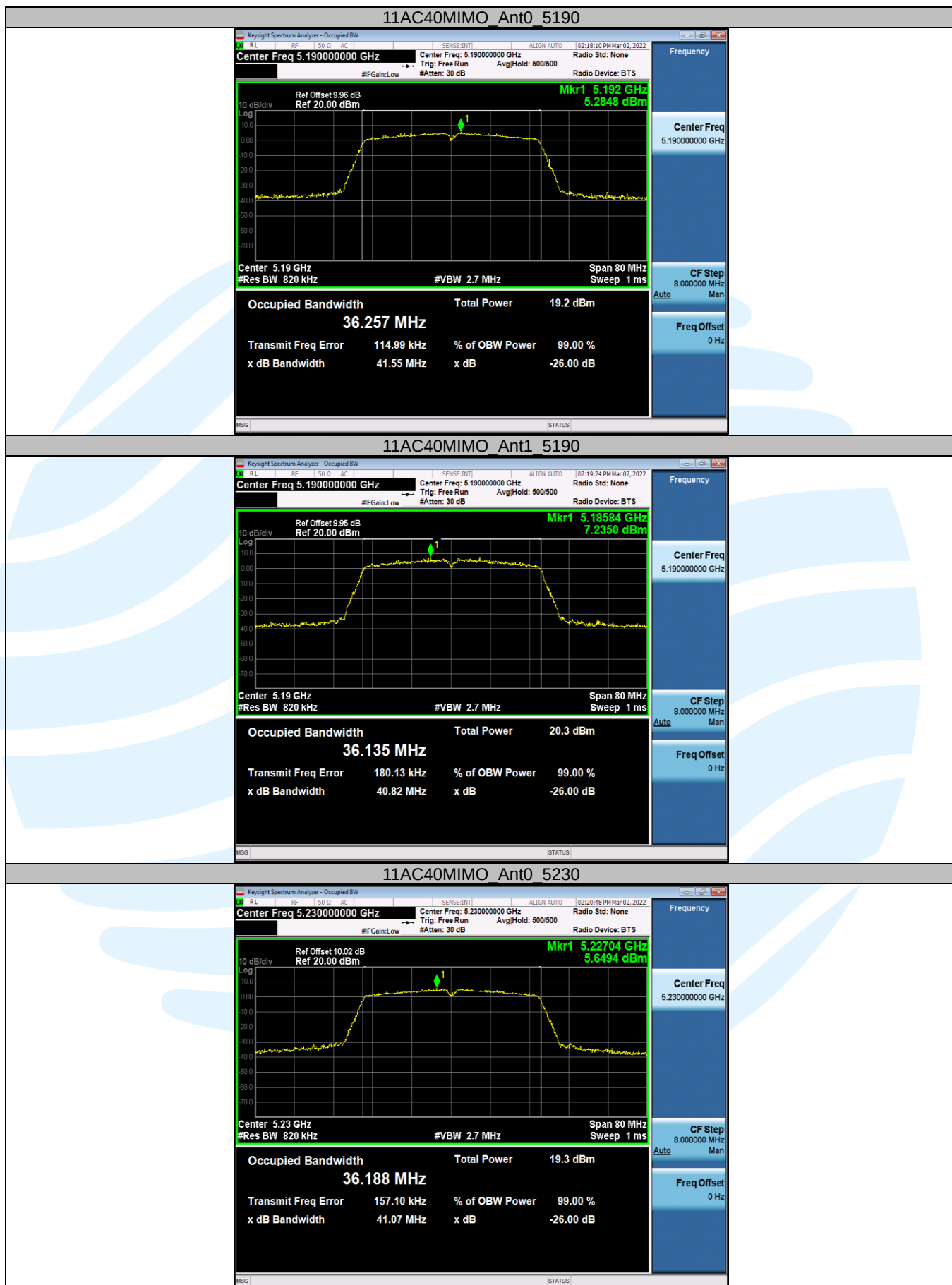


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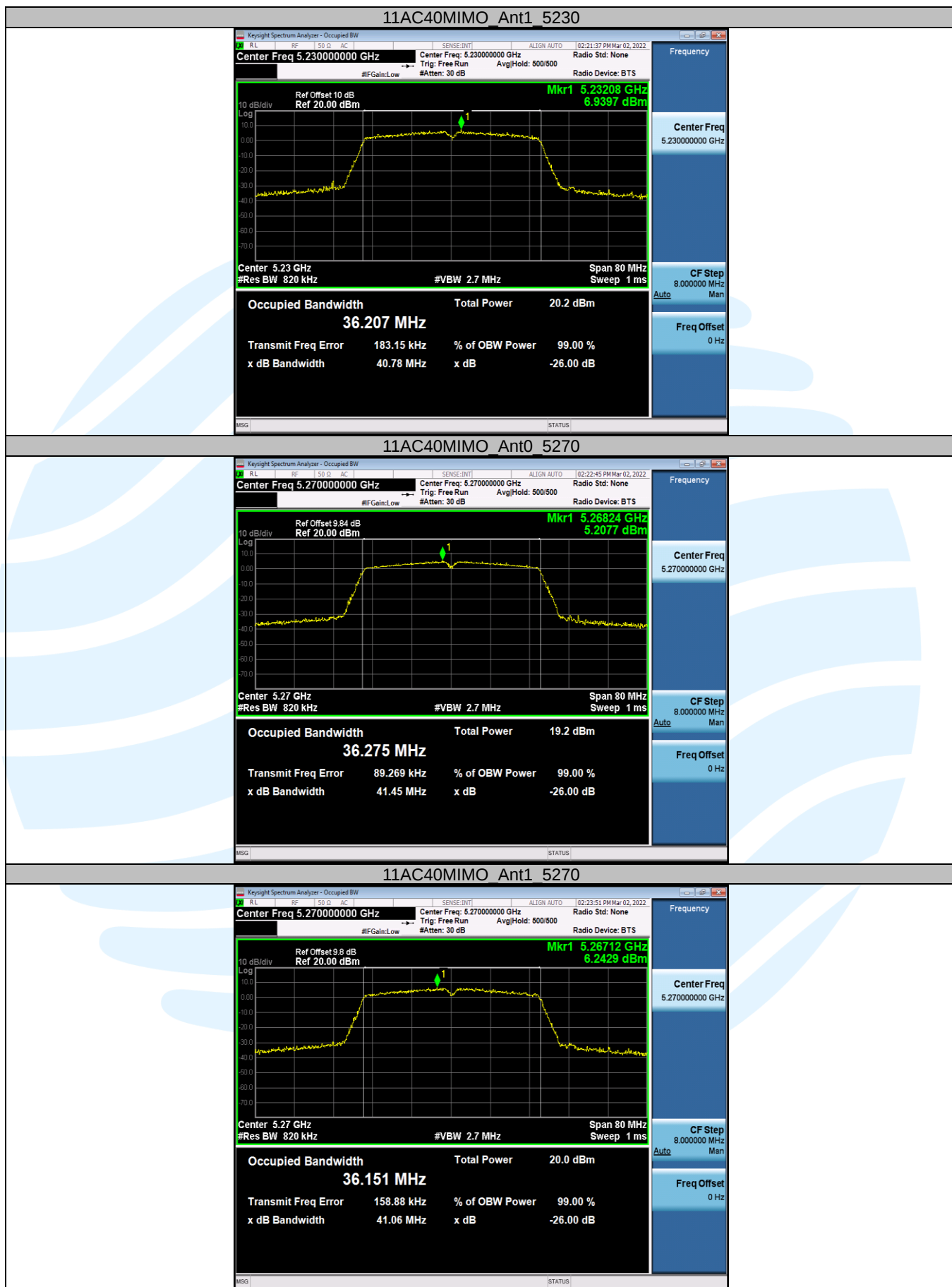
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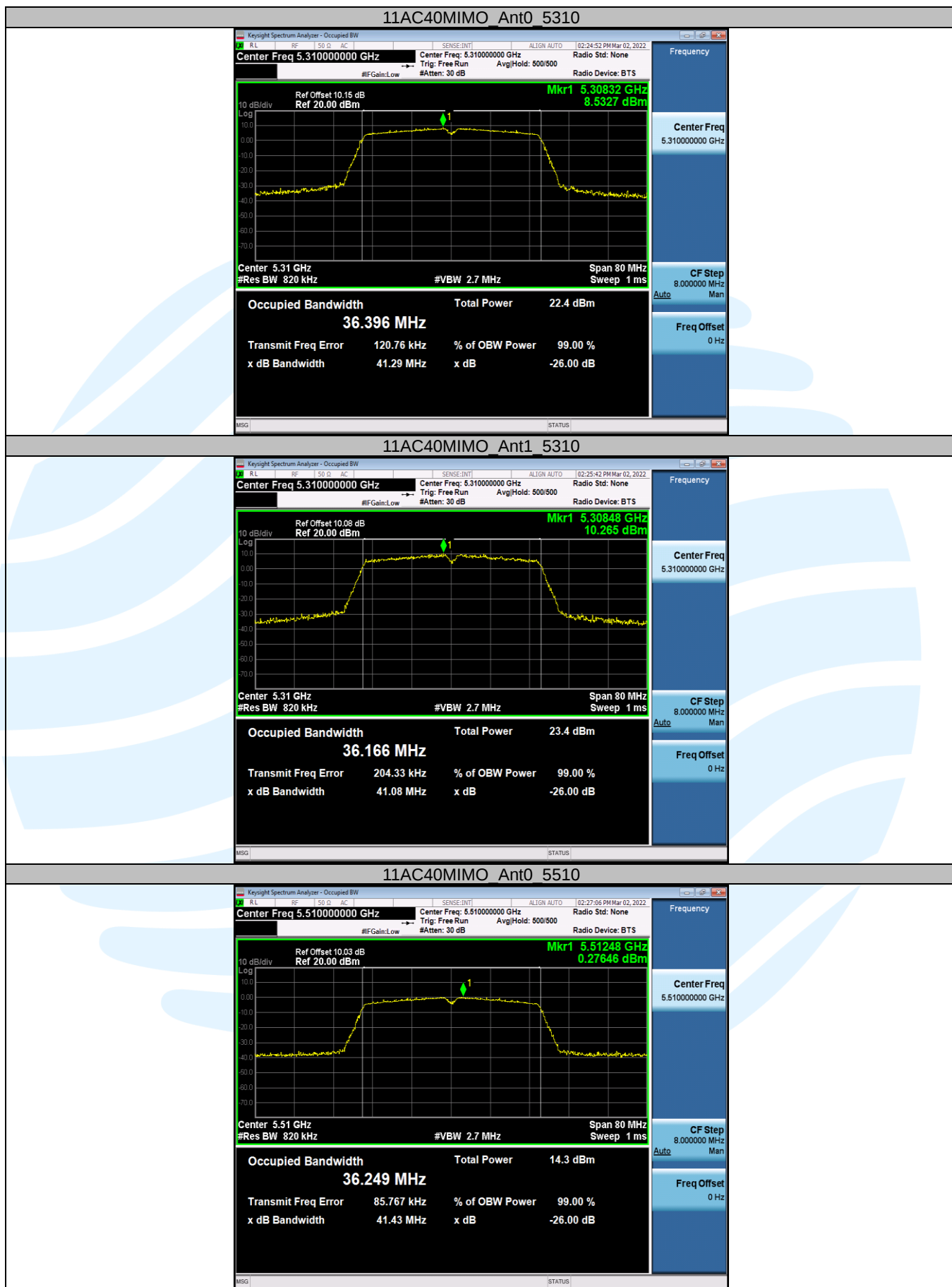
