Opto acoustics

SOUND SOLUTIONS FROM LIGHT TECHNOLOGY

IMROC™

Interventional MR Optical Communication System

Now you can talk.

The Wisdom of Light In A World of Noise

Real-Time Dialogs, Advanced DSP Noise Reduction, Six Channels

IMROC™

Interventional MR Optical Communication System

Relax. You can talk again.

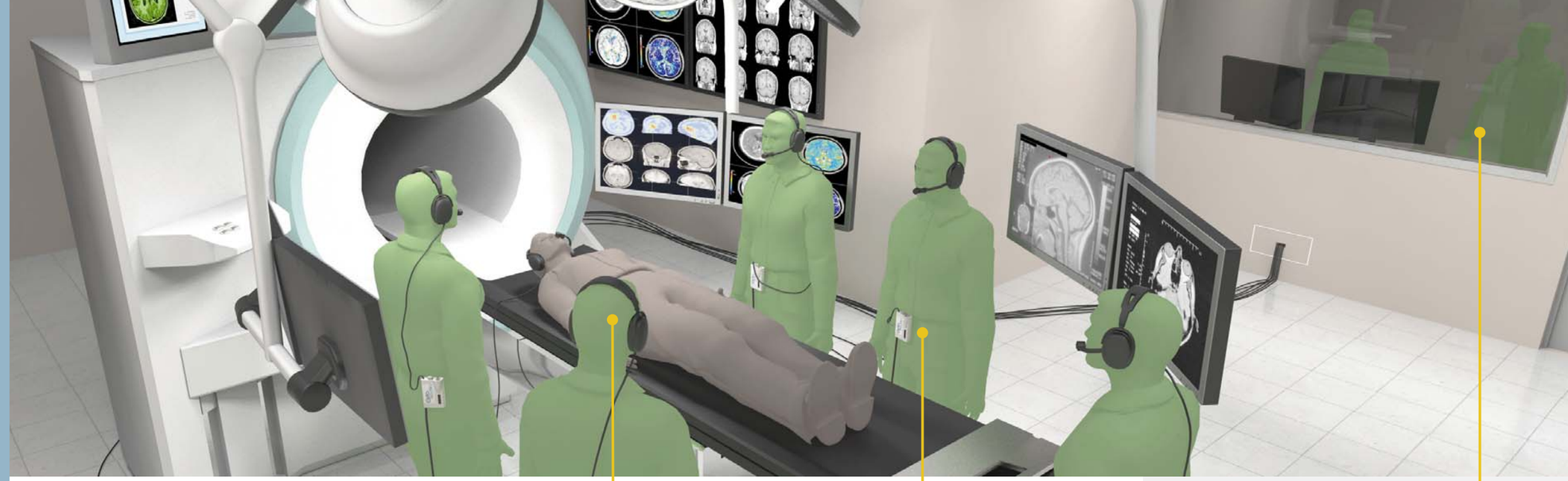
Optoacoustic's IMROC™ is a fiber optic-based communications system that brings routine conversation to MRI scanner rooms.

IMROC enables up to six concurrent dialogs during a scan – five staff members, plus a patient – using adaptive DSP-based noise reduction.

Now doctors can speak with each other, with their patient, and with control room technologists. Safely, intelligibly and routinely. And IMROC also features a MP4 stereo entertainment system to make patient comfort complete.

IMROC is the only communications system that effectively filters out MRI background noise with complete EMI/RFI immunity, ensuring excellent sound quality without imaging interference.

Remember when it was simple to talk? IMROC makes it simple again.



Optical Headset

Each lightweight Optical Headset consists of slim ear defenders, two high fidelity optical speakers, and a FOMRI dual channel noise cancelling microphone.

Optoacoustics' Headsets are self-hearing and use proprietary DSP capabilities to filter out MR noise picked up by the microphone during the scan.

FOMRI II™ Microphone

Optoacoustics' dual channel noise cancelling FOMRI microphone is the industry standard for MRI environments, with excellent sound quality.

The FOMRI eliminates most acoustic noise, provides real-time adaptive noise cancelling and delivers very high intelligibility. The FOMRI includes a holder for disposable hygienic pop screens.

Optical Switching Unit

The Optical Switching Unit is the control box used to determine with whom a doctor speaks.

Worn by each doctor or medical assistant during the scan, the Switching Unit is connected via fiber optic cables to the Optical Headset and the EOU.

Simple controls enable instant doctor-patient-technologist channel selection as well as control over headphone volume.

IMROC Mixing Console

The IMROC Mixing Console enables full communication among doctors and technologists and also manages the interactive environment: turning off selected headsets, muting a patient's speaker, adjusting noise reduction levels or adjusting a patient's music volume.

Music can be piped directly to a patient either by downloading selections to the built-in MP4 player or by connecting a compatible external player to the console.

Up to two additional headsets can be connected to the Mixing Console for use by technologists in the control room.

Electro-Optical Unit

The Electro-Optical Unit is the heart of the IMROC system, receiving incoming communications from each Optical Headset and from the Mixing Console, processing it, and distributing it to its intended staff and patient channels.

IMROC's EOU 6000 features all of the robust safety, electronics and power components that are required for Class 1 laser systems.

Fully interactive, multi-channel communications during a scan, with five doctors, a patient and technologists in the control room.