



COTSWORKS®

Rugged Fiber Optics for Harsh Environments

OPTICAL SUB-ASSEMBLY PRODUCT PLATFORM





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The COTSWORKS Optical Sub Assembly Product Platform includes TOSAs, ROSAs, BOSAs and Custom Optical Sub Assemblies. Optical Sub Assemblies (OSAs) products operate from 1-28 Gbps and are used to convert optical signals to electrical signals and vice versa. COTSWORKS controls the OSA Product Platform from design to integration, and utilizes dual-source vendor list for all raw materials and sub-assemblies.

Fiber Optic Research Center of Excellence

OSA



Optical Sub
Assembly

COTSWORKS Fiber Optics Research Center of Excellence (FORCE) is an ISO 7, Class 10,000 Cleanroom that houses precision optical alignment, encapsulation, and test equipment capable of producing OSAs with industry standard and/or unique functionality, performance, and mechanical characteristics.

- **Processing Capabilities:** Burn-in, active alignment and capping, curing, performance testing, harsh-environment reliability testing, visual and optical inspection.
- **Next Generation Capabilities:** Die attach, fiber metalization, micro-welding, wire bonding, TO-can welding, mechanical test, and hermeticity test.
- **Design Engineering:** Optical paths including lens creation, selection, forming, silicon bench, chip on board taking light from a solid-state semiconductor to precise fiber coupling.

TOSAs

TOSA



Transmitter Optical
Sub Assembly

- Converts electrical signal into optical pulse
- 5G/10G/28 Gbps data rates
- 850nm, 980nm, SWDM, CWDM4, LR4, CWDM, DWDM
- High Power variants for 5G & 10G
- -55 to 100°C operating temperature

ROSAs

ROSA



Receiver Optical
Sub Assembly

- Converts the optical pulse to electrical signal
- 5G/10G/28 Gbps data rates
- 850nm, 980nm SWDM, CWDM4, LR4, CWDM, DWDM
- High performing RX sensitivity
- -40 to 95°C operating temperature

BOSAs

BOSA



Bi-Di Optical
Sub Assembly

- Transmits and receives light at two wavelengths in single mechanical package
- 1310/1550nm FP & DFB, 1270/1330nm DFB, SWDM
- Hermetic package seals TO can into metal block by welding and/or epoxying

Custom

COSA



Custom Optical
Sub Assemblies

- COTSWORKS designs & develops unique optical sub-assemblies using in-house optical design & TO-level prototyping
- Custom thermoset or metal caps, & Kovar butterfly packages for hermetic packages
- Variety of transmitter light sources, receiver communication, & sensing diodes

COTSWORKS' Product Platforms include Opto-Electronic, Interconnect, Test Equipment & Optical Sub-Assemblies.
For more information regarding any of these product lines, please reach out to sales@cotsworks.com