FCC CFR47 PART 22 SUBPART H
AND PART 24 SUBPART E
CLASS II PERMISSIVE CHANGE
CERTIFICATION TEST REPORT

FOR

CDMA 800/1900 CELL-PCS MODULE

MODELS: PA3490U-1EVD

FCC ID: CJ6UPA3490G3

REPORT NUMBER: 06U10443-1

ISSUE DATE: AUGUST 11, 2006

Prepared for
TOSHIBA CORPORATION DIGITAL MEDIA NETWORK COMPANY
OME COMPLEX, 2-9, SUEHIRO-CHO
TOKYO, 198-8710, JAPAN

Prepared by
COMPLIANCE CERTIFICATION SERVICES
561F MONTEREY ROAD
MORGAN HILL, CA 95037, USA
TEL: (408) 463-0885
FAX: (408) 463-0888

LAB CODE:200065-0

Revision History

Rev.	Date	Revisions	Revised By
--	8/11/2006	Initial Release	A. Ilarina

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: TOSHIBA CORPORATION
DIGITAL MEDIA NETWORK COMPANY
2-9 SUEHIRO-CHO, OME
TOKYO, 198-8710, JAPAN

EUT DESCRIPTION: CDMA 800/1900 CELL-PCS MODULE

MODEL NUMBER: PA3490U-1EVD

SERIAL NUMBER: G86C0002A410

DATE TESTED: JULY 13-18, 2006

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC PART 22 SUBPART H	NO NON-COMPLIANCE NOTED
FCC PART 24 SUBPART E	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:

ALVIN ILARINA
EMC SUPERVISOR
COMPLIANCE CERTIFICATION SERVICES

Tested By:

CHIN PANG
EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with TIA/EIA 603C (2004), ANSI C63.4-2003, FCC CFR 47 Part 2, FCC CFR 47 Part 22H and 24E.

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 dual band 800 / 1900MHz Mini-PCI Express Card CDMA Modem Module.

5.2. CLASS II PERMISSIVE CHANGE DESCRIPTION

Change #1 The subject approved module is being used in a different host.
Change #2 Collocation with CDMA CELL-PCS module.
Change #3 Collocation with Bluetooth Module.

5.3. MAXIMUM OUTPUT POWER

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

824 to 849 MHz Authorized Band

Frequency Range (MHz)	Modulation	Conducted Average Power (dBm)	Conducted Average Power (mW)	Conducted Peak Power (dBm)	Conducted Peak Power (mW)
Low CH - 824.7	1 x EVDO	24.5	281.84	28.35	683.91
Mid CH - 836.5		24.58	287.08	28.4	691.83
High CH - 848.3		23.70	234.42	27.58	572.80

1850 to 1910 MHz Authorized Band

Frequency Range (MHz)	Modulation	Conducted Average Power (dBm)	Conducted Average Power (mW)	Conducted Peak Power (dBm)	Conducted Peak Power (mW)
Low CH - 1851.25	1 x EVDO	23.85	242.66	28.02	633.87
Mid CH - 1880		24.16	260.62	28.52	711.21
High CH - 1908.75		23.7	234.42	27.61	576.77

NOTE: RBW=VBW=3MHz.

5.4. DESCRIPTION OF AVAILABLE ANTENNAS

The EUT is used monopole antenna model TMZ001 manufactured by Tyco Electronics with a peak gain of 0.8 dBi in the cellular band and 1.6 dBi in the PCS band.

5.5. SOFTWARE AND FIRMWARE

The EUT is linked with Agilent Communication Test Set.

