# FCC CFR47 PART 15 SUBPART C
# CERTIFICATION
# TEST REPORT

**FOR**

**PDA PHONE**

**MODEL NUMBER: PA10A**

**FCC ID: NM8PA10A**

**REPORT NUMBER: 05T3291-2**

**ISSUE DATE: APRIL 15, 2005**

*Prepared for*
**HIGH TECH COMPUTER CORP.**
**1F, 6-3, BAU-CHIAN RD., HSINTIEN**
**TAIPEI, 231 TAIWAN**

*Prepared by*
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Revision History

| Rev. | Revisions | Revised By |
|---|---|---|

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# 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** HIGH TECH COMPUTER CORP.
1F, 6-3, BAU-CHIAN RD., HSINTIEN
TAIPEI, 231 TAIWAN

**EUT DESCRIPTION:** PDA PHONE

**MODEL:** PA10A

**SERIAL NUMBER:** HT510E600023

**DATE TESTED:** APRIL 03-05, 2005

| APPLICABLE STANDARDS | |
|---|---|
| **STANDARD** | **TEST RESULTS** |
| FCC PART 15 SUBPART C | NO NON-COMPLIANCE NOTED |

Compliance Certification Services, Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

**Note**: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by Compliance Certification Services and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Compliance Certification Services will constitute fraud and shall nullify the document. No part of this report may be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any government agency.

Approved & Released For CCS By:

THU CHAN
EMC SUPERVISOR
COMPLIANCE CERTIFICATION SERVICES

Tested By:

CHIN PANG
EMC TECHCIAN
COMPLIANCE CERTIFICATION SERVICES

# 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4-2003, FCC CFR 47 Part 2 and FCC CFR 47 Part 15.

# 3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 561F Monterey Road, Morgan Hill, California, USA. The sites are constructed in conformance with the requirements of ANSI C63.4, ANSI C63.7 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://www.ccsemc.com.

# 4. CALIBRATION AND UNCERTAINTY

## 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

## 4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

| PARAMETER | UNCERTAINTY |
|---|---|
| Radiated Emission, 30 to 200 MHz | +/- 3.3 dB |
| Radiated Emission, 200 to 1000 MHz | +4.5 / -2.9 dB |
| Radiated Emission, 1000 to 2000 MHz | +4.5 / -2.9 dB |
| Power Line Conducted Emission | +/- 2.9 dB |

Uncertainty figures are valid to a confidence level of 95%.

# 5. EQUIPMENT UNDER TEST

## 5.1. DESCRIPTION OF EUT

The EUT is a PDA phone.

This report is for the Bluetooth performance of the PDA phone.

The software that resides on the phone does not allow co-transmission of the Bluetooth and the WLAN.

**EUT auxiliary equipment**

| Auxiliary Equipment | Brand | Model No. |
|---|---|---|
| Li-Ion Rechargeable Battery | Celxpert Energy Co. | PA16A |
| AC adaptor | Delta Electronic | ADP-5FH B |
| USB Cable | MEC | 60-4008-201A |
| Cradle | High Tech Computer | PA15A |
| Headset | Merry | EMC147-012-01 |

## 5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak conducted output BT power as follows:

2400 to 2483.5 MHz Authorized Band

| Frequency Range (MHz) | Output Power (dBm) | Output Power (mW) |
|---|---|---|
| 2402 - 2480 | 0.74 | 1.19 |

## 5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a monopole and patch Antenna, with a peak gain of –2.0dBi. on CDMA, WLAN and Bluetooth modulation

## 5.4. SOFTWARE AND FIRMWARE

The test software is installed in the EUT during testing is BTTestMode Rev 0.1

## 5.5. WORST-CASE CONFIGURATION AND MODE

The worst-case channel is determined as the channel with the highest output power. The highest measured output power was at 2402 MHz.

## 5.6. DESCRIPTION OF TEST SETUP

**SETUP FOR RF WIRELESS TESTS**

**SUPPORT EQUIPMENT**

| PERIPHERAL SUPPORT EQUIPMENT LIST | | | | |
|---|---|---|---|---|
| **Description** | **Manufacturer** | **Model** | **Serial Number** | **FCC ID** |
| AC Adapter | Delta Electronic | ADP-5FH B | 3UW0450071925 | NA |
| Headset | Merry | EMC147-012-01 | NA | NA |

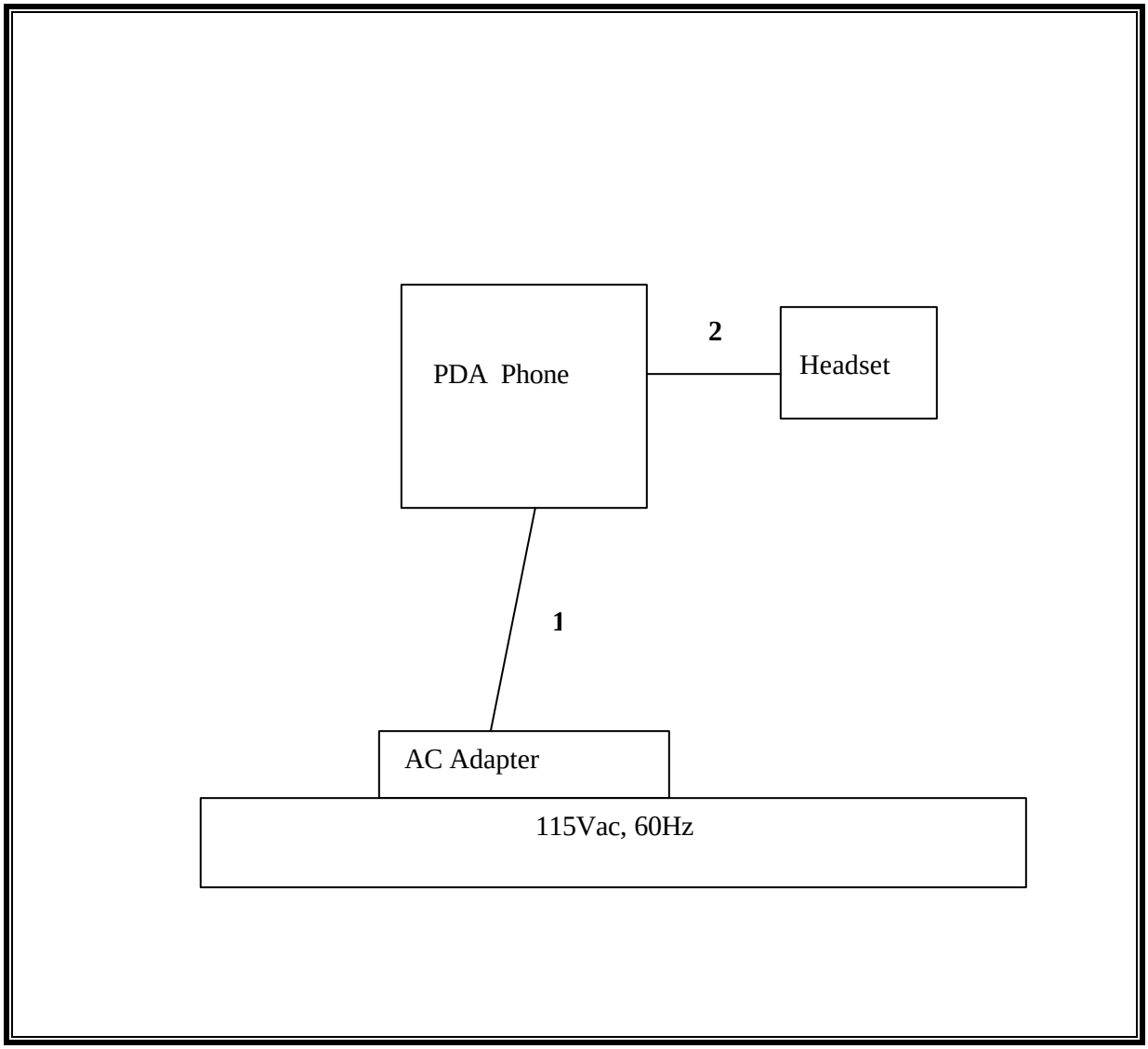
**I/O CABLES**

| I/O CABLE LIST | | | | | | |
|---|---|---|---|---|---|---|
| **Cable No.** | **Port** | **# of Identical Ports** | **Connector Type** | **Cable Type** | **Cable Length** | **Remarks** |
| 1 | DC | 1 | DC | Un-shielded | 2m | No |
| 2 | Mic | 1 | Din | Un-shielded | 2m | No |

**TEST SETUP**

The EUT is a PDA unit and operates either standalone or connected to a PC via USB port or USB interface cable. Test software exercised the EUT is BTTestMode

**SETUP DIAGRAM FOR RF WIRELESS TESTS**



## SETUP FOR DIGITAL DEVICE TESTS

### SUPPORT EQUIPMENT

| PERIPHERAL SUPPORT EQUIPMENT LIST | | | | |
|---|---|---|---|---|
| **Description** | **Manufacturer** | **Model** | **Serial Number** | **FCC ID** |
| Printer | HP | 2225C | 2930S52614 | DSI6XU2225 |
| Modem | ACEEX | 1414 | NA | IFAXDM1415 |
| Mouse | HP | M-S34 | LZB75062022 | DZL211029 |
| Laptop | HP | Ze4101 | CN24600011 | DoC |
| AC Adapter | HP | ADP-75HB | MVT0240165286 | DoC |
| AC Adapter | Delta Electronic | ADP-5FH B | 3UW0450072243 | DoC |
| Headset | MERRY | EMC147-012-01 | NA | NA |
| Cradle | High Tech Computer | PA15A | NA | NA |

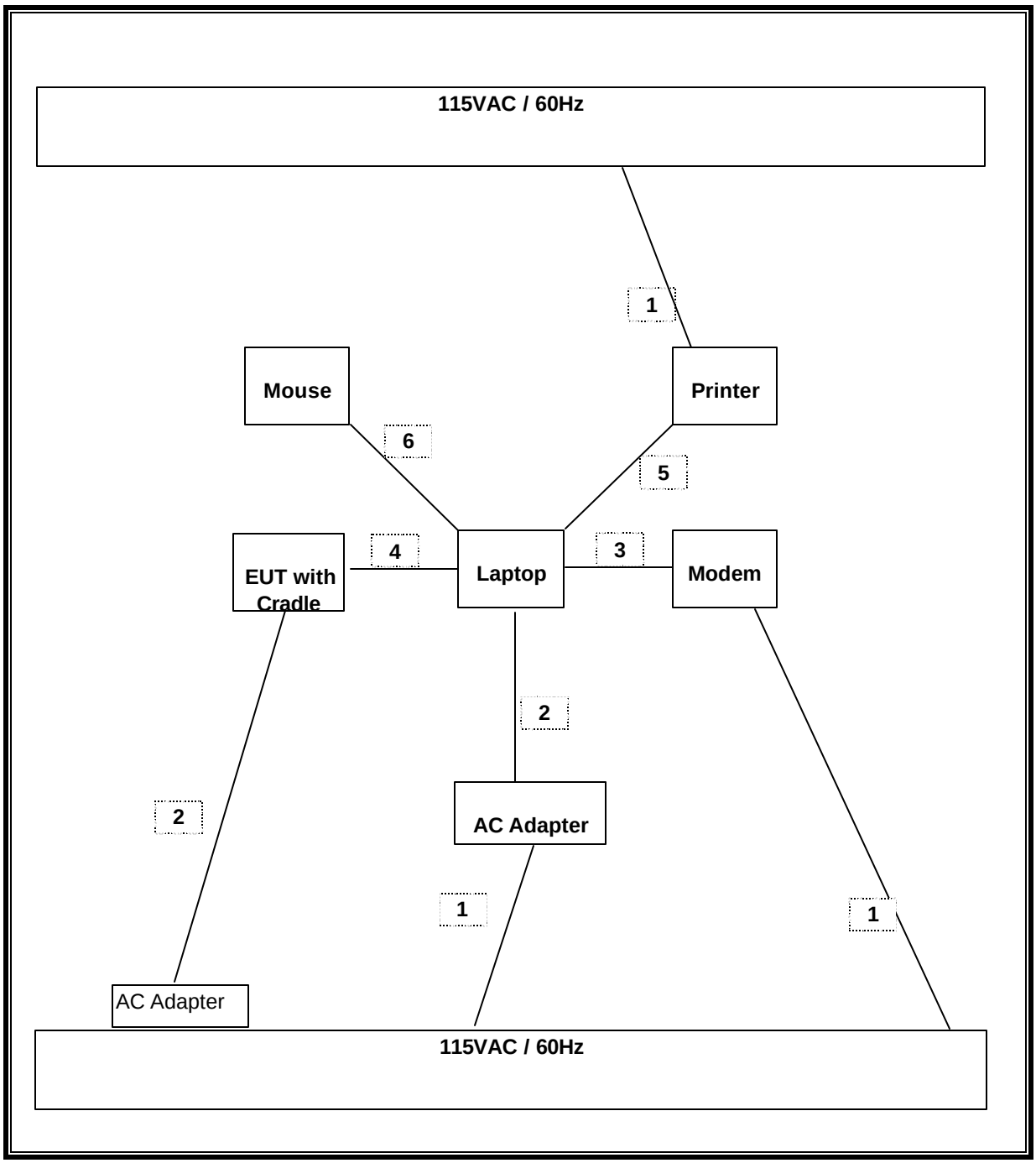
### I/O CABLES

| I/O CABLE LIST | | | | | | |
|---|---|---|---|---|---|---|
| **Cable No.** | **Port** | **# of Identical Ports** | **Connector Type** | **Cable Type** | **Cable Length** | **Remarks** |
| 1 | AC | 3 | US 115V | Un-shielded | 2m | Bundled EUT Power Cable for LC test |
| 2 | DC | 2 | DC | Un-shielded | 1m | N/A |
| 3 | Serial | 1 | DB9 | Shielded | 1m | N/A |
| 4 | USB | 1 | USB | Shielded | 2m | N/A |
| 5 | Parallel | 1 | DB25 | Shielded | 2m | N/A |
| 6 | Mouse | 1 | PS/2 | Un-shielded | 2m | N/A |

### TEST SETUP

The EUT is installed in the cradle. The cradle is connected to a laptop computer system with minimum configuration during the tests. Test software exercised and linked with the EUT.

**SETUP DIAGRAM FOR DIGITAL DEVICE TESTS (WORST CASE)**



# 6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

| TEST EQUIPMENT LIST | | | | |
|---|---|---|---|---|
| **Description** | **Manufacturer** | **Model** | **Serial Number** | **Cal Due** |
| Spectrum Analyzer | HP | E4446A | US42510266 | 8/25/2005 |
| EMI Receiver, 9 kHz ~ 2.9 GHz | HP | 8542E | 3942A00286 | 3/29/06 |
| RF Filter Section | HP | 85420E | 3705A00256 | 3/29/06 |
| 30MHz---- 2Ghz | Sunol Sciences | JB1 Antenna | A121003 | 9/12/05 |
| Antenna, Horn 1 ~ 18 GHz | EMCO | 3115 | 6717 | 9/12/05 |
| Preamplifier, 1 ~ 26 GHz | Miteq | NSP2600-44 | 646456 | 8/17/05 |
| LISN, 10 kHz ~ 30 MHz | FCC | LISN-50/250-25-2 | 2023 | 8/30/05 |
| LISN, 10 kHz ~ 30 MHz | Solar | 8012-50-R-24-BNC | 837990 | 10/21/05 |
| EMI Test Receiver | R & S | ESHS 20 | 827129/006 | 10/22/05 |
| Peak Power Meter | Agilent | E4416A | GB41291160 | 2/9/06 |
| Peak / Average Power Sensor | Agilent | E9327A | US40440755 | 2/10/06 |
| Antenna, Horn 18-26GHz | ARA | MWH-1826/B | 1013 | 9/12/05 |

# 7. LIMITS AND RESULTS

## 7.1. ANTENNA PORT CHANNEL TESTS

### 7.1.1. 20 dB BANDWIDTH

**LIMIT**

None; for reporting purposes only.

**TEST PROCEDURE**

The transmitter output is connected to a spectrum analyzer. The RBW is set to 1% to 3% of the 20 dB bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled.

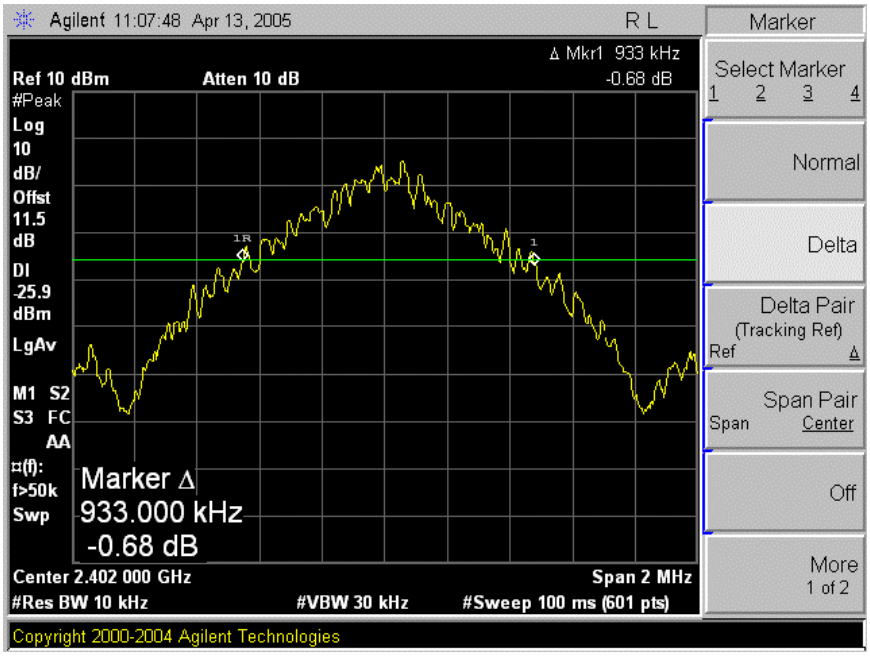
**RESULTS**

No non-compliance noted:

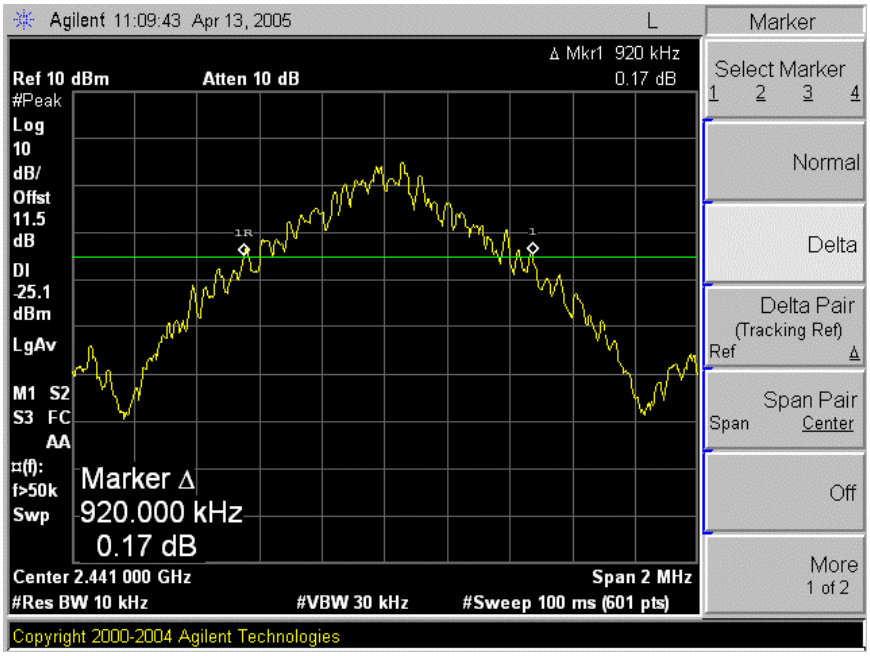
| Channel | Frequency (MHz) | 20 dB Bandwidth (kHz) |
|---|---|---|
| Low | 2402 | 933 |
| Middle | 2441 | 920 |
| High | 2480 | 923 |

**20 dB BANDWIDTH**

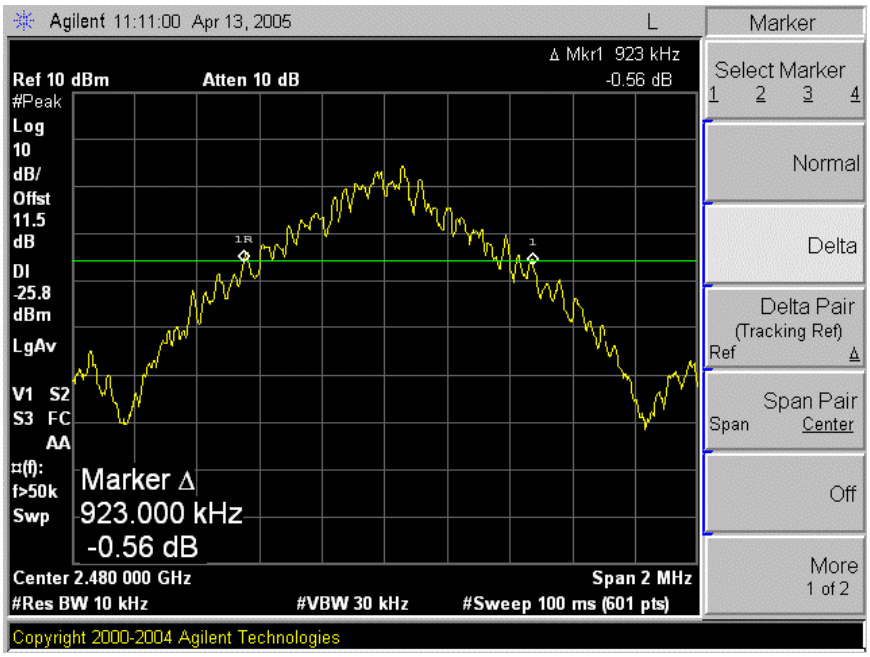
20 dB BANDWIDTH LOW CH



20 dB BANDWIDTH MID CH



20 dB BANDWIDTH HIGH CH



## 7.1.2. HOPPING FREQUENCY SEPARATION

**LIMIT**

§15.247 (a) (1) Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hoping channel, whichever is greater.

