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Nokia FlexiHopper (Plus) Product Doc, Rel. 2.7

Nokia FlexiHopper (Plus) 2.7 with FIU 19 (E) Alarms

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CE

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1 Summary of changes to Nokia FlexiHopper (Plus) 2.7 with FIU 19 (E) Alarms

1.1 Changes in documentation between release 2.5 and release 2.7

- AIS 2M alarm has been removed.

2 General alarm information

This document lists the descriptions of all Nokia FlexiHopper (Plus) alarms with their fault codes. The alarms are classified by the alarm number and title.

The fault code and alarm name are shown in the title of the alarm description.

The alarm descriptions give the following information:

Severity shows the severity class of the alarm as it appears in the node manager.

Fault reason shows the supervision block giving the alarm.

Description gives information related to the alarm.

Instructions guide you in finding the actual reason for the alarm and how to correct it.

Cancelling gives information on how to cancel the alarm.

3 Functional entity: 4 x 2M plug-in unit, 16 x 2M expansion unit

3.1 113 Buffer overflow (or underflow)

Severity

Critical

Fault reason

SB: 2M interface (1-4, 1-16)

Description

Fault code: 113

Alarm explanation: The incoming signal in 2M interface is corrupted or its bit rate is out of limit.

Instructions

N/A

Cancelling

N/A

3.2 186 Configuration error

Severity

Minor

Fault reason

SB: Identifications

Description

Fault code: 186

Alarm explanation: One or more of the following identifications missing:

1. FE type string
2. FE product code string
3. FE product version string
4. FE serial number string
5. FE user's manual product code string
6. FE user's manual product version string

Instructions

Contact the manufacturer.

Cancelling

N/A

3.3 185 Connection or settings have changed

Severity

Warning

Fault reason

SB 1: FM setup

SB 2: Identifications

Description

Fault code: 185

Alarm explanation 1: The fault management settings have changed.

Alarm explanation 2: The identifications have changed.

Instructions

N/A

Cancelling

The warning resets automatically.

3.4 162 Database full

Severity

Warning

Fault reason

SB: Event history

Description

Fault code: 162

Alarm explanation: Overflow in event history

Instructions

The alarm history is flushed by NMS alarm polling.

When SNMP or the (new) Nokia Q1 alarm polling is used, the alarm poller flushes the used port's alarm history. The FIU 19 (E) software flushes the LMP port's alarm history to avoid Database full when the history is read through the LMP port.

When the (old) Q1 alarm polling is used, the network master never flushes the alarm history. When FIU 19 (E) receives an alarm polling (Get Fault Condition) command, it flushes the alarm history for all ports (usually one or more Q1Ps and one LMP).

If the Old Q1 Support mode (use the old style fault handler setting) is enabled, the FIU 19 (E) software regularly flushes the alarm histories of all ports.

Cancelling

The warning resets automatically.

3.5 150 Fault in unit

Severity

Critical

Fault reason

SB: Driver

Description

Fault code: 150

Alarm explanation: There is a fault in the 2M line driver.

Instructions

N/A

Cancelling

N/A

3.6 21 Loop to interface

Severity

Major

Fault reason

SB: 2M interface (1-4, 1-16)

Description

Fault code: 21

Alarm explanation: The 2M signal is looped back to the interface.

Instructions

N/A

Cancelling

Cancelled when the loop is removed.

3.7 48 Loss of incoming signal

Severity

Critical

Fault reason

SB: 2M interface (1-4, 1-16)

Description

Fault code: 48

Alarm explanation: There is no incoming signal in the 2M interface.

Instructions

If two 2M outputs are connected together, the alarms are usually produced for all other interfaces of the same plug-in card. Read the alarm history with Hopper Manager to see which interface is not generating alarms and thus is not properly connected.

Cancelling

N/A

4 Functional entity: Aux data plug-in unit

4.1 240 Active alarm point

Severity

Major

Fault reason

SB: General I/O (3-6)

Description

Fault code: 240

Alarm explanation: There is an alarm in the input.

