

High-density micro-modules for after-sales service



Overview

Power modules Find the right power module for your application with Infineon's wide range of solutions, designed for efficiency, reliability, and performan.

Key Takeaways

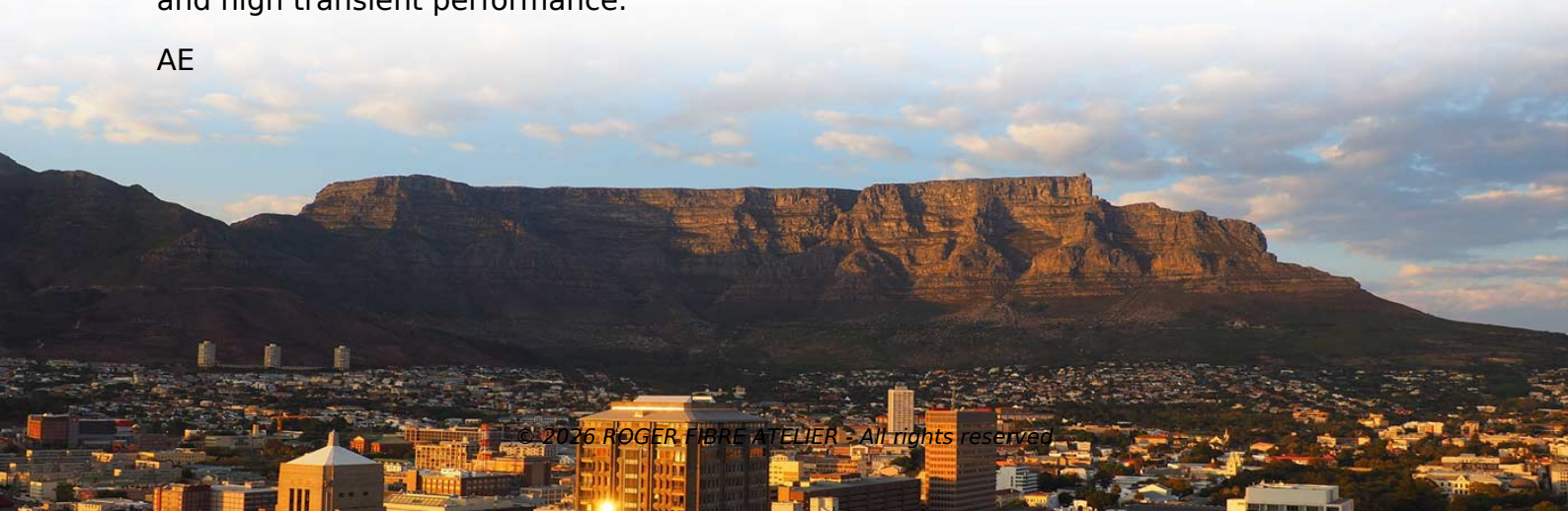
High-density micro-modules are compact, high-performance electronic or power modules designed for space-constrained applications, with after-sales service encompassing support, maintenance, and lifecycle management.

Overview of High-

Density Micro-Modules High-density micro-modules are ultra-compact electronic or power modules that integrate multiple components—such as controllers, drivers, MOSFETs, and inductors—into a small footprint while maintaining high efficiency and thermal performance. For example, TDK's FS3303 micro POL module measures just 2.5 x 2.

5 mm with a height of 1.2 mm, delivering up to 3 A at ambient temperatures up to 90 °C and peak efficiency around 95%. These modules are engineered for low-voltage rails and are suitable for ASICs, SoCs, DSPs, and AI chipsets requiring tight regulation and high transient performance.

AE



Mtec specializes in complex micro- and optoelectronic modules, offering services from design and prototyping to series production and after-sales support. Their solutions include wafer back-end services, chip-on-board, flip-chip, 3D integration, and opto-packaging, enabling high-density integration for sectors like MedTech, AI, aerospace, and high-performance computing. Applications High-density micro-modules are widely used in: AI and edge computing systems: Compact power modules support high-performance optical modules and AI accelerators in space-constrained designs.

Data centers: Smart micro-module data centers integrate UPS, cooling, power distribution, and DCIM in prefabricated modular units, enabling rapid deployment and high reliability. Industrial and automotive electronics: Power modules such as IGBT, SiC MOSFET, and thyristor modules provide efficient energy conversion for industrial machinery, renewable energy, and automotive applications.

