



Principal Investigator

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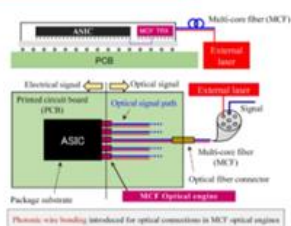
Adopted Theme

Development and Commercialization of Next-Generation Optoelectronic Convergence Packaging Technology (Next-CPO) Based on Multicore Fiber and Photonic Wire Bonding

Subject of Research

Development and Commercialization of Next-Generation Optoelectronic Convergence Packaging Technology (Next-CPO) Based on Multicore Fiber and Photonic Wire Bonding

Overview



We propose Next-Generation Co-Packaged Optics (Next-CPO) for multi-core fibers utilizing photonic wire bonding optical connection technology. This establishes the high-speed, space-saving optoelectronic integration technology essential for AI servers.

Business Models (when applying)

- ① Development of Next-Generation Co-Packaged Optics Modules (Next-CPO Modules) compatible with Multi-Core Fiber (MCF) (Product Business 1, 2031-)
- ② Development of optical transceivers compatible with multi-core fiber (Next-Generation Optical Transceivers) that can be developed during the R&D process for Next-CPO Modules (Product Business 2, 2028-)
- ③ Licensing of manufacturing technology and equipment for Next-CPO modules to accelerate their adoption (Licensing Business, starting 2034)

Activity Planning (when applying)

Aiming for a 2028 launch, the final goal is to achieve product-market fit for the next-generation optical transceiver, the initial product planned for release. To this end, the following activities will be conducted in R&D and business development.

- In R&D, prototype development of an optical transceiver compatible with multi-core fiber (next-generation optical transceiver) will be carried out, along with patent applications for various elemental technologies arising during the prototype development process.
- For business development, we will conduct proof-of-concept demonstrations of the next-generation optical transceiver prototypes with potential customers to validate hypotheses regarding customer requirements and Key Business Factors.