



FCC TEST REPORT

for

47 CFR Part 15 Subpart C

Equipment : GSM Quad-band mobile phone with GPRS, Bluetooth, Wi-Fi, GPS
Trade Name : glofiish
Model No. : M700/M700⁺
FCC ID : SPUM700
Filing Type : Certification
Applicant : E-TEN Information Systems Co., Ltd.
9F., No. 256, Yangguang Street, Neihu Chiu, Taipei, Taiwan114, R.O.C.

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- The data shown in this test report were carried out on Mar. 26, 2007 at **Sporton International Inc. LAB.**
- Report No.: FR682518-01, Report Version: Rev. 01

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History of this test report

Report Issue Date: Mar. 27, 2007

Report No.	Description



1. General Description of Equipment under Test

1.1 Applicant

E-TEN Information Systems Co., Ltd.

9F., No. 256, Yangguang Street, Neihu Chiu, Taipei, Taiwan114, R.O.C.

1.2 Manufacturer

E-TEN Information Systems Co., Ltd.

9F., No. 256, Yangguang Street, Neihu Chiu, Taipei, Taiwan114, R.O.C.

1.3 Basic Description of Equipment under Test

Equipment	: GSM Quad-band mobile phone with GPRS, Bluetooth, Wi-Fi, GPS
Trade Name	: glofiish
Model No.	: M700/M700 ⁺
FCC ID	: SPUM700
Power Supply Type	: Switching, From battery 3.7V
AC Power Cord	: AC 120V, Wall-mount, 1.8 meter, 2 pin
Adapter	: Phihong, PSC05R-050 PH
Battery	: Foxlink, AHL03716016
Earphone	: Merry, DD0EN5EP004
Data Cable	: Golden Bridge, GB-A5049

1.4 Feature of Equipment under Test

Product Feature & Specification	
1. DUT Type	GSM Quad-band mobile phone with GPRS, Bluetooth, Wi-Fi, GPS
2. Trade Name	glofiish
3. Model Name	M700/M700 ⁺
4. FCC ID	SPUM700
5. Tx Frequency	GSM850 : 824 ~ 849 MHz PCS1900 : 1850 ~ 1910 MHz Bluetooth : 2400 ~ 2483.5 MHz WLAN : 2400 ~ 2483.5 MHz
6. Rx Frequency	GSM850 : 869 ~ 894 MHz PCS1900 : 1930 ~ 1990 MHz Bluetooth : 2400 ~ 2483.5 MHz WLAN : 2400 ~ 2483.5 MHz
7. Number of Channels	Bluetooth : 79 WLAN : 11
8. Carrier Frequency of Each Channel	Bluetooth : 2402+n*1 MHz; n=0~78 WLAN : 2412+(n-1)*5 MHz; n=1~11
9. Antenna Connector	N/A
10. Antenna Type	Fixed Internal
11. Antenna Gain	Bluetooth: -2 dBi WLAN: 1 dBi
1. HW Version	1.0V
2. SW Version	1.0V
12. Maximum Output Power	GSM850: 31.46 dBm DCS1900: 28.56 dBm Bluetooth : 0.78 dBm 802.11b : 18.88 dBm ; 802.11g : 21.56 dBm
13. Type of Modulation	GSM850 / PCS1900 : GMSK Bluetooth : GFSK WLAN : DSSS / OFDM
14. DUT Stage	Identical Prototype
15. Application Type	Certification

2 Test Configuration of Equipment under Test

2.1 Test Manner

- The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.
- For spurious emission below 1GHz, only one channel of each application was tested because it is not related to channel selection.
- The EUT is programmed to transmit signal continuously for all testings.
- Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 25000MHz.

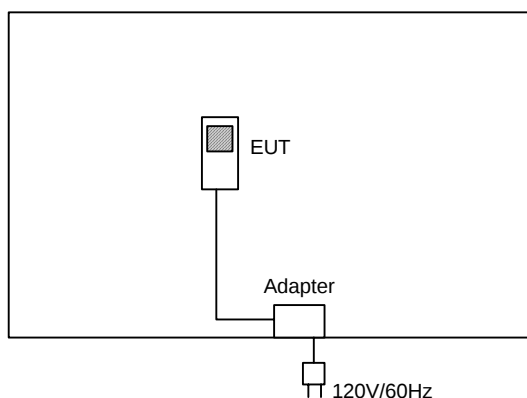
2.2 Test Mode

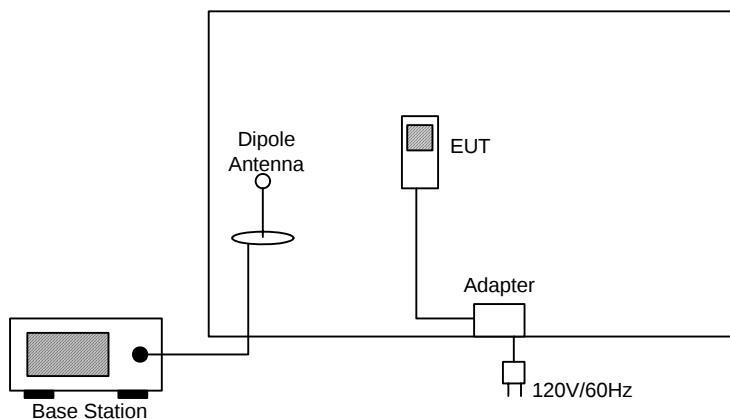
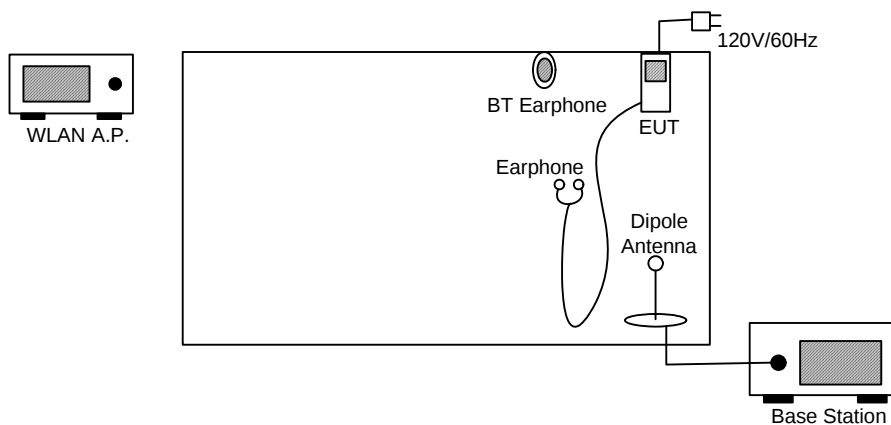
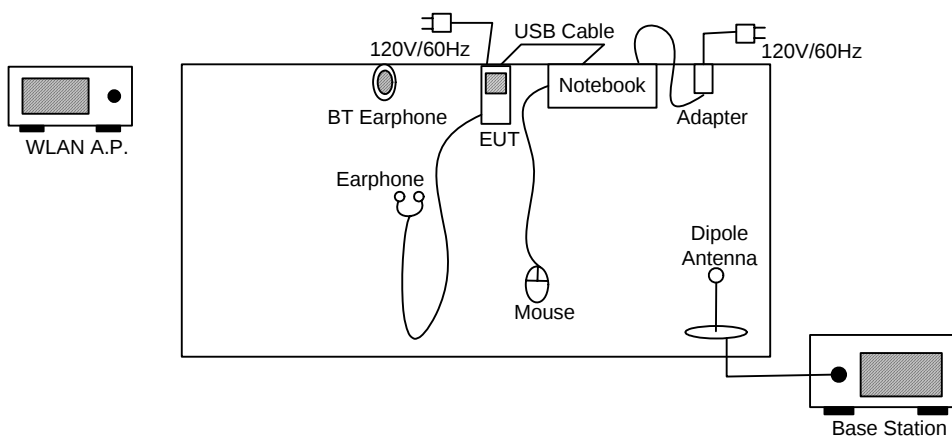
Application			
	802.11b	802.11g	BT
Radiated Emission	Mode 1: Tx_CH01_2412 MHz	Mode 4: Tx_CH01_2412 MHz	Mode 7: Tx_CH00_2402 MHz
	Mode 2: Tx_CH06_2437 MHz	Mode 5: Tx_CH06_2437 MHz	Mode 8: Tx_CH39_2441 MHz
	Mode 3: Tx_CH11_2462 MHz	Mode 6: Tx_CH11_2462 MHz	Mode 9: Tx_CH78_2480 MHz
Conducted Emission	Mode 1: GSM850 Idle Mode + BT Link + WLAN Link + Earphone + Camera + Adapter + GPS Rx		
	Mode 2: GSM850 Idle Mode + BT Link + WLAN Link + Earphone + Camera + USB Link + GPS Rx		

2.3 Connection Diagram of Test System

<Radiated Emission>

Mode 1-6



Mode 7-9

<Conducted Emission>
Mode 1

Mode 2


**2.4 Ancillary Equipment List**

Item	Asset	Model Name	Power Cord
1.	Base Station (R&S)	CMU 200	N/A
2.	WLAN AP (SMC)	SMC-100	N/A
3.	Notebook (Dell)	D400	N/A
4.	Mouse (Dell)	MO56UOA	N/A
5.	BT Earphone (Engotech)	ET-BH111	N/A
6.	USB Cable (Golden Bridge)	GB-A5049	N/A
7.	Earphone (Merry)	DD0EN5EP004	N/A
8.	Adapter (Phihong)	PSC05R-050 PH	N/A



3. RF Utility

The EUT is linked with BT earphone and WLAN AP for conducted emission or in BT continuous Tx mode controlled by RF utility and base station simulator or in WLAN continuous Tx mode controlled by RF utility for radiation emission and other conducted tests.



4. General Information of Test

Test Site Location : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park,
Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
TEL : 886-3-327-3456
FAX : 886-3-318-0055
Test Site No : CO01-HY, 03CH06-HY

4.1 Test Voltage

120V/ 60Hz

4.2 Standard for Methods of Measurement

ANSI C63.4-2003

4.3 Test in Compliance with

47 CFR Part 15 Subpart C

4.4 Frequency Range Investigated

- a. Conducted Emission : from 150 KHz to 30 MHz
- b. Radiated Emission : from 30 MHz to 25000 MHz

4.5 Test Distance

The test distance of radiated emission from antenna to EUT is 3 m.



5. Test Data and Test Result

5.1 List of Measurements and Examinations

The Emission Mode: Wireless LAN

FCC Rule	Description of Test	Result
15.207	Conducted Emission	Pass
15.247(a)(2)	6dB & 20dB Bandwidth	Pass
15.247(b)	Maximum Peak Output Power	Pass
15.209(a)	Radiated Emission	Pass
15.247 (c)	100kHz Bandwidth of Frequency Band Edges	Pass
15.247(d)	Power Spectral Density	Pass
15.203 15.247(b)(4)	Antenna Requirement	Pass

**The Emission Mode: Bluetooth**

FCC Rule	Description of Test	Result
15.207	Conducted Emission	Pass
<u>15.247(a) (1)</u>	Hopping Channel Bandwidth	Pass
<u>15.247(a)(1)</u>	Hopping Channel Separation	Pass
<u>15.247(a)(1)(iii)</u>	Number of Hopping Frequency Used	Pass
<u>15.247(a)(1)(iii)</u>	Dwell Time of Each Frequency	Pass
<u>15.247(b)</u>	Output Power	Pass
15.247(c)	100kHz Bandwidth of Frequency Band Edges	Pass
15.209(a)	Radiated Emission	Pass
<u>15.203</u> 15.247(b)(4)	Antenna Requirement	Pass

5.2 6dB Bandwidth Measurement

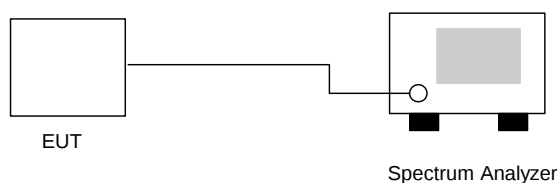
5.2.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.2.2 Test Procedure :

1. The transmitter output was connected to the spectrum analyzer directly.
2. Set RBW of spectrum analyzer to 100kHz and VBW to 100kHz.
3. The 6 dB bandwidth is defined as the frequency range where the power is higher than the peak power minus 6dB.

5.2.3 Test Setup Layout :



5.2.4 Test Result :

- Application Type : WLAN 802.11b/g
- Temperature : 26°C
- Relative Humidity : 46%
- Test Enginner : Andy

802.11b

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	10.16	> 0.5MHz	Mode 1
06	2437	9.44	> 0.5MHz	Mode 2
11	2462	10.16	> 0.5MHz	Mode 3

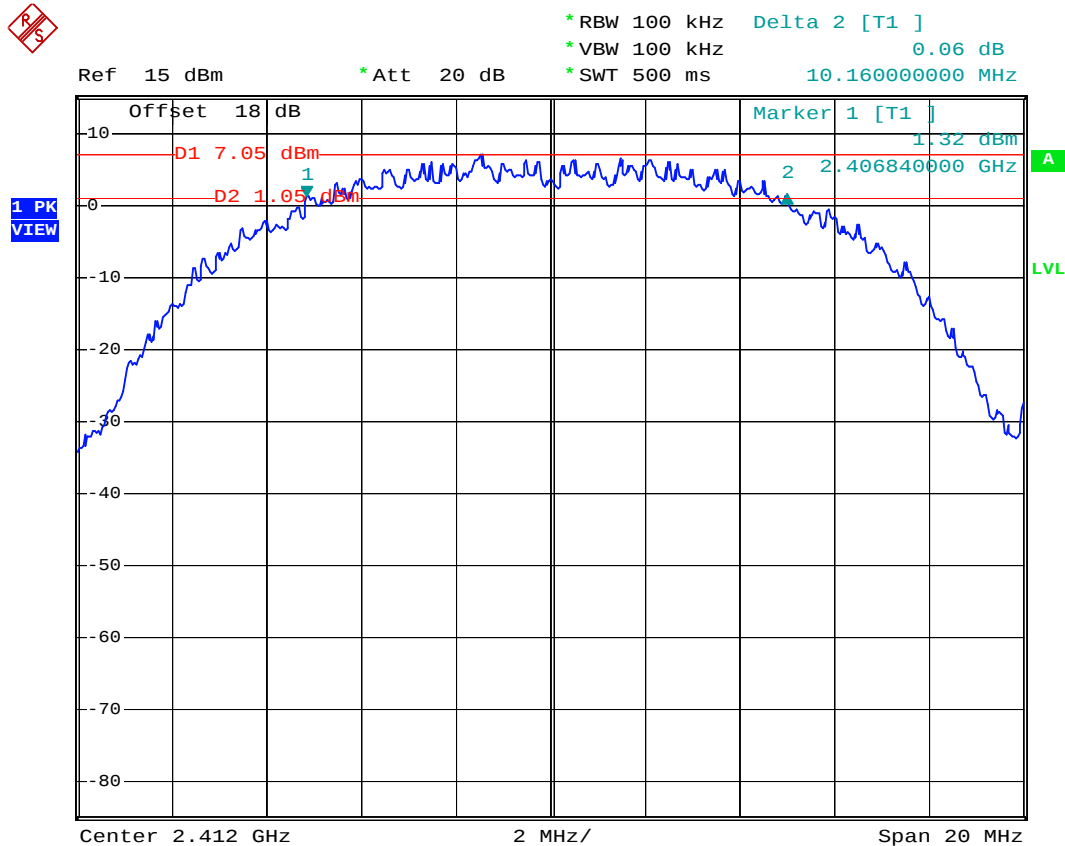
802.11g

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	16.52	> 0.5MHz	Mode 4
06	2437	16.52	> 0.5MHz	Mode 5
11	2462	16.52	> 0.5MHz	Mode 6



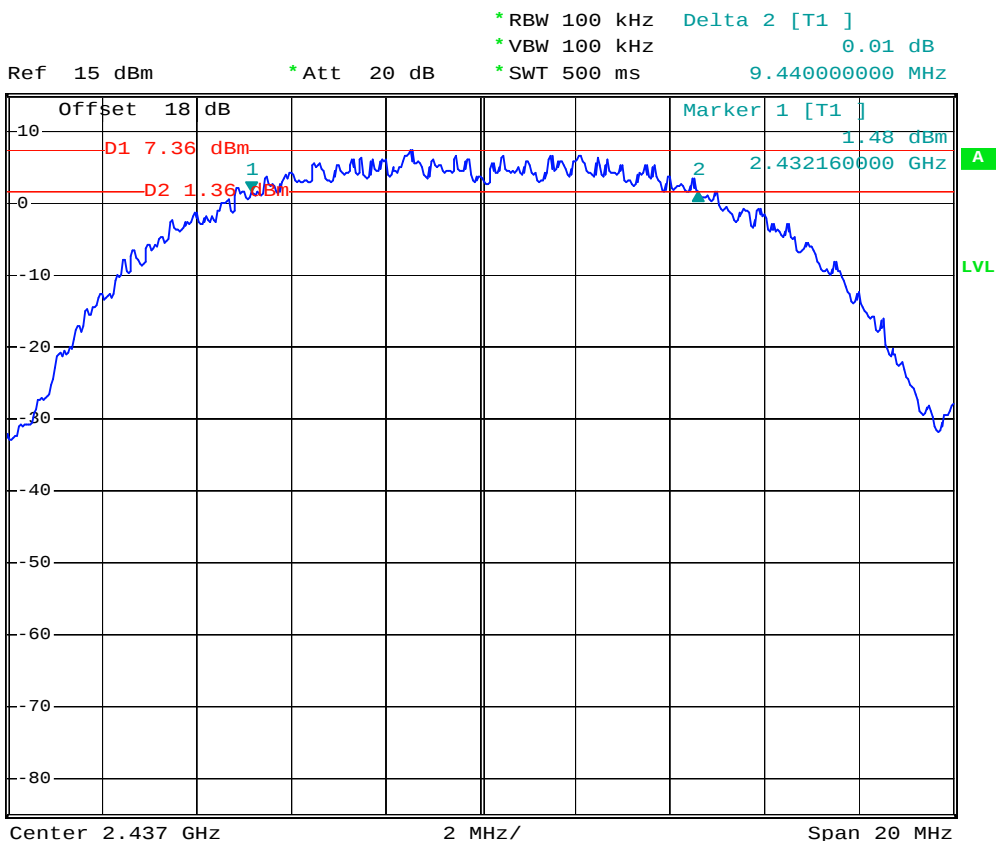
5.2.5 6dB Bandwidth

Mode 1



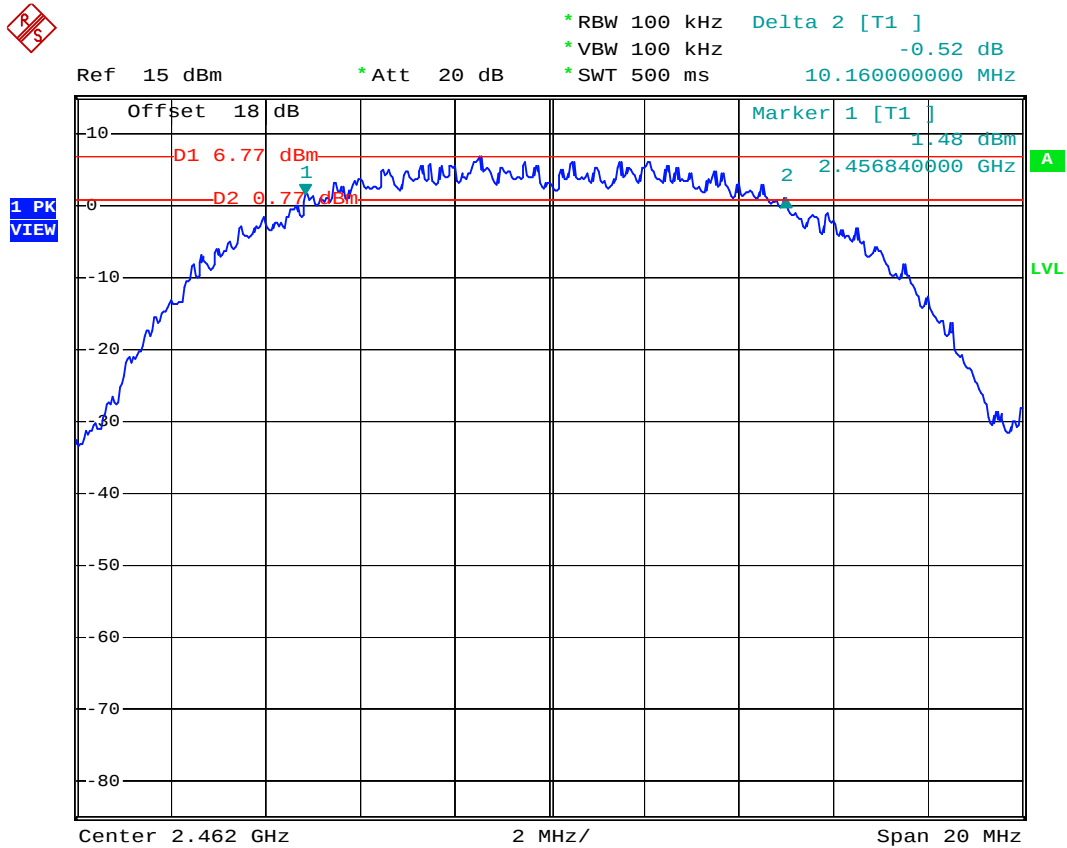


Mode 2



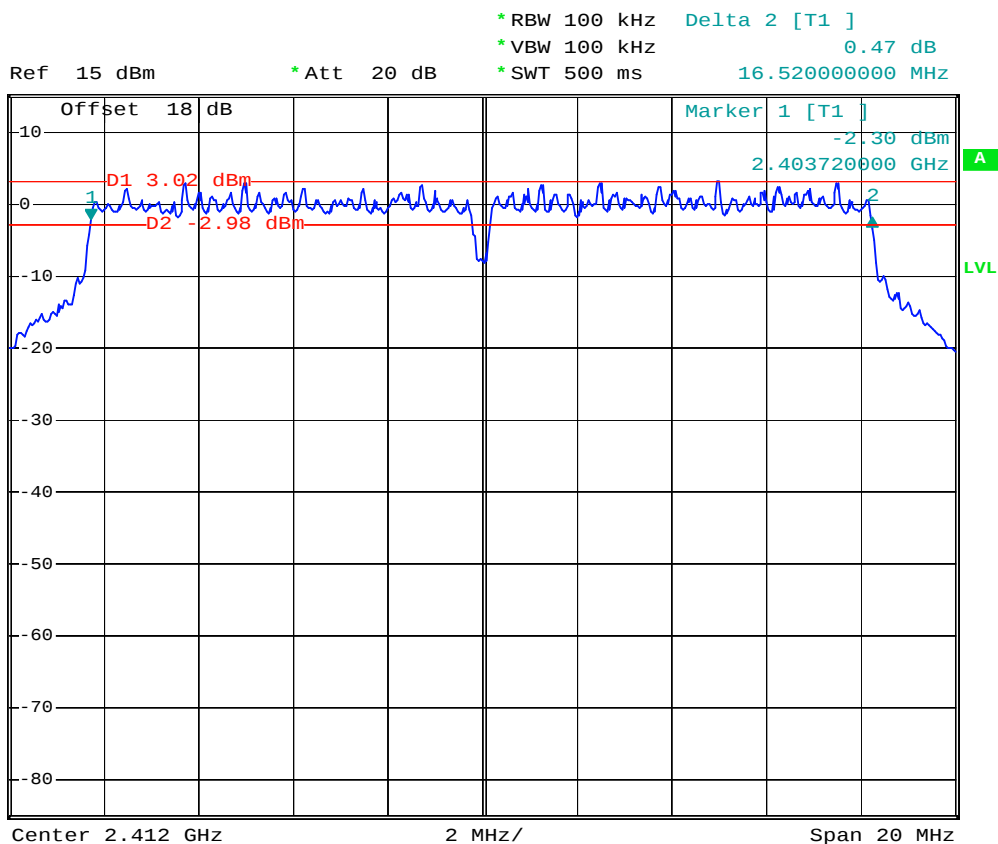


Mode 3



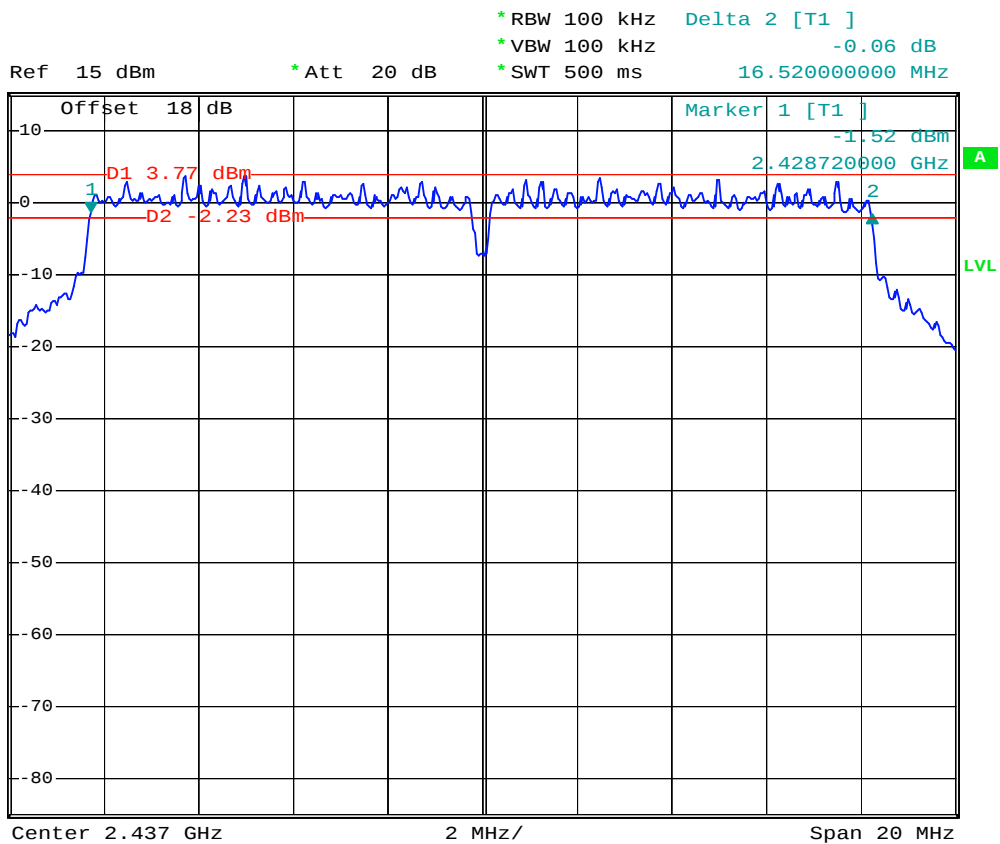


Mode 4





Mode 5

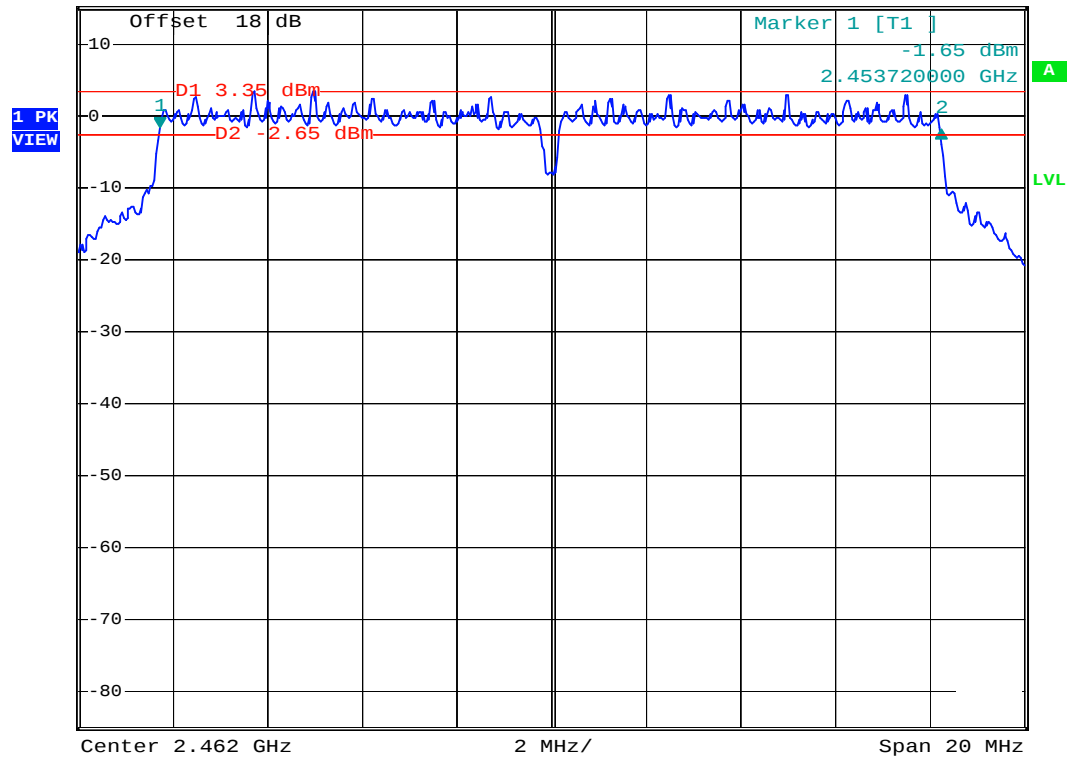




Mode 6



Ref 15 dBm * Att 20 dB * RBW 100 kHz Delta 2 [T1] -0.41 dB
* VBW 100 kHz * SWT 500 ms 16.52000000 MHz



5.3 Power Spectral Density Measurement

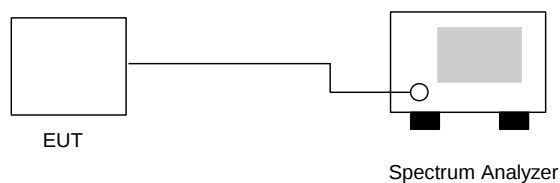
5.3.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.3.2 Test Procedure :

1. The transmitter output was connected to spectrum analyzer directly.
2. The spectrum analyzer's resolution bandwidth was set at 3kHz RBW and 30kHz VBW as that of the fundamental frequency. Set the sweep time=span/3kHz.
3. The power spectral density was measured and recorded.
4. The sweep time is allowed to be longer than span/3kHz for a full response of the mixer in the spectrum analyzer.

5.3.3 Test Setup Layout :



**5.3.4 Test Result :**

- Application Type : 802.11b/g
- Temperature : 26°C
- Relative Humidity : 46%
- Test Enginner : Andy

802.11b

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-7.97	8	Mode 1
06	2437	-7.71	8	Mode 2
11	2462	-8.27	8	Mode 3

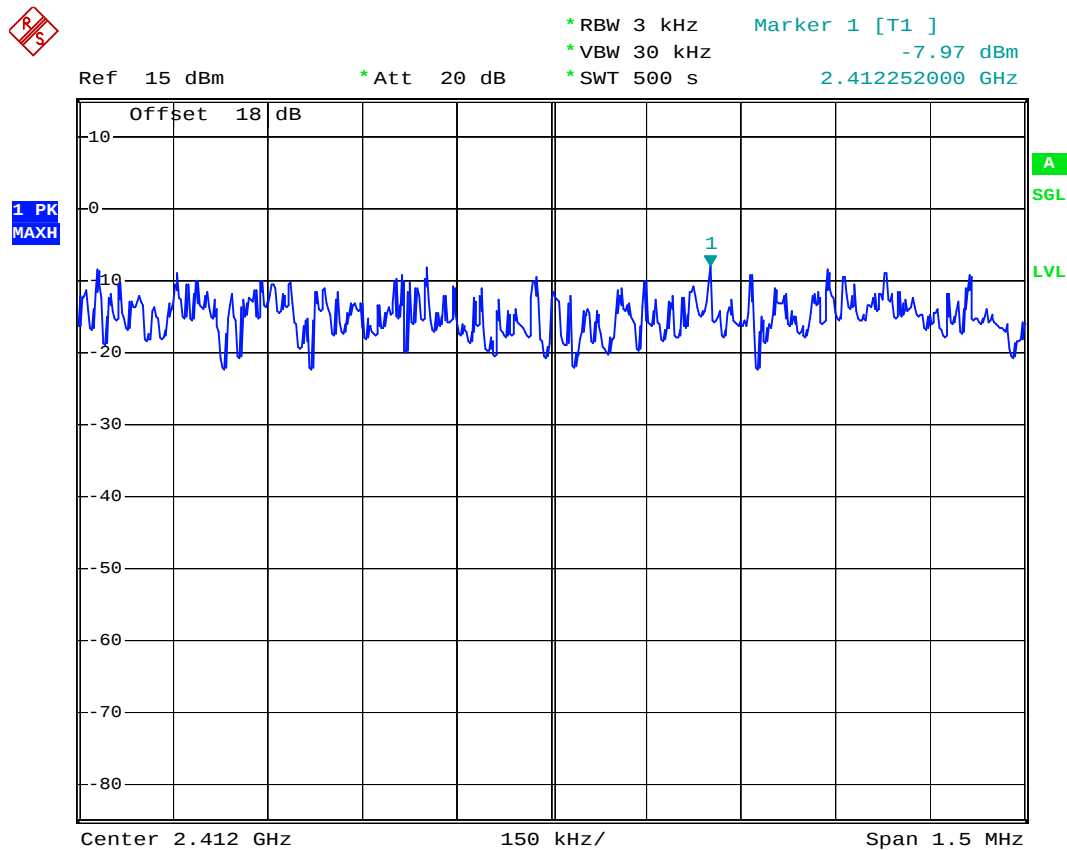
802.11g

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-11.01	8	Mode 4
06	2437	-10.79	8	Mode 5
11	2462	-11.16	8	Mode 6



5.3.5 Power Spectral Density

Mode 1





Mode 2

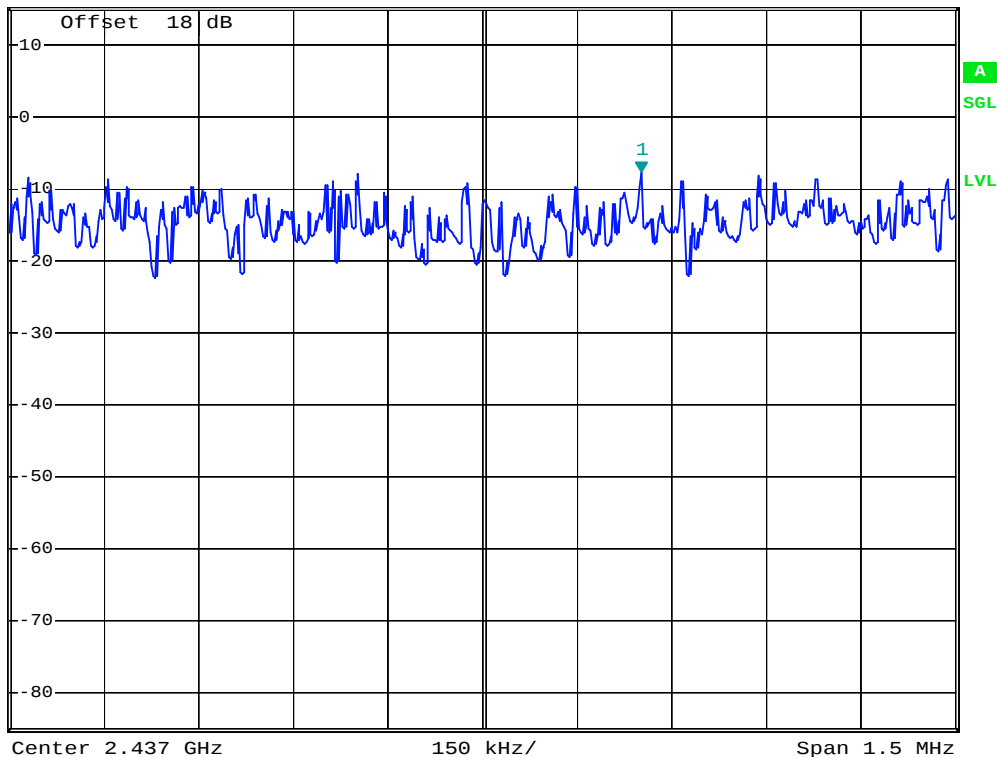


* RBW 3 kHz Marker 1 [T1]
* VBW 30 kHz -7.71 dBm
* SWT 500 s 2.437252000 GHz

Ref 15 dBm

* Att 20 dB

1 PK
MAXH





Mode 3

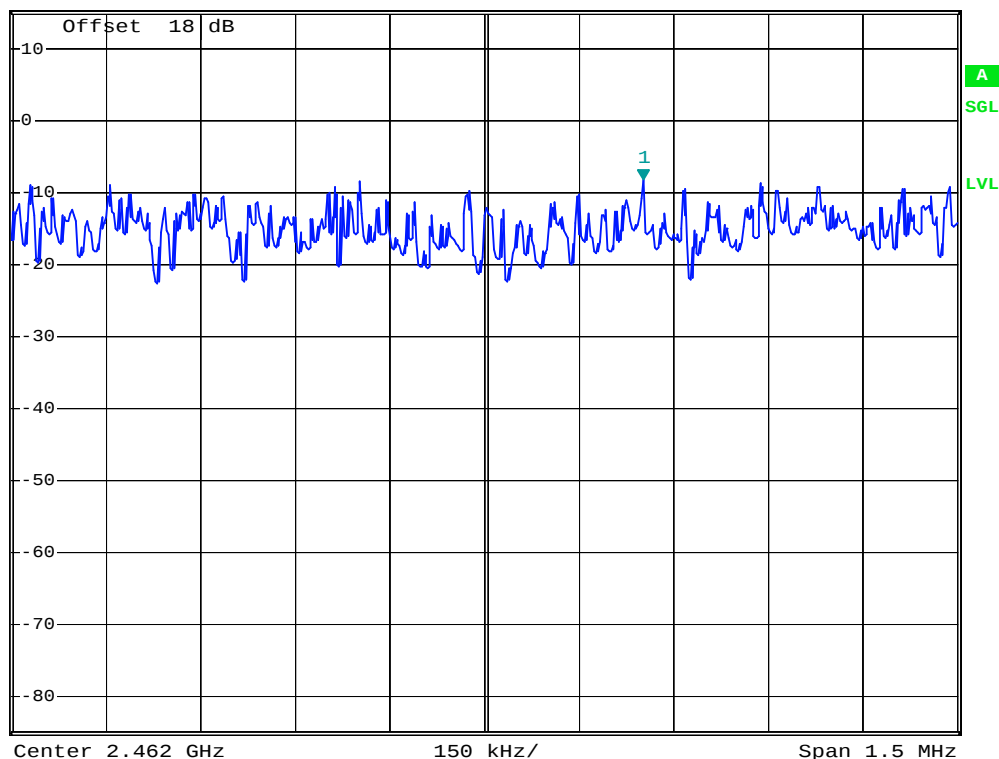


* RBW 3 kHz Marker 1 [T1]
* VBW 30 kHz -8.27 dBm
* SWT 500 s 2.462252000 GHz

Ref 15 dBm

* Att 20 dB

1 PK
MAXH

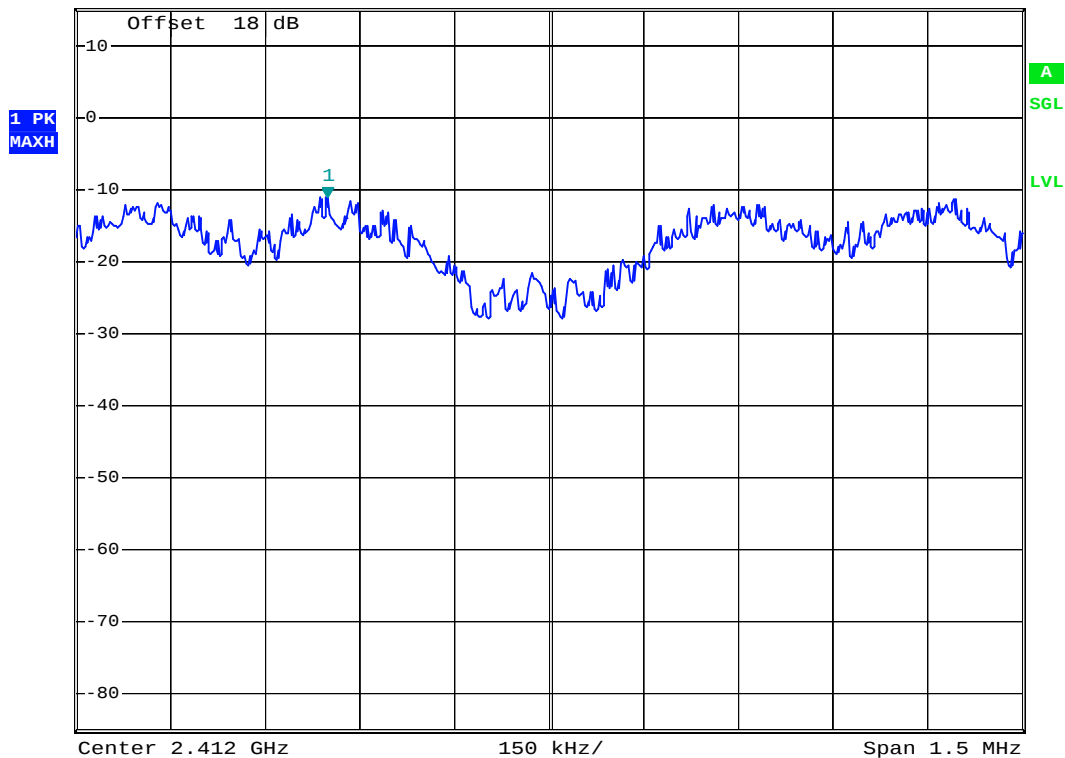




Mode 4



Ref 15 dBm *Att 20 dB *RBW 3 kHz Marker 1 [T1] *VBW 30 kHz -11.01 dBm *SWT 500 s 2.411649000 GHz





Mode 5

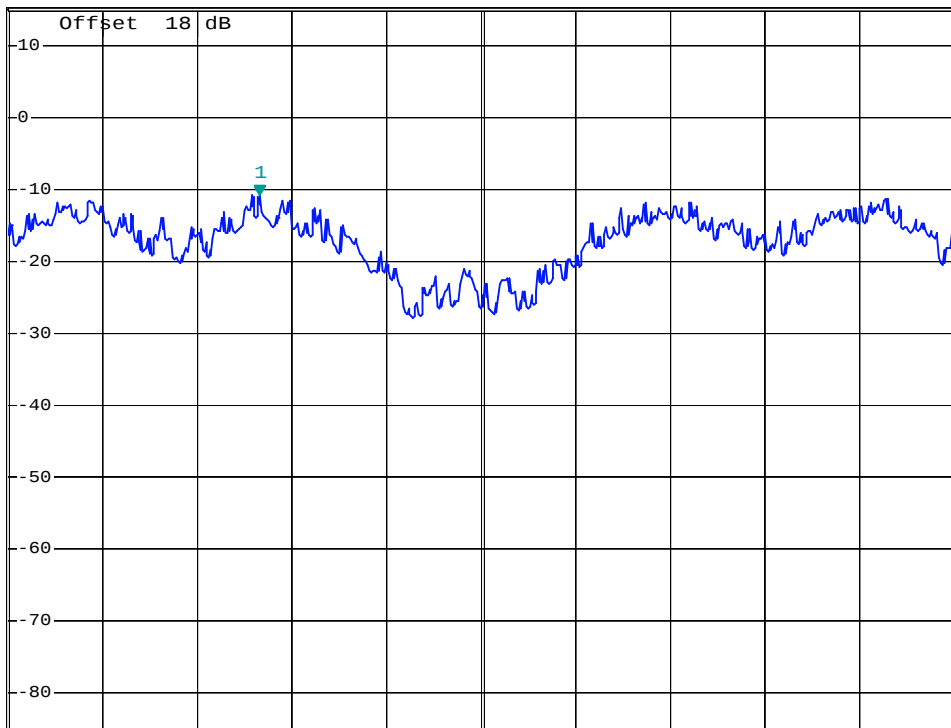


*RBW 3 kHz Marker 1 [T1]
*VBW 30 kHz -10.79 dBm
*SWT 500 s 2.436649000 GHz

Ref 15 dBm

*Att 20 dB

1 PK
MAXH



Center 2.437 GHz

150 kHz/

Span 1.5 MHz

Mode 6



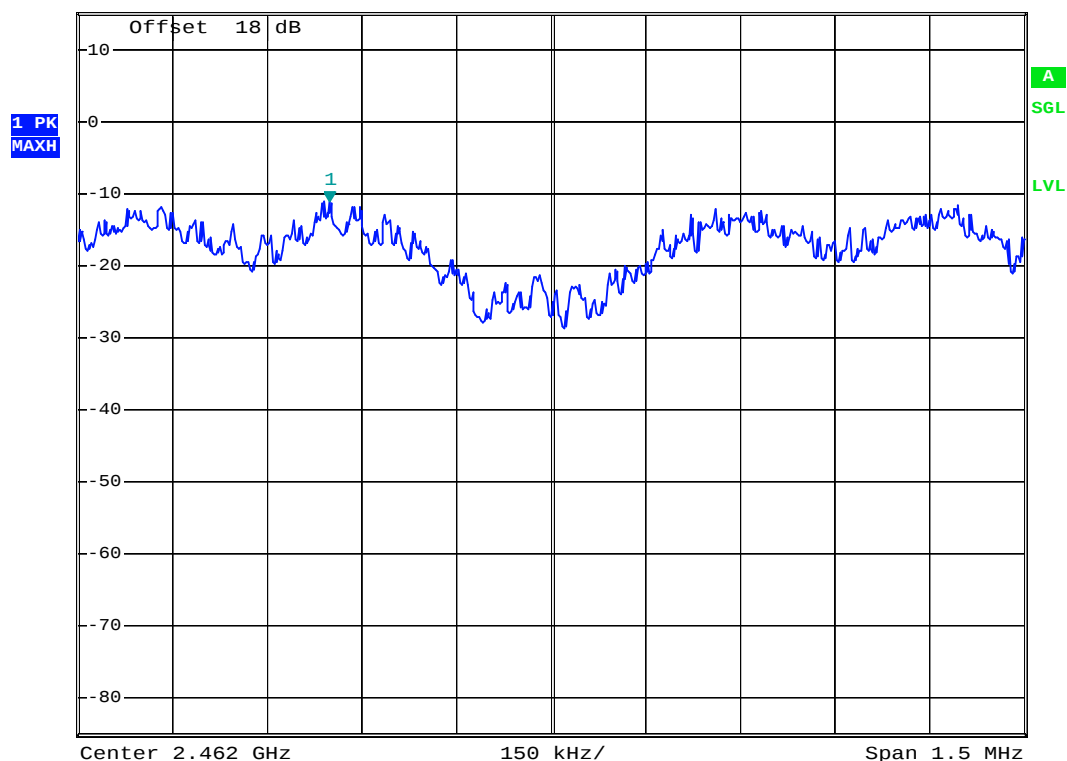
```
* RBW 3 kHz      Marker 1 [T1 ]
* VBW 30 kHz      -11.16 dBm
* SWT 500 s      2.461649000 GHz
```

Ref 15 dBm

* Att 20 dB

* SWT 500 s

2.461649000 GHz



5.4 Band Edges Measurement

5.4.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.4.2 Test Procedure :

1. The transmitter output was connected to the spectrum analyzer via a low lose cable.
2. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 100 kHz bandwidth from band edge.
3. The band edges was measured and recorded.

