

dust, or metal powders); and any other area where you would normally be advised to turn off your vehicle engine.

**Using Connectors and Ports** Never force a connector into a port. Check for obstructions on the port. If the connector and port don't join with reasonable ease, they probably don't match. Make sure that the connector matches the port and that you have positioned the connector correctly in relation to the port.

### Keeping iPad Within Acceptable

**Temperatures** Operate iPad in a place where the temperature is between 0° and 35° C (32° to 95° F). Low- or high-temperature conditions might temporarily shorten battery life or cause iPad to temporarily stop working properly. Avoid dramatic changes in temperature or humidity when using iPad, as condensation may form on or within iPad.

Store iPad in a place where the temperature is between -20° and 45° C (-4° to 113° F). Don't leave iPad in your car, because temperatures in parked cars can exceed this range.

When you're using iPad or charging the battery, it is normal for iPad to get warm. The exterior of iPad functions as a cooling surface that transfers heat from inside the unit to the cooler air outside.

**Keeping the Outside of iPad Clean** Handle your iPad with care to maintain its appearance. If you are concerned about scratching or abrasion, you can use one of the many cases sold separately. To clean iPad, unplug all cables and turn off iPad (press and hold the Sleep/Wake button, and then slide the onscreen slider). Then use a soft, slightly damp, lint-free cloth. Avoid getting moisture in openings. Don't use window cleaners, household cleaners, aerosol sprays, solvents, alcohol, ammonia, or abrasives to clean iPad. iPad has an oleophobic coating on the screen; simply wipe iPad's screen with a soft, lint-free cloth to remove oil left by your hands. The ability of this coating to repel oil will diminish over time with normal usage, and rubbing the screen with an abrasive material will further diminish its effect and may scratch your screen.

**Exposure to Radio Frequency Energy** iPad contains radio transmitters and receivers. When on, iPad sends and receives radio frequency (RF) energy through its antenna. The Wi-Fi and Bluetooth® antennas are located behind the Apple logo. iPad has been tested and meets the SAR exposure requirements for Wi-Fi and Bluetooth operation.

A cellular antenna is located at the top edge of iPad Wi-Fi + 3G, opposite the Home button at the bottom. For optimal mobile device performance and so that human exposure to RF energy does not exceed the FCC, IC, and European Union guidelines,

always follow these instructions and precautions: Orient the device with the cellular antenna (located under the black edge at the top of the device) away from your body or other objects.

iPad is designed and manufactured to comply with the limits for exposure to RF energy set by the Federal Communications Commission (FCC) of the United States, Industry Canada (IC) of Canada, and regulating entities of Japan, the European Union, and other countries. The exposure standard employs a unit of measurement known as the specific absorption rate, or SAR. The SAR limit applicable to iPad set by the FCC is 1.6 watts per kilogram (W/kg), 1.6 W/kg by Industry Canada, and 2.0 W/kg by the Council of the European Union. Tests for SAR are conducted using standard operating positions specified by these agencies, with iPad transmitting at its highest certified power level in all tested frequency bands. Although SAR is determined at the highest certified power level in each frequency band, the actual SAR level of iPad while in operation can be well below the maximum value because iPad adjusts its cellular transmitting power based in part on orientation and proximity to the wireless network. In general, the closer you are to a cellular base station, the lower the cellular transmitting power level.

iPad has been tested,<sup>1</sup> and meets the FCC, IC, and European Union RF exposure guidelines for cellular operation. When tested at direct body contact, iPad's maximum SAR value for each frequency band is outlined below:

### FCC & IC SAR

Frequency Band (MHz)	FCC & IC 1g SAR Limit (W/kg)	Highest Value (W/kg)
<b>Model A1395</b>		
2400-2483.5	1.6	0.99
5150-5250	1.6	0.84
5250-5350	1.6	0.78
5500-5700	1.6	0.82
5725-5850	1.6	0.58

<sup>1</sup> The device was tested by Compliance Certification Services, Fremont, CA according to measurement standards and procedures specified in FCC OET Bulletin 65, Supplement C (Edition 01-01) and IEEE 1528-2003 and Canada RSS 102. iPad adheres to the European Council Recommendation of 12 July 1999 on the Limitation of Exposure of the General Public to Electromagnetic Fields [1999/519/EC].

