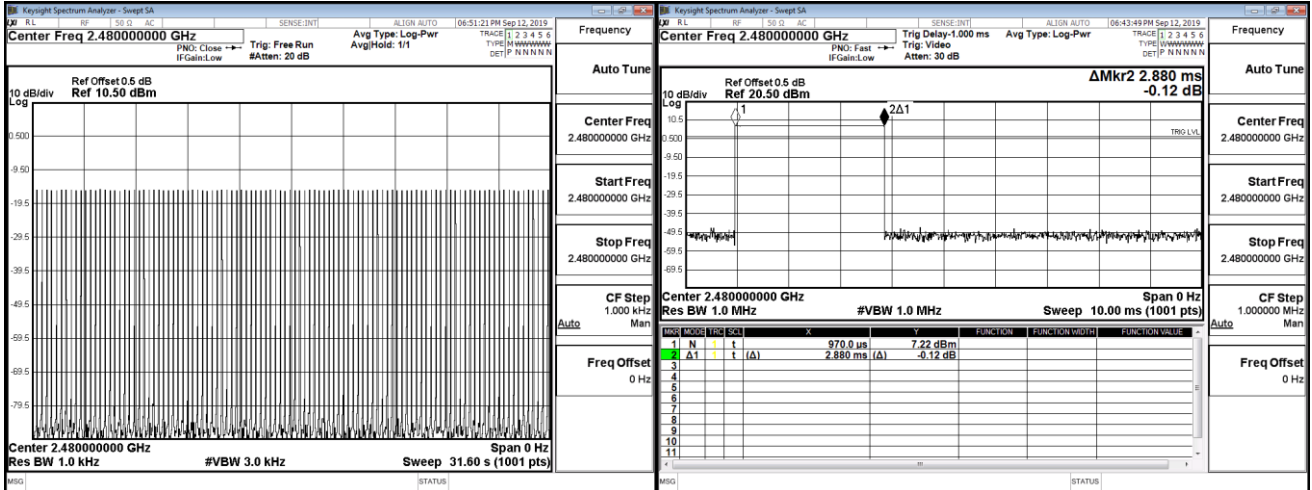


CH 78 Time Interval between hops

CH 78 Transmission Time



Note:

The dwell times of the packet type of DH1, DH3, and DH5 are tested. Only the worst case is shown on the report.

Product : Bluetooth Headset  
 Test Item : Dwell Time  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit - 2Mbps ( $\pi/4$ DQPSK) (Channel 00,39,78 –DH5)

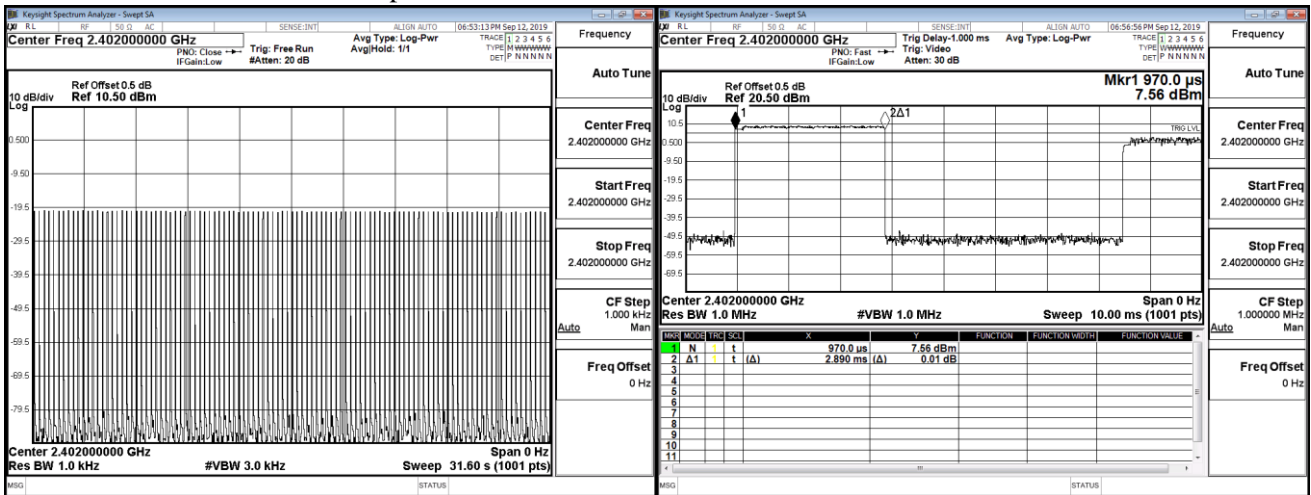
Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Dwell Time (ms)	Limit (ms)	Result
2402	2.890	106	31600	306.340	400	Pass
2441	2.890	108	31600	312.120	400	Pass
2480	2.890	106	31600	306.340	400	Pass

Dwell time = Time slot length\*Hopping of number

Sweep time= 79 Channel \* 0.4

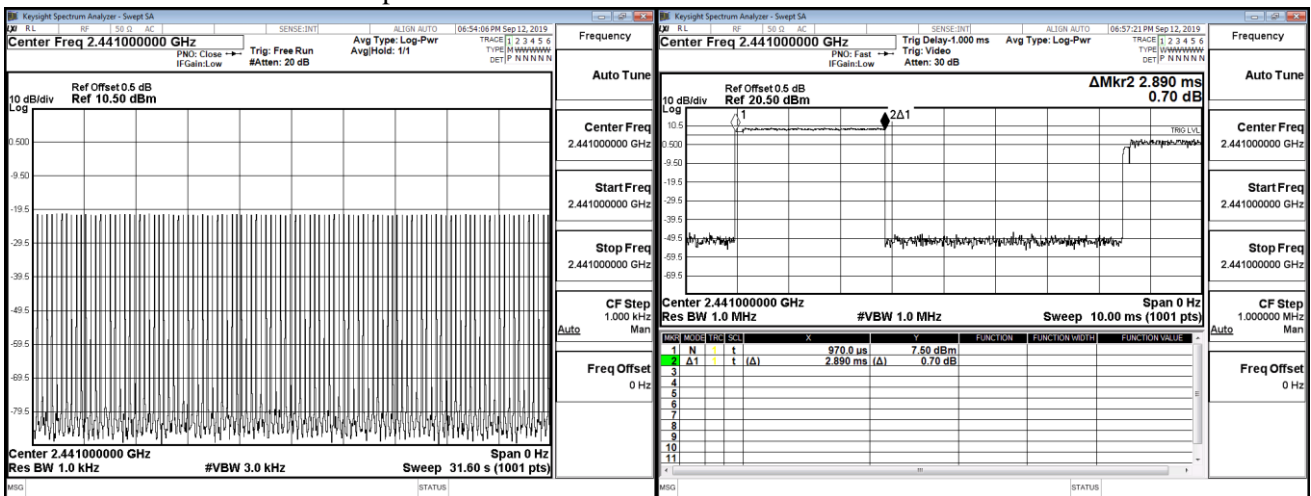
CH 00 Time Interval between hops

CH 00 Transmission Time



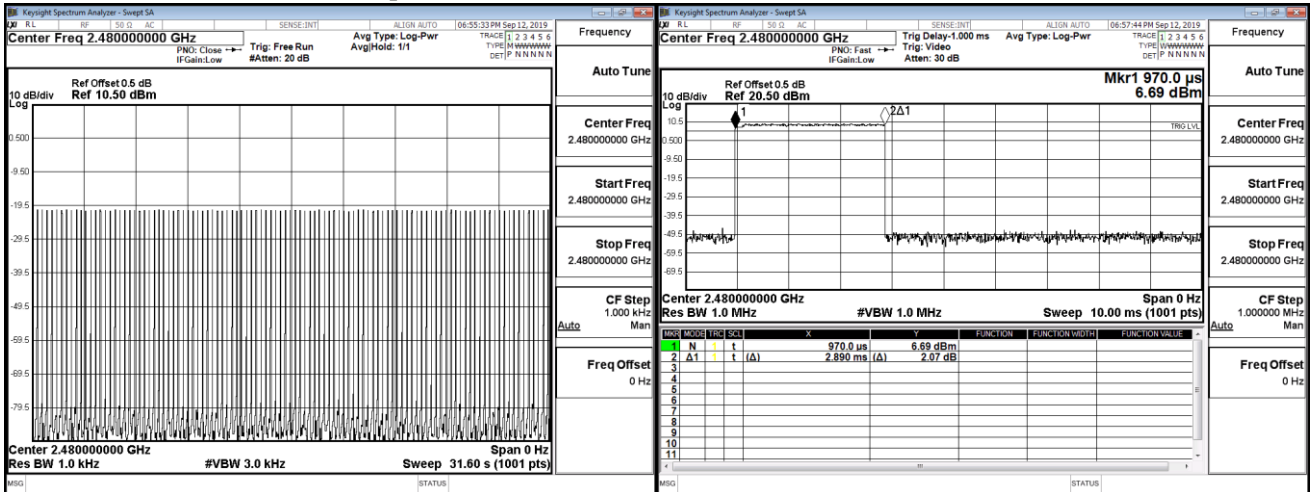
CH39 Time Interval between hops

CH 39Transmission Time



CH 78 Time Interval between hops

CH 78 Transmission Time



Note:

The dwell times of the packet type of DH1, DH3, and DH5 are tested. Only the worst case is shown on the report.

