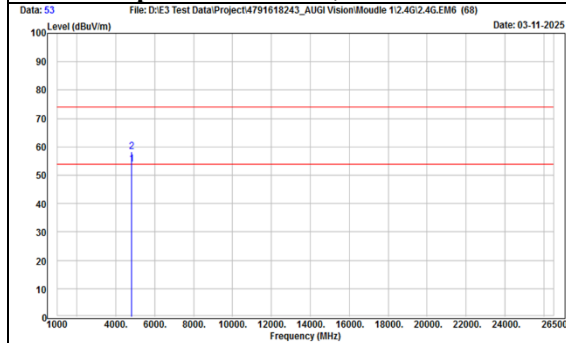
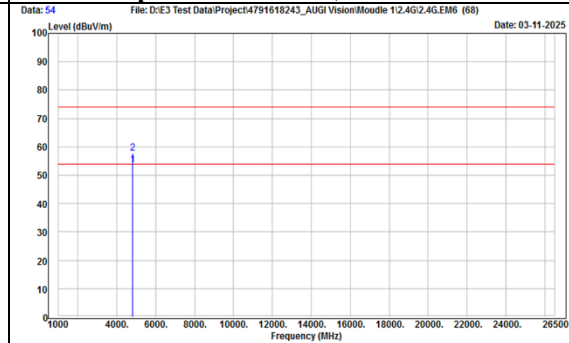
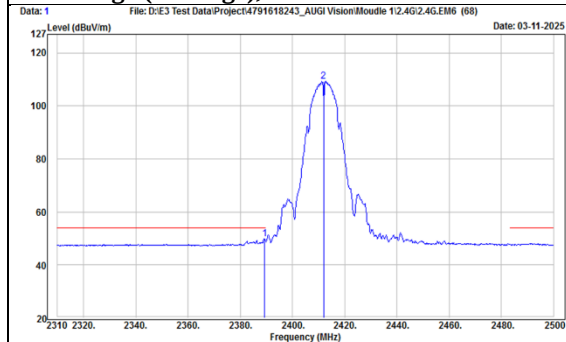
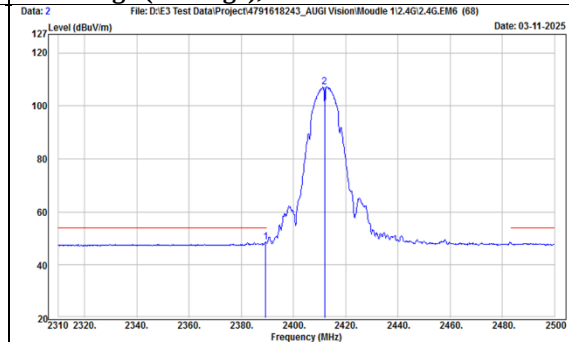
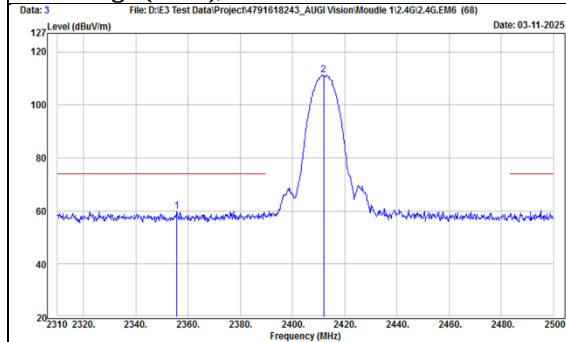
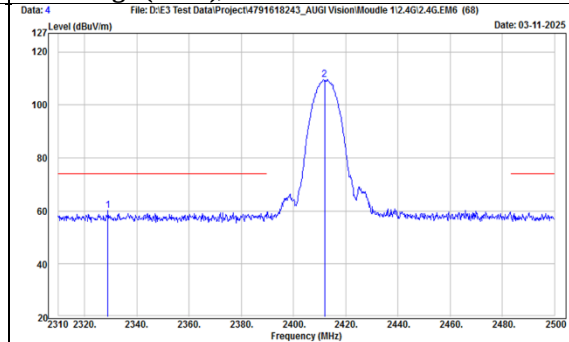


TX, 802.11b (Ch 1)
Radiated Spurious Emission, Horizontal

TX, 802.11b (Ch 1)
Radiated Spurious Emission, Vertical

TX, 802.11b (Ch 1)
Band Edge (Average), Horizontal

TX, 802.11b (Ch 1)
Band Edge (Average), Vertical

TX, 802.11b (Ch 1)
Band Edge (Peak), Horizontal

TX, 802.11b (Ch 1)
Band Edge (Peak), Vertical


Mode	802.11b	Channel	6
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		2315.32	42.4	19.33	61.73	74	-12.27	PK
		2389.61	28.91	19.17	48.08	54	-5.92	AVG
	@	2437	93.16	19.18	112.34	N/A	N/A	PK
	@	2437	90.6	19.18	109.78	N/A	N/A	AVG
		2492.78	29.63	19.19	48.82	54	-5.18	AVG
		2494.49	40.79	19.19	59.98	74	-14.02	PK
		4874	53.8	2.66	56.46	74	-17.54	PK
		4874	50.67	2.66	53.33	54	-0.67	AVG
Vertical		2354.08	28.41	19.38	47.79	54	-6.21	AVG
		2355.79	40.92	19.37	60.29	74	-13.71	PK
	@	2437	91.26	19.18	110.44	N/A	N/A	PK
	@	2437	88.97	19.18	108.15	N/A	N/A	AVG
		2486.32	40.09	19.19	59.28	74	-14.72	PK
		2492.97	29.92	19.19	49.11	54	-4.89	AVG
		4874	53.92	2.66	56.58	74	-17.42	PK
		4874	50.59	2.66	53.25	54	-0.75	AVG

