CE

SPORTON LAB.

Certificate No: **ER7D1802**

CERTIFICATE

EQUIPMENT : **Neo 1973**

TRADE NAME : **FIC**

MODEL NO. : **GTA02**

APPLICANT : **FIC (First International Computer, Inc.)**

1-9F., No. 300, Yang Guang, NeiHu, Taipei, Taiwan, 114

SPORTON LAB.

I HEREBY **CERTIFY THAT:**

THE MEASUREMENTS SHOWN IN THIS TEST REPORT WERE MADE IN ACCORDANCE WITH THE PROCEDURES GIVEN IN **EUROPEAN COUNCIL DIRECTIVE 1999/5/EC.** THE EQUIPMENT WAS **PASSED** THE TEST PERFORMED ACCORDING TO **ETSI EN 300 328 V1.7.1 (2006-10).** THE TEST WAS CARRIED OUT ON Dec. 25, 2007 AT **SPORTON INTERNATIONAL INC.** LAB.

Roy Wu

Roy Wu
Manager

CE Radio Test Report

According to

ETSI EN 300 328 V1.7.1 (2006-10)

Equipment : Neo 1973

Trade Name : FIC

Model No. : GTA02

Applicant : FIC (First International Computer, Inc.)

1-9F., No. 300, Yang Guang, NeiHu, Taipei, Taiwan, 114

- The test result refers exclusively to the test presented test model / sample.
- Without written approval of SPORTON International Inc., the test report shall not be reproduced except in full.
- This test report is only applicable to European Community.
- Report Version: Rev. 01

SPORTON International Inc.
6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

Table of Contents

History of This Test Report

Report Issue Date: Jan. 03, 2008

Report No.	Description

Certificate No. : ER7D1802

CERTIFICATE OF COMPLIANCE

According to

ETSI EN 300 328 V1.7.1 (2006-10)

Equipment : Neo 1973

Trade Name : FIC

Model No. : GTA02

Applicant : FIC (First International Computer, Inc.)

1-9F., No. 300, Yang Guang, NeiHu, Taipei, Taiwan, 114

I **HEREBY** CERTIFY THAT:

The measurements shown in this test report were made in accordance with the procedures given in **EUROPEAN COUNCIL DIRECTIVE 1999/5/EC. The equipment was passed the test performed according to ETSI EN 300 328 V1.7.1 (2006-10).** The test was carried out on Dec. 25, 2007 at **SPORTON International Inc.** LAB.

Roy Wu
Manager

SPORTON International Inc.
6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

1. General Description of Equipment under Test

1.1 Applicant

FIC (First International Computer, Inc.)
1-9F., No. 300, Yang Guang, NeiHu, Taipei, Taiwan, 114

1.2 Manufacture

First International Computer (Suzhou) Inc.
No. 200, Contral Suhong Road, SuZhou Industrial Park, China

1.3 Basic Description of Equipment under Test

Equipment		Neo 1973
Trade Name		FIC
Model Name		GTA02
AC Adapter	**Manufacturer**	AKII TECHNOLOGY CO., LTD.
	Brand Name	AKII Technology
	Model Name	A10P1-05MP
	Power Rating	I/P:100-240 Vac, 47-63 Hz, 0.3A; O/P: 5Vdc, 2.0A
	AC Power Cord Type	1.49 meter non-shielded cable without ferrite core
Battery	**Manufacture**	WELLDONE COMPANY
	Brand Name	FIC
	Model Name	GTC-01 / GTA-01
	Rating	3.7Vdc, 1200mAh
	Type	Li-ion
Earphone	**Brand Name**	Xport
	Model Name	Ko-11-1020a
	Signal line Type	1.42 meter shielded cable without ferrite core
USB Cable	**Brand Name**	Golden Bridge
	Model Name	AS52-0607007
	Signal Line Type	1.29 meter non-shielded cable without ferrite core

Remark: Above EUT's information was declared by manufacturer. Please refer to the specifications of manufacturer or User's Manual for more detailed features description.

1.4 Feature of Equipment under Test

Product Feature & Specification				
1. DUT Type	Neo 1973			
2. Trade Name	FIC			
3. Model No.	GTA02			
4. Modulation Type/Data Rate	GSM : GMSK Bluetooth (1Mbps) : GFSK Bluetooth EDR (2Mbps) : π/4-DQPSK Bluetooth EDR (3Mbps) : 8-DPSK WLAN : DSSS / OFDM			
5. Tx Frequency	GSM900 : 880 ~ 915 MHz DCS1800 : 1710 ~ 1785 MHz Bluetooth : 2400 ~ 2483.5 MHz WLAN : 2400 ~ 2483.5 MHz			
6. Rx Frequency	GSM900 : 925 ~ 960 MHz DCS1800 : 1805 ~ 1880 MHz Bluetooth : 2400 ~ 2483.5 MHz WLAN : 2400 ~ 2483.5 MHz GPS : 1575.42 MHz			
7. Number of Channels	Bluetooth : 79 WLAN : 11			
8. Carrier Frequency of each channel	Bluetooth : 2402+n x 1 MHz; n = 0~78 WLAN : 2412+ (n-1) x 5 MHz; n = 1~13			
9. Channel Spacing	GSM : 200 KHz Bluetooth : 1 MHz WLAN : 5 MHz			
10. Maximum EIRP Average Power	Bluetooth : -1.79 dBm (1Mbps) Bluetooth EDR : -0.87 dBm (2Mbps) / -0.69 dBm (3Mbps) WLAN : 10.67 dBm (802.11b) / 10.59 dBm (802.11g)			
11. Type of Antenna Connector	N/A			
12. Antenna Type	GSM : Monopole Antenna Bluetooth : Chip Antenna WLAN : Chip Antenna GPS : Ceramic Antenna			
13. Antenna Gain	GSM : 0.07 dBi GPS : 0.5 dBi Bluetooth : -4.84 dBi WLAN : -3 dBi			
14. Duty Cycle	Bluetooth (1Mbps) : 79.45% Bluetooth EDR (2Mbps) : 38.66% Bluetooth EDR (3Mbps) : 38.41% 802.11b : 100.00% 802.11g : 100.00%			
15. HW Version	A5			
16. SW Version	Moko5			
17. Power Rating (DC/AC Voltage)	Battery : DC 3.7V Adapter : AC 100-240V			
18. Function Type	Transmitter		Transceiver	V
19. DUT Stage	Identical Prototype			

2. Test Configuration of Equipment under Test

2.1 Test Manner

a. During testing, the interface cables and equipment positions were varied according to European Standard EN 300 328 V1.7.1 (2006-10).
b. The complete test system included EUT for RF test.
c. The data rate :

802.11b：

Channel	Frequency (MHz)	Data Rate (dBm)			
		1 Mbps	2 Mbps	5.5 Mbps	11 Mbps
CH 01	2412 MHz	12.63	12.62	12.60	12.59
CH 07	2442 MHz	12.83	12.84	12.80	13.19
CH 13	2472 MHz	12.75	12.71	12.73	12.76

802.11g：

Channel	Frequency (MHz)	Data Rate (dBm)			
		6 Mbps	9 Mbps	12 Mbps	18 Mbps
CH 01	2412 MHz	12.16	12.10	12.04	12.12
CH 07	2442 MHz	12.14	12.13	12.09	12.17
CH 13	2472 MHz	12.04	12.02	12.04	12.13

Channel	Frequency (MHz)	Data Rate (dBm)			
		24 Mbps	36 Mbps	48 Mbps	54 Mbps
CH 01	2412 MHz	12.04	11.98	12.06	12.01
CH 07	2442 MHz	12.05	12.08	12.10	12.20
CH 13	2472 MHz	11.94	12.02	12.00	12.14

The 802.11b/g data rate were set in 11Mbps and 54Mbps, due to the highest RF output power

Bluetooth：

Channel	Frequency	Modulation / Data Rate (dBm)		
		GFSK	Pi/4-DQPSK	8-DPSK
		1 Mbps	2 Mbps	3 Mbps
CH00	2400 MHz	2.67	0.93	0.94
CH39	2441 MHz	2.41	0.72	0.49
CH78	2480 MHz	2.10	0.16	0.01

1Mbps was chosen to being tested due to the highest RF output power. Bluetooth uses frequency hopping spread spectrum (FHSS) operation which also facilities Bluetooth multiple access and coexistence among other types of wireless systems. The basic frequency-hopping pattern is a pseudo-random ordering of 79 channel frequencies in the ISM band and the hopping rate is nominally 1600 hops per second. The EDR modulation format uses one of two types of DPSK (Pi/4-DQPSK or 8-DPSK) in the payload section of the packet. As shown in figure, the EDR packet begins using GFSK modulation during the access code and header portions of the packet but changes to DPSK modulation after the guard time. Changing to a DPSK format allows increased data rates of 2 Mb/s or 3 Mb/s.

d. The following test modes were performed for RF test:

WLAN：

	802.11b	802.11g	
Tx	Mode 1: CH01 (2412MHz) Mode 2: CH13 (2472MHz)	Mode 3: CH01 (2412MHz) Mode 4: CH13 (2472MHz)	
Rx	Mode 1: CH01 (2412MHz) Mode 2: CH13 (2472MHz)	Mode 3: CH01 (2412MHz) Mode 4: CH13 (2472MHz)	

Bluetooth：

	Bluetooth (1Mbps)	Bluetooth EDR (2Mbps)	Bluetooth EDR (3Mbps)
Tx	Mode 5: CH00 (2402MHz) Mode 6: CH78 (2480MHz)	Mode 7: CH00 (2402MHz)	Mode 8: CH00 (2402MHz)
Rx	Mode 5: CH00 (2402MHz) Mode 6: CH78 (2480MHz)		

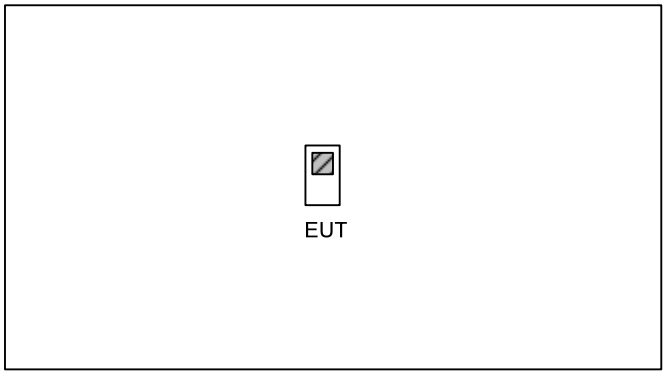
e. Frequency range investigated: radiation 30 MHz to 12750 MHz.

2.2 Description of Test System

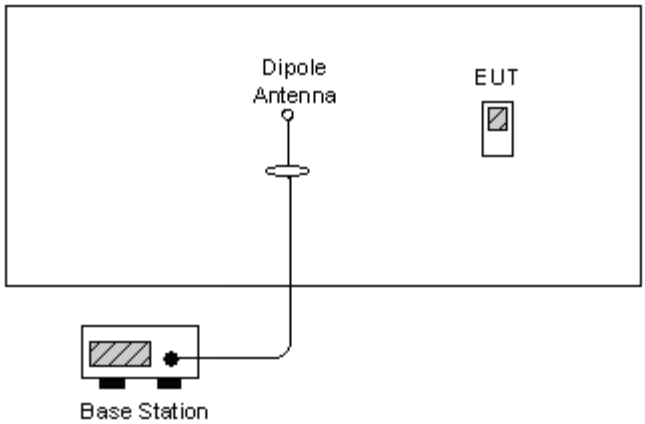
Item	Equipment	Trade Name	Model Name	Data Cable / Power Code
1.	BT Base Station	Anritsu	8852A	N/A

2.3 Connection Diagram of Test System

WLAN：



Bluetooth：



3. Test Software

Programmed RF utility installed in EUT provides functions like channel selection and power level for continuous transmitting and receiving signal.

4. General Information of Test

4.1 Test Facility

Test Site Location : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park,
Kwei-Shan Hsiag, Tao Yuan Hsiang, Taiwan, R.O.C.
TEL : 886-3-327-3456
FAX : 886-3-328-4978

Test Site No. : TH02-HY, 05CH02-HY

4.2 Test Voltage

DC 4.04V

4.3 Test Condition

Normal Voltage	:	DC 3.7V
Extreme Voltage	:	DC 3.2V and DC 4.2V
Normal Temperature	:	25 ℃
Extreme Temperature	:	-20 ℃ and 55 ℃

4.4 Standard for Methods of Measurement

ETSI EN 300 328 V1.7.1 (2006-10)

5. List of Measurements

6. Transmitter Parameters

6.1 Effective Isotropic Radiated Power (SUBCLAUSE 4.3.1)

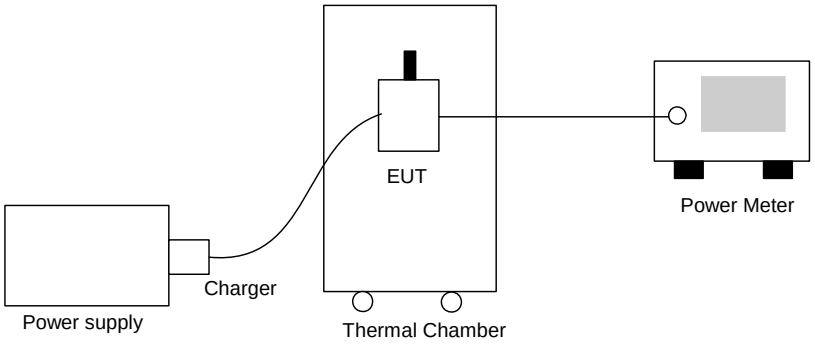
6.1.1 Measuring Instruments

As described in chapter 9 of this test report.

6.1.2 Test Procedure

1. Placing the EUT in thermal chamber.
2. The transmitter output port was connected to the power meter.
3. Connecting the charger to power supply.
4. Setting thermal chamber temperature and power supply voltage at suitable values.
5. The power is equal to the reading on power meter plus cable loss.
6. Repeating step 4 and 5 at different condition and different channel.

6.1.3 Test Setup Layout



6.1.4 Test Results: Test Mode-**802.11b**

Ambient temperature: 21~24℃
Relative humidity: 51~55%
Duty cycle of the equipment during the test X＝100.00%
Antenna Gain= -3 dBi
Test Engineer: CKC

TEST CONDITIONS				TRANSMITTER POWER EIRP (Average) (dBm)		
				CH 01 2412 MHz	CH 07 2442 MHz	CH 13 2472 MHz
MT nom（℃）	25	V nom(V)	3.7	9.59	10.19	9.76
TSTSU T min（℃）	-20	V max(V)	4.2	9.84	10.66	10.52
		V min(V)	3.2	9.82	10.67	10.50
BCTAU T max（℃）	55	V max(V)	4.2	9.24	9.77	9.30
		V min(V)	3.2	9.23	9.78	9.29
SE Measurement uncertainty				1.5dB		

LIMITS: SUBCLAUSE 4.3.1.2

Under all test conditions	20dBm/ -10dBW

Limit kept Yes [V] No [ ]

6.1.5 Test Results: Test Mode-**802.11g**

Ambient temperature: 21~24℃
Relative humidity: 51~55%
Duty cycle of the equipment during the test X ＝100.00%
Antenna Gain= -3 dBi
Test Engineer: CKC

TEST CONDITIONS				TRANSMITTER POWER EIRP (Average) (dBm)		
				CH 01 2412 MHz	CH 07 2442 MHz	CH 13 2472 MHz
MT nom（℃）	25	V nom(V)	3.7	9.01	9.20	9.14
TSTSU T min（℃）	-20	V max(V)	4.2	9.52	10.51	9.89
		V min(V)	3.2	9.56	10.59	9.90
BCTAU T max（℃）	55	V max(V)	4.2	9.31	8.90	8.48
		V min(V)	3.2	9.25	8.85	8.41
SE Measurement uncertainty				1.5dB		

LIMITS: SUBCLAUSE 4.3.1.2

Under all test conditions	20dBm/ -10dBW

Limit kept Yes [V] No [ ]

6.1.6 Test Results: Test Mode-**Bluetooth (1Mbps)**

Ambient temperature: 21~24℃
Relative humidity: 51~55%
Duty cycle of the equipment during the test X = 79.45%
Antenna Gain= -4.84 dBi
Test Engineer: Ken

TEST CONDITIONS				TRANSMITTER POWER EIRP (Average) (dBm)		
				CH 00 2402 MHz	CH 39 2441 MHz	CH 78 2480 MHz
T nom（℃）	25	V nom(V)	3.7	-2.17	-2.43	-2.74
T min（℃）	-20	V max(V)	4.2	-1.80	-1.83	-2.15
		V min(V)	3.2	-1.79	-1.85	-2.13
T max（℃）	55	V max(V)	4.2	-2.66	-3.17	-3.51
		V min(V)	3.2	-2.65	-3.18	-3.50
Measurement uncertainty				1.5dB		

LIMITS: SUBCLAUSE 4.3.1.2

Under all test conditions	20dBm/ -10dBW

Limit kept Yes [V] No [ ]

6.1.7 Test Results: Test Mode-**Bluetooth EDR (2Mbps)**

Ambient temperature: 21~24℃
Relative humidity: 51~55%
Duty cycle of the equipment during the test X = 38.66%
Antenna Gain= -4.84 dBi
Test Engineer: Ken

TEST CONDITIONS				TRANSMITTER POWER EIRP (Average) (dBm)		
				CH 00 2402 MHz	CH 39 2441 MHz	CH 78 2480 MHz
MT nom (℃)	25	V nom(V)	3.7	-3.91	-4.12	-4.68
TST min (℃)	-20	V max(V)	4.2	-1.49	-1.27	-0.87
		V min(V)	3.2	-1.48	-1.27	-0.88
BCT max (℃)	55	V max(V)	4.2	-6.09	-6.68	-6.99
		V min(V)	3.2	-6.08	-6.67	-7.01
SE Measurement uncertainty				1.5dB		

LIMITS: SUBCLAUSE 4.3.1.2

Under all test conditions	20dBm/ -10dBW

Limit kept Yes [V] No [ ]

6.1.8 Test Results: Test Mode- **Bluetooth EDR (3Mbps)**

Ambient temperature: 21~24℃
Relative humidity: 51~55%
Duty cycle of the equipment during the test X = 38.41%
Antenna Gain= -4.84 dBi
Test Engineer: Ken

TEST CONDITIONS				TRANSMITTER POWER EIRP (Average) (dBm)		
				CH 00 2402 MHz	CH 39 2441 MHz	CH 78 2480 MHz
T nom（℃）	25	V nom(V)	3.7	-3.90	-4.35	-4.83
T min（℃）	-20	V max(V)	4.2	-1.36	-1.02	-0.69
		V min(V)	3.2	-1.34	-1.01	-0.70
T max（℃）	55	V max(V)	4.2	-6.14	-6.37	-6.93
		V min(V)	3.2	-6.12	-6.38	-6.96
Measurement uncertainty				1.5dB		

LIMITS: SUBCLAUSE 4.3.1.2

Under all test conditions	20dBm/ -10dBW

Limit kept Yes V No

6.2 Maximum Spectral Power Density (SUBCLAUSE 4.3.2)

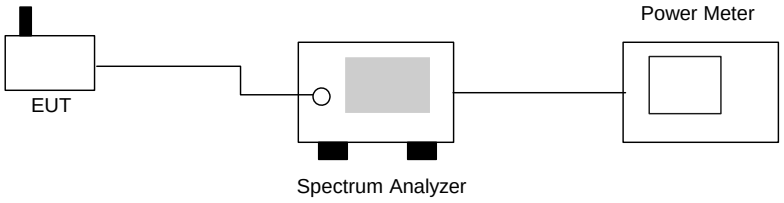
6.2.1 Measuring Instruments

As described in chapter 9 of this test report.

6.2.2 Test Procedure

1. The transmitter output port was connected to spectrum analyzer directly and IF port of spectrum analyzer was connected to power meter.
2. The spectrum analyzer's resolution bandwidth was set at 1 MHz RBW and 1 MHz VBW under fundamental frequency.
3. The maximum spectral power density, e.i.r.p., is determined using a method of substitution calibrated by signal generator.

6.2.3 Test Setup Layout



6.2.4 Test Results: Test Mode- **802.11b**

Ambient temperature: 21~24℃
Relative humidity: 51~55%
Duty cycle of the equipment during the test X ＝100.00%
Antenna Gain=-3 dBi
Test Engineer: CKC

	Power Density (dBm/MHz)		
TESTS	CH 01 2412MHz	CH07 2442MHz	CH 13 2472MHz
Measured Power Density	7.1	7.9	7.4
Maximum Spectral Power Density EIRP（dBm）	4.10	4.90	4.40
Measurement uncertainty	3dB		

Remark: Maximum Spectral Power Density EIRP（dBm） = Measured Power Density + antenna gain

LIMITS: SUBCLAUSE 4.3.2.2

Under all test conditions	-20dBW/ MHz 10dBm / MHz

Limit kept Yes [V] No [ ]

6.2.5 Test Results: Test Mode- **802.11g**

Ambient temperature: 21~24℃
Relative humidity: 51~55%
Duty cycle of the equipment during the test X ＝100.00%
Antenna Gain= -3 dBi
Test Engineer: CKC

	Power Density (dBm/MHz)		
TESTS	CH 01 2412MHz	CH07 2442MHz	CH 13 2472MHz
Measured Power Density	3.7	4	3.9
Maximum Spectral Power Density EIRP（dBm）	0.70	1.00	0.90
Measurement uncertainty	3dB		

Remark: Maximum Spectral Power Density EIRP（dBm） = Measured Power Density + antenna gain

LIMITS: SUBCLAUSE 4.3.2.2

Under all test conditions	-20dBW/ MHz 10dBm / MHz

Limit kept Yes V No

6.2.6 Test Results: Test Mode-**Bluetooth (1Mbps)** and **Bluetooth EDR**

Maximum spectrum power density is not applicable for FHSS device.

6.3 Transmitter Frequency Range (SUBCLAUSE 4.3.3)

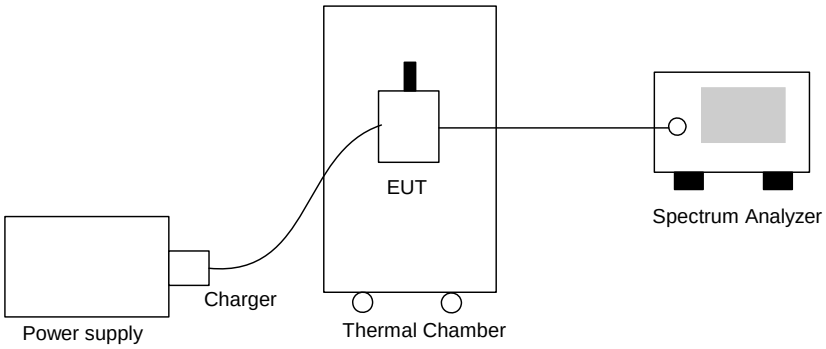
6.3.1 Measuring Instruments

As described in chapter 9 of this test report.

6.3.2 Test Procedure

1. Placing the EUT in thermal chamber.
2. The transmitter output port was connected to the spectrum analyzer.
3. Connecting the charger to power supply.
4. The settings on spectrum analyzer are 100 KHz RBW and 100 KHz VBW.
5. Setting thermal chamber temperature and power supply voltage at suitable value.
6. Recording f_L or f_H according subclause 4.3.3.
7. Repeating step 5 and 6 at different conditions and different channel.

