













# pigtails and patch cables

## Product overview

Below is an overview of DKTCOMEGA's product range of optical pigtails and patch cables including, which connector type is available for the different cables.

### DKTCOMEGA Patchcables

Type	Standard length	Wavelength	Connector type
P-SC/APC-X-DKT	0.5, 1, 2, 3, 4, 5, 7, 10, 15, 20 meters	1285nm - 1625nm	DKT or Seikoh Giken
P-LC/APC-X-DKT	2,5 meters	1285nm - 1625nm	DKT or Seikoh Giken
P-E2000/APC-X-DKT	0.5, 1, 2, 3, 4, 5, 7, 10, 15, 20 meters	1285nm - 1625nm	DKT
P-LX5/APC-X-DKT	0.5, 1, 2, 3, 4, 5, 7, 10, 15, 20 meters	1285nm - 1625nm	DKT
P-FC/APC-X-DKT	0.5, 1, 2, 3, 4, 5, 7, 10, 15, 20 meters	1285nm - 1625nm	DKT or Seikoh Giken
P-SC/PC-X-DKT	1, 2, 3, 4, 5, 7, 10, 15, 20 meters	1285nm - 1625nm	DKT or Seikoh Giken
P-LC/PC-X-DKT	1, 2, 3, 4, 5, 7, 10, 15, 20 meters	1285nm - 1625nm	DKT or Seikoh Giken
P-LX5/PC-X-DKT	1, 2, 3, 4, 5, 7, 10, 15, 20 meters	1285nm - 1625nm	DKT

### DKTCOMEGA Hybrid Patchcables

Type	Standard length	Wavelength	Connector type
P-SC/APC-LC/APC-X-DKT	1, 2, 3, 4, 5, 7, 10, 15, 20 meters	1285nm - 1625nm	DKT or Seikoh Giken
P-SC/APC-E2/APC-X-DKT	1, 2, 3, 4, 5, 7, 10, 15, 20 meters	1285nm - 1625nm	DKT
P-SC/APC-FC/APC-X-DKT	1, 2, 3, 4, 5, 7, 10, 15, 20 meters	1285nm - 1625nm	DKT or Seikoh Giken
P-SC/APC-SC/PC-X-DKT	2, 5 meters	1285nm - 1625nm	DKT or Seikoh Giken
P-E2/APC-LC/APC-X-DKT	2, 5 meters	1285nm - 1625nm	DKT
P-SC/PC-FC/PC-X-DKT	1, 2, 3, 4, 5, 7, 10, 15, 20 meters	1285nm - 1625nm	DKT or Seikoh Giken
P-SC/PC-LC/PC-X-DKT	1, 2, 3, 4, 5, 7, 10, 15, 20 meters	1285nm - 1625nm	DKT or Seikoh Giken

### DKTCOMEGA Pigtails

Type	Standard length	Wavelength	Connector type
PT-SC/APC-X-DKT	1,5 and 3 meters	1285nm - 1625nm	DKT or Seikoh Giken
PT-LC/APC-X-DKT	1,5 and 3 meters	1285nm - 1625nm	DKT or Seikoh Giken
PT-FC/APC-X-DKT	1,5 and 3 meters	1285nm - 1625nm	DKT or Seikoh Giken
PT-LX5/APC-X-DKT	1,5 and 3 meters	1285nm - 1625nm	DKT
PT-SC/PC-X-DKT	1,5 and 3 meters	1285nm - 1625nm	DKT or Seikoh Giken
PT-LC/PC-X-DKT	1,5 and 3 meters	1285nm - 1625nm	DKT or Seikoh Giken
PT-LX5/PC-X-DKT	1,5 and 3 meters	1285nm - 1625nm	DKT
PT-FC/PC-X-DKT	1,5 and 3 meters	1285nm - 1625nm	DKT or Seikoh Giken



## Advantages

- A complete range from 5/95 - 50/50
- High stability
- Low insertion loss
- High quality connectors
- High network uptime



# single mode dual window couplers (1x2)

## Product information

In network design, optical couplers are often used, either for tap-off, or to divide/combine optical signals. For this purpose DKTCOMEGA can offer a range of 1x2 couplers with a splitting ratio ranging from 5/95 to 50/50 using on fused technology.

The product group features low insertion loss and is specially designed for broadband networks as well as long-haul transmission systems.

SC and LC are available as standard connectors. Other connectors can be ordered upon request (see page 6).



