



**FCC CFR47 PART 22 SUBPART H
AND
PART 24 SUBPART E AND PART 27
CERTIFICATION TEST REPORT
FOR**

CDMA2000 PHONE WITH BLUETOOTH

**MODEL NUMBER: K33B-04
FCC ID: OVFKWC-K33B04**

REPORT NUMBER: 08U11546-1

ISSUE DATE: JANUARY 22, 2008

Prepared for

**KYOCERA WIRELESS CORP
10300 CAMPUS POINT DRIVE
SAN DIEGO, CA 92121, U.S.A.**

Prepared by

**COMPLIANCE CERTIFICATION SERVICES
47173 BENICIA STREET
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NVLAP LAB CODE 200065-0

Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
--	1/22/08	Initial Issue	T. Chan

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: KYOCERA WIRELESS
10300 CAMPUS POINT DRIVE
SAN DIEGO, CA 92121, USA

EUT DESCRIPTION: CDMA2000 PHONE WITH BLUETOOTH

MODEL: K33B-04

SERIAL NUMBER: 806F8185

DATE TESTED: JANUARY 11-14, 2008

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 22 SUBPART H	No Non-Compliance Noted
FCC PART 24 SUBPART E	No Non-Compliance Noted
FCC PART 27 SUBPART K	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:

Tested By:



THU CHAN
EMC SUPERVISOR
COMPLIANCE CERTIFICATION SERVICES

CHIN PANG
EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with TIA/EIA 603A (2001), FCC CFR 47 Part 2, and FCC CFR 47 Part 22.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

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 CDMA2000 Phone with Bluetooth.

The radio module is manufactured by Kyocera.

5.2. MAXIMUM OUTPUT POWER

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

824 to 849 MHz Authorized Band

Frequency Range (MHz)	Modulation	ERP Peak Power (dBm)	ERP Peak Power (mW)
Low CH - 824.7	CDMA2000	28.1	645.65
Mid CH - 836.5		28.8	758.58
High CH - 848.3		27.9	616.60

1850 to 1910 MHz Authorized Band

Frequency Range (MHz)	Modulation	EIRP Peak Power (dBm)	EIRP Peak Power (mW)
Low CH - 1851.25	CDMA2000	23.0	199.53
Mid CH - 1880		23.3	213.80
High CH - 1908.75		24.2	263.03

1710 to 1755 MHz Authorized Band

Frequency Range (MHz)	Modulation	EIRP Peak Power (dBm)	EIRP Peak Power (mW)
Low CH - 1711	AWS	25.5	354.81
MID-Ch- 1733		25.8	380.19
High CH - 1754		26.9	489.78

5.3. SOFTWARE AND FIRMWARE

The EUT is linked with Agilent Communication Test Set.

5.4. WORST-CASE CONFIGURATION AND MODE

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.

<u>Application</u>	<u>Rev, License</u>
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) > 8
> 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

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	FCC ID
Lithium Battery	Sanyo	TXBAT10159	NA	NA
Communications Test Set	Agilent/HP	E5515C	GB4616022	NA

