

Sensaphonics

October 28, 2008

FILED ONLINE

Chairman Kevin J. Martin
Commissioner Jonathan S. Adelstein
Commissioner Michael J. Copps
Commissioner Robert M. McDowell
Commissioner Deborah Taylor Tate
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: ***Ex Parte Comments of Sensaphonics Hearing Conservation, Inc.***
ET Docket No. 04-186
Introduction of Unlicensed Devices in the “White Spaces”

Dear Chairman Martin, Commissioners Adelstein, Copps, McDowell and Tate:

Sensaphonics Hearing Conservation, Inc. (“Sensaphonics”) was founded in 1985 as a research company committed to controlling the damaging effects of loud sound, in particular with regard to musicians, theatrical performers, on-stage presenters, and supporting technical personnel, who are routinely exposed to sound levels for extended periods that can result in the loss of hearing.

We are concerned that the Commission’s planned white spaces order will allow into the TV frequencies new devices that rely on questionable spectrum sensing technology and does not provide adequate protected spectrum for audio products currently using these frequencies. We believe that there is a significant risk that such devices will interfere with hearing conservation equipment operating as a part of wireless microphone systems thereby denying the public an important method of preventing hearing loss.

Wireless microphone operating under Part 74 of the Commission’s Rules include in-ear monitor (“IEM”) systems, audio devices that enable a performer to hear the mix of microphones and instruments that are on the stage. For nearly two decades, Sensaphonics has been a leading innovator of IEM systems designed to act as hearing protectors, isolating performers from ambient sound while allowing the in-ear monitor sound mix to be heard more clearly, even at low volumes. As the only custom IEM manufacturer founded and operated by a practicing audiologist, Sensaphonics is uniquely qualified to provide safe, high fidelity audio for those who work in loud environments. Today, our client-users include The Dave Matthews Band, 50 Cent and Prince, as well as large houses of worship such as the Willow Creek Community Church.

With regard to the Commission's planned order and the Office of Engineering and Technology's October 15 report (OET- 08-TR-1005), Sensaphonics offers the following comments:

- Wireless IEM systems also use the television broadcast bands. IEM systems are highly sensitive, cannot tolerate any interference or latency, and are held to the highest standards of audio quality by the artists and technical professionals that use them.
- Musicians, theatrical performers, other on stage presenters in a broadcast or House of Worship context, and supporting technical personnel are regularly and continuously exposed to high-intensity, damaging sound levels in a variety of settings, including: studios, clubs, theaters, large auditoriums and stadiums. Regardless of the venue, an IEM system is the performer/professional's only viable protection from Noise Induced Hearing Loss ("NIHL").
- If nascent spectrum sensing technology cannot reliably sense wireless microphones, it cannot sense an IEM system, which has the same spectral signature as a conventional wireless microphone and is similarly attenuated by the user's body.
- If spectrum-sensing only devices create harmful co-channel interference for wireless IEM systems, most performers and technical personnel will forgo auditory protection to ensure the integrity of the performance.

We believe that the Commission has *not* given the public sufficient opportunity to analyze and comment on the Commission's technical report concluding that spectrum sensing should be authorized. As the Commission contemplates future rules that will allow unlicensed devices to operate in the television broadcast bands, please keep in mind that in addition to traditional wireless microphones and broadcast auxiliary devices, any new rules will also put at risk wireless IEM systems that offer critical health-related benefits relating to preventable hearing loss for performers and technical personnel.

Sincerely,

/s/

Michael Santucci, M.S., F-AAA
Founder and President
Sensaphonics Hearing Conservation, Inc.
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