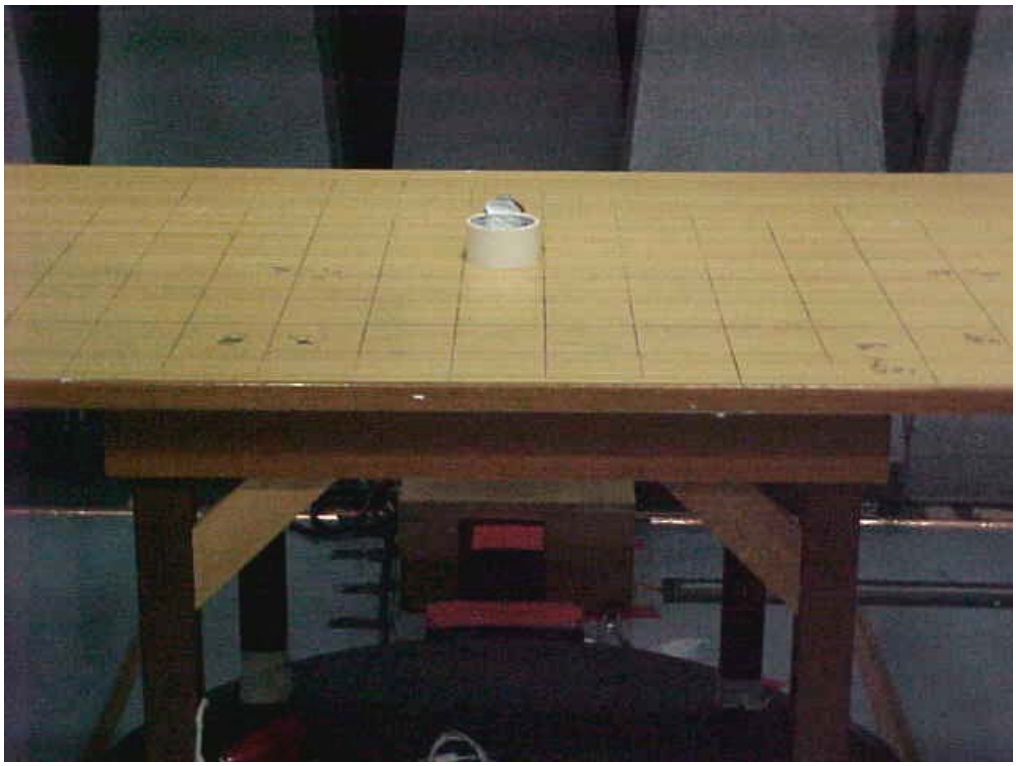
Radiated Emissions Setup (Front View)



Radiated Emissions Setup (Rear View)

FCC Part 15C (15.247(a)(1)) Carrier Frequency Separation Results

The EUT shows compliance to the requirements of this section, which states the adjacent carrier frequencies must be separated by a minimum of 25kHz or the 20dB bandwidth of the hopping channel, whichever is greater.

Adjacent Channels	Channel Separation (MHz)
0 and 1 (2.402GHz and 2.403GHz)	1.010
38 and 39 (2.440GHz and 2.441GHz)	1.010
39 and 40 (2.441GHz and 2.442GHz)	1.015
77 and 78 (2.479GHz and 2.480GHz)	1.010

Please refer to the attached Plots 1 - 4 for details.

Tested by: LCH

Notes :

1. Environmental Conditions — Temperature 24°C; Relative Humidity 60%; Atmospheric Pressure 1030mbar

Carrier Frequency Separation Measurement Test Setup

FCC Part 15C (15.247(b)(1)) Maximum Peak Power Results

The EUT shows compliance to the requirements of this section, which states the peak power of an intentional radiator (EUT) shall not exceed 30dBm (1 Watt).

The maximum peak power for Channels 0, 39 and 78 at 2.402GHz, 2.441GHz and 2.480GHz respectively were investigated and found below 30dBm (1Watt).

Channel	Channel Frequency (GHz)	Maximum Peak Power (W)	Limit (W)
0	2.402	0.002	1
39	2.441	0.002	1
78	2.480	0.002	1

Tested by: LCH

Notes :

1. Environmental Conditions — Temperature 24°C; Relative Humidity 60%; Atmospheric Pressure 1030mbar

2. Power analyser of Universal Radio Communication Tester was used for power measurement with peak detection as mode of measurement. The power analyser mode supports a wideband power measurement ranging from 100kHz to 2700MHz.