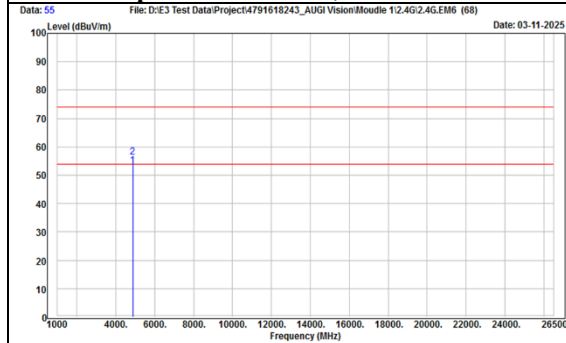
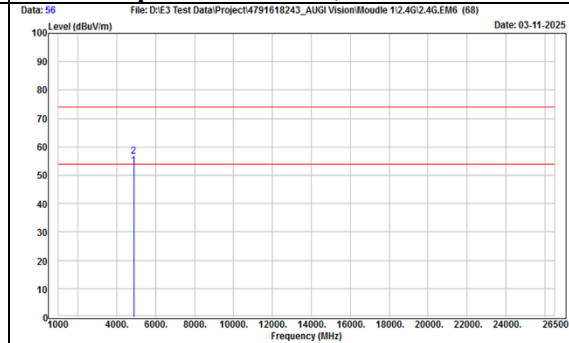
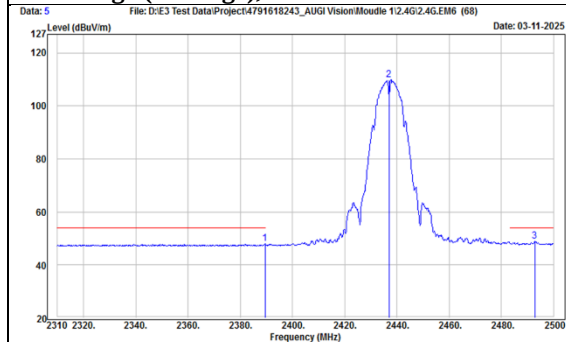
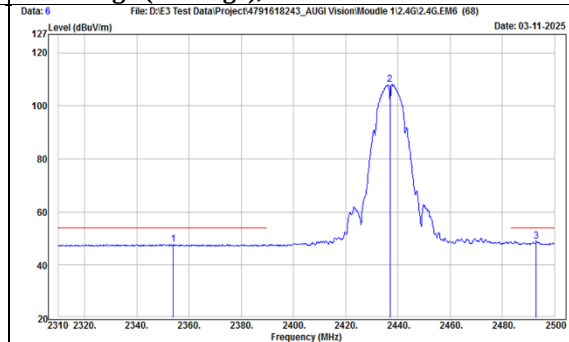
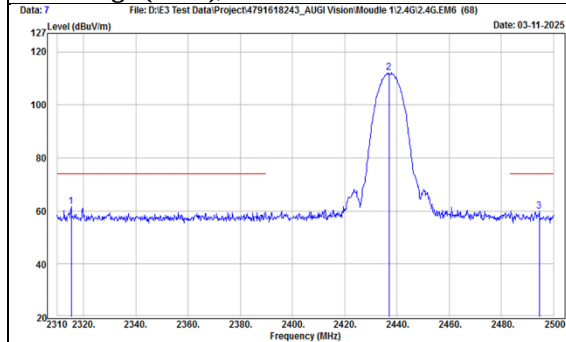
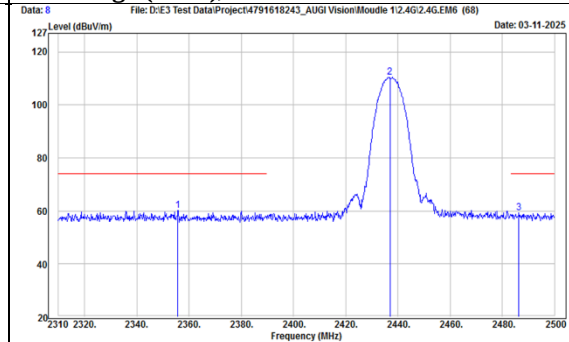
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Doc No: Form-ULID-004737 (DCS:17-EM-F0876) / 6.1

TX, 802.11b (Ch 6)
Radiated Spurious Emission, Horizontal

TX, 802.11b (Ch 6)
Radiated Spurious Emission, Vertical

TX, 802.11b (Ch 6)
Band Edge (Average), Horizontal

TX, 802.11b (Ch 6)
Band Edge (Average), Vertical

TX, 802.11b (Ch 6)
Band Edge (Peak), Horizontal

TX, 802.11b (Ch 6)
Band Edge (Peak), Vertical


Mode	802.11b	Channel	11
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	2462	92.95	19.19	112.14	N/A	N/A	PK
	@	2462	90.68	19.19	109.87	N/A	N/A	AVG
		2487.46	42.08	19.2	61.28	74	-12.72	PK
		2487.65	31	19.19	50.19	54	-3.81	AVG
		4924	51.9	2.72	54.62	74	-19.38	PK
		4924	50.51	2.72	53.23	54	-0.77	AVG
Vertical	@	2462	91.45	19.19	110.64	N/A	N/A	PK
	@	2462	89.09	19.19	108.28	N/A	N/A	AVG
		2487.84	31.24	19.19	50.43	54	-3.57	AVG
		2488.03	40.95	19.19	60.14	74	-13.86	PK
		4924	53.11	2.72	55.83	74	-18.17	PK
		4924	50.43	2.72	53.15	54	-0.85	AVG

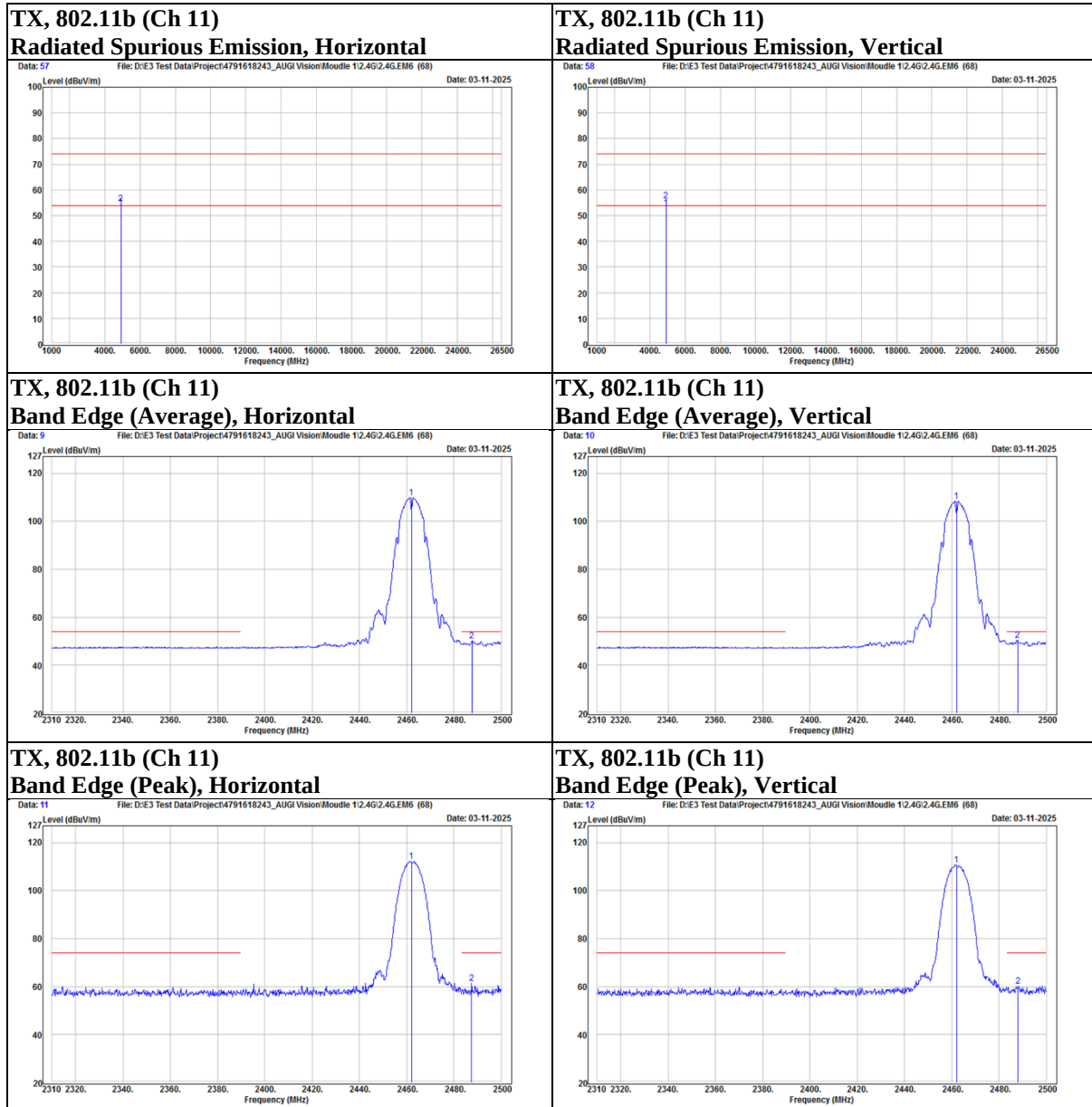
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Mode	802.11g	Channel	1
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		2385.05	44.16	19.2	63.36	74	-10.64	PK
		2389.8	33.04	19.17	52.21	54	-1.79	AVG
	@	2412	90.97	19.14	110.11	N/A	N/A	PK
	@	2412	84.02	19.14	103.16	N/A	N/A	AVG
	*	4824	48.47	2.63	51.1	74	-22.9	PK
Vertical		2389.04	44.12	19.18	63.3	74	-10.7	PK
		2389.99	31.94	19.17	51.11	54	-2.89	AVG
	@	2412	90.38	19.14	109.52	N/A	N/A	PK
	@	2412	81.98	19.14	101.12	N/A	N/A	AVG
		4824	52.42	2.63	55.05	74	-18.95	PK
		4824	38.71	2.63	41.34	54	-12.66	AVG