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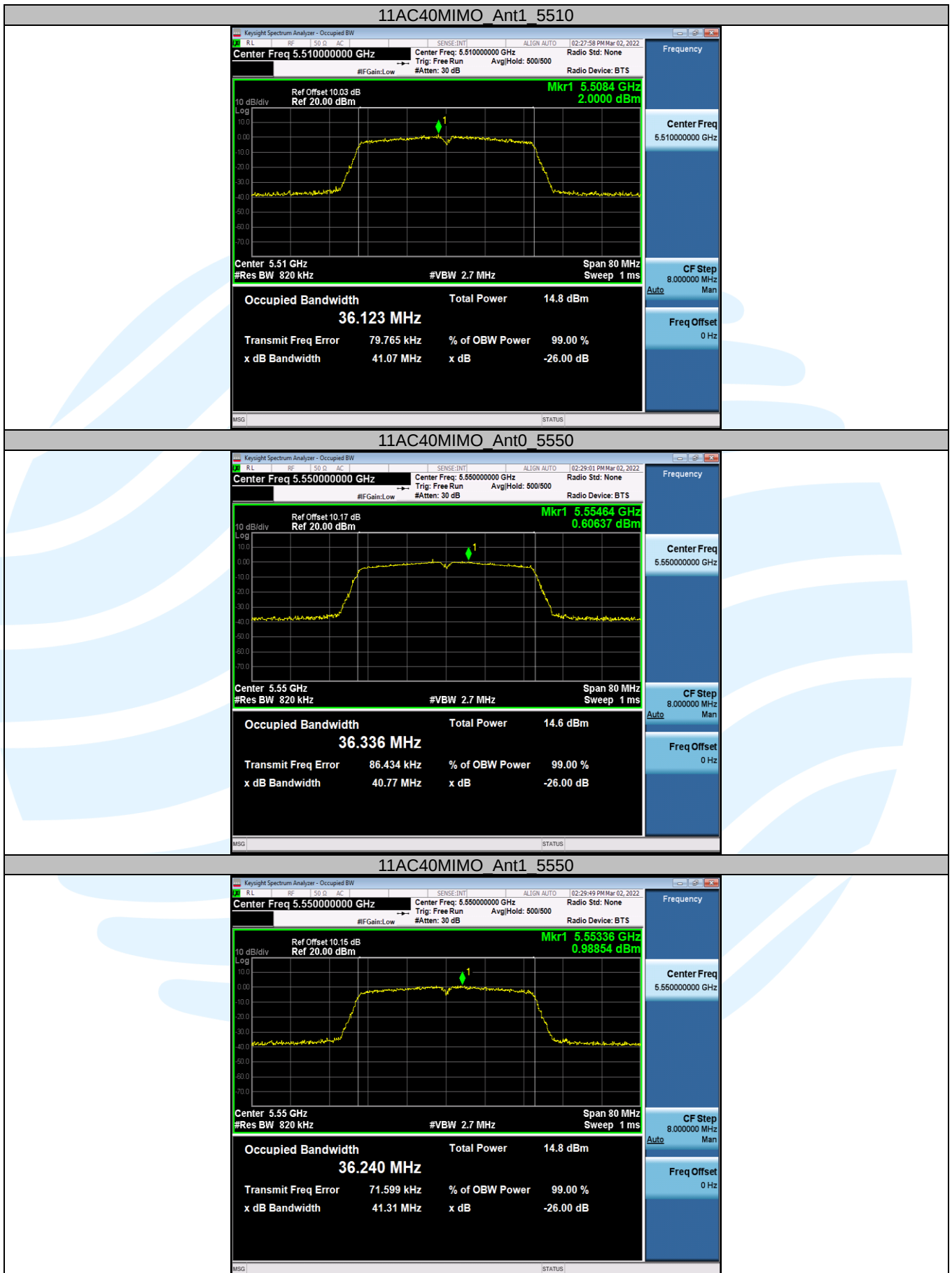
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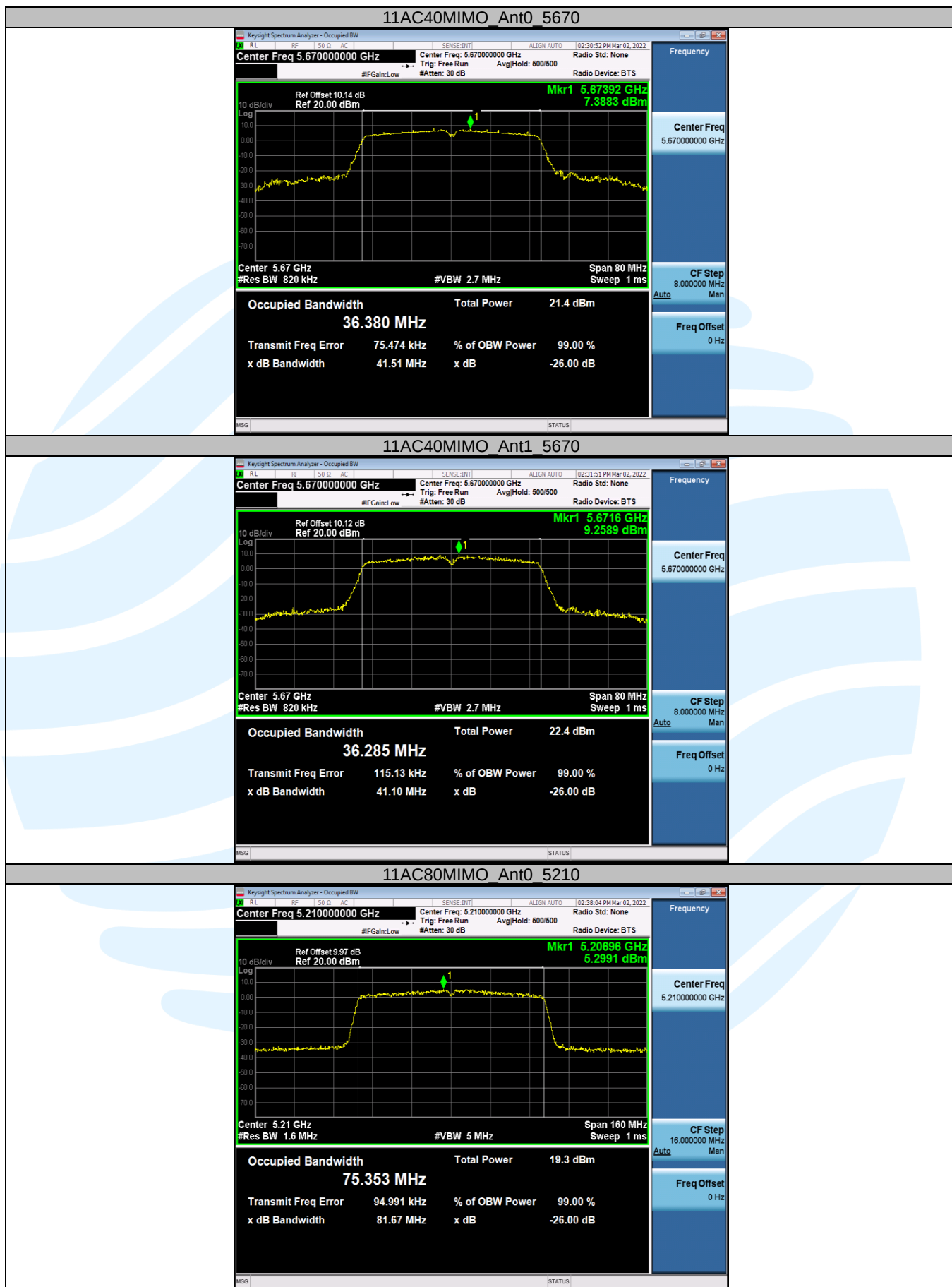
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