Audix Technology Corp.
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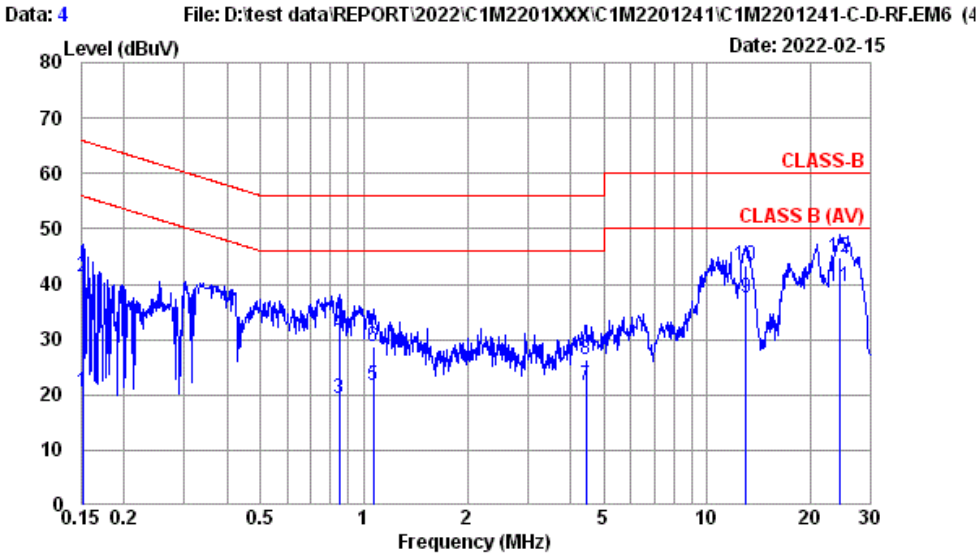
A.1 CONDUCTED EMISSION

Test Date	2022/02/15	Temp./Hum.	23℃/60%
Test Voltage	AC 120V 60Hz (Via AC Adapter)	Tested By	Chucky Chiu
Test SKU	SKU #1 (with INPAQ Antenna)	Test Model	17Z90Q



Site No. : No.8 Shielded Room
Instrument 1 : Receiver ESR3(774)
Instrument 2 : ENV432 (567)(A)|CE-08|ESH3-Z2 (354)
Limit : CLASS-B
Environment : 23*C / 60%
EUT Model : 17Z90Q
Test Mode : Operating INPAQ

Data No. : 4
Phase : NEUTRAL
Engineer : Chucky Chiu
Test Rating : 120Vac/60Hz

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.152	10.41	0.03	9.85	0.24	20.53	55.91	35.38	Average
2	0.152	10.41	0.03	9.85	21.14	41.43	65.91	24.48	QP
3	0.848	10.38	0.04	9.85	-0.84	19.43	46.00	26.57	Average
4	0.848	10.38	0.04	9.85	10.76	31.03	56.00	24.97	QP
5	1.065	10.38	0.04	9.85	1.43	21.70	46.00	24.30	Average
6	1.065	10.38	0.04	9.85	8.31	28.58	56.00	27.42	QP
7	4.430	10.47	0.09	9.86	1.21	21.63	46.00	24.37	Average
8	4.430	10.47	0.09	9.86	5.89	26.31	56.00	29.69	QP
9	12.988	10.84	0.16	9.90	16.72	37.62	50.00	12.38	Average
10	12.988	10.84	0.16	9.90	22.44	43.34	60.00	16.66	QP
11	24.271	11.23	0.22	9.97	18.06	39.48	50.00	10.52	Average
12	24.271	11.23	0.22	9.97	23.46	44.88	60.00	15.12	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.
2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

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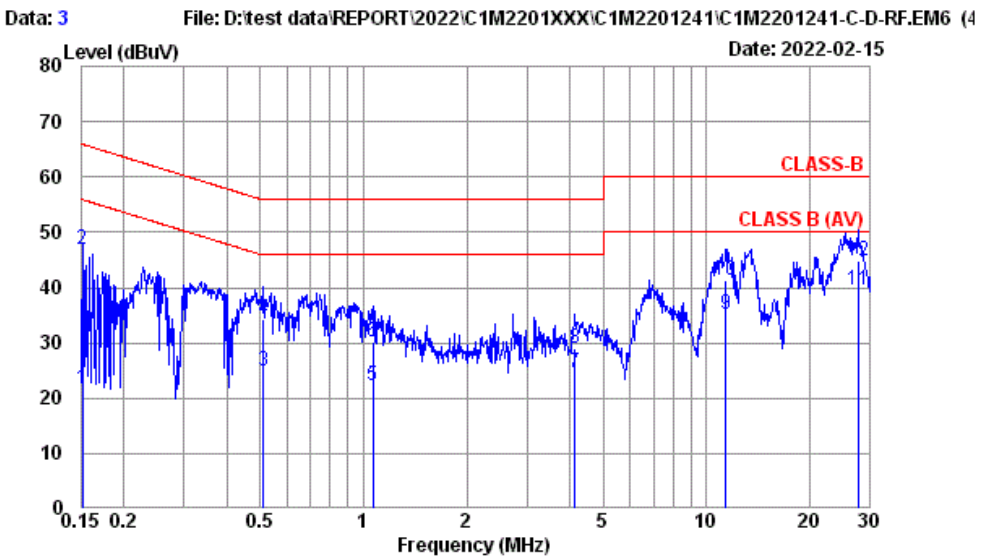
Test Date	2022/02/15	Temp./Hum.	23℃/60%
Test Voltage	AC 120V 60Hz (Via AC Adapter)	Tested By	Chucky Chiu
Test SKU	SKU #1 (with INPAQ Antenna)	Test Model	17Z90Q



Site No. : No.8 Shielded Room
Instrument 1 : Receiver ESR3(774)
Instrument 2 : ENV432 (567)(A)|CE-08|ESH3-Z2 (354)
Limit : CLASS-B
Environment : 23*C / 60%
EUT Model : 17Z90Q
Test Mode : Operating
INPAQ

Data No. : 3
Phase : LINE
Engineer : Chucky Chiu
Test Rating : 120Vac/60Hz

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.152	10.40	0.03	9.85	1.51	21.79	55.91	34.12	Average
2	0.152	10.40	0.03	9.85	26.57	46.85	65.91	19.06	QP
3	0.510	10.37	0.03	9.85	4.54	24.79	46.00	21.21	Average
4	0.510	10.37	0.03	9.85	14.18	34.43	56.00	21.57	QP
5	1.065	10.38	0.04	9.85	1.95	22.22	46.00	23.78	Average
6	1.065	10.38	0.04	9.85	9.87	30.14	56.00	25.86	QP
7	4.136	10.42	0.09	9.86	4.26	24.63	46.00	21.37	Average
8	4.136	10.42	0.09	9.86	8.55	28.92	56.00	27.08	QP
9	11.377	10.60	0.15	9.90	14.56	35.21	50.00	14.79	Average
10	11.377	10.60	0.15	9.90	20.74	41.39	60.00	18.61	QP
11	27.708	10.85	0.23	9.99	18.48	39.55	50.00	10.45	Average
12	27.708	10.85	0.23	9.99	23.75	44.82	60.00	15.18	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.
2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

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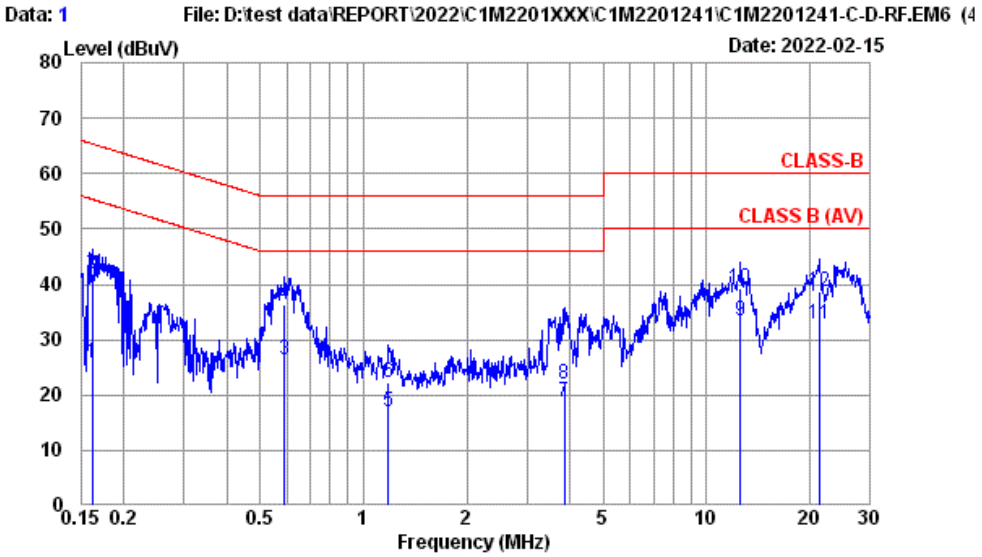
Test Date	2022/02/15	Temp./Hum.	23℃/60%
Test Voltage	AC 120V 60Hz (Via AC Adapter)	Tested By	Chucky Chiu
Test SKU	SKU #2 (with LUXSHARE-ICT Antenna)	Test Model	17Z90Q



Site No. : No.8 Shielded Room
Instrument 1 : Receiver ESR3(774)
Instrument 2 : ENV432 (567)(A)|CE-08|ESH3-Z2 (354)
Limit : CLASS-B
Environment : 23*C / 60%
EUT Model : 17Z90Q
Test Mode : Operating
Luxshare

Data No. : 1
Phase : NEUTRAL
Engineer : Chucky Chiu
Test Rating : 120Vac/60Hz

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.162	10.40	0.03	9.85	5.63	25.91	55.38	29.47	Average
2	0.162	10.40	0.03	9.85	21.66	41.94	65.38	23.44	QP
3	0.589	10.37	0.03	9.85	6.07	26.32	46.00	19.68	Average
4	0.589	10.37	0.03	9.85	16.16	36.41	56.00	19.59	QP
5	1.184	10.39	0.04	9.85	-3.41	16.87	46.00	29.13	Average
6	1.184	10.39	0.04	9.85	1.91	22.19	56.00	33.81	QP
7	3.860	10.45	0.09	9.86	-1.61	18.79	46.00	27.21	Average
8	3.860	10.45	0.09	9.86	1.43	21.83	56.00	34.17	QP
9	12.582	10.82	0.15	9.90	12.66	33.53	50.00	16.47	Average
10	12.582	10.82	0.15	9.90	18.41	39.28	60.00	20.72	QP
11	21.260	11.14	0.20	9.95	11.51	32.80	50.00	17.20	Average
12	21.260	11.14	0.20	9.95	17.25	38.54	60.00	21.46	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.
2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

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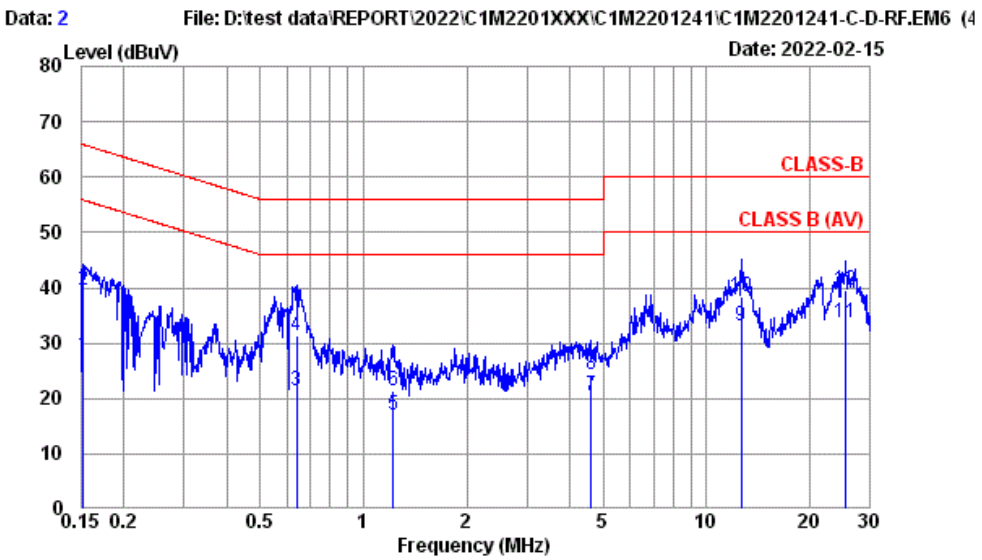
Test Date	2022/02/15	Temp./Hum.	23℃/60%
Test Voltage	AC 120V 60Hz (Via AC Adapter)	Tested By	Chucky Chiu
Test SKU	SKU #2 (with LUXSHARE-ICT Antenna)	Test Model	17Z90Q



Site No. : No.8 Shielded Room
Instrument 1 : Receiver ESR3(774)
Instrument 2 : ENV432 (567)(A)|CE-08|ESH3-Z2 (354)
Limit : CLASS-B
Environment : 23*C / 60%
EUT Model : 17Z90Q
Test Mode : Operating
Luxshare

Data No. : 2
Phase : LINE
Engineer : Chucky Chiu
Test Rating : 120Vac/60Hz

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.152	10.40	0.03	9.85	7.69	27.97	55.87	27.90	Average
2	0.152	10.40	0.03	9.85	19.28	39.56	65.87	26.31	QP
3	0.637	10.38	0.04	9.85	1.18	21.45	46.00	24.55	Average
4	0.637	10.38	0.04	9.85	11.23	31.50	56.00	24.50	QP
5	1.223	10.39	0.04	9.85	-3.26	17.02	46.00	28.98	Average
6	1.223	10.39	0.04	9.85	1.01	21.29	56.00	34.71	QP
7	4.598	10.44	0.10	9.87	0.13	20.54	46.00	25.46	Average
8	4.598	10.44	0.10	9.87	3.94	24.35	56.00	31.65	QP
9	12.649	10.63	0.16	9.90	12.51	33.20	50.00	16.80	Average
10	12.649	10.63	0.16	9.90	17.77	38.46	60.00	21.54	QP
11	25.456	10.83	0.22	9.97	12.66	33.68	50.00	16.32	Average
12	25.456	10.83	0.22	9.97	18.55	39.57	60.00	20.43	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.
2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

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A.2 RADIATED EMISSION

Test Date	2022/01/17 ~ 02/14	Temp./Hum.	19 ~ 21℃/58 ~ 68%
Test Voltage	AC 120V 60Hz (Via AC Adapter)	Tested By	Kuper Hsu

A.2.1 Emissions within Restricted Frequency Bands

A.2.1.1 Frequency 9kHz~30MHz

The emissions (9kHz~30MHz) not reported for there is no emission be found.

