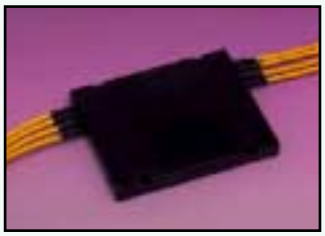
Couplers & Splitters



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Custom Designed Couplers

C-DX

- *Low insertion loss*
- *High port isolation*
- *Custom defined specifications*
- *Environmentally stable*

Applications:

- *Telecommunications*
- *Local area network*
- *Fibre to the home*
- *Video transmission*
- *Fibre optic sensing*
- *Testing instruments*
- *CATV*
- *CCTV*

Ordering Information

C-D □ - □□ - □□ - □ - □□ □□ - □□ - □□ / □□

Coupler Type
D .....Dual windows
M .....Multimode
S.....Singlemode
U .....Unitary
W.....Wideband

Fibre Type
A .....Corning SMF-28™
B .....Dispersion-shift fibre
C .....50/125 µm
D .....62.5/125 µm
X.....Others, please specify

Package Option
Depending upon port configuration, please refer to Appendix A.

Input Port No.
Please specify desired port number in two digits

Grade
H .....High
A .....Average

Output Port No.
Please specify desired port number in two digits

Pigtail Length (for each port)
10 ....1 meter 05 .... 0.5 meter
20 ....2 meter 15 .... 1.5 meter
00 ....Modulised XX.... others, please specify

Wavelength
85 ....850nm 13 .... 1310nm
15 ....1550nm 35 .... 1310/1550nm
XX ....Others, please specify

Connector Type (for both ends)
FC....FC type AP.... FC/APC type
SC ....SC type AS .... SC/APC type
ST ....ST type LC.... LC type
MU ...MU type NC ... None
XX ....Others, please specify

Specifications		Custom Designed Couplers
Port Configuration		M x N (M, N = 1, 2, ..., 64)
Operating Wavelength	nm	1310 and/or 1550
Operating Temperature	°C	-40 ~ +75
Storage Temperature	°C	-55 ~ +85

Miniature Singlemode Couplers

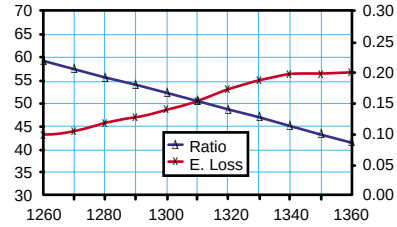
C-MS

- *Low insertion loss*
- *High port isolation*
- *Custom defined specifications*
- *Environmentally stable*

Telecommunications

- *Local area network*
- *Fibre to the home*
- *Video transmission*
- *Fibre optic sensing*
- *Testing instruments*
- *CATV*

C-MS Miniature Singlemode Coupler
Operating Wavelength: 1310nm, Coupling Ratio: 50 / 50%



Ordering Information

C-MS - □□ - □□ - □ - □□ □□ - □□ - □□ / □□

Fibre Type
A .....SMF-28™
B .....Dispersion-shift fibre
X.....Others, please specify

Package Option
C .....T1 with coated fibre
X.....Others, please specify

Coupling Ratio
00 ~ 50 .....Please specify

Grade
S.....Super
H .....High

Port Number
12 ....1 x 2
22 ....2 x 2

Pigtail Length (for each port)
10 ....1 meter 05 .... 0.5 meter
20 ....2 meter 15 .... 1.5 meter
00 ....Modulised XX.... others, please specify

Wavelength
13 ....1310nm
15 ....1550nm

Connector Type (for both ends)
FC....FC type AP.... FC/APC type
SC ....SC type AS .... SC/APC type
ST ....ST type LC.... LC type
MU ...MU type NC ... None
XX ....Others, please specify

Coupling Ratio (%)	Insertion Loss (dB) Super Grade (S)	Insertion Loss (dB) High Grade (H)
50 / 50	3.5	3.7
40 / 60	4.5 / 2.6	4.8 / 2.9
30 / 70	5.8 / 1.9	6.1 / 2.1
20 / 80	7.6 / 1.2	8.1 / 1.5
10 / 90	10.9 / 0.7	11.6 / 1.0
5 / 95	14.7 / 0.5	15.6 / 0.7

Specifications		Miniature Singlemode Couplers	
Operating Wavelength	nm	1310 ± 10 or 1550 ± 10	
Grade		Super (S)	High (H)
Typical Excess Loss,	dB	0.12	0.2
Uniformity, (50:50)	dB	0.7	1.0
Thermal Stability (peak-peak)	dB	<0.3	<0.4
Polarisation Stability	dB	<0.1	<0.15
Port Configuration		1 x 2 or 2 x 2	
Coupling Ratio		1:99 to 50:50, (50:50 standard)	
Insertion Loss	dB	Please refer to the coupling ratio vs. Insertion loss chart	
Directivity	dB	>50 (1 x 2) , >60 (2 x 2)	
Operating Temperature	°C	-40 ~ +85	
Storage Temperature	°C	-55 ~ +85	
Package Options		Coated fibre (250 µm): T1	

Note : The packaging option codes are explained in Packaging Dimensions below.

Standard Multimode Couplers

C-NM

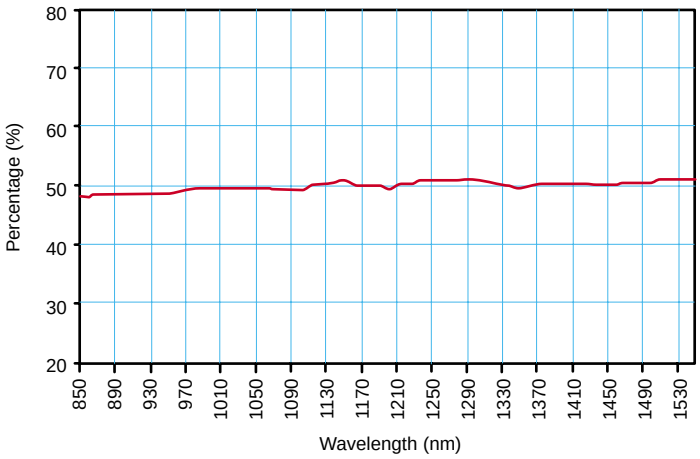
- ***Low insertion loss***
- ***Custom defined specifications***
- ***Environmentally stable***

Applications:

- ***Telecommunications***
- ***Local area network***
- ***Fibre to the home***
- ***Video transmission***
- ***Fibre optic sensing***
- ***Testing instruments***

