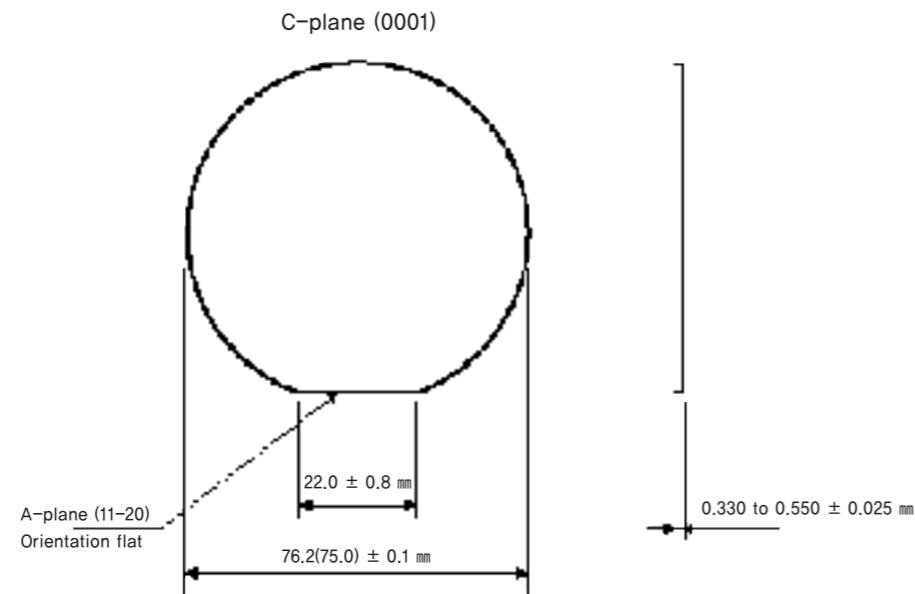
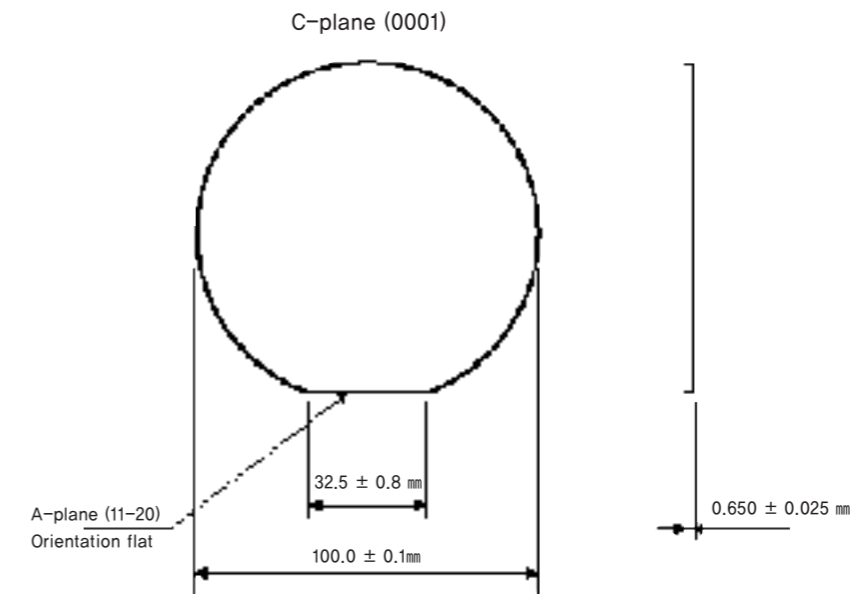


SAPPHIRE WAFER 3 inch C-plane



Property	Specification
Surface Orientation	C-plane (0001)
M-axis Tilt Angle	$0.0 \pm 0.1^\circ$, 0.2 or $0.3 \pm 0.05^\circ$
Diameter	76.2 ± 0.1 mm
Thickness	0.330 to 0.550 ± 0.025 mm
Bow	≤ 10 μm
TTV	≤ 5 μm
Roughness (Ra)	≤ 0.3 nm
Orientation Flat	A-plane (11-20) $\pm 0.5^\circ$
Flat Length	22.0 mm ± 0.8 mm
Front Surface Finish	Epi-ready
Back Surface Finish	As-lapped (SSP) or Epi-ready (DSP)

SAPPHIRE WAFER 4 inch C-plane



Property	Specification
Surface Orientation	C-plane (0001)
M-axis Tilt Angle	$0.0 \pm 0.1^\circ$, 0.2 or $0.3 \pm 0.05^\circ$
Diameter	100.0 ± 0.1 mm
Thickness	0.650 ± 0.025 mm
Bow	≤ 10 μm
TTV	≤ 10 μm
Roughness (Ra)	≤ 0.3 nm
Orientation Flat	A-plane (11-20) $\pm 0.3^\circ$
Flat Length	32.5 mm ± 0.8 mm
Front Surface Finish	Epi-ready
Back Surface Finish	As-lapped (SSP) or Epi-ready (DSP)