



wirewerks

SOLUTIONS GUIDE

Structured Cabling Systems

Version F

FEATURING

SAN LAN WAN Application Guides
Product lines
Quick References

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YOUR PARTNER FOR IP NETWORK SOLUTIONS

There is a growing convergence of various applications such as lighting, security, agriculture, etc. towards IP networks.

Global bandwidth requirements continue to gather momentum as organizations demand greater capacity over their networks (i.e. video on demand, cloud computing, outsourced data storage), while needing to minimize their overall footprint.

Wirewerks addresses these evolving market demands with:

- a suite of scalable cabling solutions (i.e. Next Step)
- speed to market
- flexibility
- attention to detail
- innovative designs

In addition, our uncompromising quality assurance, warranty and dedicated team ensures your peace of mind so that your network demands are met today and for tomorrow.

Founded in 1991, Wirewerks is a leading global manufacturer of optical fiber and copper connectivity products. Quality, honesty and reliability are the pillars on which our core values are founded, and our dedicated employees are the driving force of our success.

From engineering drawings to manufacturing custom structured cabling solutions, we work with our customers to meet their demands. Wirewerks continues to expand and evolve in order to remain, quite simply, the best value in the market for our customers.

Wirewerks provides our customers with peace of mind through our comprehensive warranty.

Our 25-Year Structured Cabling Warranty Program covers material, workmanship, labor, permanent link, and channel performance for projects and sites. The Wirewerks Certified Installer Program allows you to have the peace of mind you deserve when relying on your network.

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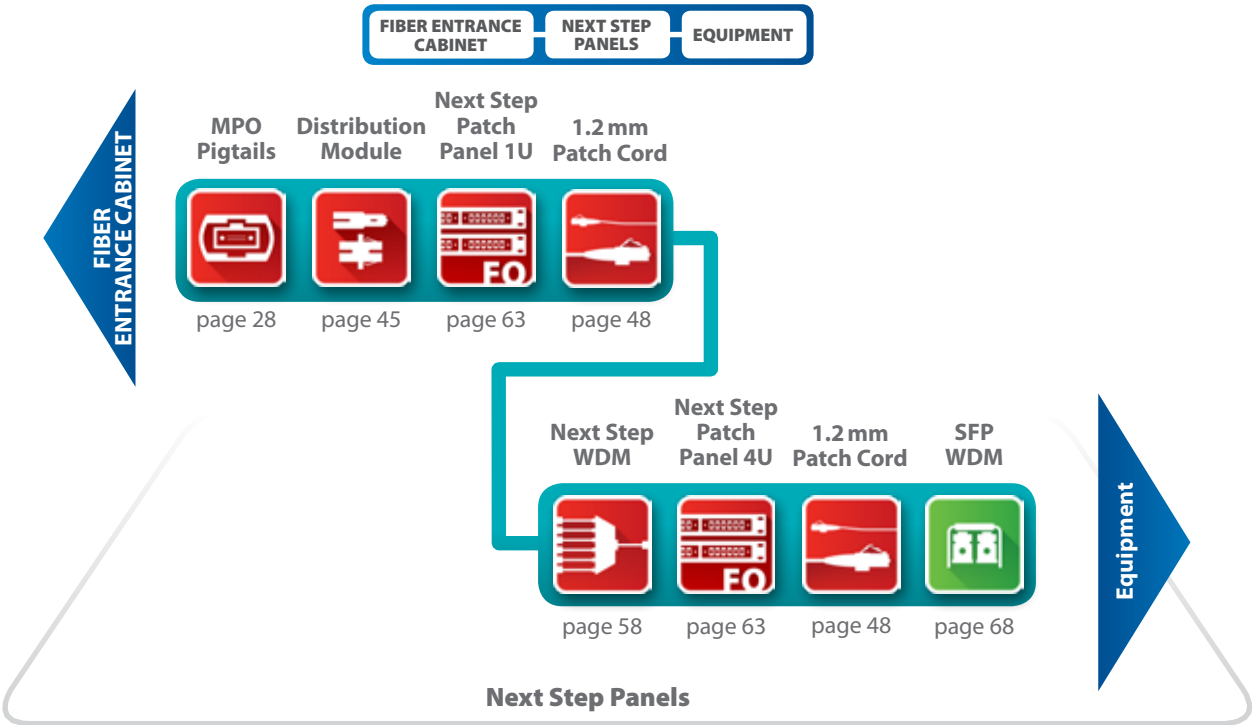


WAN

Wide Area Network

Wave Division Multiplexing – C/D-WDM Application

■ Fiber Optic Cabling ■ Active Devices



Part shown
Next Step 1U Patch Panel
Page 63



Part shown
Next Step WDM
Page 58



Part shown
Next Step 4U Patch Panel
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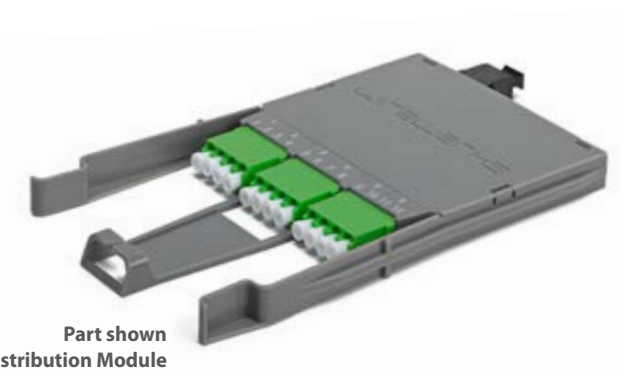
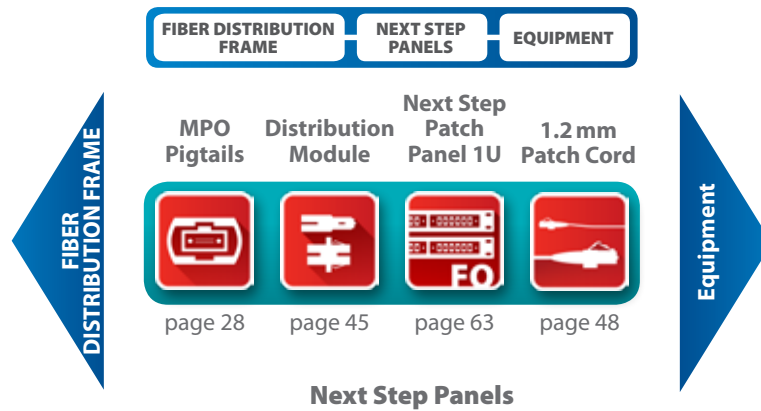
WAN

Wide Area Network

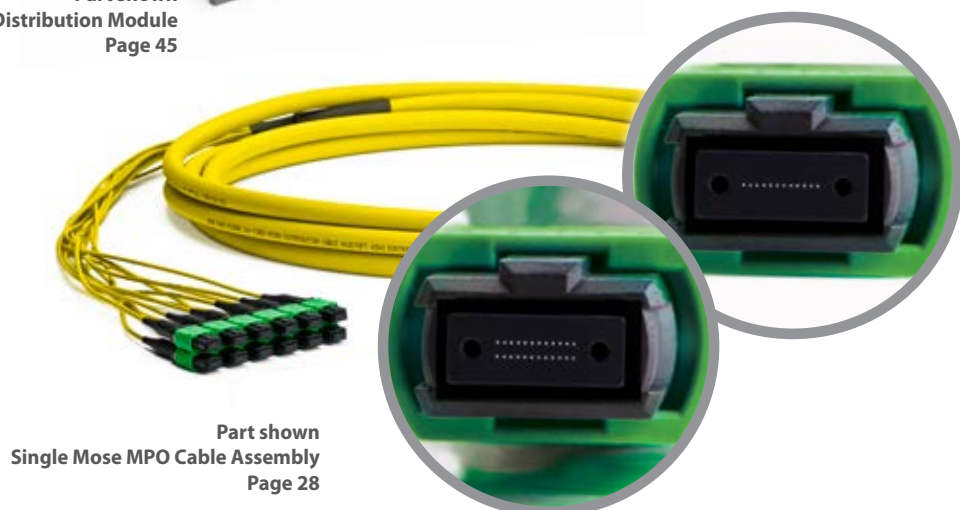
Headend Equipment Distribution

■ Fiber Optic Cabling

■ Active Devices



Part shown
Next Step Distribution Module
Page 45



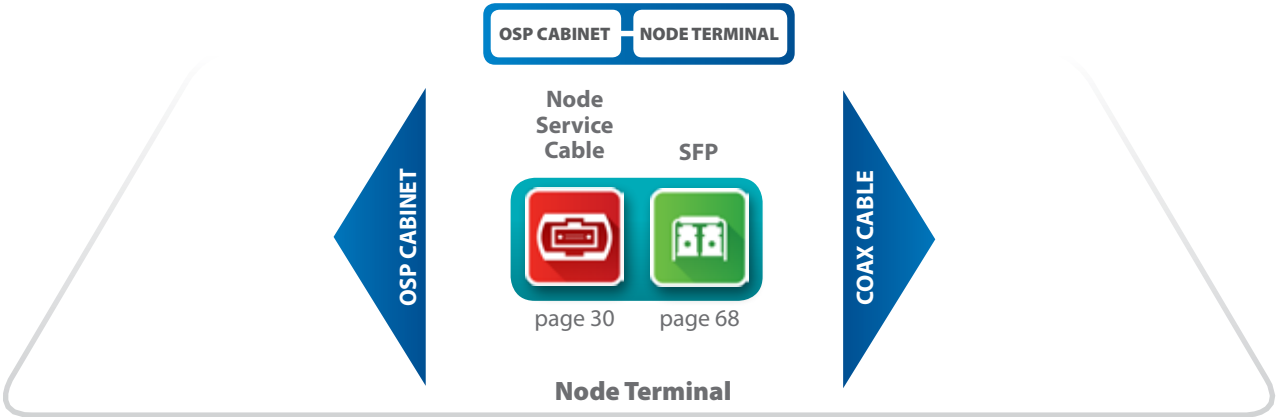
Part shown
Single Mose MPO Cable Assembly
Page 28

WAN

Wide Area Network

Fiber To The Node (FTTN)

- Fiber Optic Cabling
- Active Devices



Part shown
Node Service Cable
Page 30



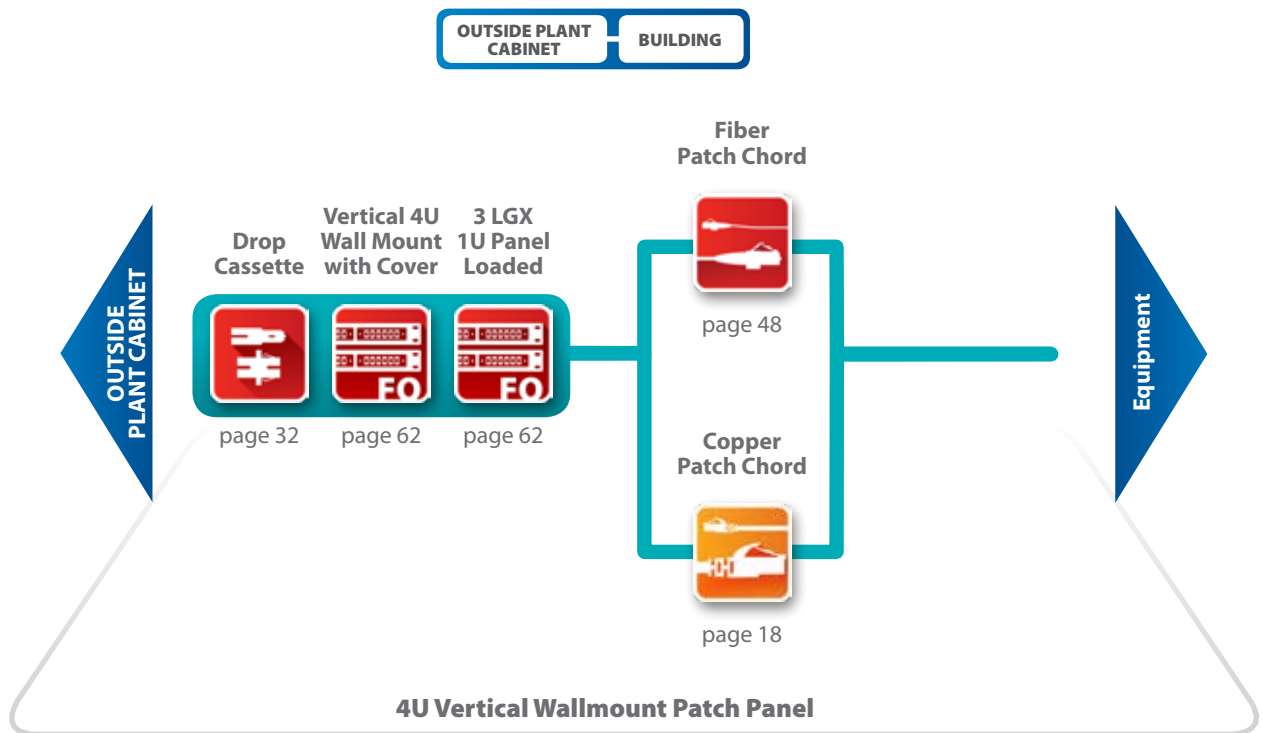
Part shown
SFP Modules
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WAN

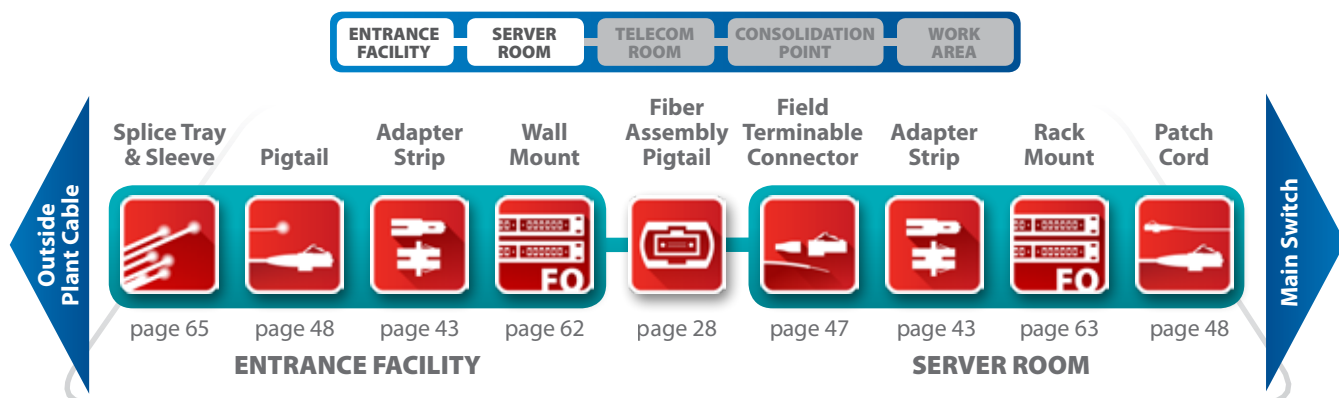
Wide Area Network

Fiber To The Building (FTTB)

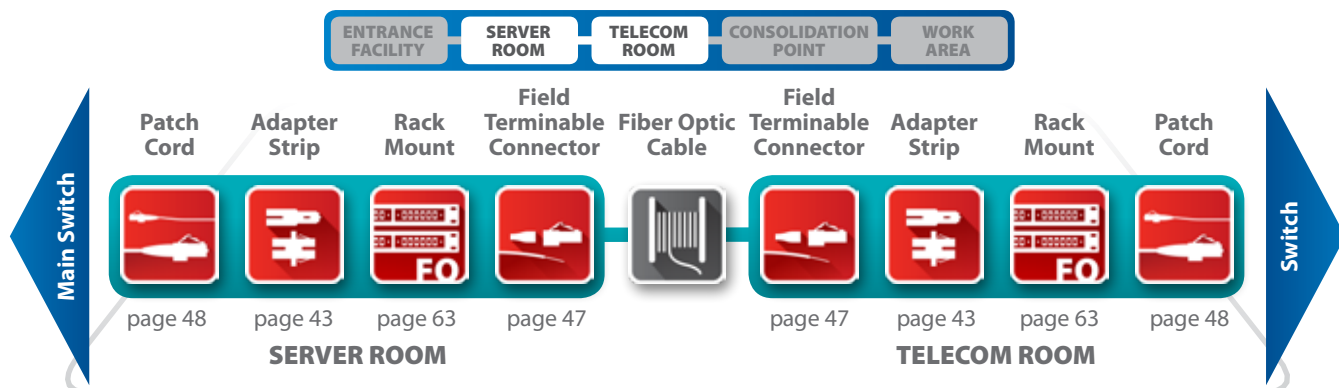
■ Fiber Optic Cabling ■ Active Devices



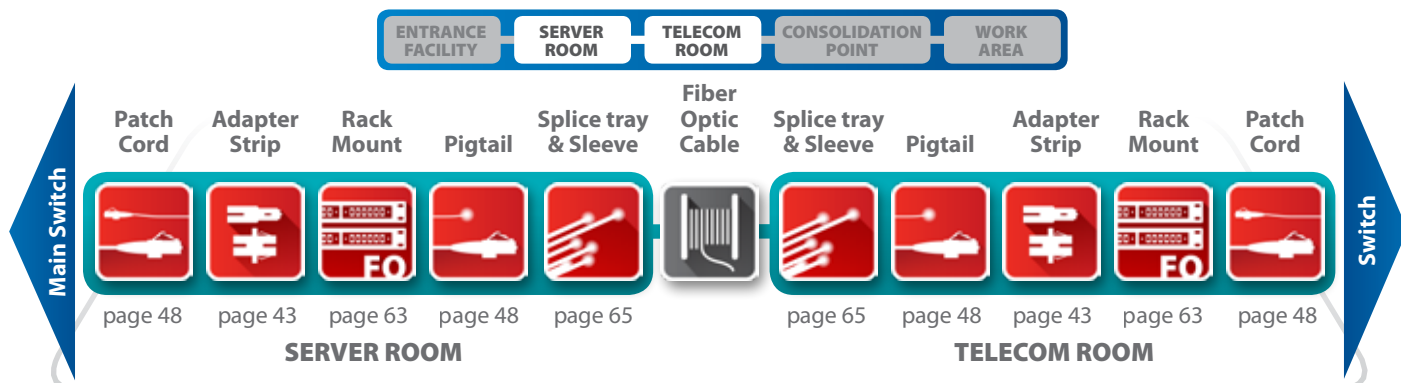
DEMARCATIION POINT | Cable Assemblies and Field Terminable Connector



BACKBONE DROP | Field Terminable Connector



BACKBONE DROP | Splicing



LAN

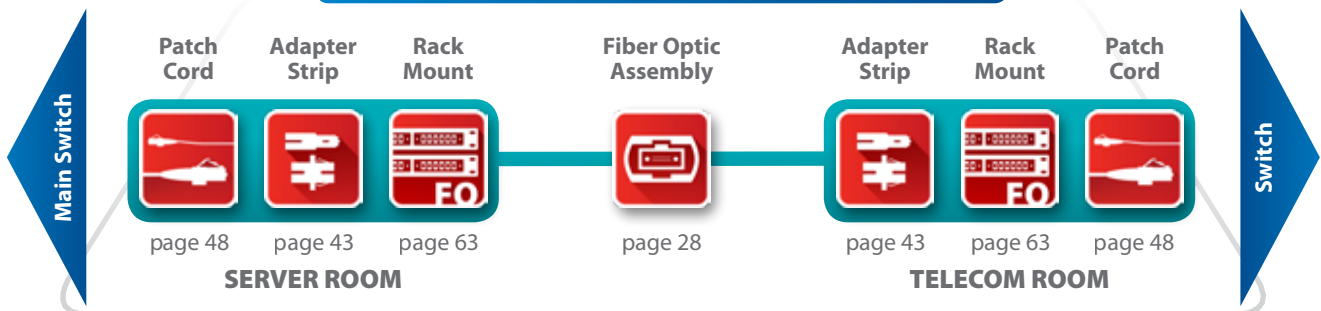
Local Area Network



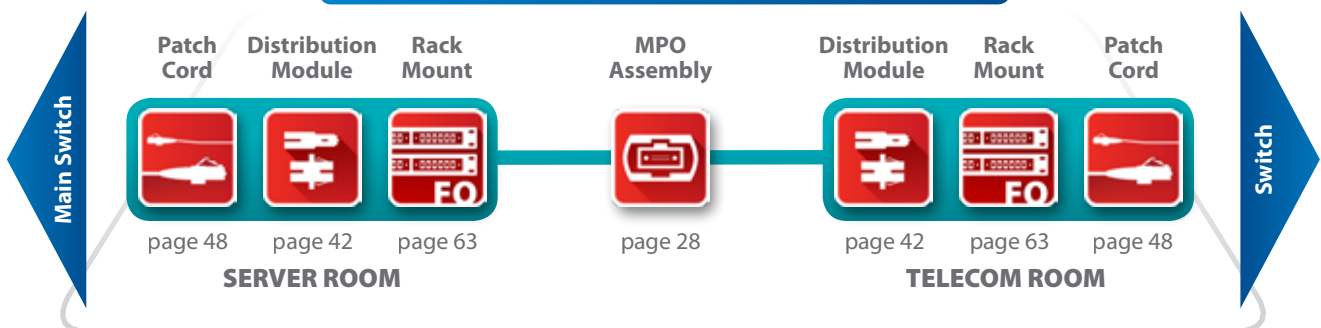
■ Copper Horizontal Cabling

■ Fiber Optic Cabling

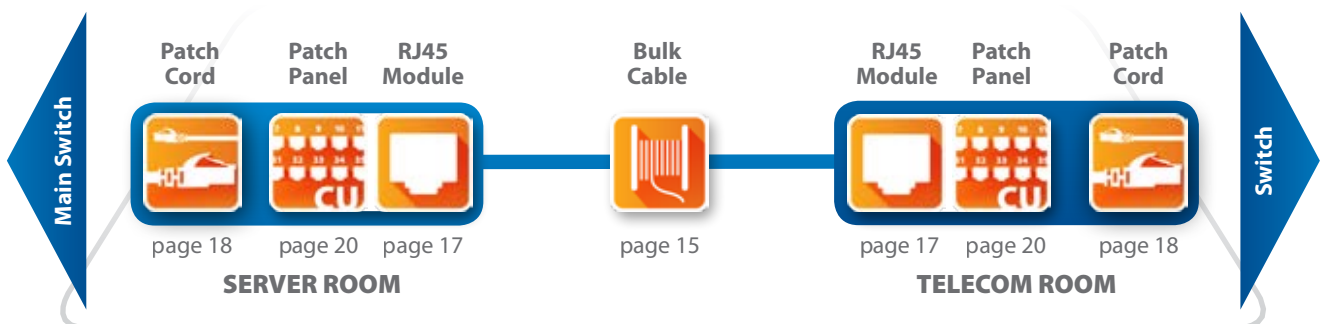
BACKBONE DROP | Pre-Terminated



BACKBONE DROP | MPO Assembly (Cassettes, Plug and Play)

