



PCTEST ENGINEERING LABORATORY, INC.

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<http://www.pctestlab.com>



CERTIFICATE OF COMPLIANCE FCC Part 22 & 24 Certification

Applicant Name:

Panasonic Corporation of North America
One Panasonic Way, 4B-8
Secaucus, NJ 07094
United States

Date of Testing:

May 1, 2007

Test Site/Location:

PCTEST Lab., Columbia, MD, USA

Test Report Serial No.:

0704180314.ACJ

FCC ID:**ACJ9TGCF-521****APPLICANT:****PANASONIC CORPORATION OF NORTH AMERICA****Application Type:**

Certification

FCC Classification:

PCS Licensed Transmitter (PCB)

FCC Rule Part(s):

§2; §22(H), §24(E)

EUT Type:

Toughbook Model: CF-52

Model(s):

CF-52

Tx Frequency Range:

824.70 - 848.31MHz (Cell. CDMA) / 1851.25 - 1908.75MHz (PCS CDMA)

Max. RF Output Power:

0.281W ERP Cell. CDMA (24.49 dBm) /

0.562 W EIRP PCS CDMA (27.50 dBm)

Emission Designator(s):

1M27F9W (CDMA) / 1M27F9W (PCS)

Test Device Serial No.:*identical prototype* [S/N: 7CTSA00058R]

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in §2.947.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

Grant Conditions: Power output listed is ERP for Part 22 and EIRP for Part 24.



PCTEST certifies that no party to this application has been denied the FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 862.

Randy Ortanez
President

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| FCC ID: ACJ9TGCF-521 | | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 1 of 35 |

T A B L E O F C O N T E N T S

| | |
|--|----|
| FCC PART 22 & 24 MEASUREMENT REPORT..... | 3 |
| 1.0 INTRODUCTION..... | 4 |
| 1.1 MEASUREMENT PROCEDURE..... | 4 |
| 1.2 SCOPE..... | 4 |
| 1.3 TESTING FACILITY..... | 4 |
| 2.0 PRODUCT INFORMATION..... | 5 |
| 2.1 EQUIPMENT DESCRIPTION..... | 5 |
| 2.2 EMI SUPPRESSION DEVICE(S)/MODIFICATIONS..... | 5 |
| 2.3 LABELING REQUIREMENTS..... | 5 |
| 3.0 DESCRIPTION OF TESTS..... | 6 |
| 3.1 OCCUPIED BANDWIDTH EMISSION LIMITS..... | 6 |
| 3.2 CELLULAR - BASE FREQUENCY BLOCKS..... | 6 |
| 3.3 CELLULAR - MOBILE FREQUENCY BLOCKS..... | 6 |
| 3.4 PCS - BASE FREQUENCY BLOCKS..... | 7 |
| 3.5 PCS - MOBILE FREQUENCY BLOCKS..... | 7 |
| 3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL..... | 7 |
| 3.7 RADIATED SPURIOUS AND HARMONIC EMISSIONS..... | 7 |
| 3.8 FREQUENCY STABILITY / TEMPERATURE VARIATION..... | 8 |
| 4.0 TEST EQUIPMENT CALIBRATION DATA..... | 9 |
| 5.0 SAMPLE CALCULATIONS..... | 10 |
| 6.0 TEST RESULTS..... | 11 |
| 6.1 SUMMARY..... | 11 |
| 6.2 EFFECTIVE RADIATED POWER OUTPUT DATA..... | 12 |
| 6.3 EQUIVALENT ISOTROPIC RADIATED POWER OUTPUT DATA..... | 13 |
| 6.4 CELLULAR CDMA RADIATED MEASUREMENTS..... | 14 |
| 6.5 PCS CDMA RADIATED MEASUREMENTS..... | 17 |
| 6.6 FREQUENCY STABILITY (CELLULAR CDMA)..... | 20 |
| 6.7 FREQUENCY STABILITY (PCS CDMA)..... | 22 |
| 7.0 PLOT(S) OF EMISSIONS..... | 24 |
| 8.0 CONCLUSION..... | 35 |

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|---|---|---|---|
| FCC ID: ACJ9TGCF-521 |  | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) |  |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | Reviewed by: Quality Manager |
| | | | Page 2 of 35 |



MEASUREMENT REPORT

FCC Part 22 & 24



§2.1033 General Information



APPLICANT: Panasonic Corporation of North America
APPLICANT ADDRESS: One Panasonic Way, 4B-8
 Secaucus, NJ 07094
TEST SITE: PCTEST ENGINEERING LABORATORY, INC.
TEST SITE ADDRESS: 6660-B Dobbin Road, Columbia, MD 21045 USA
FCC RULE PART(S): §2; §22(H), §24(E)
MODEL NAME: CF-52
FCC ID: ACJ9TGCF-521
FCC CLASSIFICATION: PCS Licensed Transmitter (PCB)
EMISSION DESIGNATOR(S): 1M27F9W (CDMA) / 1M27F9W (PCS)
MODE: CDMA / EvDO
FREQUENCY TOLERANCE: ±0.00025 % (2.5 ppm)
Test Device Serial No.: 7CTSA00058R Production Pre-Production Engineering
DATE(S) OF TEST: May 1, 2007
TEST REPORT S/N: 0704180314.ACJ

Test Facility / Accreditations

Measurements were performed at PCTEST Engineering Lab. located in Columbia, MD 21045, U.S.A.

- PCTEST facility is an FCC registered (PCTEST Reg. No. 90864) test facility with the site description report on file and has met all the requirements specified in Section 2.948 of the FCC Rules and Industry Canada (IC-2451).
- PCTEST Lab is accredited to ISO 17025 by U.S. National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP Lab code: 100431-0) in EMC, FCC and Telecommunications.
- PCTEST Lab is accredited to ISO 17025-2005 by the American Association for Laboratory Accreditation (A2LA) in Specific Absorption Rate (SAR) testing, Hearing Aid Compatibility (HAC) testing, CTIA Test Plans, and wireless testing for FCC and Industry Canada Rules.
- PCTEST Lab is a recognized U.S. Conformity Assessment Body (CAB) in EMC and R&TTE (n.b. 0982) under the U.S.-EU Mutual Recognition Agreement (MRA).
- PCTEST TCB is a Telecommunication Certification Body (TCB) accredited to ISO/IEC Guide 65 by the American National Standards Institute (ANSI) in all scopes of FCC Rules and Industry Canada Standards (RSS).
- PCTEST facility is an IC registered (IC-2451) test laboratory with the site description on file at Industry Canada.
- PCTEST is a CTIA Authorized Test Laboratory (CATL) for AMPS, CDMA, and EvDO wireless devices and for Over-the-Air (OTA) Antenna Performance testing for AMPS, CDMA, GSM, GPRS, EGPRS, UMTS (W-CDMA), CDMA 1xEVDO, and CDMA 1xRTT.

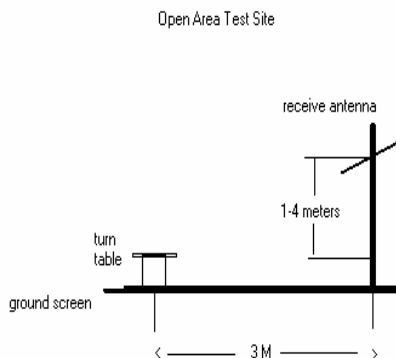


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| FCC ID: ACJ9TGCF-521 |  | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) |  | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 3 of 35 |

1.0 INTRODUCTION

1.1 Measurement Procedure

The radiated spurious measurements were made outdoors at a 3-meter test range (see Figure 1-1). The equipment under test is placed on a wooden turntable 3-meters from the receive antenna. The receive antenna height and turntable rotations were 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 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 antenna are taken into consideration.



Deviation from Measurement Procedure.....None

Figure 1-1. Diagram of 3-meter outdoor test range

1.2 Scope

Measurement and determination of electromagnetic emissions (EME) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission.

1.3 Testing Facility

These measurements were conducted at the PCTEST Engineering Laboratory, Inc. facility in New Concept Business Park, Guilford Industrial Park, Columbia, Maryland. The site address is 6660-B Dobbin Road, Columbia, MD 21045. The test site is one of the highest points in the Columbia area with an elevation of 390 feet above mean sea level. The site coordinates are 39° 11'15" N latitude and 76° 49'38" W longitude. The facility is 1.5 miles North of the FCC laboratory, and the ambient signal and ambient signal strength are approximately equal to those of the FCC laboratory. There are no FM or TV transmitters within 15 miles of the site. The detailed description of the measurement facility was found to be in compliance with the requirements of § 2.948 according to ANSI C63.4-2003 on January 27, 2006 and Industry Canada.

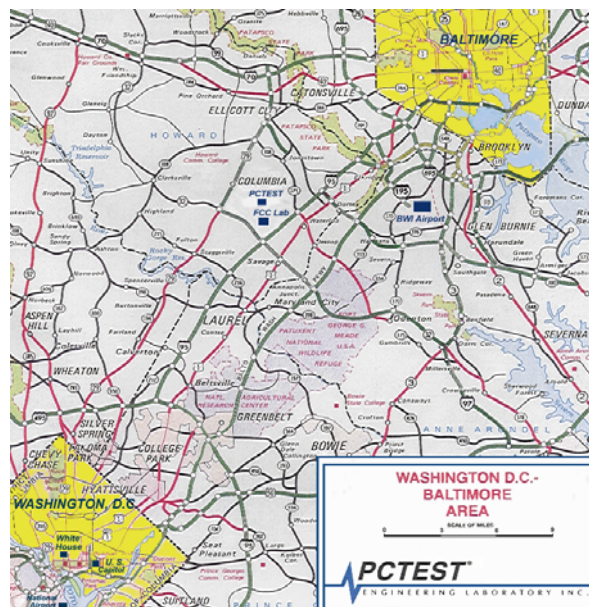


Figure 1-2. Map of the Greater Baltimore and Metropolitan Washington, D.C. area.

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| FCC ID: ACJ9TGCF-521 | | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 4 of 35 |

2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **Panasonic Toughbook Model: CF-52** **FCC ID: ACJ9TGCF-521**. The EUT consisted of the following component(s):

| Trade Name / Model | FCC ID | Description |
|---------------------------------|--------------|---------------------------------|
| Panasonic / Model: CF-52 | ACJ9TGCF-521 | Toughbook Model: CF-52 |
| Sierra Wireless / Model: MC5725 | N7NMC5725 | EvDO Rev. A module |
| Intel Corp. / Model: 4965AG | PD94965AG | Wireless LAN (802.11a/g) module |
| Alps Electric / Model: UGNZA | N/A | Bluetooth module with EDR |

Table 2-1. EUT Equipment Description

2.2 EMI Suppression Device(s)/Modifications



No EMI suppression device(s) were added and no modifications were made during testing.

2.3 Labeling Requirements

Per 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase. However, when the device is so small wherein placement of the label with specified statement is not practical, only the trade name and FCC ID must be displayed on the device per Section 15.19(b)(2).

Please see attachment for FCC ID label and label location.

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| FCC ID: ACJ9TGCF-521 |  | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) |  | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | Page 5 of 35 | |

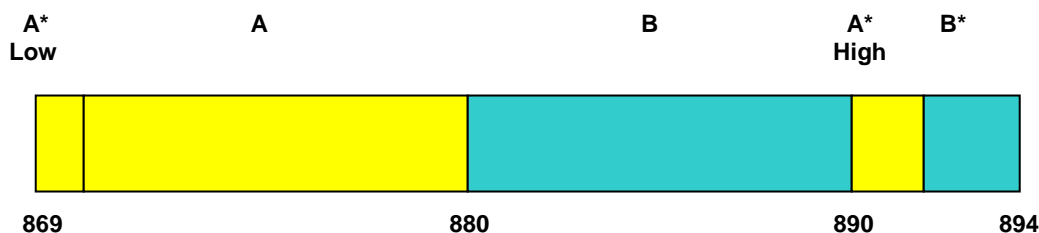
3.0 DESCRIPTION OF TESTS

3.1 Occupied Bandwidth Emission Limits

§2.1049, 22.917(a), 24.238(a)

- a. On any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB.
- b. Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.
- c. When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the licensee's frequency block edges, both upper and lower, as the design permits.
- d. The measurement of emission power can be expressed in peak or average values, provided they are expressed in the same parameters as the transmitter power.

