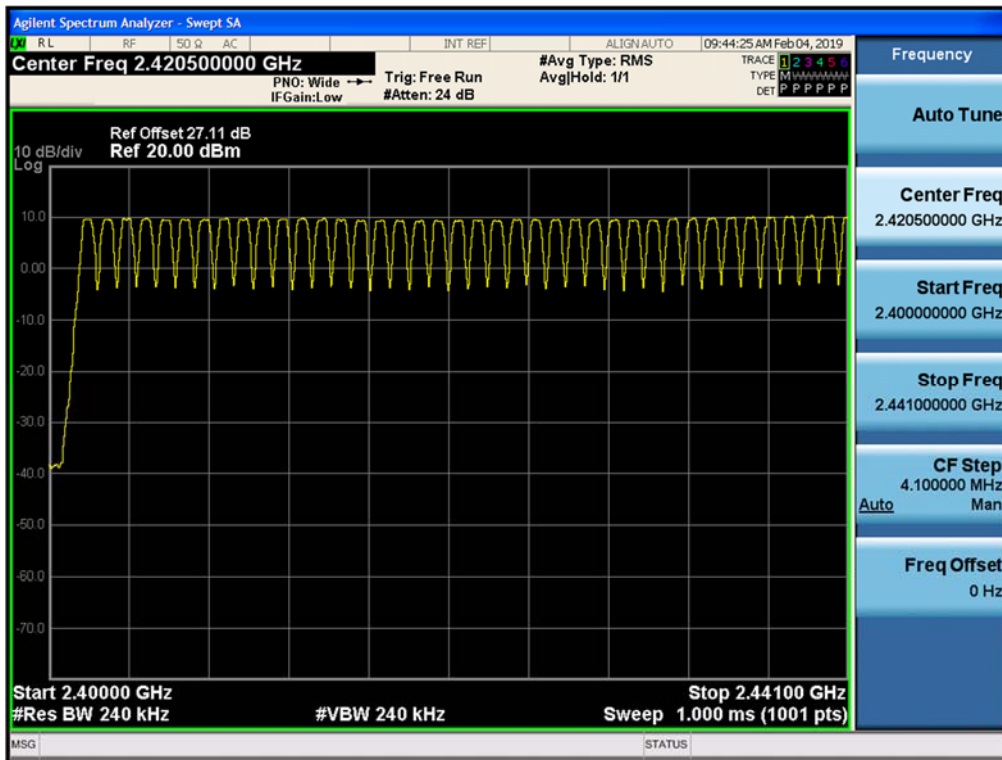


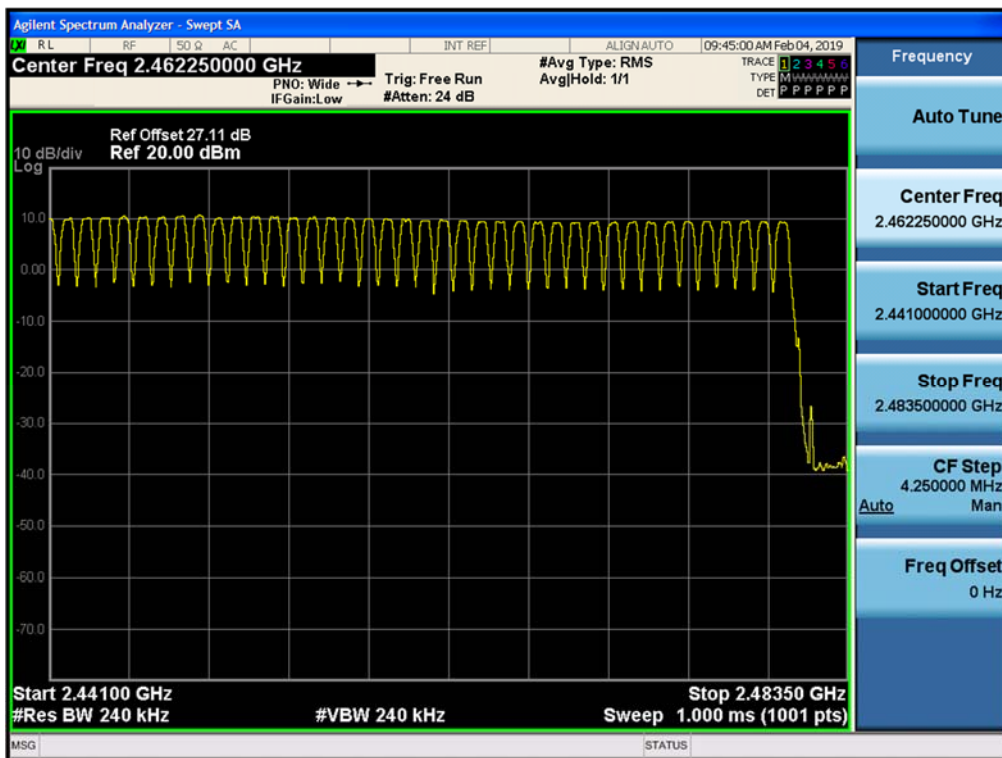
Test Plots (GFSK)

Number of Channels (2.4 GHz - 2.441 GHz)



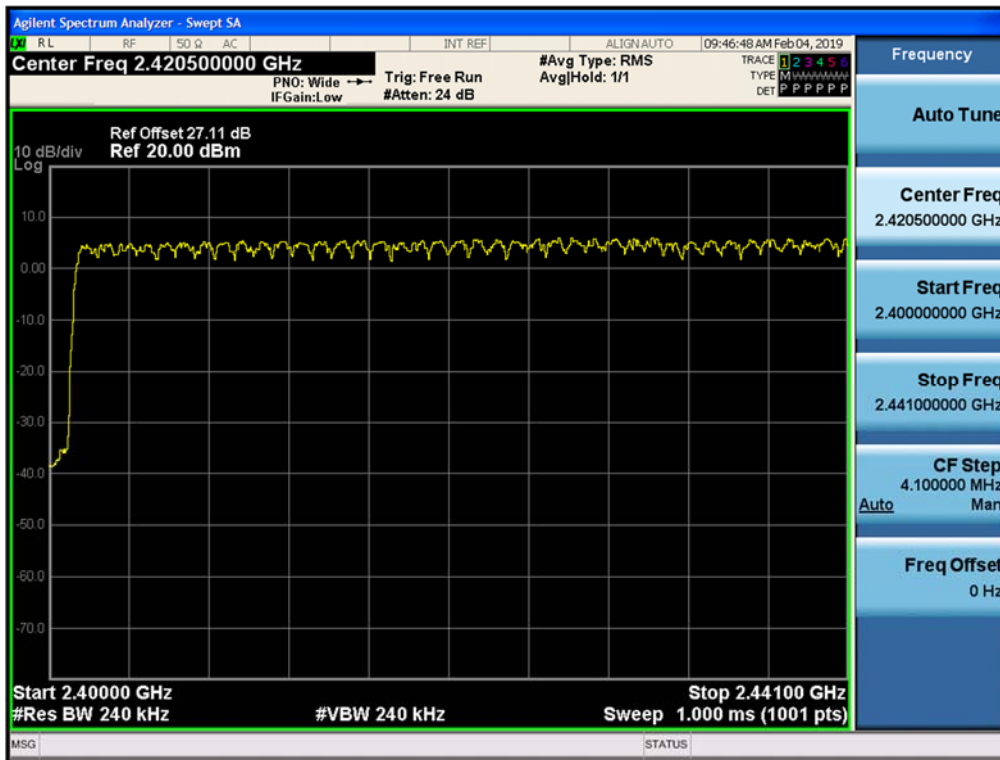
Test Plots (GFSK)

Number of Channels (2.441 GHz - 2.4835 GHz)



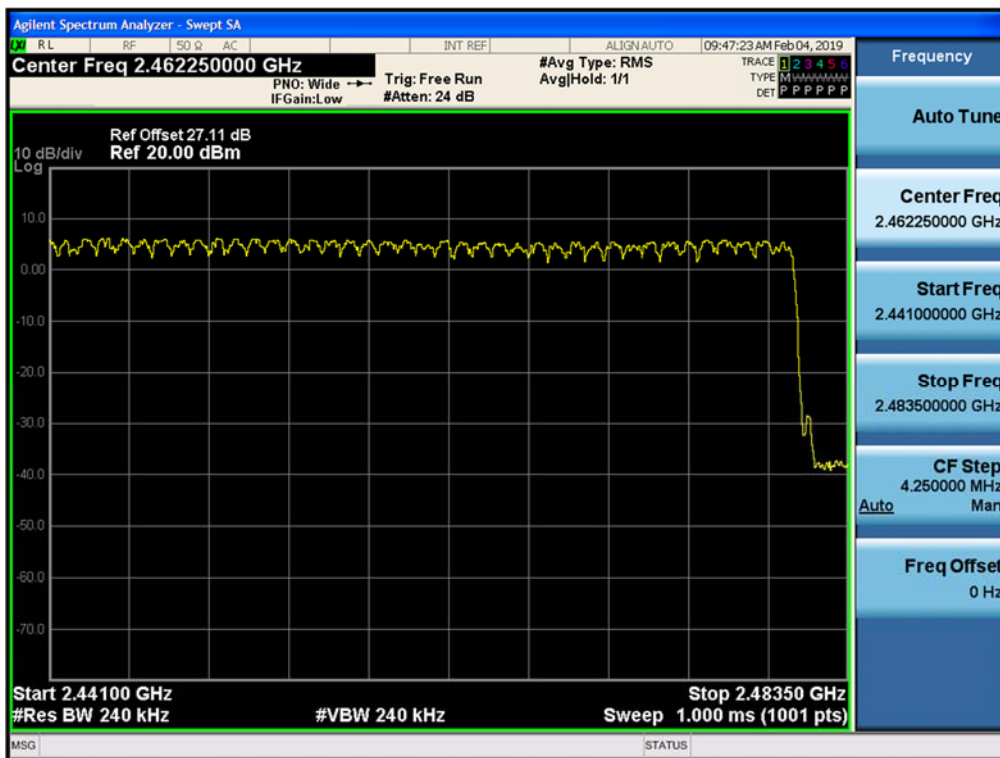
Test Plots (8DPSK)

Number of Channels (2.4 GHz - 2.441 GHz)



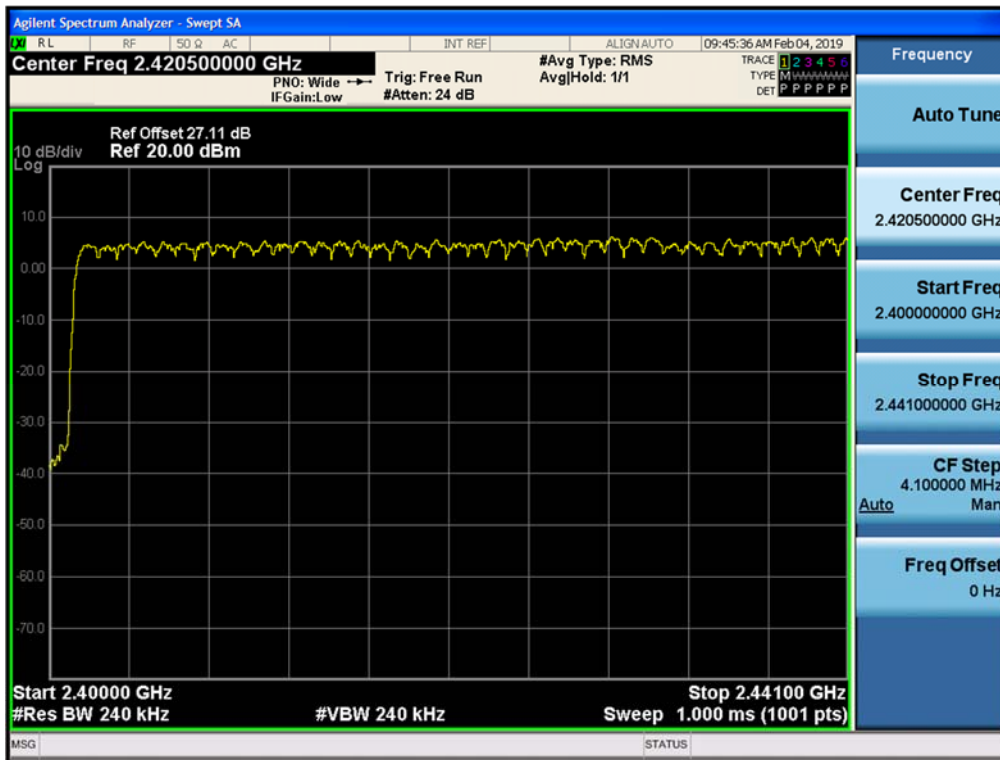
Test Plots (8DPSK)

Number of Channels (2.441 GHz - 2.4835 GHz)



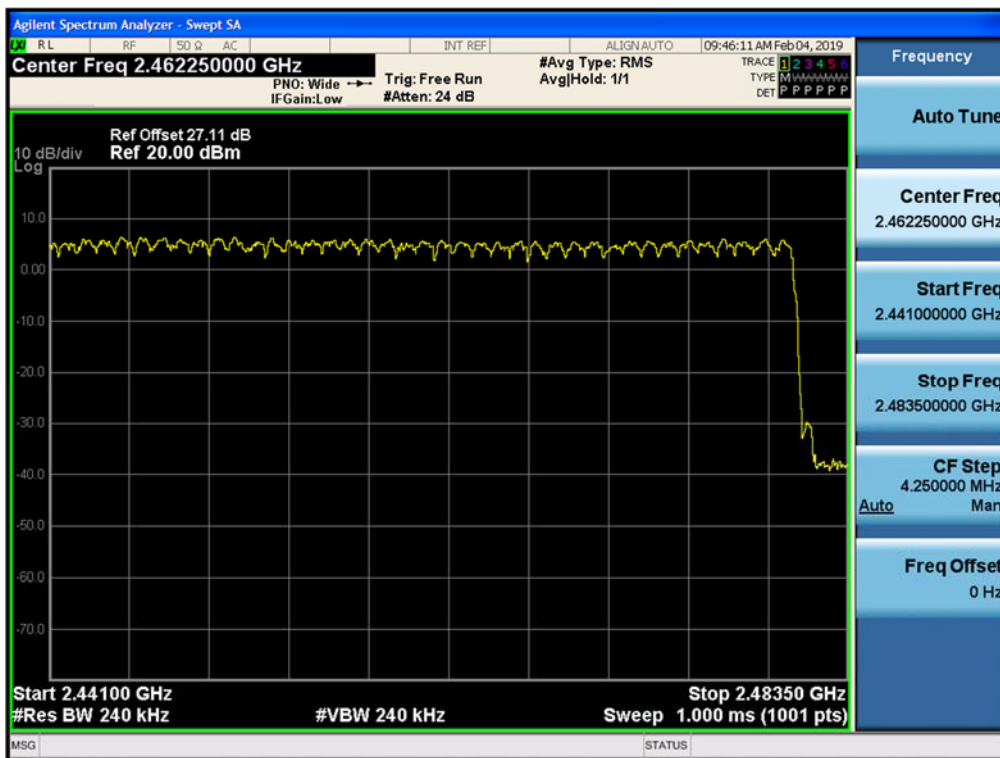
Test Plots ( $\pi/4$ DQPSK)

