

## ▶ Undoped GaN/sapphire Epi-Wafer



Typical Epi Structure

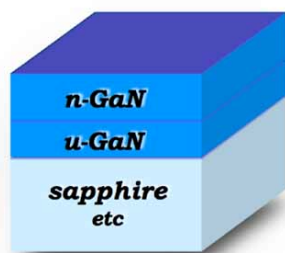
Epi-Layer	Size	Thickness
Undoped GaN Layer	---	2 μm
Nucleation Layer	---	---
Sapphire Substrate	2inch, 3inch, 100mm,,,	*1

\*1 Depending on the sapphire wafer size (2inch, 3inch, 100mm,,)

Typical Characteristics

Tolerance of Epi Thickness	< ± 10 %
Uniformity of Epi Thickness	3σ < 10 %
FWHM of XRD-RC	< 300 arcsec

## ▶ n-GaN/sapphire Epi-Wafer



Typical Epi Structure

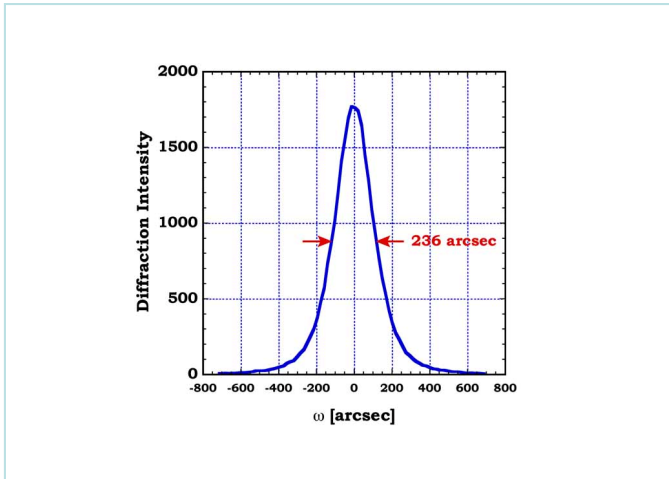
Epi-Layer	Size	Thickness	Dopant	Concentration
Si-doped GaN Layer	---	2 μm	Si	2 E18 cm <sup>-3</sup>
Undoped GaN Layer	---	1 μm	none	---
Nucleation Layer	---	---	---	---
Sapphire Substrate	2inch, 3inch, 100mm,,,	*1	---	---

\*1 Depending on the sapphire wafer size (2inch, 3inch, 100mm,,)

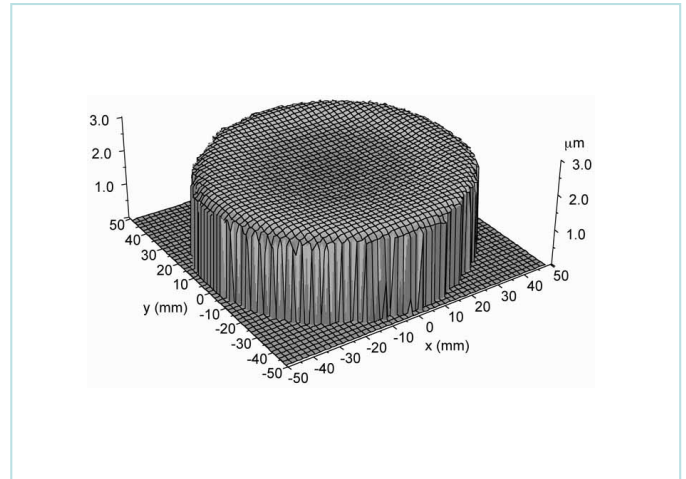
Typical Characteristics

Tolerance of Epi Thickness	< ±10%
Uniformity of Epi Thickness	3σ < 10%
FWHM of XRD-RC	< 300arcsec
Sheet Resistance	~65 Ω/□

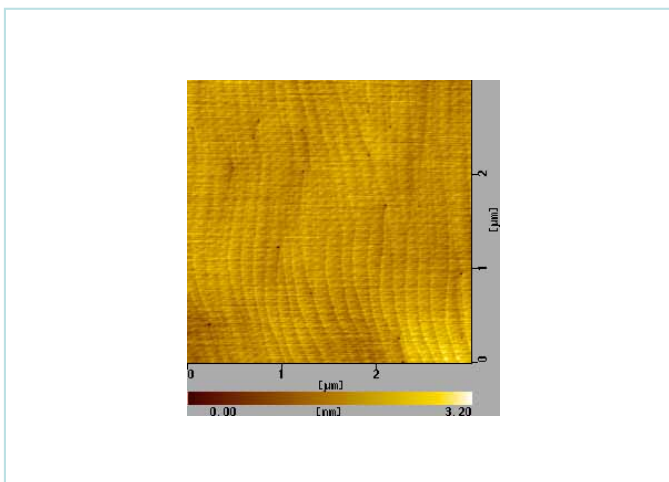
▶ X-ray Diffraction – Rocking Curve



▶ Epi Thickness Distribution



▶ Atomic Force Micrograph (AFM)



▶ Optical Micrograph

