

1.1 Test Data

1.2 Effective Radiated Power Output

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

Freq. Tuned (MHz)	REF. LEVEL (dBm)	POL (H/V)	ERP (W)	ERP (dBm)
824.04	-36.800	H	0.003	4.473
836.49	-36.800	H	0.003	4.629
848.97	-36.900	H	0.003	4.685

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

Freq. Tuned (MHz)	REF. LEVEL (dBm)	POL (H/V)	ERP (W)	ERP (dBm)	BATTERY
824.04	-16.800	H	0.28011	24.473	Standard
836.49	-16.800	H	0.29033	24.629	Standard
848.97	-16.900	H	0.29410	24.685	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 SUPPLEMENT	FCC MEASUREMENT SUPPLEMENT			Reviewed By: Quality Manager
Test Report S/N: 0602210098	Test Dates: MARCH 1, 2006	Phone Type: Tri-Mode Dual-Band	FCC ID: A3LSPHA640S	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: 24.685 dBm = 0.294 W
MODULATION SIGNAL: FM (Internal)
DISTANCE: 3 meters
LIMIT: $43 + 10 \log_{10} (W) =$ 37.68 dBc

FREQ. (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	CORRECT GENERATOR LEVEL (dBm)	POL (H/V)	(dBc)
1648.08	-55.68	6.10	-49.58	H	74.3
2472.12	-65.78	6.70	-59.08	H	83.8
3296.16	-65.28	6.80	-58.48	H	83.2
4120.20	-68.68	6.50	-62.18	H	86.9
4944.24	-76.48	7.00	-69.48	H	94.2

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 SUPPLEMENT	FCC MEASUREMENT SUPPLEMENT			Reviewed By: Quality Manager
Test Report S/N: 0602210098	Test Dates: MARCH 1, 2006	Phone Type: Tri-Mode Dual-Band	FCC ID: A3LSPHA640S	Page 2 of 6

2.1 Test Data (Continued)

2.3 AMPS Radiated Measurements

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 836.49 MHz
 CHANNEL: 0383 (Mid)
 MEASURED OUTPUT POWER: 24.685 dBm = 0.294 W
 MODULATION SIGNAL: FM (Internal)
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 37.68 dBc

FREQ. (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	CORRECT GENERATOR LEVEL (dBm)	POL (H/V)	(dBc)
1672.98	-47.78	6.10	-41.68	H	66.4
2509.47	-53.08	6.70	-46.38	H	71.1
3345.96	-45.03	6.80	-38.23	H	62.9
4182.45	-58.08	6.50	-51.58	H	76.3
5018.94	-83.88	7.00	-76.88	H	101.6

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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Test Report S/N: 0602210098	Test Dates: MARCH 1, 2006	Phone Type: Tri-Mode Dual-Band	FCC ID: A3LSPHA640S	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: 24.685 dBm = 0.294 W
 MODULATION SIGNAL: FM (Internal)
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 37.68 dBc

FREQ. (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	CORRECT GENERATOR LEVEL (dBm)	POL (H/V)	(dBc)
1697.94	-52.28	6.10	-46.18	V	70.9
2546.91	-51.68	6.70	-44.98	V	69.7
3395.88	-64.98	6.80	-58.18	V	82.9
4244.85	-70.08	6.50	-63.58	V	88.3
5093.82	-76.78	7.00	-69.78	V	94.5

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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Test Report S/N: 0602210098	Test Dates: MARCH 1, 2006	Phone Type: Tri-Mode Dual-Band	FCC ID: A3LSPHA640S	Page 4 of 6