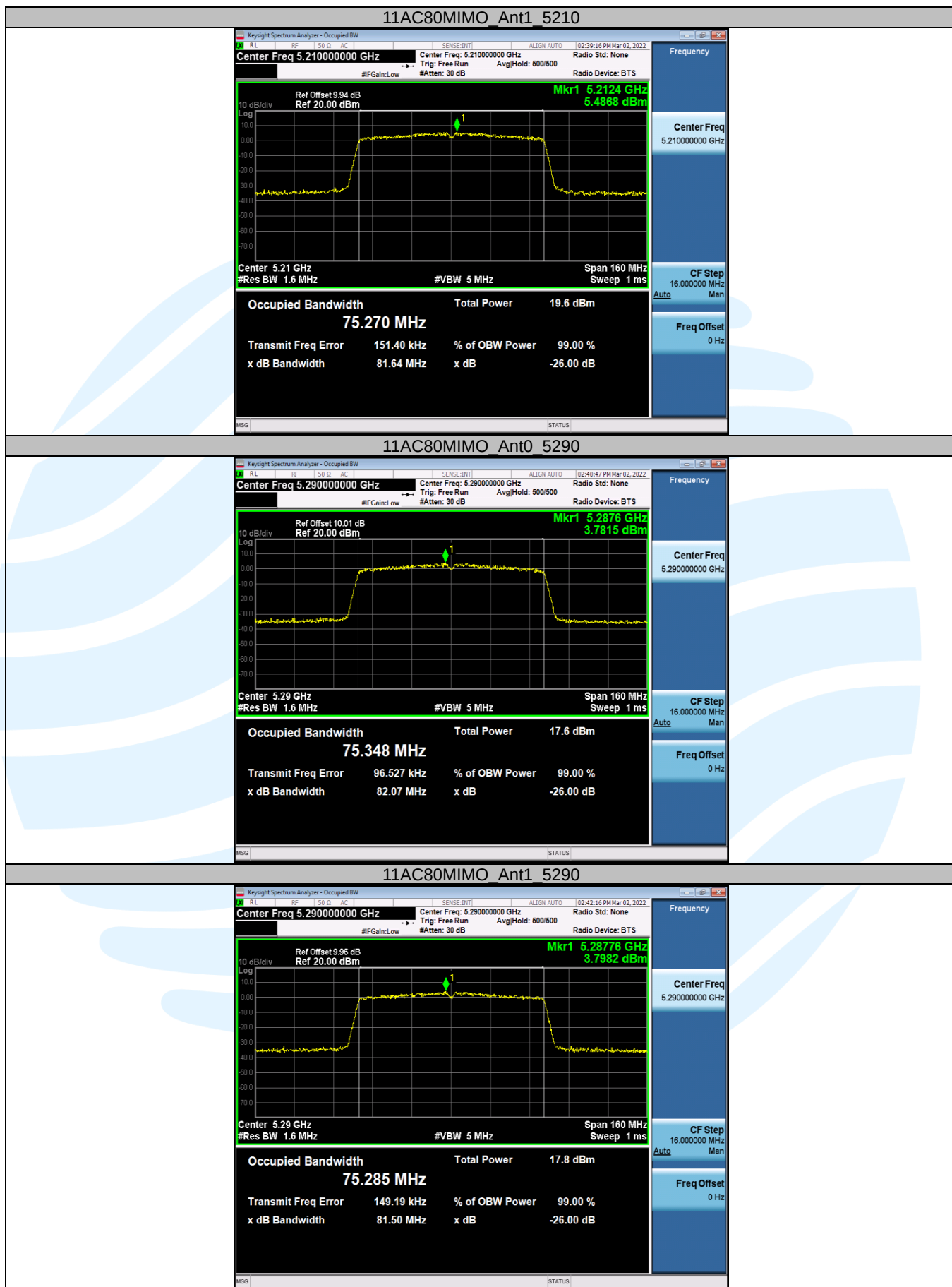
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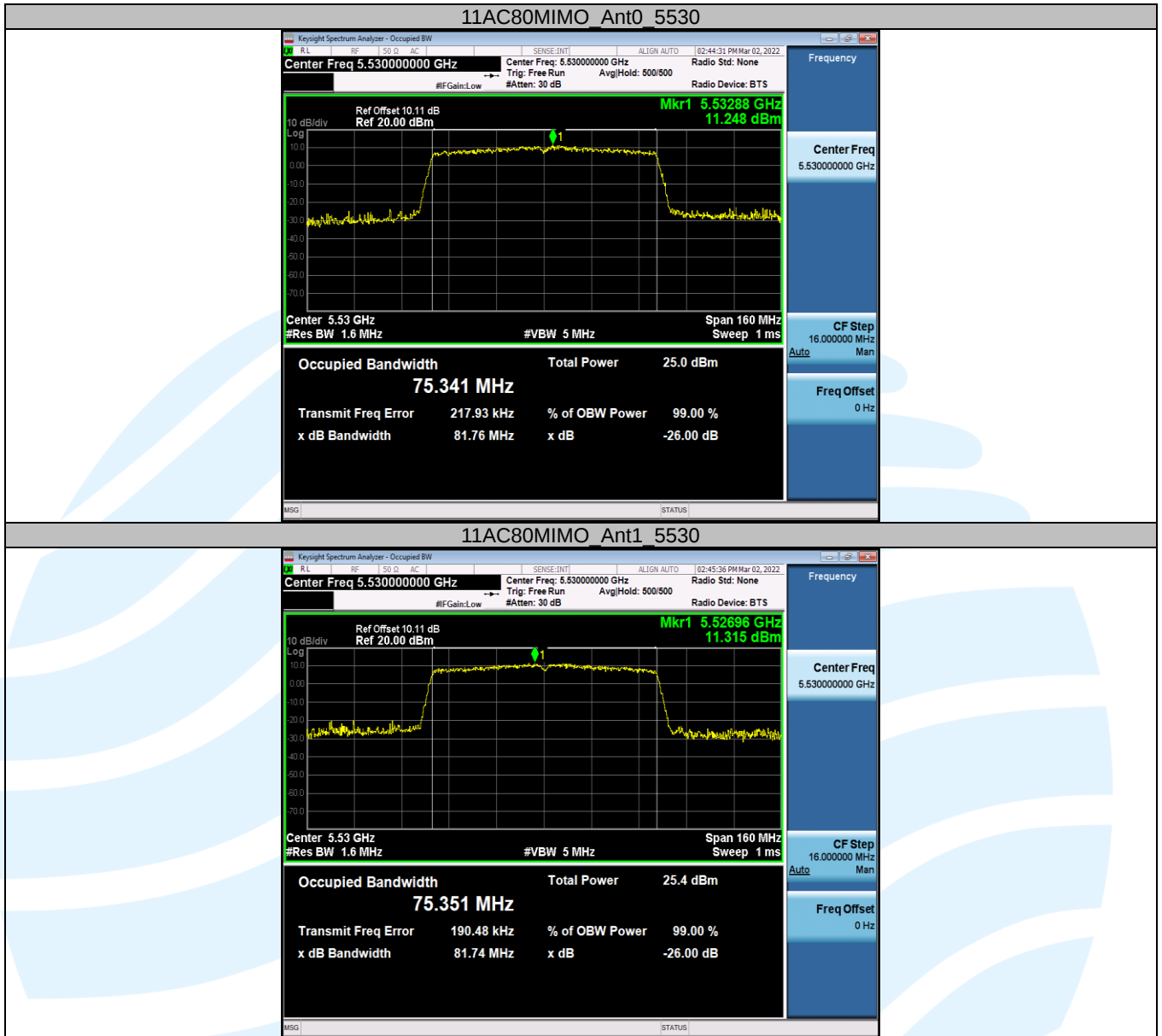
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5.46 DB BANDWIDTH & OCCUPIED BANDWIDTH

