

# PRODUCTS CATALOGUE

RELIABLE QUALITY  
REASONABLE PRICES  
REMARKABLE SERVICES



FIBER OPTIC  
TELECOM PRODUCT  
POWER SUPPLY



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# INTRO

## เรียน ท่านผู้มีอุปการคุณทุกท่าน

บริษัท อัลฟา เบส มาร์เก็ตติ้ง จำกัด ซึ่งเป็นผู้แทนจำหน่าย และบริการสินค้ากลุ่มอุปกรณ์ที่ใช้ในการติดตั้ง เชื่อมโยงโครงข่ายสื่อสารโทรคมนาคม ดาวเทียม เน็ตเวิร์ค เช่น ไฟเบอร์ออฟติก เพาเวอร์ซัพพลาย มานาน กว่า 20 ปี บริษัทฯ มีความยินดีขอเสนอ Products Catalogue ซึ่งได้รวบรวมสินค้าที่ทางบริษัทฯ ได้จัดจำหน่าย โดยจัดแบ่งออกเป็น 3 กลุ่มใหญ่ ๆ เพื่อให้ง่ายต่อการค้นหา

ประกอบด้วย

1. Fiber Optic
2. Telecom Product
3. Power Supply

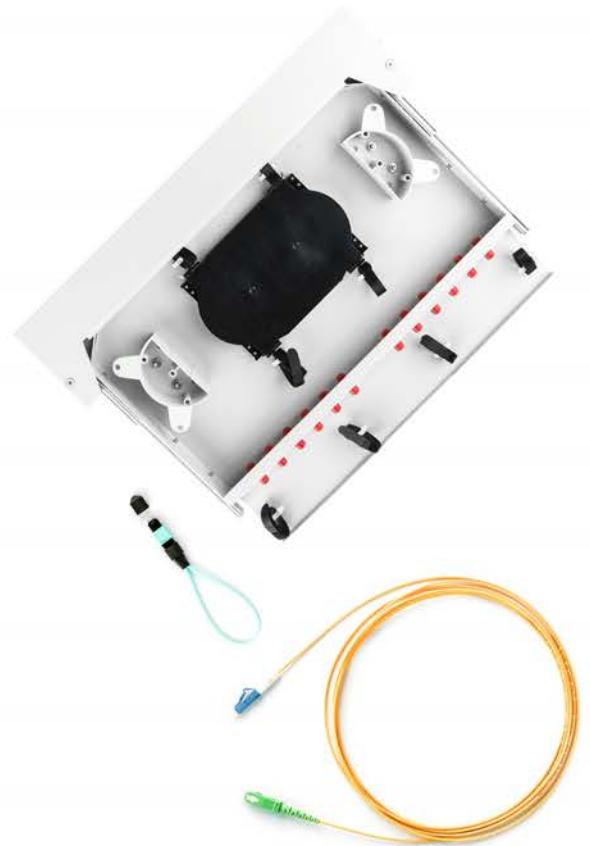
ทางบริษัทฯ ยินดีที่จะให้บริการสินค้านี้ในคุณภาพที่ดี ราคายุติธรรม และสะดวกรวดเร็ว หากท่านมีข้อสงสัยในตัวสินค้าที่เราจำหน่ายในประเภทใด หรือต้องการข้อมูลสินค้าต่าง ๆ เพิ่มเติม สามารถสอบถามได้ที่ โทรศัพท์ 0 2346-9100 หรือ E-mail [info@alfabase.co.th](mailto:info@alfabase.co.th), [sales@alfabase.co.th](mailto:sales@alfabase.co.th) หรือดูรายละเอียดเพิ่มเติมได้ที่ [www.alfabase.co.th](http://www.alfabase.co.th)

ด้วยความเคารพอย่างสูง  
บริษัท อัลฟา เบส มาร์เก็ตติ้ง จำกัด

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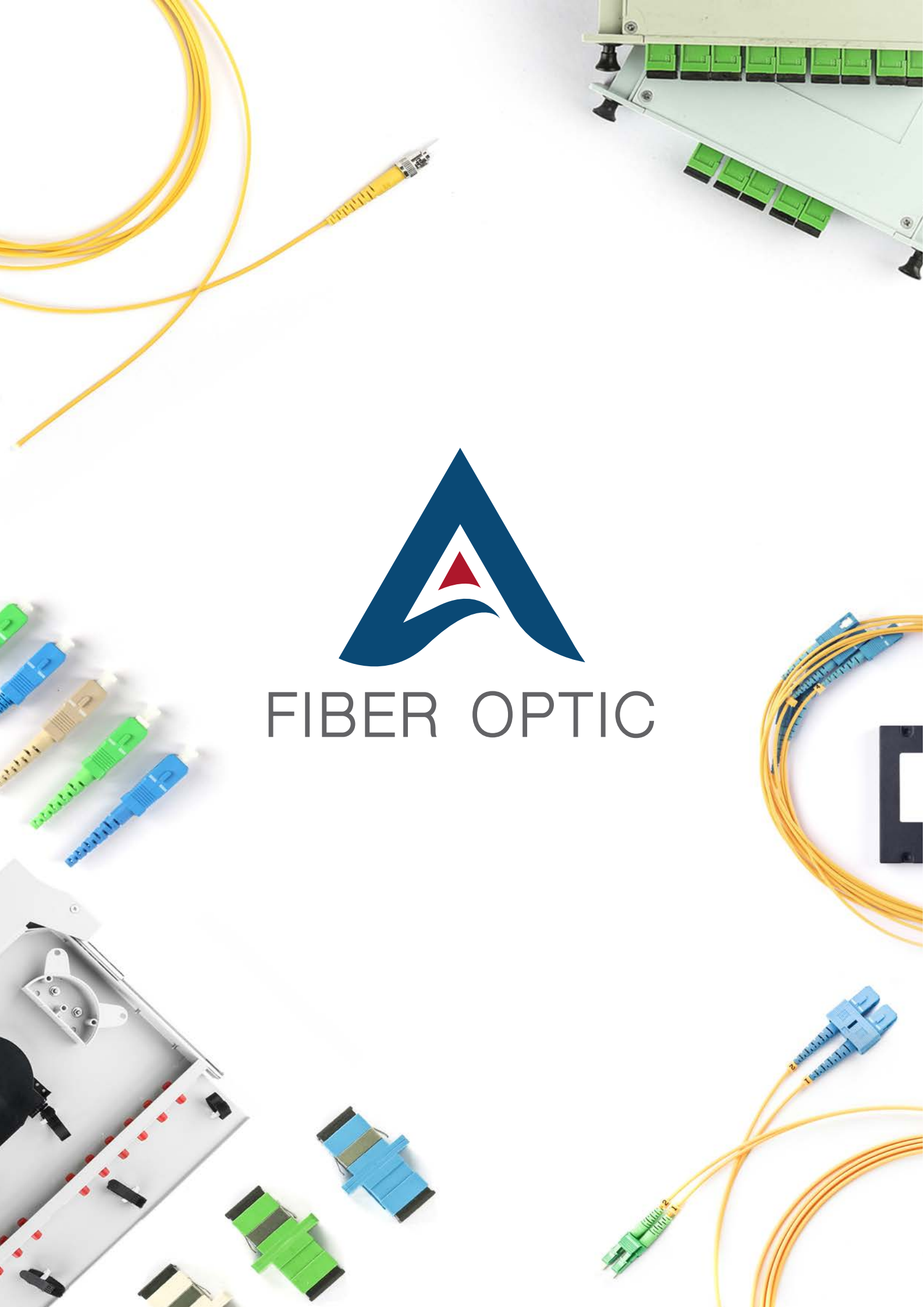


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FIBER OPTIC



# FIBER OPTIC

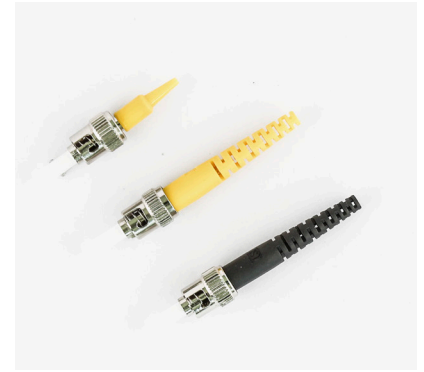
## CONNECTOR



FC Connector



SC Connector



ST Connector



LC Connector



Field Installable Connector



MPO/MTP Connector

## Features :

- Low insertion loss and back reflection
- Zirconia ceramic ferrule with UPC/APC polishing grade
- Available in standard colors with several type of boots

## General Specifications :

Insertion Loss (dB)	0.20 typical (UPC), 0.30 typical (APC) for SM 0.30 typical for MM
Return Loss (dB)	>50 (UPC) >60 (APC)
Operating Temperature (°C)	-40 to +75
Range Durability (dB)	<0.2 change after 500 matings

# FIBER OPTIC

## CONNECTOR



ITEM	DESCRIPTIONS	PRICE
<b>FC Connector</b>		
1	FC Connector SM Simplex Ceramic Ferrule	40.-
2	FC Connector MM Simplex Ceramic Ferrule	40.-
3	FC/APC Connector SM Simplex Ceramic Ferrule	45.-
<b>SC Connector</b>		
4	SC Connector SM Simplex Ceramic Ferrule	40.-
5	SC Connector MM Simplex Ceramic Ferrule	40.-
6	SC/APC Connector SM Simplex Ceramic Ferrule	45.-
<b>LC Connector</b>		
7	LC Connector SM Simplex Ceramic Ferrule	40.-
8	LC Connector MM Simplex Ceramic Ferrule	40.-
9	LC/APC Connector SM Simplex Ceramic Ferrule	45.-
<b>ST Connector</b>		
10	ST Connector SM Simplex Ceramic Ferrule	40.-
11	ST Connector MM Simplex Ceramic Ferrule	40.-
<b>E2000 Connector</b>		
12	E2000 Connector SM Simplex Ceramic Ferrule	Call
13	E2000 Connector MM Simplex Ceramic Ferrule	Call
14	E2000/APC Connector SM Simplex Ceramic Ferrule	Call
<b>MTRJ Connector</b>		
15	MTRJ Connector SM Duplex Ceramic Ferrule	Call
16	MTRJ Connector MM Duplex Ceramic Ferrule	Call
<b>D4 Connector</b>		
17	D4 Connector SM Simplex Ceramic Ferrule	Call
18	D4 Connector MM Simplex Ceramic Ferrule	Call
<b>MPO Connector</b>		
19	MPO Connector SM 12F or 24F	Call
20	MPO Connector MM 12F or 24F	Call
<b>DIN Connector</b>		
21	DIN Connector SM Simplex Ceramic Ferrule	Call
<b>MU Connector</b>		
22	MU Connector SM Simplex Ceramic Ferrule	Call

# FIBER OPTIC

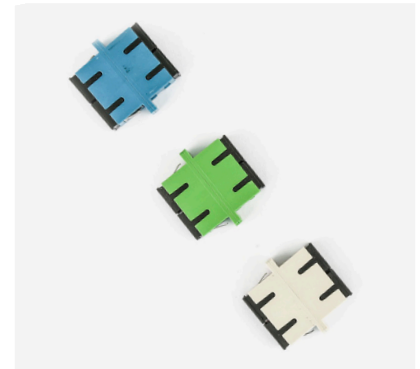
## ADAPTER



FC Adapter



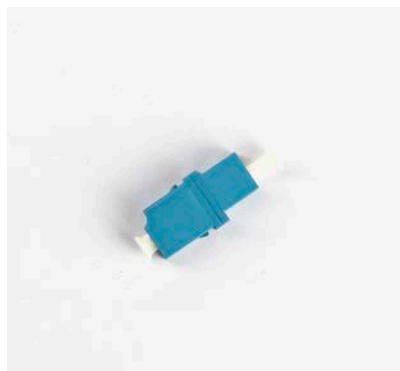
SC Simplex Adapter



SC Duplex Adapter



ST Adapter



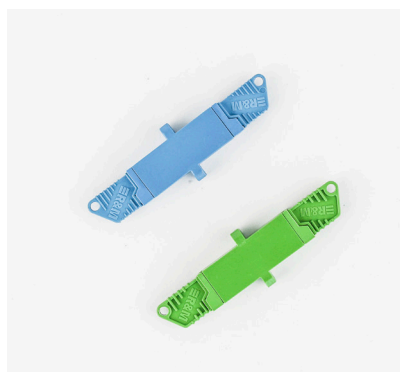
LC Simplex Adapter



LC Duplex Adapter



LC Duplex Adapter  
(SC Footprint)



E2000 Adapter



MPO/MTP Adapter

### Features :

- High precision zirconia ceramic or standard phosphor bronze sleeve
- Low insertion loss
- High repeatability and stability

### General Specifications :

Insertion Loss (dB)	0.20 typical for SM 0.30 typical for MM
Operating Temperature (°C)	-40 to +75
Range Durability (dB)	<0.2 change after 500 matings



# FIBER OPTIC

## ADAPTER/HYBRID ADAPTER



FC Male / LC Female



FC Male / SC Female



FC Female / LC Female



FC Female / SC Female



FC Female / ST Female

### Features :

- High precision zirconia ceramic or standard phosphor bronze sleeve
- Low insertion loss
- High repeatability and stability

### General Specifications :

Insertion Loss (dB)	0.20 typical for SM 0.30 typical for MM
Operating Temperature (°C)	-40 to +75
Range Durability (dB)	<0.2 change after 500 matings

# FIBER OPTIC

## ADAPTER

ITEM	DESCRIPTIONS	PRICE
<b>FC Adapter</b>		
1	FC Adapter D-Hole Ceramic Sleeve	25.-
2	FC Adapter D-Hole PB Sleeve	25.-
3	FC Adapter Square Ceramic Sleeve	40.-
4	FC Adapter Square PB Sleeve	40.-
<b>SC Adapter</b>		
5	SC Adapter SM Simplex Ceramic Sleeve	25.-
6	SC Adapter MM Simplex PB Sleeve	25.-
7	SC Adapter SM Duplex Ceramic Sleeve	50.-
8	SC Adapter MM Duplex PB Sleeve	40.-
<b>LC Adapter</b>		
9	LC Adapter SM Simplex Ceramic Sleeve	25.-
10	LC Adapter MM Simplex PB Sleeve	25.-
11	LC Adapter SM Duplex Ceramic Sleeve	50.-
12	LC Adapter MM Duplex PB Sleeve	50.-
13	LC Adapter SM Duplex Ceramic Sleeve (SC Footprint)	50.-
14	LC Adapter MM Duplex PB Sleeve (SC Footprint)	50.-
<b>ST Adapter</b>		
15	ST Adapter SM Simplex Ceramic Sleeve	25.-
16	ST Adapter MM Simplex PB Sleeve	25.-
<b>E2000 Adapter</b>		
17	E2000/UPC Adapter SM Simplex Ceramic Sleeve	Call
18	E2000/APC Adapter SM Simplex Ceramic Sleeve	Call
<b>MTRJ Adapter</b>		
19	MTRJ Adapter MM Duplex	Call
<b>MU Adapter</b>		
20	MU Adapter SM Simplex Ceramic Sleeve	Call
<b>Hybrid Adapter</b>		
21	FC Female/SC Female Hybrid Adapter	65.-
22	FC Female/ST Female Hybrid Adapter	65.-
23	FC Female/LC Female Hybrid Adapter	Call
24	FC Male/SC Female Hybrid Adapter	Call
25	FC Male/LC Female Hybrid Adapter	Call

# FIBER OPTIC

PATCHCORD/SINGLEMODE SIMPLEX PATCHCORD



FC/FC Patchcord



FC/SC Patchcord



FC/ST Patchcord



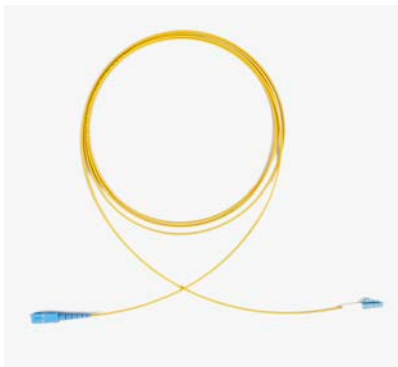
FC/LC Patchcord



SC/SC Patchcord



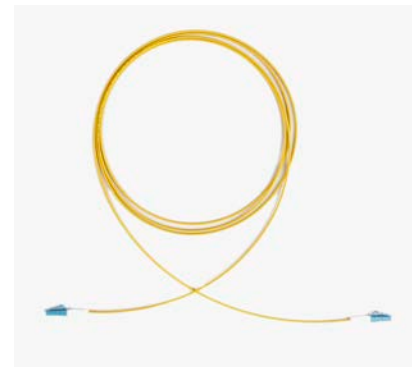
SC/ST Patchcord



SC/LC Patchcord



ST/LC Patchcord



LC/LC Patchcord

## General Specifications :

Insertion Loss (dB)	≤0.20 typical (UPC) ≤0.30 typical (APC)
Return Loss (dB)	>50 (UPC) >60 (APC)
Operating Temperature (°C)	-40 to +75
Range Durability (dB)	<0.2 change after 500 matings
Core/Cladding (µm.)	9/125

## Order Informations :

Fiber Core	: G.652D, G.655, G.657A2, G.657B3
Cable Jacket	: PVC, LSZH*
Cable Color	: Yellow, Blue, Green, Red
Cable Diameter (mm.)	: 0.9, 2.0, 2.4, 3.0
Connector Boot	: Long, Short
Polishing Grade	: UPC, APC

\* LSZH = Low Smoke Zero Halogen



# FIBER OPTIC

## PATCHCORD/SINGLEMODE SIMPLEX PATCHCORD



ITEM	DESCRIPTIONS	PRICE
	<b>Singlemode Simplex</b>	
1	FC/FC Patchcord SM Simplex 3M.	96.-
2	FC/SC Patchcord SM Simplex 3M.	95.-
3	FC/LC Patchcord SM Simplex 3M.	97.-
4	FC/ST Patchcord SM Simplex 3M.	94.-
5	SC/SC Patchcord SM Simplex 3M.	94.-
6	SC/ST Patchcord SM Simplex 3M.	92.-
7	SC/LC Patchcord SM Simplex 3M.	96.-
8	ST/LC Patchcord SM Simplex 3M.	95.-
9	ST/ST Patchcord SM Simplex 3M.	92.-
10	LC/LC Patchcord SM Simplex 3M.	99.-
11	E2000/FC Patchcord SM Simplex 3M.	Call
12	E2000/SC Patchcord SM Simplex 3M.	Call
13	E2000/LC Patchcord SM Simplex 3M.	Call
14	E2000/E2000 Patchcord SM Simplex 3M.	Call
15	D4/FC Patchcord SM Simplex 3M.	Call
16	D4/SC Patchcord SM Simplex 3M.	Call
17	D4/LC Patchcord SM Simplex 3M.	Call
18	D4/ST Patchcord SM Simplex 3M.	Call
19	D4/D4 Patchcord SM Simplex 3M.	Call
20	DIN/FC Patchcord SM Simplex 3M.	Call
21	DIN/SC Patchcord SM Simplex 3M.	Call
22	DIN/LC Patchcord SM Simplex 3M.	Call
23	DIN/ST Patchcord SM Simplex 3M.	Call
24	DIN/DIN Patchcord SM Simplex 3M.	Call
25	MU/FC Patchcord SM Simplex 3M.	Call
26	MU/SC Patchcord SM Simplex 3M.	Call
27	MU/LC Patchcord SM Simplex 3M.	Call
28	MU/ST Patchcord SM Simplex 3M.	Call
29	MU/MU Patchcord SM Simplex 3M.	Call
	For additional length (Price / M.)	
	SM Simplex length up to 40M.	4.50
	SM Simplex length more than 40M. and up to 100M.	5.00
	SM Simplex length more than 100M.	5.50

