



Power-On Diagnostics Commands

Power-on diagnostics test the accessibility and basic functionality of the components and isolates the faults to the component level on the Cisco ONS 15530. All power-on diagnostics tests are enabled by default and can be disabled and monitored by using the commands described in this section.

diag power-on

To enable all power-on diagnostics for the system, use the **diag power-on** command. To disable all power-on diagnostics for the system, use the **no** form of this command.

diag power-on

no diag power-on

Syntax Description This command has no other arguments or keywords.

Defaults Enabled

Command Modes Global configuration

Command History This table includes the following release-specific history entries:

- EV-Release
- SV-Release
- S-Release

EV-Release	Modification
12.1(12c)EV	This command was introduced.
SV-Release	Modification
12.2(18)SV	This command was integrated in this release.
S-Release	Modification
12.2(22)S	This command was integrated in this release from release 12.2(22)SV.

Usage Guidelines Use this command to enable or disable all power-on diagnostics for the system. Power-on diagnostics run when the system powers up or reloads.

Examples The following example shows how to enable power-on diagnostics.

```
Switch# configure terminal
Switch(config)# diag power-on
```

Related Commands	Command	Description
	show diag power-on	Displays the power-on diagnostic test results.

diag power-on 2gfc

To enable power-on diagnostics for the 4-port 1-Gbps/2-Gbps FC aggregation card, use the **diag power-on fege-8p** command. To disable power-on diagnostics for the 4-port 1-Gbps/2-Gbps FC aggregation card, use the **no** form of this command.

```
diag power-on 2gfc { aps-msg-int-bus | component-access | coney-fabric-lb | coney-qphy-lb |
coney-serdes-lb | credit-buffer-mem | jtag-access | lrc-access | qphy-fabric-lb |
qphy-internal-lb | sfp-xcvr-p0-idprom | sfp-xcvr-p1-idprom | sfp-xcvr-p2-idprom |
sfp-xcvr-p3-idprom | sii-memory } slot slot-number
```

```
no diag power-on 2gfc { aps-msg-int-bus | component-access | coney-fabric-lb | coney-qphy-lb |
coney-serdes-lb | credit-buffer-mem | jtag-access | lrc-access | qphy-fabric-lb |
qphy-internal-lb | sfp-xcvr-p0-idprom | sfp-xcvr-p1-idprom | sfp-xcvr-p2-idprom |
sfp-xcvr-p3-idprom | sii-memory } slot slot-number
```

Syntax Description		
aps-msg-int-bus		Enables APS message interface tests.
component-access		Enables component access tests.
coney-fabric-lb		Coney switch loopback test.
coney-qphy-lb		Coney Quad PHY loopback test.
coney-serdes-lb		Coney Serdes loopback test.
credit-buffer-mem		Enables buffer credit memory tests.
jtag-access		Enables IDPROM checksum tests.
lrc-access		Enables LRC access tests.
qphy-fabriclb		Enables Quad PHY switch loopback test.
qphy-internal-lb		Enables Quad PHY internal loopback tests.
sfp-xcvr-p0-idprom		Enables port 0 transceiver IDPROM checksum tests.
sfp-xcvr-p1-idprom		Enables port 1 transceiver IDPROM checksum tests.
sfp-xcvr-p2-idprom		Enables port 2 transceiver IDPROM checksum tests.
sfp-xcvr-p3-idprom		Enables port 3 transceiver IDPROM checksum tests.
sii-memory		Enables SII memory tests.
slot <i>slot-number</i>		Specifies the number of the slot on which to perform the tests. The range is 1 to 10.
	Note	Slots 5 and 6 are reserved for the CPU switch modules.

Defaults Enabled

Command Modes Global configuration

Command History This table includes the following release-specific history entries:

- SV-Release

SV-Release	Modification
12.2(23)SV	This command was introduced.

Usage Guidelines

Use this command to enable or disable power-on diagnostics for 4-port 1-Gbps/2-Gbps FC aggregation cards. Power-on diagnostics run when the system powers up or reloads.



Note

If the IDPROM checksum **jtag-access** test fails or is disabled, no other power-on diagnostics are performed for that 4-port 1-Gbps/2-Gbps FC aggregation card.

Examples

The following example shows how to enable power-on diagnostics.

```
Switch# configure terminal
Switch(config)# diag power-on 2gfc jtag-access slot 2
```

Related Commands

Command	Description
show diag power-on	Displays the power-on diagnostic test results.

diag power-on carrier-mb

To enable power-on diagnostics for carrier motherboards, use the **diag power-on carrier-mb** command. To disable power-on diagnostics for carrier motherboards, use the **no** form of this command.

```
diag power-on carrier-mb { aps-msg-int-bus | backplane-eth-lb | jtag-access | lrc-access }
    slot slot-number
```

```
no diag power-on carrier-mb { aps-msg-int-bus | backplane-eth-lb | jtag-access | lrc-access }
    slot slot-number
```

Syntax Description		
	aps-msg-int-bus	Enables APS message interface tests.
	backplane-eth-lb	Enables LRC backplane Ethernet loopback tests.
	jtag-access	Enables IDPROM checksum tests.
	lrc-access	Enables LRC access tests.
	slot <i>slot-number</i>	Specifies the number of the slot on which to perform the tests. The range is 1 to 10.
	Note	Slots 5 and 6 are reserved for the CPU switch modules.

