915/1030nm WDM/Isolator/Tap Hybrid for Pulse Power

FEATURES

APPLICATIONS

- Low Insertion Loss
- Epoxy-Free Optical Path
- High Reliability and Stability
- **Broadband Systems**
- **Optical Amplifying Systems**
- Telecommunication Networks

SPECIFICATIONS

Signal Wavelength Range λ1 nm 1030+/-10 Pump Wavelength Range λ2 nm 915+/-10 Excess Loss@23°C Signal Channel@λ1 dB ≤4.6 ≤8.3 Insertion Loss@23°C Pump Channel@λ2 dB ≤1.0 Signal Tap Ratio % 1+/-0.5%, 2+/-0.7%, 5+/-1.0%, 10%, 20%, 30%, 50% Signal Isolation (23°C, All SOP) dB ≥20 ≥40 Wavelength Isolation Signal Channel@λ2 dB ≥25 Pump Channel@λ1 dB ≥45 PDL dB ≥45 PDL dB ≤0.3 Pump Direction - Forward Pump Fiber Type Common, Signal & Tap Port - H1780 Fiber, H11060 Fiber or 10/125um SC Fiber (E) Pump Port - Same Fiber, H1780 Fiber or 10/125um DC Fiber (W) 20/130um DC Fiber (Q) or 25/250um DC Fiber (R) Same Fiber, H1780 Fiber or H11060 Fiber Fiber Tensile Load N 5 Max. Signal Average Power mW 5 Max. Pump Average Power W 0.3, 0.5, 1, 2, 3, 5, 10	Parameters		Unit	Single Stage	Dual Stage			
Excess Loss@23°C Signal Channel@λ1 dB ≤4.6 ≤8.3 Insertion Loss@23°C Pump Channel@λ2 dB ≤1.0 Signal Tap Ratio % 1+/-0.5%, 2+/-0.7%, 5+/-1.0%, 10%, 20%, 30%, 50% Signal Isolation (23°C, All SOP) dB ≥20 ≥40 Wavelength Isolation Signal Channel@λ2 dB ≥25 Pump Channel@λ1 dB ≥12 2 Optical Return Loss dB ≥45 PDL dB ≤0.3 Pump Direction - Forward Pump Fiber Type Common, Signal & Tap Port - HI780 Fiber, HI1060 Fiber or 10/125um SC Fiber (E) Pump Direction - Fiber Giber, HI780 Fiber (O) or 15/130um DC Fiber (W) 20/130um DC Fiber (O) or 25/250um DC Fiber (R) Fiber Type Pump Port - Same Fiber, HI780 Fiber or HI1060 Fiber Fiber Tensile Load N 5 Max. Signal Average Power mW 5 Max. Pump Average Power W 0.3, 0.5, 1, 2, 3, 5, 10 3, 5, 10, 15, 20 Operating Temperature °C 0~50 <t< td=""><td colspan="3">Signal Wavelength Range λ1</td><td colspan="4">1030+/-10</td></t<>	Signal Wavelength Range λ1			1030+/-10				
Insertion Loss@23°C Pump Channel@λ2 dB ≤1.0	Pump Wavelength Range λ2			915+/-10				
Signal Tap Ratio % 1+/-0.5%, 2+/-0.7%, 5+/-1.0%, 10%, 20%, 30%, 50% Signal Isolation (23°C, All SOP) dB ≥20 ≥40 Wavelength Isolation Signal Channel@λ2 dB ≥25 Pump Channel@λ1 dB ≥12 Optical Return Loss dB ≥45 PDL dB ≤0.3 Pump Direction - Forward Pump Fiber Type - HI780 Fiber, HI1060 Fiber or 10/125um SC Fiber (E) 10/125um DC Fiber (O) or 15/130um DC Fiber (W) 20/130um DC Fiber (O) or 25/250um DC Fiber (R) Pump Port - Same Fiber, HI780 Fiber or HI1060 Fiber Fiber Tensile Load N 5 Max. Signal Average Power mW 50 Max. Pump Average Power W 0.3, 0.5, 1, 2, 3, 5, 10 Max. Peak Power for pulse kW 0.1, 1, 2, 3, 5, 10, 15, 20 Operating Temperature °C 0~50 Stainless Steel Tube (SST) mm (Ø)5.5x40	Excess Loss@23°C	Signal Channel@λ1	dB	≤4.6	≤8.3			
Signal Isolation (23°C, All SOP) dB ≥20 ≥40 Wavelength Isolation Signal Channel@λ2 dB ≥25 Pump Channel@λ1 dB ≥12 Optical Return Loss dB ≥45 PDL dB ≤0.3 Pump Direction - Forward Pump HI780 Fiber, HI1060 Fiber or 10/125um SC Fiber (E) 10/125um DC Fiber (O) or 15/130um DC Fiber (W) 20/130um DC Fiber (Q) or 25/250um DC Fiber (R) Same Fiber, HI780 Fiber or HI1060 Fiber Fiber Tensile Load N 5 Max. Signal Average Power mW 50 Max. Pump Average Power W 0.3, 0.5, 1, 2, 3, 5, 10 Max. Peak Power for pulse kW 0.1, 1, 2, 3, 5, 10, 15, 20 Operating Temperature °C 0~50 Stainless Steel Tube (SST) mm (Ø)5.5x40	Insertion Loss@23°C	Pump Channel@λ2	dB	≤1.0				
	Signal Tap Ratio			1+/-0.5%, 2+/-0.7%, 5+/-1.0%, 10%, 20%, 30%, 50%				
Pump Channel@λ1 dB ≥12	Signal Isolation (23°C,	Signal Isolation (23°C, All SOP)			≥40			