**TEST PROCEDURE**

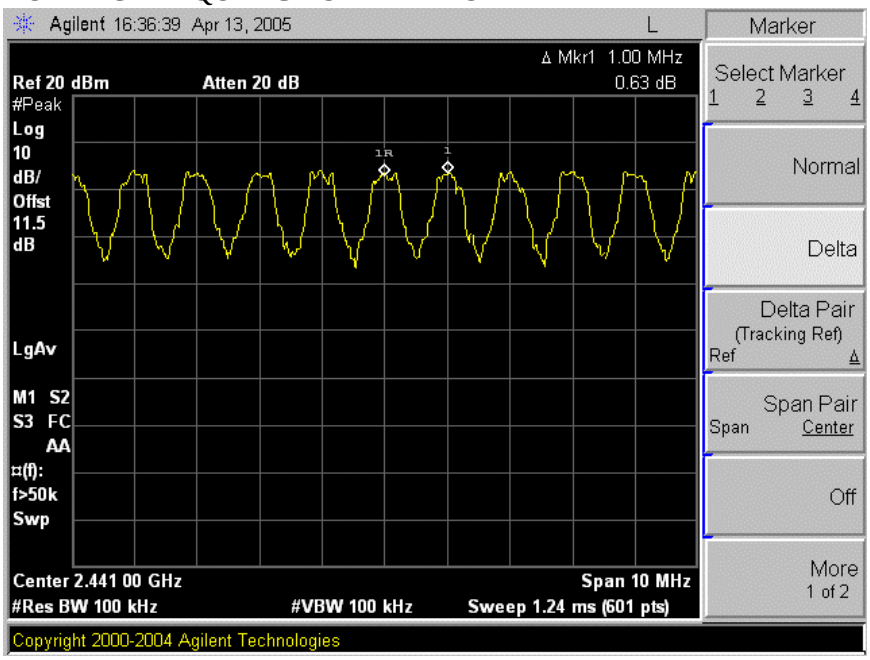
The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 100 kHz. The sweep time is coupled.

**RESULTS**

No non-compliance noted:

## HOPPING FREQUENCY SEPARATION

HOPPING FREQUENCY SEPARATION



## 7.1.3. NUMBER OF HOPPING CHANNELS

**LIMIT**

§15.247 (a) (1) (iii) Frequency hopping systems in the 2400 – 2483.5 MHz band shall use at least 15 non-overlapping channels.

**TEST PROCEDURE**

The transmitter output is connected to a spectrum analyzer. The span is set to cover the entire authorized band, in either a single sweep or in multiple contiguous sweeps. The RBW is set to 1 % of the span. The analyzer is set to Max Hold.

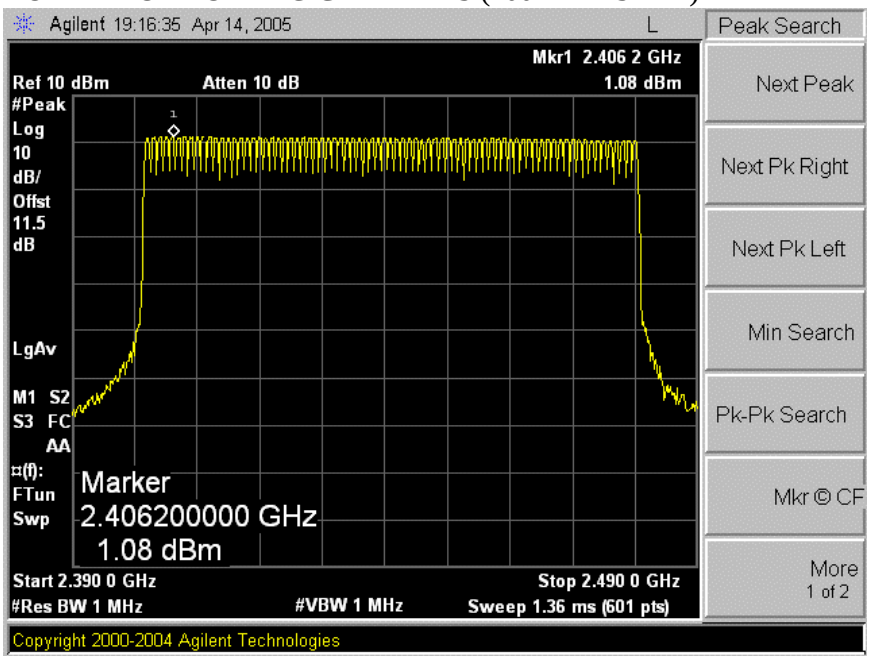
**RESULTS**

No non-compliance noted:

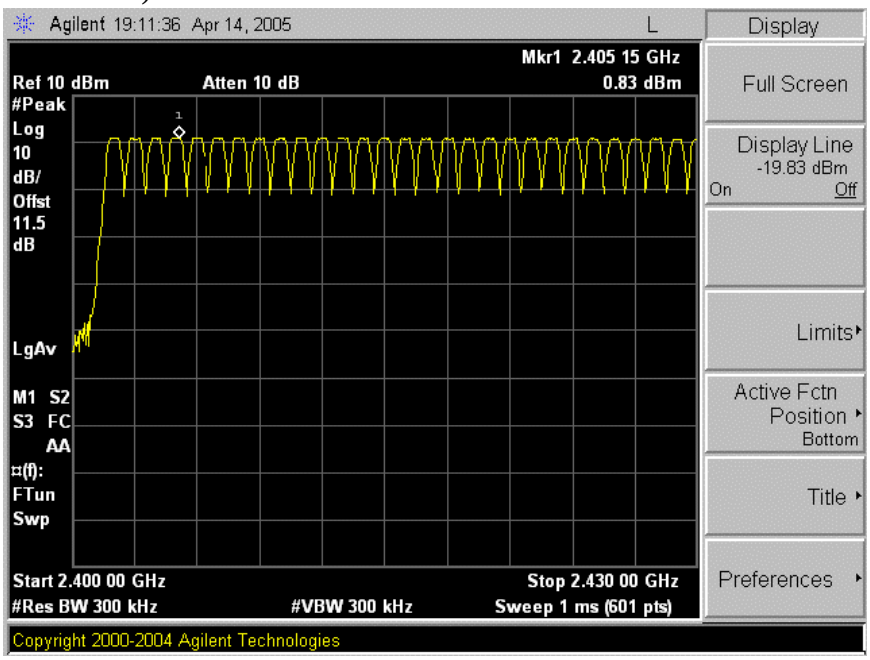
79 Channels observed.

**NUMBER OF HOPPING CHANNELS**

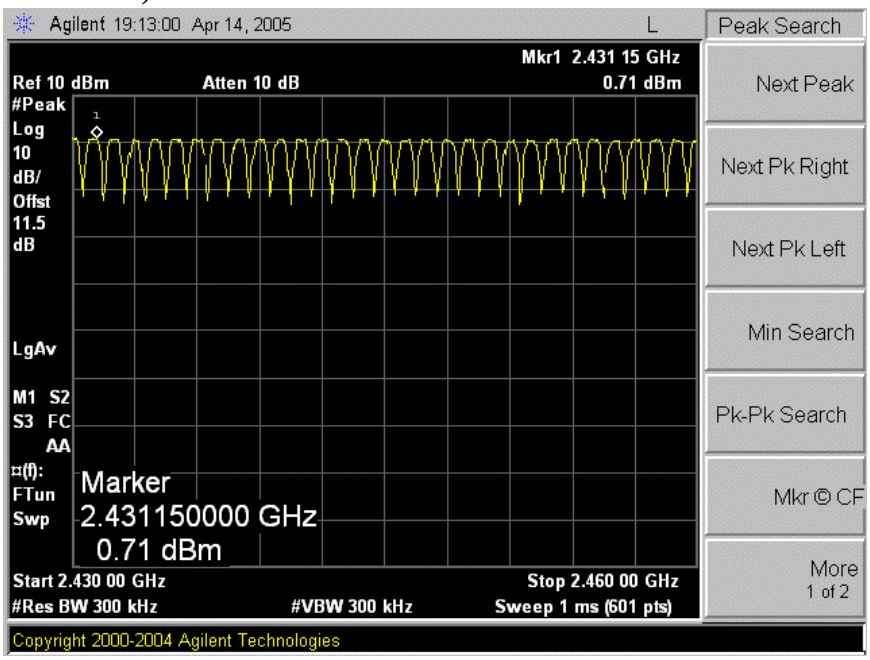
NUMBER OF HOPPING CHANNELS (100 MHZ SPAN)



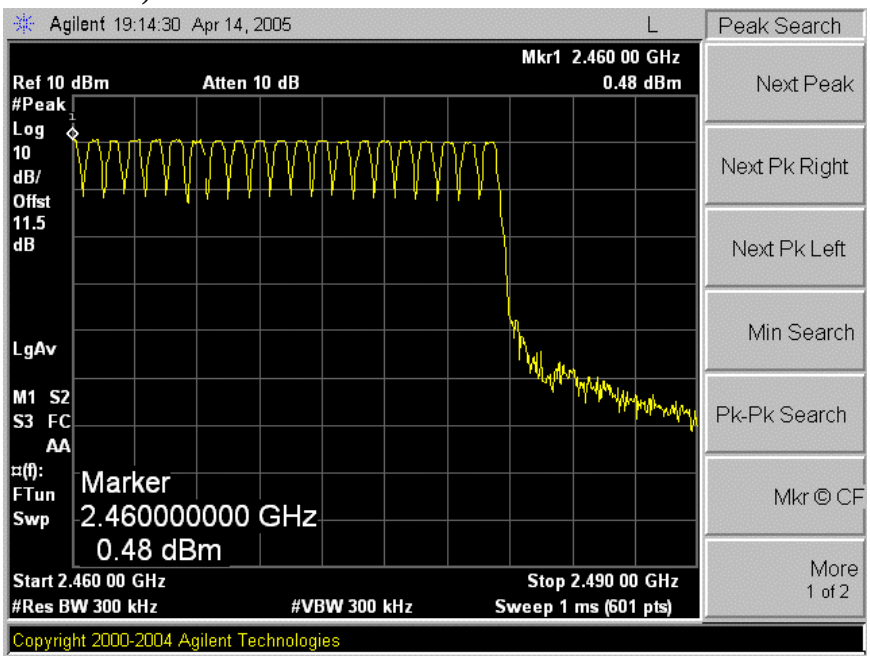
NUMBER OF HOPPING CHANNELS (30 MHZ SPAN, FIRST SEGMENT)



NUMBER OF HOPPING CHANNELS (30 MHZ SPAN, SECOND SEGMENT)



NUMBER OF HOPPING CHANNELS (30 MHZ SPAN, THIRD SEGMENT)



## 7.1.4. AVERAGE TIME OF OCCUPANCY

**LIMIT**

§15.247 (a) (1) (iii) Frequency hopping systems in the 2400 – 2483.5 MHz band shall use at least 15 non-overlapping channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

**TEST PROCEDURE**

The transmitter output is connected to a spectrum analyzer. The span is set to 0 Hz, centered on a single, selected hopping channel. The width of a single pulse is measured in a fast scan. The number of pulses is measured in a 3.16 second scan, to enable resolution of each occurrence.

The average time of occupancy in the specified 31.6 second period (79 channels * 0.4 s) is equal to 10 * (# of pulses in 3.16 s) * pulse width.

**RESULTS**

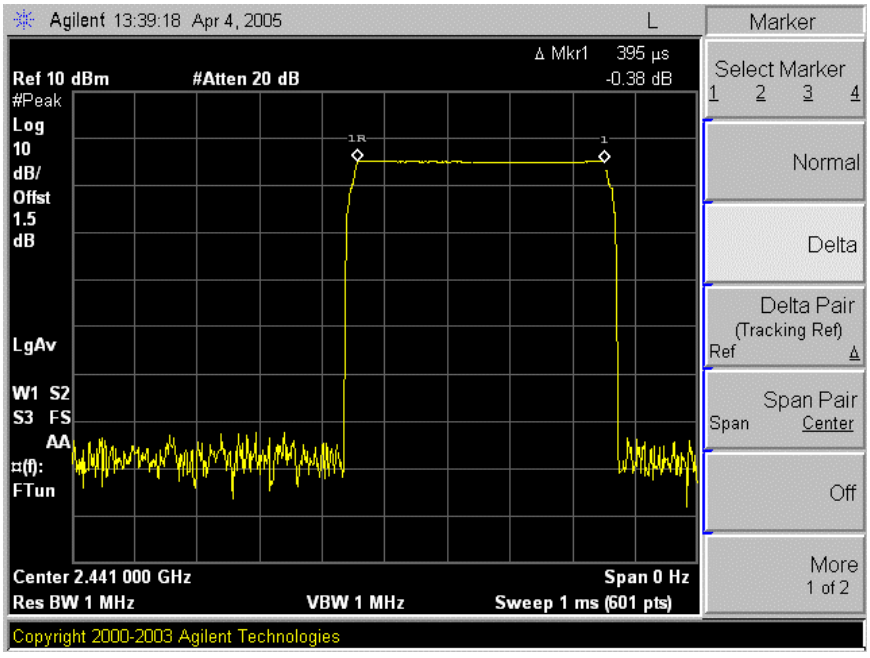
No non-compliance noted:

| DH Packet | Pulse Width (msec) | Number of Pulses in 3.16 seconds | Average Time of Occupancy (sec) | Limit (sec) | Margin (sec) |
|---|---|---|---|---|---|
| 1 | 0.395 | 33 | 0.130 | 0.4 | 0.270 |
| 3 | 1.625 | 17 | 0.276 | 0.4 | 0.124 |
| 5 | 2.845 | 14 | 0.398 | 0.4 | 0.002 |