Test Requirement: FCC 47 CFR Part 15 Subpart E Section 15.407 (e)
RSS-247 Issue 2 Section 6.2.4.1

Test Method: KDB 789033 D02 v02r01 Section C.2

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

Test Procedure:

The output from the transmitter was connected to an attenuator and then to the input of the RF Spectrum Analyzer.

Spectrum analyzer according to the following Settings:

6dB Bandwidth

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 * \text{RBW}$.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Occupied Bandwidth

- a) Set RBW = 1% to 5% of the occupied bandwidth
- b) Set the video bandwidth (VBW) $\geq 3 \times \text{RBW}$.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.

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 Mode	Antenna	Channel	6db BW [MHz]	6db BW Limit [MHz]	OBW [MHz]	Verdict
IEEE 802.11a	Ant0	5745	14.200	0.5	17.022	PASS
	Ant1	5745	15.080	0.5	16.897	PASS
	Ant0	5785	15.320	0.5	16.995	PASS
	Ant1	5785	15.120	0.5	16.918	PASS
	Ant0	5825	15.080	0.5	16.977	PASS
	Ant1	5825	14.120	0.5	16.905	PASS
IEEE 802.11n20 MIMO	Ant0	5745	15.040	0.5	17.949	PASS
	Ant1	5745	15.280	0.5	17.725	PASS
	Ant0	5785	14.200	0.5	17.947	PASS
	Ant1	5785	15.080	0.5	17.771	PASS
	Ant0	5825	15.080	0.5	17.953	PASS
	Ant1	5825	15.720	0.5	17.750	PASS
IEEE 802.11n40 MIMO	Ant0	5755	35.120	0.5	36.362	PASS
	Ant1	5755	35.040	0.5	36.195	PASS
	Ant0	5795	35.200	0.5	36.381	PASS
	Ant1	5795	35.040	0.5	36.267	PASS
IEEE 802.11ac20 MIMO	Ant0	5745	16.320	0.5	17.954	PASS
	Ant1	5745	15.080	0.5	17.756	PASS
	Ant0	5785	15.040	0.5	17.921	PASS
	Ant1	5785	15.600	0.5	17.749	PASS
	Ant0	5825	15.080	0.5	18.011	PASS
	Ant1	5825	15.080	0.5	17.734	PASS
IEEE 802.11ac40 MIMO	Ant0	5755	35.120	0.5	36.450	PASS
	Ant1	5755	35.040	0.5	36.205	PASS
	Ant0	5795	35.120	0.5	36.367	PASS
	Ant1	5795	35.040	0.5	36.195	PASS
IEEE 802.11ac80 MIMO	Ant0	5775	75.200	0.5	75.678	PASS
	Ant1	5775	75.200	0.5	75.458	PASS

