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<i>Test Report No.:</i>					
Auftraggeber: <i>Client:</i>	Philips Consumer Lifestyle 3029 East Governor John Sevier Hwy. Knoxville, Tennessee, 37914, United States				
Gegenstand der Prüfung: CAR INFOTAINMENT SYSTEM <i>Test item:</i>					
Bezeichnung: <i>Identification:</i>	CID2680	FCC ID: <i>FCC ID</i>	BOUCID2680		
Wareneingangs-Nr.: <i>Receipt No.:</i>	173051229	Eingangsdatum: <i>Date of receipt:</i>	15.Mar.2010		
Prüfart: <i>Testing location:</i>	TÜV Rheinland (Guangdong) Ltd. EMC Laboratory Guangzhou Auto Market, Yuan Gang Section of Guangshan Road, Guangzhou 510650, P. R. China		Listed test laboratory according to FCC rules section 2.948 for measuring devices under Parts 15		
Prüfgrundlage: <i>Test specification:</i>	ANSI C63.4: 2003 FCC Part 15: July 10, 2008 Subpart C section 15.207, 15.209 and 15.247				
Prüfresultat: <i>Test Result:</i>	Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n). <i>The test item passed the test specification(s).</i>				
Prüflaboratorium: <i>Testing Laboratory:</i>	TÜV Rheinland (Guangdong) Ltd.				
geprüft/ tested by:		kontrolliert/ reviewed by:			
06.Apr.2010	Frank Du Project Engineer	27. Apr 2010	Ricky Liu Project Manager		
<i>Datum</i> <i>Date</i>	<i>Name/Stellung</i> <i>Name/Position</i>	<i>Unterschrift</i> <i>Signature</i>	<i>Datum</i> <i>Date</i>		
		<i>Unterschrift</i> <i>Signature</i>	<i>Name/Stellung</i> <i>Name/Position</i>		
			<i>Unterschrift</i> <i>Signature</i>		
Sonstiges/ Other Aspects:					
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> Abkürzungen: P(ass) = entspricht Prüfgrundlage F(ail) = entspricht nicht Prüfgrundlage N/A = nicht anwendbar N/T = nicht getestet </td> <td style="width: 50%; vertical-align: top;"> Abbreviations: P(ass) = passed F(ail) = failed N/A = not applicable N/T = not tested </td> </tr> </table>				Abkürzungen: P(ass) = entspricht Prüfgrundlage F(ail) = entspricht nicht Prüfgrundlage N/A = nicht anwendbar N/T = nicht getestet	Abbreviations: P(ass) = passed F(ail) = failed N/A = not applicable N/T = not tested
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Test Summary

FCC Rules		Test items	Result
Paragraph	Released Date		
Part 15 Per Section 15.209(a)	July 10, 2008	Radiated Spurious Emission	Pass
Part 15 Per Section 15.203	July 10, 2008	Antenna requirement	Pass
Part 15 Per Section 15.247(b)(1)	July 10, 2008	Maximum Peak Output power	Pass
Part 15 Per Section 15.247(a)(1)	July 10, 2008	20dB Bandwidth	Pass
Part 15 Per Section 15.247(a)(1)	July 10, 2008	Hopping Channel Carrier Frequency Separation	Pass
Part 15 Per Section 15.247(a)(1)(iii)	July 10, 2008	Number of Hopping Frequency Used	Pass
Part 15 Per Section 15.247(a)(1)(iii)	July 10, 2008	Time of Occupancy (Dwell Time)	Pass
Part 15 Per Section 15.247(d)	July 10, 2008	Out-Of-Band Emission measurement	Pass

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1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix 1: Test result

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Guangdong) Ltd. EMC Laboratory

