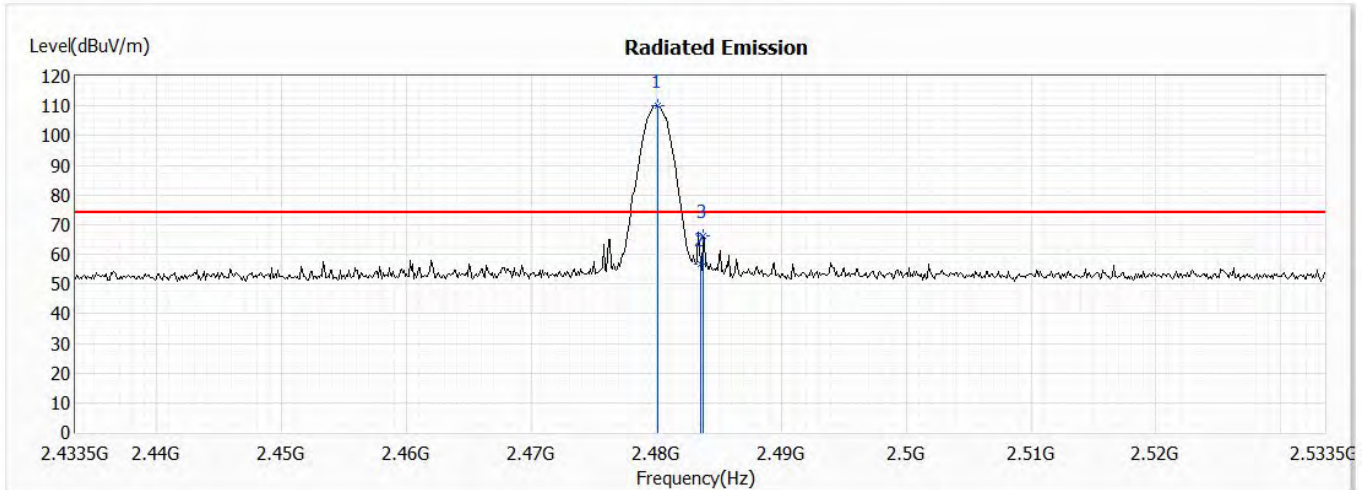


Product : Bluetooth Headset
 Test Item : Band Edge
 Test Mode : Mode 1: Transmit - 1Mbps (2480MHz) (Active variant -OTE140R)
 Test Date : 2021/07/27

Horizontal



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	2480.100	110.19	74.00	36.19	96.98	13.21	PK
2	2483.500	56.55	74.00	-17.45	43.34	13.21	PK
3	2483.700	66.05	74.00	-7.95	52.84	13.21	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.

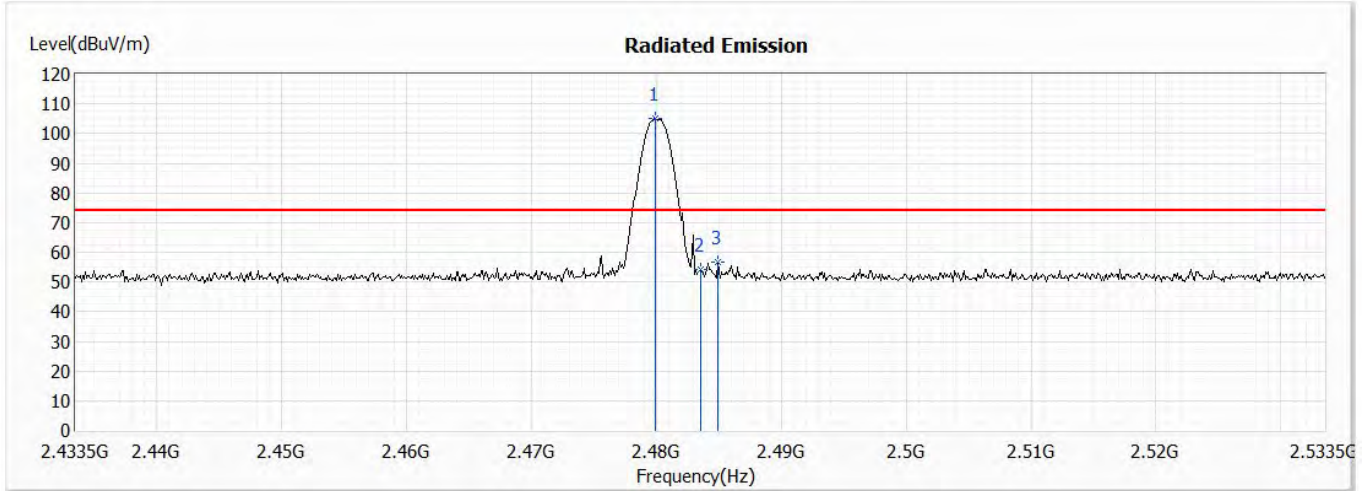
Channel No.	Frequency (MHz)	Peak Measurement (dBm)	Duty Cycle Factor (dB)	Average Measurement (dBm)	Margin (dB)	Average Limit (dBm)	Result
78 (Average)	2480.1	110.19	-30.669	79.521	--	--	Pass
78 (Average)	2483.5	56.55	-30.669	25.881	-28.119	54.000	Pass
78 (Average)	2483.7	66.05	-30.669	35.381	-18.619	54.000	Pass

Note:

1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 15.

Product : Bluetooth Headset
 Test Item : Band Edge
 Test Mode : Mode 1: Transmit - 1Mbps (2480MHz) (Active variant -OTE140R)
 Test Date : 2021/07/27

Vertical



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	2479.900	104.92	74.00	30.92	91.71	13.21	PK
2	2483.500	54.24	74.00	-19.76	41.03	13.21	PK
3	2484.900	56.74	74.00	-17.26	43.53	13.21	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.

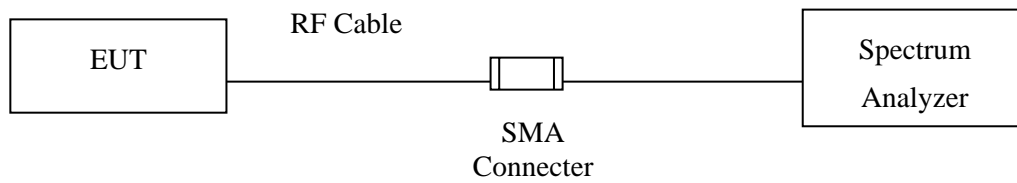
Channel No.	Frequency (MHz)	Peak Measurement (dBm)	Duty Cycle Factor (dB)	Average Measurement (dBm)	Margin (dB)	Average Limit (dBm)	Result
78 (Average)	2479.9	104.92	-30.669	74.251	--	--	Pass
78 (Average)	2483.5	54.24	-30.669	23.571	-30.429	54.000	Pass
78 (Average)	2484.9	56.74	-30.669	26.071	-27.929	54.000	Pass

Note:

1. Average Measurement=Peak Measurement + Duty Cycle Factor
2. The Duty Cycle is refer to section 15.

7. Channel Number

7.1. Test Setup



7.2. Limit

Frequency hopping systems operating in the 2400-2483.5 MHz bands shall use at least 75 hopping frequencies.

7.3. Test Procedure

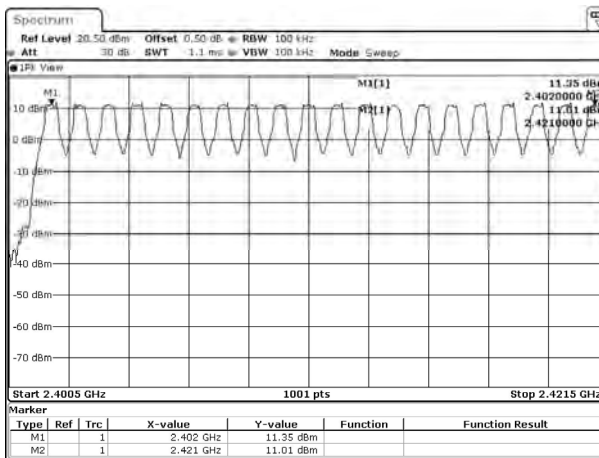
Tested according to FHSS test procedure of KDB558074 section 9 (b for compliance to FCC 47CFR 15.247 requirements).

7.4. Test Result of Channel Number

Product : Bluetooth Headset
 Test Item : Channel Number
 Test Mode : Mode 1: Transmit - 1Mbps (PRO variant -OTE140L)
 Test Date : 2021/05/18

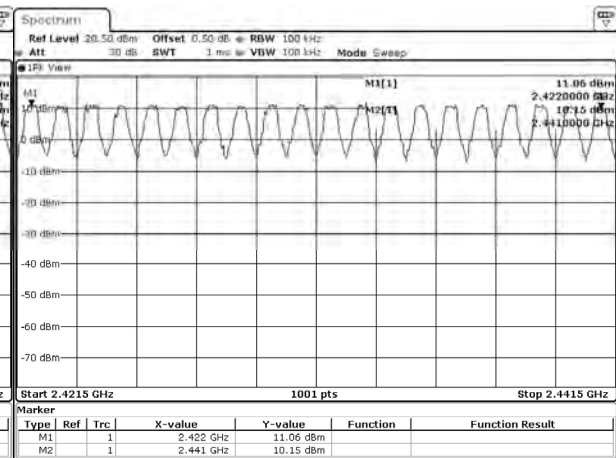
Frequency Range (MHz)	Measurement (Hopping Channel)	Required Limit (Hopping Channel)	Result
2402 ~ 2480	79	>75	Pass

2402-2421MHz



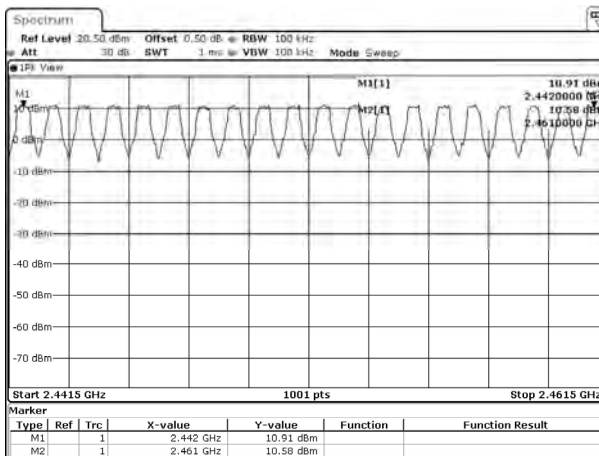
Date: 17.MAY.2021 22:41:48

2422-2441MHz



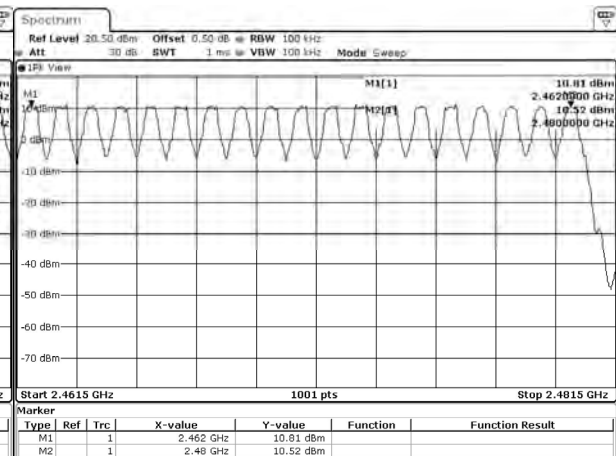
Date: 17.MAY.2021 22:42:28

2442-2461MHz



Date: 17.MAY.2021 22:43:40

2462-2480MHz

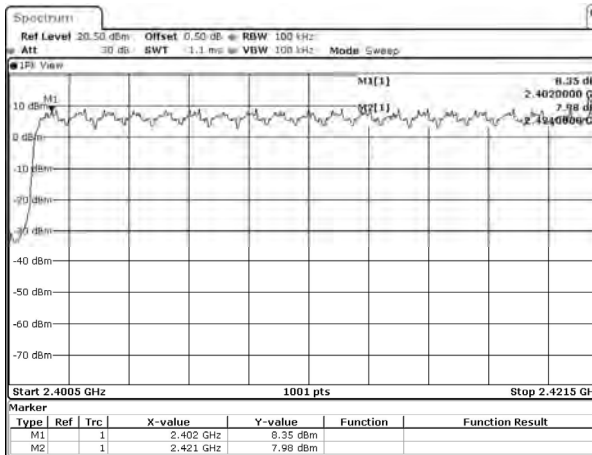


Date: 17.MAY.2021 22:44:49

Product : Bluetooth Headset
 Test Item : Channel Number
 Test Mode : Mode 2: Transmit - 3Mbps (PRO variant -OTE140L)
 Test Date : 2021/05/18

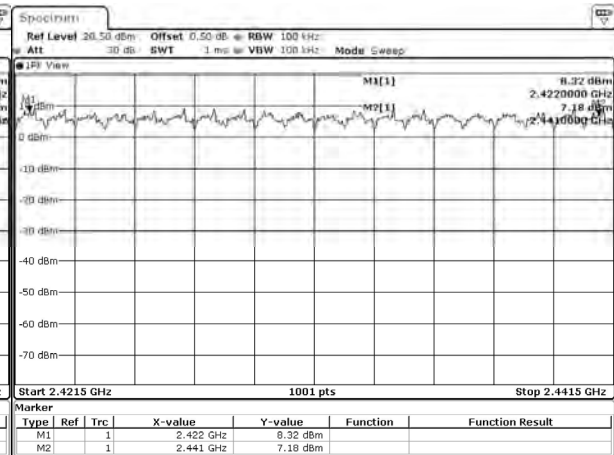
Frequency Range (MHz)	Measurement (Hopping Channel)	Required Limit (Hopping Channel)	Result
2402 ~ 2480	79	>75	Pass

