

SHINKWANG

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CEO Message



Shinkwang Information Communications Co., Ltd. manufactures fiber-optic communications related products of the highest quality that are suitable for the worldwide market. We also perform contract work in areas that are related to fiber-optic communications.

Our corporate philosophy is that innovation, timeliness delivery, quality and customer service are key to our and our clients' success. Under that philosophy, our staff strives to produce exceptional products for our customers.

We constantly challenge our service to update and improve our technology, to improve quality of our products, to cut cost whenever possible without sacrificing quality, and to shorten delivery schedule.

We are constantly seeking new customers and partners. We are confident that you, our customer, will believe in our philosophy and our products. We hope that you will join us for mutual benefits.

Thank you.

Joung-Sup Kim
CEO

Product Categories

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FTTH APPARATUS

Network Configuration Basics



Telecom Main Office



Underground



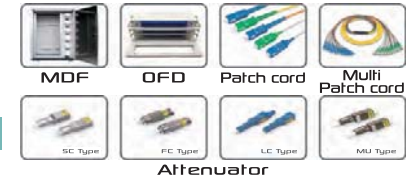
Street Cabinet



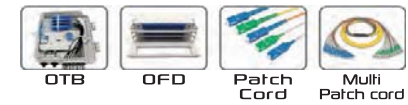
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Office Building



A.P.T



Factory



Mobile Main office



Antenna



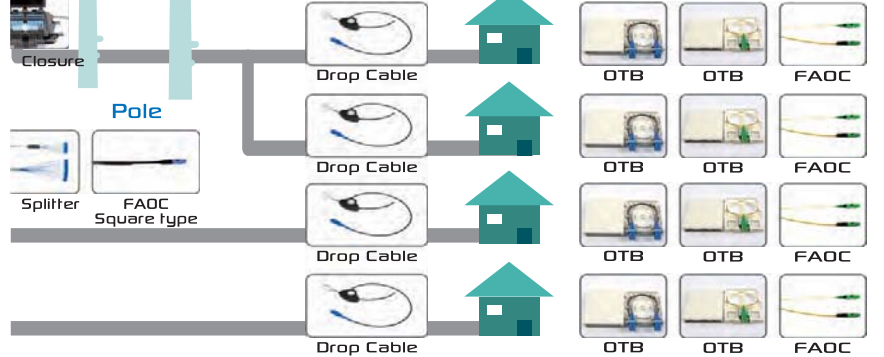
Pole



Pole



House



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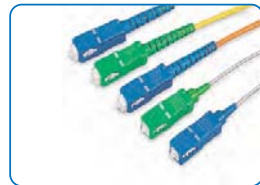
OPC (Optical Patch Cord)

1. Application

- A) FTTH Telecommunication network
- B) CATV system
- C) Local Area Network
- D) Active/Passive device

2. Feature & Benefit

- A) Meets Telcordia GR-326-core, JIS C-5973, TIA/EIA 604
- B) Customer length
- C) Various connector type available
- D) Environmental stable



SC type



FC type



ST Type



LC type



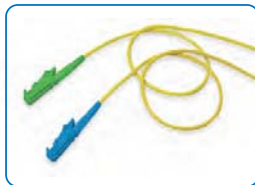
MTRJ Type



MU Type



ST 90° Type



E2000 Type



LC Uni Boot Type

OPC (Optical Patch Cord)

3. Product Performance

Items	Conditions	Value		
		Min	Typ	Max
Insertion Loss (dB)			0.15	0.30
Return Loss (dB)	UPC		55	
	APC		65	
Durability(dB)	500 matings			0.2
Operating Temperature(dB)	-40°C~80°C			0.2
Humidity Cycling (dB)	75°C , RH 95%			0.2
Vibration(dB)	10~55Hz(3Axis)			0.2
Impact(dB)	1.5mdrop , 8 cycles			0.2
Available Connector type	SC, FC, LC, MU, ST, MTRJ, E2000,			
Fiber Type	SM(G652D, G657A) MM (OM1,OM2,OM3,OM4)			

4. Ordering Information

OPC-A-B-C-D/E-F/G-H							
OPC (Optical Patch Cord)							
A	B	C	D	E	F	G	H
Fiber	Cord	Length	Connector	Polishing	Connector	Polishing	Cord Diameter
SM : Single Mode (9/125)	S : Simplex	1~99m	SC, FC, ST, LC,	UPC : Ultra PC	SC, FC, ST, LC,	UPC : Ultra PC	0.9 : 0.9mm
MM : Multimode (50/125)	DP : Duplex Zip Cord		MTRJ, MU, E2000	APC : Angled PC	MTRJ, MU, E2000	APC : Angled PC	2.0 : 2.0mm
HMM : Multimode (62.5/125)	FT : Flattwin Cord				N : No connector		3.0 : 3.0mm
OM3 : Multimode (50/125)							
OM4 : Multimode (50/125)							

OMPC (Optical Multi Patch Cord)

Breakout Cable / Distribution Cable

1. Application

- A) Telecommunication network
- B) CATV system
 - Local Area Network
 - Active/Passive device



2. Feature & Benefit

- A) Meets Telcordia GR-326Core, JIS C-5973,TIA / EIA 604
- B) Customer length
- C) Various connector type available
- D) Environmental stable



3. Specifications

Item	Contents	Value		
		Min	Typ	Max
Characteristic			0.15	0.30
Insertion Loss(dB)	PC	50	55	
Return Loss(dB)	APC	60	65	
Durability(dB)	1,000 matings			0.20
Operating Temperature(dB)	-40°C~80°C			0.20
Humidity Cycling(dB)	75 °C, RH 95%			0.20
Vibration(dB)	10~55Hz(3 Axis)			0.20
Impact(dB)	1.5m drop, 8cycle			0.20

4. Ordering Information

OMPC-A-OMPC				
A	B	C	D	E
Fiber	Cable Type	Fiber Number	Length	Connector
SM : Single Mode (9/125) MM : Multimode (50/125) HMM : Multimode (62.5/125) OM3 : Multimode (50/125) OM4 : Multimode (50/125)	DRY : Dry Core cable DIS : Distribution cable BO : Breakout cable	4~48C : Core	1~99m	SC, FC, ST, LC, MTRJ, MU, E2000

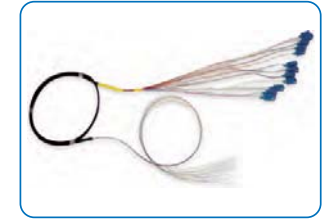
OMPC (Optical Multi Patch Cord)

Dry-core Cable



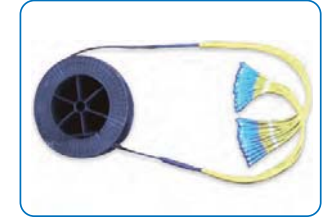
1. Application

- A) Telecommunication network
- B) CATV system
 - Local Area Network
 - Active/Passive device



2. Feature & Benefit

- A) Meets Telcordia GR-326Core, JIS C-5973,TIA / EIA 604
- B) Customer length
- C) Various connector type available
- D) Environmental stable
- E) Small Diameter [12core : φ4.8]



3. Specifications

Item	Contents	Value		
		Min	Typ	Max
Characteristic			0.15	0.30
Insertion Loss(dB)	PC	50	55	
Return Loss(dB)	APC	60	65	
Durability(dB)	1,000 matings			0.20
Operating Temperature(dB)	-40°C~80°C			0.20
Humidity Cycling(dB)	75 °C, RH 95%			0.20
Vibration(dB)	10~55Hz(3 Axis)			0.20
Impact(dB)	1.5m drop, 8cycle			0.20

4. Ordering Information

B-C-D-E/F(G,H)-I/J(K,L)						
(Optical Multi Patch Cord)						
F	G	H	I	J	K	L
Polishing	Fanout Length	Cord Diameter	Connector	Polishing	Fanout Length	Cord Diameter
UPC : Ultra PC APC : Angled PC	0.5~2.5 : meter	0.9 : 0.9mm 2.0 : 2.0mm 3.0 : 3.0mm	SC, FC, ST, LC, MTRJ, MU, E2000 N : No connector	UPC : Ultra PC APC : Angled PC	0.5~2.5 : meter	0.9 : 0.9mm 2.0 : 2.0mm 3.0 : 3.0mm

OOPC Optical Outdoor Patch Cord

1. Application

- A) FTTH (Outdoor Application)
- B) CATV system
- C) Local Area Network
- D) Active/Passive device

2. Feature & Benefit

- A) Meets Telcordia GR-326-core, JIS C-5973, TIA/EIA 604
- B) Customer length
- C) Various connector type available
- D) Environmental stable



PU Jacket Type



Drop Cable



Drop Cable with Clamp

3. Product Performance

Items	Conditions	Value		
		Min	Typ	Max
Insertion Loss (dB)			0.15	0.30
Return Loss (dB)	UPC		55	
	APC		65	
Durability(dB)	500 matings			0.2
Operating Temperature(dB)	-40°C~80°C			0.2
Humidity Cycling (dB)	75°C, RH 95%			0.2
Vibration(dB)	10~55Hz(3Axis)			0.2
Impact(dB)	1.5mdrop, 8 cycles			0.2
Available Connector type	SC, FC, LC, MU, ST			
Fiber Type	SM(G652D, G657A) MM (OM1,OM2,OM3,OM4)			

