

Frequency Range : Above 1 GHz

Test Mode 802.11a : TX mode
Operating Frequency 5845 MHz (CH 169)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		AV	PK	Corr. ¹⁾	Duty	AV	PK	AV	PK	AV	PK
3810.560	H	37.1	48.8	6.7	-	43.8	55.5	54	74	10.2	18.5
3858.552	V	37.2	47.1	7.0	-	44.2	54.1	54	74	9.8	19.9
5408.484	H	36.3	47.3	9.5	-	45.8	56.8	54	74	8.2	17.2
5415.474	V	37.5	47.7	9.5	-	47.0	57.2	54	74	7.0	16.8
11690.302	V	45	53.0	4.3	0.7	50.0	57.3	54	74	4.0	16.7
11691.758	H	38.8	47.2	4.3	0.7	43.8	51.5	54	74	10.2	22.5

Test Mode 802.11a : TX mode
Operating Frequency 5865 MHz (CH 173)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		AV	PK	Corr. ¹⁾	Duty	AV	PK	AV	PK	AV	PK
3810.221	H	37.1	48.5	6.7	-	43.8	55.2	54	74	10.2	18.8
3855.719	V	37.2	47.9	7.0	-	44.2	54.9	54	74	9.8	19.1
5406.429	H	36.1	47.4	9.5	-	45.6	56.9	54	74	8.4	17.1
5413.455	V	37.5	47.7	9.5	-	47.0	57.2	54	74	7.0	16.8
11730.049	V	45.9	54.5	4.4	0.7	51.0	58.9	54	74	3.0	15.1
11730.139	H	39.1	48.0	4.4	0.7	44.2	52.4	54	74	9.8	21.6
17591.584	H	-	37.5	14.5	0.7	-	52.0	-	68.2	-	16.2
17594.128	V	-	41.0	14.6	0.7	-	55.6	-	68.2	-	12.6

Note(s) :

1. Correction Factor: Antenna Factor + Cable loss + Preamplifier Gain
2. AV Level = Measured Power(dBm) + Correction Factor(dB) + Duty Cycle Factor(dB).

Frequency Range : Above 1 GHz (Continued)

Test Mode 802.11a : TX mode
Operating Frequency 5885 MHz (CH 177)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		AV	PK	Corr. ¹⁾	Duty	AV	PK	AV	PK	AV	PK
3811.002	H	37.1	48.5	6.7	-	43.8	55.2	54	74	10.2	18.8
3855.665	V	37.2	48.0	7.0	-	44.2	55.0	54	74	9.8	19.0
5405.989	H	36.1	47.4	9.5	-	45.6	56.9	54	74	8.4	17.1
5413.324	V	37.6	47.6	9.5	-	47.1	57.1	54	74	6.9	16.9
11770.131	V	44.4	53.7	4.6	0.7	49.7	58.3	54	74	4.3	15.7
11770.208	H	37.3	46.6	4.6	0.7	42.6	51.2	54	74	11.4	22.8
17655.048	V	-	42.6	15.2	0.7	-	57.8	-	68.2	-	10.4
17655.688	H	-	41.6	15.2	0.7	-	56.8	-	68.2	-	11.4

Note(s) :

1. Correction Factor: Antenna Factor + Cable loss + Preamplifier Gain
2. AV Level = Measured Power(dBm) + Correction Factor(dB) + Duty Cycle Factor(dB).

Frequency Range : Above 1 GHz (Continued)

Test Mode 802.11n HT40 : TX mode

Operating Frequency 5835 MHz (CH 167)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		AV	PK	Corr. ¹⁾	Duty	AV	PK	AV	PK	AV	PK
4799.914	H	38.8	45.0	7.6	-	46.4	52.6	54	74	7.6	21.4
4799.927	V	37.3	44.6	7.6	-	44.9	52.2	54	74	9.1	21.8
11662.823	H	37.3	45.9	4.3	0.4	42.0	50.2	54	74	12.0	23.8
11670.037	V	42.7	51.6	4.3	0.4	47.4	55.9	54	74	6.6	18.1

Test Mode 802.11n HT40 : TX mode

Operating Frequency 5875 MHz (CH 175)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		AV	PK	Corr. ¹⁾	Duty	AV	PK	AV	PK	AV	PK
3907.534	V	36.7	45.6	7.2	-	43.9	52.8	54	74	10.1	21.2
3998.629	H	36.8	45.3	7.2	-	44.0	52.5	54	74	10.0	21.5
5390.903	V	36	45.3	9.4	-	45.4	54.7	54	74	8.6	19.3
5431.321	H	36	45.1	9.5	-	45.5	54.6	54	74	8.5	19.4
11593.987	V	35.5	44.1	4.1	0.4	40.0	48.2	54	74	14.0	25.8
11595.087	H	31.3	39.8	4.1	0.4	35.8	43.9	54	74	18.2	30.1

Note(s) :

1. Correction Factor: Antenna Factor + Cable loss + Preamplifier Gain
2. AV Level = Measured Power(dBm) + Correction Factor(dB) + Duty Cycle Factor(dB).

Frequency Range : Above 1 GHz (Continued)

Test Mode 802.11ac VHT80 : TX mode

Operating Frequency 5855 MHz (CH 171)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		AV	PK	Corr. ¹⁾	Duty	AV	PK	AV	PK	AV	PK
5279.972	H	-	46.2	9.1	-	-	55.3	-	68.2	-	12.9
5279.989	V	-	44.6	9.1	-	-	53.7	-	68.2	-	14.5
11709.977	V	41.5	49.0	4.4	0.4	46.3	53.4	54	74	7.7	20.6
11710.003	H	35.6	43.7	4.4	0.4	40.4	48.1	54	74	13.6	25.9

Test Mode 802.11ac VHT160 : TX mode

Operating Frequency 5815 MHz (CH 163)

