

Hearing Aid Compliance Information

Which Union Wireless phones meet the Hearing Aid Compliance requirement?

Functionality Level	Model Number	Description	HAC Rating	ANSI 2007 Tested	ANSI 2011 Tested
Basic	2760	Nokia 2760	M3T3	Y	N
Standard	3610	Nokia 3610	M3	Y	N
Standard	6085	Nokia 6085	M3T3	Y	N
Enterprise	GALAXYS2T	Samsung T989 Galaxy S II	M3T3	Y	N
Enterprise	IPHONE516GB	* Apple iPhone 5 16GB	M3T4	Y	N
Enterprise	DT-981A	Alcatel DT-981A	M3	Y	N
Enterprise	DT-995S	Alcatel DT-995S Ultra	M3	Y	N
Utility	R620	verykool R620	M3T3	Y	N
Fashion	S500i	Sony Ericsson S500i	M3T3	Y	N
Enterprise	S743	HTC S743	M3T3	Y	N
Enterprise	S757	verykool s757	M3T3	Y	N
Basic	SGH-a436	Samsung SGH-a436	M3T3	Y	N
Basic	W230	Motorola W230	M3T3	Y	N
Utility	W490	Motorola W490	M3T3	Y	N
Utility	W510	Motorola W510	M3T3	Y	N
Entertainment	W580i	Sony Ericsson W580i	M3T3	Y	N
Entertainment	W760	Sony Ericsson W760	M3T4	Y	N
Standard	WX345	Motorola WX345 Finch	M3T4	Y	N
Fashion	WX416	Motorola WX416 MotoGo	M3T3	Y	N
Enterprise	XPERIAION	Sony LT28h Xperia ion	M3T3	Y	N

* The iPhone 5 has the option for the end user to reduce the maximum power at which the handset will operate (maximum 2.5 decibels). This feature does not function for emergency calls to 911. To turn on hearing aid mode for iPhone 5: go to Settings > General > Accessibility. Hearing aid mode on iPhone 5 modifies the phone's acoustic settings to improve compatibility with hearing aids set in "T" or telecoil mode. Hearing aid mode reduces the transmission power of the cellular radio in the GSM 1900 MHz band, which may result in decreased 2G cellular coverage.

How are the Functionality Levels determined?

The functionality levels shown in the graph above are designations for differentiated feature sets. These sets of features have been determined to be desirable to varied user groups and will help a customer to find the right phone to suit their needs. Please see the list below for the features that are normally associated with each functionality level.

- Basic:
 - These phones are primarily designed for users that just use the phone for voice calls and text messages
 - They may not have email, Bluetooth, music players, picture messaging (MMS) or mobile web (WAP)
 - These phone will usually be offered at a low price
- Standard:
 - Standard phones are moderately priced and offer some additional features over the basic phones
 - Standard phone will often be offered in varied colors and will always offer MMS and WAP functionality
 - These phones will usually have a camera and tend to be more durable and offer better RF performance than a Basic phone would
 - Most Standard phones will offer Bluetooth and music players, but not always
- Fashion:
 - Fashion phones vary greatly in price and are designed with a fashion conscious consumer in mind
 - Fashion phones will always have a unique style and often be offered in varied colors
 - All Fashion phones will offer MMS and WAP functionality
 - Most fashion phones have Bluetooth and offer basic email synchronization from a POP3 account using the WAP connectivity
- Utility:
 - Utility phones vary from a moderate to high price and are designed to have the type of features that business consumers desire

- All utility phone will offer Bluetooth, Good RF Performance and MMS / WAP functionality
 - Utility phones are normally one of the staple products offered to most consumers since they have a better than average life in use
- Entertainment:
 - Entertainment phones vary from a moderate to high price and are designed to offer a large number of entertainment functions in a single device
 - Entertainment phone will always offer Bluetooth and a media player
 - Most Entertainment phones will offer expandable memory or a larger memory for storing music, pictures and video
 - Varied colors are often offered with this type of phone
 - A software package and USB cable will often be provided to allow synchronization to a computer for music or other data
- Enterprise:
 - Enterprise devices are usually the higher priced phones with the highest amount of functionality
 - These devices will always have the ability to sync with POP3 email services and often offer synchronization with exchange or other corporate style email and calendar services
 - These products will offer some type of media player although it's primary function is to provide all the connectivity and messaging features a user will need for personal and business use