## DH1 PACKET

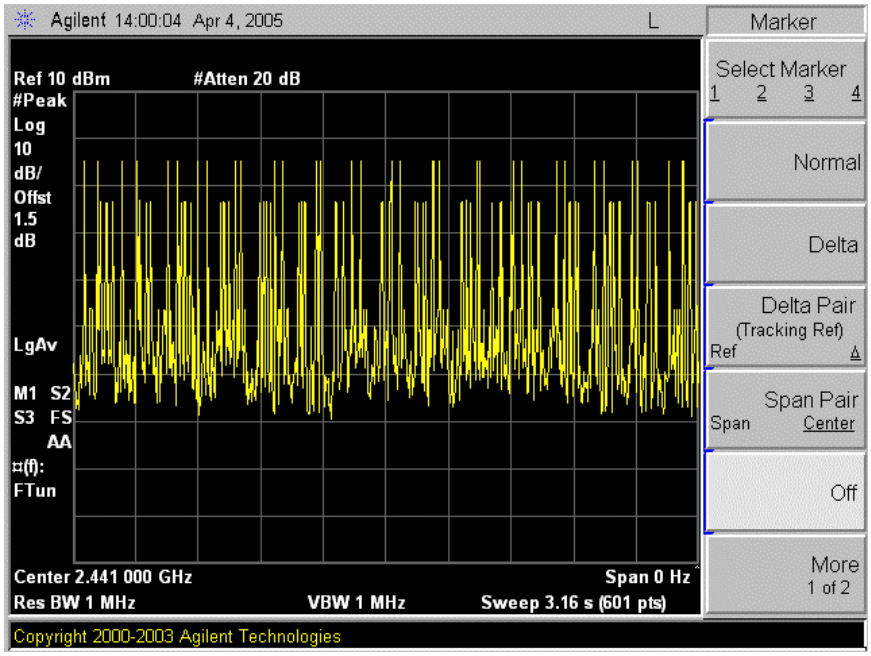
### PULSE WIDTH

PULSE WIDTH



**NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD**

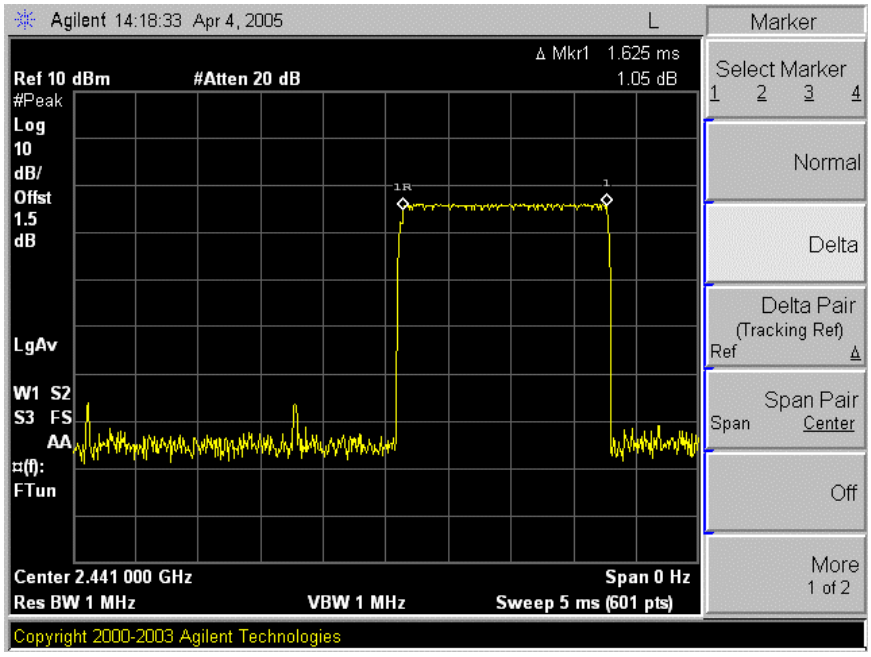
NUMBER OF PULSES



## DH3 PACKET

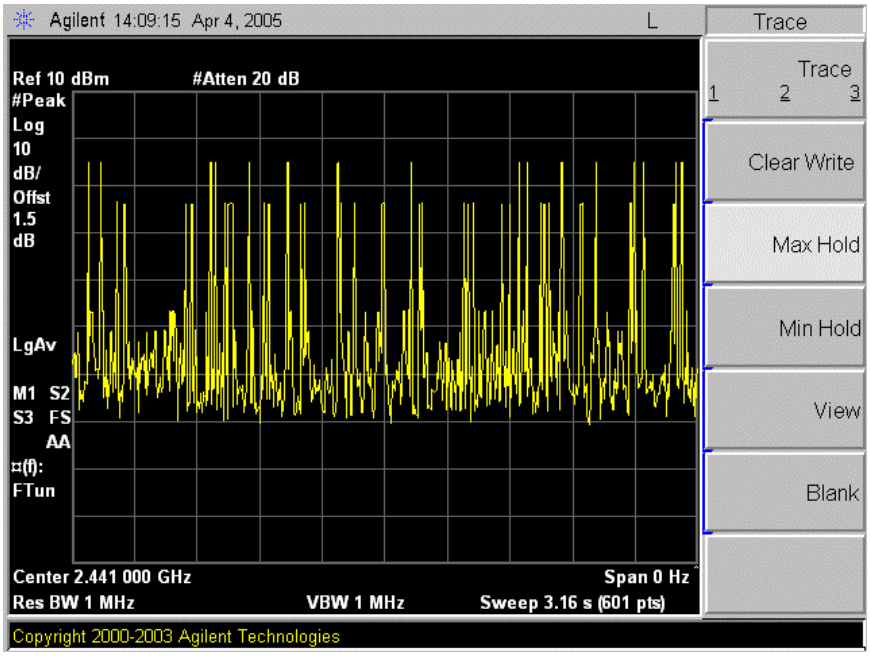
### PULSE WIDTH

PULSE WIDTH



**NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD**

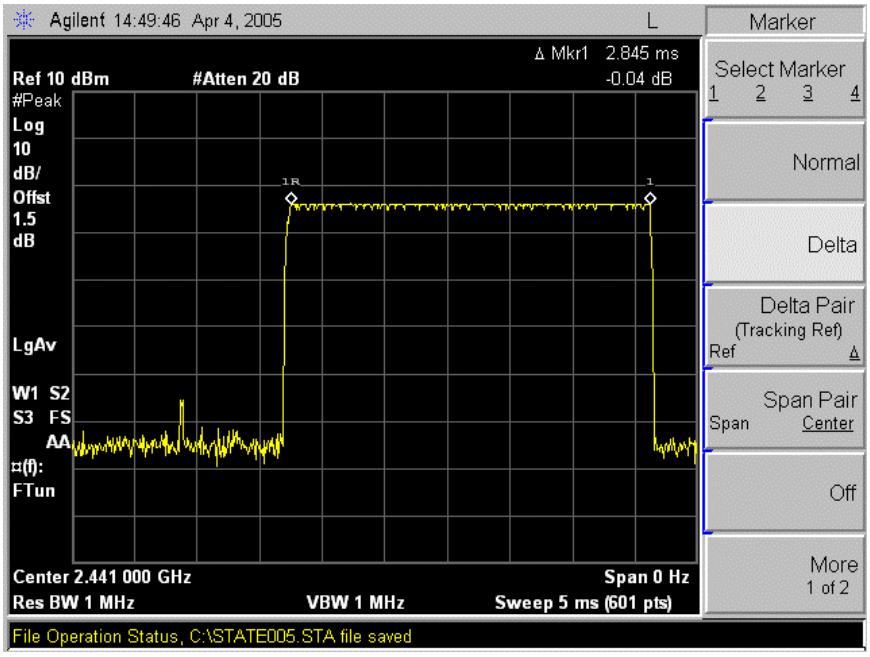
NUMBER OF PULSES



## DH5 PACKET

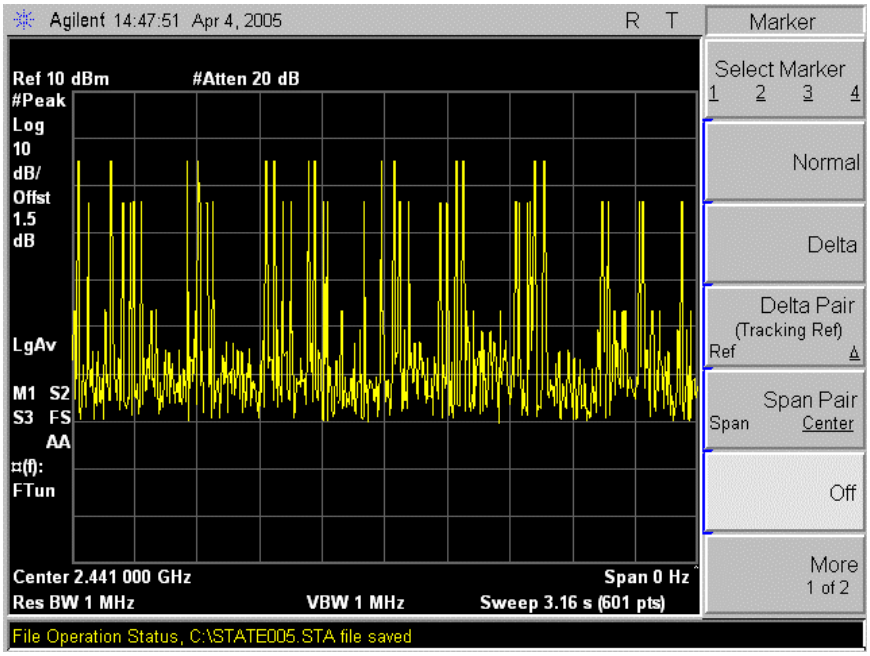
### PULSE WIDTH

PULSE WIDTH



**NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD**

NUMBER OF PULSES



## 7.1.5. PEAK OUTPUT POWER

**PEAK POWER LIMIT**

§15.247 (b) The maximum peak output power of the intentional radiator shall not exceed the following:

§15.247 (b) (1) For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 hopping channels: 1 watt.

§15.247 (b) (4) Except as shown in paragraphs (b)(3) (i), (ii) and (iii) of this section, if transmitting antennas of directional gain greater than 6 dBi are used the peak output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1) or (b)(2) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

The maximum antenna gain is 0 dBi, therefore the limit is 30 dBm.

**TEST PROCEDURE**

The transmitter output is connected to a Peak Power Meter.

**RESULTS**

No non-compliance noted:

| Channel | Frequency (MHz) | Peak Power (dBm) | Limit (dBm) | Margin (dB) |
|---|---|---|---|---|
| Low | 2402 | 0.74 | 30 | -29.26 |
| Middle | 2441 | 0.58 | 30 | -29.42 |
| High | 2480 | 0.04 | 30 | -29.96 |

## 7.1.6. AVERAGE POWER

### AVERAGE POWER LIMIT

None; for reporting purposes only.

### TEST PROCEDURE

The transmitter output is connected to a power meter.

### RESULTS

No non-compliance noted:

The cable assembly insertion loss of 11 dB (including 10 dB pad and 1 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

| Channel | Frequency (MHz) | Average Power (dBm) |
|---|---|---|
| Low | 2402 | 0.51 |
| Middle | 2441 | 0.33 |
| High | 2480 | -0.30 |

## 7.1.7. PEAK POWER SPECTRAL DENSITY

**LIMIT**

§15.247 (d) For direct sequence systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

§15.247 (f) The digital modulation operation of the hybrid system, with the frequency hopping turned off, shall comply with the power density requirements of paragraph (d) of this section.

**TEST PROCEDURE**

The transmitter output is connected to a spectrum analyzer, the maximum level in a 3 kHz bandwidth is measured with the spectrum analyzer using RBW = 3 kHz and VBW > 3 kHz, sweep time = span / 3 kHz, and video averaging is turned off. The PPSD is the highest level found across the emission in any 3 kHz band.

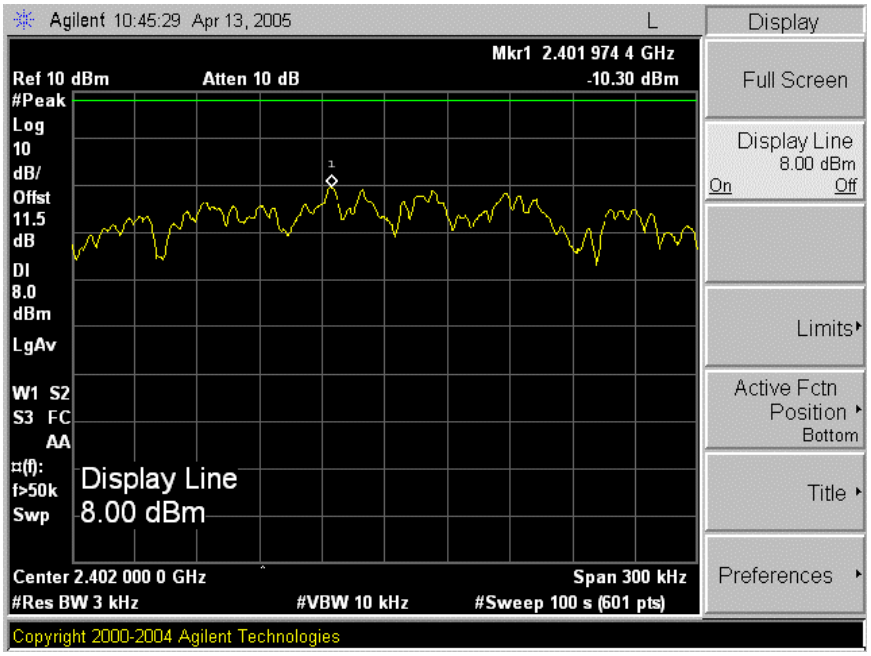
**RESULTS**

No non-compliance noted:

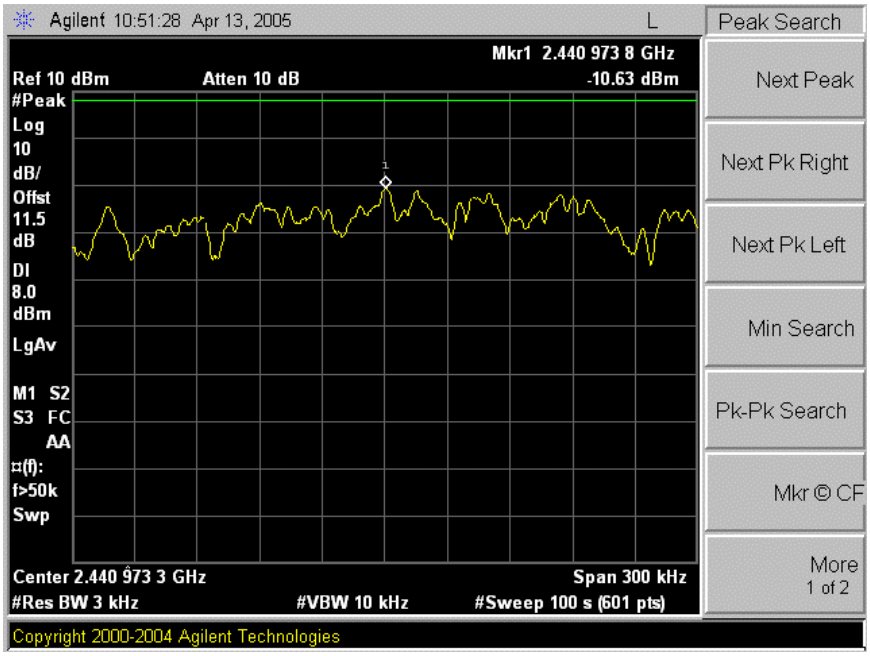
| Channel | Frequency (MHz) | PPSD (dBm) | Limit (dBm) | Margin (dB) |
|---|---|---|---|---|
| Low | 2402 | -10.30 | 8 | -18.30 |
| Middle | 2441 | -10.63 | 8 | -18.63 |
| High | 2480 | -11.26 | 8 | -19.26 |

**PEAK POWER SPECTRAL DENSITY**

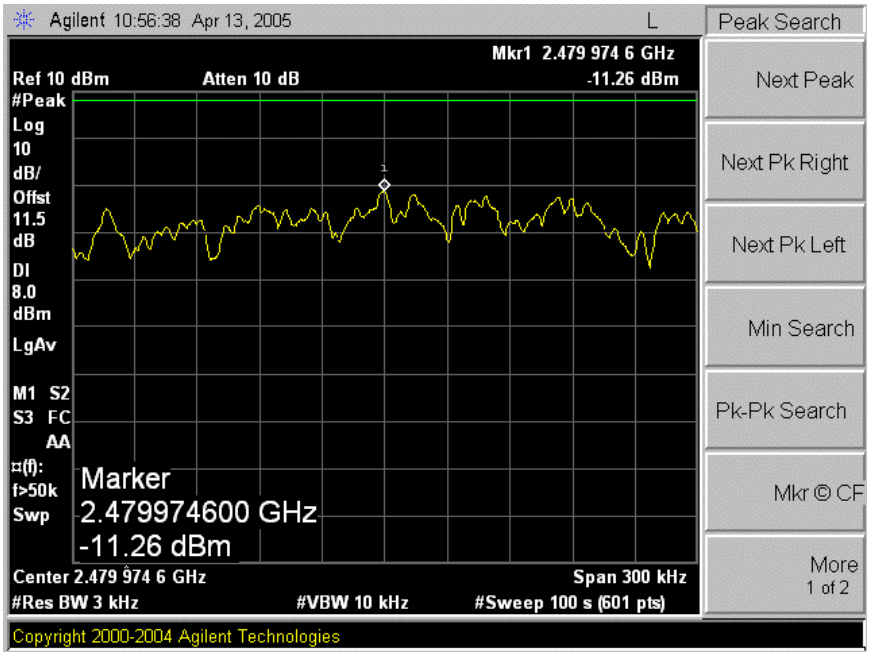
PPSD LOW CH



PPSD MID CH



PPSD HIGH CH



## 7.1.8. CONDUCTED SPURIOUS EMISSIONS

**LIMITS**

§15.247 (c) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in§15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

**TEST PROCEDURE**

The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

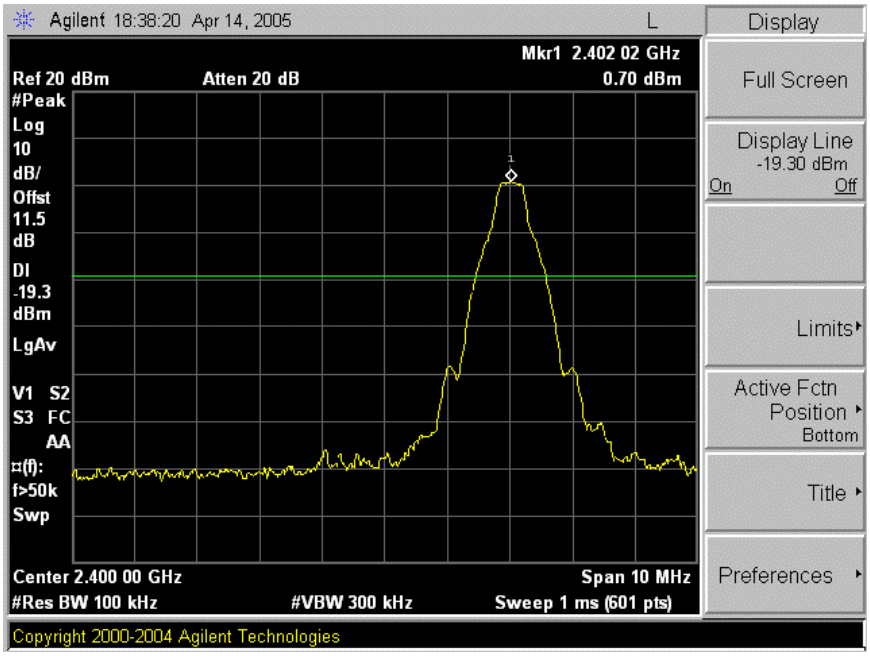
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

**RESULTS**

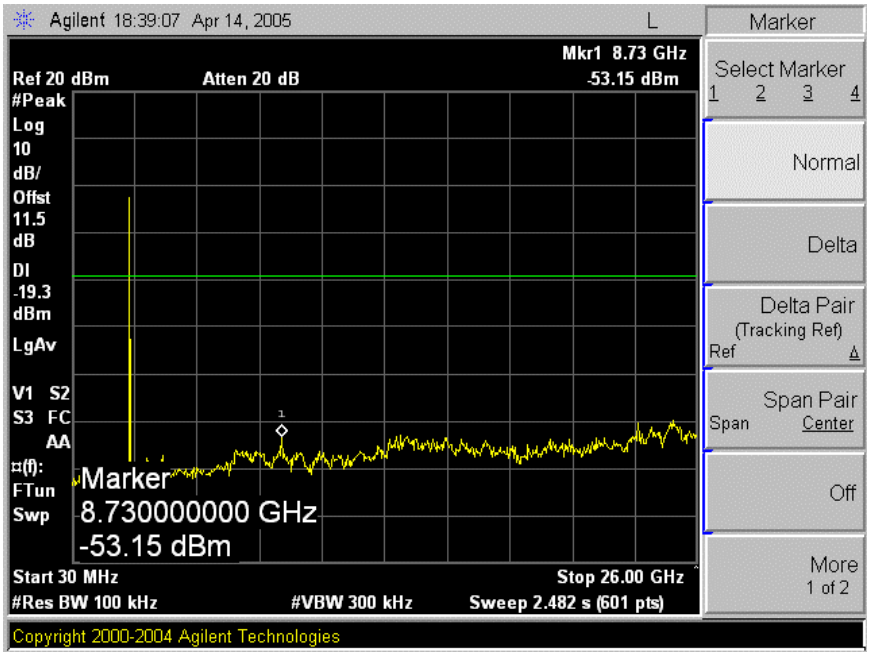
No non-compliance noted:

**SPURIOUS EMISSIONS, LOW CHANNEL**

LOW CHANNEL BANDEDGE

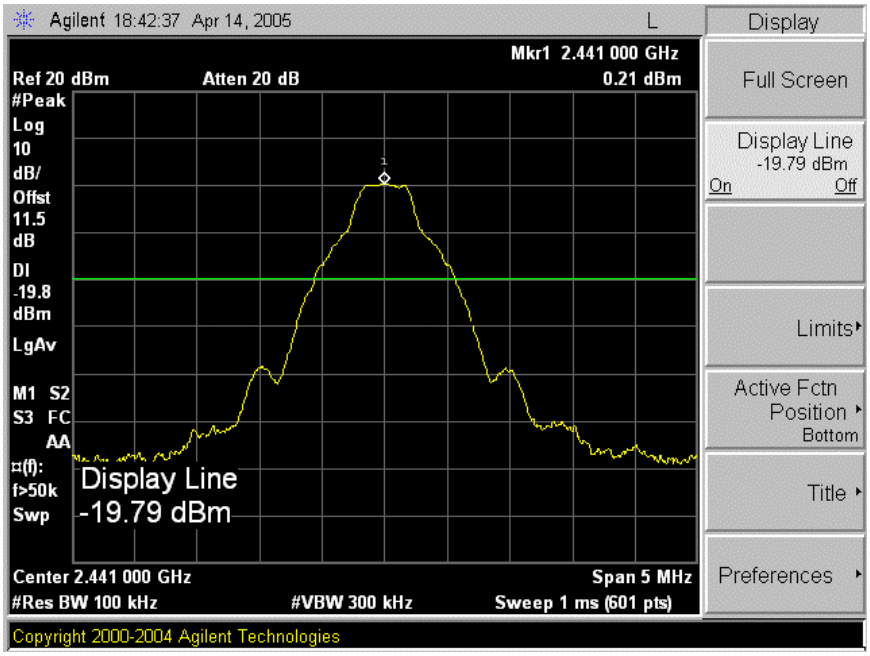


LOW CHANNEL SPURIOUS

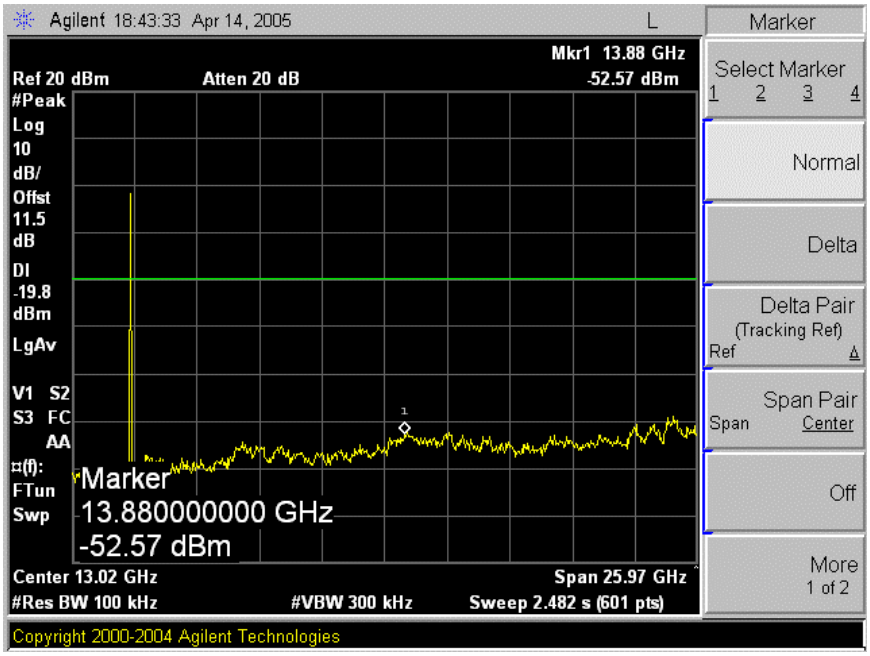


**SPURIOUS EMISSIONS, MID CHANNEL**

MID CHANNEL REFERENCE

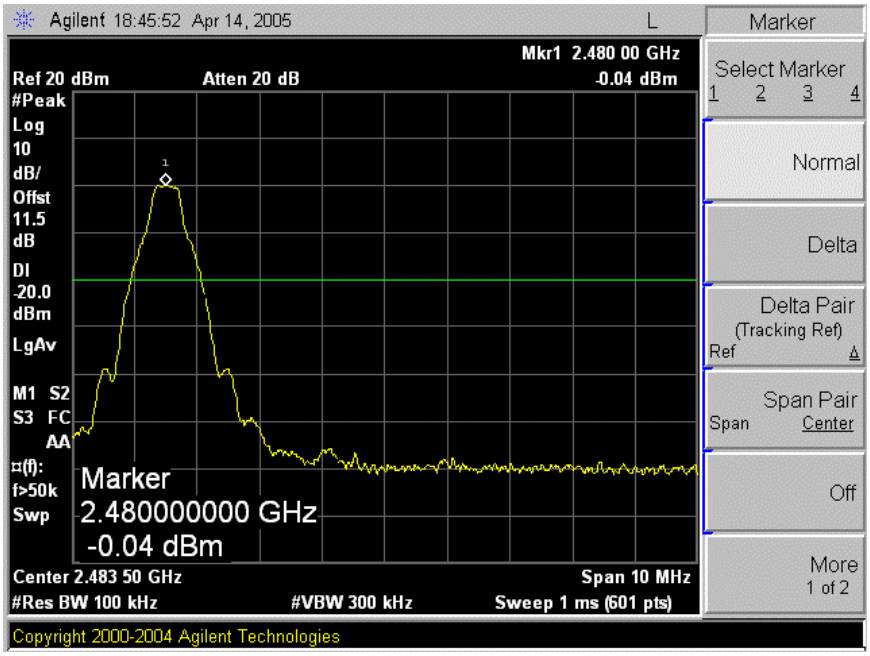


MID CHANNEL SPURIOUS

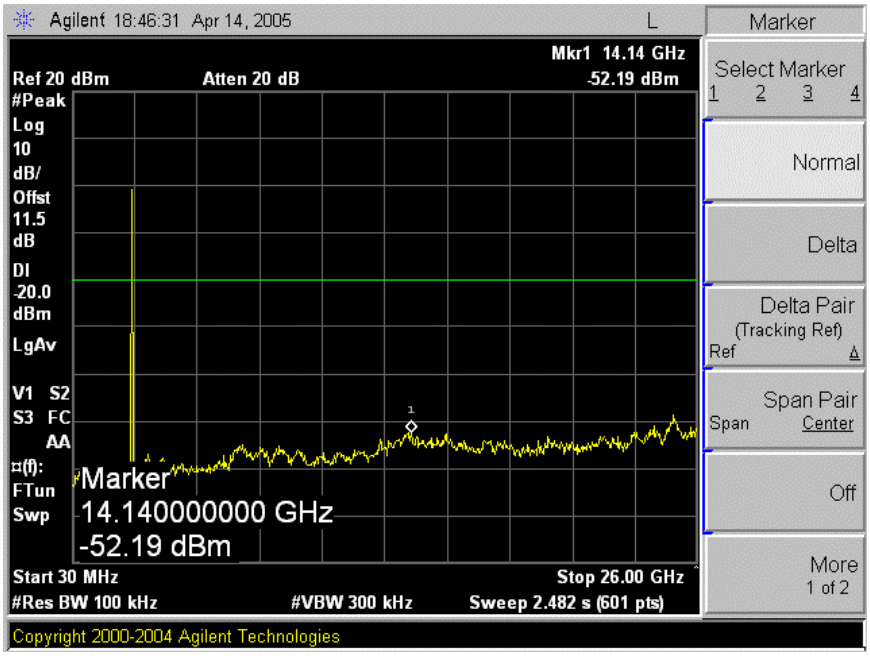


**SPURIOUS EMISSIONS, HIGH CHANNEL**

HIGH CHANNEL BANDEDGE

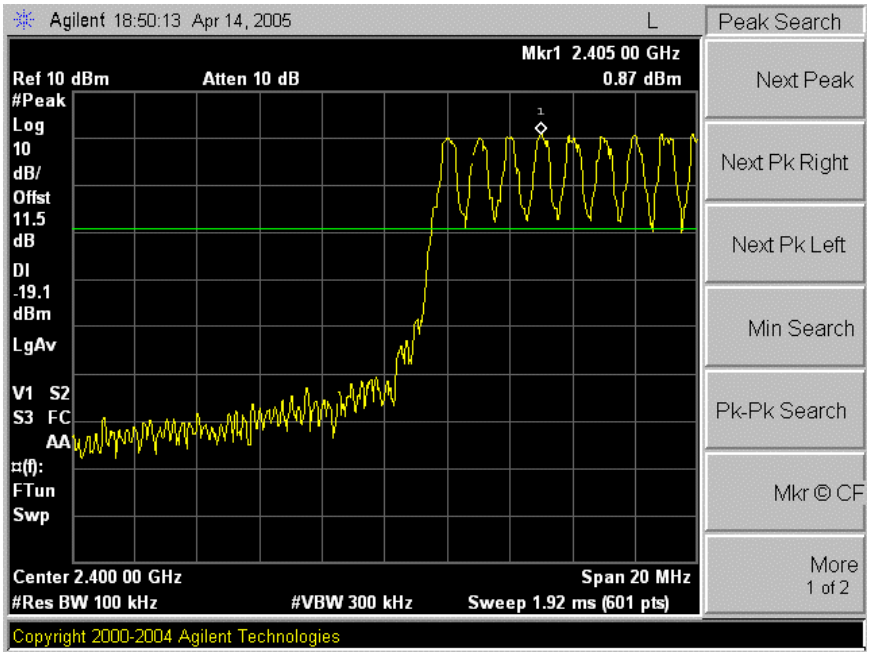


HIGH CHANNEL SPURIOUS

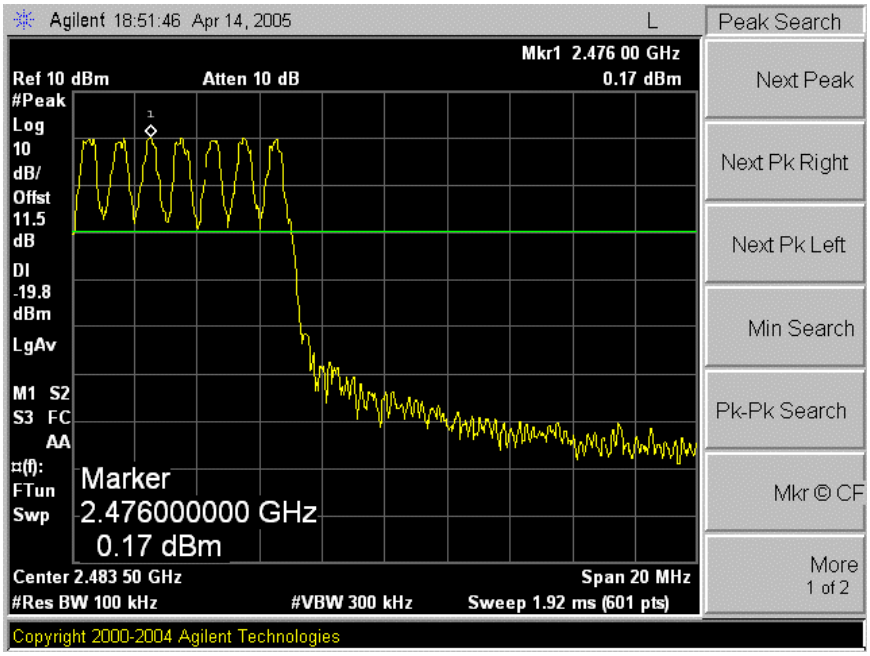


**SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON**

LOW BANDEDGE WITH HOPPING ON



HIGH BANDEDGE WITH HOPPING ON



## 7.2. RADIATED EMISSIONS ABOVE 1GHz

### 7.2.1. TRANSMITTER RADIATED SPURIOUS EMISSIONS

**LIMITS**

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

| MHz | MHz | MHz | GHz |
|---|---|---|---|
| 0.090 - 0.110 | 16.42 - 16.423 | 399.9 - 410 | 4.5 - 5.15 |
| [1]0.495 - 0.505 | 16.69475 - 16.69525 | 608 - 614 | 5.35 - 5.46 |
| 2.1735 - 2.1905 | 16.80425 - 16.80475 | 960 - 1240 | 7.25 - 7.75 |
| 4.125 - 4.128 | 25.5 - 25.67 | 1300 - 1427 | 8.025 - 8.5 |
| 4.17725 - 4.17775 | 37.5 - 38.25 | 1435 - 1626.5 | 9.0 - 9.2 |
| 4.20725 - 4.20775 | 73 - 74.6 | 1645.5 - 1646.5 | 9.3 - 9.5 |
| 6.215 - 6.218 | 74.8 - 75.2 | 1660 - 1710 | 10.6 - 12.7 |
| 6.26775 - 6.26825 | 108 - 121.94 | 1718.8 - 1722.2 | 13.25 - 13.4 |
| 6.31175 - 6.31225 | 123 - 138 | 2200 - 2300 | 14.47 - 14.5 |
| 8.291 - 8.294 | 149.9 - 150.05 | 2310 - 2390 | 15.35 - 16.2 |
| 8.362 - 8.366 | 156.52475 - 156.52525 | 2483.5 - 2500 | 17.7 - 21.4 |
| 8.37625 - 8.38675 | 156.7 - 156.9 | 2655 - 2900 | 22.01 - 23.12 |
| 8.41425 - 8.41475 | 162.0125 - 167.17 | 3260 - 3267 | 23.6 - 24.0 |
| 12.29 - 12.293 | 167.72 - 173.2 | 3332 - 3339 | 31.2 - 31.8 |
| 12.51975 - 12.52025 | 240 - 285 | 3345.8 - 3358 | 36.43 - 36.5 |
| 12.57675 - 12.57725 | 322 - 335.4 | 3600 - 4400 | ([2]) |
| 13.36 - 13.41 | | | |

[1] Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.
[2] Above 38.6

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

§15.209 (a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

| Frequency (MHz) | Field Strength (microvolts/meter) | Measurement Distance (meters) |
|---|---|---|
| 30 - 88 | 100 ** | 3 |
| 88 - 216 | 150 ** | 3 |
| 216 - 960 | 200 ** | 3 |
| Above 960 | 500 | 3 |

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

§15.209 (b) In the emission table above, the tighter limit applies at the band edges.

## TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each 5 GHz band.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

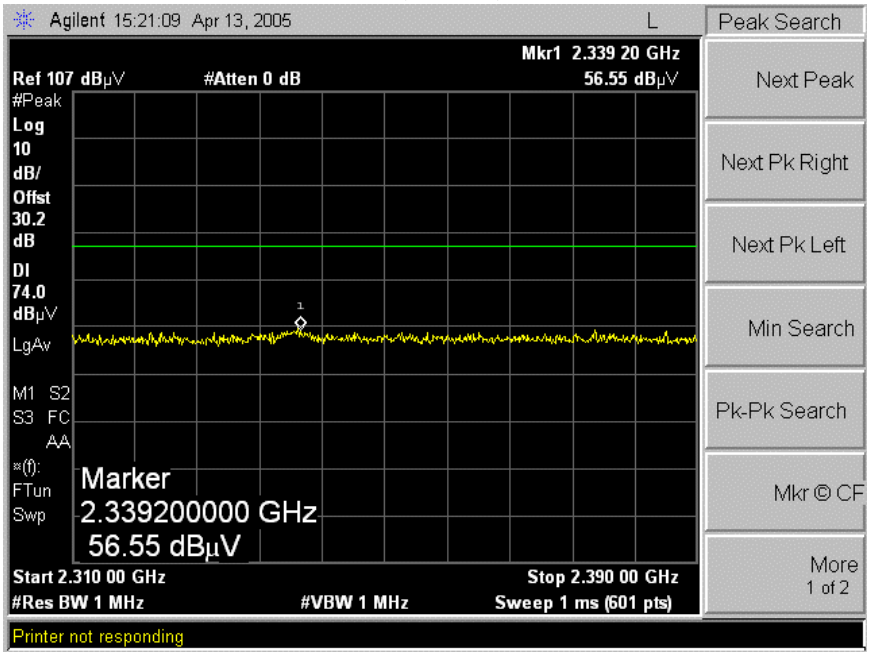
## SUPPLEMENTAL TEST PROCEDURE FOR CO-LOCATED TRANSMITTERS

The dominant transmitter is set to the worst case channel. The spurious emissions performance of the dominant transmitter is investigated as the settings of the non-dominant transmitter are varied. The spectrum is searched for intermodulation products. Worst-case results are reported.

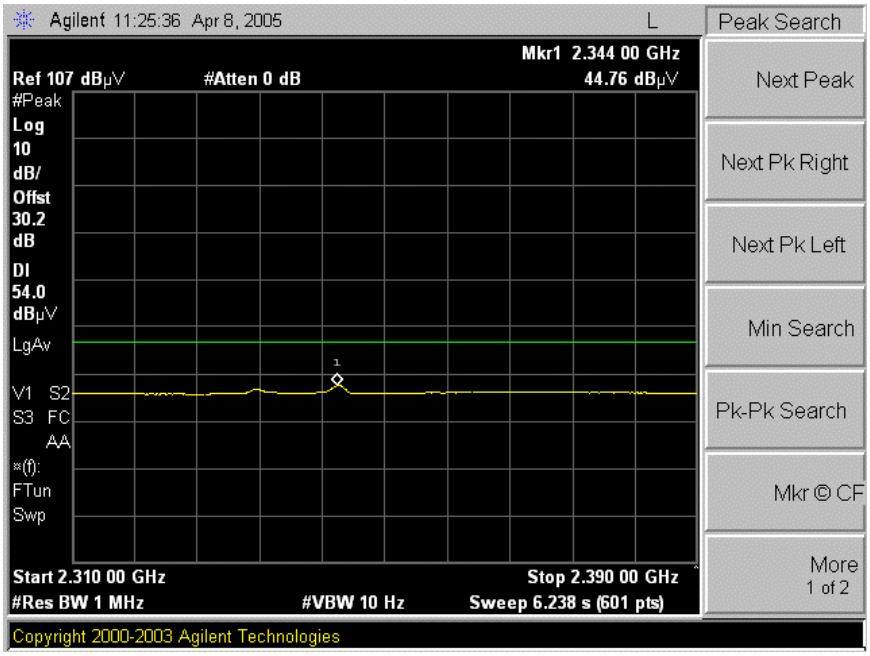
## 7.2.2. TRANSMITTER RADIATED EMISSIONS ABOVE 1 GHZ

**RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)**

LOW CHANNEL RESTRICTED, PEAK, HORIZ

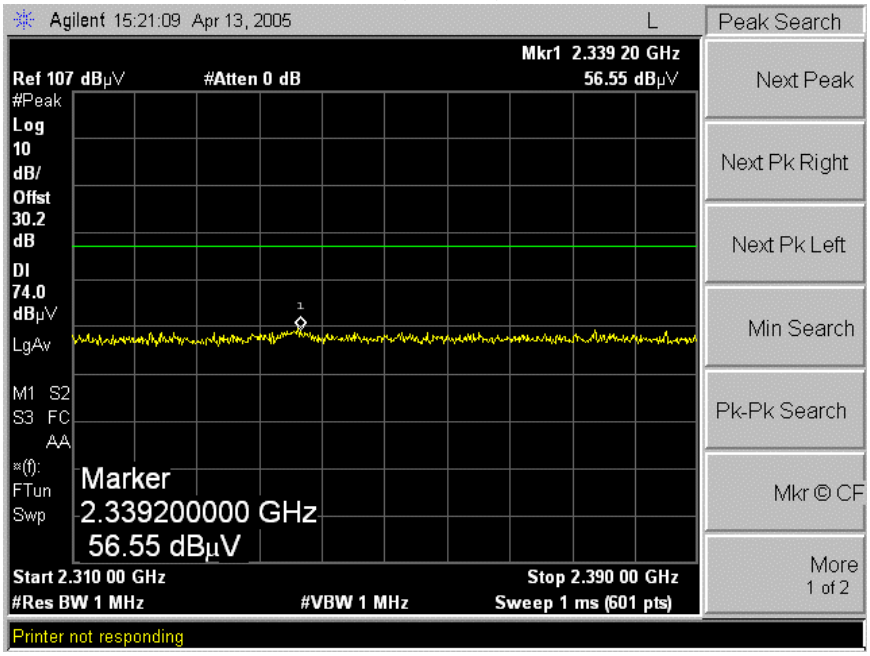


LOW CHANNEL RESTRICTED, AVG, HORIZ

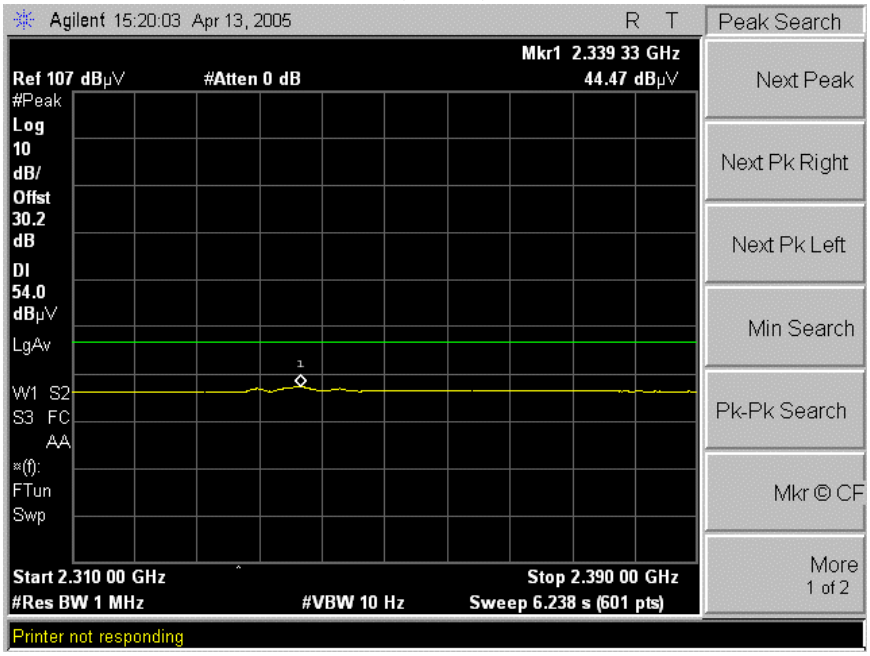


**RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**

LOW CHANNEL RESTRICTED, PEAK, VERT

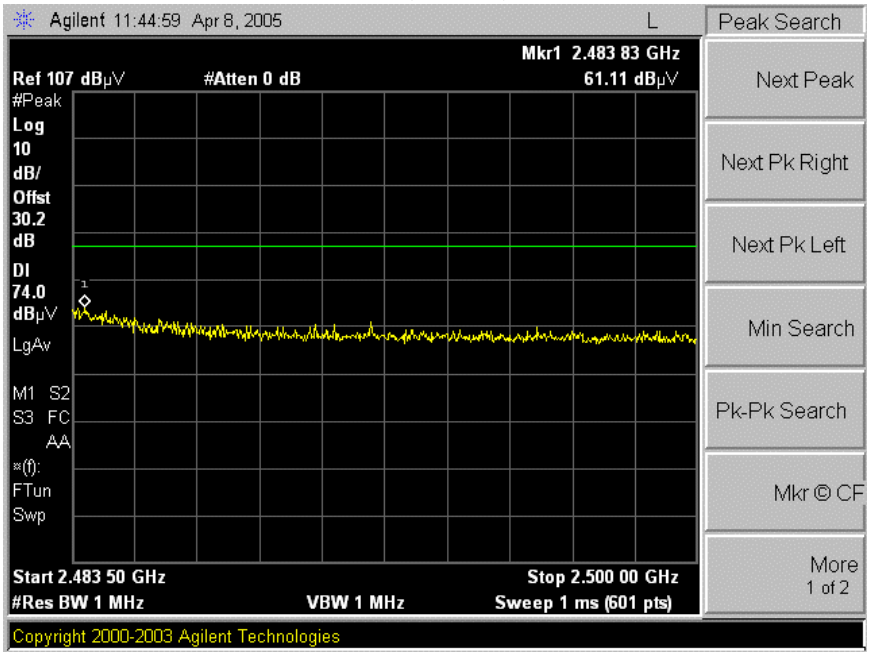


LOW CHANNEL RESTRICTED, AVG, VERT

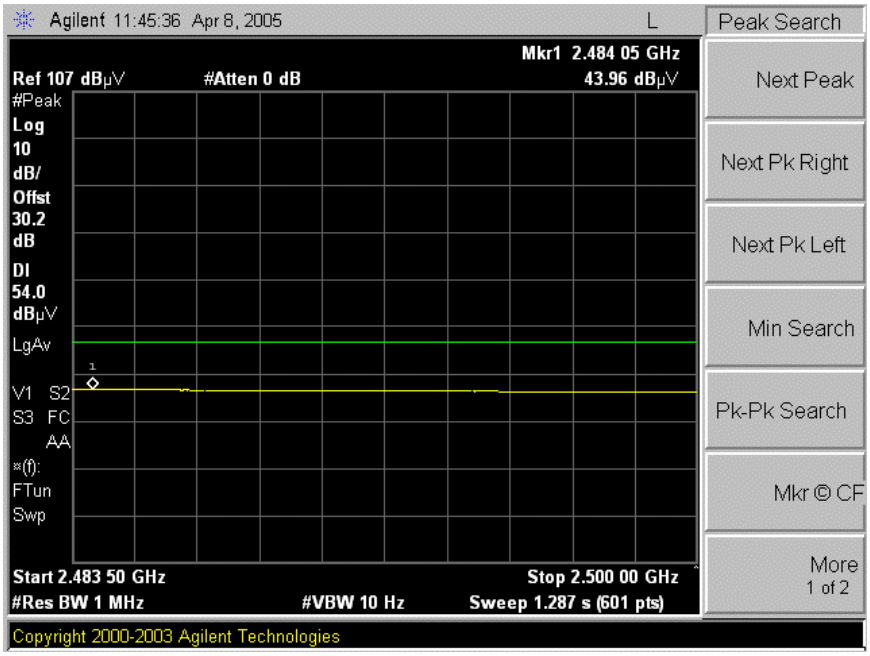


**RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)**

HIGH CHANNEL RESTRICTED, PEAK, HORIZ

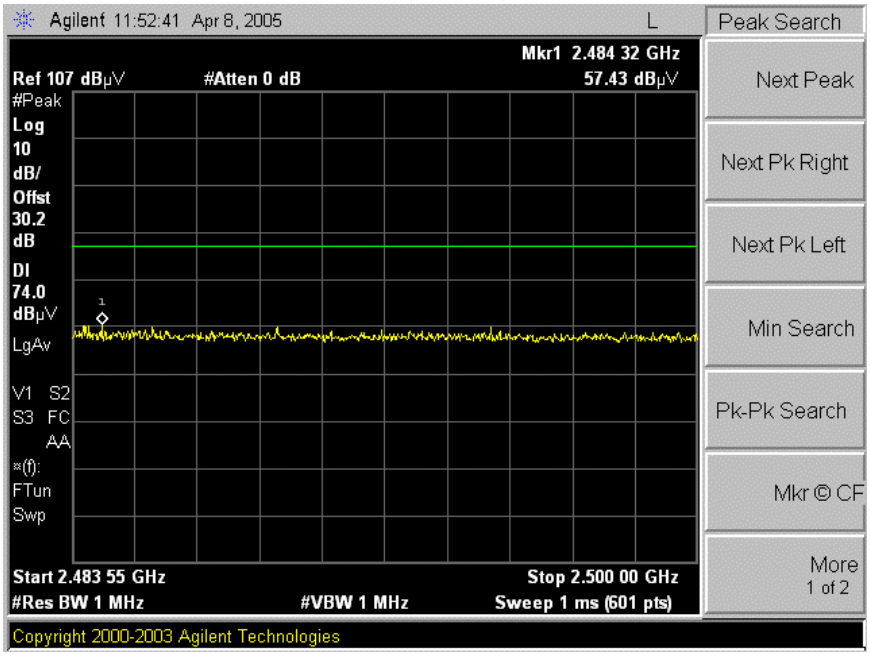


HIGH CHANNEL RESTRICTED, AVG, HORIZ

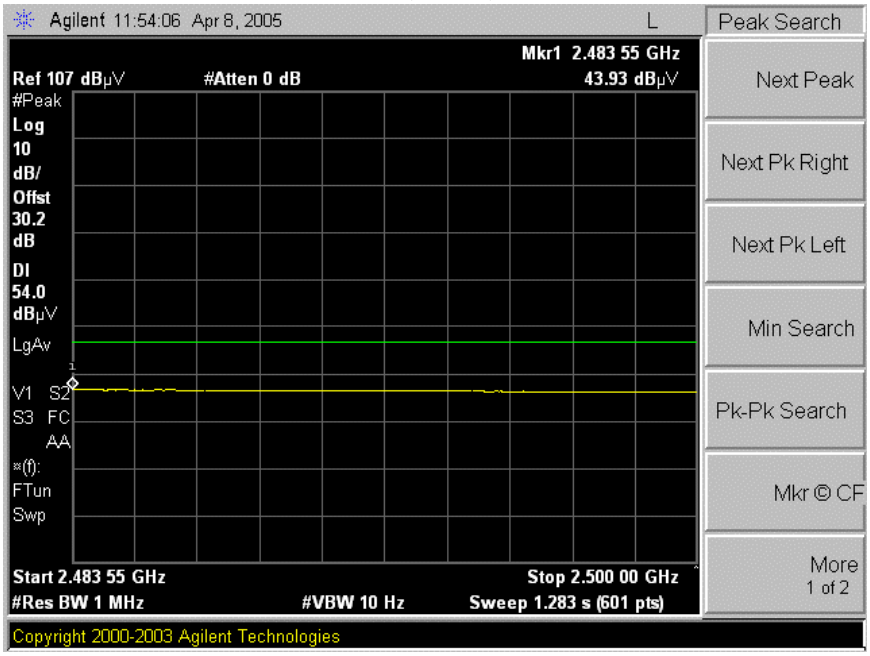


**RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)**

HIGH CHANNEL RESTRICTED, PEAK, VERT



HIGH CHANNEL RESTRICTED, AVG, VERT



## HARMONICS AND SPURIOUS EMISSIONS

04/08/05 High Frequency Measurement
Compliance Certification Services, Morgan Hill Open Field Site

Test Engr: Chin Pang
Project #:05T3291-2
Company: High Tech Computer, Corp
EUT Descrip.: PDA Phone
EUT M/N:PA10A
Test Target: FCC 15.247
Mode Oper: TX, Bluetooth
Average Power Meter: Low = 0.5 dBm, Mid = 0.3dBm, High = -0.3 dBm

Test Equipment:

EMCO Horn 1-18GHz: T73; S/N: 6717 @3m
Pre-amplifier 1-26 GHz: T63 Miteq 646456
Pre-amplifier 26-40GHz:
Horn > 18GHz:
Limit: FCC 15.205

Hi Frequency Cables:
2 foot cable:
3 foot cable:
4 foot cable: 4_Vien
12 foot cable: 12_Neelesh

HPF: HPF_4.0GHz
Reject Filter:

Peak Measurements
RBW=VBW=1MHz

Average Measurements
RBW=1MHz ; VBW=10Hz

| f GHz | Dist (m) | Read Pk dBuV | Read Avg dBuV | AF dB/m | CL dB | Amp dB | D Corr dB | Fltr dB | Peak dBuV/m | Avg dBuV/m | Pk Lim dBuV/m | Avg Lim dBuV/m | Pk Mar dB | Avg Mar dB | Notes (V/H) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| low ch | | | | | | | | | | | | | | | |
| 4.804 | 3.0 | 49.0 | 36.2 | 32.9 | 3.9 | -37.9 | 0.0 | 0.6 | 48.4 | 35.6 | 74 | 54 | -25.6 | -18.4 | V |
| 4.804 | 3.0 | 49.5 | 36.3 | 32.9 | 3.9 | -37.9 | 0.0 | 0.6 | 48.9 | 35.7 | 74 | 54 | -25.1 | -18.3 | H |
| mid ch | | | | | | | | | | | | | | | |
| 4.882 | 3.0 | 49.0 | 36.3 | 32.9 | 3.9 | -37.9 | 0.0 | 0.6 | 48.6 | 35.9 | 74 | 54 | -25.4 | -18.1 | V |
| 7.323 | 3.0 | 49.5 | 37.2 | 35.9 | 4.7 | -36.9 | 0.0 | 0.6 | 53.8 | 41.5 | 74 | 54 | -20.2 | -12.5 | V |
| 4.882 | 3.0 | 49.4 | 36.7 | 32.9 | 3.9 | -37.9 | 0.0 | 0.6 | 49.0 | 36.3 | 74 | 54 | -25.0 | -17.7 | H |
| 7.323 | 3.0 | 50.3 | 37.4 | 35.9 | 4.7 | -36.9 | 0.0 | 0.6 | 54.6 | 41.7 | 74 | 54 | -19.4 | -12.3 | H |
| high ch | | | | | | | | | | | | | | | |
| 4.960 | 3.0 | 50.5 | 37.0 | 33.0 | 4.0 | -37.9 | 0.0 | 0.6 | 50.2 | 36.7 | 74 | 54 | -23.8 | -17.3 | V |
| 7.440 | 3.0 | 50.0 | 37.6 | 36.1 | 4.7 | -36.8 | 0.0 | 0.6 | 54.6 | 42.2 | 74 | 54 | -19.4 | -11.8 | V |
| 4.960 | 3.0 | 49.7 | 36.8 | 33.0 | 4.0 | -37.9 | 0.0 | 0.6 | 49.4 | 36.5 | 74 | 54 | -24.6 | -17.5 | H |
| 7.440 | 3.0 | 49.6 | 37.4 | 36.1 | 4.7 | -36.8 | 0.0 | 0.6 | 54.2 | 42.0 | 74 | 54 | -19.8 | -12.0 | H |

Note: No other emissions were detected above the system noise floor.

| | | | | | |
|---|---|---|---|---|---|
| f | Measurement Frequency | Amp | Preamp Gain | Avg Lim | Average Field Strength Limit |
| Dist | Distance to Antenna | D Corr | Distance Correct to 3 meters | Pk Lim | Peak Field Strength Limit |
| Read | Analyzer Reading | Avg | Average Field Strength @ 3 m | Avg Mar | Margin vs. Average Limit |
| AF | Antenna Factor | Peak | Calculated Peak Field Strength | Pk Mar | Margin vs. Peak Limit |
| CL | Cable Loss | HPF | High Pass Filter | | |

## 7.2.3. CO-LOCATED TRANSMITTER RADIATED EMISSIONS

**RESULTS**

Worst-case configurations are determined as:

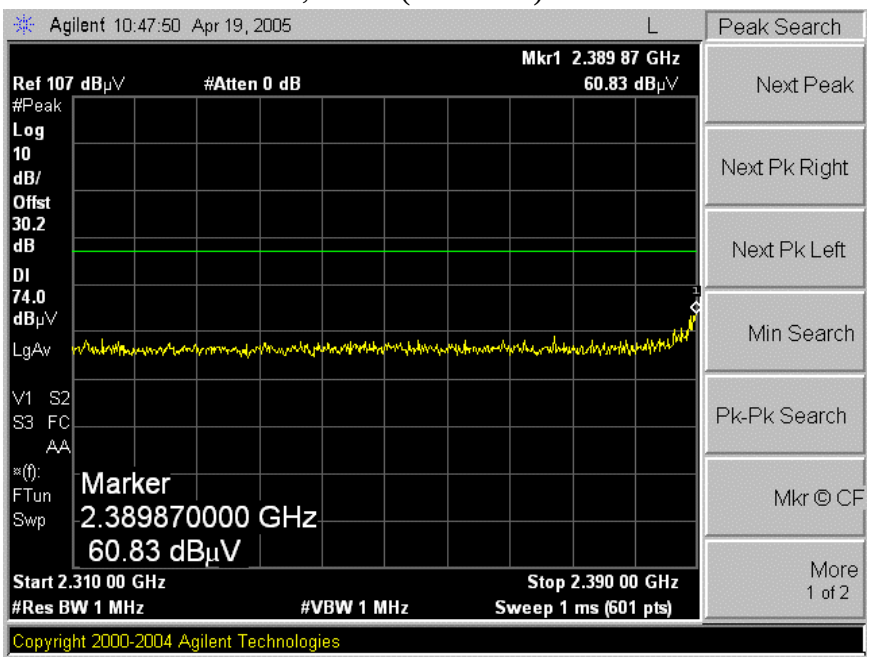
Lower bandedge: BT at low channel and CDMA 800MHz at low channel;
Upper bandedge: BT at high channel and CDMA 800MHz at high channel;
Harmonics and spurious emissions: BT at mid channel and CDMA 800MHz at mid channel

No non-compliance noted:

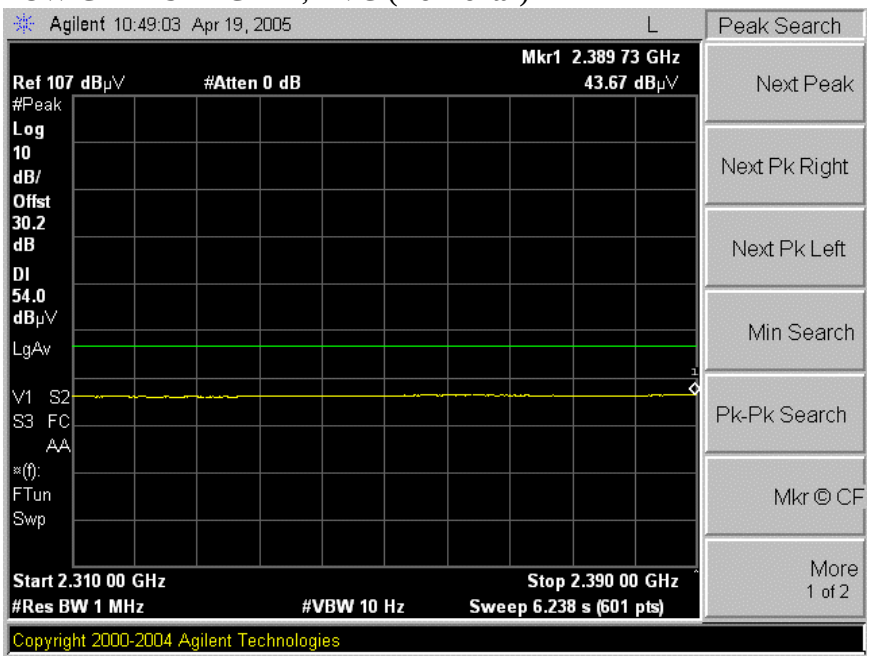
The dominant transmitter is the BT, and the non-dominant transmitter is CDMA 800MHz.

**WORST-CASE RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)**

LOW CH RESTRICTED, PEAK (Horizontal)

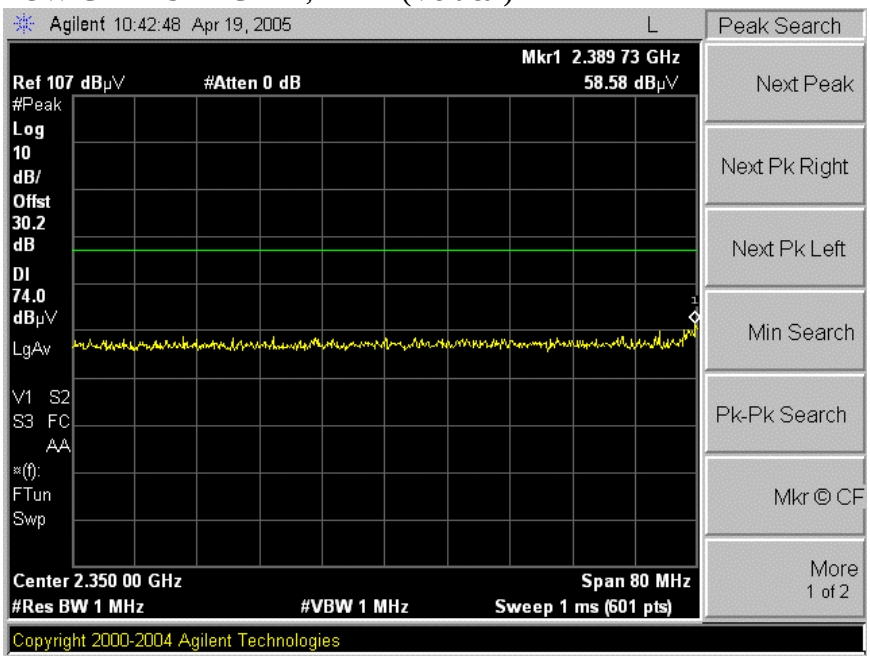


LOW CH RESTRICTED, AVG (Horizontal)

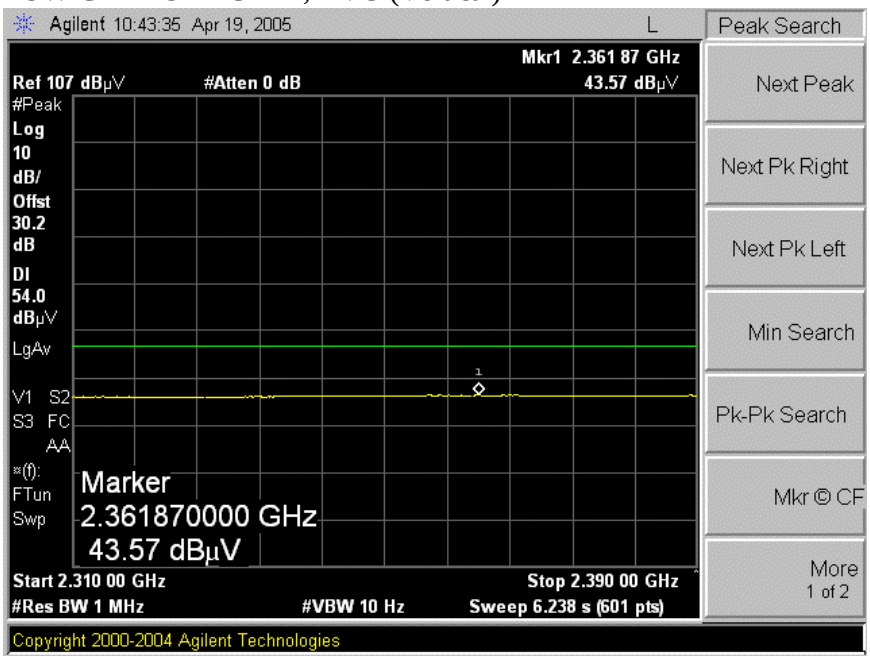


**WORST-CASE RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**

LOW CH RESTRICTED, PEAK (Vertical)

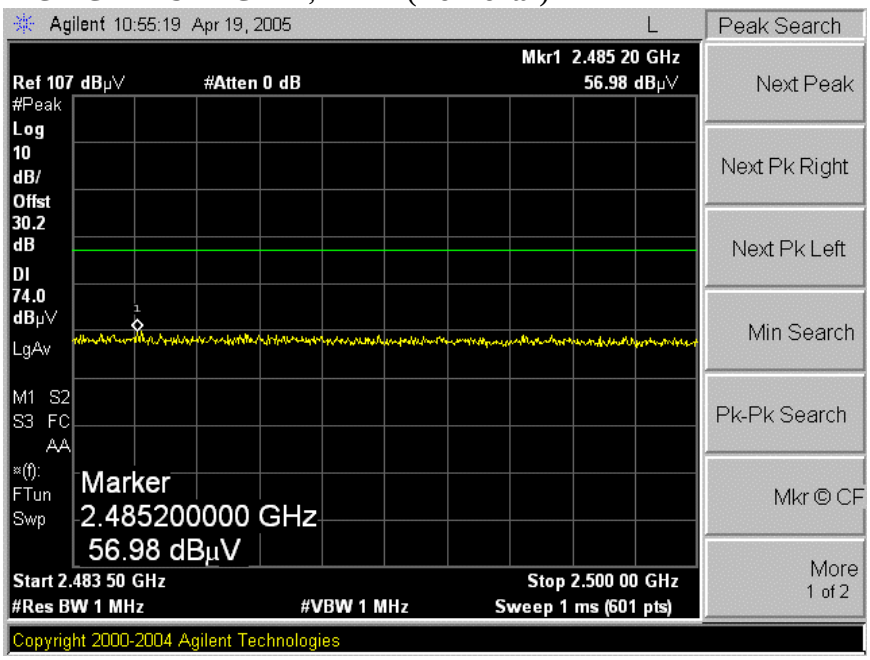


LOW CH RESTRICTED, AVG (Vertical)