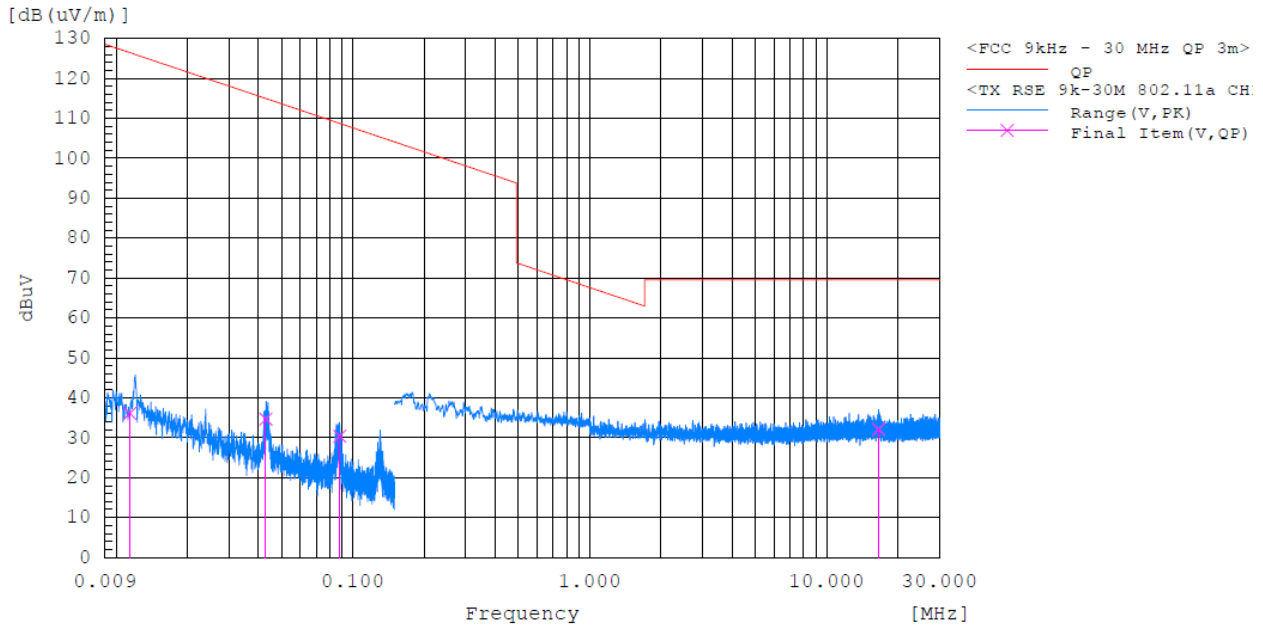
Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		AV	PK	Corr. ¹⁾	Duty	AV	PK	AV	PK	AV	PK
3980.947	V	34.8	43.2	7.2	-	42.0	50.4	54	74	12.0	23.6
4366.285	H	35.2	42.9	6.7	-	41.9	49.6	54	74	12.1	24.4
5279.825	H	-	47.2	9.1	-	-	56.3	-	68.2	-	11.9
5279.995	V	-	46.3	9.1	-	-	55.4	-	68.2	-	12.8
11630.007	H	33.7	41.9	4.2	0.4	38.3	46.1	54	74	15.7	27.9
11630.007	V	39.5	46.3	4.2	0.4	44.1	50.5	54	74	9.9	23.5

Note(s) :

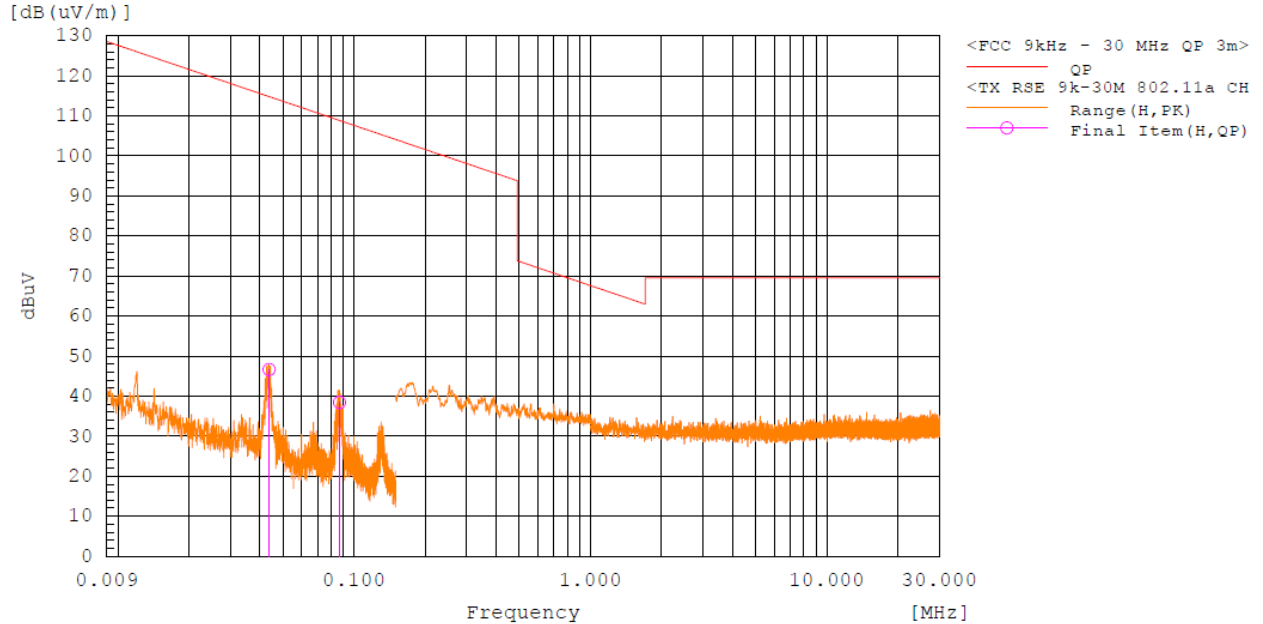
1. Correction Factor: Antenna Factor + Cable loss + Preamplifier Gain
2. AV Level = Measured Power(dBm) + Correction Factor(dB) + Duty Cycle Factor(dB).

■ TEST PLOTS

Radiated Spurious Emission 9 kHz – 30 MHz (Antenna Position 90°) : 802.11a (CH 173)



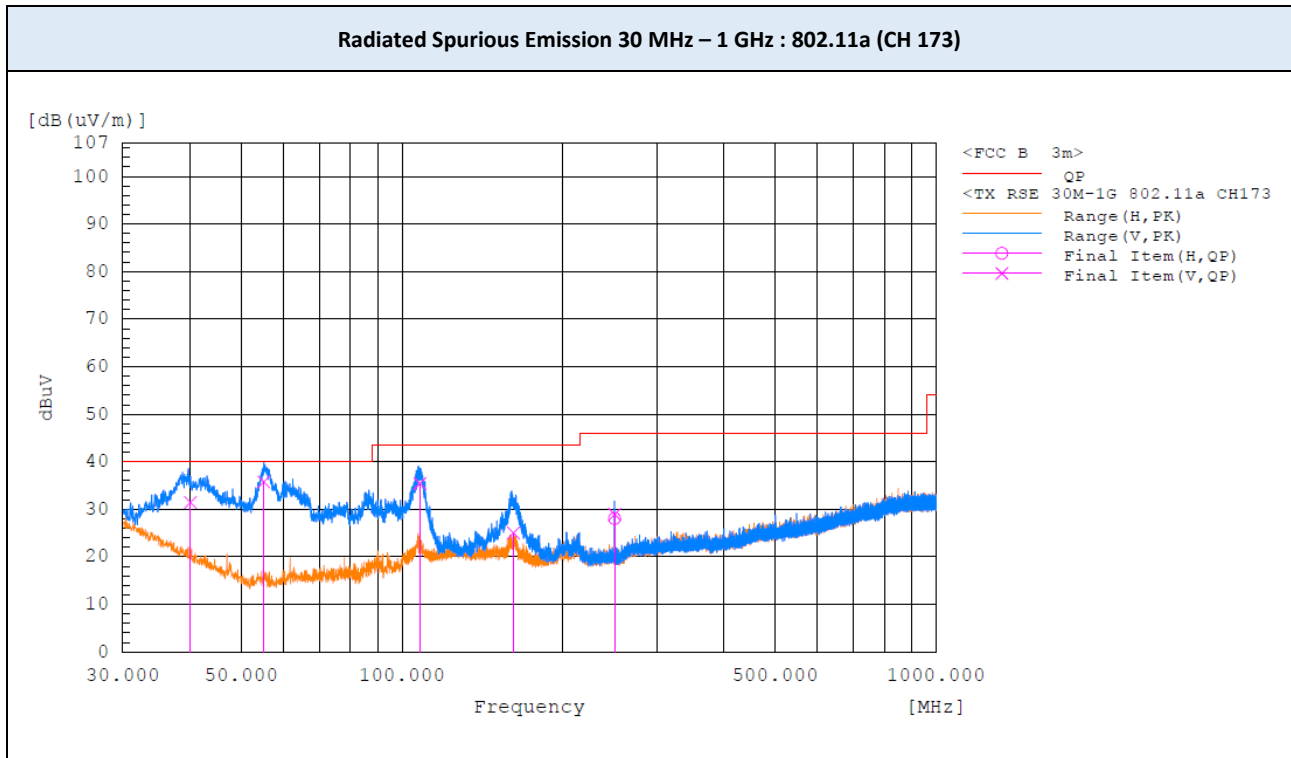
Radiated Spurious Emission 9 kHz – 30 MHz (Antenna Position 180°) : 802.11a (CH 173)



