

Digital IR Specification

Boiler Plates

I - System overview

The system shall provide digital IR transmission for interference-free, high-quality audio distribution. It shall avoid disturbance from lighting systems by operating in the 2- 8 MHz frequency band. It shall enable the transmission of up to 32 separate channels.

The transmitter shall be the central element in the system. The transmitter shall be suitable for 19-inch rack.

The infrared radiators shall output a modulated infrared signal which "listeners" shall be able to receive on portable infrared receivers. This infrared signal shall be demodulated by the receivers and an audio signal shall be made available at an output that accepts headphones. One or more infrared radiators shall be installed and positioned in accordance with their technical specifications.

II - System functions

The system in its most complete configuration shall provide all of the following functions by means of purpose-built professional equipment:

- Generating DQPSK modulated carrier waves for up to 32 channels and transmitting these carrier waves to the infrared radiator(s);
- Radiating modulated infrared light at intensity sufficient to ensure strong signal reception anywhere within the conference venue (subject to the stated specifications of the radiators);
- Enabling conference "listeners" to receive, select and listen to distributed languages and audio channels within the conference venue, by means of infrared receivers and headphones;
- Providing facilities for mounting the infrared radiators and storing and recharging infrared receivers.

III - Compliance

The system shall comply with all applicable regulations and standards for equipment of this type, and especially with the IEC 61603 part 7, the standard for digital infrared transmission for audio signals for conference and similar applications and IEC 60914, the standard for conference systems. In addition, the system shall comply with all applicable international, national and local regulations for the design, construction and installation of electrical equipment. 8535 So70-2515 U.S.A. Email: info@listentech.com

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IV - System Audio Performance

The system shall have the following audio performance, measured from the audio input of a transmitter to the headphone output of a receiver:

Audio frequency response	20 Hz to 10 kHz (-3 dB) at Standard Quality 20 Hz to 20 kHz (-3 dB) at Premium Quality
Total harmonic distortion at 1 kHz	< 0.05%
Crosstalk attenuation at 1 kHz	> 80 dB
Dynamic range	> 80 dB
Weighted signal-to-noise ratio	> 80 dB(A)

V - System Interconnection

- Cabling and System Limits
- The used cable shall be of the type 75 ohm RG-59.
- The maximum number of radiators per HF output shall be 30.
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- The maximum cable length per HF output shall be 900m.