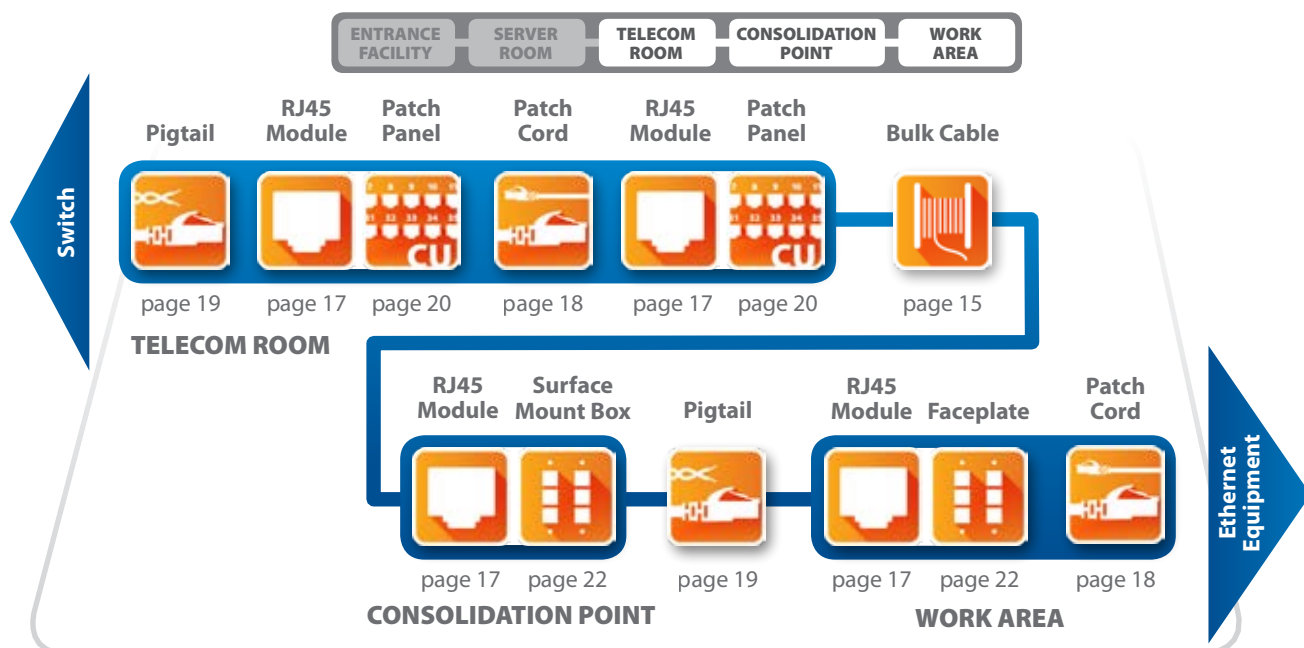


BACKBONE DROP | Copper CAT6A

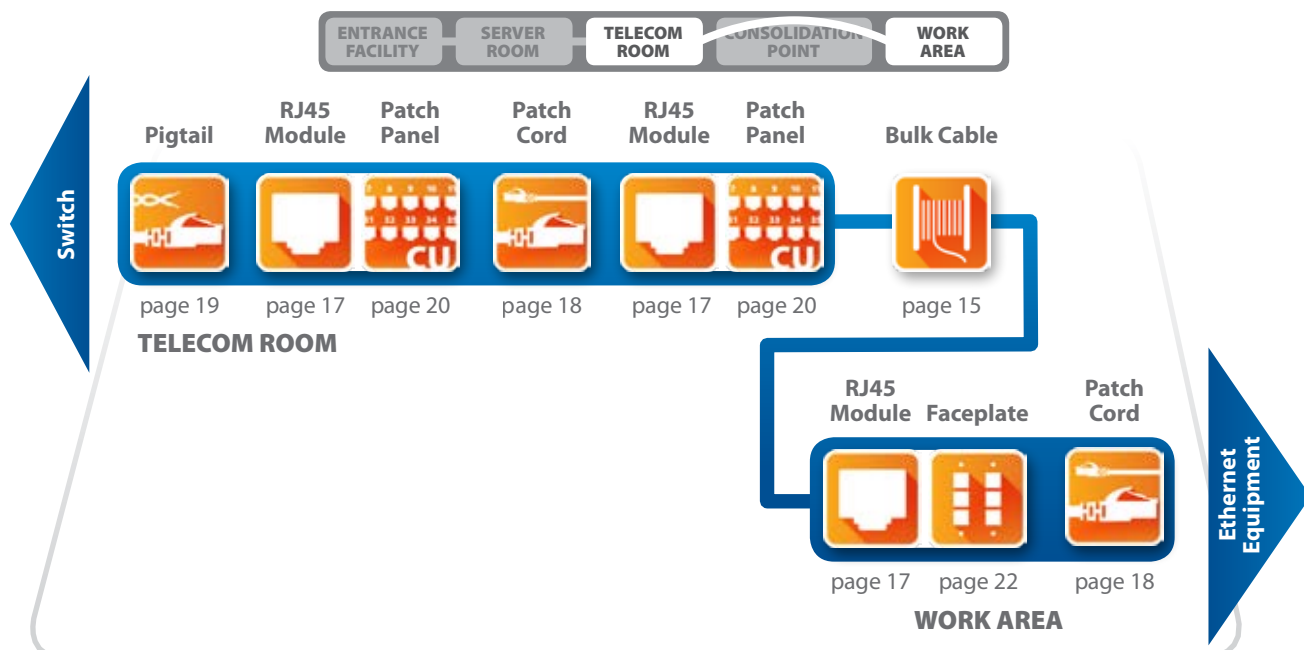


CROSS-CONNECT

4 CONNECTIONS CHANNEL CROSS-CONNECT



3 CONNECTIONS CHANNEL CROSS-CONNECT



LAN

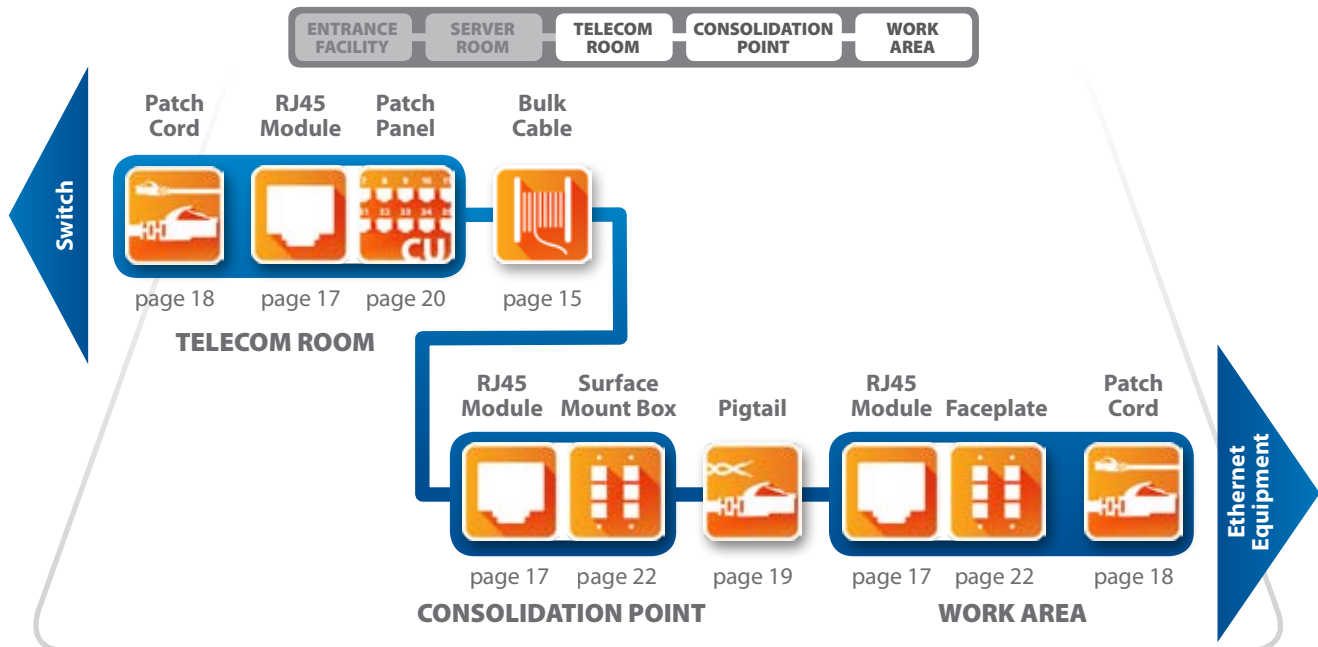
Local Area Network



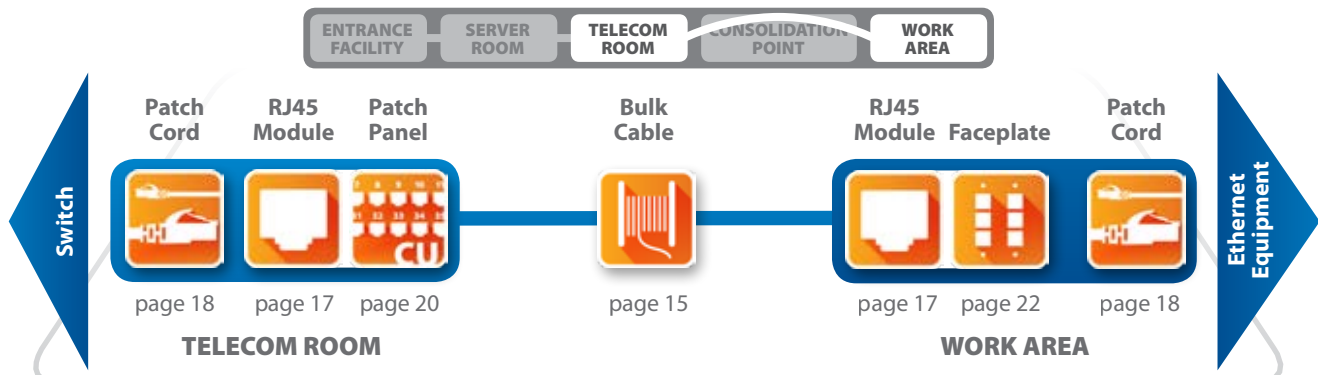
■ Copper Horizontal Cabling

INTER CONNECT

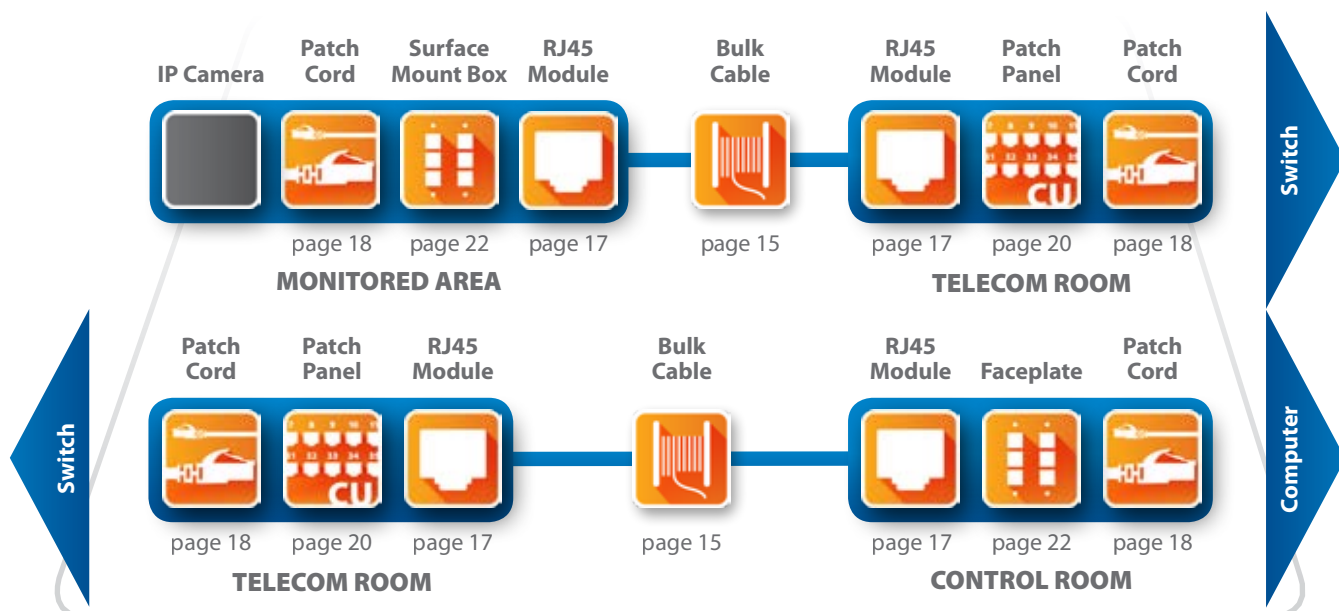
3 CONNECTIONS CHANNEL INTER CONNECT



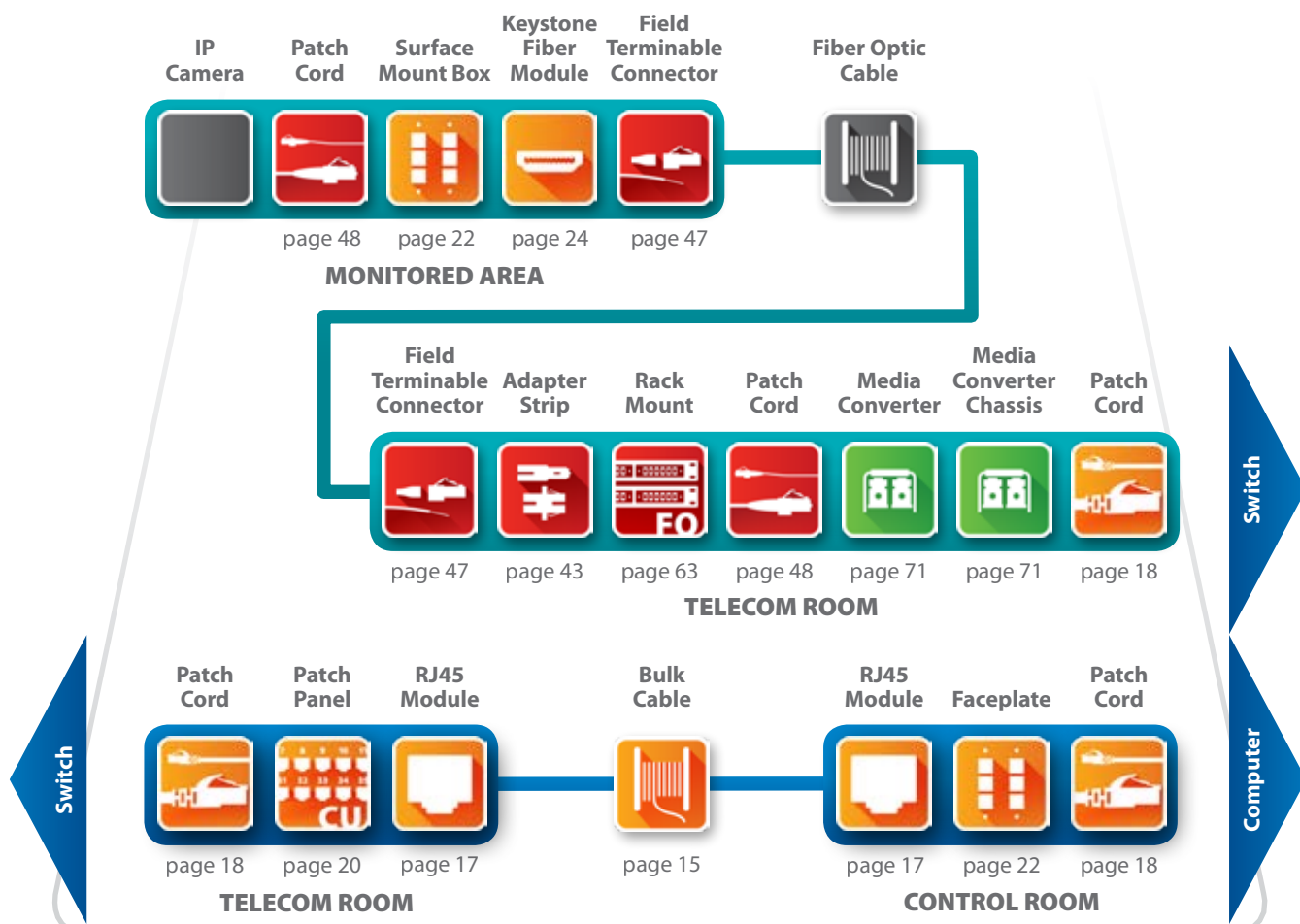
2 CONNECTIONS CHANNEL INTER CONNECT



COPPER BASED SYSTEM



FIBER OPTIC BASED SYSTEM



LAN

Local Area Network

Security and Surveillance Cabling system

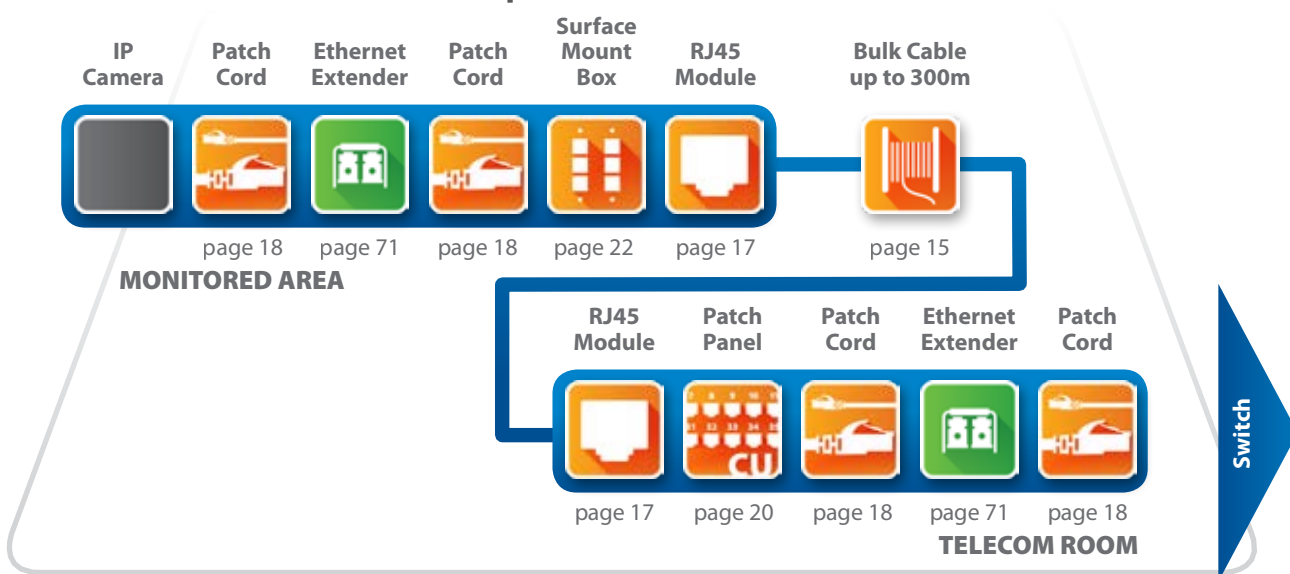
MONITORED
AREATELECOM
ROOMCONTROL
ROOM

■ Fiber Optic Cabling ■ Active Devices ■ Copper Horizontal Cabling

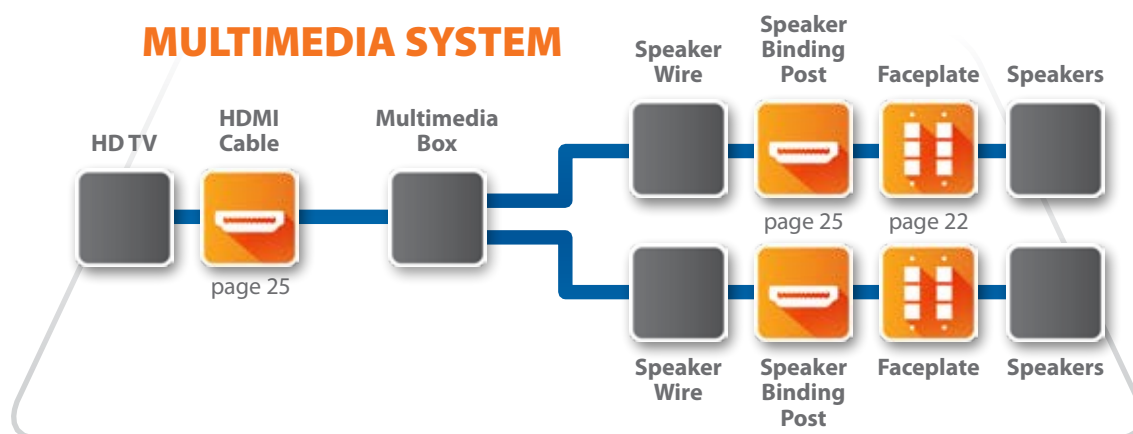
COPPER BASED SYSTEM | Coaxial – 90 meters and over