Note:

The worst-case plots are included in this report.

■ TEST PLOTS

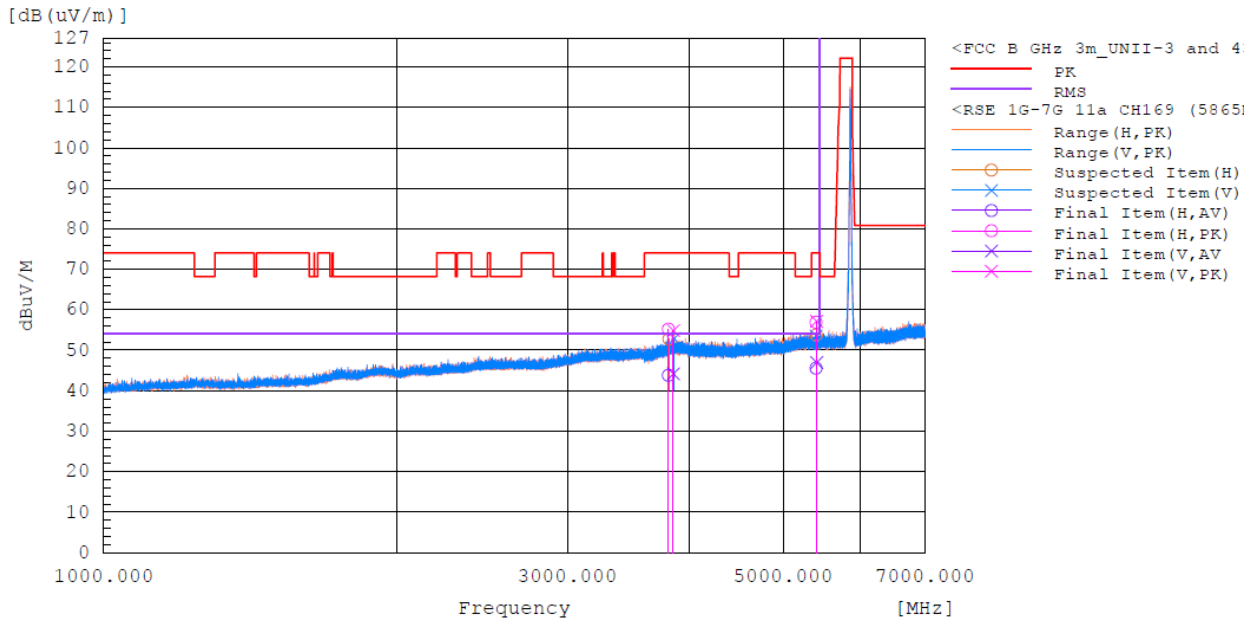


Note:

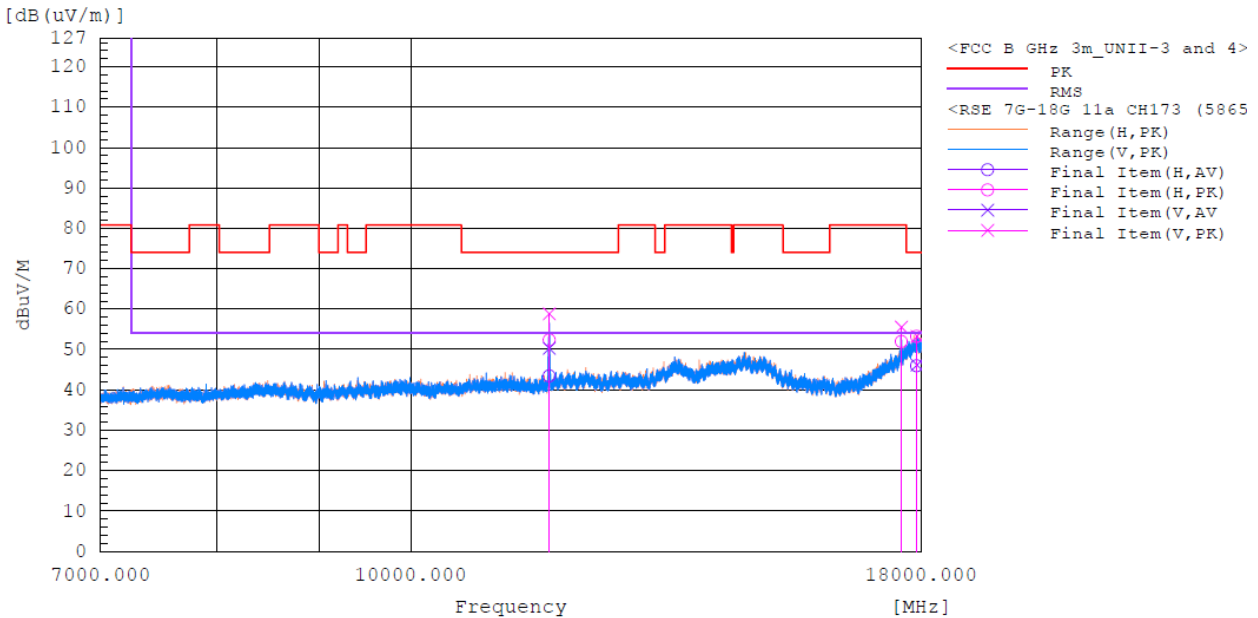
The worst-case plots are included in this report.