3.2 Cellular - Base Frequency Blocks



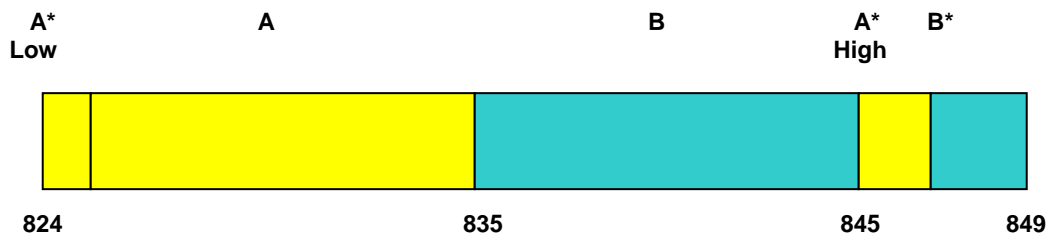
BLOCK 1: 869 – 880 MHz (A* Low + A)

BLOCK 3: 890 – 891.5 MHz (A* High)

BLOCK 2: 880 – 890 MHz (B)

BLOCK 4: 891.5 – 894 MHz (B*)

3.3 Cellular - Mobile Frequency Blocks





BLOCK 1: 824 – 835 MHz (A* Low + A)

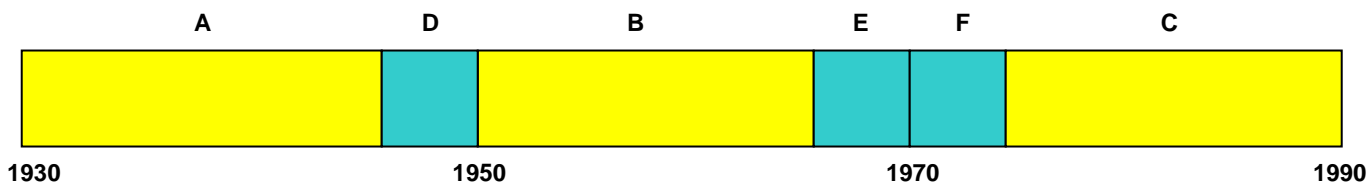
BLOCK 3: 845 – 846.5 MHz (A* High)

BLOCK 2: 835 – 845 MHz (B)

BLOCK 4: 846.5 – 849 MHz (B*)

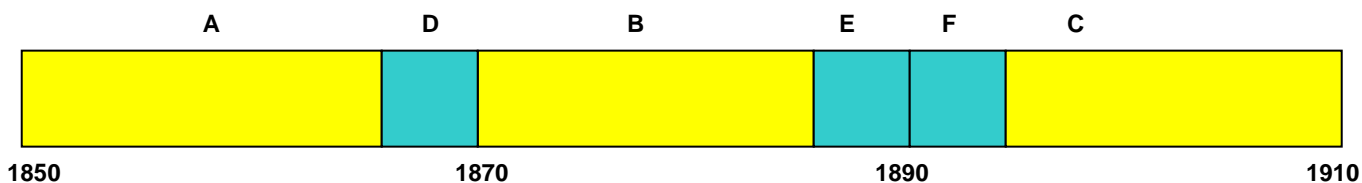
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| FCC ID: ACJ9TGCF-521 |  | FCC Pt. 22/24 CDMA / EVDO MEASUREMENT REPORT (CERTIFICATION) |  | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | Page 6 of 35 | |

3.4 PCS - Base Frequency Blocks



- BLOCK 1: 1930 – 1945 MHz (A)
- BLOCK 2: 1945 – 1950 MHz (D)
- BLOCK 3: 1950 – 1965 MHz (B)
- BLOCK 4: 1965 – 1970 MHz (E)
- BLOCK 5: 1970 – 1975 MHz (F)
- BLOCK 6: 1975 – 1990 MHz (C)

3.5 PCS - Mobile Frequency Blocks



- BLOCK 1: 1850 – 1865 MHz (A)
- BLOCK 2: 1865 – 1870 MHz (D)
- BLOCK 3: 1870 – 1885 MHz (B)
- BLOCK 4: 1885 – 1890 MHz (E)
- BLOCK 5: 1890 – 1895 MHz (F)
- BLOCK 6: 1895 – 1910 MHz (C)

3.6 Spurious and Harmonic Emissions at Antenna Terminal



§2.1051, 22.917(a), 24.238(a); RSS-129 (8.1.1), RSS-133 (6.5.1)

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic.

3.7 Radiated Spurious and Harmonic Emissions

§2.1053, 22.917(a), 24.238(a); RSS-129 (8.1.1), RSS-133 (6.5.1(i))

Spurious and harmonic radiated emissions are measured outdoors at our 3-meter test range. The equipment under test is placed on a wooden turntable 3-meters from the receive antenna. The receive antenna height and turntable rotations were adjusted for the highest reading on the receive spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator with the level of the signal generator being adjusted to obtain the same receive spectrum analyzer reading. This level is recorded. For readings above 1 GHz, 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. This device was tested under all R.C.s and S.O.s and the worst case is reported with RC3/SO55, with "All Up" power control bits.

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| FCC ID: ACJ9TGCF-521 |  | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) |  | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | Page 7 of 35 | |



3.8 Frequency Stability / Temperature Variation

§2.1055, 22.355, 24.235; RSS-129 (9.2.1), RSS-133 (6.7(a,b))

The frequency stability of the transmitter is measured by:

- a.) **Temperature:** The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.
- b.) **Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

Specification – The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ (± 2.5 ppm) of the center frequency.

Time Period and Procedure:

1. The carrier frequency of the transmitter and the individual oscillators is measured at room temperature (20°C to provide a reference).
2. The equipment is subjected to an overnight “soak” at -30°C without any power applied.
3. After the overnight “soak” at -30°C (usually 14-16 hours) the equipment is turned on in a “standby” condition for one minute before applying power to the transmitter. Measurement of the carrier frequency of the transmitter and the individual oscillators is made within one minute after applying power to the transmitter.
4. Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. At least a period of one half-hour is provided to allow stabilization of the equipment at each temperature level.



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| FCC ID: ACJ9TGCF-521 | | FCC Pt. 22/24 CDMA / EVDO MEASUREMENT REPORT (CERTIFICATION) | | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 8 of 35 |

4.0 TEST EQUIPMENT CALIBRATION DATA

Test Equipment Calibration is traceable to the National Institute of Standards and Technology (NIST).

| Manufacturer | Model / Equipment | Calibration Date | Cal Interval | Calibration Due | Serial No. |
|-------------------|---|------------------|--------------|-----------------|------------------|
| Agilent | E5515C Wireless Communications Test Set | 07/27/06 | Annual | 07/27/07 | GB41450275 |
| Agilent | E5515C Wireless Communications Test Set | 10/06/06 | Annual | 10/06/07 | GB43193972 |
| Agilent | E4432B ESG-D Series Signal Generator | 08/08/06 | Annual | 08/08/07 | US40053896 |
| Agilent | 8648D (9kHz-4GHz) Signal Generator | 10/01/06 | Annual | 10/01/07 | 3613A00315 |
| Agilent | E5515C Wireless Communications Test Set | 10/26/06 | Biennial | 10/25/08 | GB46310798 |
| EMCO | Model 3115 (1-18GHz) Horn Antenna | 08/24/06 | Biennial | 08/23/08 | 9203-2178 |
| EMCO | Model 3115 (1-18GHz) Horn Antenna | 08/25/06 | Biennial | 08/24/08 | 9704-5182 |
| Rohde & Schwarz | NRVS Power Meter | 06/01/05 | Biennial | 06/01/07 | 835360/079 |
| Rohde & Schwarz | NRV-Z53 Power Sensor | 06/01/05 | Biennial | 06/01/07 | 846076/007 |
| Rohde & Schwarz | CMU200 Base Station Simulator | 11/08/06 | Annual | 11/08/07 | 107826 |
| Rohde & Schwarz | CMU200 Base Station Simulator | 07/26/06 | Annual | 07/26/07 | 833855/010 |
| Agilent | HP 8566B (100Hz-22GHz) | 12/21/06 | Annual | 12/21/07 | 3638A08713 |
| Agilent | E4448A (3Hz-50GHz) | 09/22/06 | Annual | 09/22/07 | US42510244 |
| Gigatronics | 80701A (0.05-18GHz) Power Sensor | 08/04/06 | Annual | 08/04/07 | 1835299 |
| Agilent | HP 85650A Quasi-Peak Adapter | 12/21/06 | Annual | 12/21/07 | 2043A00301 |
| Agilent | HP 8449B (1-26.5GHz) Pre-Amplifier | 12/12/06 | Annual | 12/12/07 | 3008A00985 |
| Agilent | HP 11713A Attenuation/Switch Driver | 12/12/06 | Annual | 12/12/07 | N/A |
| Agilent | HP 85685A (20Hz-2GHz) Preselector | 12/12/06 | Annual | 12/12/07 | N/A |
| Agilent | HP 8566B Opt. 462 Impulse Bandwidth | 12/12/06 | Annual | 12/12/07 | 3701A22204 |
| EMCO | 3115 (1-18GHz) Horn Antenna | 08/25/05 | Biennial | 08/25/07 | 9205-3874 |
| Compliance Design | A100 Roberts Dipoles | 08/31/05 | Biennial | 08/31/07 | 5118 |
| EMCO | Dipole Pair | 09/21/06 | Biennial | 09/20/08 | 23951 |
| SOLAR | 8012-50 LISN (2) | 11/18/05 | Biennial | 11/18/07 | 0313233, 0310234 |
| Agilent | HP 8901A Modulation Analyzer | 06/05/06 | Annual | 06/05/07 | 2432A03467 |
| Agilent | HP 8903 B Audio Analyzer | 06/01/06 | Annual | 06/01/07 | 3011A09025 |
| K & L | 11SH10 Band Pass Filter | N/A | Annual | N/A | 1300/4000 |
| K & L | 11SH10 Band Pass Filter | N/A | Annual | N/A | 4000/12000 |
| Agilent | HP 8495A (0-70dB) DC-4GHz Attenuator | N/A | | N/A | N/A |
| - | 263-10dB (DC-18GHz) 10 dB Attenuator | N/A | | N/A | N/A |
| Pasternack | PE2208-6 Bidirectional Coupler | N/A | | N/A | N/A |
| - | No.165 (30MHz - 1000MHz) RG58 Coax Cable | N/A | | N/A | N/A |
| - | No.166 (1000-26500MHz) Microwave RF Cable | N/A | | N/A | N/A |
| - | No.167 (100kHz - 100MHz) RG58 Coax Cable | N/A | | N/A | N/A |

Table 4-1. Test Equipment

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|------------------------------------|---|---|---|---------------------------------|
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| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | Page 9 of 35 | |

5.0 SAMPLE CALCULATIONS

Emission Designator

Emission Designator = 1M25F9W

CDMA BW = 1.25 MHz

F = Frequency Modulation



9 = Composite Digital Info

W = Combination (Audio/Data) (Measured at the 99.75% power bandwidth)

Spurious Radiated Emission - PCS Band

Example: Channel 25 PCS Mode 2nd Harmonic (3702.50 MHz)

The receive analyzer reading at 3 meters with the EUT on the turntable was -81.0 dBm. The gain of the substituted antenna is 8.1 dBi. The signal generator connected to the substituted antenna terminals is adjusted to produce a reading of -81.0 dBm on the receive analyzer. The loss of the cable between the signal generator and the terminals of the substituted antenna is 2.0 dB at 3702.50 MHz. So 6.1 dB is added to the signal generator reading of -30.9 dBm yielding -24.80 dBm. The fundamental EIRP was 25.501 dBm so this harmonic was 25.501 dBm $- (-24.80) = 50.3$ dBc.

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| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 10 of 35 |



6.0 TEST RESULTS

6.1 Summary

Company Name: Panasonic Corporation of North America
 FCC ID: ACJ9TGCF-521
 FCC Classification: PCS Licensed Transmitter (PCB)
 Mode(s): CDMA / EvDO

| FCC Part Section(s) | RSS Section | Test Description | Test Limit | Test Condition | Test Result | Reference |
|---|--|--|--|----------------------------------|-------------|---------------------|
| TRANSMITTER MODE (TX) | | | | | | |
| 2.1049, 22.917(a), 24.238(a) | N/A | Occupied Bandwidth | N/A | CONDUCTED | PASS | Section 7.0 |
| 2.1051, 22.917(a), 24.238(a) | RSS-129 (8.1.1) RSS-133 (6.5.1) | Band Edge / Conducted Spurious Emissions | < 43 + 10log ₁₀ (P[Watts]) at Band Edge and for all out-of-band emissions | | PASS | Section 7.0 |
| SAR Measurement Procedures for 3G Devices, June '06 | N/A | Conducted Power Measurements for 3G Devices | N/A | | PASS | FCC 3G Power Table |
| 22.913(a)(2) | RSS-129 (9.1) | Effective Radiated Power | < 7 Watts max. ERP | RADIATED | PASS | Section 6.2 |
| 24.232(c) | RSS-133 (6.4) [SRSP-510 (5.1.2)] | Equivalent Isotropic Radiated Power | < 2 Watts max. EIRP | | PASS | Section 6.3 |
| 2.1053, 22.917(a), 24.238(a) | RSS-129 (8.1.1) RSS-133 (6.5.1) | Undesirable Emissions | < 43 + 10log ₁₀ (P[Watts]) for all out-of-band emissions | | PASS | Sections 6.4, 6.5 |
| 2.1055, 22.355, 24.235 | RSS-129 (9.2.1) RSS-133 (6.3) | Frequency Stability | < 2.5 ppm | | PASS | Sections 6.6, 6.7 |
| RECEIVER MODE (RX) / DIGITAL EMISSIONS | | | | | | |
| 15.107 | RSS-Gen [7.2.2] | AC Conducted Emissions 150kHz – 30MHz | < FCC 15.207 limits or < RSS-Gen table 2 limits | LINE CONDUCTED | PASS | Pt. 15B Test Report |
| 15.109 | RSS-129 (10(a,d)), RSS-133 (6.7(a,b)), RSS-210 (7.3) | General Field Strength Limits (Restricted Bands and Radiated Emissions Limits) | < FCC 15.209 limits or < RSS-Gen limits [Section 6; Table 1] | RADIATED (30MHz-1GHz) (1-25 GHz) | PASS | Pt. 15B Test Report |
| RF EXPOSURE | | | | | | |
| 2.1091 / 2.1093 | RSS-102 | MPE Test | 1 mW/cm ² (MPE Limit) @ 20 cm | MPE | PASS | MPE Report |

Table 6-1. Summary of Test Results

| | | | | |
|------------------------------------|---|--|---|---------------------------------|
| FCC ID: ACJ9TGCF-521 |  | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) |  | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | Page 11 of 35 | |

6.2 Effective Radiated Power Output Data

§22.913(a)(2); RSS-129 (9.1)

POWER: "All Up" Bits (Cellular CDMA Mode)

| Frequency [MHz] | Measured Level [dBm] | Substitute Level [dBm] | Antenna Gain [dBd] | Pol [H/V] | ERP [dBm] | ERP [Watts] | Battery Type |
|-----------------|----------------------|------------------------|--------------------|-----------|-----------|-------------|--------------|
| 824.70 | -13.890 | 25.36 | -1.65 | H | 23.71 | 0.235 | Standard |
| 836.52 | -13.110 | 26.14 | -1.65 | H | 24.49 | 0.281 | Standard |
| 848.31 | -13.740 | 25.51 | -1.65 | H | 23.86 | 0.243 | Standard |



Table 6-2. Effective Radiated Power Output Data

NOTES:

Effective Radiated Power Output Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

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. For CDMA signals, a peak detector is used, with RBW = VBW = 3 MHz. For WCDMA signals, a peak detector is used, with RBW = VBW = 5 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1 MHz. 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.

