

## 980/1020-1120nm WDM/Partial Mirror PM Hybrid for Pulse Power

### FEATURES

- High Isolation
- Low Insertion Loss
- Epoxy-Free Optical Path
- High Reliability and Stability
- Low Profile Packaging

### APPLICATIONS

- Broadband Systems
- Optical Amplifying Systems
- Telecommunication Networks
- Metro Networks
- CATV Networks



### SPECIFICATIONS

Parameters		Unit	Standard Type	High ER Type
Signal Wavelength Range $\lambda_1$		nm	1020 $\pm$ 5, 1030 $\pm$ 10, 1040 $\pm$ 10, 1053 $\pm$ 10, 1064 $\pm$ 10, 1080 $\pm$ 10, 1092 $\pm$ 5, 1120 $\pm$ 5	
Pump Wavelength Range $\lambda_2$		nm	980 $\pm$ 10	
Excess Loss	Signal Channel@ $\lambda_1$	dB	$\leq 1.4$	$\leq 1.6$
Insertion Loss	Pump Channel@ $\lambda_2$	dB	$\leq 0.8$	
Signal Reflective Ratio (Common $\leftrightarrow$ Pass)		%	1 $\pm$ 0.6, 2 $\pm$ 0.8, 5 $\pm$ 1, 10, 20, 30, 40, 50, 60, 70, 80, 90	
Wavelength	Signal Channel@ $\lambda_2$	dB	$\geq 25$	
Isolation	Pump Channel@ $\lambda_1$	dB	$\geq 12$	
Optical Return Loss		dB	$\geq 45$	
Extinction Ratio		dB	$\geq 18$	$\geq 20$
Pump Type	Forward	-	Pump&Signal at same direction	
	Backward	-	Pump&Signal at reverse direction	
Fiber Type	Common & Signal Port	-	PM980 Fiber, PM1060L Fiber (E) or PM1060L-FA Fiber (L) 10/125um PMDC Fiber (O), 15/130um PMDC Fiber (W) 20/130um PMDC Fiber (Q) or 25/250um PMDC Fiber (R)	
	Pump Port	-	Same Fiber or Corresponding SM Fiber	
Fiber Tensile Load		N	5	
Maximum Average Optical Power		W	0.3, 0.5, 1, 2, 3, 5, 10, 15, 20	
Max. Peak Power for Pulse		kW	0.1, 1, 2, 3, 5, 10, 15, 20	
Operating Temperature		$^{\circ}$ C	0~50	
Storage Temperature		$^{\circ}$ C	-40~85	
Package Dimension	Stainless Steel Tube (SST)	mm	$(\varnothing)5.5 \times 40$ ( $\leq 5$ W); $(\varnothing)6.0 \times 48$ (5~10W)	
	Metal Box	mm	(L)90x(W)18x(H)10 (>10W); (L)120x(W)12x(H)10 ( $\leq 10$ W)	

- Note:**
- Specifications are for device without connectors; Specifications may change without notice.
  - To add connectors, IL is 0.5dB higher, RL is 5dB lower, ER is 2dB Lower, Connector key is aligned to slow axis.
  - Only guarantee 1W continuous wave (CW) power thru testing for connectors added.
  - Devices for higher optical power or with other type fiber or consigned fiber are also available; Devices can only work in the core of Double Cladding (DC) Fiber, Cladding Power must be stripped before connecting the device.
  - High ER type can only work in slow axis at pass port.

### ORDERING INFORMATION (PN)

FPHP-98NN - (C)	NN C	(C) -H NN	P NN	-(C)	C	C	NN	-CC/CCC			
Pass Wavelength	Pump Type	Tap Ratio	Pump Fiber	Type	Average Power	Peak Power	Package	Fiber Type	Fiber Sleeve	Fiber Length	Connector Type
06=1064nm	F=Forward	01=1%	P=Same Fiber	H=High ER	03=300mW	01=100W	M=Metal Box	2=PM980Fiber	B= Bare fiber	05=0.5m	N=Without Connector
03=1030nm	Blank for Backward	05=5%	S=Corr. SM Fiber	Blank for Standard	1=1W	1=1kW	Blank for SST	E=PM1060L Fiber	L= Loose Tube	10=1.0m	FC/APC=FC/APC Connector
08=1080nm		10=10%			5=5W	5=5kW	or >10W	Q=20/130 PMDC Fiber	2= 2mm Cable	15=1.5m	LC/PC=LC/PC Connector
12=1120nm		50=50%			10=10W	10=10kW		R=25/250 PMDC Fiber	3= 3mm Cable	20=2.0m	SC/UPC=SC/UPC Connector