Defaults Enabled

Command Modes Global configuration

Command History This table includes the following release-specific history entries:

- EV-Release
- SV-Release
- S-Release

EV-Release	Modification
12.1(12c)EV	This command was introduced.
SV-Release	Modification
12.2(18)SV	This command was integrated in this release.
S-Release	Modification
12.2(22)S	This command was integrated in this release from release 12.2(22)SV.

Usage Guidelines Use this command to enable or disable power-on diagnostics for carrier motherboards. Power-on diagnostics run when the system powers up or reloads.

**Note**

If the IDPROM checksum **jtag-access** test fails or is disabled, no other power-on diagnostics are performed for that carrier motherboard.

Examples

The following example shows how to enable power-on diagnostics.

```
Switch# configure terminal
Switch(config)# diag power-on carrier-mb backplane-eth-lb slot 2
```

Related Commands

Command	Description
show diag power-on	Displays the power-on diagnostic test results.

diag power-on cpu

To enable power-on diagnostics for CPU switch modules, use the **diag power-on cpu** command. To disable power-on diagnostics for CPU switch modules, use the **no** form of this command.

```
diag power-on cpu { bcom-sw-access | bcom-sw-config | bootflash | bp-idprom-test |
cpu-l1-cache | cpu-l2-cache | gt-interrupt | gt-mii0-internal-lb | gt-mii1-internal-lb |
gt-mpsc-internal-lb | gt-pci0 | interrupt0 | interrupt2 | interrupt3 | interrupt7 | interrupt8
| iofpga-access | nvram | power-supply0 | power-supply1 | src-access | src-timer |
sw-fabric-config | system-tod | temp-sensor } slot slot-number
```

```
no diag power-on cpu { bcom-sw-access | bcom-sw-config | bootflash | bp-idprom-test |
cpu-l1-cache | cpu-l2-cache | gt-interrupt | gt-mii0-internal-lb | gt-mii1-internal-lb |
gt-mpsc-internal-lb | gt-pci0 | interrupt0 | interrupt2 | interrupt3 | interrupt7 | interrupt8
| iofpga-access | nvram | power-supply0 | power-supply1 | src-access | src-timer |
sw-fabric-config | system-tod | temp-sensor } slot slot-number
```

Syntax Description

bcom-sw-access	Enables Ethernet switch access tests.
bcom-sw-config	Enables Ethernet switch config tests.
bootflash	Enables bootflash checksum tests.
bp-idprom-test	Enables backplane IDPROM checksum tests.
cpu-l1-cache	Enables CPU L1 cache tests.
cpu-l2-cache	Enables CPU L2 cache tests.
gt-interrupt	Enables GT interrupts tests.
gt-mii0-internal-lb	Enables GT MII0 internal loopback tests.
gt-mii1-internal-lb	Enables GT MII1 internal loopback tests.
gt-mpsc-internal-lb	Enables GT MPSC internal loopback tests.
gt-pci0	Enables GT PCI0 tests.
interrupt0	Enables CPU interrupt0 tests.
interrupt2	Enables CPU interrupt2 tests.
interrupt3	Enables CPU interrupt3 tests.
interrupt7	Enables CPU interrupt7 tests.
interrupt8	Enables CPU interrupt8 tests.
iofpga-access	Enables IOFPGA access tests.
nvr am	Enables NVRAM tests.
power-supply0	Enables power supply 0 IDPROM checksum tests.
power-supply1	Enables power supply 1 IDPROM checksum tests.
src-access	Enables SRC access tests.
src-timer	Enables SRC timer tests.
sw-fabric-config	Enables switch fabric configuration tests.
system-tod	Enables system Time Of Day tests.
temp-sensor	Enables temperature Sensor tests.
slot <i>slot-number</i>	Specifies the number of the slot on which to perform the tests. The range is 5 to 6.

■ `diag power-on cpu`

Defaults Enabled

Command Modes Global configuration

Command History This table includes the following release-specific history entries:

- EV-Release
- SV-Release
- S-Release

EV-Release	Modification
12.1(12c)EV	This command was introduced.
SV-Release	Modification
12.2(18)SV	This command was integrated in this release.
S-Release	Modification
12.2(22)S	This command was integrated in this release from release 12.2(22)SV.

Usage Guidelines Use this command to enable or disable power-on diagnostics for CPU switch modules. Power-on diagnostics run when the system powers up or reloads.

