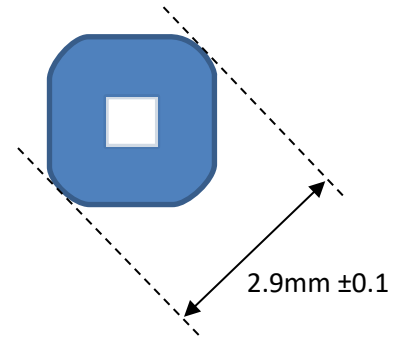




Silicon Nitride TEM Window Grid Specification

Frame:

	Unit	Description
Material	-	Silicon (Si)
Thickness	μm	100, 200
Thickness tolerance	%	5
Resistivity	$\Omega\text{-cm}$	1-30
Window (Square)	mm^2	0.05x 0.05, 0.25x0.25 & 0.5x0.5 (single window) 0.1x0.1 (3x3 arrays)



Membrane:

	Unit	Description
Material	-	Low stress LPCVD Silicon Nitride
Standard thicknesses available	nm	5 to 100
Thickness tolerance	%	≤ 7
Film stress	MPa	≤ 250
Dielectric constant	-	6-7
Dielectric strength	10^6 V/cm	10
Resistivity	$\Omega\text{-cm}$	10^{16}
Young's modulus	GPa	270
Density	g/cm^3	3.1
Roughness (Ra)	nm	$0.36 \pm 5\%$
Roughness (rms)	nm	$0.46 \pm 5\%$
Radius of Curvature	m	> 400
Refractive index	-	2.17