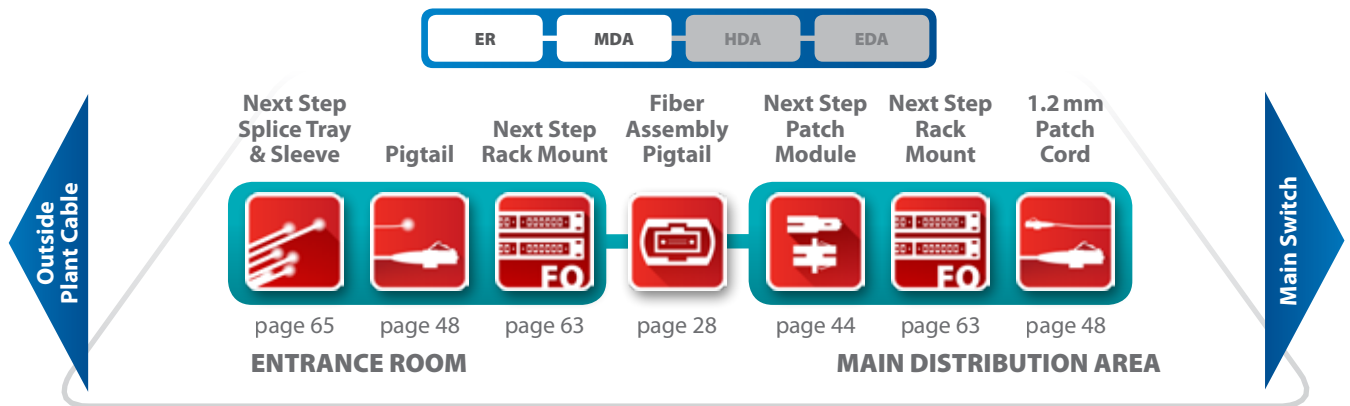
COPPER BASED SYSTEM | Ethernet Cable – 90 meters and over



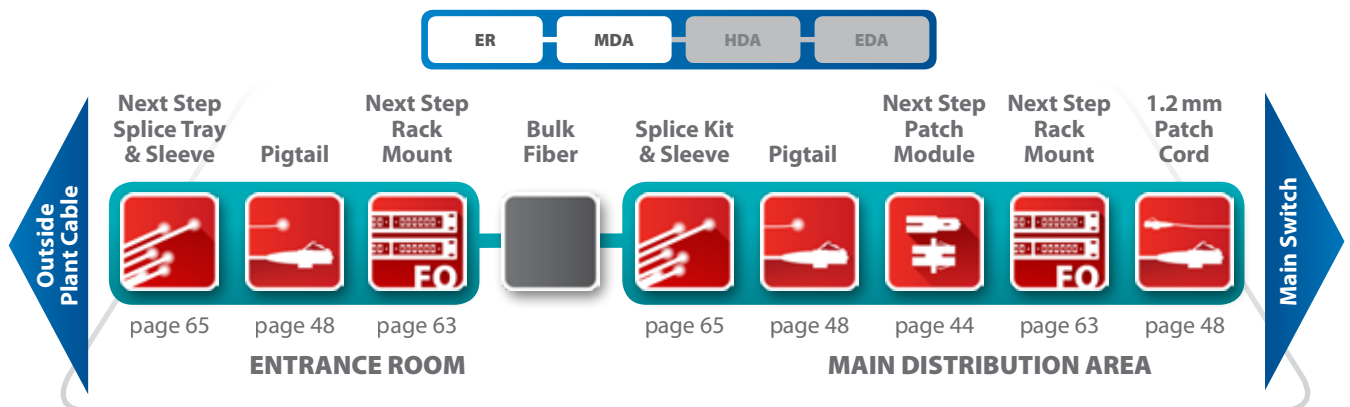
MULTIMEDIA SYSTEM



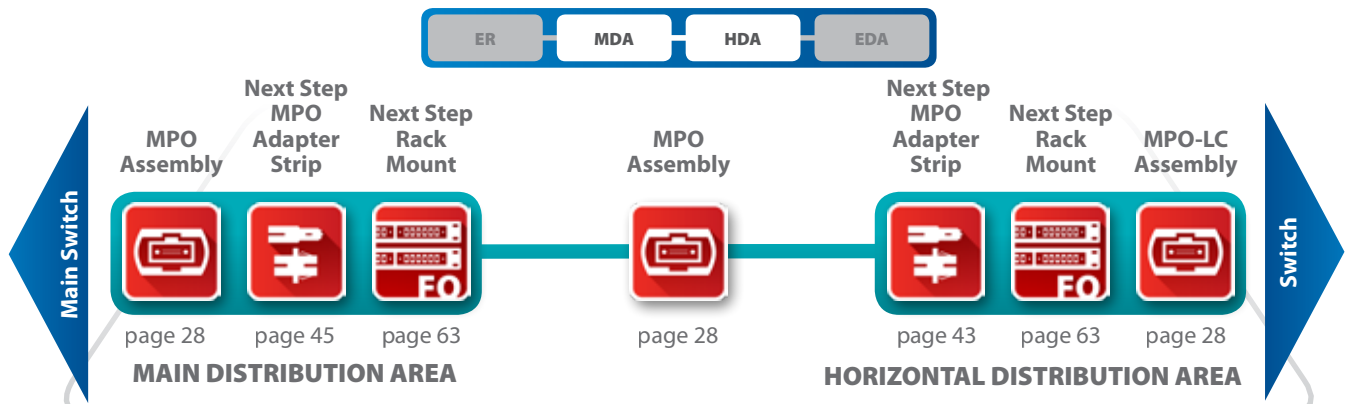
DEMARCATIION POINT | Pre-Terminated Pigtail



DEMARCATIION POINT | Splicing



BACKBONE MPO DROP | MPO-MPO Pre-terminated



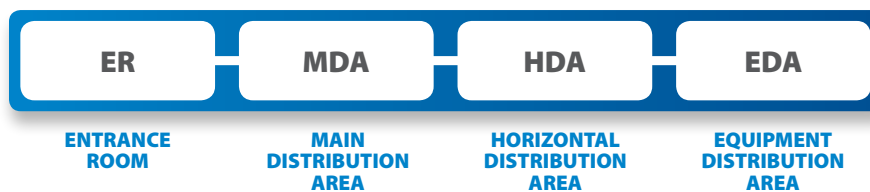
SAN

Storage Area Network

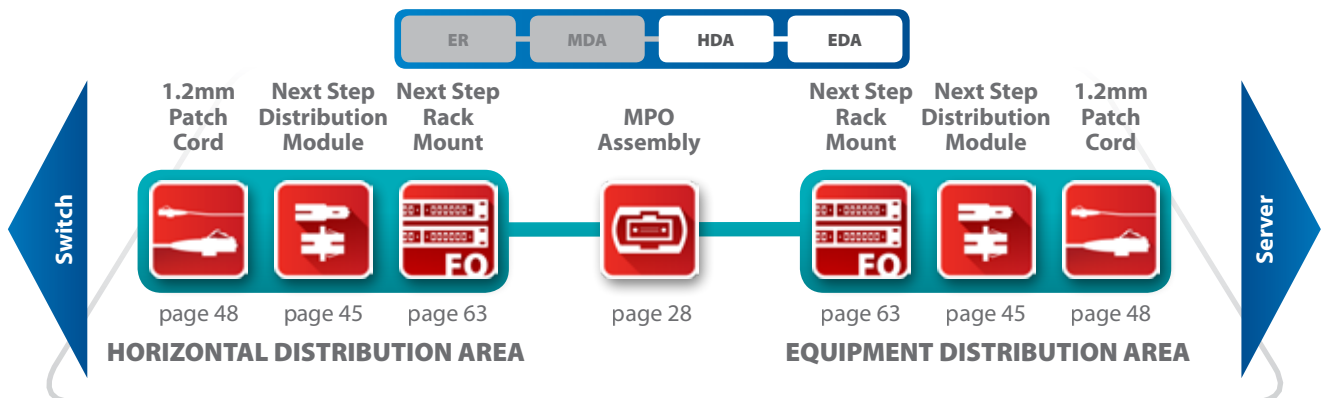


- Fiber Optic Cabling
- Copper Horizontal Cabling

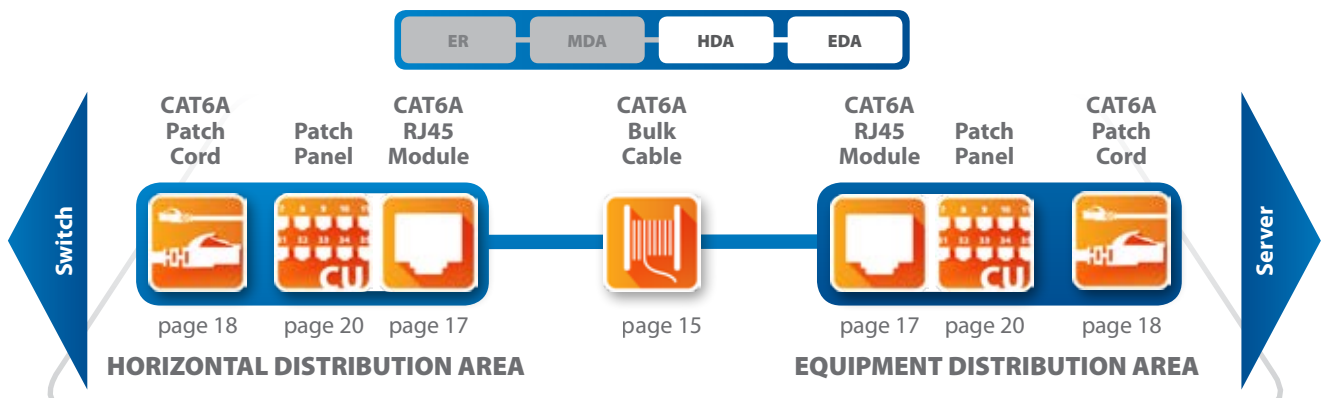
SAN Elements



HDA to EDA | MPO Distribution Module



HDA to EDA | Copper CAT6A





Section 1 – Bulk Copper Cables





UTP CABLES

CAT UTP 4-PAIR, 1000 FEET

■ Our range of Ethernet UTP Cables available in Standard Categories for data, video and voice applications.



Datasheet
PDS-0155



Datasheet
PDS-0155

CMP

CAT6A

CMR

CAT6A PLENUM

CAT6A RISER

6540-2P YY-L305

YY Color Choice

BL Blue ☒ **WH** White ☐

Other colors available upon request

6540-2R YY-L305

YY Color Choice

BL Blue ☒ **WH** White ☐

Other colors available upon request

Datasheet
PDS-0156



Datasheet
PDS-0156

CMP

CAT6

CMR

CAT6 PLENUM

CAT6 RISER

6040-2P YY-R305

YY Color Choice

BL Blue ☒ **WH** White ☐

Other colors available upon request

6040-2R YY-R305

YY Color Choice

BL Blue ☒ **WH** White ☐

Other colors available upon request

Datasheet
PDS-0157



Datasheet
PDS-0157

CMP

CAT5e

CMR

CAT5e PLENUM

CAT5e RISER

5540-1P YY-R305

YY Color Choice

BL Blue ☒ **WH** White ☐

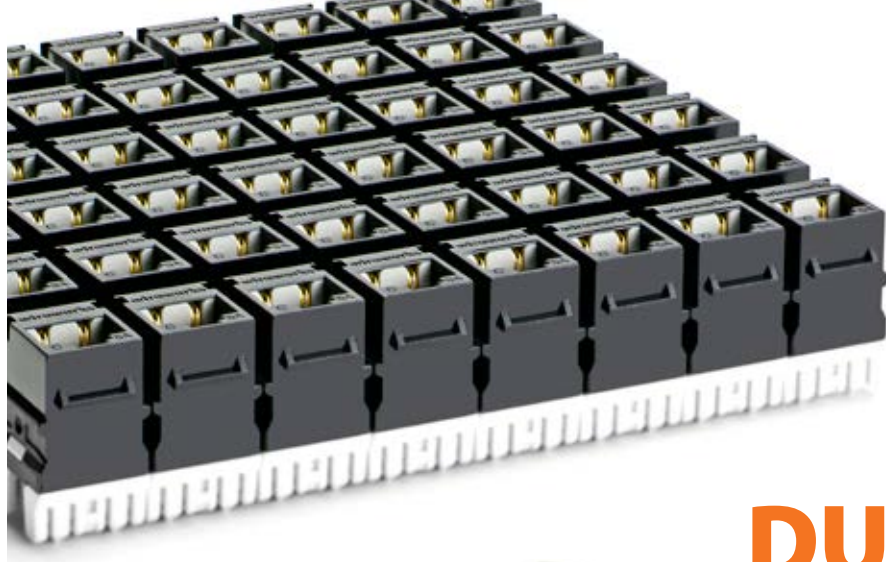
Other colors available upon request

5540-1R YY-R305

YY Color Choice

BL Blue ☒ **WH** White ☐

Other colors available upon request



Datasheet
PDS-0067

BLANK

Keystone Blank Inserts

Provided in bag of 10 units

- **KW-ZZZ-BLK-BK**
- **KW-ZZZ-BLK-WH**
- **KW-ZZZ-BLK-AL**



Datasheet
PDS-0048

DUSTCAPS

Keywerks Modules Dustcaps

KW-DUSTCAP- YY

RJ45 Keywerks dust caps (provided in bag of 50 units)

YY Color Choice

BL Blue	BK Black	WH White
YL Yellow	RD Red	GN Green
AL Almond	OG Orange	

Other colors available upon request

Datasheet
PDS-0168
PDS-0160

INLINE

Keywerks Inline Couplers (180°)

Keystone RJ45 female to female inline couplers.
Other colors available upon request for UTP only.

AA Performance

KW-C AA CFFBK

UTP	6A	CAT6A
	C6	CAT6
	5E	CAT5e

KW-C AA CFF

FTP	SA	CAT6A
	S6	CAT6
	S5	CAT5e



Datasheet
PDS-0045

CAT3

CAT3 Keywerks Modules – Voice

KW-CC3-45T- YY

CAT3 6P6C Keystone USOC, top termination

YY Color Choice

BL Blue	BK Black	WH White
YL Yellow	RD Red	GN Green
AL Almond		

Other colors available upon request



Datasheet
PDS-0165



IP67

Datasheet
PDS-0165



IP67 RJ45 Modules (Flange Mount)

RJ45 Module, IP67, UTP, flange mount

CAT6 → **IE-C6FM**

CAT5e → **IE-5EFM**



IP67 RJ45 Modules (Inline)

RJ45 Module, IP67, UTP, inline

CAT6 → **IE-C6IJ**

CAT5e → **IE-5EIJ**





KEYWERKS MODULES

Keystone Modules

■ Wide range of Ethernet Modules available in Standard Categories, Shielded and IP67 rated for data, video and voice applications.



Section 2 – Keywerks Modules

CAT6A

Datasheet
PDS-0153

Keywerks CAT6A Modules (Jacks)

KW-C6A-45B-YY

CAT RJ45 Keystone module, back termination T568A/B

YY Color Choice

BL Blue	BK Black	WH White
YL Yellow	RD Red	GN Green
AL Almond	OG Orange	

Other colors available upon request

CAT6

Datasheet
PDS-0108

Keywerks CAT6 Modules (Jacks)

KW-CC6-45B-YY

CAT RJ45 Keystone module, back termination T568A/B

YY Color Choice

BL Blue	BK Black	WH White
YL Yellow	RD Red	GN Green
AL Almond	OG Orange	

Other colors available upon request

CAT5e

Datasheet
PDS-0107

Keywerks CAT5E Modules (Jacks)

KW-C5E-45B-YY

CAT RJ45 Keystone module, back termination T568A/B

YY Color Choice

BL Blue	BK Black	WH White
YL Yellow	RD Red	GN Green
AL Almond	OG Orange	

Other colors available upon request

25 PACK

Bulk Keywerks Modules (25pcs/pack)

KW-C^{AA}-BULK-45B^{YY}

Bag of 25 RJ45 UTP Keystone modules.

AA Performance

6A	CAT6A
C6	CAT6
5E	CAT5e

YY Color Choice

BL	Blue
BK	Black
WH	White



FTP

FTP Keywerks Modules (Shielded Jacks)

Datasheet
PDS-0161
PDS-0162
PDS-0163

KW-C^{AA}-45B

CAT RJ45 FTP Keystone module, back termination, T568A/B

AA Performance

SA	CAT6A	S6	CAT6	S5	CAT5e
----	-------	----	------	----	-------



CAT6A

Datasheet
PDS-0154

CAT6A Patch Cords

CA40-6M YY-A NNN

CAT6A 4-Pair UTP 26 AWG stranded CMT568A/B

YY	Color Choice	NNN	Length
BL	Blue ●	002	2 Feet
BK	Black ●	004	4 Feet
WH	White ○	007	7 Feet
		010	10 Feet
		012	12 Feet
		015	15 Feet
		025	25 Feet

Other lengths and colors available upon request

Datasheet
PDS-0112

CAT6

CAT6 Patch Cords

CAT-06A YY- NNN

CAT6 4-Pair UTP 24 AWG stranded CM T568A/B

YY	Color Choice	NNN	Length
BL	Blue ●	001	1 Foot
BK	Black ●	002	2 Feet
WH	White ○	003	3 Feet
YL	Yellow ●	004	4 Feet
RD	Red ●	005	5 Feet
GY	Grey ●	006	6 Feet
GR	Green ●	007	7 Feet
PR	Purple ●		
OG	Orange ●		
		010	10 Feet
		012	12 Feet
		015	15 Feet
		020	20 Feet
		025	25 Feet
		050	50 Feet
		100	100 Feet

Datasheet
PDS-0111

CAT5e

CAT5e Patch Cords

CAT-5EA YY- NNN

CAT5e 4-Pair UTP 24 AWG stranded CM T568A/B

YY	Color Choice	NNN	Length
BL	Blue ●	001	1 Foot
BK	Black ●	002	2 Feet
WH	White ○	003	3 Feet
YL	Yellow ●	004	4 Feet
RD	Red ●	005	5 Feet
GY	Grey ●	006	6 Feet
GR	Green ●	007	7 Feet
PR	Purple ●		
OG	Orange ●		
		010	10 Feet
		012	12 Feet
		015	15 Feet
		020	20 Feet
		025	25 Feet
		050	50 Feet
		100	100 Feet

CROSS-OVERS

CAT6 Cross-overs

CAT-6 Z A YY- NNN

CAT6 4-Pair UTP 24 AWG stranded

Z Wiring

C Gigabit T568B **X** T568A to T568B

YY Color Choice

YL Yellow ● **RD** Red ●

NNN Length

001	1 Foot	005	5 Feet	010	10 Feet
003	3 Feet	007	7 Feet	015	15 Feet

CAT5e Cross-overs

CAT-5 Z A YY- NNN

CAT5e 4-Pair UTP 24 AWG stranded

Z Wiring

C Gigabit T568B **X** T568A to T568B

YY Color Choice

YL Yellow ● **RD** Red ●

NNN Length

001	1 Foot	005	5 Feet	010	10 Feet
003	3 Feet	007	7 Feet	015	15 Feet



PATCH CORDS

KEYWERKS CAT UTP 4-PAIR

- Wide range of Ethernet Patch Cords and Pigtails available in Standard Categories, Shielded and IP67 rated for data, video and voice applications.