2402-2421MHz



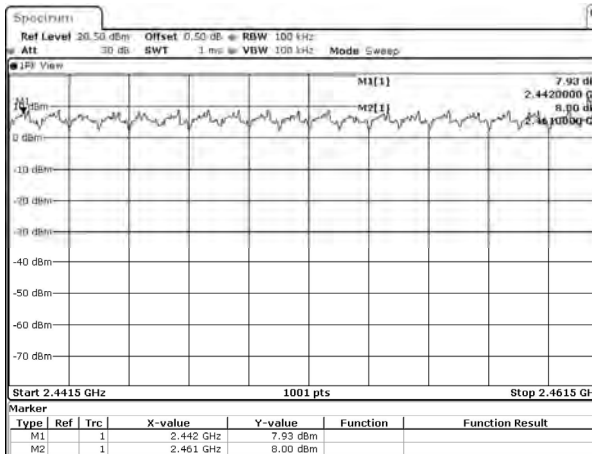
Date: 18.MAY.2021 00:20:53

2422-2441MHz



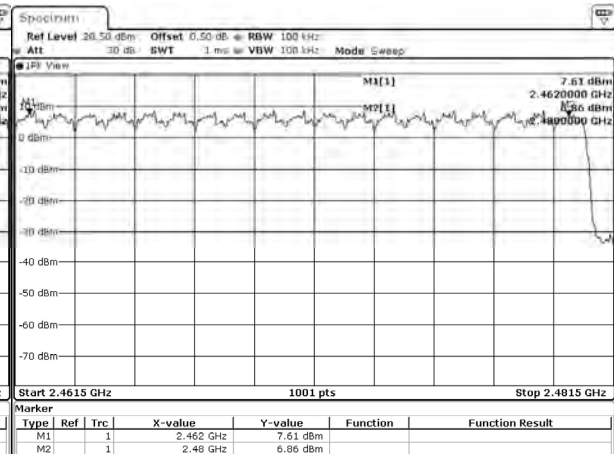
Date: 18.MAY.2021 00:23:52

2442-2461MHz



Date: 18.MAY.2021 00:27:23

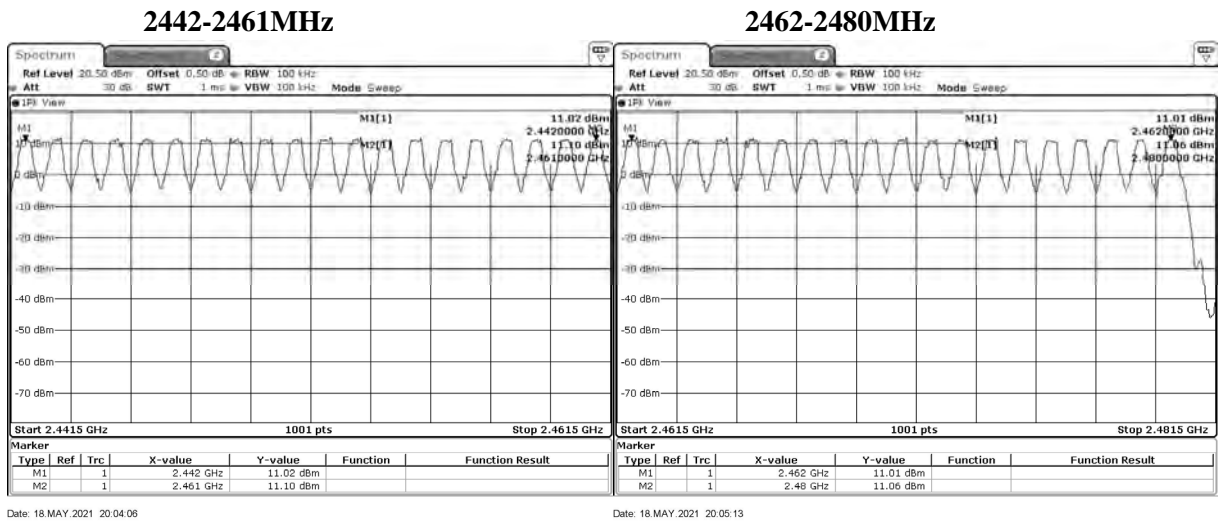
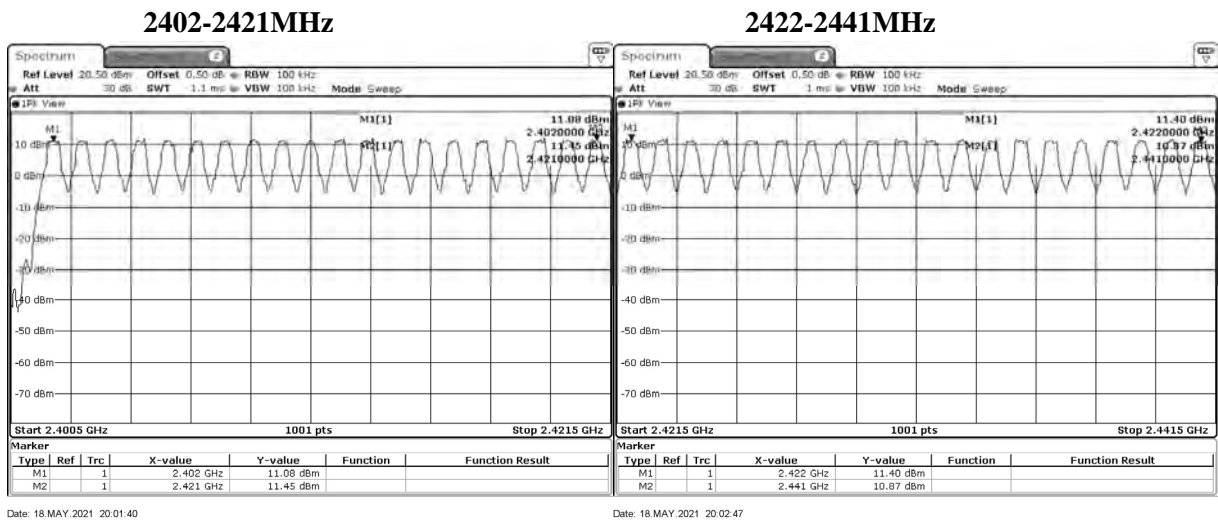
2462-2480MHz



Date: 18.MAY.2021 00:33:55

Product : Bluetooth Headset
 Test Item : Channel Number
 Test Mode : Mode 1: Transmit - 1Mbps (PRO variant -OTE140R)
 Test Date : 2021/05/18

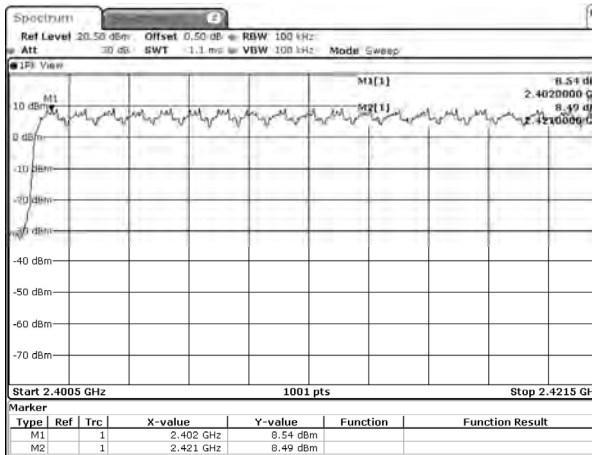
Frequency Range (MHz)	Measurement (Hopping Channel)	Required Limit (Hopping Channel)	Result
2402 ~ 2480	79	>75	Pass



Product : Bluetooth Headset
 Test Item : Channel Number
 Test Mode : Mode 2: Transmit - 3Mbps (PRO variant -OTE140R)
 Test Date : 2021/05/18

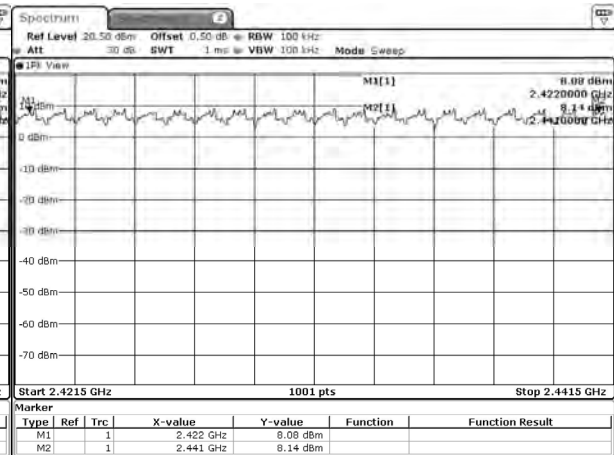
Frequency Range (MHz)	Measurement (Hopping Channel)	Required Limit (Hopping Channel)	Result
2402 ~ 2480	79	>75	Pass

2402-2421MHz



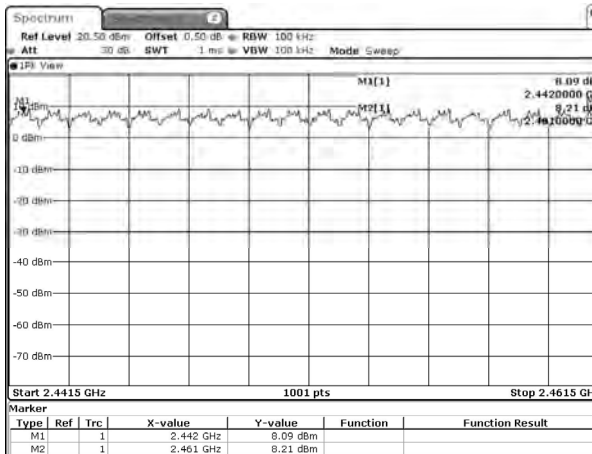
Date: 18.MAY.2021 22:09:43

2422-2441MHz



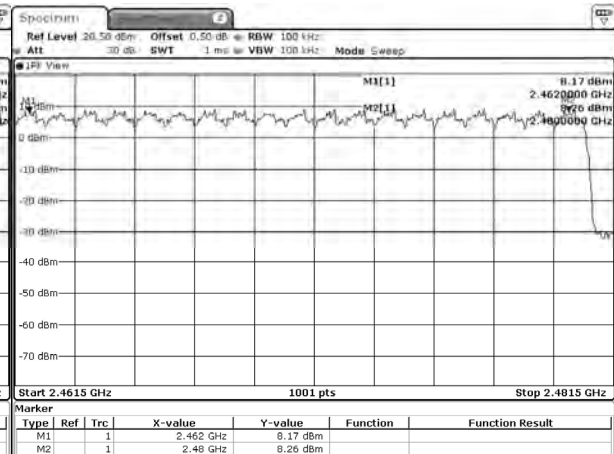
Date: 18.MAY.2021 22:18:09

2442-2461MHz



Date: 18.MAY.2021 22:23:20

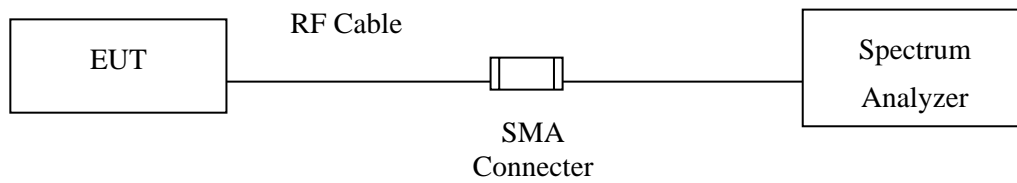
2462-2480MHz



Date: 18.MAY.2021 22:28:47

8. Channel Separation

8.1. Test Setup



8.2. Limit

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

8.3. Test Procedure

Tested according to FHSS test procedure of KDB558074 section 9 (b for compliance to FCC 47CFR 15.247 requirements).

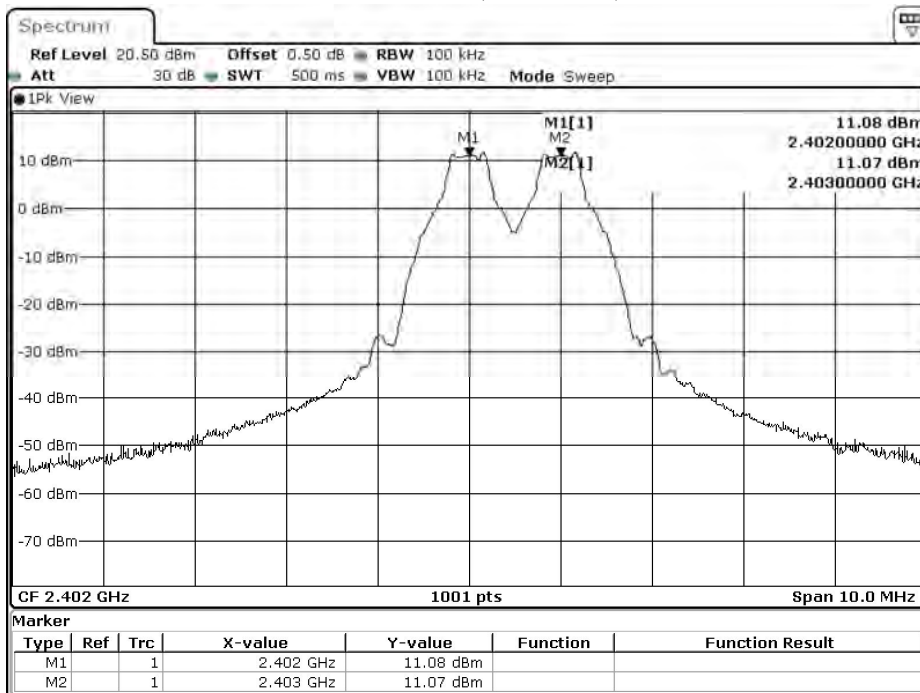
8.4. Test Result of Channel Separation

Product : Bluetooth Headset
 Test Item : Channel Separation
 Test Mode : Mode 1: Transmit - 1Mbps (PRO variant -OTE140L)
 Test Date : 2021/05/18

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
00	2402	1000	>25 kHz	640.0	Pass
39	2441	1000	>25 kHz	640.0	Pass
78	2480	1000	>25 kHz	638.0	Pass

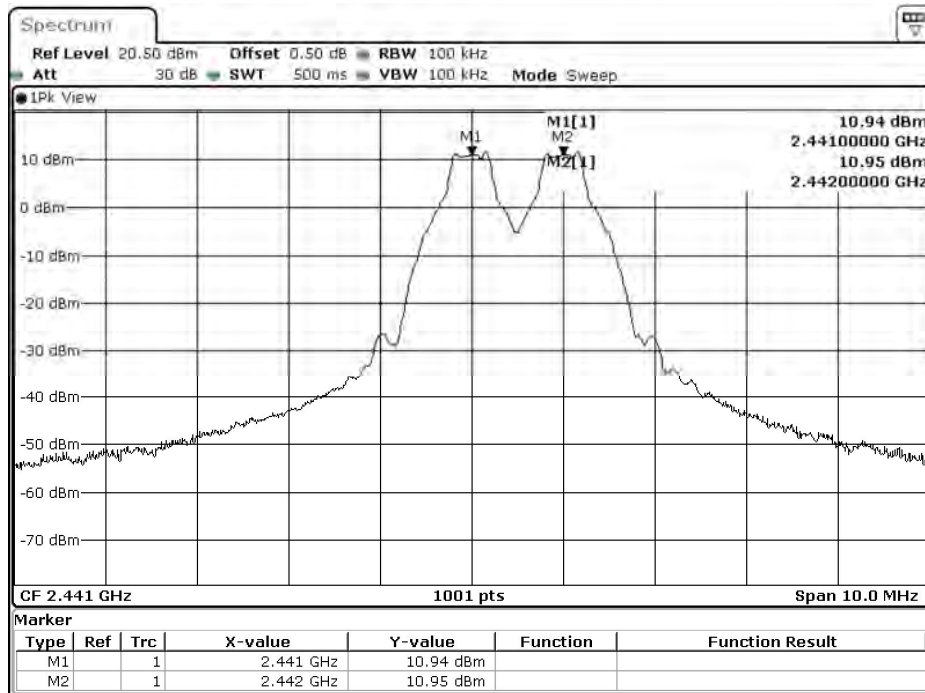
NOTE: The 20dB Bandwidth is refer to section 10.

