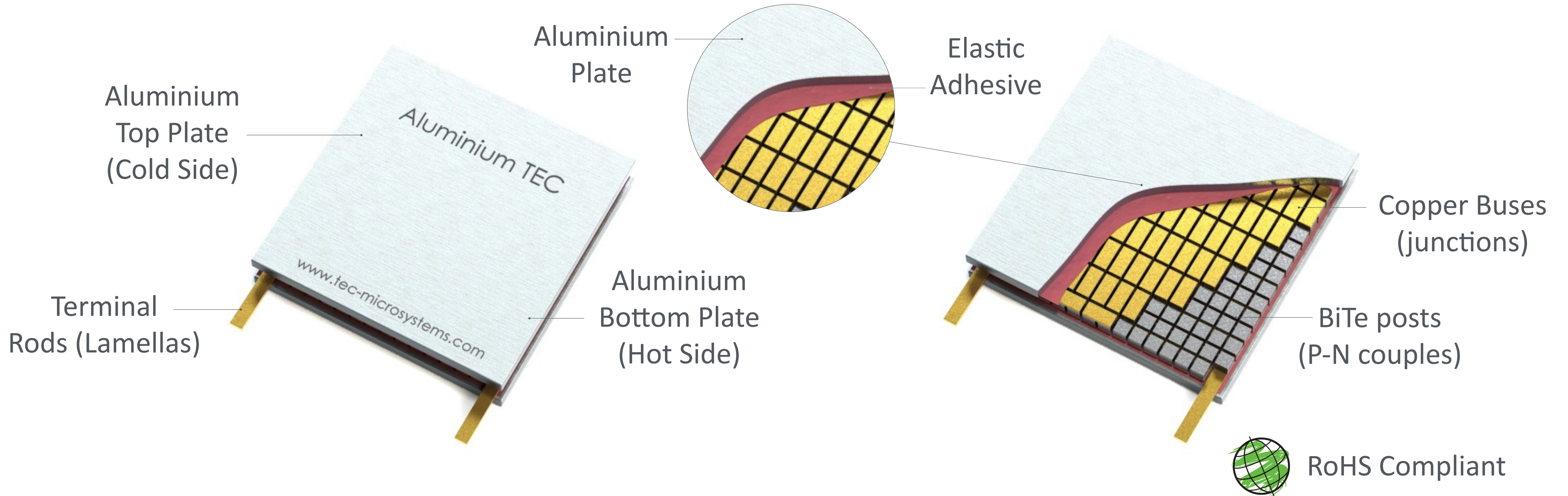




1MA10 SERIES ALUMINIUM THERMOELECTRIC COOLERS CONSTRUCTION

Internal Assembly Solder by default: Sn-Sb, $T_{\text{melt}}=230^{\circ}\text{C}$



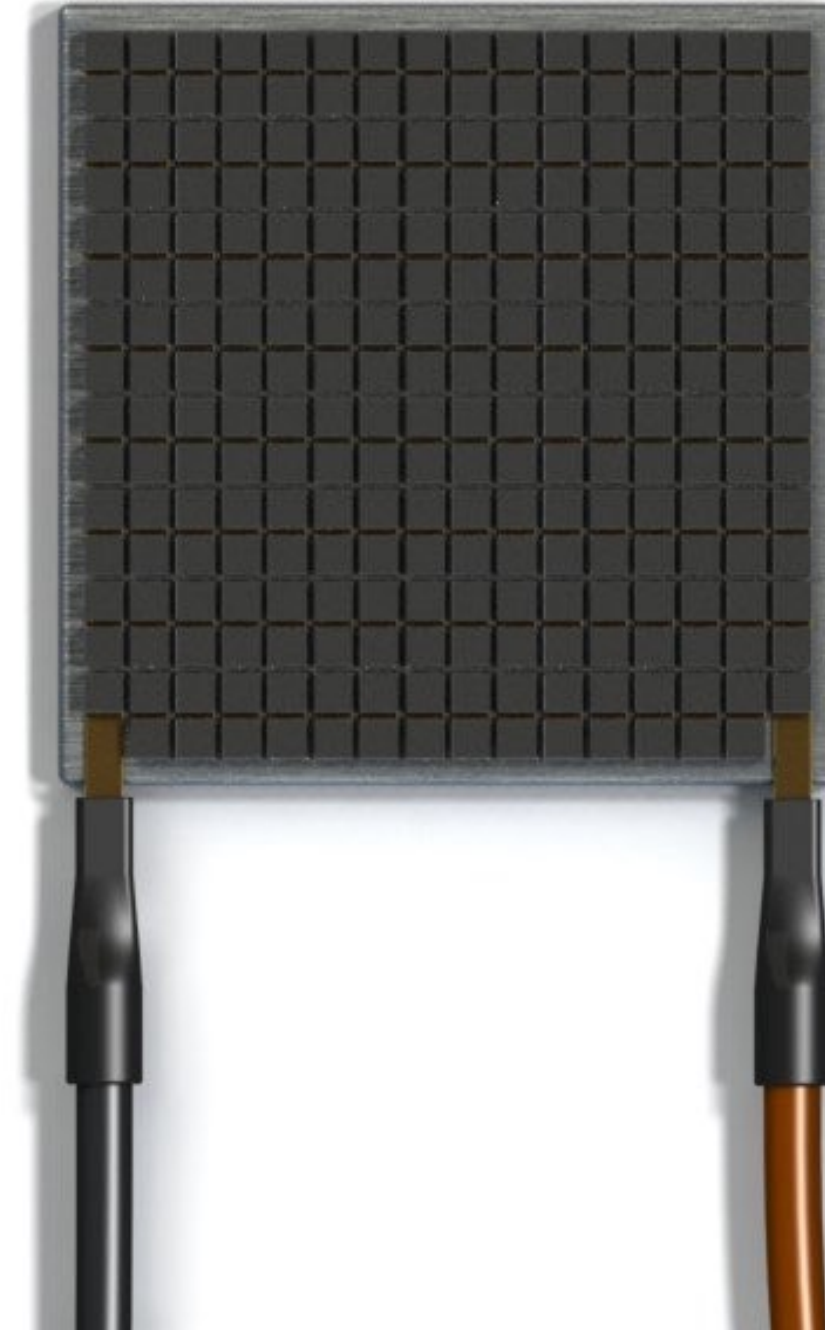
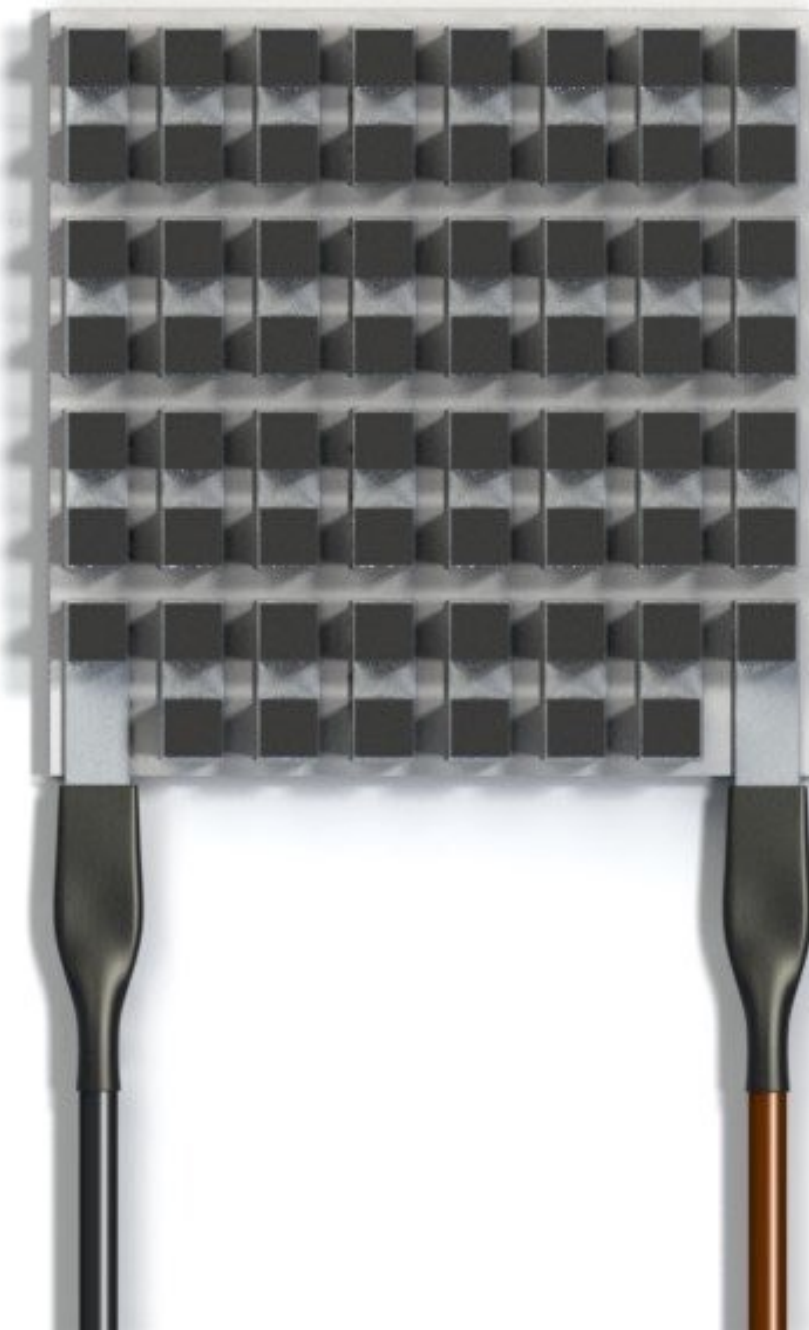