3.1 Test Data

3.2 FREQUENCY STABILITY (AMPS)

OPERATING FREQUENCY: 836,490,004 Hz

CHANNEL: 383

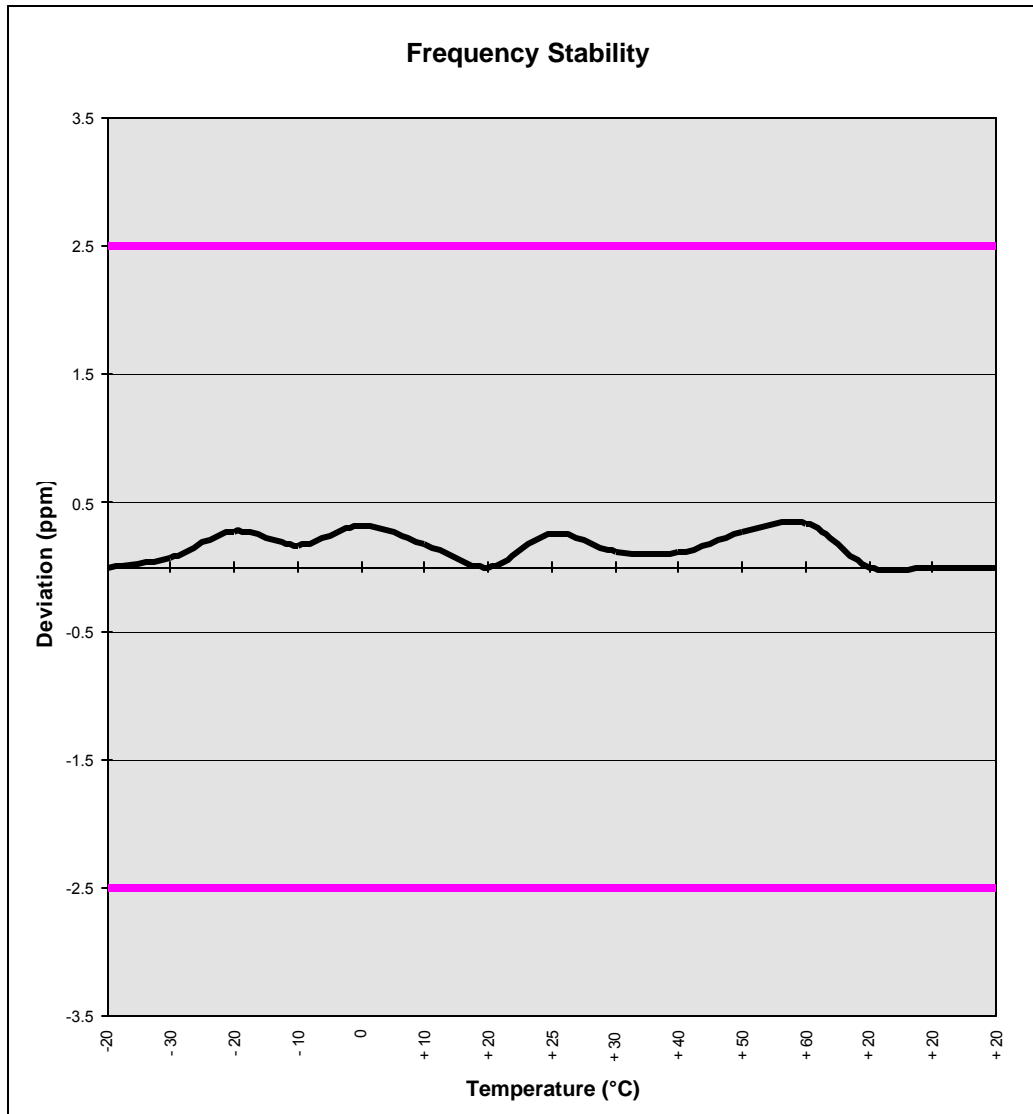
REFERENCE VOLTAGE: 3.7 VDC

DEVIATION LIMIT: ± 0.00025 % or 2.5 ppm

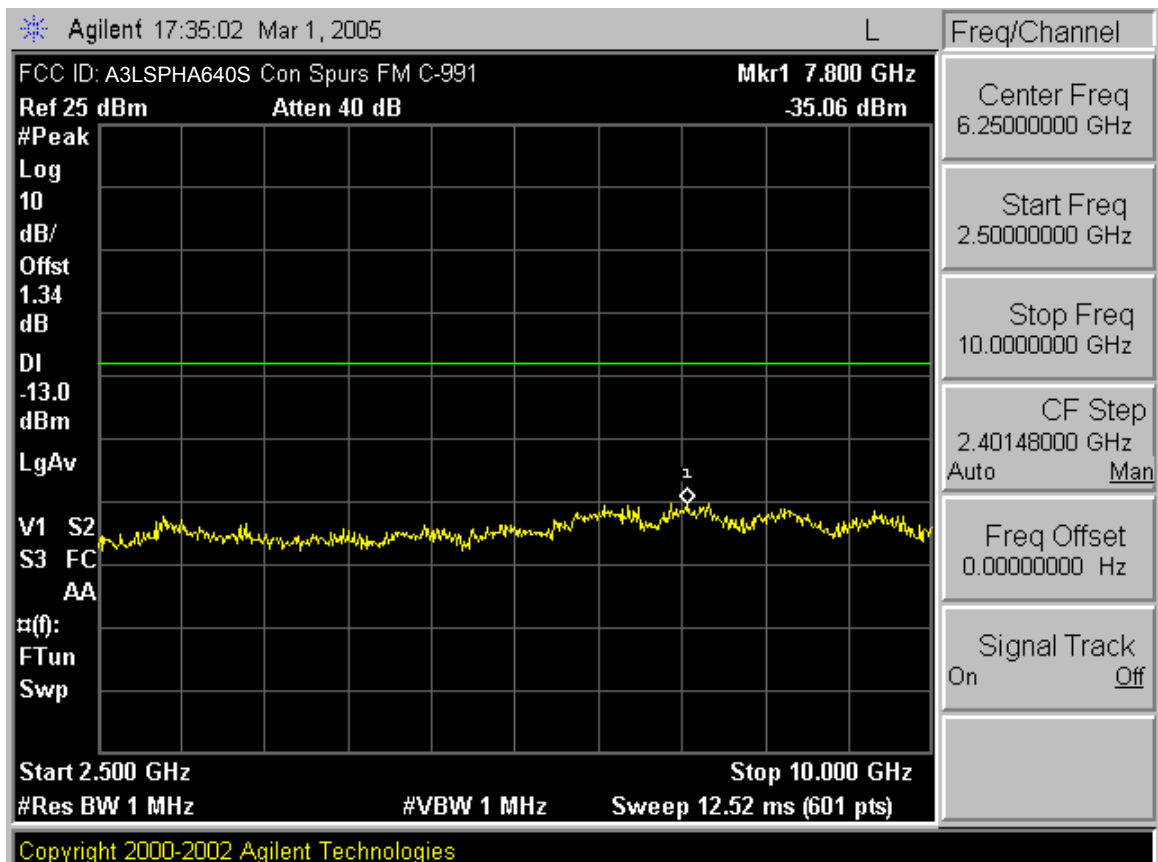
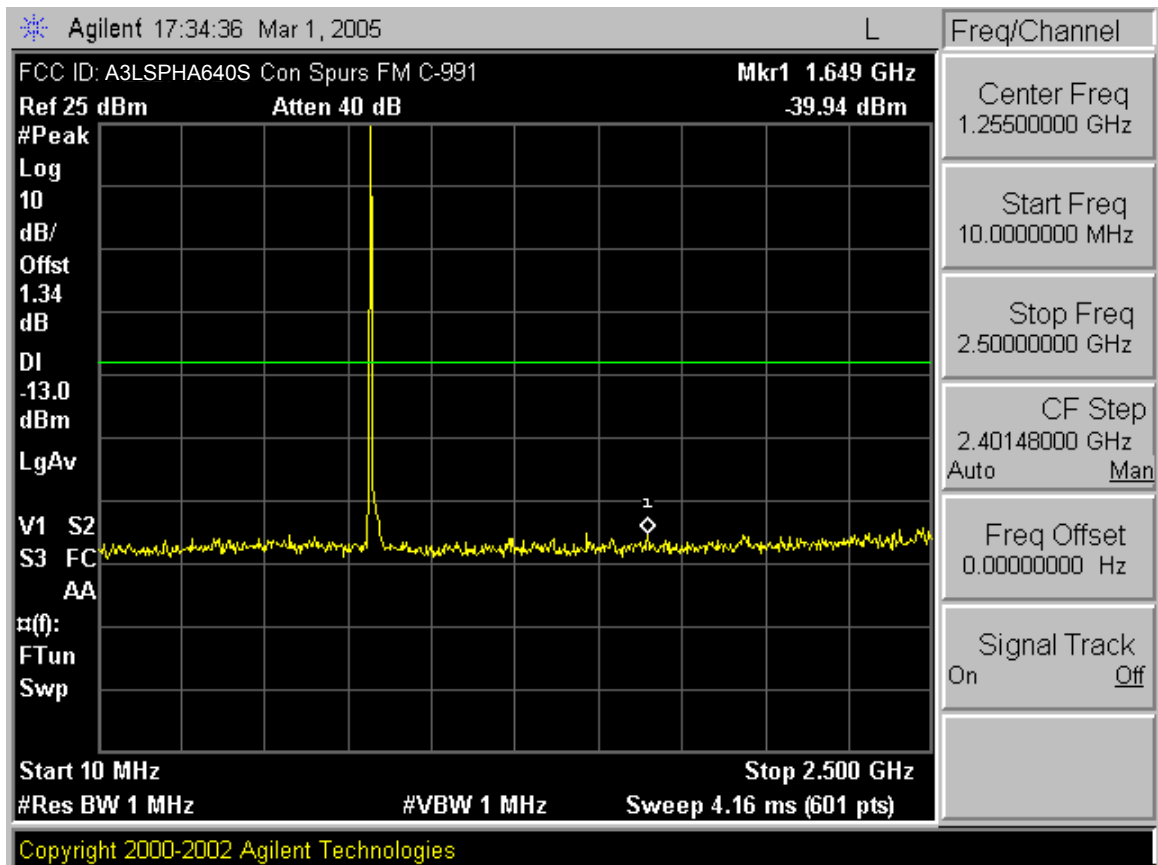
VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQ. (Hz)	Deviation (%)
100 %	3.70	+ 20 (Ref)	836,490,004	0.000000
100 %		- 30	836,489,945	0.000007
100 %		- 20	836,489,770	0.000028
100 %		- 10	836,489,862	0.000017
100 %		0	836,489,736	0.000032
100 %		+ 10	836,489,853	0.000018
100 %		+ 20	836,490,004	0.000000
100 %		+ 25	836,489,787	0.000026
100 %		+ 30	836,489,904	0.000012
100 %		+ 40	836,489,912	0.000011
100 %		+ 50	836,489,778	0.000027
100 %		+ 60	836,489,720	0.000034
85 %	3.15	+ 20	836,490,004	0.000000
115 %	4.26	+ 20	836,490,004	0.000000
BATT. ENDPOINT	2.99	+ 20	836,490,004	0.000000

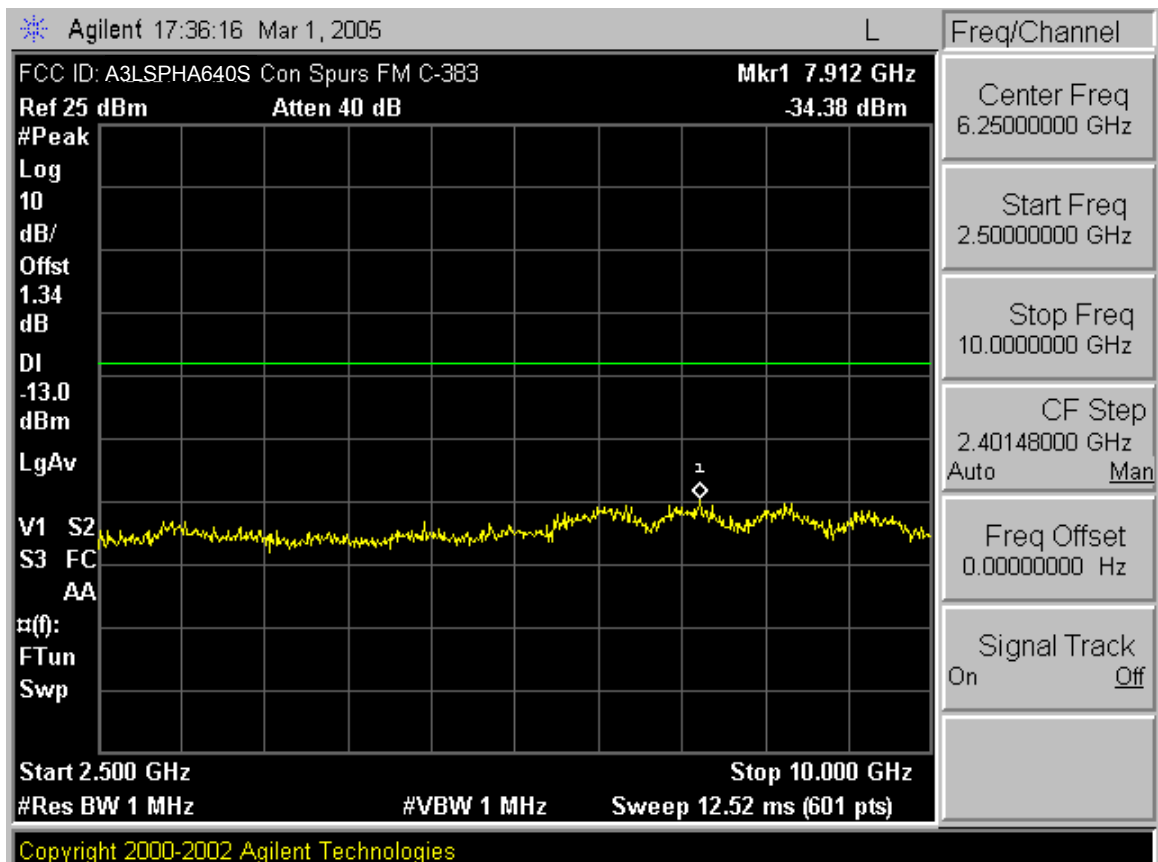
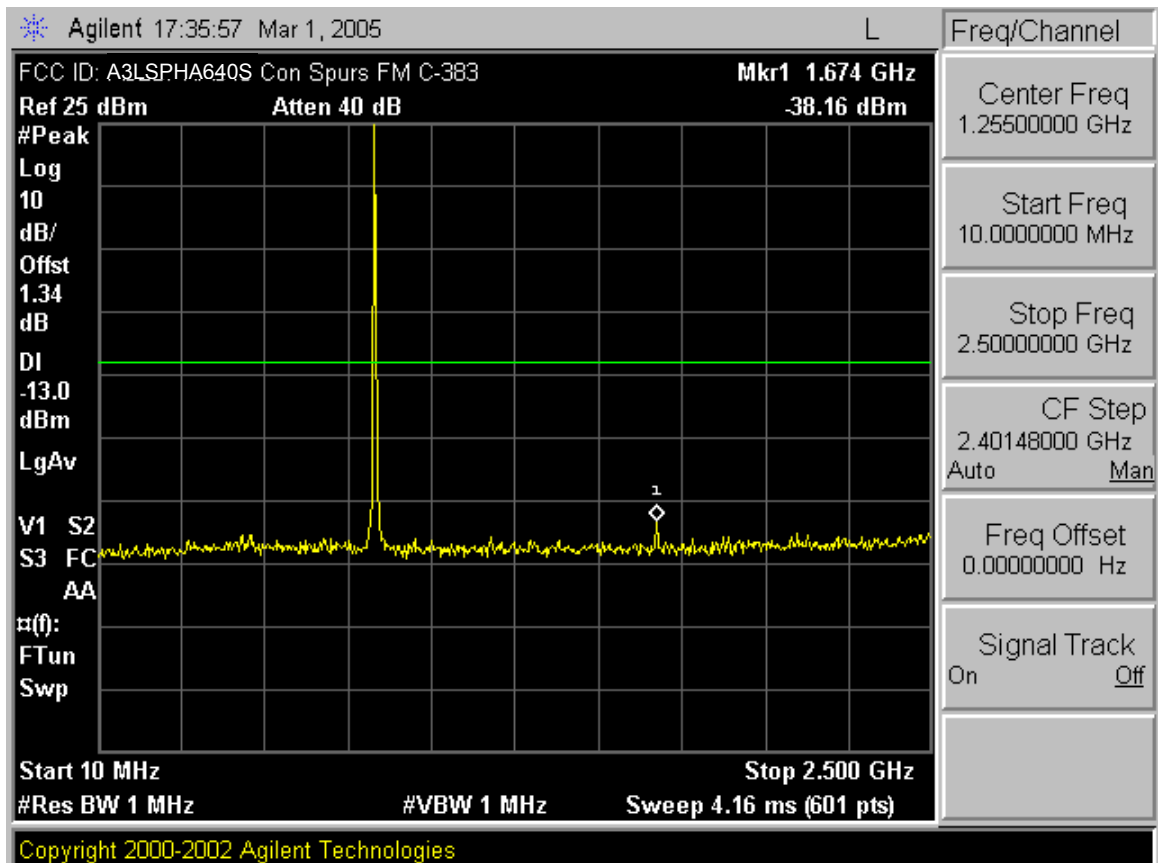
3.1 Test Data (Continued)