6.3.3 Test Setup Layout



6.3.4 Test Results: Test Mode- **802.11b**

Ambient temperature: 21~24℃
Relative humidity: 51~55%
Duty cycle of the equipment during the test X ＝100.00%
Antenna Gain= -3 dBi
Test Engineer: CKC

TEST CONDITIONS				FREQUENCY (MHz) at which –80 dBm/Hz occurs		
				CH 01 2412MHz	CH 07 2442MHz	CH 13 2472MHz
T nom(℃)	25	V nom(V)	3.7	2402.82	2451.36	2481.30
T min (℃)	-20	V max(V)	4.2	2402.28	2451.78	2481.72
		V min(V)	3.2	2403.28	2452.78	2482.72
T max(℃)	55	V max(V)	4.2	2402.82	2451.30	2481.30
		V min(V)	3.2	2402.82	2451.30	2481.30
Measured frequencies (lowest and highest)				f_L = 2402.28	f_H = 2452.78	f_H = 2482.72
Measurement uncertainty				1×10^{-5}		

Remark: Lowest frequency band limit=2400MHz, Highest frequency band limit=2454MHz for France.

LIMITS: SUBCLAUSE 4.3.3.2

Under all test conditions	f_L ＞ 2400 MHz f_H ＜2483.5 MHz

Limit kept Yes [V] No [ ]

6.3.5 Test Results: Test Mode- **802.11g**

Ambient temperature: 21~24℃
Relative humidity: 51~55%
Duty cycle of the equipment during the test X =100.00%
Antenna Gain= -3 dBi
Test Engineer: CKC

TEST CONDITIONS				FREQUENCY (MHz) at which –80 dBm/Hz occurs		
				CH 01 2412MHz	CH 07 2442MHz	CH 13 2472MHz
T nom(℃)	25	V nom(V)	3.7	2402.70	2451.24	2481.12
T min (℃)	-20	V max(V)	4.2	2402.40	2451.42	2481.36
		V min(V)	3.2	2403.40	2452.42	2482.36
T max(℃)	55	V max(V)	4.2	2402.76	2451.18	2481.06
		V min(V)	3.2	2402.76	2451.18	2481.06
Measured frequencies (lowest and highest)				f_L = 2402.40	f_H = 2452.42	f_H = 2482.36
Measurement uncertainty				1×10^{-5}		

Remark: Lowest frequency band limit=2400MHz, Highest frequency band limit=2454MHz for France.

LIMITS: SUBCLAUSE 4.3.3.2

Under all test conditions	f_L > 2400 MHz f_H <2483.5 MHz

Limit kept Yes [V] No [ ]

6.3.6 Test Results: Test Mode- Bluetooth (1Mbps)

Ambient temperature: 21~24℃
Relative humidity: 51~55%
Duty cycle of the equipment during the test X =79.45%
Antenna Gain= -4.84 dBi
Test Engineer: Ken

TEST CONDITIONS				FREQUENCY (MHz) at which –80 dBm/Hz occurs	
				CH 00 2402 MHz	CH 78 2480 MHz
T nom(℃)	25	V nom(V)	3.7	2401.35	2480.62
T min (℃)	-20	V max(V)	4.2	2401.36	2480.65
		V min(V)	3.2	2402.36	2481.65
T max(℃)	55	V max(V)	4.2	2401.36	2480.61
		V min(V)	3.2	2402.36	2481.61
Measured frequencies (lowest and highest)				f_L = 2401.35	f_H = 2481.65
Measurement uncertainty				1×10^{-5}	

LIMITS: SUBCLAUSE 4.3.3.2

Under all test conditions	f_L > 2400 MHz f_H <2483.5 MHz

Limit kept Yes [V] No [ ]

6.3.7 Test Results: Test Mode- Bluetooth EDR (2Mbps)

Ambient temperature: 21~24℃
Relative humidity: 51~55%
Duty cycle of the equipment during the test X =38.66%
Antenna Gain= -4.84 dBi
Test Engineer: Ken

TEST CONDITIONS				FREQUENCY (MHz) at which –80 dBm/Hz occurs	
				CH 00 2402 MHz	CH 78 2480 MHz
T nom(℃)	25	V nom(V)	3.7	2401.36	2480.59
T min (℃)	-20	V max(V)	4.2	2401.33	2480.64
		V min(V)	3.2	2402.33	2481.64
T max(℃)	55	V max(V)	4.2	2401.40	2480.56
		V min(V)	3.2	2402.40	2481.56
Measured frequencies (lowest and highest)				f_L = 2401.33	f_H = 2481.64
Measurement uncertainty				1×10^{-5}	

LIMITS: SUBCLAUSE 4.3.3.2

Under all test conditions	f_L > 2400 MHz f_H < 2483.5 MHz

Limit kept Yes V No

6.3.8 Test Results: Test Mode- Bluetooth EDR (3Mbps)

Ambient temperature: 21~24℃
Relative humidity: 51~55%
Duty cycle of the equipment during the test X =38.41%
Antenna Gain= -4.84 dBi
Test Engineer: Ken

TEST CONDITIONS				FREQUENCY (MHz) at which –80 dBm/Hz occurs	
				CH 00 2402 MHz	CH 78 2480 MHz
T nom(℃)	25	V nom(V)	3.7	2401.38	2480.60
T min (℃)	-20	V max(V)	4.2	2401.35	2480.66
		V min(V)	3.2	2402.35	2481.66
T max(℃)	55	V max(V)	4.2	2401.41	2480.56
		V min(V)	3.2	2402.41	2481.56
Measured frequencies (lowest and highest)				f_L = 2401.35	f_H = 2481.66
Measurement uncertainty				1×10^{-5}	

LIMITS: SUBCLAUSE 4.3.3.2

Under all test conditions	f_L > 2400 MHz f_H <2483.5 MHz

Limit kept Yes V No

6.4 Transmitter Spurious Emissions (SUBCLAUSE 4.3.6)

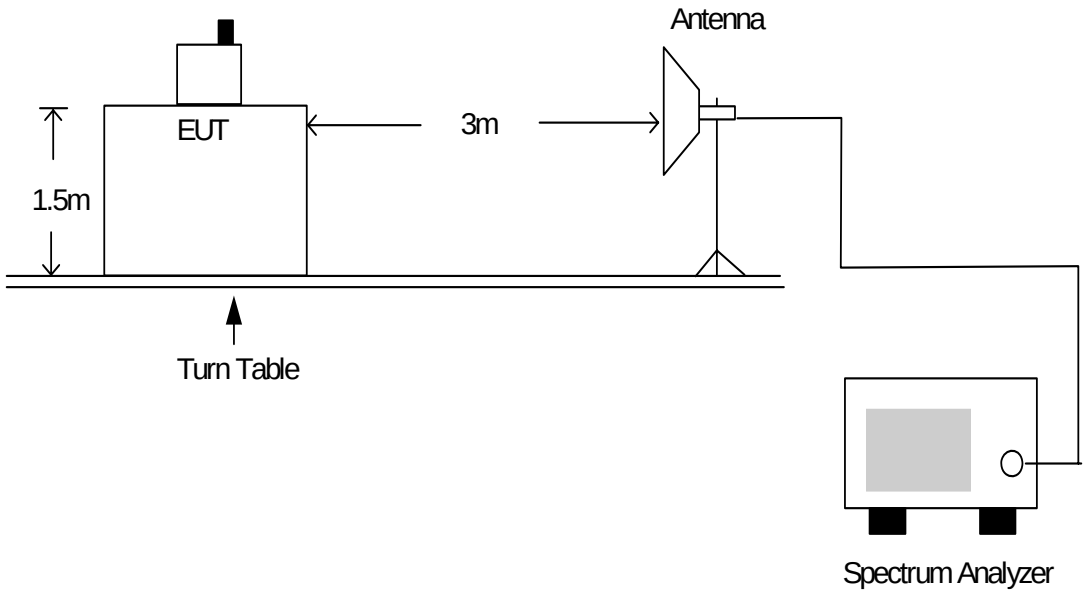
6.4.1 Measuring Instruments

As described in chapter 9 of this test report.

6.4.2 Test Procedures

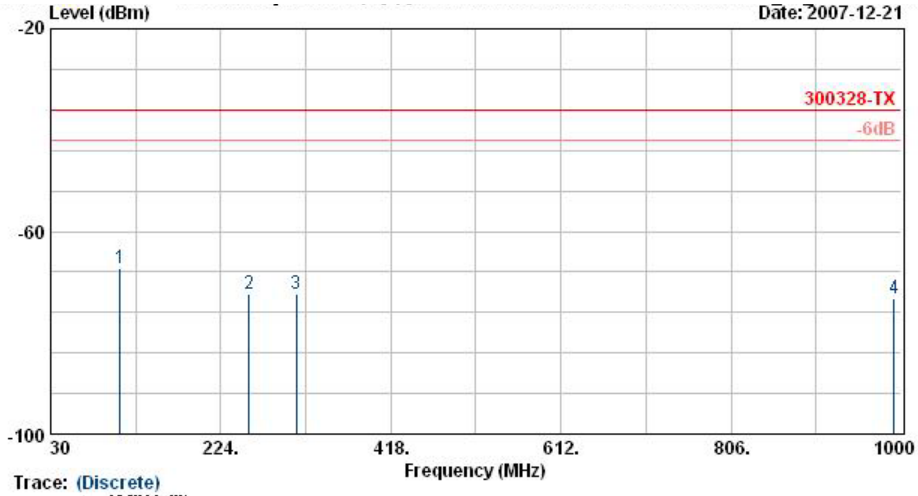
1. The EUT was placed on a turntable with 1.5m height.
2. The receiving antenna with horizontal and vertical polarization is 3m away from EUT and keeps the antenna height at 1.5m.
3. Setting EUT in continuous Tx.
4. The table was rotated to search the highest radiation.
5. Repeating step 3 and 4 for different channel.

6.4.3 Test Setup Layout



6.4.4 Mode 1: CH01 (2412MHz)

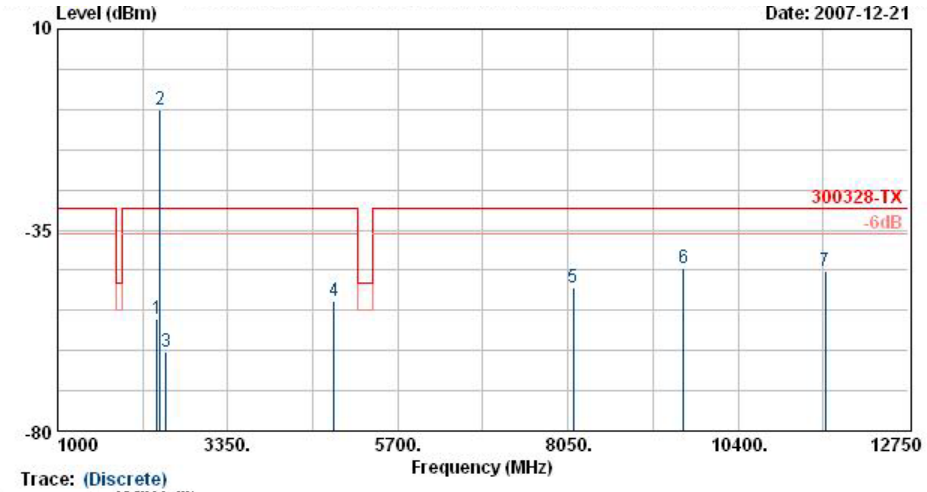
Ambient temperature: 21~24°C
Relative humidity: 51~55%
Test Distance: 3m
Test Engineer: Tony
Polarization: Horizontal



Trace: (Discrete)

Site : 05CH02-HV
Condition : 300328-TX ETRP-LF-070915 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11B_Tx_Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	109.38	-67.18	-31.18	-36.00	-63.53	-3.65	HORIZONTAL
2	255.99	-72.37	-36.37	-36.00	-68.40	-3.97	HORIZONTAL
3	309.80	-72.45	-36.45	-36.00	-69.33	-3.13	HORIZONTAL
4	992.30	-73.28	-37.28	-36.00	-78.32	5.04	HORIZONTAL

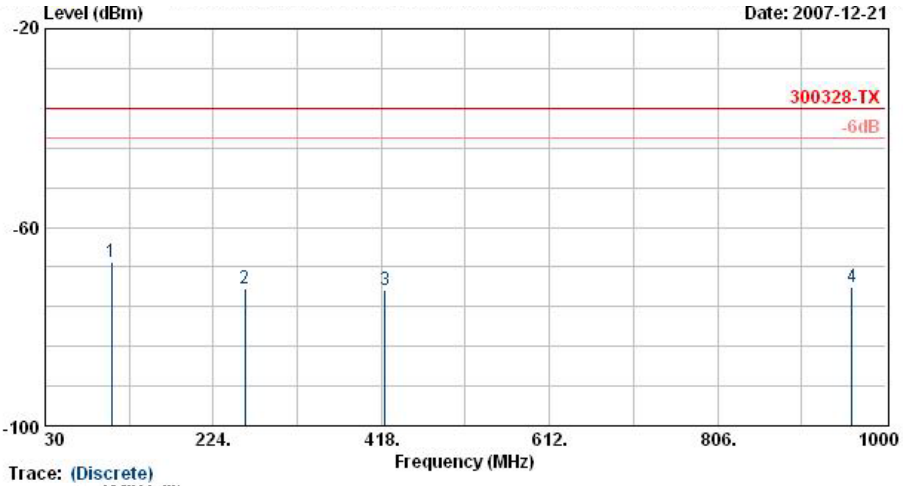


Site : 05CH02-HV
Condition : 300328-TX ETRP-3CHFP-070505 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11B_Tx_Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2368.00	-55.07	-25.07	-30.00	-63.20	8.12	HORIZONTAL
2 X	2412.00	-8.08			-16.20	8.12	HORIZONTAL
3	2498.00	-62.14	-32.14	-30.00	-70.25	8.11	HORIZONTAL
4	4821.00	-51.04	-21.04	-30.00	-67.74	16.71	HORIZONTAL
5	8127.00	-47.91	-17.91	-30.00	-74.65	26.74	HORIZONTAL
6	9645.00	-43.55	-13.55	-30.00	-71.23	27.68	HORIZONTAL
7	11602.50	-44.15	-14.15	-30.00	-75.73	31.58	HORIZONTAL

Remark: #2 is Fundamental Signal.

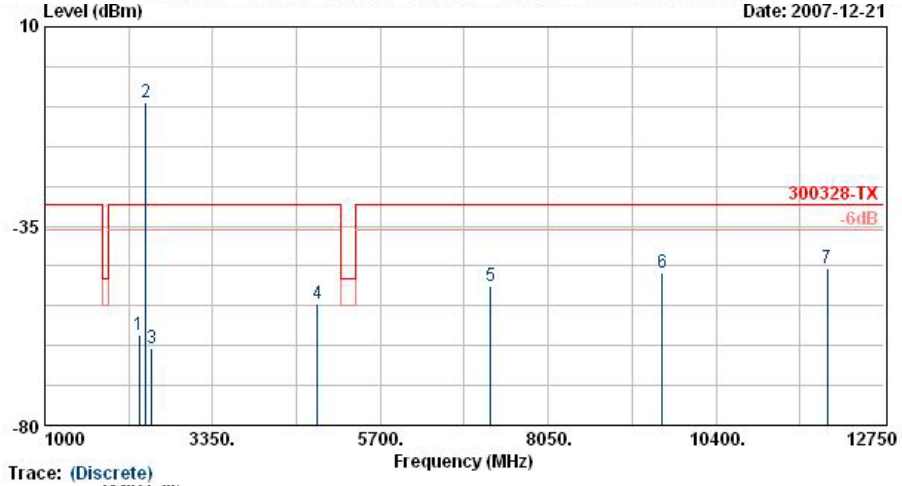
Polarization: Vertical



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX EIRP-LF-070915 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11B_Tx_Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	106.14	-67.01	-31.01	-36.00	-62.98	-4.04	VERTICAL
2	260.58	-72.45	-36.45	-36.00	-69.26	-3.19	VERTICAL
3	421.80	-72.56	-36.56	-36.00	-73.15	0.59	VERTICAL
4	960.80	-71.94	-35.94	-36.00	-76.81	4.87	VERTICAL



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX EIRP-3CHFP-070505 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11B_Tx_Ch01 2412MHz

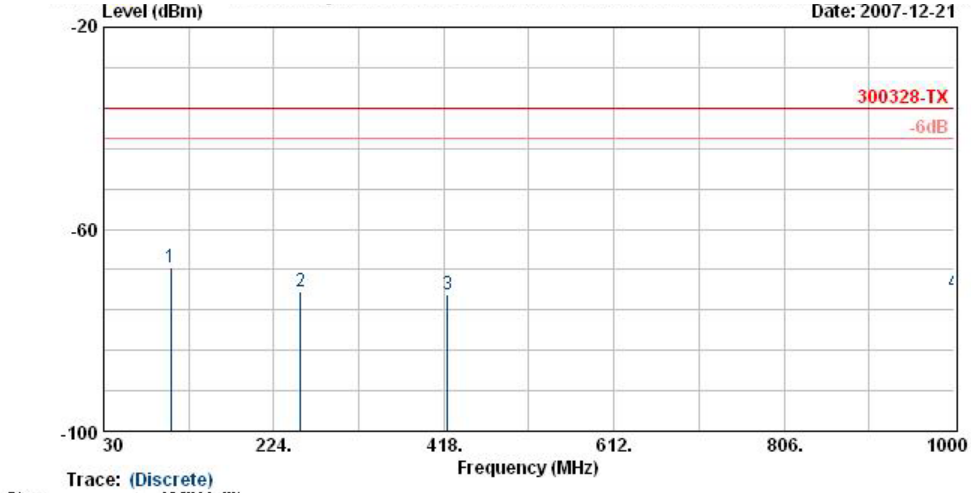
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2318.00	-59.73	-29.73	-30.00	-67.85	8.13	VERTICAL
2 @	2412.00	-6.90			-15.02	8.12	VERTICAL
3	2498.00	-62.60	-32.60	-30.00	-70.71	8.11	VERTICAL
4	4821.00	-52.68	-22.68	-30.00	-69.39	16.71	VERTICAL
5	7242.00	-48.65	-18.65	-30.00	-73.58	24.93	VERTICAL
6	9645.00	-45.41	-15.41	-30.00	-73.09	27.68	VERTICAL
7	11958.75	-44.38	-14.38	-30.00	-76.12	31.73	VERTICAL

Remark: #2 is Fundamental Signal.

6.4.5 Mode 2: CH13 (2472MHz)

Ambient temperature: 21~24°C
Relative humidity: 51~55%
Test Distance: 3m
Test Engineer: Tony

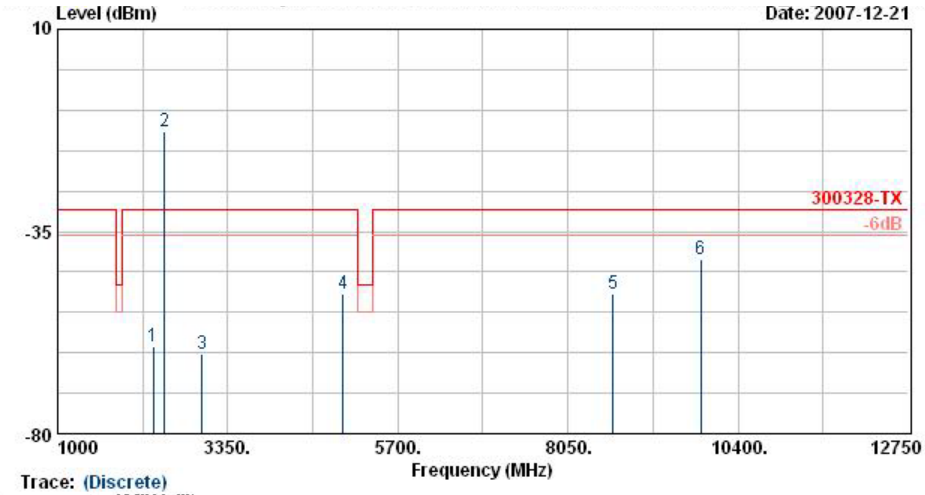
Polarization: Horizontal



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX EIRP-LF-070915 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11B_Tx_Ch13 2472MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	106.14	-67.61	-31.61	-36.00	-63.58	-4.04	HORIZONTAL
2	254.64	-72.44	-36.44	-36.00	-68.08	-4.36	HORIZONTAL
3	421.80	-72.99	-36.99	-36.00	-73.58	0.59	HORIZONTAL
4	999.30	-72.57	-36.57	-36.00	-77.65	5.08	HORIZONTAL



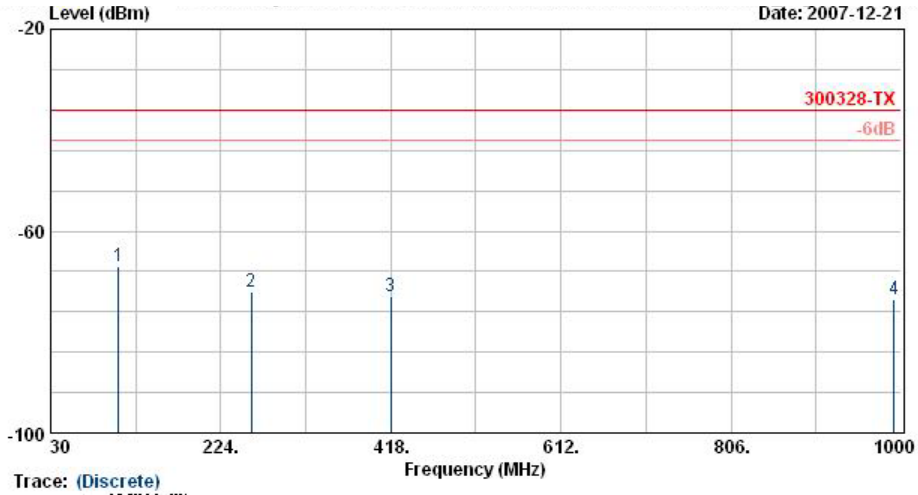
Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX EIRP-3CHFP-070505 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11B_Tx_Ch13 2472MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2318.00	-60.47	-30.47	-30.00	-68.59	8.13	HORIZONTAL
2 X	2472.00	-12.82			-20.93	8.11	HORIZONTAL
3	2994.00	-62.30	-32.30	-30.00	-71.93	9.63	HORIZONTAL
4	4941.00	-48.76	-18.76	-30.00	-66.02	17.26	HORIZONTAL
5	8676.00	-48.83	-18.83	-30.00	-75.93	27.10	HORIZONTAL
6	9888.75	-41.06	-11.06	-30.00	-68.36	27.29	HORIZONTAL

Remark: #2 is Fundamental Signal.