5.4.3 Test Result :

- Application Type : WLAN 802.11b/g and BT
- Temperature : 26°C
- Relative Humidity : 46%
- Test Enginner : Andy
- Test Result in WLAN lower band (Channel 1) : PASS
- Test Result in WLAN higher band (Channel 11) : PASS
- Test Result in BT lower band (Channel 00) : PASS
- Test Result in BT higher band (Channel 78) : PASS

5.4.4 Note on Band Edge Emission :

➤WLAN 802.11b

CH01 (Horizontal)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2390.00	53.38	-20.62	74.00	52.32	30.26	4.26	35.46	100	0	Peak
2390.00	42.32	-11.68	54.00	43.26	30.26	4.26	35.46	100	194	Average

CH01 (Vertical)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2390.00	49.87	-24.13	74.00	50.81	30.26	4.26	35.46	100	360	Peak
2390.00	39.49	-14.51	54.00	40.43	30.26	4.26	35.46	100	80	Average

**CH11 (Horizontal)**

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2487.00	28.34	-15.66	74.00	59.20	30.29	4.36	35.51	100	0	Peak
2487.00	46.78	-7.22	54.00	47.64	30.29	4.36	35.51	100	189	Average

CH11 (Vertical)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2488.00	53.28	-20.72	74.00	54.14	30.29	4.36	35.51	100	360	Peak
2488.00	42.32	-11.68	54.00	43.17	30.30	4.36	35.51	100	82	Average

➤WLAN 802.11g**CH01 (Horizontal)**

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2390.00	66.77	-7.23	74.00	67.71	30.26	4.26	35.46	100	360	Peak
2390.00	47.14	-6.86	54.00	48.08	30.26	4.26	35.46	100	190	Average

CH01 (Vertical)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2390.00	61.04	-12.96	74.00	61.98	30.26	4.26	35.46	100	0	Peak
2390.00	42.76	-11.24	54.00	43.70	30.26	4.26	35.46	100	95	Average

CH11 (Horizontal)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2483.50	52.54	-1.46	54.00	53.40	30.29	4.36	35.51	100	190	Average
2483.50	70.76	-3.24	74.00	71.62	30.29	4.36	35.51	100	0	Peak



CH11 (Vertical)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2483.50	65.07	-8.93	74.00	65.93	30.29	4.36	35.51	100	360	Peak
2483.50	46.94	-7.06	54.00	47.80	30.29	4.36	35.51	103	99	Average

➤BT

CH00 (Horizontal)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2377.36	50.22	-23.78	74.00	51.18	30.25	4.23	35.44	100	360	Peak
2377.36	38.95	-15.05	54.00	39.91	30.25	4.23	35.44	100	149	Average

CH00 (Vertical)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2322.56	49.46	-24.54	74.00	50.46	30.23	4.17	35.40	100	0	Peak
2322.56	38.90	-15.10	54.00	39.90	30.23	4.17	35.40	100	189	Average

CH78 (Horizontal)

Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2483.50	48.83	-5.17	54.00	49.69	30.29	4.36	35.51	100	154	Average
2483.50	63.65	-10.35	74.00	64.51	30.29	4.36	35.51	100	360	Peak

CH78 (Vertical)

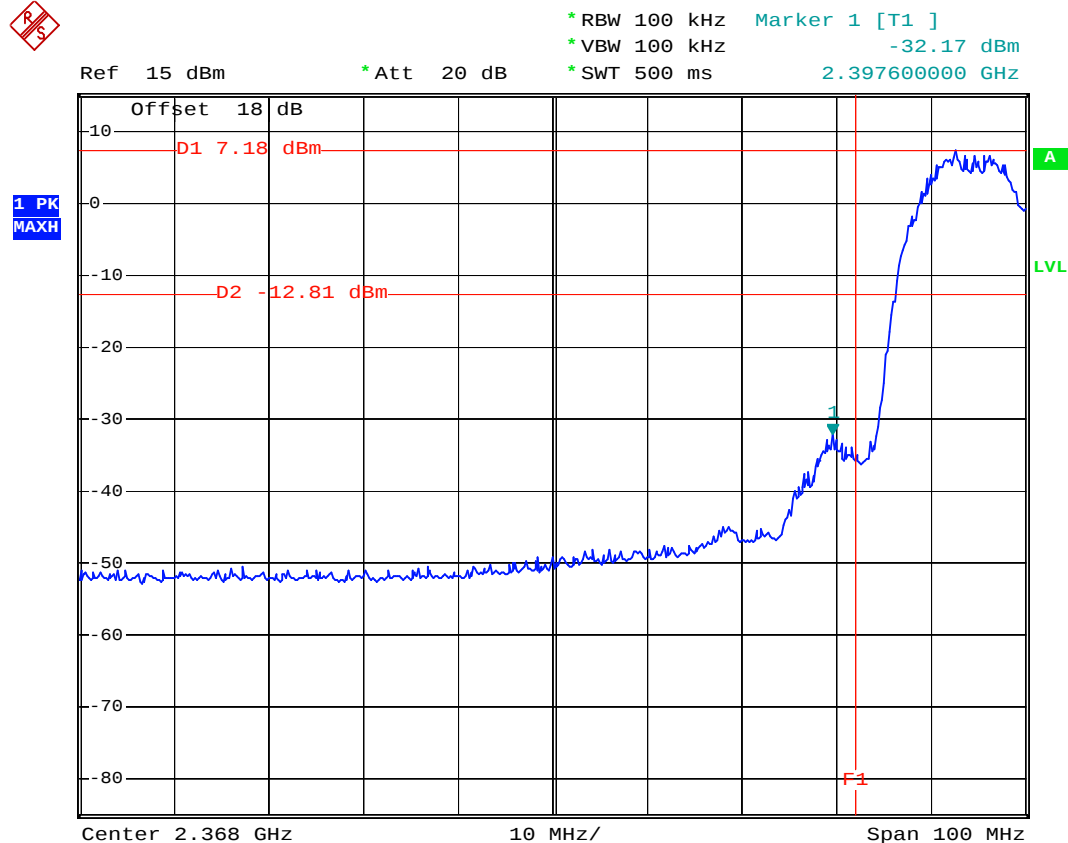
Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
		Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	
2483.50	45.49	-8.51	54.00	46.35	30.29	4.36	35.51	100	95	Average
2483.50	57.71	-16.29	74.00	58.57	30.29	4.36	35.51	100	0	Peak



5.4.4 20dB Band Edge

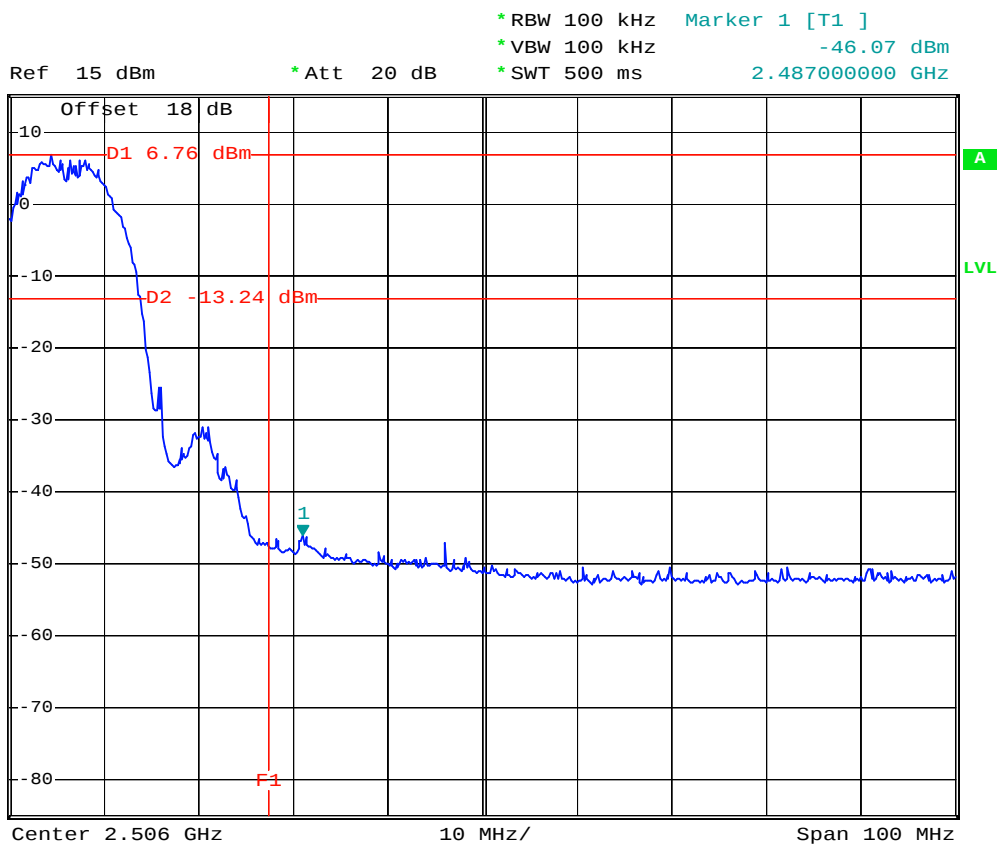
WLAN 802.11b

CH01





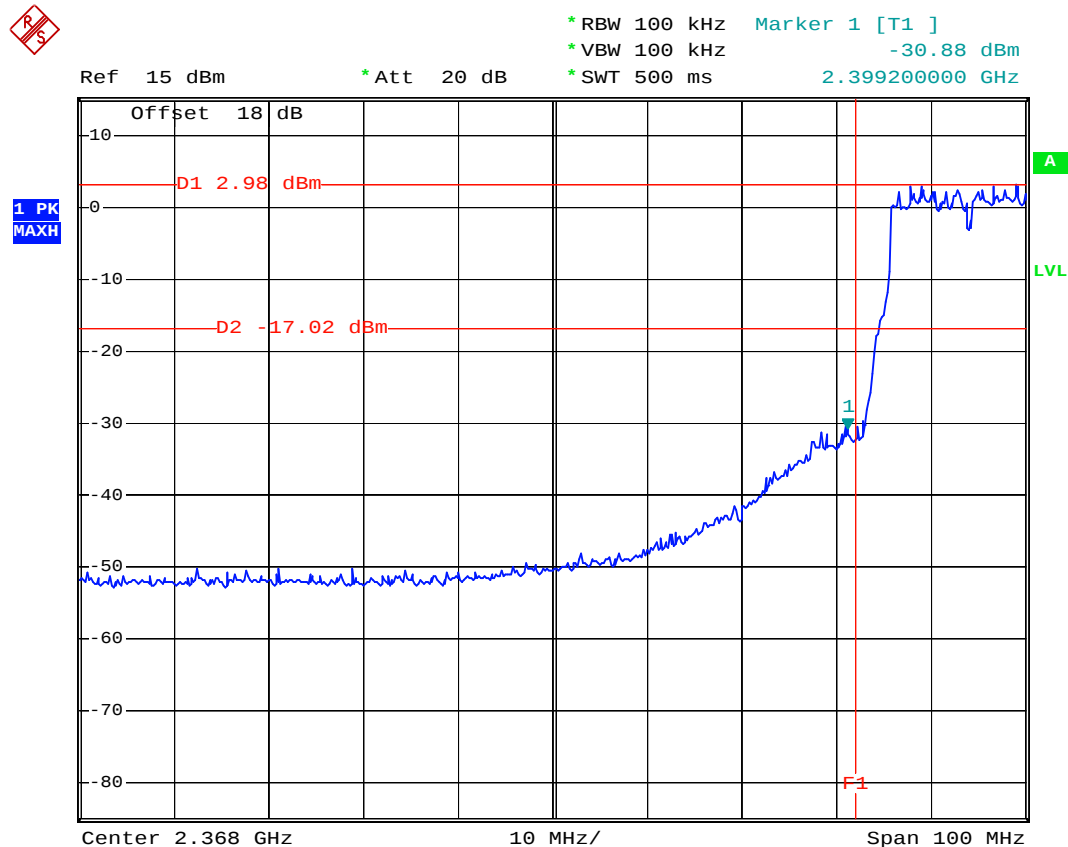
CH11





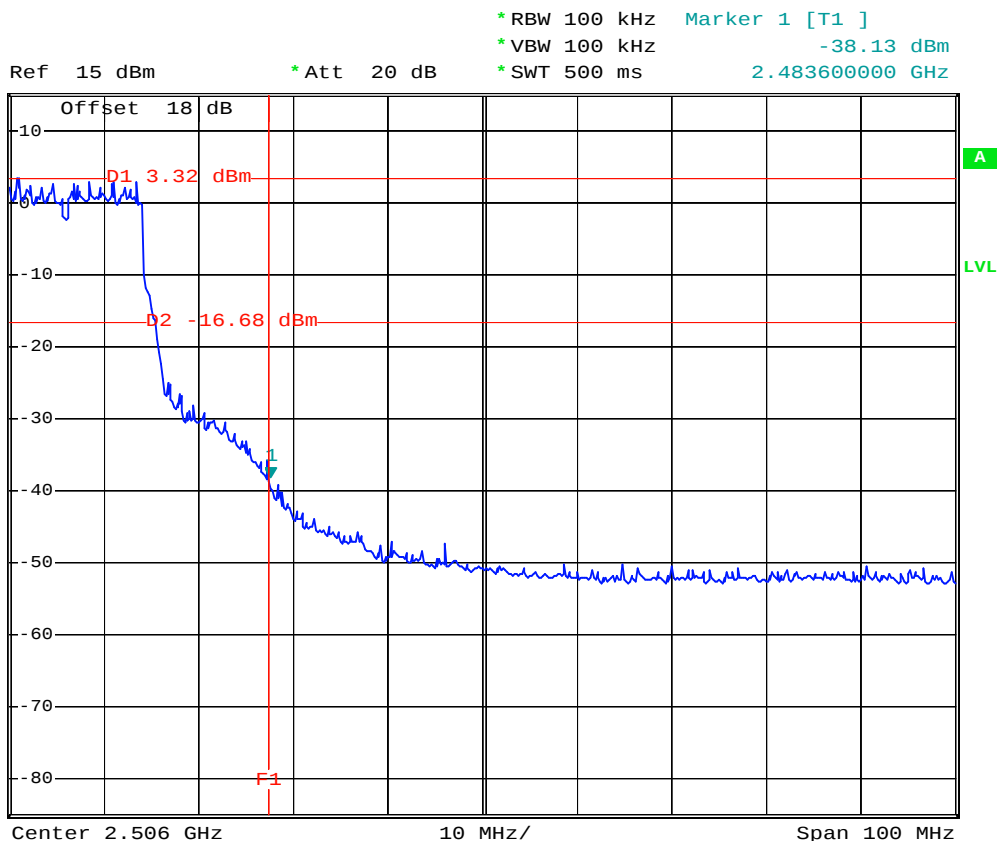
WLAN 802.11g

CH01





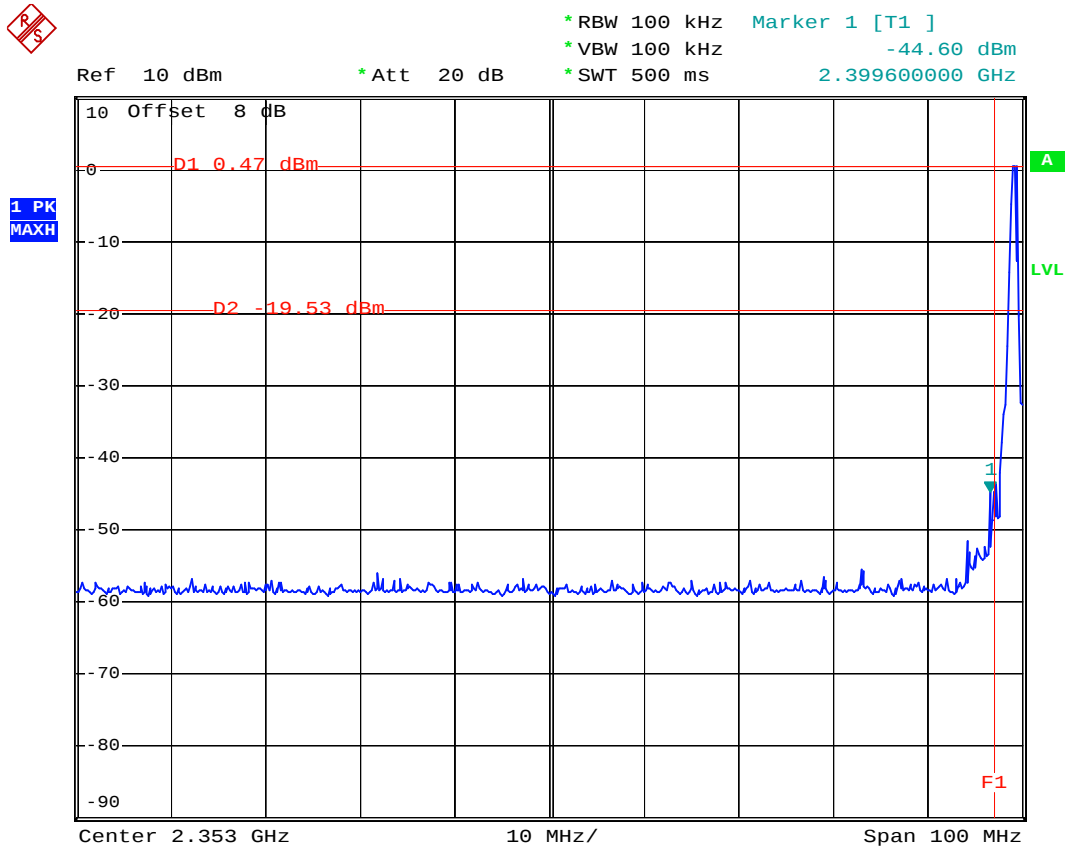
CH11





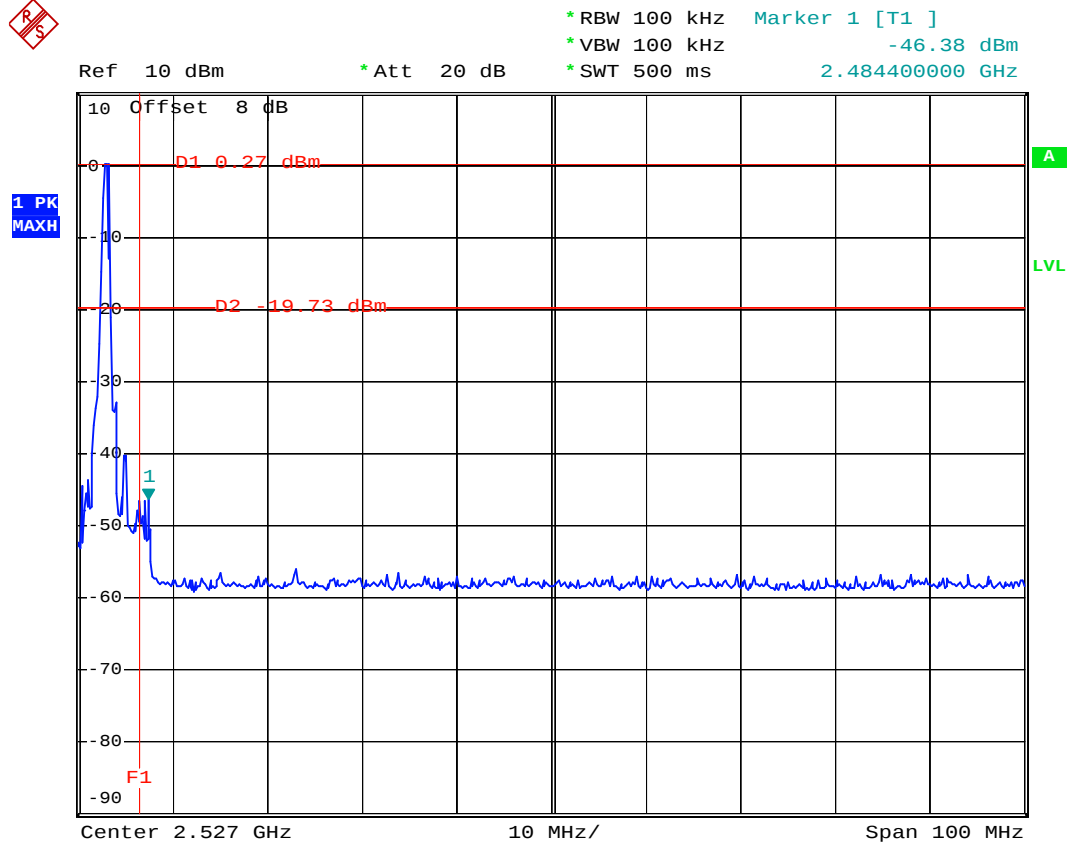
Bluetooth

CH00





CH78



5.5 Hopping Channel Separation

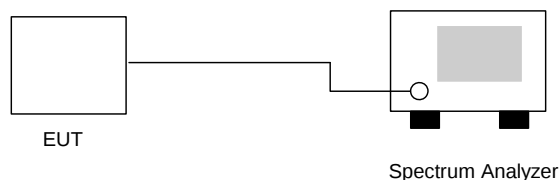
5.5.1 Measuring Instruments :

As described in chapter 9 of this test report.

5.5.2 Test Procedure :

1. The output of EUT was connected to the spectrum analyzer by a low loss cable..
2. Set RBW of spectrum analyzer to 100kHz and VBW to 100kHz.
3. The Hopping Channel Separation is defined as the channel is separated with the next channel.

5.5.3 Test Setup Layout :



5.5.4 Test Result : The spectrum analyzer plots are attached as below

- Application Type : BT
- Temperature : 26°C
- Relative Humidity : 46%
- Test Enginner : Andy

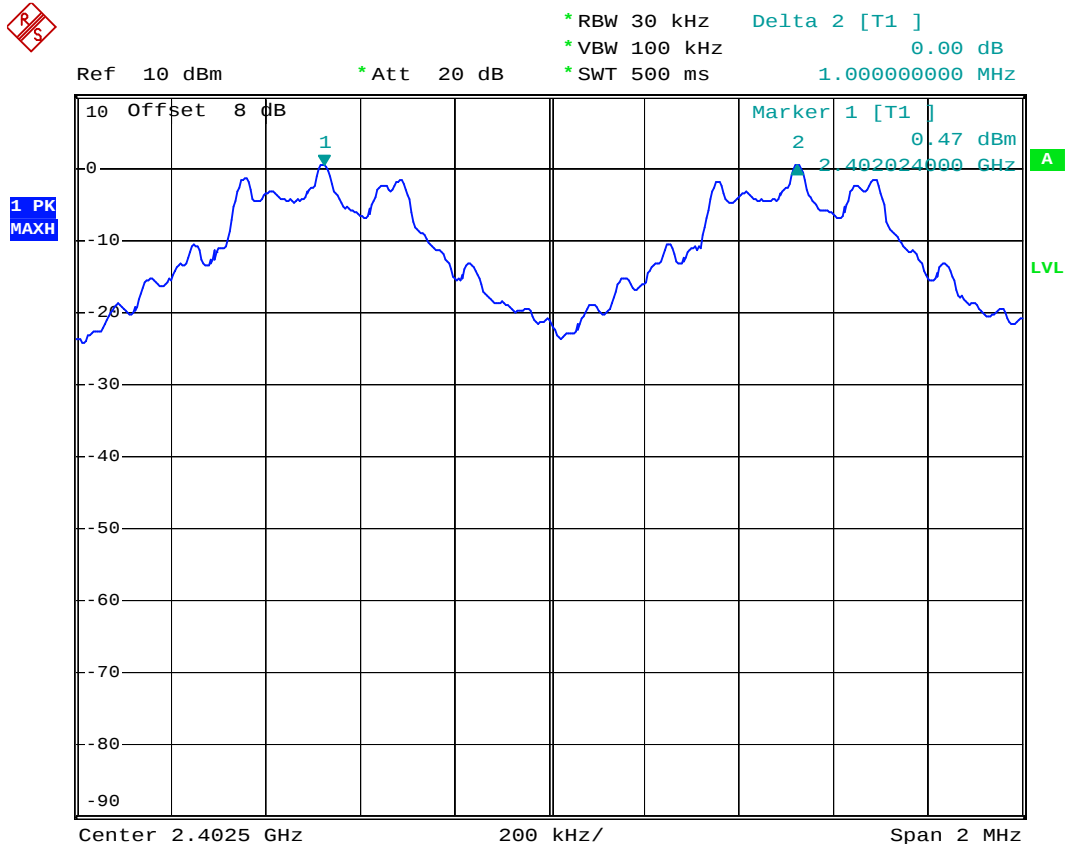
Channel	Carrier Frequency		Limits	Plot
	Frequency (MHz)	Separation (MHz)		
00	2402	1.000	0.834	Mode 7
39	2441	1.004	0.826	Mode 8
78	2480	1.000	0.828	Mode 9

Note: Limits =25kHz or the 20dB bandwidth of the hopping channel, which ever is greater



5.5.5 Hopping Channel Separation

Mode 7

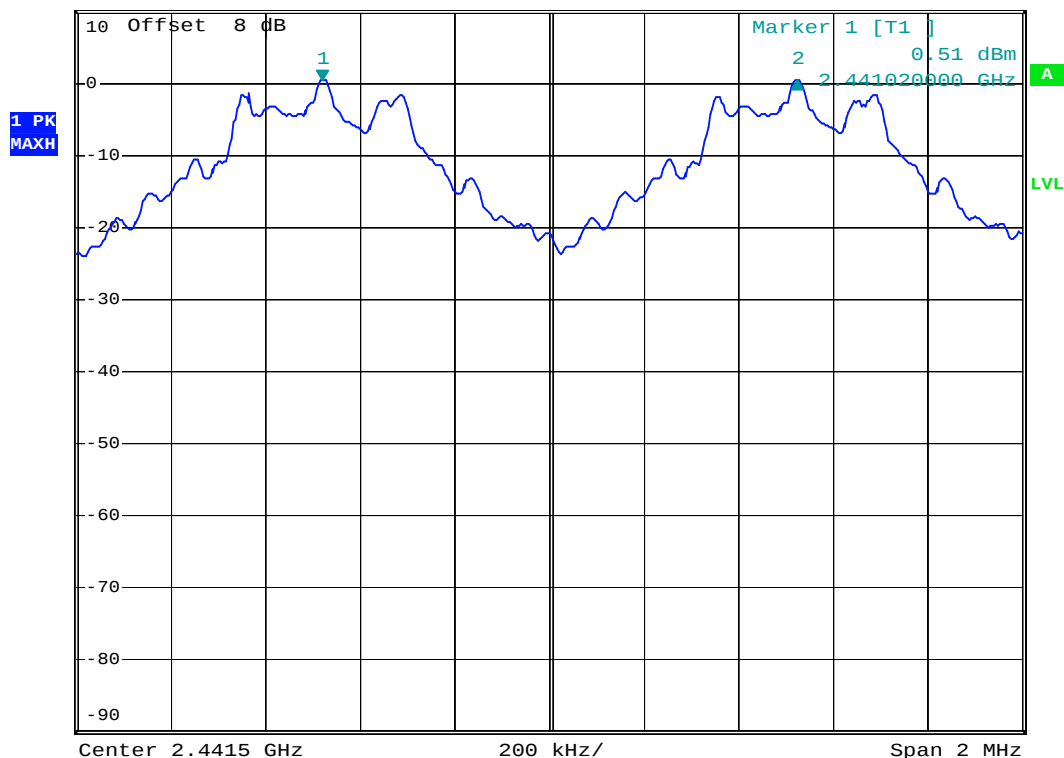




Mode 8

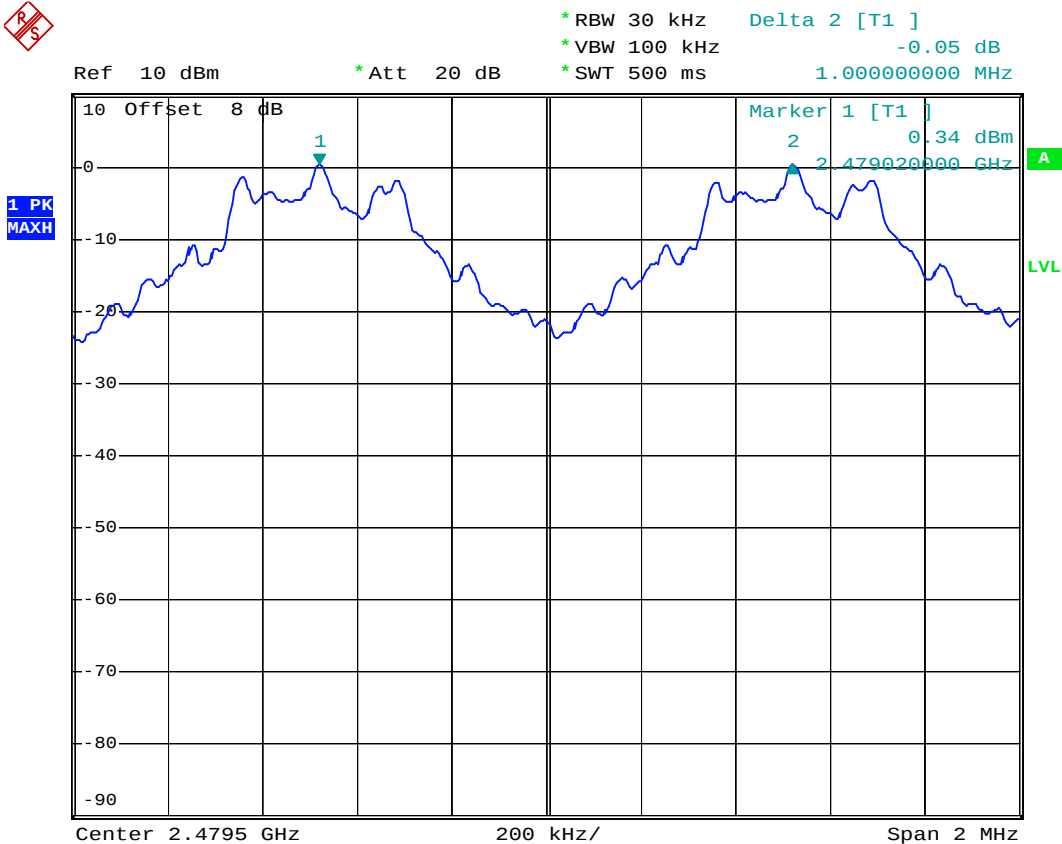


Ref 10 dBm * Att 20 dB * RBW 30 kHz Delta 2 [T1]
* VBW 100 kHz 0.01 dB
* SWT 500 ms 1.004000000 MHz





Mode 9



5.6 Number of Hopping Frequency

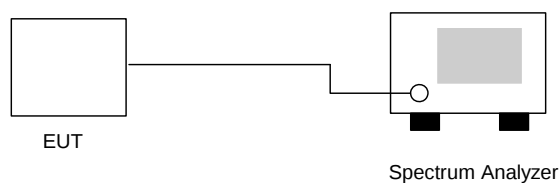
5.6.1 Measuring Instruments :

As described in chapter 9 of this test report.

5.6.2 Test Procedure :

1. The output of EUT was connected to the spectrum analyzer by a low loss cable.
2. Set RBW of spectrum analyzer to 100kHz and VBW to 100kHz.
3. The number of hopping frequency used is defined as the device has the numbers of total channel.

5.6.3 Test Setup Layout :



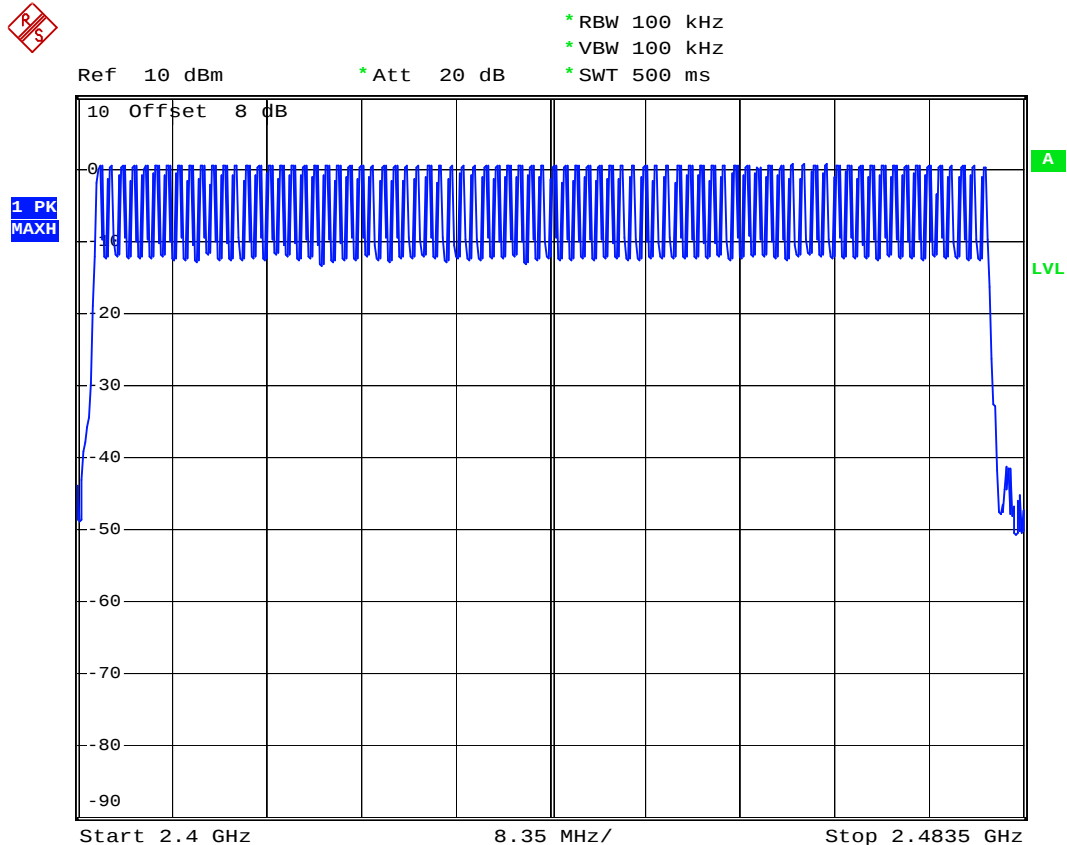
5.6.4 Test Result : See spectrum analyzer plots below

- Application Type : BT
- Temperature : 26°C
- Relative Humidity : 46%
- Test Enginner : Andy

Number of Hopping Frequency (Channel)	Limits (Channel)
79	15



5.6.5 Number of Hopping Frequency



5.7 Hopping Channel Bandwidth

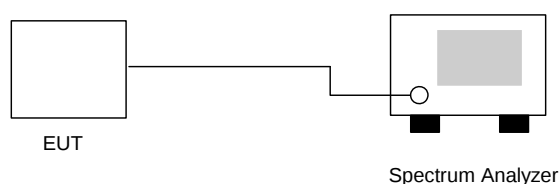
5.7.1 Measuring Instruments :

As described in chapter 9 of this test report.

5.7.2 Test Procedure :

1. The transmitter output was connected to the spectrum analyzer by a low loss cable.
2. Set RBW of spectrum analyzer to 30kHz and VBW to 300kHz.
3. The Hopping Channel bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20 dB.

5.7.3 Test Setup Layout :



5.7.4 Test Result : See spectrum analyzer plots below

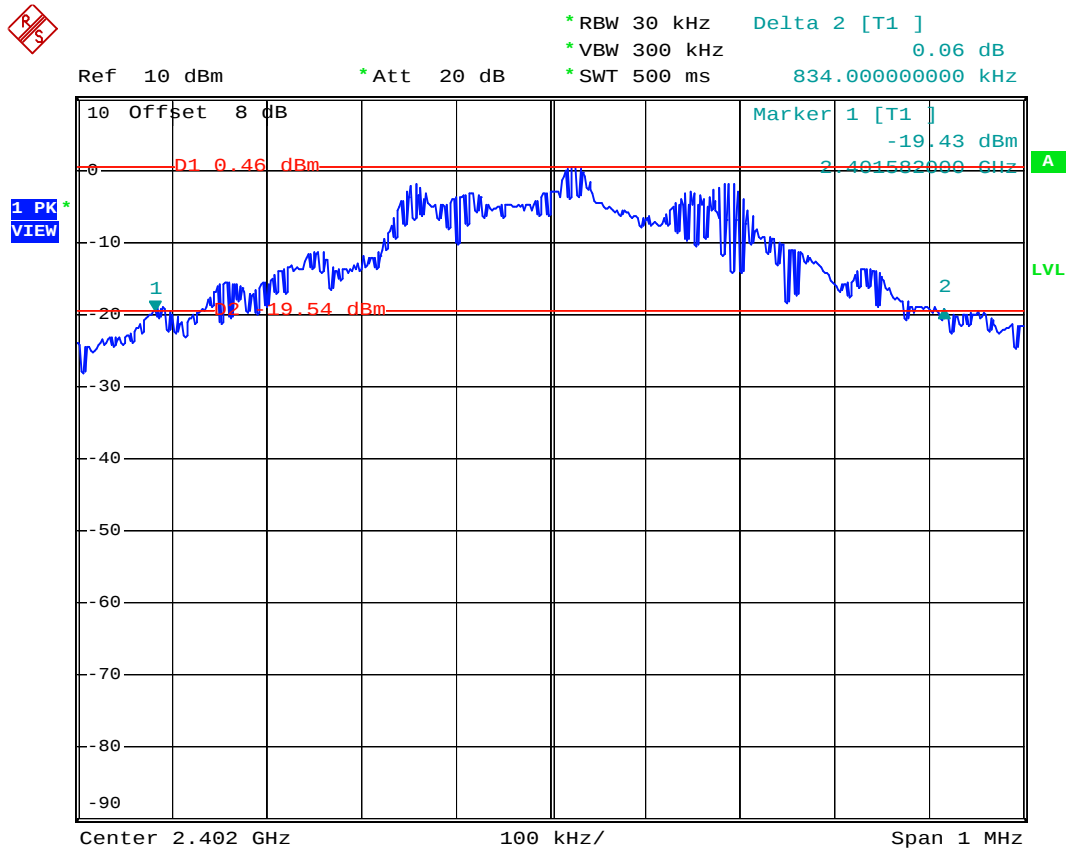
- Application Type : BT
- Temperature : 26°C
- Relative Humidity : 46%
- Test Enginner : Andy

Channel	Frequency (MHz)	Hopping Channel Bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
00	2402	0.834	1.000	Mode 7
39	2441	0.826	1.000	Mode 8
78	2480	0.828	1.000	Mode 9



5.7.5 Hopping Channel Bandwidth

Mode 7





Mode 8

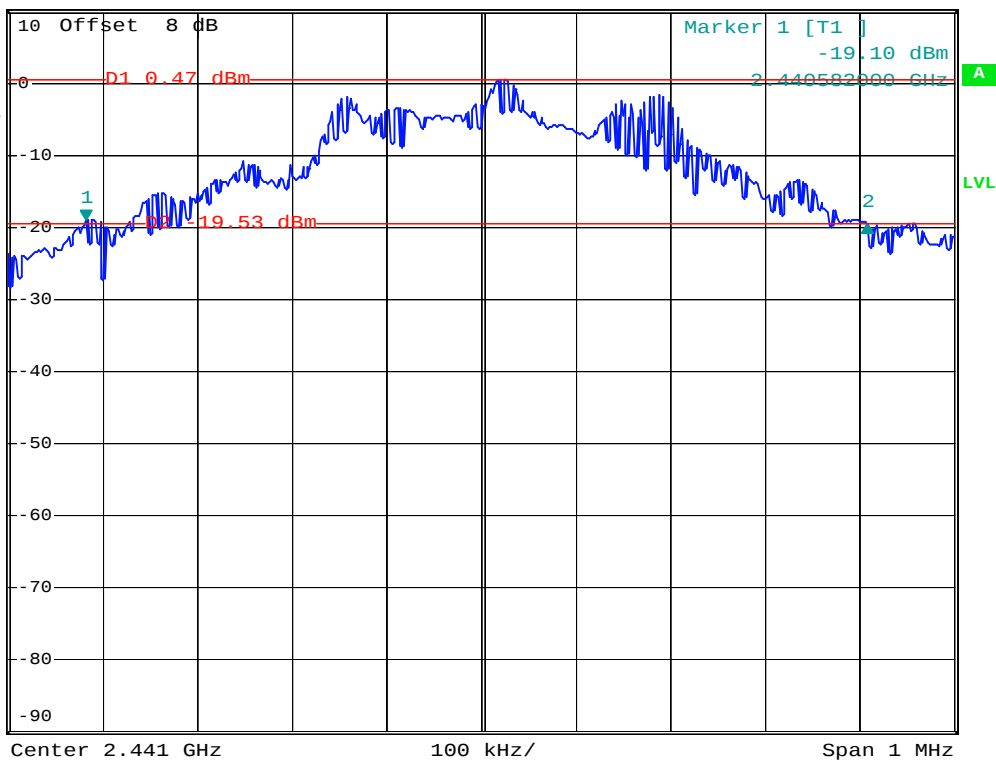


* RBW 30 kHz Delta 2 [T1]
* VBW 300 kHz -0.38 dB
* SWT 500 ms 826.000000000 kHz

Ref 10 dBm

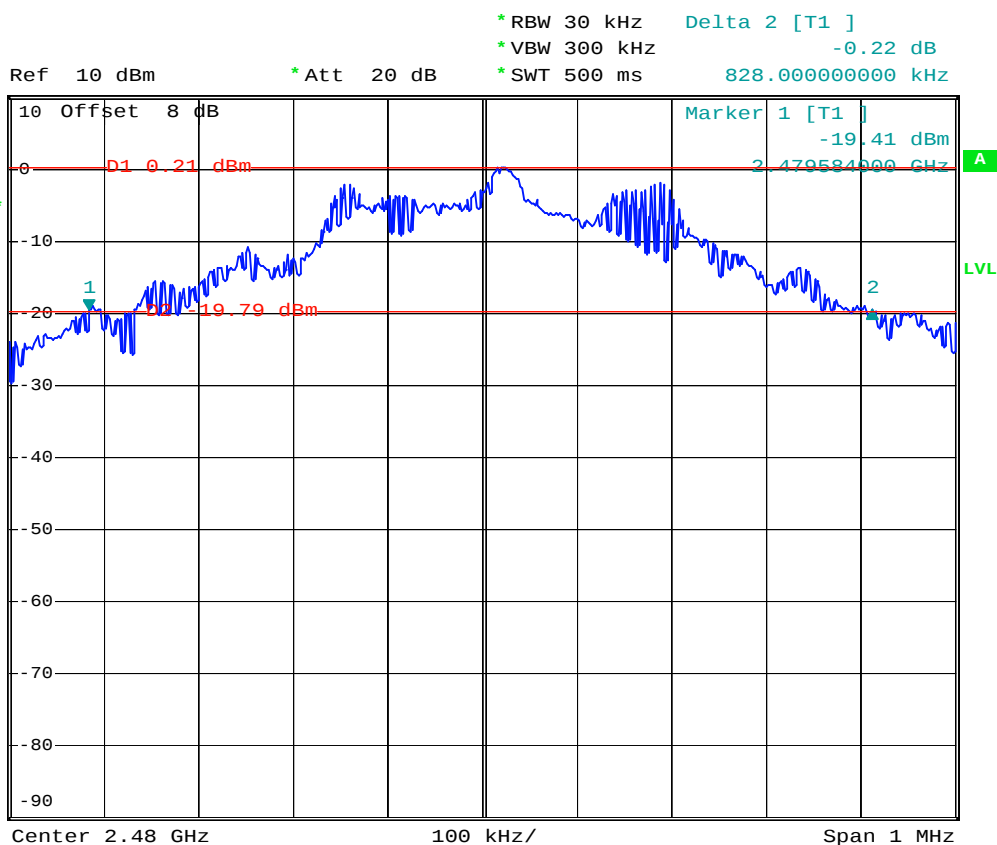
* Att 20 dB

1 PK
VIEW





Mode 9



5.8 Dwell Time of Each Frequency

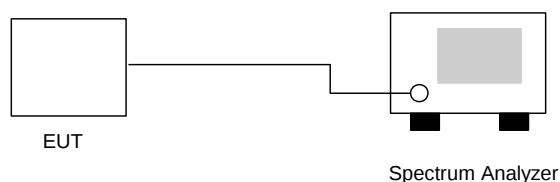
5.8.1 Measuring Instruments :

As described in chapter 9 of this test report.

5.8.2 Test Procedure :

1. The transmitter output was connected to the spectrum analyzer by a low loss cable.
2. Set RBW of spectrum analyzer to 1MHz and VBW to 1MHz.
3. Set the center frequency on any frequency would be measure and set the frequency span to zero span.
4. The calculate $= 79 * 0.4 * (1600/79) * t$ (t = the time duration of one single pulse)

5.8.3 Test Setup Layout :



5.8.4 Test Result : See spectrum analyzer plots below

- Application Type : BT
- Temperature : 26°C
- Relative Humidity : 46%
- Test Enginner : Andy

Ch00

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	8	556	0.141	0.4
DH3	4.8	1840	0.279	0.4
DH5	3.2	3090	0.312	0.4

**CH39**

Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	8.7	556	0.153	0.4
DH3	4.3	1820	0.247	0.4
DH5	3.2	3130	0.317	0.4

CH78

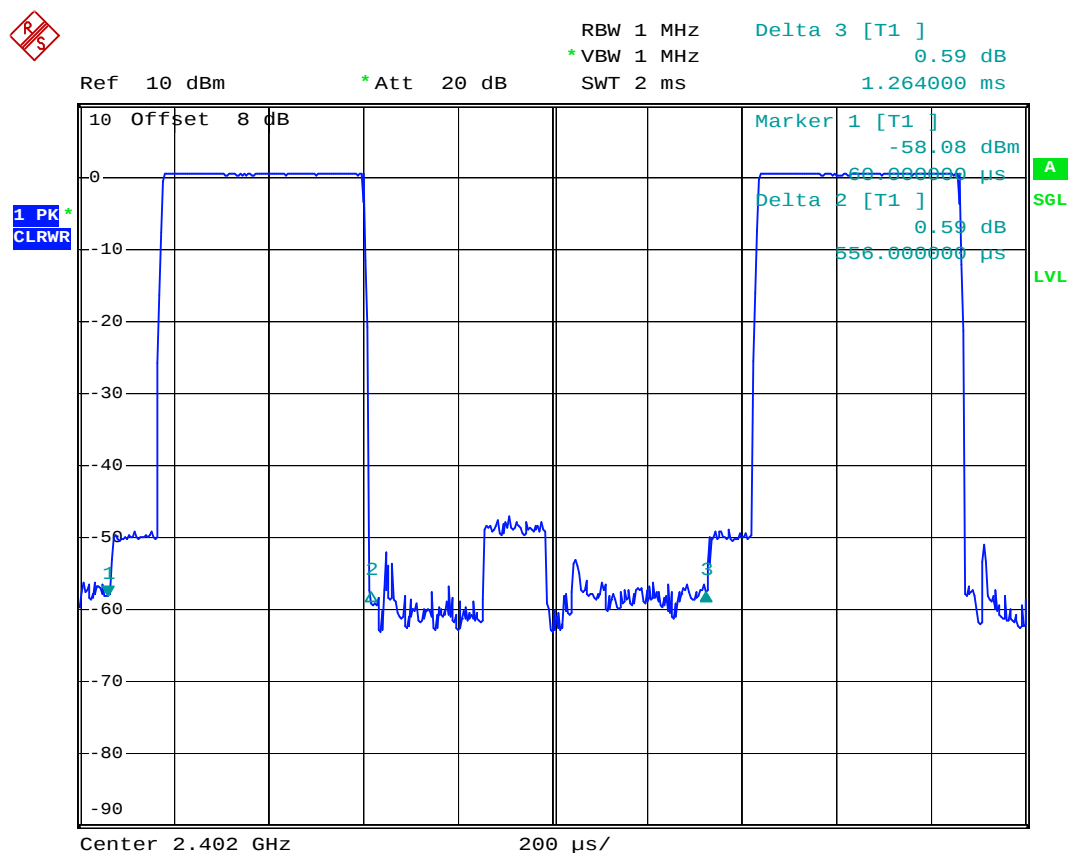
Package Mode	Average Hopping Channel	Package Transfer Time (us)	Dwell Time (s)	Limit (s)
DH1	8.6	556	0.151	0.4
DH3	4.9	1830	0.283	0.4
DH5	3.3	3170	0.331	0.4

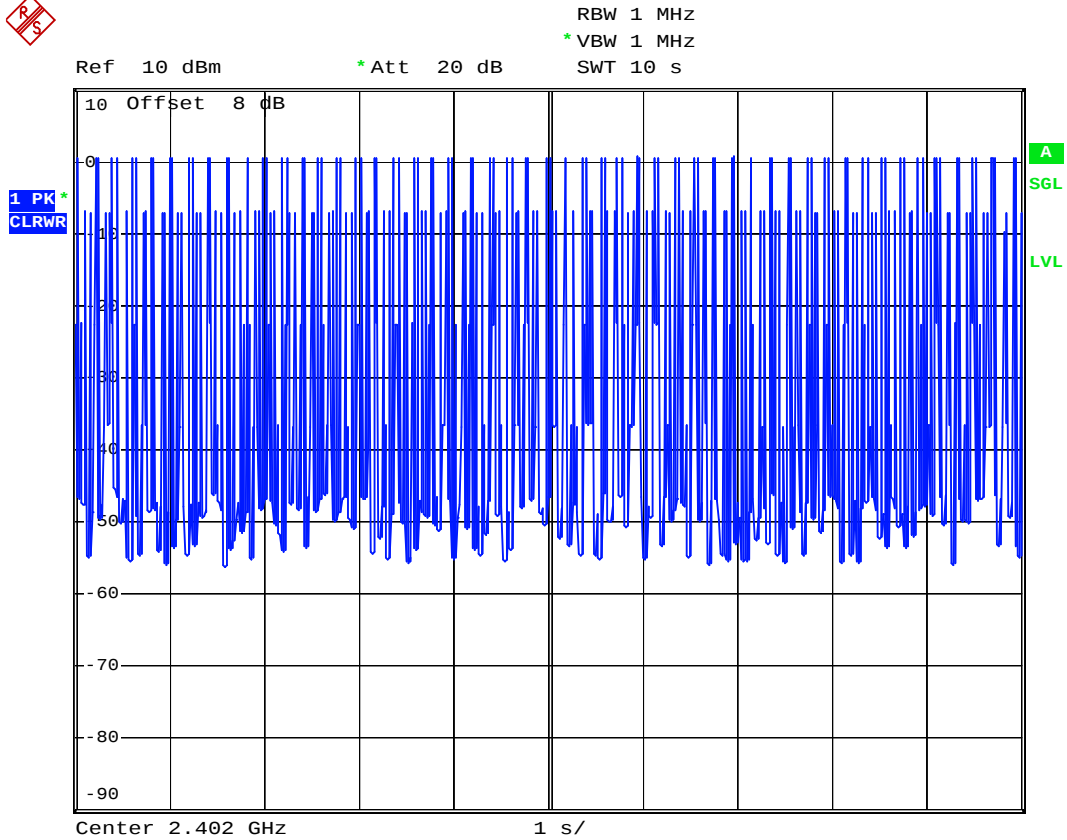
Remark:

1. Dwell Time=79(channels) x 0.4(s) x average hopping channel x package transfer time
2. 79channels come from the Hopping Channel number.
3. Average Hopping Channel = hops/sweep time
4. t: Package Transfer Time(us)