Channel 00 (2402MHz)



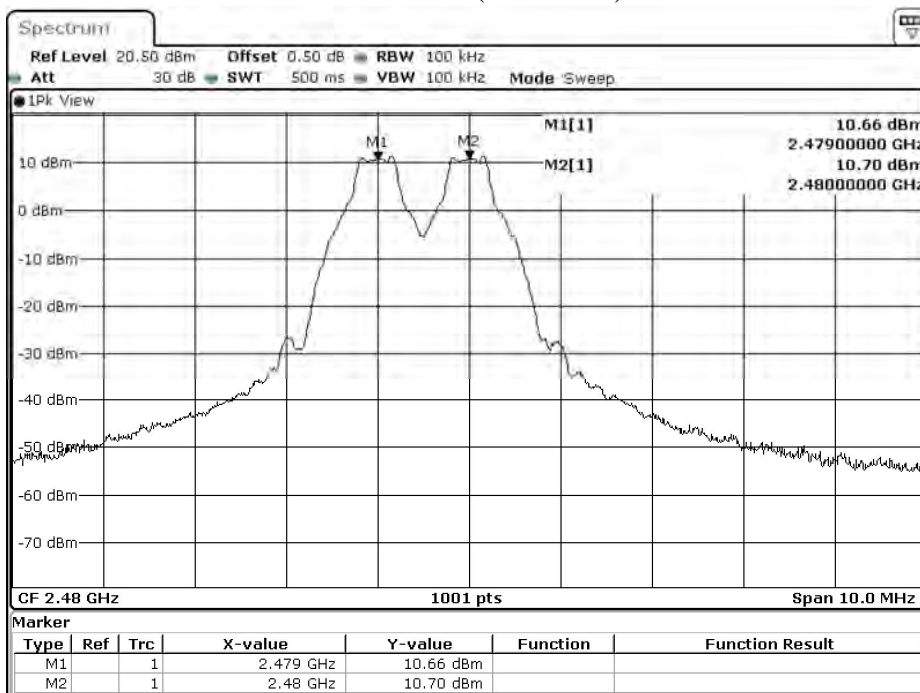
Date: 17.MAY.2021 22:15:58

Channel 39 (2441MHz)



Date: 17.MAY.2021 22:28:21

Channel 78 (2480MHz)



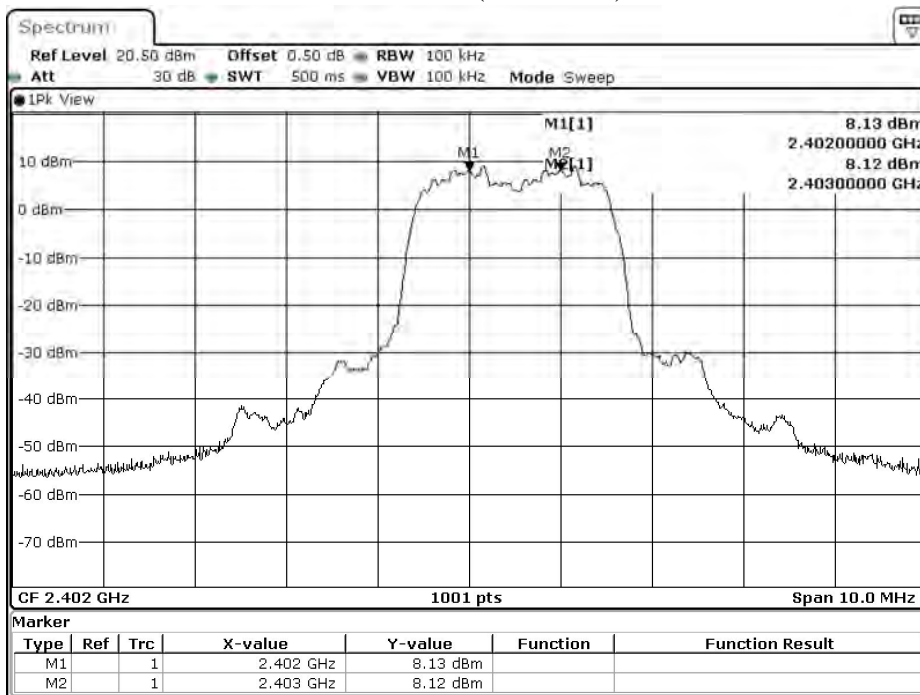
Date: 17.MAY.2021 22:35:20

Product : Bluetooth Headset
 Test Item : Channel Separation
 Test Mode : Mode 2: Transmit - 3Mbps (PRO variant -OTE140L)
 Test Date : 2021/05/18

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
00	2402	1000	>25 kHz	870.0	Pass
39	2441	1000	>25 kHz	870.0	Pass
78	2480	1000	>25 kHz	870.0	Pass

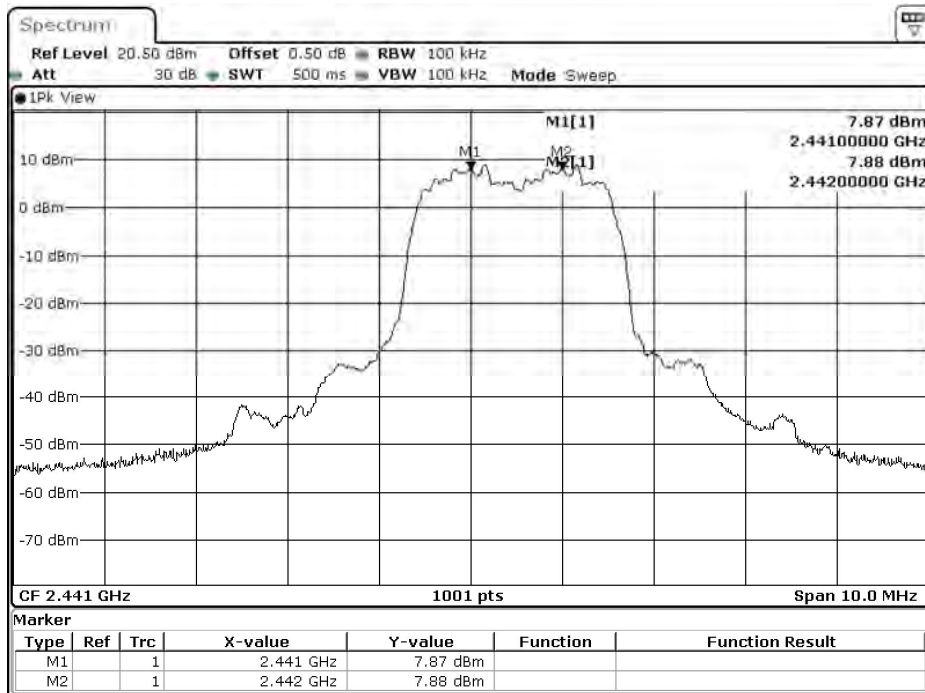
NOTE: The 20dB Bandwidth is refer to section 10.

Channel 00 (2402MHz)



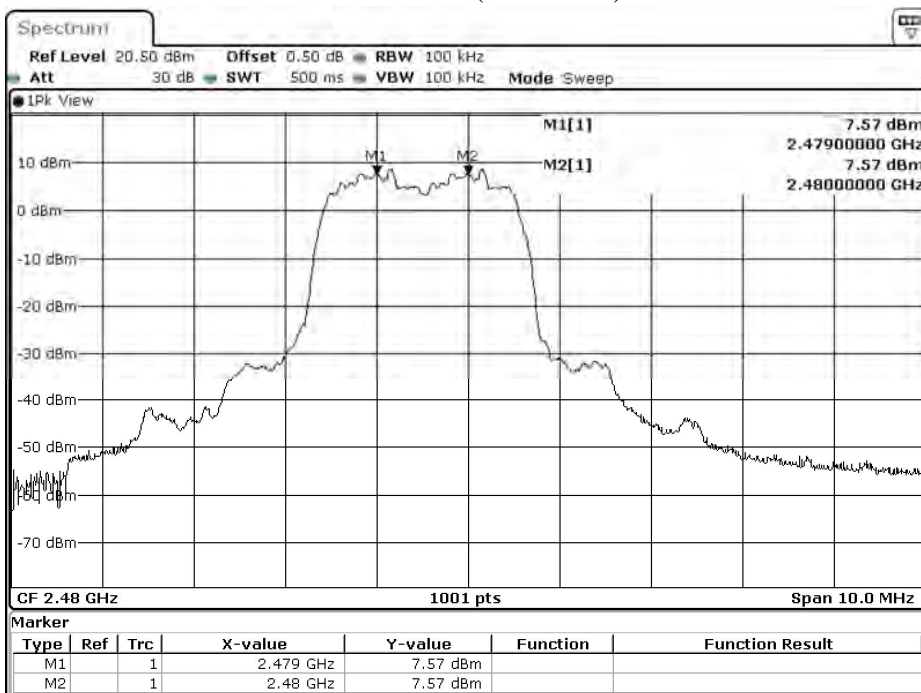
Date: 17.MAY.2021 23:33:26

Channel 39 (2441MHz)



Date: 17.MAY.2021 23:47:03

Channel 78 (2480MHz)



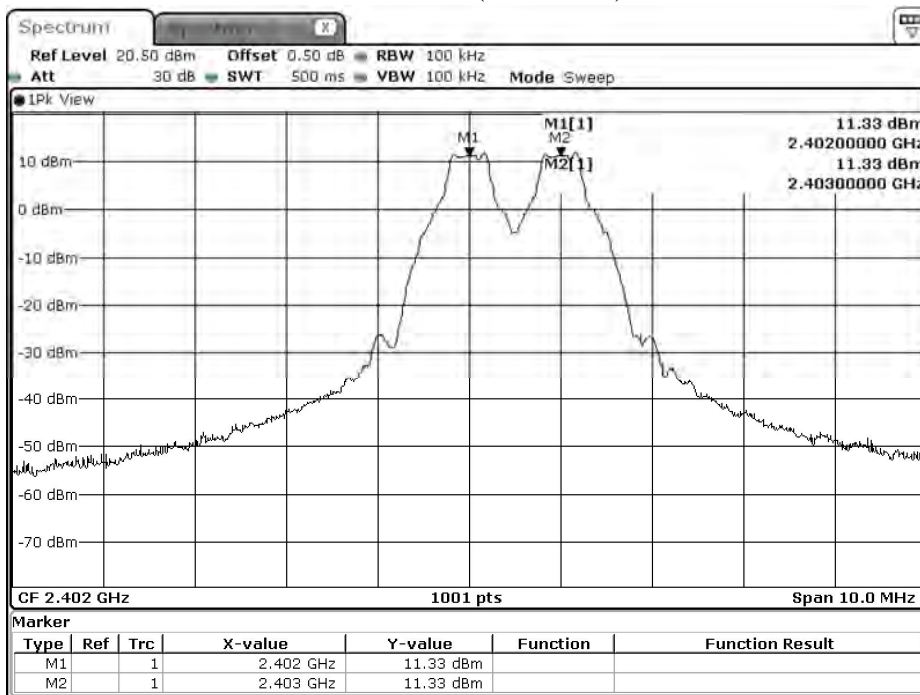
Date: 17.MAY.2021 23:54:00

Product : Bluetooth Headset
 Test Item : Channel Separation
 Test Mode : Mode 1: Transmit - 1Mbps (PRO variant -OTE140R)
 Test Date : 2021/05/18

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
00	2402	1000	>25 kHz	638.0	Pass
39	2441	1000	>25 kHz	638.0	Pass
78	2480	1000	>25 kHz	638.0	Pass

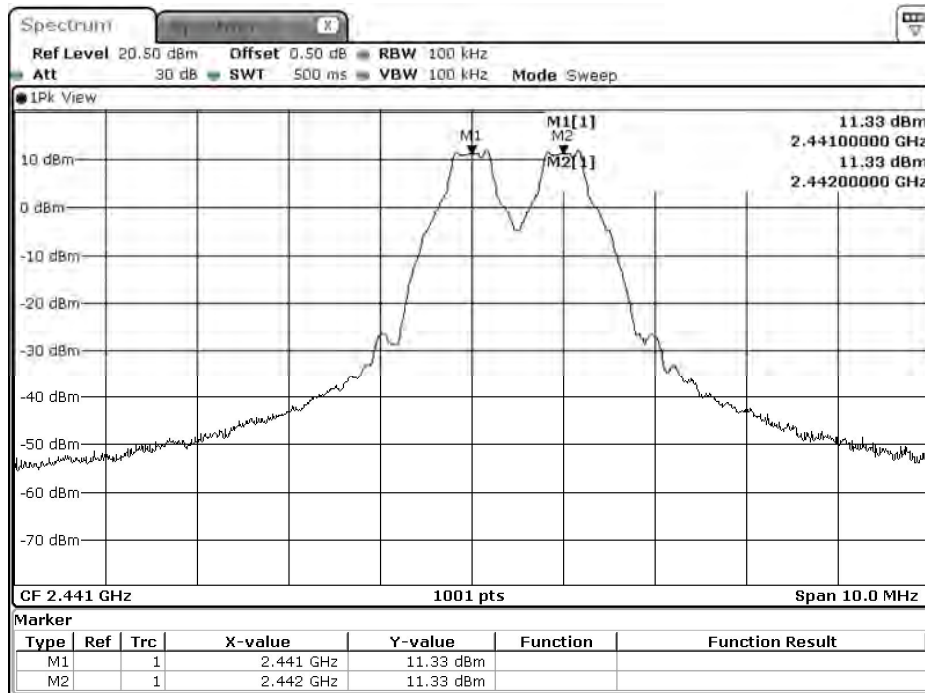
NOTE: The 20dB Bandwidth is refer to section 10.

