91- Equipment Status Commands

91.1 Equipment Status Command Tree

Description

This chapter gives an overview of nodes that are handled by "Equipment Status Commands".

Command Tree

```
----show
    ----equipment
        ----slot
            - (slot)
        ----capab-profile
            - (profilename)
        ----applique
            - (applique)
        ----shelf-summary
            - (shelf)
        ----protection-element
            - (slot-id)
        ----protection-group
            - (prot-group-id)
        ----external-link-host
            - (index)
        ----external-link-remote
            - (exp-slot)
        ----diagnostics
            ----sfp
                - (position)
            ----sfp-threshold
                - (position)
        ----rssiprof
            - (index)
        ----temperature
            - (slot)
            - sensor-id
        ----planned-resource
            - (slot)
            - resource-id
        ----transceiver-inventory
            - (index)
        ----isam
        ----rack
            - (rack)
        ----shelf
            - (shelf)
        ----power-supply
            - (psu-num)
```

91.2 Slot Status Command

Command Description

This commands shows the slot status. The following information is shown for each slot:

- *type : describes the type of the unit that is currently present in the slot.*
- *capab-profile: capability profile assigned to the slot, applicable for line boards, NTIOs and mini-NT NRNT-A.*
- *oper-status: describes whether the unit is able to perform its normal operation.*
- *error-status: provides the reason why the board is not operational. These values correspond to the alarms generated in case of a failure.*
- *available-status: provides further information regarding the state of the unit.*
- *manufacturer: provides an identification of the unit manufacturer.*
- *inventory-pba: provides the Nokia Printed Board Assembly code of the unit.*
- *inventory-fpba: provides the Nokia Printed Board Assembly code of the unit which also identifies the boot software.*
- *inventory-ics: provides the Item Change Status iteration code of the unit.*
- *inventory-clei: provides the (USA) Common Language Equipment Identification code of the unit.*
- *serial-no: provides the serial number of the board.*
- *failed-test: provides identification of the last failing test using four numbers, from MSB to LSB:*
  - *- table number (1 byte)*
  - *- segment number (1 byte)*
  - *- case number (1 byte)*
  - *- check number (1 byte)*

  As long as there has been no failing self test, the value of this attribute will be 0.

User Level

The command can be accessed by operators with equipment privileges.

Command Syntax

The command has the following syntax:

> show equipment slot [(slot)]

Command Parameters

Table 91.2-1 "Slot Status Command" Resource Parameters

Resource Identifier	Type	Description
(slot)	Format: (lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> | nt-a | nt-b | nt | acu : <Eqpt::RackId> / <Eqpt::ShelfId> | bat-a : <Eqpt::RackId> / <Eqpt::ShelfId> | bat-b : <Eqpt::RackId> / <Eqpt::ShelfId> | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::EqSlotId>	the physical slot position

Resource Identifier	Type	Description
	| ext-a : <Eqpt::RackId> / <Eqpt::ShelfId> | ext-b : <Eqpt::RackId> / <Eqpt::ShelfId> | ctrl : <Eqpt::RackId> / <Eqpt::ShelfId> | vlt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::VirtualSlotId>) Possible values: - lt : lt-slot - vlt : virtual LT slot (VVPS board can only be planned at NANT-E / FANT-F) - nt-a : nt-a slot - nt-b : nt-b slot - nt : nt slot - ext-a : nt-a slot in an extension shelf - ext-b : nt-b slot in an extension shelf - acu : acu slot - bat-a : bat-a slot - bat-b : bat-b slot - ctrl : ctrl-slot Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::SlotId> - the LT slot number Field type <Eqpt::VirtualSlotId> - the virtual LT slot number Field type <Eqpt::EqSlotId> - the equipment slot number	

Command Output

Table 91.2-2 "Slot Status Command" Display parameters

Specific Information		
name	**Type**	**Description**
planned-type	Parameter type: <Equipm::BrdType> Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	A string representing the board that is planned in the slot. *This element is only shown in detail mode.*
actual-type	Parameter type: <Equipm::ActBoardType> Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	A string representing the board that is actually present in the slot. *This element is always shown.*
oper-status short name: enabled	Parameter type: <Equipm::OperStatus> ((enabled | yes) | (disabled | no)) Possible values: - enabled : - yes : - disabled : - no :	Specifies whether the plug-in unit is able to perform its normal operation. *This element is always shown.*
error-status	Parameter type: <Equipm::OperError> (no-error | type-mismatch | board-missing	Specifies for what reason the board is not operational. These values correspond with the alarms which are generated in

name	Type	Description
	| no-installation | no-planned-board | waiting-for-sw | init-boot-failed | init-download-failed | init-connection-failed | configuration-failed | board-reset-protection | invalid-parameter | temperature-alarm | tempshutdown | defense | board-not-licensed | sem-power-fail | sem-ups-fail | incompatible-slot | download-ongoing | upgrade-via-sby | board-shelf-mismatch | unknown-error) Possible values: - no-error : - type-mismatch : - board-missing : - no-installation : - no-planned-board : - waiting-for-sw : - init-boot-failed : - init-download-failed : - init-connection-failed: - configuration-failed : - board-reset-protection: - invalid-parameter : - temperature-alarm : - tempshutdown : - defense : - board-not-licensed : - sem-power-fail : - sem-ups-fail : - incompatible-slot : - download-ongoing : - upgrade-via-sby : - board-shelf-mismatch : - unknown-error :	case of a failure. *This element is always shown.*
availability	Parameter type: <Equipm::AvailStatus> (available | in-test | failed | power-off | not-installed | offline | dependency | ext-managed) Possible values: - available : - in-test : - failed :	Specifies the state of the board. It is set to available after a successfull selftest of the board (if applicable). *This element is always shown.*

name	Type	Description
	- power-off : - not-installed : - offline : - dependency : - ext-managed :	
alarm-profile	Parameter type: <Equipm::AlarmProf> (none | name : <PrintableString-0-32>) Possible values: - none : no profile name to associate - name : profile name Field type <PrintableString-0-32> - a printable string - length: x<=32	The name of the customized alarm profile that is allocated to the board, if any. *This element is only shown in detail mode.*
capab-profile	Parameter type: <Equipm::CapabilityProfile> Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	To display the configured profile of the board. *This element is only shown in detail mode.*
operational-mode	Parameter type: <Equipm::OperationalMode> (not-set | gpon | xgs | mpm-gpon-xgs | dual-gpon | u-ngpon | twenty-five-g | ng-pon2 | mpm-gpon-xgpon) Possible values: - not-set : cage mode not-set - gpon : cage mode set to gpon - xgs : cage mode set to xgs - mpm-gpon-xgs : cage mode set to mpm-gpon-xgs - dual-gpon : cage mode set to dual-gpon - u-ngpon : cage mode set to u-ngpon - twenty-five-g : cage mode set to 25g - ng-pon2 : cage mode set to ng-pon2 - mpm-gpon-xgpon : cage mode set to mpm-gpon-xgpon	To display the configured profile of the board. *This element is only shown in detail mode.*
manufacturer	Parameter type: <PrintableString> - printable string	Specifies the company of the board. *This element is only shown in detail mode.*
mnemonic	Parameter type: <PrintableString> - printable string	Specifies the name of the board. *This element is only shown in detail mode.*
pba-code	Parameter type: <PrintableString> - printable string	Specifies the Nokia printed board assembly code of of the board. *This element is only shown in detail mode.*
fpba-code	Parameter type: <PrintableString> - printable string	Specifies the Nokia printed board assembly code of the board, which also identifies the boot software. *This element is only shown in detail mode.*
fpba-ics	Parameter type: <PrintableString>	Specifies the item change status

name	Type	Description
	- printable string	iteration code of the board. *This element is only shown in detail mode.*
clei-code	Parameter type: <PrintableString> - printable string	Specifies the common language equipment identification code of the board. *This element is only shown in detail mode.*
serial-no	Parameter type: <PrintableString> - printable string	Specifies the serial number of the board. *This element is only shown in detail mode.*
failed-test	Parameter type: <Equipm::Octet-4> - a binary string	Specifies the last failing test. *This element is only shown in detail mode.*
lt-restart-time	Parameter type: <Equipm::restartTime> - the time (yyyy-mm-dd:hour:minutes:secs) - unit: UTC	The last restart time.This element is supported on LTs as well as NTs. *This element is only shown in detail mode.*
lt-restart-cause	Parameter type: <Equipm::eqptBoardLastRestartCause> (poweron | watchdog | cold_reset | warm_reset | hot_reset | hot_reload | clean_data | emergency_build | poweron_reset | commit_failure | timezone_modified | other) Possible values: - poweron : restart after power on - watchdog : restart triggered by HW watchdog timeout - cold_reset : HW reset of the board with selftest - warm_reset : HW reset of the board without selftest - hot_reset : operational SW restart without HW reset - hot_reload : operational SW reload and restart without HW reset - clean_data : operational SW triggered HW reset with DB clean - emergency_build : cold reset when error escalation mechanism keeps failing - poweron_reset : operational SW triggered restart as poweron - commit_failure : restart due to new SW package commit failure - timezone_modified : restart reported due to a change in Time Zone offset - other : restart due to unknown reason	the cause of the most recent restart of the board *This element is only shown in detail mode.*
lt-restart-num short name: restrt-cnt	Parameter type: <Counter> - 32 bit counter	the number of times the board has restarted (It is only applicable for LTs) *This element is always shown.*
restart-cnt-per-lt	Parameter type: <Counter>	the number of times the board has

name	Type	Description
	- 32 bit counter	restarted(applicable for LTs and Per LT basis, not like Per slot(lt-restart-num) counter) *This element is only shown in detail mode.*
mgnt-entity-oamipaddr	Parameter type: <Ip::V4Address> - IPv4-address	an ip address is used to as the oam ip. *This element is only shown in detail mode.*
mgnt-entity-pairnum	Parameter type: <SignedInteger> - a signed integer	the paired number on the xvps's shelf. *This element is only shown in detail mode.*
dual-host-ip	Parameter type: <Ip::V4Address> - IPv4-address	the dual host ip address *This element is only shown in detail mode.*
dual-host-loc	Parameter type: <Equipm::Dualhost> (<Eqpt::MultiRackId> / <Eqpt::MultiShelfId> | none) Possible values: - none : no host lsm location Field type <Eqpt::MultiRackId> - the rack number Field type <Eqpt::MultiShelfId> - the shelf number	the dual host lsm location *This element is only shown in detail mode.*
board-40gkr4	Parameter type: <Equipm::board40GKR4> (inherited | disable | enable) Possible values: - inherited : enable or disable 40G KR4 of the board is controlled by system level parameter - disable : the board should not work in 40GKR4 no matter the value of system level - enable : the board should work in 40GKR4 no matter the value of system level	To display the 40GKR4 of the board. *This element is only shown in detail mode.*

91.3 Profile Description Command

Command Description

This commands displays the information related to a profile. The following information is shown for each profile:

- *profile-id : displays the profile-id associated with a profile name*
- *description :displays the description of the profile.*
- *board-type: displays the board type associated with a given profile*

User Level

The command can be accessed by operators with equipment privileges.

Command Syntax

The command has the following syntax:

> show equipment capab-profile [(profilename)]

Command Parameters

Table 91.3-1 "Profile Description Command" Resource Parameters

Resource Identifier	Type	Description
(profilename)	Format: Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	the profile name

Command Output

Table 91.3-2 "Profile Description Command" Display parameters

Specific Information		
name	**Type**	**Description**
profile-id	Parameter type: <AsamProfilePointer> - a pointer to a profile or profile index - range: [0...65535]	The profile id of the corresponding profile name. *This element is always shown.*
description	Parameter type: <PrintableString> - printable string	Description of the profile *This element is always shown.*
board-type	Parameter type: <Equipm::Profile> Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	Description of the profile *This element is always shown.*

91.4 Applique Status Command

Command Description

This command shows the applique status. The following information is shown for each applique slot:

- *type: provides the type of the applique that is currently present in the slot.*
- *oper-status: describes whether the applique is able to perform its normal operation.*
- *error-status: describes the reason why the applique is not operational. These values correspond to the alarms generated in case of a failure.*
- *available-status: provides further information regarding the state of the applique.*
- *manufacturer: provides an identification of the applique manufacturer.*
- *inventory-pba: provides the Nokia Printed Board Assembly code of the applique.*
- *inventory-fpba: provides the Nokia Printed Board Assembly code of the applique which also identifies the boot software.*
- *inventory-ics: provides the Item Change Status iteration code of the qpplique.*
- *inventory-clei: provides the (USA) Common Language Equipment Identification code of the applique.*
- *serial-no: provides the serial number of the applique.*
- *failed-test: provides the identification of the last failing test using four numbers, from MSB to LSB:*
  - *- table number (1 byte)*
  - *- segment number (1 byte)*
  - *- case number (1 byte)*
  - *- check number (1 byte)*

  As long as there has been no failing self test, the value of this attribute will be 0.

User Level

The command can be accessed by operators with equipment privileges.

