Datasheet

Multichannel DWDM Multiplexer 19”

General

The passive 19" multiplexers from MICROSENS are the heart of DWDM infrastructures (according to ITU-Grid standard G.694.1).

As a passive unit in connection with an active MSP1000/MSP3000 DWDM system, the multiplexers serve compact, expandable DWDM applications, depending on the model, as well as the construction of a passive overall mapping in the form of the 40-channel multiplexer for maximum DWDM capacities.

In combination with the active transponder modules from MICROSENS, the concept allows many combinations to implement an optimal solution and enables a seamless migration path with low first-in-costs.

All filters are supplied with LC-connections (duplex), which match the standard interfaces of an active DWDM infrastructure.

Technical Details

Type	DWDM-Multiplexer 19"	
Versions /	MS419871-44	8+E-Channel Multiplexer DWDM (ext.)
Channel quantities	MS419880	40-Channel Multiplexer DWDM
Connections	All connections in LC/PC duplex (local / line / E-Port)	
FO-Cable Type	SMF-28e	
Power Supply	No power supply needed	
Dimensions	19" (1U)	
Data Rates	Independent	
Operating temp.	-10..+70°C	
Storage temp.	-40..+85°C	

Optical Parameter

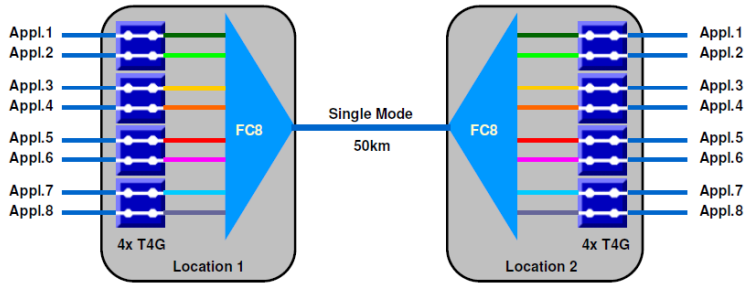
	MS419871-44	**MS419880**
Channel distance	100 GHz	100 GHz
Wavelength (ww) **(See ITU Grid, Page 3)**	44..51 + E-Port	21..60
Center ww Accuracy	max. +/- 0.1 nm	+/- 0.05 nm
Ch. Passband E-Port	1500~1541.54 & 1548.32~1620	-
Isolation		
Adjacent Channel	min. 30 dB	min. 25 dB
Non-Adjacent Channel	min. 35 dB	min. 29 dB
Total Channel Isolation		min. 22 dB
E-Port	min. 13 dB	-
Channel Passband	ITU +/- 0.11nm	ITU +/- 0.1 nm
Insertion Loss		
Passband IL	max. 3.2 dB	
Mux/DeMux IL comb.	max. 4.3 dB	typ. 3.5 dB (max. 5 dB)
E-Port	max. 2.8 dB	-
Passband Ripple	max. 0.5 dB	max. 1.5 dB
Polarization Dependent Loss	max. 0.2 dB	typ. 0.3 dB (max. 0.5 dB)
Polarization Mode Dispersion	max 0.1 ps	max. 0.5 ps
Directivity	min. 50 dB	
Return Loss	min. 50 dB	min. 40 dB

ITU-Grid DWDM (ITU.694.1)

DWDM- Channel	Wavelength **(in nm)**	Frequency **(in THz)**
60	1529,55	196,00
59	1530,33	195,90
58	1531,12	195,80
57	1531,90	195,70
56	1532,68	195,60
55	1533,47	195,50
54	1534,25	195,40
53	1535,04	195,30
52	1535,82	195,20
51	1536,61	195,10
50	1537,40	195,00
49	1538,19	194,90
48	1538,98	194,80
47	1539,77	194,70
46	1540,56	194,60
45	1541,35	194,50
44	1542,14	194,40
43	1542,94	194,30
42	1543,73	194,20
41	1544,53	194,10

