

# 1.1 Test Data

## 1.2 Effective Radiated Power Output

### A. POWER: Low (Analog Mode)

| Freq. Tuned<br>(MHz) | REF.<br>LEVEL<br>(dBm) | POL<br>(H/V) | ERP<br>(W) | ERP<br>(dBm) |
|----------------------|------------------------|--------------|------------|--------------|
| 824.04               | -34.800                | V            | 0.004      | 6.473        |
| 835.89               | -34.700                | V            | 0.005      | 6.721        |
| 848.97               | -35.250                | V            | 0.004      | 6.335        |

### B. POWER: High (Analog Mode)

| Freq. Tuned<br>(MHz) | REF.<br>LEVEL<br>(dBm) | POL<br>(H/V) | ERP<br>(W) | ERP<br>(dBm) | BATTERY  |
|----------------------|------------------------|--------------|------------|--------------|----------|
| 824.04               | -14.800                | V            | 0.44394    | 26.473       | Standard |
| 835.89               | -14.700                | V            | 0.46800    | 26.700       | Standard |
| 848.97               | -15.250                | V            | 0.43002    | 26.335       | Standard |

Note: Standard batteries are the only options for this phone

### NOTES:

Effective Radiated Power Output Measurements by Substitution Method  
according to ANSI/TIA/EIA-603-A-2001, Aug. 15, 2001:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. The conducted power at the terminals of the dipole is measured. The ERP is recorded.

|                                 |                                |                                   |                       |                                 |
|---------------------------------|--------------------------------|-----------------------------------|-----------------------|---------------------------------|
| PCTEST™ PT. 22/24<br>SUPPLEMENT | FCC MEASUREMENT SUPPLEMENT     |                                   |                       | Reviewed By:<br>Quality Manager |
| Test Report S/N:<br>0501060006  | Test Dates:<br>January 7, 2005 | Phone Type:<br>Tri-Mode Dual-Band | FCC ID:<br>A3LSPHA800 | Page 1 of 6                     |

## 2.1 Test Data

### 2.2 AMPS Radiated Measurements

#### Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 824.04 MHz  
 CHANNEL: 0991 (Low)  
 MEASURED OUTPUT POWER: 26.700 dBm = 0.468  
 MODULATION SIGNAL: FM (Internal)  
 DISTANCE: 3 meters  
 LIMIT:  $43 + 10 \log_{10} (W) =$  39.70 dBc

| FREQ.<br>(MHz) | LEVEL @<br>ANTENNA<br>TERMINALS<br>(dBm) | SUBSTITUTE<br>ANTENNA<br>GAIN<br>(dBi) | CORRECT<br>GENERATOR<br>LEVEL<br>(dBm) | POL<br>(H/V) | (dBc) |
|----------------|------------------------------------------|----------------------------------------|----------------------------------------|--------------|-------|
| 1648.08        | -32.48                                   | 6.10                                   | -26.38                                 | V            | 53.1  |
| 2472.12        | -49.68                                   | 6.70                                   | -42.98                                 | V            | 69.7  |
| 3296.16        | -29.18                                   | 6.80                                   | -22.38                                 | V            | 49.1  |
| 4120.20        | -56.58                                   | 6.50                                   | -50.08                                 | V            | 76.8  |
| 4944.24        | -86.28                                   | 7.00                                   | -79.28                                 | V            | 106.0 |

#### NOTES:

Radiated Spurious Emission Measurements by Substitution Method  
according to ANSI/TIA/EIA-603-A-2001, Aug. 15, 2001:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This spurious level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

|                                 |                                |                                   |                      |                                 |
|---------------------------------|--------------------------------|-----------------------------------|----------------------|---------------------------------|
| PCTEST™ PT. 22/24<br>SUPPLEMENT | FCC MEASUREMENT SUPPLEMENT     |                                   |                      | Reviewed By:<br>Quality Manager |
| Test Report S/N:<br>0501060006  | Test Dates:<br>January 7, 2005 | Phone Type:<br>Tri-Mode Dual-Band | FCC ID:<br>A3LSPA800 | Page 2 of 6                     |

## 2.1 Test Data (Continued)

### 2.3 AMPS Radiated Measurements

#### Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 835.89 MHz  
 CHANNEL: 0363 (Mid)  
 MEASURED OUTPUT POWER: 26.700 dBm = 0.468  
 MODULATION SIGNAL: FM (Internal)  
 DISTANCE: 3 meters  
 LIMIT:  $43 + 10 \log_{10} (W) =$  39.70 dBc

| FREQ.<br>(MHz) | LEVEL @<br>ANTENNA<br>TERMINALS<br>(dBm) | SUBSTITUTE<br>ANTENNA<br>GAIN<br>(dBi) | CORRECT<br>GENERATOR<br>LEVEL<br>(dBm) | POL<br>(H/V) | (dBc) |
|----------------|------------------------------------------|----------------------------------------|----------------------------------------|--------------|-------|
| 1671.78        | -34.48                                   | 6.10                                   | -28.38                                 | V            | 55.1  |
| 2507.67        | -57.98                                   | 6.70                                   | -51.28                                 | V            | 78.0  |
| 3343.56        | -37.88                                   | 6.80                                   | -31.08                                 | V            | 57.8  |
| 4179.45        | -44.88                                   | 6.50                                   | -38.38                                 | V            | 65.1  |
| 5015.34        | -86.28                                   | 7.00                                   | -79.28                                 | V            | 106.0 |

#### NOTES:

Radiated Spurious Emission Measurements by Substitution Method  
according to ANSI/TIA/EIA-603-A-2001, Aug. 15, 2001:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This spurious level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

|                                 |                                |                                   |                       |                                 |
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| PCTEST™ PT. 22/24<br>SUPPLEMENT | FCC MEASUREMENT SUPPLEMENT     |                                   |                       | Reviewed By:<br>Quality Manager |
| Test Report S/N:<br>0501060006  | Test Dates:<br>January 7, 2005 | Phone Type:<br>Tri-Mode Dual-Band | FCC ID:<br>A3LSPHA800 | Page 3 of 6                     |

## 2.1 Test Data (Continued)

### 2.4 AMPS Radiated Measurements

#### Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 848.97 MHz  
 CHANNEL: 0799 (High)  
 MEASURED OUTPUT POWER: 26.700 dBm = 0.468  
 MODULATION SIGNAL: FM (Internal)  
 DISTANCE: 3 meters  
 LIMIT:  $43 + 10 \log_{10} (W) =$  39.70 dBc

| FREQ.<br>(MHz) | LEVEL @<br>ANTENNA<br>TERMINALS<br>(dBm) | SUBSTITUTE<br>ANTENNA<br>GAIN<br>(dBi) | CORRECT<br>GENERATOR<br>LEVEL<br>(dBm) | POL<br>(H/V) | (dBc) |
|----------------|------------------------------------------|----------------------------------------|----------------------------------------|--------------|-------|
| 1697.94        | -36.28                                   | 6.10                                   | -30.18                                 | V            | 56.9  |
| 2546.91        | -56.38                                   | 6.70                                   | -49.68                                 | V            | 76.4  |
| 3395.88        | -38.18                                   | 6.80                                   | -31.38                                 | V            | 58.1  |
| 4244.85        | -40.88                                   | 6.50                                   | -34.38                                 | V            | 61.1  |
| 5093.82        | -59.98                                   | 7.00                                   | -52.98                                 | V            | 79.7  |

#### NOTES:

Radiated Spurious Emission Measurements by Substitution Method  
according to ANSI/TIA/EIA-603-A-2001, Aug. 15, 2001:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This spurious level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

|                                 |                                |                                   |                       |                                 |
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| PCTEST™ PT. 22/24<br>SUPPLEMENT | FCC MEASUREMENT SUPPLEMENT     |                                   |                       | Reviewed By:<br>Quality Manager |
| Test Report S/N:<br>0501060006  | Test Dates:<br>January 7, 2005 | Phone Type:<br>Tri-Mode Dual-Band | FCC ID:<br>A3LSPHA800 | Page 4 of 6                     |