11A Ant0 5745

Keysight Spectrum Analyzer - Swept SA

Center Freq 5.745000000 GHz

Ref Offset 10.1 dB

Ref 20.00 dBm

ΔMkr3 14.20 MHz

1.069 dB

Center 5.74500 GHz

#Res BW 100 kHz

#VBW 300 kHz

Span 40.00 MHz

Sweep 3.867 ms (1001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	5.738 36 GHz	-0.960 dBm			
2	N	1	f	5.746 28 GHz	5.032 dBm			
Δ1	1	f	(Δ)	14.20 MHz (Δ)	1.069 dB			

11A Ant1 5745

Keysight Spectrum Analyzer - Swept SA

Center Freq 5.745000000 GHz

Ref Offset 10.11 dB

Ref 20.00 dBm

ΔMkr3 15.08 MHz

-2.387 dB

Center 5.74500 GHz

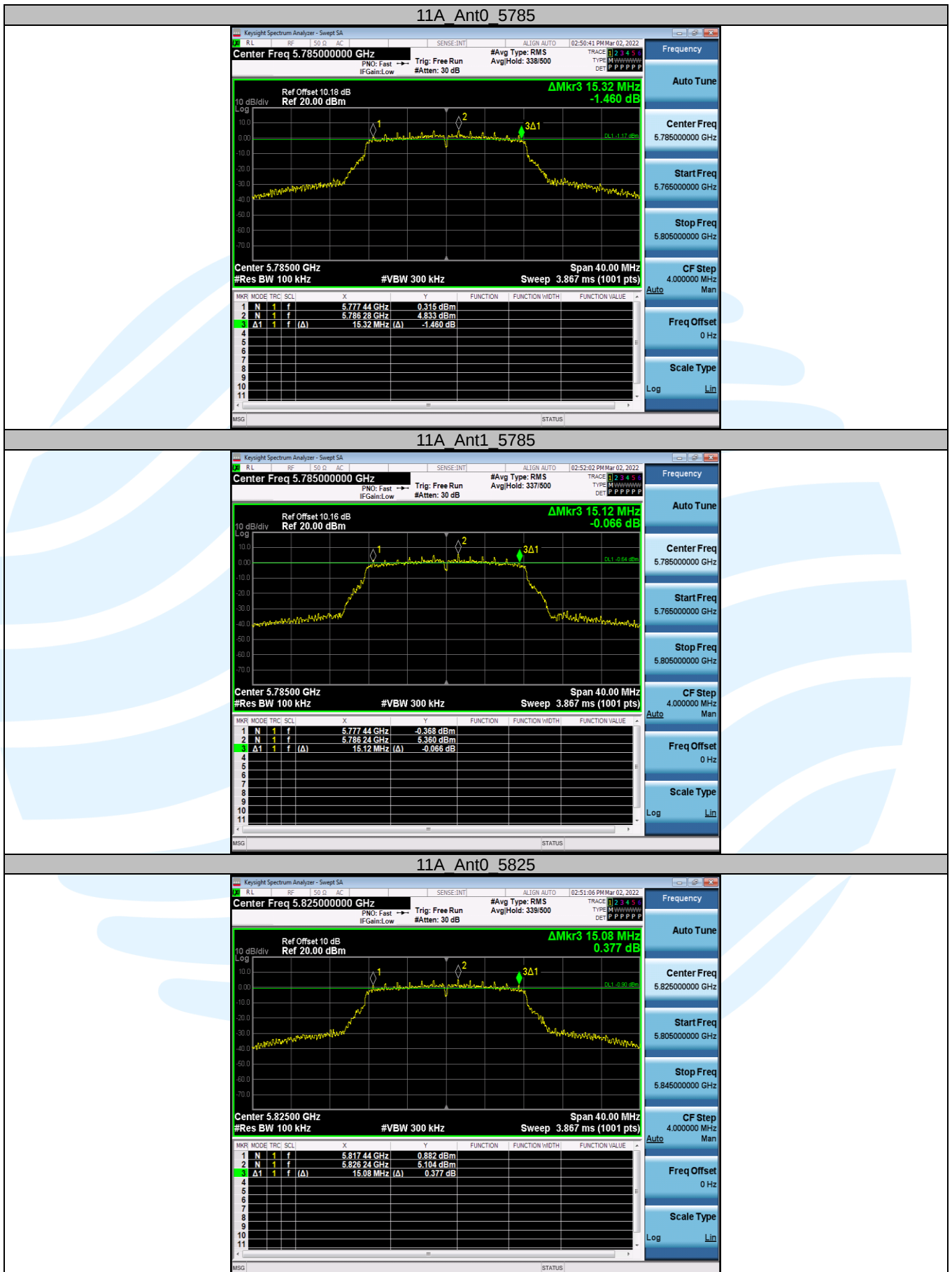
#Res BW 100 kHz

#VBW 300 kHz

Span 40.00 MHz

Sweep 3.867 ms (1001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	5.737 48 GHz	1.859 dBm			
2	N	1	f	5.746 24 GHz	5.484 dBm			
Δ1	1	f	(Δ)	15.08 MHz (Δ)	-2.387 dB			