This device was tested under all R.C.s and S.O.s and the worst case is reported with RC3/SO55, with "All Up" power control bits. This unit was tested with its standard battery.

| | | | | |
|------------------------------------|---|--|---|---------------------------------|
| FCC ID: ACJ9TGCF-521 |  | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) |  | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 12 of 35 |



6.3 Equivalent Isotropic Radiated Power Output Data

§24.232(c); RSS-133 (6.4) [SRSP-510 (5.1.2)]

POWER: "All Up" Bits (PCS CDMA Mode)

| Frequency [MHz] | Measured Level [dBm] | Substitute Level [dBm] | Antenna Gain [dBi] | Pol [H/V] | EIRP [dBm] | EIRP [Watts] | Battery Type |
|-----------------|----------------------|------------------------|--------------------|-----------|------------|--------------|--------------|
| 1851.25 | -19.760 | 19.50 | 8.00 | H | 27.50 | 0.562 | Standard |
| 1880.00 | -20.480 | 18.78 | 8.00 | H | 26.78 | 0.476 | Standard |
| 1908.75 | -20.130 | 19.13 | 8.00 | H | 27.13 | 0.516 | Standard |

Table 6-3. Equivalent Isotropic Radiated Power Output Data

NOTES:

Equivalent Isotropic Radiated Power Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

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. For CDMA signals, a peak detector is used, with RBW = VBW = 3 MHz. For WCDMA signals, a peak detector is used, with RBW = VBW = 5 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1 MHz. A Horn antenna was substituted in place of the EUT. This Horn 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 Horn antenna is measured. The difference between the gain of the horn and an isotropic antenna is taken into consideration and the EIRP is recorded.

This device was tested under all R.C.s and S.O.s and the worst case is reported with RC3/SO55, with "All Up" power control bits. This unit was tested with its standard battery.

| | | | | |
|------------------------------------|----------------------------|--|--|---------------------------------|
| FCC ID: ACJ9TGCF-521 | | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 13 of 35 |



6.4 Cellular CDMA Radiated Measurements

§2.1053, 22.917(a): RSS-129 (8.1.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 824.70 MHz
 CHANNEL: 1013
 MEASURED OUTPUT POWER: 24.490 dBm = 0.281 W
 MODULATION SIGNAL: CDMA (Internal)
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10}(W) =$ 37.49 dBc

| FREQ. (MHz) | LEVEL @ ANTENNA TERMINALS (dBm) | SUBSTITUTE ANTENNA GAIN (dBd) | CORRECT GENERATOR LEVEL (dBm) | POL (H/V) | (dBc) |
|----------------|--|--|--|--------------|-------|
| 1649.40 | -61.59 | 6.16 | -55.43 | H | 79.9 |
| 2474.10 | -68.70 | 7.26 | -61.45 | H | 85.9 |
| 3298.80 | -73.79 | 7.40 | -66.39 | H | 90.9 |
| 4123.50 | -86.76 | 7.59 | -79.18 | H | 103.7 |
| 4948.20 | -85.85 | 8.47 | -77.38 | H | 101.9 |

Table 6-4. Radiated Spurious Data (Cellular CDMA Mode – Ch. 1013)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method
 according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

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. For CDMA signals, a peak detector is used, with RBW = VBW = 3 MHz. For WCDMA signals, a peak detector is used, with RBW = VBW = 5 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1 MHz. 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.

This device was tested under all R.C.s and S.O.s and the worst case is reported with RC3/SO55, with "All Up" power control bits. This unit was tested with its standard battery.

| | | | | |
|------------------------------------|----------------------------|---|-----------|---------------------------------|
| FCC ID: ACJ9TGCF-521 | PCTEST | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | Panasonic | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 14 of 35 |



Cellular CDMA Radiated Measurements (Cont'd)

§2.1053, 22.917(a); RSS-129 (8.1.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 836.52 MHz
 CHANNEL: 384
 MEASURED OUTPUT POWER: 24.490 dBm = 0.281 W
 MODULATION SIGNAL: CDMA (Internal)
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10}(W) =$ 37.49 dBc

| FREQ. (MHz) | LEVEL @ ANTENNA TERMINALS (dBm) | SUBSTITUTE ANTENNA GAIN (dBd) | CORRECT GENERATOR LEVEL (dBm) | POL (H/V) | (dBc) |
|----------------|--|--|--|--------------|-------|
| 1673.04 | -63.11 | 6.18 | -56.93 | H | 81.4 |
| 2509.56 | -69.16 | 7.30 | -61.86 | H | 86.3 |
| 3346.08 | -74.12 | 7.42 | -66.70 | H | 91.2 |
| 4182.60 | -87.03 | 7.75 | -79.28 | H | 103.8 |
| 5019.12 | -85.24 | 8.46 | -76.78 | H | 101.3 |

Table 6-5. Radiated Spurious Data (Cellular CDMA Mode – Ch. 384)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method
 according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

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. For CDMA signals, a peak detector is used, with RBW = VBW = 3 MHz. For WCDMA signals, a peak detector is used, with RBW = VBW = 5 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1 MHz. 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.

This device was tested under all R.C.s and S.O.s and the worst case is reported with RC3/SO55, with "All Up" power control bits. This unit was tested with its standard battery.

| | | | | |
|------------------------------------|----------------------------|---|---------------|---------------------------------|
| FCC ID: ACJ9TGCF-521 | PCTEST | FCC Pt. 22/24 CDMA / EVDO MEASUREMENT REPORT (CERTIFICATION) | Panasonic | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | Page 15 of 35 | |



Cellular CDMA Radiated Measurements (Cont'd)

§2.1053, 22.917(a); RSS-129 (8.1.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 848.31 MHz
 CHANNEL: 777
 MEASURED OUTPUT POWER: 24.490 dBm = 0.281 W
 MODULATION SIGNAL: CDMA (Internal)
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10}(W) =$ 37.49 dBc

| FREQ. (MHz) | LEVEL @ ANTENNA TERMINALS (dBm) | SUBSTITUTE ANTENNA GAIN (dBd) | CORRECT GENERATOR LEVEL (dBm) | POL (H/V) | (dBc) |
|----------------|--|--|--|--------------|-------|
| 1696.62 | -61.53 | 6.19 | -55.34 | H | 79.8 |
| 2544.93 | -65.85 | 7.30 | -58.56 | H | 83.0 |
| 3393.24 | -72.65 | 7.44 | -65.21 | H | 89.7 |
| 4241.55 | -87.08 | 7.91 | -79.18 | H | 103.7 |
| 5089.86 | -85.44 | 8.46 | -76.98 | H | 101.5 |

Table 6-6. Radiated Spurious Data (Cellular CDMA Mode – Ch. 777)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

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. For CDMA signals, a peak detector is used, with RBW = VBW = 3 MHz. For WCDMA signals, a peak detector is used, with RBW = VBW = 5 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1 MHz. 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.

This device was tested under all R.C.s and S.O.s and the worst case is reported with RC3/SO55, with "All Up" power control bits. This unit was tested with its standard battery.

| | | | | |
|------------------------------------|----------------------------|---|-----------|---------------------------------|
| FCC ID: ACJ9TGCF-521 | PCTEST | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | Panasonic | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 16 of 35 |



6.5 PCS CDMA Radiated Measurements

§2.1053, 24.238(a); RSS-133 (6.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 1851.25 MHz
 CHANNEL: 25
 MEASURED OUTPUT POWER: 27.500 dBm = 0.562 W
 MODULATION SIGNAL: CDMA (Internal)
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 40.50 dBc

| FREQ. (MHz) | LEVEL @ ANTENNA TERMINALS (dBm) | SUBSTITUTE ANTENNA GAIN (dBi) | CORRECT GENERATOR LEVEL (dBm) | POL (H/V) | (dBc) |
|----------------|--|--|--|--------------|-------|
| 3702.50 | -51.58 | 9.54 | -42.05 | H | 69.5 |
| 5553.75 | -51.66 | 10.66 | -41.00 | H | 68.5 |
| 7405.00 | -61.36 | 11.14 | -50.22 | H | 77.7 |
| 9256.25 | -77.18 | 11.15 | -66.03 | H | 93.5 |
| 11107.50 | -77.98 | 12.75 | -65.23 | H | 92.7 |

Table 6-7. Radiated Spurious Data (PCS CDMA Mode – Ch. 25)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method
 according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

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. For CDMA signals, a peak detector is used, with RBW = VBW = 3 MHz. For WCDMA signals, a peak detector is used, with RBW = VBW = 5 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1 MHz. 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.

This device was tested under all R.C.s and S.O.s and the worst case is reported with RC3/SO55, with "All Up" power control bits. This unit was tested with its standard battery.

| | | | | |
|------------------------------------|----------------------------|---|-----------|---------------------------------|
| FCC ID: ACJ9TGCF-521 | PCTEST | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | Panasonic | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 17 of 35 |



PCS CDMA Radiated Measurements (Cont'd)
§2.1053, 24.238(a); RSS-133 (6.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 1880.00 MHz
 CHANNEL: 600
 MEASURED OUTPUT POWER: 27.500 dBm = 0.562 W
 MODULATION SIGNAL: CDMA (Internal)
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10}(W) =$ 40.50 dBc

| FREQ. (MHz) | LEVEL @ ANTENNA TERMINALS (dBm) | SUBSTITUTE ANTENNA GAIN (dBi) | CORRECT GENERATOR LEVEL (dBm) | POL (H/V) | (dBc) |
|----------------|--|--|--|--------------|-------|
| 3760.00 | -53.30 | 9.51 | -43.80 | H | 71.3 |
| 5640.00 | -55.49 | 10.76 | -44.73 | H | 72.2 |
| 7520.00 | -66.54 | 11.01 | -55.53 | H | 83.0 |
| 9400.00 | -77.15 | 11.32 | -65.83 | H | 93.3 |
| 11280.00 | -77.77 | 12.74 | -65.03 | H | 92.5 |

Table 6-8. Radiated Spurious Data (PCS CDMA Mode – Ch. 600)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method
 according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

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. For CDMA signals, a peak detector is used, with RBW = VBW = 3 MHz. For WCDMA signals, a peak detector is used, with RBW = VBW = 5 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1 MHz. 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.

This device was tested under all R.C.s and S.O.s and the worst case is reported with RC3/SO55, with "All Up" power control bits. This unit was tested with its standard battery.

| | | | | |
|------------------------------------|----------------------------|---|-----------|---------------------------------|
| FCC ID: ACJ9TGCF-521 | PCTEST | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | Panasonic | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 18 of 35 |



PCS CDMA Radiated Measurements (Cont'd)

§2.1053, 24.238(a); RSS-133 (6.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 1908.75 MHz
 CHANNEL: 1175
 MEASURED OUTPUT POWER: 27.500 dBm = 0.562 W
 MODULATION SIGNAL: CDMA (Internal)
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10}(W) =$ 40.50 dBc

| FREQ. (MHz) | LEVEL @ ANTENNA TERMINALS (dBm) | SUBSTITUTE ANTENNA GAIN (dBi) | CORRECT GENERATOR LEVEL (dBm) | POL (H/V) | (dBc) |
|----------------|--|--|--|--------------|-------|
| 3817.50 | -50.92 | 9.48 | -41.44 | H | 68.9 |
| 5726.25 | -47.18 | 10.86 | -36.32 | H | 63.8 |
| 7635.00 | -63.63 | 11.03 | -52.60 | H | 80.1 |
| 9543.75 | -77.02 | 11.49 | -65.53 | H | 93.0 |
| 11452.50 | -77.55 | 12.72 | -64.83 | H | 92.3 |

Table 6-9. Radiated Spurious Data (PCS CDMA Mode – Ch. 1175)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method
 according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

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. For CDMA signals, a peak detector is used, with RBW = VBW = 3 MHz. For WCDMA signals, a peak detector is used, with RBW = VBW = 5 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1 MHz. 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.

This device was tested under all R.C.s and S.O.s and the worst case is reported with RC3/SO55, with "All Up" power control bits. This unit was tested with its standard battery.

| | | | | |
|------------------------------------|----------------------------|---|-----------|---------------------------------|
| FCC ID: ACJ9TGCF-521 | PCTEST | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | Panasonic | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 19 of 35 |



6.6 Frequency Stability (Cellular CDMA)

§2.1055, 22.355; RSS-129 (9.2.1)

OPERATING FREQUENCY: 836,520,000 Hz

CHANNEL: 384

REFERENCE VOLTAGE: 15.6 VDC

DEVIATION LIMIT: ± 0.00025 % or 2.5 ppm

| VOLTAGE (%) | POWER (VDC) | TEMP (°C) | FREQ. (Hz) | Freq. Dev. (Hz) | Deviation (%) |
|----------------|----------------|--------------|---------------|--------------------|------------------|
| 100 % | 15.60 | + 20 (Ref) | 836,519,970 | -30 | -0.000004 |
| 100 % | | - 30 | 836,520,027 | 27 | 0.000003 |
| 100 % | | - 20 | 836,520,043 | 43 | 0.000005 |
| 100 % | | - 10 | 836,519,918 | -82 | -0.000010 |
| 100 % | | 0 | 836,520,029 | 29 | 0.000003 |
| 100 % | | + 10 | 836,520,044 | 44 | 0.000005 |
| 100 % | | + 20 | 836,520,034 | 34 | 0.000004 |
| 100 % | | + 25 | 836,519,959 | -41 | -0.000005 |
| 100 % | | + 30 | 836,520,065 | 65 | 0.000008 |
| 100 % | | + 40 | 836,520,032 | 32 | 0.000004 |
| 100 % | | + 50 | 836,520,040 | 40 | 0.000005 |
| 115 % | | 17.94 | + 20 | 836,519,914 | -86 |
| BATT. ENDPOINT | 13.87 | + 20 | 836,519,967 | -33 | -0.000004 |

Table 6-10. Frequency Stability Data (Cellular CDMA Mode – Ch. 384)

Note:

Standard batteries were used to perform this test.

| | | | | |
|------------------------------------|----------------------------|---|--|---------------------------------|
| FCC ID: ACJ9TGCF-521 | | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 20 of 35 |

Frequency Stability (Cellular CDMA) (Cont'd)
§2.1055, 22.355; RSS-129 (9.2.1)

