

FCC CFR47 PART 22H AND PART 24E CERTIFICATION TEST REPORT

FOR

DUAL BAND 1X RTT CDMA PHONE WITH BLUETOOTH

MODEL NUMBER: SCP-2700

FCC ID: V65SCP-27H

REPORT NUMBER: 08U12291-1

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Prepared for

KYOCERA SANYO TELECOM, INC. 6800 COLLEGE BLVD. SUITE 620 OVERLAND PARK, KANSAS 66211, U.S.A.

Prepared by

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Revision History

Rev.	Issue Date	Revisions	Revised By
	12/18/08	Initial Issue	T. Chan

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: KYOCERA SANYO TELECOM, INC.

6800 COLLEGE BLVD. SUITE 620

OVERLAND PARK, KANSAS 66211, U.S.A.

EUT DESCRIPTION: DUAL BAND 1xRTT CDMA PHONE WITH BLUETOOTH

MODEL: SCP-2700

SERIAL NUMBER: A00000012FDC422

DATE TESTED: DECEMBER 16 AND 17, 2008

APPLICABLE STANDARDS

STANDARD TEST RESULTS

FCC PART 22 SUBPART H PASS

FCC PART 24 SUBPART E (Radiated Only)

Compliance Certification Services, Inc. (CCS) tested the above equipment in accordance with the requirements set forth in the above standards. All expressions of Pass/Fail in this report are opinions expressed by CCS based on interpretations of the test results. 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: Tested By:

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2. TEST METHODOLOGY

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

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, 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
Radiated Emission, Above 2000 MHz	+/- 4.3 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 1xRTT CDMA Phone with bluetooth that manufactures by Kyocera Sanyo Telecom, Inc.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak ERP and EIRP output powers as follows:

824 to 849 MHz Authorized Band

Frequency Range	Modulation	ERP	ERP	
		Peak Power	Peak Power	
(MHz)		(dBm)	(mW)	
Low CH - 824.70		25.9	389.0	
Mid CH - 836.52	CDMA2000	26.2	416.9	
High CH - 848.31		26.7	467.7	

1850 to 1910 MHz Authorized Band

Frequency Range	Modulation	EIRP	EIRP
		Peak Power	Peak Power
(MHz)		(dBm)	(mW)
Low CH - 1851.25		26.9	489.8
Mid CH - 1880.00	CDMA2000	27.4	549.5
High CH - 1908.75		27.3	537.0

5.3. SOFTWARE AND FIRMWARE

The EUT is linked with Agilent Communication Test Set.

5.4. WORST-CASE CONFIGURATION AND MODE

The worst-position was the EUT with highest emissions. To determine the worst-case, the EUT was investigated for X, Y, and Z-Positions, and the worst position among X, Y, and Z with AC/DC adapter, after the investigations, the worst-position to be the Z and Y-position with AC/DC adapter for Cell and PCS bands respectively.

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PROCEDURE USED TO ESTABLISH TEST SIGNAL

3G-CDMA2000 1xRTT

This procedure assumes the Agilent 8960 Test Set has the following applications installed and with valid license.

Application Rev, License CDMA2000 Mobil Test B.10.11, L

1xRTT

- Call Setup > Shift & Preset
- Protocol Rev > 6 (IS-2000-0)
- Radio Config (RC) > RC3 (Fwd3, Rvs3)
- FCH Service Option (SO) Setup > 32(+F-SCH)
- Traffic Data Rate > Full
- TDSO SCH Info > F-SCH Parameters > F-SCH Data Rate > 153.6 kbps

> R-SCH Parameters > R-SCH Data Rate > 153.6 kbps

Cell Info > Cell Parameters > System ID (SID) > 1 AND 2

> Network ID (NID) > 65535

Once "Active Cell" show "Connected" then change "Rvs Power Ctrl" from "Active bits" to "All Up bits" to get the maximum power.

Worst-case Measurement Result @ Low, Middle and High Channel

Worst-case Measurement Result for Low, Middle and High Channel under Radio Configuration RC3 and Service Option 32(+F-SCH).

