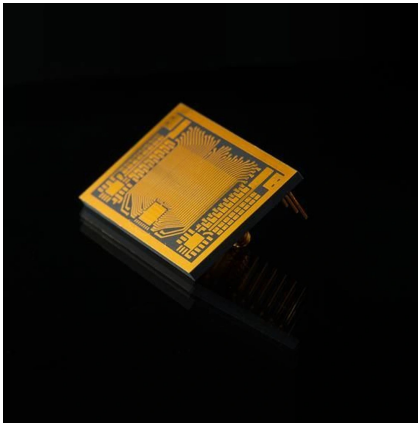




Alumina HTCC multilayer ceramic package with metallized features

Alumina HTCC Multilayer Ceramic Substrates

Product ID / SKU: FWM/CS-ALU-013

Material: Alumina HTCC

Product type: Ceramic Substrate

High-temperature co-fired alumina multilayer substrates and packages for hermetic electronic interconnection, reviewed against conductor system, layer design and assembly requirements.

HTCC Alumina (A440) Properties

Material property	A440 - co-fired alumina	Test condition / basis
Relative permittivity	9.8	1 MHz
Dielectric loss tangent	0.0024	1 MHz
Thermal conductivity	14 W/(m·K)	-
Coefficient of thermal expansion	$7.1 \times 10^{-6}/K$	Room temperature-400°C
Bending strength	400 MPa	Three-point bending
Co-fire-compatible conductors	Tungsten / molybdenum	Co-fired material system