



HYAT0276039

Standard Specification for
C-Band 25/50GHz Interleaver

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1. General

This document covers the standard specification of C-Band 25/50GHz Interleaver.

2. Construction

Construction is shown in Figure 1.

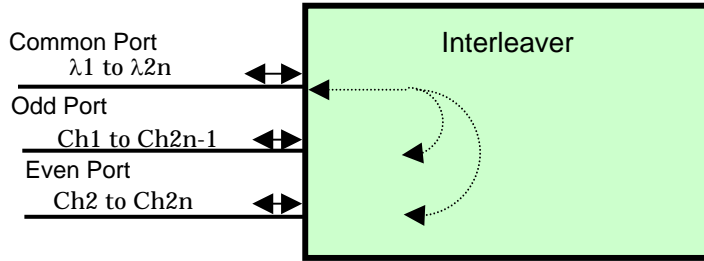


Figure1. Construction of 25/50GHz interleaver

3. Optical Specification

Parameter	Standard	High Isolation
Wavelength Range	1525 to 1565nm	
Channel Spacing	Common Port : 50GHz Odd/Even Port : 25GHz	
Center Frequency (Fc)	Shown in Table A	
Operating Bandwidth	Fc +/- 4GHz	Fc +/- 4GHz
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	191.500	1565.50	2	191.525	1565.29
3	191.550	1565.09	4	191.575	1564.88
5	191.600	1564.68	6	191.625	1564.47
7	191.650	1564.27	8	191.675	1564.07
9	191.700	1563.86	10	191.725	1563.66
11	191.750	1563.45	12	191.775	1563.25
13	191.800	1563.05	14	191.825	1562.84
15	191.850	1562.64	16	191.875	1562.44
17	191.900	1562.23	18	191.925	1562.03
19	191.950	1561.83	20	191.975	1561.62
21	192.000	1561.42	22	192.025	1561.22
23	192.050	1561.01	24	192.075	1560.81
25	192.100	1560.61	26	192.125	1560.40
27	192.150	1560.20	28	192.175	1560.00
29	192.200	1559.79	30	192.225	1559.59
31	192.250	1559.39	32	192.275	1559.19
33	192.300	1558.98	34	192.325	1558.78
35	192.350	1558.58	36	192.375	1558.38
37	192.400	1558.17	38	192.425	1557.97
39	192.450	1557.77	40	192.475	1557.57
41	192.500	1557.36	42	192.525	1557.16
43	192.550	1556.96	44	192.575	1556.76
45	192.600	1556.55	46	192.625	1556.35
47	192.650	1556.15	48	192.675	1555.95
49	192.700	1555.75	50	192.725	1555.55
51	192.750	1555.34	52	192.775	1555.14
53	192.800	1554.94	54	192.825	1554.74
55	192.850	1554.54	56	192.875	1554.34
57	192.900	1554.13	58	192.925	1553.93
59	192.950	1553.73	60	192.975	1553.53
61	193.000	1553.33	62	193.025	1553.13
63	193.050	1552.93	64	193.075	1552.73
65	193.100	1552.52	66	193.125	1552.32
67	193.150	1552.12	68	193.175	1551.92
69	193.200	1551.72	70	193.225	1551.52
71	193.250	1551.32	72	193.275	1551.12
73	193.300	1550.92	74	193.325	1550.72
75	193.350	1550.52	76	193.375	1550.32
77	193.400	1550.12	78	193.425	1549.92
79	193.450	1549.72	80	193.475	1549.52
81	193.500	1549.32	82	193.525	1549.11
83	193.550	1548.91	84	193.575	1548.71
85	193.600	1548.51	86	193.625	1548.31
87	193.650	1548.11	88	193.675	1547.92
89	193.700	1547.72	90	193.725	1547.52
91	193.750	1547.32	92	193.775	1547.12
93	193.800	1546.92	94	193.825	1546.72
95	193.850	1546.52	96	193.875	1546.32
97	193.900	1546.12	98	193.925	1545.92
99	193.950	1545.72	100	193.975	1545.52