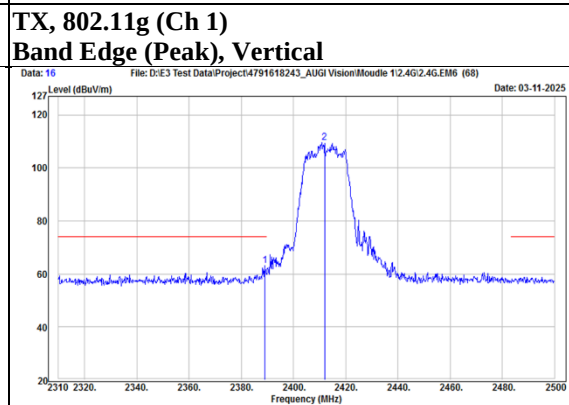
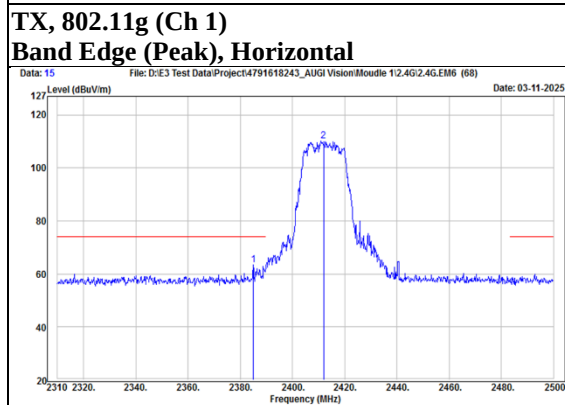
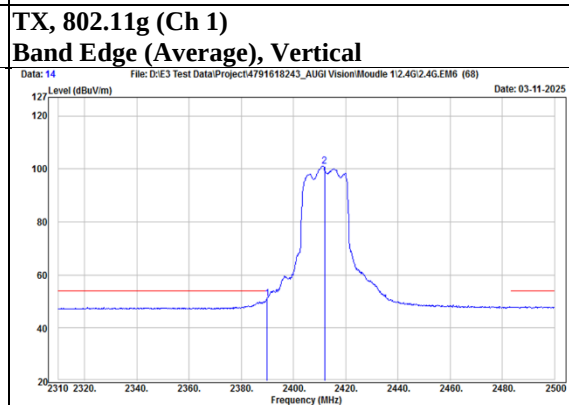
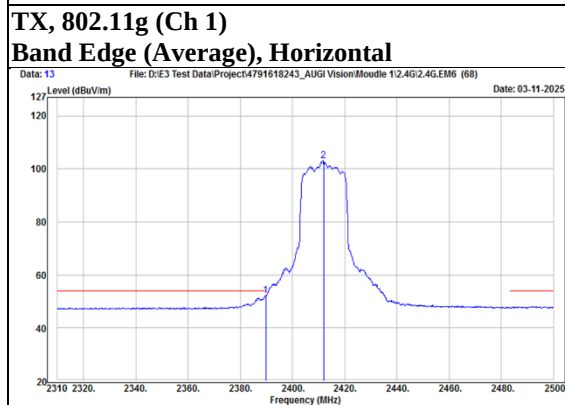
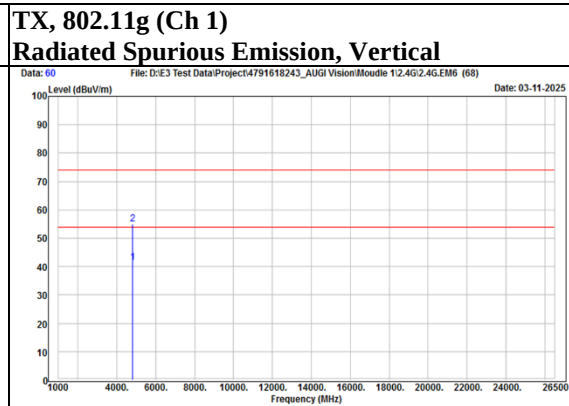
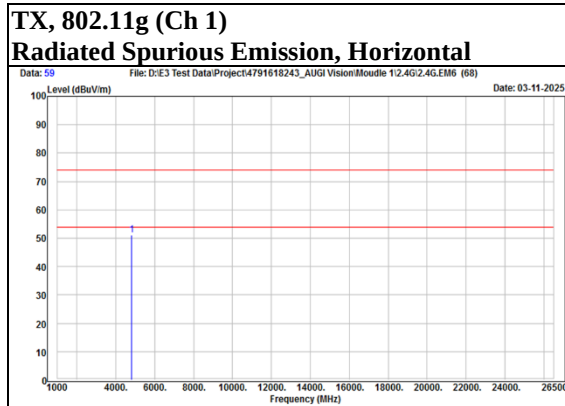
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Mode	802.11g	Channel	6
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		2334.13	40.2	19.37	59.57	74	-14.43	PK
		2387.9	28.5	19.19	47.69	54	-6.31	AVG
	@	2437	90.81	19.18	109.99	N/A	N/A	PK
	@	2437	82.49	19.18	101.67	N/A	N/A	AVG
		2494.49	40.83	19.19	60.02	74	-13.98	PK
		2496.77	29.02	19.19	48.21	54	-5.79	AVG
	*	4874	46.23	2.66	48.89	74	-25.11	PK
Vertical		2350.47	28.22	19.4	47.62	54	-6.38	AVG
		2377.64	41.72	19.24	60.96	74	-13.04	PK
	@	2437	90.4	19.18	109.58	N/A	N/A	PK
	@	2437	82.3	19.18	101.48	N/A	N/A	AVG
		2485.75	40.61	19.19	59.8	74	-14.2	PK
		2488.03	29.07	19.19	48.26	54	-5.74	AVG
	*	4874	49.45	2.66	52.11	74	-21.89	PK

