

携帯電話の比吸収率 (SAR) について / Specific Absorption Rate (SAR) of Mobile Phones

1. Z-01K の SAR / About SAR of Z-01K

(日本語)

この機種【Z-01K】の携帯電話機は、国が定めた電波の人体吸収に関する技術基準および電波防護の国際ガイドラインに適合しています。

この携帯電話機は、国が定めた電波の人体吸収に関する技術基準(※1)ならびに、これと同等な国際ガイドラインが推奨する電波防護の許容値を遵守するよう設計されています。この国際ガイドラインは世界保健機関(WHO)と協力関係にある国際非電離放射線防護委員会(ICNIRP)が定めたものであり、その許容値は使用者の年齢や健康状況に関係なく十分な安全率を含んでいます。

国の技術基準および国際ガイドラインは電波防護の許容値を人体に吸収される電波の平均エネルギー量を表す比吸収率(SAR: Specific Absorption Rate)で定めており、携帯電話機に対するSARの許容値は2.0W/kgです。この携帯電話機の頭部におけるSARの最大値は**1.20 W/kg**(※2)、身体に装着した場合のSARの最大値は**1.76 W/kg**(※3)です。個々の製品によってSARに多少の差異が生じることもありますが、いずれも許容値を満足しています。

携帯電話機は、携帯電話基地局との通信に必要な最低限の送信電力になるよう設計されているため、実際に通話等を行っている状態では、通常SARはより小さい値となります。一般的には、基地局からの距離が近いほど、携帯電話機の出力は小さくなります。

この携帯電話機は、側頭部以外の位置でも使用可能です。キャリングケース等のアクセサリをご使用するなどして、身体から0.5センチ以上離し、かつその間に金属(部分)が含まれないようにしてください。このことにより、本携帯電話機が国の技術基準および電波防護の国際ガイドラインに適合していることを確認しています。

世界保健機関は、『携帯電話が潜在的な健康リスクをもたらすかどうかを評価するために、これまで20年以上にわたって多数の研究が行われてきました。今日まで、携帯電話使用によって生じるとされる、いかなる健康影響も確立されていません。』と表明しています。

さらに詳しい情報をお知りになりたい場合には世界保健機関のホームページをご参照ください。

http://www.who.int/docstore/peh-emf/publications/facts_press/fact_japanese.htm

SARについて、さらに詳しい情報をお知りになりたい方は、下記のホームページをご参照ください。

総務省のホームページ <http://www.tele.soumu.go.jp/j/sys/ele/index.htm>

一般社団法人電波産業会のホームページ <http://www.arib-emf.org/01denpa/denpa02-02.html>

ZTE Corporationのホームページ <http://www.zte.co.jp/products/handsets/sar/>

※1 技術基準については、電波法関連省令(無線設備規則第14条の2)で規定されています。

※2 LTE/FOMAと同時に使用可能な無線機能を含みます。

※3 LTE/FOMAと同時に使用可能な無線機能を含みます。

(In English)

This model [Z-01K] mobile phone complies with Japanese technical regulations and international guidelines regarding exposure to radio waves.

This mobile phone was designed in observance of Japanese technical regulations regarding exposure to radio waves (*1) and limits to exposure to radio waves recommended by a set of equivalent international guidelines. This set of international guidelines was set out by the International Commission on Non-Ionizing Radiation Protection (ICNIRP), which is in collaboration with the World Health Organization (WHO), and the permissible limits include a substantial safety margin designed to assure the safety of all persons, regardless of age and health condition.

The technical regulations and international guidelines set out limits for radio waves as the Specific Absorption Rate, or SAR, which is the value of absorbed energy in any 10 grams of tissue over a 6-minute period. The SAR limit for mobile phones is 2.0 W/kg. The highest SAR value for this mobile phone when tested for use near the head is **1.20 W/kg** (*2) and when worn on the body is **1.76 W/kg** (*3). There may be slight differences between the SAR levels for each product, but they all satisfy the limit.

