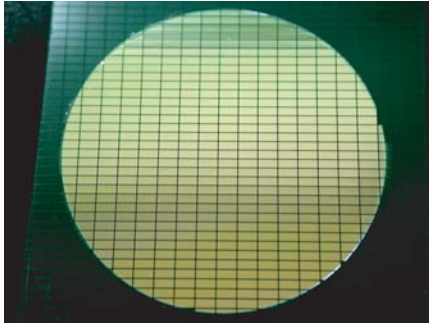


# Thin film filter using Polyimide substrate

## Material

- Ultra-thin Polyimide substrate (Thickness: 18-28 $\mu$ m)
- Low cost, High performance



## Filter performance

Filter Type	Filtering profile pattern	Passband Wavelength	Insertion Loss	P.D.L.	Rejection Wavelength	Rejection Loss	STATUS
		nm	dB	dB	nm	dB	
SWPF		1260-1310	0.3	0.2	1550-1560	33	Available
		1480-1500	0.3	0.2	1640-1660	41	
		1290-1330	0.3	0.2	1640-1670	53	
		1530-1570	0.3	0.2	$\geq 1600$	$\geq 20$	
LWPF		1640-1670	0.3	0.2	1480-1500	$\geq 20$	Available
		1640-1670	0.3	0.2	1260-1310	$\geq 20$	
		1530-1580	0.3	0.2	1290-1330	$\geq 20$	
BPF		1.55 $\mu$ m CWDM DL=3nm	0.6	0.3	-4dB/nm	$\geq 25$	Under Development
		1.55 $\mu$ m CWDM DL=5nm	0.6	0.3	-2dB/nm	$\geq 25$	
		1.55 $\mu$ m CWDM DL=3nm	0.6	0.3	-5dB/nm	$\geq 25$	

## Application

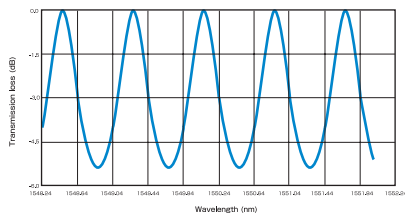
- Adaptor built-in filter
- Fiber pigtail



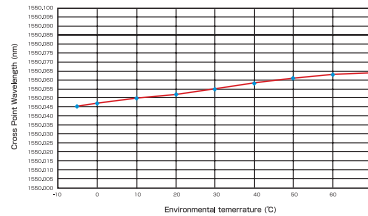
# Etalon filter for wavelength locker

## Features

- 50GHz ITU grid
- Low loss, High temperature stability



Transmission characteristic (Air gap)

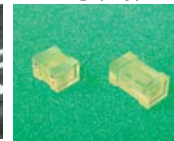


Temperature characteristic (Air gap)

Solid type



Air gap type



Block



# Circulator with polarization combiner

(Preliminary)

## Specifications

- Operating Wavelength: 1550nm
- Insertion loss:  $\leq 1.5$ dB
- Isolation:  $>45$ dB
- Extinction ratio:  $>25$ dB
- Return loss:  $>45$ dB

