

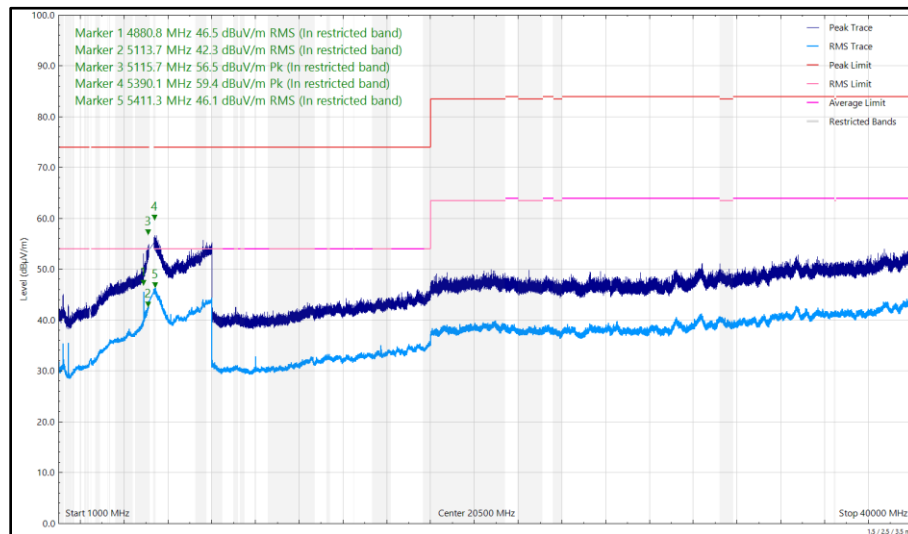


Figure 69 - U-NII-1 - 5240 MHz (CH48), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
2363.694	59.11	74.00	-14.89	Peak	0	149	Vertical
2384.623	61.61	74.00	-12.39	Peak	62	375	Horizontal
2396.792	67.76	80.00	-12.24	Peak	305	400	Horizontal
2397.145	72.45	80.00	-7.55	Peak	350	257	Vertical
2483.746	37.38	54.00	-16.62	RMS	26	260	Vertical
2488.263	69.78	74.00	-4.22	Peak	8	259	Vertical
4222.780	35.31	54.00	-18.69	RMS	113	391	Vertical
4270.006	35.46	54.00	-18.54	RMS	0	275	Horizontal
4879.023	43.31	54.00	-10.69	RMS	328	269	Vertical
4881.087	37.87	54.00	-16.13	RMS	108	398	Horizontal

Table 26 - U-NII-2C - 5640 MHz (CH128), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 30 MHz to 40 GHz

No other emissions found within 10 dB of the limit.

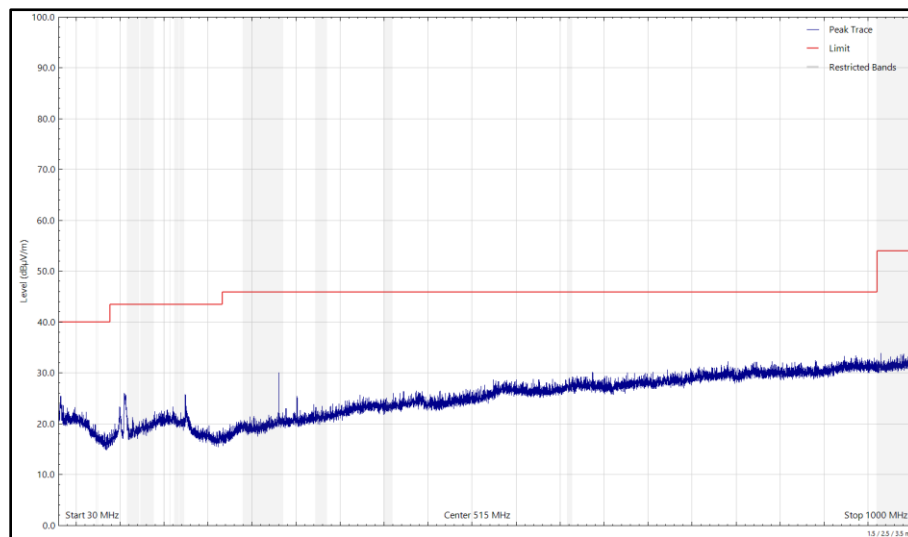


Figure 70 - U-NII-2C - 5640 MHz (CH128), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 30 MHz to 1 GHz, Horizontal (Peak)

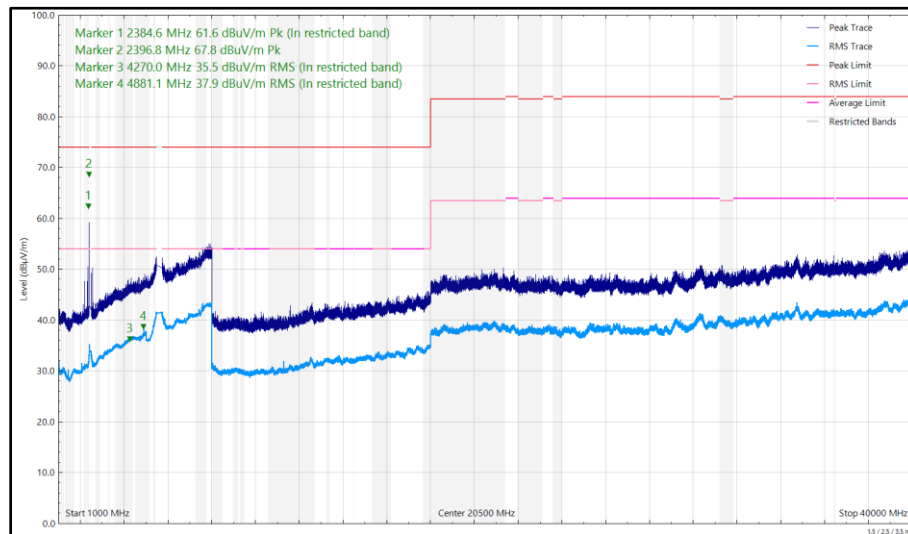


Figure 71 - U-NII-2C - 5640 MHz (CH128), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 1 GHz to 40 GHz, Horizontal

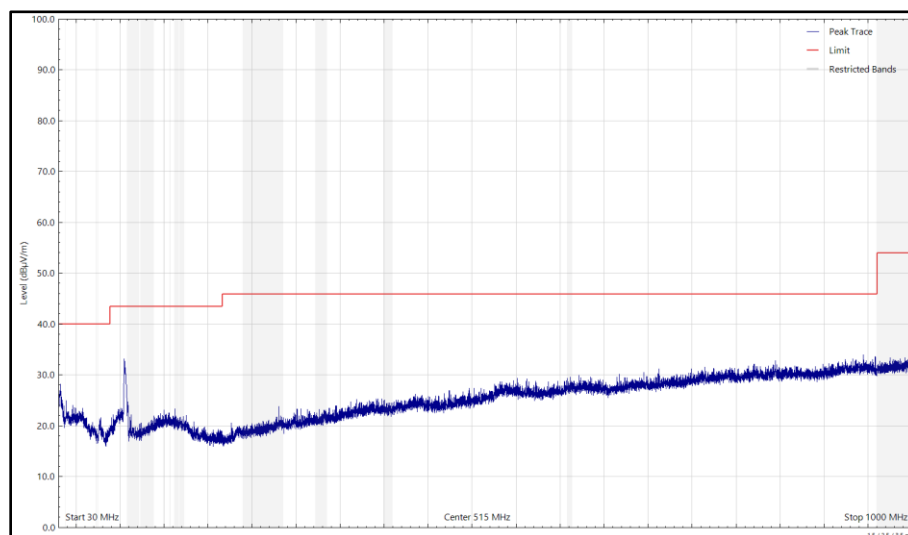


Figure 72 - U-NII-2C - 5640 MHz (CH128), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 30 MHz to 1 GHz, Vertical (Peak)

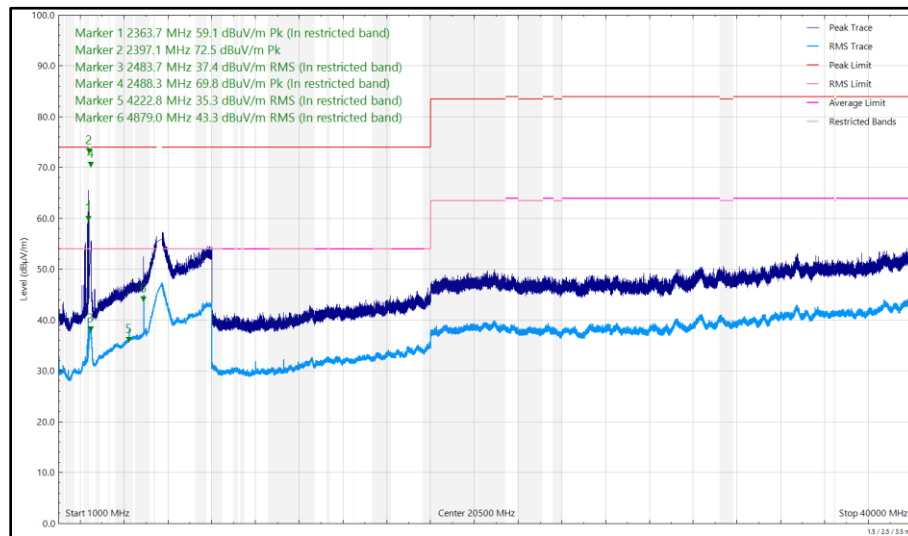


Figure 73 - U-NII-2C - 5640 MHz (CH128), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
2383.998	65.46	74.00	-8.54	Peak	21	269	Vertical
2395.914	71.09	80.00	-8.91	Peak	46	355	Vertical
2483.960	69.99	74.00	-4.01	Peak	41	227	Vertical
2485.984	38.34	54.00	-15.66	RMS	30	390	Vertical
4346.173	35.53	54.00	-18.47	RMS	335	333	Vertical
4385.778	35.66	54.00	-18.34	RMS	268	322	Horizontal
4879.173	38.60	54.00	-15.40	RMS	59	397	Horizontal
4880.952	43.11	54.00	-10.89	RMS	0	288	Vertical

Table 27 - U-NII-2C - 5640 MHz (CH128), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 30 MHz to 40 GHz

No other emissions found within 10 dB of the limit.

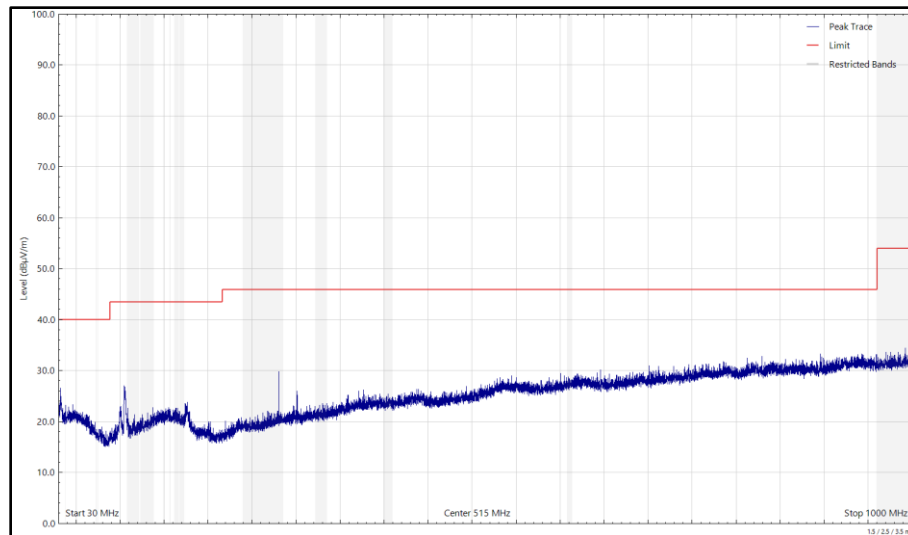


Figure 74 - U-NII-2C - 5640 MHz (CH128), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