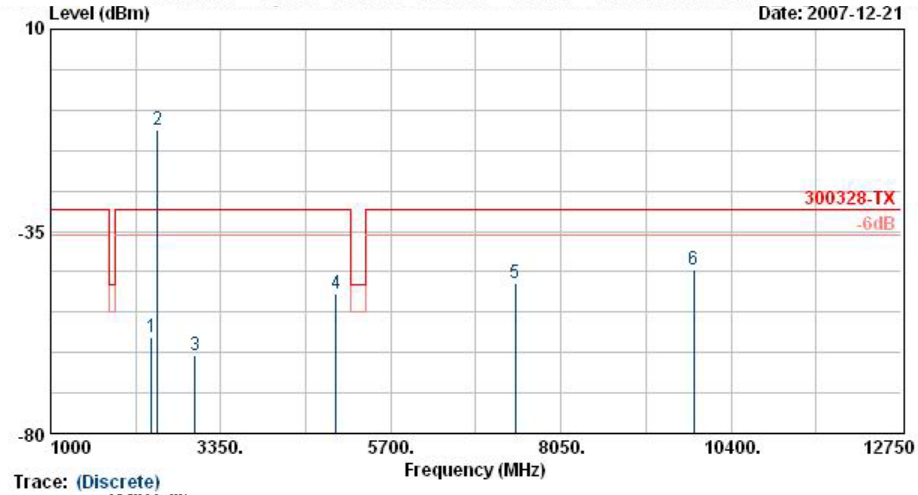
Polarization: Vertical



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX ETRP-LF-070915 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11B_Tx_Ch13 2472MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	107.49	-67.09	-31.09	-36.00	-63.24	-3.84	VERTICAL
2	259.23	-71.95	-35.95	-36.00	-68.37	-3.58	VERTICAL
3	418.30	-72.79	-36.79	-36.00	-73.36	0.57	VERTICAL
4	992.30	-73.48	-37.48	-36.00	-78.52	5.04	VERTICAL



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX ETRP-3CHFP-070505 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11B_Tx_Ch13 2472MHz

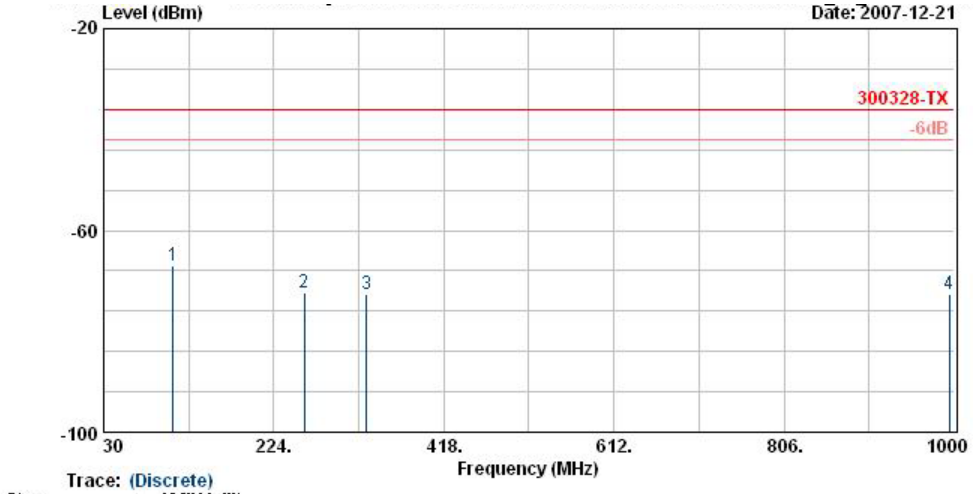
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2398.00	-58.46	-28.46	-30.00	-66.58	8.12	VERTICAL
2 @	2472.00	-12.25			-20.36	8.11	VERTICAL
3	2994.00	-62.73	-32.73	-30.00	-72.36	9.63	VERTICAL
4	4941.00	-48.95	-18.95	-30.00	-66.20	17.26	VERTICAL
5	7416.00	-46.63	-16.63	-30.00	-71.97	25.34	VERTICAL
6	9888.75	-43.59	-13.59	-30.00	-70.88	27.29	VERTICAL

Remark: #2 is Fundamental Signal.

6.4.6 Mode 3: CH01 (2412MHz)

Ambient temperature: 21~24°C
Relative humidity: 51~55%
Test Distance: 3m
Test Engineer: Tony

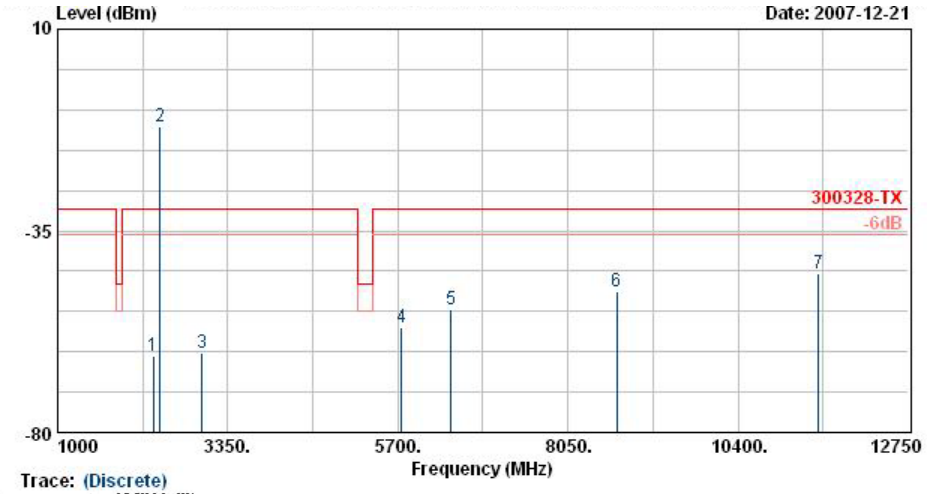
Polarization: Horizontal



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX ETRP-LF-070915 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11G_Tx_Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	109.38	-66.88	-30.88	-36.00	-63.23	-3.65	HORIZONTAL
2	258.69	-72.20	-36.20	-36.00	-68.62	-3.58	HORIZONTAL
3	329.40	-72.63	-36.63	-36.00	-69.68	-2.96	HORIZONTAL
4	994.40	-72.77	-36.77	-36.00	-77.82	5.05	HORIZONTAL



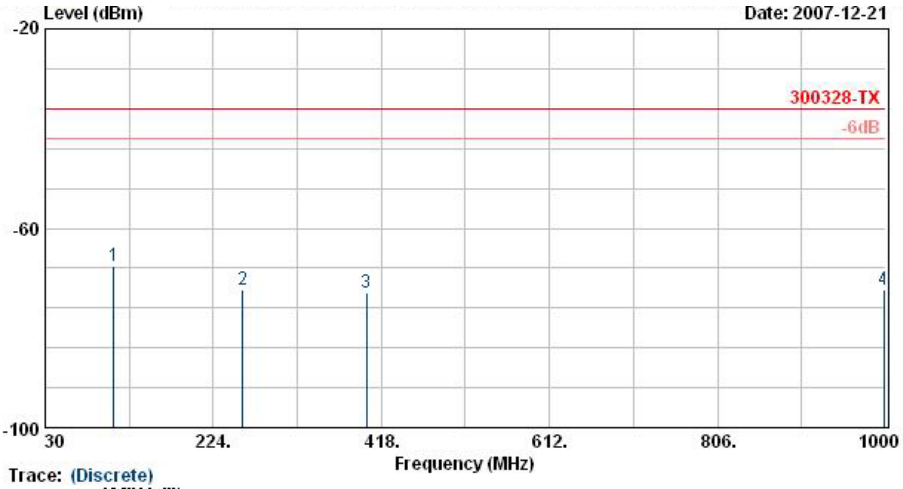
Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX EIRP-3CHFP-070505 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11G_Tx_Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2318.00	-63.08	-33.08	-30.00	-71.21	8.13	HORIZONTAL
2 X	2412.00	-11.64			-19.76	8.12	HORIZONTAL
3	2994.00	-62.23	-32.23	-30.00	-71.86	9.63	HORIZONTAL
4	5751.00	-56.55	-26.55	-30.00	-76.57	20.02	HORIZONTAL
5	6432.00	-52.71	-22.71	-30.00	-74.59	21.88	HORIZONTAL
6	8721.00	-48.44	-18.44	-30.00	-75.53	27.10	HORIZONTAL
7	11508.75	-44.68	-14.68	-30.00	-76.22	31.54	HORIZONTAL

Remark: #2 is Fundamental Signal.

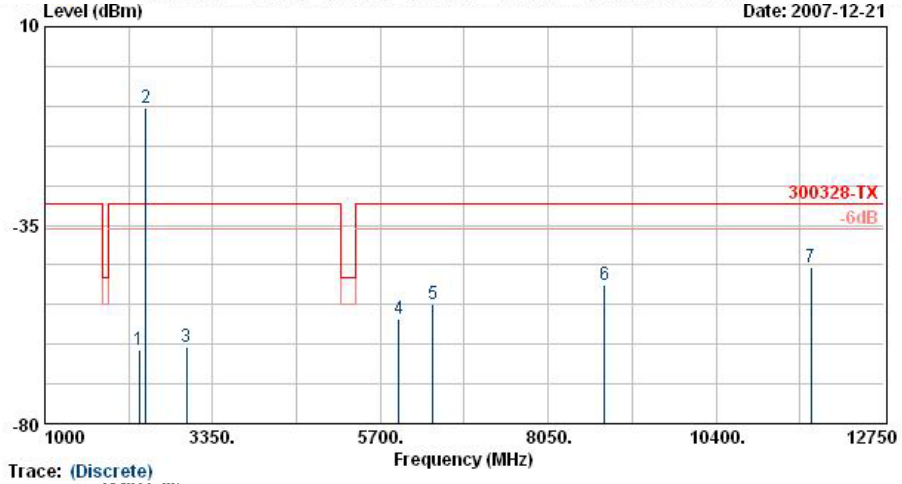
Polarization: Vertical



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX EIRP-LF-070915 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11G_Tx_Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	109.38	-67.47	-31.47	-36.00	-63.82	-3.65	VERTICAL
2	257.88	-72.43	-36.43	-36.00	-68.85	-3.58	VERTICAL
3	400.80	-72.91	-36.91	-36.00	-72.28	-0.63	VERTICAL
4	997.90	-72.41	-36.41	-36.00	-77.48	5.07	VERTICAL



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX EIRP-3GHFP-070505 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11G_Tx_Ch01 2412MHz

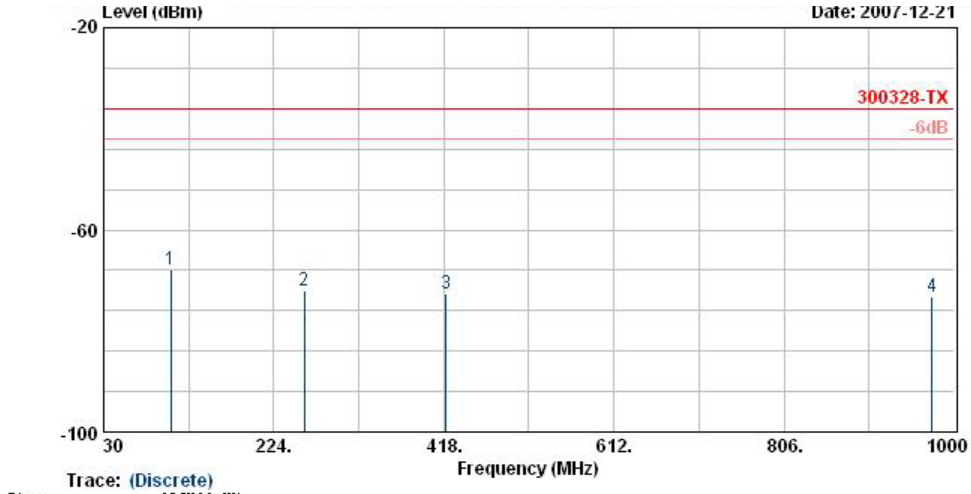
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2318.00	-63.21	-33.21	-30.00	-71.34	8.13	VERTICAL
2 @	2412.00	-8.37			-16.49	8.12	VERTICAL
3	2988.00	-62.46	-32.46	-30.00	-72.09	9.63	VERTICAL
4	5961.00	-56.38	-26.38	-30.00	-76.88	20.50	VERTICAL
5	6432.00	-52.76	-22.76	-30.00	-74.64	21.88	VERTICAL
6	8841.00	-48.47	-18.47	-30.00	-75.56	27.09	VERTICAL
7	11733.75	-44.67	-14.67	-30.00	-76.30	31.64	VERTICAL

Remark: #2 is Fundamental Signal.

6.4.7 Mode 4: CH13 (2472MHz)

Ambient temperature: 21~24°C
Relative humidity: 51~55%
Test Distance: 3m
Test Engineer: Tony

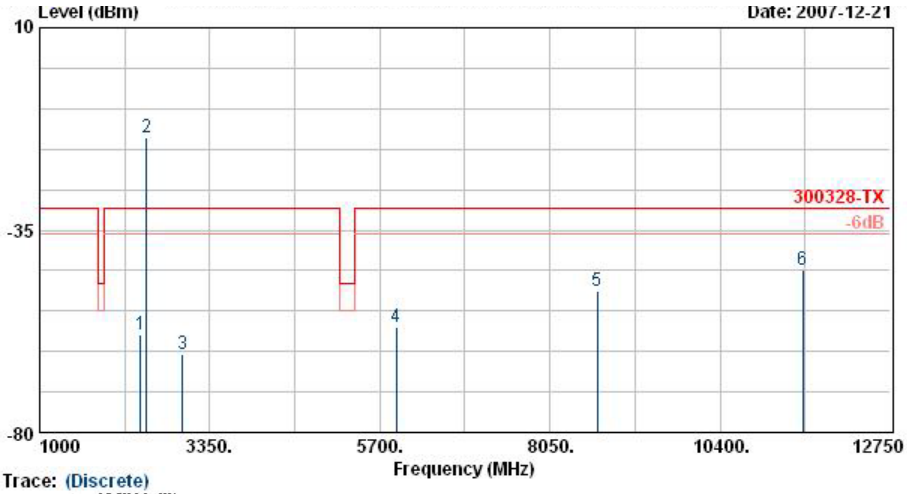
Polarization: Horizontal



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX ETRP-LF-070915 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11G_Tx_Ch13 2472MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	106.68	-67.74	-31.74	-36.00	-63.71	-4.04	HORIZONTAL
2	258.69	-72.14	-36.14	-36.00	-68.56	-3.58	HORIZONTAL
3	420.40	-72.72	-36.72	-36.00	-73.42	0.70	HORIZONTAL
4	974.80	-73.24	-37.24	-36.00	-78.18	4.94	HORIZONTAL



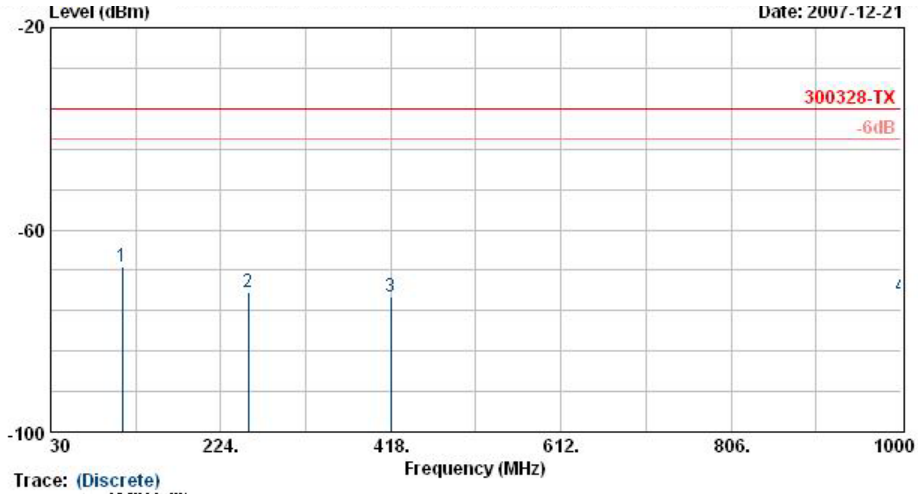
Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX ETRP-3CHFP-070505 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11G_Tx_Ch13 2472MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2398.00	-58.41	-28.41	-30.00	-66.53	8.12	HORIZONTAL
2 X	2472.00	-14.32			-22.43	8.11	HORIZONTAL
3	2974.00	-62.62	-32.62	-30.00	-72.25	9.63	HORIZONTAL
4	5922.00	-56.50	-26.50	-30.00	-76.91	20.41	HORIZONTAL
5	8706.00	-48.56	-18.56	-30.00	-75.66	27.10	HORIZONTAL
6	11546.25	-43.93	-13.93	-30.00	-75.49	31.56	HORIZONTAL

Remark: #2 is Fundamental Signal.

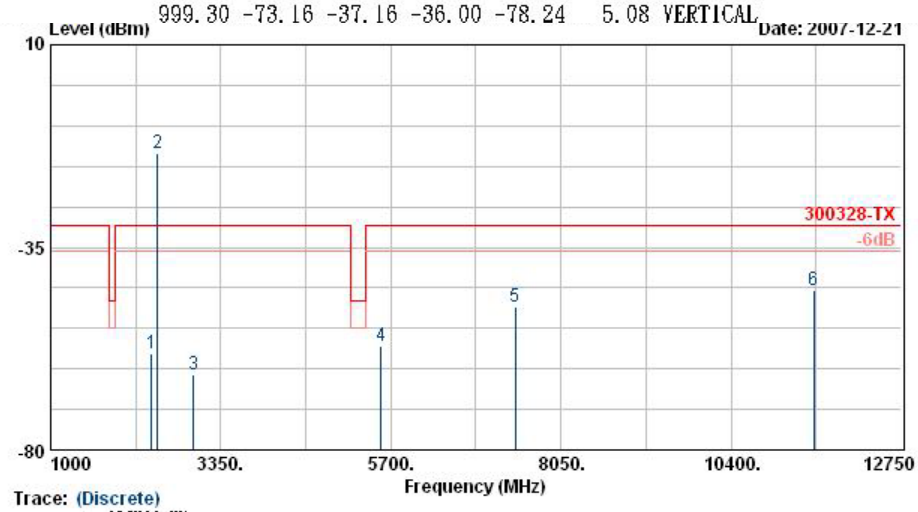
Polarization: Vertical



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX ETRP-LF-070915 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11G_Tx_Ch13 2472MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	111.54	-67.28	-31.28	-36.00	-63.47	-3.81	VERTICAL
2	255.18	-72.30	-36.30	-36.00	-67.94	-4.36	VERTICAL
3	418.30	-73.10	-37.10	-36.00	-73.67	0.57	VERTICAL
4	999.30	-73.16	-37.16	-36.00	-78.24	5.08	VERTICAL



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX ETRP-3CHFP-070505 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11G_Tx_Ch13 2472MHz

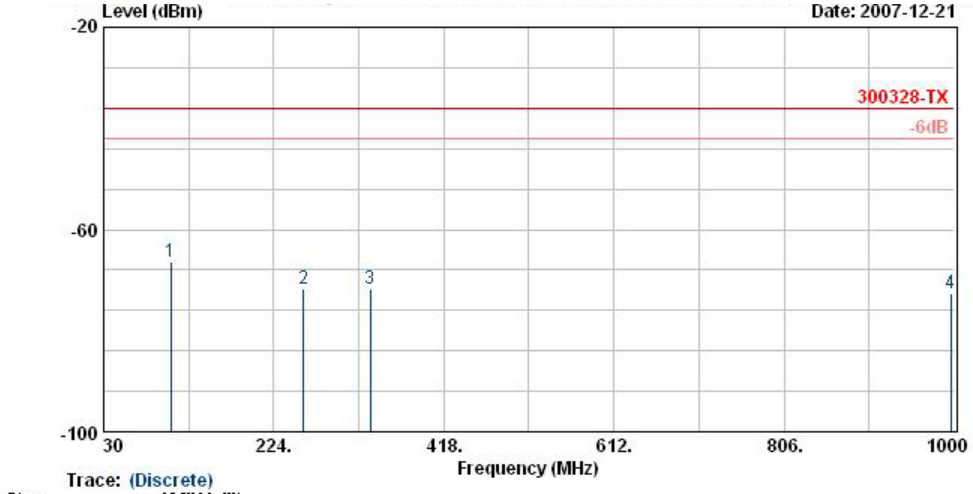
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2398.00	-58.55	-28.55	-30.00	-66.67	8.12	VERTICAL
2 @	2472.00	-14.17	-----	-----	-22.28	8.11	VERTICAL
3	2978.00	-63.20	-33.20	-30.00	-72.83	9.63	VERTICAL
4	5562.00	-56.94	-26.94	-30.00	-76.52	19.59	VERTICAL
5	7416.00	-48.12	-18.12	-30.00	-73.47	25.34	VERTICAL
6	11546.25	-44.56	-14.56	-30.00	-76.12	31.56	VERTICAL

Remark: #2 is Fundamental Signal.

6.4.8 Mode 5: CH00 (2402MHz)

Ambient temperature: 21~24℃
Relative humidity: 51~55%
Test Distance: 3m
Test Engineer: Tony

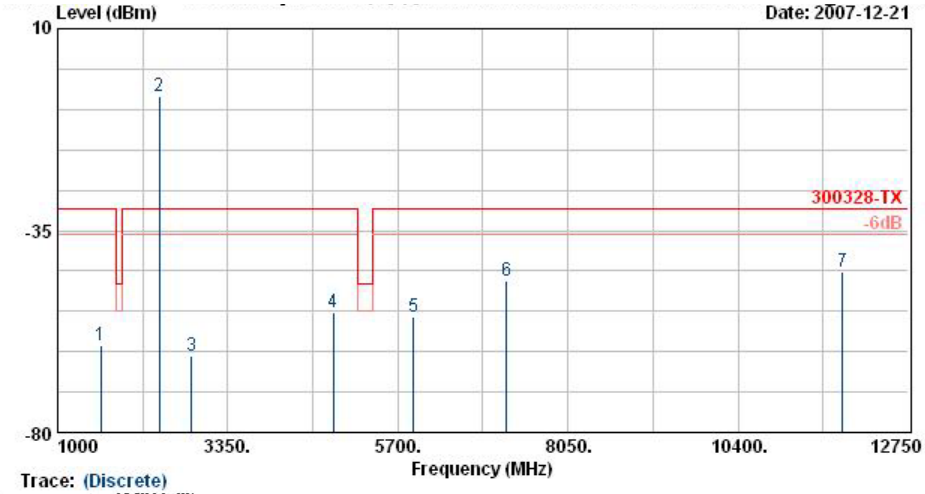
Polarization: Horizontal



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX ETRP-LF-070915 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Tx_Ch00 2402MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	106.14	-66.49	-30.49	-36.00	-62.45	-4.04	HORIZONTAL
2	257.88	-71.74	-35.74	-36.00	-68.16	-3.58	HORIZONTAL
3	334.30	-71.86	-35.86	-36.00	-68.92	-2.95	HORIZONTAL
4	995.80	-72.56	-36.56	-36.00	-77.62	5.06	HORIZONTAL



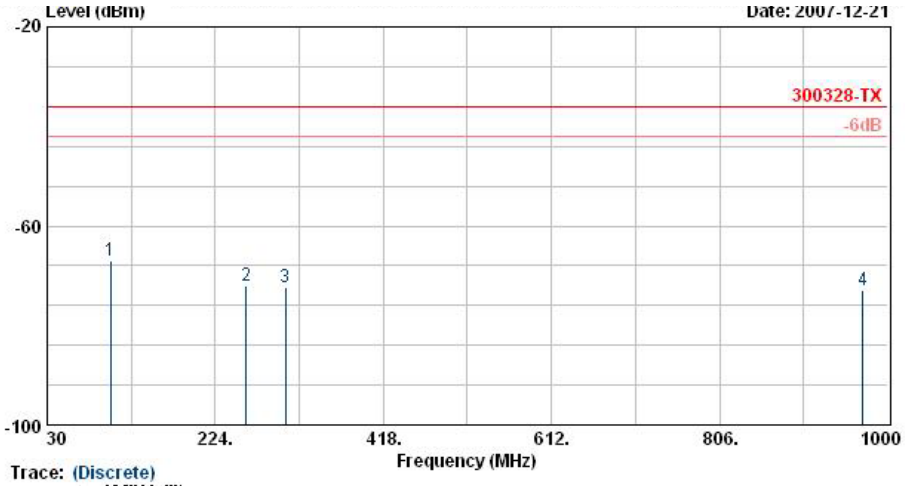
Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX EIRP-3CHFP-070505 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Tx_Ch00 2402MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1598.00	-60.61	-30.61	-30.00	-62.31	1.70	HORIZONTAL
2 @	2402.00	-4.99			-13.11	8.12	HORIZONTAL
3	2848.00	-62.99	-32.99	-30.00	-72.61	9.63	HORIZONTAL
4	4806.00	-53.13	-23.13	-30.00	-69.79	16.66	HORIZONTAL
5	5916.00	-54.07	-24.07	-30.00	-74.48	20.41	HORIZONTAL
6	7206.00	-46.28	-16.28	-30.00	-71.14	24.86	HORIZONTAL
7	11838.75	-44.19	-14.19	-30.00	-75.87	31.68	HORIZONTAL

Remark: #2 is Fundamental Signal.