## 3.1 Test Data

### 3.2 FREQUENCY STABILITY (AMPS)

OPERATING FREQUENCY: 835,890,003 Hz

CHANNEL: 363

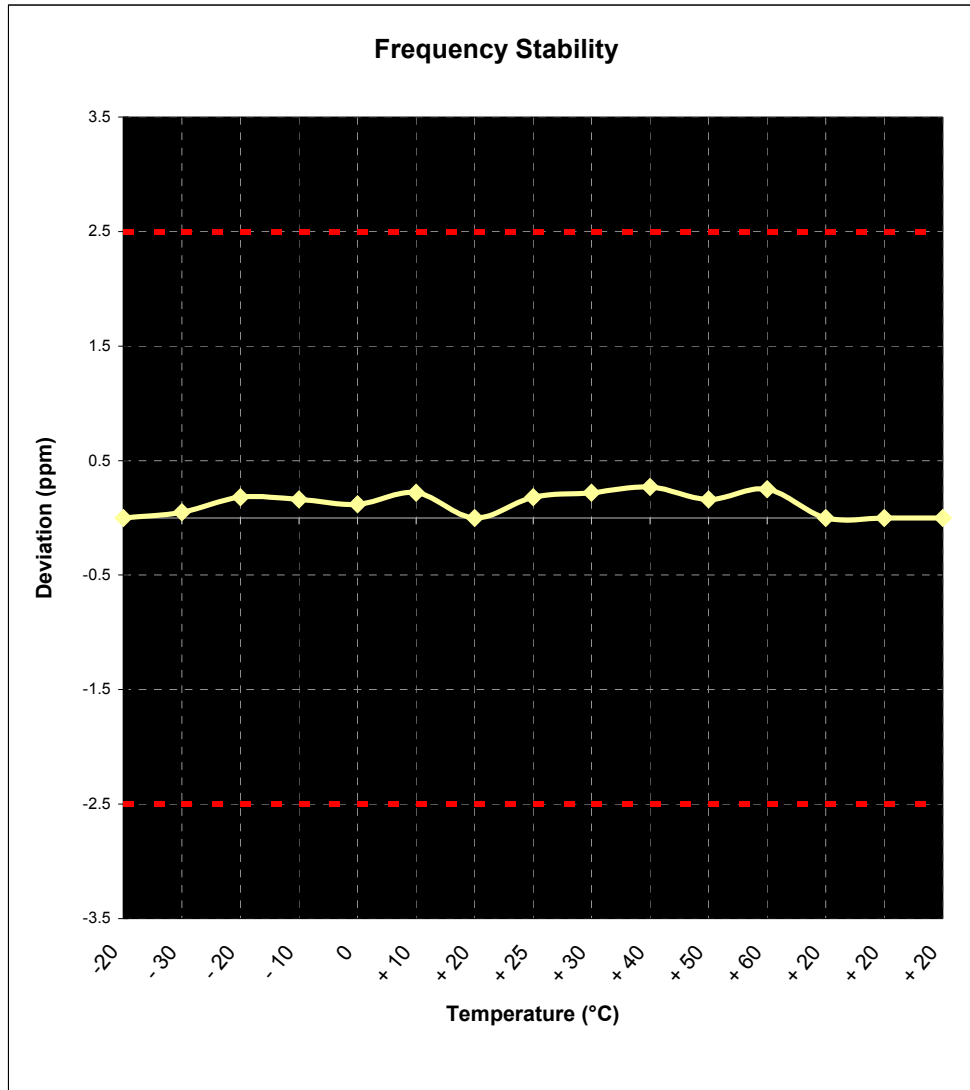
REFERENCE VOLTAGE: 3.7 VDC

DEVIATION LIMIT: ± 0.00025 % or 2.5 ppm

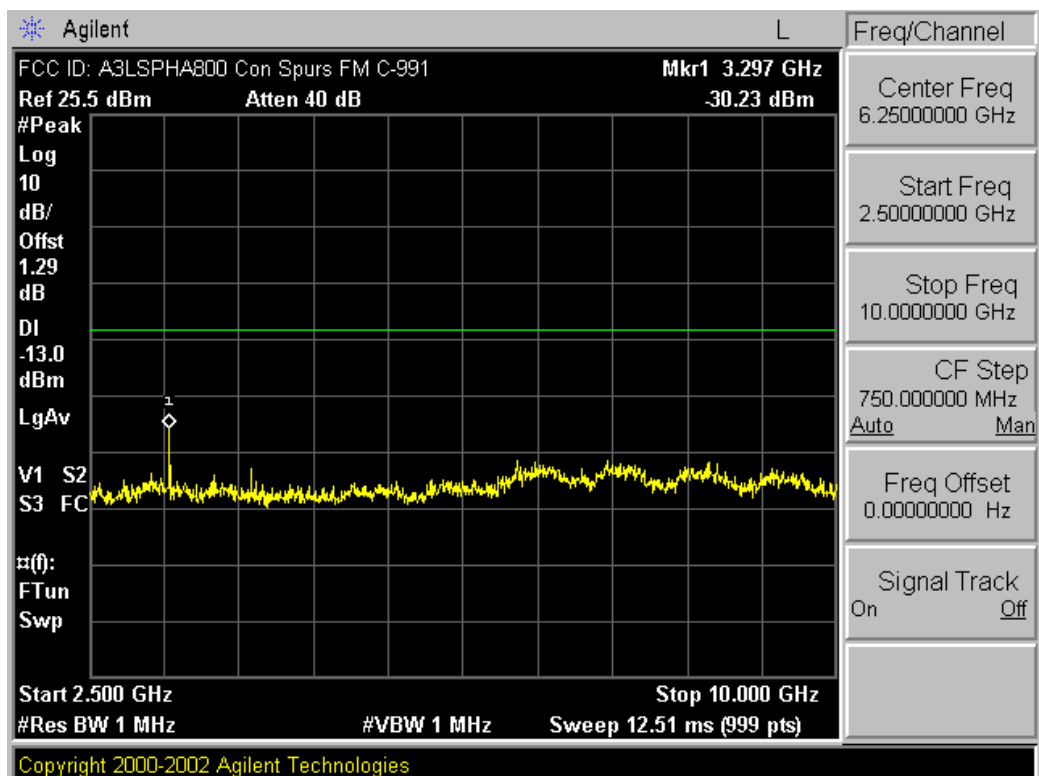
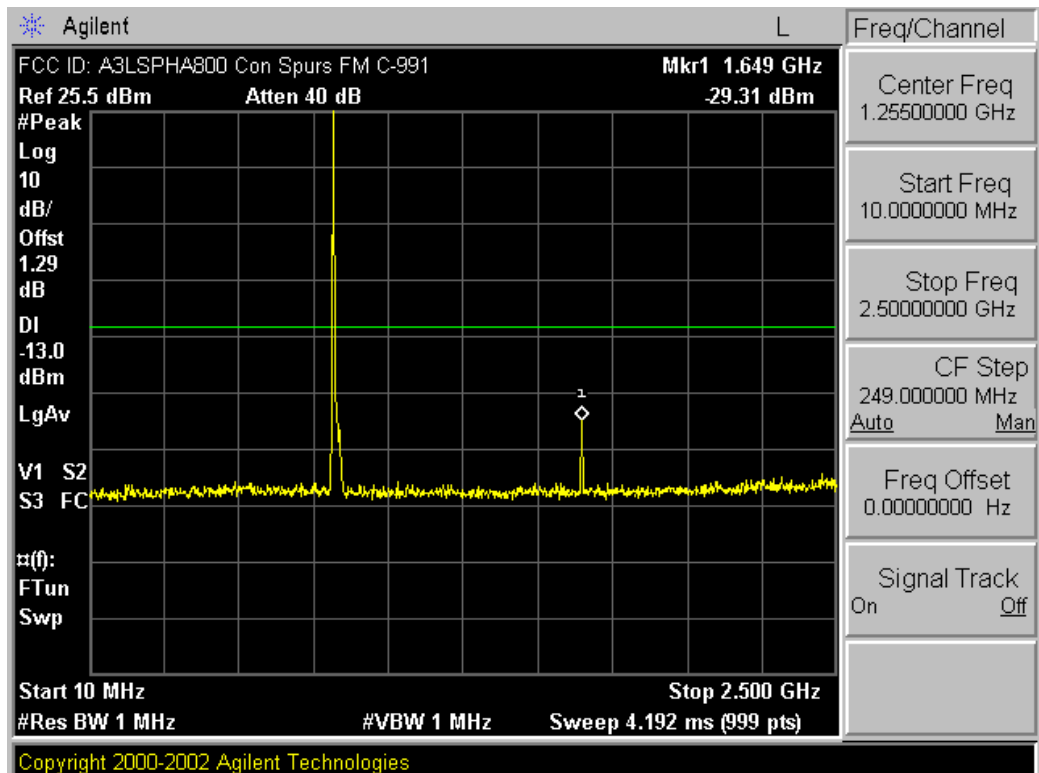
| VOLTAGE<br>(%) | POWER<br>(VDC) | TEMP<br>(°C) | FREQ.<br>(Hz) | Freq. Dev.<br>(Hz) | Deviation<br>(%) |
|----------------|----------------|--------------|---------------|--------------------|------------------|
| 100 %          | 3.70           | + 20 (Ref)   | 835,890,003   | 0.00               | 0.000000         |
| 100 %          |                | - 30         | 835,889,961   | 41.79              | 0.000005         |
| 100 %          |                | - 20         | 835,889,853   | 150.46             | 0.000018         |
| 100 %          |                | - 10         | 835,889,869   | 133.74             | 0.000016         |
| 100 %          |                | 0            | 835,889,903   | 100.31             | 0.000012         |
| 100 %          |                | + 10         | 835,889,819   | 183.90             | 0.000022         |
| 100 %          |                | + 20         | 835,890,003   | 0.00               | 0.000000         |
| 100 %          |                | + 25         | 835,889,853   | 150.46             | 0.000018         |
| 100 %          |                | + 30         | 835,889,819   | 183.90             | 0.000022         |
| 100 %          |                | + 40         | 835,889,777   | 225.69             | 0.000027         |
| 100 %          |                | + 50         | 835,889,869   | 133.74             | 0.000016         |
| 100 %          |                | + 60         | 835,889,794   | 208.97             | 0.000025         |
| 85 %           | 3.15           | + 20         | 835,890,003   | 0.00               | 0.000000         |
| 115 %          | 4.26           | + 20         | 835,890,003   | 0.00               | 0.000000         |
| BATT. ENDPOINT | 2.91           | + 20         | 835,890,003   | 0.00               | 0.000000         |

