



# Diagnostic Commands

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# show diag

To display details about the hardware and software on each node in a router, use the **show diag** command in XR EXEC mode.

**show diag** [**location** *node-id*] [{**chassis** | **details** | **eprom** | **fans** | **power-supply** | **summary**}]

Syntax Description	location <i>node-id</i>	(Optional) Displays diagnostic information from the designated node. The <i>node-id</i> argument is entered in the <i>rack/slot/module</i> notation.
	chassis	(Optional) Displays detailed diagnostics information for the chassis.
	details	(Optional) Displays detailed diagnostics information for the current node.
	eprom	(Optional) Displays field diagnostics results from the EEPROM.
	fans	(Optional) Displays information about the fans tray.
	power-supply	(Optional) Displays information about the power supply.
	summary	(Optional) Displays summarized diagnostics results for all nodes in the system.

**Command Default** Diagnostics for all nodes installed in the router are displayed.  
Hardware and software information for all nodes installed in the router is displayed

**Command Modes** XR EXEC mode

Command History	Release	Modification
	Release 7.0.12	This command was introduced.

**Usage Guidelines** The **show diag** command displays detailed information on the hardware components for each node, and on the status of the software running on each node.

Task ID	Task ID	Operations
	sysmgr	read

**Examples** The following example shows excerpts of output from the **show diag details** command:

```
Router# show diag details
Rack 0-Chassis IDPROM - Cisco 8201 1RU System with 24x400GE QSFP56-DD & 12x100GE QSFP28
Info
  Controller Family      : 0045
  Controller Type       : 0613
  PID                   : 8201-SYS
  Version Identifier    : V00
  UDI Description       : Cisco 8201 1RU System with 24x400GE QSFP56-DD & 12x100GE
```

```

QSFP28
Chassis Serial Number      : FOC2325NREU
Top Assy. Part Number     : 68-6825-06
Top Assy. Revision        : 09
PCB Serial Number         : FOC2324NP35
PCA Number                : 73-19428-08
PCA Revision              : 04
CLEI Code                 : UNASSIGNED
ECI Number                : ECI123
Deviation Number # 1     : 0
Deviation Number # 2     : 0
Deviation Number # 3     : 0
Deviation Number # 4     : 0
Deviation Number # 5     : 1126
Manufacturing Test Data   : 00 00 00 00 00 00 00 00
Calibration Data          : 00000000
Chassis MAC Address       : 6c8b.d31f.d400
MAC Addr. Block Size      : 512
Hardware Revision         : 0.9
Unknown Field (type 0x00d7): 0
Device values # 1        : 21 80 84 0c 00 00 00 00

```

```

0/RP0/CPU0-Base Board IDPROM - Cisco 8201 1RU System with 24x400GE QSFP56-DD & 12x100GE QSFP28

```

```

Info
Controller Family         : 0045
Controller Type           : 0613
PID                       : 8201-SYS
Version Identifier        : V00
UDI Description           : Cisco 8201 1RU System with 24x400GE QSFP56-DD & 12x100GE

```

```

QSFP28
Chassis Serial Number      : FOC2325NREU
Top Assy. Part Number     : 68-6825-06
Top Assy. Revision        : 09
PCB Serial Number         : FOC2324NP35
PCA Number                : 73-19428-08
PCA Revision              : 04
CLEI Code                 : UNASSIGNED
ECI Number                : ECI123
Deviation Number # 1     : 0
Deviation Number # 2     : 0
Deviation Number # 3     : 0
Deviation Number # 4     : 0
Deviation Number # 5     : 1126
Manufacturing Test Data   : 00 00 00 00 00 00 00 00
Calibration Data          : 00000000
Chassis MAC Address       : 6c8b.d31f.d400
MAC Addr. Block Size      : 512
Hardware Revision         : 0.9
Unknown Field (type 0x00d7): 0
Device values # 1        : 21 80 84 0c 00 00 00 00

```

```

HundredGigE0/0/0/0-IDPROM - Cisco QSFP28 100G SR4 Pluggable Optics Module

```

```

Info
IDPROM Format Revision    : 05
Hardware Revision        : 1
PID                      : QSFP-100G-SR4-S
Version Identifier        : V02
UDI Description           :
CLEI Code                : CMUIAL8CAB
ECI Number               : 0
Top Assy. Part Number    : AFBR-89CDDZ-CS3
Top Assy. Revision       : 05
PCB Serial Number        : AVF2131S02J

```

```

PCA Number           : N/A
PCA Revision         : N/A
Deviation Number # 1 : 0
Asset ID            :
Asset Alias         :

```

.....