# FIBER OPTIC

PATCHCORD/SINGLEMODE SIMPLEX PATCHCORD



FC/FCA Patchcord



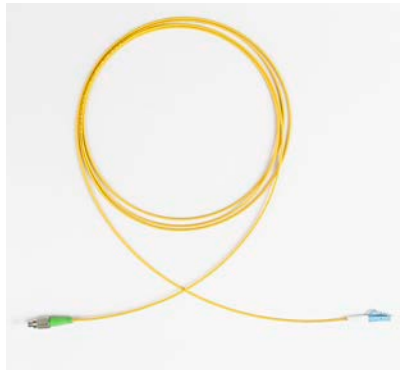
FCA/FCA Patchcord



FCA/SC Patchcord



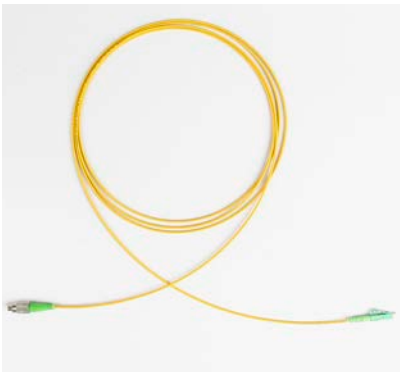
FCA/ST Patchcord



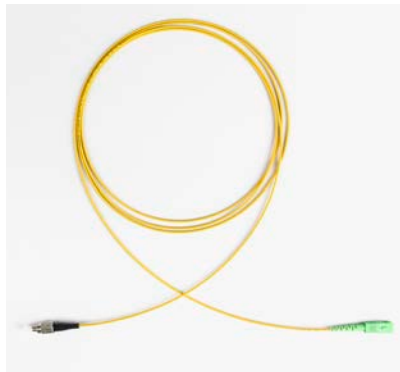
FCA/LC Patchcord



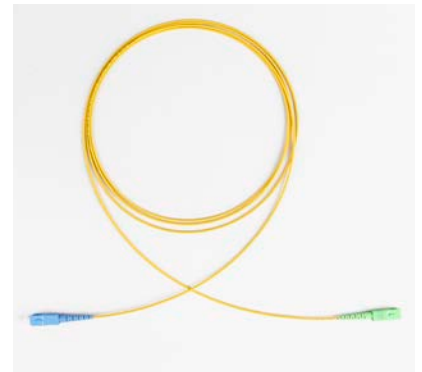
FCA/SCA Patchcord



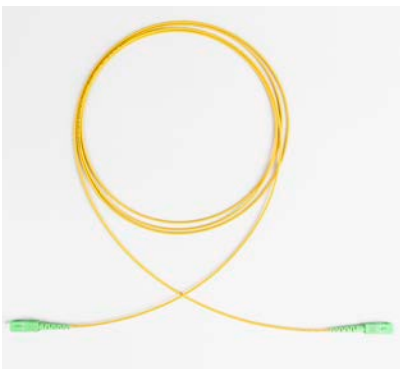
FCA/LCA Patchcord



FC/SCA Patchcord



SC/SCA Patchcord



SCA/SCA Patchcord



SCA/ST Patchcord



SCA/LC Patchcord

# FIBER OPTIC

PATCHCORD/SINGLEMODE SIMPLEX PATCHCORD



SCA/LCA Patchcord



FC/LCA Patchcord



SC/LCA Patchcord



ST/LCA Patchcord



LC/LCA Patchcord



LCA/LCA Patchcord

## General Specifications :

Insertion Loss (dB)	≤0.20 typical (UPC) ≤0.30 typical (APC)
Return Loss (dB)	>50 (UPC) >60 (APC)
Operating Temperature (°C)	-40 to +75
Range Durability (dB)	<0.2 change after 500 matings
Core/Cladding (µm.)	9/125

## Order Informations :

Fiber Core	: G.652D, G.655, G.657A2, G.657B3
Cable Jacket	: PVC, LSZH*
Cable Color	: Yellow, Blue, Green, Red
Cable Diameter (mm.)	: 0.9, 2.0, 2.4, 3.0
Connector Boot	: Long, Short
Polishing Grade	: UPC, APC

\* LSZH = Low Smoke Zero Halogen



# FIBER OPTIC

## PATCHCORD/SINGLEMODE SIMPLEX PATCHCORD



ITEM	DESCRIPTIONS	PRICE
	<b>Singlemode Simplex</b>	
1	FC/FCA Patchcord SM Simplex 3M.	100.-
2	FC/SCA Patchcord SM Simplex 3M.	98.-
3	FC/LCA Patchcord SM Simplex 3M.	98.-
4	FCA/SC Patchcord SM Simplex 3M.	99.-
5	SCA/SCA Patchcord SM Simplex 3M.	102.-
6	SCA/LC Patchcord SM Simplex 3M.	100.-
7	SCA/LCA Patchcord SM Simplex 3M.	102.-
8	SC/LCA Patchcord SM Simplex 3M.	98.-
9	LCA/LCA Patchcord SM Simplex 3M.	101.-
10	E2000A/FC Patchcord SM Simplex 3M.	Call
11	E2000A/SC Patchcord SM Simplex 3M.	Call
12	E2000A/LC Patchcord SM Simplex 3M.	Call
13	E2000A/E2000A Patchcord SM Simplex 3M.	Call
	For additional length (Price / M.)	
	SM Simplex length up to 40M.	4.50
	SM Simplex length more than 40M. and up to 100M.	5.00
	SM Simplex length more than 100M.	5.50

# FIBER OPTIC

PATCHCORD/SINGLEMODE DUPLEX PATCHCORD



FC/FC Patchcord



FC/SC Patchcord



FC/ST Patchcord



FC/LC Patchcord



SC/SC Patchcord



SC/ST Patchcord



SC/LC Patchcord



ST/LC Patchcord



LC/LC Patchcord

## General Specifications :

Insertion Loss (dB)	≤0.20 typical (UPC) ≤0.30 typical (APC)
Return Loss (dB)	>50 (UPC) >60 (APC)
Operating Temperature (°C)	-40 to +75
Range Durability (dB)	<0.2 change after 500 matings
Core/Cladding (µm.)	9/125

## Order Informations :

Fiber Core	: G.652D, G.655, G.657A2, G.657B3
Cable Jacket	: PVC, LSZH*
Cable Color	: Yellow, Blue, Green, Red
Cable Diameter (mm.)	: 0.9, 2.0, 2.4, 3.0
Connector Boot	: Long, Short
Polishing Grade	: UPC, APC

\* LSZH = Low Smoke Zero Halogen

# FIBER OPTIC

## PATCHCORD/SINGLEMODE DUPLEX PATCHCORD



ITEM	DESCRIPTIONS	PRICE
	<b>Singlemode Duplex</b>	
1	FC/FC Patchcord SM Duplex 3M.	206.-
2	FC/SC Patchcord SM Duplex 3M.	204.-
3	FC/LC Patchcord SM Duplex 3M.	209.-
4	SC/SC Patchcord SM Duplex 3M.	202.-
5	SC/LC Patchcord SM Duplex 3M.	207.-
6	LC/LC Patchcord SM Duplex 3M.	213.-
7	MTRJ/FC Patchcord SM Duplex 3M.	257.-
8	MTRJ/SC Patchcord SM Duplex 3M.	254.-
9	MTRJ/LC Patchcord SM Duplex 3M.	261.-
10	MTRJ/ST Patchcord SM Duplex 3M.	251.-
11	MTRJ/MTRJ Patchcord SM Duplex 3M.	274.-
12	ST/FC Patchcord SM Duplex 3M.	202.-
13	ST/SC Patchcord SM Duplex 3M.	199.-
14	ST/LC Patchcord SM Duplex 3M.	204.-
15	ST/ST Patchcord SM Duplex 3M.	197.-
16	E2000/FC Patchcord SM Duplex 3M.	Call
17	E2000/SC Patchcord SM Duplex 3M.	Call
18	E2000/LC Patchcord SM Duplex 3M.	Call
19	E2000/E2000 Patchcord SM Duplex 3M.	Call
	For additional length (Price / M.)	
	SM Duplex length up to 40M.	9.00
	SM Duplex length more than 40M. and up to 100M.	10.00
	SM Duplex length more than 100M.	11.00

# FIBER OPTIC

PATCHCORD/SINGLEMODE DUPLEX PATCHCORD



FC/FCA Patchcord



FCA/FCA Patchcord



FCA/SC Patchcord



FCA/ST Patchcord



FCA/LC Patchcord



FCA/SCA Patchcord



FCA/LCA Patchcord



FC/SCA Patchcord



SC/SCA Patchcord



SCA/SCA Patchcord



SCA/ST Patchcord



SCA/LC Patchcord

# FIBER OPTIC

PATCHCORD/SINGLEMODE DUPLEX PATCHCORD



SCA/LCA Patchcord



FC/LCA Patchcord



SC/LCA Patchcord



ST/LCA Patchcord



LC/LCA Patchcord



LCA/LCA Patchcord

## General Specifications :

Insertion Loss (dB)	≤0.20 typical (UPC) ≤0.30 typical (APC)
Return Loss (dB)	>50 (UPC) >60 (APC)
Operating Temperature (°C)	-40 to +75
Range Durability (dB)	<0.2 change after 500 matings
Core/Cladding (µm.)	9/125

## Order Informations :

Fiber Core	: G.652D, G.655, G.657A2, G.657B3
Cable Jacket	: PVC, LSZH*
Cable Color	: Yellow, Blue, Green, Red
Cable Diameter (mm.)	: 0.9, 2.0, 2.4, 3.0
Connector Boot	: Long, Short
Polishing Grade	: UPC, APC

\* LSZH = Low Smoke Zero Halogen



# FIBER OPTIC

## PATCHCORD/SINGLEMODE DUPLEX PATCHCORD



ITEM	DESCRIPTIONS	PRICE
	<b>Singlemode Duplex</b>	
1	FC/FCA Patchcord SM Duplex 3M.	216.-
2	FC/SCA Patchcord SM Duplex 3M.	211.-
3	FC/LCA Patchcord SM Duplex 3M.	211.-
4	FCA/SC Patchcord SM Duplex 3M.	213.-
5	SCA/SCA Patchcord SM Duplex 3M.	220.-
6	SCA/LCA Patchcord SM Duplex 3M.	219.-
7	SCA/LC Patchcord SM Duplex 3M.	216.-
8	SC/LCA Patchcord SM Duplex 3M.	210.-
9	LCA/LCA Patchcord SM Duplex 3M.	217.-
10	E2000A/FC Patchcord SM Duplex 3M.	Call
11	E2000A/SC Patchcord SM Duplex 3M.	Call
12	E2000A/LC Patchcord SM Duplex 3M.	Call
13	E2000A/E2000A Patchcord SM Duplex 3M.	Call
	For additional length (Price / M.)	
	SM Duplex length up to 40M.	9.00
	SM Duplex length more than 40M. and up to 100M.	10.00
	SM Duplex length more than 100M.	11.00

# FIBER OPTIC

## PATCHCORD/MULTIMODE SIMPLEX PATCHCORD



FC/FC Patchcord



FC/SC Patchcord



FC/ST Patchcord



FC/LC Patchcord



SC/SC Patchcord



SC/ST Patchcord



SC/LC Patchcord



ST/ST Patchcord



ST/LC Patchcord



LC/LC Patchcord

### General Specifications :

Insertion Loss (dB)	≤0.30 typical
Operating Temperature (°C)	-40 to +75
Range Durability (dB)	<0.2 change after 500 matings
Cable Color	Orange
Polishing Grade	UPC

### Order Informations :

Cable Jacket	: PVC, LSZH*
Cable Diameter (mm.)	: 0.9, 2.0, 2.4, 3.0
Core/Cladding (µm.)	: 50/125, 62.5/125
Connector Boot	: Long, Short

\* LSZH = Low Smoke Zero Halogen

# FIBER OPTIC

## PATCHCORD/MULTIMODE SIMPLEX PATCHCORD



ITEM	DESCRIPTIONS	PRICE
	<b>Multimode Simplex</b>	
1	FC/FC Patchcord MM Simplex 3M.	94.-
2	FC/SC Patchcord MM Simplex 3M.	90.-
3	FC/LC Patchcord MM Simplex 3M.	94.-
4	FC/ST Patchcord MM Simplex 3M.	89.-
5	SC/SC Patchcord MM Simplex 3M.	88.-
6	SC/ST Patchcord MM Simplex 3M.	87.-
7	SC/LC Patchcord MM Simplex 3M.	91.-
8	ST/ST Patchcord MM Simplex 3M.	86.-
9	ST/LC Patchcord MM Simplex 3M.	90.-
10	LC/LC Patchcord MM Simplex 3M.	94.-
	For additional length (Price / M.)	
	MM Simplex length up to 40M.	6.00
	MM Simplex length more than 40M. and up to 100M.	7.00
	MM Simplex length more than 100M.	8.00

# FIBER OPTIC

PATCHCORD/MULTIMODE DUPLEX PATCHCORD



FC/FC Patchcord



FC/SC Patchcord



FC/ST Patchcord



FC/LC Patchcord



SC/SC Patchcord



SC/ST Patchcord



SC/LC Patchcord



ST/ST Patchcord



ST/LC Patchcord



LC/LC Patchcord

## General Specifications :

Insertion Loss (dB)	≤0.30 typical
Operating Temperature (°C)	-40 to +75
Range Durability (dB)	<0.2 change after 500 matings
Cable Color	Orange
Polishing Grade	UPC

## Order Informations :

Cable Jacket	: PVC, LSZH*
Cable Diameter (mm.)	: 0.9, 2.0, 2.4, 3.0
Core/Cladding (µm.)	: 50/125, 62.5/125
Connector Boot	: Long, Short

\* LSZH = Low Smoke Zero Halogen

# FIBER OPTIC

## PATCHCORD/MULTIMODE DUPLEX PATCHCORD



ITEM	DESCRIPTIONS	PRICE
	<b>Multimode Duplex</b>	
1	FC/FC Patchcord MM Duplex 3M.	202.-
2	FC/SC Patchcord MM Duplex 3M.	193.-
3	FC/LC Patchcord MM Duplex 3M.	202.-
4	FC/ST Patchcord MM Duplex 3M.	192.-
5	SC/SC Patchcord MM Duplex 3M.	190.-
6	SC/LC Patchcord MM Duplex 3M.	196.-
7	SC/ST Patchcord MM Duplex 3M.	188.-
8	ST/ST Patchcord MM Duplex 3M.	186.-
9	ST/LC Patchcord MM Duplex 3M.	193.-
10	LC/LC Patchcord MM Duplex 3M.	202.-
	For additional length (Price / M.)	
	MM Duplex length up to 40M.	12.00
	MM Duplex length more than 40M. and up to 100M.	14.00
	MM Duplex length more than 100M.	16.00



# FIBER OPTIC

PATCHCORD/MULTIMODE OM3/OM4 SIMPLEX PATCHCORD



FC/FC Patchcord



FC/SC Patchcord



FC/ST Patchcord



FC/LC Patchcord



SC/SC Patchcord



SC/ST Patchcord



SC/LC Patchcord



ST/ST Patchcord



ST/LC Patchcord



LC/LC Patchcord

## General Specifications :

Insertion Loss (dB)	≤0.30 typical
Operating Temperature (°C)	-40 to +75
Range Durability (dB)	<0.2 change after 500 matings
Cable Color	Aqua
Core/Cladding (um.)	50/125
Polishing Grade	UPC

## Order Informations :

Cable Jacket	: PVC, LSZH*
Cable Diameter (mm.)	: 0.9, 2.0, 2.4, 3.0
Cable Type	: OM3, OM4
Connector Color	: Beige, Aqua for LC type
Connector Boot	: Long, Short

\* LSZH = Low Smoke Zero Halogen

# FIBER OPTIC

## PATCHCORD/MULTIMODE OM3/OM4 SIMPLEX PATCHCORD

ITEM	DESCRIPTIONS	PRICE
<b>Multimode OM3 Simplex</b>		
1	FC/FC Patchcord MM OM3 Simplex 3M.	147.-
2	FC/SC Patchcord MM OM3 Simplex 3M.	143.-
3	FC/LC Patchcord MM OM3 Simplex 3M.	147.-
4	FC/ST Patchcord MM OM3 Simplex 3M.	147.-
5	SC/SC Patchcord MM OM3 Simplex 3M.	139.-
6	SC/ST Patchcord MM OM3 Simplex 3M.	143.-
7	SC/LC Patchcord MM OM3 Simplex 3M.	143.-
8	ST/ST Patchcord MM OM3 Simplex 3M.	147.-
9	ST/LC Patchcord MM OM3 Simplex 3M.	147.-
10	LC/LC Patchcord MM OM3 Simplex 3M.	147.-
	For additional length (Price / M.)	
	MM OM3 Simplex length up to 40M.	10.00
	MM OM3 Simplex length more than 40M. and up to 100M.	11.00
	MM OM3 Simplex length more than 100M.	12.00
<b>Multimode OM4 Simplex</b>		
11	FC/FC Patchcord MM OM4 Simplex 3M.	157.-
12	FC/SC Patchcord MM OM4 Simplex 3M.	153.-
13	FC/LC Patchcord MM OM4 Simplex 3M.	157.-
14	FC/ST Patchcord MM OM4 Simplex 3M.	157.-
15	SC/SC Patchcord MM OM4 Simplex 3M.	149.-
16	SC/ST Patchcord MM OM4 Simplex 3M.	153.-
17	SC/LC Patchcord MM OM4 Simplex 3M.	153.-
18	ST/ST Patchcord MM OM4 Simplex 3M.	157.-
19	ST/LC Patchcord MM OM4 Simplex 3M.	157.-
20	LC/LC Patchcord MM OM4 Simplex 3M.	157.-
	For additional length (Price / M.)	
	MM OM4 Simplex length up to 40M.	12.00
	MM OM4 Simplex length more than 40M. and up to 100M.	13.00
	MM OM4 Simplex length more than 100M.	14.00

# FIBER OPTIC

PATCHCORD/MULTIMODE OM3/OM4 DUPLEX PATCHCORD



FC/FC Patchcord



FC/SC Patchcord



FC/ST Patchcord



FC/LC Patchcord



SC/SC Patchcord



SC/ST Patchcord



SC/LC Patchcord



ST/ST Patchcord



ST/LC Patchcord



LC/LC Patchcord

## General Specifications :

Insertion Loss (dB)	≤0.30 typical
Operating Temperature (°C)	-40 to +75
Range Durability (dB)	<0.2 change after 500 matings
Cable Color	Aqua
Core/Cladding (um.)	50/125
Polishing Grade	UPC

## Order Informations :

Cable Jacket	: PVC, LSZH*
Cable Diameter (mm.)	: 0.9, 2.0, 2.4, 3.0
Cable Type	: OM3, OM4
Connector Color	: Beige, Aqua for LC type
Connector Boot	: Long, Short

\* LSZH = Low Smoke Zero Halogen

# FIBER OPTIC

## PATCHCORD/MULTIMODE OM3/OM4 DUPLEX PATCHCORD

ITEM	DESCRIPTIONS	PRICE
<b>Multimode OM3 Duplex</b>		
1	FC/FC Patchcord MM OM3 Duplex 3M.	294.-
2	FC/SC Patchcord MM OM3 Duplex 3M.	286.-
3	FC/LC Patchcord MM OM3 Duplex 3M.	294.-
4	FC/ST Patchcord MM OM3 Duplex 3M.	294.-
5	SC/SC Patchcord MM OM3 Duplex 3M.	278.-
6	SC/ST Patchcord MM OM3 Duplex 3M.	286.-
7	SC/LC Patchcord MM OM3 Duplex 3M.	286.-
8	ST/ST Patchcord MM OM3 Duplex 3M.	294.-
9	ST/LC Patchcord MM OM3 Duplex 3M.	294.-
10	LC/LC Patchcord MM OM3 Duplex 3M.	294.-
	For additional length (Price / M.)	
	MM OM3 Duplex length up to 40M.	20.00
	MM OM3 Duplex length more than 40M. and up to 100M.	22.00
	MM OM3 Duplex length more than 100M.	24.00
<b>Multimode OM4 Duplex</b>		
11	FC/FC Patchcord MM OM4 Duplex 3M.	313.-
12	FC/SC Patchcord MM OM4 Duplex 3M.	305.-
13	FC/LC Patchcord MM OM4 Duplex 3M.	313.-
14	FC/ST Patchcord MM OM4 Duplex 3M.	313.-
15	SC/SC Patchcord MM OM4 Duplex 3M.	297.-
16	SC/ST Patchcord MM OM4 Duplex 3M.	305.-
17	SC/LC Patchcord MM OM4 Duplex 3M.	305.-
18	ST/ST Patchcord MM OM4 Duplex 3M.	313.-
19	ST/LC Patchcord MM OM4 Duplex 3M.	313.-
20	LC/LC Patchcord MM OM4 Duplex 3M.	313.-
	For additional length (Price / M.)	
	MM OM4 Duplex length up to 40M.	24.00
	MM OM4 Duplex length more than 40M. and up to 100M.	26.00
	MM OM4 Duplex length more than 100M.	28.00

