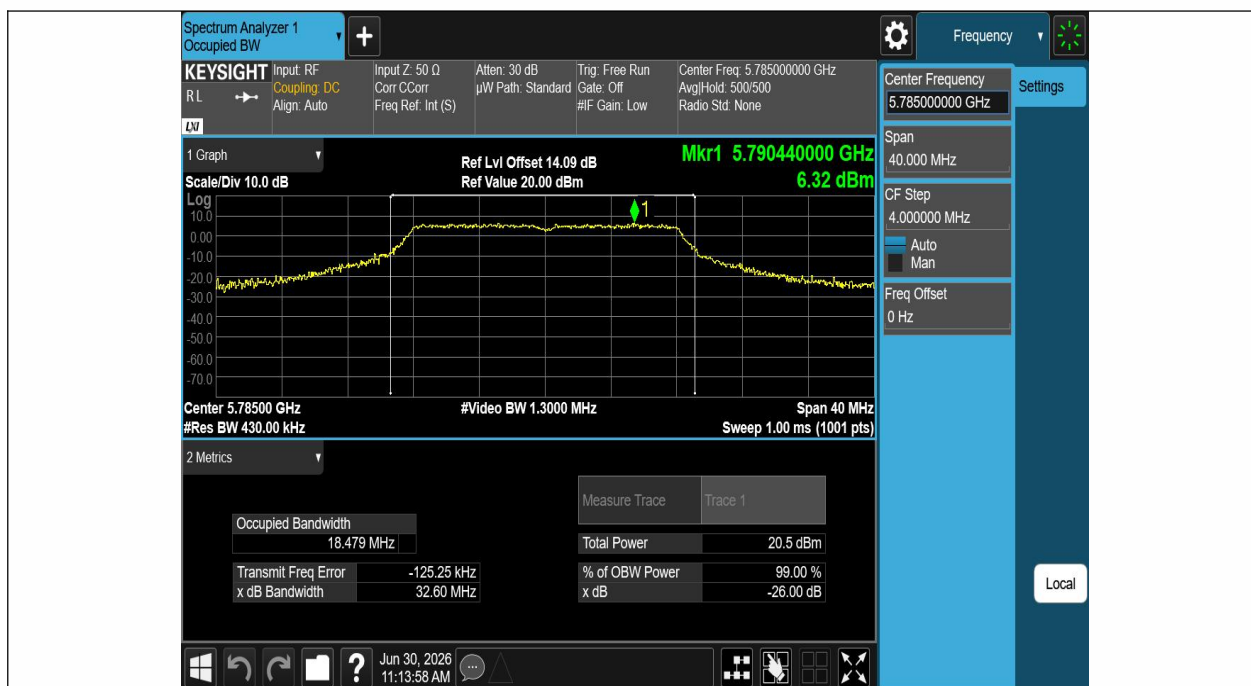




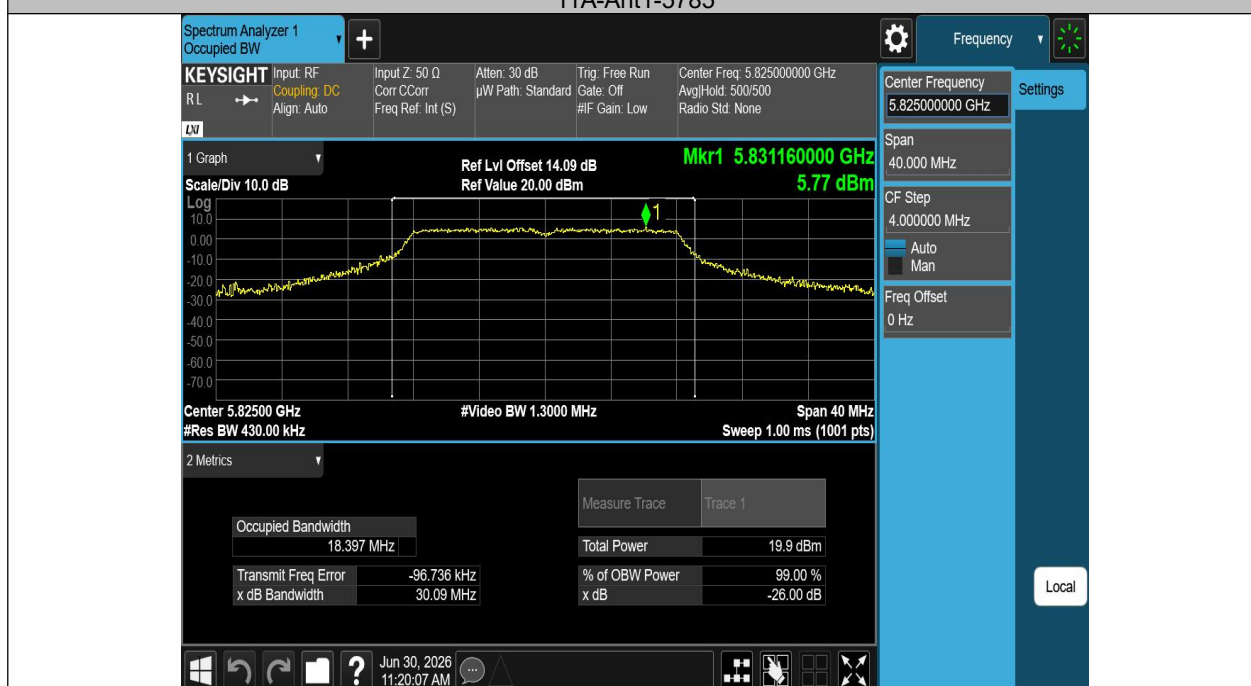
11A-Ant1-5240



11A-Ant1-5745



