

APPLICATION CERTIFICATION FCC Part 15B  
On Behalf of  
Nicetex Electronics Ltd.

Wireless Dock for iPod  
Model No.: IS301

FCC ID: OYNIS301T

Prepared for : Nicetex Electronics Ltd.  
Address : Rm 22, 14/F, Block A, Hi-Tech Industrial Centre 5-21  
Pak Tin Par Street, Tsuen Wan, Hong Kong

Prepared by : ACCURATE TECHNOLOGY CO. LTD  
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Report Number : ATE20082470  
Date of Test : December 31, 2008 - January 7, 2009  
Date of Report : January 7, 2009

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## 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:

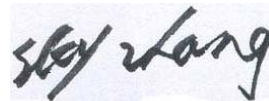
FCC Rules and Regulations Part 15 Subpart B  
ANSI C63.4: 2003

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 B 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.

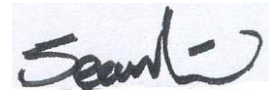
Date of Test : December 31, 2008 - January 7, 2009

Prepared by :



(Engineer)

Approved & Authorized Signer :



(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 7, 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: Connect to PC (Transfer Data)

#### 3.2.Configuration and peripherals

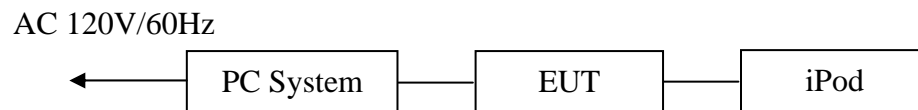


Figure 1 Setup: Connect to PC

(EUT: Wireless Dock for iPod)

#### 4. TEST PROCEDURES AND RESULTS

FCC Rules	Description of Test	Result
Section 15.107	Conducted Emission Test	Compliant
Section 15.109	Radiated Emission Test	Compliant



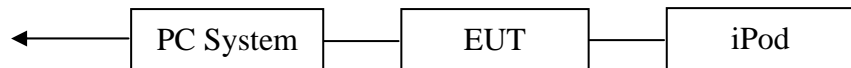
## 5. CONDUCTED EMISSION FOR FCC PART 15 SECTION

### 15.107(A)

#### 5.1. Block Diagram of Test Setup

##### 5.1.1. Block diagram of connection between the EUT and simulators

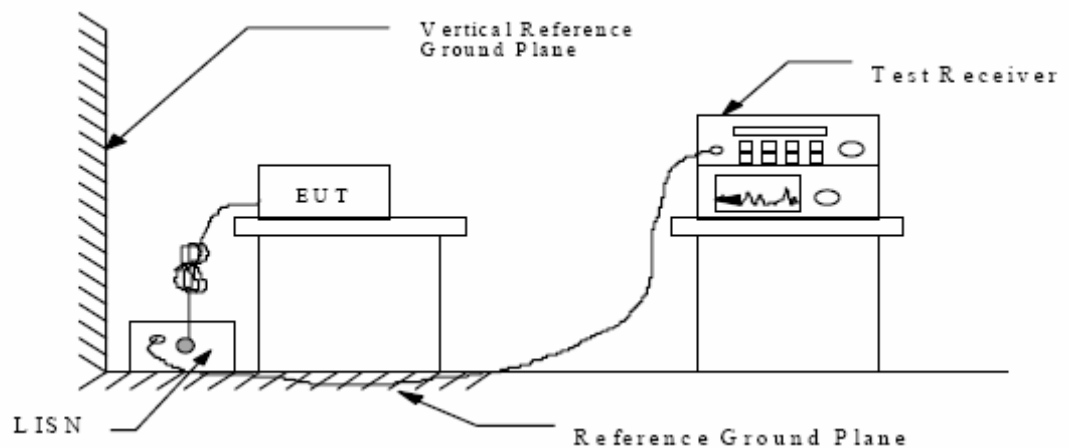
AC 120V/60Hz



Setup: Connect to PC

(EUT: Wireless Dock for iPod)

##### 5.1.2. Shielding Room Test Setup Diagram



(EUT: Wireless Dock for iPod)

#### 5.2. The Emission Limit

##### 5.2.1. Conducted Emission Measurement Limits According to Section 15.107(a)

Frequency (MHz)	Limit dB(μV)	
	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0

\* Decreases with the logarithm of the frequency.