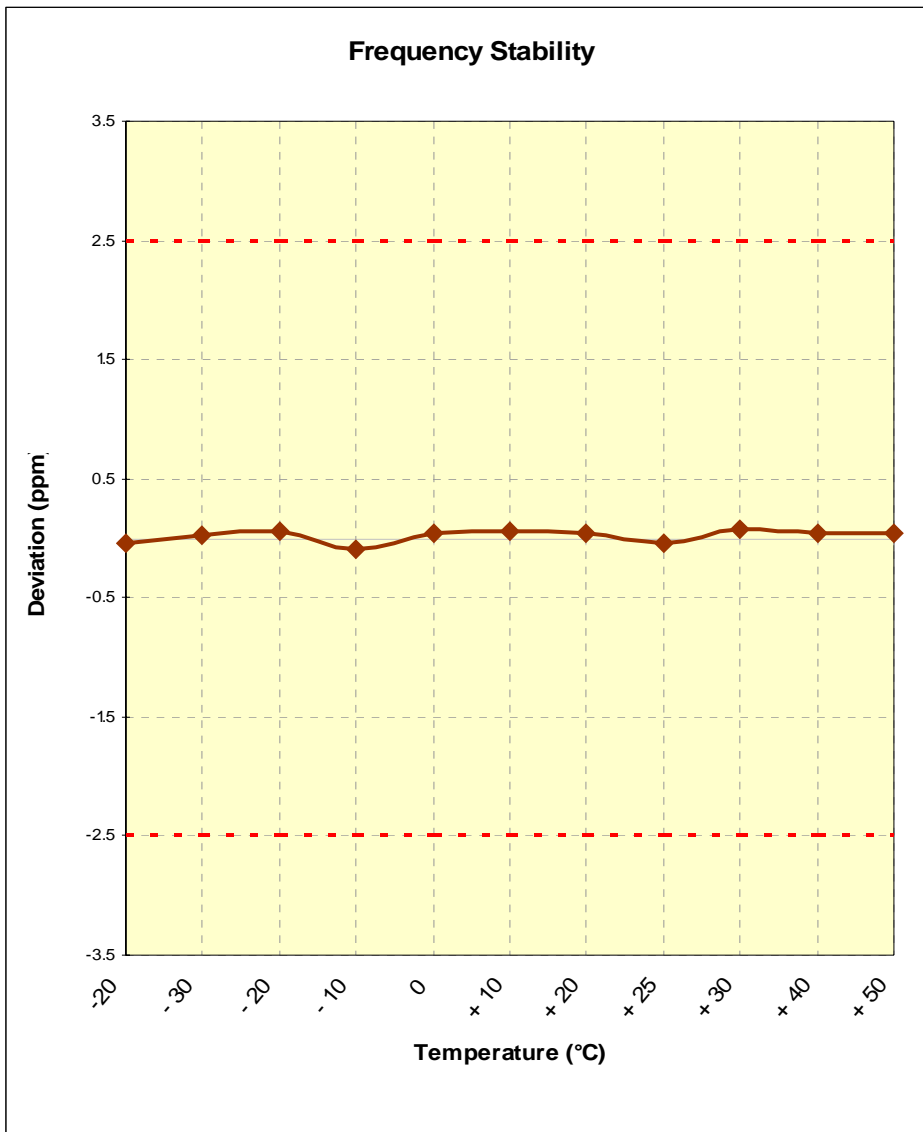




Figure 6-1. Frequency Stability Graph (Cellular CDMA Mode – Ch. 384)

Note:

Standard batteries were used to perform this test.

| | | | | |
|------------------------------------|---|---|---|---------------------------------|
| FCC ID: ACJ9TGCF-521 |  | FCC Pt. 22/24 CDMA / EVDO MEASUREMENT REPORT (CERTIFICATION) |  | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | Page 21 of 35 | |



6.7 Frequency Stability (PCS CDMA)

§2.1055, 24.235; RSS-133 (6.3)

OPERATING FREQUENCY: 1,880,000,000 Hz

CHANNEL: 600

REFERENCE VOLTAGE: 15.6 VDC

DEVIATION LIMIT: ± 0.00025 % or 2.5 ppm

| VOLTAGE (%) | POWER (VDC) | TEMP (°C) | FREQ. (Hz) | Freq. Dev. (Hz) | Deviation (%) |
|----------------|----------------|--------------|---------------|--------------------|------------------|
| 100 % | 15.60 | + 20 (Ref) | 1,880,000,010 | 10.17 | 0.000001 |
| 100 % | | - 30 | 1,879,999,989 | -11.02 | -0.000001 |
| 100 % | | - 20 | 1,879,999,950 | -49.67 | -0.000003 |
| 100 % | | - 10 | 1,879,999,944 | -56.25 | -0.000003 |
| 100 % | | 0 | 1,879,999,916 | -83.65 | -0.000004 |
| 100 % | | + 10 | 1,880,000,087 | 86.98 | 0.000005 |
| 100 % | | + 20 | 1,879,999,938 | -61.89 | -0.000003 |
| 100 % | | + 25 | 1,879,999,906 | -93.66 | -0.000005 |
| 100 % | | + 30 | 1,880,000,012 | 11.56 | 0.000001 |
| 100 % | | + 40 | 1,879,999,949 | -50.82 | -0.000003 |
| 100 % | | + 50 | 1,880,000,086 | 85.56 | 0.000005 |
| 115 % | | 17.94 | + 20 | 1,880,000,062 | 61.93 |
| BATT. ENDPOINT | 13.87 | + 20 | 1,879,999,915 | -84.84 | -0.000005 |

Table 6-11. Frequency Stability Data (PCS CDMA Mode – Ch. 600)

Note:

Standard batteries were used to perform this test.

| | | | | |
|------------------------------------|----------------------------|---|--|---------------------------------|
| FCC ID: ACJ9TGCF-521 | | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 22 of 35 |

Frequency Stability (PCS CDMA) (Cont'd)
§2.1055, 24.235; RSS-133 (6.3)

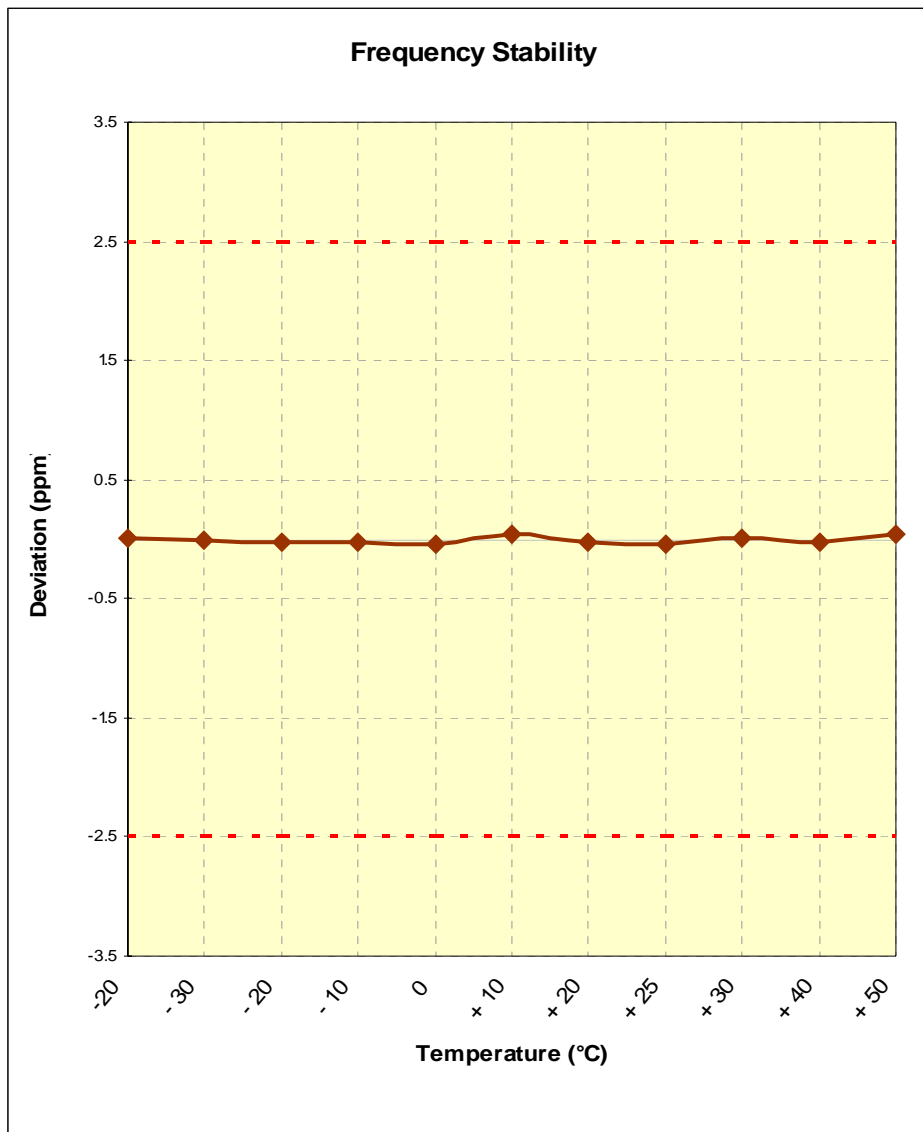




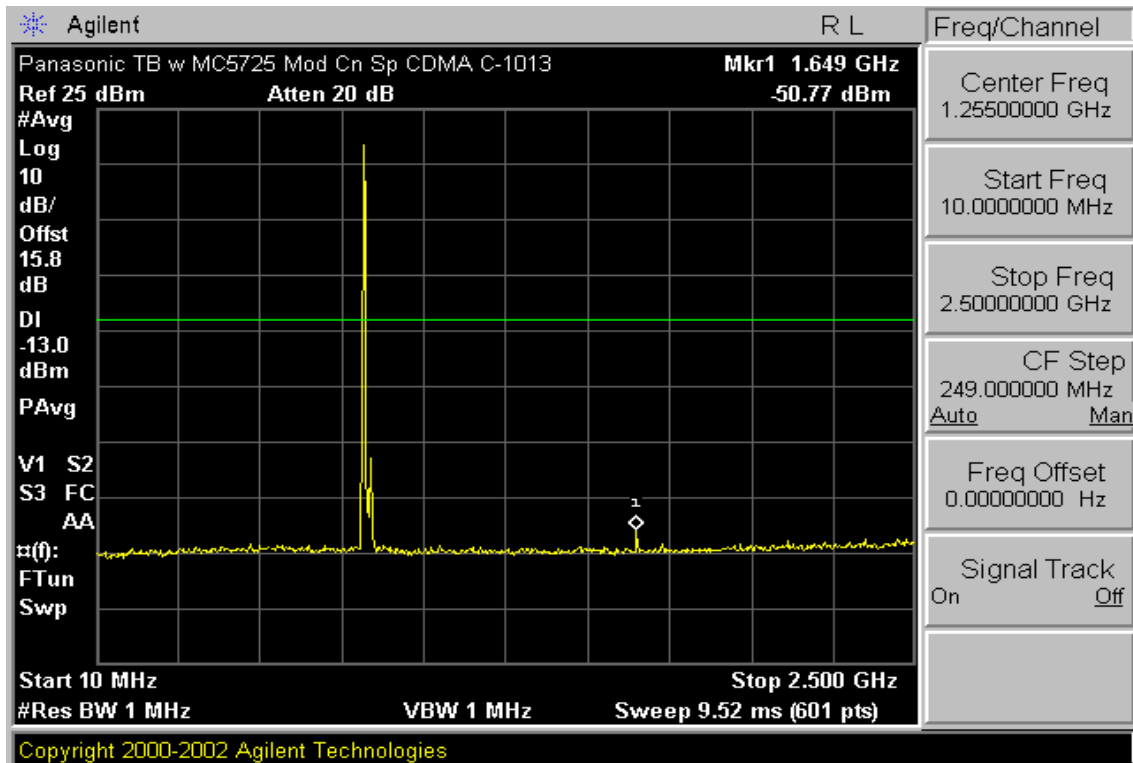
Figure 6-2. Frequency Stability Graph (PCS CDMA Mode – Ch. 600)

Note:

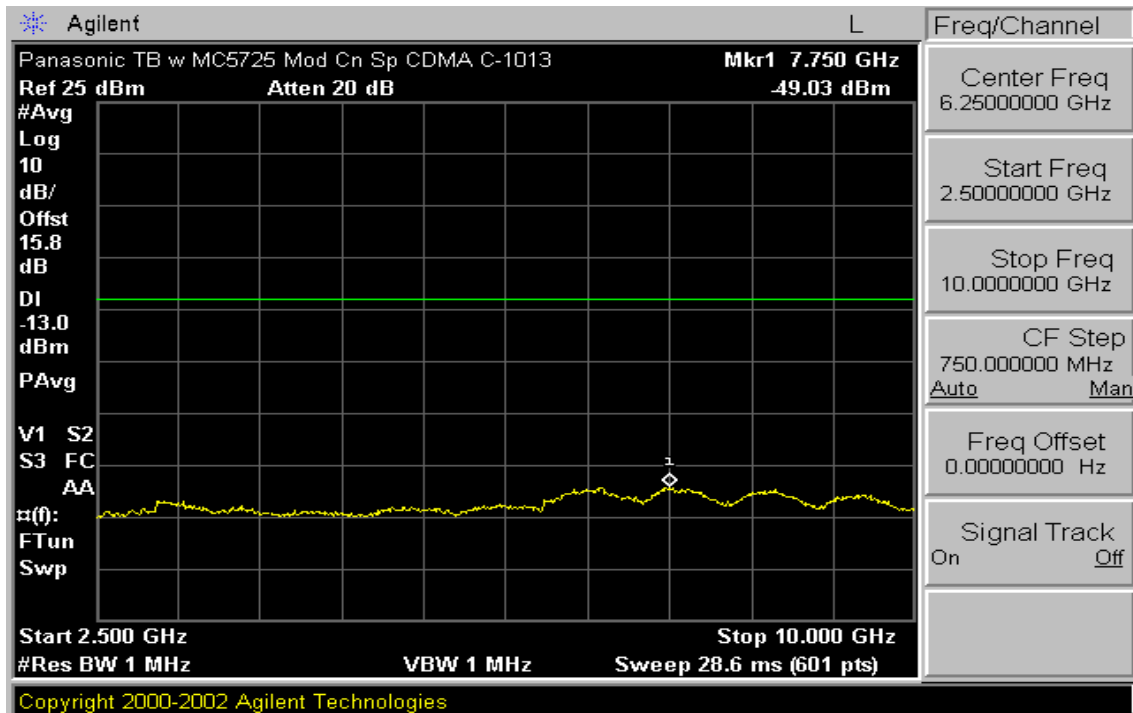
Standard batteries were used to perform this test.

