

4. Band Edge

4.1. Test Equipment

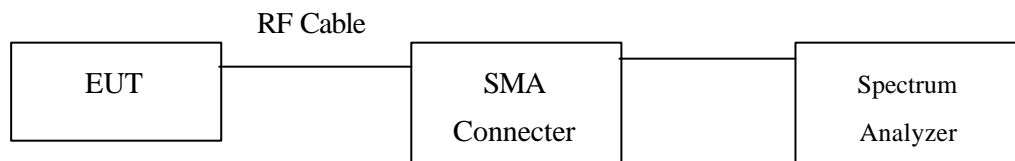
The following test equipments are used during the band edge tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	Advantest	R3272 / 72421194	May, 2001
X	Power Meter	HP	EPM-441A	May, 2001
X	Test Receiver	R & S	ESCS 30 / 825442/14	May, 2001
	Spectrum Analyzer	Advantest	R3261C / 71720140	May, 2001
	Pre-Amplifier	HP	8447D/3307A01812	May, 2001
X	Bilog Antenna	Chase	CBL6112B / 12452	Sep., 2000
X	Horn Antenna	EM	EM6917 / 103325	May, 2001

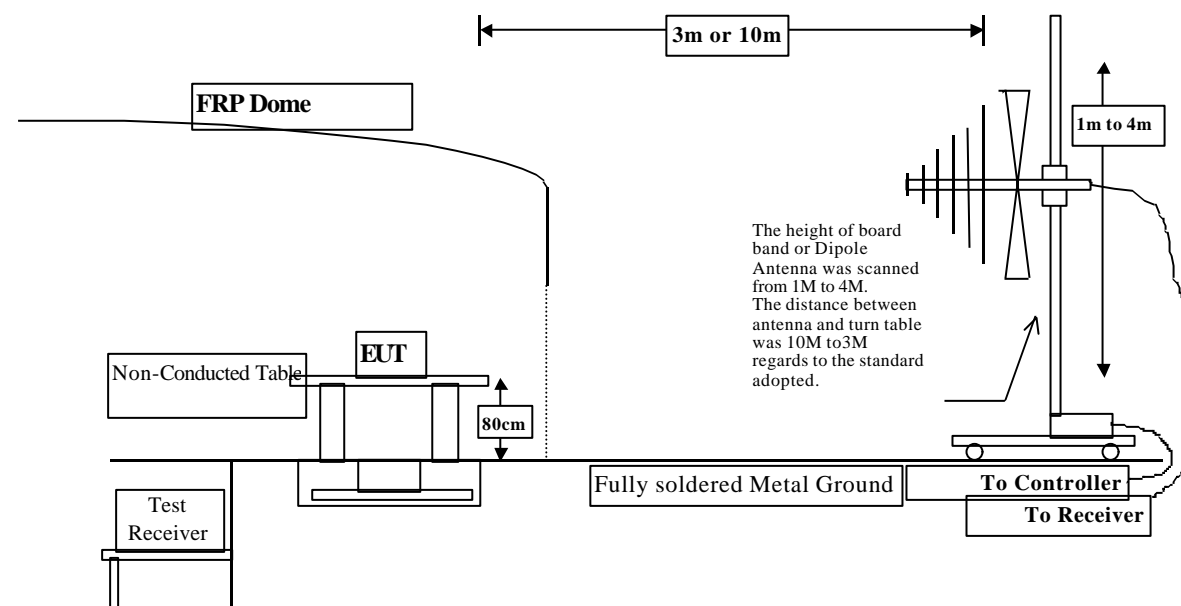
- Note: 1. All equipments that need to calibrate are with calibration period of 1 year.
 2. Mark "X" test instruments are used to measure the final test results.

4.2. Test Setup

RF Conducted Measurement:



RF Radiated Measurement:



4.3. Test Condition

Standard Temperature and Humidity, Standard Test Voltage

4.4. Minimum Standard

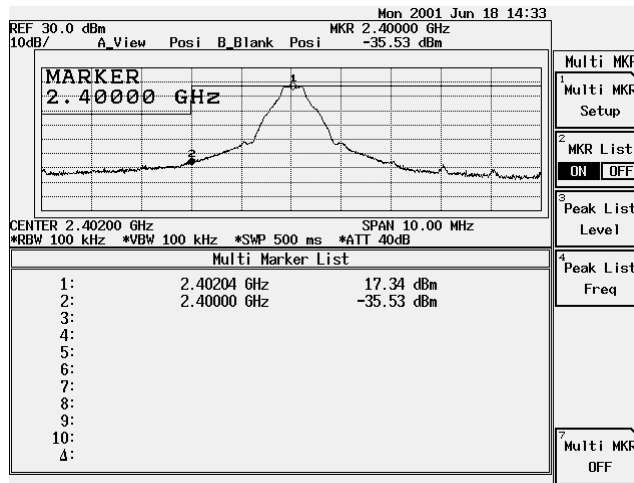
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

