APPLICATION CERTIFICATION FCC Part 15C

On Behalf of Nicetex Electronics Ltd.

Wireless Dock for iPod Model No.: IS301

FCC ID: OYNIS301T

Prepared for : Nicetex Electronics Ltd.

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Pak Tin Par Street, Tsuen Wan, Hong Kong

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Report Number : ATE20082470

Date of Test : December 31, 2008 - January 5, 2009

Date of Report : January 5, 2009

TABLE OF CONTENTS

Description	Page
-------------	------

Test Report (Certification
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1.	\mathbf{C}	ENERAL INFORMATION	5
1.		Description of Device (EUT)	
	1.1. 1.2.		
	1.2.	Description of Test Facility	
2		•	
2.		IEASURING DEVICE AND TEST EQUIPMENT	
3.		PERATION OF EUT DURING TESTING	
	3.1.	Operating Mode	
	3.2.	Configuration and peripherals	
4.	\mathbf{T}	EST PROCEDURES AND RESULTS	9
5.	20	DDB BANDWIDTH TEST	
	5.1.	Block Diagram of Test Setup	10
	5.2.	The Requirement For Section 15.247(a)(1)	
	5.3.	EUT Configuration on Measurement	
	5.4.	Operating Condition of EUT	10
	5.5.	Test Procedure	11
	5.6.	Test Result	11
6.	\mathbf{C}	ARRIER FREQUENCY SEPARATION TEST	15
	6.1.	Block Diagram of Test Setup	
	6.2.	The Requirement For Section 15.247(a)(1)	
	6.3.	EUT Configuration on Measurement	
	6.4.	Operating Condition of EUT	
	6.5.	Test Procedure	16
	6.6.	Test Result	16
7.	N	UMBER OF HOPPING FREQUENCY TEST	20
	7.1.	Block Diagram of Test Setup	
	7.2.	The Requirement For Section 15.247(a)(1)(iii)	
	7.3.	EUT Configuration on Measurement	
	7.4.	Operating Condition of EUT	20
	7.5.	Test Procedure	21
	7.6.	Test Result	21
8.	D	WELL TIME TEST	25
	8.1.	Block Diagram of Test Setup	25
	8.2.	The Requirement For Section 15.247(a)(1)(iii)	25
	8.3.	EUT Configuration on Measurement	25
	8.4.	Operating Condition of EUT	
	8.5.	Test Procedure	
	8.6.	Test Result	26
9.	M	IAXIMUM PEAK OUTPUT POWER TEST	30
	9.1.	Block Diagram of Test Setup	30
	9.2.	The Requirement For Section 15.247(b)(1)	30
	9.3.	EUT Configuration on Measurement	30
	9.4.	Operating Condition of EUT	
	9.5.	Test Procedure	31

9.6.	Test Result	31
10. B	AND EDGE COMPLIANCE TEST	35
10.1.	Block Diagram of Test Setup	35
10.2.		35
10.3.		
10.4.	. Operating Condition of EUT	36
10.5.	. Test Procedure	36
10.6.	. Test Result	37
11. R	ADIATED SPURIOUS EMISSION TEST	42
11.1.	. Block Diagram of Test Setup	42
11.2.		43
11.3.	. Restricted bands of operation	44
11.4.		
11.5.	Test Procedure	45
11.6.	. The Field Strength of Radiation Emission Measurement Results	46
12. A	NTENNA REQUIREMENT	
12.1.	. The Requirement	67
12.2.		

Test Report Certification

Applicant : Nicetex Electronics Ltd.

Manufacturer : Mei Hua Electronics (Hui Zhou) Limited

EUT Description : Wireless Dock for iPod

(A) MODEL NO.: IS301(B) SERIAL NO.: N/A

(C) POWER SUPPLY: DC 5V (Power supplied by iPod)

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.247 ANSI C63.4: 2003

The device described above is tested by ACCURATE TECHNOLOGY CO. LTD to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section 15.247 limits. The measurement results are contained in this test report and ACCURATE TECHNOLOGY CO. LTD is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of ACCURATE TECHNOLOGY CO. LTD.

epared by:	December 31, 2008 - January 5, 2009	
Prepared by :	sky Long	
	(Engineer)	_
Approved & Authorized Signer:	Searle)	
	(Manager)	

1. GENERAL INFORMATION

1.1.Description of Device (EUT)

EUT : Wireless Dock for iPod

Model Number : IS301

Frequency Band : 2402MHz-2480MHz

Number of Channels : 79

Antenna Gain : 0dBi Max.

Power Supply : DC 5V (Power supplied by iPod)

PC System : Manufacturer: DELL

M/N: DCNE

Serial No.: 6CQSC2X

Printer : Manufacturer: Canon

Model No.: BJC-1000SP

iPod : Manufacturer: Apple

M/N: A1136

Serial No.: 2Z6500GBSZA

Applicant : Nicetex Electronics Ltd.

Address : Rm 22, 14/F, Block A, Hi-Tech Industrial Centre

5-21 Pak Tin Par Street, Tsuen Wan, Hong Kong

Manufacturer : Mei Hua Electronics (Hui Zhou) Limited

Address : Jinlong Road (Qingxi section), Longmen, Huizhou,

Guangdong, China

Date of sample received: December 22, 2008

Date of Test : December 31, 2008 - January 5, 2009

1.2.Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen

Listed by FCC

The Registration Number is 752051

Listed by Industry Canada

The Registration Number is 5077A-2

Accredited by China National Accreditation Committee

for Laboratories

The Certificate Registration Number is L3193

Name of Firm : ACCURATE TECHNOLOGY CO. LTD

Site Location : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.

Science & Industry Park, Nanshan, Shenzhen, Guangdong

P.R. China

1.3. Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Radiated emission expanded uncertainty = 3.08dB, k=2

(9kHz-30MHz)

Radiated emission expanded uncertainty = 4.42dB, k=2

(30MHz-1000MHz)

Radiated emission expanded uncertainty = 4.06dB, k=2

(Above 1GHz)

2. MEASURING DEVICE AND TEST EQUIPMENT

Table 1: List of Test and Measurement Equipment

Kind of equipment	Manufacturer	Type	S/N	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	03.29.2009
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	03.29.2009
Spectrum Analyzer	Agilent	E7405A	MY45115511	03.29.2009
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	03.31.2009
Loop Antenna	Schwarzbeck	FMZB1516	1516131	03.28.2009
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	03.29.2009
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	12.19.2009
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	10.09.2009
LISN	Rohde&Schwarz	ESH3-Z5	100305	03.29.2009
LISN	Schwarzbeck	NSLK8126	8126431	03.29.2009

3. OPERATION OF EUT DURING TESTING

3.1. Operating Mode

The mode is used: Transmitting mode

Low Channel: 2402MHz Middle Channel: 2441MHz High Channel: 2480MHz

Hopping

3.2. Configuration and peripherals

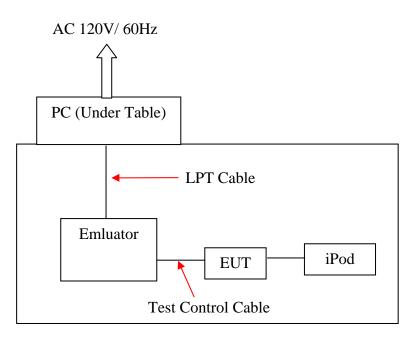


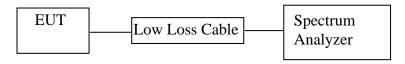
Figure 1 Setup: Transmitting mode

4. TEST PROCEDURES AND RESULTS

FCC Rules	Description of Test	Result
Section 15.247(a)(1)	20dB Bandwidth Test	Compliant
Section 15.247(a)(1)	Carrier Frequency Separation Test	Compliant
Section 15.247(a)(1)(iii)	Number Of Hopping Frequency Test	Compliant
Section 15.247(a)(1)(iii)	Dwell Time Test	Compliant
Section 15.247(b)(1)	Maximum Peak Output Power Test	Compliant
Section 15.247(d)	Band Edge Compliance Test	Compliant
Section 15.247(d) Section 15.209	Radiated Spurious Emission Test	Compliant
Section 15.203	Antenna Requirement	Compliant

5. 20DB BANDWIDTH TEST

5.1.Block Diagram of Test Setup



(EUT: Wireless Dock for iPod)

5.2. The Requirement For Section 15.247(a)(1)

Section 15.247(a)(1): 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.

5.3.EUT Configuration on Measurement

The following equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

5.3.1. Wireless Dock for iPod (EUT)

Model Number : IS301 Serial Number : N/A

Manufacturer : Mei Hua Electronics (Hui Zhou) Limited

5.4. Operating Condition of EUT

- 5.4.1. Setup the EUT and simulator as shown as Section 5.1.
- 5.4.2. Turn on the power of all equipment.
- 5.4.3.Let the EUT work in TX(Hopping off) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, 2480MHz TX frequency to transmit.

5.5.Test Procedure

- 5.5.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 5.5.2.Set RBW of spectrum analyzer to 30kHz and VBW to 100kHz.
- 5.5.3. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

5.6.Test Result

PASS.

