

NS ONE-net - 1020

10Gigabit to 100Gigabit Passive Optical Multiplexer



100Gigabit Single Fiber Bidirectional 20 Channel DWDM Drop and Insert Multiplexing for Metro and Data Center applications

Features Overview

- Compact 1RU (1.75") 19" rack architecture
- 100 Gigabit add/drop multiplexing in one unit
- ITU and IEEE standard compliance
- 100% passive, no power required
- Single fiber technology cuts fiber cost by 50%
- Transports 100Mbit/s to 200Gbit/s per circuit at 50/100GHz per channel bandwidth
- 20 Full Duplex outputs on one fiber strand
- Supports diverse routing for fiber protection
- Supports both Ring and Point-to-Point topologies
- Standard LC/UPC connectors
- Industry standard compliance

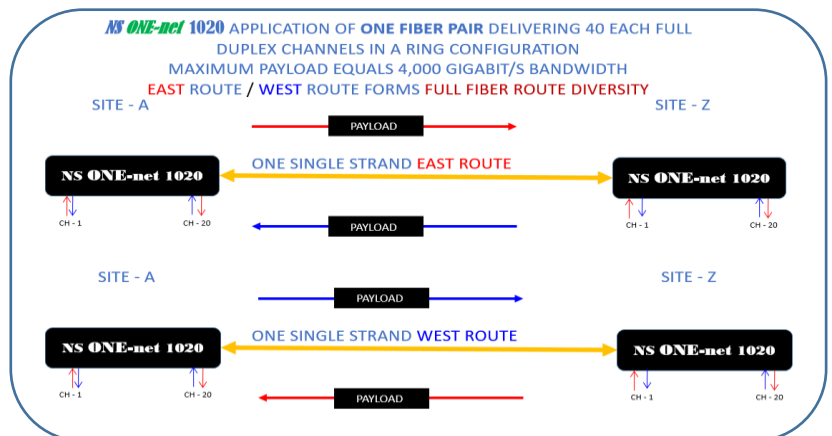
100Gigabit Single Fiber Solution

The **NS ONE-net - 1020** provides 20 Dense Wave Division Multiplexing C-band channels on a single fiber in a passive optical add/drop design for use in the local, metro or core access markets requiring up to 100Gigabits of bandwidth. NS Telecomm patented "One Fiber" design allows diverse routing of mission critical circuits while adhering to International Telecommunications Union (ITU) and Institute of Electrical and Electronics Engineers (IEEE) standards.

The NS ONE-net is designed to use only one rack unit (1RU) of height in a 19" rack for simple efficient installation. The NS ONE-net provides the greatest density of DWDM channels in a compact 1RU "Plug and play" chassis.

The NS ONE-net provides the highest cost savings for network and data center designers by employing a single strand of fiber per 20 channels of full duplex DWDM bandwidth.

The NS ONE-net supports diverse routing for ring or point-to-point configurations to protect against unexpected fiber cuts.



The **NS ONE-net - 1020** comes in two models depending on the application required. The **COM I NS ONE-net 1020** multiplexer is used in applications where 20 channels are dropped at a location according to the Channel Listing table below. The **COM II NS ONE-net 1020** is used to drop 20 channels as indicated by the Channel Listing for fiber route diversity in conjunction with the **COM I NS ONE-net 1020**. Especially in applications where the two multiplexers are not physically located together.

NS ONE-net Channel Listing:

Common Channel	Port Channel	Transmit Channel	Transmit Frequency	Receive Channel	Receive Frequency
COM-I	1	22	1559.79	23	1558.98
COM-I	2	24	1558.17	25	1557.36
COM-I	3	26	1556.55	27	1555.75
COM-I	4	28	1554.94	29	1554.13
COM-I	5	30	1553.33	31	1552.52
COM-I	6	32	1551.72	33	1550.92
COM-I	7	34	1550.12	35	1549.32
COM-I	8	36	1548.51	37	1547.72
COM-I	9	38	1546.92	39	1546.12
COM-I	10	40	1545.32	41	1544.53
COM-I	11	42	1543.73	43	1542.94
COM-I	12	44	1542.14	45	1541.35
COM-I	13	46	1540.56	47	1539.77
COM-I	14	48	1538.98	49	1538.19
COM-I	15	50	1537.40	51	1536.61
COM-I	16	52	1535.82	53	1535.04
COM-I	17	54	1534.25	55	1533.47
COM-I	18	56	1532.68	57	1531.90
COM-I	19	58	1531.12	59	1530.33
COM-I	20	60	1529.55	61	1528.77
COM-II	1	23	1558.98	22	1559.79
COM-II	2	25	1557.36	24	1558.17
COM-II	3	27	1555.75	26	1556.55
COM-II	4	29	1554.13	28	1554.94
COM-II	5	31	1552.52	30	1553.33
COM-II	6	33	1550.92	32	1551.72
COM-II	7	35	1549.32	34	1550.12
COM-II	8	37	1547.72	36	1548.51
COM-II	9	39	1546.12	38	1546.92
COM-II	10	41	1544.53	40	1545.32
COM-II	11	43	1542.94	42	1543.73
COM-II	12	45	1542.14	44	1542.14
COM-II	13	47	1539.77	46	1540.56
COM-II	14	49	1538.19	48	1538.98
COM-II	15	51	1536.61	50	1537.40
COM-II	16	53	1535.04	52	1535.82
COM-II	17	55	1533.47	54	1534.25
COM-II	18	57	1531.90	56	1532.68
COM-II	19	59	1530.33	58	1531.12
COM-II	20	61	1528.77	60	1529.55

