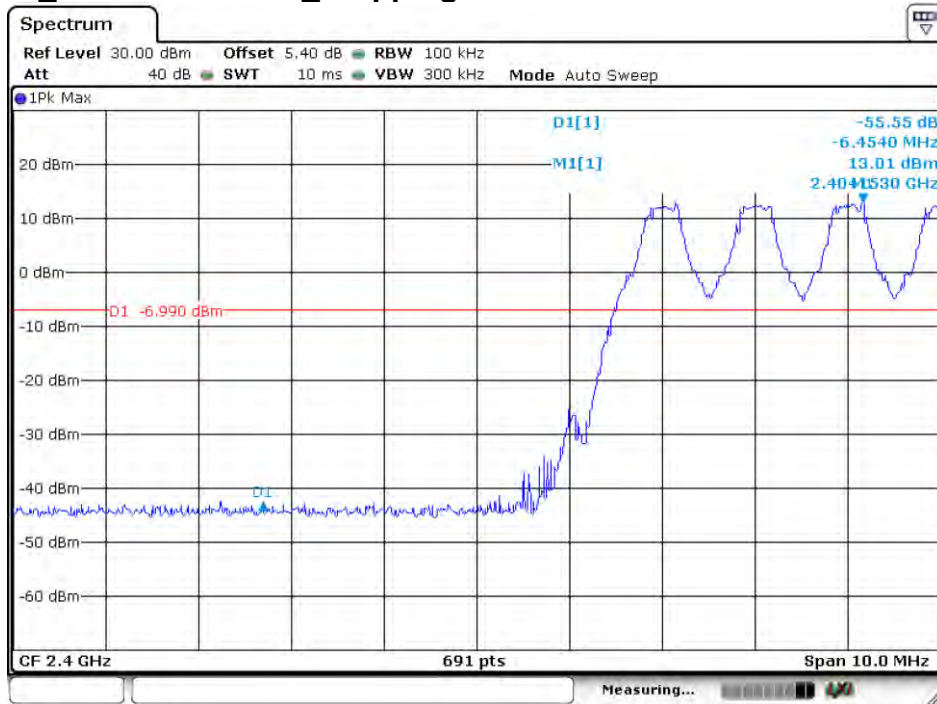


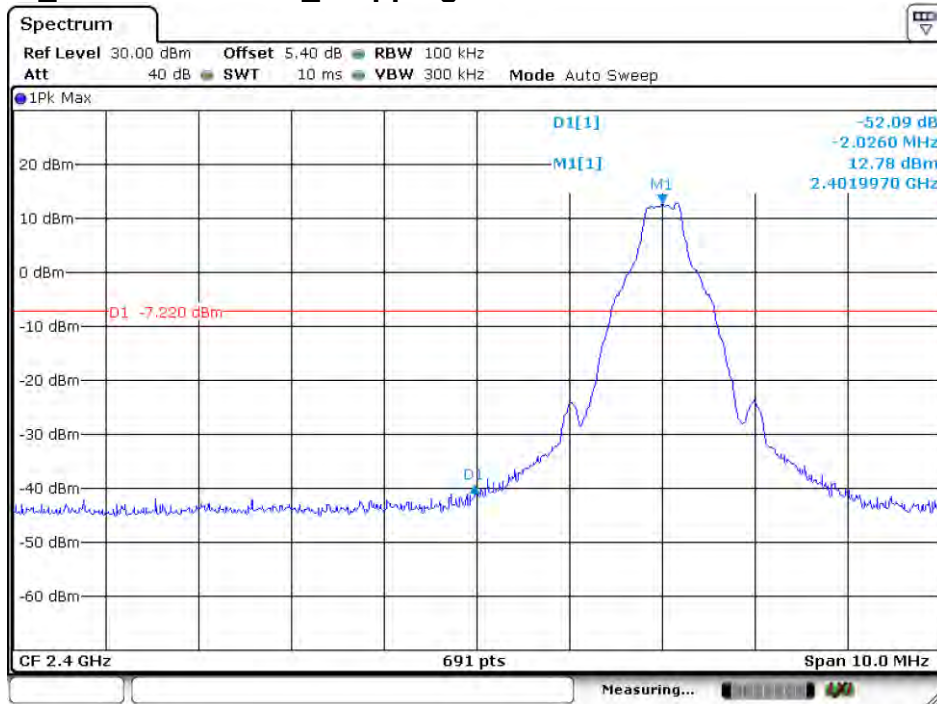
4.9.1 Test plots
4.9.1.1 GFSK_Lowest Channel_ Hopping ON



Date: 27.AUG.2020 21:41:54

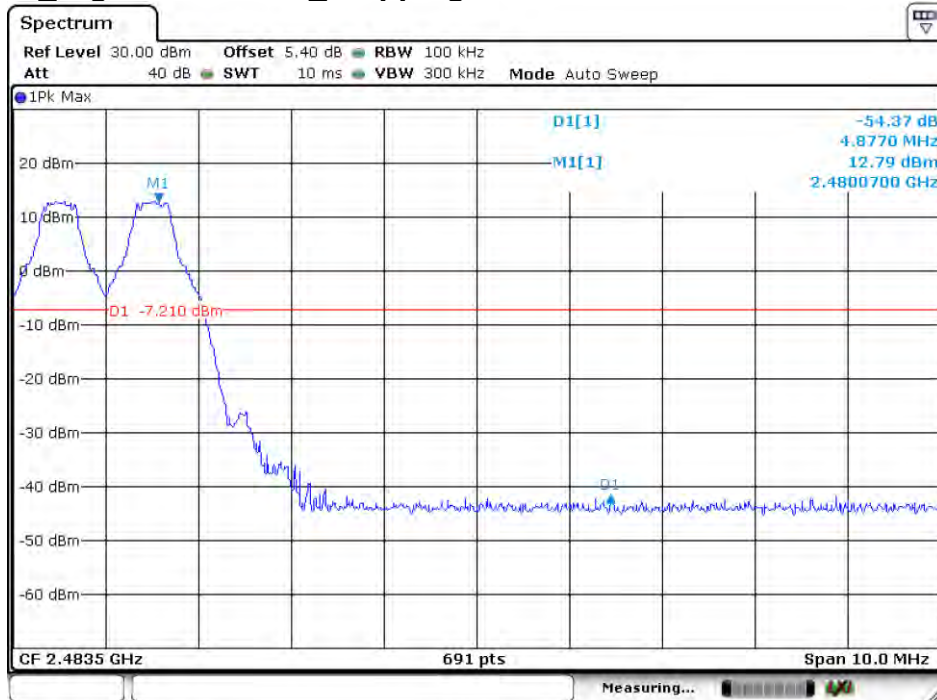


4.9.1.2 GFSK_Lowest Channel_Hopping OFF



Date: 27.AUG.2020 21:33:55

4.9.1.3 GFSK_Highest Channel_Hopping ON

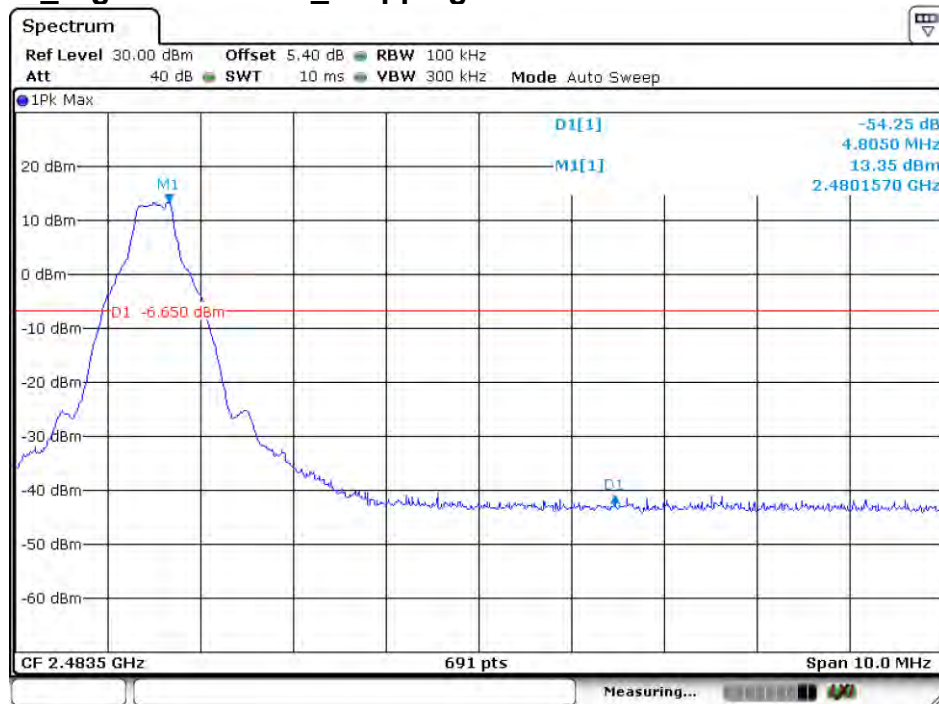


Date: 27.AUG.2020 21:42:40



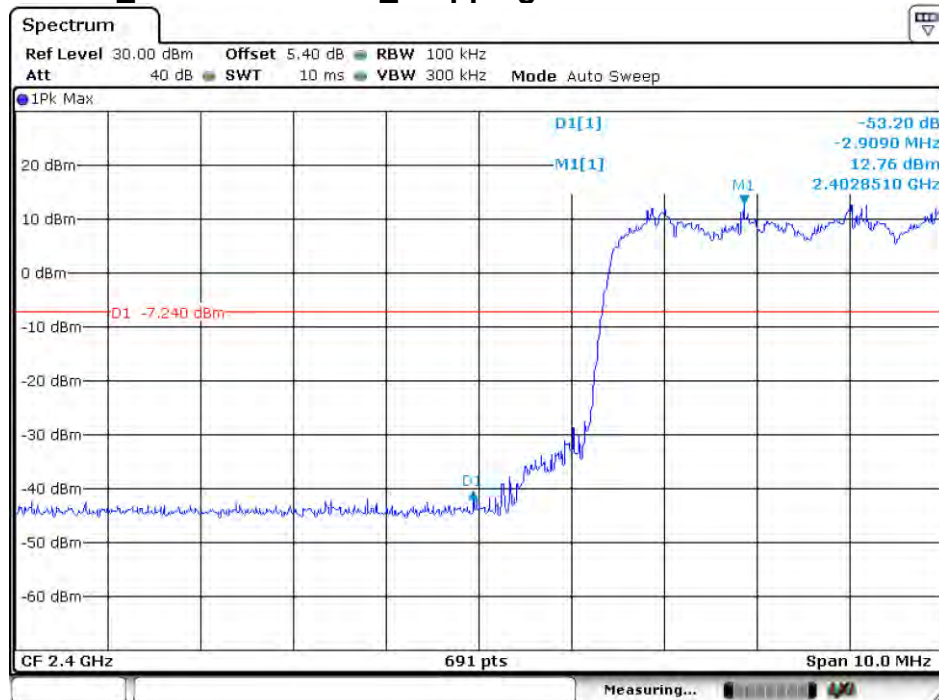
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4.9.1.4 GFSK_Highest Channel_Hopping OFF



