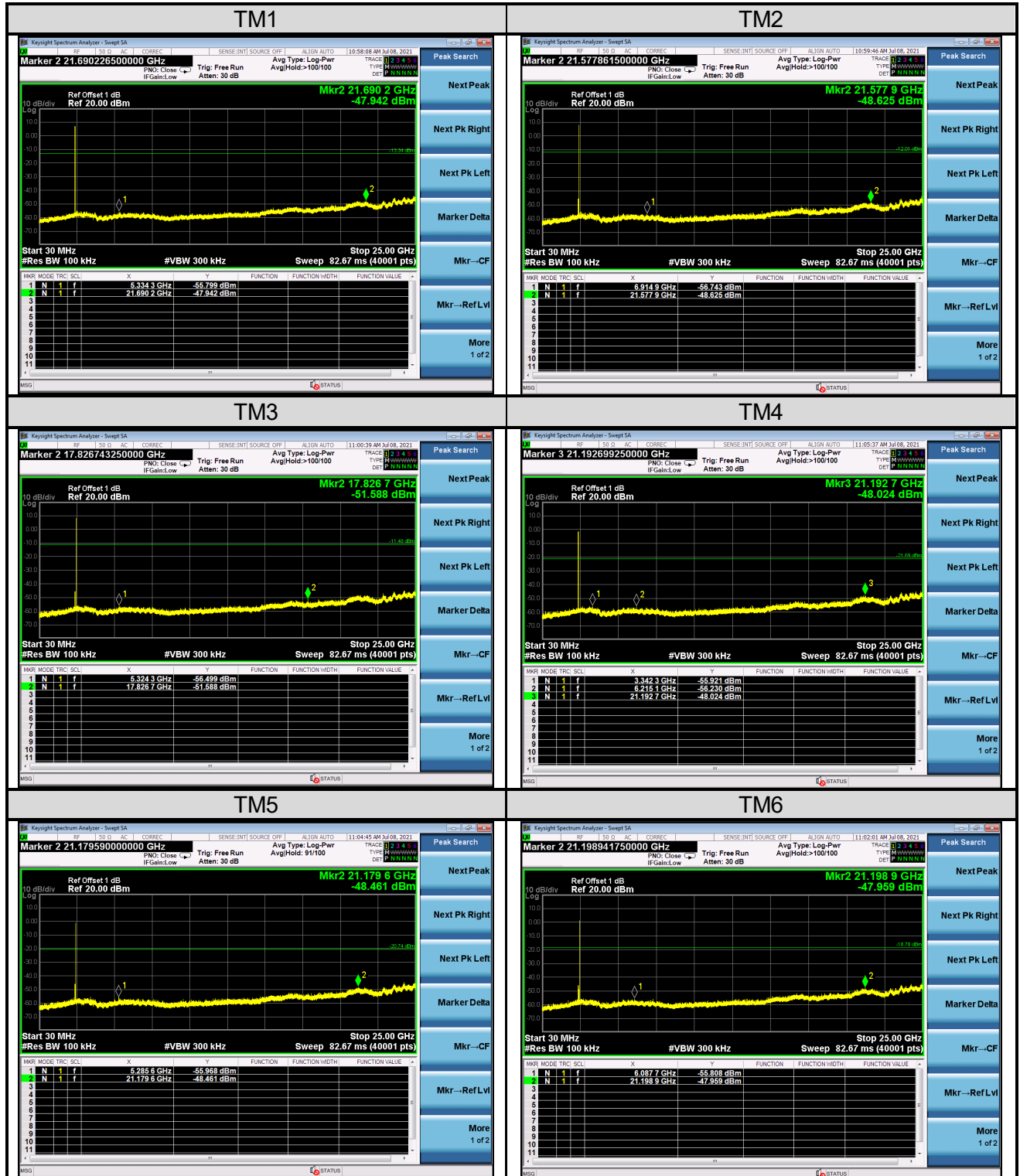


Figure 7: Conducted Spurious Emission


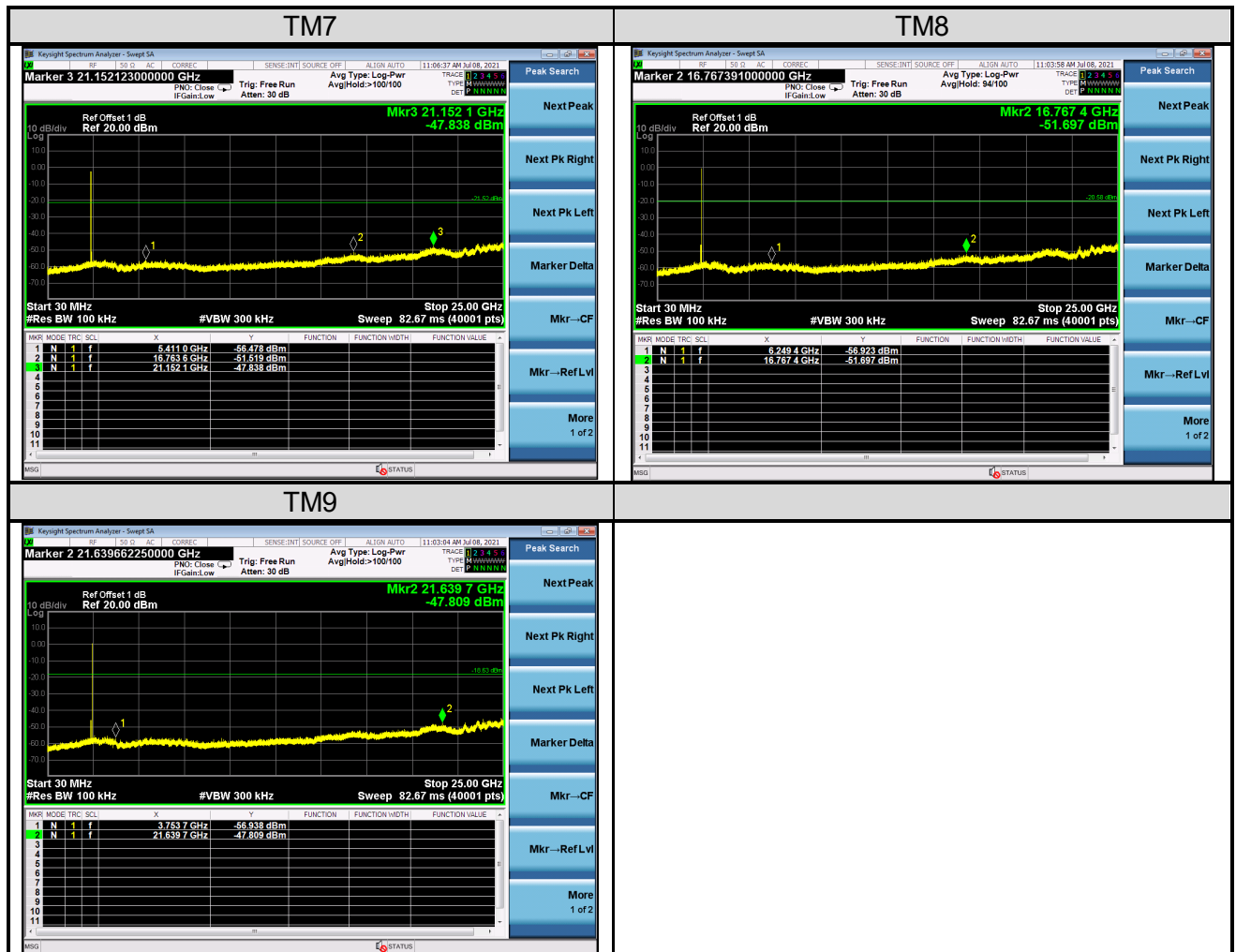
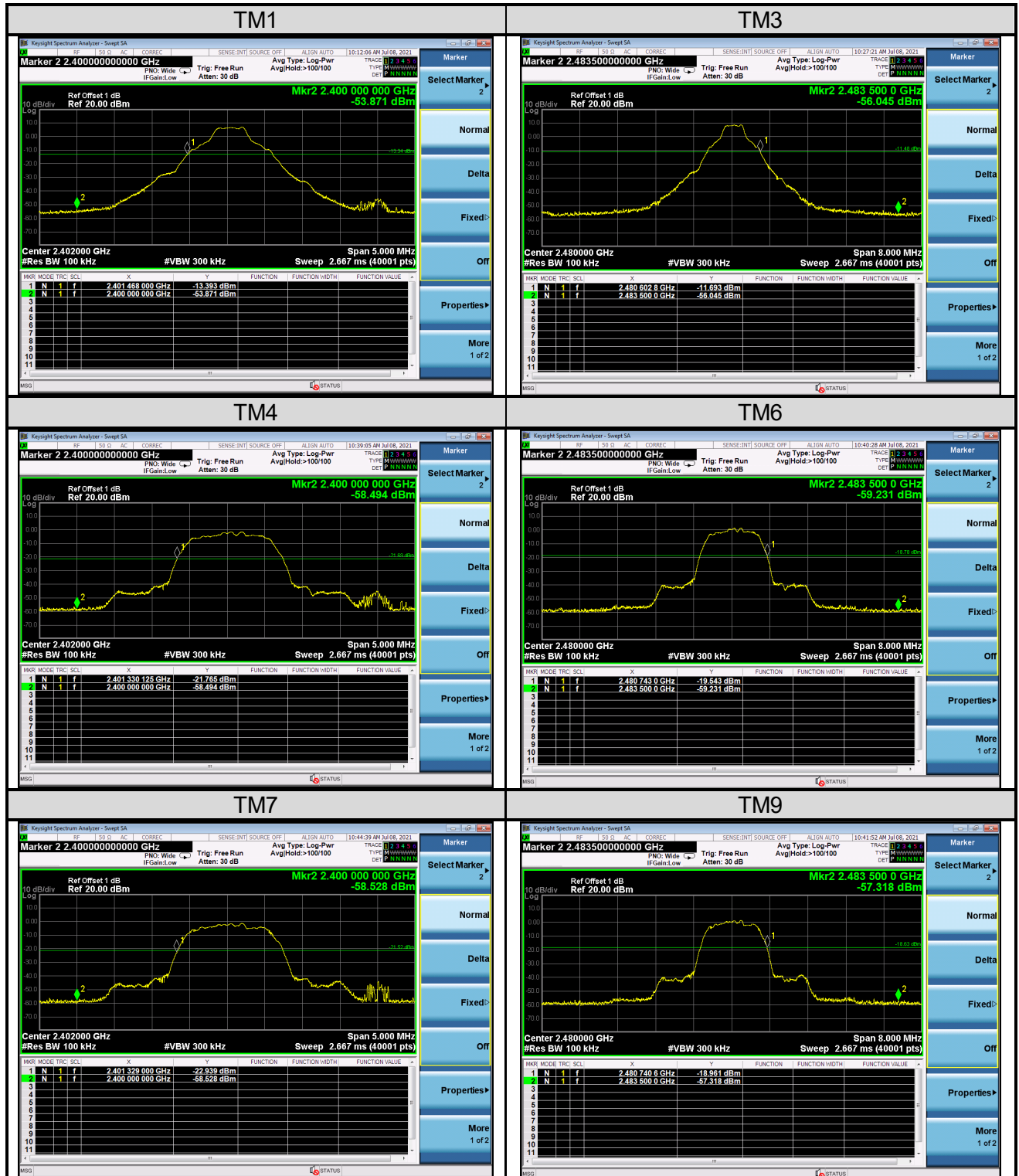
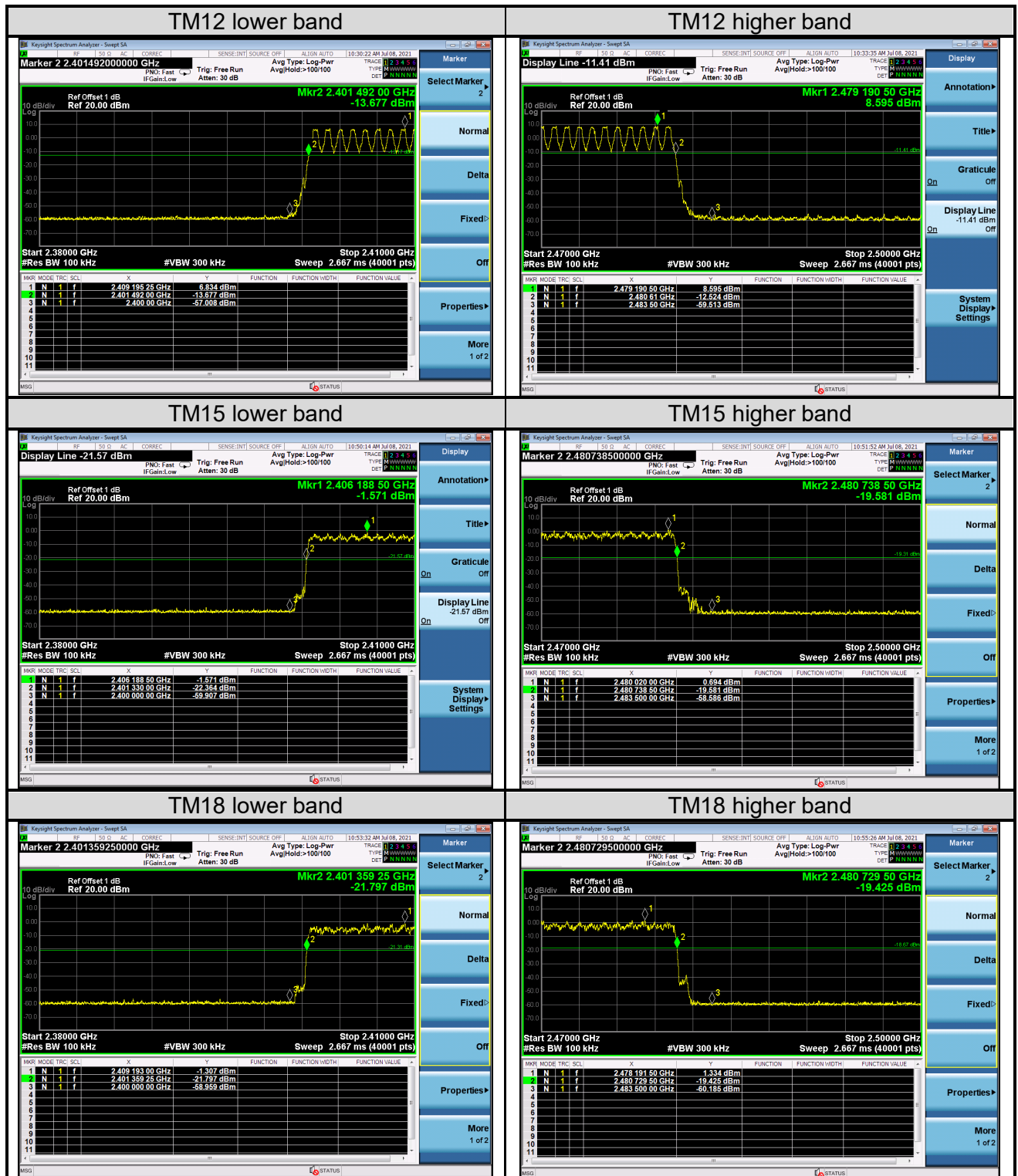