Command Syntax

The command has the following syntax:

> show equipment applique [(applique)]

Command Parameters

Table 91.4-1 "Applique Status Command" Resource Parameters

Resource Identifier	Type	Description
(applique)	Format: (iont : <Eqpt::RackId> / <Eqpt::ShelfId> | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::AppliqueSlotId> | lp : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::LtAppliqueSlotId> | ntio-1 | ntio-2) Possible values: - iont : an nt applique slot	the physical applique position

Resource Identifier	Type	Description
	- lp : an lt applique slot - ntio-1 : an nt applique slot in a single or multiple-ntio-shelf - ntio-2 : an nt applique slot in a multiple-ntio-shelf Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::AppliqueSlotId> - the applique slot number Field type <Eqpt::LtAppliqueSlotId> - the LT Applique slot number	

Command Output

Table 91.4-2 "Applique Status Command" Display parameters

Specific Information		
name	**Type**	**Description**
planned-type	Parameter type: <Equipm::AppliqueType> Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	A string representing the board that is planned in the slot. *This element is only shown in detail mode.*
actual-type	Parameter type: <Equipm::AppliqueType> Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	A string representing the board that is actually present in the slot. *This element is always shown.*
oper-status short name: enabled	Parameter type: <Equipm::OperStatus> ((enabled | yes) | (disabled | no)) Possible values: - enabled : - yes : - disabled : - no :	Specifies whether the plug-in unit is able to perform its normal operation. *This element is always shown.*
error-status	Parameter type: <Equipm::OperError> (no-error | type-mismatch | board-missing | no-installation | no-planned-board | waiting-for-sw | init-boot-failed | init-download-failed | init-connection-failed | configuration-failed | board-reset-protection | invalid-parameter | temperature-alarm | tempshutdown | defense | board-not-licensed | sem-power-fail | sem-ups-fail | incompatible-slot | download-ongoing	Specifies for what reason the board is not operational. These values correspond with the alarms which are generated in case of a failure. *This element is always shown.*

name	Type	Description
	| upgrade-via-sby | board-shelf-mismatch | unknown-error) Possible values: - no-error : - type-mismatch : - board-missing : - no-installation : - no-planned-board : - waiting-for-sw : - init-boot-failed : - init-download-failed : - init-connection-failed: - configuration-failed : - board-reset-protection: - invalid-parameter : - temperature-alarm : - tempshutdown : - defense : - board-not-licensed : - sem-power-fail : - sem-ups-fail : - incompatible-slot : - download-ongoing : - upgrade-via-sby : - board-shelf-mismatch : - unknown-error :	
availability	Parameter type: <Equipm::AvailStatus> (available | in-test | failed | power-off | not-installed | offline | dependency | ext-managed) Possible values: - available : - in-test : - failed : - power-off : - not-installed : - offline : - dependency : - ext-managed :	Specifies the state of the board. It is set to available after a successfull selftest of the board (if applicable). *This element is always shown.*
manufacturer	Parameter type: <PrintableString> - printable string	Specifies the company of the board. *This element is only shown in detail mode.*
mnemonic	Parameter type: <PrintableString> - printable string	Specifies the name of the board. *This element is only shown in detail mode.*
pba-code	Parameter type: <PrintableString> - printable string	Specifies the Nokia Printed Board Assembly code of of the board. *This element is only shown in detail mode.*

name	Type	Description
fpba-code	Parameter type: <PrintableString> - printable string	Specifies the Nokia Printed Board Assembly code of the board, which also identifies the boot software. *This element is only shown in detail mode.*
fpba-ics	Parameter type: <PrintableString> - printable string	Specifies the item change status iteration code of the board. *This element is only shown in detail mode.*
clei-code	Parameter type: <PrintableString> - printable string	Specifies the common language equipment identification code of the board. *This element is only shown in detail mode.*
serial-no	Parameter type: <PrintableString> - printable string	Specifies the serial number of the board. *This element is only shown in detail mode.*
failed-test	Parameter type: <Equipm::Octet-4> - a binary string	Specifies the last failing test. *This element is only shown in detail mode.*

91.5 Shelf Summary Status Command

Command Description

This commands shows a summary of the slots in a shelf.

The least significant bit of the first byte shown corresponds to the slot position 1.

User Level

none

Command Syntax

The command has the following syntax:

> show equipment shelf-summary [(shelf)]

Command Parameters

Table 91.5-1 "Shelf Summary Status Command" Resource Parameters

Resource Identifier	Type	Description
(shelf)	Format: <Eqpt::RackId> / <Eqpt::ShelfId> Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ShelfId> - the shelf number	the physical shelf position

Command Output

Table 91.5-2 "Shelf Summary Status Command" Display parameters

Specific Information		
name	**Type**	**Description**
changes	Parameter type: <Counter> - 32 bit counter	Number of configuration or status changes for slots/boards within this shelf. *This element is always shown.*
occupied-slots	Parameter type: <Equipm::Octet-8> - a binary string - length: 8	Specifies the occupation of slots. *This element is only shown in detail mode.*
admin-unlocked	Parameter type: <Equipm::Octet-8> - a binary string - length: 8	Specifies the administrative state of the boards whether it is locked or not. *This element is only shown in detail mode.*
oper-unlocked	Parameter type: <Equipm::Octet-8> - a binary string	Specifies the operational state of the boards whether it is locked or

name	Type	Description
	- length: 8	not. *This element is only shown in detail mode.*
avail-boards	Parameter type: <Equipm::Octet-8> - a binary string - length: 8	Specifies the availability state of the boards whether it is available or not. *This element is only shown in detail mode.*
mismatches	Parameter type: <Equipm::Octet-8> - a binary string - length: 8	Specifies any mismatch between the actual board-type and the planned board-type. *This element is always shown.*
alarms	Parameter type: <Equipm::Octet-8> - a binary string - length: 8	Specifies the boards which generated an alarm. *This element is always shown.*

91.6 Protection Element Status Command

Command Description

This command shows the protected element-related parameter of the equipment.

User Level

The command can be accessed by operators with equipment privileges.

Command Syntax

The command has the following syntax:

> show equipment protection-element [(slot-id)]

Command Parameters

Table 91.6-1 "Protection Element Status Command" Resource Parameters

Resource Identifier	Type	Description
(slot-id)	Format: (lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> | nt-a | nt-b | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::EqSlotId> | vlt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::VirtualSlotId>) Possible values: - lt : lt-slot - vlt : virtual LT slot (VVPS board can only be planned at NANT-E / FANT-F) - nt-a : nt-a slot - nt-b : nt-b slot Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::SlotId> - the LT slot number Field type <Eqpt::VirtualSlotId> - the virtual LT slot number Field type <Eqpt::EqSlotId> - the equipment slot number	Index in eqpt Prot Element Table

Command Output

Table 91.6-2 "Protection Element Status Command" Display parameters

Specific Information

name	Type	Description
standby-status	Parameter type: <Equipm::ProtElementStandbyStatus> (providing-service | hot-standby | cold-standby | idle) Possible values: - providing-service : providing services - hot-standby : hot standby - cold-standby : cold standby - idle : idle	The standby status of the protection group element. *This element is always shown.*
group-id	Parameter type: <Equipm::ProtGroupId> - index of protection group - range: [1...109]	The belonged group id of protection element. *This element is always shown.*
redcy-ctrl-status	Parameter type: <Equipm::ProtElementRedcyCtrlStatus> (normal | forced_active) Possible values: - normal : enables redundancy (active or standby) - forced_active : forces the element to be active	the redcy ctrl status of the protection group element. *This element is always shown.*
stdby-stat-chg-reason short name: stdby-chg-reas	Parameter type: <Equipm::ProtElementStandByStatusChgReason> (none | prot-grp-lckd | forced-active | (peernt-link-unav | lk-unav) | peer-lckd | peer-not-plan | peer-not-plugin | db-not-sync | shub-not-sync | shub-sdkfail | shub-recov-sdkfail | shub-hwfail | shub-dyn-syncfail | shub-stat-syncfail | shub-peer-commfail | (shub-failure | shub-fail) | (lk-grp-notavail | lk-grp-ntav) | lt-not-enabled | (shub-higig-failure | shub-higig-fail) | (shub-discovery-failure | shub-disc-fail) | (shub-reconcile-failure | shub-recon-fail) | (dpoe-application-fail | dpoe-app-fail) | (dpoe-communicate-fail | dpoe-comm-fail) | (dpoe-synchronize-fail | dpoe-sync-fail) | (dpoe-unreachable | dpoe-unrchble)) Possible values: - none : standby state is hot standby or not applicable (default value) - prot-grp-lckd : redundancy not enabled - forced-active : active board is put to forced active - peernt-link-unav : standby NT link not available - lk-unav : standby NT link not available - peer-lckd : standby board locked - peer-not-plan : standby board not planned - peer-not-plugin : standby board not plugged in - db-not-sync : database not synchronized	reason why the standby-status of the protection-group is changed *This element is always shown.*

name	Type	Description
	- shub-not-sync : shub data not synchronized - shub-sdkfail : stdby shub detected non-recov sdk failure - shub-recov-sdkfail : stdby shub detected recov sdk failure - shub-hwfail : stdby shub detected hw failure - shub-dyn-syncfail : shub dynamic data not synchronized - shub-stat-syncfail : shub static data not synchronized - shub-peer-commfail : stdby shub lost communication with active shub - shub-failure : stdby shub not alive - shub-fail : stdby shub not alive - lk-grp-notavail : link group not available - lk-grp-ntav : link group not available - lt-not-enabled : LT not enabled in case of LT redundancy - shub-higig-failure : shub HiGig failure - shub-higig-fail : shub HiGig failure - shub-discovery-failure: shub unable to discover its peer - shub-disc-fail : shub unable to discover its peer - shub-reconcile-failure: shub unable to synchronise with peer - shub-recon-fail : shub unable to synchronise with peer - dpoe-application-fail : dpoe has detected application failure - dpoe-app-fail : dpoe has detected application failure - dpoe-communicate-fail : dpoe has lost communication with active dpoe - dpoe-comm-fail : dpoe has lost communication with active dpoe - dpoe-synchronize-fail : dpoe unable to synchronise with peer - dpoe-sync-fail : dpoe unable to synchronise with peer - dpoe-unreachable : dpoe is unreachable - dpoe-unrchble : dpoe is unreachable	

91.7 Protection Group Status Command

Command Description

This command shows the parameters related to protection groups.

User Level

The command can be accessed by operators with equipment privileges.

Command Syntax

The command has the following syntax:

> show equipment protection-group [(prot-group-id)]

Command Parameters

Table 91.7-1 "Protection Group Status Command" Resource Parameters

Resource Identifier	Type	Description
(prot-group-id)	Format: - a signed integer	Index in eqpt Prot Group Table

Command Output

Table 91.7-2 "Protection Group Status Command" Display parameters

Specific Information		
name	**Type**	**Description**
admin-status	Parameter type: <Equipm::PortGroupAdminStatus> (unlock | lock) Possible values: - unlock : unlock - lock : lock	distinguishes the administration-status *This element is always shown.*
service-status	Parameter type: <Equipm::ServiceStatus> (in-service | not-in-service) Possible values: - in-service : the protection group is in service - not-in-service : the protection group is not in service	indicate the service status of protection group, a protection group and its elements are not configurable when it is out of service *This element is always shown.*
eps-quenchfactor	Parameter type: <Equipm::TimeTicks> - timer value for quench mechanish - unit: 1/100 sec	timervalue of quenching mechanism, 0 is valid value *This element is only shown in detail mode.*
prot-group-type	Parameter type: <Equipm::PortGroupType> (one-plus-one | one-for-n)	distinguishes between 1+1 and 1:N protection groups *This element is always shown.*

name	Type	Description
	Possible values: - one-plus-one : one to one - one-for-n : one to many	
prot-changes	Parameter type: <Counter> - 32 bit counter	wrap around counter which indicates the number of status changes in this protection group as well as the status changes for the protecting elements within this group *This element is only shown in detail mode.*
switchover-count	Parameter type: <Counter> - 32 bit counter	wrap around counter for the number of switchovers being performed *This element is only shown in detail mode.*
last-switchover-reason	Parameter type: <Equipm::SwitchOverReason> (no-switch-over | forced-active | board-not-present | extender-chain-failure | link-failure | watchdog-timeout | file-system-corrupt | configuration-mismatch | board-unplanned | board-locked | shelf-defense | revertive-switchover | shub-pollfailure | shub-hwfailure | shub-sdkfailure | dpoe-appfailure | dpoe-unreachable | forced-switchover) Possible values: - no-switch-over : no switch over has been performed yet - forced-active : chain A is forced - board-not-present : board is removed or not reachable - extender-chain-failure: extender chain failure - link-failure : link failure - watchdog-timeout : redundancy watchdog - file-system-corrupt : curruption of file system - configuration-mismatch: mismatch in boardType or Swversion - board-unplanned : board has been unplanned - board-locked : board has been locked - shelf-defense : shelf-error detected by defense - revertive-switchover : switchover because protected board is operational again (in case of 1:N) - shub-pollfailure : shub failure - shub-hwfailure : active shub detected a hw failure - shub-sdkfailure : active shub detected a sdk failure - dpoe-appfailure : active dpoe detected application failure - dpoe-unreachable : active dpoe is not reachable - forced-switchover : forced switchover by user	contains the reason of the last switch over *This element is only shown in detail mode.*
alarm-bitmap	Parameter type: <Equipm::BitMapType>	status bitmap: bit 0 set means no

name	Type	Description
	(no-alarm | stand-by-degrd) Possible values: - no-alarm : no-alarm - stand-by-degrd : standby degradation alarm	defect at all, bit 1 : if bit set, loss of switch-over capabilities alarm is set (excludes bit 0 setting),bit 2 .. 31 : reserved for future extensions *This element is only shown in detail mode.*
oper-prot-element	Parameter type: <SignedInteger> - a signed integer	only supported for 1:N protection groups,indicates which element is currently protected by the spare element, value 0 means that currently the spare element is not protecting any element *This element is only shown in detail mode.*

91.8 External-link-host Status Commands

Command Description

This command allows the operator to show the host shelf's external-links status. The following information is shown for each external-link:

- *The SHub/IHub port which the host external link is connected to*
- *The downlink status*
- *The slot id of the expansion shelf that is cabled to the host expansion board.*
- *The output "none" for the display parameter "exp-slot" means the sfp is not connected to any rack/shelf/slot.*

User Level

The command can be accessed by operators with equipment privileges.