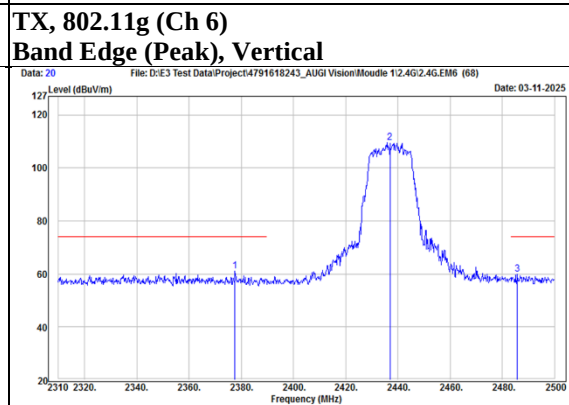
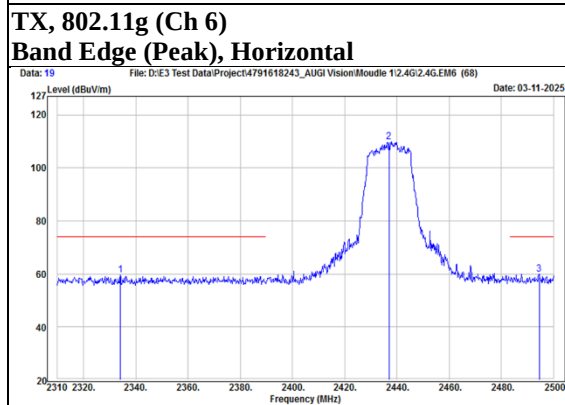
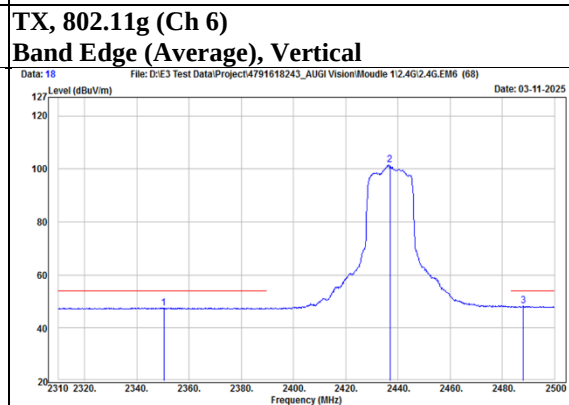
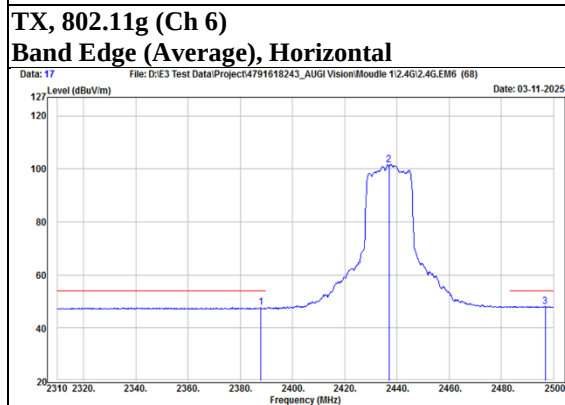
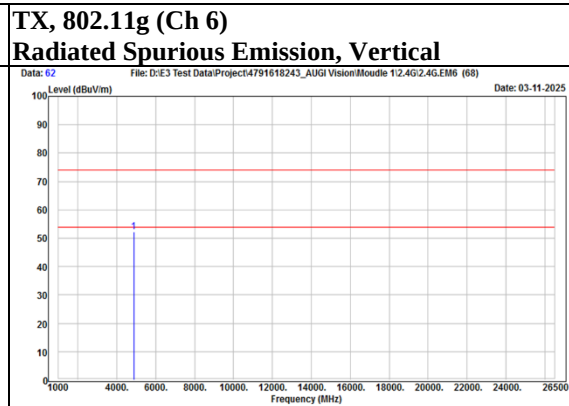
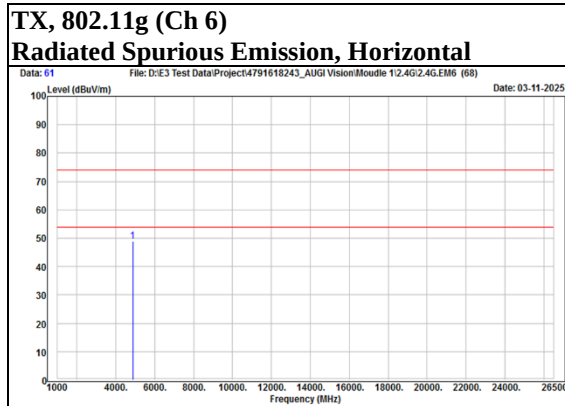
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Mode	802.11g	Channel	11
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	2462	90.17	19.19	109.36	N/A	N/A	PK
	@	2462	82.7	19.19	101.89	N/A	N/A	AVG
		2483.66	33.13	19.19	52.32	54	-1.68	AVG
		2483.85	48.17	19.19	67.36	74	-6.64	PK
	*	4924	45.52	2.72	48.24	74	-25.76	PK
Vertical	@	2462	90.46	19.19	109.65	N/A	N/A	PK
	@	2462	81.71	19.19	100.9	N/A	N/A	AVG
		2483.66	32.83	19.19	52.02	54	-1.98	AVG
		2485.18	44.12	19.19	63.31	74	-10.69	PK
	*	4924	46.07	2.72	48.79	74	-25.21	PK

