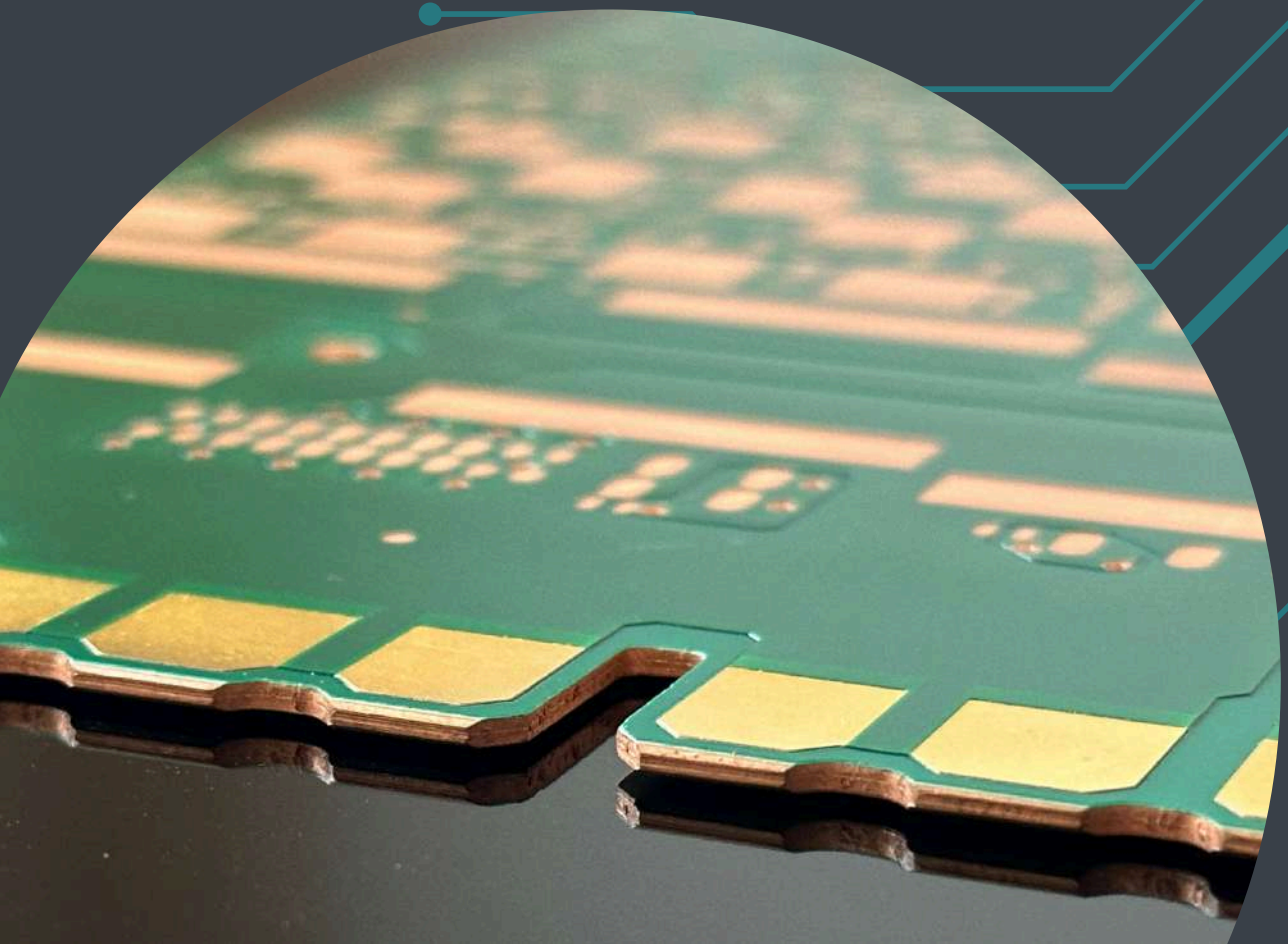
INSULATED METAL SUBSTRATES PCBS

IMS INSULATED METAL SUBSTRATE



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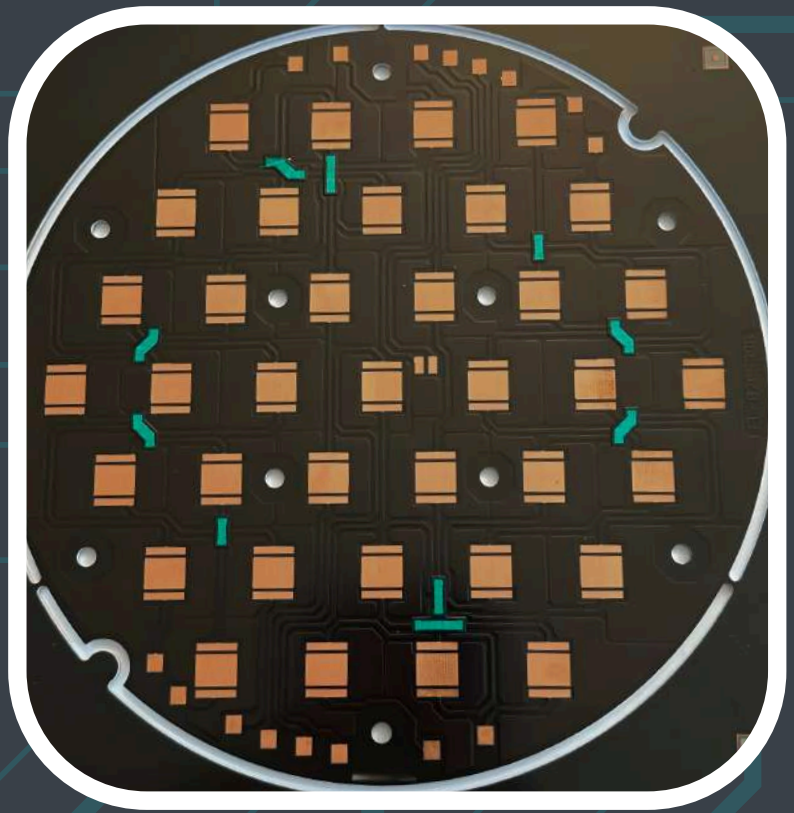
Connect technology

INSULATED METAL SUBSTRATES PCBS

An IMS PCB presents the circuit layer bonded to an electrically insulated metal base to be used for power applications



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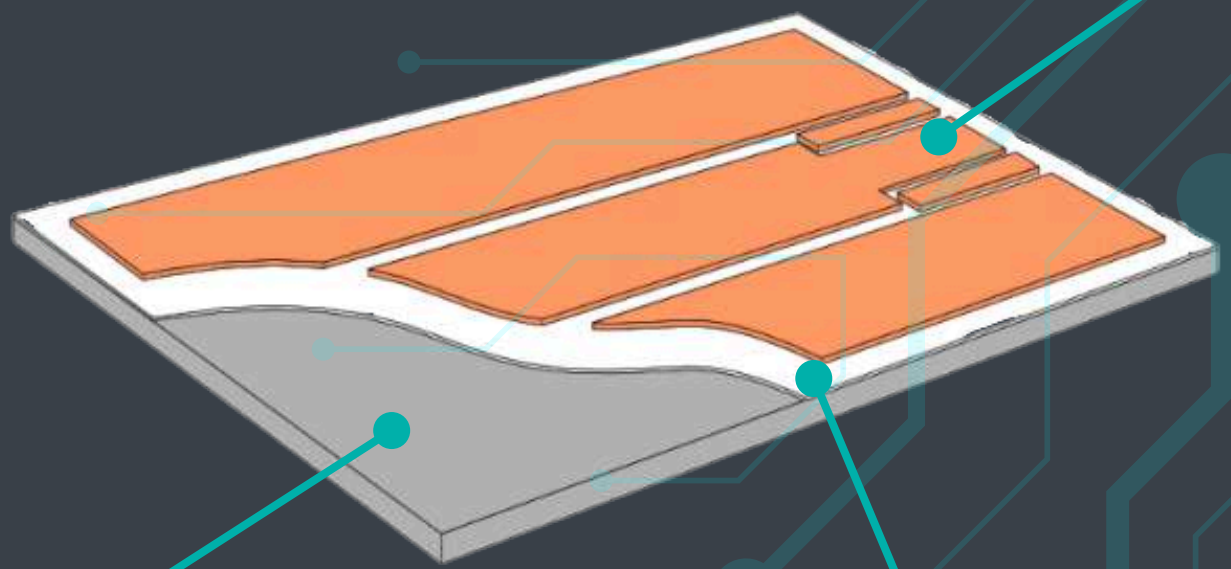
INSULATED METAL SUBSTRATES PCBS

STRUCTURE WITH 3 LAYERS:



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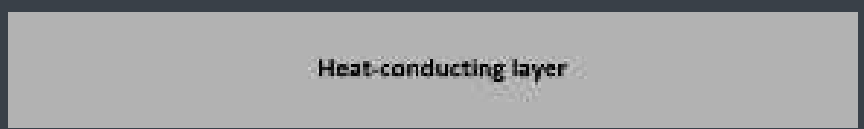
INSULATED METAL SUBSTRATES PCBS

Standard copper foil with thickness from 35 to 105µm and up to 500µm for high-current applications

Thin dielectric layer with a high coefficient of thermal conductivity for the transfer of heat to the external environment



Metal base plate either aluminum or copper (0,5-3mm thickness) as support and heatsink element