Date: 27.AUG.2020 21:33:11

4.9.1.5 $\pi/4$ DQPSK_Lowest Channel_Hopping ON



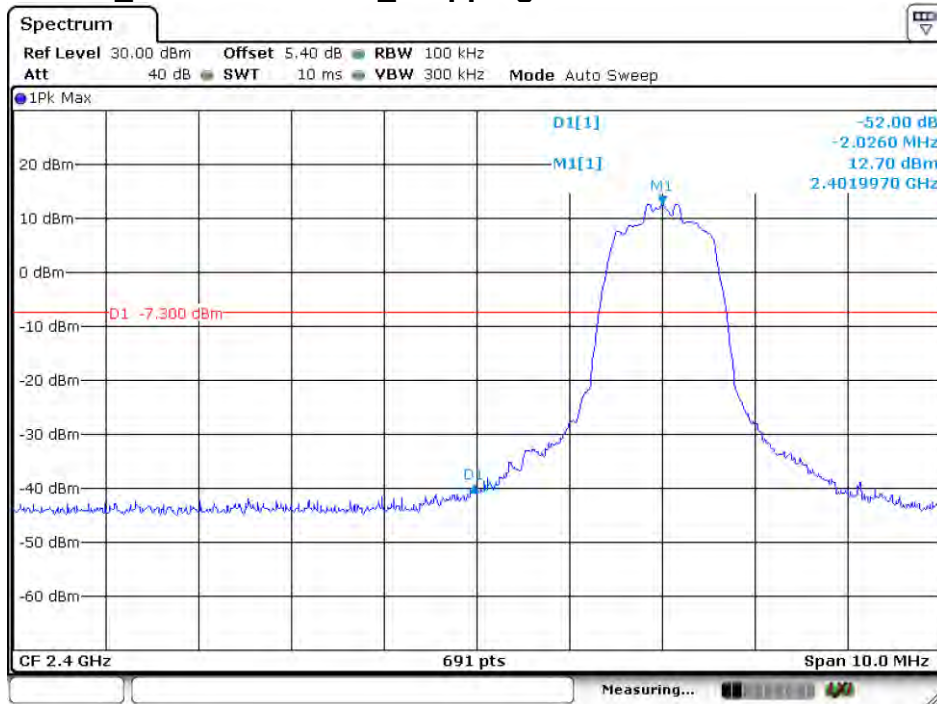
Date: 27.AUG.2020 21:41:08



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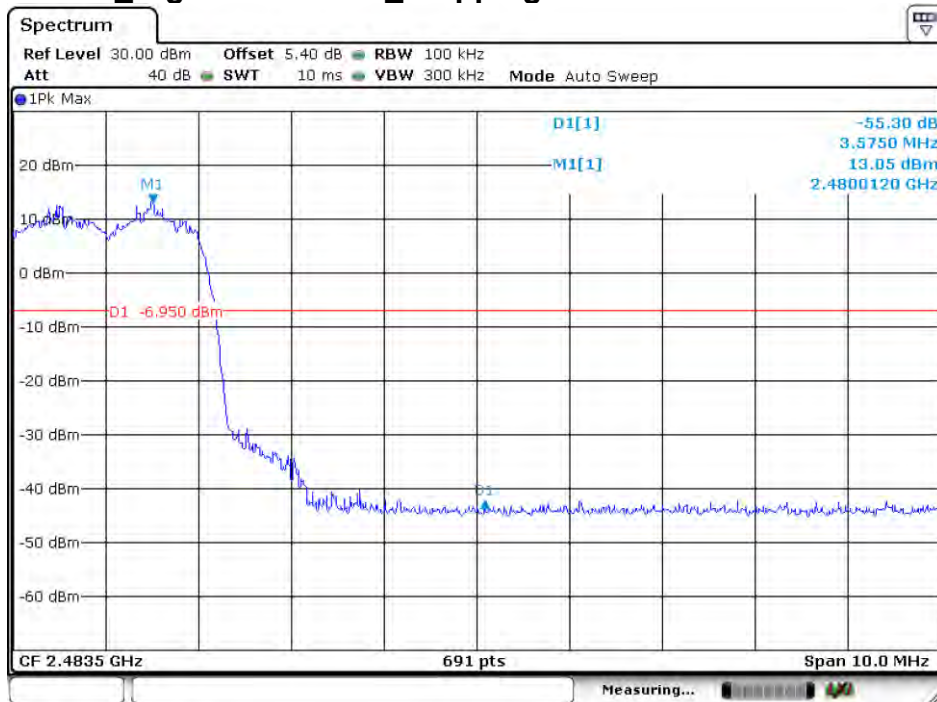
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4.9.1.6 $\pi/4$ DQPSK _Lowest Channel_ Hopping OFF



Date: 27.AUG.2020 21:34:50

4.9.1.7 $\pi/4$ DQPSK _Highest Channel_ Hopping ON

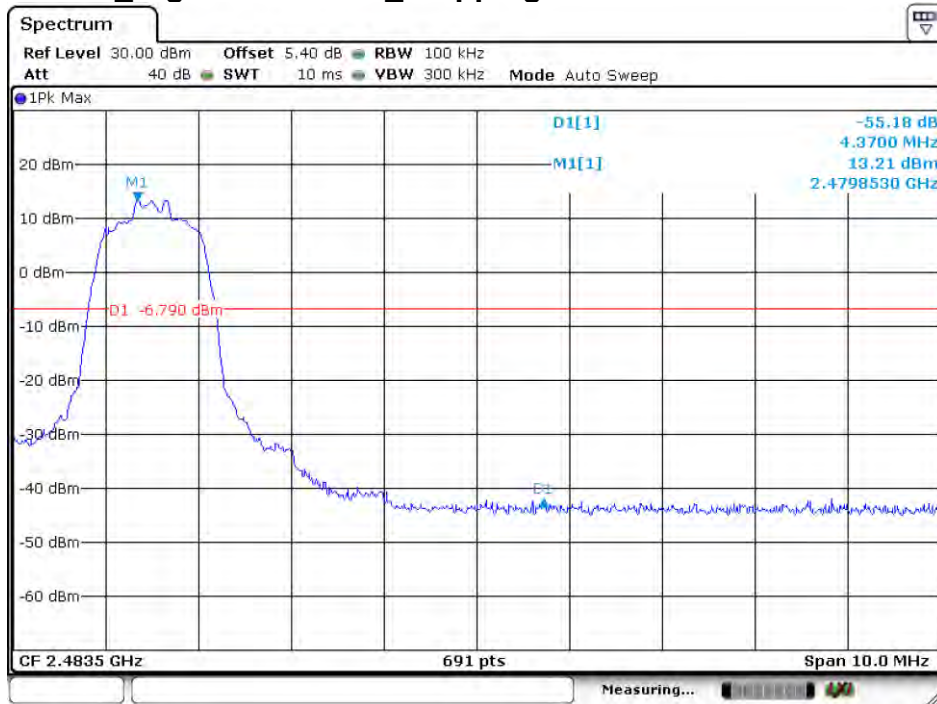


Date: 27.AUG.2020 21:40:19



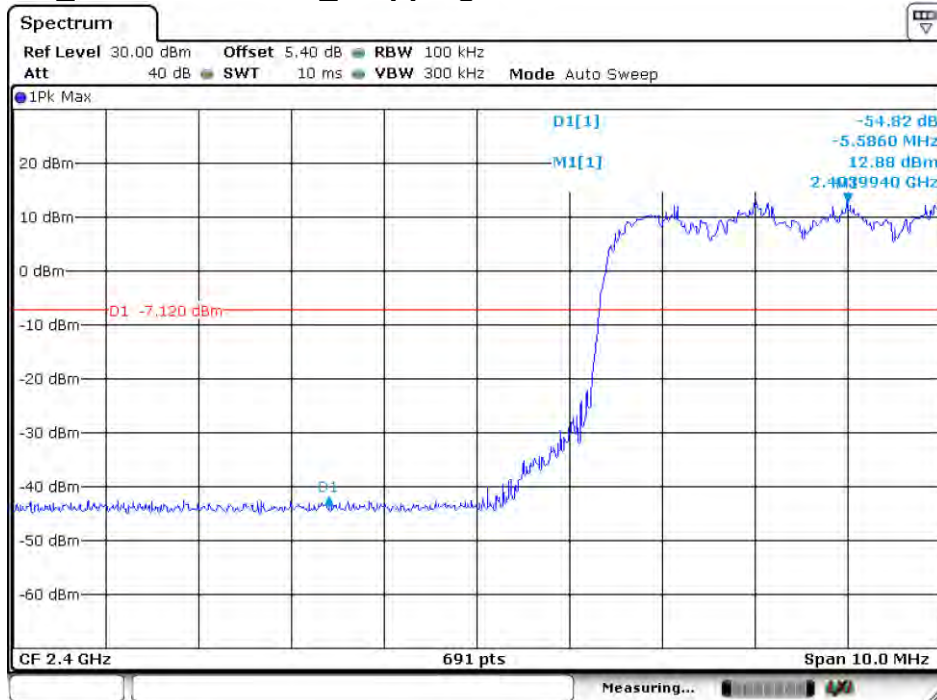
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4.9.1.8 $\pi/4$ DQPSK _Highest Channel_ Hopping OFF



Date: 27.AUG.2020 21:35:26

4.9.1.9 8DPSK _Lowest Channel_ Hopping ON

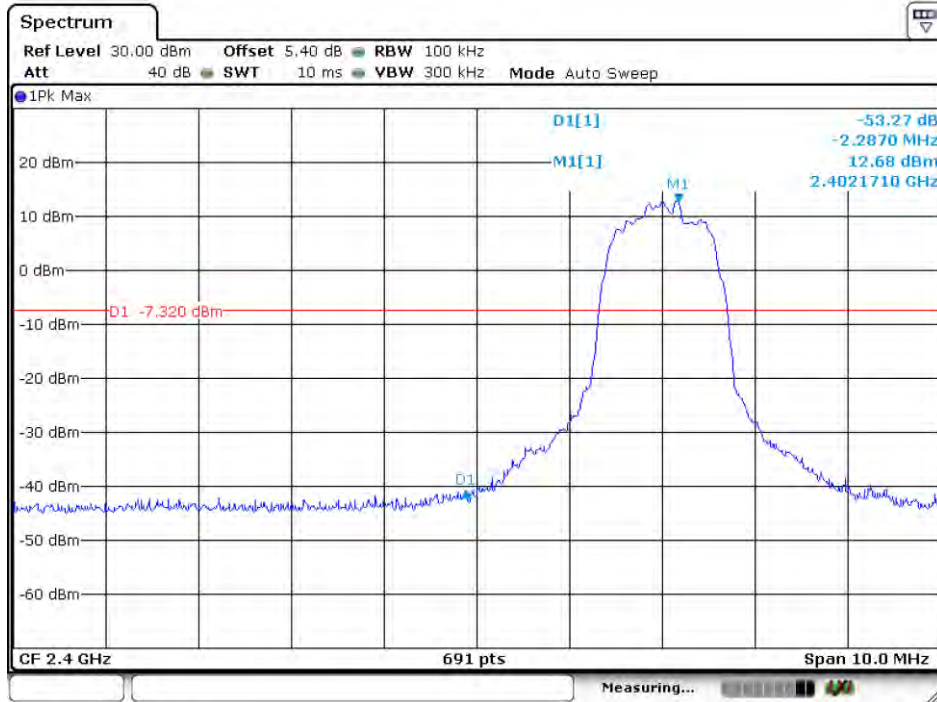


Date: 27.AUG.2020 21:38:50



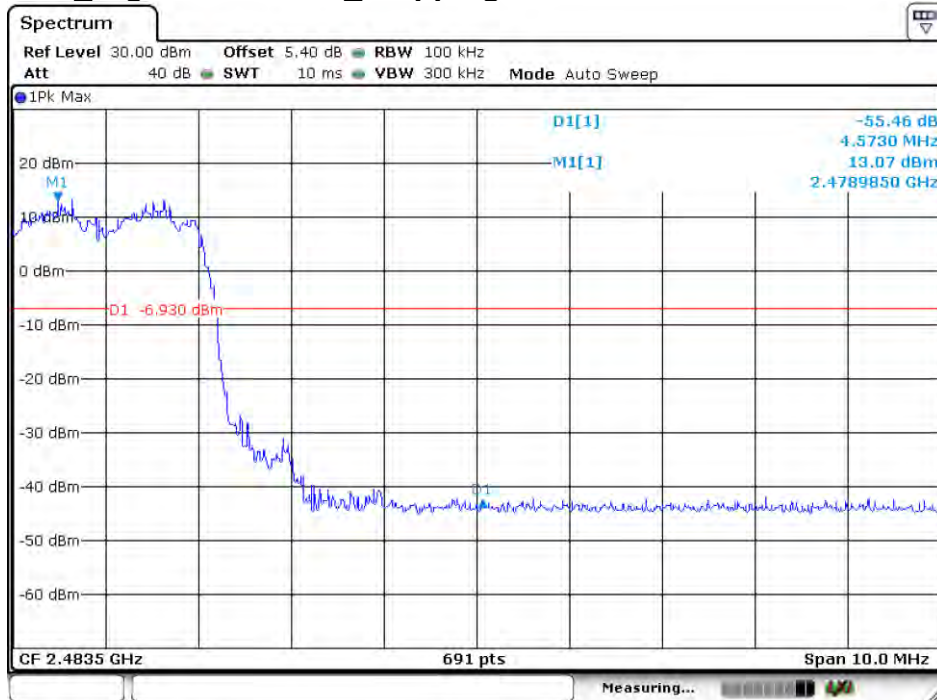
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4.9.1.10 8DPSK_Lowest Channel_Hopping OFF