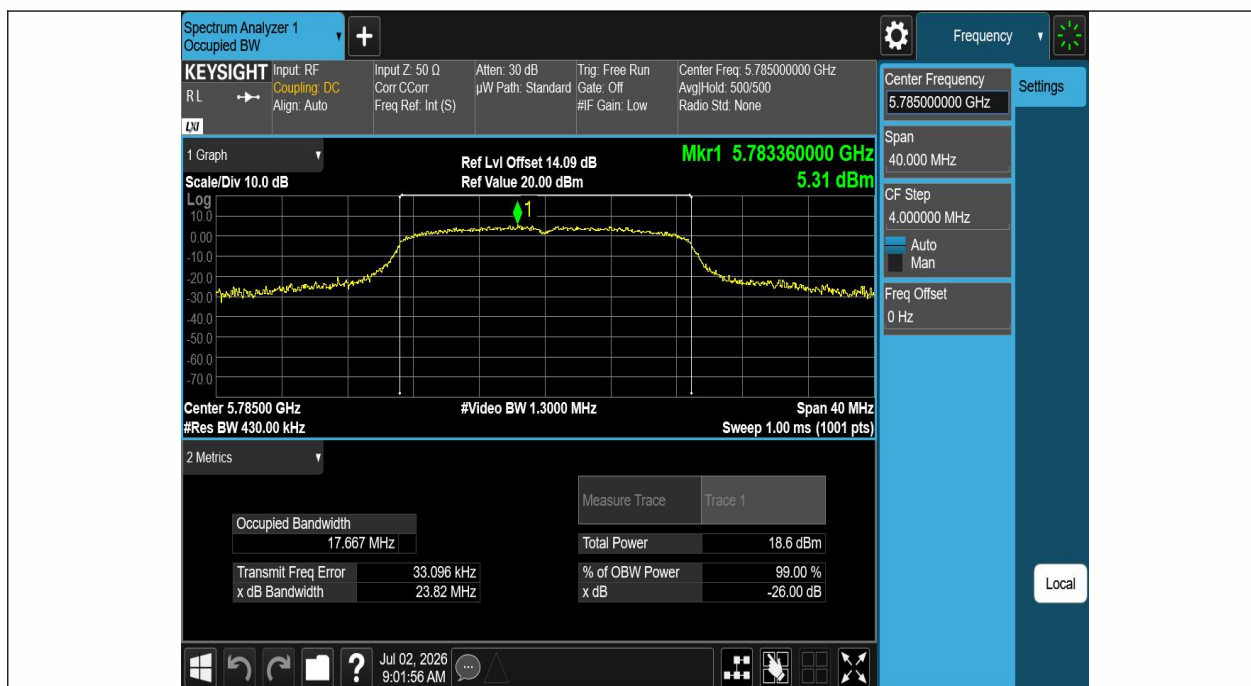
11A-Ant1-5785



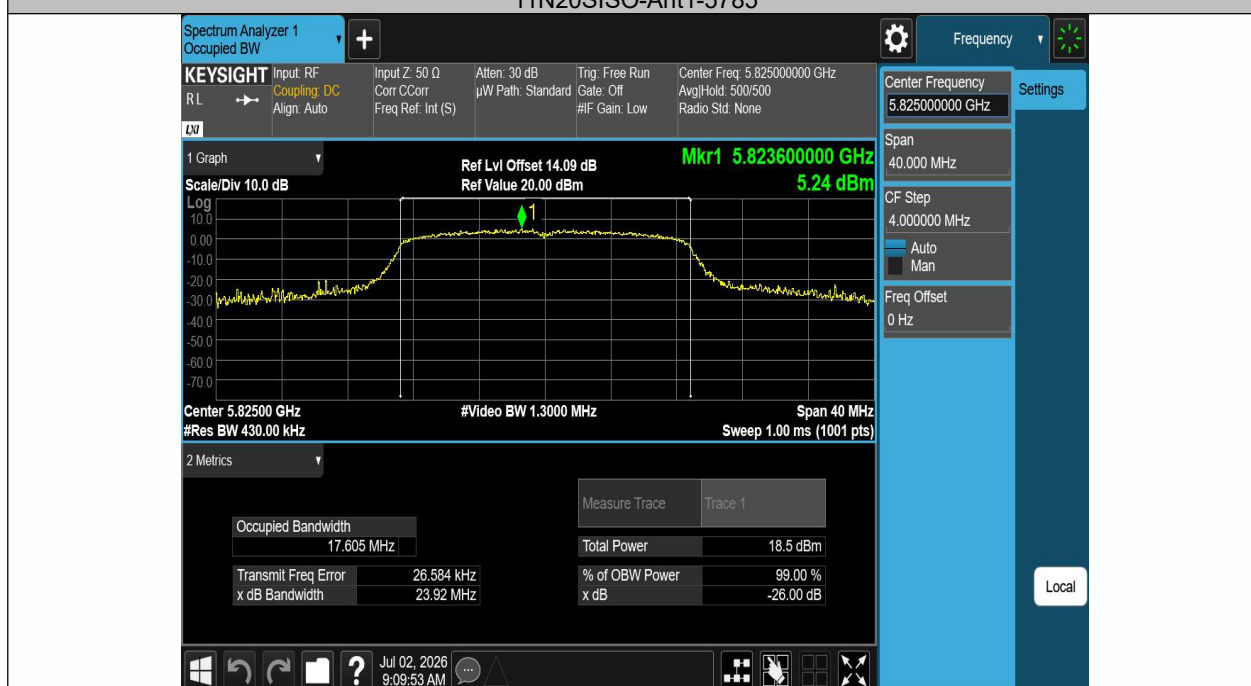
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