Frequency Band (MHz)	FCC & IC 1g SAR Limit (W/kg)	Highest Value (W/kg)
<b>Model A1396</b>		
824-849	1.6	1.18
1850-1910	1.6	1.19
2400-2483.5	1.6	1.07
5150-5250	1.6	0.79
5250-5350	1.6	0.82
5500-5700	1.6	0.68
5725-5850	1.6	0.62

## EU SAR

Band	Frequency Band (MHz)	EU 10g SAR Limit (W/kg)	Highest Value (W/kg)
<b>Model A1395</b>			
Wi-Fi 2.4 GHz	2400-2483.5	2	0.69
Wi-Fi 5 GHz	5150-5350	2	0.79
	5470-5725	2	0.95
<b>Model A1396</b>			
EGSM900	880.2-914.8	2	0.84
GSM 1800	1710-1784.8	2	0.93
UMTS Band VIII	880-915	2	0.98
UMTS Band I	1922.4-1977.6	2	0.95
Wi-Fi 2.4 GHz	2400-2483.5	2	0.70
Wi-Fi 5 GHz	5150-5350	2	0.69
	5470-5725	2	0.72

You can further limit your exposure by limiting the amount of time using iPad in wireless mode, since time is a factor in how much exposure a person receives, and by placing more distance between your body and iPad since exposure level drops off dramatically with distance.

**Additional Information** For more information from the FCC about exposure to RF energy, see: [www.fcc.gov/oet/rfsafety](http://www.fcc.gov/oet/rfsafety)

The FCC and the U.S. Food and Drug Administration (FDA) also maintain a consumer website at [www.fda.gov/Radiation-EmittingProducts/default.htm](http://www.fda.gov/Radiation-EmittingProducts/default.htm) to address inquiries about the safety of mobile phones. Check the website periodically for updates.

For information about the scientific research related to RF energy exposure, see the EMF Research Database maintained by the World Health Organization at: [www.who.int/emf](http://www.who.int/emf)

**Radio Frequency Interference** Radio-frequency emissions from electronic equipment can negatively affect the operation of other electronic equipment, causing them to malfunction. Although iPad is designed, tested, and manufactured to comply with regulations governing radio frequency emission in countries such as the United States, Canada, the European Union, and Japan, the wireless transmitters and electrical circuits in iPad may cause interference in other electronic equipment. Therefore, please take the following precautions:

**Aircraft** Use of iPad may be prohibited while traveling in aircraft. For more information about using Airplane Mode to turn off the iPad wireless transmitters, see the *iPad User Guide*.

**Vehicles** Radio frequency emissions from iPad may affect electronic systems in motor vehicles. Check with the manufacturer or its representative regarding your vehicle.

**Pacemakers** The Health Industry Manufacturers Association recommends that a minimum separation of 15 cm (6 inches) be maintained between a handheld wireless phone and a pacemaker to avoid potential interference with the pacemaker. Persons with pacemakers:

- Should *always* keep iPad more than 15 cm (6 inches) from the pacemaker when the wireless device is turned on

If you have any reason to suspect that interference is taking place, turn iPad *off* immediately (press and hold the Sleep/Wake button, and then slide the onscreen slider).

**Other Medical Devices** If you use any other personal medical device, consult the device manufacturer or your physician to determine if it is adequately shielded from radio frequency emissions from iPad.

**Health Care Facilities** Hospitals and health care facilities may use equipment that is particularly sensitive to external radio frequency emissions. Turn iPad off when staff or posted signs instruct you to do so.

**Blasting Areas and Posted Facilities** To avoid interfering with blasting operations, turn off iPad when in a "blasting area" or in areas posted "Turn off two-way radio." Obey all signs and instructions.