The output displayed for the **show diag details** command is the most comprehensive output displayed for **show diag** command variations. All other variations show a subset of the fields displayed except for the **show diag chassis**, **show diag fans**, and **show diag power-supply** commands, which also enable you to display EEPROM information.

```

RP/0/RP0/CPU0:P1#show diag eeprom
Thu Mar 12 18:16:32.436 UTC
Rack 0-Chassis IDPROM - Cisco 8201 1RU Chassis

```

```

00: 1B 5C 04 FF 48 00 45 40 06 13 CB 92 38 32 30 31  .\..H.E@....8201
10: 2D 53 59 53 00 00 00 00 00 00 00 00 00 00 00
20: 30 30 00 DA 3C 43 69 73 63 6F 20 38 32 30 31 20  00..<Cisco 8201
30: 31 52 55 20 43 68 61 73 73 69 73 00 00 00 00 00  1RU Chassis.....
40: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 2D 44 44  .....-DD
50: 20 26 20 31 32 78 31 30 30 47 20 51 53 46 50 32  & 12x100G QSFP2
60: 38 C2 8B 46 4F 43 32 32 31 37 45 4C 5A 4C 87 44  8..FOC2217ELZL.D
70: 18 86 04 8D 30 37 20 20 C1 8B 46 4F 43 32 32 31  ...07 ..FOC221
80: 39 5A 4F 55 47 E2 46 00 49 00 48 7E 05 8A 30 35  9ZOUG.F.I.H~.05
90: 20 20 C6 8A 55 4E 41 53 53 49 47 4E 45 44 EB 86  ..UNASSIGNED..
A0: 45 43 49 31 32 33 88 00 00 00 00 88 00 00 00 00  ECI123.....
B0: 88 00 00 00 00 88 00 00 00 00 88 00 00 02 35 C4  .....5.
C0: 08 00 00 00 00 00 00 00 00 00 86 00 00 00 00 C3 06  .....
D0: 78 99 52 4C D8 00 43 02 00 41 00 01 D7 44 00 00  x.RL..C..A...D..
E0: 00 00 C9 08 2F 20 22 08 00 00 00 00 FF FF FF FF  .... / ".....
F0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF  .....
100: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF  .....
110: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF  .....
120: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF  .....
130: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF  .....
140: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF  .....
150: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF  .....
160: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF  .....
170: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF  .....
180: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF  .....
190: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF  .....
1A0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF  .....
1B0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF  .....
1C0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF  .....
1D0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF  .....
1E0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF  .....
1F0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF  .....

```

This table describes the significant fields shown in the display.

**Table 1: show diag Field Descriptions**

Field	Description
MAIN	Provides the following general information about the hardware: <ul style="list-style-type: none"> <li>• Board type</li> <li>• Revision</li> <li>• Device identifier</li> <li>• Serial number</li> </ul>

Field	Description
PCA	Cisco printed circuit assembly (PCA) hardware and revision number.
PID	Displays the product identifier (PID) revision for the specified node.
VID	Displays the version identifier (VID) for the specified node.
CLEI	Displays the common language equipment identifier (CLEI) for the specified node.
ECI	Displays the equipment catalog item (ECI) for the specified node.
Board State	Displays the current software on the board and whether or not the board is running.
PLD	Displays the information about the following programmable logic device (PLD) components on the current module: <ul style="list-style-type: none"> <li>• Processor</li> <li>• Power</li> <li>• MONLIB</li> </ul>
SPEED	Displays speed information for the various components of the specified node, in megahertz.
MEM Size	Displays the memory size of the specified node, in megabytes.
RMA	Displays returned material adjustment (RMA) information for the specified node.
DIAGNOSTICS RESULTS	Provides the following information about the last diagnostics test that was run on the specified node: <ul style="list-style-type: none"> <li>• ENTRY 1</li> <li>• TIMESTAMP—Time stamp for the last diagnostic test that was run on the node.</li> <li>• VERSION</li> <li>• PARAM1</li> <li>• PARAM2</li> <li>• TESTNUM—Identifies the test that was run on the node.</li> <li>• RESULT—Displays whether the last diagnostic test passed or failed.</li> <li>• ERRCODE</li> </ul>

■ show diag