1MA10 SERIES ALUMINIUM THERMOELECTRIC COOLERS

"Classical" 20x20mm²
TE Cooler

Advanced Aluminium
TEC 1MA10 Series

Max 10W/cm²
Max Cooling Capacity
Q_{max} 30 - 40W
Al₂O₃ Ceramic Plates

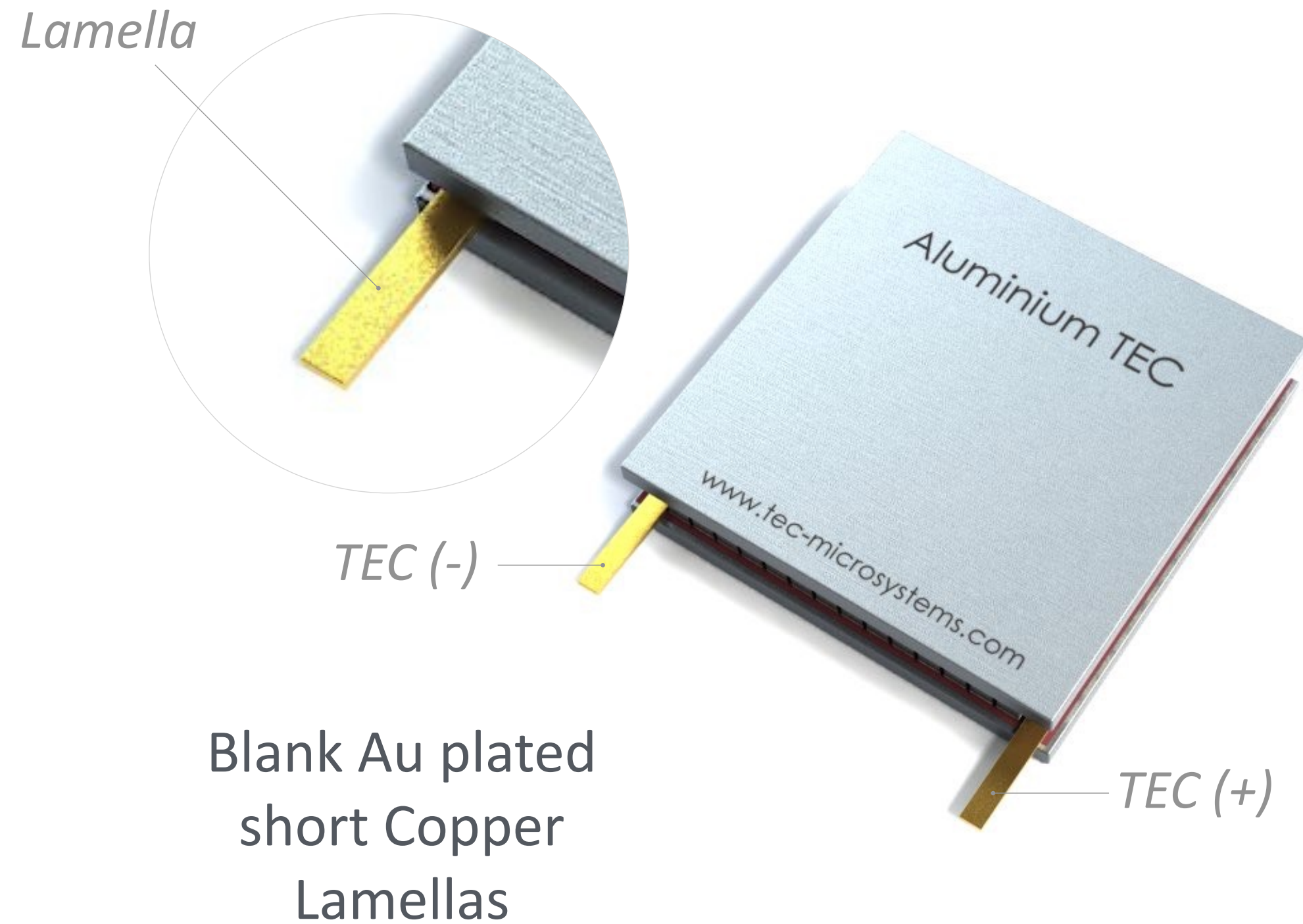


Up to **30W/cm²**
3x Cooling Capacity
(Q_{max} = 115W)
Aluminium Plates
(perfect CTE with
heatsinks)