Number of Channels (2.4 GHz - 2.441 GHz)



Test Plots ( $\pi/4$ DQPSK)

Number of Channels (2.441 GHz - 2.4835 GHz)



### 10.5 TIME OF OCCUPANCY (DWELL TIME)

	Channel	GFSK	8DPSK	$\pi/4$ DQPSK
Pulse Time (ms)	Low	2.890	2.890	2.890
	Mid	2.885	2.890	2.890
	High	2.890	2.890	2.890

#### Non-AFH Mode

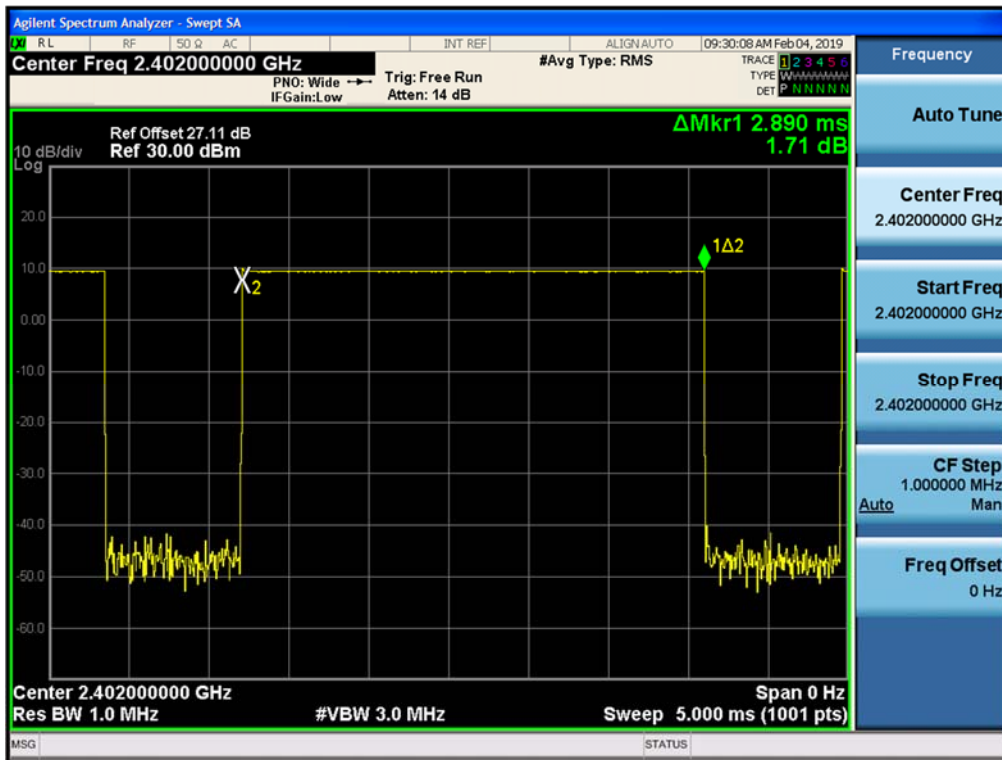
	Channel	GFSK	8DPSK	$\pi/4$ DQPSK	Period Time (s)	Limit (ms)
Total of Dwell (ms)	Low	308.27	308.27	308.27	31.6	400
	Mid	307.73	308.27	308.27	31.6	
	High	308.27	308.27	308.27	31.6	

#### AFH Mode

	Channel	GFSK	8DPSK	$\pi/4$ DQPSK	Period Time (s)	Limit (ms)
Total of Dwell (ms)	Low	154.13	154.13	154.13	8.0	400
	Mid	153.87	154.13	154.13	8.0	
	High	154.13	154.13	154.13	8.0	

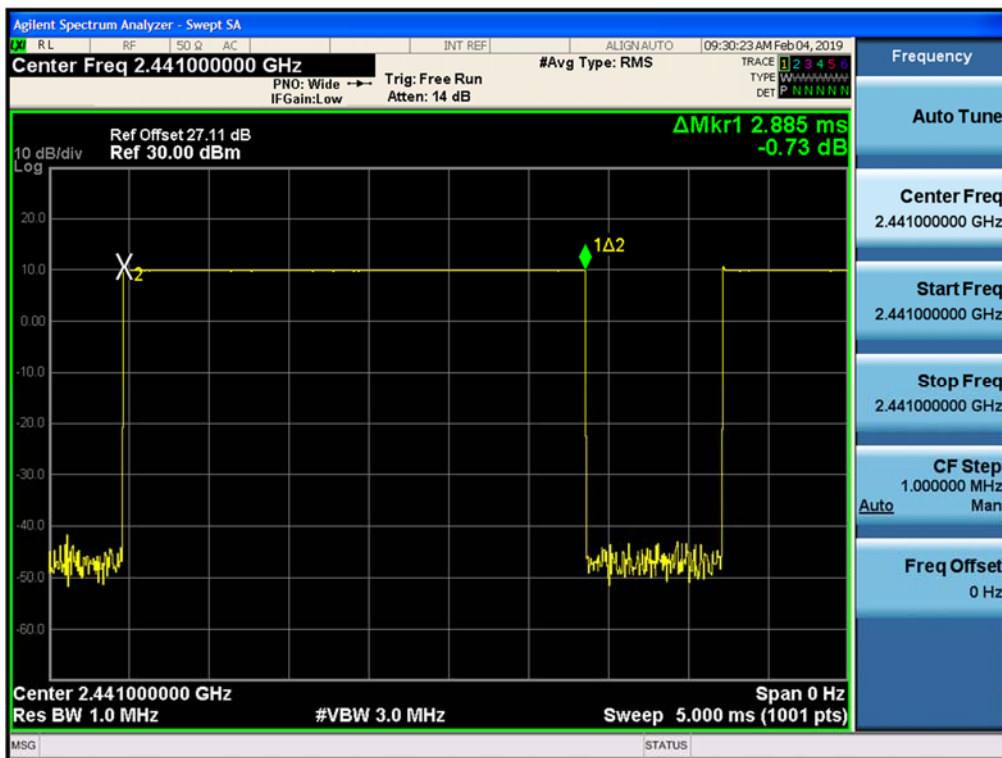
Test Plots (GFSK)

Dwell Time (CH.0)

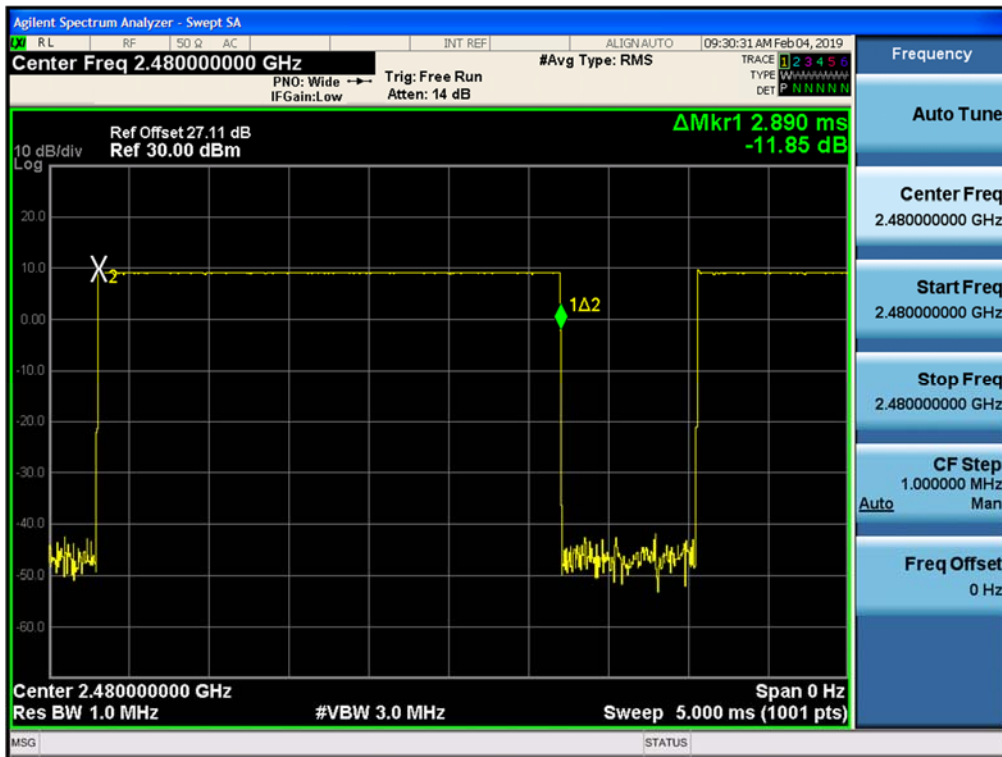


Test Plots (GFSK)

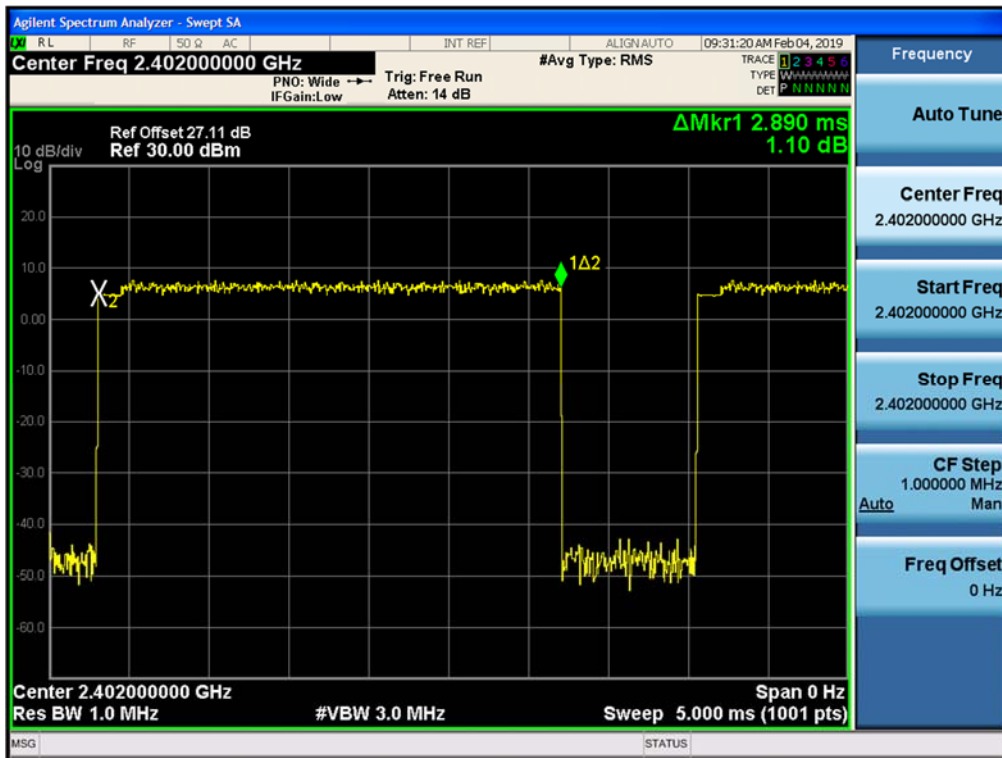
Dwell Time (CH.39)



Test Plots (GFSK)  
Dwell Time (CH.78)



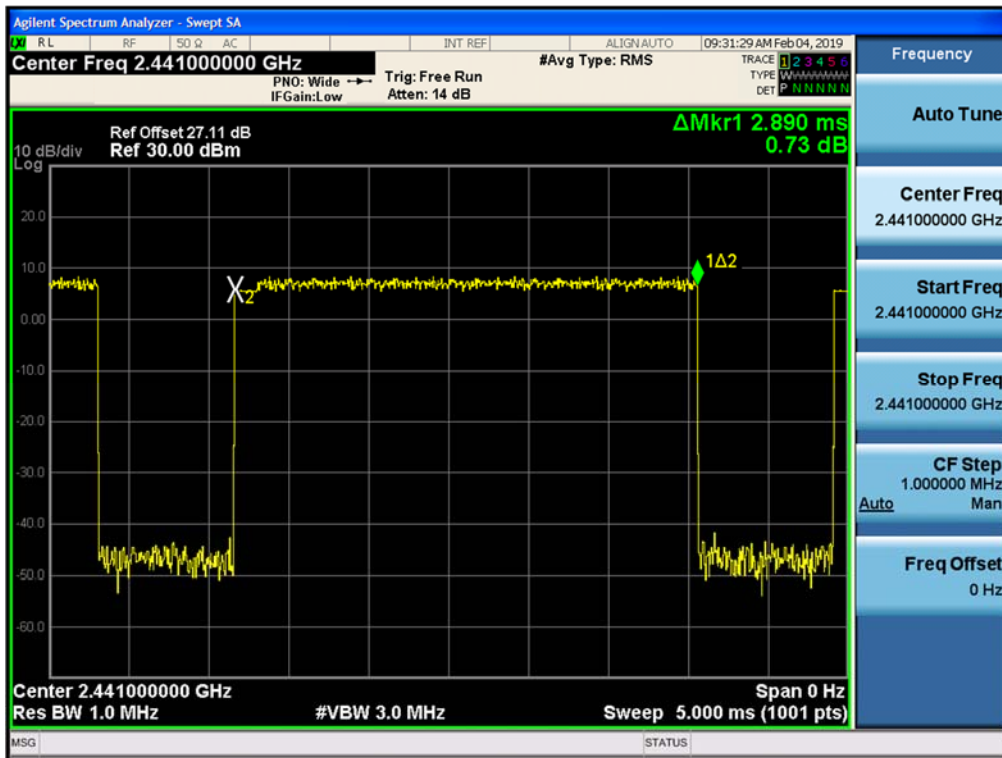
Test Plots (8DPSK)  
Dwell Time (CH.0)