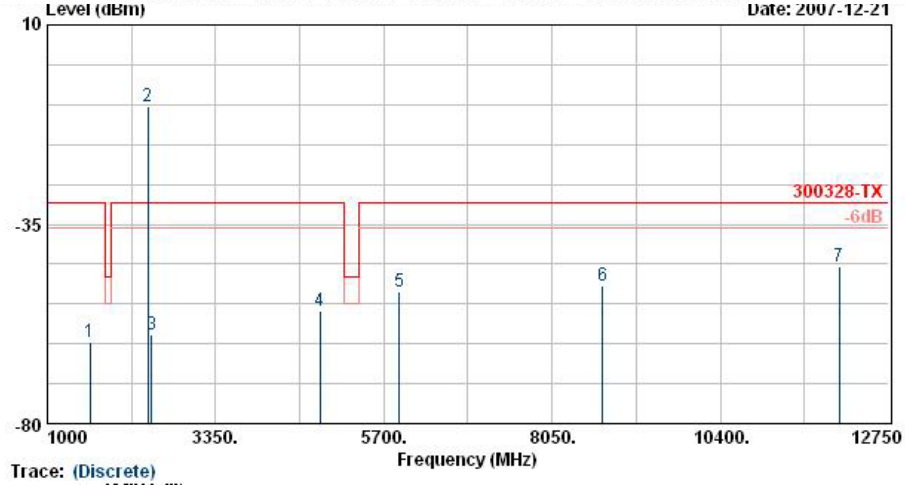
Polarization: Vertical



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX EIRP-LF-070915 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Tx_Ch00 2402MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	103.44	-67.09	-31.09	-36.00	-62.86	-4.23	VERTICAL
2	260.04	-72.11	-36.11	-36.00	-68.92	-3.19	VERTICAL
3	304.90	-72.25	-36.25	-36.00	-69.07	-3.19	VERTICAL
4	971.30	-72.91	-36.91	-36.00	-77.85	4.93	VERTICAL



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX EIRP-3CHFP-070505 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Tx_Ch00 2402MHz

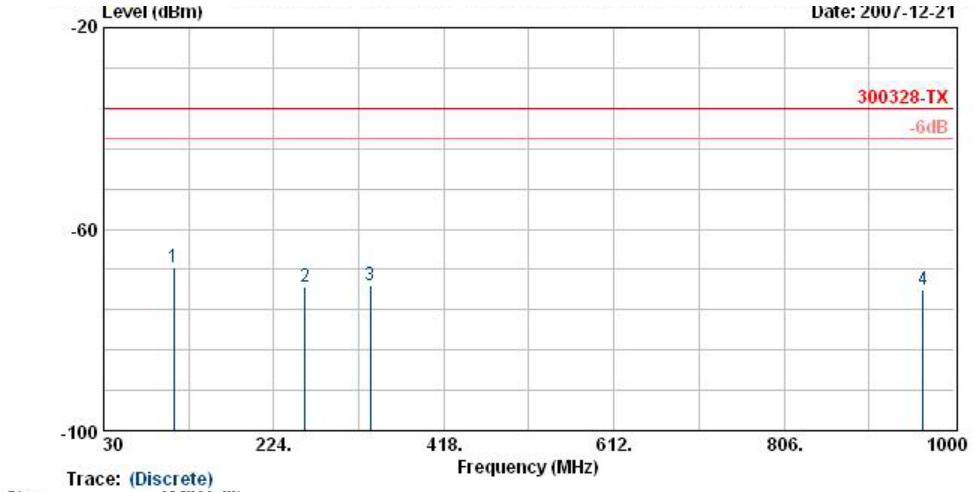
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1598.00	-61.62	-31.62	-30.00	-63.32	1.70	VERTICAL
2 @	2402.00	-8.29			-16.41	8.12	VERTICAL
3	2454.00	-59.79	-29.79	-30.00	-67.91	8.11	VERTICAL
4	4806.00	-54.44	-24.44	-30.00	-71.10	16.66	VERTICAL
5	5916.00	-50.39	-20.39	-30.00	-70.80	20.41	VERTICAL
6	8757.00	-48.92	-18.92	-30.00	-76.02	27.09	VERTICAL
7	12063.75	-44.45	-14.45	-30.00	-76.12	31.67	VERTICAL

Remark: #2 Fundamental Signal.

6.4.9 Mode 6: CH78 (2480MHz)

Ambient temperature: 21~24℃
Relative humidity: 51~55%
Test Distance: 3m
Test Engineer: Tony

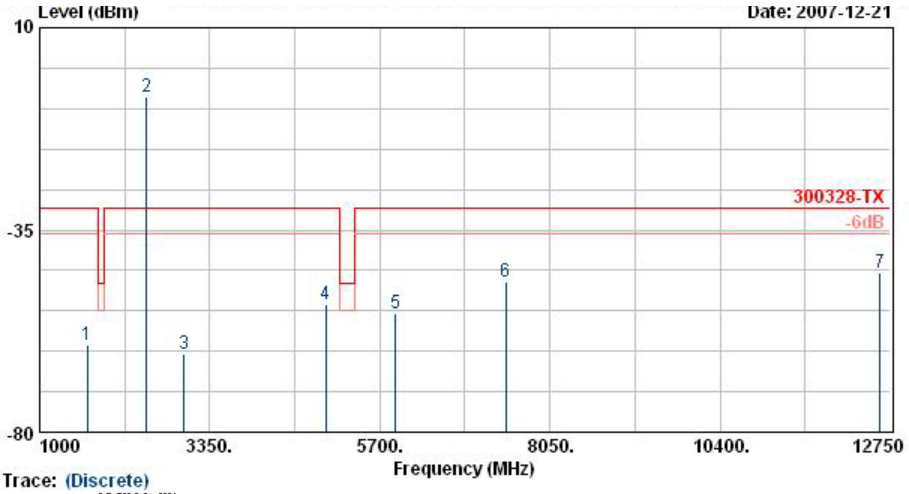
Polarization: Horizontal



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX ETRP-LF-070915 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Tx_Ch78 2480MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	110.19	-67.48	-31.48	-36.00	-63.83	-3.65	HORIZONTAL
2	260.04	-71.49	-35.49	-36.00	-68.30	-3.19	HORIZONTAL
3	334.30	-71.11	-35.11	-36.00	-68.16	-2.95	HORIZONTAL
4	964.30	-72.17	-36.17	-36.00	-77.06	4.89	HORIZONTAL



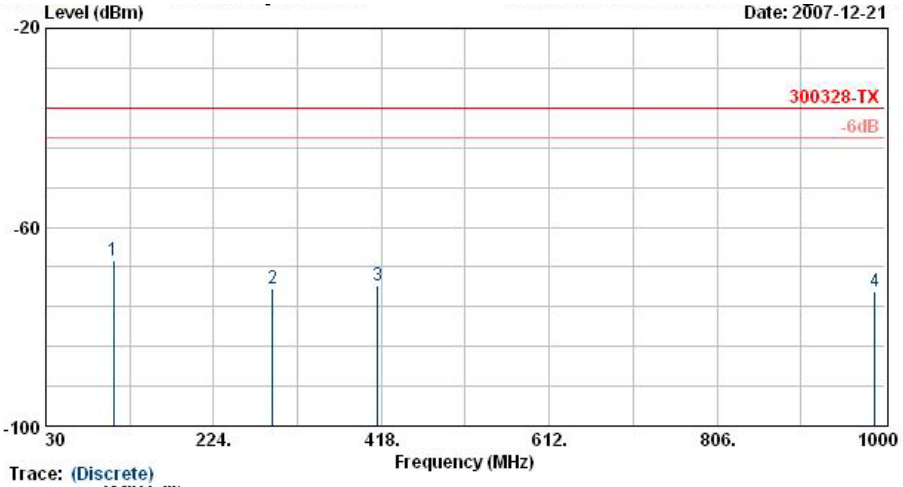
Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX EIRP-3CHFP-070505 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Tx_Ch78 2480MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1654.00	-60.69	-30.69	-30.00	-62.37	1.68	HORIZONTAL
2 @	2480.00	-5.39			-13.50	8.11	HORIZONTAL
3	2998.00	-62.50	-32.50	-30.00	-72.13	9.63	HORIZONTAL
4	4956.00	-51.64	-21.64	-30.00	-68.99	17.35	HORIZONTAL
5	5916.00	-53.59	-23.59	-30.00	-74.00	20.41	HORIZONTAL
6	7437.00	-46.41	-16.41	-30.00	-71.80	25.39	HORIZONTAL
7	12607.50	-44.48	-14.48	-30.00	-75.70	31.22	HORIZONTAL

Remark: #2 is Fundamental Signal.

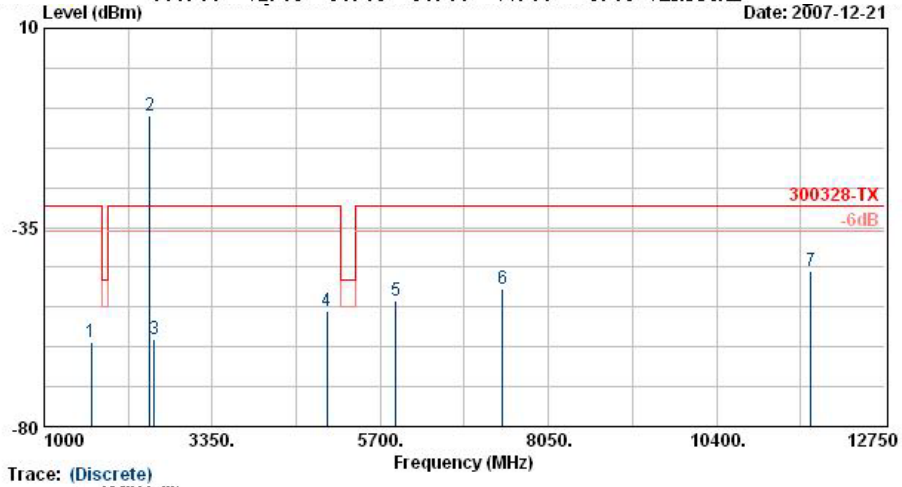
Polarization: Vertical



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX EIRP-LF-070915 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Tx_Ch78 2480MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	108.03	-66.65	-30.65	-36.00	-62.80	-3.84	VERTICAL
2	292.44	-72.20	-36.20	-36.00	-68.70	-3.50	VERTICAL
3	413.40	-71.71	-35.71	-36.00	-71.87	0.17	VERTICAL
4	988.80	-72.93	-36.93	-36.00	-77.96	5.03	VERTICAL



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX EIRP-3GHFP-070505 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Tx_Ch78 2480MHz

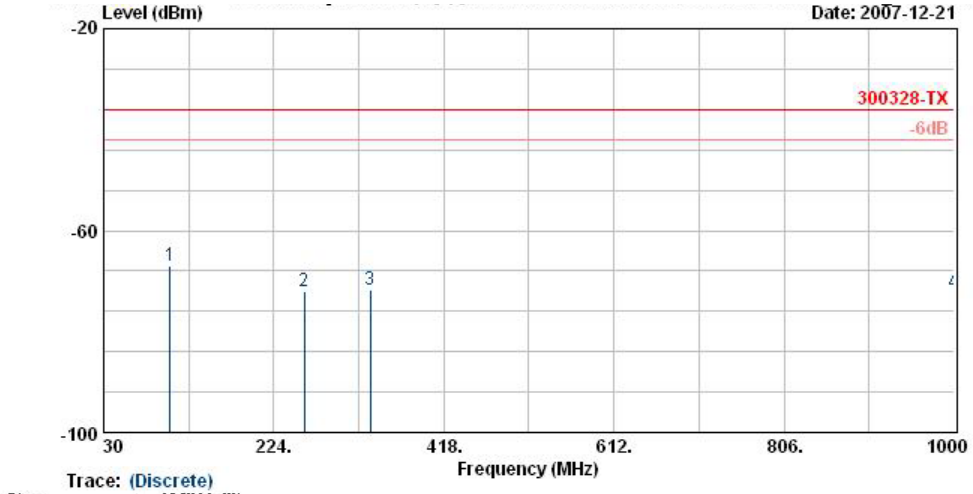
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1654.00	-61.06	-31.06	-30.00	-62.74	1.68	VERTICAL
2 @	2480.00	-9.63			-17.74	8.11	VERTICAL
3	2534.00	-60.26	-30.26	-30.00	-68.62	8.36	VERTICAL
4	4956.00	-53.92	-23.92	-30.00	-71.27	17.35	VERTICAL
5	5916.00	-51.68	-21.68	-30.00	-72.09	20.41	VERTICAL
6	7407.00	-48.77	-18.77	-30.00	-74.09	25.32	VERTICAL
7	11715.00	-44.78	-14.78	-30.00	-76.42	31.63	VERTICAL

Remark: #2 is Fundamental Signal.

6.4.10 Mode 7: CH00 (2402MHz)

Ambient temperature: 21~24℃
Relative humidity: 51~55%
Test Distance: 3m
Test Engineer: Tony

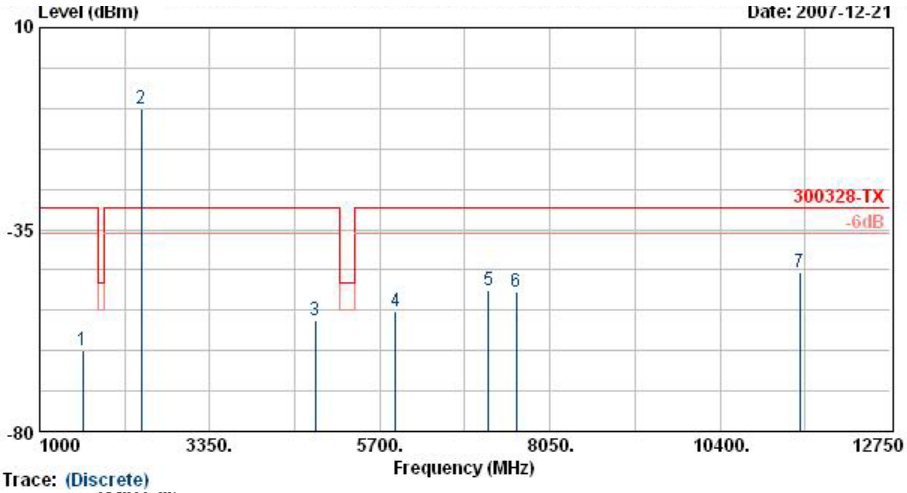
Polarization: Horizontal



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX ETRP-LF-070915 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Tx_Ch00 2402MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	105.33	-67.04	-31.04	-36.00	-63.00	-4.04	HORIZONTAL
2	259.23	-72.09	-36.09	-36.00	-68.51	-3.58	HORIZONTAL
3	334.30	-71.85	-35.85	-36.00	-68.90	-2.95	HORIZONTAL
4	999.30	-72.33	-36.33	-36.00	-77.41	5.08	HORIZONTAL



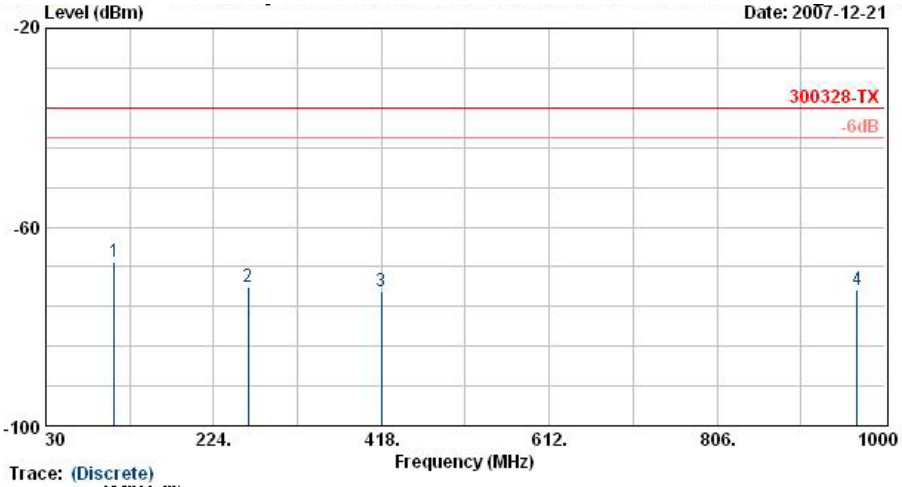
Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX ETRP-3CHFP-070505 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Tx_Ch00 2402MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1598.00	-61.94	-31.94	-30.00	-63.65	1.70	HORIZONTAL
2 @	2402.00	-7.99			-16.11	8.12	HORIZONTAL
3	4806.00	-55.16	-25.16	-30.00	-71.82	16.66	HORIZONTAL
4	5916.00	-53.34	-23.34	-30.00	-73.75	20.41	HORIZONTAL
5	7206.00	-48.66	-18.66	-30.00	-73.52	24.86	HORIZONTAL
6	7587.00	-48.87	-18.87	-30.00	-74.59	25.73	HORIZONTAL
7	11501.25	-44.43	-14.43	-30.00	-75.97	31.54	HORIZONTAL

Remark: #2 is Fundamental Signal.

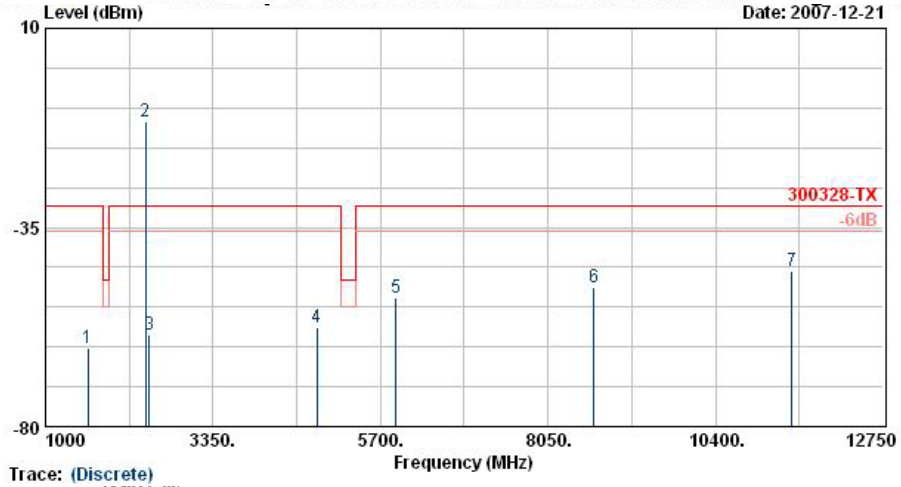
Polarization: Vertical



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX EIRP-LF-070915 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Tx_Ch00 2402MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	108.84	-67.00	-31.00	-36.00	-63.15	-3.84	VERTICAL
2	264.09	-72.15	-36.15	-36.00	-68.55	-3.59	VERTICAL
3	418.30	-72.93	-36.93	-36.00	-73.50	0.57	VERTICAL
4	967.80	-72.70	-36.70	-36.00	-77.62	4.91	VERTICAL



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX EIRP-3CHFP-070505 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Tx_Ch00 2402MHz

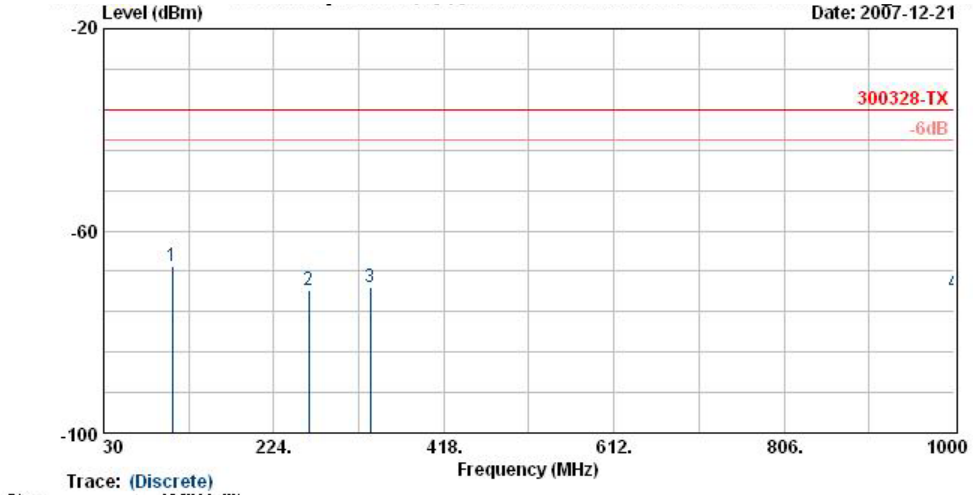
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1598.00	-62.36	-32.36	-30.00	-64.06	1.70	VERTICAL
2 @	2402.00	-11.05			-19.17	8.12	VERTICAL
3	2454.00	-59.31	-29.31	-30.00	-67.43	8.11	VERTICAL
4	4806.00	-57.46	-27.46	-30.00	-74.12	16.66	VERTICAL
5	5916.00	-50.92	-20.92	-30.00	-71.33	20.41	VERTICAL
6	8691.00	-48.53	-18.53	-30.00	-75.62	27.10	VERTICAL
7	11471.25	-44.74	-14.74	-30.00	-76.16	31.42	VERTICAL

Remark: #2 is Fundamental Signal.

