



ATP1010 Samples

Fused Silica - Quartz with Standard Metalization

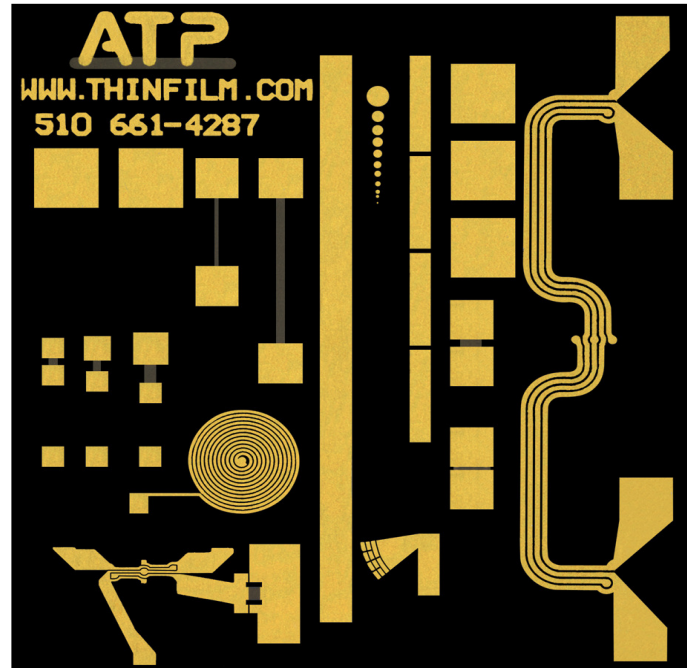
Applied Thin-Film Products (ATP) is pleased to provide ceramic thin-film samples for your evaluation.

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.

Material Specifications:

Properties	Units	Fused Silica Quartz
Chemical Composition		SiO ₂
Purity	%	100
Color		Transparent
Nominal Density	g/cm	60/40 Optical
Surface Finish Polished	u-inches/(nm)	.20 / (.5nm)
Coefficient of Thermal Expansion (CTE)	10 (-6)	0.65 (25-1000°C)
Camber	inches / um(microns)	0.002/(.508um)
Thickness	inches / um(microns)	.015(.381mm)
Thickness Tolerance	inches / um(microns)	0.0005(12.7um)
Thermal Conductivity	Watts/m K	n/a
Dielectric Constant	1 MHz	3.826
Dissipation Factor (Loss Tangent)	1 MHz	0.000015
Hardness	Rockwell	7 Mohs
Flexural Strength	K(10-3) lbs/sq.in	25
Compressive Strength	M(10-3) lbs/sq.in.	161
Grain Size	um (microns)	Amorphous

Samples Provided:



ATP1010, Material is 15 mil Fused Silica / Quartz

TaN Resistors = 50 Ohms per Square

TiW = 400 to 800 Angstroms

Au = 120 u" minimum

Does not have indicator on circuit

Material Specifications provided by Accumet Engineering

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 (510) 661-4287 or visit our web site www.thinfilm.com. ATP would enjoy discussing your application with you and working to develop a solution.

web site: www.thinfilm.com