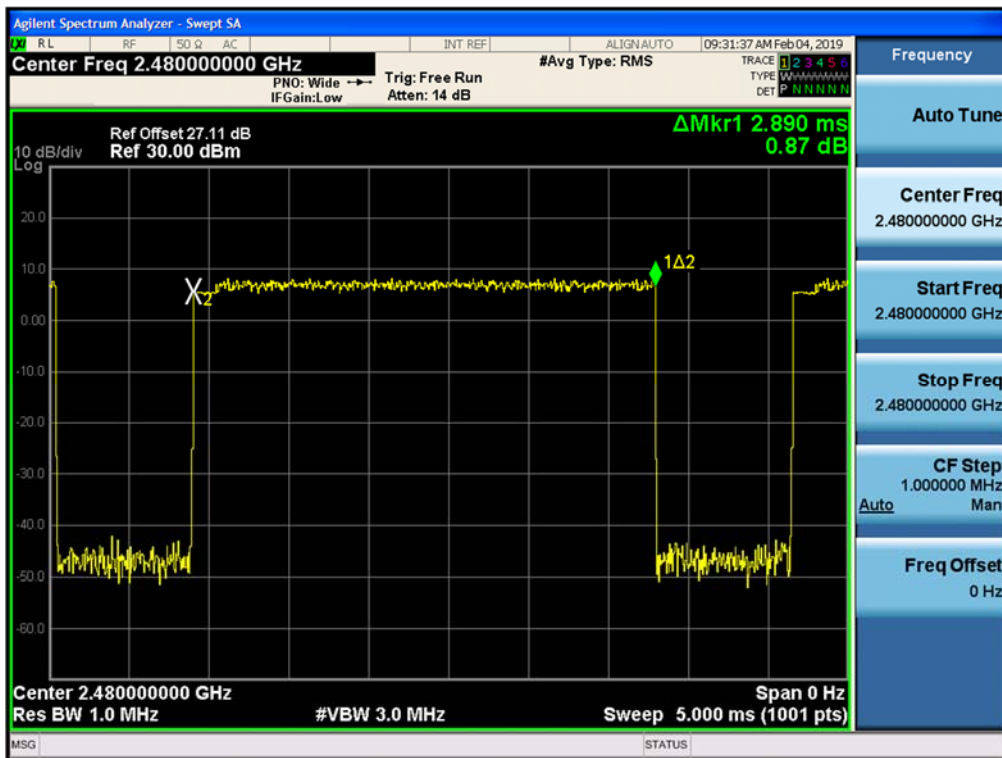
Test Plots (8DPSK)

Dwell Time (CH.39)



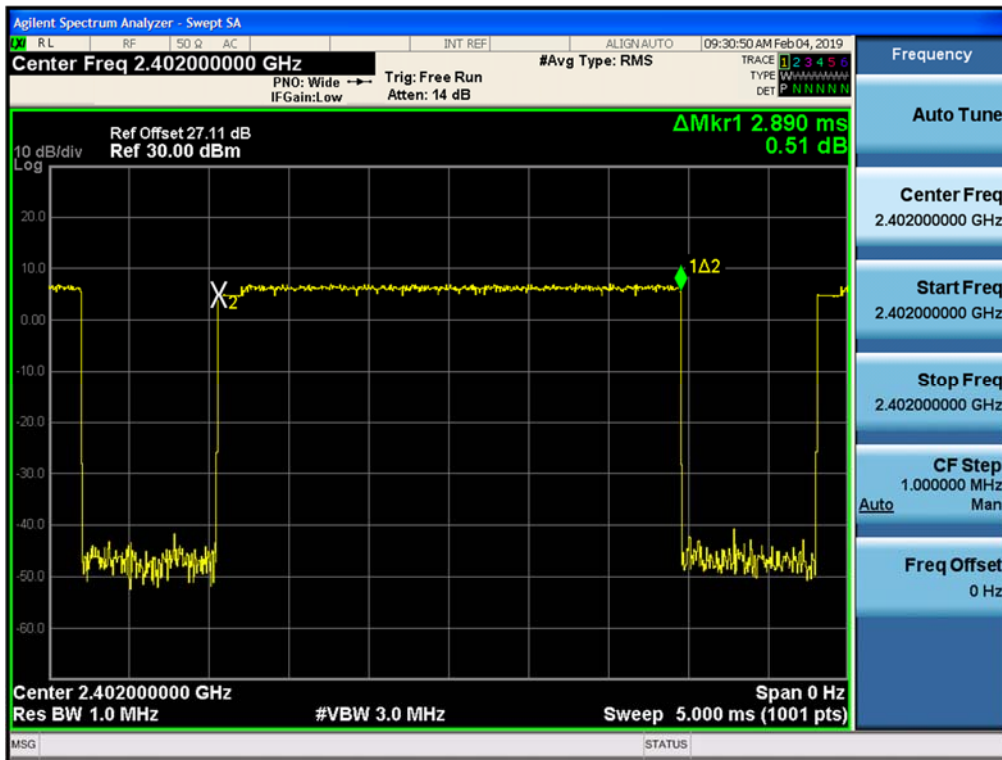
Test Plots (8DPSK)

Dwell Time (CH.78)



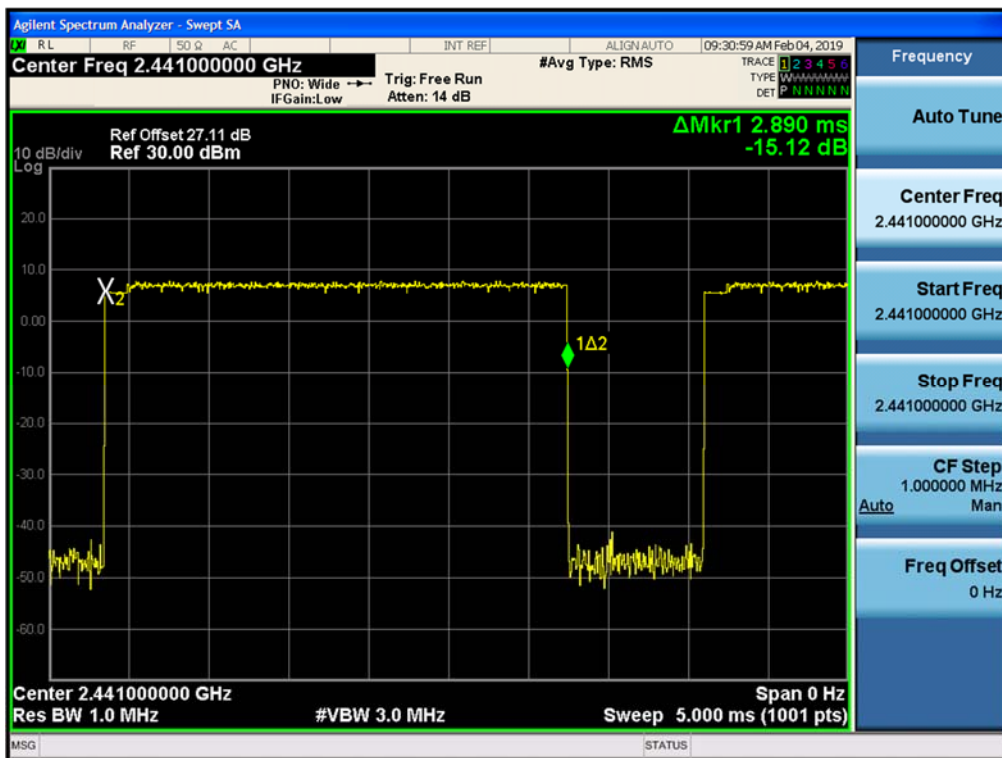
Test Plots ( $\pi/4$ DQPSK)

Dwell Time (CH.0)



Test Plots ( $\pi/4$ DQPSK)

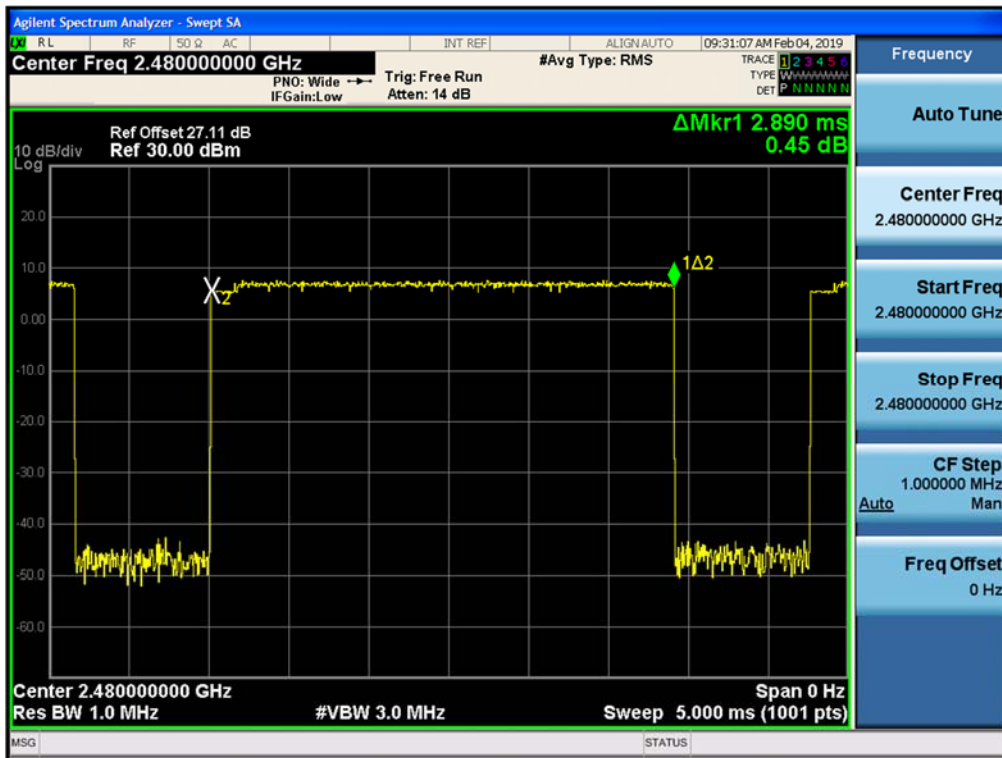
Dwell Time (CH.39)





Test Plots ( $\pi/4$ DQPSK)

Dwell Time (CH.78)



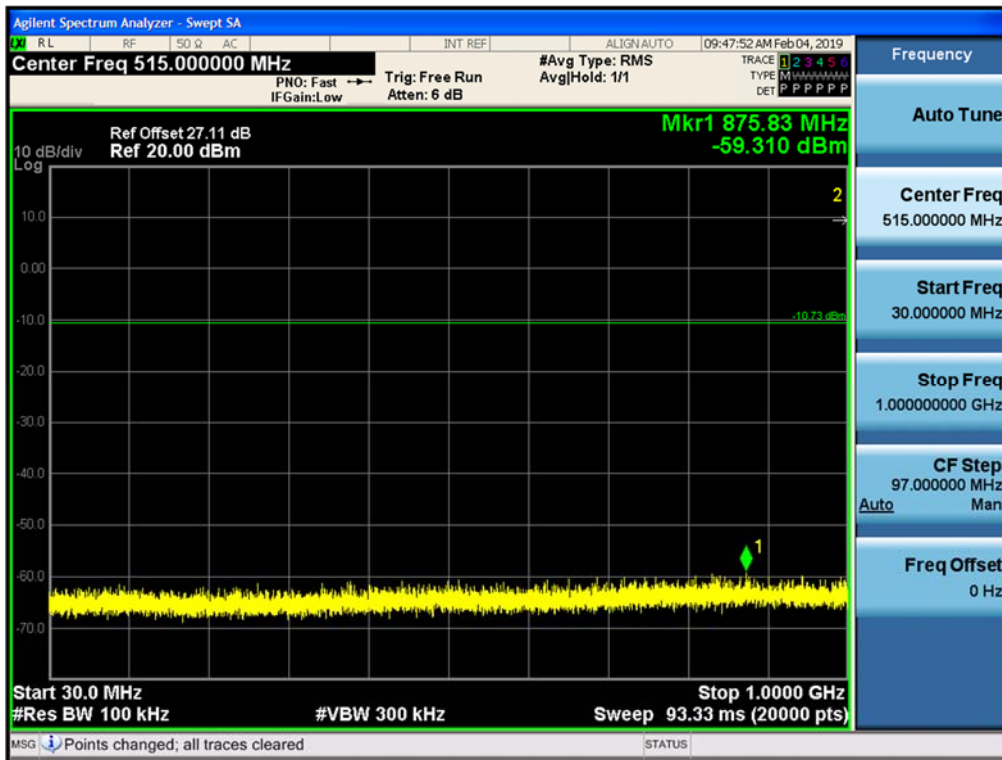
## **10.6 SPURIOUS EMISSIONS**

### **10.6.1 CONDUCTED SPURIOUS EMISSIONS**

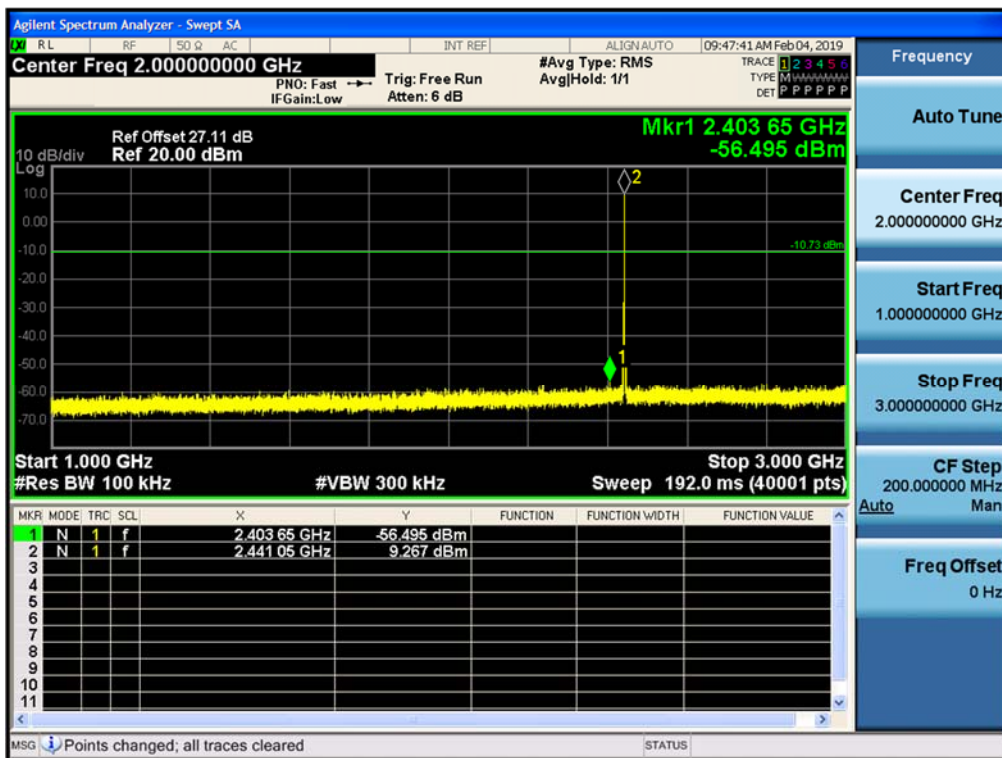
Test Result : please refer to the plot below.

In order to simplify the report, attached plots were only the worst case channel and data rate.