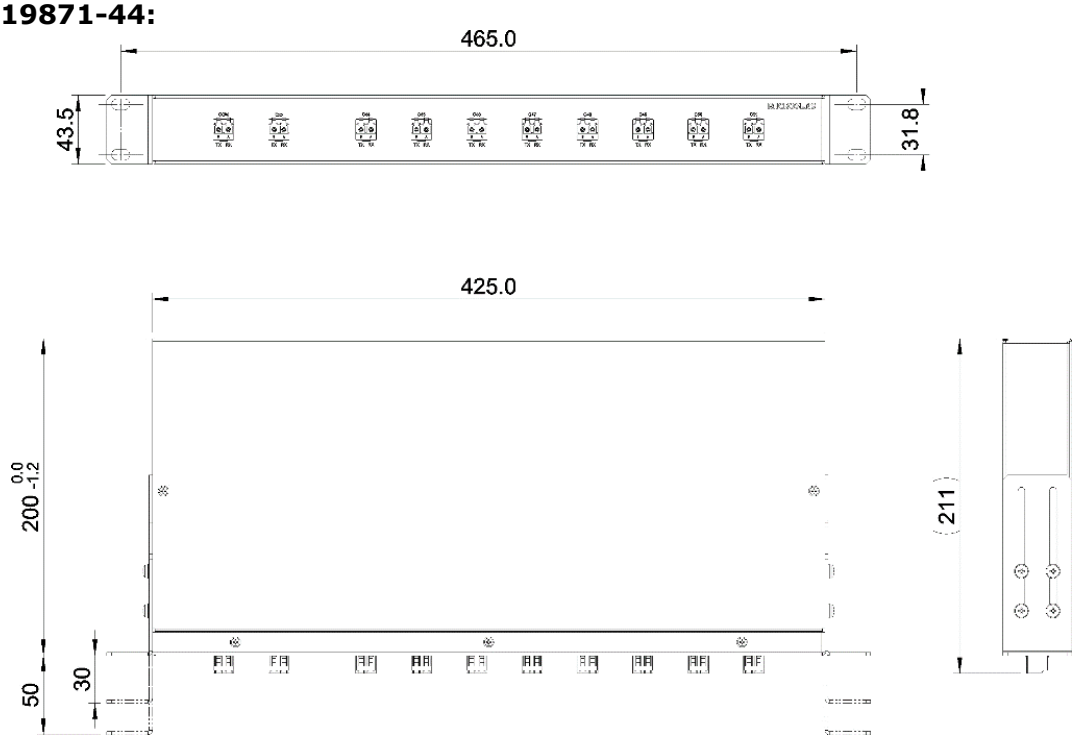
DWDM- Channel	Wavelength **(in nm)**	Frequency **(in THz)**
40	1545,32	194,00
39	1546,12	193,90
38	1546,92	193,80
37	1547,72	193,70
36	1548,51	193,60
35	1549,32	193,50
34	1550,12	193,40
33	1550,92	193,30
32	1551,72	193,20
31	1552,52	193,10
30	1553,33	193,00
29	1554,13	192,90
28	1554,94	192,80
27	1555,75	192,70
26	1556,55	192,60
25	1557,36	192,50
24	1558,17	192,40
23	1558,98	192,30
22	1559,79	192,20
21	1560,61	192,10

Example of application

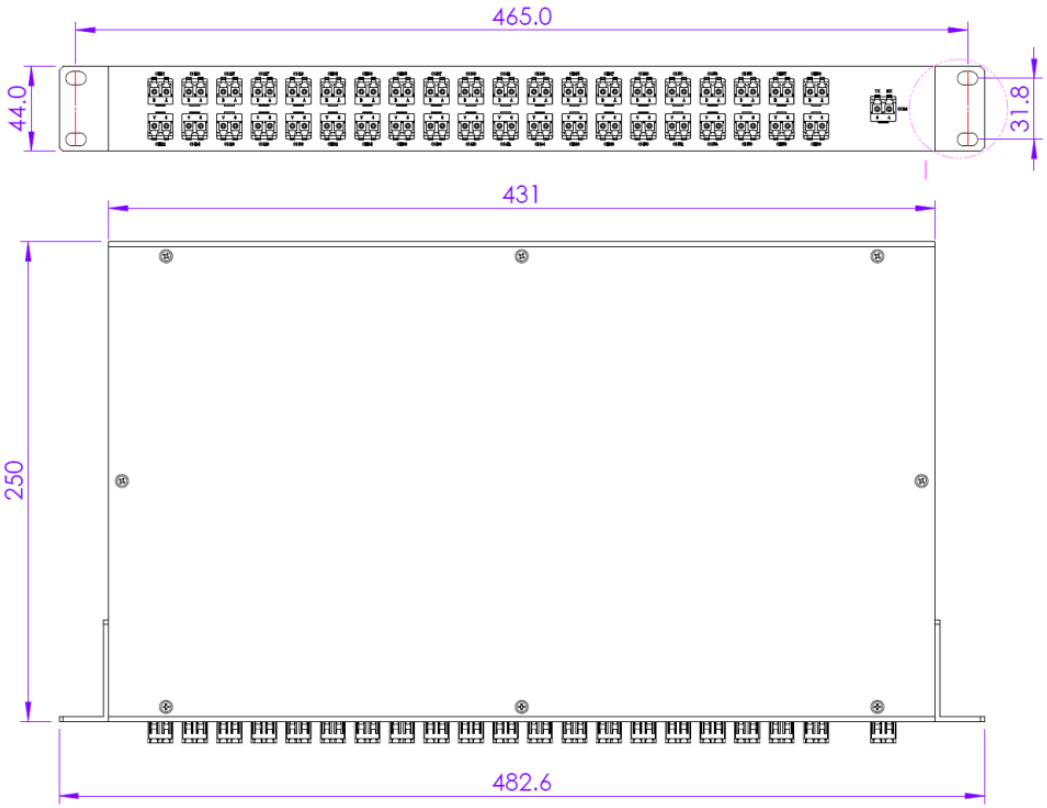


Dimensions

MS419871-44:



MS419880:



Order Information

Description	Art.-No.
8+E-Channel DWDM MUX/DEMUX 19" 1U with E-Port Local:8x LC/PC duplex, E-Port: 1x LC/PC duplex, Line:1x LC/PC duplex, Startchannel 44 (1542.14 nm), 100GHz Grid, RAL7016	**MS419871-44**
40-Channel DWDM MUX/DEMUX 19" 1U 40xLC/PC duplex, Line:1x LC/PC duplex, Startchannel: 21 (1560.60nm) 100GHz Grid, RAL7016	**MS419880**