Date of Test: January 4, 2009

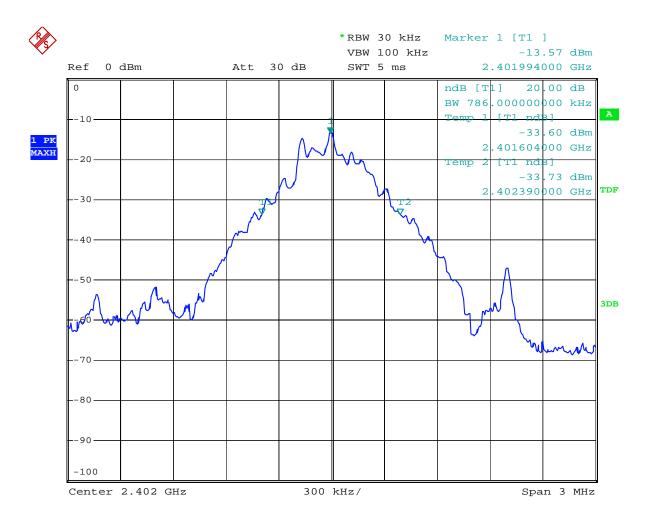
EUT: Wireless Dock for iPod Humidity: 48%

Model No.: IS301 Power Supply: DC 5V (Power supplied by iPod)

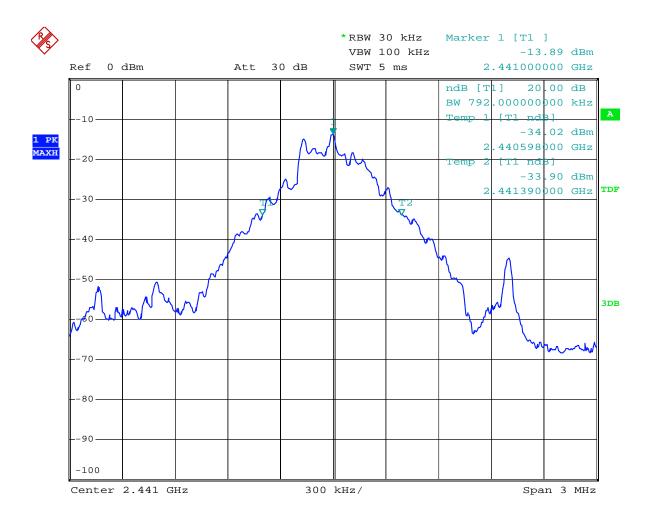
Test Mode: TX Test Engineer: Joe

Channel	Frequency (MHz)	20dB Bandwidth (MHz)	Limit (MHz)
Low	2402	0.786	
Middle	2441	0.792	
High	2480	0.792	

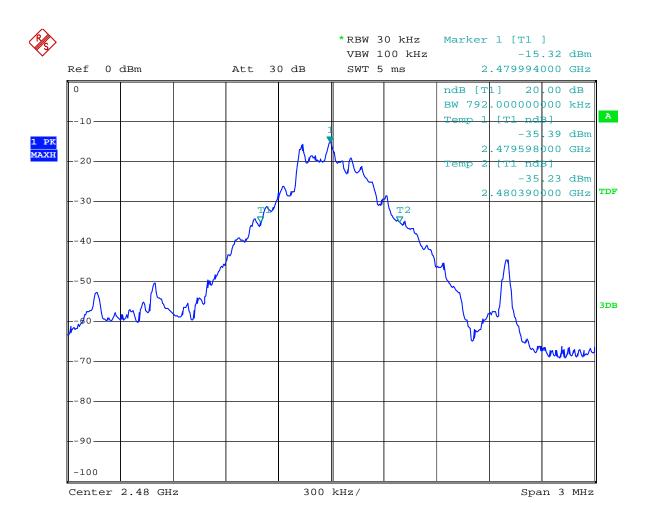
The spectrum analyzer plots are attached as below.



Date: 4.JAN.2009 17:28:52



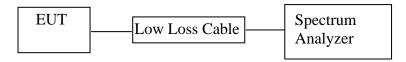
Date: 4.JAN.2009 17:27:42



Date: 4.JAN.2009 17:26:39

6. CARRIER FREQUENCY SEPARATION TEST

6.1.Block Diagram of Test Setup



(EUT: Wireless Dock for iPod)

6.2. The Requirement For Section 15.247(a)(1)

Section 15.247(a)(1): 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. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are 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.

6.3.EUT Configuration on Measurement

The following equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

6.3.1. Wireless Dock for iPod (EUT)

Model Number : IS301 Serial Number : N/A

Manufacturer : Mei Hua Electronics (Hui Zhou) Limited

6.4. Operating Condition of EUT

- 6.4.1. Setup the EUT and simulator as shown as Section 6.1.
- 6.4.2. Turn on the power of all equipment.
- 6.4.3.Let the EUT work in TX (Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, 2480MHz TX frequency to transmit.

6.5.Test Procedure

- 6.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 6.5.2.Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz. Adjust Span to 3 MHz.
- 6.5.3.Set the adjacent channel of the EUT maxhold another trace.
- 6.5.4. Measurement the channel separation

6.6.Test Result

PASS.

Date of Test: January 4, 2009 Temperature: 25°C

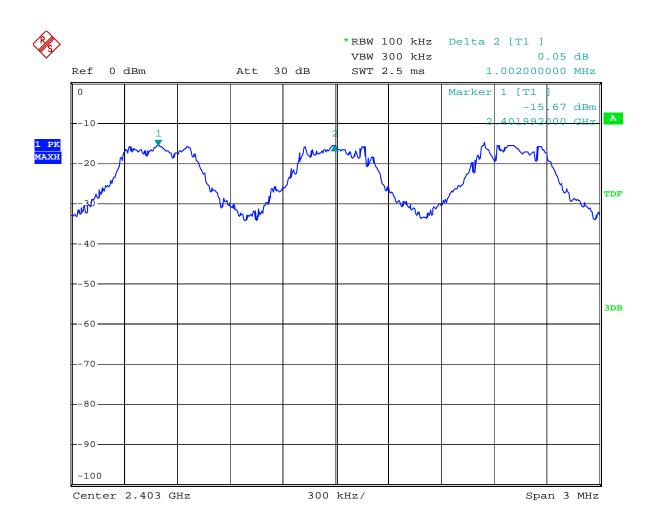
EUT: Wireless Dock for iPod Humidity: 48%

Model No.: IS301 Power Supply: DC 5V (Power supplied by iPod)

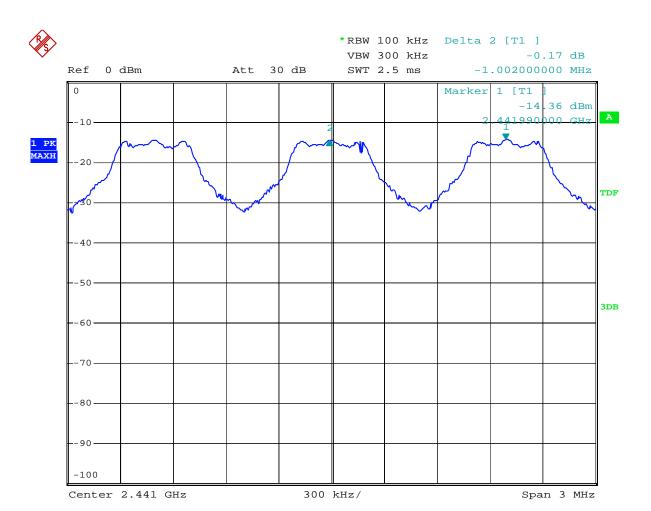
Test Mode: Hopping Test Engineer: Joe

	Channel Frequency	Channel separation	
Channel			Limit
	(MHz)	(MHz)	
Low	2402	1.002	> the 20dB Bandwidth or 25kHz
Low	2402	1.002	(whichever is greater)
Middle	2441	1.002	> the 20dB Bandwidth or 25kHz
Middle	2 44 1	1.002	(whichever is greater)
High	2490	1 002	> the 20dB Bandwidth or 25kHz
High	2480	1.002	(whichever is greater)

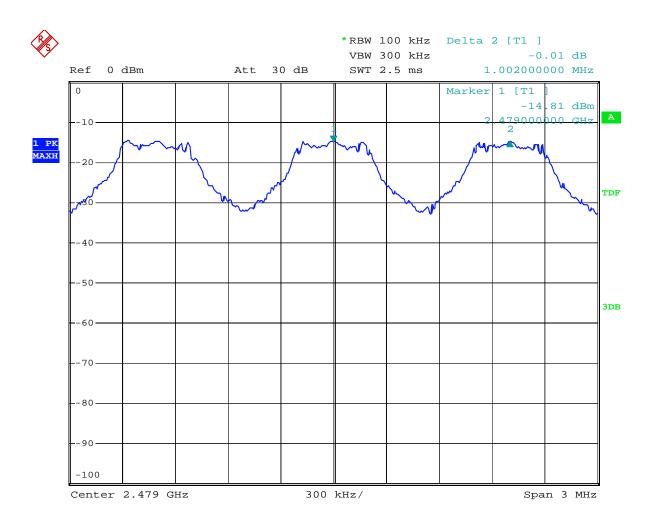
The spectrum analyzer plots are attached as below.