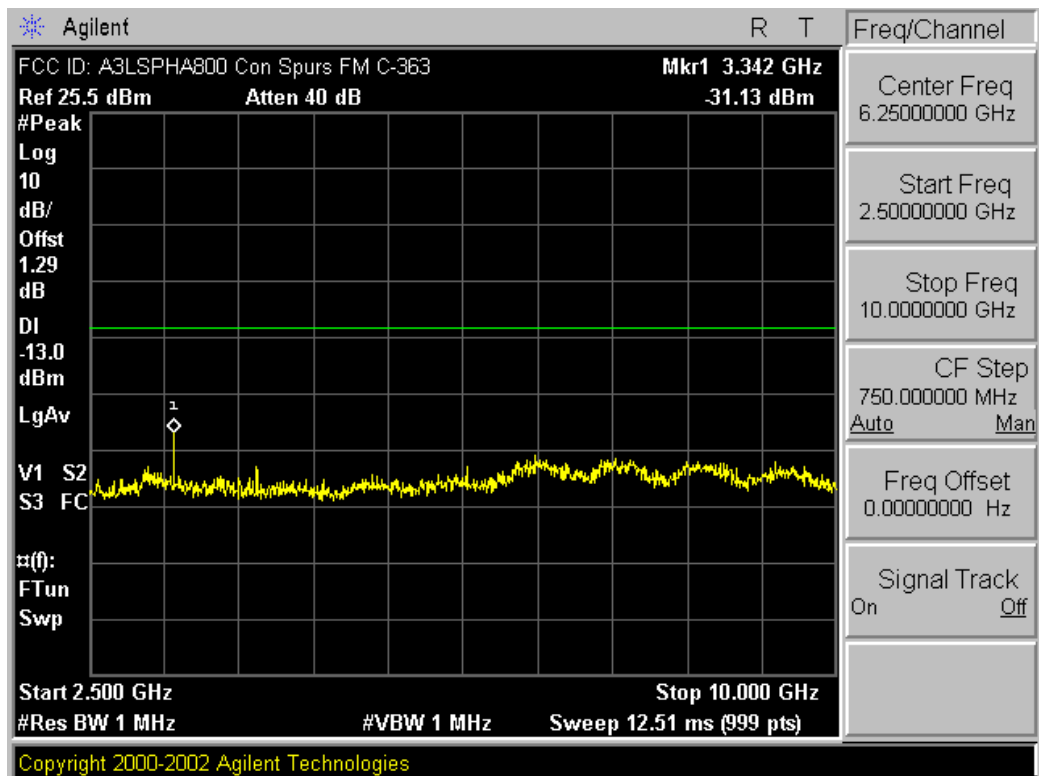
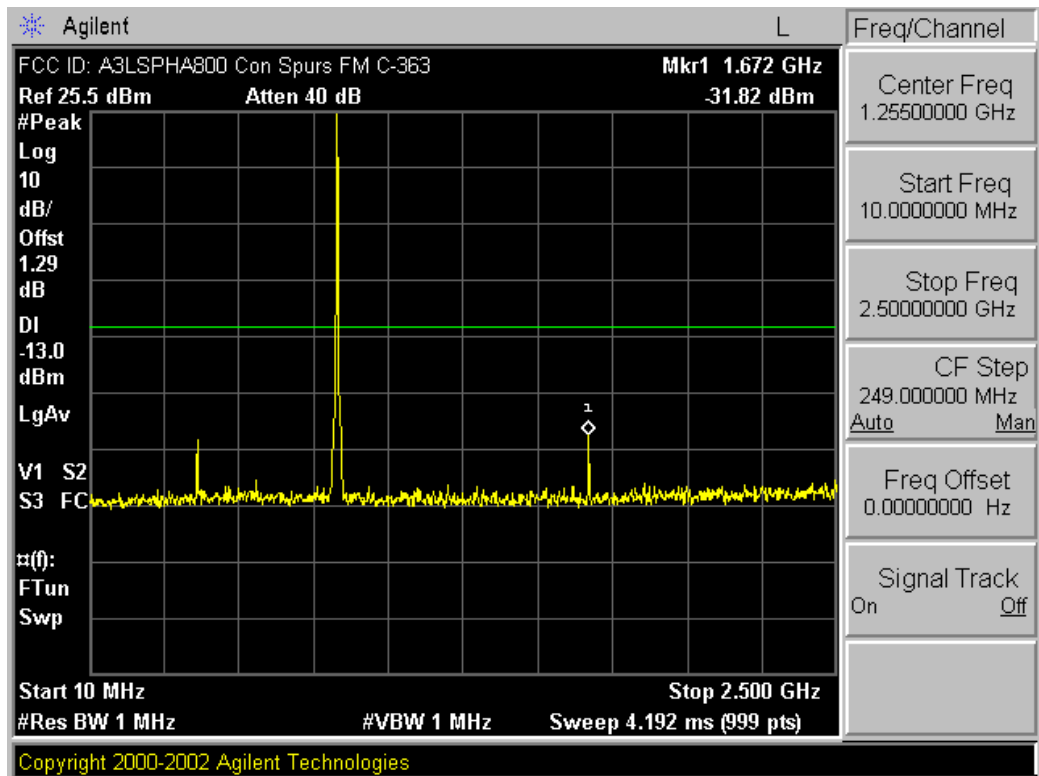
## 3.1 Test Data (Continued)