Background

The Hearing Aid Compatibility Act of 1988 (HAC Act) generally requires that the Federal Communications Commission (FCC) ensure that telephones manufactured or imported for use in the United States after August 1989, and all "essential" telephones, are hearing aid-compatible. When Congress passed the Act in 1988, it specifically exempted "telephones used with public mobile services" (wireless telephones) from these requirements. To ensure that the HAC Act kept pace with the evolution of telecommunications, however, Congress granted the FCC a means to revoke or limit the exemption for wireless telephones. On August 14, 2003, the FCC determined that continuation of a complete exemption for wireless telephones would have an adverse effect on individuals with hearing disabilities, and that limiting the exemption was technologically feasible and in the public interest. Based upon these findings, the FCC established rules for the hearing aid compatibility of digital wireless phones.

What Makes a Phone Hearing Aid Compatible?

Hearing aids operate in one of two modes – acoustic coupling or telecoil coupling. Hearing aids operating in acoustic coupling mode receive and amplify all sounds surrounding the user; both desired sounds, such as a telephone's audio signal, as well as unwanted ambient noise. Hearing aids operating in telecoil coupling mode avoid unwanted ambient noise by turning off the microphone and receiving only signals from magnetic fields generated by telecoil-compatible telephones. In the United States, about 25-30 percent of hearing aids contain telecoils, which generally are used by individuals with profound hearing loss.

A telecoil is a small, tightly-wrapped piece of wire inside the hearing aid that, when activated, picks up the voice signal from the electromagnetic field that leaks from compatible telephones. While the microphone on a hearing aid picks up all sounds, the telecoil will only pick up an electromagnetic signal from the telephone. Thus, users of telecoil-equipped hearing aids are able to communicate effectively over the telephone without feedback and without the amplification of unwanted background noise. Telecoils can only fit in two styles of hearing aids: "In-The-Ear" and "Behind-The-Ear" aids. Smaller hearing aids are not large enough to fit the telecoil. Many people report feedback (or squealing) when they place a telephone next to their hearing aid. When placed correctly, telecoils can eliminate this feedback because the hearing aid microphone is turned off and the hearing aid only amplifies the signal coming through the telecoil. Some hearing aid users may need to place the telephone slightly behind the ear rather than directly over the ear to obtain the clearest signal.

The ability to make wireless telephones compatible with hearing aids also depends in part on other technical and design choices made by carriers and manufacturers. For example, for technical reasons, it is easier to meet hearing aid compatibility standards on systems that use a Code Division Multiple Access (CDMA) air interface (including Verizon Wireless and Sprint Nextel) than on systems that use a Global System for Mobile (GSM) (such as AT&T Mobility and T-Mobile) air interface. It is also easier to meet hearing aid compatibility standards in phones with clamshell (or "flip") designs than in "candy bar" or other styles. Therefore, consumers may generally find more models that meet hearing aid compatibility standards available from CDMA carriers and in clamshell designs.

Hearing Aid Compatible phones have not been tested for Voice over IP applications (VoIP) or voice calls that use a Wi-Fi network connection instead of a wireless cellular network.

Hearing aid complaint phones have been tested and rated for use with hearing aids for some of the wireless technologies it uses. However, there may be some newer wireless technologies used in this phone that have not been tested yet for use with hearing aids. It is important to try the different features of this phone thoroughly and in different locations, using your hearing aid or cochlear implant, to determine if you hear any interfering noise. Hearing Aid Compatible phones are made available at Union Wireless retail stores for customers to conduct a physical test of the phone to ensure compatibility with your hearing aid or cochlear implant. Consult your local Union Wireless retail store or the manufacturer of this phone for more information on hearing aid compatibility. If you have questions about return or exchange policies, consult your local Union Wireless retail store.

Hearing Aid Compatible phones and the 2011 ANSI Standard.

The FCC has adopted the American National Standards Institute (ANSI) technical standard C63.19 (the 2011 ANSI Standard) to define and measure the hearing aid compatibility of digital wireless handset models operating in frequency range of 698 MHz – 6 GHz.

Hearing Aid Compliant phones listed as ANSI 2007 tested having only been tested and designated as hearing aid-compatible under the ANSI 2007 Standard; they have not been tested for hearing aid compatibility under ANSI 2011 Standard.

Hearing Aid Compliant phones listed as ANSI 2011 tested having only been tested and designated as hearing aid-compatible under the ANSI 2011 Standard; they have not been tested for hearing aid compatibility under ANSI 2007 Standard.