Product : Bluetooth Headset  
 Test Item : Dwell Time  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit - 3Mbps (8DPSK) (Channel 00,39,78 –DH5)

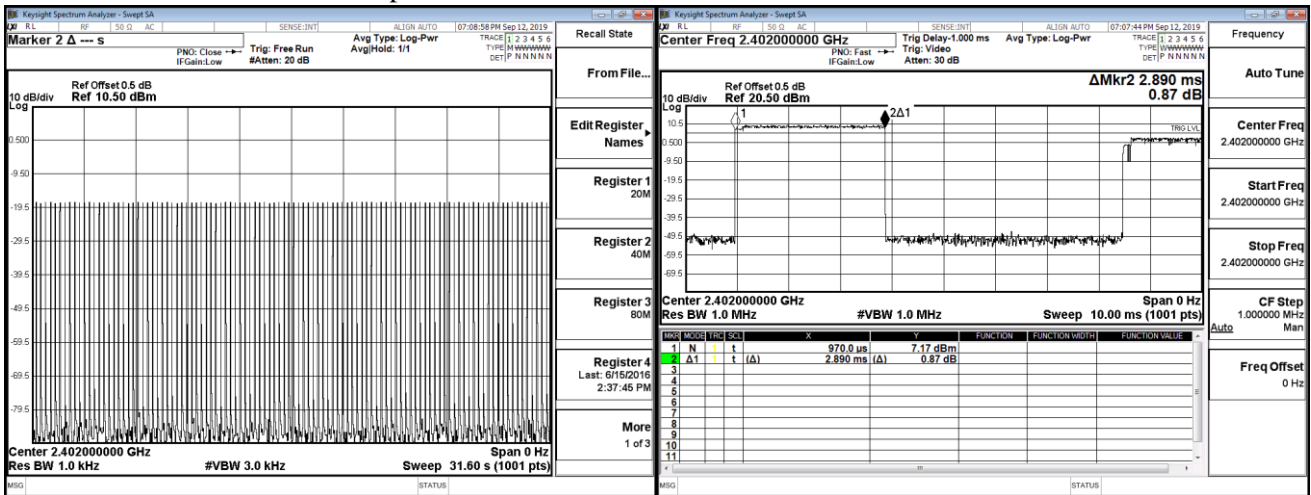
Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Dwell Time (ms)	Limit (ms)	Result
2402	2.890	106	31600	306.340	400	Pass
2441	2.890	106	31600	306.340	400	Pass
2480	2.890	106	31600	306.340	400	Pass

Dwell time = Time slot length\*Hopping of number

Sweep time= 79 Channel \* 0.4

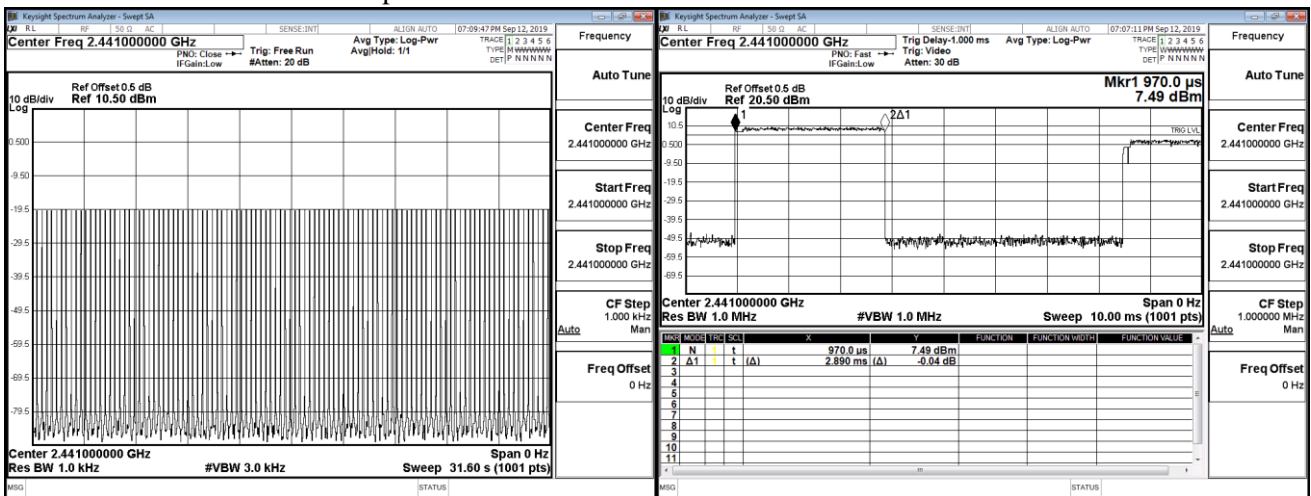
CH 00 Time Interval between hops

CH 00 Transmission Time



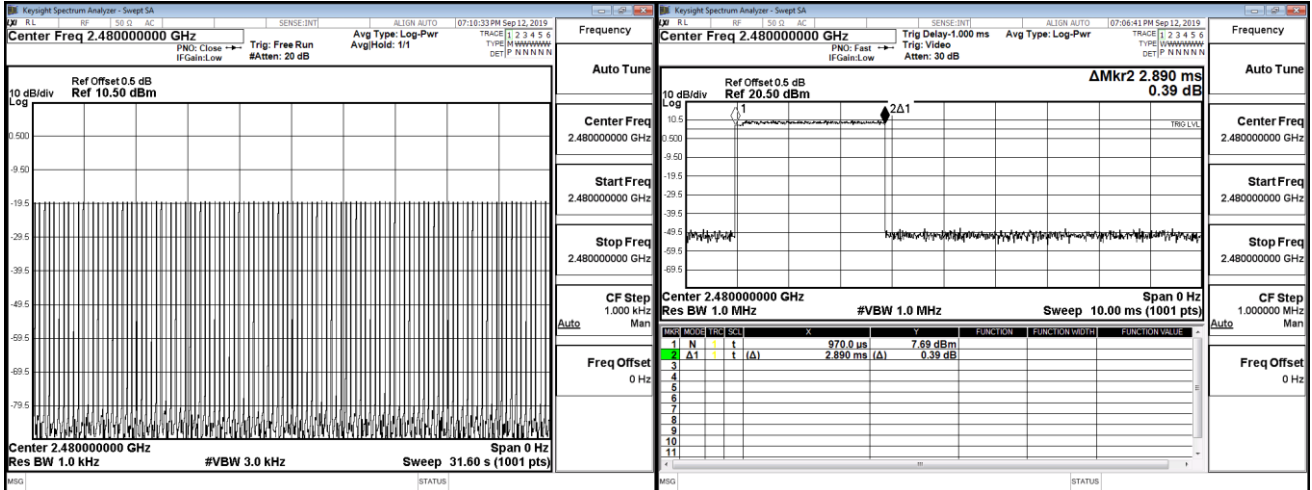
CH39 Time Interval between hops

CH 39Transmission Time



CH 78 Time Interval between hops

CH 78 Transmission Time

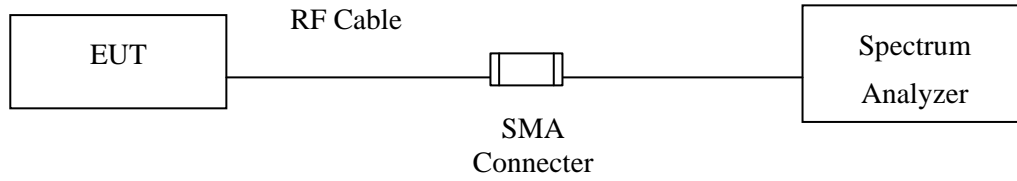


Note:

The dwell times of the packet type of DH1, DH3, and DH5 are tested. Only the worst case is shown on the report.

## 10. Occupied Bandwidth

### 10.1. Test Setup



### 10.2. Limits

N/A.

### 10.3. Test Procedure

The EUT was setup to ANSI C63.10: 2013; According to RSS-247 Issue 2, 5.1(a) (Feb, 2017)

### 10.4. Uncertainty

$\pm 283\text{Hz}$

### 10.5. Test Result of Occupied Bandwidth

Product : Bluetooth Headset  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	966	--	NA
39	2441	966	--	NA
78	2480	963	--	NA

Figure Channel 00:

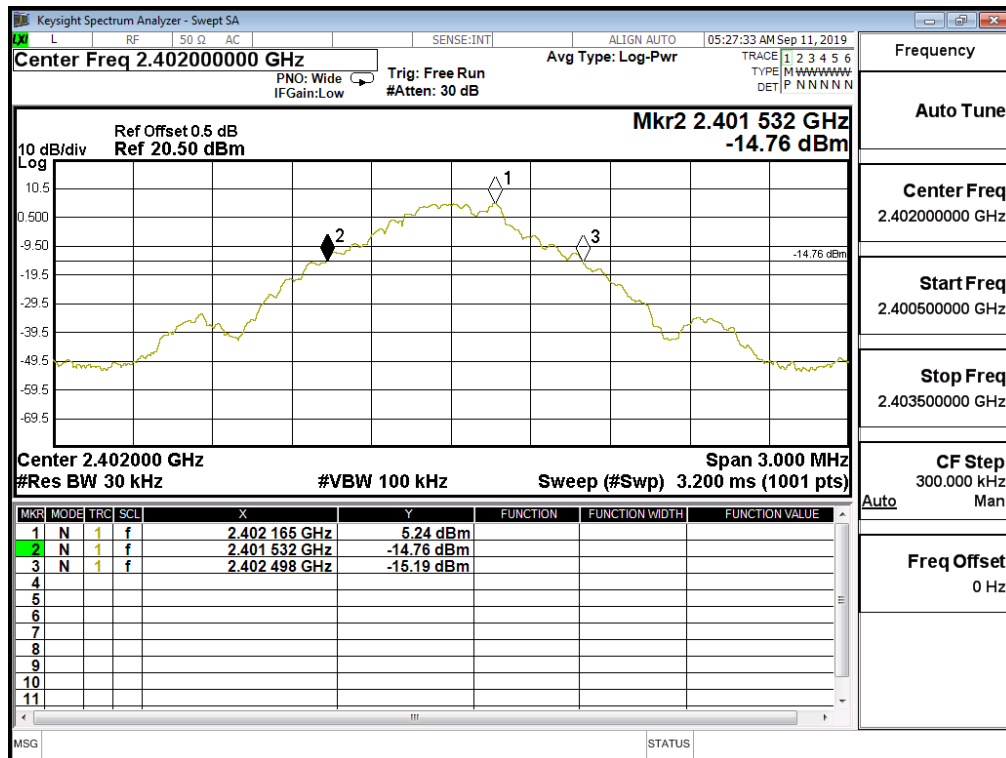


Figure Channel 39:

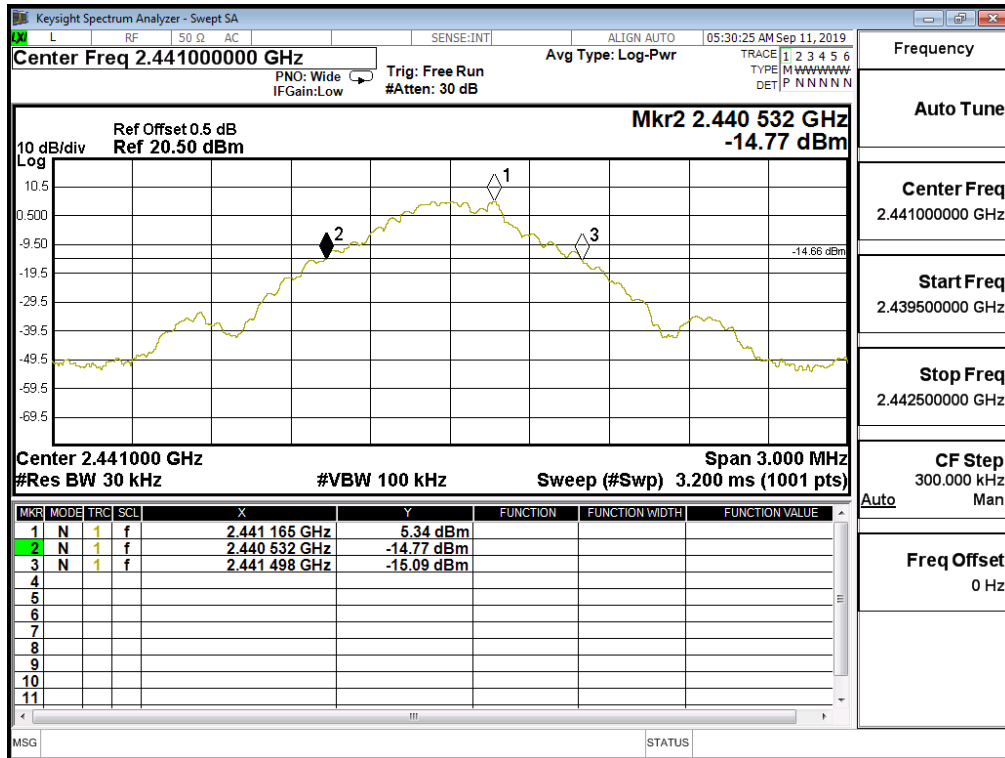
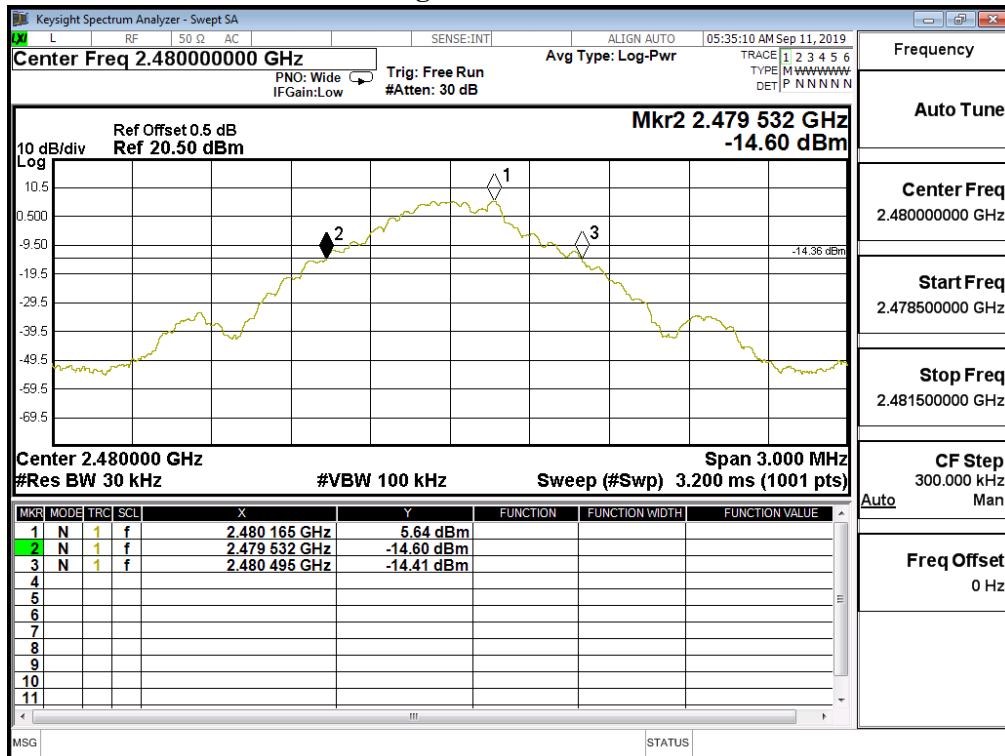


Figure Channel 78:





Product : Bluetooth Headset  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit - 2Mbps ( $\pi/4$ DQPSK)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	1341	--	NA
39	2441	1338	--	NA
78	2480	1341	--	NA

Figure Channel 00:

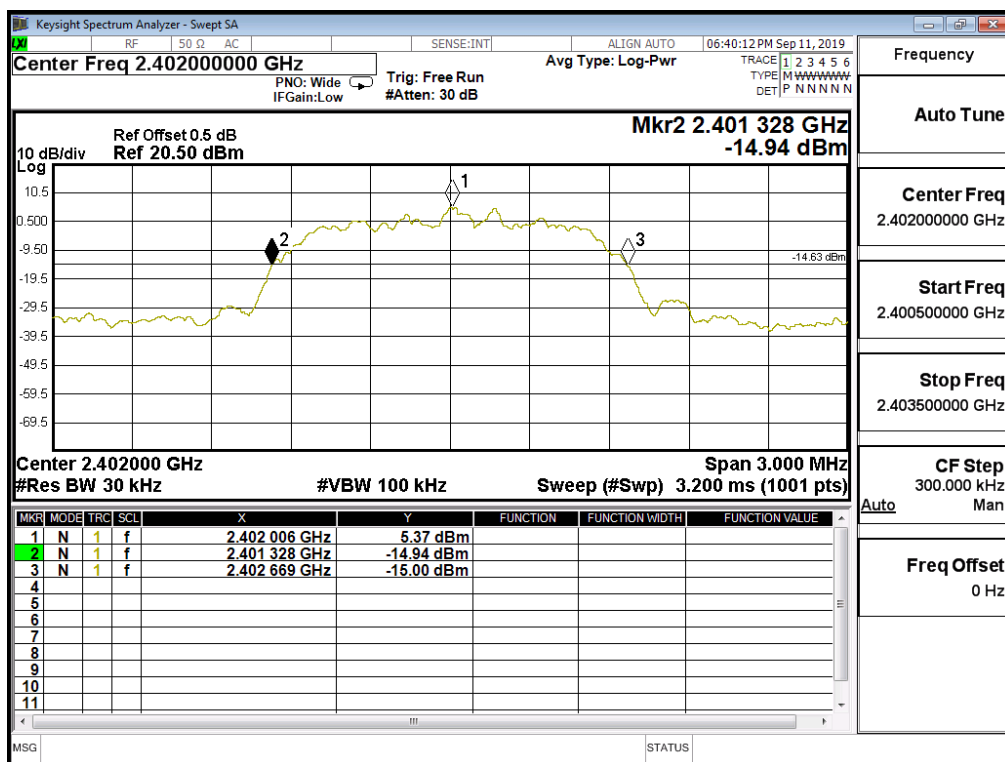


Figure Channel 39:

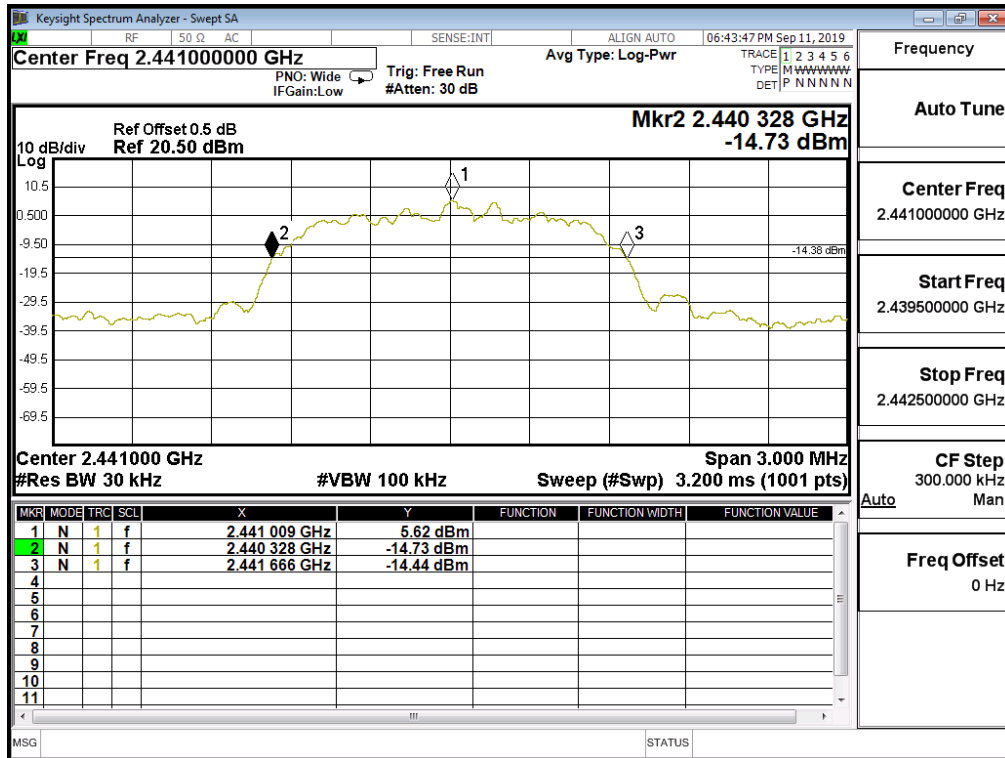
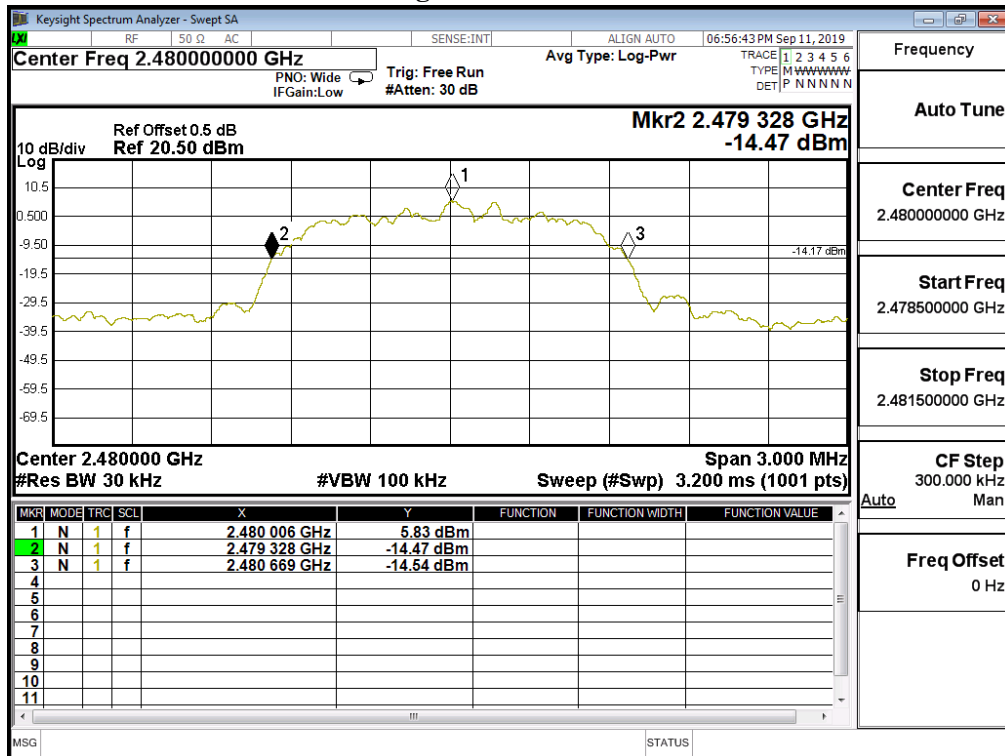


Figure Channel 78:



Product : Bluetooth Headset  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit - 3Mbps (8DPSK)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	1314	--	NA
39	2441	1317	--	NA
78	2480	1314	--	NA

Figure Channel 00:

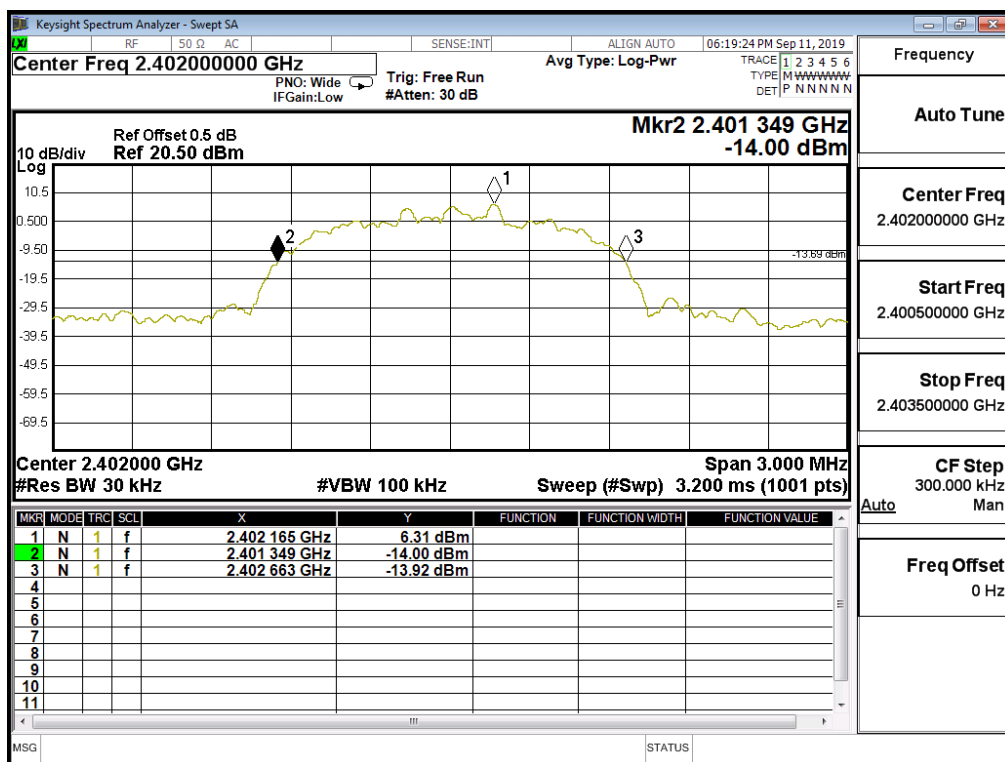


Figure Channel 39:

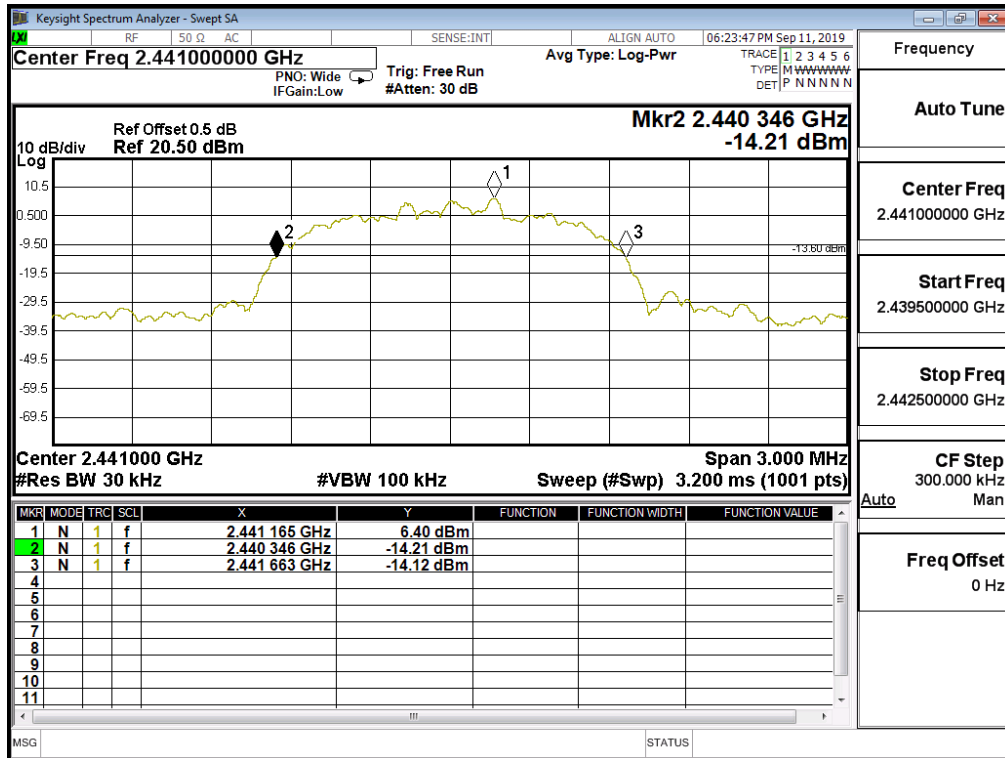
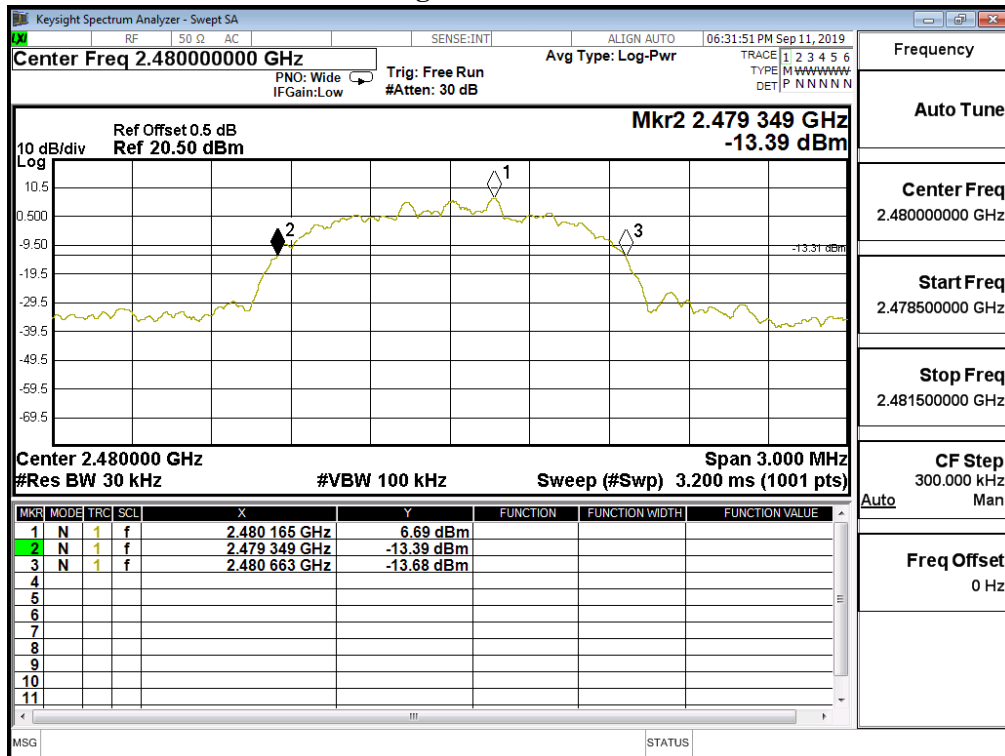
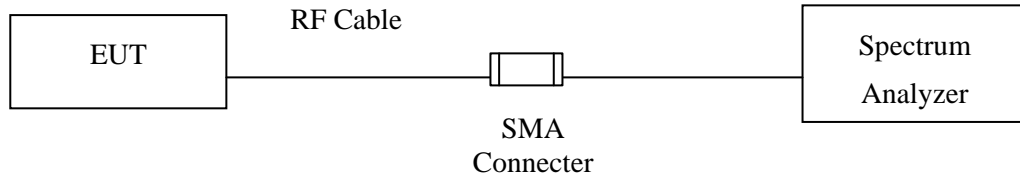


Figure Channel 78:



## 11. 99% Occupied Bandwidth

### 11.1. Test Setup



### 11.2. Limits

No Required

### 11.3. Uncertainty

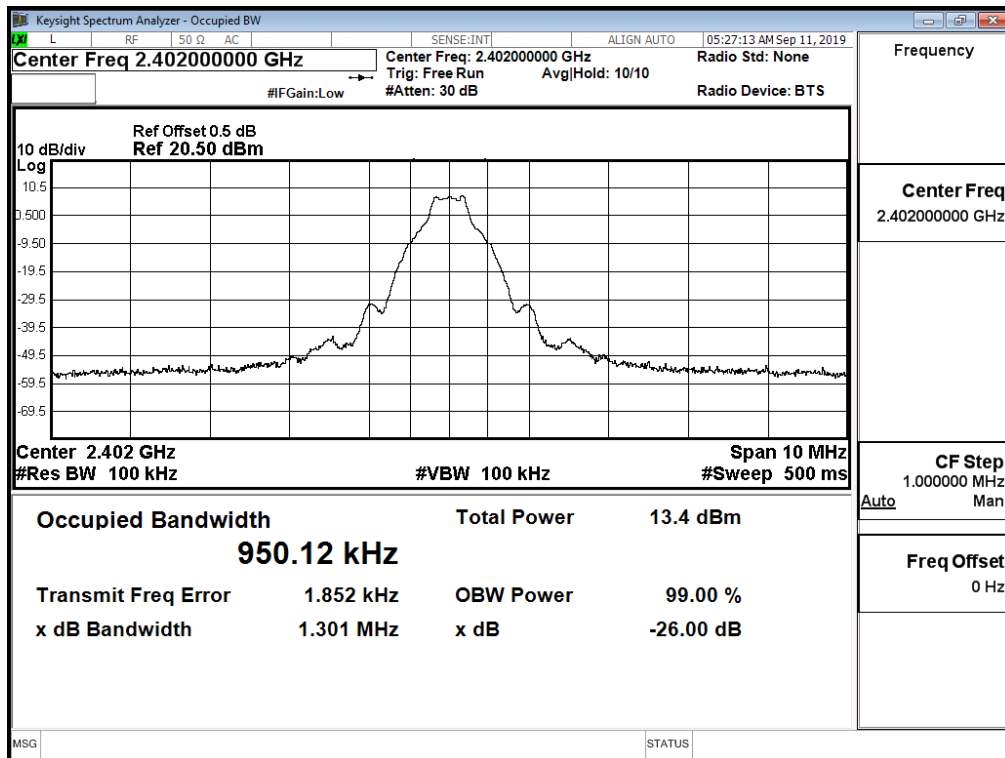
$\pm 283\text{Hz}$

### 11.4. Test Result of 99% Occupied Bandwidth

Product : Bluetooth Headset  
 Test Item : 99% Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2402MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	950.12	--	NA

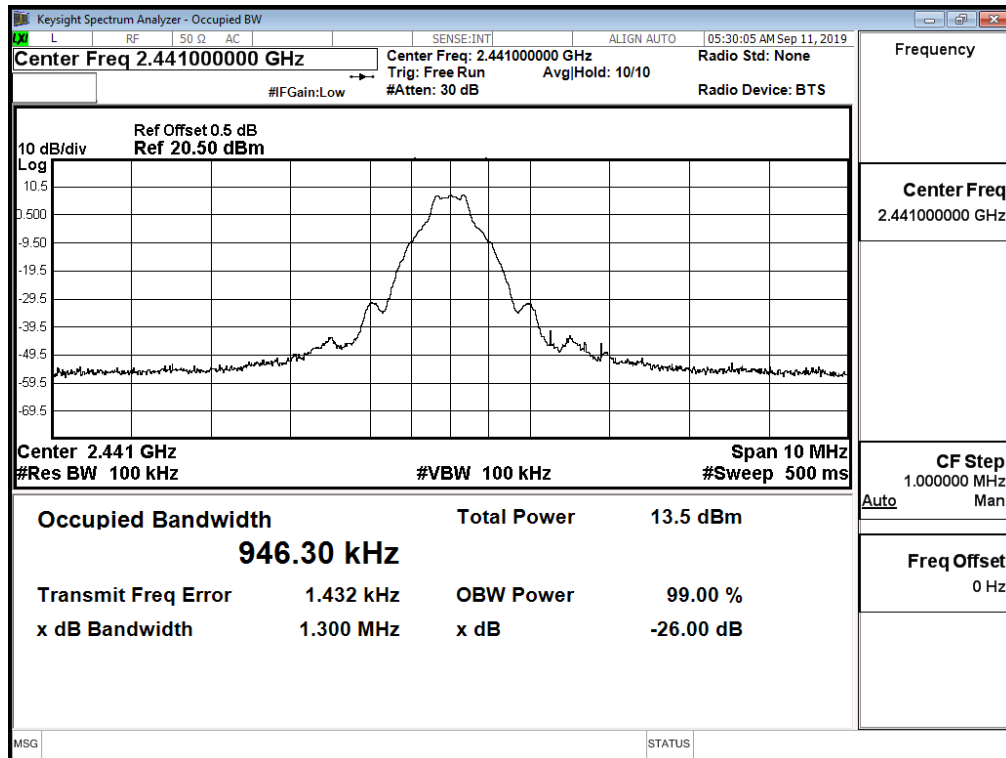
Figure Channel 00:



Product : Bluetooth Headset  
 Test Item : 99% Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2441MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
39	2441	946.3	--	NA