A.2.1.2 Frequency Below 1GHz

- **Test SKU #1 (with INPAQ Antenna)**

Mode	GFSK	Frequency	TX 2441MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
30.970	23.26	1.20	32.43	42.06	34.09	40.00	5.91	Peak
152.220	16.17	2.88	32.28	45.55	32.32	43.50	11.18	Peak
423.820	21.83	5.77	32.23	48.15	43.52	46.00	2.48	Peak
677.960	24.68	7.17	32.13	37.25	36.97	46.00	9.03	Peak
888.450	26.26	8.37	31.53	38.15	41.25	46.00	4.75	Peak
963.140	26.83	8.78	30.89	29.50	34.22	54.00	19.78	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
30.970	23.26	1.20	32.43	43.75	35.78	40.00	4.22	Peak
125.060	17.71	2.58	32.31	45.53	33.51	43.50	9.99	Peak
423.820	21.83	5.77	32.23	45.82	41.19	46.00	4.81	Peak
480.080	22.81	6.27	32.22	40.36	37.22	46.00	8.78	Peak
847.710	26.12	8.12	31.71	36.12	38.65	46.00	7.35	Peak
960.230	26.80	8.76	30.89	29.94	34.61	54.00	19.39	Peak

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- **Test SKU #2 (with LUXSHARE-ICT Antenna)**

Mode	GFSK	Frequency	TX 2441MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
79.470	12.86	2.02	32.37	46.68	29.19	40.00	10.81	Peak
152.220	16.17	2.88	32.28	44.88	31.65	43.50	11.85	Peak
423.820	21.83	5.77	32.23	47.24	42.61	46.00	3.39	Peak
677.960	24.68	7.17	32.13	44.23	43.95	46.00	2.05	Peak
847.710	26.12	8.12	31.71	40.19	42.72	46.00	3.28	Peak
976.720	26.94	8.85	30.81	29.21	34.19	54.00	19.81	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
32.910	22.52	1.24	32.43	45.67	37.00	40.00	3.00	Peak
123.120	17.80	2.56	32.31	42.08	30.13	43.50	13.37	Peak
423.820	21.83	5.77	32.23	47.44	42.81	46.00	3.19	Peak
677.960	24.68	7.17	32.13	42.68	42.40	46.00	3.60	Peak
847.710	26.12	8.12	31.71	38.46	40.99	46.00	5.01	Peak
963.140	26.83	8.78	30.89	29.39	34.11	54.00	19.89	Peak

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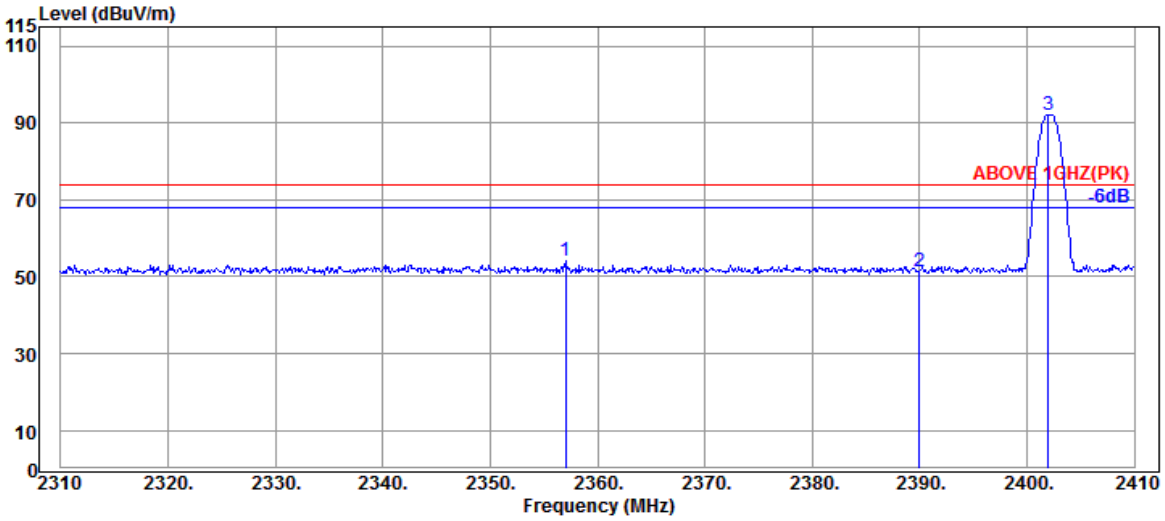
A.2.1.3 Frequency Above 1 GHz to 10th harmonics

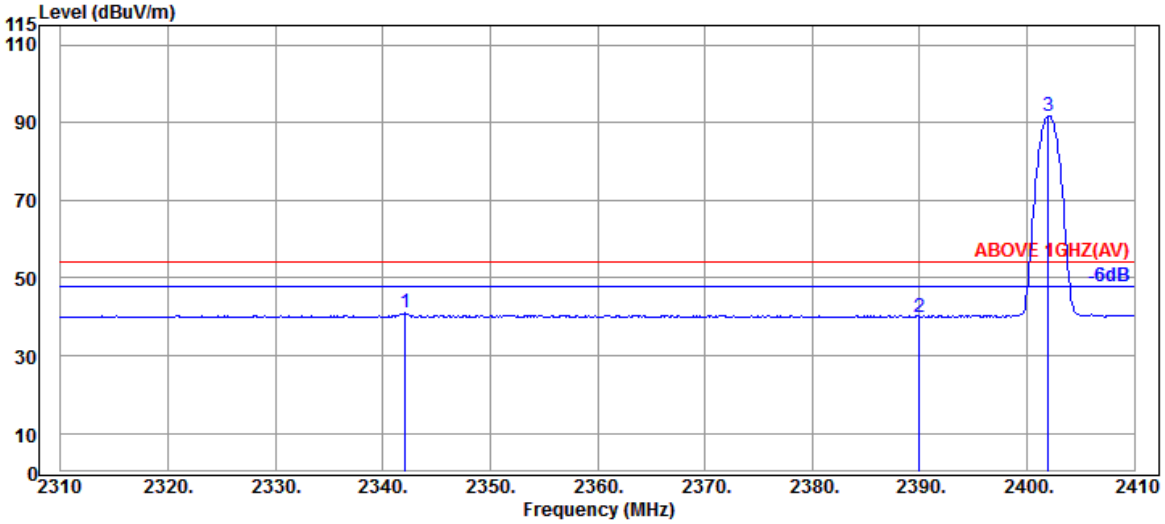
Band Edge:

Mode	GFSK	Frequency	TX 2402MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2357.000	32.06	5.98	34.53	50.72	54.23	74.00	19.77	Peak
2390.000	31.89	6.04	34.54	48.04	51.43	74.00	22.57	Peak
@ 2402.000	31.80	6.04	34.54	88.81	92.11	---	---	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2342.100	32.05	5.96	34.53	37.44	40.92	54.00	13.08	Average
2390.000	31.89	6.04	34.54	36.63	40.02	54.00	13.98	Average
@ 2402.000	31.80	6.04	34.54	88.47	91.77	---	---	Average

Remark: The "@" means fundamental frequency, it is ignored in this section.

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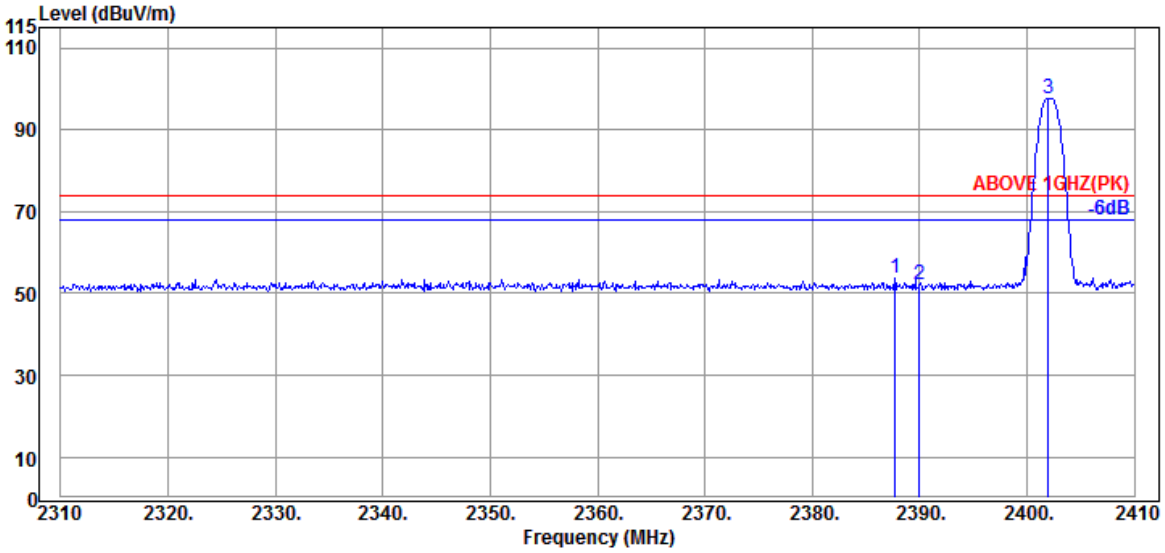
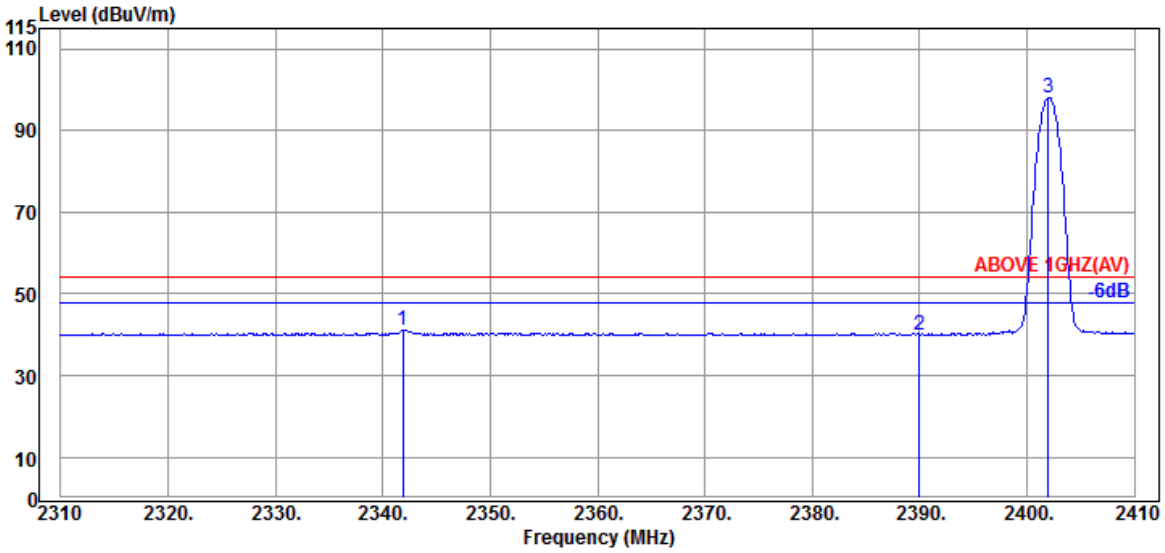
Mode	GFSK	Frequency	TX 2402MHz



Antenna at Vertical Polarization

	Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
	2387.700	31.89	6.04	34.53	50.36	53.76	74.00	20.24	Peak
	2390.000	31.89	6.04	34.54	48.95	52.34	74.00	21.66	Peak
@	2402.000	31.80	6.04	34.54	94.40	97.70	---	---	Peak



Antenna at Vertical Polarization

	Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
	2341.900	32.05	5.96	34.53	37.72	41.20	54.00	12.80	Average
	2390.000	31.89	6.04	34.54	36.69	40.08	54.00	13.92	Average
@	2402.000	31.80	6.04	34.54	94.74	98.04	---	---	Average

Remark: The "@" means fundamental frequency, it is ignored in this section.

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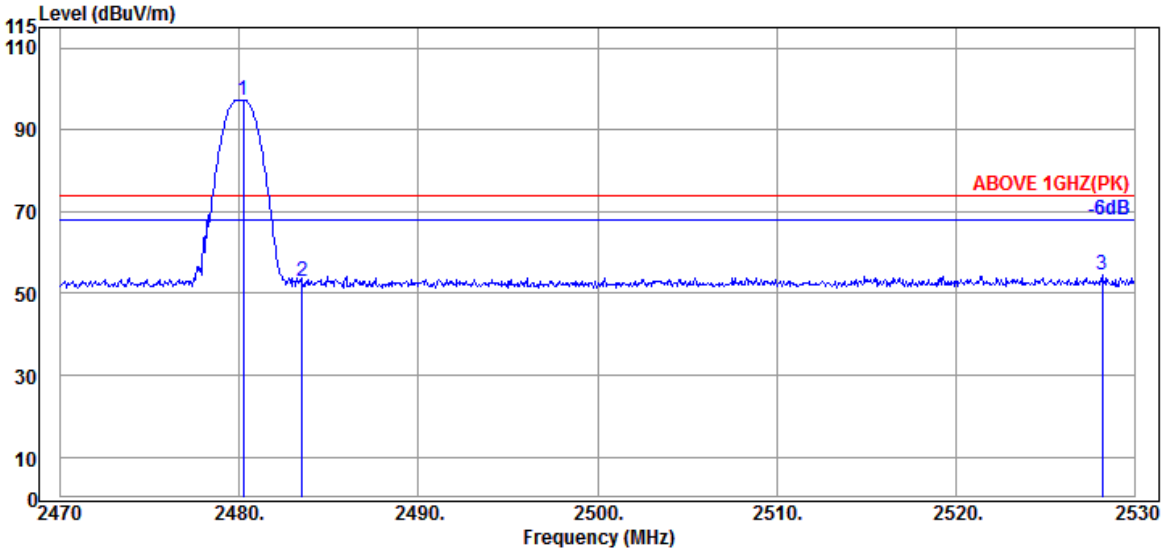
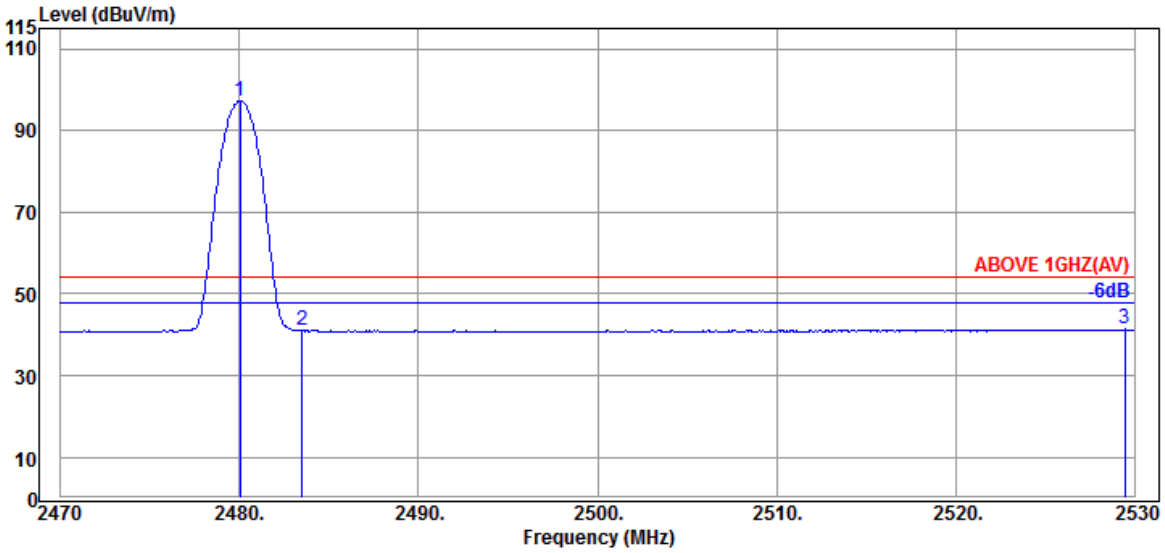
Mode	GFSK	Frequency	TX 2480MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2480.200	32.30	6.18	34.55	93.42	97.35	---	---	Peak
2483.500	32.30	6.18	34.55	49.06	52.99	74.00	21.01	Peak
2528.200	32.41	6.25	34.57	50.25	54.34	74.00	19.66	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2480.020	32.30	6.18	34.55	93.26	97.19	---	---	Average
2483.500	32.30	6.18	34.55	37.08	41.01	54.00	12.99	Average
2529.460	32.41	6.25	34.57	37.27	41.36	54.00	12.64	Average

Remark: The "@" means fundamental frequency, it is ignored in this section.

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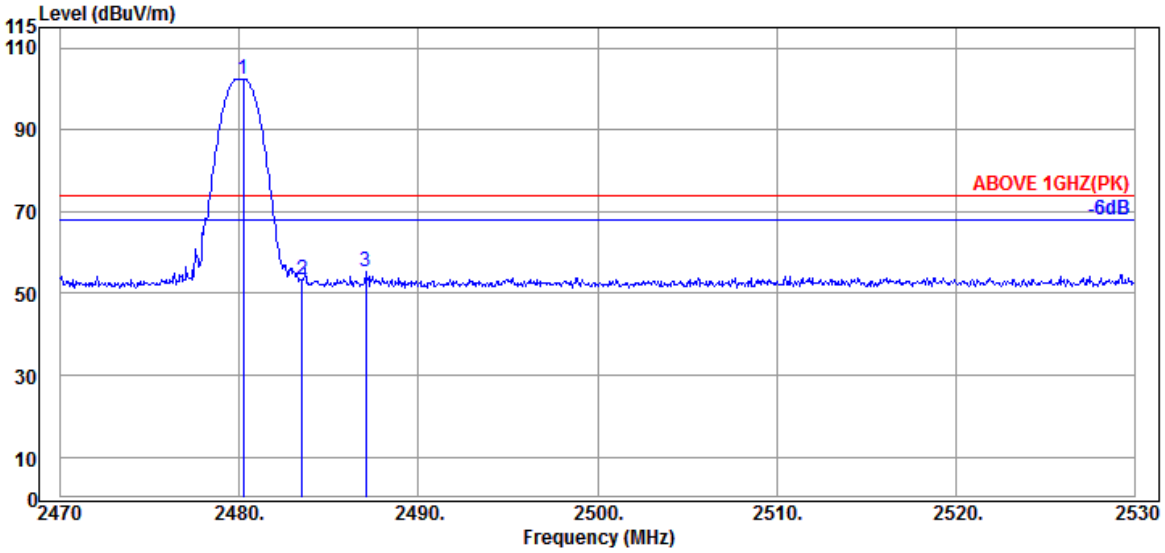
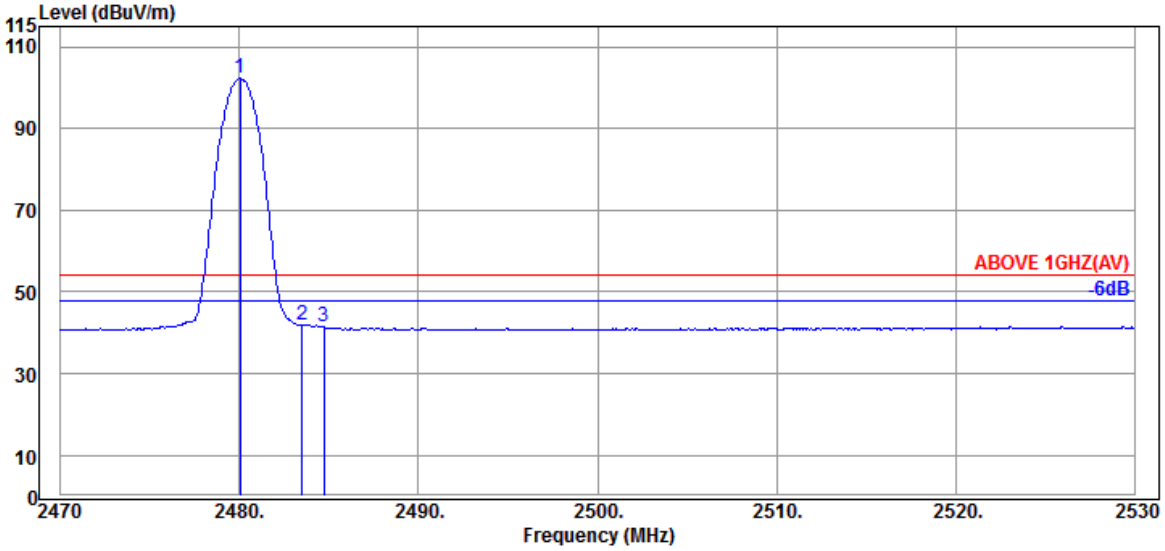
Mode	GFSK	Frequency	TX 2480MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2480.200	32.30	6.18	34.55	98.50	102.43	---	---	Peak
2483.500	32.30	6.18	34.55	49.48	53.41	74.00	20.59	Peak
2487.040	32.30	6.18	34.55	51.32	55.25	74.00	18.75	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2480.020	32.30	6.18	34.55	98.30	102.23	---	---	Average
2483.500	32.30	6.18	34.55	38.05	41.98	54.00	12.02	Average
2484.700	32.30	6.18	34.55	37.58	41.51	54.00	12.49	Average

Remark: The "@" means fundamental frequency, it is ignored in this section.