C-NM Standard Multimode Coupler

Operating Wavelength: 850 - 1550nm, Coupling Ratio: 50 / 50%



Coupling Ratio (%)	Insertion Loss (dB)	
	Super Grade (S)	High Grade (H)
50 / 50	3.9	4.3
40 / 60	4.9 / 3.0	5.4 / 3.5
30 / 70	6.2 / 2.3	6.7 / 2.7
20 / 80	8.0 / 1.8	8.7 / 2.1
10 / 90	11.3 / 1.25	12.2 / 1.6
5 / 95	14.9 / 0.9	16.2 / 1.3
1 / 99	22.1 / 0.7	22.7 / 1.0

Specifications		Standard Multimode Couplers	
Operating Wavelength	nm	800 to 1600	
Grade		Super (S)	High (H)
Maximal Excess Loss	dB	0.7	1.0
Uniformity (50:50, at specified wavelength)	dB	0.7	1.0
Thermal Stability (peak-peak)	dB	<0.20	<0.25
Port Configuration		1 x 2 or 2 x 2	
Coupling Ratio		1:99 to 50:50, (50:50 standard)	
Insertion Loss	dB	Please refer to the coupling ratio vs. Insertion loss chart	
Directivity	dB	>40	
Reflectance	dB	<-40	
Operating Temperature	°C	-40 ~ +85 (*)	
Storage Temperature	°C	-55 ~ +85	
Package Options (for different pigtailing)		1. coated fibre (250 µm): T5, MA,MB 2. loose tube (900 µm): TA, MA,MB 3. PVC cable (3.0 mm): A1, MA,MB	

Note : 1. The packaging option codes are explained in Packaging Dimensions above.
2. *-20 °C ~ +70 °C for PVC cable.

Ordering Information

C-NM - □□ - □□ - □ - □□ □□ - □□ - □□ / □□

Fibre Type
C .....50/125 µm
D .....62.5/125 µm
X.....Others, please specify

Package Option
C .....T5 with coated fibre
D .....MA/MB with coated fibre
L.....TA with loose tube cable
M .....MA/MB with loose tube cable
O .....A1 with PVC 2.0mm cable
Q .....A1 with PVC 3.0mm cable
R .....MA/MB with PVC 3.0mm cable
S.....MA/MB with adaptors
X.....Others, please specify

Coupling Ratio
00 - 50.....please specify

Grade
S.....Super
H .....High

Port Number
12 ....1 x 2
22 ....2 x 2

Pigtail Length (for each port)
10 ....1 meter 05 .... 0.5 meter
20 ....2 meter 15 .... 1.5 meter
00 ....Modulised XX.... others, please specify

Wavelength
85 ....850nm
13 ....1310nm
RX 1300nm

Connector Type (for both ends)
FC ....FC type SC .... SC type
ST ....ST type LC.... LC type
MU ...MU type NC ... None
XX ....Others, please specify

Standard Singlemode Couplers

C-NS

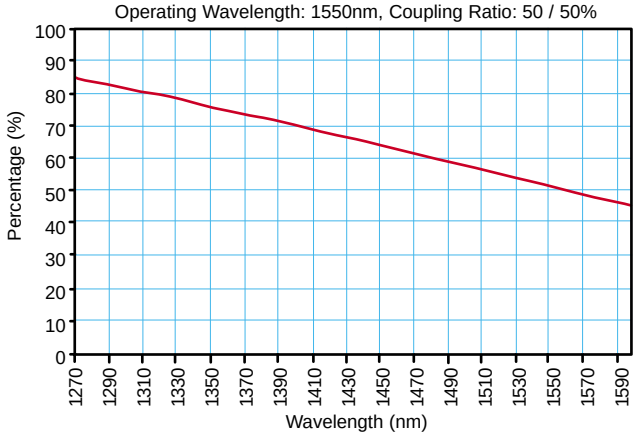
- ***Low insertion loss***
- ***High port isolation***
- ***High directivity***
- ***Custom defined specifications***
- ***Environmentally stable***

Applications:

- ***Telecommunications***
- ***Local area network***
- ***Fibre to the home***
- ***Video transmission***
- ***Fibre optic sensing***
- ***Testing instruments***
- ***CATV***
- ***Point to point systems***
- ***Wide area networks***

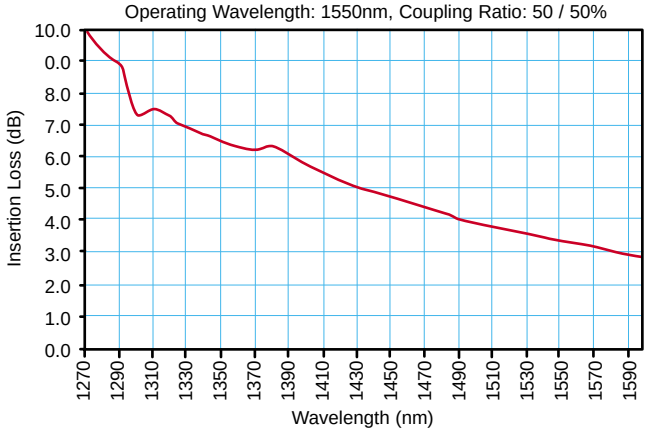
C-NS Standard Singlemode Coupler

Operating Wavelength: 1550nm, Coupling Ratio: 50 / 50%



C-NS Standard Singlemode Coupler

Operating Wavelength: 1550nm, Coupling Ratio: 50 / 50%



Coupling Ratio (%)	Insertion Loss (dB)	
	Super Grade (S)	High Grade (H)
50 / 50	3.4	3.6
40 / 60	4.4 / 2.5	4.7 / 2.8
30 / 70	5.7 / 1.8	6.0 / 2.0
20 / 80	7.5 / 1.2	8.0 / 1.4
10 / 90	10.8 / 0.7	11.5 / 0.9
5 / 95	14.6 / 0.4	15.5 / 0.6
1 / 99	21.6 / 0.2	22.0 / 0.3

Specifications		Standard Singlemode Couplers	
Operating Wavelength	nm	1310 or 1550	
Grade		Super (S)	High (H)
Typical Excess Loss	dB	0.06	0.15
Uniformity (50:50)	dB	0.5	0.9
Thermal Stability (peak-peak)	dB	<0.2	<0.3
Polarisation Stability	dB	<0.1	<0.15
Port Configuration		1 x 2 or 2 x 2	
Coupling Ratio		1:99 to 50:50, (50:50 standard)	
Insertion Loss	dB	Please refer to the coupling ratio vs. Insertion loss chart	
Directivity	dB	>50 (1 x 2), >60 (2 x 2)	
Reflectance	dB	<-55	
Operating Temperature	°C	-40 ~ +85 (*)	
Storage Temperature	°C	-55 ~ +85	
Package Options (for different pigtailing)		1. coated fibre (250 µm): T5, MA, MB 2. loose tube (900 µm): TA, MA, MB 3. PVC cable (3.0 mm): A1, MA, MB	

Note : 1. The packaging option codes are explained in Packaging Dimensions below.
2. *-20 °C ~ +70 °C for PVC cable.