### 5.3.Configuration of EUT on Measurement

The following equipment are installed on the Conducted 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 Connect to PC mode measure it.

### 5.5.Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2003 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

## 5.6. Power Line Conducted Emission Measurement Results

**PASS.**

The frequency range from 150kHz to 30MHz is checked.

Date of Test:	January 6, 2009	Temperature:	25°C
EUT:	Wireless Dock for iPod	Humidity:	48%
		Connect to PC use USB terminal	
Model No.:	IS301	Power Supply:	PC power: AC120V/60Hz
Test Mode:	Connect to PC	Test Engineer:	Joe

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	43.10	11.0	66	22.9	QP	N	GND
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.186000	42.90	11.2	54	11.3	AV	N	GND
0.370500	34.50	11.8	49	14.0	AV	N	GND
0.613500	32.00	12.0	46	14.0	AV	N	GND
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.186000	41.70	11.2	64	22.5	QP	L1	GND
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.186000	40.40	11.2	54	13.8	AV	L1	GND
0.618000	29.20	11.9	46	16.8	AV	L1	GND
1.108500	30.30	11.8	46	15.7	AV	L1	GND

Emissions attenuated more than 20 dB below the permissible value are not reported.  
The spectral diagrams are attached as below.

**ACCURATE TECHNOLOGY CO.,LTD****CONDUCTED EMISSION STANDARD FCC PART 15B**

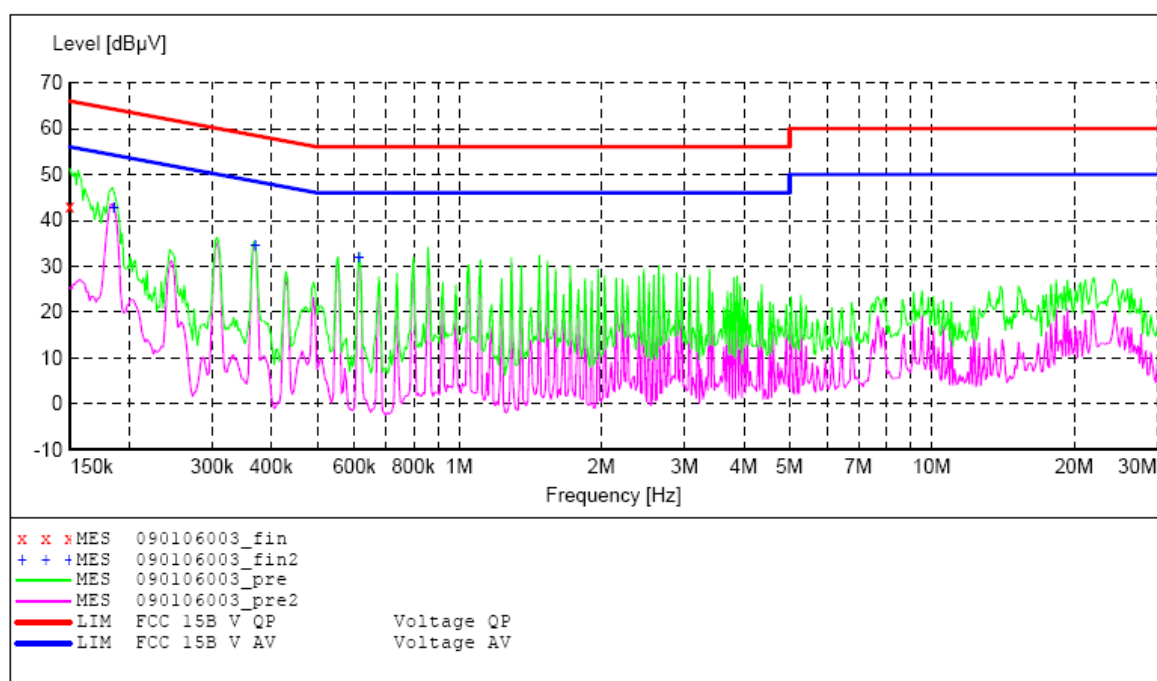
EUT: Wireless Dock for iPod M/N:IS301  
 Manufacturer: Nicetex  
 Operating Condition: Connect to PC  
 Test Site: 1#Shielding Room  
 Operator: Joe  
 Test Specification: Va 120V/60Hz  
 Comment: Sample No.:084474 Report No.:ATE20082470  
 Start of Test: 1/6/2009 / 5:46:26PM