Instructions

N/A

Cancelling

N/A

4.2 64 Alarm signal received

Severity

Major

Fault reason

SB: AUX fast

Description

Fault code: 64

Alarm explanation: An alarm indication signal is received to the AUX interface.

Instructions

N/A

Cancelling

N/A

4.3 186 Configuration error

Severity

Minor

Fault reason

SB: Identifications

Description

Fault code: 186

Alarm explanation: One or more of the following identifications missing:

1. FE type string
2. FE product code string
3. FE product version string
4. FE serial number string
5. FE user's manual product code string
6. FE user's manual product version string

Instructions

Contact the manufacturer.

Cancelling

N/A

4.4 185 Connection or settings have changed

Severity

Warning

Fault reason

SB 1: FM setup

SB 2: Identifications

Description

Fault code: 185

Alarm explanation 1: The fault management settings have changed.

Alarm explanation 2: The identifications have changed.

Instructions

N/A

Cancelling

The warning resets automatically.

4.5 162 Database full

Severity

Warning

Fault reason

SB: Event history

Description

Fault code: 162

Alarm explanation: Overflow in event history

Instructions

The alarm history is flushed by NMS alarm polling.

When SNMP or the (new) Nokia Q1 alarm polling is used, the alarm poller flushes the used port's alarm history. The FIU 19 (E) software flushes the LMP port's alarm history to avoid Database full when the history is read through the LMP port.

When the (old) Q1 alarm polling is used, the network master never flushes the alarm history. When FIU 19 (E) receives an alarm polling (Get Fault Condition) command, it flushes the alarm history for all ports (usually one or more Q1Ps and one LMP).

If the Old Q1 Support mode (use the old style fault handler setting) is enabled, the FIU 19 (E) software regularly flushes the alarm histories of all ports.

Cancelling

The warning resets automatically.

5 Functional entity: Ethernet plug-in unit

5.1 186 Configuration error

Severity

Minor

Fault reason

SB 1: SIO interface (1-2)

SB 2: Identifications

SB 3: HW setup

Description

Fault code: 186

Alarm explanation 1:

1. There is a conflict between Flexbus and SIO capacity settings. You are either trying to set a payload Ethernet capacity that is larger than the available Flexbus capacity or a smaller Flexbus capacity than what is reserved for Ethernet traffic.
2. There is a conflict between the 2M cross-connections and SIO capacity. The existing 2M cross-connections and the reserved Ethernet capacity are overlapping in the active 2M cross-connection bank.

Alarm explanation 2: Product-related identifications (for example product code, serial number, or HW version) are missing.

Alarm explanation 3: A FPGA binary download is ongoing during the FIU 19E startup or after binary activation, that is, the EPIU startup is ongoing.

Consequence 1: The Ethernet payload signal is not going through.

Consequence 2: N/A

Consequence 3: N/A

Instructions

Instructions 1:

1. Check and correct the Flexbus or protected radio link capacity setting and the EPIU SIO capacity setting.
2. Check and correct the 2M cross-connections and the EPIU SIO capacity settings.

Instructions 2: Contact the manufacturer.

Instructions 3: EPIU is ready in 20 seconds.

Cancelling

Cancelling 1: The alarm is cancelled when the capacity settings and the 2M cross-connections are corrected.

Cancelling 2: N/A

Cancelling 3: The alarm is cancelled automatically when the download is finished.

5.2 185 Connection or settings have changed

Severity

Warning

Fault reason

SB 1: Ethernet interface (1-2)

SB 2: FM Setup

SB 3: Identifications

Description

Fault code: 185

Alarm explanation 1: The Ethernet interface speed has changed.

The Ethernet interface speed can change if the attached device has been reset or if the attached device is malfunctioning.

Alarm explanation 2: The fault management settings have changed.

Alarm explanation 3: The identifications have changed.

Consequence 1: The Ethernet payload throughput may be lower than previously.

Consequence 2: N/A

Consequence 3: N/A

Instructions

Instructions 1:

Check the external Ethernet equipment configuration.

Instructions 2: N/A

Instructions 3: N/A

Cancelling

The warning resets automatically.