Ordering Information

C-NS - □□- □□- □- □□ □□- □□- □□/ □□

Fibre Type
A .....Corning SMF-28™
B .....Dispersion-shift fibre
X.....Others, please specify

Package Option (for both ends)
C .....T5 with coated fibre
D .....MA/MB with coated fibre
L.....TA with loose tube cable
M .....MA/MB with loose tube cable
O .....A1 with PVC 2.0mm cable
Q .....A1 with PVC 3.0mm cable
R .....MA/MB with PVC 3.0mm cable
S.....MA/MB with adaptors
X.....Others, please specify

Coupling Ratio
00 ~ 50 .....please specify

Grade
S.....Super
H .....High

Port Number
12 ....1 x 2
22 ....2 x 2

Pigtail Length (for each port)
10 ....1 meter 05 .... 0.5 meter
20 ....2 meter 15 .... 1.5 meter
00 ....Modulised XX.... others, please specify

Wavelength
13 ....1310nm
15 ....1550nm
XX ....Others, please specify

Connector Type (for both ends)
FC....FC type AP.... FC/APC type
SC ....SC type AS .... SC/APC type
ST ....ST type LC.... LC type
MU ...MU type NC ... None
XX ....Others, please specify

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Dual Window Star Couplers

C-SD

- *Low insertion loss*
- *High port isolation*
- *Custom defined specifications*
- *Environmentally stable*

Applications:
- *Telecommunications*
- *Local area network*
- *Fibre to the home*
- *Video transmission*
- *Fibre optic sensing*
- *Testing instruments*
- *CATV*

Ordering Information

C - SD - A - □ - □□ - □ - □□ □□ - 35- □□ / □□

Package Option
C .....A3 with coated fibre
D .....MA/MB/M1/M2 with coated fibre
L.....A3 with loose tube cable
M .....MA/MB/M1/M2 with loose tube cable
O .....A3 with PVC 2.0mm cable
Q .....A3 with PVC 3.0mm cable
R .....MA/MB/M1/M2 with PVC 3.0mm cable
S.....MB/M1/M2 with adaptors
X.....Others, please specify

Input Port No.
Please specify desired
port number in two digits

Grade
H .....High
A .....Average

Output Port No.
Please specify desired
port number in two digits.

Pigtail Length (for each port)
10 ....1 meter 05 .... 0.5 meter
20 ....2 meter 15 .... 1.5 meter
00 ....Modulised XX.... others, please specify

Connector Type (for both ends)
FC....FC type AP.... FC/APC type
SC ....SC type AS .... SC/APC type
ST ....ST type LC.... LC type
MU ...MU type NC ... None
XX ....Others, please specify

Multimode Star Couplers

C-SM

- *Low insertion loss*
- *High port isolation*
- *Custom defined specifications*
- *Environmentally stable*

Applications:
- *Telecommunications*
- *Local area network*
- *Fibre to the home*
- *Video transmission*
- *Fibre optic sensing*
- *Testing instruments*

Ordering Information

C-SM - □□ - □□ - □ - □□ □□ - □□ - □□ / □□

Fibre Type
C .....50/125 µm
D .....62.5/125 µm
X.....Others, please specify

Package Option
C .....A3 with coated fibre
D .....MA/MB/M1/M2 with coated fibre
L.....A3 with loose tube cable
M .....MA/MB/M1/M2 with loose tube cable
O .....A3 with PVC 2.0mm cable
Q .....A3 with PVC 3.0mm cable
R .....MA/MB/M1/M2 with PVC 3.0mm cable
S.....M1/M2 with adaptors
X.....Others, please specify

Input Port No.
Please specify desired port number in two digits.

Grade
H .....High
A .....Average

Output Port No.
Please specify desired port number in two digits.

Pigtail Length (for each port)
10 ....1 meter 05 .... 0.5 meter
20 ....2 meter 15 .... 1.5 meter
00 ....Modulised XX.... Others, please specify

Wavelength
85 ....850nm
13 ....1310nm
RX 1300nm
XX ....Others, please specify

Connector Type (for both ends)
FC ....FC type SC .... SC type
ST ....ST type LC.... LC type
MU ...MU type NC ... None
XX ....Others, please specify

Specifications		Dual Window Star Couplers							
Port Configuration		4 x 4		8 x 8		16 x 16		32 x 32	
Operating Wavelength	nm	1310 ± 40 and 1550 ± 40							
Grade		H	A	H	A	H	A	H	A
Maximal Insertion Loss (over temp. range -40 ~ +75 °C), (at specified wavelength)	dB	7.2	7.6	10.8	11.7	14.5	15.5	18.5	20.0
Uniformity (over temp. range -40 ~ +75 °C), (at specified wavelength)	dB	1.0	1.4	2.1	3.2	2.7	4.0	3.0	6.0
Operating Temperature	°C	-40 ~ +85 (*)							
Storage Temperature	°C	-55 ~ +85							
Package Options (for different pigtailing)	1. coated fibre (250 µm)	A3, MA, MB		MB, M1, M2		M1, M2		M2	
	2. loose tube (900 µm)	A3, MA, MB		MB, M1, M2		M1, M2		M2	
	3. PVC cable (3.0mm)	A3, MB		MB, M1, M2		M1, M2		M2	

Note : 1. The packaging option codes are explained in Packaging Dimensions below. 2. *-20 °C ~ +70 °C for PVC cable.

Specifications		Multimode Star Couplers							
Port Configuration		4 x 4		8 x 8		16 x 16		32 x 32	
Operating Wavelength	nm	800 to 1600							
Grade		H	A	H	A	H	A	H	A
Typical Insertion Loss	dB	7.7	9.0	11.6	13.5	15.5	17.9	19.4	22.4
Uniformity (at specified wavelength)	dB	1.7	2.6	2.6	3.9	3.5	5.2	4.4	6.5
Operating Temperature	°C	-40 ~ +85 (*)							
Storage Temperature	°C	-55 ~ +85							
Package Options (for different pigtailing)	1. coated fibre (250 µm)	A3, MA, MB		MA, MB, M1		M1, M2		M2	
	2. loose tube (900 µm)	A3, MA, MB		MA, MB, M1		M1, M2		M2	
	3. PVC cable (3.0mm)	A3, MB		MA, MB, M1		M1, M2		M2	

Note : 1. The packaging option codes are explained in Packaging Dimensions below. 2. *-20 °C ~ +70 °C for PVC cable.