4.5. Test Result of Band Edge

Product : Acer Bluetooth Shuttle
 Test Item : Band Edge Data
 Test Site : No.1 OATS
 Test Mode : Normal Operation

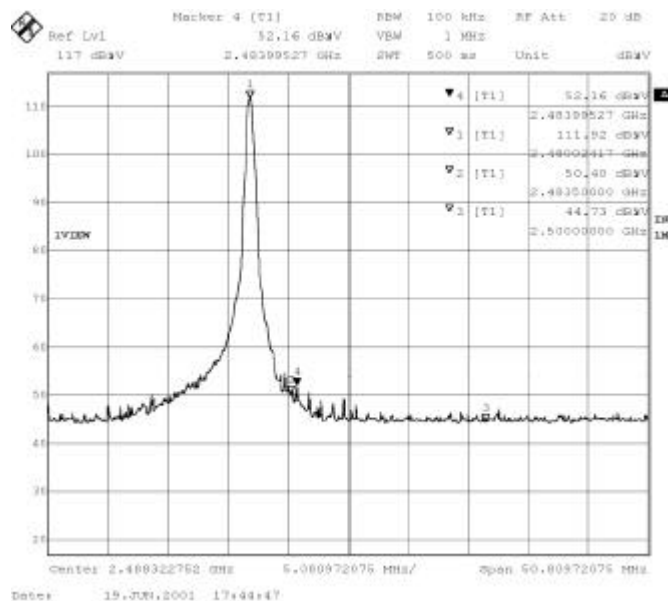
RF Conducted Measurement

Measurement Frequency (MHz)	Measurement level (dBc)	Required Limit (dBc)	Result
2400.00	-35.53 dB	<20	Pass



RF Radiated Measurement

Measurement Frequency (MHz)	Measurement level (dBi V/m)	Required Limit (dBi V/m)	Result
2483.9527	52.16 dB	<54	Pass



5. Peak Power Output

5.1. Test Equipment

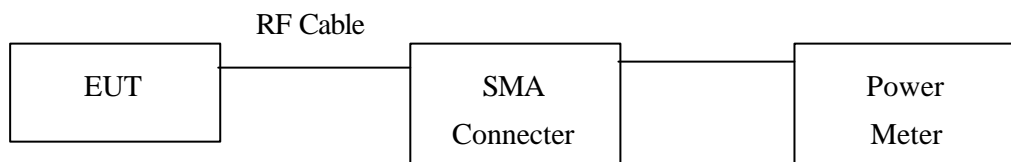
The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	Advantest	R3272 / 72421194	May, 2001
X	Power Meter	HP	EPM-441A	May, 2001

Note: 1. All equipment upon which need to calibrated are with calibration period of 1 year.
 2. Mark “X” test instruments are used to measure the final test results.