Parameters	Unit	Data
Excess Loss (Typ.)	dB	0.10
Maximum Insertion Loss	dB	3.6
Uniformity	dB	Max. 0.6
Polarization Sensitivity	dB	0.2
Operating Wavelength	nm	1260...1360 + 1430...1600
Return loss / Directivity	dB	≥ 55
Operating Temperature / Storage Temperature	°C	-40 to 85
Fiber type		G.652.D 9/125/2800 μm or 9/125/2000 μm or 9/125/900 μm
Port Configuration		1x2
Housing dimensions	mm	98 x 14 x 8.5 or 100 x 80 x 9

Type no	Coupler ration	Insertion Loss - (Max)	Insertion Loss - (Typ.)
OSP-S-5050-N	50/50	3.4 dB	3.1 dB
OSP-S-5545-N	45/55	3.8 dB/2.8 dB	3.6 dB/2.7 dB
OSP-S-6040-N	40/60	4.5 dB/2.5 dB	4.3 dB/2.3 dB
OSP-S-6535-N	35/65	4.8 dB/2.1 dB	4.7 dB/2.0 dB
OSP-S-7030-N	30/70	5.8 dB/1.8 dB	5.5 dB/1.6 dB
OSP-S-7525-N	25/75	6.3 dB/1.5 dB	6.1 dB/1.4 dB
OSP-S-8020-N	20/80	7.6 dB/1.2 dB	7.5 dB/1.0 dB
OSP-S-8515-N	15/85	8.5 dB/1.0 dB	8.4 dB/0.8 dB
OSP-S-9010-N	10/90	10.8 dB/0.6 dB	10.6 dB/0.5 dB
OSP-S-9505-N	5/95	13.7 dB/0.4 dB	13.5 dB/0.3 dB

Note: All specifications referenced without connector.

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#### Advantages

- High stability
- Low insertion loss
- High quality connectors
- High network uptime
- Option for 19" 1HU

# single mode tree couplers (1x3 to 1x64 way)

## Product information

In network applications, tree-couplers are very often used to either divide or combine signals from different locations in the optical network. For these applications DKTOMEGA has a wide range of couplers to split and combine signals from 1x3 lines and up to 1x64 lines.



The product group features low insertion loss, low excess loss, high directivity and is specially designed for long-haul telecommunications, CATV systems, and LAN networks.

SC/APC is used as standard. Other connector types on request (see page 6).

Parameters	Unit	Couplers
Uniformity	dB	0.10 to 1.2(1x4), 1.8(1x8), 2.4(1x16), 3.0(1x32)
Polarization Sensitivity	dB	0.10 to 0.4(1x4), 0.6(1x8), 0.8(1x16), 1.0(1x32)
Operating Wavelength	nm	1260...1360 + 1430...1600
Return loss + Directivity	dB	≥55
Operating Temperature / Storage Temperature	°C	-40 to 85
Fiber type		G.652.D 9/125/2800um to 9/125/2800um, 9/125/2000um or 9/125/900um.
Housing dimensions	mm	80x60x12(1x3 to 1x6), 80x120x12(1x7 to 1x32) to 98x14x8.5 or 100x80x9(1x3 to 1x6) or 116x80x102(1x3 to 1x15), 145x95.5x142(1x16 to 1x32)

Type	Coupler	Insertion Loss - (Max)	Insertion Loss - (Typ.)
OSP-S-03-28-N	1x3	5.8 dB	4.9 dB
OSP-S-04-N	1x4	7.2 dB	6.2 dB
OSP-S-05-N	1x5	8.2 dB	7.2 dB
OSP-S-06-N	1x6	9.5 dB	8.0 dB
OSP-S-07-N	1x7	10.3 dB	8.7 dB
OSP-S-08-N	1x8	10.8 dB	9.3 dB
OSP-S-14-N	1x14	13.6 dB	11.8 dB
OSP-S-16-N	1x16	14.0 dB	12.4 dB
OSP-S-32-N	1x32	17.5 dB	15.6 dB
OSP-S-64-N	1x64	21,3 dB	19.3 dB

Note: All specifications referenced without connector

## 19" rack cabinets

All tree-couplers can be supplied in 19" 1HU rack cabinets for rack mounting.





#### Advantages

- Low Insertion loss
- High Isolation
- Compact Size
- Optical path epoxy free
- Teleordia 1209, 1221 compliant

# wavelength division multiplexers

## Product information

Our single mode, standard type wavelength division multiplexers divide and combine 1310 / 1550 nm wavelengths. The 1310 / 1550 nm WDM coupler is the basic component to make up dual window WDM vdevices.



The WDM components feature low insertion loss, low excess loss, high directivity and is specially designed for long-haul telecommunications, CATV systems, and LAN networks.

SC/APC is used as standard. Other connector types on request (see page 6).