Command Syntax

The command has the following syntax:

> show equipment external-link-host [(index)]

Command Parameters

Table 91.8-1 "External-link-host Status Commands" Resource Parameters

Resource Identifier	Type	Description
(index)	Format: (<Eqpt::ExtSfpFaceplateType> | nt : sfp : <Eqpt::ExtSfpFaceplateType> | nt : xfp : <Eqpt::ExtSfpFaceplateType> | lt : <Eqpt::HostRackId> / <Eqpt::HostShelfId> / <Eqpt::LtExtSlotId> / <Eqpt::ExtSfpFaceplateType> | ntio-1 : sfp : <Eqpt::ExtSfpFaceplateType> | ntio-1 : xfp : <Eqpt::ExtSfpFaceplateType> | ntio-2 : sfp : <Eqpt::ExtSfpFaceplateType> | ntio-2 : xfp : <Eqpt::ExtSfpFaceplateType>) Possible values: - nt : active nt slot - lt : lt-slot - ntio-1 : an nt applique slot in a single or multiple-ntio-shelf - ntio-2 : an nt applique slot in a multiple-ntio-shelf Field type <Eqpt::HostRackId> - the rack number Field type <Eqpt::HostShelfId> - the shelf number Field type <Eqpt::LtExtSlotId> - the LT slot number Possible values: - sfp : SFP port - xfp : XFP port	the physical sfp or xfp cage position

Resource Identifier	Type	Description
	Field type <Eqpt::ExtSfpFaceplateType> - The faceplate on which remote LT is connected	

Command Output

Table 91.8-2 "External-link-host Status Commands" Display parameters

Specific Information		
name	**Type**	**Description**
shub-port	Parameter type: <Equipm::lanxPortNumber> - a signed integer	the shub port which the host external link is connected to *This element is always shown.*
downlink-status	Parameter type: <Equipm::HostSfpDownlinkStatus> (ok | sfp-not-present | los | tx-fail | invalid-nokia-id | unknown | sfp-control-fail | uplink | tx-fail-and-los) Possible values: - ok : the downlink is operational - sfp-not-present : no sfp present for the downlink - los : los is detected by the host for the downlink - tx-fail : the downlink tx failed - invalid-nokia-id : the downlink sfp plugged does not have a valid nokia id - unknown : the host expansion card is planned but not inserted - sfp-control-fail : sfp not responding or i2c failure - uplink : the sfp is configured as uplink - tx-fail-and-los : the downlink tx failed and los detected by the host for the downlink	the host expansion card's external downlink status *This element is always shown.*
exp-slot	Parameter type: <Equipm::ExpansionSlotIndex> <Eqpt::ExpRack> / <Eqpt::ExpShelf> / <Eqpt::ExpSlot> Field type <Eqpt::ExpRack> - the physical number of the expansion rack, 0 stands for no remote Field type <Eqpt::ExpShelf> - physical nbr of expansion shelf within expansion rack, 0 stands for no remote Field type <Eqpt::ExpSlot> - the physical number of the slot within expansion shelf, 0 stands for no remote	the slot id of the expansion shelf that is cabled to the host expansion board *This element is always shown.*
host-sfp-type	Parameter type: <Equipm::SfpType> (unknown | 1000base-sx | 1000base-lx | 1000base-cx | 1000base-t | 100base-lx/lx10 | 100base-fx | base-bx10 | base-px | reserved	the host shelf sfp type *This element is only shown in detail mode.*

name	Type	Description
	| 10gbase-ew | 10gbase-lw | 10gbase-sw | 10gbase-lrm | 10gbase-er | 10gbase-lr | 10gbase-sr | 10gbase-sr-sw | 10gbase-sr-lw | 10gbase-sr-ew | 10gbase-lr-sw | 10gbase-lr-lw | 10gbase-lr-ew | 10gbase-er-sw | 10gbase-er-lw | 10gbase-er-ew | 10gbase-lrm-sw | 10gbase-lrm-lw | 10gbase-lrm-ew | 2500base-sx | 2500base-lx | 2500base-bx) Possible values: - unknown : the sfp ethernet type is not known - 1000base-sx : gigabit ethernet compliance code - 1000base-lx : gigabit ethernet compliance code - 1000base-cx : gigabit ethernet compliance code - 1000base-t : gigabit ethernet compliance code - 100base-lx/lx10 : gigabit ethernet compliance code - 100base-fx : gigabit ethernet compliance code - base-bx10 : gigabit ethernet compliance code - base-px : gigabit ethernet compliance code - reserved : reserved bit 8 - 10gbase-ew : 10 gigabit ethernet compliance code - 10gbase-lw : 10 gigabit ethernet compliance code - 10gbase-sw : 10 gigabit ethernet compliance code - 10gbase-lrm : 10 gigabit ethernet compliance code - 10gbase-er : 10 gigabit ethernet compliance code - 10gbase-lr : 10 gigabit ethernet compliance code - 10gbase-sr : 10 gigabit ethernet compliance code - 10gbase-sr-sw : 10 gigabit ethernet compliance code - 10gbase-sr-lw : 10 gigabit ethernet compliance code - 10gbase-sr-ew : 10 gigabit ethernet compliance code - 10gbase-lr-sw : 10 gigabit ethernet compliance code - 10gbase-lr-lw : 10 gigabit ethernet compliance code - 10gbase-lr-ew : 10 gigabit ethernet compliance code - 10gbase-er-sw : 10 gigabit ethernet compliance code - 10gbase-er-lw : 10 gigabit ethernet compliance code - 10gbase-er-ew : 10 gigabit ethernet compliance code - 10gbase-lrm-sw : 10 gigabit ethernet compliance code - 10gbase-lrm-lw : 10 gigabit ethernet compliance code - 10gbase-lrm-ew : 10 gigabit ethernet compliance code - 2500base-sx : gigabit ethernet compliance code - 2500base-lx : gigabit ethernet compliance code - 2500base-bx : gigabit ethernet compliance code	
cabling-status	Parameter type: <Equipm::SfpCableMismatch> (no-mismatch	the host shelf cabling mismatch *This element is always shown.*

name	Type	Description
	| unexpected-lt | assign-mismatch | incompat-shelf) Possible values: - no-mismatch : no cabling mismatch is detected - unexpected-lt : remote LT is detected at an unassigned downlink SFP port - assign-mismatch : the detected remote LT does not match the LT assigned to this host SFP - incompat-shelf : the detected remote shelf does not match the shelf type assigned to this host SFP	
phy-address	Parameter type: <Ip::PhysicalAddress> - media dependent physical address - length: 8	the physical address of the remote interface cabled to host shelf SFP *This element is only shown in detail mode.*

91.9 External-link-remote Status Commands

Command Description

This command allows the operator to show the remote shelves external-links status. The following information is shown for each external-link:

- *The slot id of the expansion shelf*
- *The link status*
- *The faceplate number of the host external-link device in which the expansion shelf's external-link device is cabled to*

User Level

The command can be accessed by operators with equipment privileges.

Command Syntax

The command has the following syntax:

> show equipment external-link-remote [(exp-slot)]

Command Parameters

Table 91.9-1 "External-link-remote Status Commands" Resource Parameters

Resource Identifier	Type	Description
(exp-slot)	Format: <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::ExpSlotId> Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::ExpSlotId> - the expansion slot number	the physical expansion slot position

Command Output

Table 91.9-2 "External-link-remote Status Commands" Display parameters

Specific Information		
name	**Type**	**Description**
sfp-status	Parameter type: <Equipm::ExpSfpStatus> (ok | sfp-not-present | los | tx-fail | invalid-nokia-id | unknown | sfp-control-fail	the status of the expansion shelf sfp *This element is always shown.*

name	Type	Description
	| tx-fail-and-los) Possible values: - ok : the expansion shelf SFP is operational - sfp-not-present : no sfp present - los : los is detected by the expansion shelf sfp - tx-fail : the expansion shelf tx failed - invalid-nokia-id : the expansion shelf sfp plugged does not have a valid nokia id - unknown : the status is not available or cannot be retrieved - sfp-control-fail : sfp not responding or i2c failure - tx-fail-and-los : the expansion shelf tx failed and los detected by the expansion shelf sfp	
host-sfp-faceplate-nbr	Parameter type: <Equipm::LtFaceplateRemoteExtLinkIndex> (<Eqpt::ExtSfpFaceplateType> | nt : sfp : <Eqpt::ExtSfpFaceplateType> | nt : xfp : <Eqpt::ExtSfpFaceplateType> | lt : <Eqpt::HostRackId> / <Eqpt::HostShelfId> / <Eqpt::LtExtSlotId> / <Eqpt::ExtSfpFaceplateType> | ntio-1 : sfp : <Eqpt::ExtSfpFaceplateType> | ntio-1 : xfp : <Eqpt::ExtSfpFaceplateType> | ntio-2 : sfp : <Eqpt::ExtSfpFaceplateType> | ntio-2 : xfp : <Eqpt::ExtSfpFaceplateType> | not-cabled) Possible values: - not-cabled : device is not cabled - nt : active nt slot - lt : lt-slot - ntio-1 : an nt applique slot in a single or multiple-ntio-shelf - ntio-2 : an nt applique slot in a multiple-ntio-shelf Field type <Eqpt::HostRackId> - the rack number Field type <Eqpt::HostShelfId> - the shelf number Field type <Eqpt::LtExtSlotId> - the LT slot number Possible values: - sfp : SFP port - xfp : XFP port Field type <Eqpt::ExtSfpFaceplateType> - The faceplate on which remote LT is connected	the faceplate number of the host shelf external-link device which the expansion shelf external-link device is cabled to *This element is always shown.*
exp-sfp-type	Parameter type: <Equipm::SfpType> (unknown | 1000base-sx | 1000base-lx | 1000base-cx | 1000base-t | 100base-lx/lx10 | 100base-fx | base-bx10 | base-px | reserved | 10gbase-ew | 10gbase-lw | 10gbase-sw | 10gbase-lrm | 10gbase-er	the expansion shelf sfp type *This element is always shown.*

name	Type	Description
	| 10gbase-lr | 10gbase-sr | 10gbase-sr-sw | 10gbase-sr-lw | 10gbase-sr-ew | 10gbase-lr-sw | 10gbase-lr-lw | 10gbase-lr-ew | 10gbase-er-sw | 10gbase-er-lw | 10gbase-er-ew | 10gbase-lrm-sw | 10gbase-lrm-lw | 10gbase-lrm-ew | 2500base-sx | 2500base-lx | 2500base-bx) Possible values: - unknown : the sfp ethernet type is not known - 1000base-sx : gigabit ethernet compliance code - 1000base-lx : gigabit ethernet compliance code - 1000base-cx : gigabit ethernet compliance code - 1000base-t : gigabit ethernet compliance code - 100base-lx/lx10 : gigabit ethernet compliance code - 100base-fx : gigabit ethernet compliance code - base-bx10 : gigabit ethernet compliance code - base-px : gigabit ethernet compliance code - reserved : reserved bit 8 - 10gbase-ew : 10 gigabit ethernet compliance code - 10gbase-lw : 10 gigabit ethernet compliance code - 10gbase-sw : 10 gigabit ethernet compliance code - 10gbase-lrm : 10 gigabit ethernet compliance code - 10gbase-er : 10 gigabit ethernet compliance code - 10gbase-lr : 10 gigabit ethernet compliance code - 10gbase-sr : 10 gigabit ethernet compliance code - 10gbase-sr-sw : 10 gigabit ethernet compliance code - 10gbase-sr-lw : 10 gigabit ethernet compliance code - 10gbase-sr-ew : 10 gigabit ethernet compliance code - 10gbase-lr-sw : 10 gigabit ethernet compliance code - 10gbase-lr-lw : 10 gigabit ethernet compliance code - 10gbase-lr-ew : 10 gigabit ethernet compliance code - 10gbase-er-sw : 10 gigabit ethernet compliance code - 10gbase-er-lw : 10 gigabit ethernet compliance code - 10gbase-er-ew : 10 gigabit ethernet compliance code - 10gbase-lrm-sw : 10 gigabit ethernet compliance code - 10gbase-lrm-lw : 10 gigabit ethernet compliance code - 10gbase-lrm-ew : 10 gigabit ethernet compliance code - 2500base-sx : gigabit ethernet compliance code - 2500base-lx : gigabit ethernet compliance code - 2500base-bx : gigabit ethernet compliance code	

91.10 SFP/XFP Diagnostics Status Command

Command Description

This command allows the operator to read real-time diagnostic measurements from the A2 bank of a specified SFP or lower data bank of XFP. The following information is shown for each specified sfp/xfp:

- *The slot index of the sfp*
- *The number of the sfp cage*
- *The diagnostics availability: For XFP, AO denotes the upper bank and A2 denotes the lower bank.*
- *The Loss of Signal status*
- *The Transmit Fault status*
- *The transmit power (tx-power): This parameter displays the transmit power of the SFP/XFP.It is a string that can be one of the following possible values:*
  - *A string containing power value ranging from "-40.00 dBm" to "8.16 dBm", in 0.01 dBm increments.*
  - *"No Power" - When no optical power is being transmitted by an sfp.*
  - *"NotApplicable" - This is used for an electrical SFP.*
  - *"NotAvailable" - The measurement could not be obtained.*
  - *"Invalid" - The calibration calculation returned an invalid result.*
- *The received power (rx-power): This parameter displays the received power of the SFP/XFP(not applicable for pon ports). It is a string that can be one of the following possible values:*
  - *A string containing power value ranging from "-40.00 dBm" to "8.16 dBm", in 0.01 dBm increments.*
  - *"No Power" - When no optical power is being received by an sfp.*
  - *"NotApplicable" - This is used for an electrical SFP.*
  - *"NotAvailable" - The measurement could not be obtained.*
  - *"Invalid" - The calibration calculation returned an invalid result.*
- *The transmit bias current (tx-bias-current) : This parameter displays the transmit bias current of the SFP/XFP. It is a string that can be one of the following possible values:*
  - *A string containing a current value ranging from "0.00 mA" to "262.00 mA", in 0.01 mA increments.*
  - *"NotApplicable" - This is used for an electrical SFP.*
  - *"NotAvailable" - The measurement could not be obtained.*
  - *"Invalid" - The calibration calculation returned an invalid result.*
- *The transceiver supply voltage (supply-voltage) : This parameter displays the transceiver supply voltage of the SFP/XFP. It is a string that can be one of the following possible values:*
  - *A string containing a voltage value ranging from "0.00 VDC" to "6.55 VDC", in 0.01 VDC increments.*
  - *"NotAvailable" - The measurement could not be obtained.*
  - *"Invalid" - The calibration calculation returned an invalid result.*
- *The temperature : This parameter displays the temperature of the SFP/XFP. It is a string that can be one of the following possible values:*
  - *A string containing a temperature value ranging from "-128.00 degrees Celsius" to "128.00 degrees Celsius" in 0.01 degrees Celsius increments.*
  - *"NotAvailable" - The measurement could not be obtained.*
- *temperature-tca : This parameter displays the freshly-measured temperature alarm/warning threshold crossing status of the specified SFP/SFP+/XFP. It is a string that can be one of the following possible values:*
  - *"not-available" - the measurement could not be obtained*
  - *"normal-value" - No threshold crossing, present value is within the threshold*
  - *"low-warning-th" - Present value is greater than the low warning level threshold*
  - *"low-alarm-th" - Present value is greater than the low alarm level threshold*
  - *"high-warning-th" - Present value is greater than the high warning level threshold*
  - *"high-alarm-th" - Present value is greater than the high alarm level threshold*
- *voltage-tca : This parameter displays the freshly-measured voltage alarm/warning threshold crossing status of the specified SFP/SFP+/XFP. It is a string that can be one of the following possible values:*

- *"not-available" - the measurement could not be obtained*
- *"normal-value" - No threshold crossing, present value is within the threshold*
- *"low-warning-th" - Present value is greater than the low warning level threshold*
- *"low-alarm-th" - Present value is greater than the low alarm level threshold*
- *"high-warning-th" - Present value is greater than the high warning level threshold*
- *"high-alarm-th" - Present value is greater than the high alarm level threshold*

- *tx-power-tca : This parameter displays the freshly-measured tx-power alarm/warning threshold crossing status of the specified SFP/SFP+/XFP. It is a string that can be one of the following possible values:*
  - *"not-available" - the measurement could not be obtained*
  - *"normal-value" - No threshold crossing, present value is within the threshold*
  - *"low-warning-th" - Present value is greater than the low warning level threshold*
  - *"low-alarm-th" - Present value is greater than the low alarm level threshold*
  - *"high-warning-th" - Present value is greater than the high warning level threshold*
  - *"high-alarm-th" - Present value is greater than the high alarm level threshold*
- *bias-current-tca : This parameter displays the freshly-measured bias-current alarm/warning threshold crossing status of the specified SFP/SFP+/XFP. It is a string that can be one of the following possible values:*
  - *"not-available" - the measurement could not be obtained*
  - *"normal-value" - No threshold crossing, present value is within the threshold*
  - *"low-warning-th" - Present value is greater than the low warning level threshold*
  - *"low-alarm-th" - Present value is greater than the low alarm level threshold*
  - *"high-warning-th" - Present value is greater than the high warning level threshold*
  - *"high-alarm-th" - Present value is greater than the high alarm level threshold*
- *rx-power-tca : This parameter displays the freshly-measured rx-power alarm/warning threshold crossing status of the specified SFP/SFP+/XFP(not applicable for pon ports). It is a string that can be one of the following possible values:*
  - *"not-available" - the measurement could not be obtained*
  - *"normal-value" - No threshold crossing, present value is within the threshold*
  - *"low-warning-th" - Present value is greater than the low warning level threshold*
  - *"low-alarm-th" - Present value is greater than the low alarm level threshold*
  - *"high-warning-th" - Present value is greater than the high warning level threshold*
  - *"high-alarm-th" - Present value is greater than the high alarm level threshold*

User Level

The command can be accessed by operators with equipment privileges.

Command Syntax

The command has the following syntax:

> show equipment diagnostics sfp [(position)]

Command Parameters

Table 91.10-1 "SFP/XFP Diagnostics Status Command" Resource Parameters

Resource Identifier	Type	Description
(position)	Format: (acu : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SfpCageNumber> | iont : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SfpCageNumber>	the physical sfp or xfp cage position

Resource Identifier	Type	Description
	| remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : sfp : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : xfp : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : qsfp : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : cfp : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : sfp1 : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : sfp2 : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : xfp1 : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : xfp2 : <Eqpt::SfpCageNumber> | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::EqSlotId> / <Eqpt::SfpCageNumber> | nt : sfp : <Eqpt::SfpCageNumber> | nt : xfp : <Eqpt::SfpCageNumber> | nt : qsfp : <Eqpt::SfpCageNumber> | nt : cfp : <Eqpt::SfpCageNumber> | nt : sfp1 : <Eqpt::SfpCageNumber> | nt : sfp2 : <Eqpt::SfpCageNumber> | nt : xfp1 : <Eqpt::SfpCageNumber> | nt : xfp2 : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : sfp : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : xfp : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : qsfp : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : cfp : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : sfp1 : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : sfp2 : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : xfp1 : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : xfp2 : <Eqpt::SfpCageNumber> | ntio-1 : sfp : <Eqpt::SfpCageNumber> | ntio-1 : xfp : <Eqpt::SfpCageNumber> | ntio-1 : qsfp : <Eqpt::SfpCageNumber> | ntio-1 : cfp : <Eqpt::SfpCageNumber> | ntio-1 : sfp1 : <Eqpt::SfpCageNumber> | ntio-1 : sfp2 : <Eqpt::SfpCageNumber> | ntio-1 : xfp1 : <Eqpt::SfpCageNumber> | ntio-1 : xfp2 : <Eqpt::SfpCageNumber> | ntio-2 : sfp : <Eqpt::SfpCageNumber> | ntio-2 : xfp : <Eqpt::SfpCageNumber> | ntio-2 : qsfp : <Eqpt::SfpCageNumber> | ntio-2 : cfp : <Eqpt::SfpCageNumber> | ntio-2 : sfp1 : <Eqpt::SfpCageNumber> | ntio-2 : sfp2 : <Eqpt::SfpCageNumber> | ntio-2 : xfp1 : <Eqpt::SfpCageNumber>	

Resource Identifier	Type	Description
	| ntio-2 : xfp2 : <Eqpt::SfpCageNumber> | nt-a : sfp : <Eqpt::SfpCageNumber> | nt-a : xfp : <Eqpt::SfpCageNumber> | nt-a : qsfp : <Eqpt::SfpCageNumber> | nt-a : cfp : <Eqpt::SfpCageNumber> | nt-a : sfp1 : <Eqpt::SfpCageNumber> | nt-a : sfp2 : <Eqpt::SfpCageNumber> | nt-a : xfp1 : <Eqpt::SfpCageNumber> | nt-a : xfp2 : <Eqpt::SfpCageNumber> | nt-b : sfp : <Eqpt::SfpCageNumber> | nt-b : xfp : <Eqpt::SfpCageNumber> | nt-b : qsfp : <Eqpt::SfpCageNumber> | nt-b : cfp : <Eqpt::SfpCageNumber> | nt-b : sfp1 : <Eqpt::SfpCageNumber> | nt-b : sfp2 : <Eqpt::SfpCageNumber> | nt-b : xfp1 : <Eqpt::SfpCageNumber> | nt-b : xfp2 : <Eqpt::SfpCageNumber>) Possible values: - acu : acu slot - iont : an nt applique slot - remote-sfp : remote sfp - nt : active nt slot - lt : lt-slot - ntio-1 : an nt applique slot in a single or multiple-ntio-shelf - ntio-2 : an nt applique slot in a multiple-ntio-shelf - nt-a : nt-a slot - nt-b : nt-b slot Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ExpRack> - the physical number of the expansion rack, 0 stands for no remote Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::ExpShelf> - physical nbr of expansion shelf within expansion rack, 0 stands for no remote Field type <Eqpt::EqSlotId> - the equipment slot number Field type <Eqpt::SlotId> - the LT slot number Possible values: - sfp : SFP port - xfp : XFP port - qsfp : QSFP port - cfp : CFP4 port - sfp1 : SFP port 1 - sfp2 : SFP port 2 - xfp1 : XFP port 1 - xfp2 : XFP port 2 Field type <Eqpt::SfpCageNumber> - the SFP cage number - range: [0...2304]	

Command Output

Table 91.10-2 "SFP/XFP Diagnostics Status Command" Display parameters

Specific Information		
name	**Type**	**Description**
diag-avail-status	Parameter type: <Eqpt::SfpDiagAvailable> (no-error | cage-no-diag-supp | cage-empty | cage-no-a2-supp | a0-read-failed | a0-checksum-failed | sfp-no-a2-supp | a2-read-failed | a2-checksum-failed | optics-present) Possible values: - no-error : sfp diag is available - cage-no-diag-supp : cage does not support diag - cage-empty : cage is empty - cage-no-a2-supp : cage does not support A2 - a0-read-failed : A0 read failed - a0-checksum-failed : A0 checksum failed - sfp-no-a2-supp : SFP does not support A2 - a2-read-failed : A2 read failed - a2-checksum-failed : A2 checksum failed - optics-present : SFP/XFS inserted into cage	sfp/xfp diagnostics availability status. for xfp, a0 denotes the upper bank and a2 denotes the lower bank *This element is always shown.*
los	Parameter type: <PrintableString> - printable string	loss of signal *This element is always shown.*
tx-fault	Parameter type: <Eqpt::SfpDiagTxFault> (tx-fault | no-tx-fault | not-applicable | not-available) Possible values: - tx-fault : transmit fault info - no-tx-fault : no tx fault - not-applicable : not applicable - not-available : not available	sfp/xfp tx fault *This element is always shown.*
tx-power	Parameter type: <PrintableString> - printable string	the transmit power. *This element is only shown in detail mode.*
rx-power	Parameter type: <PrintableString> - printable string	the received power - not applicable for PON ports *This element is only shown in detail mode.*
tx-bias-current	Parameter type: <PrintableString> - printable string	the transmit bias current. *This element is only shown in detail mode.*
supply-voltage	Parameter type: <PrintableString> - printable string	the transceiver supply voltage. *This element is only shown in detail mode.*
temperature	Parameter type: <PrintableString> - printable string	the temperature. *This element is only shown in detail mode.*
temperature-tca	Parameter type: <Eqpt::Tca> (high-alarm-th | low-alarm-th | high-warning-th	the temperature alarm or warning *This element is only shown in detail mode.*

name	Type	Description
	| low-warning-th | normal-value | not-available) Possible values: - high-alarm-th : Present value is greater than the configured/pre-set alarm value - low-alarm-th : Present value is lower than the configured/pre-set alarm value - high-warning-th : Present value is greater than the configured/pre-set warning value - low-warning-th : Present value is lower than the configured/pre-set warning value - normal-value : Present value is under normal limits - not-available : Value is not available	
voltage-tca	Parameter type: <Eqpt::Tca> (high-alarm-th | low-alarm-th | high-warning-th | low-warning-th | normal-value | not-available) Possible values: - high-alarm-th : Present value is greater than the configured/pre-set alarm value - low-alarm-th : Present value is lower than the configured/pre-set alarm value - high-warning-th : Present value is greater than the configured/pre-set warning value - low-warning-th : Present value is lower than the configured/pre-set warning value - normal-value : Present value is under normal limits - not-available : Value is not available	the voltage alarm or warning *This element is only shown in detail mode.*
bias-current-tca	Parameter type: <Eqpt::Tca> (high-alarm-th | low-alarm-th | high-warning-th | low-warning-th | normal-value | not-available) Possible values: - high-alarm-th : Present value is greater than the configured/pre-set alarm value - low-alarm-th : Present value is lower than the configured/pre-set alarm value - high-warning-th : Present value is greater than the configured/pre-set warning value - low-warning-th : Present value is lower than the configured/pre-set warning value - normal-value : Present value is under normal limits - not-available : Value is not available	the bias-current alarm or warning *This element is only shown in detail mode.*
tx-power-tca	Parameter type: <Eqpt::Tca> (high-alarm-th | low-alarm-th | high-warning-th | low-warning-th | normal-value | not-available)	the temperature alarm or warning *This element is only shown in detail mode.*

name	Type	Description
	Possible values: - high-alarm-th : Present value is greater than the configured/pre-set alarm value - low-alarm-th : Present value is lower than the configured/pre-set alarm value - high-warning-th : Present value is greater than the configured/pre-set warning value - low-warning-th : Present value is lower than the configured/pre-set warning value - normal-value : Present value is under normal limits - not-available : Value is not available	
rx-power-tca	Parameter type: <Eqpt::Tca> (high-alarm-th | low-alarm-th | high-warning-th | low-warning-th | normal-value | not-available) Possible values: - high-alarm-th : Present value is greater than the configured/pre-set alarm value - low-alarm-th : Present value is lower than the configured/pre-set alarm value - high-warning-th : Present value is greater than the configured/pre-set warning value - low-warning-th : Present value is lower than the configured/pre-set warning value - normal-value : Present value is under normal limits - not-available : Value is not available	the temperature alarm or warning-not applicable for PON ports *This element is only shown in detail mode.*
rssi-profile-id	Parameter type: <Eqpt::RssiShowProfileIndex> - an unique index value for the rssi profile(1-200 user-defined , 65535 - automode) - range: [1...65535]	an unique index of the rssi profile *This element is always shown.*
rssi-state	Parameter type: <Eqpt::RssiState> ((enable | yes) | (disable | no)) Possible values: - enable : enable rssi functionality - yes : enable rssi functionality - disable : disable rssi functionality - no : disable rssi functionality	to enable or disable the rssi functionality on sfps for uplink ports *This element is always shown.*