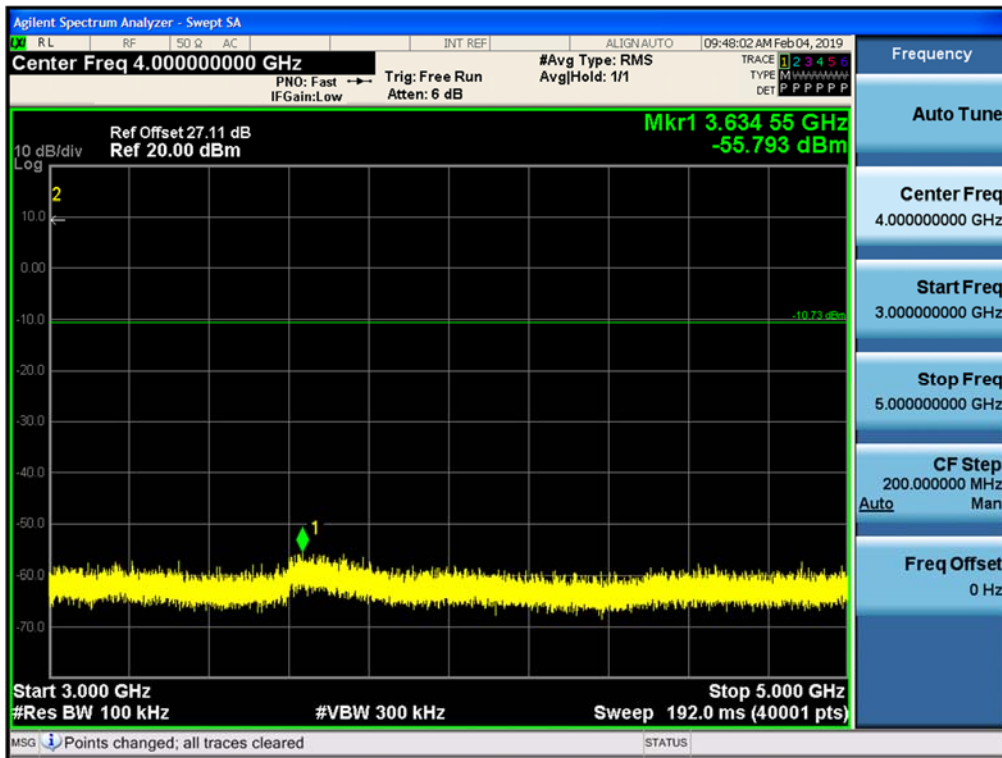
Test Plots (GFSK)- 30 MHz - 1 GHz  
Spurious Emission (CH.39)



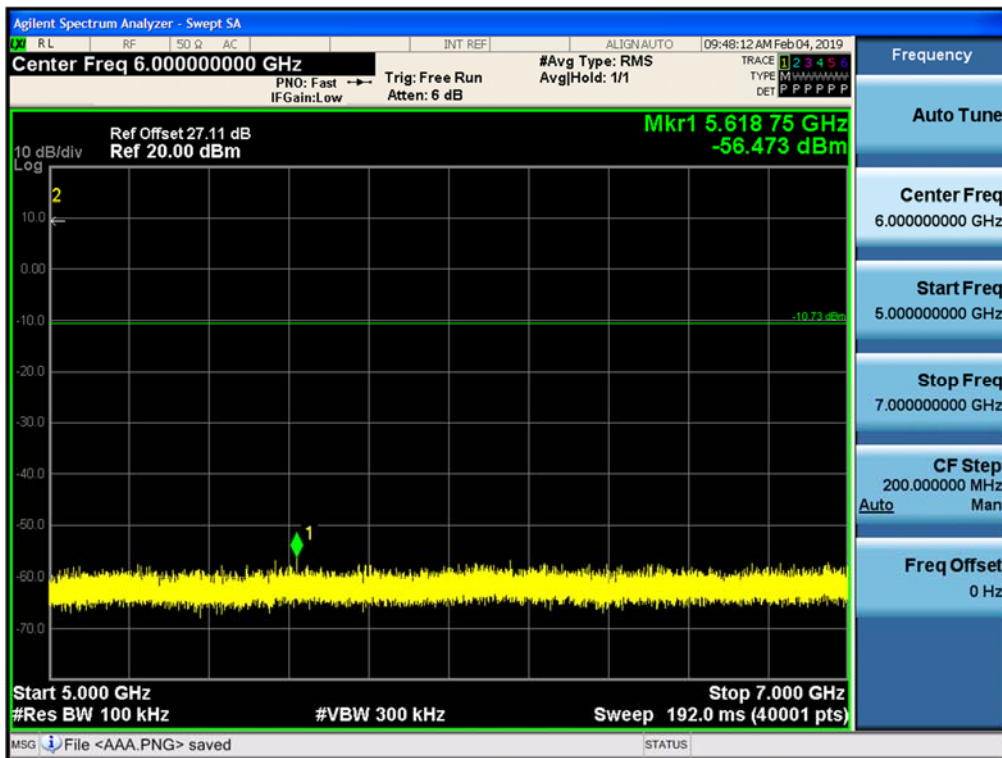
Test Plots (GFSK)- 1 GHz – 3 GHz  
Spurious Emission (CH.39)



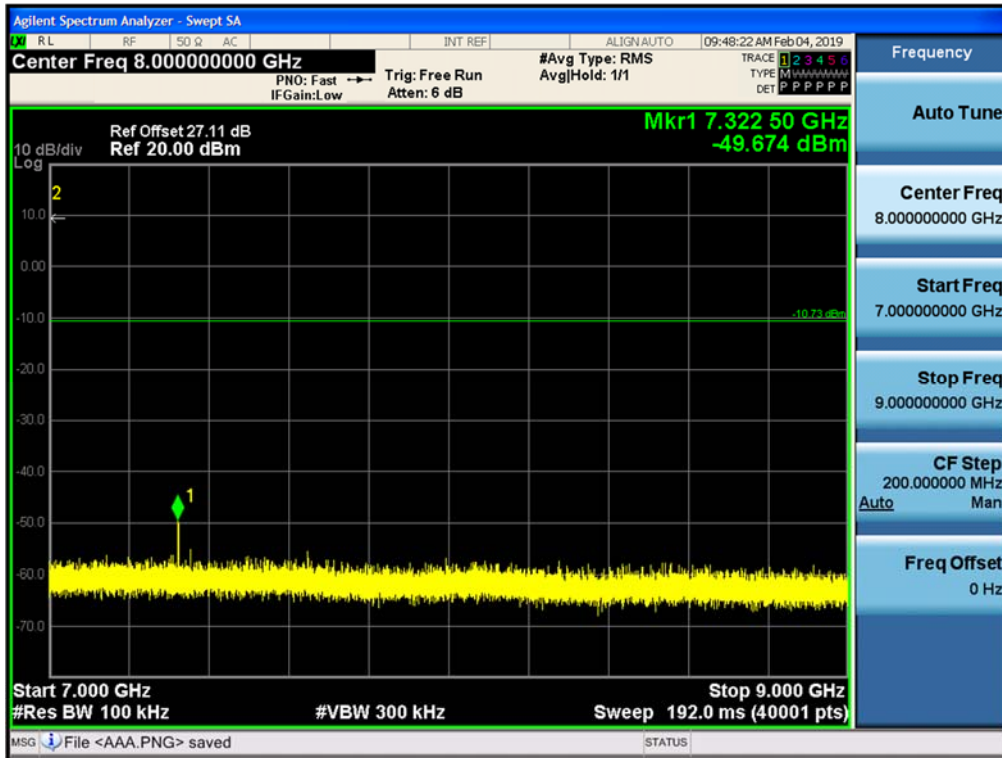
Test Plots(GFSK)- 3 GHz - 5 GHz  
Spurious Emission (CH.39)



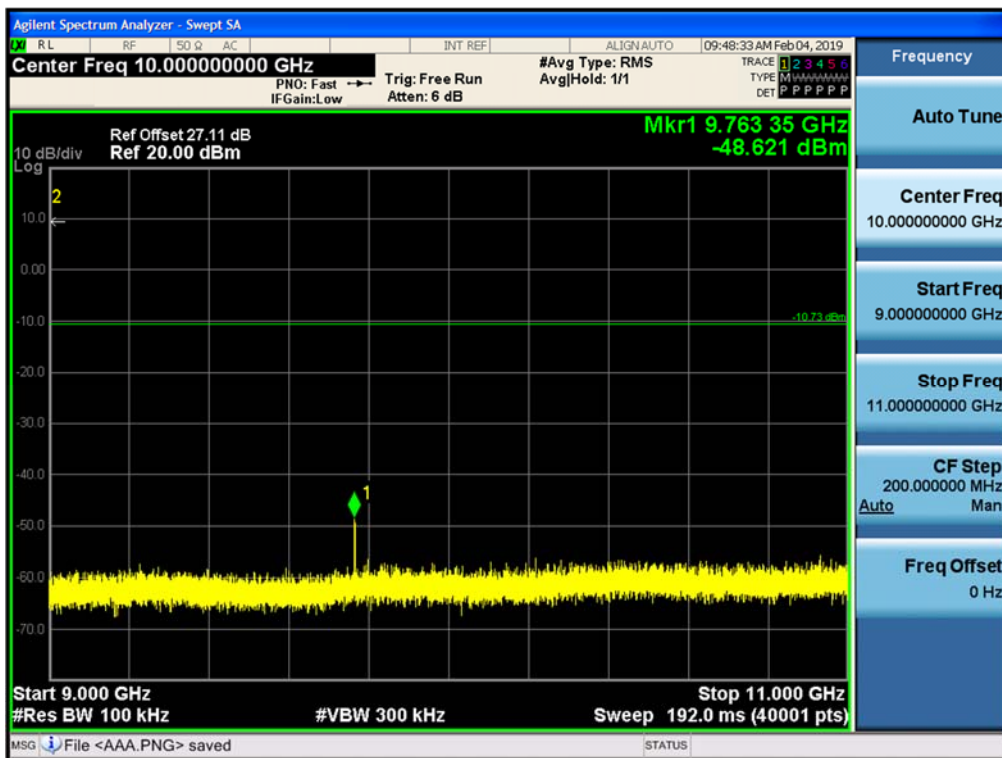
Test Plots (GFSK)- 5 GHz - 7 GHz  
Spurious Emission (CH.39)



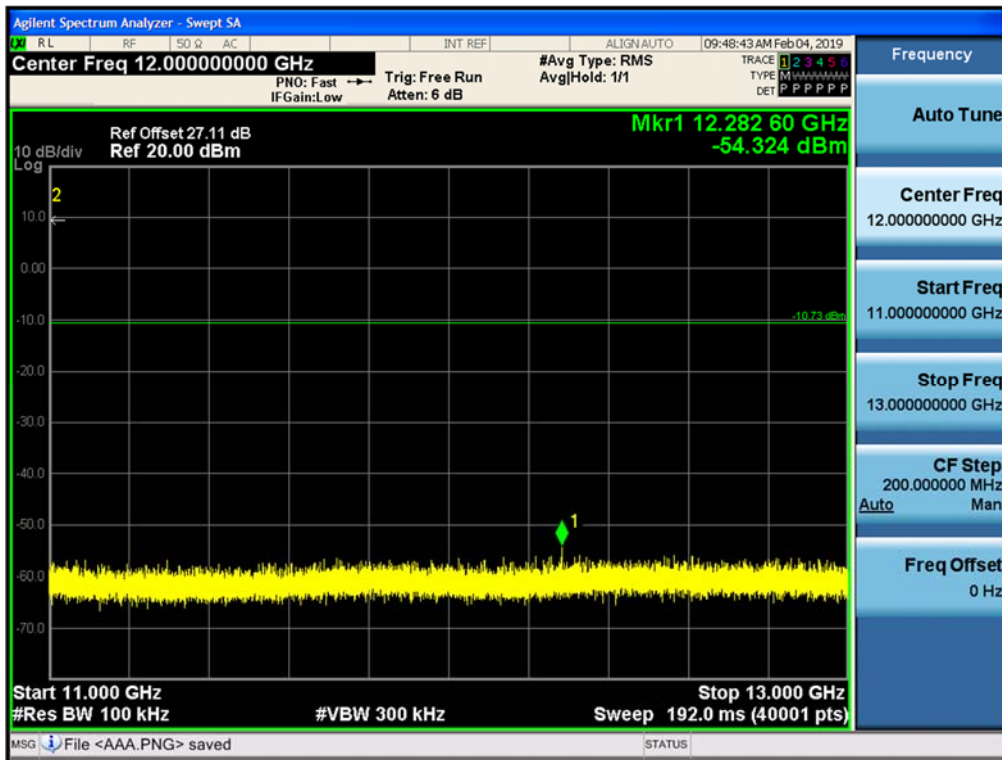
Test Plots(GFSK)- 7 GHz - 9 GHz  
Spurious Emission (CH.39)



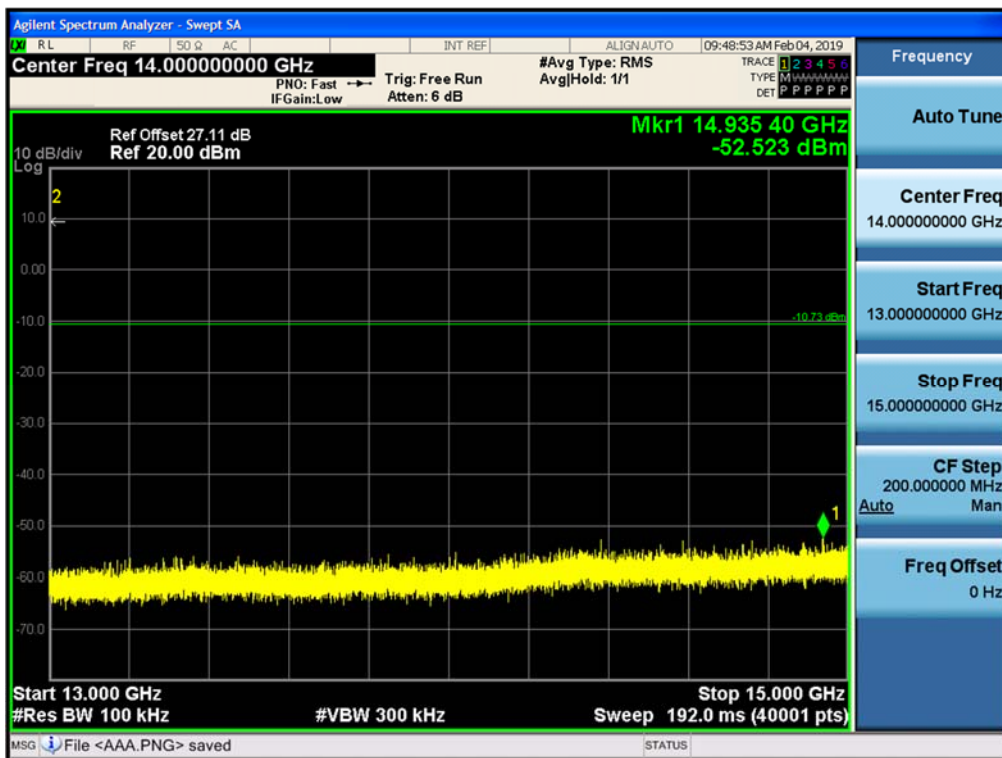
Test Plots(GFSK)- 9 GHz - 11 GHz  
Spurious Emission (CH.39)