The actual SAR of this mobile phone while operating can be well below that indicated above. This is due to automatic changes to the power level of the device to ensure it only uses the minimum required to reach the network. Therefore in general, the closer you are to a base station, the lower the power output of the device.

This mobile phone can be used in positions other than against your ear. Please keep the mobile phone farther than 0.5 cm away from your body by using such as a carrying case or a wearable accessory without including any metals. This mobile phone satisfies the technical regulations and international guidelines.

The World Health Organization has stated that "a large number of studies have been performed over the last two decades to assess whether mobile phones pose a potential health risk. To date, no adverse health effects have been established as being caused by mobile phone use."

Please refer to the WHO website if you would like more detailed information.

http://www.who.int/docstore/peh-emf/publications/facts_press/fact_english.htm

Please refer to the websites listed below if you would like more detailed information regarding SAR.

Ministry of Internal Affairs and Communications Website: <http://www.tele.soumu.go.jp/e/sys/ele/index.htm>

Association of Radio Industries and Businesses Website: <http://www.arib-emf.org/01denpa/denpa02-02.html>

(in Japanese only)

ZTE Corporation Website: <http://www.zte.co.jp/products/handsets/sar/> (in Japanese only)

*1 Technical regulations are defined by the Ministerial Ordinance Related to Radio Law (Article 14-2 of Radio Equipment Regulations).

*2 Including other radio systems that can be simultaneously used with LTE/FOMA.

*3 Including other radio systems that can be simultaneously used with LTE/FOMA.

2. About SAR of Z-01K for FCC RF exposure requirements

Radio Wave Exposure and Specific Absorption Rate (SAR) Information

This device meets the government's requirements for exposure to radio waves.

This device 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:

The exposure standard for wireless mobile devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg.

Tests for SAR are conducted using standard operating positions accepted by the FCC with the device 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 device while operating can be well below the maximum value. This is because the device 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. The highest SAR value for the device as reported to the FCC when tested for use at the ear is **1.534 W/kg** and when worn on the body, as described in this user guide, is **0.959 W/kg** (Body-worn measurements differ among device models, depending upon available enhancements and FCC requirements.)

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

The FCC has granted an Equipment Authorization for this device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this device is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/ea/fccid/> after searching on:

FCC ID:SRQ-Z-01K

For body worn operation, this device has been tested and meets the FCC RF exposure guidelines for use with an accessory that contains no metal and the positions the handset a minimum of 1 cm from the body. Use of other enhancements may not ensure compliance with FCC RF exposure guidelines. If you do not use a body-worn accessory and are not holding the device at the ear, position the handset a minimum of 1 cm from your body when the device is switched on.

3. About SAR of Z-01K for EU RF exposure requirements

Radio Wave Exposure and Specific Absorption Rate (SAR) Information

Your mobile device is a radio transmitter and receiver. It is designed not to exceed the limits for exposure to radio waves recommended by international guidelines.

These guidelines were developed by the independent scientific organization ICNIRP and include safety margins designed to assure the protection of all persons, regardless of age and health.

The guidelines use a unit of measurement known as Specific Absorption Rate, or SAR. The SAR limit for mobile devices is 2 W/kg and the highest SAR value for this device when tested at the head was **0.575 W/kg**, and when tested at the body was **1.777 W/kg**. As mobile devices offer a range of functions, they can be used in other positions, such as on the body as described in the user manual.

This device was tested for typical body support operations.

To comply with RF exposure requirements, a minimum separation distance of 0.5 cm must be maintained between the user's body and the device, including the antenna.

Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components.

Regulatory Conformance Hereby, ZTE Corporation declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

Declaration of Conformity for Z-01K

It is hereby declared that following designated product:

Product Type: LTE/WCDMA/GSM Multi-Mode Digital Mobile Phone

Model No: Z-01K

Product Description: LTE/WCDMA/GSM Multi-Mode Digital Mobile Phone

Complies with the essential protection requirements of Directives on Radio Equipment Directive 2014/53/EU, Restriction of the Certain Hazardous Substances in electrical and electronic equipment (Directive 2011/65/EU) and their amendments.