91.11 SFP/XFP Diagnostics Status Command

Command Description

This command allows the operator to read real-time diagnostic measurements from the A2 bank of a specified SFP or lower data bank of XFP. The following information is shown for each specified sfp/xfp:

- *The slot index of the sfp*
- *The number of the sfp cage*
- *The diagnostics availability: For XFP, AO denotes the upper bank and A2 denotes the lower bank.*
- *The Loss of Signal status*
- *The Transmit Fault status*
- *The transmit power (tx-power): This parameter displays the transmit power of the SFP/XFP.It is a string that can be one of the following possible values:*
  - *A string containing power value ranging from "-40.00 dBm" to "8.16 dBm", in 0.01 dBm increments.*
  - *"No Power" - When no optical power is being transmitted by an sfp.*
  - *"NotApplicable" - This is used for an electrical SFP.*
  - *"NotAvailable" - The measurement could not be obtained.*
  - *"Invalid" - The calibration calculation returned an invalid result.*
- *The received power (rx-power): This parameter displays the received power of the SFP/XFP(not applicable for pon ports). It is a string that can be one of the following possible values:*
  - *A string containing power value ranging from "-40.00 dBm" to "8.16 dBm", in 0.01 dBm increments.*
  - *"No Power" - When no optical power is being received by an sfp.*
  - *"NotApplicable" - This is used for an electrical SFP.*
  - *"NotAvailable" - The measurement could not be obtained.*
  - *"Invalid" - The calibration calculation returned an invalid result.*
- *The transmit bias current (tx-bias-current) : This parameter displays the transmit bias current of the SFP/XFP. It is a string that can be one of the following possible values:*
  - *A string containing a current value ranging from "0.00 mA" to "262.00 mA", in 0.01 mA increments.*
  - *"NotApplicable" - This is used for an electrical SFP.*
  - *"NotAvailable" - The measurement could not be obtained.*
  - *"Invalid" - The calibration calculation returned an invalid result.*
- *The transceiver supply voltage (supply-voltage) : This parameter displays the transceiver supply voltage of the SFP/XFP. It is a string that can be one of the following possible values:*
  - *A string containing a voltage value ranging from "0.00 VDC" to "6.55 VDC", in 0.01 VDC increments.*
  - *"NotAvailable" - The measurement could not be obtained.*
  - *"Invalid" - The calibration calculation returned an invalid result.*
- *The temperature : This parameter displays the temperature of the SFP/XFP. It is a string that can be one of the following possible values:*
  - *A string containing a temperature value ranging from "-128.00 degrees Celsius" to "128.00 degrees Celsius" in 0.01 degrees Celsius increments.*
  - *"NotAvailable" - The measurement could not be obtained.*
- *temperature-tca : This parameter displays the freshly-measured temperature alarm/warning threshold crossing status of the specified SFP/SFP+/XFP. It is a string that can be one of the following possible values:*
  - *"not-available" - the measurement could not be obtained*
  - *"normal-value" - No threshold crossing, present value is within the threshold*
  - *"low-warning-th" - Present value is greater than the low warning level threshold*
  - *"low-alarm-th" - Present value is greater than the low alarm level threshold*
  - *"high-warning-th" - Present value is greater than the high warning level threshold*
  - *"high-alarm-th" - Present value is greater than the high alarm level threshold*
- *voltage-tca : This parameter displays the freshly-measured voltage alarm/warning threshold crossing status of the specified SFP/SFP+/XFP. It is a string that can be one of the following possible values:*

- *"not-available" - the measurement could not be obtained*
- *"normal-value" - No threshold crossing, present value is within the threshold*
- *"low-warning-th" - Present value is greater than the low warning level threshold*
- *"low-alarm-th" - Present value is greater than the low alarm level threshold*
- *"high-warning-th" - Present value is greater than the high warning level threshold*
- *"high-alarm-th" - Present value is greater than the high alarm level threshold*

- *tx-power-tca : This parameter displays the freshly-measured tx-power alarm/warning threshold crossing status of the specified SFP/SFP+/XFP. It is a string that can be one of the following possible values:*
  - *"not-available" - the measurement could not be obtained*
  - *"normal-value" - No threshold crossing, present value is within the threshold*
  - *"low-warning-th" - Present value is greater than the low warning level threshold*
  - *"low-alarm-th" - Present value is greater than the low alarm level threshold*
  - *"high-warning-th" - Present value is greater than the high warning level threshold*
  - *"high-alarm-th" - Present value is greater than the high alarm level threshold*
- *bias-current-tca : This parameter displays the freshly-measured bias-current alarm/warning threshold crossing status of the specified SFP/SFP+/XFP. It is a string that can be one of the following possible values:*
  - *"not-available" - the measurement could not be obtained*
  - *"normal-value" - No threshold crossing, present value is within the threshold*
  - *"low-warning-th" - Present value is greater than the low warning level threshold*
  - *"low-alarm-th" - Present value is greater than the low alarm level threshold*
  - *"high-warning-th" - Present value is greater than the high warning level threshold*
  - *"high-alarm-th" - Present value is greater than the high alarm level threshold*
- *rx-power-tca : This parameter displays the freshly-measured rx-power alarm/warning threshold crossing status of the specified SFP/SFP+/XFP(not applicable for pon ports). It is a string that can be one of the following possible values:*
  - *"not-available" - the measurement could not be obtained*
  - *"normal-value" - No threshold crossing, present value is within the threshold*
  - *"low-warning-th" - Present value is greater than the low warning level threshold*
  - *"low-alarm-th" - Present value is greater than the low alarm level threshold*
  - *"high-warning-th" - Present value is greater than the high warning level threshold*
  - *"high-alarm-th" - Present value is greater than the high alarm level threshold*

User Level

The command can be accessed by operators with equipment privileges.

Command Syntax

The command has the following syntax:

> show equipment diagnostics sfp-threshold [(position)]

Command Parameters

Table 91.11-1 "SFP/XFP Diagnostics Status Command" Resource Parameters

Resource Identifier	Type	Description
(position)	Format: (acu : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SfpCageNumber> | iont : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SfpCageNumber>	the physical sfp or xfp cage position

Resource Identifier	Type	Description
	| remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : sfp : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : xfp : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : qsfp : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : cfp : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : sfp1 : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : sfp2 : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : xfp1 : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : xfp2 : <Eqpt::SfpCageNumber> | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::EqSlotId> / <Eqpt::SfpCageNumber> | nt : sfp : <Eqpt::SfpCageNumber> | nt : xfp : <Eqpt::SfpCageNumber> | nt : qsfp : <Eqpt::SfpCageNumber> | nt : cfp : <Eqpt::SfpCageNumber> | nt : sfp1 : <Eqpt::SfpCageNumber> | nt : sfp2 : <Eqpt::SfpCageNumber> | nt : xfp1 : <Eqpt::SfpCageNumber> | nt : xfp2 : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : sfp : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : xfp : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : qsfp : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : cfp : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : sfp1 : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : sfp2 : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : xfp1 : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : xfp2 : <Eqpt::SfpCageNumber> | ntio-1 : sfp : <Eqpt::SfpCageNumber> | ntio-1 : xfp : <Eqpt::SfpCageNumber> | ntio-1 : qsfp : <Eqpt::SfpCageNumber> | ntio-1 : cfp : <Eqpt::SfpCageNumber> | ntio-1 : sfp1 : <Eqpt::SfpCageNumber> | ntio-1 : sfp2 : <Eqpt::SfpCageNumber> | ntio-1 : xfp1 : <Eqpt::SfpCageNumber> | ntio-1 : xfp2 : <Eqpt::SfpCageNumber> | ntio-2 : sfp : <Eqpt::SfpCageNumber> | ntio-2 : xfp : <Eqpt::SfpCageNumber> | ntio-2 : qsfp : <Eqpt::SfpCageNumber> | ntio-2 : cfp : <Eqpt::SfpCageNumber> | ntio-2 : sfp1 : <Eqpt::SfpCageNumber> | ntio-2 : sfp2 : <Eqpt::SfpCageNumber> | ntio-2 : xfp1 : <Eqpt::SfpCageNumber>	

Resource Identifier	Type	Description
	| ntio-2 : xfp2 : <Eqpt::SfpCageNumber> | nt-a : sfp : <Eqpt::SfpCageNumber> | nt-a : xfp : <Eqpt::SfpCageNumber> | nt-a : qsfp : <Eqpt::SfpCageNumber> | nt-a : cfp : <Eqpt::SfpCageNumber> | nt-a : sfp1 : <Eqpt::SfpCageNumber> | nt-a : sfp2 : <Eqpt::SfpCageNumber> | nt-a : xfp1 : <Eqpt::SfpCageNumber> | nt-a : xfp2 : <Eqpt::SfpCageNumber> | nt-b : sfp : <Eqpt::SfpCageNumber> | nt-b : xfp : <Eqpt::SfpCageNumber> | nt-b : qsfp : <Eqpt::SfpCageNumber> | nt-b : cfp : <Eqpt::SfpCageNumber> | nt-b : sfp1 : <Eqpt::SfpCageNumber> | nt-b : sfp2 : <Eqpt::SfpCageNumber> | nt-b : xfp1 : <Eqpt::SfpCageNumber> | nt-b : xfp2 : <Eqpt::SfpCageNumber>) Possible values: - acu : acu slot - iont : an nt applique slot - remote-sfp : remote sfp - nt : active nt slot - lt : lt-slot - ntio-1 : an nt applique slot in a single or multiple-ntio-shelf - ntio-2 : an nt applique slot in a multiple-ntio-shelf - nt-a : nt-a slot - nt-b : nt-b slot Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ExpRack> - the physical number of the expansion rack, 0 stands for no remote Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::ExpShelf> - physical nbr of expansion shelf within expansion rack, 0 stands for no remote Field type <Eqpt::EqSlotId> - the equipment slot number Field type <Eqpt::SlotId> - the LT slot number Possible values: - sfp : SFP port - xfp : XFP port - qsfp : QSFP port - cfp : CFP4 port - sfp1 : SFP port 1 - sfp2 : SFP port 2 - xfp1 : XFP port 1 - xfp2 : XFP port 2 Field type <Eqpt::SfpCageNumber> - the SFP cage number - range: [0...2304]	