Test Plots(GFSK) 11 GHz - 13 GHz  
Spurious Emission (CH.39)

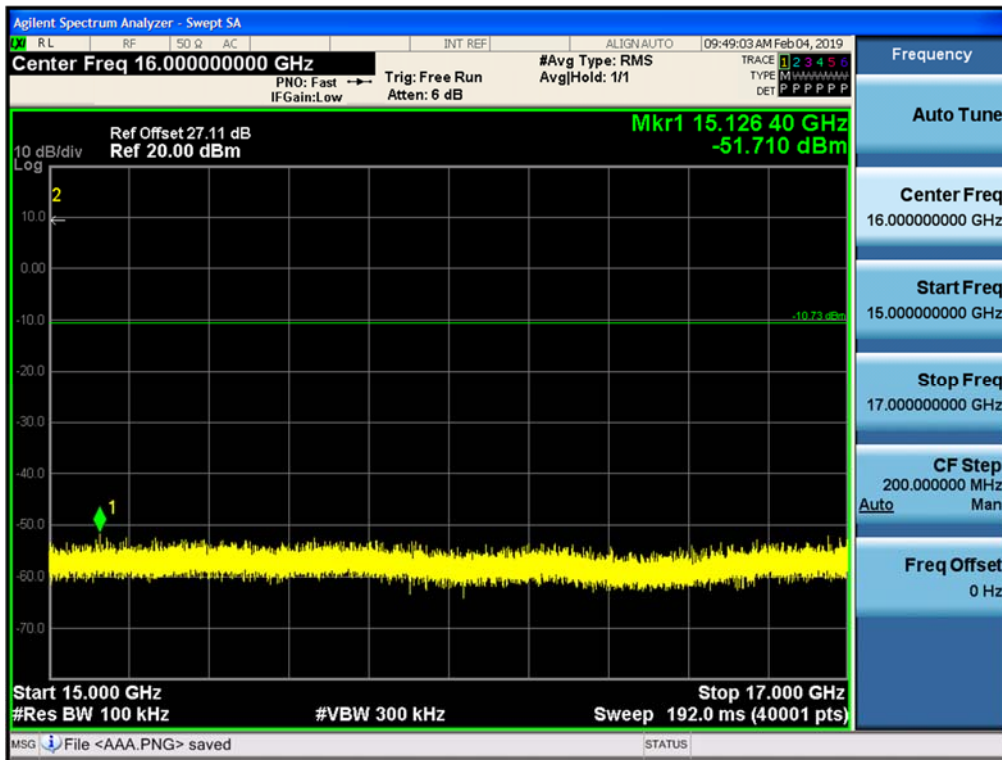


Test Plots (GFSK)- 13 GHz – 15 GHz  
Spurious Emission (CH.39)

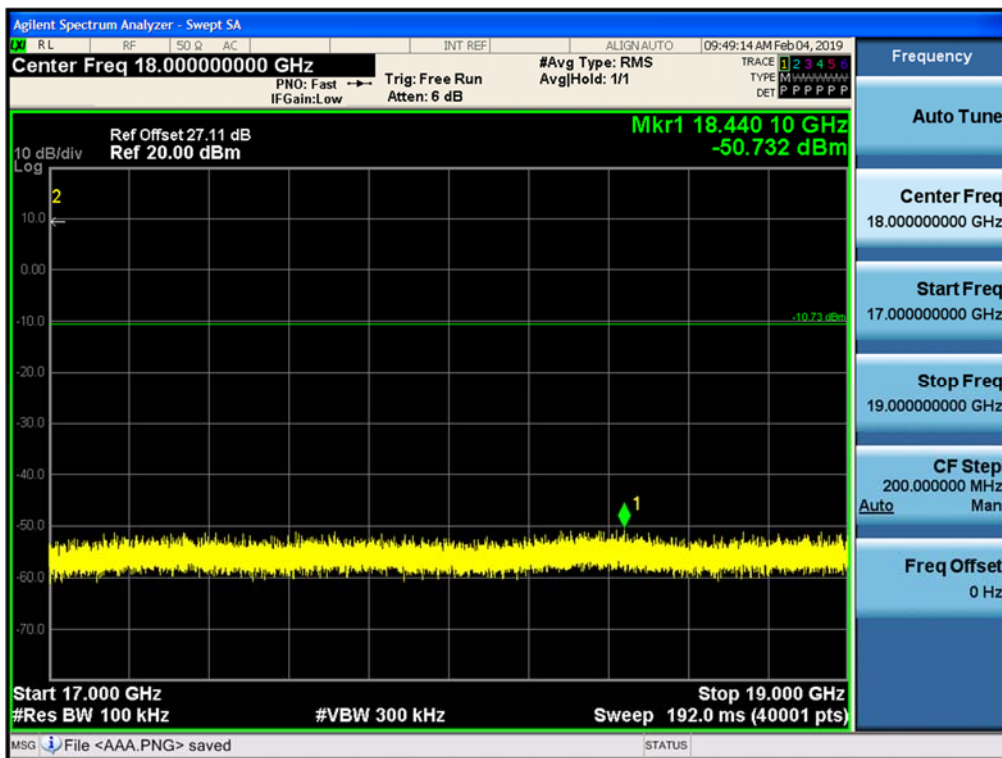




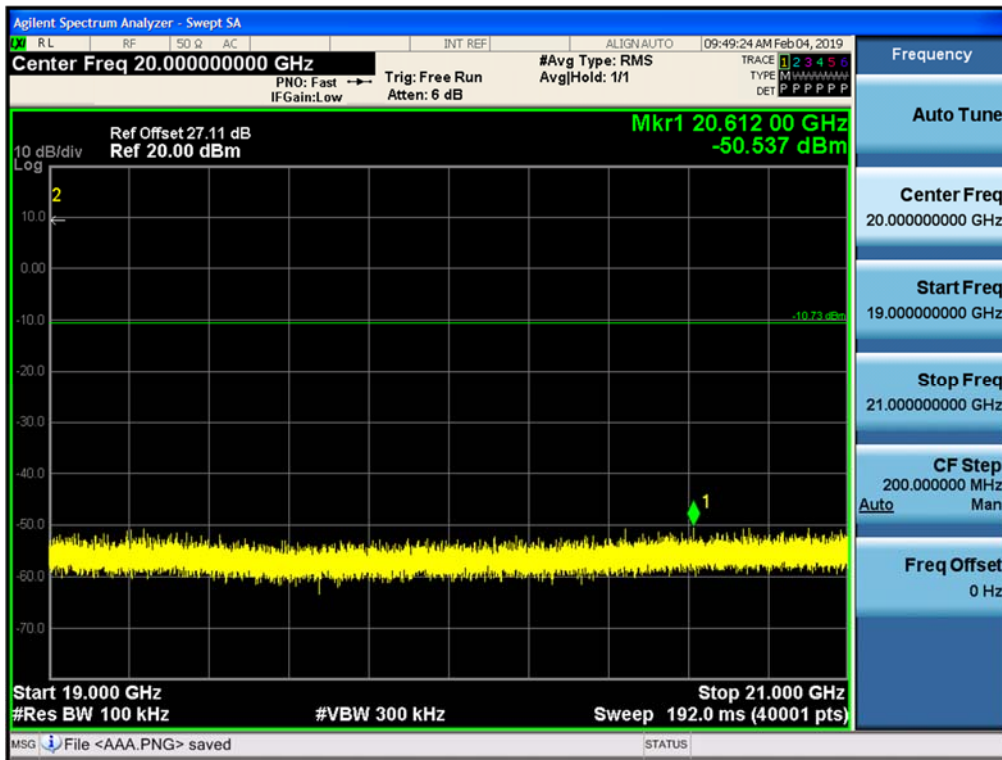
Test Plots(GFSK)- 15 GHz - 17 GHz  
Spurious Emission (CH.39)



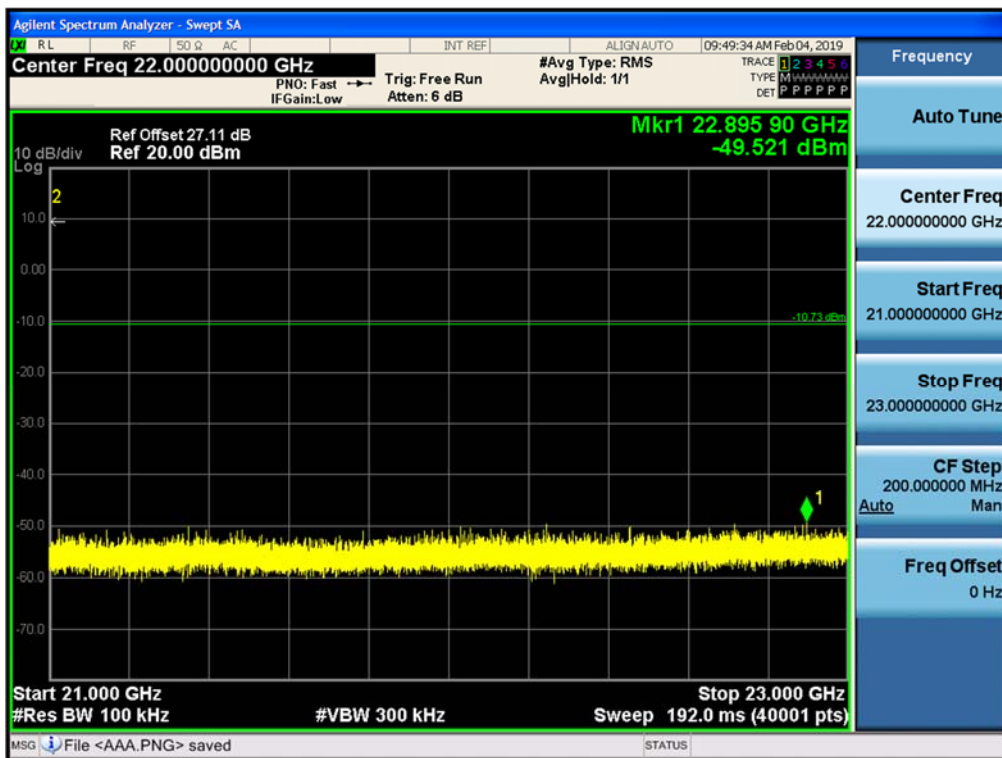
Test Plots(GFSK)- 17 GHz - 19 GHz  
Spurious Emission (CH.39)



Test Plots (GFSK)- 19 GHz - 21 GHz  
Spurious Emission (CH.39)



Test Plots (GFSK)- 21 GHz - 23 GHz  
Spurious Emission (CH.39)



Test Plots (GFSK)- 23 GHz - 25 GHz  
Spurious Emission (CH.39)



### 10.6.2 RADIATED SPURIOUS EMISSIONS

#### Frequency Range : 9 kHz – 30MHz

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
MHz	dBuV/m	dBm/m	dBm	(H/V)	dBuV/m	dBuV/m	dB
No Critical peaks found							

**Note:**

1. The reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
2. Distance extrapolation factor =  $40 \cdot \log(\text{specific distance} / \text{test distance})$  (dB)
3. Limit line = specific Limits (dBuV) + Distance extrapolation factor
4. Radiated test is performed with hopping off.
5. The test results for below 30 MHz is correlated to an open site.  
The result on Open field site is about 2 dB higher than semi-anechoic chamber(10 m chamber)

#### Frequency Range : Below 1 GHz

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
MHz	dBuV/m	dBm/m	dBm	(H/V)	dBuV/m	dBuV/m	dB
No Critical peaks found							

**Note:**

1. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Quasi peak detector mode.
2. Radiated test is performed with hopping off.

**Frequency Range : Above 1 GHz**

Operation Mode: CH Low(GFSK)

Frequency [MHz]	Reading [dBuV]	A.F + C.L - A.G + D.F [dB]	Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4804	52.23	1.83	V	54.06	73.98	19.92	PK
4804	40.51	1.83	V	42.34	53.98	11.64	AV
7206	49.21	9.65	V	58.86	73.98	15.12	PK
7206	36.05	9.65	V	45.7	53.98	8.28	AV
4804	52.53	1.83	H	54.36	73.98	19.62	PK
4804	41.01	1.83	H	42.84	53.98	11.14	AV
7206	49.70	9.65	H	59.35	73.98	14.63	PK
7206	36.16	9.65	H	45.81	53.98	8.17	AV

Operation Mode: CH Low(8DPSK)

Frequency [MHz]	Reading [dBuV]	A.F + C.L - A.G + D.F [dB]	Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4804	49.74	1.83	V	51.57	73.98	22.41	PK
4804	37.02	1.83	V	38.85	53.98	15.13	AV
7206	49.18	9.65	V	58.83	73.98	15.15	PK
7206	35.62	9.65	V	45.27	53.98	8.71	AV
4804	50.75	1.83	H	52.58	73.98	21.40	PK
4804	37.46	1.83	H	39.29	53.98	14.69	AV
7206	49.64	9.65	H	59.29	73.98	14.69	PK
7206	36.31	9.65	H	45.96	53.98	8.02	AV

Operation Mode: CH Low( $\pi/4$ DQPSK)

Frequency [MHz]	Reading [dBuV]	A.F + C.L - A.G + D.F [dB]	Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4804	50.12	1.83	V	51.95	73.98	22.03	PK
4804	37.39	1.83	V	39.22	53.98	14.76	AV
7206	49.20	9.65	V	58.85	73.98	15.13	PK
7206	36.09	9.65	V	45.74	53.98	8.24	AV
4804	50.74	1.83	H	52.57	73.98	21.41	PK
4804	37.50	1.83	H	39.33	53.98	14.65	AV
7206	49.75	9.65	H	59.4	73.98	14.58	PK
7206	36.24	9.65	H	45.89	53.98	8.09	AV

Operation Mode: CH Mid(GFSK)

Frequency [MHz]	Reading [dBuV]	A.F + C.L - A.G + D.F [dB]	Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4882	49.99	2.31	V	52.3	73.98	21.68	PK
4882	36.76	2.31	V	39.07	53.98	14.91	AV
7323	49.08	9.96	V	59.04	73.98	14.94	PK
7323	36.13	9.96	V	46.09	53.98	7.89	AV
4882	50.55	2.31	H	52.86	73.98	21.12	PK
4882	36.95	2.31	H	39.26	53.98	14.72	AV
7323	50.56	9.96	H	60.52	73.98	13.46	PK
7323	36.44	9.96	H	46.4	53.98	7.58	AV

Operation Mode: CH Mid(8DPSK)

Frequency [MHz]	Reading [dBuV]	A.F + C.L - A.G + D.F [dB]	Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4882	49.58	2.31	V	51.89	73.98	22.09	PK
4882	36.30	2.31	V	38.61	53.98	15.37	AV
7323	49.77	9.96	V	59.73	73.98	14.25	PK
7323	36.02	9.96	V	45.98	53.98	8.00	AV
4882	50.91	2.31	H	53.22	73.98	20.76	PK
4882	36.90	2.31	H	39.21	53.98	14.77	AV
7323	50.17	9.96	H	60.13	73.98	13.85	PK
7323	36.28	9.96	H	46.24	53.98	7.74	AV