5.2. Test Setup

Conduction Power Measurement



5.3. Test Condition

Standard Temperature and Humidity, Standard Test Voltage

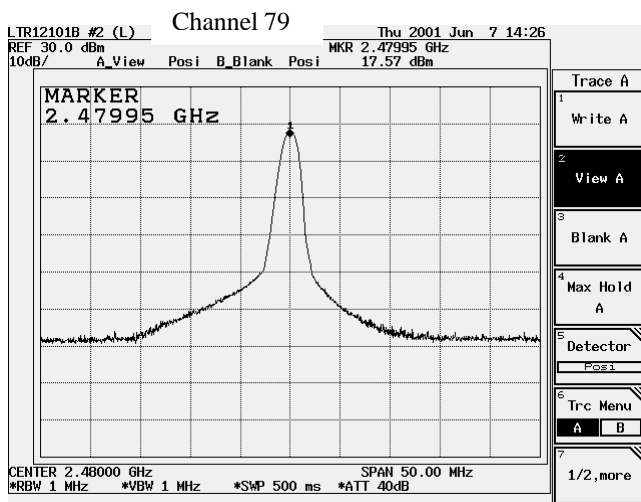
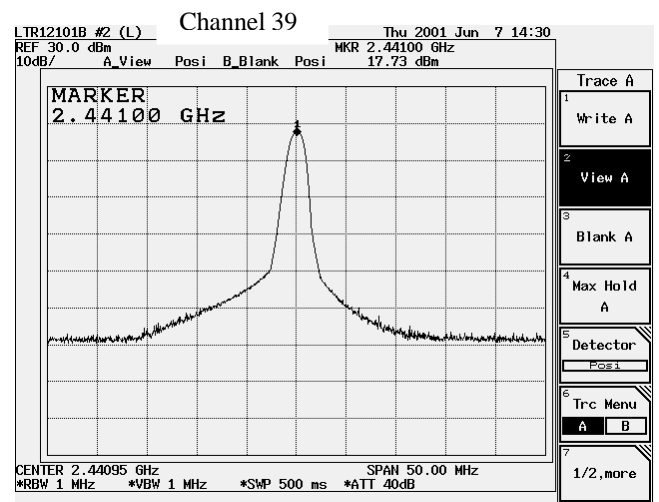
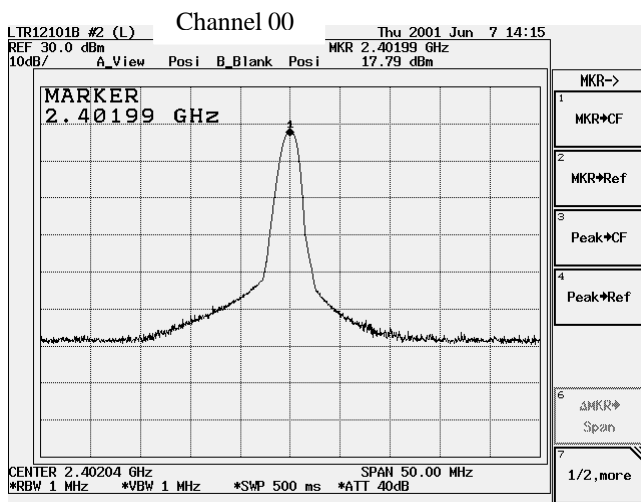
5.4. Minimum Standard

The maximum peak power shall be less 0.125 Watt.

5.5. Test Result of Peak Power Output

Product : Acer Bluetooth Shuttle
 Test Item : Peak Power Output Data
 Test Site : No.1 OATS
 Test Mode : Normal Operation

Channel No.	Frequency(MHz)	Measurement	Required Limit	Result
Channel 00	2401.99	17.79dBm	0.125Watt= 20.96 dBm	Pass
Channel 39	2441.00	17.73 dBm	0.125Watt= 20.96 dBm	Pass
Channel 78	2479.95	17.57 dBm	0.125Watt= 20.96 dBm	Pass



6. Occupied Bandwidth

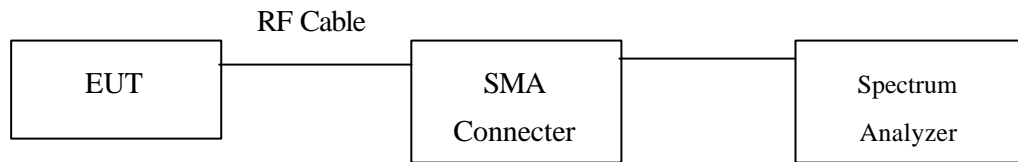
6.1. Test Equipment

The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	Advantest	R3272 / 72421194	May, 2001
X	Horn Antenna	EM	EM6917 / 103325	May, 2001

Note: 1. All equipment upon which need to calibrated are with calibration period of 1 year.
 2. Mark “X” test instruments are used to measure the final test results.

