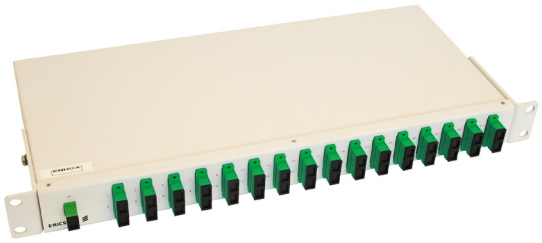
Fiber optic Splitter Shelf, NCD 520 002

2 to 64 Ports Rack Mountable Splitters

Data Sheet



Features

- 1x2 to 1x64 standard configurations
- 2x2 to 2x64 for redundancy and monitoring
- Broadband wavelength operation
- Low insertion loss
- Low back reflection
- Low PDL (Polarization Dependent Loss)
- Low WDL (Wavelength Dependent Loss)
- Low TDL (Temperature Dependent Loss)
- High output uniformity
- Stable optical performance
- Conforms to Telcordia, ITU and IEC standard
- 1U, 19” and ETSI rack mountable

Application

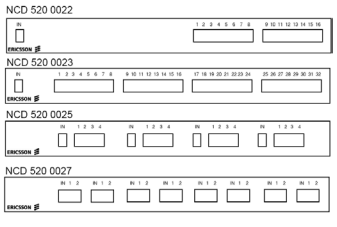
The splitter shelf comprises of a metal chassis for 19” rack mounting and fiber optic splitter devices. The optical splitters provide uniform division of an optical signal from one or two input fiber ports to multiple output ports.

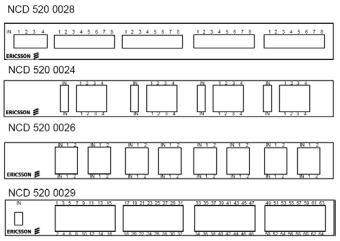
The splitters are design to meet the requirements for a wide range of fiber optic communications systems. The broadband performance makes them especially suitable for PON FTTx networks. Low loss under extreme environmental conditions ensures stable operation. Thermally stable and compact design allows these shelves to be installed into central office (CO) racks as well as in outside plant Fiber Distribution Hubs (FDH).

Description

Configurations from 1x4 to 2x64 use Planar Lightwawe Circuit (PLC) splitters. 1x2 configurations are based on Fused Biconic Tapers (FBT). All components have thermally stable broadband performance.

The splitter shelf is available in two performance grades; *standard grade* and *high grade*. Standard grade is suitable for most applications. High grade is used when a wider operating wavelength, lower insertion loss and better uniformity is required. Both performance grades are available in configurations with multiples of splitters from 1x2 to1x64, see ordering information. Standard connector option is SC/APC. Front panel configuration examples are shown below.





Specifications

Optical Properties, Standard Grade

Operating Wavelength....
1x4-1x64: 1260 ~ 1360, 1450 ~ 1625nm
1x2: 1260 ~ 1360, 1480 ~ 1580nm
Directivity ..... >55dB
Return Loss ..... >55dB
Max input power 500mW
Max attenuation ..... see ordering info
Max uniformity.....see ordering info
PDL, 1x2-1x16 ..... <0.3dB
1x32, 1x64 ..... <0.4dB

Optical Properties, High Grade

Operating Wavelength
1x4-1x64: 1260 ~ 1650nm
1x2: 1260 ~ 1360, 1480 ~ 1580nm
Directivity ..... >55dB
Return Loss ..... >55dB
Max input power 500mW
Max attenuation ..... see ordering info
Max uniformity.....see ordering info
PDL ..... <0.2dB

Connector Performance SC/APC

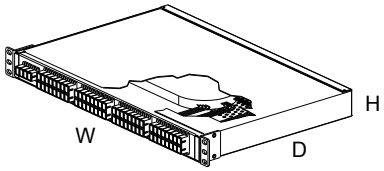
Typical/Max attenuation.. ≤0.15dB/≤0.30dB
Return Loss ..... >60dB

Temperature and Humidity

Operation.....–40 to +70ºC
Transport and storage.....–40 to +70ºC
Storage rel. humidity ..... 20-95 (%RH)

Dimensions

19” and ETSI, 1U rack mountable unit
WxDxH ..... 410x195x44 mm



Conformances

ITU-T G.652 D
ITU G.671**
Telcordia GR-1209
Telcordia GR-1221
IEC 67153-031-3/-6
IEC 61754-4
IEC 61754-6
IEC 61754-20
RoHS Directive

** High Grade option

© Ericsson AB
Public

Ordering information

Product numbers and optical performance are shown in the table below.

High Grade SC / APC			
Product No.	**No of Splitters x [Split Ratio]**	**Insertion Loss* (max) dB**	**Uniformity (max) dB**
1/NCD 520 0022/10	1 x [1x16]	14.4	1.0
1/NCD 520 0023/10	1 x [1x32]	17.7	1.3
1/NCD 520 0024/10	8x [1x4]	7.8	0.6
1/NCD 520 0025/10	4x [1x4]	7.8	0.6
1/NCD 520 0026/10	16x [1x2]	4.2	0.6
1/NCD 520 0027/10	8x [1x2]	4.2	0.6
1/NCD 520 0028/10	4x [1x8]	11.1	1.0
1/NCD 520 0029/10	1 x [1x64]	21.1	2.0

High Grade SC / UPC			
Product No.	**No of Splitters x [Split Ratio]**	**Insertion Loss* (max) dB**	**Uniformity (max) dB**
1/NCD 520 0022/11	1 x [1x16]	14.4	1.0
1/NCD 520 0023/11	1 x [1x32]	17.7	1.3
1/NCD 520 0024/11	8x [1x4]	7.8	0.6
1/NCD 520 0025/11	4x [1x4]	7.8	0.6
1/NCD 520 0026/11	16x [1x2]	4.2	0.6
1/NCD 520 0027/11	8x [1x2]	4.2	0.6
1/NCD 520 0028/11	4x [1x8]	11.1	1.0
1/NCD 520 0029/11	1 x [1x64]	21.1	2.0

Standard Grade SC / APC			
Product No.	**No of Splitters x [Split Ratio]**	**Insertion Loss* (max) dB**	**Uniformity (max) dB**
NCD 520 0022/10	1 x [1x16]	14.8	1.5
NCD 520 0023/10	1 x [1x32]	18.0	1.7
NCD 520 0024/10	8x [1x4]	8.2	0.8
NCD 520 0025/10	4x [1x4]	8.2	0.8
NCD 520 0026/10	16x [1x2]	4.6	0.8
NCD 520 0027/10	8x [1x2]	4.6	0.8
NCD 520 0028/10	4x [1x8]	11.6	1.0
NCD 520 0029/10	1 x [1x64]	21.6	2.5
NCD 520 0042/10	1 x [2x16]	15.3	1,5
NCD 520 0043/10	1 x [2x32]	18.5	1.8
NCD 520 0044/10	8x [2x4]	8,4	1.0
NCD 520 0045/10	4x [2x4]	8,4	1.0
NCD 520 0046/10	16x [2x2]	4.6	1.0
NCD 520 0047/10	8x [2x2]	4.6	1.0
NCD 520 0048/10	4x [2x8]	11.8	1.0
NCD 520 0049/10	1 x [2x64]	22.3	2.5

The optical properties refer to maximum values, valid for the specified operating wavelength band including PDL, WDL, and TDL.

The maximum connector attenuation is included in the total insertion loss of the splitter unit.

© Ericsson AB
Public