
From: Generic Office of Engineering Technology [mailto:oetech@fccsun27w.fcc.gov]
Sent: Friday, April 20, 2007 2:21 PM
To: Bernhard Stöbich
Subject: Response to Inquiry to FCC (Tracking Number 375119)

Inquiry:

Ladies and gentlemen,

we are a manufacturer of special hearing aids. These hearing aids are equipped with a battery powered handheld remote control that allows the user to vary certain parameters of the hearing aid (e.g volume).

The remote control transmits its commands to the hearing aid via a wireless inductive link with a carrier frequency (= fundamental frequency) of 9.07kHz. Having reviewed the FCC part 15 rules we are of the opinion that verification might be the appropriate authorization procedure for this type of device (acc. to 15.201, devices operating below 490kHz), however, in order to be absolutely sure, we are posting this inquiry.

We assume that for verification testing the most relevant requirements are:

- All emissions from 9kHz to 100kHz (i.e. up to tenth harmonic of the fundamental frequency acc. to 15.33a1) must be at least 40dB below the limits given in the table in 15.209a.
- The level of unwanted emissions must always be below the level of the fundamental emission (acc. to 15.209c).
- As the remote control incorporates a class B digital device with an internal clock frequency of 4 MHz (unintentional radiator), the spurious emissions up to 1000 MHz must be measured and the limits acc. to 15.109a apply (acc. to 15.209f).

Are our above assumptions concerning verification testing correct?

Thank you very much for your help in advance.

Response:

Based on your description that the handheld remote control is only a transmitter and the digital logic is only used to control and operate the transmitter then verifying this as a digital device under part 15B is not permitted.

Section 15.201 does permit verification if the intentional operating frequency is below 490 KHz and all emissions are 40 dB below the limits in 15.209.

If you are in situation were you can not meet the 15.209 verification limits because of the digital logic, then your only choice is to certify the transmitter.

28.09.2007

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