6.2. Test Setup



6.3. Test Condition

Standard Temperature and Humidity, Standard Test Voltage

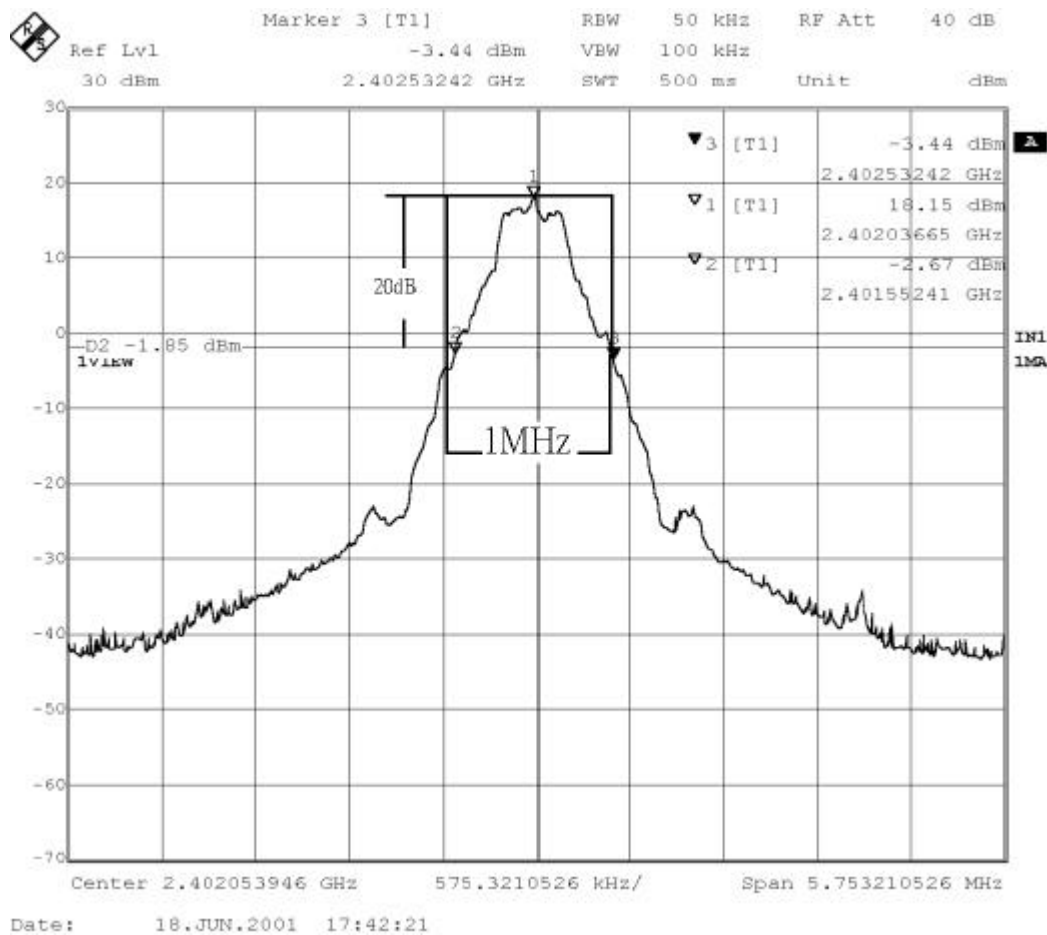
6.4. Standard Requirement

The maximum 20 dB bandwidth of the hopping channel is 1 MHz.

6.5. Test Result of Occupied Bandwidth

Product : Acer Bluetooth Shuttle
 Test Item : Occupied Bandwidth Data
 Test Site : No.1 OATS
 Test Mode : Normal Operation

Measurement Level (MHz)	Required Limit (MHz)	Result
0.98001	<1	Pass



7. Channel of Number

7.1. Test Condition

Standard Temperature and Humidity, Standard Test Voltage

7.2. Minimum Standard

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

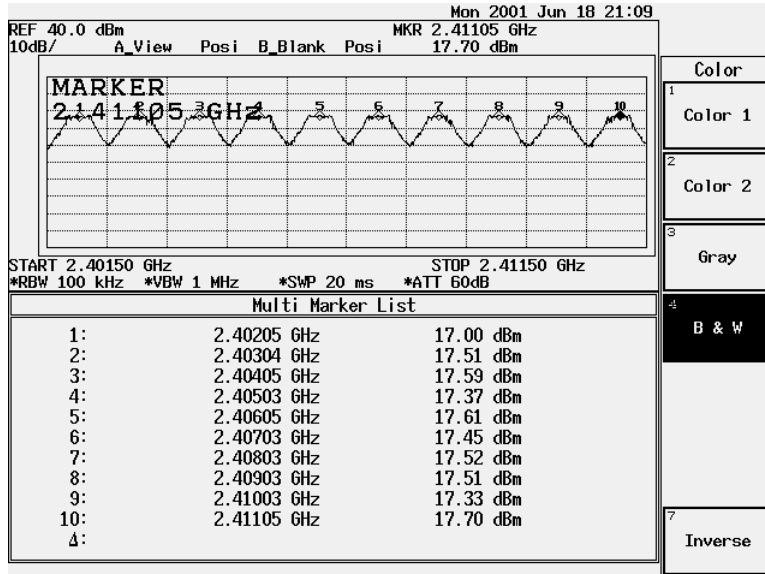
7.3. Method of Measurement

The system shall hop to channel frequencies that selected at the system hopping rate from a pseudorandomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

