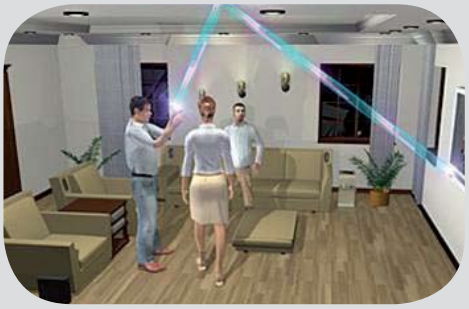
GiFi

Unwire your home – 60GHz – Enabling the next generation of wireless



At a Glance

As growing numbers of electronic devices find their way into the average home, they're bringing with them an annoying companion: rats-nests of connector cables.

Short-range wireless technologies have long been seen as a solution, however most cannot deliver the multi-gigabit speeds needed to transmit high-quality video signals. Those that can have been prohibitively expensive.

NICTA's GiFi research team has overcome both of these challenges. It has successfully developed a 60GHz wireless transmission module housed on a single silicon chip. Once high volume production begins, low cost chips will be produced.

The Features

- Multi-gigabit wireless technology that removes the need for cables between consumer electronic devices
- More than 100 times faster than current short-range wireless technologies
- Allows wireless streaming of uncompressed high-definition content
- Operates over a range of 10 metres without interference
- Entire transmission system can be built on a cost effective single silicon chip
- Operates in the unlicensed, 57-64 GHz spectrum band.

The Benefits

- Removes need for cables to connect consumer electronics devices
- Low-cost chip allows technology to be readily incorporated into multiple devices
- Secure encryption technology ensures privacy and security of content
- Simple connection improves the consumer experience
- Enhancements to next generation gaming technology.

The NICTA Approach

The NICTA GiFi research team has succeeded in taking complex 60GHz transmission technology and shrinking it to the point where it can be built on a single silicon chip.

The NICTA team's expertise in wireless transmission technology means this technology is now at the point where it can have a dramatic impact on the way consumer electronic devices are used in the home.

The Future

- The GiFi team is looking for partners interested in commercialising its 60GHz chips
- Demonstrations of the technology can be arranged showing the huge potential it has to change the way consumers use their in-home electronic devices
- With growing consumer adoption of high-definition television, the anticipated worldwide market for this technology is vast.

From imagination to impact

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NICTA

NICTA is Australia's Information and Communications Technology (ICT) Research Centre of Excellence and the largest organisation in Australia dedicated to ICT research. NICTA drives innovation through high-quality research, research training and technology transfer.

Our researchers are located in five laboratories located in four cities around Australia: Melbourne, Sydney, Canberra and Brisbane. Working in specialised teams, they are focused on a series of specific research themes and business areas.

Our work as a world-class research institute and Centre of Excellence in science and innovation brings together many of Australia's and the world's top ICT researchers. NICTA provides them with the facilities and support they require, making our vision a reality.

NICTA's unique approach fosters and develops ICT research. We work closely with both industry and other research institutions to solve problems and make breakthroughs in ICT with real impact.

NICTA's focus on use-inspired research means our projects have direct relevance to the challenges faced by business, government and individuals around the world. The result is breakthrough technologies that provide commercial opportunities and have a positive impact on Australia's export earnings.

Our Research Themes:

- ES Embedded Systems
- NS Networked Systems
- MSD Making Sense of Data
- MC Managing Complexity

Our Business Areas:

- Biomedical and Life Sciences
- Environmental Management
- Intelligent Transport Systems
- Mobile Systems and Services
- Safety and Security
- Software Infrastructure

NICTA

For more information about GiFi

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