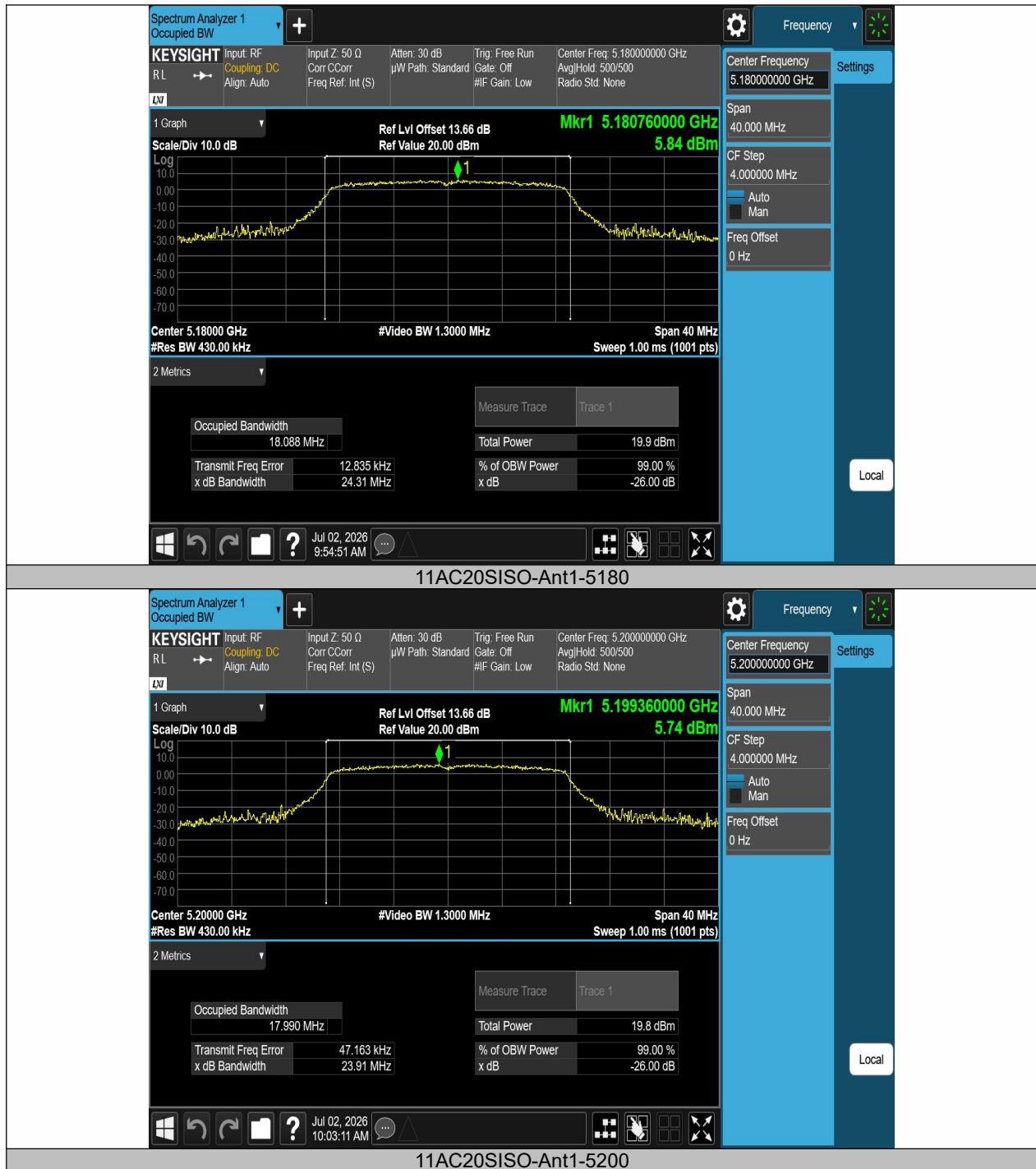
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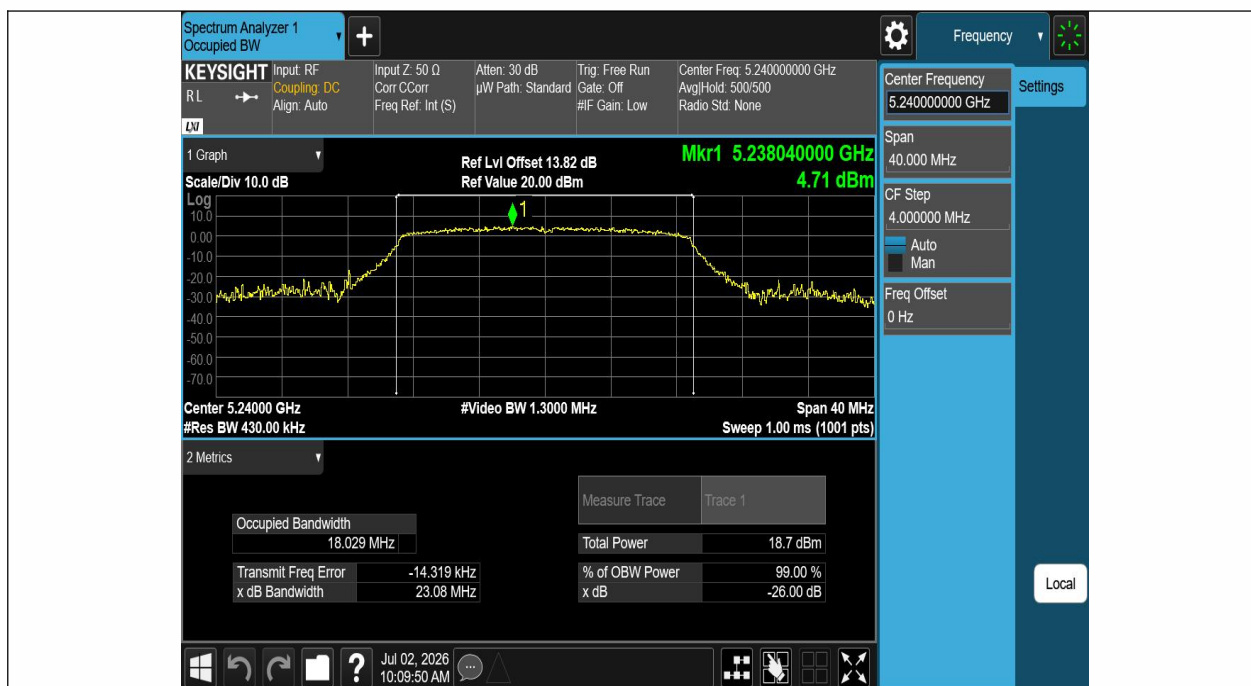