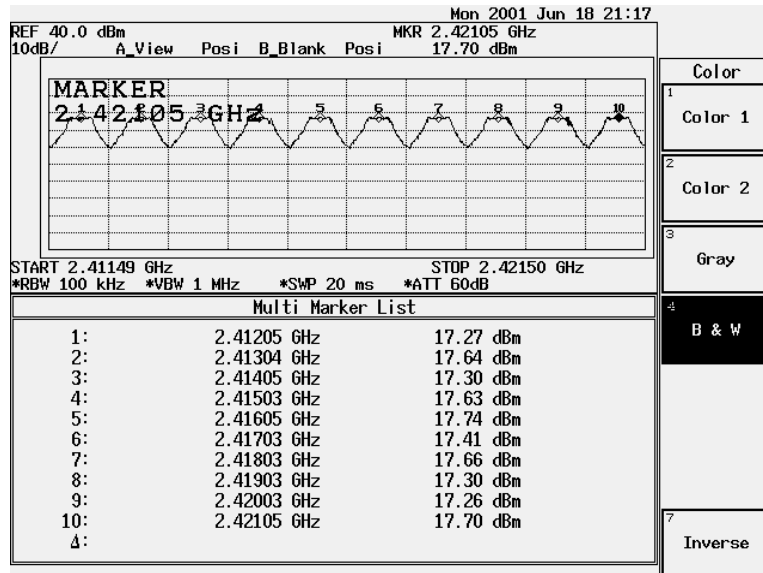
7.4. Test Result of Channel Number

Product : Acer Bluetooth Shuttle
 Test Item : Sweep of Channel Number
 Test Site : No.1 OATS
 Test Mode : Normal Operation

2402-2411MHz

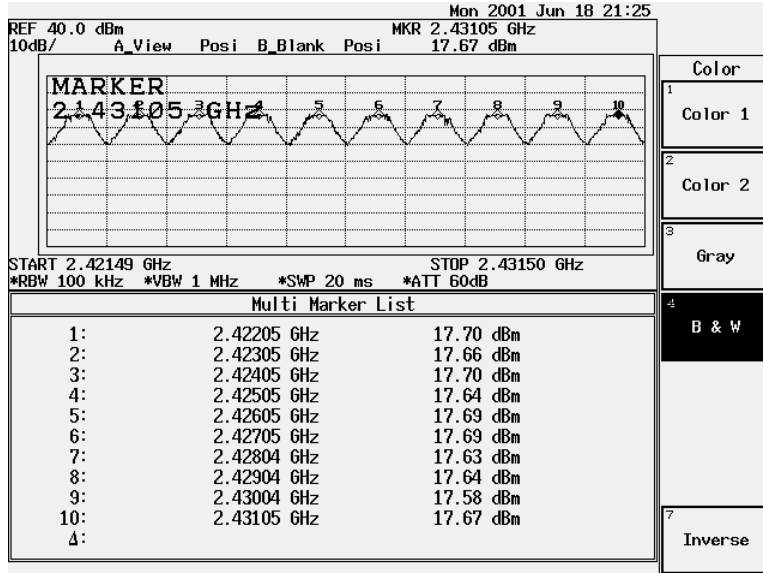


2411-2421MHz

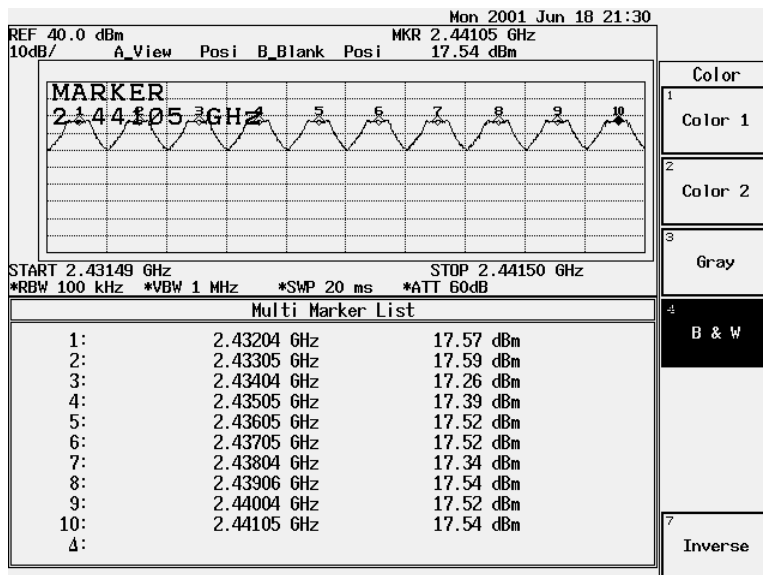


Product : Acer Bluetooth Shuttle
 Test Item : Sweep of Channel Number
 Test Site : No.1 OATS
 Test Mode : Normal Operation