# FIBER OPTIC

PIGTAIL/SINGLEMODE PIGTAIL



FC SM Pigtail



SC SM Pigtail



ST SM Pigtail



LC SM Pigtail



FCA SM Pigtail



SCA SM Pigtail



LCA SM Pigtail

## General Specifications :

Insertion Loss (dB)	≤0.2 typical (UPC) ≤0.3 typical (APC)
Return Loss (dB)	>50 (UPC) >60 (APC)
Operating Temperature (°C)	-40 to +75
Range Durability (dB)	<0.2 change after 500 matings
Core/Cladding (um)	9/125

## Order Informations :

Fiber Core	: G.652D, G.655, G.657A2, G.657B3
Cable Jacket	: PVC, LSZH*
Cable Color	: Yellow, Blue, Green, Red
Cable Diameter (mm.)	: 0.9, 2.0, 2.4, 3.0
Connector Boot	: Long, Short
Polishing Grade	: UPC, APC

\* LSZH = Low Smoke Zero Halogen



# FIBER OPTIC

## PIGTAIL/MULTIMODE PIGTAIL



FC MM Pigtail



SC MM Pigtail



ST MM Pigtail



LC MM Pigtail



FC MM OM3/OM4 Pigtail



SC MM OM3/OM4 Pigtail



ST MM OM3/OM4 Pigtail



LC MM OM3/OM4 Pigtail

### General Specifications :

Insertion Loss (dB)	≤0.3 typical
Operating Temperature (°C)	-40 to +75
Range Durability (dB)	<0.2 change after 500 matings
Polishing Grade	UPC

### Order Informations :

Core/Cladding (um.)	: 50/125 for OM2/OM3/OM4, 62.5/125 for OM1
Cable Jacket	: PVC, LSZH*
Cable Color	: Orange for OM2, Aqua for OM3/OM4
Cable Diameter (mm.)	: 0.9, 2.0, 2.4, 3.0
Cable Type	: OM1, OM2, OM3, OM4
Connector Color	: Beige, Aqua for LC type
Connector Boot	: Long, Short

\* LSZH = Low Smoke Zero Halogen

# FIBER OPTIC

## PIGTAIL/SINGLEMODE & MULTIMODE PIGTAIL



ITEM	DESCRIPTIONS	PRICE
<b>Pigtail SM</b>		
1	FC Pigtail SM Simplex 1.5M.	30.-
2	SC Pigtail SM Simplex 1.5M.	30.-
3	ST Pigtail SM Simplex 1.5M.	30.-
4	LC Pigtail SM Simplex 1.5M.	30.-
5	FCA Pigtail SM Simplex 1.5M.	35.-
6	SCA Pigtail SM Simplex 1.5M.	35.-
7	LCA Pigtail SM Simplex 1.5M.	35.-
8	E2000 Pigtail SM Simplex 1.5M.	Call
9	E2000A Pigtail SM Simplex 1.5M.	Call
	For additional length SM (Price / M.)	4.50
<b>Pigtail MM</b>		
10	FC Pigtail MM Simplex 1.5M.	40.-
11	SC Pigtail MM Simplex 1.5M.	40.-
12	ST Pigtail MM Simplex 1.5M.	40.-
13	LC Pigtail MM Simplex 1.5M.	40.-
14	FC Pigtail MM OM3 Simplex 1.5M.	60.-
15	SC Pigtail MM OM3 Simplex 1.5M.	60.-
16	ST Pigtail MM OM3 Simplex 1.5M.	60.-
17	LC Pigtail MM OM3 Simplex 1.5M.	60.-
18	FC Pigtail MM OM4 Simplex 1.5M.	70.-
19	SC Pigtail MM OM4 Simplex 1.5M.	70.-
20	ST Pigtail MM OM4 Simplex 1.5M.	70.-
21	LC Pigtail MM OM4 Simplex 1.5M.	70.-
	For additional length (Price / M.)	
	MM Simplex	6.00
	MM OM3 Simplex	10.00
	MM OM4 Simplex	12.00

# FIBER OPTIC

## LOOP BACK



SC MM Loop Back



LC MM Loop Back



MPO MM OM3 Loop Back



MPO MM OM4 Loop Back

### General Specifications :

Insertion Loss (dB)	≤0.30 typical (UPC) for SM ≤0.50 typical for MM
Return Loss (dB)	>50 (UPC)
Operating Temperature (°C)	-40 to +75
Range Durability (dB)	<0.2 change after 500 matings

### Order Informations :

Core/Cladding (μm.)	: 9/125 for SM 50/125, 62.5/125 for MM
Cable Diameter (mm.)	: 2.0, 3.0
Loop Back Type	: SM OS2 MM OM1, OM2, OM3, OM4

ITEM	DESCRIPTIONS	PRICE
	<b>Loop Back</b>	
1	SC MM Loop Back	280.-
2	LC MM Loop Back	250.-
3	SC SM Loop Back	120.-
4	LC SM Loop Back	120.-
5	MPO 12F MM OM3 Loop Back Male	950.-
6	MPO 12F MM OM3 Loop Back Female	700.-
7	MPO 24F MM OM3 Loop Back Male	Call
8	MPO 24F MM OM3 Loop Back Female	Call
9	MPO 12F MM OM4 Loop Back Male	Call
10	MPO 12F MM OM4 Loop Back Female	Call
11	MPO 24F MM OM4 Loop Back Male	Call
12	MPO 24F MM OM4 Loop Back Female	Call
13	MTP 12F MM OM3 Loop Back Male	1,430.-
14	MTP 12F MM OM3 Loop Back Female	1,155.-
15	MTP 24F MM OM3 Loop Back Male	Call
16	MTP 24F MM OM3 Loop Back Female	Call
17	MTP 12F MM OM4 Loop Back Male	Call
18	MTP 12F MM OM4 Loop Back Female	Call
19	MTP 24F MM OM4 Loop Back Male	Call
20	MTP 24F MM OM4 Loop Back Female	Call

# FIBER OPTIC

DISTRIBUTION FRAME/RACK MOUNT



ODF Rack 1U 18-36F  
3 Mini-Snap Plate  
(Slide w/o Drawer)  
440W X 255D X 44H mm.



ODF Rack 1U 12-24F  
2 Snap Plate  
(Slide w/o Drawer)  
440W X 255D X 44H mm.



ODF Rack 1U 12-24F  
2 Snap Plate  
(Slide with Drawer)  
440W X 310D X 44H mm.



ODF Rack 2U 24-48F  
4 Snap Plate  
(Slide with Drawer)  
440W X 310D X 88H mm.



ODF Rack 3U 48-96F  
8 Snap Plate  
(Slide with Drawer)  
440W X 310D X 133H mm.



ODF Rack 5U 84-168F  
(Slide with Drawer)  
440W X 433D X 220H mm.

## Applications :

- Indoor application
- Interface optical communication system
- Telecommunication networks, Data communication networks and FTTx

## General Specifications :

- Powder coated steel cabinet
- Suitable for 19"/21" standard rack
- Combine splicing function, store of fiber optical cable, pigtail and patchcord
- Store and protect excess optical cable and patchcord
- Fit with 12-24 fiber splicing tray
- Suitable for FC/SC/ST/LC/E2000/MPO adapter
- Nice shape, easy installment and maintenance
- Option for aluminium cabinet

# FIBER OPTIC

DISTRIBUTION FRAME/WALL MOUNT INDOOR



ODF Wall Indoor 12-24F  
290W X 60D X 340H mm.



ODF Wall Indoor 24-48F  
400W X 80D X 380H mm.



ODF Wall Indoor 60-96F  
440W X 160D X 400H mm.



ODF Wall Indoor 120-168F  
440W X 152D X 810H mm.

## Applications :

- Indoor application
- Interface optical communication system
- Telecommunication networks, Data communication networks and FTTx

## General Specifications :

- Powder coated steel cabinet
- Suitable for mounting on the wall
- Combine splicing function, store of fiber optical cable, pigtail and patchcord
- Store and protect excess optical cable and patchcord
- Fit with 12-24 fiber splicing tray
- Suitable for FC/SC/ST/LC/E2000/MPO adapter
- Nice shape, easy installment and maintenance
- Option for aluminium cabinet



# FIBER OPTIC

DISTRIBUTION FRAME/WALL MOUNT OUTDOOR



ODF Wall Outdoor 12-24F  
350W x 110D x 360H mm.



ODF Wall Outdoor 24-48F  
350W X 110D X 410H mm.



ODF Wall Outdoor 60-96F  
440W X 175D X 410H mm.



ODF Wall Outdoor 120-168F  
440W X 157D X 810H mm.

## Applications :

- Outdoor application
- Interface optical communication system
- Telecommunication networks, Data communication networks and FTTx

## General Specifications :

- Powder coated steel cabinet
- Suitable for mounting on the wall/pole
- Combine splicing function, store of fiber optical cable, pigtail and patchcord
- Store and protect excess optical cable and patchcord
- Fit with 12-24 fiber splicing tray
- Suitable for FC/SC/ST/LC/E2000/MPO adapter
- Nice shape, easy installment and maintenance
- Option for aluminium cabinet

# FIBER OPTIC

## DISTRIBUTION FRAME/SNAP PLATE



6 FC SM



12 FC SM



Oblique 6 FC SM



6 ST SM



12 ST SM



6 SC SM



6 SC MM



6 SCA SM



Oblique 6 SC SM



Oblique 6 SC MM



Oblique 6 SCA SM



12 SC SM



12 SC MM



12 SCA SM



6 SC Duplex SM



6 SC Duplex MM



6 SCA Duplex SM



6 LC Duplex SM



6 LC Duplex MM



Oblique 6 LC Duplex SM

# FIBER OPTIC

## DISTRIBUTION FRAME/SNAP PLATE



Oblique 6 LC Duplex MM



12 LC Duplex SM



12 LC Duplex MM



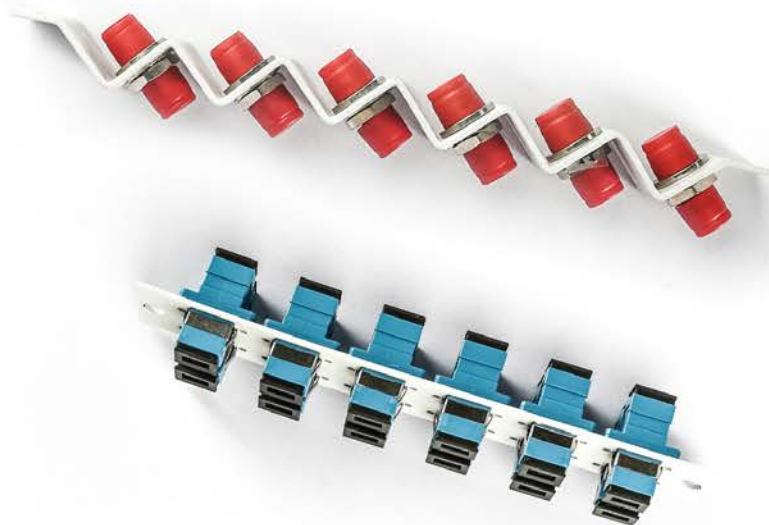
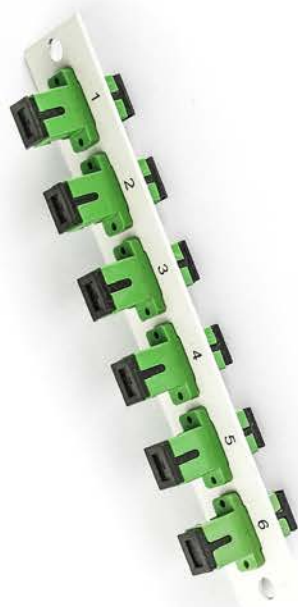
6 E2000 SM



6 E2000A SM

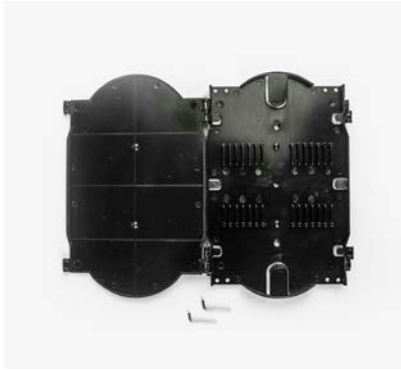


Blank Plate



# FIBER OPTIC

## DISTRIBUTION FRAME/ACCESSORIES



Splice Tray 12 Fiber



Splice Tray  
with Cable Management



Cable Management



Splice Tray 24 Fiber



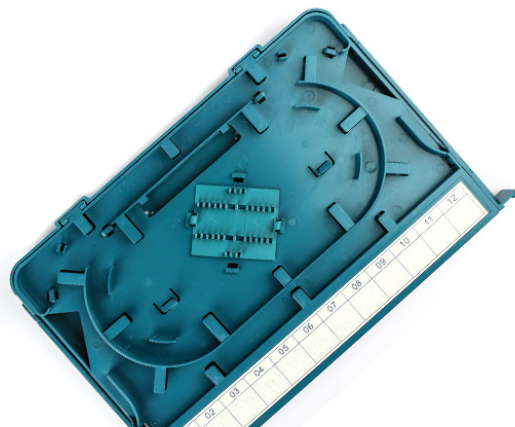
Water Proof Connector



Fusion Sleeve



Cage Nut Set



# FIBER OPTIC

## DISTRIBUTION FRAME

ITEM	DESCRIPTIONS	PRICE
<b>Rack Mount Type</b>		
1	ODF 12-24F Rack, 1U Fixed (Unload)	1,100.-
2	ODF 12-24F Rack, 1U Slide without Drawer 2 Snap Plate (Unload)	1,100.-
3	ODF 18-36F Rack, 1U Slide without Drawer 3 Snap Plate (Unload)	1,100.-
4	ODF 12-24F Rack, 1U Slide Drawer with Front Cover (Unload)	1,400.-
5	ODF 24-48F Rack, 2U Slide Drawer with Front Cover (Unload)	2,600.-
6	ODF 48-96F Rack, 3U Slide Drawer with Front Cover (Unload)	3,000.-
7	ODF 60-120F Rack, 4U Slide Drawer with Front Cover (Unload)	3,800.-
8	ODF 84-168F Rack, 5U Slide Drawer with Front Cover (Unload)	4,500.-
9	ODF 96-288F Rack, 6U Slide Drawer with Front Cover (Unload)	6,000.-
<b>Wall Mount Indoor Type</b>		
10	ODF 12-24F Wall Indoor (Unload)	1,100.-
11	ODF 24-48F Wall Indoor (Unload)	2,750.-
12	ODF 60-96F Wall Indoor (Unload)	3,500.-
13	ODF 120-168F Wall Indoor (Unload)	5,400.-
14	ODF 192-240F Wall Indoor (Unload)	5,700.-
<b>Wall Mount Outdoor Type</b>		
15	ODF 12-24F Wall Outdoor (Unload)	3,200.-
16	ODF 24-48F Wall Outdoor (Unload)	3,750.-
17	ODF 60-96F Wall Outdoor (Unload)	4,700.-
18	ODF 120-168F Wall Outdoor (Unload)	7,600.-
19	ODF 192-240F Wall Outdoor (Unload)	8,600.-
<b>Accessories</b>		
20	Splice Tray 12 Fiber	50.-
21	Splice Tray 12 Fiber with Cable Management for Adapter FC/SC/LC	Call
22	Splice Tray 24 Fiber	80.-
23	Cable Management	8.-
24	Water Proof Connector PG11/PG16	12.-/18.-
25	Fusion Sleeve, 60mm.	3.-
26	Cage Nut Set, M6	7.-/SET

# FIBER OPTIC

TOOL



Kevlar Scissors Type I



Kevlar Scissors Type II



FTTH Drop Cable Stripper



Clauss Pincers



Miller Stripper



Alcohol Bottle



Visual Laser  
Malfunction Detector



FC/SC/LC and MPO  
Cleaner Pen

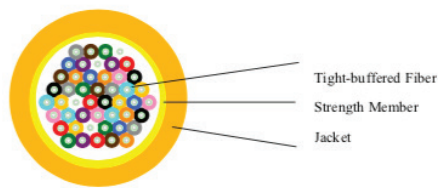


Fiber Cleaner Cassette Type

ITEM	DESCRIPTIONS	PRICE
1	Kevlar Scissors Type I	600.-
2	Kevlar Scissors Type II	500.-
3	FTTH Drop Cable Stripper	800.-
4	Clauss Pincers	600.-
5	Miller Stripper	800.-
6	Alcohol Bottle	350.-
7	Visual Laser Malfunction Detector	Call
8	FC/SC/LC Cleaner Pen	1,200.-
9	MPO Cleaner Pen	1,600.-
10	Fiber Cleaner Cassette Type	2,000.-



### Tight Buffer Distribution Cable Structure & Capability



Tight Buffer Distribution cable

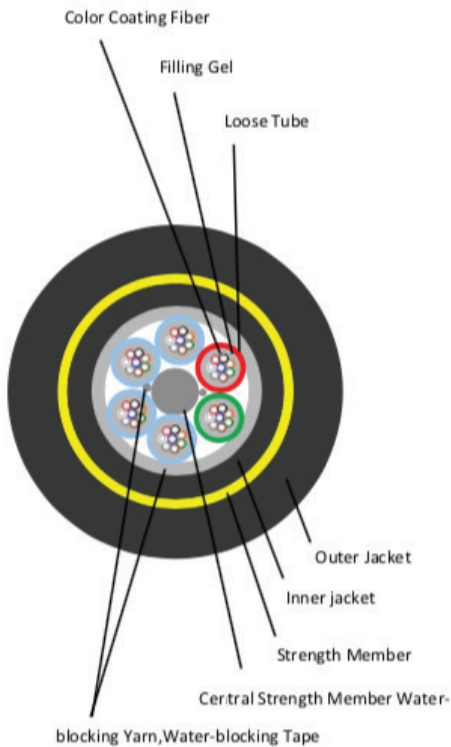
PARAMETER								
Fiber Count	4	6	8	12	16	24	36	48
Cable Dimension (mm.)	5	5.2	5.5	6.5	7.5	8.2	9.0	10.5
Cable Weight (kg)	19.0	23.0	26.0	36.5	44.5	54.5	72.0	90.0
Bending Radius (mm.)	Static : 10 times of cable diameter Dynamic : 20 times of cable diameter							
STRUCTURE								
Description	Tight-buffered Fiber, Strength Member, Jacket							
Fiber	SM : G652D, G655, G657 or other singlemode optical fiber MM : A1a, A1b or other multimode fiber							
Strength Member	Aramid yarn or other high strength yarn							
Jacket	Materials : low smoke zero halogen (LSZH) Color : color as specified by standard or other color							
FEATURES								
Application	Used in indoor cabling Used as connection cable between buildings							
Temperature	-20°C ~ +60°C							

ITEM	DESCRIPTIONS	PRICE
<b>Singlemode 9/125 Indoor Cable</b>		
1	Tight Buffer Distribution Cable 6 Cores, Singlemode	16.-/M
2	Tight Buffer Distribution Cable 12 Cores, Singlemode	27.-/M
3	Tight Buffer Distribution Cable 24 Cores, Singlemode	Call
4	Tight Buffer Distribution Cable 48 Cores, Singlemode	Call
<b>Multimode OM2 50/125 Indoor Cable</b>		
5	Tight Buffer Distribution Cable 6 Cores, Multimode OM2	28.-/M
6	Tight Buffer Distribution Cable 12 Cores, Multimode OM2	50.-/M
7	Tight Buffer Distribution Cable 24 Cores, Multimode OM2	Call
8	Tight Buffer Distribution Cable 48 Cores, Multimode OM2	Call
<b>Multi mode OM3 50/125 Indoor Cable</b>		
9	Tight Buffer Distribution Cable 6 Cores, Multimode OM3	50.-/M
10	Tight Buffer Distribution Cable 12 Cores, Multimode OM3	86.-/M
11	Tight Buffer Distribution Cable 24 Cores, Multimode OM3	Call
12	Tight Buffer Distribution Cable 48 Cores, Multimode OM3	Call