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST									
Description Manufacturer Model Serial Number FCC ID									
AC/DC Adapter	SANYO	SCP-19ADT	4808B	DoC					
Earphone	N/A	N/A	N/A	N/A					

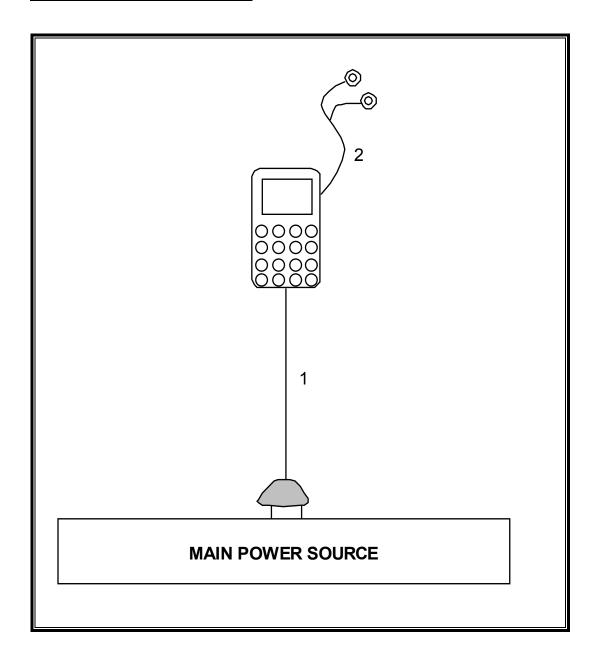
I/O CABLES

	I/O CABLE LIST									
Cable	Port	# of	Connector	Cable	Cable	Remarks				
No.		Identical	Type	Туре	Length					
		Ports								
1	DC Input	1	Mini USB	Un-Shielded	2.0 m	N/A				
2	Jack	1	Audio	Un-Shielded	0.8 m	N/A				

TEST SETUP

The EUT is a bluetooth featured CDMA phone and-is tested as a standalone configuration. Communications Test Set is used to link the device under test.

RADIATED TEST SETUP DIAGRAM



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	Asset	Cal Due			
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	11/16/09			
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01016	02/11/09			
Antenna, Horn, 18 GHz	EMCO	3115	C00945	04/22/09			
Antenna, Horn, 18 GHz	EMCO	3115	C00872	04/22/09			
Dipole	Speag	D900V2	NA	01/21/10			
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01012	03/03/09			
Highpass Filter, 1.5 GHz	Micro-Tronics	HPM13193	N02689`	CNR			
Highpass Filter, 2.7 GHz	Micro-Tronics	HPM13194	N02687	CNR			
Signal Generator	R & S	SMP04	C00953	02/16/09			
Communications Test Set	Agilent / HP	E5515C	C01086	06/16/09			

7. LIMITS AND RESULTS

7.1. RADIATED OUTPUT POWER

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.

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TEST PROCEDURE

ANSI / TIA / EIA 603 Clause 2.2.17

RESULTS

824 to 849 MHz Authorized Band

Frequency Range	Modulation	ERP	ERP
		Peak Power	Peak Power
(MHz)		(dBm)	(mW)
Low CH - 824.70		25.9	389.0
Mid CH - 836.52	CDMA2000	26.2	416.9
High CH - 848.31		26.7	467.7

1850 to 1910 MHz Authorized Band

Frequency Range	Modulation	EIRP	EIRP	
		Peak Power	Peak Power	
(MHz)		(dBm)	(mW)	
Low CH - 1851.25		26.9	489.8	
Mid CH - 1880.00	CDMA2000	27.4	549.5	
High CH - 1908.75		27.3	537.0	

CELL BAND CDMA OUTPUT POWER (ERP)

Cellular Fundamental Substitution Measurement

Compliance Certification Services, Fremont 5m Chamber

Company: KYOCERA SANYO TELECOM, INC.