Guangzhou Auto Market, Yuan Gang Section of Guangshan Road
Guangzhou 510650

P. R. China

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Kind of Equipment	Type	Manufacturer	S/N	Calibrated until	Calibrated Interval
EMI Test Receiver	ESCI-3	Rohde & Schwarz	100216	26.Nov.2010	1 year
Spectrum Analyzer	FSP30	Rohde & Schwarz	100286	27.Aug.2010	1 year
Trilog-Broadband Antenna	VULB9168 (30MHz-1GHz)	SCHWARZBECK MESSELEKTRONIK	209	07.Nov.2010	2 years
Double-Ridged Waveguide Horn Antenna	HF906 (1-18GHz)	Rohde & Schwarz	100385	18.Jul.2010	2 years
Pre-amplifier	AFS42-00101800- 25-S-42	MITEQ	1101599	31.Jul.2010	2 years
Band Reject Filter	BRM50702	Micro-Tronics	023	14.Mar.2011	2 years
Standard Gain Horn Antenna	3160-09 (18-26.5GHz)	EMCO	21642	26.Jun.2014	5 years
Pre-amplifier	AFS33-18002650- 30-8P-44	MITEQ	1108282	31.Jul.2010	2 years
3m Anechoic Chamber	N/A	Albatross Project GmbH	N/A	10.Feb.2011	1 year
Loop Antenna	HFH2-Z2 (<30MHz)	Rohde & Schwarz	100111	26.Nov.2010	2 years
EMI Test Receiver	ESCS30	Rohde & Schwarz	100316	27.Mar.2011	1 year
Two-Line V-Network	ESH3-Z5	Rohde & Schwarz	100308	27.Mar.2011	1 year
Pulse Limiter	ESH3-Z2	Rohde & Schwarz	100701	27.Mar.2011	1 year

2.3 Traceability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, to equivalent nationally recognized standards organizations.

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2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

Uncertainty for conducted emissions measurements is $\pm 2.68\text{dB}$.

Uncertainty for radiated emissions measurements is $\pm 4.94\text{dB}$ (30M-1GHz) and $\pm 4.88\text{dB}$ (> 1GHz)

The reported expanded uncertainty is based on a standard uncertainty multiply by a coverage factor $k=2$, providing a level of confidence of approximately 95%.

2.6 Location of original data

The original copies of test data taken during actual testing were attached at Appendix 1 of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Guangdong) file for certification follow-up purposes.

2.7 Status of facility used for testing

TÜV Rheinland (Guangdong) Ltd. EMC Laboratory; Guangzhou Auto Market, Yuan Gang Section of Guangshan Road, Guangzhou 510650, P. R. China is listed on the US Federal Communications Commission list of facilities approved to perform measurements, the register no. 833845

3 General Product Information

The EUT is a DVD Player/Tuner and built-in Bluetooth for vehicular use.

For details, refer to technical document and the user manual.

3.1 Product Function and Intended Use

Refer to the Technical Documentation and user manual.

3.2 Ratings and System Details

Frequency range	:	2402.0MHz – 2480.0MHz (unlicensed ISM band)
Number of employed channels	:	79 channels
Total Number of channels	:	79 channels
Modulation Type	:	Frequency Hopping Spread Spectrum (Bluetooth V2.0 Class II product)
Type of antenna	:	Integral antenna
Power supply	:	12V DC (the EUT is powered by vehicle power system)
Ports	:	Vehicle ISO connectors (Refer to user manual for detail information)
Protection Class	:	III

Refer to the Technical Documentation for further information

3.3 Independent Operation Modes

Off

On:

1. Audio/Video play
2. Bluetooth connection with mobile phones.

The basic operation modes for the Bluetooth Function:
Operating: Transmitting and receiving

For further information refer to User Manual

3.4 Submitted Documents

Block Diagram

Schematics

Operation Description

Components List

FCC label and location

User Manual

Internal Photos

External Photos

Application form

4 Test Set-up and Operation Mode

4.1 Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Refer to test set-up in chapter 5.

4.3 Special Accessories and Auxiliary Equipment

The products have been tested together with the following device:

Device	Manufacture	Model	Serial no./ Version
Laptop notebook	IBM R40e	2684	99-CYY55
Bluetooth test Software	CSR	BlueTest	1.24

4.4 Countermeasures to achieve EMC Compliance

The test sample, which has been tested, contained the noise suppression parts as described in the technical document. No additional measures were employed to achieve compliance.