Date: 4.JAN.2009 17:47:25



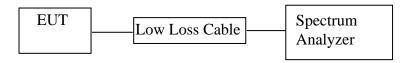
Date: 4.JAN.2009 17:51:26



Date: 4.JAN.2009 17:54:17

7. NUMBER OF HOPPING FREQUENCY TEST

7.1.Block Diagram of Test Setup



(EUT: Wireless Dock for iPod)

7.2. The Requirement For Section 15.247(a)(1)(iii)

Section 15.247(a)(1)(iii): Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

7.3.EUT Configuration on Measurement

The following equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

7.3.1. Wireless Dock for iPod (EUT)

Model Number : IS301 Serial Number : N/A

Manufacturer : Mei Hua Electronics (Hui Zhou) Limited

7.4. Operating Condition of EUT

- 7.4.1. Setup the EUT and simulator as shown as Section 7.1.
- 7.4.2. Turn on the power of all equipment.
- 7.4.3.Let the EUT work in TX (Hopping on) modes measure it.

7.5.Test Procedure

- 7.5.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 7.5.2.Set the spectrum analyzer as Span=30MHz, RBW=300kHz, VBW=300kHz.
- 7.5.3.Max hold, view and count how many channel in the band.

7.6.Test Result

PASS.

Date of Test: January 4, 2009 Temperature: 25°C

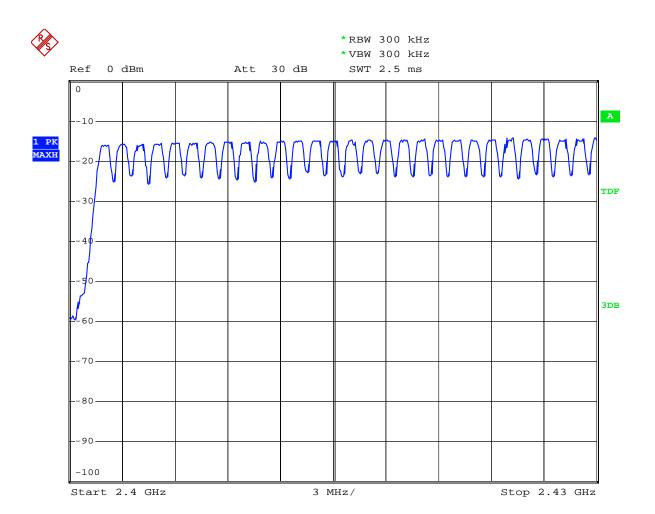
EUT: Wireless Dock for iPod Humidity: 48%

Model No.: IS301 Power Supply: DC 5V (Power supplied by iPod)

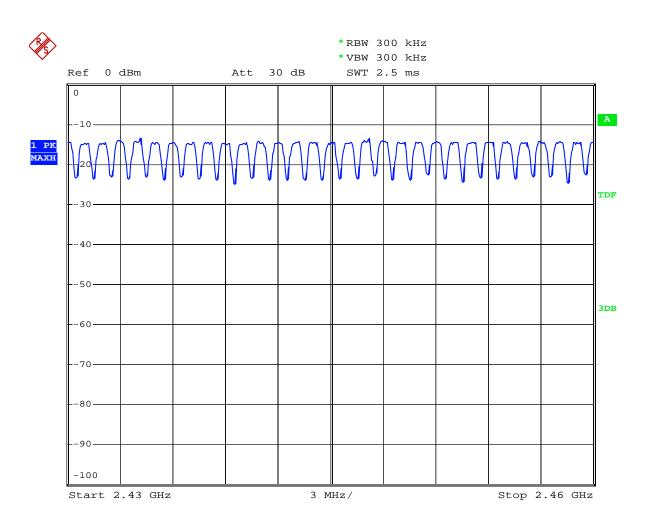
Test Mode: Hopping Test Engineer: Joe

Total number of	Measurement result (CH)	Limit (CH)
hopping channel	79	>15

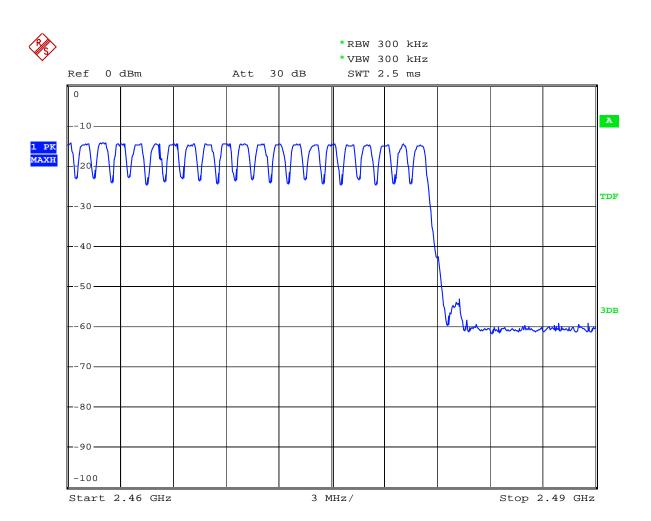
The spectrum analyzer plots are attached as below.



Date: 4.JAN.2009 17:41:32



Date: 4.JAN.2009 17:42:48



Date: 4.JAN.2009 17:44:21

8. DWELL TIME TEST

8.1.Block Diagram of Test Setup



(EUT: Wireless Dock for iPod)

8.2. The Requirement For Section 15.247(a)(1)(iii)

Section 15.247(a)(1)(iii): Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. 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. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

8.3.EUT Configuration on Measurement

The following equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

8.3.1. Wireless Dock for iPod (EUT)

Model Number : IS301 Serial Number : N/A

Manufacturer : Mei Hua Electronics (Hui Zhou) Limited

8.4. Operating Condition of EUT

- 8.4.1. Setup the EUT and simulator as shown as Section 8.1.
- 8.4.2. Turn on the power of all equipment.
- 8.4.3.Let the EUT work in TX (Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, 2480MHz TX frequency to transmit.

8.5.Test Procedure

- 8.5.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 8.5.2.Set center frequency of spectrum analyzer = operating frequency.
- 8.5.3.Set the spectrum analyzer as RBW=100kHz, VBW=300kHz, Span=0Hz, Adjust Sweep=1s. Get the burst (in 1 sec.).
- 8.5.4.Set the spectrum analyzer as RBW=1MHz, VBW=3MHz, Span=0Hz, Adjust Sweep=2ms. Get the pulse time.
- 8.5.5.Repeat above procedures until all frequency measured were complete.

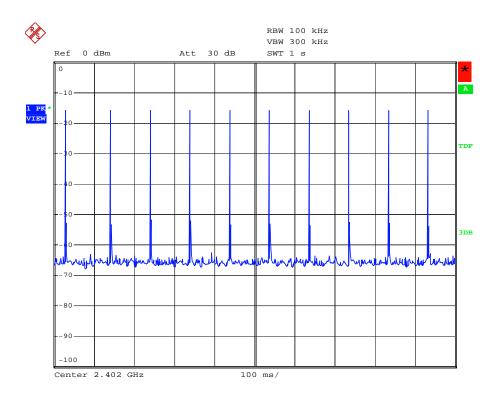
8.6.Test Result

PASS.

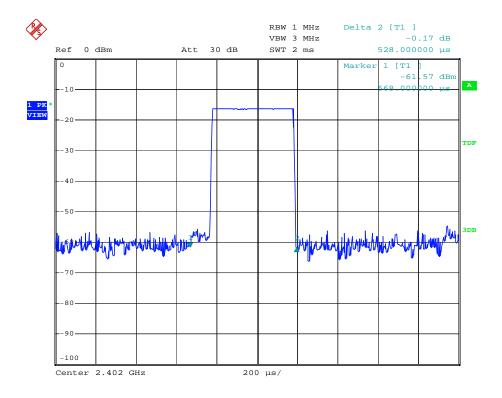
Date of Test:January 4, 2009Temperature:25°CEUT:Wireless Dock for iPodHumidity:48%Model No.:IS301Power Supply:DC 5V (Power supplied by iPod)Test Mode:HoppingTest Engineer:Joe

A period transmit time = $0.4 \times 79 = 31.6$					
Dwell time = p	ulse time × burst (in 1 se	ec.)×31.6			
Channel	Channel Frequency	Pulse Time	Burst	Dwell Time	Limit
	(MHz)	(ms)	(in 1 sec.)	(ms)	(ms)
Low	2402	0.528	10	166.85	400
Middle	2441	0.536	10	169.38	400
High	2480	0.536	10	169.38	400

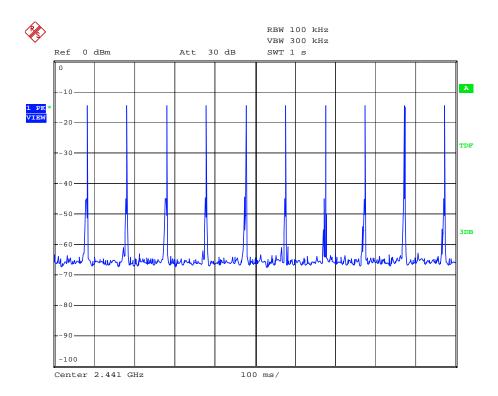
The spectrum analyzer plots are attached as below.