Channel 00 (2402MHz)



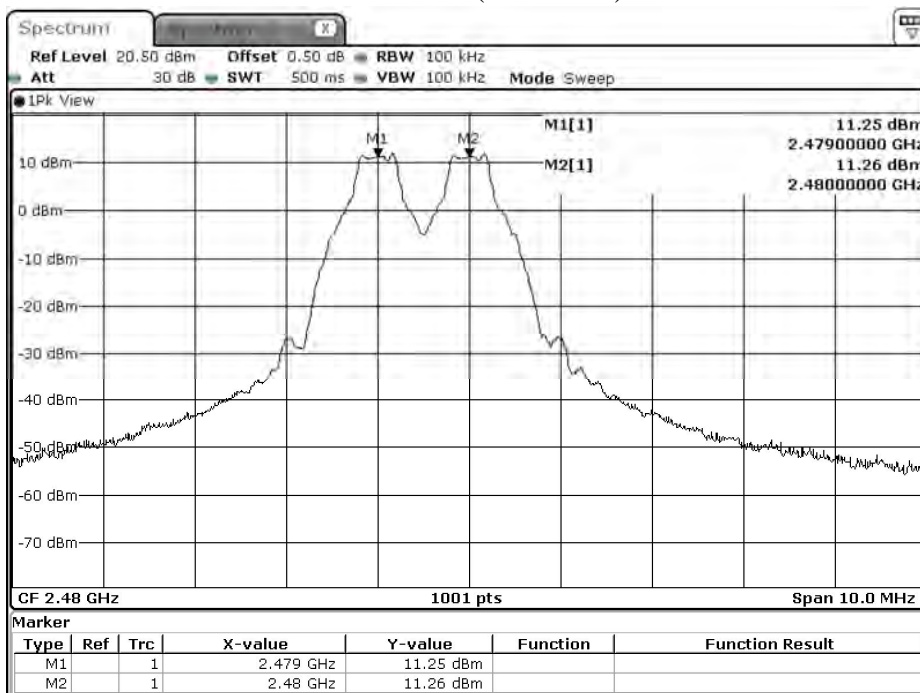
Date: 18.MAY.2021 19:38:25

Channel 39 (2441MHz)



Date: 18.MAY.2021 19:48:39

Channel 78 (2480MHz)



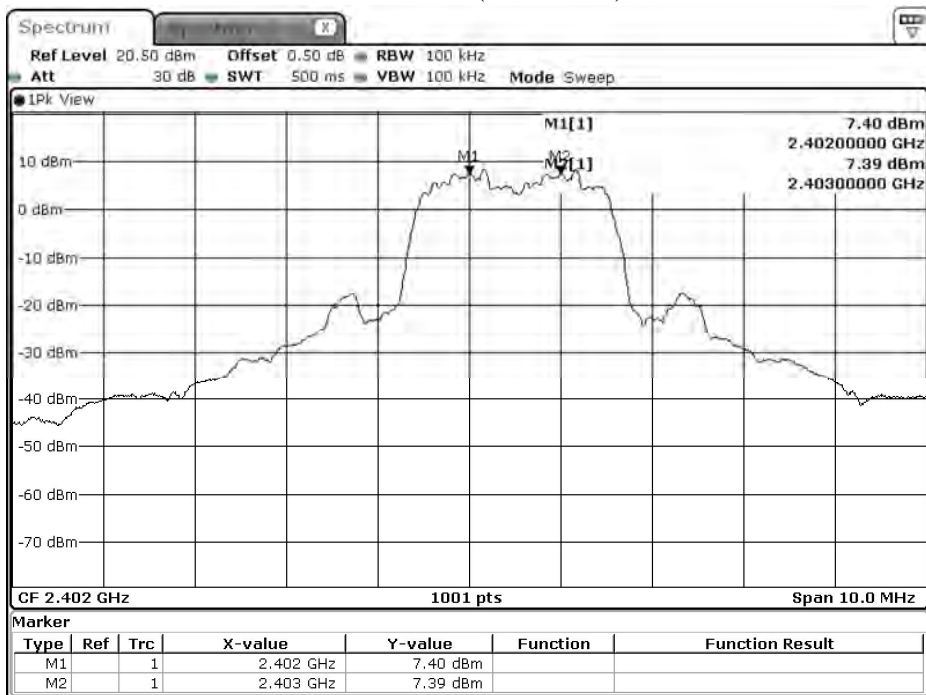
Date: 18.MAY.2021 19:55:11

Product : Bluetooth Headset
 Test Item : Channel Separation
 Test Mode : Mode 2: Transmit - 3Mbps (PRO variant -OTE140R)
 Test Date : 2021/05/18

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
00	2402	1000	>25 kHz	866.0	Pass
39	2441	1000	>25 kHz	870.0	Pass
78	2480	1000	>25 kHz	872.0	Pass

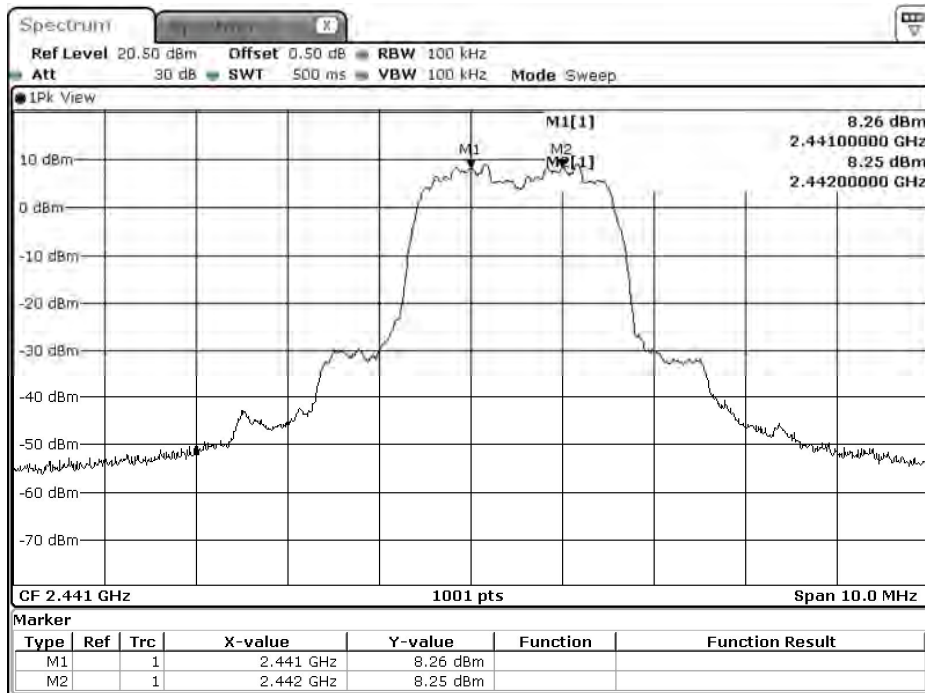
NOTE: The 20dB Bandwidth is refer to section 10.

Channel 00 (2402MHz)



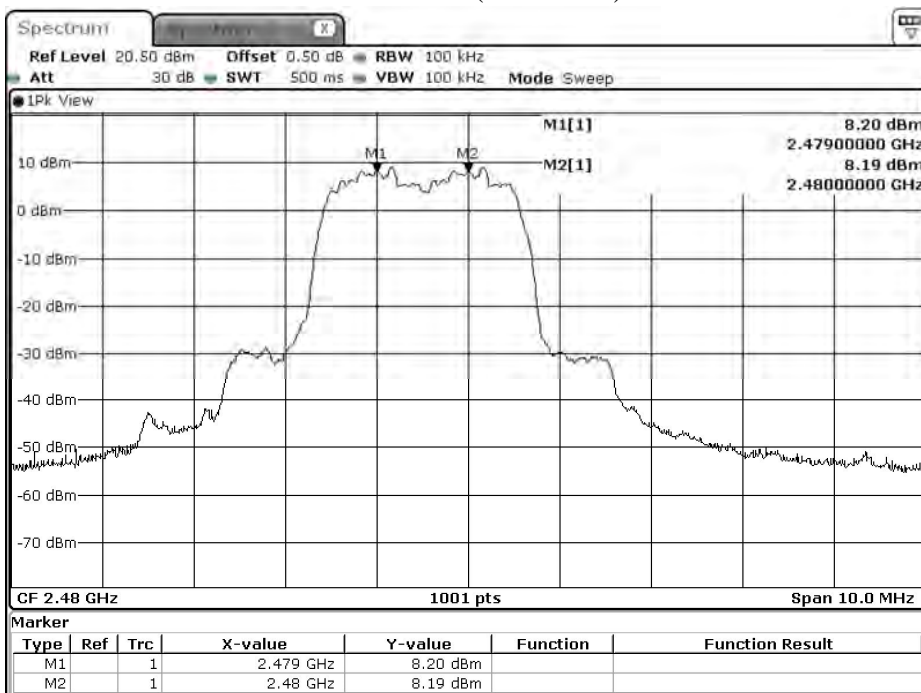
Date: 18.MAY.2021 21:21:11

Channel 39 (2441MHz)



Date: 18.MAY.2021 21:37:50

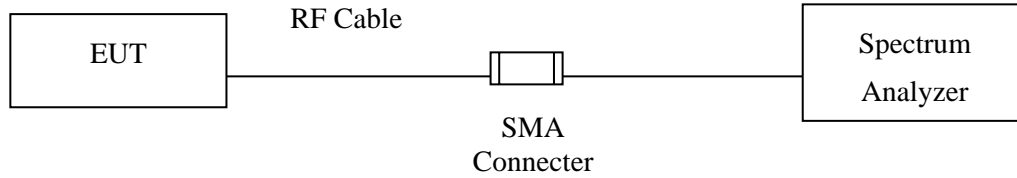
Channel 78 (2480MHz)



Date: 18.MAY.2021 21:46:11

9. Dwell Time

9.1. Test Setup



9.2. Limit

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

9.3. Test Procedure

Tested according to FHSS test procedure of KDB558074 section 9 (b for compliance to FCC 47CFR 15.247 requirements).

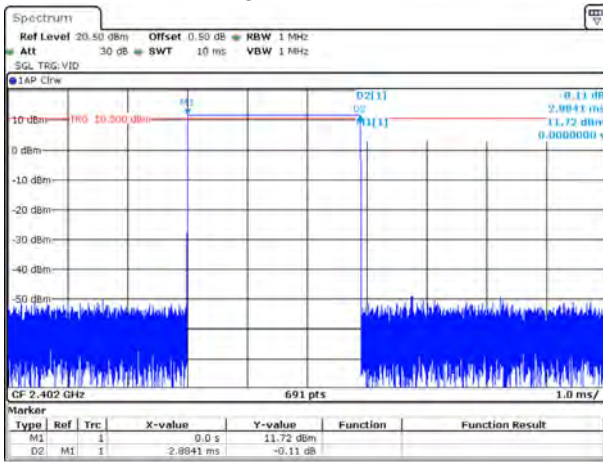
9.4. Test Result of Dwell Time

Product : Bluetooth Headset
 Test Item : Dwell Time
 Test Mode : Mode 1: Transmit - 1Mbps (Channel 00,39,78) (PRO variant -OTE140L)
 Test Date : 2021/05/28

Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Dwell Time (ms)	Limit (ms)	Result
2402	2.884	104	31600	299.946	400	Pass
2441	2.899	113	31600	327.542	400	Pass
2480	2.884	111	31600	320.135	400	Pass

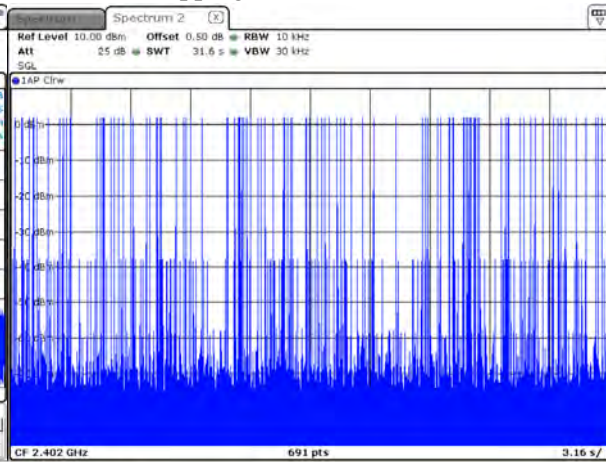
Dwell time = Time slot length (ms)*Hopping of Number

CH 00 Time slot length



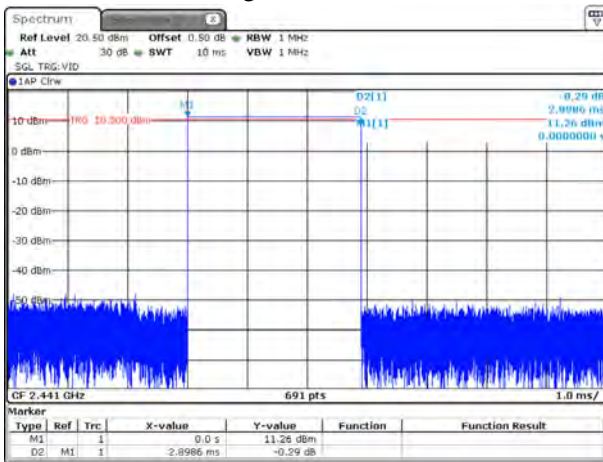
Date: 18 MAY 2021 17:15:03

CH 00 Hopping of Number



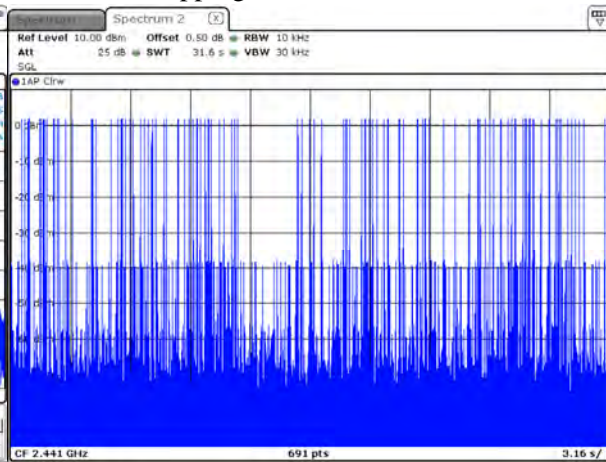
Date: 18 MAY 2021 17:19:09

CH 39 Time slot length



Date: 18 MAY 2021 17:21:29

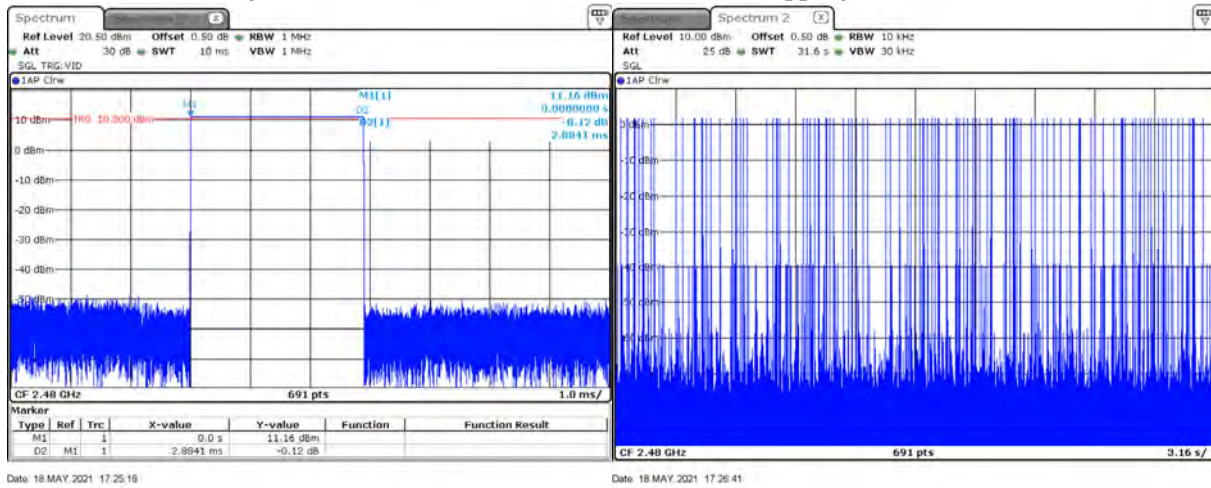
CH 39 Hopping of Number



Date: 18 MAY 2021 17:23:20

CH 78 Time slot length

CH 78 Hopping of Number



Note:

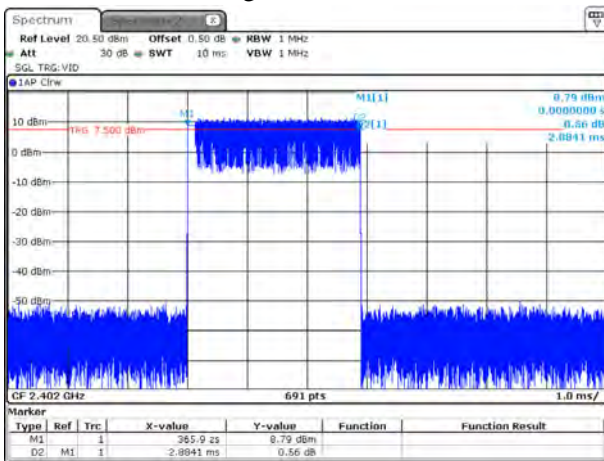
The dwell times of the packet type of DH1, DH3, and DH5 are tested. Only the worst case is shown on the report.