TEST PLOTS

Radiated Spurious Emission 1 GHz - 7 GHz : 802.11a (CH 173)



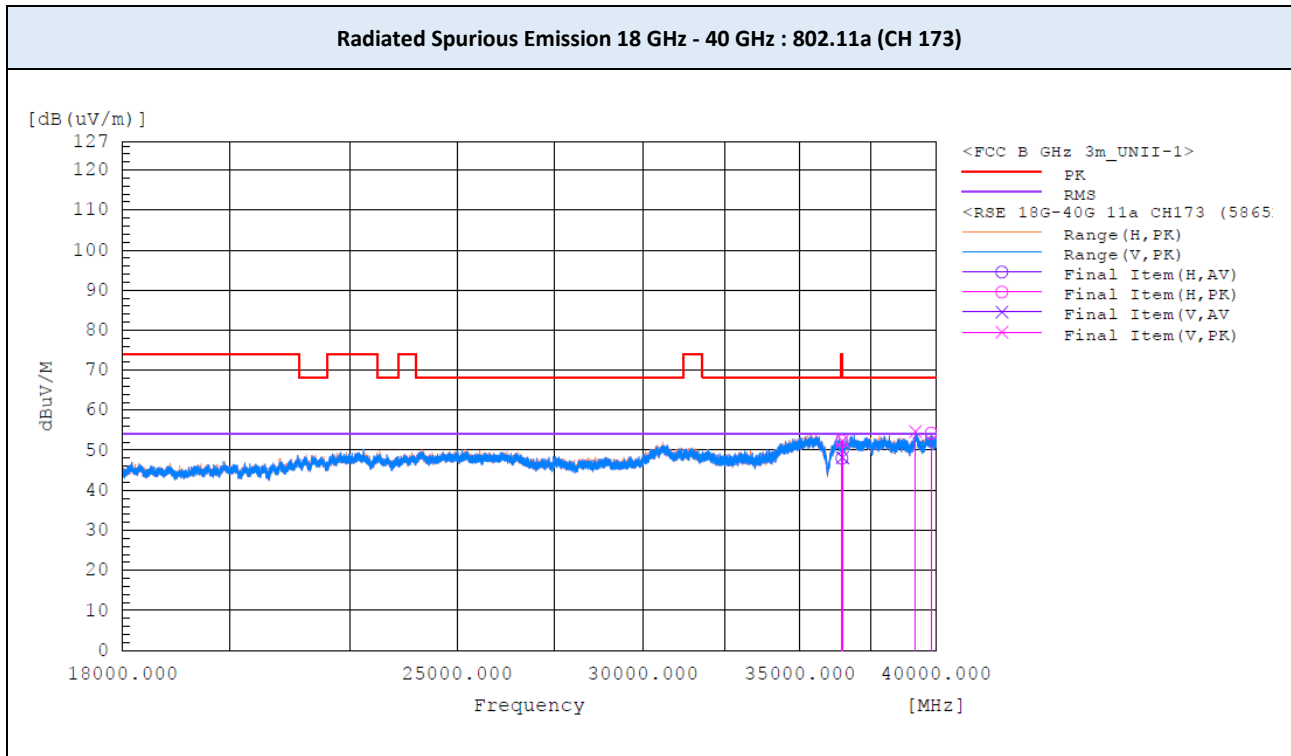
Radiated Spurious Emission 7 GHz - 18 GHz : 802.11a (CH 173)



Note:

The worst-case plots are included in this report.

■ TEST PLOTS



Note:

The worst-case plots are included in this report.

9.7 RADIATED RESTRICTED BAND EDGES

Test Mode 802.11a : TX mode
Operating Frequency 5885 MHz (CH 177)

Frequency (MHz)	Polarization	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		PK	Corr. ¹⁾	PK	PK	PK
5895.017	H	83.3	10.1	93.4	102.8	9.4
5895.801	V	83.6	10.1	93.7	102.2	8.5

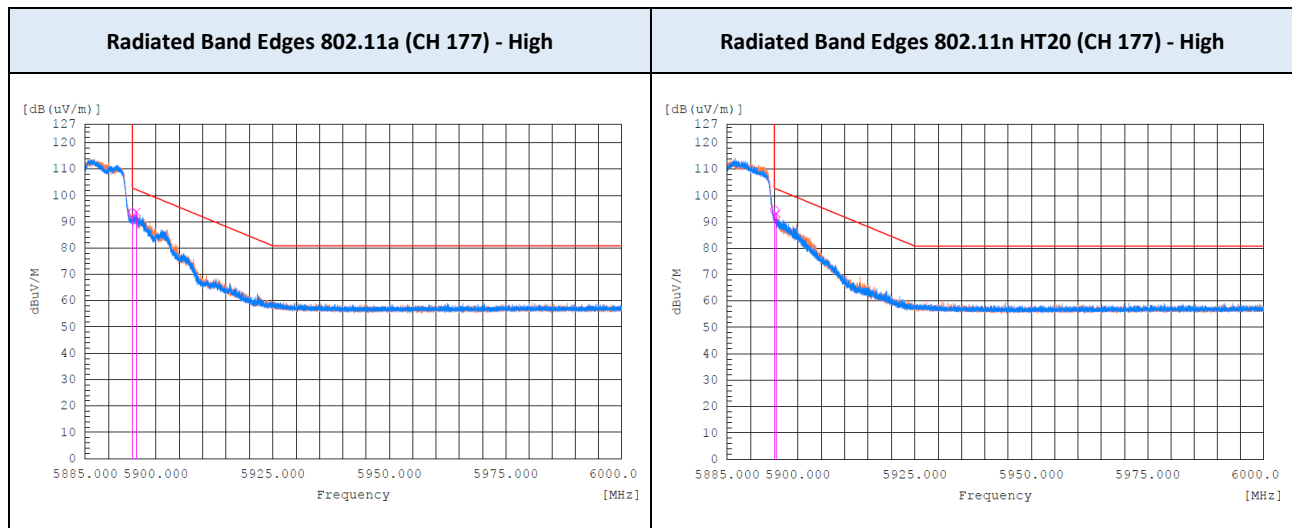
Test Mode 802.11n HT20 : TX mode
Operating Frequency 5885 MHz (CH 177)

Frequency (MHz)	Polarization	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		PK	Corr. ¹⁾	PK	PK	PK
5895.022	H	84.4	10.1	94.5	102.8	8.3
5895.446	V	83.1	10.1	93.2	102.5	9.3

Notes:

1. Correction Factor: Antenna Factor + Cable loss

TEST PLOTS



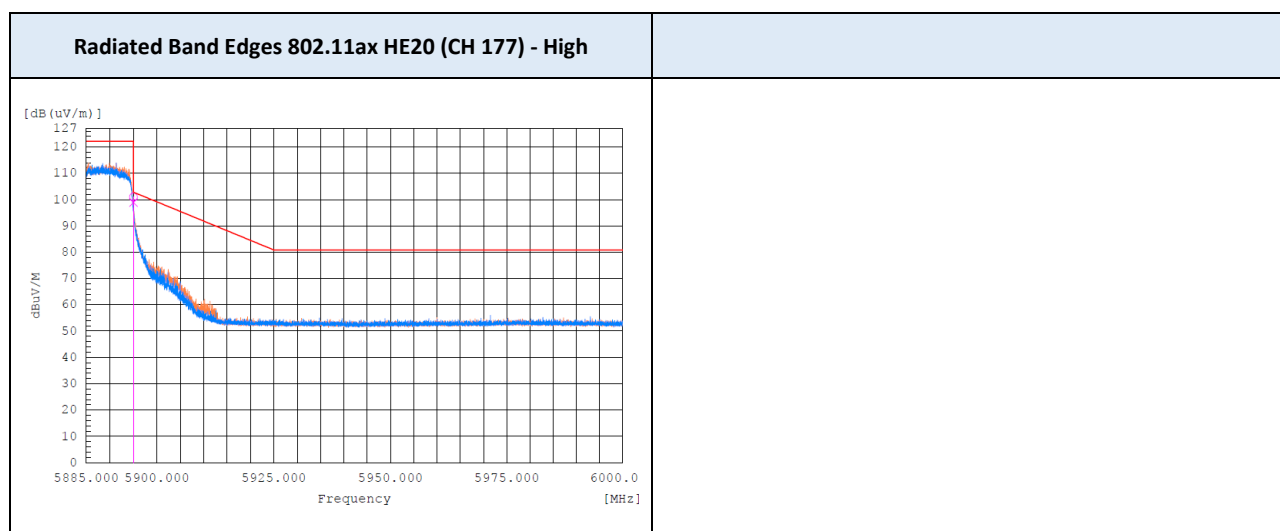
Test Mode 802.11ax HE20 : TX mode
Operating Frequency 5885 MHz (CH 177)