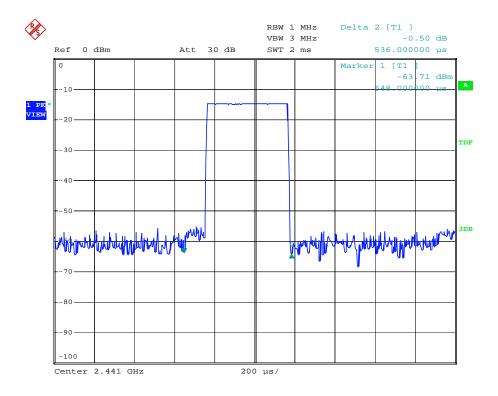
Date: 4.JAN.2009 17:56:04



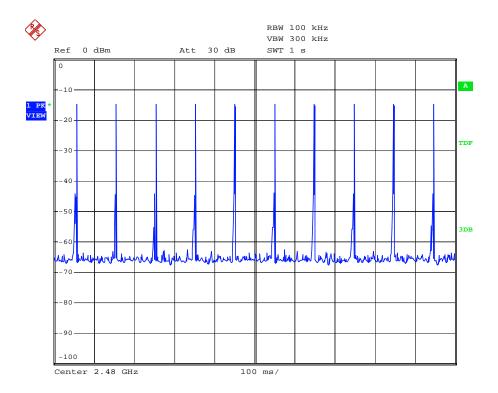
Date: 4.JAN.2009 18:03:11



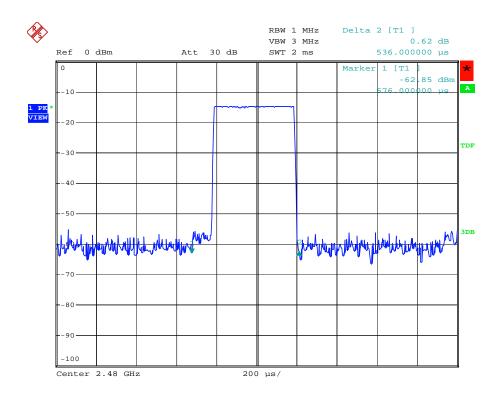
Date: 4.JAN.2009 17:56:42



Date: 4.JAN.2009 18:04:12



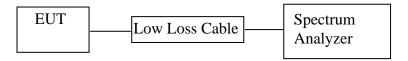
Date: 4.JAN.2009 17:57:24



Date: 4.JAN.2009 18:05:21

9. MAXIMUM PEAK OUTPUT POWER TEST

9.1.Block Diagram of Test Setup



(EUT: Wireless Dock for iPod)

9.2. The Requirement For Section 15.247(b)(1)

Section 15.247(b)(1): For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

9.3.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

9.3.1. Wireless Dock for iPod (EUT)

Model Number : IS301 Serial Number : N/A

Manufacturer : Mei Hua Electronics (Hui Zhou) Limited

9.4. Operating Condition of EUT

- 9.4.1. Setup the EUT and simulator as shown as Section 9.1.
- 9.4.2. Turn on the power of all equipment.
- 9.4.3.Let the EUT work in TX (Hopping off) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, 2480MHz TX frequency to transmit.

9.5.Test Procedure

- 9.5.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 9.5.2.Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz.
- 9.5.3.Measurement the maximum peak output power.

9.6.Test Result

PASS.

Date of Test: January 4, 2009 Temperature: 25°C

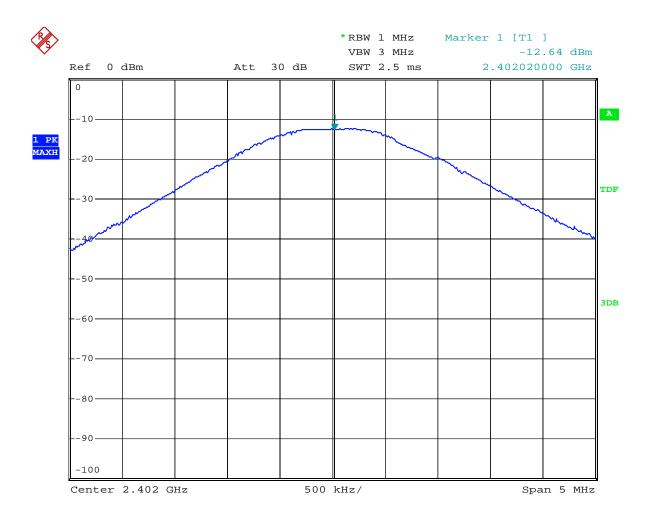
EUT: Wireless Dock for iPod Humidity: 48%

Model No.: IS301 Power Supply: DC 5V (Power supplied by iPod)

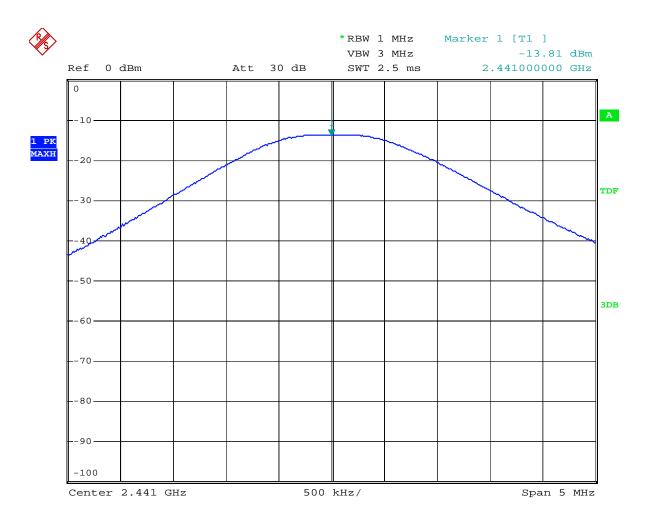
Test Mode: TX Test Engineer: Joe

Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Limits dBm / W
Low	2402	-12.64	0.054	30 dBm / 1 W
Middle	2441	-13.81	0.042	30 dBm / 1 W
High	2480	-14.45	0.036	30 dBm / 1 W

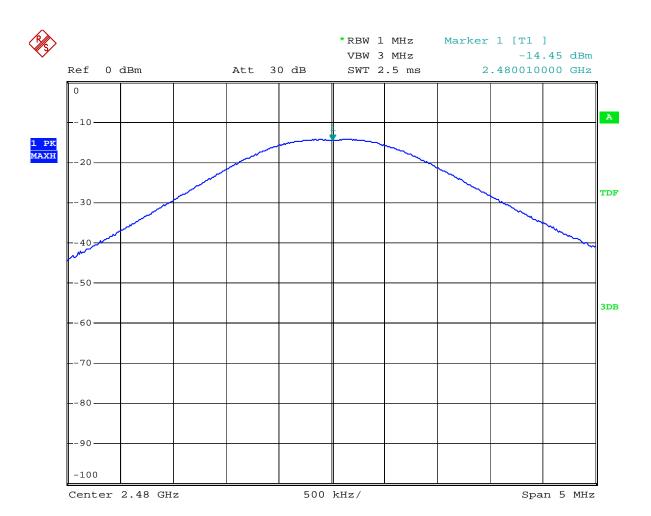
The spectrum analyzer plots are attached as below.



Date: 4.JAN.2009 17:21:55



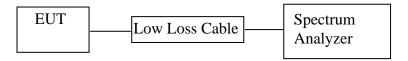
Date: 4.JAN.2009 17:23:32



Date: 4.JAN.2009 17:24:16

10.BAND EDGE COMPLIANCE TEST

10.1.Block Diagram of Test Setup



(EUT: Wireless Dock for iPod)

10.2.The Requirement For Section 15.247(d)

Section 15.247(d): In any 100 kHz 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 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. 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).

10.3.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

10.3.1. Wireless Dock for iPod (EUT)

Model Number : IS301 Serial Number : N/A

Manufacturer : Mei Hua Electronics (Hui Zhou) Limited

10.4. Operating Condition of EUT

- 10.4.1. Setup the EUT and simulator as shown as Section 10.1.
- 10.4.2. Turn on the power of all equipment.
- 10.4.3.Let the EUT work in TX (Hopping off, Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2480MHz TX frequency to transmit.

10.5.Test Procedure

- 10.5.1. The transmitter output was connected to the spectrum analyzer via a low loss cable.
- 10.5.2.Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz.
- 10.5.3. The band edges was measured and recorded.

