## 携帯電話機の電波防護への適合性について

**この機種【SC-52F】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)を遵守するよう設計されています。この技術基準は、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）や米国電気電子学会（IEEE）電磁界安全に係る国際委員会（ICES）が定める電波防護許容値との整合性を考慮しつつ国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、6 GHz 以下の周波数の場合）および電力密度（PD: Power Density、6 GHz を超える周波数の場合）で定めており、携帯電話機に対する SAR、PD の許容値はそれぞれ 2 W/kg、2 mW/cm$^2$ です。また、それぞれの指標で評価すべき無線機能が同時に動作する場合には、総合照射比で示すことを規定しています。総合照射比が 1 以下であれば、許容値を満足しています。

この携帯電話機の総合照射比は、側頭部における最大値：**0.99** (※2)、身体に装着した場合の最大値：**0.84** (※3)となっています(※4)。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、PD はより小さい値となります。個々の製品によってこれらの数値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。

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 1.5 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。

携帯電話機の電波防護について、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
https://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
https://www.arib-emf.org/01denpa/denpa02-02.html
ドコモのホームページ
https://www.nttdocomo.co.jp/product/sar/
Samsung のホームページ（※5）
https://www.samsung.com/sar/sarMain.do
→ LOCATION 欄で「JAPAN」 → Phone Model 欄で「SC-52F」を入力 → 「GO」

※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　5G／LTE と同時に使用可能な無線機能を含みます。

※3　5G／LTE と同時に使用可能な無線機能を含みます。

※4　この携帯電話機の総合照射比を算出するために使用した値は、側頭部：SAR 1.489 W/kg、PD（入射電力密度）0.506 $mW/cm^2$、身体装着時：SAR 0.989 W/kg、PD（入射電力密度） 0.691 $mW/cm^2$ です。

※5　総合照射比を算出するために使用した SAR 値とホームページに掲載の SAR 値は異なる場合があります。

## Compliance Information on Human Exposure to Radio Waves of Mobile Phones

**This model [SC-52F] mobile phone complies with the Japanese technical regulations regarding human exposure to radio waves.**

This mobile phone was designed in observance of the Japanese technical regulations regarding human exposure to radio waves (*1). These technical regulations are consistent with the limits of human exposure to radio waves established by the International Commission on Non-Ionizing Radiation Protection (ICNIRP), which is in collaboration with the World Health Organization (WHO), and the International Committee on Electromagnetic Safety (ICES) in the IEEE. The permissible limits include substantial safety margins designed to assure the safety of all persons, regardless of age and health conditions.

The technical regulations set out the limits of exposure to radio waves as the SAR (Specific Absorption Rate, for up to 6 GHz) and the PD (Power Density, for above 6 GHz), and the limits for the SAR and the PD for mobile phones are 2 W/kg and 2 mW/cm$^2$, respectively. If mobile phone supports simultaneous transmission of the frequency bands which should be evaluated in the SAR and PD, the technical regulations require that the Total Exposure Ratio (TER) should be used to indicate its compliance. The TER of less than or equal to 1 indicates the mobile phone satisfies the limits.

The TER for this mobile phone when tested for use near the head is **0.99** (*2), and that when worn on the body is **0.84** (*3) (*4). There may be slight differences of the SAR and PD values in individual product, but they all satisfy the limits. The actual values of SAR and PD of this mobile phone while operating can be well below the indicated above. This is due to automatic changes in the power level of the device to ensure it only uses the minimum power required to access the network.

This mobile phone can be used in positions other than against your head. By using accessories such as a belt clip holster that maintains a 1.5 cm separation with no metal (parts) between it and the body, this mobile phone is certified the compliance with the Japanese technical regulations.

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 websites listed below if you would like more detailed information regarding protection against human exposure to radio waves.