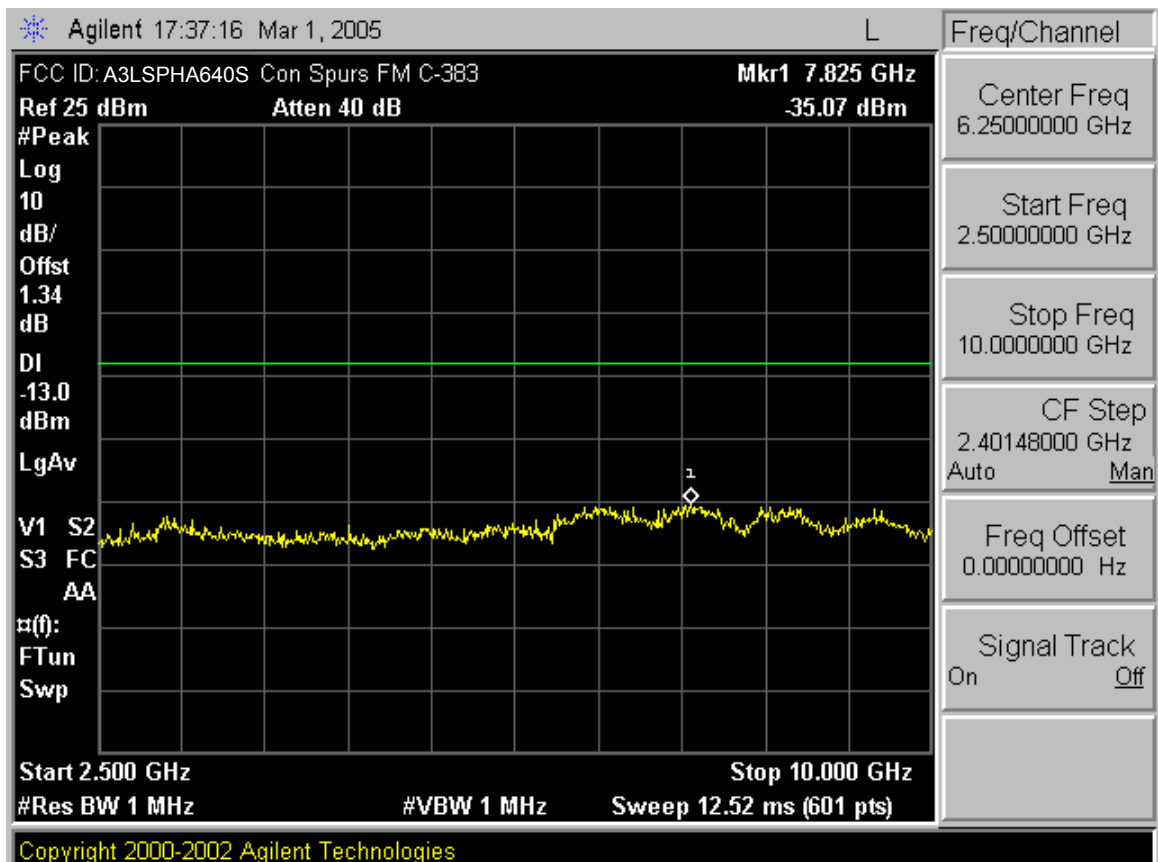
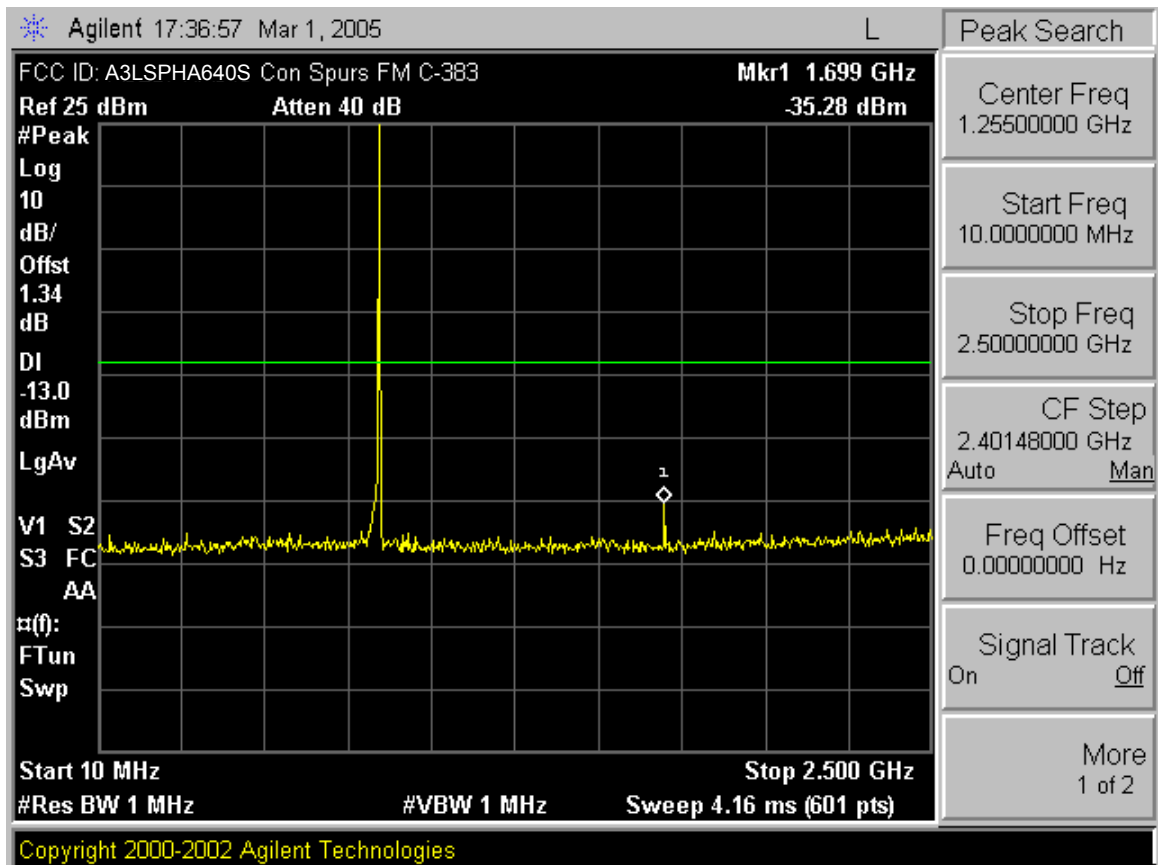
3.3 FREQUENCY STABILITY (AMPS)