Maximum Peak Power Measurement Test Setup

FCC Part 15C (15.247(c)) RF Conducted Spurious Emissions & Band Edge Compliance at the Transmitter Antenna Results

The EUT shows compliance to the requirements of this section, which states in any 100kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator (EUT) is operating, the RF power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of desired power.

The RF conducted spurious emissions were scanned from 10MHz to 25GHz for Channels 0, 39, and 78 with channel frequency at 2.402GHz, 2.441GHz and 2.480GHz respectively. No significant signal was found and they were below the specified limit. Please refer to the attached Plots 15 – 20 for details.

The conducted spurious at lower and upper band-edges (2.4000GHz and 2.4835GHz) were scanned. The spurious emissions at band-edges were found below the specified limit. Please refer to the attached Plots 21 – 22 for details.

Tested by: LCH

Notes :

1.	Environmental Conditions	Temperature	24°C
		Relative Humidity	60%
		Atmospheric Pressure	1030mbar

RF Conducted Spurious & Band Edge Measurement Test Setup

FCC Part 15C (15.247(a)(1)(iii)) Average Frequency Dwell Time Results

The EUT shows compliance to the requirements of this section, which states the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a period of 0.4second multiplied by the number of hopping channels employed.

EUT hopping rate = 1600 hops/s
Number of EUT hopping frequencies = 79 hops
DH1packet was used as a transmission packet

Average Frequency Dwell Time = measured time slot length (l) x hopping rate (h) / number of hopping frequencies x 30 seconds period

Channel	Channel Frequency (GHz)	Measured Time Slot Length for DH1 Packet(μs)	Average Frequency Dwell Time (s)	Average Occupancy Limit (s)
0	2.402	625	0.380	0.4
39	2.441	625	0.380	0.4
78	2.480	625	0.380	0.4

Please refer to the attached Plots 12 – 14 for details.

Tested by: LCH

Notes :

1. Environmental Conditions — Temperature 24°C; Relative Humidity 60%; Atmospheric Pressure 1030mbar

Average Frequency Dwell Time Measurement Test Setup

FCC Part 15C (15.247(a)(1)(iii)) Number of Hopping Frequencies Results

The EUT shows compliance to the requirements of this section, which states the number of hopping frequencies shall be at least 75.

The EUT was found t to have 79 hopping frequencies.

Please refer to the attached Plots 8 - 11 for details.

Tested by: LCH

Notes :

1.	Environmental Conditions	Temperature	24°C
		Relative Humidity	60%
		Atmospheric Pressure	1030mbar

Number of Hopping Frequencies Measurement Test Setup

FCC Part 15C (15.247(a)(1)) Spectrum Bandwidth (20dB Bandwidth Measurement) Results

The EUT shows compliance to the requirements of this section, which states that the 20dB bandwidth of the hopping channel shall be the channel frequency separation by a minimum of 25kHz or the 20dB bandwidth of the hopping channel, whichever is greater.

Channel	Channel Frequency (GHz)	20dB Bandwidth (MHz)
0	2.402	0.775
39	2.441	0.808
78	2.480	0.733

Note: The EUT is a Bluetooth device, which supports no overlapping for each channel.

Please refer to attached Plots 5 - 7 for details.

Tested by: LCH

Notes :

1. Environmental Conditions — Temperature 24°C; Relative Humidity 60%; Atmospheric Pressure 1030mbar

Spectrum Bandwidth Measurement Test Setup

FCC Part 15C (15.247(d)) Peak Power Spectral Density Results

The EUT shows compliance to the requirements of this section, which states the peak power spectral density of an intentional radiator (EUT) to the antenna shall not be greater than 8dBm (6.3mW) in any 3kHz band during any time interval of continuous transmission.

Operating Mode: 802.11b

Channel	Channel Frequency (GHz)	Peak Power Spectral Density (mW)	Limit (mW)
0	2.402	0.282	6.3
39	2.441	0.341	6.3
78	2.480	0.271	6.3

Please refer to the attached Plots 23 – 25 for details.

Tested by: LCH

Notes :

1. Environmental Conditions — Temperature 24°C; Relative Humidity 60%; Atmospheric Pressure 1030mbar

Peak Power Spectral Density Measurement Test Setup