6.4.11 Mode 8: CH00 (2402MHz)

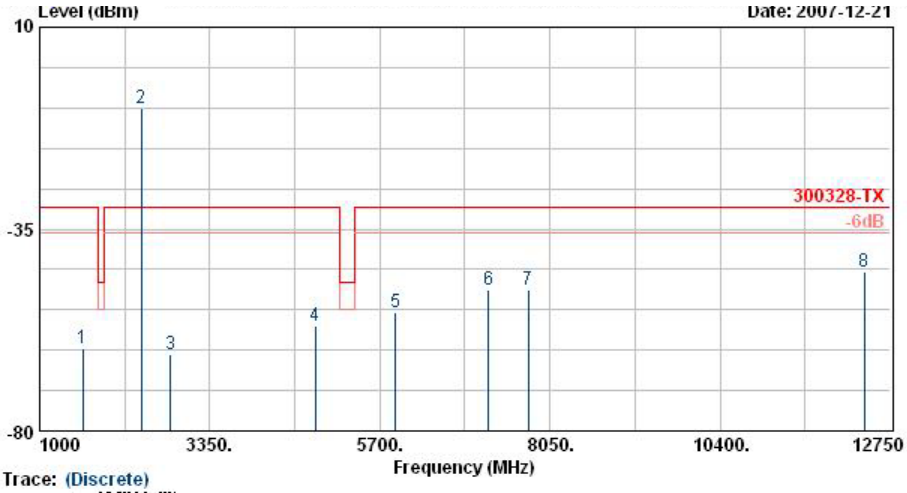
Ambient temperature: 21~24℃
Relative humidity: 51~55%
Test Distance: 3m
Test Engineer: Tony

Polarization: Horizontal



Site : 05CH02-HY
Condition : 300328-TX ETRP-LF-070915 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Tx_Ch00 2402MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	108.03	-66.88	-30.88	-36.00	-63.03	-3.84	HORIZONTAL
2	264.09	-71.69	-35.69	-36.00	-68.09	-3.59	HORIZONTAL
3	334.30	-71.27	-35.27	-36.00	-68.33	-2.95	HORIZONTAL
4	999.30	-72.25	-36.25	-36.00	-77.33	5.08	HORIZONTAL



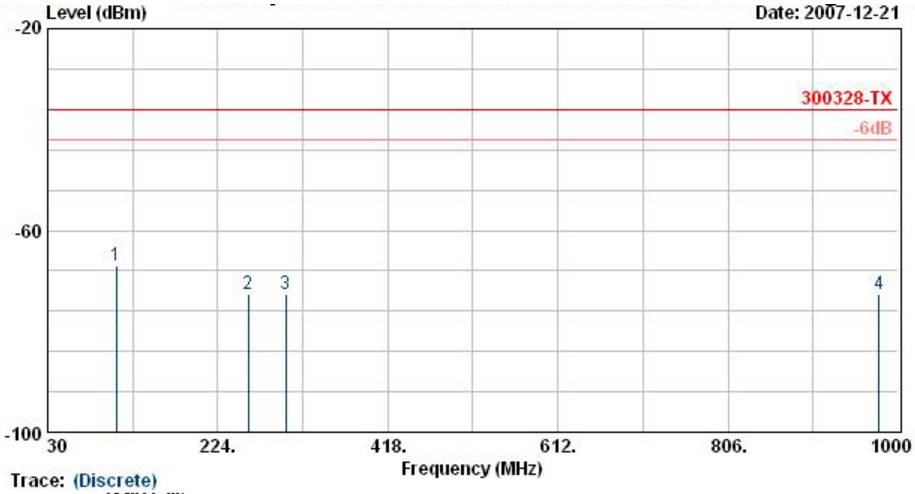
Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX EIRP-3CHFP-070505 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Tx_Ch00 2402MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1598.00	-61.60	-31.60	-30.00	-63.31	1.70	HORIZONTAL
2 @	2402.00	-8.07			-16.19	8.12	HORIZONTAL
3	2804.00	-62.95	-32.95	-30.00	-72.57	9.62	HORIZONTAL
4	4806.00	-56.74	-26.74	-30.00	-73.40	16.66	HORIZONTAL
5	5916.00	-53.54	-23.54	-30.00	-73.95	20.41	HORIZONTAL
6	7203.00	-48.65	-18.65	-30.00	-73.48	24.83	HORIZONTAL
7	7752.00	-48.60	-18.60	-30.00	-74.68	26.08	HORIZONTAL
8	12390.00	-44.62	-14.62	-30.00	-75.86	31.24	HORIZONTAL

Remark: #2 is Fundamental Signal.

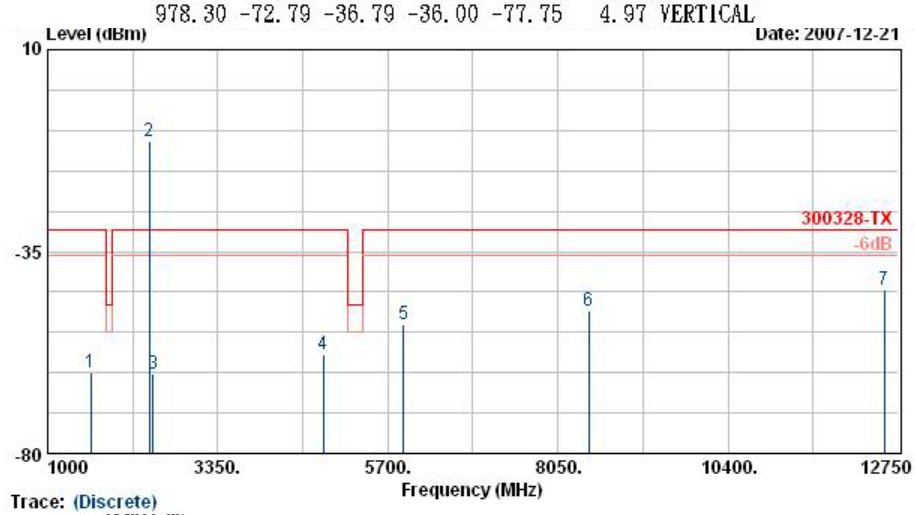
Polarization: Vertical



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX EIRP-LF-070915 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Tx_Ch00 2402MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	108.03	-66.99	-30.99	-36.00	-63.15	-3.84	VERTICAL
2	258.69	-72.55	-36.55	-36.00	-68.97	-3.58	VERTICAL
3	301.40	-72.55	-36.55	-36.00	-69.30	-3.25	VERTICAL
4	978.30	-72.79	-36.79	-36.00	-77.75	4.97	VERTICAL



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-TX EIRP-3CHFP-070505 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Tx_Ch00 2402MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1598.00	-61.91	-31.91	-30.00	-63.61	1.70	VERTICAL
2 @	2402.00	-10.30	-----	-----	-18.42	8.12	VERTICAL
3	2458.00	-62.33	-32.33	-30.00	-70.44	8.11	VERTICAL
4	4806.00	-57.96	-27.96	-30.00	-74.62	16.66	VERTICAL
5	5916.00	-51.30	-21.30	-30.00	-71.71	20.41	VERTICAL
6	8481.00	-48.07	-18.07	-30.00	-75.15	27.08	VERTICAL
7	12558.75	-43.61	-13.61	-30.00	-74.78	31.16	VERTICAL

Remark: #2 is Fundamental Signal.

LIMITS: Clause 4.3.6.2

Narrowband spurious emission:

Frequency Range	Limit when operating
30 MHz to 1 GHz	-36 dBm
Above 1 GHz to 12,75 GHz	-30 dBm
1,8 GHz to 1,9 GHz 5,15 GHz to 5,3 GHz	-47 dBm

Limit kept Yes [V] No [ ]

7. Receiver Parameters

7.1 Receiver Spurious Emissions (SUBCLAUSE 4.3.7)

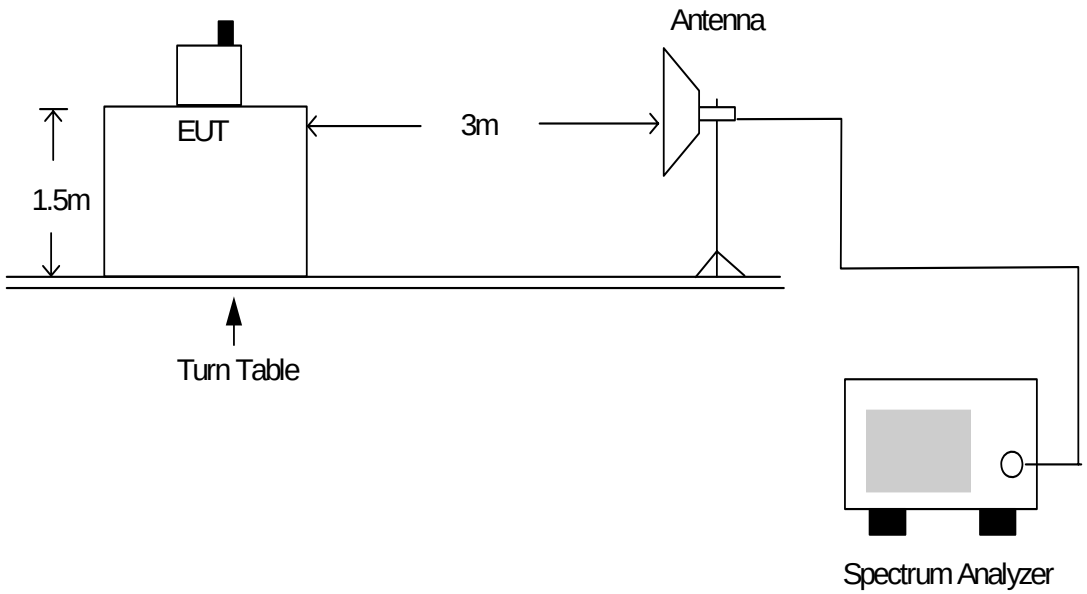
7.1.1 Measuring Instruments

As described in chapter 9 of this test report.

7.1.2 Test Procedures

1. The EUT was placed on a turntable with 1.5m height.
2. The receiving antenna with horizontal and vertical polarization is 3m away from EUT and keeps the antenna height at 1.5m.
3. Setting EUT in continuous Rx.
4. The table was rotated to search the highest radiation.
5. Repeating set 3 and 4 for different channel.

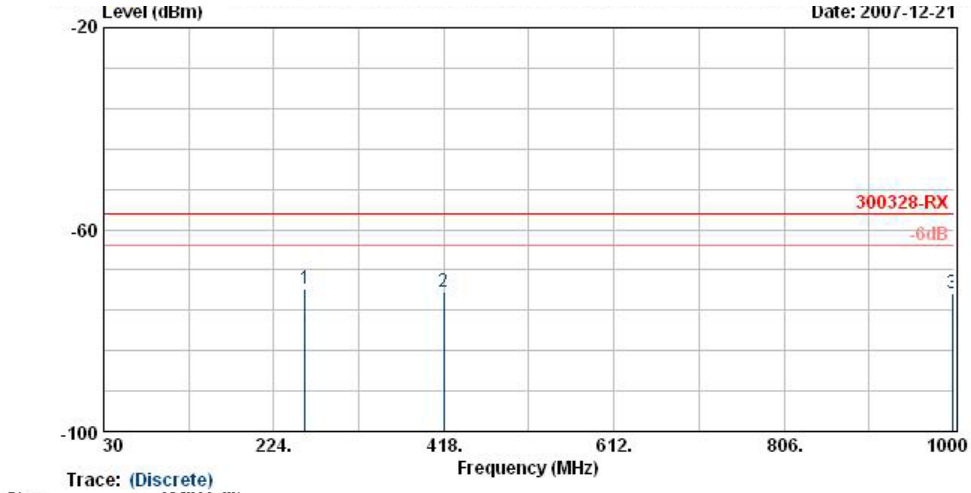
7.1.3 Test Setup Layout



7.1.4 Mode 1: CH01 (2412MHz)

Ambient temperature: 21~24°C
Relative humidity: 51~55%
Test Distance: 3m
Test Engineer: Tony

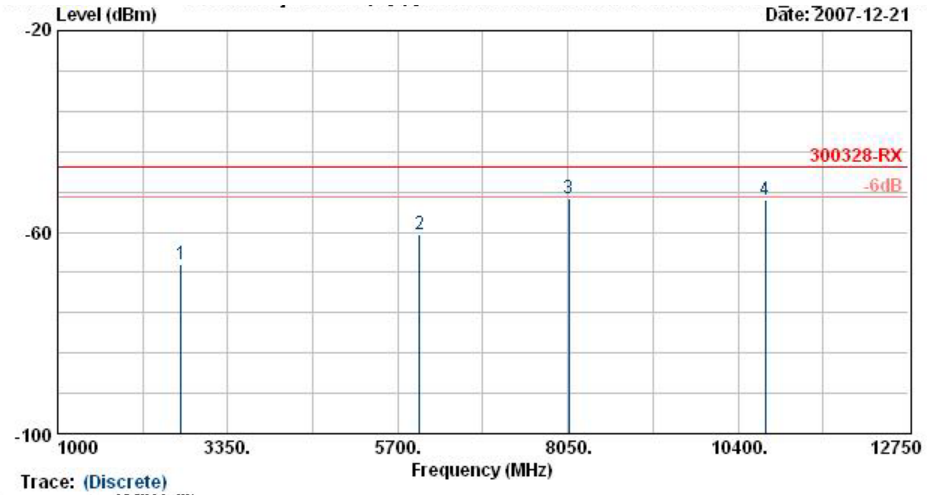
Polarization: Horizontal



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX ETRP-LF-070915 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11B_Rx_Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	260.04	-71.73	-14.73	-57.00	-68.54	-3.19	HORIZONTAL
2	418.30	-72.46	-15.46	-57.00	-73.03	0.57	HORIZONTAL
3	997.90	-72.63	-15.63	-57.00	-77.70	5.07	HORIZONTAL

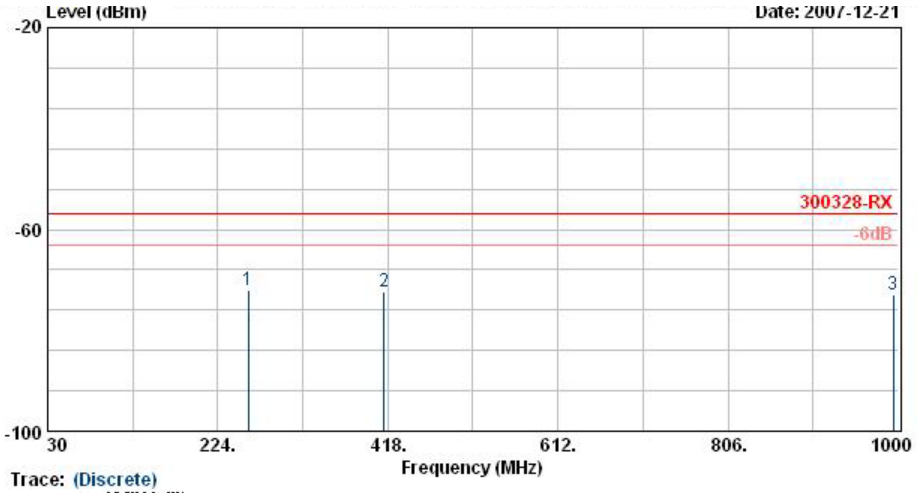


Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX ETRP-NOHFP-070505 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11B_Rx_Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2704.00	-66.48	-19.48	-47.00	-76.10	9.62	HORIZONTAL
2	5997.00	-60.54	-13.54	-47.00	-80.60	20.06	HORIZONTAL
3 @	8061.00	-53.43	-6.43	-47.00	-79.68	26.25	HORIZONTAL
4	10777.50	-53.75	-6.75	-47.00	-81.89	28.15	HORIZONTAL

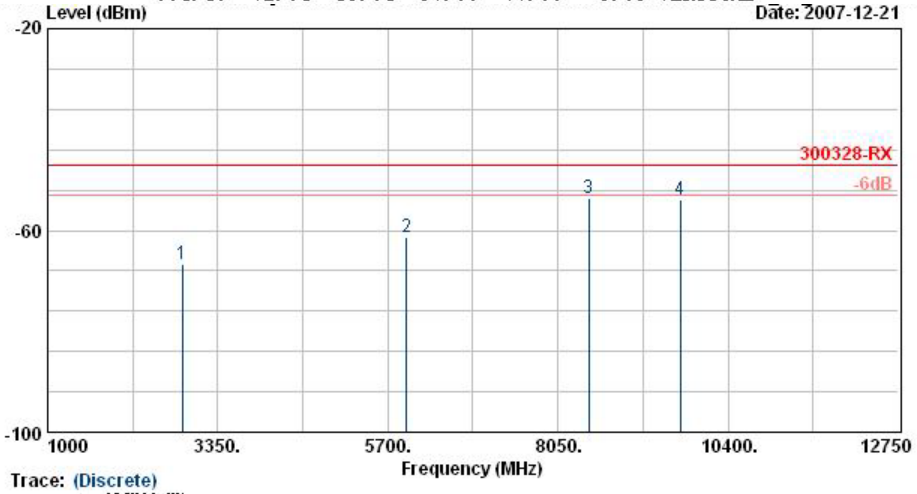
Polarization: Vertical



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX ETRP-LF-070915 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11B_Rx_Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	258.69	-72.13	-15.13	-57.00	-68.55	-3.58	VERTICAL
2	413.40	-72.28	-15.28	-57.00	-72.45	0.17	VERTICAL
3	994.40	-72.84	-15.84	-57.00	-77.89	5.05	VERTICAL



Trace: (Discrete)

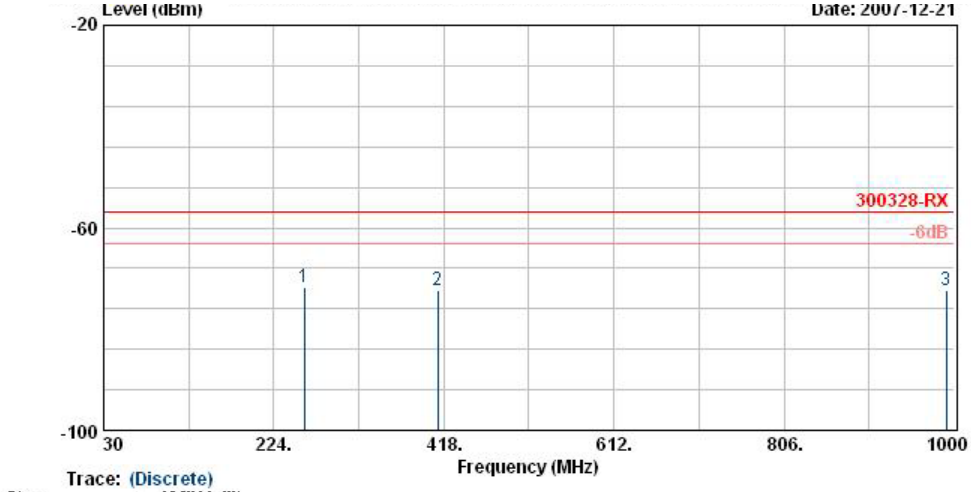
Site : 05CH02-HY
Condition : 300328-RX ETRP-NOHFP-070505 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11B_Rx_Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2858.00	-66.71	-19.71	-47.00	-76.33	9.63	VERTICAL
2	5961.00	-61.22	-14.22	-47.00	-81.19	19.97	VERTICAL
3 @	8472.00	-53.65	-6.65	-47.00	-80.07	26.41	VERTICAL
4	9738.75	-53.76	-6.76	-47.00	-80.62	26.86	VERTICAL

7.1.5 Mode 2: CH13 (2472MHz)

Ambient temperature: 21~24°C
Relative humidity: 51~55%
Test Distance: 3m
Test Engineer: Tony

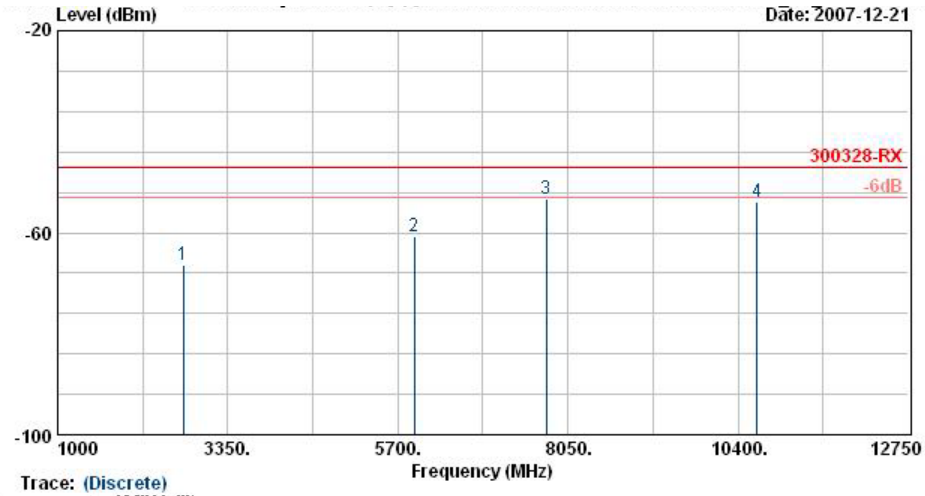
Polarization: Horizontal



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX ETRP-LF-070915 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11B_Rx_Ch13 2472MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	259.23	-71.82	-14.82	-57.00	-68.24	-3.58	HORIZONTAL
2	411.30	-72.43	-15.43	-57.00	-72.46	0.04	HORIZONTAL
3	990.90	-72.32	-15.32	-57.00	-77.36	5.04	HORIZONTAL

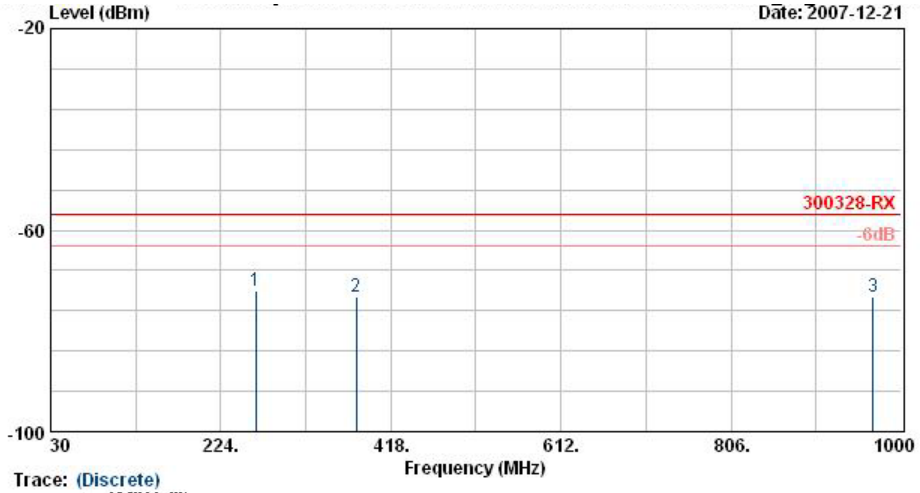


Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX EIRP-NOHFP-070505 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11B_Rx_Ch13 2472MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2738.00	-66.43	-19.43	-47.00	-76.05	9.62	HORIZONTAL
2	5922.00	-60.87	-13.87	-47.00	-80.75	19.88	HORIZONTAL
3	7752.00	-53.29	-6.29	-47.00	-78.97	25.68	HORIZONTAL
4	10657.50	-53.84	-6.84	-47.00	-81.68	27.84	HORIZONTAL

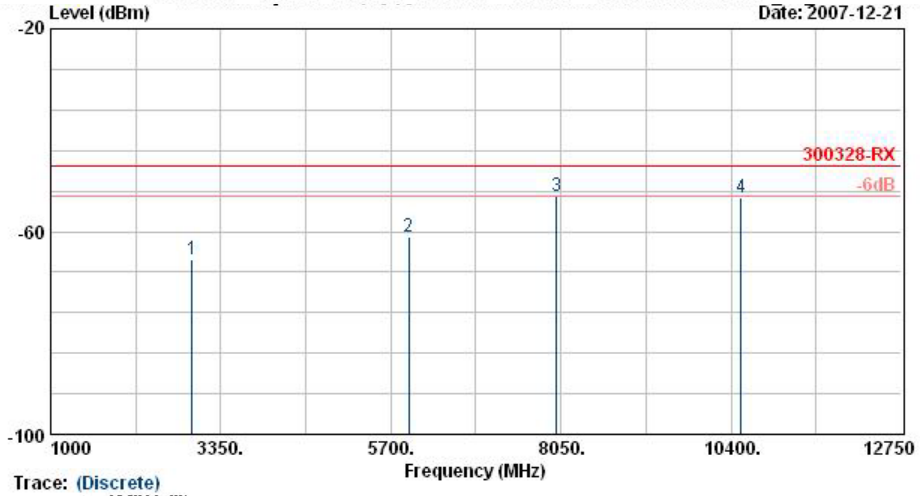
Polarization: Vertical



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX ETRP-LF-070915 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11B_Rx_Ch13 2472MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	264.09	-72.19	-15.19	-57.00	-68.60	-3.59	VERTICAL
2	378.40	-73.23	-16.23	-57.00	-71.82	-1.42	VERTICAL
3	967.80	-73.11	-16.11	-57.00	-78.02	4.91	VERTICAL



Trace: (Discrete)

