

Tosa thermal adhesive for optical modules



Overview

The compact TOSA, functionally equivalent to the Butterfly header, enables high-speed optical transmission in SFP, XFP and SFP+ modules, offering efficient integration and reliable thermal management. To manage these accelerating data rates and volumes, the industry is transitioning to the 400 Gigabit Ethernet (GbE) standard -- which incorporates a range of modules including 400ZR -- for faster switching and routing. Optical transceivers are the backbone of data movement; meeting the needs of. EPO-TEK® epoxies provide exceptional thermal conductivity, electrical insulation, and durability, ensuring reliable performance and longevity for critical data center applications and high-performance environments. Our advanced EPO-TEK® solutions for fiber optic modules ensure precision bonding. as Henkel's die-attach pastes and semi sintering materials. Our new series of high thermal semi-sintering die attach materials enable robust package-level sintering and overcome the regulatory challenges of solder, thermal conductivity limitations of traditional die attach materials, and. Special adhesives are used on the one hand to fix optics and lenses in order to secure them precisely in the housing, and on the other hand to bond several lenses together. Special light-conducting and optically highly transparent adhesives are also used for bonding, fixing and coupling glass. Fueling Your Network's Success with Superior Lasers and Photodiodes, Expertly Engineered for a Wide Range of Digital and Analog Applications, from Telecom and Datacom to Cable Television and Sensing Applications. OSAs generally fall into three main categories: TOSA, ROSA, and BOSA. • TOSA TOSA: Transmitting Optical Sub-Assembly Used in dual-fiber bidirectional or transmit-only optical.

Article Content

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In accordance with an embodiment, a transmitter optical subassembly (TOSA) module is disclosed with a base portion that provides one or more mounting surfaces to mount a laser diode and associated

Nov 02, 2025

Optical Transceivers

A precise active optical alignment process enables accurate, cost-effective production of optical sub-assemblies such as TOSA, ROSA, BOSA. Henkel's dual-cure UV adhesives are designed to

Mar 07, 2026

Fiber Optic Adhesive Solutions for Datacom & Telecom

Our advanced EPO-TEK® solutions for fiber optic modules ensure precision bonding, durability, and thermal stability, optimizing performance in high-speed

Mar 03, 2026

Optical Sub Assembly

A high-speed, precise active optical alignment process enables accurate, cost-effective production of optical sub-assemblies such as TOSA, ROSA, BOSA. Henkel's dual-cure UV adhesives are

Aug 12, 2025

Introduction To Optical Module With And Without TEC

From the perspective of whether automatic temperature control is required, optical modules can be classified into two types: non-refrigerated (without TEC) and

Mar 31, 2026

Adhesive for 5G Optical Module

For more information, please contact our technical and commercial team, who will be always pleased to help. 1015, Jalan Perindustrian Bukit Minyak 7, Kawasan Perindustrian Bukit Minyak, Mk.13, 14100

Jan 25, 2026

Optical Transceivers

Optical transceivers are the backbone of data movement; meeting the needs of all types of 400 GbE module assembly and reliability is critical and why more companies are choosing Henkel when it

Mar 23, 2026

Introduction To TOSA, ROSA and BOSA

Used in dual-fiber bidirectional or transmit-only optical modules, it converts electrical signals into optical signals and couples the light from the optical path into the

Oct 21, 2025

Optics and Optoelectronics

New adhesives have been specially developed for micro- and nano-imprint lithography, wafer level optics and optical wafer bonding. These new adhesives are suitable for the production of refractive

May 16, 2026

HIGH-PERFORMANCE MATERIALS FOR TELECOM/DATACOM

production of optical sub-assemblies such as TOSA, ROSA, BOSA. Henkel's dual-cure UV adhesives are designed to precisely align these optical components by providing low shrinkage, low CTE, good

Jun 13, 2026

Optical Bonding Adhesive Solutions for Telecom

We deliver adhesive solutions that enable peak performance and longevity in Optical, Datacom, and Telecom applications. For fiber optics and fiber optic modules, our

Nov 24, 2025

Advanced Optical Components: TO, TOSA, ROSA, and

AOI offers a wide range of optical components for telecom, datacom, and sensing applications, including TO lasers, TOSAs, ROSAs, and BOSAs.

Dec 30, 2025

Understanding TOSA, ROSA, and BOSA in Optical

TOSA, ROSA, and BOSA are key components in optical transceivers, enabling high-speed data transmission, reception, and bidirectional

Apr 28, 2026

ROSA vs TOSA: Understanding Fiber Optic Components

Learn about ROSA and TOSA, key components in fiber optic networks, their functions, and how they convert optical and electrical signals.

Jun 19, 2026

Transmitter Optical Sub-Assembly, TOSA | high

Our product line includes a wide array of transceiver modules such as Optical TOSA module, SFP, QSFP, and CWDM devices, all designed to meet the rigorous

Contact Us

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