

Optical Port Additional Function Configuration

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Chapter 1 Optical Port Additional Function Configuration

1.1 Enable Optical Port DDM Function

To enable ddm in the global configuration mode, use the following command.

Command	Purpose
ddm {enable}	Enable DDM check function for all optical ports.
No ddm	Disable DDM check function for all optical ports.

After the DDM check function is enabled, the DDM information of the optical module can be displayed through **show interface xxxx**. If the optical module is not inserted, the DDM information will not be displayed.

Note: After enabling, the CPU usage may increase slightly according to the hardware designs. The inspection information includes the specifications, wavelength, manufacturer information, serial number, production date, etc. If the optical module supports the **Digital diagnostic monitoring** function, the receiving optical power, voltage, bias current, temperature and related threshold information will also be displayed.

Examples are as follows:

Ddm enable

show int g0/25

.....

Transceiver Info:

```
SFP,LC,850nm,10000BASE-FX-SR,LOS:yes
MM 80M(50um OM2 fiber) 30M(62.5um OM1 fiber) 300M(50um OM3 fiber)
DDM:YES,Vend:FINISAR,PN:FTLX8571D3BCL-HW
SerialNum:AQN03Y5,Date:2018-04-04
```

DDM info:

```
TX power:-9.40 dBm, RX power:-36.99 dBm
SFP temperature:21.00 C,supply voltage :3.40V,Bias Current.:5.00mA
```

DDM Thresholds:	Low-Alarm	Low-Warning	High-Warning	High-Alarm
TX power(dBm):	-6.00	-5.00	0.50	1.50
RX power(dBm):	-13.00	-12.50	0.50	1.50
SFP temperature(C):	-10	0	75	85
Supply voltage(v):	3.00	3.10	3.50	3.60
Bias Current(mA):	1.00	1.00	100.00	110.00

1.2 Optical Port Single-fiber Transceiver Function

To enable optical port single-fiber transceiver function, use the following command:

Command	Purpose
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single-fiber one-way {tx rx}	Enable the port single-fiber (send or receive) function.
No single-fiber	Disable the port single-fiber transceiver function.

After this function is enabled, the port is in LINK UP state immediately. You can insert the optical fiber in the TX direction or RX direction of the optical module according to the configured function. Data will only flow in one direction.

1.3 Optical Port Adaptive Optical Module Function

Command	Purpose
fiber-auto-config {full}	Enable optical port adaptive optical module function configuration. With the parameter full, the device is switched to enforcement mode.
No fiber-auto-config	Disable the port single-fiber transceiver function.

After this function is enabled, the port will switch the working mode to match with the type of the inserted optical module. For example, the 10 Gigabit optical port inserted with a Gigabit optical module will switch to the Gigabit optical mode, and the Gigabit optical port inserted with a 100M optical module will switch to the 100M optical mode.

Note:

10 Gigabit port has only one working mode and Gigabit port has two modes: auto-adaptive and enforcement. Therefore, the 10 Gigabit optical port inserted with a Gigabit optical module will switch to the Gigabit adaptive mode by default. To switch to the Gigabit enforcement mode, you need to add the parameter **full** after this command. 100M port only has one working mode, so the Full parameter is no need. If the optical to electrical module is used, you must configure this **full** parameter to work properly.