Figure 8: Conducted Band Edge


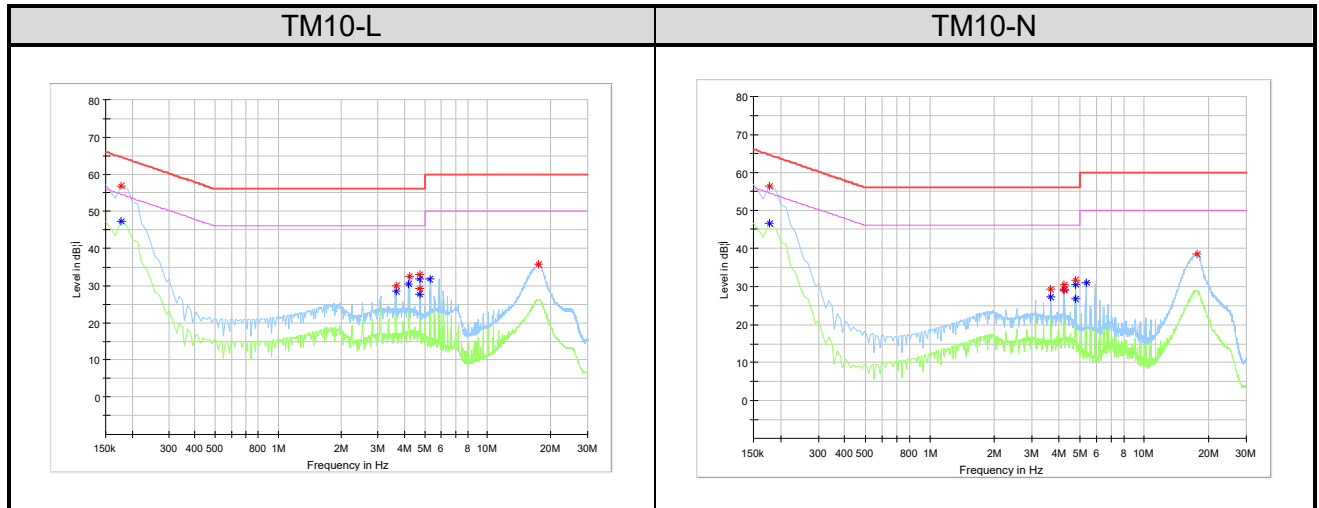


5.2 Emission in the Frequency Range up to 30MHz

5.2.1 Conducted Emission

RESULT:**Pass**

Date of testing	: 2021-09-29
Ambient temperature	: 26.1°C
Relative humidity	: 32.7%
Atmospheric pressure	: 101kPa
Test requirement	: FCC Part 15.207 (a) RSS-Gen Issue 5, Amendment 2, February 2021, Clause 8.8
Test procedure	: ANSI C63.10: 2013
Test voltage	: AC 120V/60Hz
Test modes applied	: TM19

Figure 9: Conducted Emission


Final Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Comment
4.745625	29.24	---	56.00	26.76	L1	
3.654375	29.85	---	56.00	26.15	L1	
4.216875	32.51	---	56.00	23.49	L1	
4.768125	33.02	---	56.00	22.98	L1	
17.525625	35.73	---	60.00	24.27	L1	
0.178125	57.00	---	64.57	7.58	L1	
4.205625	---	30.49	46.00	15.51	L1	
5.330625	---	31.75	50.00	18.25	L1	
3.654375	---	28.43	46.00	17.57	L1	
4.745625	---	27.60	46.00	18.40	L1	
0.178125	---	47.36	54.57	7.21	L1	
4.768125	---	31.67	46.00	14.33	L1	
4.216875	28.87	---	56.00	27.13	N	
3.676875	29.12	---	56.00	26.88	N	
4.239375	30.44	---	56.00	25.56	N	
4.801875	31.78	---	56.00	24.22	N	
17.683125	38.57	---	60.00	21.43	N	
0.178125	56.42	---	64.57	8.15	N	
4.801875	---	30.59	46.00	15.41	N	
5.375625	---	31.09	50.00	18.91	N	
0.178125	---	46.67	54.57	7.90	N	
3.676875	---	27.08	46.00	18.92	N	
4.779375	---	26.73	46.00	19.27	N	
4.239375	---	29.29	46.00	16.71	N	

5.3 Emission in the Frequency Range above 30MHz

5.3.1 Radiated Band-Edge

RESULT:**Pass**

Date of testing	:	2021-08-04
Ambient temperature	:	26.1°C
Relative humidity	:	32.7%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC Part 15.247(d) FCC Part 15.205(a) FCC Part 15.209(a) RSS-Gen Issue 5, Amendment 2, February 2021, Clause 8.9 RSS-Gen Issue 5, Amendment 2, February 2021, Clause 8.10 RSS-247 Issue 2, February 2017, Clause 5.5
Test procedure	:	ANSI C63.10: 2013
Test voltage	:	DC 5V
Test modes applied	:	TM1, TM3, TM4, TM6, TM7, TM9