Singlemode Star Couplers

C-SS

- *Low insertion loss*
- *High port isolation*
- *Custom defined specifications*
- *Environmentally stable*

Applications:

- *Telecommunications*
- *Local area network*
- *Fibre to the home*
- *Local loop distribution*
- *CATV*
- *Video transmission*
- *Fibre optic sensing*
- *Testing instruments*

Ordering Information

C-SS - □□ - □□ - □ - □□ □□ - □□ - □□ / □□

Fibre Type
A .....Corning SMF-28™
B .....Dispersion-shift fibre
X.....Others, please specify

Package Option
C .....A3 with coated fibre
D .....MA/MB/M1/M2 with coated fibre
L.....A3 with loose tube cable
M ....MA/MB/M1/M2 with loose tube cable
O ....A3 with PVC 2.0mm cable
Q ....A3 with PVC 3.0mm cable
R .....MA/MB/M1/M2 with PVC 3.0mm cable
S.....M1/M2 with adaptors
X.....Others, please specify

Input Port No.
Please specify desired port number in two digits.

Grade
H .....High
A .....Average

Output Port No.
Please specify desired port number in two digits

Pigtail Length (for each port)
10 ....1 meter 05 .... 0.5 meter
20 ....2 meter 15 .... 1.5 meter
00 ....Modulised XX.... Others, please specify

Wavelength
13 ....1310nm
15 ....1550nm
XX ....Others, please specify

Connector Type (for both ends)
FC....FC type AP.... FC/APC type
SC ....SC type AS .... SC/APC type
ST ....ST type LC.... LC type
MU ...MU type NC ... None
XX ....Others, please specify

Wideband Star Couplers

C-SW

- *Low insertion loss*
- *High port isolation*
- *Custom defined specifications*
- *Environmentally stable*

Applications:

- *Telecommunications*
- *Local area network*
- *Fibre to the home*
- *Video transmission*
- *Fibre optic sensing*
- *Testing instruments*

Ordering Information

C-SW -□□ -□□ -□ -□□ □□ -□□ -□□ /□□

Fibre Type
A .....Corning SMF-28™
B .....Dispersion-shift fibre
X.....Others, please specify

Package Option
C .....A3 with coated fibre
D .....MA/MB/M1/M2 with coated fibre
L.....A3 with loose tube cable
M ....MA/MB/M1/M2 with loose tube cable
O ....A3 with PVC 3.0mm cable
Q ....A3 with PVC 3.0mm cable
R .....MA/MB/M1/M2 with PVC 3.0mm cable
S.....M1/M2 with adaptors
X.....Others, please specify

Input Port No.
Please specify desired port number in two digits

Grade
H .....High
A .....Average

Output Port No.
Please specify desired port number in two digits

Pigtail Length (for each port)
10 ....1 meter 05 .... 0.5 meter
20 ....2 meter 15 .... 1.5 meter
00 ....Modulised XX.... Others, please specify

Wavelength
13 ....1310nm
15 ....1550nm
XX ....Others, please specify

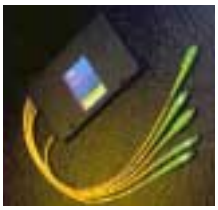
Connector Type (for both ends)
FC....FC type AP.... FC/APC type
SC ....SC type AS .... SC/APC type
ST ....ST type LC.... LC type
MU ...MU type NC ... None
XX ....Others, please specify

Specifications		Singlemode Star Couplers							
Port Configuration		4 x 4		8 x 8		16 x 16		32 x 32	
Operating Wavelength	nm	1310 ± 10 or 1550 ± 10							
Grade		H	A	H	A	H	A	H	A
Insertion Loss	dB	6.9	7.6	10.5	11.5	13.7	15.0	17.3	18.2
Uniformity	dB	1.0	2.0	1.5	3.0	2.0	4.0	2.5	5.0
Operating Temperature	°C	-40 ~ +85 (*)							
Storage Temperature	°C	-55 ~ +85							
Package Options (for different pigtailing)	1. coated fibre (250 µm)	A3, MA, MB		MB, M1		M1, M2		M2	
	2. loose tube (900 µm)	A3, MA, MB		MB, M1		M1, M2		M2	
	3. PVC cable (3.0mm)	A3, MA, MB		MB, M1		M1, M2		M2	

Note : 1. The packaging option codes are explained in Packaging Dimensions below. 2.*-20 °C ~ +70 °C for PVC cable.

Specifications		Wideband Star Couplers							
Port Configuration		4 x 4		8 x 8		16 x 16		32 x 32	
Operating Wavelength	nm	1310 ± 40 or 1550 ± 40							
Grade		H	A	H	A	H	A	H	A
Maximal Insertion Loss (over temp. range -40 ~ +75 °C), (at specified wavelength)	dB	7.0	7.4	10.6	11.5	14.0	15.3	18.0	20.0
Uniformity (over temp. range -40 ~ +75 °C), (at specified wavelength)	dB	1.0	1.2	1.5	3.0	2.4	3.8	2.6	5.0
Operating Temperature	°C	-40 ~ +85 (*)							
Storage Temperature	°C	-55 ~ +85							
Package Options (for different pigtailing)	1. coated fibre (250 µm)	A3, MA, MB		MB, M1		M1, M2		M2	
	2. loose tube (900 µm)	A3, MA, MB		MB, M1		M1, M2		M2	
	3. PVC cable (3.0mm)	A3, MA, MB		MB, M1		M1, M2		M2	

Note : 1. The packaging option codes are explained in Packaging Dimensions below. 2. *-20 °C ~ +70 °C for PVC cable.



Dual Window Tree Couplers

C-TD

- *Low insertion loss*
- *High port isolation*
- *Custom defined specifications*
- *Environmentally stable*

Applications:

- *Telecommunications*
- *Local area network*
- *Fibre to the home*
- *Video transmission*
- *Fibre optic sensing*
- *Testing instruments*

Ordering Information

C - TD - A - □ - □□ - □ - □□ □□ - 35 - □□ / □□

Package Option
C .....A2/A3 with coated fibre
D .....MA/MB/M1/M2 with coated fibre
L.....A2/A3 with loose tube cable
M .....MA/MB/M1/M2 with loose tube cable
O .....A2/A3 with PVC 2.0mm cable
Q .....A2/A3 with PVC 3.0mm cable
R .....MA/MB/M1/M2 with PVC 3.0mm cable
S.....MA/MB/M1/M2 with adaptors
X.....Others, please specify

Input Port No.
Please specify desired port number in two digits

Grade
H .....High
A .....Average

Output Port No.
Please specify desired port number in two digits

Pigtail Length (for each port)
10 ....1 meter 05 .... 0.5 meter
20 ....2 meter 15 .... 1.5 meter
00 ....Modulised XX.... Others, please specify