Examples The following example shows how to enable power-on diagnostics.

```
Switch# configure terminal
Switch(config)# diag power-on cpu bootflash slot 5
```

Related Commands	Command	Description
	show diag power-on	Displays the power-on diagnostic test results.

diag power-on escon-10p

To enable power-on diagnostics for the ESCON aggregation card, use the **diag power-on escon-10p** command. To disable power-on diagnostics for the ESCON aggregation card, use the **no** form of this command.

diag power-on escon-10p { **aps-msg-int-bus** | **backplane-eth-lb** | **component-access** | **encap-lb** | **fabric-lb** | **jtag-access** | **lrc-access** | **qphy-lb** } **slot** *slot-number*

no diag power-on escon-10p { **aps-msg-int-bus** | **backplane-eth-lb** | **component-access** | **encap-lb** | **fabric-lb** | **jtag-access** | **lrc-access** | **qphy-lb** } **slot** *slot-number*

Syntax Description		
aps-msg-int-bus	Enables APS message interface tests.	
backplane-eth-lb	Enables LRC backplane Ethernet loopback tests.	
component-access	Enables component access tests.	
encap-lb	Enables encapsulation FPGA loopback tests.	
fabric-lb	Enables Quad PHY-to-switch fabric-to-Quad PHY tests.	
jtag-access	Enables IDPROM checksum tests.	
lrc-access	Enables LRC access tests.	
qphy-lb	Enables Quad PHY loopback tests.	
slot <i>slot-number</i>	Specifies the number of the slot on which to perform the tests. The range is 1 to 10.	
	Note Slots 5 and 6 are reserved for the CPU switch modules.	

Defaults Enabled

Command Modes Global configuration

Command History This table includes the following release-specific history entries:

- EV-Release
- SV-Release
- S-Release

EV-Release	Modification
12.1(12c)EV	This command was introduced.
SV-Release	Modification
12.2(18)SV	This command was integrated in this release.
S-Release	Modification
12.2(22)S	This command was integrated in this release from release 12.2(22)SV.

Usage Guidelines

Use this command to enable or disable power-on diagnostics for ESCON aggregation cards. Power-on diagnostics run when the system powers up or reloads.

**Note**

If the IDPROM checksum **jtag-access** test fails or is disabled, no other power-on diagnostics are performed for that ESCON aggregation card.

Examples

The following example shows how to enable power-on diagnostics.

```
Switch# configure terminal
Switch(config)# diag power-on escon-10p fabric-1b slot 2
```

Related Commands

Command	Description
show diag power-on	Displays the power-on diagnostic test results.

diag power-on fcge-8p

To enable power-on diagnostics for the 8-port FC/GE aggregation card, use the **diag power-on fcge-8p** command. To disable power-on diagnostics for the 8-port FC/GE aggregation card, use the **no** form of this command.

```
diag power-on fcge-8p {aps-msg-int-bus | backplane-eth-lb | component-access |
credit-buffer-mem | hudson-montauk-lb | hudson-qphy-lb | hudson-swfabric-lb |
jtag-access | lrc-access | qphy-int-lb | sfp-xcvr-p0-idprom | sfp-xcvr-p1-idprom |
sfp-xcvr-p2-idprom | sfp-xcvr-p3-idprom | sfp-xcvr-p4-idprom | sfp-xcvr-p5-idprom |
sfp-xcvr-p6-idprom | sfp-xcvr-p7-idprom | sii-memory} slot slot-number
```

```
no diag power-on fcge-8p {aps-msg-int-bus | backplane-eth-lb | component-access |
credit-buffer-mem | hudson-montauk-lb | hudson-qphy-lb | hudson-swfabric-lb |
jtag-access | lrc-access | qphy-int-lb | sfp-xcvr-p0-idprom | sfp-xcvr-p1-idprom |
sfp-xcvr-p2-idprom | sfp-xcvr-p3-idprom | sfp-xcvr-p4-idprom | sfp-xcvr-p5-idprom |
sfp-xcvr-p6-idprom | sfp-xcvr-p7-idprom | sii-memory} slot slot-number
```

Syntax Description

aps-msg-int-bus	Enables APS message interface tests.
backplane-eth-lb	Enables LRC backplane Ethernet loopback tests.
component-access	Enables component access tests.
credit-buffer-mem	Enables buffer credit memory tests.
hudson-montauk-lb	Enables performance monitor-to-aggregator-to-performance monitor loopback tests.
hudson-qphy-lb	Enables performance monitor-to-Quad PHY-to-performance monitor loopback tests.
hudson-swfabric-lb	Enables performance monitor-to-switch fabric-to-performance monitor loopback tests.
jtag-access	Enables IDPROM checksum tests.
lrc-access	Enables LRC access tests.
qphy-int-lb	Enables Quad PHY internal loopback tests.
sfp-xcvr-p0-idprom	Enables port 1 transceiver IDPROM checksum tests.
sfp-xcvr-p1-idprom	Enables port 2 transceiver IDPROM checksum tests.
sfp-xcvr-p2-idprom	Enables port 3 transceiver IDPROM checksum tests.
sfp-xcvr-p3-idprom	Enables port 4 transceiver IDPROM checksum tests.
sfp-xcvr-p4-idprom	Enables port 5 transceiver IDPROM checksum tests.
sfp-xcvr-p5-idprom	Enables port 6 transceiver IDPROM checksum tests.
sfp-xcvr-p6-idprom	Enables port 7 transceiver IDPROM checksum tests.
sfp-xcvr-p7-idprom	Enables port 8 transceiver IDPROM checksum tests.
sii-memory	Enables SII memory tests.
slot <i>slot-number</i>	Specifies the number of the slot on which to perform the tests. The range is 1 to 10.
Note	Slots 5 and 6 are reserved for the CPU switch modules.