5.8.5 Dwell Time

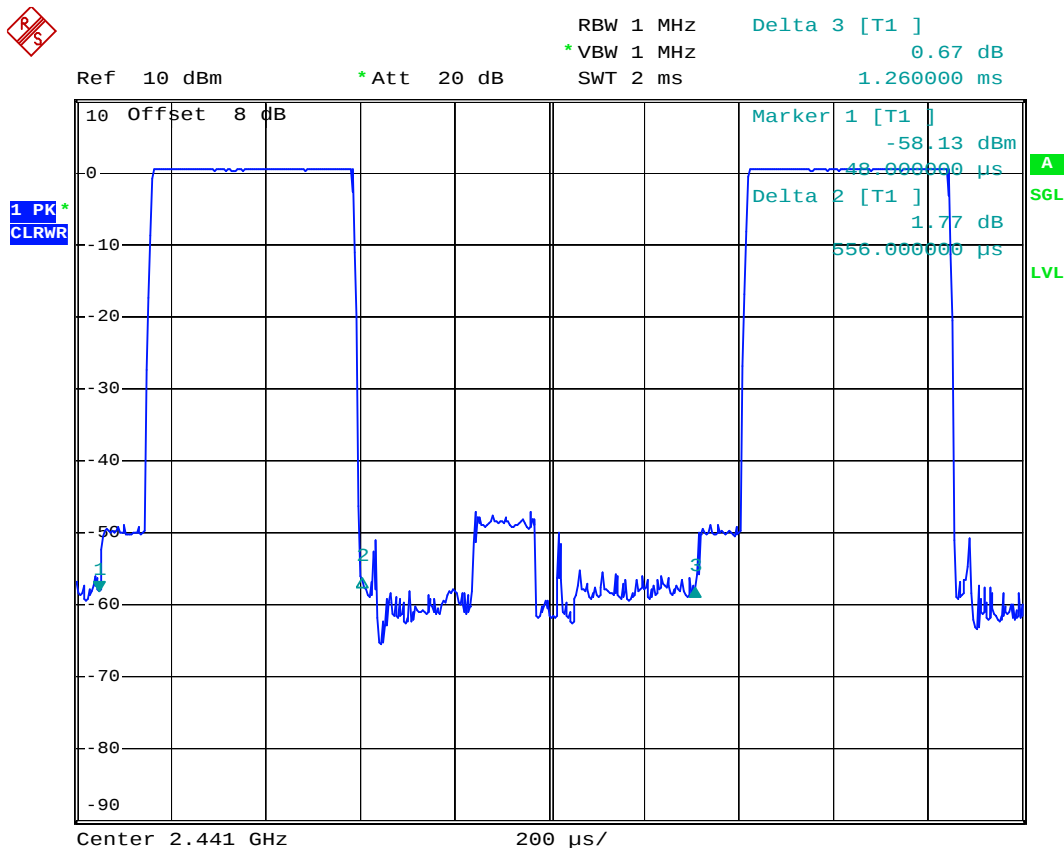
DH1 (CH00)







DH1 (CH39)



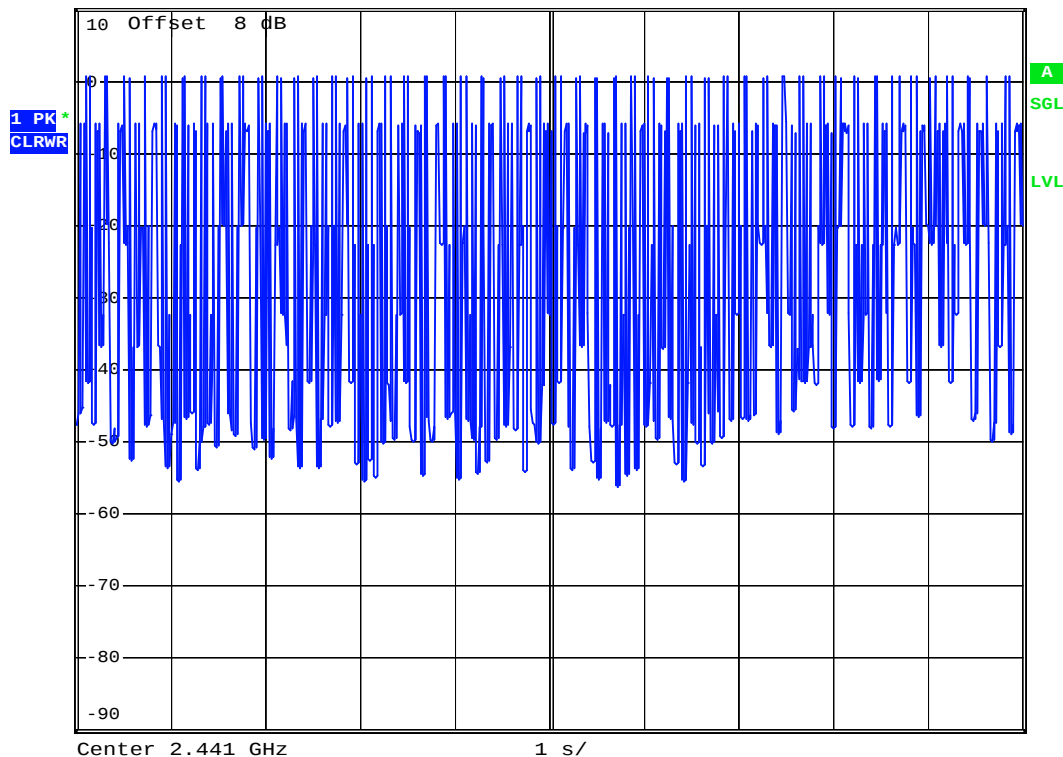


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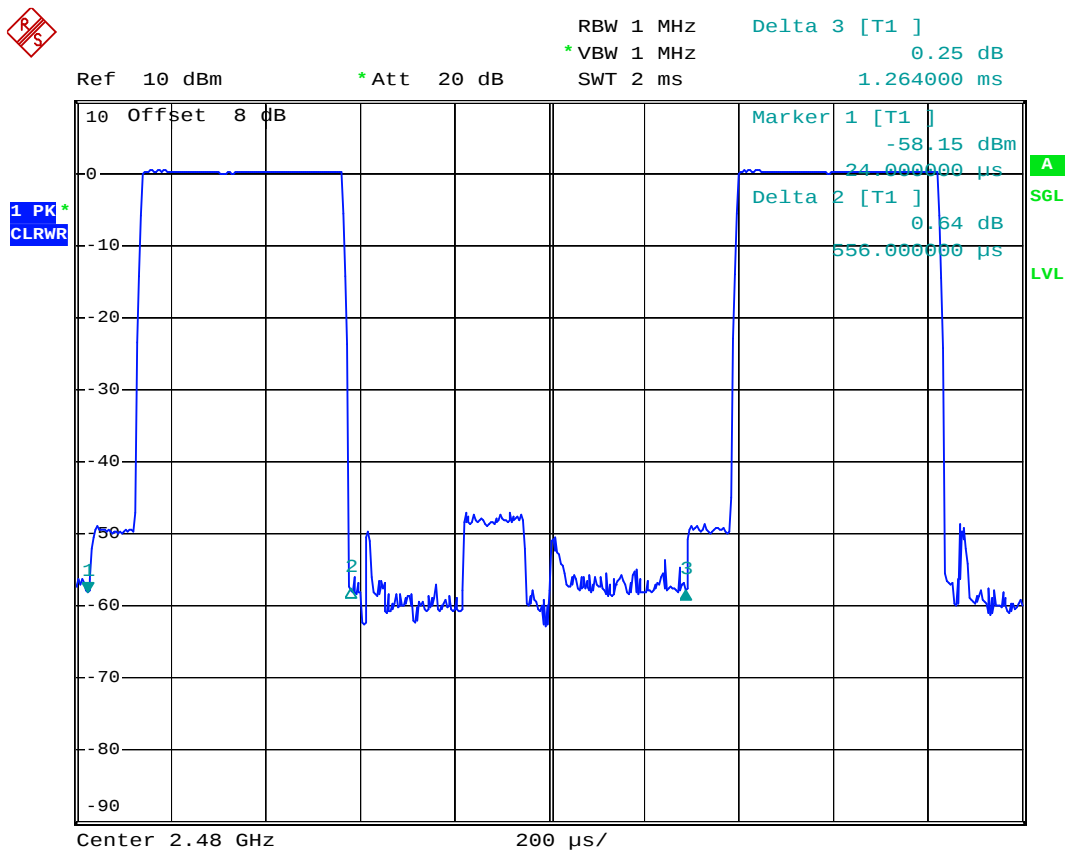


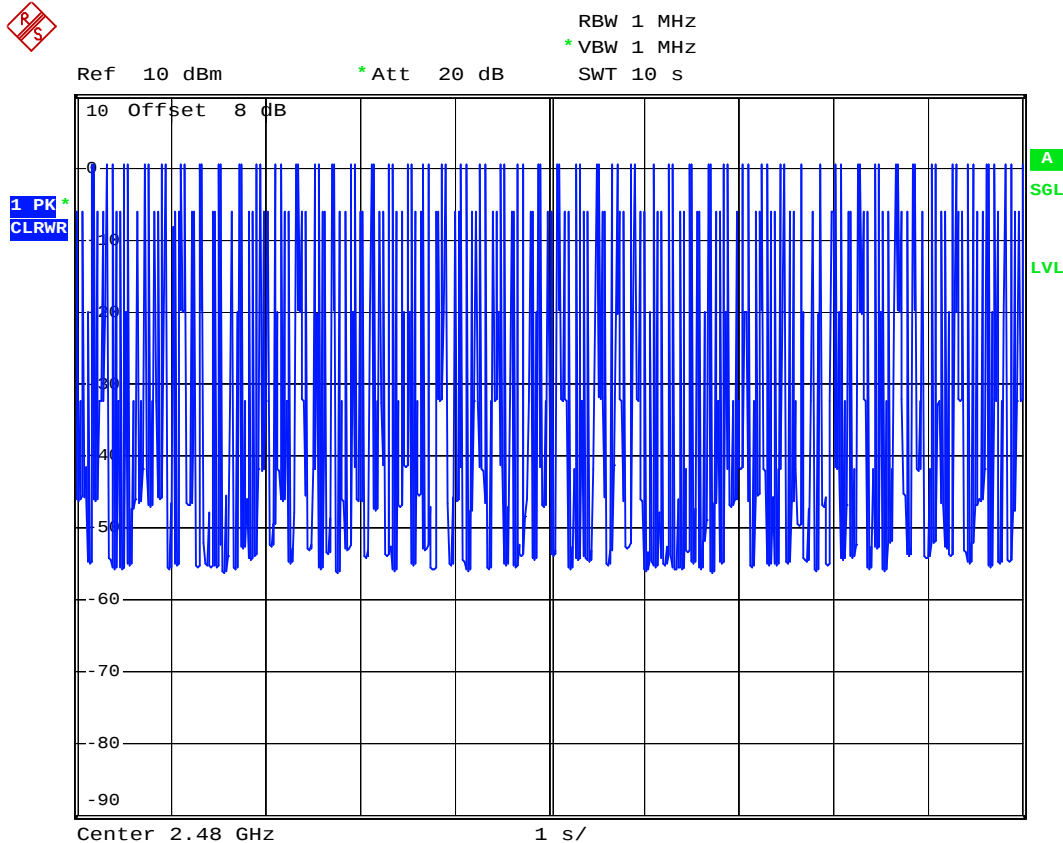
Ref 10 dBm RBW 1 MHz
* Att 20 dB * VBW 1 MHz
SWT 10 s





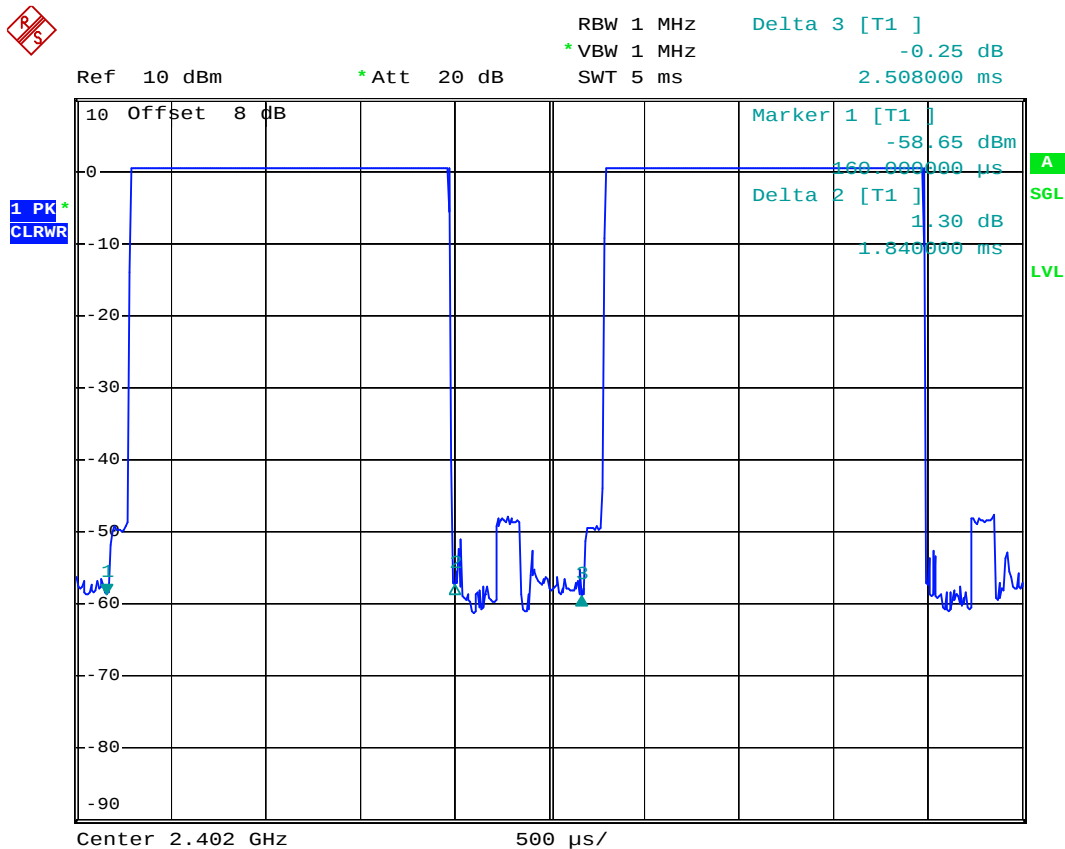
DH1 (CH78)







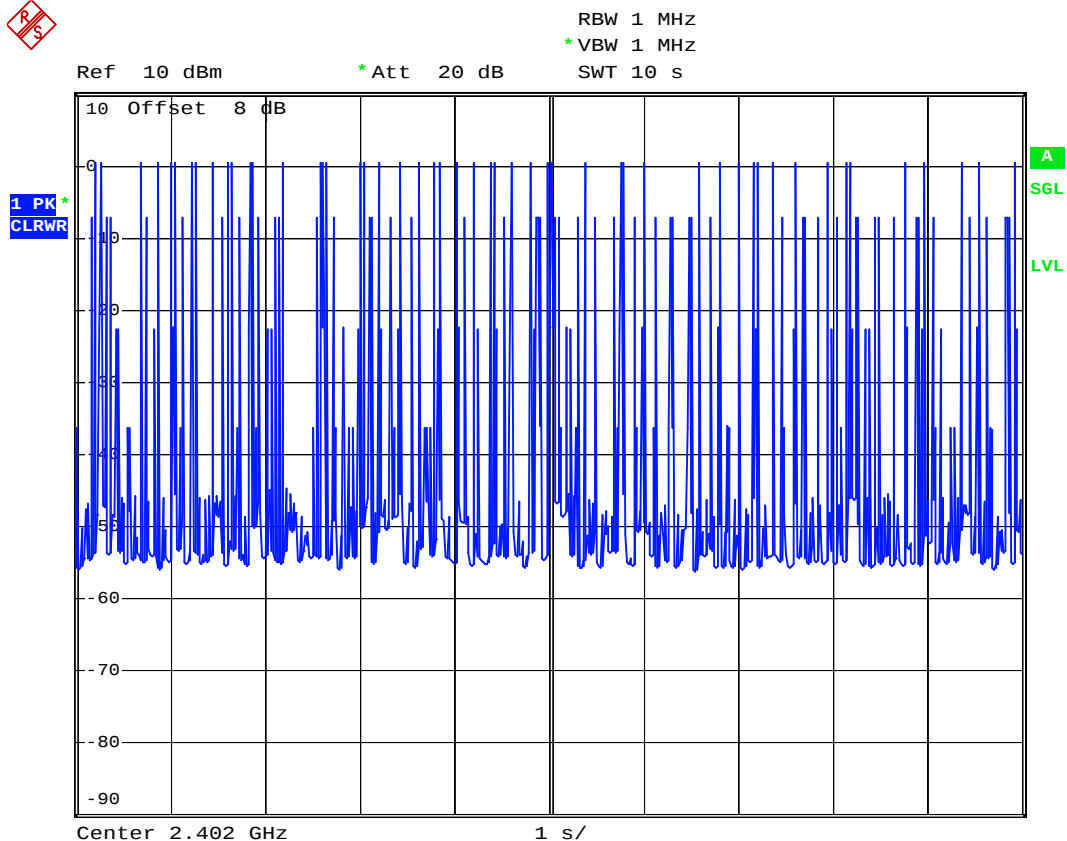
DH3 (CH00)





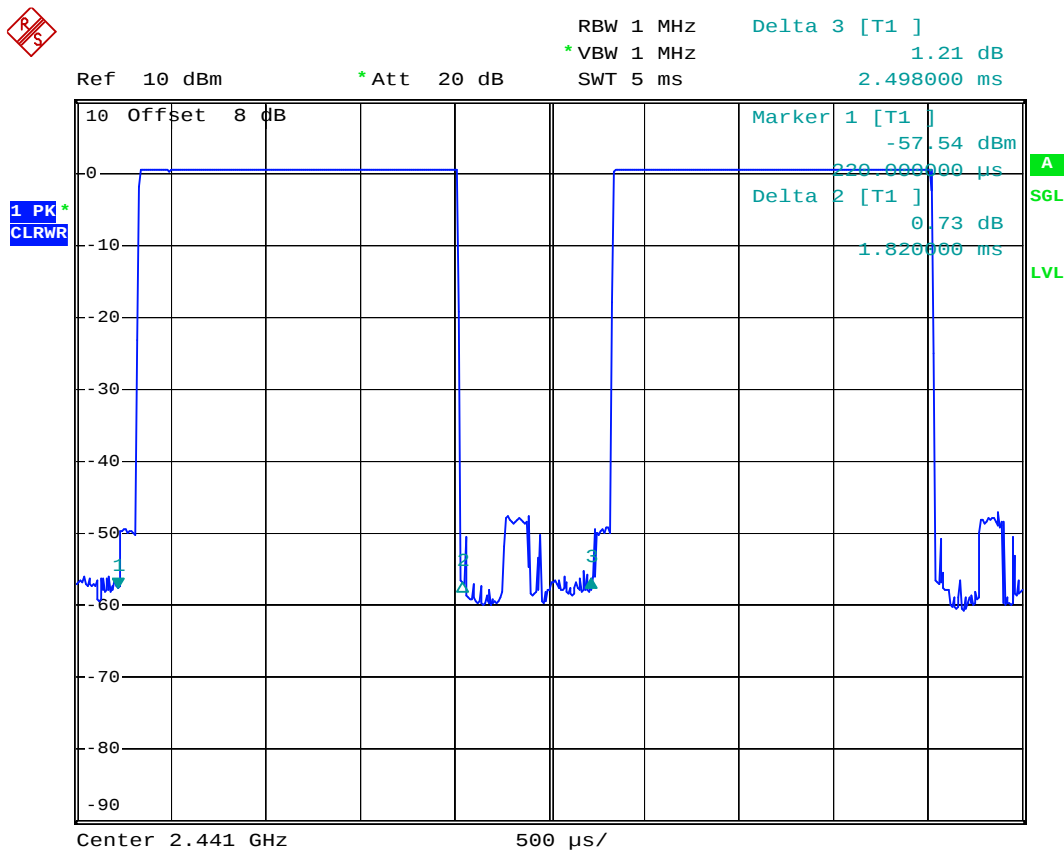
FCC TEST REPORT

Report No. : FR682518-01





DH3 (CH39)



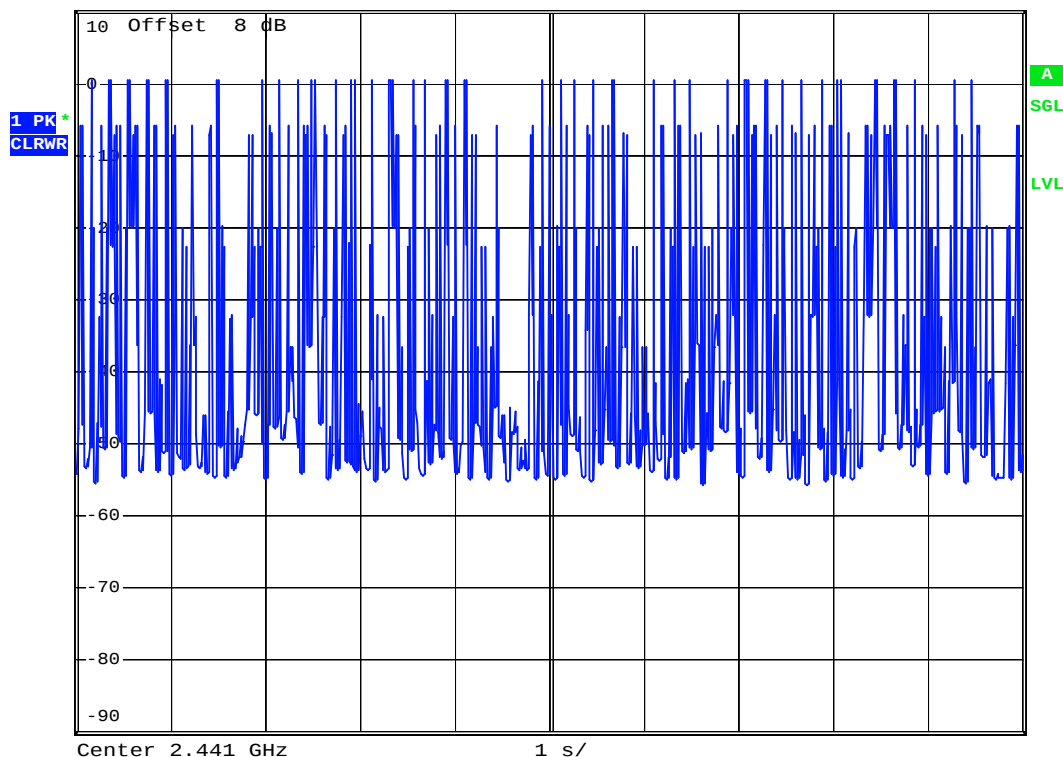


FCC TEST REPORT

Report No. : FR682518-01

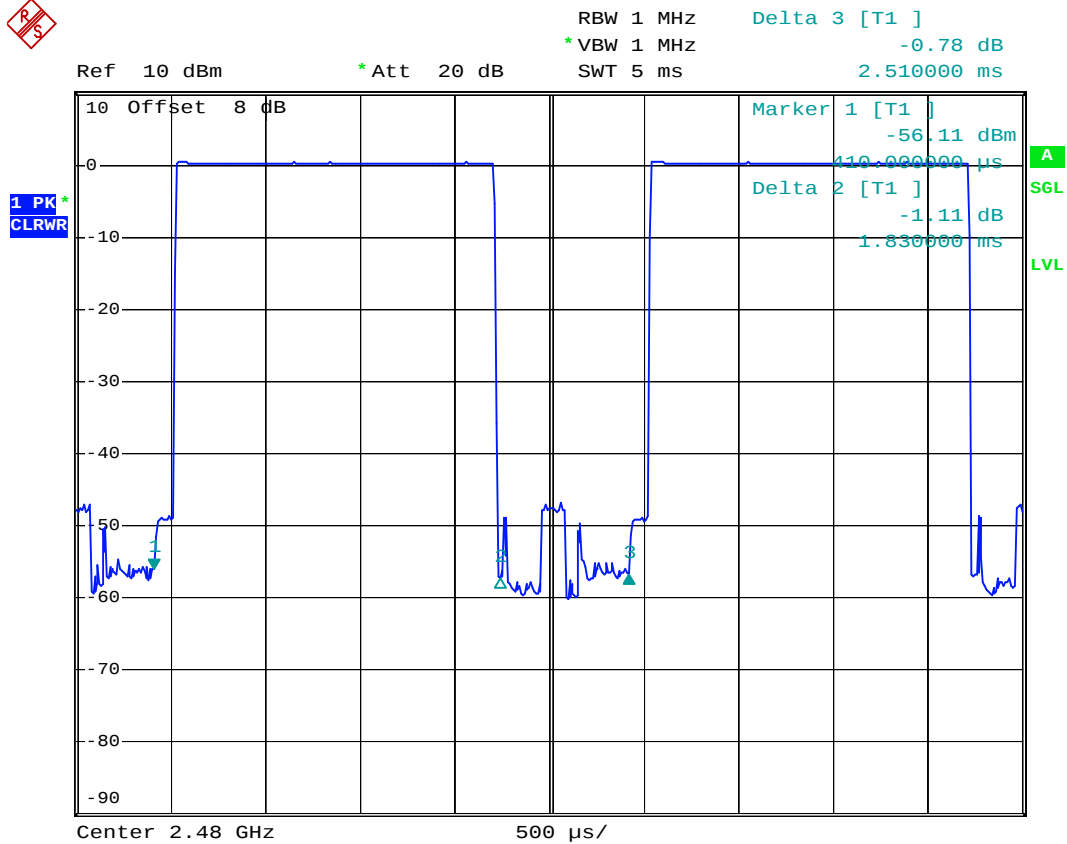


Ref 10 dBm RBW 1 MHz
* Att 20 dB * VBW 1 MHz
SWT 10 s





DH3 (CH78)



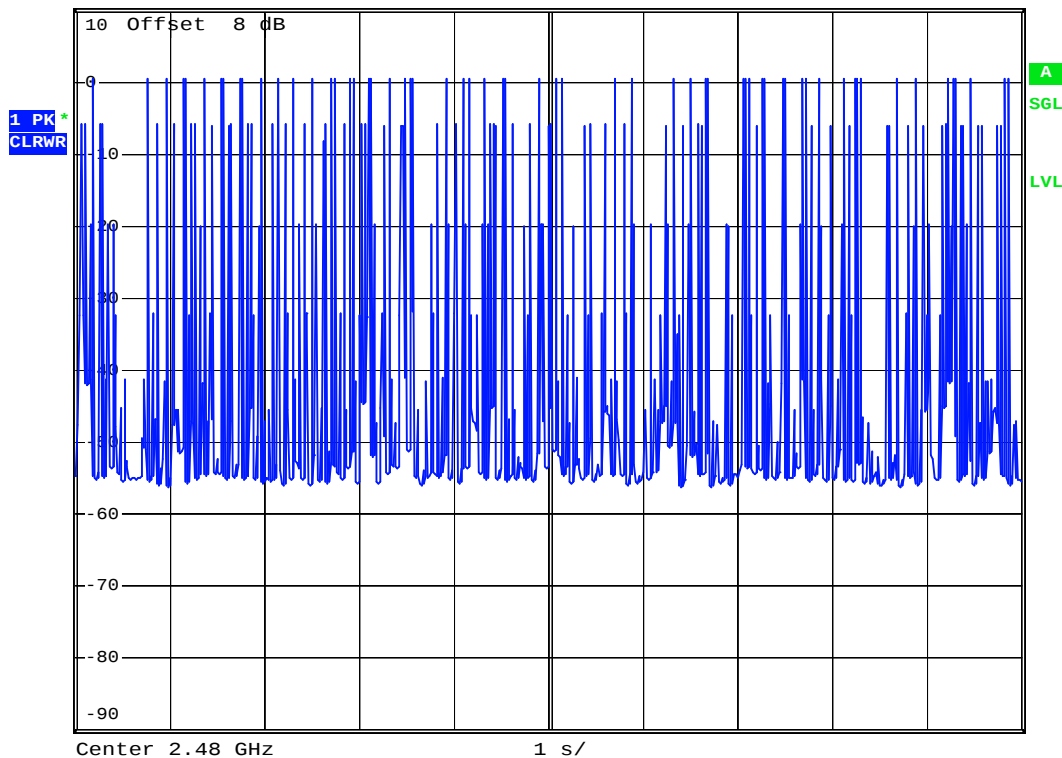


FCC TEST REPORT

Report No. : FR682518-01

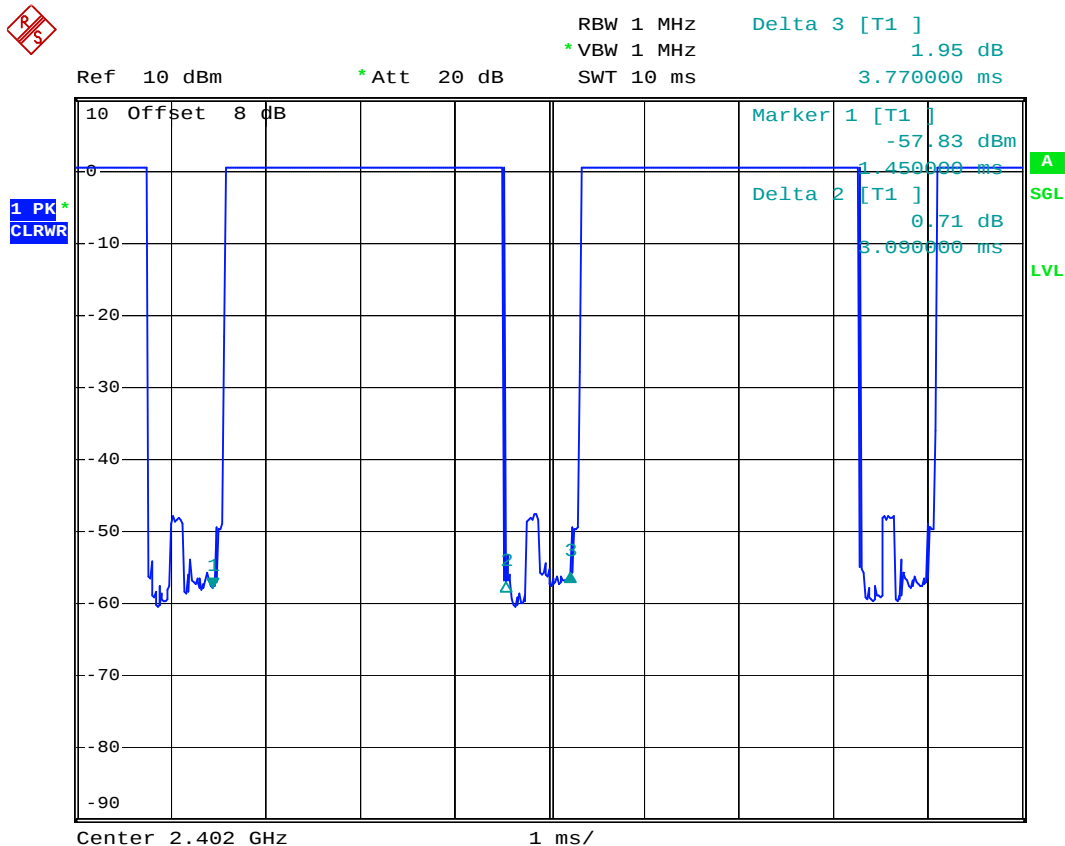


Ref 10 dBm RBW 1 MHz
*Att 20 dB *VBW 1 MHz
SWT 10 s





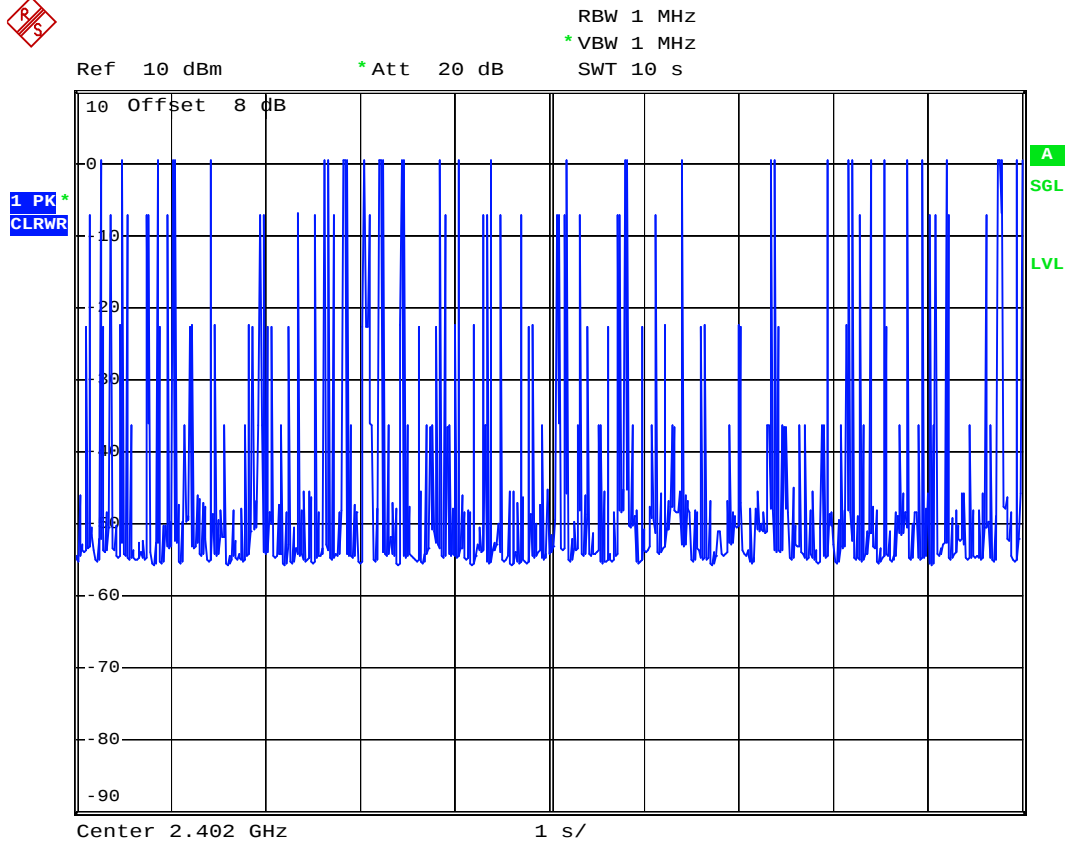
DH5 (CH00)





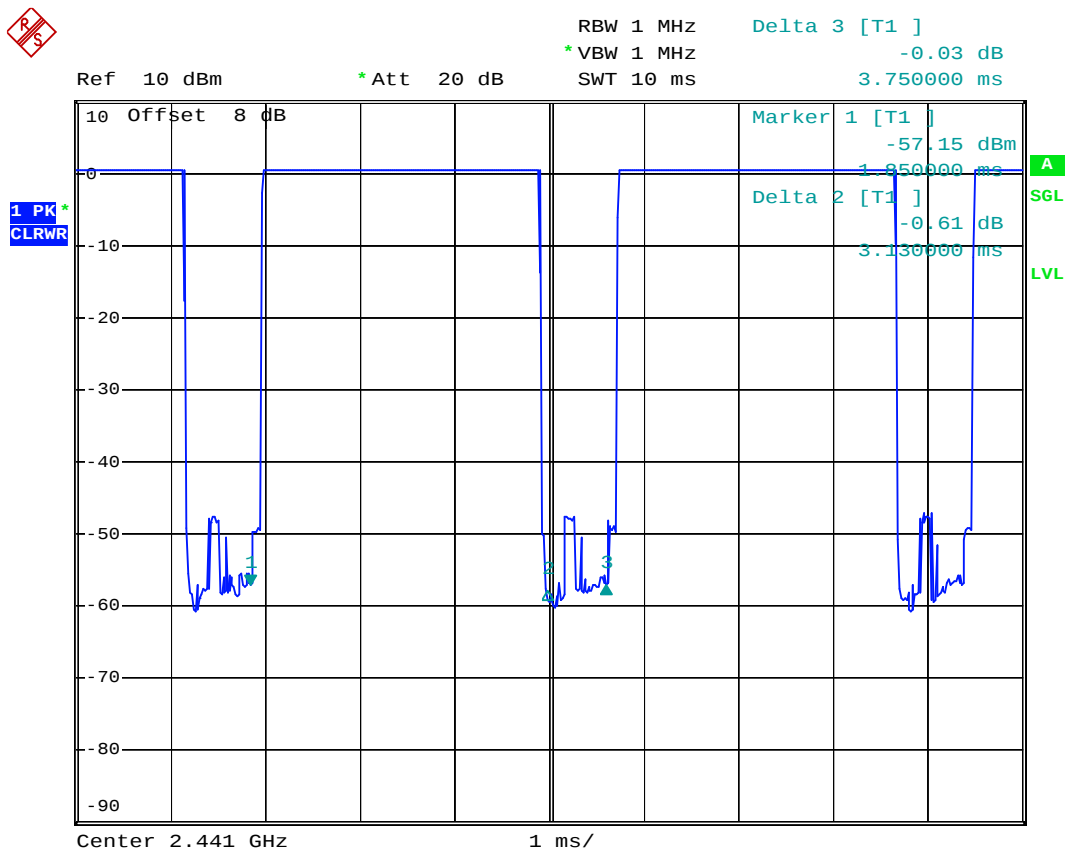
FCC TEST REPORT

Report No. : FR682518-01





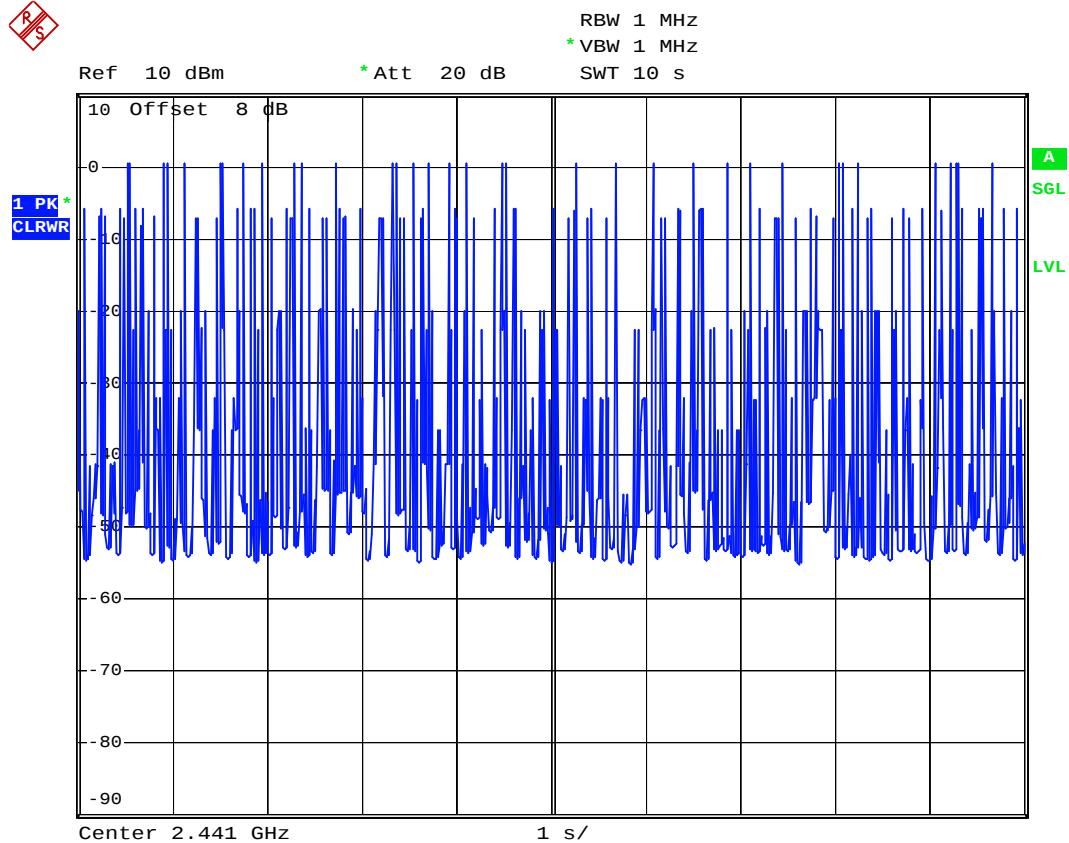
DH5 (CH39)





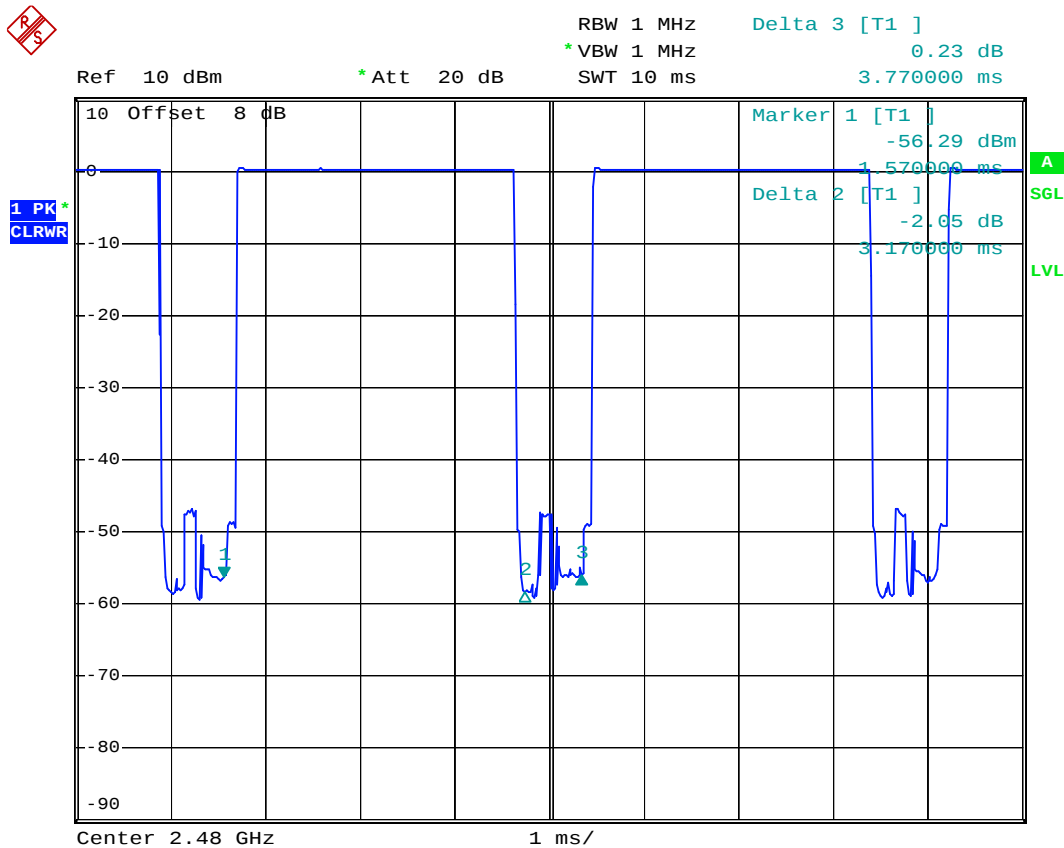
FCC TEST REPORT

Report No. : FR682518-01





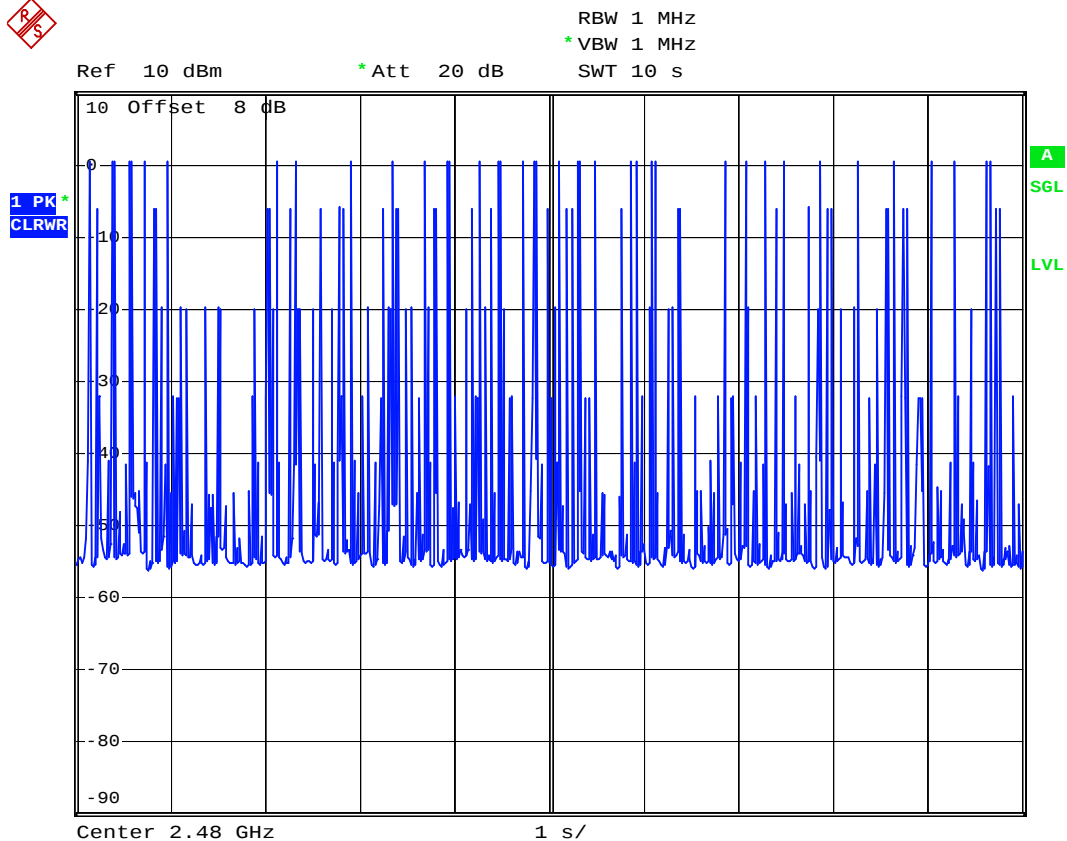
DH5 (CH78)





FCC TEST REPORT

Report No. : FR682518-01



5.9 Peak Output Power Measurement

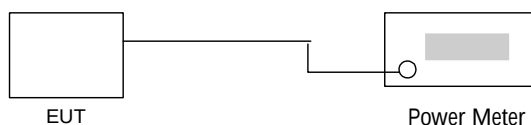
5.9.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.9.2 Test Procedure :

1. The antenna port (RF output) of the EUT was connected to the input (RF input) of a power meter for WLAN measurement. The power is equal to the reading level on power meter plus cable loss at the EUT antenna terminal.
2. The antenna port(RF output) of the EUT was connected to the input (RF input) of a spectrum analyzer for BT measurement. The cable loss has been offset before testing.