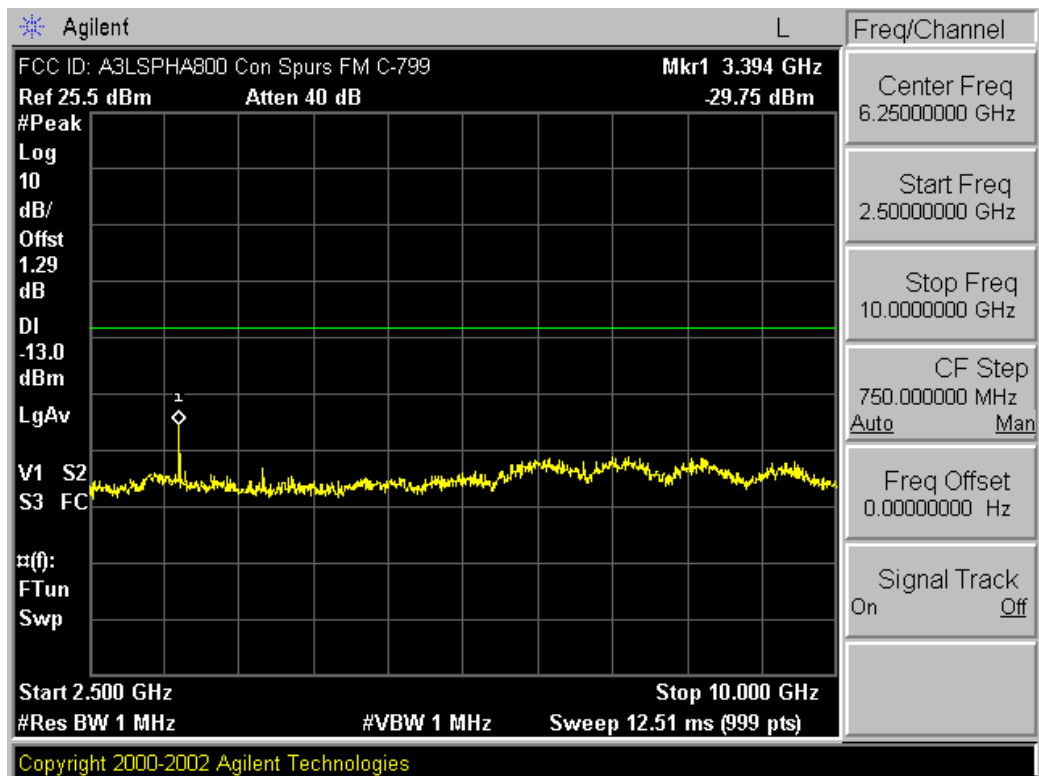
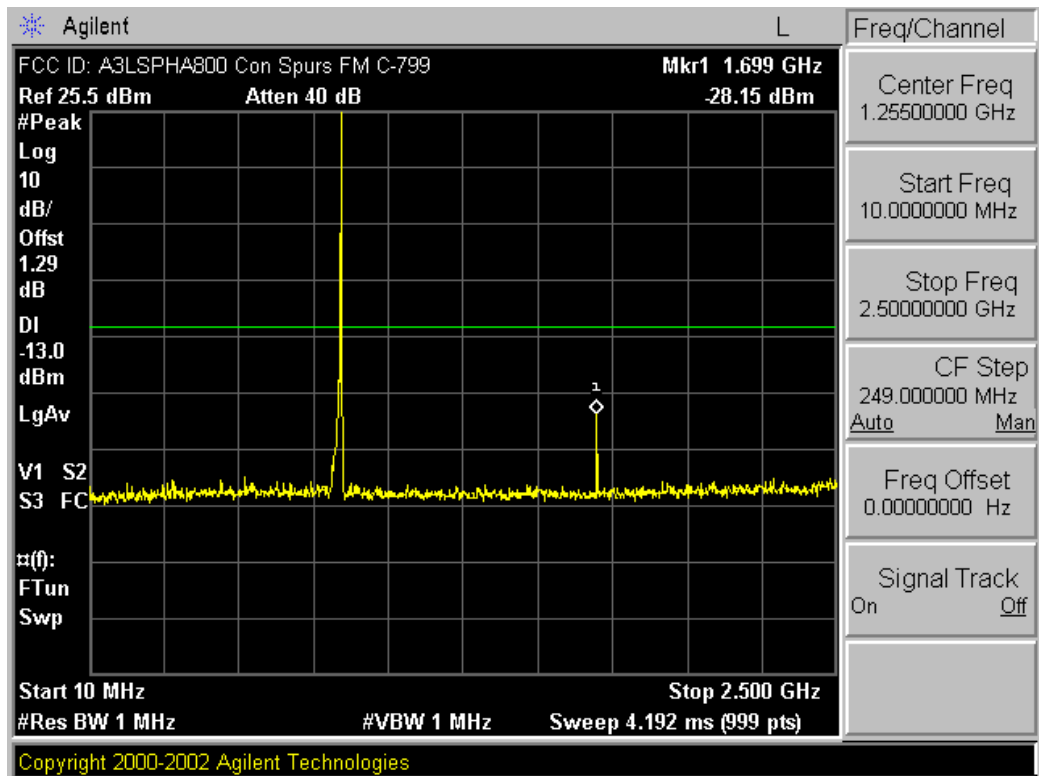
### 3.3 FREQUENCY STABILITY (AMPS)



|                                 |                                |                                   |                       |                                                                                                                                                                           |                                 |
|---------------------------------|--------------------------------|-----------------------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| PCTEST™ PT. 22/24<br>SUPPLEMENT | FCC MEASUREMENT SUPPLEMENT     |                                   |                       |   | Reviewed By:<br>Quality Manager |
| Test Report S/N:<br>0501060006  | Test Dates:<br>January 7, 2005 | Phone Type:<br>Tri-Mode Dual-Band | FCC ID:<br>A3LSPHA800 | Page 6 of 6                                                                                                                                                               |                                 |







