

## THE CONFIGURATION OF TUNABLE XFP IN CISCO 7604

1.

When a tunable module is plugged in for the first time it will go to a default channel, or if Tx\_DIS is asserted it will go to a standby condition. default channel is 1561.83nm, compatible with CISCO channel range from 1 to 82(table 1) . but **also can support the channel from 1 to 88 channel(table2), if there is no comments, the default configuration is table 1.**

2.

When the module is power cycled it will automatically go to the last channel selected, or if Tx\_DIS is asserted it will go to a standby condition. If Tx\_DIS is asserted, the last channel selected will be cleared, and a valid new channel command will be required to set a channel.

3. If the Tx is disabled and then re-enabled, the module returns to the last channel selected.

### A. When interface in shutdown mode (when the switch is startup)

```

B. Router # enable
C. Router # configure terminal
D. Router(config)# interface TenGigabitEthernet 4/0/0
E. Router(config-if)#itu channel 28
F. Router(config-if)#no shutdown
G. Router#end
H. Router# show idprom interface TenGigabitEthernet 4/0/0detail
I. Hexadecimal dump of TRANSCEIVER SEEPROM :
J. XFP IDPROM Page 0x0:
K.      000:      0C 00 49 00 F8 00 46 00 FB 00
L.      010:      00 00 00 00 00 00 00 00 A6 04
M.      020:      09 C4 8C A0 13 88 9B 83 0F 8D
N.      030:      62 1F 18 A6 13 94 00 0A 0C 5A
O.      040:      00 10 00 18 FF E8 00 0C FF F4
P.      050:      00 00 00 00 00 00 00 00 00 00
Q.      060:      00 BF 25 1C 00 C4 00 00 01 F4

```

```
R.          070:          00 00 00 00 00 00 00 00 00 00
S.          080:          00 00 00 00 BE 20 00 00 00 00
T.          090:          00 00 00 00 00 00 20 F3 00 00
U.          100:          00 00 00 00 00 00 00 00 00 00
V.          110:          A2 B8 00 15 00 00 00 00 00 00 <<See byte 113, the hexa decimal
```

## B. When interface in no shutdown(normal) mode

```
W.          Router # enable
X.          Router # configure terminal
Y.          Router(config)# interface TenGigabitEthernet 4/0/0
Z.          Router(config-if)#shutdown
AA.         Router(config-if)#itu channel 29
BB.         Router(config-if)#no shutdown
CC.         Router#end
DD.         Router# show idprom interface TenGigabitEthernet 4/0/0detail
EE.         Hexadecimal dump of TRANSCEIVER SEEPROM :
FF.         XFP IDPROM Page 0x0:
GG.          000:          0C 00 49 00 F8 00 46 00 FB 00
HH.          010:          00 00 00 00 00 00 00 00 A6 04
II.          020:          09 C4 8C A0 13 88 9B 83 0F 8D
JJ.          030:          62 1F 18 A6 13 94 00 0A 0C 5A
KK.          040:          00 10 00 18 FF E8 00 0C FF F4
LL.          050:          00 00 00 00 00 00 00 00 00 00
MM.          060:          00 BF 25 1C 00 C4 00 00 01 F4
NN.          070:          00 00 00 00 00 00 00 00 00 00
OO.          080:          00 00 00 00 BE 20 00 00 00 00
PP.          090:          00 00 00 00 00 00 20 F3 00 00
QQ.          100:          00 00 00 00 00 00 00 00 00 00
RR.          110:          A2 B8 00 16 00 00 00 00 00 00 <<See byte 113, the hexa decimal
```