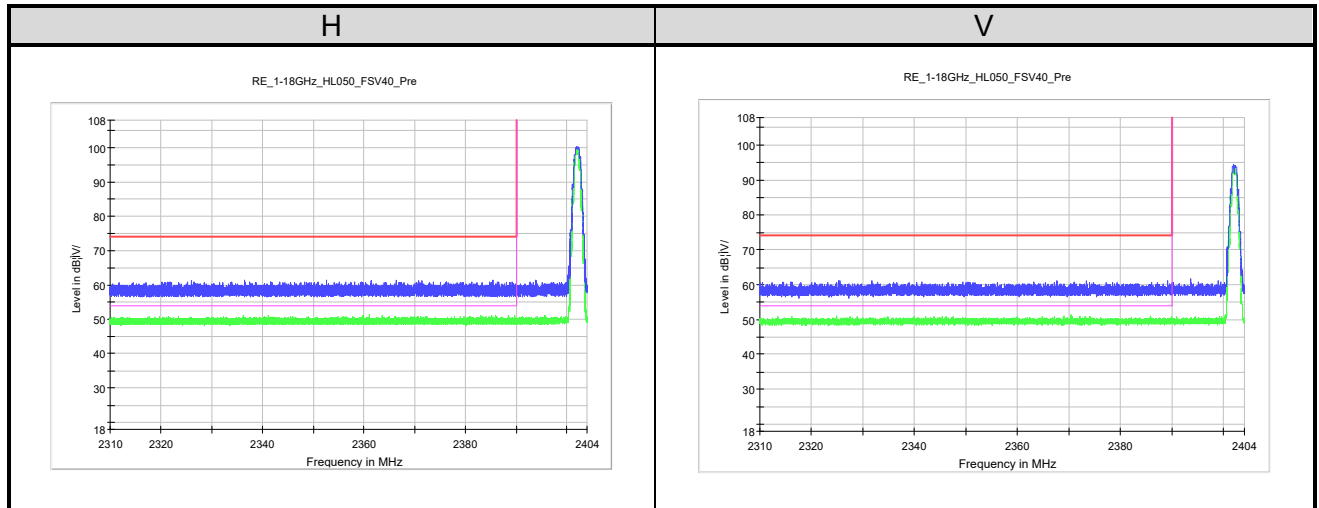
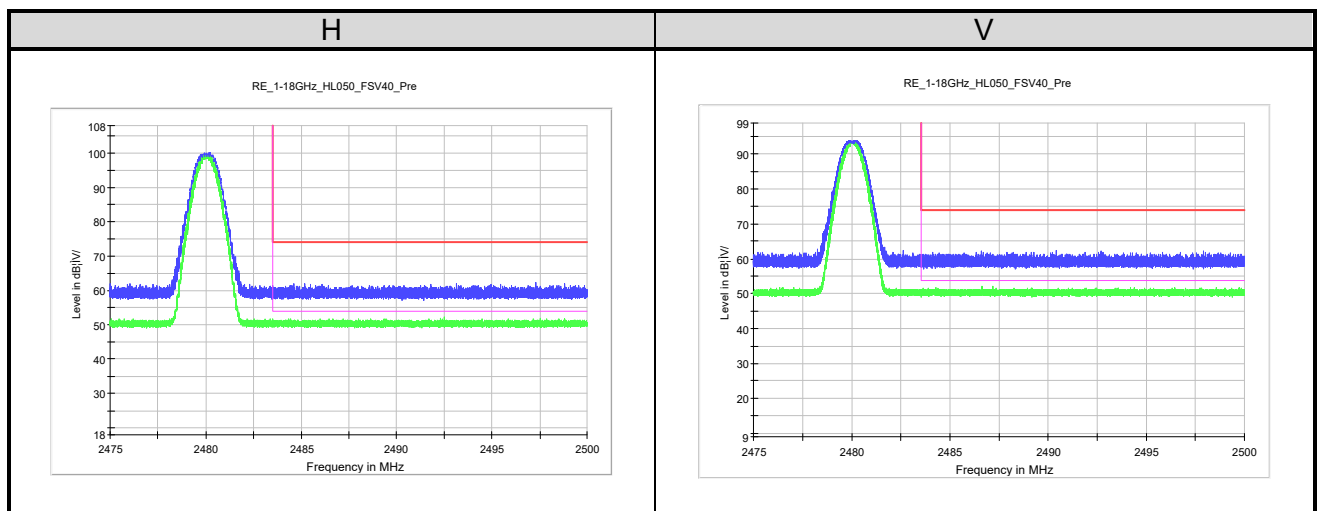
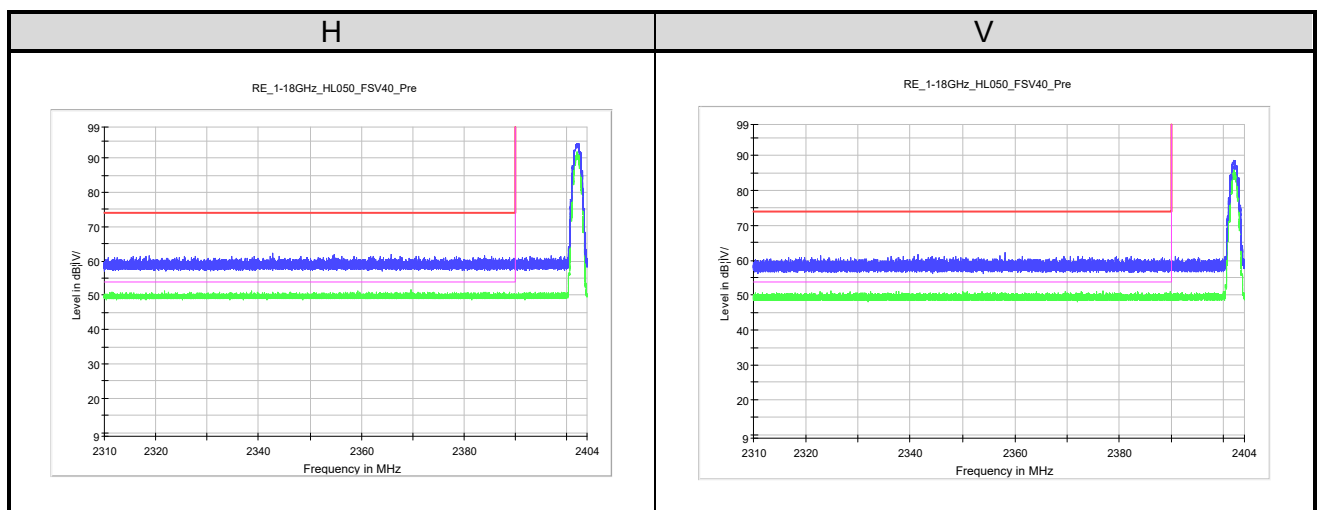
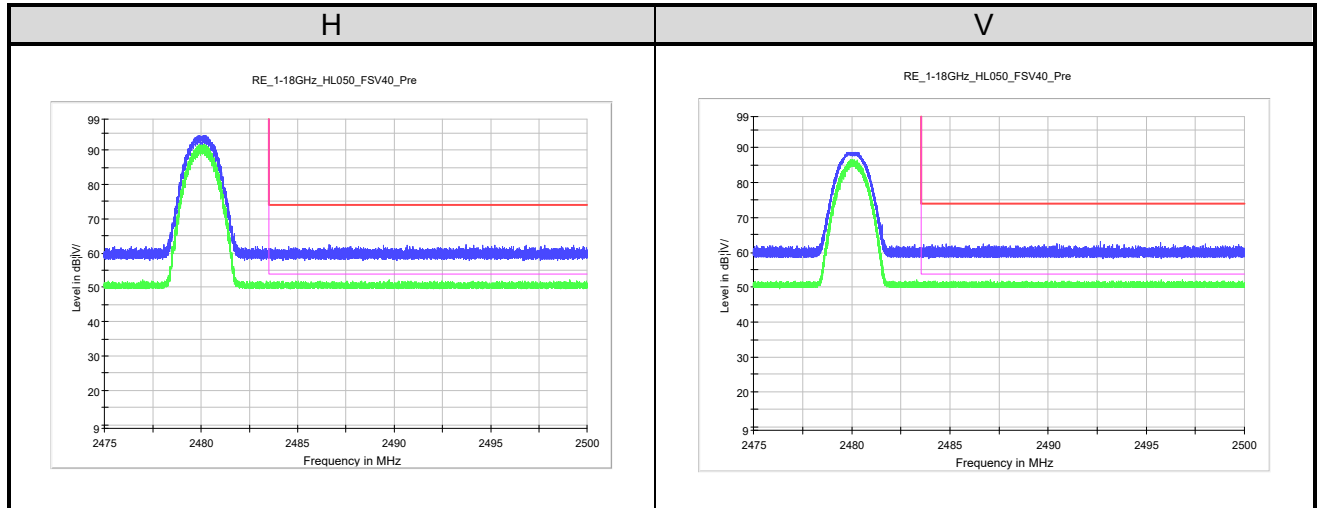
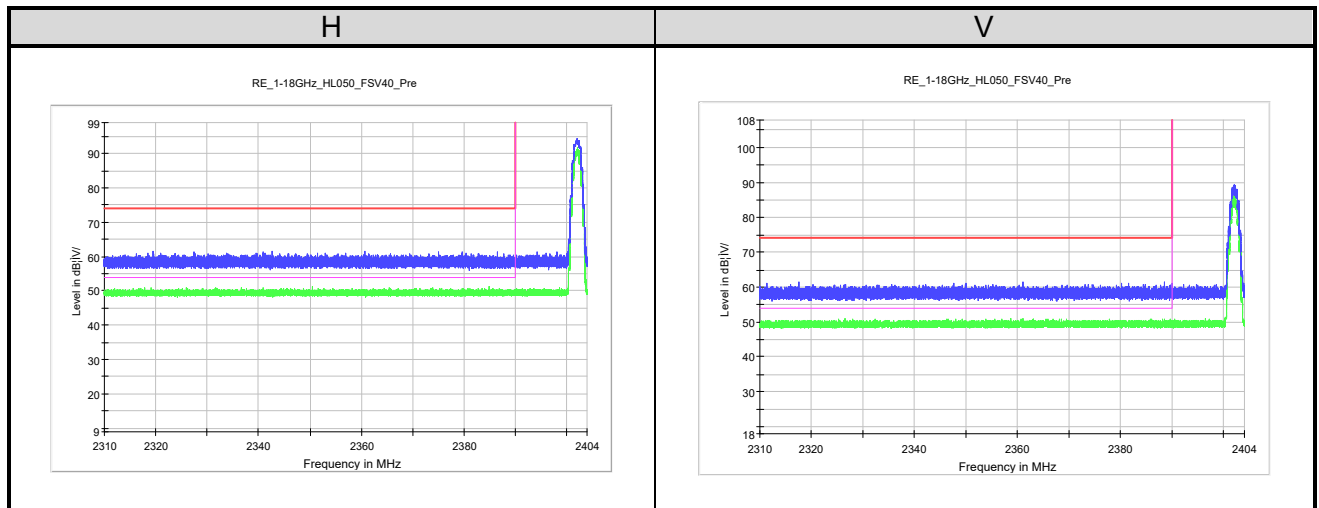
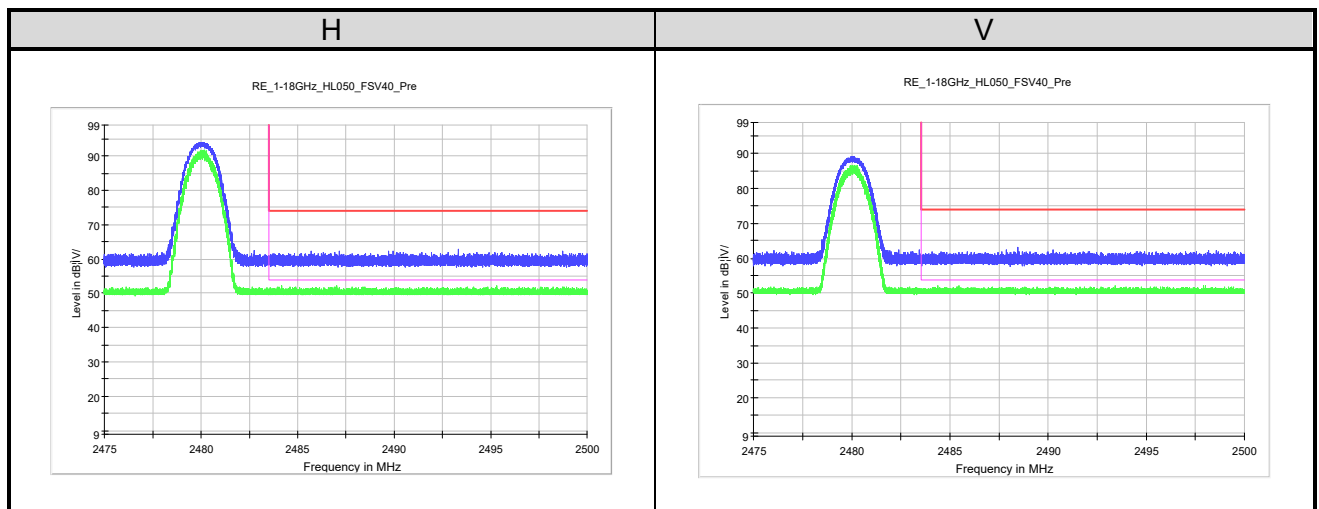
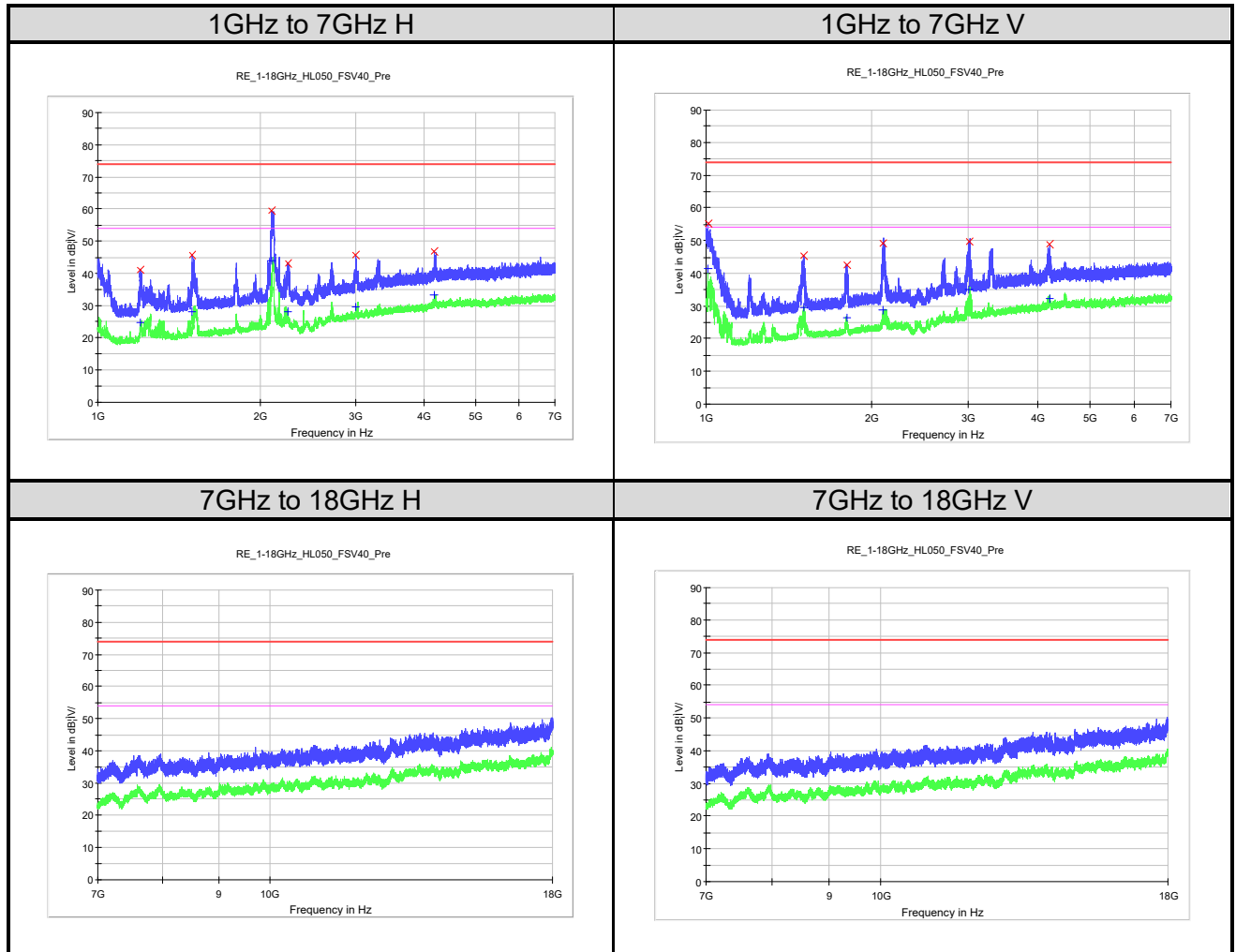
Figure 10: Radiated Band-Edge, TM1

