
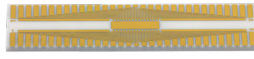
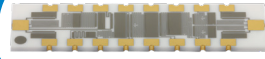
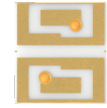
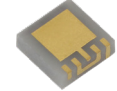




# CAPABILITIES AND CUSTOM OPTIONS

## CUSTOM THIN FILM SUBSTRATES

 <p><b>METALLIZED PLATES</b> (<a href="#">SPF1</a>)</p> <p>Stand-offs, jumpers, bonding pads, pacers, insulators</p>	 <p><b>CONDUCTOR PATTERNS</b> (<a href="#">SPF2</a>)</p> <p>Hybrid circuits, fan-outs, interconnects, high temperatures, laser mounts (AuSn), RF / microwave designs</p>	 <p><b>RESISTOR / CONDUCTOR</b> (<a href="#">PSS</a>)</p> <p>Precision current flow, voltage division, RF / microwave designs</p>	 <p><b>SPECIALTY SUBSTRATES</b> (<a href="#">INT</a>)</p> <p>Heat transfer connectors (vias / through-holes), top to bottom connections (vias, holes, wraps), cutouts, RF / microwave designs</p>	 <p><b>SIDE-WALL PATTERN</b> (<a href="#">SDWP</a>)</p> <p>Electro-mechanical and electro-optical applications (mirrors, lenses, fibers), high frequency circuits, high bit rate transceivers, high miniaturization</p>
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APPLICATION EXAMPLES		
CAPABILITY	COMMENTS	PRODUCT EXAMPLES
Eutectic 80 / 20 AuSn	Used in applications for laser diode sub-mounts, fiber optic pump lasers	Conductor patterns
Custom Shapes and Cut-Outs	CAD-driven custom shapes and cut-outs, including cutting out internal and external material	Specialty substrates
Plated Through-Holes	Used for applications where the module design may require alignment or soldering pins to be inserted into the holes	Specialty substrates
Filled Vias	Used for applications where the strongest electrical connection is needed or for preventing solder migration to the backside	Specialty substrates
Metallized Edge Wraps	Used for applications where soldering to the side of the substrate is desired for connection to the PCB or module design	Specialty substrates
Multilayer and Air Bridge	Used in applications where Lange couplers and cross-metal patterning is needed	Specialty substrates
Side-Wall Patterning	Conductor patterning on four surfaces, wire-bondable or solderable metallization, attachment to side-wall options, tight dimensional tolerances	Side-wall patterning