Command Output

Table 91.11-2 "SFP/XFP Diagnostics Status Command" Display parameters

Specific Information		
name	**Type**	**Description**
rx-pwr-alm-low	Parameter type: <PrintableString> - printable string	alarm low threshold for Rx power *This element is always shown.*
rx-pwr-alm-high	Parameter type: <PrintableString> - printable string	alarm high threshold for Rx power *This element is always shown.*
rx-pwr-warn-low	Parameter type: <PrintableString> - printable string	warn low threshold for Rx power *This element is only shown in detail mode.*
rx-pwr-warn-high	Parameter type: <PrintableString> - printable string	warn high threshold for Rx power *This element is only shown in detail mode.*
tx-pwr-alm-low	Parameter type: <PrintableString> - printable string	alarm low threshold for Tx power *This element is always shown.*
tx-pwr-alm-high	Parameter type: <PrintableString> - printable string	alarm high threshold for Tx power *This element is always shown.*
tx-pwr-warn-low	Parameter type: <PrintableString> - printable string	warn low threshold for Tx power *This element is only shown in detail mode.*
tx-pwr-warn-high	Parameter type: <PrintableString> - printable string	warn high threshold for Tx power *This element is only shown in detail mode.*
temp-alm-low	Parameter type: <PrintableString> - printable string	alarm low threshold for temperature *This element is only shown in detail mode.*
temp-alm-high	Parameter type: <PrintableString> - printable string	alarm high threshold for temperature *This element is only shown in detail mode.*
temp-warn-low	Parameter type: <PrintableString> - printable string	warn low threshold for temperature *This element is only shown in detail mode.*
temp-warn-high	Parameter type: <PrintableString> - printable string	warn high threshold for temperature *This element is only shown in detail mode.*
bias-alm-low	Parameter type: <PrintableString> - printable string	alarm low threshold for bias *This element is only shown in detail mode.*
bias-alm-high	Parameter type: <PrintableString> - printable string	alarm high threshold for bias *This element is only shown in detail mode.*
bias-warn-low	Parameter type: <PrintableString> - printable string	warn low threshold for bias *This element is only shown in detail mode.*
bias-warn-high	Parameter type: <PrintableString> - printable string	warn high threshold for bias *This element is only shown in detail mode.*
voltage-alm-low	Parameter type: <PrintableString> - printable string	alarm low threshold for Voltage *This element is only shown in detail mode.*
voltage-alm-high	Parameter type: <PrintableString>	alarm high threshold for Voltage

name	Type	Description
	- printable string	*This element is only shown in detail mode.*
voltage-warn-low	Parameter type: <PrintableString> - printable string	warn low threshold for Voltage *This element is only shown in detail mode.*
voltage-warn-high	Parameter type: <PrintableString> - printable string	warn high threshold for Voltage *This element is only shown in detail mode.*
erx-alm-low	Parameter type: <PrintableString> - printable string	alarm low threshold for ext Rx power *This element is only shown in detail mode.*
erx-alm-high	Parameter type: <PrintableString> - printable string	alarm high threshold for ext Rx power *This element is only shown in detail mode.*
erx-warn-low	Parameter type: <PrintableString> - printable string	warn low threshold for ext Rx power *This element is only shown in detail mode.*
erx-warn-high	Parameter type: <PrintableString> - printable string	warn high threshold for ext Rx power *This element is only shown in detail mode.*
etx-alm-low	Parameter type: <PrintableString> - printable string	alarm low threshold for ext Tx power *This element is only shown in detail mode.*
etx-alm-high	Parameter type: <PrintableString> - printable string	alarm high threshold for ext Tx power *This element is only shown in detail mode.*
etx-warn-low	Parameter type: <PrintableString> - printable string	warn low threshold for ext Tx power *This element is only shown in detail mode.*
etx-warn-high	Parameter type: <PrintableString> - printable string	warn high threshold for ext Tx power *This element is only shown in detail mode.*
ebias-alm-low	Parameter type: <PrintableString> - printable string	alarm low threshold for ext bias *This element is only shown in detail mode.*
ebias-alm-high	Parameter type: <PrintableString> - printable string	alarm high threshold for ext bias *This element is only shown in detail mode.*
ebias-warn-low	Parameter type: <PrintableString> - printable string	warn low threshold for ext bias *This element is only shown in detail mode.*
ebias-warn-high	Parameter type: <PrintableString> - printable string	warn high threshold for ext bias *This element is only shown in detail mode.*
etemp-alm-low	Parameter type: <PrintableString> - printable string	alrm low threshold for ext temp *This element is only shown in detail mode.*
etemp-alm-high	Parameter type: <PrintableString> - printable string	alrm high threshold for ext temp *This element is only shown in*

name	Type	Description
		detail mode.
etemp-warn-low	Parameter type: <PrintableString> - printable string	warn low threshold for ext temp *This element is only shown in detail mode.*
etemp-warn-high	Parameter type: <PrintableString> - printable string	warn high threshold for ext temp *This element is only shown in detail mode.*

91.12 Sfp RSSI Configuration Command

Command Description

This command allows the operator to create and configure the RSSI parameters on SFPs.

User Level

The command can be accessed by operators with equipment privileges.

Command Syntax

The command has the following syntax:

> show equipment rssiprof [(index)]

Command Parameters

Table 91.12-1 "Sfp RSSI Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(index)	Format: - an unique index value for the rssi profile(1-200:userdefined,65535:automode) - range: [1...200,65535]	an unique index of the rssi profile

Command Output

Table 91.12-2 "Sfp RSSI Configuration Command" Display parameters

Specific Information		
name	**Type**	**Description**
name	Parameter type: <Eqpt::DisplayString> - string to identify the rssi profile - length: 1<=x<=16	A unique profile name *This element is always shown.*
ref-count	Parameter type: <Eqpt::rssiRefCount> - number of entities using this particular profile - range: [0...65535]	rssi profile reference count *This element is always shown.*

91.13 Board Temperature Status Command

Command Description

This commands shows the board temperature status. The following information is shown for each thermal sensor:

- *act-temp : actual temperature of thermal sensor; expressed in degrees Celsius.*
- *tca-low: low thresholds for the alarm "Temperature Exceeded"; expressed in degrees Celsius.*
- *tca-high: high thresholds for the alarm "Temperature Exceeded"; expressed in degrees Celsius.*
- *shut-low: low threshold for the alarm "Temperature Shutdown"; expressed in degrees Celsius.*
- *shut-high: high threshold for the alarm "Temperature Shutdown"; expressed in degrees Celsius.*

User Level

The command can be accessed by operators with equipment privileges.

Command Syntax

The command has the following syntax:

> show equipment temperature [(slot) [sensor-id <Equipm::SensorId>]]

Command Parameters

Table 91.13-1 "Board Temperature Status Command" Resource Parameters

Resource Identifier	Type	Description
(slot)	Format: (lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> | nt-a | nt-b | nt | iont : <Eqpt::RackId> / <Eqpt::ShelfId> | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::EqSlotId> | ctrl : <Eqpt::RackId> / <Eqpt::ShelfId> | ntio-1 | ntio-2) Possible values: - lt : lt-slot - nt-a : nt-a slot - nt-b : nt-b slot - nt : nt slot - iont : an nt applique slot - ctrl : ctrl-slot - ntio-1 : an nt applique slot in a single or multiple-ntio-shelf - ntio-2 : an nt applique slot in a multiple-ntio-shelf Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::SlotId>	the physical slot position

Resource Identifier	Type	Description
	- the LT slot number Field type <Eqpt::EqSlotId> - the equipment slot number	
sensor-id	Parameter type: <Equipm::SensorId> Format: - the sensor id of a board - range: [1...15]	the sensor id of a board

Command Output

Table 91.13-2 "Board Temperature Status Command" Display parameters

Specific Information		
name	**Type**	**Description**
actual-temperature short name: act-temp	Parameter type: <SignedInteger> - a signed integer	actual temperature of thermal sensor; expressed in degrees Celsius. *This element is always shown.*
tca-threshold-low short name: tca-low	Parameter type: <SignedInteger> - a signed integer	Low thresholds for the alarm "Temperature Exceeded"; expressed in degrees Celsius. *This element is always shown.*
tca-threshold-high short name: tca-high	Parameter type: <SignedInteger> - a signed integer	High thresholds for the alarm "Temperature Exceeded"; expressed in degrees Celsius. *This element is always shown.*
shut-threshold-low short name: shut-low	Parameter type: <SignedInteger> - a signed integer	Low threshold for the alarm "Temperature Shutdown"; expressed in degrees Celsius. *This element is always shown.*
shut-threshold-high short name: shut-high	Parameter type: <SignedInteger> - a signed integer	High threshold for the alarm "Temperature Shutdown"; expressed in degrees Celsius. *This element is always shown.*

91.14 Board Planned Resource Command

Command Description

This commands shows the actual values of configured hardware resources on boards.. The following information is shown for each resource:

- *current: The actual planned value for the resource*
- *max-value: The maximum value that the board supports for this resource.*
- *description: A string describing the planned resource for this board.*

User Level

The command can be accessed by operators with equipment privileges.

Command Syntax

The command has the following syntax:

> show equipment planned-resource [(slot) [resource-id <SignedInteger>]]

Command Parameters

Table 91.14-1 "Board Planned Resource Command" Resource Parameters

Resource Identifier	Type	Description
(slot)	Format: lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> Possible values: - lt : lt-slot Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::SlotId> - the LT slot number	the physical slot position
resource-id	Parameter type: <SignedInteger> Format: - a signed integer	the planned resource id of a board

Command Output

Table 91.14-2 "Board Planned Resource Command" Display parameters

Specific Information		
name	**Type**	**Description**
current-value short name: cur-val	Parameter type: <SignedInteger> - a signed integer	The actual planned value for the resource. *This element is always shown.*
maximum-value	Parameter type: <SignedInteger>	The maximum value that the

name	Type	Description
short name: max-val	- a signed integer	board supports for this resource. *This element is always shown.*
description short name: description	Parameter type: <PrintableString> - printable string	A string describing the planned resource for this board. *This element is always shown.*

91.15 Transceiver Inventory Status Command

Command Description

This command retrieves the configuration data associated with SFP/SFP+/XFP.The following information is shown for each specified sfp/sfp+/xfp:

- *For the following data, output "not-Available" implies that the the measurement could not be obtained.*
- *inventory-status - the transceiver inventory status. For XFP, AO denotes the upper bank and A2 denotes the lower bank.*
- *nokia-part-num - the nokia part number available in sfp or xfp eeprom*
- *clei-code - the clei code available in sfp or xfp eeprom*
- *tx-wavelength - the transmission wavelength available in sfp or xfp eeprom*
- *fiber-type - the fiber type available in sfp or xfp eeprom*
- *additional-info - the customer specific additional information of the specified sfp or sfp+ or xfp*
- *mfg-name - the manufacturer name available in sfp or xfp eeprom*
- *mfg-oui - the manufacturer code available in sfp or xfp eeprom*
- *mfg-date - the manufacturer date available in sfp or xfp eeprom*
- *vendor-serial-num - the vendor serial number available in sfp or xfp eeprom*

User Level

The command can be accessed by operators with equipment privileges.

Command Syntax

The command has the following syntax:

> show equipment transceiver-inventory [(index)]

Command Parameters

Table 91.15-1 "Transceiver Inventory Status Command" Resource Parameters

Resource Identifier	Type	Description
(index)	Format: (acu : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SfpCageNumber> | iont : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : sfp : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : xfp : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : qsfp : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : cfp : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : sfp1 : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : sfp2 :	the physical sfp or xfp cage position

Resource Identifier	Type	Description
	<Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : xfp1 : <Eqpt::SfpCageNumber> | remote-sfp : <Eqpt::ExpRack> / <Eqpt::ExpShelf> : xfp2 : <Eqpt::SfpCageNumber> | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::EqSlotId> / <Eqpt::SfpCageNumber> | nt : sfp : <Eqpt::SfpCageNumber> | nt : xfp : <Eqpt::SfpCageNumber> | nt : qsfp : <Eqpt::SfpCageNumber> | nt : cfp : <Eqpt::SfpCageNumber> | nt : sfp1 : <Eqpt::SfpCageNumber> | nt : sfp2 : <Eqpt::SfpCageNumber> | nt : xfp1 : <Eqpt::SfpCageNumber> | nt : xfp2 : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : sfp : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : xfp : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : qsfp : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : cfp : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : sfp1 : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : sfp2 : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : xfp1 : <Eqpt::SfpCageNumber> | lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> : xfp2 : <Eqpt::SfpCageNumber> | ntio-1 : sfp : <Eqpt::SfpCageNumber> | ntio-1 : xfp : <Eqpt::SfpCageNumber> | ntio-1 : qsfp : <Eqpt::SfpCageNumber> | ntio-1 : cfp : <Eqpt::SfpCageNumber> | ntio-1 : sfp1 : <Eqpt::SfpCageNumber> | ntio-1 : sfp2 : <Eqpt::SfpCageNumber> | ntio-1 : xfp1 : <Eqpt::SfpCageNumber> | ntio-1 : xfp2 : <Eqpt::SfpCageNumber> | ntio-2 : sfp : <Eqpt::SfpCageNumber> | ntio-2 : xfp : <Eqpt::SfpCageNumber> | ntio-2 : qsfp : <Eqpt::SfpCageNumber> | ntio-2 : cfp : <Eqpt::SfpCageNumber> | ntio-2 : sfp1 : <Eqpt::SfpCageNumber> | ntio-2 : sfp2 : <Eqpt::SfpCageNumber> | ntio-2 : xfp1 : <Eqpt::SfpCageNumber> | ntio-2 : xfp2 : <Eqpt::SfpCageNumber> | nt-a : sfp : <Eqpt::SfpCageNumber> | nt-a : xfp : <Eqpt::SfpCageNumber> | nt-a : qsfp : <Eqpt::SfpCageNumber> | nt-a : cfp : <Eqpt::SfpCageNumber> | nt-a : sfp1 : <Eqpt::SfpCageNumber> | nt-a : sfp2 : <Eqpt::SfpCageNumber> | nt-a : xfp1 : <Eqpt::SfpCageNumber> | nt-a : xfp2 : <Eqpt::SfpCageNumber> | nt-b : sfp : <Eqpt::SfpCageNumber> | nt-b : xfp : <Eqpt::SfpCageNumber>	