**SCAN TABLE: "V 150K-30MHz fin"**

Short Description: \_SUB\_STD\_VTERM2 1.70  

Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
Frequency 150.0 kHz	Frequency 30.0 MHz	Width 0.8 %	QuasiPeak	1.0 s	9 kHz	NSLK8126 2008

 Average

**MEASUREMENT RESULT: "090106003\_fin"**

1/6/2009 5:48PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	43.10	11.0	66	22.9	QP	N	GND

**MEASUREMENT RESULT: "090106003\_fin2"**

1/6/2009 5:48PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.186000	42.90	11.2	54	11.3	AV	N	GND
0.370500	34.50	11.8	49	14.0	AV	N	GND
0.613500	32.00	12.0	46	14.0	AV	N	GND

## ACCURATE TECHNOLOGY CO., LTD

## CONDUCTED EMISSION STANDARD FCC PART 15B

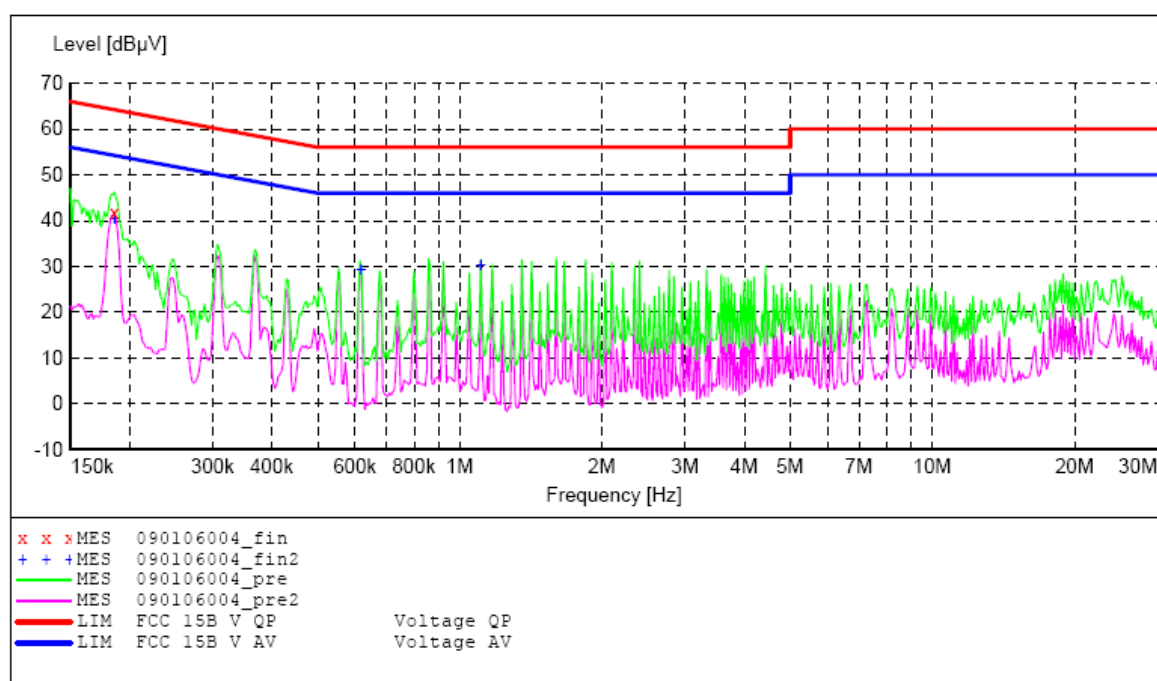
EUT: Wireless Dock for iPod M/N:IS301  
 Manufacturer: Nicetex  
 Operating Condition: Connect to PC  
 Test Site: 1#Shielding Room  
 Operator: Joe  
 Test Specification: Vb 120V/60Hz  
 Comment: Sample No.:084474 Report No.:ATE20082470  
 Start of Test: 1/6/2009 / 5:48:38PM