Defaults Enabled

Command Modes Global configuration

Command History This table includes the following release-specific history entries:

- EV-Release
- SV-Release
- S-Release

EV-Release	Modification
12.1(12c)EV	This command was introduced.
SV-Release	Modification
12.2(18)SV	This command was integrated in this release.
S-Release	Modification
12.2(22)S	This command was integrated in this release from release 12.2(22)SV.

Usage Guidelines Use this command to enable or disable power-on diagnostics for 8-port FC/GE aggregation cards. Power-on diagnostics run when the system powers up or reloads.

**Note**

If the IDPROM checksum **jtag-access** test fails or is disabled, no other power-on diagnostics are performed for that 8-port FC/GE aggregation card.

Examples The following example shows how to enable power-on diagnostics.

```
Switch# configure terminal
Switch(config)# diag power-on fcge-8p credit-buffer-mem slot 2
```

Related Commands	Command	Description
	show diag power-on	Displays the power-on diagnostic test results.

diag power-on itu2

To enable power-on diagnostics for 10-Gbps ITU trunk cards, use the **diag power-on itu2** command. To disable power-on diagnostics for 10-Gbps ITU trunk cards, use the **no** form of this command.

```
diag power-on itu2 { aps-msg-int-bus | backplane-eth-lb | component-access | jtag-access |
lrc-access | om-fifo | qphy-fabric-lb | sii-memory } slot slot-number
```

```
no diag power-on itu2 { aps-msg-int-bus | backplane-eth-lb | component-access | jtag-access |
lrc-access | om-fifo | qphy-fabric-lb | sii-memory } slot slot-number
```

Syntax Description		
aps-msg-int-bus		Enables APS message interface tests.
backplane-eth-lb		Enables LRC-to-backplane-Ethernet loopback tests.
component-access		Enables component access tests.
jtag-access		Enables IDPROM checksum tests.
lrc-access		Enables LRC access tests.
om-fifo		Enables optical message first-in first-out queue tests.
qphy-fabric-lb		Enables Quad PHY-to-switch fabric-to-Quad PHY tests.
sii-memory		Enables SII memory tests.
slot <i>slot-number</i>		Specifies the number of the slot on which to perform the tests. The range is 1 to 10.
	Note	Slots 5 and 6 are reserved for the CPU switch modules.

Defaults Enabled

Command Modes Global configuration

Command History This table includes the following release-specific history entries:

- EV-Release
- SV-Release
- S-Release

EV-Release	Modification
12.1(12c)EV	This command was introduced.
SV-Release	Modification
12.2(18)SV	This command was integrated in this release.
S-Release	Modification
12.2(22)S	This command was integrated in this release from release 12.2(22)SV.

Usage Guidelines

Use this command to enable or disable power-on diagnostics for 10-Gbps ITU trunk cards. Power-on diagnostics run when the system powers up or reloads.

**Note**

If the IDPROM checksum **jtag-access** test fails or is disabled, no other power-on diagnostics are performed for that 10-Gbps ITU trunk card.

Examples

The following example shows how to enable power-on diagnostics.

```
Switch# configure terminal
Switch(config)# diag power-on itu2 component-access slot 2
```

Related Commands

Command	Description
show diag power-on	Displays the power-on diagnostic test results.

diag power-on itu2-tun

To enable power-on diagnostics for 10-Gbps ITU tunable trunk cards, use the **diag power-on itu2-tun** command. To disable power-on diagnostics for 10-Gbps ITU tunable trunk cards, use the **no** form of this command.

```
diag power-on itu2-tun { aps-msg-int-bus | backplane-eth-lb | component-access | jtag-access |
lrc-access | om-fifo | qphy-fabric-lb | sii-memory } slot slot-number
```

```
no diag power-on itu2-tun { aps-msg-int-bus | backplane-eth-lb | component-access |
jtag-access | lrc-access | om-fifo | qphy-fabric-lb | sii-memory } slot slot-number
```

Syntax Description		
aps-msg-int-bus		Enables APS message interface tests.
backplane-eth-lb		Enables LRC-to-backplane-Ethernet loopback tests.
component-access		Enables component access tests.
jtag-access		Enables IDPROM checksum tests.
lrc-access		Enables LRC access tests.
om-fifo		Enables optical message first-in first-out queue tests.
qphy-fabric-lb		Enables Quad PHY-to-switch fabric-to-Quad PHY tests.
sii-memory		Enables SII memory tests.
slot <i>slot-number</i>		Specifies the number of the slot on which to perform the tests. The range is 1 to 10.
	Note	Slots 5 and 6 are reserved for the CPU switch modules.

Defaults Enabled

Command Modes Global configuration

Command History This table includes the following release-specific history entries:

- SV-Release

SV-Release	Modification
12.2(26)SV	This command was integrated in this release.

Usage Guidelines Use this command to enable or disable power-on diagnostics for 10-Gbps ITU tunable trunk cards. Power-on diagnostics run when the system powers up or reloads.



Note If the IDPROM checksum **jtag-access** test fails or is disabled, no other power-on diagnostics are performed for 10-Gbps ITU tunable trunk card.

