FA用金属顕微鏡・対物レンズ

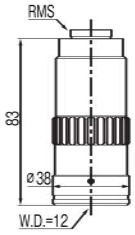
Photo Emission NIR Objective Lens

PE IR Plan

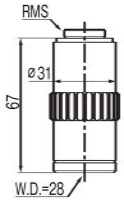
Long working distance, high-resolution objective lens designed with high spectral transmission at near-infrared wavelengths.
It can be used to observe the backside of wafers by transmitting through silicon or as a lens for photoemission failure analysis.

*20x, 50x, and 100x lenses are available with silicon correction. Please consult us.

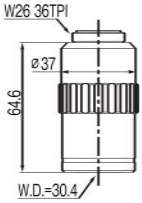
PE IR Plan 1X



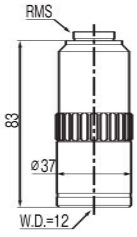
PE IR Plan 2.5X



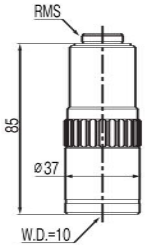
PE IR Plan 10X



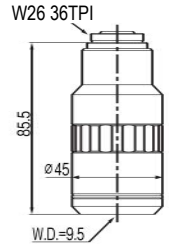
PE IR Plan 20X



PE IR Plan 50X



PE IR Plan 100X



■Specification

Model	PE IR Plan 1X	PE IR Plan 2.5X	PE IR Plan 10X	PE IR Plan 20X	PE IR Plan 50X	PE IR Plan 100X
Magnification	1X	2.5X	10X	20X	50X	100X
Working Distance	12mm	28mm	30.4mm	12mm	10mm	9.5mm
Focal Distance(f)	200mm	80mm	20mm	10mm	4mm	2mm
N.A.	0.03	0.1	0.27	0.5	0.6	0.71
Resolution	22.4μm	6.7μm	2.5μm	1.3μm	1.1μm	0.9μm
Focal Depth(±D.F)	611μm	55μm	7.5μm	2.2μm	1.5μm	0.9μm
Transmission 70% or higher	800nm-1600nm	450nm-1600nm	550-1600nm	800-1600nm	900nm-1600nm	900-1400nm
Glass Correction	-	-	-	-/1.0mm(LCD)	-/1.0mm(LCD)	-
Weight	420g	300g	335g	430g	500g	560g

Note: Resolution and Focal Depth calculated using the wavelength of λ = 0.55μm.
Resolution = 0.61x0.55(λ)/NA, Focal Depth ±D(μm) = 0.55(λ)/[2(NA)²]

NIR2000nm Objective Lens

PE IR 2000HRS

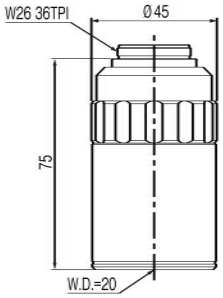
This objective lens maintains high transmittance in near infrared light 1000-2000nm suitable for SWIR cameras.
Capturing high-contrast images of the inside of semiconductor devices such as silicon wafers, chip MEMS, and CSP.
It is also effective for detecting extremely weak light emission due to current leakage in failure analysis of semiconductor devices.

■Specification

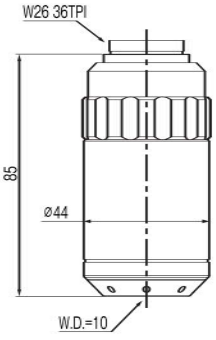
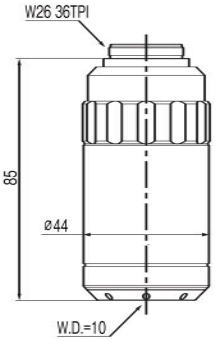
Model		PE IR 10X 2000 HRS	PE IR 20X 2000 HRS	PE IR 50X 2000 HRS
Magnification		10X	20X	50X
Working Distance		20mm	10mm	10mm
Focal Length(f)		20mm	10mm	4mm
NA		0.33	0.6	0.7
Resolution		2.9μm	1.6μm	1.4μm
Focal Depth (±D.F)		7.1μm	2.1μm	1.5μm
Transmission	1300nm	80% or higher	80% or higher	80% or higher
	2000nm	75% or higher	75% or higher	80% or higher
Silicon Thickness Corrected Glass		-	CG-PE20X2000-Si0.※※	CG-PE20X2000-Si0.※※
Weight		490g	610g	560g

Note: Resolution and Focal Depth calculated using the wavelength of λ = 1550nm.
Resolution = 0.61x1.55(λ)/NA, Focal Depth ±D(μm) = 1.55(λ)/[2(NA)²]

PE IR 10X 2000 HRS



PE IR 20X 2000 HRS



PE IR 50X 2000 HRS