# FIBER OPTIC

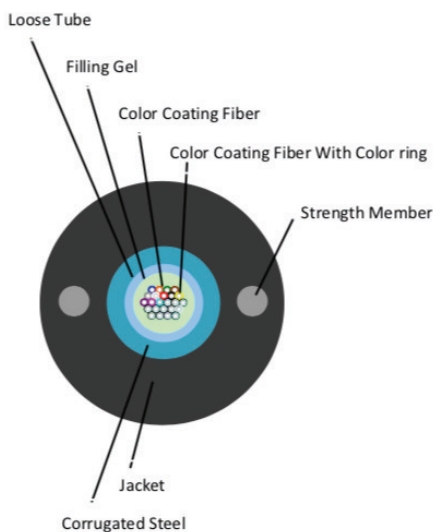
OUTDOOR CABLE

## All Dielectric Self-supporting Aerial Cable Structure & Capability

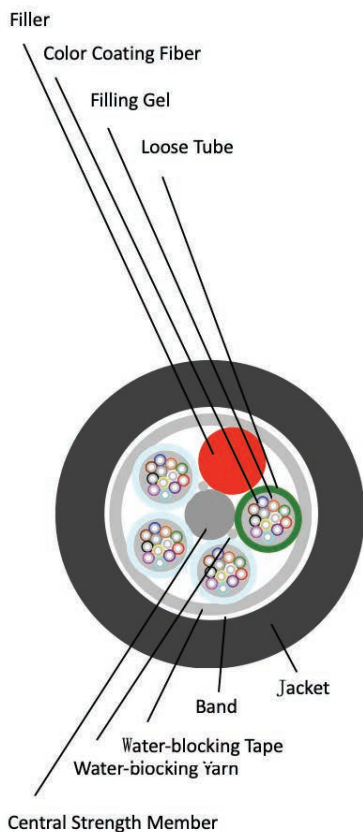


PARAMETER								
Fiber Count	1-36	36-72	72-96	96-144	1-24	1-24	1-24	1-24
Cable Dimension (mm.)	11.2	11.8	13.2	15.9	11.3	11.5	11.7	11.9
Bending Radius (mm.)	Static : 10 times of cable diameter Dynamic : 20 times of cable diameter							
STRUCTURE								
Description	ADSS cable is being designed suitable for different grade overhead power line polyethylene (PE)							
Fiber	SM : G652D, G655, G657 or other singlemode optical fiber MM : A1a, A1b or other multimode fiber							
Jacket	Materials: electrical indentation (ATT), flame retardant polyethylene (ZRPE) Color : black or other color							
FEATURES								
Application	Suitable for non-self-supporting aerial of power line							
Characteristic	Can be installed without shutting off the power, good AT performance, good electrocorrosion performance. Light weight and small diameter reducing the load caused by ice and wind and the load on tower and back props							
Temperature	-40°C ~ +60°C							

## Uni-tube Steel-armored Outdoor Cable Structure & Capability



PARAMETER			
Fiber Count	2-12	16	24
Cable Dimension (mm.)	8	9	10
Weight (kg)	55	70	85
Bending Radius (mm.)	Static : 10 times of cable diameter Dynamic : 20 times of cable diameter		
STRUCTURE			
Description	Loose tube made of color coating fibers and filled with waterproof compounds Two parallel metal strength members embedded in the jacket		
Fiber	SM : G652D, G655, G657 or other singlemode optical fiber MM : A1a, A1b or other multimode fiber		
Jacket	Materials : polyethylene (PE), flame-retardant polyethylene (ZRPE) or other materials Color : black or other color		
FEATURES			
Application	Suitable to direct bury, Suitable for duct. Non-self-supporting aerial		
Characteristic	Good mechanical and environmental performance. High strength loose tube that is hydrolysis resistant. Crush resistance and moisture barrier Small structure, light weight, good tensile performance		
Temperature	-40°C~+70°C		



### Stranded Loose Tube Outdoor Cable Structure & Capability

PARAMETER				
Fiber Count	2-60	72	96	144
Cable Dimension (mm.)	9.3	10.3	11.0	13.5
Weight (kg)	73	94	102	158
Bending Radius (mm.)	Static : 10 times of cable diameter Dynamic : 20 times of cable diameter			
STRUCTURE				
Description	Loose tube made of color coating fibers and filled with waterproof compounds. Loose tube are stranded around the strength member which in the central of cable into cable core			
Fiber	SM : G652D, G655, G657 or other singlemode optical fiber MM : A1a, A1b or other multimode fiber			
Jacket	Materials : polyethylene (PE), low smoke halogen-free flame retardant polyolefin (LSZH), flame-retardant polyethylene (ZRPE) or other material Color : black or other color			
FEATURES				
Application	Can be used in duct, Non-self-supporting aerial			
Characteristic	Good mechanical and environmental performance High strength loose tube that is hydrolysis resistant All-dielectric structure has strong ability to resist electromagnetic interference Small structure, light weight, easy to lay, saving precious duct resources			
Temperature	-40°C~+70°C			

ITEM	DESCRIPTIONS	PRICE
	<b>ADSS Singlemode 9/125 Outdoor Cable</b>	
1	All Dielectric Self Supporting Aerial Cable 24 Cores, Singlemode	30.-/M
2	All Dielectric Self Supporting Aerial Cable 36 Cores, Singlemode	40.-/M
3	All Dielectric Self Supporting Aerial Cable 48 Cores, Singlemode	45.-/M
4	All Dielectric Self Supporting Aerial Cable 60 Cores, Singlemode	52.-/M
	<b>Uni-tube Steel Armored Singlemode 9/125 Outdoor Cable</b>	
5	Uni-tube Steel Armored Outdoor Cable 12 Cores, Singlemode	21.-/M
6	Uni-tube Steel Armored Outdoor Cable 24 Cores, Singlemode	35.-/M
	<b>Stranded Loose Tube Singlemode 9/125 Outdoor Cable</b>	
7	Stranded Loose Tube Outdoor Cable 60 Cores, Singlemode	Call
8	Stranded Loose Tube Outdoor Cable 72 Cores, Singlemode	Call
9	Stranded Loose Tube Outdoor Cable 96 Cores, Singlemode	Call
10	Stranded Loose Tube Outdoor Cable 144 Cores, Singlemode	Call

### In-Line Closure Horizontal, Screw Type

#### Applications :

- Aerial, Wall-mounting, Pole-mounting, Hand hole-mounting and Underground

#### Features :

- Advanced internal structure design
- Easy to re-enter, it never requires re-entry tool kit
- The closure is spacious enough for winding and storing fibers
- Fiber Optic Splice Trays (FOSTs) are design in SLIDE-IN-LOCK and its opening angle is about 90°
- The curved diameter meets with international standard
- Easy and fast to increase and reduce FOSTs
- It is made of high strength engineering plastic (PC), suit for temperature of -40 to +65 °C
- Straight through for uncutting and branching for cutting the fiber



CL-6003

### In-Line Closure Vertical (Dome)

#### Applications :

- Aerial, Wall-mounting, Pole-mounting, Hand hole-mounting and Underground

#### Features :

- Advanced internal structure design
- Easy and fast to fix fiber cable
- Fiber suffers no attenuation
- The closure is spacious enough for winding and storing fibers
- Fiber Optic Splice Trays (FOSTs) are design in SLIDE-IN-LOCK and its opening angle is about 90°
- The curved diameter meets with international standard
- Easy and fast to increase and reduce FOSTs
- Innovative elastic integrated seal fitting



CL-2005

### In-Line Closure Horizontal, Snap Lock Type

#### Applications :

- Aerial, Wall-mounting and Pole-mounting

#### Features :

- The product is made of high quality impact resistant plastic and has a standard user interface that can be re-opened
- Anti-ultraviolet, anti-impact and waterproof function
- Unique flip board, flip angle  $\geq 180^\circ$ , fusion area and distribution area is more obvious, reducing the cable crossing
- Fiber optic cable can go in and out of the box without cut the cable



CL-2022-F

### Drop Closure Screw Type



CL-010

#### Applications :

- Telecommunication subscriber loop
- Fiber to the home (FTTH)
- LAN/WAN

#### Features :

- Suitable for straight through, diverging and connection of FTTX FTTB passive network
- Use material of high-strength PP+GF plastics + stainless steel parts
- Corrosion resistant, aging resistant
- Trays can be increased and reduced according to the application
- Good properties of dust and moisture proofing

ITEM	P/N	DESCRIPTIONS	PRICE
		<b>Closure</b>	
1	CL-010	Drop Closure 12F, Screw Type	900.-
2	CL-020	Drop Closure 12F, Snap Lock Type	1,200.-
3	CL-6003-12	In-Line Closure, Horizontal 12F, Screw Type	1,600.-
4	CL-6003-24	In-Line Closure, Horizontal 24F, Screw Type	1,700.-
5	CL-6003-48	In-Line Closure, Horizontal 48F, Screw Type	1,900.-
6	CL-6003-60	In-Line Closure, Horizontal 60F, Screw Type	2,100.-
7	CL-6001-120	In-Line Closure, Horizontal 120F, Screw Type	2,500.-
8	CL-2022-F-12	In-Line Closure, Horizontal 12F, Snap Lock Type	1,800.-
9	CL-2022-F-24	In-Line Closure, Horizontal 24F, Snap Lock Type	1,900.-
10	CL-2022-F-48	In-Line Closure, Horizontal 48F, Snap Lock Type	2,100.-
11	CL-2022-F-60	In-Line Closure, Horizontal 60F, Snap Lock Type	2,200.-
12	CL-2005-12	In-Line Closure, Vertical 12F (Dome)	1,900.-
13	CL-2005-24	In-Line Closure, Vertical 24F (Dome)	2,000.-
14	CL-2005-48	In-Line Closure, Vertical 48F (Dome)	2,200.-
15	CL-2005-60	In-Line Closure, Vertical 60F (Dome)	2,300.-

# FIBER OPTIC

## FIXED ATTENUATOR



FC Attenuator



SC Attenuator



LC Attenuator



SCA Attenuator

### General Specifications :

Operating Wavelength (nm)	1310 and/or 1550
Attenuation Value (dB)	5,10,15,20 or customized
Attenuation Accuracy (dB)	± 5 to 10%
Operating Temperature (°C)	-40 to +75

ITEM	DESCRIPTIONS	PRICE
<b>FC Attenuator</b>		
1	FC Attenuator 5dB SM	200.-
2	FC Attenuator 10dB SM	200.-
3	FC Attenuator 15dB SM	200.-
<b>SC Attenuator</b>		
4	SC Attenuator 5dB SM	200.-
5	SC Attenuator 10dB SM	200.-
6	SC Attenuator 15dB SM	200.-
<b>LC Attenuator</b>		
7	LC Attenuator 5dB SM	200.-
8	LC Attenuator 10dB SM	200.-
9	LC Attenuator 15dB SM	200.-
<b>ST Attenuator</b>		
10	ST Attenuator 5dB SM	200.-
11	ST Attenuator 10dB SM	200.-
12	ST Attenuator 15dB SM	200.-
<b>MU Attenuator</b>		
13	MU Attenuator 5dB SM	Call
14	MU Attenuator 10dB SM	Call
15	MU Attenuator 15dB SM	Call



# FIBER OPTIC

## OUTDOOR PATCHCORD - CPRI



Outdoor Patchcord



Outdoor Patchcord with Breakout Stainless Tube and Pulling Eye



Outdoor Armored Patchcord with Water Proof Connector



Outdoor Patchcord with Breakout Stainless Tube and Water Proof Connector

### General Specifications :

Insertion Loss (dB)	≤0.20 (SM) ≤0.30 (MM)
Return Loss (dB)	>50 (UPC) >60 (APC)
Operating Temperature (°C)	-40 to +75
Range Durability (dB)	<0.2 change after 500 matings
Connector Type	FC, SC, LC, ST, E2000 and MU
Capacity	2 to 12 cores

ITEM	DESCRIPTIONS	PRICE
1	Outdoor Patchcord	Call
2	Outdoor Patchcord with Breakout Stainless Tube and Pulling Eye	Call
3	Outdoor Armored Patchcord with Water Proof Connector	Call
4	Outdoor Patchcord with Breakout Stainless Tube and Water Proof Connector	Call
5	Outdoor Patchcord with Special Water Proof Connector	Call



# FIBER OPTIC

## PLANAR LIGHTWAVE CIRCUIT (PLC) SPLITTER



### Introductions

The singlemode Planar Light wave Circuit (PLC) Splitter is developed based on unique quartz glass waveguide and processes with reliable precision aligned fiber pigtail in a miniature package. It provides a low cost light distribution solution with small form factor and high reliability. The PLC has the high performance in terms of low insertion loss, low PDL, high return loss and excellent uniformity over a wide wavelength range from 1260nm to 1620nm and working in temperature from -40°C to +85°C. PLC has standard configurations of 1x2, 1x4, 1x8, 1x16 and 1x32 configurations, as well as customized structure of 2x16, 2x32 and so on.

### Applications :

- FTTx system
- LAN, WAN and metro network
- Analog/Digital passive optical network
- CATV network
- Other applications in fiber optic system



### Features :

- Compact design
- Low insertion loss and low PDL
- High reliability
- High channel counts
- Wide wavelength range
- Wide operating temperature range
- Customized packaging and configuration

### Reliability :

- Telcordia GR-1209-CORE
- Telcordia GR-1221-CORE

### Specifications :

PORT CONFIGURATION	UNIT	1x2	1x4	2x4	1x8	2x8	1x16	2x16	1x32	2x32	1x64
Operating Wavelength	nm	1260~1650									
Fiber Type		G652D or G657A									
Insertion Loss (dB)	dB	≤4.3	≤7.2	≤7.5	≤10.5	≤11.2	≤13.6	≤14.6	≤17.0	≤17.5	≤21
Loss Uniformity	dB	≤0.5	≤0.6	≤1.2	≤0.8	≤1.5	≤1.4	≤2.0	≤1.6	≤2.5	≤2.5
PDL	dB	<0.2	<0.3								<0.5
Directivity	dB	>55									
Return Loss	dB	>55									
Operation Temperature (°C)	°C	-40~+85									
Storage Temperature	°C	-40~+85									
Package Size (LxWxH)	mm	40x4.0x4.0	40x4.0x4.0	45x4.5x4.0	40x4.0x4.0	45x4.5x4.0	45x4.5x4.0	60x7.0x4.0	50x7.0x4.0	65x7.0x4.0	60x12x4.0
ø0.9mm Loose Tube Packaging Size (LxWxH)	mm	50x7.0x4.0	50x7.0x4.0	60x7.0x4.0	60x7.0x4.0	60x12x4.0	60x12x4.0	80x12x4.0	80x20x6.0	90x20x6.0	100x40x6.0

# FIBER OPTIC

PLANAR LIGHTWAVE CIRCUIT (PLC) SPLITTER



## Ordering Information :

	PORT CONFIGURATION	FIBER TYPE	FIBER TYPE - IN	PIGTAIL TYPE - OUT	PIGTAIL LENGTH	CONNECTOR				
PLCS	12 = 1x2	S = G652D	1 = 0.25mm.	R = 0.25mm.	1 = 1.0M	0 = none				
	14 = 1x4									
	18 = 1x8	G = G657A	2 = 0.9mm.	F = 0.9 & fanout	2 = 1.5M	1 = FC/APC				
	1S = 1x16						3 = 3.0mm.	2 = 0.9mm.	3 = 2.0M	2 = FC/UPC
	1T = 1x32						4 = 2.0mm.	3 = 3.0mm.	O = Other	3 = SC/APC
	1U = 1x64							4 = 2.0mm.		4 = SC/UPC
	24 = 2x4									5 = ST
	28 = 2x8									6 = LC/UPC
	2S = 2x16									7 = LC/APC
	2T = 2x32									P = MPO
					X = Other					

# FIBER OPTIC

## PLANAR LIGHTWAVE CIRCUIT (PLC) SPLITTER



ITEM	DESCRIPTIONS	PRICE
<b>Blockless PLC Splitter</b>		
1	Splitter PLC 1:2 SM Blockless without Connector, 1M.	470.-
2	Splitter PLC 1:2 SM Blockless with Connector, 1M.	500.-
3	Splitter PLC 1:4 SM Blockless without Connector, 1M.	650.-
4	Splitter PLC 1:4 SM Blockless with Connector, 1 M.	700.-
5	Splitter PLC 1:8 SM Blockless without Connector, 1M.	810.-
6	Splitter PLC 1:8 SM Blockless with Connector, 1M.	900.-
7	Splitter PLC 1:16 SM Blockless without Connector, 1M.	1,430.-
8	Splitter PLC 1:16 SM Blockless with Connector, 1M.	1,600.-
9	Splitter PLC 1:32 SM Blockless without Connector, 1M.	2,670.-
10	Splitter PLC 1:32 SM Blockless with Connector, 1M.	3,000.-
<b>ABS Case PLC Splitter</b>		
11	Splitter PLC 1:2 SM ABS with Connector, 2M.	600.-
12	Splitter PLC 1:4 SM ABS with Connector, 2M.	800.-
13	Splitter PLC 1:8 SM ABS with Connector, 2M.	1,100.-
14	Splitter PLC 1:16 SM ABS with Connector, 2M.	1,800.-
15	Splitter PLC 1:32 SM ABS with Connector, 2M.	3,200.-
16	Splitter PLC 2:4 SM ABS with Connector, 2M.	900.-
17	Splitter PLC 2:8 SM ABS with Connector, 2M.	1,200.-
18	Splitter PLC 2:16 SM ABS with Connector, 2M.	2,000.-
19	Splitter PLC 2:32 SM ABS with Connector, 2M.	3,500.-

# FIBER OPTIC

## MEDIA CONVERTER



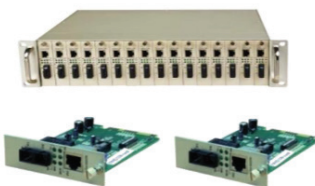
Dual Fiber, External Power Supply



Single Fiber,  
External Power Supply



SFP Fiber Interface,  
External Power Supply



Fiber Media  
Converter Rack Mount

### General Specifications :

#### Singlemode

Ethernet Connection	10/100 or 10/100/1000Base-T
Wavelength (nm)	1310 nm, 1550 nm
Distance Range	10 km. - 120 km.
Connector Type	SC Connector / ST Connector

#### Multimode

Ethernet Connection	10/100 or 10/100/1000Base-T
Wavelength (nm)	850 nm, 1310 nm
Distance Range	550 m. - 2 km.
Connector Type	SC Connector / ST Connector

### General Specifications :

#### Singlemode

Ethernet Connection	10/100 or 10/100/1000Base-T
Wavelength (nm)	1310 nm, 1550 nm
SFP Type	1.25G
Distance Range	10 km. - 120 km.
Connector Type	LC Connector

#### Multimode

Ethernet Connection	10/100 or 10/100/1000Base-T
Wavelength (nm)	850 nm, 1310 nm
SFP Type	1.25G
Distance Range	550 m. - 2 km.
Connector Type	LC Connector

### General Specifications :

#### Power & Physical Slot

- Suitable for 19" Rack Mount
- 16 Slot Media Converter Card
- Dual Power Supply Module
- AC 220 VAC / 50 Hz
- 48Vdc Option

#### Ethernet Connection

- 10/100 or 10/100/1000Base-T

#### Singlemode

Wavelength (nm)	1310 nm, 1550 nm
Distance Range	10 km. - 120 km.
Connector Type	SC Connector / ST Connector

#### Multimode

Wavelength (nm)	850 nm, 1310 nm
Distance Range	550 m. - 2 km.
Connector Type	SC Connector / ST Connector

# FIBER OPTIC

SFP TRANSCEIVER AND PoE



## SFP Transceiver



1.25Gb/s BiDi SFP Transceiver  
Simplex LC, Singlemode, DDM



1.25Gb/s Duplex LC, Singlemode



10Gb/s SFP+ Transceiver  
Duplex LC, Singlemode



40Gb/s QSFP+ PSM Transceiver  
MPO Connector, Singlemode

## General Specifications :

- Up to 1.25Gb/s for SFP Transceiver
- Up to 10Gb/s for SFP+ Transceiver
- Up to 40Gb/s for QSFP+ PSM Transceiver
- Simplex LC connector or Duplex LC for SFP & SFP+ Transceiver
- MPO connector for QSFP+ PSM Transceiver
- Support distance range from 550 M. up to 2 Km. for multimode and up to 80 Km. for singlemode