Examples

The following example shows how to enable power-on diagnostics.

```
Switch# configure terminal  
Switch(config)# diag power-on itu2-tun component-access slot 2
```

Related Commands

Command	Description
show diag power-on	Displays the power-on diagnostic test results.

diag power-on itu3

To enable power-on diagnostics for 2.5-Gbps ITU trunk cards, use the **diag power-on itu3** command. To disable power-on diagnostics for 2.5-Gbps ITU trunk cards, use the **no** form of this command.

```
diag power-on itu3 { aps-msg-int-bus | backplane-eth-lb | component-access | cpu-serdes-lb |
jtag-access | lrc-access | om-fifo | ponte-qphy-lb | ponte-serdes-lb | qphy-internal-lb |
qphy-switch-lb } slot slot-number
```

```
no diag power-on itu3 { aps-msg-int-bus | backplane-eth-lb | component-access | cpu-serdes-lb |
jtag-access | lrc-access | om-fifo | ponte-qphy-lb | ponte-serdes-lb | qphy-internal-lb |
qphy-switch-lb } slot slot-number
```

Syntax Description	
aps-msg-int-bus	Enables APS message interface tests.
backplane-eth-lb	Enables LRC-to-backplane-Ethernet loopback tests.
component-access	Enables component access tests.
cpu-serdes-lb	Enables the CPU serializer/deserialize loopback tests.
jtag-access	Enables IDPROM checksum tests.
lrc-access	Enables LRC access tests.
om-fifo	Enables optical management first-in first-out queue tests.
ponte-qphy-lb	Enables performance-monitor-to-Quad-PHY loopback tests.
ponte-serdes-lb	Enables performance-monitor-to-serializer/deserializer loopback tests.
qphy-internal-lb	Enables internal Quad PHY loopback tests.
qphy-switch-lb	Enables switch loopback tests.
slot <i>slot-number</i>	Specifies the number of the slot on which to perform the tests. The range is 1 to 10.
	Note Slots 5 and 6 are reserved for the CPU switch modules.

Defaults Enabled

Command Modes Global configuration

Command History This table includes the following release-specific history entries:

- EV-Release
- SV-Release
- S-Release

EV-Release	Modification
12.1(12c)EV2	This command was introduced.
SV-Release	Modification
12.2(18)SV	This command was integrated in this release.

S-Release	Modification
12.2(22)S	This command was integrated in this release from release 12.2(22)SV.

Usage Guidelines

Use this command to enable or disable power-on diagnostics for 2.5-Gbps ITU trunk cards. Power-on diagnostics run when the system powers up or reloads.



Note

If the IDPROM checksum **jtag-access** test fails or is disabled, no other power-on diagnostics are performed for that 2.5-Gbps ITU trunk card.

Examples

The following example shows how to enable power-on diagnostics.

```
Switch# configure terminal
Switch(config)# diag power-on itu3 cpu-serdes-lb slot 8
```

Related Commands

Command	Description
show diag power-on	Displays the power-on diagnostic test results.

diag power-on mdx

To enable power-on diagnostics for OADM modules, use the **diag power-on mdx** command. To disable power-on diagnostics for OADM modules, use the **no** form of this command.

diag power-on mdx idprom subslot *slot/subcard*

no diag power-on mdx idprom subslot *slot/subcard*

Syntax Description	idprom	Enables the IDPROM tests.
	subslot <i>slot/subcard</i>	Specifies the slot and subcard of the OADM modules. The value for <i>slot</i> is 0 and the values for <i>subcard</i> is 0 or 1.

Defaults Enabled

Command Modes Global configuration

Command History This table includes the following release-specific history entries:

- EV-Release
- SV-Release
- S-Release

EV-Release	Modification
12.1(12c)EV	This command was introduced.
SV-Release	Modification
12.2(18)SV	This command was integrated in this release.
S-Release	Modification
12.2(22)S	This command was integrated in this release from release 12.2(22)SV.

Usage Guidelines Use this command to enable or disable power-on diagnostics for OADM modules. Power-on diagnostics run when the system powers up or reloads.

Examples The following example shows how to enable power-on diagnostics.

```
Switch# configure terminal
Switch(config)# diag power-on mdx idprom subslot 0/1
```

■ diag power-on mdx

Related Commands

Command	Description
show diag power-on	Displays the power-on diagnostic test results.

diag power-on oscm

To enable power-on diagnostics for OSC modules, use the **diag power-on oscm** command. To disable power-on diagnostics for OSC modules, use the **no** form of this command.

```
diag power-on oscm { hudjr-access | hudjr-internal-lb | idprom | serdes-lb }
  subslot slot/subcard
```

```
no diag power-on oscm { hudjr-access | hudjr-internal-lb | idprom | serdes-lb }
  subslot slot/subcard
```

Syntax Description		
	hudjr-access	Enables performance monitor access tests.
	hudjr-internal-lb	Enables performance monitor Internal loopback tests.
	idprom	Enables IDPROM checksum tests.
	serdes-lb	Enables SerDes loopback tests.
	subslot <i>slot/subcard</i>	Specifies the number of the slot on which to perform the tests. The slot range is 1 to 10. The subcard range is 0 to 1.
	Note	Slots 5 and 6 are reserved for the CPU switch modules.