# PCTEST Engineering Lab.

## SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHA800

SAMSUNG

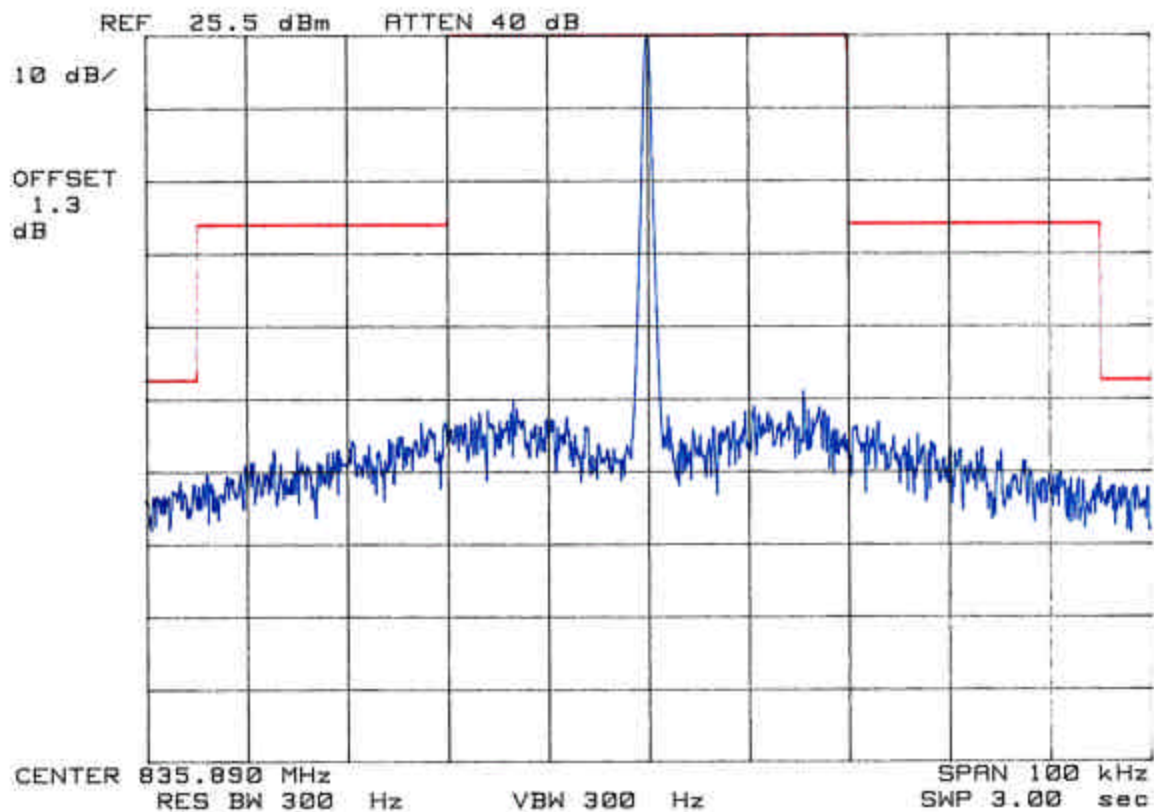
Tri-Mode Phone

FM Channel 363

Operating Frequency: 835.890 MHz

Output Power : 25.5 dBm

Test Mode:Unmodulated Signal



# PCTEST Engineering Lab.

## SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHA800

SAMSUNG

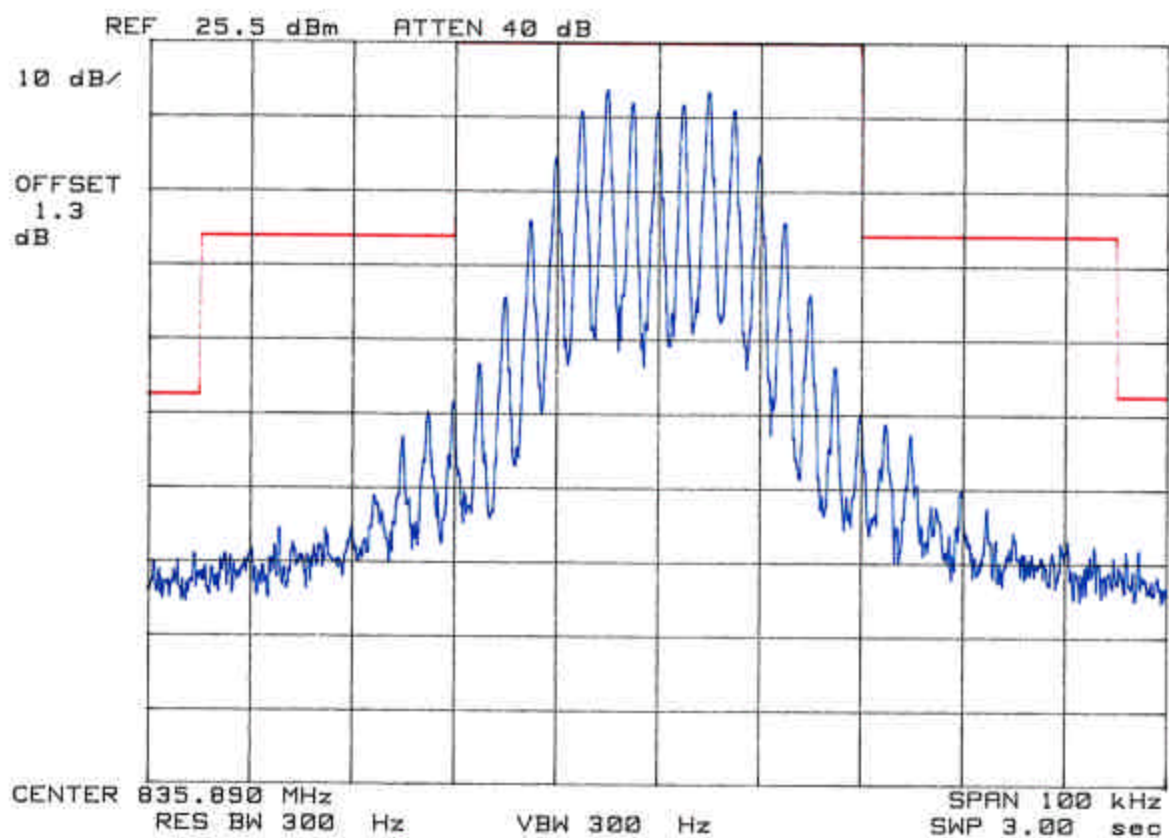
Tri-Mode Phone

FM Channel 363

Operating Frequency: 835.890 MHz

Output Power : 25.5 dBm

Test Mode:Voice



# PCTEST Engineering Lab.

## SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHA800

SAMSUNG

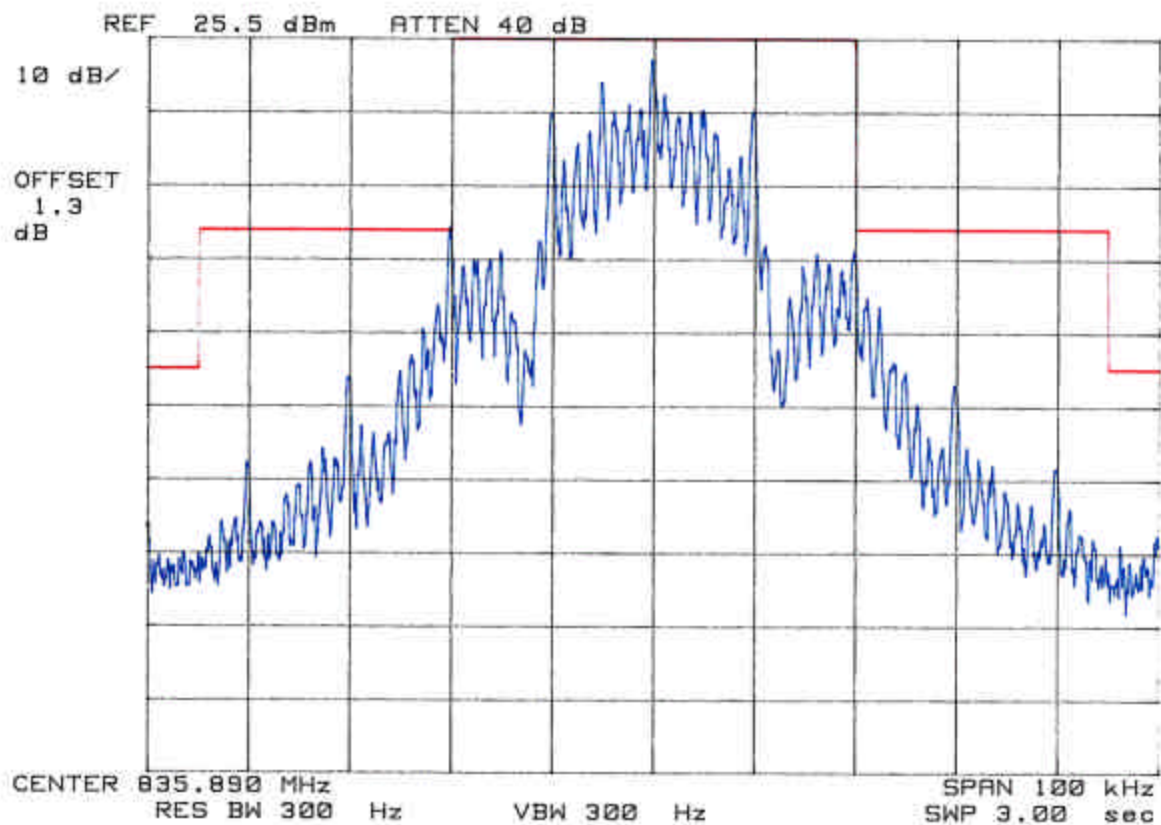
Tri-Mode Phone

FM Channel 363

Operating Frequency: 835.890 MHz

Output Power : 25.5 dBm

