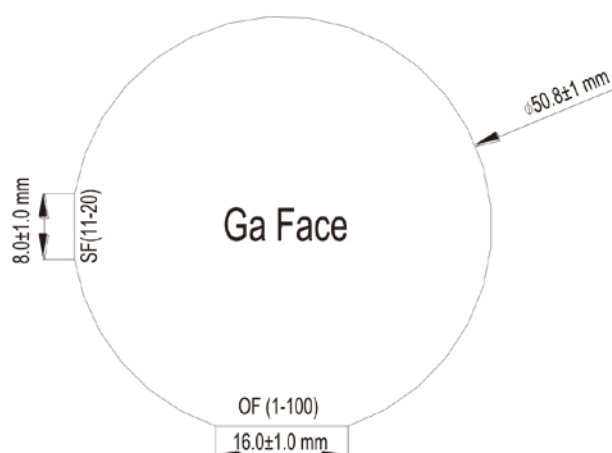


2 inch Free-Standing GaN wafer



性能参数 Specifications:

产品型号 Item	GaN-FS-C-U-C50	GaN-FS-C-N-C50	GaN-FS-C-SI-C50
尺寸 Dimensions	$\Phi 50.8 \text{ mm} \pm 1 \text{ mm}$		
厚度 Thickness	$350 \pm 25 \mu\text{m}$		
有效面积 Useable Surface Area	$> 90\%$		
晶体取向 Orientation	C-plane (0001) off angle toward M-Axis $0.35^\circ \pm 0.15^\circ$		
主定位边 Orientation Flat	$(1-100) \pm 0.5^\circ$, $16.0 \pm 1.0 \text{ mm}$		
次定位边 Secondary Orientation Flat	$(11-20) \pm 3^\circ$, $8.0 \pm 1.0 \text{ mm}$		
TTV(Total Thickness Variation)	$\leq 15 \mu\text{m}$		
弯曲度 BOW	$\leq 20 \mu\text{m}$		
导电类型 Conduction Type	N-type	N-type	Semi-Insulating (Fe-doped)
电阻率 Resistivity(300K)	$< 0.1 \Omega \cdot \text{cm}$	$< 0.05 \Omega \cdot \text{cm}$	$> 10^6 \Omega \cdot \text{cm}$
位错密度 Dislocation Density	From $1 \times 10^5 \text{ cm}^{-2}$ to $3 \times 10^6 \text{ cm}^{-2}$		
抛光 Polishing	Front Surface: $R_a < 0.2 \text{ nm}$ (polished); or $< 0.3 \text{ nm}$ (polished and surface treatment for epitaxy)		
	Back Surface: $0.5 \sim 1.5 \mu\text{m}$; option: $1 \sim 3 \text{ nm}$ (fine ground); $< 0.2 \text{ nm}$ (polished)		
包装 Package	Packaged in a class 100 clean room environment, in single wafer containers, under a nitrogen atmosphere.		



4 inch GaN on Sapphire Templates



性能参数 Specifications:

产品型号 Item	GaN-T-C-U-C100	GaN-T-C-N-C100
尺寸 Dimensions	$\Phi 100 \text{ mm} \pm 0.1 \text{ mm}$	
厚度 Thickness	$4.5 \pm 0.5 \text{ }\mu\text{m}$, $20 \text{ }\mu\text{m}$	
晶体取向 Orientation	C-plane(0001) $\pm 0.5^\circ$	
导电类型 Conduction Type	N-type (Undoped)	N-type (Si-doped)
电阻率 Resistivity(300K)	$< 0.5 \text{ }\Omega \cdot \text{cm}$	$< 0.05 \text{ }\Omega \cdot \text{cm}$
载流子浓度 Carrier Concentration	$< 5 \times 10^{17} \text{ cm}^{-3}$	$> 1 \times 10^{18} \text{ cm}^{-3}$
迁移率 Mobility	$\sim 300 \text{ cm}^2/\text{V} \cdot \text{s}$	$\sim 200 \text{ cm}^2/\text{V} \cdot \text{s}$
位错密度 Dislocation Density	Less than $5 \times 10^8 \text{ cm}^{-2}$ (calculated by FWHMs of XRD)	
衬底结构 Substrate structure	GaN on Sapphire(Standard: SSP Option: DSP)	
有效面积 Useable Surface Area	$> 90\%$	
包装 Package	Packaged in a class 100 clean room environment, in cassettes of 25pcs or single wafer containers, under a nitrogen atmosphere.	