Ministry of Internal Affairs and Communications Website:
https://www.tele.soumu.go.jp/e/sys/ele/index.htm
Association of Radio Industries and Businesses Website:
https://www.arib-emf.org/01denpa/denpa02-02.html (in Japanese only)

NTT DOCOMO, INC. Website:

https://www.nttdocomo.co.jp/english/product/sar/

Samsung Website (*5):

https://www.samsung.com/sar/sarMain.do

→ Select "JAPAN" from "LOCATION" → Type "SC-52F" in Phone Model field → "GO"

*1 The technical regulations are provided in Article 14-2 of Radio Equipment Regulations, a Ministerial Ordinance of the Radio Act.

*2 Including other radio systems that can be simultaneously used with 5G/LTE.

*3 Including other radio systems that can be simultaneously used with 5G/LTE.

*4 The SAR and PD values used for obtaining TER for this mobile phone are: SAR of 1.489 W/kg and Incident Power Density (IPD) of 0.506 mW/cm$^2$ for use near the head, and SAR of 0.989 W/kg and Incident Power Density (IPD) of 0.691 mW/cm$^2$ when worn on the body.

*5 The SAR values used for obtaining TER for this mobile phone and the SAR values posted on Website may be different.

## FCC RF Exposure Information

Your mobile device is a radio transmitter and receiver. It is designed not to exceed the limits for exposure to radio waves (radio frequency electromagnetic fields) adopted by the Federal Communications Commission (FCC). These limits include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The radio wave exposure guidelines use a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit for mobile devices is 1.6 W/kg. Tests for SAR are conducted using standard operating positions with the device transmitting at its highest certified power level in all tested frequency bands. The highest SAR values under the FCC guidelines for this device model are:

Head : **1.19 W/kg**

Body-worn accessory : **1.17 W/kg**

During use, the actual SAR values for this device are usually well below the values stated above. This is because, for purposes of system efficiency and to minimize interference on the network, the operating power of your mobile device is automatically decreased when full power is not needed for the call. The lower the power output of the device, the lower its SAR value.

Body-worn SAR testing has been carried out at a separation distance of 1.5 cm. To meet RF exposure guidelines during body-worn operation, the device should be positioned at least this distance away from the body.

Organizations such as the World Health Organization and the US Food and Drug Administration have suggested that if people are concerned and want to reduce their exposure, they could use a hands-free accessory to keep the wireless device away from the head and body during use, or reduce the amount of time spent using the device.

Note:

The maximum SAR value listed above is the value recorded for the latest version of this handset. Earlier versions may have different measured SAR values, which are detailed in the User Manuals that accompany those handsets.

**Body-worn operation**

For body worn operation, this phone has been tested and meets the FCC RF exposure guidelines. Please use an accessory designated for this product or an accessory which contains no metal and which positions the handset a minimum of 1.5 cm from the body.

The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided.

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

FCC ID A3LSMS938JPN. Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications & Internet Association (CTIA) Website at https://www.ctia.org/.

## European RF Exposure Information

Your mobile device is a radio transmitter and receiver. It is designed not to exceed the limits for exposure to radio waves (radio frequency electromagnetic fields) recommended by international guidelines. The guidelines were developed by an independent scientific organization (ICNIRP) and include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The radio wave exposure guidelines use a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit for mobile devices is 2 W/kg. Tests for SAR are conducted using standard operating positions with the device transmitting at its highest certified power level in all tested frequency bands.

The highest SAR values under the ICNIRP guidelines for this device model are:

Head : **1.246 W/kg**

Body : **1.543 W/kg**

During use, the actual SAR values for this device are usually well below the values stated above. This is because, for purposes of system efficiency and to minimize interference on the network, the operating power of your mobile device is automatically decreased when full power is not needed for the call. The lower the power output of the device, the lower its SAR value.

Body-worn SAR testing has been carried out at a separation distance of 0.5 cm. To meet RF exposure guidelines during body-worn operation, the device should be positioned at least this distance away from the body.

Organizations such as the World Health Organization and the US Food and Drug Administration have suggested that if people are concerned and want to reduce their exposure, they could use a hands-free accessory to keep the wireless device away from the head and body during use, or reduce the amount of time spent using the device.

Note:

The maximum SAR value listed above is the value recorded for the latest version of this handset. Earlier versions may have different measured SAR values, which are detailed in the User Manuals that accompany those handsets.