## FCC Hearing-Aid Compatibility (HAC) Regulations for Wireless Devices

On July 10, 2003, the U.S. Federal Communications Commission (FCC) Report and Order in WT Docket 01-309 modified the exception of wireless phones under the Hearing Aid Compatibility Act of 1988 (HAC Act) to require digital wireless phones be compatible with hearing-aids. The intent of the HAC Act is to ensure reasonable access to telecommunications services for persons with hearing disabilities.

While some wireless phones are used near some hearing devices (hearing aids and cochlear implants), users may detect a buzzing, humming, or whining noise. Some hearing devices are more immune than others to this interference noise, and phones also vary in the amount of interference they generate.

The wireless telephone industry has developed a rating system for wireless phones, to assist hearing device users find phones that may be compatible with their hearing devices. Not all phones have been rated. Phones that are rated have the rating on their box or a label located on the box.

The ratings are not guarantees. Results will vary depending on the user's hearing device and hearing loss. If your hearing device happens to be vulnerable to interference, you may not be able to use a rated phone successfully. Trying out the phone with your hearing device is the best way to evaluate it for your personal needs.

M-Ratings: Phones rated M3 or M4 meet FCC requirements and are likely to generate less interference to hearing devices than phones that are not labeled. M4 is the better/higher of the two ratings. LG GSM phones operate in both the 850 MHz and the 1900 MHz bands in the United States. Pursuant to a waiver granted by the FCC, the M rating for these phones is based on the performance of the phone in the 1900 MHz band. Hearing aid compatibility in the 850 MHz band for GSM phones may or may not be as good as that obtained in the 1900 MHz band. If the hearing aid compatibility of this phone proves to be unacceptable during initial use, contact your communications service provider for details of the provider's return policies.

Hearing devices may also be rated. Your hearing device manufacturer or hearing health professional

may help you find this rating. Higher ratings mean that the hearing device is relatively immune to interference noise. The hearing aid and wireless phone rating values are then added together. A sum of 5 is considered acceptable for normal use. A sum of 6 is considered for best use.



In the above example, if a hearing aid meets the M2 level rating and the wireless phone meets the M3 level rating, the sum of the two values equal M5. This should provide the hearing aid user with "normal usage" while using their hearing aid with the particular wireless phone. "Normal usage" in this context is defined as a signal quality that is acceptable for normal operation.

The M mark is intended to be synonymous with the U mark. The T mark is intended to be synonymous with the UT mark. The M and T marks are recommended by the Alliance for Telecommunications Industries

Solutions (ATIS). The U and UT marks are referenced in Section 20.19 of the FCC Rules. The HAC rating and measurement procedure are described in the American National Standards Institute (ANSI) C63.19 standard

## For information about hearing aids and digital wireless phones

FCC Hearing Aid Compatibility and Volume Control http://www.fcc.gov/cgb/dro/hearing.html

## Gallaudet University, RERC

http://tap.gallaudet.edu/DigWireless.KS/DigWireless.htm

Self Help for Hard of Hearing People Inc. [SHHH] www.hearingloss.org/hat/TipsWirelessPhones.htm

## The Hearing Aid Compatibility FCC Order

http://hraunfoss.fcc.gov/edocs\_public/attachmatch/FCC-03-168A1.pdf