

n-GaN Template on sapphire

Substrate	Material	Sapphire	
	Type	Planar / PSS	
	Size	2 inch	4 inch
	Thickness	430 $\mu\text{m} \pm 25 \mu\text{m}$	650 $\mu\text{m} \pm 30 \mu\text{m}$
	Orientation	C-plane (0001)	
	Backside finish	Rough / Optical polishing	
n-GaN layer	Thickness	Total: $\sim 6.0 \mu\text{m} \pm 3\%$ [u-GaN(2.0 μm) + n-GaN(4.0 μm)] n-GaN layer available thickness range : 2.0~6.0 μm u-GaN layer thickness(Fixed): 2.0 μm	
	FWHM of X-ray Rocking Curve (ω -scan)	(002)	< 300 arcsec
		(102)	< 350 arcsec
	Carrier Concentration	$1 \times 10^{18} / \text{cm}^3 \sim 9 \times 10^{19} / \text{cm}^3$	
	Mobility	> 150 cm^2/Vs	
	Edge Excursion Zone	< 2 mm	