5.6. WORST-CASE CONFIGURATION AND MODE

Pre-scan was performed on RF conducted port to determine the worst-case scenario:

Cellular Band	Avg. Output Power (dBm) Mid CH	99% BW (MHz) Mid CH	26 dB BW (MHz) Mid CH	Band edge (dBm) Low CH	Band edge (dBm) High CH
1xRRT RC3, SO2	24.55	1.2762	1405	-17.489	-13.78
1xRRT RC3, SO32 (+F-SCH)	24.46	1.2871	1.404	-16.921	-13.751
1xRRT RC3, SO32 (+SCH)	24.50	1.2727	1.4	-17.202	-14.31
1xRRT RC3, SO55	24.50	1.2645	1.39	-16.732	-13.635
EVDO	**24.58**	**1.2602**	**1.38**	**-15.382**	**-13.321**

PCS Band	Avg. Output Power (dBm) Mid CH	99% BW (MHz) Mid CH	26 dB BW (MHz) Mid CH	Band edge (dBm) Low CH	Band edge (dBm) High CH
1xRRT RC3, SO2	24.10	1.252	1.389	-35.936	-34.935
1xRRT RC3, SO32 (+F-SCH)	23.90	1.273	1.401	-35.598	-34.706
1xRRT RC3, SO32 (+SCH)	23.97	1.265	1.408	-35.988	-35.85
1xRRT RC3, SO55	23.97	1.264	1.392	-36.055	-35.159
EVDO	**24.16**	**1.250**	**1.381**	**-35.283**	**-31.303**

Based on the above results from the different modulations, EVDO is determined to be the worst-case scenario for fundamental ERP /EIRP measurement and radiated spurious emissions tests.

The worst-case channel is determined as the channel with the highest output power. The highest measured output power was at mid channel for both bands.

5.7. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
Laptop	Toshiba	Satellite	NA	DoC
AC Adapter	Toshiba	PA3283U-3ACA	G71C00043310	DoC