Frequency (MHz)	Polarization	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		PK	Corr. ¹⁾	PK	PK	PK
5895.000	H	90.9	10.1	101.0	102.8	1.8
5895.001	V	88.8	10.1	98.9	102.8	3.9

Notes:

1. Correction Factor: Antenna Factor + Cable loss

TEST PLOTS



Test Mode 802.11n HT40 : TX mode
Operating Frequency 5875 MHz (CH 175)

Frequency (MHz)	Polarization	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		PK	Corr. ¹⁾	PK	PK	PK
5912.449	V	76.0	10.2	86.2	90.0	3.8
5912.503	H	77.2	10.2	87.4	90.0	2.6
5917.748	V	69.2	10.2	79.4	86.1	6.7
5919.743	H	71.5	10.2	81.7	84.7	3.0

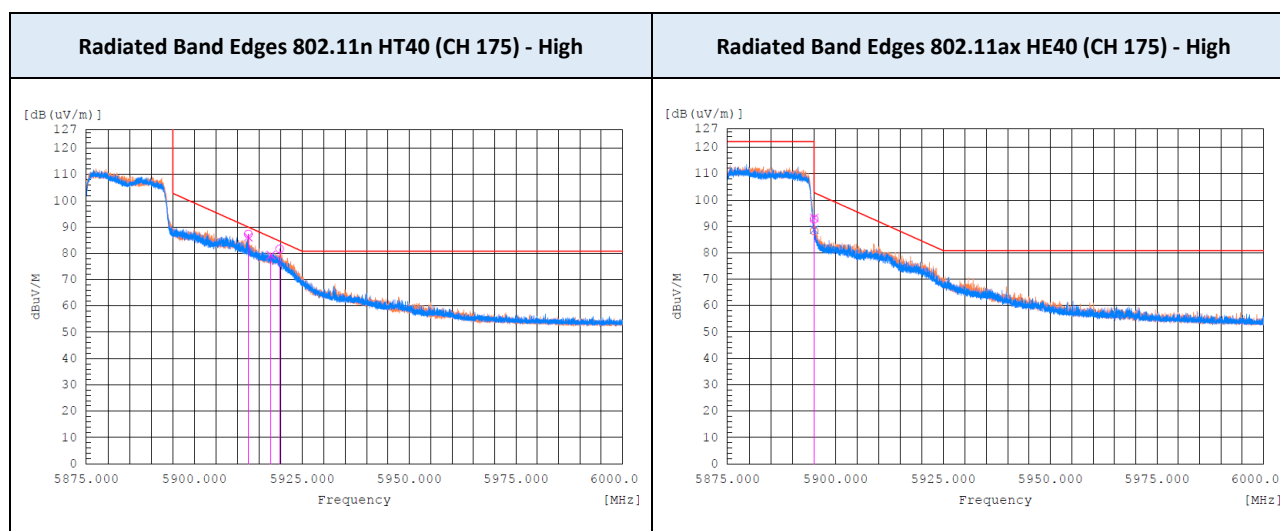
Test Mode 802.11ax HE40 : TX mode
Operating Frequency 5875 MHz (CH 175)

Frequency (MHz)	Polarization	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		PK	Corr. ¹⁾	PK	PK	PK
5895.000	H	82.7	10.1	92.8	102.8	10.0
5895.001	V	83.2	10.1	93.3	102.8	9.5

Notes:

1. Correction Factor: Antenna Factor + Cable loss

TEST PLOTS



Test Mode 802.11n HT20 : TX mode
Operating Frequency 5845 MHz (CH 169 : Straddle)

Frequency (MHz)	Polarization	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		PK	Corr. ¹⁾	PK	PK	PK
5648.293	H	47.6	9.6	57.2	68.2	11.0
5650.684	V	46.6	9.6	56.2	68.7	12.5
5925.967	V	45.3	10.2	55.5	80.8	25.3
5925.642	H	45.0	10.2	55.2	80.8	25.6

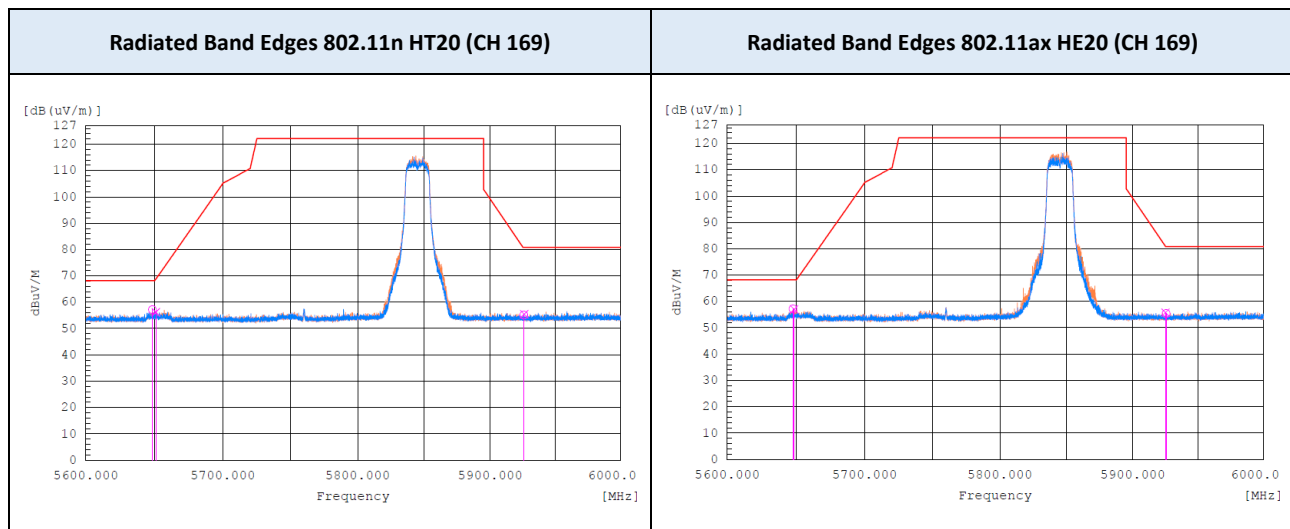
Test Mode 802.11ax HE20 : TX mode
Operating Frequency 5845 MHz (CH 169 : Straddle)

Frequency (MHz)	Polarization	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		PK	Corr. ¹⁾	PK	PK	PK
5647.490	H	47.6	9.6	57.2	68.2	11.0
5648.215	V	47.4	9.6	57.0	68.2	11.2
5924.791	V	45.5	10.2	55.7	81	25.3
5925.378	H	45.2	10.2	55.4	80.8	25.4