PCTEST PT. 22/24 SUPPLEMENT	<div style="display: flex; justify-content: space-between; align-items: center;"> FCC MEASUREMENT SUPPLEMENT </div>			Reviewed By: Quality Manager
Test Report S/N: 0602210098	Test Dates: MARCH 1, 2006	Phone Type: Tri-Mode Dual-Band	FCC ID: A3LSPHA640S	Page 6 of 6



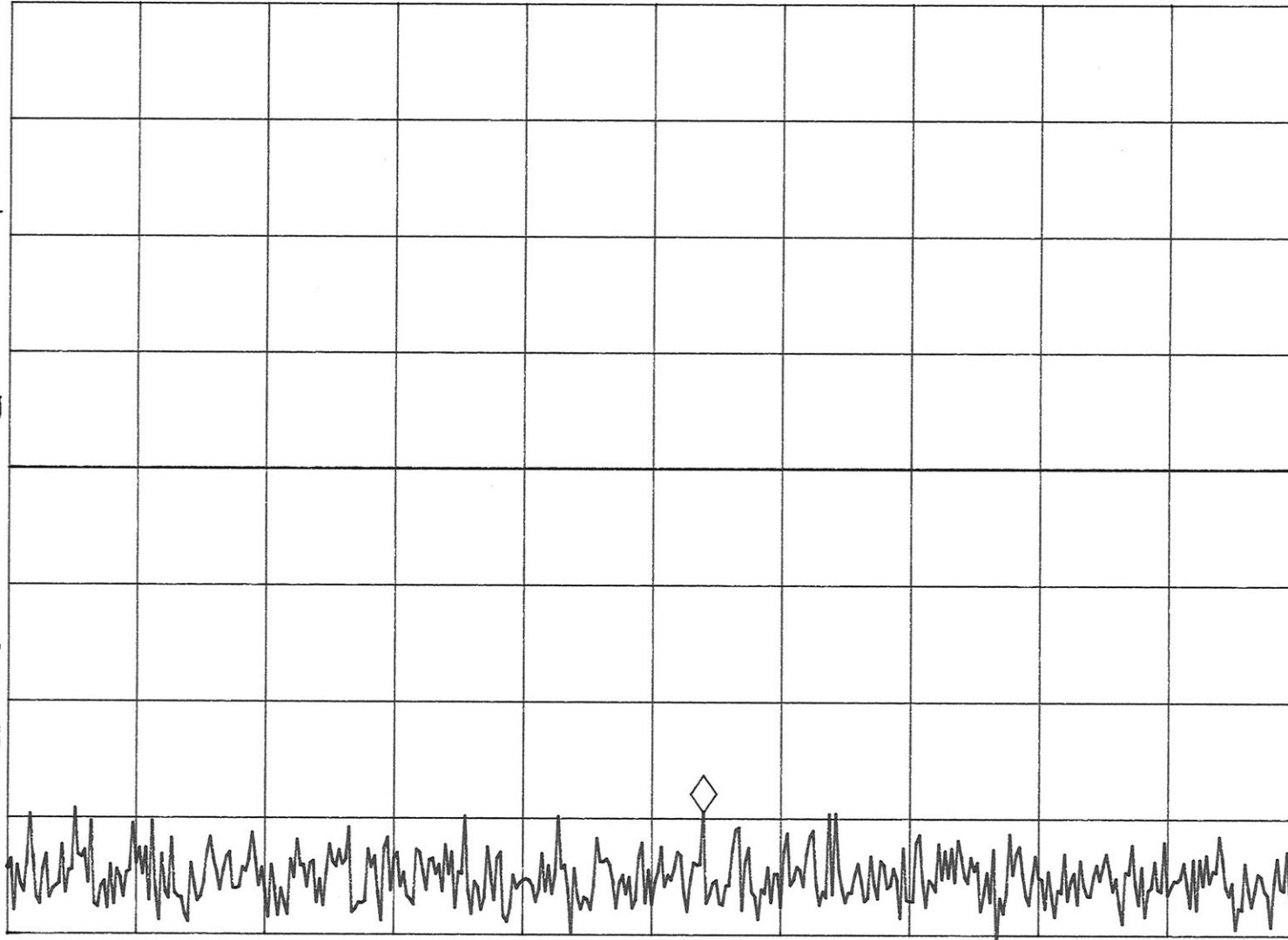




~~h~~ FCC ID: A3LSPHA640S AMPS Mode MKR 882.50 MHz
REF -60.0 dBm ATTEN 10 dB PG 25.0 dB -94.74 dBm

PEAK
LOG
5
dB/
OFFST
6.0
dB
DL
-80.0
dBm

VA SB
SC FC
CORR



START 869.00 MHz STOP 894.00 MHz
#RES BW 100 kHz #VBW 300 kHz SWP 20 msec

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SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHA640S

SAMSUNG ELECTRONICS

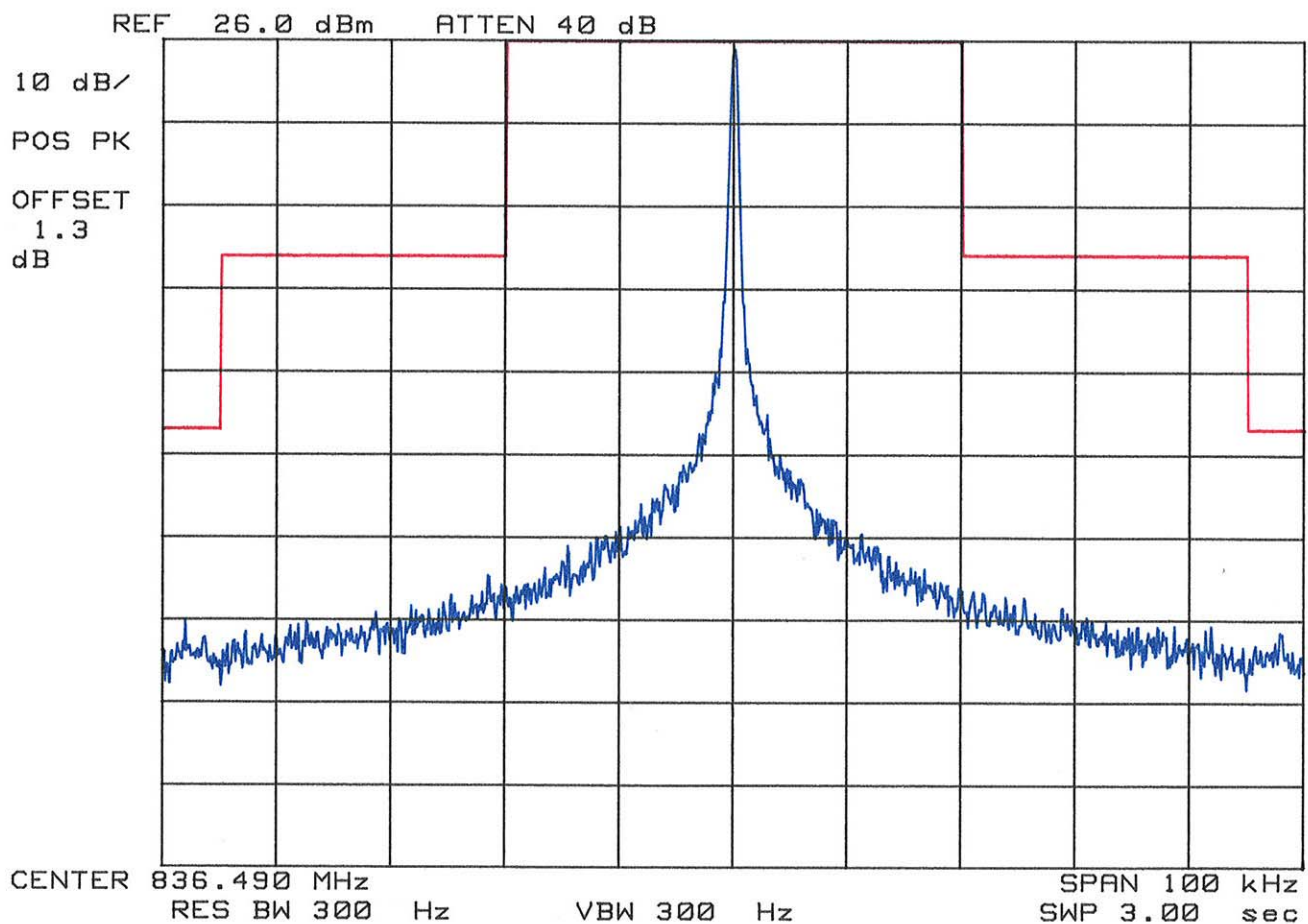
Tri-Mode Phone

FM Channel 383

Operating Frequency: 836.490 MHz

Output Power : 26.0 dBm

Test Mode:Unmodulated Signal



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SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHA640S

