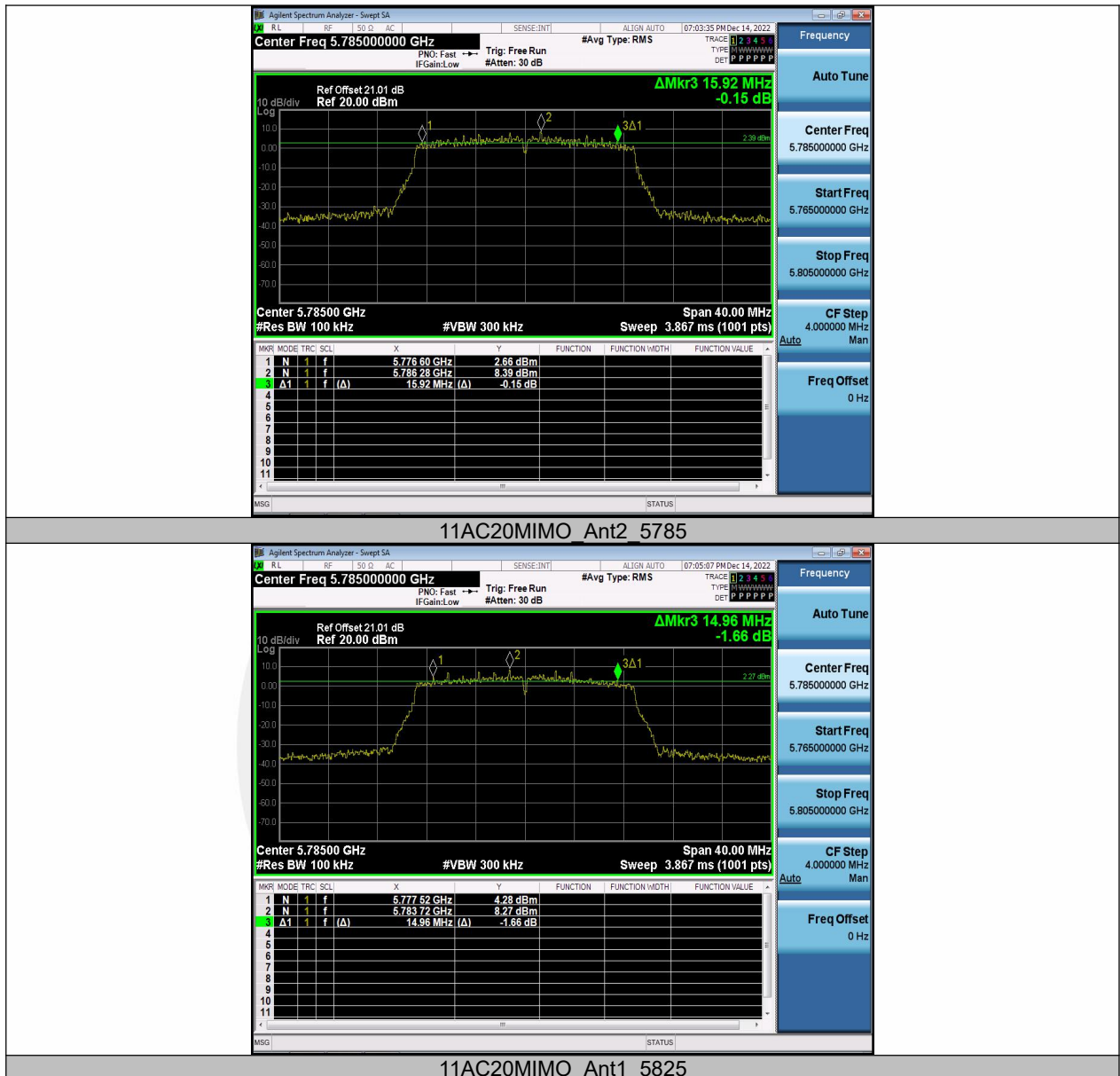






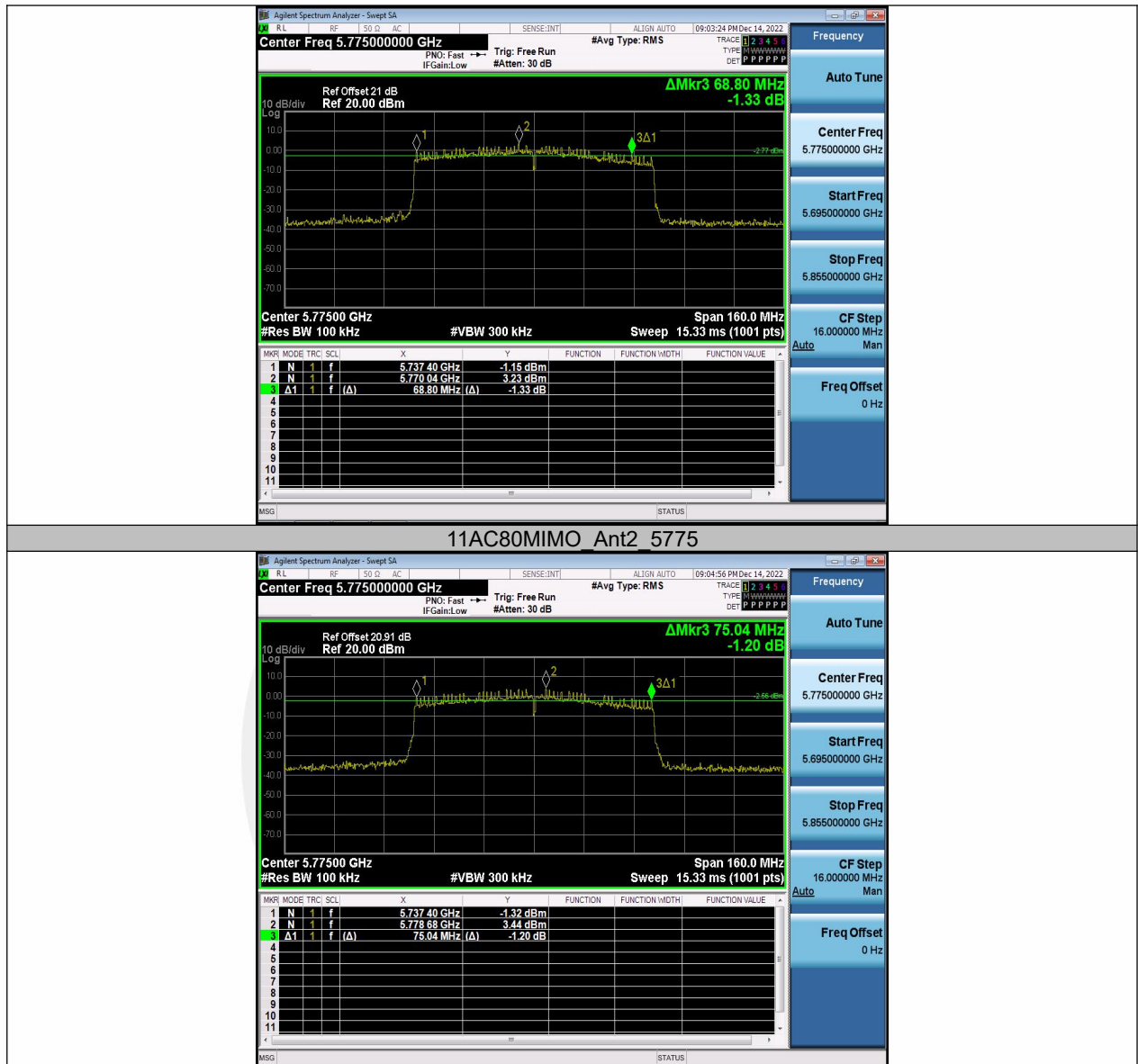












8.2 MAXIMUM CONDUCTED OUTPUT POWER

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

Software Power Setting:	
11A	B1: 0F B2: 1A B3: 1A B4: 1A
11N20	B1: 08 B2: 17 B3: 17 B4: 1A
11N40	B1: 19 B2: 1A B3: 1A B4: 1A
11AC20	B1: 08 B2: 16 B3: 15 B4: 1A
11AC40	B1: 0E B2: 1A B3: 1A B4: 1A
11AC80	B1: 1A B2: 1A B3: 1A B4: 1A

Test Mode	Antenna	Frequency [MHz]	Result [dBm]	Limit [dBm]	Gain [dBi]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11A	Ant1	5180	13.49	27.29	5.90	19.39	---	PASS
	Ant2	5180	12.83	27.29	5.90	18.73	---	PASS
	Ant1	5200	13.62	27.29	5.90	19.52	---	PASS
	Ant2	5200	12.94	27.29	5.90	18.84	---	PASS
	Ant1	5240	13.20	27.29	5.90	19.10	---	PASS
	Ant2	5240	13.12	27.29	5.90	19.02	---	PASS
	Ant1	5260	19.34	21.27	5.9	25.24	30	PASS
			15.11	21.21	5.9	21.01	30	PASS
	Ant2	5260	18.24	21.19	5.9	24.14	30	PASS
			14	21.19	5.9	19.9	30	PASS
	Ant1	5280	19.38	21.25	5.9	25.28	30	PASS
			13.7	21.2	5.9	19.6	30	PASS
	Ant2	5280	18.1	21.19	5.9	24	30	PASS

	Ant1	5320	13.84	21.15	5.9	19.74	30	PASS
			19.11	21.22	5.9	25.01	30	PASS
			14.17	21.27	5.9	20.07	30	PASS
	Ant2	5320	17.65	21.25	5.9	23.55	30	PASS
			13.41	21.19	5.9	19.31	30	PASS
	Ant1	5500	19.21	21.25	5.9	25.11	30	PASS
			14.54	21.26	5.9	20.44	30	PASS
	Ant2	5500	18.12	21.19	5.9	24.02	30	PASS
			13.53	21.15	5.9	19.43	30	PASS
	Ant1	5580	18.59	21.23	5.9	24.49	30	PASS
			13.32	21.25	5.9	19.22	30	PASS
	Ant2	5580	16.7	21.14	5.9	22.6	30	PASS
			12.23	21.17	5.9	18.13	30	PASS
	Ant1	5700	19.25	21.21	5.9	25.15	30	PASS
			14.12	21.27	5.9	20.02	30	PASS
	Ant2	5700	18.92	21.19	5.9	24.82	30	PASS
			14.75	21.19	5.9	20.65	30	PASS
	Ant1	5745	19.30	27.29	5.90	25.20	---	PASS