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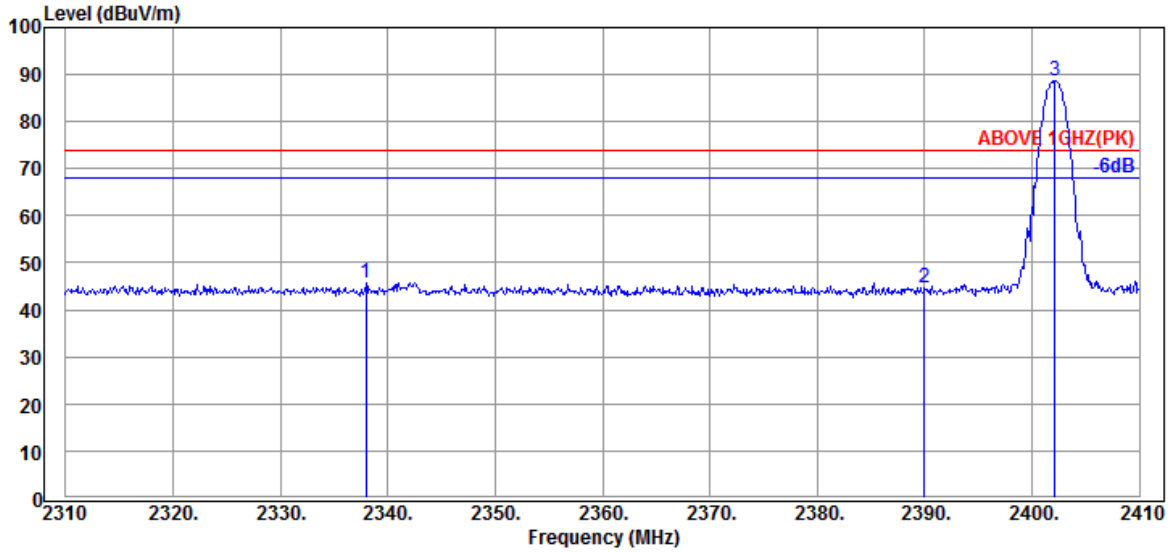
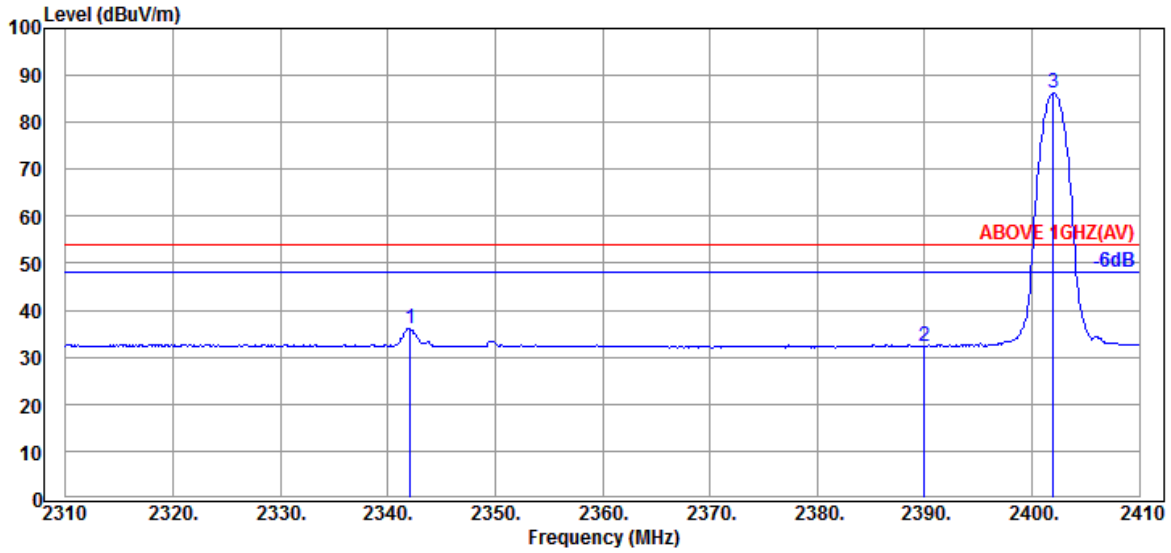
Mode	8-DPSK	Frequency	TX 2402MHz



Antenna at Horizontal Polarization

	Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
	2338.000	32.05	5.96	34.52	42.32	45.81	74.00	28.19	Peak
	2390.000	31.89	6.04	34.54	41.39	44.78	74.00	29.22	Peak
@	2402.100	31.80	6.04	34.54	85.51	88.81	---	---	Peak



Antenna at Horizontal Polarization

	Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
	2342.100	32.05	5.96	34.53	32.53	36.01	54.00	17.99	Average
	2390.000	31.89	6.04	34.54	28.85	32.24	54.00	21.76	Average
@	2402.000	31.80	6.04	34.54	82.88	86.18	---	---	Average

Remark: The "@" means fundamental frequency, it is ignored in this section.

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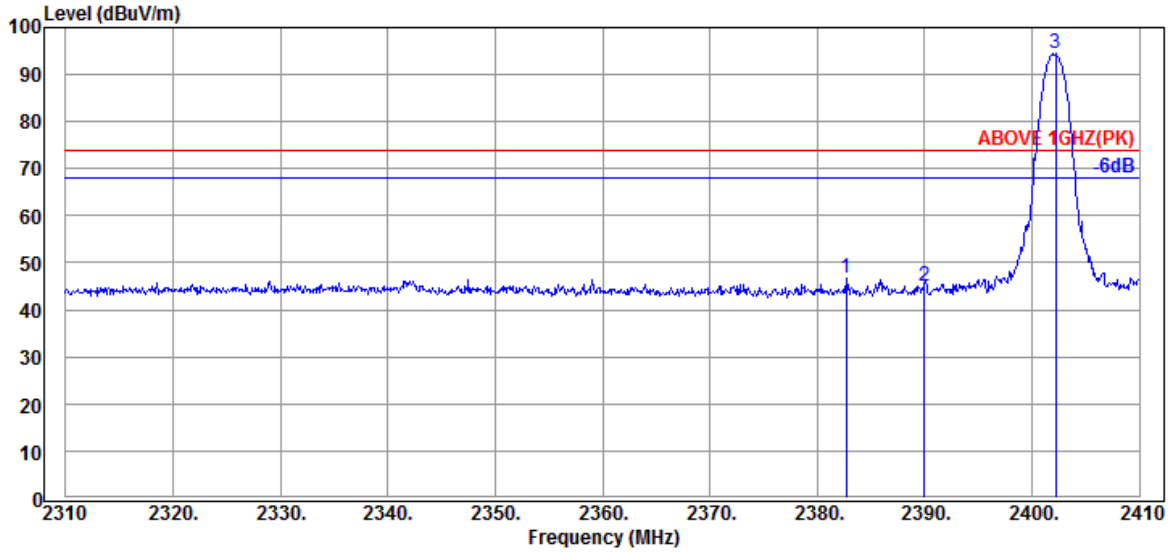
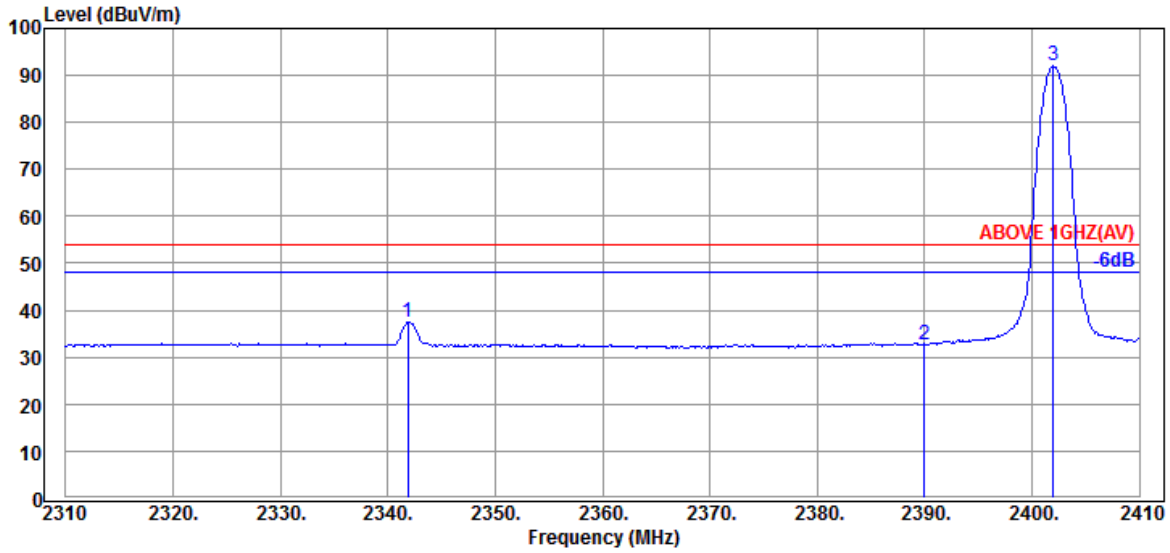
Mode	8-DPSK	Frequency	TX 2402MHz



Antenna at Vertical Polarization

	Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
	2382.700	31.93	6.01	34.53	43.24	46.65	74.00	27.35	Peak
	2390.000	31.89	6.04	34.54	41.47	44.86	74.00	29.14	Peak
@	2402.200	31.80	6.04	34.54	91.14	94.44	---	---	Peak



Antenna at Vertical Polarization

	Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
	2341.900	32.05	5.96	34.53	33.99	37.47	54.00	16.53	Average
	2390.000	31.89	6.04	34.54	29.38	32.77	54.00	21.23	Average
@	2402.000	31.80	6.04	34.54	88.68	91.98	---	---	Average

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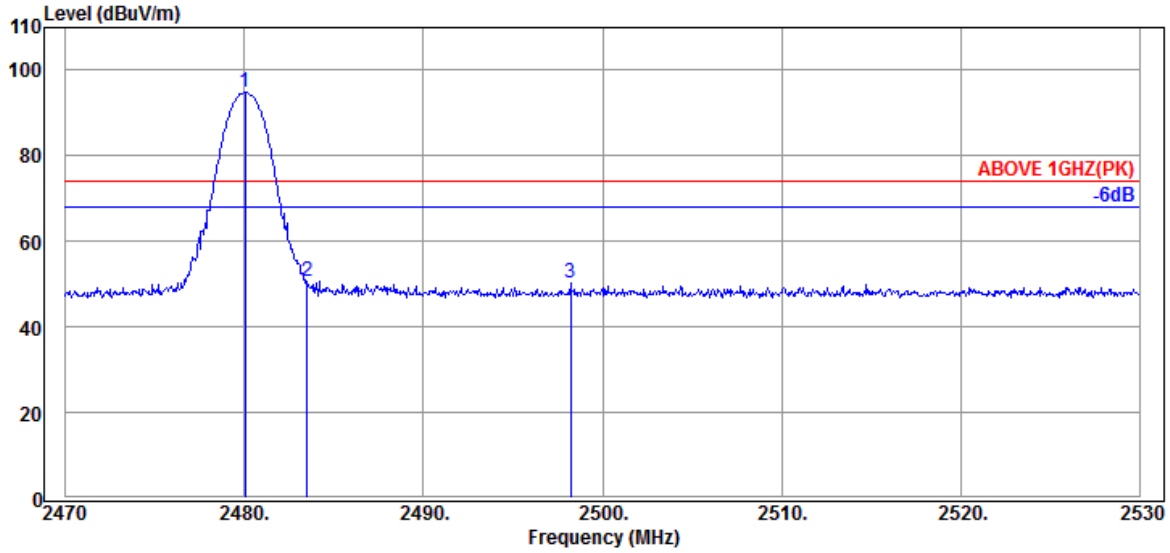
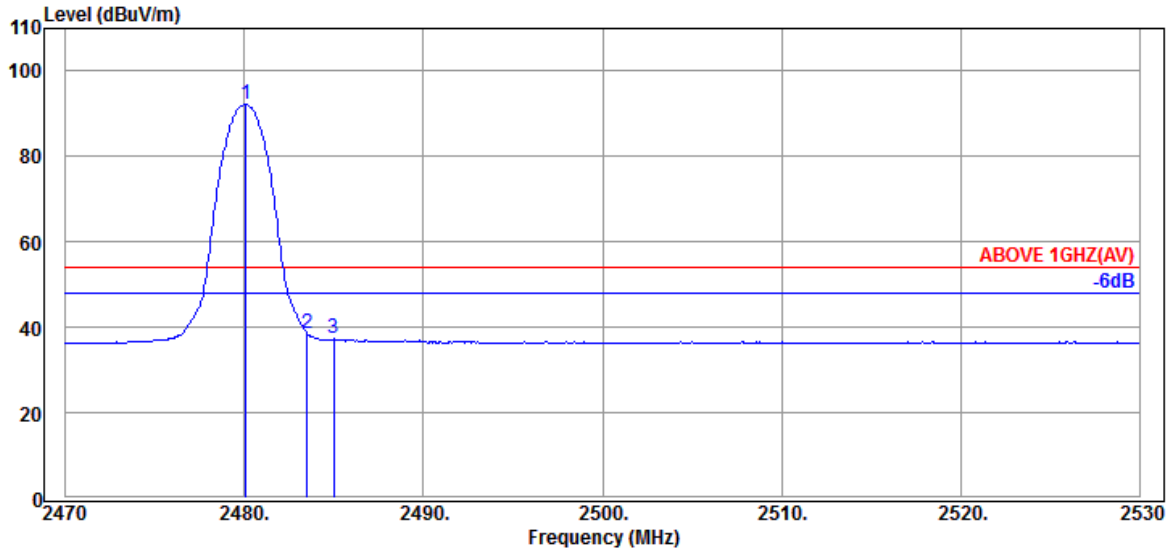
Mode	8-DPSK	Frequency	TX 2480MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2480.020	32.30	6.18	34.55	90.99	94.92	---	---	Peak
2483.500	32.30	6.18	34.55	46.60	50.53	74.00	23.47	Peak
2498.200	32.30	6.21	34.56	46.38	50.33	74.00	23.67	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2480.080	32.30	6.18	34.55	88.22	92.15	---	---	Average
2483.500	32.30	6.18	34.55	34.66	38.59	54.00	15.41	Average
2485.000	32.30	6.18	34.55	33.31	37.24	54.00	16.76	Average