SAMSUNG ELECTRONICS

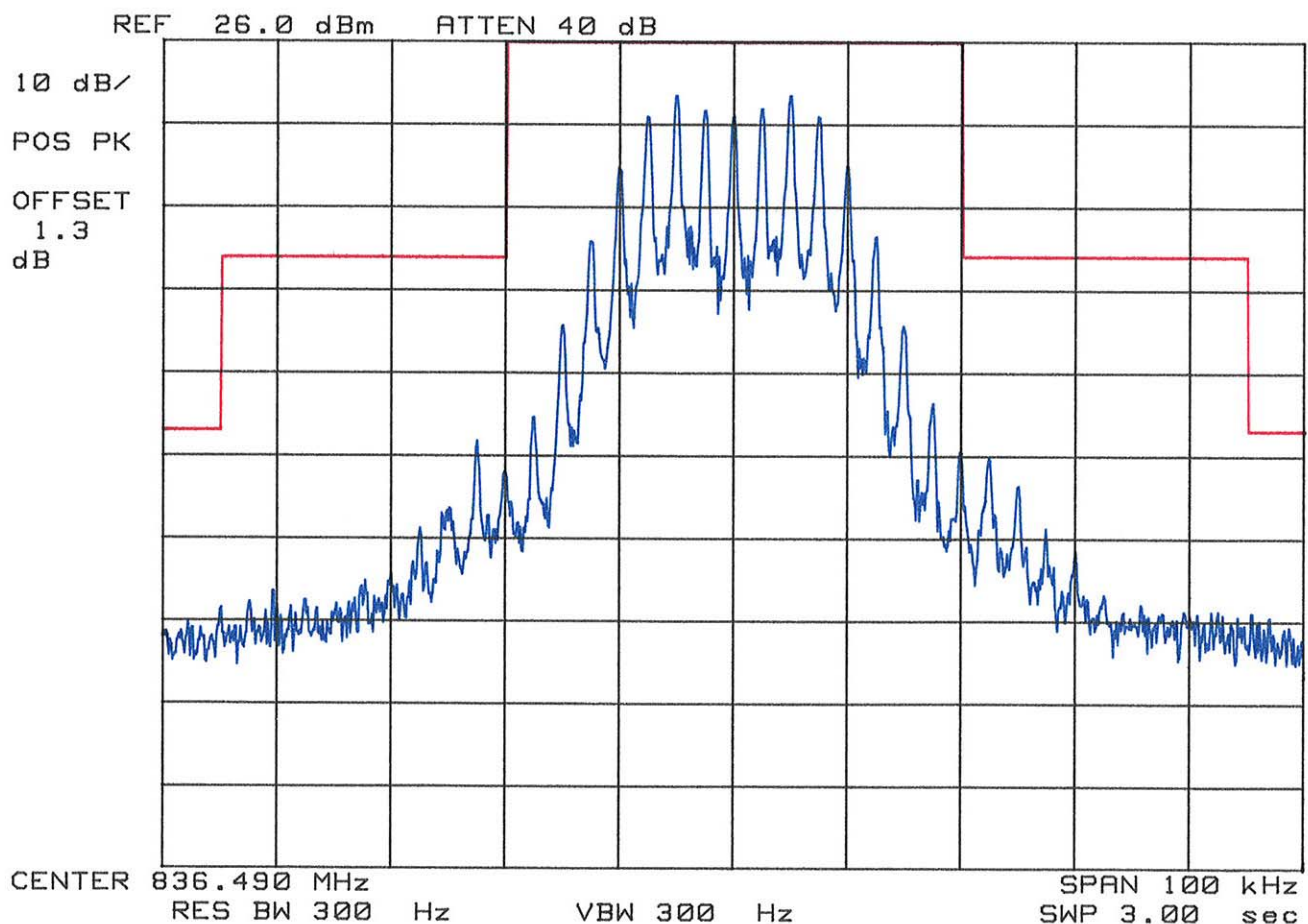
Tri-Mode Phone

FM Channel 383

Operating Frequency: 836.490 MHz

Output Power : 26.0 dBm

Test Mode:Voice



PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHA640S

SAMSUNG ELECTRONICS

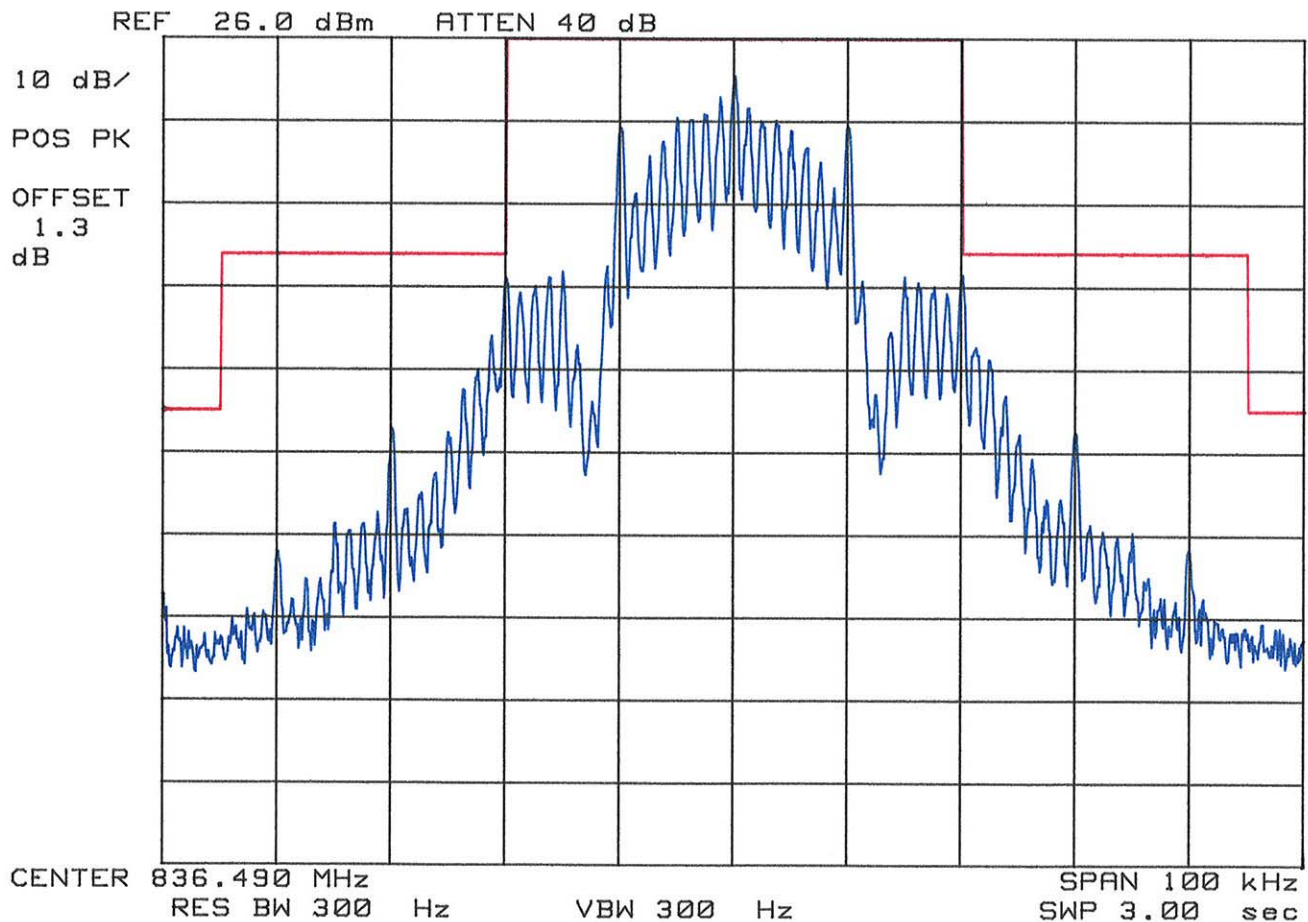
Tri-Mode Phone

FM Channel 383

Operating Frequency: 836.490 MHz

Output Power : 26.0 dBm

Test Mode:Wide Band Data



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SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHA640S