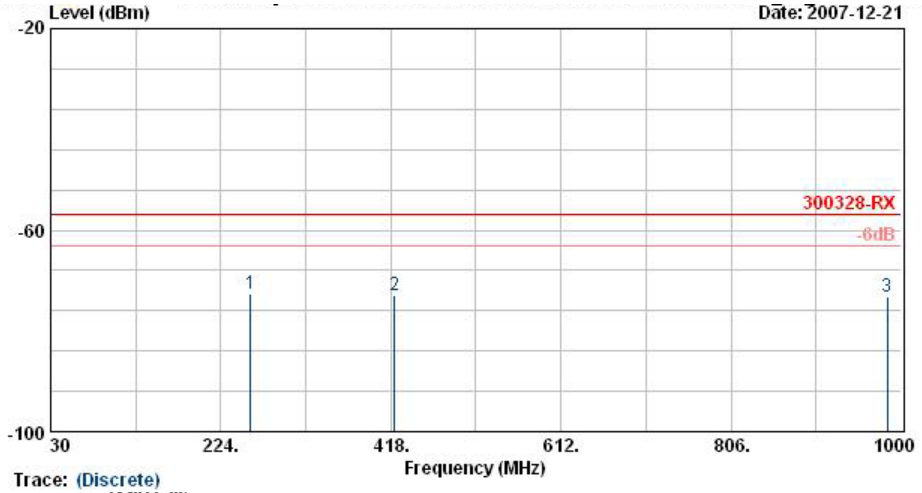
Site : 05CH02-HY
Condition : 300328-RX ETRP-NOHFP-070505 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11B_Rx_Ch13 2472MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2958.00	-65.38	-18.38	-47.00	-75.00	9.63	VERTICAL
2	5946.00	-60.98	-13.98	-47.00	-80.90	19.93	VERTICAL
3 @	7986.00	-53.06	-6.06	-47.00	-79.25	26.19	VERTICAL
4	10533.75	-53.40	-6.40	-47.00	-80.93	27.53	VERTICAL

7.1.6 Mode 3: CH01 (2412MHz)

Ambient temperature: 21~24°C
Relative humidity: 51~55%
Test Distance: 3m
Test Engineer: Tony

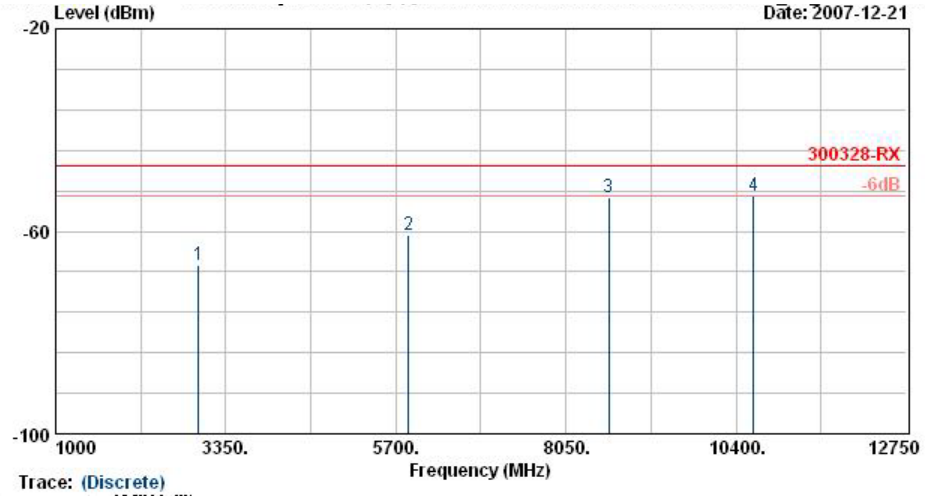
Polarization: Horizontal



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX ETRP-LF-070915 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11G_Rx_Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	257.88	-72.70	-15.70	-57.00	-69.12	-3.58	HORIZONTAL
2	421.80	-72.94	-15.94	-57.00	-73.54	0.59	HORIZONTAL
3	983.90	-73.09	-16.09	-57.00	-78.08	5.00	HORIZONTAL

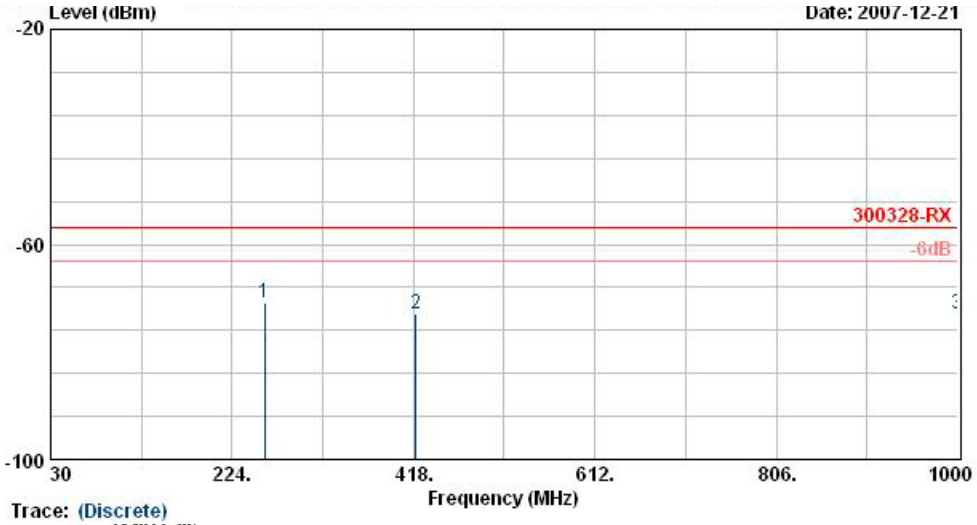


Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX EIRP-NOHFP-070505 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11G_Rx_Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2978.00	-66.71	-19.71	-47.00	-76.34	9.63	HORIZONTAL
2	5871.00	-60.63	-13.63	-47.00	-80.38	19.75	HORIZONTAL
3 @	8637.00	-53.23	-6.23	-47.00	-79.69	26.47	HORIZONTAL
4 @	10638.75	-53.02	-6.02	-47.00	-80.82	27.79	HORIZONTAL

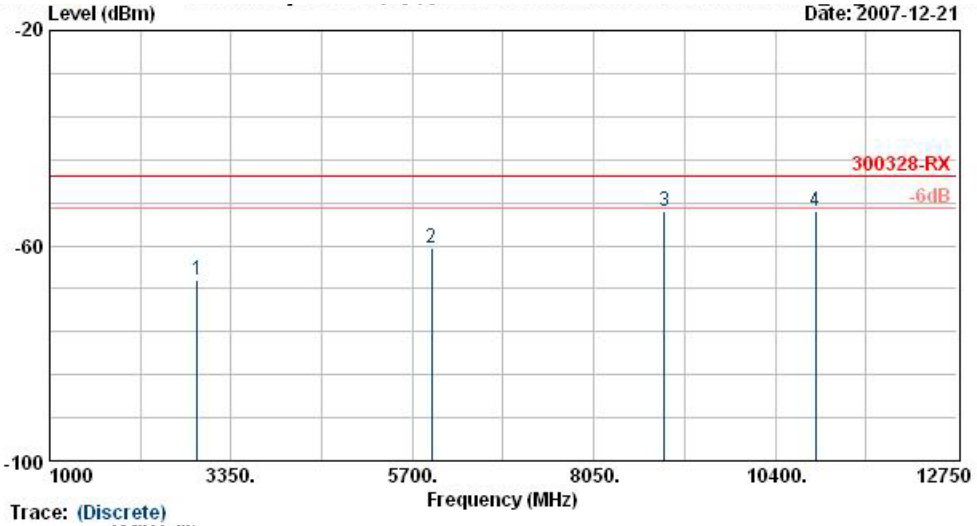
Polarization: Vertical



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX EIRP-LF-070915 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11G_Rx_Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	258.69	-70.98	-13.98	-57.00	-67.40	-3.58	VERTICAL
2	420.40	-72.98	-15.98	-57.00	-73.68	0.70	VERTICAL
3	999.30	-72.84	-15.84	-57.00	-77.92	5.08	VERTICAL



Trace: (Discrete)

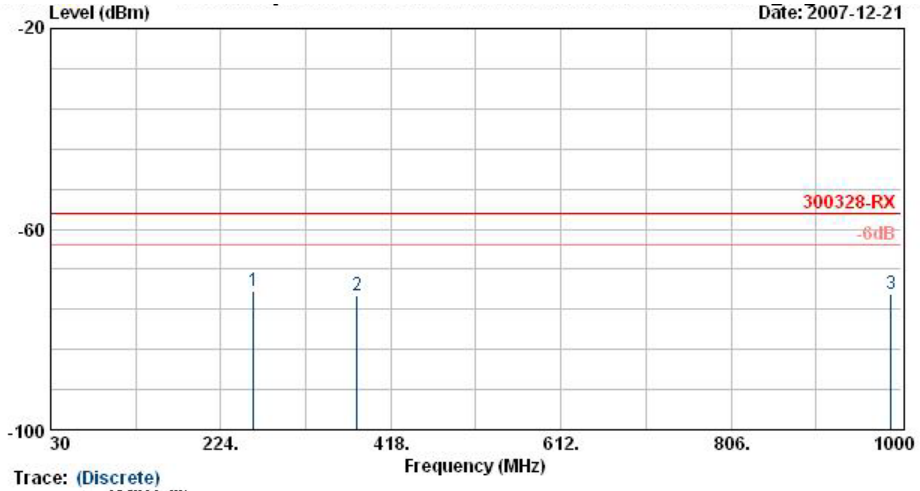
Site : 05CH02-HY
Condition : 300328-RX EIRP-NOHFP-070505 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11G_Rx_Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2908.00	-66.36	-19.36	-47.00	-75.99	9.63	VERTICAL
2	5952.00	-60.59	-13.59	-47.00	-80.52	19.93	VERTICAL
3	8967.00	-53.69	-6.69	-47.00	-80.26	26.58	VERTICAL
4 @	10920.00	-53.53	-6.53	-47.00	-82.08	28.54	VERTICAL

7.1.7 Mode 4: CH13 (2472MHz)

Ambient temperature: 21~24°C
Relative humidity: 51~55%
Test Distance: 3m
Test Engineer: Tony

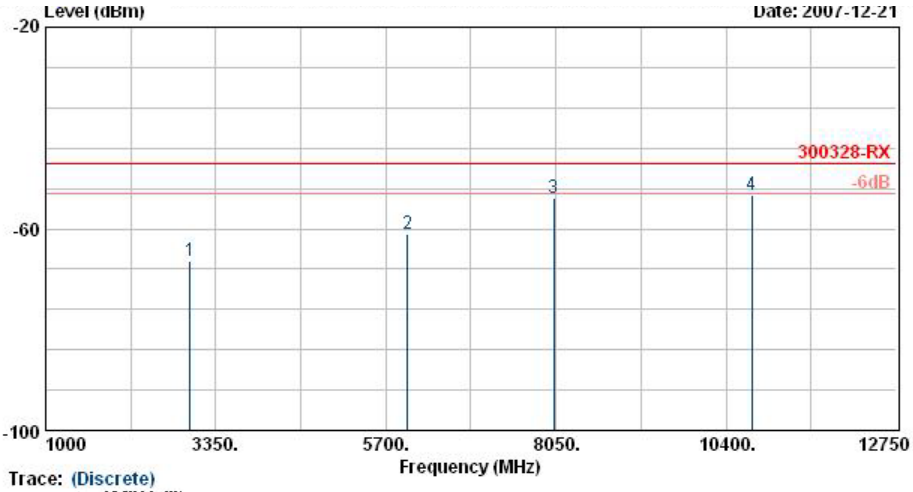
Polarization: Horizontal



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX ETRP-LF-070915 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11G_Rx_Ch13 2472MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	261.39	-72.49	-15.49	-57.00	-69.10	-3.39	HORIZONTAL
2	379.80	-73.23	-16.23	-57.00	-71.81	-1.42	HORIZONTAL
3	988.80	-72.98	-15.98	-57.00	-78.00	5.03	HORIZONTAL

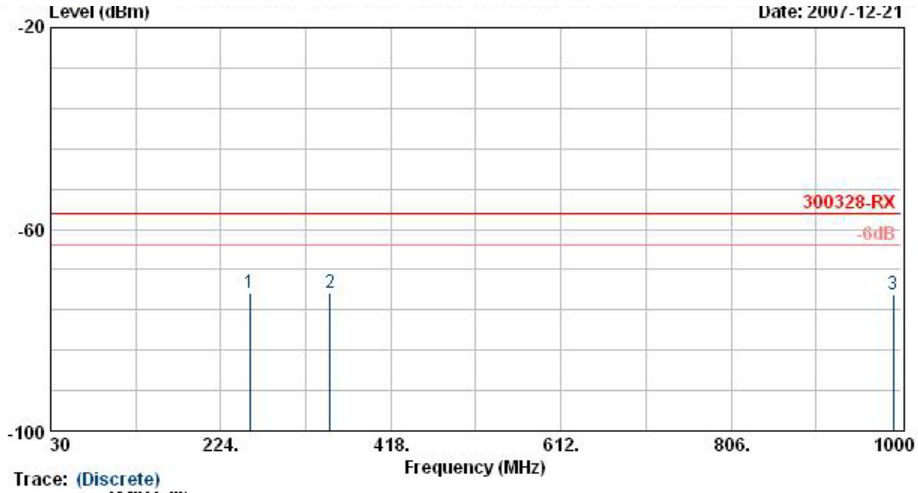


Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX ETRP-NOHFP-070505 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11G_Rx_Ch13 2472MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2998.00	-66.28	-19.28	-47.00	-75.91	9.63	HORIZONTAL
2	5997.00	-60.91	-13.91	-47.00	-80.97	20.06	HORIZONTAL
3	8016.00	-53.91	-6.91	-47.00	-80.15	26.24	HORIZONTAL
4	10751.25	-53.43	-6.43	-47.00	-81.53	28.10	HORIZONTAL

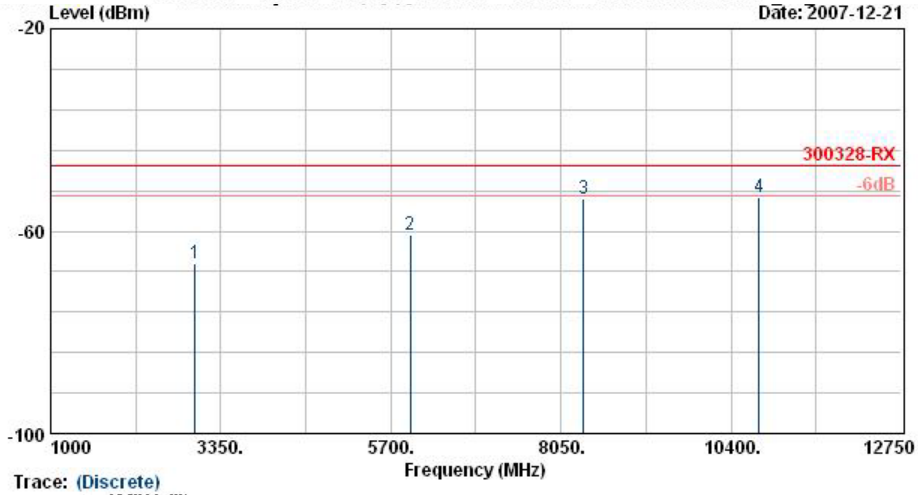
Polarization: Vertical



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX ETRP-LF-070915 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11G_Rx_Ch13 2472MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	257.34	-72.60	-15.60	-57.00	-69.02	-3.58	VERTICAL
2	348.30	-72.70	-15.70	-57.00	-70.44	-2.26	VERTICAL
3	990.90	-73.00	-16.00	-57.00	-78.04	5.04	VERTICAL



Trace: (Discrete)

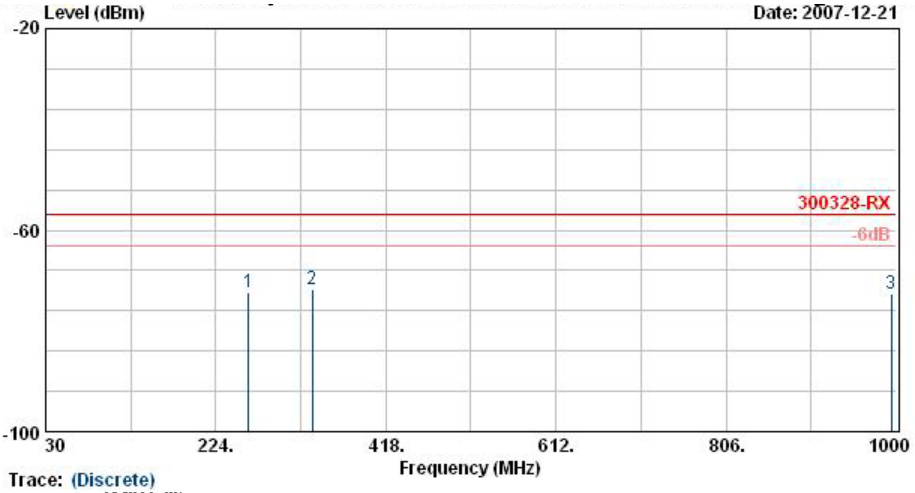
Site : 05CH02-HY
Condition : 300328-RX ETRP-NOHFP-070505 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : 802.11G_Rx_Ch13 2472MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2998.00	-66.54	-19.54	-47.00	-76.17	9.63	VERTICAL
2	5967.00	-60.63	-13.63	-47.00	-80.60	19.97	VERTICAL
3	8361.00	-53.62	-6.62	-47.00	-79.99	26.37	VERTICAL
4 @	10788.75	-53.40	-6.40	-47.00	-81.59	28.19	VERTICAL

7.1.8 Mode 5: CH00 (2402MHz)

Ambient temperature: 21~24℃
Relative humidity: 51~55%
Test Distance: 3m
Test Engineer: Tony

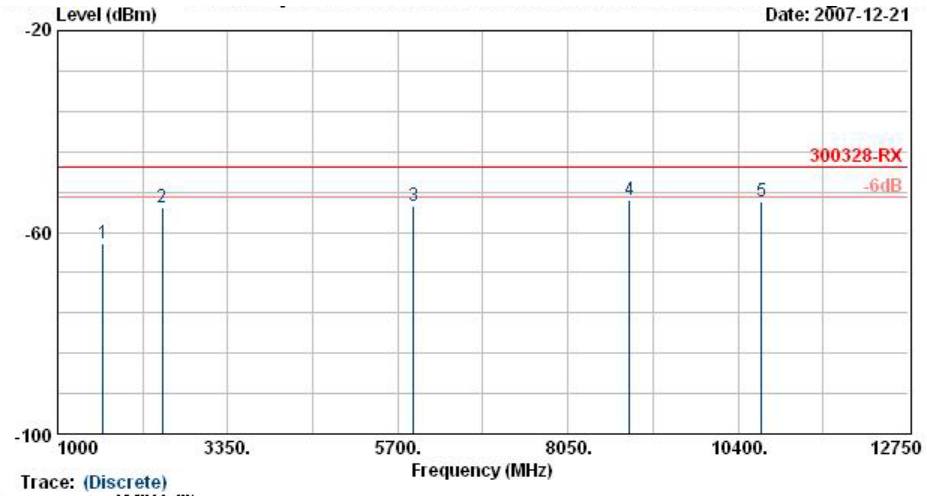
Polarization: Horizontal



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX ETRP-LF-070915 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Rx_Ch00 2402MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	261.39	-72.26	-15.26	-57.00	-68.87	-3.39	HORIZONTAL
2 @	334.30	-71.76	-14.76	-57.00	-68.81	-2.95	HORIZONTAL
3	994.40	-72.58	-15.58	-57.00	-77.63	5.05	HORIZONTAL

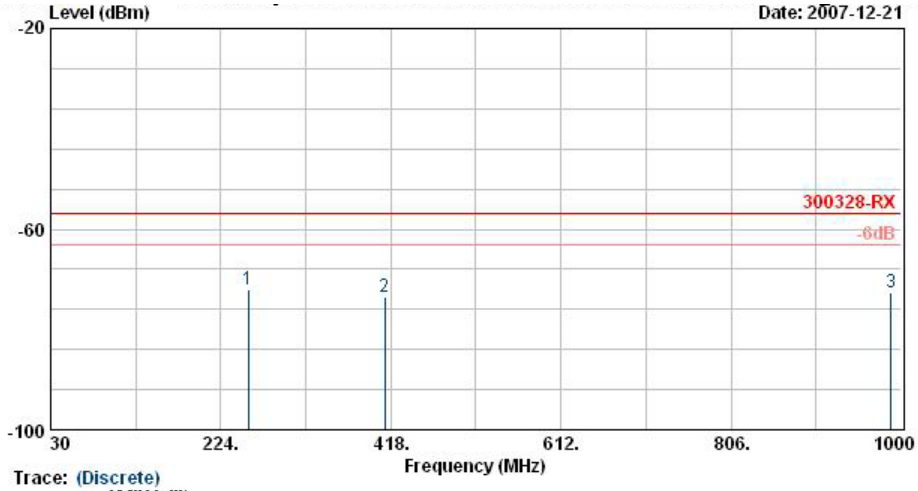


Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX EIRP-NOHFP-070505 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Rx_Ch00 2402MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1628.00	-62.34	-15.34	-47.00	-64.03	1.69	HORIZONTAL
2 @	2444.00	-54.97	-7.97	-47.00	-63.09	8.12	HORIZONTAL
3 @	5916.00	-54.74	-7.74	-47.00	-74.58	19.84	HORIZONTAL
4 @	8901.00	-53.60	-6.60	-47.00	-80.16	26.56	HORIZONTAL
5 @	10721.25	-53.77	-6.77	-47.00	-81.78	28.01	HORIZONTAL

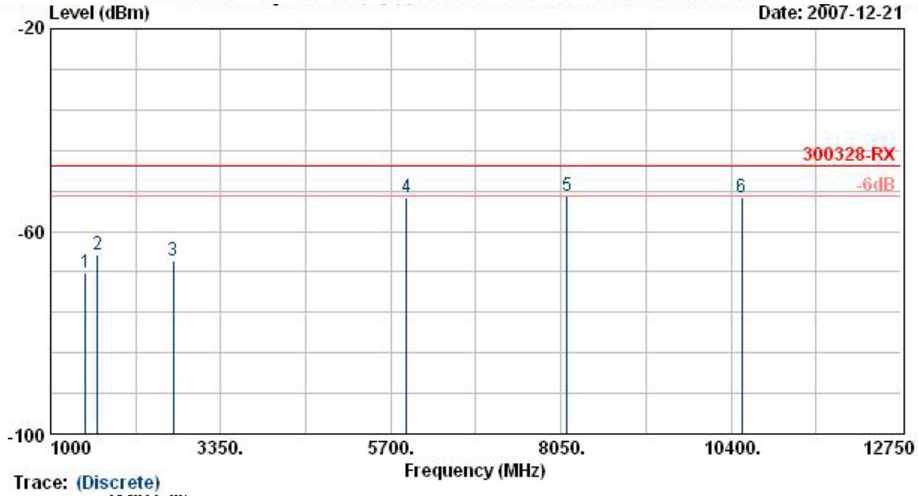
Polarization: Vertical



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX ETRP-LF-070915 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Rx_Ch00 2402MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	255.18	-72.00	-15.00	-57.00	-67.64	-4.36	VERTICAL
2	411.30	-73.48	-16.48	-57.00	-73.52	0.04	VERTICAL
3	988.80	-72.72	-15.72	-57.00	-77.75	5.03	VERTICAL



Trace: (Discrete)