Connector Type (for both ends)
FC....FC type AP.... FC/APC type
SC ....SC type AS .... SC/APC type
ST ....ST type LC.... LC type
MU ...MU type NC ... None
XX ....Others, please specify

Multimode Tree Couplers

C-TM

- *Low insertion loss*
- *High port isolation*
- *Custom defined specifications*
- *Environmentally stable*

Applications:

- *Telecommunications*
- *Local area network*
- *Fibre to the home*
- *Video transmission*
- *Fibre optic sensing*
- *Testing instruments*

Ordering Information

C-TM - □ □ - □□ - □ - □□ □□ - □□ - □□ / □□

Fibre Type
C .....50/125 µm
D .....62.5/125 µm
X.....Others, please specify

Package Option
C .....A2/A3 with coated fibre
D .....MA/MB/M1/M2 with coated fibre
L.....A2/A3 with loose tube cable
M .....MA/MB/M1/M2 with loose tube cable
O .....A2/A3 with PVC 2.0mm cable
Q .....A2/A3 with PVC 3.0mm cable
R .....MA/MB/M1/M2 with PVC 3.0mm cable
S.....M1/M2 with adaptors
X.....Others, please specify

Input Port No.
01 1
02 2

Grade
H .....High
A .....Average

Output Port No.
Please specify desired port number in two digits

Pigtail Length (for each port)
10 ....1 meter 05 .... 0.5 meter
20 ....2 meter 15 .... 1.5 meter
00 ....Modulised XX.... Others, please specify

Wavelength
85 ....850nm
13 ....1310nm
RX 1300nm
XX ....Others, please specify

Connector Type (for both ends)
FC ....FC type SC .... SC type
ST ....ST type LC.... LC type
MU ...MU type NC ... None
XX ....Others, please specify

Specifications		Dual Window Tree Couplers							
Port Configuration		1(2) x 4		1(2) x 8		1(2) x 16		1(2) x 32	
Operating Wavelength	nm	1310 ± 40 and 1550 ± 40							
Grade		H	A	H	A	H	A	H	A
Maximal Insertion Loss, (over temperature range -40 ~ +75 °C), (at specified wavelength)	dB	7.2	7.6	11.0	11.7	14.5	15.5	18.5	20.0
Uniformity, dB (over temperature range -40 ~ +75 °C), (at specified wavelength)		0.9	1.4	2.1	3.2	2.6	4.0	3.0	6.0
Operating Temperature	°C	-40 ~ +85 (*)							
Storage Temperature	°C	-55 ~ +85							
Package Options (for different pigtailing)	1. coated fibre (250 µm)	A2, MA, MB		A3, MA, MB		MA, MB, M1		M1, M2	
	2. loose tube (900 µm)	A2, MA, MB		A3, MA, MB		MA, MB, M1		M1, M2	
	3. PVC cable (3.0mm)	A2, MA, MB		A3, MA, MB		MA, MB, M1		M1, M2	

Note : 1. The packaging option codes are explained in Packaging Dimensions below. 2. *-20 °C ~ +70 °C for PVC cable.

Specifications		Multimode Tree Couplers							
Port Configuration		1(2) x 4		1(2) x 8		1(2) x 16		1(2) x 32	
Operating Wavelength	nm	800 to 1600							
Grade		H	A	H	A	H	A	H	A
Typical Insertion Loss	dB	7.5	8.4	11.5	13.5	15.0	17.9	19.4	22.4
Uniformity (at specified wavelength)	dB	1.0	1.5	1.3	1.9	1.7	2.5	2.0	3.0
Operating Temperature	°C	-40 ~ +85 (*)							
Storage Temperature	°C	-55 ~ +85							
Package Options (for different pigtailing)	1. coated fibre (250 µm)	A2, MA, MB		A3, MA, MB		MA,MB, M1		M1, M2	
	2. loose tube (900 µm)	A2, MA, MB		A3, MA, MB		MA,MB, M1		M1, M2	
	3. PVC cable (3.0mm)	A2, MA, MB		A3, MA, MB		MA,MB, M1		M1, M2	

Note : 1. The packaging option codes are explained in Packaging Dimensions below. 2. *-20 °C ~ +70 °C for PVC cable.

Singlemode Tree Couplers

C-TS

- *Low insertion loss*
- *High port isolation*
- *Custom defined specifications*
- *Environmentally stable*

Applications:

- *Telecommunications*
- *Local area network*
- *Fibre to the home*
- *Video transmission*
- *Fibre optic sensing*
- *Testing instruments*

Ordering Information

C-TS - □□ - □□ - □ - □□ □□ - □□ - □□ / □□

Fibre Type
A .....Corning SMF-28™
B .....Dispersion-shift fibre
X.....Others, please specify

Package Option
C .....A2/A3 with coated fibre
D .....MA/MB/M1/M2 with coated fibre
L.....A2/A3 with loose tube cable
M .....MA/MB/M1/M2 with loose tube cable
O .....A2/A3 with PVC 2.0mm cable
Q .....A2/A3 with PVC 3.0mm cable
R .....MA/MB/M1/M2 with PVC 3.0mm cable
S.....MA/MB/M1/M2 with adaptors
X.....Others, please specify

Input Port No.
01 1
02 2

Grade
H .....High
A .....Average

Output Port No.
Please specify desired port number in two digits

Pigtail Length (for each port)
10 ....1 meter 05 .... 0.5 meter
20 ....2 meter 15 .... 1.5 meter
00 ....Modulised XX.... Others, please specify

Wavelength
13 ....1310nm
15 ....1550nm
XX ....Others, please specify

Connector Type (for both ends)
FC....FC type AP.... FC/APC type
SC ....SC type AS .... SC/APC type
ST ....ST type LC.... LC type
MU ...MU type NC ... None
XX ....Others, please specify

Wideband Tree Couplers

C-TW

- *Wide bandwidth*
- *Low insertion loss*
- *High port isolation*
- *Custom defined specifications*
- *Environmentally stable*

Applications:

- *Telecommunications*
- *Local area network*
- *Fibre to the home*
- *Video transmission*
- *Fibre optic sensing*
- *Testing instruments*

Ordering Information

C-TW - □□ - □□ - □ - □□ □□ - □□ - □□ / □□

Fibre Type
A .....Corning SMF-28™
B .....Dispersion-shift fibre
X.....Others, please specify

Package Option
C .....A2/A3 with coated fibre
D .....MA/MB/M1/M2 with coated fibre
L.....A2/A3 with loose tube cable
M .....MA/MB/M1/M2 with loose tube cable
O .....A2/A3 with PVC 2.0mm cable
Q .....A2/A3 with PVC 3.0mm cable
R .....MA/MB/M1/M2 with PVC 3.0mm cable
S.....MA/MB/M1/M2 with adaptors
X.....Others, please specify