4.5 Test set-up

Diagram 1 of Configuration for Testing hopping channel Separation, channel bandwidth, number of hopping frequency used, output power measurement, out-of-band conducted emission measurement and peak power spectral density measurement

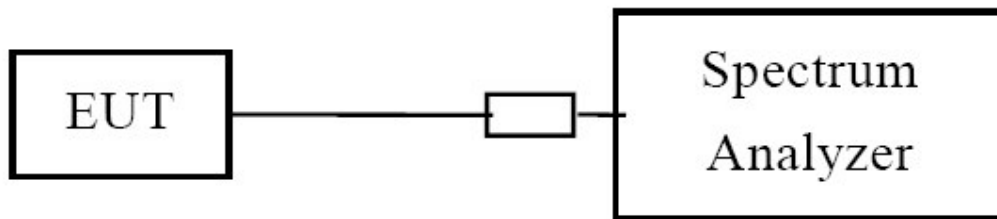


Diagram 2 of Configuration for Testing Radiated Emission below 1 GHz

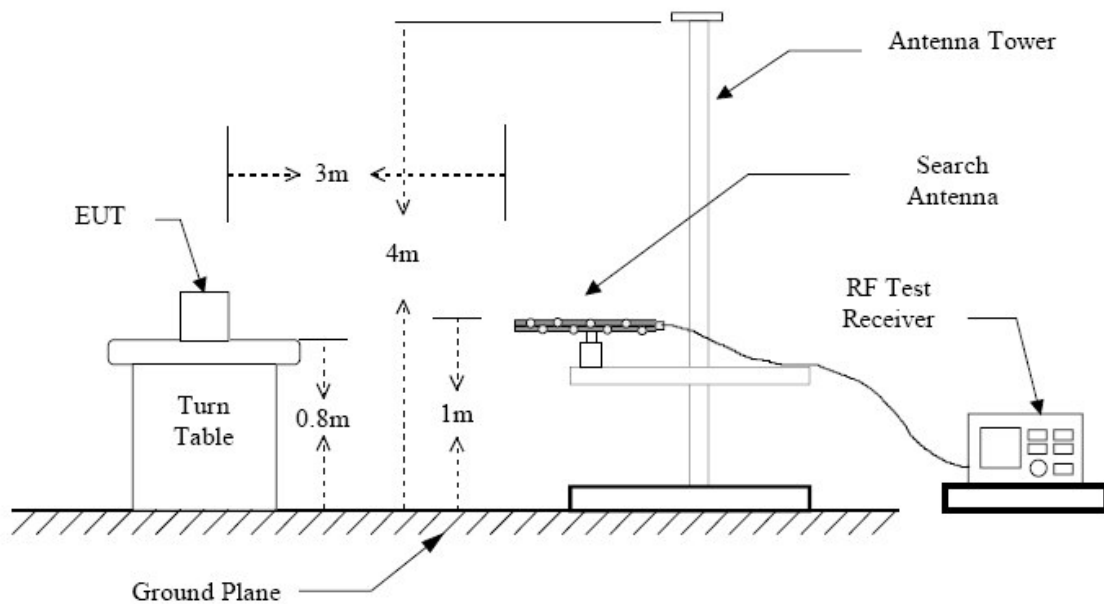


Diagram 3 of Configuration for Testing Radiated Emission above 1 GHz

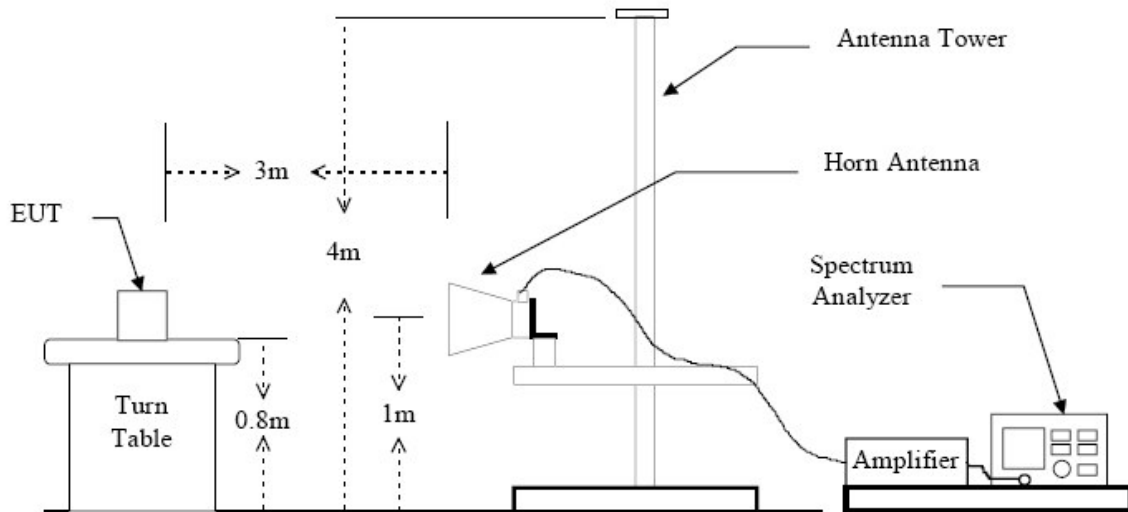
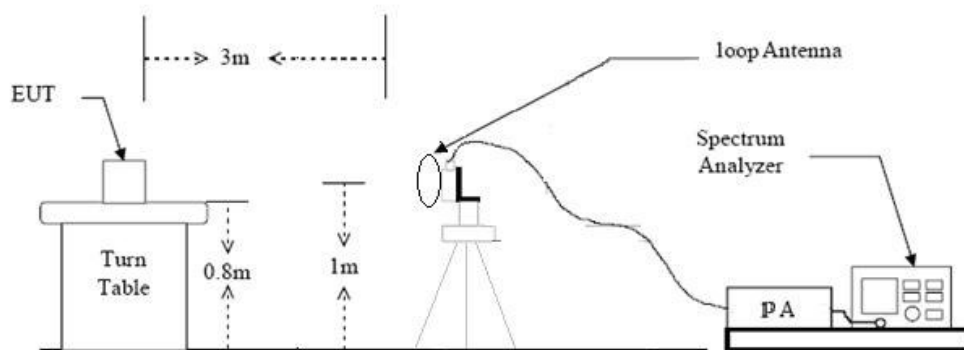


Diagram 4 of Configuration for Testing Radiated Emission below 30MHz



5 Test Results EMISSION

5.1 Radiated Spurious Emission

RESULT:

Pass

Date of testing	:	Mar.18.2010
Test specification	:	FCC Part 15 Per Section 15.247(a)
Limits	:	FCC Part 15 Per Section 15.209(a)
Deviations from Standard Test procedures	:	None
Kind of test site	:	3m Semi-anechoic chamber
Frequency range	:	30MHz to 25GHz
Operation mode	:	Continuously transmitting (channel low, mid, high)
Power supply	:	DC 12V
Temperature	:	22°C
Humidity	:	50%

Test procedure:

1. The EUT was placed on the top of a rotatable table 0.8 meters above the ground with 3-orthogonal direction and be kept close enough to the receiving antenna. The table was rotated 360 degrees to determine the suspected emission frequency and the position of the worst radiation case with both horizontal and vertical antenna polarization.

2. The EUT was then set 3 meters away from the receiving antenna, which was mounted on a variable-height antenna tower.

3. For each suspected emission frequency recorded in step 1, the EUT was arranged to its worst case and:

for tests below 30MHz the loop antenna is positioned with its plane vertical and the center of it is 1m above the ground. During the tests it is rotated about its vertical axis for maximum response at each azimuth about the EUT;

for tests above 30MHz the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to read the maximum emission.

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Note:

While testing, the EUT is connected with a serial port bridge board for test mode setup. The length of the communication cable between the EUT and the bridge board, which including Tx, Rx, GND serial pins, is minimized to reduce the unwanted influence to test result. The bridge board can be connected to a host computer with standard DB9 com port cable for running of the test setup software. After setup successfully, the EUT can keep the test mode with the host computer and the cable removed.