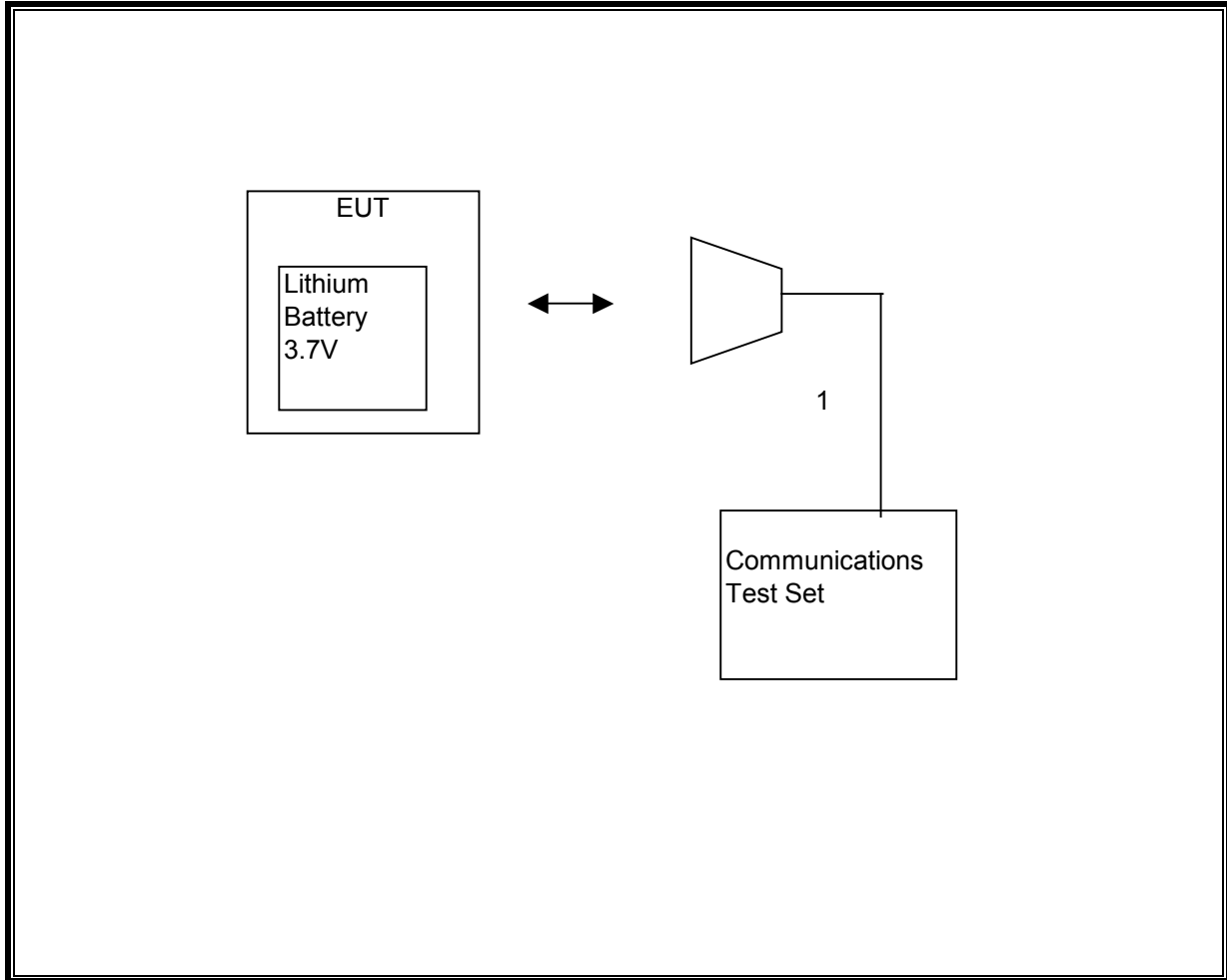
I/O CABLES

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	RF IN/OUT	1	Horn Antenna	Un-shielded	2m	NA

TEST SETUP

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

SETUP DIAGRAM FOR TESTS



5.6. 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 Date	Cal Due
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	12/14/07	03/18/08
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	10/03/07	09/27/08
Horn	EMCO	3115	C00945	04/15/07	04/15/08
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01011	09/15/07	09/30/08
Preamplifier, 1300 MHz	Agilent / HP	8447D	NA	05/09/07	05/09/08
EMI Receiver, 2.9 GHz	Agilent / HP	8542E	C00957	02/06/07	06/12/08
RF Filter Section, 2.9 GHz	Agilent / HP	85420E	C00958	02/06/07	06/12/08
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	10/16/07	10/27/08
LISN, 30 MHz	FCC	LISN-50/250-25-2	N02625	09/15/07	08/29/08
Communications Test Set	Agilent / HP	E5515C	C01086	06/29/07	06/29/08
Highpass Filter, 1.5 GHz	Micro-Tronics	HPM13193	N02689	CNR	CNR
Highpass Filter, 2.7 GHz	Micro-Tronics	HPM13194	N02687	CNR	CNR
Dipole	Speag	D900V2	NA	11/16/07	11/16/08
Signal Generator	R & S	SMP04	C00953	11/16/07	02/16/09
Signal Generator	R & S	SMY01	C00979	11/28/07	05/28/09

5.6.1. OUTPUT POWER

LIMITS

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.