Input Port No.
Please specify desired port number in two digits

Grade
H .....High
A .....Average

Output Port No.
Please specify desired port number in two digits

Pigtail Length (for each port)
10 ....1 meter 05 .... 0.5 meter
20 ....2 meter 15 .... 1.5 meter
00 ....Modulised XX.... Others, please specify

Wavelength
13 ....1310nm
15 ....1550nm
XX ....Others, please specify

Connector Type (for both ends)
FC....FC type AP.... FC/APC type
SC ....SC type AS .... SC/APC type
ST ....ST type LC.... LC type
MU ...MU type NC ... None
XX ....Others, please specify

Specifications		Singlemode Tree Couplers							
Port Configuration		1(2) x 4		1(2) x 8		1(2) x 16		1(2) x 32	
Operating Wavelength	nm	1310 ± 10 or 1550 ± 10							
Grade		H	A	H	A	H	A	H	A
Typical Insertion Loss	dB	6.6	7.2	10	11.5	13.6	14.5	17.1	18.2
Typical Uniformity	dB	0.7	1.7	1.1	2.5	1.7	3.5	2.2	4.3
Operating Temperature	°C	-40 ~ +85 (*)							
Storage Temperature	°C	-55 ~ +85							
Package Options (for different pigtailing)	1. coated fibre (250 µm)	A2, MA, MB		A3, MA, MB		MA, MB, M1		M1, M2	
	2. loose tube (900 µm)	A2, MA, MB		A3, MA, MB		MA, MB, M1		M1, M2	
	3. PVC cable (3.0mm)	A2, MA, MB		A3, MA, MB		MA, MB, M1		M1, M2	

Note : 1. The packaging option codes are explained in Packaging Dimensions below. 2. *-20 °C ~ +70 °C for PVC cable.

Specifications		Wideband Tree Couplers							
Port Configuration		1(2) x 4		1(2) x 8		1(2) x 16		1(2) x 32	
Operating Wavelength	nm	1310 ± 40 or 1550 ± 40							
Grade		H	A	H	A	H	A	H	A
Maximal Insertion Loss (over temp. range -40 ~ +75 °C), (at specified wavelength)	dB	7.0	7.4	10.6	11.5	14.0	15.3	18	19
Uniformity (over temp. range -40 ~ +75 °C), (at specified wavelength)	dB	0.8	1.2	1.4	3.0	2.4	3.8	2.6	5.0
Operating Temperature	°C	-40 ~ +85 (*)							
Storage Temperature	°C	-55 ~ +85							
Package Options (for different pigtailing)	1. coated fibre (250 µm)	A2, MA, MB		A3, MA, MB		MA, MB, M1		M1, M2	
	2. loose tube (900 µm)	A2, MA, MB		A3, MA, MB		MA, MB, M1		M1, M2	
	3. PVC cable (3.0mm)	A2, MA, MB		A3, MA, MB		MA, MB, M1		M1, M2	

Note : 1. The packaging option codes are explained in Packaging Dimensions below. 2. *-20 °C ~ +70 °C for PVC cable.

Unitary 1(3) x 3 Couplers

C-US

- *Low insertion loss*
- *High port isolation*
- *Custom defined specifications*
- *Environmentally stable*

Applications:
- *Telecommunications*
- *Local area network*
- *Fibre to the home*
- *Video transmission*
- *Fibre optic sensing*
- *Testing instruments*

Ordering Information

C-US - □□ - □□ - □ - □□ □□ - □□ - □□ / □□

Fibre Type
A .....Corning SMF-28™
X.....Others, please specify

Package Option
C .....T3 with coated fibre
D .....A2/MA/MB with coated fibre
L.....TC with loose tube cable
M .....A2/MA/MB with loose tube cable
O .....A2 with PVC 2.0mm cable
Q .....A2 with PVC 3.0mm cable
R .....MA/MB with PVC 3.0mm cable
S.....MA/MB with adaptors
X.....Others, please specify

Coupling Ratio
00 ~ 45 .....Please specify the different port

Grade
H .....High
A .....Average

Input Port Number
01 ....1 port
03 ....3 ports

Pigtail Length (for each port)
10 ....1 meter 05 .... 0.5 meter
20 ....2 meter 15 .... 1.5 meter
00 ....Modulised XX.... Others, please specify

Wavelength
13 ....1310nm
15 ....1550nm

Connector Type (for both ends)
FC....FC type AP.... FC/APC type
SC ....SC type AS .... SC/APC type
ST ....ST type LC.... LC type
MU ...MU type NC ... None
XX ....Others, please specify

Unitary 1 x 3 Wideband Couplers

C-UW

- *Low insertion loss*
- *High port isolation*
- *Custom defined specifications*
- *Environmentally stable*

Applications:
- *Telecommunications*
- *Local area network*
- *Fibre to the home*
- *Video transmission*
- *Fibre optic sensing*
- *Testing instruments*

Ordering Information

C-UW - □□ - □□ - □ - 01 - □□ - □□ - □□ / □□

Fibre Type
A .....Corning SMF-28™
X.....Others, please specify

Package Option
C .....T3 with coated fibre
D .....A2/MA/MB with coated fibre
L.....TC with loose tube cable
M .....A2/MA/MB with loose tube cable
O .....A2 with PVC 2.0mm cable
Q .....A2 with PVC 3.0mm cable
R .....MA/MB with PVC 3.0mm cable
S.....MA/MB with adaptors
X.....Others, please specify

Coupling Ratio
00 ~ 45 .....Please specify the different port

Grade
H .....High
A .....Average

Pigtail Length (for each port)
10 ....1 meter 05 .... 0.5 meter
20 ....2 meter 15 .... 1.5 meter
00 ....Modulised XX.... Others, please specify

Wavelength
13 ....1310nm
15 ....1550nm

Connector Type (for both ends)
FC....FC type AP.... FC/APC type
SC ....SC type AS .... SC/APC type
ST ....ST type LC.... LC type
MU ...MU type NC ... None
XX ....Others, please specify

Specifications		Unitary 1(3) x 3 Couplers			
Operating Wavelength	nm	1310 or 1550			
Port Configuration		1 x 3		3 x 3	
Grade		High (H)	Average (A)	High (H)	Average (A)
Maximal Insertion Loss	dB	5.6	6.3	6.2	6.5
Maximal Uniformity (33:33:33)	dB	0.9	1.3	1.5	2.2
Thermal Stability (peak-peak)	dB	<0.4			
Polarisation Stability	dB	<0.2			
Coupling Ratio		5:5:90 to 33:33:33, (33:33:33 standard)			
Directivity	dB	>50 (1 x 3), >60 (3 x 3)			
Reflectance	dB	<-55			
Operating Temperature	°C	-40 ~ +85 (*)			
Storage Temperature	°C	-55 ~ +85			
Package Options (for different pigtailing)	1. coated fibre (250 µm) 2. loose tube (900 µm) 3. PVC cable (3.0mm)	T3, A2, MA, MB TC, A2, MA, MB TC, A2, MA, MB			

Note : 1. The packaging option codes are explained in Packaging Dimensions below. 2. *-20 °C ~ +70 °C for PVC cable.