Figure 11: Radiated Band-Edge, TM3

Figure 12: Radiated Band-Edge, TM4


Figure 13: Radiated Band-Edge, TM6

Figure 14: Radiated Band-Edge, TM7

Figure 15: Radiated Band-Edge, TM9


5.3.2 Radiated Spurious Emission

RESULT:**Pass**

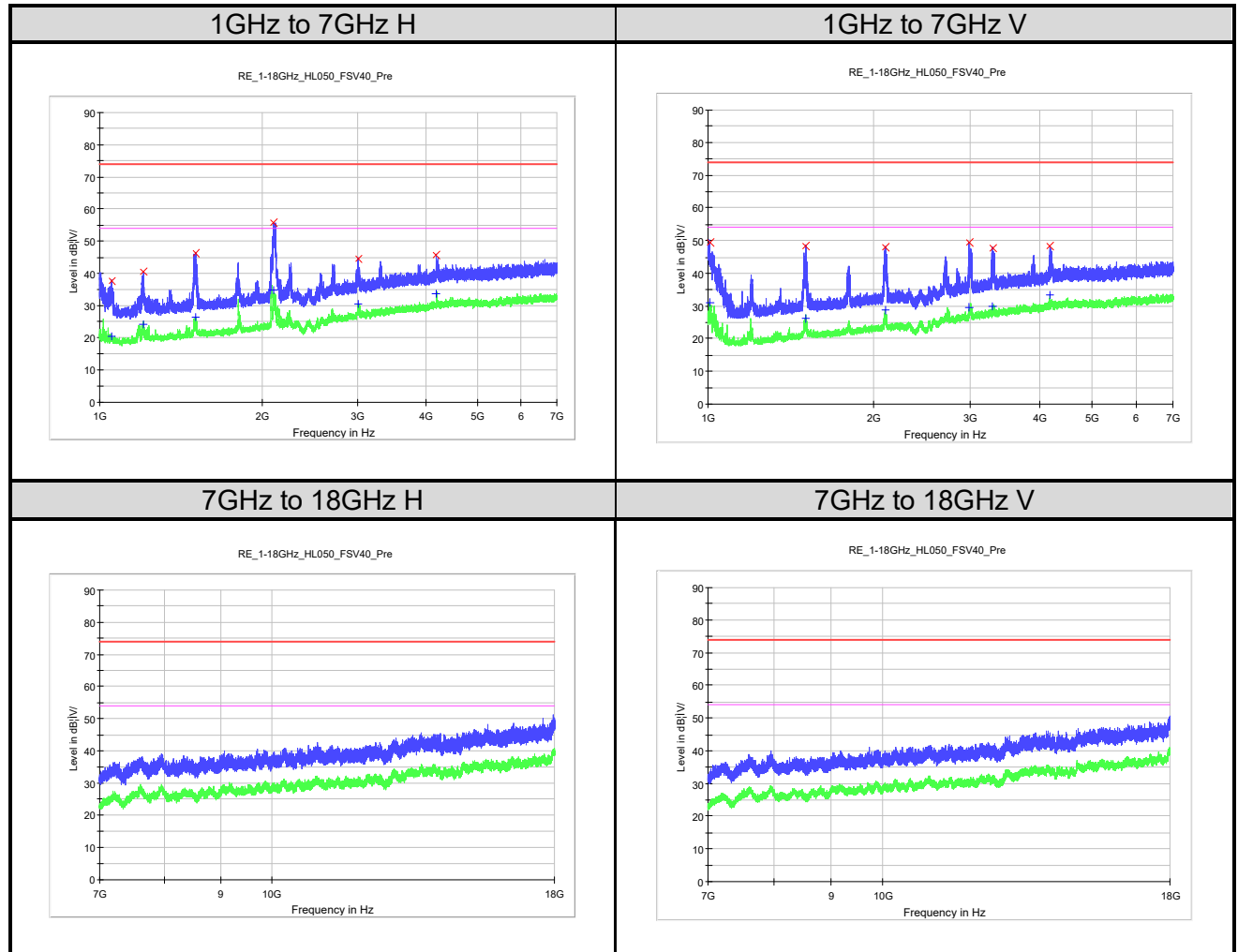
Date of testing	:	2021-08-04~2021-09-22
Ambient temperature	:	23.2°C
Relative humidity	:	38.5%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC Part 15.247(d) FCC Part 15.209(a) RSS-Gen Issue 5, Amendment 2, February 2021, Clause 8.9 RSS-247 Issue 2, February 2017, Clause 5.5
Test procedure	:	ANSI C63.10: 2013
Test voltage	:	DC 5V
Test modes applied	:	TM1 to TM9
Kind of test site	:	3m Anechoic Chamber

Figure 16: Radiated Spurious Emission, TM1, 1GHz to 18GHz

Limit and Margin
PK

Frequency (MHz)	MaxPeak (dBμV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBμV/m)
1196.500000	41.2	H	-21.3	32.8	74.0
1496.125000	45.8	H	-18.9	28.2	74.0
2093.312500	59.6	H	-15.9	14.4	74.0
2244.062500	43.0	H	-15.2	31.0	74.0
2989.375000	45.6	H	-11.8	28.4	74.0
4187.687500	46.8	H	-7.5	27.2	74.0
1008.437500	55.3	V	-22.4	18.7	74.0
1504.375000	45.5	V	-18.8	28.5	74.0
1805.875000	42.5	V	-17.4	31.5	74.0
2095.375000	49.1	V	-15.9	24.9	74.0
3008.312500	49.8	V	-11.7	24.2	74.0
4214.125000	48.9	V	-7.5	25.1	74.0