5.9.3 Test Setup Layout :



5.9.4 Test Result :

- Application Type : WLAN 802.11b/g and BT
- Temperature : 26°C
- Relative Humidity : 46%
- Test Enginner : Andy

WLAN 802.11b

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	18.74	1W/30 dBm
06	2437	18.88	1W/30 dBm
11	2462	18.75	1W/30 dBm

**WLAN 802.11g**

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	21.56	1W/30 dBm
06	2437	21.41	1W/30 dBm
11	2462	21.05	1W/30 dBm

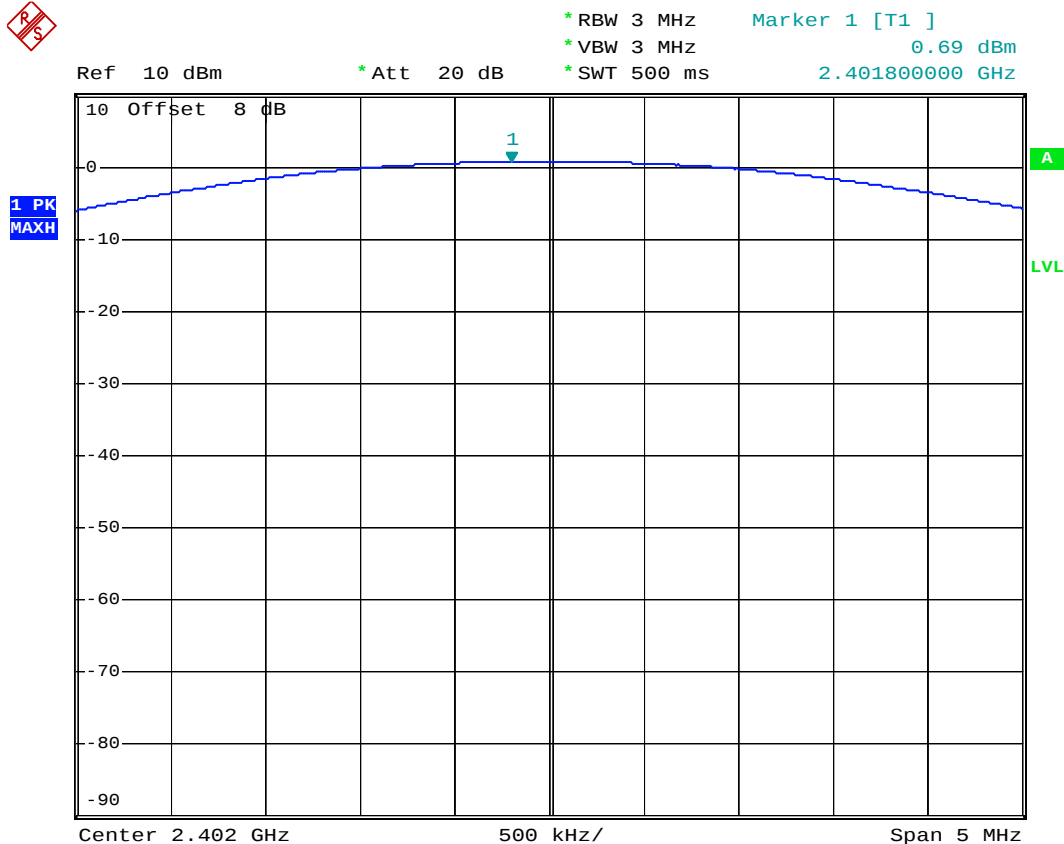
Bluetooth

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
00	2402	0.69	1W/30 dBm
39	2441	0.78	1W/30 dBm
78	2480	0.48	1W/30 dBm



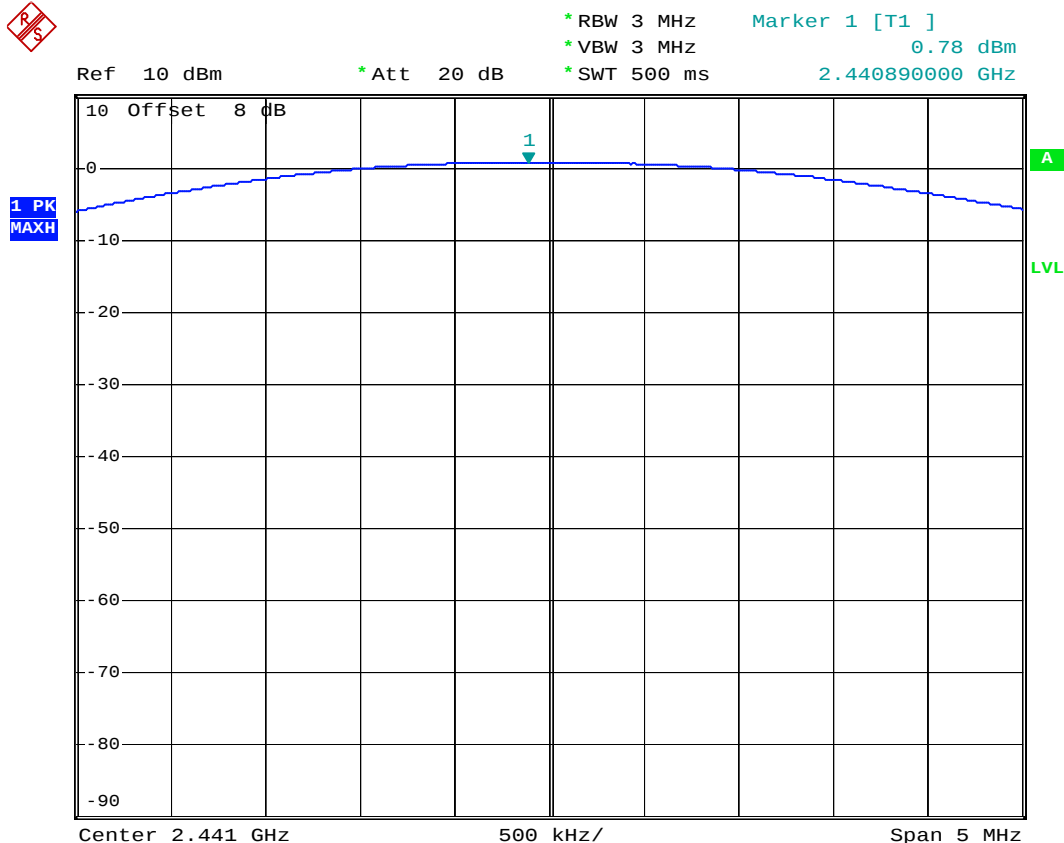
5.9.5 Output Power

BT Mode : CH00 (2402MHz)





BT Mode : CH39 (2441MHz)

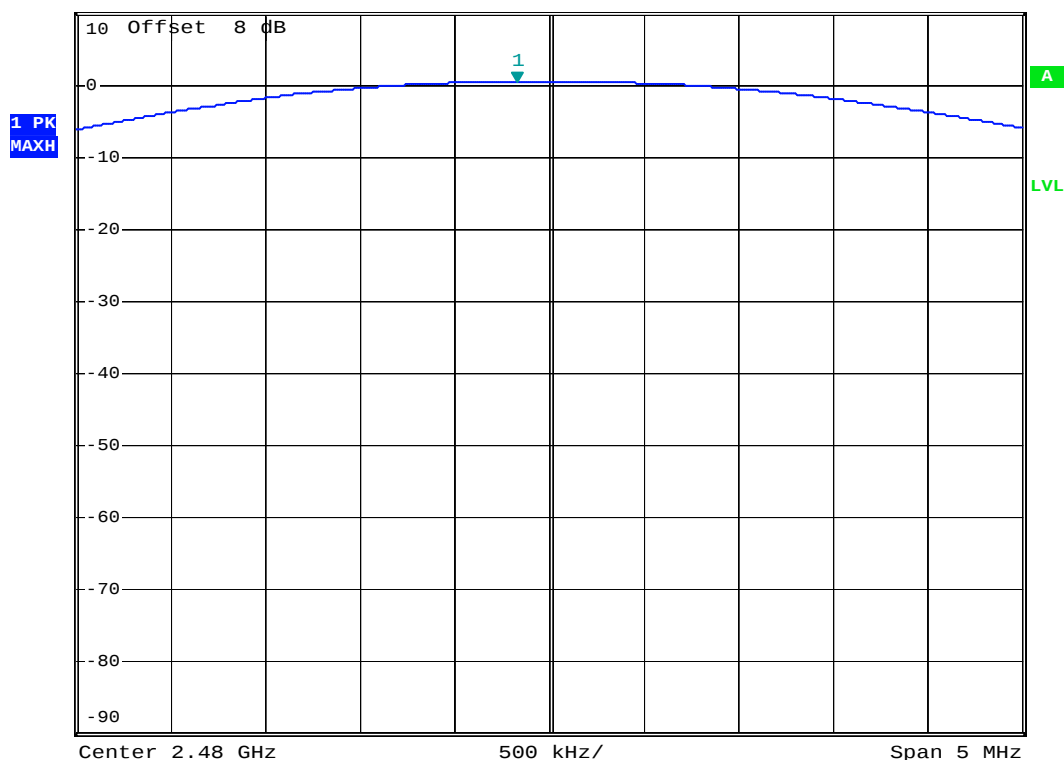




BT Mode : CH78 (2480MHz)



Ref 10 dBm * Att 20 dB * RBW 3 MHz * VBW 3 MHz * SWT 500 ms Marker 1 [T1] 0.48 dBm 2.479830000 GHz





5.10 Conducted Emission

5.10.1 Measuring Instruments

As described in chapter 6 of this test Report.

5.10.2 Test Procedures :

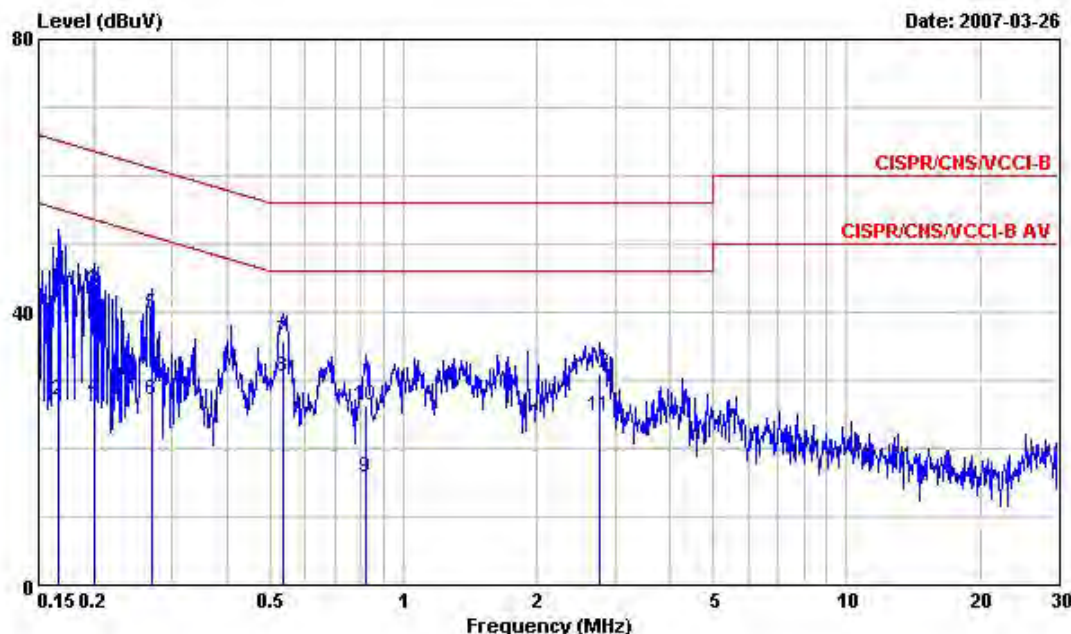
- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power port of a line impedance stabilization network (LISN).
- c. All the support units are connected to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 150 kHz to 30 MHz was searched.
- h. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.



5.10.3 Test Data

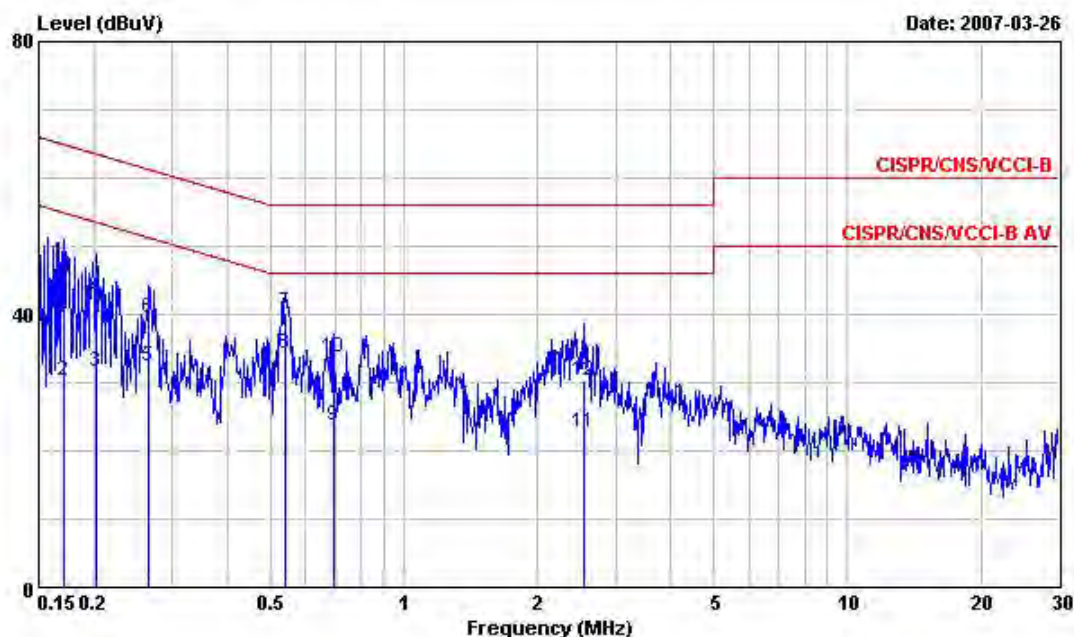
- Temperature : 24°C
- Relative Humidity : 61%
- Test Enginner : Anderson
- Test Mode : Mode 1

■ The test that passed at minimum margin was marked by the frame in the following table.



Site : CO01-HY
 Condition : CISPR/CNS/VCCI-B LISN 200604 99041 LINE
 EUT : GSM/EDGE/ 850/900/1800/1900 Mobile Phone
 POWER: 120V/60Hz
 Model : FR682518-01
 Memo : GSM850 Idle+BT Link+Earphone+Camera
 : +Adapter+GPS Rx+WLAN Link

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1658860	41.44	-23.72	65.16	40.71	0.10	0.63	QP
2	0.1658860	27.21	-27.95	55.16	26.48	0.10	0.63	Average
3	0.2007470	43.11	-20.47	63.58	42.51	0.10	0.50	QP
4	0.2007470	27.41	-26.17	53.58	26.81	0.10	0.50	Average
5	0.2700880	39.85	-21.27	61.12	39.29	0.10	0.46	QP
6	0.2700880	27.07	-24.05	51.12	26.51	0.10	0.46	Average
7	0.5349810	35.92	-20.08	56.00	35.35	0.10	0.47	QP
8	0.5349810	30.58	-15.42	46.00	30.01	0.10	0.47	Average
9	0.8217160	15.71	-30.29	46.00	15.11	0.10	0.50	Average
10	0.8217160	26.23	-29.77	56.00	25.63	0.10	0.50	QP
11	2.780	24.69	-21.31	46.00	24.01	0.10	0.58	Average
12	2.780	30.96	-25.04	56.00	30.28	0.10	0.58	QP



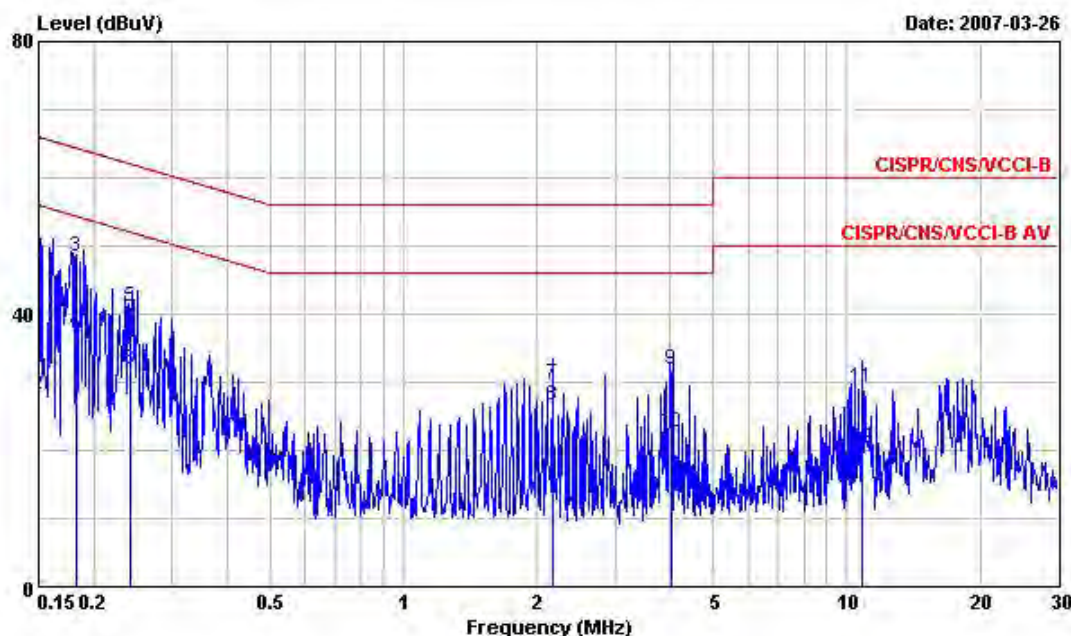
Site : CO01-HY
Condition : CISPR/CNS/VCCI-B LISN 200604 99041 NEUTRAL
EUT : GSM/EDGE/ 850/900/1800/1900 Mobile Phone
POWER: 120V/60Hz
Model : FR682518-01
Memo : GSM850 Idle+BT Link+Earphone+Camera
 : +Adapter+GPS Rx+WLAN Link

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1703400	45.00	-19.94	64.94	44.29	0.10	0.61	QP
2	0.1703400	30.29	-24.65	54.94	29.58	0.10	0.61	Average
3	0.2028850	31.53	-21.96	53.49	30.93	0.10	0.50	Average
4	0.2028850	42.24	-21.25	63.49	41.64	0.10	0.50	QP
5	0.2658290	32.31	-18.94	51.25	31.74	0.10	0.47	Average
6	0.2658290	39.41	-21.84	61.25	38.84	0.10	0.47	QP
7	@0.5378230	40.35	-15.65	56.00	39.77	0.10	0.48	QP
8	@0.5378230	34.11	-11.89	46.00	33.53	0.10	0.48	Average
9	0.6935680	23.63	-22.37	46.00	23.13	0.10	0.40	Average
10	0.6935680	33.71	-22.29	56.00	33.21	0.10	0.40	QP
11	2.540	22.56	-23.44	46.00	21.87	0.13	0.56	Average
12	2.540	30.33	-25.67	56.00	29.64	0.13	0.56	QP



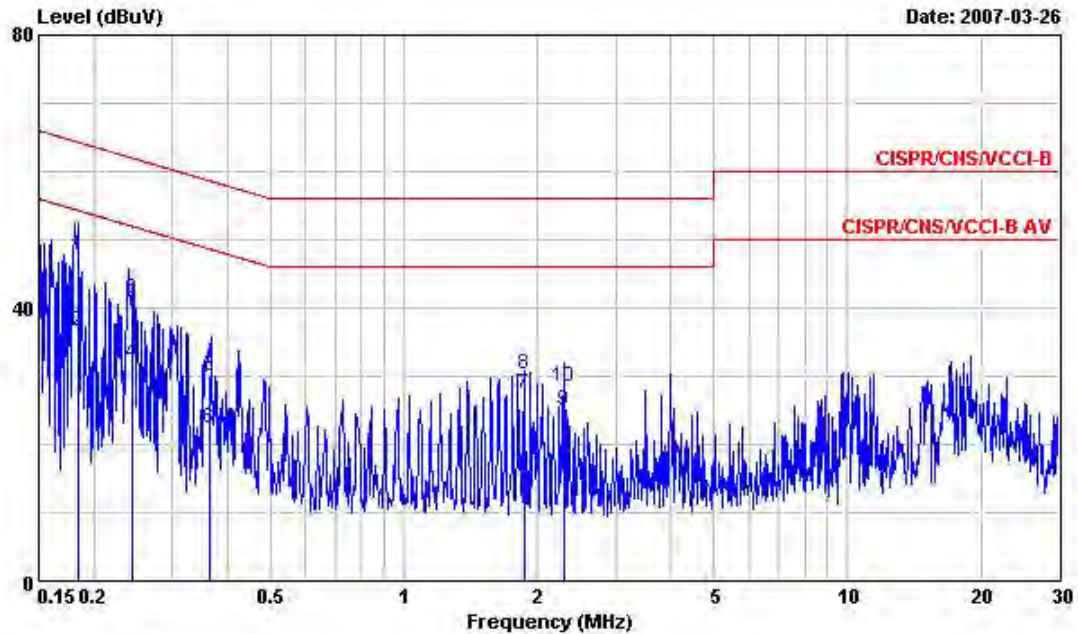
- Temperature : 24°C
- Relative Humidity : 61%
- Test Enginner : Anderson
- Test Mode : Mode 2

■ The test that passed at minimum margin was marked by the frame in the following table.



Site : CO01-HY
 Condition : CISPR/CNS/VCCI-B LISN 200604 99041 LINE
 EUT : GSM/EDGE/ 850/900/1800/1900 Mobile Phone
 POWER: 120V/60Hz
 Model : FR682518-01
 Memo : GSM850 Idle+BT Link+Earphone+Camera
 :+USB Link+GPS Rx+WLAN Link

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.150000	42.91	-23.09	66.00	42.11	0.10	0.70	QP
2	0.150000	28.22	-27.78	56.00	27.42	0.10	0.70	Average
3	0.182006	48.35	-16.04	64.39	47.68	0.10	0.57	QP
4	0.182006	37.32	-17.07	54.39	36.65	0.10	0.57	Average
5	0.242654	41.08	-20.92	62.00	40.48	0.10	0.50	QP
6	0.242654	31.72	-20.28	52.00	31.12	0.10	0.50	Average
7	2.170	29.67	-26.33	56.00	29.05	0.10	0.52	QP
8	2.170	26.49	-19.51	46.00	25.87	0.10	0.52	Average
9	4.035	31.78	-24.22	56.00	31.08	0.10	0.60	QP
10	4.035	22.50	-23.50	46.00	21.80	0.10	0.60	Average
11	10.843	29.26	-30.74	60.00	28.26	0.28	0.72	QP
12	10.843	20.18	-29.82	50.00	19.18	0.28	0.72	Average



Site : CO01-HY
Condition : CISPR/CNS/VCCI-B LISN 200604 99041 NEUTRAL
EUT : GSM/EDGE/ 850/900/1800/1900 Mobile Phone
POWER: 120V/60Hz
Model : FR682518-01
Memo : GSM850 Idle+BT Link+Earphone+Camera
 : +USB Link+GPS Rx+WLANLink

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1834550	47.62	-16.71	64.33	46.96	0.10	0.56	QP
2	0.1834550	36.62	-17.71	54.33	35.96	0.10	0.56	Average
3	0.2428780	41.28	-20.72	62.00	40.68	0.10	0.50	QP
4	0.2428780	31.78	-20.22	52.00	31.18	0.10	0.50	Average
5	0.3647030	29.95	-28.67	58.62	29.45	0.10	0.40	QP
6	0.3647030	22.25	-26.37	48.62	21.75	0.10	0.40	Average
7	1.870	27.44	-18.56	46.00	26.84	0.10	0.50	Average
8	1.870	30.34	-25.66	56.00	29.74	0.10	0.50	QP
9	2.290	25.04	-20.96	46.00	24.39	0.12	0.53	Average
10	2.290	28.39	-27.61	56.00	27.74	0.12	0.53	QP

5.11 Radiated Emission Measurement

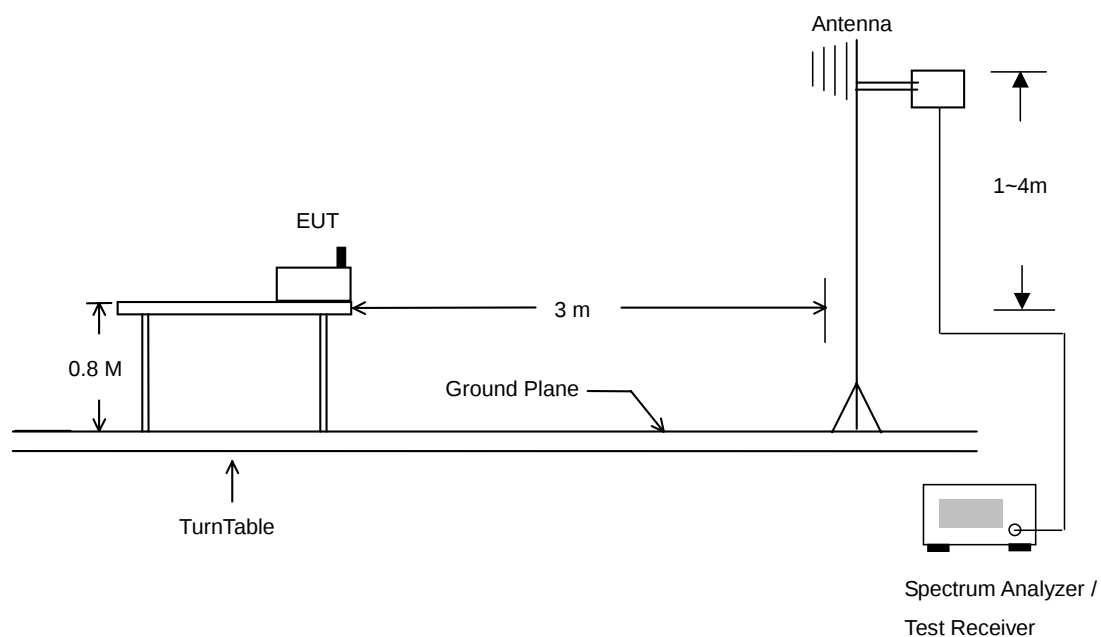
5.11.1 Measuring Instruments

As described in chapter 6 of this Report.

5.11.2 Test Procedures

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
- e. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. For testing below 1GHz, If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the quasi-peak method and reported.
- h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

5.11.3 Typical Test Setup Layout of Radiated Emission

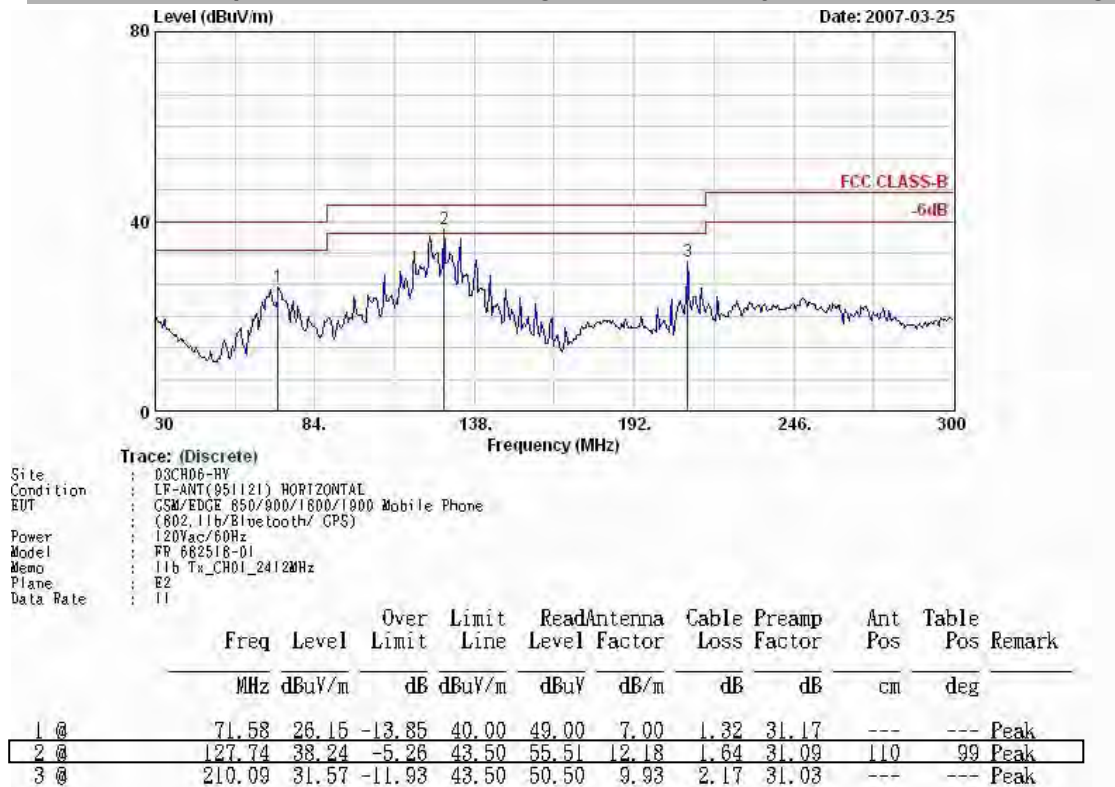




5.11.4 Test Data

- Temperature : 25°C
- Relative Humidity : 57%
- Test Enginner : Anderson
- Test Mode : Mode 1
- Polarization : Horizontal

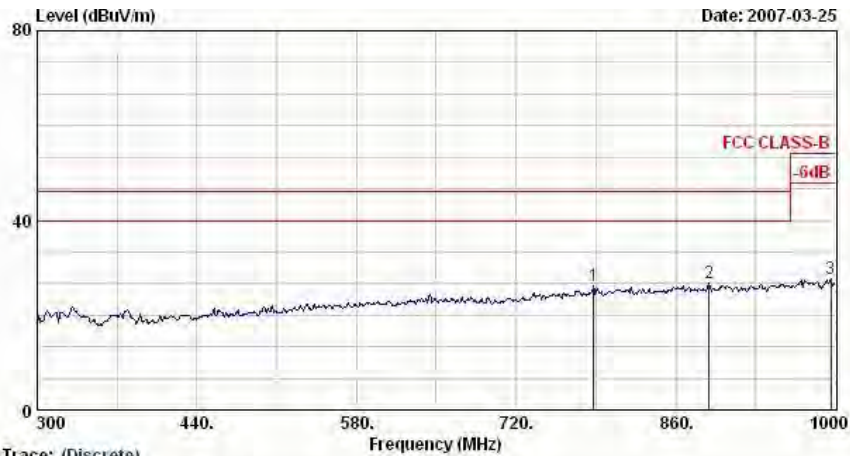
■ The test that passed at minimum margin was marked by the frame in the following table.





FCC TEST REPORT

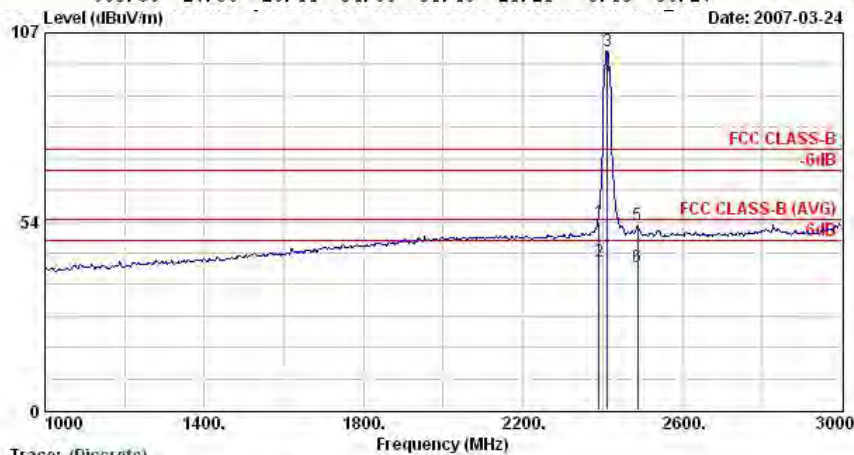
Report No. : FR682518-01



Trace: (Discrete)

Site : 03CH06-RV
Condition : LF-ANT(951121) HORIZONTAL
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH01_2412MHz
Plane : E2
Data Rate : 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	787.90	26.08	-19.92	46.00	32.31	19.70	4.57	30.50	---	Peak
2	889.40	26.67	-19.33	46.00	31.81	20.45	4.78	30.38	---	Peak
3	995.80	27.56	-26.44	54.00	31.49	21.21	5.13	30.27	---	Peak



Trace: (Discrete)

Site : 03CH06-RV
Condition : HF-ANT-060410 HORIZONTAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH01_2412MHz
Plane : E2
Data Rate : 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2390.00	53.38	-20.62	74.00	54.32	30.26	4.26	35.46	100	0 Peak
2 @	2390.00	42.32	-11.68	54.00	43.26	30.26	4.26	35.46	100	194 Average
3 @	2412.00	101.87			102.80	30.27	4.26	35.46	100	0 Peak
4 @	2412.00	94.57			95.50	30.27	4.26	35.46	100	194 Average
5	2488.00	52.51	-21.49	74.00	53.36	30.30	4.36	35.51	100	0 Peak
6 @	2488.00	40.61	-13.39	54.00	41.46	30.30	4.36	35.51	100	194 Average

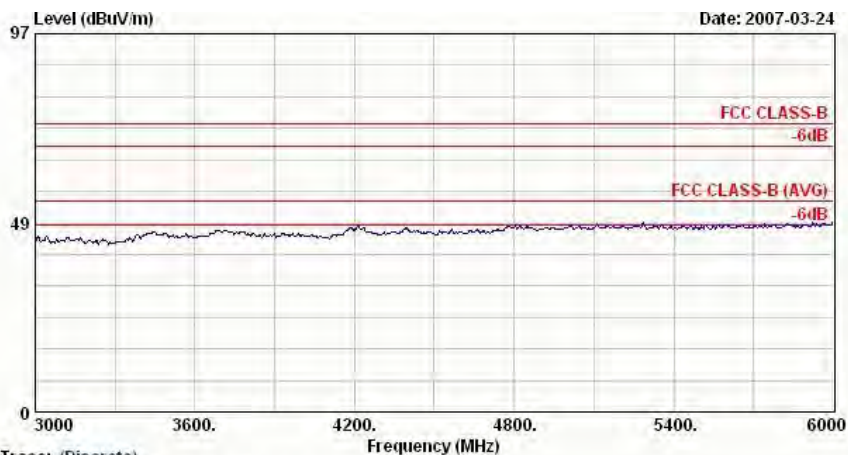
Remark:

1. #3 Fundamental Signal
2. #4 Fundamental Signal



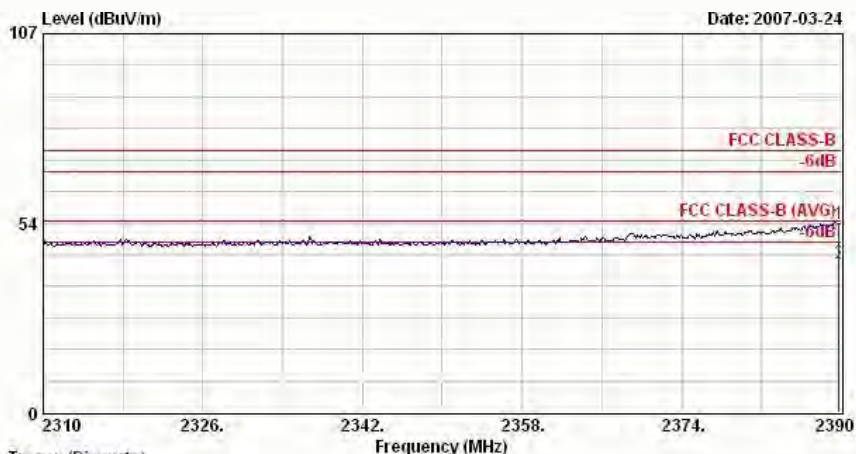
FCC TEST REPORT

Report No. : FR682518-01



Trace: (Discrete)

Site : 03CH06-RV
Condition : HR-ANT-060410 HORIZONTAL 200cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH01_2412MHz
Plane : E2
Data Rate : 11



Trace: (Discrete)

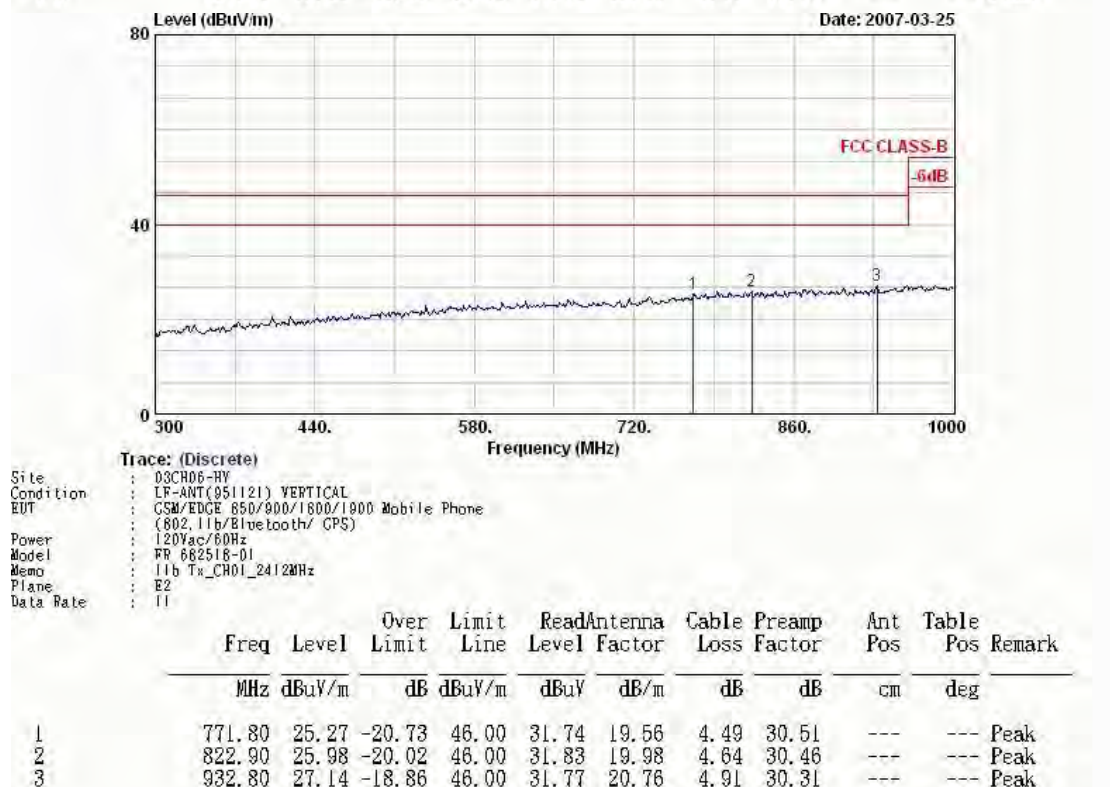
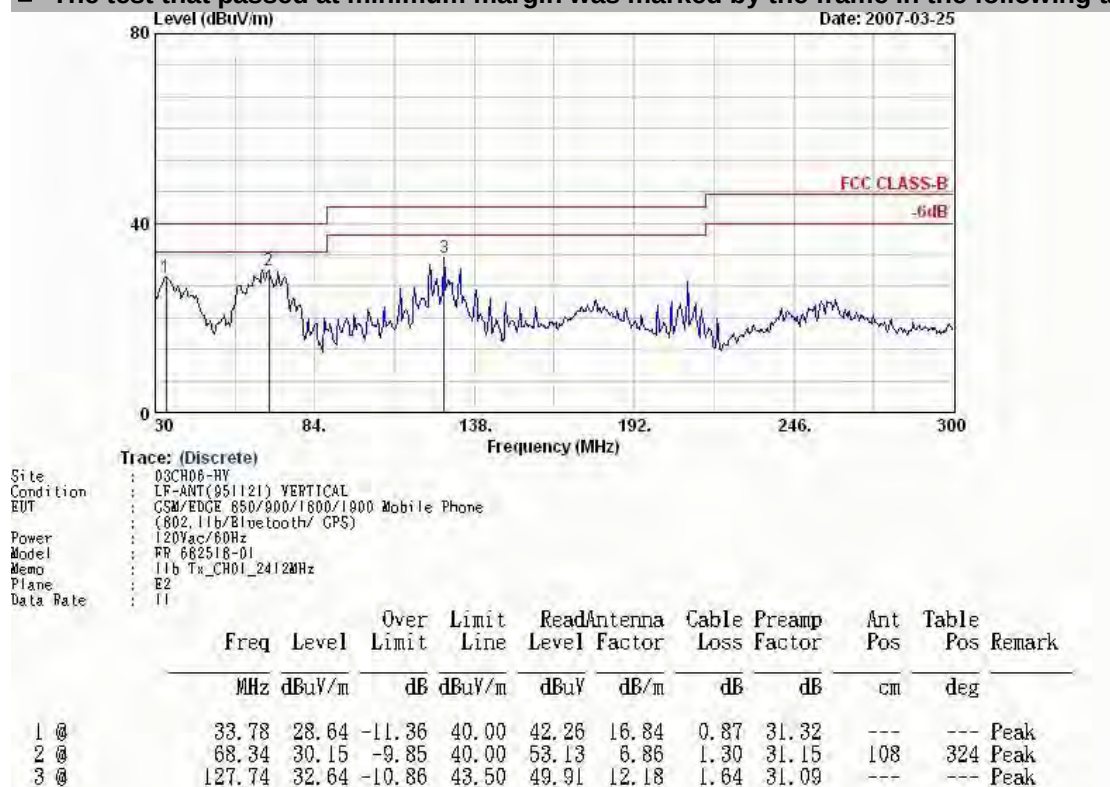
Site : 03CH06-RV
Condition : HR-ANT-060410 HORIZONTAL 100cm 194deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH01_2412MHz
Plane : E2
Data Rate : 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2389.76	53.38	-20.62	74.00	54.31	30.26	4.26	35.46	100	0 Peak
2 @	2389.76	42.32	-11.68	54.00	43.26	30.26	4.26	35.46	100	194 Average



- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

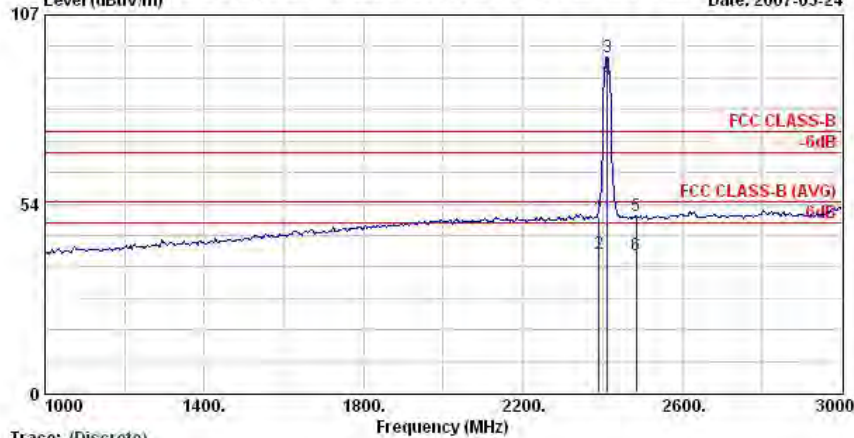




FCC TEST REPORT

Report No. : FR682518-01

Data: 11 File: D:\Project\2007Q1\裕天\682518-01\Part 15C\WLAN\11b Tx_Ch01.EMI (18) Date: 2007-03-24



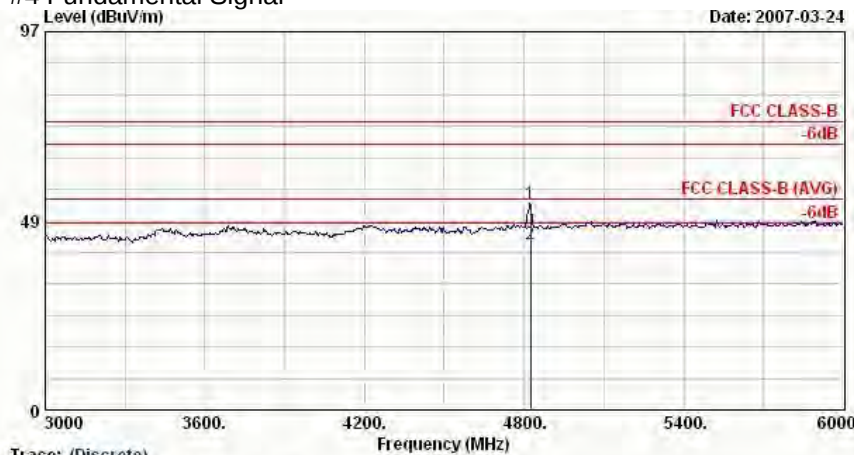
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL 100cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH01_2412MHz
Plane : E2
Data Rate : 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2390.00	49.87	-24.13	74.00	50.81	30.26	4.26	35.46	100	360 Peak
2	2390.00	39.49	-14.51	54.00	40.43	30.26	4.26	35.46	100	80 Average
3 @	2412.00	95.00			95.93	30.27	4.26	35.46	100	360 Peak
4 @	2412.00	88.76			89.69	30.27	4.26	35.46	100	80 Average
5	2484.00	50.03	-23.97	74.00	50.89	30.29	4.36	35.51	100	360 Peak
6	2484.00	39.16	-14.84	54.00	40.02	30.29	4.36	35.51	100	80 Average

Remark:

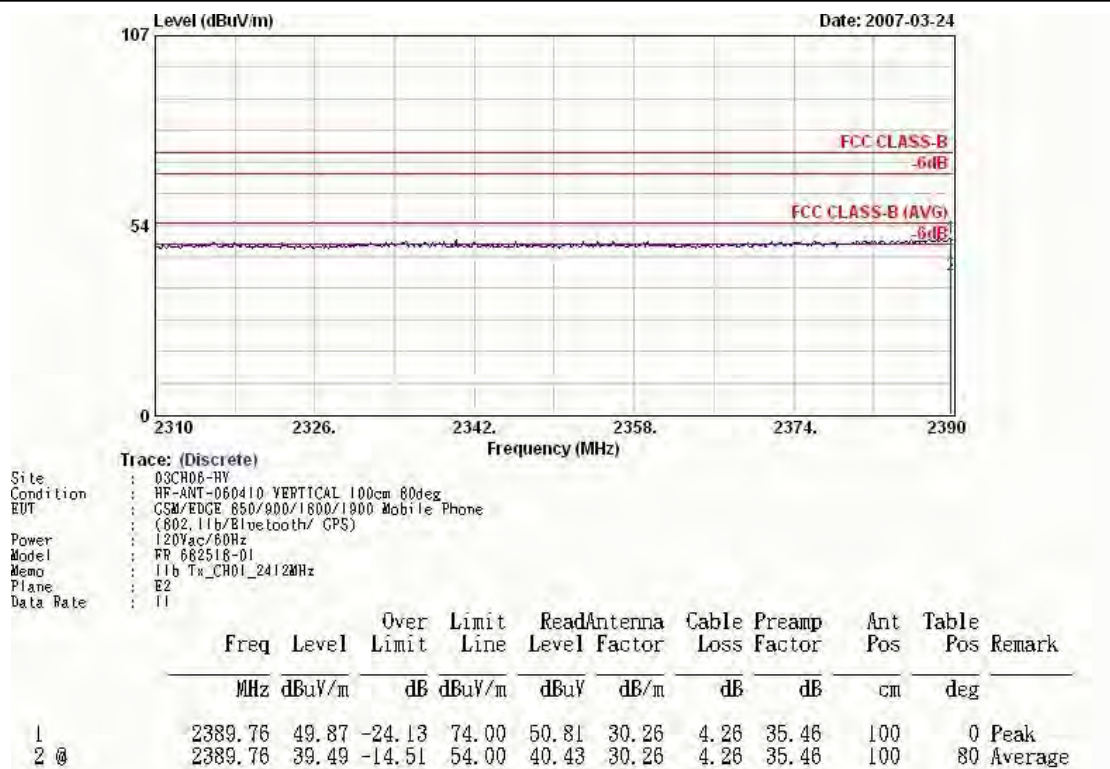
1. #3 Fundamental Signal
2. #4 Fundamental Signal



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL 200cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH01_2412MHz
Plane : E2
Data Rate : 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	4824.00	53.04	-20.96	74.00	49.97	32.94	6.24	36.12	200	360 Peak
2 @	4824.00	42.52	-11.48	54.00	39.45	32.94	6.24	36.12	100	89 Average

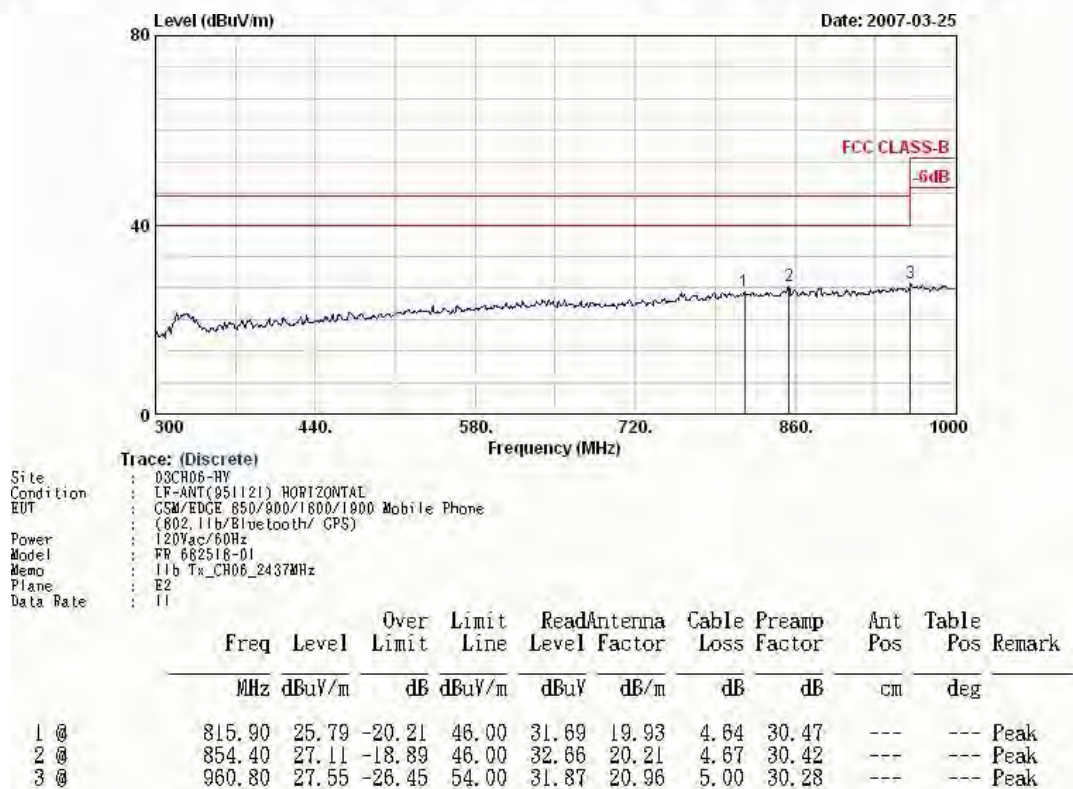
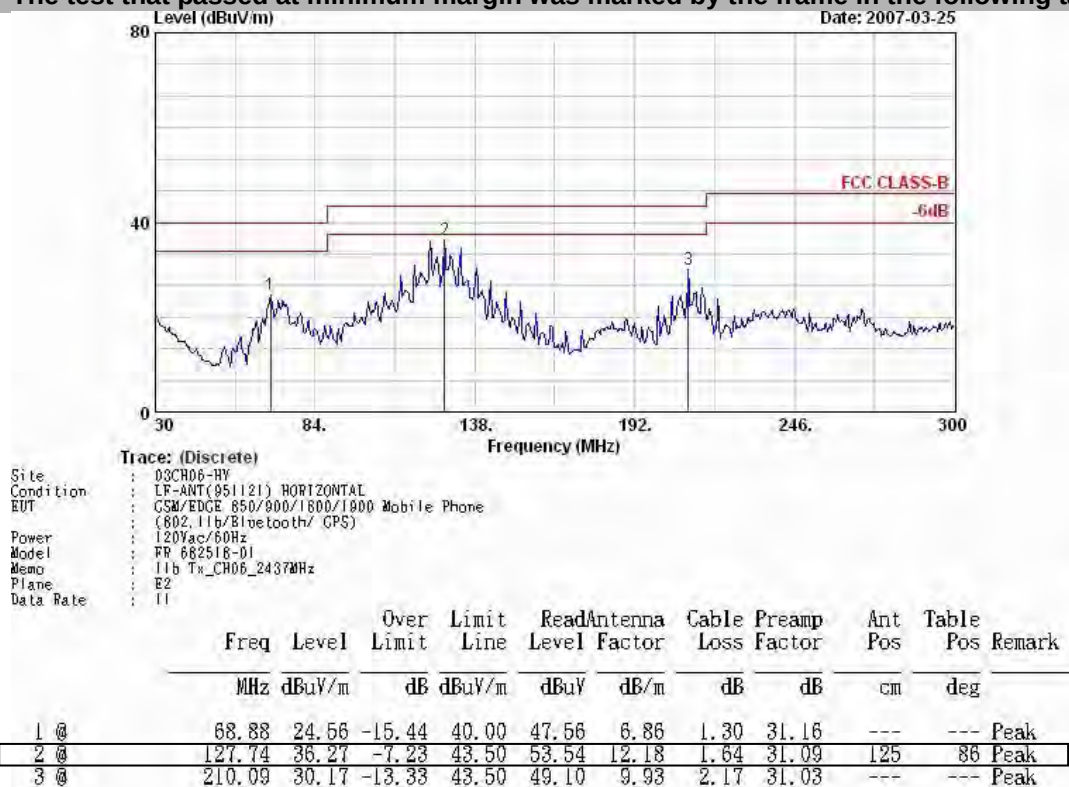


Remark: There is no more obvious spurious emission except the listings above.



