

TRC01092A



Technical Information
for
CWDM Mux Demux

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1. General

This document covers the technical information of CWDM Mux Demux.

2. Construction

Construction is shown in Figure 1~2.

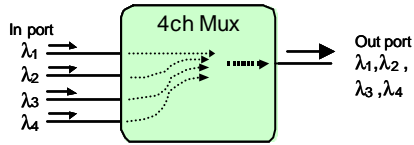


Figure 1. Construction of CWDM 4ch Mux

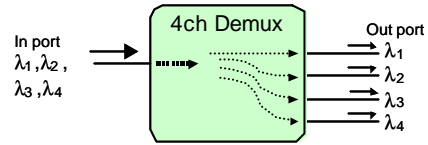


Figure 2. Construction of CWDM 4ch Demux

3. Characteristics

Parameter	Unit	4 channel		8 channel	
		Demux	Mux	Demux	Mux
Channel Spacing	nm	20			
Central Wavelength (λ_c)	nm	4 or 8 channel from 1471,1491, 1511, 1531, 1551, 1571, 1591, 1611			
Passband	nm	$\lambda_c \pm 6.5$			
Insertion Loss	Max. dB	2.5		3.9	
Passband Flatness	Max. dB	0.5			
Channel Uniformity	Max. dB	1.2			
Isolation	Min. dB	30	N/A	30	N/A
Directivity	Min. dB	N/A	50	N/A	50
Return Loss	Min. dB	42			
Polarization Dependent Loss	Max. dB	0.15			
Polarization Mode Dispersion	Max. ps	0.1			
Operating Temperature	°C	0 to 65			
Storage Temperature	°C	-40 to 85			
Package Dimension	mm	135x 100x 10			

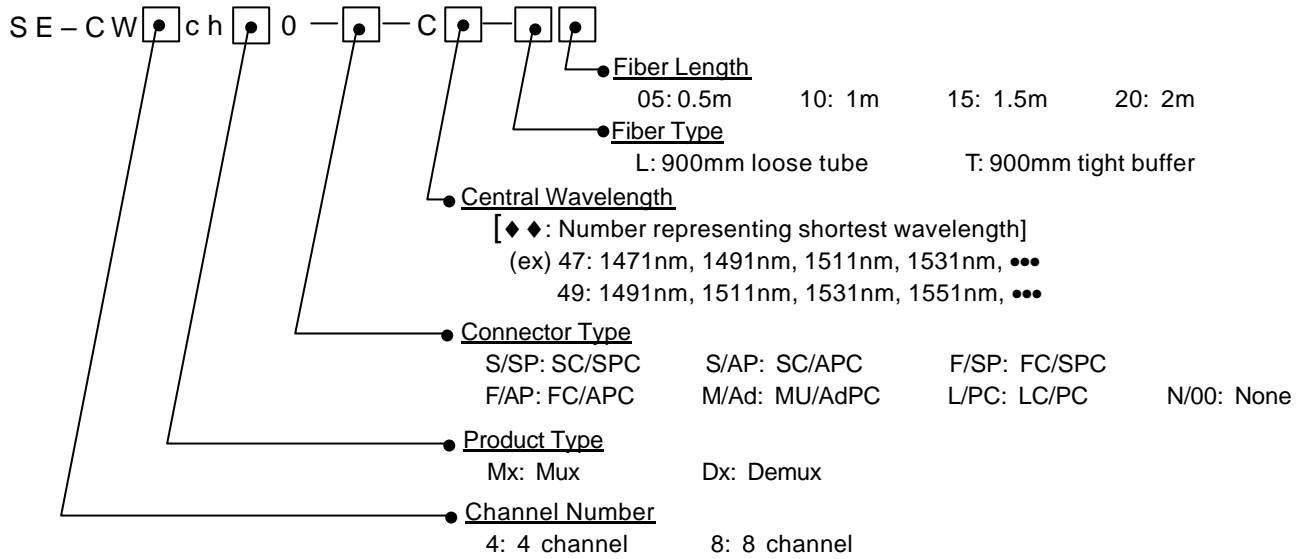
Values in the table above are referenced without connector(s).

4. Other Information

Parameter	Option
Fiber	900 μ m loose tube*, 900 μ m tight buffer
Fiber Length	0.5m, 1m*, 1.5m, 2m
Connector	SC/SPC*, SC/APC, FC/SPC, FC/APC, MU/AdPC, LC/PC(900 μ m loose tube only), None

*Standard products

5. Ordering Information



6. Definition

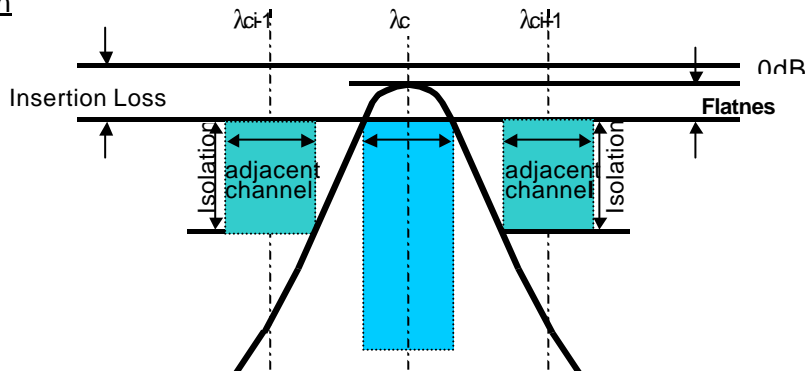


Figure3 Definition of parameters

The parameters herein take into account temperature variations over the operating temperature range.