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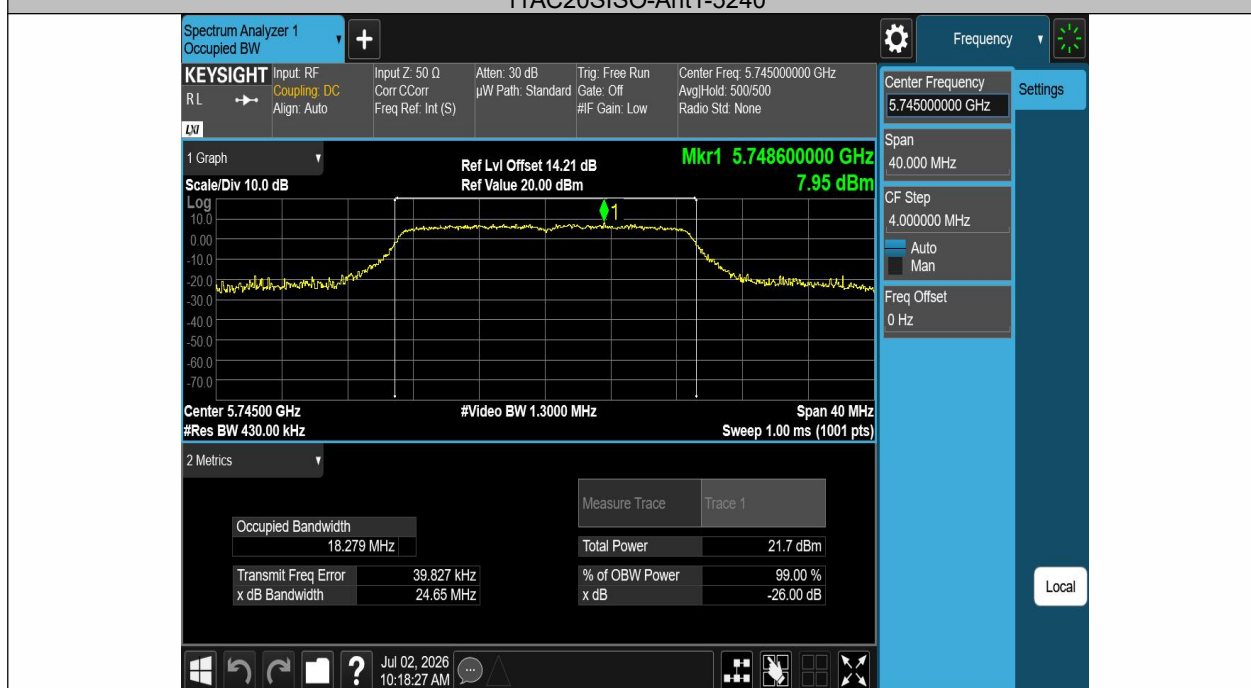