Test Mode:Wide Band Data



# PCTEST Engineering Lab.

## SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHA800

SAMSUNG

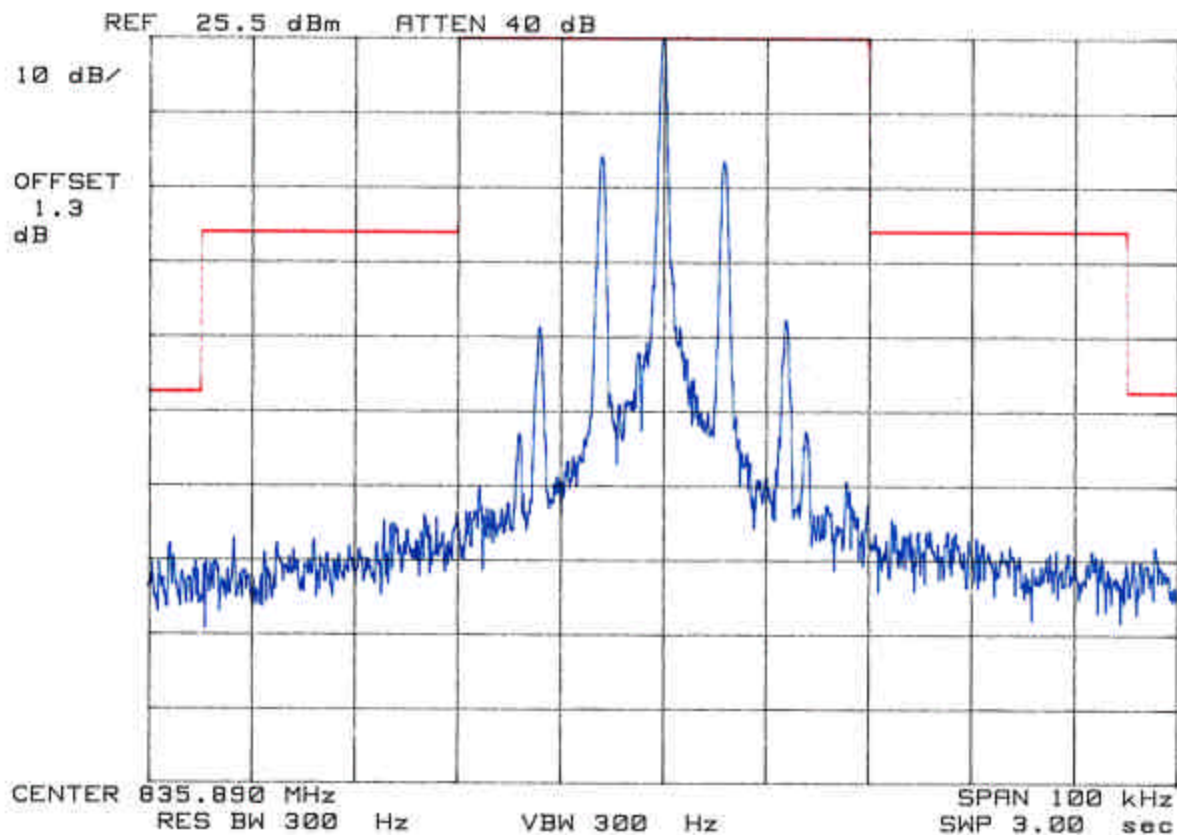
Tri-Mode Phone

FM Channel 363

Operating Frequency: 835.890 MHz

Output Power : 25.5 dBm

Test Mode:SAT



# PCTEST Engineering Lab.

## SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHA800

SAMSUNG

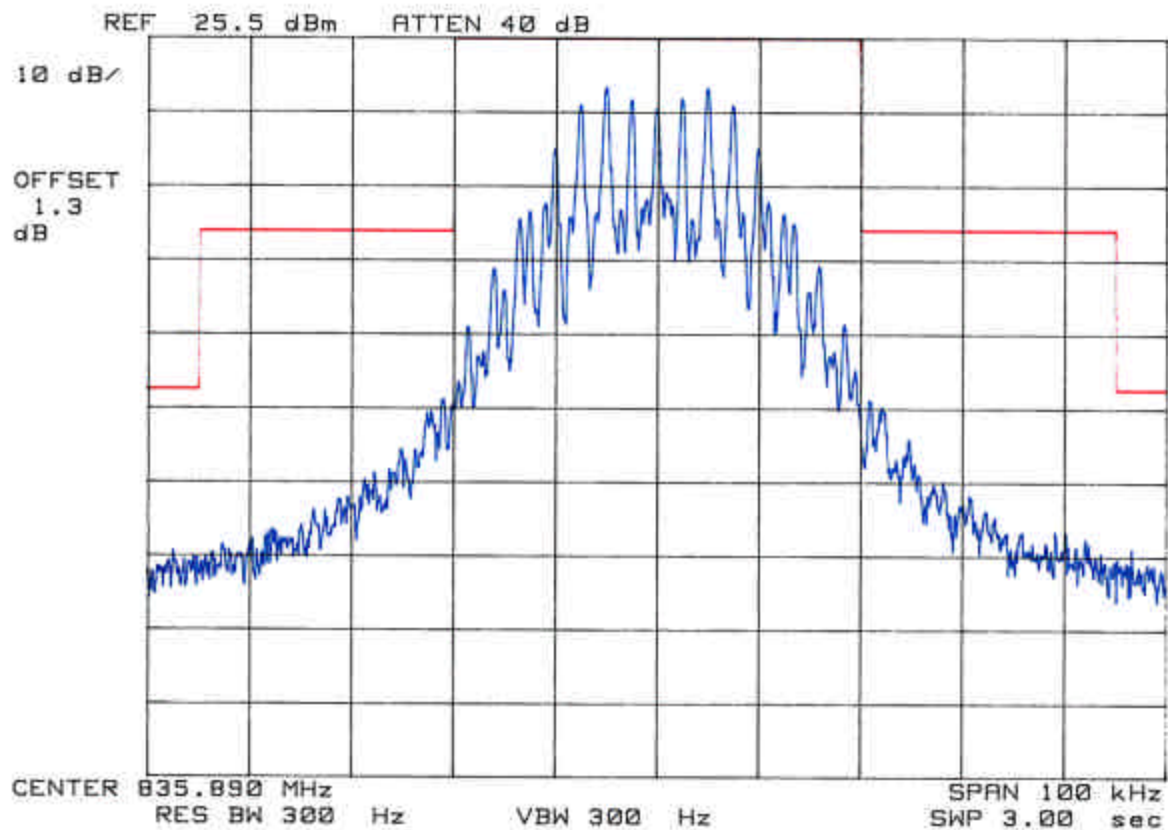
Tri-Mode Phone

FM Channel 363

Operating Frequency: 835.890 MHz

Output Power : 25.5 dBm

Test Mode:SAT + Voice



# PCTEST Engineering Lab.

## SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHA800

SAMSUNG

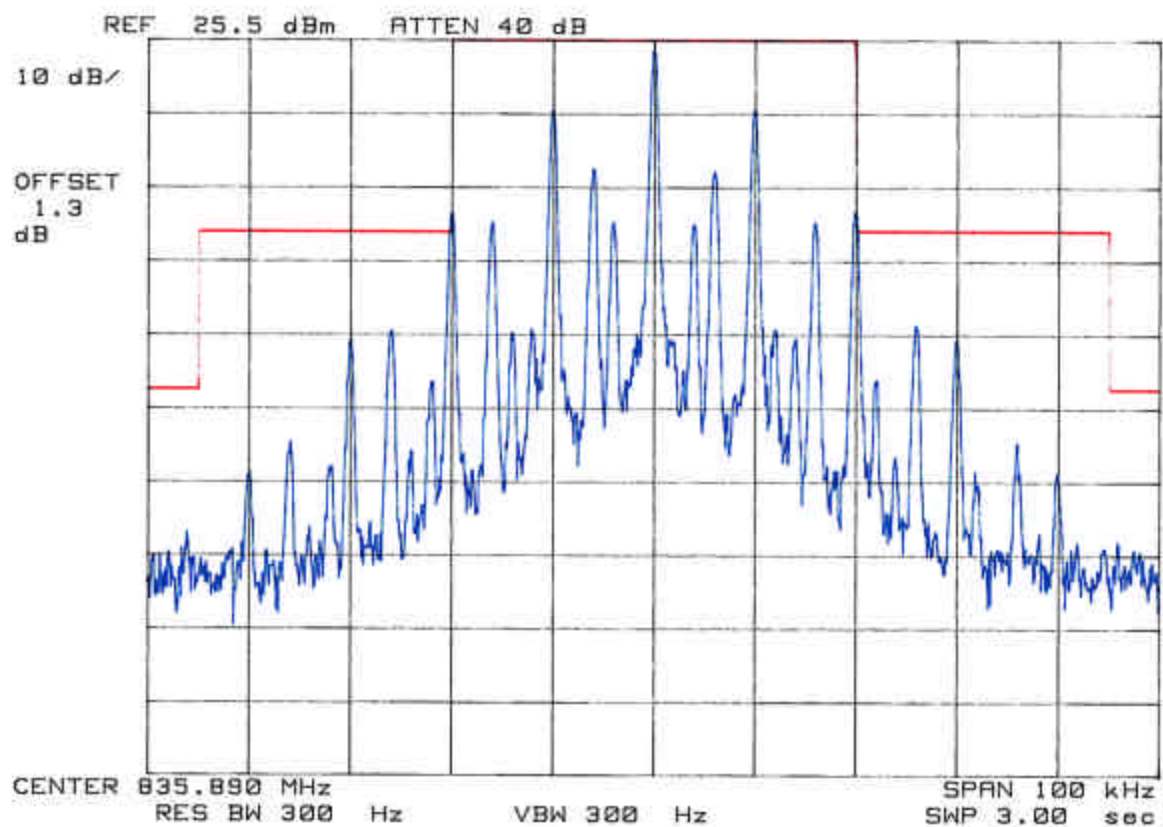
Tri-Mode Phone

FM Channel 363

Operating Frequency: 835.890 MHz

