

Federal Communication Commission Equipment Authorization Division, Application Processing Branch 7435 Oakland Mills Road Columbia, MD 21048

January 13, 2012

## TO WHOM IT MAY CONCERN

Dear Sir,

**Phonak Communications AG** 

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In response to your email from 01/12/2012 we would like to request a change in the equipment class from DXX to DSS in the submitted Form 731 with confirmation number EA665262 for FCC ID KWCTX15. The application is submitted for Equipment Authorization of Frequency Hopping Spread Spectrum Equipment operating in the band 2400-2483.5 MHz. Initially the hardware and the software of this 2.4 GHz device as part of the composite equipment certified under KWCTX10, were designed to support frequency hopping, but with a power level of -7 dBm and using six channels, which was much less than the required 15 channels for a frequency hopping system. Due to the low power level and the number of used channels the device was not defined explicitly as a frequency hopping transmitter and was certified at FCC based on compliance with 47CFR §15.249. However, after adding a power amplifier for increasing the output power of the device, the modified device, which is the subject of this application, does not comply with the requirements of §15.249 anymore. Thus, the embedded software was changed to ensure full compliance of the modified device KWCTX15 with the requirements of §15.247 for frequency hopping transmitters as follows:

- number of channels the number of channels was increased from six channels used in KWCTX10 to maximum 40 channels used in KWCTX15:
- data rate the previous protocol was using a bit rate of 2 Mbps which is the same as the one implemented in KWCTX15;
- frame/slot format the TDMA frame format duration used in KWCTX10 was increased two times in KWCTX15 (as described in section A.7 in the Operational Description);
- acquisition a similar scheme has been implemented in the previous protocol in KWCTX10 as in the one implemented in KWCTX15, i.e. the slaves were listening on each of the 6 frequencies until a beacon was received;
- Adaptive Frequency Hopping adaptive frequency hopping was not implemented in the previous protocol in KWCTX10;

Should you have any questions, please do not hesitate to contact us.

Sincerely,

Neviana Nikoloski

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