Operation Mode: CH Mid( $\pi/4$ DQPSK)

Frequency [MHz]	Reading [dBuV]	A.F + C.L - A.G + D.F [dB]	Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4882	50.02	2.31	V	52.33	73.98	21.65	PK
4882	36.88	2.31	V	39.19	53.98	14.79	AV
7323	49.02	9.96	V	58.98	73.98	15.00	PK
7323	36.10	9.96	V	46.06	53.98	7.92	AV
4882	51.24	2.31	H	53.55	73.98	20.43	PK
4882	37.02	2.31	H	39.33	53.98	14.65	AV
7323	50.70	9.96	H	60.66	73.98	13.32	PK
7323	36.30	9.96	H	46.26	53.98	7.72	AV



Operation Mode: CH High(GFSK)

Frequency [MHz]	Reading [dBuV]	A.F + C.L - A.G + D.F [dB]	Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4960	50.04	2.26	V	52.30	73.98	21.68	PK
4960	36.77	2.26	V	39.03	53.98	14.95	AV
7440	49.12	9.78	V	58.9	73.98	15.08	PK
7440	35.44	9.78	V	45.22	53.98	8.76	AV
4960	50.50	2.26	H	52.76	73.98	21.22	PK
4960	37.18	2.26	H	39.44	53.98	14.54	AV
7440	49.36	9.78	H	59.14	73.98	14.84	PK
7440	35.61	9.78	H	45.39	53.98	8.59	AV

Operation Mode: CH High(8DPSK)

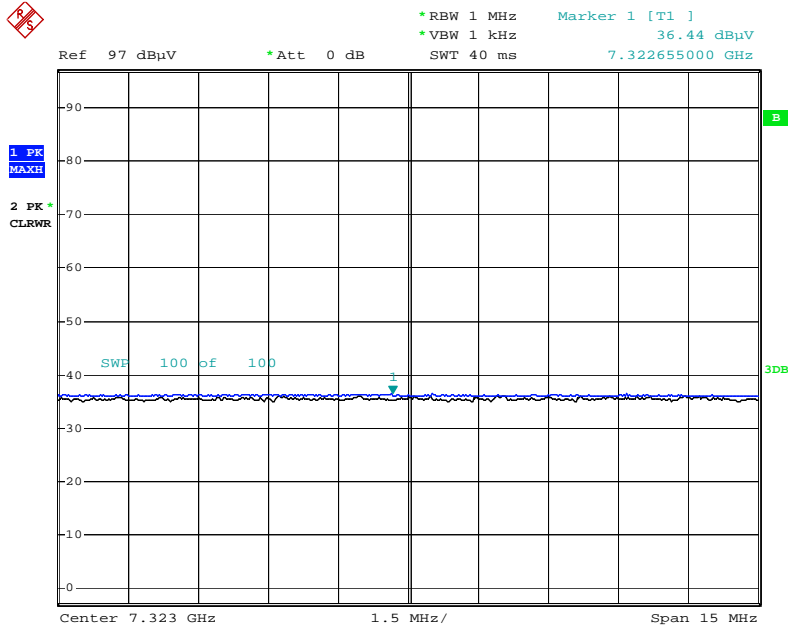
Frequency [MHz]	Reading [dBuV]	A.F + C.L - A.G + D.F [dB]	Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4960	49.88	2.26	V	52.14	73.98	21.84	PK
4960	36.67	2.26	V	38.93	53.98	15.05	AV
7440	49.07	9.78	V	58.85	73.98	15.13	PK
7440	35.50	9.78	V	45.28	53.98	8.70	AV
4960	50.47	2.26	H	52.73	73.98	21.25	PK
4960	36.83	2.26	H	39.09	53.98	14.89	AV
7440	49.72	9.78	H	59.5	73.98	14.48	PK
7440	35.68	9.78	H	45.46	53.98	8.52	AV

Operation Mode: CH High ( $\pi/4$ DQPSK)

Frequency [MHz]	Reading [dBuV]	A.F + C.L - A.G + D.F [dB]	Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4960	50.28	2.26	V	52.54	73.98	21.44	PK
4960	35.26	2.26	V	37.52	53.98	16.46	AV
7440	49.04	9.78	V	58.82	73.98	15.16	PK
7440	35.54	9.78	V	45.32	53.98	8.66	AV
4960	50.86	2.26	H	53.12	73.98	20.86	PK
4960	36.82	2.26	H	39.08	53.98	14.90	AV
7440	49.27	9.78	H	59.05	73.98	14.93	PK
7440	35.64	9.78	H	45.42	53.98	8.56	AV

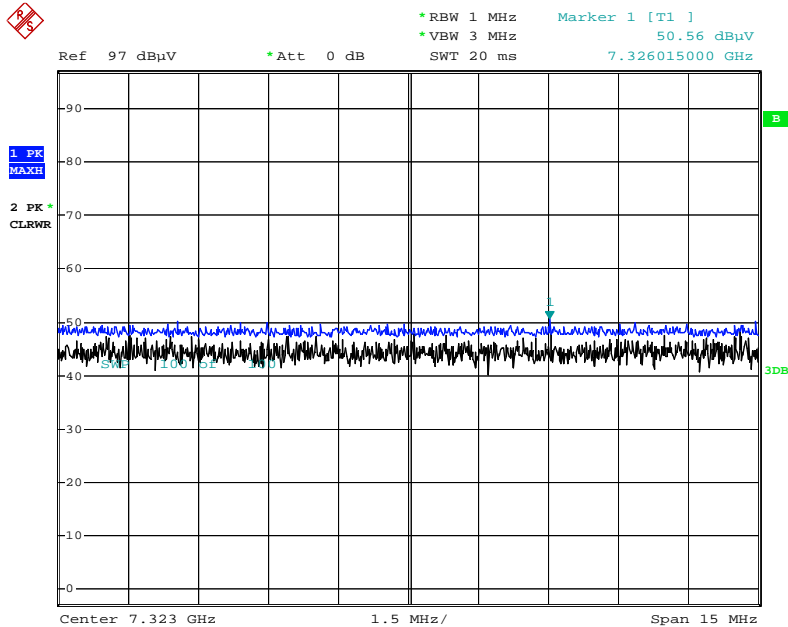
**RESULT PLOTS (Worst case : X-H)**

Radiated Spurious Emissions plot – Average Reading (GFSK, Ch.39 3rd Harmonic)



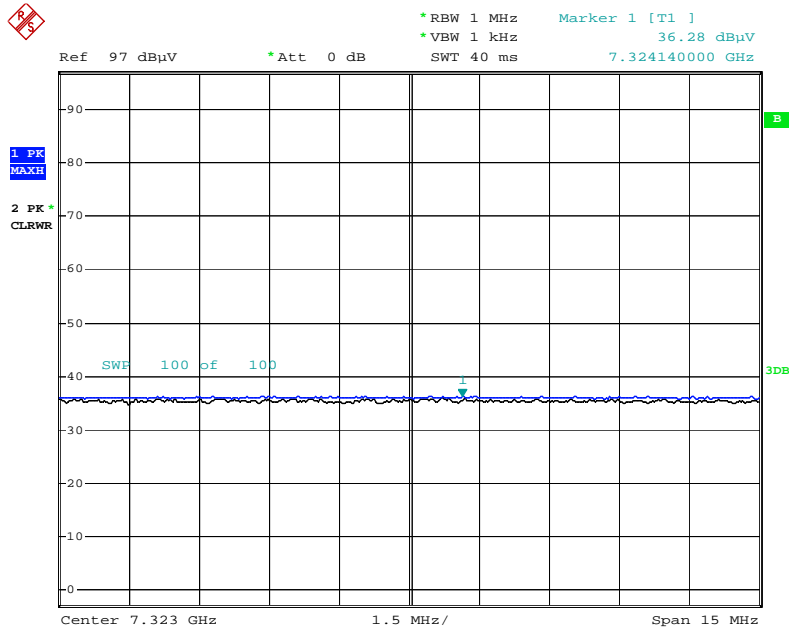
Date: 4.FEB.2019 09:59:18

Radiated Spurious Emissions plot – Peak Reading (GFSK, Ch.39 3rd Harmonic)



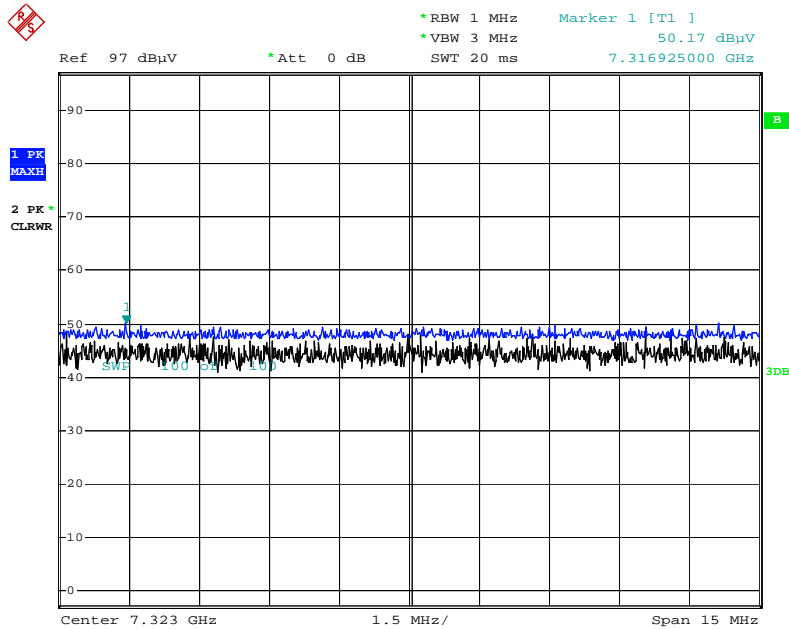
Date: 4.FEB.2019 10:00:45

Radiated Spurious Emissions plot – Average Reading (8DPSK, Ch.39 3rd Harmonic)



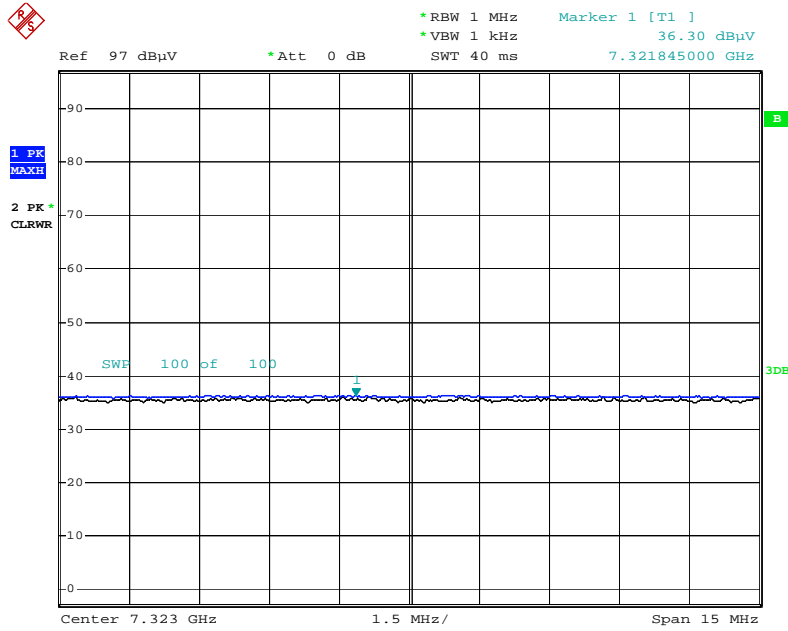
Date: 4.FEB.2019 10:04:39

Radiated Spurious Emissions plot – Peak Reading (8DPSK, Ch.39 3rd Harmonic)



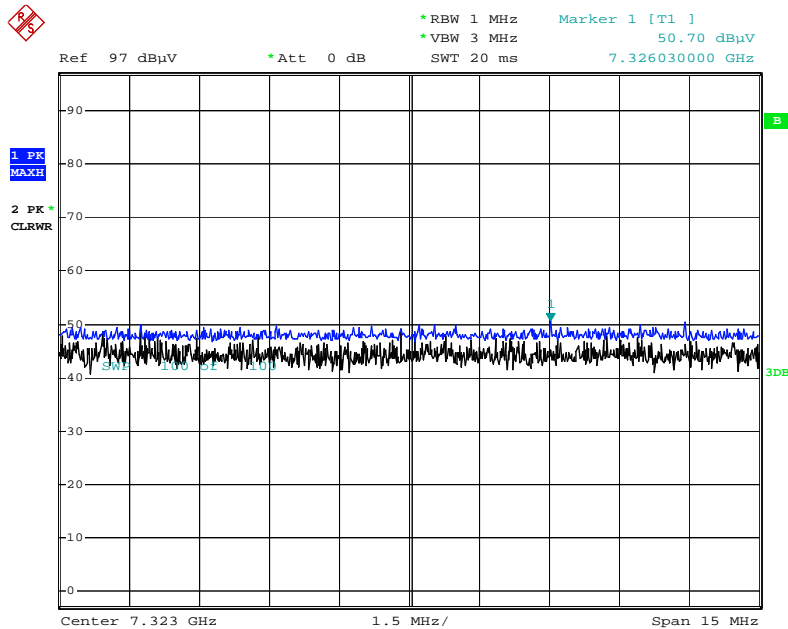
Date: 4.FEB.2019 10:04:13

Radiated Spurious Emissions plot – Average Reading ( $\pi/4$ DQPSK, Ch.39 3rd Harmonic)



Date: 4.FEB.2019 10:03:09

Radiated Spurious Emissions plot – Peak Reading ( $\pi/4$ DQPSK, Ch.39 3rd Harmonic)



Date: 4.FEB.2019 10:02:31

**Note:**

Plot of worst case are only reported.