Output Power : 25.5 dBm

Test Mode:SAT + ST



# PCTEST Engineering Lab.

## SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHA800

SAMSUNG

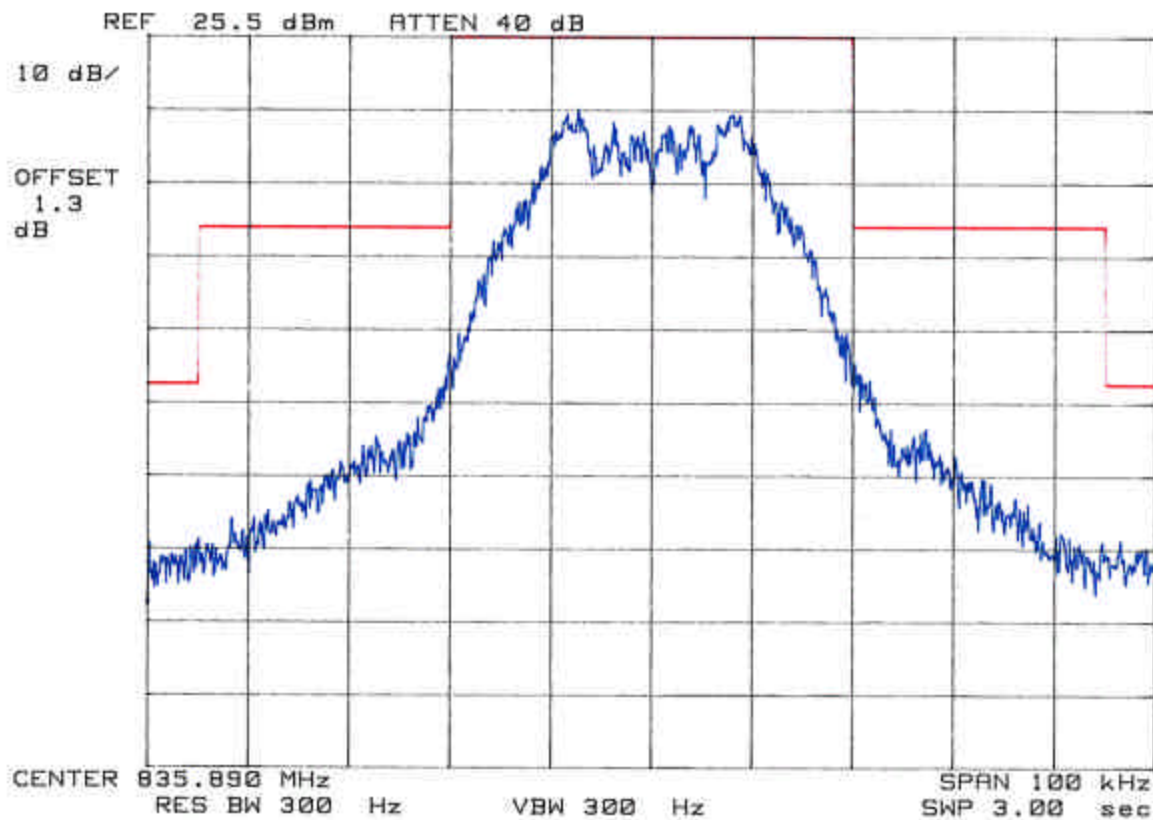
Tri-Mode Phone

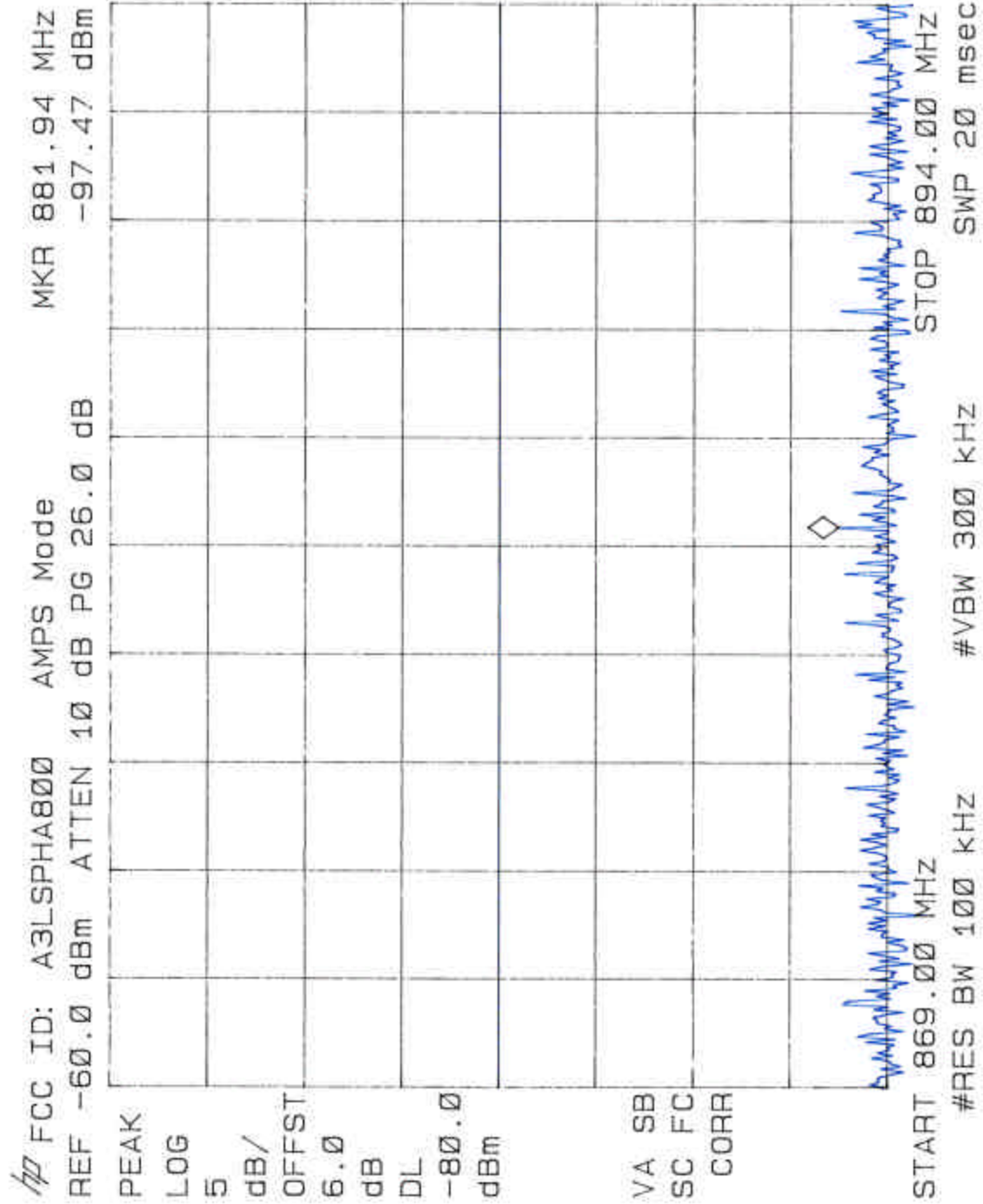
FM Channel 363

Operating Frequency: 835.890 MHz

Output Power : 25.5 dBm

Test Mode:SAT + DTMF





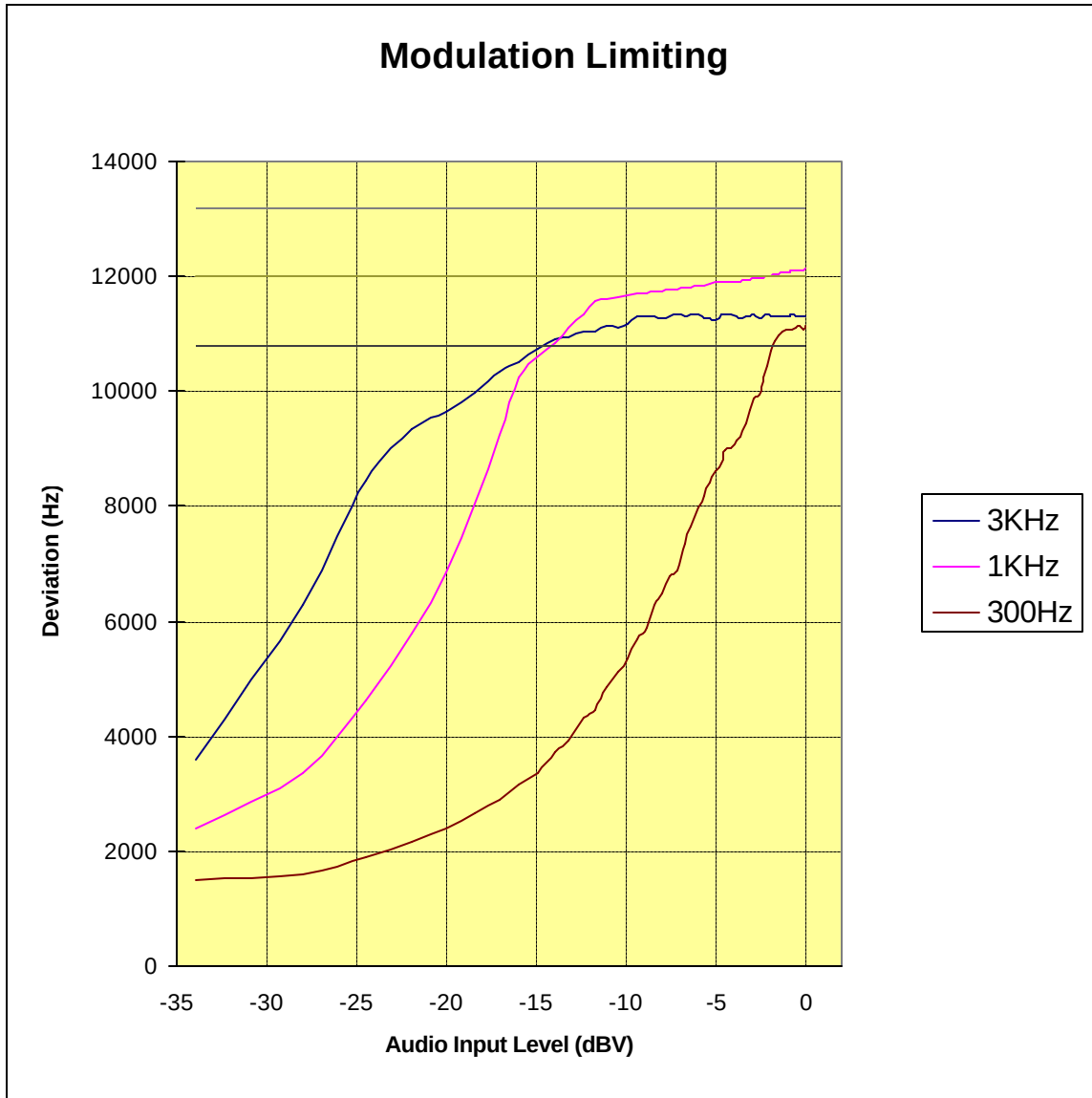
**PCTEST Engineering Lab., Inc.**

**SUBJECT:** Modulation Characteristics  
FCC Part 24/22

Test Report No.: 0501060006  
Test Date: 01.07.2005

**EUT:** Tri-Mode Dual-Band Analog/PCS Phone (AMPS/CDMA)  
**Model:** SPH-A800  
**FCC ID:** A3LSPHA800

**REFERENCE:** 1 kHz = 0 dB



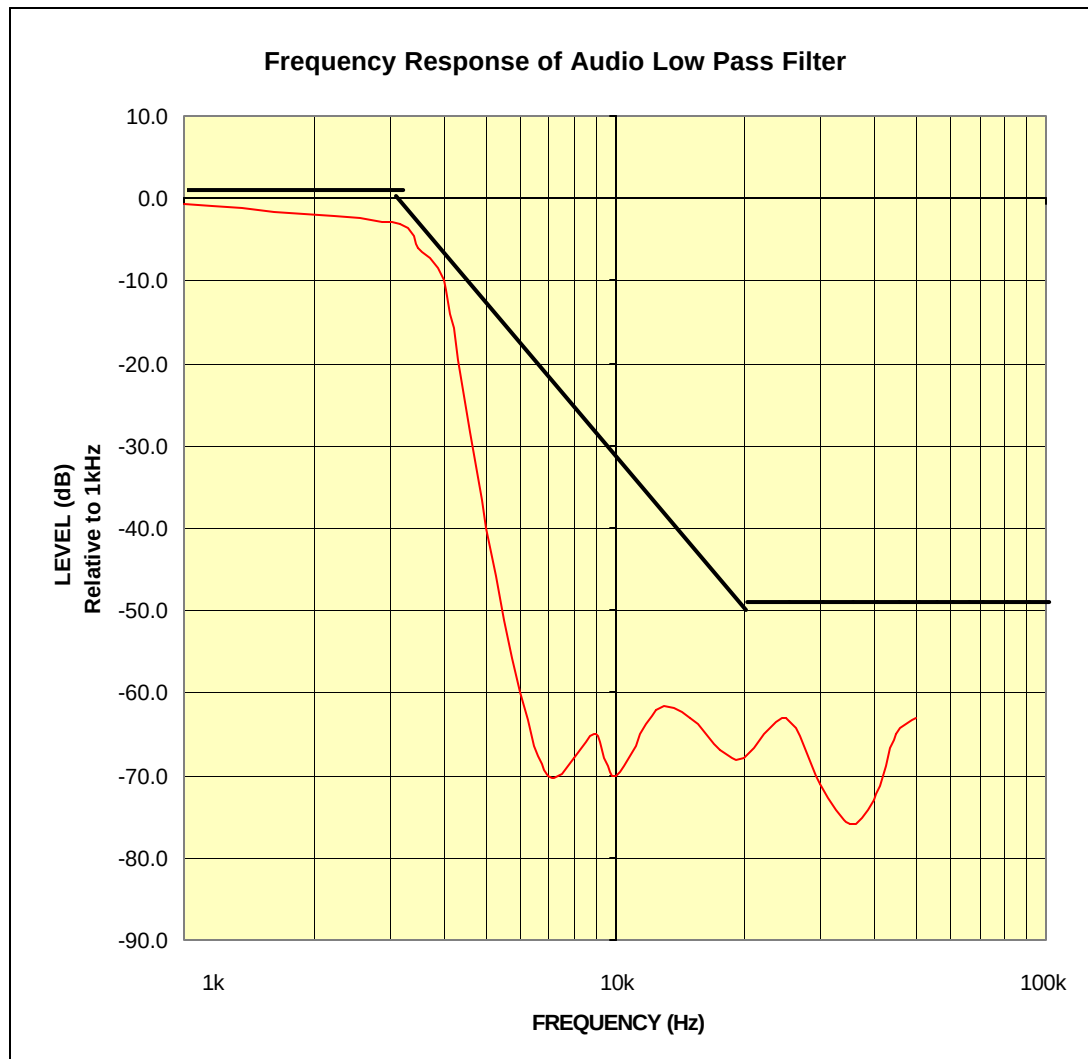