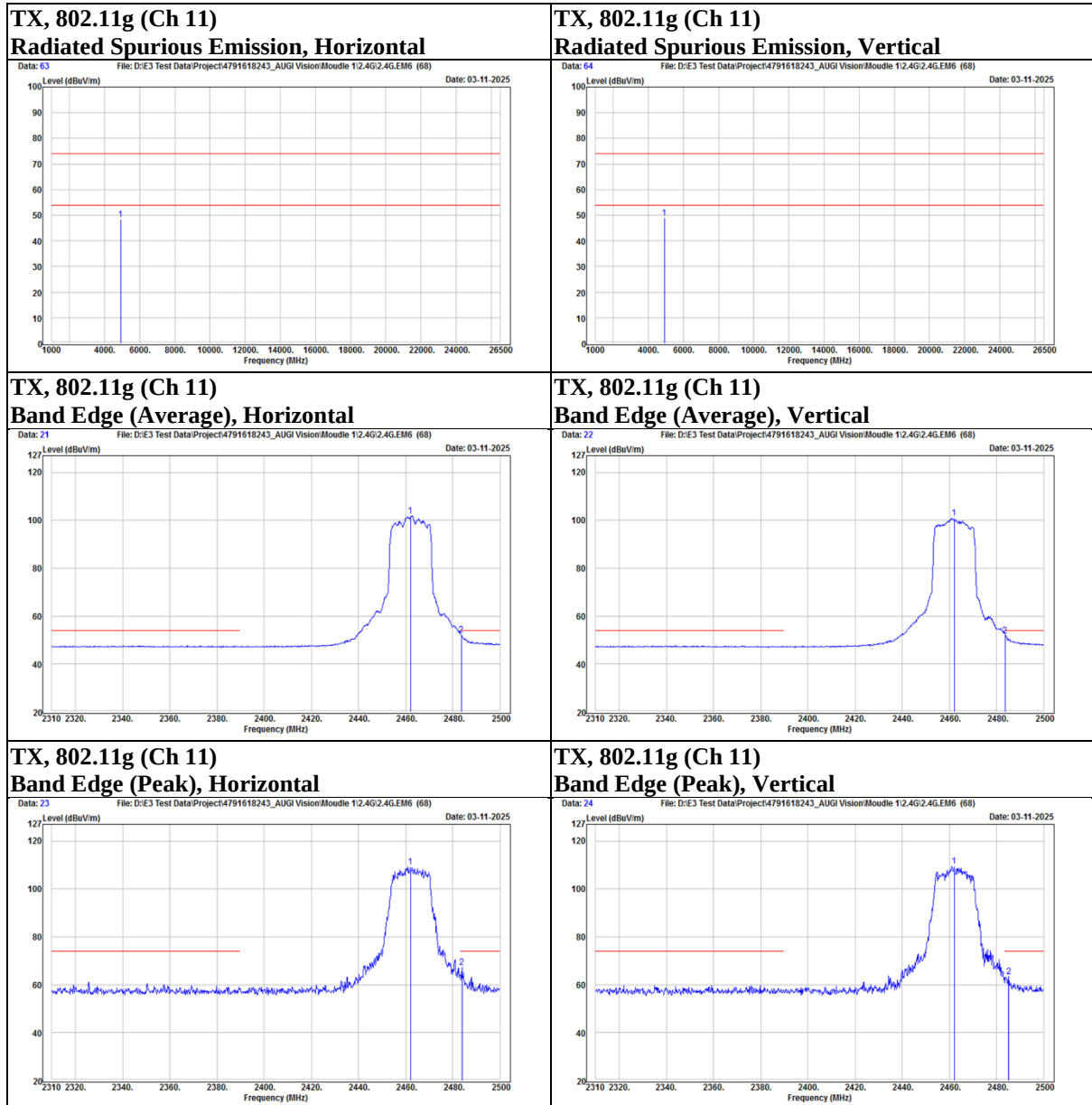
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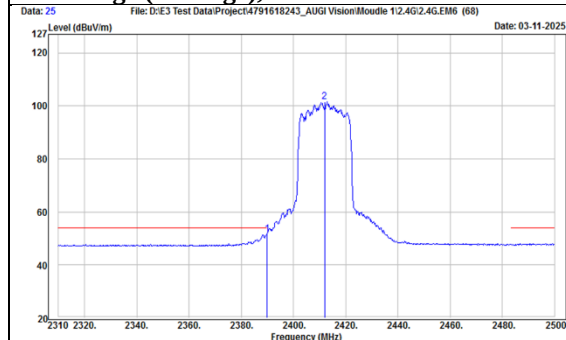
Doc No: Form-ULID-004737 (DCS:17-EM-F0876) / 6.1



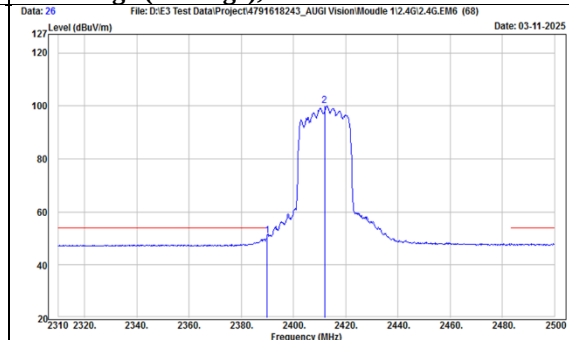
Mode	802.11ax(HE20)	Channel	1
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		2388.28	44.94	19.18	64.12	74	-9.88	PK
		2389.99	32.6	19.17	51.77	54	-2.23	AVG
	@	2412	93.61	19.14	112.75	N/A	N/A	PK
	@	2412	82.41	19.14	101.55	N/A	N/A	AVG
Vertical		2389.99	43.24	19.17	62.41	74	-11.59	PK
		2389.99	31.94	19.17	51.11	54	-2.89	AVG
	@	2412	89.58	19.14	108.72	N/A	N/A	PK
	@	2412	80.82	19.14	99.96	N/A	N/A	AVG

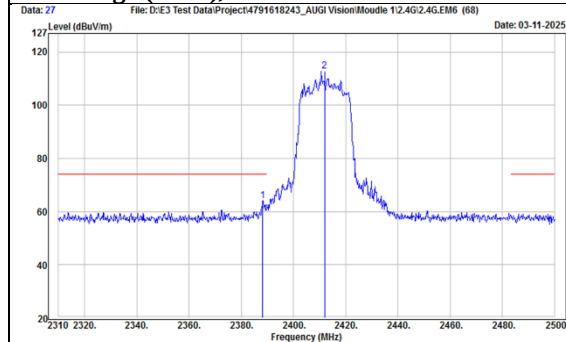
TX, 802.11ax(HE20) (Ch 1)
Band Edge (Average), Horizontal