- Test Mode : Mode 2
- Polarization : Horizontal

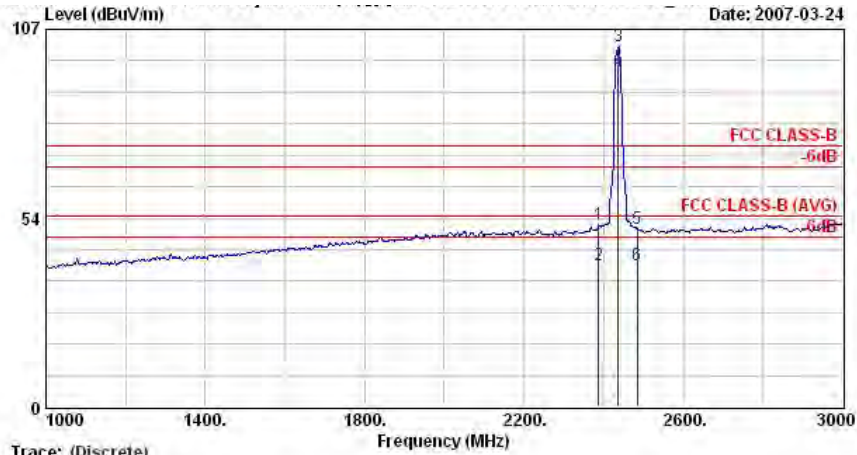
■ The test that passed at minimum margin was marked by the frame in the following table.





FCC TEST REPORT

Report No. : FR682518-01

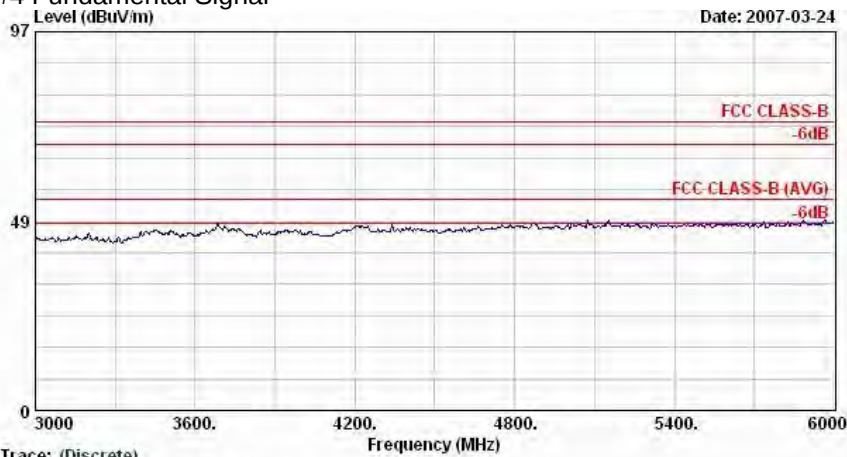


Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH06_2437MHz
Plane : E2
Data Rate : 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1 @	2388.00	51.56	-22.44	74.00	52.51	30.26	4.23	35.44	100	0 Peak
2 @	2388.00	40.36	-13.64	54.00	41.31	30.26	4.23	35.44	100	189 Average
3 @	2437.00			74.00	102.94	30.28	4.29	35.47	100	0 Peak
4 @	2437.00			54.00	95.83	30.28	4.29	35.47	100	189 Average
5 @	2484.00	50.37	-23.63	74.00	51.23	30.29	4.36	35.51	100	0 Peak
6 @	2484.00	40.35	-13.65	54.00	41.21	30.29	4.36	35.51	100	189 Average

Remark:

1. #3 Fundamental Signal
2. #4 Fundamental Signal

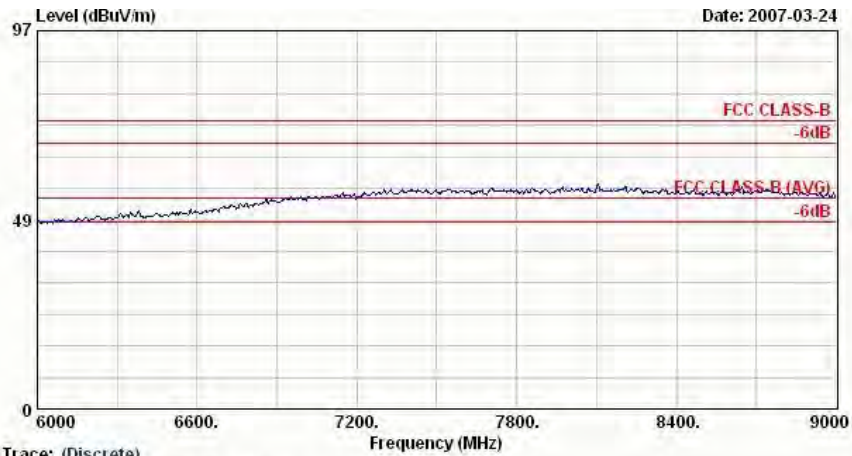


Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL 200cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH06_2437MHz
Plane : E2
Data Rate : 11



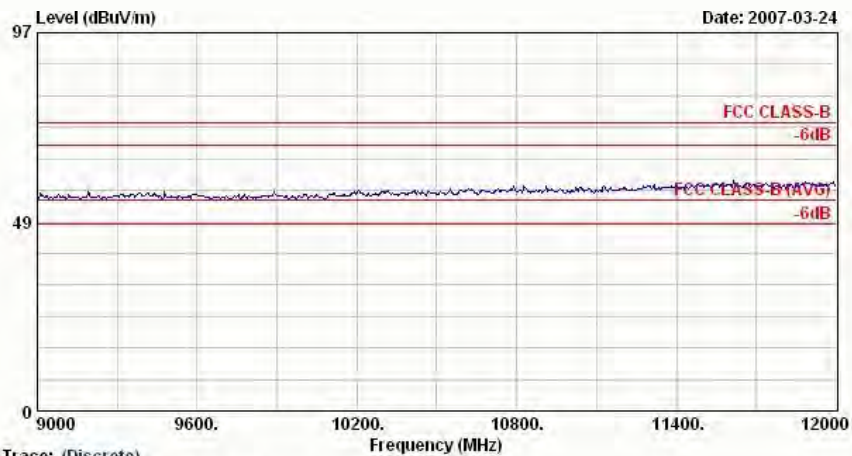
FCC TEST REPORT

Report No. : FR682518-01



Trace: (Discrete)

Site : 03CH06-HV
Condition : HF-ANT-060410 HORIZONTAL 100cm 0deg
EUT : CSM/EDGE 850/900/1800/1900 Mobile Phone
: (802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH06_2437MHz
Plane : E2
Data Rate : 11



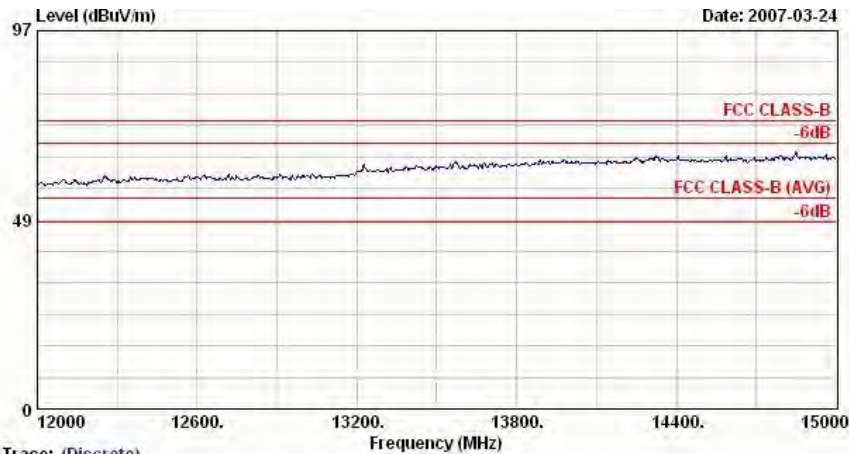
Trace: (Discrete)

Site : 03CH06-HV
Condition : HF-ANT-060410 HORIZONTAL 100cm 360deg
EUT : CSM/EDGE 850/900/1800/1900 Mobile Phone
: (802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH06_2437MHz
Plane : E2
Data Rate : 11



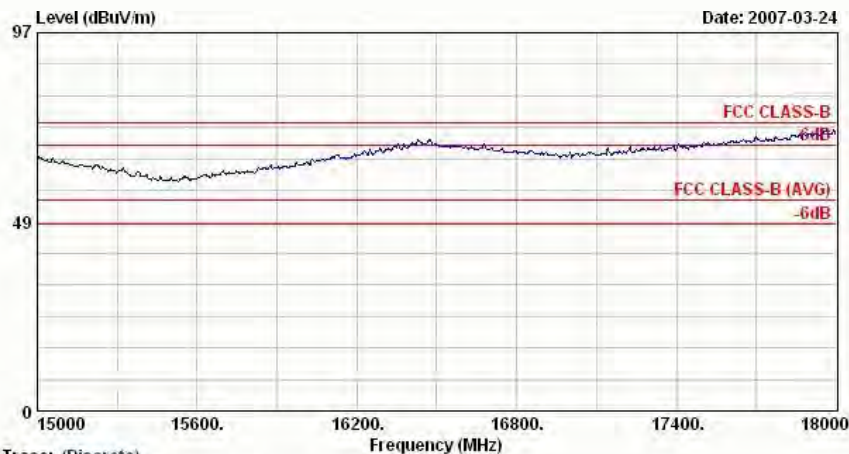
FCC TEST REPORT

Report No. : FR682518-01



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
 : (802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH06_2437MHz
Plane : E2
Data Rate : 11



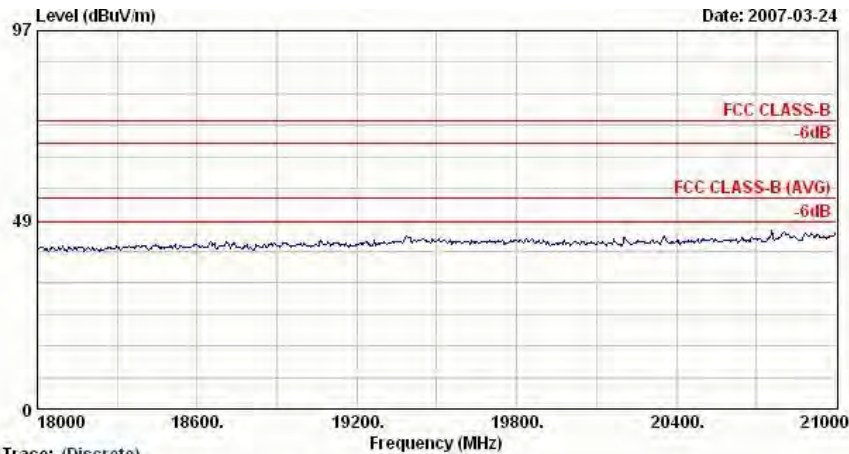
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL 100cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
 : (802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH06_2437MHz
Plane : E2
Data Rate : 11



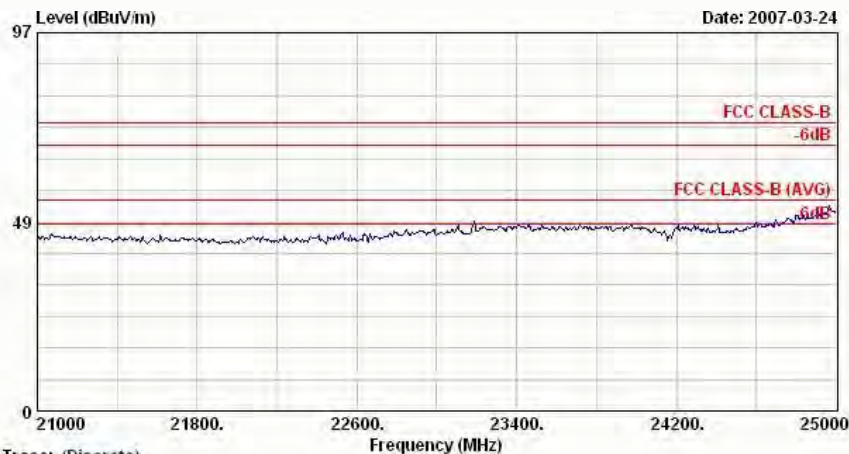
FCC TEST REPORT

Report No. : FR682518-01



Trace: (Discrete)

Site : 03CH06-HY
Condition : SHF-EHF HORN HORIZONTAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
 : (802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH06_2437MHz
Plane : E2
Data Rate : 11



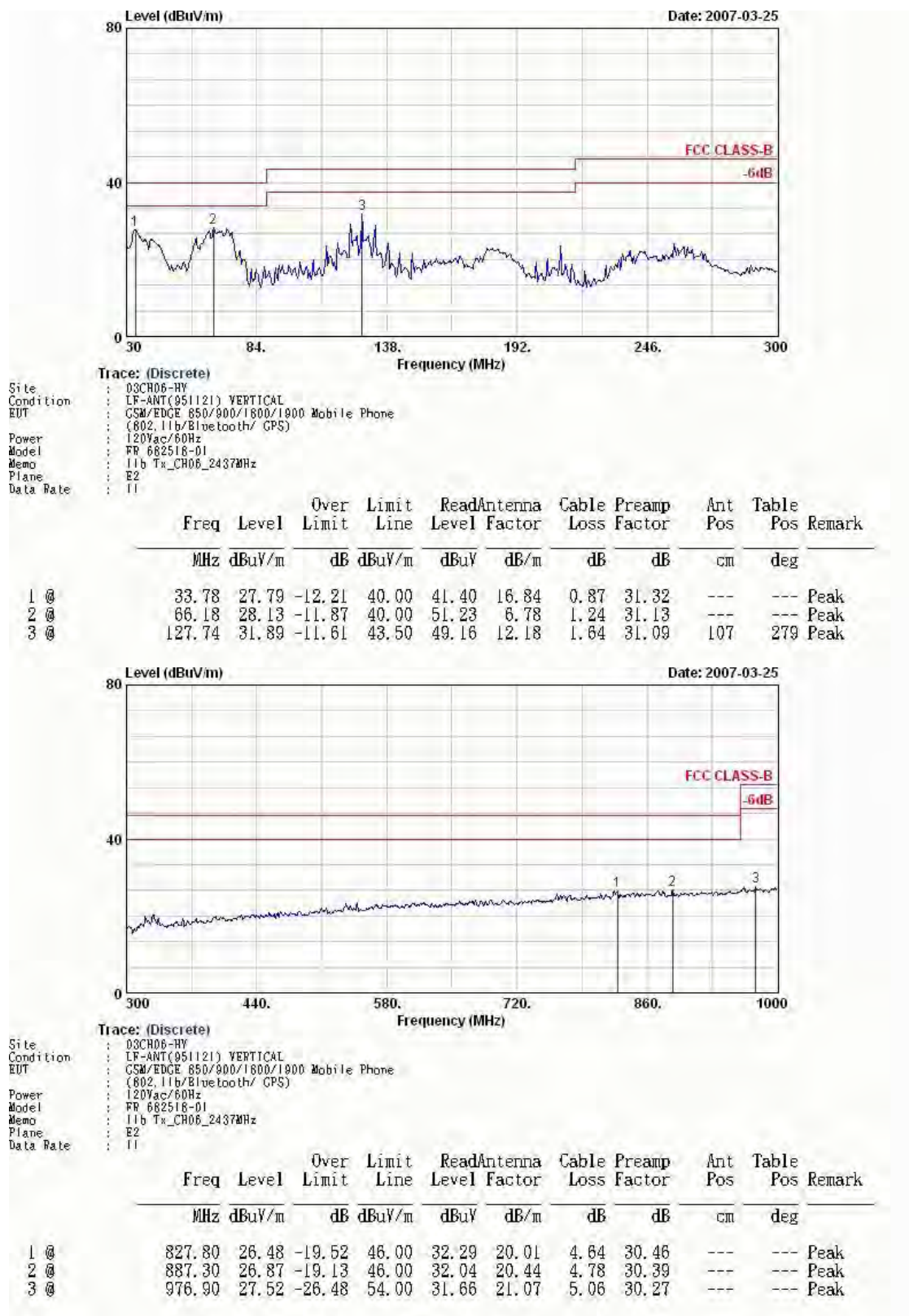
Trace: (Discrete)

Site : 03CH06-HY
Condition : SHF-EHF HORN HORIZONTAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
 : (802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH06_2437MHz
Plane : E2
Data Rate : 11



- Polarization : Vertical

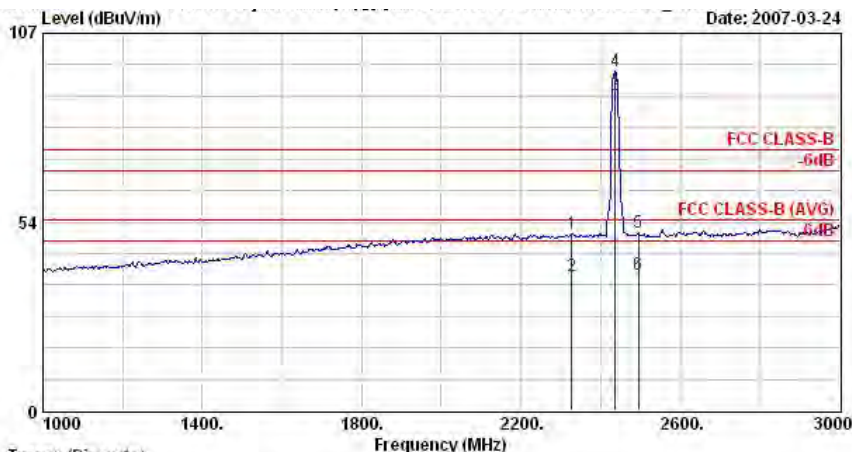
■ The test that passed at minimum margin was marked by the frame in the following table.





FCC TEST REPORT

Report No. : FR682518-01



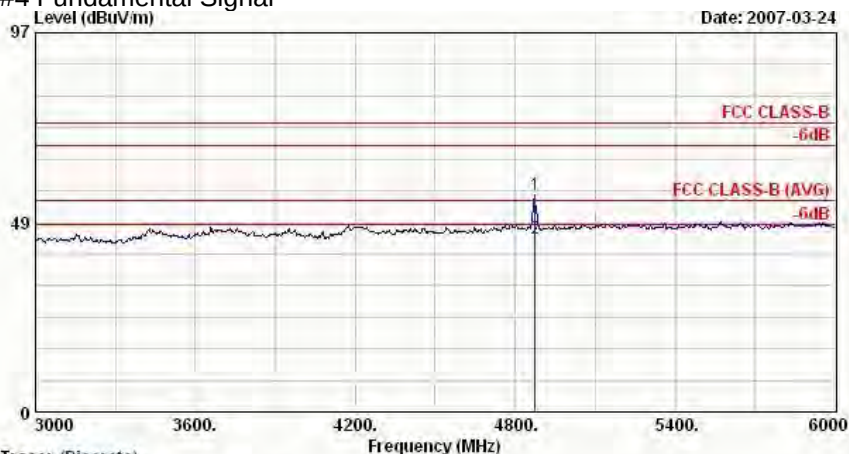
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL 100cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH06_2437MHz
Plane : E2
Data Rate : 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Factor	Pos	Pos	Remark
					dBuV	dB/m	dB	dB	cm	deg
1 @	2328.00	49.95	-24.05	74.00	50.96	30.23	4.17	35.40	100	360 Peak
2 @	2328.00	38.16	-15.84	54.00	39.16	30.23	4.17	35.40	100	96 Average
3 @	2437.00	89.65			90.55	30.28	4.29	35.47	100	96 Average
4 @	2437.00	96.18			97.09	30.27	4.29	35.47	100	360 Peak
5 @	2494.00	50.33	-23.67	74.00	51.17	30.30	4.39	35.53	100	360 Peak
6 @	2494.00	38.55	-15.45	54.00	39.39	30.30	4.39	35.53	100	96 Average

Remark:

1. #3 Fundamental Signal
2. #4 Fundamental Signal



Trace: (Discrete)

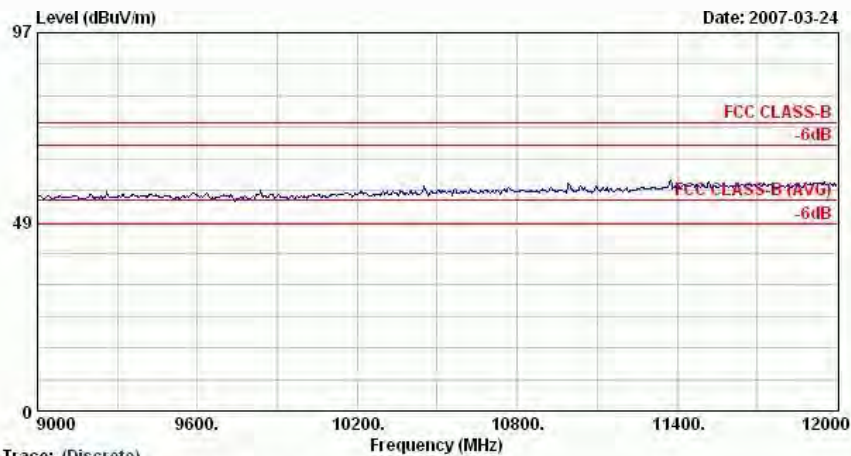
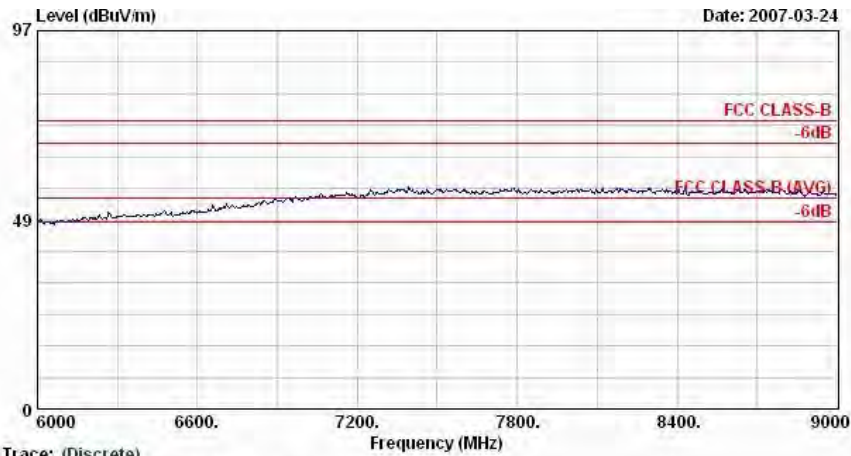
Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL 200cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH06_2437MHz
Plane : E2
Data Rate : 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Factor	Pos	Pos	Remark
					dBuV	dB/m	dB	dB	cm	deg
1 @	4874.00	55.50	-18.50	74.00	52.22	33.14	6.30	36.16	200	360 Peak
2 @	4874.00	44.43	-9.57	54.00	41.15	33.14	6.30	36.16	100	94 Average



FCC TEST REPORT

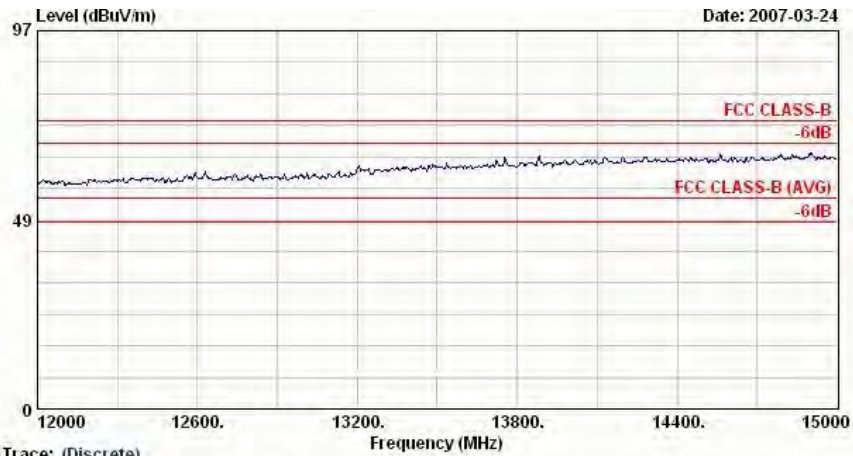
Report No. : FR682518-01





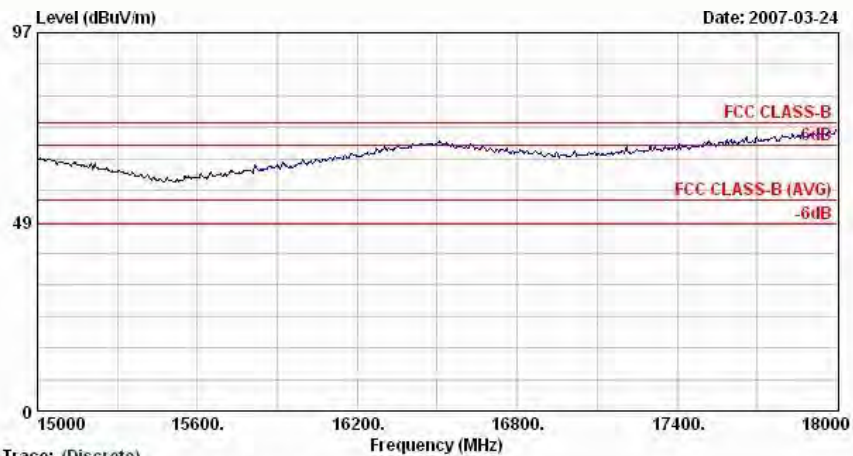
FCC TEST REPORT

Report No. : FR682518-01



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL 100cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH06_2437MHz
Plane : E2
Data Rate : 11



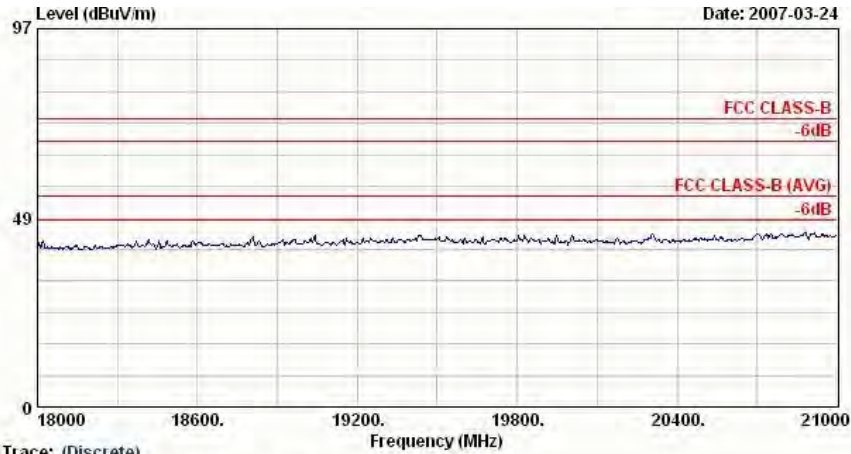
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH06_2437MHz
Plane : E2
Data Rate : 11



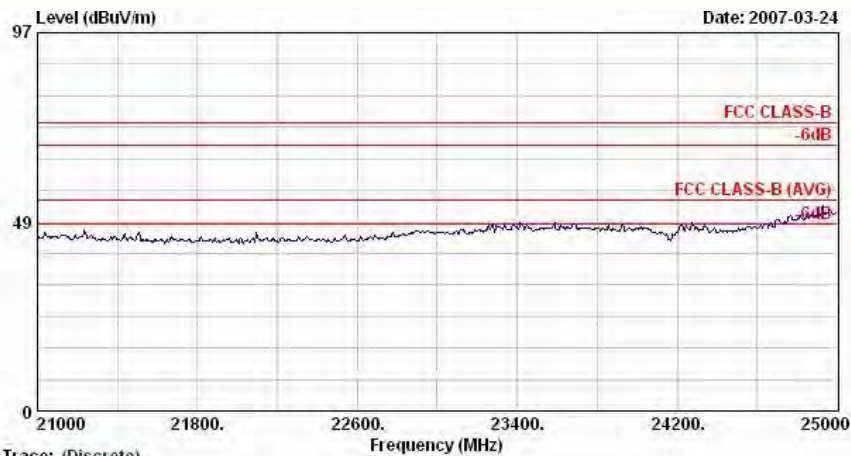
FCC TEST REPORT

Report No. : FR682518-01



Trace: (Discrete)

Site : 03CH06-HY
Condition : SHF-EHF HORN VERTICAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
 : (802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH06_2437MHz
Plane : E2
Data Rate : 11



Trace: (Discrete)

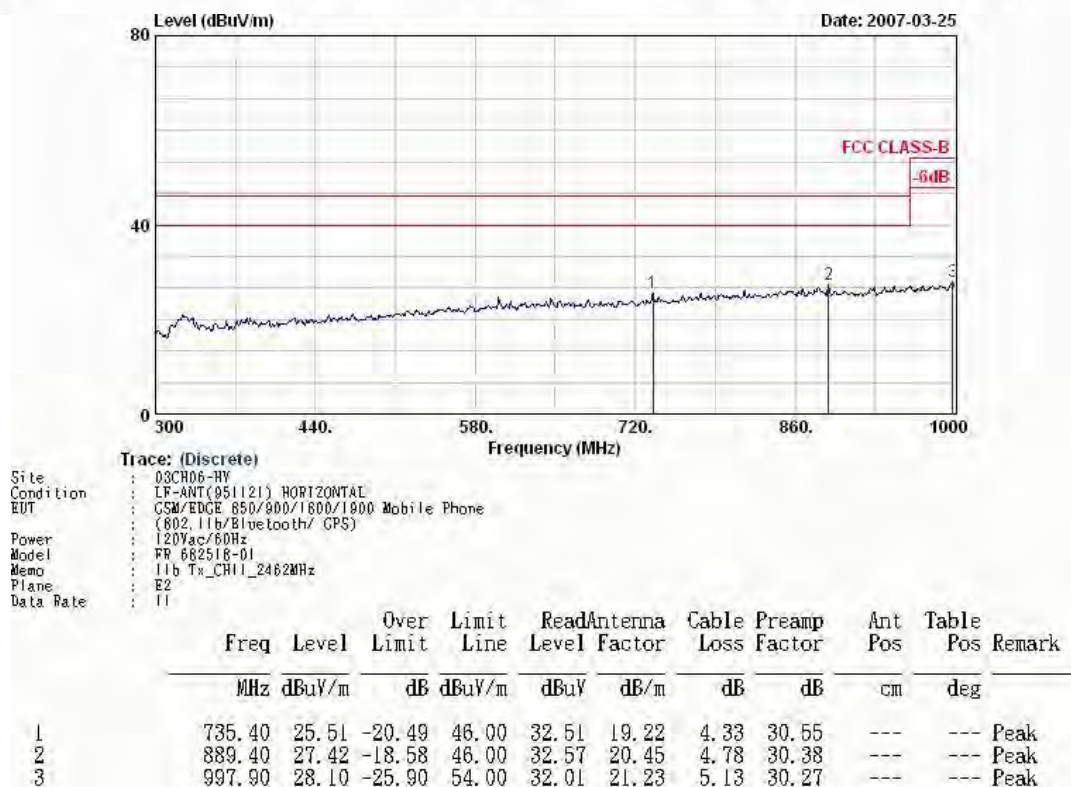
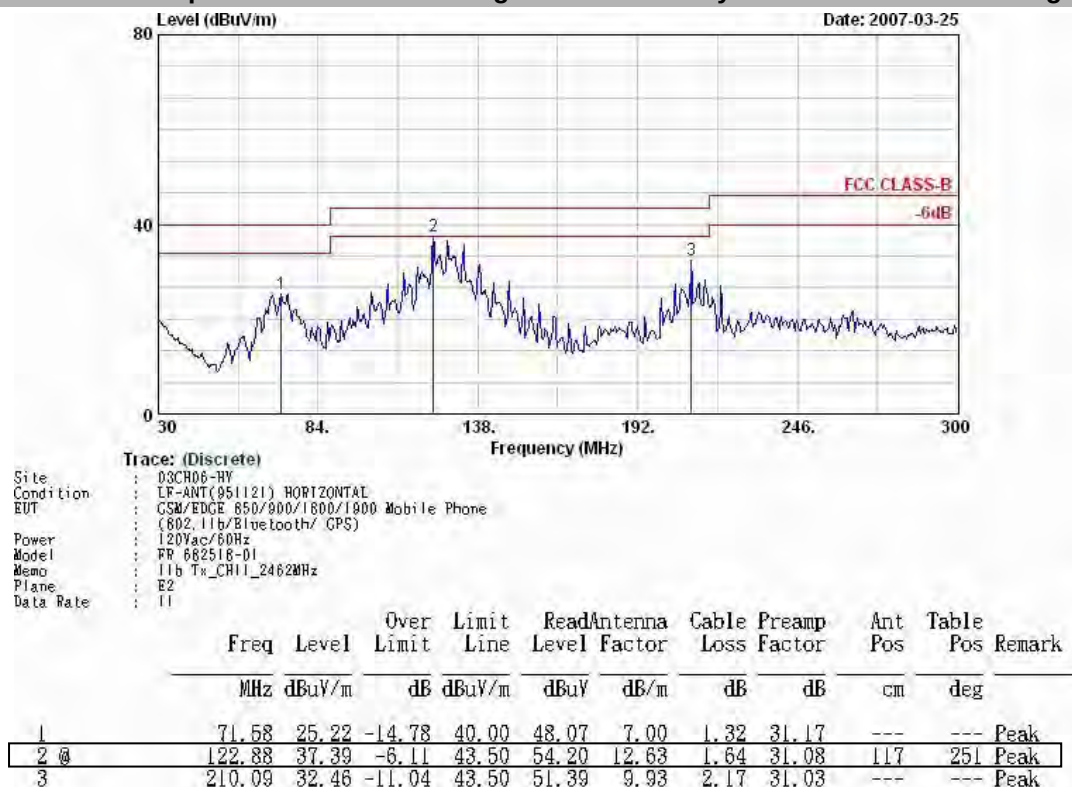
Site : 03CH06-HY
Condition : SHF-EHF HORN VERTICAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
 : (802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH06_2437MHz
Plane : E2
Data Rate : 11

Remark: There is no more obvious spurious emission except the listings above.



- Test Mode : Mode 3
- Polarization : Horizontal

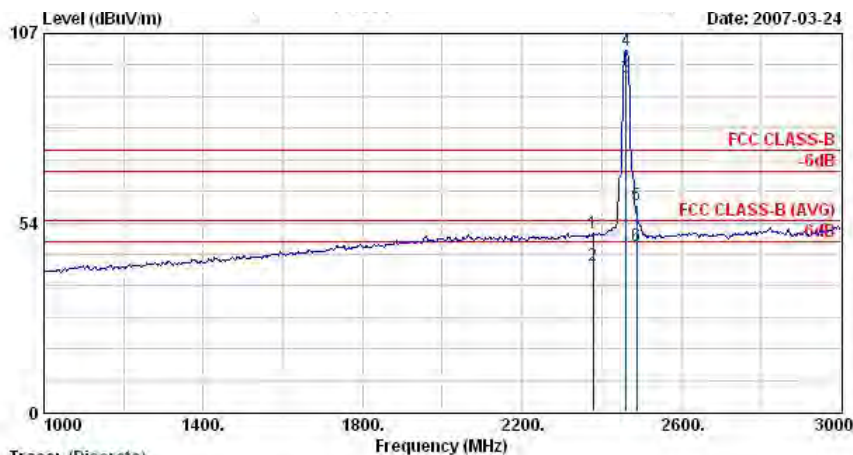
■ The test that passed at minimum margin was marked by the frame in the following table.





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Report No. : FR682518-01

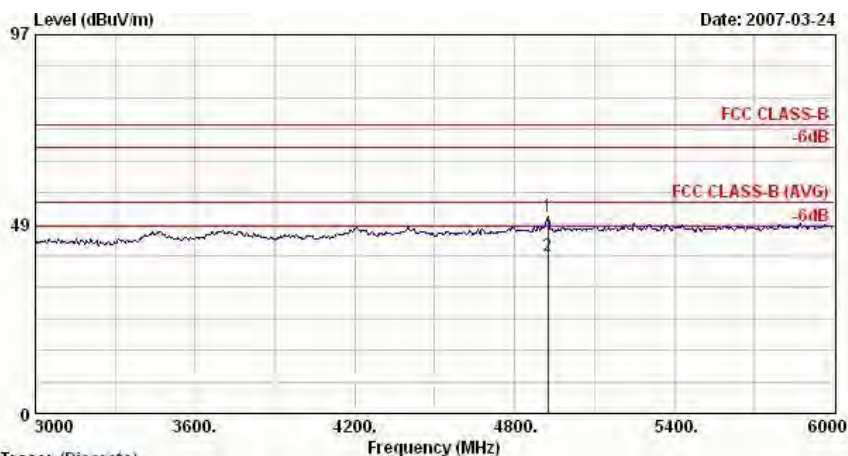


Trace: (Discrete)
Site : D3C06-HY
Condition : HP-ANT-060410 HORIZONTAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
 : (802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH11_2462MHz
Plane : E2
Data Rate : 11

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2378.00	50.50	-23.50	74.00	51.46	30.25	4.23	35.44	100	0	Peak
2	2378.00	41.21	-12.79	54.00	42.17	30.25	4.23	35.44	100	189	Average
3 @	2462.00	94.77			95.65	30.29	4.33	35.49	100	189	Average
4 @	2462.00	102.36			103.24	30.29	4.33	35.49	100	0	Peak
5	2487.00	58.34	-15.66	74.00	59.20	30.29	4.36	35.51	100	0	Peak
6	2487.00	46.78	-7.22	54.00	47.64	30.29	4.36	35.51	100	189	Average

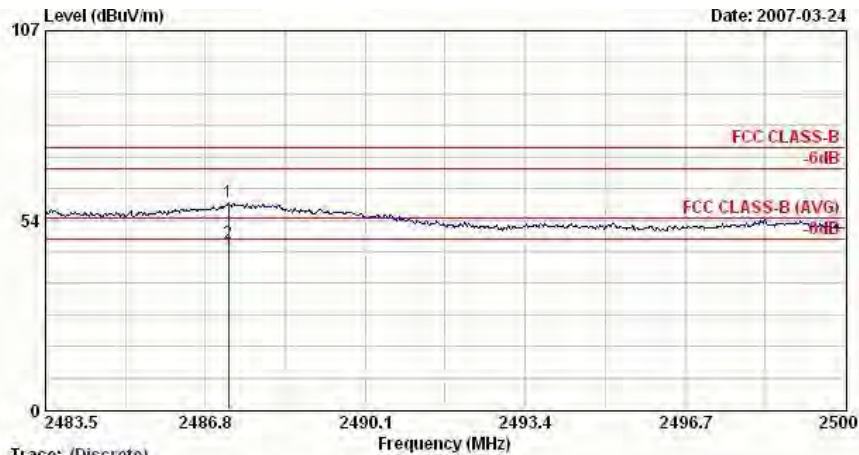
Remark:

1. #3 Fundamental Signal
2. #4 Fundamental Signal



Trace: (Discrete)
Site : D3C06-HY
Condition : HP-ANT-060410 HORIZONTAL 200cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
 : (802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH11_2462MHz
Plane : E2
Data Rate : 11

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	4924.00	50.40	-23.60	74.00	46.91	33.34	6.36	36.21	200	0	Peak
2	4924.00	40.26	-13.74	54.00	36.77	33.34	6.36	36.21	100	340	Average



Trace: (Discrete)

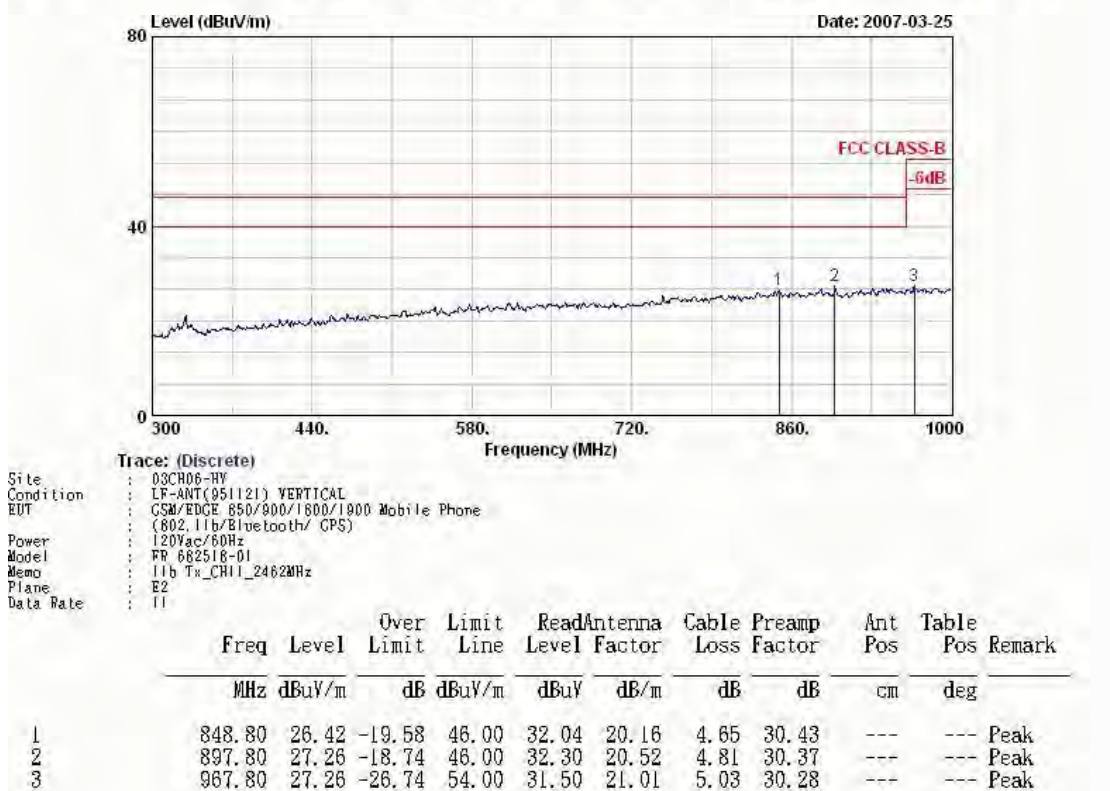
Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL 100cm 180deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH11_2462MHz
Plane : E2
Data Rate : 11

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2487.28	58.34	-15.66	74.00	59.20	30.29	4.36	35.51	100	0	Peak
2	2487.28	46.78	-7.22	54.00	47.64	30.29	4.36	35.51	100	189	Average



- Polarization : Vertical

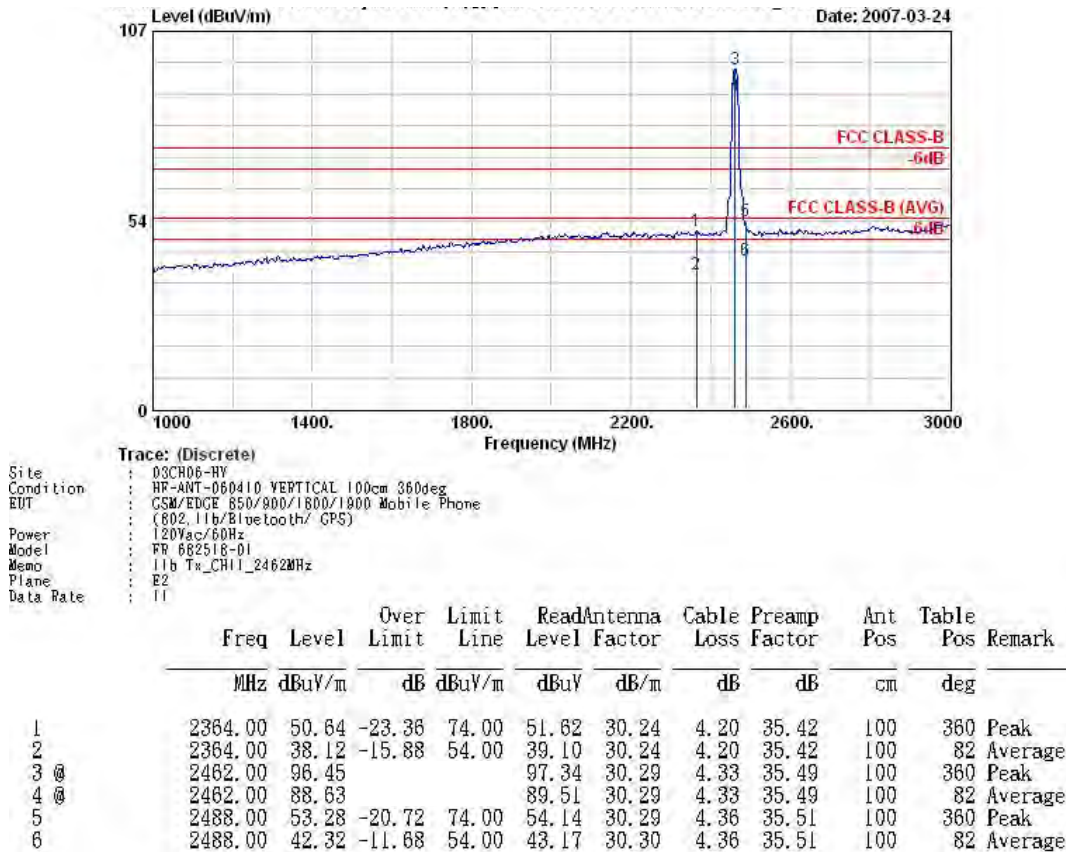
■ The test that passed at minimum margin was marked by the frame in the following table.





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Remark:

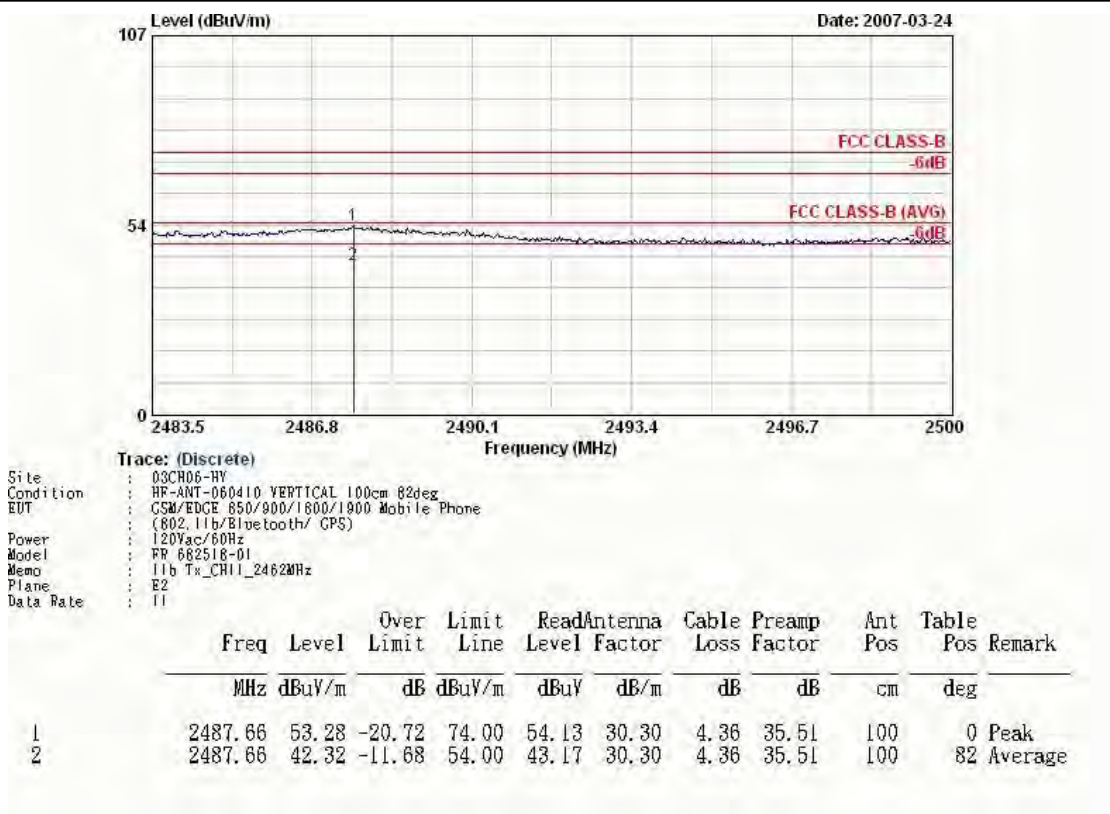
1. #3 Fundamental Signal
2. #4 Fundamental Signal





FCC TEST REPORT

Report No. : FR682518-01

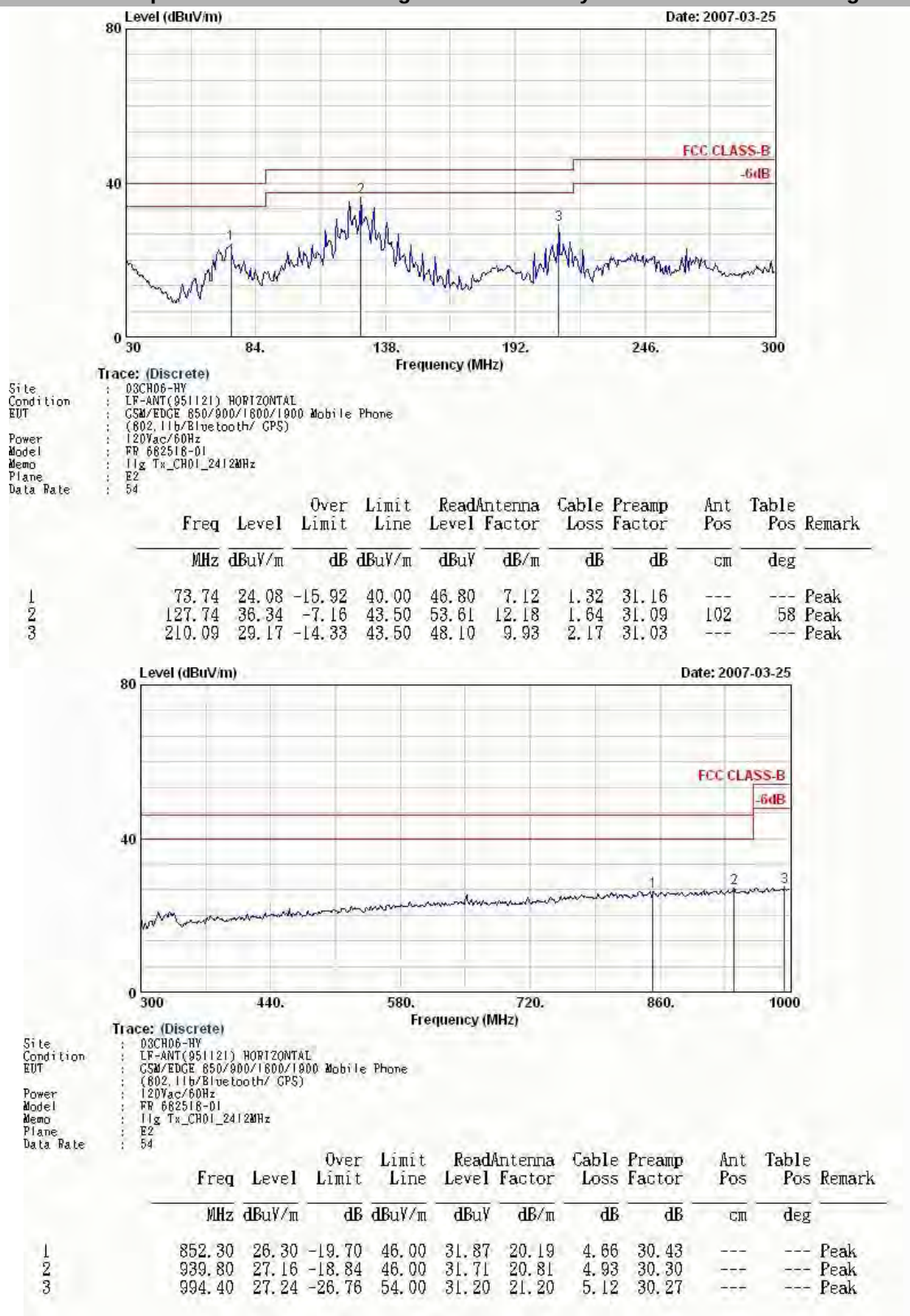


Remark: There is no more obvious spurious emission except the listings above.