SPECIFICATIONS:

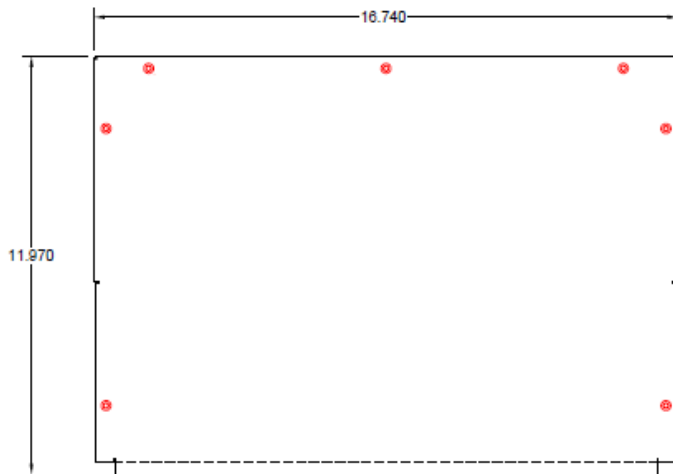
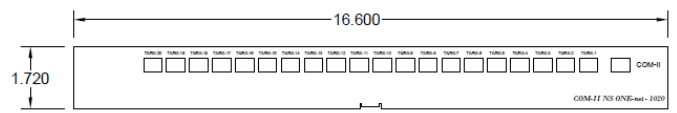
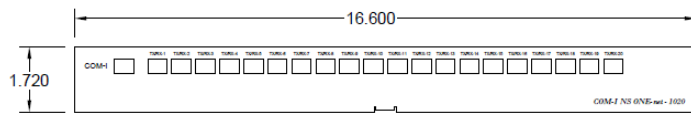
Parameter	Description	Specification	Unit
Operating Wavelength	20 Port Channel Drops (DWDM)	1528.77 – 1559.79	Nanometer (nm)
ITU Channel Number	Port Channel Assignment (DWDM)	22-61	
Channel Spacing	ITU Standard 100GHz Grid	100/200	GigaHertz (GHz)
Bandwidth	Per Port Channel Drop	±0.11	Nanometer (nm)
Insertion Loss	Per Port Channel Drop	3.2 typical, 5.0 maximum	Decibels (dB)
Ripple	Per Port Channel Drop	≤0.5	Decibels (dB)
Polarization Dependent Loss	Per Port Channel Drop	≤0.25	Decibels (dB)
Adjacent Channel Isolation	Per Port Channel Drop	≥25	Decibels (dB)
Non-adjacent Channel Isolation	Per Port Channel Drop	≥45	Decibels (dB)
Directivity	Per Port Channel Drop	≥50	Decibels (dB)
Return Loss	Per Port Channel Drop	≥45	Decibels (dB)
Operating Temperature Range	Per Unit	-5 ~ +75	Degrees Celsius (°C)
Operating Relative Humidity	Per Unit	85% Maximum, non-condensing	
Storage Temperature Range	Per Unit	-40 ~ +85	Degrees Celsius (°C)
Storage Relative Humidity	Per Unit	5 ~ 95% Maximum, non-condensing	
Size	Height x Width x Length	1.75 x 19 x 12	Inches (in)
Weight	Per Unit	8.75	Pounds (lbs)

Note: All per port channel drop data does not include connectors.

ORDERING INFORMATION:

Model Name	Description	Ordering Number
COM I NS ONE-net 1020	Single fiber bidirectional input (COM I) to 20 Port Channels DWDM Multiplexer	NSW1R19MXD11202261
COM II NS ONE-net 1020	Single fiber bidirectional input (COM II) to 20 Port Channels DWDM Multiplexer	NSW1R19MXD21202261

MECHANICAL PACKAGING:



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