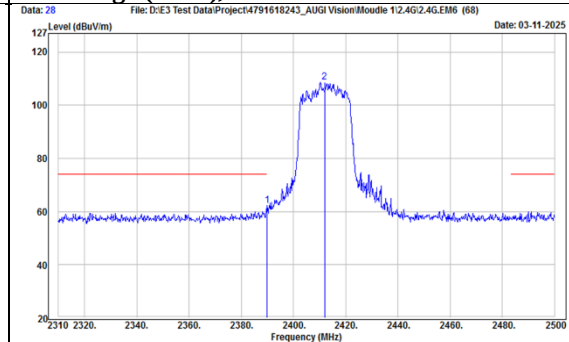
TX, 802.11ax(HE20) (Ch 1)
Band Edge (Average), Vertical



TX, 802.11ax(HE20) (Ch 1)
Band Edge (Peak), Horizontal



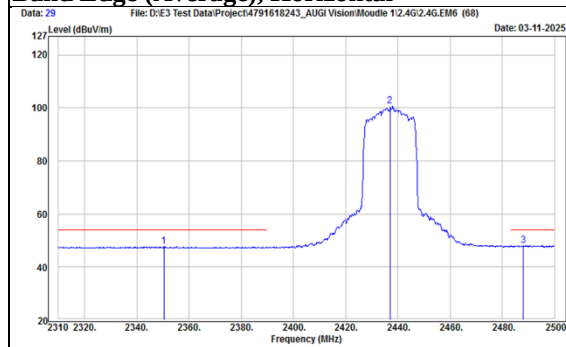
TX, 802.11ax(HE20) (Ch 1)
Band Edge (Peak), Vertical



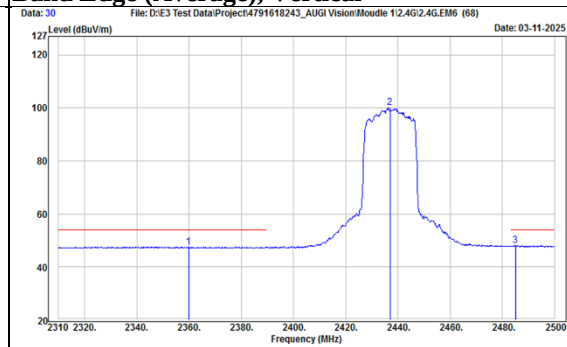
Mode	802.11ax(HE20)	Channel	6
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		2336.22	41.06	19.37	60.43	74	-13.57	PK
		2350.47	28.26	19.4	47.66	54	-6.34	AVG
	@	2437	90.72	19.18	109.9	N/A	N/A	PK
	@	2437	81.39	19.18	100.57	N/A	N/A	AVG
		2488.03	28.88	19.19	48.07	54	-5.93	AVG
		2493.54	41.25	19.19	60.44	74	-13.56	PK
Vertical		2355.79	40.89	19.37	60.26	74	-13.74	PK
		2359.97	28.26	19.35	47.61	54	-6.39	AVG
	@	2437	89.43	19.18	108.61	N/A	N/A	PK
	@	2437	80.84	19.18	100.02	N/A	N/A	AVG
		2484.99	28.94	19.19	48.13	54	-5.87	AVG
		2486.32	41.25	19.19	60.44	74	-13.56	PK

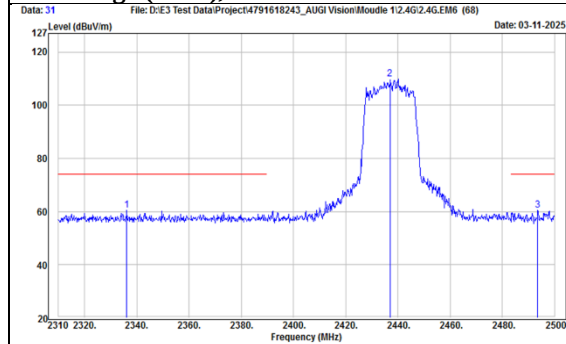
TX, 802.11ax(HE20) (Ch 6)
Band Edge (Average), Horizontal



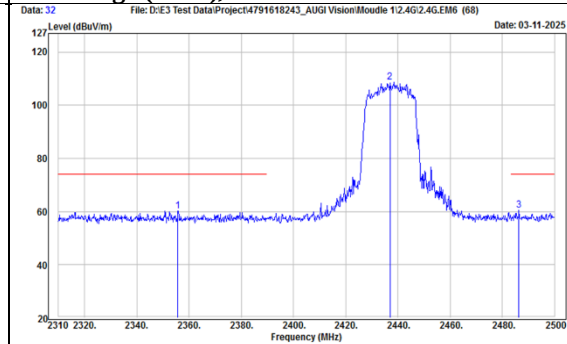
TX, 802.11ax(HE20) (Ch 6)
Band Edge (Average), Vertical



TX, 802.11ax(HE20) (Ch 6)
Band Edge (Peak), Horizontal



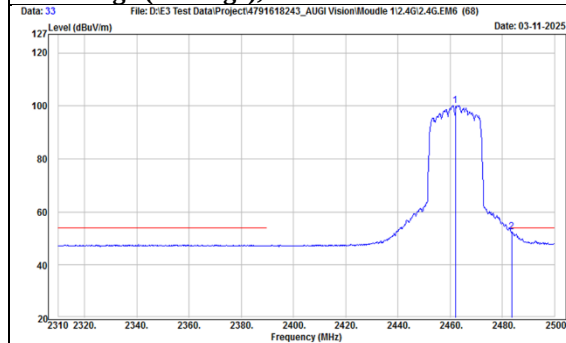
TX, 802.11ax(HE20) (Ch 6)
Band Edge (Peak), Vertical



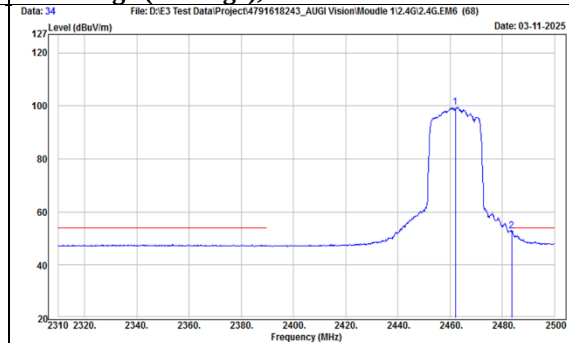
Mode	802.11ax(HE20)	Channel	11
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	2462	91.74	19.19	110.93	N/A	N/A	PK
	@	2462	80.91	19.19	100.1	N/A	N/A	AVG
		2483.66	33.35	19.19	52.54	54	-1.46	AVG
		2484.42	44.47	19.19	63.66	74	-10.34	PK
Vertical	@	2462	90.44	19.19	109.63	N/A	N/A	PK
	@	2462	80.43	19.19	99.62	N/A	N/A	AVG
		2483.66	33.58	19.19	52.77	54	-1.23	AVG
		2484.61	45.48	19.19	64.67	74	-9.33	PK