Defaults	
	Enabled

Command Modes	
	Global configuration

Command History	
	This table includes the following release-specific history entries:

- EV-Release
- SV-Release
- S-Release

EV-Release	Modification
12.1(12c)EV	This command was introduced.
SV-Release	Modification
12.2(18)SV	This command was integrated in this release.
S-Release	Modification
12.2(22)S	This command was integrated in this release from release 12.2(22)SV.

Usage Guidelines	
	Use this command to enable or disable power-on diagnostics for OSC modules. Power-on diagnostics run when the system powers up or reloads.

**Note**

If the IDPROM checksum **idprom** test fails or is disabled, no other power-on diagnostics are performed for that OSC module.

Examples

The following example shows how to enable power-on diagnostics.

```
Switch# configure terminal
Switch(config)# diag power-on oscm hudjr-access subslot 2/0
```

Related Commands

Command	Description
show diag power-on	Displays the power-on diagnostic test results.

diag power-on psm

To enable power-on diagnostics for PSMs (protection switch modules), use the **diag power-on psm** command. To disable power-on diagnostics for PSMs, use the **no** form of this command.

```
diag power-on psm { aps-test | idprom | lol-test | psm-access | temp-sensor }
                subslot slot/subcard
```

```
no diag power-on psm { aps-test | idprom | lol-test | psm-access | temp-sensor }
                subslot slot/subcard
```

Syntax Description		
aps-test		Enables APS (Automatic Protection Switching) tests.
idprom		Enables IDPROM checksum tests.
lol-test		Enables Loss of Light tests.
psm-access		Enables PSM access tests.
temp-sensor		Enables temperature sensor tests.
subslot <i>slot/subcard</i>		Specifies the number of the slot on which to perform the tests. The slot is 0 and the subcard range is 0 to 1.

Defaults Enabled

Command Modes Global configuration

Command History This table includes the following release-specific history entries:

- EV-Release
- SV-Release
- S-Release

EV-Release	Modification
12.1(12c)EV2	This command was introduced.
SV-Release	Modification
12.2(18)SV	This command was integrated in this release.
S-Release	Modification
12.2(22)S	This command was integrated in this release from release 12.2(22)SV.

Usage Guidelines Use this command to enable or disable power-on diagnostics for PSMs. Power-on diagnostics run when the system powers up or reloads.

**Note**

If the IDPROM checksum **idprom** test fails or is disabled, no other power-on diagnostics are performed for that PSM.

Examples

The following example shows how to enable power-on diagnostics.

```
Switch# configure terminal
Switch(config)# diag power-on psm temp-sensor subslot 0/0
```

Related Commands

Command	Description
show diag power-on	Displays the power-on diagnostic test results.

diag power-on tsp1

To enable power-on diagnostics for transponder line cards, use the **diag power-on tsp1** command. To disable power-on diagnostics for transponder line cards, use the **no** form of this command.

```
diag power-on tsp1 {aps-msg-int-bus | backplane-eth-lb | hudjr-access |
  hudjr-egress-internal-lb | hudjr-egress-serdes-lb | hudjr-ingress-internal-lb |
  hudjr-ingress-serdes-lb | jtag-access | lrc-access} slot slot-number
```

```
no diag power-on tsp1 {aps-msg-int-bus | backplane-eth-lb | hudjr-access |
  hudjr-egress-internal-lb | hudjr-egress-serdes-lb | hudjr-ingress-internal-lb |
  hudjr-ingress-serdes-lb | jtag-access | lrc-access} slot slot-number
```

Syntax Description		
aps-msg-int-bus	Enables APS message interface tests.	
backplane-eth-lb	Enables LRC bp ethernet loopback tests.	
hudjr-access	Enables performance monitor access tests.	
hudjr-egress-internal-lb	Enables performance monitor egress internal loopback tests.	
hudjr-egress-serdes-lb	Enables performance monitor egress SerDes loopback tests.	
hudjr-ingress-internal-lb	Enables performance monitor ingress internal loopback tests.	
hudjr-ingress-serdes-lb	Enables performance monitor ingress SerDes loopback tests.	
jtag-access	Enables IDPROM checksum tests.	
lrc-access	Enables LRC access tests.	
slot <i>slot-number</i>	Specifies the number of the slot on which to perform the tests. The range is 1 to 10.	
	Note Slots 5 and 6 are reserved for the CPU switch modules.	

Defaults Enabled

Command Modes Global configuration

Command History This table includes the following release-specific history entries:

- EV-Release
- SV-Release
- S-Release

EV-Release	Modification
12.1(12c)EV	This command was introduced.
SV-Release	Modification
12.2(18)SV	This command was integrated in this release.
S-Release	Modification
12.2(22)S	This command was integrated in this release from release 12.2(22)SV.

Usage Guidelines

Use this command to enable or disable power-on diagnostics for transponder line cards. Power-on diagnostics run when the system powers up or reloads.

**Note**

If the IDPROM checksum **jtag-access** test fails or is disabled, no other power-on diagnostics are performed for that transponder line card.