2421-2431MHz

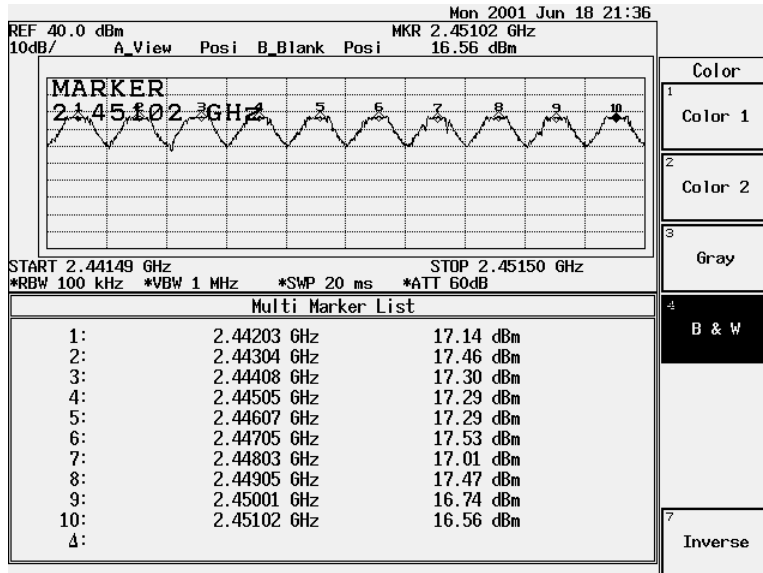


2431-2441MHz

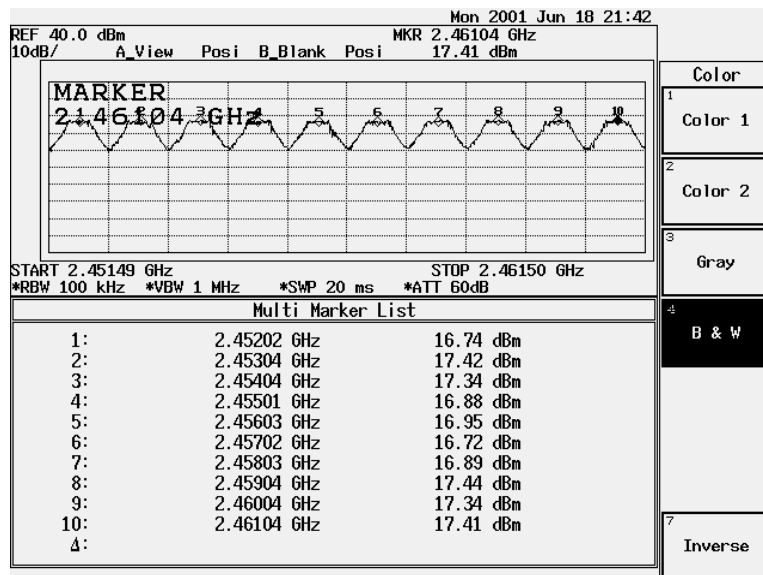


Product : Acer Bluetooth Shuttle
 Test Item : Sweep of Channel Number
 Test Site : No.1 OATS
 Test Mode : Normal Operation