	Ant2	5745	19.26	27.29	5.90	25.16	---	PASS
	Ant1	5785	18.28	27.29	5.90	24.18	---	PASS
	Ant2	5785	17.91	27.29	5.90	23.81	---	PASS
	Ant1	5825	12.64	27.29	5.90	18.54	---	PASS
	Ant2	5825	10.94	27.29	5.90	16.84	---	PASS
11N20MI MO	Ant1	5180	10.39	27.29	5.90	16.29	---	PASS
	Ant2	5180	9.93	27.29	5.90	15.83	---	PASS
	total	5180	13.18	27.29	---	19.08	---	PASS
	Ant1	5200	10.28	27.29	5.90	16.18	---	PASS
	Ant2	5200	9.82	27.29	5.90	15.72	---	PASS
	total	5200	13.07	27.29	---	18.97	---	PASS
	Ant1	5240	10.37	27.29	5.90	16.27	---	PASS
	Ant2	5240	9.92	27.29	5.90	15.82	---	PASS
	total	5240	13.16	27.29	---	19.06	---	PASS
	Ant1	5260	17.92	21.27	5.9	23.82	30	PASS
			13.6	21.27	5.9	19.5	30	PASS
	Ant2	5260	16.94	21.27	5.9	22.84	30	PASS
			12.45	21.27	5.9	18.35	30	PASS
	total	5260	20.47	21.27	---	26.37	30	PASS
			16.07	21.27	---	21.97	30	PASS
	Ant1	5280	17.88	21.27	5.9	23.78	30	PASS
			13.05	21.27	5.9	18.95	30	PASS
	Ant2	5280	16.74	21.27	5.9	22.64	30	PASS
			11.86	21.27	5.9	17.76	30	PASS
	total	5280	20.36	21.27	---	26.26	30	PASS
			15.51	21.27	---	21.41	30	PASS
	Ant1	5320	18.02	21.27	5.9	23.92	30	PASS
			13.01	21.27	5.9	18.91	30	PASS
	Ant2	5320	16.67	21.23	5.9	22.57	30	PASS
			12.33	21.27	5.9	18.23	30	PASS
	total	5320	20.41	21.27	---	26.31	30	PASS
			15.69	21.27	---	21.59	30	PASS
	Ant1	5500	17.58	21.27	5.9	23.48	30	PASS
			13.65	21.27	5.9	19.55	30	PASS
	Ant2	5500	16.5	21.27	5.9	22.4	30	PASS
			12.6	21.25	5.9	18.5	30	PASS
	total	5500	20.08	21.27	---	25.98	30	PASS

	Ant1	5580	16.17	21.27	---	22.07	30	PASS
			17.94	21.27	5.9	23.84	30	PASS
			12.89	21.27	5.9	18.79	30	PASS
	Ant2	5580	16.13	21.27	5.9	22.03	30	PASS
			11.69	21.27	5.9	17.59	30	PASS
	total	5580	20.14	21.27	---	26.04	30	PASS
			15.34	21.27	---	21.24	30	PASS
	Ant1	5700	17.61	21.27	5.9	23.51	30	PASS