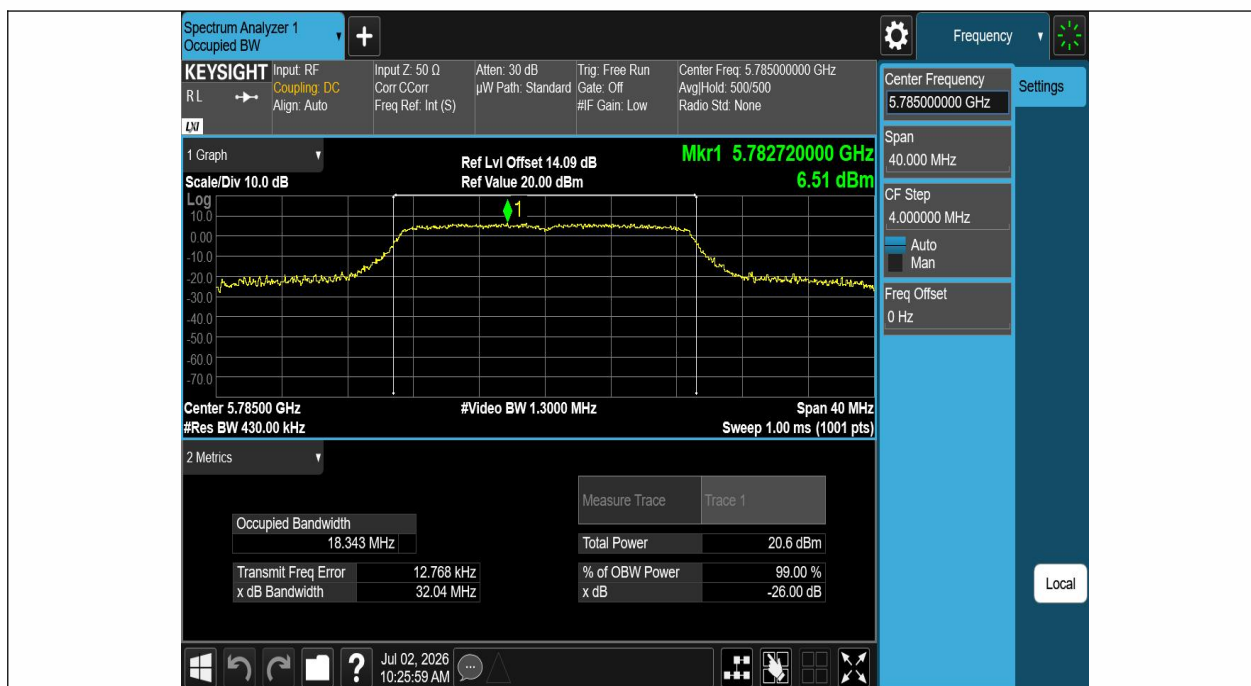




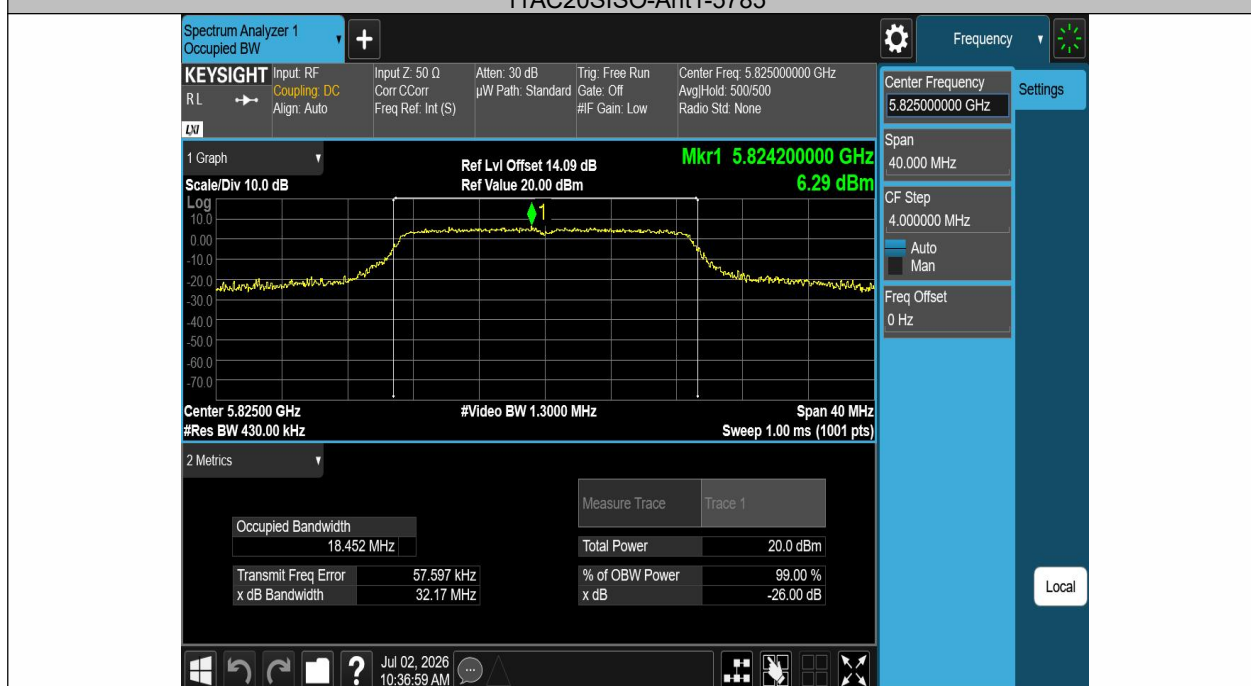
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