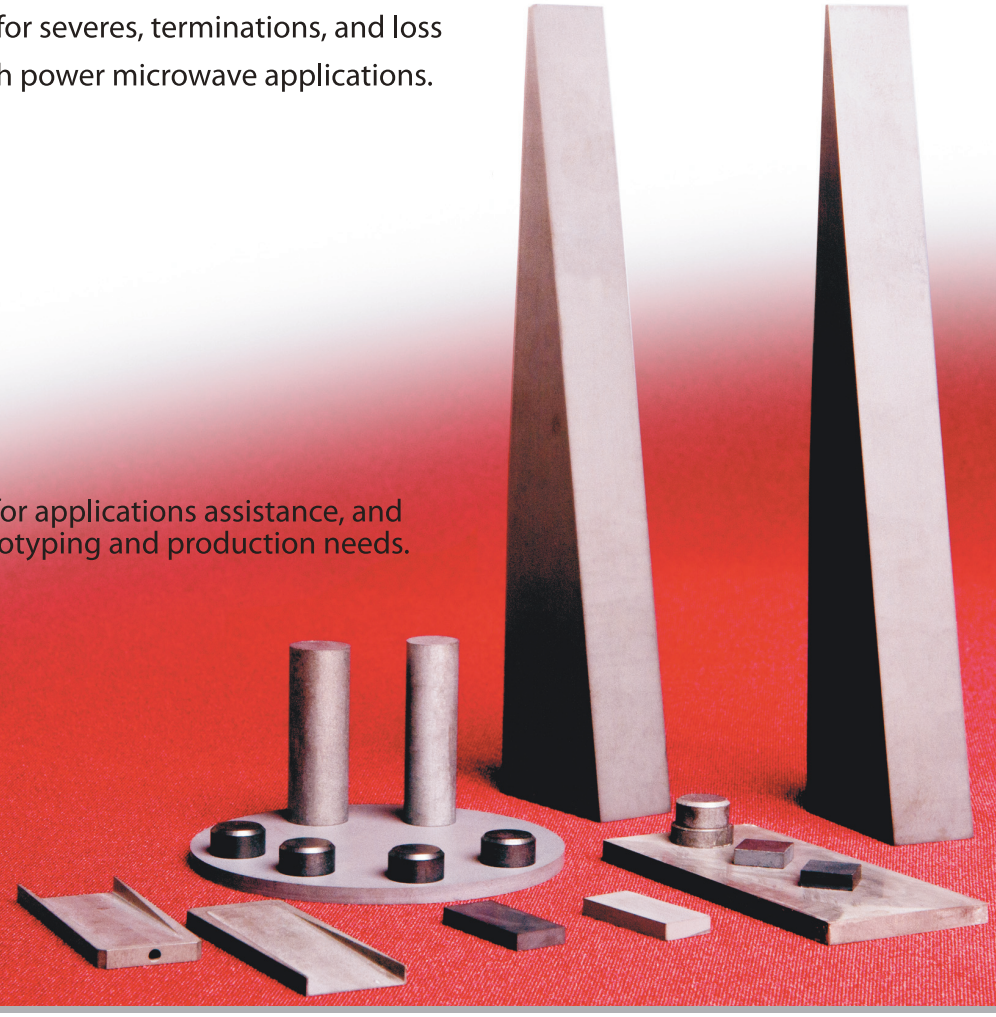
STL-100HTC

WORLD'S HIGHEST THERMAL CONDUCTIVITY AlN-SiC COMPOSITE MICROWAVE ABSORBER FOR HIGH POWER VACUUM ELECTRONICS

Sienna's engineers have overcome the processing difficulties that have prevented achieving high thermal conductivity in aluminum nitride-silicon carbide (AlN-SiC) composites. Sienna STL-100HTC has a thermal conductivity of greater than 120 W/m·K making it the perfect replacement for toxic beryllia-silicon carbide (BeO-SiC) composites in high power microwave applications.

STL-100HTC is specifically developed to replace the now discontinued Ceradyne® 2710 BeO-40SiC composite. STL-100HTC is well-suited for severes, terminations, and loss loads in high power microwave applications.



Contact us for applications assistance, and for fast prototyping and production needs.

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Woodinville, WA 98072

SIENNA TECHNOLOGIES Inc.®
providing solutions through advanced materials

STL-100HTC
AIN LOSSY DIELECTRIC PROPERTIES

	STL-100HTC	Ceradyne®2710
Composition	AIN-SiC (Composite)	BeO-SiC (Composite)
Density, g/cm^3	3.25	3.02
Vacuum Outgassing	No	No
Thermal Conductivity, W/m•K	120±10	130
Thermal Expansion Coefficient, X10^{-6}/°C	4.5	7.0
Dielectric Constant 6 GHz	25.0	24.8
Loss Tangent 6 GHz	0.21	0.22
Flexural Strength, MPa	410	-
Elastic Modulus, GPa	360	380
Application	Lossy dielectric, Replacement for BeO-SiC microwave absorbers in high power applications, Severes, Terminations, Loss loads	Discontinued

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