4. Ordering Information

OOPC-A-B-C-D-E-F-G/H-I									
OOPC (Optical Outdoor Patch Cord)									
A	B	C	D	E	F	G	H	I	
Fiber	Cable Type	Fiber Number	Length	Connector	Polishing	Connector	Polishing	Cord Diameter	
SM : Single Mode (9/125)	PU : Poly Urethan Jacket type	1~2C : Core	1~99m	SC, FC, ST, LC	UPC : Ultra PC	SC, FC, ST, LC	UPC : Ultra PC	3.0 : 3.0mm	
MM : Multimode (50/125)	DR : Drop Cable			MTRJ, MU, E2000	APC : Angled PC	N : No connector	APC : Angled PC	5.0 : 5.0mm	
HMM : Multimode (62.5/125)									
Om3 : Multimode (50/125)									
Om4 : Multimode (50/125)									

MPO Patch Cord

1. Application

- A) CATV Network
- B) Telecommunication Network
- C) FTTH
- D) LAN

2. Feature & Benefit

- A) High Performance in IL & RL
- B) 4, 8, 12 and 24 fiber connector terminations and assemblies
- C) Economical solution for mass-termination of fiber
- D) Suitable for MPO/MTP application



3. Specifications

Characteristics	Conditions	
Durability(dB)		500 matings
Operating Temperature		-40°C ~ 80°C
Core Diameter	9/125μm	50/125μm or 62.5/125μm
Insertion Loss Typical	<0.3dB	<0.3dB
Insertion Loss Maximum	<0.75dB	<0.5dB
Return Loss PC	UPC≥55dB	
	APC≥60dB	

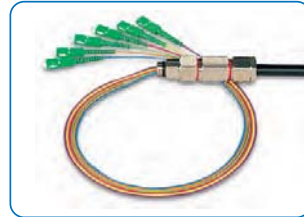
4. Ordering Information

MPO-A-B-C-D-E-F-G/H							
MPO (MPO Patch Cord)							
A	B	C	D	E	F	G	H
Fiber	Cable Type	Fiber Number	Length	Connector	Polishing	Connector	Polishing
SM : Single Mode (9/125)	R : Round Type (Loose Cord)	4~24C : Core	1~99m	M : MPO Male	UPC : Ultra PC	M : MPO Male	UPC : Ultra PC
MM : Multimode (50/125)	F : Flat Type (Ribbon Cord)			F : MPO Female	APC : Angled PC	F : MPO Female	APC : Angled PC
HMM : Multimode (62.5/125)				SC, FC, ST, LC		SC, FC, ST, LC	
OM3 : Multimode (50/125)							
OM4 : Multimode (50/125)							

Fiber Optic Service Cable

1. Application

- A) Telecommunication network
- B) CATV system
 - Local Area Network
 - Emergency connecting area



2. Feature & Benefit

- A) Reduce splicing time
- B) Water proof at mounting point
- C) Customized assemblies available length, connector type
- D) Two to twelve fiber counts available



3. Specifications

Characteristic	Conditions	Value		
		Min	Typ	Max
Insertion Loss(dB)			0.15	0.30
Return Loss(dB)	PC	50	55	
Durability(dB)	APC	60	65	
Operating Temperature(dB)	1,000 matings			0.20
Humidity Cycling(dB)	-40°C~80°C			0.20
Vibration(dB)	75 °C, RH 95%			0.20
Impact(dB)	10~55Hz(3 Axis)			0.20
	1.5m drop, 8cycle			0.20

4. Ordering Information

ONUC-A-B-C-D/E-F					
ONUC (Optical Network Unit Cable)					
A	B	C	D	E	F
Fiber	Fiber Count	Cable Length	Connector	Polishing	Pigtail Length
SM : Single Mode (9/125) MM : Multimode (50/125)					0.5 1
HMM : Multimode (62.5/125)	4C	1~500m	SC, FC, ST, LC, MTR J, MU, E2000	UPC : Ultra PC APC : Angled PC	1.5
OM3 : Multimode (50/125)	8C				2
OM4 : Multimode (50/125)	12C				3

Optical Termination Cable

1. Application

- A) Telecommunication network
- B) CATV system
 - Local Area Network
 - Emergency connecting area



2. Feature & Benefit

- A) Reduce splicing time
- B) Easy installation
- C) Pre-connectorized at cable



3. Specifications

Characteristic	B	C	D
	0.2Km ↓	0.2Km<L<1Km	1Km ↑
Insertion Loss(dB)	≤0.5L	0.38L+0.5dB	0.5L+0.5dB
Return Loss(dB)	55dB ↑ (PC), 65dB ↑ (APC)		

4. Ordering Information

OTC-A-B-C-D/E-F					
OTC(Optical Termination Cable)					
A	B	C	D	E	F
Fiber	Fiber Count	Cable Length	Connector	Polishing	Pigtail Length
SM : Single Mode (9/125) MM : Multimode (50/125)					0.5 1
HMM : Multimode (62.5/125)	4C	1~500m	SC, FC, ST, LC, MTR J, MU, E2000	UPC : Ultra PC APC : Angled PC	1.5
OM3 : Multimode (50/125)	8C				2
OM4 : Multimode (50/125)	24C~432C				3

ODC Out Door Connector

1. Application

- A) Connection between Base Station and Relay
- B) FTTA(fiber-to-the-antenna) & FTTH(fiber-to-the-home)
- C) Industrial Electrical Wiring and Energy and Construction Field
- D) Transportation, Marine, Ship-Building Field



2. Feature & Benefit

- A) Supports until 2 cores for ODC-Plug(ODC-Receptacle).
- B) Available for Single mode or Multimode (Optional)
- C) Have water-proof, salinity protection, EMI protection function.
- D) Have Mechanical Resistibility for Impact, Vibration etc.
- E) Used outdoor/indoor cable having wide temperature range.
- F) Cost-effective installation

Feature & Benefit

- A) IEC 61753, Category E, Circumstance test
 - Standards concerning Optical Fiber connection and Passive Device performance.
- B) Telcordia GR-3120 CORE

3. Product Performance

Item	Contents	
Insertion Loss	Singlemode	≤ 0.2dB
	Multimode	≤ 0.2dB
Return Loss	Singlemode	≥ 50dB
Ferrule & Sleeve	Ceramic ferrule and Sleeve	
The Mechanical Temperature	ODC Plug : = 800N -40°C~80°C	
Salinity Test	30 days (IEC 61300 -2-26)	
Vibration Test	10~60Hz / 6 hours, 3 axis vibration(Loss Change ≤ 0.2dB)	
Impact Test	1.5m, 5 times Drop (Loss Change :≤ 0.2dB)	

4. Picture of the product



ODC ↔ SC/APC

ODC ↔ ODC

ODR ↔ LC/PC

5. Ordering Information

OCD-A-B-C-D-E Outdoor Connector				
A	B	C	D	E
Fiber	No. of Cores	Length	Connector Type	Polishing
SM : 9/125	1Core 2Core	1 ~ 99M	SC	PC
MM : 50/125			LC	APC
HMM : 62.5/125			FC ODC	

OCR-A-B-C-D-E-F Outdoor Receptacle					
A	B	C	D	E	F
Fiber	No. of Cores	Length	Connector Type	Polishing	Cord Dia(mm)
SM : 9/125	1Core 2Core	1 ~ 99M	SC	PC	0.9
MM : 50/125			LC	APC	2.0
HMM : 62.5/125			FC		3.0

Emergency Recovery Reel

1. Application

- A) Telecommunication network
- B) CATV system
 - Local Area Network

2. Feature & Benefit

- A) Compact design
- B) High density accommodation
- C) Easy to handling
- D) Customer length



3. Product Performance

Characteristic	Conditions	Value		
		Min	Typ	Max
Insertion Loss(dB)			0.15	0.3
Return Loss(dB)	PC	50	55	
	APC	60	65	
Durability(dB)	1,000 matings			0.2
Operating Temperature(dB)	-40°C~80°C			0.2
Humidity Cycling(dB)	75 °C, RH 95%			0.2
Vibration(dB)	10~55Hz(3 Axis)			0.2
Impact(dB)	1.5m drop, 8cycle			0.2

4. Ordering Information

ERR-A-B-C-D-E Emergency Recovery Reel				
A	B	C	D	E
Fiber Type	Cable Length	Connector Type / End Shape	Pigtail cord Length(m)	Fiber count
SM : 9/125 MM : 50/125 HMM : 62.5/125	50~500M	SC FC ST	PC APC	0.5 1.0 1.5 2.0 3.0 6C 12C

FA Cable

Factory Automation Cable (POF Optical Cable)

1. Application

- A) Compatible with Mitsubishi MRJ3BUS Type
- B) Can be applied to MRJ3BUS-XXX module

2. Feature & Benefit

- A) Using Plastic Fiber
- B) Excellent tensile strength for conventional products
- C) The length can be decided by Customer's request
- D) Diverse connector types are available
- E) Environmentally stable