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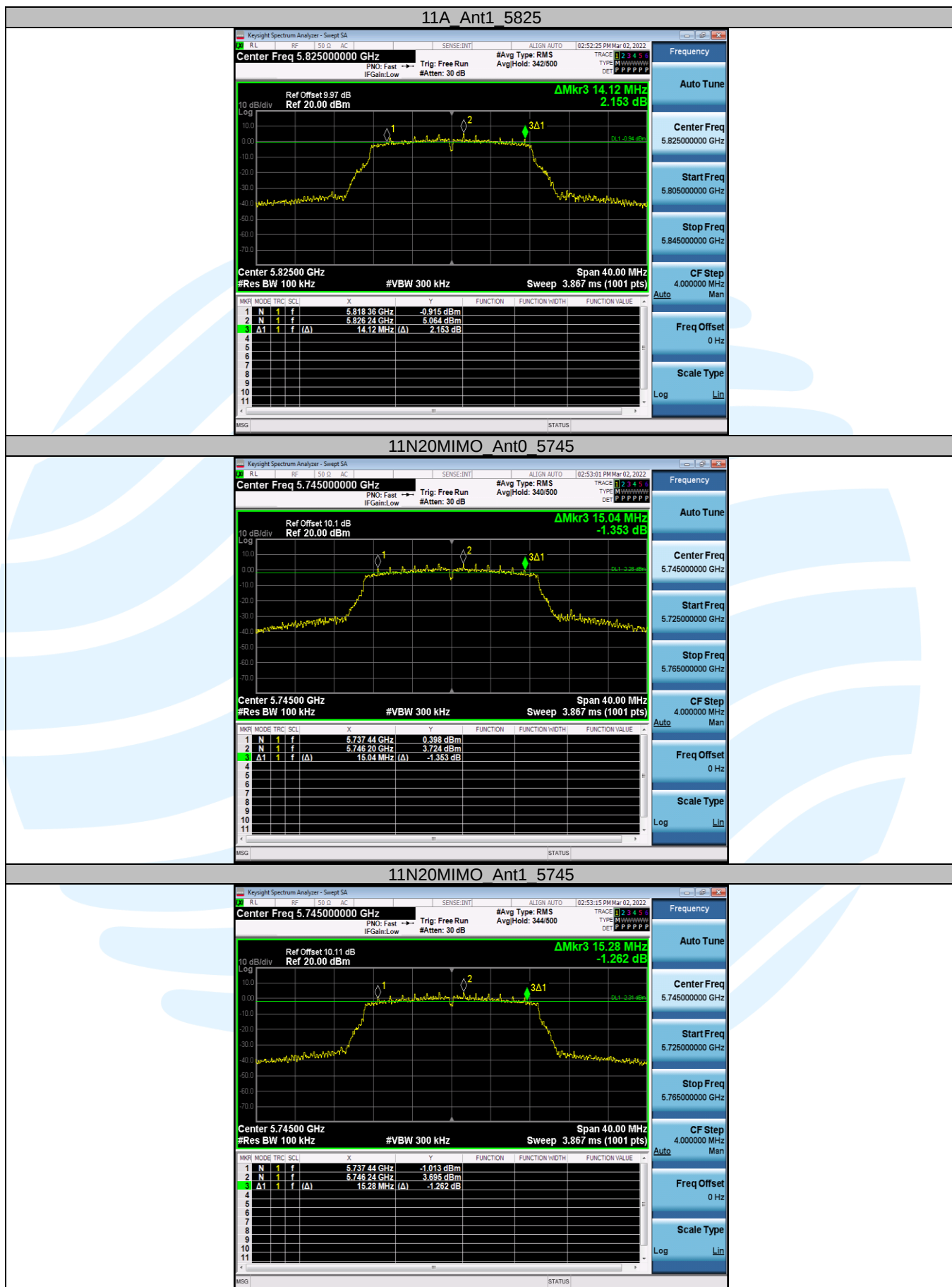
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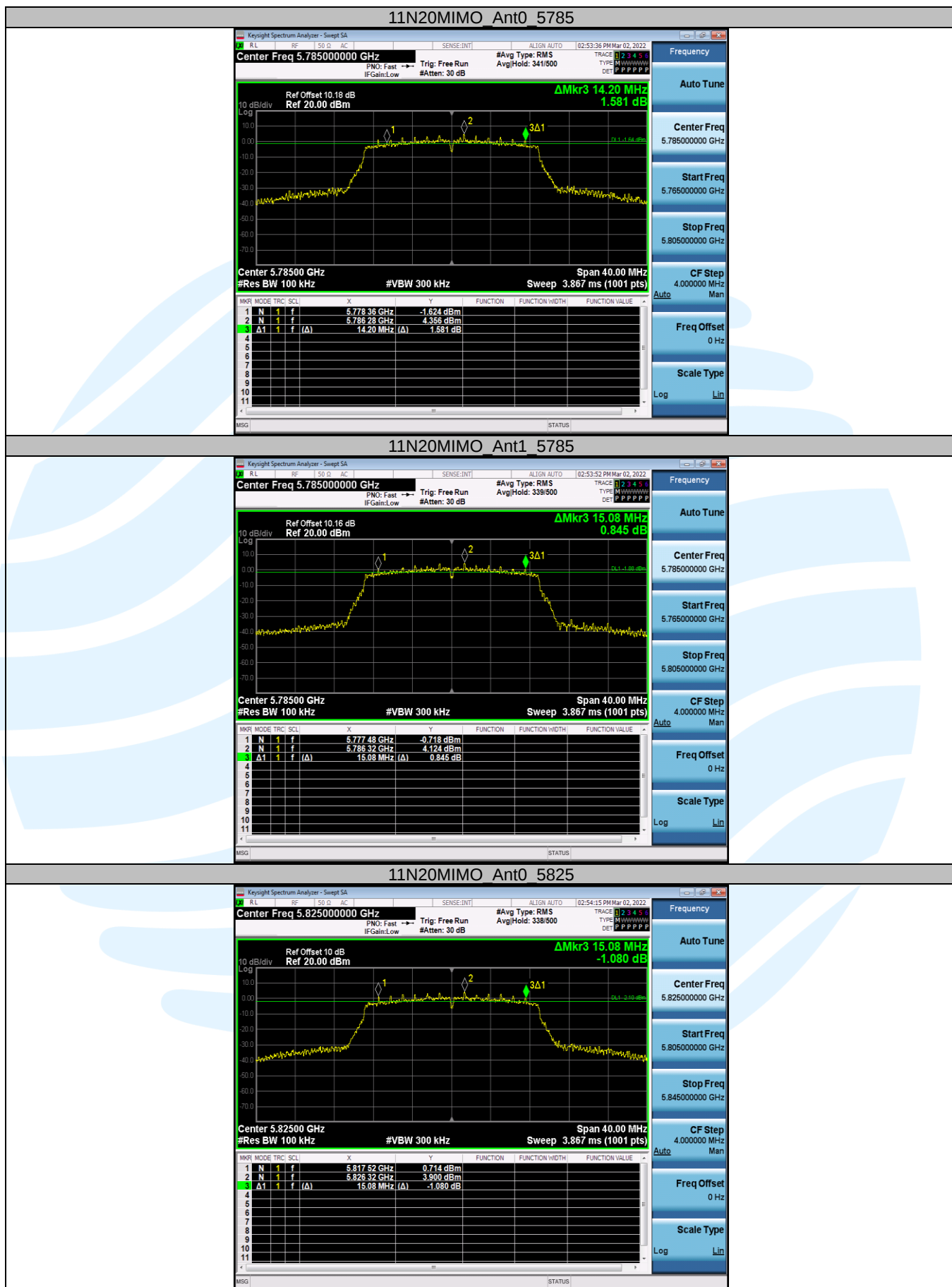