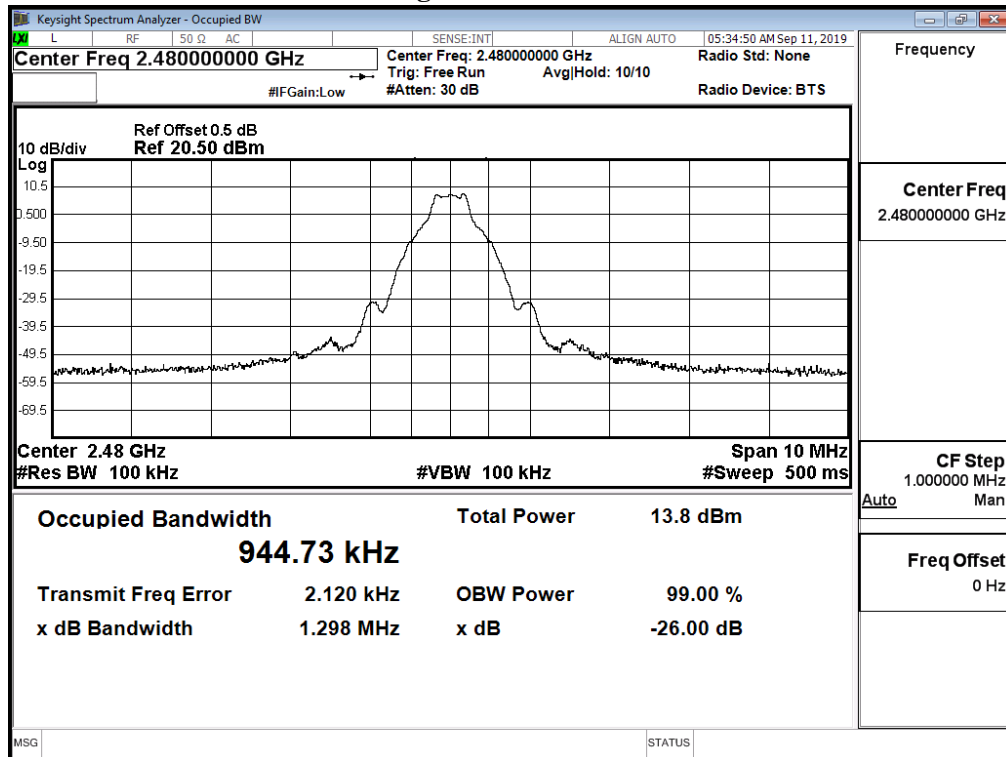
Figure Channel 39:



Product : Bluetooth Headset  
 Test Item : 99% Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2480MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
78	2480	944.73	--	NA

Figure Channel 78:

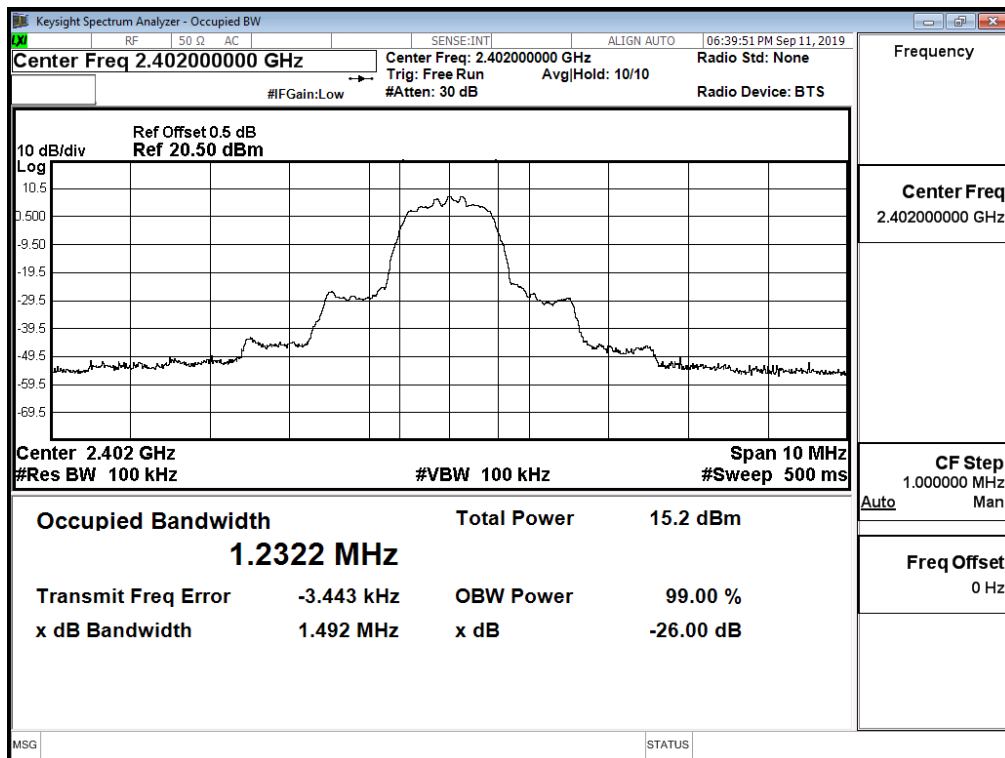




Product : Bluetooth Headset  
 Test Item : 99% Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit - 2Mbps ( $\pi/4$ DQPSK)(2402MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	1232.2	--	NA

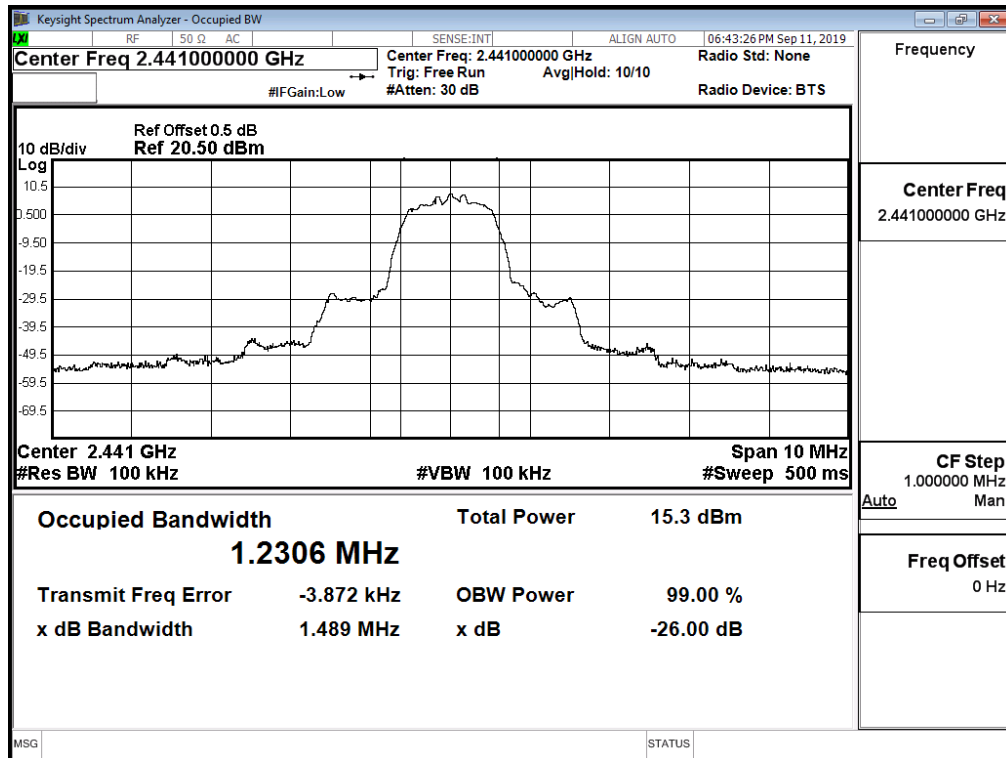
Figure Channel 00:



Product : Bluetooth Headset  
 Test Item : 99% Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit - 2Mbps ( $\pi/4$ DQPSK) (2441MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
39	2441	1230.6	--	NA

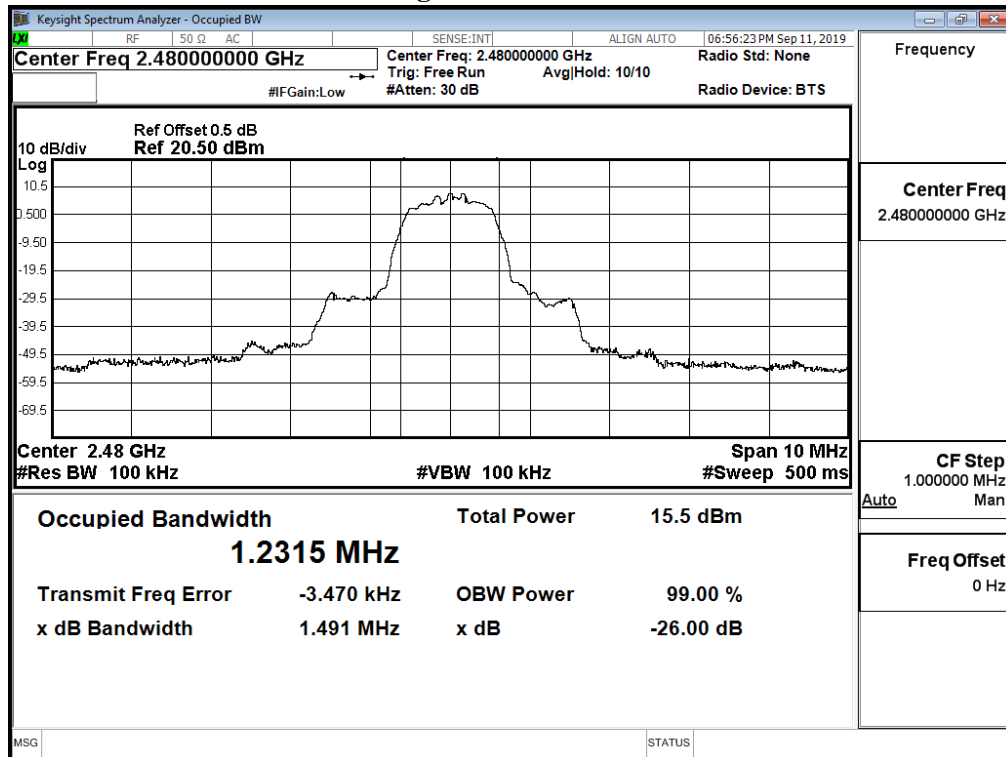
Figure Channel 39:



Product : Bluetooth Headset  
 Test Item : 99% Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit - 2Mbps ( $\pi/4$ DQPSK) (2480MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
78	2480	1231.5	--	NA

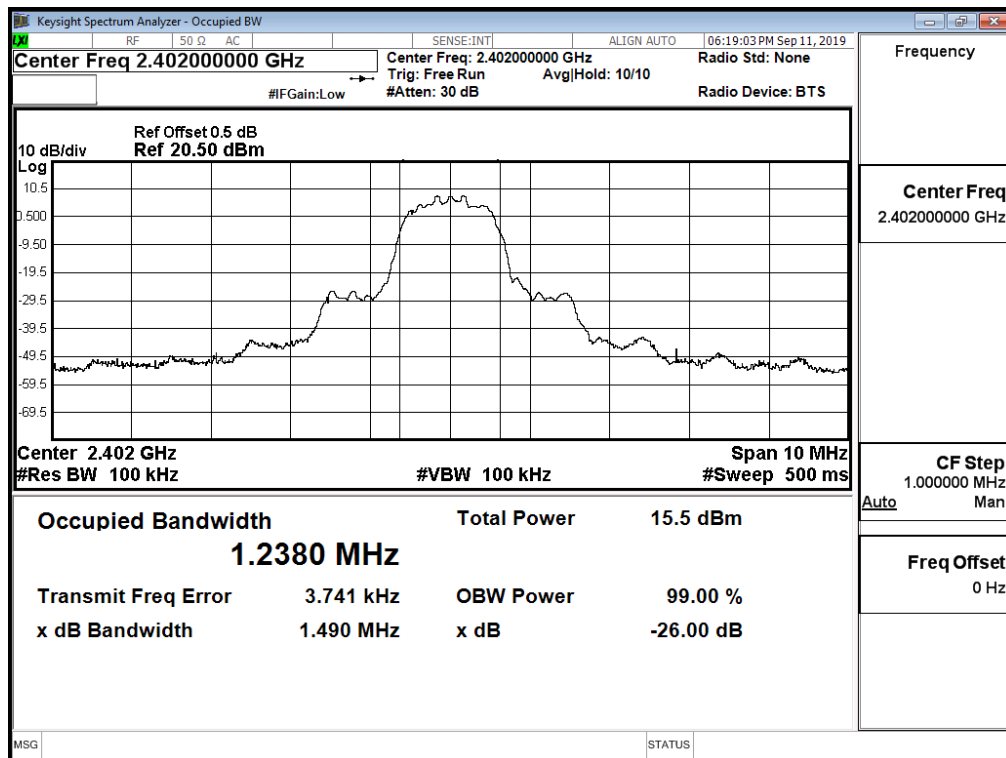
Figure Channel 78:



Product : Bluetooth Headset  
 Test Item : 99% Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit - 3Mbps (8DPSK) (2402MHz)

Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (kHz)	Result
00	2402	1238	--	NA

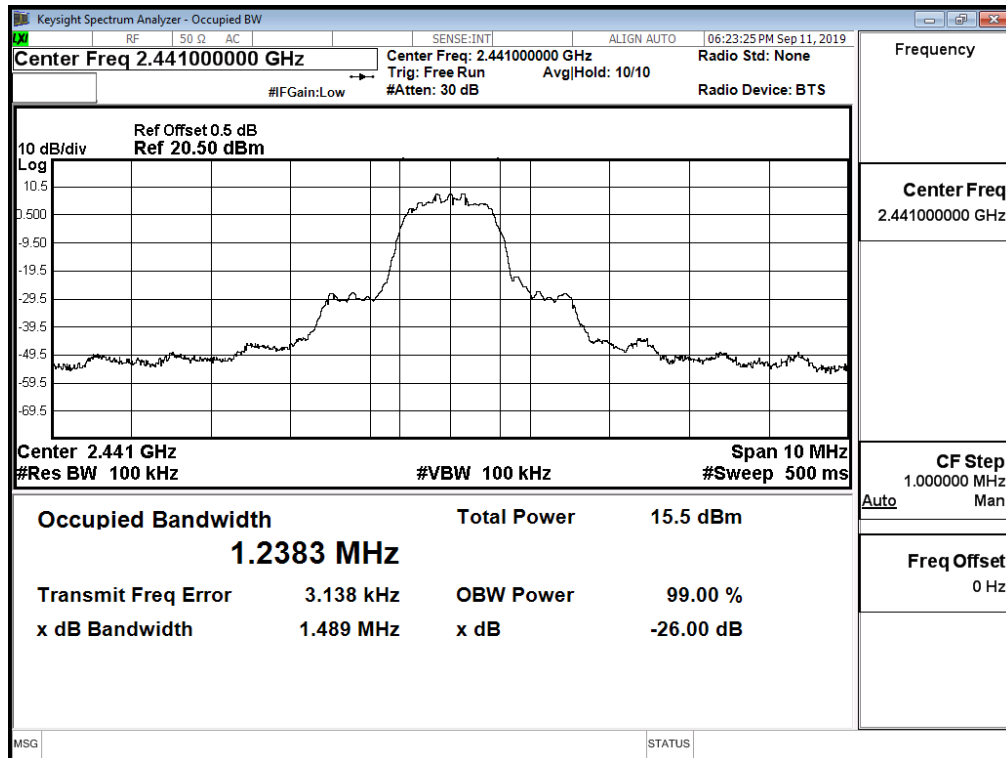
Figure Channel 00:



Product : Bluetooth Headset  
 Test Item : 99% Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit - 3Mbps (8DPSK) (2441MHz)

Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (kHz)	Result
39	2441	1238.3	--	NA

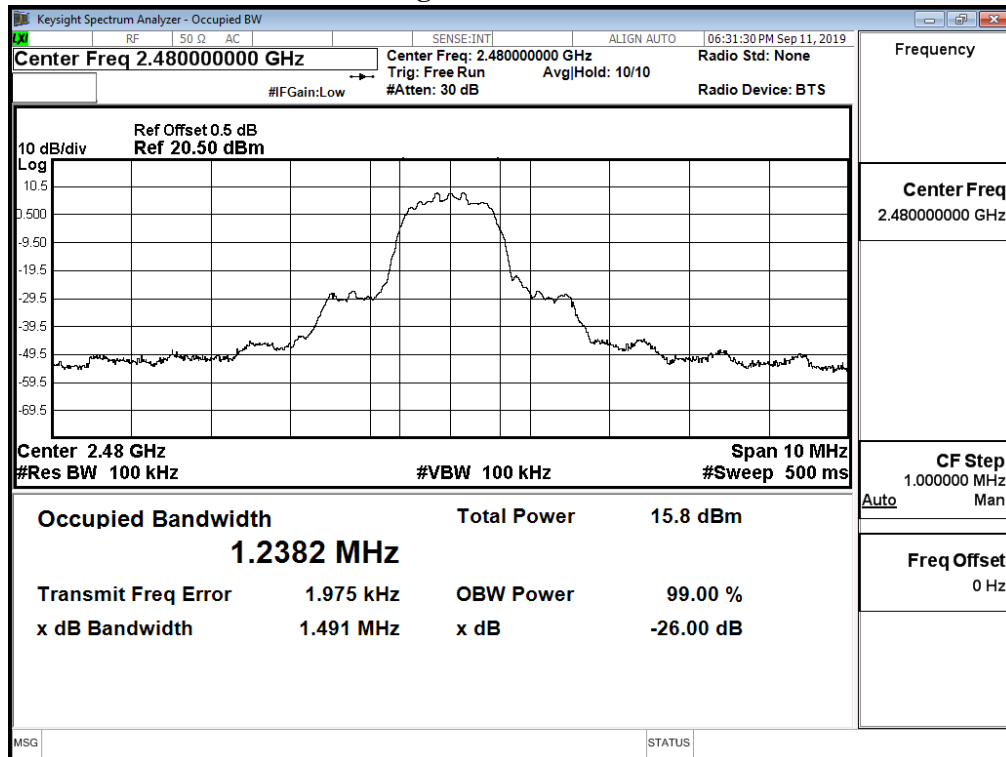
Figure Channel 39:



Product : Bluetooth Headset  
 Test Item : 99% Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit - 3Mbps (8DPSK)(2480MHz)