5.3 148 Equipment reset

Severity

Warning

Fault reason

SB: HWSetup

Description

Fault code: 148

Alarm explanation:

1. EPIU is starting up after FIU 19E power-on.
2. EPIU is restarted because you have activated the new EPIU SW module.
3. EPIU is restarted because of a fault in the plug-in unit.

Instructions

N/A

Cancelling

The warning resets automatically.

5.4 99 Error rate > 1 E–3

Severity

Critical

Fault reason

SB: SIO interface (1-2)

Description

Fault code: 99

Alarm explanation: The received Flexbus signal BER is over the alarm threshold. Possible reasons:

1. The signal from the radio path is attenuated.
2. There is a hardware fault in the Flexbus cable or interface.

Consequence: Ethernet traffic throughput of the radio link is smaller because the faulty Ethernet packets are dropped.

Instructions

1. Check the radio link and the Flexbus alarms and status.
2. The alarm threshold can be defined by the user. The default value for the limit is BER=10^{-3}.

Cancelling

The alarm is cancelled when BER is under the alarm threshold.

5.5 100_101_102 Error rate > 1 E–4, error rate > 1 E–5, error rate > 1 E–6

Severity

Major

Fault reason

SB: SIO interface (1-2)

Description

Fault code: 100, 101, 102

Alarm explanation: The received Flexbus signal BER is over the alarm threshold. Possible reasons:

1. The signal from the radio path is attenuated.
2. There is a hardware fault in the Flexbus cable or interface.

Consequence: Ethernet traffic throughput of the radio link will be smaller because the faulty Ethernet packets are dropped.

Instructions

1. Check the radio link and the Flexbus alarms and status.
2. The alarm threshold can be defined by the user. The default value for the limit is BER=10^{-3}.

Cancelling

The alarm is cancelled when BER is under the alarm threshold.

5.6 103 Error rate > 1 E–7

Severity

Minor

Fault reason

SB: SIO interface (1-2)

Description

Fault code: 103

Alarm explanation: The received Flexbus signal BER is over the alarm threshold. Possible reasons:

1. The signal from the radio path is attenuated.
2. There is a hardware fault in the Flexbus cable or interface.

Consequence: Ethernet traffic throughput of the radio link is smaller because the faulty Ethernet packets are dropped.

Instructions

1. Check the radio link and the Flexbus alarms and status.
2. The alarm threshold can be defined by the user. The default value for the limit is BER=10^{-3}.

Cancelling

The alarm is cancelled when BER is under the alarm threshold.

5.7 142 Fault in installation of equipment

Severity

Critical

Fault reason

SB: HW setup

Description

Fault code: 142

Alarm explanation:

1. The EPIU SW version is incompatible with the HW.
2. The EPIU HW is incompatible with the FIU 19E HW or SW.
3. There is no EPIU SW in the FIU 19E flash memory.

Consequence: Ethernet payload traffic is not going through.

Instructions

1. Download the new EPIU SW module.
2. Upgrade the FIU 19E software.

Cancelling

The alarm is cancelled when the compatible SW versions are activated.

5.8 150 Fault in unit

Severity

Major

Fault reason

SB: HW Setup

Description

Fault code: 150

Alarm explanation: There is a HW fault in the plug-in unit:

1. Initialization failed
2. RAM parity error
3. Ethernet switch ASIC communication failed
4. FPGA register access failed

5. FPGA status fault
6. Unable to recover from errors. EPIU has been reset several times trying to recover from the HW failure without success.

Consequence: Ethernet payload signal quality may be degraded.

Instructions

Replace the EPIU plug-in unit.

Cancelling

The alarm is cancelled when the EPIU has been replaced and initialized correctly.

5.9 22 Loop to equipment

Severity

Major

Fault reason

SB: Ethernet interface (1-2)

Description

Fault code: 22

Alarm explanation:

1. Loop to equipment (Ethernet packets from the Flexbus or the protected radio link are looped back to the same Flexbus or the protected radio link).
2. Chain loop to equipment (Ethernet packets from one Flexbus are looped to another Flexbus).

Consequence: The Ethernet payload traffic cannot be sent to the radio via this interface.