Odd Port			Even Port		
Ch	FRQ(GHz)	Wavelength (nm)	Ch	FRQ(GHz)	Wavelength (nm)
101	194.000	1545.32	102	194.025	1545.12
103	194.050	1544.92	104	194.075	1544.72
105	194.100	1544.53	106	194.125	1544.33
107	194.150	1544.13	108	194.175	1543.93
109	194.200	1543.73	110	194.225	1543.53
111	194.250	1543.33	112	194.275	1543.13
113	194.300	1542.94	114	194.325	1542.74
115	194.350	1542.54	116	194.375	1542.34
117	194.400	1542.14	118	194.425	1541.94
119	194.450	1541.75	120	194.475	1541.55
121	194.500	1541.35	122	194.525	1541.15
123	194.550	1540.95	124	194.575	1540.76
125	194.600	1540.56	126	194.625	1540.36
127	194.650	1540.16	128	194.675	1539.96
129	194.700	1539.77	130	194.725	1539.57
131	194.750	1539.37	132	194.775	1539.17
133	194.800	1538.98	134	194.825	1538.78
135	194.850	1538.58	136	194.875	1538.38
137	194.900	1538.19	138	194.925	1537.99
139	194.950	1537.79	140	194.975	1537.59
141	195.000	1537.40	142	195.025	1537.20
143	195.050	1537.00	144	195.075	1536.81
145	195.100	1536.61	146	195.125	1536.41
147	195.150	1536.22	148	195.175	1536.02
149	195.200	1535.82	150	195.225	1535.63
151	195.250	1535.43	152	195.275	1535.23
153	195.300	1535.04	154	195.325	1534.84
155	195.350	1534.64	156	195.375	1534.45
157	195.400	1534.25	158	195.425	1534.05
159	195.450	1533.86	160	195.475	1533.66
161	195.500	1533.47	162	195.525	1533.27
163	195.550	1533.07	164	195.575	1532.88
165	195.600	1532.68	166	195.625	1532.49
167	195.650	1532.29	168	195.675	1532.09
169	195.700	1531.90	170	195.725	1531.70
171	195.750	1531.51	172	195.775	1531.31
173	195.800	1531.12	174	195.825	1530.92
175	195.850	1530.72	176	195.875	1530.53
177	195.900	1530.33	178	195.925	1530.14
179	195.950	1529.94	180	195.975	1529.75
181	196.000	1529.55	182	196.025	1529.36
183	196.050	1529.16	184	196.075	1528.97
185	196.100	1528.77	186	196.125	1528.58
187	196.150	1528.38	188	196.175	1528.19
189	196.200	1527.99	190	196.225	1527.80
191	196.250	1527.60	192	196.275	1527.41
193	196.300	1527.22	194	196.325	1527.02
195	196.350	1526.83	196	196.375	1526.63
197	196.400	1526.44	198	196.425	1526.24
199	196.450	1526.05	200	196.475	1525.86

4. Other Specificatoin

Parameter	Specification
Dimension	80 x 65 x 14.5mm
Fiber	SMF, 900 μ m 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

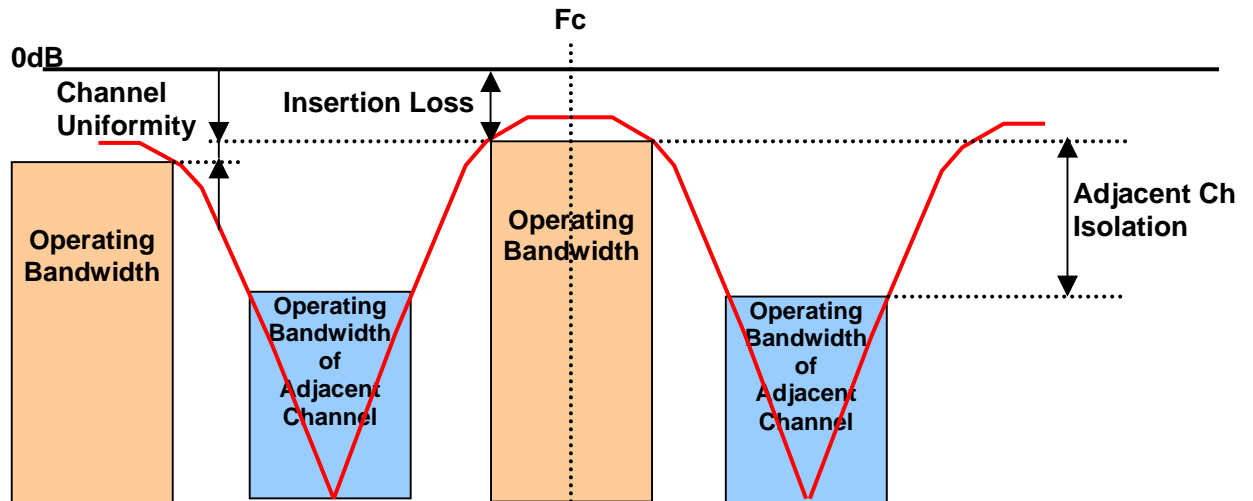


Figure1 Definition of parameters

- 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.