Table 2: Radiated Emission (Transmitting at channel low)

Frequency [MHz]	QP [dB μ V/m]	AV [dB μ V/m]	Polarity (H/V)	Limit [dB μ V/m]
162.400	35.1	--	H	43.5
240.000	41.6	--	H	46
338.200	41.9	--	H	46
338.200	32.0	--	V	46
430.550	35.6	--	V	46
676.550	40.3	--	V	46

Frequency [MHz]	PK [dB μ V/m]	AV [dB μ V/m]	Polarity (H/V)	PK Limit [dB μ V/m]	AV limit [dB μ V/m]
4804.000	42.8	30.2	H	74	54
9476.500	48.4	34.6	H	74	54
22762.500	57.2	44.2	H	74	54
24236.000	55.0	42.5	H	74	54
1601.500	42.0	37.1	V	74	54
9538.000	49.4	35.0	V	74	54
22713.500	57.2	44.1	V	74	54
24248.500	55.6	42.5	V	74	54

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Table 3: Radiated Emission (Transmitting at channel mid)

Frequency [MHz]	QP [dB μ V/m]	AV [dB μ V/m]	Polarity (H/V)	Limit [dB μ V/m]
240.000	40.6	--	H	46
288.000	39.7	--	H	46
338.200	41.5	--	H	46
337.500	32.0	--	V	46
430.550	35.8	--	V	46
676.550	36.3	--	V	46

Frequency [MHz]	PK [dB μ V/m]	AV [dB μ V/m]	Polarity (H/V)	PK Limit [dB μ V/m]	AV limit [dB μ V/m]
4882.000	44.3	31.3	H	74	54
9585.000	48.7	34.5	H	74	54
22790.500	56.9	44.2	H	74	54
24238.500	55.1	42.6	H	74	54
4882.000	42.1	30.5	V	74	54
9546.500	48.7	35.0	V	74	54
22761.000	56.5	44.3	V	74	54
24259.000	55.1	42.6	V	74	54

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Table 4: Radiated Emission (Transmitting at channel high)

Frequency [MHz]	QP [dB μ V/m]	AV [dB μ V/m]	Polarity (H/V)	Limit [dB μ V/m]
162.650	38.9	--	H	43.5
240.000	41.5	--	H	46
288.000	40.2	--	H	46
408.050	37.8	--	H	46
170.300	29.8	--	V	43.5
337.500	30.1	--	V	46
492.050	33.1	--	V	46
676.600	39.5	--	V	46

Frequency [MHz]	PK [dB μ V/m]	AV [dB μ V/m]	Polarity (H/V)	PK Limit [dB μ V/m]	AV limit [dB μ V/m]
4960.000	44.3	31.6	H	74	54
9536.000	48.6	35.1	H	74	54
22787.000	56.6	44.3	H	74	54
24259.000	56.2	42.7	H	74	54
4960.000	45.9	31.7	V	74	54
9920.500	48.8	35.0	V	74	54
22765.000	56.7	44.3	V	74	54
24266.500	54.9	42.6	V	74	54

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5.2 Antenna requirement

RESULT:

Pass

Date of testing : ---
Test specification : FCC Part 15 Per Section 15.203
FCC Part 15 Per Section 15.247(b)

For intentional device, according to 15.203, and intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to 15.247(b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by amount in dB than the directional gain of the antenna exceeds of 6dBi.

As the antenna is permanently mounted on RF Board, there is no consideration of replacement.

And the max gain of the antenna is 0dBi.

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5.3 Maximum Peak Output Power

RESULT:

Pass

Date of testing : Mar. 23, 2010
 Test specification : FCC Part 15 Per Section 15.247(b)(1)
 Limits : FCC Part 15 Per Section 15.247(b)(1)
 For frequency hopping systems operating in 2400-2483.5MHz band employing at least 75 hopping channels, and all frequency hopping systems in the 5725-5850MHz band: 1watt. Fore all other frequency hopping systems in the 2400-2483.5MHz band: 0.125watts.

Deviations from Standard Test procedures :

None

Test procedure :

1. Connect the antenna port of the EUT to the spectrum analyzer by a low lost cable.
2. Set the EUT to proper test mode with relative test software and hardware.
3. Spectrum analyzer setting: Centered Frequency= measured channel, RBW=1MHz, VBW≥RBW.
4. Mark the peak power output frequency and record the max reading.
5. Repeat step 2 to 4 until all the channels measured are finished.