Specifications		Unitary 1 x 3 Wideband Couplers	
Operating Wavelength	nm	1310 ± 30 or 1550 ± 30	
Port Configuration		1 x 3	
Grade		High (H)	Average (A)
Maximal Insertion Loss	dB	5.8	6.3
Maximal Uniformity (33:33:33)	dB	1.2	1.7
Thermal Stability (peak-peak)	dB	<0.4	
Polarisation Stability	dB	<0.2	
Coupling Ratio		5:5:90 to 33:33:33, (33:33:33 standard)	
Directivity	dB	>50	
Reflectance	dB	<-55	
Operating Temperature	°C	-40 ~ +85 (*)	
Storage Temperature	°C	-55 ~ +85	
Package Options (for different pigtailing)	1. coated fibre (250 µm) 2. loose tube (900 µm) 3. PVC cable (3.0mm)	T3, A2, MA, MB TC, A2, MA, MB A2, MA, MB	

Note : 1. The packaging option codes are explained in Packaging Dimensions below. 2. *-20 °C ~ +70 °C for PVC cable.

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Dual Window Wideband Couplers

C-WD

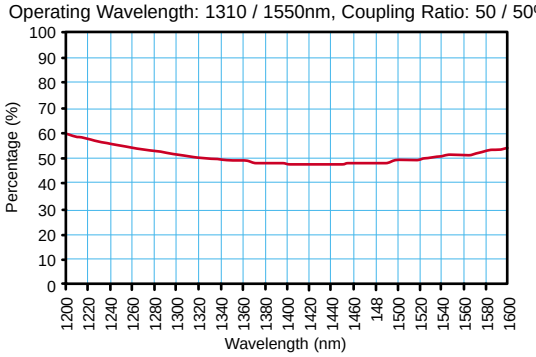
- *Low insertion loss*
- *High port isolation*
- *Custom defined specifications*
- *Environmentally stable*

Applications:

- *Telecommunications*
- *Local area network*
- *Fibre to the home*
- *Video transmission*
- *Fibre optic sensing*
- *Testing instruments*
- *CATV*

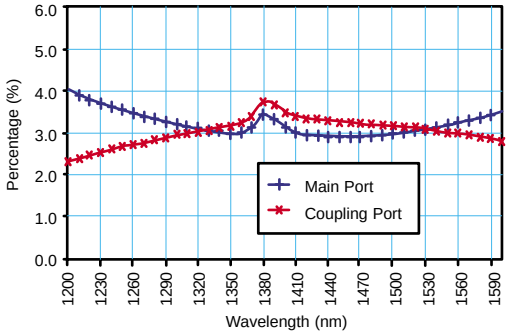
C-WD Dual Window Wideband Coupler

Operating Wavelength: 1310 / 1550nm, Coupling Ratio: 50 / 50%



C-WD Dual Window Wideband Coupler

Operating Wavelength: 1310 / 1550nm, Coupling Ratio: 50 / 50%



Ordering Information

C - WD - A □ - □□ - □ - □□ □□ - 35 - □□ / □□

Pigtail Type (for both ends)
C .....T5 with coated fibre
D .....MA/MB with coated fibre
L.....TA with loose tube cable
M .....MA/MB with loose tube cable
O .....A1 with PVC 2.0mm cable
Q .....A1 with PVC 3.0mm cable
R .....MA/MB with PVC 3.0mm cable
S.....MA/MB with adaptors
X.....Others, please specify

Coupling Ratio
00 ~ 50 .....Please specify

Grade
S.....Super
H .....High

Port Number
12 ....1 x 2
22 ....2 x 2

Pigtail Length (for each port)
10 ....1 meter 05 .... 0.5 meter
20 ....2 meter 15 .... 1.5 meter
00 ....Modulised XX.... Others, please specify

Connector Type (for both ends)
FC....FC type AP.... FC/APC type
SC ....SC type AS .... SC/APC type
ST ....ST type LC.... LC type
MU ...MU type NC ... None
XX ....Others, please specify

Coupling Ratio (%)	Insertion Loss (dB)	
	Super Grade (S)	High Grade (H)
50 / 50	3.6	3.8
45 / 55	4.15 / 3.15	4.45 / 3.3
40 / 60	4.7 / 2.7	5.0 / 2.9
35 / 65	5.35 / 2.3	5.7 / 2.5
30 / 70	6.0 / 1.9	6.4 / 2.1
25 / 75	6.95 / 1.7	7.45 / 1.9
20 / 80	7.9 / 1.4	8.5 / 1.5
15 / 85	9.6 / 1.0	10.6 / 1.1
10 / 90	11.0 / 0.7	12.7 / 0.8
5 / 95	14.6 / 0.5	18.4 / 0.55
1 / 99	21.6 / 0.3	21.6 / 0.4

Specifications		Dual Window Wideband Couplers	
Operating Wavelength	nm	1310 ± 40 and 1550 ± 40	
Grade		Super (S)	High (H)
Typical Excess Loss	dB	0.08	0.2
Uniformity (50:50)	dB	0.8	1.2
Thermal Stability (peak-peak)	dB	<0.2	<0.3
Polarisation Stability,	dB	<0.10	<0.15
Port Configuration		1 x 2 or 2 x 2	
Coupling Ratio		1:99 to 50:50, (50:50 standard)	
Insertion Loss	dB	Please refer to the coupling ratio vs. Insertion loss chart	
Directivity	dB	>50 (1 x 2), >60 (2 x 2)	
Reflectance	dB	<-55	
Operating Temperature	°C	-40 ~ +85 (*)	
Storage Temperature	°C	-55 ~ +85	
Package Options (for different pigtailing)	1. coated fibre (250 µm) 2. loose tube (900 µm) 3. PVC cable (3.0mm)	T5, MA, MB TA, MA, MB A1, MA, MB	

Note : 1. The packaging option codes are explained in Packaging Dimensions below. 2. *-20 °C ~ +70 °C for PVC cable.