It is important to try the different features of this phone thoroughly and in different locations, using your hearing aid or cochlear implant, to determine if you hear any interfering noise. Hearing Aid Compatible phones are made available at Union Wireless retail stores for customers to conduct a physical test of the phone to ensure compatibility with your hearing aid or cochlear implant. Consult your local Union Wireless retail store or the manufacturer of this phone for more information on hearing aid compatibility. If you have questions about return or exchange policies, consult your local Union Wireless retail store.

What Are the FCC's Requirements for Hearing Aid Compatibility for Digital Wireless Telephones?

Analog wireless telephones usually do not cause interference with hearing aids. Digital wireless telephones, on the other hand, sometimes cause interference because of electromagnetic energy emitted by the telephone's antenna, backlight, or other components. Therefore, the FCC has adopted specific hearing aid compatibility rules for digital wireless telephones.

The standard for compatibility of digital wireless phones with hearing aids is set forth in American National Standard Institute (ANSI) standard C63.19. ANSI C63.19 contains two sets of standards: an "M" rating (originally a "U" rating) from one to four for reduced radio frequency (RF) interference to enable acoustic coupling with hearing aids that do not operate in telecoil mode, and a "T" rating (originally a "UT" rating) from one to four to enable inductive coupling with hearing aids operating in telecoil mode. A digital wireless handset is considered hearing aid-compatible for acoustic coupling if it meets an "M3" (or "U3") rating under the ANSI standard. A digital wireless handset is considered hearing aid-compatible for inductive coupling if it meets a "T3" (or "U3T") rating under the ANSI standard.

In addition to rating wireless phones, the ANSI standard also provides a methodology for rating hearing aids from M1 to M4, with M1 being the least immune to RF interference and M4 the most immune. To determine whether a particular digital wireless telephone is likely to interfere with a particular hearing aid, the immunity rating of the hearing aid is added to the rating of the telephone. A sum of four would indicate that the telephone is usable; a sum of five would indicate that the telephone would provide normal use; and a sum of six or greater would indicate that the telephone would provide excellent performance with that hearing aid.

Are There Labeling and Testing Requirements?

Packages containing hearing aid-compatible handsets must be explicitly labeled and must include detailed information in the package or product manual. Wireless service providers must offer a means for consumers to test hearing aid-compatible handsets in their owned or operated retail stores.

Some hearing aid manufacturers are voluntarily including information about hearing aid compatibility with their products. Wireless service providers are also offering similar information in their owned or operated retail stores and are training employees to help persons with hearing aids. This information and the package labeling required by the FCC help persons with hearing aids make fully informed decisions about purchasing their hearing aid-compatible wireless phones.

Beginning on January 15, 2009, manufacturers and service providers will be required to post information about their hearing aid-compatible handset offerings on their Web sites.

Filing a Complaint with the FCC

If you have a problem using a hearing aid with a digital wireless phone that is supposed to be hearing aid-compatible, first try to resolve it with the equipment manufacturer or your wireless service provider. If you can't resolve the issue directly, you can file a complaint with the FCC. There is no charge for filing a complaint. You can file your complaint using an on-line complaint form found at esupport.fcc.gov/complaints.htm. You can also file your complaint with the FCC's Consumer Center by e-mailing fccinfo@fcc.gov; calling 1-888-CALL-FCC (1-888-225-5322) voice or 1-888-TELL-FCC (1-888-835-5322) TTY; faxing 1-866-418-0232; or writing to:

Federal Communications Commission
Consumer & Governmental Affairs Bureau
Consumer Inquiries and Complaints Division
445 12th Street, S.W.
Washington, DC 20554.

What to Include in Your Complaint

The best way to provide all the information the FCC needs to process your complaint is to complete fully the on-line complaint form. When you open the on-line form, you will be asked a series of questions that will take you to the particular section of the form you need to complete. If you do not use the on-line complaint form, your complaint, at a minimum, should indicate:

- Your name, address, e-mail address, and phone number where you can be reached;
- Preferred format or method of response (letter, fax, voice phone call, e-mail, TRS, TTY, ASCII text, audio recording, or Braille);
- That your complaint is about hearing aid compatibility for a digital wireless telephone;
- The make and model number of the equipment or device you are complaining about;
- The name, address, telephone number (if known) of the company or companies involved in your complaint; and
- A brief description of your complaint and the resolution you are seeking, and a full description of the equipment or service you are complaining about, including date of purchase, use, or attempt to use.