



HYAT0276038

Standard Specification for
C-Band 50/100GHz Interleaver

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1. General

This document covers the standard specification of C-Band 50/100GHz Interleaver.

2. Construction

Construction is shown in Figure 1.

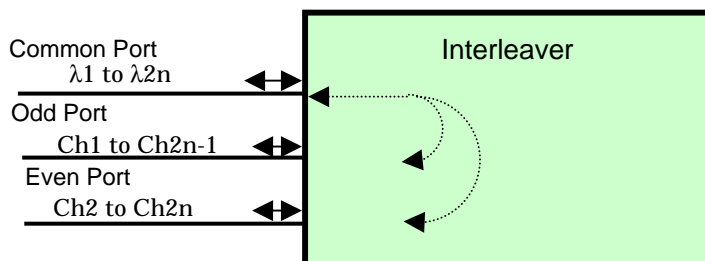


Figure1. Construction of 50/100GHz interleaver

3. Optical Specification

Parameter	Standard	High Isolation
Wavelength Range	1525 to 1565nm	
Channel Spacing	Common Port : 100GHz Odd/Even Port : 50GHz	
Center Frequency (Fc)	Shown in Table A	
Operating Bandwidth	Fc +/- 8GHz	Fc +/- 8GHz
Insertion Loss	≤ 2.0dB	≤ 2.5dB
Channel Uniformity	≤ 0.5dB	≤ 0.5dB
Adjacent Ch. Isolation	≥ 10dB	≥ 19dB
Return Loss	≥ 45dB	≥ 45dB
Directivity	≥ 45dB	≥ 45dB
PMD	≤ 0.1ps	≤ 0.1ps
PDL	≤ 0.2dB	≤ 0.2dB
Chromatic Dispersion	+/- 5ps/nm	+/- 5ps/nm
Maximum Input Power	≥ 24dBm	≥ 24dBm

These parameters are defined in the section "6. Definition of Optical Parameters" .

Table A Central Wavelength(λ_c)

Odd Port			Even Port		
Ch	FRQ(GHz)	Wavelength(nm)	Ch	FRQ(GHz)	Wavelength(nm)
1	191.50	1565.50	2	191.55	1565.09
3	191.60	1564.68	4	191.65	1564.27
5	191.70	1563.86	6	191.75	1563.45
7	191.80	1563.05	8	191.85	1562.64
9	191.90	1562.23	10	191.95	1561.83
11	192.00	1561.42	12	192.05	1561.01
13	192.10	1560.61	14	192.15	1560.20
15	192.20	1559.79	16	192.25	1559.39
17	192.30	1558.98	18	192.35	1558.58
19	192.40	1558.17	20	192.45	1557.77
21	192.50	1557.36	22	192.55	1556.96
23	192.60	1556.55	24	192.65	1556.15
25	192.70	1555.75	26	192.75	1555.34
27	192.80	1554.94	28	192.85	1554.54
29	192.90	1554.13	30	192.95	1553.73
31	193.00	1553.33	32	193.05	1552.93
33	193.10	1552.52	34	193.15	1552.12
35	193.20	1551.72	36	193.25	1551.32
37	193.30	1550.92	38	193.35	1550.52
39	193.40	1550.12	40	193.45	1549.72
41	193.50	1549.32	42	193.55	1548.91
43	193.60	1548.51	44	193.65	1548.11
45	193.70	1547.72	46	193.75	1547.32
47	193.80	1546.92	48	193.85	1546.52
49	193.90	1546.12	50	193.95	1545.72
51	194.00	1545.32	52	194.05	1544.92
53	194.10	1544.53	54	194.15	1544.13
55	194.20	1543.73	56	194.25	1543.33
57	194.30	1542.94	58	194.35	1542.54
59	194.40	1542.14	60	194.45	1541.75
61	194.50	1541.35	62	194.55	1540.95
63	194.60	1540.56	64	194.65	1540.16
65	194.70	1539.77	66	194.75	1539.37
67	194.80	1538.98	68	194.85	1538.58
69	194.90	1538.19	70	194.95	1537.79
71	195.00	1537.40	72	195.05	1537.00
73	195.10	1536.61	74	195.15	1536.22
75	195.20	1535.82	76	195.25	1535.43
77	195.30	1535.04	78	195.35	1534.64
79	195.40	1534.25	80	195.45	1533.86
81	195.50	1533.47	82	195.55	1533.07
83	195.60	1532.68	84	195.65	1532.29
85	195.70	1531.90	86	195.75	1531.51
87	195.80	1531.12	88	195.85	1530.72
89	195.90	1530.33	90	195.95	1529.94
91	196.00	1529.55	92	196.05	1529.16
93	196.10	1528.77	94	196.15	1528.38
95	196.20	1527.99	96	196.25	1527.60
97	196.30	1527.22	98	196.35	1526.83
99	196.40	1526.44	100	196.45	1526.05