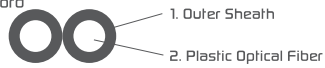


POF-Non Jacket Type



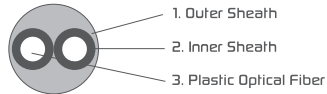
POF Jacket Type

Duplex Cord



1. Outer Sheath

2. Plastic Optical Fiber



1. Outer Sheath

2. Inner Sheath

3. Plastic Optical Fiber

3. Specifications

Model	MRJ3BUSxxM	xx : Length
Core	Material	Plastic Optical fiber
	Outer Diameter	1.0-0.6mm
Sheath	Material	PVC
	Inner Diameter	2.0-0.1mm*2 : Jacketed type
	Outer Diameter	2.0±0.1mm*2 : Non-jacketed type 6.0±0.2mm : Jacketed type

4. Ordering Information

FA-POF-A-B	
FA-POF (Factory Automation POF cable)	
A	B
Cable type	Length
NJ : Non Jacketed Type	1~99 meter
J : Jacketed Type	

FA Cable

Factory Automation Cable (PCF Optical Cable)

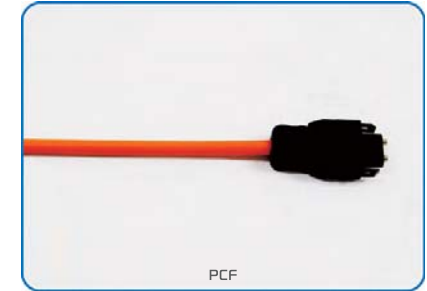


1. Application

- A) Compatible with Mitsubishi LP21-25 Type
- B) Used for PLC(Program Logic Control)

2. Feature & Benefit

- A) H-PCF (Hard Plastic Clad-silica Fiber) type
- B) Excellent tensile strength for conventional products
- C) The length can be decided by Customer's request
- D) Environmentally stable



PCF

3. Specifications

Model	SK-2P-xxM	xx : Length
Core	Material	Silica Glass
	Outer Diameter	200±3μm
Clad	Material	Fluoroarylate
	Outer Diameter	250±3μm
Protective Coating	Material	ETFE
	Outer Diameter	0.5-0.1mm
Sheath	Material	PVC
	Inner Diameter	2.8-0.3mm
	Outer Diameter	6.0-0.3mm
Attenuation(850nm)	Attenuation loss	5dB/1Km

4. Ordering Information

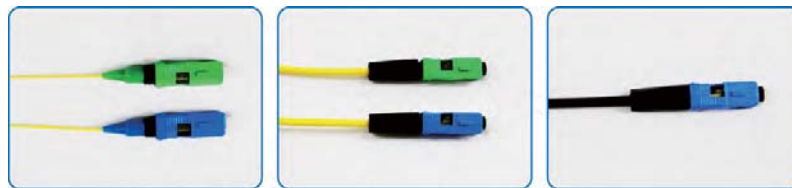
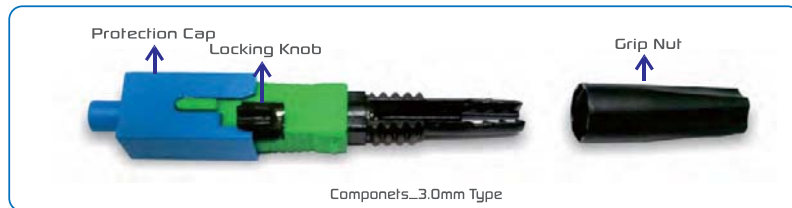
FA-PCF-A-B	
FA-PCF (Factory Automation PCF cable)	
A	B
Cable type	Length
2P : Optical cable 2core	1~99 meter

FAOC

Field Assembly Optical Connector (Pre-Polished Type)

1. Product Description

It can be conveniently used in a field circumstance by inserting the pre-polished ferrule into the connector kit after cutting the edge of optical fiber. It is just done by a mechanical method not heat-shrink method.



0.9mm Buffer Cord

3.0mm Buffer Cord

3x2 Square cord

2. Application

- A) OFD
- B) Optical Terminal Box
- C) Optical Outlet
- D) Maintenance & Urgent recovery
- E) Connection after controlling the length of patch cord

3. Benefit

- A) Fast & Easy connection in the field
- B) Maximization of work efficiency in a narrow space
- C) Possible to control the length of patch cord in the field
- D) No need for epoxy & polishing
- E) Minimization of Error rate based on Easy re-splice
- F) No need to have other assembly method
- G) Cost-efficient

4. Available types

Connectors	SC / PC,APC
Optical Fiber	Single Mode : 9/125um
Optical Cord	0.9mm / 3.0mm / Square Type 3.0x2.2

5. Product Performance

Items		Conditions	Typical	Max
Optical Characteristic	Insertion Loss	PC	<0.2dB	<0.5dB
		APC	<0.2dB	<0.5dB
	Return Loss	PC	-	>50
		APC	-	>55
Environmental Test	Cycles for Temperature	-40°C~80°C(±2°C) Total 21 cycles : 168 hrs. 1 cycle : 8 hours	<0.5dB	<0.6dB
	Humidity Test	75°C(±2°C) RH 90~95% 96 hours	<0.3dB	<0.5dB
Mechanical Test	Vibration Test	Amplitude : 1.52mm Frequency : 10~55~10Hz Vertical & Horizontal 2 hours per each axis	<0.05dB	<0.1dB
	Tension Test	3.0mm cord (5kg) 0.9mm cord (0.5kg)	<0.05dB	<0.1dB
	Impact Test	1 time free-drop at 4m height	<0.05dB	<0.1dB

6. Ordering Information

FAOC-A-B/C-D			
FAOC (Field Assmely Optical Connector)			
A	B	C	D
Fiber	Connector	Polishing	Cord Type
SM : Single Mode (9/125)	SC	UPC : Ultra PC	0.9 : 0.9mm
MM : Multimode (50/125)		APC : Angled PC	3.0 : 3.0mm
HMM : Multimode (62.5/125)			S1 : Square 2.2x1.8
			S2 : Square 3.0x2.2
			S3 : Square 3.3x2.3

FOA Fiber Optical Adaptor

1. Application

FTTH Telecommunication network
CATV system
Local Area Network
Instrument

2. Feature & Benefit

Compliant with JIS, IEC, TIA/EIA 604
Easy panel mounting
Ceramic & Phosphore Bronze sleeve available
Environmental stable



SC TYPE



ST TYPE



MT-RJ TYPE



LC TYPE



FC TYPE



MU TYPE

3. Specifications

Characteristic	Single Mode & Multi Mode (PC&APC)
Insertion Loss	≤0.2dB
Housing Material	Plastic (SC, LC, MTRJ), Metal(ST, FC)
Sleeve Material	Zirconia Ceramic (SC, LC), Metallic (ST), Thermoplastic(MTRJ)
Durability	plug and unplug 500times
Operating Temperature	-40°C ~ 80°C
Other Characteristics	ROHS compliant

4. Ordering Information

FOA-A-B-C		
FOA (Fiber Optical Adaptor)		
A	B	C
Type	Mating Port	Sleeve
SC, ST, LC, MTRJ, FC, MU	1: Simplex	C: Ceramic
	2: Duplex	B: Bronze
	4: Quad	

Hybrid Adaptor

1. Application

A) Telecommunication networks
B) CATV system
C) Local Area Network
D) Instrument

2. Feature & Benefit

A) Compliant with JIS, IEC, TIA/EIA 604
B) Easy panel mounting
C) Ceramic & Phosphore Bronze sleeve available
D) Environmental stable



SC(F)-FC(F)



FC(F)-ST(F)



FC(M)-LC(F)



ST(F)-SC(F)



SC(F)-LC(F)



FC(M)-SC(F)



LC(M)-FC(F)



LC(M)-SC(F)



ST(M)-SC(F)

3. Specifications

Characteristic	Conditions	Value		
		Min	Typ	Max
Insertion Loss(dB)			0.08	0.35
Durability(dB)	1,000 matings			0.20
Operating Temperature(dB)	-40°C~80°C			0.20
Humidity Cycling(dB)	75 °C, RH 95%			0.20
Vibration(dB)	10~55Hz(3 Axis)			0.20
Impact(dB)	1.5m drop, 8cycle			0.20

4. Ordering Information

FOHA-A
FOHA(Fiber Optical Hybrid Adaptor)
A
Type
1: SC(F)-FC(F)
2: FC(F)-ST(F)
3: FC(M)-LC(F)
4: ST(F)-SC(F)
5: SC(F)-LC(F)
6: FC(M)-SC(F)
7: LC(M)-FC(F)
8: LC(M)-SC(F)
9: ST(M)-SC(F)

Attenuator

1. Application

- A) Telecommunication networks
- B) CATV system
- C) Instrument

2. Feature & Benefit

- A) Meets Telcordia GR-910-Core
- B) High power endurance
- C) Modal noise suppression



3. Product Performance

Plug type fixed and In-Line attenuator

Characteristics	Unit	Value
Attenuation Range	dB	1~25
Return Loss	dB	UPC : 50, APC : 60
Attenuation Accuracy	dB	1~10 : +/-1.0, 11~20 : +/-1.5 25 : +/-2.5
Operating Wavelength	nm	850(MM), 1310 and 1550(SM)
Operating Temperature	°C	-40°C~85°C
Humidity		75°C RH 95%
Available type		SC, FC, ST, LC, MU