			12.67	21.27	5.9	18.57	30	PASS
	Ant2	5700	17.47	21.27	5.9	23.37	30	PASS
			13.25	21.27	5.9	19.15	30	PASS
	total	5700	20.55	21.27	---	26.45	30	PASS
			15.98	21.27	---	21.88	30	PASS
	Ant1	5745	20.14	27.29	5.90	26.04	---	PASS
	Ant2	5745	20.17	27.29	5.90	26.07	---	PASS
	total	5745	23.17	27.29	---	29.07	---	PASS
	Ant1	5785	18.97	27.29	5.90	24.87	---	PASS
	Ant2	5785	18.67	27.29	5.90	24.57	---	PASS
	total	5785	21.83	27.29	---	27.73	---	PASS
	Ant1	5825	18.35	27.29	5.90	24.25	---	PASS
	Ant2	5825	17.23	27.29	5.90	23.13	---	PASS
	total	5825	20.84	27.29	---	26.74	---	PASS
11N40MI MO	Ant1	5190	13.77	27.29	5.90	19.67	---	PASS
	Ant2	5190	13.10	27.29	5.90	19.00	---	PASS
	total	5190	16.46	27.29	---	22.36	---	PASS
	Ant1	5230	13.77	27.29	5.90	19.67	---	PASS
	Ant2	5230	13.08	27.29	5.90	18.98	---	PASS
	total	5230	16.45	27.29	---	22.35	---	PASS
	Ant1	5270	20.01	21.27	5.9	25.91	30	PASS
			15.4	21.27	5.9	21.3	30	PASS
	Ant2	5270	18.63	21.27	5.9	24.53	30	PASS
			13.93	21.27	5.9	19.83	30	PASS
	total	5270	22.38	21.27	---	28.28	30	PASS
			17.74	21.27	---	23.64	30	PASS
	Ant1	5310	19.64	21.27	5.9	25.54	30	PASS
			14.82	21.27	5.9	20.72	30	PASS
	Ant2	5310	18.13	21.27	5.9	24.03	30	PASS
			13.39	21.27	5.9	19.29	30	PASS
	total	5310	21.96	21.27	---	27.86	30	PASS
			17.17	21.27	---	23.07	30	PASS
	Ant1	5510	19.73	21.27	5.9	25.63	30	PASS
			15.24	21.27	5.9	21.14	30	PASS
	Ant2	5510	18.37	21.27	5.9	24.27	30	PASS
			13.89	21.27	5.9	19.79	30	PASS
	total	5510	22.11	21.27	---	28.01	30	PASS
			17.63	21.27	---	23.53	30	PASS
	Ant1	5550	19.41	21.27	5.9	25.31	30	PASS
			14.64	21.27	5.9	20.54	30	PASS
	Ant2	5550	17.87	21.27	5.9	23.77	30	PASS
			13.31	21.27	5.9	19.21	30	PASS
	total	5550	21.72	21.27	---	27.62	30	PASS
			17.04	21.27	---	22.94	30	PASS