Date: 27.AUG.2020 21:37:32

4.9.1.11 8DPSK_Highest Channel_Hopping ON

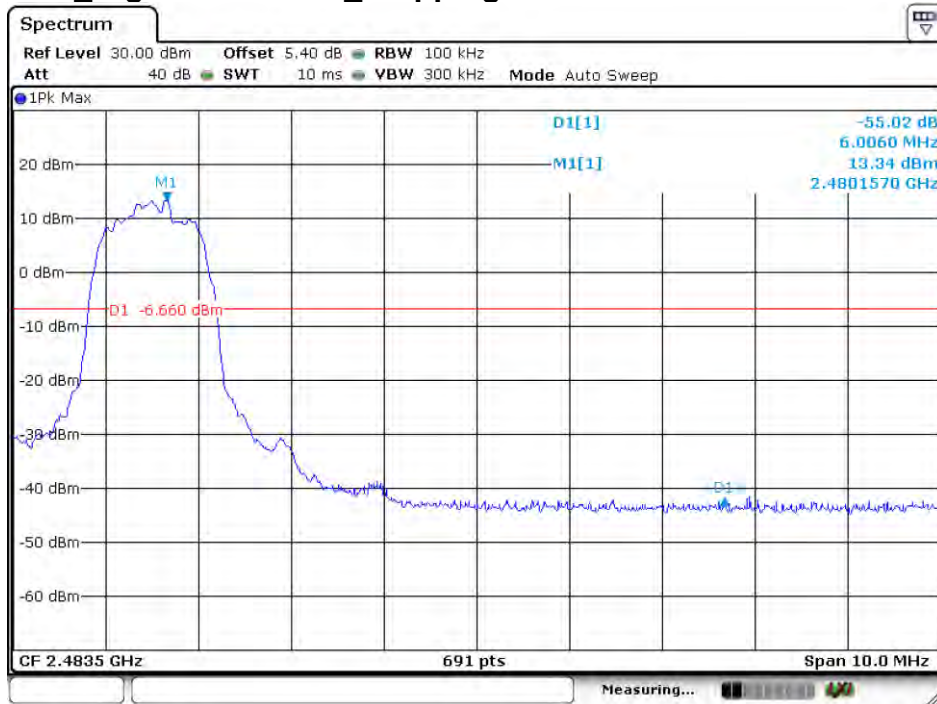


Date: 27.AUG.2020 21:39:35



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4.9.1.12 8DPSK_Highest Channel_Hopping OFF



Date: 27.AUG.2020 21:36:40



4.10 Spurious RF Conducted Emissions

Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10:2013 Section 7.8.8
Test Setup:	
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Exploratory Test Mode:	Non-hopping transmitting with all kind of modulation and all kind of data type
Final Test Mode:	Through Pre-scan, find the DH5 of data type is the worst case of GFSK modulation type, 2-DH5 of data type is the worst case of $\pi/4$ DQPSK modulation type, 3-DH5 of data type is the worst case of 8DPSK modulation type.
Instruments Used:	Refer to section 5.10 for details
Test Results:	Pass



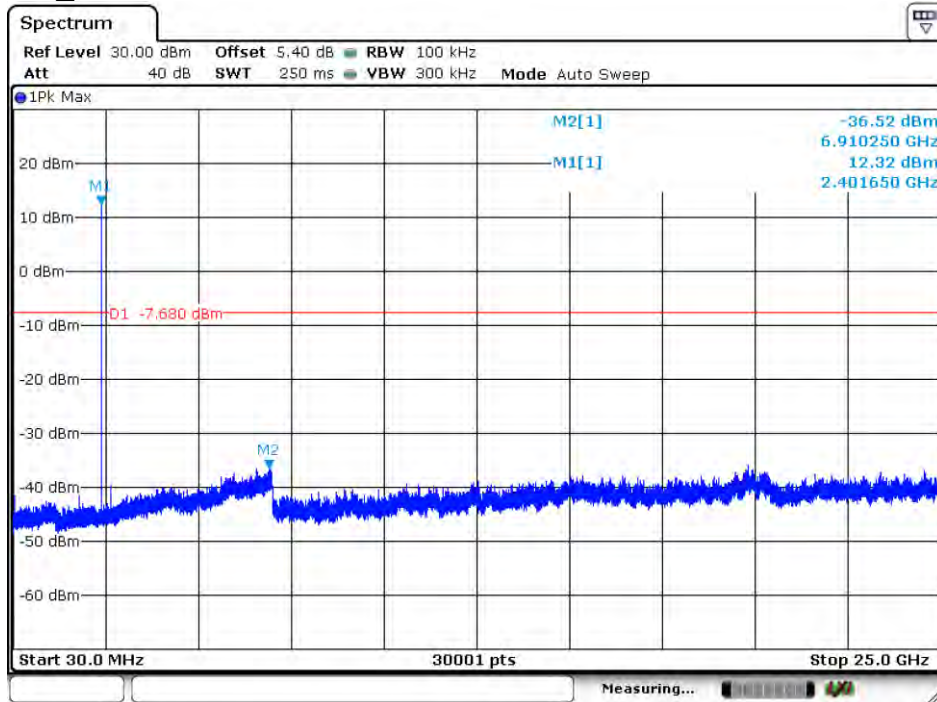
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4.10.1 Test plots