4. Ordering Information

FOAP-A-B/C-D			
FOAP (Fiber Optic Attenuator Plug type)			
A	B	C	D
Fiber	Connector	Polishing	Attenuation dB
SM : Single Mode (9/125)	SC, FC, ST,	UPC : Ultra PC	1~25
MM : Multimode (50/125)	LC, LC(M), MU	APC : Angled PC	

FOAI-A-B-C/D-E/F-G						
FOAI (Fiber Optic Attenuator Inline type)						
A	B	C	D	E	F	G
Fiber	Cord Length	Connector	Polishing	Connector	Polishing	Attenuation dB
SM : Single Mode (9/125)	1~5M	SC, FC, ST,	UPC : Ultra PC	SC, FC, ST,	UPC : Ultra PC	1~25
MM : Multimode (50/125)		LC, LC(M), MU	APC : Angled PC	LC, LC(M), MU	APC : Angled PC	

Optical Terminator

1. Application

- A) High speed transmission system
- B) Bi-directional systems
- C) CATV system
- D) Optical networking equipment

2. Feature & Benefit

- A) Low back reflection
- B) High confidence
- C) Easily removed from the port



3. Specifications

Characteristic	Contents	Value		
		Min	Typ	Max
Operating Wavelength(dB)	1310±30, 1550±30			
Return Loss(dB)	UPC	50		
	APC	60		
	-40°C~80°C			
Operating Temperature(dB)	75°C, RH95%			
Humidity				

4. Ordering Information

FOT-A-B	
FOT(Fiber Optic Terminator)	
A	B
Connecting type	Mating Port
1: SC	1 : UPC
2: FC	2 : APC

Coupler

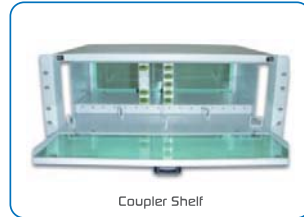
1. Features

- A) Low excess loss
- B) High directivity
- C) Compact size
- D) Environmentally stable and reliable



2. Applications

- A) CATV, FTTH, IMT2000
- B) High Speed Transmission System
- C) EDFA(Erbium-Doped Fiber Amplifier)
- D) Wide & Local Area Network
- E) Live line monitoring system



Coupler Shelf

3. Specifications

Parameter	Unit	Value
Working Wavelength	nm	1310 or 1550 / 1310 and 1550
Insertion Loss	dB	<3.4
Uniformity	dB	<0.4
Directivity	dB	>55
Polarization Dependent Loss	dB	<0.1
Operating Temperature	°C	-40°C~80°C

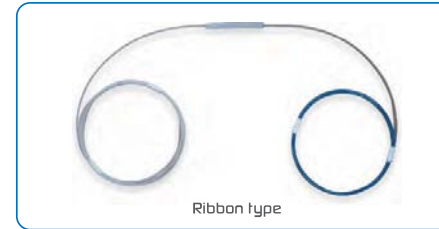
4. Coupling Ratio / Insertion Loss

Coupling Ratio	Unit	50/50	40/60	30/70	20/80	10/90	5/95	1/99
Insertion Loss	dB	3.4/3.4	4.4/2.5	5.6/1.8	7.4/1.1	10.8/0.6	14.6/0.4	21.5/0.2

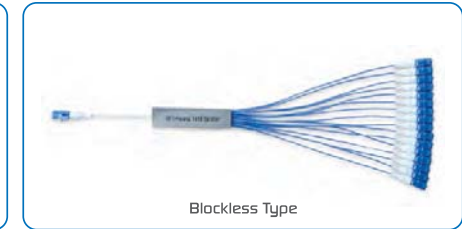
5. Ordering Information

FOC-A-B-C-D-E-F/G FOC(Fiber Optic Coupler)						
A	B	C	D	E	F	G
Channel	Channel	Coupler Ratio	Fiber Type	Fiber Length(m)	Connector Type	Ferrule Type
1310 : 1310nm 1550 : 1550nm 1315:00:00 1310 & 1550nm	2 : 2Ch 4 : 4Ch 8 : 8Ch Customized	1 : 1/99 5 : 5/95 10 : 10/90 20 : 20/80 30 : 30/70 40 : 40/60 50 : 50/50	Fiber Type 025 : 0.25mm 09 : 0.90mm Customized	Fiber Length(m) 1 : 1m others	LC FC NC : Without Connector Customized	PC APC

PLC (Planar Lightguide Circuit) Splitter



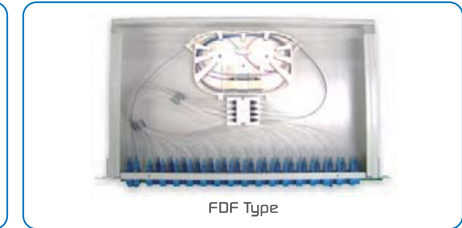
Ribbon type



Blockless Type



FDF Type



FDF Type

1. Specifications

Parameter	Unit	Specifications															
		1x2	1x3	1x4	1x6	1x8	1x12	1x16	1x24	1x32	1x64	2x2	2x4	2x8	2x16	2x32	2x64
Insertion loss(MAX)	dB	3.7	6.6	7	7.2	10.4	10.7	13.5	16.2	17	20	5	8	11	14.5	17.5	21
Uniformity (MAX)	dB	0.6	0.8	0.6	0.8	0.8	1	1.1	1.5	1.5	1.8	1.2	1.3	1.5	2	2	2
PDL(MAX)	dB	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
Return loss(MIN)	dB	≥ 55															
Directivity (MIN)	dB	≥ 55															
Dimension	Mm	40x4x4				55x4x7				60x7x12		40x4x4		60x7x12			
Fiber Type		G657A															

2. Ordering Information

PLC-A-BxC-D/E PLC(Planar Lightwave Circuit)				
A	B	C	D	E
TYPE	Input Channel	Output Channel	Connector	Polishing
N : Ribbon type	1 : 1 Channel	2, 3, 4, 6, 8, 12, 16	SC	UPC : Ultra PC
FO : FAN-OUT type	2 : 2 Channel	32, 64	LC	APC : Angled PC
BL : Blockless type			FC	
FDF : FDF TYPE			Customized	

CWDM (Coarse WDM)

1. Features

- A) Low Insertion Loss
- B) High Channel Isolation
- C) Epoxy-Free in Optical Path
- D) Telcordia Compliant
- E) 4, 8, 16 Channels Configuration
- F) RoHS Compliant



2. Applications

- A) Module Integration
- B) Add/Drop System
- C) Unidirectional / Bi-directional Network

3. Specifications

Characteristic	Unit	Specification		
		CWDM Device	Skip0	Skip1
Channel Number	nm	1270~1610	2(40),4(80),8(160) skip	4(80),8(160),16(320) skip
Operation Temperature	nm	1270~1610	2(40),4(80),8(160) skip	4(80),8(160),16(320) skip
Passband	dB		>±6.5	
Insertion Loss(Pass)	dB		<0.6(0.7 for Group)	
Insertion Loss(Reflect)	dB		<0.4(0.5 for Group)	
Isolation (Adjacent)	dB		>30	
Isolation (Non-adjacent)	dB		>50	
Directivity	dB		>50	
Return Loss	dB		>45	
Polarization Dependent Loss	dB		<0.10	
Operation Temperature	°C		-30~75	
Storage Temperature	°C		-40°C~80°C	

Channel Number	unit	4	8	16
Max. Insertion Loss	dB	<1.8	<2.8	<3.8
Package Dimension	mm	120x80x9	120x80x9	120x80x15

4. Ordering Information

CWDM-A-B-C-D				
CWDM(Coarse Wavelength Division Multiplexer)				
A	B	C	D	
Channel	Channel Wavelength	Connector	Polishing	
2 : 2ch	27 : 1270	SC	UPC : Ultra PC	
4 : 4ch	...	LC	APC : Angled PC	
8 : 8ch	61 : 1610	FC		
16 : 16ch		Customized		

Compact CWDM

Comparison of Traditional CWDM and Compact CWDM

CCWDM	Traditional CWDM
Integrated 8ch by using precision substrate (Quartz Core Packaging)	Fused splicing Type
Compact Size	4~5 time bigger Size
Excellent Performance and TDL	2~3 times higher IL



1x8 CCWDM



1x8 CCWDM Dimension

1. Specification

Parameter	Unit	Minimum	Typical	Maximum
Channel Number	Ch	8		
Operating Wavelength	nm	1460~1620		
Center Wavelength(λ c)	nm	1471/1491/1511/1531/1551/1571/1591/1611		
Channel Spacing	nm	20		
Channel Passband	nm	13	15	
Insertion Loss1	dB		1.0	1.5
Channel Ripple	dB		0.3	0.5
Adjacent Channel Isolation	dB	30	40	
Non-Adjacent Channel Isolation	dB	45	50	
Directivity	dB	55		
Return Loss	dB	45	50	
PDL	dB			0.2
PMD	ps			0.2
Power Handling	mW			300
Operating Temperature	°C	0 to +70		
Storage Temperature	°C	-40°C~80°C		
Fiber Type	-	Corning SMF-28e+ with 900um loose tube, yellow		
Fiber Length	m	1.0±0.1		
Connector Type	-	LC/PC		
Package Dimension(exclude boots)	mm	44(L)*28(W)*6(H)		