## SCAN TABLE: "V 150K-30MHz fin"

Short Description: \_SUB\_STD\_VTERM2 1.70  

Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
Frequency 150.0 kHz	Frequency 30.0 MHz	Width 0.8 %	QuasiPeak	1.0 s	9 kHz	NSLK8126 2008

 Average



## MEASUREMENT RESULT: "090106004\_fin"

1/6/2009 5:51PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.186000	41.70	11.2	64	22.5	QP	L1	GND

## MEASUREMENT RESULT: "090106004\_fin2"

1/6/2009 5:51PM

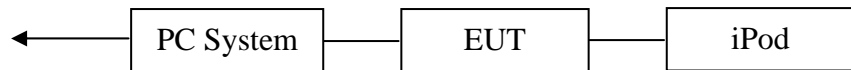
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.186000	40.40	11.2	54	13.8	AV	L1	GND
0.618000	29.20	11.9	46	16.8	AV	L1	GND
1.108500	30.30	11.8	46	15.7	AV	L1	GND

## 6. RADIATED EMISSION FOR FCC PART 15 SECTION 15.109(A)

### 6.1. Block Diagram of Test Setup

#### 6.1.1. Block diagram of connection between the EUT and simulators

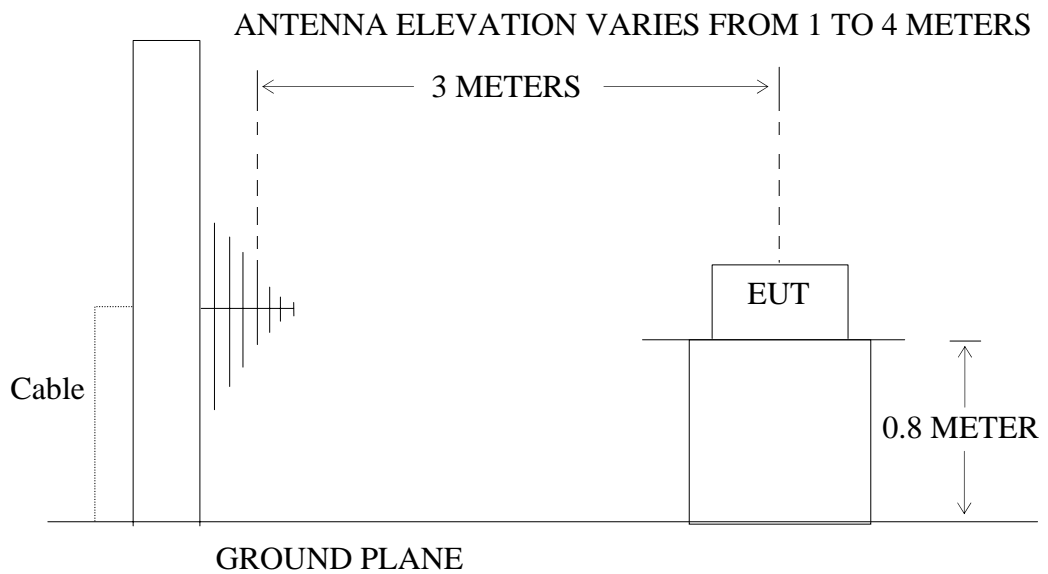
AC 120V/60Hz



Setup: Connect to PC

(EUT: Wireless Dock for iPod)

