

Virtus Chipset Sends Data 1,000x Faster Than Bluetooth

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<http://www.asianscientist.com/tech-pharma/virtus-chipset-mm-wave-technology-1000-faster-than-bluetooth/>

AsianScientist (May 4, 2012) - Scientists in Singapore have invented a revolutionary microchip that can transfer a typical two-hour, eight-gigabyte DVD movie in just half a minute.

The chipset employs wireless millimeter-wave (mm-wave) technology developed by scientists from the Nanyang Technological University (NTU) and A*STAR's Institute for Infocomm Research (I²R).

Named the VIRTUS chipset, it can transmit two gigabits of data per second, or 1,000 times faster than today's standard Bluetooth technology (v2.0 +EDR's maximum application throughput of 2.1Mbps).

The microchip consists of three components: an antenna, a full radio-frequency transceiver, and a baseband processor. The antenna is connected to the transceiver, which filters and amplifies the signals. It then passes the signals to the baseband processor, which comprises non-linear analog signal processing, and unique digital parallel processing and decoder architecture – key to lower power consumption.

By using this new chipset, its inventors say that low-power applications such as smart phones and tablets can be used to transmit/receive data between platforms, like projectors and TVs, without the need for cables.

“This ground-breaking mm-wave integrated circuit (IC) technology will have significant commercial impact, enabling a wide range of new applications such as wireless display, mobile-distributed computing, live high-definition video streaming, real-time interactive multi-user gaming, and more,” said lead investigator Professor Yeo Kiat Seng, Associate Chair of Research at NTU's School of Electrical & Electronic Engineering.

The collaboration, which began in December 2009, was funded by A*STAR's technology transfer arm, Exploit Technologies Pte. Ltd. The team has received 16 international patents for the VIRTUS chipset, and has also been approached by leading players in the electronics and semiconductor industry for commercial development.

Source: [NTU](#); Photo: NTUsg Facebook page.

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