Product Samples

ATP1010: Fused Silica/Quartz Circuit

Applied Thin-Film Products (ATP) is pleased to provide ceramic thin-film samples for your evaluation.

TaN/TiW/Au on Fused Silica/Quartz is used in applications that require a low dielectric constant material. This material has a 60/40 Optical polish with high dimensional accuracy.

ATP1010, Material is 15 mil Fused Silica/Quartz
TaN Resistors = 50 Ohms per Square
TiW = 400–800 Ångström
Au = 120µ" minimum
Does not have indicator on circuit

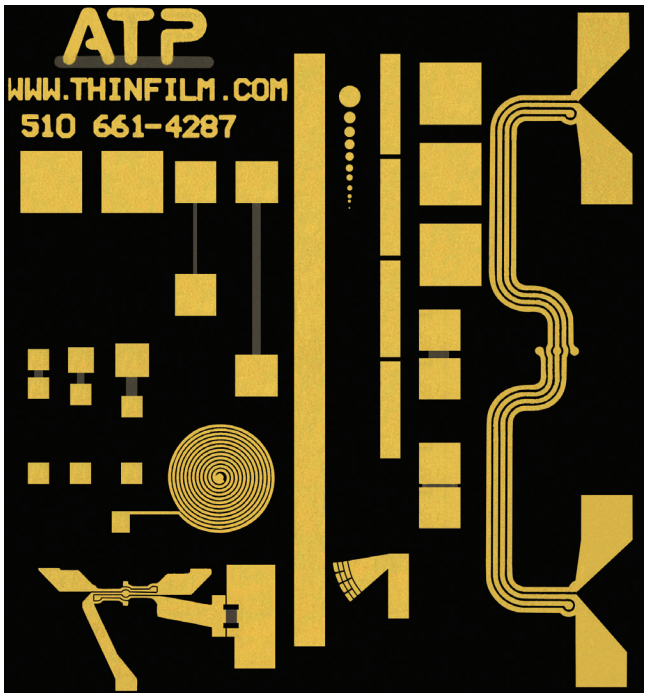
Material Specifications

Fused Silica Quartz

Properties	Values
Chemical Composition	SiO_2
Purity	100%
Color	Transparent
Nominal Density	60/40 g/cm³ Optical
Surface Finish (Polished) CLA	0.2µ"(0.5nm)
Camber	0.002" (0.508µm)
Thickness	0.004–0.025" (0.100–0.635mm)
Thickness Tolerance (±)	0.0005" (12.7µm)
Coefficient of Thermal Expansion (CTE)	0.65 x 10^{-6} (25–1000°C)
Dielectric Constant (k)	3.826 @ 1 MHz
Dissipation Factor (Loss Tangent)	0.000015 @ 1 MHz
Hardness (Rockwell)	7 Mohs
Flexural Strength	25K (10^{-3}) lbs/in²
Compressive Strength	161 x 10^{-3} M lbs/in²
Grain Size	Amorphous

Material Specifications provided by Accumet Engineering Company

Sample Provided



ATP offers build-to-print service for a wide range of materials and metalization schemes. ATP fabricates circuits on substrates from As-Fired Alumina to Beryllium Oxide to Fused Silica, even Silicon. Metalizations range from the standard Tan/TiW/Au to films including Nickel, Palladium, or Titanium.

At ATP, we constantly evolve our processing and material capabilities to reflect our customer's changing needs. If you have a circuit requirement that is out of the "normal" thin-film type, please contact ATP at 1.510.661.4287 or visit our website at www.thinfilm.com. ATP would enjoy discussing your application with you and working to develop a solution.

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