2. Ordering Information

CCWDM-A-B-C-D-E				
CCWDM (Compact CWDM)				
A	B	C	D	E
Configuration	Wavelength(nm)	Package Type	Connector	Polishing
1x4 : 4 channel	1270~1610	B : Bare Fiber	SC, ST, FC, LC, MU, None	PC, APC
1x8 : 8 channel		T : Tight buffer (0.9mm)		

WDM Coupler

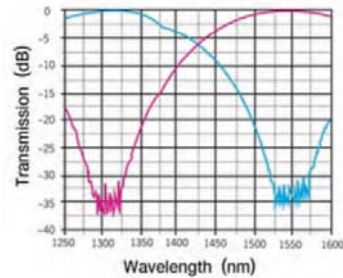
1. Features

- A) Low excess loss
- B) High directivity
- C) Compact size
- D) Environmentally stable and reliable



2. Applications

- A) CATV, FTTH, IMT2000
- B) High Speed Transmission System
- C) EDFA(Erbium-Doped Fiber Amplifier)
- D) Wide & Local Area Network
- E) Live line monitoring system



3. Specifications

Parameter	Specifications								
	980/1550nm			1310/1550nm		1480/1550nm		1310(R)/1490(R)/1550(P)	
Operating Wavelength	S	P	A	P	A	P	A	A	
Grade									
Insertion Loss(Max)	0.15	0.3	0.5	0.3	0.5	0.2	0.4	1310/1490 : 0.4 1550 : 0.7	
Isolation(min)	20	20	18	17	16	14	12	30	
Wavelength Bandwidth	± 10nm		± 15nm		± 5nm		1310 +/-50nm 1490/1550 +/-10nm		
PDL									< 0.10dB
Directivity (dB)									> 55
Thermal Stability(Max)									0.25dB
Operating Temperature									-40°C~80°C
Storage Temperature									-50°C to +80°C
Package Dimension									S:Ø3.0 × 55(L) L:Ø3.0 × 70(L) A:85(L) × 17.5(W) × 10(H)

4. Ordering Information

WDM-A-B-C-E-F				
WDM(Wavelength Division Multiplexer)				
A	B	C	D	E
TYPE	Input Channel	Output Channel	Connector	Polishing
N : none	Channel	1 : 1310 / 1550	SC	UPC : Ultra PC
C : Case type	1X2	2 : 980 / 1550	LC	APC : Angled PC
		3 : 1480 / 1550	FC	
		4 : 1310 / 1490&1550	Customized	

DWDM Dense WDM

1. Application

- A) Low Insertion Loss
- B) Excellent Channel Isolation
- C) Epoxy-Free in Optical Path
- D) Telcordia Compliant
- E) 4, 8, 16, 32 Channels Configuration



2. Feature & Benefit

- A) DWDM System
- B) CATV System

3. Specification

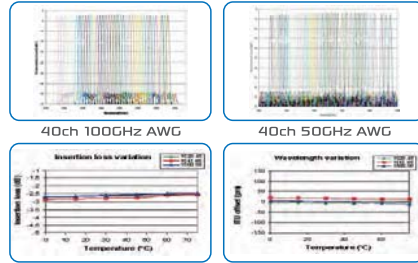
Parameter	Unit	ITU-T Grid, C-band : 1528 ~ 1568, L-band : 1568 ~ 1610		
Channel Spacing	Ghz	50	100	200
Channel Passband(0.5dB)	nm	± 0.05	± 0.12	± 0.25
Passband	dB	> ± 0.11	> ± 0.22	> ± 0.44
Insertion Loss (Pass)	dB	< 1.5	< 1.2	< 1.0
Polarization Dependent Loss	dB	< 0.20	< 0.15	< 0.15
Isolation (Adjacent)	dB		> 25	
Isolation (Non-adjacent)	dB		> 35	
Directivity	dB		> 50	
Return Loss	dB		> 45	
Operation Temperature	°C		0~70	
Storage Temperature	°C		-40°C~80°C	

4. Ordering Information

DWDM-A-B-C-D-E/F					
DWDM(Dense Wavelength Division Multiplexer)					
A	B	C	D	E	F
Type	Channel Space	Start ITU-T Channel	Stop ITU-T Channel	Connector	Polishing
D : DWDM	50 : 50GHz	ITU-T Grid	ITU-T Grid	SC	UPC : Ultra PC
AT : AWG Thermal	100 : 100GHz			LC	APC : Angled PC
AA : AWG Athermal	200 : 200GHz			FC	

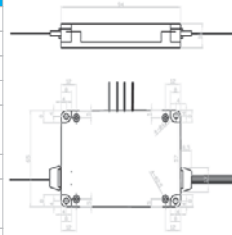
AWG Arrayed Waveguide Grating (Thermal)

1. Thermal Type



2. Electrical Specification

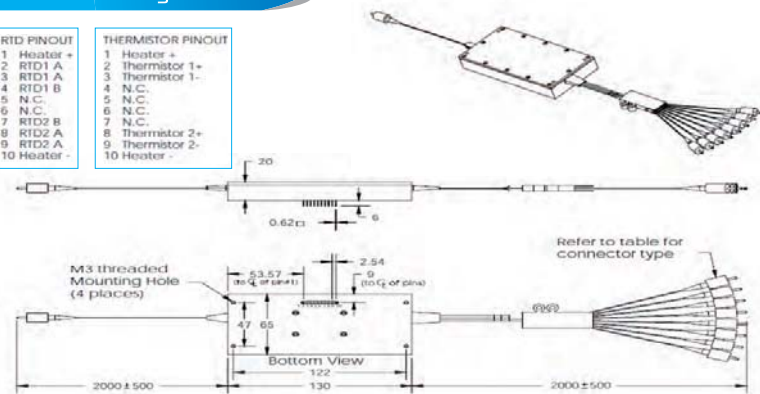
Parameter			Unit
Dimensions		94 x 65 x 16	mm
Fiber Adhesion to Package	Minimum fiber pull-strength	5	N
Fiber Bend Radius	Fiber Stow Radius During Shipment	25	mm
Input fiber length	SMF28 fiber with 900um loose tube	1500	mm
Output fiber length	750mm length for bare ribbon, and 750mm for 900um loose tube	1500	mm
Fiber Kinks / Sets	Minimum Radius of Kinks / Sets	20	mm
Electrical Connection	Pin Format	Straight SIL Header	
	Pin Pitch	TBD	mm



3. Outline Drawing

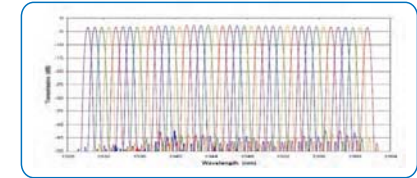
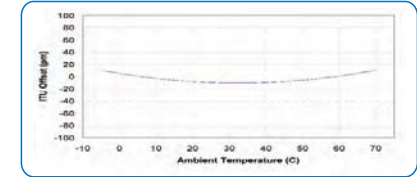
- RTD PINOUT**
- 1 Heater +
 - 2 RTD1 A
 - 3 RTD1 A
 - 4 RTD1 B
 - 5 N.C.
 - 6 N.C.
 - 7 RTD2 B
 - 8 RTD2 A
 - 9 RTD2 A
 - 10 Heater -

- THERMISTOR PINOUT**
- 1 Heater +
 - 2 Thermistor 1+
 - 3 Thermistor 1-
 - 4 N.C.
 - 5 N.C.
 - 6 N.C.
 - 7 N.C.
 - 8 Thermistor 2+
 - 9 Thermistor 2-
 - 10 Heater -

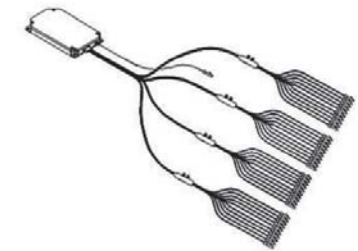
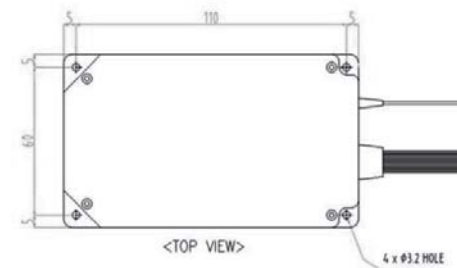
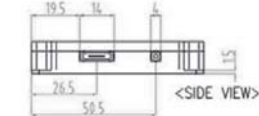
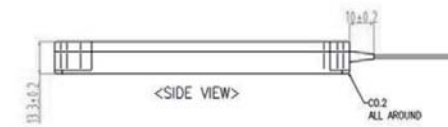


AWG Arrayed Waveguide Grating (Athermal)

1. Athermal Type



2. Outline Drawing



Interleaver

1. Application

- A) Low Insertion Loss
- B) Excellent Channel Isolation
- C) Epoxy-Free in Optical Path
- D) Telcordia Compliant
- E) 4, 8, 16, 32 Channels Configuration