**PCTEST Engineering Lab., Inc.**

**SUBJECT:** Modulation Characteristics  
FCC Part 24/22

Test Report No.: 0501060006  
Test Date: 01.07.2005

**EUT:** Tri-Mode Dual-Band Analog/PCS Phone (AMPS/CDMA)  
**Model:** SPH-A800  
**FCC ID:** A3LSPHA800

**REFERENCE:** 1 kHz = 0 dB



SAMSUNG Tri-Mode Dual-Band Analog/PCS Phone (AMPS/CDMA)  
FCC ID: A3LSPHA800

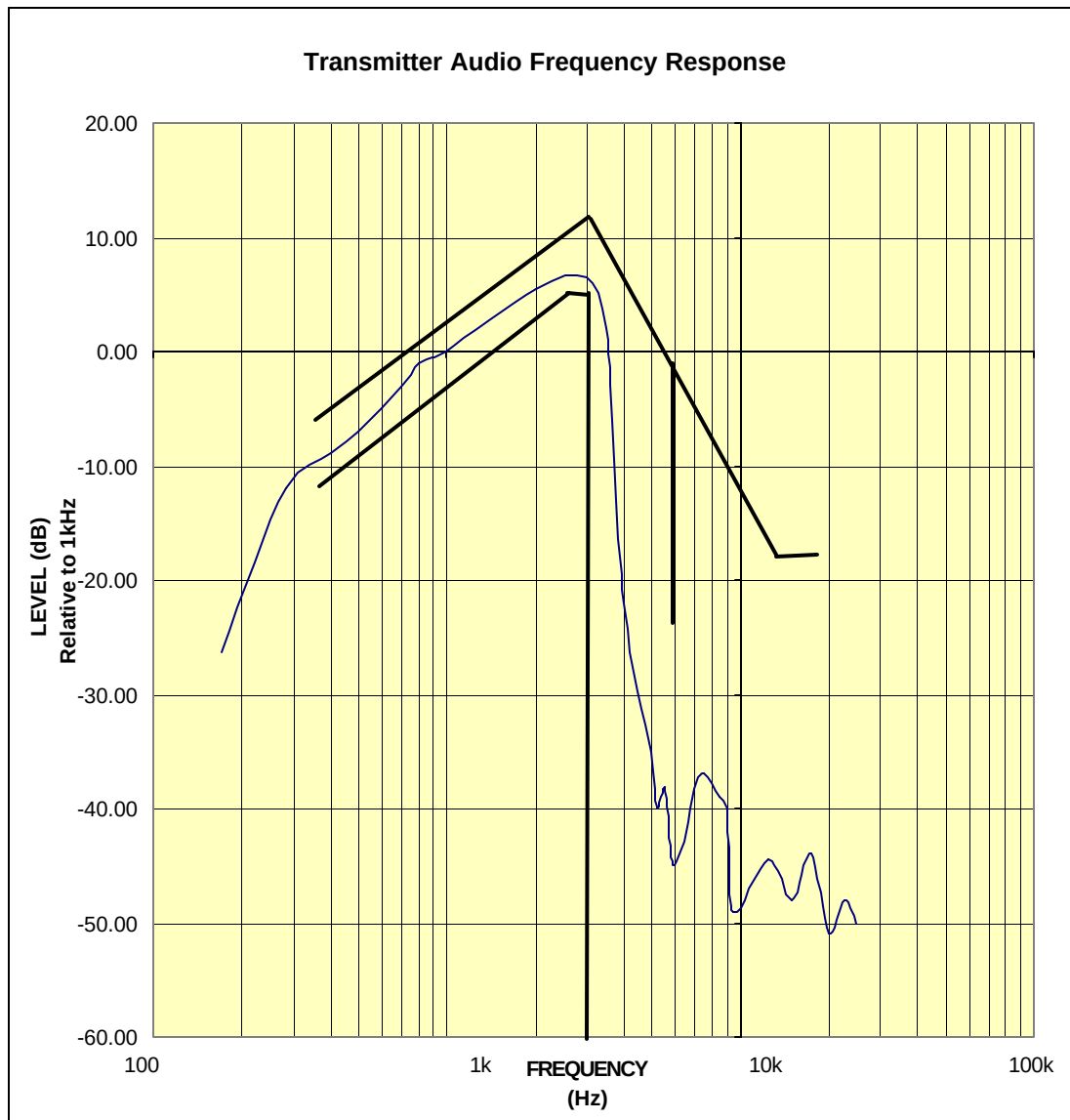
**PCTEST Engineering Lab., Inc.**

**SUBJECT:** Modulation Characteristics  
FCC Part 24/22

Test Report No.: 0501060006  
Test Date: 01.07.2005

**EUT:** Tri-Mode Dual-Band Analog/PCS Phone (AMPS/CDMA)  
**Model:** SPH-A800  
**FCC ID:** A3LSPHA800

**REFERENCE:** 1 kHz = 0 dB



SAMSUNG Tri-Mode Dual-Band Analog/PCS Phone (AMPS/CDMA)  
FCC ID: A3LSPHA800