	Ant1	5670	19.5	21.27	5.9	25.4	30	PASS
			14.55	21.27	5.9	20.45	30	PASS
	Ant2	5670	18.77	21.27	5.9	24.67	30	PASS

			14.65	21.27	5.9	20.55	30	PASS
	total	5670	22.16	21.27	---	28.06	30	PASS
			17.61	21.27	---	23.51	30	PASS
	Ant1	5755	19.55	27.29	5.90	25.45	---	PASS
	Ant2	5755	19.17	27.29	5.90	25.07	---	PASS
	total	5755	22.37	27.29	---	28.27	---	PASS
	Ant1	5795	18.32	27.29	5.90	24.22	---	PASS
	Ant2	5795	17.52	27.29	5.90	23.42	---	PASS
11AC20M IMO	total	5795	20.95	27.29	---	26.85	---	PASS
	Ant1	5180	10.68	27.29	5.90	16.58	---	PASS
	Ant2	5180	10.28	27.29	5.90	16.18	---	PASS
	total	5180	13.49	27.29	---	19.39	---	PASS
	Ant1	5200	10.96	27.29	5.90	16.86	---	PASS
	Ant2	5200	10.46	27.29	5.90	16.36	---	PASS
	total	5200	13.73	27.29	---	19.63	---	PASS
	Ant1	5240	10.39	27.29	5.90	16.29	---	PASS
	Ant2	5240	10.04	27.29	5.90	15.94	---	PASS
	total	5240	13.23	27.29	---	19.13	---	PASS
	Ant1	5260	17.37	21.27	5.9	23.27	30	PASS
			13.32	21.27	5.9	19.22	30	PASS
	Ant2	5260	16.53	21.27	5.9	22.43	30	PASS
			12.21	21.27	5.9	18.11	30	PASS
	total	5260	19.98	21.27	---	25.88	30	PASS
			15.81	21.27	---	21.71	30	PASS
	Ant1	5280	17.51	21.27	5.9	23.41	30	PASS
			13.26	21.27	5.9	19.16	30	PASS
	Ant2	5280	17.7	21.26	5.9	23.6	30	PASS
			12.16	21.27	5.9	18.06	30	PASS
	total	5280	20.62	21.27	---	26.52	30	PASS
			15.76	21.27	---	21.66	30	PASS
	Ant1	5320	15.54	21.27	5.9	21.44	30	PASS
			11.78	21.27	5.9	17.68	30	PASS
	Ant2	5320	14.28	21.27	5.9	20.18	30	PASS
			10.63	21.27	5.9	16.53	30	PASS
	total	5320	17.97	21.27	---	23.87	30	PASS
			14.25	21.27	---	20.15	30	PASS
	Ant1	5500	15.25	21.24	5.9	21.15	30	PASS
			11.31	21.27	5.9	17.21	30	PASS
	Ant2	5500	14.02	21.27	5.9	19.92	30	PASS
			10.36	21.27	5.9	16.26	30	PASS
	total	5500	17.69	21.27	---	23.59	30	PASS