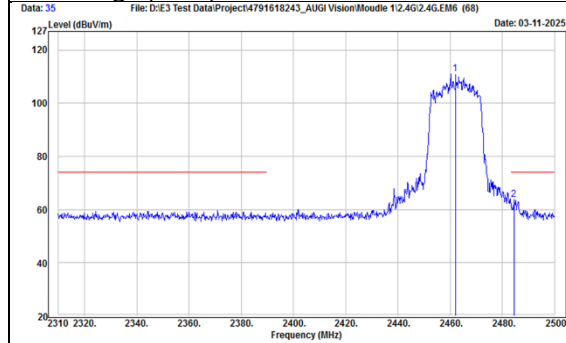
TX, 802.11ax(HE20) (Ch 11)
Band Edge (Average), Horizontal



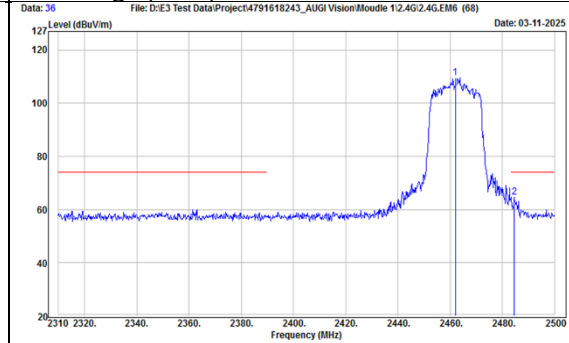
TX, 802.11ax(HE20) (Ch 11)
Band Edge (Average), Vertical



TX, 802.11ax(HE20) (Ch 11)
Band Edge (Peak), Horizontal



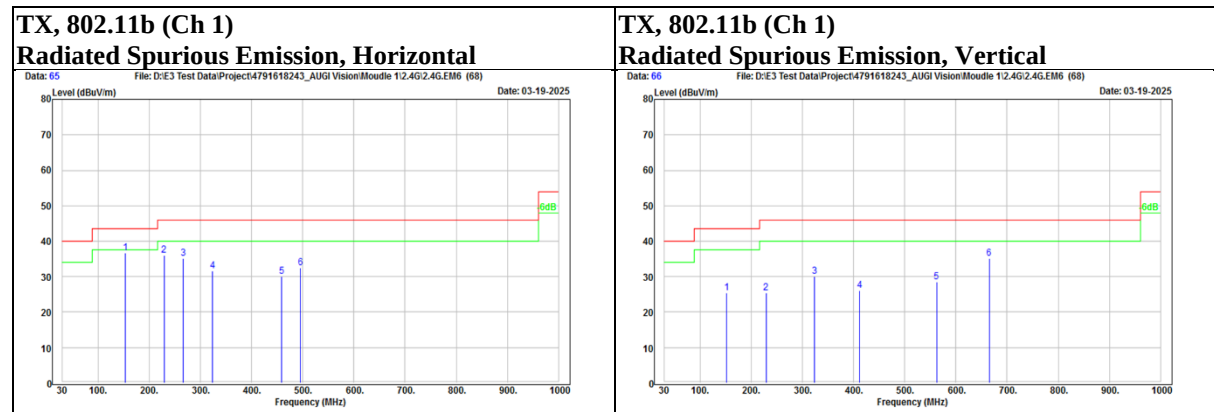
TX, 802.11ax(HE20) (Ch 11)
Band Edge (Peak), Vertical



Below 1 GHz

Mode	802.11b	Channel	1
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		153.19	48.31	-11.69	36.62	43.5	-6.88	PK
		228.85	50.11	-14.11	36	46	-10	PK
		266.68	46.84	-11.78	35.06	46	-10.94	PK
		323.91	41.27	-9.65	31.62	46	-14.38	PK
		458.74	35.67	-5.66	30.01	46	-15.99	PK
		495.6	37.52	-5.06	32.46	46	-13.54	PK
Vertical		152.22	36.98	-11.64	25.34	43.5	-18.16	PK
		228.85	39.51	-14.11	25.4	46	-20.6	PK
		323.91	39.67	-9.65	30.02	46	-15.98	PK
		412.18	33.29	-7.29	26	46	-20	PK
		562.53	32.23	-3.72	28.51	46	-17.49	PK
		665.35	36.24	-1.21	35.03	46	-10.97	PK



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9 kHz ~ 30 MHz Data:

For 9 kHz to 30 MHz radiated emission have performed all modes of operation were investigated. The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

No non-compliance noted:

KDB 414788 D01 OATS and Chamber Correlation Justification

- Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

- OATs and chamber correlation testing had been performed and chamber measured test results is the worst case test result.

Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30m open area test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

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9.6. AC Power Line Conducted Emission

Requirements

Frequency (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

Test Procedures

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.
2. All modes of operation were investigated (includes all external accessories) and the worst-case emissions are reported, the other emission levels were low against the limit.
3. Test data of Result value (dB μ V) = Reading value (dB μ V) + Correction Factor (dB).
4. Test data of Margin(dB) = Result value (dB μ V) - Limit value (dB μ V).
5. Test data of Correction Factor (dB) = Insertion loss(dB) + Cable loss(dB).

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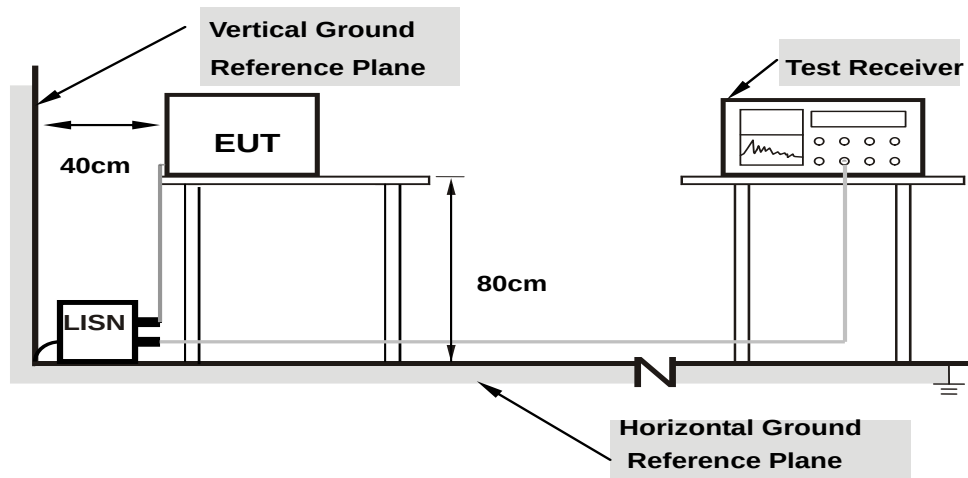
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Test Setup