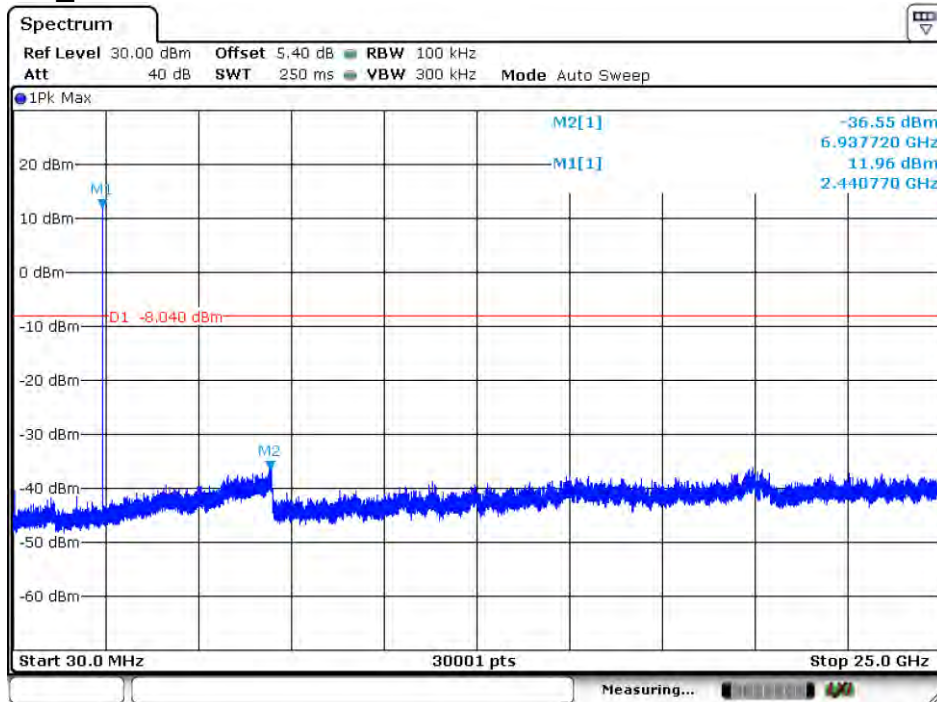
4.10.1.1 GFSK_Lowest Channel



Date: 27.AUG.2020 21:56:18

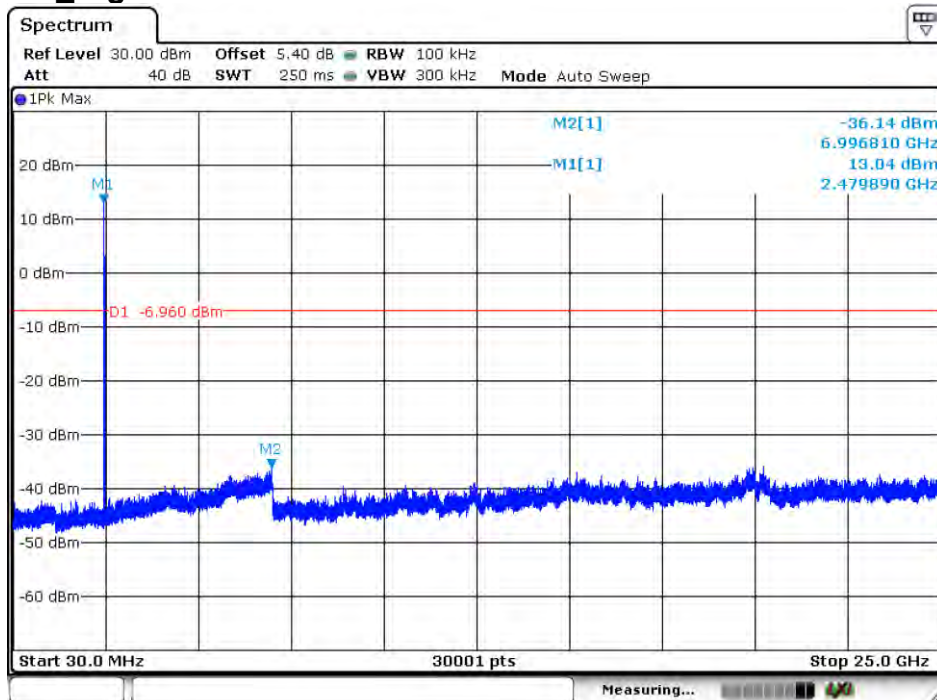


4.10.1.2 GFSK_Middle Channel



Date: 27.AUG.2020 21:57:24

4.10.1.3 GFSK_Highest Channel

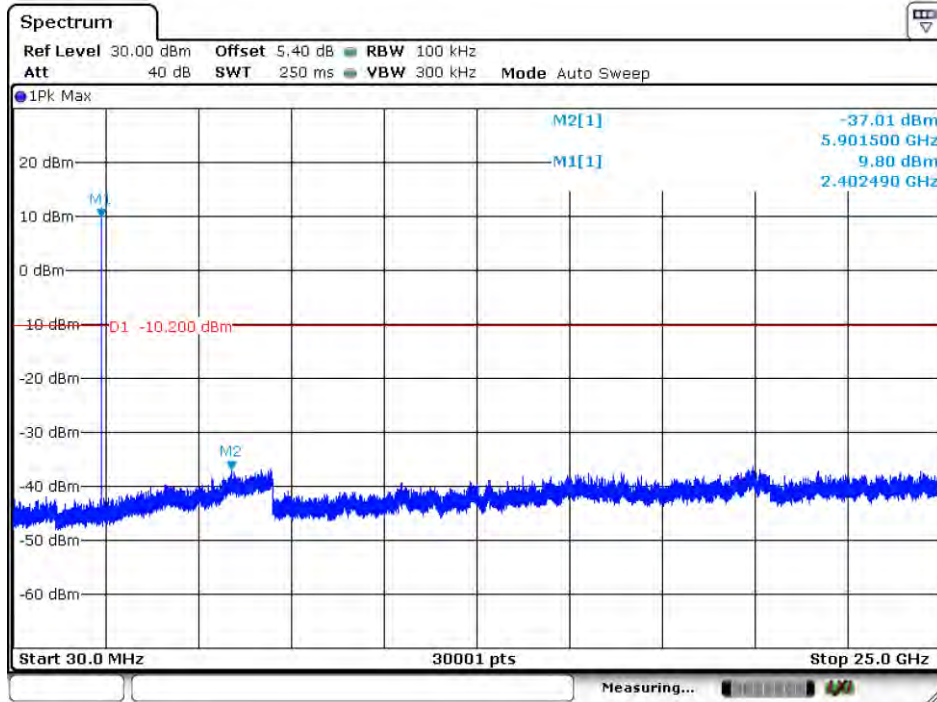


Date: 27.AUG.2020 21:58:21

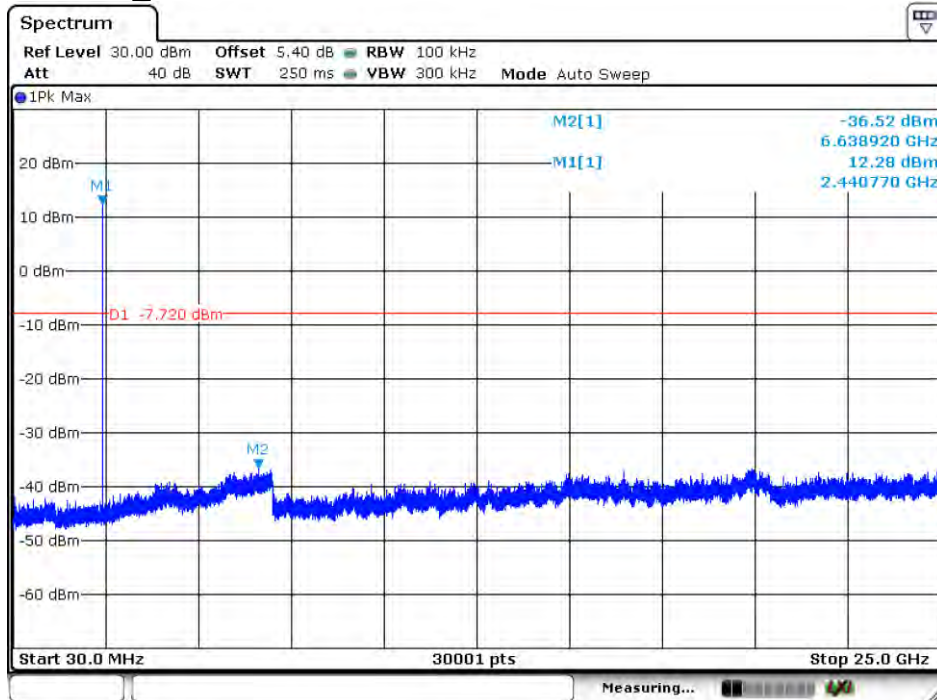


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4.10.1.4 $\pi/4$ DQPSK _Lowest Channel



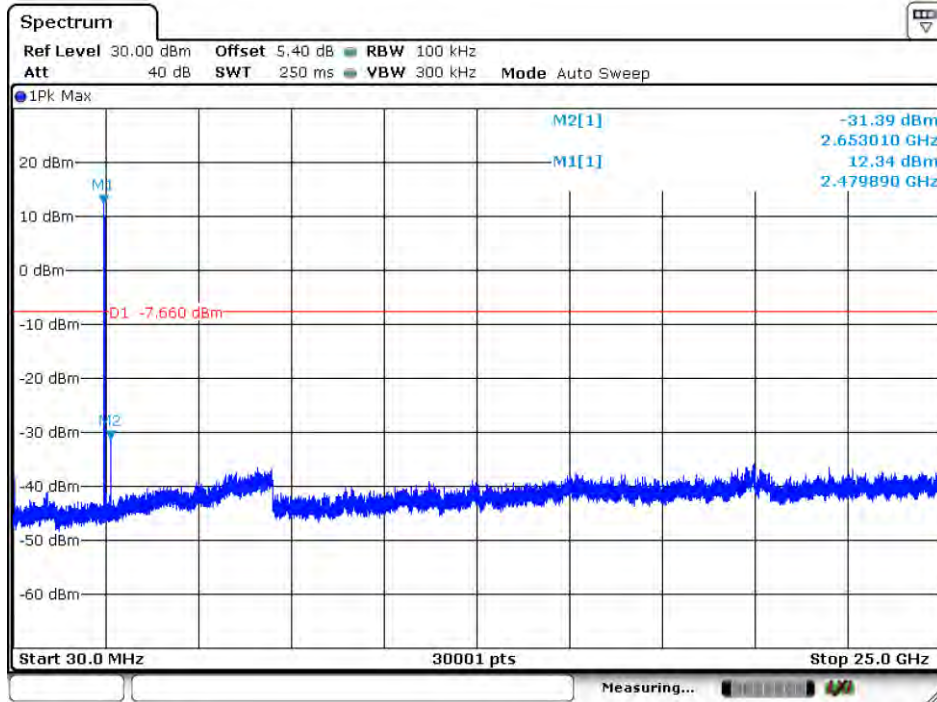
4.10.1.5 $\pi/4$ DQPSK _Middle Channel



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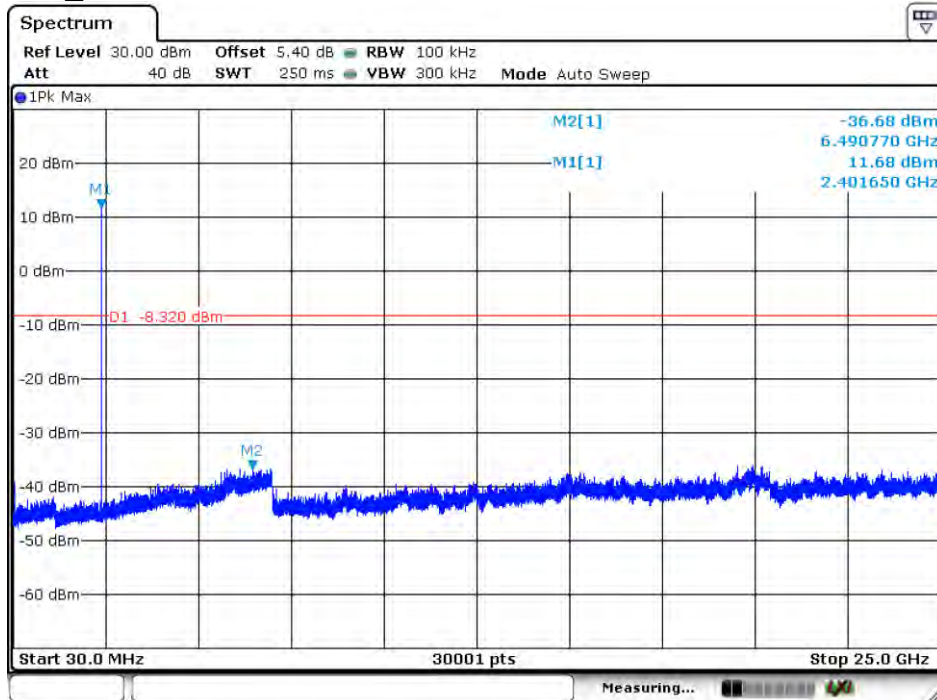
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4.10.1.6 $\pi/4$ DQPSK_Highest Channel



Date: 27.AUG.2020 21:59:32

4.10.1.7 8DPSK_Lowest Channel



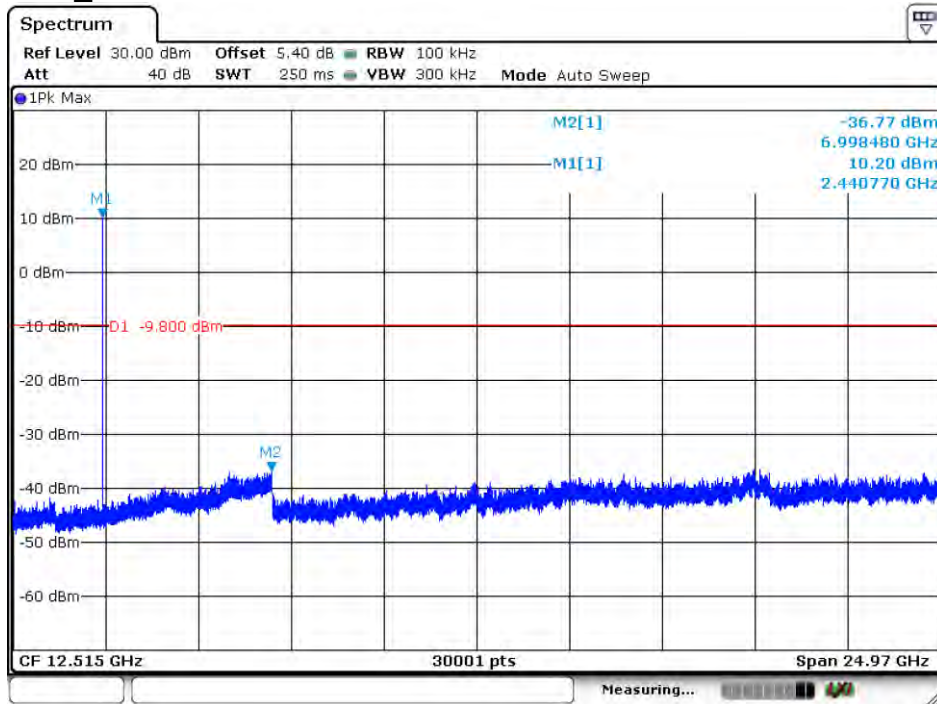
Date: 27.AUG.2020 22:03:09



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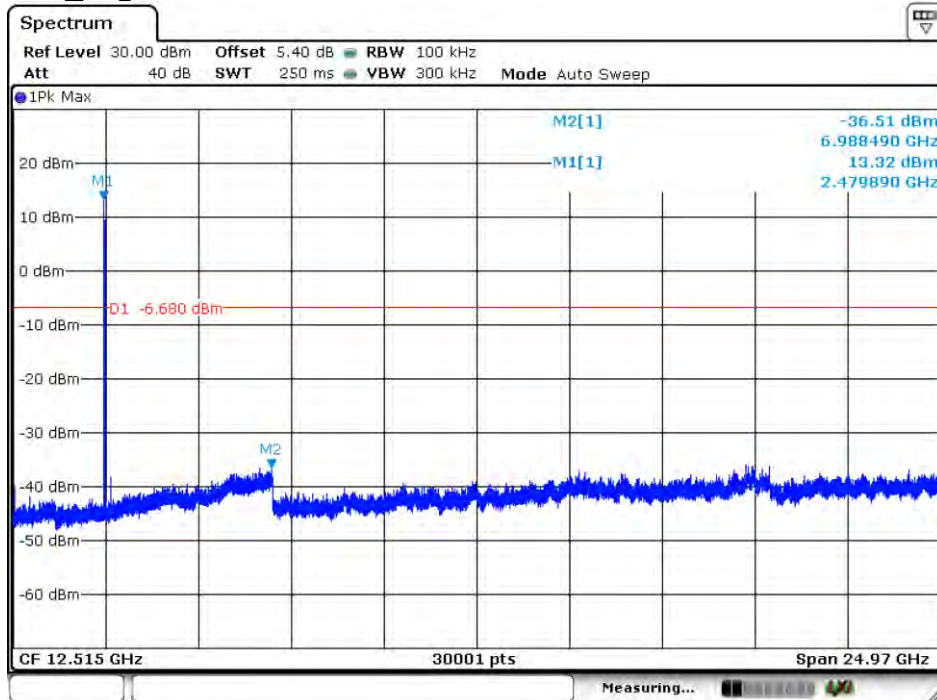
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4.10.1.8 8DPSK_Middle Channel



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4.10.1.9 8DPSK_Highest Channel



Date: 27.AUG.2020 22:05:21



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Remark:

Scan from 9kHz to 25GHz, the disturbance between 9KHz to 30MHz was very low, and the above harmonics were the highest point could be found when testing, The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.