After-

Sales Service Considerations After-sales service for high-density micro-modules typically includes: Technical support and troubleshooting: Guidance on installation, integration, and performance optimization. Maintenance and repair: Replacement of defective modules or components, often facilitated by modular design for easy swap-out. Lifecycle management: Firmware updates, performance monitoring, and predictive maintenance to extend module lifespan.

Supply chain and logistics support: Ensuring availability of spare parts and rapid delivery for critical applications. Manufacturers like AEMtec provide comprehensive after-sales services, including prototyping, qualification, testing, and series production support, ensuring that high-density modules maintain reliability and performance throughout their operational life.

Key Advantages

Space efficiency: High integration density reduces board space requirements. High performance: Supports high current, voltage, and thermal loads in compact form factors. Rapid deployment: Modular designs allow plug-and-play installation, particularly in data center and edge computing environments.

Enhanced reliability: Factory-tested modules and intelligent monitoring reduce failure rates and maintenance needs. High-density micro-modules, combined with robust after-sales service, enable organizations to deploy advanced electronics and power solutions efficiently while ensuring long-term operational reliability.

Article Content

Power modules

Find the right power module for your application with Infineon's wide range of solutions, designed for efficiency, reliability, and performance.

TDK expands micro POL power module portfolio for high-density AI

TDK Corporation (TSE: 6762) today announced the FS3303, the first member of a major expansion of its micro POL family of ultra-compact, non-isolated DC-DC power modules for optical

Power management products: TDK expands micro POL power

TDK Corporation (TSE: 6762) today announced the FS3303, the first member of a major expansion of its micro POL family of ultra-compact, non-isolated DC-DC power modules for optical

\$GFS EXECUTIVE OVERVIEW GF introduced SCALE, or Silicon

GF claims an industry-only high-volume 300mm CMOS manufacturing foundry for silicon photonics, offers electro-optical PDKs, supports monolithic CMOS/RF/photonic integration, and

Infineon Technologies and Delta Electronics jointly develop high

Its silicon MOSFETs are designed to bring best-in-class performance, reliability and ease of use to power switching, control and conversion, helping products and system solutions achieve

Microdul AG

Microdul is specialized in manufacturing high-quality, miniature electronic modules and in the processing of uncased integrated circuits.

TI unveils high-performance isolated power modules to advance

This design features TI's portfolio of gallium nitride integrated power stages, digital isolators and microcontrollers that help enable high efficiency and power density in power conversion

Intelligent Power and Sensing Technologies | onsemi

The leader in intelligent power and image sensing technologies that build a better future for the automotive, industrial, cloud, medical, and IoT markets

Power Module Upgrade for Improved Power Density and Lifetime

A standard power module with flat baseplate is operated on a closed heat sink, and the same product with wave baseplate is operated on an open heat sink. The advantage of the ribbon-bond solution

Reliable Electrical Components for Advanced Technologies | TE

TE is a trusted manufacturer and supplier of reliable and rugged electronic components. Known worldwide for its broad portfolio of optimally engineered connectors and sensors, TE enables

Replacement modules are an economic alternative.

Replacement modules are a clever concept for restoring machine availability You always receive service parts as good as new at a lower price. The replaced assemblies are taken back by EMAG and

DPSS Laser | Diode Pumped Solid State-JPT Laser

JPT DPSS lasers span multiple wavelengths including ultraviolet and 532nm green light, offering exceptional beam quality, outstanding energy stability, and extended operational lifespan.

Officetel-watcher/seen.json at main · siufuguv-hub/Officetel ...

Contribute to siufuguv-hub/Officetel-watcher development by creating an account on GitHub.

SOLDERM

The two profiles are based on a high density and a low density board. The Vitronics SMD310 convection/infrared reflow soldering system was used to generate this profile. The type of solder

Power Modules

Discover power modules for every application with high-voltage, low-voltage, Si, IGBT and SiC solutions to boost efficiency, reliability and simplify design.

High-density power modules collaboration accelerates data centre

Infineon Technologies AG has strengthened its existing collaboration with Delta Electronics, Inc., in the development of state-of-the-art high-density power modules capable of

Why aftermarket and service are vital to OEMs—and how to excel

Why aftermarket and service are vital to OEMs—and how to excel A comprehensive approach, supported by a strong enabling organization, can help B2B industrial manufacturers tap into the

Development perspectives for lithium-ion battery cell formats

Develop structural batteries with direct pack integration capability and cell-to-X concepts. Enable high cell integrity and homogeneous pressure distribution in the battery pack. Develop appropriate safety

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