10.6.Test Result

Pass

Date of Test: January 4, 2009

EUT: Wireless Dock for iPod Humidity: 48%

Model No.: IS301 Power Supply: DC 5V (Power supplied by iPod)

Test Mode: TX (Hopping off) Test Engineer: Joe

Conducted test

Frequency	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
(MHz)		
2402	45.98	> 20dBc
2480	47.46	> 20dBc

Date of Test: January 4, 2009

EUT: Wireless Dock for iPod Humidity: 48%

Model No.: IS301

Test Mode: TX (Hopping on)

Test Engineer: January 4, 2009

Temperature: 25°C

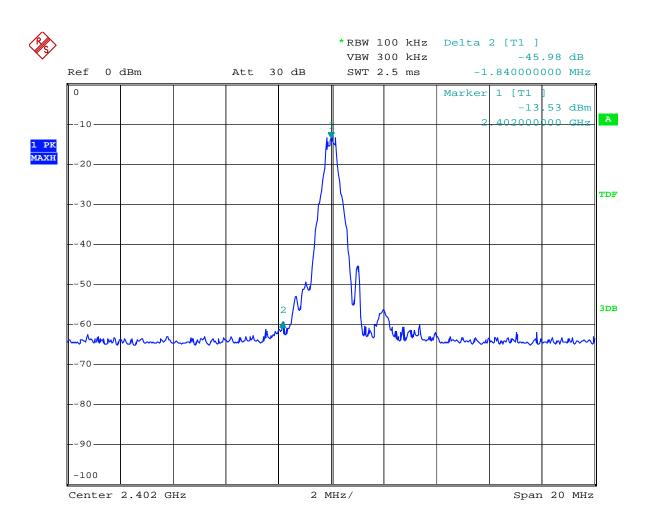
48%

DC 5V (Power supplied by iPod)

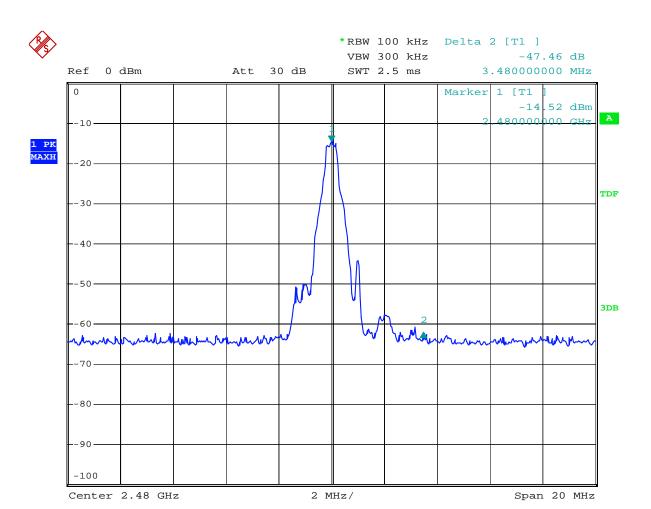
Test Engineer: Joe

Conducted test

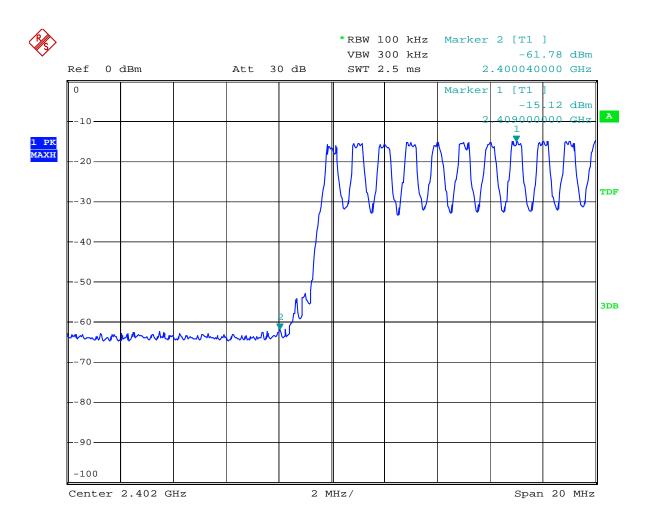
Frequency	Result of Band Edge	Limit of Band Edge
	(dBc)	(dBc)
(MHz)		
2402	46.66	> 20dBc
2480	48.91	> 20dBc



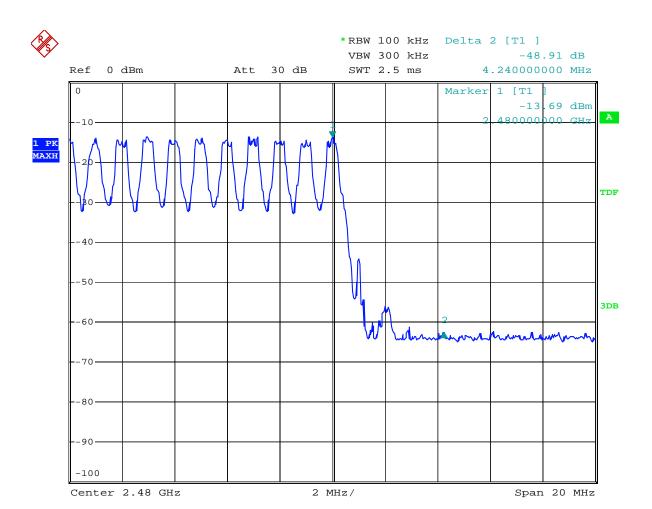
Date: 4.JAN.2009 17:30:36



Date: 4.JAN.2009 17:31:52



Date: 4.JAN.2009 17:39:25

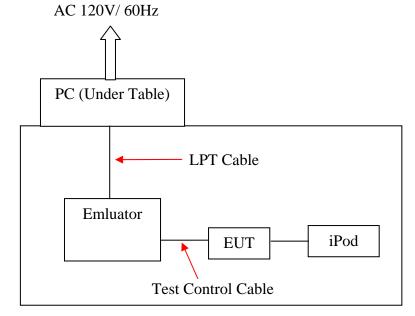


Date: 4.JAN.2009 17:35:18

11. RADIATED SPURIOUS EMISSION TEST

11.1.Block Diagram of Test Setup

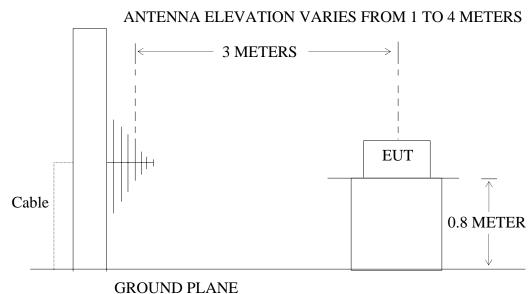
11.1.1.Block diagram of connection between the EUT and simulators



Setup: Transmitting mode

(EUT: Wireless Dock for iPod)

11.1.2.Semi-Anechoic Chamber Test Setup Diagram



(EUT: Wireless Dock for iPod)

11.2.The Limit For Section 15.247(d)

Section 15.247(d): In any 100 kHz 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 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. 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).

11.3.Restricted bands of operation

11.3.1.FCC Part 15.205 Restricted bands of operation

(a) Except as shown in paragraph (d) of this section, Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	$\binom{2}{}$
13.36-13.41			

¹Until February 1, 1999, this restricted band shall be 0.490-0.510

(b) Except as provided in paragraphs (d) and (e), the field strength of emission appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000MHz, Compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000MHz, compliance with the emission limits in Section15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

11.4.Configuration of EUT on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

11.4.1. Wireless Dock for iPod (EUT)

Model Number : IS301 Serial Number : N/A

Manufacturer : Mei Hua Electronics (Hui Zhou) Limited

²Above 38.6

11.5.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated emission measurement.

The bandwidth of test receiver (R&S ESI26) is set at 120kHz in 30-1000MHz. and set at 1MHz in above 1000MHz.

The frequency range from 30MHz to 25000MHz is checked.

The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.

The field strength is calculated by adding the antenna factor, and cable loss, and subtracting the amplifier gain from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

11.6.The Field Strength of Radiation Emission Measurement Results **PASS.**

Date of Test: December 31, 2008 - January 4, 2009 Temperature: 25°C

EUT: Wireless Dock for iPod Humidity: 49%

Power Supply: DC 5V (Power supplied by

Model No.: IS301 iPod)

Test Mode: TX (2402MHz) Test Engineer: Joe

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency	Reading	Factor	Result	Result Limit		Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP	(dB)	QP	QP	QP	
31.9234	10.14	19.01	29.15	40.00	-10.85	Vertical
165.8910	15.11	14.67	29.78	43.50	-13.72	Vertical
82.3603	15.56	13.50	29.06	40.00	-10.94	Horizontal
135.9643	17.02	14.64	31.66	43.50	11.84	Horizontal
370.6681	14.10	21.51	35.61	46.00	10.39	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

Frequency	Reading(ading(dBµV/m) Factor		Result(c	Result(dBµV/m) L		Limit(dBµV/m)		in(dB)	Polarizati
(MHz)	AV	PEAK	Corr. (dB)	AV	PEAK	AV	PEAK	AV	PEAK	on
2400.000	40.46	43.74	-7.46	33.00	36.28	54	74	-21.00	-37.72	Vertical
2402.009	81.95	85.14	-7.45	74.50	77.69	ı	-	-	-	Vertical
4804.011	50.23	53.50	-0.30	49.93	53.20	54	74	-4.07	-20.80	Vertical
2400.000	40.69	43.98	-7.46	33.23	36.52	54	74	-20.77	-37.48	Horizontal
2402.008	81.81	85.04	-7.45	74.36	77.59	-	-	-	-	Horizontal
4804.011	48.42	51.58	-0.30	48.12	51.28	54	74	-5.88	-22.72	Horizontal
7206.013	41.43	44.66	2.97	44.40	47.63	54	74	-9.60	-26.37	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

2. *: Denotes restricted band of operation.