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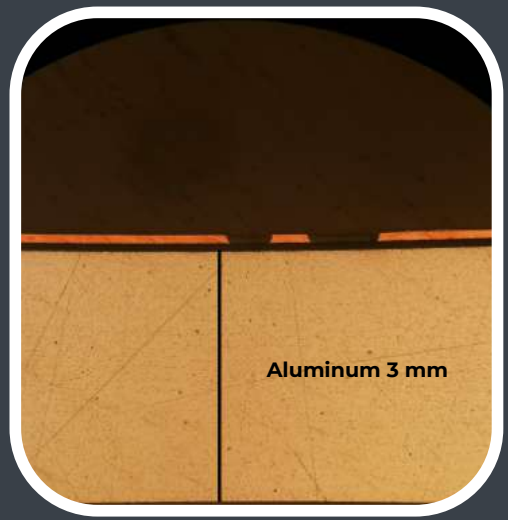
METAL SUBSTRATES

	COPPER	ALUMINUM
THERMAL CONDUCTIVITY	391 W/m˚K	150 W/m˚K
CTE	16,9 ppm/˚K	25 ppm/˚K
DENSITY	8,94 g/cm3	2,7 g/cm3



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DIELECTRIC SUBSTRATES

THERMAL CONDUCTIVITY

MID POWER DENSITY >2w/mK

HIGH POWER DENSITY >3w/mK

ULTRA POWER DENSITY >7w/mK

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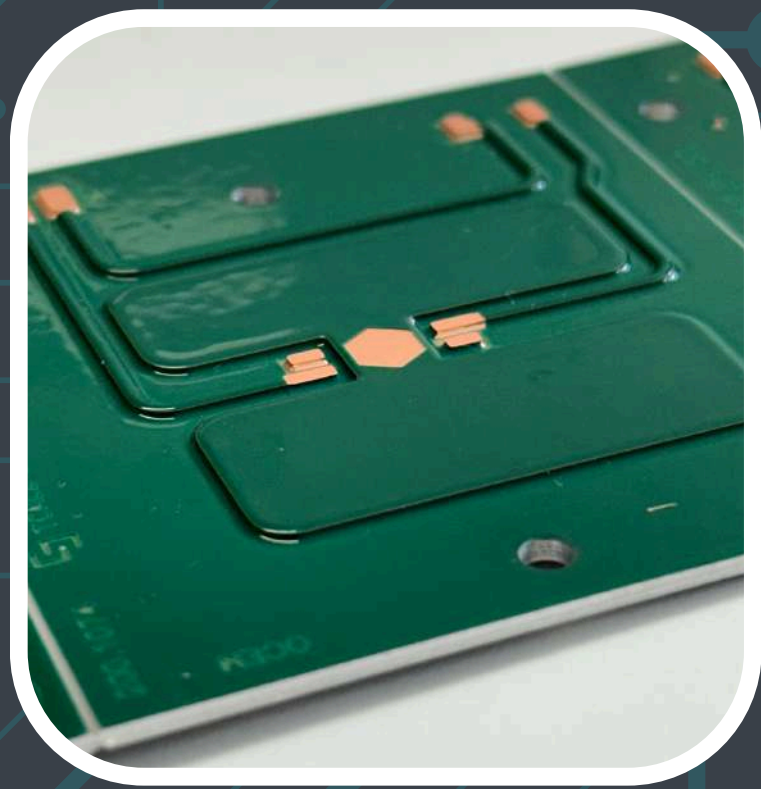
BENEFITS

- Increased power density
- Extended life of devices
- Excellent electrical insulation
- Enables high current applications (Silga's **thick copper foil** up to **500µm)**
- Lower working temperature
- Reduced need for heatsink and related mounting operations



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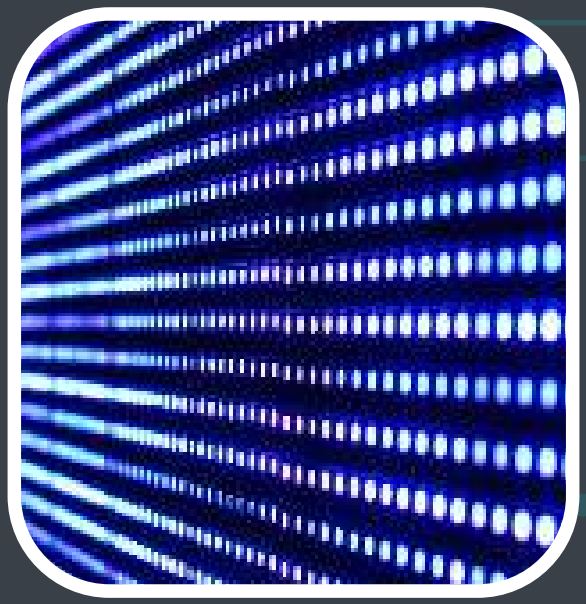
APPLICATIONS



- Automotive electronics (lighting, power module, fan control..)
- Lighting
- Power electronics
- Industrial electronics
- Charging stations
- Telecommunications
- Consumer electronics

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