27.50 (d) (2) Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band are limited to a peak EIRP of 1 watt.

TEST PROCEDURE

ANSI / TIA / EIA 603 Clause 2.2.17

RESULTS

No non-compliance noted.

CDMA Output Power (ERP)

High Frequency Substitution Measurement									
Compliance Certification Services, Fremont 5m Chamber									
Company: Kyocera									
Project #: 08U11546									
Date: 1/11/2008									
Test Engineer: Chun Pang									
Configuration: EUT only									
Mode: CDMA2000, TX, Cell									
Worst Position, X Axis									
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
Low Ch									
824.70	92.7	V	19.1	0.5	0.0	18.6	38.5	-19.8	
824.70	103.9	H	28.6	0.5	0.0	28.1	38.5	-10.4	
Mid Ch									
836.52	93.0	V	20.0	0.6	0.0	19.4	38.5	-19.0	
836.52	104.5	H	29.4	0.6	0.0	28.8	38.5	-9.6	
High Ch									
848.30	93.2	V	20.0	0.7	0.0	19.3	38.5	-19.1	
848.30	104.1	H	28.6	0.7	0.0	27.9	38.5	-10.6	
Rev. 1.24.7									

PCS Output Power (EIRP)

High Frequency Fundamental Measurement									
Compliance Certification Services, Fremont 5m Chamber									
Company: Kyocera									
Project #: 07U11546									
Date: 1/12/2008									
Test Engineer: Chin Pang									
Configuration: EUT Only									
Mode: TX, CDM2000, PCS									
<u>Test Equipment:</u>									
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
Low Ch									
1.851	89.0	V	15.6	0.9	8.3	23.0	33.0	-10.0	
1.851	85.2	H	11.3	0.9	8.3	18.7	33.0	-14.3	
Mid Ch									
1.880	90.2	V	15.9	0.9	8.3	23.3	33.0	-9.7	
1.880	84.6	H	9.8	0.9	8.3	17.2	33.0	-15.8	
High Ch									
1.909	90.0	V	16.7	0.9	8.4	24.2	33.0	-8.8	
1.909	83.0	H	10.2	0.9	8.4	17.7	33.0	-15.4	
Rev. 1.24.7									

AWS Output Power (EIRP)

High Frequency Fundamental Measurement									
Compliance Certification Services, Fremont 5m Chamber Site									
Company:Kyocera									
Project #:07U11546									
Date: 1/12/2007									
Test Engineer: Chin Pang									
Configuration: EUT Only									
Mode:AWS, CDMA1700									
Test Equipment:									
Receiving: Horn T60, and Chamber B 2 12ft S/N: 197209005 (Setup this one for testing EUT)									
Substitution: Horn T59 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
Low Ch									
1.711	92.6	V	18.4	0.9	8.0	25.5	30.0	-4.6	
1.711	83.7	H	8.7	0.9	8.0	15.8	30.0	-14.2	
Mid Ch									
1.733	92.9	V	18.7	0.9	8.0	25.8	30.0	-4.2	
1.733	83.5	H	8.8	0.9	8.0	15.9	30.0	-14.1	
High Ch									
1.754	93.6	V	19.8	0.9	8.0	26.9	30.0	-3.1	
1.754	83.0	H	8.9	0.9	8.0	16.0	30.0	-14.0	
Rev. 1.24.7									

5.6.2. 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.

§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.

§27.53 (g) For operations in the 1710–1755MHz and 2110–2155 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10} (P)$ dB.