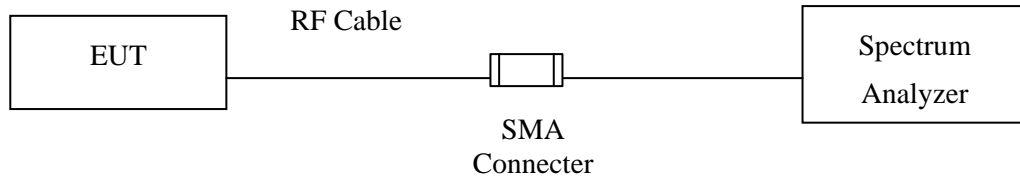
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (kHz)	Result
78	2480	1238.2	--	NA

Figure Channel 78:



## 12. Duty Cycle

### 12.1. Test Setup

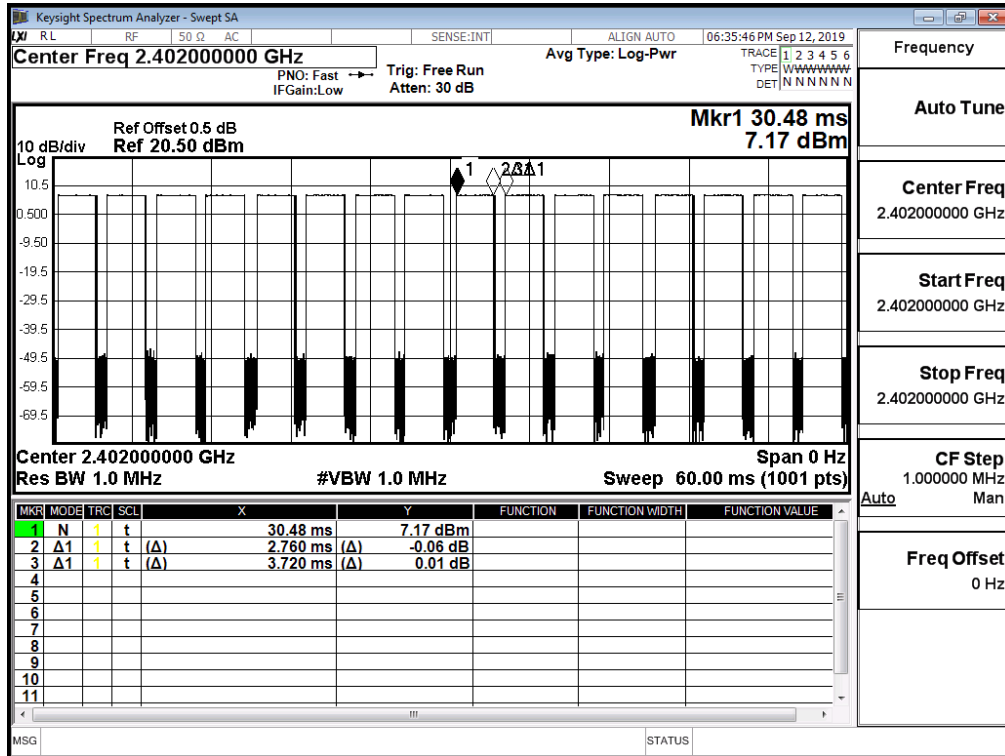


### 12.2. Uncertainty

± 25msec

### 12.3. Test Result of Duty Cycle

Product : Bluetooth Headset  
 Test Item : Duty Cycle  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)



Time on of 100ms= (100ms/60ms)\*16\*2.76 ms= 73.600ms

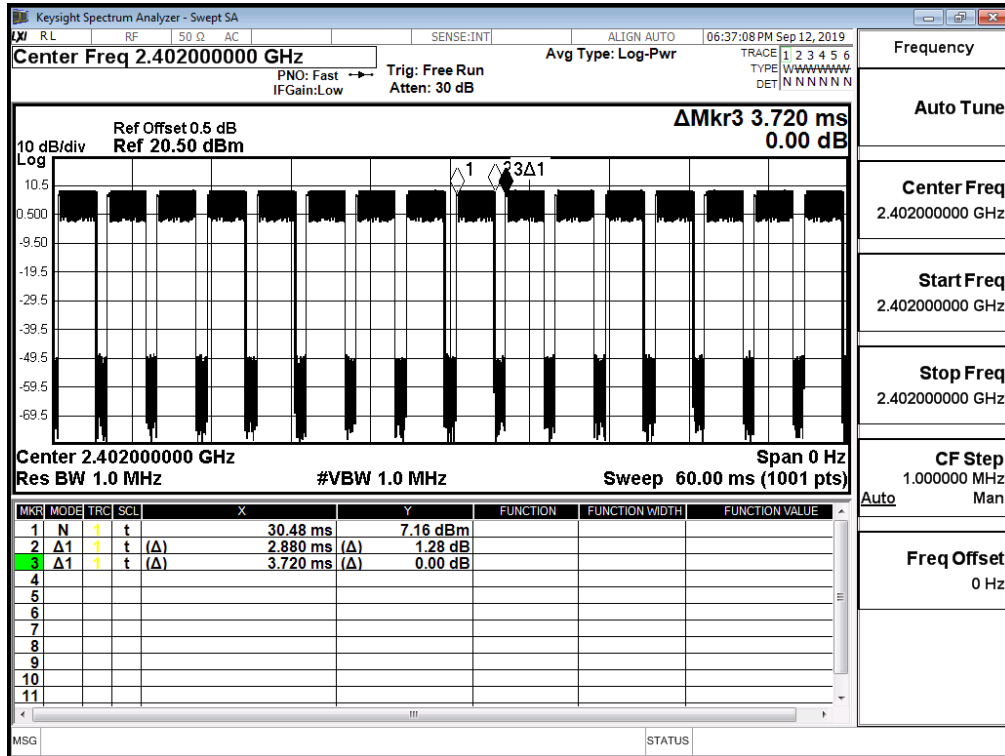
Duty Cycle=73.600ms / 100ms= 0.736

Duty Cycle correction factor= 20 LOG 0.736= -2.662 dB

Duty Cycle correction factor	-2.662	dB
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Product : Bluetooth Headset  
 Test Item : Duty Cycle  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit - 2Mbps ( $\pi/4$ DQPSK)



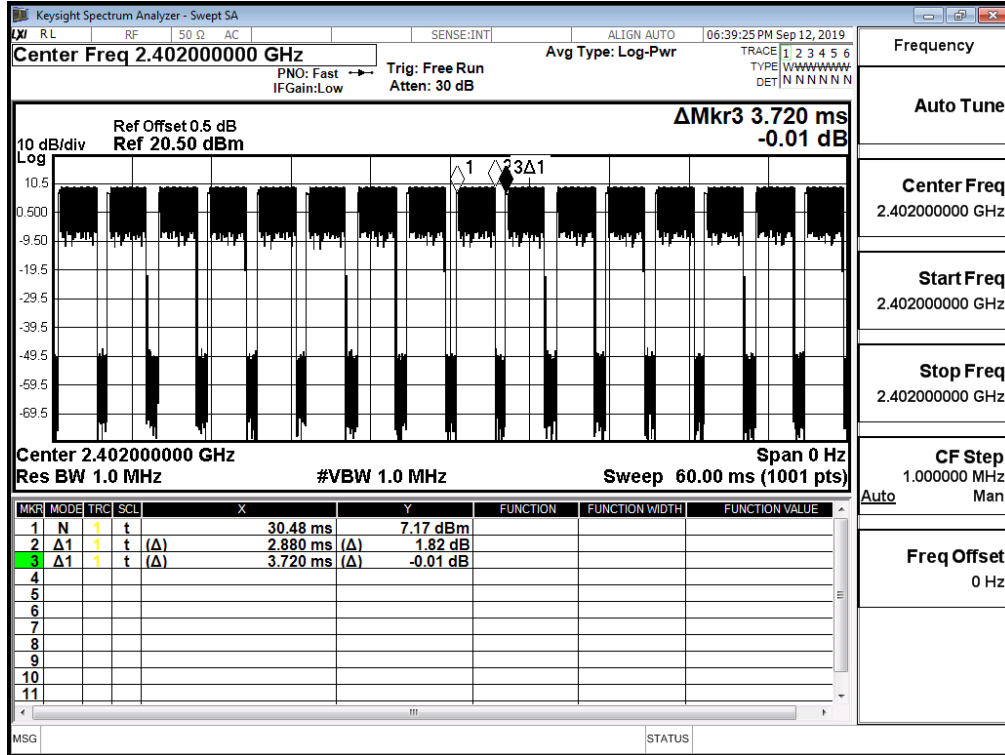
Time on of 100ms= (100ms/60ms)\*16\*2.88 ms= 76.800ms

Duty Cycle=76.800ms / 100ms= 0.768

Duty Cycle correction factor= 20 LOG 0.768= -2.293 dB

Duty Cycle correction factor	-2.293	dB
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Product : Bluetooth Headset  
 Test Item : Duty Cycle  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit - 3Mbps (8DPSK)



Time on of 100ms=  $(100\text{ms}/60\text{ms}) * 16 * 2.88 \text{ ms} = 76.800\text{ms}$

Duty Cycle=  $76.800\text{ms} / 100\text{ms} = 0.768$

Duty Cycle correction factor=  $20 \text{ LOG } 0.768 = -2.293 \text{ dB}$

Duty Cycle correction factor	-2.293	dB
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**13. EMI Reduction Method During Compliance Testing**

No modification was made during testing.