Date of Test: December 31, 2008 - January 4, 2009 Temperature: 25°C

EUT: Wireless Dock for iPod Humidity: 49%

Power Supply: DC 5V (Power supplied by

Model No.: IS301 iPod)

Test Mode: TX (2441MHz) Test Engineer: Joe

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

0011000001001	2011 edea 1 detoi – 7 interna 1 detoi + Cubie Eoss - 7 impiritor Guin										
Frequency	Reading	Factor	Result	Limit	Margin	Polarization					
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)						
	QP	(dB)	QP	QP	QP						
43.0798	14.04	16.87	30.91	40.00	-9.09	Vertical					
144.7760	15.55	14.48	30.03	43.50	-13.47	Vertical					
190.1074	15.66	14.87	30.53	43.50	-12.97	Vertical					
82.0739	15.51	13.49	29.00	40.00	-11.00	Horizontal					
96.6483	16.03	14.06	30.09	43.50	-13.41	Horizontal					
366.8025	13.83	21.49	35.32	46.00	-10.68	Horizontal					

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

	1									
Frequency	Reading(dBμV/m)	Factor	Result(dBμV/m) Li		Limit(d	Limit(dBµV/m)		Margin(dB)	
(MHz)	AV	PEAK	Corr. (dB)	AV	PEAK	AV	PEAK	AV	PEAK	on
2441.007	81.86	85.12	-7.35	74.51	77.77	-	-	-	-	Vertical
4882.010	49.87	53.09	0.14	50.01	53.23	54	74	-3.99	-20.77	Vertical
7323.012	40.47	43.69	3.24	43.71	46.93	54	74	-10.29	-27.07	Vertical
2441.007	81.53	84.79	-7.35	74.18	77.44	-	-	-	-	Horizontal
4882.010	48.27	51.54	0.14	48.41	51.68	54	74	-5.59	-22.32	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

2. *: Denotes restricted band of operation.

Date of Test: December 31, 2008 - January 4, 2009 Temperature: 25°C

EUT: Wireless Dock for iPod Humidity: 49%

Power Supply: DC 5V (Power supplied by

Model No.: IS301 iPod)

Test Mode: TX (2480MHz) Test Engineer: Joe

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

	1 meeting 1 decent - Cubic Loop - 1 mpinter Cum										
Frequency	Reading	Factor	Result	Limit	Margin	Polarization					
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)						
	QP	(dB)	QP	QP	QP						
37.4106	12.16	18.14	30.30	40.00	-9.70	Vertical					
86.8794	15.31	13.80	29.11	40.00	-10.89	Vertical					
165.8909	15.07	14.67	29.74	4350	-13.76	Vertical					
82.3603	15.44	13.50	28.94	40.00	-11.06	Horizontal					
165.8909	15.86	14.67	30.53	43.50	-12.97	Horizontal					
370.6681	13.42	21.51	34.93	46.00	-11.07	Horizontal					

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

Frequency	Reading(dBμV/m)	Factor	Result(c	lBμV/m)	Limit(dBµV/m)		Margin(dB)		Polarizati
(MHz)	AV	PEAK	Corr. (dB)	AV	PEAK	AV	PEAK	AV	PEAK	on
2480.006	81.46	84.79	-7.37	74.09	77.42	-	-	-	-	Vertical
2483.500	40.28	43.49	-7.37	32.91	36.12	54	74	-21.09	-37.88	Vertical
4960.008	50.42	53.70	0.52	50.94	54.22	54	74	-3.06	-19.78	Vertical
2480.006	79.13	82.38	-7.37	71.76	75.01	-	-	-	-	Horizontal
2483.500	40.34	43.51	-7.37	32.97	36.14	54	74	-21.03	-37.86	Horizontal
4960.008	49.27	52.51	0.52	49.79	53.03	54	74	-4.21	-20.97	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

2. *: Denotes restricted band of operation.



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Job No.: RTTE #970

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 49 % EUT: Wireless Dock for iPod

Mode: TX 2402MHz Model: IS301

Manufacturer: Nicetex

Note: Sample No.:084474 Report No.:ATE20082470

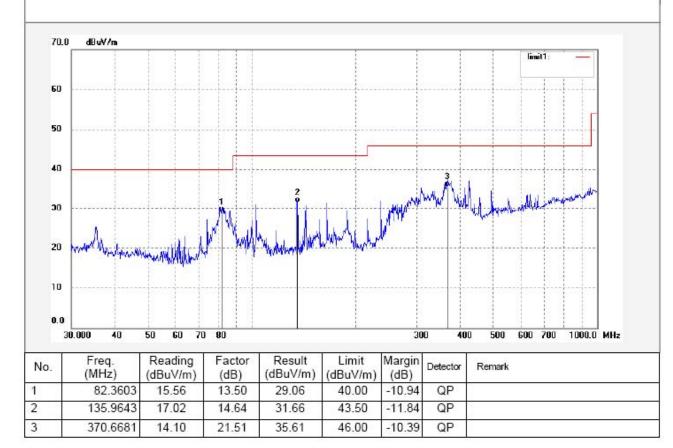
Polarization: Horizontal

Power Source: DC 5V (supplied by iPod)

Date: 08/12/31/ Time: 16/22/25

Engineer Signature: Joe

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #971

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 49 % EUT: Wireless Dock for iPod

Mode: TX 2402MHz

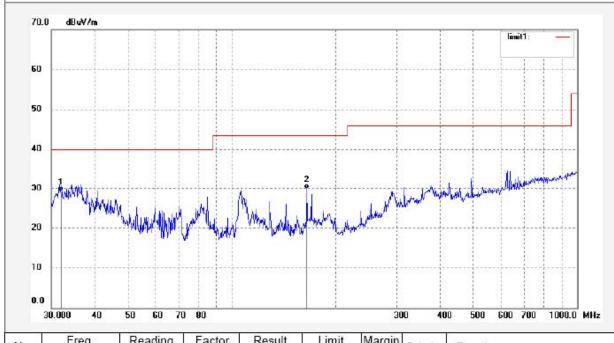
Model: IS301 Manufacturer: Nicetex Polarization: Vertical

Power Source: DC 5V (supplied by iPod)

Date: 08/12/31/ Time: 16/24/08

Engineer Signature: Joe

Distance: 3m



No.	(MHz)	(dBuV/m)		(dBuV/m)	(dBuV/m)	(dB)	Detector	Remark
1	31.9234	10.14	19.01	29.15	40.00	-10.85	QP	
2	165.8910	15.11	14.67	29.78	43.50	-13.72	QP	



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Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #1025

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 49 % EUT: Wireless Dock for iPod

Mode: TX 2402MHz Model: IS301

Manufacturer: Nicetex

Sample No.:084474 Report No.:ATE20082470 Note:

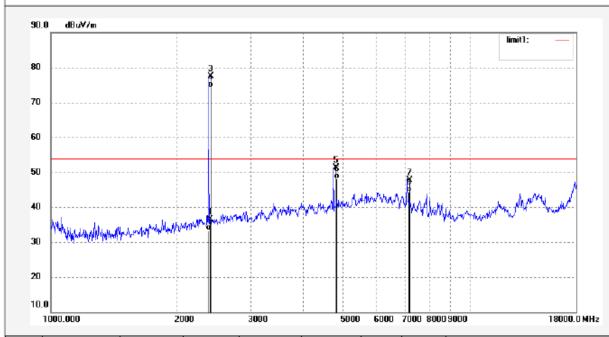
Polarization: Horizontal

Power Source: DC 5V (supplied by iPod)

Date: 09/01/04/ Time: 11/28/09

Engineer Signature: Joe

Distance: 3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	2400.000	43.98	-7.46	36.52	74.00	-37.48	peak	
2	2400.000	40.69	-7.46	33.23	54.00	-20.77	AVG	
3	2402.008	85.04	-7.45	77.59	-	-	peak	
4	2402.008	81.81	-7.45	74.36	-	-	AVG	
5	4804.011	51.58	-0.30	51.28	74.00	-22.72	peak	
6	4804.011	48.42	-0.30	48.12	54.00	-5.88	AVG	
7	7206.013	44.66	2.97	47.63	74.00	-26.37	peak	
8	7206.013	41.43	2.97	44.40	54.00	-9.60	AVG	



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Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #1024

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 49 %

Reading

(dBuV/m)

43.74

40.46

85.14

81.95

53.50

50.23

Freq.

(MHz)

2400.000

2400.000

2402.009

2402.009

4804.011

4804.011

No.