2441-2451MHz

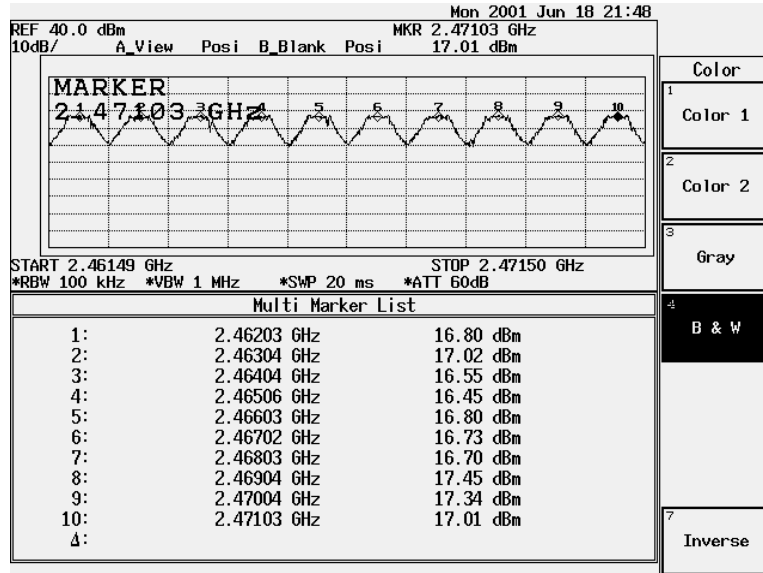


2451-2461MHz

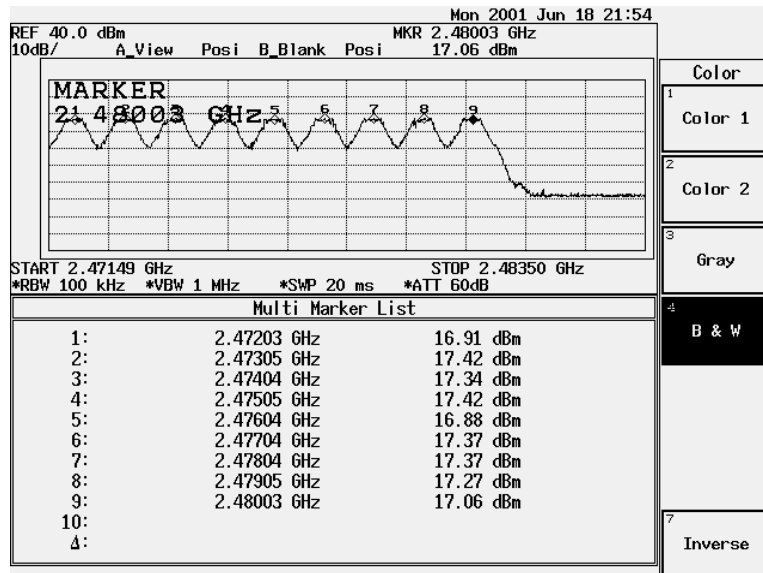


Product : Acer Bluetooth Shuttle
 Test Item : Sweep of Channel Number
 Test Site : No.1 OATS
 Test Mode : Normal Operation

2461-2471MHz



2471-2481MHz



8. Channel Separation

8.1. Test Condition

Standard Temperature and Humidity, Standard Test Voltage

8.2. Minimum Standard

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.

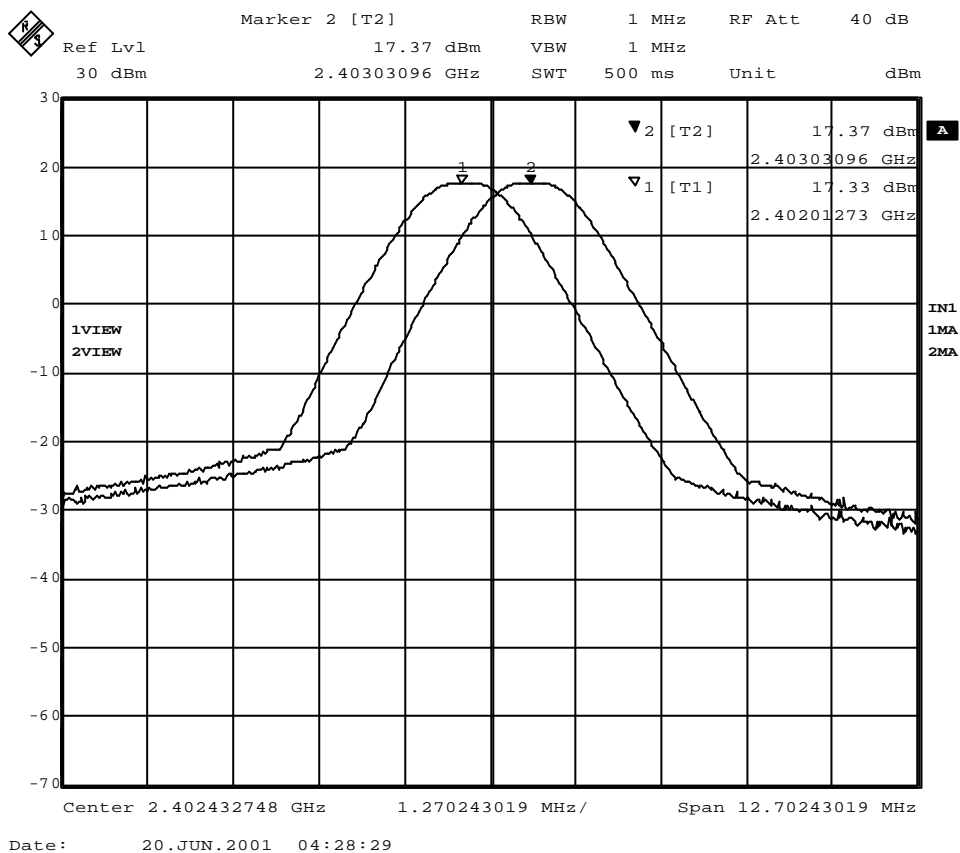
8.3. Method of Measurement

The system shall hop to channel frequencies that selected at the system hopping rate from a pseudorandomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