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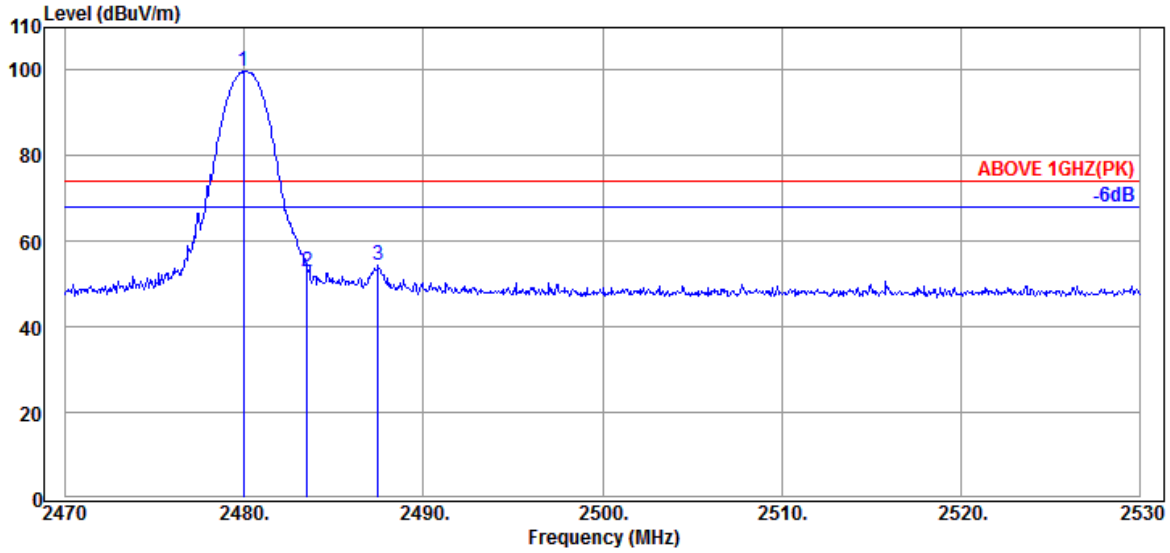
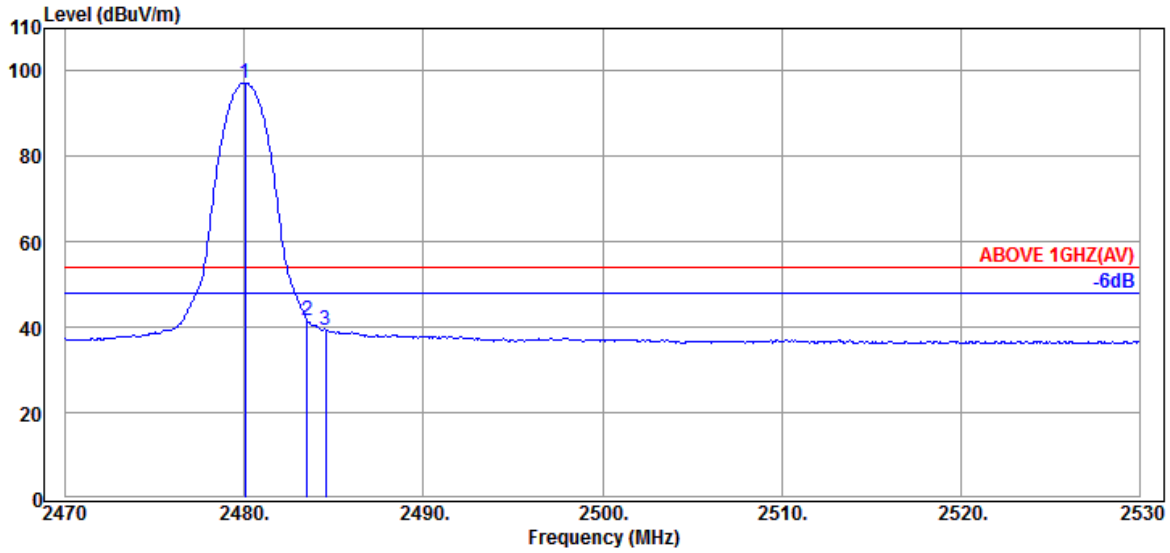
Mode	8-DPSK	Frequency	TX 2480MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2479.960	32.30	6.18	34.55	95.95	99.88	---	---	Peak
2483.500	32.30	6.18	34.55	49.11	53.04	74.00	20.96	Peak
2487.460	32.30	6.18	34.55	50.47	54.40	74.00	19.60	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
@ 2480.020	32.30	6.18	34.55	93.35	97.28	---	---	Average
2483.500	32.30	6.18	34.55	37.74	41.67	54.00	12.33	Average
2484.520	32.30	6.18	34.55	35.53	39.46	54.00	14.54	Average

Remark: The "@" means fundamental frequency, it is ignored in this section.

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A.2.2 Emissions outside the frequency band:

The emissions (up to 25GHz) not reported for there is no emission be found.

Mode	GFSK	Frequency	TX 2402MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4804.000	33.60	8.68	34.44	33.06	40.90	54.00	13.10	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4804.000	33.60	8.68	34.44	33.34	41.18	54.00	12.82	Peak

Mode	GFSK	Frequency	TX 2441MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4882.000	33.88	8.72	34.43	34.24	42.41	54.00	11.59	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4882.000	33.88	8.72	34.43	33.61	41.78	54.00	12.22	Peak

Mode	GFSK	Frequency	TX 2480MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4960.000	33.83	8.77	34.41	33.84	42.03	54.00	11.97	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4960.000	33.83	8.77	34.41	33.22	41.41	54.00	12.59	Peak

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A.2.3 Emissions in Non-restricted Frequency Bands:

All emission levels below the FCC 15.209(a) general radiated emissions limits is not required.

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A.3 20dB BANDWIDTH

Test Date	2021/12/17	Temp./Hum.	21℃/60%
Cable Loss	1.00dB	Tested By	Kuper Hsu
Test Voltage	AC 120V 60Hz (Via AC Adapter)		

A.3.1 20dB Bandwidth Result

Mode	Centre Frequency (MHz)	20dB Bandwidth (MHz)	99%Occupied Bandwidth (MHz) (Reference only)	2/3 (20dB Bandwidth)
GFSK	2402	0.9229	0.86824	0.615
	2441	0.9216	0.86896	0.614
	2480	0.9230	0.86806	0.615
8-DPSK	2402	1.485	1.3444	0.990
	2441	1.481	1.3434	0.987
	2480	1.483	1.3413	0.989

Remark: The maximum two-thirds of the 20dB bandwidth is the limit for carrier frequency separation presented.

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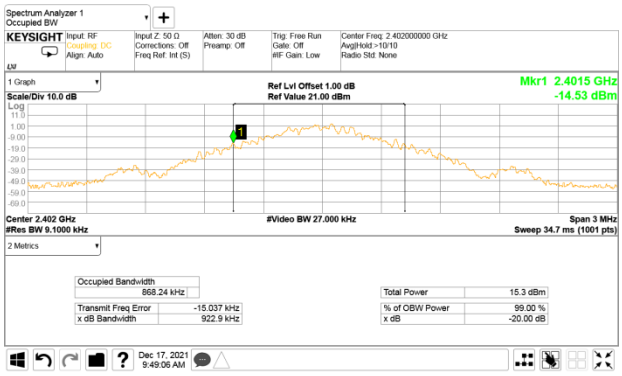
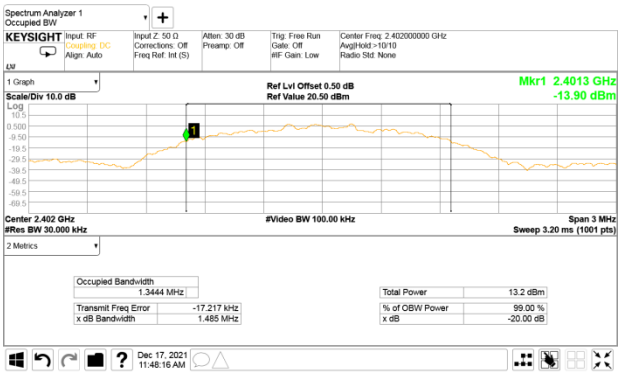
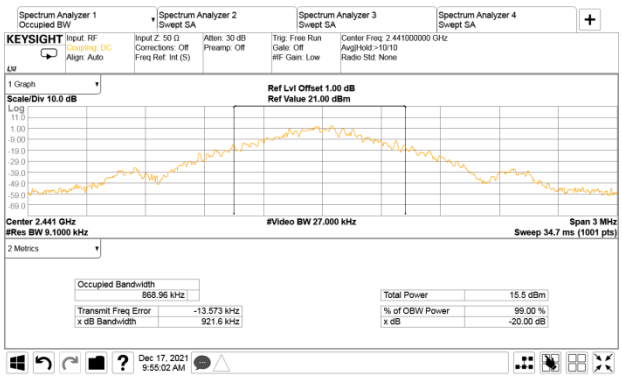
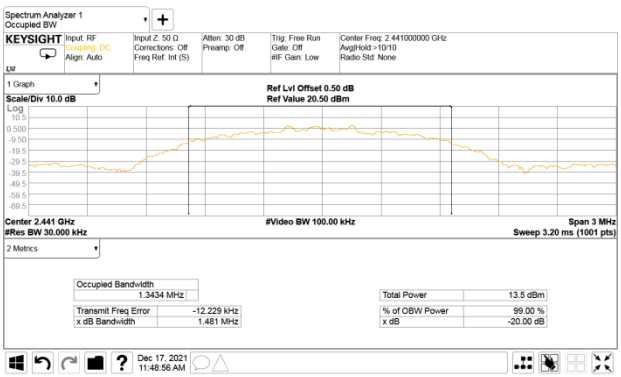
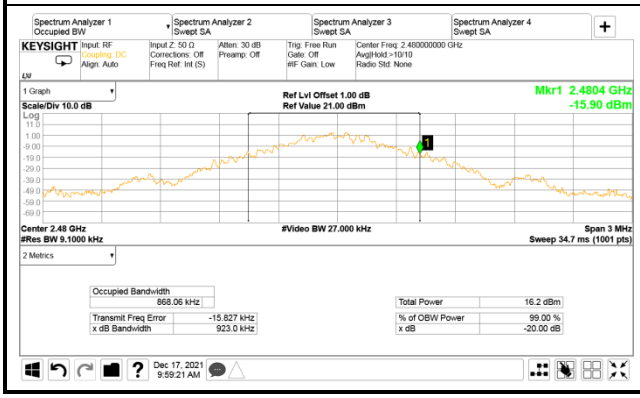
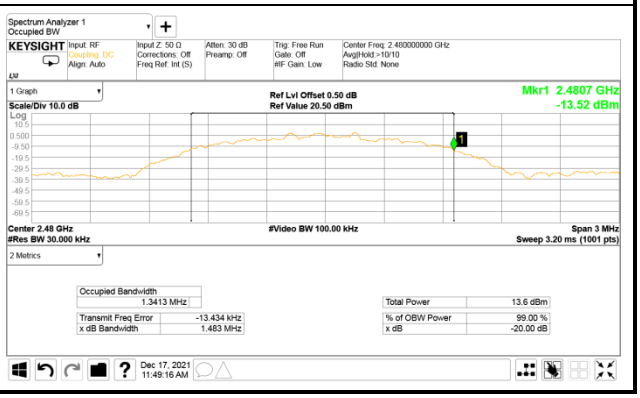
A.3.2 Measurement Plots

GFSK	8-DPSK
	
	
	

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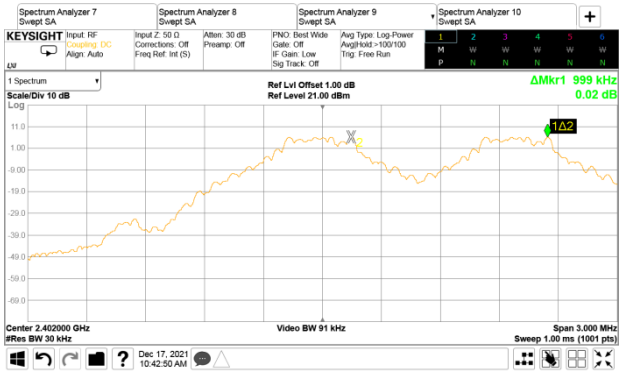
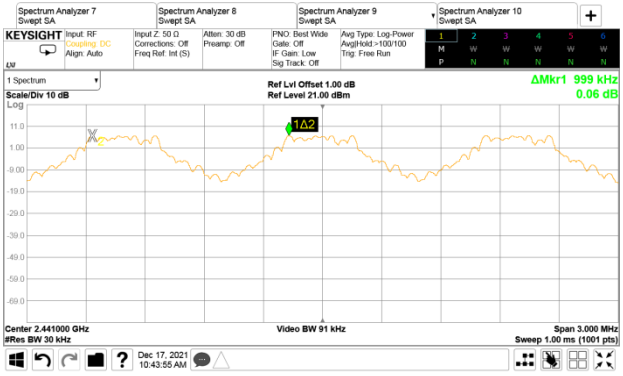
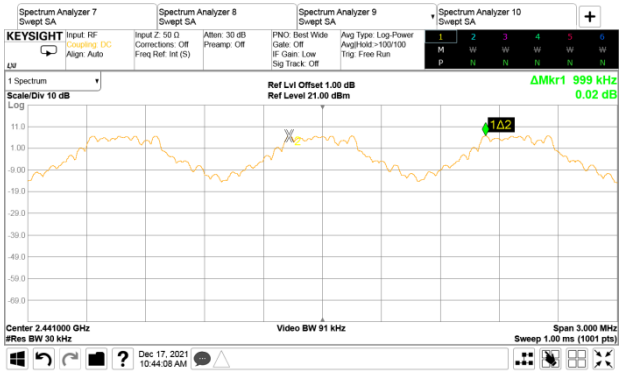
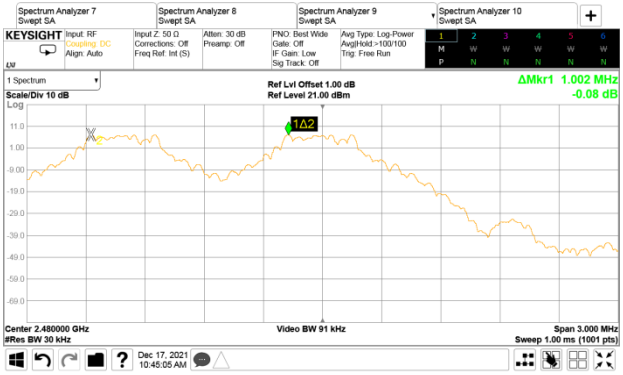
A.4 CARRIER FREQUENCY SEPARATION

Test Date	2021/12/17	Temp./Hum.	21℃/60%
Cable Loss	1.00dB	Tested By	Kuper Hsu
Test Voltage	AC 120V 60Hz (Via AC Adapter)		

GFSK	
2402MHz	2441MHz adjacent channel of left carrier frequency
	
2441MHz adjacent channel of right carrier frequency	2480MHz
	

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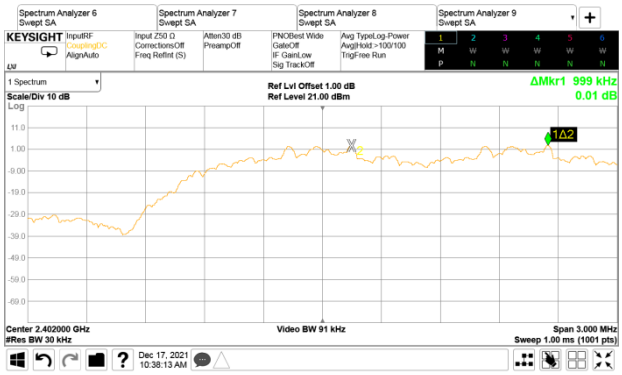
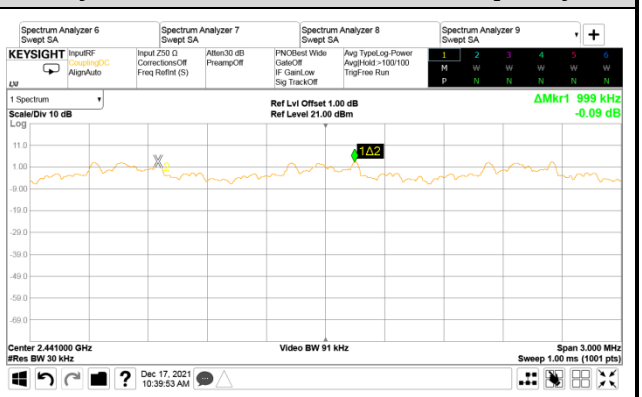
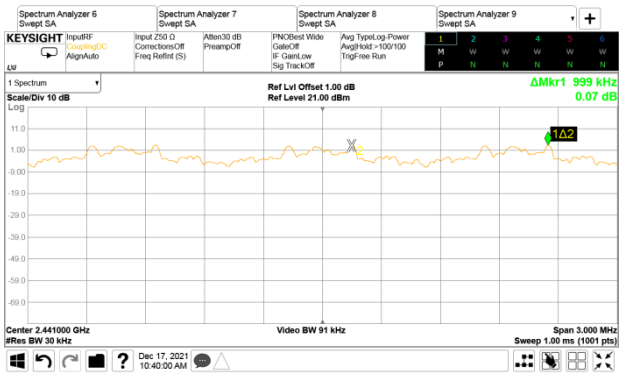
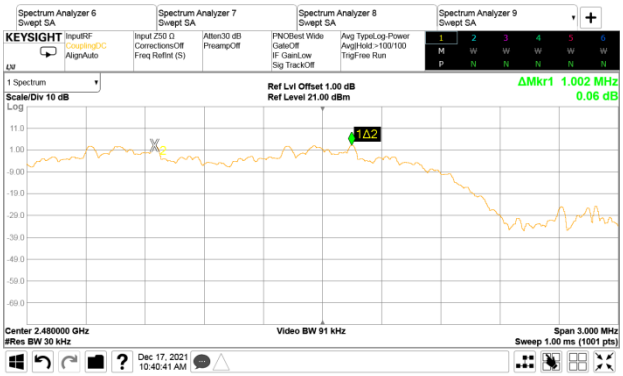
8-DPSK	
2402MHz	2441MHz adjacent channel of left carrier frequency
	