AV

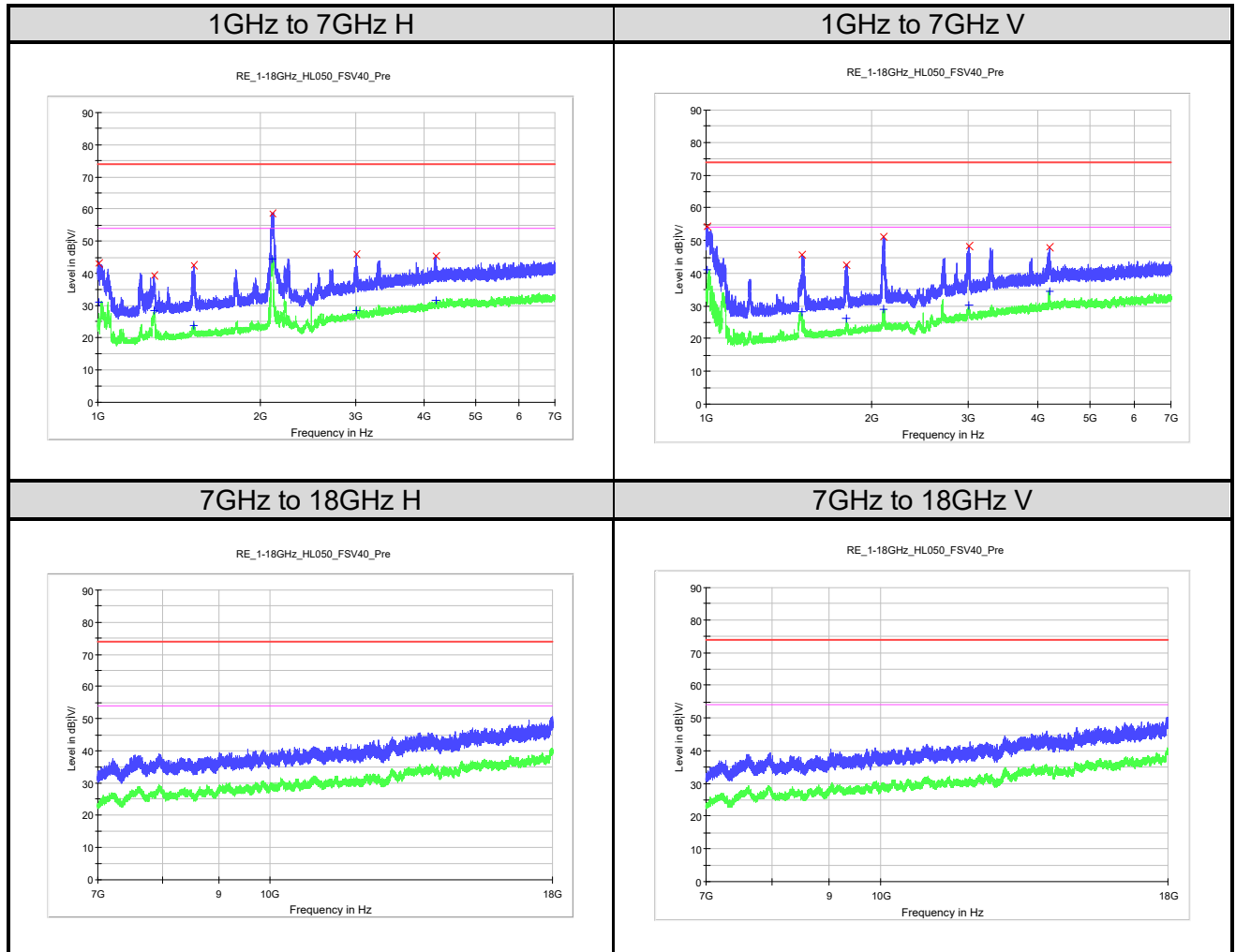
Frequency (MHz)	Average (dBμV/m)	Pol	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBμV/m)
1196.500000	24.7	H	-21.3	29.3	54.0
1496.125000	28.2	H	-18.9	25.8	54.0
2093.312500	44.0	H	-15.9	10.0	54.0
2244.062500	28.1	H	-15.2	25.9	54.0
2989.375000	29.7	H	-11.8	24.3	54.0
4187.687500	33.4	H	-7.5	20.6	54.0
1008.437500	41.3	V	-22.4	12.7	54.0
1504.375000	29.7	V	-18.8	24.3	54.0
1805.875000	26.5	V	-17.4	27.5	54.0
2095.375000	28.8	V	-15.9	25.2	54.0
3008.312500	35.1	V	-11.7	18.9	54.0
4214.125000	32.2	V	-7.5	21.8	54.0

Figure 17: Radiated Spurious Emission, TM2, 1GHz to 18GHz

Limit and Margin
PK

Frequency (MHz)	MaxPeak (dBμV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBμV/m)
1052.312500	37.8	H	-22.1	36.2	74.0
1203.250000	40.5	H	-21.2	33.5	74.0
1504.375000	46.2	H	-18.8	27.8	74.0
2095.000000	55.7	H	-15.9	18.3	74.0
3009.062500	44.7	H	-11.7	29.3	74.0
4187.500000	45.8	H	-7.5	28.2	74.0
1008.062500	49.5	V	-22.4	24.5	74.0
1504.562500	48.4	V	-18.8	25.6	74.0
2098.750000	48.1	V	-15.9	25.9	74.0
2988.250000	49.5	V	-11.8	24.5	74.0
3292.562500	47.8	V	-10.4	26.2	74.0
4188.062500	48.2	V	-7.5	25.8	74.0

AV

Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
1052.312500	20.5	H	-22.1	33.5	54.0
1203.250000	24.1	H	-21.2	29.9	54.0
1504.375000	26.5	H	-18.8	27.5	54.0
2095.000000	34.9	H	-15.9	19.1	54.0
3009.062500	30.5	H	-11.7	23.5	54.0
4187.500000	33.5	H	-7.5	20.5	54.0
1008.062500	31.0	V	-22.4	23.0	54.0
1504.562500	26.3	V	-18.8	27.7	54.0
2098.750000	28.8	V	-15.9	25.2	54.0
2988.250000	29.6	V	-11.8	24.4	54.0
3292.562500	29.8	V	-10.4	24.2	54.0
4188.062500	33.4	V	-7.5	20.6	54.0

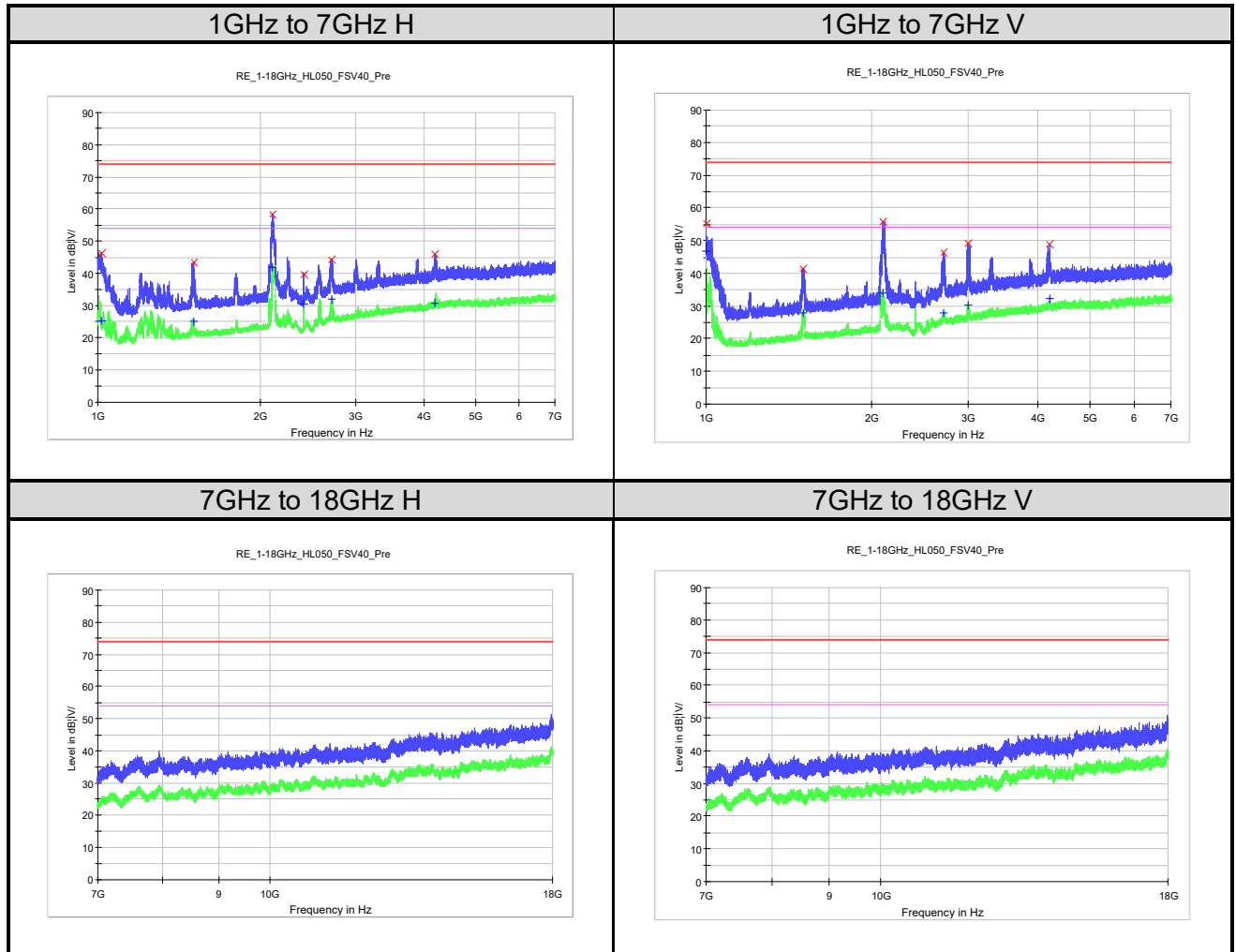
Figure 18: Radiated Spurious Emission, TM3, 1GHz to 18GHz

Limit and Margin
PK

Frequency (MHz)	MaxPeak (dBμV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBμV/m)
1005.812500	43.0	H	-22.4	31.0	74.0
1269.437500	39.3	H	-20.7	34.7	74.0
1505.125000	42.6	H	-18.8	31.4	74.0
2106.250000	58.8	H	-15.9	15.2	74.0
3009.812500	46.1	H	-11.7	27.9	74.0
4213.937500	45.5	H	-7.5	28.5	74.0
1003.562500	54.3	V	-22.5	19.7	74.0
1496.125000	45.8	V	-18.9	28.2	74.0
1794.250000	42.5	V	-17.4	31.5	74.0
2098.750000	51.3	V	-15.9	22.7	74.0
3008.687500	48.3	V	-11.7	25.7	74.0
4210.750000	48.0	V	-7.5	26.0	74.0