Resource Identifier	Type	Description
	| nt-b : qsfp : <Eqpt::SfpCageNumber> | nt-b : cfp : <Eqpt::SfpCageNumber> | nt-b : sfp1 : <Eqpt::SfpCageNumber> | nt-b : sfp2 : <Eqpt::SfpCageNumber> | nt-b : xfp1 : <Eqpt::SfpCageNumber> | nt-b : xfp2 : <Eqpt::SfpCageNumber>) Possible values: - acu : acu slot - iont : an nt applique slot - remote-sfp : remote sfp - nt : active nt slot - lt : lt-slot - ntio-1 : an nt applique slot in a single or multiple-ntio-shelf - ntio-2 : an nt applique slot in a multiple-ntio-shelf - nt-a : nt-a slot - nt-b : nt-b slot Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ExpRack> - the physical number of the expansion rack, 0 stands for no remote Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::ExpShelf> - physical nbr of expansion shelf within expansion rack, 0 stands for no remote Field type <Eqpt::EqSlotId> - the equipment slot number Field type <Eqpt::SlotId> - the LT slot number Possible values: - sfp : SFP port - xfp : XFP port - qsfp : QSFP port - cfp : CFP4 port - sfp1 : SFP port 1 - sfp2 : SFP port 2 - xfp1 : XFP port 1 - xfp2 : XFP port 2 Field type <Eqpt::SfpCageNumber> - the SFP cage number - range: [0...2304]	

Command Output

Table 91.15-2 "Transceiver Inventory Status Command" Display parameters

Specific Information		
name	**Type**	**Description**
inventory-status	Parameter type: <Eqpt::InvStatus> (no-error | cage-empty | cage-no-a2-supp | a0-read-failed | a0-checksum-failed | sfp-no-a2-supp | a2-read-failed	transceiver inventory status. for xfp, a0 denotes the upper bank and a2 denotes the lower bank *This element is always shown.*

name	Type	Description
	| a2-checksum-failed | optics-present) Possible values: - no-error : sfp inventory is available - cage-empty : cage is empty - cage-no-a2-supp : cage does not support A2 - a0-read-failed : A0 read failed - a0-checksum-failed : A0 checksum failed - sfp-no-a2-supp : SFP does not support A2 - a2-read-failed : A2 read failed - a2-checksum-failed : A2 checksum failed - optics-present : SFP/XFS inserted into cage	
nokia-part-num	Parameter type: <PrintableString> - printable string	the nokia part number available in sfp or xfp eeprom *This element is always shown.*
clei-code	Parameter type: <PrintableString> - printable string	the clei code available in sfp or xfp eeprom *This element is only shown in detail mode.*
tx-wavelength	Parameter type: <PrintableString> - printable string	the transmission wavelength available in sfp or xfp eeprom *This element is always shown.*
fiber-type	Parameter type: <Eqpt::FiberType> (single-mode | multi-mode | not-available) Possible values: - single-mode : single-mode fiber - multi-mode : multi-mode - not-available : fiber type is not available	the fiber type available in sfp or xfp eeprom. *This element is always shown.*
mfg-name	Parameter type: <PrintableString> - printable string	the manufacturer name available in sfp or xfp eeprom *This element is only shown in detail mode.*
mfg-oui	Parameter type: <PrintableString> - printable string	the manufacturer code available in sfp or xfp eeprom *This element is only shown in detail mode.*
mfg-date	Parameter type: <PrintableString> - printable string	the manufacturer date in dd/mm/yyyy format available in sfp or xfp eeprom *This element is only shown in detail mode.*
vendor-serial-num	Parameter type: <PrintableString> - printable string	the vendor serial number available in sfp or xfp eeprom *This element is only shown in detail mode.*
additional-info	Parameter type: <PrintableString> - printable string	the customer specific additional information of the specified sfp or sfp+ or xfp *This element is only shown in detail mode.*
rssi-sfptype	Parameter type: <Eqpt::RssiSfpType> (not-available | px20 | px20plus | prx_t1	sfp type of ports wich configured rssi profile *This element is always shown.*

name	Type	Description
	| pr_t2 | prx_t3 | pr_t4 | bplusc | bplusi | bplusi_onu | cplusc | cplusi | e1t1_eth | e3ds3_eth | stm1oc3_eth | e1t1_tdm | 100base_fx | 100base_lx | 100base_bx10u | 100base_bx10d | 100base_tx | 1000base_t | 1000base_cx | 1000base_sx | 1000base_lx | 1000base_bx10u | 1000base_bx10d | 1000base_bx40u | 1000base_bx40d | 1000base_ex | 1000base_zx | n1_c | n2a_c | n2b_c | 1000base_vx | 2500base | 10gbase_sr | 10gbase_lr | 10gbase_lrm | 10gbase_er | 10gbase_sw | 10gbase_lw | 10gbase_ew | 40gbase_sr4 | 40gbase_lr4 | 40gbase_cr4 | 10gbase_bx40u | 10gbase_bx40d | 10gbase_zrcwdm | 10gbase_zrdwdm | 1000base_bx20u | 1000base_bx20d | n1_i | n2a_i | n2b_i | 100gbase_lr4 | 100gbase_sr4 | 10gbase_bx10u | 10gbase_bx10d | 1000base_zrcwdm | 10gbase_zr	

name	Type	Description
	| 10gbase_bx80u | 10gbase_bx80d | 1000base_bx80u | 1000base_bx80d | 100gbase_er4 | cplusplusi | 10gbase_t | 10gbase_bx60u | 10gbase_bx60d | 2500base_bx40u | 2500base_bx40d | e1-i | 1000base_ezx | n2a_cplus_c | 40gbase_psm4_lr | 10gbase_ercwdm | bplus_e | 10gbase_bx20u | 10gbase_bx20d | cplusplusc | cpluse | d_i | e1-c) Possible values: - not-available : fiber type is not available - px20 : single-mode fiber - px20plus : multi-mode - prx_t1 : single-mode fiber - pr_t2 : multi-mode - prx_t3 : single-mode fiber - pr_t4 : multi-mode - bplusc : single-mode fiber - bplusi : single-mode fiber - bplusi_onu : single-mode fiber - cplusc : single-mode fiber - cplusi : single-mode fiber - e1t1_eth : Electrical E1/T1 Ethernet bridged SFP (Ethernet over E1/T1 per GFP, HDLC or cHDLC encapsulation) - e3ds3_eth : Electrical E3/DS3 Ethernet bridged SFP (Ethernet over E3/DS2 per GFP, HDLC or cHDLC encapsulation) - stm1oc3_eth : Optical STM-1/OC3 Ethernet bridged SFP (Ethernet over STM-1/OC3 per GFP encapsulation) - e1t1_tdm : Electrical 2 x E1 TDM PW SFP (TDM E1 over Ethernet per MEF8 encapsulation) - 100base_fx : 100M multi-mode fiber - 100base_lx : 100M long-reach single-mode fiber - 100base_bx10u : 100M single-strand upstream single-mode fiber - 100base_bx10d : 100M single-strand downstream single-mode fiber - 100base_tx : 100M copper twisted-pair cable - 1000base_t : 1G copper twisted-pair cable - 1000base_cx : 1G copper twin-axial cable - 1000base_sx : 1G short-reach multi-mode fiber - 1000base_lx : 1G long-reach single-mode fiber - 1000base_bx10u : 1G single-strand upstream single-mode	

name	Type	Description
	fiber - 1000base_bx10d : 1G single-strand downstream single-mode fiber - 1000base_bx40u : 1G extended-reach upstream single-mode fiber - 1000base_bx40d : 1G extended-reach downstream single-mode fiber - 1000base_ex : 1G extended-reach 40km single-mode fiber - 1000base_zx : 1G extended reach 70km single-mode fiber - n1_c : 10G GPON N1 C-temp fiber - n2a_c : 10G GPON N2A C-temp fiber - n2b_c : 10G GPON N2B C-temp fiber - 1000base_vx : 1G CWDM fiber - 2500base : 2500M fiber - 10gbase_sr : 10G short-reach multi-mode fiber - 10gbase_lr : 10G long-reach single-mode fiber - 10gbase_lrm : 10G long-reach multi-mode fiber - 10gbase_er : 10G extended-reach single-mode fiber - 10gbase_sw : 10G short-reach wan multi-mode fiber - 10gbase_lw : 10G long-reach wan single-mode fiber - 10gbase_ew : 10G extended-reach wan single-mode fiber - 40gbase_sr4 : 40G short-reach multi-mode fiber - 40gbase_lr4 : 40G long-reach single-mode fiber - 40gbase_cr4 : 40G copper cable - 10gbase_bx40u : 10G extended-reach upstream single-mode fiber - 10gbase_bx40d : 10G extended-reach downstream single-mode fiber - 10gbase_zrcwdm : 10G extended-reach single-mode fiber - 10gbase_zrdwdm : 10G extended-reach single-mode fiber - 1000base_bx20u : One single-mode fiber ONU, long wavelength, 20km - 1000base_bx20d : One single-mode fiber OLT, long wavelength, 20km - n1_i : 10G GPON N1 I-temp fiber - n2a_i : 10G GPON N2A I-temp fiber - n2b_i : 10G GPON N2B I-temp fiber - 100gbase_lr4 : 100G long-reach single-mode fiber - 100gbase_sr4 : 100G short-reach multi-mode fiber - 10gbase_bx10u : 10G extended-reach upstream single-mode fiber - 10gbase_bx10d : 10G extended-reach downstream single-mode fiber - 1000base_zrcwdm : 1G extended-reach single-mode fiber - 10gbase_zr : 10G extended-reach single-mode fiber - 10gbase_bx80u : 10G extended-reach upstream single-mode fiber - 10gbase_bx80d : 10G extended-reach downstream single-mode fiber - 1000base_bx80u : 1G extended-reach upstream single-mode fiber - 1000base_bx80d : 1G extended-reach downstream single-mode fiber - 100gbase_er4 : 100G extended-reach single-mode fiber - cplusplusi : single-mode fiber - 10gbase_t : 10G copper twisted-pair cable - 10gbase_bx60u : 10G extended-reach upstream	

name	Type	Description
	single-mode fiber - 10gbase_bx60d : 10G extended-reach downstream single-mode fiber - 2500base_bx40u : 2500M extended-reach upstream single-mode fiber - 2500base_bx40d : 2500M extended-reach downstream single-mode fiber - e1-i : 10G GPON E1 I-temp fiber - 1000base_ezx : 1G extended-reach 120km fiber - n2a_cplus_c : XGPON1 Combo N2a C+ C-temp fiber - 40gbase_psm4_lr : 40G long-reach parallel single-mode fiber with four channels - 10gbase_ercwdm : 10G extended-reach single-mode fiber - bplus_e : single-mode fiber - 10gbase_bx20u : 10G extended-reach upstream single-mode fiber - 10gbase_bx20d : 10G extended-reach downstream single-mode fiber - cplusplusc : single-mode fiber - cpluse : single-mode fiber - d_i : single-mode fiber - e1-c : single-mode fiber	
optic-identifier	Parameter type: <PrintableString> - printable string	identifies the optic type that is plugged in, sfp, sfp_dd, sfp+, xfp *This element is only shown in detail mode.*

91.16 NE Status Command

Command Description

This command displays the status of the NE.

User Level

The command can be accessed by operators with equipment privileges.

Command Syntax

The command has the following syntax:

> show equipment isam

Command Output

Table 91.16-2 "NE Status Command" Display parameters

Specific Information		
name	**Type**	**Description**
planned-type	Parameter type: <Equipm::SystemType> (laus | laeu | leeu | maus | leus | lneu | leww | lnww) Possible values: - laus : large ASAM US / ANSI market (6 racks, 3 shelves per rack) - laeu : large ASAM EU / ETSI market (6 racks, 3 shelves per rack) - leeu : large ISAM for EU / ETSI market - maus : mini RAM ASAM for US / ANSI market - leus : large ISAM for US / ANSI market - lneu : new equipment practice (NEP) - leww : large ISAM World wide - lnww : large ISAM World wide	Specifies the planned isam type. *This element is only shown in detail mode.*
actual-type	Parameter type: <Equipm::SystemType> (laus | laeu | leeu | maus | leus | lneu | leww	A string representing the system type that is actually present. *This element is always shown.*

name	Type	Description
	| lnww) Possible values: - laus : large ASAM US / ANSI market (6 racks, 3 shelves per rack) - laeu : large ASAM EU / ETSI market (6 racks, 3 shelves per rack) - leeu : large ISAM for EU / ETSI market - maus : mini RAM ASAM for US / ANSI market - leus : large ISAM for US / ANSI market - lneu : new equipment practice (NEP) - leww : large ISAM World wide - lnww : large ISAM World wide	
description	Parameter type: <Description-127> - description to help the operator to identify the object - length: x<=127	Specifies the location of the system. *This element is only shown in detail mode.*

91.17 Rack Status Command

Command Description

This command shows the rack status.

User Level

The command can be accessed by operators with equipment privileges.