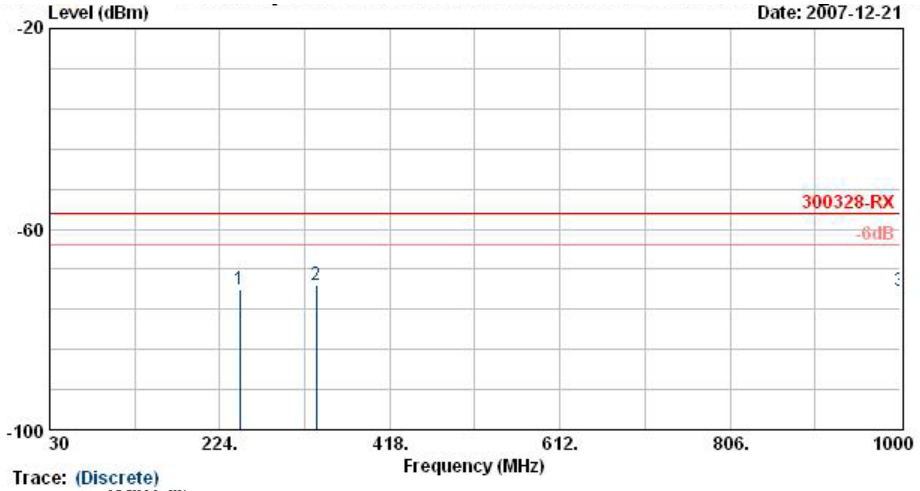
Site : 05CH02-HY
Condition : 300328-RX ETRP-NOHFP-070505 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Rx_Ch00 2402MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1478.00	-68.32	-21.32	-47.00	-69.97	1.65	VERTICAL
2	1644.00	-64.75	-17.75	-47.00	-66.43	1.68	VERTICAL
3	2698.00	-65.94	-18.94	-47.00	-75.56	9.62	VERTICAL
4 @	5916.00	-53.34	-6.34	-47.00	-73.17	19.84	VERTICAL
5 @	8136.00	-53.14	-6.14	-47.00	-79.42	26.28	VERTICAL
6 @	10552.50	-53.42	-6.42	-47.00	-80.99	27.57	VERTICAL

7.1.9 Mode 6: CH78 (2480MHz)

Ambient temperature: 21~24℃
Relative humidity: 51~55%
Test Distance: 3m
Test Engineer: Tony

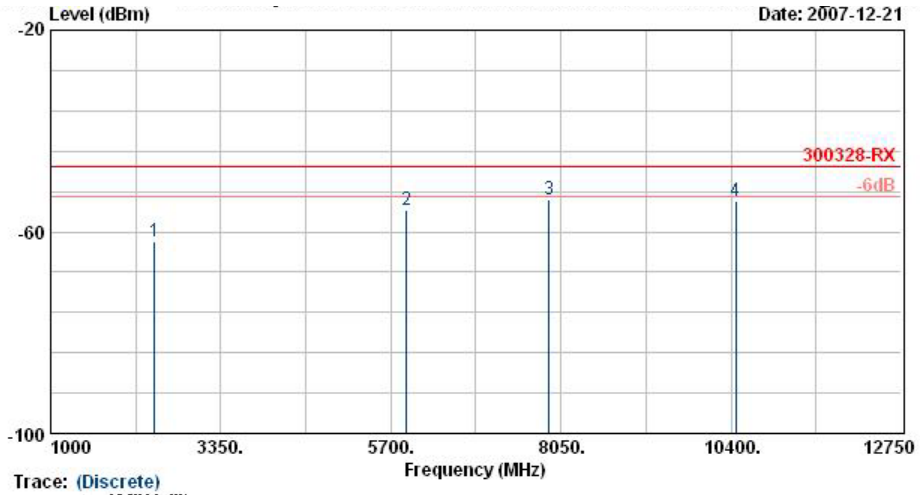
Polarization: Horizontal



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX ETRP-LF-070915 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Rx_Ch78 2480MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	246.54	-72.11	-15.11	-57.00	-66.68	-5.43	HORIZONTAL
2	334.30	-71.26	-14.26	-57.00	-68.31	-2.95	HORIZONTAL
3	999.30	-72.35	-15.35	-57.00	-77.43	5.08	HORIZONTAL

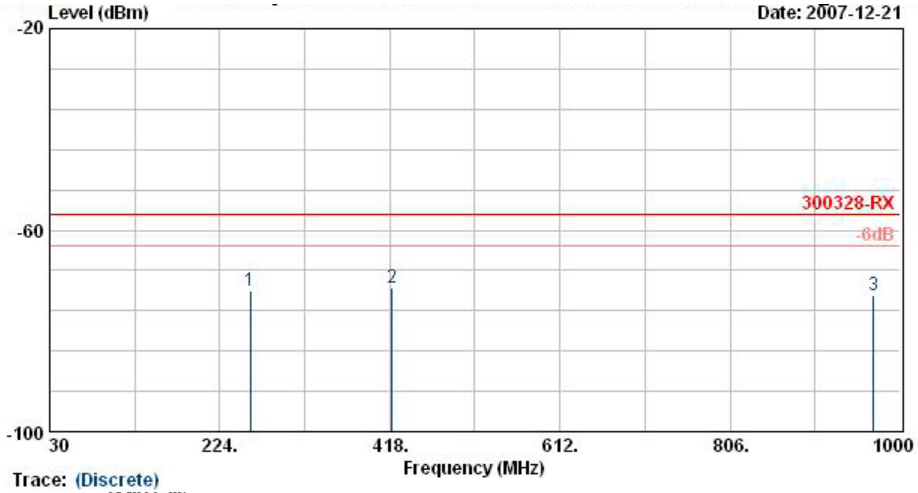


Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX EIRP-NOHFP-070505 HORIZONTAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Rx_Ch78 2480MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2438.00	-62.04	-15.04	-47.00	-70.16	8.12	HORIZONTAL
2	5916.00	-55.65	-8.65	-47.00	-75.48	19.84	HORIZONTAL
3	7887.00	-53.52	-6.52	-47.00	-79.50	25.97	HORIZONTAL
4	10470.00	-54.04	-7.04	-47.00	-81.40	27.36	HORIZONTAL

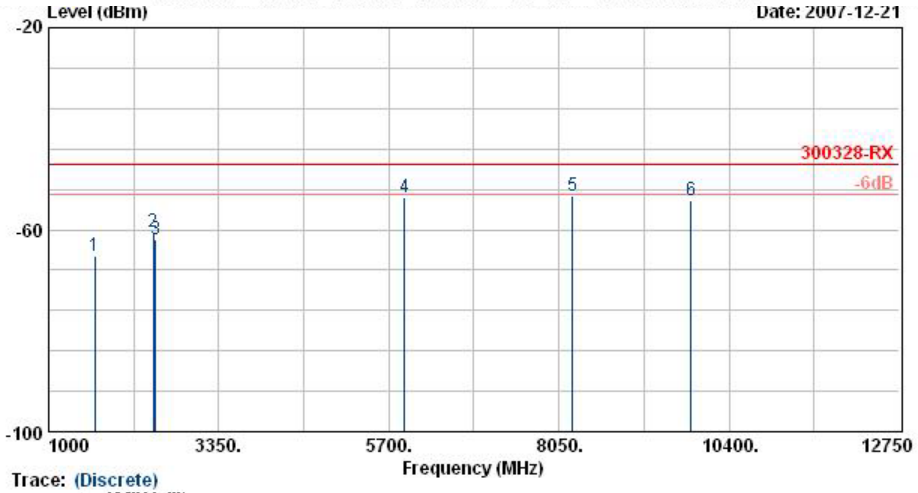
Polarization: Vertical



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX EIRP-LF-070915 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Rx_Ch78 2480MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	259.23	-72.18	-15.18	-57.00	-68.60	-3.58	VERTICAL
2	420.40	-71.39	-14.39	-57.00	-72.09	0.70	VERTICAL
3	969.90	-72.82	-15.82	-57.00	-77.74	4.92	VERTICAL



Trace: (Discrete)

Site : 05CH02-HY
Condition : 300328-RX EIRP-NOHFP-070505 VERTICAL
EUT : Mobile Phone
Power : Real Battery(4.04V)
Model : ER 7D1802
Mode : Bluetooth Rx_Ch78 2480MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1634.00	-65.33	-18.33	-47.00	-67.01	1.69	VERTICAL
2	2444.00	-60.51	-13.51	-47.00	-68.63	8.12	VERTICAL
3	2474.00	-61.98	-14.98	-47.00	-70.09	8.11	VERTICAL
4	5916.00	-53.65	-6.65	-47.00	-73.49	19.84	VERTICAL
5 @	8241.00	-53.22	-6.22	-47.00	-79.55	26.32	VERTICAL
6	9877.50	-54.10	-7.10	-47.00	-80.62	26.52	VERTICAL

LIMITS: Clause 4.3.7.2

Narrowband spurious emission:

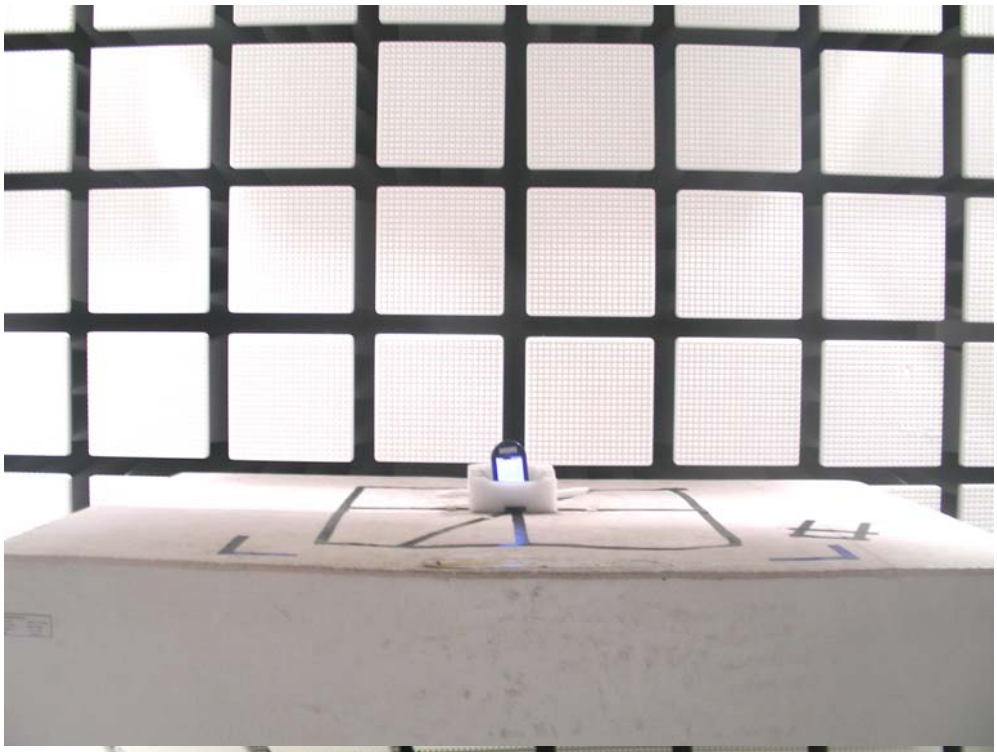
Frequency Range	Limit when in received mode
30 MHz to 1 GHz	-57 dBm
Above 1 GHz to 12,75 GHz	-47 dBm

Limit kept Yes [V] No [ ]

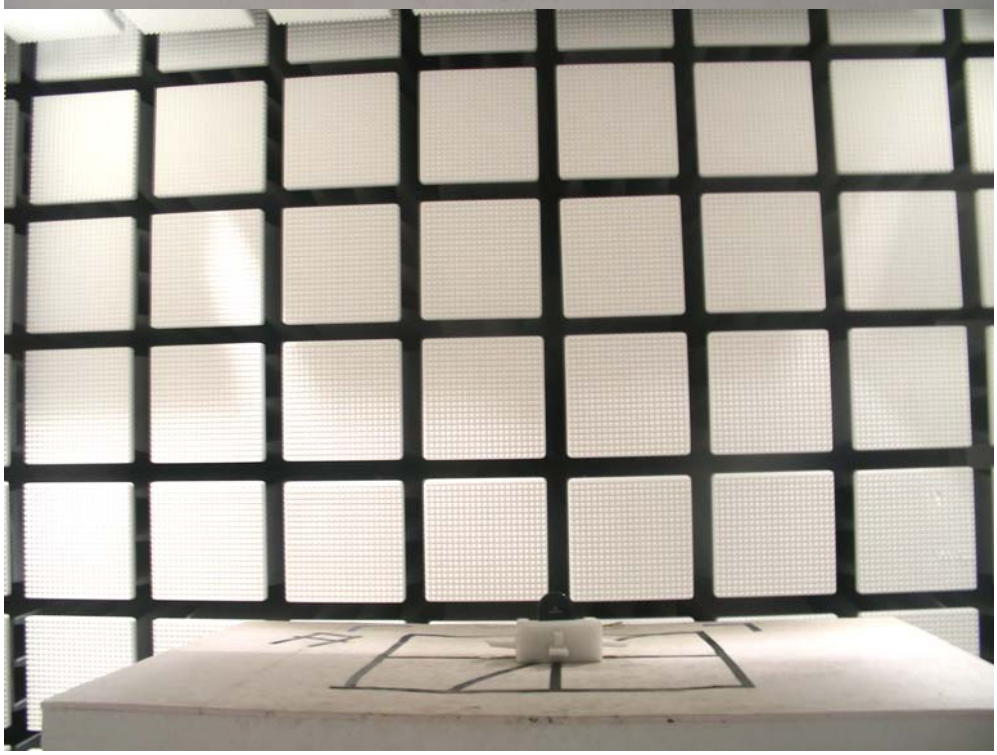
8. Photographs of Radiated Emission Test Configuration

Mode 1~4

Front View

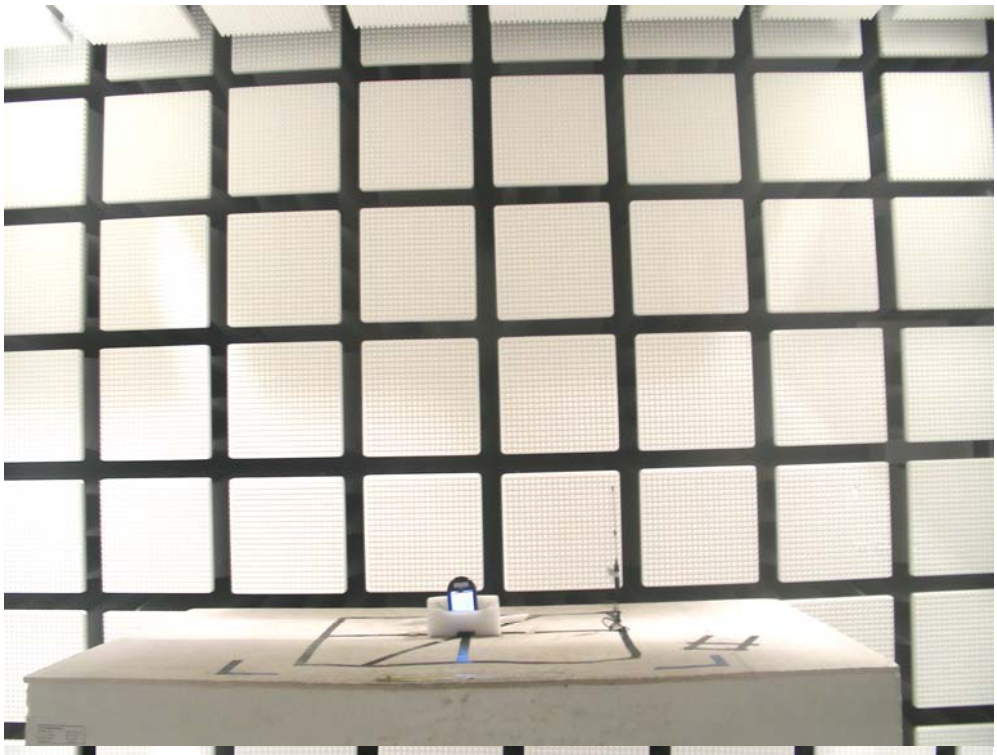


Rear View



Mode 5~8

Front View



Rear View

9. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Thermal Chamber	Tenyi technology	TTH-D35P	TBN-930701	N/A	Aug. 02, 2007	Aug. 01, 2008	Conduction (TH02-HY)
Spectrum	R&S	FSP40	100055	9KHz~40GHz	Jun. 25, 2007	Jun. 24, 2008	Conduction (TH02-HY)
Bluetooth Test	ANRITSU	MT8852A	6K00003939	N/A	N/A	N/A	Conduction (TH02-HY)
Power Divider	ARRA	5200-1	3871	N/A	Oct. 01, 2007	Sep. 30, 2008	Conduction (TH02-HY)
DC Power Supply	TOPWARD	3303D	740889	N/A	May 25, 2007	May 24, 2009	Conduction (TH02-HY)
Power Meter	Agilent	E4416A	GB41292344	N/A	Feb. 08, 2007	Feb. 07, 2008	Conduction (TH02-HY)
Power Sensor	Agilent	E9327A	US40441548	N/A	Feb. 08, 2007	Feb. 07, 2008	Conduction (TH02-HY)
Spectrum Analyzer	Agilent	E4408B	MY44211028	9KHz-26.5GHz	Jul. 27, 2006	Jul. 26, 2008	Radiation (05CH02-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2892	25MHz -2GHz	Dec. 01, 2007	Nov 30, 2009	Radiation (05CH02-HY)
Double Ridge Horn Antenna	Com-Power	AH118	071027	1G-18G	Apr. 14, 2007	Apr. 13, 2009	Radiation (05CH02-HY)
Double Ridge Horn Antenna	Training Research	AF-0801	95119	8G~18G	Nov. 27, 2006	Nov. 26, 2008	Radiation (05CH02-HY)
Amplifier	Mini Circuit	ZKL-2	D072104	30~2000MHz	Nov. 20, 2007	Nov. 19, 2008	Radiation (05CH02-HY)
Amplifier	Agilent	8449B	3008A02321	1G~26.5G	Dec. 18, 2007	Dec. 17, 2008	Radiation (05CH02-HY)
DC Power Supply	Topward	3303D	740889	N/A	N/A	N/A	Radiation (05CH02-HY)
Base Station Simulator	R & S	CMU200	103937	N/A	Oct. 19, 2007	Oct. 18, 2008	Radiation (05CH02-HY)

10. Uncertainty Evaluation

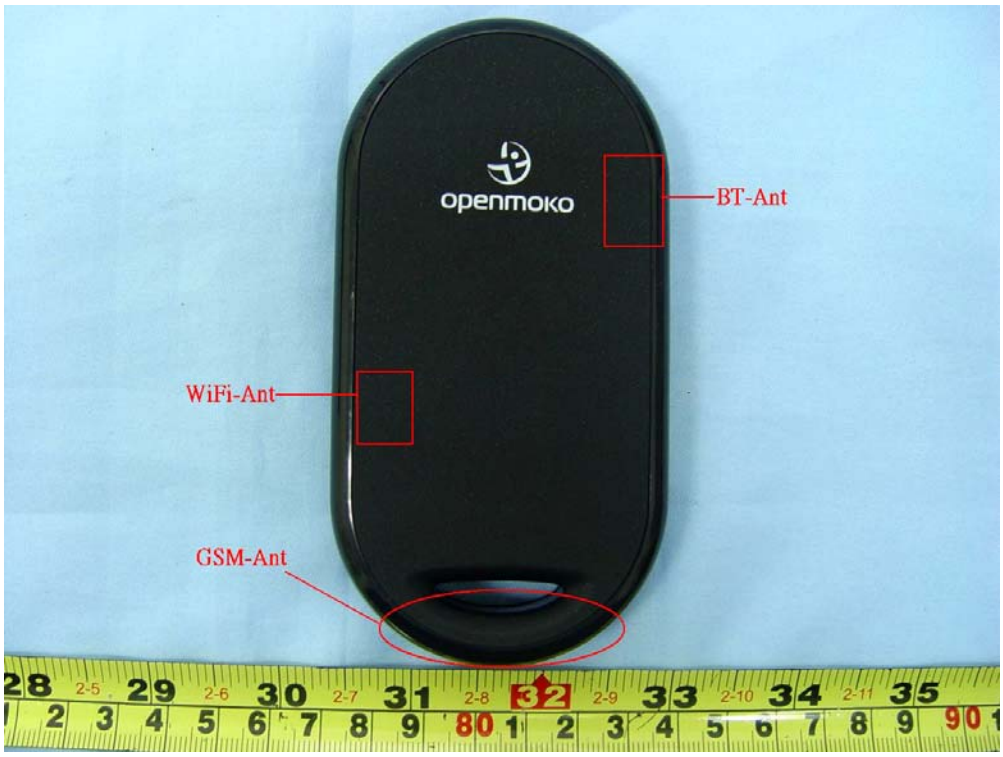
Uncertainty of Radiated Emission Evaluation (30MHz ~ 1000MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.15	Normal(k=2)	0.08
Antenna factor calibration	1.12	Normal(k=2)	0.56
Cable loss calibration	0.12	Normal(k=2)	0.06
Pre Amplifier Gain calibration	0.13	Normal(k=2)	0.07
RCV/SPA specification	2.5	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1	Rectangular	0.29
Site imperfection	2.1	Rectangular	1.21
Mismatch	+0.39/-0.41	U-shaped	0.28
Combined standard uncertainty Uc(y)	**1.58**		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	**3.16**		

Uncertainty of Radiated Emission Evaluation (1GHz ~ 40GHz)

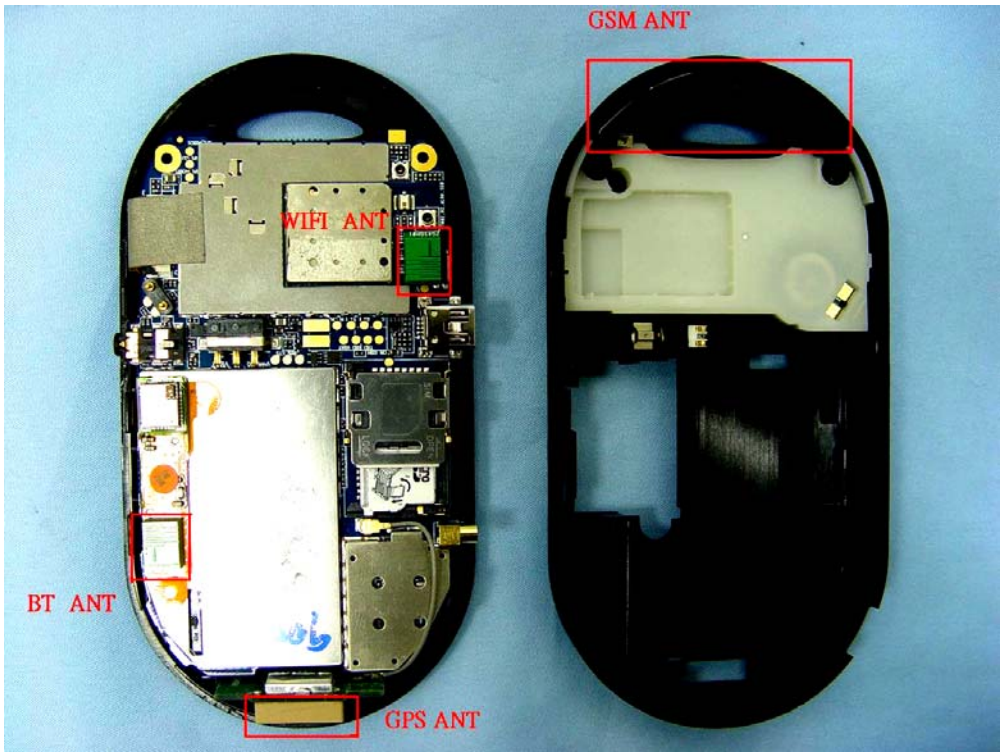
Contribution	Uncertainty of x_i		$u(x_i)$	Ci	$Ci*u(x_i)$
	dB	Probability Distribution			
Receiver reading	±0.10	Normal(k=1)	0.10	1	0.10
Antenna factor calibration	±1.70	Normal(k=2)	0.85	1	0.85
Cable loss calibration	±0.50	Normal(k=2)	0.25	1	0.25
Receiver Correction	±2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	±1.50	Rectangular	0.87	1	0.87
Site imperfection	±2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR Γ1= 0.197 Antenna VSWR Γ2= 0.194 Uncertainty=20log(1-Γ1*Γ2*Γ3)	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty Uc(y)	**2.36**				
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	**4.72**				