- Test Mode : Mode 4
- Polarization : Horizontal

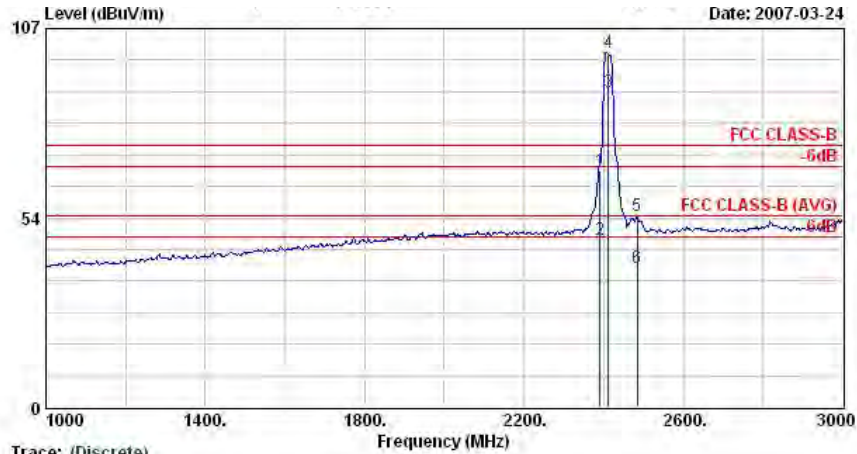
■ The test that passed at minimum margin was marked by the frame in the following table.





FCC TEST REPORT

Report No. : FR682518-01



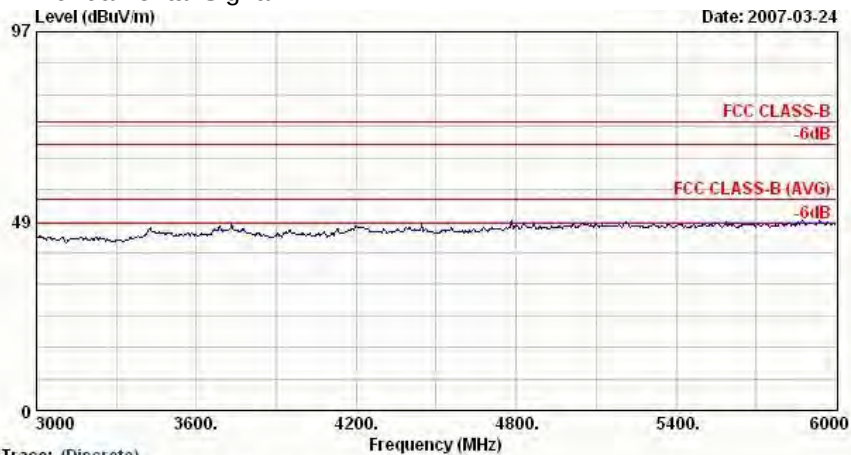
Trace: (Discrete)

Site : 03CH06-HY
Condition : HP-ANT-060410 HORIZONTAL 100cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11g Tx_CH01_2412MHz
Plane : E2
Data Rate : 54

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2390.00	66.77	-7.23	74.00	67.71	30.26	4.26	35.46	100	360 Peak
2	2390.00	47.14	-6.86	54.00	48.08	30.26	4.26	35.46	100	190 Average
3 @	2412.00	89.12			90.06	30.26	4.26	35.46	100	190 Average
4 X	2412.00	100.18			101.11	30.27	4.26	35.46	100	360 Peak
5	2484.00	53.99	-20.01	74.00	54.85	30.29	4.36	35.51	100	360 Peak
6	2484.00	39.52	-14.48	54.00	40.38	30.29	4.36	35.51	100	190 Average

Remark:

1. #3 Fundamental Signal
2. #4 Fundamental Signal



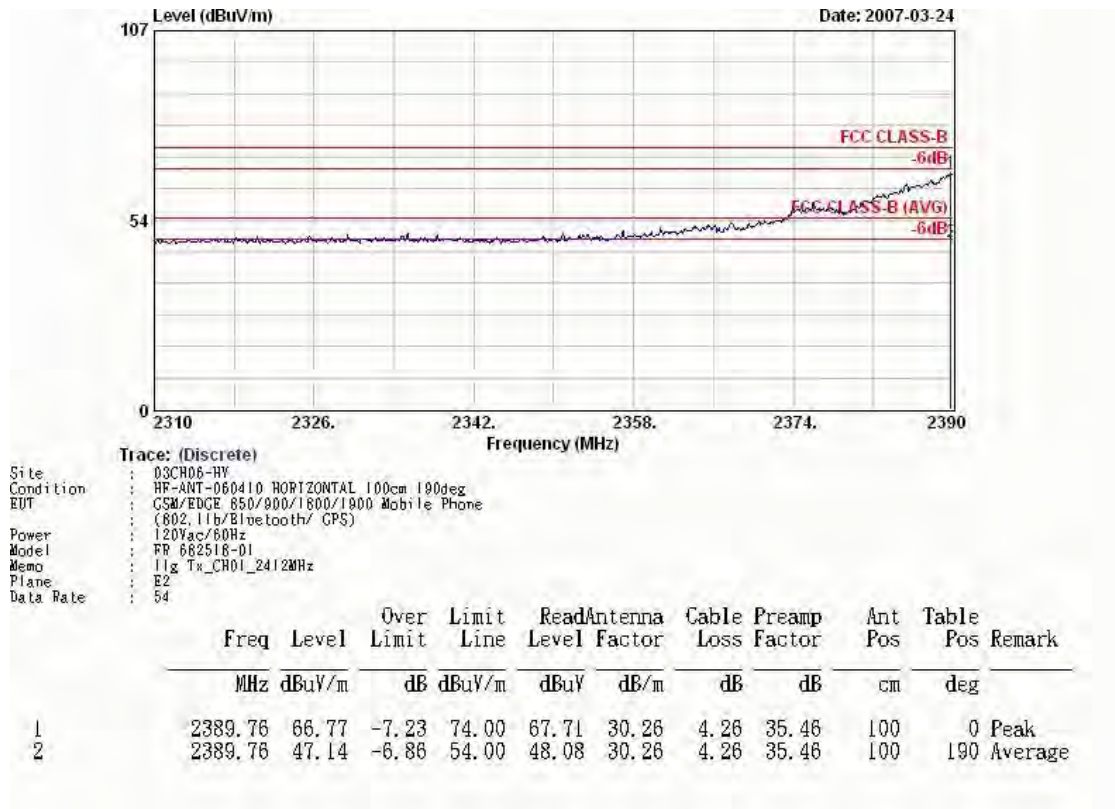
Trace: (Discrete)

Site : 03CH06-HY
Condition : HP-ANT-060410 HORIZONTAL 200cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11g Tx_CH01_2412MHz
Plane : E2
Data Rate : 54



FCC TEST REPORT

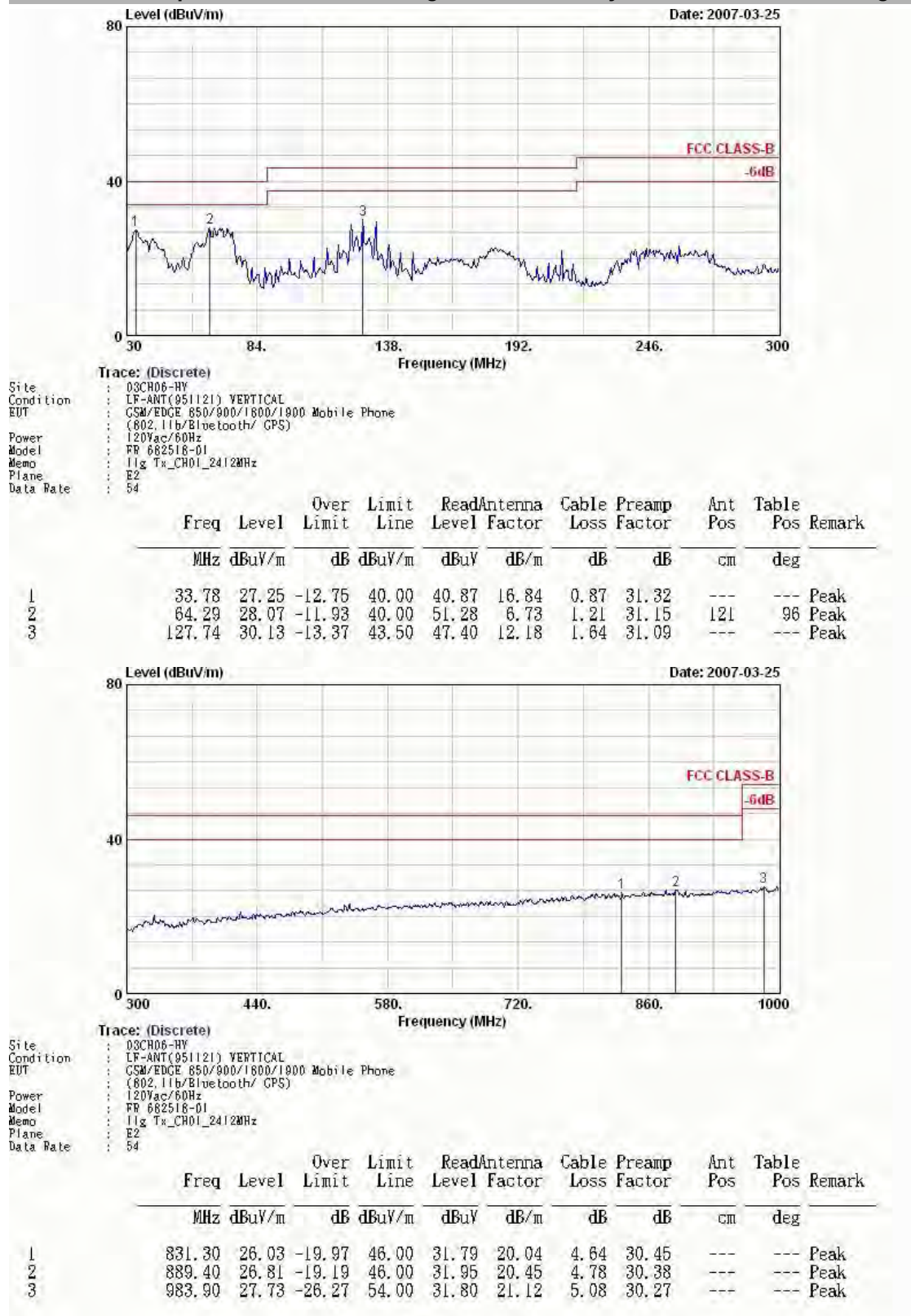
Report No. : FR682518-01





- Polarization : Vertical

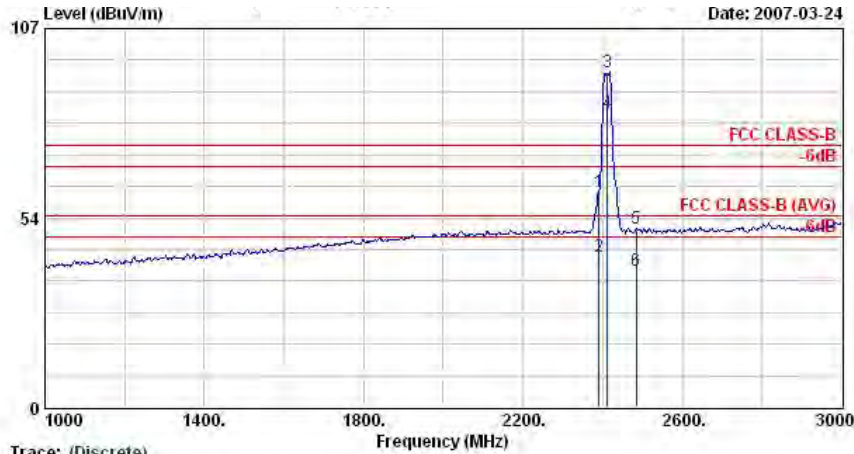
■ The test that passed at minimum margin was marked by the frame in the following table.





FCC TEST REPORT

Report No. : FR682518-01

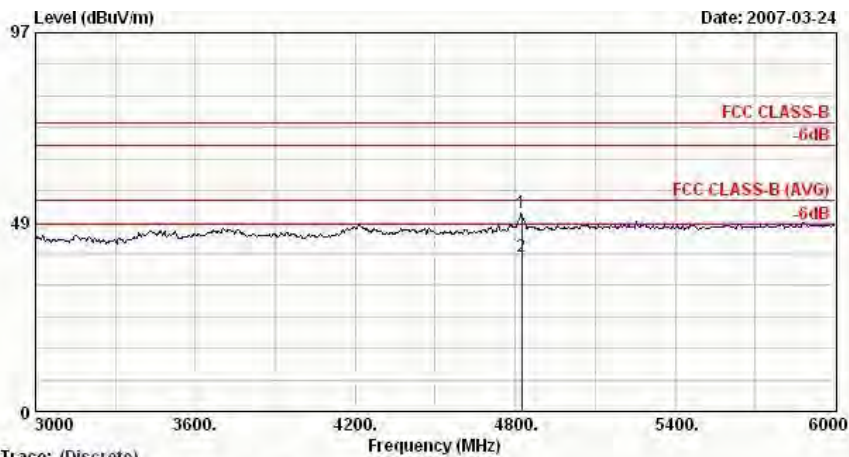


Trace: (Discrete)
Site : 03CH06-HV
Condition : HR-ANT-D60410 VERTICAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11g Tx_CH01_2412MHz
Plane : E2
Data Rate : 54

	Freq	Level	Over	Limit	ReadAntenna	Cable Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Pos	Pos	Remark
					dBuV	dB/m	cm	deg	
1	2390.00	61.04	-12.96	74.00	61.98	30.26	4.26	35.46	100 0 Peak
2	2390.00	42.76	-11.24	54.00	43.70	30.26	4.26	35.46	100 95 Average
3 X	2412.00	94.65			95.57	30.27	4.29	35.47	100 0 Peak
4 X	2412.00	83.30			84.23	30.27	4.26	35.46	100 95 Average
5	2484.00	50.33	-23.67	74.00	51.19	30.29	4.36	35.51	100 0 Peak
6	2484.00	38.48	-15.52	54.00	39.34	30.29	4.36	35.51	100 95 Average

Remark:

1. #3 Fundamental Signal
2. #4 Fundamental Signal



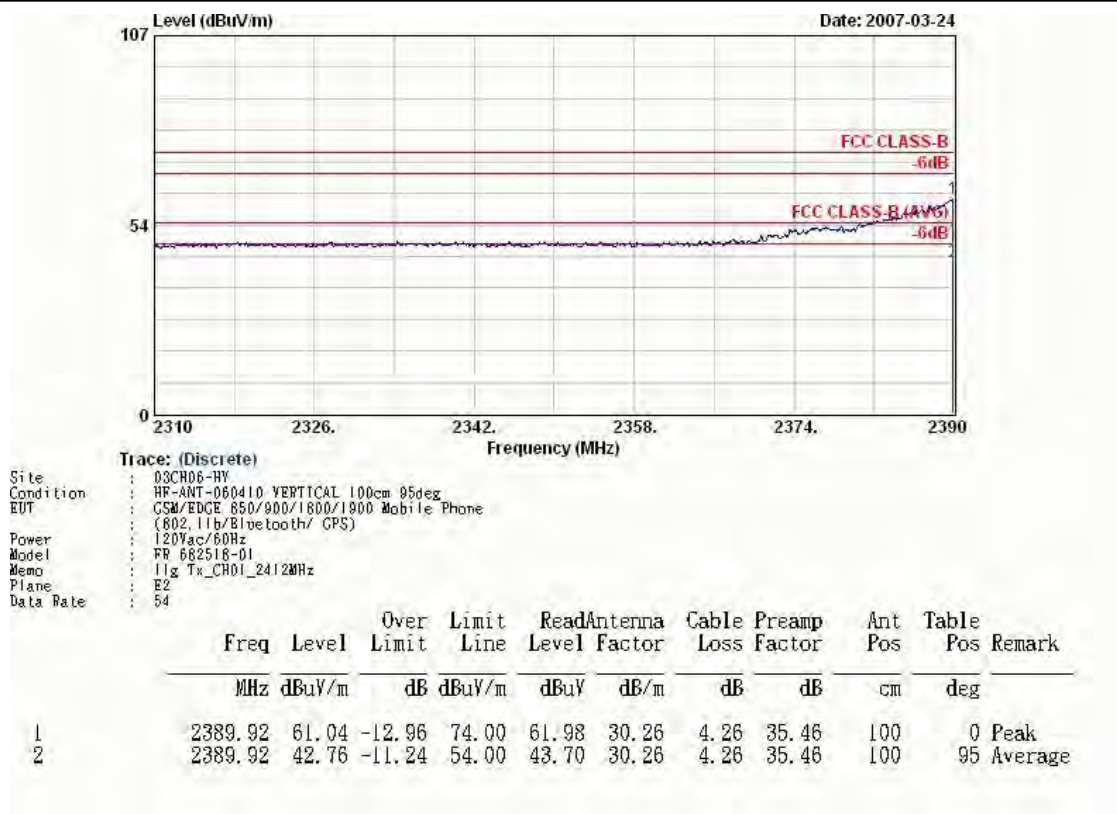
Trace: (Discrete)
Site : 03CH06-HV
Condition : HR-ANT-D60410 VERTICAL 200cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11g Tx_CH01_2412MHz
Plane : E2
Data Rate : 54

	Freq	Level	Over	Limit	ReadAntenna	Cable Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Pos	Pos	Remark
					dBuV	dB/m	cm	deg	
1	4824.00	50.67	-23.33	74.00	47.61	32.94	6.24	36.12	200 360 Peak
2	4824.00	39.75	-14.25	54.00	36.68	32.94	6.24	36.12	100 17 Average



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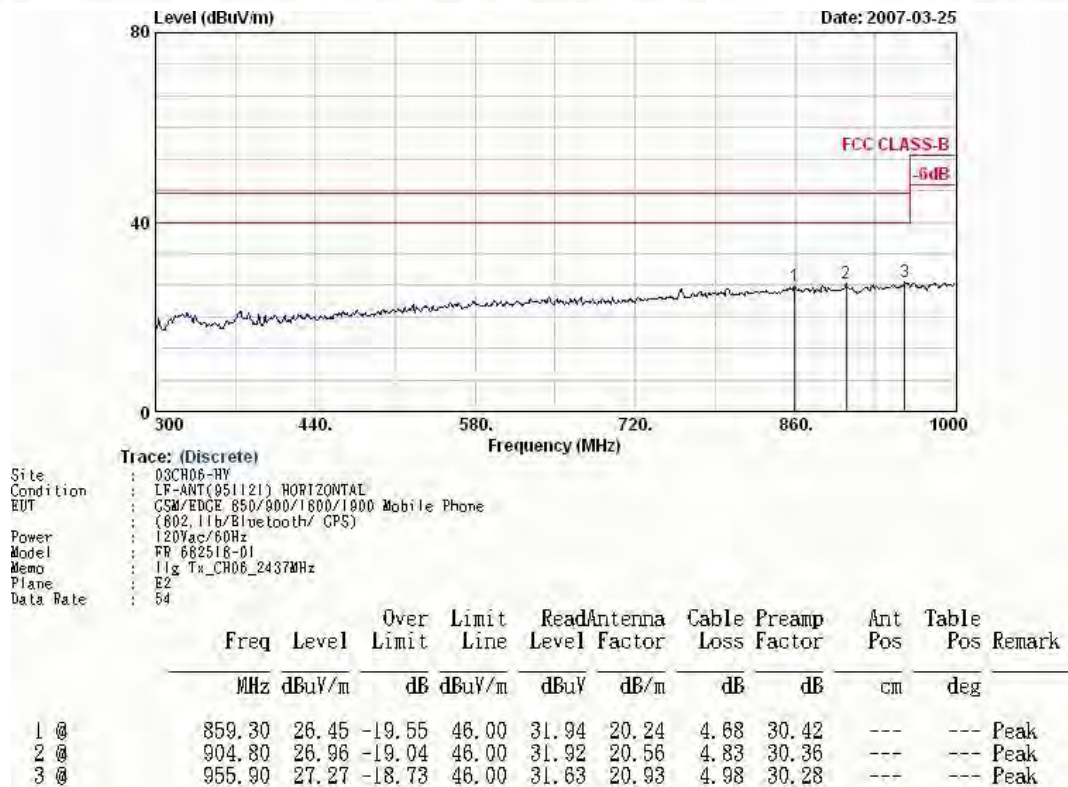
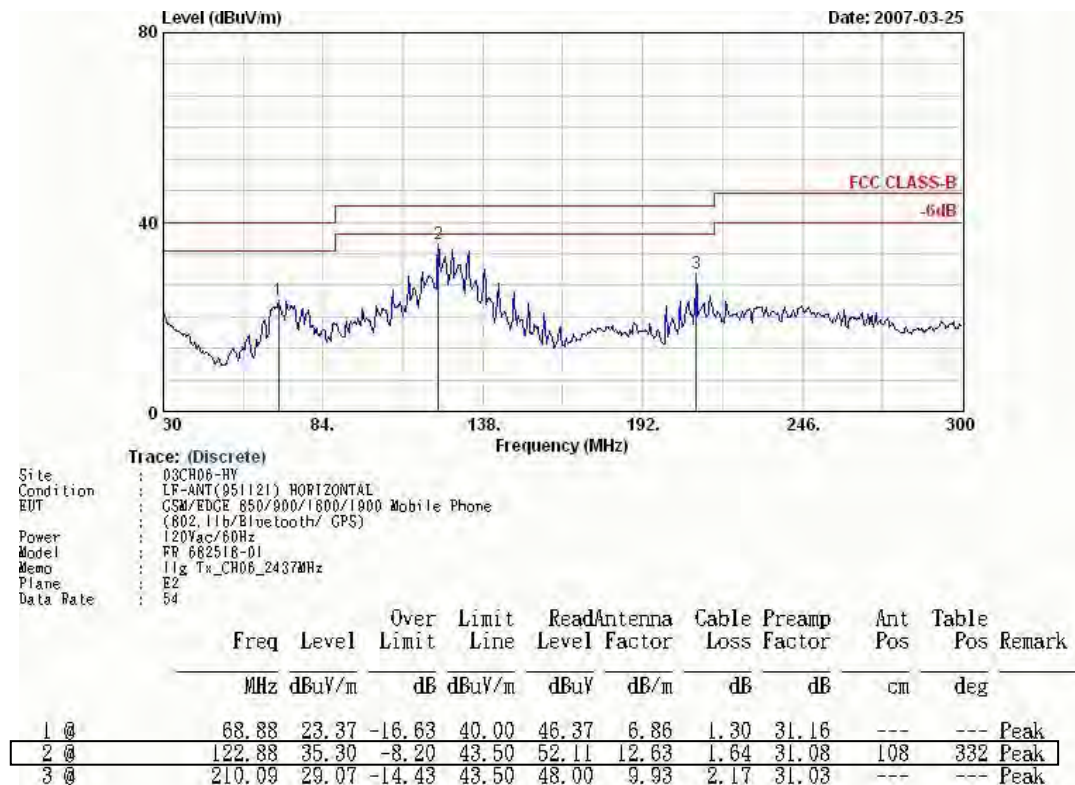


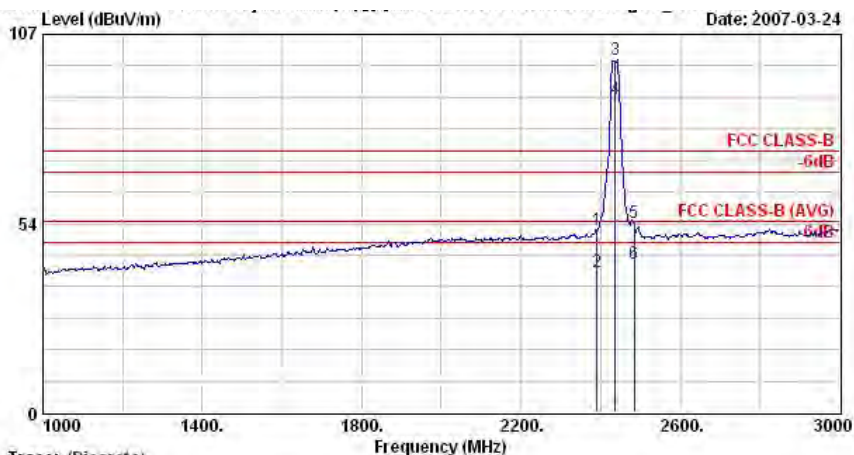
Remark: There is no more obvious spurious emission except the listings above.



- Test Mode : Mode 5
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.





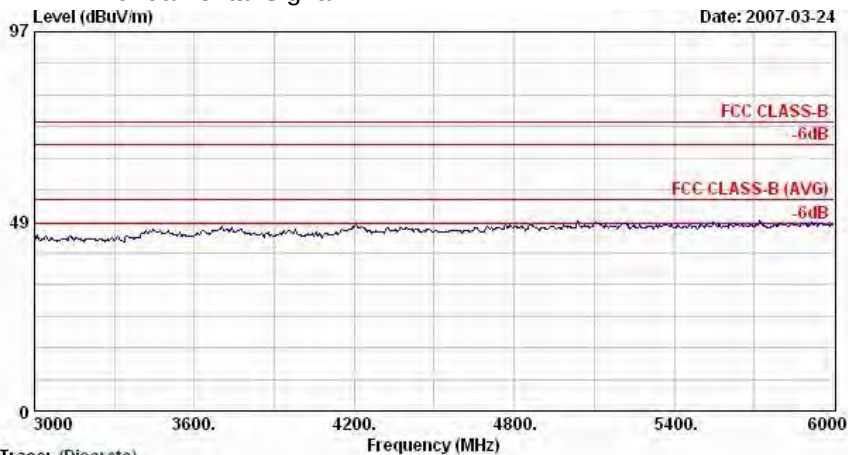
Trace: (Discrete)

Site : 03CH06-HY
Condition : HP-ANT-060410 HORIZONTAL 100cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11g Tx_CH06_2437MHz
Plane : E2
Data Rate : 54

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1 @	2390.00	51.78	-22.22	74.00	52.71	30.26	4.26	35.46	100	360 Peak
2 @	2390.00	39.95	-14.05	54.00	40.89	30.26	4.26	35.46	100	187 Average
3 @	2437.00	99.94			100.83	30.28	4.33	35.49	100	360 Peak
4 @	2437.00	88.88			89.78	30.28	4.29	35.47	100	187 Average
5 @	2484.00	53.58	-20.42	74.00	54.43	30.29	4.36	35.51	100	360 Peak
6 @	2484.00	42.32	-11.68	54.00	43.18	30.29	4.36	35.51	100	187 Average

Remark:

- #3 Fundamental Signal
- #4 Fundamental Signal



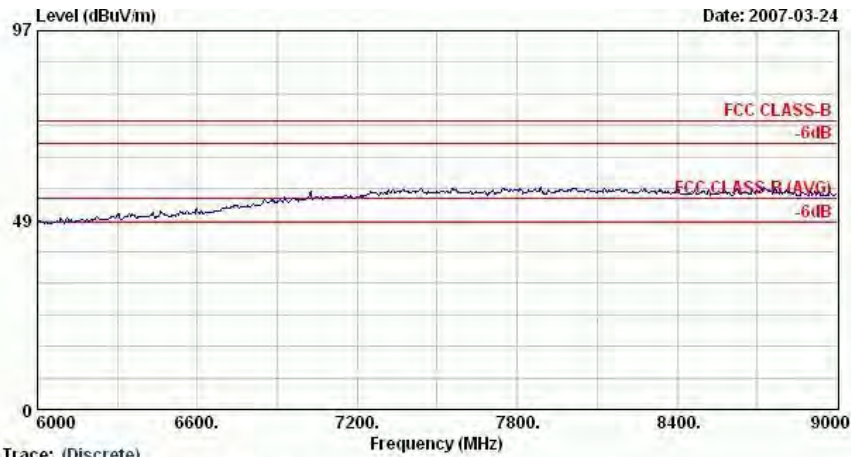
Trace: (Discrete)

Site : 03CH06-HY
Condition : HP-ANT-060410 HORIZONTAL 200cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11g Tx_CH06_2437MHz
Plane : E2
Data Rate : 54



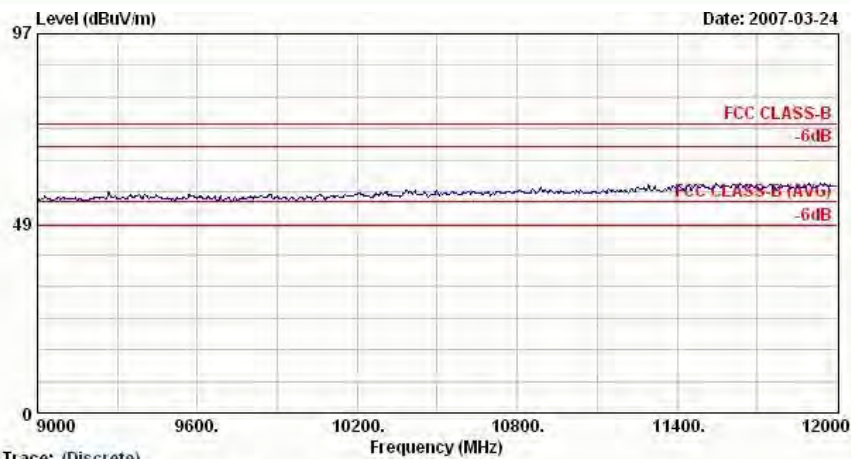
FCC TEST REPORT

Report No. : FR682518-01



Trace: (Discrete)

Site : 03CH06-HV
Condition : HP-ANT-060410 HORIZONTAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : I/g Tx_CH06_2437MHz
Plane : E2
Data Rate : 54



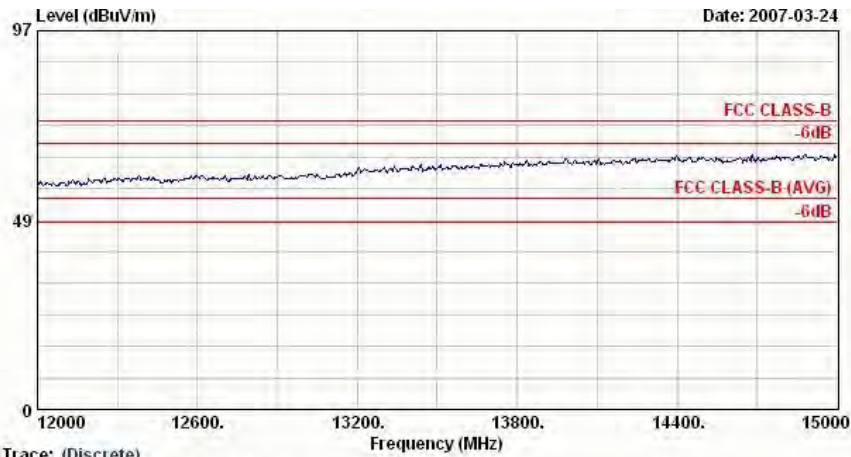
Trace: (Discrete)

Site : 03CH06-HV
Condition : HP-ANT-060410 HORIZONTAL 100cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : I/g Tx_CH06_2437MHz
Plane : E2
Data Rate : 54



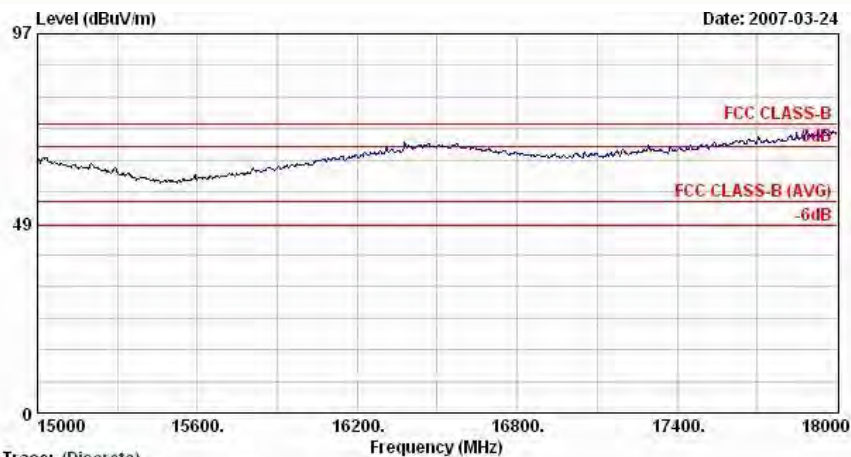
FCC TEST REPORT

Report No. : FR682518-01



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
: (802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : I/g Tx_CH06_2437MHz
Plane : E2
Data Rate : 54



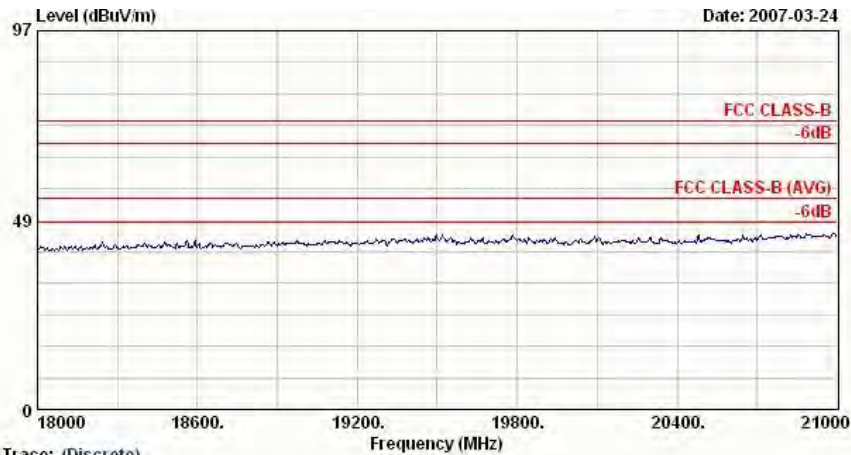
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL 100cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
: (802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : I/g Tx_CH06_2437MHz
Plane : E2
Data Rate : 54



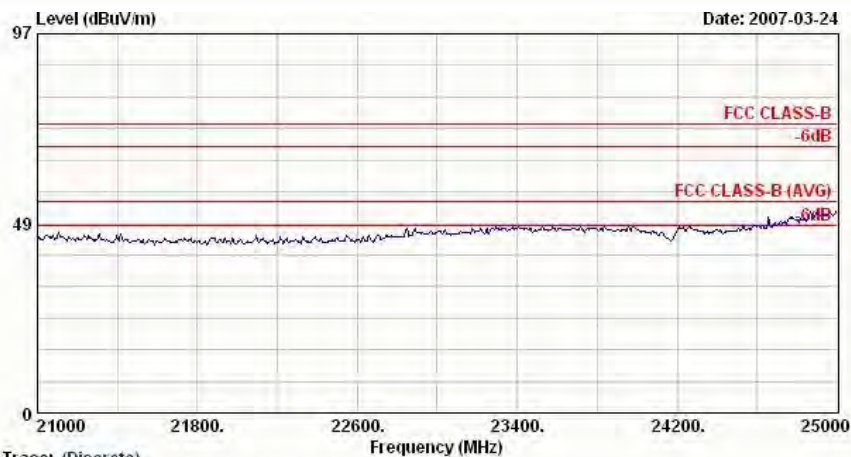
FCC TEST REPORT

Report No. : FR682518-01



Trace: (Discrete)

Site : 03CH06-HY
Condition : SHF-EHF HORN HORIZONTAL 100cm 93deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
 : (802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : I/g Tx_CH06_2437MHz
Plane : E2
Data Rate : 54



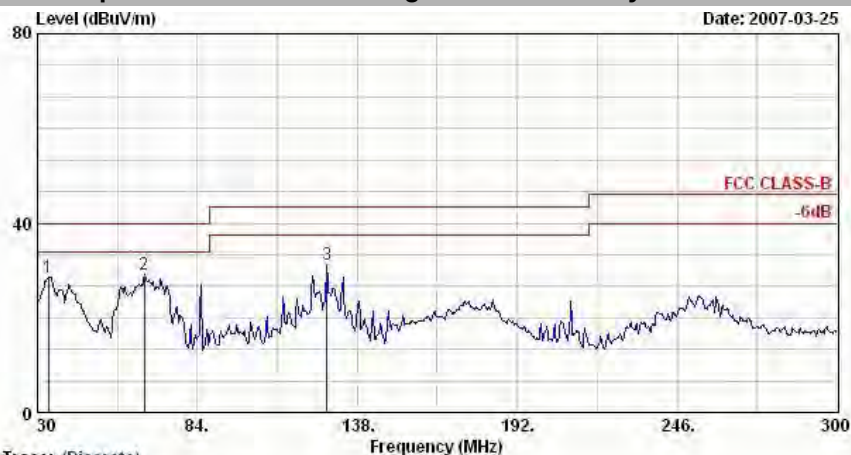
Trace: (Discrete)

Site : 03CH06-HY
Condition : SHF-EHF HORN HORIZONTAL 100cm 93deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
 : (802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : I/g Tx_CH06_2437MHz
Plane : E2
Data Rate : 54



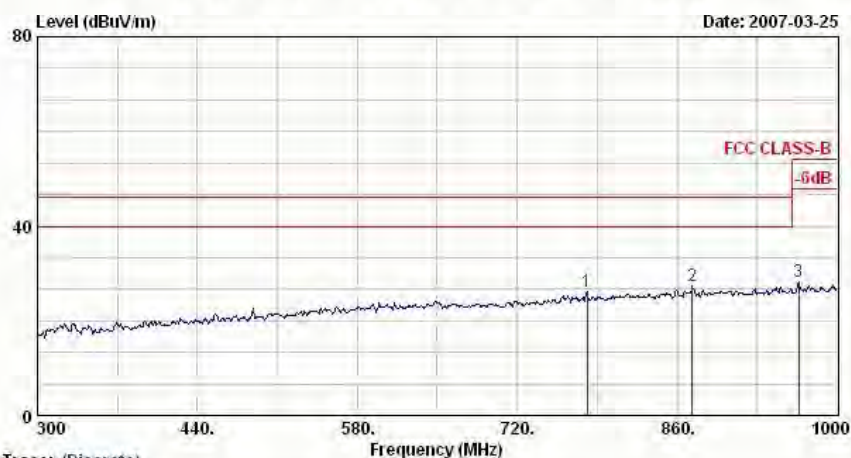
Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)
Site : 03CH06-HY
Condition : LF-ANT(951121) VERTICAL
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11g Tx_CH06_2437MHz
Plane : E2
Data Rate : 54

	Freq	Level	Over	Limit	ReadAntenna	Cable Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Pos	Pos	Remark
					Factor	Factor	cm	deg	
1 @	33.78	28.55	-11.45	40.00	42.17	16.84	0.87	31.32	Peak
2 @	66.18	29.13	-10.87	40.00	52.24	6.78	1.24	31.13	Peak
3 @	127.74	31.09	-12.41	43.50	48.36	12.18	1.64	31.09	Peak



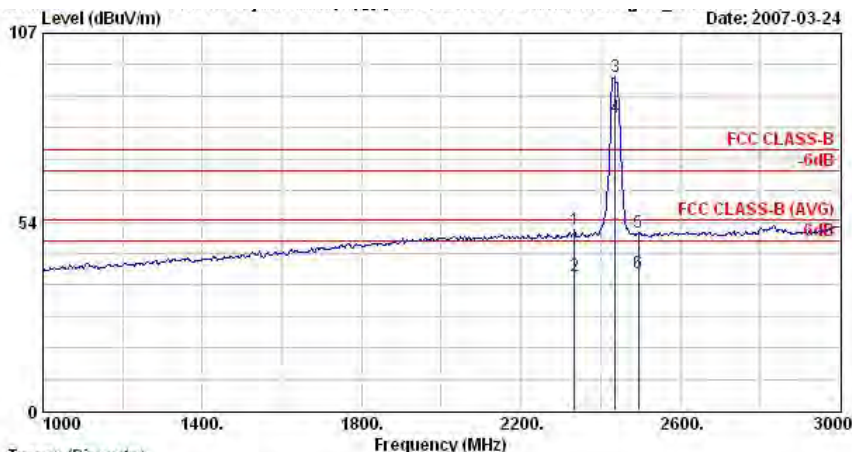
Trace: (Discrete)
Site : 03CH06-HY
Condition : LF-ANT(951121) VERTICAL
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11g Tx_CH06_2437MHz
Plane : E2
Data Rate : 54

	Freq	Level	Over	Limit	ReadAntenna	Cable Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Pos	Pos	Remark
					Factor	Factor	cm	deg	
1 @	780.90	26.06	-19.94	46.00	32.39	19.64	4.53	30.51	Peak
2 @	873.30	27.25	-18.75	46.00	32.59	20.34	4.73	30.40	Peak
3 @	966.40	28.27	-25.73	54.00	32.53	21.00	5.02	30.28	Peak



FCC TEST REPORT

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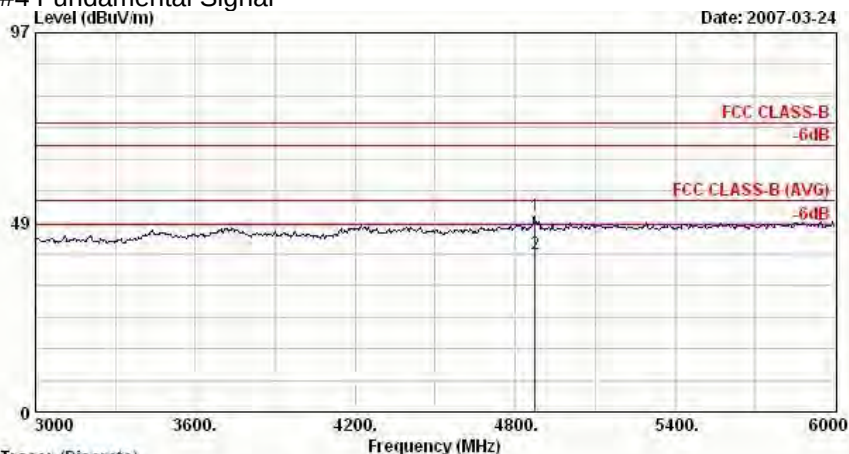


Trace: (Discrete)
Site : 03CH06-HV
Condition : HF-ANT-060410 VERTICAL 100cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11g Tx_CH06_2437MHz
Plane : E2
Data Rate : 54

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Factor	Pos	Pos	Remark
					dBuV	dB/m	dB	cm	deg	
1 @	2334.00	51.11	-22.89	74.00	52.12	30.23	4.17	35.40	100	360 Peak
2 @	2334.00	38.14	-15.86	54.00	39.14	30.23	4.17	35.40	100	81 Average
3 @	2437.00	94.56			95.47	30.27	4.29	35.47	100	360 Peak
4 @	2437.00	83.31			84.21	30.28	4.29	35.47	100	81 Average
5 @	2494.00	50.59	-23.41	74.00	51.43	30.30	4.39	35.53	100	360 Peak
6 @	2494.00	38.88	-15.12	54.00	39.72	30.30	4.39	35.53	100	81 Average

Remark:

1. #3 Fundamental Signal
2. #4 Fundamental Signal



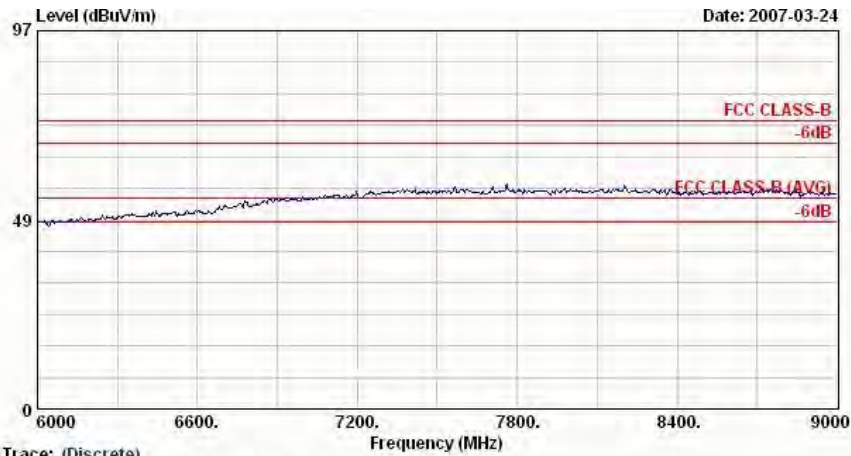
Trace: (Discrete)
Site : 03CH06-HV
Condition : HF-ANT-060410 VERTICAL 200cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11g Tx_CH06_2437MHz
Plane : E2
Data Rate : 54

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Factor	Pos	Pos	Remark
					dBuV	dB/m	dB	cm	deg	
1 @	4874.00	50.12	-23.88	74.00	46.84	33.14	6.30	36.16	200	360 Peak
2 @	4874.00	40.35	-13.65	54.00	37.07	33.14	6.30	36.16	100	93 Average



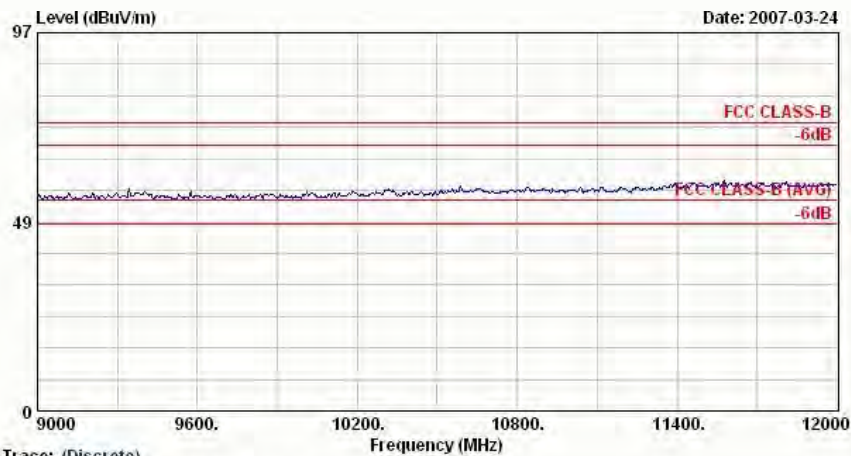
FCC TEST REPORT

Report No. : FR682518-01



Trace: (Discrete)

Site : 03CH06-HY
Condition : HR-ANT-060410 VERTICAL 100cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11g Tx_CH06_2437MHz
Plane : E2
Data Rate : 54



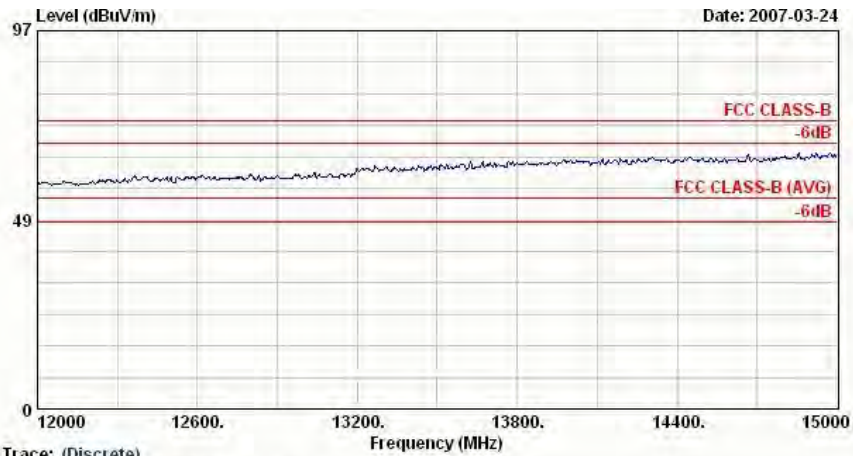
Trace: (Discrete)