| | | | | |
|------------------------------------|---|---|---|---------------------------------|
| FCC ID: ACJ9TGCF-521 |  | FCC Pt. 22/24 CDMA / EVDO MEASUREMENT REPORT (CERTIFICATION) |  | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | Page 23 of 35 | |

7.0 PLOT(S) OF EMISSIONS

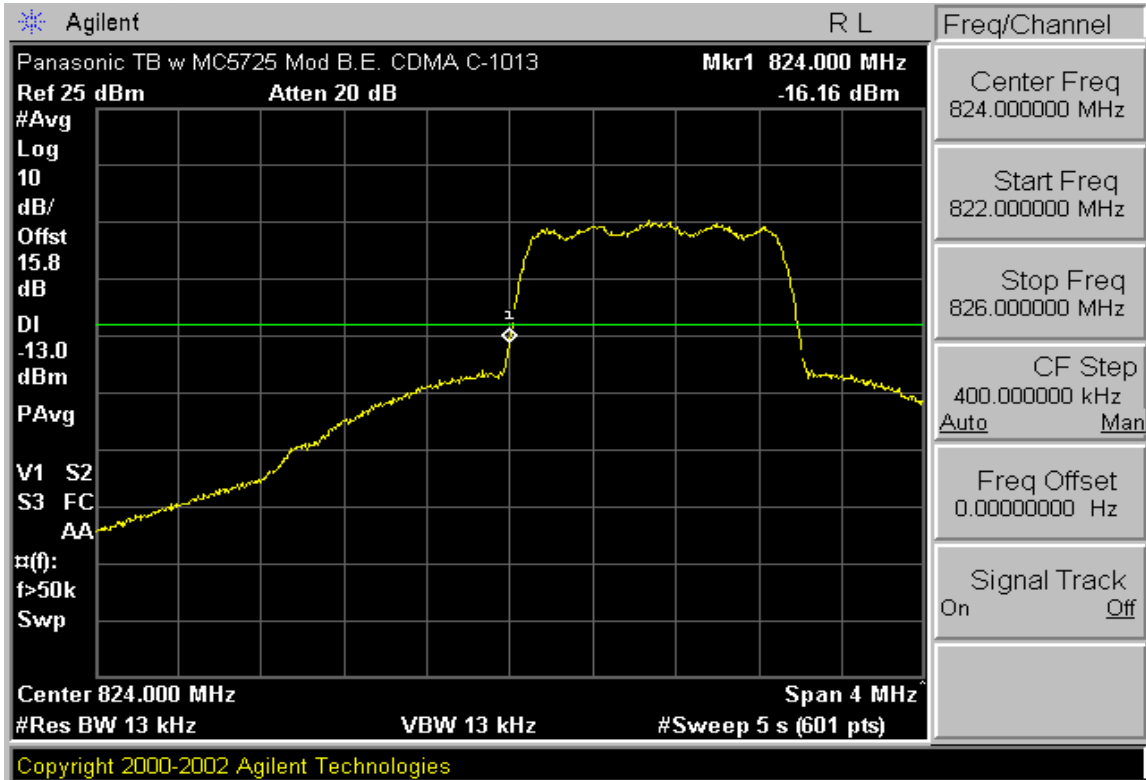


Plot 7-1. Conducted Spurious Plot (Cellular CDMA Mode – Ch. 1013)



Plot 7-2. Conducted Spurious Plot (Cellular CDMA Mode – Ch. 1013)

| | | | | |
|------------------------------------|----------------------------|---|--|---------------------------------|
| FCC ID: ACJ9TGCF-521 | | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 24 of 35 |

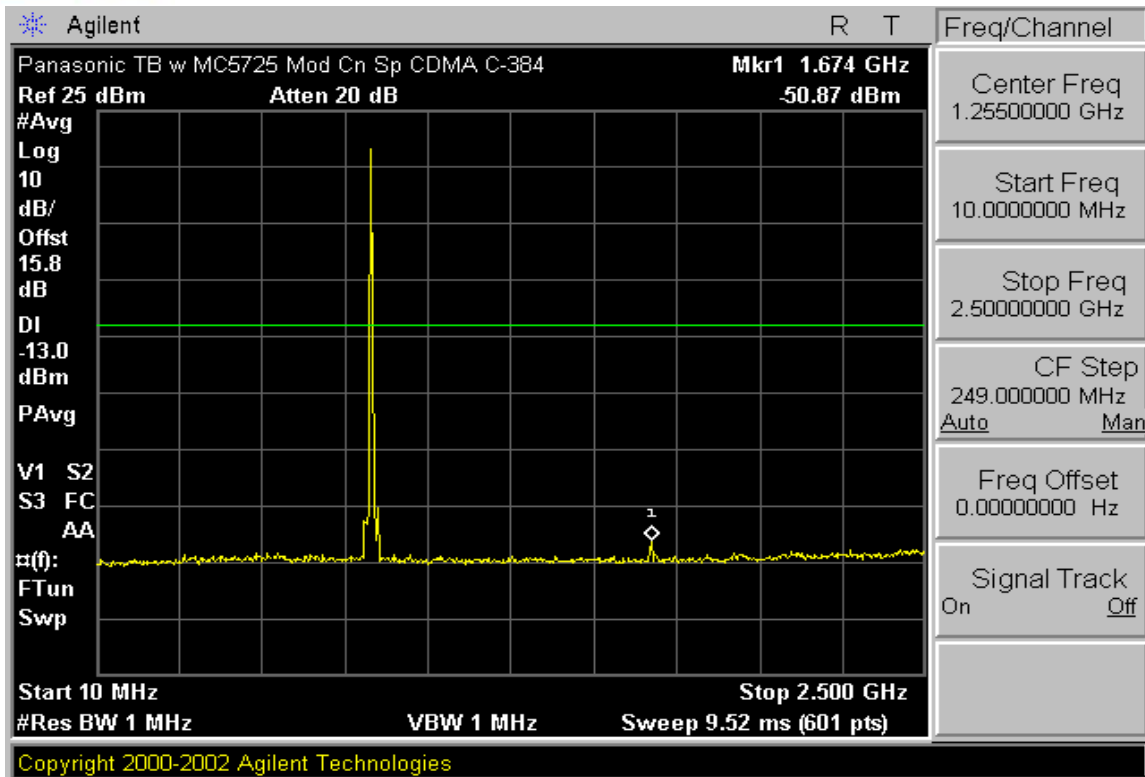


Plot 7-3. Band Edge Plot (Cellular CDMA Mode – Ch. 1013)

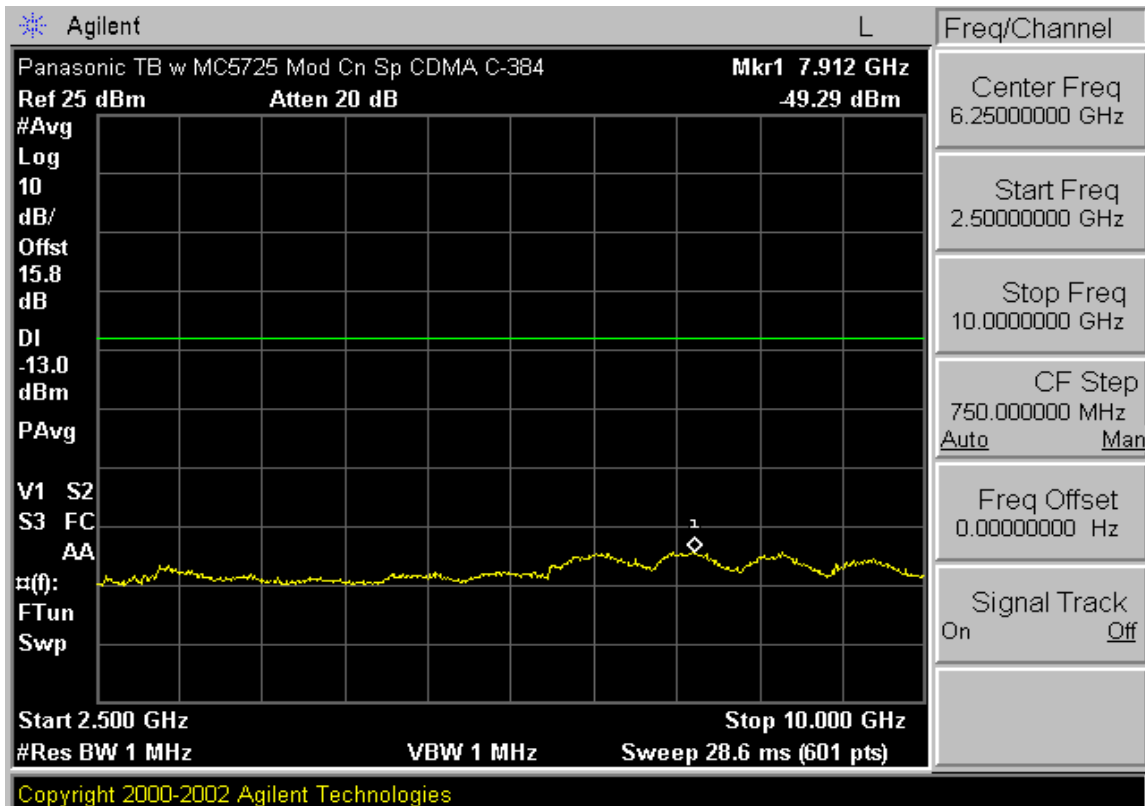


Plot 7-4. 4MHz Span Plot (Cellular CDMA Mode – Ch. 1013)

| | | | | |
|------------------------------------|----------------------------|--|-----------|---------------------------------|
| FCC ID: ACJ9TGCF-521 | PCTEST | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | Panasonic | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 25 of 35 |

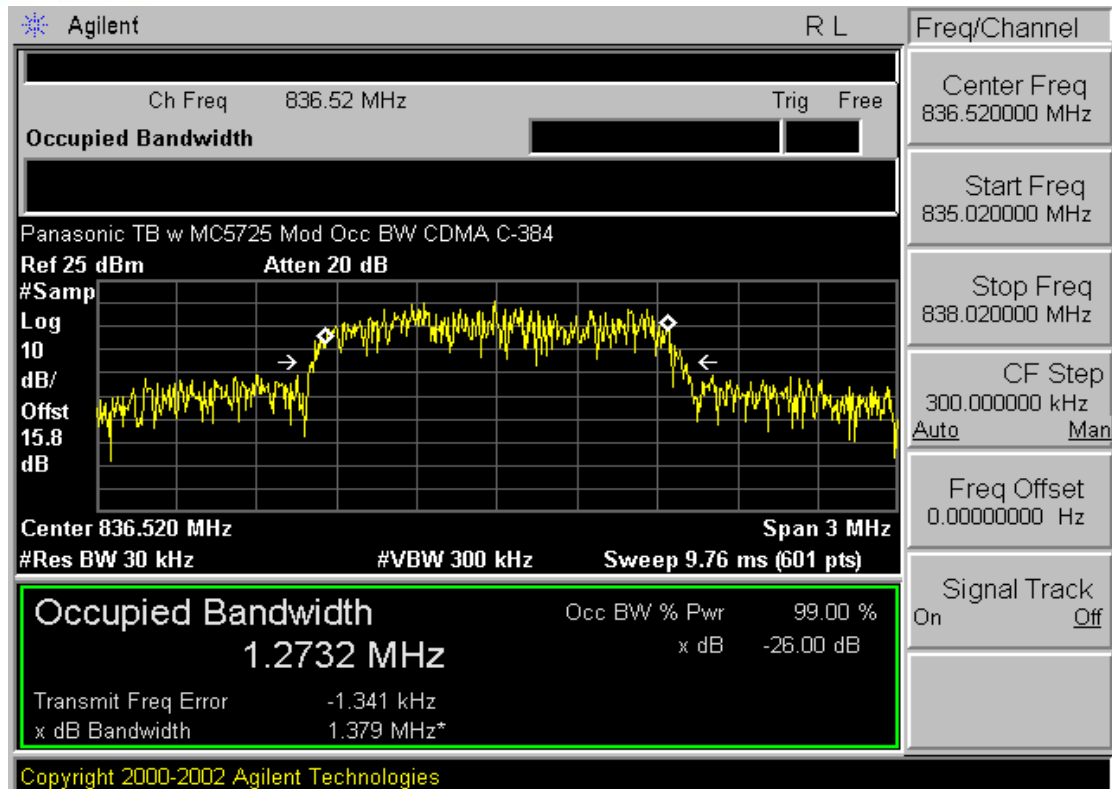


Plot 7-5. Conducted Spurious Plot (Cellular CDMA Mode – Ch. 384)