Instructions

1. Deactivate the equipment loop manually via the node manager.
2. Wait for the control timeout to expire. The control timeout value can be defined by the user (the default value is 10 minutes).

Cancelling

The alarm is cancelled when the loop is removed.

5.10 21 Loop to interface

Severity

Major

Fault reason

SB: Ethernet interface (1-2)

Description

Fault code: 21

Alarm explanation:

1. Loop to interface (for example, a packet from Eth-1 sent back to Eth-1).
2. Chain loop to interface (a bi-directional loop between Eth-1 and Eth-2 interfaces).

Consequence: No Ethernet traffic passes through the radio link via this interface.

Instructions

1. Deactivate the interface loop manually via the node manager.
2. Wait for the control timeout to expire. The control timeout value can be defined by the user (the default value is 10 minutes).

Cancelling

The alarm is cancelled when the loop is removed.

5.11 48 Loss of incoming signal

Severity

Critical

Fault reason

SB 1: Ethernet interface (1-2)

SB 2: SIO interface (1-2)

Description

Fault code: 48

Alarm explanation 1: The Ethernet cable is unplugged or broken, or the attached device is forcing the link to link down state.

Alarm explanation 2: Frame alignment is lost (EPIU is not able to receive a valid signal from the Flexbus interface).

Consequence 1: EPIU is not able to receive or transmit packet traffic via this interface.

Consequence 2: Ethernet payload traffic over this Flexbus is not possible.

Instructions

Instructions 1:

1. Check the Ethernet cable.
2. Check that the attached device is not forcing the link to link down state.

Instructions 2:

1. Check the radio link and the Flexbus alarms and status.
2. Check that the EPIU settings are configured accordingly at both ends of the radio link.

Cancelling

Cancelling 1: The alarm is cancelled when the Ethernet cable is connected properly.

Cancelling 2: The alarm is cancelled when the problem is corrected.

6 Functional entity: EXU

6.1 186 Configuration error

Severity

Minor

Fault reason

SB: Identifications

Description

Fault code: 186

Alarm explanation: One or more of the following identifications missing:

1. FE type string
2. FE product code string
3. FE product version string
4. FE serial number string
5. FE user's manual product code string
6. FE user's manual product version string

Instructions

Contact the manufacturer.

Cancelling

N/A

6.2 185 Connection or settings have changed

Severity

Warning

Fault reason

SB 1: FM setup

SB 2: Identifications

Description

Fault code: 185

Alarm explanation 1: The fault management settings have changed.

Alarm explanation 2: The identifications have changed.

Instructions

N/A

Cancelling

The warning resets automatically.

6.3 162 Database full

Severity

Warning

Fault reason

SB: Event history

Description

Fault code: 162

Alarm explanation: Overflow in event history

Instructions

Alarm history is flushed by NMS alarm polling.

When SNMP or (new) Nokia Q1 alarm polling is used, the alarm poller is flushing used port's alarm history. FIU 19 (E) software flushes LMP port's alarm history to avoid Database full when history is read through LMP port.

When (old) Q1 alarm polling is used, the network master never flushes the alarm history. When FIU 19 (E) receives an alarm polling (Get Fault Condition) command, it flushes alarm history for all ports (usually one or more Q1Ps and one LMP).

If Old Q1 Support mode (Use old style fault handler setting) is enabled, FIU 19 (E) software regularly flushes alarm histories of all ports.

Cancelling

Warning resets automatically.

7 Functional entity: FIU 19 (E)

7.1 258 15 min G826 BBE threshold crossed

Severity

Minor

Fault reason

SB: Flexbus (1-2)

Description

Fault code: 258

Alarm explanation: The 15 min G.826 BBE threshold has been crossed.

Instructions

N/A

Cancelling

The alarm is cancelled when the signal has been good enough (= BBE under the reset threshold) for a 15-minute period.

7.2 256 15 min G826 ES threshold crossed

Severity

Minor

Fault reason

SB: Flexbus (1-2)

Description

Fault code: 256

Alarm explanation: The 15 min G.826 ES threshold has been crossed.

Instructions

N/A

Cancelling

The alarm is cancelled when the signal has been good enough (= ES under the reset threshold) for a 15-minute period.