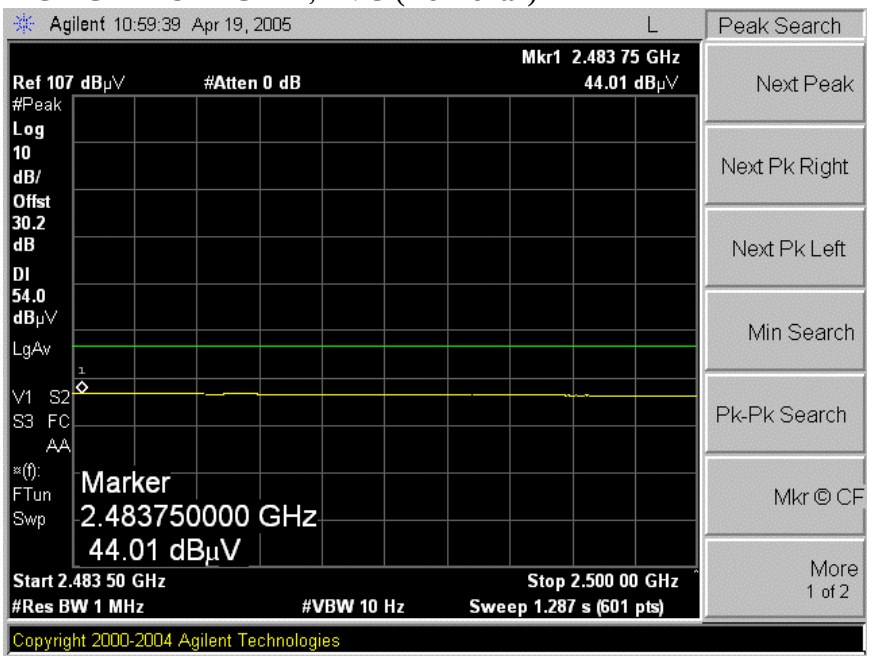


**WORST-CASE RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)**

HIGH CH RESTRICTED, PEAK (Horizontal)

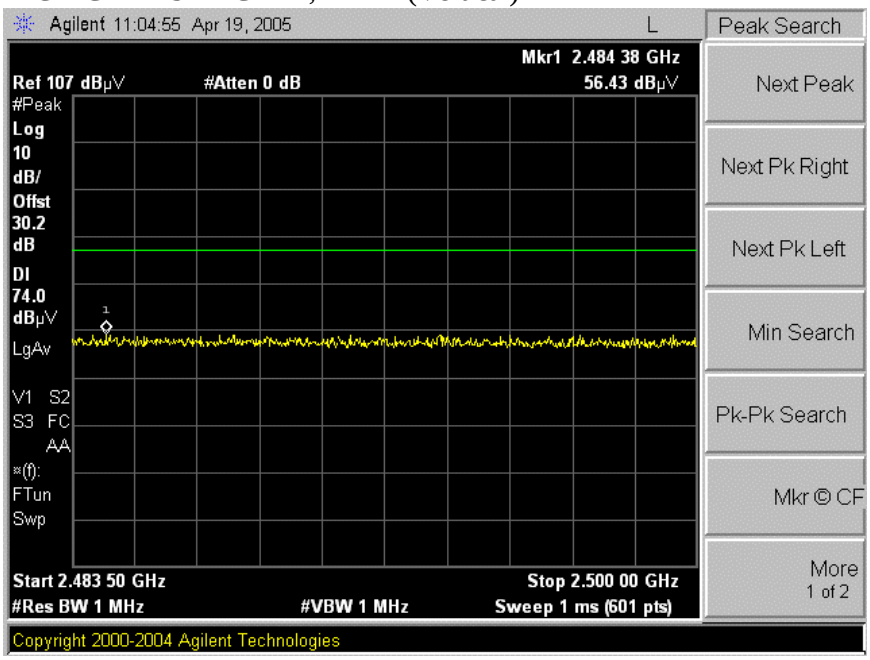


HIGH CH RESTRICTED, AVG (Horizontal)

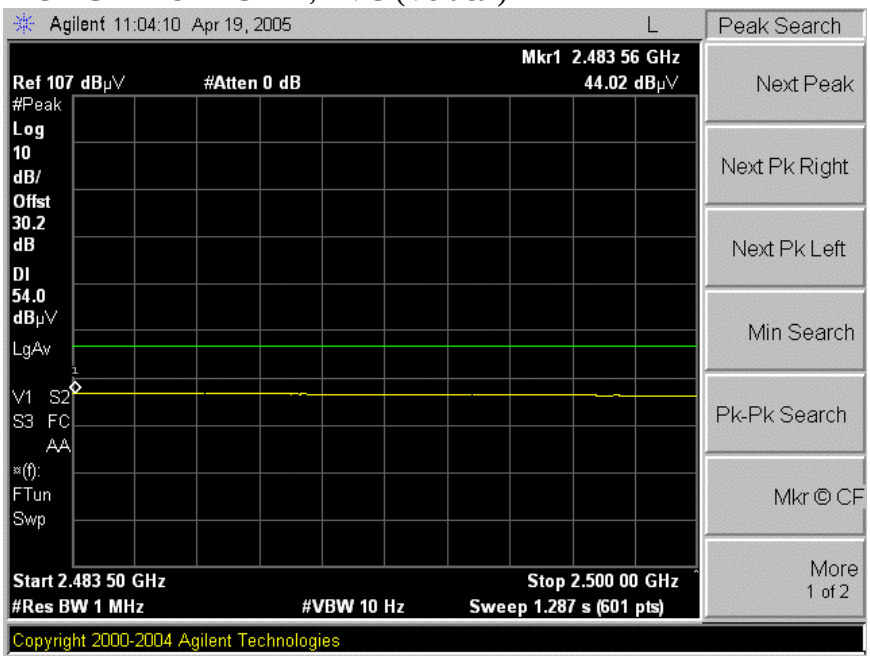


**WORST-CASE RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)**

HIGH CH RESTRICTED, PEAK (Vertical)



HIGH CH RESTRICTED, AVG (Vertical)



## WORST-CASE HARMONICS AND SPURIOUS EMISSIONS

04/19/05 **High Frequency Measurement**
**Compliance Certification Services, Morgan Hill Open Field Site**

**Test Engr:** Chin Pang
**Project #:**05T3291-4
**Company:** High Tech Computer
**EUT Descrip.:** PDA Phone
**EUT M/N:** PA10A
**Test Target:** FCC 15.247
**Mode Oper:** Co-Location, TX Dominant is BT and non-dominant is CDMA 800MHz
**Average Power Meter:** Low = 0.5dBm, Mid = 0.3dBm, High = 0 dBm

**Test Equipment:**

| EMCO Horn 1-18GHz | Pre-amplifier 1-26 GHz | Pre-amplifier 26-40GHz | Horn > 18GHz | Limit |
|---|---|---|---|---|
| T73; S/N: 6717 @3m | T86 Miteq 924341 | | | FCC 15.205 |

Hi Frequency Cables

| 2 foot cable | 3 foot cable | 4 foot cable | 12 foot cable | HPF | Reject Filter |
|---|---|---|---|---|---|
| | | 4_Vien | 12_Neelesh | HPF_4.0GHz | |

Peak Measurements
RBW=VBW=1MHz

Average Measurements
RBW=1MHz ; VBW=10Hz

| f GHz | Dist (m) | Read Pk dBuV | Read Avg dBuV | AF dB/m | CL dB | Amp dB | D Corr dB | Fltr dB | Peak dBuV/m | Avg dBuV/m | Pk Lim dBuV/m | Avg Lim dBuV/m | Pk Mar dB | Avg Mar dB | Notes (V/H) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **mid ch** | | | | | | | | | | | | | | | |
| 4.882 | 3.0 | 52.3 | 39.8 | 32.9 | 3.9 | -44.1 | 0.0 | 0.6 | 45.7 | 33.2 | 74 | 54 | -28.3 | -20.8 | V |
| 7.323 | 3.0 | 52.0 | 39.7 | 35.9 | 4.7 | -44.7 | 0.0 | 0.6 | 48.5 | 36.2 | 74 | 54 | -25.5 | -17.8 | V |
| 4.882 | 3.0 | 52.5 | 40.0 | 32.9 | 3.9 | -44.1 | 0.0 | 0.6 | 45.9 | 33.4 | 74 | 54 | -28.1 | -20.6 | H |
| 7.323 | 3.0 | 52.4 | 39.9 | 35.9 | 4.7 | -44.7 | 0.0 | 0.6 | 48.9 | 36.4 | 74 | 54 | -25.1 | -17.6 | H |
| | | | | | | | | | | | | | | | |
| **Note: No other emissions were detected above the system noise floor.** | | | | | | | | | | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| f | Measurement Frequency | Amp | Preamp Gain | Avg Lim | Average Field Strength Limit |
| Dist | Distance to Antenna | D Corr | Distance Correct to 3 meters | Pk Lim | Peak Field Strength Limit |
| Read | Analyzer Reading | Avg | Average Field Strength @ 3 m | Avg Mar | Margin vs. Average Limit |
| AF | Antenna Factor | Peak | Calculated Peak Field Strength | Pk Mar | Margin vs. Peak Limit |
| CL | Cable Loss | HPF | High Pass Filter | | |

## RESULTS

Worst-case configurations are determined as:

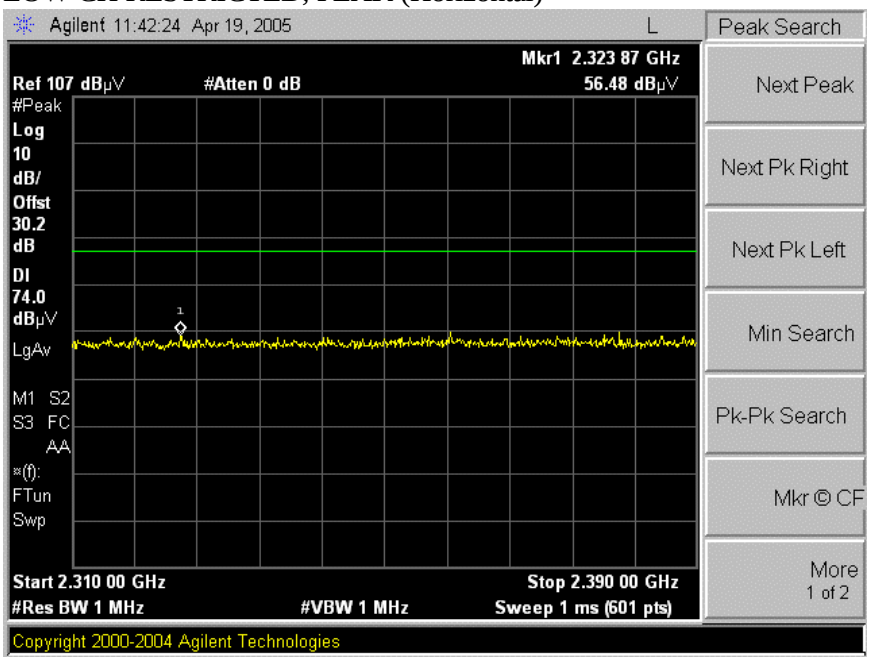
Lower bandedge: BT at low channel and CDMA 1900MHz at low channel;
Upper bandedge: BT at high channel and CDMA 1900MHz at high channel;
Harmonics and spurious emissions: BT at mid channel and CDMA 1900MHz at mid channel

No non-compliance noted:

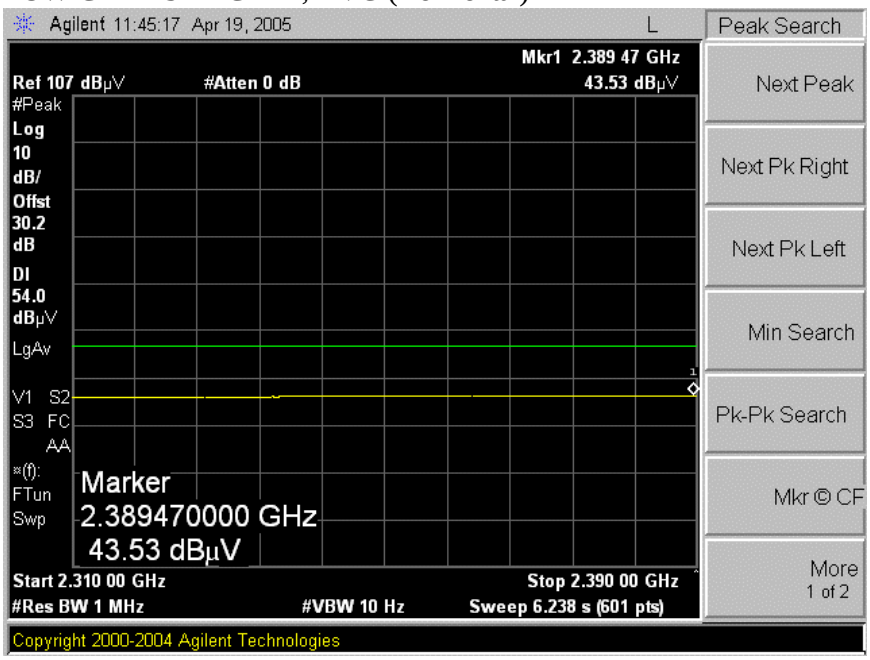
The dominant transmitter is the BT, and the non-dominant transmitter is CDMA 1900MHz.

## WORST-CASE RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

LOW CH RESTRICTED, PEAK (Horizontal)

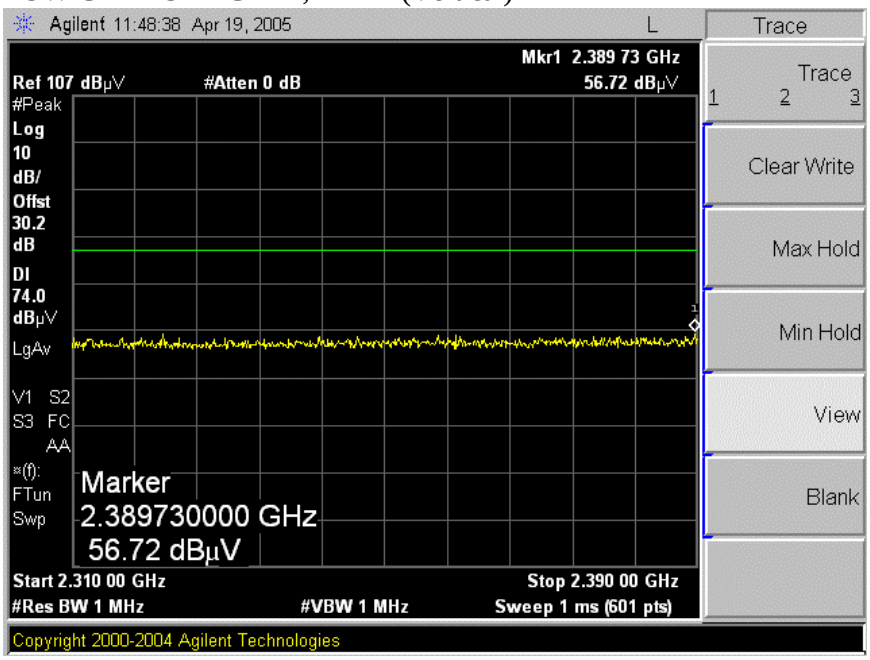


LOW CH RESTRICTED, AVG (Horizontal)

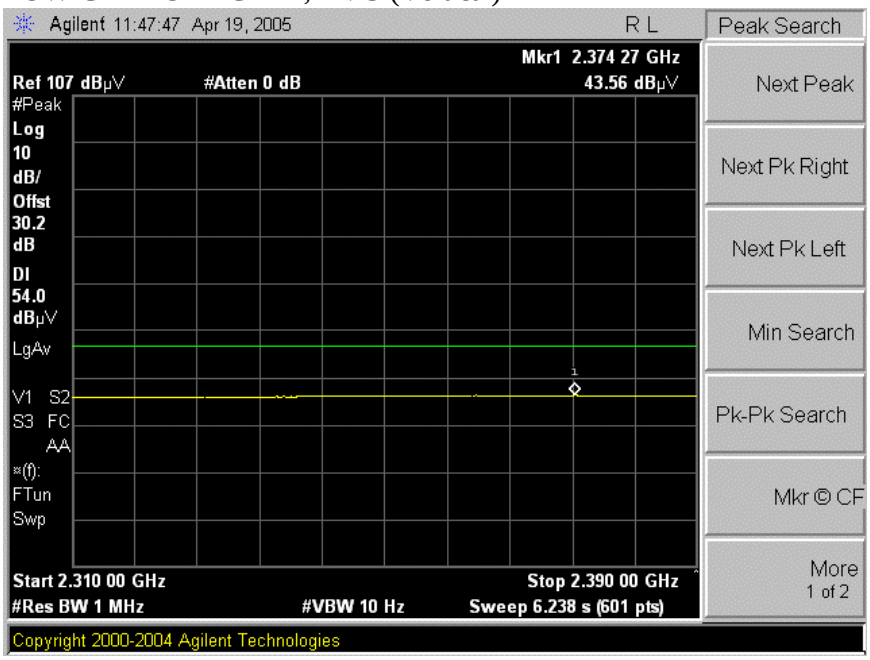


**WORST-CASE RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**

LOW CH RESTRICTED, PEAK (Vertical)

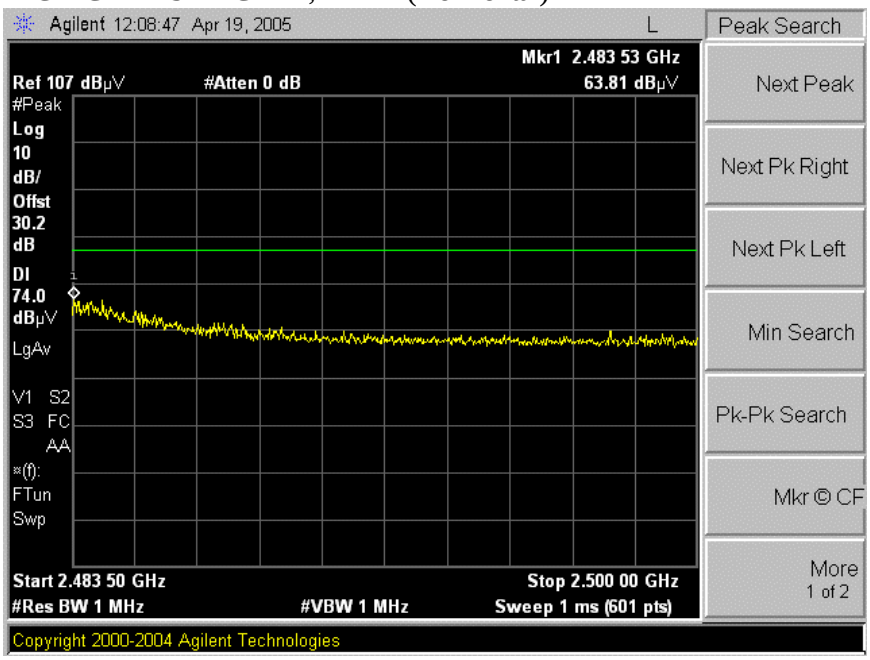


LOW CH RESTRICTED, AVG (Vertical)

