

# 10. OAM

## Cable Diagnostics DDM

### Cable Diagnostics

The cable diagnostics feature is designed primarily for administrators or customer service representatives to verify and test copper cables; it can rapidly determine the quality of the cables and the types of error.

To view the following window, click **OAM > Cable Diagnostics**, as shown below:

Port	Type	Link Status	Test Result	Cable Length (M)	Clear
eth1/0/1	1000BASE-T	Link Up	-	-	Clear
eth1/0/2	1000BASE-T	Link Down	-	-	Clear
eth1/0/3	1000BASE-T	Link Down	-	-	Clear
eth1/0/4	1000BASE-T	Link Down	-	-	Clear
eth1/0/5	1000BASE-T	Link Down	-	-	Clear
eth1/0/6	1000BASE-T	Link Down	-	-	Clear
eth1/0/7	1000BASE-T	Link Down	-	-	Clear
eth1/0/8	1000BASE-T	Link Down	-	-	Clear
eth1/0/9	1000BASE-T	Link Down	-	-	Clear
eth1/0/10	1000BASE-T	Link Down	-	-	Clear
eth1/0/11	1000BASE-T	Link Down	-	-	Clear
eth1/0/12	1000BASE-T	Link Down	-	-	Clear
eth1/0/13	1000BASE-T	Link Down	-	-	Clear
eth1/0/14	1000BASE-T	Link Down	-	-	Clear
eth1/0/15	1000BASE-T	Link Down	-	-	Clear
eth1/0/16	1000BASE-T	Link Down	-	-	Clear
eth1/0/17	1000BASE-T	Link Down	-	-	Clear
eth1/0/18	1000BASE-T	Link Down	-	-	Clear
eth1/0/19	1000BASE-T	Link Down	-	-	Clear
eth1/0/20	1000BASE-T	Link Down	-	-	Clear
eth1/0/21	1000BASE-T	Link Down	-	-	Clear
eth1/0/22	1000BASE-T	Link Down	-	-	Clear
eth1/0/23	1000BASE-T	Link Down	-	-	Clear
eth1/0/24	1000BASE-T	Link Down	-	-	Clear

Figure 10-1 Cable Diagnostics window

The fields that can be configured are described below:

Parameter	Description
<b>Unit</b>	Select the switch unit that will be used for this configuration here.
<b>From Port / To Port</b>	Select the appropriate port range used for the configuration here.

Click the **Test** button to test the specific port.

Click the **Clear** button to clear all the information for the specific port.

Click the **Clear All** button to clear all the information in this table.

## DDM

This folder contains windows that perform Digital Diagnostic Monitoring (DDM) functions on the Switch. There are windows that allow the user to view the digital diagnostic monitoring status of SFP modules inserting to the Switch and to configure alarm settings, warning settings, temperature threshold settings, voltage threshold settings, bias current threshold settings, Tx power threshold settings, and Rx power threshold settings.

## DDM Settings

The window is used to configure the action that will occur for specific ports when an exceeding alarm threshold or warning threshold event is encountered.

To view the following window, click **OAM > DDM > DDM Settings**, as show below:

Port	State	Shutdown
eth1/0/25	Disabled	None
eth1/0/26	Disabled	None

Figure 10-2 DDM Settings window

The fields that can be configured are described below:

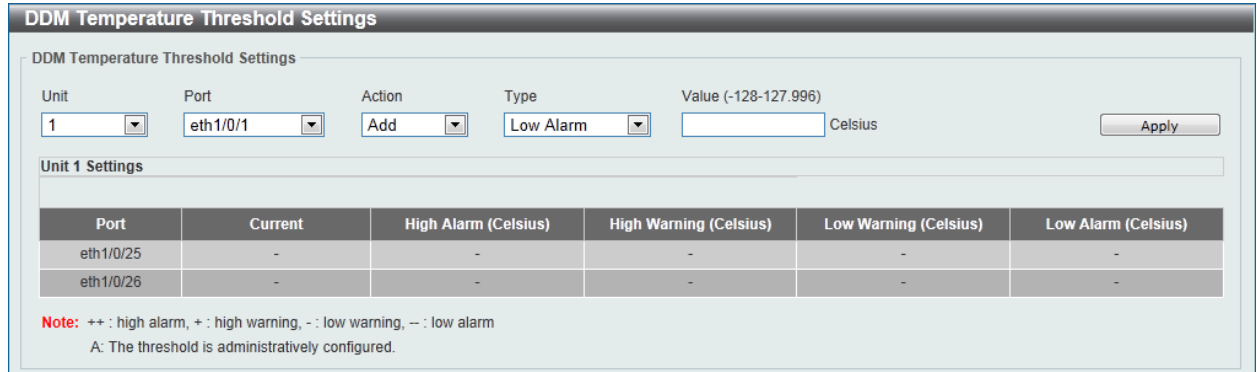
Parameter	Description
<b>Transceiver Monitoring Traps Alarm</b>	Select this option to enable or disable sending alarm level trap.
<b>Transceiver Monitoring Traps Warning</b>	Select this option to enable or disable sending warning level trap.
<b>Unit</b>	Select the switch unit that will be used for this configuration here.
<b>From Port / To Port</b>	Select the appropriate port range used for the configuration here.
<b>State</b>	Use the drop-down menu to enable or disable the DDM state.
<b>Shutdown</b>	Specify whether to shut down the port, when the operating parameter exceeds the Alarm or Warning threshold. <b>Alarm</b> - Shutdown the port when the configured alarm threshold range is exceeded. <b>Warning</b> - Shutdown the port when the configured warning threshold range is exceeded. <b>None</b> - The port will never shutdown regardless if the threshold ranges are exceeded or not. This is the default.

Click the **Apply** button to accept the changes made for each individual section.

## DDM Temperature Threshold Settings

This window is used to configure the DDM Temperature Threshold Settings for specific ports on the Switch.

To view the following window, click **OAM > DDM > DDM Temperature Threshold Settings**, as show below:



DDM Temperature Threshold Settings

DDM Temperature Threshold Settings

Unit: 1 Port: eth1/0/1 Action: Add Type: Low Alarm Value (-128-127.996): Celsius

Unit 1 Settings

Port	Current	High Alarm (Celsius)	High Warning (Celsius)	Low Warning (Celsius)	Low Alarm (Celsius)
eth1/0/25	-	-	-	-	-
eth1/0/26	-	-	-	-	-

Note: ++: high alarm, +: high warning, -: low warning, --: low alarm  
A: The threshold is administratively configured.

Figure 10-3 DDM Temperature Threshold Settings window

The fields that can be configured are described below:

Parameter	Description
<b>Unit</b>	Select the switch unit that will be used for this configuration here.
<b>Port</b>	Select the port used for the configuration here.
<b>Action</b>	Select the action that will be taken here. Options to choose from are <b>Add</b> and <b>Delete</b> .
<b>Type</b>	Select the type of temperature threshold. Options to choose from are <b>Low Alarm</b> , <b>Low Warning</b> , <b>High Alarm</b> , and <b>High Warning</b> .
<b>Value</b>	Enter the threshold value. This value must be between -128 and 127.996 °C.

Click the **Apply** button to accept the changes made.

## DDM Voltage Threshold Settings

This window is used to configure the DDM Voltage Threshold Settings for specific ports on the Switch.

To view the following window, click **OAM > DDM > DDM Voltage Threshold Settings**, as show below:

Figure 10-4 DDM Voltage Threshold Settings window

The fields that can be configured are described below:

Parameter	Description
<b>Unit</b>	Select the switch unit that will be used for this configuration here.
<b>Port</b>	Select the port used for the configuration here.
<b>Action</b>	Select the action that will be taken here. Options to choose from are <b>Add</b> and <b>Delete</b> .
<b>Type</b>	Select the type of voltage threshold. Options to choose from are <b>Low Alarm</b> , <b>Low Warning</b> , <b>High Alarm</b> , and <b>High Warning</b> .
<b>Value</b>	Enter the threshold value. This value must be between 0 and 6.55 Volt.

Click the **Apply** button to accept the changes made.

## DDM Bias Current Threshold Settings

This window is used to configure the threshold of the bias current for specific ports on the Switch.

To view the following window, click **OAM > DDM > DDM Bias Current Threshold Settings**, as show below:

Figure 10-5 DDM Bias Current Threshold Settings window

The fields that can be configured are described below:

Parameter	Description
<b>Unit</b>	Select the switch unit that will be used for this configuration here.