PIGTAILS

CAT6 Pigtails (Grey)

C640-3RGY-C NNN

CAT6, 4-Pair UTP 23 AWG solid, CMR, T568A

NNN Length

015	15 Feet	035	35 Feet
025	25 Feet	050	50 Feet

Other lengths and colors available upon request

CAT5e Pigtails (Grey)

C540-1RGY-C NNN

CAT5e, 4-Pair UTP 24 AWG solid, CMR, T568A

NNN Length

015	15 Feet	035	35 Feet
025	25 Feet	050	50 Feet

Other lengths and colors available upon request

VOICE

Datasheet
PDS-0132

Voice Line Patch Cords

TMC-1AG- NNN

Telephone line cord RJ11 6P4C silver satin

NNN Length

002	2 Feet	006	6 Feet	007	7 Feet
012	12 Feet	014	14 Feet		

Other lengths and colors available upon request



Datasheet
PDS-0164

IP67

IP67 UTP Patch Cords

IE-C A 40-2HBK-AA- NNN

Industrial Ethernet Patch Cords, 4-Pair UTP

A Performance NNN Length

6	CAT6	003	3 Feet	010	10 Feet
5	CAT5e	005	5 Feet	015	15 Feet
		007	7 Feet	030	30 Feet

Other lengths available upon request



FTP

F/UTP Patch Cords (Shielded)

CAT6 → C641-6M YY -A NNN

CAT5e → C541-6M YY -A NNN

CAT6 and CAT5e, 4-Pair F/UTP 26 AWG stranded, T568A/B

YY Color Choice NNN Length

BL	Blue	002	2 Feet	012	12 Feet
BK	Black	003	3 Feet	015	15 Feet
WH	White	005	5 Feet	020	20 Feet
GY	Grey	007	7 Feet	025	25 Feet
		010	10 Feet		

Other lengths and colors available upon request

Datasheet
PDS-0176
PDS-0177





Part shown
WW001402



Part shown
WW001452



Part shown
WW001601

PATCH PANELS

FTP (Shielded)

Rack space	Ports	CAT6A	CAT6	CAT5e	Empty	Datasheet No.
0.5U HD	24	WW001685	WW001665	WW001655	WW001605	PDS-0171
1U Feedthrough	24	WW001687	WW001667	WW001657	—	PDS-0170
1U	24	WW001681	WW001661	WW001651	WW001601	PDS-0173
1U HD	48	WW001686	WW001666	WW001656	WW001606	PDS-0172
2U Feedthrough	48	WW001688	WW001668	WW001658	—	PDS-0170
2U	48	WW001682	WW001662	WW001652	WW001602	PDS-0174
2U Angled*	48	WW001684	WW001664	WW001654	WW001604	PDS-0175

110 Type

Rack space	Ports		CAT6	CAT5e		Datasheet No.
Wall Mount	12		WW000812	WW000802		PDS-0159
1U	24		WW000810	WW000800		PDS-0158
2U	48		WW000811	WW000801		PDS-0158

*2U angled only offered in Canada.



Part shown
WW000812



Part shown
WW000812

KEYWERKS PATCH PANELS

Keystone Patch Panels

Part shown
WW000830



■ Wide range of Keywerks Patch Panels.



PATCH PANELS

UTP (Unshielded)

Rack space	Ports	CAT6A	CAT6	CAT5e	Empty	Datasheet No.
Wall Mount	12	PRE LOADED WALL MOUNT AVAILABLE ON DEMAND			WW000830	PDS-0058
0.5U HD	24	WW001403	WW001402	WW001401	WW001400	PDS-0152
1U Feedthrough	24	WW000870	WW000850	WW000840	—	PDS-0169
1U	24	WW001500	WW000032	WW000022	WW000040	PDS-0109
1U HD	48	WW001453	WW001452	WW001451	WW001450	PDS-0151
2U Feedthrough	48	WW000871	WW000851	WW000841	—	PDS-0169
2U	48	WW001505	WW000037	WW000027	WW000041	PDS-0110
2U Angled*	48	WW001508	WW000038	WW000028	WW000043	PDS-0106

*2U angled only offered in Canada.



Part shown
WW000043

Part shown
WW000040



Part shown
WW000041



DECORA

Datasheet
PDS-0047

Decora Style Faceplates

FOOTPRINT	WHITE ●	ALMOND ●
Single gang	WW000240 ○	WW000250 ●
Double gang	WW000241 ○	WW000251 ●
Triple gang	WW000242 ○	WW000252 ●
Quad gang	WW000243 ○	WW000253 ●



Datasheet
PDS-0046

Decora Style Bezels

CAPACITY	WHITE ●	ALMOND ●
1 Port	WW000271 ○	WW000281 ●
2 Port	WW000272 ○	WW000282 ●
3 Port	WW000275 ○	WW000285 ●
4 Port	WW000273 ○	WW000283 ●
6 Port	WW000274 ○	WW000284 ●
Blank	WW000270 ○	WW000280 ●



SURFACE BOXES

Datasheet
PDS-0051

Keywerks Surface Mount Boxes

CAPACITY	WHITE ●	ALMOND ●
1 Port	WW000070 ○	WW000076 ●
2 Port	WW000071 ○	WW000077 ●
4 Port	WW000072 ○	WW000078 ●
6 Port	WW000073 ○	WW000079 ●



FURNITURE

Datasheet
PDS-0068

Keywerks Furniture Faceplates (Standard Depth)

CAPACITY	WHITE ●	ALMOND ●	BLACK ●
3 Port	WW000903-WH ○	WW000903-AL ●	WW000903-BK ●
4 Port	WW000904-WH ○	WW000904-AL ●	WW000904-BK ●



Datasheet
PDS-0167

Datasheet
PDS-0166

IP67

IP67 Faceplates

IE-120S-1	Single gang, 1 Port, Stainless Steel
IE-120S-2	Single gang, 2 Port, Stainless Steel
IE-120D-4	Double gang, 4 Port, Stainless Steel

IP67 Surface Mount Boxes

IE-670D-1	1 Port
IE-670D-2	2 Port
IE-670D-3	3 Port
IE-670D-4	4 Port

OUTLETS

Keywerks Faceplates and Boxes

- Wide range of Faceplates and Back Boxes offered in a choice of colors and stainless steel.



Keywerks Standard Faceplates

PORT + FOOTPRINT	WHITE ●	ALMOND ●
1 Port - Single gang	WW000054 ●	WW000055 ●
2 Port - Single gang	WW000044 ●	WW000049 ●
3 Port - Single gang	WW000056 ●	WW000057 ●
4 Port - Single gang	WW000045 ●	WW000050 ●
6 Port - Single gang	WW000046 ●	WW000051 ●
Blank - Single gang	WW000600 ●	WW000601 ●
6 Port - Double gang	WW000047 ●	WW000052 ●
8 Port - Double gang	WW000058 ●	WW000059 ●
12 Port - Double gang	WW000048 ●	WW000053 ●
Blank - Double gang	WW000610 ●	WW000611 ●

Datasheet
PDS-0040

Faceplates with ID Windows

PORT + FOOTPRINT	WHITE	ALMOND
1 Port - Single gang	WW000400 ●	WW000410 ●
2 Port - Single gang	WW000401 ●	WW000411 ●
3 Port - Single gang	WW000402 ●	WW000412 ●
4 Port - Single gang	WW000403 ●	WW000413 ●
6 Port - Single gang	WW000404 ●	WW000414 ●
6 Port - Double gang	WW000405 ●	WW000415 ●
12 Port - Double gang	WW000406 ●	WW000416 ●

Datasheet
PDS-0052

Stainless Steel Faceplates

PORT + FOOTPRINT	STAINLESS STEEL ●
1 Port - Single gang	WW000220 ●
2 Port - Single gang	WW000221 ●
4 Port - Single gang	WW000222 ●
6 Port - Single gang	WW000223 ●
4 Port - Double gang	WW000230 ●
6 Port - Double gang	WW000231 ●

Datasheet
PDS-0049

BACK BOXES

Surface Mount Back Boxes

FOOTPRINT	WHITE	ALMOND
Single gang	WW000110 ●	WW000111 ●
Double gang	WW000113 ●	WW000114 ●

Datasheet
PDS-0050



Section 5 – Outlets

Datasheet
PDS-0048



BNC 75

BNC Couplers 75Ω

Keystone BNC 75 Ohms connector

- **KW-CZZ-BNC-BK**
- **KW-CZZ-BNC-WH**
- **KW-CZZ-BNC-AL**

BNC 50

BNC Couplers 50Ω

Keystone BNC 50Ω with small footprint

- **KW-CZZ-BNS-BK**
- **KW-CZZ-BNS-WH**
- **KW-CZZ-BNS-AL**

F-3GHz

F Couplers 3 GHz

Keystone F connector coupler 3 GHz

- **KW-CZZ-FTC-BK**
- **KW-CZZ-FTC-WH**
- **KW-CZZ-FTC-AL**

RCA

RCA to F-Type Couplers

Datasheet
PDS-0048

KW-CZZ-RF X-YY RCA to F
KW-CZZ-RC X-YY RCA to RCA
Keystone RCA and RCA to F coupler

X Dielectric

- R** Red ●
- W** White ○
- B** Blue ●

- G** Green ●
- Y** Yellow ●

YY Color

- BK** Black ●
- WH** White ○
- AL** Almond ●



RCA to 110 IDC Couplers

Keystone RCA jack to 110 IDC coupler, white body

- Red dielectric **KW-RCA110 - R-WH**
- White dielectric **KW-RCA110 - W-WH**
- Yellow dielectric **KW-RCA110 - Y-WH**



Datasheet
PDS-0048

FIBER OPTIC

Keystone Fiber Optic Couplers



CAPACITY	WHITE	ALMOND	BLACK
LC Single Mode	KW-FS1-LCZ-WH ○	KW-FS1-LCZ-AL ●	KW-FS1-LCZ-BK ●
LC Single Mode APC	KW-FS2-LCZ-WH ○	KW-FS2-LCZ-AL ●	KW-FS2-LCZ-BK ●
LC Multimode	KW-FM1-LCZ-WH ○	KW-FM1-LCZ-AL ●	KW-FM1-LCZ-BK ●
LC Multimode OM3	KW-FM3-LCZ-WH ○	KW-FM3-LCZ-AL ●	KW-FM3-LCZ-BK ●
SC Single Mode	KW-FS1-SCZ-WH ○	KW-FS1-SCZ-AL ●	KW-FS1-SCZ-BK ●
SC Single Mode APC	KW-FS2-SCZ-WH ○	KW-FS2-SCZ-AL ●	KW-FS2-SCZ-BK ●
SC Multimode	KW-FM1-SCZ-WH ○	KW-FM1-SCZ-AL ●	KW-FM1-SCZ-BK ●
SC Multimode OM3	KW-FM3-SCZ-WH ○	KW-FM3-SCZ-AL ●	KW-FM3-SCZ-BK ●
ST Single Mode	KW-FS1-STZ-WH ○	KW-FS1-STZ-AL ●	KW-FS1-STZ-BK ●
ST Multimode	KW-FM1-STZ-WH ○	KW-FM1-STZ-AL ●	KW-FM1-STZ-BK ●

MULTIMEDIA

Couplers and Cables

- Wide range of Couplers and Adapters available in a variety of media interfaces for data, audio and video applications.



HDMI

HDMI Couplers

KW-CZZ-HDF-WH

Keystone HDMI module female to female, white

Datasheet
PDS-0053

HDMI Cables with Ethernet

Deep HD500 HDMI high-speed with Ethernet cable

3 feet	HD500-003	15 feet	HD500-015
6 feet	HD500-006	25 feet	HD500-025
10 feet	HD500-010	30 feet	HD500-030
12 feet	HD500-012	50 feet	HD500-050

Other lengths available upon request

Datasheet
PDS-0062

AUDIO

Speaker Binding Posts

Keystone speaker binding post module (pair)

- **KW-CZZ-BPM-BK**
- **KW-CZZ-BPM-WH**
- **KW-CZZ-BPM-AL**

Datasheet
PDS-0048

3.5mm Stereo Socket To Terminal Block Module

Keystone 3.5 mm stereo socket to terminal block coupler, white body

KW-35T-WH

See how useful the
FastPunch Tool™ is



FP TOOL

Keywerks FastPunch Tool

Datasheet
PDS-0057

FastPunch Tool (replacement blade included)

KW-FPTOOL

FastPunch Tool blade replacement kit
(provided in bag of 5 units)

KW-FPBLADE



TOOLS

Ethernet Manual Installation

- Selection of UTP cable termination Tools for Keystone CAT IDC Modules and 110-Type terminals.



110 TOOL

110-Type Punch Tool

110-Type Punch Tool
(replacement blade included)

WW000092

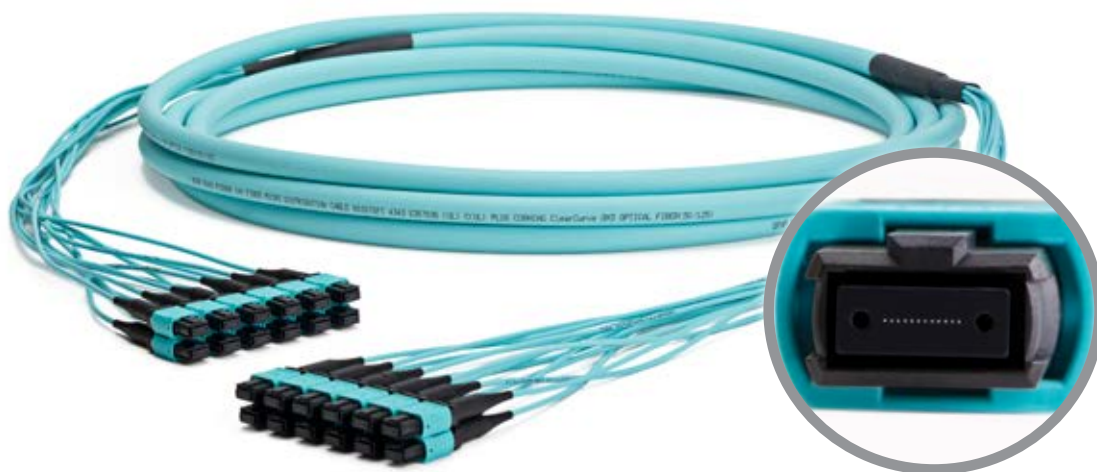


PALM TOOL

Palm Tool

Keywerks palm tool for jack termination
at 90 degree or 180 degree position

WW000091



FA - A B C D EE F GGG						
FIBER TYPE	CABLE TYPE	FIRE RATING	ARMOUR TYPE	FIBER COUNT	LEAD OD	LEAD LENGTH
1	D	P	N	02	9	XXN
Single Mode OS2	Distribution	OFNP	Non Armoured	2 fiber	900µm	Length in inches
2	B	R	B	04	2	XXM
Multimode 62.5/125µm OM1	Breakout	OFNR	BX Type	4 fiber	2 mm	Length in meters
3	L	O	L	06	3	ZZZ
Multimode 50/125µm OM2	Loose Tube	Outdoor	Light Armour	6 fiber	3 mm	Not Applicable
4	R	N	C	08	Z	
Multimode 50/125µm OM2	Ribbon	Indoor/Outdoor OFNP	Not Applicable	8 fiber	Not Applicable	
5	M	L		12		
Multimode 50/125µm OM3	Mini Distribution	Indoor/Outdoor OFNR		12 fiber		
6	C	C		18		
Multimode 50/125µm OM4	Unjacketed Distribution	Not Applicable		18 fiber		
E	Q			24		
Bend Insensitive Single Mode OS2	Unjacketed Ribbon			24 fiber		
B				36		
Bend Insensitive Multimode 50/125µm OM2				36 fiber		
C				48		
Bend Insensitive Multimode 50/125µm OM3				48 fiber		
D				72		
Bend Insensitive Multimode 50/125µm OM4				72 fiber		
				96		
				96 fiber		
				C4		
				144 fiber		



CABLE ASSEMBLIES

Fiber Optic

■ Build your Fiber Optic Cable Assembly:
Replace each letter with the required option.

FA - A B C D E E F G G G - H H I J J K L - N N N



Datasheet
PDS-0023

HH	I	JJ	K	L	-	NNN
CONNECTOR SIDE A*	POLISH SIDE A	CONNECTOR SIDE B*	POLISH SIDE B	PULLING EYE	LENGTH***	
LC	A	LC	A	0	Assembly length in meters	
LC	APC	LC	APC	None		
SC	B	SC	B	1	1 Pulling Eye	
SC	UPC	SC	UPC			
ST	C	ST	C	2	2 Pulling Eyes	
ST	PC (multimode)	ST	PC (multimode)			
FC		FC	D	3	Staggered with 1 Pulling Eye	
FC		FC	Not Applicable			
MT		MT		4	Staggered with 2 Pulling Eyes	
MTRJ female		MTRJ female				
MB		MB				
MTRJ male		MTRJ male				
MP**		MP**				
12 Fiber MPO Female Type A		12 Fiber MPO Female Type A				
MA**		MA**				
12 Fiber MPO Male Type A		12 Fiber MPO Male Type A				
PP		PP				
24 Fiber MPO Female Type A		24 Fiber MPO Female Type A				
PA		PA				
24 Fiber MPO Male Type A		24 Fiber MPO Male Type A				
		OE				
		Pigtail (no connector)				

Other options are available up to

Connectors

Fire Ratings

Polish

Cable Co

MPO Wir

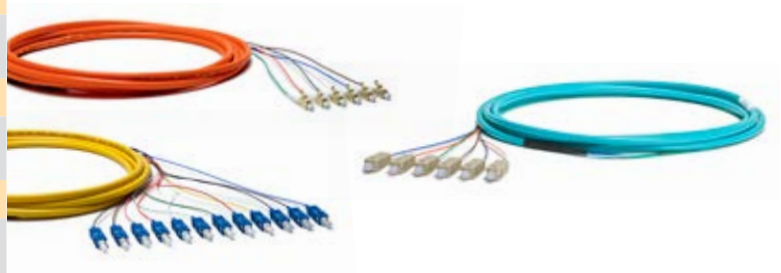
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■ Other options are available upon request

Connectors
Fire Ratings
Polish

Cable Constructions
MPO Wiring Schemes
Staggered Leads



* If more than one connector type, then place in alphabetical order, i.e. LC before SC, to avoid duplicate of part number creation for the same product. ** By default, cable assemblies with MPO connectors are manufactured with a Type A configuration. If an assembly is connectorized on both sides with an MPO connector, configuration types cannot be mixed. Examples: If a Type A is chosen on one end, the other end MUST also be of Type A configuration. *** If a decimal is required, add "D00" right after the non-decimal value and without leaving any space between. The "00" in "D00" must be replaced by the required value. Example: an assembly with an overall length of 105.55 meters shall read as 105D55.



NODE SERVICE CABLES

Fiber Optic



■ Build your Fiber Optic Node Service Cable Assembly:
Replace each letter with the required option.

WNC- A BB CC DD E FFF - NNNN

Datasheet
PDS-0011

WNC -	A	BB	CC	DD	E	FFF	-	NNNN
CABLE TYPE	LEAD TYPE	FIBER COUNT	CONNECTOR TYPE	POLISH	FIBER LEADS LENGTH	ASSEMBLY LENGTH		
A	9S	02	LC	A	Leads	Assembly		
Armoured Outdoor Loose Tube	900 µm Single Mode (TIA-598-C)	2 Fiber	LC	APC	Length in meters	Length in meters		
		04	SC	U				
		4 Fiber	SC	UPC				
B	2S	06	ST					
Armoured Outdoor Loose Tube Dry	2 mm Single Mode (Yellow)	6 Fiber	ST					
		08	FC					
		8 Fiber	FC					
N	3S	10						
Non-Armoured Outdoor Loose Tube	3 mm Single Mode (Yellow)	10 Fiber						
		12						
		12 Fiber						
O	28							
Non-Armoured Outdoor Loose Tube Dry	2mm Single Mode (TIA-598-C)							
	38							
	3 mm Single Mode (TIA-598-C)							

Part shown
WNC-N2S06SCA-001-NNNN



IP68 CABLE ASSEMBLIES

Fiber Optic

■ Build your IP68 Fiber Optic Cable Assembly:
Replace each letter with the required option.