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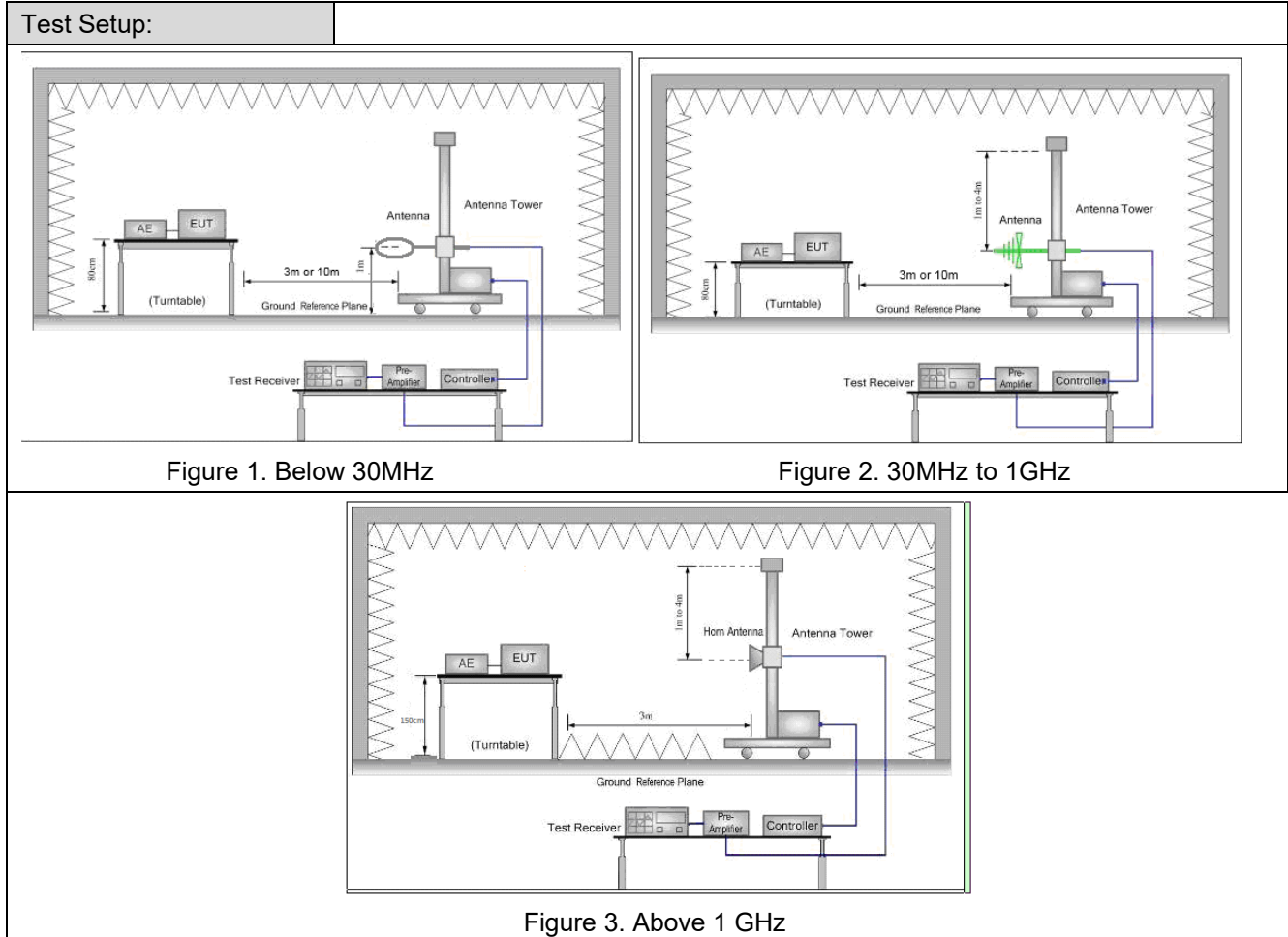
4.11 Radiated Spurious Emission

Test Requirement:	47 CFR Part 15C Section 15.209 and 15.205				
Test Method:	ANSI C63.10: 2013				
Test Site:	Measurement Distance: 3m or 10m (Semi-Anechoic Chamber)				
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak
	0.009MHz-0.090MHz	Average	10kHz	30kHz	Average
	0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
	0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak
	0.110MHz-0.490MHz	Average	10kHz	30kHz	Average
	0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
	30MHz-1GHz	Quasi-peak	100 kHz	300kHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
Peak		1MHz	10Hz	Average	
Limit:	Frequency	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)
	0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
	1.705MHz-30MHz	30	-	-	30
	30MHz-88MHz	100	40.0	Quasi-peak	3
	88MHz-216MHz	150	43.5	Quasi-peak	3
	216MHz-960MHz	200	46.0	Quasi-peak	3
	960MHz-1GHz	500	54.0	Quasi-peak	3
	Above 1GHz	500	54.0	Average	3
Remark: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.					



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<p>Test Procedure:</p>	<p>a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.</p> <p>b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.</p> <p>c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</p> <p>d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.</p> <p>e. Use the following spectrum analyzer settings: (1) Span shall wide enough to fully capture the emission being measured; (2) Set RBW=100 kHz for $f < 1 \text{ GHz}$, $\text{RBW}=1\text{MHz}$ for $f > 1\text{GHz}$; $\text{VBW} \geq \text{RBW}$; Sweep = auto; Detector function = peak; Trace = max hold for peak (3) For average measurement: use duty cycle correction factor method per 15.35(c). $\text{Duty cycle} = \text{On time}/100 \text{ milliseconds}$ $\text{On time} = N_1 * L_1 + N_2 * L_2 + \dots + N_{n-1} * L_{n-1} + N_n * L_n$ Where N_1 is number of type 1 pulses, L_1 is length of type 1 pulses, etc. $\text{Average Emission Level} = \text{Peak Emission Level} + 20 * \log(\text{Duty cycle})$</p> <p>f. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.</p> <p>g. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</p> <p>h. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.</p> <p>i. Test the EUT in the lowest channel (2402MHz), the middle channel (2441MHz), the Highest channel (2480MHz)</p> <p>j. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.</p> <p>k. Repeat above procedures until all frequencies measured was complete.</p>
<p>Exploratory Test Mode:</p>	<p>Non-hopping transmitting mode with all kind of modulation and all kind of data type</p>



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	Charge + Transmitting mode.
Final Test Mode:	Through Pre-scan, find the DH5 of data type and GFSK modulation is the worst case. Pretest the EUT at Charge + Transmitting mode For below 1GHz part, through pre-scan, the worst case is the lowest channel. Only the worst case is recorded in the report.
Instruments Used:	Refer to section 5.10 for details
Test Results:	Pass



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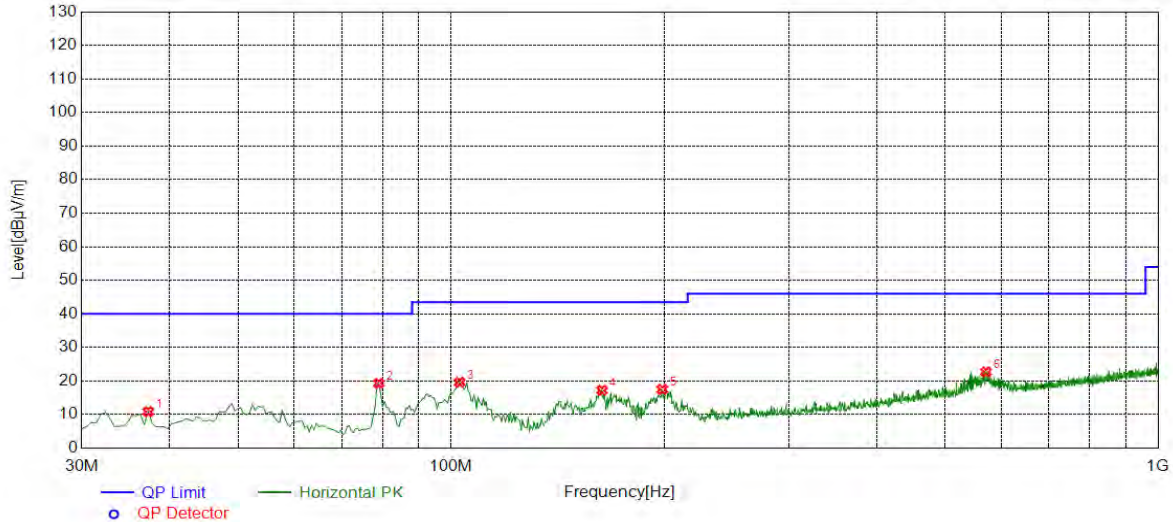
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4.11.1 Radiated Emission below 1GHz
4.11.1.1 Charge + Transmitting

Project Information			
Mode:	GFSK	State:	
Environment:	Temp: 25°C; Humi:60%	Engineer:	

Test Graph



Suspected List

Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	37.2786	10.91	-32.03	40.00	29.09	140	244	Horizontal
2	79.0095	19.30	-35.71	40.00	20.70	240	119	Horizontal
3	102.786	19.64	-31.68	43.50	23.86	181	253	Horizontal
4	163.441	17.24	-34.06	43.50	26.26	232	225	Horizontal
5	198.864	17.51	-30.93	43.50	25.99	172	225	Horizontal
6	571.045	22.72	-20.87	46.00	23.28	244	20	Horizontal

