Advantest Corp has developed a new optical PCB technology.

Advantest has developed an optical PCB technology that enables signal transmission at 160 Gbps (G means one billion) in collaboration with Advanced Photonics, Inc. (head office in Ota-ku, Tokyo).

By selecting optimum combination of materials for the core through which optical signal is transmitted with a high refractive index, and the clad which is made of epoxy-type resin to contains the light within the core, they succeeded in reducing variance in the transmission speed of optical signal. The optical PCB enables transmission per channel at the rate of 40 Gbps, six times faster than the existing products of the company. The prototype made this time has four optical waveguides, thus having the transmission capacity of 160 Gbps.