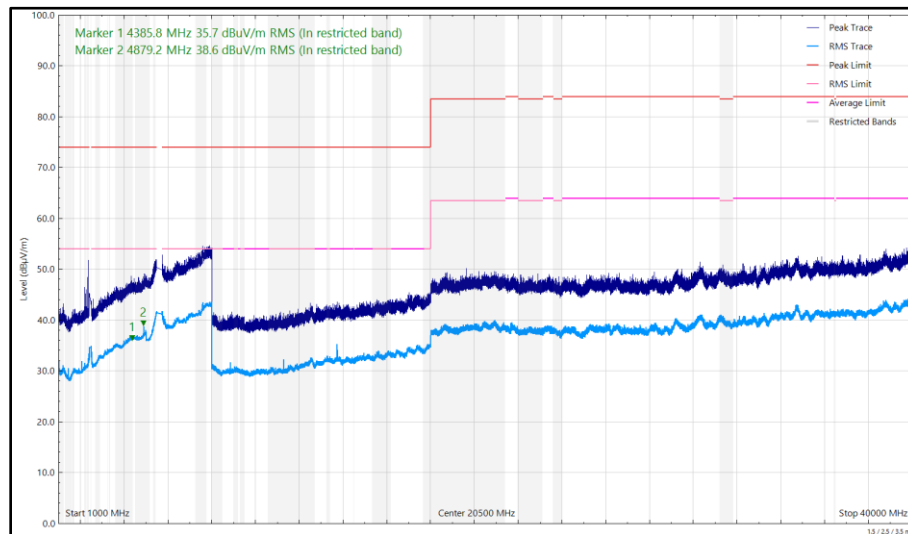


Figure 75 - U-NII-2C - 5640 MHz (CH128), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 1 GHz to 40 GHz, Horizontal

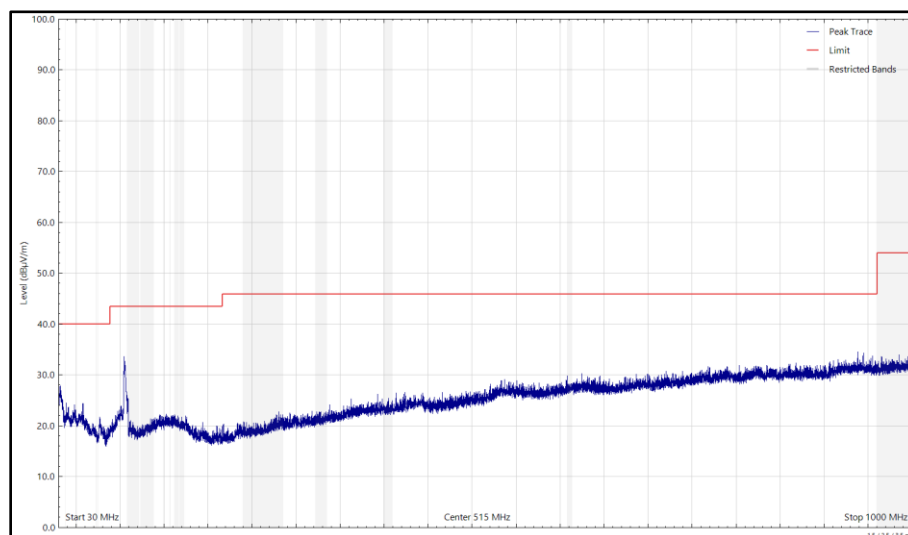


Figure 76 - U-NII-2C - 5640 MHz (CH128), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 30 MHz to 1 GHz, Vertical (Peak)

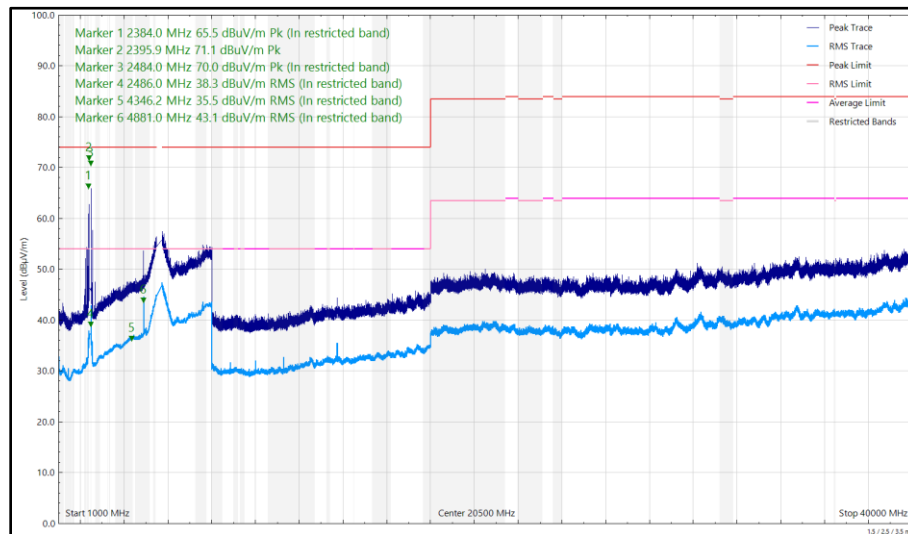


Figure 77 - U-NII-2C - 5640 MHz (CH128), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
4880.812	45.76	54.00	-8.24	RMS	358	299	Vertical
4880.917	38.16	54.00	-15.84	RMS	53	294	Horizontal
5459.492	56.85	74.00	-17.15	Peak	3	318	Vertical
5459.660	41.49	54.00	-12.51	RMS	291	370	Horizontal
5459.757	45.11	54.00	-8.89	RMS	6	310	Vertical

Table 28 - U-NII-2C - 5640 MHz (CH128), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 30 MHz to 40 GHz

No other emissions found within 10 dB of the limit.

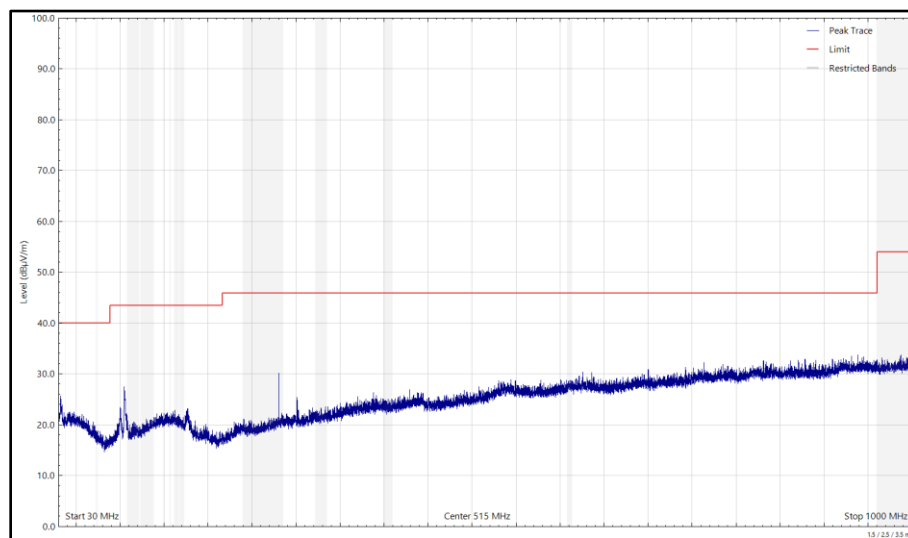


Figure 78 - U-NII-2C - 5640 MHz (CH128), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 30 MHz to 1 GHz, Horizontal (Peak)

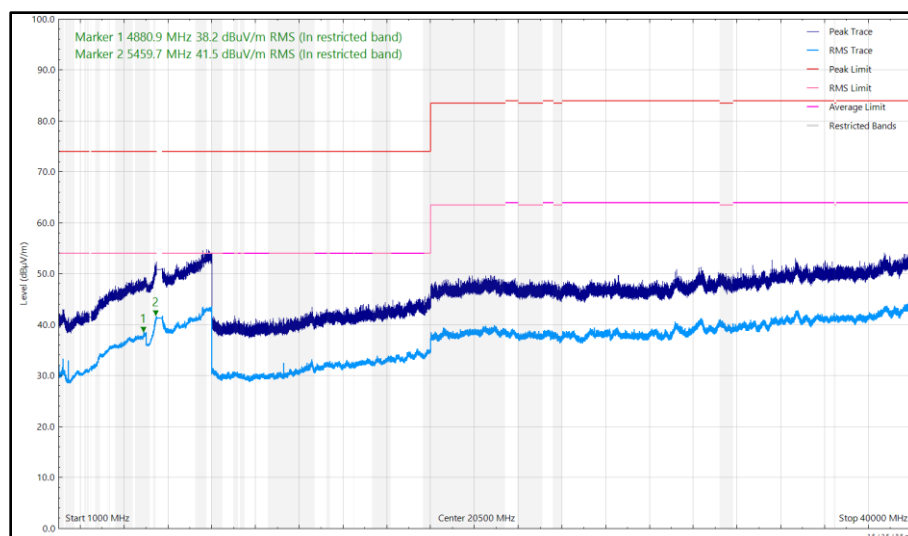


Figure 79 - U-NII-2C - 5640 MHz (CH128), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 1 GHz to 40 GHz, Horizontal

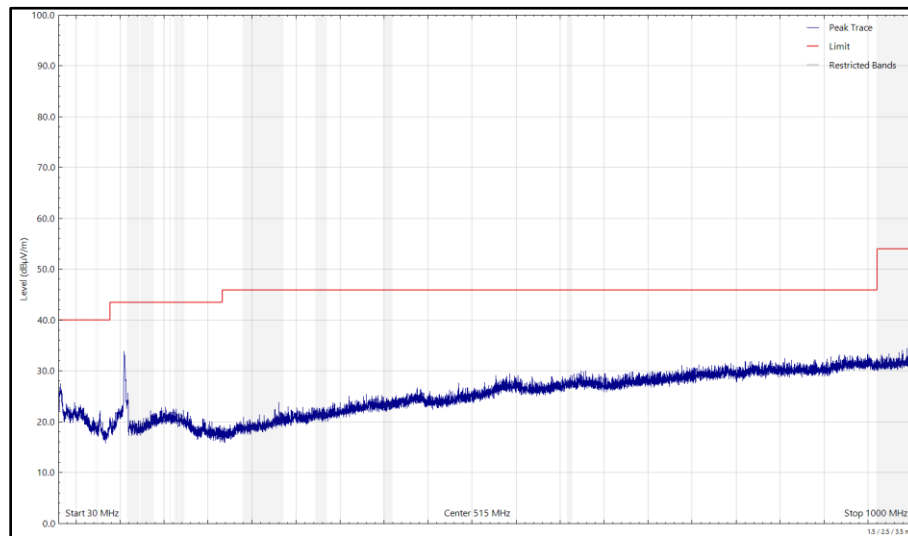


Figure 80 - U-NII-2C - 5640 MHz (CH128), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 30 MHz to 1 GHz, Vertical (Peak)

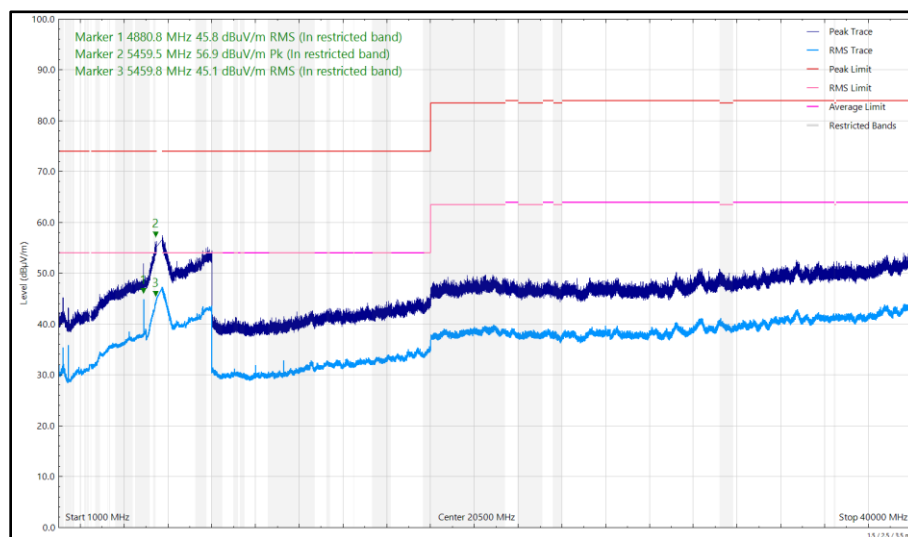


Figure 81 - U-NII-2C - 5640 MHz (CH128), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
2291.733	59.88	74.00	-14.12	Peak	345	400	Vertical
2375.806	58.42	74.00	-15.58	Peak	61	387	Horizontal
2376.294	36.17	54.00	-17.83	RMS	350	319	Vertical
2377.824	65.04	74.00	-8.96	Peak	350	196	Vertical
2488.736	34.38	54.00	-19.62	RMS	311	375	Horizontal
2491.248	70.36	74.00	-3.64	Peak	11	305	Vertical
2491.581	36.99	54.00	-17.01	RMS	352	333	Vertical
4223.950	35.14	54.00	-18.86	RMS	350	298	Vertical
4881.008	37.91	54.00	-16.09	RMS	114	342	Horizontal
4881.062	39.92	54.00	-14.08	RMS	360	289	Vertical

Table 29 - U-NII-3 - 5785 MHz (CH157), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 30 MHz to 40 GHz

No other emissions found within 10 dB of the limit.

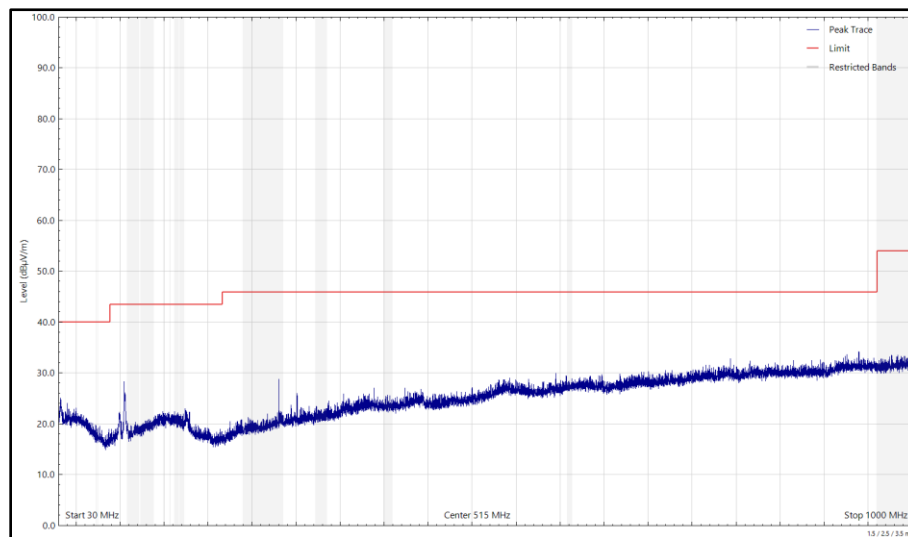


Figure 82 - U-NII-3 - 5785 MHz (CH157), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 30 MHz to 1 GHz, Horizontal (Peak)

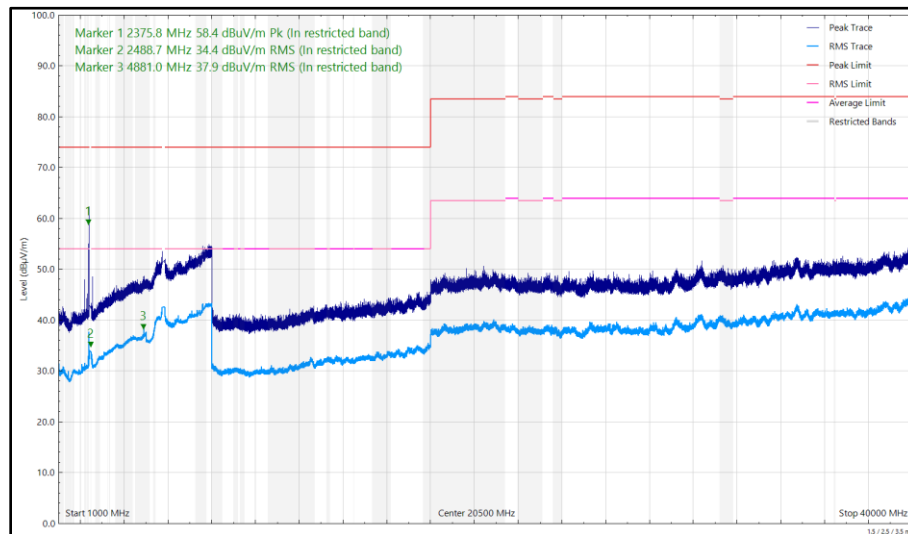


Figure 83 - U-NII-3 - 5785 MHz (CH157), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 1 GHz to 40 GHz, Horizontal

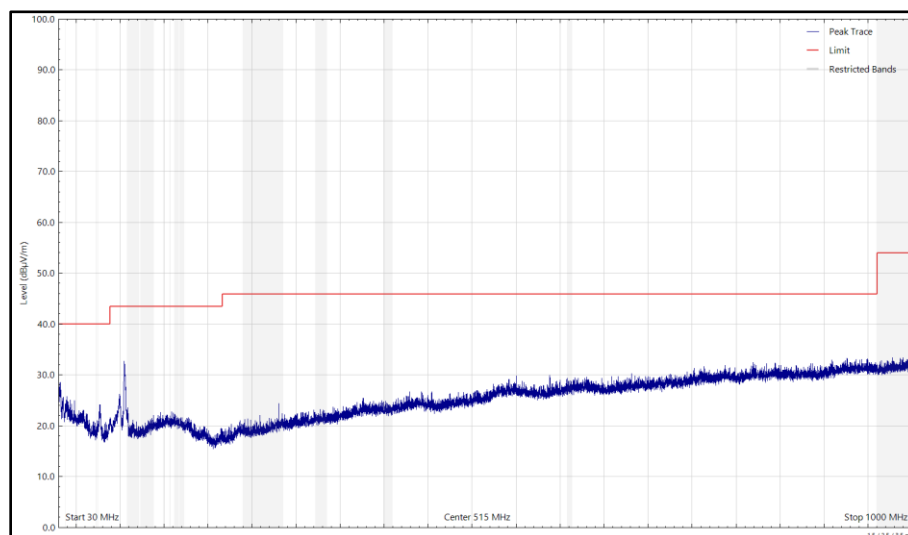


Figure 84 - U-NII-3 - 5785 MHz (CH157), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 30 MHz to 1 GHz, Vertical (Peak)

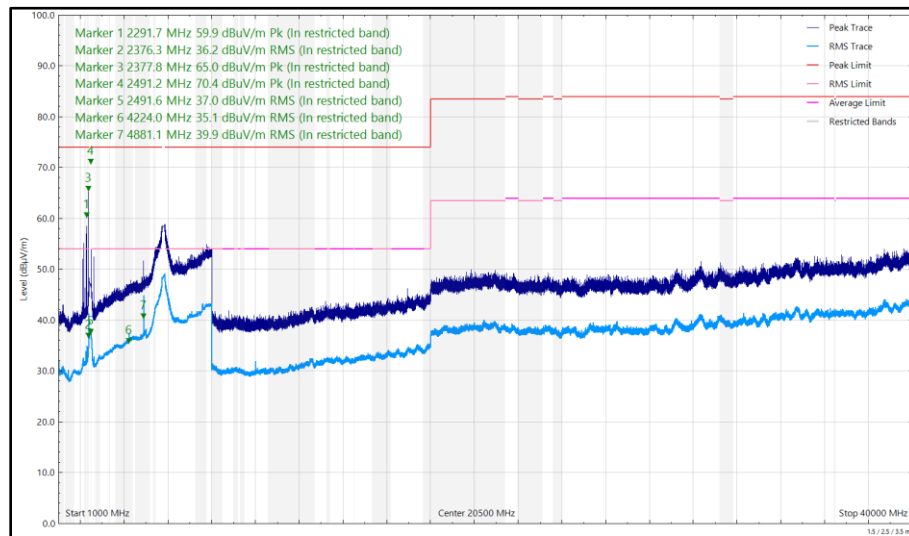


Figure 85 - U-NII-3 - 5785 MHz (CH157), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
2386.582	35.17	54.00	-18.83	RMS	360	327	Vertical
2484.071	35.38	54.00	-18.62	RMS	55	355	Horizontal
2487.851	38.89	54.00	-15.11	RMS	40	386	Vertical
4300.763	35.57	54.00	-18.43	RMS	0	269	Horizontal
4315.310	35.52	54.00	-18.48	RMS	358	205	Vertical
4879.073	37.84	54.00	-16.16	RMS	60	351	Horizontal
4880.872	42.76	54.00	-11.24	RMS	360	292	Vertical

Table 30 - U-NII-3 - 5785 MHz (CH157), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 30 MHz to 40 GHz

No other emissions found within 10 dB of the limit.

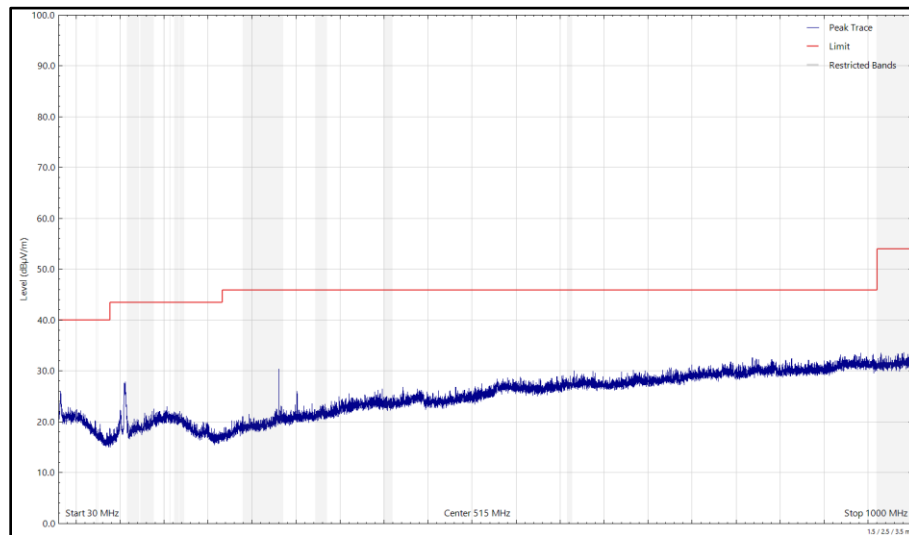


Figure 86 - U-NII-3 - 5785 MHz (CH157), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

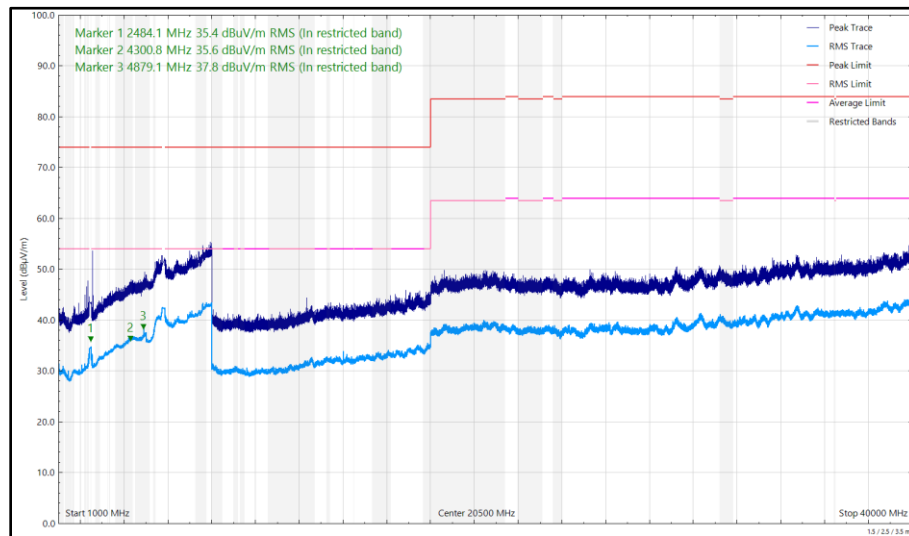


Figure 87 - U-NII-3 - 5785 MHz (CH157), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 1 GHz to 40 GHz, Horizontal

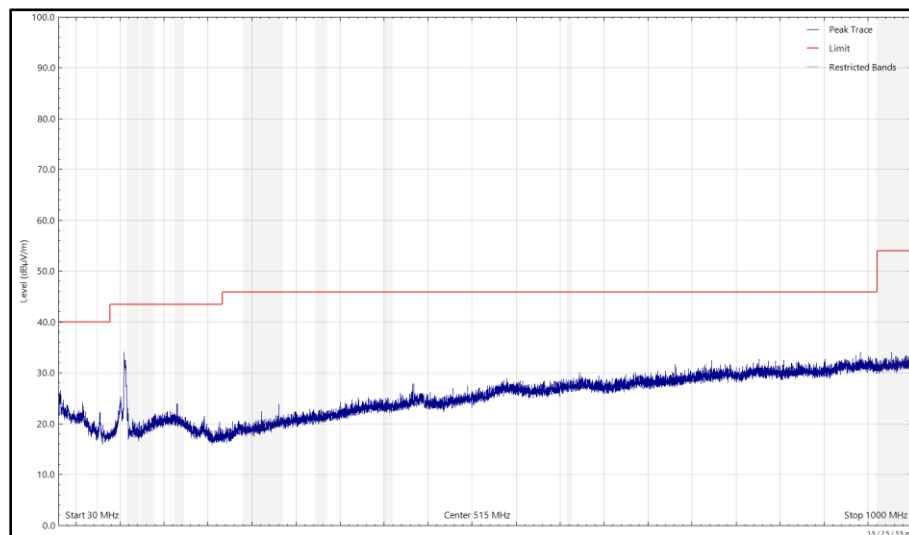


Figure 88 - U-NII-3 - 5785 MHz (CH157), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 30 MHz to 1 GHz, Vertical (Peak)

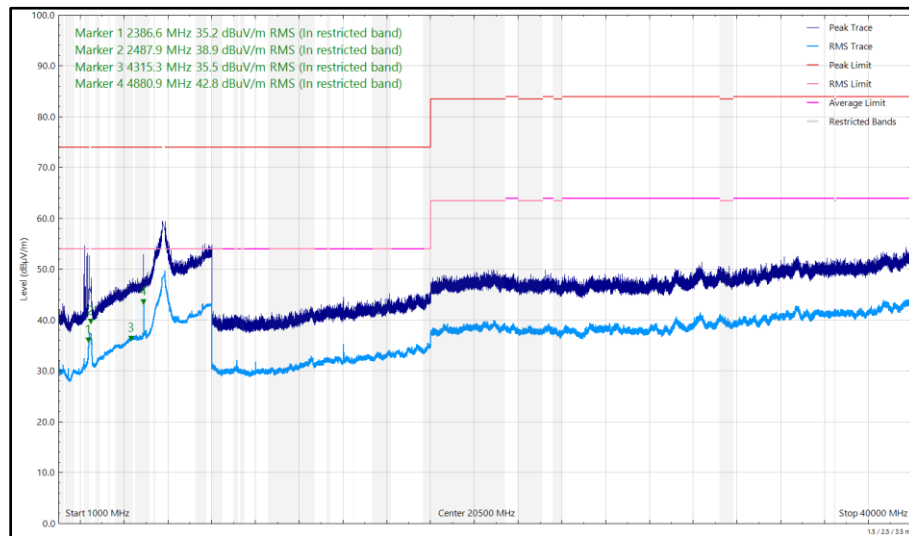


Figure 89 - U-NII-3 - 5785 MHz (CH157), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
4879.098	42.76	54.00	-11.24	RMS	256	106	Vertical
4892.145	37.08	54.00	-16.92	RMS	83	142	Horizontal
5445.219	55.06	74.00	-18.94	Peak	2	331	Vertical
5458.448	42.52	54.00	-11.48	RMS	355	217	Vertical
5458.744	39.03	54.00	-14.97	RMS	287	296	Horizontal

Table 31 - U-NII-3 - 5785 MHz (CH157), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 30 MHz to 40 GHz

No other emissions found within 10 dB of the limit.

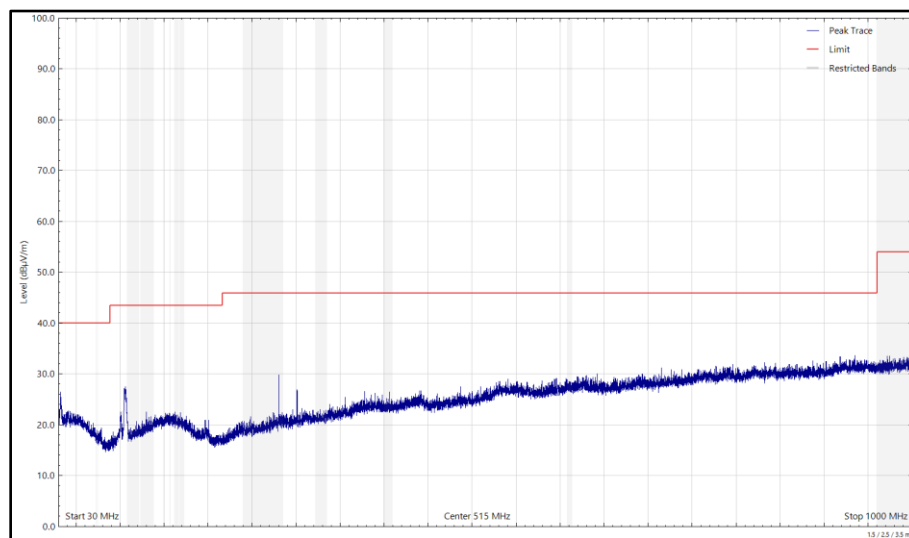


Figure 90 - U-NII-3 - 5785 MHz (CH157), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 30 MHz to 1 GHz, Horizontal (Peak)

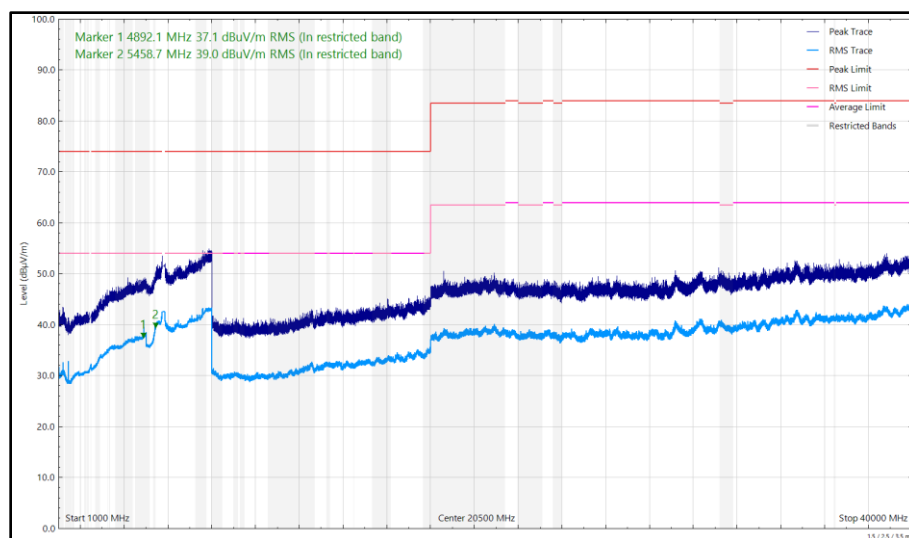


Figure 91 - U-NII-3 - 5785 MHz (CH157), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 1 GHz to 40 GHz, Horizontal

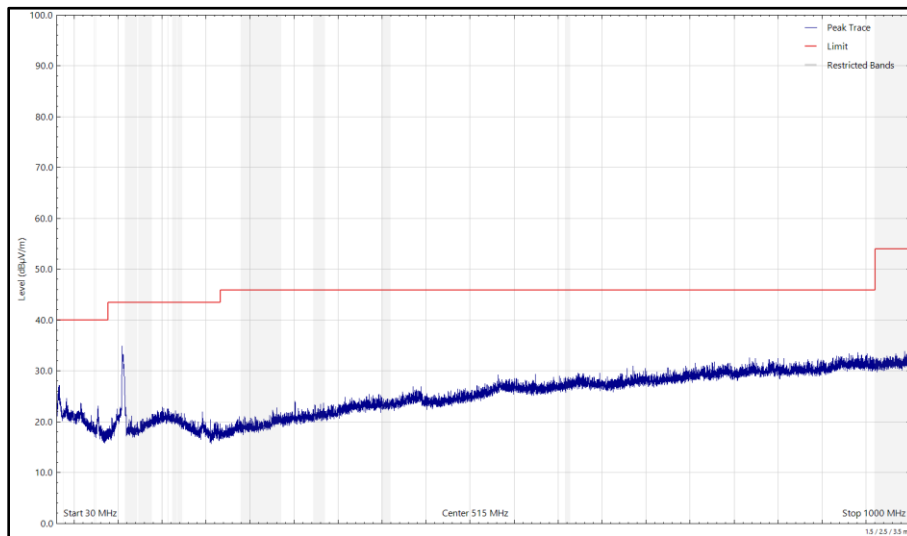


Figure 92 - U-NII-3 - 5785 MHz (CH157), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 30 MHz to 1 GHz, Vertical (Peak)

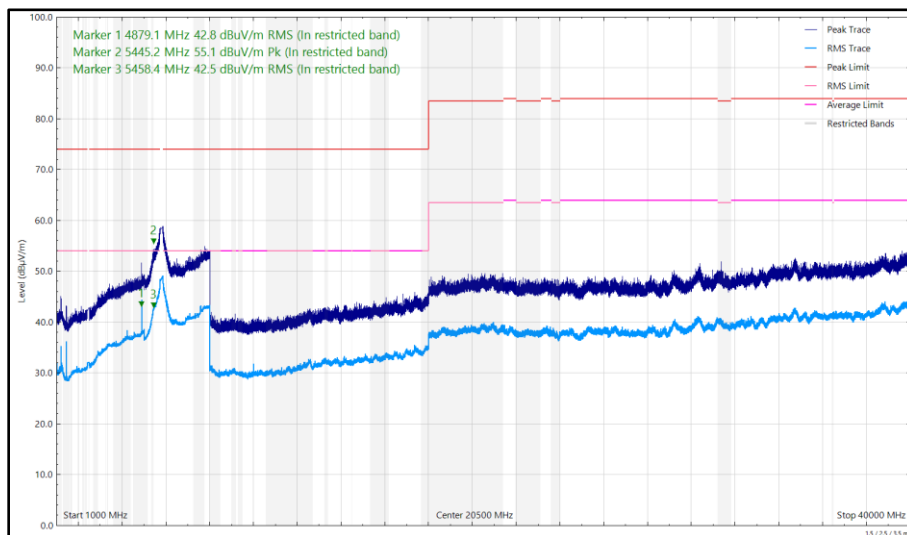


Figure 93 - U-NII-3 - 5785 MHz (CH157), HT20, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 1 GHz to 40 GHz, Vertical



FCC 47 CFR Part 15, ISED RSS-247 and ISED RSS-GEN

The least stringent limit from the applicable rule parts was used to determine compliance for Radiated Emissions testing of multiple transmission sources.

The least stringent applicable limit was:

Clause	Limit
Part 15 247 (d) / RSS-247 Clause 5.5	-20 dBc
Part 15.407 (b) / RSS-247 Clause 6.2	-27 dBm e.i.r.p
Part 15.209 / RSS-GEN Clause 8.9	Peak: 74 dB μ V/m at 3m, Average 54 dB μ V/m at 3m (Restricted bands > 1 GHz)

Table 32

6 GHz WLAN and Thread

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
2281.768	57.25	74.00	-16.75	Peak	360	388	Vertical
2365.023	66.25	74.00	-7.75	Peak	350	367	Vertical
2388.154	36.88	54.00	-17.12	RMS	350	330	Vertical
4387.042	34.01	54.00	-19.99	RMS	225	306	Horizontal
4880.932	35.75	54.00	-18.25	RMS	20	253	Vertical
4979.453	34.92	54.00	-19.08	RMS	350	354	Horizontal
7318.586	42.57	54.00	-11.43	RMS	65	305	Horizontal
7318.591	47.58	54.00	-6.42	RMS	53	253	Vertical
7321.458	58.46	74.00	-15.54	Peak	53	253	Vertical

Table 33 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 30 MHz to 40 GHz

No other emissions found within 10 dB of the limit.

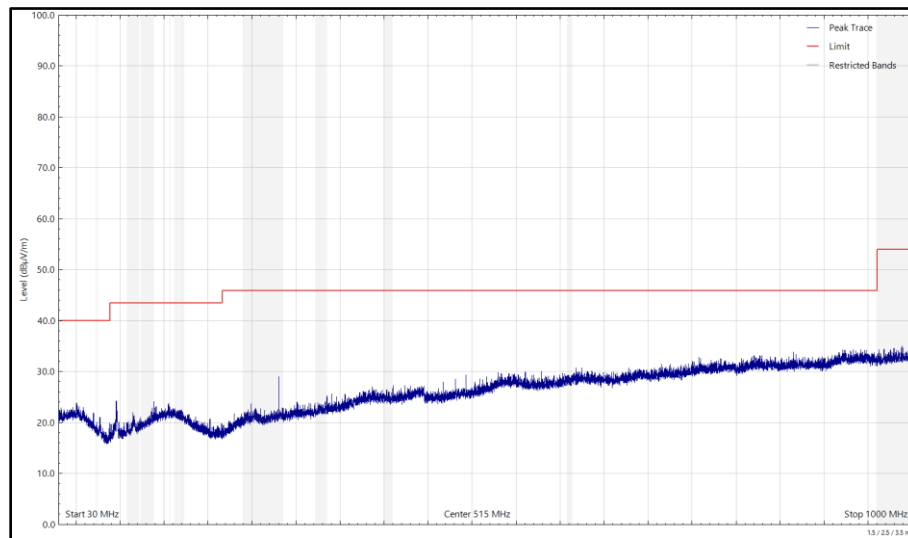


Figure 94 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 30 MHz to 1 GHz, Horizontal (Peak)

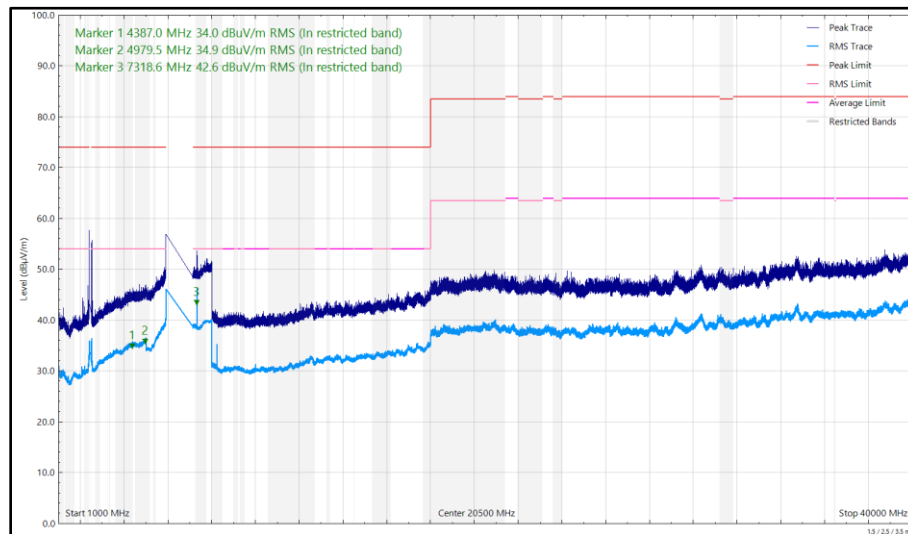


Figure 95 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 1 GHz to 40 GHz, Horizontal

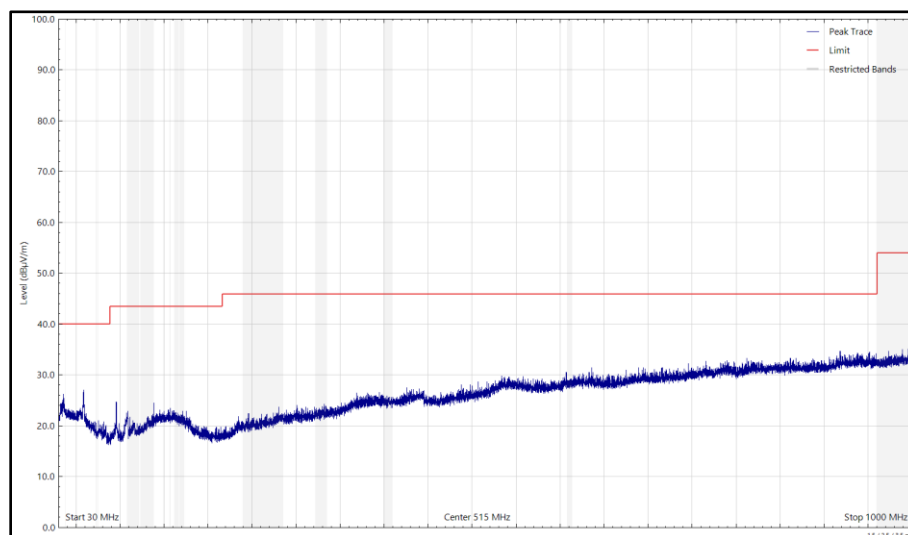


Figure 96 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 30 MHz to 1 GHz, Vertical (Peak)

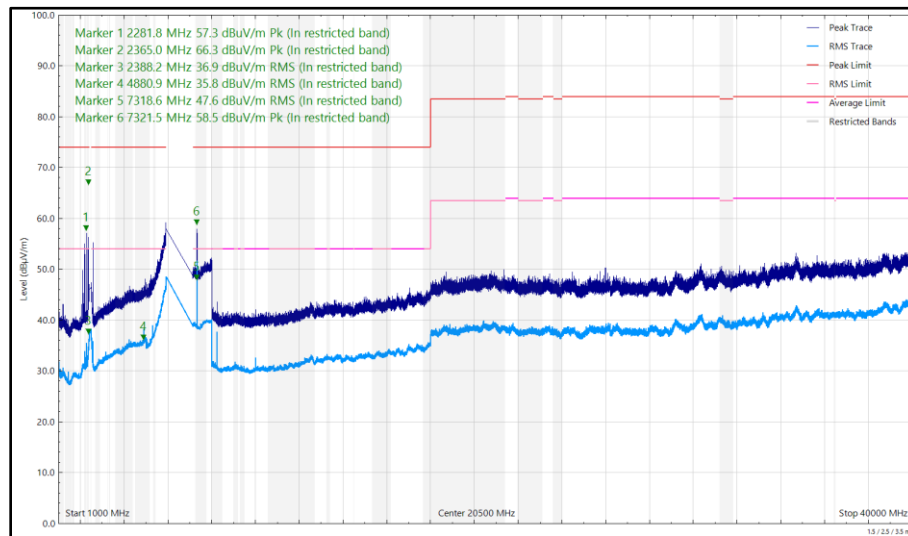


Figure 97 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
2375.714	63.82	74.00	-10.18	Peak	54	370	Horizontal
2376.712	64.66	74.00	-9.34	Peak	15	358	Vertical
2389.138	34.13	54.00	-19.87	RMS	343	358	Vertical
2399.480	71.53	88.20	-16.67	Peak	37	355	Vertical
2484.168	35.90	54.00	-18.10	RMS	350	328	Vertical
4881.073	36.86	54.00	-17.14	RMS	359	309	Vertical
4999.255	34.87	54.00	-19.13	RMS	351	110	Horizontal
7318.529	41.88	54.00	-12.12	RMS	52	253	Vertical
7318.706	40.00	54.00	-14.00	RMS	67	361	Horizontal

Table 34 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 30 MHz to 40 GHz

No other emissions found within 10 dB of the limit.

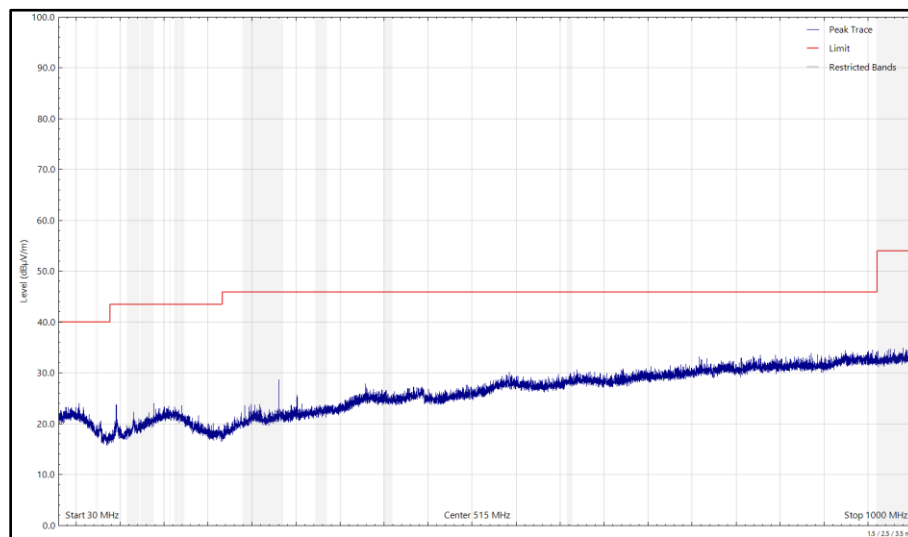


Figure 98 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

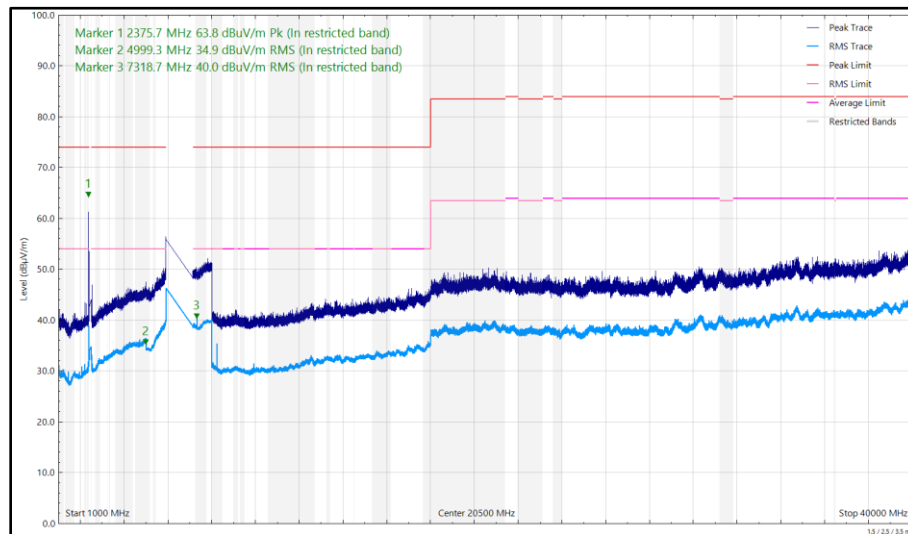


Figure 99 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 1 GHz to 40 GHz, Horizontal

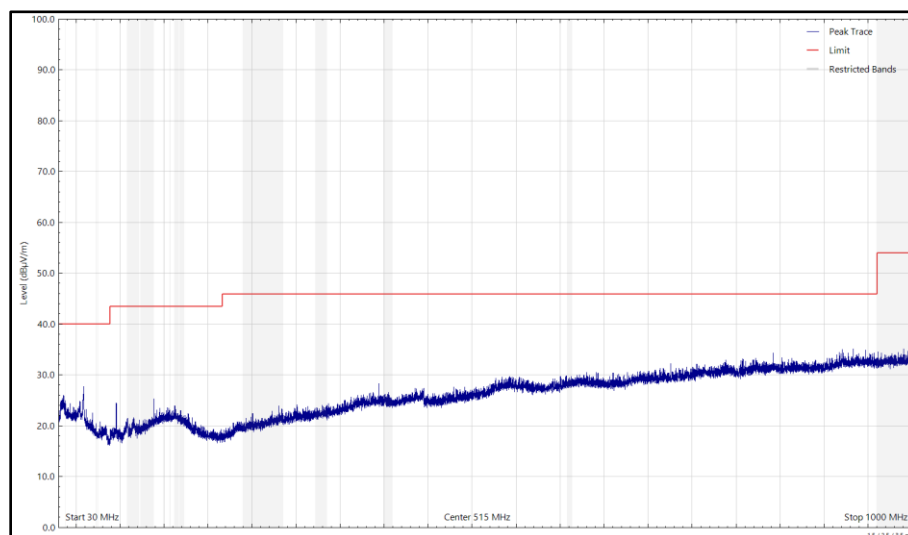


Figure 100 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 30 MHz to 1 GHz, Vertical (Peak)

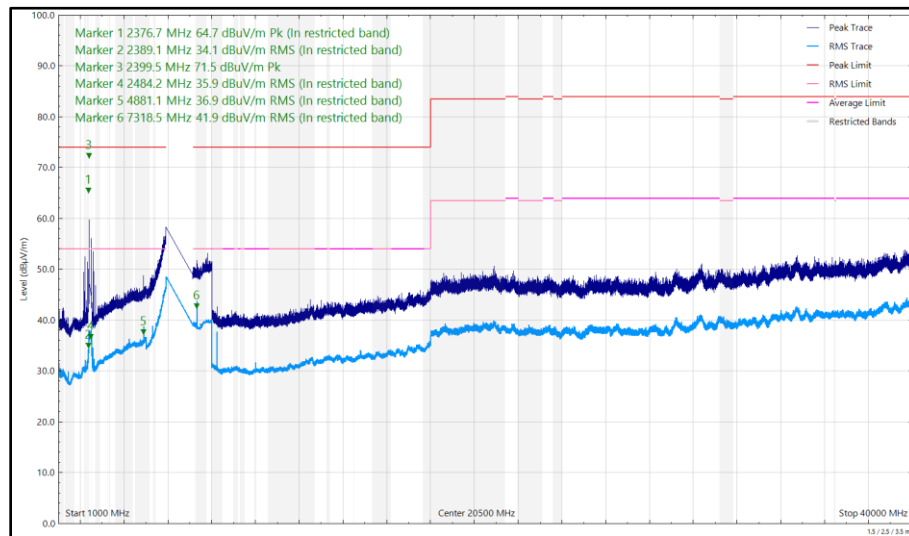


Figure 101 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
4212.068	34.02	54.00	-19.98	RMS	345	130	Vertical
4879.143	36.81	54.00	-17.19	RMS	355	100	Vertical
5453.748	37.22	54.00	-16.78	RMS	0	100	Vertical
5459.873	35.17	54.00	-18.83	RMS	264	172	Horizontal
7320.080	39.77	54.00	-14.23	RMS	340	234	Vertical
7320.097	38.31	54.00	-15.69	RMS	242	272	Horizontal

Table 35 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 30 MHz to 40 GHz

No other emissions found within 10 dB of the limit.

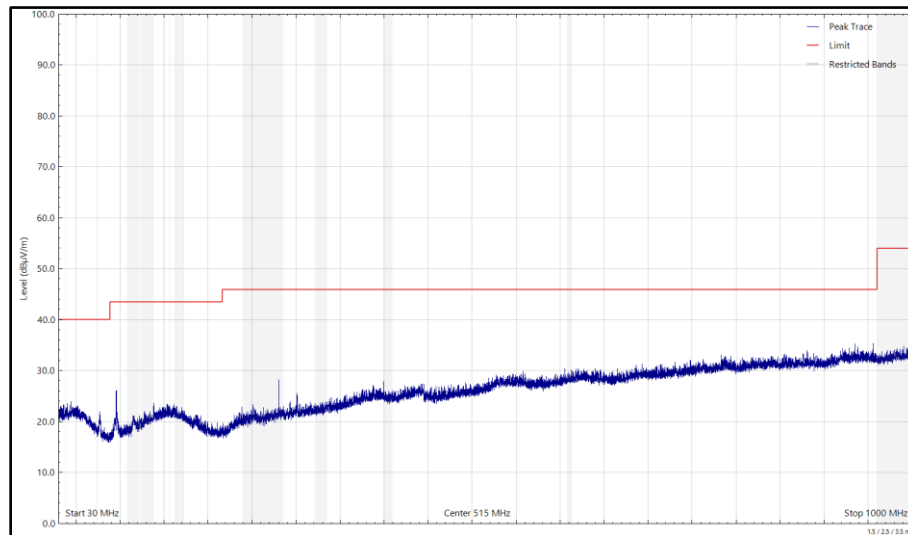


Figure 102 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 30 MHz to 1 GHz, Horizontal (Peak)

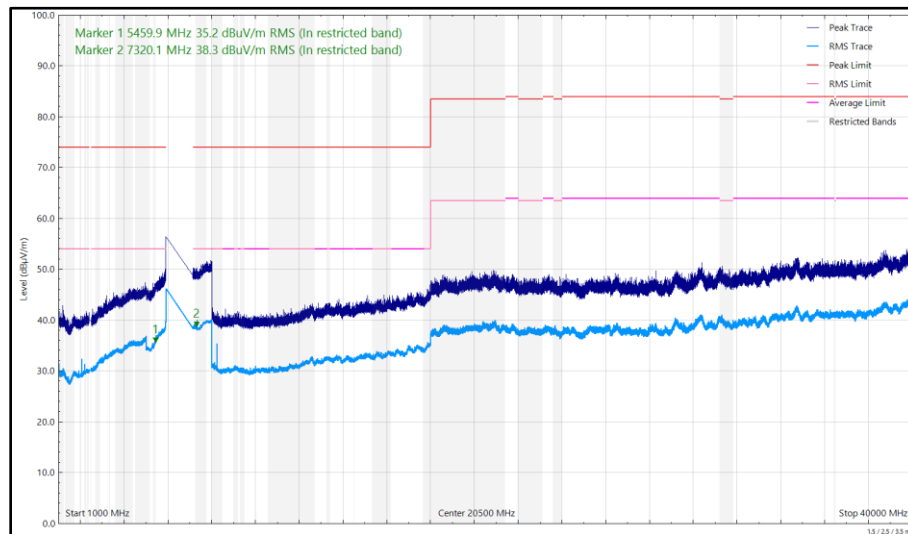


Figure 103 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 1 GHz to 40 GHz, Horizontal

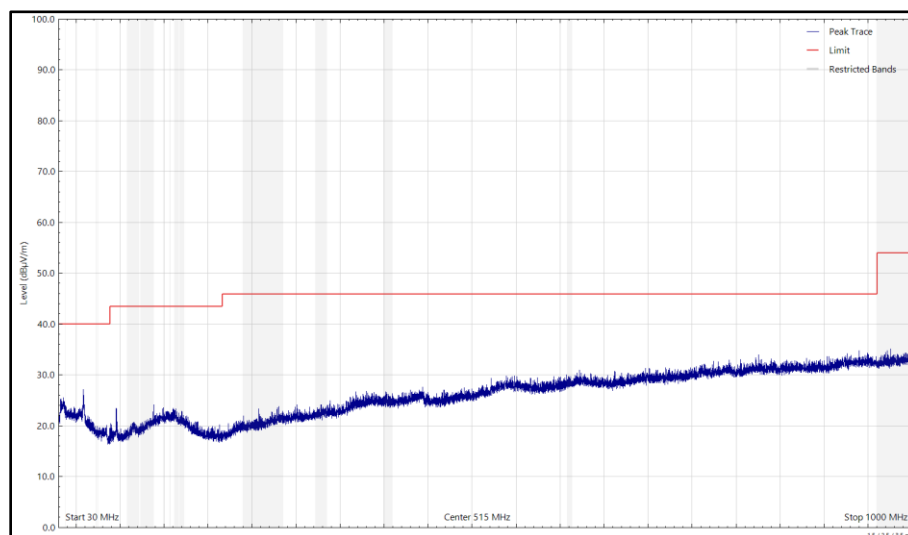


Figure 104 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 30 MHz to 1 GHz, Vertical (Peak)

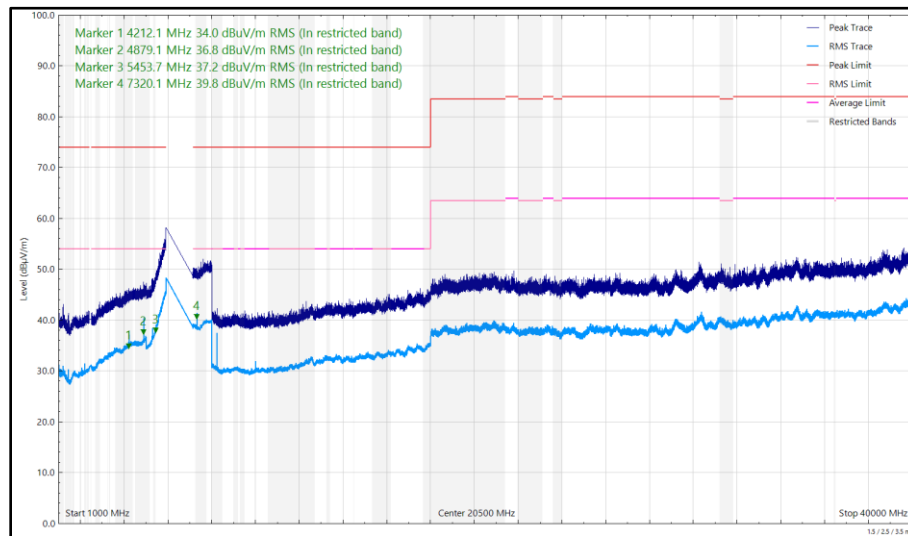


Figure 105 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
2348.128	64.05	74.00	-9.95	Peak	5	377	Vertical
2388.245	36.53	54.00	-17.47	RMS	350	363	Vertical
2395.469	70.93	88.20	-17.27	Peak	0	357	Vertical
4880.887	36.68	54.00	-17.32	RMS	4	281	Vertical
7318.327	60.08	74.00	-13.92	Peak	344	275	Vertical
7318.395	55.99	74.00	-18.01	Peak	71	390	Horizontal
7318.520	45.54	54.00	-8.46	RMS	63	390	Horizontal
7321.356	50.12	54.00	-3.88	RMS	345	281	Vertical

Table 36 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 30 MHz to 40 GHz

No other emissions found within 10 dB of the limit.

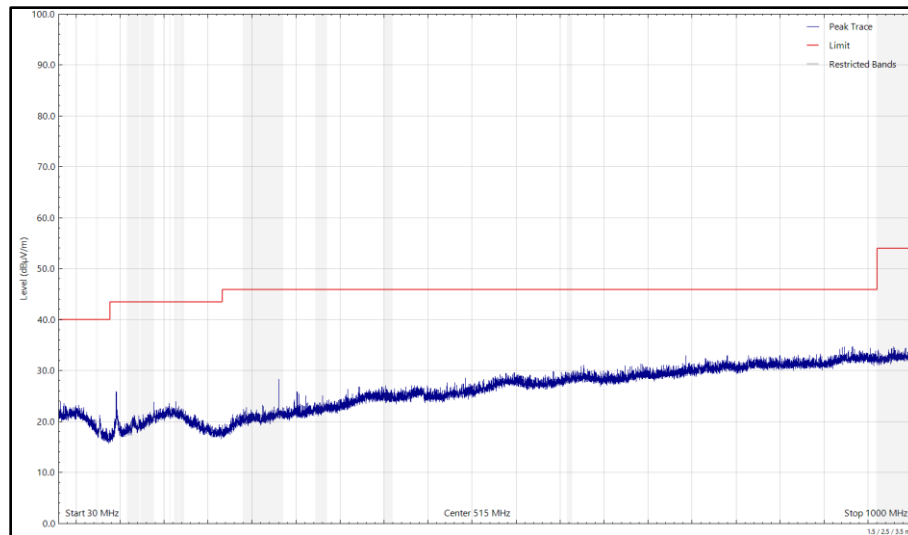


Figure 106 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 30 MHz to 1 GHz, Horizontal (Peak)

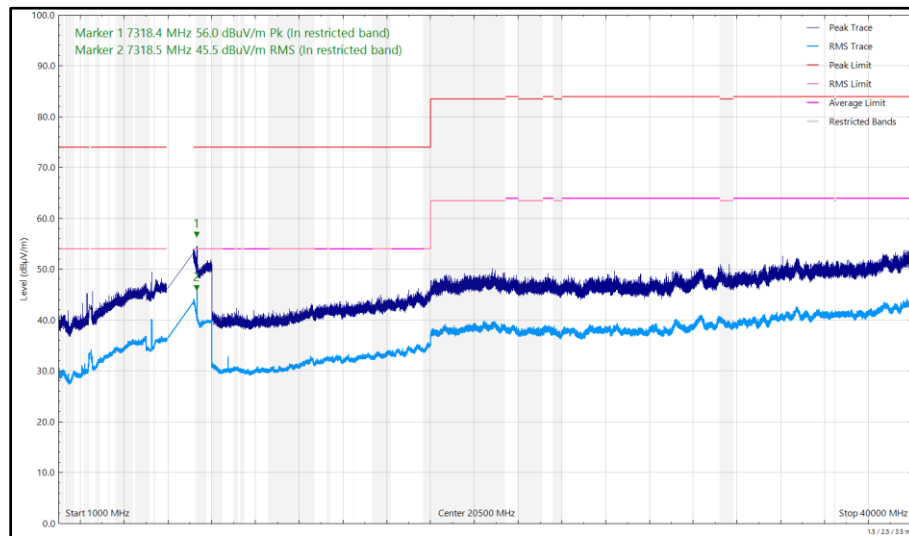


Figure 107 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 1 GHz to 40 GHz, Horizontal

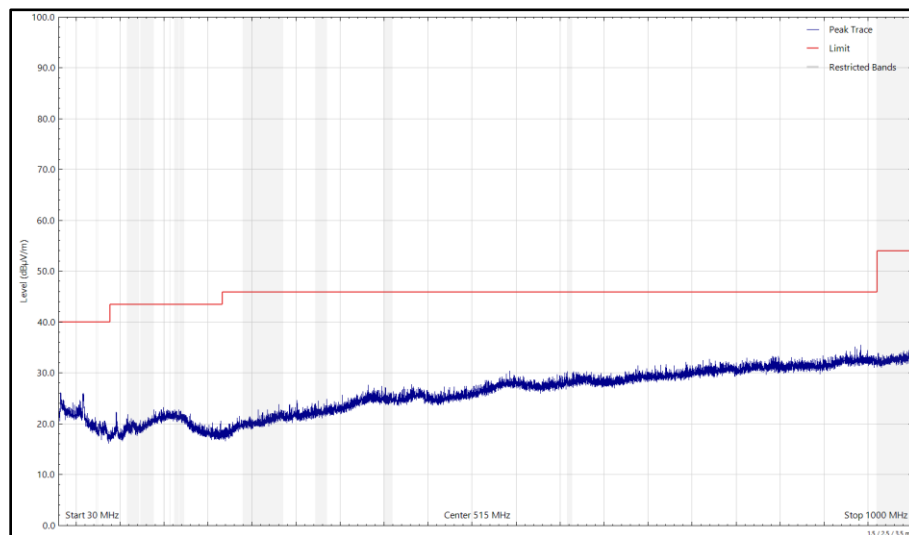


Figure 108 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 30 MHz to 1 GHz, Vertical (Peak)

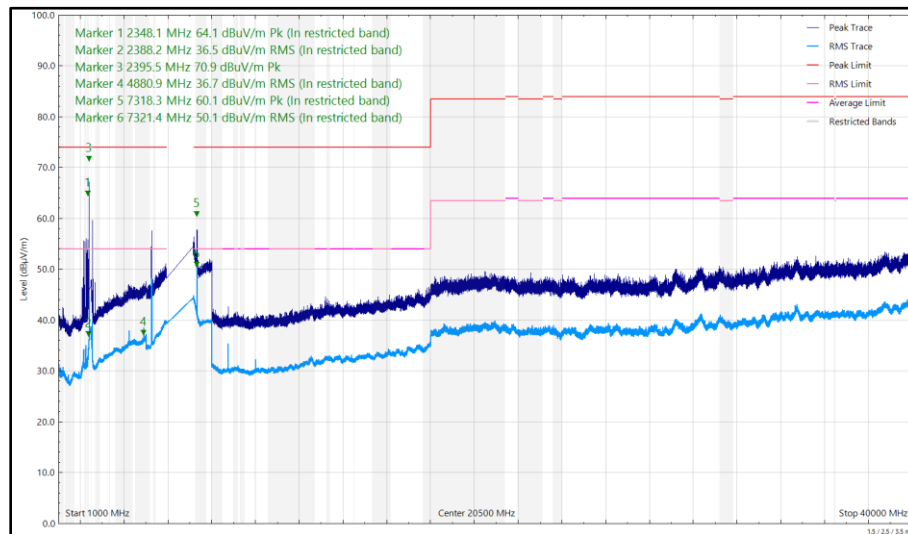


Figure 109 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 0, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
2290.798	59.08	74.00	-14.92	Peak	44	392	Vertical
2375.951	66.80	74.00	-7.20	Peak	43	352	Vertical
2486.366	71.42	74.00	-2.58	Peak	31	362	Vertical
2495.088	37.58	54.00	-16.42	RMS	31	362	Vertical
4880.848	37.09	54.00	-16.91	RMS	360	250	Vertical
7318.494	41.54	54.00	-12.46	RMS	72	393	Horizontal
7318.537	43.57	54.00	-10.43	RMS	345	284	Vertical

Table 37 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 30 MHz to 40 GHz

No other emissions found within 10 dB of the limit.

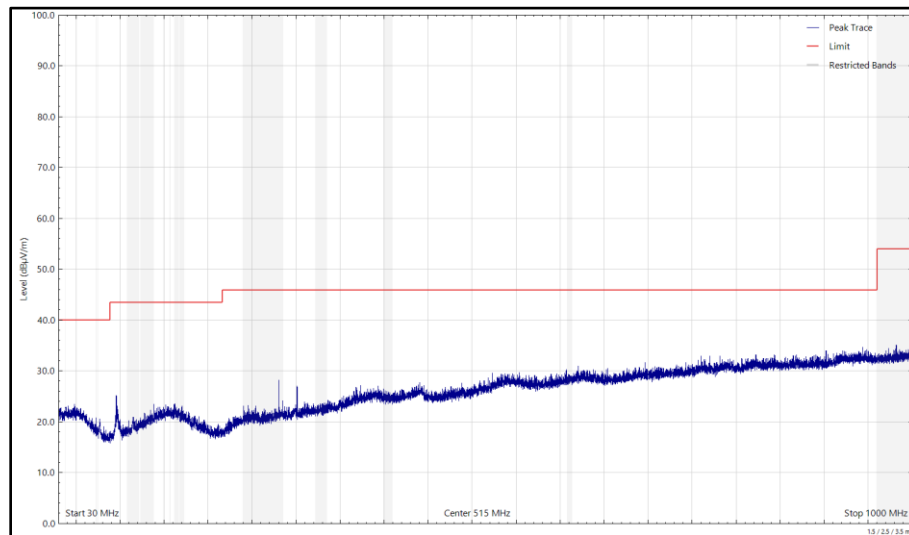


Figure 110 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

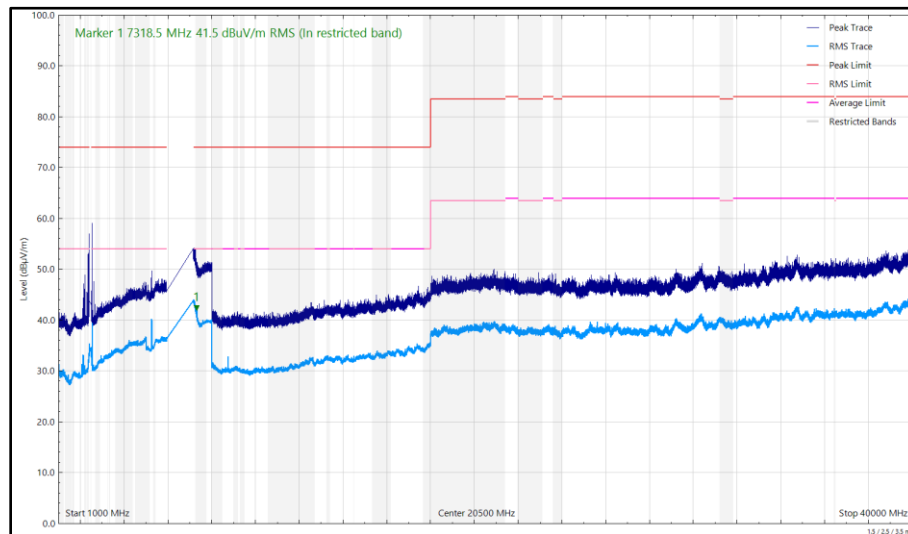


Figure 111 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 1 GHz to 40 GHz, Horizontal

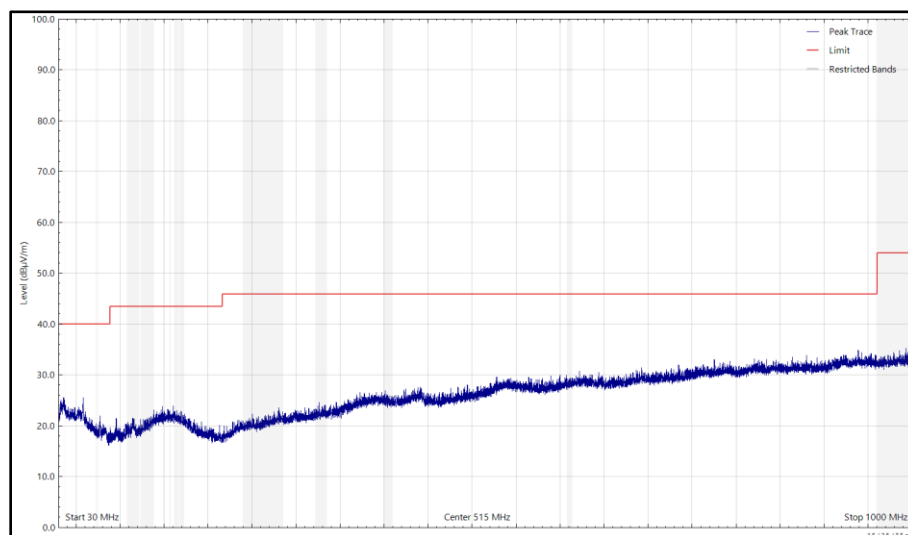


Figure 112 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 30 MHz to 1 GHz, Vertical (Peak)

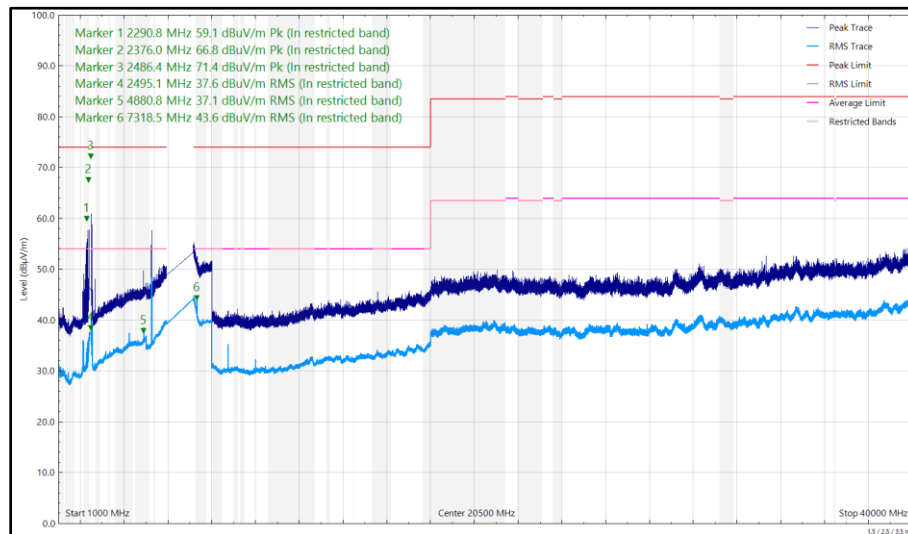


Figure 113 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), ePA, Core 1, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
4880.818	38.46	54.00	-15.54	RMS	28	100	Vertical
5433.328	35.07	54.00	-18.93	RMS	0	100	Horizontal
5455.341	35.84	54.00	-18.16	RMS	360	100	Vertical
7250.483	41.24	54.00	-12.76	RMS	72	396	Horizontal
7254.688	42.13	54.00	-11.87	RMS	56	276	Vertical

Table 38 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 30 MHz to 40 GHz

No other emissions found within 10 dB of the limit.

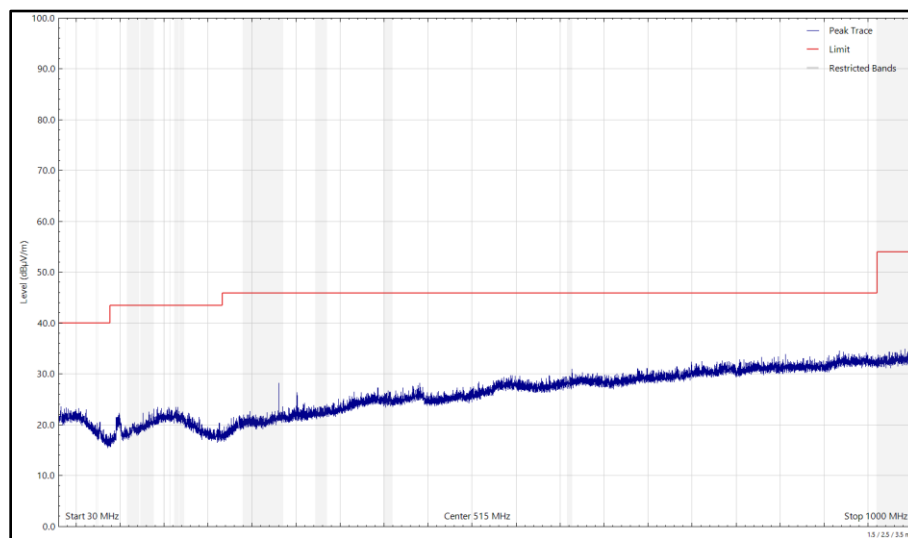


Figure 114 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 30 MHz to 1 GHz, Horizontal (Peak)

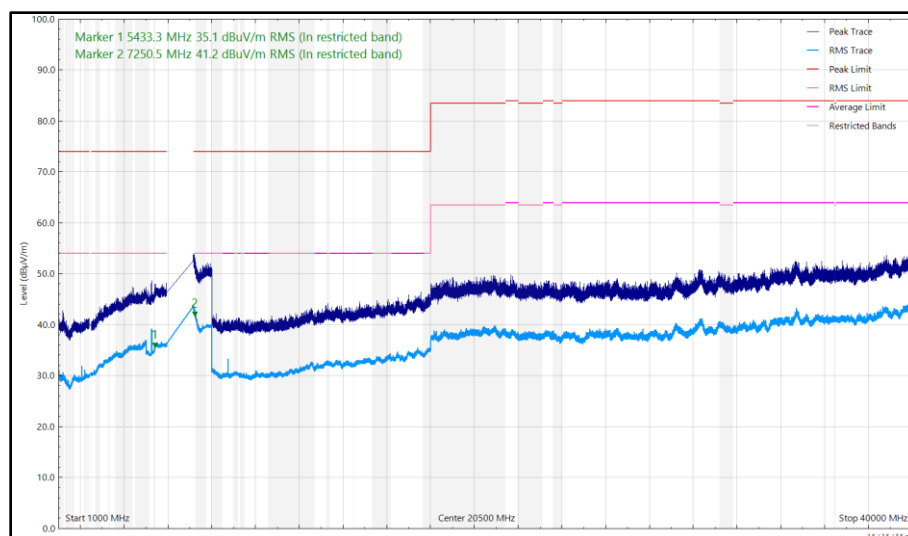


Figure 115 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 1 GHz to 40 GHz, Horizontal

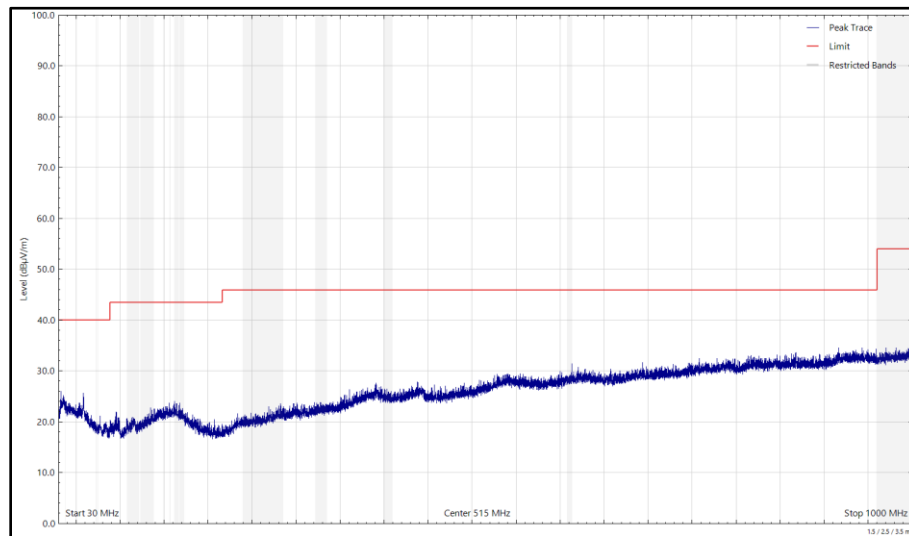


Figure 116 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 30 MHz to 1 GHz, Vertical (Peak)

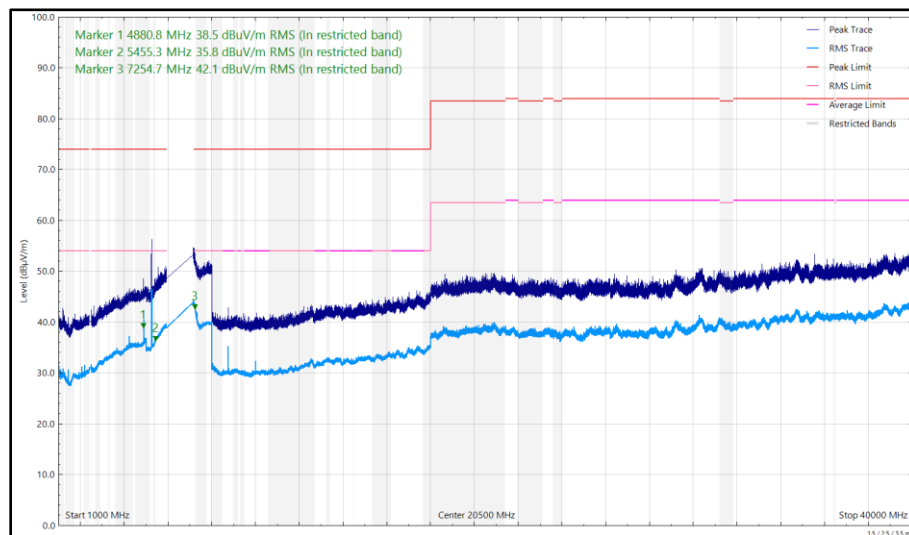


Figure 117 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1 and 2440 MHz (CH18), iPA, Core 2, 1 GHz to 40 GHz, Vertical



FCC 47 CFR Part 15, ISED RSS-247, ISED RSS-248 and ISED RSS-GEN

The least stringent limit from the applicable rule parts was used to determine compliance for Radiated Emissions testing of multiple transmission sources.

The least stringent applicable limit was:

Clause	Limit
Part 15 247 (d) / RSS-247 Clause 5.5	-20 dBc
Part 15.407 (b) / RSS-248 Clause 4.6.2	Peak: -7 dBm/MHz e.i.r.p, Average: -27 dBm/MHz e.i.r.p.
Part 15.209 / RSS-GEN Clause 8.9	Peak: 74 dB μ V/m at 3m, Average 54 dB μ V/m at 3m (Restricted bands > 1 GHz)

Table 39



2.1.8 Test Location and Test Equipment Used

This test was carried out in RF Chamber 14, RF Chamber 16 and RF Chamber 17.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Emissions Software	TUV SUD	EmX V3.2.0	5125	-	Software
Cable 2.92m	Junkosha	MWX241-01000KMS	5413	12	23-May-2025
EMI Test Receiver	Rohde & Schwarz	ESW44	5911	12	11-Sep-2024
Test Receiver	Rohde & Schwarz	ESW44	5914	12	24-May-2025
TRILOG Super Broadband Test Antenna	Schwarzbeck	VULB 9168	5943	24	24-May-2026
1500W (300V 12A) AC Power Supply	iTech	IT7324	5955	-	O/P Mon
1500W (300V 12A) AC Power Supply	iTech	IT7324	5957	-	O/P Mon
5m Semi-Anechoic Chamber (Dual-Axis)	Albatross Projects	RF Chamber 14	5958	36	26-Apr-2025
Compact Antenna Mast	Maturo Gmbh	CAM4.0-P	5959	-	TU
Mast & Turntable Controller	Maturo Gmbh	FCU3.0	5960	-	TU
Tilt Antenna Mast	Maturo Gmbh	BAM4.5-P	5961	-	TU
Turntable	Maturo Gmbh	TT1.5SI	5962	-	TU
3m Semi-Anechoic Chamber, Chamber16	Albatross Projects	RF Chamber 16	5972	36	24-May-2025
Mast & Turntable Controller	Maturo Gmbh	FCU3.0	5973	-	TU
Tilt Antenna Mast	Maturo Gmbh	BAM4.5-P	5974	-	TU
Turntable	Maturo Gmbh	TT1.5SI	5975	-	TU
Cable (N to N 7m)	Junkosha	MWX221-07000NMSMS/B	6005	12	20-May-2025
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	6007	12	20-May-2025
Cable (SMA to SMA 6.5m)	Junkosha	MWX221-06500AMSAMS/B	6014	12	24-Aug-2024
Horn Antenna (1-10 GHz)	Schwarzbeck	BBHA9120B	6141	12	05-May-2025
Horn Antenna (1-10 GHz)	Schwarzbeck	BBHA9120B	6142	12	05-May-2025
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
Digital Multimeter	Fluke	115	6146	12	06-Jun-2025
Double Ridge Active Horn Antenna (18-40 GHz)	Com-Power	AHA-840	6189	24	31-Aug-2024
SAC Switch Unit	TUV SUD	TUV_SSU_001	6190	12	22-Dec-2024
8GHz Highpass Filter	Wainwright	WHKX 7150 8000 18000 50SS	6194	12	23-Apr-2025
Pre Amp 8 - 18 GHz	Wright Technologies	APS06 0061	6200	12	03-Jun-2025
Attenuator 4dB	Pasternack	PE7074-4	6201	24	24-May-2026
Cable (SMA to SMA 20cm)	TUV SUD	MH-FH 8-18	6215	12	23-Apr-2025
EMI Test Receiver	Rohde & Schwarz	ESW44	6294	12	06-Jan-2025



Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Cable (K Type 2m)	Junkosha	MWX241-02000KMSKMS/B	6324	12	04-Feb-2025
SAC Switch Unit	TUV SUD	TUV_SSU_004 PLC	6349	12	07-May-2025
USB Spectrum Analyser	Signal Hound	SA124B	6383	-	TU
DRG Horn Antenna	Schwarzbeck	HWRD750	6458	12	05-May-2025
Humidity and Temperature Meter	R.S Components	1364	6486	12	04-Jun-2025
3m Semi-Anechoic Chamber	Albatross Projects	RF Chamber 17	6658	36	28-Jan-2026
Mast and Turntable Controller	Maturo Gmbh	FCU3.0	6659	-	TU
Tilt Antenna Mast	Maturo Gmbh	BAM4.5-P	6660	-	TU
Turntable	Maturo Gmbh	TT1.5SI	6661	-	TU
1m Cable	Junkosha	MWX241-01000AMSAMS/B	6741	12	01-Feb-2025
8m Cable	Junkosha	MWX221-08000AMSAMS/B	6748	12	01-Feb-2025
AC Programmable Power Supply	iTech	IT7324	6812	-	O/P Mon

Table 40

TU - Traceability Unscheduled
O/P Mon - Output Monitored using calibrated equipment



3 Measurement Uncertainty

For a 95% confidence level, the measurement uncertainties for defined systems are:

Test Name	Measurement Uncertainty
Radiated Spurious Emissions (Simultaneous Transmission)	30 MHz to 1 GHz: ± 5.2 dB
	1 GHz to 40 GHz: ± 6.3 dB

Table 41

Measurement Uncertainty Decision Rule – Accuracy Method

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115:2021, Clause 4.4.3 (Procedure 2). The measurement results are directly compared with the test limit to determine conformance with the requirements of the standard.

Risk: The uncertainty of measurement about the measured result is negligible with regard to the final pass/fail decision. The measurement result can be directly compared with the test limit to determine conformance with the requirement (compare IEC Guide 115). The level of risk to falsely accept and falsely reject items is further described in ILAC-G8.