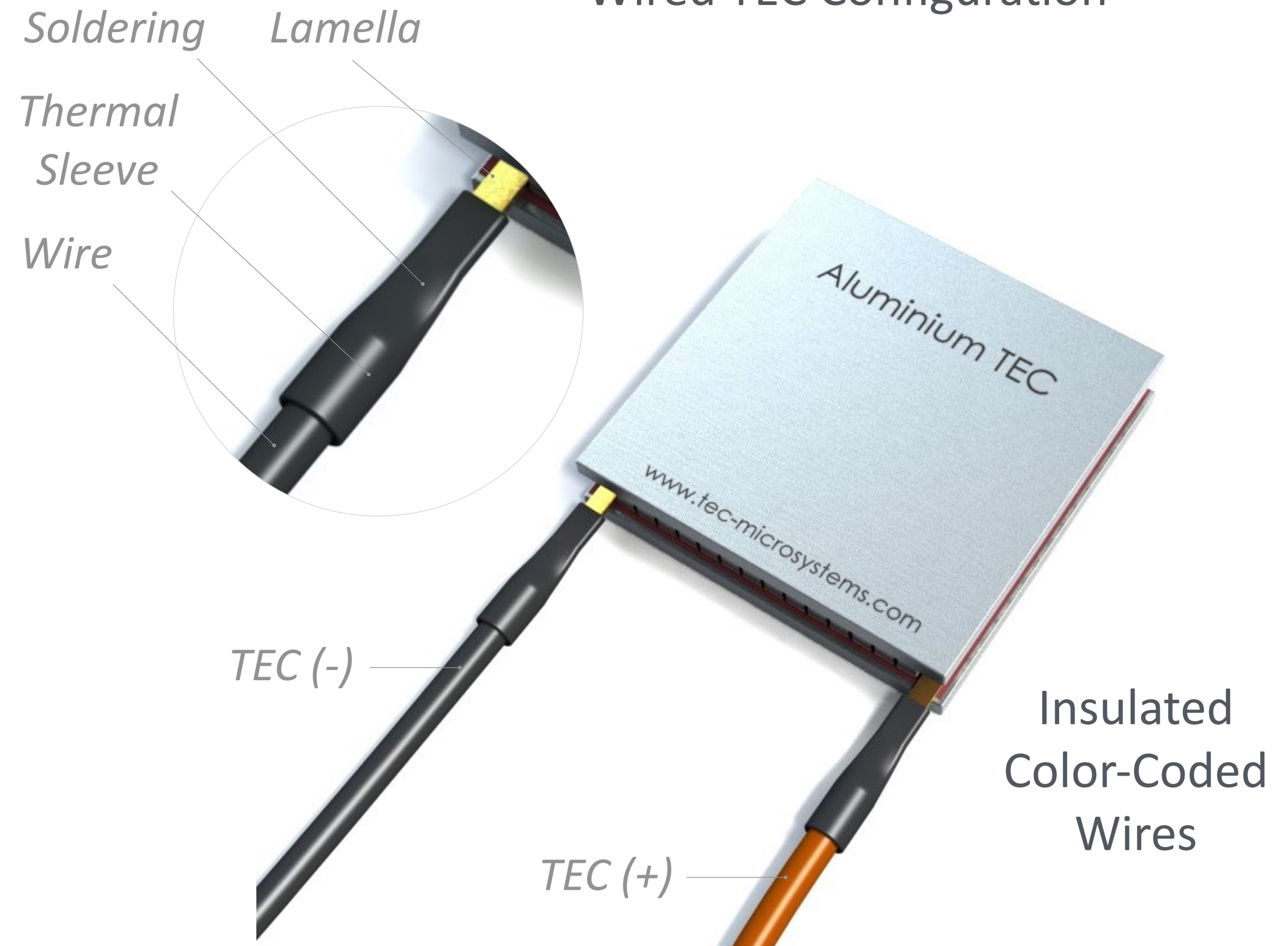


1MA10 SERIES ALUMINIUM TEC STANDARD TERMINAL CONNECTION METHODS

Core TEC Configuration



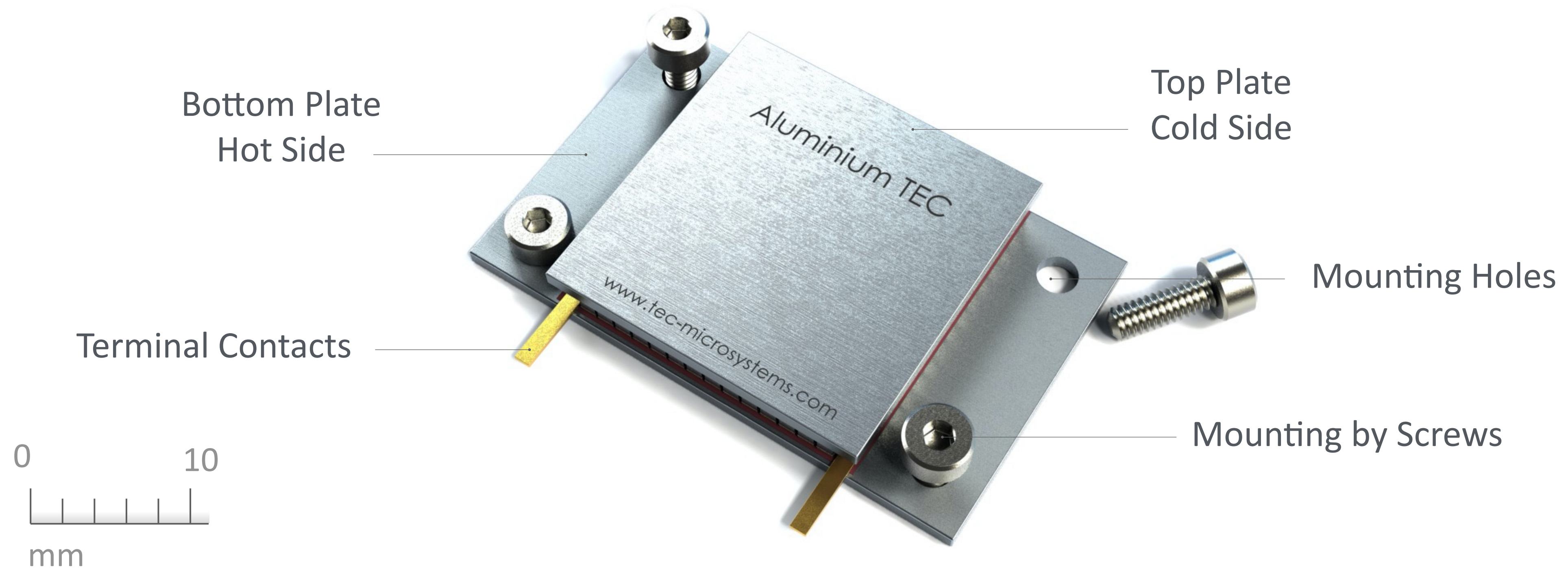
Wired TEC Configuration