Characteristics		DKT WDM-30-XX	DKT WDM-45-XX
Insertion loss - Typ.	dB	0.7	1.0
Isolation	dB	>30	>45
Polarization Sensitivity	dB	0.15	0.15
Operating Wavelength	nm	1310 ± 20, 1550 ± 20	
Directivity	dB	>60	
Return loss	dB	>50	
Operating Temperature / Storage Temperature	°C	-40 to 85	
Fiber types		G.652.D 9/125/900 μm or 9/125/2800 μm	
Fiber Pigtail Length		1m or custom on request	
Package Dimension	mm	100 × 80 × 9 mm	

Note: All specifications referenced without connector



## Advantages

- Low Insertion Loss and High Isolation
- Good Wavelength Stability
- Optical path epoxy-free with good environment stability
- Bell-core 1221 compliant

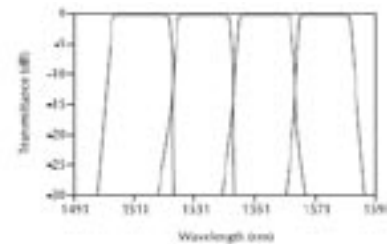
# coarse wavelength division multiplexers

## Product information

The multiplexer module combines several wavelengths (channels) traveling in each separate single mode fibre into one single mode fibre, and the same module separates each specific wavelengths traveling in the common single mode fibre into wavelength, each traveling in a separate singlemode fibres.



The CWDM Modules are based on thin-film filter technology. This proven technology offers wide channel bandwidth, flexible channel configuration, low insertion loss and high isolation.



The CWDM modules are especially designed for WDM systems, metro networks, and CATV Systems.

SC/APC is used as standard. Other connector types on request (see page 6).

Data			DKT CWDM 2	DKT CWDM 4+1	DKT CWDM 8+1
Channel Number	----		3 (1310 + 2 x optional)	5 (1310 + 4 x optional)	9 (1310 + 8 x optional)
Center Wavelength	nm		1310-1610		
Channel Spacing	nm		20		
Channel Pass Band (-0.5dB Bandwidth)	Min. nm		±6.5		
Insertion Loss	Typ. dB		0.6	1.0	1.8
	Max. dB		0.8	1.2	2.1
Link Loss With Mux & Demux Combination	Max. dB		1.2	2.0	3.6
Pass Band Flatness	Max. dB		0.3		
Channel Uniformity	Max. dB		0.5		
Isolation	Adjacent Channels	Min. dB	30		
	Non-adjacent Channels	Min. dB	50		
Directivity	Min. dB		50		
Optical Return Loss	Min. dB		45		
PDL	Max. dB		0.1		
Thermal Stability	Max. dB/°C		0.006		
Thermal Wavelength Drift	Max. nm/°C		0.003		
Operating Temperature	°C		0 to 65		
Storage Temperature	°C		-40 to 85		
Package Dimension	mm		80x60x12		
Maximum Power Handling	mW		300		

Note 1: All specifications referenced without connector



#### Advantages

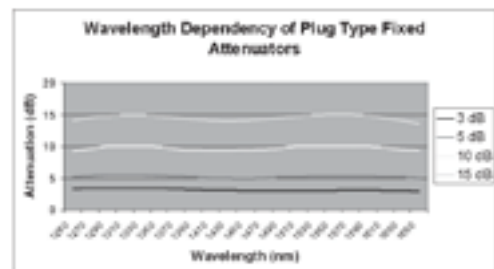
- Precision sleeves and keys
- Excellent detachability
- High technical performance
- High linearity



# attenuators

## Product information

The Seikoh Giken attenuator comes as a self-contained in-line unit, with an 8° angle polished male and female connector. Attenuation is generated by attenuating fiber and provides a controlled attenuation over a very broad bandwidth. The low return loss and high temperature range ensures excellent performance in the most demanding applications.



Attenuators	ATTN-FC/APC-205-X	ATTN-SC/APC-X	ATTN-LC/APC (Plastic)
Fiber type	Single mode 9/ 125 μm	Single mode 9/ 125 μm	Single mode 9/ 125 μm
Wavelength	1250-1650 nm	1250-1650 nm	1250-1650 nm
Connector	8° angle polished	8° angle polished	8° angle polished
Housing	Metal	Metal	Metal
Attenuation	1-10 dB 11-20 dB	1-10 dB 11-20 dB	Fixed 1, 2, 3, 4, 5, 6, 10, 15, 20 dB
Nominal attenuation	1-10 dB +/- 0.5dB 11-20 dB +/- 5%	1-10 dB +/- 0.5dB 11-20 dB +/- 5%	1-10 dB +/- 0.5dB 10-15 dB +/- 5% -20 dB +/- 1 dB
Back Reflection	>60dB	>60dB	>60dB

Other attenuator types are available on request



**Advantages**

- Precision sleeves and keys
- Excellent detachability
- Low insertion loss

# adaptors

## Product information

Adaptors from DKTCOMEGA are designed and manufactured according to JIS, IEC, EIA/TIA and ANSI specifications for optimal performance and connectivity. The low insertion loss properties and easy fit characteristics of these adaptors make this type of fiber optic connection a durable solution for optical patch panels etc.