**Table 1 C-band  $\lambda_c$  Wavelength Guide Pin Descriptions**

Channel	Wavelength (nm)	Frequency (THZ)	Channel	Wavelength (nm)	Frequency (THZ)
1	1561.83	191.95	42	1545.32	194
2	1561.42	192	43	1544.92	194.05
3	1561.01	192.05	44	1544.53	194.1
4	1560.61	192.1	45	1544.13	194.15
5	1560.2	192.15	46	1543.73	194.2
6	1559.79	192.2	47	1543.33	194.25
7	1559.39	192.25	48	1542.94	194.3
8	1558.98	192.3	49	1542.54	194.35
9	1558.58	192.35	50	1542.14	194.4
10	1558.17	192.4	51	1541.75	194.45
11	1557.77	192.45	52	1541.35	194.5
12	1557.36	192.5	53	1540.95	194.55
13	1556.96	192.55	54	1540.56	194.6
14	1556.55	192.6	55	1540.16	194.65
15	1556.15	192.65	56	1539.77	194.7
16	1555.75	192.7	57	1539.37	194.75
17	1555.34	192.75	58	1538.98	194.8
18	1554.94	192.8	59	1538.58	194.85
19	1554.54	192.85	60	1538.19	194.9
20	1554.13	192.9	61	1537.79	194.95
21	1553.73	192.95	62	1537.4	195
22	1553.33	193	63	1537	195.05
23	1552.93	193.05	64	1536.61	195.1
24	1552.52	193.1	65	1536.22	195.15
25	1552.12	193.15	66	1535.82	195.2
26	1551.72	193.2	67	1535.43	195.25
27	1551.32	193.25	68	1535.04	195.3
28	1550.92	193.3	69	1534.64	195.35
29	1550.52	193.35	70	1534.25	195.4
30	1550.12	193.4	71	1533.86	195.45
31	1549.72	193.45	72	1533.47	195.5

32	1549.32	193.5	73	1533.07	195.55
33	1548.91	193.55	74	1532.68	195.6
34	1548.51	193.6	75	1532.29	195.65
35	1548.11	193.65	76	1531.9	195.7
36	1547.72	193.7	77	1531.51	195.75
37	1547.32	193.75	78	1531.12	195.8
38	1546.92	193.8	79	1530.72	195.85
39	1546.52	193.85	80	1530.33	195.9
40	1546.12	193.9	81	1529.94	195.95
41	1545.72	193.95	82	1529.55	196
Non-ITU	Peak wavelength between 1529.55nm-1561.83nm				

**Table 2 C-band  $\lambda$ c Wavelength Guide Pin Descriptions**

Channel	Wavelength (nm)	Frequency (THZ)	Channel	Wavelength (nm)	Frequency (THZ)
			44	1546.12	193.9
1	1563.45	191.75	45	1545.72	193.95
2	1563.05	191.8	46	1545.32	194
3	1562.64	191.85	47	1544.92	194.05
4	1562.23	191.9	48	1544.53	194.1
5	1561.83	191.95	49	1544.13	194.15
6	1561.42	192	50	1543.73	194.2
7	1561.01	192.05	51	1543.33	194.25
8	1560.61	192.1	52	1542.94	194.3
9	1560.2	192.15	53	1542.54	194.35
10	1559.79	192.2	54	1542.14	194.4
11	1559.39	192.25	55	1541.75	194.45
12	1558.98	192.3	56	1541.35	194.5
13	1558.58	192.35	57	1540.95	194.55
14	1558.17	192.4	58	1540.56	194.6
15	1557.77	192.45	59	1540.16	194.65
16	1557.36	192.5	60	1539.77	194.7
17	1556.96	192.55	61	1539.37	194.75
18	1556.55	192.6	62	1538.98	194.8
19	1556.15	192.65	63	1538.58	194.85
20	1555.75	192.7	64	1538.19	194.9
21	1555.34	192.75	65	1537.79	194.95
22	1554.94	192.8	66	1537.4	195
23	1554.54	192.85	67	1537	195.05

24	1554.13	192.9	68	1536.61	195.1
25	1553.73	192.95	69	1536.22	195.15
26	1553.33	193	70	1535.82	195.2
27	1552.93	193.05	71	1535.43	195.25
28	1552.52	193.1	72	1535.04	195.3
29	1552.12	193.15	73	1534.64	195.35
30	1551.72	193.2	74	1534.25	195.4
31	1551.32	193.25	75	1533.86	195.45
32	1550.92	193.3	76	1533.47	195.5
33	1550.52	193.35	77	1533.07	195.55
34	1550.12	193.4	78	1532.68	195.6
35	1549.72	193.45	79	1532.29	195.65
36	1549.32	193.5	80	1531.9	195.7
37	1548.91	193.55	81	1531.51	195.75
38	1548.51	193.6	82	1531.12	195.8
39	1548.11	193.65	83	1530.72	195.85
40	1547.72	193.7	84	1530.33	195.9
41	1547.32	193.75	85	1529.94	195.95
42	1546.92	193.8	86	1529.55	196
43	1546.52	193.85	87	1529.16	196.05
Non-ITU	Peak wavelength between 1528.77nm-1563.45nm		88	1528.77	196.1