

AVERAGE FREQUENCY DWELL TIME TEST

FCC Part 15.247(a)(1)(iii) Average Frequency Dwell Time Results

Operating Mode	Bluetooth	Temperature	24°C
Test Input Power	110V 60Hz	Relative Humidity	57%
Attached Plots	1 – 3 (DH3 Packet) 4 – 5 (DH5 Packet)	Atmospheric Pressure	1029mbar
Hopping Rate	1600 hops / s	Tested By	Lim Cher Hwee
Number of Hopping Channels	79 channels		

DH3 Packets

Channel	Channel Frequency (GHz)	Average Frequency Dwell Time (s)	Average Occupancy Limit (s)
0	2.402	0.0667	0.4
39	2.441	0.0667	0.4
78	2.480	0.0649	0.4

DH5 Packets

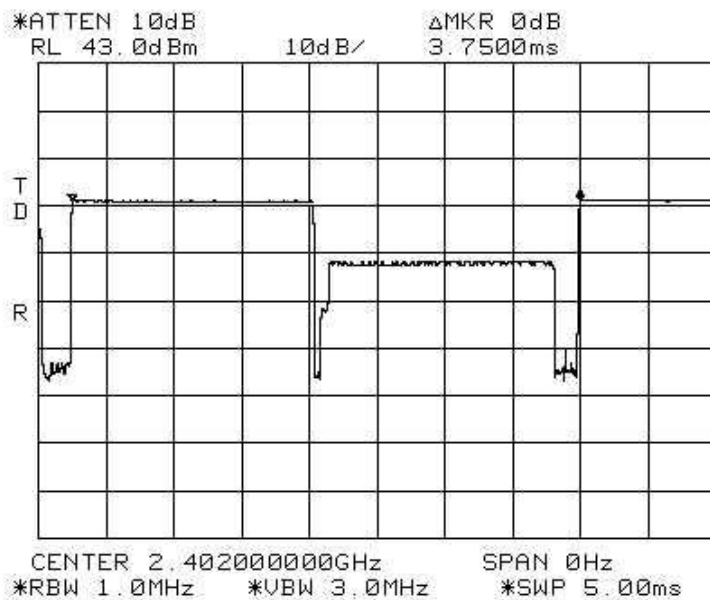
Channel	Channel Frequency (GHz)	Average Frequency Dwell Time (s)	Average Occupancy Limit (s)
0	2.402	0.0411	0.4
39	2.441	0.0428	0.4
78	2.480	0.0387	0.4

Notes

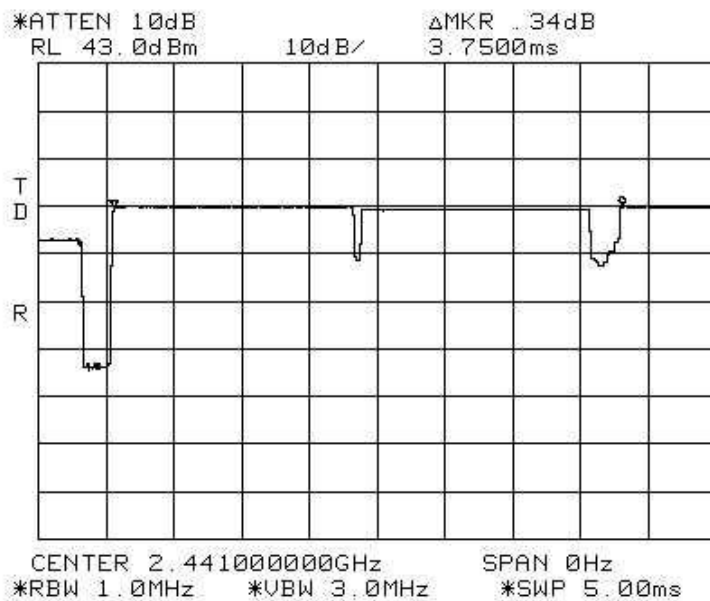
1. DH3 Packet
 - a. For DH3 packet, the EUT operates based on 3-slot transmission and 3-slot reception basis. As such, there are $[1600 / (3 + 3)]$ transmissions per second and the time occupancy per channel is $[\text{measured time slot length} / 6]$.
 - b. DH3 Packet Average Frequency Dwell Time = $[\text{measured time slot length} / 6 \times \text{hopping rate} / 6 / \text{number of hopping channels}] \times [0.4 \times \text{number of hopping channels}]$
2. DH5 Packet
 - a. For DH5 packet, the EUT operates based on 5-slot transmission and 5-slot reception basis. As such, there are $[1600 / (5 + 5)]$ transmissions per second and the time occupancy per channel is $[\text{measured time slot length} / 5]$.
 - b. DH5 Packet Average Frequency Dwell Time = $[\text{measured time slot length} / 10 \times \text{hopping rate} / 10 / \text{number of hopping channels}] \times [0.4 \times \text{number of hopping channels}]$

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Average Frequency Dwell Time Plots (DH3 Packet)