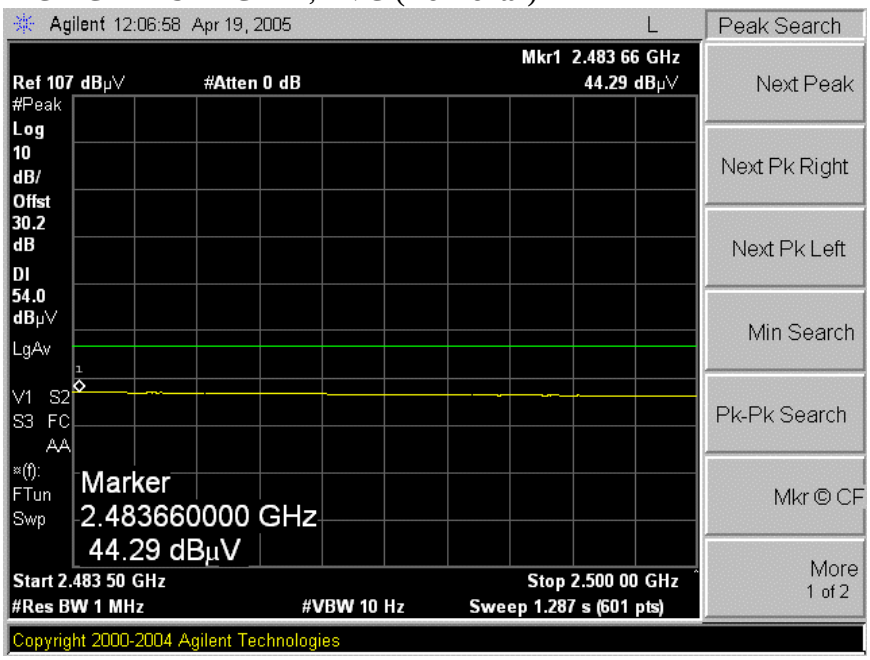


**WORST-CASE RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)**

HIGH CH RESTRICTED, PEAK (Horizontal)

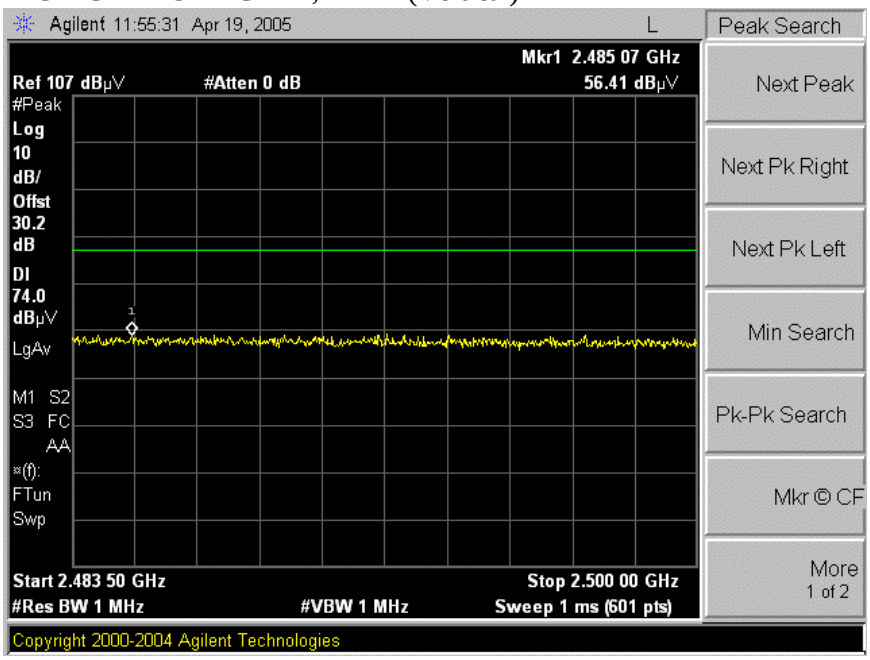


HIGH CH RESTRICTED, AVG (Horizontal)

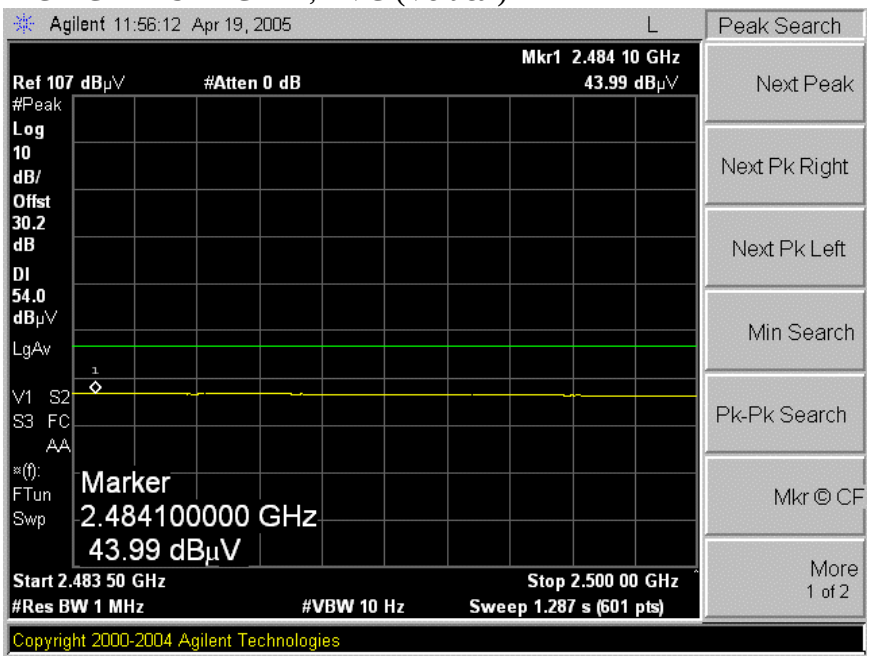


**WORST-CASE RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)**

HIGH CH RESTRICTED, PEAK (Vertical)



HIGH CH RESTRICTED, AVG (Vertical)



## WORST-CASE HARMONICS AND SPURIOUS EMISSIONS

04/19/05 High Frequency Measurement
Compliance Certification Services, Morgan Hill Open Field Site

Test Engr: Chin Pang
Project #: 05T3291-4
Company: High Tech Computer
EUT Descrip.: PDA Phone
EUT M/N: PA10A
Test Target: FCC 15.247
Mode Oper: Co-Location, TX Dominant is BT and non-dominat is CDMA 1900MHz
Average Power Meter: Low = 0.5dBm, Mid = 0.3dBm, High = 0dBm

Test Equipment:

EMCO Horn 1-18GHz: T73; S/N: 6717 @3m
Pre-amplifier 1-26GHz: T86 Miteq 924341
Pre-amplifier 26-40GHz:
Horn > 18GHz:
Limit: FCC 15.205

Hi Frequency Cables
2 foot cable:
3 foot cable:
4 foot cable: 4_Vien
12 foot cable: 12_Neelesh
HPF: HPF_4.0GHz
Reject Filter:

Peak Measurements
RBW=VBW=1MHz

Average Measurements
RBW=1MHz ; VBW=10Hz

| f GHz | Dist (m) | Read Pk dBuV | Read Avg. dBuV | AF dB/m | CL dB | Amp dB | D Corr dB | Fltr dB | Peak dBuV/m | Avg dBuV/m | Pk Lim dBuV/m | Avg Lim dBuV/m | Pk Mar dB | Avg Mar dB | Notes (V/H) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mid ch | | | | | | | | | | | | | | | |
| 4.882 | 3.0 | 52.3 | 39.8 | 32.9 | 3.9 | -44.1 | 0.0 | 0.6 | 45.7 | 33.2 | 74 | 54 | -28.3 | -20.8 | V |
| 7.323 | 3.0 | 52.6 | 40.0 | 35.9 | 4.7 | -44.7 | 0.0 | 0.6 | 49.1 | 36.5 | 74 | 54 | -24.9 | -17.5 | V |
| 4.882 | 3.0 | 52.5 | 40.0 | 32.9 | 3.9 | -44.1 | 0.0 | 0.6 | 45.9 | 33.4 | 74 | 54 | -28.1 | -20.6 | H |
| 7.323 | 3.0 | 53.8 | 40.4 | 35.9 | 4.7 | -44.7 | 0.0 | 0.6 | 50.3 | 36.9 | 74 | 54 | -23.7 | -17.1 | H |
| | | | | | | | | | | | | | | | |
| Note: No other emissions were detected above the system noise floor | | | | | | | | | | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| f | Measurement Frequency | Amp | Preamp Gain | Avg Lim | Average Field Strength Limit |
| Dist | Distance to Antenna | D Corr | Distance Correct to 3 meters | Pk Lim | Peak Field Strength Limit |
| Read | Analyzer Reading | Avg | Average Field Strength @ 3 m | Avg Mar | Margin vs. Average Limit |
| AF | Antenna Factor | Peak | Calculated Peak Field Strength | Pk Mar | Margin vs. Peak Limit |
| CL | Cable Loss | HPF | High Pass Filter | | |

## 7.3. RADIATED EMISSIONS BELOW 1 GHz

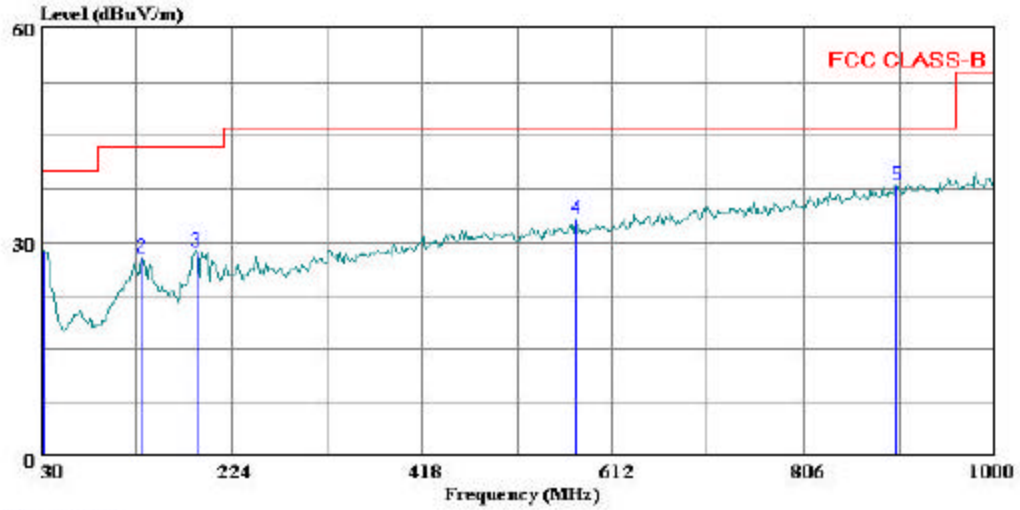
### 7.3.1. WORST-CASE RADIATED EMISSIONS (TX MODE)

**SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)**

HORIZONTAL PLOT

561F Monterey Road
Morgan Hill, CA 95037
Tel: (408) 463-0888
Fax: (408) 463-0885

Data#: 22 File#: Htc 3291.emi Date: 04-05-2005 Time: 21:12:15




(Audix ATC)
Trace: 21 Ref Trace:

Condition: FCC CLASS-B HORIZONTAL
Test Operator: : Chin Pang
Project #: : 05T3291-1
Company: : High Tech Computer
EUT: : PDA Phone
Model No : PA10A
Configuration: : EUT/AC Adapter
Target of Test: : FCC Class B
Mode of Operation: TX, Bluetooth , Mid Ch

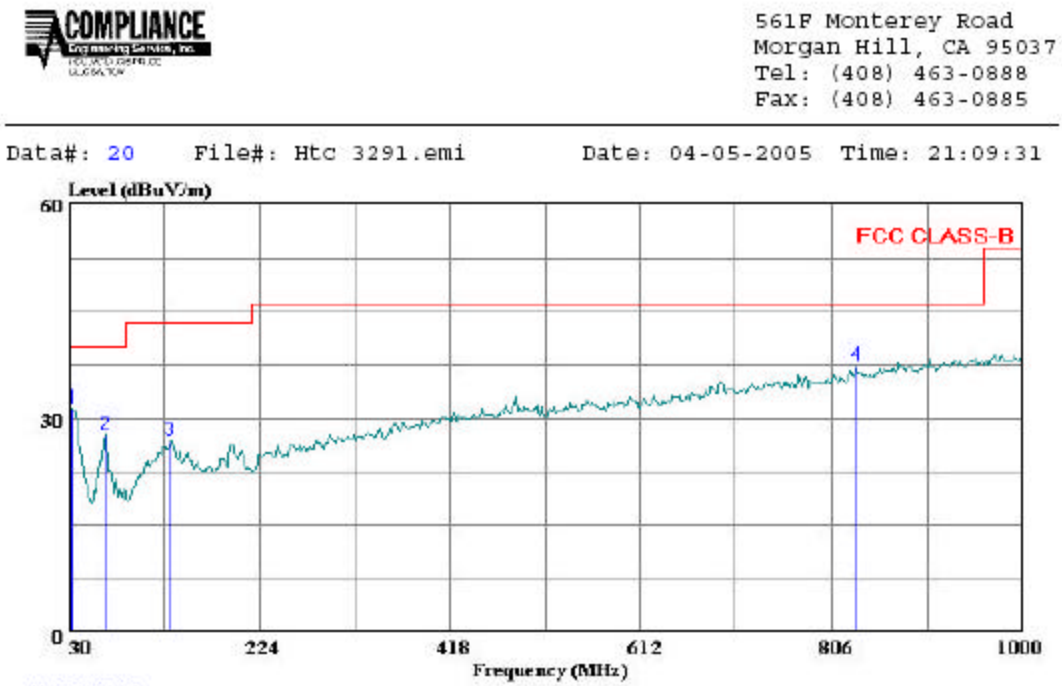
HORIZONTAL DATA

Page: 1

| | Freq | Read Level | Factor | Level | Limit Line | Over Limit | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | |
| 1 | 32.910 | 8.88 | 19.94 | 28.82 | 40.00 | -11.18 | Peak |
| 2 | 133.790 | 12.80 | 15.02 | 27.82 | 43.50 | -15.68 | Peak |
| 3 | 189.080 | 15.81 | 12.93 | 28.74 | 43.50 | -14.76 | Peak |
| 4 | 575.140 | 11.94 | 21.20 | 33.14 | 46.00 | -12.86 | Peak |
| 5 | 900.090 | 12.18 | 25.88 | 38.06 | 46.00 | -7.94 | Peak |

**SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)**

VERTICAL PLOT



VERTICAL DATA

Page: 1

| | Freq | Read Level | Factor | Level | Limit Line | Over Limit | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | |
| 1 | 33.880 | 12.25 | 19.05 | 31.30 | 40.00 | -8.70 | Peak |
| 2 | 66.860 | 18.38 | 9.15 | 27.53 | 40.00 | -12.47 | Peak |
| 3 | 133.790 | 11.85 | 15.02 | 26.87 | 43.50 | -16.63 | Peak |
| 4 | 829.280 | 12.41 | 24.92 | 37.33 | 46.00 | -8.67 | Peak |

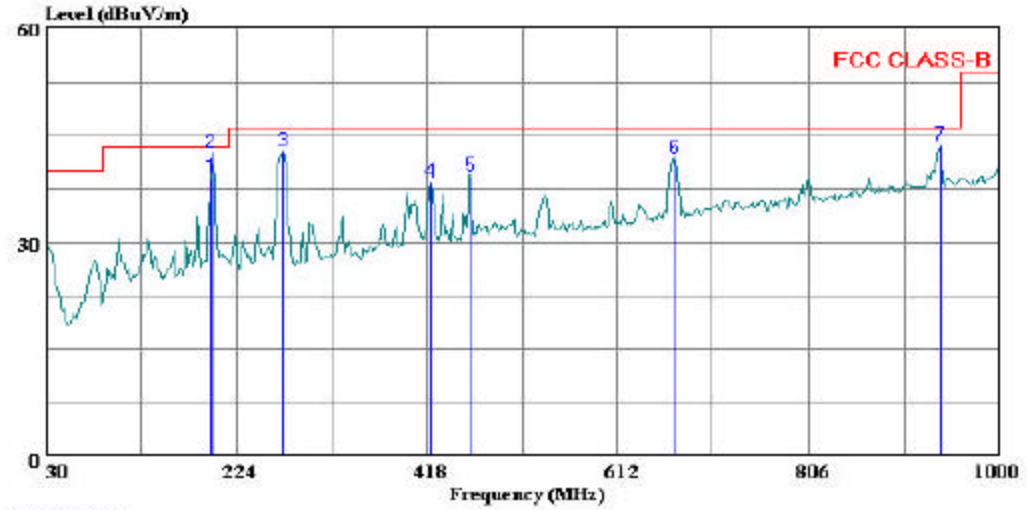
## 7.3.2. WORST-CASE RADIATED EMISSIONS (DIGITAL MODE)

**SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)**

HORIZONTAL PLOT

561F Monterey Road
Morgan Hill, CA 95037
Tel: (408) 463-0888
Fax: (408) 463-0885

Data#: 14 File#: Htc.emi Date: 04-22-2005 Time: 11:06:33




(Audix ATC)
Trace: 11 Ref Trace:

Condition: FCC CLASS-B HORIZONTAL
Test Operator: : Chin Pang
Project #: : 05T3291-1
Company: : High Tech Computer
EUT: : PDA Phone with Cradle
Model No : PA10A
Configuration: : EUT/Laptop/Printer/Modem/Mouse
Target of Test: : FCC Class B
Mode of Operation: Link to Laptop

HORIZONTAL DATA

Page: 1

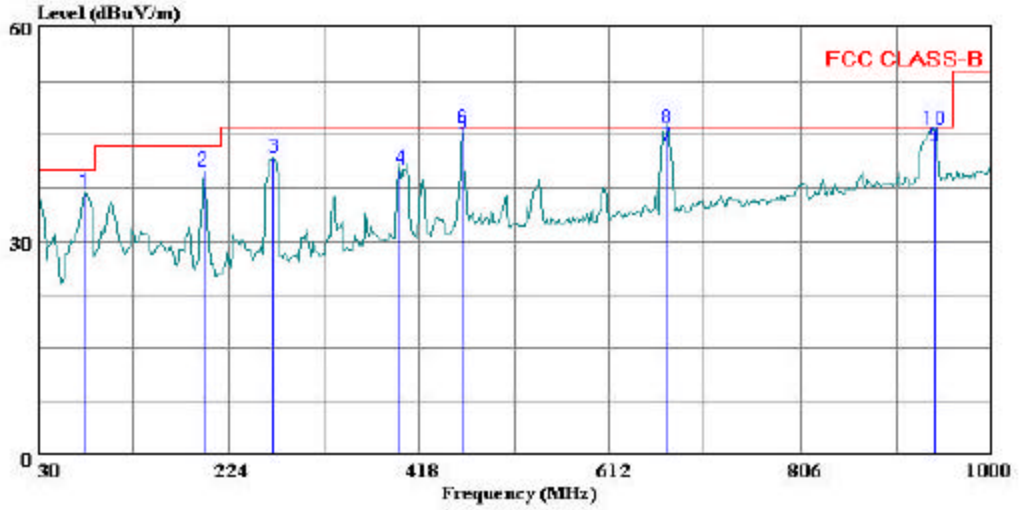
| | Freq | Read Level | Factor | Level | Limit Line | Over Limit | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | |
| 1 | 198.170 | 24.87 | 14.24 | 39.11 | 43.50 | -4.39 | QP |
| 2 | 198.780 | 28.17 | 14.37 | 42.54 | 43.50 | -0.96 | Peak |
| 3 | 271.530 | 28.14 | 14.65 | 42.79 | 46.00 | -3.21 | Peak |
| 4 | 421.880 | 19.80 | 18.58 | 38.38 | 46.00 | -7.62 | Peak |
| 5 | 463.590 | 19.84 | 19.50 | 39.34 | 46.00 | -6.66 | Peak |
| 6 | 670.200 | 19.14 | 22.66 | 41.80 | 46.00 | -4.20 | Peak |
| 7 | 938.890 | 17.14 | 26.43 | 43.57 | 46.00 | -2.43 | Peak |

**SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)**

VERTICAL PLOT

561F Monterey Road
Morgan Hill, CA 95037
Tel: (408) 463-0888
Fax: (408) 463-0885

Data#: 10 File#: Htc.emi Date: 04-22-2005 Time: 10:48:00




(Audix ATC)
Trace: 7 Ref Trace:

Condition: FCC CLASS-B VERTICAL
Test Operator: : Chin Pang
Project #: : 05T3291-1
Company: : High Tech Computer
EUT: : PDA Phone with Cradle
Model No : PA10A
Configuration: : EUT/Laptop/Printer/Modem/Mouse
Target of Test: : FCC Class B
Mode of Operation: Link to Laptop

VERTICAL DATA

Page: 1

| | Freq | Read Level | Factor | Level | Limit Line | Over Limit | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | |
| 1 | 78.500 | 27.87 | 8.95 | 36.83 | 40.00 | -3.17 | Peak |
| 2 | 198.780 | 25.41 | 14.37 | 39.78 | 43.50 | -3.72 | Peak |
| 3 | 269.590 | 27.04 | 14.61 | 41.65 | 46.00 | -4.35 | Peak |
| 4 | 398.600 | 22.16 | 18.01 | 40.17 | 46.00 | -5.83 | Peak |
| 5 | 463.590 | 25.60 | 19.49 | 45.09 | 46.00 | -0.91 | QP |
| 6 | 463.590 | 26.31 | 19.50 | 45.81 | 46.00 | -0.19 | Peak |
| 7 | 671.170 | 20.71 | 22.66 | 43.37 | 46.00 | -2.63 | QP |
| 8 | 671.170 | 23.29 | 22.67 | 45.95 | 46.00 | -0.05 | Peak |
| 9 | 941.800 | 17.05 | 26.43 | 43.48 | 46.00 | -2.52 | QP |
| 10 | 941.800 | 19.16 | 26.43 | 45.60 | 46.00 | -0.40 | Peak |

## 7.4. POWERLINE CONDUCTED EMISSIONS

**LIMIT**

§15.207 (a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 µH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal.