7.3 257 15 min G826 SES threshold crossed

Severity

Major

Fault reason

SB: Flexbus (1-2)

Description

Fault code: 257

Alarm explanation: The 15 min G.826 SES threshold has been crossed.

Instructions

N/A

Cancelling

The alarm is cancelled when the signal has been good enough (= SES under the reset threshold) for a 15-minute period.

7.4 261 24 h G826 BBE threshold crossed

Severity

Warning

Fault reason

SB: Flexbus (1-2)

Description

Fault code: 261

Alarm explanation: The 24 h G.826 BBE threshold has been crossed.

Instructions

N/A

Cancelling

The warning resets automatically.

7.5 259 24 h G826 ES threshold crossed

Severity

Warning

Fault reason

SB: Flexbus (1-2)

Description

Fault code: 259

Alarm explanation: The 24 h G.826 ES threshold has been crossed.

Instructions

N/A

Cancelling

The warning resets automatically.

7.6 260 24 h G826 SES threshold crossed

Severity

Warning

Fault reason

SB: Flexbus (1-2)

Description

Fault code: 260

Alarm explanation: The 24 h G.826 SES threshold has been crossed.

Instructions

N/A

Cancelling

The warning resets automatically.

7.7 64 Alarm signal is received

Severity

Critical

Fault reason

SB: Flexbus (1-2)

Description

Fault code: 64

Alarm explanation: The Flexbus RX signal contains a pseudo frame, generated in the OU (the OU not locked to RX signal).

Typically the OU RX signal is missing or faulty.

Instructions

N/A

Cancelling

N/A

7.8 113 Buffer overflow (or underflow)

Severity

Critical

Fault reason

SB: BFI (1-3) channel (1-16)

Description

Fault code: 113

Alarm explanation: The bit rate of received 2M signal is not within limits.

Instructions

N/A

Cancelling

N/A

7.9 186 Configuration error

Severity

Minor

Fault reason

SB 1: Identifications

SB 2: SW setup

Description

Fault code: 186

Alarm explanation 1: One or more of the following identifications missing:

1. FE type string
2. FE product code string
3. FE product version string
4. FE serial number string
5. FE user's manual product code string
6. FE user's manual product version string
7. TX clock calibration missing or illegal

Alarm explanation 2:

1. No backup available.
2. Backup available for this unit, needs activation.

Instructions

Instructions 1: Contact the manufacturer.

Instructions 2: N/A

Cancelling

N/A

7.10 185 Connection or settings have changed

Severity

Warning

Fault reason

SB 1: Flexbus (1-2)

SB 2: FM setup

SB 3: Identifications

Description

Fault code: 185

Alarm explanation 1: The G.826 settings have changed.

Alarm explanation 2: The fault management settings have changed.

Alarm explanation 3:: The identifications have changed.

Instructions

N/A

Cancelling

The warning resets automatically.

7.11 162 Database full

Severity

Warning

Fault reason

SB: Event history

Description

Fault code: 162

Alarm explanation: Overflow in event history

Instructions

The alarm history is flushed by NMS alarm polling.

When SNMP or the (new) Nokia Q1 alarm polling is used, the alarm poller flushes the used port's alarm history. The FIU 19 (E) software flushes the LMP port's alarm history to avoid Database full when the history is read through the LMP port.

When the (old) Q1 alarm polling is used, the network master never flushes the alarm history. When FIU 19 (E) receives an alarm polling (Get Fault Condition) command, it flushes the alarm history for all ports (usually one or more Q1Ps and one LMP).

If the Old Q1 Support mode (use the old style fault handler setting) is enabled, the FIU 19 (E) software regularly flushes the alarm histories of all ports.

Cancelling

The warning resets automatically.

7.12 148 Equipment reset

Severity

Warning

Fault reason

SB: HW setup

Description

Fault code: 148

Alarm explanation: The unit is starting up after power-on or reset.

Consequence: Traffic interruption until the unit has started up again (max. 60 seconds).

Instructions

N/A

Cancelling

The warning resets automatically.

