



Tappered lensed fiber



Description

It is mainly used for the coupling of DFB, SLD laser whose facula is nearly circular

Features:

Tapperd lensed fiber is produced by finishing the fiber end face to be taper-shaped with precise finish equipment of our company; and then optical micro-sphere lens is produced on its cusp with special processing procedure with the purpose of expanding optical numerical aperture and increasing its ability to absorb light. It is characterized by high coupling efficiency, as well as convenient and reliable use, with the coupling efficiency to SLD laser higher than 30%.

Light beam analysis photograph



Email:info@idealphotonics.com Office:Vancouver/shanghai/Hongkong Http:www.idealphotonics.com





Outline schematic diagram



Lens working schematic diagram:



Specifications

Product parameters	
Fiber mode	Single-mode / multimode fiber
	Special fiber required/provided by customers
Taper angle θ	θ =30 \sim 33°(standard), θ =52 \sim 55°(standard),
	$ heta{=}110$ \sim 120°(standard)or customer
	requirements(30~120°)±2°
Radius of lens r	4 \sim 20 μ m(standard)or customer
	requirements±1µm
A Naked fiber length at the end	≥0.1mm(standard), or customer
	requirements±0.2mm
B Length of metalized part	Customer requirements±0.5mm
C Length of naked fiber at the root	0mm(standard), or customer
	requirements±0.5mm

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D Total length of stripped fiber	Customer requirements±0.5mm
Total fiber length	Customer requirements+0.5m
Coating thickness	$3 \sim 4 \mu$ m(standard)or $1 \sim 10 \mu$ m(customer requirements)
Thickness of gold-coated layer	Not less than 0.1µm
Coated layer tension	>10N (Conditions: Idealphotonics hot solder resist process)
Operating Temperature	-40~+85℃
Recommended soldering temperature	280∼300 ℃
Recommended soldering flux	80%Au/20%Sn
Coated membrane on the end face	It can be coated according to customer requirements
Connector type	FC, SC or customer requirements