Examples

The following example shows how to enable power-on diagnostics.

```
Switch# configure terminal
Switch(config)# diag power-on tsp1 lrc-access slot 2
```

Related Commands

Command	Description
show diag power-on	Displays the power-on diagnostic test results.

diag power-on voa

To enable power-on diagnostics for VOA modules, use the **diag power-on voa** command. To disable power-on diagnostics for VOA modules, use the **no** form of this command.

diag power-on voa { **config-interface** | **idprom** } **subslot** *slot/subcard*

no diag power-on voa { **config-interface** | **idprom** } **subslot** *slot/subcard*

Syntax Description

config-interface	Enables configuration interface tests.
idprom	Enables IDPROM checksum tests.
subslot <i>slot/subcard</i>	Specifies the number of the slot on which to perform the tests. The slot range is 1 to 10 and the subcard range is 0 to 1
Note	Slots 5 and 6 are reserved for the CPU switch modules.

Defaults

Enabled

Command Modes

Global configuration

Command History

This table includes the following release-specific history entries:

- EV-Release
- SV-Release
- S-Release

EV-Release	Modification
12.1(12c)EV	This command was introduced.
SV-Release	Modification
12.2(18)SV	This command was integrated in this release.
S-Release	Modification
12.2(22)S	This command was integrated in this release from release 12.2(22)SV.

Usage Guidelines

Use this command to enable or disable power-on diagnostics for VOA modules, WB-VOA modules and PB-OE modules. Power-on diagnostics run when the system powers up or reloads.



Note

If the IDPROM checksum **idprom** test fails or is disabled, no other power-on diagnostics are performed for that VOA module.

Examples

The following example shows how to enable power-on diagnostics.

■ diag power-on voa

```
Switch# configure terminal  
Switch(config)# diag power-on voa config-interface slot 2/1
```

Related Commands

Command	Description
show diag power-on	Displays the power-on diagnostic test results.

show diag power-on

To display the power-on diagnostic test results, use the **show diag power-on** command.

show diag power-on [**detail** | **slot** *slot-number*]

Syntax Description	detail	Displays the results of the power-on diagnostic tests for the entire system.
	slot <i>slot-number</i>	Displays the results of the power-on diagnostic tests for the specified slot.

Defaults Displays summary information for all components on the shelf.

Command Modes Global configuration

Command History This table includes the following release-specific history entries:

- EV-Release
- SV-Release
- S-Release

EV-Release	Modification
12.1(12c)EV	This command was introduced.
SV-Release	Modification
12.2(18)SV	This command was integrated in this release.
S-Release	Modification
12.2(22)S	This command was integrated in this release from release 12.2(22)SV.

Usage Guidelines Use this command to display the results of the power-on diagnostics.



Note

All the power-on diagnostic tests run from the primary CPU switch module. Only CPU switch module related and basic line card access tests are performed from the secondary CPU switch module. The systems displays power-on diagnostic test results for the cards that are present at the time of system bootup. Any removal or insertion of cards does not change the output of these command.

Examples The following example shows how to display the summarized power-on diagnostic results.

```
Switch# show diag power-on
-----
Power-on Diagnostics: Version 1.0
System-wide result: PASSED
Ran on: Mon Mar 13 2000      At: 03:45:13 UTC      CPU was: Primary
-----
```

show diag power-on

Slot/Subslot	Card-type	Result
0/1	mdx	Passed
1/*	tsp1	Passed
3/*	itu2	Passed
4/*	tsp1	Passed
6/*	cpu	Passed
7/*	tsp1	Passed
8/*	carrier-mb	Passed
8/0	oscm	Passed
8/1	oscm	Passed
9/*	escon-10p	Passed
10/*	tsp1	Passed

The following example shows how to display the detailed power-on diagnostic results.

```
Switch# show diag power-on detail
```

```
-----
Power-on Diagnostics: Version 1.0
System-wide result: FAILED
Ran on: Mon Mar 13 2000      At: 03:45:13 UTC      CPU was: Primary
-----
Subslot: 0/1      mdx      Result: Passed
H/w Ver: 1.0      FPGA func ver: N/A      Versions compatible: N/A

Test-name      Result      Cause-code
-----
idprom      Passed      -
-----
Slot: 1/*      tsp1      Result: Passed
H/w Ver: 5.10      FPGA func ver: 3.12      Versions compatible: Yes

Test-name      Result      Cause-code
-----
jtag-access      Passed      -
lrc-access      Passed      -
backplane-eth-lb      Passed      -
aps-msg-int-bus      Passed      -
hudjr-access      Passed      -
hudjr-ingress-inter      Passed      -
hudjr-ingress-serde      Passed      -
hudjr-egress-intern      Passed      -
hudjr-egress-serdes      Passed      -
-----
Slot: 3/*      itu2      Result: Passed
H/w Ver: 4.9      FPGA func ver: 2.31      Versions compatible: Yes

Test-name      Result      Cause-code
-----
jtag-access      Passed      -
lrc-access      Passed      -
backplane-eth-lb      Passed      -
aps-msg-int-bus      Passed      -
component-access      Passed      -
sii-memory      Passed      -
qphy-fabric-lb      Passed      -
om-fifo      Passed      -
-----
Slot: 4/*      tsp1      Result: Passed
H/w Ver: 5.8      FPGA func ver: 3.12      Versions compatible: Yes

Test-name      Result      Cause-code
-----
jtag-access      Passed      -
lrc-access      Passed      -
-----
```

```

backplane-eth-lb      Passed      -
aps-msg-int-bus       Passed      -
hudjr-access          Passed      -
hudjr-ingress-inter   Passed      -
hudjr-ingress-serde   Passed      -
hudjr-egress-intern   Passed      -
hudjr-egress-serdes   Passed      -