IP - **A** **B** **CC** **D** **EE** **F** **G** - **NNN**



Datasheet
PDS-0185

IP - A B CC D EE F G -						
FIBER TYPE	CABLE TYPE	CONNECTOR SIDE A*	POLISH SIDE A	CONNECTOR SIDE B*	POLISH SIDE B	PULLING EYE
1	A	LC	A	LC	A	0
Single Mode OS2	1 fiber Outdoor tactical cable	LC	APC	LC	APC	None
2	B	SC	B	SC	B	1
Multimode 62.5/125µm OM1	2 fiber Outdoor tactical cable	SC	UPC	SC	UPC	1 Pulling eye
3	C	MP	C	MP	C	2
Multimode 50/125µm OM2	12 fiber Outdoor tactical cable	12F MPO Female Type A	PC (Multimode)	12F MPO Female Type A	PC (Multimode)	2 Pulling eyes
4	D	MA		MA	D	
Multimode 50/125µm OM3	ONFR 1 fiber Indoor/Outdoor	12F MPO Male Type A		12F MPO Male Type A	Not Applicable	
5	E	BP		BP		
Multimode 50/125µm OM4	ONFR 2 fiber Indoor/Outdoor	12F MPO Female Type B		12F MPO Female Type B		
	F	BA		BA		
		12F MPO Male Type B		12F MPO Male Type B		
		CP		CP		
		12F MPO Female Type C		12F MPO Female Type C		
		CA		CA		
		12F MPO Male Type C		12F MPO Male Type C		
		OE		OE		
		Pigtail (no connector)		Pigtail (no connector)		
						NNN
						LENGTH
						Assembly length in meters

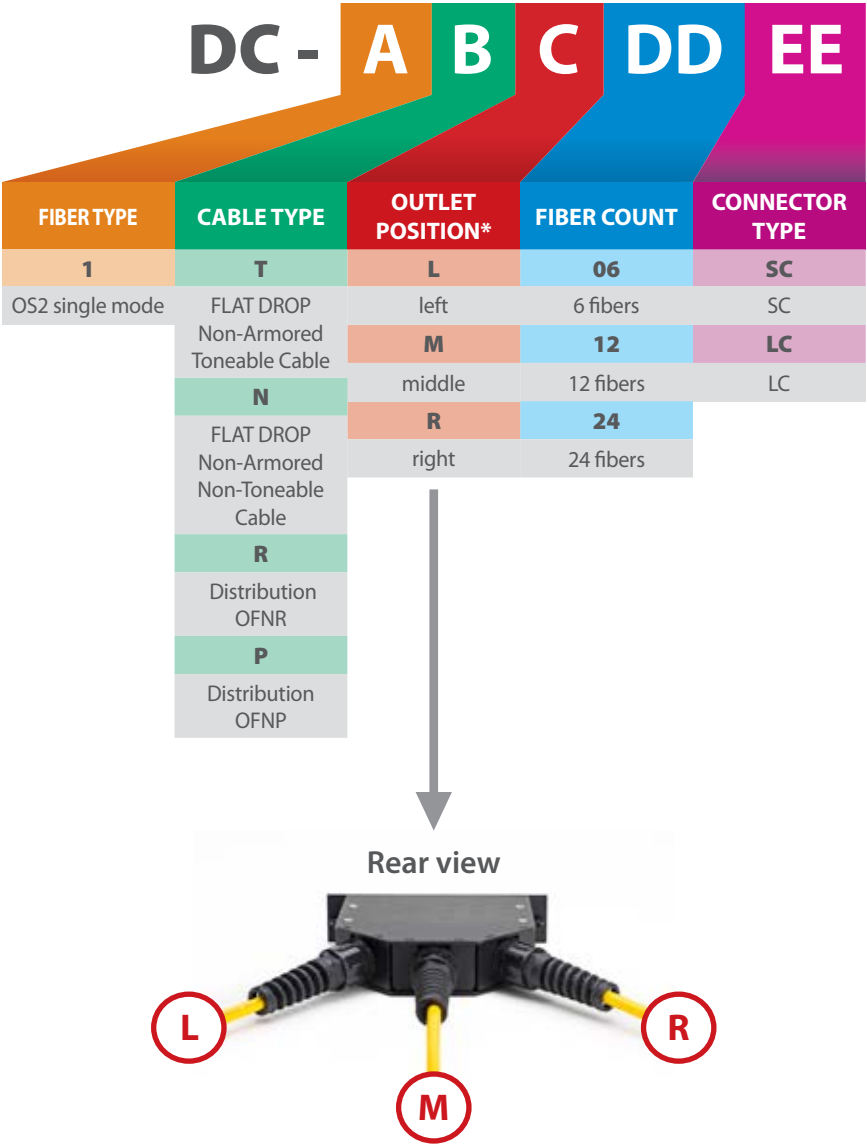


■ Different options are available upon request

- Connectors
- Fire Ratings
- Cable Constructions
- Polish
- MPO Wiring Schemes

* If more than one connector type, then place in alphabetical order, i.e. LC before SC, to avoid duplicate of part number creation for the same product. ** By default, cable assemblies with MPO connectors are manufactured with a Type A configuration. If an assembly is connectorized on both sides with an MPO connector, configuration types cannot be mixed. Examples: If a Type A is chosen on one end, the other end MUST also be of Type A configuration. *** If a decimal is required, add "D00" right after the non-decimal value and without leaving any space between. The "00" in "D00" must be replaced by the required value. Example: an assembly with an overall length of 105.55 meters shall read as 105D55.





NEW

DROP CASSETTE

Fiber Optic

■ Build your Drop Cassette:
Replace each letter with the desired attribute.

DC - **A** **B** **C** **D** **E** **F** **G** - **NNN** **U**



Datasheet
PDS-0130

F G - NNN U			
POLISH	ACCESSORY	ASSEMBLY LENGTH	LENGTH UNIT
A	0	001	M
APC	none	1 unit	meters
U	1		F
UPC	1 pulling eye		feet

EXAMPLE:

DC - 1TM06SCU0-003M

FODCA, SM OS2, 6 fiber flat drop non-armored toneable, SC/UPC,
3m, middle position outlet



LC

■ Build your Fiber Optic LC Mating Sleeve Adapter:
Replace each letter with the required option.

MS-LC **A** **BB**

MS - LC **A** **BB**

SLEEVE	BODY TYPE – SINGLE MODE		
1	SS	SF	SQ
Zirconia Ceramic	Simplex Blue	Duplex Flanged Blue	Quad Flanged Blue
2	AS	AF	AQ
Phosphor Bronze	APC Simplex Green	APC duplex Flanged Green	APC Quad Flanged Green
BODY TYPE – MULTIMODE			
	MS	MF	MQ
	Simplex Beige	Duplex Flanged Beige	Quad Flanged Beige
	3S	3F	3Q
	OM3/OM4 Simplex Aqua	OM3/OM4 Duplex Flanged Aqua	OM3/OM4 Quad Flanged Aqua

SC

■ Build your Fiber Optic SC Mating Sleeve Adapter:
Replace each letter with the required option.

MS-SC **A** **BB** **C** **D**

MS - SC **A** **BB** **C** **D**

SLEEVE	BODY TYPE – SINGLE MODE		HOUSING	DESIGN
1	SS	SD	P	0
Zirconia Ceramic	Simplex Blue	Duplex SC footprint Blue	Thermoplastic	No Flange
2	AS	AD	M	1
Phosphor Bronze	APC Simplex Green	APC Duplex SC footprint Green	Metal	Flanged
BODY TYPE – MULTIMODE				
	MS	MD		
	Simplex Beige	Duplex Beige		
	3S	3D		
	OM3/OM4 Simplex Aqua	OM3/OM4 Duplex Aqua		

MATING SLEEVE ADAPTERS

Fiber Optic

- Build your Fiber Optic Mating Sleeve Adapter: Replace each letter with the required option.

MS-FC **A** **BB** **C**



Datasheet
PDS-0130

FC

MS - FC		
SLEEVE	DESIGN	HOUSING
1	SB	1
Zirconia Ceramic	Square Solid Body	Single Mode
2	TP	2
Phosphor Bronze	Square 2-piece Body	Multimode
	DS	3
	D Shape	APC (Single Mode)

MPO

- Build your Fiber Optic MPO Mating Sleeve Adapter: Replace each letter with the required option.

MS - MP	
A	
DESIGN	
O	Flanged
N	No flanged

MTRJ

- Build your Fiber Optic MTRJ Mating Sleeve Adapter: Replace each letter with the required option.

MS - MT	
AA	
DESIGN	
RJ	SC footprint Flanged
RS	Standard footprint Flanged



LC single mode
simplex
MS-LC1SS



LC APC single mode
simplex
MS-LC1AS



LC multimode
simplex
MS-LC2MS



LC OM3/OM4 multimode
simplex
MS-LC13S



LC single mode duplex
with SC foot print flanged
MS-LC1SF



LC APC single mode duplex
with SC foot print flanged
MS-LC1AF



LC multimode duplex
with SC footprint flanged
MS-LC2MF



LC OM3/OM4 multimode
duplex
with SC foot print flanged
MS-LC13F



LC single mode quad
with SC foot print flanged
MS-LC1SQ



LC APC single mode quad
with SC foot print flanged
MS-LC1AQ



LC multimode quad
with SC foot print flanged
MS-LC2MQ



LC OM3/OM4 multimode quad
with SC foot print flanged
MS-LC13Q



SC single mode simplex
flanged
MS-SC1SSP1



SC APC single mode simplex
flanged
MS-SC1ASP1



SC multimode simplex
flanged
MS-SC2MSP1



SC OM3/OM4 multimode
simplex flanged
MS-SC13SP1



SC single mode duplex
flanged
MS-SC1SDP1



SC APC single mode duplex
flanged
MS-SC1ADP1



SC multimode duplex
flanged
MS-SC2MDP1



SC OM3/OM4 multimode
duplex flanged
MS-SC13DP1



ST simplex adapter
KW-FNN-STZ-BK



LC duplex adapter
KW-FM3-LCZ-BK



SC simplex adapter
KW-FM3-SCZ-BK



Square
2-piece body
MS-FC2TP2



Square
2-piece body
MS-FC1TP1

MATING SLEEVE ADAPTERS

(Continued) Fiber Optic

■ Build your Fiber Optic Mating Sleeve Adapter:
Replace each letter with the required option.

MS-ST ABB C



Datasheet
PDS-0130

MS - ST

A

BB

C

SLEEVE	PERFORMANCE & CONFIGURATION		HOUSING
1	SS	SD	P
Zirconia Ceramic	Single Mode Simplex	Single Mode Duplex	Thermoplastic
2	MS	MD	M
Phosphor Bronze	Multimode Simplex	Multimode Duplex	Metal



FC single mode
D-shape
MS-FC1DS1



FC single mode
square solid body
MS-FC1SB1



ST multimode
simplex
MS-ST2MSM



ST single mode
simplex
MS-ST1SSM



FC APC single mode
D-shape
MS-FC1DS3



FC APC single mode
square solid body
MS-FC1SB3



ST multimode
duplex
MS-ST2MDP



ST single mode
duplex
MS-ST1SDP



FC multimode
D-shape
MS-FC2DS2



FC multimode
square solid body
MS-FC2SB2



MTRJ single mode/multimode
with SC footprint
MS-MTRJ



MPO single mode/multimode
flanged
MS-MPO





SC male to ST female
single mode simplex
HA-11-SCMSTFS-P



SC male to ST female
multimode simplex
HA-22-SCMSTFS-P



SC male to FC female
single mode simplex
HA-11-SCMFCFS-P



FC male to FC female APC
single mode simplex
HA-13-FCMFCFS-M



LC male to LC female
single mode simplex
HA-11-LCMLCFS-P



LC female to SC female
single mode simplex
HA-11-LCFSCFS-P



ST male to SC female
single mode simplex
HA-11-STMSCFS-M



SC male to SC female
single mode simplex
HA-11-SCMSCFS-M



LC male to LC female
APC single mode simplex
HA-13-LCMLCFS-P



LC female to SC female
APC single mode simplex
HA-13-LCFSCFS-P



ST male to SC female
multimode simplex
HA-22-STMSCFS-M



SC male to SC female
APC single mode simplex
HA-13-SCMSCFS-M



LC male to LC female
multimode simplex
HA-22-LCMLCFS-P



LC female to SC female
multimode simplex
HA-22-LCFSCFS-P



FC male to SC female
single mode simplex
HA-11-FCMSCFS-M



SC male to SC female
multimode simplex
HA-22-SCMSCFS-M



SC female to ST female
single mode simplex
HA-11-SCFSTFS-P



SC female to ST female
single mode simplex metal body
HA-11-SCFSTFS-M



SC female to ST female
multimode simplex
HA-22-SCFSTFS-P



SC female to ST female
multimode simplex metal body
HA-22-SCFSTFS-M



SC female to ST female
single mode duplex
HA-11-SCFSTFD-P



SC female to ST female
single mode duplex metal body
HA-11-SCFSTFD-M



SC female to ST female
multimode duplex
HA-22-SCFSTFD-P



SC female to ST female
multimode duplex metal body
HA-22-SCFSTFD-M



HYBRID ADAPTERS

Fiber Optic

■ Build your Fiber Optic Hybrid Adapter:
Replace each letter with the required option.

HA - **A** **B** **CCC** **DDD** **E** **F**



Datasheet
PDS-0128

Section 9 – Adapters



and Attenuators

HA - A B CCC DDD E F					
SLEEVE	PERFORMANCE	INTERFACE 1	INTERFACE 2	CONFIGURATION	HOUSING
1	1	SCM	SCF	S	P
Zirconia Ceramic	Single Mode	SC Male	SC Female	Simplex	Thermoplastic
2	2	SCF	STF	D	M
Phosphor Bronze	Multimode	SC Female	ST Female	Duplex	Metal
	3	STM	FCF		
	APC	ST Male	FC Female		
	Single Mode	STF	LCF		
		ST Female	LC Female		
		FCM			
		FC Male			
		FCF			
		FC Female			
		LCM			
		LC Male			
		LCF			
		LC Female			



FC male to ST female
single mode simplex
HA-11-FCMSTFS-M



FC female to SC female
multimode simplex
HA-22-FCFSCFS-M



ST male to ST female
multimode simplex
HA-22-STMSTFS-M



ST female to FC female
single mode simplex
HA-11-STFFCFS-M



ST male to ST female
single mode simplex
HA-11-STMSTFS-M



FC female to SC female
single mode simplex
HA-11-FCFSCFS-M



FC male to FC female
single mode simplex
HA-11-FCMFCFS-M

IP68 RECEPTACLES

Fiber Optic



■ Part Numbers and options

Datasheet
PDS-0184



Part shown
IP-F1LCF-1

LC

LC Connector, inline coupler style

IP-F1LCI-1	Single Mode, blue
IP-F2LCI-1	Multimode OM1/OM2, beige
IP-F4LCI-1	Multimode OM3/OM4, aqua

LC Connector, flange-mount style

IP-F1LCF-1	Single Mode, blue
IP-F2LCF-1	Multimode OM1/OM2, beige
IP-F4LCF-1	Multimode OM3/OM4, aqua

MPO

MPO connector

IP-MPOI-1	Black, inline coupler style
IP-MPOF-1	Black, flange-mount style

SC

SC Connector, inline coupler style

IP-FUSCI-1	Universal, black
-------------------	------------------

SC Connector, flange-mount style

IP-FUSCF-1	Universal, black
-------------------	------------------



ATTENUATORS

Fiber Optic

■ Build your Attenuator:
Replace each letter with the required option.

WFA - **A** **B** **CC** **D** **E** - **NN**



Datasheet
PDS-0129

WFA - **A** **B** **CC** **D** **E** - **NN**

ATTENUATOR TYPE	FIBER TYPE	INTERFACE TYPE	INTERFACE POLISH	WAVELENGTH	ATTENUATION	
A	1	LC	1	A	01	08
Optical Pad attenuator (male to female)	Single mode	LC	APC	Dual 1310/1550 nm (Single mode)	1 dB	8 dB
B	2	SC	2	B	02	09
	62.5/125µm Multimode OM1	SC	UPC	1300 nm (Multimode)	2 dB	9 dB
	3	ST	3	C	03	10
Bulkhead attenuator (female to female)	50/125µm Multimode OM2	ST	PC (multimode)	1300 nm (Multimode)	3 dB	10 dB
		FC		C	04	15
		FC		850 nm (Multimode)	4 dB	15 dB
					05	20
					5 dB	20 dB
					06	25
					6 dB	25 dB
					07	30
					7 dB	30 dB

■ Multimode performance and other attenuation values available upon request.

LC male to LC female
UPC single mode
WFA-A1LC2A-**NN**

SC male to SC female
UPC single mode
WFA-A1SC2A-**NN**

FC male to FC female
UPC single mode
WFA-A1FC2A-**NN**

LC male to LC female
APC single mode
WFA-A1LC1A-**NN**

SC male to SC female
APC single mode
WFA-A1SC1A-**NN**

FC male to FC female
APC single mode
WFA-A1FC1A-**NN**

LGX DISTRIBUTION MODULES (CASSETTES)

Fiber Optic



■ Build your LGX Distribution Module:
Replace each letter with the required option.

DM- A B CC D EE

Datasheet
PDS-0034

DM - A B CC D EE

FIBER TYPE	BACK INTERFACE	FRONT INTERFACE	POLISH	FIBER COUNT
1	M	SC	A	06
Single Mode OS2	MPO Male	SC	APC	06
2		ST	B	12
Multimode 62.5/125µm OM1		ST	UPC	12
3		LC	C	24
Multimode 50/125µm OM2		LC	PC (Multimode)	24 (2 x 12)
4		FC		
Multimode 50/125µm OM3		FC		
5				
Multimode 50/125µm OM4				

Part shown
DM-4MLCC24



Rear view



Part shown
DM-1MSCA12



LGX MPO 24 FIBER MODULES

■ MPO Interface 24F LC Quad, Single port

DM-1LCBCS Single mode **OS2**, 24 fiber
DM-4LCCCS Multimode **OM3**, 24 fiber
DM-5LCCCS Multimode **OM4**, 24 fiber

LGX ADAPTER STRIPS

Fiber Optic

■ Build your LGX Adapter Strips:
Replace each letter with the required option.

AS - W **B** **CC** **D**



Datasheet
PDS-0027

AS - W **B** **CC** **D**

ADAPTER TYPE	FIBER COUNT	PERFORMANCE
L	06	M
LC	6 Fiber	62.5/125 and 50/125 μ m Multimode phosphor bronze sleeve, beige
C	12	G
SC	12 Fiber	50/125 μ m OM3/OM4 Multimode zirconia ceramic sleeve, aqua
R	24	S
MTRJ	24 Fiber	UPC Single mode zirconia ceramic sleeve, blue
T	96	A
ST	96 Fiber	APC Single mode zirconia ceramic sleeve, green
F		Leave D blank for MPO
FC		
M		
MPO		



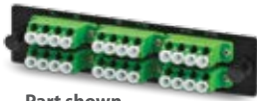
Part shown
AS-WC06M



Part shown
AS-WL12G



Part shown
AS-WT06S



Part shown
AS-WL24A



Part shown
AS-WM96

Empty LGX Adapter Strips

AS-W0000 Blank adapter strip LGX

AS-KW006 Keywerks empty adapter strip, 6 Port



Part shown
AS-W0000



Part shown
AS-KW0006

NEXT STEP™ PATCH MODULES

Fiber Optic



NS - PM - W **B** **CC** **D**

Datasheet
PDS-0192

NEW



Part shown
NS-PM-WL12G

NS - PM - W **B** **CC** **D**

CONNECTOR	NUMBER OF CONNECTORS	CORE SIZE
L	06	M
LC	6 connectors	OM1/OM2 MM, Beige, Phosphor Bronze
C	12	G
SC	12 connectors	OM3/OM4 MM, Aqua, Zirconia Ceramic
		S
		Single Mode, UPC, Blue, Zirconia Ceramic
		A
		Single Mode, APC, Green, Zirconia Ceramic

NEXT STEP™ DISTRIBUTION MODULES

NEW

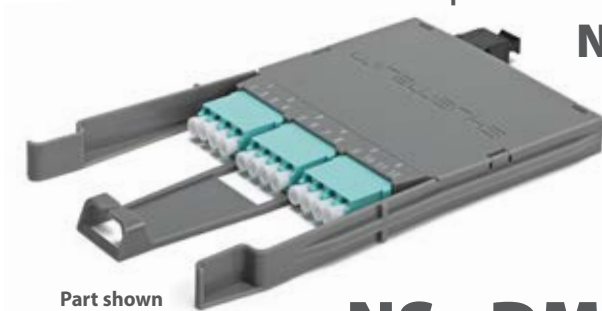
Fiber Optic

■ Build your Next Step™ Distribution Module:
Replace each letter with the desired attribute.