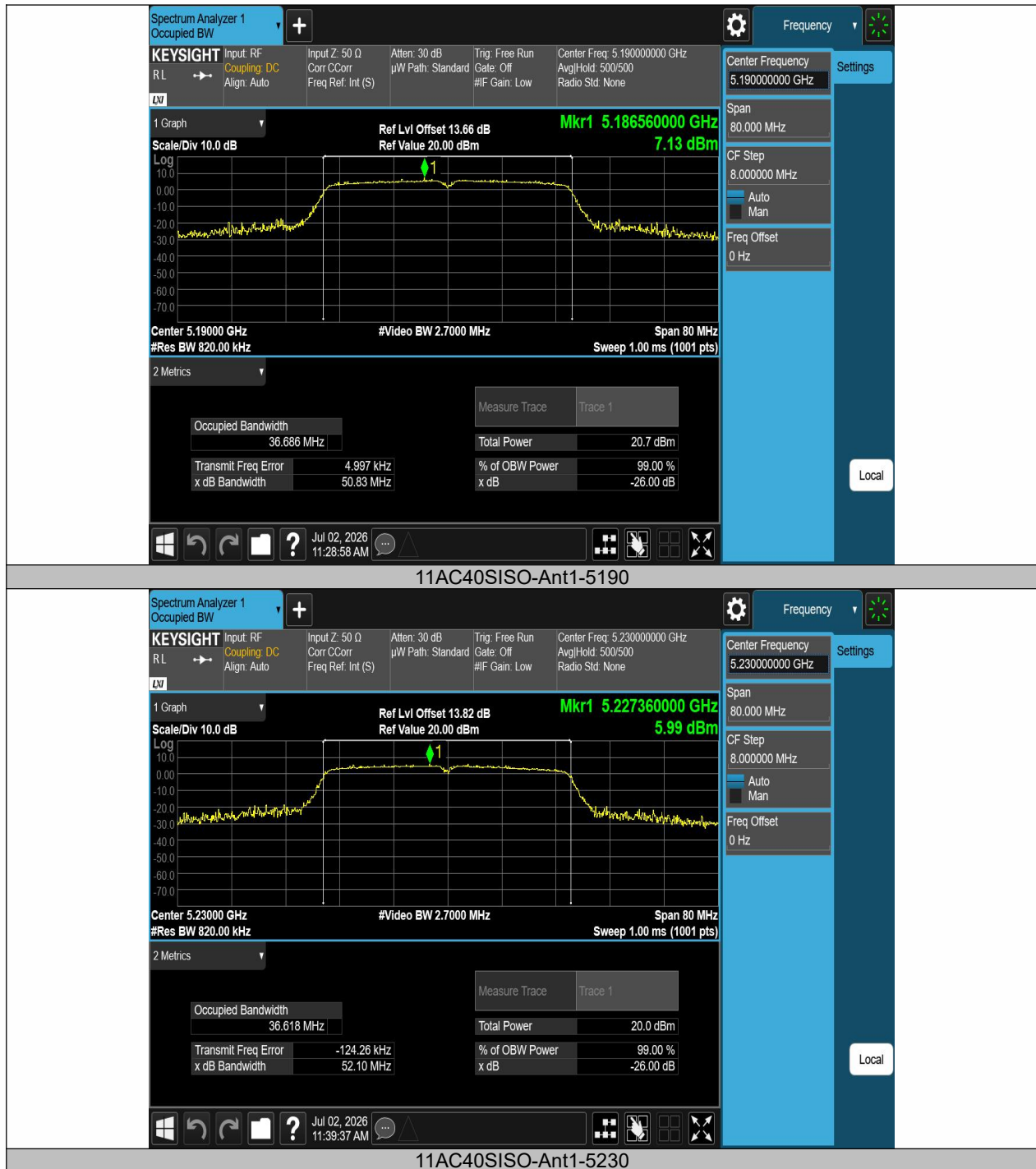
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11AC20SISO-Ant1-5785

