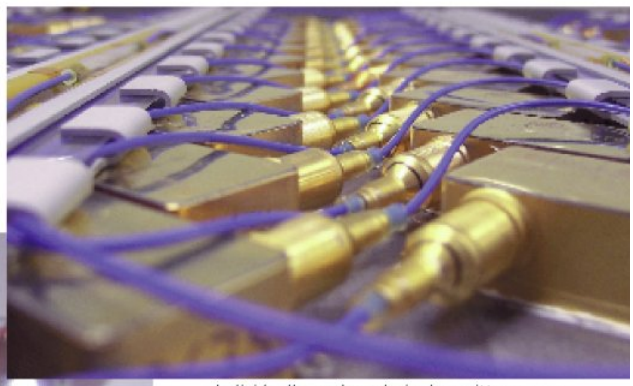
Single Emitter Diodes: Reliability & Efficiency

IPG's use of high-power single emitter diode pump sources manufactured by following telecom-grade quality standards and technology sets us well apart from other laser products that use short-lived diode bars and stacks. Our broad area diodes have 10 year estimated life spans (over 100,000 hours!), eliminating worries about diode replacement costs and downtime. These diodes use conventional cooling, eliminating the complexity and issues of micro-channel cooling used in diode-pumped solid state lasers.

Active Double-Clad Fiber: Brightness & Stability

Due to use of fiber as an active media, fiber lasers provide very high beam quality over the entire power range. More important, this power is extremely stable over the entire operational power range over the entire life time of the product. The higher beam quality and greater intensity of fiber lasers allows tasks to be accomplished rapidly and with lower output power than traditional lasers.



Individually packaged single emitter pump diodes installed in a fiber laser module

Modular Design: Scalability & Reliability

Fiber lasers deliver their energy through an integrat flexible optical fiber that can be up to 200 meters lon Fiber lasers have a monolithic, entirely solid-stat fiber-to-fiber design that does not require mirrors optics to align or adjust. These features make fib lasers easier to integrate and operate in productio medical and other laser-based systems.

Compact Size & Low Weight: Flexibility & Portability

Fiber lasers are typically smaller and lighter in weig than traditional lasers, saving valuable floor spac While conventional lasers can be delicate due to t precise alignment of mirrors, fiber lasers are mo durable and able to perform in variable working en ronments. These qualities permit fiber laser systen to be transported easily.