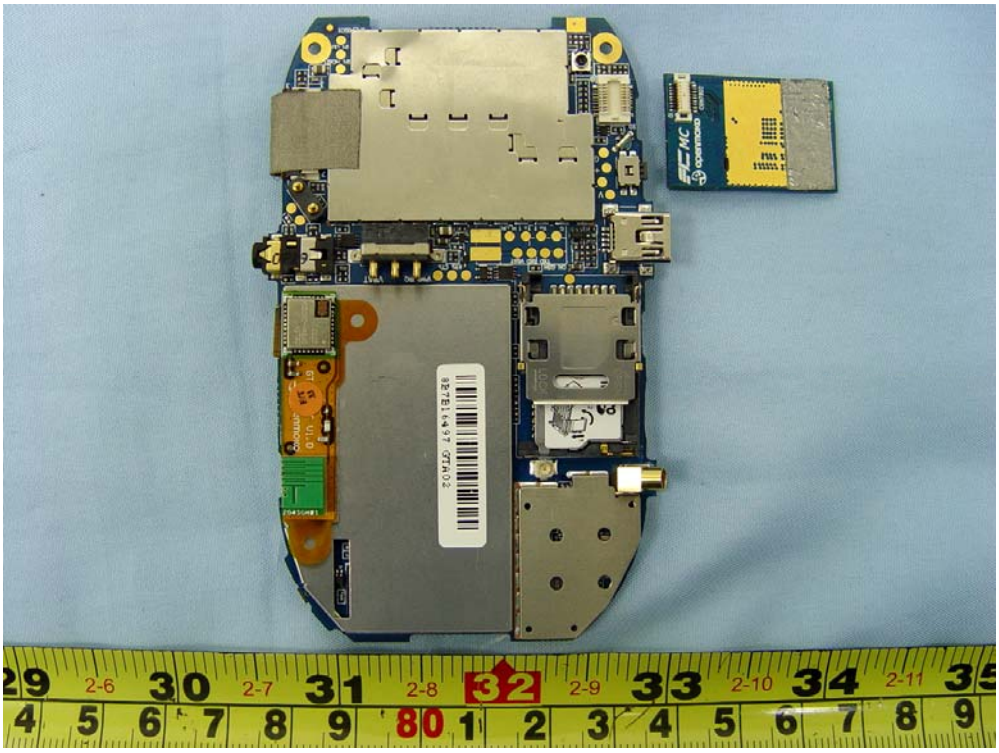
Appendix A. Photographs of EUT

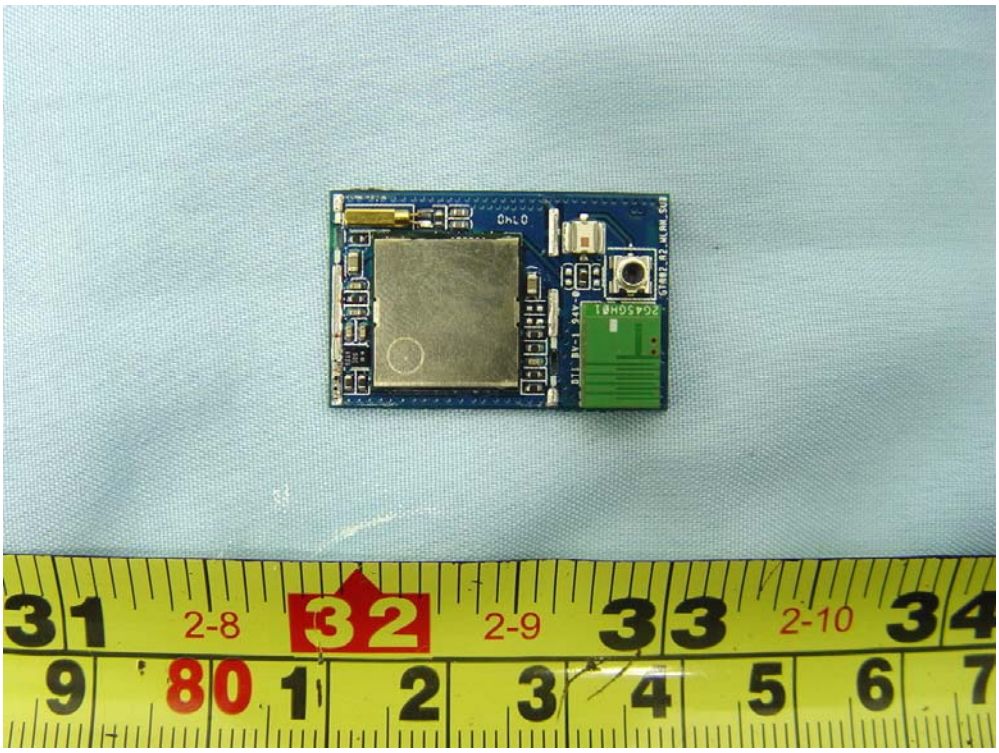


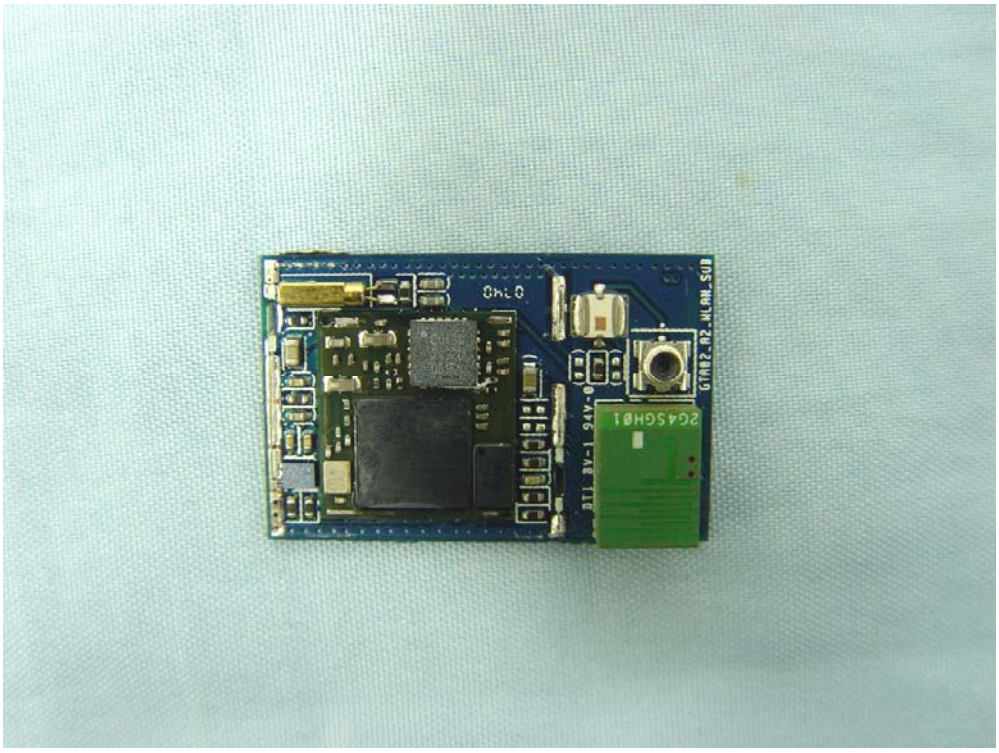

openmoko

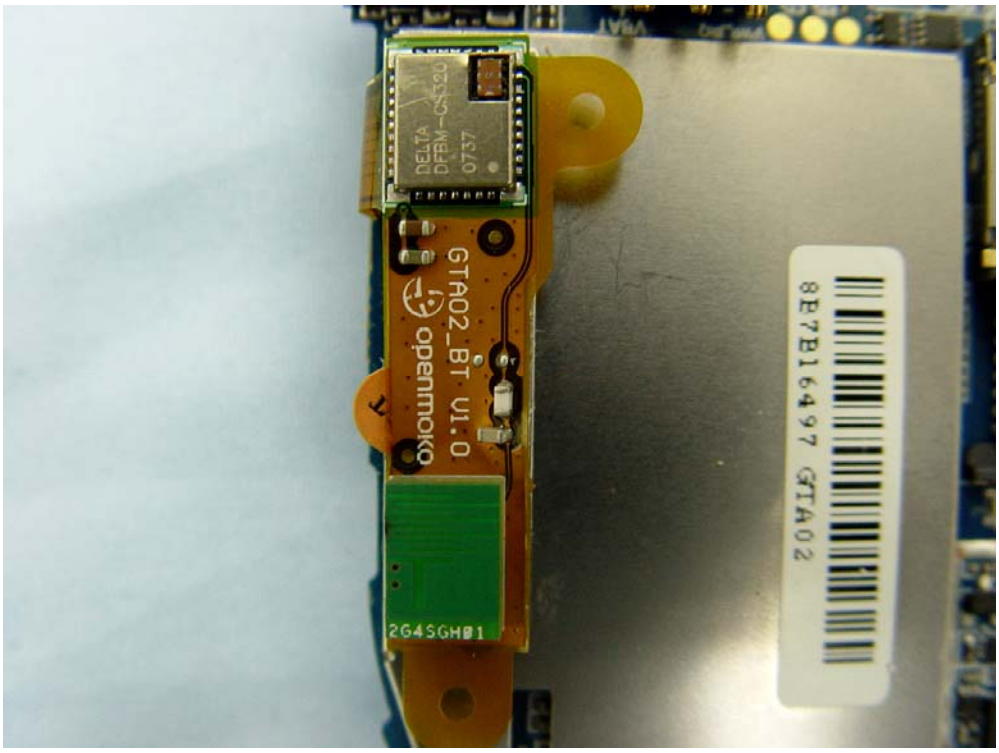

First International Computer, Inc.
Model: GTC-01/GTA-01
Standard Battery Pack
1200mAh Li-ion
Rechargeable Battery: 3.7V
Caution:
1. Do not incinerate.
2. Do not disassembly.
3. Do not short circuit.
4. Do not expose to high temperatures (140°F/60°C).
5. Dispose of properly.
6. Use specified charger only.
7. Battery must be fully charged before initial use.
WDMA070200260
Manufactured in Taiwan

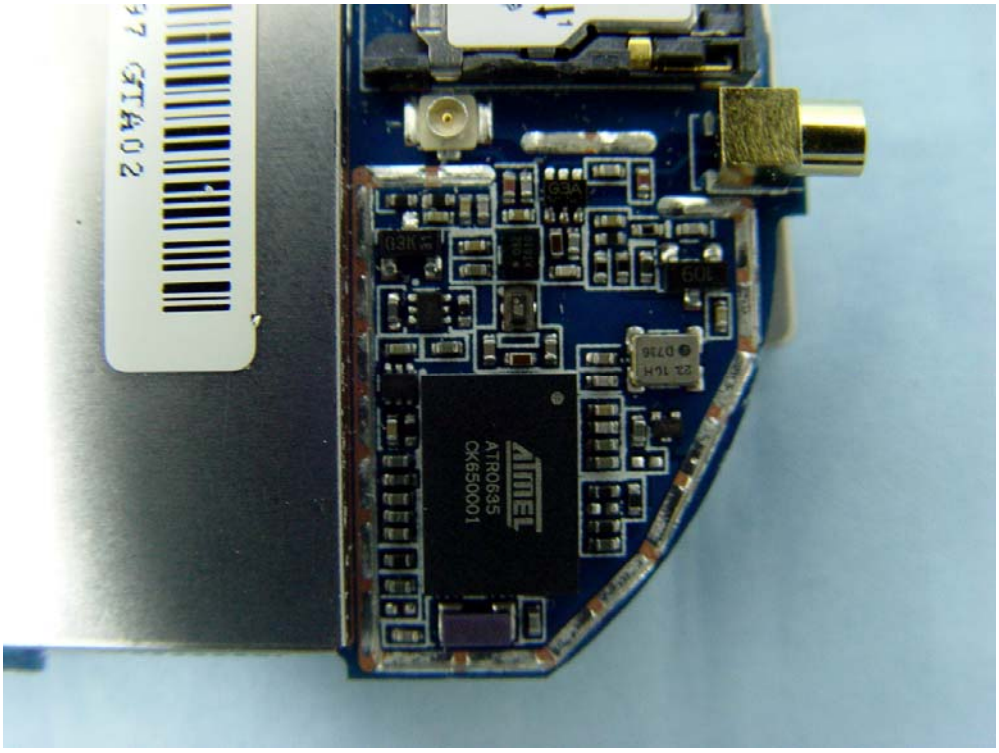

GSM ANT
WIFI ANT
BT ANT
GPS ANT

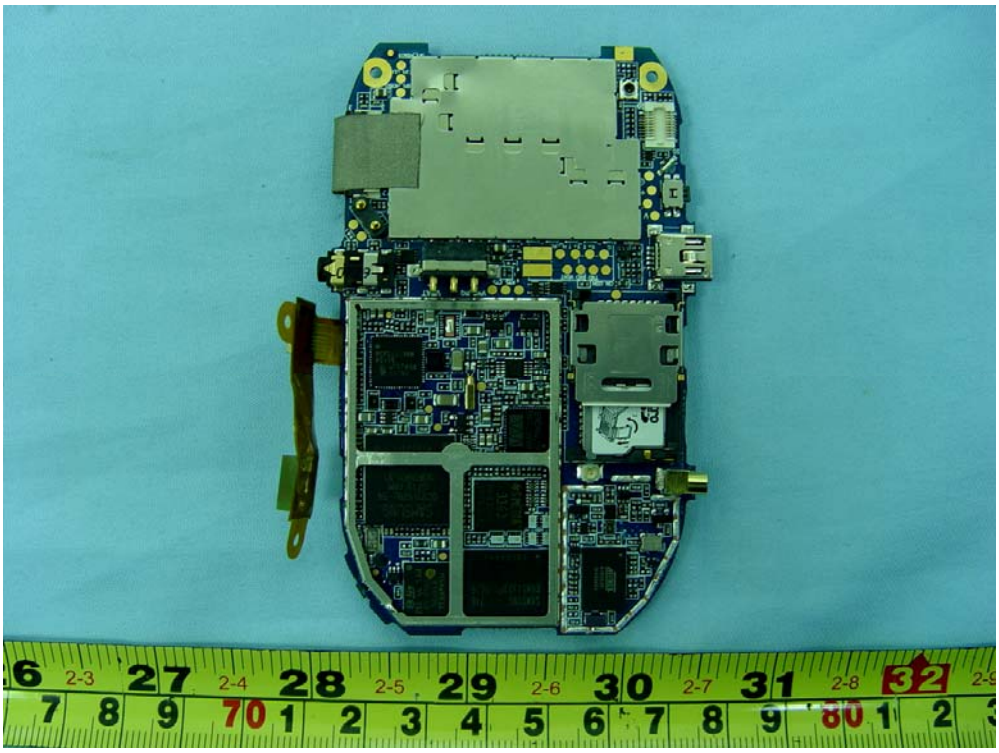


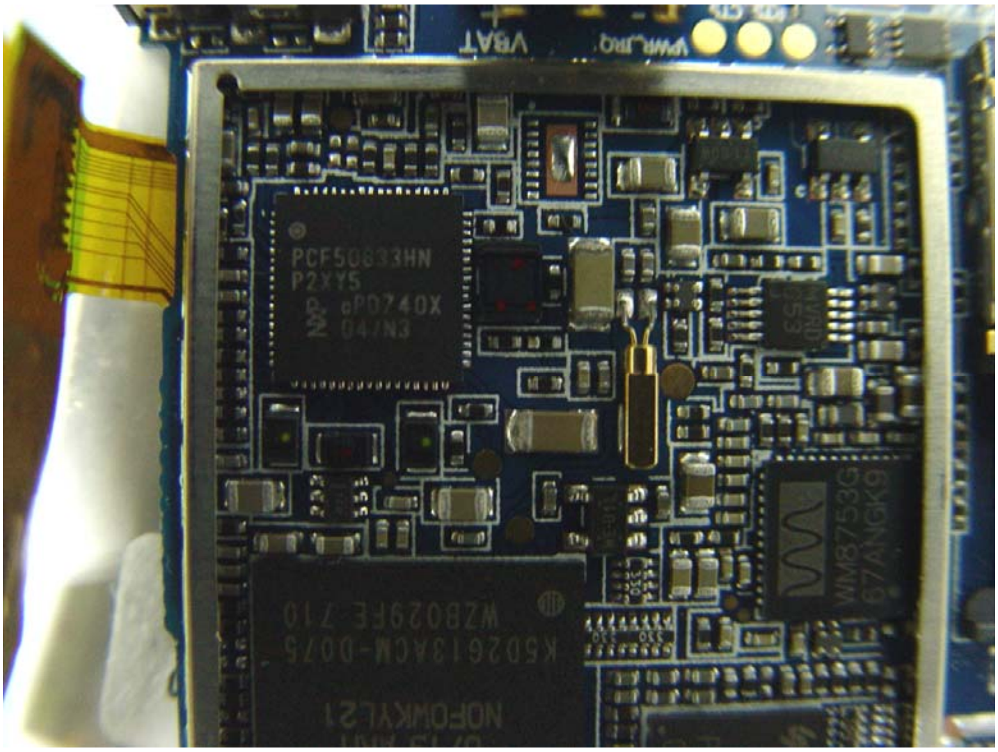


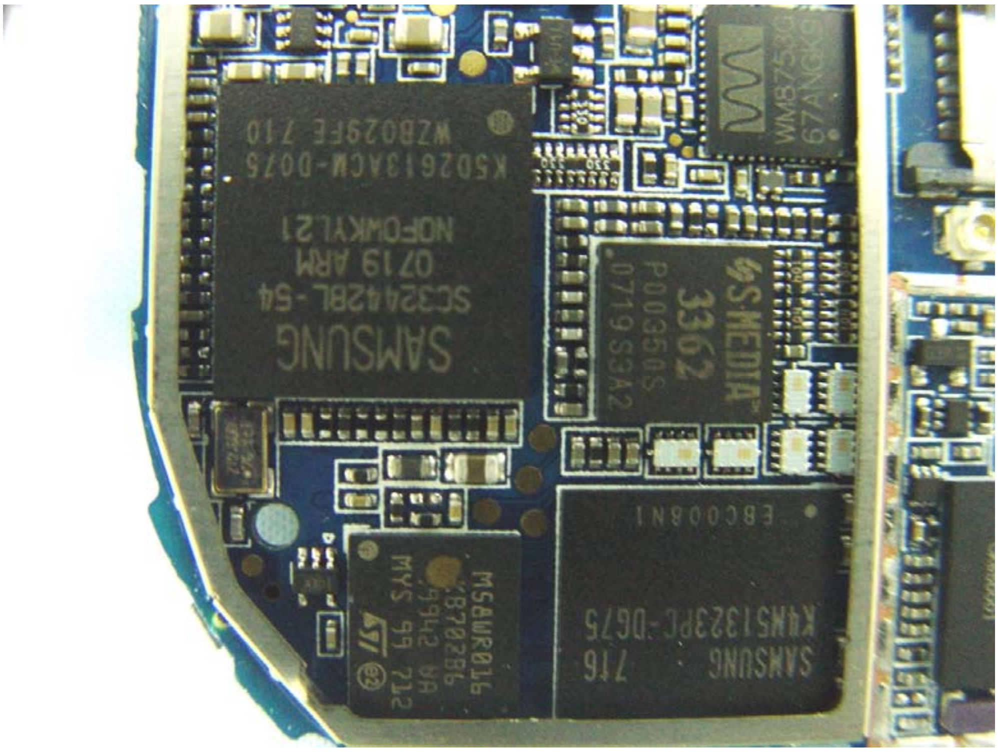

2G4SGH01

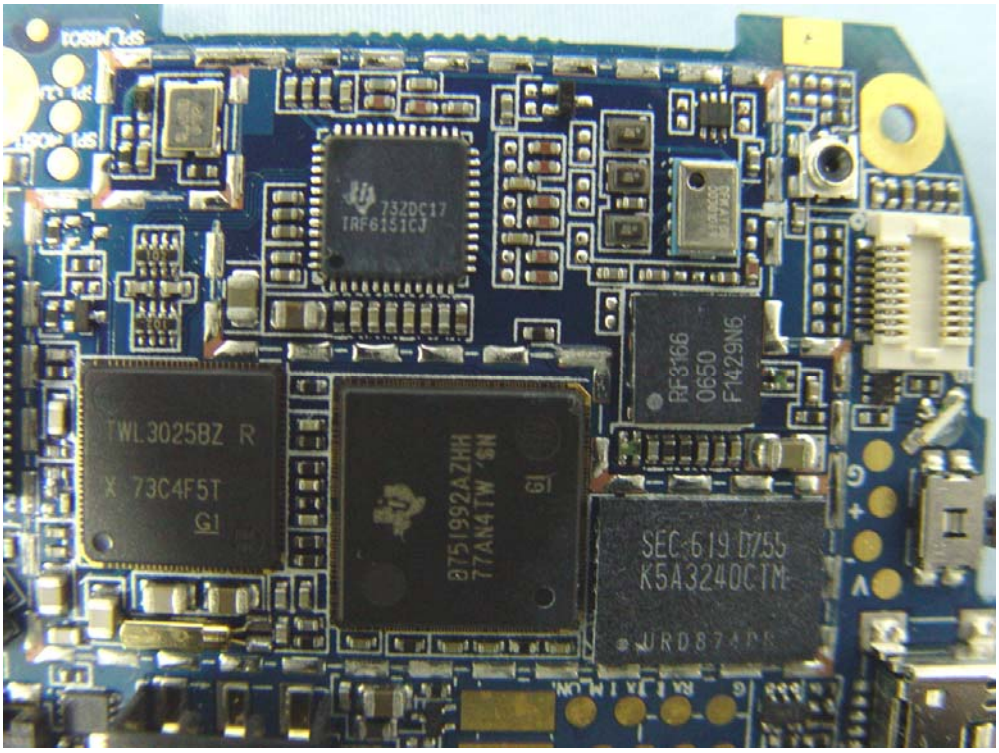

DELTA
DFBM-CS320
0737
GTA02_BT V1.0
openmoko
2G4SGH01
8E7B16497 GTA02


ATR0635
CK650001




VBAT
PCF50633HN
WM8753G


SAMSUNG
S-MEDIA
3362


TRF6151CJ
TWL3025BZ R
X 73C4F5T
G1
RF3166
0650
F1429N6
SEC-619 D755
K5A3240CTM


openmoko
TECHNOLOGY
MODEL NO.:A10P1-05MP
INPUT:100-240V~ /0.3A,
47-63Hz
OUTPUT :+5V ⎓ 2.0A
LISTED I.T.E
POWER SUPPLY
CLASS II
E123986
IZ22
N136
LPS
EL
IV
BS EN 60950-1
P1
P5
Made In China


openmoko
MODEL NO.:A10P1-05MP
INPUT:100-240V~ /0.3A,
47-63Hz
OUTPUT :+5V ⎓ 2.0A
LPS
EL
Made In China
P1
P5


openmoko
MODEL NO.:A10P1-05MP
INPUT:100-240V~ /0.3A,
47-63Hz
OUTPUT :+5V ⎓ 2.0A
LISTED I.T.E
POWER SUPPLY
CLASS II
E123986
LPS
N136
EL
Made In China
P1
P5