Prüfbericht - Nr.: CN213MUT 002
Test Report No.Seite 45 von 59
Page 45 of 59

AV

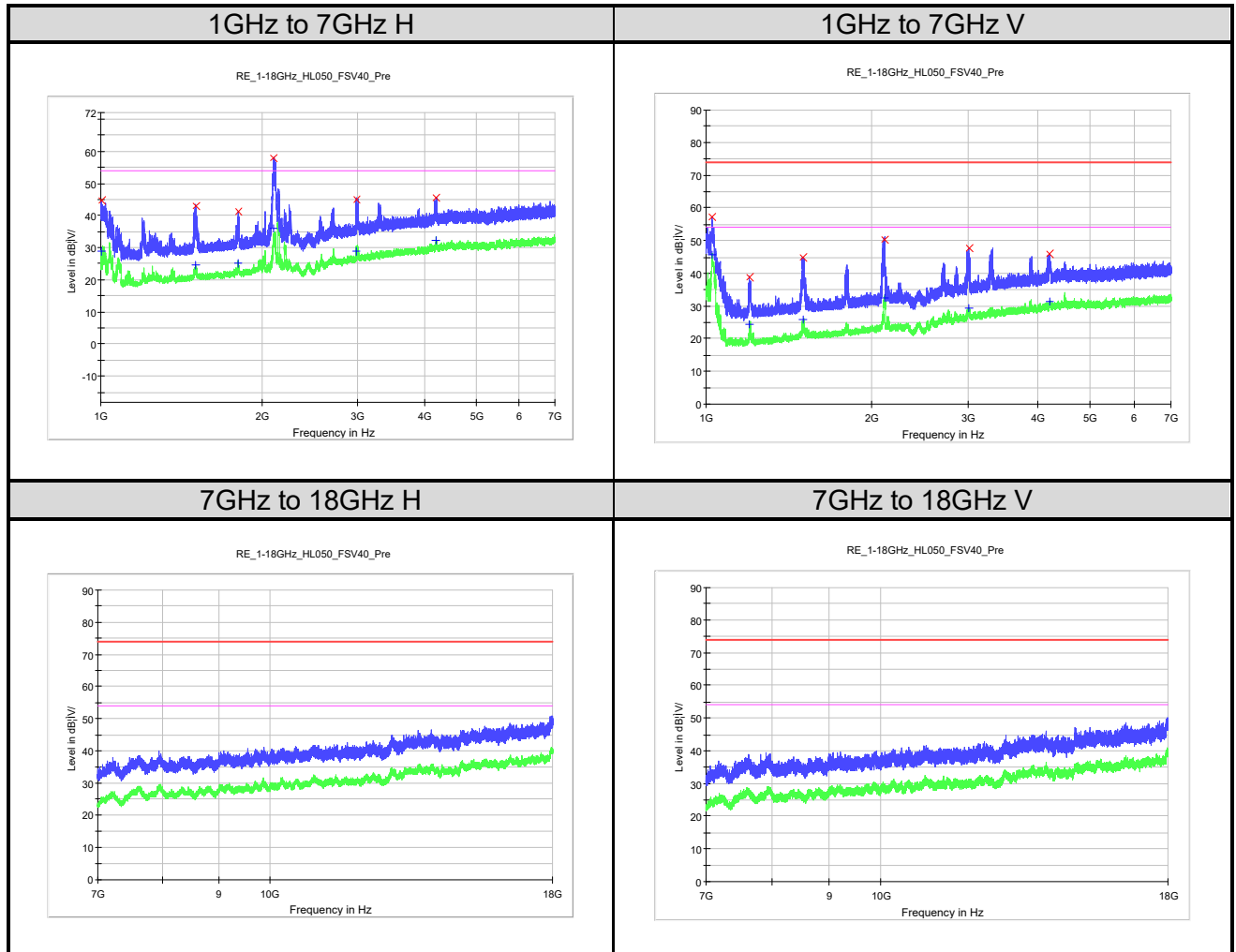
Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
1005.812500	31.0	H	-22.4	23.0	54.0
1269.437500	28.5	H	-20.7	25.5	54.0
1505.125000	23.9	H	-18.8	30.1	54.0
2106.250000	44.6	H	-15.9	9.4	54.0
3009.812500	28.6	H	-11.7	25.4	54.0
4213.937500	31.6	H	-7.5	22.4	54.0
1003.562500	41.1	V	-22.5	12.9	54.0
1496.125000	28.1	V	-18.9	25.9	54.0
1794.250000	26.2	V	-17.4	27.8	54.0
2098.750000	28.9	V	-15.9	25.1	54.0
3008.687500	30.1	V	-11.7	23.9	54.0
4210.750000	34.5	V	-7.5	19.5	54.0

Figure 19: Radiated Spurious Emission, TM4, 1GHz to 18GHz

Limit and Margin
PK

Frequency (MHz)	MaxPeak (dBμV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBμV/m)
1014.437500	46.4	H	-22.4	27.6	74.0
1504.375000	43.3	H	-18.8	30.7	74.0
2104.937500	58.3	H	-15.9	15.7	74.0
2402.125000	39.8	H	-14.4	34.2	74.0
2708.500000	44.3	H	-13.1	29.7	74.0
4194.812500	45.9	H	-7.5	28.1	74.0
1000.187500	55.2	V	-22.5	18.8	74.0
1496.312500	41.3	V	-18.9	32.7	74.0
2096.125000	55.8	V	-15.9	18.2	74.0
2708.875000	46.3	V	-13.0	27.7	74.0
2991.812500	49.1	V	-11.8	24.9	74.0
4213.000000	48.8	V	-7.5	25.2	74.0

AV

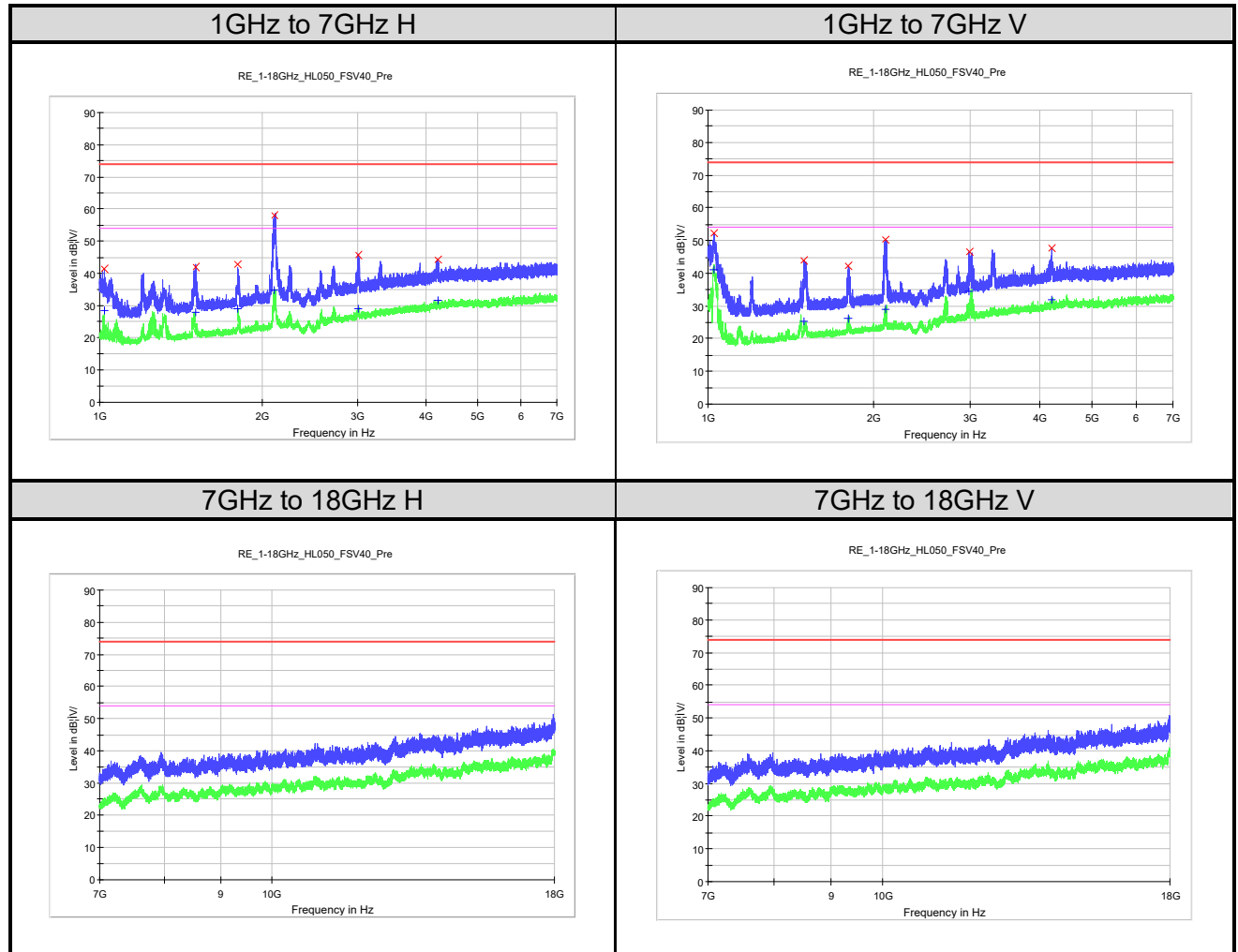
Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
1014.437500	25.3	H	-22.4	28.7	54.0
1504.375000	25.1	H	-18.8	28.9	54.0
2104.937500	41.9	H	-15.9	12.1	54.0
2402.125000	30.6	H	-14.4	23.4	54.0
2708.500000	31.9	H	-13.1	22.1	54.0
4194.812500	30.9	H	-7.5	23.1	54.0
1000.187500	47.0	V	-22.5	7.0	54.0
1496.312500	28.0	V	-18.9	26.0	54.0
2096.125000	34.0	V	-15.9	20.0	54.0
2708.875000	28.0	V	-13.0	26.0	54.0
2991.812500	30.1	V	-11.8	23.9	54.0
4213.000000	32.3	V	-7.5	21.7	54.0

Figure 20: Radiated Spurious Emission, TM5, 1GHz to 18GHz

Limit and Margin
PK

Frequency (MHz)	MaxPeak (dBμV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBμV/m)
1004.125000	44.8	H	-22.5	29.2	74.0
1505.125000	42.9	H	-18.8	31.1	74.0
1805.312500	41.3	H	-17.4	32.7	74.0
2094.625000	58.0	H	-15.9	16.0	74.0
2991.437500	45.0	H	-11.8	29.0	74.0
4208.500000	45.6	H	-7.5	28.4	74.0
1025.125000	57.2	V	-22.3	16.8	74.0
1197.062500	38.9	V	-21.3	35.1	74.0
1497.062500	44.8	V	-18.9	29.2	74.0
2106.437500	50.3	V	-15.9	23.7	74.0
3006.250000	47.7	V	-11.7	26.3	74.0
4212.625000	46.0	V	-7.5	28.0	74.0