## PoE



10/100/1000Mbps Industrial PoE Fiber Switch



10/100Mbps 60W Single Port PoE Injector

## General Specifications :

- Support power on PoE IP cameras through the wireless access point (AP) of 5 categories of Ethernet cable.
- IEEE 802.3af/at power on to RJ45 ports
- IEEE 802.3 10Base-T and IEEE 802.3u 1000Base-TX Compliant
- Max power to 15.4W under af standard, 30W under at standard to each PoE port

## General Specifications :

- Support power to 5 classes Ethernet network surveillance cameras
- Support network port, lightning-proof power input port (the secondary lightning protection)
- Support LT PoE++ standard and compatible with IEEE 802.3af standard and IEEE 802.3at standard
- Single PoE port output power is 60W, the voltage is 48~57V and the total power is 65W



# FIBER OPTIC

MEDIA CONVERTER, SFP TRANSCEIVER AND PoE



ITEM	DESCRIPTIONS	PRICE
<b>Media Converter Multimode</b>		
1	Media Converter 10/100 MM DX 550 M.	1,050.-
2	Media Converter 10/100 MM DX 2 Km.	1,050.-
3	Media Converter 10/100 /1000 MM DX 550 M.	2,240.-
4	Media Converter 10/100 /1000 MM DX 2 Km.	2,240.-
<b>Media Converter Singlemode Single Fiber</b>		
5	Media Converter 10/100 SM BiDi 10 Km. (Pair)	2,520.-
6	Media Converter 10/100 SM BiDi 40 Km. (Pair)	2,800.-
7	Media Converter 10/100/1000 SM BiDi 10 Km. (Pair)	7,850.-
8	Media Converter 10/100/1000 SM BiDi 40 Km. (Pair)	8,200.-
<b>Media Converter Singlemode Double Fiber</b>		
9	Media Converter 10/100 SM DX 10 Km.	1,200.-
10	Media Converter 10/100 SM DX 40 Km.	1,400.-
11	Media Converter 10/100/1000 SM DX 10 Km.	2,300.-
12	Media Converter 10/100/1000 SM DX 40 Km.	2,950.-
<b>SFP Transceiver</b>		
13	SFP 1.25G SM BiDi LC 10 Km. (Pair)	2,800.-
14	SFP 1.25G SM BiDi LC 20 Km. (Pair)	2,900.-
15	SFP 1.25G MM DX LC 550 M.	600.-
16	SFP 1.25G MM DX LC 2 Km.	1,300.-
17	SFP 1.25G SM DX LC 10 Km.	740.-
18	SFP 1.25G SM DX LC 20 Km.	850.-
<b>SFP+ Transceiver</b>		
19	SFP+ 10G MM DX LC 330 M.	1,500.-
20	SFP+ 10G SM DX LC 10 Km.	2,800.-
21	SFP+ 10G SM DX LC 20 Km.	3,000.-
22	SFP+ 10G SM DX LC 40 Km.	Call
23	SFP+ 10G SM DX LC 60 Km.	Call
<b>PoE</b>		
24	PoE Injector 1 Port 10/100/1000, Input 48 Vdc, 60W Industrial Grade	5,300.-
25	PoE Injector 1 Port 10/100/1000, Input 220 Vac, 60W	3,800.-
26	PoE 48V/30W DIN Rail Mount SW 4P 10/100/1000 with SFP 1.25G SM DX LC 10 Km. 1 Port, Input 48 Vdc with AC Adapter, Industrial Grade	12,500.-
27	PoE SW 4P 10/100/1000 with SFP 1.25G SM DX LC 10 Km. 1 Port, Input 220 Vac, 60W	4,200.-

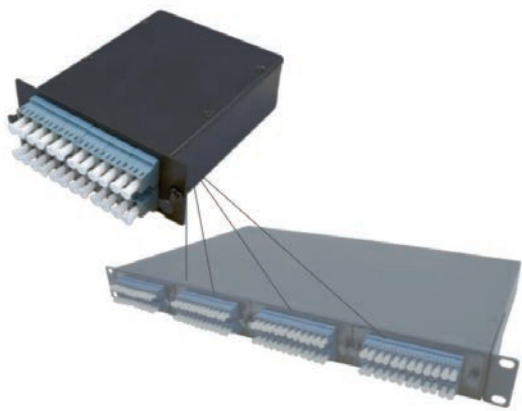
### Data Center MPO/MTP Solution

MPO/MTP\* connector advanced capabilities provide reliable connection for 40G/100G data centers. High-density fiber pre-connected system deploys high-density data center easily and quickly in horizontal area and storage area of the network. The maintenance and expansion in the future is very simple.

MPO/MTP pre-terminated cabling system consists of three parts: trunk cable, MPO/MTP pre-terminated module and patch panel.

\* MTP is a US registered trademark of USCONEC

### MPO/MTP-LC Fix Type Fiber Optical Cassette



TYPE		MODULE IL(MAX)
SM	Standard	1.0dB
	Low Loss	0.7dB
	Ultra-Low-Loss	0.5dB
MM	Standard	1.0dB
	Low Loss	0.7dB
	Ultra-Low-Loss	0.35dB

### Introductions :

MPO/MTP LC fiber optic cassette is a closed type of device with a 12/24 core fiber patchcords for branching 12 core MPO/MTP trunk cable to LC Connectors so that the system appliances are easily be connected to the ports or panels. The cassette can be quickly deployed to 24 LC or 12 SC adapters and can be easily installed in HDF high density rack mounted ODF. The modular structure is high manageable and flexible. With the future requirements on the connectivity, the modules can be changed to meet the corresponding needs. In the meanwhile, the existing trunk cabling structure remains unchanged.

### Features :

- Excellent transmission performance is 100% factory pre-terminated and tested
- The adoption of universal polarity design ensures the correct fiber polarity and the variety of polarity to be chosen in the system
- Flexible expansion, modular design
- One-hand operation
- Metal shell design, good intensity, effective protection for internal fiber branch parts
- Compliant with TIA/EIA 604-D-2007, IEC 61754-7-2008 series standards
- Super bend-bright fiber, minimum fiber bending radius, minimized structure
- Smooth upgrade to next generation data center of 40GbE and 100GbE applications

# FIBER OPTIC

MPO/MTP SOLUTION



## MPO/MTP-LC 40G to 4x10G Patchcord



### Introductions :

The fan out is applied to connect 12 core MPO/MTP connector to the LC connectors on the trunk cable. We provide both standard and customized branch lengths. When the network equipment is close to MPO patch panel frames, the length of fan out patchcords are minimized. For the hardware and equipment in the same cabinet, the longer patchcords can provide flexibility at any location and the branch cables can be wound into the vertical cable organizer.

### Features :

- Array connectors with high precision low loss MPO/MTP connectors
- Smooth upgrading to next generation data center of 40GbE and 100GbE
- Outer jacket material option: PVC, LSZH and other selected materials
- Cable flammability rating: OFNR, OFNP, LSZH

	SINGLE MODE		MULTIMODE	
	MPO/MTP	LC	MPO/MTP	LC
Insertion Loss	Low Loss $\leq 0.35\text{dB}$	$\leq 0.3\text{dB}$	Low Loss $\leq 0.35\text{dB}$	$\leq 0.3\text{dB}$
	Standard Loss $\leq 0.7\text{dB}$		Standard Loss $\leq 0.5\text{dB}$	
Return Loss	$\geq 60\text{dB}$	$\geq 50\text{dB}$	$\geq 30\text{dB}$	$\geq 30\text{dB}$
Durability	$< 0.2$ typical change, 500 matings			
Operating Temperature	$-40$ to $+ 85^\circ\text{C}$			

## 40G/100G MPO/MTP Trunk Fiber Optic Cable Patchcord



### Features :

- Array of connectors with high precision low loss MPO/MTP connectors
- MPO/MTP connectors has been assembled at both ends of the cable. The optical performance is 100% tested
- A B C three polarity wiring options can be chosen from
- sufficient capacity can provide 4-144 cores fiber connections
- Cable flammability rating: OFNR, OFNP, LSZH
- The length of customized cable, trunk cable extension cable, branch cable can be accurate
- Traction tube is the optional for easy on site installation
- Minimize failures and reduces cabling space and installation time
- Smooth upgrading to next generation data center of 40GbE and 100GbE
- Outer jacket material option: PVC, LSZH and other selected materials

### Introductions :

Preterminated trunk cable can be from 4 to 144 cores with 8/12 pin MPO connector at both ends. High quality cable and MPO kits guarantee low insertion loss and high return loss for high speed network. Its efficient plug and play structure greatly reduces the initial installation and routine maintenance costs.

Preterminated trunk cables can also be used with plug and play modules or MPO/MTP connector panels to achieve multi level connection of the extension of the preterminated trunk cable can also be extended by MPO/MTP panel with plug and play module. The extended trunk cable is to be connected with another panel or fan out patchcords.

	SINGLEMODE	MULTIMODE
Insertion Loss	Low loss $\leq 0.35\text{dB}$	Low loss $\leq 0.35\text{dB}$
	Standard Loss $\leq 0.7\text{dB}$	Standard Loss $\leq 0.5\text{dB}$
Return Loss	$\geq 60\text{dB}$	$\geq 30\text{dB}$
Durability	$< 0.2$ typical change, 500 matings	
Operating Temperature	$-40$ to $+ 85^\circ\text{C}$	
40G	8 Fiber	
100G	20 Fiber	

# FIBER OPTIC

MPO/MTP SOLUTION



## OM5 Product Series



### Introductions :

The OM5 fiber has been approved as a new multimode optical fiber for high speed data center applications. And is designed to support at least four low cost wavelengths in the 850–950 nm range, enabling optimal support of emerging Shortwave Wavelength Division Multiplexing (SWDM) applications that reduce parallel fiber count by at least a factor of four to allow continued use of just two fibers (rather than eight) for transmitting 40 Gb/s and 100 Gb/s and reduced fiber counts for higher speeds. SWDM has many applications in Data Centers and other applications. OM5 cabling fully compatible and intermateable with OM3 and OM4 cabling. The related OM5 patchcord, cassette and panels has attracted wide attention in the industry and the patchcord cover also all type of fiber connectors

### Applications :

- Telecommunication network
- Data Center
- CATV, and Multimedia
- Optical switch interframe connection
- Asynchronous Transmission Mode (ATM)

### Features :

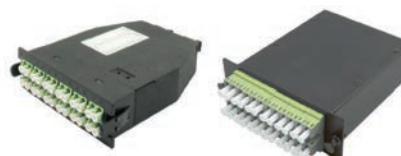
- Wavelength range 850–953 nm
- Low insertion loss and back reflection loss
- High precision alignment
- Good exchangeability
- High temperature stability
- Compatible with OM3 and OM4 patchcord

ITEM	SPECIFICATION
Fiber Type	OM5 (50 μm multimode fiber)
Wavelength Range	850–953 nm
Jacket Color	Lime Green
Furcation Color	Lime Green
Connector Type	MPO/MTP/LC/SC/FC/customized
Connector Color	customized
Regulatory Compliance	IEC 60793-2-10 /TIA-492AAAE/RoHS/ISO9001
Operating Temperature	-40 to + 85°C

## Adapter and Cassette



LC Duplex Adapter  
(SC Footprint) for OM5



LC Duplex Adapter  
(SC Footprint) Cassette for OM5

# FIBER OPTIC

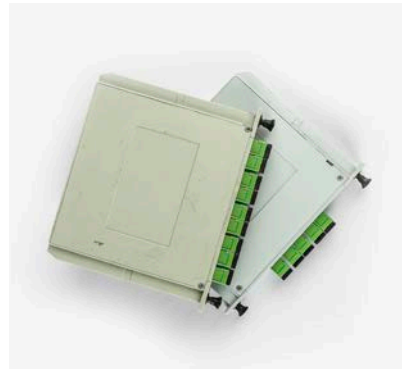
MPO/MTP SOLUTION



ITEM	DESCRIPTIONS	PRICE
<b>MPO/MTP Patchcord</b>		
1	MPO/MTP – MPO/MTP MM OM3 Female/Female 12F/24F Type A/B/C	Call
2	MPO/MTP – MPO/MTP MM OM3 Female/Male 12F/24F Type A/B/C	Call
3	MPO/MTP – MPO/MTP MM OM4 Female/Female 12F/24F Type A/B/C	Call
4	MPO/MTP – MPO/MTP MM OM4 Female/Male 12F/24F Type A/B/C	Call
5	MPO/MTP – MPO/MTP MM OM5 Female/Female 12F/24F Type A/B/C	Call
6	MPO/MTP – MPO/MTP MM OM5 Female/Male 12F/24F Type A/B/C	Call
7	MPOA/MTPA – MPOA/MTPA SM Female/Female 12F/24F Type A/B/C	Call
8	MPOA/MTPA – MPOA/MTPA SM Female/Male 12F/24F Type A/B/C	Call
<b>MPO/MTP - LC Fan-out Patchcord</b>		
9	MPO/MTP – 8LC/12LC MM OM3 Round 3.0 mm.	Call
10	MPO/MTP – 8LC/12LC MM OM4 Round 3.0 mm.	Call
11	MPO/MTP – 8LC/12LC MM OM5 Round 3.0 mm.	Call
12	MPO/MTP – 8LC/12LC SM Round 3.0 mm.	Call
13	MPOA/MTPA – 8LC/12LC SM Round 3.0 mm.	Call
<b>MPO/MTP Cassette and Rack Mount</b>		
14	MPO/MTP – 12LC MM OM3 Cassette	Call
15	MPO/MTP – 24LC MM OM3 Cassette	Call
16	MPO/MTP – 2x12LC MM OM3 Cassette	Call
17	MPO/MTP – 12LC MM OM4 Cassette	Call
18	MPO/MTP – 24LC MM OM4 Cassette	Call
19	MPO/MTP – 2x12LC MM OM4 Cassette	Call
20	MPO/MTP – 12LC MM OM5 Cassette	Call
21	MPO/MTP – 24LC MM OM5 Cassette	Call
22	MPO/MTP – 2x12LC MM OM5 Cassette	Call
23	MPO/MTP – 12LC SM Cassette	Call
24	MPO/MTP – 24LC SM Cassette	Call
25	MPO/MTP – 2x12LC SM Cassette	Call
26	ODF 12-72F (3 MPO Cassette SNAP) 1U Slide	Call
27	ODF 12-96F (4 MPO Cassette SNAP) 1U Fixed	Call

# FIBER OPTIC

FTTx SOLUTION/FTTx RACK MOUNT WITH PLC SPLITTER



## Introductions :

- Optical Splitter are fully passive optical branching devices that exhibit very low insertion loss and PDL, great channel uniformity and a wide wavelength operative range.

## Features :

- High reliability
- High performance in terms of low insertion loss, low PDL and high return loss
- Suitable for 19"/21" standard rack
- Able to plug-in the PLC splitter cassette up to 1x16 or 2x16 for 1U rack mount and up to 1x32 or 2x32 for 2U rack mount

## Applications :

- FTTH, FTTC, FTTB
- Passive Optical Network (PON)
- CATV networks and data communications
- Fiber optic equipment and systems

## Specifications :

PORT CONFIGURATION	1×2	1×4	2×4	1×8	2×8	1×16	2×16	1×32	2×32
Rack Mount Height (U)	1U							2U	
Operating Wavelength (nm)	1260~1650								
Directivity (dB)	>55								
Return Loss (dB)	>55								
Operation Temperature (° C)	-40 ~+85								
PDL (dB)	<0.2	<0.3							
Insertion Loss (dB)	≤4.3	≤7.20	≤7.5	≤10.5	≤11.2	≤13.6	≤14.6	≤17.0	≤17.5
Loss Uniformity (dB)	≤0.5	≤0.6	≤1.2	≤0.8	≤1.5	≤1.4	≤2.0	≤1.6	≤2.5



### FTTx Closure

#### Horizontal with PLC Splitter, Snap Lock Type, Two Partitions



CX-2022-S

#### Applications :

- Aerial, Wall-mounting and Pole-mounting

#### Features :

- The product is made of high-quality impact resistant plastic and has a standard user interface that can be re-opened.
- Can accommodate two 1x8 PLC splitter LGX module or steel tube type LGX module or steel tube type
- Anti-ultraviolet, anti-impact and waterproof function
- Unique flip board, flip angle  $\geq 180^\circ$ , fusion area and distribution area is more obvious and reducing the cable crossing
- Fiber optic cable can go in and out of the box without cut the cable

### FTTx Closure

#### Horizontal with PLC Splitter, Screw Type



CX-5002

#### Applications :

- Aerial, Wall-mounting, Pole-mounting, Hand hole-mounting and underground

#### Features :

- Advanced internal structure design
- Easy to re-enter, it never requires re-entry tool kit
- The closure is spacious enough for winding and storing fibers
- Fiber Optic Splice Trays (FOSTs) are design in SLIDE-IN-LOCK and its opening angle is about  $90^\circ$
- The curved diameter meets with international standard
- Easy and fast to increase and reduce FOSTs
- Straight-through for uncutting and branching for cutting the fiber
- Lay adapters suit for FTTx and easy to operate

# FIBER OPTIC

FTTx SOLUTION/FTTx CLOSURE

## Fiber Distribution Box with PLC Splitter



FDB-208H

FDB-216G (White or Black Color)

### Applications :

- Wall-mounting and Pole-mounting

### Features :

- Water-proof design with IP66 protection level
- Integrated with splice cassette and cable management rods
- Manage fibers in a reasonable fiber radius condition
- Easy to maintain and extend the capacity
- Fiber bend radius control more than 40 mm.
- Suitable for the fusion splice or mechanical splice
- Can be installed as an option
  - 1x8 splitter for model FDB-208H
  - 1x16 splitter for model FDB-216G
- Efficient cable management
- Cable entrance for drop cable
  - 8 port for model FDB-208H
  - 16 port for model FDB-216G

## FTTx Terminal Box

### Applications :

- Singlemode and multimode fiber
- FTTx applications

### Features :

- FTTx Terminal Box can be multi-use to achieve a variety of fiber optic cable
- Protection of optical fiber
- Reduce the potential risk
- Simple and convenient for installation



FCS-01



FCS-02

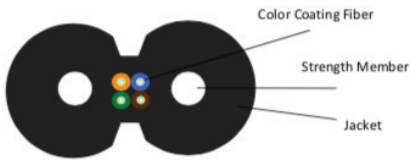


FCS-04

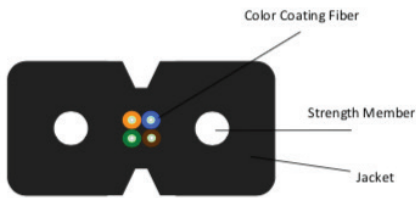
# FIBER OPTIC

FTTx SOLUTION/FTTx DROP CABLE

## Fiber Drop Cable Structure & Capability



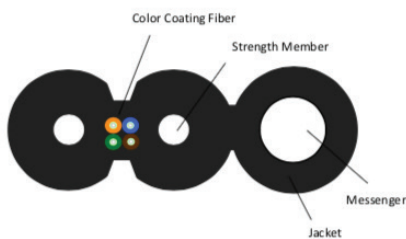
Fiber Round Drop Cable



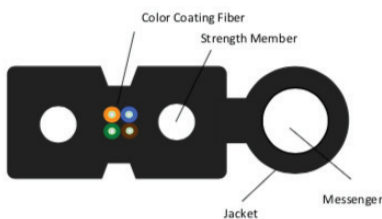
Fiber Flat Drop Cable

PARAMETER		
Fiber Count	1-4	1-4
Cable Dimension (mm)	2.0x3.0	2.0x3.0
Weight (kg)	8.0	8.0
STRUCTURE		
Description	Color Coating Fiber, Strength Member, Jacket	
Fiber	SM : G652D, G655, G657 or other singlemode optical fiber MM : A1a, A1b or other multimode fiber	
Strength Member	FRP or steel wire	
Jacket	Materials : flame retardant polyvinyl chloride (PVC), low smoke halogen free flame retardant polyolefin (LSZH) or other materials	
FEATURES		
Application	Used as terminal connection in FTTx access network	
Characteristic	Good mechanical and environmental performance Flame retardant (or non-flame retarding) characteristic meets the requirements of relevant standards	
Temperature	-20°C~+60°C	

