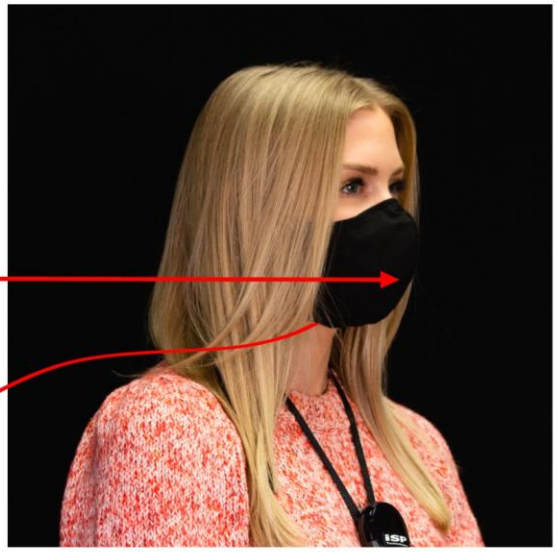
CLASSROOM INFRARED AMPLIFICATION SYSTEM

Precision voice clarity with microphone installed directly into the mask

Don't amplifiy a muffled voice through a mask when you can have absolute vocal clarity

State of the Art Electronic Microphone actual size

Infrared Transmitter

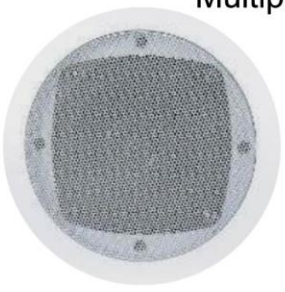


Patent pending integrated mask microphone. Masks provided in collaboration with detroit sewn™

4 Channel Mixer HDDS System

Infrared Receivers

Multiple Speaker Options



covered under US patents 9,510,116, 9,402,128 / 9,641,133 and 9,853,602
other patents pending

iSP Technologies
Intelligent Signal Processing

How the system works and the advantages ISP Technologies “Voice Clarity”

Other systems are designed to use a hanging pendant microphone, hand held microphone or over the ear microphone which can only amplifier an already muffled voice when using a mask. The patent pending “In the Mask” microphone system provides state of the art MEMS Microphone technology integrated into the face mask. By placing the accurate response of this new microphone technology only a few millimeters away from the users mouth and inside the mask maximum voice clarity is achieved. And, due to the close proximity of the microphone the output level of the microphone is greatly increase which reduces the required system gain eliminating potential feedback. Custom designed masks come with an internal microphone cavity. Microphones can be removed and inserted into a clean mask daily allowing masked to cleaned and re-used. The removable MEMS microphone has amazingly flat frequency response and has a built in precision microphone preamplifier that connects to the small pendant transmitter / body pack which transmits the microphone audio.

The system operates in the Infrared spectrum which allows directly adjacent classroom operation without interference. Up to two microphones can be used with the system with independent level control. The IR transmitters send an infrared signal to wall or ceiling mounted IR sensors which connect to the IR wireless receiver. The IR receiver decodes the IR audio and provides independent level control for both microphone A and B. An optional hand-held microphone IR500H is also available or use two mask microphones per classroom. The mask microphone connects to the pendant with a standard 3.5mm cable as shown

The pendant also includes a cloth lanyard to hand around the neck and also has a rear spring clip for attachment to a belt or other clothing. The pendant also includes a built in microphone on top allowing use in a standard configuration if desirable. The transmitter has a typical battery time of 8 - 10 hours before charging.

Both cradle charging and mini USB charging options are included with the system. The output of the IR receiver connects to the input of the SCM100 Line Mixer / HDDS Audio System. The SCM100 provides input 4 channels of audio allowing dual IR microphones plus 3 other audio input signals from a laptop, projector or other classroom audio signals. The SCM100 includes microphone vocal enhancing technology for increased voice clarity plus bass and treble controls on each input channel and also incorporates ISP Technologies patented HDDS Audio Technology. The HDDS technology allows connection to several options of powered speakers all over simple category 6 wiring. The HDDS System uses audio-file Class A/B amplifier topology and delivers superior headroom and sonic performance. The SCM100 output power is typically 4 times that of other classroom systems which further enhances the headroom and clarity of the sound. The system can be used with either in ceiling speakers or wall mount / bookshelf style speakers.

Due to the patent pending “In the Mask” MEMS microphone system the sound quality and voice clarity is unparalleled compared to any other classroom system. This combined with the increased headroom and power of the SCM100 HDDS system, plus the optional dual classroom microphone operation delivers unparallel performance. No longer will teachers have to strain to trying to enunciate with proper articulation. Speech becomes natural and even easier than it would be without a mask and students will hear with clarity and precision making teaching and learning easier!

System Specifications

- Infrared wireless range – 15 meters
- Maximum output power – 150 watts RMS 300 watts Peak
- System frequency response – 50Hz to 18KHz
- Bass / Treble adjustment range +/-12db
- 4 Audio Input channels

ISP Technologies 5479 Perry Drive Suite B Waterford, MI 48329 website www.isptechnologies.com