NS - DM - **A****B****CC****D****EE**



Datasheet
PDS-0191



Part shown
NS-DM-4MLCC12

NS - DM - **A****B****CC****D****EE**

CORE SIZE	MPO CONNECTOR	FRONT CONNECTOR	POLISH	NUMBER OF FIBERS
1	F	LC	A	12
Single Mode OS2, 9/125µm	Female	LC	APC	12 fibers
2	M		B	
Multimode OM1, 62.5/125µm	Male		UPC	
3			C	
Multimode OM2, 50/125µm			PC	
4				
Multimode OM3, 50/125µm				
5				
Multimode OM4, 50/125µm				

NEXT STEP™ MPO ADAPTER STRIP

NEW

Fiber Optic

■ Next Step™ MPO
Adapter Strip



Datasheet
PDS-0190



NS-AS-WM 48

Next Step™ 4 Port MPO Adapter Strip

HOW IT'S DONE



Watch a demonstration on how to use Field Terminable Connectors and Cleaver Kit on YouTube

Find more information in the Fiber Optic Tool section



Datasheet
PDS-0183

Part shown
FT-CLV01



Part shown
FT-ALCMM10G



Part shown
FT-ASCSMAPC



Part shown
FT-LCJIG



Part shown
FT-SCJIG with FT-ASCMM10G



FIELD TERMINABLE CONNECTORS

Fiber Optic

■ Field Terminable Connectors
Part Numbers and options.



LC

LC Field Connectors

Datasheet
PDS-0179

FT-ALCSM	Single Mode, 900µm boot
FT-ALCMM	Multimode OM1, 900µm boot
FT-ALCMM50	Multimode OM2, 900µm boot
FT-ALCMM10G	Multimode OM3/OM4, 900µm boot



SC

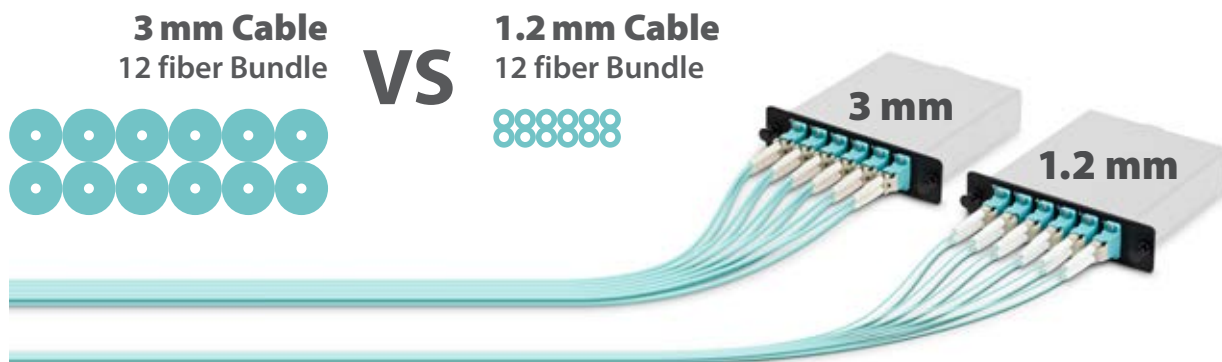
SC Field Connectors

Datasheet
PDS-0178

FT-ASCSM	Single Mode, 900µm boot
FT-ASCSMAPC	SC/APC, 900µm boot
FT-ASCMM	Multimode OM1, 900µm boot
FT-ASCMM50	Multimode OM2, 900µm boot
FT-ASCMM10G	Multimode OM3/OM4, 900µm boot



Use 1.2 mm Cable Type to save space



PC - A B CC

FIBER TYPE	CABLE TYPE		CONNECTOR SIDE A*	
1	A	K	LC	ES
Single Mode OS2	2 Fiber Zip 3 mm OFNR	1 Fiber Tight Buffer 900 µm	LC Metal Body	ESCON
2	B	L	LP	FD
62.5/125 µm Multimode OM1	2 Fiber Zip 3 mm OFNP	1 Fiber Coated 250 µm	LC Plastic Body	FDDI
3	C	M	SC	D4
50/125 µm Multimode OM2	1 Fiber 3 mm OFNR	1 Fiber 1.6mm OFNR	SC	D4
4	D	N	ST	MU
50/125 µm Multimode OM3	1 Fiber 3 mm OFNP	1 Fiber 1.6mm OFNP	ST	MU
5	E	P	FC	LU
50/125 µm Multimode OM4	2 Fiber Zip 2 mm OFNR	2 Fiber Zip 1.6mm OFNR	FC	LC Uniboot
B	F	Q	MT	LF
50/125 µm Multimode OM2 Bend Insensitive	2 Fiber Zip 2 mm OFNP	2 Fiber Zip 1.6mm OFNP	MTRJ Female	LC Flexible boot
C	G	T	MB	LS
50/125 µm Multimode OM3 Bend Insensitive	1 Fiber 2 mm OFNR	2 Fiber Round 3 mm OFNR	MTRJ Male	LC Short boot
D	H	U	S5	LM
50/125 µm Multimode OM4 Bend Insensitive	1 Fiber 2 mm OFNP	2 Fiber Round 3 mm OFNP	SMA905	Mini LC
E	I	5	S6	SF
Single Mode OS2 Bend Insensitive yellow Jacket	2 Fiber Zip 1.8 mm OFNR	1 Fiber 1.2 mm OFNR	SMA906	SC Flexible boot
H	J	7	E2	SS
Single Mode OS2 Bend Insensitive dark blue Jacket	2 Fiber Zip 1.8 mm OFNP	2 Fiber 1.2 mm OFNR	E2000	SC Short boot

PATCH CORDS AND PIGTAILS

Fiber Optic

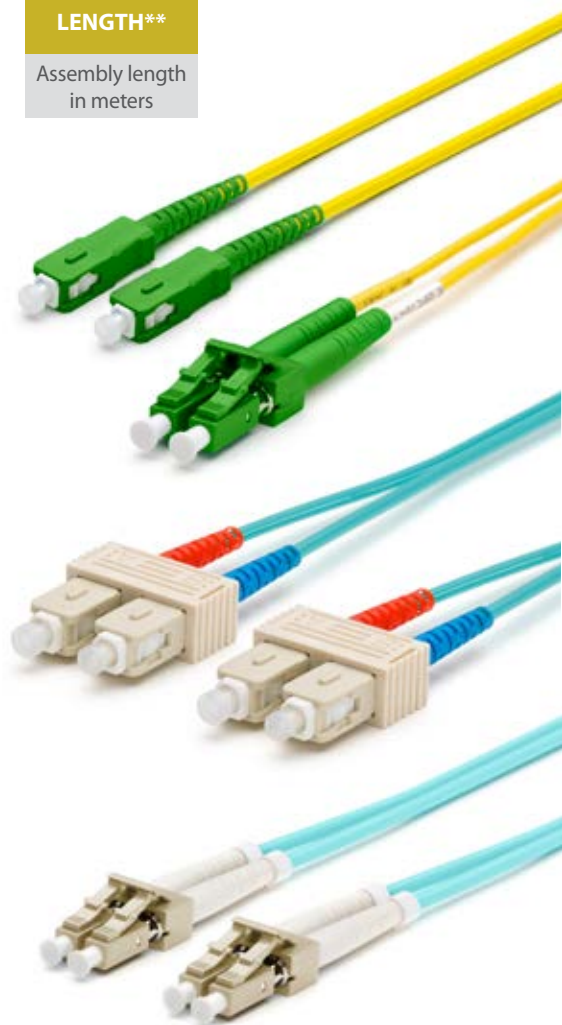
■ Build your Fiber Optic Patch Cord:
Replace each letter with the required option.

PC - **A****B****CC****D****EE****F** - **NNN**

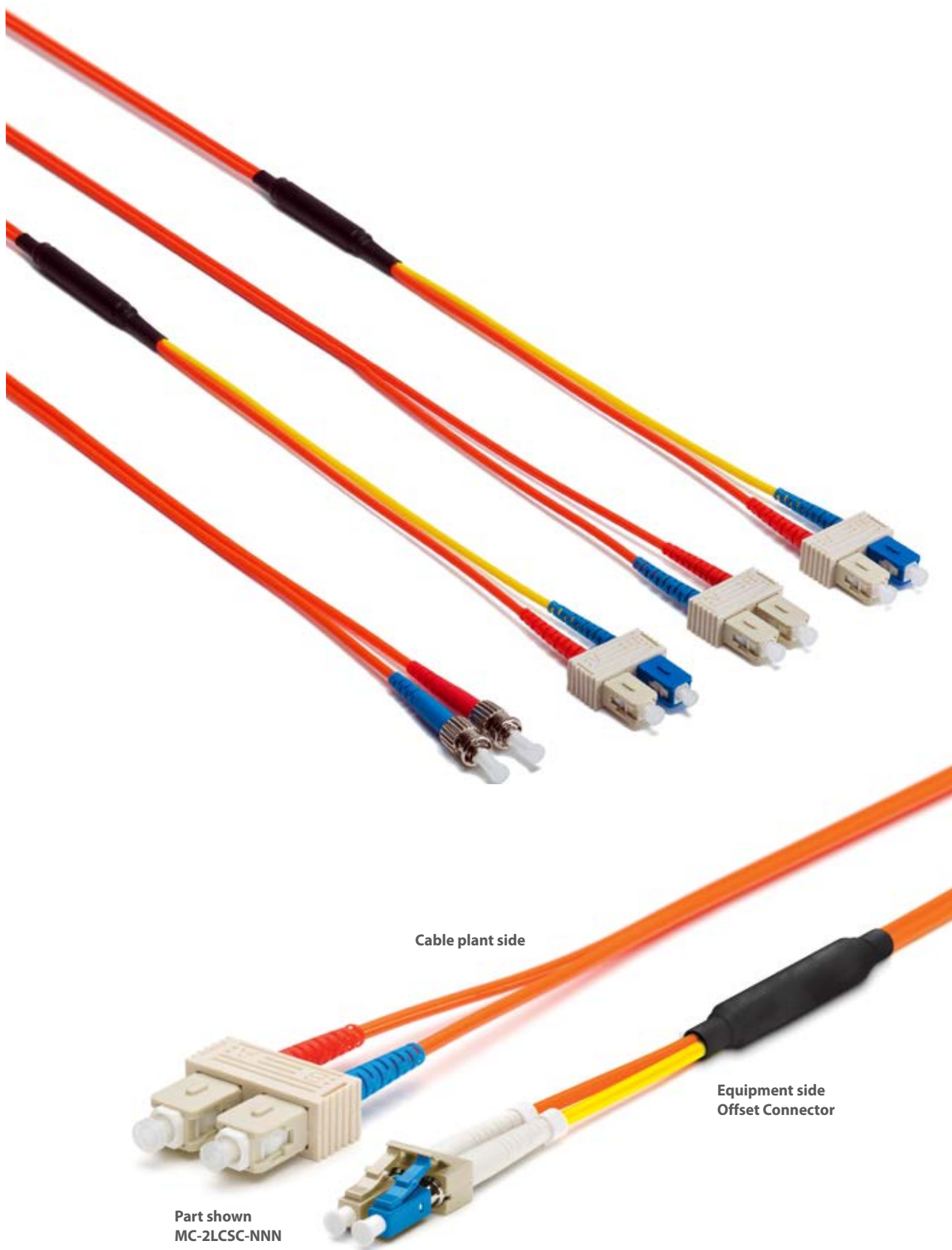


Datasheet
PDS-0022

D EE F - NNN				LENGTH**
POLISH SIDE A	CONNECTOR SIDE B*		POLISH SIDE B	
A	LC	FD	A	Assembly length in meters
APC	LC Metal Body	FDDI	APC	
B	LP	D4	B	
UPC	LC Plastic Body	D4	UPC	
C	SC	MU	C	
PC (multimode)	SC	MU	PC (Multimode)	
	ST	LU	D	
	ST	LC Uniboot	Not Applicable	
	FC	LF		
	FC	LC Flexible boot		
	MT	LS		
	MTRJ Female	LC Short boot		
	MB	LM		
	MTRJ Male	Mini LC		
	S5	SF		
	SMA905	SC Flexible boot		
	S6	SS		
	SMA906	SC Short boot		
	E2	OE		
	E2000	Pigtail (no connector)		
	ES			
	ESCON			



* If more than one connector type, then place in alphabetical order, i.e. LC before SC, to avoid duplicate of part number creation for the same product.
** If a decimal is required, add "D00" right after the non-decimal value and without leaving any space between. The "00" in "D00" must be replaced by the required value.
Example: a patch cord with an overall length of 105.55 meters shall read as 105D55.



MODE CONDITIONING PATCH CORDS

Fiber Optic

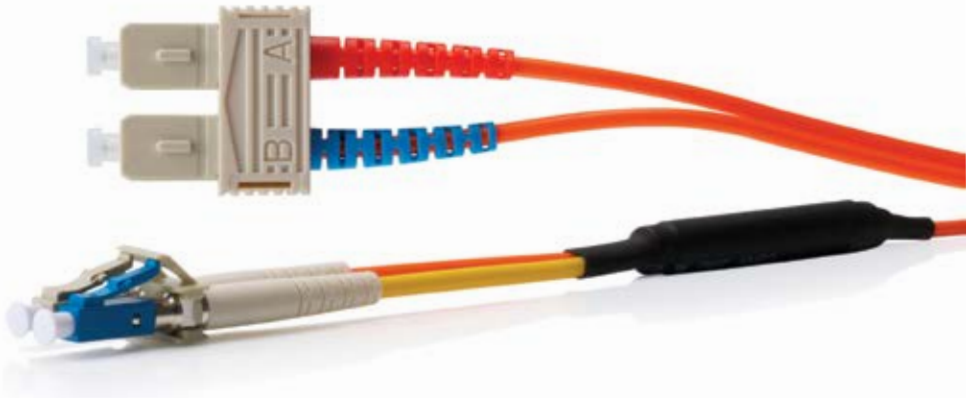
■ Build your Fiber Optic Mode Conditioning Patch Cord:
Replace each letter with the required option.

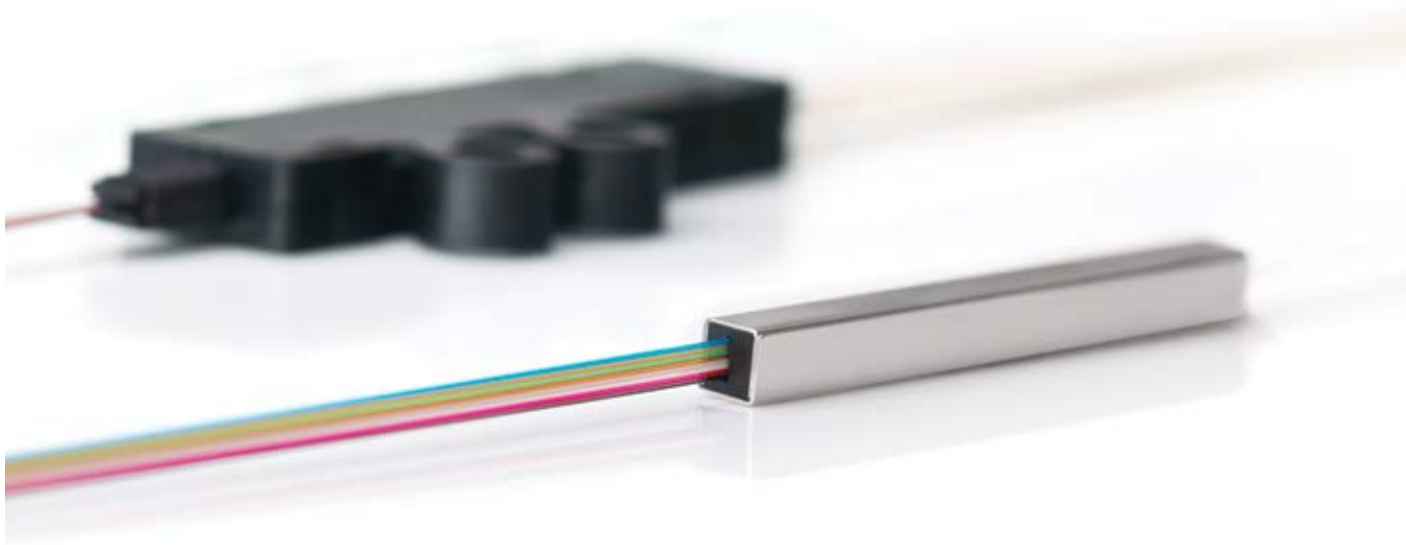
MC - A BB CC - NNN



Datasheet
PDS-0029

MC -		A	BB	CC	-	NNN
FIBER TYPE	OFFSET CONNECTOR TYPE	CONNECTOR TYPE		LENGTH		
2	LC	LC		Length in meters		
62.5/125 µm Multimode OM1	LC	LC				
	ST	ST				
3	ST	ST				
	SC	SC				
	SC	SC				
	FC	FC				
		FC				
		MT				
		MTRJ				





SP2 -

A

B

CCC

D

EEE

CONFIGURATION	INPUT FIBER TYPE	INPUT FIBER LENGTH	OUTPUT FIBER TYPE	OUTPUT FIBER LENGTH
C	1	0D5	2	0D5
1 x 4	250 µm loose tube	0.5 meter	2 mm jacket	0.5 meter
D	2	001	3	001
1 x 8	2 mm jacket	1 meter	3 mm jacket	1 meter
E	3	1D5	4	1D5
1 x 16	3 mm jacket	1.5 meter	250 µm ribbon	1.5 meter
F	4	002	9	002
1 x 32	250 µm ribbon	2 meter	900 µm buffer	2 meter
J	9			FN1
2 x 4				0.5 m (250 µm ribbon) + 0.5 m (900 µm fanout)
K	900 µm buffer			FN2
2 x 8				0.5 m (250 µm ribbon) + 1 m (900 µm fanout)
L				FN3
2 x 16				1 m (250 µm ribbon) + 0.5 m (900 µm fanout)
M				FN4
2 x 32				1 m (250 µm ribbon) + 1 m (900 µm fanout)

PLC SPLITTERS

Fiber Optic

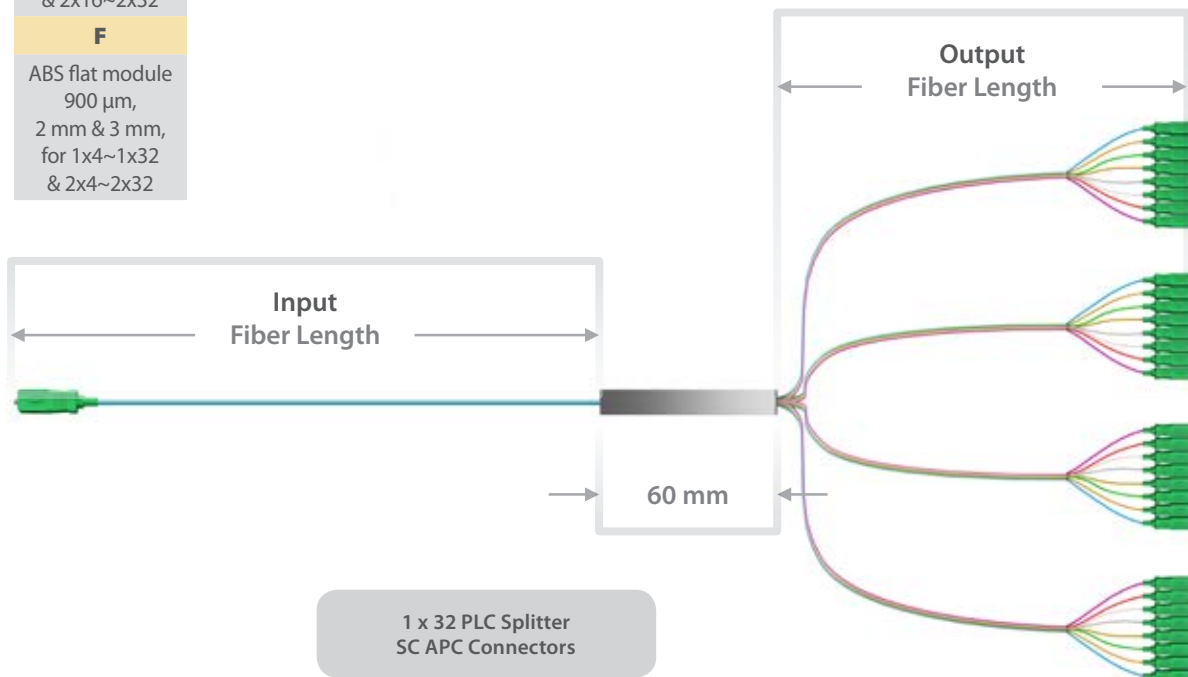
■ Planar Lightwave Circuit (PLC)
Optical Splitters