2441MHz adjacent channel of right carrier frequency	2480MHz
	

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A.5 TIME OF OCCUPANCY

Test Date	2021/12/17	Temp./Hum.	21℃/60%
Cable Loss	1.00dB	Tested By	Kuper Hsu
Test Voltage	AC 120V 60Hz (Via AC Adapter)		

A.5.1 Time of Occupancy

Mode	Centre Frequency (MHz)	Mode	Each second appearance transmission	Time of Occupancy (ms)	Maximum accumulated Time of Occupancy (ms)	Limit (ms)
GFSK	2402	DH1	10	0.380	120.080	<400
		DH3	5	1.630	257.540	<400
		DH5	3	2.890	273.972	<400

Observation Period:
79 channels* **0.4** seconds= **31.6** seconds

DH1 Mode
For each second of **10** transmission appearance,the longest time of occupancy is
10 transmission* **31.6** seconds* **0.380** ms= **120.080** ms (<400ms)

DH3 Mode
For each second of **5** transmission appearance,the longest time of occupancy is
5 transmission* **31.6** seconds* **1.630** ms= **257.540** ms (<400ms)

DH5 Mode
For each second of **3** transmission appearance,the longest time of occupancy is
3 transmission* **31.6** seconds* **2.890** ms= **273.972** ms (<400ms)

Mode	Centre Frequency (MHz)	Mode	Each second appearance transmission	Time of Occupancy (ms)	Maximum accumulated Time of Occupancy (ms)	Limit (ms)
GFSK	2441	DH1	10	0.380	120.080	<400
		DH3	5	1.640	259.120	<400
		DH5	3	2.880	273.024	<400

Observation Period:
79 channels* **0.4** seconds= **31.6** seconds

DH1 Mode
For each second of **10** transmission appearance,the longest time of occupancy is
10 transmission* **31.6** seconds* **0.380** ms= **120.080** ms (<400ms)

DH3 Mode
For each second of **5** transmission appearance,the longest time of occupancy is
5 transmission* **31.6** seconds* **1.640** ms= **259.120** ms (<400ms)

DH5 Mode
For each second of **3** transmission appearance,the longest time of occupancy is
3 transmission* **31.6** seconds* **2.880** ms= **273.024** ms (<400ms)

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Mode	Centre Frequency (MHz)	Mode	Each second appearance transmission	Time of Occupancy (ms)	Maximum accumulated Time of Occupancy (ms)	Limit (ms)
GFSK	2480	DH1	10	0.380	120.080	<400
		DH3	5	1.640	259.120	<400
		DH5	3	2.880	273.024	<400

Observation Period:

79 channels* **0.4** seconds= **31.6** seconds

DH1 Mode

For each second of **10** transmission appearance,the longest time of occupancy is
10 transmission* **31.6** seconds* **0.380** ms= **120.080** ms (<400ms)

DH3 Mode

For each second of **5** transmission appearance,the longest time of occupancy is
5 transmission* **31.6** seconds* **1.640** ms= **259.120** ms (<400ms)

DH5 Mode

For each second of **3** transmission appearance,the longest time of occupancy is
3 transmission* **31.6** seconds* **2.880** ms= **273.024** ms (<400ms)

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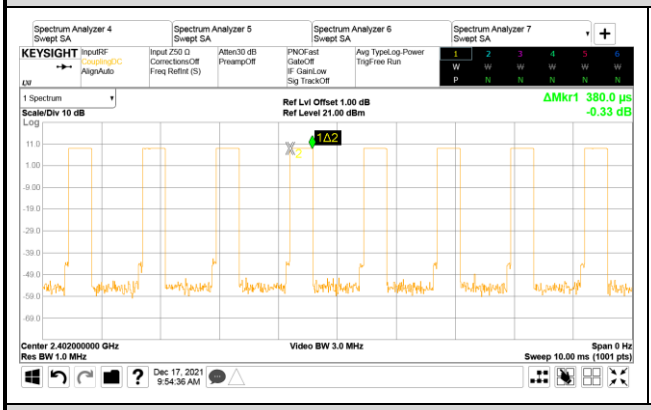
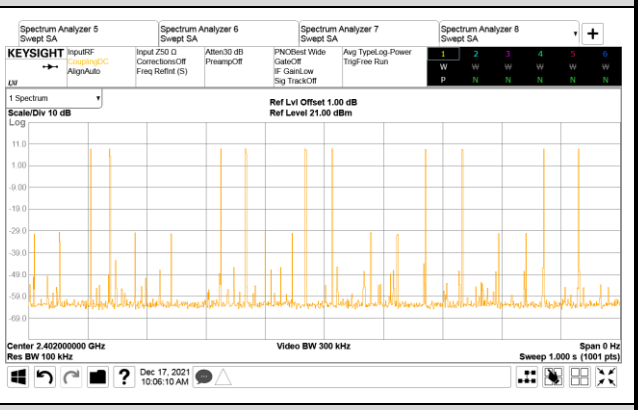
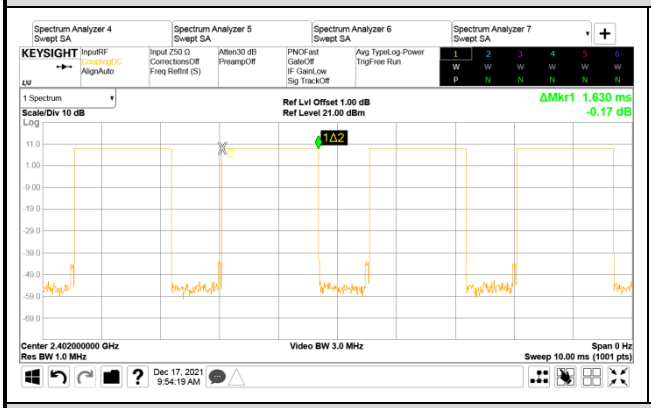
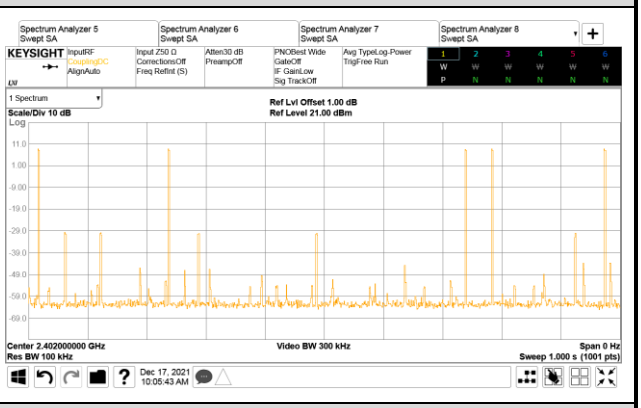
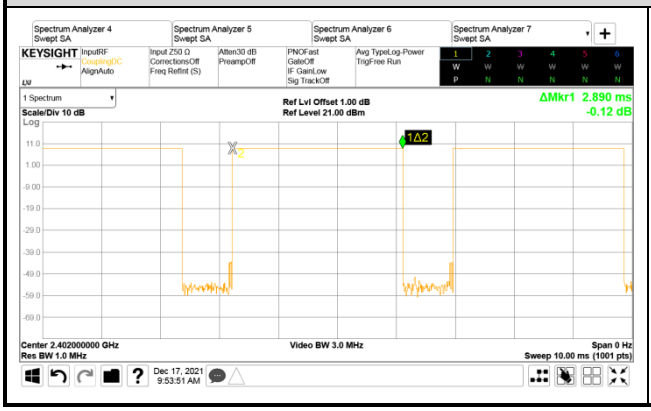
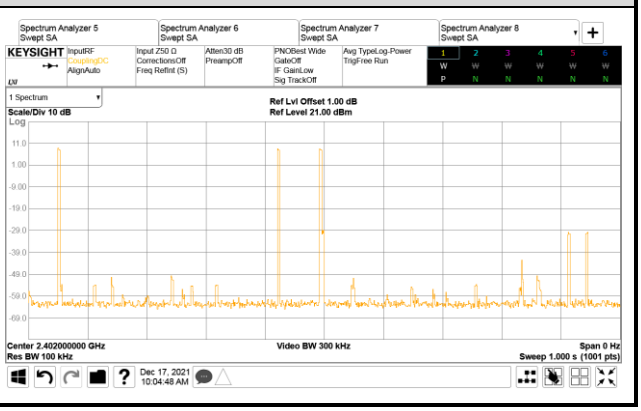
- Measurement Plots

GFSK	
2402MHz	
DH1	
	
DH3	
	
DH5	
	

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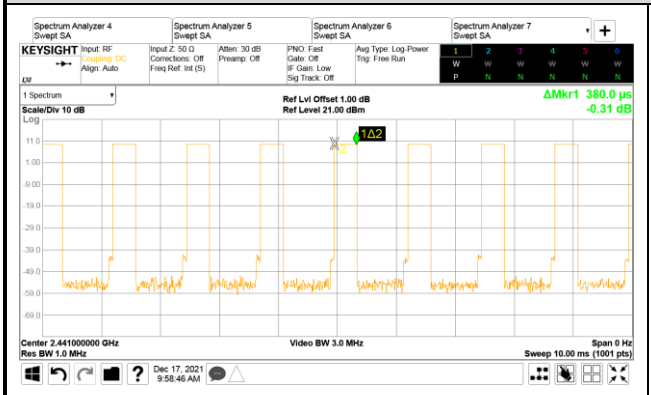
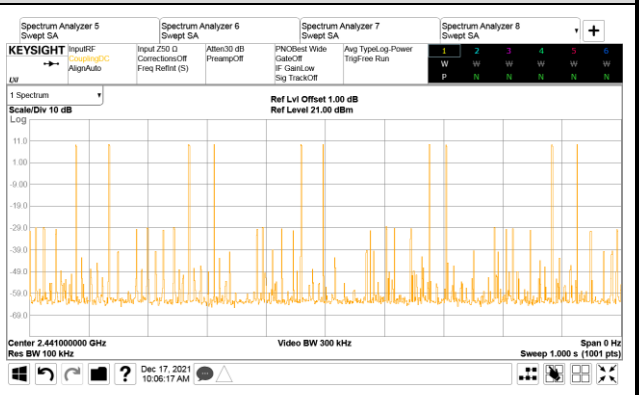
GFSK	
2441MHz	
DH1	
	
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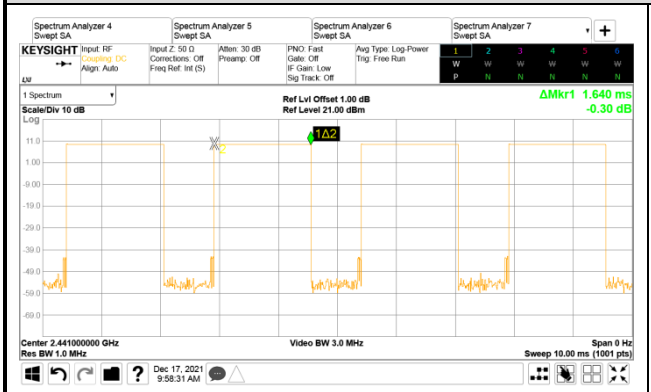	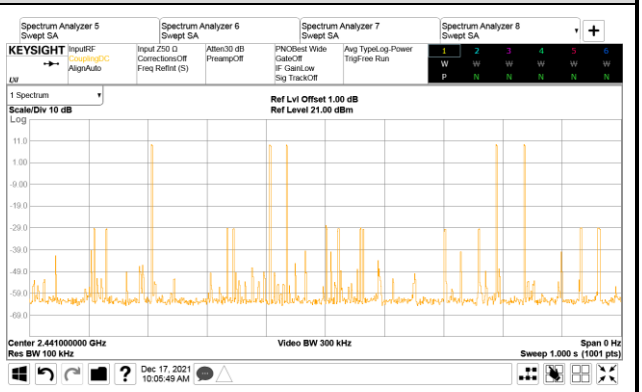
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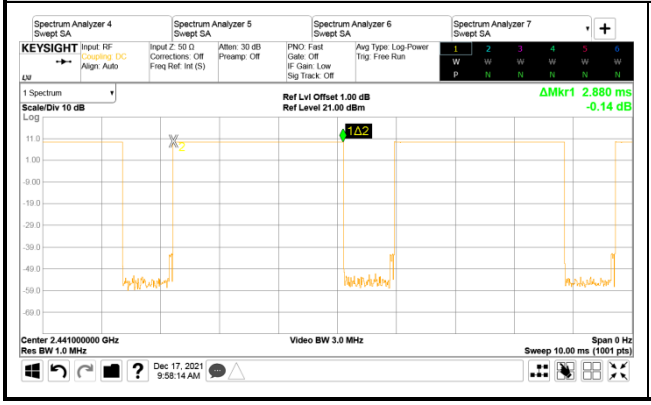	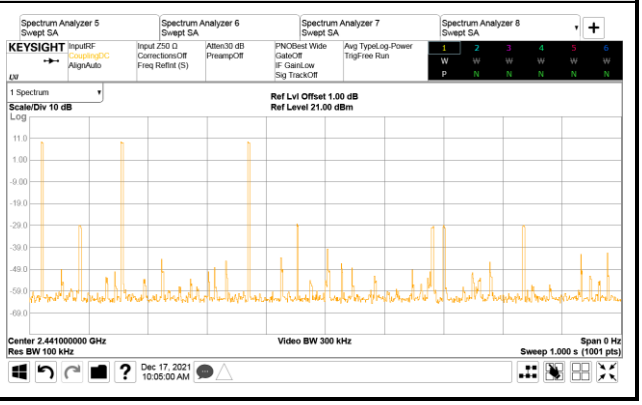

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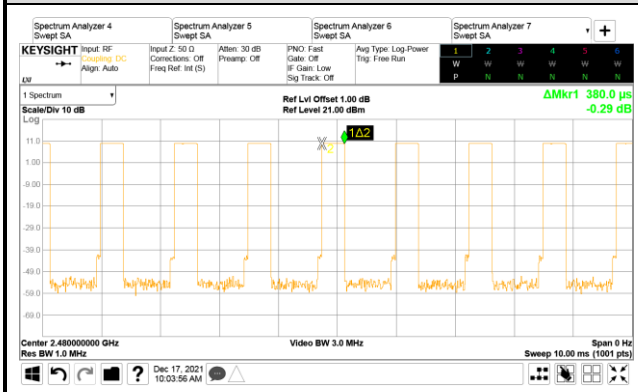
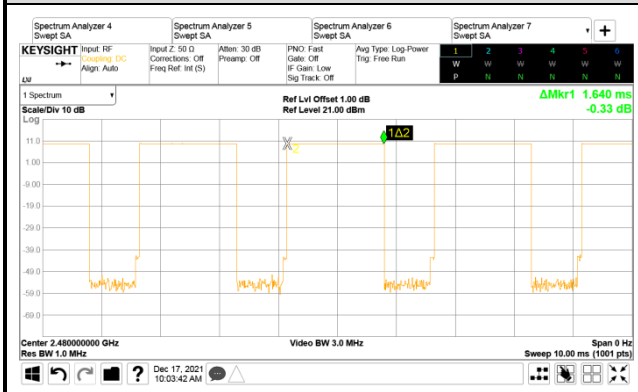
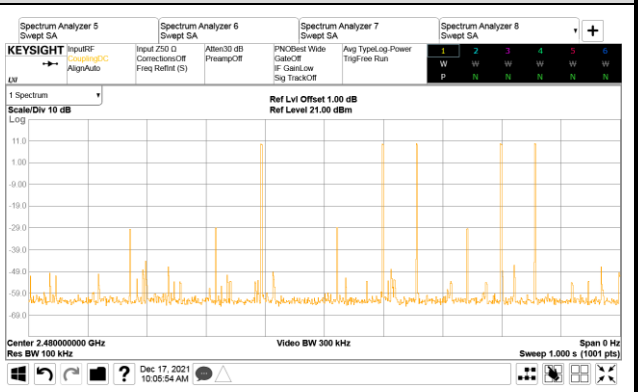
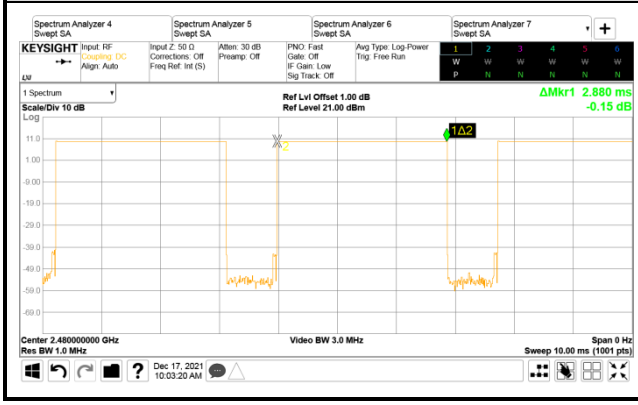
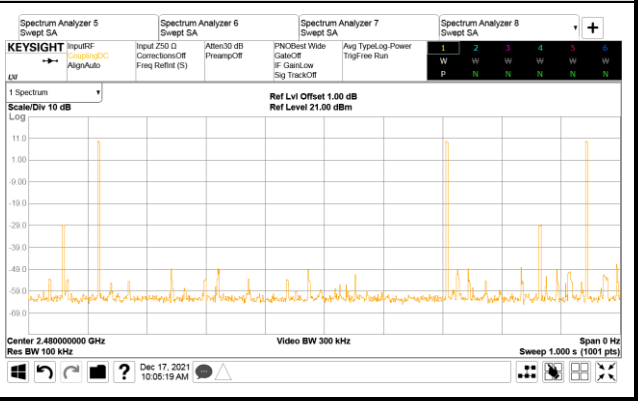
GFSK	
2480MHz	
DH1	
	