AV

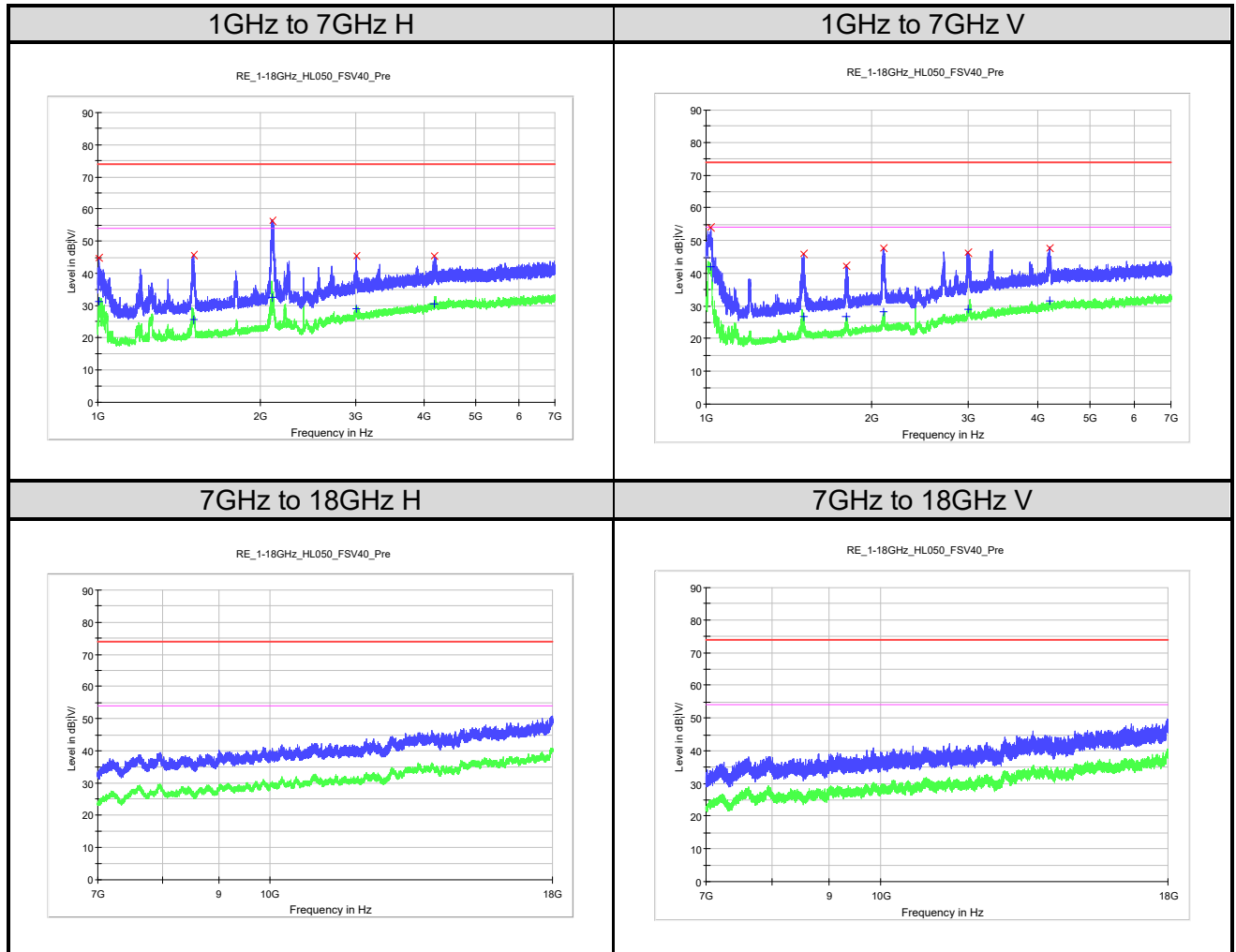
Frequency (MHz)	MaxPeak (dBμV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBμV/m)
1004.125000	44.8	H	-22.5	29.2	74.0
1505.125000	42.9	H	-18.8	31.1	74.0
1805.312500	41.3	H	-17.4	32.7	74.0
2094.625000	58.0	H	-15.9	16.0	74.0
2991.437500	45.0	H	-11.8	29.0	74.0
4208.500000	45.6	H	-7.5	28.4	74.0
1025.125000	57.2	V	-22.3	8.3	54.0
1197.062500	38.9	V	-21.3	29.7	54.0
1497.062500	44.8	V	-18.9	28.0	54.0
2106.437500	50.3	V	-15.9	21.4	54.0
3006.250000	47.7	V	-11.7	24.6	54.0
4212.625000	46.0	V	-7.5	22.8	54.0

Figure 21: Radiated Spurious Emission, TM6, 1GHz to 18GHz

Limit and Margin
PK

Frequency (MHz)	MaxPeak (dBμV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBμV/m)
1018.375000	41.3	H	-22.4	32.7	74.0
1504.937500	42.0	H	-18.8	32.0	74.0
1795.000000	42.7	H	-17.4	31.3	74.0
2106.250000	58.2	H	-15.9	15.8	74.0
3009.812500	45.8	H	-11.7	28.2	74.0
4220.500000	44.3	H	-7.4	29.7	74.0
1024.750000	52.2	V	-22.3	21.8	74.0
1496.125000	44.0	V	-18.9	30.0	74.0
1793.687500	42.2	V	-17.4	31.8	74.0
2105.875000	50.3	V	-15.9	23.7	74.0
2984.125000	46.5	V	-11.9	27.5	74.0
4214.875000	47.6	V	-7.5	26.4	74.0

AV

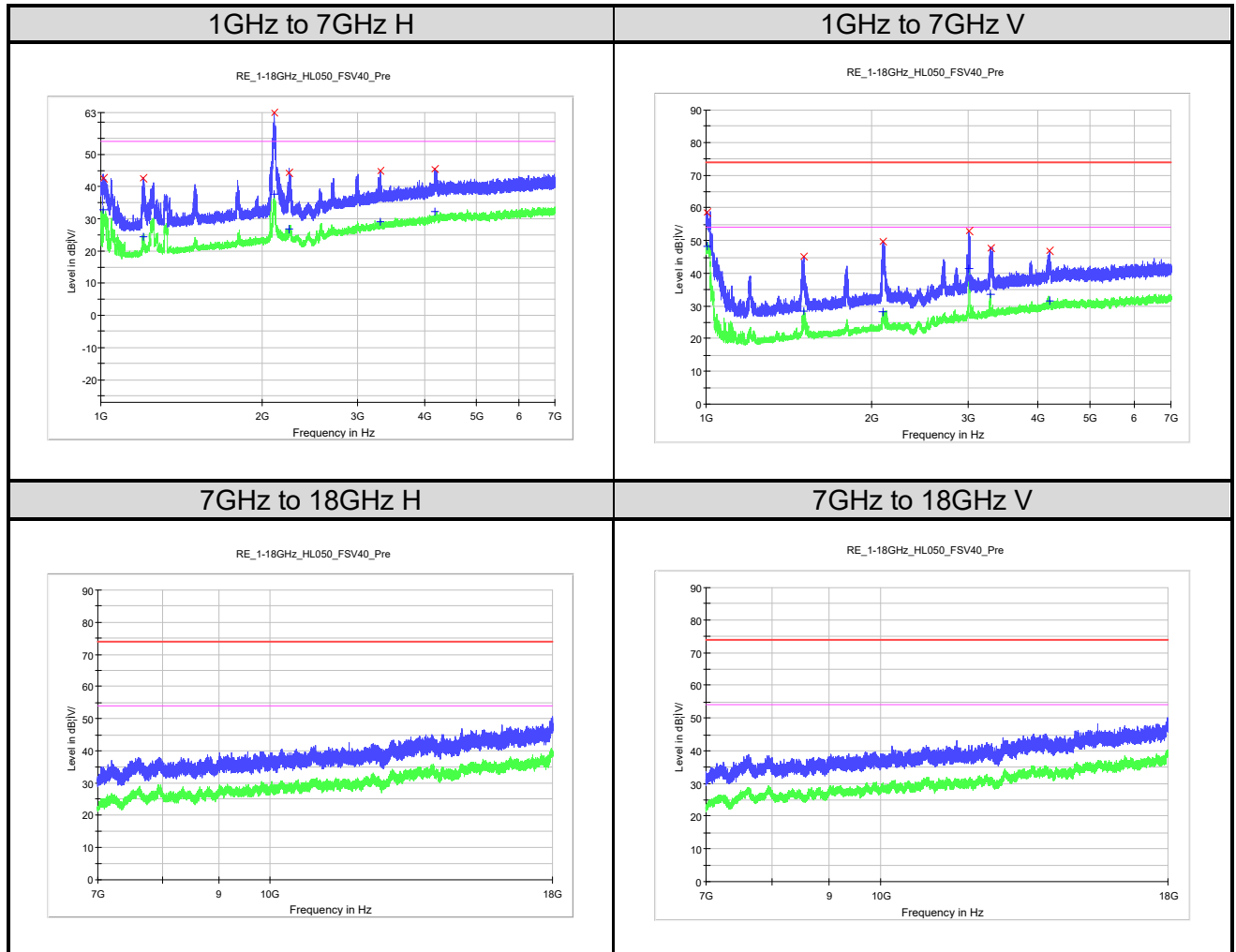
Frequency (MHz)	Average (dB μ V/m)	Pol	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dB μ V/m)
1018.375000	28.6	H	-22.4	25.4	54.0
1504.937500	27.9	H	-18.8	26.1	54.0
1795.000000	29.0	H	-17.4	25.0	54.0
2106.250000	34.7	H	-15.9	19.3	54.0
3009.812500	28.9	H	-11.7	25.1	54.0
4220.500000	31.6	H	-7.4	22.4	54.0
1024.750000	41.2	V	-22.3	12.8	54.0
1496.125000	25.4	V	-18.9	28.6	54.0
1793.687500	26.1	V	-17.4	27.9	54.0
2105.875000	29.1	V	-15.9	24.9	54.0
2984.125000	34.5	V	-11.9	19.5	54.0
4214.875000	31.8	V	-7.5	22.2	54.0

Figure 22: Radiated Spurious Emission, TM7, 1GHz to 18GHz

Limit and Margin
PK

Frequency (MHz)	MaxPeak (dBμV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBμV/m)
1002.625000	45.0	H	-22.5	29.0	74.0
1504.562500	45.7	H	-18.8	28.3	74.0
2105.500000	56.4	H	-15.9	17.6	74.0
3005.500000	45.5	H	-11.7	28.5	74.0
4187.312500	45.4	H	-7.5	28.6	74.0
1018.562500	54.1	V	-22.4	19.9	74.0
1505.312500	46.1	V	-18.8	27.9	74.0
1796.125000	42.2	V	-17.4	31.8	74.0
2105.125000	47.6	V	-15.9	26.4	74.0
2989.375000	46.4	V	-11.8	27.6	74.0
4217.875000	47.6	V	-7.4	26.4	74.0

AV

Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
1002.625000	31.4	H	-22.5	22.6	54.0
1504.562500	25.6	H	-18.8	28.4	54.0
2105.500000	32.5	H	-15.9	21.5	54.0
3005.500000	29.1	H	-11.7	24.9	54.0
4187.312500	30.5	H	-7.5	23.5	54.0
1018.562500	42.1	V	-22.4	11.9	54.0
1505.312500	26.7	V	-18.8	27.3	54.0
1796.125000	26.7	V	-17.4	27.3	54.0
2105.125000	28.3	V	-15.9	25.7	54.0
2989.375000	29.0	V	-11.8	25.0	54.0
4217.875000	31.6	V	-7.4	22.4	54.0