1MA10 SERIES ALUMINIUM TEC ADVANCED MOUNTING SOLUTION

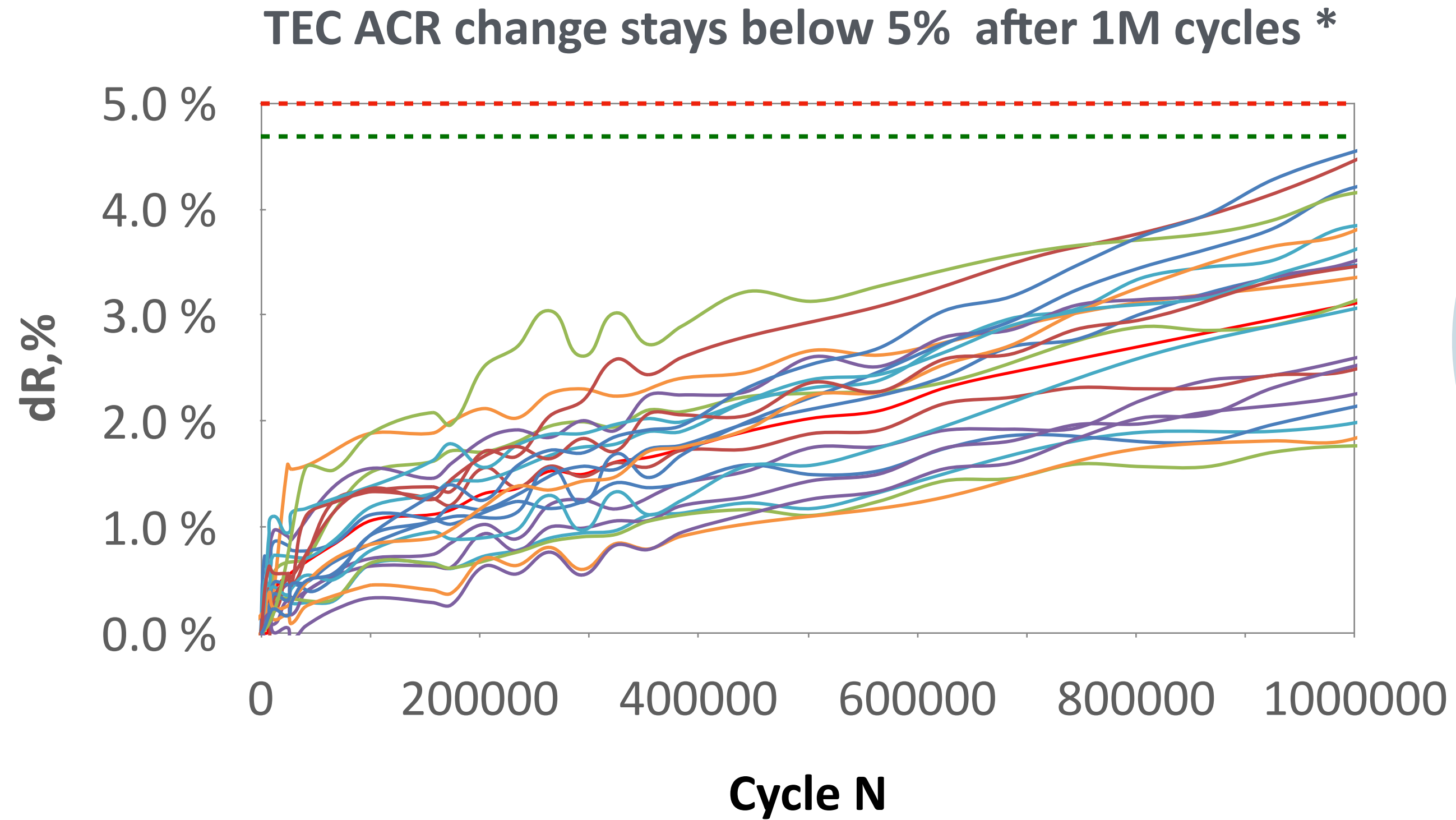
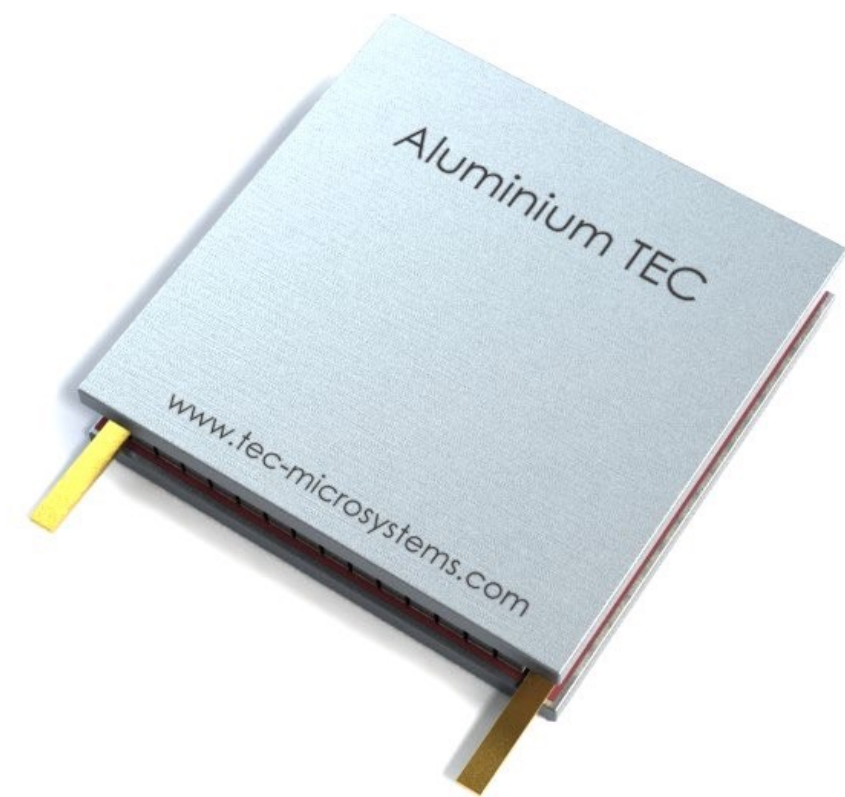
Aluminium TEC Hot Side modification for simple mechanical mounting (example)