## Fiber Self-support Drop Cable Structure & Capability



Fiber Self Support Round Drop Cable



Fiber Self Support Flat Drop Cable

PARAMETER		
Fiber Count	1-4	1-4
Cable Dimension (mm)	2.0x5.2	2.0x5.2
Weight (kg)	18.0	19.0
STRUCTURE		
Description	Color Coating Fiber, Strength member, Messenger, Jacket	
Fiber	SM : G652, G655, G657 or other singlemode optical fiber MM : A1a, A1b or other multimode fiber	
Strength Member	FRP, steel wire or other high strength member	
Messenger	FRP, steel wire or other high strength member	
Jacket	Materials : flame retardant polyvinyl chloride (PVC), low smoke halogen free flame retardant polyolefin (LSZH) or other materials	
FEATURES		
Application	Used as terminal connection in FTTx access network	
Characteristic	Good mechanical and environmental performance Flame retardant (or non-flame retarding) characteristic meets the requirements of relevant standards	
Temperature	-20°C~+60°C	

# FIBER OPTIC

FTTx SOLUTION



ITEM	DESCRIPTIONS	PRICE
<b>FTTx Splitter Rack Mount</b>		
1	Fiber Distribution Rack Mount with PLC Splitter 1/2, SC Adapter	2,250.-
2	Fiber Distribution Rack Mount with PLC Splitter 1/4, SC Adapter	2,550.-
3	Fiber Distribution Rack Mount with PLC Splitter 1/8, SC Adapter	3,000.-
4	Fiber Distribution Rack Mount with PLC Splitter 1/16, SC Adapter	4,650.-
5	Fiber Distribution Rack Mount with PLC Splitter 1/32, SC Adapter	6,550.-
<b>FTTx Splitter Wall/Pole Mount</b>		
6	Fiber Distribution Box with PLC Splitter 1/4, SC Adapter	1,200.-
7	Fiber Distribution Box with PLC Splitter 1/8, SC Adapter	2,000.-
8	Fiber Distribution Box with PLC Splitter 1/16, SC Adapter	3,200.-
9	Fiber Distribution Box with PLC Splitter 1/32, SC Adapter	Call
<b>FTTx Drop Cable</b>		
10	Fiber Drop Cable 2F Flat Type, Singlemode	5.-/M
11	Fiber Drop Cable 2F Self Supporting Bow Type, Singlemode	6.-/M
<b>FTTx Closure</b>		
12	FTTx Closure, Horizontal with PLC Splitter 1/2, Screw Type	2,210.-
13	FTTx Closure, Horizontal with PLC Splitter 1/4, Screw Type	2,450.-
14	FTTx Closure, Horizontal with PLC Splitter 1/8, Screw Type	2,850.-
15	FTTx Closure, Horizontal with PLC Splitter 1/16, Screw Type	3,900.-
16	FTTx Closure, Horizontal with PLC Splitter 1/4, Snap Lock Type , Two Partitions	2,950.-
17	FTTx Closure, Horizontal with PLC Splitter 1/8, Snap Lock Type , Two Partitions	3,350.-
18	FTTx Closure, Horizontal with PLC Splitter 1/16, Snap Lock Type , Two Partitions	4,000.-
19	FTTx Closure, Vertical (Dome) with PLC Splitter 1/4	2,250.-
20	FTTx Closure, Vertical (Dome) with PLC Splitter 1/8	2,450.-
21	FTTx Closure, Vertical (Dome) with PLC Splitter 1/16	2,700.-



# TELECOM PRODUCT



# TELECOM PRODUCT

## COAXIAL CONNECTOR



BNC Male Connector  
Crimp Type



BNC Male Connector  
Solder Type



J-J Adapter



J-J Isolated Adapter



U-Link Cable W/Monitor



U-Link Metal W/Monitor



U-Link Cable



SMB Female Connector



N-Type Male Connector



N-Type Female Connector



DIN 16/5.6 Female Connector



SAA 1.0/2.3 Connector



# TELECOM PRODUCT

## COAXIAL CONNECTOR



ITEM	DESCRIPTIONS	PRICE
<b>BNC Connector</b>		
1	BNC Male Crimp Type 75 Ohm for RG179	35.-
2	BNC Male Crimp Type 75 Ohm for 2.5C-2V	35.-
3	BNC Male Crimp Type 75 Ohm for 3C-2V	45.-
4	BNC Male Crimp Type 75 Ohm for RG59	60.-
5	BNC Male Solder Type 75 Ohm for RG179	80.-
6	BNC Male Solder Type 75 Ohm for 2.5C-2V	80.-
7	BNC Female Bulk Head 75 Ohm for RG179	Call
8	BNC Female Bulk Head 75 Ohm for 2.5C-2V	Call
9	BNC J-J ( I ) B/H Adapter	46.-
10	BNC J-J ( I ) B/H Isolated Adapter	60.-
11	BNC U-Link Flexible Cable Type	125.-
12	BNC U-Link Flexible Cable Type with Monitor	145.-
13	BNC Three Way Adapter	200.-
14	BNC U-Link Metal Type with Monitor	Call
<b>SMB Connector</b>		
15	SMB Male Straight 75 Ohm for Any Cable	Call
16	SMB Female Straight 75 Ohm for Any Cable	Call
17	SMB Male Right Angle 75 Ohm for Any Cable	Call
18	SMB Female Right Angle 75 Ohm for Any Cable	Call
<b>SAA 1.0/2.3 Connector</b>		
19	SAA Push Pull 1.0/2.3 Male 75 Ohm for Cable RG179, 2.5C-2V	Call
20	SAA Push Pull 1.0/2.3 Female 75 Ohm for Cable RG179, 2.5C-2V	Call
<b>DIN Connector</b>		
21	DIN 1.6/5.6 Male Type 75 Ohm for Any Cable	Call
22	DIN 1.6/5.6 Female Type 75 Ohm for Any Cable	Call
<b>Coaxial Conector for Feeder Cable</b>		
23	N Type Male/Female 50 Ohm	Call

### RG-6 Type

#### Applications :

RG 6 drop cable suitable for CATV/MATV, Broadband, HDTV and Satellite Broadcasting Transmission use. RG 6 can be used as a branch cable.

#### Standard Construction :

18 AWG [1.02mm (0.040 in.)] copper covered steel center conductor, gas expanded polyethylene dielectric, inner shield aluminum-polypropylene-aluminum laminated tape with overlap bonded to dielectric, outer shield of 34 AWG (0.16 mm) bare aluminum braid wire, jacket of black PVC (LSZH optional). Nominal outside diameter is 6.91 mm.(0.272 in.). Messenger Breaking Strength (Min) is 82 kgf.



#### Physical Dimensions:

Component	Standard		Shield		Tri-Shield		Quad-Shield	
	mm	inch	mm	inch	mm	inch	mm	inch
Nominal Center Conductor Diameter	1.02	0.040	1.02	0.040	1.02	0.040	1.02	0.040
Nominal Diameter Over Dielectric	4.57	0.180	4.57	0.180	4.57	0.180	4.57	0.180
Nominal Diameter Over First Shield (Tape)	4.75	0.187	4.75	0.187	4.75	0.187	4.75	0.187
Nominal Diameter Over Jacket	6.91	0.272	7.06	0.278	7.06	0.278	7.62	0.300
Nominal Jacket Wall Thickness	0.76	0.030	0.76	0.030	0.76	0.030	0.86	0.034
Nominal Diameter of Steel Messenger	1.30	0.051	1.30	0.051	1.30	0.051	1.30	0.051

### RG-11 Type

#### Applications :

RG 11 drop cable suitable for CATV/MATV, Broadband, HDTV and Satellite Broadcasting Transmission use. RG 11 can be used as a trunk cable.

#### Standard Construction :

14 AWG [1.63mm (0.064 in.)] copper covered steel center conductor, gas expanded polyethylene dielectric, inner shield aluminum-polypropylene-aluminum laminated tape with overlap bonded to dielectric, outer shield of 34 AWG (0.16 mm) bare aluminum braid wire, jacket of black PVC (LSZH optional). Nominal outside diameter is 10.03 mm.(0.395 in.). Messenger Breaking Strength (Min) is 166 kgf.



#### Physical Dimensions:

Component	Standard		Shield		Tri-Shield		Quad-Shield	
	mm	inch	mm	inch	mm	inch	mm	inch
Nominal Center Conductor Diameter	1.63	0.064	1.63	0.064	1.63	0.064	1.63	0.064
Nominal Diameter Over Dielectric	7.11	0.280	7.11	0.280	7.11	0.280	7.11	0.280
Nominal Diameter Over First Shield (Tape)	7.29	0.287	7.29	0.287	7.29	0.287	7.29	0.287
Nominal Diameter Over Jacket	10.03	0.395	10.03	0.395	10.03	0.395	10.29	0.405
Nominal Jacket Wall Thickness	1.07	0.042	0.99	0.039	0.99	0.039	0.94	0.037
Nominal Diameter of Steel Messenger	1.83	0.072	1.83	0.072	1.83	0.072	1.83	0.072

### JIS Standard Coaxial Cables

#### Applications :

TV, Radio or phone receivers on automobile or ship, Car navigation system (GPS), Wiring inside telecommunications and electronic equipment such as portable phone.

#### 50 & 75 Ohm PE Series

#### Standard Construction :

Solid or stranded, Copper or copper covered steel conductor, PE insulation, Bare copper braid shield 95% coverage.



#### Physical Dimensions:

Type	Conductor		Insulation		Shield	Jacket		Nom.Imp. (Ω)	Nom.Capa. (1kHz) (pF/m)
	No/mm	Mtrl.	O.D.(mm)	Mtrl.		O.D.(mm)	Mtrl.		
1.5C-2V	1/0.26	BC	1.6	PE	95% BC Braid	2.9	PVC	75	69
2.5C-2V	1/0.40	BC	2.4	PE	95% BC Braid	4.0	PVC	75	69
1.5D-2V	7/0.18	BC	1.6	PE	95% BC Braid	2.9	PVC	50	100
2.5D-2V	1/0.80	BC	2.7	PE	95% BC Braid	4.3	PVC	50	100

#### Standard Attenuation @ 20°C(dB/km)

Frequency	1.5C-2V	2.5C-2V	1.5D-2V	2.5D-2V
1 MHz	71	16	27	15
10 MHz	96	52	85	45
30 MHz	130	90	155	86
200 MHz	350	250	400	235

#### Applications :

Interior lines for monitoring system, CCTV feeder lines, Wiring between the camera with control unit and video signal transmission.

#### 75 Ohm PE Series

#### Standard Construction :

Solid or stranded, Copper or copper covered steel conductor, PE insulation, Bare copper braid shield 95% coverage.



Type	Conductor		Insulation		Shield	Jacket		Nom.Imp. (Ω)	Nom.Capa. (1kHz) (pF/m)
	No/mm	Mtrl.	O.D.(mm)	Mtrl.		O.D.(mm)	Mtrl.		
3C-2V	1/0.53	BC	3.1	PE	95% BC Braid	5.4	PVC	75	67
3C-2V.S	7/0.20	BC	3.1	PE	95% BC Braid	5.4	PVC	75	67
5C-2V	1/0.80	BC	4.9	PE	95% BC Braid	7.3	PVC	75	67
5C-2V.S	21/0.18	BC	4.9	PE	95% BC Braid	7.3	PVC	75	67
5C-2V.S-M	21/0.18	BC	4.9	PE	95% BC Braid	7.3x11.8	PVC	75	67
7C-2V.S	7/0.40	BC	7.3	PE	95% BC Braid	10.4	PVC	75	67
10C-2V.S	7/0.53	BC	9.5	PE	95% BC Braid	13.0	PVC	75	67

#### Standard Attenuation @ 20°C(dB/km)

Frequency	3C-2V	3C-2V.S	5C-2V	5C-2V.S	7C-2V	7C-2V.S	10C-2V
1 MHz	13	15	8	9	5.5	7	4.4
10 MHz	43	48	27	31	18	22	16
30 MHz	75	84	47	55	32	38	27
200 MHz	200	230	126	150	90	105	76

## DDF PANEL



DDF-19-32F



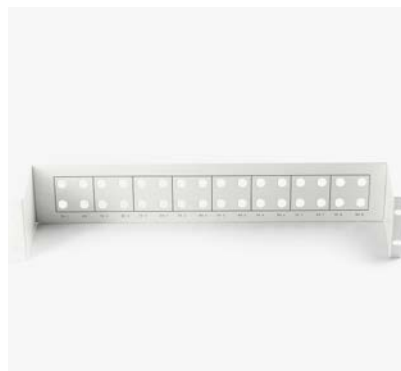
DDF-19-32D



DDF-19-32H



DDF-21-56F



DDF-21-32D



DDF-19-56H

### General Specifications :

- Steel panel with epoxy powder coating
- Suitable for 19"/21" rack mount
- With TX/RX labels
- 2U high for 32 port and 3U high for 56/64 port
- 3 types to select flush plate, deep plate and hinged plate

ITEM	P/N	DESCRIPTIONS	PRICE
1	DDF-19-32F	DDF Patch Panel 19" 32 Port Flush Mount Type	400.-
2	DDF-19-56F	DDF Patch Panel 19" 56 Port Flush Mount Type	520.-
3	DDF-21-32F	DDF Patch Panel 21" 32 Port Flush Mount Type	450.-
4	DDF-21-64F	DDF Patch Panel 21" 64 Port Flush Mount Type	750.-
5	DDF-19-32D	DDF Patch Panel 19" 32 Port Deep Mount Type	500.-
6	DDF-19-56D	DDF Patch Panel 19" 56 Port Deep Mount Type	850.-
7	DDF-21-32D	DDF Patch Panel 21" 32 Port Deep Mount Type	550.-
8	DDF-21-64D	DDF Patch Panel 21" 64 Port Deep Mount Type	900.-
9	DDF-19-32H	DDF Patch Panel 19" 32 Port Hinged Mount Type	720.-
10	DDF-19-56H	DDF Patch Panel 19" 56 Port Hinged Mount Type	820.-
11	DDF-21-32H	DDF Patch Panel 21" 32 Port Hinged Mount Type	800.-
12	DDF-21-64H	DDF Patch Panel 21" 64 Port Hinged Mount Type	900.-

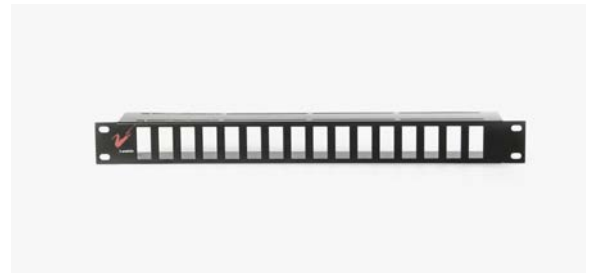
# TELECOM PRODUCT



## BALUN 75/120 OHM



75/120 Ohm G.703 Balun Dual Port Converter



19" Balun Panel for 16 Dual Port

The 75/120 Ohm Balun Converter allows 75 Ohm TX/RX Coaxial Boutlet equipment to communicate with 120 Ohm twisted pair equipment. The Balun Converter can support E1 and transmission rate 2.048 Mbps.

### General Specifications:

#### Balun Dual Port Converter (BNC75 Ohm/RJ45- 120 Ohm)

Size	65W X 42D X 29H mm.	RJ45 Jack Pin Out
Weight	approximately 92g.	1 TX
Power Supply	not necessary	2 TX
Connector	75 Ohm female BNC connector	3 GND Shield
Connector	120 Ohm shielded Jack RJ45 connector (8P8C)	4 RX
		5 RX
		6 GND Opened

#### Balun Single Port Converter (IDCType)

Power Supply	not necessary
Coaxial Connector	75 Ohm BNC, 1.6/5.6, 1.0/2.3 and Type 43
Copper Connection	120 Ohm Twisted Pair IDC Type



ITEM	DESCRIPTIONS	PRICE
	<b>Balun 75/120 Ohm</b>	
1	75/120 Ohm G.703 Balun Adapter Dual Port Converter	700.-
2	Balun Panel 19" for 16 Dual Port	700.-
3	75/120 Ohm G.703 Balun 1.0/2.3 Female IDC	Call
4	75/120 Ohm G.703 Balun 1.0/2.3 Male IDC	Call
5	75/120 Ohm G.703 Balun Type 43 Female IDC	Call
6	75/120 Ohm G.703 Balun Type 43 Male IDC	Call
7	75/120 Ohm G.703 Balun BNC Female IDC	Call
8	75/120 Ohm G.703 Balun BNC Male IDC	Call
9	75/120 Ohm G.703 Balun 1.6/5.6 Female IDC	Call
10	75/120 Ohm G.703 Balun 1.6/5.6 Male IDC	Call

# TELECOM PRODUCT

UTP CABLE, PATCHCORD AND PATCH PANEL



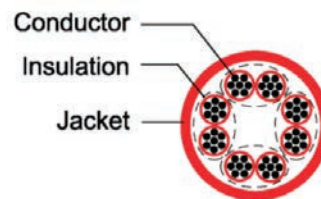
## Cat.5e UTP Patch Cable

### Product Description

Apply for Equipment Room, Telecommunication Closet and Work Area. The conductor size is 24 AWG stranded copper wire. It is high density PE insulation, Flame retardant PVC jacket, Low Smoke Zero Halogen (LSZH) Jacket optional. Also meet TIA/EIA-568-B.2 Cat.5e Standard.

### Color Code

(BK=Black, GR=Grey, BL=Blue, GN=Green, RD=Red, WH=White, YW=Yellow, OR=Orange)



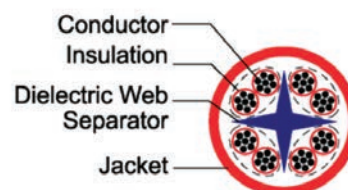
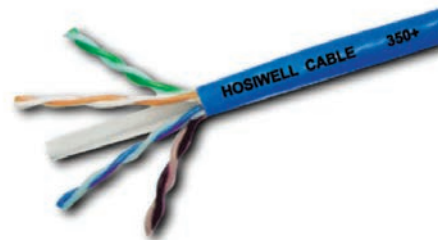
## Cat.6 UTP Patch Cable

### Product Description

Apply for Equipment Room, Telecommunication Closet and Work Area. The conductor size is 24 AWG stranded copper wire. It is high density PE insulation, Dielectric web separator, Flame retardant PVC jacket, Low Smoke Zero Halogen (LSZH) Jacket optional. Also meet TIA/EIA-568-B.2-1 Cat.6 Standard.

### Color Code

(BK=Black, GR=Grey, BL=Blue, GN=Green, RD=Red, WH=White, YW=Yellow, OR=Orange)





# TELECOM PRODUCT

UTP CABLE, PATCHCORD AND PATCH PANEL



## Cat.5e UTP Patchcord

### Product Description

Apply for Equipment Room, Telecommunication Closet and Work Area. It could be connected between hi-speed data equipment and wall outlet. With most flexible Cat.5e UTP patch cable. Terminated with RJ45 un-shield plug, T568A or T568B Wiring, Cross wiring for jumper between Hub/Switch, Low Smoke Zero Halogen (LSZH) optional. Meet TIA/EIA-568-B.2 Cat.5e Standard.

### Color Code

(BK=Black, GR=Grey, BL=Blue, GN=Green, RD=Red, WH=White, YW=Yellow, OR=Orange)



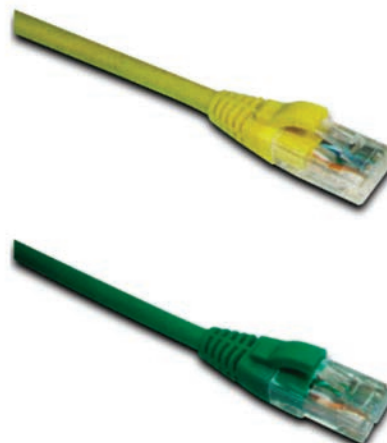
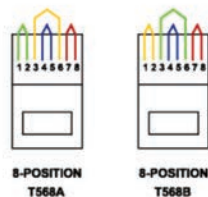
## Cat.6 UTP Patchcord

### Product Description

Apply for Equipment Room, Telecommunication Closet and Work Area. It could be connected between hi-speed data equipment and wall outlet. With most flexible Cat.6 UTP patch cable. Terminated with RJ45 un-shield plug, T568A or T568B Wiring, Cross wiring for jumper between Hub/Switch, Low Smoke Zero Halogen (LSZH) optional. Meet TIA/EIA-568-B.2-1 Cat.6 Standard.