			13.87	21.27	---	19.77	30	PASS
	Ant1	5580	15.53	21.27	5.9	21.43	30	PASS
			11.69	21.27	5.9	17.59	30	PASS
	Ant2	5580	17.65	21.27	5.9	23.55	30	PASS
			12.01	21.27	5.9	17.91	30	PASS
	total	5580	19.73	21.27	---	25.63	30	PASS
			14.86	21.27	---	20.76	30	PASS
	Ant1	5700	17.14	21.27	5.9	23.04	30	PASS
			12.51	21.27	5.9	18.41	30	PASS
	Ant2	5700	17.48	21.27	5.9	23.38	30	PASS
			13.12	21.27	5.9	19.02	30	PASS
	total	5700	20.32	21.27	---	26.22	30	PASS
			15.84	21.27	---	21.74	30	PASS
	Ant1	5745	20.34	27.29	5.90	26.24	---	PASS

	Ant2	5745	19.94	27.29	5.90	25.84	---	PASS
	total	5745	23.15	27.29	---	29.05	---	PASS
	Ant1	5785	18.93	27.29	5.90	24.83	---	PASS
	Ant2	5785	18.91	27.29	5.90	24.81	---	PASS
	total	5785	21.93	27.29	---	27.83	---	PASS
	Ant1	5825	17.70	27.29	5.90	23.60	---	PASS
	Ant2	5825	18.26	27.29	5.90	24.16	---	PASS
	total	5825	21.00	27.29	---	26.90	---	PASS
11AC40M IMO	Ant1	5190	12.95	27.29	5.90	18.85	---	PASS
	Ant2	5190	13.90	27.29	5.90	19.80	---	PASS
	total	5190	16.46	27.29	---	22.36	---	PASS
	Ant1	5230	12.66	27.29	5.90	18.56	---	PASS
	Ant2	5230	13.35	27.29	5.90	19.25	---	PASS
	total	5230	16.03	27.29	---	21.93	---	PASS
	Ant1	5270	18.16	21.27	5.9	24.06	30	PASS
			14.77	21.27	5.9	20.67	30	PASS
	Ant2	5270	19.37	21.27	5.9	25.27	30	PASS
			13.8	21.27	5.9	19.7	30	PASS
	total	5270	21.82	21.27	---	27.72	30	PASS
			17.32	21.27	---	23.22	30	PASS
	Ant1	5310	17.69	21.27	5.9	23.59	30	PASS
			13.87	21.27	5.9	19.77	30	PASS
	Ant2	5310	19.07	21.27	5.9	24.97	30	PASS
			13.37	21.27	5.9	19.27	30	PASS
	total	5310	21.44	21.27	---	27.34	30	PASS
			16.64	21.27	---	22.54	30	PASS
	Ant1	5510	18.47	21.27	5.9	24.37	30	PASS
			14.23	21.27	5.9	20.13	30	PASS
	Ant2	5510	19.26	21.27	5.9	25.16	30	PASS
			15.28	21.27	5.9	21.18	30	PASS