Product : Bluetooth Headset
 Test Item : Dwell Time
 Test Mode : Mode 2: Transmit - 3Mbps (Channel 00,39,78) (PRO variant -OTE140L)
 Test Date : 2021/05/28

Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Dwell Time (ms)	Limit (ms)	Result
2402	2.884	102	31600	294.178	400	Pass
2441	2.884	117	31600	337.440	400	Pass
2480	2.884	111	31600	320.135	400	Pass

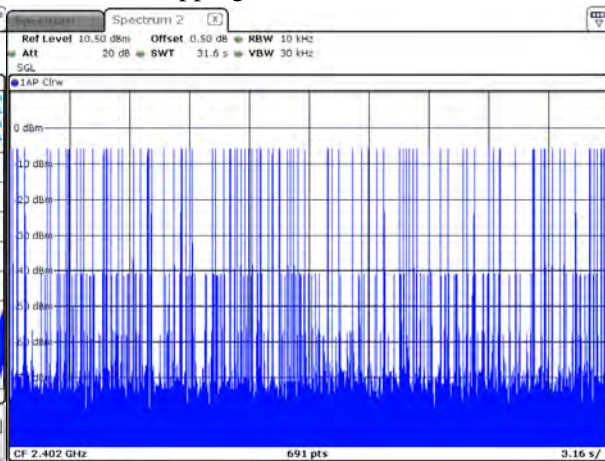
Dwell time = Time slot length (ms)*Hopping of Number

CH 00 Time slot length



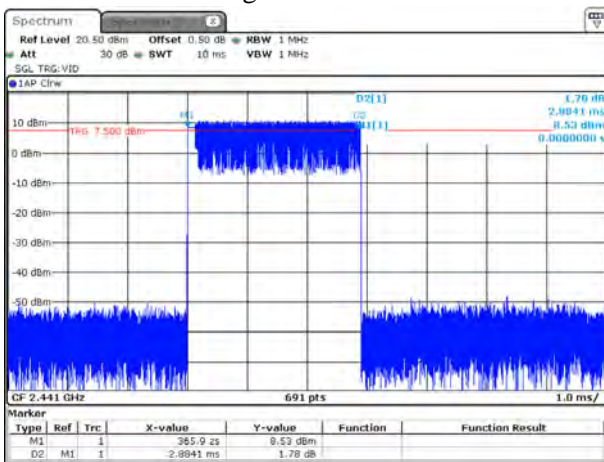
Date: 18 MAY 2021 17:40:37

CH 00 Hopping of Number



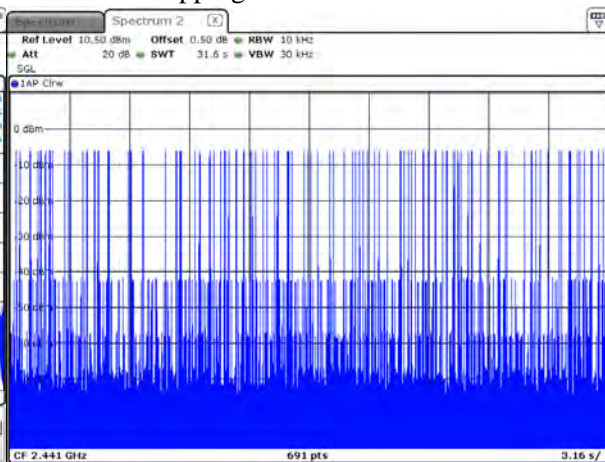
Date: 18 MAY 2021 17:41:58

CH 39 Time slot length



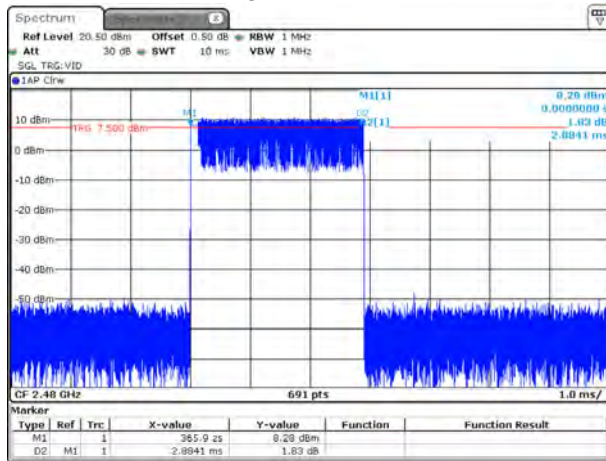
Date: 18 MAY 2021 17:43:05

CH 39 Hopping of Number



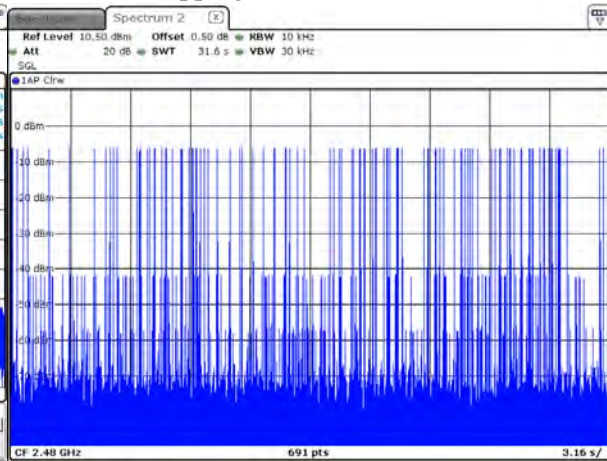
Date: 18 MAY 2021 18:02:18

CH 78 Time slot length



Date: 18 MAY 2021 18:07:21

CH 78 Hopping of Number



Date: 18 MAY 2021 18:08:44

Note:

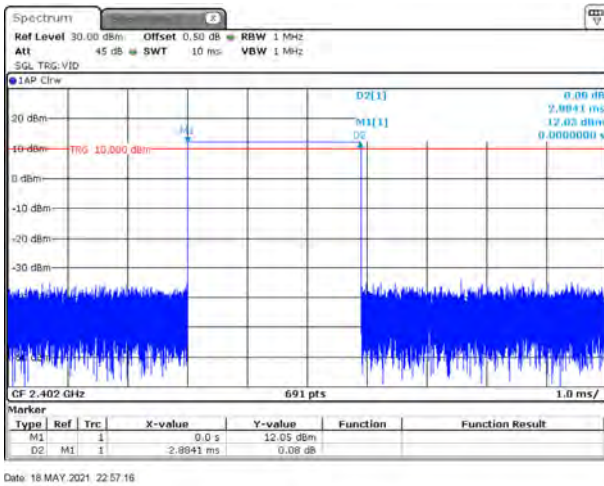
The dwell times of the packet type of DH1, DH3, and DH5 are tested. Only the worst case is shown on the report.

Product : Bluetooth Headset
 Test Item : Dwell Time
 Test Mode : Mode 1: Transmit - 1Mbps (Channel 00,39,78) (PRO variant -OTE140R)
 Test Date : 2021/05/28

Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Dwell Time (ms)	Limit (ms)	Result
2402	2.884	118	31600	340.324	400	Pass
2441	2.884	111	31600	320.135	400	Pass
2480	2.884	105	31600	302.831	400	Pass

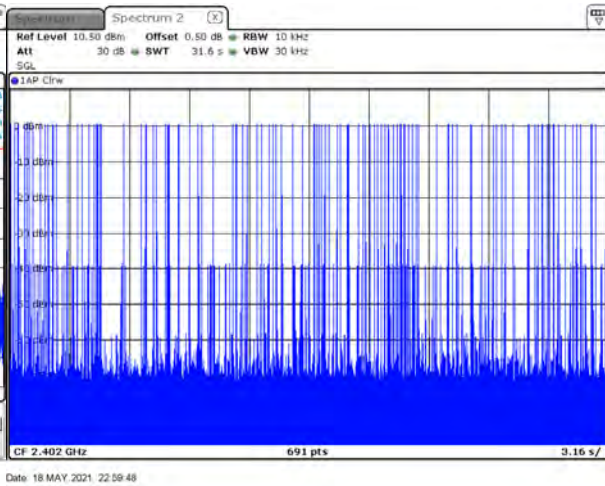
Dwell time = Time slot length (ms)*Hopping of Number

CH 00 Time slot length



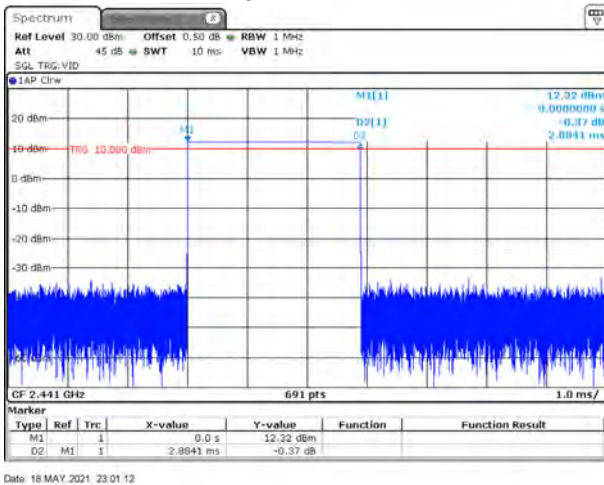
Date: 18 MAY 2021 22:57:16

CH 00 Hopping of Number



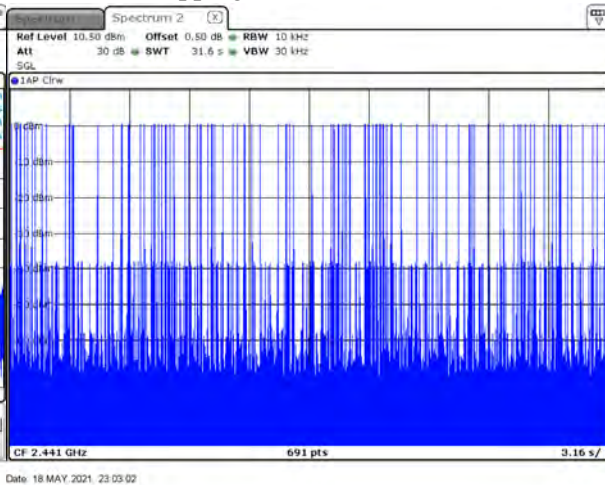
Date: 18 MAY 2021 22:59:48

CH 39 Time slot length



Date: 18 MAY 2021 23:01:12

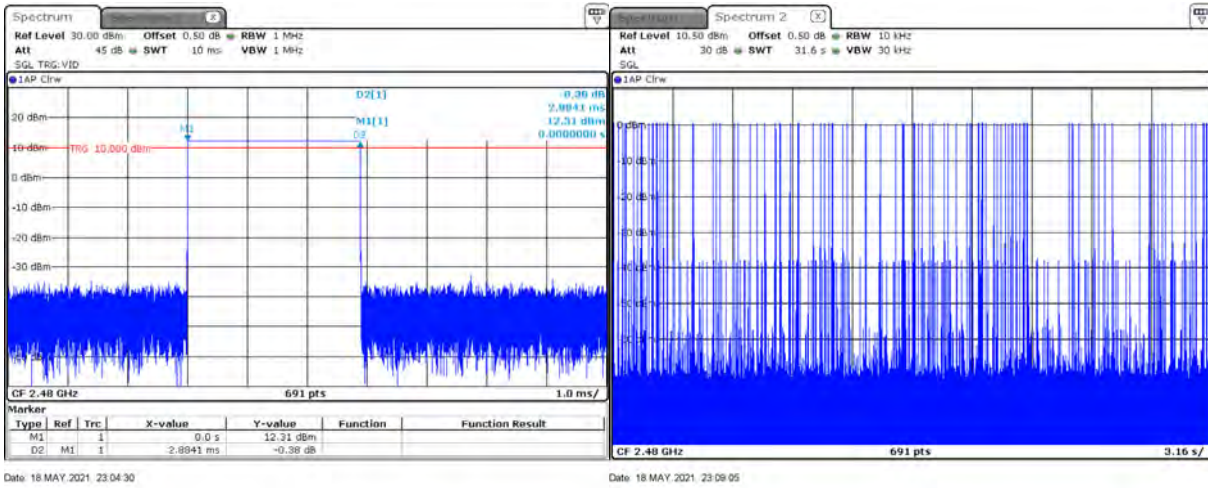
CH 39 Hopping of Number



Date: 18 MAY 2021 23:03:02

CH 78 Time slot length

CH 78 Hopping of Number



Note:

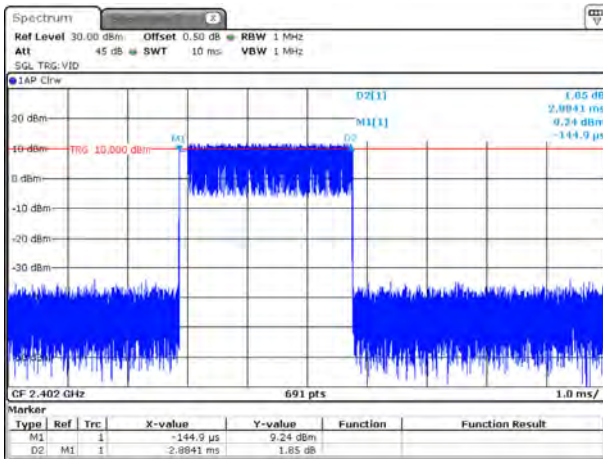
The dwell times of the packet type of DH1, DH3, and DH5 are tested. Only the worst case is shown on the report.