8.4. Test Result of Channel Separation

Product : Acer Bluetooth Shuttle
 Test Item : Channel Separation Data
 Test Site : No.1 OATS
 Test Mode : Normal Operation

Measurement Level (MHz)	Required Limit (kHz)	Result
1.02	>25	Pass



9. Dwell Time

9.1. Test Condition

Standard Temperature and Humidity, Standard Test Voltage

9.2. Minimum Standard

The dwell time shall be the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 30 second period.

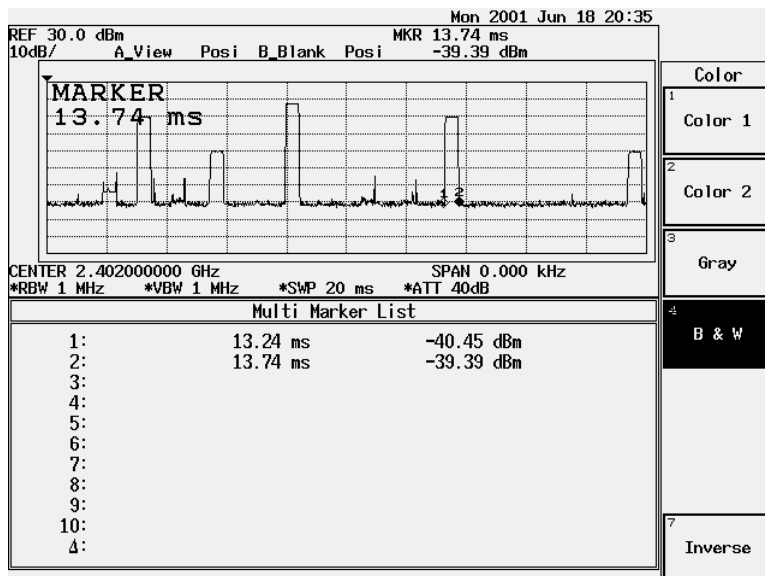
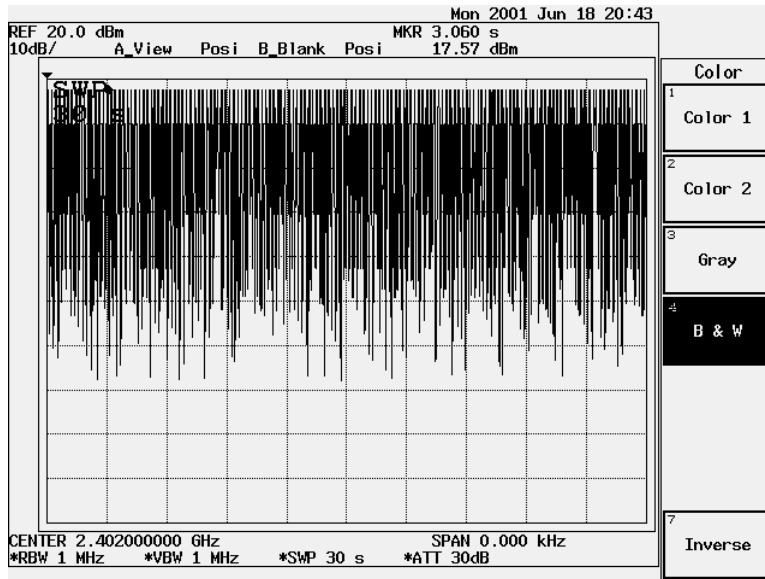
9.3. Method of Measurement

The average time of occupancy on any frequency measured in zero span function of spectrum analyzer.

9.4. Test Result of Dwell Time

Product : Acer Bluetooth Shuttle
 Test Item : Dwell Time Data
 Test Site : No.1 OATS
 Test Mode : Normal Operation

Measurement Level	Required Limit	Result
155*0.5=77.5(ms)	<0.4 (sec)	Pass



10. EMI Reduction Method During Compliance Testing

No modification was made during testing.

11. Attachment

Attachment 1: EUT Test Photographs Number of Pages : 3

Attachment 2: EUT Detail Photographs Number of Pages : 4