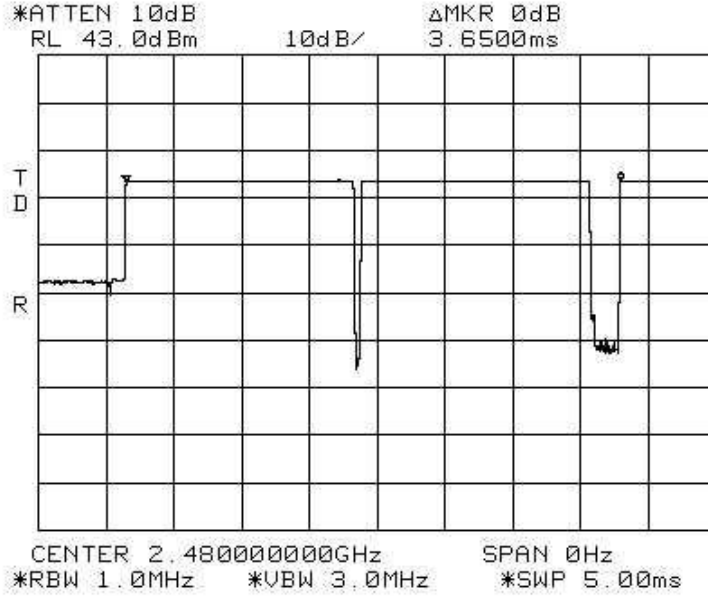
Plot 1 – Channel 0



Plot 2 – Channel 39

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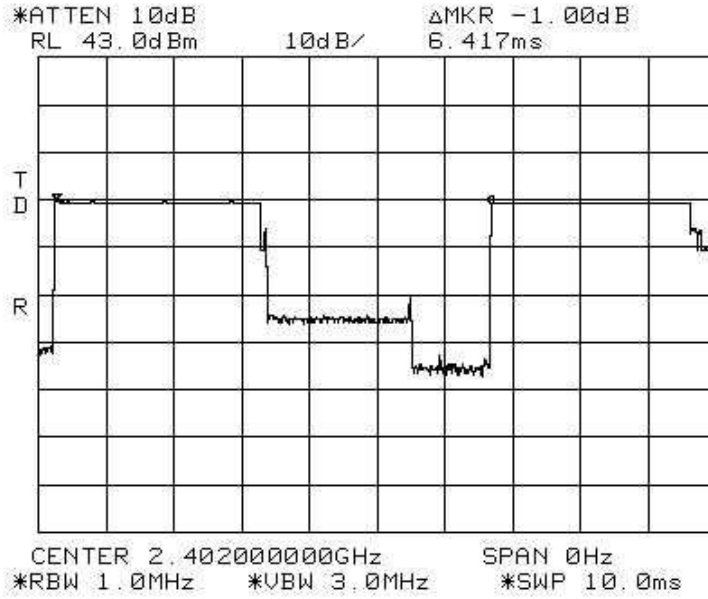
Average Frequency Dwell Time Plots (DH3 Packet)



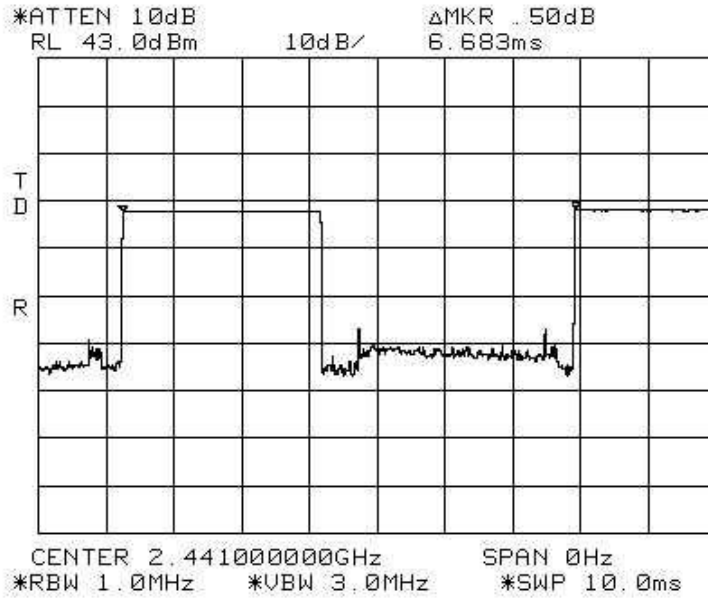
Plot 3 - Channel 78

AVERAGE FREQUENCY DWELL TIME TEST

Average Frequency Dwell Time Plots (DH5 Packet)



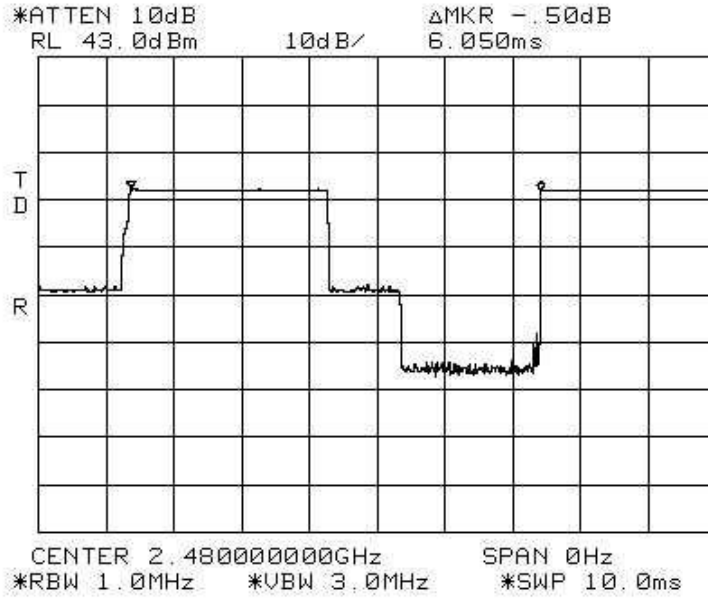
Plot 4 – Channel 0



Plot 5 – Channel 39

AVERAGE FREQUENCY DWELL TIME TEST

Average Frequency Dwell Time Plots (DH5 Packet)



Plot 6 – Channel 78