Product : Bluetooth Headset
 Test Item : Dwell Time
 Test Mode : Mode 2: Transmit - 3Mbps (Channel 00,39,78) (PRO variant -OTE140R)
 Test Date : 2021/05/28

Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Dwell Time (ms)	Limit (ms)	Result
2402	2.884	117	31600	337.440	400	Pass
2441	2.884	111	31600	320.135	400	Pass
2480	2.884	102	31600	294.178	400	Pass

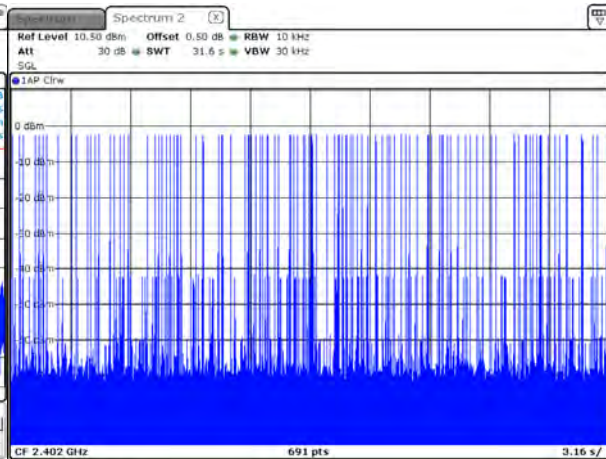
Dwell time = Time slot length (ms)*Hopping of Number

CH 00 Time slot length



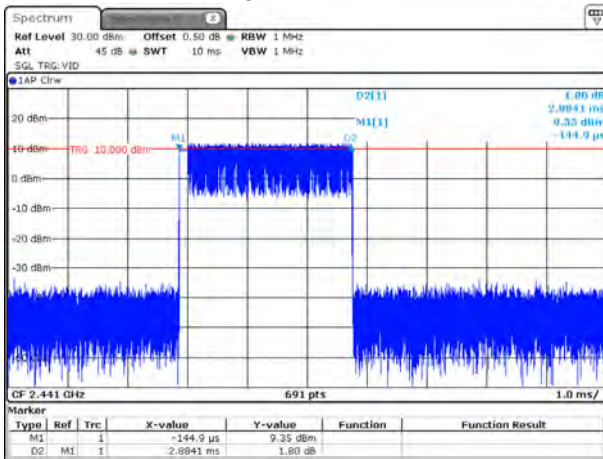
Date: 18 MAY 2021 23:22:23

CH 00 Hopping of Number



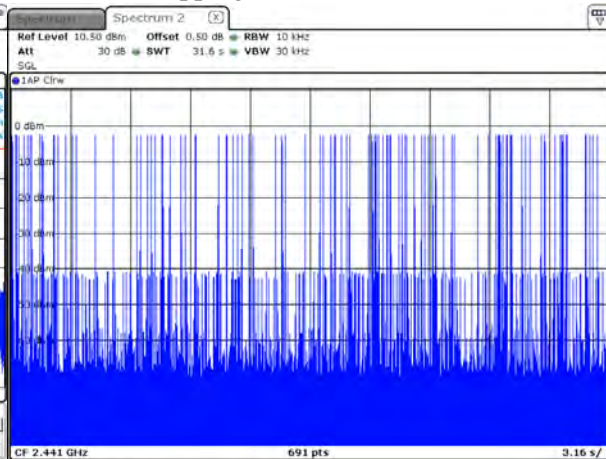
Date: 18 MAY 2021 23:24:55

CH 39 Time slot length



Date: 18 MAY 2021 23:26:10

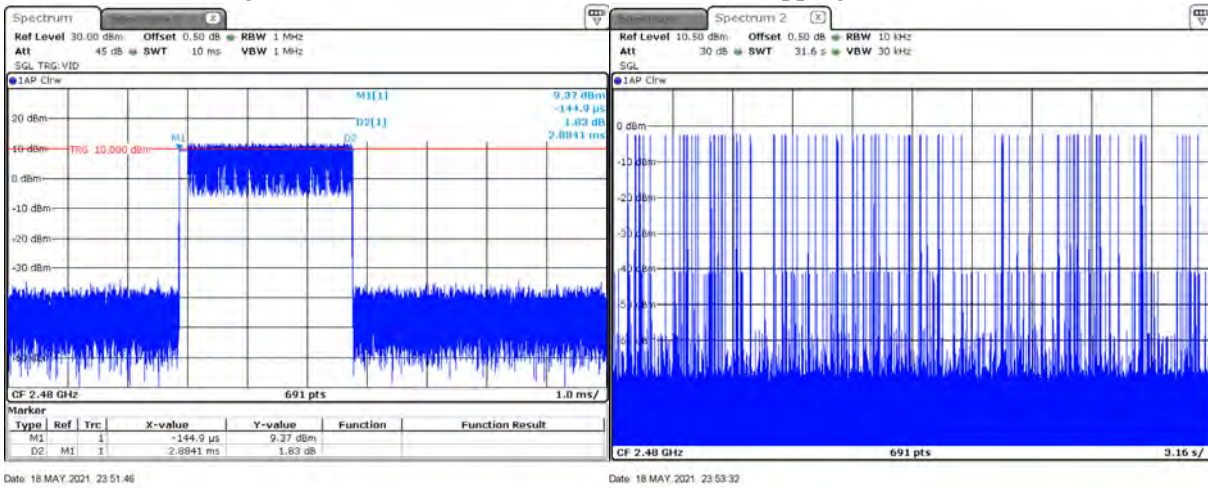
CH 39 Hopping of Number



Date: 18 MAY 2021 23:27:26

CH 78 Time slot length

CH 78 Hopping of Number

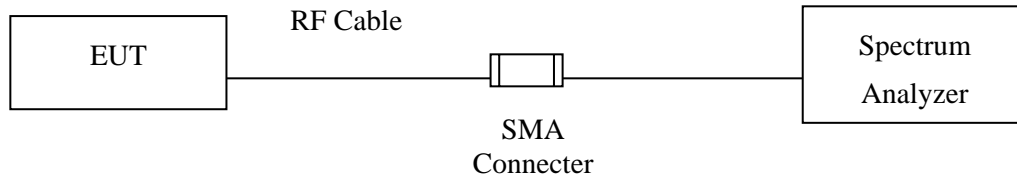


Note:

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

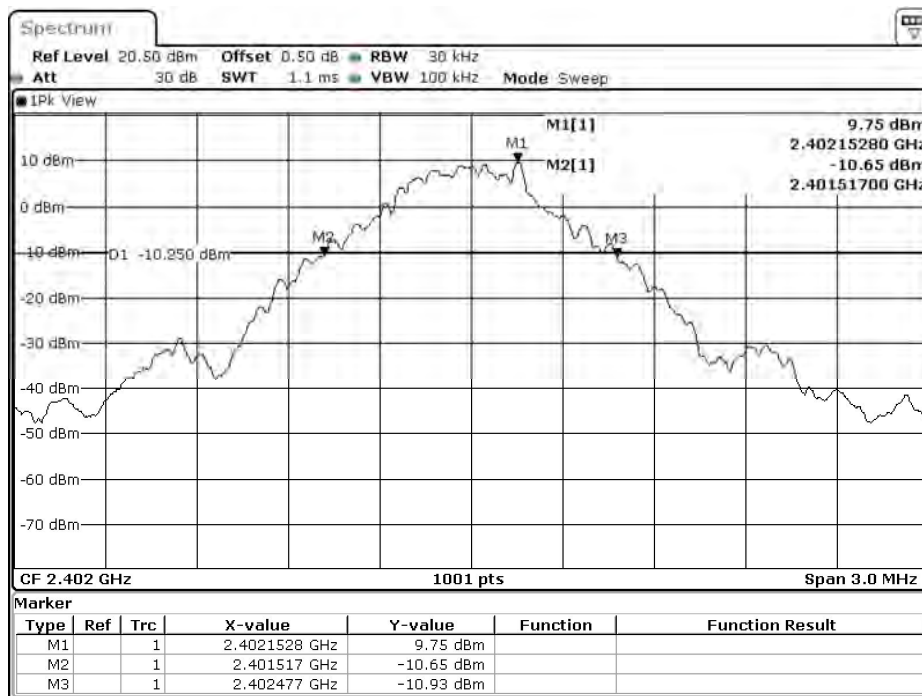
Tested according to FHSS test procedure of KDB558074 section 9 (b for compliance to FCC 47CFR 15.247 requirements.

10.4. Test Result of Occupied Bandwidth

Product : Bluetooth Headset
 Test Item : Occupied Bandwidth Data
 Test Mode : Mode 1: Transmit - 1Mbps (PRO variant -OTE140L)
 Test Date : 2021/05/18

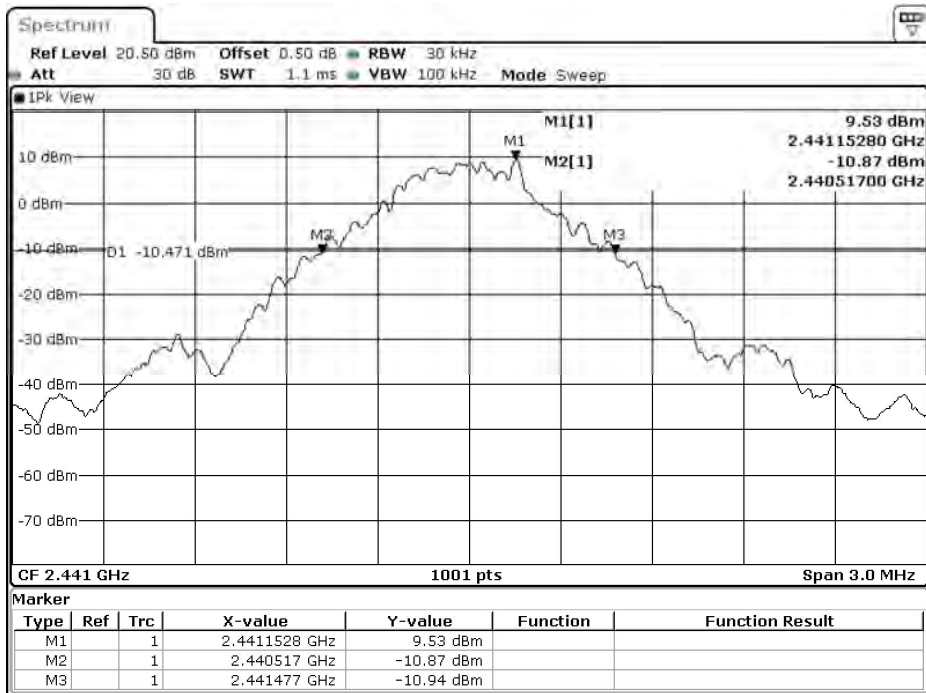
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	960	--	NA
39	2441	960	--	NA
78	2480	957	--	NA

Figure Channel 00:



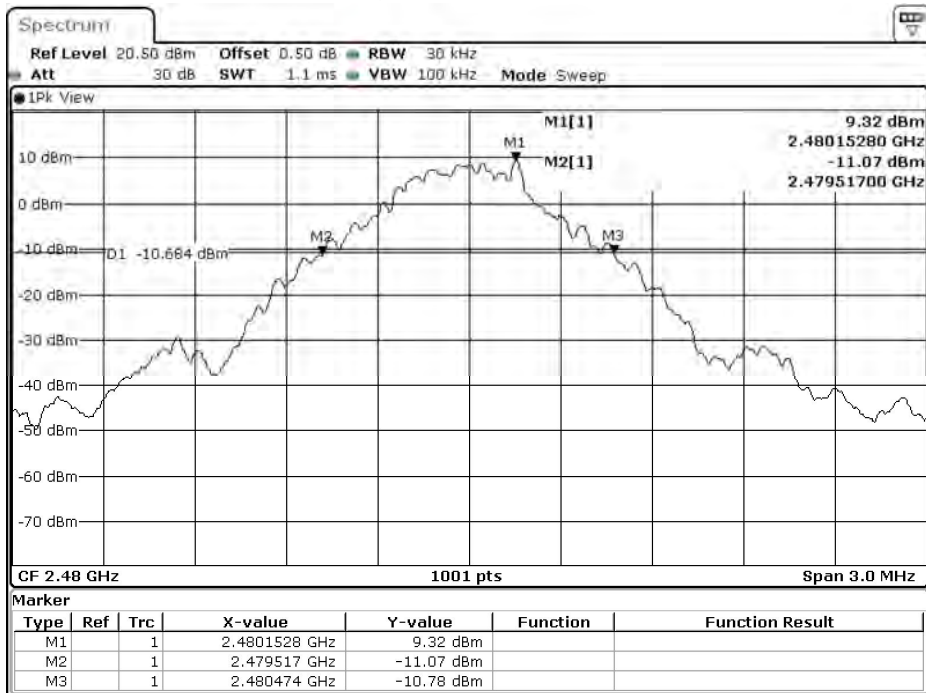
Date: 17.MAY.2021 22:23:16

Figure Channel 39:



Date: 17.MAY.2021 22:29:56

Figure Channel 78:

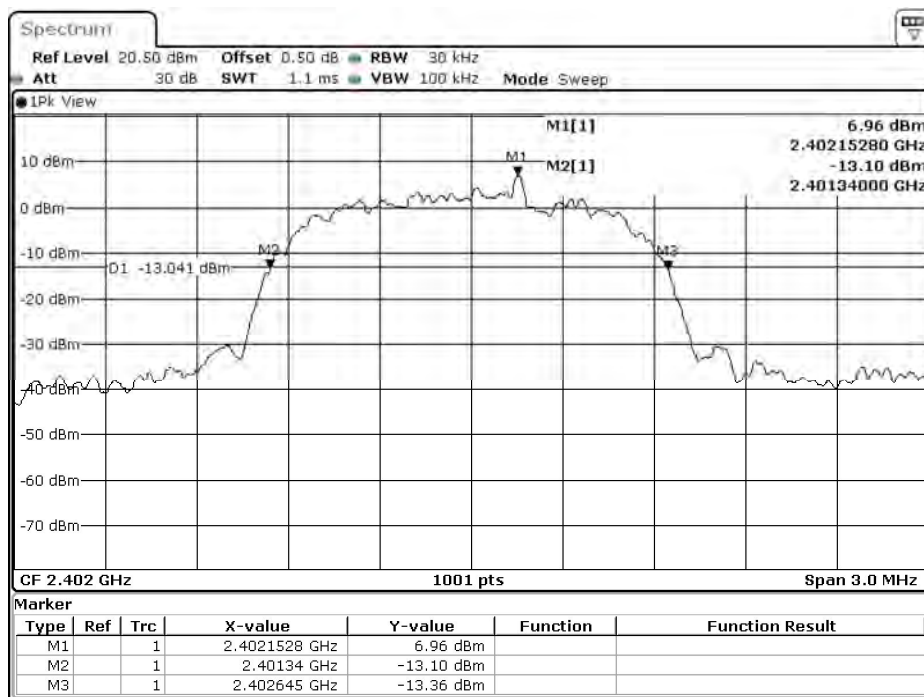


Date: 17.MAY.2021 22:46:05

Product : Bluetooth Headset
 Test Item : Occupied Bandwidth Data
 Test Mode : Mode 2: Transmit - 3Mbps (PRO variant -OTE140L)
 Test Date : 2021/05/18