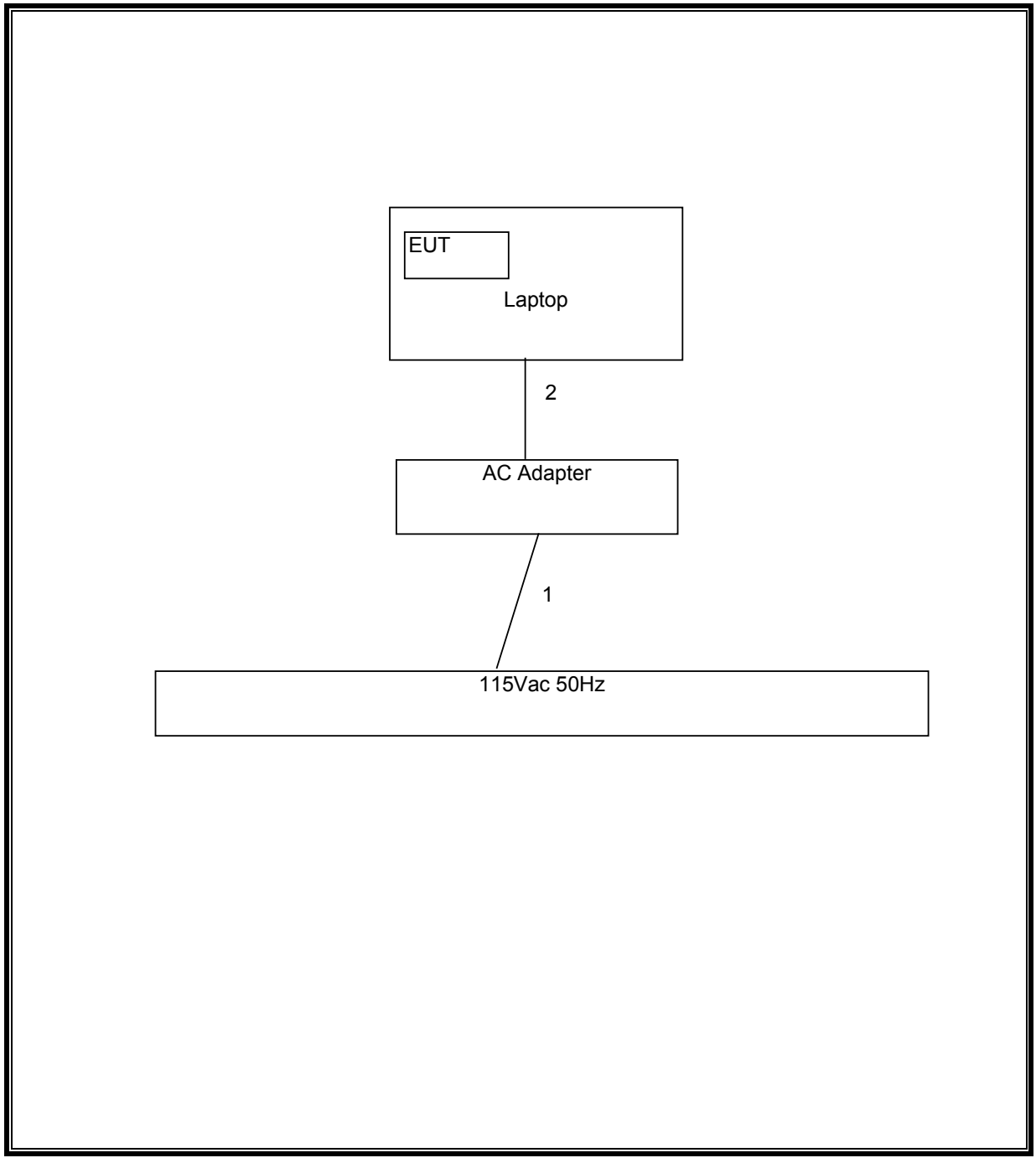
I/O CABLES

I/O CABLE LIST						
Cable No.	**Port**	**# of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length**	**Remarks**
1	AC	1	US 115V	Un-shielded	2m	NA
2	DC	1	DC	Un-shielded	2m	NA

TEST SETUP

The EUT is installed inside the Laptop during tests. The EUT is linked with Agilent Communication Test Set.

SETUP DIAGRAM FOR TESTS



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**
Antenna, Horn 1 ~ 18 GHz	EMCO	3115	5/22/1918	4/22/2007
Preamplifier, 1 ~ 26.5 GHz	Agilent / HP	8449B	3008A00561	10/3/07
Antenna, Horn 1 ~ 18 GHz	EMCO	3115	2238	4/22/07
Spectrum Analyzer 3 Hz ~ 44 GHz	Agilent / HP	E4446A	MY45300064	12/19/06
EMI Test Receiver	R & S	ESHS 20	827129/006	9/3/06
LISN, 10 kHz ~ 30 MHz	FCC	LISN-50/250-25-2	2023	8/30/06
Preamplifier, 26 ~ 40 GHz	Miteq	NSP4000-SP2	924343	8/18/06
Wireless CommunicationTest Set	Agilent	8960 Series 10	E6515C	6/28/07
Peak / Average Power Sensor	Agilent	E9327A	US40440755	12/2/07
Peak Power Meter	Agilent / HP	E4416A	GB41291160	12/2/07
Dipole	EMCO	3121C-DB2	22435	5/7/06
Power Splitter	HP	11667B	324	CNR

7. LIMITS AND RESULTS

7.1. RF POWER OUTPUT

LIMIT

22.913(a) The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.
24.232(b) Mobile/portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.

TEST PROCEDURE

ANSI / TIA / EIA 603C Clause 2.2.17

RESULTS

No non-compliance noted.

MOBILE CONFIGURATION Cellular Output Power (ERP)

07/15/06 **High Frequency Substitution Measurement**
Compliance Certification Services, Morgan Hill 5m Chamber Site

Test Engr: Chin Pang
Project #: 06U10441
Company: Toshiba
Test Target: EVDO Cell Mobile Config
Mode Oper: TX, Fundamental

Test Equipment:
Receiving: Sunol T122, and 5m Chamber N-type Cable (Setup this one for testing EUT)
Substitution: Dipole S/N: 00022117, and 4ft SMA Cable Warehouse S/N: 177081002

f MHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Mobile Cofig									
Low Ch									
824.20	98.3	V	21.4	0.5	0.0	20.9	38.5	-17.6	
824.20	100.0	H	21.7	0.5	0.0	21.2	38.5	-17.3	
Mid Ch									
836.50	97.8	V	21.8	0.6	0.0	21.2	38.5	-17.2	
836.50	99.9	H	21.7	0.6	0.0	21.1	38.5	-17.3	
High Ch									
848.80	96.4	V	21.0	0.7	0.0	20.3	38.5	-18.1	
848.80	99.4	H	21.3	0.7	0.0	20.6	38.5	-17.8	