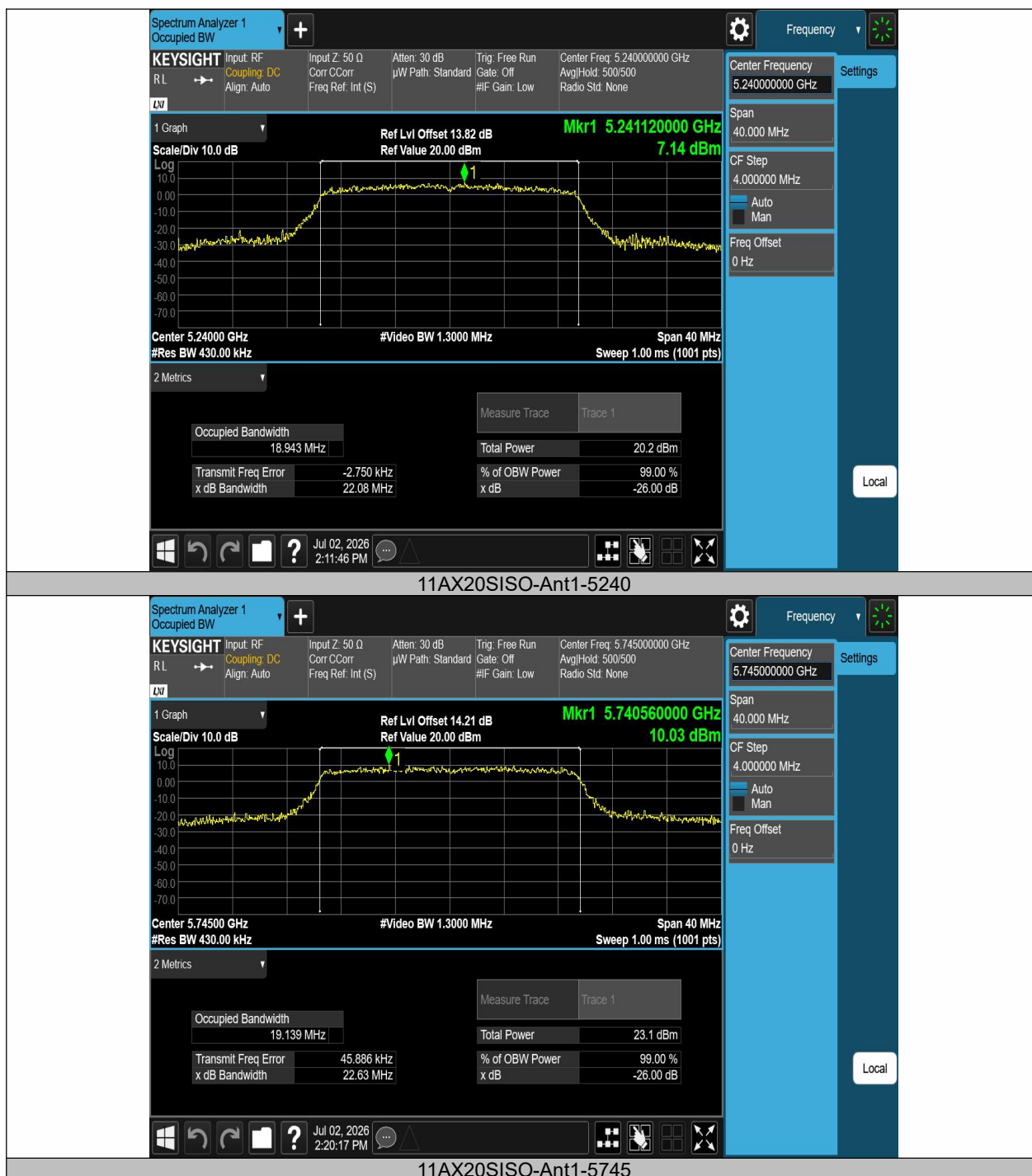


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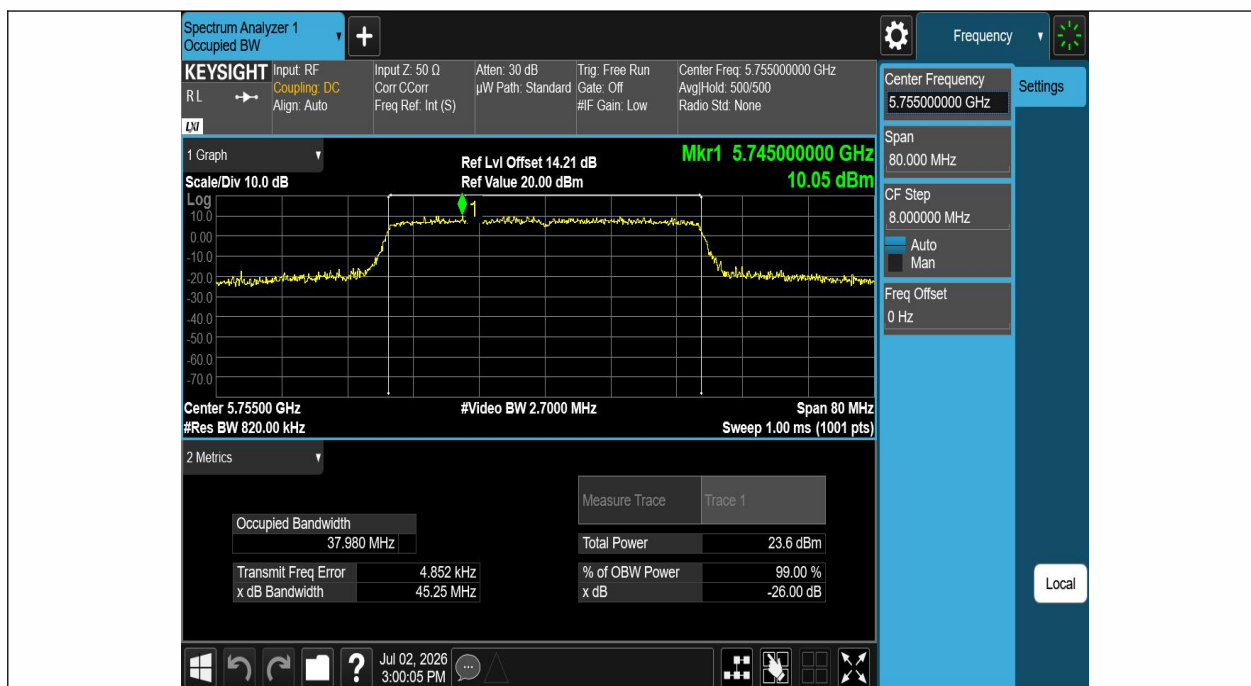