SP2- **A B CCC D EEE F GG H II J**



Datasheet
PDS-0094

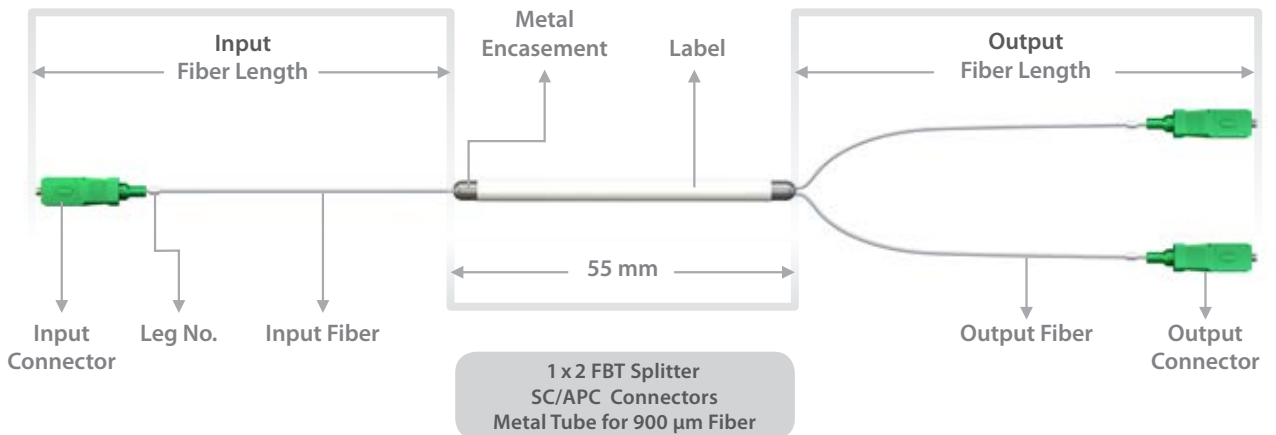
	F	GG	H	II	J
	PACKAGE	INPUT CONNECTOR	INPUT POLISH	OUTPUT CONNECTOR	OUTPUT POLISH
	D	SC	A	SC	A
	Mini steel module 250 μm ribbon, for 1x4~1x8 & 2x4~2x8	SC	APC single mode	SC	APC single mode
		LC	B	LC	B
		LC	UPC single mode	LC	UPC single mode
		OE	D	OE	D
		No connector	No polish	No connector	No polish
	E				
	Mini steel module 250 μm ribbon, for 1x16~1x32 & 2x16~2x32				
	F				
	ABS flat module 900 μm, 2 mm & 3 mm, for 1x4~1x32 & 2x4~2x32				





SP1 - A BB C D E FFF G

CONFIGURATION	COUPLING RATIO	WAVELENGTH	FIBER PERFORMANCE	INPUT FIBER TYPE	INPUT FIBER LENGTH	OUTPUT FIBER TYPE
A	01	1	1	1	0D5	1
1 x 2	1 / 99	1310 nm (single window)	Single mode OS2	250 µm	0.5 meter	250 µm
H	02	2		2	001	2
	2 / 98	1550 nm (single window)		2 mm	1 meter	2 mm
	03	3		3	1D5	3
	3 / 97	1310/1550 nm (dual window)		3 mm	1.5 meter	3 mm
	04	4		9	002	9
	4 / 96	1310/1490/1550 nm (triple window)		900 µm	2 meter	900 µm
	UP	50				
	Up To					
	50 / 50					
	EV					
	Even					



FBT SPLITTERS

Fiber Optic

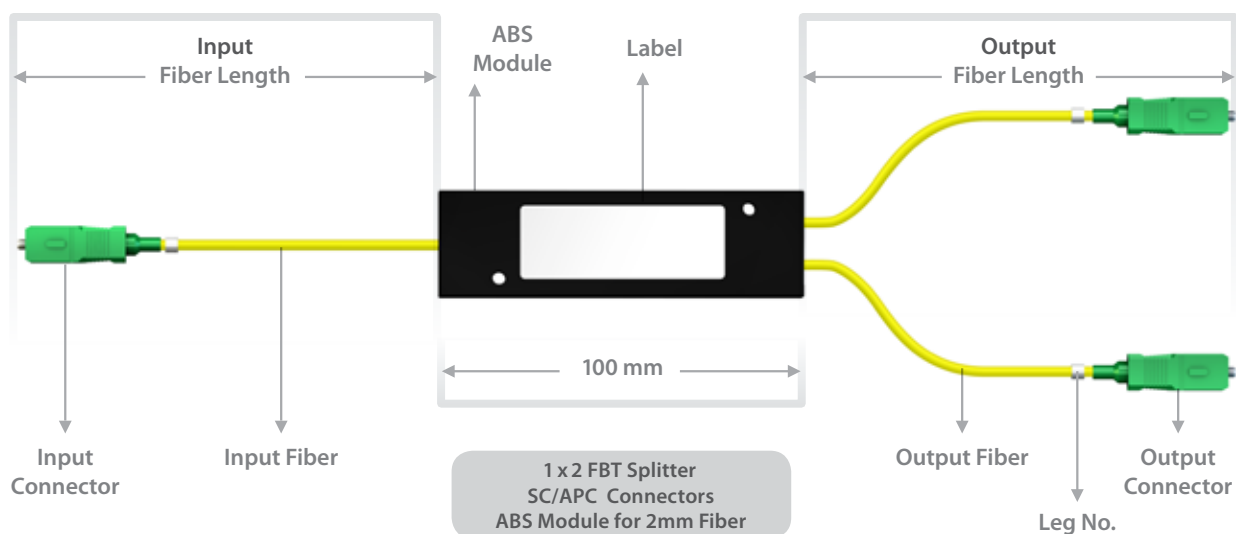
■ Fused Biconic Taper (FBT)
Optical Splitters



Datasheet
PDS-0097

SP1- **A** **BB** **C** **D** **E** **FF** **G** **HH** **I** **JJ** **K** **LL** **M**

OUTPUT FIBER LENGTH	PACKAGE	INPUT CONNECTOR	INPUT POLISH	OUTPUT CONNECTOR	OUTPUT POLISH
0D5	A	LC	A	LC	A
0.5 meter	Stainless steel tube for 250 µm fiber	LC	APC single mode	LC	APC single mode
001		SC	B	SC	B
1 meter	B Stainless steel tube for 900 µm fiber	SC	UPC single mode	SC	UPC single mode
1D5		OE	D	OE	D
1.5 meter	C ABS module for 2 & 3 mm fiber	No connector	No polish	No connector	No polish
002					
2 meter					



LGX PLC SPLITTERS

Fiber Optic



■ LGX Planar Lightwave Circuit (PLC)
Optical Splitters

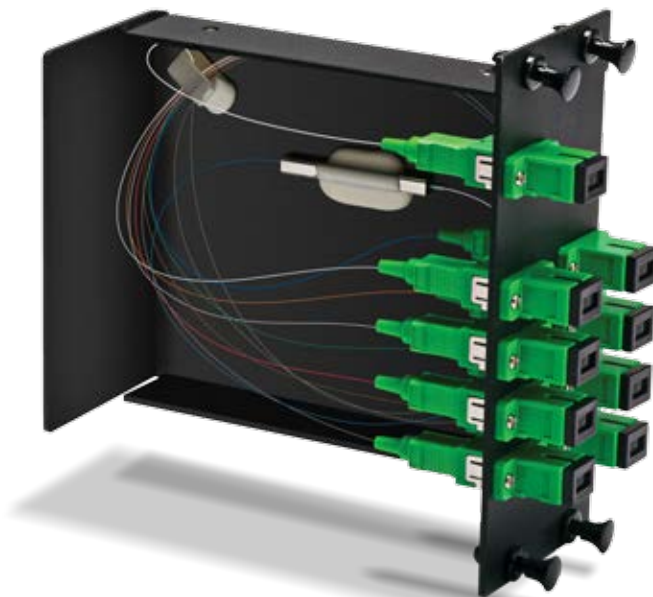
SP3- **A** **B** **CC** **D** **EE** **F**

Datasheet
PDS-0096



SP3 - **A** **B** **CC** **D** **EE** **F**

CONFIGURATION	PACKAGE	INPUT CONNECTOR	INPUT POLISH	OUTPUT CONNECTOR	OUTPUT POLISH
C	G	SC	A	SC	A
1 x 4	LGX 1 wide for 1x4 and 2x4	SC	APC single mode	SC	APC single mode
D	H	LC	B	LC	B
1 x 8	LGX 2 wide for 1x8 and 2x8	LC	UPC single mode	LC	UPC single mode
E	I				
1 x 16	LGX 3 wide for 1x16 and 2x16				
F	J				
1 x 32	LGX 4 wide for 1x32 and 2x32				
J	K				
2 x 4					
K	L				
2 x 8					
L	M				
2 x 16					
M					
2 x 32					





LGX FBT SPLITTERS

Fiber Optic

■ LGX Fused Biconic Taper (FBT)
Optical Splitters

SP4- **A** **B** **C** **D** **E** **FF** **G** **HH** **I**



Datasheet
PDS-0098

SP4 -

A **B** **C** **D** **E**

CONFIGURATION	COUPLING RATIO	WAVELENGTH	FIBER PERFORMANCE	PACKAGE
A	01	1	1	G
1 x 2	1 / 99	1310 nm (single window)	Single mode OS2	LGX 1 wide for 1x2 and 2x2
H	02	2		
2 x 2	2 / 98	1550 nm (single window)		
	03	3		
	3 / 97	1310/1550 nm (dual window)		
	04	4		
	4 / 96			
	UP			
	Up To	1310/1490/ 1550 nm (triple window)		
	50			
	50 / 50			
	EV			
	Even			

INPUT CONNECTOR	INPUT POLISH	OUTPUT CONNECTOR	OUTPUT POLISH
FF	G	HH	I
SC	A	SC	A
SC	APC single mode	SC	APC single mode
LC	B	LC	B
LC	UPC single mode	LC	UPC single mode



NEXT STEP™ WDM 4CH MULTIPLEXERS

Add & Drop / Four Channels Multiplexers



■ Build your Next Step™ CWDM Add & Drop Four Channels Modules:
Replace each letter with the required option.

NWDM - A BB WAVE C D E FF

NWDM - A BB WAVE C D E FF

APPLICATIONS	NUMBER OF CHANNELS	CWDM CHANNEL	COMMON ACCESSIBILITY	EXP PORT ACCESSIBILITY	TAP PORT	FRONT CONNECTOR
3	40	4001	1	1	1	LA
MUX or DEMUX	4 Channels	1431, 1451, 1471, 1491	Front Access	Front Access	1/99 TAP Port	LC/APC
4	41	4002	2	2	2	LB
MUX and DEMUX	4 Channels + 1310	1511, 1531, 1591, 1611	Back Access SC/APC	Back Access	2/98 TAP Port	LC/UPC
	42	4003	3	z	5	
	4 Channels + EXP	1471, 1491, 1511, 1531	Back Access SC/UPC	Not Applicable	5/95 TAP Port	
	43	4004	4		z	
	4 Channels + EX + 1310	1551, 1571, 1591, 1611	Back Access SC/APC DX		No TAP Port	
	44	4005	5			
	4 Channels + EX + 1550	1511, 1571, 1591, 1611	Back Access SC/UPC DX			
	45					
	4 Channels + EX + 1550					



NEXT STEP™ WDM 8CH MULTIPLEXERS

Add & Drop / Eight Channels Multiplexers

- Build your Next Step™ CWDM Add & Drop Eight Channels Modules:
Replace each letter with the required option.

NWDM - **A** **BB** **WAVE** **C** **D** **E** **FF**



NWDM - A BB WAVE C D E FF						
APPLICATIONS	NUMBER OF CHANNELS	CWDM CHANNEL	COMMON ACCESSIBILITY	EXP PORT ACCESSIBILITY	TAP PORT	FRONT CONNECTOR
3	80	8001	1	1	1	LA
MUX or DEMUX	8 Channels	1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611 (Type B)	Front Access	Front Access	1/99 TAP Port	LC/APC
	81	8002	2	2	2	LB
	8 Channels + 1310		Back Access SC/APC	Back Access	2/98 TAP Port	LC/UPC
	82	1271, 1291, 1311, 1331, 1351, 1371, 1431, 1451	3	z	5	
	8 Channels + EXP	8003	Back Access SC/UPC	Not Applicable	5/95 TAP Port	
	83		4		z	
	8 Channels + EX + 1310	8004	Back Access SC/APC DX		No TAP Port	
	84		5			
	8 Channels + 1550	1431, 1451, 1471, 1491, 1511, 1531, 1591, 1611 (Type A)	Back Access SC/UPC DX			
	85					
	8 Channels + EX + 1550					



NEXT STEP™ WDM 10CH MULTIPLEXERS

Add & Drop / Four Channels Multiplexers



■ Build your Next Step™ CWDM Add & Drop Ten Channels Modules:
Replace each letter with the required option.

NWDM - A BB WAVE C D E FF

NWDM - A BB WAVE C D E FF

APPLICATIONS	NUMBER OF CHANNELS	CWDM CHANNEL	COMMON ACCESSIBILITY	EXP PORT ACCESSIBILITY	TAP PORT	FRONT CONNECTOR
3	10	1001	1	1	1	LA
MUX or DEMUX	10 Channels	1431, 1451, 1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611	Front Access	Front Access	1/99 TAP Port	LC/APC
	11		2	2	2	LB
	10 Channels + 1310		Back Access SC/APC	Back Access	2/98 TAP Port	LC/UPC
	12		3	z	5	
	10 Channels + EXP		Back Access SC/UPC	Not Applicable	5/95 TAP Port	
	13		4		z	
	10 Channels + EX + 1310		Back Access SC/APC DX		No TAP Port	
	14		5			
	10 Channels + 1550		Back Access SC/UPC DX			
	15					
	10 Channels + EX + 1550					



1CH MULTIPLEXERS FILTER

Wirewerks Single Channel CWDM Filter

■ Build your Wirewerks Single Channel CWDM Filter:
Replace each letter with the required option.

CWDM1 - AA B CC D EE



CWDM1 -		AA	B	CC	D	EE
WAVELENGTH PASSING BAND		BUFFER SIZE		INPUT/OUTPUT CONNECTOR	POLISH TYPE	FIBER LENGTH
27	45	1		SC	A	10
1271	1451	250 μm		SC	APC	1 meter
29	47	9		LC	B	15
1291	1471	900 μm		LC	UPC	1.5 meter
31	49	2		FC	Z	
1311	1491	2 mm		FC	None	
33	51	3		ST		
1331	1511	2 mm		ST		
35	53			ZZ		
1351	1531			None		
37	55					
1371	1551					
39	57					
1391	1571					
41	59					
1411	1591					
43	61					
1431	1611					



NEW

Wallmount Rack & LGX Patch Panels



Wall Mount Patch Panels	Datasheets
-------------------------	------------

WW-001812	4U Vertical Wall Mount (fiber/copper)	PDS-0200
WW-001819	4U Vertical Wall Mount Cover	PDS-0200
WW-001818	4U Vertical Wall Mount with Cover (WW-001812+WW-001819)	PDS-0200
WW-001810	3 LGX 1U Patch Panel (fiber/copper)	PDS-0198
WW-001815	Wall-Mounted Single LGX Bracket (fiber/copper)	PDS-0199
WW000015	Wirewerks Keystone wall mount, 6 Port, black powdered, up to 12 fibers	PDS-0122
PP-WM2S	Wirewerks LGX wall mount, 2 strips 2 doors, black powdered, up to 48 fibers	PDS-0124
PP-WM4SD	Wirewerks LGX wall mount, 4 strips 2 doors, black powdered, up to 96 fibers	PDS-0125
WW000014	1 cam lock with keys for PP-WM2S and PP-WM4SD	



Part shown
PP-WM2S

Part shown
PP-WM1S



NEW

Next Step™ 1U and 4U Patch Panels

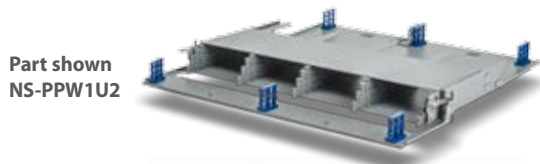
PATCH PANELS

Fiber Optic

■ Fiber Optic Patch Panels
Part Numbers.



Part shown
NS-PPW1U1



Part shown
NS-PPW1U2



Part shown
NS-PPW1U1L



Part shown
NS-PPW4U1



Part shown
NS-CBLMGT-BL

Rack Mount Patch Panels

Datasheets

NS-PPW1U1	Next Step™ 1U Rack Mount Patch Panel 144/288 Fiber	PDS-0189
NS-PPW1U2	Next Step™ 1U Rack Mount Light Patch Panel 144/288 Fiber	PDS-0189
NS-PPW1U1L	Next Step™ 1U Rack Mount Lean Patch Panel 144/288 Fiber	PDS-0189
NS-PPW4U1	Next Step™ 4U Rack Mount Patch Panel 576/4608 Fiber	PDS-0203
NS-CBLMGT-BL	Next Step™ Cable Manager	PDS-0189
PP-W1U1	Wirewerks 1U rack mount, black powdered, up to 72 fibers	PDS-0119
PP-W2U1	Wirewerks 2U rack mount, black powdered, up to 144 fibers	PDS-0120
PP-W4U1	Wirewerks 4U rack mount, black powdered, up to 288 fibers	PDS-0001
WW000069	Wirewerks 1U compact rack mount, 3 LGX, up to 72 fibers	PDS-0056
WW000066	Wirewerks cable management spool 2/pack	



Part shown
PP-W4U1



Part shown
WW000066



Part shown
PP-W2U1



FAN OUT KITS

Fiber Optic



■ Fan out Kits part numbers

Datasheet
PDS-0002



Part shown
WW000012

Fan Out Kits		
Fibers/Length	Round 3mm	Ribbon Cable
6 fiber, 25"	WW001130	WW001114
6 fiber, 36"	WW000010	WW001110
6 fiber, 47"	WW000011	WW001111
12 fiber, 25"	WW001131	WW001115
12 fiber, 36"	WW000012	WW001112
12 fiber, 47"	WW000013	WW001113



SPLICE TRAYS AND FUSION SLEEVES

Fiber Optic

■ Splice Trays and Fusion Splice Sleeves part numbers.



Part shown
NS-SPL-24

NEW



Part shown
NS-SPL-RIB-24

Next Step™ Fusion Splice Modules

NS-SPL-24	Next Step Splice Tray, 24 fibers with 24 fusion sleeves
NS-SPL-RIB-24	Ribbon Next Step Splice Tray, 24 fibers with 2 ribbon sleeves
NS-SPL-12	Next Step Splice Tray, 12 Fiber

Datasheet
PDS-0193

Splice trays

SPL-MSPL6	Metal splice tray 4" x 7", clear cover, holds up to 12 fibers
------------------	--

Datasheet
PDS-0126

Part shown
SPL-MSPL6



Fusion Splice Sleeves

SL-3006	3.0 mm OD, 60 mm long
SL-2525	2.5 mm OD, 25 mm long
SL-2504	2.5 mm OD, 40 mm long
SL-2506	2.5 mm OD, 60 mm long
SL-2004	2.0 mm OD, 40 mm long
SL-2006	2.0 mm OD, 60 mm long

Part shown
SL-2506



Datasheet
PDS-0133



■ See this section for our selection of Field Terminable Connectors



HOW IT'S DONE



Watch a demonstration on how to use Our Field Terminable Connectors and Cleaver Kit on YouTube



Part shown
FT-CLV01



Part shown
FT-STP01



Part shown
FT-LCJIG



Part shown
FT-VFV01





TOOLS

Fiber Optic

■ Fiber Optic Tools



Termination Tools

Datasheets

FT-KITPLUS	Premium installation kit	PDS-0183
FT-KIT	Installation kit	PDS-0183
FT-CLV01	Fiber cleaver 900um, 250um	PDS-0187
FT-STP01	Fiber stripper 900um, 250um	PDS-0183
FT-VFV01	Visual fault locator kit	PDS-0183
FT-SCJIG	SC assembly guide jig, 900µm	PDS-0180
FT-LCJIG	LC assembly guide jig, 900µm	PDS-0180

What is Included

PARAMETERS	FT-KITPLUS	FT-KIT
Fiber Stripper 900/250µm	•	•
Precision Cleave Tool	•	
LC & SC Assembly Guide Jig with Fiber Holder	•	
Lint Free Dry Wipes	•	•
Tweezer	•	•
Kevlar Scissors	•	•
Fiber Disposal Unit	•	•
Fine Permanent Market Pen	•	•
Visual Fault Locator (VFL)	•	•
Protective Eyewear	•	•
Soft case	•	•



SFP MODULES

SFP Gigabit Ethernet Interface Modules



■ Wide range of SFP Modules.



