



# HiCap/BaseCap 多模光纤光学特性

		HiCap 50/125 μm (OM2)	BaseCap 62.5/125 μm (OM1)
衰减 Attenuation	@850nm	≤ 2.6dB/km	≤ 3.0dB/km
	@1300nm	≤ 0.8dB/km	≤ 0.8dB/km
满注入带宽 Over filled Launch Bandwith	@850nm	≥ 500MHz-km	≥ 200MHz-km
	@1300nm	≥ 500MHz-km	≥ 500MHz-km
传输距离 Fiber Capacity	Gigabit Ethernet	SX(850nm)	SX(850nm)
	Standard 50/62.5 μm	500m	275m
	BaseCap 50/62.5 μm	500m	500m
	Gigabit Ethernet	LX(1300nm)	LX(1300nm)
	Standard 50/62.5 μm	550m*	550m*
	BaseCap 50/62.5 μm	1000m*	1000m*
数值孔径 Numerical Aperture		0.200±0.015NA	0.275±0.015NA
有效群折射率(Neff) Group Index of Refraction	@850nm	1.482	1.496
	@1300nm	1.477	1.491

\*註:需模态转换跳线

## 逆向散射特性 Backscatter Characteristics (@850nm/@1300nm)

台阶(双向平均值) Step(Mean of bidirectional measurement)	≤ 0.10dB	≤ 0.10dB
不平均性(整个光纤长度)和衰减点不连续性 Irregularities over fiber length and point discontinuity	≤ 0.10dB	≤ 0.10dB
逆向散射衰减系数差异(双向测量) Difference backscatter coefficient(Bidirectional measurement)	≤ 0.08dB/km	≤ 0.10dB/km

## 几何特性 Geometrical Characteristics

核直径 Core diameter	50±2.5μm	62.5±2.5μm
核偏心率 Core noncircularity	≤ 6%	≤ 6%
壳直径 Cladding diameter	125±1.0μm	125±1.0μm
壳偏心率 Cladding noncircularity	≤ 1%	≤ 1%
初始附着层直径 Primary Coating diameter	245±7μm	245±7μm
核壳同心度误差 Core/Cladding concentricity error	≤ 1.5μm	≤ 1.5μm

## 环境特性 Environmental Characteristics (@850nm/@1300nm)

温度附加衰减 Δα (-60°C ~ + 85°C) Attenuation at temperature cycling Δα (-60 °C ~ + 85°C)	≤ 0.10dB/km	≤ 0.10dB/km
温度湿度循环附加衰减(-10°C ~ + 85°C . 98% 相对湿度) Attenuation at temperature-humidity cycling (-10°C ~+ 85°C . 98% R.H.)	≤ 0.10dB/km	≤ 0.10dB/km
加速老化附加衰减 (85°C . 85% 相对湿度 . 30天) Attenuation at damp heat dependence (85°C . 85% R.H. .30days)	≤ 0.10dB/km	≤ 0.10dB/km
浸水附加衰减 (23°C . 30天) Attenuation at watersoak dependence(23°C . 30days)	≤ 0.10dB/km	≤ 0.10dB/km

## 机械特性 Mechanical Characteristics

筛选张力(离线)Proof test (off line)		≥ 9.0N (≥ 100kpsi)	≥ 9.0N (≥ 100kpsi)
宏弯损耗(100圈,ψ75mm) Attenuation at bending dependence (100turns,75 diameter)	@850nm	≤ 0.5dB	≤ 0.5dB
	@1300nm	≤ 0.5dB	≤ 0.5dB
涂层剥离(典型值)Coating strip force(Typical)		1.5N	1.5N
动态疲劳参数( $n_d$ ,典型值) Dyanamics stress corrosion susceptibility parameter( $n_d$ , Typical)		≥ 27	≥ 27