

Pump/Combiner

(N+1)×1 PM Pump Combiners

Lightel's (N+1)×1 Polarization Maintaining (PM) pump combiners are designed to combine one or more pump laser beams using multimode fiber and one signal beam on PM fiber into one PM output optical fiber with dual cladding. The device features high Polarization Extinction Ratio (PER) and pump efficiency and is available in (1+1)×1, (2+1)×1, (6+1)×1 and custom configurations.

Features

- High PER
- High Coupling Efficiency
- Stable and Reliable
- Custom Configurations Available



Specifications

Parameter	Specification					
Port Configuration	(1+1)×1 or (2+1)×1			(6+1)×1		
Pump Wavelength	800nm ~ 1000nm					
Signal Wavelength	1030nm ~ 1080nm or 1450nm ~ 1600nm					
Signal Input Fiber (Note 3)	x/125	x/250	20/400	x/125	x/125 or x/250 or 20/400	
Pump Fiber	105/125 0.15NA/0.22NA	105/125 0.15NA/0.22NA or 200/220 0.22NA		105/125 0.15NA/0.22NA	105/125 0.15NA/0.22NA or 200/220 0.22NA	
Output Fiber (Note 3)	y/125 or y/250	y/250	20/400	y/125	y/250	20/400
Pump Efficiency (Note 4)	>90%	>93%	>95%	>90%	>93%	>95%
Signal Insertion Loss	<0.5dB	<0.4dB	<0.4dB	<0.7dB		
Total Power Handling	50W	100W	200W	300W	600W	900W
Polarization Extinction Ratio	≥18dB					
Return Loss	>45dB					
Pigtail	Standard 1m or custom					
Operating Temperature	0~75°C					
Storage Temperature	-40~85°C					

Note 1: Values are referenced without connectors.

Note 2: Other package dimensions and optical performances available by request.

Note 3: x, y specifies fiber core size.

Note 4: Fiber size and type dependent.

Ordering Information

P	P	C	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Configuration	Wavelength	Pump Fiber	Signal Fiber	Output Fiber	Package Size(mm)	Special Code									
1: (1+1)×1	A: 1060nm	18: MM-S105/125-15A	04: HI1060 NA:0.14	47: Passive-25/250DC NA:0.07/0.46	3: 75x12x8										
2: (2+1)×1	B: 1550nm	19: MM-S105/125-22A	26: SCF10/125 NA:0.08	49: LMA-GDF-20/400-M NA:0.06/0.46	8: 105x15x8										
6: (6+1)×1		20: MM-S200/220-22A	29: DCF-UN-10/125DC	51: LMA-GDF-30/250-M NA:0.06/0.46	C: 80x14x10										

Note: These are our most popular configurations. Contact Lightel Sales for custom port counts or alternative fibers.