Perfect solution for replaceable TEC elements (for example in DNA Cyclers)



1MA10 SERIES ALUMINIUM TECS - IDEAL FOR CYCLING APPLICATIONS

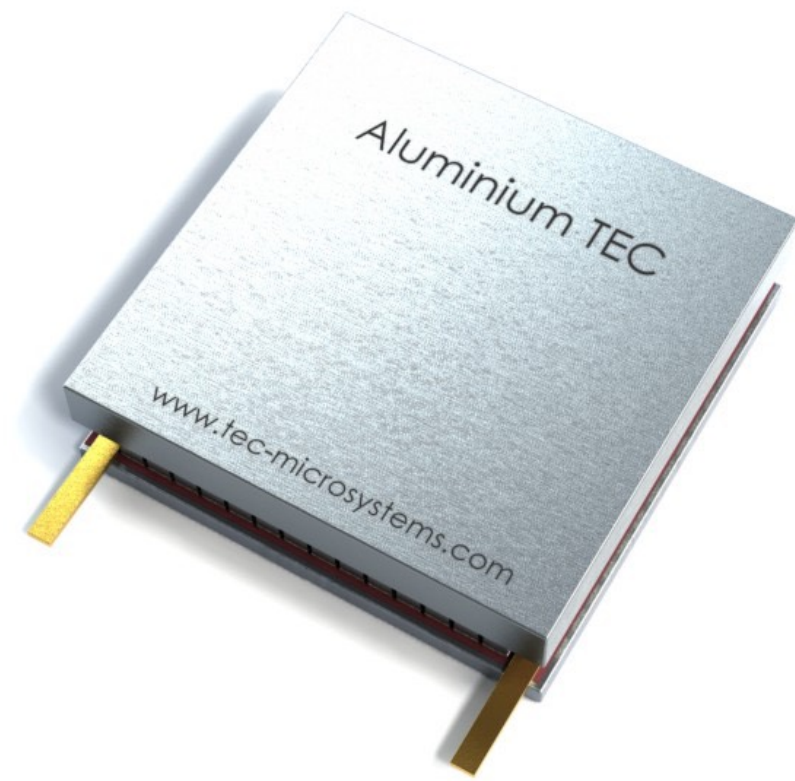


* - 5% ACR Change as Criteria of Failure is used by Telcordia GR-468 Standard. In practice it doesn't mean TEC stops to operate. It continues to work, but with some changes in performance and power consumption.