SAMSUNG ELECTRONICS

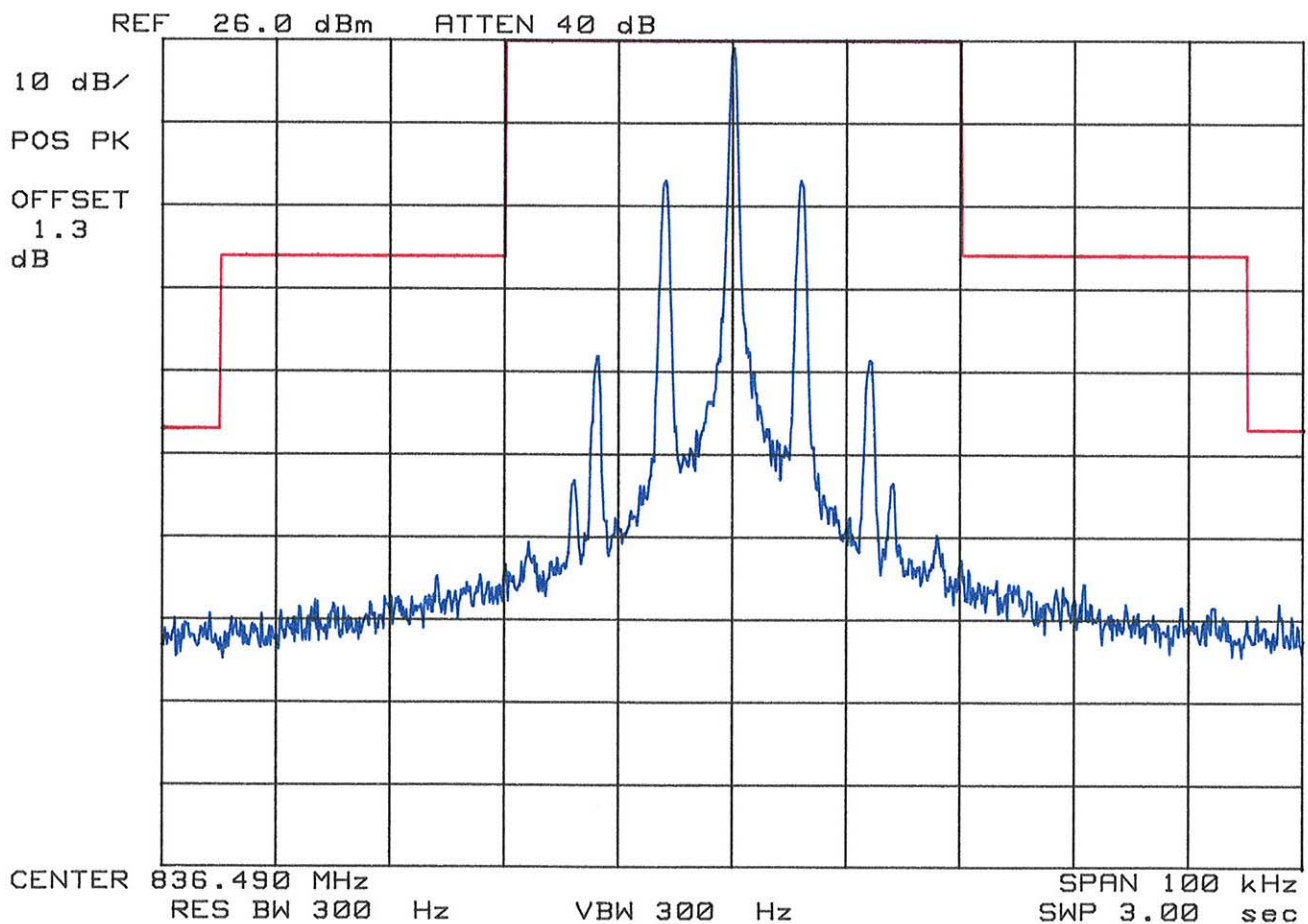
Tri-Mode Phone

FM Channel 383

Operating Frequency: 836.490 MHz

Output Power : 26.0 dBm

Test Mode:SAT



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SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHA640S

SAMSUNG ELECTRONICS

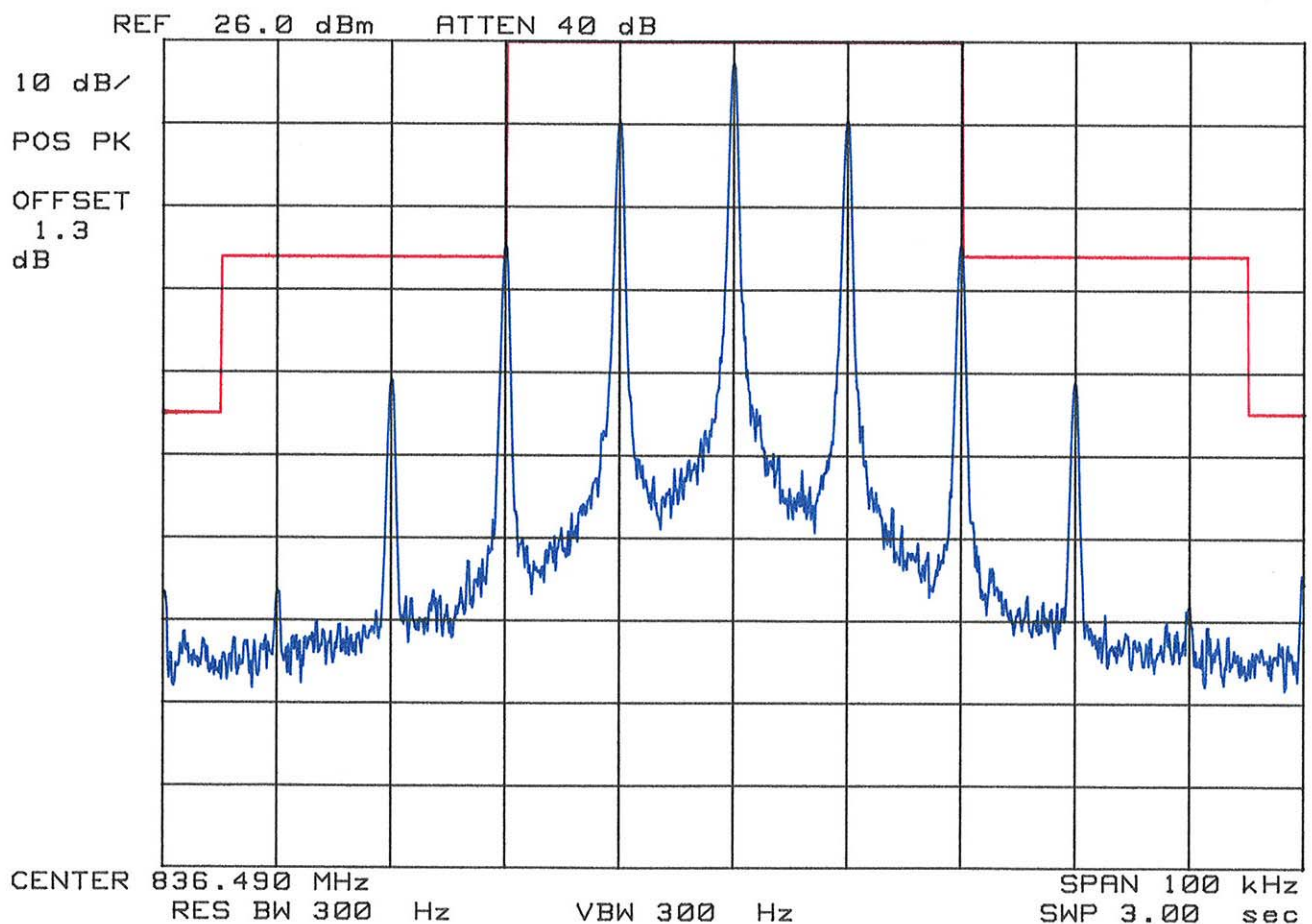
Tri-Mode Phone

FM Channel 383

Operating Frequency: 836.490 MHz

Output Power : 26.0 dBm

Test Mode:ST



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SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHA640S