NOTE: EUT tested at worst antenna position with 0dBi reference dipole antenna, RBW=VBW=3MHz

PORTABLE CONFIGURATION Cellular Output Power (ERP)

07/15/06 **High Frequency Substitution Measurement**
Compliance Certification Services, Morgan Hill 5m Chamber Site

Test Engr: Chin Pang
Project #: 06U10441
Company: Toshiba
EUT Descrip.: CDMA
EUT M/N:
Test Target: EVDO, Cell
Mode Oper: TX, Fundamental, Portable Config

Test Equipment:
Receiving: Sunol T122, and 5m Chamber N-type Cable (Setup this one for testing EUT)
Substitution: Dipole S/N: 00022117, and 4ft SMA Cable Warehouse S/N: 177081002

f MHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Y Position (Worst Case)									
Low Ch									
824.20	97.1	V	20.2	0.5	0.0	19.7	38.5	-18.8	
824.20	101.3	H	23.0	0.5	0.0	22.5	38.5	-16.0	
Mid Ch									
836.50	96.8	V	20.8	0.6	0.0	20.2	38.5	-18.2	
836.50	102.7	H	24.5	0.6	0.0	23.9	38.5	-14.5	
High Ch									
848.80	96.9	V	21.5	0.7	0.0	20.8	38.5	-17.6	
848.80	101.7	H	23.6	0.7	0.0	22.9	38.5	-15.5	

MOBILE CONFIGURATION PCS Output Power (EIRP)

07/15/06 **High Frequency Fundamental Measurement**
Compliance Certification Services, Morgan Hill 5m Chamber Site

Test Engr: Chin Pang
Project #: 06U10441
Company: Toshiba
Test Target: EVDO,1900MHz, Mobile Config
Mode Oper: TX, Fundamental

Test Equipment:
Receiving: Horn T73, and 12ft S/N: 197209005 (Setup this one for testing EUT)
Substitution: Horn T60 Substitution, 4ft SMA Cable Warehouse S/N: 177081002

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
mobile config									
Low Ch									
1.851	93.8	H	16.8	0.9	8.4	24.3	33.0	-8.7	
1.851	96.5	V	19.9	0.9	8.4	27.4	33.0	-5.6	
Mid Ch									
1.880	93.8	H	16.6	0.9	8.3	24.0	33.0	-9.0	
1.880	95.8	V	18.4	0.9	8.3	25.8	33.0	-7.2	
High Ch									
1.910	94.4	H	17.4	0.9	8.4	24.9	33.0	-8.1	
1.910	95.4	V	18.8	0.9	8.4	26.3	33.0	-6.7	

PORTABLE CONFIGURATION PCS Output Power (EIRP)

07/15/06 **High Frequency Fundamental Measurement**
Compliance Certification Services, Morgan Hill 5m Chamber Site

Test Engr: Chin Pang
Project #: 06U10441
Company: Toshiba
Test Target: EVDO, 1900MHz, Portable Config
Mode Oper: TX, Fundamental

Test Equipment:
Receiving: Horn T73, and 12ft S/N: 197209005 (Setup this one for testing EUT)
Substitution: Horn T60 Substitution, 4ft SMA Cable Warehouse S/N: 177081002

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Portable Cofig									
Low Ch									
1.851	92.6	H	15.6	0.9	8.4	23.1	33.0	-9.9	
1.851	97.0	V	20.4	0.9	8.4	27.9	33.0	-5.1	
Mid Ch									
1.880	90.0	H	13.1	0.9	8.3	20.6	33.0	-12.5	
1.880	96.1	V	18.4	0.9	8.3	25.9	33.0	-7.2	
High Ch									
1.910	91.1	H	14.1	0.9	8.4	21.6	33.0	-11.4	
1.910	95.8	V	19.2	0.9	8.4	26.7	33.0	-6.3	

7.2. FIELD STRENGTH OF SPURIOUS RADIATION

LIMIT

§22.917 (e) and §24.238 (a) Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

TEST PROCEDURE

ANSI / TIA / EIA 603C Clause 2.2.12, FCC 22.917 (h), & FCC 24.238 (b)

The EUT was investigated in the mobile condition and portable condition in the X, Y, and Z orientations.