Final Data List

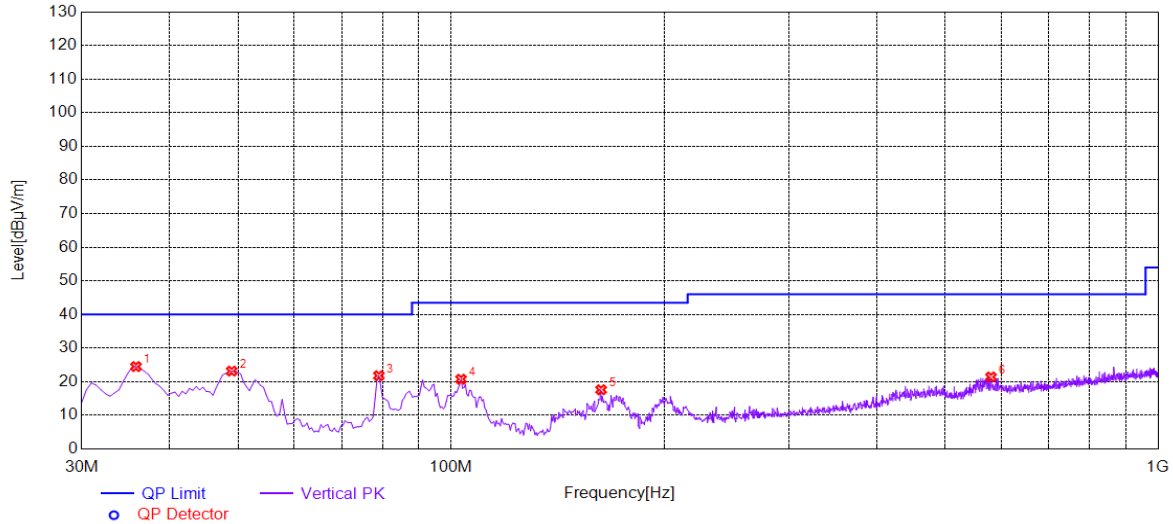


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Project Information			
Mode:	GFSK	State:	
Environment:	Temp: 25°C; Humi:60%	Engineer:	



Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	35.8229	24.52	-32.50	40.00	15.48	187	180	Vertical
2	48.9245	23.18	-30.19	40.00	16.82	236	329	Vertical
3	79.0095	21.81	-35.71	40.00	18.19	236	121	Vertical
4	103.271	20.76	-31.68	43.50	22.74	275	50	Vertical
5	162.956	17.62	-34.10	43.50	25.88	191	339	Vertical
6	580.265	21.44	-20.62	46.00	24.56	226	299	Vertical

Final Data List

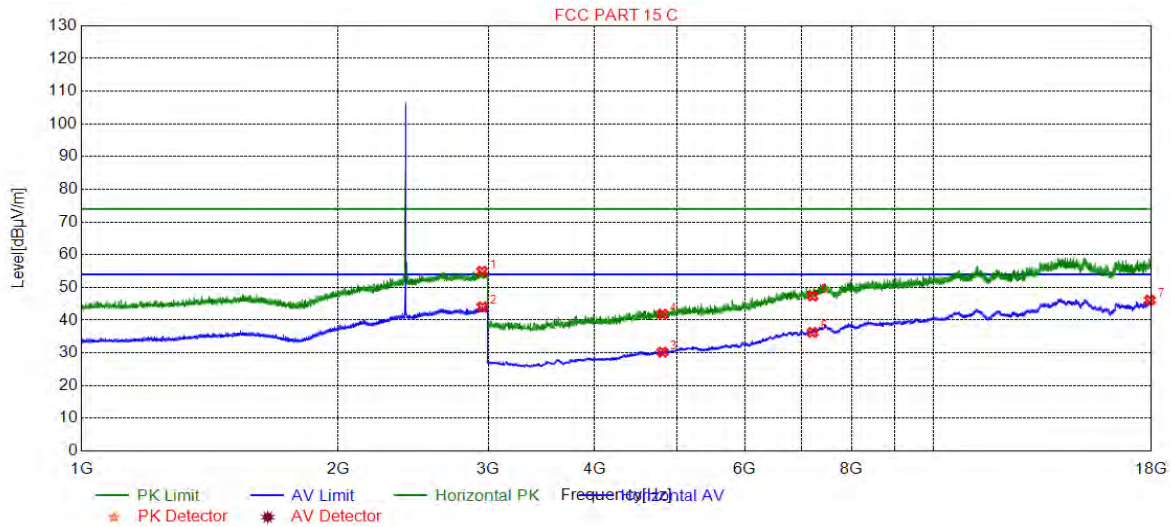


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4.11.2 Transmitter Emission above 1GHz

4.11.2.1 GFSK_Channel 0



Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2950.98	54.96	9.68	74.00	19.04	154	288	Horizontal
2	2953.48	44.06	9.66	54.00	9.94	103	247	Horizontal
3	4804.00	30.24	-18.30	54.00	23.76	212	14	Horizontal
4	4804.00	41.86	-18.30	74.00	32.14	142	315	Horizontal
5	7206.00	47.44	-9.82	74.00	26.56	210	41	Horizontal
6	7206.00	36.26	-9.82	54.00	17.74	168	261	Horizontal
7	17912.9	46.14	-1.31	54.00	7.86	162	152	Horizontal

Final Data List



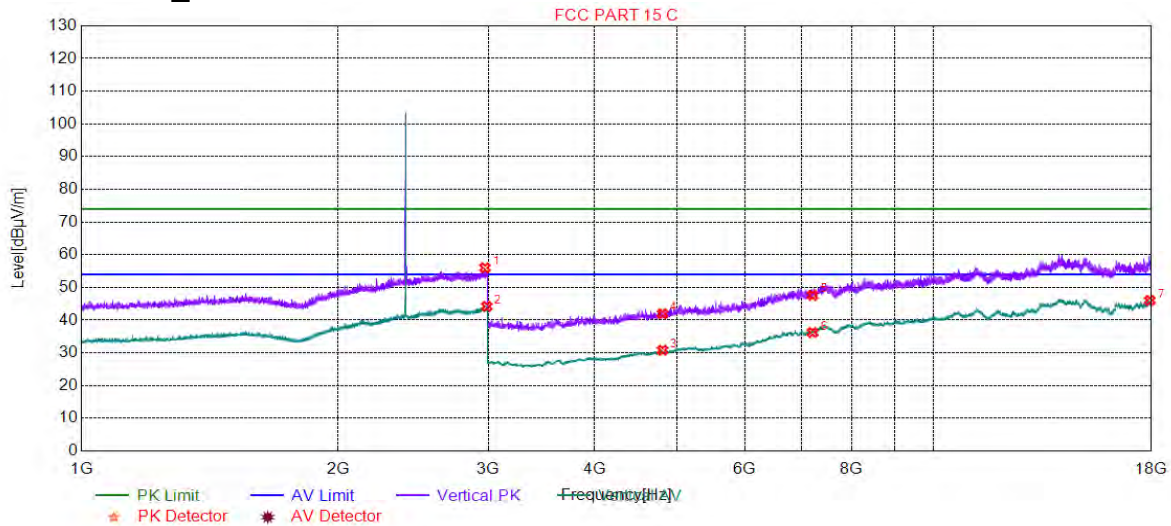
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4.11.2.2 GFSK_Channel 0



Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2973.99	56.03	9.57	74.00	17.97	198	167	Vertical
2	2988.49	44.22	9.50	54.00	9.78	175	345	Vertical
3	4804.00	30.84	-18.30	54.00	23.16	222	348	Vertical
4	4804.00	41.96	-18.30	74.00	32.04	152	320	Vertical
5	7206.00	47.62	-9.82	74.00	26.38	150	45	Vertical
6	7206.00	36.23	-9.82	54.00	17.77	197	237	Vertical
7	17917.4	46.04	-1.30	54.00	7.96	184	18	Vertical

Final Data List

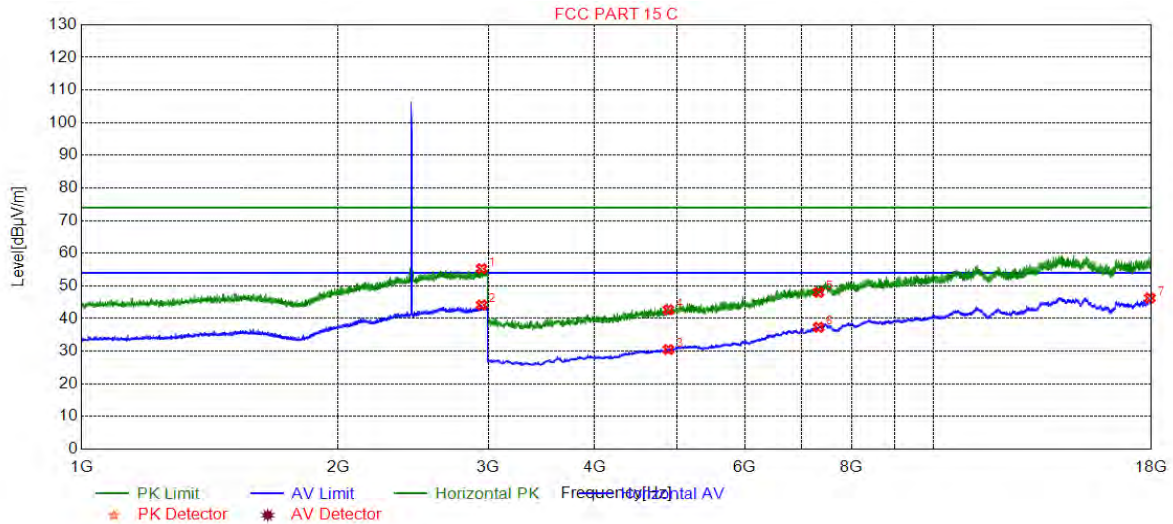


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4.11.2.3 GFSK_Channel 39



Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2946.98	55.29	9.65	74.00	18.71	192	2	Horizontal
2	2947.48	44.19	9.65	54.00	9.81	139	192	Horizontal
3	4882.00	30.51	-17.96	54.00	23.49	111	204	Horizontal
4	4882.00	42.71	-17.96	74.00	31.29	170	342	Horizontal
5	7323.00	48.03	-9.53	74.00	25.97	143	177	Horizontal
6	7323.00	37.34	-9.53	54.00	16.66	152	67	Horizontal
7	17917.4	46.31	-1.30	54.00	7.69	150	231	Horizontal

Final Data List



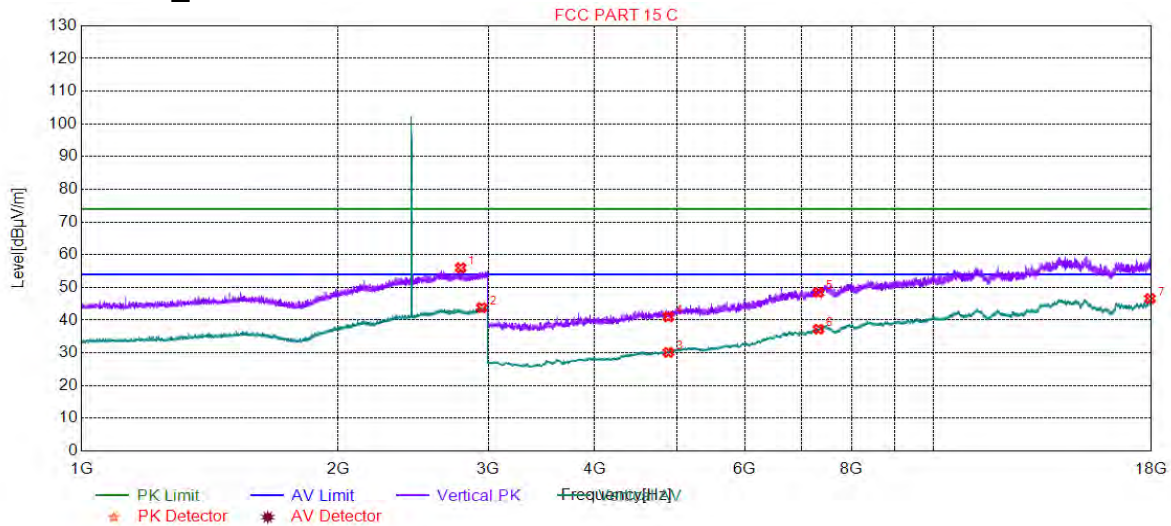
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4.11.2.4 GFSK_Channel 39



Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2784.94	56.00	9.02	74.00	18.00	261	318	Vertical
2	2947.98	43.84	9.66	54.00	10.16	207	223	Vertical
3	4882.00	30.16	-17.96	54.00	23.84	181	265	Vertical
4	4882.00	41.03	-17.96	74.00	32.97	246	293	Vertical
5	7323.00	48.46	-9.53	74.00	25.54	288	18	Vertical
6	7323.00	37.25	-9.53	54.00	16.75	207	100	Vertical
7	17927.9	46.60	-1.30	54.00	7.40	232	155	Vertical

Final Data List



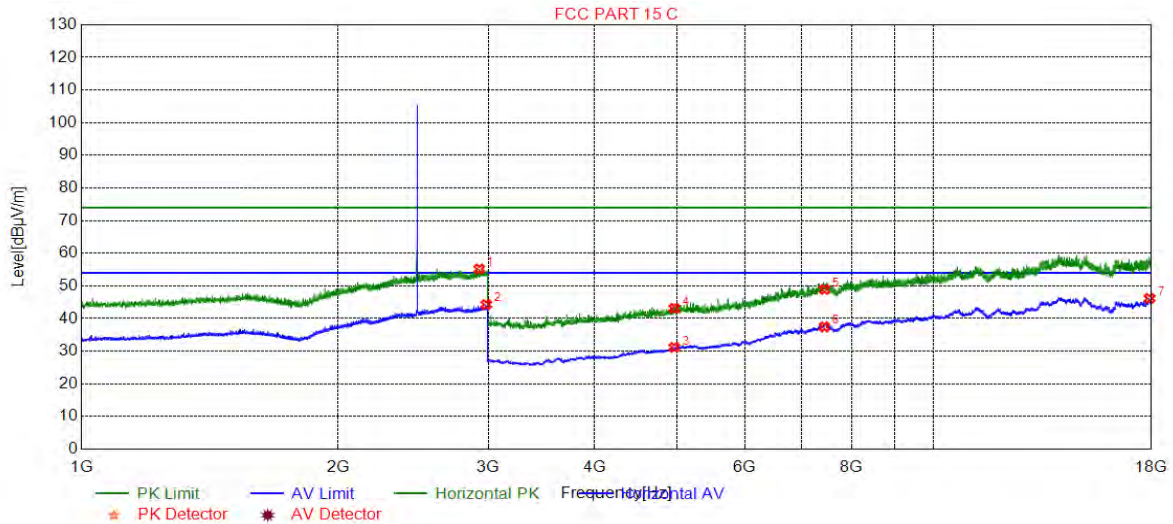
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4.11.2.5 GFSK_Channel 78



Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2928.98	55.18	9.45	74.00	18.82	215	191	Horizontal
2	2983.49	44.31	9.53	54.00	9.69	220	136	Horizontal
3	4960.00	31.19	-17.47	54.00	22.81	145	342	Horizontal
4	4960.00	43.14	-17.47	74.00	30.86	127	97	Horizontal
5	7440.00	48.93	-9.02	74.00	25.07	233	152	Horizontal
6	7440.00	37.47	-9.02	54.00	16.53	221	42	Horizontal
7	17908.4	46.21	-1.31	54.00	7.79	218	97	Horizontal

Final Data List

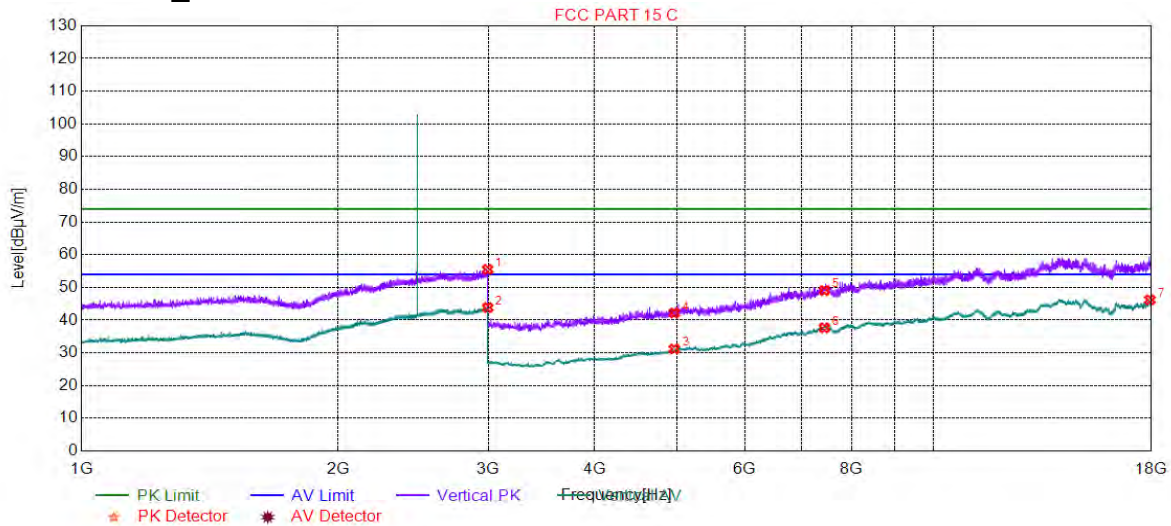


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4.11.2.6 GFSK_Channel 78



Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2994.99	55.52	9.47	74.00	18.48	210	250	Vertical
2	2995.99	43.85	9.47	54.00	10.15	201	210	Vertical
3	4960.00	31.21	-17.47	54.00	22.79	187	18	Vertical
4	4960.00	42.20	-17.47	74.00	31.80	293	18	Vertical
5	7440.00	49.05	-9.02	74.00	24.95	218	45	Vertical
6	7440.00	37.65	-9.02	54.00	16.35	286	264	Vertical
7	17923.4	46.24	-1.30	54.00	7.76	183	154	Vertical

Final Data List

Remark:

- 1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:
Final Test Level = Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor
- 2) Scan from 9kHz to 25GHz, the disturbance between 9KHz to 30MHz and 18GHz to 25GHz was very low, and the above harmonics were the highest point could be found when testing, The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 3) As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. So, only the peak measurements were shown in the report.
- 4) All Modes have been tested, but only the worst case data displayed in this report.



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4.12 Restricted bands around fundamental frequency

Test Requirement:	47 CFR Part 15C Section 15.209 and 15.205		
Test Method:	ANSI C63.10: 2013		
Test Site:	Measurement Distance: 3m or 10m (Semi-Anechoic Chamber)		
Limit:	Frequency	Limit (dBuV/m @3m)	Remark
	30MHz-88MHz	40.0	Quasi-peak Value
	88MHz-216MHz	43.5	Quasi-peak Value
	216MHz-960MHz	46.0	Quasi-peak Value
	960MHz-1GHz	54.0	Quasi-peak Value
Above 1GHz		54.0	Average Value
		74.0	Peak Value
Test Setup:			

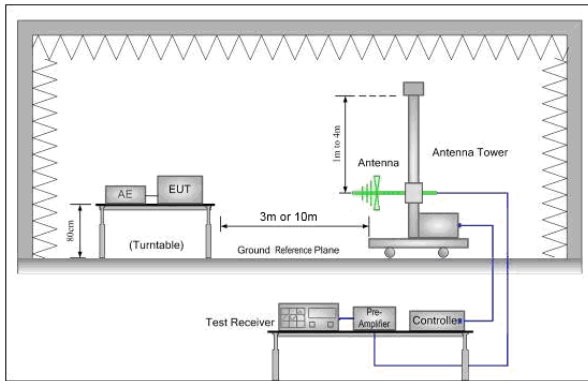


Figure 1. 30MHz to 1GHz

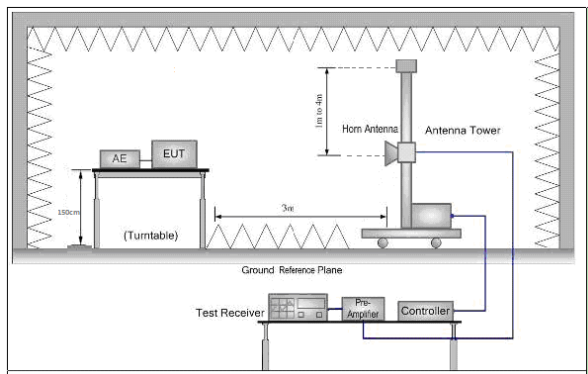


Figure 2. Above 1 GHz



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<p>Test Procedure:</p>	<ol style="list-style-type: none"> a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. g. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel h. Test the EUT in the lowest channel , the Highest channel i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case. j. Repeat above procedures until all frequencies measured was complete.
<p>Exploratory Test Mode:</p>	<p>Non-hopping transmitting mode with all kind of modulation and all kind of data type Charge + Transmitting mode.</p>
<p>Final Test Mode:</p>	<p>Through Pre-scan, find the DH5 of data type and GFSK modulation is the worst case. Pretest the EUT at Charge + Transmitting mode, Only the worst case is recorded in the report.</p>
<p>Instruments Used:</p>	<p>Refer to section 5.10 for details</p>
<p>Test Results:</p>	<p>Pass</p>



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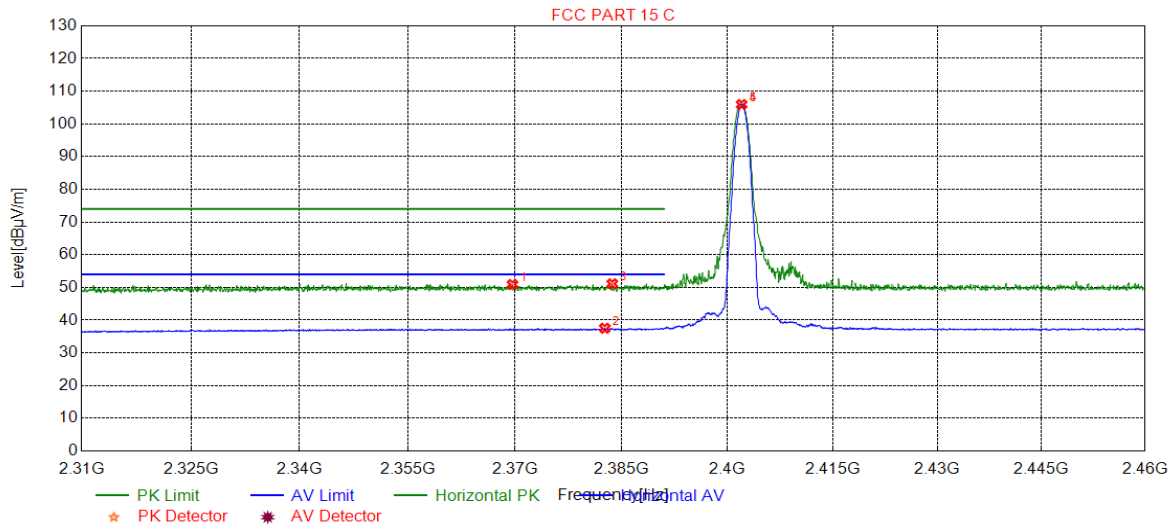
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4.12.1 Test plots

4.12.1.1 Worst Case Mode (GFSK(DH5) _Lowest Channel

4.12.1.2 GFSK_Channel 0



Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2369.65	50.93	7.79	74.00	23.07	144	266	Horizontal
2	2382.63	37.54	7.78	54.00	16.46	134	178	Horizontal
3	2383.68	51.14	7.78	74.00	22.86	113	346	Horizontal
4	2402.00	105.95	7.77	0.00	-105.95	189	57	Horizontal
5	2402.00	106.07	7.77	0.00	-106.07	109	52	Horizontal