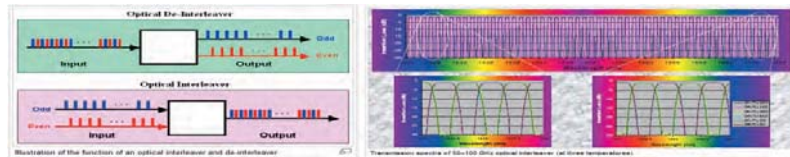
2. Feature & Benefit

- A) DWDM System
- B) CATV System

3. Specification



Parameter	Unit	25~50GHz	33.33~66.67 GHz	50~100GHz Low-CD	50~100GHz High-CD	100~200GHz
Wavelength Range	nm	1527 ~ 1567 for C-band or 1567 ~ 1607 for L-band				
Insertion Loss	dB	<3.7	<3.4	<2.6		<1.8
Uniformity	dB	<0.7	<0.6	<0.5		<0.4
Passband Width(0.5dB)	GHz	>ITU±7	>ITU±9	>ITU±15		>ITU±30
Channel Isolation	dB	>20 over ITU±5GHz	>20 over ITU±7GHz	>24 over ITU±8GHz		>24 over ITU±16GHz
Passband Ripple	dB	<0.5	<0.4	<0.3		<0.2
PDL (within 0.5dB passband)	dB	<0.3				<0.2
Return Loss	dB			>40		
Directivity	mW			>45		
Max Input Optical Power	°C			300		
Operating Temperature				0 ~ 70		



4. Ordering Information

ITLV-A-B-C-D/E				
ITLV(Interleaver)				
A	B	C	D	E
Wavelength	Channel Space	Start ITU-T Channel	Connector	Polishing
S : S-band	50 : 50GHz	ITU-T Grid	SC	UPC : Ultra PC
C : C-band	100 : 100GHz		LC	APC : Angled PC
L : L-band			FC	

Circulator

1. Application

- A) High isolation, Low PDL
- B) Low insertion loss, High return loss
- C) High stability and excellent reliability

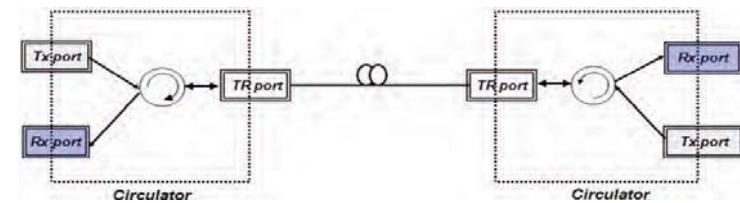
2. Feature & Benefit

- A) WDM networks, Optical fiber amplifiers
- B) Single Fiber bi-directional transmission system
- C) Fiber dispersion compensation and OTDR

3. Specification



Parameter	Unit	Specification	
Port Number		3	4
Wavelength	nm	1310 or 1550	
Bandwidth	nm	1310±30 or 1550±30	
Transmission Direction	dB	Port 1→2, 2→3	Port 1→2, 2→3, 3→4
Insertion Loss	dB	<0.8	
Return Loss(port1 to port1)	dB	>50	
Isolation	dB	>50	>45
Polarization Dependent Loss	°C	<0.1	
Operation Temperature		-0~70	



4. Ordering Information

CIR-A-B-C/D			
CIR(Circulator)			
A	B	C	D
Port	Wavelength	Connector	Polishing
3 : 3port	1310	SC	UPC : Ultra PC
4 : 4port	1550	LC	APC : Angled PC
L : L-band		FC	

Isolator

1. Application

- A) Low Insertion Loss
- B) Low Back Reflection
- C) Low PDL and PMD
- D) High Isolation
- E) Epoxy Free Optical Path

2. Feature & Benefit

- A) LAN, CATV Systems
- B) Optical Fiber Communications
- C) Bi-directional Systems
- D) EDFA
- E) Transmitters and Fiber Lasers

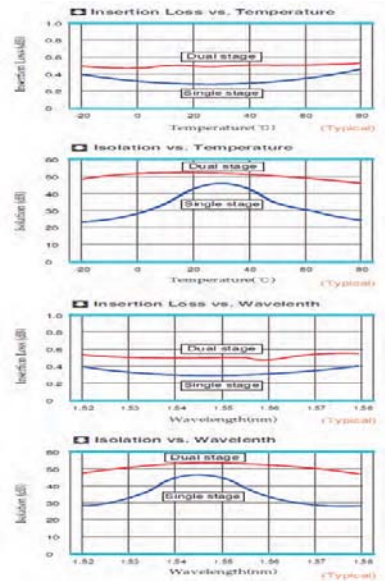


3. Specification

Parameter	Unit	Single Stage	Dual Stage
Insertion Loss	dB	<0.5	<0.5
Peak Isolation	dB	>40	>40
Return Loss	dB	>60	>60
PDL	dB	<0.1	
Uniformity	dB	0.15	
Bandwidth	ms	15	
Power Handling	mW	300	
Operation Temperature	°C	0~70	

4. Ordering Information

ISO-A-B-C-D			
ISO(Isolator)			
A	B	C	D
Wavelength	Channel Space	Start ITU-T Channel	Connector
S : S-band	1 : Single	SC	UPC : Ultra PC
C : C-band	2 : Dual	LC	APC : Angled PC
L : L-band		FC	



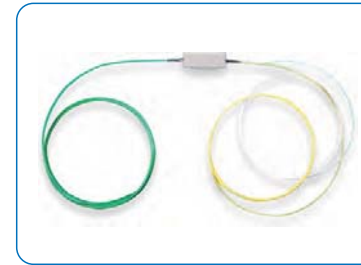
Switch

1. Application

- A) Fast Switching Speed
- B) Broad Wavelength Range
- C) Ultra-low Loss
- D) Latching or Non-latching Configuration
- F) RoHS Compliant

2. Feature & Benefit

- A) Sub-system Integration
- B) Configurable OADM
- C) Test & Measurement Equipment



3. Specification

Parameter	Unit	1x1/1x2	1x4	1x8	1x16	2x2	2x4
Central Wavelength	nm	1280~1340, 1520~1625					
Insertion Loss	dB	<0.6	<1.2	<2.0	<2.6	<1.0	<1.0
Return Loss	dB	>45					
Polarization Dependent Loss	dB	<0.1					
Switching Time	ms	<10					
Switching Speed	Hz	<10					
Switch Voltage	V	4.5~5.5					
Operation Temperature	°C	-5~70					

4. Ordering Information

SWT-A-B-C-D-E/F					
SWT(Switch)					
A	B	C	D	E	F
Input Channel	Output Channel	Wavelength	Control Method	Connector	Polishing
1 : 1Ch	2 : 2Ch	1310 : 1310nm	N2 : Non-latching 2-PIN Control	SC	UPC : Ultra PC
2 : 2Ch	4 : 4Ch	1550 : 1550nm	L2 : Latching 2-PIN Control	LC	APC : Angled PC
4 : 4Ch		1315 : 1310 & 1550	L3 : Latching 3-PIN Control	FC	
			L4 : Latching 4-PIN Control		

Ethernet Converter (10/100M)

1. Technical Specifications

- A) Standards: IEEE802.3u Fast Ethernet 10/100Base-TX and 100Base-FX
- B) Connectors: (RJ45-UTP and Fiber SC)
 - A. Multi-mode: RJ-45 and SC Connector
 - B. Single-mode: RJ-45 and SC Connector
- C) LED: POWER, FDX/Col, FX Link/Act, TX Link/Act, Fx100, TX 100.
- D) Data Transfer Mode: 10/100Mbps
- E) Duplex Mode: Full or Half Duplex Mode
- F) Power Requirement: AC 100-260V, DC 1A&+5V
- H) Ambient Temperature: 0°C ~ 50°C
- J) Humidity: 5% ~ 90%
- K) Dimensions: 26 x 70 x 95mm(HxWxD)
- L) Cable: UTP: Cat.5UTP cable
- M) Fiber: Multimode: 50/125, 62.5/125, or 1000/140um
- N) Singlemode: 8.3/125, 9/125, or 10/125um



2. Fiber Optic Information

No.	Connector	Fiber type	Max distance	Wavelength	Receiving sensitivity (dB)	Max. Optical(dB)	Consume(dB/ Km)
1	SC	Multimode	2km	1310nm	-31	≥-8	3
2	SC	Singlemode	20km	1310nm	-38	≥-12	0.4

3. Ordering Information

Model	Description
SK-MC-MM-100-2	Media converter, 10/100M, MM, 2KM, SC, external power supply
SK-MC-SM-100-20	Media converter, 10/100M, SM, 20KM, SC, external power supply

Ethernet Converter (10/100/1000M)

1. Technical Specifications

- A) Operating standards: IEEE802.3z/AB, 1000Base-T and 1000Base-SX/LX
- B) MAC address table: 4K
- C) Data Buffer: 256K
- D) Connector: UTP: RJ-45,10/100/1000Mbps; Fiber: SC,1000Mbps
- E) Cable :
 - UTP cable: Cat 5e or Cat 6 (the max distance up to 100m)
 - Fiber: multimode : 50/125, 62.5/125 μ m (the max distance up to 550/224m)
 - singlemode : 8.3/125, 8.7/125, 9/125 μ m (the max distance up to 100km)
- F) Flow control
 - Full Duplex: IEEE802.3x
 - Half Duplex: back pressure.
- G) Power: AC 220V(170-260V) 50Hz; DC 5V, 2A
- H) Ambient temperature: 0°C ~ 50°C
- I) Storage temperature: -20 ~ +70°C
- J) Humidity: 5% ~ 90%
- K) Dimensions: 26×70×95mm (HxWxD)



2. Fiber Optic Information

No.	Connector	Fiber type	Max distance	Wavelength	TX power	Sensitivity	Link Budget
1	SC	Multimode	224/ 550m	850nm	-11~-3dBm	-18dBm	7dBm
2	SC	Singlemode	20km	1310nm	-10~-3dBm	-21dBm	11dBm

3. Ordering Information

Model	Description
SK-MC-MM-1000-05	Giga media converter, 10/100/1000M auto-negotiation, MM, 500m, SC, External power supply
SK-MC-SM-1000-20	Giga media converter, 10/100/1000M auto-negotiation, SM, 20KM, SC, External power supply

DVI Module

1. Application

DDL Series with fiber optical cable system let your digital flat panel display extend up to 1,000M(3,3-00ft) away from host by TMDS digital signal transmission.