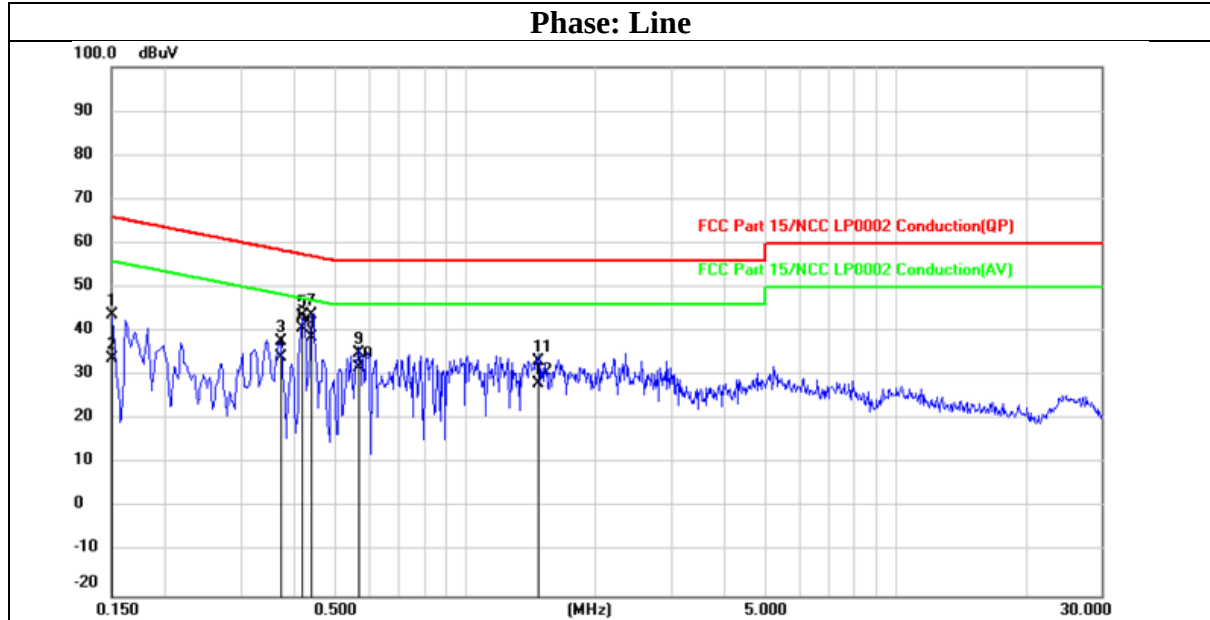


Note: 1.Support units were connected to second LISN.

For the actual test configuration, please refer to the Setup Configurations.

Test Data

Mode	11g_TX2462	Channel	11
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1501	33.85	9.96	43.81	65.99	-22.18	QP
2	0.1501	23.86	9.96	33.82	55.99	-22.17	AVG
3	0.3717	27.81	9.96	37.77	58.46	-20.69	QP
4	0.3717	24.16	9.96	34.12	48.46	-14.34	AVG
5	0.4187	33.48	9.96	43.44	57.47	-14.03	QP
6	0.4187	30.94	9.96	40.90	47.47	-6.57	AVG
7	0.4376	33.71	9.96	43.67	57.11	-13.44	QP
8	0.4376	28.82	9.96	38.78	47.11	-8.33	AVG
9	0.5648	25.14	9.98	35.12	56.00	-20.88	QP
10	0.5648	21.64	9.98	31.62	46.00	-14.38	AVG
11	1.4737	23.29	10.01	33.30	56.00	-22.70	QP
12	1.4737	18.26	10.01	28.27	46.00	-17.73	AVG

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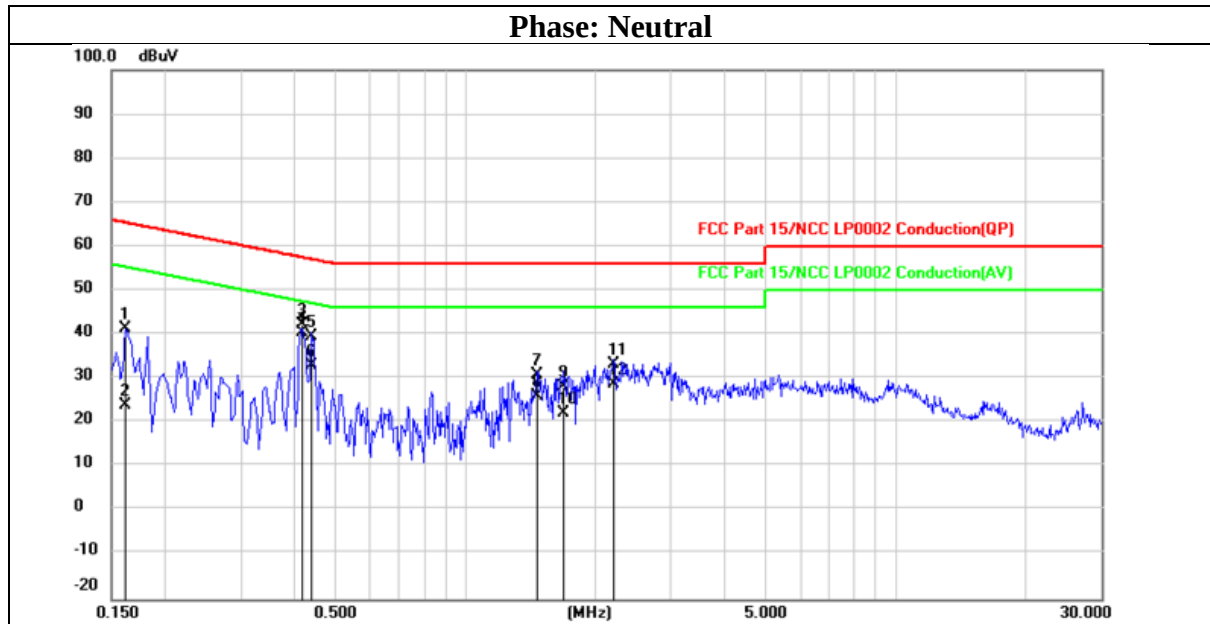
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Mode	11g_TX2462	Channel	11
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1614	31.46	9.94	41.40	65.39	-23.99	QP
2	0.1614	14.01	9.94	23.95	55.39	-31.44	AVG
3	0.4173	32.41	9.94	42.35	57.50	-15.15	QP
4	0.4173	30.49	9.94	40.43	47.50	-7.07	AVG
5	0.4368	29.50	9.94	39.44	57.12	-17.68	QP
6	0.4368	23.00	9.94	32.94	47.12	-14.18	AVG
7	1.4714	20.83	9.98	30.81	56.00	-25.19	QP
8	1.4714	16.06	9.98	26.04	46.00	-19.96	AVG
9	1.6980	18.15	9.99	28.14	56.00	-27.86	QP
10	1.6980	12.16	9.99	22.15	46.00	-23.85	AVG
11	2.2069	23.27	10.00	33.27	56.00	-22.73	QP
12	2.2069	18.87	10.00	28.87	46.00	-17.13	AVG

END OF REPORT

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