```

```

-----
Slot: 6/*             cpu                      Result: FAILED
H/w Ver: 4.6         FPGA func ver: 1.43     Versions compatible: Yes

```

Test-name	Result	Cause-code
cpu-l1-cache	Passed	-
cpu-l2-cache	Passed	-
gt-pci0	Passed	-
iofpga-access	Passed	-
nvrpm	Passed	-
system-tod	Passed	-
bootflash	Passed	-
src-access	Passed	-
src-timer	Passed	-
sw-fabric-config	Passed	-
bcom-sw-access	Passed	-
bcom-sw-config	Passed	-
gt-mii0-internal-lb	Passed	-
gt-mii1-internal-lb	Passed	-
gt-mpsc-internal-lb	Passed	-
bp-idprom-test	FAILED	1
power-supply0	FAILED	3
power-supply1	Passed	-
temp-sensor	Passed	-
gt-interrupt	Passed	-
interrupt0	Passed	-
interrupt2	Passed	-
interrupt3	Passed	-
interrupt7	Passed	-
interrupt8	Passed	-

```

-----
Slot: 7/*             tsp1                      Result: Passed
H/w Ver: 5.8         FPGA func ver: 3.12     Versions compatible: Yes

```

Test-name	Result	Cause-code
jtag-access	Passed	-
lrc-access	Passed	-
backplane-eth-lb	Passed	-
aps-msg-int-bus	Passed	-
hudjr-access	Passed	-
hudjr-ingress-inter	Passed	-
hudjr-ingress-serde	Passed	-
hudjr-egress-intern	Passed	-
hudjr-egress-serdes	Passed	-

```

-----
Slot: 8/*             carrier-mb                    Result: Passed
H/w Ver: 4.2         FPGA func ver: 1.37     Versions compatible: Yes

```

Test-name	Result	Cause-code
jtag-access	Passed	-
lrc-access	Passed	-
backplane-eth-lb	Passed	-
aps-msg-int-bus	Passed	-

```
show diag power-on
```

```
Subslot: 8/0          oscm                      Result: Passed
```

```
Test-name          Result          Cause-code
-----
hudjr-access       Passed         -
idprom             Passed         -
hudjr-internal-lb Passed         -
serdes-lb          Passed         -
```

```
-----
Subslot: 8/1          oscm                      Result: Passed
```

```
Test-name          Result          Cause-code
-----
hudjr-access       Passed         -
idprom             Passed         -
hudjr-internal-lb Passed         -
serdes-lb          Passed         -
```

```
-----
Slot: 9/*            escon-10p                Result: Passed
H/w Ver: 3.4         FPGA func ver: 2.36     Versions compatible: Yes
```

```
Test-name          Result          Cause-code
-----
jtag-access        Passed         -
lrc-access         Passed         -
backplane-eth-lb   Passed         -
aps-msg-int-bus    Passed         -
component-access   Passed         -
encap-lb           Passed         -
qphy-lb            Passed         -
fabric-lb          Passed         -
```

```
-----
Slot: 10/*           tsp1                      Result: Passed
H/w Ver: 5.9         FPGA func ver: 3.12     Versions compatible: Yes
```

```
Test-name          Result          Cause-code
-----
jtag-access        Passed         -
lrc-access         Passed         -
backplane-eth-lb   Passed         -
aps-msg-int-bus    Passed         -
hudjr-access       Passed         -
hudjr-ingress-inter Passed         -
hudjr-ingress-serde Passed         -
hudjr-egress-intern Passed         -
hudjr-egress-serdes Passed         -
```

Related Commands

Command	Description
diag power-on	Enables power-on diagnostics for the entire system.
diag power-on 2gfc	Enables power-on diagnostics for 4-port 1-Gbps/2-Gbps FC aggregation cards.
diag power-on carrier-mb	Enables power-on diagnostics for carrier motherboards.
diag power-on cpu	Enables power-on diagnostics for CPU switch modules.
diag power-on escon-10p	Enables power-on diagnostics for ESCON aggregation cards.
diag power-on fcge-8p	Enables power-on diagnostics for 8-port FC/GE aggregation cards.

Command	Description
diag power-on itu2	Enables power-on diagnostics for 10-Gbps ITU trunk cards.
diag power-on itu3	Enables power-on diagnostics for 2.5-Gbps ITU trunk cards.
diag power-on mdx	Enables power-on diagnostics for OADM modules.
diag power-on psm	Enables power-on diagnostics for PSMs.
diag power-on oscm	Enables power-on diagnostics for OSC modules.
diag power-on tsp1	Enables power-on diagnostics for transponder line cards.
diag power-on voa	Enables power-on diagnostics for VOA modules.

■ show diag power-on