Insertion Loss

This describes the maximum insertion loss value from the zero dB point over the entire passband $\lambda_c \pm 6.5\text{nm}$ within each central wavelength channel.

Passband Flatness

It is a measure of the difference in dB between the minimum and maximum insertion loss in each channel port over the entire passband $\lambda_c \pm 6.5\text{nm}$.

Channel Uniformity

It is a measure of the difference in dB between the minimum and the maximum insertion loss across all channels.

Isolation

It is a measure of the difference of insertion loss from the Insertion loss of the defined bandwidth over the adjacent channel band edge on either side of the central wavelength of the channel being tested. Values of both short and long sides shall be reported. The adjacent channel isolation for multiplexer(Mux) will not be tested and reported.

Polarization Dependent Loss (PDL)

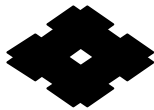
PDL is defined as the maximum difference in insertion loss over the passband $\lambda_c \pm 6.5\text{nm}$ for all states of polarization.

Directivity

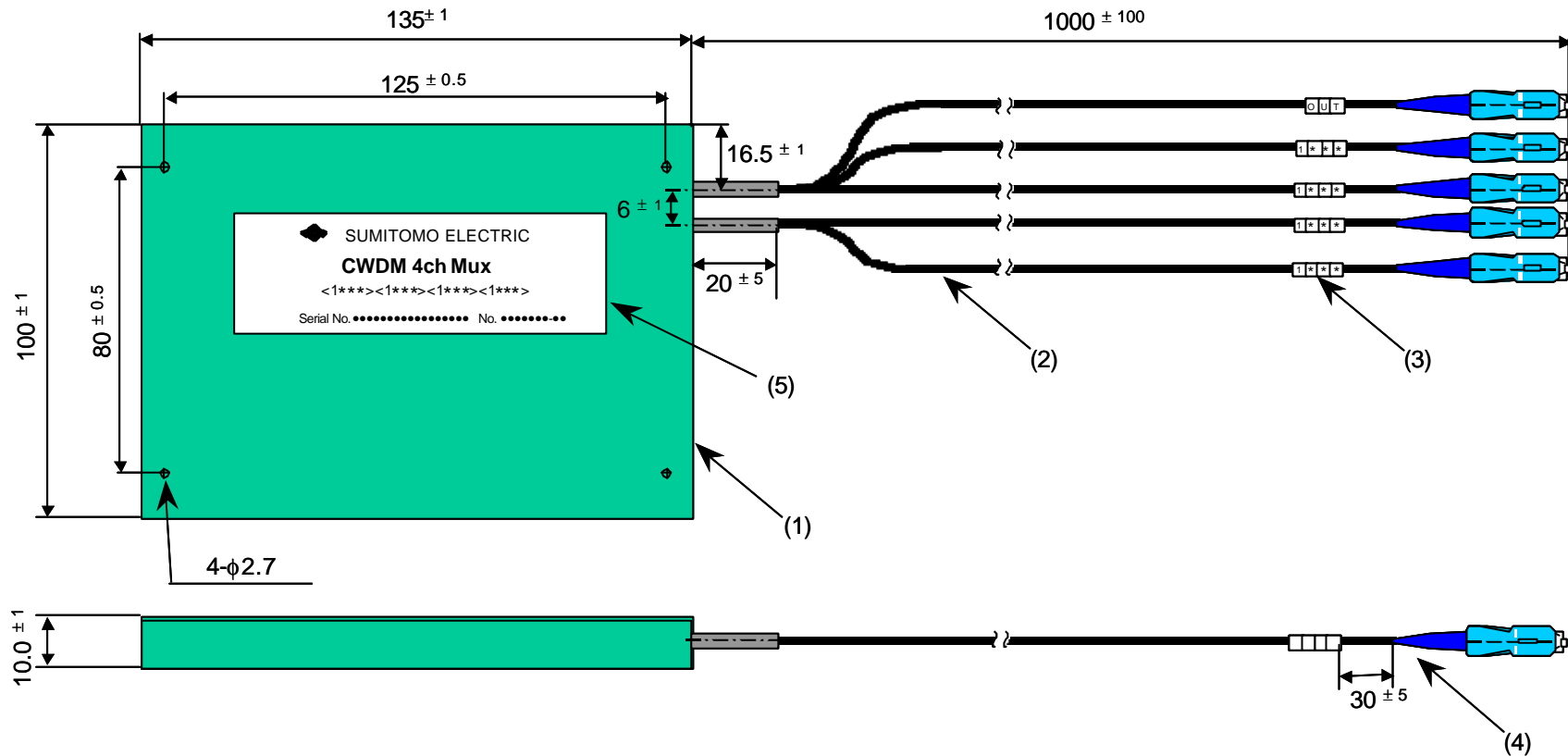
The directivity is the amount of unwanted signal that appears in one input channel when light is launched into another input channel over the passband $\lambda_c \pm 6.5\text{nm}$. The directivity for demultiplexer(Demux) will not be tested and reported.