1

2

3

4

5

6

Factor

(dB)

-7.46

-7.46

-7.45

-7.45

-0.30

-0.30

Result

(dBuV/m)

36.28

33.00

77.69

74.50

53.20

49.93

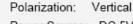
EUT: Wireless Dock for iPod

Mode: TX 2402MHz

Model: IS301 Manufacturer: Nicetex

Note:

Report No.:ATE20082470

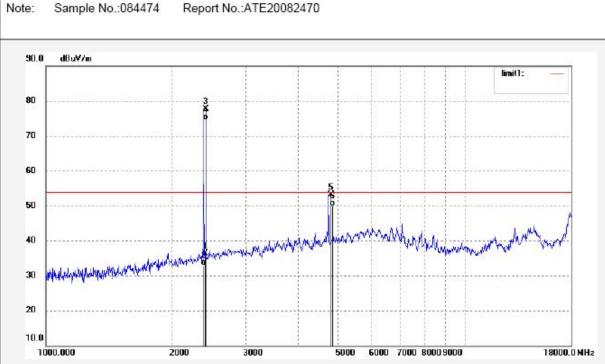


Power Source: DC 5V (supplied by iPod)

Date: 09/01/04/ Time: 11/24/53

Distance: 3m

Engineer Signature: Joe



Limit

(dBuV/m)

74.00

54.00

74.00

54.00

Margin

(dB)

-37.72

-21.00

-20.80

-4.07

Detector

peak

AVG

peak

AVG

peak

AVG

Remark



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Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Horizontal

Job No.: RTTE #1042

Standard: FCC Class B 3M Radiated

Power Source: DC 5V (supplied by iPod) Test item: Radiation Test Date: 2009/01/04 Temp.(C)/Hum.(%) 25 C / 49 % Time: 20:20:18 EUT: Wireless Dock for iPod Engineer Signature: Joe Mode: TX 2402MHz Distance: 3m Model: IS301 Manufacturer: Nicetex Note: Sample No.:084474 Report No.:ATE20082470 70.0 dBuV/m limit1: 60 50 40 30 20 10 0.0 18000.000 20000 25000.0 MHz Freq. Reading Factor Result Limit Margin No. Detector Remark (dBuV/m) (MHz) (dBuV/m) (dBuV/m) (dB) (dB)



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #1043

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 49 %

EUT: Wireless Dock for iPod

Mode: TX 2402MHz

Model: IS301 Manufacturer: Nicetex

Note: Sample No.:084474 Report No.:ATE20082470

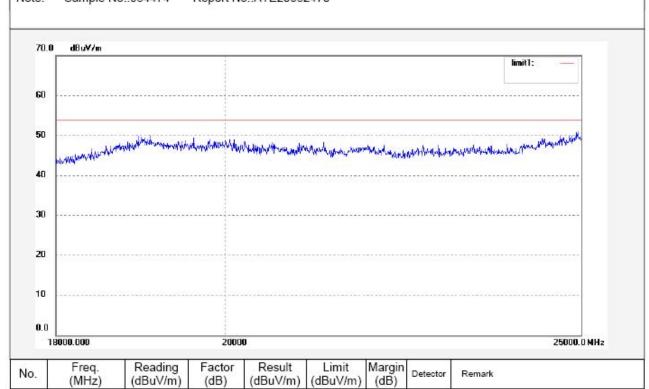
Polarization: Vertical

Power Source: DC 5V (supplied by iPod)

Date: 2009/01/04 Time: 20:22:47

Engineer Signature: Joe

Distance: 3m





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #973

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 49 % EUT: Wireless Dock for iPod

Mode: TX 2441MHz Model: IS301

Manufacturer: Nicetex

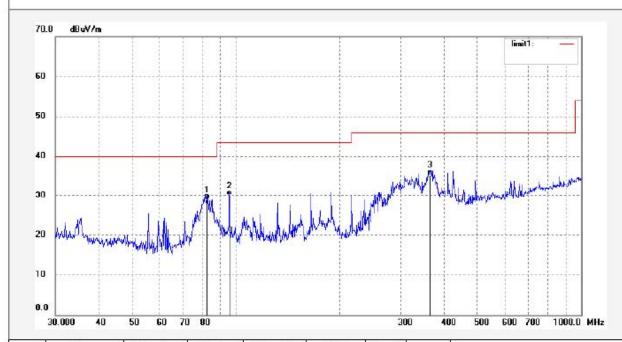
Polarization: Horizontal

Power Source: DC 5V (supplied by iPod)

Date: 08/12/31/ Time: 16/29/03

Engineer Signature: Joe

Distance: 3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	82.0739	15.51	13.49	29.00	40.00	-11.00	QP	
2	96.6483	16.03	14.06	30.09	43.50	-13.41	QP	
3	366.8025	13.83	21.49	35.32	46.00	-10.68	QP	



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Job No.: RTTE #972

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 49 % EUT: Wireless Dock for iPod

Mode: TX 2441MHz

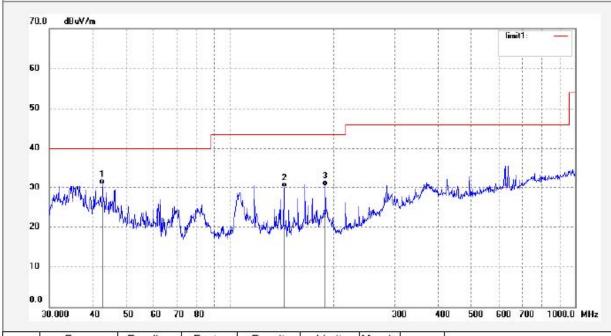
Model: IS301 Manufacturer: Nicetex Polarization: Vertical

Power Source: DC 5V (supplied by iPod)

Date: 08/12/31/ Time: 16/27/17

Engineer Signature: Joe

Distance: 3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	43.0798	14.04	16.87	30.91	40.00	-9.09	QP	
2	144.7760	15.55	14.48	30.03	43.50	-13.47	QP	
3	190.1074	15.66	14.87	30.53	43.50	-12.97	QP	



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #1026

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 49 % EUT: Wireless Dock for iPod

Mode: TX 2441MHz

Model: IS301 Manufacturer: Nicetex

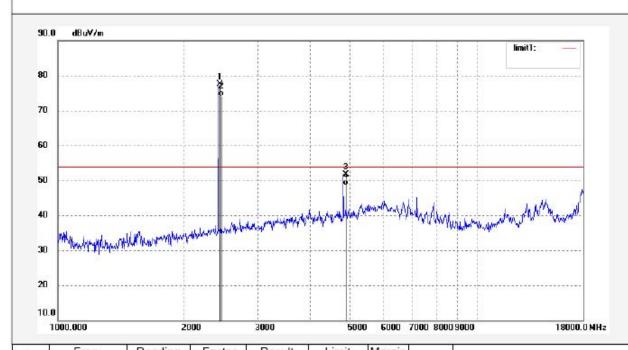
Polarization: Horizontal

Power Source: DC 5V (supplied by iPod)

Date: 09/01/04/ Time: 11/30/04

Engineer Signature: Joe

Distance: 3m



No.	req. (MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	Remark
1	2441.007	84.79	-7.35	77.44	-	- 2	peak	
2	2441.007	81.53	-7.35	74.18	-	-	AVG	
3	4882.010	51.54	0.14	51.68	74.00	-22.32	peak	
4	4882.010	48.27	0.14	48.41	54.00	-5.59	AVG	



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Job No.: RTTE #1027

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 49 % EUT: Wireless Dock for iPod

Mode: TX 2441MHz

Model: IS301 Manufacturer: Nicetex

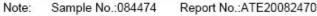
Polarization: Vertical

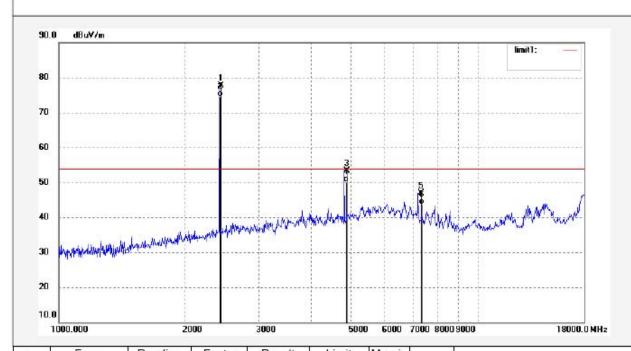
Power Source: DC 5V (supplied by iPod)

Date: 09/01/04/ Time: 11/32/04

Engineer Signature: Joe

Distance: 3m





No.	Freq. (MHz)	(dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	2441.007	85.12	-7.35	77.77	-	328	peak	
2	2441.007	81.86	-7.35	74.51	-	-	AVG	
3	4882.010	53.09	0.14	53.23	74.00	-20.77	peak	
4	4882.010	49.87	0.14	50.01	54.00	-3.99	AVG	
5	7323.012	43.69	3.24	46.93	74.00	-27.07	peak	
6	7323.012	40.47	3.24	43.71	54.00	-10.29	AVG	



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Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #1045

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 49 %

EUT: Wireless Dock for iPod

Mode: TX 2441MHz

Model: IS301 Manufacturer: Nicetex

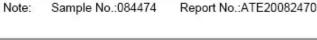
Note: Sample No.:084474 Polarization: Horizontal