Notes:

1. Correction Factor: Antenna Factor + Cable loss

TEST PLOTS



Test Mode 802.11n HT40 : TX mode
Operating Frequency 5835 MHz (CH 167 : Straddle)

Frequency (MHz)	Polarization	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		PK	Corr. ¹⁾	PK	PK	PK
5647.515	V	47.2	9.6	56.8	68.2	11.4
5648.609	H	48.1	9.6	57.7	68.2	10.5
5926.042	H	51.3	10.2	61.5	80.8	19.3
5925.608	V	50.9	10.2	61.1	80.8	19.7

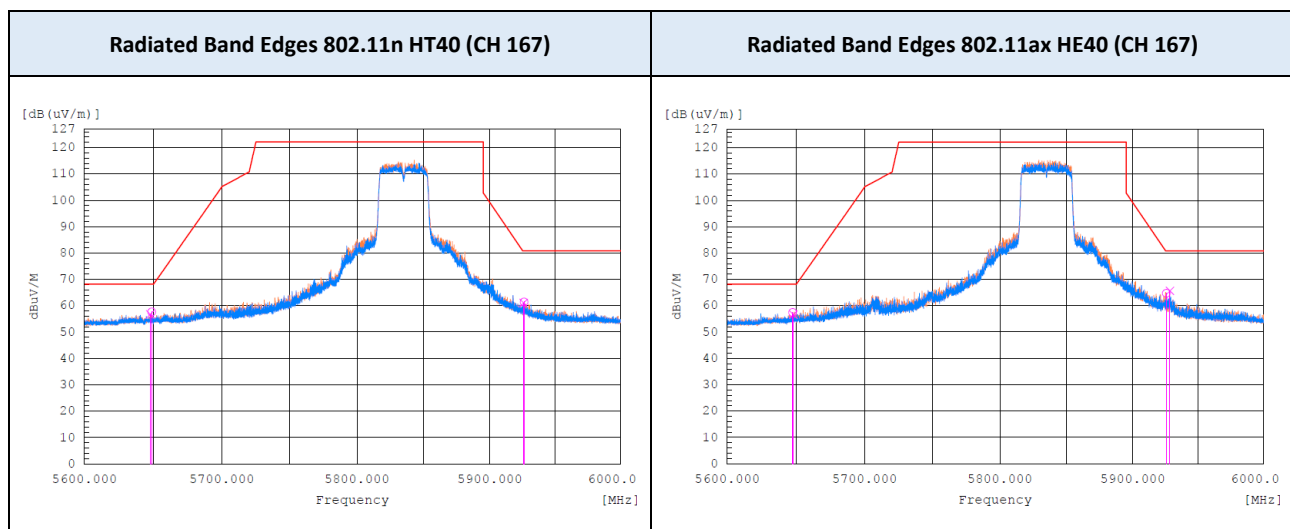
Test Mode 802.11ax HE40 : TX mode
Operating Frequency 5835 MHz (CH 167 : Straddle)

Frequency (MHz)	Polarization	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		PK	Corr. ¹⁾	PK	PK	PK
5647.215	H	47.9	9.6	57.5	68.2	10.7
5647.765	V	47.0	9.6	56.6	68.2	11.6
5925.529	H	54.6	10.2	64.8	80.8	16.0
5928.280	V	55.5	10.2	65.7	80.8	15.1

Notes:

1. Correction Factor: Antenna Factor + Cable loss

TEST PLOTS



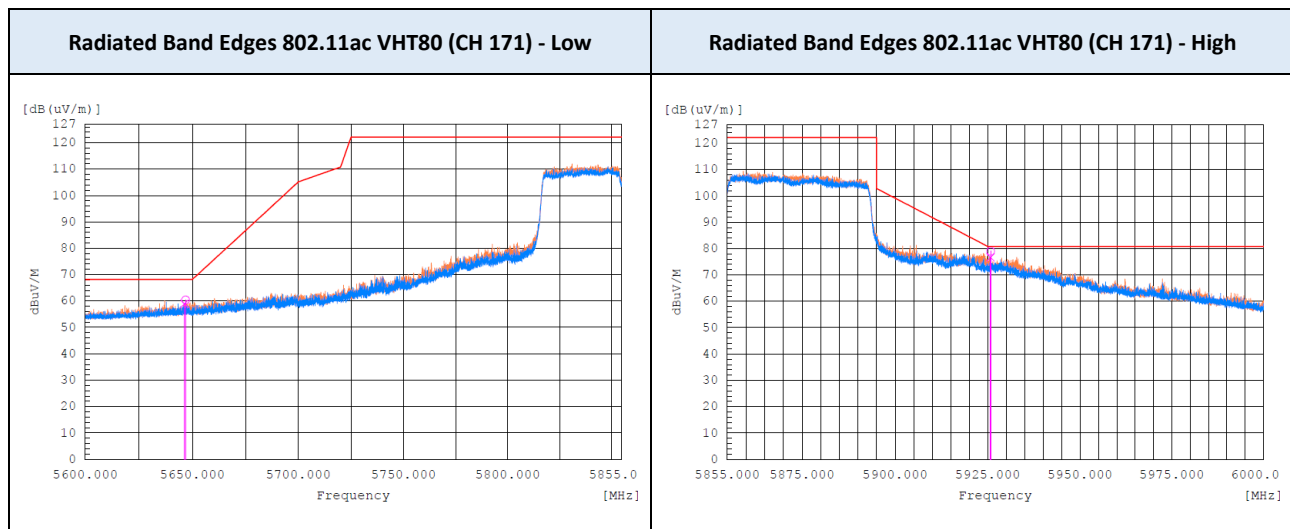
Test Mode 802.11ac VHT80 : TX mode
Operating Frequency 5855 MHz (CH 171 : Straddle)

Frequency (MHz)	Polarization	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		PK	Corr. ¹⁾	PK	PK	PK
5646.278	V	49.4	9.6	59.0	68.2	9.2
5646.841	H	50.8	9.6	60.4	68.2	7.8
5925.750	V	66.5	10.2	76.7	80.8	4.1
5925.792	H	68.8	10.2	79.0	80.8	1.8

Notes:

1. Correction Factor: Antenna Factor + Cable loss

TEST PLOTS



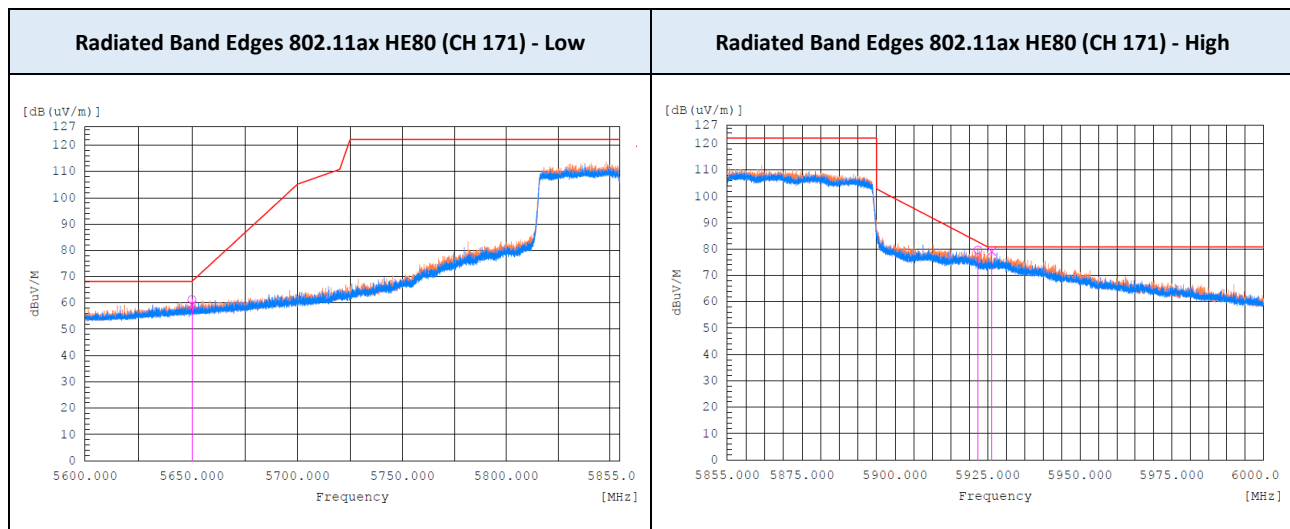
Test Mode 802.11ax HE80 : TX mode
Operating Frequency 5855 MHz (CH 171 : Straddle)

Frequency (MHz)	Polarization	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		PK	Corr. ¹⁾	PK	PK	PK
5650.007	H	51.7	9.6	61.3	68.2	6.9
5650.057	V	49.6	9.6	59.2	68.2	9.0
5922.324	H	69.5	10.2	79.7	82.8	3.1
5926.069	V	68.9	10.2	79.1	80.8	1.7

Notes:

1. Correction Factor: Antenna Factor + Cable loss

TEST PLOTS



Test Mode 802.11ac VHT160 : TX mode
Operating Frequency 5815 MHz (CH 164 : Straddle)

Frequency (MHz)	Polarization	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		PK	Corr. ¹⁾	PK	PK	PK
5648.311	V	56.5	9.6	66.1	68.2	2.1
5649.674	H	56.6	9.6	66.2	68.2	2.0
5927.461	V	58.9	10.2	69.1	80.8	11.7
5928.649	H	59.1	10.2	69.3	80.8	11.5

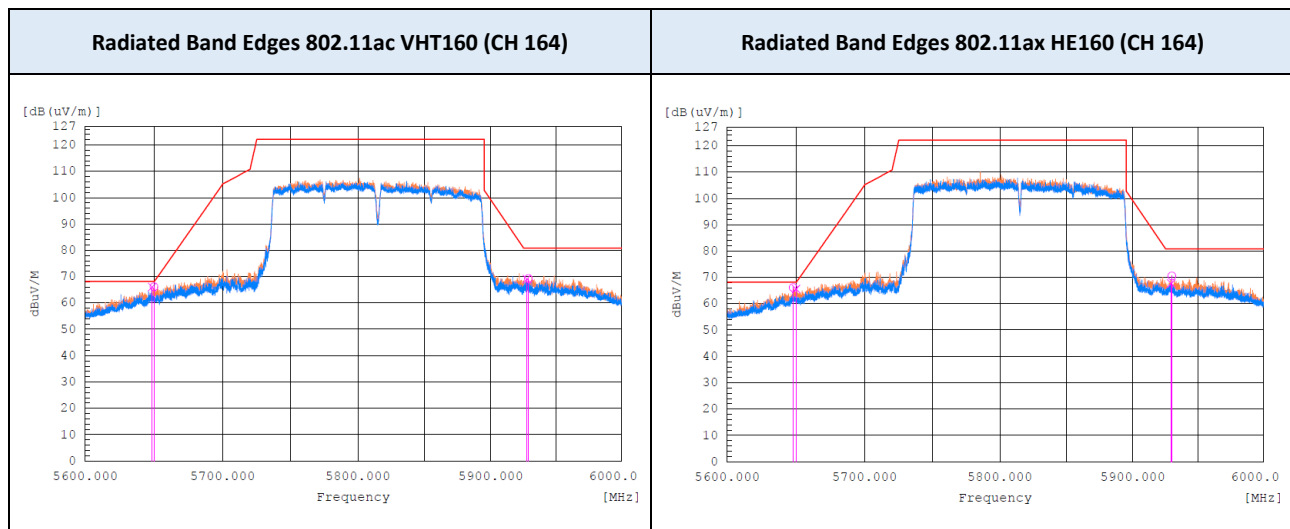
Test Mode 802.11ax HE160 : TX mode
Operating Frequency 5815 MHz (CH 164 : Straddle)

Frequency (MHz)	Polarization	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		PK	Corr. ¹⁾	PK	PK	PK
5647.593	H	56.6	9.6	66.2	68.2	2.0
5649.707	V	56.0	9.6	65.6	68.2	2.6
5929.153	V	57.5	10.2	67.7	80.8	13.1
5929.763	H	60.4	10.2	70.6	80.8	10.2

Notes:

1. Correction Factor: Antenna Factor + Cable loss

TEST PLOTS



9.8 POWERLINE CONDUCTED EMISSIONS

Frequency (MHz)	Line	Reading (dBμV)		Corr. ¹⁾ (dB)	Level (dBμV)		Limit (dBμV)		Margin (dB)	
		QP	CAV		QP	CAV	QP	CAV	QP	CAV
0.165	L1	41.5	24.1	9.7	51.2	33.8	65.2	55.2	14.0	21.4
0.200	L1	35.5	17.0	9.7	45.2	26.7	63.6	53.6	18.4	26.9
0.563	L1	28.9	17.5	9.6	38.5	27.1	56	46	17.5	18.9
0.667	L1	21.6	10.1	9.6	31.2	19.7	56	46	24.8	26.3
10.706	L1	20.8	14.2	10.1	30.9	24.3	60	50	29.1	25.7
20.193	L1	21.0	13.9	10.4	31.4	24.3	60	50	28.6	25.7

