



## Feature Articles Forefront of Research on Integrated Nanophotonics

- ▶ Nanophotonic Technologies for On-chip Photonic Integration
- ▶ Ultralow-capacitance Optoelectronic Converters Using a Photonic Crystal
- ▶ Toward Application of Plasmonic Waveguides to Optical Devices
- ▶ Compound Semiconductor Nanowire Laser Integrated in Silicon Photonic Crystal
- ▶ Control of Light with Exceptional Points in Coupled Photonic Crystal Lasers
- ▶ Ultralow-latency Optical Circuit Based on Optical Pass Gate Logic

## Regular Articles

- ▶ Cloud Native SDx Control Technology

## Global Standardization Activities

- ▶ Standardization Trends of Virtualized Access Systems by the Broadband Forum

## Short Reports

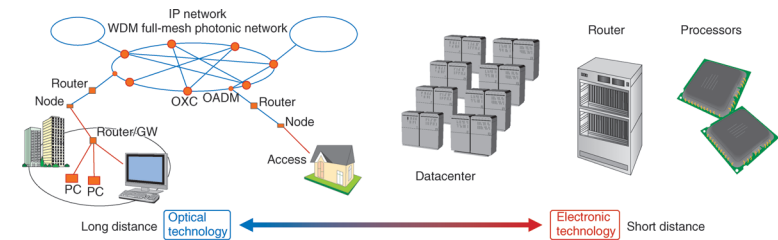
- ▶ Development and Trial of Low-latency Optical Access Technology that Operates in Coordination with a 5G Mobile System—Achieving Efficient Accommodation and Operation of Base Stations
- ▶ NTT Develops World's First Real-time 4K High Frame Rate HEVC Codec—Enabling Live Transmission of High Frame Rate Video, Resulting in Smoother and Sharper Video Quality

## Feature Articles Forefront of Research on Integrated Nanophotonics

### Nanophotonic Technologies for On-chip Photonic Integration

#### ▼ Abstract

Our research group has been conducting basic research that seeks to introduce optical networking technology in processor chips. Using nanophotonic technology as represented by photonic crystals as the base, we are researching nanophotonic integration technologies to microminiaturize optical devices, drastically reduce energy consumption, and create a variety of new functions. In the Feature Articles in this issue, we introduce our latest achievements in creating nanophotonic devices and our efforts in developing new optical computing technologies using nanophotonics as the base.



## Regular Articles

### Cloud Native SDx Control Technology

#### ▼ Abstract

As various services are introduced in the cloud environment, service provision can be simplified and accelerated through end-to-end automatic control of network services and the cloud environment that includes applications for providing services. This article provides an overview of cloud native SDx (software-defined anything) control technology and describes a technical verification of automatic control technology.