DH3	
	
DH5	
	

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Mode	Centre Frequency (MHz)	Mode	Each second appearance transmission	Time of Occupancy (ms)	Maximum accumulated Time of Occupancy (ms)	Limit (ms)
8-DPSK	2402	3DH1	10	0.380	120.080	<400
		3DH3	5	1.640	259.120	<400
		3DH5	3	2.890	273.972	<400

Observation Period:

79 channels* **0.4** seconds= **31.6** seconds

3DH1 Mode

For each second of **10** transmission appearance,the longest time of occupancy is
10 transmission* **31.6** seconds* **0.380** ms= **120.080** ms (<400ms)

3DH3 Mode

For each second of **5** transmission appearance,the longest time of occupancy is
5 transmission* **31.6** seconds* **1.640** ms= **259.120** ms (<400ms)

3DH5 Mode

For each second of **3** transmission appearance,the longest time of occupancy is
3 transmission* **31.6** seconds* **2.890** ms= **273.972** ms (<400ms)

Mode	Centre Frequency (MHz)	Mode	Each second appearance transmission	Time of Occupancy (ms)	Maximum accumulated Time of Occupancy (ms)	Limit (ms)
8-DPSK	2441	3DH1	10	0.390	123.240	<400
		3DH3	5	1.640	259.120	<400
		3DH5	3	2.890	273.972	<400

Observation Period:

79 channels* **0.4** seconds= **31.6** seconds

3DH1 Mode

For each second of **10** transmission appearance,the longest time of occupancy is
10 transmission* **31.6** seconds* **0.390** ms= **123.240** ms (<400ms)

3DH3 Mode

For each second of **5** transmission appearance,the longest time of occupancy is
5 transmission* **31.6** seconds* **1.640** ms= **259.120** ms (<400ms)

3DH5 Mode

For each second of **3** transmission appearance,the longest time of occupancy is
3 transmission* **31.6** seconds* **2.890** ms= **273.972** ms (<400ms)

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8-DPSK	2480	3DH1	10	0.390	123.240	<400
		3DH3	5	1.640	259.120	<400
		3DH5	3	2.890	273.972	<400

Observation Period:

79 channels* **0.4** seconds= **31.6** seconds

3DH1 Mode

For each second of **10** transmission appearance,the longest time of occupancy is
10 transmission* **31.6** seconds* **0.390** ms= **123.240** ms (<400ms)

3DH3 Mode

For each second of **5** transmission appearance,the longest time of occupancy is
5 transmission* **31.6** seconds* **1.640** ms= **259.120** ms (<400ms)

3DH5 Mode

For each second of **3** transmission appearance,the longest time of occupancy is
3 transmission* **31.6** seconds* **2.890** ms= **273.972** ms (<400ms)

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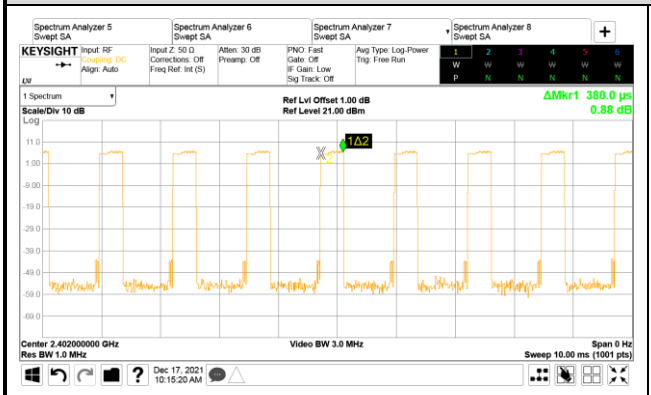
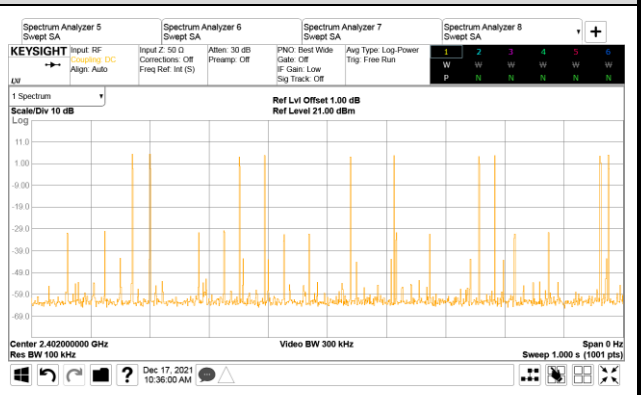
- Measurement Plots

8-DPSK	
2402MHz	
3DH1	
	
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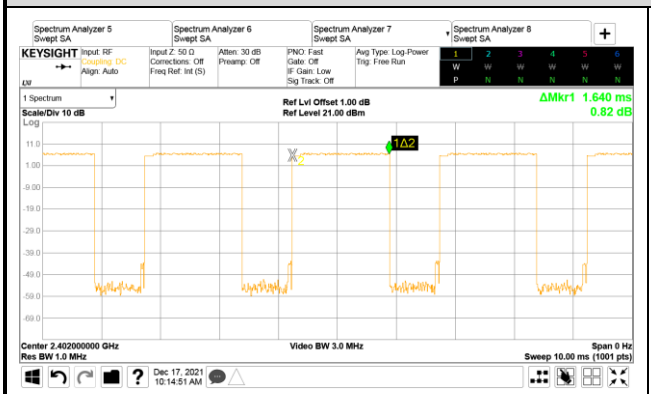	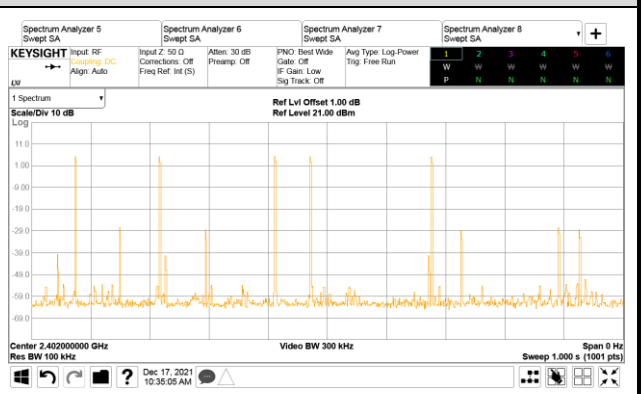
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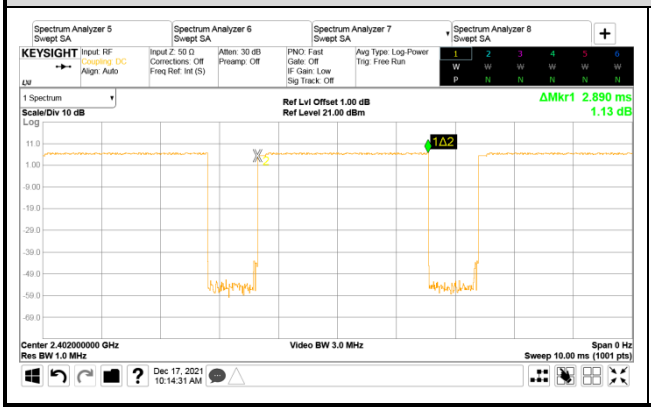	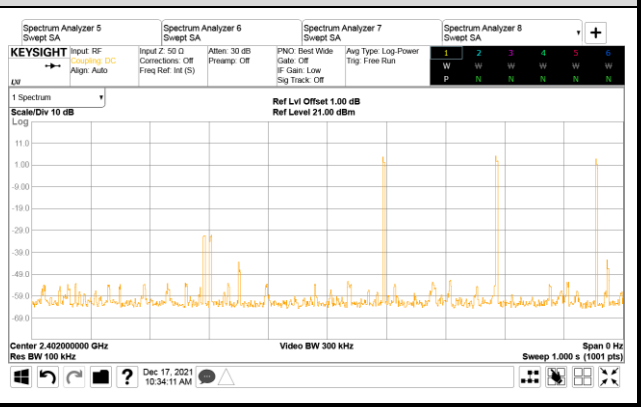

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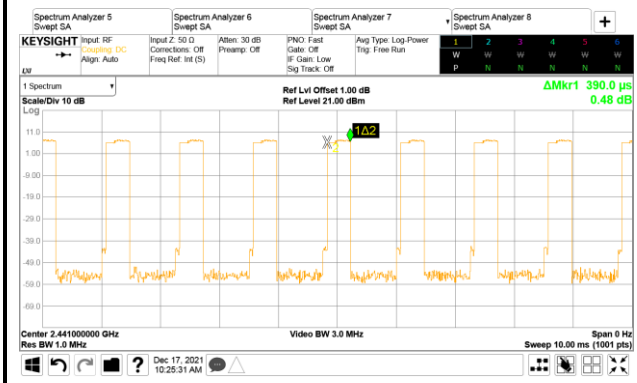
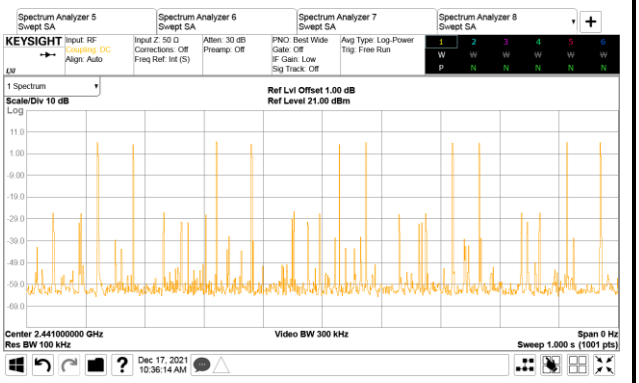
8-DPSK	
2441MHz	
3DH1	
	
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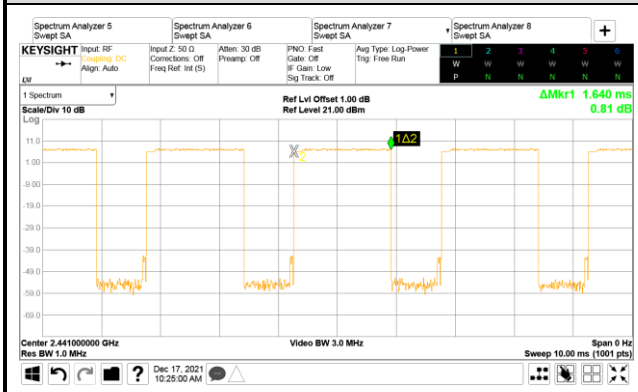
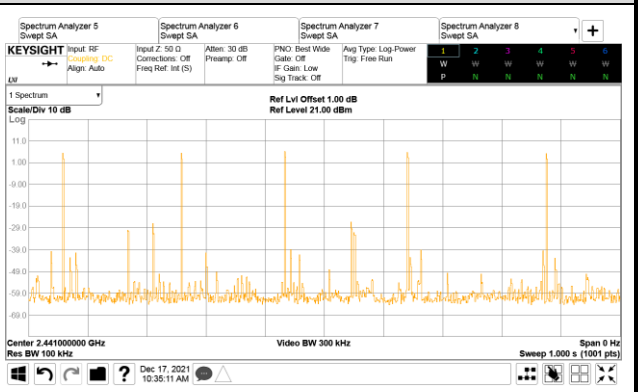
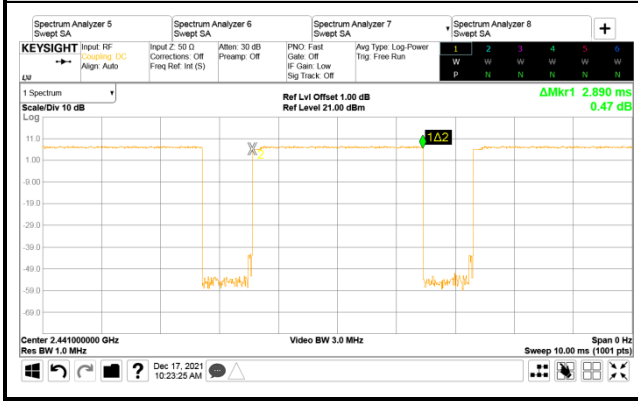
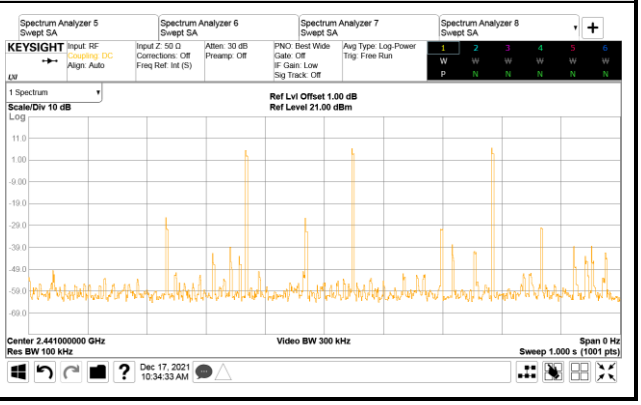
	
3DH5	
	

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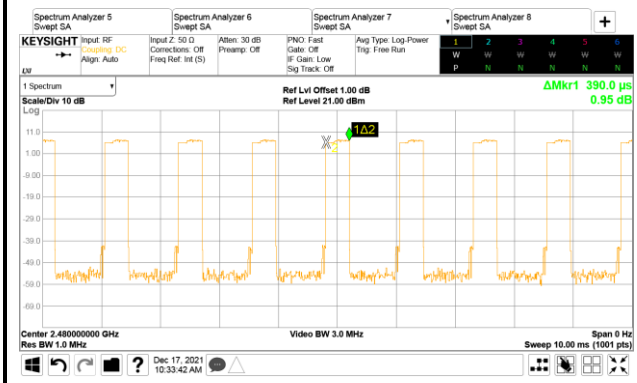
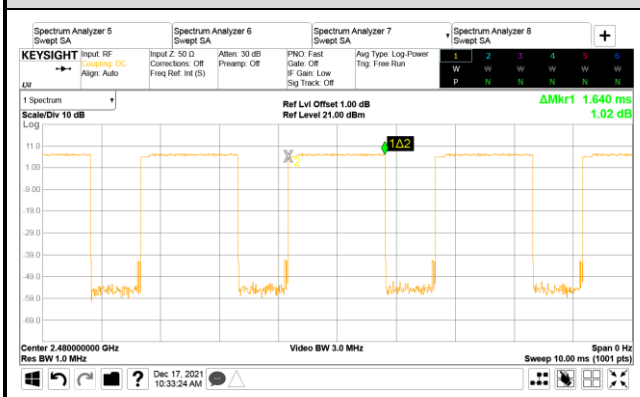
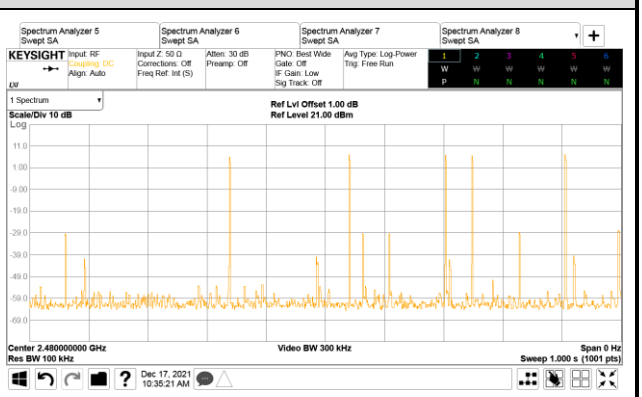
8-DPSK	
2480MHz	
3DH1	
	
3DH3	
	
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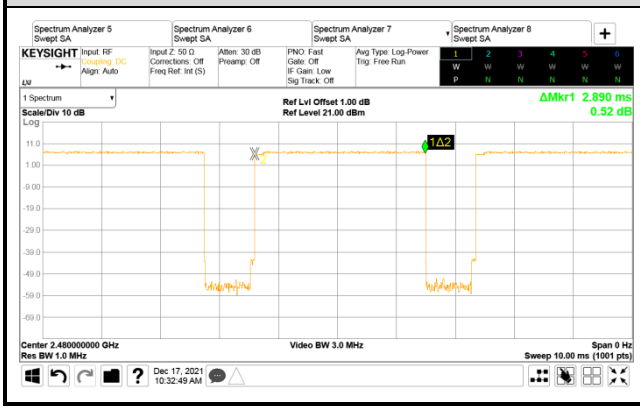	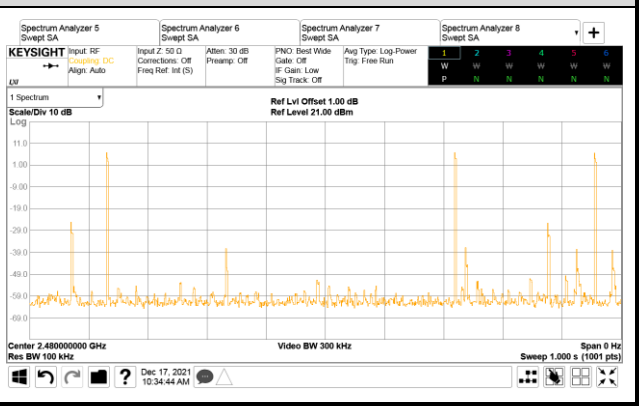