### 10.6.3 RADIATED RESTRICTED BAND EDGES

Operation Mode Normal(GFSK)  
 Operating Frequency 2402 MHz, 2480 MHz  
 Channel No CH 0, CH 78

Frequency [MHz]	Reading [dBuV]	A.F + C.L + D.F [dB]	Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
2390.0	20.01	35.09	H	55.10	73.98	18.88	PK
2390.0	11.13	35.09	H	46.22	53.98	7.76	AV
2390.0	20.01	35.09	V	55.10	73.98	18.88	PK
2390.0	10.98	35.09	V	46.07	53.98	7.91	AV
2483.5	27.63	35.11	H	62.74	73.98	11.24	PK
2483.5	12.46	35.11	H	47.57	53.98	6.41	AV
2483.5	27.13	35.11	V	62.24	73.98	11.74	PK
2483.5	12.03	35.11	V	47.14	53.98	6.84	AV

Operation Mode EDR(8DPSK)  
 Operating Frequency 2402 MHz, 2480 MHz  
 Channel No CH 0, CH 78

Frequency [MHz]	Reading [dBuV]	A.F + C.L + D.F [dB]	Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
2390.0	21.92	35.09	H	57.01	73.98	16.97	PK
2390.0	11.18	35.09	H	46.27	53.98	7.71	AV
2390.0	21.42	35.09	V	56.51	73.98	17.47	PK
2390.0	11.13	35.09	V	46.22	53.98	7.76	AV
2483.5	26.32	35.11	H	61.43	73.98	12.55	PK
2483.5	12.41	35.11	H	47.52	53.98	6.46	AV
2483.5	25.42	35.11	V	60.53	73.98	13.45	PK
2483.5	11.58	35.11	V	46.69	53.98	7.29	AV

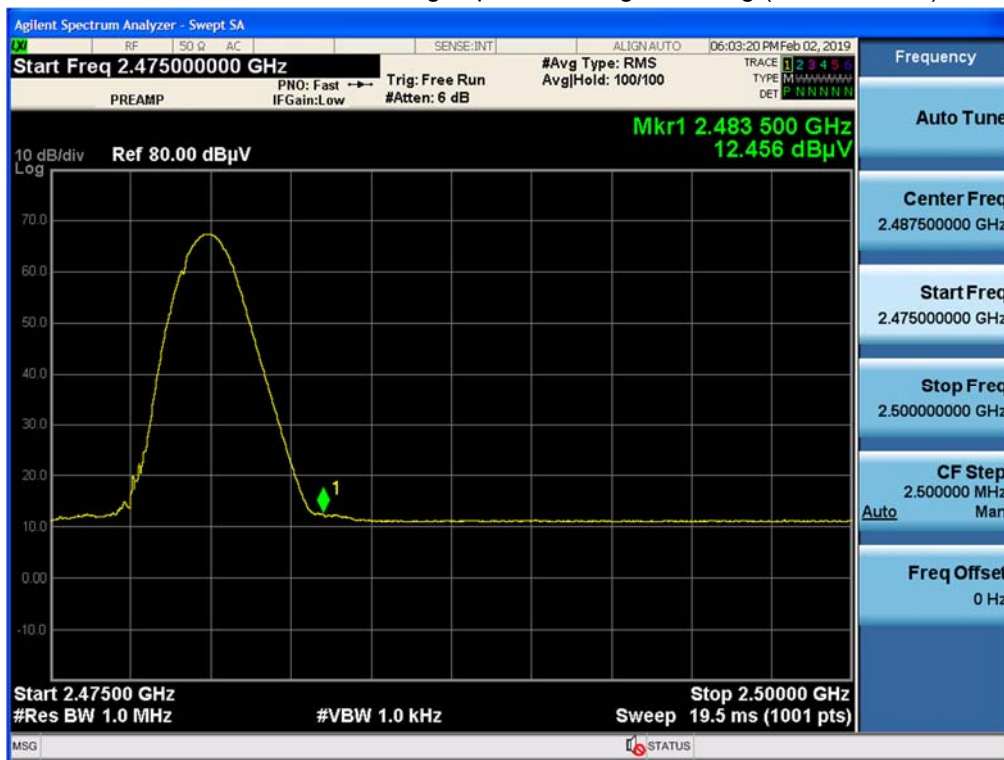
Operation Mode	EDR( $\pi/4$ DQPSK)
Operating Frequency	2402 MHz, 2480 MHz
Channel No	CH 0, CH 78

Frequency [MHz]	Reading [dBuV]	A.F + C.L + D.F [dB]	Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
2390.0	20.44	35.09	H	55.53	73.98	18.45	PK
2390.0	11.18	35.09	H	46.27	53.98	7.71	AV
2390.0	19.45	35.09	V	54.54	73.98	19.44	PK
2390.0	11.05	35.09	V	46.14	53.98	7.84	AV
2483.5	26.57	35.11	H	61.68	73.98	12.30	PK
2483.5	11.94	35.11	H	47.05	53.98	6.93	AV
2483.5	25.48	35.11	V	60.59	73.98	13.39	PK
2483.5	11.18	35.11	V	46.29	53.98	7.69	AV

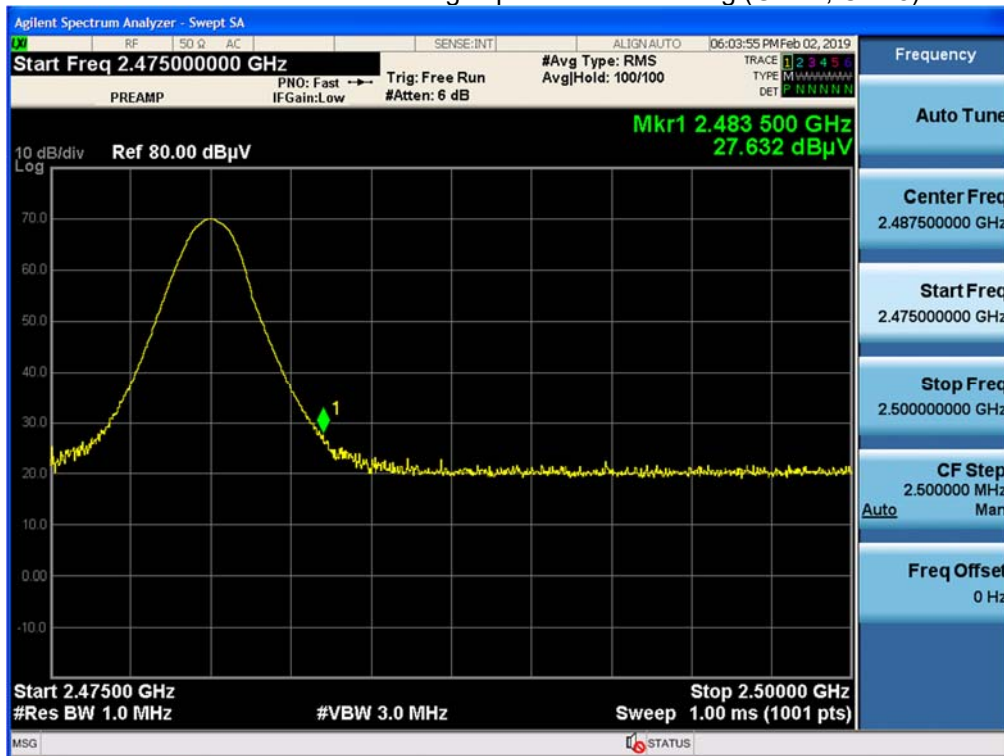


**RESULT PLOTS (Worst case : X-H)**

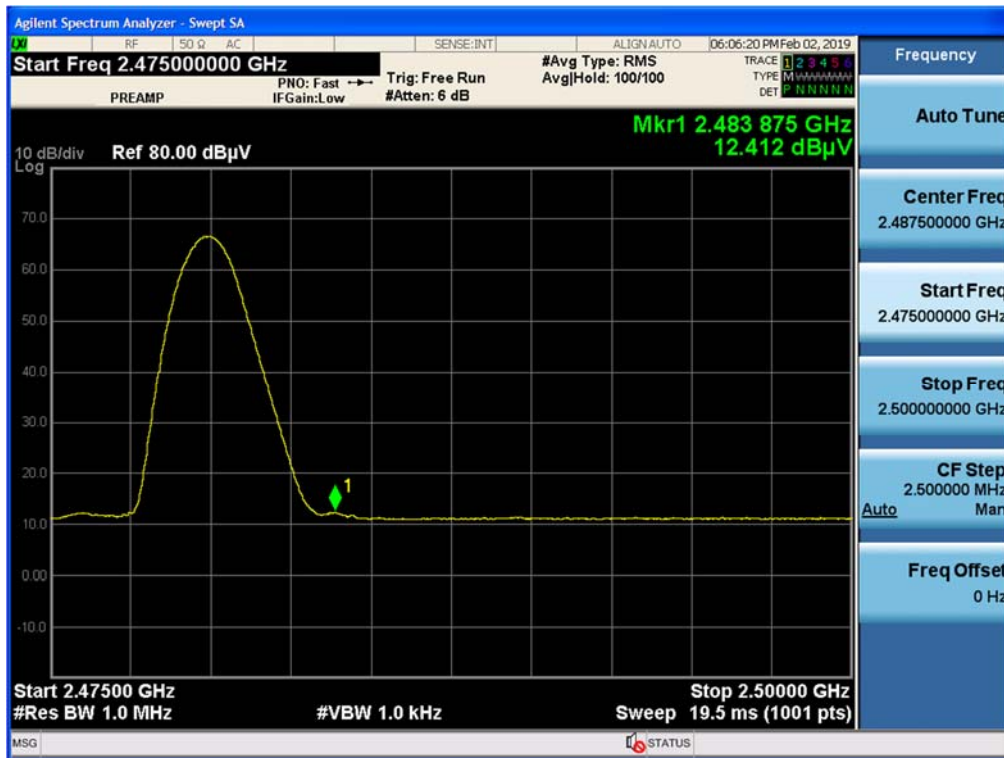
Radiated Restricted Band Edges plot – Average Reading (GFSK, Ch.78)



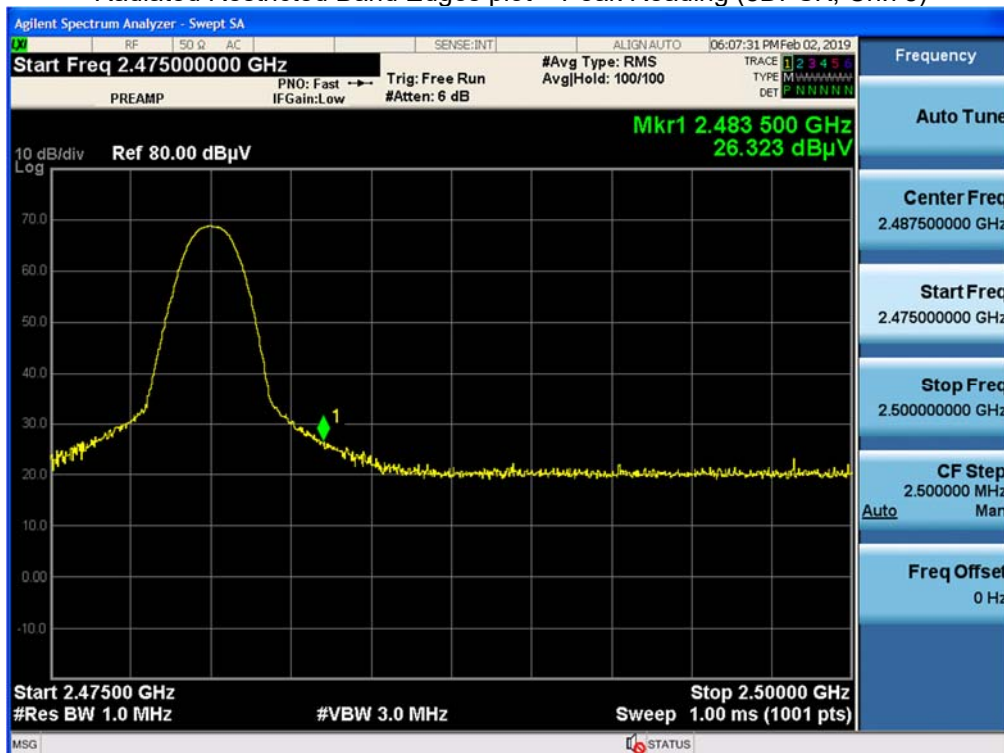
Radiated Restricted Band Edges plot – Peak Reading (GFSK, Ch.78)



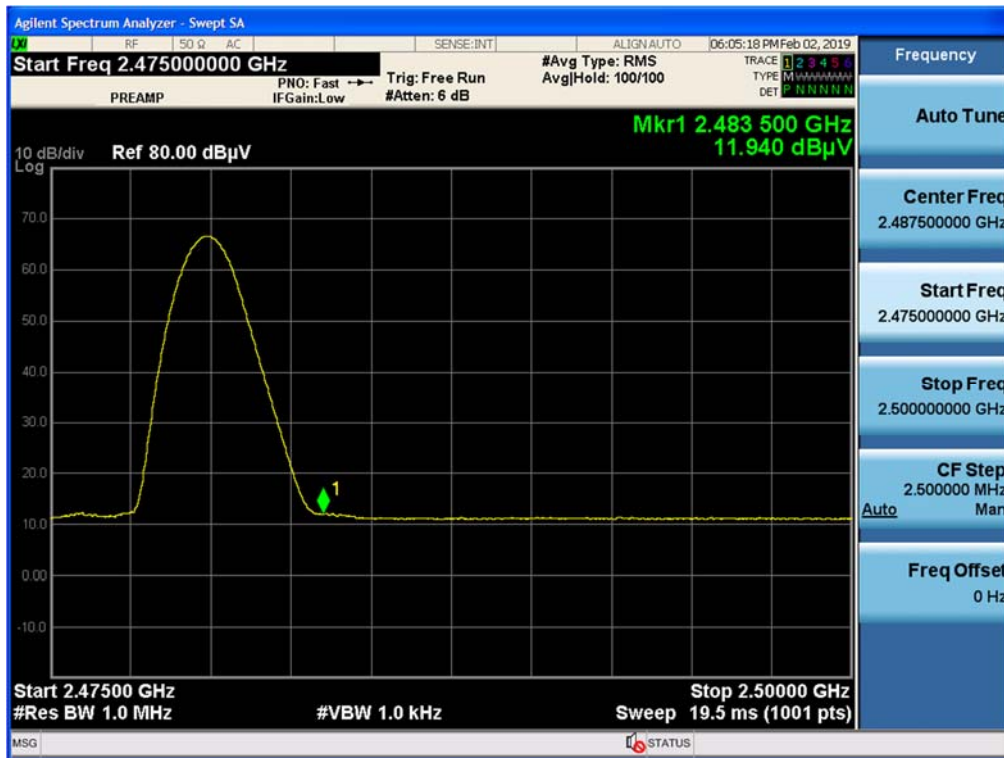
Radiated Restricted Band Edges plot – Average Reading (8DPSK, Ch.78)



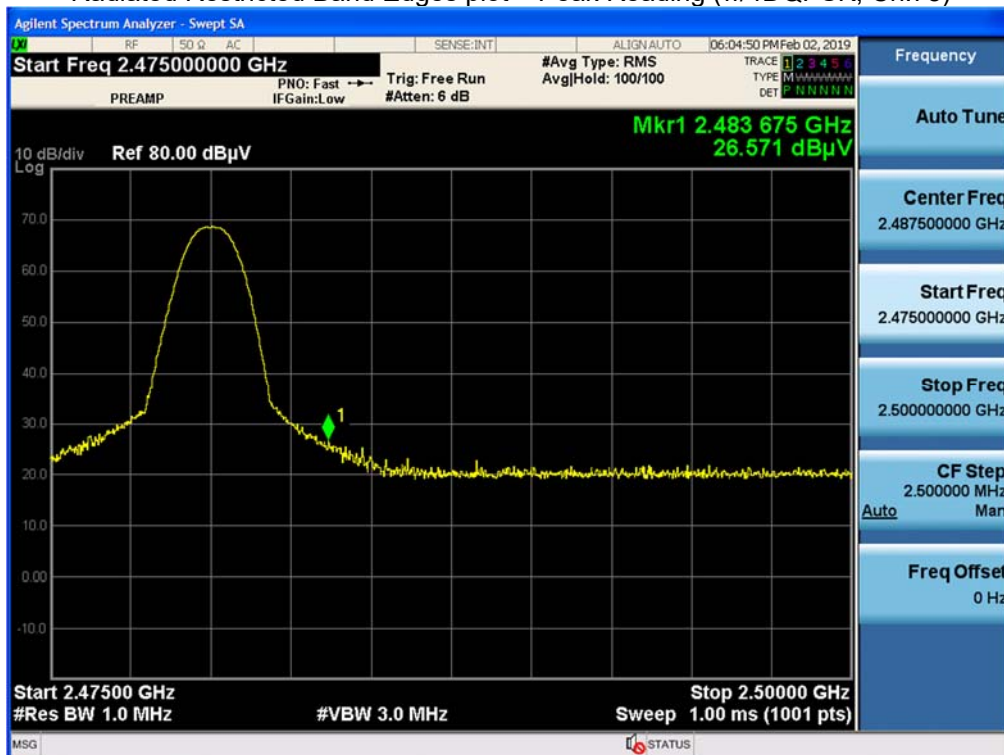
Radiated Restricted Band Edges plot – Peak Reading (8DPSK, Ch.78)



Radiated Restricted Band Edges plot – Average Reading ( $\pi/4$ DQPSK, Ch.78)



Radiated Restricted Band Edges plot – Peak Reading ( $\pi/4$ DQPSK, Ch.78)



**Note:**

Plot of worst case are only reported.

