

Technical Specification

Epitaxial c-orientated AlN thin films on 2" c-plane sapphire substrates

Sapphire substrate

- Wafer diameter: 50.8 mm +/-0.25 mm
- Wafer thickness: 0.43 mm +/- 0.02 mm
- Orientation: C-plane +/- 0.5°
- Back surface finish: fine ground, front surface finish: epi-polished, edges: rounded
- Primary flat length: 16.0±1.0 mm

Al-N thin films

- AlN thin film orientation: c-plane (0002)
- AlN thin film thickness: 300 to 400 nm, electrically insulating
- Thickness uniformity: +/- 5%, edge exclusion zone: 1 mm
- Average surface roughness Ra: <10 nm
ω-scan (rocking curve full widths at half maximum (0002):
2000 arcsec (300 nm), 3000 arcsec (400 nm)
- Bow, TTV : ≤10um