4. Other Specificatoin

Parameter	Specification
Dimension	80 x 65 x 14.5mm
Fiber	SMF, 900μm loose tube, length >1m
Operating Temperature	0 to 70°C
Strage Temperature	-40 to 85°C

5. Test Report

A test report is provided with each product including the following measured data:

- Insertion Loss @ room temperature
- Return Loss @ room temperature
- PDL @ room temperature

6. Definition of Optical Parameters

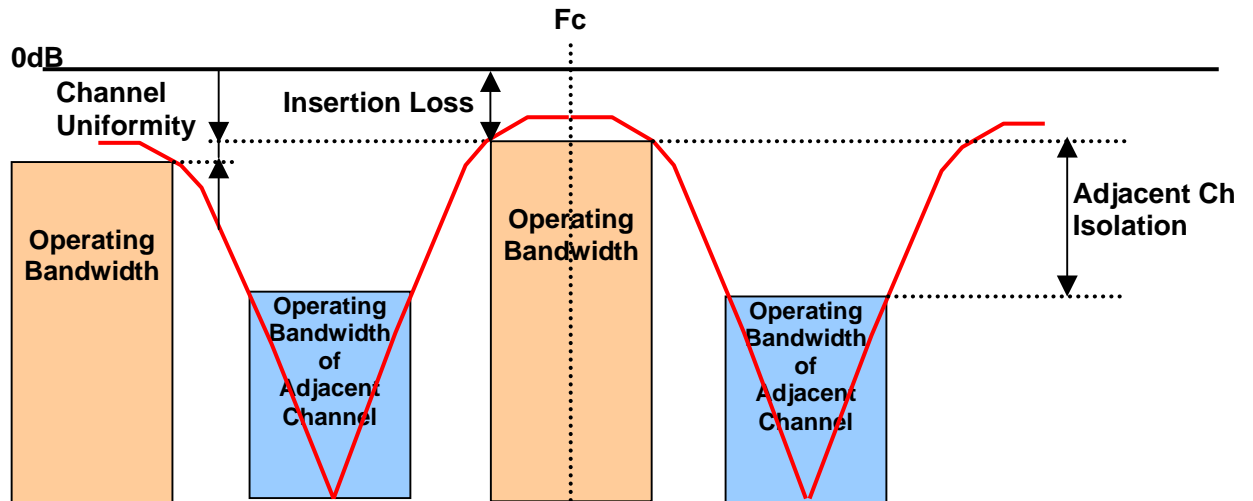


Figure1 Definition of parameters

- Insertion Loss

Insertion Loss is defined by the maximum value in the operating bandwidth.
This value is defined over all operating temperature and states of polarization.

- Channel Uniformity

Channel Uniformity is defined by the difference between max. and min. insertion loss of each channels.
This value is defined over all operating temperature and states of polarization.

- Adjacent Ch. Isolation

Adjacent Ch. Isolation is defined by the minimum difference between Insertion Loss of a center channel and two adjacent channels.

<Each Insertion Loss is defined by the maximum value in the operating bandwidth shown as Figure 1>

This value is defined over all operating temperature and states of polarization.

- Other Parameters

Other parameters are defined over all operating temperature and states of polarization.