Singlemode Wideband Couplers

C-WS

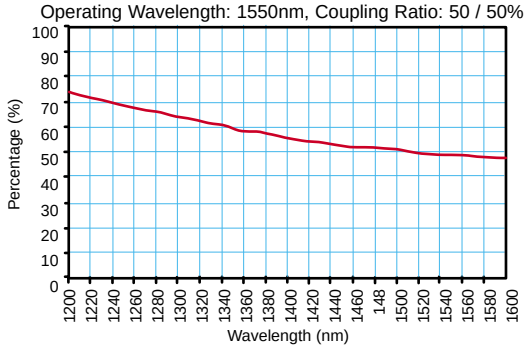
- *Low insertion loss*
- *High port isolation*
- *Custom defined specifications*
- *High directivity*
- *Environmentally stable*

Applications:

- *Telecommunications*
- *Local area network*
- *Fibre to the home*
- *Video transmission*
- *Fibre optic sensing*
- *Testing instruments*
- *CATV*
- *Wide area networks*
- *Point to point systems*

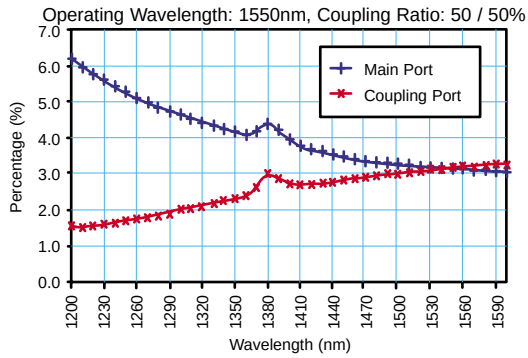
C-WS Singlemode Wideband Coupler

Operating Wavelength: 1550nm, Coupling Ratio: 50 / 50%



C-WS Singlemode Wideband Coupler

Operating Wavelength: 1550nm, Coupling Ratio: 50 / 50%



Ordering Information

C - WD - A □ - □□ - □ - □□ □□ - □□ - □□ / □□

Package Option
C .....T5 with coated fibre
D .....MA/MB with coated fibre
L.....TA with loose tube cable
M .....MA/MB with loose tube cable
O .....A1 with PVC 2.0mm cable
Q .....A1 with PVC 3.0mm cable
R .....MA/MB with PVC 3.0mm cable
S.....MA/MB with adaptors
X.....Others, please specify

Coupling Ratio
00 ~ 50 .....Please specify

Grade
S.....Super
H .....High

Port Number
12 ....1 x 2
22 ....2 x 2

Pigtail Length (for each port)
10 ....1 meter 05 .... 0.5 meter
20 ....2 meter 15 .... 1.5 meter
00 ....Modulised XX.... Others, please specify

Wavelength
13 ....1310nm
15 ....1550nm

Connector Type (for both ends)
FC....FC type AP.... FC/APC type
SC ....SC type AS .... SC/APC type
ST ....ST type LC.... LC type
MU ...MU type NC ... None
XX ....Others, please specify

Coupling Ratio (%)	Insertion Loss (dB) Super Grade (S)	High Grade (H)
50 / 50	3.4	3.6
45 / 55	3.9 / 2.9	4.25 / 3.25
40 / 60	4.4 / 2.5	4.7 / 2.7
35 / 65	5.1 / 2.2	5.45 / 2.4
30 / 70	5.8 / 1.9	6.0 / 1.9
25 / 75	6.7 / 1.6	7.05 / 1.7
20 / 80	7.6 / 1.1	7.9 / 1.2
15 / 85	9 / 0.96	10.46 / 1.05
10 / 90	11.0 / 0.63	12.9 / 0.8
5 / 95	14.6 / 0.4	18.4 / 0.5
1 / 99	21.6 / 0.3	21.6 / 0.4

Specifications			Singlemode Wideband Couplers	
Operating Wavelength		nm	1310 ± 40 or 1550 ± 40	
Grade			Super (S)	High (H)
Typical Excess Loss		dB	0.1	0.2
Uniformity (50:50)		dB	0.6	1.0
Thermal Stability (peak-peak)		dB	<0.2	<0.3
Polarisation Stability		dB	<0.10	<0.15
Port Configuration			1 x 2 o r 2 x 2	
Coupling Ratio			1:99 to 50:50, (50:50 standard)	
Insertion Loss		dB	Please refer to the coupling ratio vs. Insertion loss chart	
Directivity		dB	>50 (1 x 2), >60 (2 x 2)	
Reflectance		dB	<-55	
Operating Temperature		°C	-40 ~ +85 (*)	
Storage Temperature		°C	-55 ~ +85	
Package Options (for different pigtailing)	1. coated fibre (250 µm) 2. loose tube (900 µm) 3. PVC cable (3.0mm)		T5, MA, MB TA, MA, MB A1, MA, MB	

Note : 1. The packaging option codes are explained in Packaging Dimensions below. 2. *-20 °C ~ +70 °C for PVC cable.

1xN Splitters

O-TS

- *Environmentally Stable*
- *Easy Installation*
- *Custom-Defined Specification*
- *Low Return Loss*
- *Low Insertion Loss*
- *Wideband and single band designs*
- *High Reliability*

Applications:

- *Metro*
- *Network Protection*
- *Monitoring*
- *Access/PON distribution*
- *CATV*

Ordering Information

O - TS - □□ - □□ - □□ / □□ - 35 - □□ / □□

Fibre Type (Input End)
C .....Singlemode bare fibre
L.....Singlemode 900um loose tube
X .....Others,please specify

Fibre Type (Output End)
C .....Singlemode bare fibre
L.....50cm bare fibre with 900um fan-out
X .....Others,please specify

Output Port Number
08 ....8 ports
16 ....16 ports
XX ....Others,please specify

Input Fibre Length
10 ....100 cm
15 ....150 cm
XX ....Others,please specify

Total Output Length
10 ....100 cm
20 ....200 cm
XX ....Others,please specify

Connector Type (Input End)
FC ....FC type AP....FC/APC type
SC ....SC type AS ....SC/APC type
ST ....ST type MU ...MU type
LC ....LC type NC ...None
XX ....Others,please specify

Connector Type (Output End)
FC ....FC type AP....FC/APC type
SC ....SC type AS ....SC/APC type
ST ....ST type MU ...MU type
LC ....LC type NC ...None
XX ....Others,please specify

Specifications		1xN Splitters		
Type		1x8	1x16	1x32
Insertion Loss	dB	<11.5	<14.5	<18
Uniformity	dB	<1.0	<1.5	<2.5
Operating Wavelength	nm	1310 /1550 dual window		
Directivity	dB	≥50		
Optical Input Return Loss	dB	≥50		
Polarisation Dependent Loss	dB	≤0.5		
Tensile Load	N	>5		
Storage Temperature	°C	-40 ~85		
Operating Temperature	°C	-20 ~70		
Package Size	mm	58 (68)x 8.1 x 5.2		
Connectors		FC,SC,LC,MU or ribbon		

*Without connector loss