Kind of test site :

Shielded room

Operation mode :

Continuously transmitting on the measured channel.

Power supply :

DC 12V

Temperature :

22°C

Humidity :

50%

Table 5: Peak Conducted Power

Channel	Frequency (MHz)	Power Reading(dBm)	Cable Loss (dB)	Output Power		Limit (W) *
				(dBm)	(mW)	
Low	2402.0	-0.896	0.4	-0.496	0.892	1
Mid	2441.0	-2.474	0.4	-2.074	0.620	1
High	2480.0	-3.672	0.4	-3.272	0.471	1

*Note: Refer to the test result of "Number of Hopping Channel Used" for the non-overlap channel number.

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5.4 20dB Bandwidth

RESULT:

Pass

Date of testing : Mar. 23, 2010
Test specification : FCC Part 15 Per Section 15.247(a)(1)
Deviations from Standard Test procedures : None
Test procedure :
1. Connect the antenna port of the EUT to the spectrum analyzer by a low lost cable.
2. Set the EUT to proper test mode with relative test software and hardware.
3. Spectrum analyzer setting: Centered Frequency= measured channel, RBW=10kHz, VBW=30kHz.
4. Mark the peak power frequency point and the -20dB upper and lower frequency points.
5. Read the frequency delta value between the -20dB upper and lower frequency points.
6. Repeat step 2 to 5 until all the channels required are finished.
Operation mode : Continuously transmitting on the measured channel.
Kind of test site : Shielded room
Power supply : DC 12V
Temperature : 22°C
Humidity : 50%

Table 6: 20dB Bandwidth

Channel	Frequency (GHz)	Test Result (kHz)
Low	2402.0	750.0
Mid	2441.0	735.0
High	2480.0	832.5

Please refer to Appendix 1 for measurement data.

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5.5 Hopping Channel Carrier Frequency Separation

RESULT:

Pass

Date of testing	:	Mar. 23, 2010
Test specification	:	FCC Part 15 Per Section 15.247(a)(1)
Limits	:	FCC Part 15 Per Section 15.247(a)(1) Frequency hopping system shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20dB bandwidth of the hopping channel, whichever is greater
Deviations from Standard Test procedures	:	None
Test procedure	:	<ol style="list-style-type: none">1. Connect the antenna port of the EUT to the spectrum analyzer by a low loss cable.2. Set the EUT to proper test mode with relative test software and hardware.3. Spectrum analyzer setting: Centered Frequency = measured channel, RBW = 100kHz, VBW = 100kHz, Frequency Span = wide enough to cover the adjacent channel.4. Mark the peak power frequency point of the measured channel and its adjacent channel(s)5. Read the frequency delta value between the measured channel and its adjacent channel(s)6. Repeat step 3 to 5 until all the channels measured are finished.
Kind of test site	:	Shielded room
Operation mode	:	Transmitting with hopping function enabled
Power supply	:	DC 12V
Temperature	:	22°C
Humidity	:	50%

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Table 7: Hopping Channel Carrier Frequency Separation

Channel	Adjacent Hopping channel separation (kHz)	Limit
Low	997.5	At least 25kHz or tow-thirds of the 20dB bandwidth of the hopping channel, whichever is greater. Note: refer to table 6 for the value of 20dB bandwidth
Mid	997.5	
High	1005	

Please refer to Appendix 1 for measurement data.

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5.6 Number of Hopping Frequency Used

RESULT:

Pass

Date of testing : Mar. 23, 2010
 Test specification : FCC Part 15 Per Section 15.247(a)(1)(iii)
 Limits : FCC Part 15 Per Section 15.247(a)(1)(iii)
 Frequency hopping system in the 2400-2483.5 MHz band shall use at least 15 non-overlapping channels

Deviations from Standard Test procedures : None
 Test procedure : 1. Connect the antenna port of the EUT to the spectrum analyzer by a low loss cable.
 2. Set the EUT to proper test mode with relative test software and hardware.
 3. Spectrum analyzer setting: RBW = 300kHz, VBW≥RBW, Frequency Span = wide enough to cover the channels to be plotted.
 4. Set the spectrum analyzer to Max-hold mode and plot the result(s) with record of all hopping channel.