## 10.7 POWERLINE CONDUCTED EMISSIONS

### Conducted Emissions (Line 1)

BT\_N

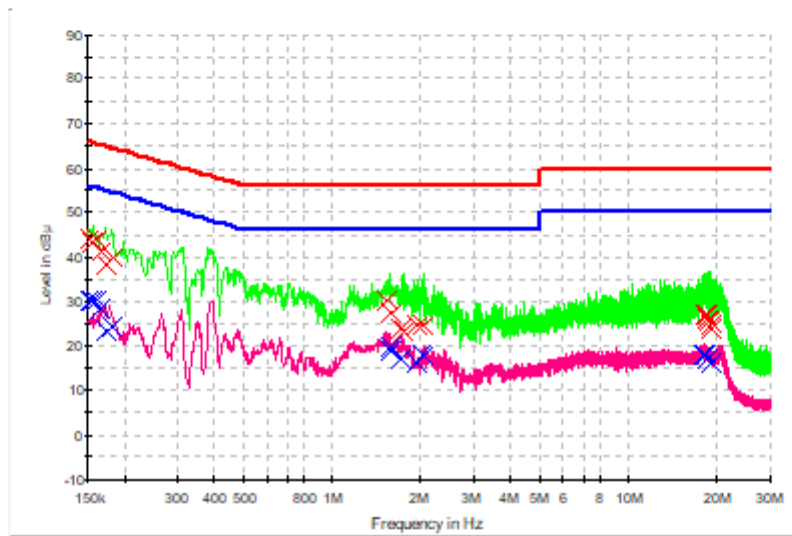
1 / 2

# HCT TEST Report

### Common Information

EUT: SM-M105M/DS  
 Manufacturer: SAMSUNG  
 Test Site: SHIELD ROOM  
 Operating Conditions: BT\_N

FCC CLASS B\_Exten Cable



— FCC CLASS B OP    — FCC CLASS B AV    — Preview Result 1-PK+  
— Preview Result 2-AVG    X Final Result 1-QPK    X Final Result 2-CAV

### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.152000	44.0	9.000	Off	N	9.8	21.9	65.9
0.156000	43.2	9.000	Off	N	9.8	22.5	65.7
0.160000	43.8	9.000	Off	N	9.8	21.7	65.5
0.166000	41.1	9.000	Off	N	9.8	24.0	65.2
0.172000	38.1	9.000	Off	N	9.8	26.8	64.9
0.180000	39.9	9.000	Off	N	9.8	24.6	64.5
1.534000	30.4	9.000	Off	N	10.1	25.6	56.0
1.580000	27.4	9.000	Off	N	10.1	28.6	56.0
1.710000	23.8	9.000	Off	N	10.1	32.2	56.0
1.756000	23.1	9.000	Off	N	10.1	32.9	56.0
1.936000	24.6	9.000	Off	N	10.0	31.4	56.0
2.028000	24.6	9.000	Off	N	10.0	31.4	56.0
18.220000	27.0	9.000	Off	N	10.8	33.0	60.0
18.604000	26.8	9.000	Off	N	10.8	33.2	60.0
18.620000	25.9	9.000	Off	N	10.8	34.1	60.0
18.696000	25.6	9.000	Off	N	10.8	34.4	60.0
19.052000	23.9	9.000	Off	N	10.8	36.1	60.0
19.098000	24.8	9.000	Off	N	10.8	35.2	60.0

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**Final Result 2**

Frequency (MHz)	CAverage (dBμV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.152000	30.3	9.000	Off	N	9.8	25.5	55.9
0.156000	30.4	9.000	Off	N	9.8	25.3	55.7
0.160000	30.3	9.000	Off	N	9.8	25.2	55.5
0.164000	28.5	9.000	Off	N	9.8	26.8	55.3
0.172000	23.2	9.000	Off	N	9.8	31.6	54.9
0.180000	24.2	9.000	Off	N	9.8	30.3	54.5
1.576000	19.8	9.000	Off	N	10.1	26.2	46.0
1.580000	19.0	9.000	Off	N	10.1	27.0	46.0
1.710000	17.2	9.000	Off	N	10.1	28.8	46.0
1.936000	16.1	9.000	Off	N	10.0	29.9	46.0
2.024000	18.0	9.000	Off	N	10.0	28.0	46.0
2.028000	17.9	9.000	Off	N	10.0	28.1	46.0
17.996000	18.1	9.000	Off	N	10.8	31.9	50.0
18.106000	18.1	9.000	Off	N	10.8	31.9	50.0
18.220000	18.0	9.000	Off	N	10.8	32.0	50.0
18.620000	17.0	9.000	Off	N	10.8	33.0	50.0
19.052000	16.2	9.000	Off	N	10.8	33.8	50.0
19.098000	16.0	9.000	Off	N	10.8	34.0	50.0

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**Conducted Emissions (Line 2)**

BT\_L1

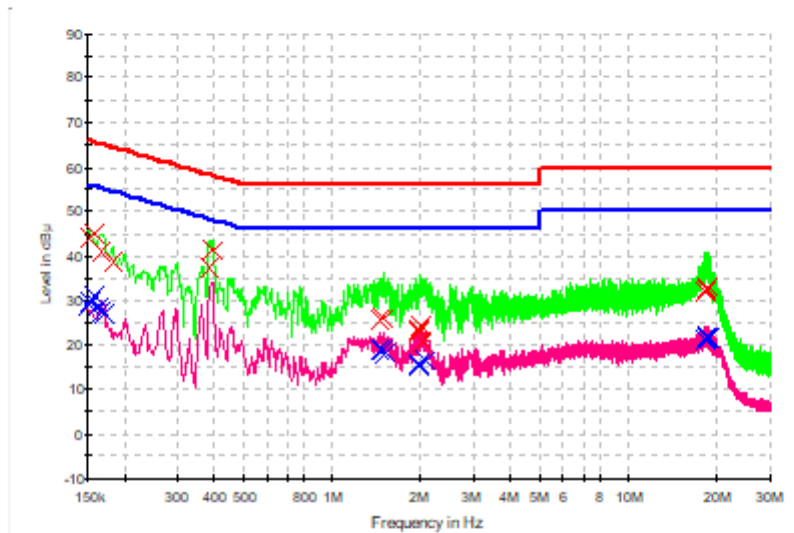
1 / 2

**HCT TEST Report**

**Common Information**

EUT: SM-M105MDS  
 Manufacturer: SAMSUNG  
 Test Site: SHIELD ROOM  
 Operating Conditions: BT\_L1

FCC CLASS B\_Exten Cable



— FCC CLASS B\_QP    — FCC CLASS B\_AV    — Preview Result 1-PK+  
 — Preview Result 2-AVG    X Final Result 1-QPK    X Final Result 2-CAV

**Final Result 1**

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.152000	43.3	9.000	Off	L1	9.7	22.0	65.9
0.158000	44.7	9.000	Off	L1	9.7	20.8	65.6
0.166000	41.0	9.000	Off	L1	9.7	24.2	65.2
0.182000	38.9	9.000	Off	L1	9.7	25.5	64.4
0.386000	37.6	9.000	Off	L1	9.7	20.6	58.1
0.394000	41.2	9.000	Off	L1	9.7	16.8	58.0
1.452000	25.6	9.000	Off	L1	9.9	30.4	56.0
1.478000	25.8	9.000	Off	L1	9.9	30.2	56.0
1.960000	22.3	9.000	Off	L1	9.8	33.1	56.0
1.968000	23.4	9.000	Off	L1	9.8	32.6	56.0
1.996000	24.4	9.000	Off	L1	9.8	31.6	56.0
2.016000	20.7	9.000	Off	L1	9.8	35.3	56.0
18.154000	31.3	9.000	Off	L1	10.5	28.1	60.0
18.174000	32.0	9.000	Off	L1	10.5	28.0	60.0
18.364000	32.3	9.000	Off	L1	10.5	27.7	60.0
18.454000	32.8	9.000	Off	L1	10.5	27.2	60.0
18.462000	32.5	9.000	Off	L1	10.5	27.5	60.0
18.678000	32.9	9.000	Off	L1	10.5	27.1	60.0

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**Final Result 2**

Frequency (MHz)	CAverage (dBμV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	28.9	9.000	Off	L1	9.7	27.1	56.0
0.154000	29.5	9.000	Off	L1	9.7	26.3	55.8
0.158000	31.1	9.000	Off	L1	9.7	24.5	55.6
0.162000	28.6	9.000	Off	L1	9.7	26.8	55.4
0.166000	27.5	9.000	Off	L1	9.7	27.7	55.2
0.170000	27.0	9.000	Off	L1	9.7	28.0	55.0
1.452000	19.0	9.000	Off	L1	9.9	27.0	46.0
1.478000	18.7	9.000	Off	L1	9.9	27.3	46.0
1.508000	18.1	9.000	Off	L1	9.9	27.9	46.0
1.560000	15.7	9.000	Off	L1	9.8	30.3	46.0
1.968000	14.9	9.000	Off	L1	9.8	31.1	46.0
2.058000	16.6	9.000	Off	L1	9.8	29.4	46.0
18.154000	21.3	9.000	Off	L1	10.5	28.7	50.0
18.386000	21.5	9.000	Off	L1	10.5	28.5	50.0
18.414000	21.8	9.000	Off	L1	10.5	28.2	50.0
18.452000	21.6	9.000	Off	L1	10.5	28.4	50.0
18.678000	21.6	9.000	Off	L1	10.5	28.4	50.0
18.782000	21.5	9.000	Off	L1	10.6	28.5	50.0

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## 11 LIST OF TEST EQUIPMENT

### Conducted Test

Manufacturer	Model / Equipment	Calibration Date	Calibration Interval	Serial No.
Rohde & Schwarz	ENV216 / LISN	12/12/2018	Annual	102245
Rohde & Schwarz	ESCI / Test Receiver	06/27/2018	Annual	100033
ESPAC	SU-642 /Temperature Chamber	03/30/2018	Annual	0093008124
Agilent	N9020A / Signal Analyzer	06/08/2018	Annual	MY52090906
Agilent	N1911A / Power Meter	04/16/2018	Annual	MY45100523
Agilent	N1921A / Power Sensor	04/16/2018	Annual	MY52260025
Hewlett Packard	11667B / Power Splitter	06/07/2018	Annual	05001
Hewlett Packard	E3632A / DC Power Supply	06/26/2018	Annual	KR75303960
Agilent	8493C / Attenuator(10 dB)	07/10/2018	Annual	07560
Rohde & Schwarz	EMC32 / Software	N/A	N/A	N/A
HCT CO., LTD.	FCC WLAN&BT&BLE Conducted Test Software v3.0	N/A	N/A	N/A
Rohde & Schwarz	CBT / Bluetooth Tester	05/17/2018	Annual	100422
MCE/Weinschel	2-20/ Attenuator(20 dB)	10/26/2018	Annual	BR0592

### Note:

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

**Radiated Test**

Manufacturer	Model / Equipment	Calibration Date	Calibration Interval	Serial No.
Innco system	CO3000 / Controller(Antenna mast)	N/A	N/A	CO3000-4p
Innco system	MA4640/800-XP-EP / Antenna Position Tower	N/A	N/A	N/A
Audix	EM1000 / Controller	N/A	N/A	060520
Audix	Turn Table	N/A	N/A	N/A
Rohde & Schwarz	Loop Antenna	08/23/2018	Biennial	1513-175
Schwarzbeck	VULB 9168 / Hybrid Antenna	04/06/2017	Biennial	760
Schwarzbeck	VULB 9168 / Hybrid Antenna	08/09/2018	Annual	3368
Schwarzbeck	BBHA 9120D / Horn Antenna	06/30/2017	Biennial	1300
Schwarzbeck	BBHA9170 / Horn Antenna(15 GHz ~ 40 GHz)	12/04/2017	Biennial	BBHA9170541
Rohde & Schwarz	FSP(9 kHz ~ 40 GHz) / Spectrum Analyzer	07/24/2018	Annual	100843
Wainwright Instruments	WHK3.0/18G-10EF / High Pass Filter	01/03/2019	Annual	F6
Wainwright Instruments	WHFX7.0/18G-8SS / High Pass Filter	05/09/2018	Annual	29
Wainwright Instruments	WRCJV2400/2483.5-2370/2520-60/12SS / Band Reject Filter	06/29/2018	Annual	2
Wainwright Instruments	WRCJV5100/5850-40/50-8EEK / Band Reject Filter	01/03/2019	Annual	2
Weinschel	2-3 / Attenuator (3 dB)	10/10/2018	Annual	BR0617
H+S	5910-N-50-010 / Attenuator(10 dB)	11/08/2018	Annual	NONE
CERNEX	CBLU1183540B-01 / Power Amplifier	12/21/2018	Annual	25540
CERNEX	CBL06185030 / Power Amplifier	03/28/2018	Annual	28550
CERNEX	CBL18265035 / Power Amplifier	01/03/2019	Annual	22966
CERNEX	CBL26405040 / Power Amplifier	06/29/2018	Annual	25956
TESCOM	TC-3000C / Bluetooth Tester	03/27/2018	Annual	3000C000276

**Note:**

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

## 12 ANNEX A\_ TEST SETUP PHOTO

Please refer to test setup photo file no. as follows;

No.	Description
1	HCT-RF-1902-FC057-P
2	HCT-RF-1902-FC058-P
3	HCT-RF-1902-FC059-P