#### 6.1.2. Semi-Anechoic Chamber Test Setup Diagram



(EUT: Wireless Dock for iPod)

## 6.2.The Emission Limit For Section 15.109 (a)

### 6.2.1.Radiation Emission Measurement Limits According to Section 15.109 (a).

Frequency (MHz)	Limit	
	Field Strength of Quasi-peak Value (microvolts/m)	Field Strength of Quasi-peak Value (dBμV/m)
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

## 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 Connect to PC mode measure it.

## 6.5. 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 is set at 120kHz in 30-1000MHz.

The frequency range from 30MHz to 1000MHz is checked.

The final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.



## 6.6.The Emission Measurement Result

**PASS.**

Date of Test:	January 4, 2009	Temperature:	25°C
EUT:	Wireless Dock for iPod	Humidity:	48%
			Connect to PC use USB terminal
Model No.:	IS301	Power Supply:	PC power: AC120V/60Hz
Test Mode:	Connect to PC	Test Engineer:	Joe

Frequency (MHz)	Reading (dBμV/m)	Factor(dB) Corr.	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
199.6431	23.26	14.98	38.24	43.50	-5.26	Vertical
221.1785	25.54	15.74	41.28	46.00	-4.72	Vertical
382.5126	21.04	21.63	42.67	46.00	-3.33	Vertical
199.3356	23.23	14.97	38.20	43.50	-5.30	Horizontal
264.6154	24.61	18.67	43.28	46.00	-2.72	Horizontal
297.8623	24.35	18.63	42.98	46.00	-3.02	Horizontal

The spectral diagrams are attached as below display the measurement of peak values.

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Amplifier Gain


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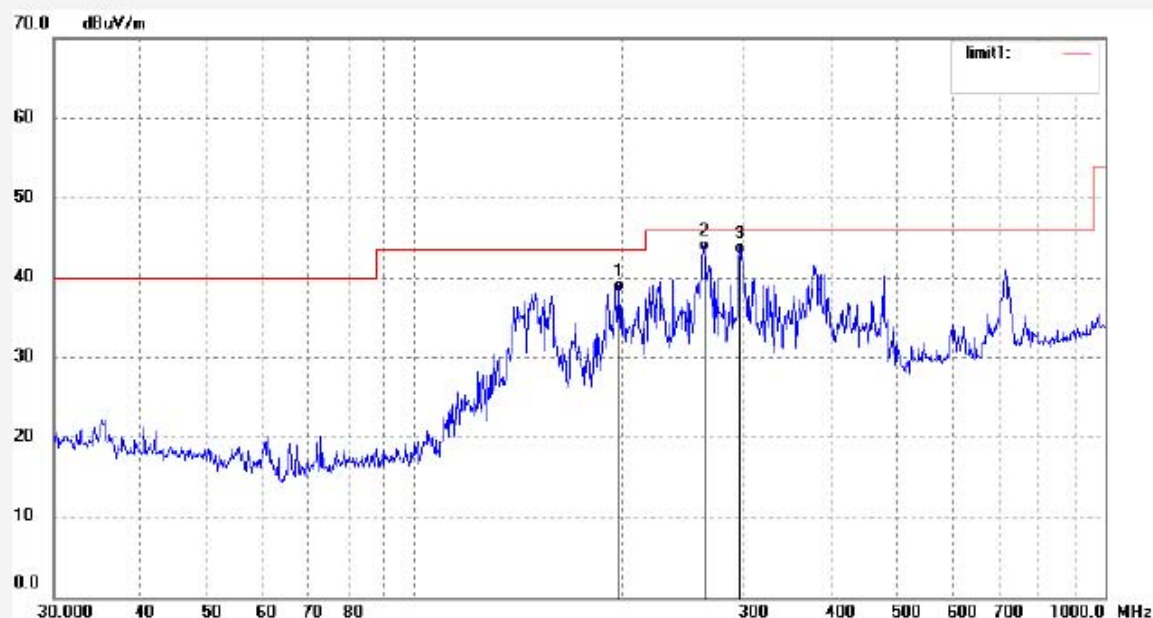
 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
 Science & Industry Park,Nanshan Shenzhen,P.R.China