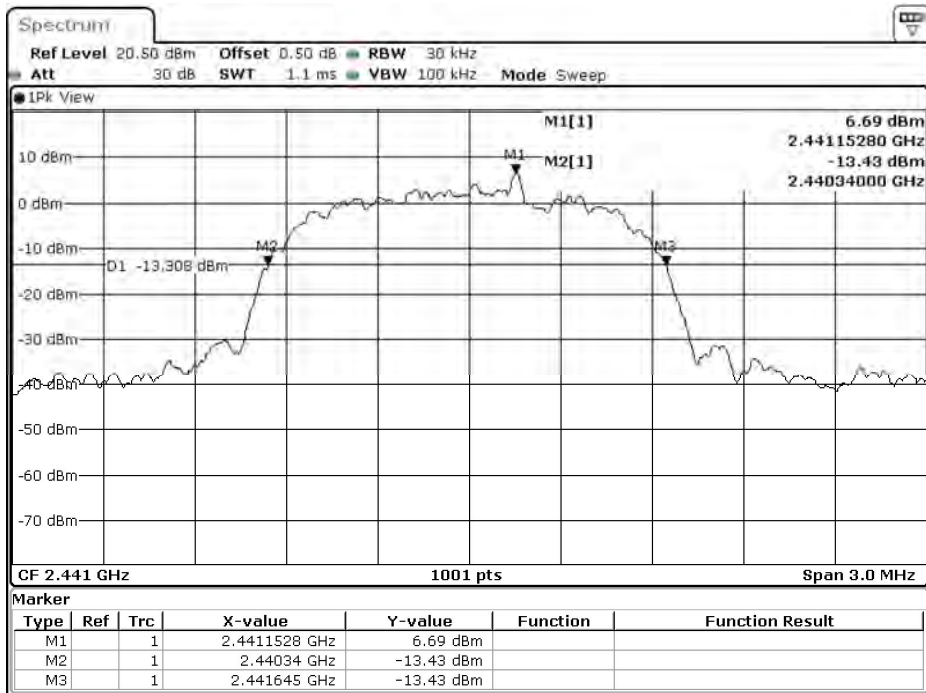
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	1305	--	NA
39	2441	1305	--	NA
78	2480	1305	--	NA

Figure Channel 00:



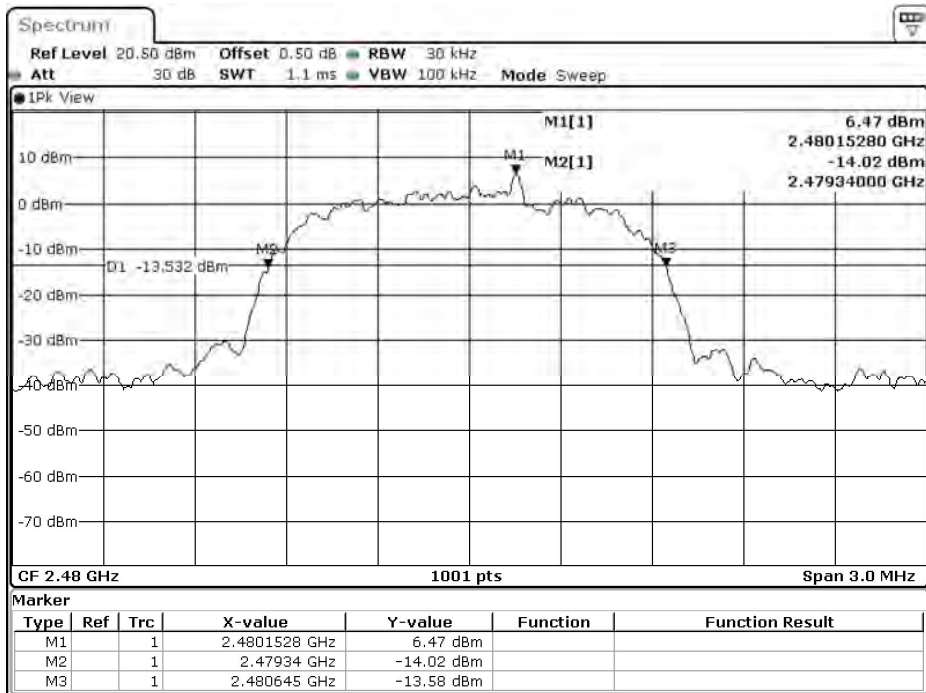
Date: 17.MAY.2021 23:41:41

Figure Channel 39:



Date: 17.MAY.2021 23:48:25

Figure Channel 78:

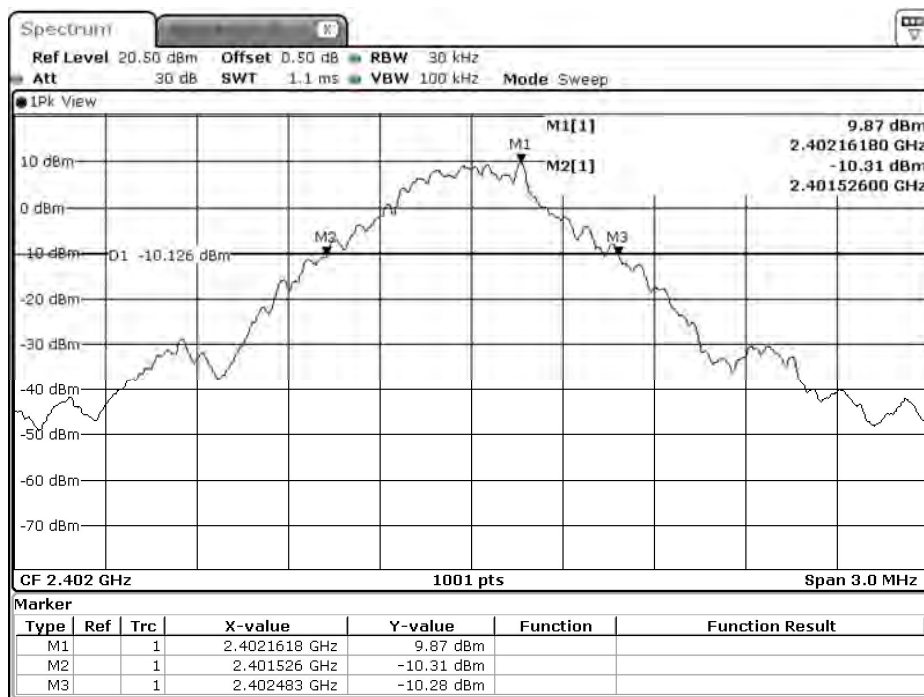


Date: 18.MAY.2021 00:35:13

Product : Bluetooth Headset
 Test Item : Occupied Bandwidth Data
 Test Mode : Mode 1: Transmit - 1Mbps (PRO variant -OTE140R)
 Test Date : 2021/05/18

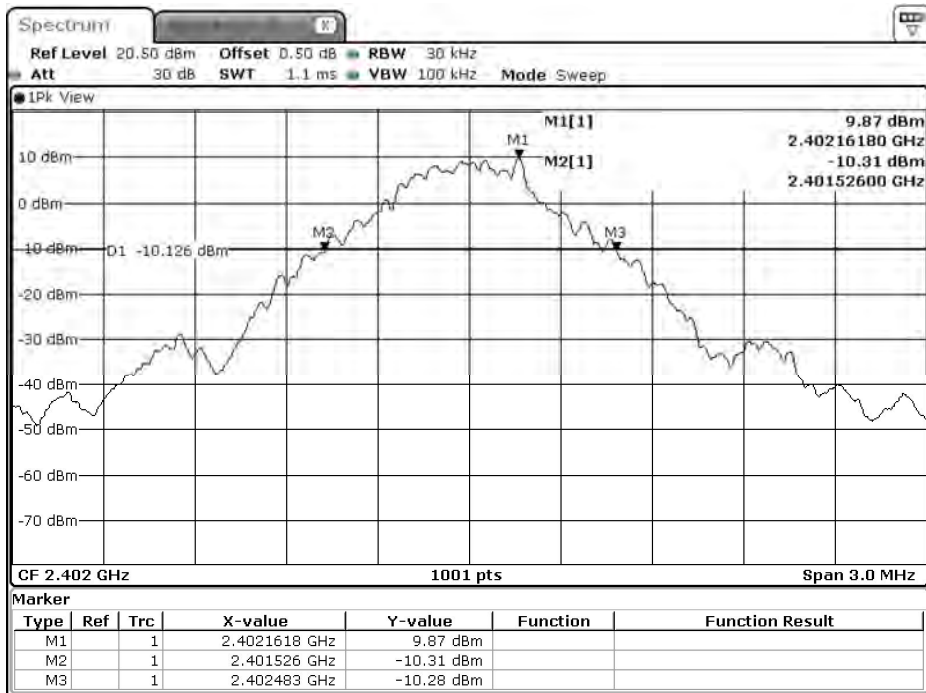
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	957	--	NA
39	2441	957	--	NA
78	2480	957	--	NA

Figure Channel 00:



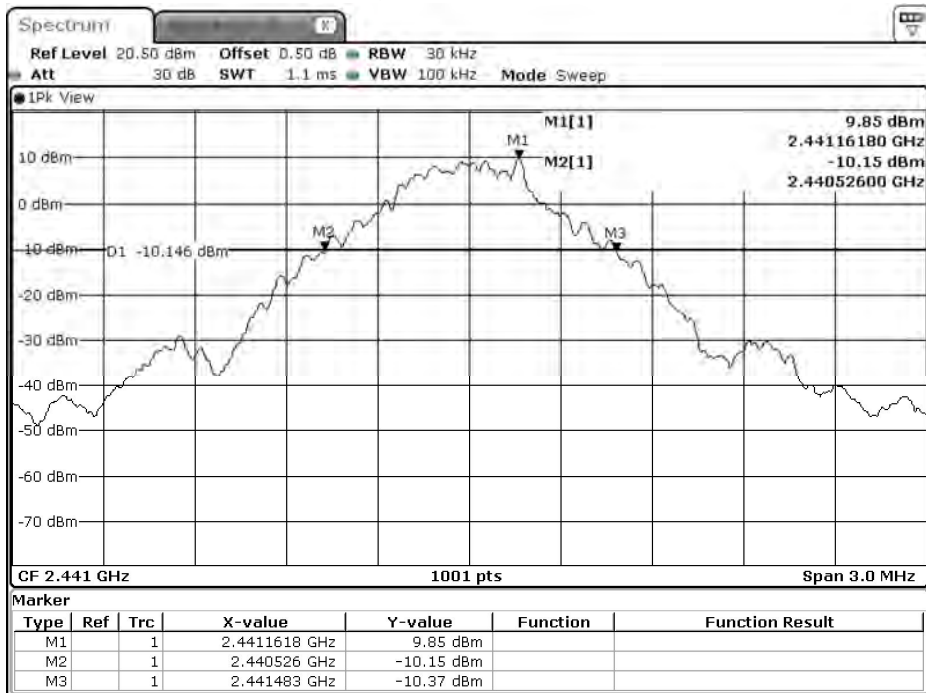
Date: 18.MAY.2021 19:44:17

Figure Channel 39:



Date: 18.MAY.2021 19:44:17

Figure Channel 78:

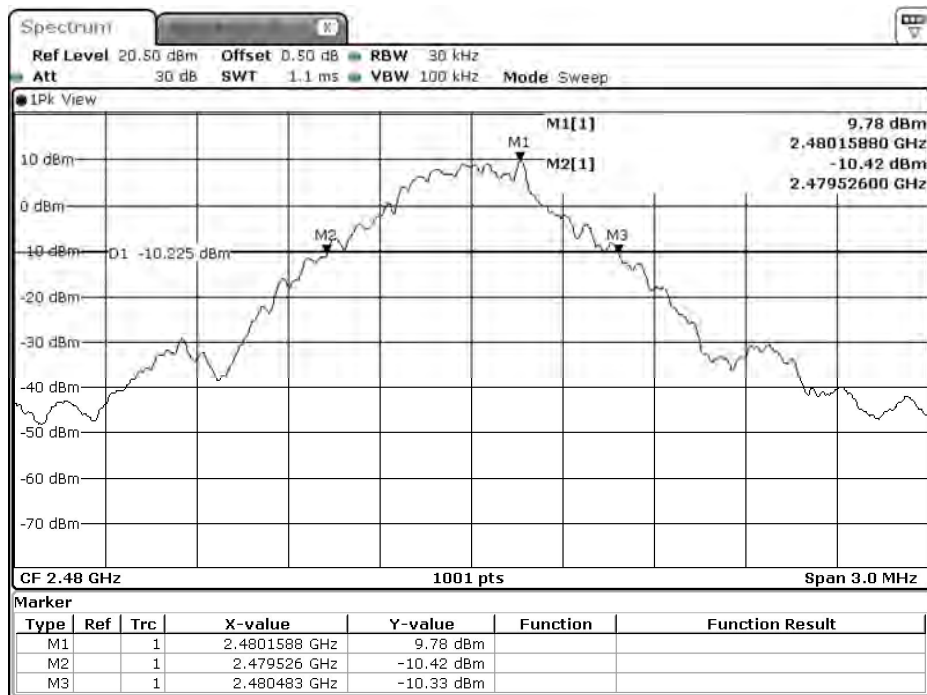


Date: 18.MAY.2021 19:50:42

Product : Bluetooth Headset
 Test Item : Occupied Bandwidth Data
 Test Mode : Mode 2: Transmit - 3Mbps (PRO variant -OTE140R)
 Test Date : 2021/05/18