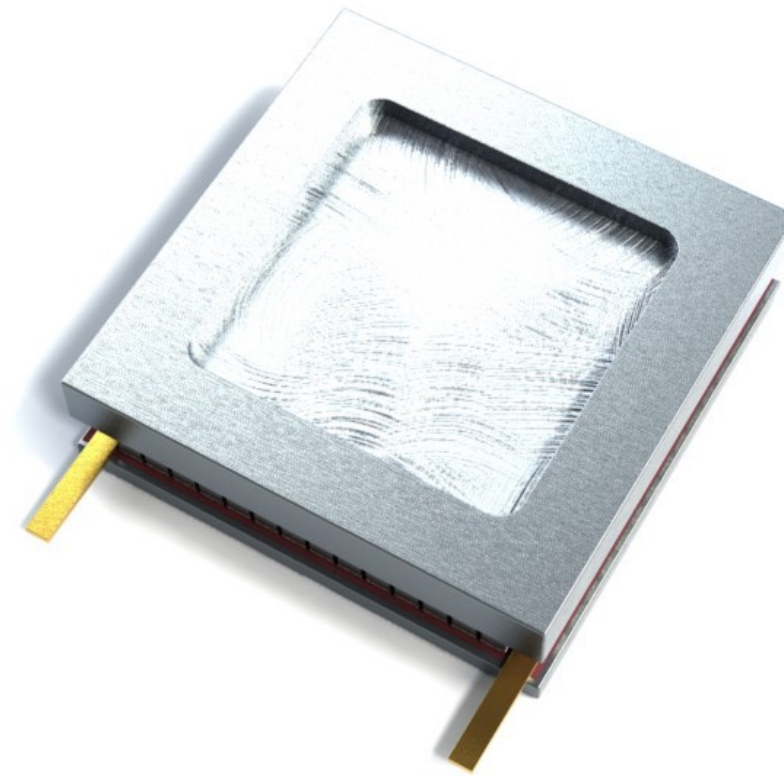


1MA10 SERIES ALUMINIUM TEC ADVANCED MANUFACTURING OPTIONS

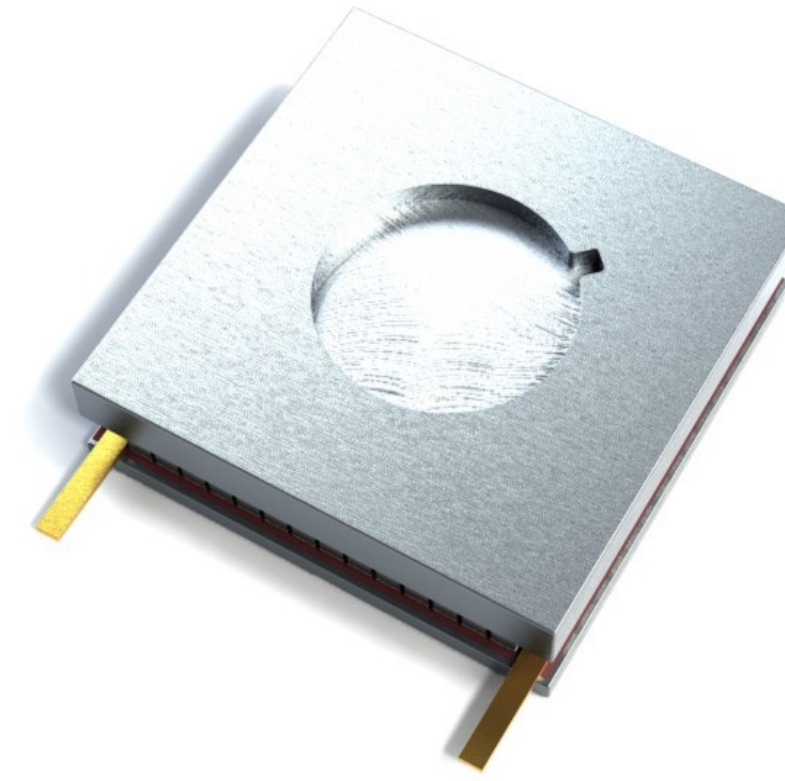
Easy to machine Aluminium TEC plates create a new dimension in TEC optimisation for application