TEST PROCEDURE

ANSI / TIA / EIA 603 Clause 3.2.12 & FCC 22.917 (b), FCC 24.238 (b), & FCC 27.53 (g)(1)(2)(3)

RESULTS

CDMA Spurious & Harmonic (ERP)

High Frequency Substitution Measurement
 Compliance Certification Services, Fremont 5m B-Chamber

Company: Kyocera
 Project #: 08U11546
 Date: 1/12/2008
 Test Engineer: Chin Pang
 Configuration: EUT Only
 Mode: TX, Part 22, CDMA2000

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-amplifier 1-26GHz
 T145 Agilent 3008A

Pre-amplifier 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, 824.2MHz										
1.648	47.0	H	-58.3	3.8	8.0	5.8	-56.3	-13.0	-43.3	
2.472	45.4	H	-56.8	4.9	9.5	7.4	-54.3	-13.0	-41.3	
4.121	41.0	H	-54.0	6.3	9.8	7.7	-52.6	-13.0	-39.6	
1.648	55.0	V	-51.0	3.8	8.0	5.8	-49.0	-13.0	-36.0	
2.472	45.6	V	-56.8	4.9	9.5	7.4	-54.3	-13.0	-41.3	
4.121	43.3	V	-52.0	6.3	9.8	7.7	-50.6	-13.0	-37.6	
Mid Ch, 836.52MHz										
1.673	47.8	H	-57.4	3.9	8.0	5.9	-55.4	-13.0	-42.4	
2.510	44.8	H	-57.3	4.9	9.6	7.4	-54.8	-13.0	-41.8	
4.182	43.5	H	-51.4	6.3	9.9	7.7	-50.0	-13.0	-37.0	
1.673	56.0	V	-49.9	3.9	8.0	5.9	-47.9	-13.0	-34.9	
2.510	46.8	V	-55.5	4.9	9.6	7.4	-53.0	-13.0	-40.0	
4.182	45.0	V	-50.2	6.3	9.9	7.7	-48.8	-13.0	-35.8	
High Ch, 848.8MHz										
1.697	51.6	H	-53.5	3.9	8.1	5.9	-51.4	-13.0	-38.4	
2.546	45.2	H	-56.8	4.9	9.6	7.4	-54.3	-13.0	-41.3	
4.244	42.8	H	-52.0	6.4	9.9	7.8	-50.6	-13.0	-37.6	
1.697	58.0	V	-47.8	3.9	8.1	5.9	-45.7	-13.0	-32.7	
2.546	48.0	V	-54.2	4.9	9.6	7.4	-51.7	-13.0	-38.7	
4.244	44.6	V	-50.5	6.4	9.9	7.8	-49.1	-13.0	-36.1	

Rev. 4.12.7
 Note: No other emissions were detected above the system noise floor.

PCS Spurious & Harmonic (EIRP):

High Frequency Substitution Measurement
 Compliance Certification Services, Fremont 5m B-Chamber

Company: Kyocera
 Project #: 08U11546
 Date: 1/12/2008
 Test Engineer: Chun Pang
 Configuration: EUT Only
 Mode: TX, Part 24, CDMA2000

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-amplifier 1-26GHz
T145 Agilent 3008A