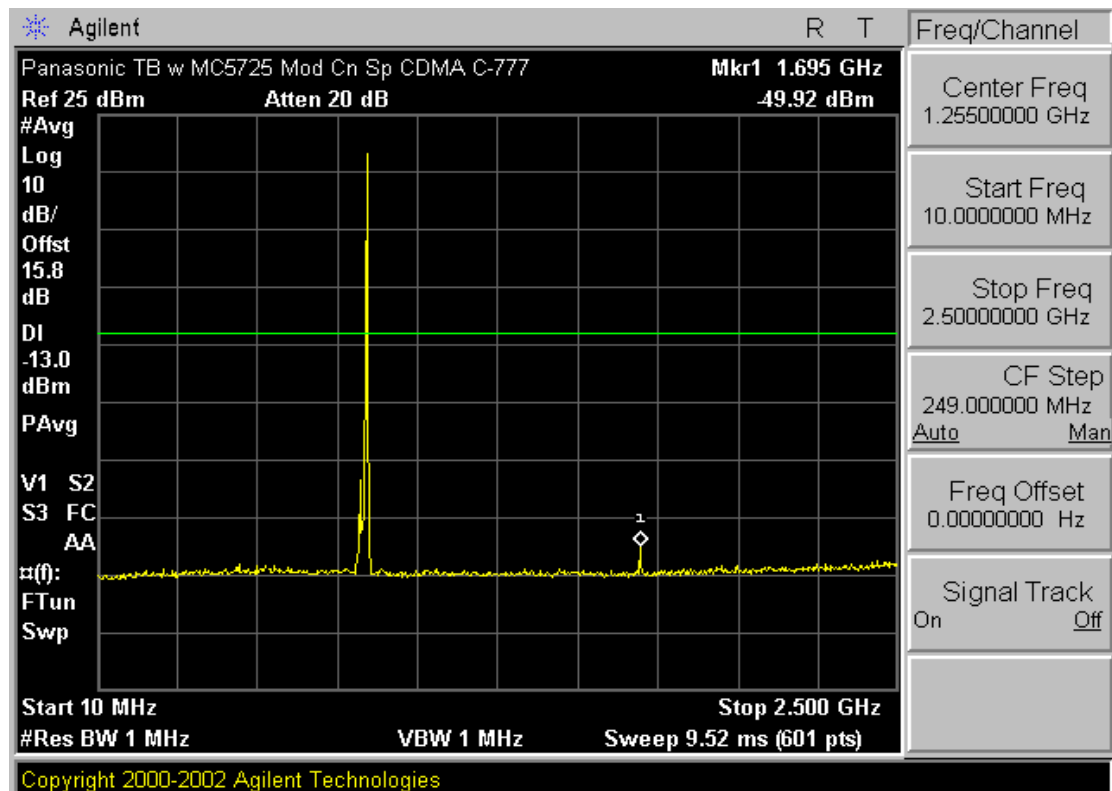


Plot 7-6. Conducted Spurious Plot (Cellular CDMA Mode – Ch. 384)

| | | | | |
|------------------------------------|----------------------------|--|-----------|---------------------------------|
| FCC ID: ACJ9TGCF-521 | PCTEST | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | Panasonic | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 26 of 35 |

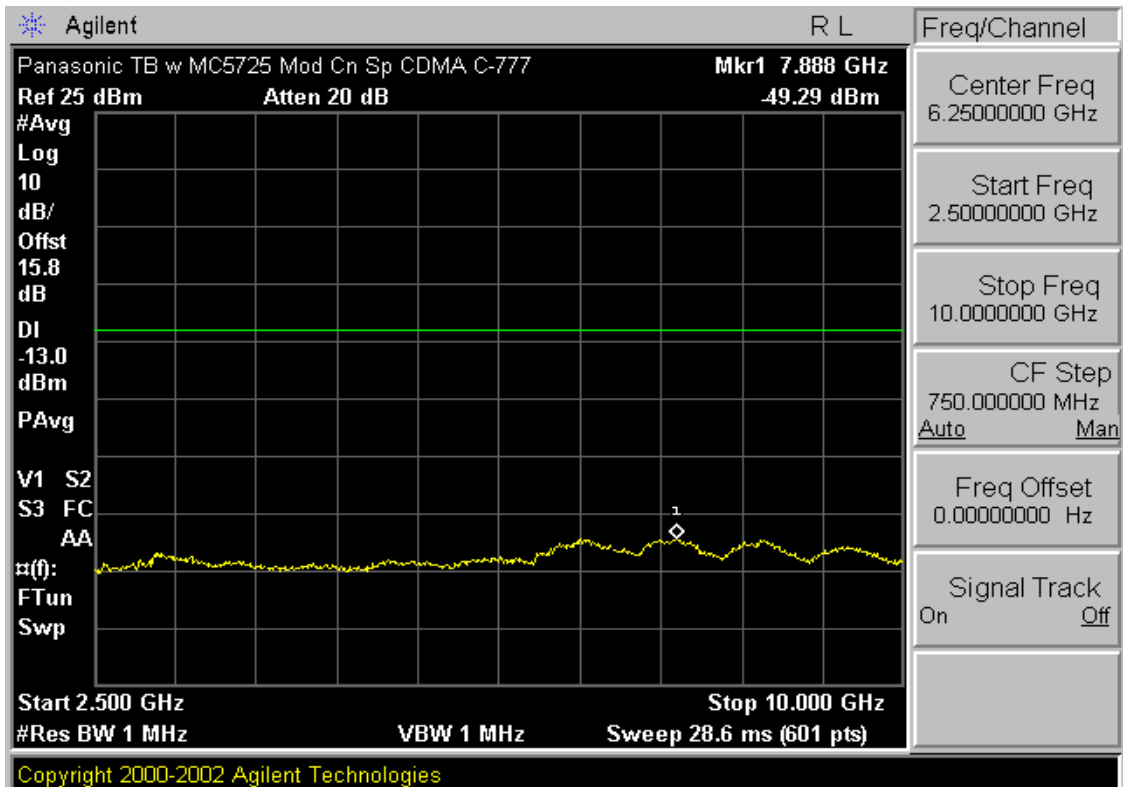


Plot 7-7. Occupied Bandwidth Plot (Cellular CDMA Mode – Ch. 384)

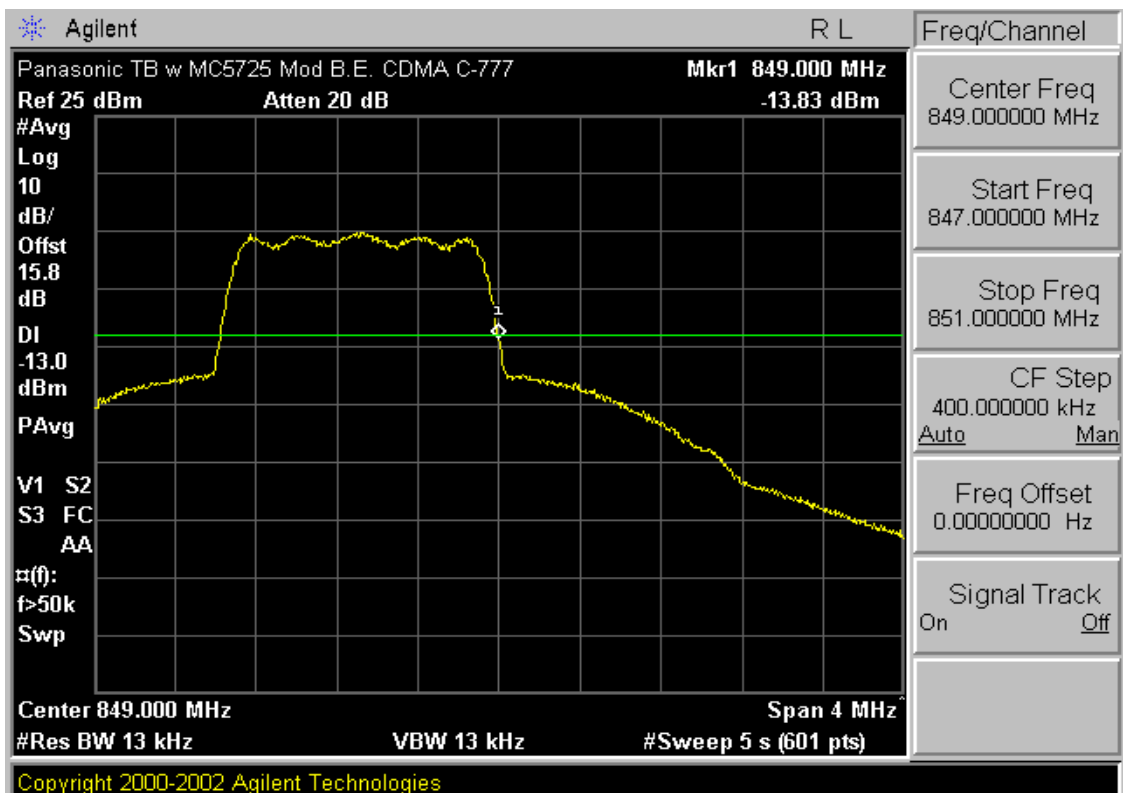


Plot 7-8. Conducted Spurious Plot (Cellular CDMA Mode – Ch. 777)

| | | | | |
|------------------------------------|----------------------------|--|--|---------------------------------|
| FCC ID: ACJ9TGCF-521 | | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 27 of 35 |

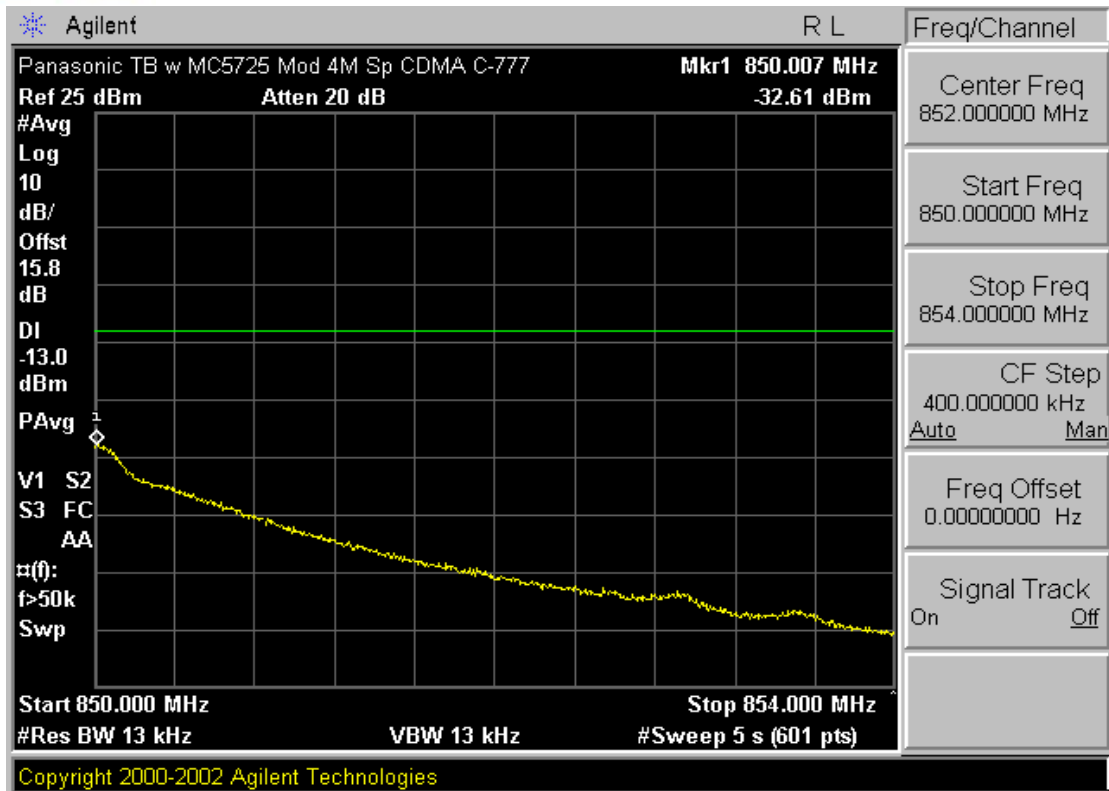


Plot 7-9. Conducted Spurious Plot (Cellular CDMA Mode – Ch. 777)

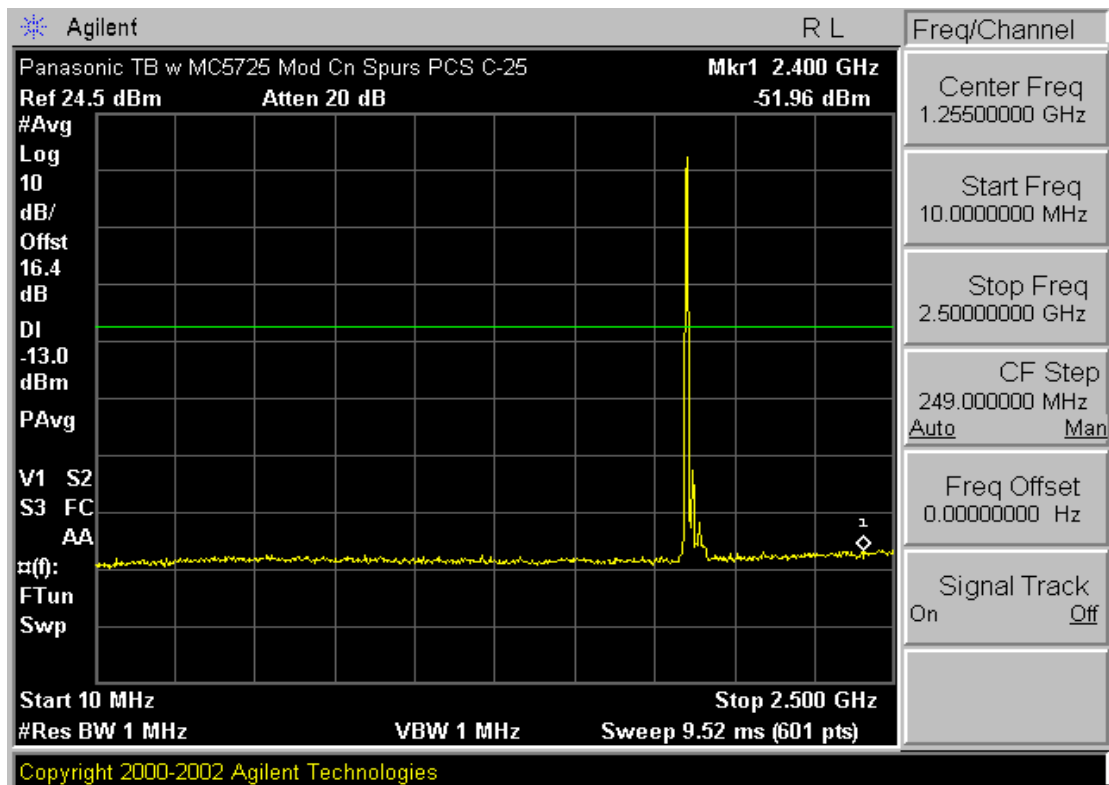


Plot 7-10. Band Edge Plot (Cellular CDMA Mode – Ch. 777)

| | | | | |
|------------------------------------|----------------------------|--|--|---------------------------------|
| FCC ID: ACJ9TGCF-521 | | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 28 of 35 |