Pump Channel@λ1 dB ≥12 Optical Return Loss dB ≥45 PDL dB ≤0.3 Pump Direction - Forward Pump Fiber Type Common, Signal & Tap Port - HI780 Fiber, HI1060 Fiber or 10/125um SC Fiber (E) 10/125um DC Fiber (O) or 15/130um DC Fiber (W) 20/130um DC Fiber (Q) or 25/250um DC Fiber (R) Pump Port - Same Fiber, HI780 Fiber or HI1060 Fiber Fiber Tensile Load N 5 Max. Signal Average Power mW 50 Max. Pump Average Power W 0.3, 0.5, 1, 2, 3, 5, 10 Max. Peak Power for pulse kW 0.1, 1, 2, 3, 5, 10, 15, 20 Operating Temperature °C 0~50 Storage Temperature °C -40~85 Package Dimension Stainless Steel Tube (SST) mm (Ø)5.5x40	Wayolongth Isolation	Signal Channel@λ2	dB	≥25				
PDL	wavelength Isolation	Pump Channel@λ1	dB	≥12				
Pump Direction - Forward Pump Fiber Type Common, Signal & Tap Port - HI780 Fiber, HI1060 Fiber or 10/125um SC Fiber (E) Fiber Type Pump Port - Same Fiber, HI780 Fiber or HI1060 Fiber (R) Pump Port - Same Fiber, HI780 Fiber or HI1060 Fiber or HI1060 Fiber Fiber Tensile Load N 5 Max. Signal Average Power mW 50 Max. Pump Average Power W 0.3, 0.5, 1, 2, 3, 5, 10 Max. Peak Power for pulse kW 0.1, 1, 2, 3, 5, 10, 15, 20 Operating Temperature °C 0~50 Storage Temperature °C -40~85 Package Dimension Stainless Steel Tube (SST) mm (Ø)5.5x40	Optical Return Loss			≥45				
Common, Signal & Tap Port Tap	PDL			≤0.3				
Tap Port Tap Port	Pump Direction	Pump Direction			Forward Pump			
Fiber Type Tap Port Tap Port	Fiber Type	_	1	HI780 Fiber, HI1060 Fiber or 10/125um SC Fiber (E)				
Pump Port Pump Port Same Fiber, HI780 Fiber or HI1060 Fiber Fiber Tensile Load N Suma Fiber, HI780 Fiber or HI1060 Fiber N Max. Signal Average Power Max. Pump Average Power Max. Peak Power for pulse Operating Temperature Storage Temperature Stainless Steel Tube (SST) Max. Package Dimension Stainless Steel Tube (SST) Package Dimension				10/125um DC Fiber (O) or 15/130um DC Fiber (W)				
Fiber Tensile Load Max. Signal Average Power Max. Pump Average Power Max. Peak Power for pulse Operating Temperature Storage Temperature Package Dimension N 5 MW 0.3, 0.5, 1, 2, 3, 5, 10 0.1, 1, 2, 3, 5, 10, 15, 20 0~50 -40~85 (Ø)5.5x40				20/130um DC Fiber (Q) or 25/250um DC Fiber (R)				
Max. Signal Average Power mW 50 Max. Pump Average Power W 0.3, 0.5, 1, 2, 3, 5, 10 Max. Peak Power for pulse kW 0.1, 1, 2, 3, 5, 10, 15, 20 Operating Temperature °C 0~50 Storage Temperature °C -40~85 Package Dimension Stainless Steel Tube (SST) mm (Ø)5.5x40		Pump Port	-	Same Fiber, HI780 Fiber or HI1060 Fiber				
Max. Pump Average Power W 0.3, 0.5, 1, 2, 3, 5, 10 Max. Peak Power for pulse kW 0.1, 1, 2, 3, 5, 10, 15, 20 Operating Temperature °C 0~50 Storage Temperature °C -40~85 Package Dimension Stainless Steel Tube (SST) mm (Ø)5.5x40	Fiber Tensile Load			5				
Max. Peak Power for pulsekW0.1, 1, 2, 3, 5, 10, 15, 20Operating Temperature°C0~50Storage Temperature°C-40~85Package DimensionStainless Steel Tube (SST)mm(Ø)5.5x40	Max. Signal Average Power			50				
Operating Temperature °C 0~50 Storage Temperature °C -40~85 Package Dimension Stainless Steel Tube (SST) mm (Ø)5.5x40	Max. Pump Average Power			0.3, 0.5, 1, 2, 3, 5, 10				
Storage Temperature °C -40~85 Stainless Steel Tube (SST) mm (Ø)5.5x40	Max. Peak Power for pulse			0.1, 1, 2, 3, 5, 10, 15, 20				
Package Dimension Stainless Steel Tube (SST) mm (Ø)5.5x40	Operating Temperature			0~50				
Package Dimension	Storage Temperature			-40~85				
Metal Box mm (L)120x(W)12x(H)10	Dackage Dimension	Stainless Steel Tube (SST)	mm	(Ø)5.5x40				
		Metal Box	mm	(L)120x(W)12x(H)10				