RESULTS

No non-compliance noted.

Note: No emissions were found within 30-1000MHz of 20dB below the system noise.

MOBILE CONFIGURATION 800MHz Band CDMA Spurious & Harmonic (ERP)

7/162006 **High Frequency Substitution Measurement**
Compliance Certification Services, Morgan Hill 5m Chamber Site

Test Engr:Chin Pang
Project #:06U10443
Company:Tohiba
Test Target:FCC Part 22
Mode Oper: EVDO TX, CELL, Mobile Configuration

Test Equipment:

EMCO Horn 1-18GHz: T73; S/N: 6717 @3m
Horn > 18GHz:
Limit: FCC 22
☑ High Pass Filter
Hi Frequency Cables: ☐ (2 ft) ☑ (2 ~ 3 ft) ☐ (4 ~ 6 ft) ☑ (12 ft)
Pre-amplifer 1-26GHz: T145 Agilent 3008A
Pre-amplifer 26-40GHz:

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch										
1.649	52.0	V	-58.6	1.6	8.1	5.9	-54.3	-13.0	-41.3	
2.474	62.6	V	-45.8	1.9	9.6	7.4	-40.3	-13.0	-27.3	
3.298	45.5	V	-59.7	2.3	9.5	7.4	-54.6	-13.0	-41.6	
1.649	49.6	H	-60.3	1.6	8.1	5.9	-56.0	-13.0	-43.0	
2.474	65.0	H	-43.2	1.9	9.6	7.4	-37.7	-13.0	-24.7	
3.298	43.0	H	-62.1	2.3	9.5	7.4	-57.0	-13.0	-44.0	
Mid Ch										
1.673	50.7	V	-59.9	1.6	8.1	6.0	-55.5	-13.0	-42.5	
2.510	61.9	V	-46.3	1.9	9.6	7.4	-40.9	-13.0	-27.9	
3.346	43.5	V	-61.5	2.3	9.5	7.4	-56.4	-13.0	-43.4	
1.673	48.0	H	-61.9	1.6	8.1	6.0	-57.5	-13.0	-44.5	
3.346	64.0	H	-40.9	2.3	9.5	7.4	-35.8	-13.0	-22.8	
4.183	44.8	H	-57.0	2.6	9.6	7.5	-52.1	-13.0	-39.1	
High Ch										
1.697	50.0	V	-60.5	1.6	8.2	6.0	-56.1	-13.0	-43.1	
2.545	62.0	V	-46.1	2.0	9.6	7.4	-40.6	-13.0	-27.6	
3.393	44.5	V	-60.3	2.3	9.5	7.4	-55.2	-13.0	-42.2	
1.697	50.0	H	-59.8	1.6	8.2	6.0	-55.4	-13.0	-42.4	
2.545	67.1	H	-40.8	2.0	9.6	7.4	-35.3	-13.0	-22.3	
3.393	45.0	H	-59.7	2.3	9.5	7.4	-54.6	-13.0	-41.6	
Note: No other emissions were detected above the system noise floor.										

PORTABLE CONFIGURATION 800MHz Band CDMA Spurious & Harmonic (ERP)

07/16/06 **High Frequency Substitution Measurement**
Compliance Certification Services, Morgan Hill 5m Chamber Site

Test Engr:Chin Pang
Project #:06U10443
Company:Tohiba
Test Target:FCC Part 22
Mode Oper: EVDO TX, CELL, Portable Configuration (Worst Case)

Test Equipment:

EMCO Horn 1-18GHz: T73; S/N: 6717 @3m
Horn > 18GHz:
Limit: FCC 22
☑ High Pass Filter
Hi Frequency Cables: ☐ (2 ft) ☑ (2 ~ 3 ft) ☐ (4 ~ 6 ft) ☑ (12 ft)
Pre-amplifer 1-26GHz: T145 Agilent 3008A
Pre-amplifer 26-40GHz:

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch										
1.649	47.7	V	-62.9	1.6	8.1	5.9	-58.6	-13.0	-45.6	
2.474	59.0	V	-49.4	1.9	9.6	7.4	-43.9	-13.0	-30.9	
3.298	45.0	V	-60.2	2.3	9.5	7.4	-55.1	-13.0	-42.1	
1.649	50.0	H	-59.9	1.6	8.1	5.9	-55.6	-13.0	-42.6	
2.474	56.0	H	-52.2	1.9	9.6	7.4	-46.7	-13.0	-33.7	
3.298	44.6	H	-60.5	2.3	9.5	7.4	-55.4	-13.0	-42.4	
Mid Ch										
1.673	48.0	V	-62.6	1.6	8.1	6.0	-58.2	-13.0	-45.2	
2.510	57.3	V	-50.9	1.9	9.6	7.4	-45.5	-13.0	-32.5	
3.346	44.7	V	-60.3	2.3	9.5	7.4	-55.2	-13.0	-42.2	
1.673	55.1	H	-54.8	1.6	8.1	6.0	-50.4	-13.0	-37.4	
2.510	60.0	H	-48.0	1.9	9.6	7.4	-42.6	-13.0	-29.6	
3.346	45.0	H	-59.9	2.3	9.5	7.4	-54.8	-13.0	-41.8	
High Ch										
1.697	48.6	V	-61.9	1.6	8.2	6.0	-57.5	-13.0	-44.5	
2.545	55.0	V	-53.1	2.0	9.6	7.4	-47.6	-13.0	-34.6	
3.393	44.5	V	-60.3	2.3	9.5	7.4	-55.2	-13.0	-42.2	
1.697	49.2	H	-60.6	1.6	8.2	6.0	-56.2	-13.0	-43.2	
2.545	58.0	H	-49.9	2.0	9.6	7.4	-44.4	-13.0	-31.4	
3.393	44.0	H	-60.7	2.3	9.5	7.4	-55.6	-13.0	-42.6	
Note: No other emissions were detected above the system noise floor.										

MOBILE CONFIGURATION PCS Spurious & Harmonic (EIRP):

07/16/06 **High Frequency Substitution Measurement**
Compliance Certification Services, Morgan Hill 5m Chamber Site

Test Engr:Chin Pang
Project #:06U10443
Company:Toshiba
Test Target:FCC Part 24
Mode Oper:EVDO TX, PCS Mobile Config

Test Equipment:

EMCO Horn 1-18GHz: T73; S/N: 6717 @3m
Horn > 18GHz:
Limit: FCC 24
☑ High Pass Filter
Hi Frequency Cables: ☐ (2 ft) ☑ (2 ~ 3 ft) ☐ (4 ~ 6 ft) ☑ (12 ft)
Pre-amplifer 1-26GHz: T145 Agilent 3008A
Pre-amplifer 26-40GHz:

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch										
3.702	51.3	V	-52.3	2.4	9.5	7.3	-45.3	-13.0	-32.3	
5.538	45.0	V	-54.7	3.2	10.7	8.5	-47.2	-13.0	-34.2	
7.405	45.0	V	-53.2	3.7	12.0	9.8	-45.0	-13.0	-32.0	
3.702	51.0	H	-52.5	2.4	9.5	7.3	-45.5	-13.0	-32.5	
5.538	45.0	H	-53.7	3.2	10.7	8.5	-46.2	-13.0	-33.2	
7.405	44.6	H	-52.8	3.7	12.0	9.8	-44.6	-13.0	-31.6	
Mid Ch										
3.760	53.2	V	-50.2	2.5	9.5	7.3	-43.1	-13.0	-30.1	
5.640	45.5	V	-54.4	3.3	10.9	8.7	-46.8	-13.0	-33.8	
7.520	44.6	V	-53.4	3.7	11.9	9.8	-45.2	-13.0	-32.2	
3.760	54.0	H	-49.3	2.5	9.5	7.3	-42.2	-13.0	-29.2	
5.640	45.0	H	-53.9	3.3	10.9	8.7	-46.3	-13.0	-33.3	
7.520	44.5	H	-52.7	3.7	11.9	9.8	-44.5	-13.0	-31.5	
High Ch										
3.818	59.5	V	-43.6	2.5	9.5	7.3	-36.6	-13.0	-23.6	
5.726	46.0	V	-54.1	3.3	11.1	8.9	-46.3	-13.0	-33.3	
7.635	45.0	V	-52.7	3.8	11.9	9.8	-44.6	-13.0	-31.6	
9.544	47.6	V	-49.5	4.3	12.4	10.3	-41.4	-13.0	-28.4	
3.818	61.5	H	-41.5	2.5	9.5	7.3	-34.5	-13.0	-21.5	
5.726	45.0	H	-54.1	3.3	11.1	8.9	-46.3	-13.0	-33.3	
7.635	45.0	H	-51.9	3.8	11.9	9.8	-43.8	-13.0	-30.8	

PORTABLE CONFIGURATION PCS Spurious & Harmonic (EIRP):

07/16/06 **High Frequency Substitution Measurement**
Compliance Certification Services, Morgan Hill 5m Chamber Site

Test Engr:Chin Pang
Project #:06U10443
Company:Toshiba
Test Target:FCC Part 24
Mode Oper:EVDO TX, PCS Portable Config (Worst Position)

Test Equipment:

EMCO Horn 1-18GHz: T73; S/N: 6717 @3m
Horn > 18GHz:
Limit: FCC 24
☑ High Pass Filter

Hi Frequency Cables: ☐ (2 ft) ☑ (2 ~ 3 ft) ☐ (4 ~ 6 ft) ☑ (12 ft)

Pre-amplifer 1-26GHz: T145 Agilent 3008A
Pre-amplifer 26-40GHz:

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch										
3.702	54.6	V	-49.0	2.4	9.5	7.3	-42.0	-13.0	-29.0	
5.538	45.2	V	-54.5	3.2	10.7	8.5	-47.0	-13.0	-34.0	
7.405	44.0	V	-54.2	3.7	12.0	9.8	-46.0	-13.0	-33.0	
3.702	53.8	H	-49.7	2.4	9.5	7.3	-42.7	-13.0	-29.7	
5.538	44.5	H	-54.2	3.2	10.7	8.5	-46.7	-13.0	-33.7	
7.405	43.6	H	-53.8	3.7	12.0	9.8	-45.6	-13.0	-32.6	
Mid Ch										
3.760	53.0	V	-50.4	2.5	9.5	7.3	-43.3	-13.0	-30.3	
5.640	45.0	V	-54.9	3.3	10.9	8.7	-47.3	-13.0	-34.3	
7.520	44.6	V	-53.4	3.7	11.9	9.8	-45.2	-13.0	-32.2	
3.760	51.7	H	-51.6	2.5	9.5	7.3	-44.5	-13.0	-31.5	
5.640	45.4	H	-53.5	3.3	10.9	8.7	-45.9	-13.0	-32.9	
7.520	43.8	H	-53.4	3.7	11.9	9.8	-45.2	-13.0	-32.2	
High Ch										
3.818	62.5	V	-40.6	2.5	9.5	7.3	-33.6	-13.0	-20.6	
5.726	45.3	V	-54.8	3.3	11.1	8.9	-47.0	-13.0	-34.0	
7.635	44.3	V	-53.4	3.8	11.9	9.8	-45.3	-13.0	-32.3	
3.818	60.5	H	-42.5	2.5	9.5	7.3	-35.5	-13.0	-22.5	
5.726	45.7	H	-53.4	3.3	11.1	8.9	-45.6	-13.0	-32.6	
7.635	44.3	H	-52.6	3.8	11.9	9.8	-44.5	-13.0	-31.5	
Note: No other emissions were detected above the system noise floor.										