



Enabling Support for Tunable DWDM-XFP-C

The dense wavelength-division multiplexing (DWDM) wavelengths of the DWDM-XFP-C module on the Cisco ASR 900 Series router is tunable. You can configure the DWDM ITU wavelengths using the **itu channel** command in the interface configuration mode. The **itu channel** command ensures that the traffic continues to flow.

[Table 1: DWDM-XFP-C Wavelength Mapping, on page 1](#) contains the wavelength mapping information for the DWDM-XFP-C module.

Table 1: DWDM-XFP-C Wavelength Mapping

Channel no	wavelength [nm]	Frequency [THz]
1	1561.79	191.95
2	1561.46	192
3	1560.98	192.05
4	1560.65	192.1
5	1560.17	192.15
6	1559.83	192.2
7	1559.35	192.25
8	1559.02	192.3
9	1558.54	192.35
10	1558.21	192.4
11	1557.73	192.45
12	1557.4	192.5
13	1556.92	192.55
14	1556.59	192.6

Channel no	wavelength [nm]	Frequency [THz]
15	1556.11	192.65
16	1555.79	192.7
17	1555.31	192.75
18	1554.98	192.8
19	1554.4	192.85
20	1554.17	192.9
21	1553.7	192.95
22	1553.37	193
23	1552.89	193.05
24	1552.57	193.1
25	1552.09	193.15
26	1551.76	193.2
27	1551.28	193.25
28	1550.96	193.3
29	1550.48	193.35
30	1550.16	193.4
31	1549.68	193.45
32	1549.35	193.5
33	1548.88	193.55
34	1548.55	193.6
35	1548.08	193.65
36	1548.75	193.7
37	1546.95	193.75
38	1546.95	193.8
39	1546.48	193.85
40	1546.16	193.9
41	1545.69	193.95

Channel no	wavelength [nm]	Frequency [THz]
42	1545.36	194
43	1544.89	194.05
44	1544.56	194.1
45	1544.09	194.15
46	1543.77	194.2
47	1543.3	194.25
48	1542.97	194.3
49	1542.5	194.35
50	1542.18	194.4
51	1541.71	194.45
52	1541.39	194.5
53	1540.92	194.55
54	1540.6	194.6
55	1540.13	194.65
56	1539.8	194.7
57	1539.34	194.75
58	1539.01	194.8
59	1538.55	194.85
60	1538.22	194.9
61	1537.76	194.95
62	1537.43	195
63	1536.97	195.05
64	1536.65	195.1
65	1536.18	195.15
66	1535.86	195.2
67	1535.396	195.25
68	1535.07	195.3

Channel no	wavelength [nm]	Frequency [THz]
69	1534.61	195.35
70	1534.29	195.4
71	1533.82	195.45
72	1533.5	195.5
73	1533.04	195.55
74	1532.72	195.6
75	1532.26	195.65
76	1531.94	195.7
77	1531.48	195.75
78	1531.14	195.8
79	1530.69	195.85
80	1530.37	195.9
81	1529.91	195.95
82	1529.59	196

- [Configuring the DWDM-XFP-C Module, on page 4](#)

Configuring the DWDM-XFP-C Module

Perform the following procedure to configure the DWDM-XFP-C module.

Procedure

	Command or Action	Purpose
Step 1	enable Example: Router# enable	Enables the privileged EXEC mode. If prompted, enter your password.
Step 2	configure terminal Example: Router# configure terminal	Enters the global configuration mode.

	Command or Action	Purpose
Step 3	interface tengigabitethernet <i>slot/port</i> Example: <pre>Router(config)# interface tengigabitethernet 0/3</pre>	Specifies the 10-Gigabit Ethernet interface to be configured. <ul style="list-style-type: none"> • <i>slot/port</i>—Specifies the location of the interface.
Step 4	itu channel <i>number</i> Example: <pre>Router(config-if)# itu channel 28</pre>	Sets the ITU channel. <ul style="list-style-type: none"> • <i>number</i>—Specifies the ITU channel number. The acceptable values are from 1–82.

Verifying the ITU Configuration

The following example shows how to use the **show hw-module subslot** command to check an ITU configuration:

```
Router# show hw-module subslot 0/2 transceiver 0 idprom dump
Description = XFP optics (type 6)
Transceiver Type: = TUNABLE DWDM XFP (194)
Product Identifier (PID) = DWDM-XFP-C
Frequency Set for Tunable DWDM = 195.5 THz
Vendor Revision = 00
Serial Number (SN) = JFX1617800W
Vendor Name = CISCO-JDSU
Vendor OUI (IEEE company ID) = 00.01.9C (412)
CLEI code = IP9IAGGCAB
Cisco part number = 10-2544-02
Device State = Disabled.
XFP IDPROM Page 0x0:
000: 0C 00 49 00 F8 00 46 00 FB 00
010: 00 00 00 00 00 00 00 00 00 A6 04
020: 09 C4 8C A0 13 88 9B 83 13 93
030: 62 1F 1F 07 0F 8D 00 0A 09 CF
040: 00 10 00 18 FF E8 00 0C FF F4
050: 00 00 00 00 00 00 00 00 00 00
060: 00 BF 25 1C 00 C4 00 00 01 F4
070: 00 00 00 00 00 00 00 00 00 00
080: 00 00 00 00 9E 20 00 00 00 00
090: 00 00 00 00 00 00 1E 7C 00 00
100: 00 00 00 01 00 00 00 00 00 00
110: E2 98 00 14 00 00 00 00 00 00 <<See byte 113, the hexa decimal
equivalent for ITU channel 20>>
120: 00 00 00 00 00 00 00 00 01
XFP IDPROM Page 0x1:
128: 0C 98 07 00 00 00 00 00 00 00
138: 08 B4 63 71 50 00 00 00 00 9F
148: 43 49 53 43 4F 2D 4A 44 53
```