Project #: 08U12290 Date: 12/16/2008

Test Engineer: MENGISTU MEKURIA

Configuration: EUT WITH HEADSET AND AC ADAPTER

Mode: TX CELL BAND

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, Thanh cable

f	SA reading	Ant. Pol.	SG reading	CL	Gain	ERP	Limit	Margin	Notes
МHz	(dBuV/m)	(H/V)	(dBm)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
824.20	101.9	V	26.4	0.5	0.0	25.9	38 <i>.</i> 5	-12.6	
824.20	96.2	H	19.9	0.5	0.0	19.4	38.5	-19.0	
836.50	101.8	v	26.7	0.5	0.0	26.2	38.5	-12.3	
836.50	97.8	H	21.2	0.5	0.0	20.7	38.5	-17.7	
848.80	101.7	V	27.2	0.5	0.0	26.7	38.5	-11.8	
848.80	96.7	H	21.2	0.5	0.0	20.7	38 <i>.</i> 5	-17.7	

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PCS BAND CDMA OUTPUT POWER (EIRP)

High Frequency Fundamental Measurement

Compliance Certification Services, Morgan Hill 5m Chamber Site

Company: KYOCERA SANYO TELECOM, INC.

Project #: 08U12290
Date: 12/16/2008

Test Engineer: MENGISTU MEKURIA

Configuration: EUT WITH HEADSET AND AC ADAPTER

Mode: TX PCS BAND

Test Equipment:

Receiving: Horn T73, and 20ft S/N: 228076 003

Substitution: Horn T60 Substitution, 4ft SMA Cable Warehouse S/N: 187215 001

f	SA reading	Ant. Pol.	SG reading	CL	Gain	EIRP	Limit	Margin	Notes
GHz	(dBuV/m)	(H/V)	(dBm)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
Low Ch									
1.851	94.6	V	19.2	0.0	8.3	26.9	33.0	-6.l	
1.851	92.7	Н	16.5	ბ.0	8.3	24.2	33.0	-8.8	
Mid Ch								,	
1.880	95.2	V	19.7	0.6	8.3	27.4	33.0	-5.6	
1.880	92.8	Н	16.9	ኢዐ	8.3	24.6	33.0	-8.4	
High Ch									
1.909	94.7	V	19.6	0.7	8.4	27.3	33.0	-5.7	
1.909	93.5	H	17.2	0.7	8.4	24.9	33.0	-8.1	

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7.2. FIELD STRENGTH OF SPURIOUS EMISSION

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.

§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

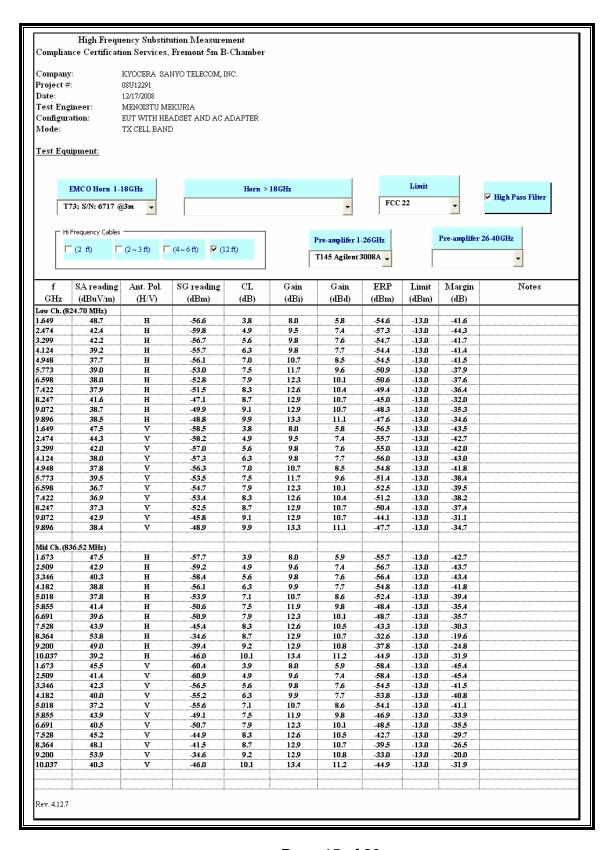
ANSI / TIA / EIA 603 Clause 3.2.12 & FCC 22.917 (b), FCC 24.238 (b)