7.13 99 Error rate > 1 E–3

Severity

Critical

Fault reason

SB 1: Flexbus (1-2)

SB 2: PRBS2

SB 3: PRBSF

Description

Fault code: 99

Alarm explanation 1: The received signal BER is over the alarm threshold. Possible reasons:

1. The signal from the radio path is attenuated.
2. There is a hardware fault in the Flexbus cable or interface.

Alarm explanation 2-3: Internal PRBS detector-received signal BER is over the user-definable alarm threshold.

Instructions

N/A

Cancelling

Cancelling 1: Cancelled when BER is under the alarm threshold.

Cancelling 2: Cancelled when PRBS2 error counter is reset.

Cancelling 3: Cancelled when PRBSF error counter is reset.

7.14 100_101_102 Error rate > 1 E–4, Error rate > 1 E–5, Error rate > 1 E–6

Severity

Major

Fault reason

SB 1: Flexbus (1-2)

SB 2: PRBS2

SB 3: PRBSF

Description

Fault code: 100, 101, 102

Alarm explanation 1: The received signal BER is over the alarm threshold. Possible reasons:

1. The signal from the radio path is attenuated.
2. There is a hardware fault in the Flexbus cable or interface.

Alarm explanation 2-3: Internal PRBS detector-received signal BER is over the user-definable alarm threshold.

Instructions

N/A

Cancelling

Cancelling 1: Cancelled when BER is under the alarm threshold.

Cancelling 2: Cancelled when PRBS2 error counter is reset.

Cancelling 3: Cancelled when PRBSF error counter is reset.

7.15 103 Error rate > 1 E–7

Severity

Minor

Fault reason

SB 1: Flexbus (1-2)

SB 2: PRBS2

SB 3: PRBSF

Description

Fault code: 103

Alarm explanation 1: The received signal BER is over the alarm threshold. Possible reasons:

1. The signal from the radio path is attenuated.
2. There is a hardware fault in the Flexbus cable or interface.

Alarm explanation 2: Internal PRBS detector-received signal BER is over the user-definable alarm threshold.

Instructions

N/A

Cancelling

Cancelling 1: Cancelled when BER is under the alarm threshold.

Cancelling 2: Cancelled when PRBS2 error counter is reset.

Cancelling 3: Cancelled when PRBSF error counter is reset.

7.16 179 Far-end alarm

Severity

Major

Fault reason

SB: Flexbus (1-2)

Description

Fault code: 179

Alarm explanation: The traffic is broken in one direction. Possible reasons:

1. Either the far-end IU is not receiving data transmitted by the near-end IU, but the near-end IU is receiving data transmitted the far-end IU, or vice versa.
2. The far-end is not transmitting useful data because the loop to the equipment is active.

Instructions

N/A

Cancelling

Cancelled when data transmission functions in both directions.

7.17 128 Fault in equipment

Severity

Major

Fault reason

SB: SW setup

Description

Fault code: 128

Alarm explanation: File system error

Instructions

Replace the unit.

Cancelling

N/A

7.18 142 Fault in installation of equipment

Severity

Critical

Fault reason

SB 1: -Flexbus (1-2)

SB 2: HW setup

Description

Fault code: 142

Alarm explanation 1: Flexbus has not been set in use, but the OU (or IU) is connected to it

Alarm explanation 2: Incompatible unit

Instructions

Instructions 1: When Flexbus and radio are commissioned, set *In use* to *ON*.

Instructions 2: Check the Hopper Manager troubleshooting instructions to find out which unit is faulty:

- If the HW module is faulty, replace the module.
- If the SW is incompatible, download new software.

Cancelling

Cancelling 1: Cancelled when *In use* is set *ON.*

Cancelling 2: Cancelled after the situation is corrected and the indoor unit restarted.

7.19 137 Fault in oscillator

Severity

Critical

Fault reason

SB: Clock monitor

Description

Fault code: 137

Alarm explanation: The internal oscillator is faulty.

Instructions

N/A

Cancelling

N/A

7.20 0 Fault in power supply

Severity

Critical

Fault reason

SB 1: Flexbus (1-2)

SB 2: Power supply

Description

Fault code: 0

Alarm explanation 1: There is a power supply fault in the Flexbus OU. Possible reasons:

1. Failure in power supply.
2. Short circuit in the Flexbus cable.

Alarm explanation 2: The power supply voltage is below or above the limit. See measurements.