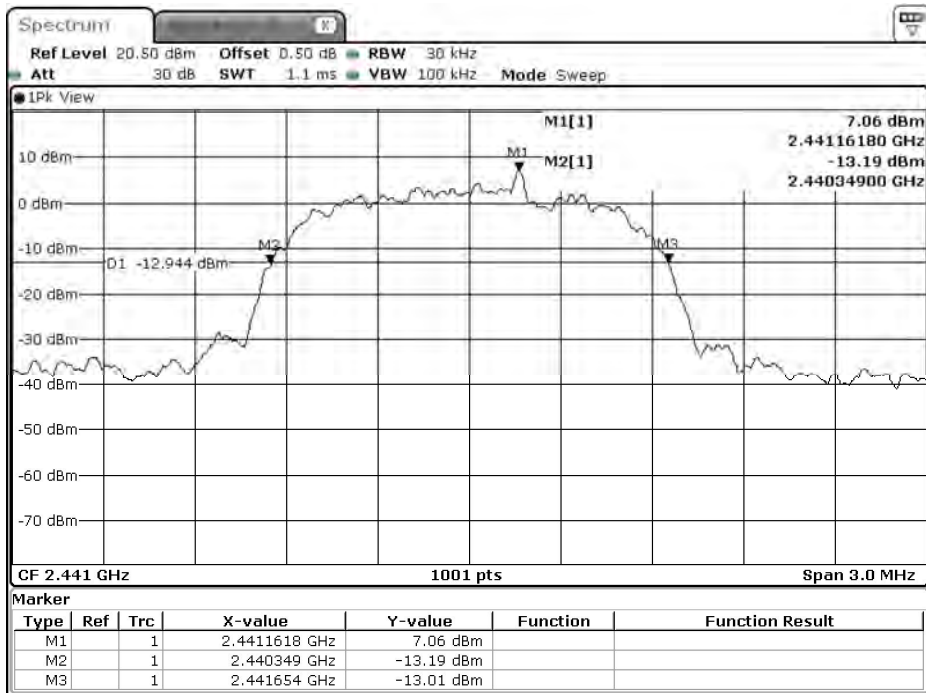
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	1299	--	NA
39	2441	1305	--	NA
78	2480	1308	--	NA

Figure Channel 00:



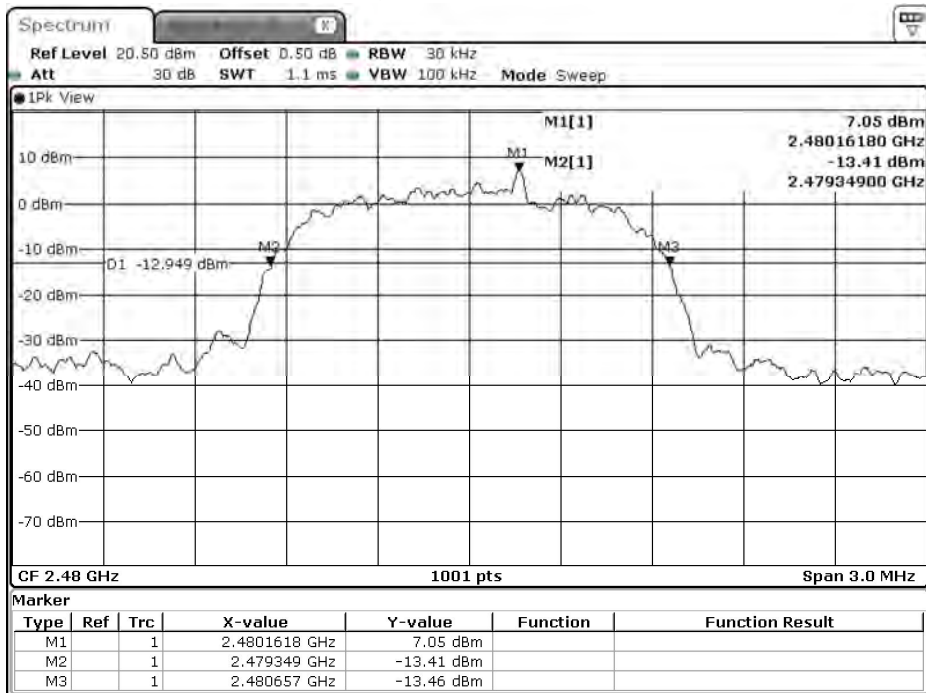
Date: 18.MAY.2021 20:06:33

Figure Channel 39:



Date: 18.MAY.2021 21:40:32

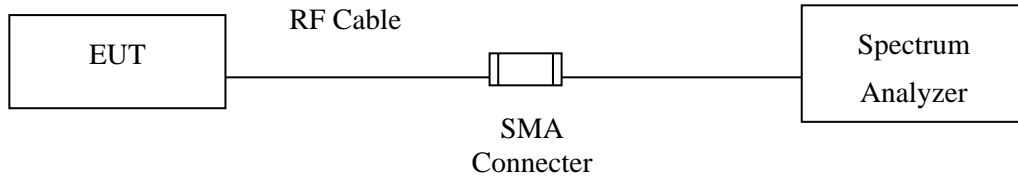
Figure Channel 78:



Date: 18.MAY.2021 22:30:01

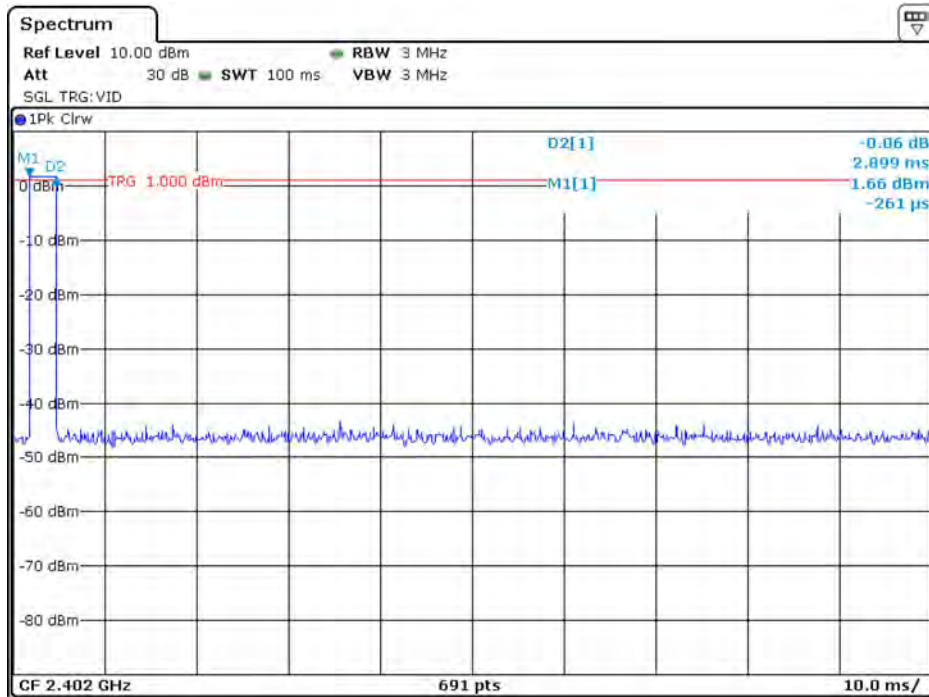
11. Duty Cycle

11.1. Test Setup



11.2. Test Result of Duty Cycle

Product : Bluetooth Headset
 Test Item : Duty Cycle Data
 Test Mode : Mode 1: Transmit - 1Mbps (PRO variant -OTE140L)



Date: 25.MAY.2021 01:24:53

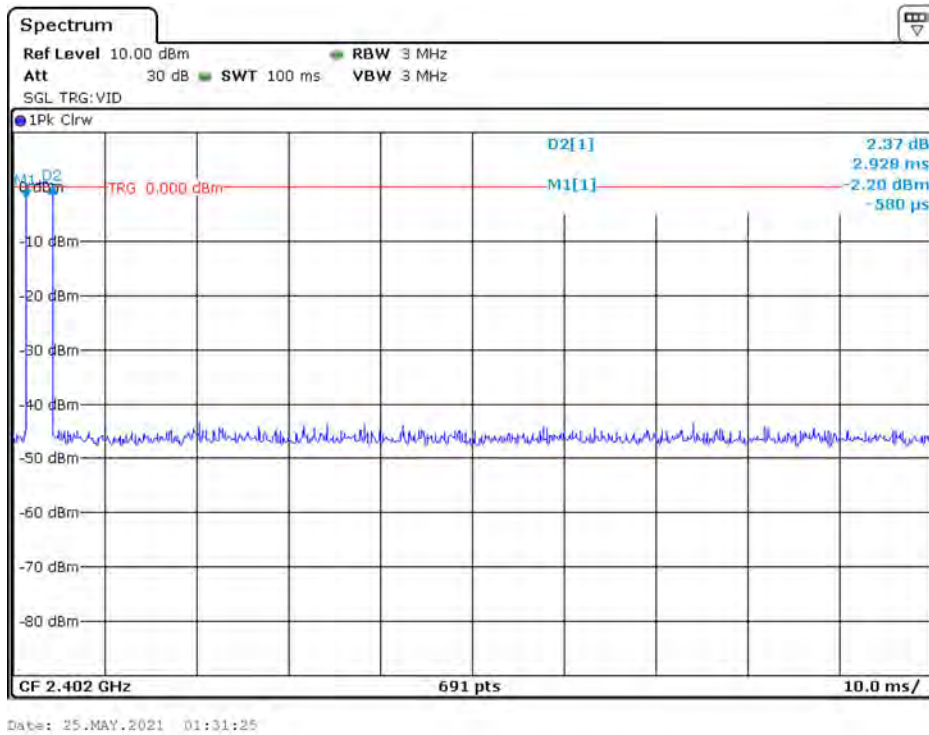
Time on of 100ms= 2.899ms

Duty Cycle= 2.899ms / 100ms= 0.02899

Duty Cycle correction factor= 20 LOG 0.02899= -30.755 dB

Duty Cycle correction factor	-30.755	dB
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Product : Bluetooth Headset
 Test Item : Duty Cycle Data
 Test Mode : Mode 2: Transmit - 3Mbps (PRO variant -OTE140L)



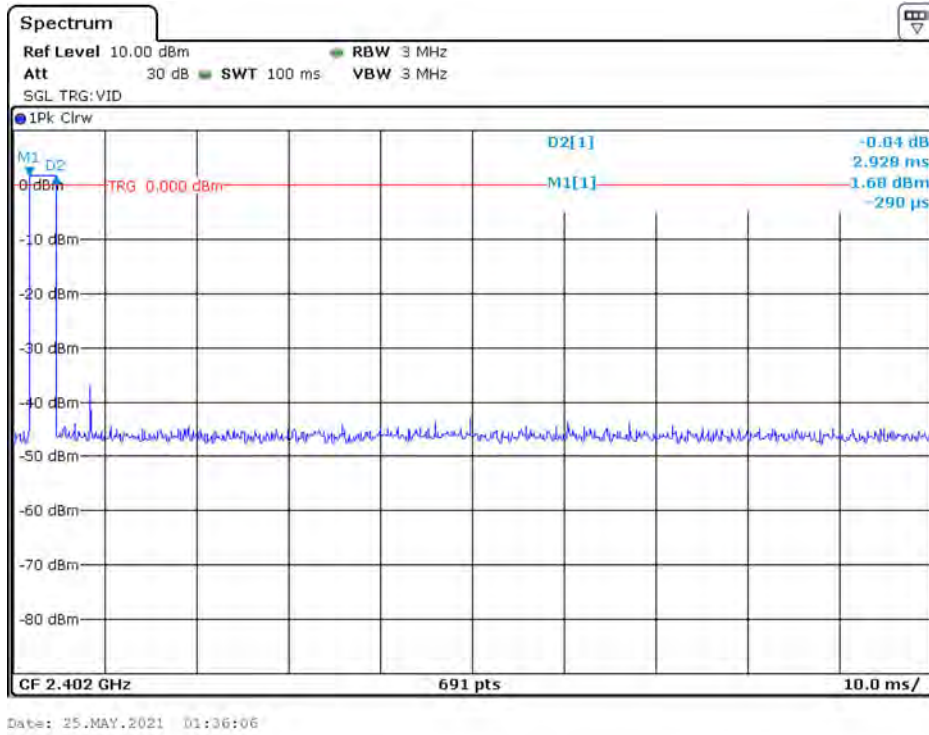
Time on of 100ms= 2.899ms

Duty Cycle= 2.899ms / 100ms= 0.02899

Duty Cycle correction factor= 20 LOG 0.02899= -30.755 dB

Duty Cycle correction factor	-30.755	dB
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Product : Bluetooth Headset
 Test Item : Duty Cycle Data
 Test Mode : Mode 1: Transmit - 1Mbps (PRO variant -OTE140R)



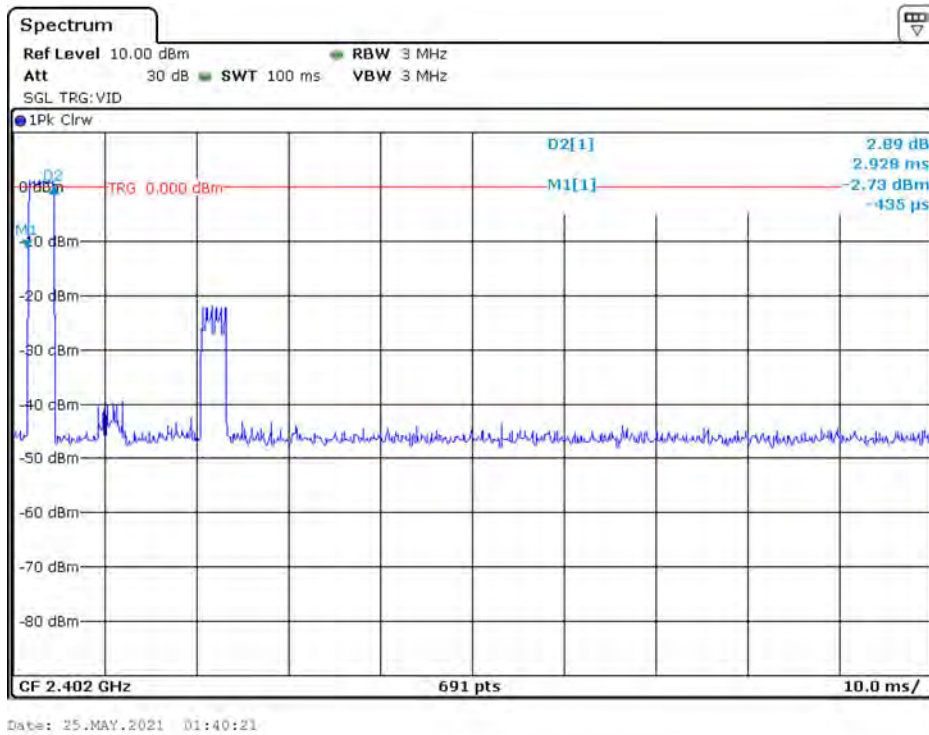
Time on of 100ms= 2.928ms

Duty Cycle= 2.899ms / 100ms= 0.02928

Duty Cycle correction factor= 20 LOG 0.02928= -30.669 dB

Duty Cycle correction factor	-30.669	dB
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Product : Bluetooth Headset
 Test Item : Duty Cycle Data
 Test Mode : Mode 2: Transmit - 3Mbps (PRO variant -OTE140R)



Time on of 100ms= 2.928ms

Duty Cycle= 2.899ms / 100ms= 0.02928

Duty Cycle correction factor= 20 LOG 0.02928= -30.669 dB

Duty Cycle correction factor	-30.669	dB
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12. EMI Reduction Method During Compliance Testing

No modification was made during testing.