Datasheet

PDS-0076

PDS-0074

PDS-0075

PDS-0077

PDS-0078

Standard Temperature Range (0° C to 70° C) Models

WSFP2-31M01Z-1Y	1000BASE-SX SFP MM 850 nm, LC
WSFP2-32M02Z-1Y	1000BASE-SX SFP MM 1310 nm, LC, 2 km
WSFP2-33S01Z-1Y	1000BASE-LX SFP SM 1310 nm, LC, 10 km
WSFP2-33S04Y-1Y	1000BASE-LX SFP SM 1310 nm, LC, 40 km
WSFP2-34S08Y-1Y	1000BASE-ZX SFP SM 1550 nm, LC, 80 km

Datasheet

PDS-0076

PDS-0074

PDS-0075

PDS-0077

PDS-0078

Hardened Temperature Range (-40° C to 85° C) Models

WSFP2-31M01Z-3Y	1000BASE-SX SFP MM 850 nm, LC.
WSFP2-32M02Z-3Y	1000BASE-SX SFP MM 1310 nm, LC, 2 km
WSFP2-33S01Z-3Y	1000BASE-LX SFP SM 1310 nm, LC, 10 km
WSFP2-33S04Y-3Y	1000BASE-LX SFP SM 1310 nm, LC, 40 km
WSFP2-34S08Y-3Y	1000BASE-ZX SFP SM 1550 nm, LC, 80 km

WDM 1.25 Gbps Single Mode Single Fiber SFP Modules – 10 km

Datasheet

PDS-0080

WSFP2-35S01Y-1Y	1000BASE WDM SFP TX: 1490 nm / Rx: 1310 nm, LC, 10 km
WSFP2-36S01Y-1Y	1000BASE WDM SFP TX: 1310 nm / Rx: 1490 nm, LC, 10 km

Other wavelength available upon request.



CISCO COMPATIBLE SFP MULTIPLEXERS

Cisco Compatible CWDM SFP for Dual Fiber

■ Build your CISCO Compatible CWDM SFP for dual fiber:
Replace each letter with the required option.

WSFP3 - A BB CCC D E



WSFP3 - A BB CCC D E									
TRANSMISSION SPEED	WAVELENGTH			TRANSMISSION DISTANCE	DIGITAL OPTICAL MONITORING FUNCTION	OPERATING TEMPERATURE			
2	27	39	51	040	Y	1			
1250Mbps	1271	1391	1511	40 Km Single Mode		0°C to 70°C			
4	29	41	53	080	With	3			
2125Mbps	1291	1411	1531	80 Km Single Mode	Z	-40°C to 85°C			
	31	43	55		Without				
	1311	1431	1551						
	33	45	57						
	1331	1451	1571						
	35	47	59						
	1351	1471	1591						
	37	49	61						
	1371	1491	1611						



WDM ANGLED CLIPS

WDM Angled Clip (100pieces pck)

WDM-AC-47	1471nm (Grey)	WDM-AC-55	1551nm (Yellow)
WDM-AC-49	1491nm (Violet)	WDM-AC-57	1571nm (Orange)
WDM-AC-51	1511nm (Blue)	WDM-AC-59	1591nm (Red)
WDM-AC-53	1531nm (Green)	WDM-AC-61	1611nm (Brown)





MEDIA CONVERTERS

Ethernet Active devices

■ Wide range of Ethernet Media Converters.



Rack Mount Media Converter Chassis

WMCC-111Z-1Y

14 Bay Rack Mount Media Converter Chassis

Datasheet
PDS-0081

100BASE-FX Solutions

WMC1-422SC02

10/100BASE-T/TX to 100BASE-FX, Multimode 1310 nm, SC, 2 km

Datasheet
PDS-0069

WMC1-423SC20

10/100BASE-T/TX to 100BASE-FX, Single Mode 1310 nm, SC, 20 km

WMC1-C26SC20

100BASE MM 1310 nm 2km to 100BASE-FX SM 1310 nm, SC, 20 km

PDS-0072

WMC4-4C031

10/100 Base Ethernet (RJ45) to Coax (BNC) Converter with POE on Transmitter kit (2 per box), up to 500 m

PDS-0181

WMC3-45E02

10/100 Base Ethernet (RJ45) To Ethernet (RJ45) Extender kit (2 per box), up to 300 m

PDS-0182

1000BASE Gigabit Ethernet Solutions

WMC1-531SC01

10/100/1000BASE-T/TX to 1000BASE-SX, MM 850 nm, SC.

WMC1-531LC01

10/100/1000BASE-T/TX to 1000BASE-SX, MM 850 nm, LC.

Datasheet
PDS-0071

WMC1-533SC10

10/100/1000BASE-T/TX to 1000BASE-LX, SM 1310 nm, SC, 10 km

WMC1-533SC20

10/100/1000BASE-T/TX to 1000BASE-LX, SM 1310 nm, SC, 20 km

WMC2-5N-SFP

10/100/1000BASE-T/T X to 1000BASE SFP Interface (SFP Module not Included)

Datasheet
PDS-0073

WMC1-C35SC10

1000BASE-SX MM 850 nm to 1000BASE-LX SM 1310 nm, SC, 10 km

WMC1-C35SC20

1000BASE-SX MM 850 nm to 1000BASE-LX SM 1310 nm, SC, 20 km

Datasheet
PDS-0072



Copper Ethernet Quick Reference

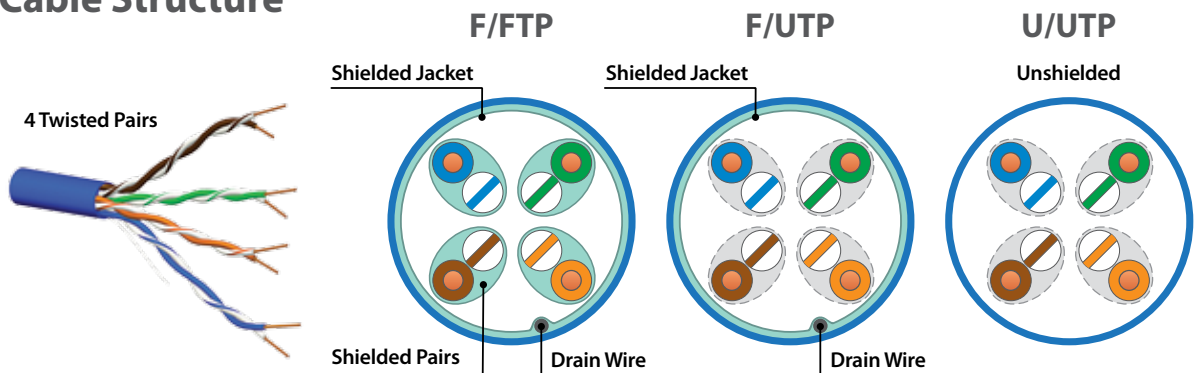
Categories and Ratings

Mhz vs Gbs		Equipment			
		 10 Mbs	 100 Mbs	 1000 Mbs (1 Gbs)	 10 000 Mbs (10 Gbs)
Infrastructure	Cat3 10 Mhz  Bicycle track	100m			
	Cat5e 100 Mhz  2 lane highway	100m	100m	100m	
	Cat6 250 Mhz  5 lane highway	100m	100m	100m	37m to 55m
	Cat6a 500 Mhz  10 lane highway	100 m	100m	100m	100m

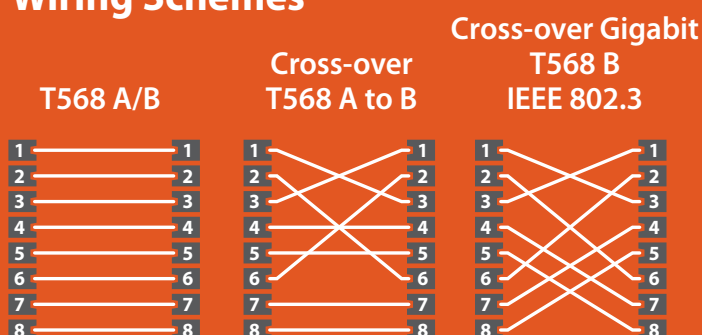
Fire Rating Substitution		
Class	Standard	Use
CMP	FT6	Plenum
CMR	FT4	Riser
CM	FT1	General purpose

IP – Ingress Protection Rating		
Class	Dust/Object	Water
IP20	Fingers	Not protected
IP67	Dust tight	Short period of Immersion ≤1m
IP68	Dust tight	Long period of Immersion ≤1m

Cable Structure



Wiring Schemes

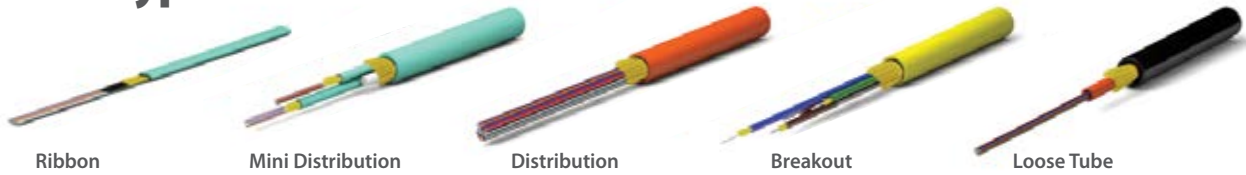


Keystone Connectors

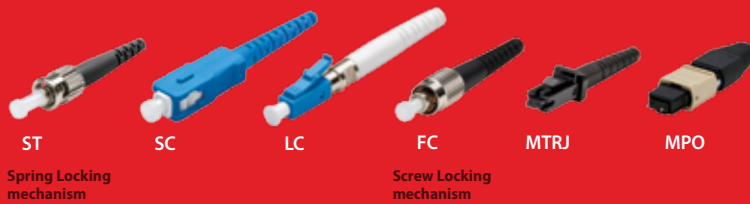


Optical Fiber Quick Reference

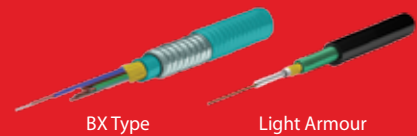
Cable Types



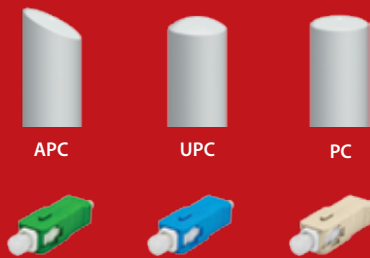
Connector types



Armour types



Ferrule polish types (end point)



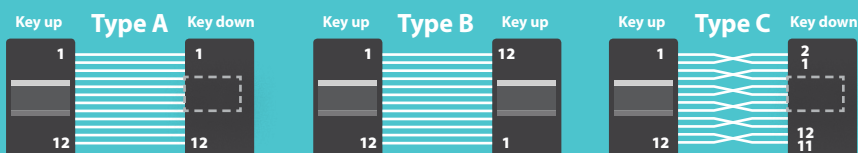
Jacket size



Fiber Type	Data Rate	Maximum Distance*
Single mode OS2 (8.3/125µm)	Fast Ethernet	—
	Gigabit Ethernet	120 km
	10 Gig Ethernet	40 km
Multimode OM1 (62.5/125µm)	Fast Ethernet	2 km
	Gigabit Ethernet	275 m
	10 Gig Ethernet	33 m
Multimode OM2 (50/125µm)	Fast Ethernet	2 km
	Gigabit Ethernet	550 m
	10 Gig Ethernet	82 m
Multimode OM3 (50/125µm)	Fast Ethernet	2 km
	Gigabit Ethernet	550 m
	10 Gig Ethernet	300 m
Multimode OM4 (50/125µm)	Fast Ethernet	2 km
	Gigabit Ethernet	1100 m
	10 Gig Ethernet	550 m

*Actual transmission distance is influenced by active component.

MPO – Multifiber Push-On Quick Reference



40GB
12 fiber



100GB
2x12 fiber



100GB
24 fiber



Ethernet Media Quick Reference

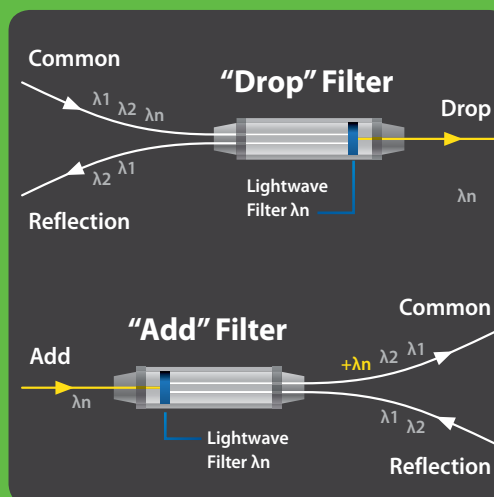
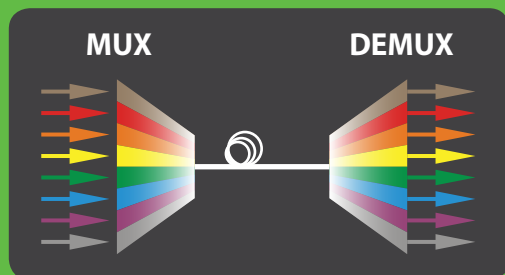
Data Rate		Medium	Maximum Range
ETHERNET	10 BASE-T	Ethernet over twisted pair CAT3 and up	100 m
	100 BASE-T	Fast Ethernet over twisted pair CAT5 and up	100 m
FAST ETHERNET	100 BASE-TX	Fast Ethernet over twisted pair CAT6 and up	100 m
	100 BASE-FX	Fast Ethernet running at 1310nm laser	up to 2 km over MM; up to 60 km over SM
GIGABIT ETHERNET	1000 BASE-T	Gigabit Ethernet over twisted pair CAT5 and up	100 m
	1000 BASE-TX	Gigabit Ethernet over twisted pair CAT6 and up	100 m
	1000 BASE-SX	Gigabit Ethernet over Multimode running at 850nm laser	62.5 μ m = 220 m; $\geq$ 50 μ m = 550 m
	1000 BASE-LX	Gigabit Ethernet running at 1300nm/1310nm laser	up to 550 m over MM; up to 5 km over SM
	1000 BASE-EX	Gigabit Ethernet over single mode running at 1310nm laser	up to 40 km
	1000 BASE-ZX	Gigabit Ethernet over single mode running at 1550 nm laser	up to 70 km
	1000 BASE-BX	Single mode over single strand fiber: 1490 nm downstream/1310nm laser upstream	up to 10 km

WDM — Multiplexers Quick Reference

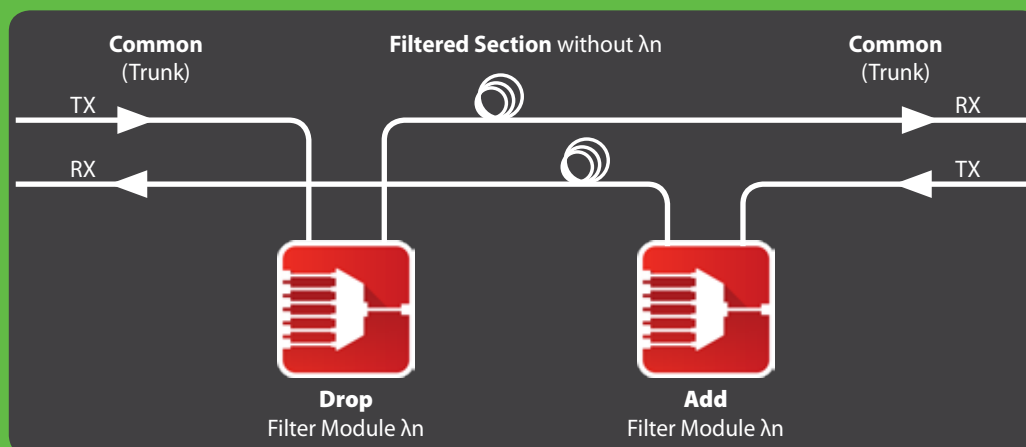
CWDM: Coarse Wavelength-Division Multiplexing Modules
SFP: Small Form-Factor Pluggable

CWDM Channel Filter*

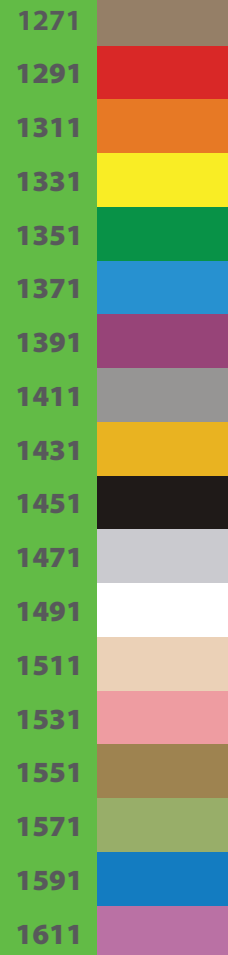
Light Combination / Separation



Add & Drop Application*



**CWDM Wavelengths
ITU.G.694.2
(20nm steps)**



* λ_n = Specified filtered wavelength

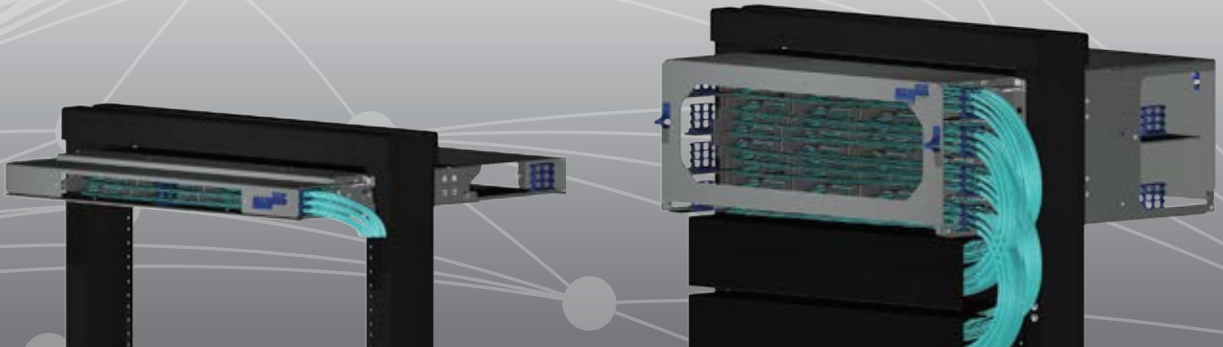
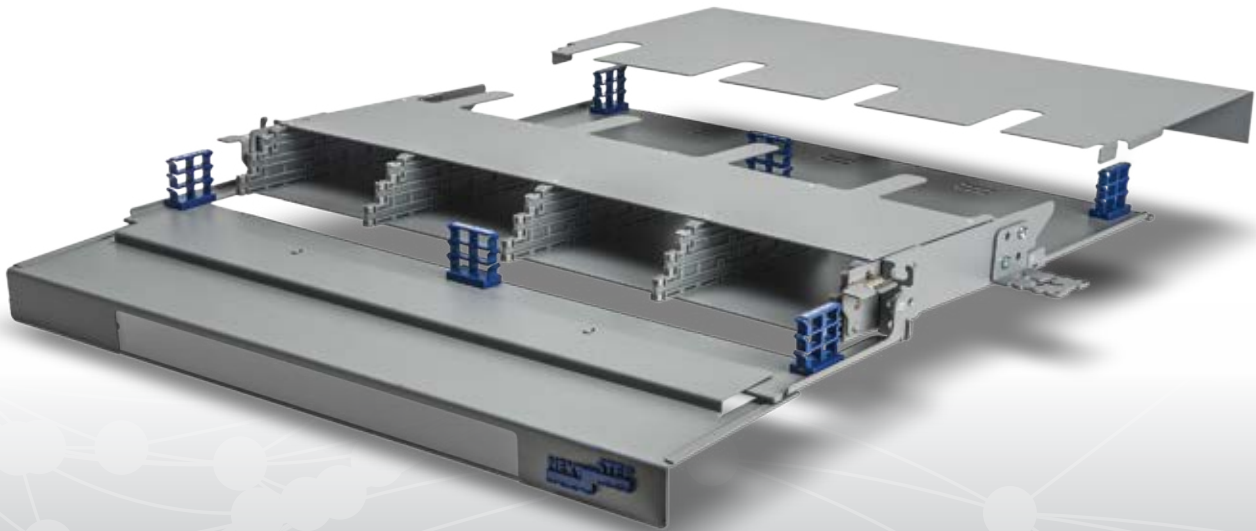
wirewerks

NEXT STEP™

The Ultimate Junction for all IP Services

An efficient interconnection is critical to enable the multitude of services flowing through an IP network.

So when networks expand and new technologies emerge, your scalable interconnect can handle it with ease. And when total network traffic increases, organized cable management keep costs to a minimum by reducing install time and the risk of downtime.



Wirewerks Next Step solutions are high-density optical cabling solutions offering industry leading connector density and state of the art cable management - capable of handling all passive optical installs.



wirewerks

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