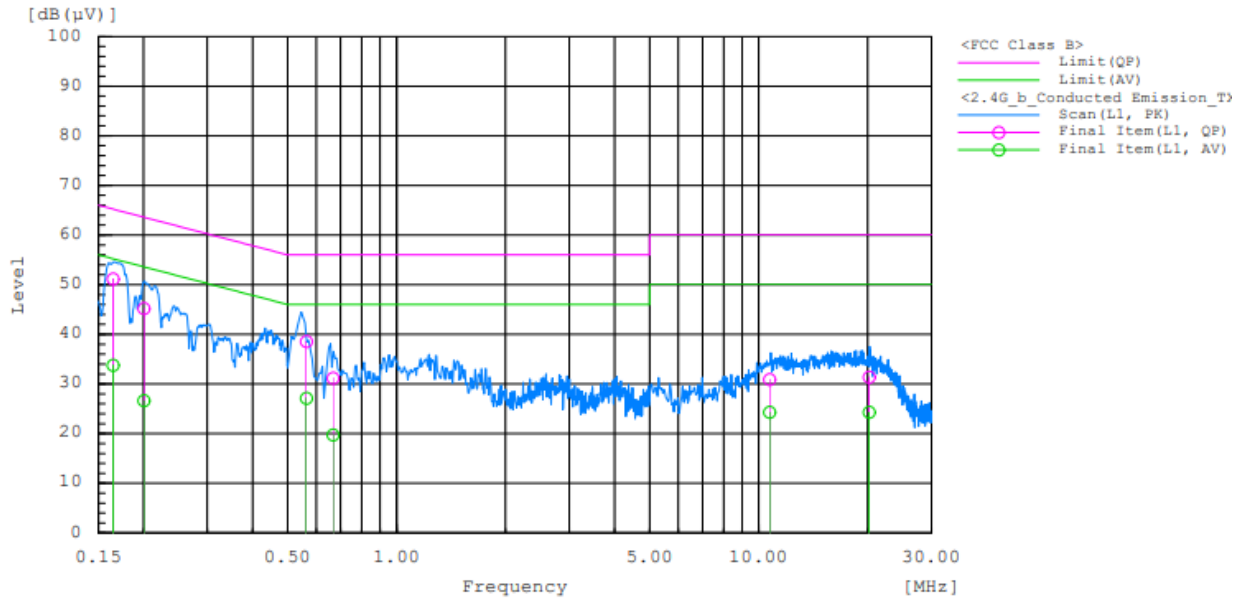
Frequency (MHz)	Line	Reading (dBμV)		Corr. ¹⁾ (dB)	Level (dBμV)		Limit (dBμV)		Margin (dB)	
		QP	CAV		QP	CAV	QP	CAV	QP	CAV
0.162	N	40.3	22.6	9.7	50.0	32.3	65.4	55.4	15.4	23.1
0.206	N	36.4	20.5	9.7	46.1	30.2	63.4	53.4	17.3	23.2
0.566	N	31.1	24.4	9.6	40.7	34.0	56	46	15.3	12.0
0.677	N	24.4	16.4	9.6	34.0	26.0	56	46	22.0	20.0
10.730	N	22.7	17.5	10.0	32.7	27.5	60	50	27.3	22.5
13.590	N	22.0	17.1	10.1	32.1	27.2	60	50	27.9	22.8

Note(s) :

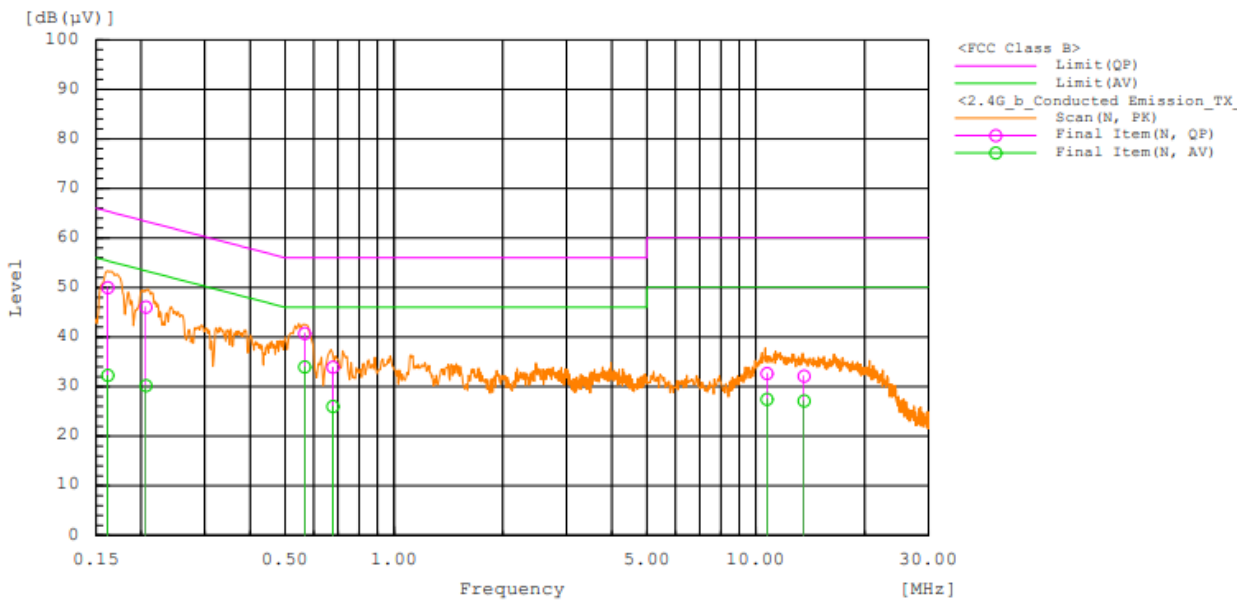
1. Quasi-peak(Final Result) = Reading Value + Correction Factor

■ TEST PLOTS

AC Line Conducted Emission (L1)



AC Line Conducted Emission (N)



10. LIST OF TEST EQUIPMENT

No.	Instrument	Model No.	Calibration Due (mm/dd/yy)	Manufacture	Serial No.
☒	Signal Analyzer (1 Hz ~ 44 GHz)	ESW44	10/25/2022	Rohde & Schwarz	102015
☒	Signal Analyzer (10 Hz ~ 40.0 GHz)	FSV40	02/03/2022	Rohde & Schwarz	101424
☒	Signal Analyzer (3 Hz ~ 50 GHz)	N9030A	06/07/2022	Keysight	MY53311083
☒	Attenuator (10 dB, DC ~ 26.5 GHz)	CFAD261002	01/07/2022	CERNEX	-
☒	Loop Antenna (0.009 ~ 30 MHz)	AL-130R	04/16/2023	Com-Power	121082
☒	BI-LOG Antenna (30 MHz ~ 6 GHz)	JB6	10/26/2022	Sunol	A071116
☒	LNA (30 MHz ~ 1GHz)	8447D	07/26/2022	HP	2443A03587
☒	Horn Antenna (1 GHz ~ 18 GHz)	DRH-118	10/21/2022	Sunol	A070516
☒	LNA (1 GHz ~ 18 GHz)	PAM-118A	07/06/2022	Com-Power	18040074
☒	Horn Antenna (18 GHz ~ 40 GHz)	DRH-1840	02/16/2022	Sunol	17121
☒	LNA (18 GHz ~ 40 GHz)	CBL184050-45-01	02/04/2022	CERNEX, Inc.	27973
☐	High Pass Filter	WHK10-2520-3000-18000-40EF	01/06/2022	Wainwright	9
☒	High Pass Filter	WHKX8-6090-7000-18000-40SS	01/06/2022	Wainwright	23
☒	EMI Test Receiver	ESR3	12/17/2021	Rohde & Schwarz	102363
☒	LISN	ENV216	01/16/2022	Rohde & Schwarz	101349

Note(s) :

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

APPENDIX A. TEST SETUP PHOTOS

The setup photos are provided as a separate document.

APPENDIX B. PHOTOGRAPHS OF EUT

B.1. EXTERNAL PHOTOS

The external photos are provided as a separate document.

B.2. INTERNAL PHOTOS

The internal photos are provided as a separate document.

END OF TEST REPORT