

# 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
Utility	OT-5020A	Alcatel OT-5020A M'POP	M3T4	Y	N
Utility	OT-6033A	Alcatel OT-6033A Ultra Idol	M3T3	Y	N
Utility	OT-7024	Alcatel OT-7024 Fierce	M3T3	Y	N
Basic	OT-768	Alcatel OT-768	M4T4	Y	N
Basic	OT-981A	Alcatel OT-981A Tribe Droid	M3	Y	N
Basic	OT-995S	Alcatel OT-995S Ultra	M3	Y	N
Enterprise	MG9C2LL/A	Apple A1522 iPhone 6 Plus	M3T4	Y	Y
Utility	MG2E2LL/A	Apple A1532 iPhone 5c	M3T4	Y	Y
Utility	ME296LL/A	Apple A1533 iPhone 5s	M3T4	Y	Y
Enterprise	MG2X2LL/A	Apple A1549 iPhone 6	M3T4	Y	Y
Enterprise	MKRG2LL/A	Apple A1633 iPhone 6s	M3T4	Y	Y
Enterprise	MKW92LL/A	Apple A1634 iPhone 6s Plus	M3T4	Y	Y
Enterprise	MLLW2LL/A	Apple A1662 iPhone SE	M3T4	N	Y
Enterprise	MN8P2LL/A	Apple A1660 iPhone 7	M3T4	N	Y
Enterprise	MN482LL/A	Apple A1661 iPhone 7 Plus	M3T4	N	Y
Enterprise	HTC10CARBONGRAY	HTC 2PS6500 10	M4T4	N	Y
Enterprise	ONEM7	HTC One M7	M3T4	Y	N
Enterprise	ONEM8	HTC One M8	M3T3	Y	Y
Enterprise	HTCONEA9GRAY	HTC One A9	M3T4	N	Y
Basic	HTCS743	HTC S743	M3T3	Y	N
Utility	ASCENDMATE2	Huawei Ascend Mate 2	M4T4	Y	Y
Utility	HUAWAISNAPTO	Huawei G620-A2 SnapTo	M3T3	Y	Y
Enterprise	NEXUS6PUSA	Huawei H1511 Nexus 6P	M3T4	N	Y
Enterprise	LGG5BLACKUSA	LG RS988 G5	M3T3	Y	Y
Utility	NEXUS5	LG D820 Nexus 5	M3	Y	Y
Enterprise	NEXUS5XCARBONUSA	LG H790 Nexus 5X	M3T4	N	Y
Basic	W230	Motorola W230	M3T3	Y	N
Basic	W490	Motorola W490	M3T3	Y	N
Basic	W510	Motorola W510	M3T3	Y	N
Enterprise	NEXUS632GB	Motorola XT1103 Nexus 6	M4T4	Y	Y
Utility	MOTOE	Motorola XT1527 Moto E	M3T3	Y	Y
Basic	2760	Nokia 2760	M3T3	Y	N
Basic	3610	Nokia 3610	M3	Y	N
Basic	6085	Nokia 6085	M3T3	Y	N
Enterprise	GALAXYS6BLK	Samsung G920T Galaxy S6	M3T3	Y	N
Enterprise	GALAXYS6BLK32GBUSA	Samsung G930U Galaxy S7	M4T3	N	Y
Enterprise	GALAXYS7ESILVERUSA	Samsung G935U Galaxy S7 edge	M4T3	N	Y
Basic	SGH-a436	Samsung SGH-a436	M3T3	Y	N
Utility	GALAXYS2T	Samsung T989 Galaxy S II	M3T3	Y	N
Utility	XPERIAZ3COMPACT	Sony D5803 Xperia Z3 Compact	M3T4	Y	Y
Utility	XPERIAZ3BLACK	Sony D6603 Xperia Z3	M3T3	Y	Y
Basic	S500i	Sony S500i	M3T3	Y	N

Basic	W580i	Sony W580i	M3T3	Y	N
Basic	W760	Sony W760	M3T3	Y	N
Enterprise	XPERIAXPBLACK	Sony Xperia X Performance	M4T4	N	Y
Basic	XPERIAZ	Sony Xperia Z	M3	Y	N
Basic	S635	verykool S635	M3T3	Y	N

### 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 moderately priced and useful for voice calls and text messages. They often have a camera, basic Bluetooth audio, Internet browsing, and a music player. Typically these phones offer less capable productivity applications and shorter average talk time. Most of these phones are generally smaller in size compared to more advanced models, and they lack features such as cloud-based services, expandable memory, and ability to download additional applications from third-party sources.
- **Utility:** These phones vary from a moderate to high price and are designed to have features that most customers desire. They offer median quality cameras, handsfree and headset Bluetooth profiles, expandable memory, larger screens with enhanced color display, and increased talk time over basic models. They provide customers with access to third-party application stores from providers such as Apple, Google, and Amazon. However these phones offer fewer features and slower performance on multitasking and other processing intensive applications than Enterprise models.
- **Enterprise:** These devices are higher priced phones offering enhanced features such as a premium quality camera, multiple Bluetooth profiles, high speed processing and robust application multitasking, enhanced productivity and communication toolsets, plentiful talk times, and access to application stores from third-party providers such as Apple, Google, and Amazon. Additionally, they typically have robust management of POP3 email services and often offer synchronization with MS Exchange or other corporate style email and calendar services. They offer expandable memory for storing music, pictures and video. A software package and USB cable will often be provided to allow synchronization to a computer for music, document, or other data transfers.

### 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 [support.fcc.gov/complaints.htm](http://support.fcc.gov/complaints.htm). You can also file your complaint with the FCC's Consumer Center by e-mailing [fccinfo@fcc.gov](mailto: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.