### Color Code

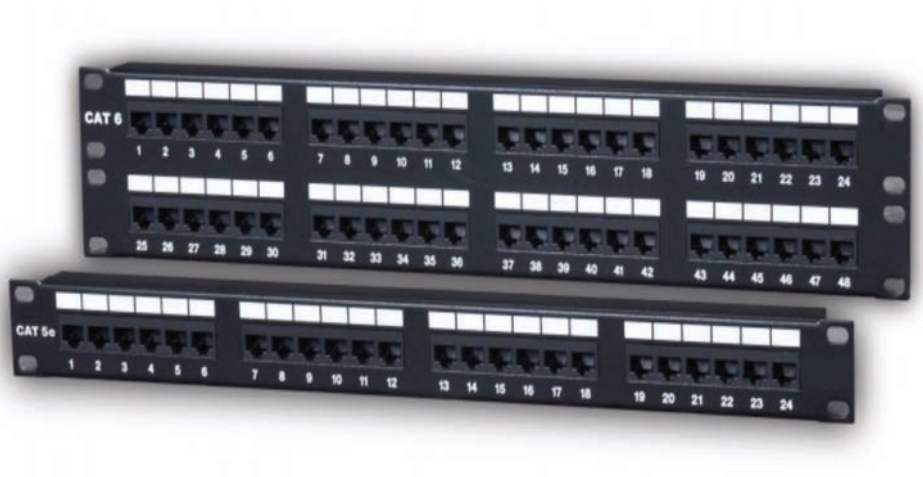
(BK=Black, GR=Grey, BL=Blue, GN=Green, RD=Red, WH=White, YW=Yellow, OR=Orange)



### UTP Patch Panel

#### Product Description

A patch panel is a panel, typically rack mounted, that houses cable connections. One typically shorter patch cable will plug into the front side, while the back will hold the connection of a much longer and more permanent cable. Patch panels offer the convenience of allowing technicians to quickly change the path of select signals, without the expense of dedicated switching equipment. Cat.5e 19" Rack Mount Patch Panel EIA/TIA-568-B.2 Cat.5e and Cat.6 19" Rack Mount Patch Panel EIA/TIA-568-B.2-1 Cat.6 compliant, high density design. With RJ45 port and label system, universal wiring for both T568A and T568B, suitable for conductor size 22, 24 or 26 AWG terminated, dust covers of IDC are available for protect purpose, black mounting screws and cage nuts are supplied for install use.



UTP Patch Panel  
Cat.5e or Cat.6 for  
24 Port or 48 Port

# TELECOM PRODUCT

UTP CABLE, PATCHCORD AND PATCH PANEL



## Telecom / Datacom Accessories



Cat.5e RJ45 Modular Plug



Cat.6 RJ45 Modular Plug



Cat.5e RJ45 Boot



Cat.6 RJ45 Boot



RS-232 Male/Female



Champ 50 Pin Male/Female



V.35 Body Male/Female



RJ11 (2, 4, 6 Pins)



Female Pin



Male Pin

# TELECOM PRODUCT

RACK SYSTEM/WALL MOUNT RACK & CLOSE RACK



## 19" High Quality Wall Mount Rack



Illustration



Front View



Top View



Side View



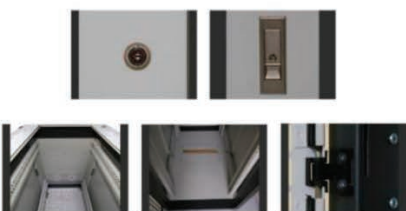
Bottom View

## 19" High Quality Export Rack (Close Rack)

Illustration



Front View Side View Rear View



15U



27U



42U

# TELECOM PRODUCT



RACK SYSTEM/WALL MOUNT RACK & CLOSE RACK

ITEM	DESCRIPTIONS	PRICE
<b>19" High Quality Wall Mount Rack</b>		
1	19" High Quality Wall Mount Rack 6U, 40 cm.	2,635.-
2	19" High Quality Wall Mount Rack 9U, 40 cm.	3,282.-
3	19" High Quality Wall Mount Rack 12U, 40 cm.	3,753.-
4	19" High Quality Wall Mount Rack 6U, 50 cm.	2,918.-
5	19" High Quality Wall Mount Rack 9U, 50 cm.	3,471.-
6	19" High Quality Wall Mount Rack 12U, 50 cm.	3,988.-
7	19" High Quality Wall Mount Rack 6U, 60 cm.	3,388.-
8	19" High Quality Wall Mount Rack 9U, 60 cm.	3,753.-
9	19" High Quality Wall Mount Rack 12U, 60 cm.	4,329.-
<b>19" High Quality Export Rack (Close Rack)</b>		
10	19" High Quality Export Rack 15U (60x60 cm.)	8,459.-
11	19" High Quality Export Rack 27U (60x60 cm.)	11,165.-
12	19" High Quality Export Rack 36U (60x60 cm.)	13,353.-
13	19" High Quality Export Rack 39U (60x60 cm.)	13,871.-
14	19" High Quality Export Rack 42U (60x60 cm.)	14,341.-
15	19" High Quality Export Rack 45U (60x60 cm.)	15,235.-
16	19" High Quality Export Rack 15U (60x80 cm.)	9,729.-
17	19" High Quality Export Rack 27U (60x80 cm.)	12,694.-
18	19" High Quality Export Rack 36U (60x80 cm.)	14,800.-
19	19" High Quality Export Rack 39U (60x80 cm.)	15,400.-
20	19" High Quality Export Rack 42U (60x80 cm.)	15,635.-
21	19" High Quality Export Rack 45U (60x80 cm.)	16,694.-
22	19" High Quality Export Rack 27U (60x90 cm.)	13,471.-
23	19" High Quality Export Rack 42U (60x90 cm.)	16,812.-
24	19" High Quality Export Rack 42U (60x100 cm.)	17,518.-
25	19" High Quality Export Rack 27U (60x110 cm.)	14,506.-
26	19" High Quality Export Rack 45U (60x100 cm.)	18,576.-
27	19" High Quality Export Rack 42U (60x110 cm.)	18,188.-
28	19" High Quality Export Rack 42U (80x80 cm.)	19,235.-
29	19" High Quality Export Rack 27U (80x80 cm.)	14,976.-
30	19" High Quality Export Rack 45U (80x80 cm.)	19,988.-
31	19" High Quality Export Rack 42U (80x90 cm.)	19,976.-
32	19" High Quality Export Rack 42U (80x100 cm.)	20,835.-
33	19" High Quality Export Rack 42U (80x110 cm.)	21,600.-
34	19" High Quality Export Rack 45U (80x110 cm.)	22,329.-

# TELECOM PRODUCT

RACK SYSTEM/CURVE SERVER RACK & FAR SERVER RACK

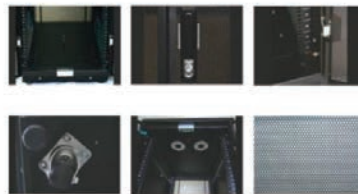


## CURVE : 19" High Perforation Export Server Rack

Illustration



Front View      Side View      Rear View



## FAR : 19" Perforation Export Server Rack

Illustration



Front View      Side View      Rear View





# TELECOM PRODUCT

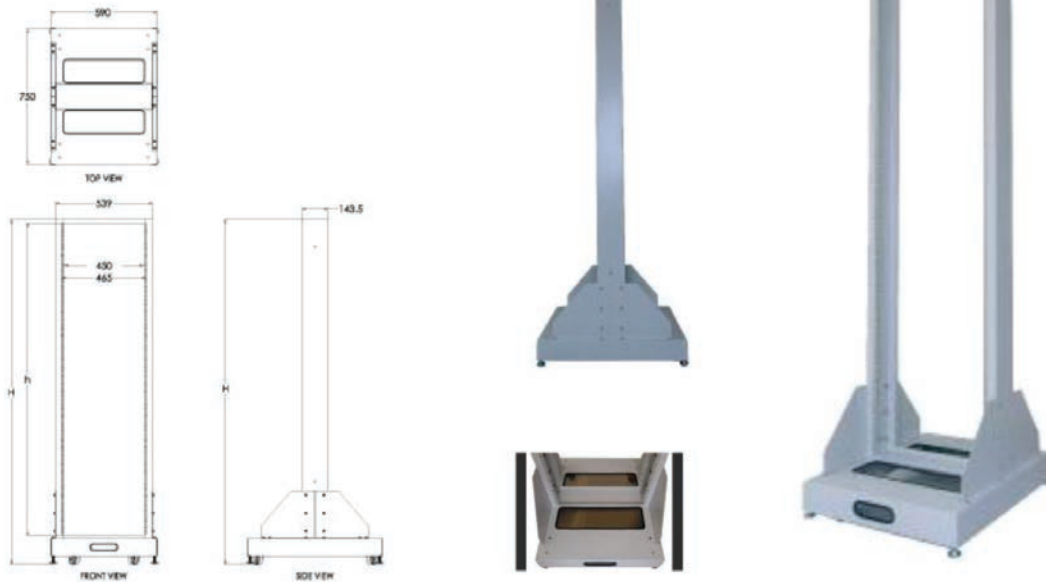


RACK SYSTEM/CURVE SERVER RACK & FAR SERVER RACK

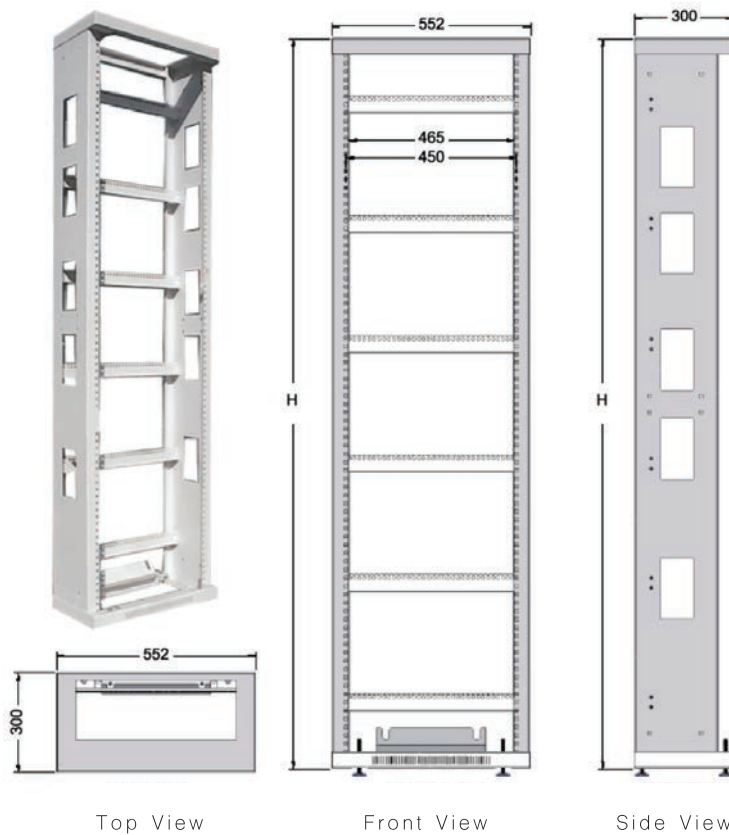
ITEM	DESCRIPTIONS	PRICE
<b>CURVE : 19" High Perforation Export Server Rack</b>		
1	CURVE 19" High Perforation Export Server Rack 42U (60x100 cm.)	19,094.-
2	CURVE 19" High Perforation Export Server Rack 42U (60x110 cm.)	20,423.-
3	CURVE 19" High Perforation Export Server Rack 42U (80x100 cm.)	22,505.-
4	CURVE 19" High Perforation Export Server Rack 42U (80x110 cm.)	23,843.-
<b>FAR : 19" Perforation Export Server Rack</b>		
5	FAR 19" Perforation Export Server Rack 15U (60x60 cm.)	7,219.-
6	FAR 19" Perforation Export Server Rack 27U (60x60 cm.)	9,206.-
7	FAR 19" Perforation Export Server Rack 42U (60x60 cm.)	12,436.-
8	FAR 19" Perforation Export Server Rack 15U (60x80 cm.)	8,073.-
9	FAR 19" Perforation Export Server Rack 27U (60x80 cm.)	10,441.-
10	FAR 19" Perforation Export Server Rack 42U (60x80 cm.)	13,576.-
11	FAR 19" Perforation Export Server Rack 27U (60x90 cm.)	10,734.-
12	FAR 19" Perforation Export Server Rack 42U (60x90 cm.)	14,154.-
13	FAR 19" Perforation Export Server Rack 45U (60x90 cm.)	15,103.-
14	FAR 19" Perforation Export Server Rack 27U (60x100 cm.)	11,303.-
15	FAR 19" Perforation Export Server Rack 42U (60x100 cm.)	14,723.-
16	FAR 19" Perforation Export Server Rack 45U (60x100 cm.)	16,053.-
17	FAR 19" Perforation Export Server Rack 27U (60x110 cm.)	11,779.-
18	FAR 19" Perforation Export Server Rack 42U (60x110 cm.)	15,293.-
19	FAR 19" Perforation Export Server Rack 45U (60x110 cm.)	16,785.-
20	FAR 19" Perforation Export Server Rack 42U (80x80 cm.)	16,149.-
21	FAR 19" Perforation Export Server Rack 42U (80x90 cm.)	16,814.-
22	FAR 19" Perforation Export Server Rack 45U (80x100 cm.)	17,383.-
23	FAR 19" Perforation Export Server Rack 42U (80x110 cm.)	17,954.-
24	FAR 19" Perforation Export Server Rack 45U (80x110 cm.)	18,904.-

### 19" Open Rack

#### Illustration



### 19" Telecom Open Rack (DDF Rack)



# TELECOM PRODUCT



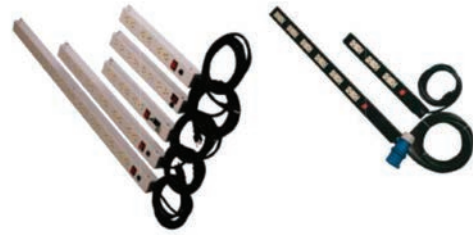
RACK SYSTEM/OPEN RACK & DDF RACK

ITEM	DESCRIPTIONS	PRICE
	<b>19" Open Rack</b>	
1	19" High Quality Open Rack 27U	4,882.-
2	19" High Quality Open Rack 36U	5,271.-
3	19" High Quality Open Rack 39U	Call
4	19" High Quality Open Rack 42U	5,859.-
5	19" High Quality Open Rack 45U	Call
	<b>19" Telecom Open Rack (DDF Rack)</b>	
6	19" Telecom Open Rack (1800H x 552W x 300D mm.)	4,115.-
7	19" Telecom Open Rack (2000H x 552W x 300D mm.)	4,475.-
8	19" Telecom Open Rack (2200H x 552W x 300D mm.)	4,615.-
9	21" Telecom Open Rack (2000H x 600W x 300D mm.)	5,063.-
10	21" Telecom Open Rack (2200H x 600W x 300D mm.)	5,240.-

### Rack Accessories



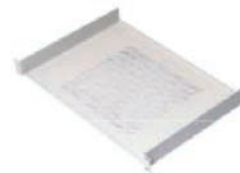
Ventilating Fan



AC Power Distribution



Fix Shelf



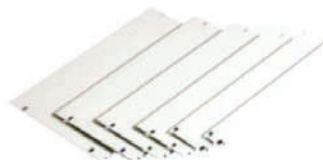
Front Mounted Shelf



Slide Shelf



Chassis Guide



Blank Panel



Cable Management Panel



Cable Management Panel with cover



Lighting Set PL 7w.



Vertical Ring



Cage Nut Set



Joint Kit



Support for Shelf  
(Close Rack)



Support for Shelf  
(Open Rack)

# TELECOM PRODUCT



## RACK SYSTEM / RACK ACCESSORIES

ITEM	DESCRIPTIONS	PRICE
	<b>Accessories</b>	
1	AC Power Distribution 4 Universal Outlet with Cable 1.5 M.	559.-
2	AC Power Distribution 6 Universal Outlet with Cable 3 M.	982.-
3	AC Power Distribution 8 Universal Outlet with Cable 3 M.	1,271.-
4	AC Power Distribution 12 Universal Outlet with Cable 3 M.	1,527.-
5	30 Amp Power Distribution 12 Outlet with Power Plug, Cable 3 M. & Protection	2,576.-
6	AC Power Distribution 20 Universal Outlet with Cable 3 M.	2,224.-
7	30 Amp Power Distribution 20 Outlet with Power Plug, Cable 3 M. & Protection	3,518.-
8	Ventilating Fan 1 x 4" with Plate (Heavy Duty)	385.-
9	Ventilating Fan 2 x 4" with Plate (Heavy Duty)	924.-
10	Ventilating Fan 3 x 4" with Plate (Heavy Duty)	1,459.-
11	Wire Management Panel	256.-
12	Cable Management Panel with Cover	280.-
13	Vertical Ring	112.-
14	Fix Shelf (Open Rack)	576.-
15	Slide Shelf (Open Rack)	1,182.-
16	Fix Wall Rack 30 cm. Depth	300.-
17	Fix Shelf 45 cm. Depth	493.-
18	Fix Shelf 60 cm Depth	599.-
19	Fix Shelf 75 cm. Depth	718.-
20	Fix Shelf 80 cm. Depth	724.-
21	Fix Shelf 95 cm. Depth	975.-
22	Slide Shelf 45 cm. Depth	1,058.-
23	Slide Shelf 60 cm. Depth	1,234.-
24	Slide Shelf 75 cm. Depth	1,353.-
25	Slide Shelf 80 cm. Depth	1,388.-
26	Slide Shelf 95 cm. Depth	1,741.-
27	Blank Panel Size 1U	58.-
28	Blank Panel Size 2U	93.-
29	Blank Panel Size 3U	116.-
30	Blank Panel Size 4U	152.-
31	Blank Panel Size 5U	175.-
32	Blank Panel Size 6U	234.-
33	Blank Panel Size 7U	275.-
34	Blank Panel Size 8U	324.-
35	Cage Nut (น๊อต U ยึดอุปกรณ์)	7.-

# TELECOM PRODUCT



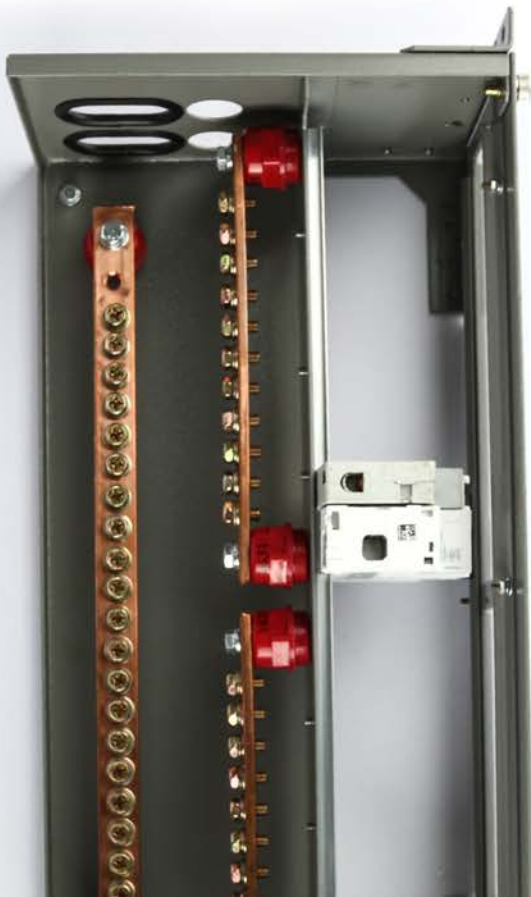
RACK SYSTEM / WALL MOUNT RACK & CLOSE RACK