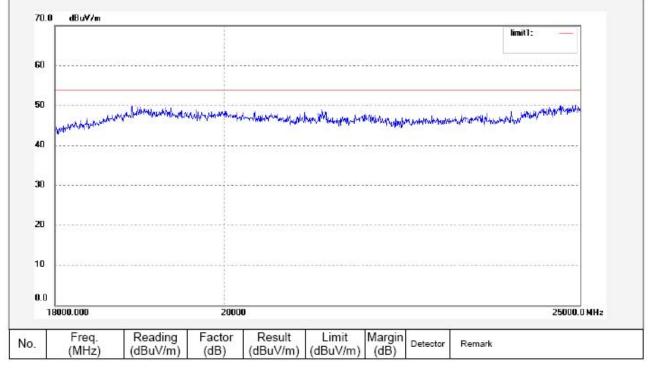
Power Source: DC 5V (supplied by iPod)

Date: 2009/01/04 Time: 20:28:01

Engineer Signature: Joe

Distance: 3m







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Polarization: Vertical

Engineer Signature: Joe

Date: 2009/01/04

Time: 20:25:34

Distance: 3m

Power Source: DC 5V (supplied by iPod)

Job No.: RTTE #1044

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

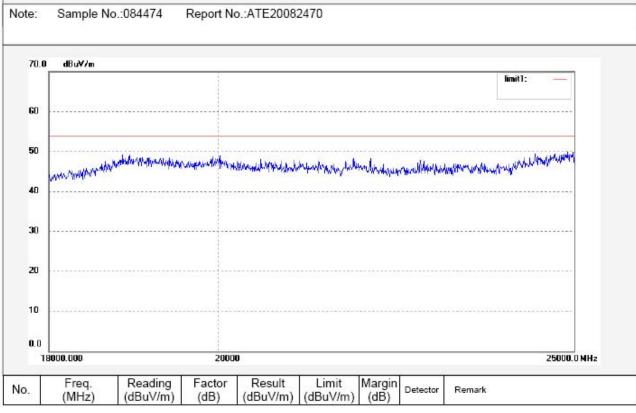
Temp.(C)/Hum.(%) 25 C / 49 %

EUT: Wireless Dock for iPod

Mode: TX 2441MHz

Model: IS301 Manufacturer: Nicetex

Model: IS301





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Job No.: RTTE #974

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 49 % EUT: Wireless Dock for iPod

Mode: TX 2480MHz

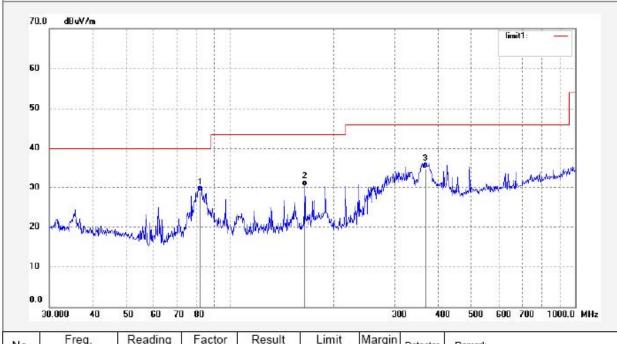
Model: IS301 Manufacturer: Nicetex Polarization: Horizontal

Power Source: DC 5V (supplied by iPod)

Date: 08/12/31/ Time: 16/32/40

Engineer Signature: Joe

Distance: 3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	82.3603	15.44	13.50	28.94	40.00	-11.06	QP	
2	165.8909	15.86	14.67	30.53	43.50	-12.97	QP	
3	370.6681	13.42	21.51	34.93	46.00	-11.07	QP	



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Job No.: RTTE #975

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 49 % EUT: Wireless Dock for iPod

Mode: TX 2480MHz Model: IS301

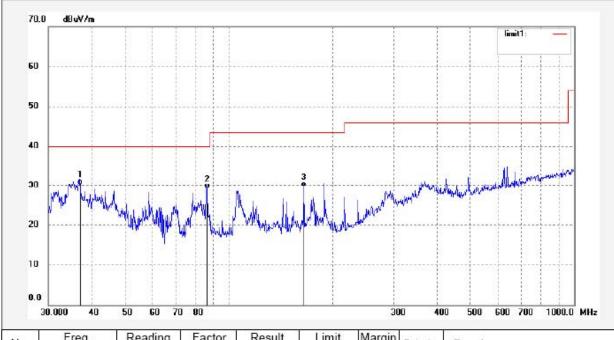
Model: IS301 Manufacturer: Nicetex Polarization: Vertical

Power Source: DC 5V (supplied by iPod)

Date: 08/12/31/ Time: 16/34/25

Engineer Signature: Joe

Distance: 3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	37.4106	12.16	18.14	30.30	40.00	-9.70	QP	
2	86.8794	15.31	13.80	29.11	40.00	-10.89	QP	
3	165.8909	15.07	14.67	29.74	43.50	-13.76	QP	



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Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #1029

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 49 %

Sample No.:084474

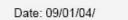
EUT: Wireless Dock for iPod

Mode: TX 2480MHz

Model: IS301 Manufacturer: Nicetex

Note:

Report No.:ATE20082470



Time: 11/36/06

Engineer Signature: Joe

Horizontal

Power Source: DC 5V (supplied by iPod)

Distance: 3m

AVG

peak

AVG

peak

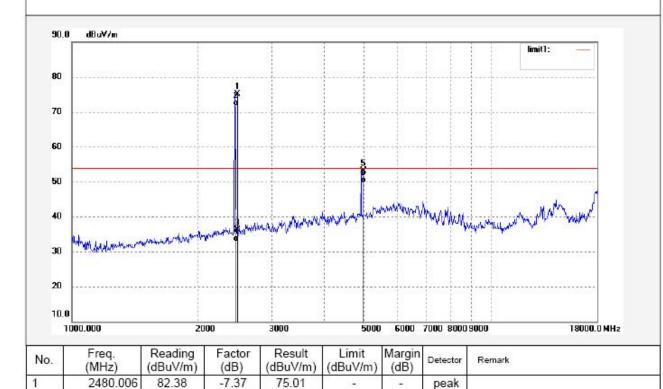
AVG

-37.86

-21.03

-20.97

-4.21



2

3

4

5

6

2480.006

2483.500

2483.500

4960.008

4960.008

79.13

43.51

40.34

52.51

49.27

-7.37

-7.37

-7.37

0.52

0.52

71.76

36.14

32.97

53.03

49.79

74.00

54.00

74.00

54.00



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Job No.: RTTE #1028

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 49 % EUT: Wireless Dock for iPod

Mode: TX 2480MHz

Model: IS301 Manufacturer: Nicetex

Note: Sample No.:084474 Report No.:ATE20082470

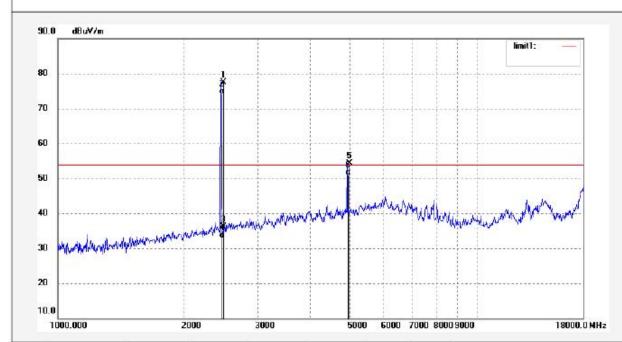
Polarization: Vertical

Power Source: DC 5V (supplied by iPod)

Date: 09/01/04/ Time: 11/34/09

Engineer Signature: Joe

Distance: 3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	2480.006	84.79	-7.37	77.42	-	2	peak	
2	2480.006	81.46	-7.37	74.09	-	-	AVG	
3	2483.500	43.49	-7.37	36.12	74.00	-37.88	peak	
4	2483.500	40.28	-7.37	32.91	54.00	-21.09	AVG	
5	4960.008	53.70	0.52	54.22	74.00	-19.78	peak	
6	4960.008	50.42	0.52	50.94	54.00	-3.06	AVG	



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Polarization: Horizontal

Power Source: DC 5V (supplied by iPod)

Job No.: RTTE #1046

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Date: 2009/01/04 Temp.(C)/Hum.(%) 25 C / 49 % Time: 20:31:26 EUT: Wireless Dock for iPod Engineer Signature: Joe Mode: TX 2480MHz Distance: 3m Model: IS301 Manufacturer: Nicetex Note: Sample No.:084474 Report No.:ATE20082470 70.0 dBuV/m limit1: 60 50 40 30 20 10 0.0 18000.000 20000 25000.0 MHz Freq. Reading Factor Result Limit Margin No. Detector Remark

(dBuV/m) (MHz) (dBuV/m) (dBuV/m) (dB) (dB)



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Polarization: Vertical

Power Source: DC 5V (supplied by iPod)

Job No.: RTTE #1047

Standard: FCC Class B 3M Radiated



12.ANTENNA REQUIREMENT

12.1.The Requirement

According to Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

12.2.Antenna Construction

The transmitter utilizes SMD chip antenna, no consideration of replacement. Therefore, the equipment complies with the antenna requirement of Section 15.203.