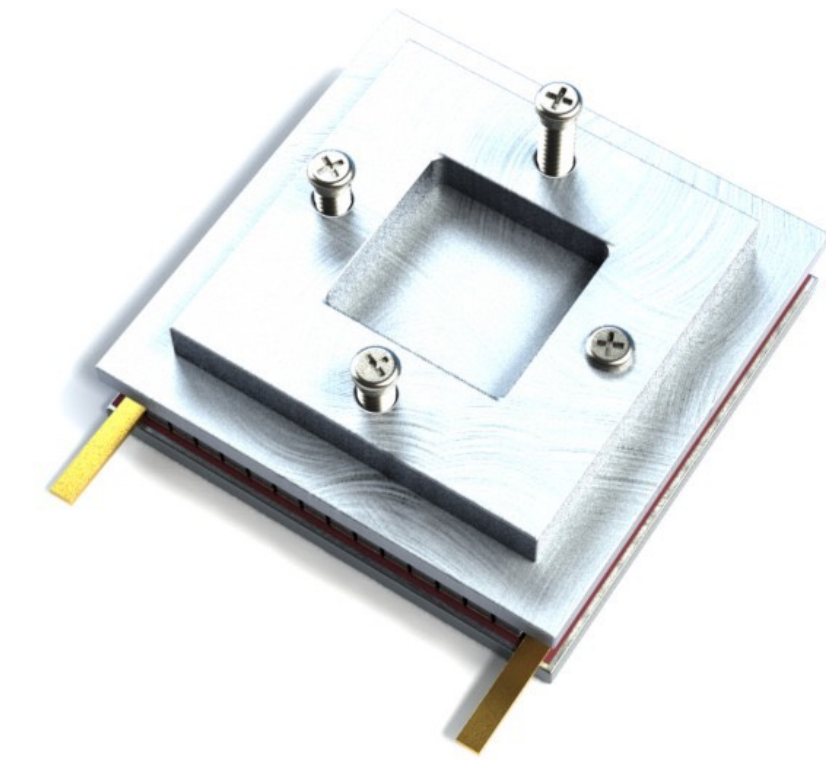
Variable thickness
of Aluminium plates



Advanced TEC plates
machining



TEC partial and
through- holes

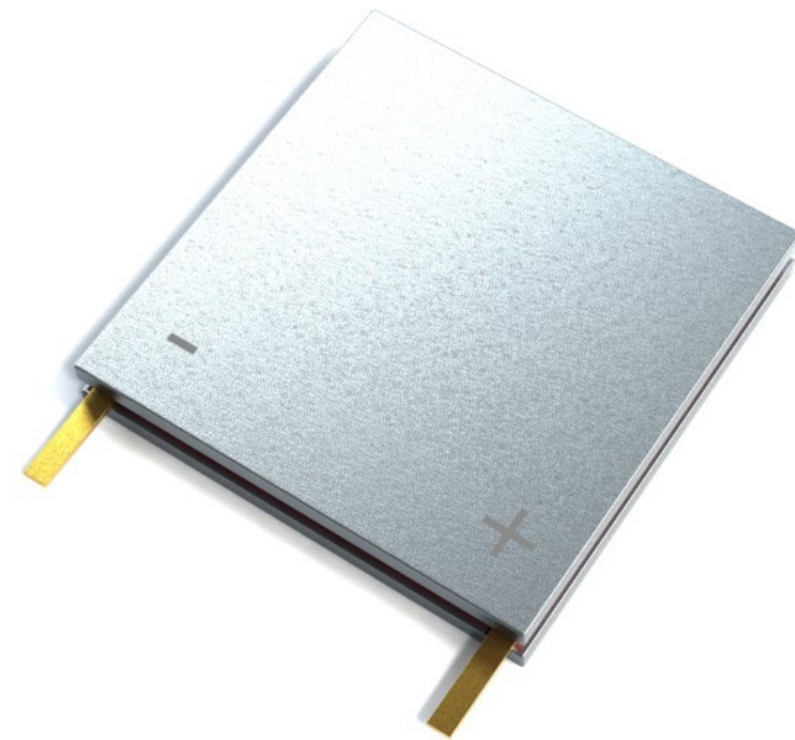


Advanced 3D surface
and mounting solutions

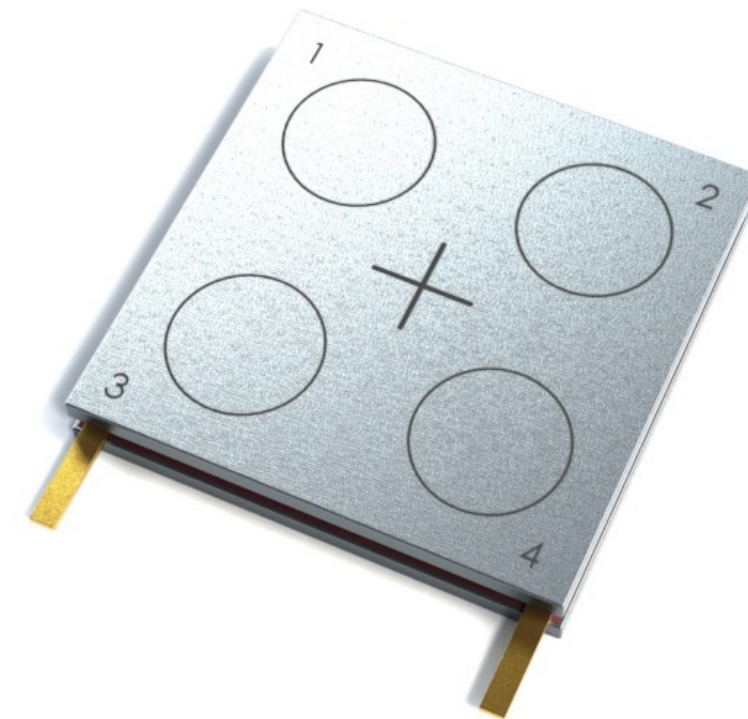


1MA10 SERIES ALUMINIUM TECs LASER ENGRAVING OPTIONS

Aluminium plates are easy to process with laser engraving - text, serial numbers, position marks



