

## 携带サイト 河北新報



## "World's fastest" semiconductor testing now possible by new optical PCB technology

Advantest Laboratories Ltd. (head office: Sendai), a wholly owned R&D arm of Advantest Corporation which is a leading semiconductor testing equipment manufacturer, has developed a new optical PCB technology in collaboration with Advanced Photonics, Inc. (head office: Tokyo). Advanced Photonics, Inc. is a venture company specialized in development of PCBs.

According to Advantest, the new technology has made it possible to transmit two times as many signals as the currently available fastest equipment and " enables the quickest testing ever in the world, making it compatible with envisaged higher capacity semiconductors". Its commercialization is expected within three years.

The new technology can make per-channel transmission of signal (information) at 40 Gbps.

The prototype PCB has four transmission channels embedded, and allows flow of signal at 160 Gbps. As for material to make the transmission channel, a non-traditional type of synthetic resin was used to reduce variance of signal speed in the transmission channel, which made it possible to increase the transmission capacity per second.

The material used to make the transmission channel is of the same type of the PCB, bringing in better adherence property and smaller possibility of de-lamination.

The maximum speed of signal transmission in the currently available testing equipment is reported as about 80 Gbps.

There has been a fear that testing equipment can not catch up with advancement of semiconductor performance while semiconductor is required to achieve higher-speed and higher-density to handle increase of moving images as well as

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