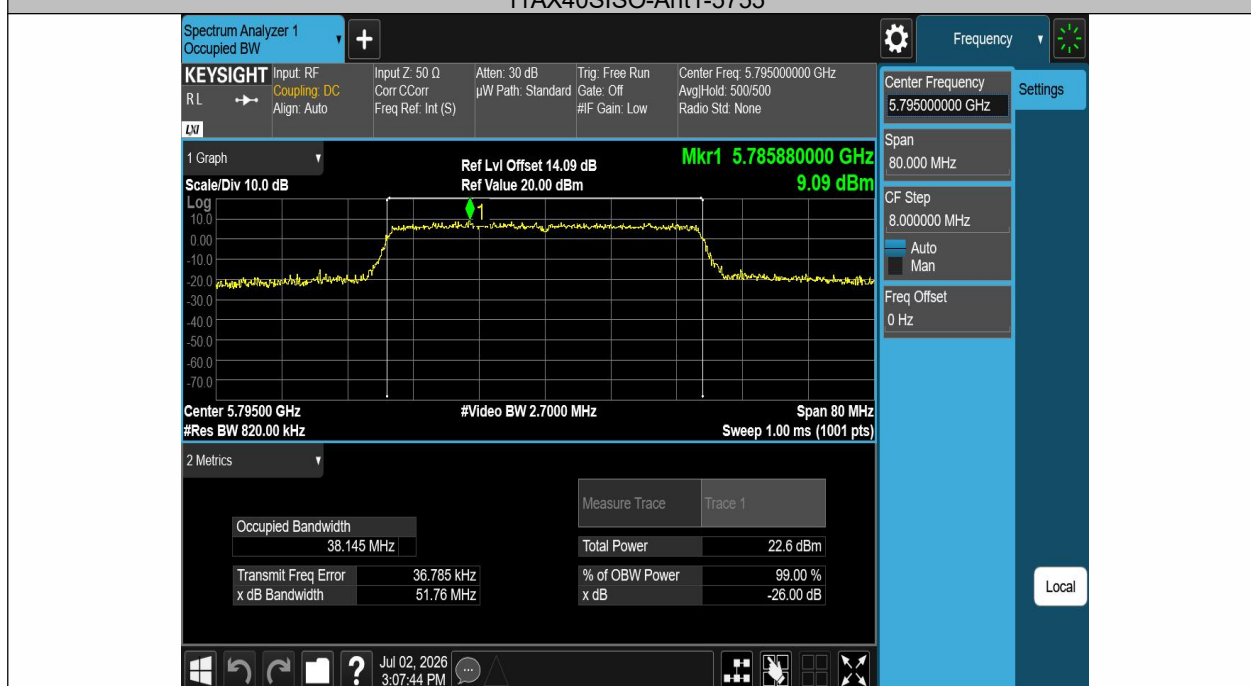
11AX40SISO-Ant1-5190



11AX40SISO-Ant1-5230



11AX40SISO-Ant1-5755



11AX40SISO-Ant1-5795

8.2 MAXIMUM CONDUCTED OUTPUT POWER

8.2.1 Applicable Standard

According to FCC Part 15.407(a)(1) for UNII Band I

According to FCC Part 15.407(a)(2) for UNII Band II-A and UNII Band II-C

According to FCC Part 15.407(a)(3) for UNII Band III

According to 789033 D02 Section II(E)

8.2.2 Conformance Limit

■ For the band 5.15-5.25 GHz,

(a) (1) (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. 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).

(a) (1) (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. 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.

(a) (1) (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. 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.

(a) (1) (iv) For mobile and portable 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. 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.

■ For the 5.25-5.35 GHz and 5.47-5.725 GHz bands

(a) (2) 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.

■ For the band 5.725-5.85 GHz

(a) (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.

8.2.3 Test Configuration

Test according to clause 6.1 radio frequency test setup 1.

8.2.4 Test Procedure

The maximum average conducted output power can be measured using Method PM-G (Measurement using a gated RF average power meter):

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

- The Transmitter output (antenna port) was connected to the power meter.
- Turn on the EUT and power meter and then record the power value.
- Repeat above procedures on all channels needed to be tested.

8.2.5 Test Results

Temperature : 25°C
Humidity : 60 %

ATM Pressure:: 1011 mbar
Test Engineer: Calvin

Output Power

Test Mode	Antenna	Frequency[MHz]	Result [dBm]	Limit [dBm]	Gain [dBi]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11A	Ant1	5180	14.79	≤23.98	5.40	20.19	---	PASS
11A	Ant1	5200	15.05	≤23.98	5.40	20.45	---	PASS
11A	Ant1	5240	13.95	≤23.98	5.40	19.35	---	PASS
11A	Ant1	5745	14.80	≤30.00	5.40	20.2	---	PASS
11A	Ant1	5785	13.68	≤30.00	5.40	19.08	---	PASS
11A	Ant1	5825	13.04	≤30.00	5.40	18.44	---	PASS
11N20SISO	Ant1	5180	13.79	≤23.98	5.40	19.19	---	PASS
11N20SISO	Ant1	5200	13.35	≤23.98	5.40	18.75	---	PASS
11N20SISO	Ant1	5240	12.76	≤23.98	5.40	18.16	---	PASS
11N20SISO	Ant1	5745	12.78	≤30.00	5.40	18.18	---	PASS
11N20SISO	Ant1	5785	11.83	≤30.00	5.40	17.23	---	PASS
11N20SISO	Ant1	5825	11.52	≤30.00	5.40	16.92	---	PASS
11N40SISO	Ant1	5190	13.18	≤23.98	5.40	18.58	---	PASS
11N40SISO	Ant1	5230	12.50	≤23.98	5.40	17.9	---	PASS
11N40SISO	Ant1	5755	14.91	≤30.00	5.40	20.31	---	PASS
11N40SISO	Ant1	5795	13.67	≤30.00	5.40	19.07	---	PASS
11AC20SISO	Ant1	5180	12.98	≤23.98	5.40	18.38	---	PASS
11AC20SISO	Ant1	5200	12.89	≤23.98	5.40	18.29	---	PASS
11AC20SISO	Ant1	5240	11.78	≤23.98	5.40	17.18	---	PASS
11AC20SISO	Ant1	5745	14.62	≤30.00	5.40	20.02	---	PASS
11AC20SISO	Ant1	5785	13.84	≤30.00	5.40	19.24	---	PASS
11AC20SISO	Ant1	5825	13.00	≤30.00	5.40	18.4	---	PASS
11AC40SISO	Ant1	5190	13.22	≤23.98	5.40	18.62	---	PASS
11AC40SISO	Ant1	5230	12.46	≤23.98	5.40	17.86	---	PASS
11AC40SISO	Ant1	5755	14.66	≤30.00	5.40	20.06	---	PASS
11AC40SISO	Ant1	5795	13.52	≤30.00	5.40	18.92	---	PASS
11AX20SISO	Ant1	5180	12.88	≤23.98	5.40	18.28	---	PASS
11AX20SISO	Ant1	5200	12.88	≤23.98	5.40	18.28	---	PASS
11AX20SISO	Ant1	5240	11.66	≤23.98	5.40	17.06	---	PASS
11AX20SISO	Ant1	5745	14.65	≤30.00	5.40	20.05	---	PASS
11AX20SISO	Ant1	5785	13.86	≤30.00	5.40	19.26	---	PASS
11AX20SISO	Ant1	5825	12.98	≤30.00	5.40	18.38	---	PASS
11AX40SISO	Ant1	5190	13.32	≤23.98	5.40	18.72	---	PASS
11AX40SISO	Ant1	5230	12.65	≤23.98	5.40	18.05	---	PASS

11AX40SISO	Ant1	5755	14.77	≤30.00	5.40	20.17	---	PASS
11AX40SISO	Ant1	5795	13.67	≤30.00	5.40	20.17	---	PASS

Output Power Test Graphs