The lower limit applies at the boundary between the frequency ranges.

| Frequency of Emission (MHz) | Conducted Limit (dBuV) | |
|---|---|---|
| | Quasi-peak | Average |
| 0.15-0.5 | 66 to 56 * | 56 to 46 * |
| 0.5-5 | 56 | 46 |
| 5-30 | 60 | 50 |

* Decreases with the logarithm of the frequency.

**TEST PROCEDURE**

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

The resolution bandwidth is set to 9 kHz for both peak detection and quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

Line conducted data is recorded for both NEUTRAL and HOT lines.

**RESULTS**

No non-compliance noted:

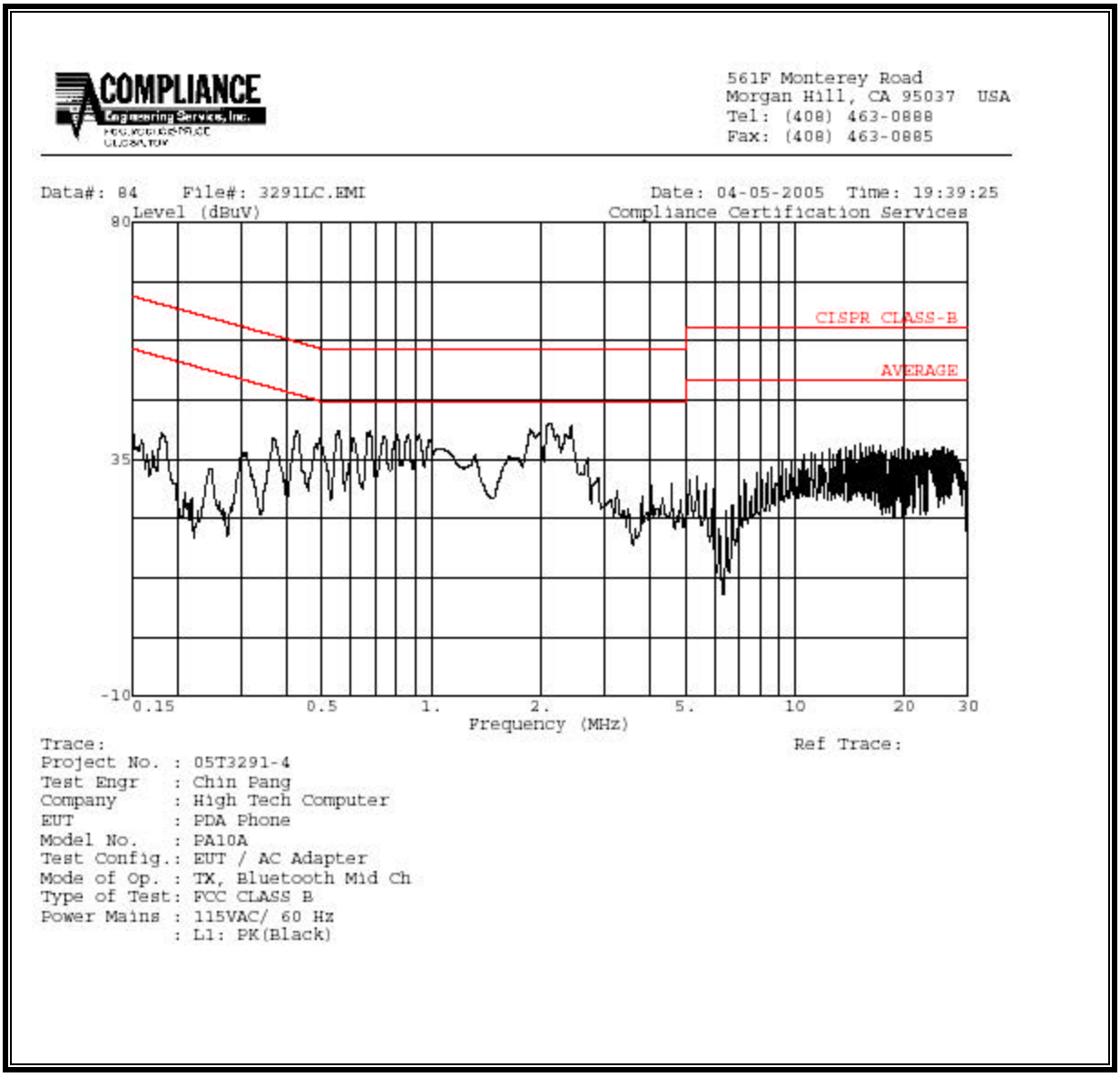
## 7.4.1. WORST-CASE LINE CONDUCTED EMISSIONS (TX MODE)

**EUT AND AC ADAPTER:**

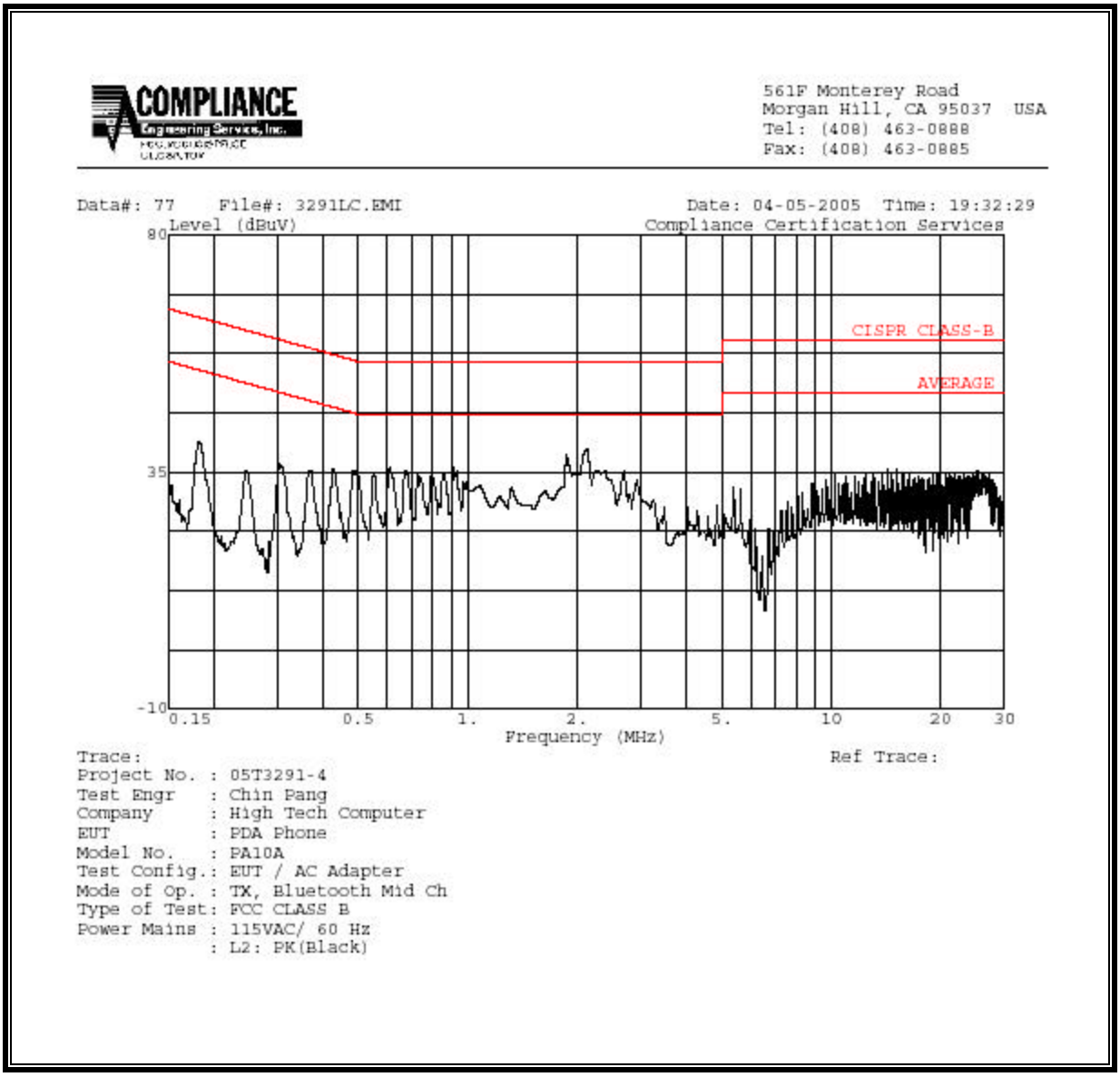
**6 WORST EMISSIONS:**

| CONDUCTED EMISSIONS DATA (115VAC 60Hz) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Freq. | Reading | | | Closs | Limit | FCC_B | Margin | | Remark |
| (MHz) | PK (dBuV) | QP (dBuV) | AV (dBuV) | (dB) | QP | AV | QP (dB) | AV (dB) | L1 / L2 |
| 0.18 | 39.73 | -- | -- | 0.00 | 64.39 | 54.39 | -24.66 | -14.66 | L1 |
| 0.56 | 40.52 | -- | -- | 0.00 | 56.00 | 46.00 | -15.48 | -5.48 | L1 |
| 2.13 | 41.84 | -- | -- | 0.00 | 56.00 | 46.00 | -14.16 | -4.16 | L1 |
| 0.18 | 40.81 | -- | -- | 0.00 | 64.39 | 54.39 | -23.58 | -13.58 | L2 |
| 0.61 | 35.38 | -- | -- | 0.00 | 56.00 | 46.00 | -20.62 | -10.62 | L2 |
| 2.17 | 39.38 | -- | -- | 0.00 | 56.00 | 46.00 | -16.62 | -6.62 | L2 |
| 6 Worst Data | | | | | | | | | |

**LINE 1 RESULT**



**LINE 2 RESULT**



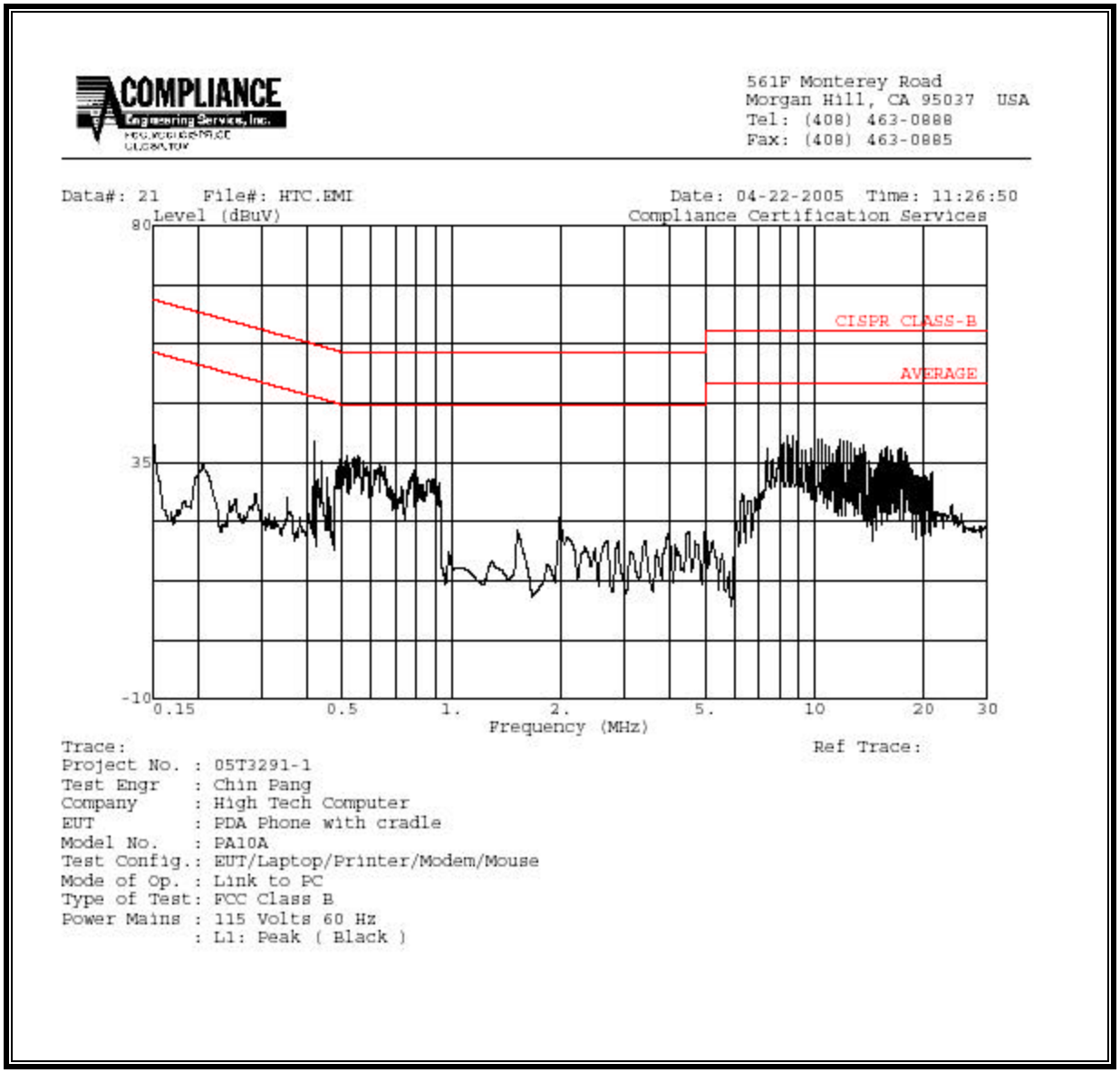
## 7.4.2. WORST-CASE LINE CONDUCTED EMISSIONS (DIGITAL MODE)

**EUT WITH CRADLE VIA LAPTOP**

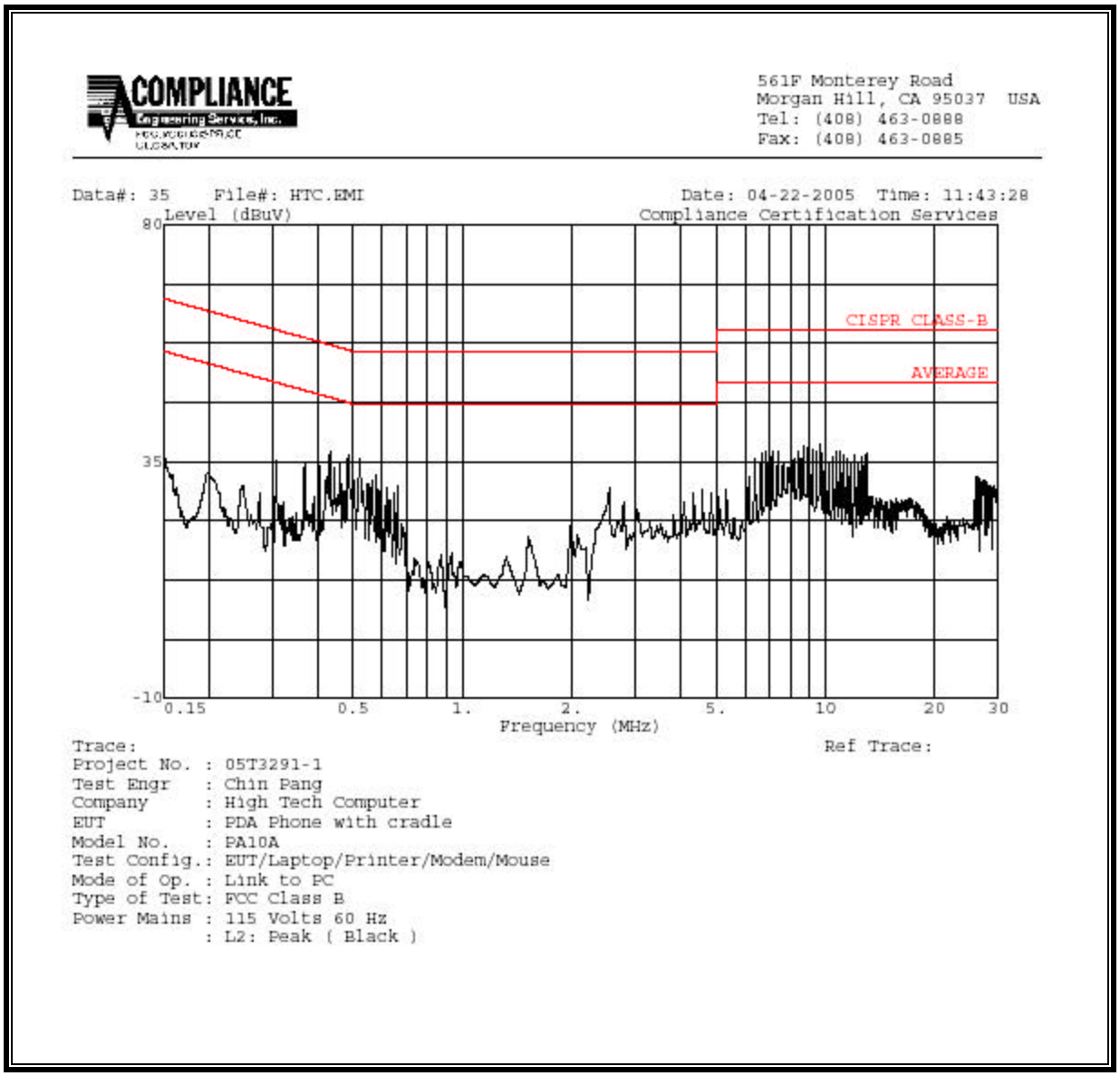
**6 WORST EMISSIONS:**

| CONDUCTED EMISSIONS DATA (115VAC 60Hz) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Freq. | Reading | | | Closs | Limit | EN_B | Margin | | Remark |
| (MHz) | PK (dBuV) | QP (dBuV) | AV (dBuV) | (dB) | QP | AV | QP (dB) | AV (dB) | L1 / L2 |
| 0.42 | 39.16 | -- | -- | 0.00 | 57.47 | 47.47 | -18.31 | -8.31 | L1 |
| 8.46 | 40.10 | -- | -- | 0.00 | 60.00 | 50.00 | -19.90 | -9.90 | L1 |
| 11.81 | 39.40 | -- | -- | 0.00 | 60.00 | 50.00 | -20.60 | -10.60 | L1 |
| 0.43 | 36.96 | -- | -- | 0.00 | 57.19 | 47.19 | -20.23 | -10.23 | L2 |
| 6.66 | 36.74 | -- | -- | 0.00 | 60.00 | 50.00 | -23.26 | -13.26 | L2 |
| 9.71 | 38.34 | -- | -- | 0.00 | 60.00 | 50.00 | -21.66 | -11.66 | L2 |
| 6 Worst Data | | | | | | | | | |

**LINE 1 RESULT**



**LINE 2 RESULT**




(Note: The setup photos on pages 91 through 105 have been extracted under a separate file purposely.)