Pre-amplifier 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, 1851.25MHz										
3.703	43.7	H	-53.3	5.9	9.7	7.6	-49.5	-13.0	-36.5	
5.554	42.5	H	-49.0	7.4	11.3	9.1	-45.1	-13.0	-32.1	
7.405	41.7	H	-47.8	8.3	12.6	10.4	-43.5	-13.0	-30.5	
3.703	45.3	V	-51.8	5.9	9.7	7.6	-48.0	-13.0	-35.0	
5.554	43.5	V	-49.0	7.4	11.3	9.1	-45.1	-13.0	-32.1	
7.405	42.0	V	-48.3	8.3	12.6	10.4	-44.0	-13.0	-31.0	
Mid Ch, 1880MHz										
3.760	45.0	H	-51.7	6.0	9.7	7.6	-48.0	-13.0	-35.0	
5.640	43.4	H	-48.3	7.4	11.5	9.3	-44.2	-13.0	-31.2	
7.520	42.3	H	-47.1	8.3	12.6	10.5	-42.8	-13.0	-29.8	
3.760	47.0	V	-49.8	6.0	9.7	7.6	-46.1	-13.0	-33.1	
5.640	45.3	V	-47.4	7.4	11.5	9.3	-43.3	-13.0	-30.3	
7.520	44.1	V	-46.1	8.3	12.6	10.5	-41.8	-13.0	-28.8	
High Ch, 1908.75MHz										
3.817	45.3	H	-51.1	6.0	9.7	7.5	-47.4	-13.0	-34.4	
5.726	43.6	H	-48.3	7.5	11.6	9.5	-44.1	-13.0	-31.1	
7.635	42.8	H	-46.4	8.4	12.7	10.5	-42.1	-13.0	-29.1	
3.817	46.5	V	-50.0	6.0	9.7	7.5	-46.3	-13.0	-33.3	
5.726	45.0	V	-47.9	7.5	11.6	9.5	-43.7	-13.0	-30.7	
7.635	44.6	V	-45.4	8.4	12.7	10.5	-41.1	-13.0	-28.1	

Rev. 412.7
Note: No other emissions were detected above the system noise floor.

AWS 1700MHz S Spurious & Harmonic (EIRP):

High Frequency Substitution Measurement
 Compliance Certification Services, Fremont 5m B-Chamber

Company: Kyocera
 Project #:08U11546
 Date: 1/12/2008
 Test Engineer: Chin Pang
 Configuration: EUT Only
 Mode: TX, AWS, 1700MHz

Test Equipment:

EMCO Horn 1-18GHz
T73; S/N: 6717 @3m

Horn > 18GHz

Limit
FCC 27

✓ High Pass Filter

Hi Frequency Cables

(2 ft)
 (2~3 ft)
 (4~6 ft)
 (12 ft)

Pre-amplifier 1-26GHz
T145 Agilent 3008A

Pre-amplifier 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, 1711MHz										
3.422	47.2	H	-51.1	5.7	9.7	7.6	-47.1	-13.0	-34.1	
5.133	46.5	H	-45.1	7.2	10.9	8.7	-41.4	-13.0	-28.4	
6.844	43.6	H	-46.6	8.0	12.3	10.1	-42.4	-13.0	-29.4	
3.422	50.1	V	-48.3	5.7	9.7	7.6	-44.3	-13.0	-31.3	
5.133	53.0	V	-39.6	7.2	10.9	8.7	-35.9	-13.0	-22.9	
6.844	43.7	V	-47.2	8.0	12.3	10.1	-42.9	-13.0	-29.9	
Mid Ch, 1733MHz										
3.465	47.5	H	-50.6	5.7	9.7	7.6	-46.6	-13.0	-33.6	
5.199	45.3	H	-46.1	7.2	10.9	8.8	-42.4	-13.0	-29.4	
6.932	43.2	H	-46.8	8.0	12.3	10.1	-42.6	-13.0	-29.6	
3.465	48.0	V	-50.2	5.7	9.7	7.6	-46.2	-13.0	-33.2	
5.199	50.5	V	-41.9	7.2	10.9	8.8	-38.2	-13.0	-25.2	
6.932	45.6	V	-45.1	8.0	12.3	10.1	-40.9	-13.0	-27.9	
High Ch, 1754MHz										
3.508	46.4	H	-51.5	5.8	9.7	7.6	-47.6	-13.0	-34.6	
5.262	46.0	H	-45.4	7.3	11.0	8.8	-41.7	-13.0	-28.7	
7.016	42.0	H	-47.9	8.1	12.3	10.2	-43.7	-13.0	-30.7	
3.508	52.0	V	-46.0	5.8	9.7	7.6	-42.1	-13.0	-29.1	
5.262	47.5	V	-44.9	7.3	11.0	8.8	-41.2	-13.0	-28.2	
7.016	44.5	V	-46.2	8.1	12.3	10.2	-42.0	-13.0	-29.0	

Rev. 412.7
 Note: No other emissions were detected above the system noise floor.