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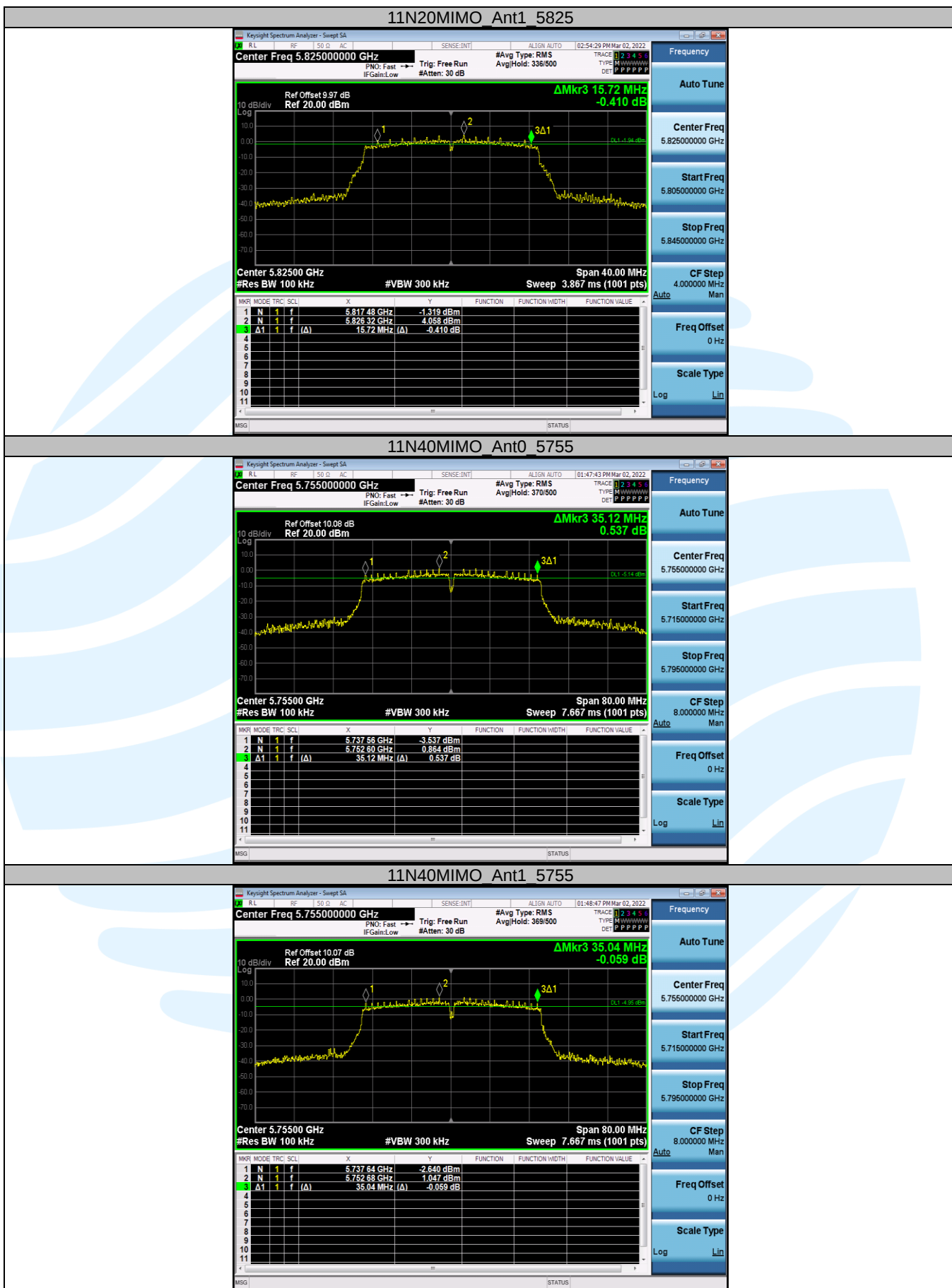
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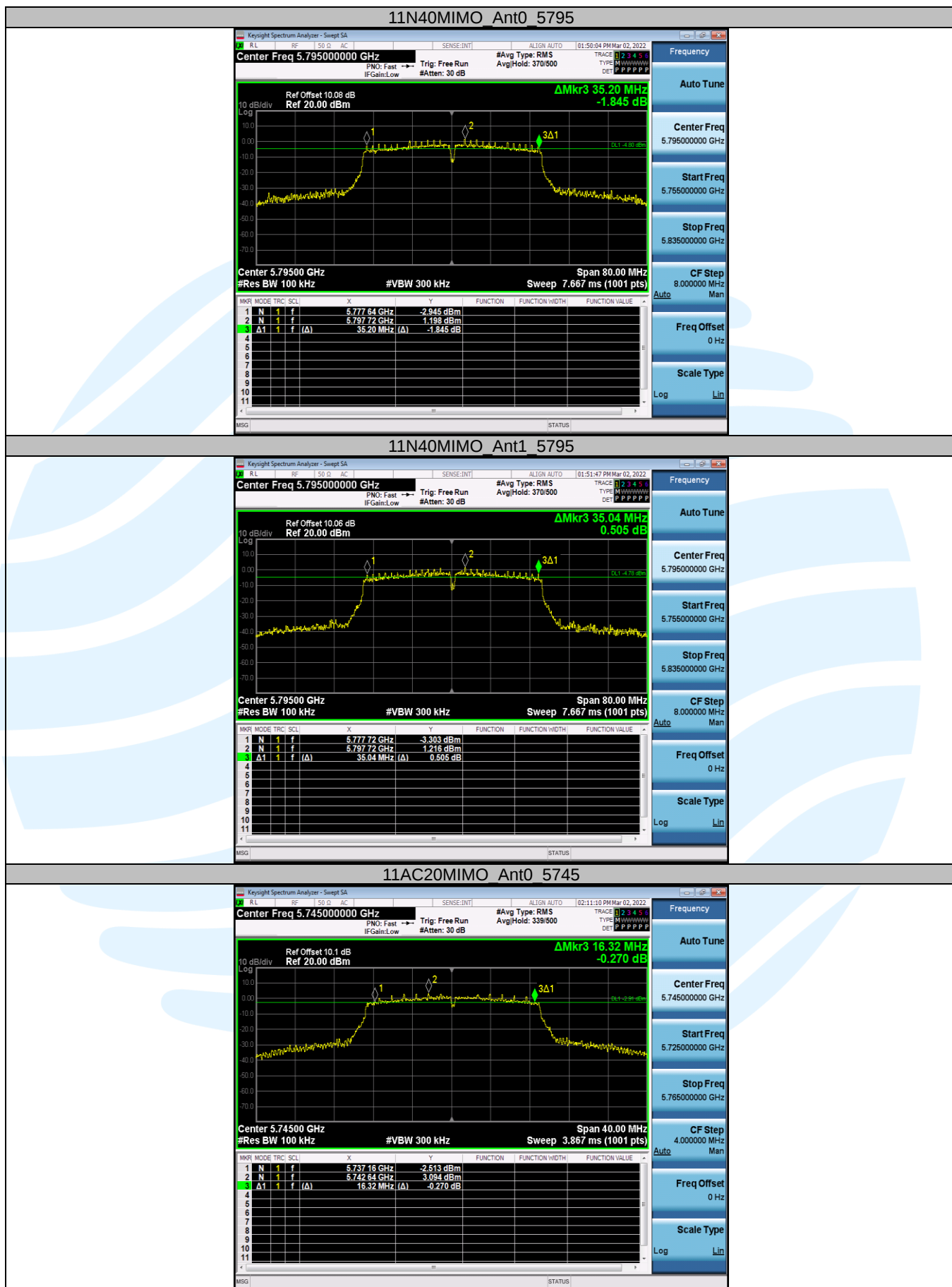
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