Adaptor Combination	Type	Sleeve Material	Adaptor Material
SC/APC - SC/APC	Square	Zirconia	Green plastic body and flange w. metal clips
SC/PC - SC/PC	Square	Zirconia	Blue plastic body and flange w. metal clips
SC/APC - SC/APC, Duplex	Square	Zirconia	Green plastic body and flange w. metal clips
FC/APC - FC/APC	DD - type, Narrow key - 2.05mm	Zirconia	Metal body and flange
FC/APC - FC/APC	Oval type, Narrow key - 2.05mm	Zirconia	Metal body and flange
FC/PC - FC/PC	DD - type, Wide key - 2.40mm	Zirconia	Metal body and flange
E2000/APC - E2000/APC	Square	Zirconia	Green plastic body and flange w. metal clips
E2000/PC - E2000/PC	Square	Zirconia	Blue plastic body and flange w. metal clips

Other adaptor types are available on request



## Advantages

- Extended (3 coupling panels per 1U) and rodent protected version available
- Bend radius protection allows management and rearrangement of cable slack
- Accommodates up to 24 fibers in 1 rack unit
- Removable top provides unrestricted access
- Pivoting shelf eases connector routing and cable routing
- Accepts the industry's most common connector types

# cable network panels

## Product information

The DKTOMEGA Cable Network Panels are economical rack-mountable patch panels for use with manufactured pigtails or field-installable connectors.

Cables are strain-relieved at the rear of the unit. A shelf equipped with either splice tray holder or bend radius protection guides, stores and organizes excess slack. This prevents damage to fibers prior to routing into couplings. The CNP is used in installations where space is limited.

Type	Description	Item No.
CNP-1U-S	Standard Cable Network Panel with two panel openings on front	69915



Type	Description	Item No.
CNP-1U-E	Extended Cable Network Panel with three panel openings on front	69916



Type	Description	Item No.
CNP-1U-P	Standard Cable Network Panel with two panel openings on front and rodent protection	69917



Type	Description	Item No.
MCMH-3S-LP	DKT Cable Network Cabinet	69730
MCMH-6S-LP	DKT Cable Network Cabinet	69735



Type	Description	Item No.
CNP-1U-SPLICE	Splice cassette for 12 splicing. Option for CNP series	69918



Type	Description	Order No.
CNP-1U-BRP	Bend Radius Protectors. Option for CNP series	69919





## Advantages

- Compatible with all standard adaptors
- High port density
- Singlemode and Multimode
- Easy installation
- Panels with RJ-45 sockets: available for copper twisted pairs

# coupling panels

## Product information

Our Fiber Optic Coupling Panels are manufactured from an aluminium sheet metal. They accommodate all the standard fiber optic couplings and hybrid adaptors.

We offer a series of high density coupling panels that fit all our fiber management products. These Coupling Panels are available with a variety of standard coupling styles and counts.

Custom coupling panels can be designed to suit your needs.

## Fiber optic panels

Type	Numbers of adaptors	fiber capacity	Item No.
CNPM-ST-06	6 x ST type	6	69933
CNPM-ST-08	8 x ST type	8	69934
CNPM-FC-06	6 x FC type	6	69935
CNPM-FC-08	8 x FC type	8	69936
CNPM-SC-06	6 x SC type	6	69937
CNPM-SC-08	8 x SC type	8	69938
CNPM-DSC-06	6 x duplex SC type	12	69939
CNPM-E2-06	6 x LSH (E2000) type	6	69940
CNPM-E2-08	8 x LSH (E2000) type	8	69941
CNPM-E2-12	12 x LSH (E2000) type	12	69942
CNPM-MJ-06	6 x MT-RJ type	12	69943
CNPM-DLC-06	6 x duplex LC type	12	69944
CNPM-DMU-06	6 x duplex MU type	12	69945
CNPM-00	Blank panel		69946

Note: Excl. adaptors

## RJ-45 socket panels

Type	Numbers of adaptors	Fiber capacity
CNPM-STP-06	6 x RJ-45 (STP)	Supplied including RJ-45 sockets
CNPM-UTP-06	6 x RJ-45 (UTP)	Supplied including RJ-45 sockets

Note: Excl. adaptors

## Samples of Coupling Panels