Kind of test site : Shielded room
 Operation mode : Transmitting with hopping function enabled
 Power supply : DC 12V
 Temperature : 22°C
 Humidity : 50%

Table 8: Number of hopping frequency

Number of hopping frequency:	79
Limit:	At least 15 non-overlapping channels

Please refer to Appendix 1 for measurement data.

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5.7 Time of Occupancy (Dwell Time)

RESULT:

Pass

Date of testing	:	Mar. 23, 2010
Test specification	:	FCC Part 15 Per Section 15.247(a)(1)(iii)
Limits	:	FCC Part 15 Per Section 15.247(a)(1)(iii) For frequency hopping system operating in the 2400-2483.5MHz band, 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.
Deviations from Standard Test procedures	:	None
Test Procedure	:	1. Connect the antenna port of the EUT to the spectrum analyzer by a low loss cable. 2. Set the EUT to proper test mode with relative test software and hardware. 3. Spectrum analyzer setting: Centered Frequency = measured channel, RBW = 1MHz, VBW ≥ RBW, Frequency Span = 0. 4. Set sweep time properly to capture the entire dwell time per hopping channel. 5. Set detector type to Peak and trace mode to Max Hold and make the measurement. 6. Repeat step 3-5 until all channels measured were complete.
Kind of test site	:	Shielded room
Operation mode	:	Frequency hopping with Max. Dwell time (DH5 mode)
Power supply	:	DC 12V
Temperature	:	22°C
Humidity	:	50%

Period = 0.4 (seconds) x 79 (channels) = 31.6 seconds

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Table 9: Dwell Time (DH5 mode)

channel	Frequency (GHz)	Dwell time of one signal Burst (ms)	Total Dwell Time (ms)	Limit (ms)
Low	2.402	3.122	$(3.122 \times 106.81) = 333.46$	≤ 400
Mid	2.441	3.122	$(3.122 \times 106.81) = 333.46$	≤ 400
High	2.480	3.307	$(3.037 \times 106.81) = 324.38$	≤ 400

Note:

For Bluetooth system, there are 1600 timeslots in one second. The DH5 mode operates on a 5-slot transmission and 1-slot receiving basis. Thus there are $1600 / (5+1) = 266.7$ transmission per second. In one period for each particular channel there are $(266.7/79) \times 31.6 = 106.81$ times of transmission.

Dwell Time in one period(ms) = Dwell time of one-slot transmission(ms) multiplexes 106.81

5.8 Out-of-Band Emission

RESULT:

Pass

Date of testing : Mar. 23, 2010
Test specification : FCC Part 15 Per Section 15.247(d)
Limits : FCC Part 15 Per Section 15.247(d)

In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency 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 the desired power, based on either an RF conducted or a radiated measurement.

In addition, radiated emission 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).

Deviations from Standard Test procedures :

None

Test Procedure :

1. Connect the antenna port of the EUT to the spectrum analyzer by a low lost cable.
2. Set the EUT to proper test mode with relative test software and hardware.
3. Spectrum analyzer setting: RBW = 100kHz, VBW≥RBW.
4. Set the proper frequency span respectively for out-of-band emission measurement of the band edge and the whole range (up to 10 times of the carrier frequency.)
5. Set the trace mode to Max Hold and mark the peak reading of any spurious emission recorded.

Kind of test site :
Operation mode :

Shielded room
Transmitting at the highest and lowest channel (band edge)
Transmitting at low, middle and high channel (whole rang)

Power supply :
Temperature :
Humidity :

DC 12V
22°C
50%

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Table 10: Band Edges Emission

Emission	Attenuation (dB)	Limit (dB)
Lower Band Edge	All emission in this 100kHz bandwidth are attenuated more than 20dB from the carrier	≥ 20
Upper Band Edge	All emission in this 100kHz bandwidth are attenuated more than 20dB from the carrier	≥ 20

Table 11: Out-Of-Band Emission measurement (conducted)

Emission (Carrier operating at Channel low, mid and high)	Attenuation	Limit (dB)
30MHz to 25GHz	All emission in this 100kHz bandwidth are attenuated more than 20dB from the carrier	≥ 20

