

This document was generated in response to a request for additional technical information by Steve Dayhoff in regards to the type approval of the KWC-3225. The information included in the specific topic discussed in the following email received by Lin Lu on November 25, 2002:

From: oetech@fccsun34w.fcc.gov  
Date: Mon, 25 Nov 2002 14:01:14 -0500 (EST)  
To: LLu@kyocera-wireless.com  
X-BigFish: cs0(zz655Izzzzz3i)v

To: Lin Lu, Kyocera Wireless Corp  
From: Steve Dayhoff  
sdayhoff@fcc.gov  
FCC Application Processing Branch  
Re: FCC ID OVFKWC-3225  
Applicant: Kyocera Wireless Corp  
Correspondence Reference Number: 24421  
731 Confirmation Number: EA129613

1) User manual pdf pg 3 PCS SAR does not agree with SAR report pdf pg 7. Please revise pages as needed.

## 1) Revised User's Guide and SAR report

There was a typo in the User's Guide. The PCS SAR data in the User's Guide, page 3 has been revised from

*“PCS mode-head: **1.10** mW/g; Body-worn: 0.279 mW/g with KWC universal belt clip CE90-B1700-01.”*

To

*“PCS mode-head: **1.12** mW/g; Body-worn: 0.279 mW/g with KWC universal belt clip CE90-B1700-01.”*

The related page of new User's Guide is attached in the following page.

There was a typo in the SAR report, page 4. The following table in the page 4 has been revised from

Mode/Ch/f(MHz)	Conducted Power	Device Position	Limit (mW/g)	Measured (mW/g)	Result
FM/383/836.49	26.00 dBm	Left Tilt	1.6	1.30	<b>PASSED</b>
PCS/600/1880	23.06 dBm	<b>Left Cheek</b>	1.6	1.12	<b>PASSED</b>

To

Mode/Ch/f(MHz)	Conducted Power	Device Position	Limit (mW/g)	Measured (mW/g)	Result
FM/383/836.49	26.00 dBm	Left Tilt	1.6	1.30	<b>PASSED</b>
PCS/600/1880	23.06 dBm	<b>Right Cheek</b>	1.6	1.12	<b>PASSED</b>

This revised page is attached in the proceeding page. The complete SAR report (revised) is re-submitted with this response via OET site.

#### **FCC/IC Notice**

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

To maintain compliance with FCC RF exposure guidelines, if you wear a handset on your body, use the Kyocera Wireless Corp. (KWC) supplied and approved leather case CA90-61068-01 and universal belt clip CE90-B1700-01).

Other accessories used with this device for body-worn operations must not contain any metallic components and must provide at least 22.5 mm separation distance including the antenna and the user's body.

#### **THIS MODEL PHONE MEETS THE GOVERNMENT'S REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.**

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg.\* Tests for SAR are conducted using standard operating positions specified by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands.

Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.

Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. The tests are performed in positions and locations (e.g., at the ear and worn on the body) as required by the FCC for each model. The highest SAR values for this model phone are:

AMPS mode-head: 1.30 mW/g; Body-worn: 0.649 mW/g with KWC leather case CA90-61068-01.

PCS mode-head: 1.12 mW/g; Body-worn: 0.279 mW/g with KWC universal belt clip CE90-B1700-01.

(Body-worn measurements differ among phone models, depending upon availability of accessories and FCC requirements. The body-worn SAR values provided above were obtained by using Kyocera Wireless Corp. (KWC) supplied and approved leather case CA90-61068-01 and universal belt clip CE90-B1700-01).

While there may be differences between the SAR levels of various phones and at various positions, they all meet the government requirement for safe exposure.

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section <http://www.fcc.gov/oet/fccid> after searching on FCC ID OVFKWC-3225. Additional information on SAR can be found on the Cellular Telecommunications and Internet Association (CTIA) web-site at <http://www.wow-com.com>.

Company <b>Kyocera Wireless Corp.</b>		Document No.	
<b>KWC-3225 SAR REPORT</b>		Issue No:	Date <b>Oct. 2002</b>
FCC ID <b>OVFKWC-3225</b>		Page Number <b>4</b>	

## 2 SAR TEST RESULT SUMMARY

This device has been tested for localised specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in ANSI/IEEE Std. C95.1 ~ 1992 and has been tested in accordance with the measurement procedures specified in IEEE P1528-200X Draft 6.5. Normal antenna operating positions were incorporated, with the device transmitting at frequencies consistent with normal usage of the device. The device has been shown to be capable of compliance for localised specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in ANSI/IEEE std. C95.1-1992

### 2.1 Maximum Results Found during SAR Evaluation

The equipment is deemed to fulfil the requirements if the measured values are less than or equal to the limit.

#### 2.1.1 Head Configuration

Mode/Ch/f(MHz)	Conducted Power	Device Position	Limit (mW/g)	Measured (mW/g)	Result
FM/383/836.49	26.00 dBm	Left Tilt	1.6	1.30	<b>PASSED</b>
PCS/600/1880	23.06 dBm	Right Cheek	1.6	1.12	<b>PASSED</b>

#### 2.1.2 Body Worn Configuration (with KWC body worn accessories)

Mode/Ch/f(MHz)	Conducted Power	Device Position	Limit (mW/g)	Measured (mW/g)	Result
FM/991/824.04	26.02 dBm	Waist level	1.6	0.649	<b>PASSED</b>
PCS/600/1880	23.06 dBm	Waist level	1.6	0.279	<b>PASSED</b>

#### 2.1.3 Measurement Uncertainty

<b>Combined Uncertainty (Assessment &amp; Source)</b>	<b>± 10.32 %</b>
<b>Extended Uncertainty (k=2)</b>	<b>± 20.6 %</b>