<b>Port</b>	Select the port used for the configuration here.
<b>Action</b>	Select the action that will be taken here. Options to choose from are <b>Add</b> and <b>Delete</b> .
<b>Type</b>	Select the type of bias current threshold. Options to choose from are <b>Low Alarm</b> , <b>Low Warning</b> , <b>High Alarm</b> , and <b>High Warning</b> .
<b>Value</b>	Enter the threshold value. This value must be between 0 and 131 mA.

Click the **Apply** button to accept the changes made.

## DDM TX Power Threshold Settings

This window is used to configure the threshold of TX power for specific ports on the Switch.

To view the following window, click **OAM > DDM > DDM TX Power Threshold Settings**, as show below:

**DDM TX Power Threshold Settings**

DDM TX Power Threshold Settings

Unit: 1 Port: eth1/0/1 Action: Add Type: Low Alarm Power Unit: mW Value (0-6.5535):  mW

**Unit 1 Settings**

Port	Current	High Alarm (mW)	High Warning (mW)	Low Warning (mW)	Low Alarm (mW)
eth1/0/25	-	-	-	-	-
eth1/0/26	-	-	-	-	-

**Note:** ++ : high alarm, + : high warning, - : low warning, -- : low alarm  
A: The threshold is administratively configured.

Figure 10-6 DDM TX Power Threshold Settings window

The fields that can be configured are described below:

Parameter	Description
<b>Unit</b>	Select the switch unit that will be used for this configuration here.
<b>Port</b>	Select the port used for the configuration here.
<b>Action</b>	Select the action that will be taken here. Options to choose from are <b>Add</b> and <b>Delete</b> .
<b>Type</b>	Select the type of TX power threshold. Options to choose from are <b>Low Alarm</b> , <b>Low Warning</b> , <b>High Alarm</b> , and <b>High Warning</b> .
<b>Power Unit</b>	Select the power unit here. Options to choose from are <b>mW</b> and <b>dBm</b> .
<b>Value</b>	Enter the threshold value. When selecting <b>mW</b> in the <b>Power Unit</b> drop-down list, this value must be between 0 and 6.5535. When selecting <b>dBm</b> in the <b>Power Unit</b> drop-down list, this value must be between -40 and 8.1647.

Click the **Apply** button to accept the changes made.

## DDM RX Power Threshold Settings

This window is used to configure the threshold of RX power for specific ports on the Switch.

To view the following window, click **OAM > DDM > DDM RX Power Threshold Settings**, as show below:

**DDM RX Power Threshold Settings**

DDM RX Power Threshold Settings

Unit: 1 Port: eth1/0/1 Action: Add Type: Low Alarm Power Unit: mW Value (0-6.5535): mW

**Unit 1 Settings**

Port	Current	High Alarm (mW)	High Warning (mW)	Low Warning (mW)	Low Alarm (mW)
eth1/0/25	-	-	-	-	-
eth1/0/26	-	-	-	-	-

**Note:** ++: high alarm, +: high warning, -: low warning, --: low alarm  
A: The threshold is administratively configured.

Figure 10-7 DDM RX Power Threshold Settings window

The fields that can be configured are described below:

Parameter	Description
<b>Unit</b>	Select the switch unit that will be used for this configuration here.
<b>Port</b>	Select the port used for the configuration here.
<b>Action</b>	Select the action that will be taken here. Options to choose from are <b>Add</b> and <b>Delete</b> .
<b>Type</b>	Select the type of RX power threshold. Options to choose from are <b>Low Alarm</b> , <b>Low Warning</b> , <b>High Alarm</b> , and <b>High Warning</b> .
<b>Power Unit</b>	Select the power unit here. Options to choose from are <b>mW</b> and <b>dBm</b> .
<b>Value</b>	Enter the threshold value. When selecting <b>mW</b> in the <b>Power Unit</b> drop-down list, this value must be between 0 and 6.5535. When selecting <b>dBm</b> in the <b>Power Unit</b> drop-down list, this value must be between -40 and 8.1647.

Click the **Apply** button to accept the changes made.

## DDM Status Table

This window is used to display the current operating digital diagnostic monitoring parameters and their values on the SFP module for specified ports.

To view the following window, click **OAM > DDM > DDM Status Table**, as show below:

**DDM Status Table**

DDM Status Table

Total Entries: 0

Port	Temperature (Celsius)	Voltage (V)	Bias Current (mA)	TX Power (mW)	RX Power (mW)
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**Note:** ++: high alarm, +: high warning, -: low warning, --: low alarm

Figure 10-8 DDM Status Table window