2. Feature & Benefit

- A) High Speed and long distance transmission by LC type Multi- Mode Fiber
- B) Corresponding to T.M.D.S signal
- C) The use of standard DVI plug and LC type fiber connector
- D) R.G.B Clock signal is transmitted separately by multimode optical fiber
- E) Supports up to WUXGA(1,920 x 1,200) for HDTV
- F) Pseudo-DDC detection function for EDID information
- G) Optional external power supply
- H) Self detection function for EDID information



3. General Specifications

- A) Frequency Bandwidth : 1.65Gbps (Single Link)
- B) Supporting Graphic Resolution & Distance : WUXGA resolution (1920x1200) 300M(984Ft)
UXGA resolution (1600x1200) 500M(1,650Ft)
SXGA resolution (1280x1024) 700M(2,300Ft)
- C) Using Connector : DVI 24pin Plug and LC type connector
- D) Power Consumption
· Tx : 0.65W(Max)
· Rx : 1.15W(Max)

4. Optical

- A) Optical Source : 850nm VCSEL
- B) O/E Converter : PIN Photo Diode
- C) Using Fiber : 50 / 125 LC type Multi-mode Fiber

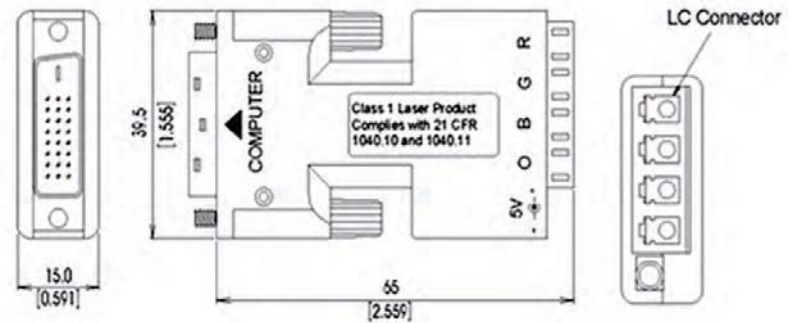
5. Enviromental

- A) Operation Temperature Range : 0 to 50 Degrees Centigrade
- B) Storage Temperature Range : -20 to 70 degrees Centigrade

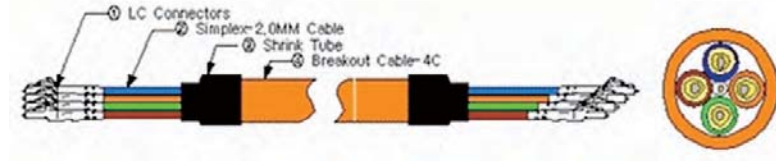
6. Package

Transmitter, Receiver, and 1 Power Adapter

7. Outer Dimension



8. Outdoor Cable



9. Ordering Information

DDL	-	A	XXX	-	X
Model Name		Type A : Full set including of Tx, Rx, Adapter and Cable for Outdoor B : Full set including of Tx, Rx, Adapter and Cable for Indoor M : Tx, Rx and 1 Power Adapter L : 4core LC to LC Fiber for Outdoor (50/125) N : 4core LC to LC Fiber for Indoor (50/125)	LC Fiber Length 050=50 meters 100=100 meters 300=300 meters 500=500 meters		Pseudo-DDC funtion Maximum Resolution for DDC check 0 : No DDC Check W : WUXGA U : UXGA S : SXGA X : XGA G : SVGA A : VGA

OTB (Indoor) Optical Termination Box

1. Application

- A) Office Desk FTTH
- B) Residential FTTH

2. Feature & Benefit

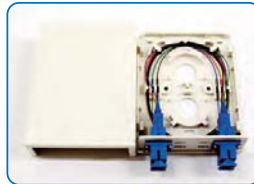
- A) Wall mount Installation
- B) Simple and Compact design
- C) Easy to install



OTB-A



OTB-B



OTB-C

3. Specification

Model	OTB-A	OTB-B	OTB-C
Fiber Capacity	1	2	4
Size(mm) WxDxH	90x120x25	86x86x23	92x120x36
Input Port	2	2	2
Output Port	1	2	4
Material	ABS	ABS	ABS
Adaptor	SC / LC	SC / LC	SC / LC

4. Ordering Information

OTB-X-Y	
OTB (Optical Termination Box Indoor Type)	
X	Y
Port Number	Adaptor
A : 1 Port	SC : SC Blue
B : 2 Port	SCA : SC Green
C : 4 Port	N : Without Adaptor

OTB (Outdoor) Optical Termination Box

1. Application

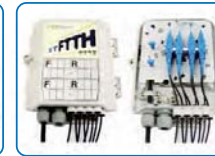
- A) FTTH Telecommunication network
- B) Pole, Premise application for FTTH

2. Feature & Benefit

- A) Locking available on front panel
- B) Inter connecting for up to 8, 12, 16, 48core
- C) Small and compact design
- D) Durable and scratch resistant
- E) Pole mounting bracket for easy installation



OTB-D



OTB-E



OTB-F



OTB-G

3. Specification

Model	OTB-D	OTB-E	OTB-F	OTB-G
Fiber Capacity	8	8	16	48
Splitter Capacity	1(1x8)	1(1x8)	2(1x8)	6(1x8)
Size(mm) WxDxH	150x200x50	208x188x50	340x267x102	450x210x480
Input Port	2	2	2	2
Output Port	8	8	16	6
Material	ABS	ABS	ABS	SUS
Adaptor	SC / LC	SC / LC	SC / LC	SC / LC

4. Ordering Information

OTB-X-Y	
OTB (Optical Termination Box Outdoor Type)	
X	Y
Port Number	Adaptor
D: 8Port	SC : SC Blue
E: 8Port	SCA : SC Green
F: 16Port	N : Without Adaptor
G: 48Port	

ODF Optical Distribution Frame

1. Application

- A) FTTH Telecommunication network
- B) CATV system
- C) Local Area Network
- D) Active / Passive device

2. Feature & Benefit

- A) Convenient location for patching Cable
- B) Variety of sizes for 19"/23" Rack Frame
- C) Various Adaptor can be installable
- D) Environmental stable



3. Specifications

Item	Model	Capacity (Max.Core)	Dimension (WxLxH)mm	Remark	
Rack Type	1	ODF-24-O	24	480x310x44	1U Open Type
	2	ODF-24-R (A1)	24	480x310x44	1U Round Type
	3	ODF-24-D (A2)	24	480x310x44	1U Drawer Type
	4	ODF-48-O	48	480x310x88	2U Open Type
	5	ODF-48-R	48	480x310x88	2U Round Type
	6	ODF-24-S (B1)	24	480x310x133	3U With Storage
	7	ODF-48-S (B2)	48	480x310x222	5U With Storage
	8	ODF-72 (C1)	72	480x310x178	4U Without Storage Box
	9	ODF-144 (C2)	144	480x310x222	5U Without Storage Box
	10	ODF-144-S	144	480x430x266	6U Slot Type(Max.24)
	11	ODF-288	288	480x310x400	9U Two Door Type
	12	ODF-360	360	480x310x490	11U Two Door Type
	13	ODF-432	432	480x310x578	13U Two Door Type)
	14	OFS-72	72	480x310x133	3U Storage Box
	15	OFS-144	144	480x310x178	4U Storage Box
Wall Type	16	ODF-24-W	24	315x310x82	Wall Mount Type
	17	ODF-48-W	48	315x380x110	Wall Mount Type

4. Ordering Information

ODF-A-B-C		
ODF (Optic Distribution Frame)		
A	B	C
Installing Area	Max. Capacity	Adaptor
R : Rack Type	1~144	SC, ST, FC, LC, MTR J
W : Wall Type		