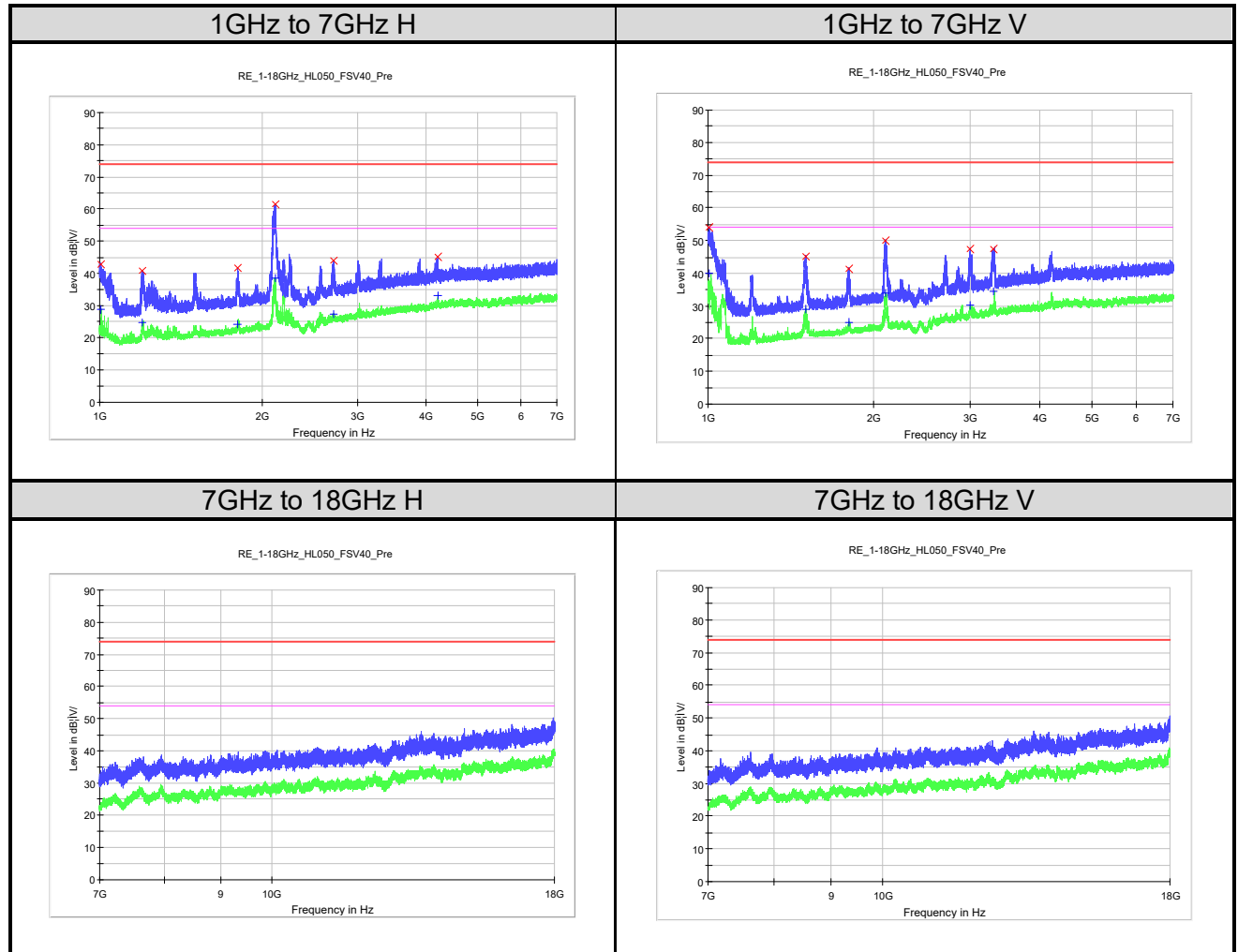
Figure 23: Radiated Spurious Emission, TM8, 1GHz to 18GHz

Limit and Margin
PK

Frequency (MHz)	MaxPeak (dBμV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBμV/m)
1011.062500	42.7	H	-22.4	31.3	74.0
1197.437500	42.7	H	-21.3	31.3	74.0
2105.687500	63.0	H	-15.9	11.0	74.0
2241.812500	44.2	H	-15.2	29.8	74.0
3310.562500	44.9	H	-10.3	29.1	74.0
4178.125000	45.4	H	-7.6	28.6	74.0
1003.187500	58.8	V	-22.5	15.2	74.0
1504.750000	45.2	V	-18.8	28.8	74.0
2094.250000	49.7	V	-15.9	24.3	74.0
3009.812500	52.8	V	-11.7	21.2	74.0
3288.062500	47.8	V	-10.4	26.2	74.0
4218.625000	46.8	V	-7.4	27.2	74.0

Prüfbericht - Nr.: CN213MUT 002
Test Report No.Seite 55 von 59
Page 55 of 59

AV

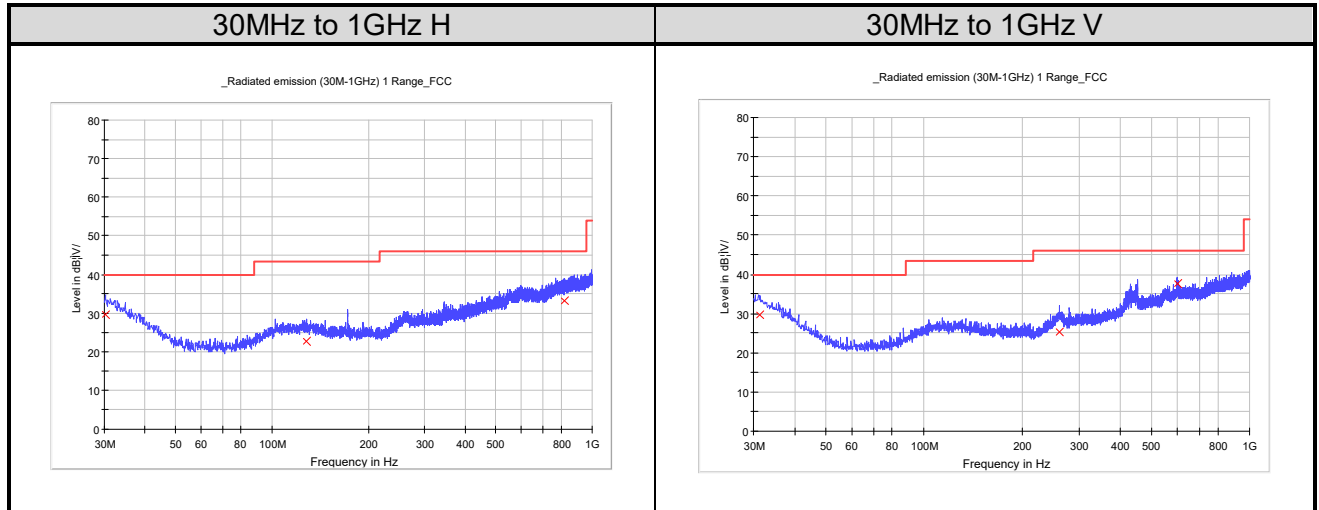
Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
1011.062500	32.8	H	-22.4	21.2	54.0
1197.437500	24.6	H	-21.3	29.4	54.0
2105.687500	37.6	H	-15.9	16.4	54.0
2241.812500	26.9	H	-15.2	27.1	54.0
3310.562500	29.2	H	-10.3	24.8	54.0
4178.125000	32.1	H	-7.6	21.9	54.0
1003.187500	48.4	V	-22.5	5.6	54.0
1504.750000	28.6	V	-18.8	25.4	54.0
2094.250000	28.3	V	-15.9	25.7	54.0
3009.812500	41.4	V	-11.7	12.6	54.0
3288.062500	33.6	V	-10.4	20.4	54.0
4218.625000	31.7	V	-7.4	22.3	54.0

Figure 24: Radiated Spurious Emission, TM9, 1GHz to 18GHz

Limit and Margin
PK

Frequency (MHz)	MaxPeak (dBμV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBμV/m)
1005.437500	42.9	H	-22.5	31.1	74.0
1196.312500	40.7	H	-21.3	33.3	74.0
1796.125000	41.7	H	-17.4	32.3	74.0
2108.312500	61.4	H	-15.9	12.6	74.0
2705.500000	44.1	H	-13.1	29.9	74.0
4211.125000	45.2	H	-7.5	28.8	74.0
1002.250000	54.0	V	-22.5	20.0	74.0
1504.000000	45.2	V	-18.8	28.8	74.0
1804.937500	41.5	V	-17.4	32.5	74.0
2105.875000	50.0	V	-15.9	24.0	74.0
2990.125000	47.4	V	-11.8	26.6	74.0
3310.000000	47.5	V	-10.3	26.5	74.0

AV

Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
1005.437500	28.7	H	-22.5	31.1	74.0
1196.312500	24.6	H	-21.3	33.3	74.0
1796.125000	24.2	H	-17.4	32.3	74.0
2108.312500	38.5	H	-15.9	12.6	74.0
2705.500000	27.4	H	-13.1	29.9	74.0
4211.125000	33.2	H	-7.5	28.8	74.0
1002.250000	40.1	V	-22.5	13.9	54.0
1504.000000	29.1	V	-18.8	24.9	54.0
1804.937500	24.9	V	-17.4	29.1	54.0
2105.875000	33.9	V	-15.9	20.1	54.0
2990.125000	30.2	V	-11.8	23.8	54.0
3310.000000	34.4	V	-10.3	19.6	54.0

Figure 25: Radiated Spurious Emission, Worst case below 1GHz and above 18GHz, TM3

Limit and Margin
QP

Frequency (MHz)	QuasiPeak (dBµV/m)	Pol	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
30.242500	29.7	H	25.3	10.3	40.0
127.848750	22.7	H	18.7	20.8	43.5
820.550000	33.2	H	27.5	12.8	46.0
31.333750	29.6	V	24.8	10.4	40.0
260.738750	25.4	V	20.7	20.6	46.0
601.815000	37.5	V	26.2	8.5	46.0

Note: For the frequencies 18GHz to 25GHz, no emission was found.

6. List of Tables

Table 1: List of Test and Measurement Equipment	5
Table 2: Measurement Uncertainty	6
Table 3: Technical Specification of EUT	7
Table 4: Independent Operation Modes	8
Table 5: Power parameter value	9
Table 6: Antenna Requirement	10
Table 7: 20dB & 99% Bandwidth, TM1 to TM9	12
Table 8: Peak Output Power	15
Table 9: Frequency Separation	18
Table 10: Number of Hopping Frequency	21
Table 11: Time of Occupancy, TM10 to TM18	24

7. List of Figures

Figure 1: 20dB & 99% Bandwidth, TM1 to TM9	13
Figure 2: Peak Output Power, TM1 to TM9	16
Figure 3: Frequency Separation	19
Figure 4: Number of Hopping Frequency	22
Figure 5: Time of Occupancy, TM10 to TM18	25
Figure 6: Reference level	28
Figure 7: Conducted Spurious Emission	30
Figure 8: Conducted Band Edge	32
Figure 9: Conducted Emission	35
Figure 10: Radiated Band-Edge, TM1	37
Figure 11: Radiated Band-Edge, TM3	37
Figure 12: Radiated Band-Edge, TM4	37
Figure 13: Radiated Band-Edge, TM6	38
Figure 14: Radiated Band-Edge, TM7	38
Figure 15: Radiated Band-Edge, TM9	38
Figure 16: Radiated Spurious Emission, TM1, 1GHz to 18GHz	40
Figure 17: Radiated Spurious Emission, TM2, 1GHz to 18GHz	42
Figure 18: Radiated Spurious Emission, TM3, 1GHz to 18GHz	44
Figure 19: Radiated Spurious Emission, TM4, 1GHz to 18GHz	46
Figure 20: Radiated Spurious Emission, TM5, 1GHz to 18GHz	48
Figure 21: Radiated Spurious Emission, TM6, 1GHz to 18GHz	50
Figure 22: Radiated Spurious Emission, TM7, 1GHz to 18GHz	52
Figure 23: Radiated Spurious Emission, TM8, 1GHz to 18GHz	54
Figure 24: Radiated Spurious Emission, TM9, 1GHz to 18GHz	56
Figure 25: Radiated Spurious Emission, Worst case below 1GHz and above 18GHz, TM3	58