RESULTS

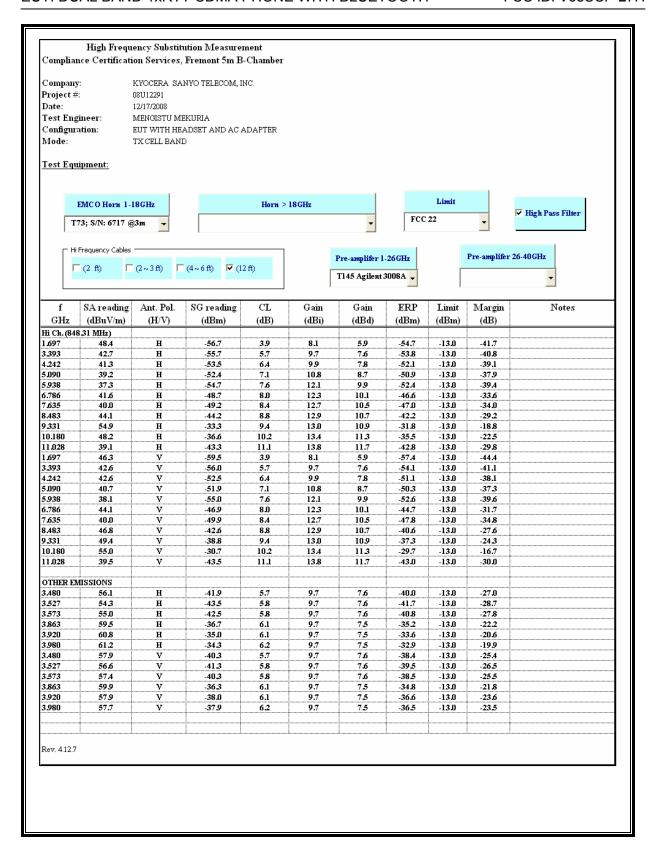
Note: No emissions were found within 30-1000MHz & after the seventh harmonic for CELL and fifth for harmonic PCS bands of 20dB below the system noise.

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CELL BAND CDMA SPURIOUS & HARMONIC (ERP)



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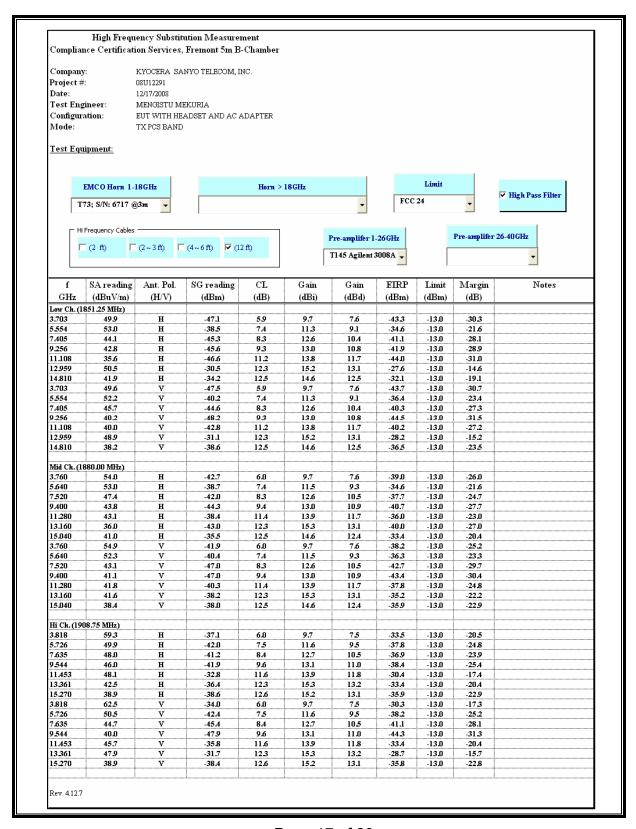


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PCS BAND CDMA SPURIOUS & HARMONIC (EIRP)



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