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

 Job No.: RTTE #1055  
 Standard: FCC Class B 3M Radiated  
 Test item: Radiation Test  
 Temp.( C)/Hum.(%) 25 C / 49 %  
 EUT: Wireless Dock for iPod  
 Mode: Connect to PC  
 Model: IS301  
 Manufacturer: Nicetex

 Polarization: Horizontal  
 Power Source: AC 120V/60Hz  
 Date: 2009/01/04  
 Time: 20:57:14  
 Engineer Signature: Joe  
 Distance: 3m

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



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	199.3356	23.23	14.97	38.20	43.50	-5.30	QP	
2	264.6154	24.61	18.67	43.28	46.00	-2.72	QP	
3	297.8623	24.35	18.63	42.98	46.00	-3.02	QP	


**ACCURATE TECHNOLOGY CO., LTD.**

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 Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: RTTE #1054

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Wireless Dock for iPod

Mode: Connect to PC

Model: IS301

Manufacturer: Nicetex

Polarization: Vertical

Power Source: AC 120V/60Hz

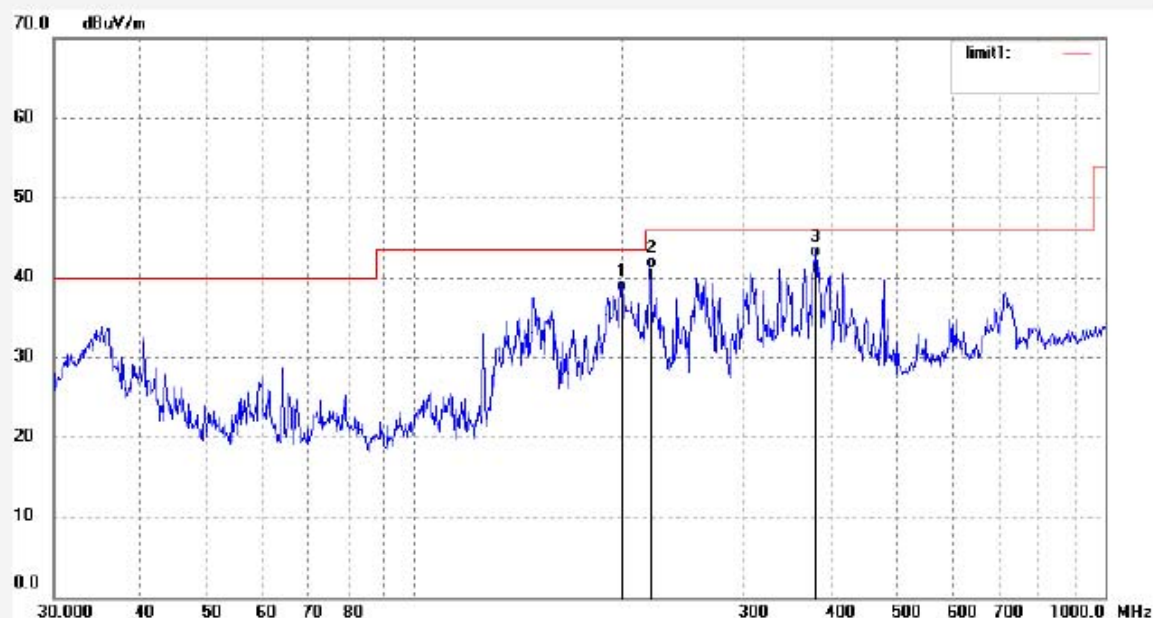
Date: 2009/01/04

Time: 20:55:02

Engineer Signature: Joe

Distance: 3m

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



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	199.6431	23.26	14.98	38.24	43.50	-5.26	QP	
2	221.1785	25.54	15.74	41.28	46.00	-4.72	QP	
3	382.5126	21.04	21.63	42.67	46.00	-3.33	QP	