Note: 1. Specifications are for device without connectors; Specifications may change without notice.

- 2. To add connectors, IL is 0.7dB higher, RL is 5dB lower.
- 3. Only guarantee 1W continuous wave (CW) power thru testing for connectors added.
- 4. 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.

ORDERING INFORMATION (PN)

FHWT-91	03- <mark>C N</mark>	1 (C) -H	H NNN	P NN	- (<mark>NN</mark>)	- (C)	(C)	C	NN	-CC/CCC
Stage	Tap Ratio	Pump Fiber	Average Power	Peak Power	Pump Power	Package	Fiber Type	Fiber Sleeve	Fiber Length	Connector Type
S= Single	01= 1%	H= HI780 Fiber	005=500mW	<mark>01</mark> =100W	<mark>05=</mark> 500mW	M=Metal Box	H=HI1060 Fiber	B= Bare fiber	05=0.5m	N=Without Connector
D=Dual	05=5 %	<i>Blank</i> for Same Fiber	•	1= 1kW	1-W	<i>Blank</i> for SST	E=10/125 SC Fiber	L= Loose Tube	<mark>10=</mark> 1.0m	FC/APC=FC/APC Connector
	10=10%			5= 5kW	10-W		R=25/250 DC Fiber	2= 2mm Cable	15=1.5m	LC/PC=LC/PC Connector
	50= 50%			10=10kW	Blank for 300mW		<i>Blank</i> for HI780 Fiber	3= 3mm Cable	20= 2.0m	SC/UPC=SC/UPC Connector