OSC Optical Street Cabinet

1. Application

- A) FTTH Telecommunication network
- B) Outdoor Fiber distribution hub



OSC-288

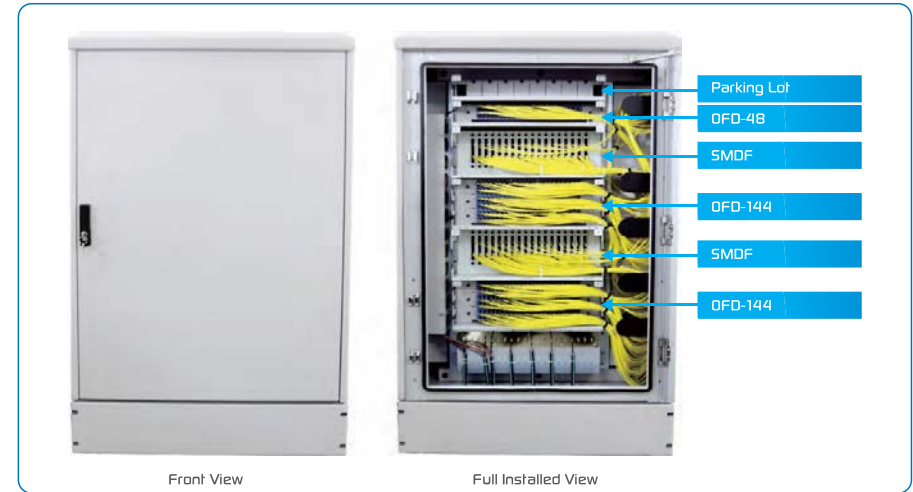
2. Feature

- A) Double skin structure
- B) Side wall, Roof top are available to detach and reattach
- C) Full front access operation
- D) Modular PLC Splitters can be installed
- E) Subscribers can be added Without disturbing in-service line
- F) Support fiber capacity 96, 144, 288, 576
- G) Parking-Lot space for excess connectors
- H) Sufficient space to support cable termination
- I) Suitable for Outdoor Installation
- J) Easy to operate and maintain
- K) Mechanically strong and durable structure
- L) Comply with Ip65
- M) Sufficient space for bending radius

3. Specifications

Description	Model			
	OSC-144(96)		OSC-288	OSC-576
Maximal Capacity (Total connector Ports)	96	144	288	576
Splitter Module Capacity	18	18	36	72
Parking-lot Capacity	64	64	64	128
Number of Parking-lot	1		1	2
Number of OFD-48	1		1	2
Number of OFD-144	1		2	4
Number of SMDF	1		2	4
External Dimension (W x D x H) (mm)	800 x 400 x 1170		800 x 400 x 1470	1560 x 400 x 1470
Door	1door(Front)		2door (Front)	
Place to install	Outdoor			
IK Grade	IK08			
IP Grade	IP65			
Material	SUS(304)			
Color	RAL 7035(light grey)			

4. Photo



5. Ordering Information

OSC-X		PKL-X		OFD-A-B		SMDF-A-B-C		
OSC (Optical Street Cabinet)		PKL (Parking Lot)		OFD (Optical Fiber Distribution)		SMDF (Splitter Module Distribution Frame)		
X	X	A	B	A	B	C		
Port Number	Port Number	Port Number	Pigtail / Adaptor	Splitter Module Type	Splitter Module Number	Connector		
96 : Max. 96 Port	64 : Max. 64 Port	48 : 48 Port	SC : SC/UPC	1x2, 1x4, 1x8, 1x16, 1x32	0~18 : Number of Module	SC : SC/UPC		
144 : Max. 144 Port		144 : 144 Port	SCA : SC/APC	2x2, 2x4, 2x8, 2x16, 2x32		SCA : SC/APC		
288 : Max. 288 Port				N : No Splitter Module		N : None		
576 : Max. 576 Port								

FOC Fiber Optic Closure (In-Line Type)

1. Application

- A) Telecommunication Networks
- B) CATV Networks - Local Area Networks
- C) Underground, Aerial, Direct buried, and Building environments

2. Feature

- A) In-line type closure
- B) Aerial, direct-buried or man-hole installation
- C) Either single-loose fibers or ribbon fibers are available
- D) Either heat-shrink sleeves or mechanical splice sleeves are available
- E) Robust mechanism for clamping the cable sheath
- F) Accept additional cables without removal of the sheath retention or disturbing existing splices
- G) Do not require special tool or equipment for installation



FOC-F



FOC-S



FOC-M

3. Specifications

	FOC-F	FOC-S	FOC-M
External Dimension	286 x 200 x 97 mm	330 x 186 x 125 mm	574 x 222 x 138 mm
Max. Splice Capacity	48 splices	96 splices	288 splices
Splice slots per tray	12 (max. 24 splices)	12 (max. 24 splices)	24 (max. 48 splices)
Tray Capacity	2 trays	4 trays	6 trays
Cable inlet ports	4	6	6
Cable diameter	3 mm, 8 ~ 17 mm	8 mm ~ 17 mm	15 mm ~ 27 mm
Weight	3.2kg	3.5kg	6.3kg

4. Ordering Information

FOCI-A-B-C		
FOCI(Fiber Optic Closure InLine Type)		
A	B	C
Size	No of Tray	Total Splice Slots
F : FTTH Type	1-6	12-288
S : Small Type		
M : Medium Type		

FOC Fiber Optic Closure (DOME Type)

1. Application

- A) Telecommunication Networks
- B) CATV Networks - Local Area Networks
- C) Underground, Aerial, Direct buried, and Building environments

2. Feature

- A) Dome type closure
- B) Aerial, pole or man-hole installation
- C) Can be repeatedly used for many times
- D) Cables can be fixed 3 times inside the closure
- E) Enough space for surplus fibers
- F) Fixing way of loose leaf type splice tray
- G) Modular of fiber connecting and fixing
- H) Flexible branch for fibers



SK-DR01A



SK-DR04A



SK-DM01A

3. Specifications

No.	Model Name	Cable Entries	Max. Trays	Max. Cores		Dimension (HxD, mm)	Weight (kg)	Cable Diameter Range (mm)	Sealing	Trays	Cores	Remarks
				Single	Ribbon							
1	SK-DR01A	4 small round ports and one big oval port	3	180	432	540x160	3.5-4.5	8-28	Heat Shrink	1	60	Dome 5 port fiber closure
										2	120	
										3	180	
2	SK-DR02A	6 small round ports	4	48	540x160	2.5-3.5	8-20	Heat Shrink	1	12	Dome 6 port fiber closure. Mold is being modified.	
									2	24		
									3	36		
									4	48		
3	SK-DR03A	small round ports and one big oval port	5	120	430x130	2.5-3.5	8-28	Heat Shrink	1	24	Dome 5 port fiber closure (Brand-new)	
									2	48		
									3	72		
									4	96		
									5	120		
4	SK-DR04A	4 small round ports and one big oval port	9	216	540x160	3.5-4.5	8-28	Heat Shrink	1	24	Dome 5 port big capacity fiber closure (Brand-new)	
									2	48		
									3	72		
									4	96		
									5	420		
									6	144		
									7	168		
									8	192		
									9	216		
5	SK-DM01A	5 round ports for 6 cables max inlet and outlet	5	120	430x130	2.5-3.5	8-20	Mechanical Sealing	1	24	Dome mechanical type fiber closure	
									2	48		
									3	72		
									4	96		
									5	120		
6	SK-DM02A	6 round ports	9	216	540x160	3.5-4.5	8-20	Mechanical Sealing		24	Dome mechanical big capacity fiber closure. Mold is being modified	

4. Ordering Information

FOCD-A-B-C		
FOCD(Fiber Optic Closure Dome Type)		
A	B	C
Model	No of Tray	Total Splice Slots
DR01 : SK-DR01A	1-9	12-216
DR02 : SK-DR02A		
DR03 : SK-DR03A		
DR04 : SK-DR04A		
DM01 : SK-DM01A		
DM02 : SK-DM02A		

MW-Closure

Messenger Wire optical Closure

1. Application

- A) FTTH Telecommunication network
- B) Messenger wire application for FTTH

2. Feature & Benefit

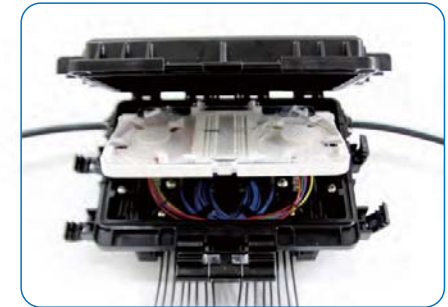
- A) Provide both Middle Branch and Drop point
- B) Pre-Assembled PLC Splitter 1x8 2ea (Max. 16 port)
- C) Excellent field assembly and mating
- D) Waterproof design
- E) Compact design and light weight
- F) Pre-installed optical adaptor



4. Photo



Back Open View



Front Open View

3. Specification

Model Name	MW_Closure
Max. Adaptor for Drop Cable	16 Port
No. of Input Cable	3 Port
No. of Output Cable	3 Port
Suitable Cable	Φ7, Φ8, Φ10, Φ12
Max. Splice Core	48 Core
Size (WxLxH)	272 x 195 x 67.5 mm
Material	PC/ABS
IP Grade	IP65

5. Ordering Information

MWC-A-B		
MWC (Messenger Wire Optical Closure)		
A	B	
Port Number	Adaptor	
8 : 8 Port	SC : SC Blue	
16 : 16 Port	SCA : SC Green	
	N : Without Adaptor	