Command Syntax

The command has the following syntax:

> show equipment rack [(rack)]

Command Parameters

Table 91.17-1 "Rack Status Command" Resource Parameters

Resource Identifier	Type	Description
(rack)	Format: <Eqpt::RackId> Field type <Eqpt::RackId> - the rack number	the rack identifier

Command Output

Table 91.17-2 "Rack Status Command" Display parameters

Specific Information		
name	**Type**	**Description**
planned-type	Parameter type: <Equipm::RackType> (altr-e | altr-a | not-planned | not-allowed | empty) Possible values: - altr-e : ISAM ETSI DSL line termination rack (2200mm) - altr-a : ISAM ANSI DSL line termination rack - not-planned : holder is not planned - not-allowed : shelf is not allowed in this position - empty : shelf is empty in this position	Specifies the planned rack type. *This element is only shown in detail mode.*
actual-type	Parameter type: <Equipm::RackType> (altr-e | altr-a | not-planned | not-allowed	A string representing the racktype that is actually present. *This element is always shown.*

name	Type	Description
	| empty) Possible values: - altr-e : ISAM ETSI DSL line termination rack (2200mm) - altr-a : ISAM ANSI DSL line termination rack - not-planned : holder is not planned - not-allowed : shelf is not allowed in this position - empty : shelf is empty in this position	
description	Parameter type: <Description-127> - description to help the operator to identify the object - length: x<=127	Specifies the location of the rack. *This element is only shown in detail mode.*

91.18 Shelf Status Command

Command Description

This command shows the shelf status. The following information is shown in addition to configuration information:

- *oper-status: describes whether the board is able to perform its normal operation.*
- *error-status: provides the reason why the board is not operational. These values correspond to the alarms generated in case of a failure.*
- *available-status: provides further information regarding the state of the board.*

User Level

The command can be accessed by operators with equipment privileges.

Command Syntax

The command has the following syntax:

> show equipment shelf [(shelf)]

Command Parameters

Table 91.18-1 "Shelf Status Command" Resource Parameters

Resource Identifier	Type	Description
(shelf)	Format: <Eqpt::RackId> / <Eqpt::ShelfId> Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ShelfId> - the shelf number	a shelf identifier: <rack>/<shelf>

Command Output

Table 91.18-2 "Shelf Status Command" Display parameters

Specific Information		
name	**Type**	**Description**
planned-type	Parameter type: <Equipm::ShelfType> Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	Specifies the planned shelf type. *This element is only shown in detail mode.*
actual-type	Parameter type: <Equipm::ShelfType> Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	A string representing the shelftype that is actually present in the rack. *This element is always shown.*
admin-status	Parameter type: <Equipm::HolderAdminStatus>	Specifies the shelf is locked or

name	Type	Description
short name: locked	((lock | yes) | (unlock | no)) Possible values: - lock : the holder is locked - yes : the holder is locked - unlock : the holder is unlocked - no : the holder is unlocked	not. *This element is only shown in detail mode.*
oper-status short name: enabled	Parameter type: <Equipm::OperStatus> ((enabled | yes) | (disabled | no)) Possible values: - enabled : - yes : - disabled : - no :	Specifies whether or not the shelf is capable of performing its normal functions. *This element is always shown.*
error-status	Parameter type: <Equipm::OperError> (no-error | type-mismatch | board-missing | no-installation | no-planned-board | waiting-for-sw | init-boot-failed | init-download-failed | init-connection-failed | configuration-failed | board-reset-protection | invalid-parameter | temperature-alarm | tempshutdown | defense | board-not-licensed | sem-power-fail | sem-ups-fail | incompatible-slot | download-ongoing | upgrade-via-sby | board-shelf-mismatch | unknown-error) Possible values: - no-error : - type-mismatch : - board-missing : - no-installation : - no-planned-board : - waiting-for-sw : - init-boot-failed : - init-download-failed : - init-connection-failed: - configuration-failed : - board-reset-protection: - invalid-parameter : - temperature-alarm : - tempshutdown : - defense : - board-not-licensed : - sem-power-fail :	Specifies for what reason the shelf is not operational. *This element is always shown.*

name	Type	Description
	- sem-ups-fail : - incompatible-slot : - download-ongoing : - upgrade-via-sby : - board-shelf-mismatch : - unknown-error :	
availability	Parameter type: <Equipm::AvailStatus> (available | in-test | failed | power-off | not-installed | offline | dependency | ext-managed) Possible values: - available : - in-test : - failed : - power-off : - not-installed : - offline : - dependency : - ext-managed :	Specifies whether the shelf is available or not. *This element is always shown.*
shelf-mode	Parameter type: <Equipm::HolderModeForShow> (no-extended-lt-slots | extended-lt-slots | no-ntb-slot | no-extended-slots | no-ntio-slots | ngpon | gpon | ngpon-port-reduced | gpon-mng-ngpon | gpon-mng-reduced) Possible values: - no-extended-lt-slots : no extended lt slots - extended-lt-slots : change to extended lt slots - no-ntb-slot : use ntb slot as lt slot - no-extended-slots : no extended slots - no-ntio-slots : not changeable - ngpon : use universal ngpon lt (supports NG-PON2, XGS-PON and XG-PON1 currently) - gpon : use gpon lt - ngpon-port-reduced : use ngpon port reduced mode lt (supports ERPS) - gpon-mng-ngpon : use gpon managed ngpon management model - gpon-mng-reduced : use gpon managed ngpon port reduced mode lt(supports ERPS)	the shelf mode *This element is only shown in detail mode.*
class	Parameter type: <Equipm::ShelfClass> (main-iq-hcl | ext-iq | ext-hcl | main-ethernet | ext-ethernet) Possible values:	Specifies classification of shelves. *This element is only shown in detail mode.*

name	Type	Description
	- main-iq-hcl : main shelf - supports iq- and hcl-based traffic - ext-iq : extension shelf - supports only iq-based traffic - ext-hcl : extension shelf - support only hcs-based traffic - main-ethernet : main shelf - supports ethernet-based traffic - ext-ethernet : extension shelf - supports ethernet-based traffic	
serial-no	Parameter type: <Equipm::ShelfSerial> - printable string	Specifies the serial number of the shelf. *This element is only shown in detail mode.*
variant	Parameter type: <Equipm::ShelfVariant> - printable string	the Nokia code of the shelf. *This element is only shown in detail mode.*
ics-code	Parameter type: <Equipm::ShelfICS> - printable string	the item change status iteration code of the shelf. *This element is only shown in detail mode.*
description	Parameter type: <Description-127> - description to help the operator to identify the object - length: x<=127	Specifies the location of the shelf. *This element is only shown in detail mode.*

91.19 Power Supply Status Command

Command Description

This command shows the status of the power supply installed on the system.

- *psu-num: shows the power supply's number.*
- *part-num: shows the power supply's part number.*
- *v-in: shows incoming voltage arriving at the power supply.*
- *i-in: shows incoming current arriving at the power supply.*
- *v-out: shows outgoing voltage provided by the power supply.*
- *i-out: shows outgoing current provided by the power supply.*
- *temperature: shows the temperature of the power supply.*
- *present: shows the presence status of the power supply*
- *fault: shows the fault status of the power supply. If a fault is detected, more information can be retrived with the 'detail' version of this command*
- *clei-code: shows the power supply's clei code*
- *ser-num: shows the power supply's serial number*
- *v-in-err: report the fault or error happening at the incoming voltage level.*
- *i-in-err: report the fault or error happening at the incoming current level.*
- *v-out-err: report the fault or error happening at the outgoing voltage level.*
- *i-out-err: report the fault or error happening at the outgoing current level.*
- *temperature-err: report the fault or error happening at the temperature level.*
- *cml-err: report the fault or error happening at the communication, memory or logic (cml) level.*

User Level

The command can be accessed by operators with equipment privileges.

Command Syntax

The command has the following syntax:

> show equipment power-supply [(psu-num)]

Command Parameters

Table 91.19-1 "Power Supply Status Command" Resource Parameters

Resource Identifier	Type	Description
(psu-num)	Format: - Power supply ID	The power supply unit number

Command Output

Table 91.19-2 "Power Supply Status Command" Display parameters

Specific Information		
name	**Type**	**Description**
part-number	Parameter type: <PrintableString>	The part number of the installed

name	Type	Description
	- printable string	power supply *This element is always shown.*
v-in	Parameter type: <Equipm::MilliVoltType> - Millivolt converter to volt	The incoming voltage arriving at the power supply *This element is always shown.*
i-in	Parameter type: <Equipm::MilliAmpereType> - Milliampere converter to ampere	The incoming current arriving at the power supply *This element is always shown.*
v-out	Parameter type: <Equipm::MilliVoltType> - Millivolt converter to volt	The output voltage provided by the power supply *This element is always shown.*
i-out	Parameter type: <Equipm::MilliAmpereType> - Milliampere converter to ampere	The outgoing current provided by the power supply *This element is always shown.*
temperature	Parameter type: <Equipm::MilliTemperatureType> - Milli converter to y.x value	The current temperature of the power supply *This element is always shown.*
present	Parameter type: <Equipm::PowerSupplyPresent> (yes | no) Possible values: - yes : PSU connector is plugged in - no : PSU connector is not plugged in	The presence of the power supply *This element is always shown.*
fault	Parameter type: <Equipm::PowerSupplyFaultDetected> (yes | no) Possible values: - yes : The power supply has a fault - no : The power supply does not have a fault	The fault status of the power supply *This element is always shown.*

Only Show Details: identification		
name	**Type**	**Description**
clei-code	Parameter type: <PrintableString> - printable string	The CLEI code of the installed power supply *This element is only shown in detail mode.*
ser-num	Parameter type: <PrintableString> - printable string	The serial number of the installed power supply *This element is only shown in detail mode.*

Only Show Details: fault		
name	**Type**	**Description**
v-in-err	Parameter type: <Equipm::PowerSupplyFaultVin> (no-error | (overvoltage-fault | ov fault) | (overvoltage-warning | ov warn) | (undervoltage-warning | un warn) | (undervoltage-fault | un fault) | (ac-nok-fault | ac fault) | (ac-nok-warning | ac warning) | (not-enough-in-vol | unit off insuf volt)) Possible values: - no-error : no error - overvoltage-fault : overvoltage fault - ov fault : overvoltage fault - overvoltage-warning : overvoltage warning - ov warn : overvoltage warning	The error/fault status of the incoming voltage *This element is only shown in detail mode.*

name	Type	Description
	- undervoltage-warning : undervoltage warning - un warn : undervoltage warning - undervoltage-fault : undervoltage fault - un fault : undervoltage fault - ac-nok-fault : ac nok fault - ac fault : ac nok fault - ac-nok-warning : ac nok warning - ac warning : ac nok warning - not-enough-in-vol : unit off for insufficient input voltage - unit off insuf volt : unit off for insufficient input voltage	
v-out-err	Parameter type: <Equipm::PowerSupplyFaultVout> (no-error | (overvoltage-fault | ov-fault) | (overvoltage-warning | ov-warn) | (undervoltage-warning | un-warn) | (undervoltage-fault | un-fault)) Possible values: - no-error : no error - overvoltage-fault : overvoltage fault - ov-fault : overvoltage fault - overvoltage-warning : overvoltage warning - ov-warn : overvoltage warning - undervoltage-warning : undervoltage warning - un-warn : undervoltage warning - undervoltage-fault : undervoltage fault - un-fault : undervoltage fault	The error/fault status of the outgoing voltage *This element is only shown in detail mode.*
i-in-err	Parameter type: <Equipm::PowerSupplyFaultIin> (no-error | (overcurrent-fault | oc-fault) | (overcurrent-warning | oc-warn) | (overpower-warning | op-warn)) Possible values: - no-error : no error - overcurrent-fault : overcurrent fault - oc-fault : overcurrent fault - overcurrent-warning : overcurrent warning - oc-warn : overcurrent warning - overpower-warning : overpower warning - op-warn : overpower warning	The error/fault status of the incoming current *This element is only shown in detail mode.*
i-out-err	Parameter type: <Equipm::PowerSupplyFaultIout> (no-error | (overcurrent-fault | oc-fault) | (overcurrent-warning | oc-warn) | (undercurrent-warning | uc-warn) | (undercurrent-fault | uc-fault)) Possible values: - no-error : no error - overcurrent-fault : overcurrent fault - oc-fault : overcurrent fault - overcurrent-warning : overcurrent warning - oc-warn : overcurrent warning - undercurrent-warning : undercurrent warning - uc-warn : undercurrent warning - undercurrent-fault : undercurrent fault - uc-fault : undercurrent fault	The error/fault status of the outgoing current *This element is only shown in detail mode.*
temperature-err	Parameter type: <Equipm::PowerSupplyFaultTemperature> (no-error	The error/fault status on the temperature

name	Type	Description
	| (overtemper-fault | oc-fault) | (overtemper-warning | oc-warn) | (undertemper-warning | uc-warn) | (undertemper-fault | uc-fault)) Possible values: - no-error : no error - overtemper-fault : overtemperature fault - oc-fault : overtemperature fault - overtemper-warning : overtemperature warning - oc-warn : overtemperature warning - undertemper-warning : undertemperature warning - uc-warn : undertemperature warning - undertemper-fault : undertemperature fault - uc-fault : undertemperature fault	*This element is only shown in detail mode.*
cml-err	Parameter type: <Equipm::PowerSupplyFaultCml> (no-error | inv-unsup-cmd-rcvd | inv-unsup-data-rcvd | pkt-err-chk | (memory-fault | mem-fault) | (processor-fault | proc-fault) | oth-com-fault | oth-mem-log-fault) Possible values: - no-error : no error - inv-unsup-cmd-rcvd : an invalid or unsupported command has been received - inv-unsup-data-rcvd : an invalid or unsupported data has been received - pkt-err-chk : packet error check has failed - memory-fault : a memory fault happened into the power supply - mem-fault : a memory fault happened into the power supply - processor-fault : a processor fault happened into the power supply - proc-fault : a processor fault happened into the power supply - oth-com-fault : a communication fault has been detected - oth-mem-log-fault : a memory or logic fault has been detected	The error/fault status on the Communication, Logic and Memory *This element is only shown in detail mode.*