



## About ColorChip

ColorChip designs and manufactures optical sub-systems and components for the Datacom and Telecom markets. These sub-systems and components are based on Application Specific Photonic Integrated Circuits (ASPICs) and leverage the company's unique and robust PLC technology.

## The Market

- Poised to achieve significant growth with increased ASPICs adoption.
- Optical networks are spreading rapidly from the core into the access layers.

## The Technology

ColorChip's products are based on proprietary SystemOnGlass™ (SOG™) and Wafer-Scale Photonics Packaging technologies that enable the creation of Waveguides-in-Glass.

By extending the company's revolutionary Ion-Exchange PLC process, the SOG™ technology allows for significantly faster, easier, and more cost-effective manufacturing.

This process enables:

- Small form factor photonic integration
- High-speed, high-performance transceivers
- Low insertion loss and polarization dependent loss (PDL)
- High channel uniformity
- Ultra wide band
- Exceptional robustness

ColorChip's SOG™ utilizes no free space elements. It integrates commercial laser diodes, photodiodes, and other electronic and electro-optical elements on a single glass surface – to create the first-of-its-kind SOG™.

Founded in 2001, ColorChip is led by a team of industry experts who have gained extensive experience in the optical industry. The company is committed to continued innovation in optical components for high speed, high-performance communications.

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## The Products

ColorChip's unique and robust PLC technology provides a platform for a wide array of transceivers, splitters, delay line interferometers and more.



### The DragonFly 40G QSFP+

The DragonFly 40G QSFP+ is a 4x10G hot pluggable optical transceiver. ColorChip's unique SOG™ technology enables the integration of 4 transmitters, 4 receivers and optical MUX/DeMUX into a small form factor package that delivers a 40 Gbps data link in a compact QSFP+ footprint over two single mode fibers.

The QSFP+ transceiver is designed for applications of up to 10km.



### 1XN PLC Optical Splitter Chips

ColorChip's PLC Optical Splitter Chips provide low insertion loss, low Polarization Dependent Loss(PDL), superb channel uniformity, ultra wide wavelength uniformity and robust design complying with Telcordia GR-1209 and GR-1221 requirements.

The PLC Splitter Chips are available in Premium and A grades.



### DPSK Delay Line

ColorChip's 40G Optical Delay Line interferometer (DLI) is designed to ideally integrate with 40G DPSK balanced receivers. The PLC-based low profile DLI exhibits ultra-low Polarization Dependency frequency shift (PDFS) and very high extinction ratio due to the unique, IE technology based, round waveguides embedded in glass. Fast and accurate tuneability is achieved via thermo electrodes embedded on the device substrate.

## About Color-Chip

*ColorChip designs and manufactures optical sub-systems and components that are based on Application Specific Photonic Integrated Circuits (ASPICs) and leverage the company's unique and robust PLC technology. The company's newest product line delivers the smallest form factor and pluggable high speed transceivers for ranges of up to 10km.*