Final Data List

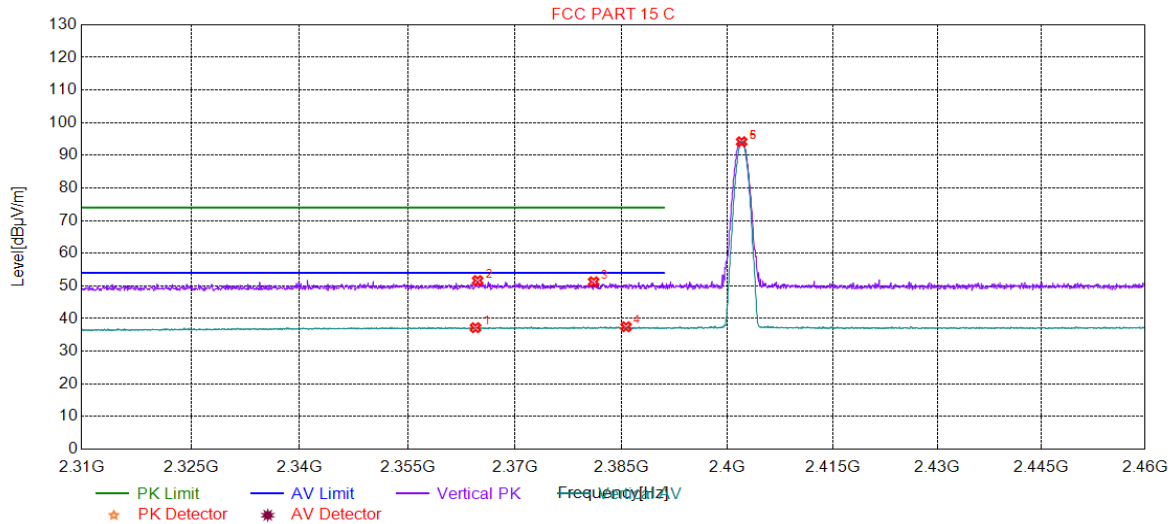


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4.12.1.3 GFSK_Channel 0



Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2364.47	37.22	7.80	54.00	16.78	155	107	Vertical
2	2364.77	51.65	7.80	74.00	22.35	272	351	Vertical
3	2381.06	51.29	7.78	74.00	22.71	279	80	Vertical
4	2385.63	37.51	7.77	54.00	16.49	282	14	Vertical
5	2402.00	94.18	7.77	0.00	-94.18	213	118	Vertical
6	2402.00	94.05	7.77	0.00	-94.05	166	118	Vertical

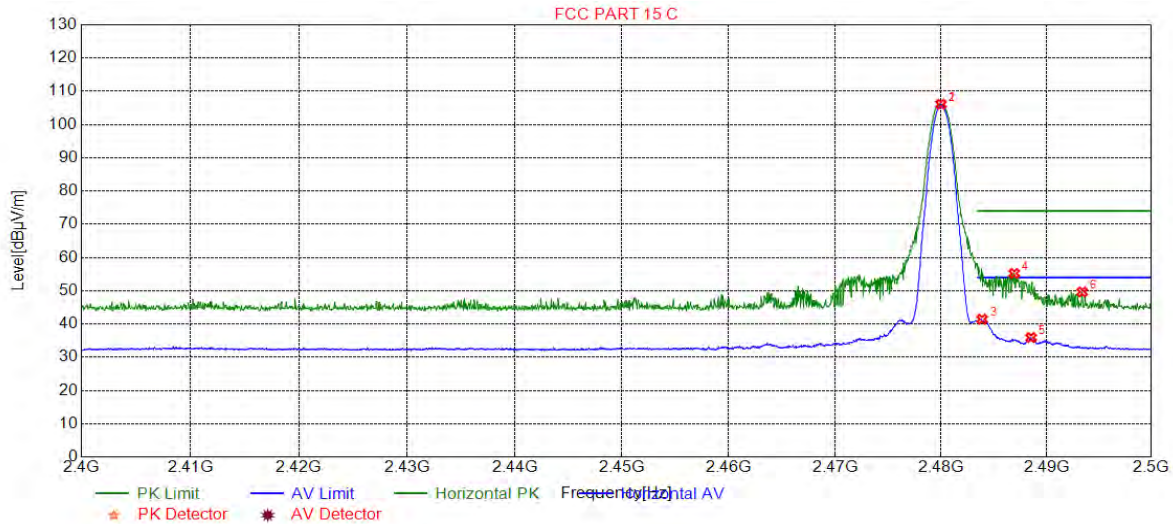
Final Data List



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4.12.1.4 GFSK_Channel 39



Suspected List

NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2480.00	106.12	8.01	0.00	-106.12	166	62	Horizontal
2	2480.00	106.03	8.01	0.00	-106.03	243	62	Horizontal
3	2483.89	41.45	8.01	54.00	12.55	145	188	Horizontal
4	2486.94	55.25	8.01	74.00	18.75	165	62	Horizontal
5	2488.54	35.93	8.02	54.00	18.07	216	67	Horizontal
6	2493.39	49.65	8.02	74.00	24.35	108	51	Horizontal

Final Data List

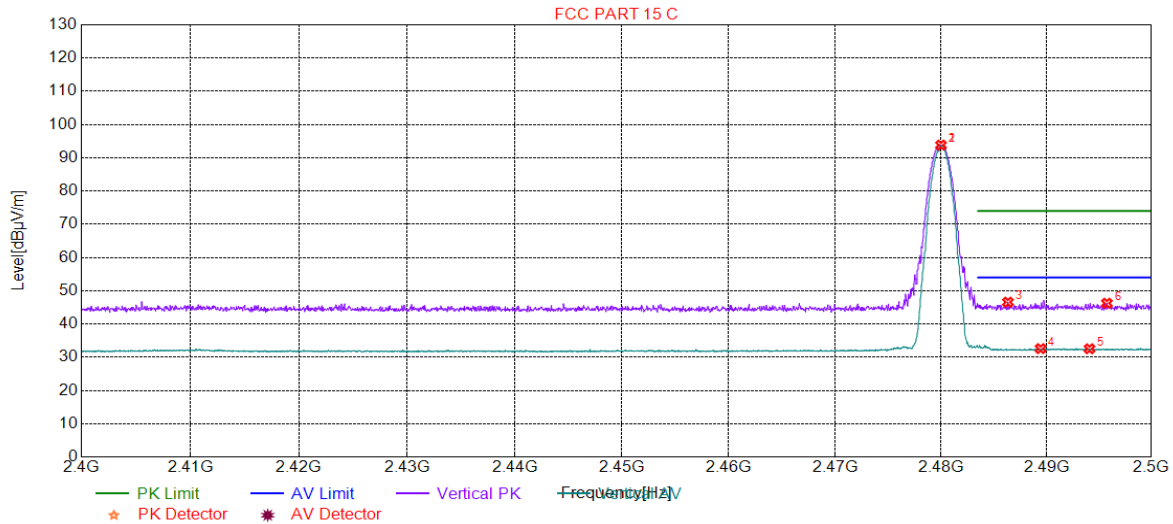


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4.12.1.5 GFSK_Channel 78



Suspected List								
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2480.00	93.83	8.01	0.00	-93.83	238	319	Vertical
2	2480.00	93.69	8.01	0.00	-93.69	158	313	Vertical
3	2486.34	46.59	8.01	74.00	27.41	229	46	Vertical
4	2489.44	32.62	8.02	54.00	21.38	158	145	Vertical
5	2494.09	32.58	8.02	54.00	21.42	272	341	Vertical
6	2495.74	46.28	8.02	74.00	27.72	200	68	Vertical

Final Data List

Remark:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor

All Modes have been tested, but only the worst case data displayed in this report.



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5 Measurement Uncertainty (95% confidence levels, k=2)

Lab A:

No.	Item	Measurement Uncertainty
1	Total RF power, conducted	±0.75dB
2	RF power density, conducted	±2.84dB
3	Spurious emissions, conducted	±0.75dB
4	Temperature test	±1°C
5	Humidity test	±3%
6	DC and low frequency voltages	±0.5%

Lab B:

No.	Item	Measurement Uncertainty
1	Conduction Emission	± 3.0dB (150kHz to 30MHz)
2	Radiated Emission	± 4.8dB (Below 1GHz)
		± 4.8dB (1GHz to 6GHz)
		± 4.5dB (6GHz to 18GHz)
		± 5.02dB (Above 18GHz)



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6 Equipment List

RF conducted test					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date	Cal.Duedate
				(yyyy-mm-dd)	(yyyy-mm-dd)
DC Power Supply	Agilent Technologies Inc	66311B	W009-09	2020/7/15	2021/7/15
Signal Analyzer	Rohde & Schwarz	FSV	W025-05	2020/1/3	2021/1/2
Coaxial Cable	SGS	N/A	SEM031-01	2020/6/12	2021/6/11
Attenuator	Weinschel Associates	WA41	SEM021-09	N/A	N/A
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2020/7/14	2021/7/14
Temperature Chamber	GIANT FORCE	ICT-150-40-CP-AR	W027-03	2019/10/27	2020/10/27
Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2020/7/14	2021/7/14

CE Test System					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Shielding Room	Brilliant-emc	N/A	XAW03-35-01	2019-09-11	2022-09-10
Test receiver	ROHDE&SCHWARZ	ESR	XAW01-08-01	2019-09-07	2020-09-06
Artificial network	ROHDE&SCHWARZ	ENV216	XAW01-04-01	2020-08-04	2021-08-03
Temperature and humidity meter	MingGao	TH101B	XAW01-01-01	2019-12-06	2020-12-05
Measurement Software	Tonscend	TS+ CE V2.5	XAW02-05-02	NCR	NCR



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RSE Test System					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Semi-Anechoic Chamber	Brilliant-emc	N/A	XAW03-35-01	2019-09-11	2022-09-10
MXA signal analyzer	Keysight	N9020A	XAW01-06-01	2020-04-02	2021-04-01
Test receiver	ROHDE&SCHWARZ	ESR	XAW01-08-05	2020-04-12	2021-04-11
Receiving antenna (30MHz-3GHz)	Schwarzbeck	VULB 9163	XAW01-09-01	2019-10-13	2021-10-12
Receiving antenna (1GHz~18GHz)	Schwarzbeck	BBHA 9120D	XAW01-09-02	2019-10-13	2021-10-12
Receiving antenna (15GHz~40GHz)	Schwarzbeck	BBHA 9170	XAW01-09-03	2019-10-13	2021-10-12
Directional antenna rack controller	Max-Full	MF-7802BS	XAW03-03-01	NCR	NCR
High-speed antenna rack controller	Max-Full	MF-7802	XAW03-04-01	NCR	NCR
Filter bank	Tonscend	JS0806-F	XAW03-05-01	NCR	NCR
Filter bank	Tonscend	JS0806s	XAW03-05-02	NCR	NCR
Amplifier	Tonscend	TAP00903040	XAW01-41-01	2019-11-18	2020-11-17
Amplifier	Tonscend	TAP01018048	XAW01-41-02	2019-11-18	2020-11-17
Amplifier	Tonscend	TAP18040048	XAW01-41-03	2019-12-03	2020-12-02
Amplifier	Shanghai Steed	YX28980930	XAW01-41-06	2019-11-18	2020-11-17
Temperature and humidity meter	MingGao	TH101B	XAW01-01-01	2019-12-06	2020-12-05
Measurement Software	Tonscend	TS+ RSE V3.0.0.2	XAW02-05-01	NCR	NCR



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7 Photographs - EUT Constructional Details

Refer to Appendix A - Photographs of Set-Up for ZR/2020/70008.

The End