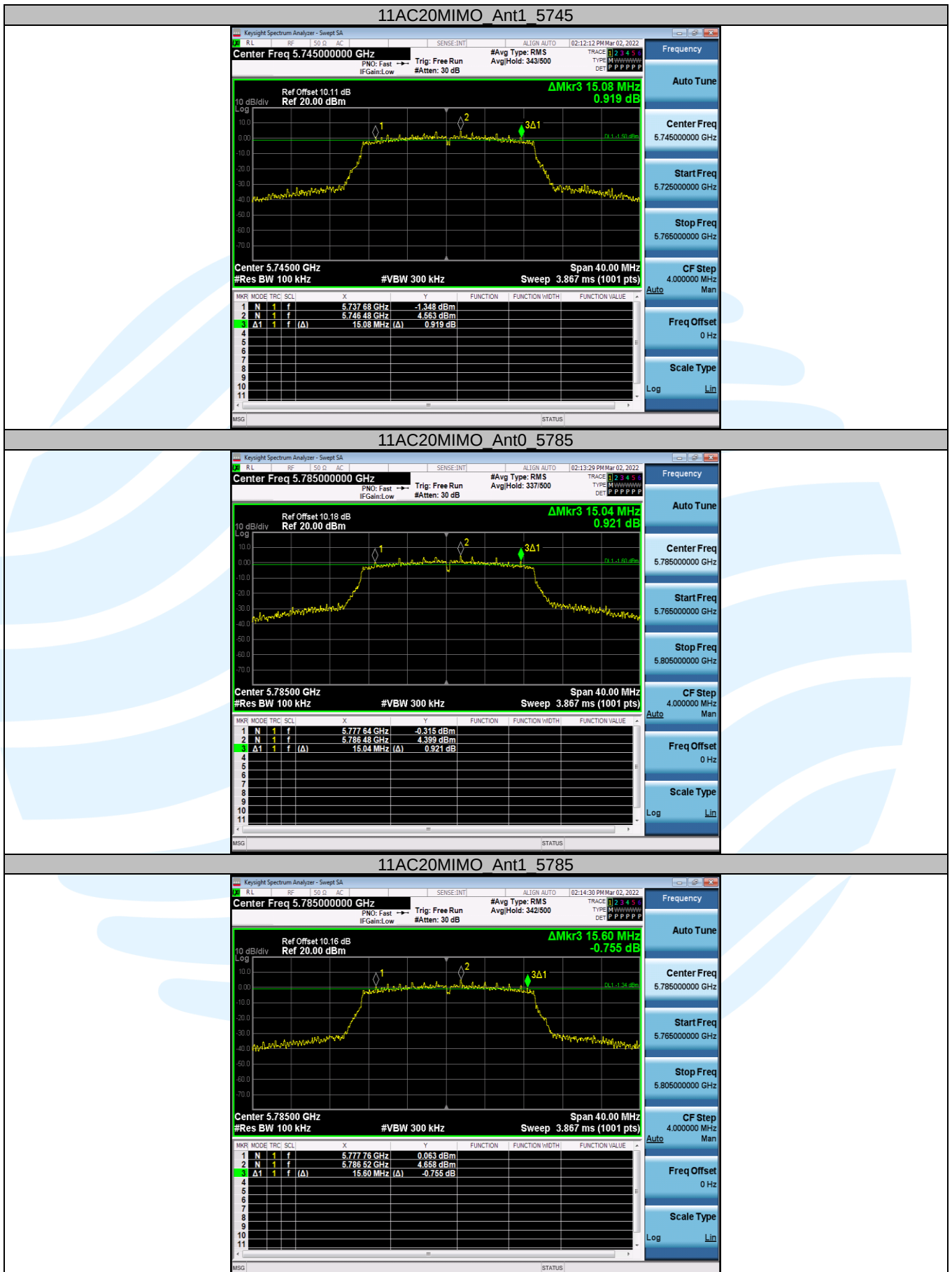
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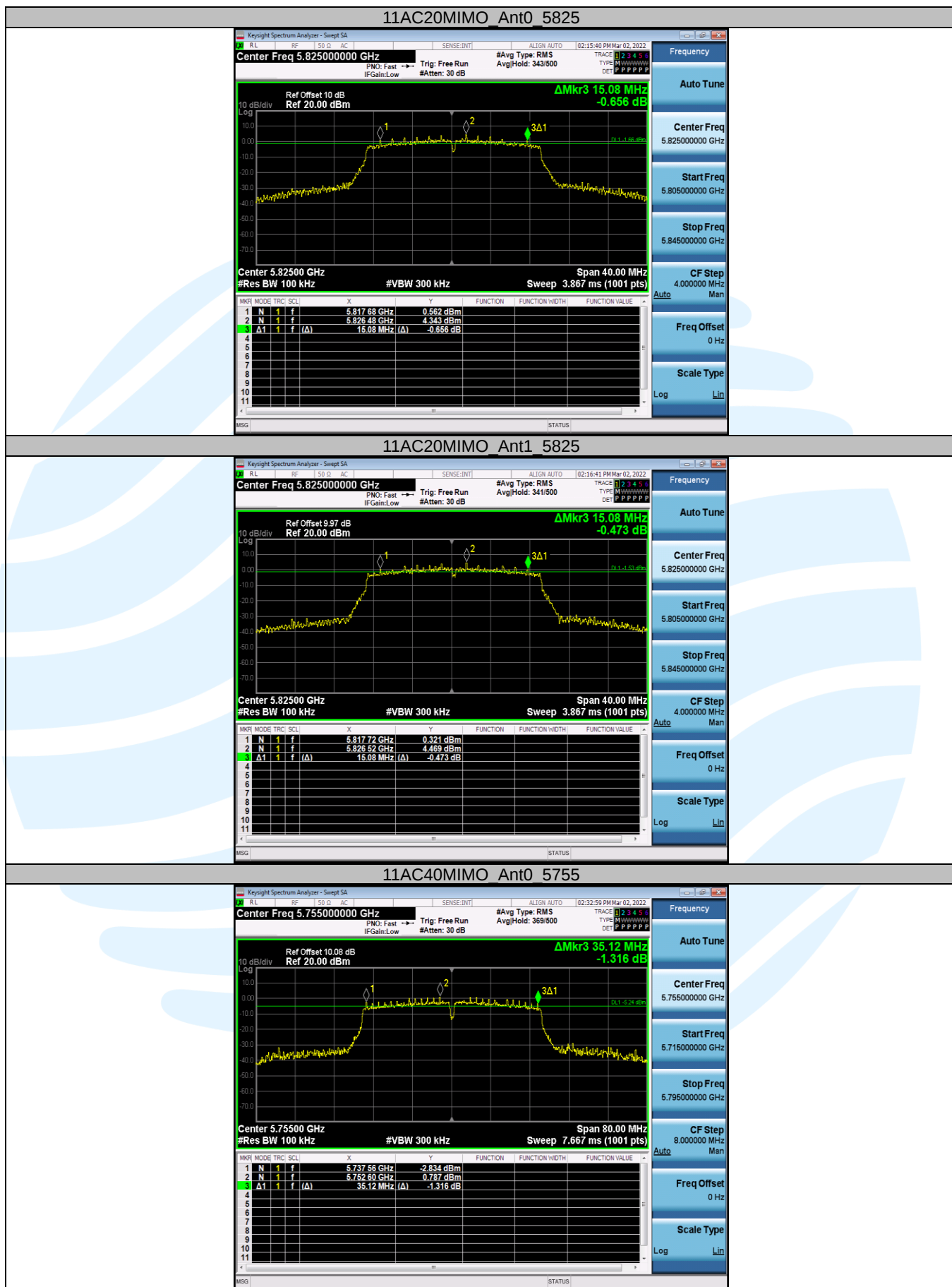
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