Instructions

N/A

Cancelling

N/A

7.21 141 Forced control on

Severity

Critical

Fault reason

SB 1: Flexbus (1-2)

SB 2: Measurement point

Description

Fault code: 141

Alarm explanation 1: The OU power supply is forced on or off with the control menu, while the setting value may be different.

Alarm explanation 2: The signal is connected to the measurement point.

Instructions

Instructions 1: Remove the forced control manually via the node manager.

Instructions 2: Wait until the control timeout expires. The control timeout value can be defined by the user (the default value is 10 minutes).

Cancelling

Cancelled when forced control is removed.

7.22 267 Licence expired

Severity

Critical

Fault reason

SB: SW setup

Description

Fault code: 267

*Alarm explanation:*This alarm is valid for Nokia FlexiHopper Plus. The feature's short-term licence has expired.

Instructions

Obtain a new licence file for this feature or turn off the feature.

Cancelling

The alarm is cancelled when a new licence has been installed or the feature is no longer in use.

7.23 269 Licence for feature is not available

Severity

Critical

Fault reason

SB: SW setup

Description

Fault code: 269

Alarm explanation: This alarm is valid for Nokia FlexiHopper Plus. A license for the enabled feature is not available. The feature was most likely activated from a configuration backup during a unit replacement and the replacement unit does not contain a licence.

Instructions

Obtain a new licence file for this feature or turn off the feature.

Cancelling

The alarm is cancelled when a new licence has been installed or the feature is no longer in use.

7.24 268 Licence will expire in near future

Severity

Major

Fault reason

SB: SW setup

Description

Fault code: 268

Alarm explanation: This alarm is valid for Nokia FlexiHopper Plus. The time limited licence for the feature will expire in the near future.

Instructions

Obtain a new licence file for this feature or turn off the feature before the expiry time.

Cancelling

The alarm is cancelled when a new licence has been installed or the feature is no longer in use.

7.25 22 Loop to equipment

Severity

Major

Fault reason

SB: Flexbus (1-2)

Description

Fault code: 22

Alarm explanation: The Flexbus equipment loop is active (the TX signal is looped back to the RX direction).

Instructions

Instructions 1: Deactivate the Flexbus equipment loop manually via the node manager.

Instructions 2: Wait until the control timeout expires. The control timeout value can be defined by the user (the default value is 10 minutes).

Cancelling

Cancelled when the loop is removed.

7.26 21 Loop to interface

Severity

Major

Fault reason

SB 1: BFI (1-3) channel (1-16)

SB 2: Flexbus (1-2)

Description

Fault code: 21

Alarm explanation 1: The 2M signal is looped back to Flexbus.

Alarm explanation 2: The Flexbus interface loop is active (the RX signal is looped back to the TX direction).

Instructions

Instructions 1: Deactivate the 2M interface/Flexbus interface loop manually via the node manager.

Instructions 2: Wait until the control timeout expires. The control timeout value can be defined by the user (the default value is 10 minutes).

Cancelling

Cancelled when the loop is removed.

7.27 81 Loss of frame alignment

Severity

Critical

Fault reason

SB: Flexbus (1-2)

Description

Fault code: 81

Alarm explanation:

1. Flexbus received a faulty or errored signal.

2. There is a fault in the Flexbus cable interface.

Instructions

N/A

Cancelling

N/A

7.28 48 Loss of incoming signal

Severity

Critical

Fault reason

SB: Flexbus (1-2)

Description

Fault code: 48

Alarm explanation:

1. The Flexbus RX clock is missing.
2. The Flexbus RX clock oscillator is faulty.

Instructions

N/A

Cancelling

N/A

7.29 144 Operating error

Severity

Critical

Fault reason

SB: SW setup

Description

Fault code: 144

Alarm explanation:

1. File system error
2. Internal SW error

Instructions

Replace the unit.

