# Laird

## OptiTIM Preliminary Data Sheet



### **PRODUCT DESCRIPTION**

Increasing demands for 200GB, 400GB, and 800GB ethernet speeds will require higher optical module power that cannot be cooled with a heatsink alone. Laird's OptiTIM<sup>™</sup> product is designed to overcome the challenges of cooling optical transceiver modules in Telecom, Data Centers and Enterprise Systems markets. This OptiTIM is a durable thermal interface material that can withstand the insertion and removal requirements of the pluggable module while maintaining the thermal performance. OptiTIM can improve the heat transfer between the optical module and heat sink an average of 4<sup>0</sup>C based on the system's parameters (module power, heat sink size, fan speed, etc).

Applied to the heatsink, OptiTIM can be provided in custom sizes to fit any module form factor. The flexibility allows unique customer requirements in height, length, and thermal performance based on heat sink design.

### **FEATURES AND BENEFITS**

- Lowers optical modules operating temperature
- Durability, no tearing or breaking during insertion and removal
- Excellent adhesion properties
- Excellent surface wetting for low contact resistance
- Environmentally friendly solution that meets regulatory requirement

TYPICAL PROPERTIES	VALUE*	TEST METHOD
Construction	Phase Change & Polyimide Liner	N/A
Color	Grey/Yellow	Visual
Thickness	165 um (0.165 mm)	N/A
Thickness Tolerance	+/- 25 um (0.025mm)	N/A
Thermal Resistance, @ 10psi, 50 °C	0.16 °C-in <sup>2</sup> /W	ASTM D5470
	(1.03°C-cm <sup>2</sup> /W)	
Durability	500 insertions	Laird Test Method
Temperature Range	-40°C to 125°C	Laird Test Method
Volume Resistivity	>10 <sup>15</sup> Ω-cm	ASTM D257
UL Flammability Rating	V0	UL 94
Shelf Life	12 months	N/A

### **SPECIFICATIONS**

#### THR-DS-OptiTIM 02-08-22

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### **AVAILIABILITY**

### **Standard Part Sizes**

Part Number	Module Configuration	Dimensions
A18106-01	CFP2	35mm x 74mm
A18107-01	QSFP	20mm x 40mm
A18109-01	SFP, SFP+	15.5mm x 35mm
A18110-01	SFP-dd	15mm x 41mm
A18167-01	QSFP-dd	20mm x 44mm



#### **Custom Sizes**

- The x-y dimensions of the parts may be modified for custom heat sink design.
- Changes to overall part thickness and compsite layer materials and thicknesses are not recommended
- Please submit a drawing of the heat sink for Laird review and recommendations.
- Tooling charges for modified designs will apply

All Laird thermal and mechanical reliability and testing data is on the standard configurations. Customer is responsible for mechanical testing on any modified designs as Laird does not guarantee insertion cycles if modifications are made.

USA: +1.866.928.8181 Europe: +49.8031.24600 Asia: +86.755.2714.1166 www.laird.com

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