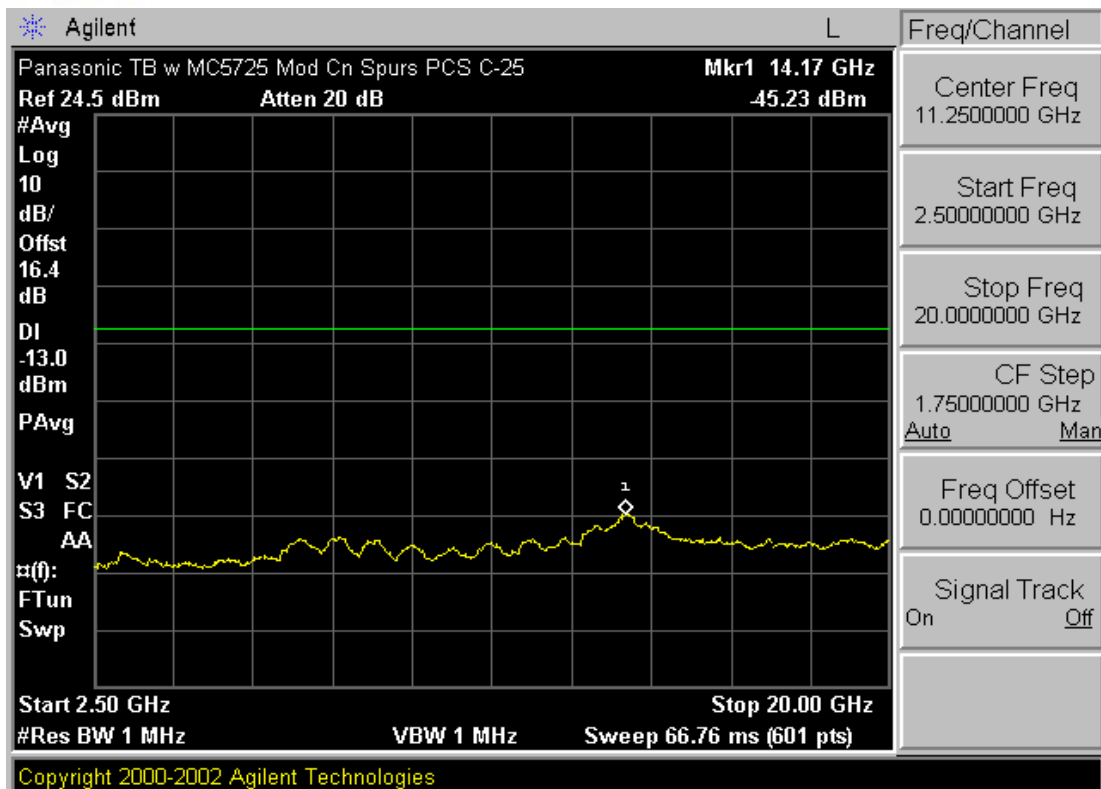


Plot 7-11. 4MHz Span Plot (Cellular CDMA Mode – Ch. 777)

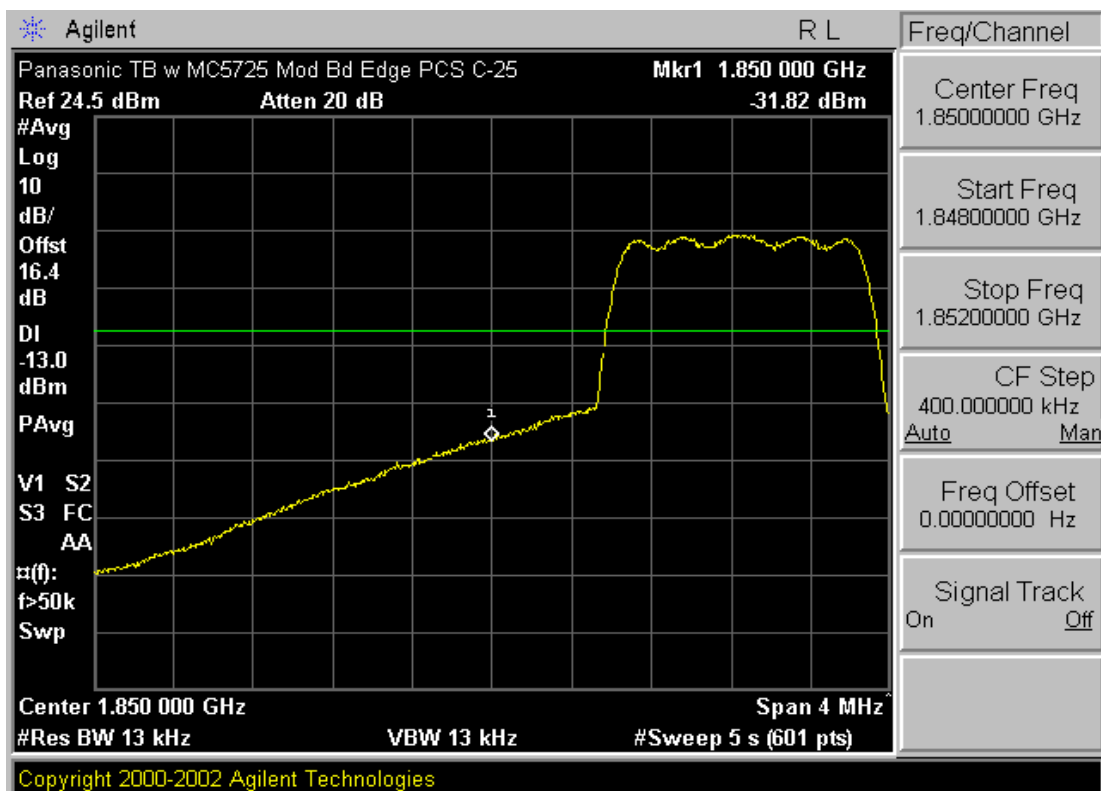


Plot 7-12. Conducted Spurious Plot (PCS CDMA Mode – Ch. 25)

| | | | | |
|------------------------------------|----------------------------|--|--|---------------------------------|
| FCC ID: ACJ9TGCF-521 | | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 29 of 35 |

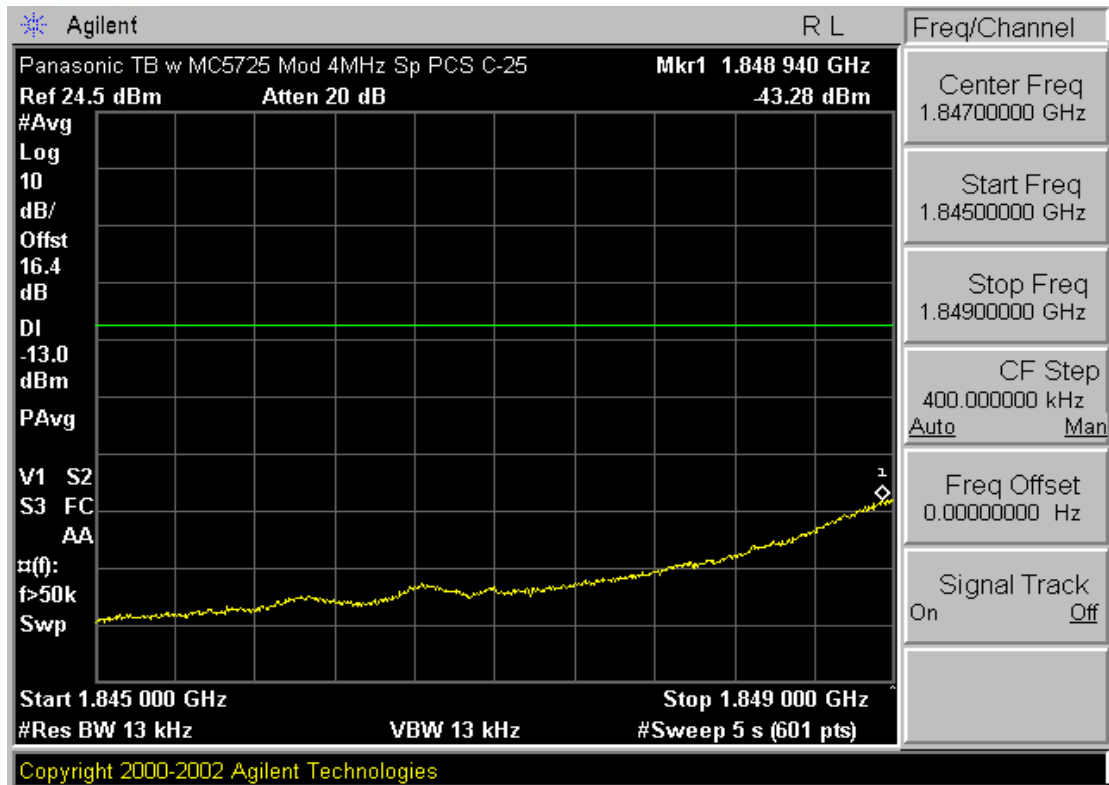


Plot 7-13. Conducted Spurious Plot (PCS CDMA Mode – Ch. 25)

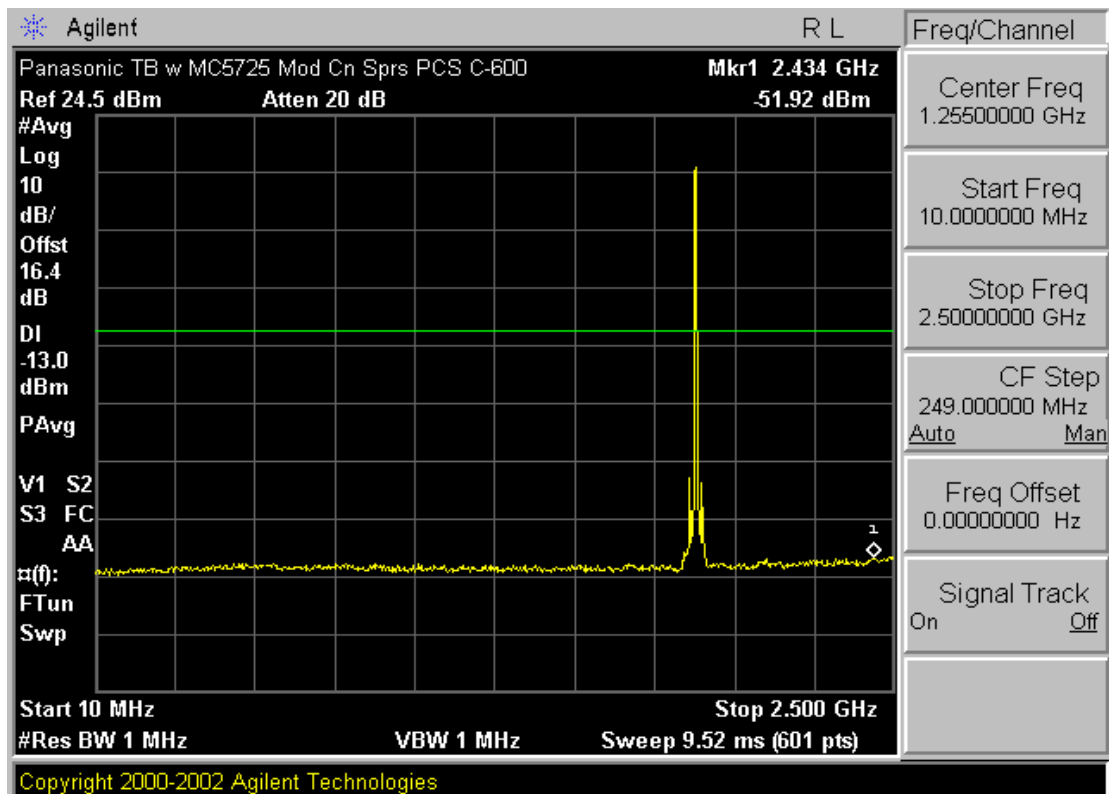


Plot 7-14. Band Edge Plot (PCS CDMA Mode – Ch. 25)

| | | | | |
|------------------------------------|----------------------------|--|-----------|---------------------------------|
| FCC ID: ACJ9TGCF-521 | PCTEST | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | Panasonic | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 30 of 35 |

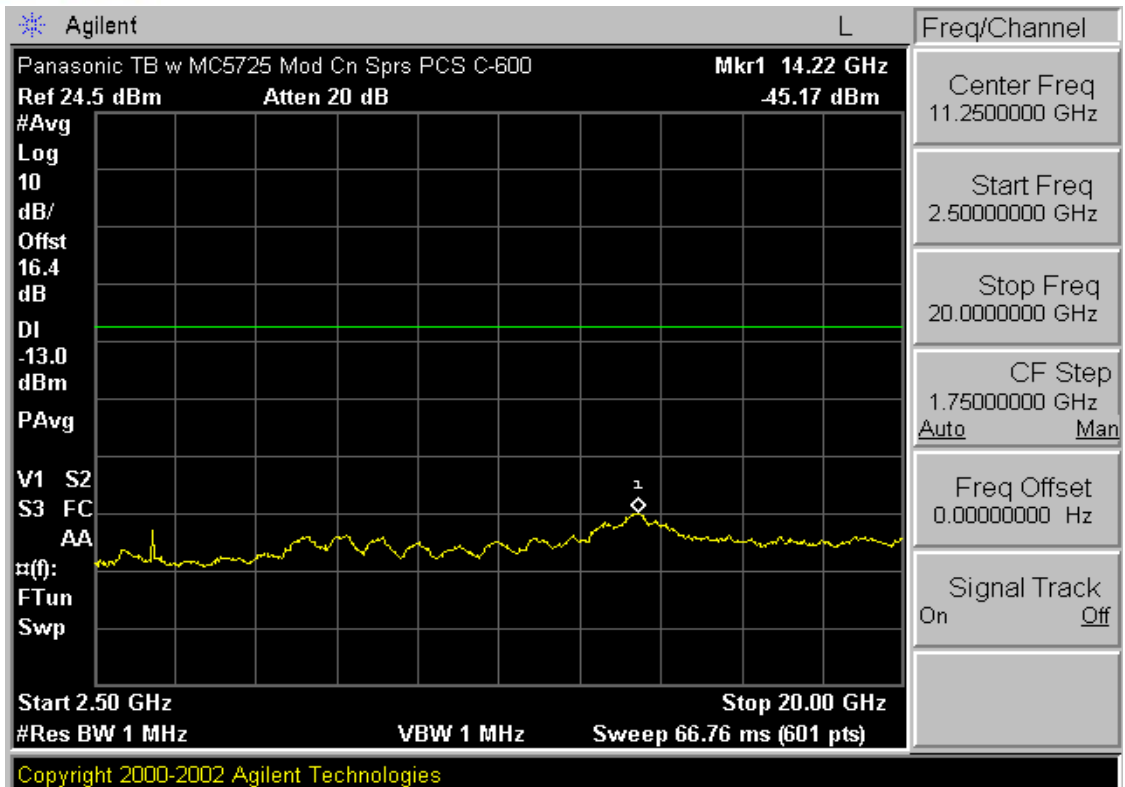


Plot 7-15. 4MHz Span Plot (PCS CDMA Mode – Ch. 25)