	total	5510	21.89	21.27	---	27.79	30	PASS
			17.8	21.27	---	23.7	30	PASS
	Ant1	5550	17.57	21.27	5.9	23.47	30	PASS
			14.15	21.27	5.9	20.05	30	PASS
	Ant2	5550	19.23	21.27	5.9	25.13	30	PASS
			14.67	21.27	5.9	20.57	30	PASS
	total	5550	21.49	21.27	---	27.39	30	PASS
			17.43	21.27	---	23.33	30	PASS
	Ant1	5670	18.36	21.27	5.9	24.26	30	PASS
			14.49	21.27	5.9	20.39	30	PASS
	Ant2	5670	19.48	21.27	5.9	25.38	30	PASS
			14.65	21.27	5.9	20.55	30	PASS
	total	5670	21.97	21.27	---	27.87	30	PASS
			17.58	21.27	---	23.48	30	PASS
	Ant1	5755	19.32	27.29	5.90	25.22	---	PASS
	Ant2	5755	19.15	27.29	5.90	25.05	---	PASS
	total	5755	22.25	27.29	---	28.15	---	PASS
	Ant1	5795	17.99	27.29	5.90	23.89	---	PASS
	Ant2	5795	18.59	27.29	5.90	24.49	---	PASS
	total	5795	21.31	27.29	---	27.21	---	PASS
11AC80M IMO	Ant1	5210	13.05	27.29	5.90	18.95	---	PASS
	Ant2	5210	13.87	27.29	5.90	19.77	---	PASS
	total	5210	16.49	27.29	---	22.39	---	PASS
	Ant1	5290	18.52	21.27	5.9	24.42	30	PASS
			15.24	21.27	5.9	21.14	30	PASS

	Ant2	5290	19.64	21.27	5.9	25.54	30	PASS
			13.74	21.27	5.9	19.64	30	PASS
	total	5290	22.13	21.27	---	28.03	30	PASS
			17.56	21.27	---	23.46	30	PASS
	Ant1	5530	18.36	21.27	5.9	24.26	30	PASS
			15.13	21.27	5.9	21.03	30	PASS
	Ant2	5530	19.6	21.27	5.9	25.5	30	PASS
			15.33	21.27	5.9	21.23	30	PASS
	total	5530	22.03	21.27	---	27.93	30	PASS
			18.24	21.27	---	24.14	30	PASS
	Ant1	5610	17.1	21.27	5.9	23	30	PASS
			13.77	21.27	5.9	19.67	30	PASS
	Ant2	5610	18.9	21.27	5.9	24.8	30	PASS
			14.14	21.27	5.9	20.04	30	PASS
	total	5610	21.45	21.27	---	27.35	30	PASS
			16.97	21.27	---	22.87	30	PASS
	Ant1	5775	19.15	27.29	5.90	25.05	---	PASS
	Ant2	5775	19.18	27.29	5.90	25.08	---	PASS
	total	5775	22.18	27.29	---	28.08	---	PASS