Return Loss

The return loss is defined as the maximum amount of optical power returning through input port when optical signals are launched into. It is measured over the passband $\lambda_c \pm 6.5\text{nm}$.



CWDM 4ch Mux (Standard product)



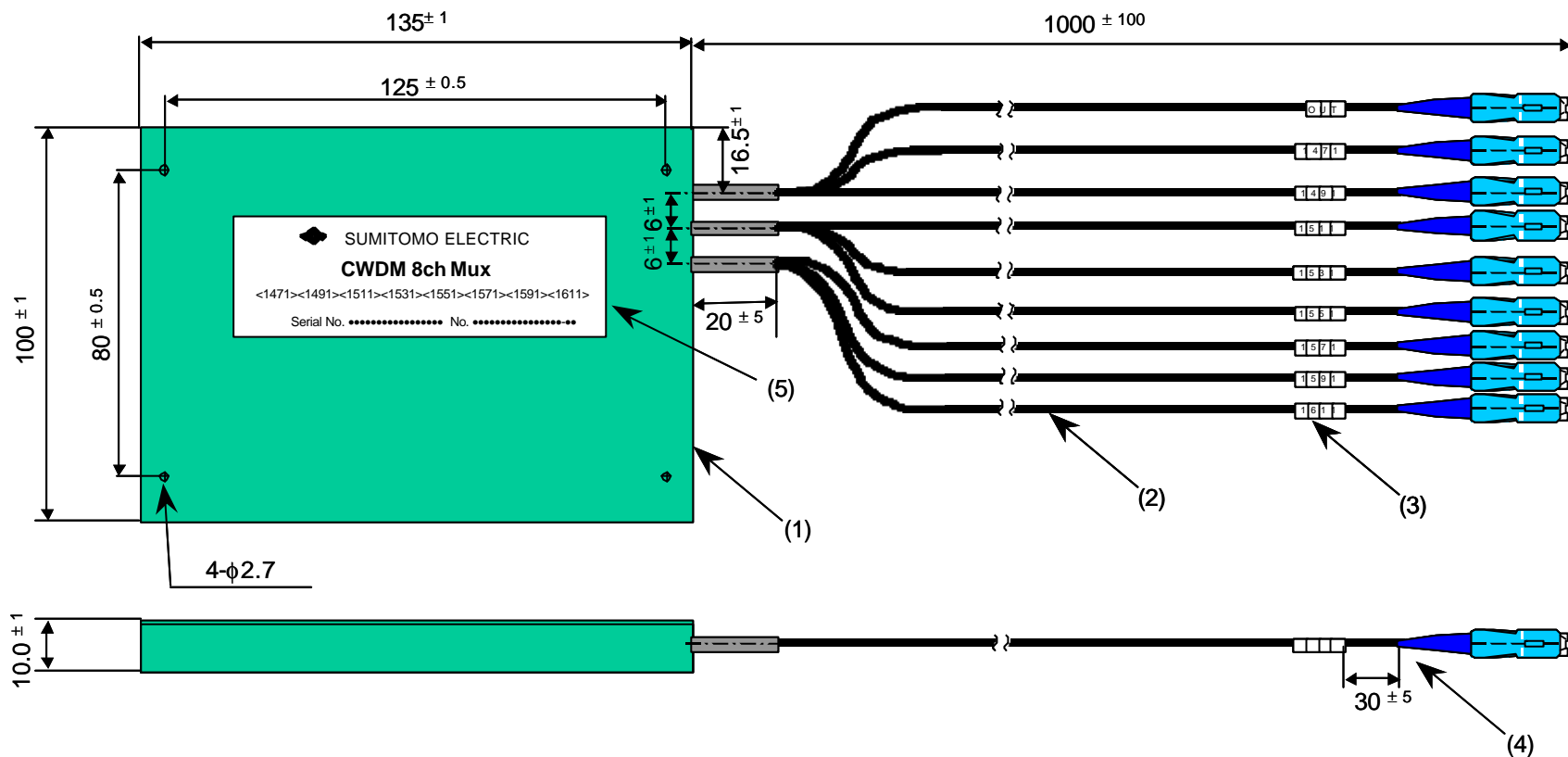
- (1) Protective Case
- (2) Optical Fiber
- (3) Mark Band
- (4) Connector
- (5) Label

1*** is selected central wavelength in nm.

Unit: mm



CWDM 8ch Mux (Standard product)



- (1) Protective Case
- (2) Optical Fiber
- (3) Mark Band
- (4) Connector
- (5) Label

Unit: mm