Cancelling

N/A

7.30 165 Real time lost fault

Severity

Major

Fault reason

SB: Real time clock

Description

Fault code: 165

Alarm explanation: The Real Time Clock (RTC) has not been set after reset.

Instructions

Instructions:

1. Set the RTC with Hopper Manager.
2. The RTC is set by NMS.

Cancelling

Cancelled when the RTC is set.

7.31 184 Real time updated

Severity

Warning

Fault reason

SB: Real time clock

Description

Fault code: 184

Alarm explanation: The updated RTC difference is more than 5 s.

Instructions

N/A

Cancelling

The warning resets automatically.

7.32 263 Statistics reset

Severity

Warning

Fault reason

SB: Flexbus (1-2)

Description

Fault code: 263

Alarm explanation: The G.826 error counters (current measurement) are reset.

Instructions

N/A

Cancelling

The warning resets automatically.

7.33 25 Test generator on

Severity

Major

Fault reason

SB 1: PRBS2

SB 2: PRBSF

Description

Fault code: 25

Alarm explanation 1: The internal 2 Mbit/s test generator is on.

Alarm explanation 2: The internal test generator for Flexbuses and aux channels is on.

Instructions

Instructions 1: Remove the forced control manually via the node manager.

Instructions 2: Wait until the control timeout expires. The control timeout value can be defined by the user (the default value is 10 minutes).

Cancelling

Cancelled when forced control removed.

7.34 23 Test mode active

Severity

Major

Fault reason

SB 1: Flexbus (1-2)

SB 2: LED

SB 3: Clock monitor

SB 4: SW setup

Description

Fault code: 23

Alarm explanation 1: The Flexbus LED state is forced.

Alarm explanation 2: The alarm LED state is forced.

Alarm explanation 3: The TX oscillator calibration is active.

Alarm explanation 4: The unit is operating in the factory test mode. This mode should not be visible to customers.

Instructions

N/A

Cancelling

Cancelling 1 -2: Cancelled when forced control is removed.

Cancelling 3: Cancelled after TX calibration is finished.

7.35 262 Unavailability

Severity

Critical

Fault reason

SB: Flexbus (1-2)

Description

Fault code: 262

Alarm explanation: The amount of errored blocks has been more than 30% for at least 10 consecutive seconds.

Instructions

N/A

Cancelling

Cancelled when the amount of errored blocks has been less than 30% for 10 consecutive seconds.

8 Functional entity: Flexbus plug-in unit

8.1 258 15 min G826 BBE threshold crossed

Severity

Minor

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 258

Alarm explanation: The 15 min G.826 BBE threshold has been crossed.

Instructions

N/A

Cancelling

The alarm is cancelled when the signal has been good enough (= BBE under the reset threshold) for a 15-minute period.

8.2 256 15 min G826 ES threshold crossed

Severity

Minor

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 256

Alarm explanation: The 15 min G.826 ES threshold has been crossed.

Instructions

N/A

Cancelling

The alarm is cancelled when the signal has been good enough (= ES under the reset threshold) for a 15-minute period.

8.3 257 15 min G826 SES threshold crossed

Severity

Major

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 257

Alarm explanation: The 15 min G.826 SES threshold has been crossed.

Instructions

N/A

Cancelling

The alarm is cancelled when the signal has been good enough (= SES under the reset threshold) for a 15-minute period.

8.4 261 24 h G826 BBE threshold crossed

Severity

Warning

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 261

Alarm explanation: The 24 h G.826 BBE threshold has been crossed.

Instructions

N/A

Cancelling

The warning resets automatically.

8.5 259 24 h G826 ES threshold crossed

Severity

Warning

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 259

Alarm explanation: The 24 h G.826 ES threshold has been crossed.

Instructions

N/A

Cancelling

The warning resets automatically.

8.6 260 24 h G826 SES threshold crossed

Severity

Warning

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 260

Alarm explanation: The 24 h G.826 SES threshold has been crossed.

Instructions

N/A

Cancelling

The warning resets automatically.

8.7 64 Alarm signal is received

Severity

Critical

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 64

Alarm explanation: The Flexbus received signal contains a pseudo frame, generated in the OU (OU not locked to the RX signal). