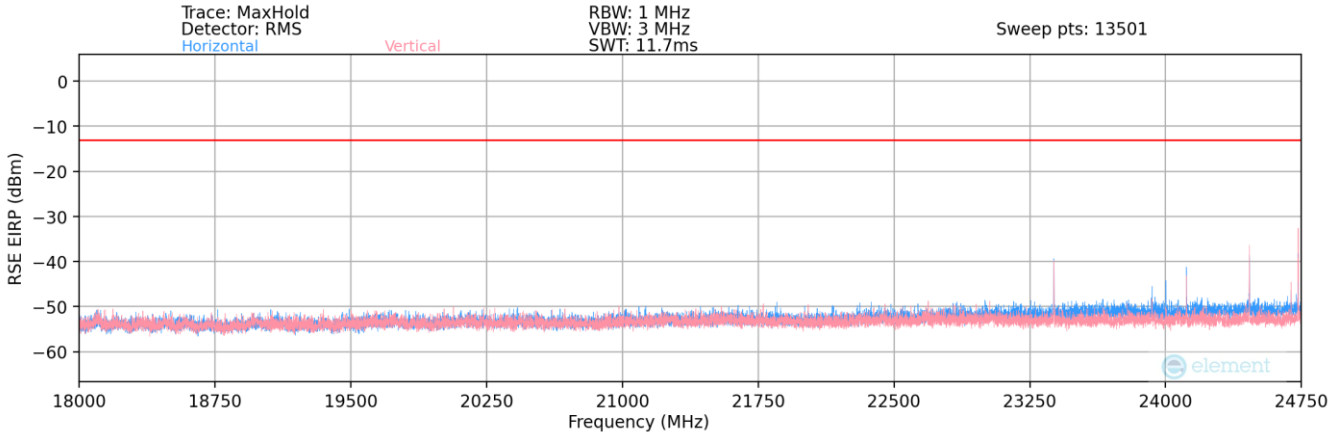
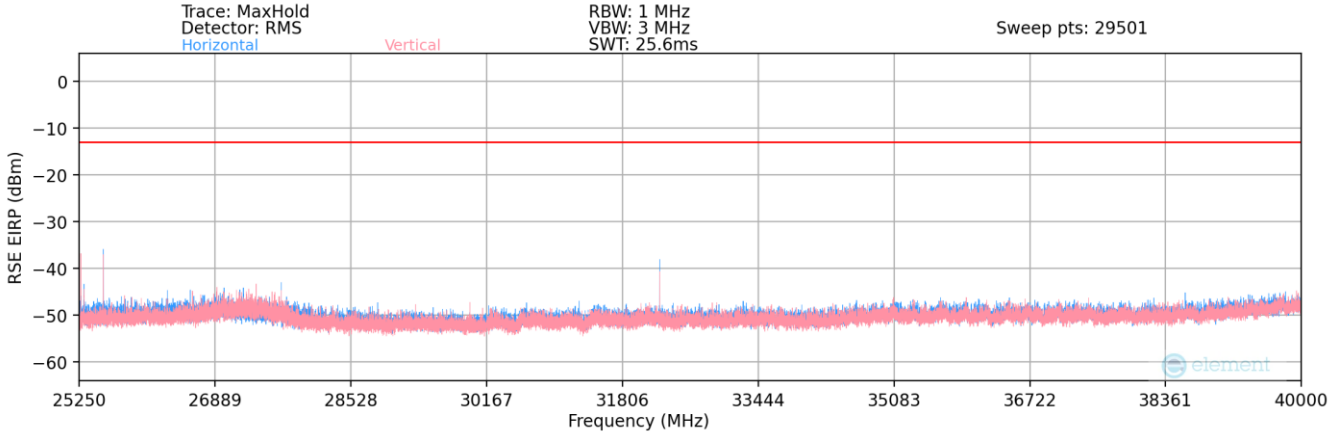
18GHz-24.75GHz



Plot 7-95.n258-R2 Radiated Spurious Plot

25.25GHz-40GHz



Plot 7-96.n258-R2 Radiated Spurious Plot

Spurious Emissions EIRP Sample Calculation (n258-R2)

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

RSE EIRP (dBm) = Analyzer Level (dBm) + 107 + AFCL (dB/m) + 20Log(Dm) – 104.8

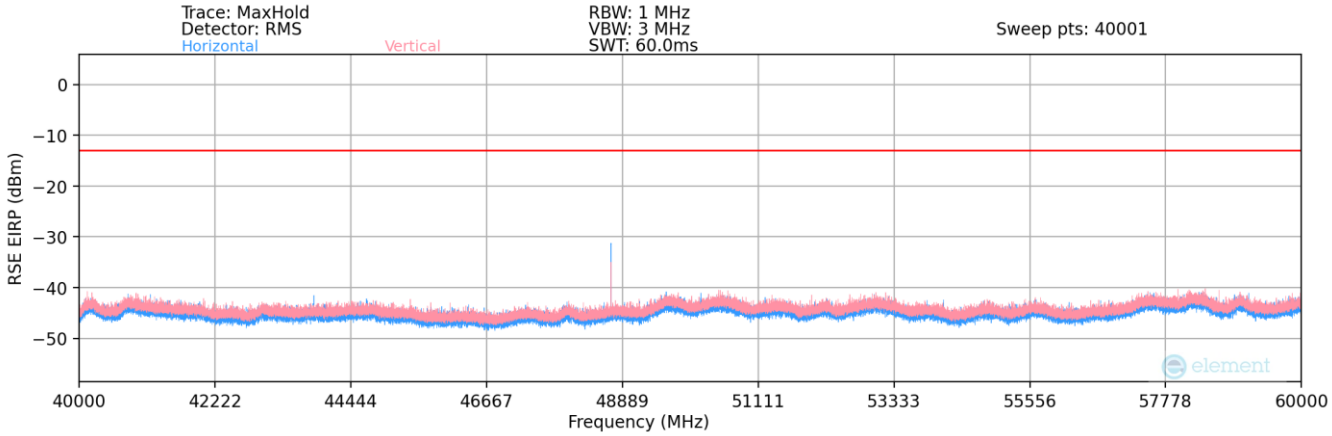
Frequency [MHz]	Channnel	Bandwidth (MHz)	EUT Beam Pol.	Modulation	Antenna Polarization [H/V]	Antenna Height [cm]	Turntable Azimuth [degrees]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
24206.00	Low	50	2Tx	QPSK	H	150	83	-42.78	-13.00	-29.78
24468.00	Low	50	2Tx	QPSK	H	150	73	-46.69	-13.00	-33.69
25083.00	Low	50	2Tx	QPSK	H	150	49	-46.57	-13.00	-33.57
25344.50	Low	50	2Tx	QPSK	H	150	47	-38.86	-13.00	-25.86
23383.50	Mid	50	2Tx	QPSK	H	150	354	-42.90	-13.00	-29.90
24463.50	Mid	50	2Tx	QPSK	V	150	59	-41.40	-13.00	-28.40
24733.00	Mid	50	2Tx	QPSK	V	150	52	-39.06	-13.00	-26.06
25269.00	Mid	50	2Tx	QPSK	V	150	354	-32.56	-13.00	-19.56
25538.50	Mid	50	2Tx	QPSK	H	150	63	-39.05	-13.00	-26.05
32256.00	Mid	50	2Tx	QPSK	H	150	330	-39.43	-13.00	-26.43
23773.00	High	50	2Tx	QPSK	V	150	61	-46.04	-13.00	-33.04
24320.00	High	50	2Tx	QPSK	V	150	290	-41.32	-13.00	-28.32
25532.40	High	50	2Tx	QPSK	V	150	280	-46.96	-13.00	-33.96
25788.50	High	50	2Tx	QPSK	H	150	49	-41.15	-13.00	-28.15

Table 7-23.n258-R2 Radiated Spurious Emissions Table (18GHz - 40GHz)

Notes

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, and cable losses. Measurements were performed at a test distance of 1 meter.

40GHz - 60GHz



Plot 7-97.n258-R2 Radiated Spurious Plot

Spurious Emissions EIRP Sample Calculation (n258-R2)

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1.5 meter.

RSE EIRP (dBm) = Analyzer Level (dBm) + 107 + AFCL (dB/m) + 20Log(Dm) – 104.8 + Harmonic Mixer Conversion Loss [dB]

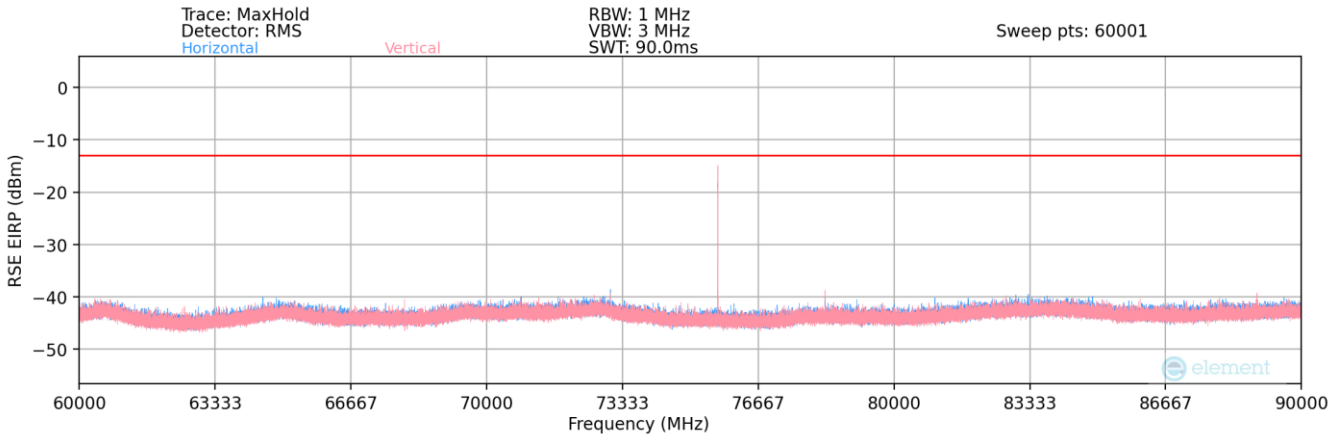
Frequency [MHz]	Channnel	Bandwidth (MHz)	EUT Beam Pol.	Modulation	Antenna Polarization [H/V]	Antenna Height [cm]	Turntable Azimuth [degrees]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
49551.37	Low	50	2Tx	QPSK	H	340	136	-21.40	-13.00	-8.40
50000.87	Mid	50	2Tx	QPSK	H	348	139	-20.08	-13.00	-7.08
50449.92	High	50	2Tx	QPSK	V	342	137	-17.66	-13.00	-4.66

Table 7-24.n258-R2 Radiated Spurious Emissions Table (40GHz - 60GHz)

Notes

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1.5 meter.

60GHz - 90GHz



Plot 7-98.n258-R2 Radiated Spurious Plot

Spurious Emissions EIRP Sample Calculation (n258-R2)

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

RSE EIRP (dBm) = Analyzer Level (dBm) + 107 + AFCL (dB/m) + 20Log(Dm) – 104.8 + Harmonic Mixer Conversion Loss [dB]

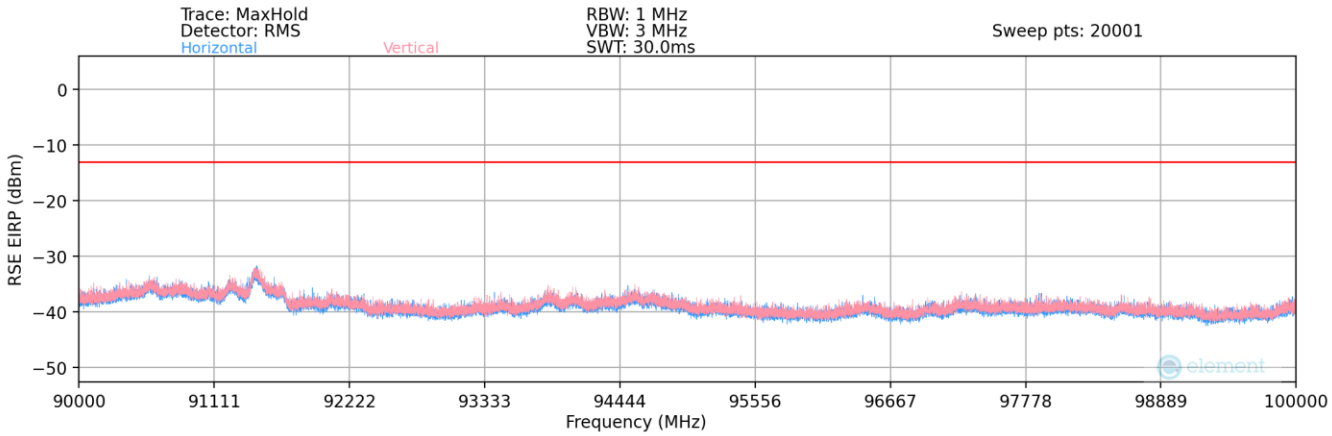
Frequency [MHz]	Channnel	Bandwidth (MHz)	EUT Beam Pol.	Modulation	Antenna Polarization [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
74326.88	Low	50	2Tx	QPSK	H	24	270./8	-16.72	-13.00	-3.72
73049.76	Mid	50	2Tx	QPSK	H	349	268	-17.87	-13.00	-4.87
75676.48	High	50	2Tx	QPSK	H	25	273	-16.57	-13.00	-3.57

Table 7-25.n258-R2 Radiated Spurious Emissions Table (60GHz - 90GHz)

Notes

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a test distance of 1 meter.

90GHz - 100GHz



Plot 7-99.n258-R2 Radiated Spurious Plot

Spurious Emissions EIRP Sample Calculation (n258-R2)

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

RSE EIRP (dBm) = Analyzer Level (dBm) + 107 + AFCL (dB/m) + 20Log(Dm) – 104.8 + Harmonic Mixer Conversion Loss [dB]

Frequency [MHz]	Channnel	Bandwidth (MHz)	EUT Beam Pol.	Modulation	Antenna Polarization [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
95016.00	Low	50	2Tx	QPSK	V	-	-	-44.34	-13.00	-31.34
95507.05	Mid	50	2Tx	QPSK	V	-	-	-45.21	-13.00	-32.21
96072.60	High	50	2Tx	QPSK	V	-	-	-45.31	-13.00	-32.31

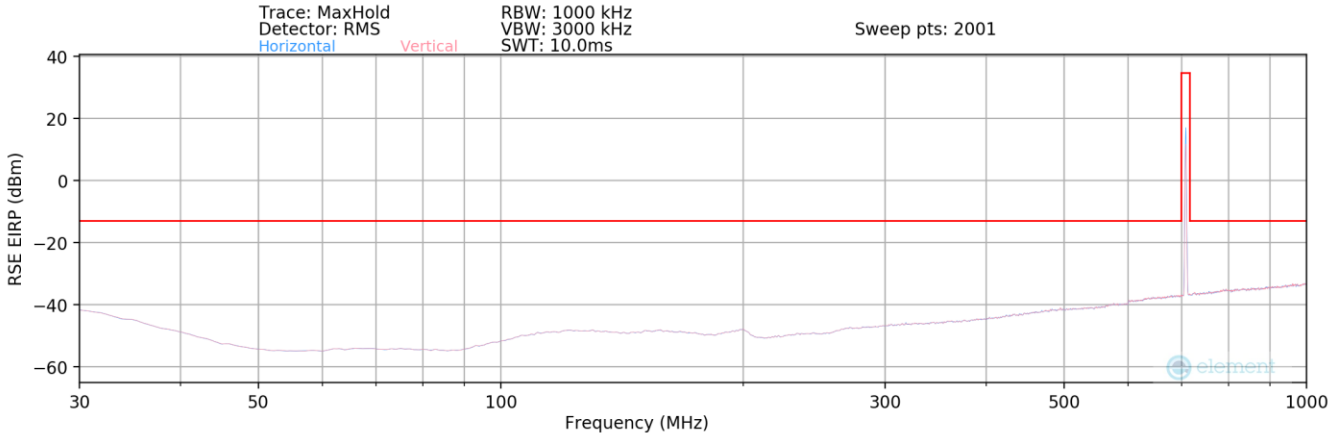
Table 7-26.n258-R2 Radiated Spurious Emissions Table (90GHz - 100GHz)

Notes

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a test distance of 1 meter.

Band n261

30MHz - 1GHz



Plot 7-100.n261 Radiated Spurious Plot – EN-DC Anchor LTE Band 12

Spurious Emissions ERP Sample Calculation (n261)

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the RSE ERP level is calculated by applying the additional factors shown below for a test distance of 3 meter.

RSE ERP (dBm) = Analyzer Level (dBm) + 107 + AFCL (dB/m) + 20Log(Dm) – 104.8 – 2.15 (dB)

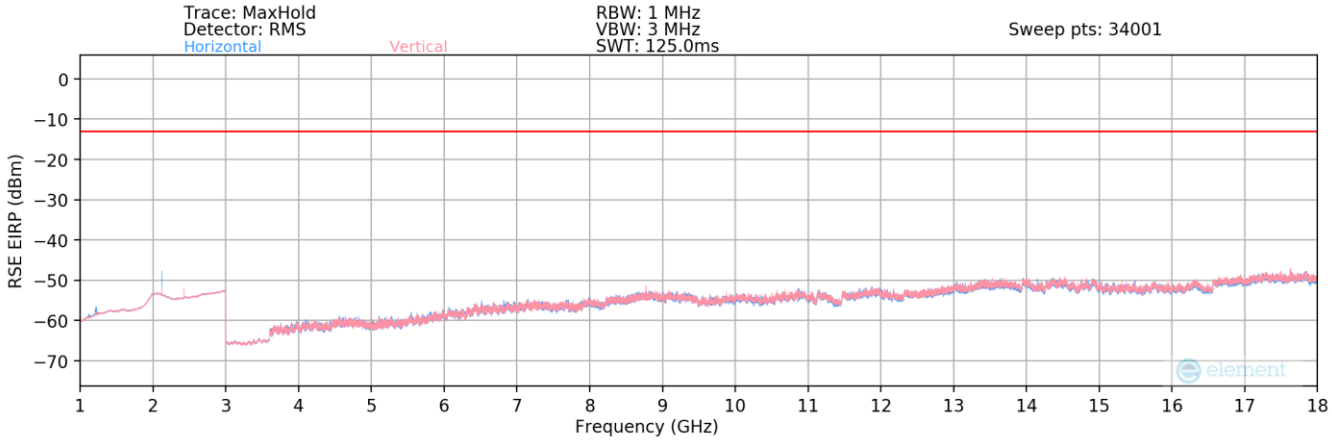
Frequency [MHz]	Channnel	Bandwidth (MHz)	EUT Beam Pol.	Modulation	Antenna Polarization [H/V]	Antenna Height [cm]	Turntable Azimuth [degrees]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
96.20	Low	50	2Tx	QPSK	H	-	-	-62.52	-13.00	-49.52
124.00	Mid	50	2Tx	QPSK	H	-	-	-58.10	-13.00	-45.10
138.00	High	50	2Tx	QPSK	H	-	-	-58.98	-13.00	-45.98

Table 7-27.n261 Radiated Spurious Emissions Table (30MHz - 1GHz)

Notes

The RSE ERP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, and cable losses. Measurements were performed at a distance of 3 meter.

1GHz - 18GHz



Plot 7-101.n261 Radiated Spurious Plot – EN-DC Anchor LTE Band 12

Spurious Emissions EIRP Sample Calculation (n261)

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 3 meter.

RSE EIRP (dBm) = Analyzer Level (dBm) + 107 + AFCL (dB/m) + 20Log(Dm) – 104.8

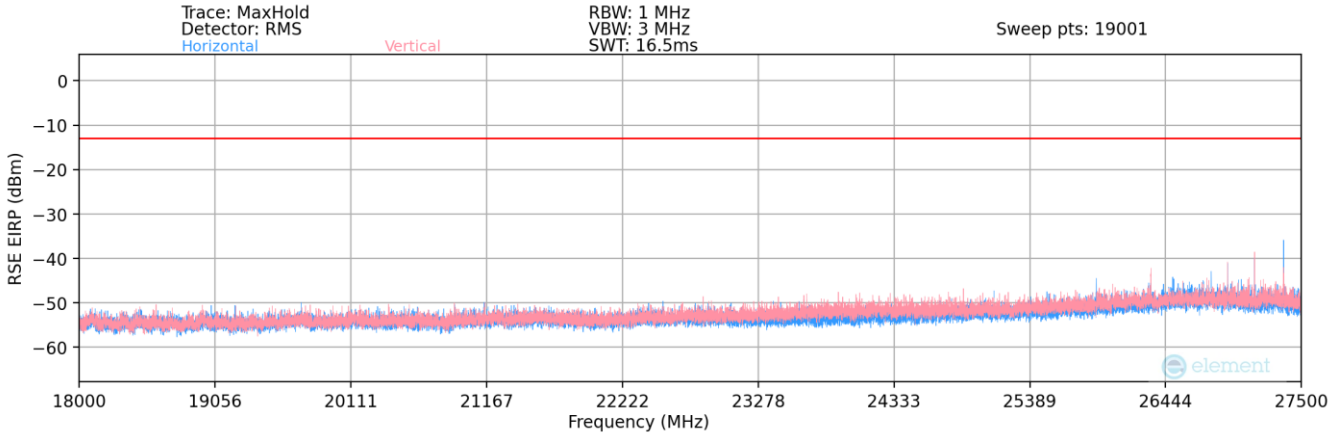
Frequency [MHz]	Channnel	Bandwidth (MHz)	EUT Beam Pol.	Modulation	Antenna Polarization [H/V]	Antenna Height [cm]	Turntable Azimuth [degrees]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
8468.20	Low	50	2Tx	QPSK	V	-	-	-58.65	-13.00	-45.65
1415.00	Mid	50	2Tx	QPSK	H	-	-	-64.82	-13.00	-51.82
2123.00	Mid	50	2Tx	QPSK	H	112	191	-47.63	-13.00	-34.63
8777.00	Mid	50	2Tx	QPSK	V	112	8	-53.73	-13.00	-40.73
8869.90	High	50	2Tx	QPSK	V	116	7	-52.14	-13.00	-39.14

Table 7-28.n261 Radiated Spurious Emissions Table (1GHz - 18GHz)

Notes

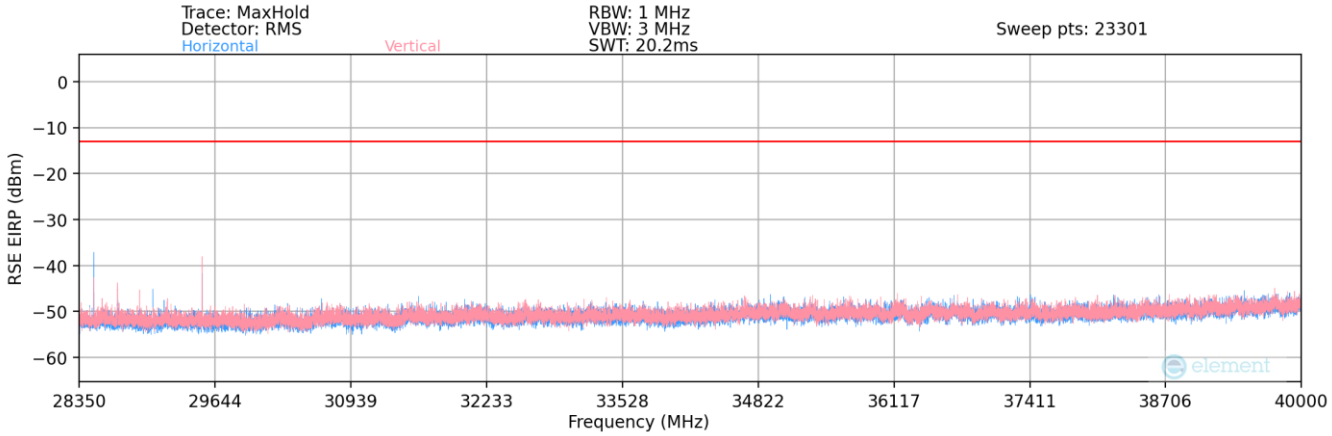
The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, and cable losses. Measurements were performed at a test distance of 3 meter.

18GHz-27.5GHz



Plot 7-102.n261 Radiated Spurious Plot

28.35GHz-40GHz



Plot 7-103.n261 Radiated Spurious Plot

Spurious Emissions EIRP Sample Calculation (n261)

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

RSE EIRP (dBm) = Analyzer Level (dBm) + 107 + AFCL (dB/m) + 20Log(Dm) – 104.8

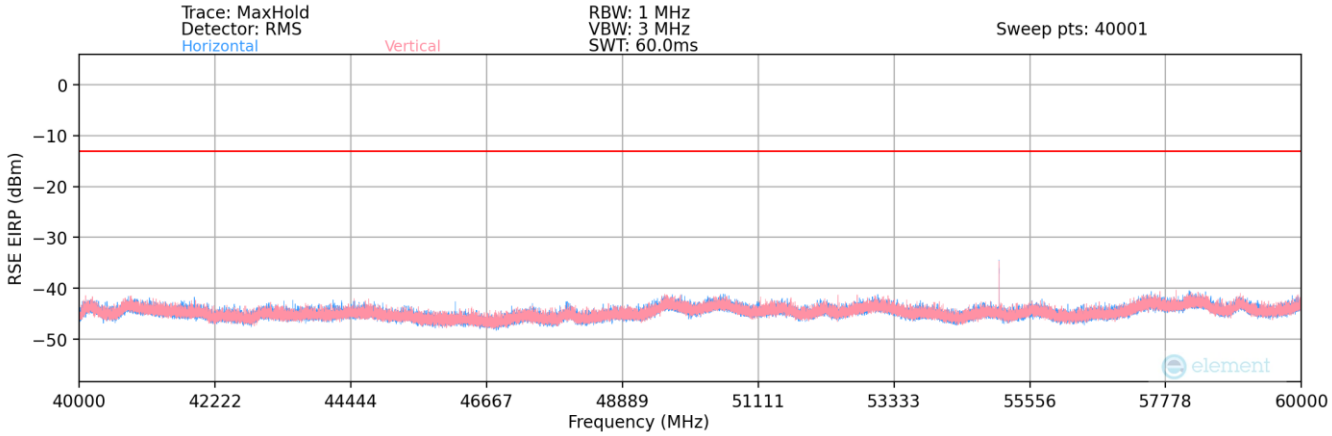
Frequency [MHz]	Channnel	Bandwidth (MHz)	EUT Beam Pol.	Modulation	Antenna Polarization [H/V]	Antenna Height [cm]	Turntable Azimuth [degrees]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
26962.50	Low	50	2Tx	QPSK	H	150	75	-45.28	-13.00	-32.28
27218.50	Low	50	2Tx	QPSK	H	150	89	-47.48	-13.00	-34.48
28089.00	Low	50	2Tx	QPSK	H	150	46	-47.28	-13.00	-34.28
27136.00	Mid	50	2Tx	QPSK	V	150	65	-39.67	-13.00	-26.67
27362.00	Mid	50	2Tx	QPSK	H	150	10	-44.21	-13.00	-31.21
28489.00	Mid	50	2Tx	QPSK	H	150	77	-37.91	-13.00	-24.91
29520.01	Mid	50	2Tx	QPSK	V	150	46	-38.43	-13.00	-25.43
27442.81	High	50	2Tx	QPSK	V	150	78	-36.55	-13.00	-23.55
28069.00	High	50	2Tx	QPSK	V	150	100	-39.06	-13.00	-26.06
28581.00	High	50	2Tx	QPSK	V	150	88	-36.35	-13.00	-23.35

Table 7-29.n261 Radiated Spurious Emissions Table (18GHz - 40GHz)

Notes

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, and cable losses. Measurements were performed at a test distance of 1 meter.

40GHz - 60GHz



Plot 7-104.n261 Radiated Spurious Plot

Spurious Emissions EIRP Sample Calculation (n261)

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1.5 meter.

RSE EIRP (dBm) = Analyzer Level (dBm) + 107 + AFCL (dB/m) + 20Log(Dm) – 104.8 + Harmonic Mixer Conversion Loss [dB]

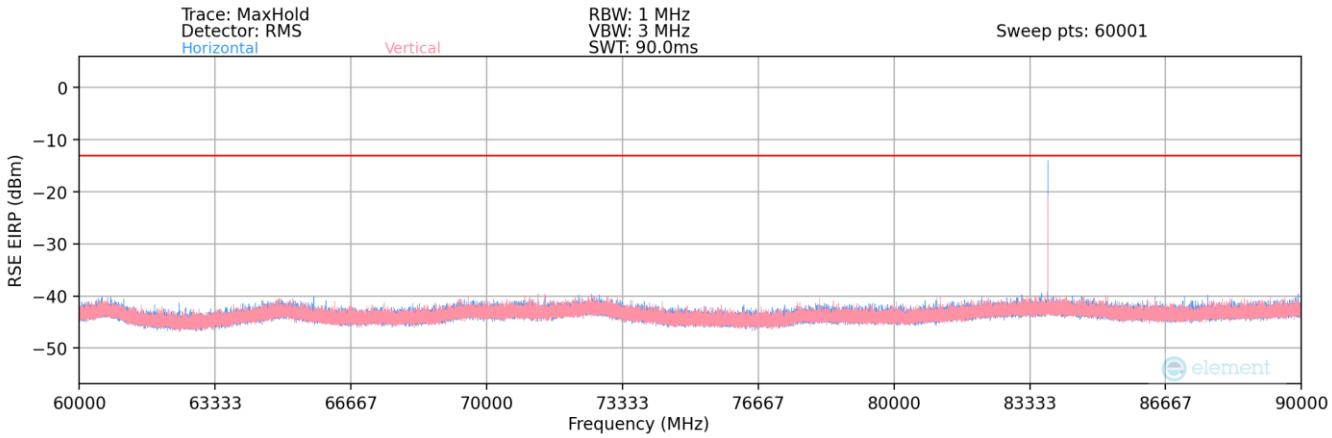
Frequency [MHz]	Channnel	Bandwidth (MHz)	EUT Beam Pol.	Modulation	Antenna Polarization [H/V]	Antenna Height [cm]	Turntable Azimuth [degrees]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
55051.25	Low	50	2Tx	QPSK	V	358	68	-30.16	-13.00	-17.16
55849.92	Mid	50	2Tx	QPSK	V	2	114	-30.85	-13.00	-17.85
56651.32	High	50	2Tx	QPSK	V	356	56	-30.26	-13.00	-17.26

Table 7-30.n261 Radiated Spurious Emissions Table (40GHz - 60GHz)

Notes

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1.5 meter.

60GHz - 90GHz



Plot 7-105.n261 Radiated Spurious Plot

Spurious Emissions EIRP Sample Calculation (n261)

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

RSE EIRP (dBm) = Analyzer Level (dBm) + 107 + AFCL (dB/m) + 20Log(Dm) – 104.8 **+** Harmonic Mixer Conversion Loss [dB]

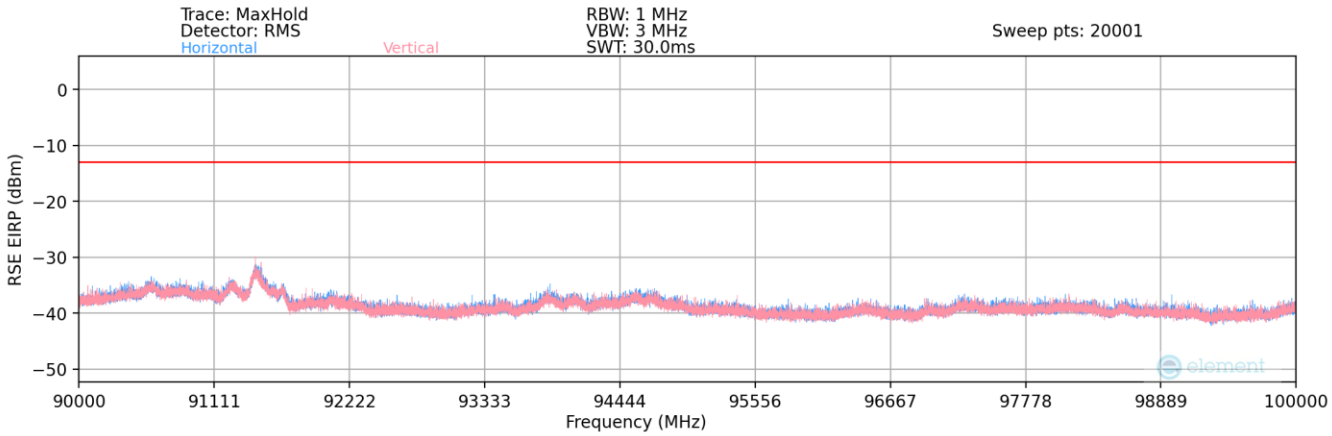
Frequency [MHz]	Channnel	Bandwidth (MHz)	EUT Beam Pol.	Modulation	Antenna Polarization [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
82576.56	Low	50	2Tx	QPSK	V	354	284	-18.62	-13.00	-5.62
83776.65	Mid	50	2Tx	QPSK	V	358	286	-16.61	-13.00	-3.61
84976.29	High	50	2Tx	QPSK	V	3	286	-20.56	-13.00	-7.56

Table 7-31.n261 Radiated Spurious Emissions Table (60GHz - 90GHz)

Notes

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a test distance of 1 meter.

90GHz - 100GHz



Plot 7-106.n261 Radiated Spurious Plot

Spurious Emissions EIRP Sample Calculation (n261)

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

RSE EIRP (dBm) = Analyzer Level (dBm) + 107 + AFCL (dB/m) + 20Log(Dm) – 104.8 + Harmonic Mixer Conversion Loss [dB]

Frequency [MHz]	Channnel	Bandwidth (MHz)	EUT Beam Pol.	Modulation	Antenna Polarization [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
94418.18	Low	50	2Tx	QPSK	V	-	-	-42.69	-13.00	-29.69
95245.74	Mid	50	2Tx	QPSK	V	-	-	-43.86	-13.00	-30.86
95986.68	High	50	2Tx	QPSK	V	-	-	-42.54	-13.00	-29.54

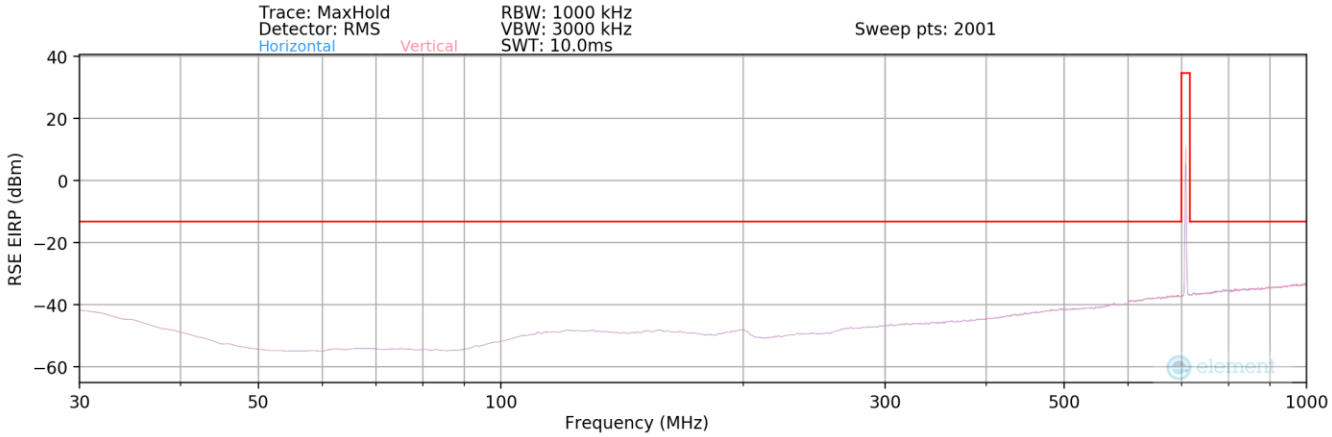
Table 7-32.n261 Radiated Spurious Emissions Table (90GHz - 100GHz)

Notes

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a test distance of 1 meter.

Band n260

30MHz - 1GHz



Plot 7-107.n260 Radiated Spurious Plot – EN-DC Anchor LTE Band 12

Spurious Emissions ERP Sample Calculation (n260)

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the RSE ERP level is calculated by applying the additional factors shown below for a test distance of 3 meter.

RSE ERP (dBm) = Analyzer Level (dBm) + 107 + AFCL (dB/m) + 20Log(Dm) – 104.8 – 2.15 (dB)

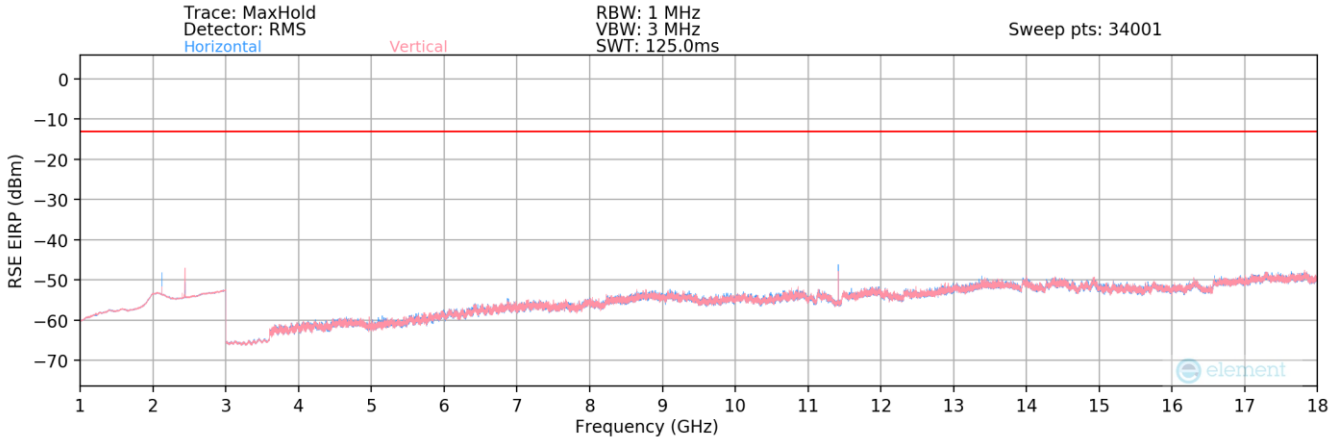
Frequency [MHz]	Channnel	Bandwidth (MHz)	EUT Beam Pol.	Modulation	Antenna Polarization [H/V]	Antenna Height [cm]	Turntable Azimuth [degrees]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
123.50	Low	50	2Tx	QPSK	H	-	-	-58.19	-13.00	-45.19
133.00	Mid	50	2Tx	QPSK	H	-	-	-58.42	-13.00	-45.42
178.51	High	50	2Tx	QPSK	H	-	-	-59.91	-13.00	-46.91

Table 7-33.n260 Radiated Spurious Emissions Table (30MHz - 1GHz)

Notes

The RSE ERP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, and cable losses. Measurements were performed at a distance of 3 meter.

1GHz - 18GHz



Plot 7-108.n260 Radiated Spurious Plot – EN-DC Anchor LTE Band 12

Spurious Emissions EIRP Sample Calculation (n260)

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 3 meter.

RSE EIRP (dBm) = Analyzer Level (dBm) + 107 + AFCL (dB/m) + 20Log(Dm) – 104.8

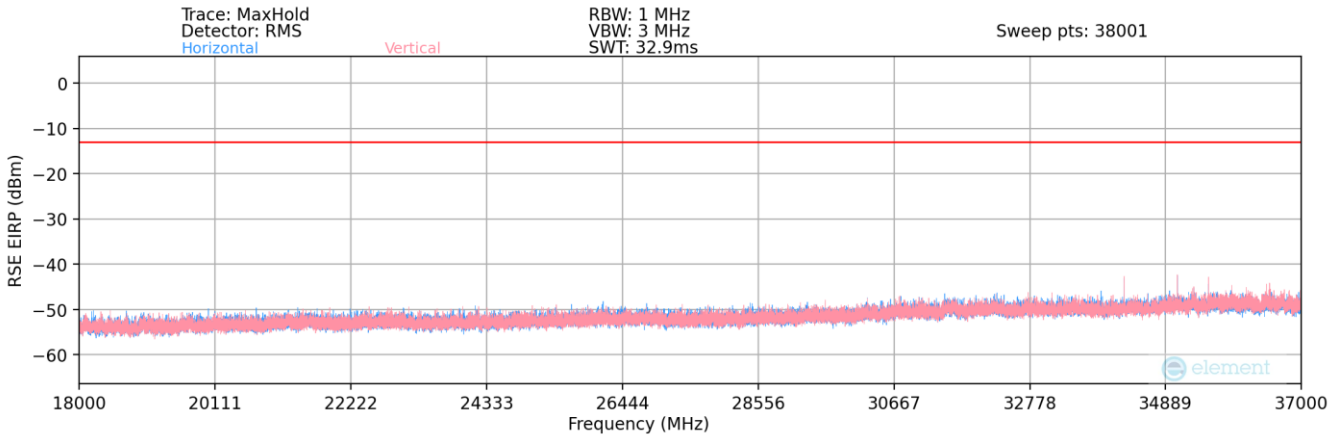
Frequency [MHz]	Channnel	Bandwidth (MHz)	EUT Beam Pol.	Modulation	Antenna Polarization [H/V]	Antenna Height [cm]	Turntable Azimuth [degrees]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
11220.05	Low	50	2Tx	QPSK	H	239	337	-39.58	-13.00	-26.58
2123.00	Mid	50	2Tx	QPSK	H	115	202	-46.69	-13.00	-33.69
11416.00	Mid	50	2Tx	QPSK	H	219	14	-41.38	-13.00	-28.38
11713.78	High	50	2Tx	QPSK	H	214	36	-44.89	-13.00	-31.89

Table 7-34.n260 Radiated Spurious Emissions Table (1GHz - 18GHz)

Notes

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, and cable losses. Measurements were performed at a test distance of 3 meter.

18GHz-40GHz



Plot 7-109.n260 Radiated Spurious Plot

Spurious Emissions EIRP Sample Calculation (n260)

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

RSE EIRP (dBm) = Analyzer Level (dBm) + 107 + AFCL (dB/m) + 20Log(Dm) – 104.8

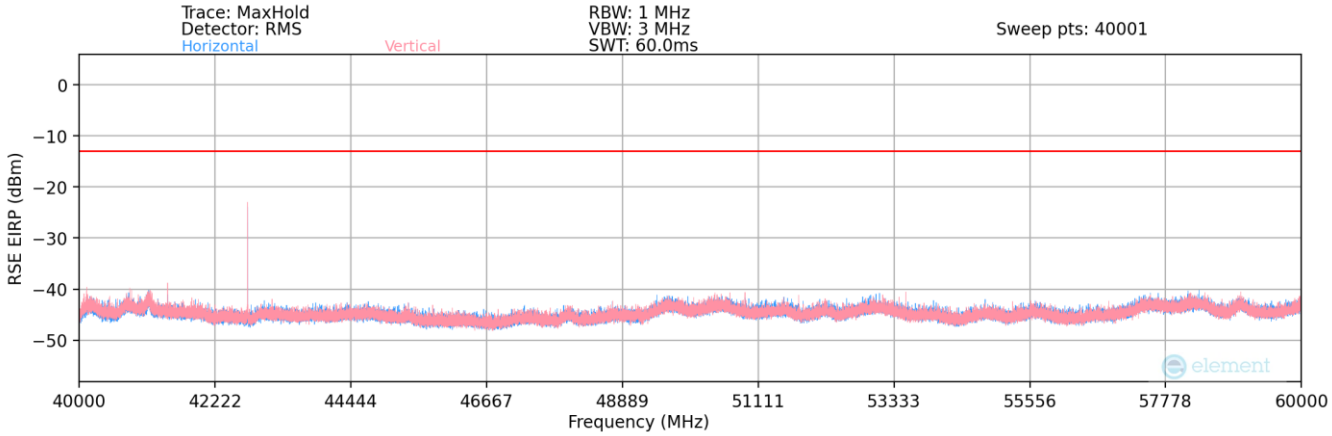
Frequency [MHz]	Channnel	Bandwidth (MHz)	EUT Beam Pol.	Modulation	Antenna Polarization [H/V]	Antenna Height [cm]	Turntable Azimuth [degrees]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
35482.00	Low	50	2Tx	QPSK	V	150	78	-43.79	-13.00	-30.79
36027.00	Low	50	2Tx	QPSK	V	150	81	-42.81	-13.00	-29.81
34246.50	Mid	50	2Tx	QPSK	V	150	9	-45.54	-13.00	-32.54
35072.00	Mid	50	2Tx	QPSK	V	150	88	-41.94	-13.00	-28.94
35556.50	Mid	50	2Tx	QPSK	V	150	87	-40.61	-13.00	-27.61
35854.00	High	50	2Tx	QPSK	V	150	99	-40.42	-13.00	-27.42
36249.00	High	50	2Tx	QPSK	V	150	70	-38.78	-13.00	-25.78
36442.23	High	50	2Tx	QPSK	V	150	33	-42.30	-13.00	-29.30

Table 7-35.n260 Radiated Spurious Emissions Table (18GHz - 40GHz)

Notes

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, and cable losses. Measurements were performed at a test distance of 1 meter.

40GHz - 60GHz



Plot 7-110.n260 Radiated Spurious Plot

Spurious Emissions EIRP Sample Calculation (n260)

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1.5 meter.

RSE EIRP (dBm) = Analyzer Level (dBm) + 107 + AFCL (dB/m) + 20Log(Dm) – 104.8 + Harmonic Mixer Conversion Loss [dB]

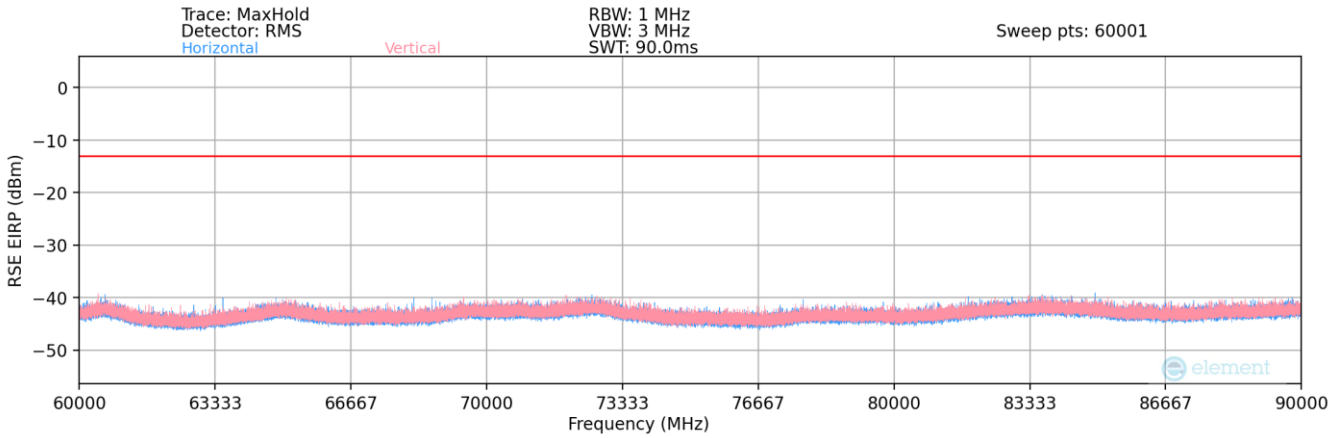
Frequency [MHz]	Channnel	Bandwidth (MHz)	EUT Beam Pol.	Modulation	Antenna Polarization [H/V]	Antenna Height [cm]	Turntable Azimuth [degrees]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
40388.10	Low	50	2Tx	QPSK	V	67	14	-23.85	-13.00	-10.85
42753.18	Mid	50	2Tx	QPSK	V	310	172	-22.82	-13.00	-9.82
44811.25	High	50	2Tx	QPSK	V	43	11	-19.33	-13.00	-6.33

Table 7-36.n260 Radiated Spurious Emissions Table (40GHz - 60GHz)

Notes

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a distance of 1.5 meter.

60GHz - 90GHz



Plot 7-111.n260 Radiated Spurious Plot

Spurious Emissions EIRP Sample Calculation (n260)

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

RSE EIRP (dBm) = Analyzer Level (dBm) + 107 + AFCL (dB/m) + 20Log(Dm) – 104.8 + Harmonic Mixer Conversion Loss [dB]

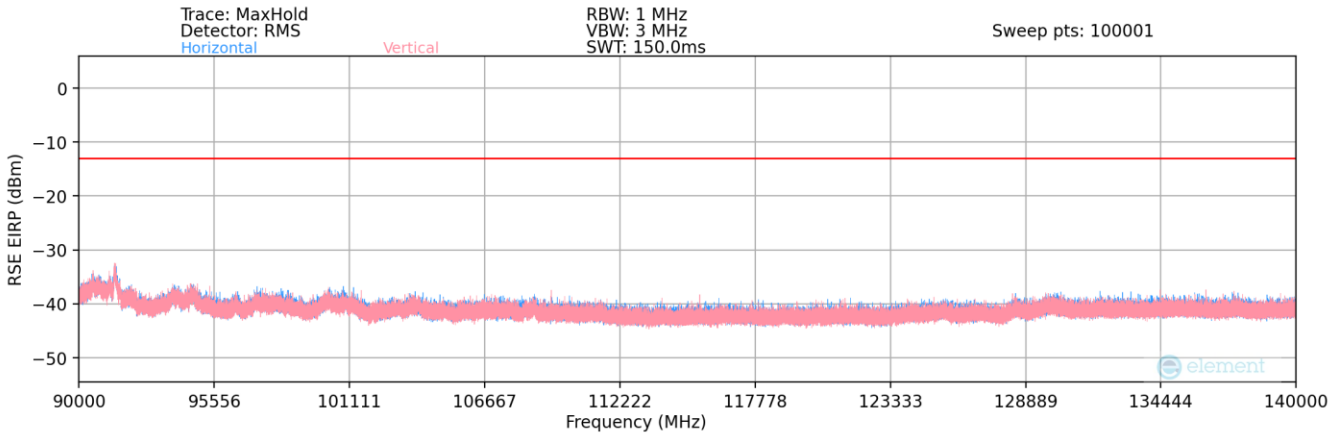
Frequency [MHz]	Channnel	Bandwidth (MHz)	EUT Beam Pol.	Modulation	Antenna Polarization [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
74051.08	Low	50	2Tx	QPSK	V	370	257	-44.92	-13.00	-31.92
77001.87	Mid	50	2Tx	QPSK	H	38	256	-43.28	-13.00	-30.28
79951.00	High	50	2Tx	QPSK	V	35	317	-35.98	-13.00	-22.98

Table 7-37.n260 Radiated Spurious Emissions Table (60GHz - 90GHz)

Notes

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a test distance of 1 meter.

90GHz - 140GHz



Plot 7-112.n260 Radiated Spurious Plot

Spurious Emissions EIRP Sample Calculation (n260)

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

RSE EIRP (dBm) = Analyzer Level (dBm) + 107 + AFCL (dB/m) + 20Log(Dm) – 104.8 + Harmonic Mixer Conversion Loss [dB]

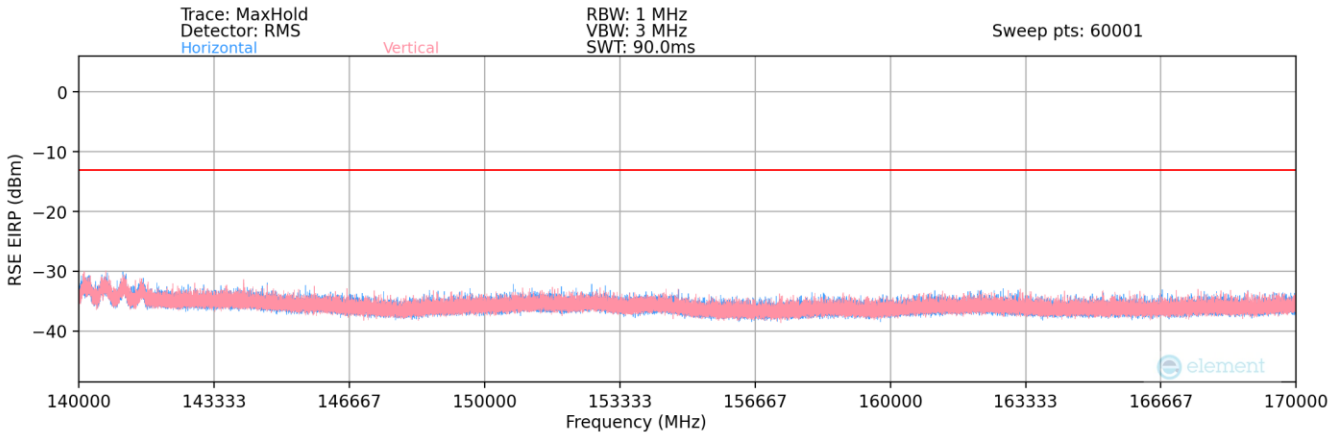
Frequency [MHz]	Channnel	Bandwidth (MHz)	EUT Beam Pol.	Modulation	Antenna Polarization [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
111076.83	Low	50	2Tx	QPSK	V	224	261	-46.21	-13.00	-33.21
115500.83	Mid	50	2Tx	QPSK	H	209	169	-45.12	-13.00	-32.12
119927.59	High	50	2Tx	QPSK	V	316	303	-43.43	-13.00	-30.43

Table 7-38.n260 Radiated Spurious Emissions Table (90GHz - 140GHz)

Notes

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a test distance of 1 meter.

140GHz - 170GHz



Plot 7-113.n260 Radiated Spurious Plot

Spurious Emissions EIRP Sample Calculation (n260)

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

RSE EIRP (dBm) = Analyzer Level (dBm) + 107 + AFCL (dB/m) + 20Log(Dm) – 104.8 + Harmonic Mixer Conversion Loss [dB]

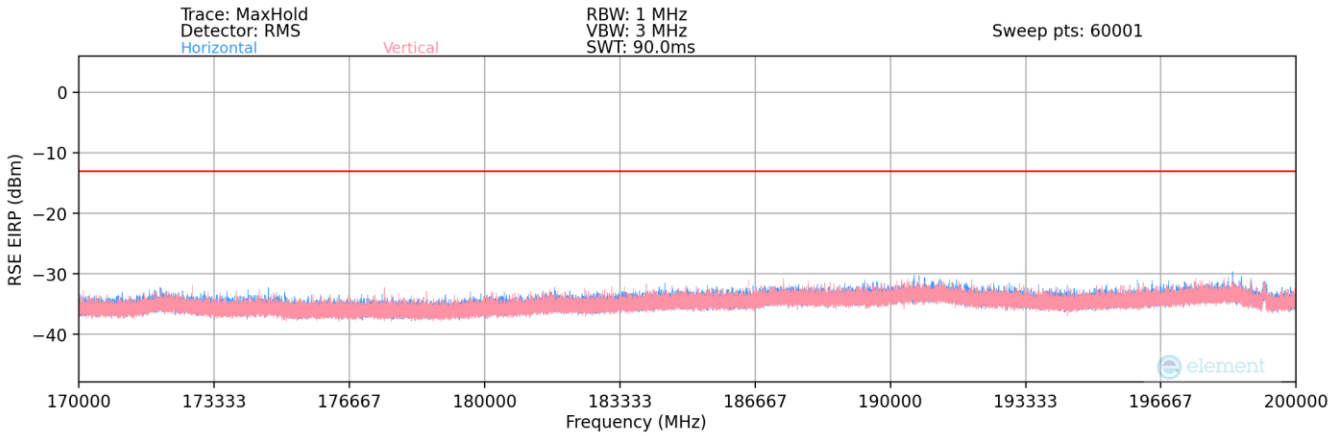
Frequency [MHz]	Channnel	Bandwidth (MHz)	EUT Beam Pol.	Modulation	Antenna Polarization [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
148113.89	Low	50	2Tx	QPSK	V	-	-	-37.22	-13.00	-24.22
153999.84	Mid	50	2Tx	QPSK	V	-	-	-35.82	-13.00	-22.82
159886.32	High	50	2Tx	QPSK	V	-	-	-37.06	-13.00	-24.06

Table 7-39.n260 Radiated Spurious Emissions Table (140GHz - 170GHz)

Notes

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a test distance of 1 meter.

170GHz - 200GHz



Plot 7-114.n260 Radiated Spurious Plot

Spurious Emissions EIRP Sample Calculation (n260)

The raw radiated spurious level is converted to field strength in dBuV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 1 meter.

RSE EIRP (dBm) = Analyzer Level (dBm) + 107 + AFCL (dB/m) + 20Log(Dm) – 104.8 + Harmonic Mixer Conversion Loss [dB]

Frequency [MHz]	Channnel	Bandwidth (MHz)	EUT Beam Pol.	Modulation	Antenna Polarization [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
185155.90	Low	50	2Tx	QPSK	H	-	-	-37.27	-13.00	-24.27
192500.99	Mid	50	2Tx	QPSK	H	-	-	-39.02	-13.00	-26.02
199872.79	High	50	2Tx	QPSK	H	-	-	-37.56	-13.00	-24.56

Table 7-40.n260 Radiated Spurious Emissions Table (170GHz - 200GHz)

Notes

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion losses. Measurements were performed at a test distance of 1 meter.

7.5 Band Edge Emissions

§2.1051, §30.203

Test Overview

All out of band emissions are measured in a radiated setup while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All modulations were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

The minimum permissible attenuation level of any spurious emission is -13dBm/1MHz. However, in the bands immediately outside and adjacent to the licensee's frequency block, having a bandwidth equal to 10 percent of the channel bandwidth, the conductive power or the total radiated power of any emission shall be −5 dBm/MHz or lower.

Test Procedure Used

ANSI C63.26-2015 Section 5 and ANSI C63.26-2015 Section 6.4
KDB 842590 D01 v01r02 Section 4.4.2.4

Test Settings

1. Start and stop frequency were set such that both upper and lower band edges are measured.
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. RBW = 1MHz
4. VBW ≥ 3 x RBW
5. Detector = RMS
6. Number of sweep points ≥ 2 x Span/RBW
7. Trace mode = trace average
8. Sweep time = auto couple
9. The trace was allowed to stabilize

Test Notes

1) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning.

2) Band Edge emissions were measured at a 1 meter distance.

3) The spectrum analyzer for each measurement shows an offset value that was determined using the measurement antenna factor, cable loss, far field measurement distance. A sample calculation is shown on the following page.

4) This device supports transmission of H-polarized and V-polarized beams from the antenna array in both CP-OFDM and DFT-s-OFDM transmission schemes. SISO and MIMO operation is also supported for some configurations. As part of the testing, all modes were fully investigated and only the worst case has been included in this report.

5) All combinations of 1CC, 2CC, 3CC, and 4CC were fully investigated, and only the worst case has been included in this report.

6) Unless otherwise specified, the radiated band edge plots in this section display the worst case EIRP measurements for the indicated bandwidth−component carrier configuration.

7) The plots in this section that display Total Radiated Power (TRP) were obtained from measurements that were performed in accordance with the guidance of Section 4.4.2.4 of KDB 842590 D01 for the Spherical Method.

Sample Analyzer Offset Calculation (at 27.5GHz)

Measurement Antenna Factor = 46.85dB/m

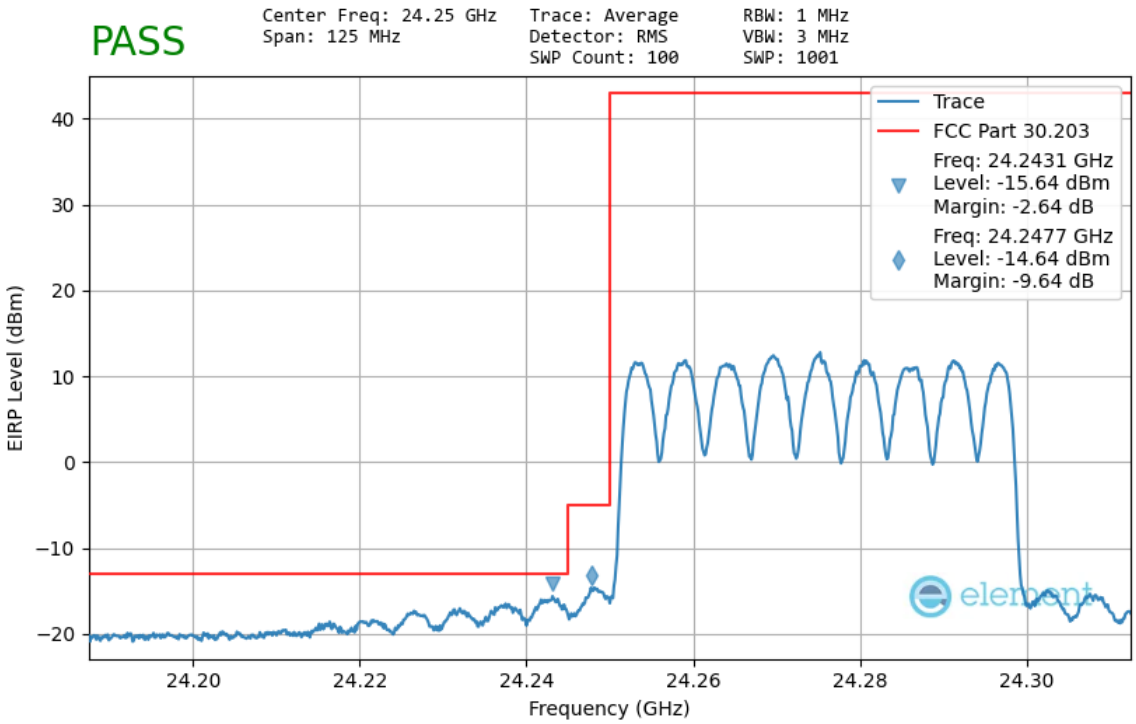
Cable Loss = 9.18dB

Analyzer Offset (dB) = AF (dB/m) + CL (dB) + 107 + $20\log_{10}(D)$ – 104.8dB, where D = 1m

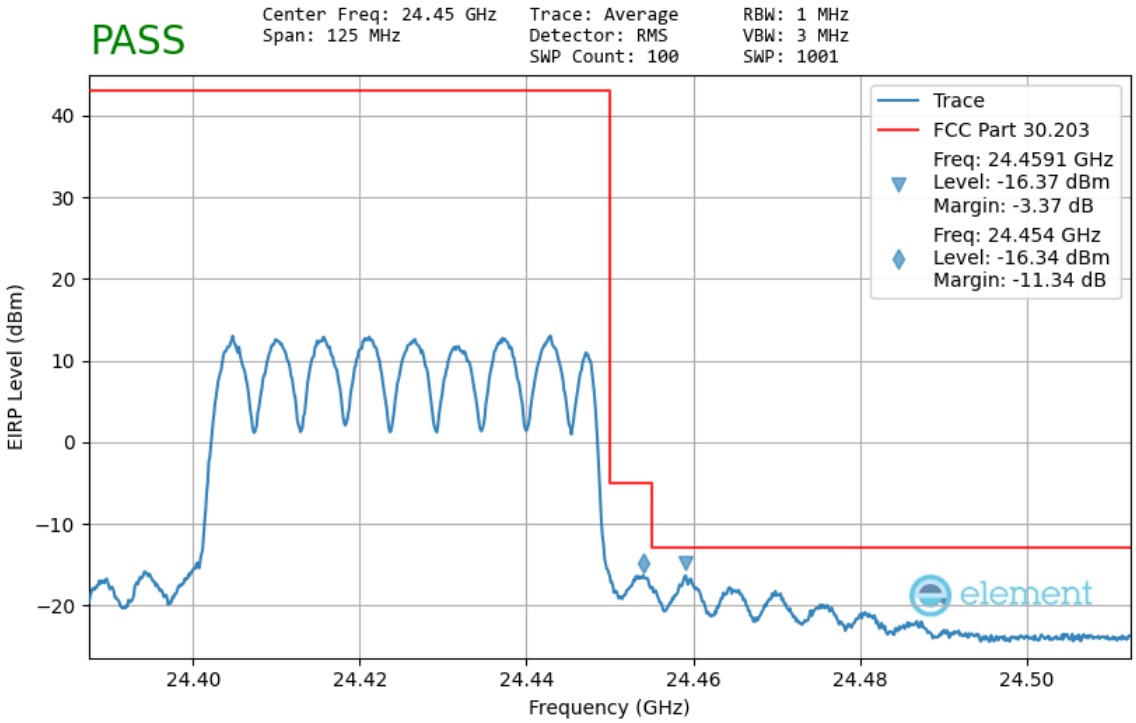
= 46.85dB/m + 9.18dB + 107 + $20\log_{10}(1m)$ – 104.8dB

= 58.23dB

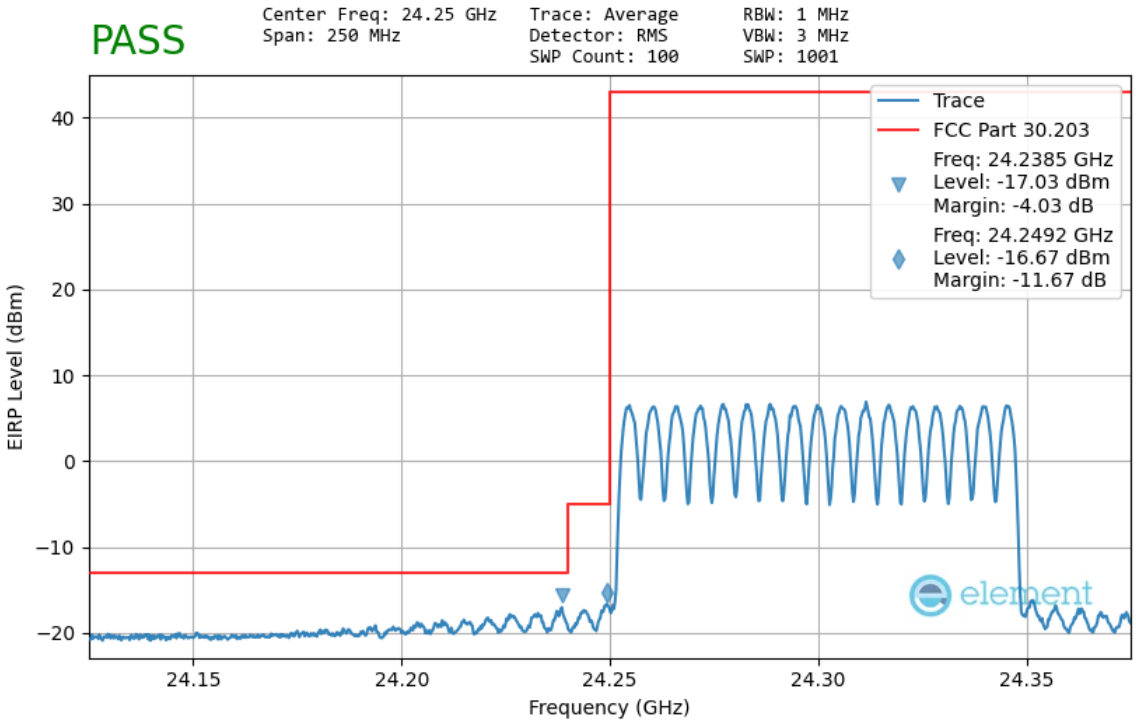
Band n258-R1 – Worst Case



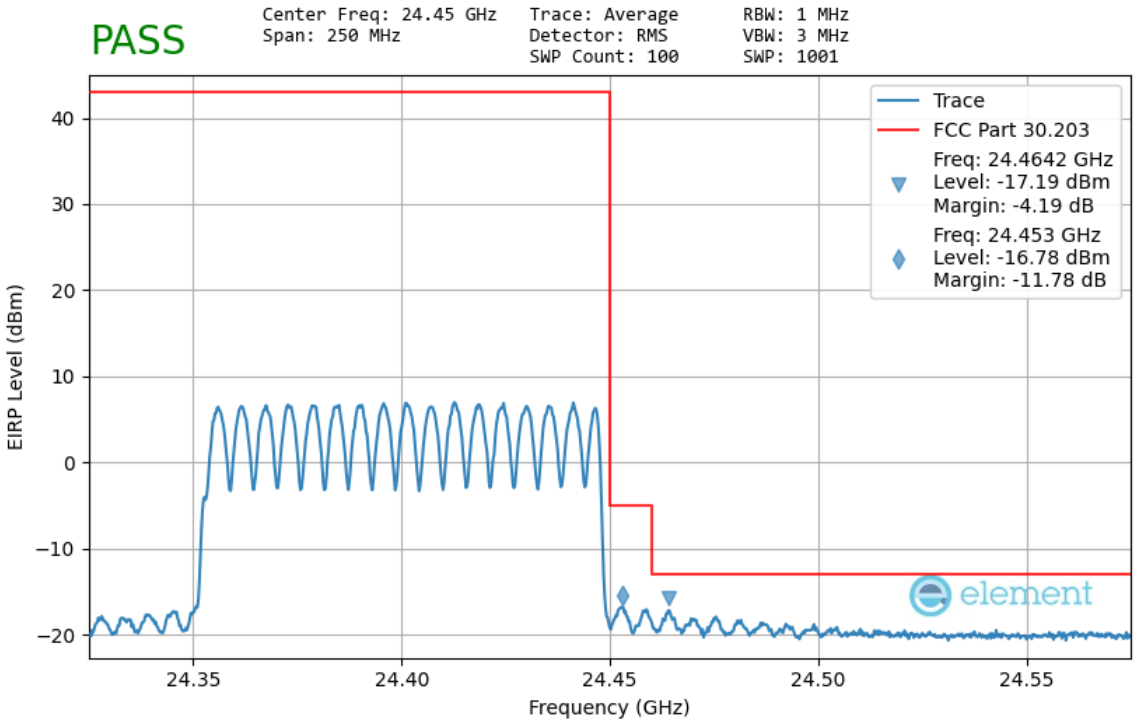
Plot 7-115.Lower Band Edge (50MHz-1CC – DFT-s -OFDM QPSK Full RB)



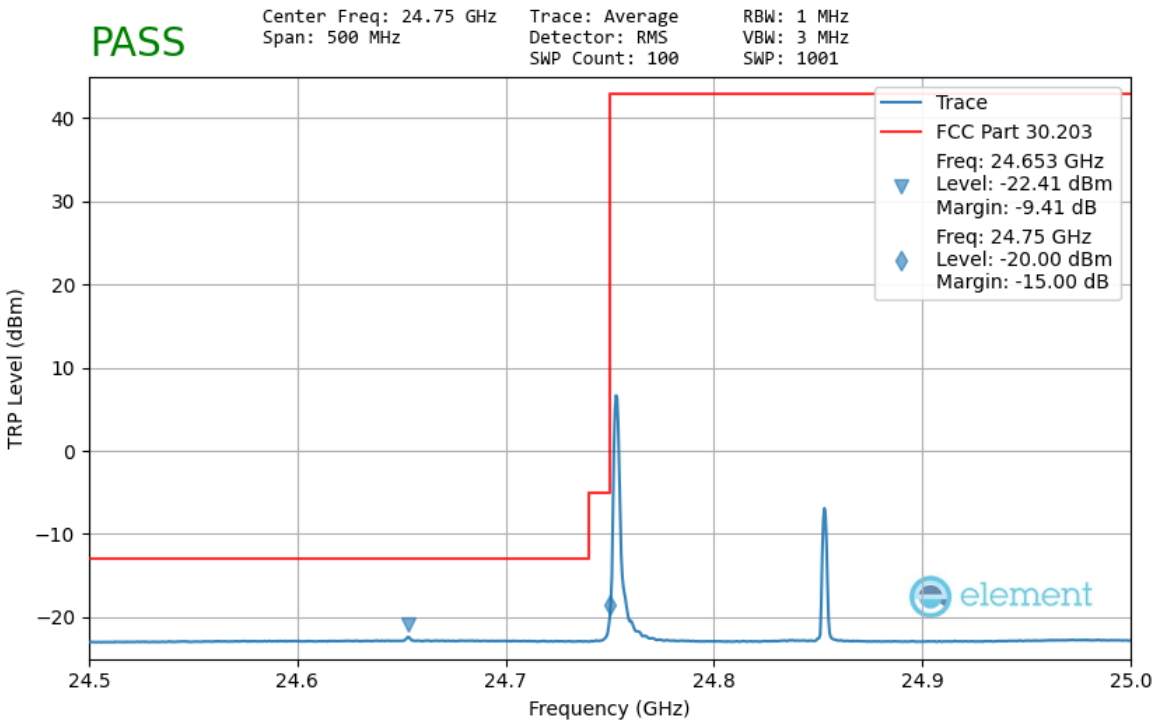
Plot 7-116.Upper Band Edge (50MHz-1CC – DFT-s-OFDM π/2 BPSK Full RB)



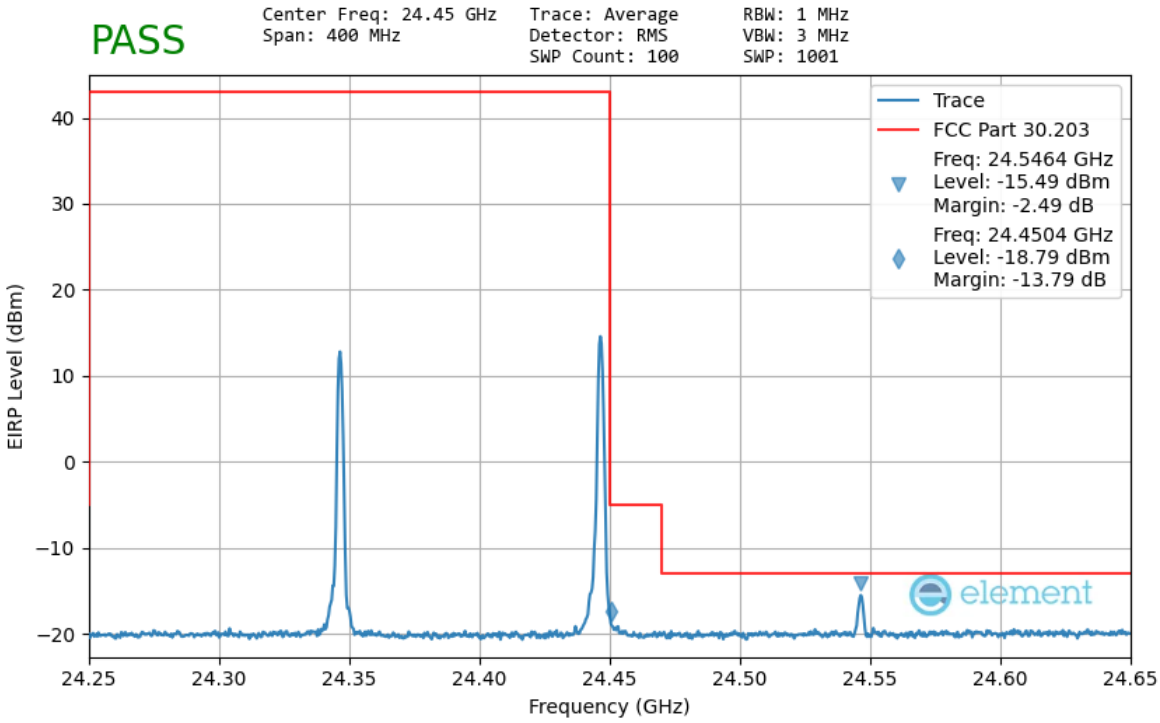
Plot 7-117.Lower Band Edge (100MHz-1CC – CP-OFDM QPSK Full RB)



Plot 7-118.Upper Band Edge (100MHz-1CC – CP-OFDM QPSK Full RB)

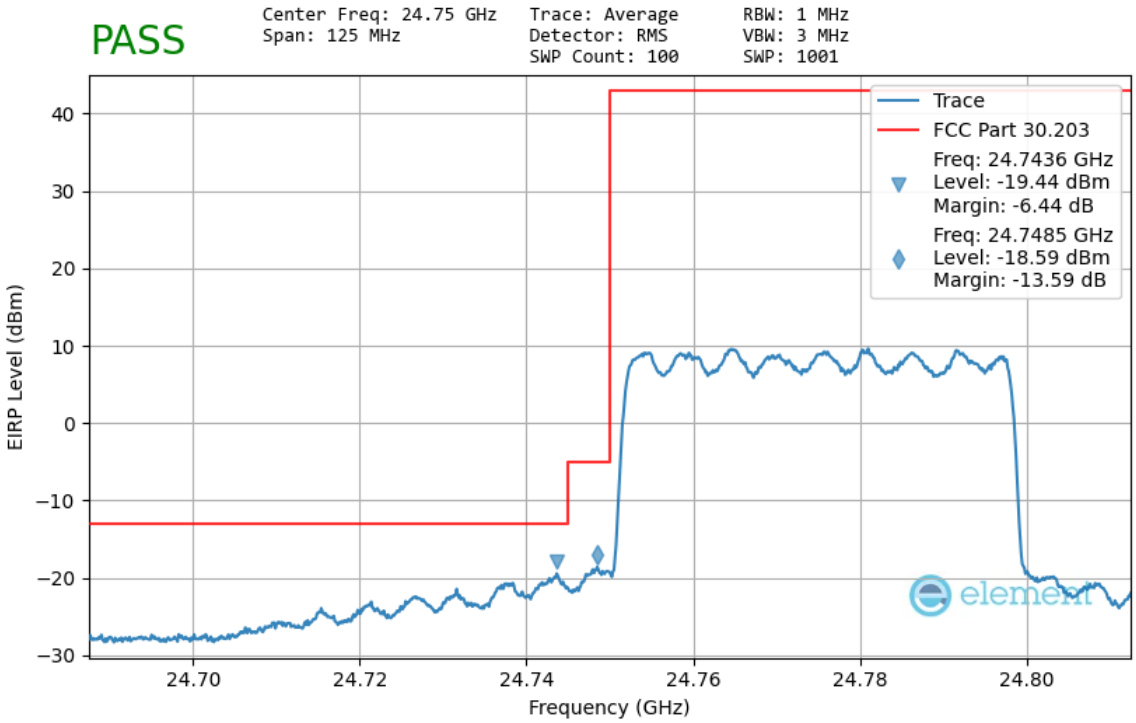


Plot 7-119.Lower Band Edge - TRP (100MHz-2CC CP-OFDM QPSK 1 RB)

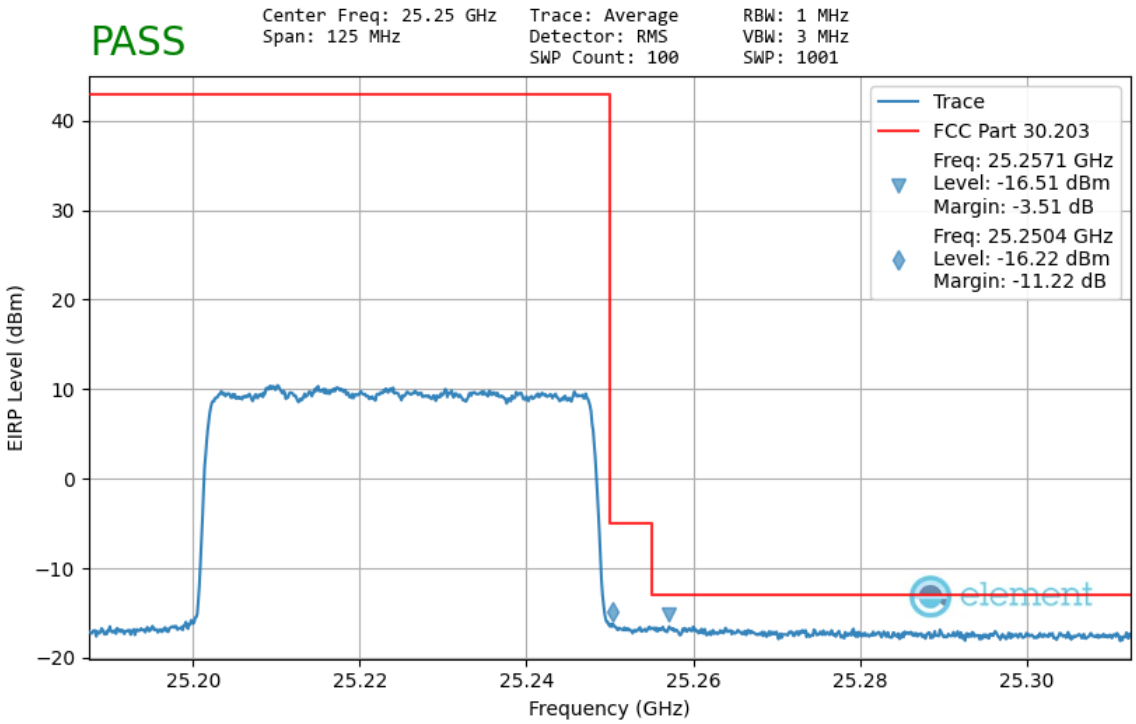


Plot 7-120.Upper Band Edge (100MHz-2CC – CP-OFDM QPSK 1 RB)

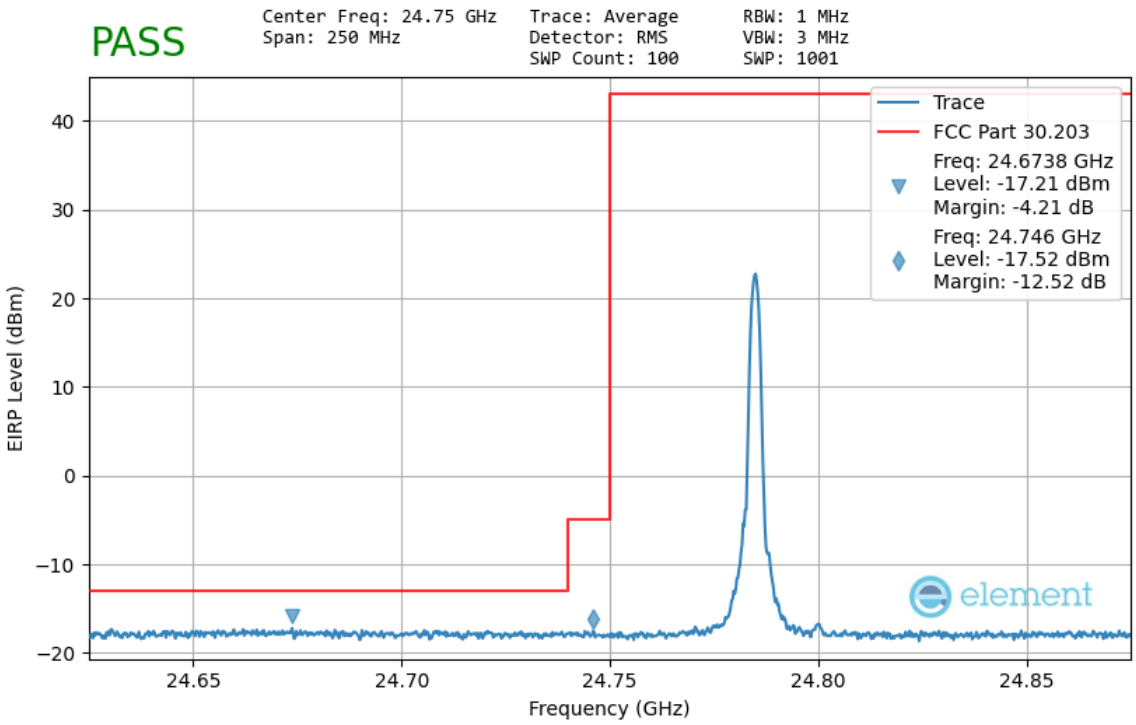
Band n258-R2 –Worst Case



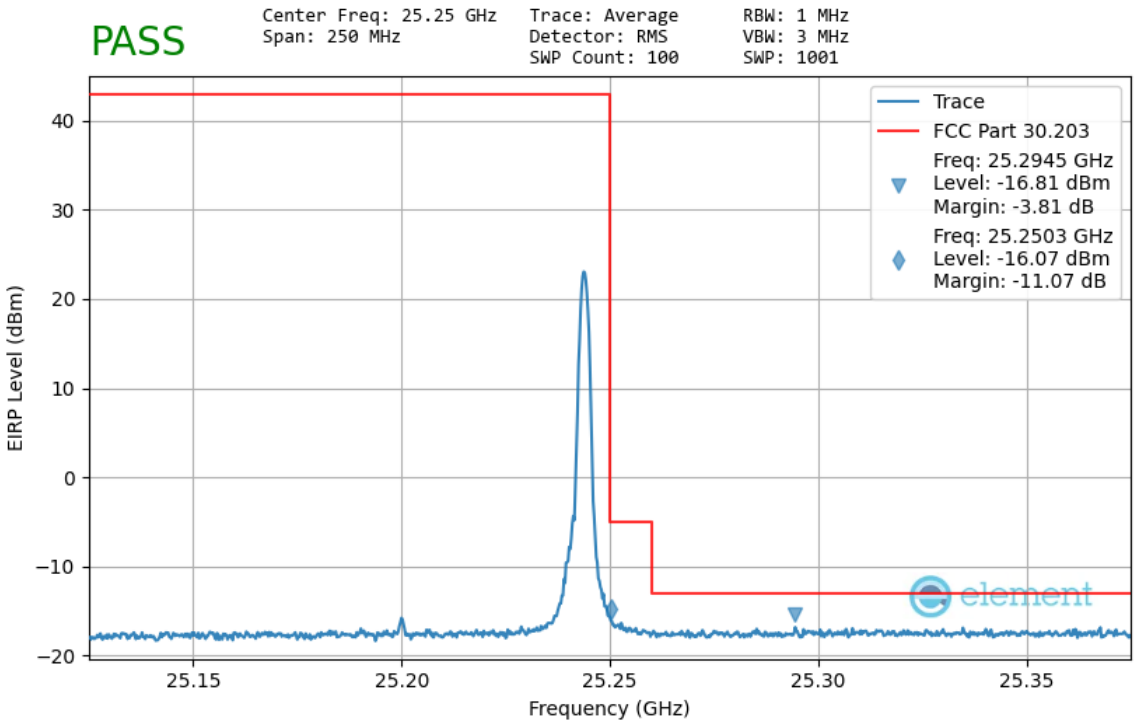
Plot 7-121.Lower Band Edge (50MHz-1CC – CP-OFDM QPSK Full RB)



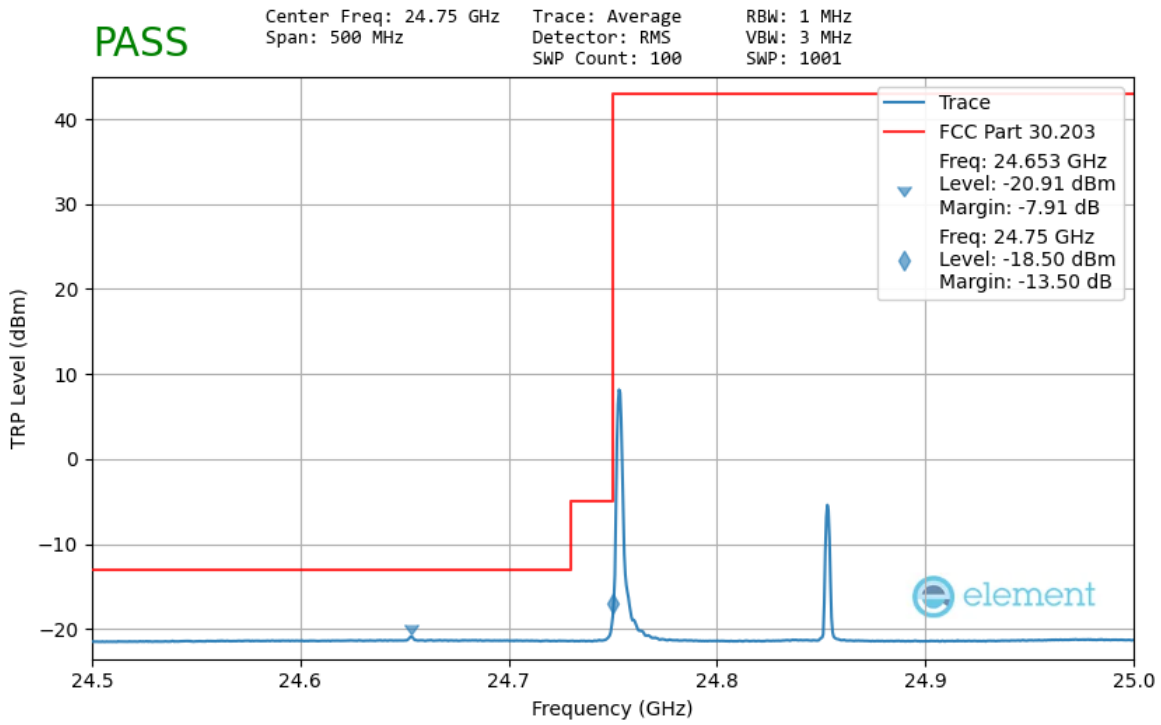
Plot 7-122.Upper Band Edge (50MHz-1CC – CP-OFDM QPSK Full RB)



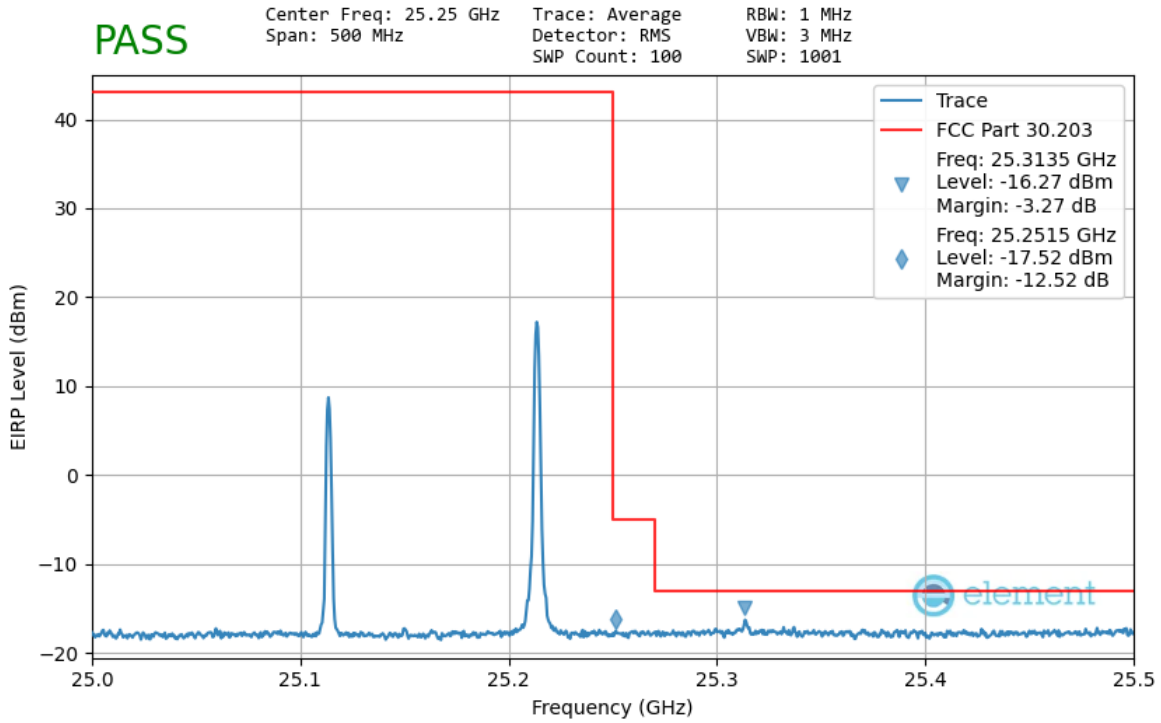
Plot 7-123.Lower Band Edge (100MHz-1CC – DFT-s-OFDM π/2 BPSK 1 RB)



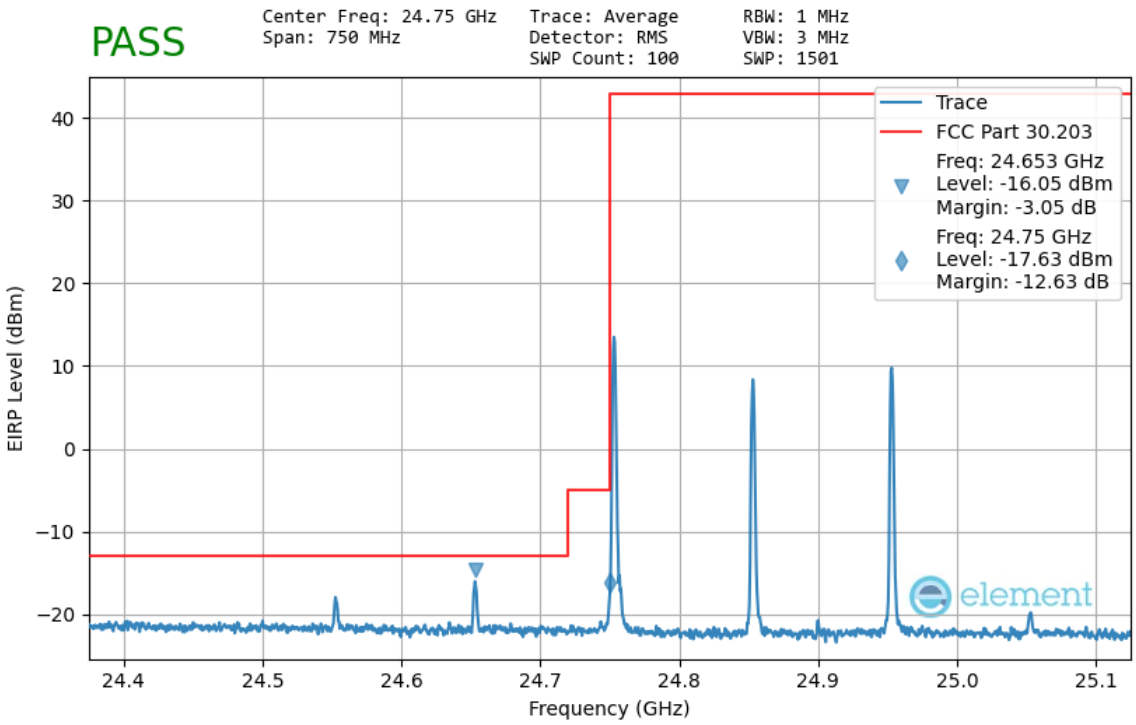
Plot 7-124.Upper Band Edge (100MHz-1CC – CP-OFDM QPSK 1 RB)



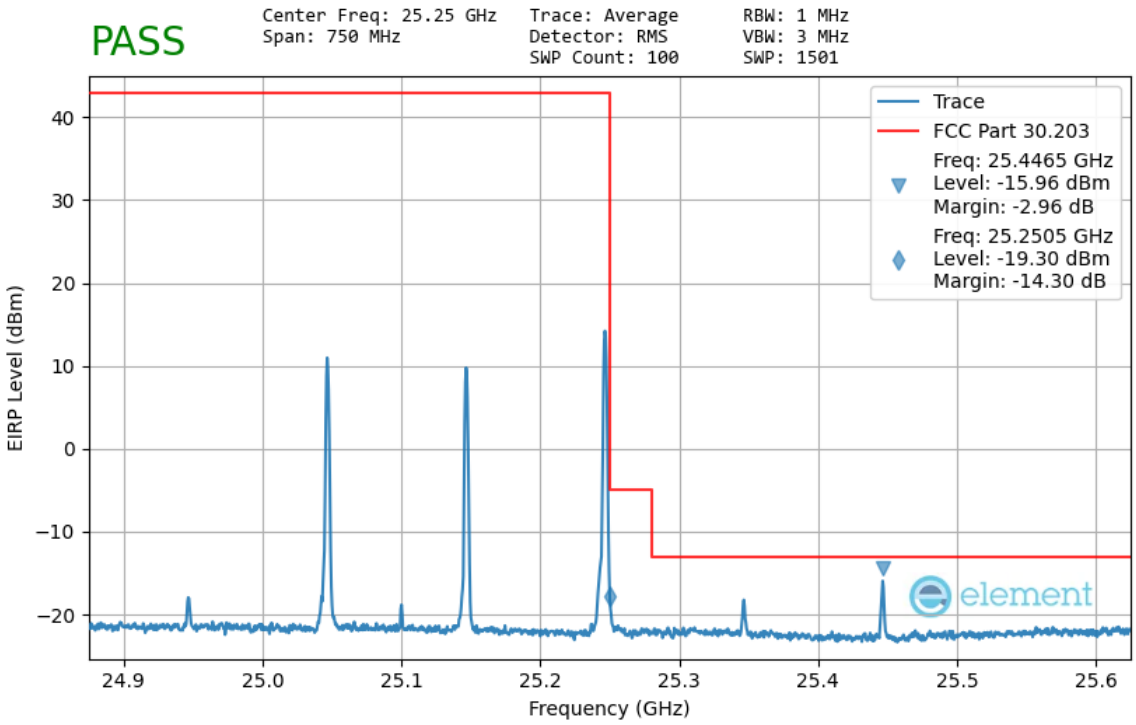
Plot 7-125.Lower Band Edge - TRP (100MHz-2CC – CP-OFDM QPSK 1 RB)



Plot 7-126.Upper Band Edge (100MHz-2CC – DFT-s-OFDM π/2 BPSK 1 RB)

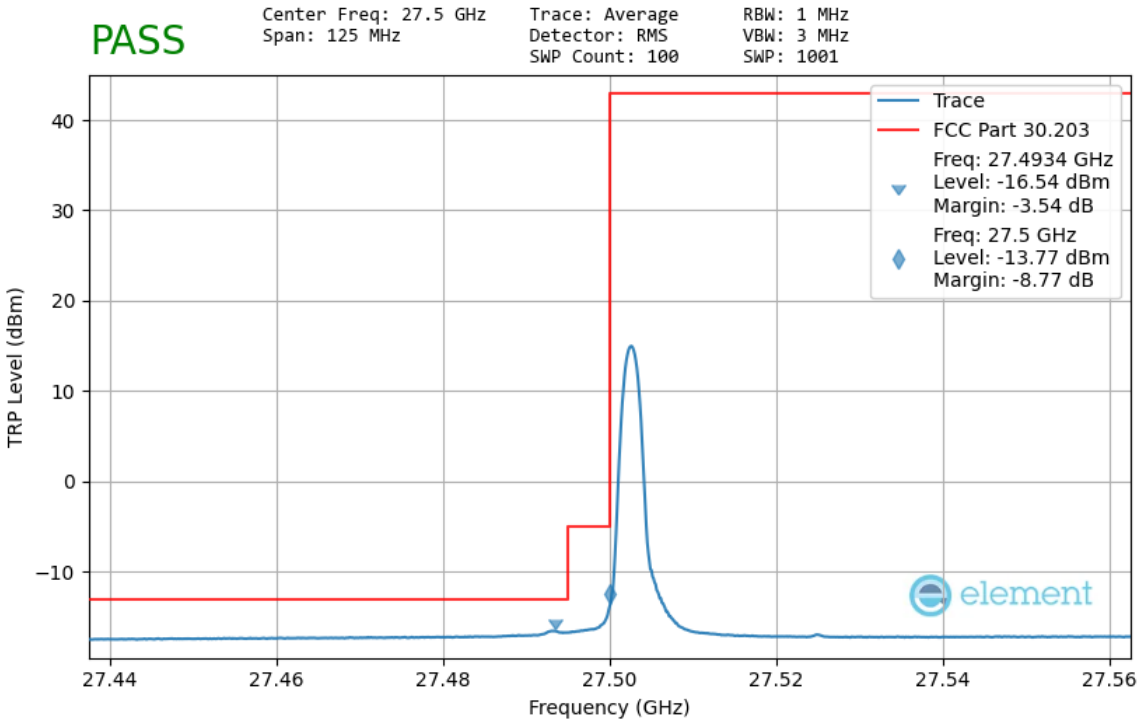


Plot 7-127.Lower Band Edge (100MHz-3CC – DFT-s-OFDM π/2 BPSK 1 RB)

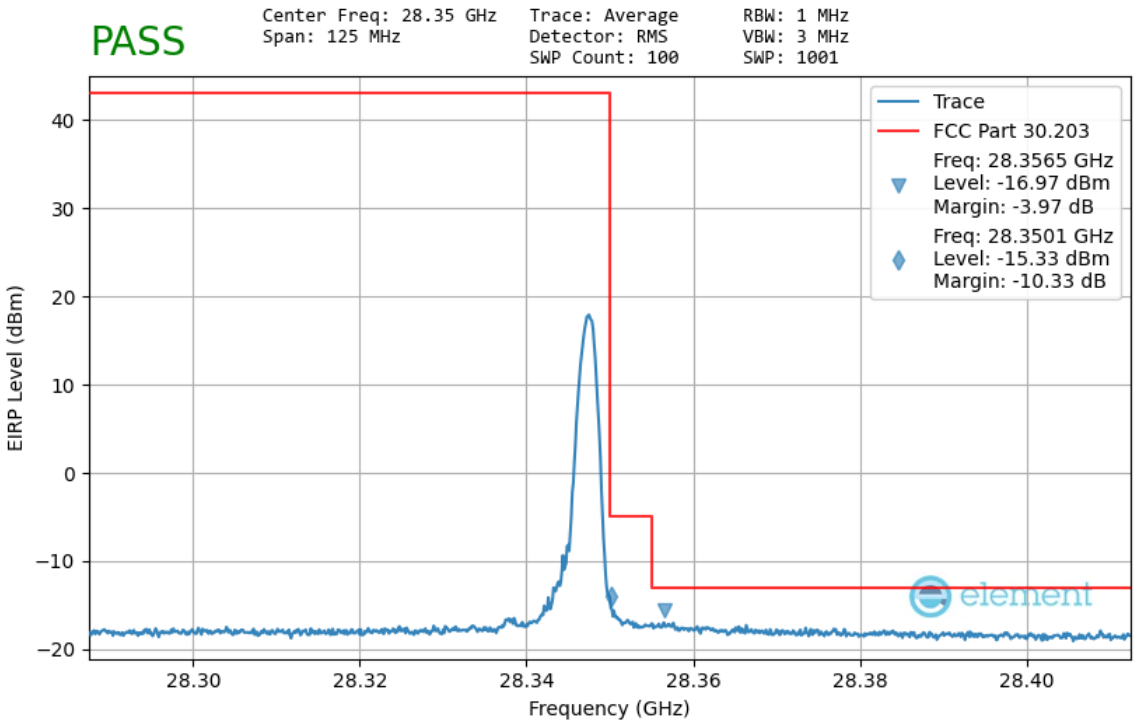


Plot 7-128.Upper Band Edge (100MHz-3CC – DFT-s-OFDM QPSK 1 RB)

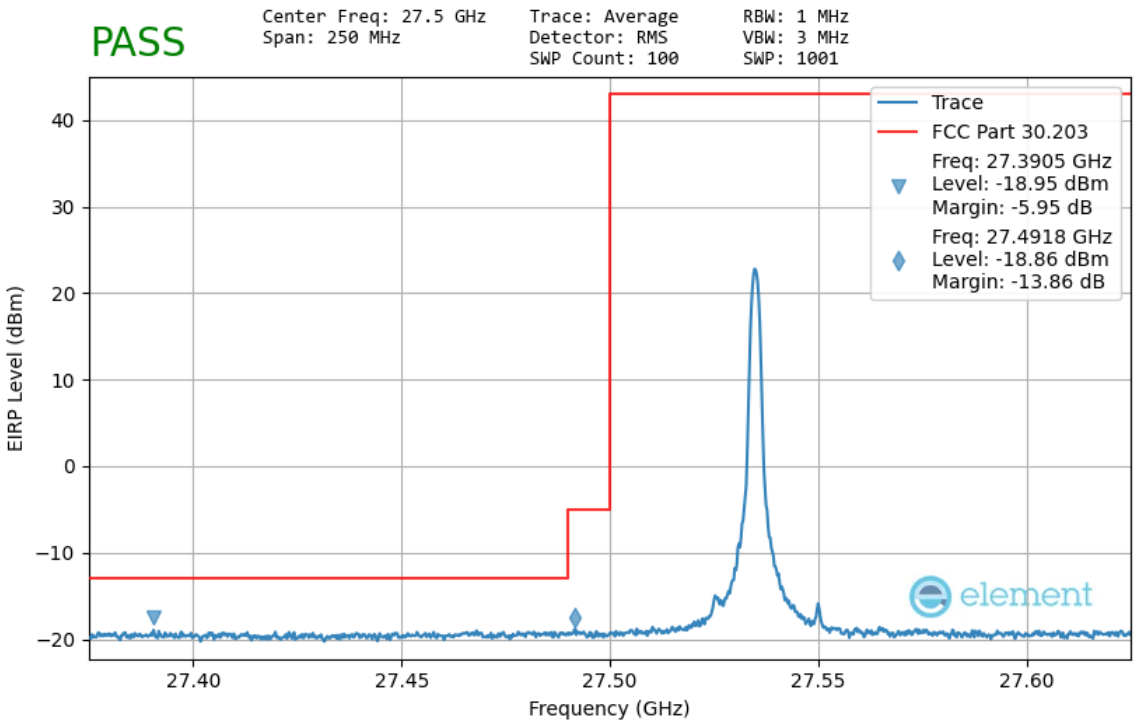
Band n261 – Worst Case



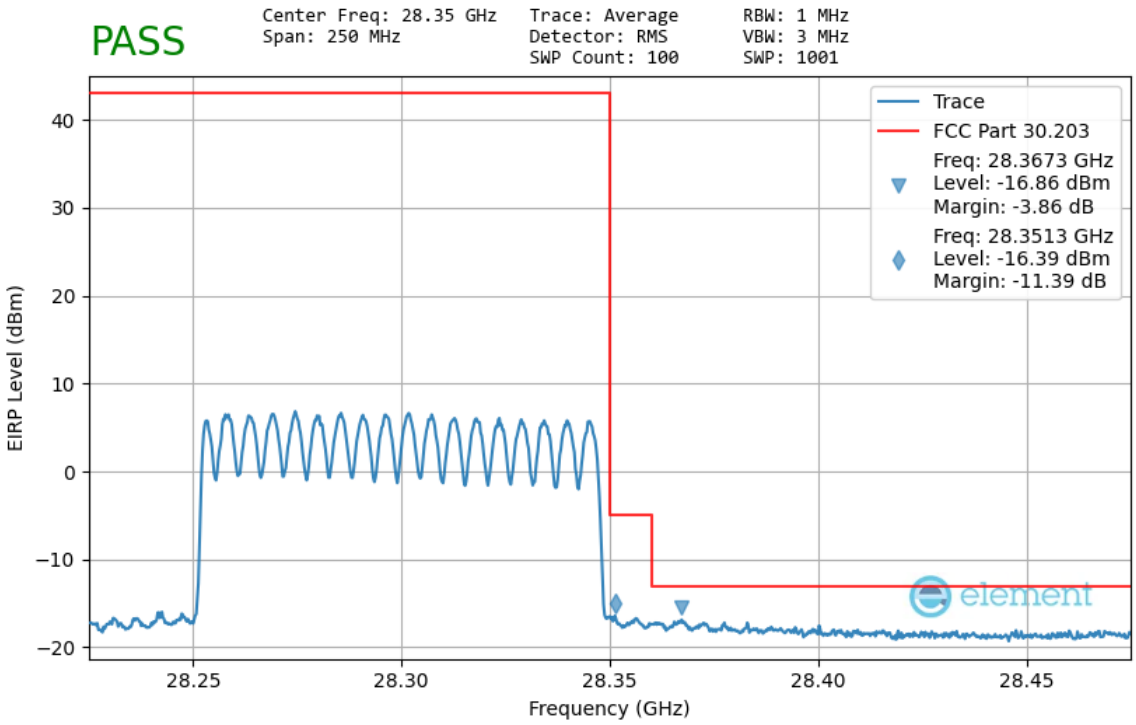
Plot 7-129.Lower Band Edge - TRP (50MHz-1CC – DFT-s-OFDM π/2 BPSK 1 RB)



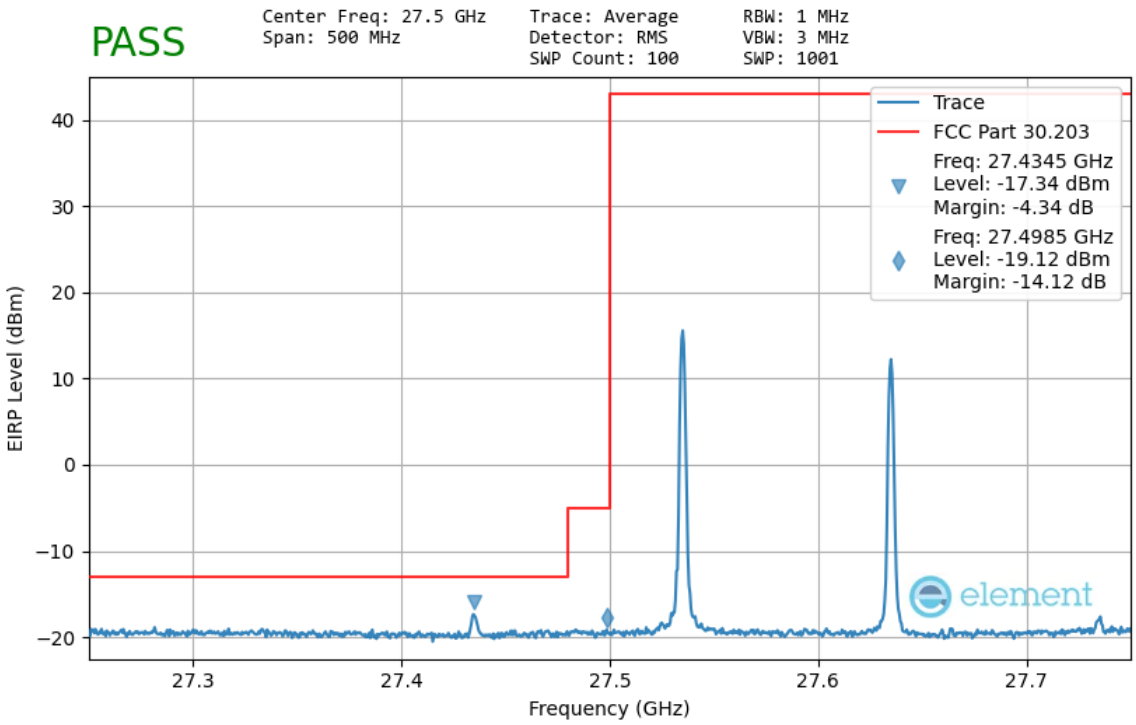
Plot 7-130.Upper Band Edge (50MHz-1CC – DFT-s-OFDM QPSK 1 RB)



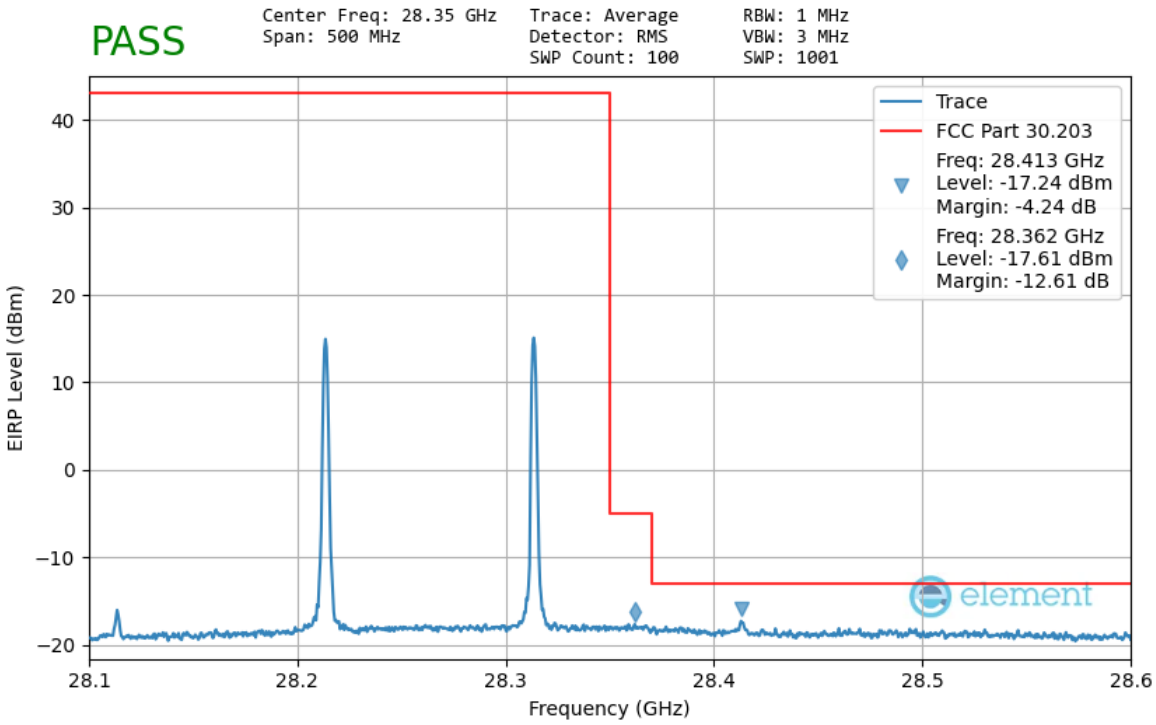
Plot 7-131.Lower Band Edge (100MHz-1CC – DFT-s-OFDM QPSK 1 RB)



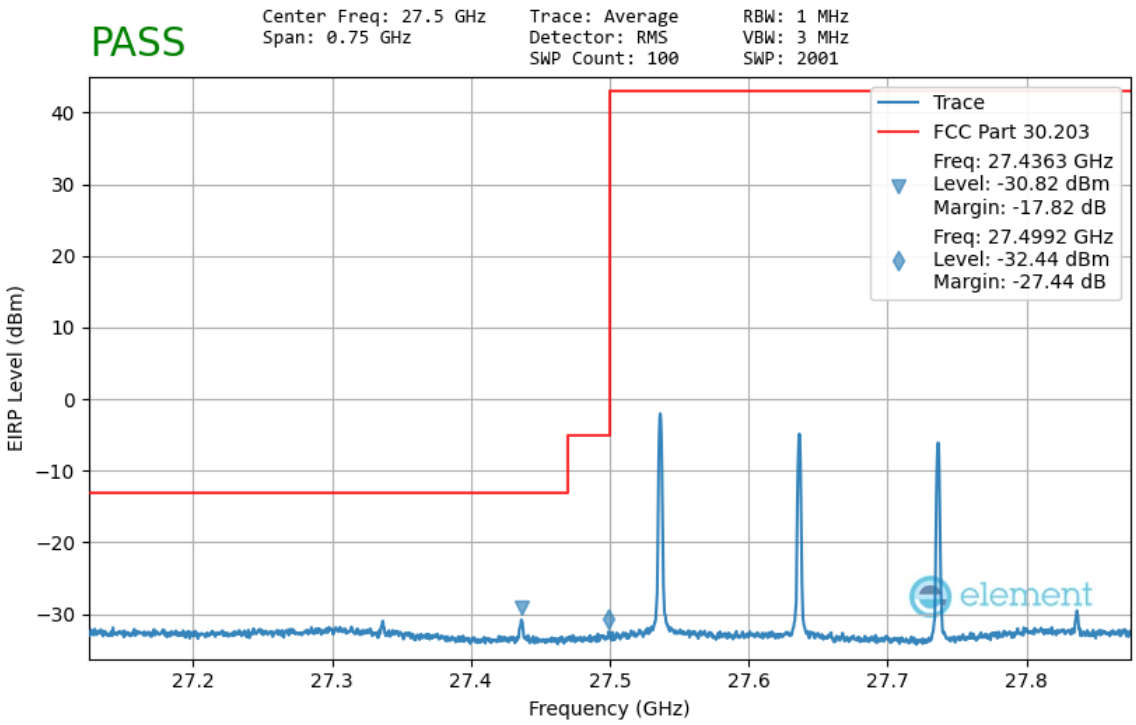
Plot 7-132.Upper Band Edge (100MHz-1CC – DFT-s-OFDM QPSK Full RB)



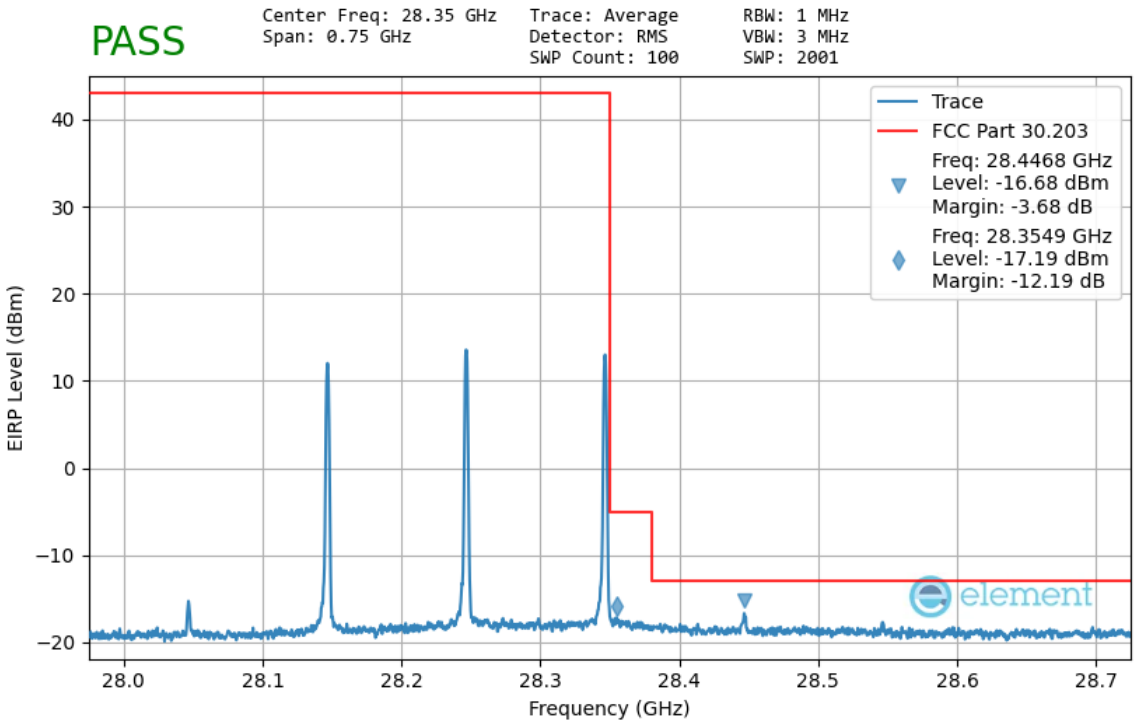
Plot 7-133.Lower Band Edge - (100MHz-2CC – CP-OFDM QPSK 1 RB)



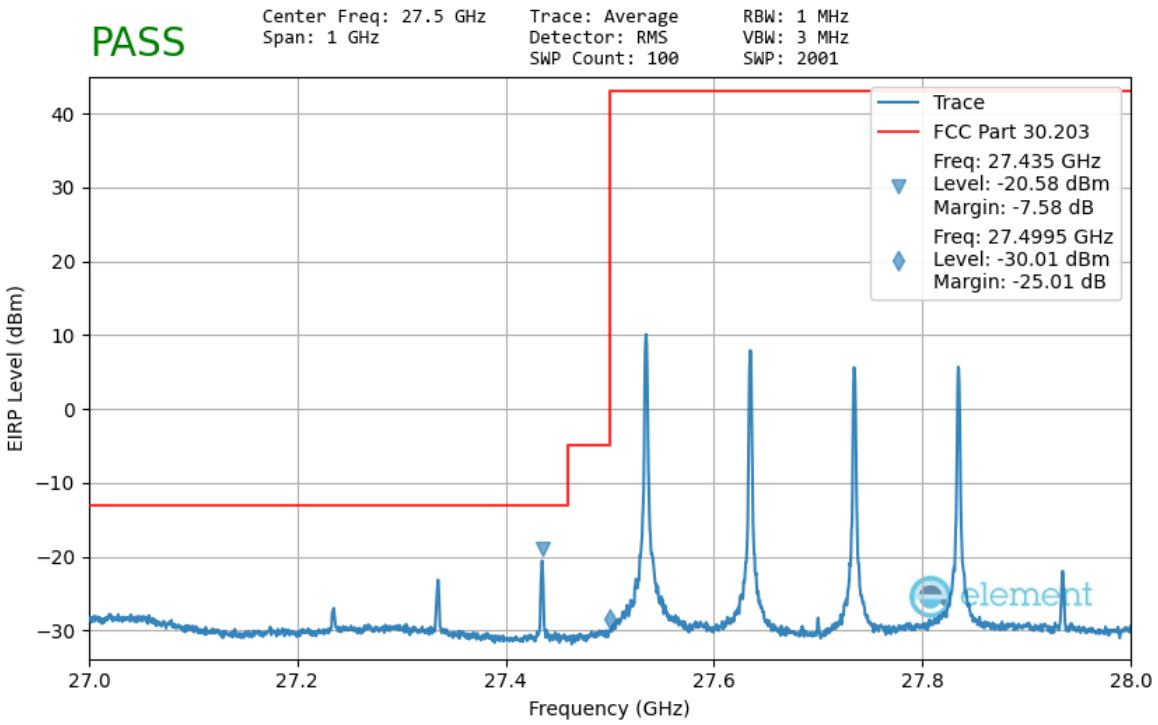
Plot 7-134.Upper Band Edge (100MHz-2CC – CP-OFDM QPSK 1 RB)



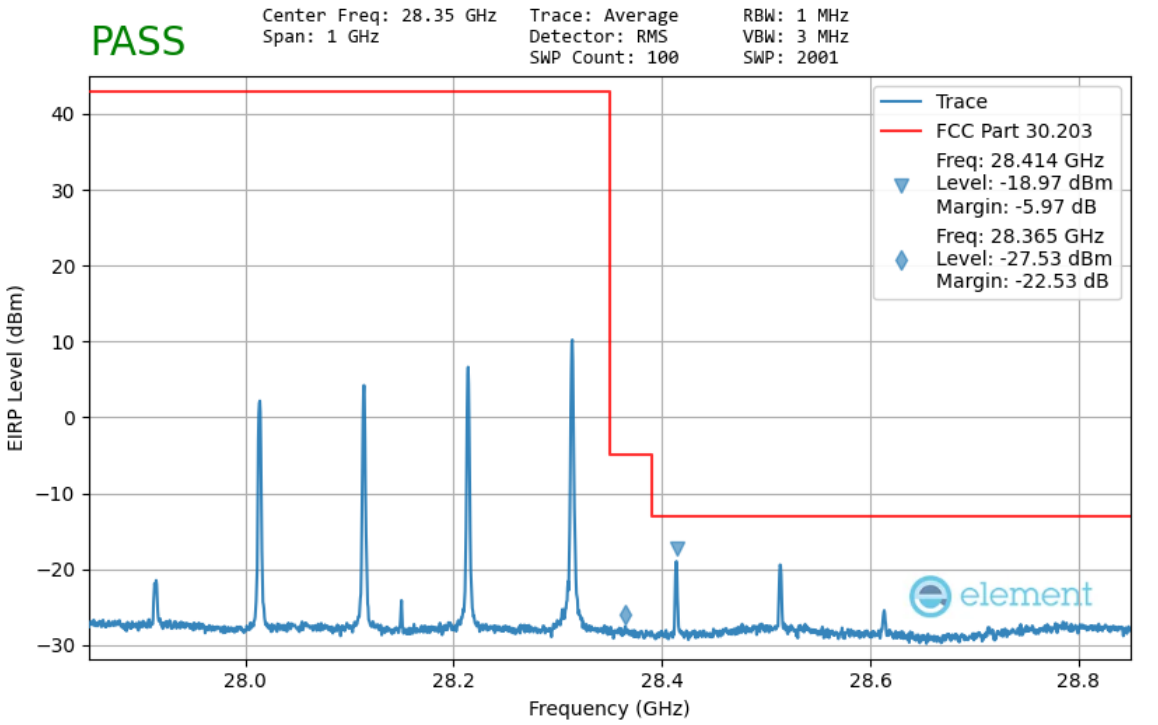
Plot 7-135.Lower Band Edge - (100MHz-3CC – DFT-s-OFDM QPSK 1 RB)



Plot 7-136.Upper Band Edge (100MHz-3CC – CP-OFDM QPSK 1 RB)

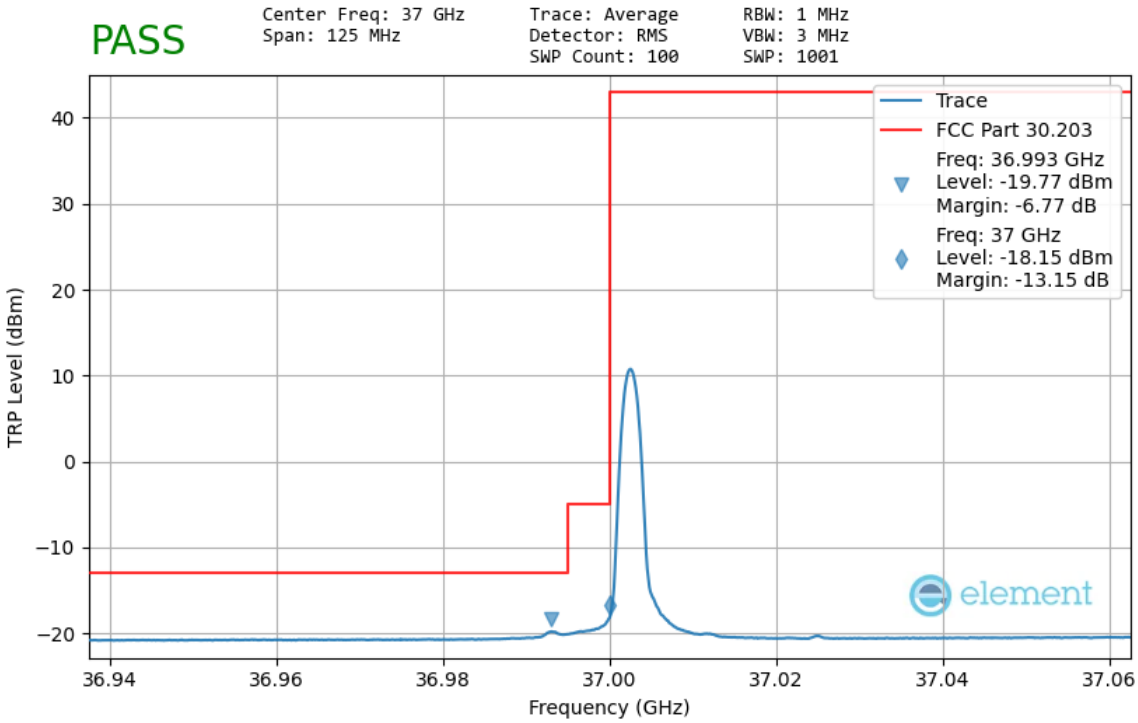


Plot 7-137.Lower Band Edge (100MHz-4CC – CP-OFDM QPSK 1 RB)

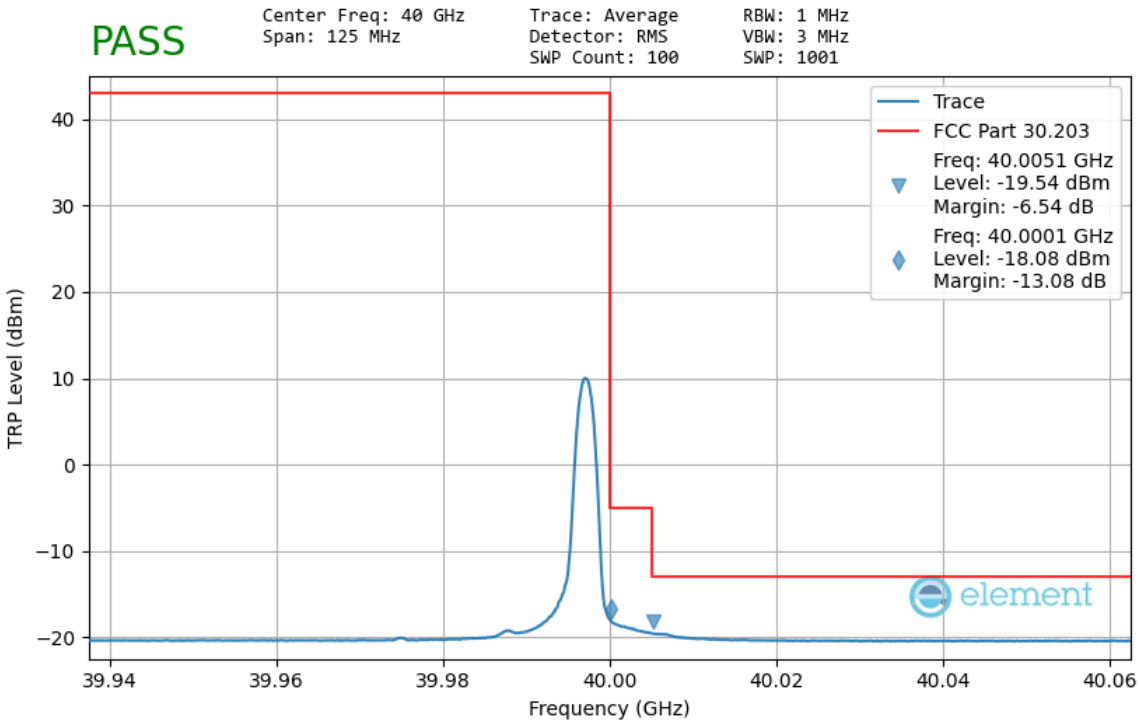


Plot 7-138.Upper Band Edge (100MHz-4CC – DFT-s-OFDM QPSK 1 RB)

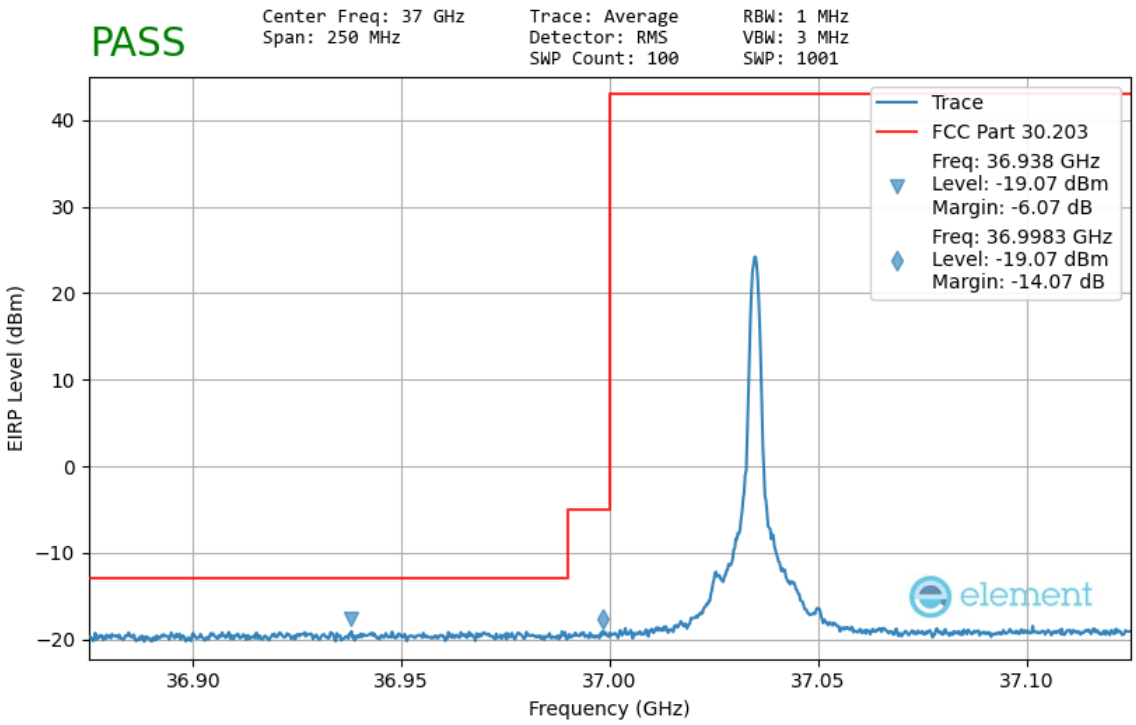
Band n260 – Worst Case



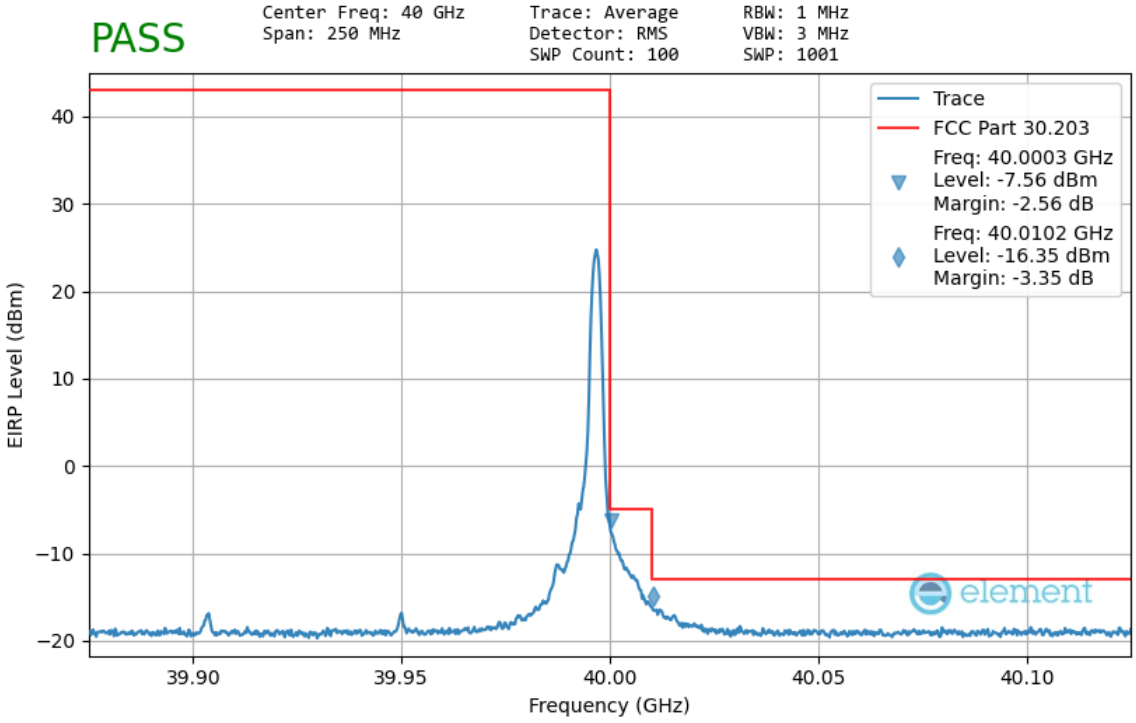
Plot 7-139.Lower Band Edge – TRP (50MHz-1CC – DFT-s-OFDM π/2 BPSK 1 RB)



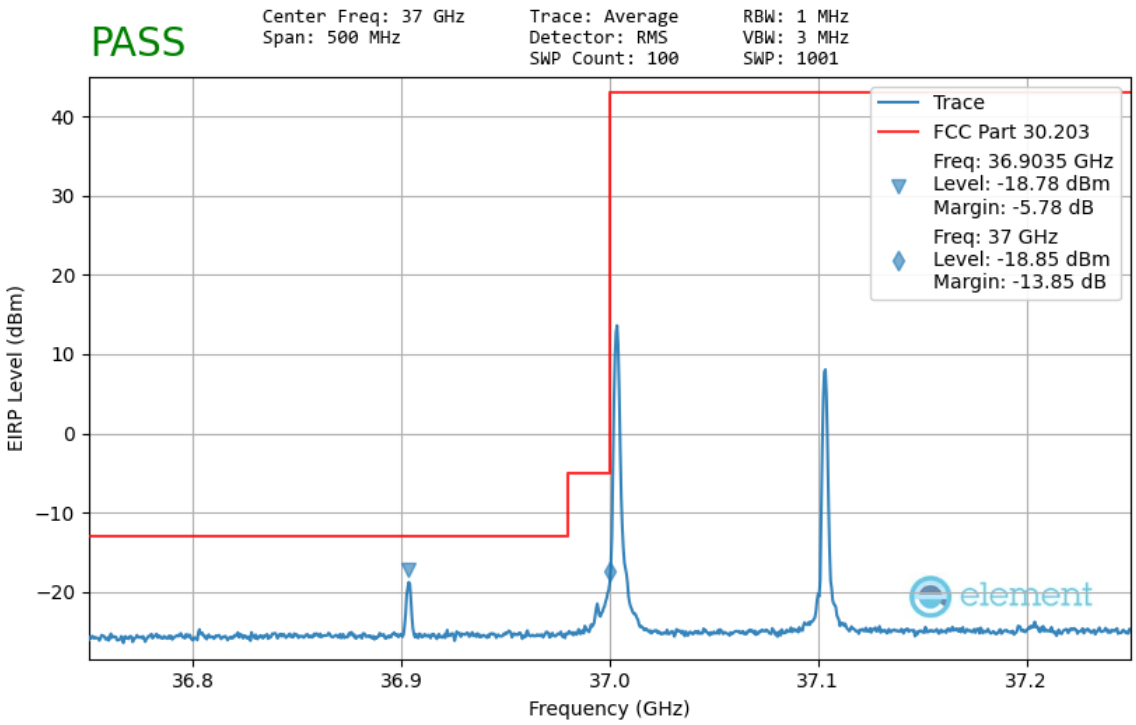
Plot 7-140.Upper Band Edge - TRP (50MHz-1CC – DFT-s-OFDM π/2 BPSK 1 RB)



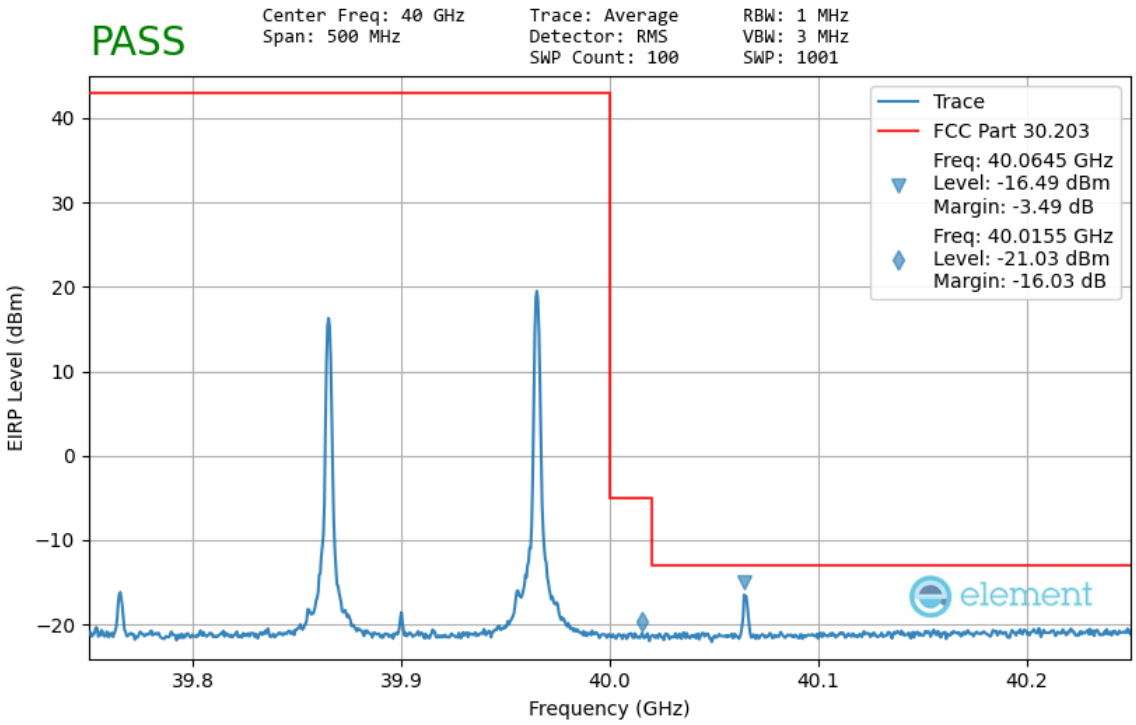
Plot 7-141.Lower Band Edge (100MHz-1CC – DFT-s-OFDM QPSK 1 RB)



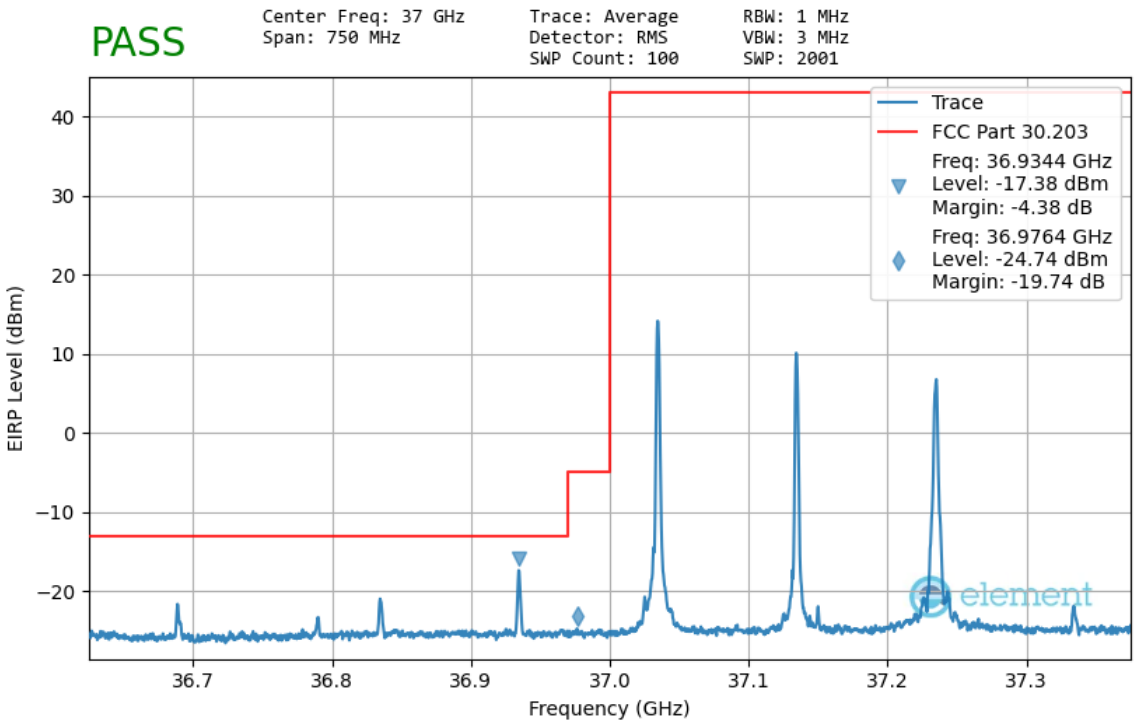
Plot 7-142.Upper Band Edge - (100MHz-1CC – DFT-s-OFDM QPSK 1 RB)



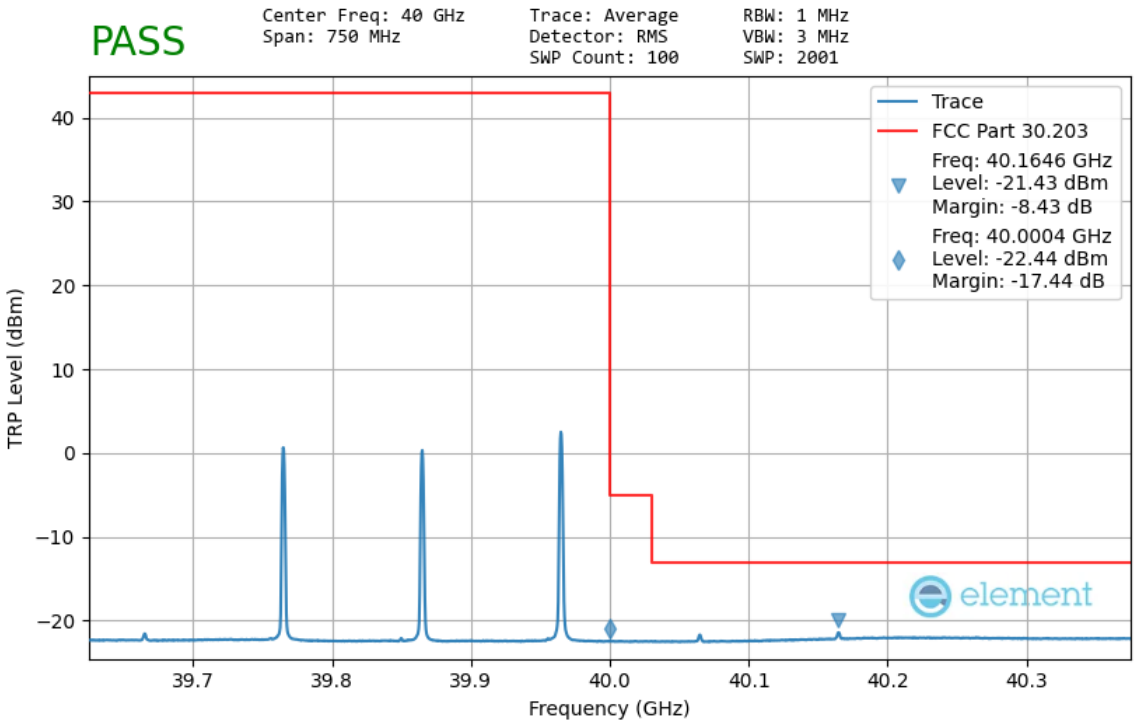
Plot 7-143.Lower Band Edge (100MHz-2CC – DFT-s-OFDM QPSK 1 RB)



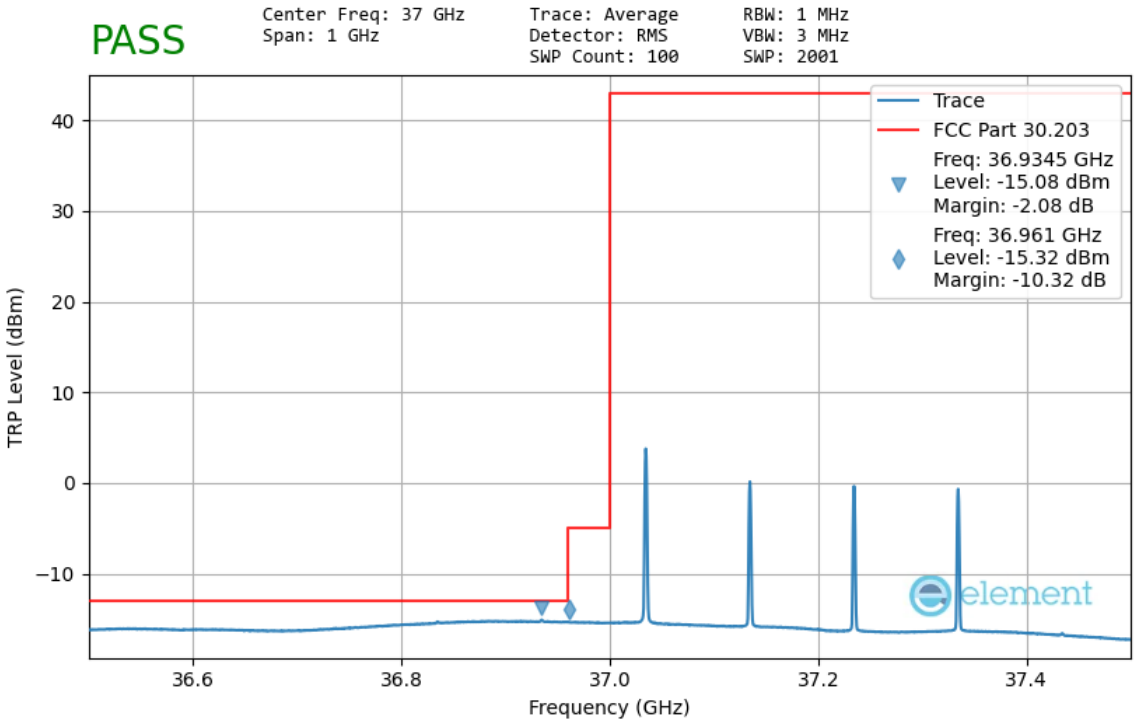
Plot 7-144.Upper Band Edge (100MHz-2CC – CP-OFDM QPSK 1 RB)



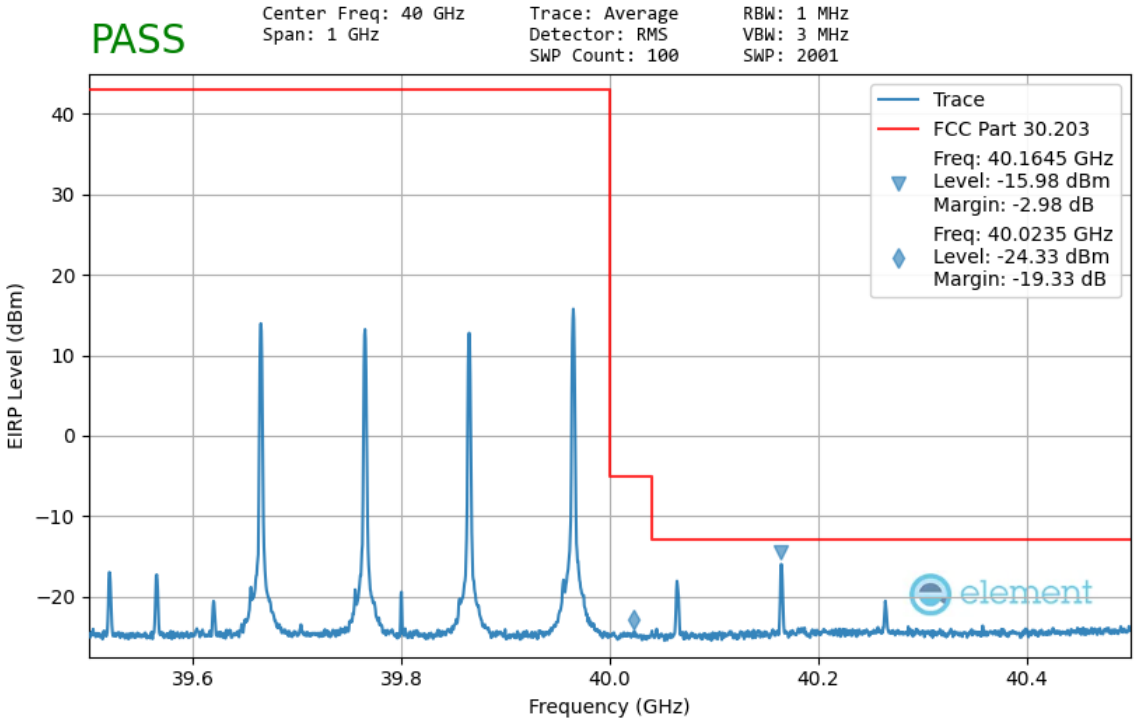
Plot 7-145.Lower Band Edge - (100MHz-3CC – DFT-s -OFDM QPSK 1 RB)



Plot 7-146.Upper Band Edge - TRP (100MHz-3CC – CP-OFDM QPSK 1 RB)



Plot 7-147.Lower Band Edge -TRP (100MHz-4CC – CP-OFDM QPSK 1 RB)



Plot 7-148.Upper Band Edge (100MHz-4CC – CP-OFDM QPSK 1 RB)

7.6 Frequency Stability / Temperature Variation

§2.1055

Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.56-2015. The frequency stability of the transmitter is measured by:

a.) **Temperature:** The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.

b.) **Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

Test Procedure Used

ANSI C63.26-2015 Section 5.6
KDB 842590 D01 v01r02 Section 4.5

Test Settings

1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
2. The equipment is turned on in a “standby” condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
3. Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

Test Setup

The EUT was measured using horn antenna connected to a spectrum analyzer. The EUT was placed inside an environmental chamber that uses a foam plug to maintain the temperature condition inside the chamber. The horn antenna measured the frequency of the fundamental signal.

Test Notes

The Frequency Deviation column in the table below is the amount of deviation measured from the center frequency of the Reference measurement (first row).

Frequency Stability Measurements (Band n258)

§2.1055

OPERATING FREQUENCY:	24,349,920,000	Hz
CHANNEL:	2018331	
REFERENCE VOLTAGE:	4.43	VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	+ 20 (Ref)	24,349,925,578	0	0.0000000
100 %		- 30	24,349,925,783	-205	-0.0000008
100 %		- 20	24,349,918,256	7,322	0.0000301
100 %		- 10	24,349,912,698	12,880	0.0000529
100 %		0	24,349,958,745	-33,167	-0.0001362
100 %		+ 10	24,349,927,857	-2,279	-0.0000094
100 %		+ 30	24,349,920,666	4,912	0.0000202
100 %		+ 40	24,349,962,145	-36,567	-0.0001502
100 %		+ 50	24,349,945,526	-19,948	-0.0000819
BATT. ENDPOINT	3.27	+ 20	24,349,945,008	-19,430	-0.0000798

Table 7-41. Frequency Stability Data (n258)

Note:

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

Frequency Stability Measurements (Band n258)

§2.1055

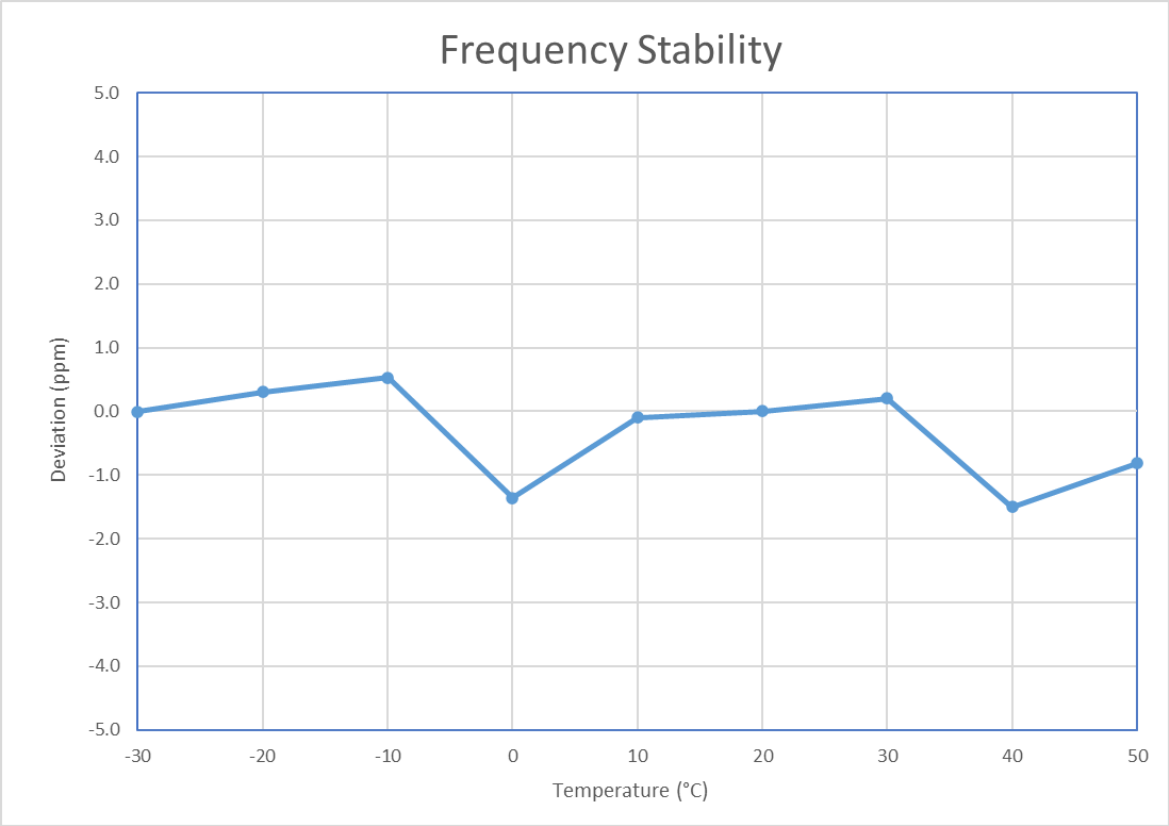


Table 7-42. Frequency Stability Graph (n258)

Frequency Stability Measurements (Band n261)

§2.1055

OPERATING FREQUENCY:	27,924,960,000	Hz
CHANNEL:	2077915	
REFERENCE VOLTAGE:	4.43	VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	+ 20 (Ref)	27,924,958,742	0	0.0000000
100 %		- 30	27,924,969,641	-10,899	-0.0000390
100 %		- 20	27,924,940,147	18,595	0.0000666
100 %		- 10	27,924,943,555	15,187	0.0000544
100 %		0	27,924,958,982	-240	-0.0000009
100 %		+ 10	27,924,919,333	39,409	0.0001411
100 %		+ 30	27,924,919,698	39,044	0.0001398
100 %		+ 40	27,924,919,999	38,743	0.0001387
100 %		+ 50	27,924,918,888	39,854	0.0001427
BATT. ENDPOINT	3.27	+ 20	27,924,918,000	40,742	0.0001459

Table 7-43. Frequency Stability Data (n261)

Note:

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

Frequency Stability Measurements (Band n261)

§2.1055

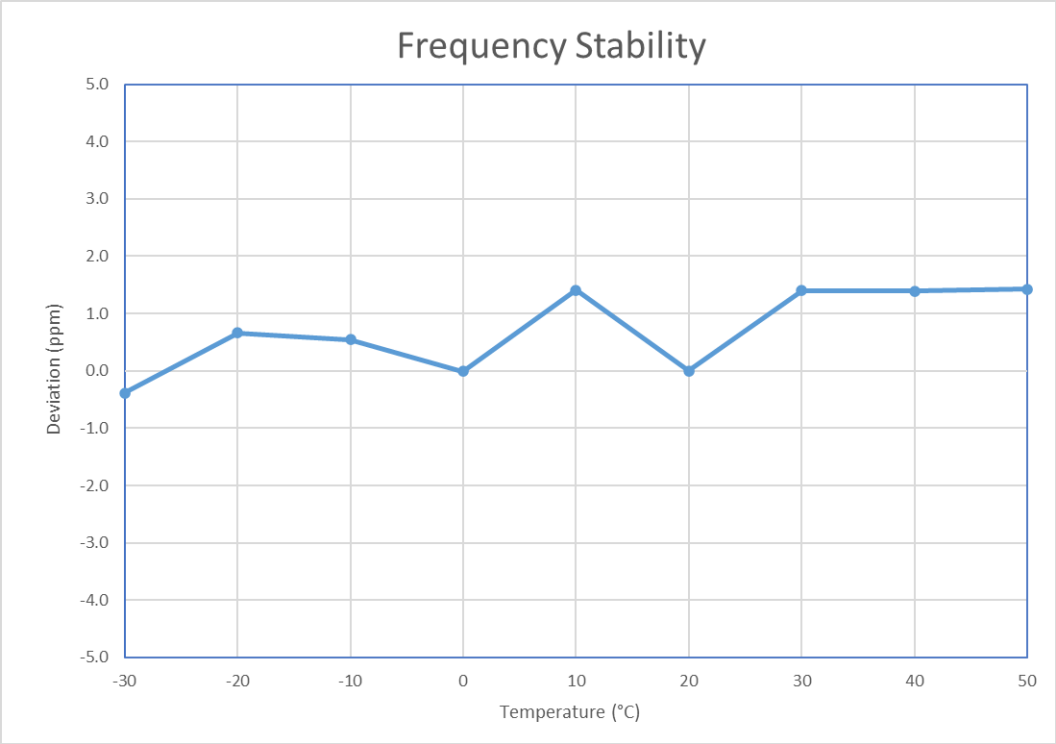


Table 7-44. Frequency Stability Graph (n261)

Frequency Stability Measurements (Band n260)

§2.1055

OPERATING FREQUENCY:	38,499,960,000	Hz
CHANNEL:	2254165	
REFERENCE VOLTAGE:	4.43	VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	+ 20 (Ref)	38,499,961,489	0	0.0000000
100 %		- 30	38,499,960,478	1,011	0.0000026
100 %		- 20	38,499,952,758	8,731	0.0000227
100 %		- 10	38,499,946,888	14,601	0.0000379
100 %		0	38,499,972,478	-10,989	-0.0000285
100 %		+ 10	38,499,952,000	9,489	0.0000246
100 %		+ 30	38,499,950,121	11,368	0.0000295
100 %		+ 40	38,499,951,478	10,011	0.0000260
100 %		+ 50	38,499,962,011	-522	-0.0000014
BATT. ENDPOINT	3.27	+ 20	38,499,924,789	36,700	0.0000953

Table 7-45. Frequency Stability Data (n260)

Note:

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

Frequency Stability Measurements (Band n260)

§2.1055

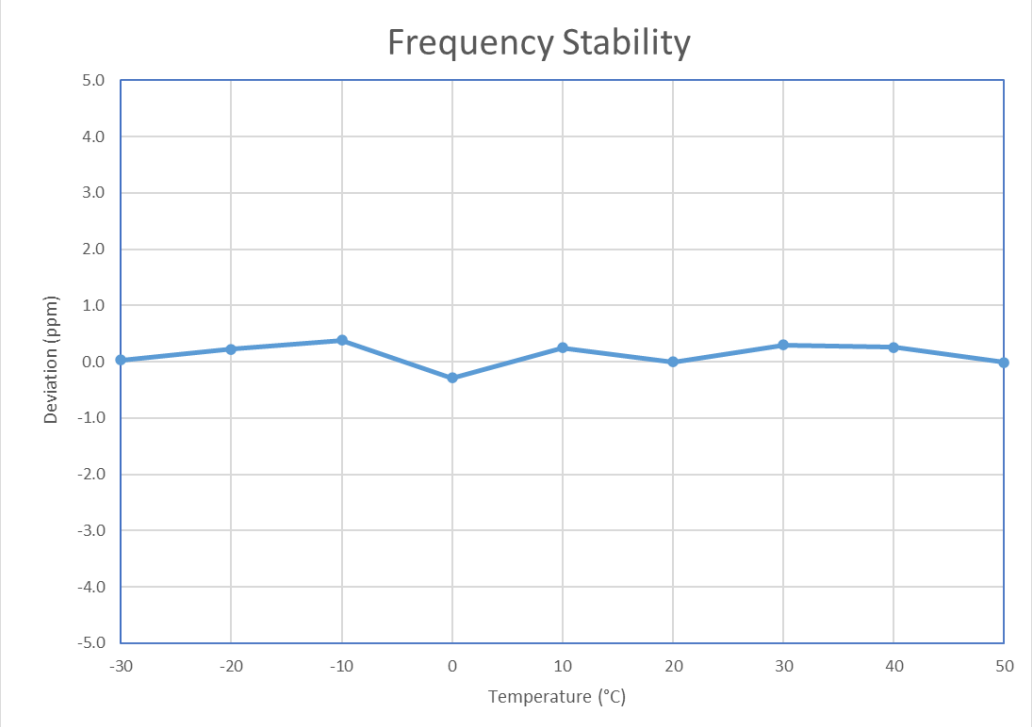


Table 7-46. Frequency Stability Graph (n260)

8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Samsung FCC ID: A3LSMS711U** complies with all the requirements of Part 30.

APPENDIX A – VDI MIXER VERIFICATION CERTIFICATE

Virginia Diodes, Inc
979 2nd St. SE
Suite 309
Charlottesville, VA 22902
Phone: 434-297-3257
Fax: 434-297-3258

Certificate of Conformance

To: Element Materials Technology
7195 Oakland Mills Road
Columbia, MD 21046
United States

From: Virginia Diodes, Inc
979 2nd St. SE
Suite 309
Charlottesville, VA 22902

Packing List No: 230941
Shipping Date: 03/01/23
Today's Date: 03/01/23
PO Number: Warranty

Quantity Shipped	Unit	Description	Order-Job Number
1	EA	REPAIR-VDIWR5.1SAX-M-M18 WR5.1SAX-M-M18 - Mini Spectrum Analyzer Extension Module / SN: SAX 682	R220106PCT-01

The VDI product(s) in this shipment meet(s) the guidelines for performance specifications established in accordance with the corresponding Purchase Order. Data presented in the User Guide, where applicable, has been obtained in accordance with VDI's Quality Management System. All instruments, used to obtain data, which require calibration have been calibrated with equipment traceable to the National Institute of Standards and Technology (NIST) and through NIST to the International System of Units (SI).

Authorized Signature
Virginia Diodes, Inc

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Virginia Diodes, Inc
979 2nd St. SE
Suite 309
Charlottesville, VA 22902
Phone: 434-297-3257
Fax: 434-297-3258

Certificate of Conformance

To: Element Materials Technology
7185 Oakland Mills Road
Colombia, MD 21046
United States

From: Virginia Diodes, Inc
979 2nd St. SE
Suite 309
Charlottesville, VA 22902

Packing List No: 230051
Shipping Date: 01/05/23
Today's Date: 01/05/23
PO Number: US37100165PO-1

Quantity Shipped	Unit	Description	Order-Job Number
1	EA	RETEST-VDIWR8.0SAX-M-M9 WR5.1 Spectrum Analyzer Extender / SN: SAX 681	220597-03

The VDI product(s) in this shipment meet(s) the guidelines for performance specifications established in accordance with the corresponding Purchase Order. Data presented in the User Guide, where applicable, has been obtained in accordance with VDI's Quality Management System. All instruments, used to obtain data, which require calibration have been calibrated with equipment traceable to the National Institute of Standards and Technology (NIST) and through NIST to the International System of Units (SI).

Authorized Signature
Virginia Diodes, Inc

BSP

Page 1 of 1

Virginia Diodes, Inc
979 2nd St. SE
Suite 309
Charlottesville, VA 22902
Phone: 434-297-3257
Fax: 434-297-3258

Certificate of Conformance

To: Dan Pino
Element Materials Technology
7185 Oakland Mills Road
Columbia, MD 21046
United States

From: Virginia Diodes, Inc
979 2nd St. SE
Suite 309
Charlottesville, VA 22902

Packing List No: 224743 **Today's Date:** 11/21/22
Shipping Date: 11/17/22 **PO Number:** US37100165PO-1

Quantity Shipped	Unit	Description	Order-Job Number
1	EA	RETEST-VDIWR19.0SAX-M-M4 WR19SAX / SN: SAX 679	220597-01
1	EA	RETEST-VDIWR12.0SAX-M-M6 WR12SAX / SN: SAX 680	220597-02

The VDI product(s) in this shipment meet(s) the guidelines for performance specifications established in accordance with the corresponding Purchase Order. Data presented in the User Guide, where applicable, has been obtained in accordance with VDI's Quality Management System. All instruments, used to obtain data, which require calibration have been calibrated with equipment traceable to the National Institute of Standards and Technology (NIST) and through NIST to the International System of Units (SI).

Authorized Signature
Virginia Diodes, Inc

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APPENDIX B – TEST SCOPE ACCREDITATION

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELEMENT MATERIALS TECHNOLOGY WASHINGTON DC LLC
(formerly PCTEST)
7185 Oakland Mills Road
Columbia, MD 21046
RJ Ortanez Phone: 410 290 6652

ELECTRICAL

Valid To: May 31, 2024 Certificate Number: 2041.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory at the location listed above, *as well as the three satellite laboratory locations listed below*[1], to perform the following Electromagnetic Compatibility, SAR, HAC, Telecommunications, OTA, Battery, RF, and Conformance and Protocol testing of wireless devices:

Test Technology:	Test Method(s)[2]:
Emissions	
Radiated and Conducted	CFR 47, FCC Part 15B (using ANSI C63.4:2014); CFR 47, FCC Part 18 (using MP-5:1986); CFR 47, FCC Parts 15/C/E (without DFS)/F/G/H (using ANSI C63.10:2013); CFR 47, FCC Part 15E (with DFS) (using FCC KDB 905462 D02 (v02)); CFR 47, FCC Part 15D (using ANSI C63.17:2013); ANSI C63.10:2020; KDB 987594; ETSI TS 134 124 Universal Mobile Telecommunications System (UMTS); (3GPP TS 34.124); (3GPP TS38.124 NR; Electromagnetic Compatibility (EMC) Requirements for Mobile Terminals and Ancillary Equipment); ETSI TS 136 124 LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); (3GPP TS 36.124); ETSI TS 151 010-1 Digital Cellular Telecommunications System (Phase 2+) (GSM); 3GPP TS 51.010-1, Section 12 (Conducted and Radiated Spurious Emissions); EN55011; EN 55032; CNS 13438 (up to 6 GHz); AS/NZS CISPR 11; IEC/CISPR 11; CISPR 32; FCC OET/MP-5; ICES-003; KS C 9811; KS C 9832; VCCI V-3(2016.11); VCCI V-3 (2015.04); VCCI 32-1: VCCI-CISPR 32

5202 Presidents Court, Suite 220 | Frederick, MD 21703-8515 | Phone: 301 644 3248 | Fax: 240 454 9449 | www.A2LA.org

Test Technology:	Test Method(s)[2]:
Transmitter/Receiver	RSS-111; RSS-112; RSS-117; RSS-119; RSS-123; RSS-125; RSS-127; RSS-130; RSS-131; RSS-132; RSS-133; RSS-134; RSS-135; RSS-137; RSS-139; RSS-140; RSS-141; RSS-142; RSS-170; RSS-181; RSS-182; RSS-191; RSS-192; RSS-194; RSS-195; RSS-196; RSS-197; RSS-199; RSS-210; RSS-211; RSS-213; RSS-215; RSS-216; RSS-220; RSS-222; RSS-236; RSS-238; RSS-243; RSS-244; RSS-246; RSS-247; RSS-248; RSS-251; RSS-252; RSS-287; RSS-288; RSS-310; RSS-Gen
SAR/RF Exposure	IEEE 1528-2013; RSS-102; EN 50360-2017; EN 62209-1:2016; EN 62209-2:2010/A1:2019; IEC 62209-1 2nd Edition 2016; IEC 62209-2 2010; IEC PAS 63083-2017; EN 50566-2017; IEC 62209-2 AMD 1; Australian Communications Authority Radio Communications (Electromagnetic Radiation – Human Exposure) Standard 2014; ARPANSA RPS S-1(Rev.1):2021; Australia Radiocommunications Equipment (General) Rules 2021; FCC KDB 447498 D01, D02, D03 and D04; FCC KDB 616217 D04; FCC KDB 643646 D01; FCC KDB 865664 D01 and D02; FCC KDB 941225 D01, D05, D05A, D06, and D07; EN 50401:2017; EN 50385:2017; IEC 62311:2008; IEC 62479:2010; EN 62479:2010; EN 50663:2017; EN 62311:2007; EN 62232:2017; IEC 62232:2017; IEEE C95.1-1992; IEEE C95.1-2005; IEEE C95.1: 2019; IEEE C95.3-2002; IEEE C95.3-2021; IEC/IEEE 63195-1:2022; RSS-102 Measurement (SAR, RF Exp., NS, LPD;); SPR-003; SPR-002; SPR-001; SPR-004; SPR-APD; IEC TR 62630:2010; IEEE C95.3.1:2010; IEC TR 63170:2018; AS/NZS 2772.2:2016; EN 62209-3: 2019; IEC 62209-3:2019; ICNIRP (100kHz – 300 GHz):2020; IEC 62311:2019; EN 62311:2020; IEC/IEEE 62209-1528:2020; EN IEC/IEEE 62209-1528; IEC PAS 63184:2021; RRA Public Notification 2018-18, December 7, 2018 KS C 3370-1, KS C 3370-2
Hearing Aid Compatibility	ANSI C63.19:2011; ANSI C63.19:2019; CTIA Test Plan for Hearing Aid Compatibility v.3.1.1 (2017); RSS-HAC; ANSI/TIA-5050-2018
United States Radio	47 CFR FCC Parts 20, 22, 24, 25, 27, 30, 73, 74, 80, 87, 90, 95, 96, 97, 101 (using ANSI/TIA-603-E, TIA-102.CAAA-E, ANSI C63.26:2015)