SAMSUNG ELECTRONICS

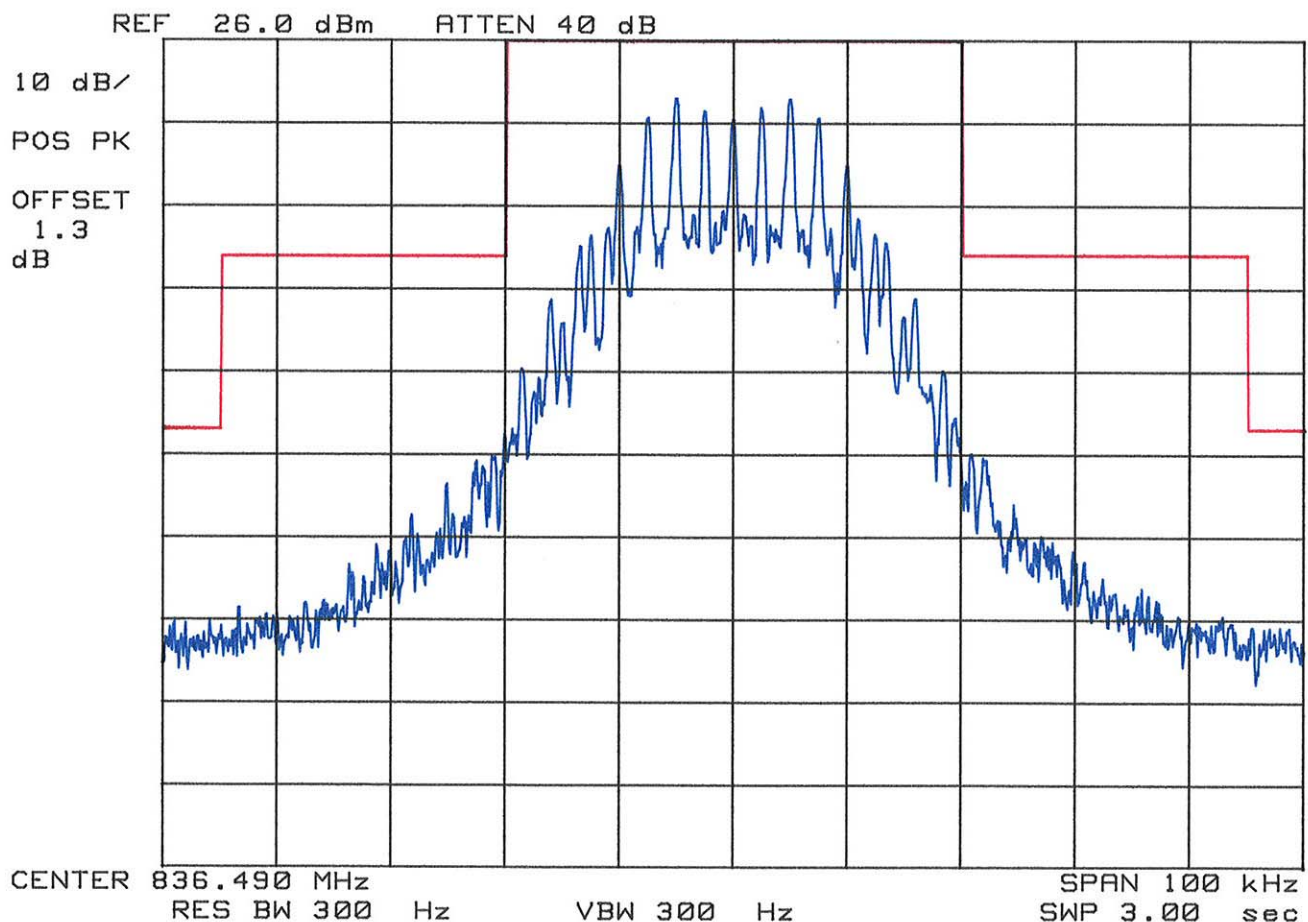
Tri-Mode Phone

FM Channel 383

Operating Frequency: 836.490 MHz

Output Power : 26.0 dBm

Test Mode:SAT + Voice



PCTEST Engineering Lab.

SPECTRUM ANALYZER PRESENTATION

FCC ID:A3LSPHA640S

SAMSUNG ELECTRONICS

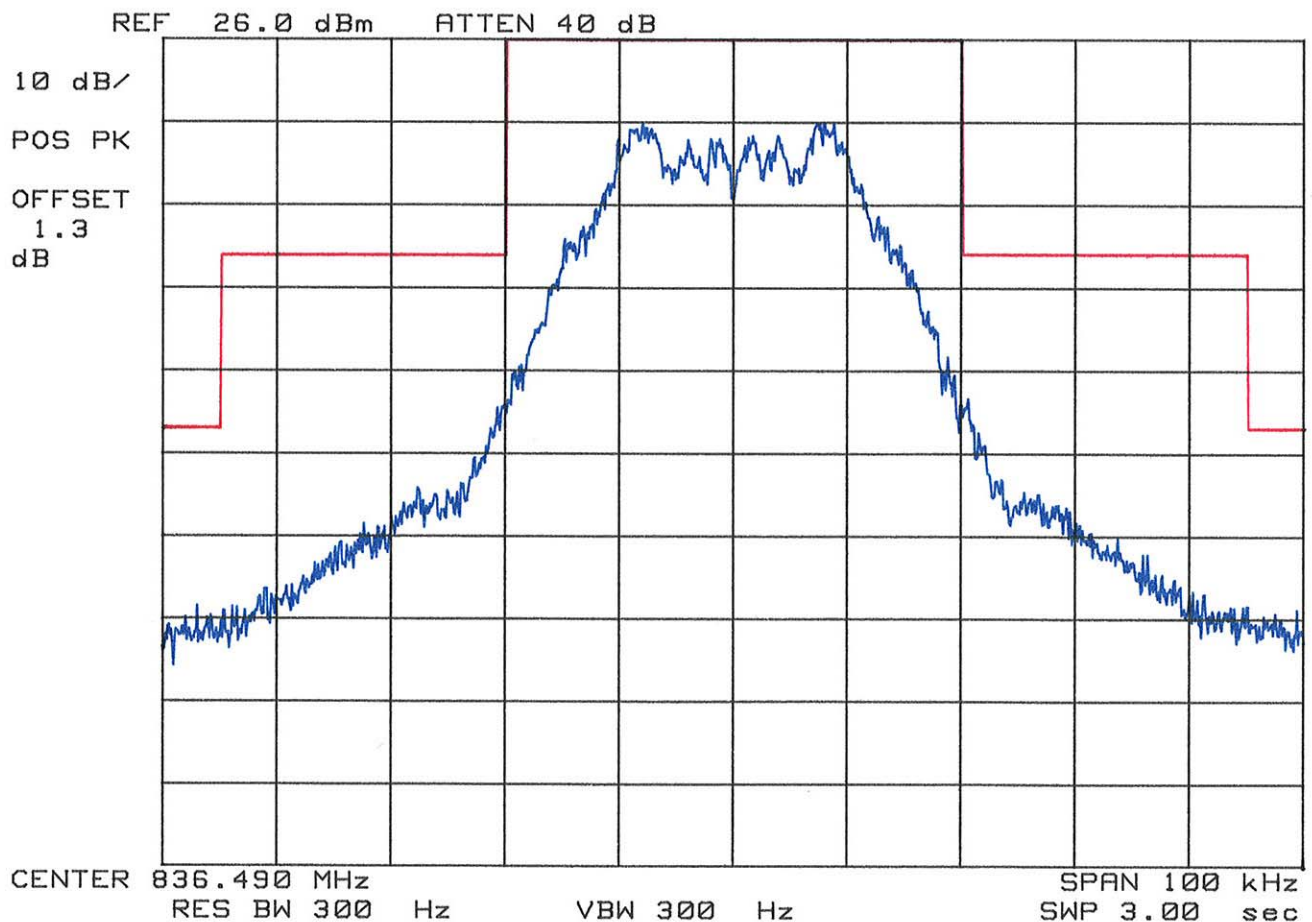
Tri-Mode Phone

FM Channel 383

Operating Frequency: 836.490 MHz

Output Power : 26.0 dBm

Test Mode:SAT + DTMF



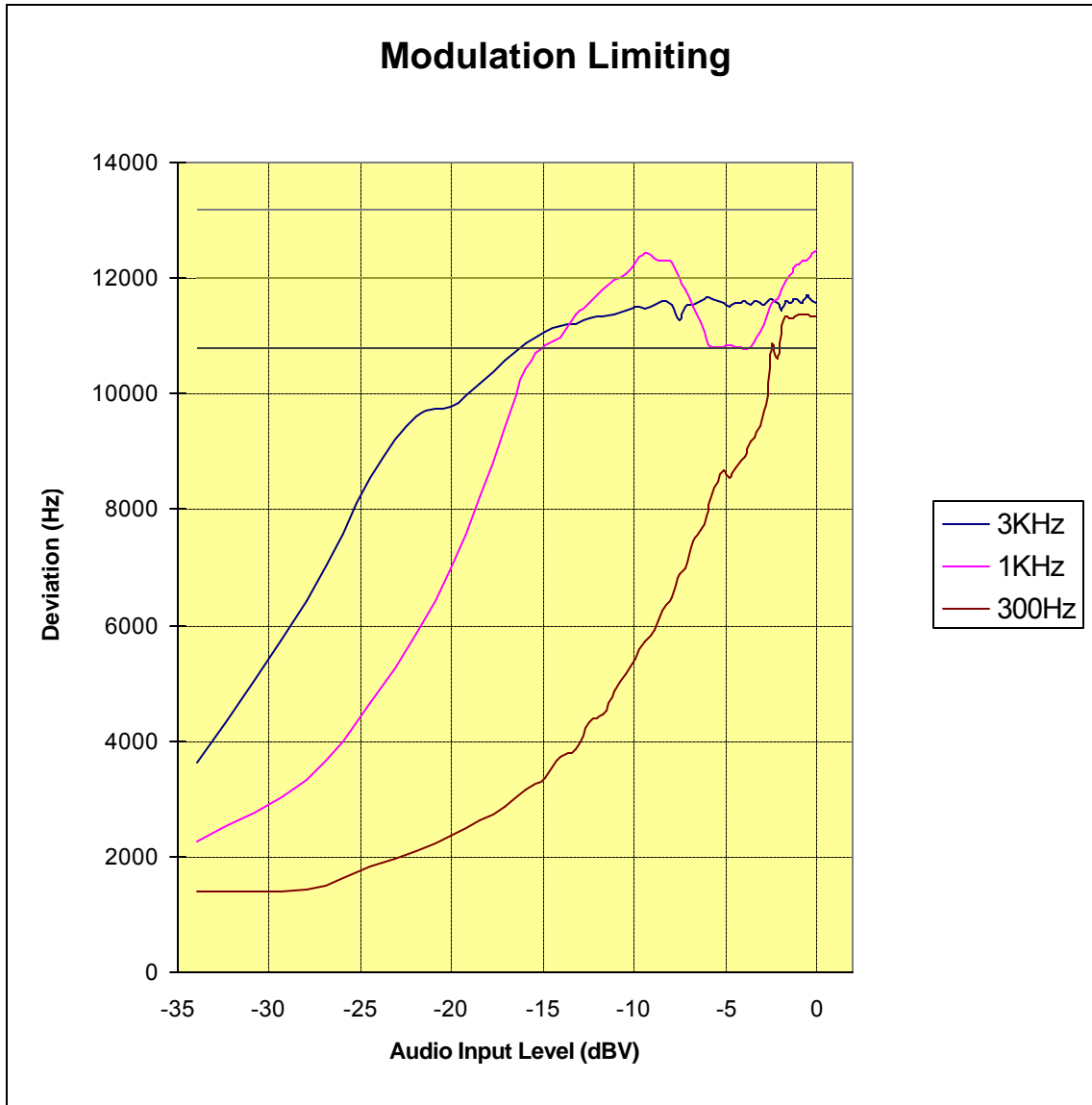
PCTEST Engineering Lab., Inc.