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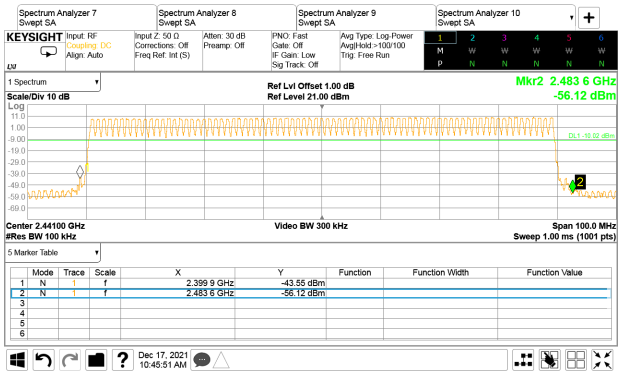
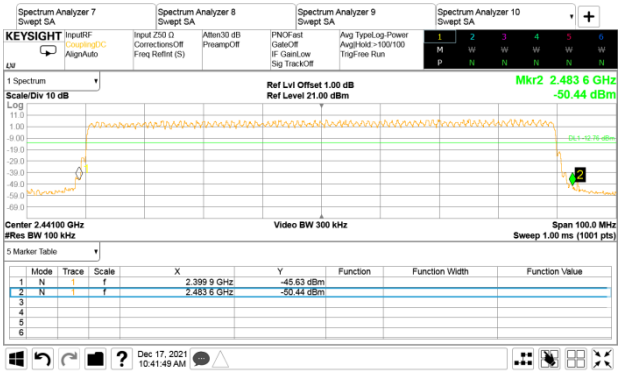
A.6 NUMBER OF HOPPING CHANNELS

Test Date	2021/12/17	Temp./Hum.	21℃/60%
Cable Loss	1.00dB	Tested By	Kuper Hsu
Test Voltage	AC 120V 60Hz (Via AC Adapter)		

Mode: GFSK	Mode: 8-DPSK
	
The number hopping channel is 79.	The number hopping channel is 79.

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A.7 MAXIMUM PEAK OUTPUT POWER

Test Date	2021/12/17, 2022/02/14	Temp./Hum.	21℃/60%, 18℃/75%
Cable Loss	1.00dB	Tested By	Kuper Hsu
Test Voltage	AC 120V 60Hz (Via AC Adapter)		

A.7.1 Maximum Peak Output Power

- **SPOT CHECK Power**

Mode	Centre Frequency (MHz)	Maximum Peak Output Power		Limit
		dBm	W	
GFSK	2402	8.95	0.008	21dBm (0.125W)
	2441	9.60	**0.009**	
	2480	9.57	0.009	
8-DPSK	2402	7.09	0.005	
	2441	7.61	0.006	
	2480	7.71	0.006	

- **FCC ID: BEJNT-16Z90Q Power**

Mode	Centre Frequency (MHz)	Maximum Peak Output Power		Limit
		dBm	W	
GFSK	2402	9.05	0.008	21dBm (0.125W)
	2441	9.67	0.009	
	2480	**9.99**	**0.010**	
8-DPSK	2402	7.24	0.005	
	2441	7.87	0.006	
	2480	**7.92**	**0.006**	

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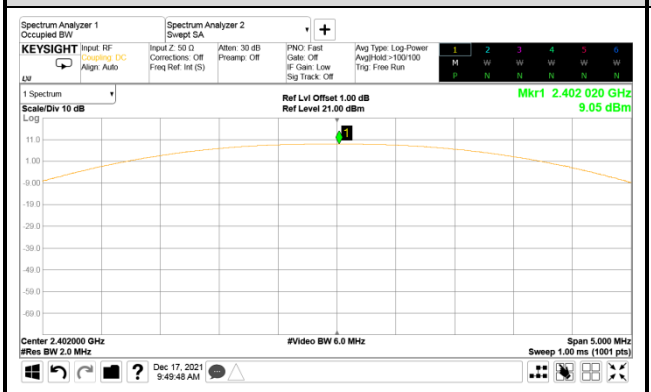
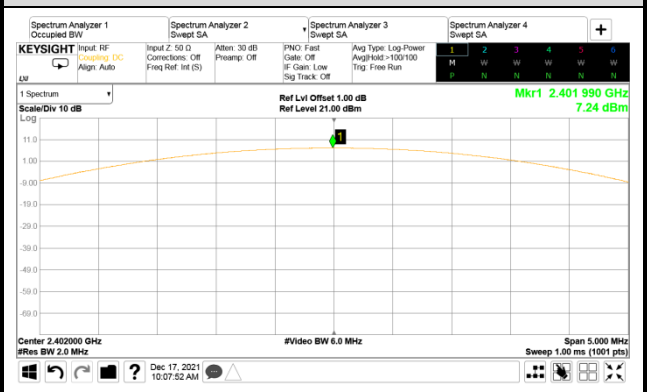
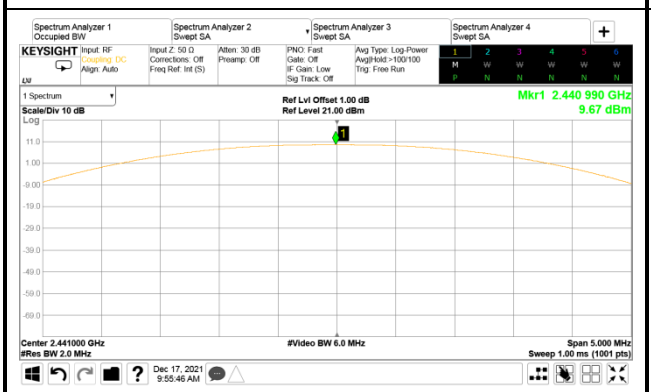
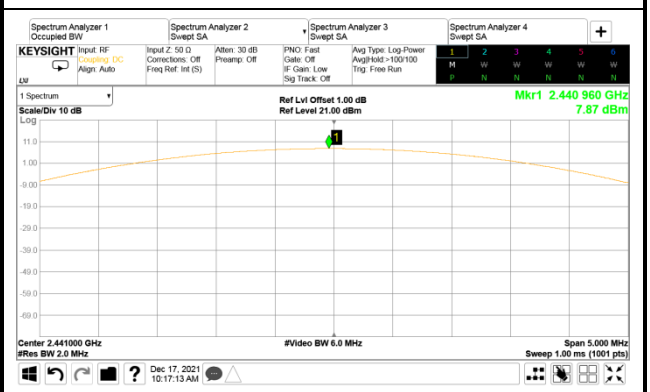
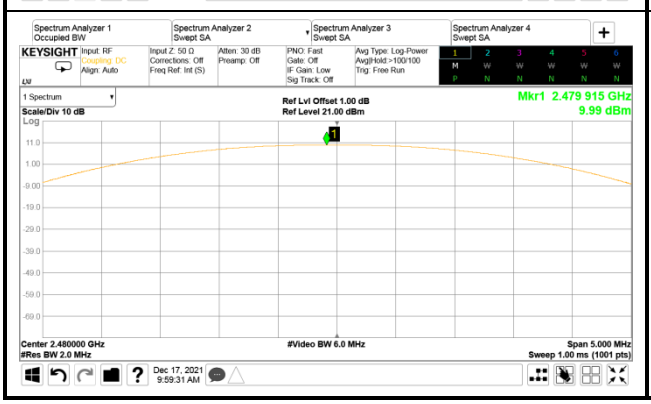
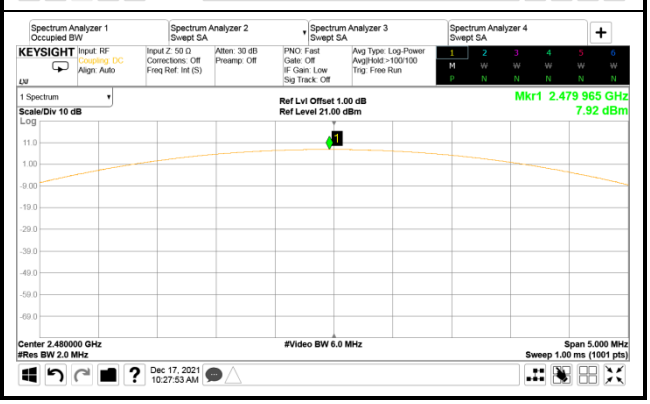
A.7.2 Measurement Plots

GFSK	8-DPSK
	
	
	

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A.8 EMISSION LIMITATIONS MEASUREMENT

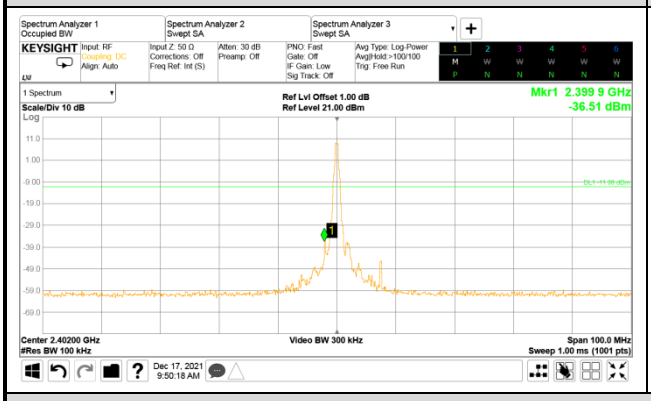
Test Date	2021/12/17	Temp./Hum.	21℃/60%
Cable Loss	1.00dB	Tested By	Kuper Hsu
Test Voltage	AC 120V 60Hz (Via AC Adapter)		

A.8.1 Band Edge

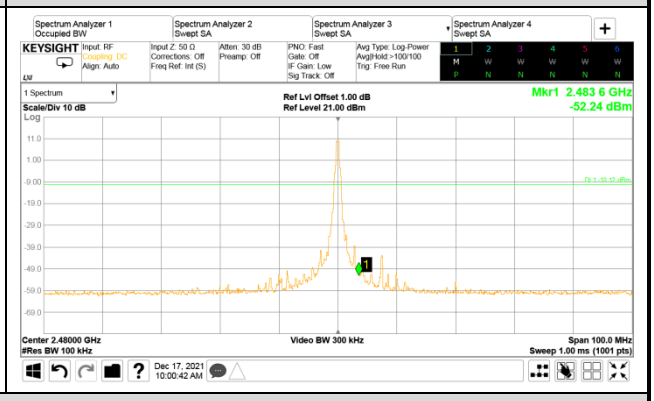
GFSK

Single Channel

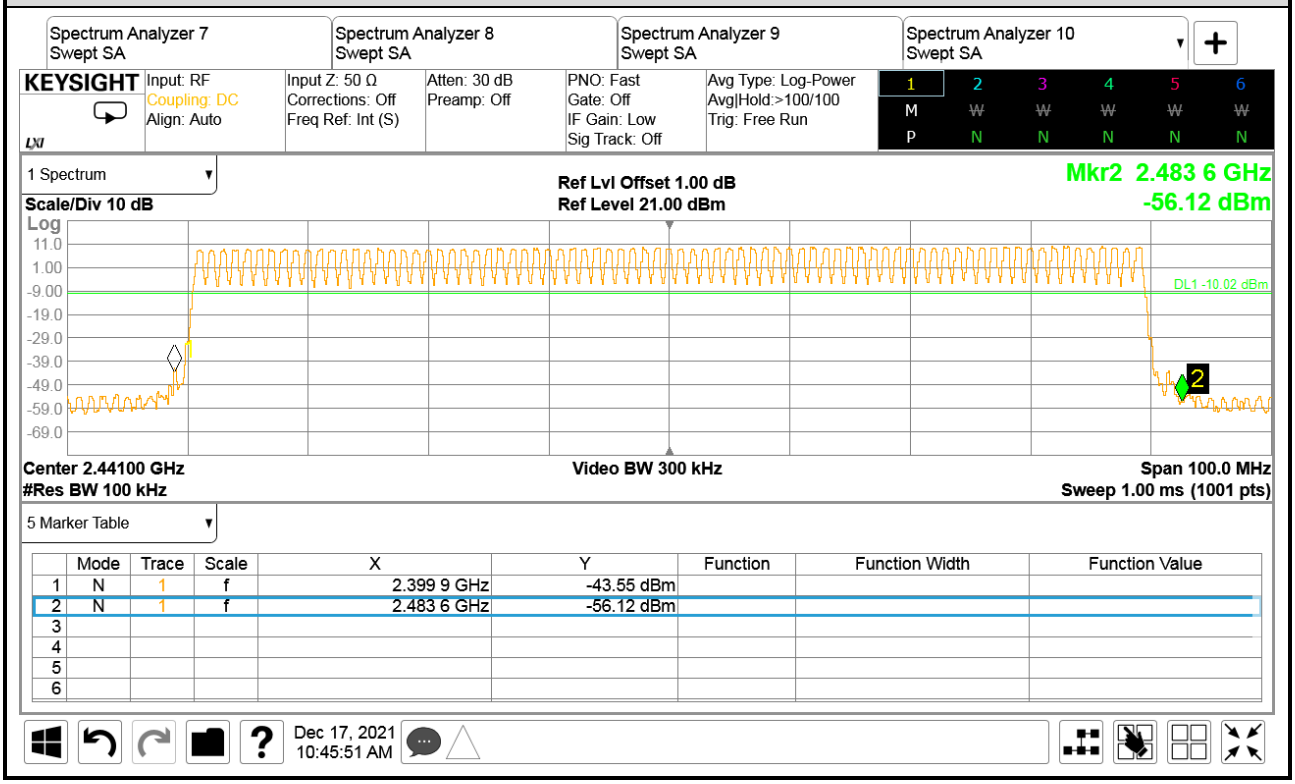
Low channel



High channel



Hopping Mode



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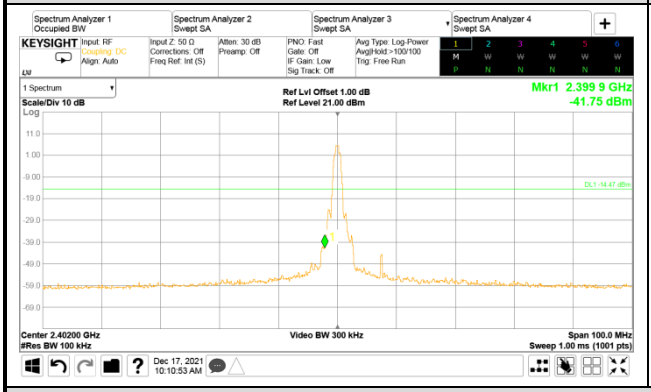
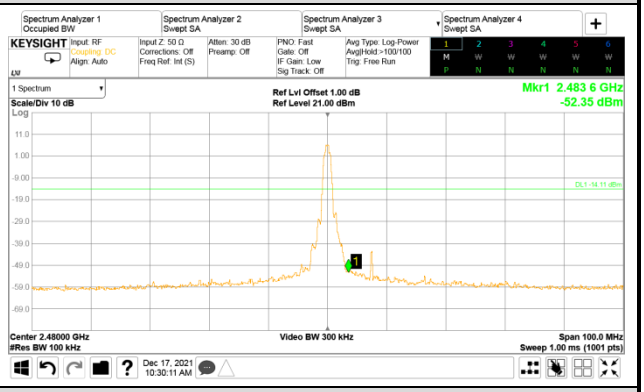
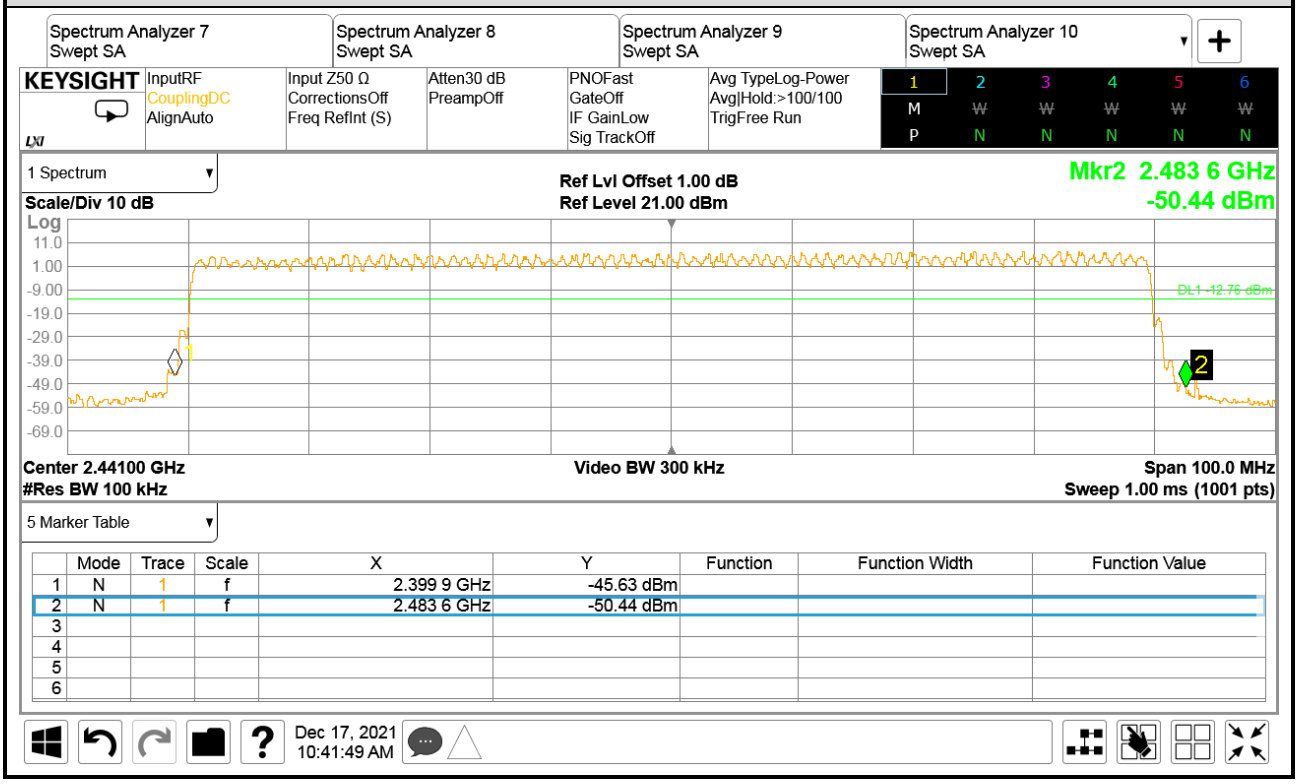
8-DPSK