Table 12: Band Edges Emission in the Restricted Bands 2310-2390MHz and 2483.5-2500MHz

Restricted band	Frequency [MHz]	dBc	PK [dBμV/m]	Polar ity (H/V)	PK limit [dBμV/m]	AV limit [dBμV/m]
Low band	2386.0	54.04	30.65	V	74	54
High band	2484.5	51.61	28.77	V	74	54

NOTE:

1. The Peak carrier field strength of the highest/lowest channel is 80.38dBuV/m, 84.69dBuV/m.
The above field strength levels were measured in vertical polarity which is the worst case.
2. The dBc value between the carrier maximum power and band edge emission power of the frequency listed in the table is calculated from the test record showed in Appendix 1.
3. Peak value of the low band edge emission listed in the table is calculated by the below formula:
PK value of band edge emission = Peak carrier field strength – dBc value in item2

Please refer to Appendix 1 for measurement data.

6 Photographs of the Test Set-Up

Photograph 1: Set-up for Radiation Measurement below 1GHz



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Photograph 2: Set-up for Radiation Measurement 1-18GHz

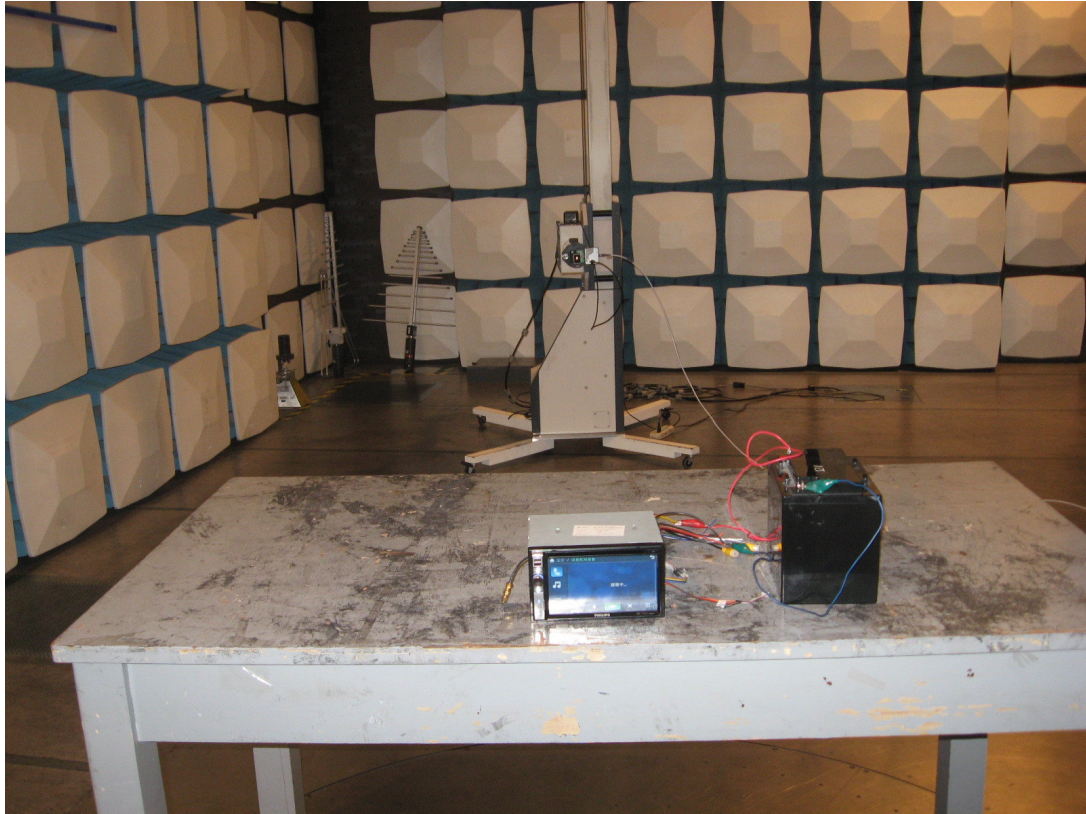


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Photograph 3: Set-up for Radiation Measurement 18-25GHz



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