



**Enhancing
sound quality
using holographic audio**

Holographic audio technologies can record and reproduce sound fields in three dimensions to provide **audio virtual reality with high fidelity.**

IRL (Industrial Research Limited) has significant research and development capability and a substantial intellectual property portfolio in holographic audio technologies.

Stand-out benefits

- ▶ Enhanced virtual acoustics with improved robustness
- ▶ Applications include audio conferencing, home theatre and gaming
- ▶ Plug-ins available for reverb, distortion and other music effects
- ▶ Compact 2D and 3D microphone array configurations
- ▶ Key technologies patent protected in New Zealand and United States.

IRL has been developing novel audio recording and reproduction technologies for 15 years. Licensed technologies include the internationally acclaimed VRAS™ sound reinforcement system (Meyer Sound) and the high efficiency V3D™ virtual acoustics system (Phitek Systems).

Key expertise

- ▶ World-leading researchers in advanced sound systems
- ▶ Microphone array and loudspeaker array processing
- ▶ Digital signal processing (DSP) algorithm design, development and implementation
- ▶ Development capability for a variety of platforms, including MATLAB, C/C++, FGPA/VHDL and DSP
- ▶ Strong links to university researchers in New Zealand and overseas.

Patent portfolio

- ▶ Microphone arrays for high resolution sound field recording (NZ 502603, US , US 7133530)
- ▶ Time varying reverberator (NZ 552415).

For all enquiries please contact the Industry Engagement team on 0508 CALL IRL (0508 225 5475). If calling from overseas phone +64 4 931 3000 or visit the *Contact Us* page on our website.

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