Single Channel

Low channel	High channel
	

Hopping Mode



	Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.399 9 GHz	-45.63 dBm			
2	N	1	f	2.483 6 GHz	-50.44 dBm			
3								
4								
5								
6								

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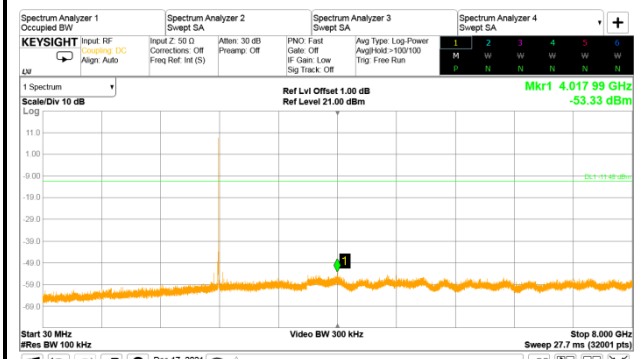
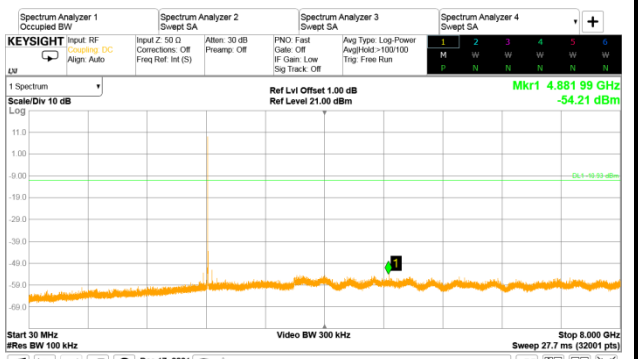
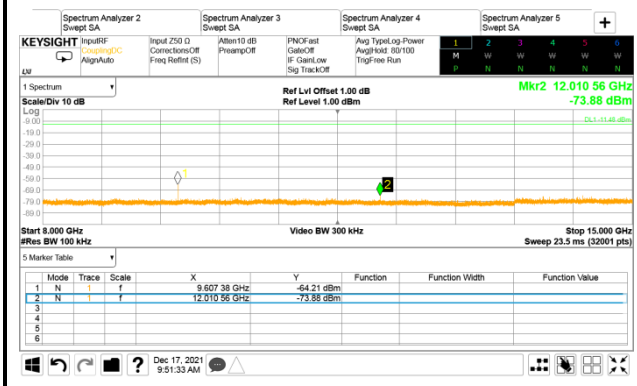
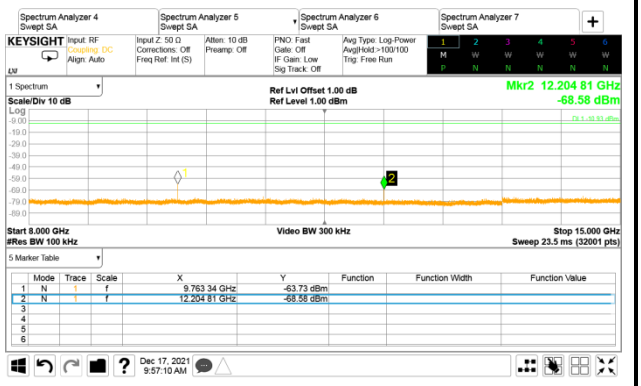
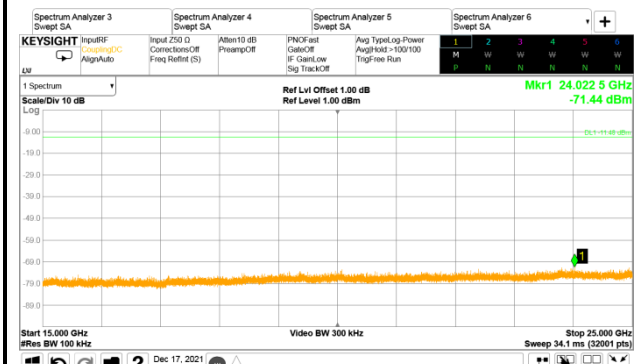
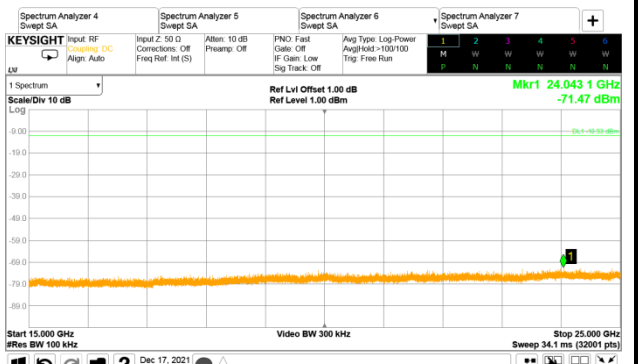
A.8.2 Spurious Emission

GFSK	
2402MHz	2441MHz
30MHz –8GHz	30MHz –8GHz
	
8GHz –15GHz	8GHz –15GHz
	
15GHz – 25GHz	15GHz – 25GHz
	

Note: All results have been included cable loss.

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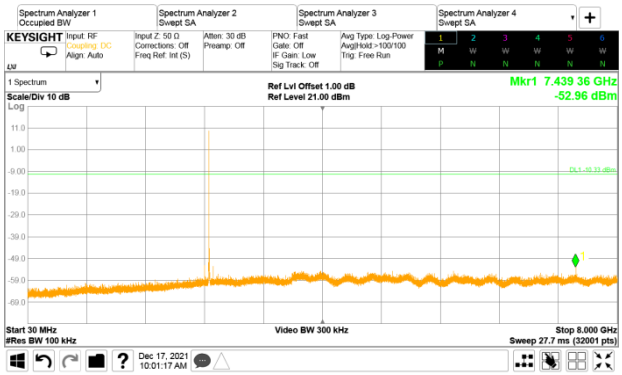
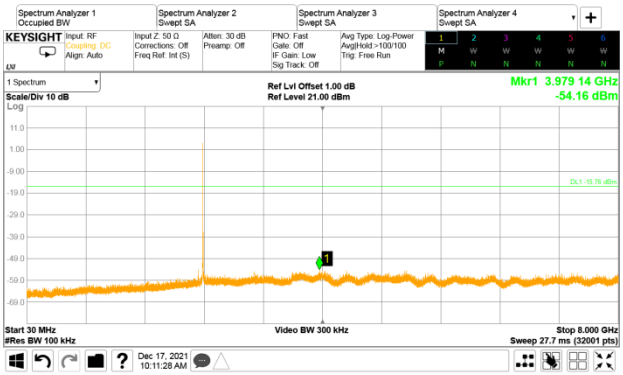
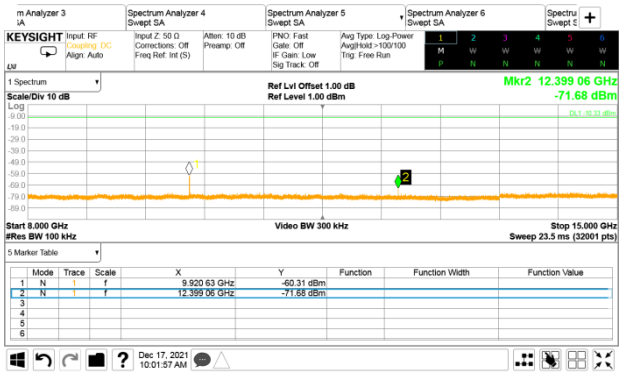
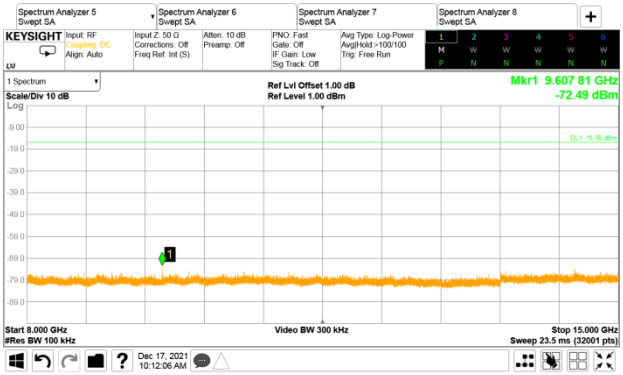
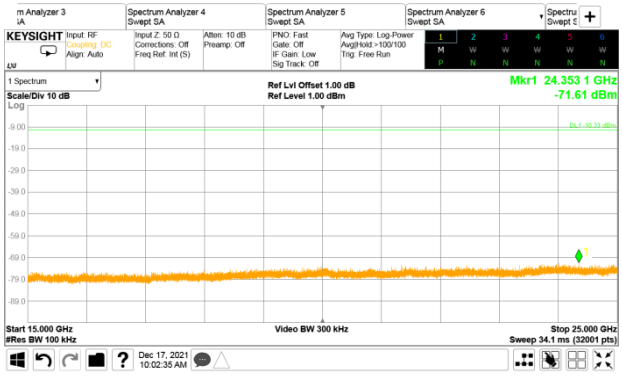
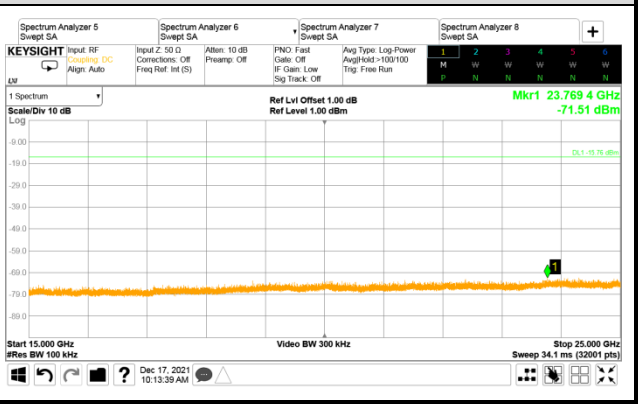
GFSK	8-DPSK
2480MHz	2402MHz
30MHz –8GHz	30MHz –8GHz
	
8GHz –15GHz	8GHz –15GHz
	
15GHz – 25GHz	15GHz – 25GHz
	

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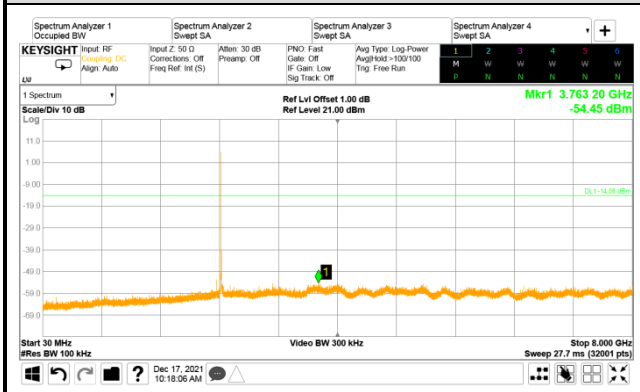
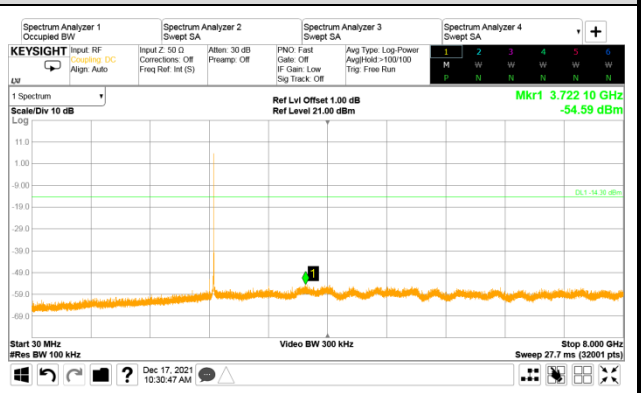
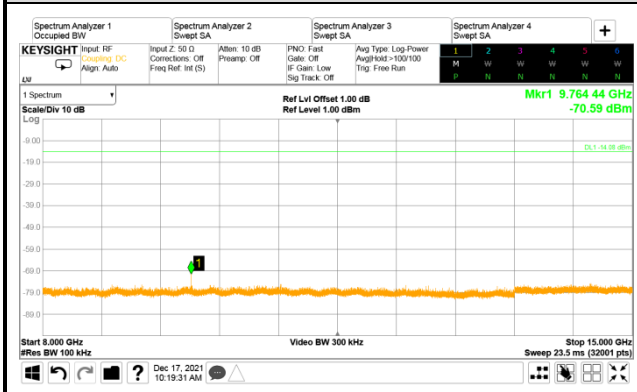
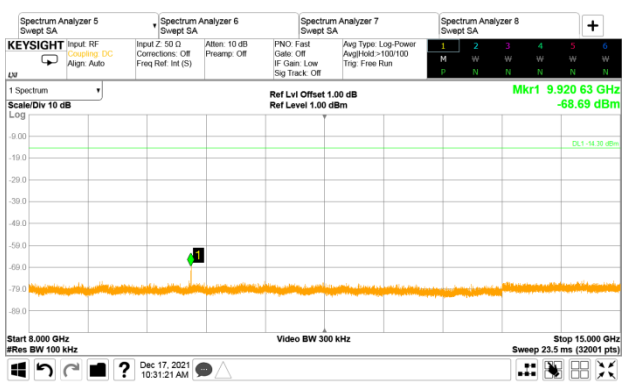
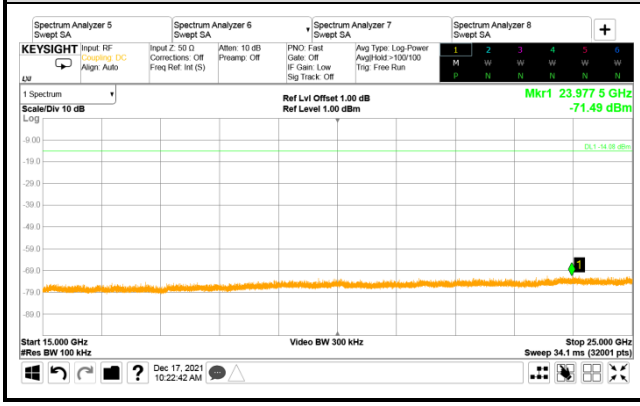
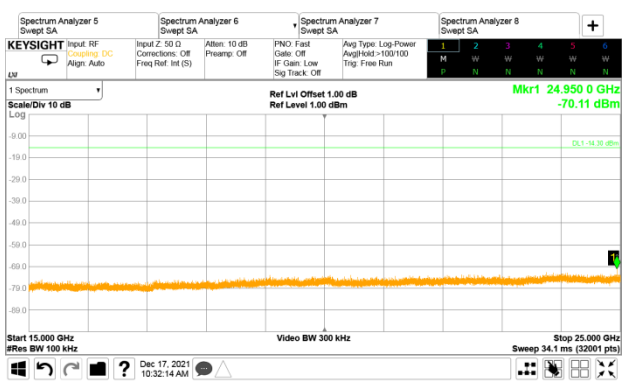
8-DPSK	
2441MHz	2480MHz
30MHz –8GHz	30MHz –8GHz
	
8GHz –15GHz	8GHz –15GHz
	
15GHz – 25GHz	15GHz – 25GHz
	

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