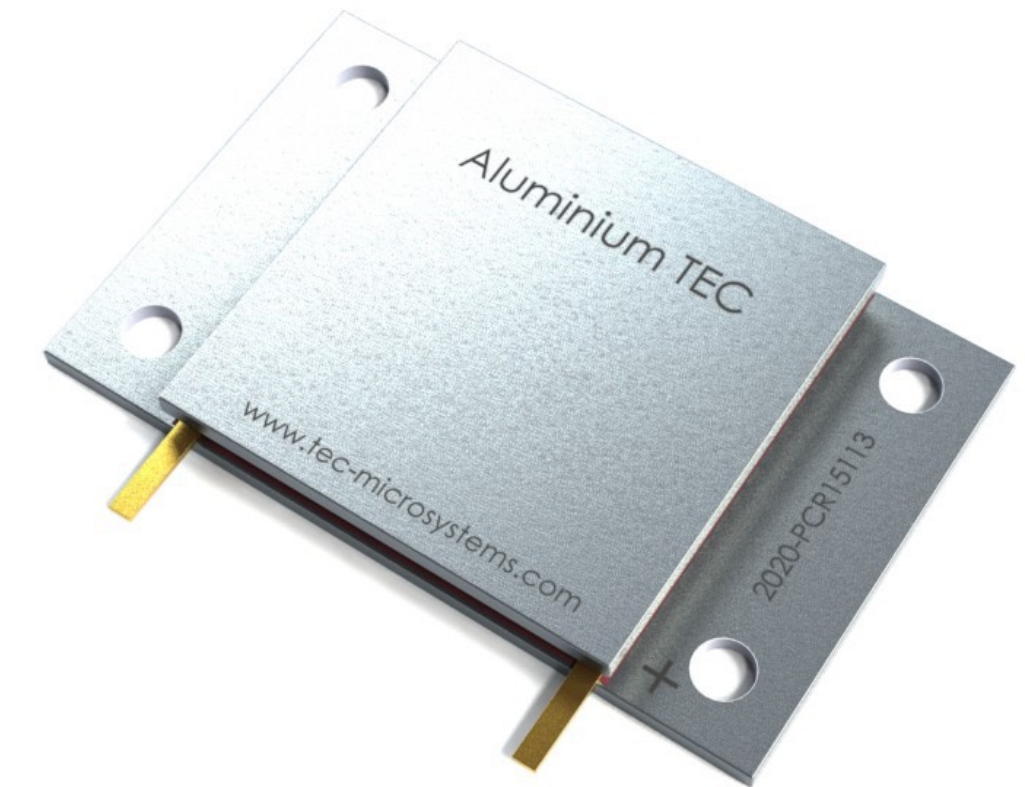
TEC Polarity labels



Positioning marks for mounting



Batch numbers for QC and traceability

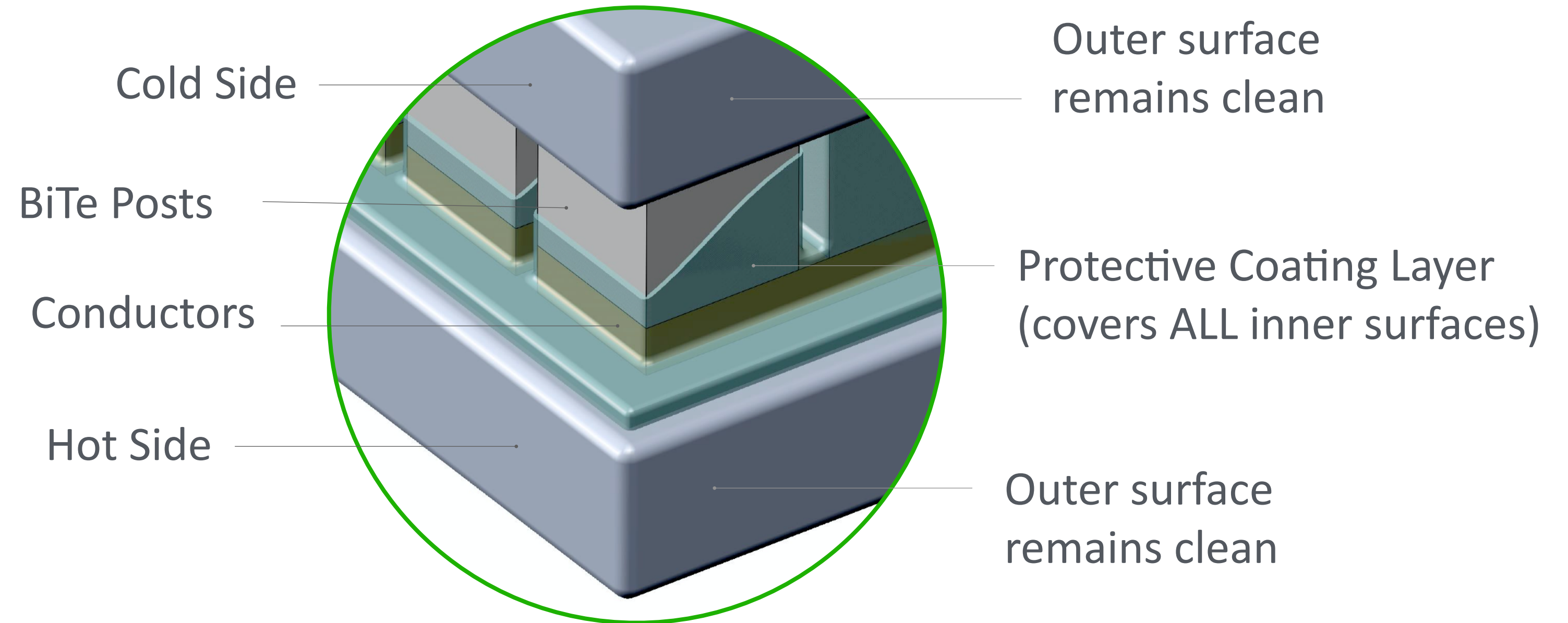
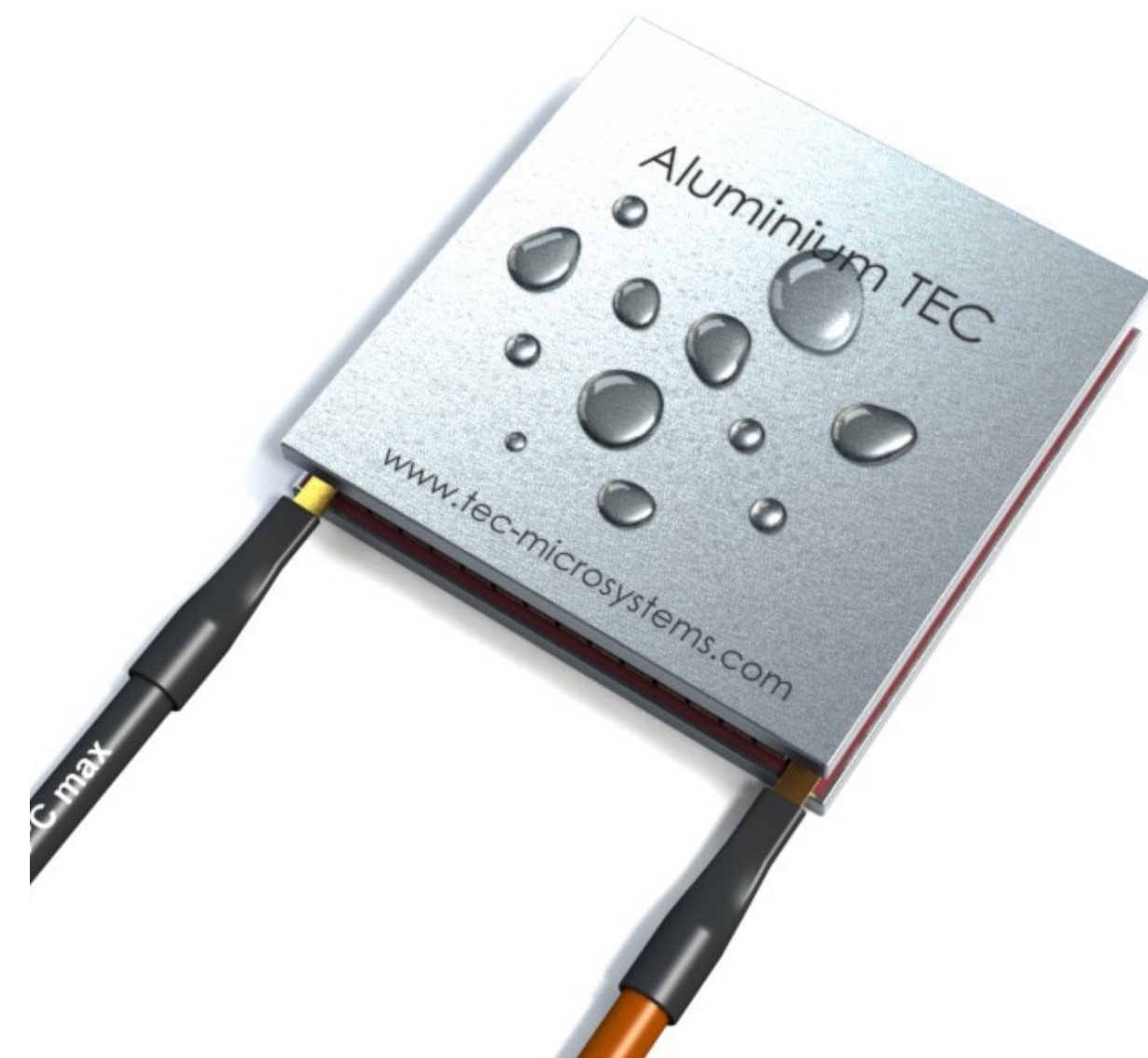


Applicable for all TEC sides



1MA10 SERIES ALUMINIUM TEC ADVANCED PROTECTIVE COATING

For applications with Dew Point and condensation risks TECs can be provided with a protective coating



- Thin fluoropolymer protective layer
- Covers ALL inner TEC surfaces

- No impact on TEC performance
- Withstands up to 220°C processing

- No-toxic composition
- VOC-free



1MA10 SERIES ALUMINIUM TEC ADVANCED MANUFACTURING OPTIONS

Aluminium TEC plates make it possible to create unique configurations for non-flat objects cooling