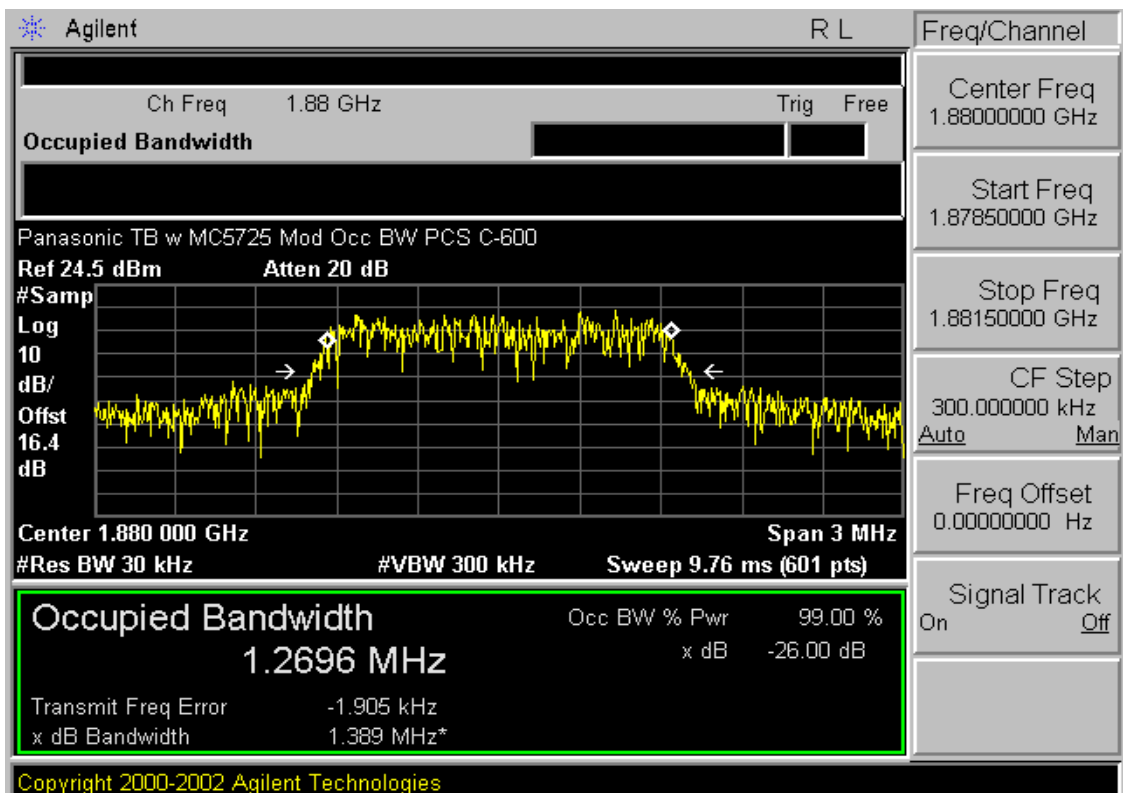


Plot 7-16. Conducted Spurious Plot (PCS CDMA Mode – Ch. 600)

| | | | | |
|------------------------------------|----------------------------|--|--|---------------------------------|
| FCC ID: ACJ9TGCF-521 | | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 31 of 35 |

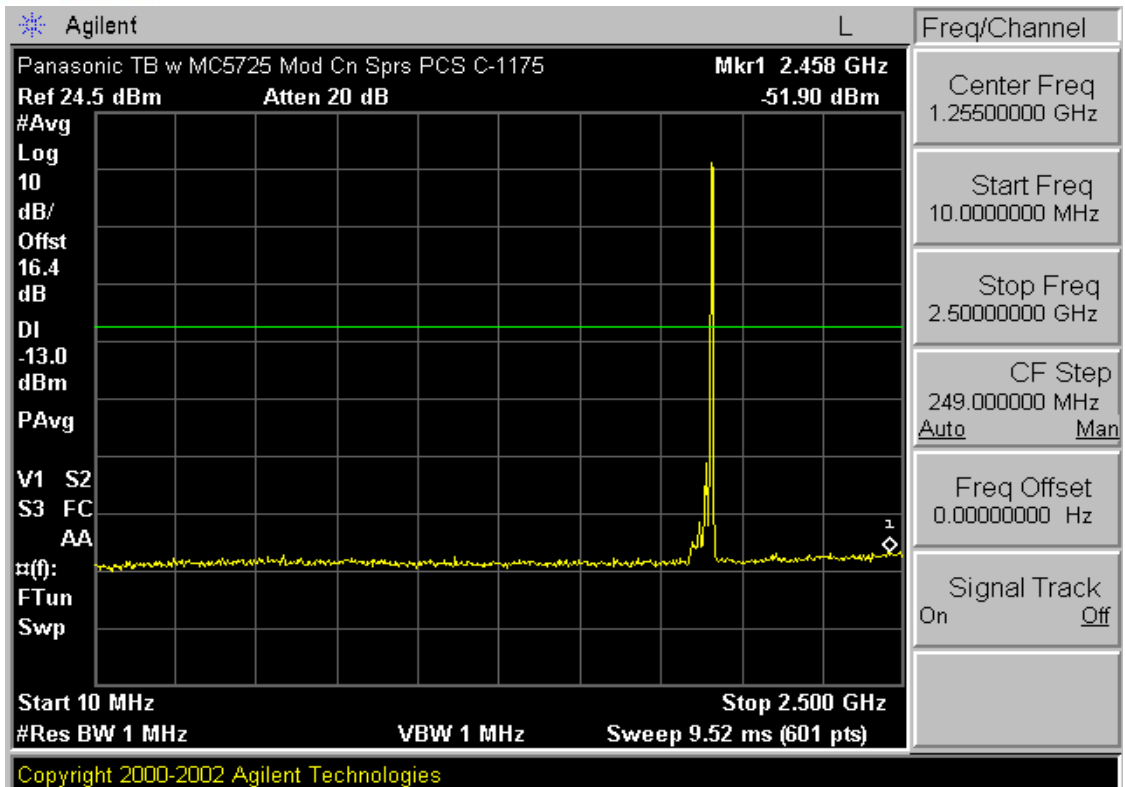


Plot 7-17. Conducted Spurious Plot (PCS CDMA Mode – Ch. 600)

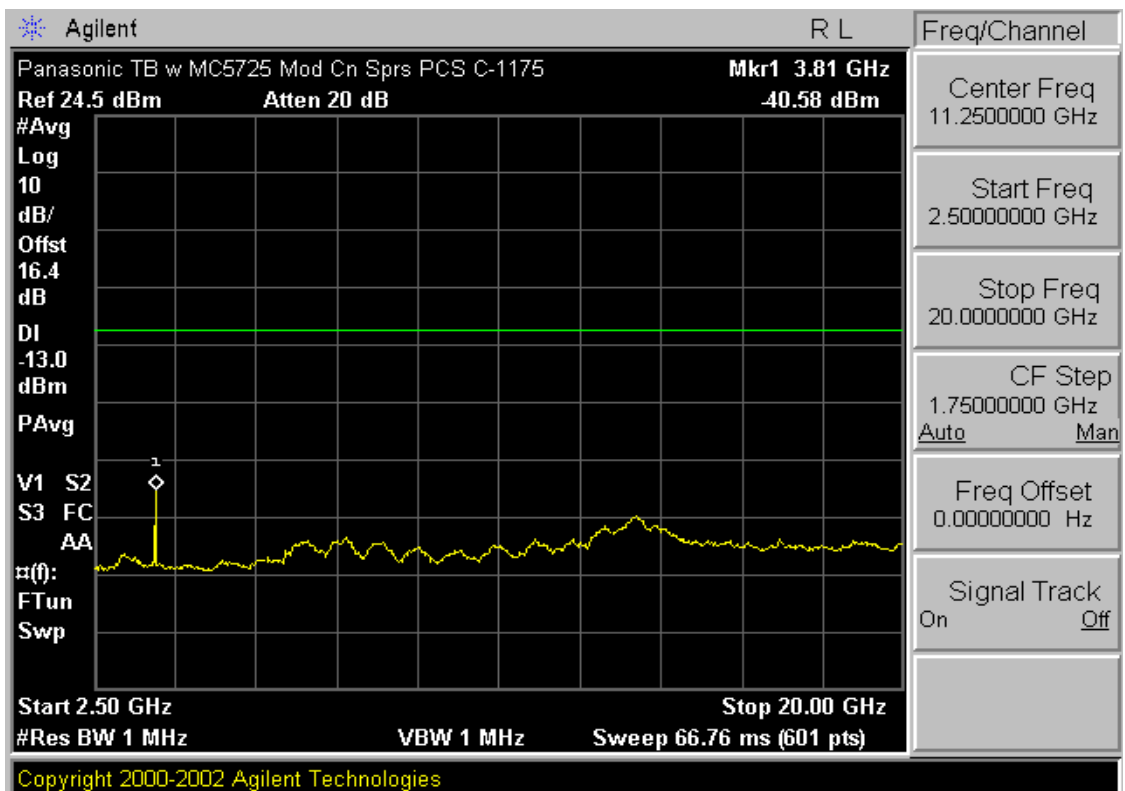


Plot 7-18. Occupied Bandwidth Plot (PCS CDMA Mode – Ch. 600)

| | | | | |
|------------------------------------|----------------------------|--|--|---------------------------------|
| FCC ID: ACJ9TGCF-521 | | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 32 of 35 |

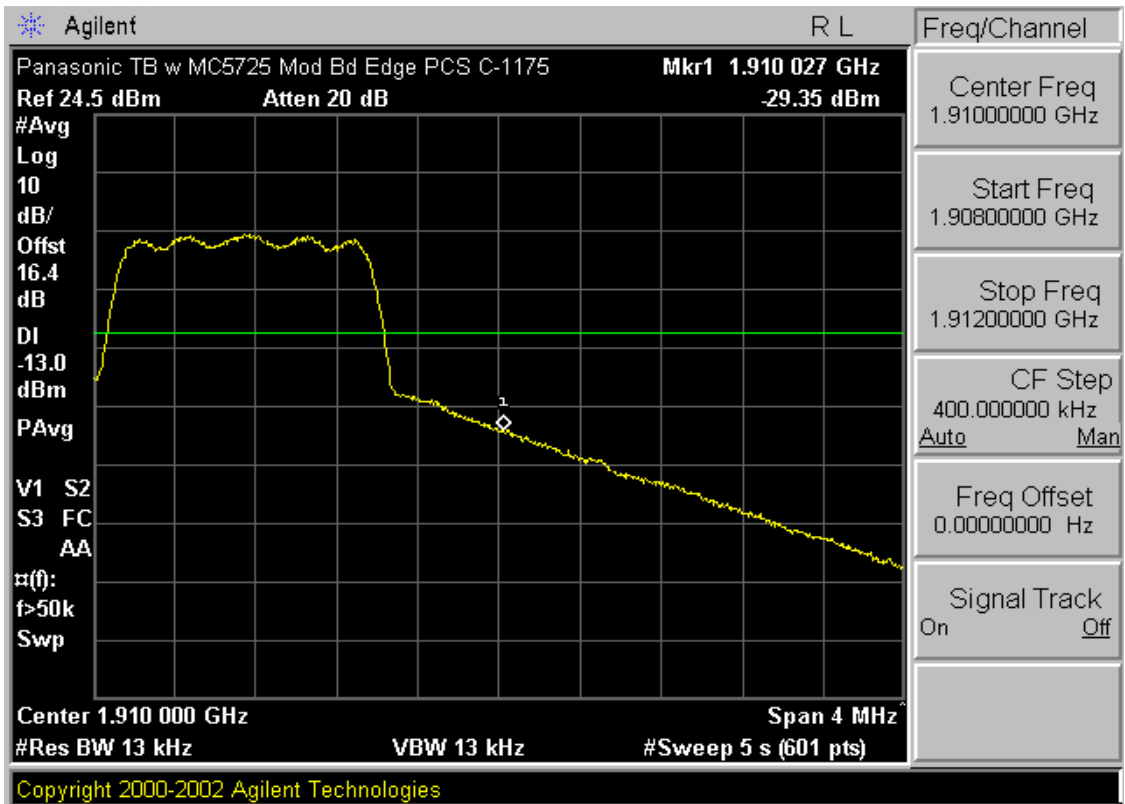


Plot 7-19. Conducted Spurious Plot (PCS CDMA Mode – Ch. 1175)



Plot 7-20. Conducted Spurious Plot (PCS CDMA Mode – Ch. 1175)

| | | | | |
|------------------------------------|----------------------------|--|--|---------------------------------|
| FCC ID: ACJ9TGCF-521 | | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 33 of 35 |



Plot 7-21. Band Edge Plot (PCS CDMA Mode – Ch. 1175)





Plot 7-22. 4MHz Span Plot (PCS CDMA Mode – Ch. 1175)

| | | | | |
|------------------------------------|----------------------------|--|-----------|---------------------------------|
| FCC ID: ACJ9TGCF-521 | PCTEST | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) | Panasonic | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | | Page 34 of 35 |

8.0 CONCLUSION

The data collected show that the **Panasonic Toughbook Model: CF-52 FCC ID: ACJ9TGCF-521** complies with all the requirements of Parts 2, 22, and 24 of the FCC rules.

| | | | | |
|---|---|---|---|--|
| FCC ID: ACJ9TGCF-521 |  | FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION) |  | Reviewed by: Quality Manager |
| Test Report S/N: 0704180314.ACJ | Test Dates: May 1, 2007 | EUT Type: Toughbook Model: CF-52 | Page 35 of 35 | |