SUBJECT: Modulation Characteristics
FCC Part 24/22

Test Report No.: 0602210098
Test Date: 03.03.2006

EUT: Tri-Mode Dual-Band Analog/PCS Phone (AMPS/CDMA)
Model: SPH-A640
FCC ID: A3LSPHA640S

REFERENCE: 1 kHz = 0 dB



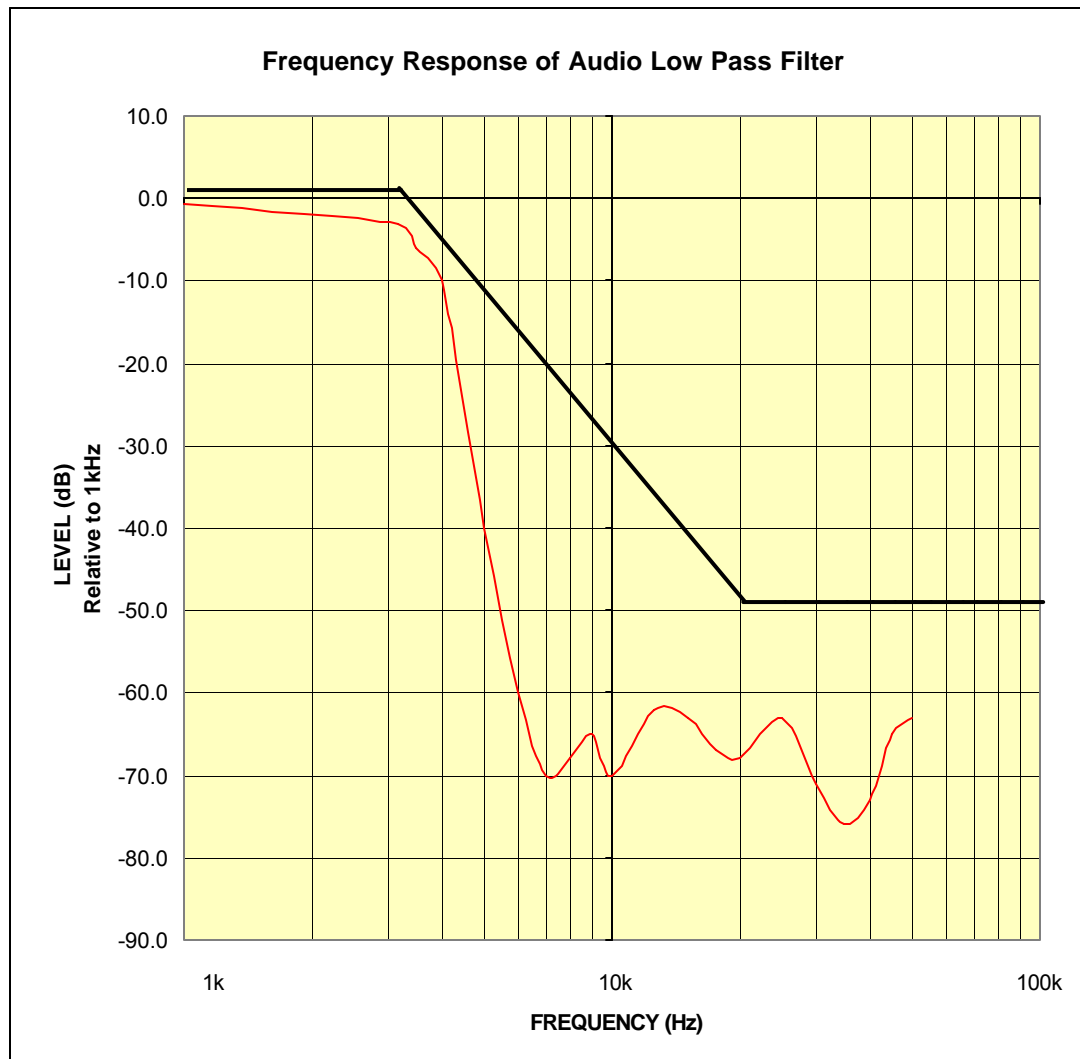
PCTEST Engineering Lab., Inc.

SUBJECT: Modulation Characteristics
FCC Part 24/22

Test Report No.: 0602210098
Test Date: 03.03.2006

EUT: Tri-Mode Dual-Band Analog/PCS Phone (AMPS/CDMA)
Model: SPH-A640
FCC ID: A3LSPHA640S

REFERENCE: 1 kHz = 0 dB



Samsung Tri-Mode Dual-Band Analog/PCS Phone (AMPS/CDMA)
FCC ID: A3LSPHA640S

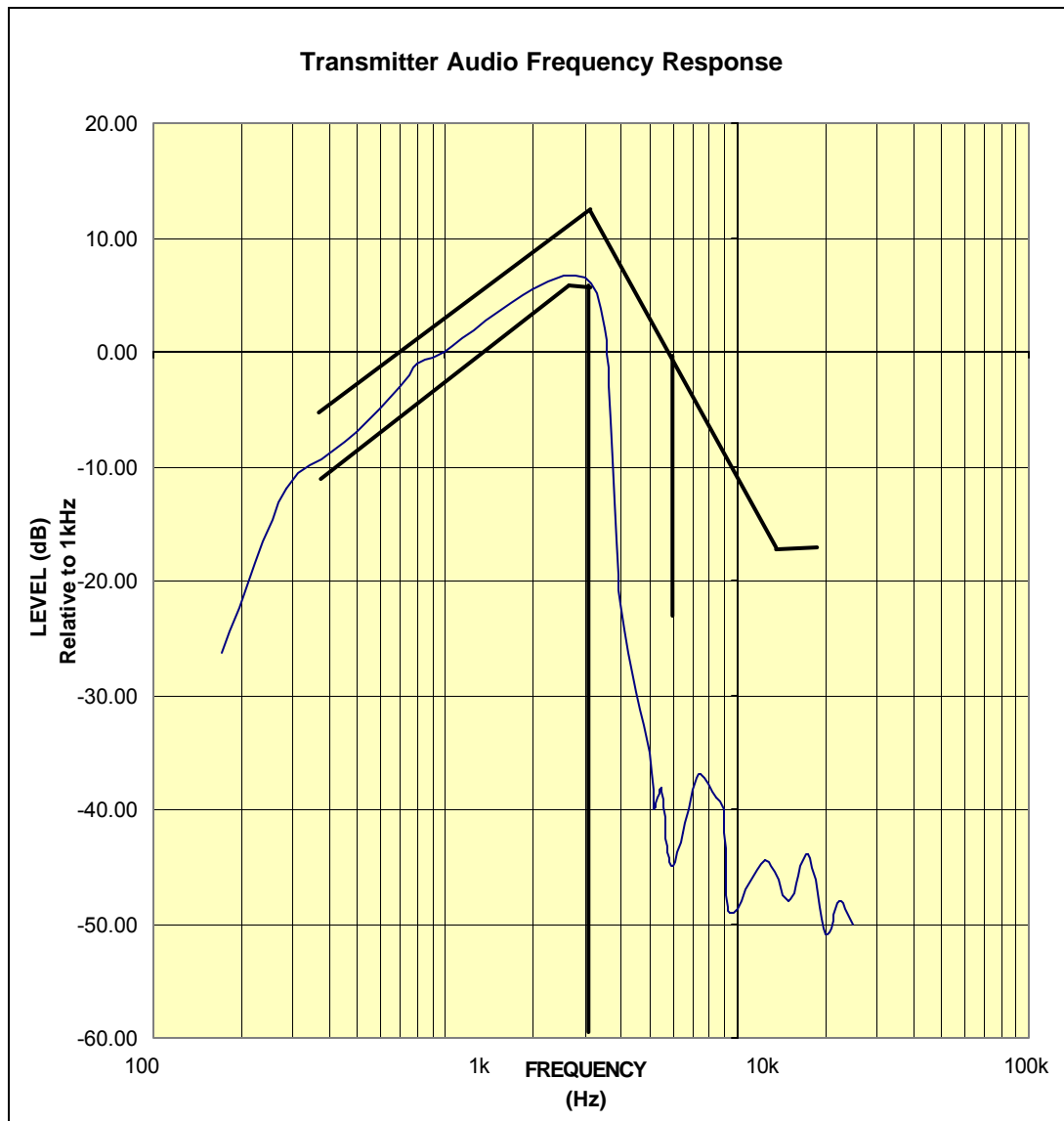
PCTEST Engineering Lab., Inc.

SUBJECT: Modulation Characteristics
FCC Part 24/22

Test Report No.: 0602210098
Test Date: 03.03.2006

EUT: Tri-Mode Dual-Band Analog/PCS Phone (AMPS/CDMA)
Model: SPH-A640
FCC ID: A3LSPHA640S

REFERENCE: 1 kHz = 0 dB



Samsung Tri-Mode Dual-Band Analog/PCS Phone (AMPS/CDMA)
FCC ID: A3LSPHA640S