Site : 03CH06-HY
Condition : HR-ANT-060410 VERTICAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11g Tx_CH06_2437MHz
Plane : E2
Data Rate : 54



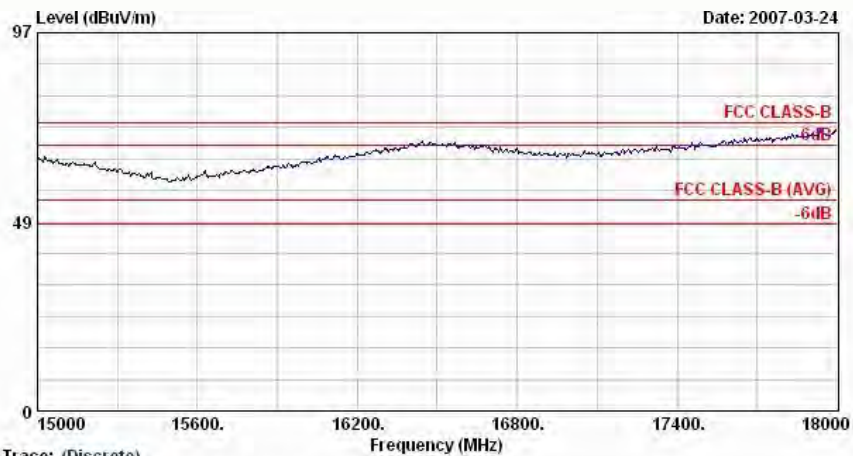
FCC TEST REPORT

Report No. : FR682518-01



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL 100cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11g Tx_CH06_2437MHz
Plane : E2
Data Rate : 54



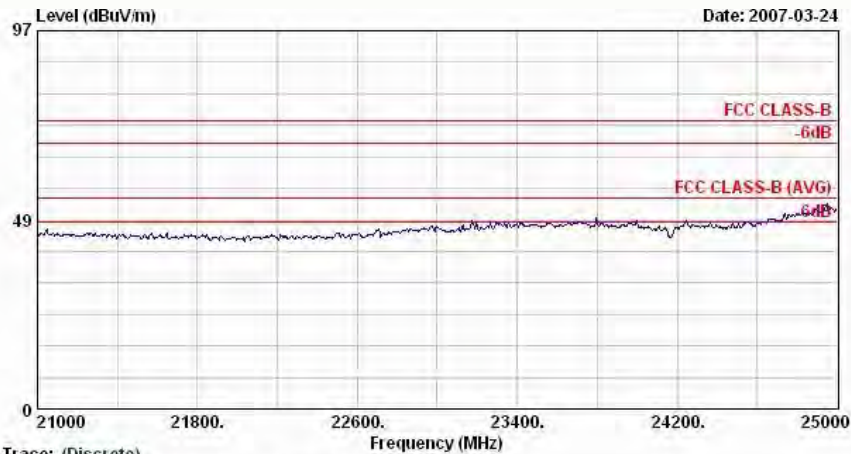
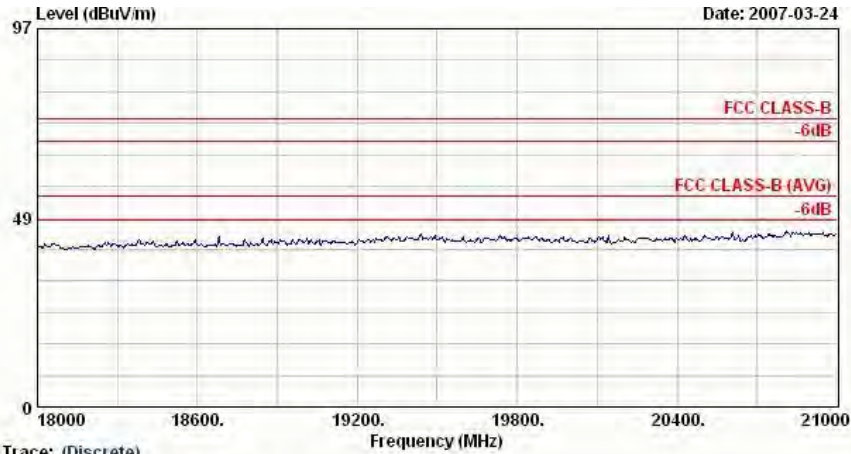
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11g Tx_CH06_2437MHz
Plane : E2
Data Rate : 54



FCC TEST REPORT

Report No. : FR682518-01

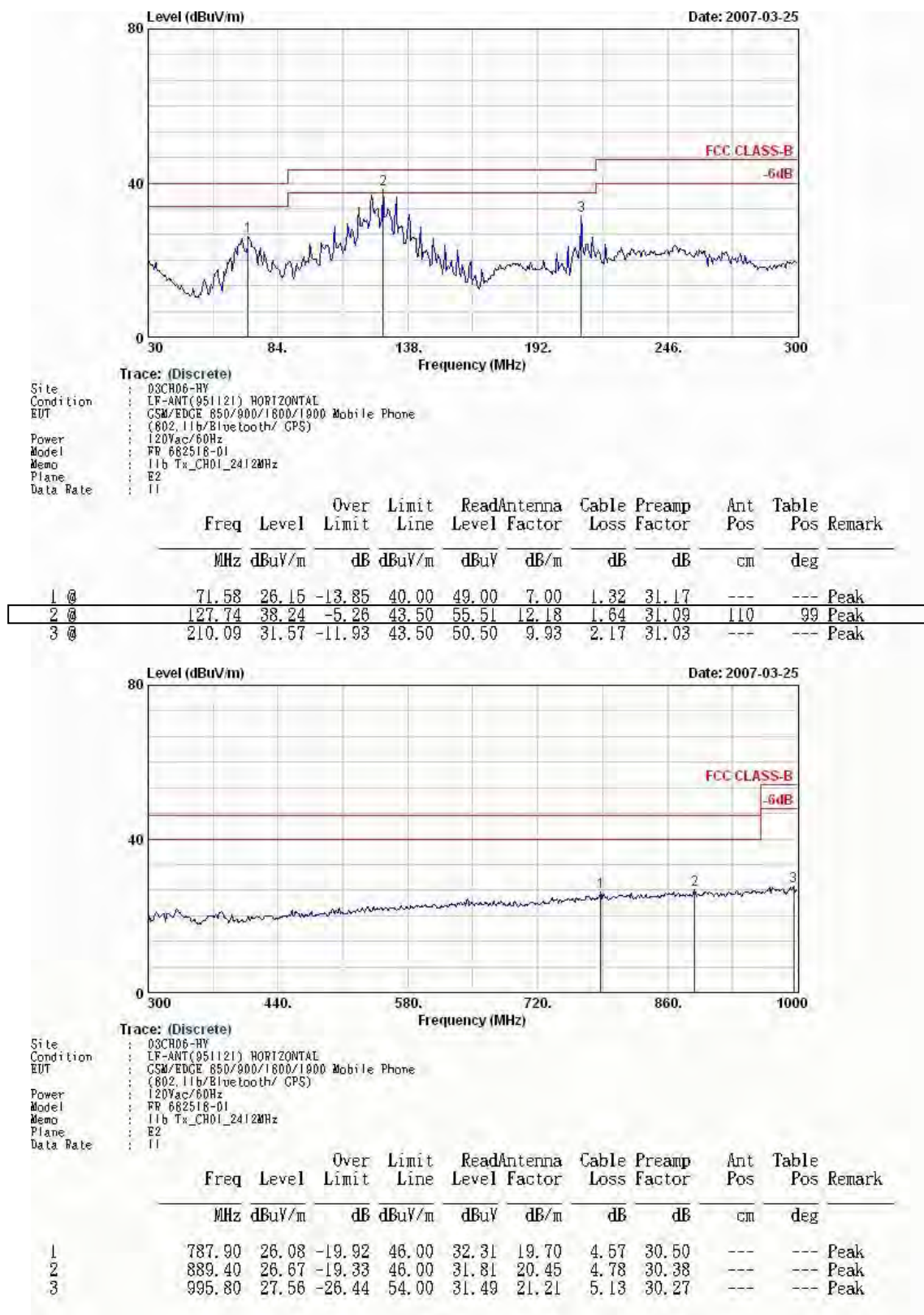


Remark: There is no more obvious spurious emission except the listings above.



- Test Mode : Mode 6
- Polarization : Horizontal

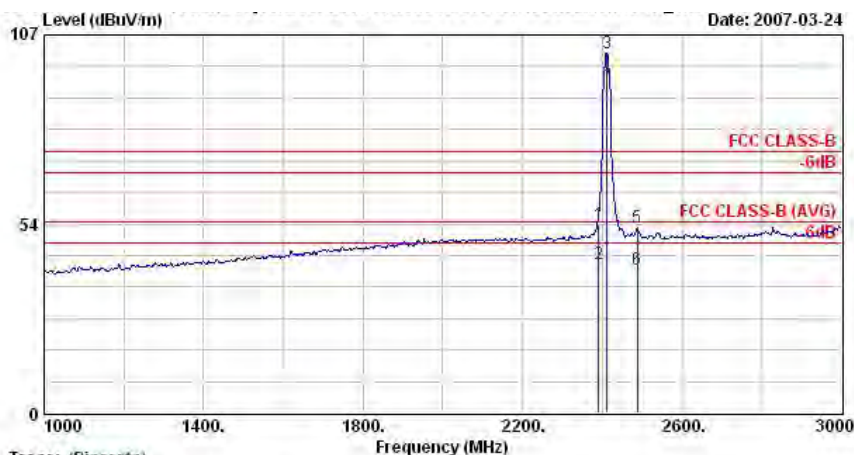
■ The test that passed at minimum margin was marked by the frame in the following table.





FCC TEST REPORT

Report No. : FR682518-01

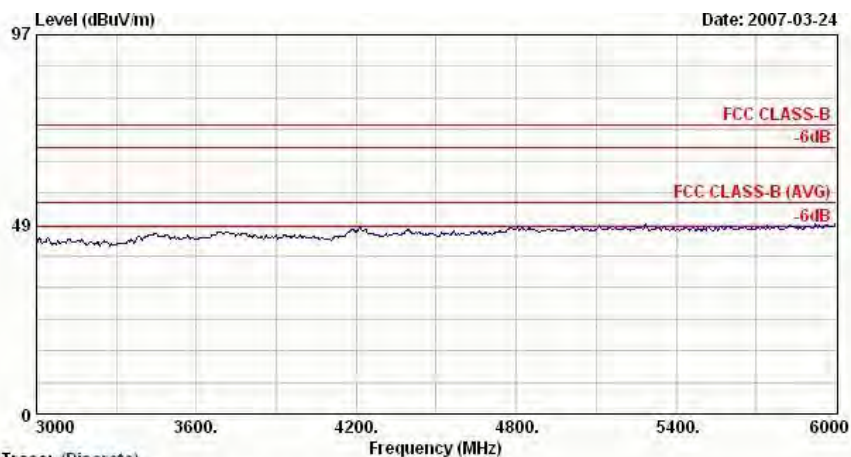


Trace: (Discrete)
Site : 03CH06-RV
Condition : HF-ANT-060410 HORIZONTAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH01_2412MHz
Plane : E2
Data Rate : 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Factor	Pos	Pos	Remark
					dBuV	dB	dB	cm	deg	
1	2390.00	53.38	-20.62	74.00	54.32	30.26	4.26	35.46	100	0 Peak
2 @	2390.00	42.32	-11.68	54.00	43.26	30.26	4.26	35.46	100	194 Average
3 @	2412.00	101.87			102.80	30.27	4.26	35.46	100	0 Peak
4 @	2412.00	94.57			95.50	30.27	4.26	35.46	100	194 Average
5	2488.00	52.51	-21.49	74.00	53.36	30.30	4.36	35.51	100	0 Peak
6 @	2488.00	40.61	-13.39	54.00	41.46	30.30	4.36	35.51	100	194 Average

Remark:

1. #3 Fundamental Signal
2. #4 Fundamental Signal

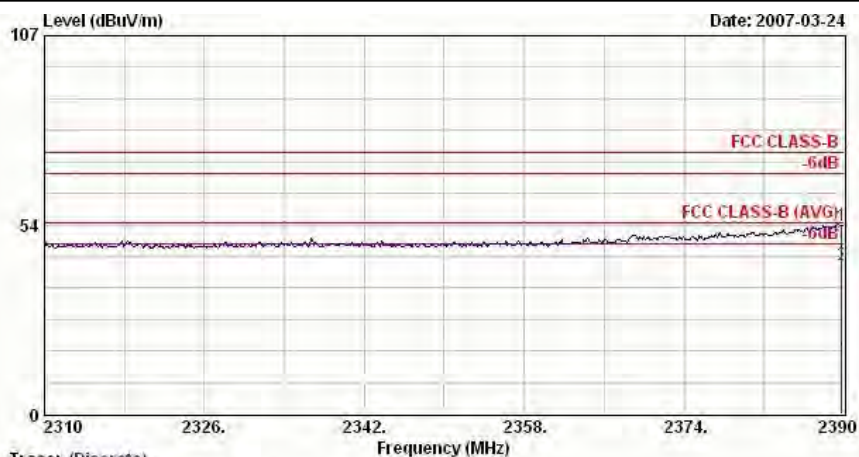


Trace: (Discrete)
Site : 03CH06-RV
Condition : HF-ANT-060410 HORIZONTAL 200cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH01_2412MHz
Plane : E2
Data Rate : 11



FCC TEST REPORT

Report No. : FR682518-01

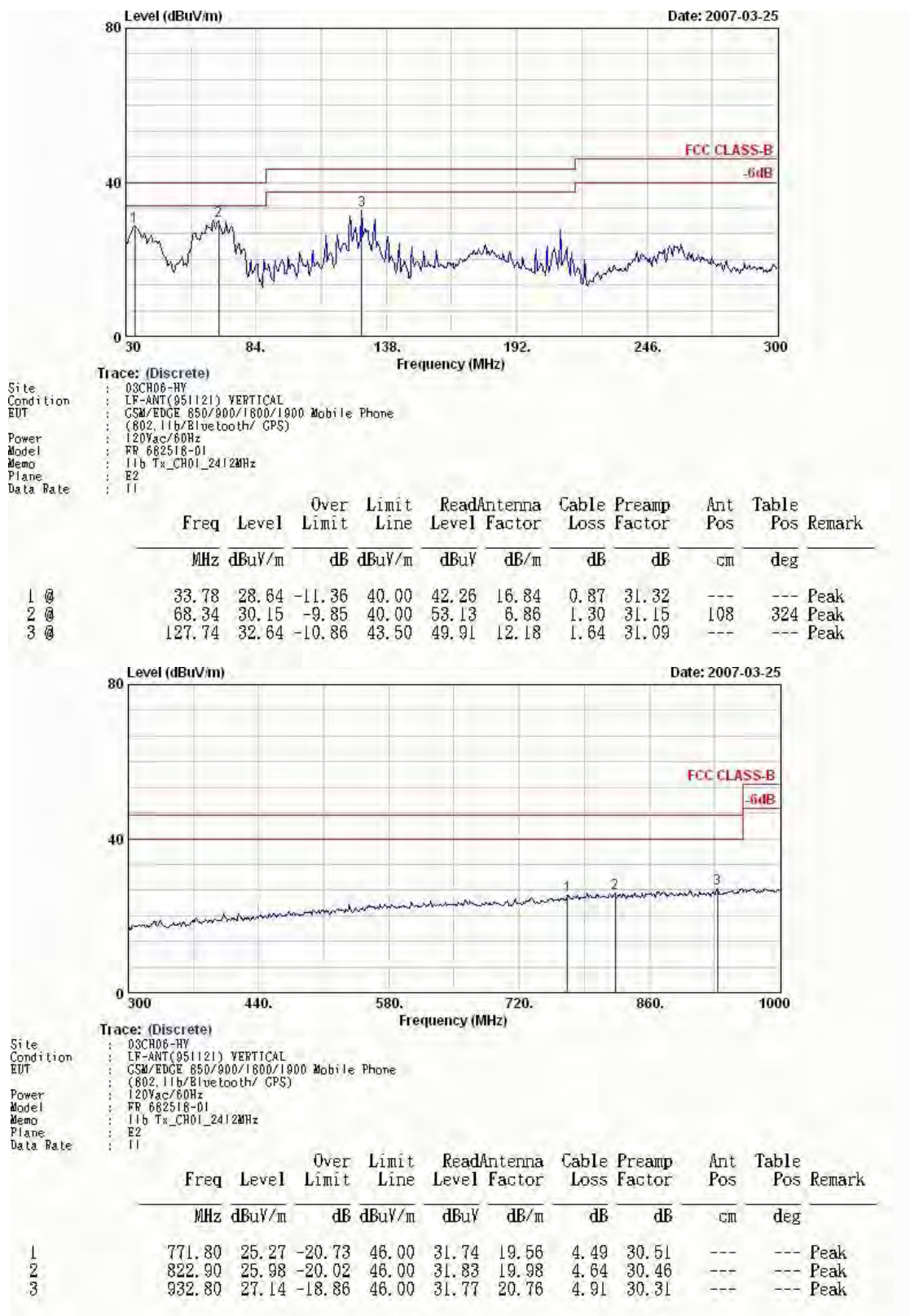


	Freq MHz	Level dBuV/m	Over	Limit	ReadAntenna Level dBuV	Antenna Factor dB/m	Cable Loss dB	Preamp Factor dB	Ant Pos cm	Table Pos deg	Remark
			Limit	Line							
			dB	dBuV/m							
1	2389.76	53.38	-20.62	74.00	54.31	30.26	4.26	35.46	100	0	Peak
2 @	2389.76	42.32	-11.68	54.00	43.26	30.26	4.26	35.46	100	194	Average



- Polarization : Vertical

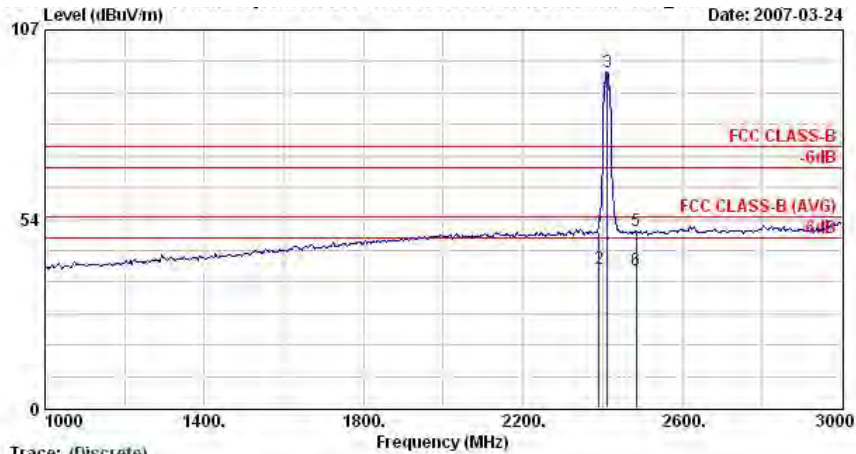
■ The test that passed at minimum margin was marked by the frame in the following table.





FCC TEST REPORT

Report No. : FR682518-01

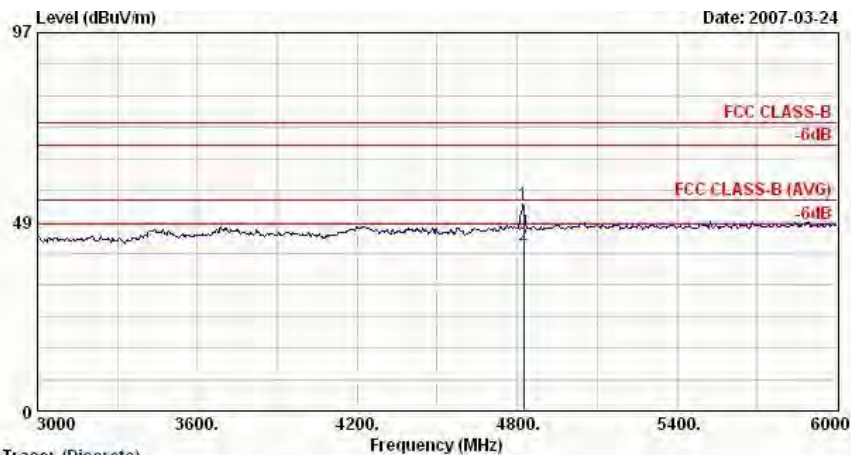


Trace: (Discrete)
Site : 03CR06-HV
Condition : HR-ANT-060410 VERTICAL 100cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH01_2412MHz
Plane : E2
Data Rate : 11

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2390.00	49.87	-24.13	74.00	50.81	30.26	4.26	35.46	100	360 Peak
2	2390.00	39.49	-14.51	54.00	40.43	30.26	4.26	35.46	100	80 Average
3 @	2412.00	95.00			95.93	30.27	4.26	35.46	100	360 Peak
4 @	2412.00	88.76			89.69	30.27	4.26	35.46	100	80 Average
5	2484.00	50.03	-23.97	74.00	50.89	30.29	4.36	35.51	100	360 Peak
6	2484.00	39.16	-14.84	54.00	40.02	30.29	4.36	35.51	100	80 Average

Remark:

1. #3 Fundamental Signal
2. #4 Fundamental Signal



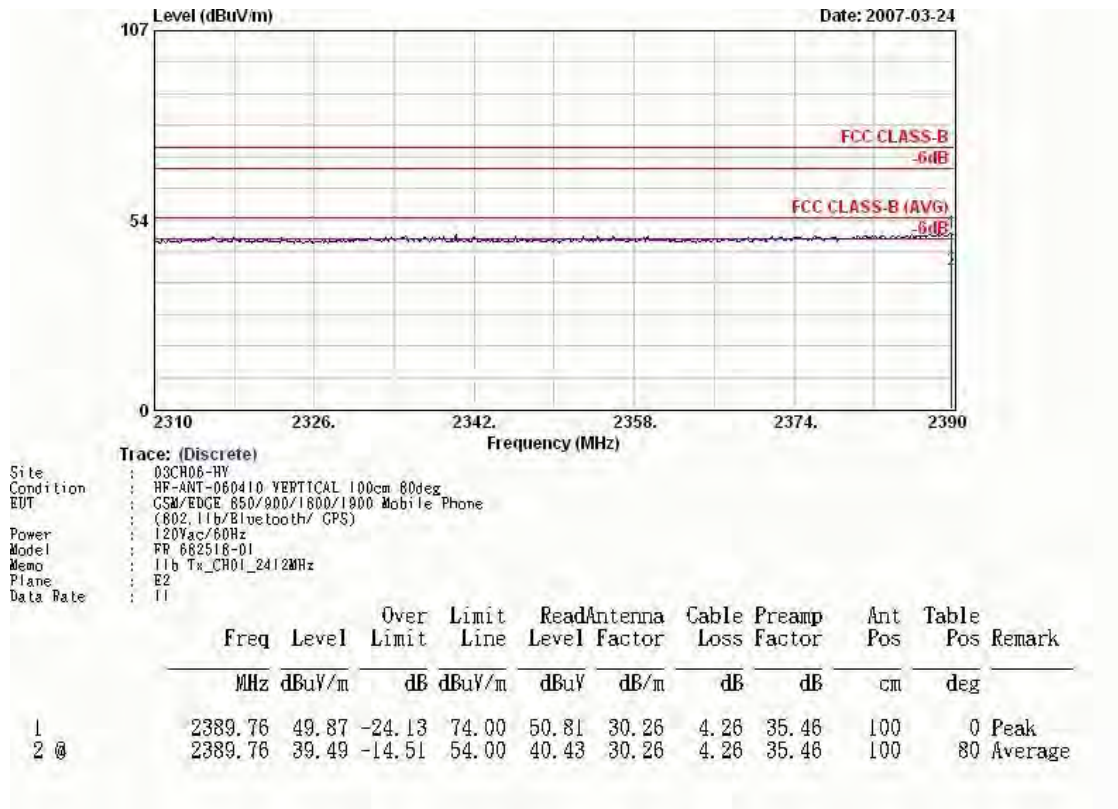
Trace: (Discrete)
Site : 03CR06-HV
Condition : HR-ANT-060410 VERTICAL 200cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : 11b Tx_CH01_2412MHz
Plane : E2
Data Rate : 11

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	4824.00	53.04	-20.96	74.00	49.97	32.94	6.24	36.12	200	360 Peak
2 @	4824.00	42.52	-11.48	54.00	39.45	32.94	6.24	36.12	100	89 Average



FCC TEST REPORT

Report No. : FR682518-01

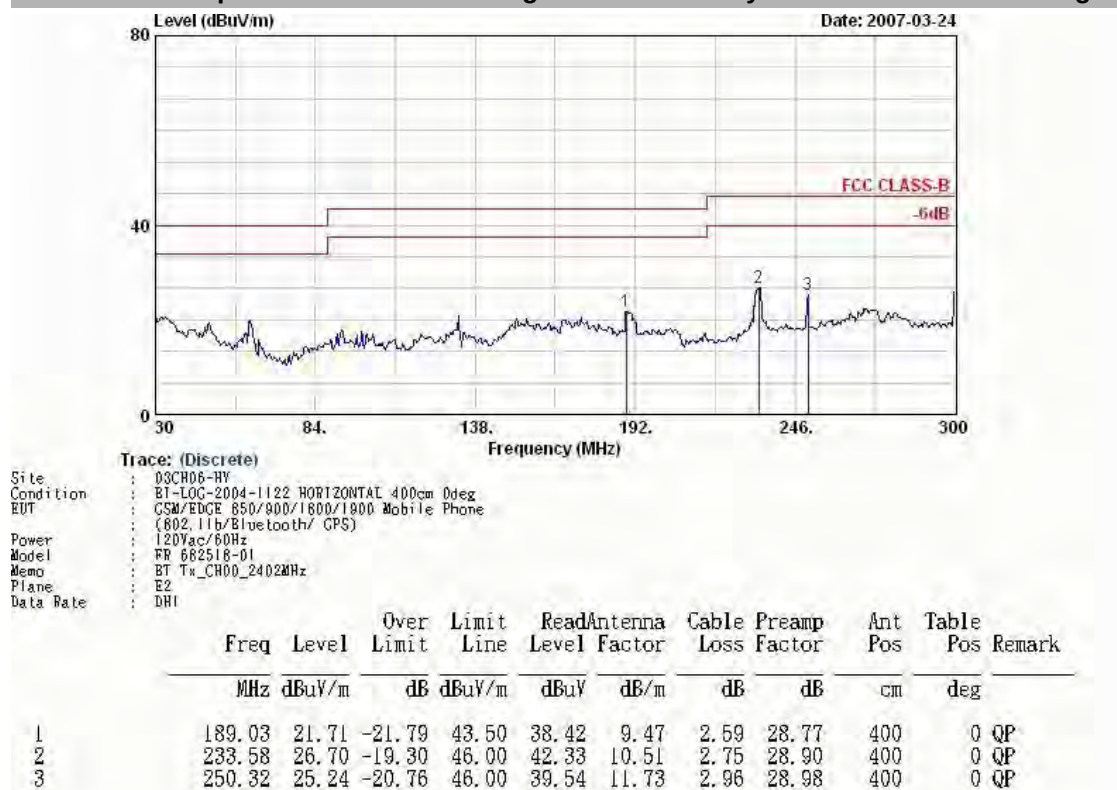


Remark: There is no more obviousl spurious emission except the listings above.



- Test Mode : Mode 7
- Polarization : Horizontal

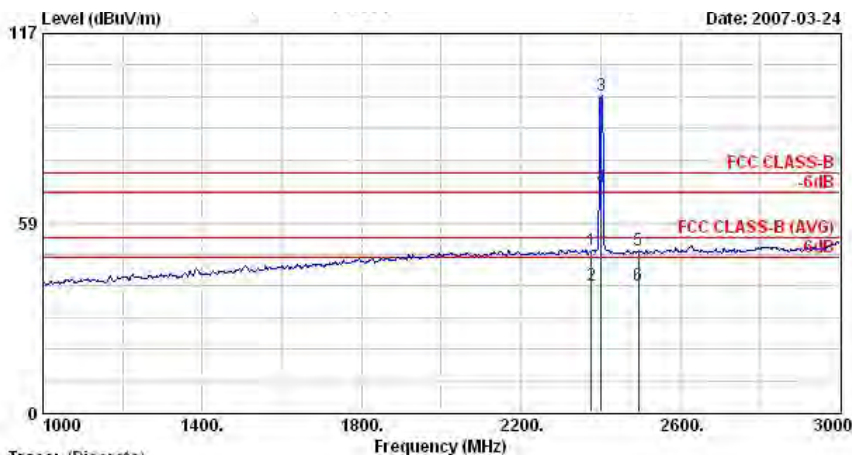
■ The test that passed at minimum margin was marked by the frame in the following table.





FCC TEST REPORT

Report No. : FR682518-01

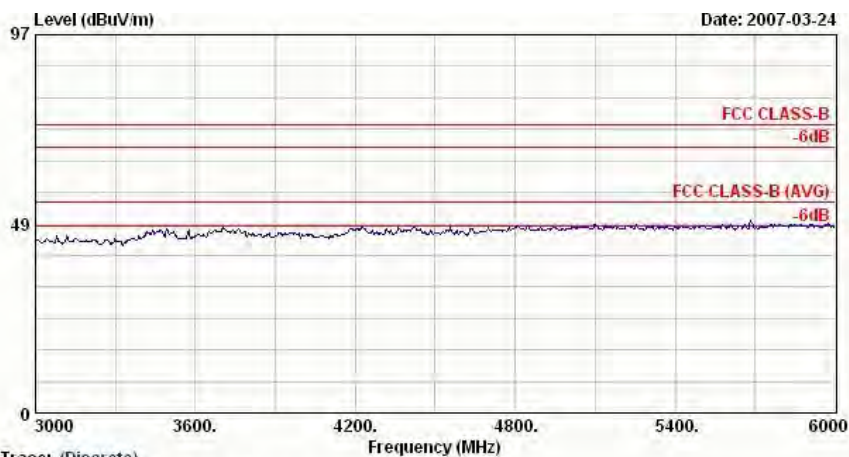


Site : D3CR06-RV
Condition : HR-ANT-D60410 HORIZONTAL 100cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : ET Tx_CH00_2402MHz
Plane : E2
Data Rate : DHI

	Freq	Level	Over	Limit	ReadAntenna	Cable Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Pos	Pos	Remark
					Factor	Factor			
1	2377.36	50.22	-23.78	74.00	51.18	30.25	4.23	35.44	100 360 Peak
2 @	2377.36	38.95	-15.05	54.00	39.91	30.25	4.23	35.44	100 149 Average
3 @	2402.00	97.75			98.68	30.27	4.26	35.46	100 360 Peak
4 @	2402.00	69.41			70.35	30.26	4.26	35.46	100 149 Average
5	2494.00	49.88	-24.12	74.00	50.72	30.30	4.39	35.53	100 360 Peak
6 @	2494.00	38.97	-15.03	54.00	39.81	30.30	4.39	35.53	100 149 Average

Remark:

1. #3 Fundamental Signal
2. #4 Fundamental Signal

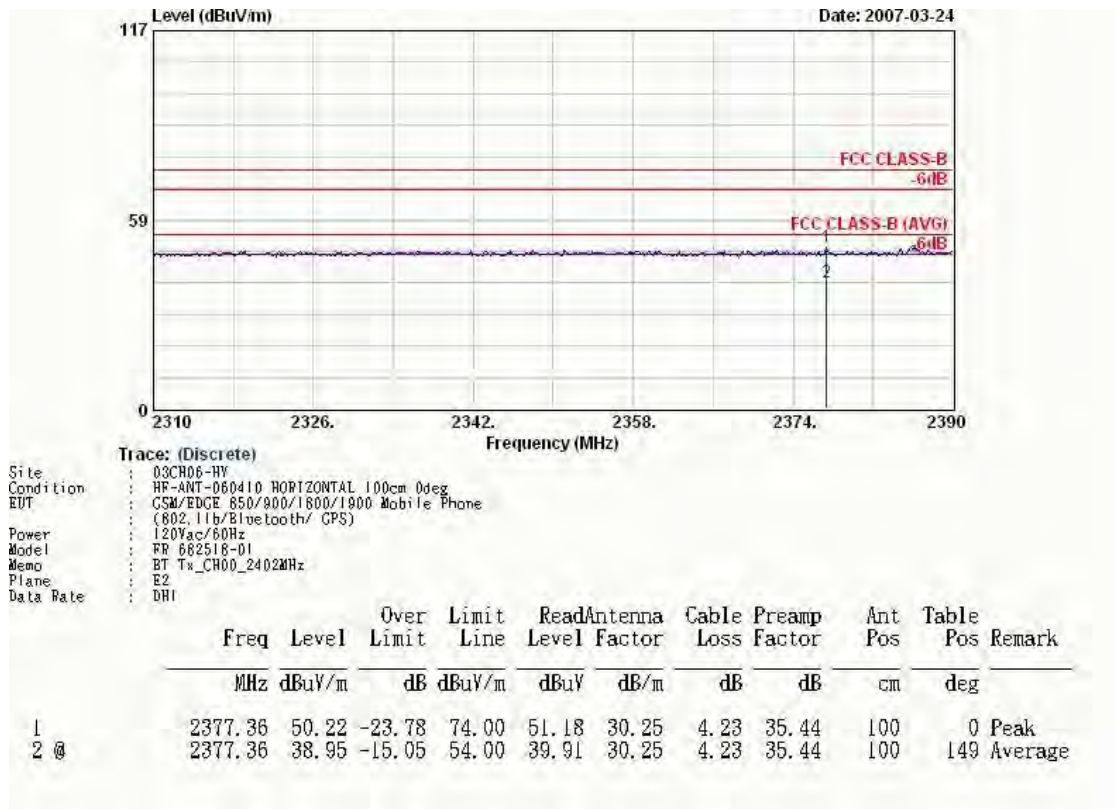


Site : D3CR06-RV
Condition : HR-ANT-D60410 HORIZONTAL 200cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : ET Tx_CH00_2402MHz
Plane : E2
Data Rate : DHI



FCC TEST REPORT

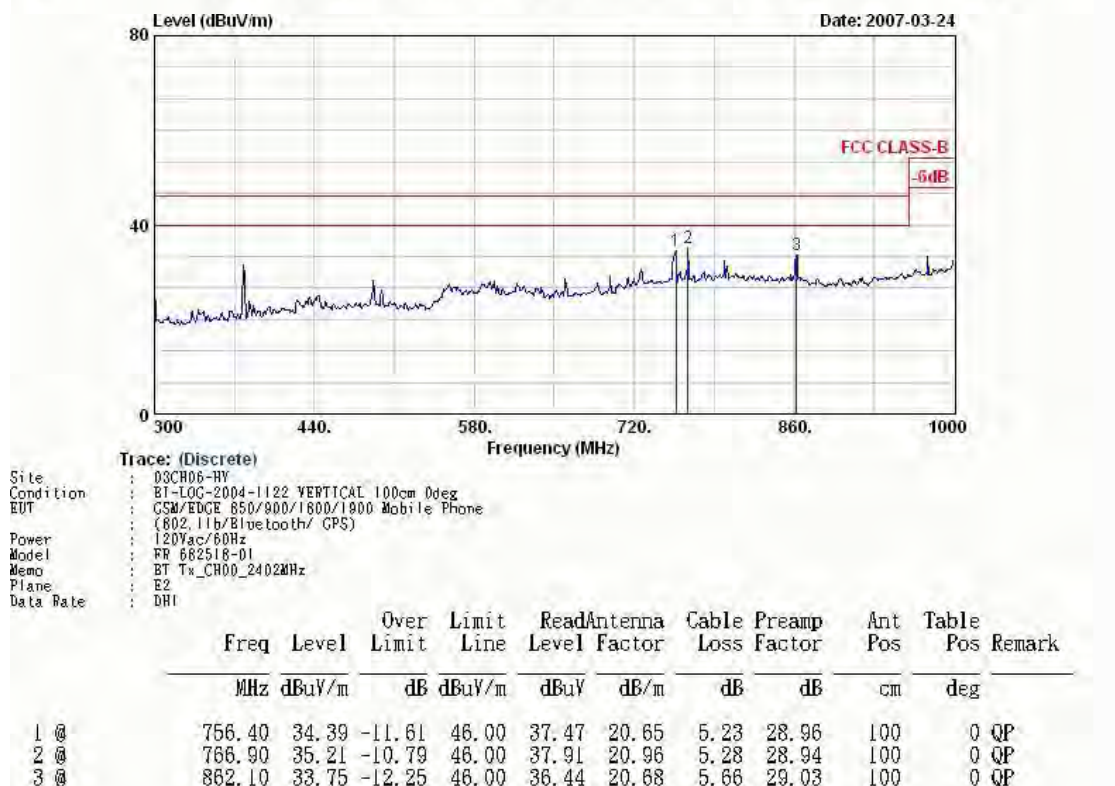
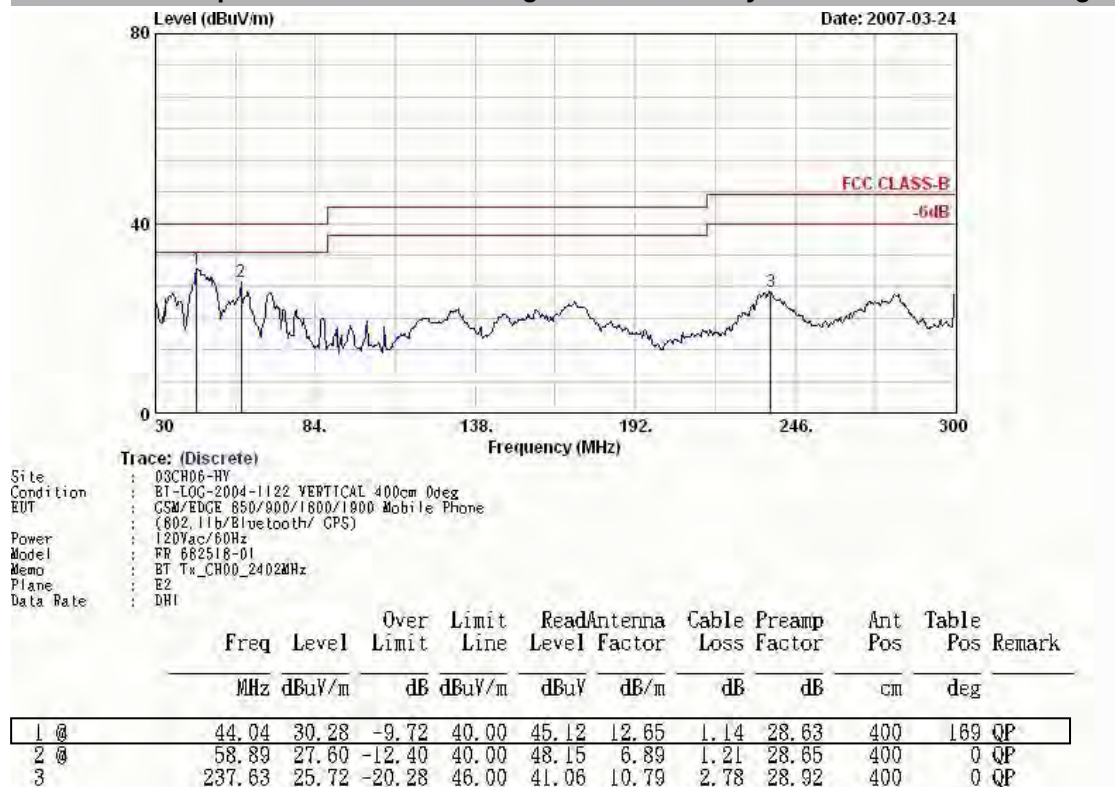
Report No. : FR682518-01





- Polarization : Vertical

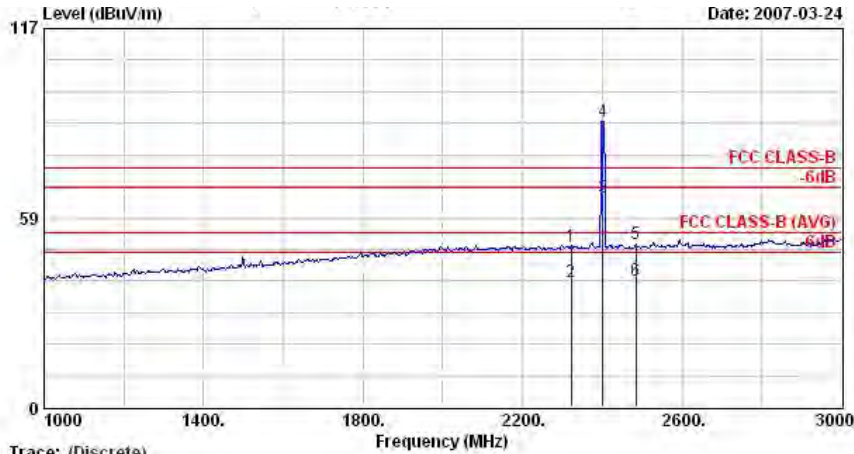
■ The test that passed at minimum margin was marked by the frame in the following table.





FCC TEST REPORT

Report No. : FR682518-01



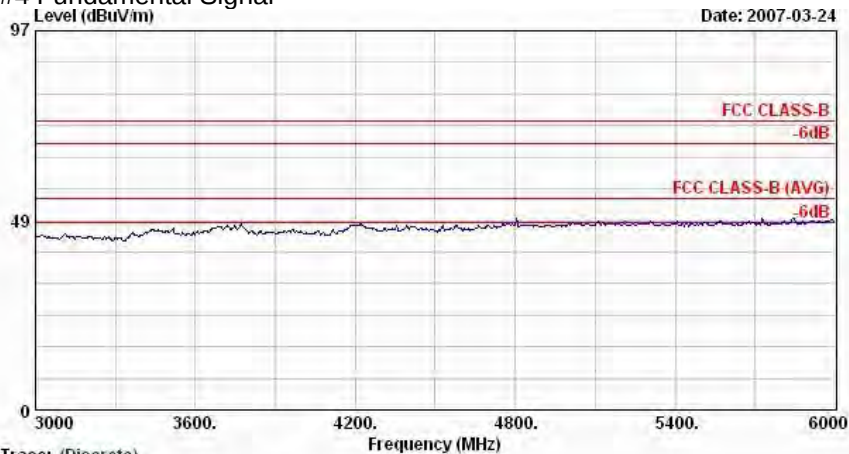
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : ET Tx_CH00_2402MHz
Plane : E2
Data Rate : DHI

	Freq	Level	Over	Limit	ReadAntenna	Cable Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Pos	Pos	Remark
					Factor	Factor			
					dB/m	dB		deg	
1	2322.56	49.46	-24.54	74.00	50.46	30.23	4.17	35.40	100 0 Peak
2 @	2322.56	38.90	-15.10	54.00	39.90	30.23	4.17	35.40	100 189 Average
3 @	2402.00	64.66			65.60	30.26	4.26	35.46	100 189 Average
4 @	2402.00	88.38			89.31	30.27	4.26	35.46	100 0 Peak
5	2484.00	50.27	-23.73	74.00	51.12	30.29	4.36	35.51	100 0 Peak
6 @	2484.00	39.04	-14.96	54.00	39.90	30.29	4.36	35.51	100 189 Average

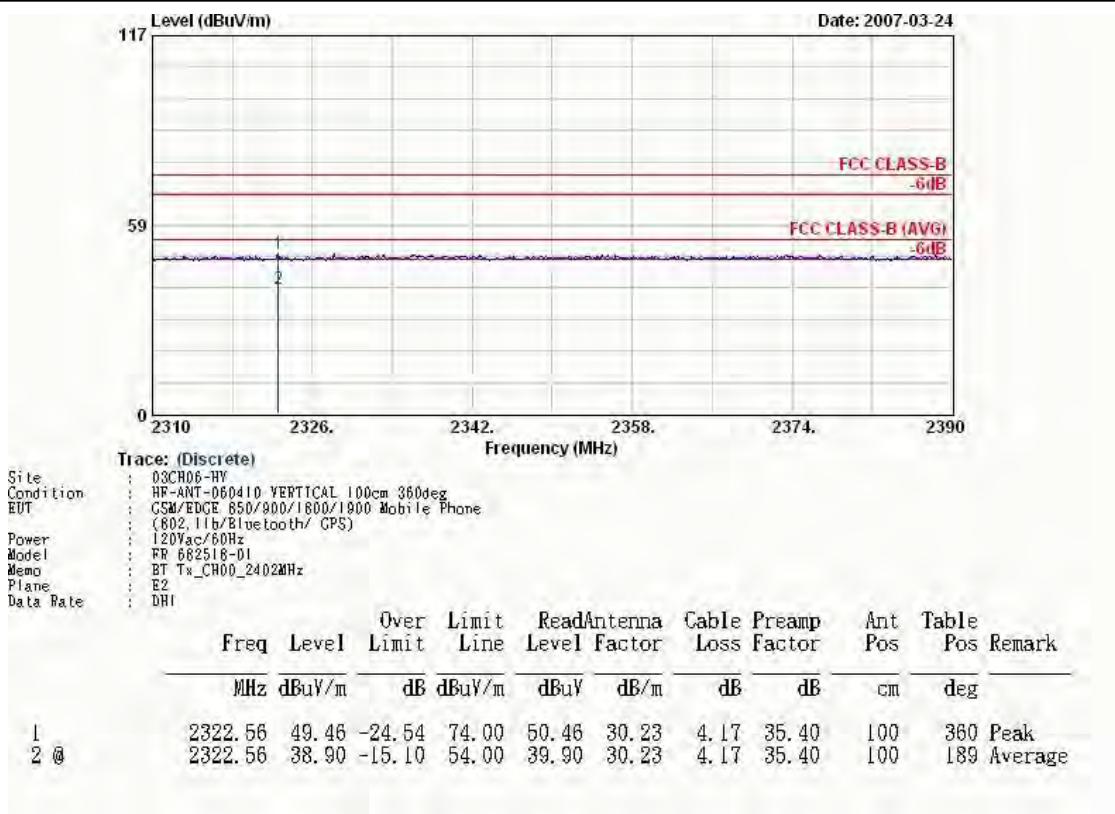
Remark:

1. #3 Fundamental Signal
2. #4 Fundamental Signal



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL 200cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : ET Tx_CH00_2402MHz
Plane : E2
Data Rate : DHI

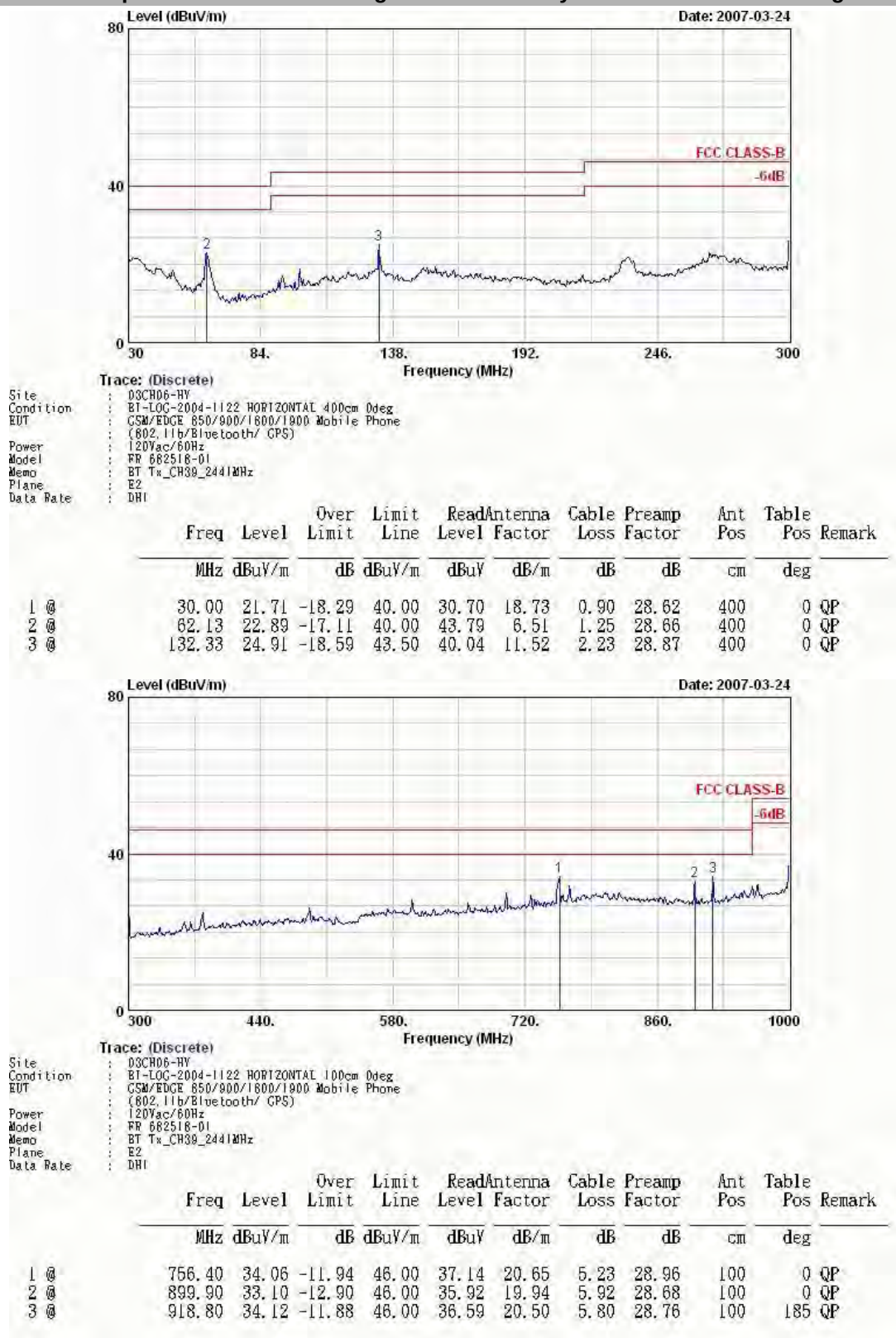


Remark: There is no more obvious spurious emission except the listings above.



- Test Mode : Mode 8
- Polarization : Horizontal

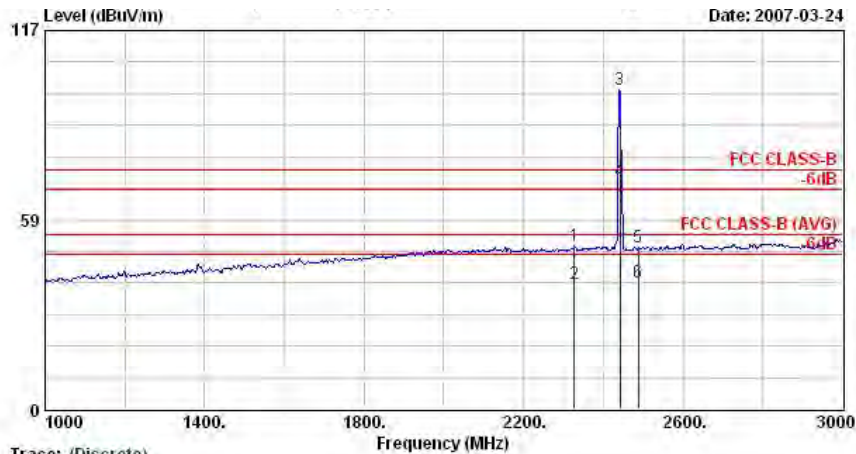
■ The test that passed at minimum margin was marked by the frame in the following table.





FCC TEST REPORT

Report No. : FR682518-01



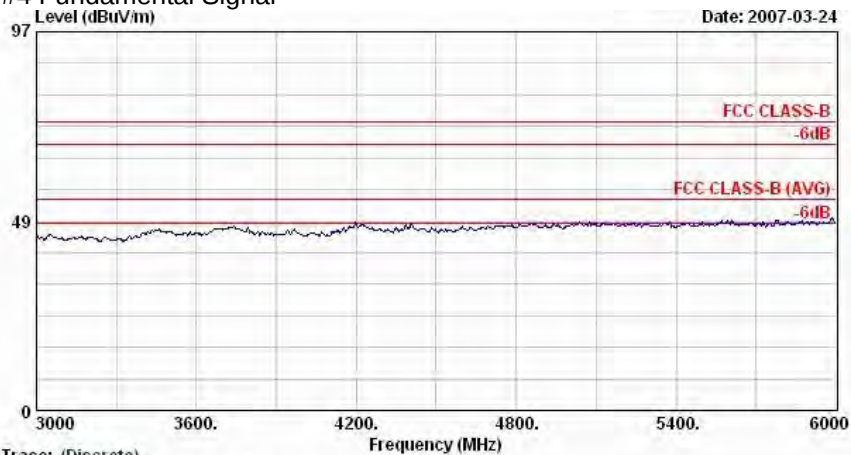
Trace: (Discrete)

Site : 03CH06-HY
Condition : HP-ANT-060410 HORIZONTAL 100cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : BT Tx_CH38_2441MHz
Plane : E2
Data Rate : DHI

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1 @	2328.00	50.29	-23.71	74.00	51.29	30.23	4.17	35.40	100	360 Peak
2 @	2328.00	38.89	-15.11	54.00	39.89	30.23	4.17	35.40	100	156 Average
3 @	2441.00	98.77			99.67	30.28	4.29	35.47	100	360 Peak
4 @	2441.00	70.66			71.55	30.28	4.33	35.49	100	156 Average
5 @	2488.00	50.11	-23.89	74.00	50.96	30.30	4.36	35.51	100	360 Peak
6 @	2488.00	39.12	-14.88	54.00	39.97	30.30	4.36	35.51	100	156 Average

Remark:

1. #3 Fundamental Signal
2. #4 Fundamental Signal



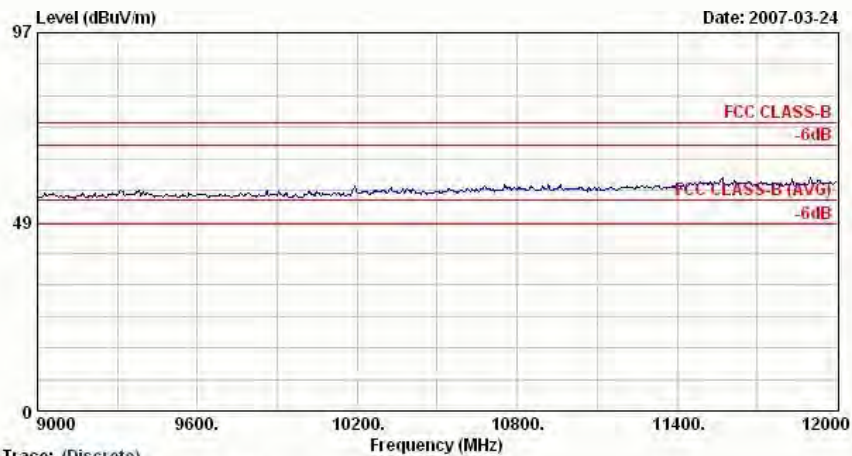
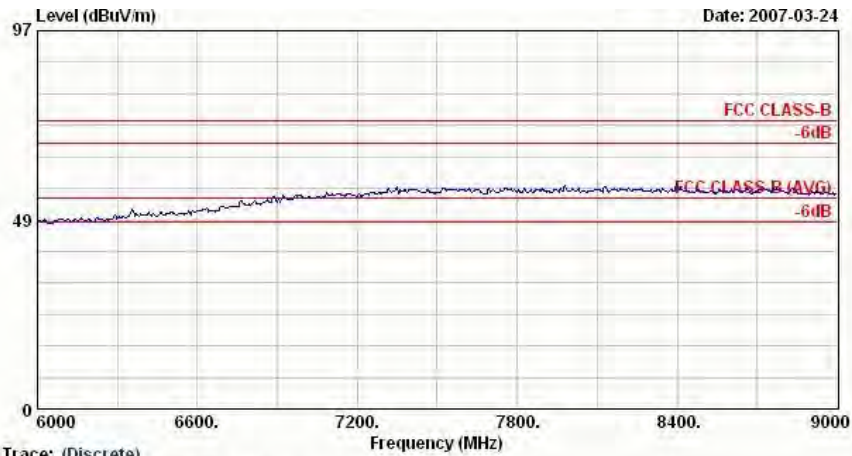
Trace: (Discrete)

Site : 03CH06-HY
Condition : HP-ANT-060410 HORIZONTAL 200cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : BT Tx_CH38_2441MHz
Plane : E2
Data Rate : DHI



FCC TEST REPORT

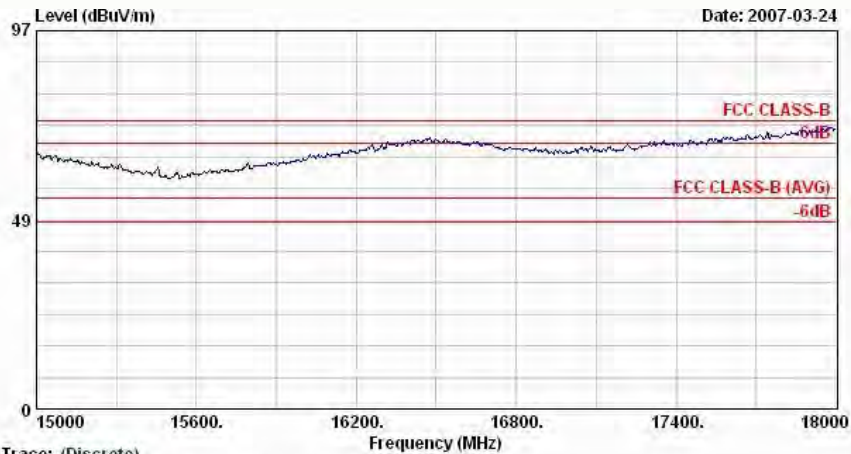
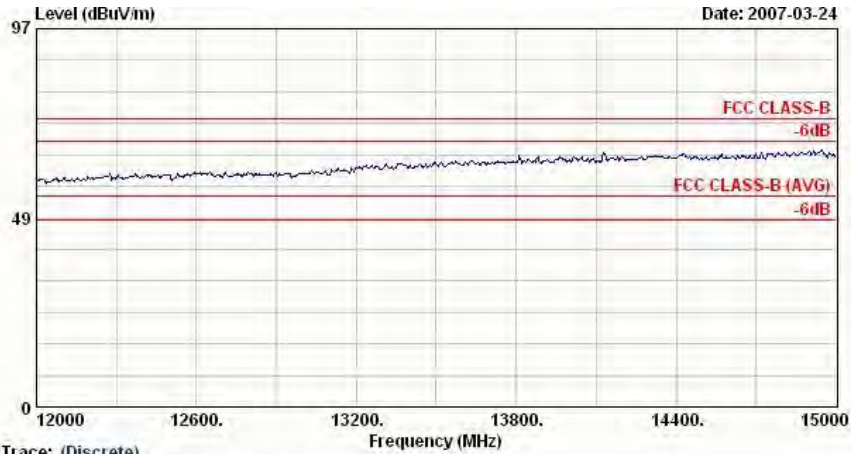
Report No. : FR682518-01





FCC TEST REPORT

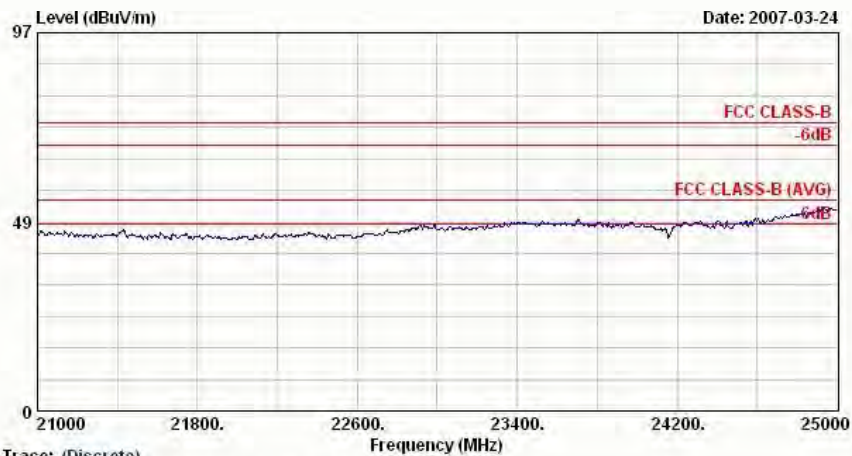
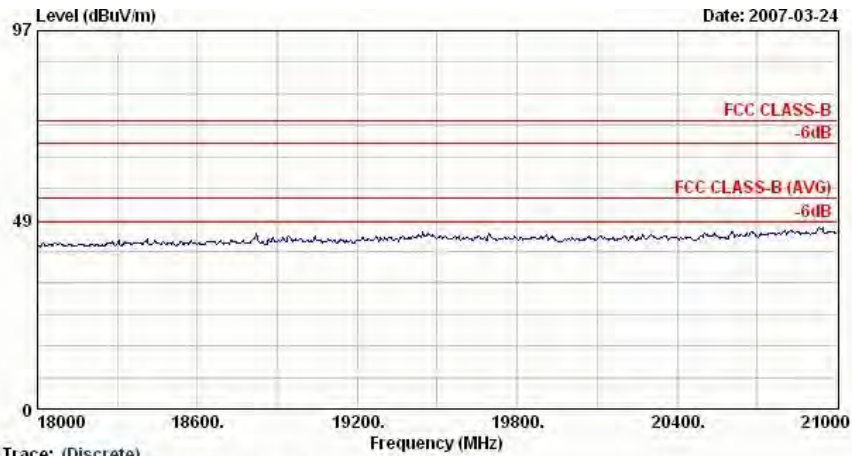
Report No. : FR682518-01





FCC TEST REPORT

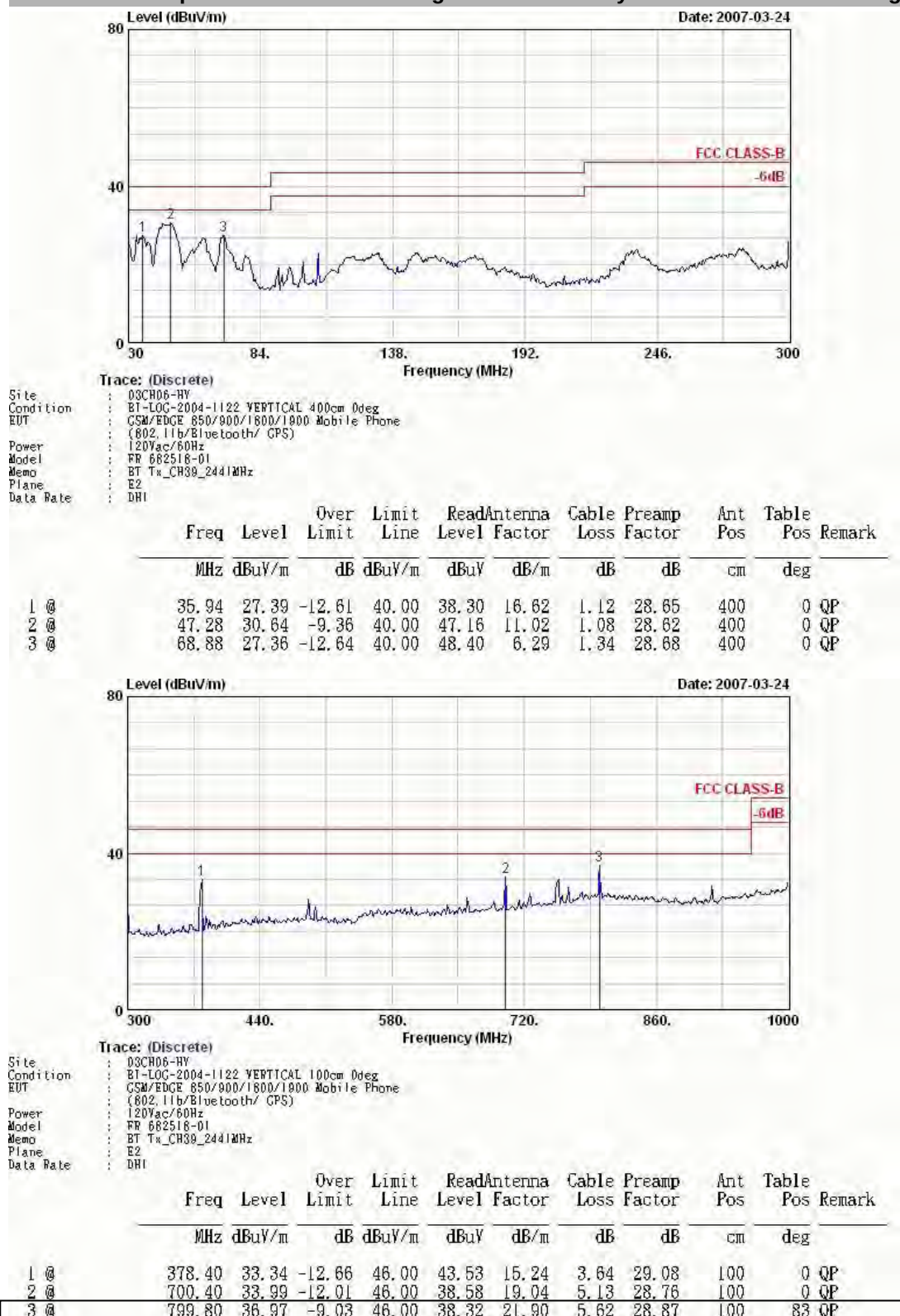
Report No. : FR682518-01





Polarization : Vertical

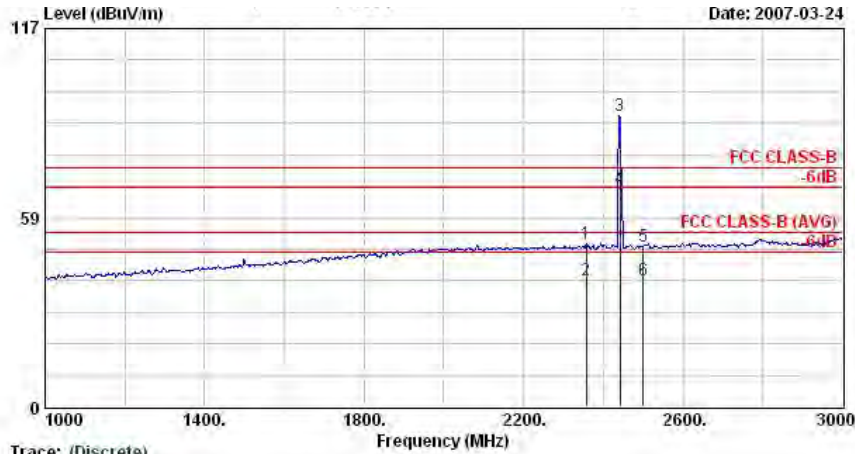
■ The test that passed at minimum margin was marked by the frame in the following table.





FCC TEST REPORT

Report No. : FR682518-01



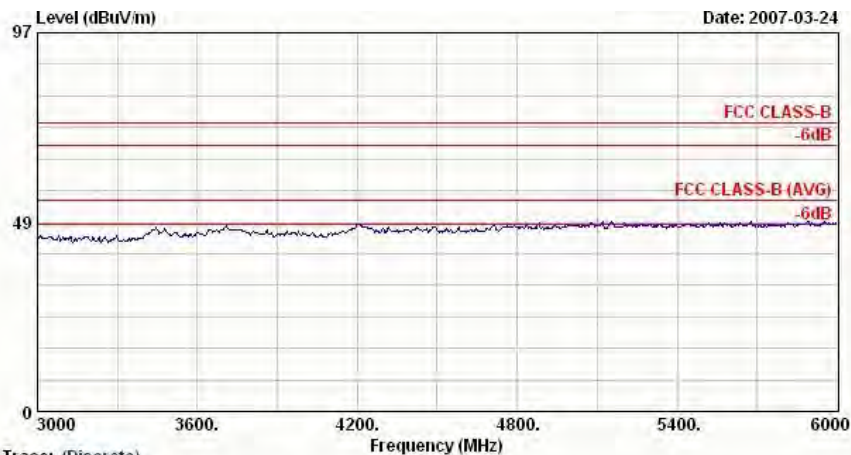
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL 100cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : BT Tx_CH39_2441MHz
Plane : E2
Data Rate : DHI

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Factor	Pos	Pos	Remark
					dBuV	dB/m	dB	dB	cm	deg
1 @	2358.00	50.30	-23.70	74.00	51.27	30.24	4.20	35.42	100	360 Peak
2 @	2358.00	38.99	-15.01	54.00	39.97	30.24	4.20	35.42	100	93 Average
3 @	2441.00	90.00			90.90	30.28	4.29	35.47	100	360 Peak
4 @	2441.00	67.50			68.39	30.28	4.33	35.49	100	93 Average
5 @	2500.00	49.79	-24.21	74.00	50.63	30.30	4.39	35.53	100	360 Peak
6 @	2500.00	39.04	-14.96	54.00	39.88	30.30	4.39	35.53	100	93 Average

Remark:

1. #3 Fundamental Signal
2. #4 Fundamental Signal



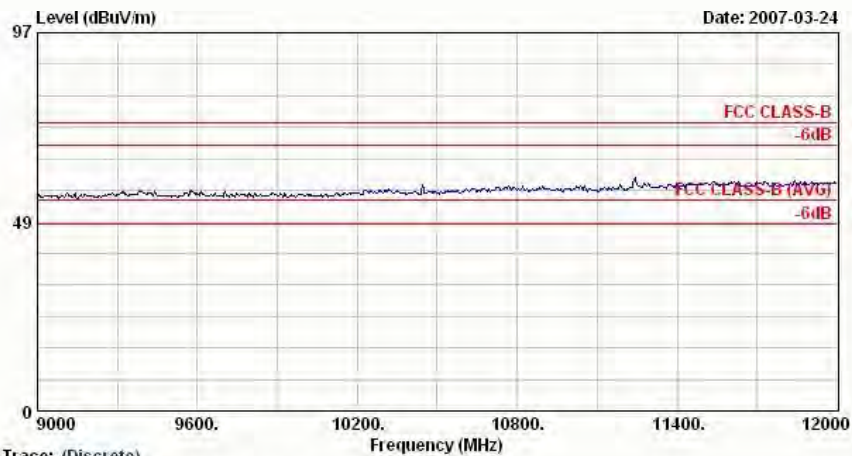
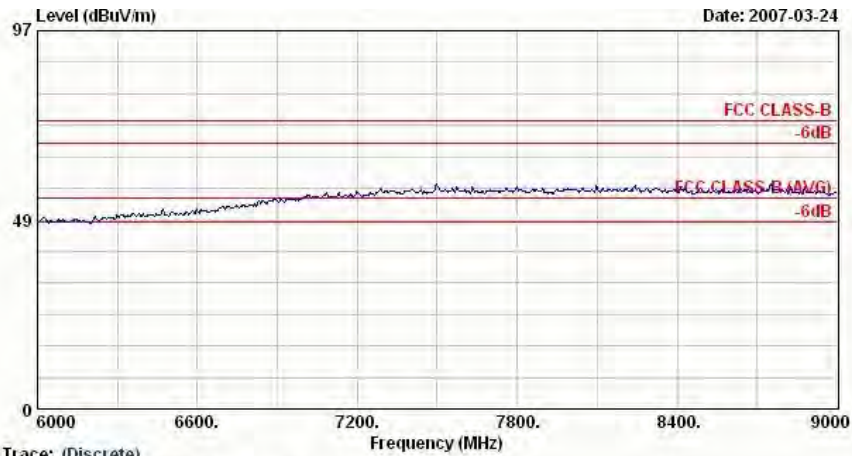
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL 200cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : BT Tx_CH39_2441MHz
Plane : E2
Data Rate : DHI



FCC TEST REPORT

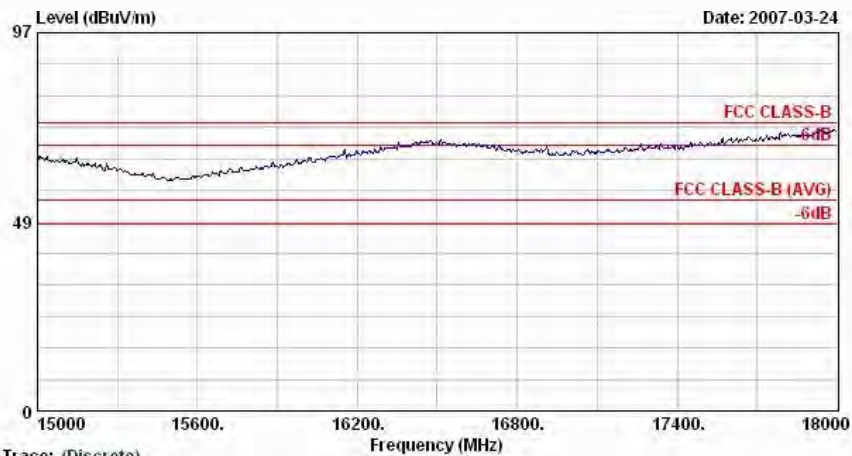
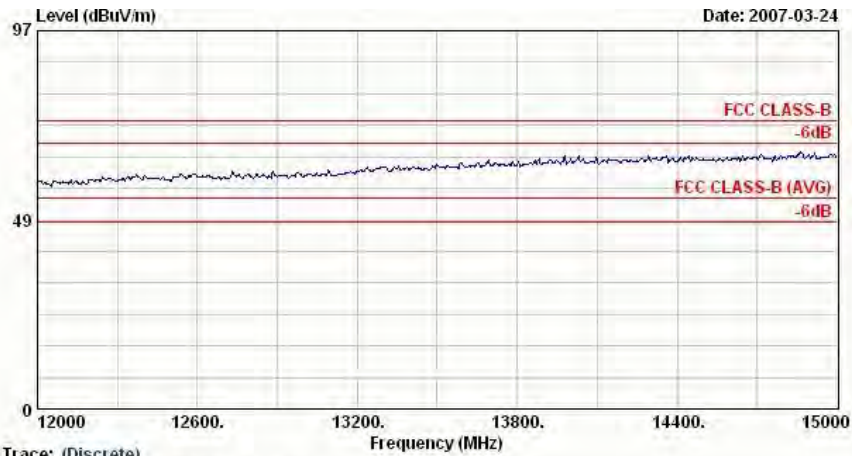
Report No. : FR682518-01





FCC TEST REPORT

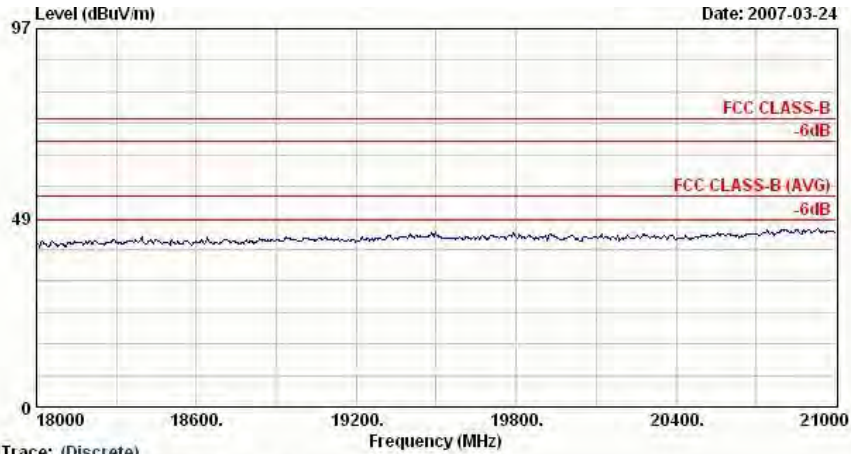
Report No. : FR682518-01





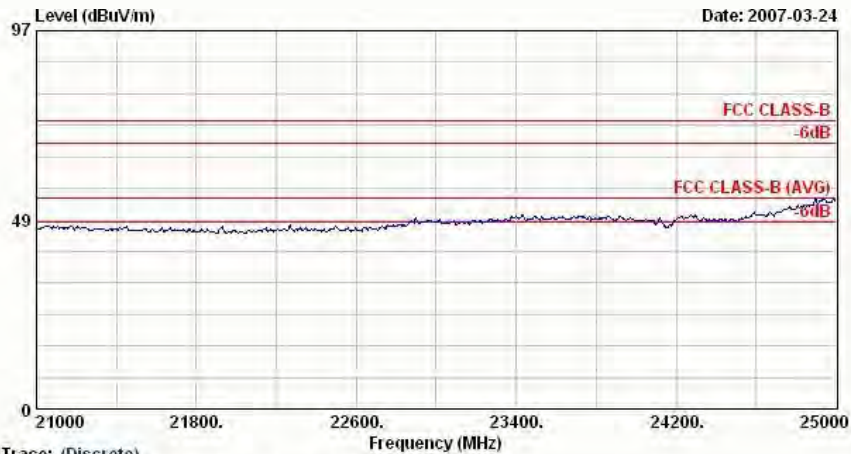
FCC TEST REPORT

Report No. : FR682518-01



Trace: (Discrete)

Site : 03CH06-RY
Condition : SHF-EHF HORN VERTICAL 100cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : BT Tx_CH38_2441MHz
Plane : E2
Data Rate : DHI



Trace: (Discrete)

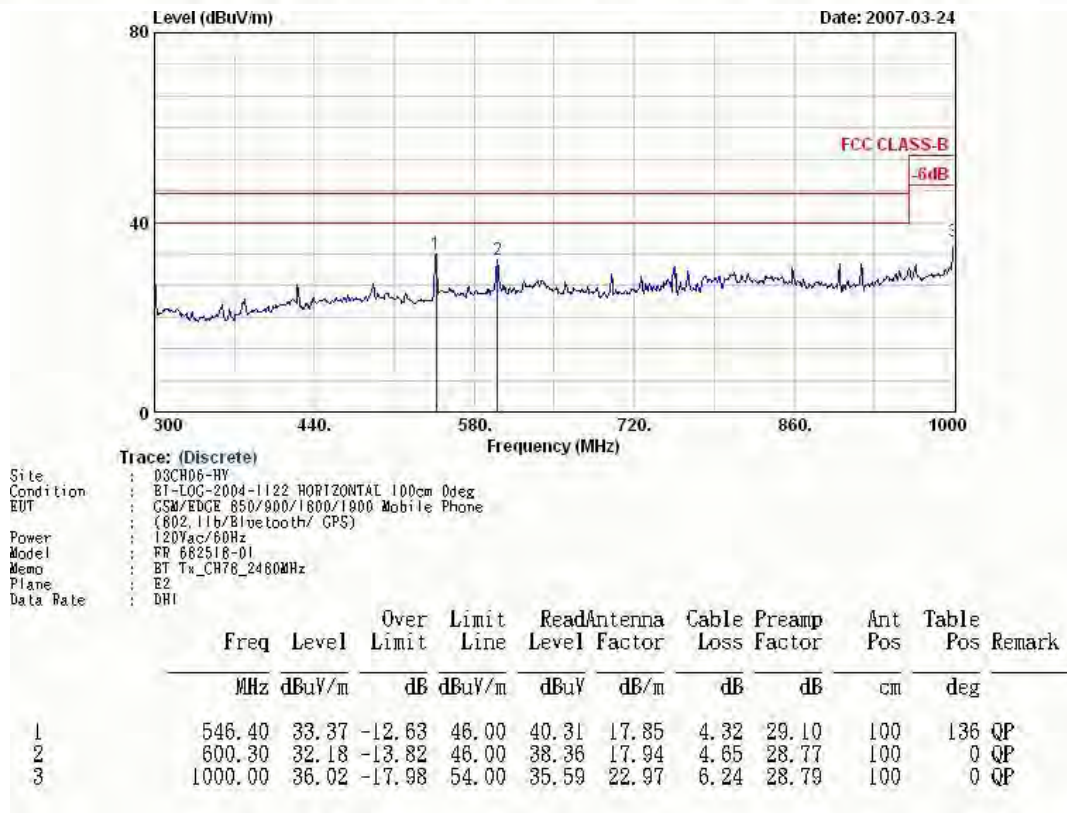
Site : 03CH06-RY
Condition : SHF-EHF HORN VERTICAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : BT Tx_CH38_2441MHz
Plane : E2
Data Rate : DHI

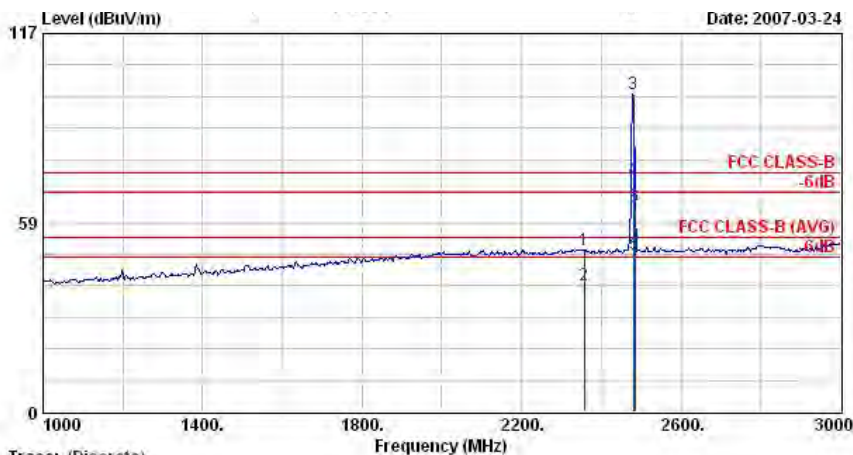
Remark: There is no more obvious spurious emission except the listings above.



- Test Mode : Mode 9
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.





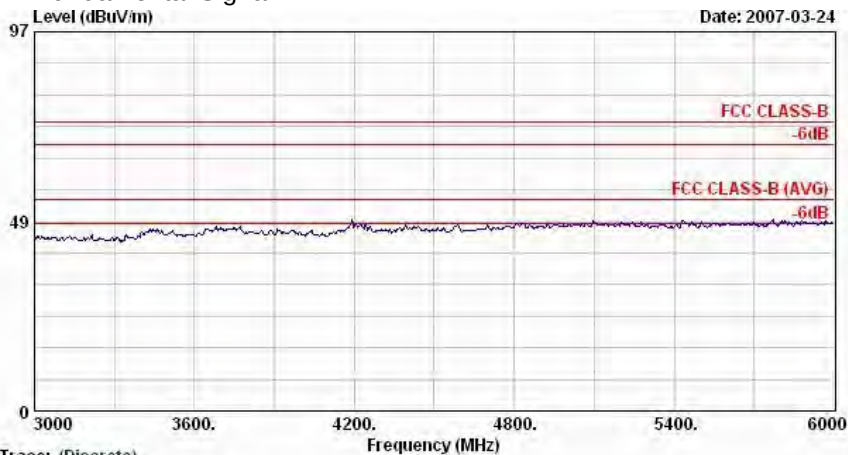
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL 100cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : BT Tx_CH78_2480MHz
Plane : E2
Data Rate : DHI

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Factor	Pos	Pos	
					dBuV	dB/m	dB	dB	cm	deg
1	2358.00	50.12	-23.88	74.00	51.09	30.24	4.20	35.42	100	360 Peak
2	2358.00	38.99	-15.01	54.00	39.97	30.24	4.20	35.42	100	154 Average
3 @	2480.00	98.15			99.01	30.29	4.36	35.51	100	360 Peak
4 @	2480.00	71.65			72.51	30.29	4.36	35.51	100	154 Average
5 @	2483.50	48.83	-5.17	54.00	49.69	30.29	4.36	35.51	100	154 Average
6	2483.50	63.65	-10.35	74.00	64.51	30.29	4.36	35.51	100	360 Peak

Remark:

1. #3 Fundamental Signal
2. #4 Fundamental Signal



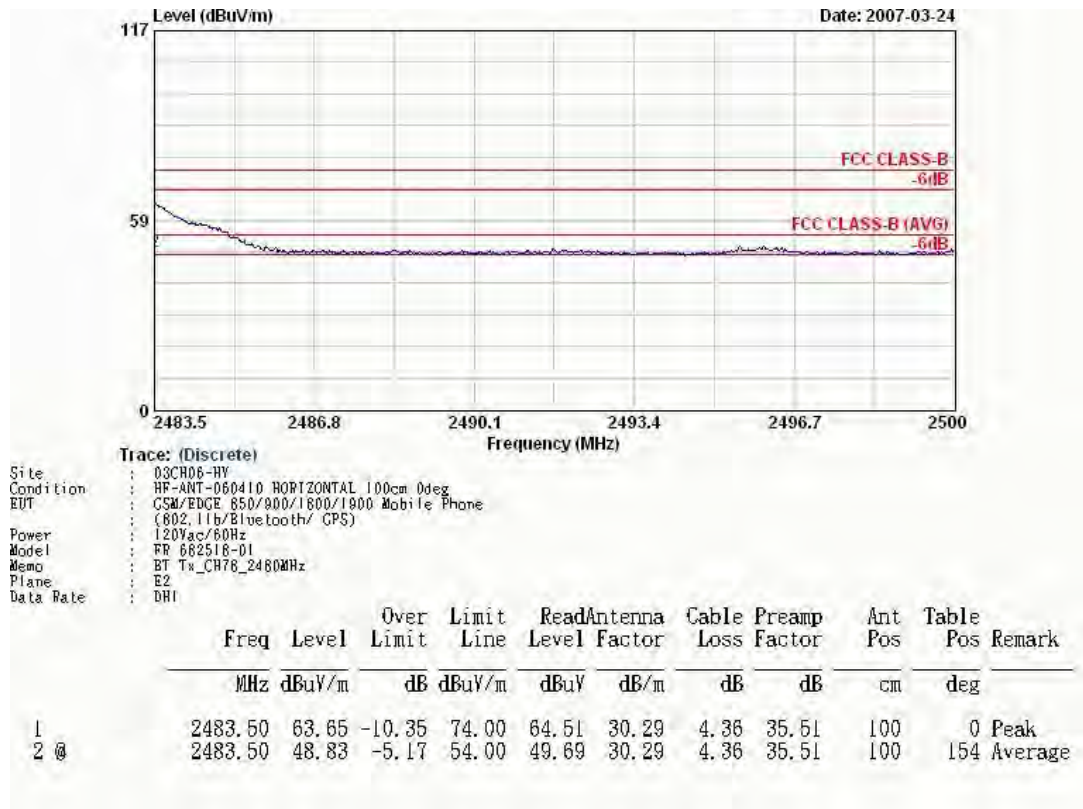
Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL 200cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : BT Tx_CH78_2480MHz
Plane : E2
Data Rate : DHI



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Report No. : FR682518-01





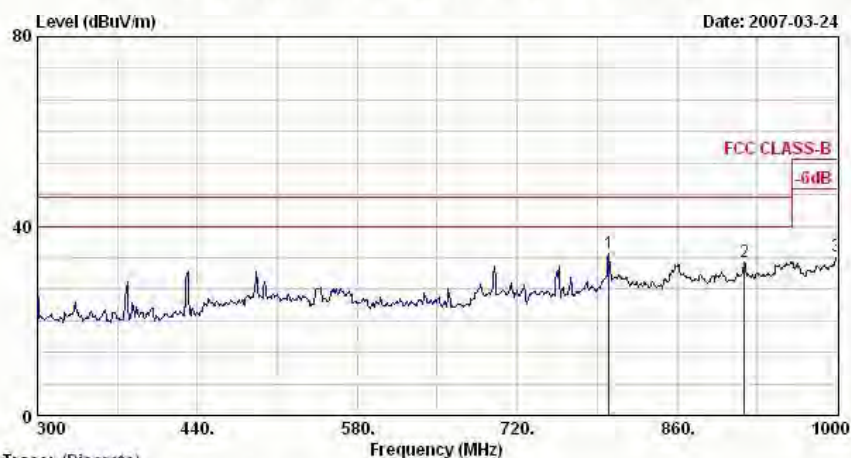
- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)
Site : D3CH06-HY
Condition : BT-LOG-2004-1122 VERTICAL 400cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : BT Tx_CH78_2480MHz
Plane : E2
Data Rate : DH1

	Freq	Level	Over	Limit	ReadAntenna	Cable Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Pos	Pos	Remark
					Factor	Factor	cm	deg	
1	34.59	29.71	-10.29	40.00	40.20	1.08	28.64	400	0 QP
2	44.85	29.14	-10.86	40.00	44.55	1.13	28.63	400	0 QP
3	60.78	28.55	-11.45	40.00	49.42	1.24	28.65	400	0 QP



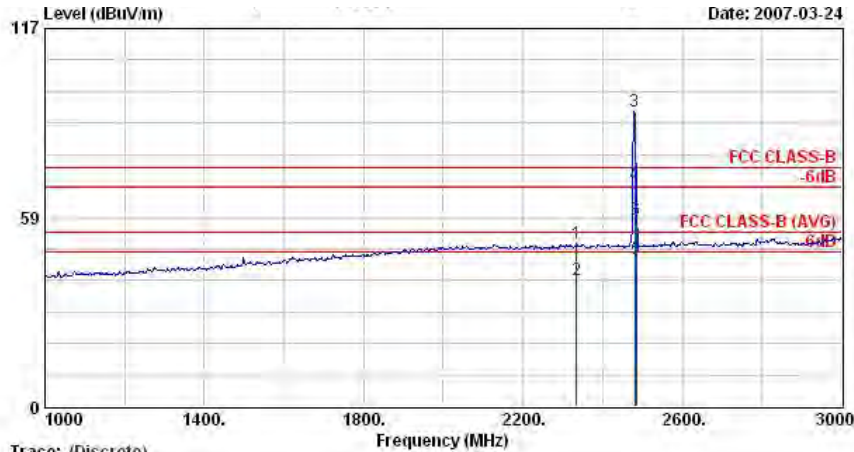
Trace: (Discrete)
Site : D3CH06-HY
Condition : BT-LOG-2004-1122 VERTICAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : BT Tx_CH78_2480MHz
Plane : E2
Data Rate : DH1

	Freq	Level	Over	Limit	ReadAntenna	Cable Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	Level	Loss	Pos	Pos	Remark
					Factor	Factor	cm	deg	
1	800.50	34.16	-11.84	46.00	35.51	5.62	28.87	100	0 QP
2	918.80	32.48	-13.52	46.00	34.94	5.80	28.76	100	0 QP
3	1000.00	33.47	-20.53	54.00	33.05	6.24	28.79	100	0 QP



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Report No. : FR682518-01

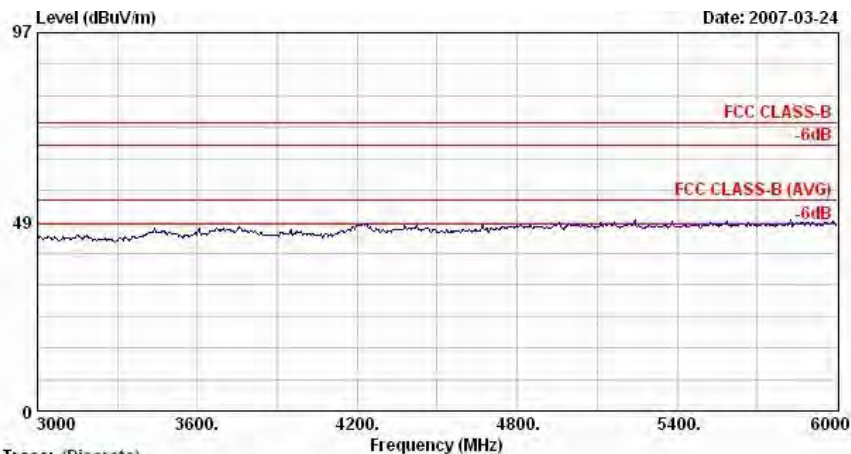


Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL 100cm 0deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : BT Tx_CH78_2480MHz
Plane : E2
Data Rate : DHI

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2334.00	50.38	-23.62	74.00	51.38	30.23	4.17	35.40	100	0 Peak
2	2334.00	39.09	-14.91	54.00	40.09	30.23	4.17	35.40	100	95 Average
3 @	2480.00	91.20			92.06	30.29	4.36	35.51	100	0 Peak
4 @	2480.00	68.68			69.54	30.29	4.36	35.51	100	95 Average
5 @	2483.50	45.49	-8.51	54.00	46.35	30.29	4.36	35.51	100	95 Average
6	2483.50	57.71	-16.29	74.00	58.57	30.29	4.36	35.51	100	0 Peak

Remark:

1. #3 Fundamental Signal
2. #4 Fundamental Signal

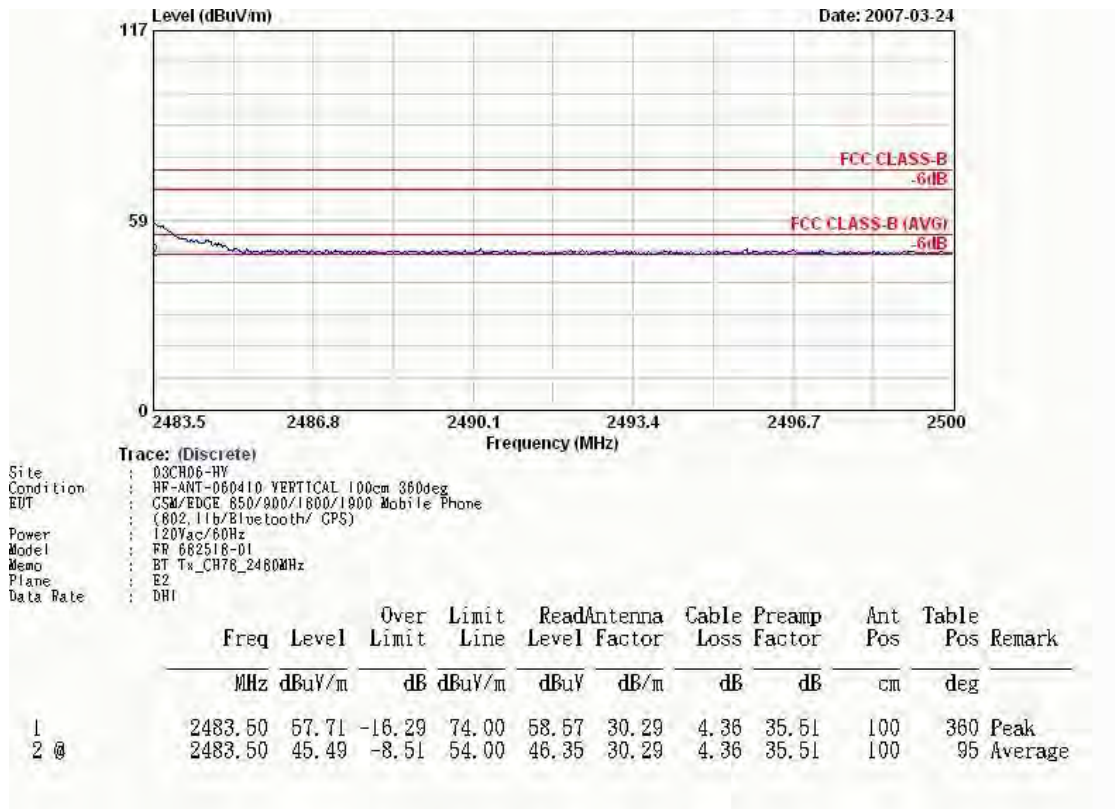


Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL 200cm 360deg
EUT : GSM/EDGE 850/900/1800/1900 Mobile Phone
(802.11b/Bluetooth/ GPS)
Power : 120Vac/60Hz
Model : FR 682518-01
Memo : BT Tx_CH78_2480MHz
Plane : E2
Data Rate : DHI



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Report No. : FR682518-01



Remark: There is no more obvious spurious emission except the listings above.



5.12 Antenna Requirements

5.12.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no other antenna except assembled by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi.

5.12.2 Antenna Connected Construction

The antennas used in this product are PIFA antenna for WLAN and Chip antenna for BT without antenna connector and it is considered to meet antenna requirement of FCC.

5.12.3 Antenna Gain

The antenna gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

6 List of Measuring Equipments Used

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
EMC Receiver	R&S	ESCS 30	100132	9kHz – 2.75GHz	Jul. 04, 2006	Jul. 04, 2007	Conduction (CO01-HY)
LISN	MessTec	NNB-2/16Z	2001/004	9kHz – 30MHz	Apr. 28, 2006	Apr. 28, 2007	Conduction (CO01-HY)
LISN (Support Unit)	MessTec	NNB-2/16Z	2001/009	9kHz – 30MHz	Apr. 19, 2006	Apr. 19, 2007	Conduction (CO01-HY)
EMI Filter	LINDGREN	LRE-2060	1004	< 450Hz	N/A	N/A	Conduction (CO01-HY)
EMI Filter	LINDGREN	N6006	201052	0 – 60Hz	N/A	N/A	Conduction (CO01-HY)
RF Cable-CON	Suhner Switzerland	RG223/U	CB029	9kHz – 30MHz	Dec. 04, 2006	Dec. 04, 2007	Conduction (CO01-HY)
Spectrum analyzer	Agilent	E4408B	MY44211030	9KHz-26.5GHz	Oct. 05, 2006	Oct. 04, 2007	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESCS30	100356	9KHz-2.75GHz	Jul. 13, 2006	Jul. 12, 2007	Radiation (03CH06-HY)
Controller	INN-CO	CO2000	N/A	N/A	N/A	N/A	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz -2GHz	Nov. 20, 2006	Nov. 19, 2007	Radiation (03CH06-HY)
Double Ridge Horn Antenna	Com-Power	AH118	10094	1G~18G	Dec. 26, 2006	Dec. 25, 2007	Radiation (03CH06-HY)
SHF-EHF Horn	SCHWARZBECK	BBHA 9170	9170-249	14G - 40G	Nov. 20, 2006	Nov. 19, 2008	Radiation (03CH06-HY)
Pre Amplifier	Agilent	8449B	3008A01917	1G - 26.5G	Nov. 15, 2006	Nov. 14, 2007	Radiation (03CH06-HY)
Pre Amplifier	Mini Circuits	ZKL-2	D092004-1	10~2500MHZ	Nov. 15, 2006	Nov. 14, 2007	Radiation (03CH06-HY)
Turn Table	INN-CO	DS2000	420/650/00	0 ~ 360 degree	N/A	N/A	Radiation (03CH06-HY)
Antenna Mast	INN-CO	MM3000	114/8000604/L	1 m - 4 m	N/A	N/A	Radiation (03CH06-HY)
Base Station Simulator	R & S	CMU200	106656	WCDMA	Nov. 20, 2006	Nov. 19, 2007	Radiation (03CH06-HY)

7 Uncertainty Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.10	Normal(k=2)	0.05
Cable loss	0.10	Normal(k=2)	0.05
AMN insertion loss	2.50	Rectangular	0.63
Receiver Spec	1.50	Rectangular	0.43
Site imperfection	1.39	Rectangular	0.80
Mismatch	+0.34/-0.35	U-shape	0.24
combined standard uncertainty Uc(y)	1.13		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	2.26		

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

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.41	Normal(k=2)	0.21
Antenna factor calibration	0.83	Normal(k=2)	0.42
Cable loss calibration	0.25	Normal(k=2)	0.13
Pre Amplifier Gain calibration	0.27	Normal(k=2)	0.14
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.43	Rectangular	0.83
Mismatch	+0.39/-0.41	U-shaped	0.28
combined standard uncertainty Uc(y)	1.27		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	2.54		

**Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)**

Contribution	Uncertainty of x_i		$u(x_i)$	C_i	$C_i * u(x_i)$
	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 $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20\log(1 - \Gamma_1 * \Gamma_2 * \Gamma_3)$	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty $U_c(y)$	2.36				
Measuring uncertainty for a level of confidence of 95% $U = 2U_c(y)$	4.72				