ITEM	DESCRIPTIONS	PRICE
	<b>Accessories</b>	
36	Lighting Set (ชุดโคมไฟ PL7W)	645.-
37	Chassis (2 pcs/set) Depth 45 cm. (ฉากรองอุปกรณ์)	324.-
38	Chassis (2 pcs/set) Depth 65 cm. (ฉากรองอุปกรณ์)	441.-
39	Chassis (2 pcs/set) Depth 75 cm. (ฉากรองอุปกรณ์)	493.-
40	Chassis (2 pcs/set) Depth 95 cm. (ฉากรองอุปกรณ์)	618.-
41	Joint Kit (ชุดต่อตู้)	459.-
42	Cable Tray 7.5 cm. Width for Cable Run 15U	315.-
43	Cable Tray 7.5 cm. Width for Cable Run 27U	528.-
44	Cable Tray 7.5 cm. Width for Cable Run 36U	646.-
45	Cable Tray 7.5 cm. Width for Cable Run 39U	704.-
46	Cable Tray 7.5 cm. Width for Cable Run 42U	822.-
47	Cable Tray 7.5 cm. Width for Cable Run 45U	1,053.-
48	หลังค้ายกสูงพร้อมช่องระบายอากาศ	Call





# POWER SUPPLY



# POWER SUPPLY

SWITCHEDMODE POWER SUPPLY/DC SWITCHEDMODE RECTIFIER SYSTEM



CXPS-E101 Standard 48Vdc Power Systems

## CXPS-E101

### Features :

- Integrated 48V power system packages in 100A or 225A configurations
- Ultra compact, high density design utilizing standard plug-in circuit breakers
- High efficiency design for reduced operating expenses
- High temperature rated, fan-cooled design for harsh outdoor installations
- Wide range AC input and IEC line cords for multiple AC services



400A Power System

## CXPS-E3

### Features :

- Integrated -48V, 400A power system with front access distribution
- Industry leading power system density
- 400A, up to 26 distribution positions in 5RU
- Advanced CXC-HP controller with touch screen display for full local control
- High temperature rated design for harsh outdoor applications
- Wide range AC input for flexible worldwide deployment



48Vdc Modular Rectifier Shelf Systems

## Cordex™ 650W

### Features :

- Multiple 48V configurations up to 67A for various 48Vdc applications
- Convection cooled design for high reliability in harsh industrial environments
- Front access options for space restricted enclosures
- Integrated DC system capability with controller and distribution module options



48Vdc Modular Switched Mode Rectifier

# POWER SUPPLY

SWITCHEDMODE POWER SUPPLY/DC SWITCHEDMODE RECTIFIER SYSTEM



48Vdc Modular 1RU Rectifier Shelf Systems

## Cordex™ HP 1.2kW System Features :

- Multiple 48V configurations up to 125A for various 48Vdc applications
- High efficiency design for reduced operating expenses
- High temperature rated fan-cooled design for harsh outdoor installations
- Wide range AC input and IEC line cords for multiple AC services
- Front access options for space restricted enclosures



48Vdc Modular Switched Mode Rectifier



Cordex 48-2.4kW Rectifier Shelves

## Cordex HP™ 2.4kW System Features :

- High efficiency (>96%) for reduced OPEX and carbon footprint
- High temperature operating range for installation in non-controlled environments
- Multiple 48V configurations up to 250A in a compact 1RU shelf system
- Industry leading power density (28W/in<sup>3</sup>) yields more space for revenue generating equipment
- Wide AC input operating range for global installation requirements



Modular Switched Mode Rectifier



125/220V High Voltage Integrated Systems

## Cordex™ 3.3kW System Features :

- 125/220Vdc 3.3kW capacity solution for industrial and utility applications
- Convection cooled design for high reliability in industrial environments
- Wide range AC input for multiple worldwide AC services
- Integrated system solution with CXC controller and distribution



125Vdc Modular Switched Mode Rectifier

# POWER SUPPLY

SWITCHEDMODE POWER SUPPLY/SYSTEM CONTROL



System Controller Cordex™ CXCI+

## Cordex™ CXCI+ Features :

- Modular, hot swappable controller, backwards compatible with 2RU rectifier and DC/DC converter shelves
- Internet ready and remotely accessible for complete system monitoring and control
- Integrated SNMP functionality for cost effective multiple site monitoring
- Advanced battery monitoring and power save features for OPEX savings
- Highly configurable platform with user definable alarms and data logging



System Controller Cordex™ CXCI HP

## Cordex™ CXCI HP Features :

- Modular, hot swappable controller for use with Alpha's Cordex 2U rectifier, converter and line powering platforms
- Advanced next-generation control and monitoring platform for Alpha's Cordex product family
- Integrated USB host for local firmware upgrades, configuration updates and system backup/restoration
- Seamless integration of multiple energy systems allowing comprehensive management, monitoring and control
- Integrated OLED display with numerous features including local software upgrades and system backup/restore



System Controller Cordex™ CXCM1 HP

## Cordex™ CXCM1 HP Features :

- Modular, hot swappable controller for use with Alpha's HP 1.2kW rectifier platform
- Advanced next-generation control and monitoring platform for Alpha's Cordex product family
- Integrated USB host for local firmware upgrades, configuration updates and system backup/ restoration
- Seamless integration of multiple energy systems allowing comprehensive management, monitoring and control
- Integrated OLED display with numerous features including local monitoring and configuration management

## Cordex™ CXC HP Features :

- Advanced next-generation control and monitoring platform for Alpha's Cordex product family
- High resolution color touchscreen LCD display with advanced local UI
- Integrated USB host for local firmware upgrades, configuration updates and system backup/restoration
- Comprehensive graphical user interface for advanced system configuration
- Seamless integration of multiple energy systems allowing comprehensive management, monitoring and control
- External ADIO peripherals for customizing unique I/O configurations
- Compact flexible mounting options to reduce space requirements



System Controller Cordex™ CXC HP

### CONVERTER SYSTEM



DC-DC Converter System

#### CXPS 24→48-i & CXPS 48→24-i

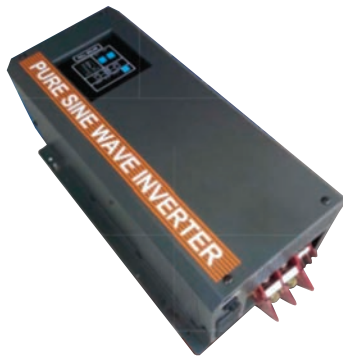
##### Features :

- Integrated 8kW capacity converter system with front access distribution
- Support for small to medium 48Vdc loads from a legacy 24V power system or 24Vdc loads from 48V power system
- Integrated Cordex CXCI for advanced local and remote monitoring and control
- Internal low voltage shutdown for cost effective integration into existing systems
- Universal 19"/23" mounting for flexible installation options into existing racks

### STAND ALONE INVERTER

#### Stand Alone Inverter

##### Features :



- Microcontroller technology designs
- Isolation transformer & double conversion technology
- High efficiency, high performance and high reliability
- Full time operating with 24 hours running
- Automatic low DC input shutdown protection
- DC input reverse polarity protection
- Output short circuit and over load protections
- Automatic DC start
- Remote control cable (option)
- Each inverter model has different output power as below
  - 1000VA/1000W
  - 1500VA/1500W
  - 2000VA/2000W
  - 3500VA/3500W
  - 5000VA/5000W

#### Stand Alone Inverter Rack Mount

##### Features :



- Microcontroller technology designs
- Isolation transformer & double conversion technology
- High efficiency, high performance and high reliability
- Full time operating with 24 hours running
- Automatic low DC input shutdown protection
- DC input reverse polarity protection
- Output short circuit and over load protections
- Automatic DC start
- Each inverter model has different output power as below
  - 1000VA/1000W
  - 1500VA/1500W
  - 2000VA/2000W



# POWER SUPPLY

OUTDOOR UPS SYSTEM WITH ENCLOSURE



UPS and Enclosure  
Micro 350

## Micro 350

### Features :

- Integrated backup power system designed to operate in extreme environments and provide maximum flexibility while ensuring critical loads remain up and running during power outages
- 350W/VA total output in AC and/or DC including 120Vac, 24Vac, 48Vdc, 24Vdc and 12Vdc enables application with diverse load requirements
- Temperature compensated battery charging provides longer battery life
- Wide range of input with Automatic Voltage Regulation (AVR) extends battery life by not reverting to batteries during periods of surge or sag in utility power voltage
- External communication via USB port and Ethernet SNMP interface provides local or remote monitoring and control



Outdoor UPS System  
Micro 1000

## Micro 1000

### Features :

- Compact, integrated UPS system provides clean, uninterruptable backup power
- Wide range Automatic Voltage Regulation without going to batteries extends battery life, even during periods of surge or sag in voltage from utility power
- External communications via RS-323 port or (optional) Ethernet SNMP interface provides local or remote monitoring control
- Independently programmable control and report relays allow tracking and controlling of key functions
- Event and alarm logging with time and date stamping simplifies and accelerates troubleshooting
- A wide operating temperature range of -40 to 74°C (-40 to 165°F) is suitable for most extreme operating environments
- Temperature compensated battery charging protects batteries from overcharging/undercharging at extreme temperatures

# POWER SUPPLY

19" RACK MOUNT OUTDOOR UPS



## Application for CCTV, Traffic, Security, Parking

### FXM 650

#### Features :

- 650W/VA UPS module designed to operate in extreme environments and provide maximum flexibility while ensuring critical loads remain protected and running during power outages and other power disturbances
- Wide range Automatic Voltage Regulation (AVR) lengthens battery life by providing without transferring to backup mode during voltage surge or sag
- Independently programmable control and report dry contacts allow monitoring and controlling of key functions
- Temperature compensated battery charging protects batteries from overcharging or undercharging at extreme temperatures, extending the life of the battery
- Local and remote monitoring and control via RS232 port and Ethernet SNMP interface
- Optional DC outputs: 12Vdc, 24Vdc, 48Vdc



Rugged UPS Module FXM 650

### FXM 1100

#### Features :

- 1100W/VA UPS module designed to operate in extreme environments and provide maximum flexibility while ensuring critical loads remain protected and running during power outages and other power disturbances
- Wide range Automatic Voltage Regulation (AVR) lengthens battery life by providing protection without transferring to backup mode during voltage surge or sag
- Independently programmable control and report dry contacts allow monitoring and controlling of key functions
- Temperature compensated battery charging protects batteries from overcharging or undercharging at extreme temperatures, extending the life of the battery
- Local and remote monitoring and control via RS232 port and Ethernet SNMP interface
- UPS panels can be rotated, improving usability and viewing convenience
- Optional DC outputs: 12Vdc, 24Vdc, 48Vdc



Rugged UPS Module FXM 1100

### FXM 2000

#### Features :

- 2000W/VA UPS module designed to operate in extreme environments and provide maximum flexibility while ensuring critical loads remain protected and running during power outages and other power disturbances
- Wide range Automatic Voltage Regulation (AVR) lengthens battery life by providing protection without transferring to backup mode during voltage surge or sag
- Independently programmable control and report dry contacts allow monitoring and controlling of key functions
- Temperature compensated battery charging protects batteries from overcharging or undercharging at extreme temperatures, extending the life of the battery
- Local and remote monitoring and control via RS232 port and Ethernet SNMP interface
- UPS panels can be rotated, improving usability and viewing convenience
- Optional DC outputs: 12Vdc, 24Vdc, 48Vdc



Rugged UPS Module FXM 2000



# POWER SUPPLY

DESKTOP POWER SUPPLY



## Desktop Power Supply

- AC / DC Power Supply
- AC / DC Power Supply with Charger
- DC / DC Converter

## Specifications :

- Stand-alone Unit
- Application for modem, router, ADSL, DSLAM, broadband, CATV, fire alarm, instruments
- High reliability
- EMI filter
- Over load, short circuit protections
- ISO 9001:2000

## AC / DC Switchedmode Power Supply

- Input 110/220Vac / 50 Hz
- Output 5, 12, 24, 48 Vdc
- Power 25 - 1,000 Watt

## DC / DC Switchedmode Power Supply

- Input 12, 24, 48 Vdc
- Output 5, 12, 24, 48 Vdc
- Power 20 - 200 Watt



25W Single Output Series



240W Single Output Series



350W Single Output Series



500W Single Mini-size Series



1000W Single mini-size Series



120W Single DIN Rail Series

# POWER SUPPLY

SURGE PROTECTION DEVICE

## AC Surge Protection:

### Applications :

- Entrance Building
- Factory
- Computer System
- Machine

### Type of AC Surge Protections :

- Single Phase 220 Vac / 50 Hz
- Three Phase 220/380 Vac / 50 Hz
- Active Tracking Power Line Filter



Single Phase



Three Phase



Power Line Filter

## Signal Surge Protection

- Antenna Series N-Type, TNC, BNC
- Ethernet LAN Series RJ45 10/100, 10/100/1000
- RS-232 Series; DB9, DB15, DB25



10/100 Ethernet



Coaxial N-Type, TNC



Coaxial BNC Type



10/100/1000 Ethernet



DB25



DB9

# POWER SUPPLY

POWER DISTRIBUTION UNIT (PDU)



PDU 19"/21" Rack Mount 3U,  
2 Sources 3 Bus Bars Unload, Dark Gray  
(PDU-19-03-DC-GR)



PDU 19"/21" Rack Mount 3U,  
2 Sources 4 Bus Bars Unload, Dark Gray  
(PDU-19-34-DC-GR)

## Features :

- Cabinet steel rack mount
- Suitable for 19"/21" standard rack
- Designed for DIN rail circuit breakers
- Safety ground system with separate common bar A and B
- Each channel is designed for 11 circuit breakers of 1 pole
- Acrylic front cover protection
- Able to use for both AC and DC system
- Nice shape, easy installment and maintenance



PDU 19"/21" Rack Mount 3U,  
2 Bus Bars Unload, Dark Gray  
(PDU-19-07-AC-GR)

## Features :

- Cabinet steel rack mount
- Suitable for 19"/21" standard rack
- Designed for DIN rail circuit breakers
- Each channel is designed for 10 circuit breakers of 1 pole
- Able to use for both AC and DC system
- Nice shape, easy installment and maintenance

## Features :

- Cabinet steel rack mount
- Suitable for 19"/21" standard rack
- Designed for DIN rail circuit breakers
- 22 DIN rail 1 pole circuit breaker
- Acrylic front cover protection
- Able to use for both AC and DC system
- Nice shape, easy installment and maintenance



PDU 19"/21" Rack Mount 3U,  
2 Sources No Bus Bar Unload, Light Gray  
( PDU-19-03-NB1-LG)

# POWER SUPPLY

## POWER DISTRIBUTION UNIT (PDU)



### Features :

- Cabinet steel rack mount
- Suitable for 19"/21" standard rack
- Designed for DIN rail circuit breakers
- 20 DIN rail 1 pole circuit breaker
- Able to use for both AC and DC system
- Nice shape, easy installment and maintenance

PDU 19"/21" Rack Mount 3U,  
No Bus Bar Unload, Light Gray  
(PDU-19-07-NB1-LG)



Comb Bar  
(ABB-BUS)



Blank Plate 6 Modules  
(ABB-PLATE)



DIN Rail Stopper  
(TBR-F)



Acrylic Rear Cover  
(PDU-COVER)



Copper Bar Ground Termination For Rack 19"  
(CBB-0030-AF1)

ITEM	P / N	DESCRIPTIONS	PRICE
1	PDU-19-07-AC-GR	PDU 19"/21" Rack Mount High 3U, 2 Bus Bars Unload, Dark Gray	3,500.-
2	PDU-19-03-DC-GR	PDU 19"/21" Rack Mount High 3U, 2 Sources 3 Bus Bars Unload, Dark Gray	3,500.-
3	PDU-19-34-DC-GR	PDU 19"/21" Rack Mount High 3U, 2 Sources 4 Bus Bars Unload, Dark Gray	3,500.-
4	PDU-19-07-NB1-LG	PDU 19"/21" Rack Mount High 3U, No Bus Bar Unload, Light Gray	1,800.-
5	PDU-19-03-NB1-LG	PDU 19"/21" Rack Mount High 3U, 2 Sources No Bus Bar Unload, Light Gray	1,800.-
6	ABB-PLATE	Blank Plate 6 Modules	100.-
7	TBR-F	DIN Rail Stopper	13.-
8	PDU-COVER	PDU Acrylic Cover	320.-
9	ABB-BUS-06	Comb Bar 6 Pin	90.-
10	ABB-BUS-19	Comb Bar 19 Pin	180.-
<b>Copper Bar</b>			
11	CBB-0030-AF1	Copper Bar Ground Termination for Rack 19"	Call

### Nickel Cadmium Batteries Sintered Plate/Pocket Plate 5AH to 100AH/20+ years long life

Nickel Cadmium cells using sintered plate/pocket plate technology have been used successfully in industrial battery applications for long years. With a design life of more than 20 years, they have proved to be a very reliable DC power source in float service or cyclic application in harsh conditions with temperatures up to 60°C



Nickel Cadmium Batteries

#### Features :

- Excellent high rate discharge performance
- 20+ years long service life
- Wide operating temperature range
- Lowest self-discharge
- Resistance to mechanical and electrical abuse
- Absolute reliability

#### Specifications :

- Container: Translucent plastic or steel
- Terminal Seal: Compressed O-Ring
- Internal Connectors: Plated Copper Bar
- Plates: Sintered / Pocket plates
- Electrolyte: Potassium Hydroxide 1.19~1.2kg/l

#### Float Voltage :

- GNC Type: 1.38~1.40 VPC
- GNC/GNZ Type: 1.42~1.45 VPC
- GN Type: 1.48~1.50 VPC

#### Boost/Equalize Charge

- GNC Type: 1.46~1.48 VPC
- GNC/GNZ/GN Type: 1.55~1.60 VPC
- Temperature Range: -20 °C to +60 °C

#### General Applications :

Battery Model	Discharge Performance	Plate Type	Applications
GNC Series	Ultra High Discharge Rate	Sintered Plate	- AGV, gas turbine generation, engine starting, operating/control of computer systems, transportation networks, airport, etc.
GNG Series	High Discharge Rate	Pocket Plate	- Engine starting, UPS (up to 30 minutes), operation and control of DC motor, water treatment plants, etc.
GNZ Series	Medium Discharge Rate	Pocket Plate	- UPS (over 30 minutes), railway DC power sources, auxiliary power sources for power stations, chemical plants, oil refineries, iron works etc.
GN Series	Low Discharge Rate	Pocket Plate	- Emergency lighting, telecommunications, operation of communication equipment on a ship lighting, air conditioner control on a train, etc.



### Stationary Battery

#### Applications :

- Telecommunication
- UPS
- Solar Cell
- Industrial
- Emergency Light
- Power Station

#### Type of Battery :

- VRLA Battery
- GEL Battery
- AGM Battery
- Vented Lead Acid Battery
- Modular Type Battery
- Front Terminal Battery



Gel 50 - 300 Ah



Solar 30 - 250 Ah



VRLA 200 - 3000 Ah



Lead Acid 100 - 3000 Ah



AGM VRLA 7 - 250 Ah



Modular VRLA 200 - 3000 Ah

# POWER SUPPLY

CIRCUIT BREAKER



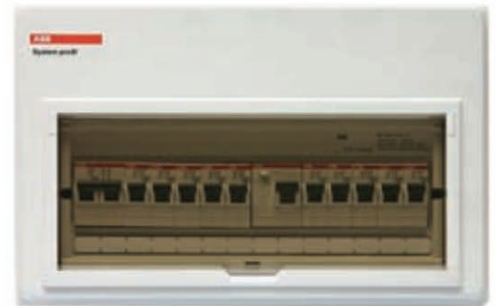
## ABB Circuit Breaker



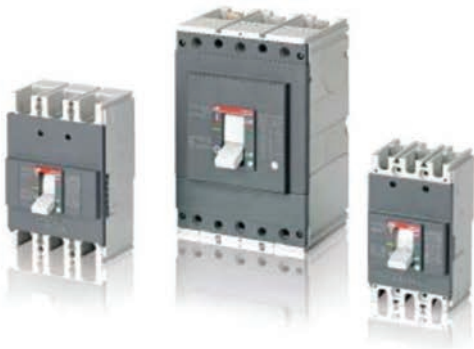
Miniature Circuit Breakers (MCBs)



Residual Current Devices (RCDs)



Consumer Unit



Moulded Case Circuit Breakers (MCCBs)



Distribution Boards



# POWER SUPPLY

CIRCUIT BREAKER

## Schneider Electric Circuit Breaker



Schneider DIN Rail Miniature  
Circuit Breakers (MCBs)



Schneider DIN Rail Residual Current  
Devices (RCDs)



Consumer Unit



Modular Surge Protection Devices





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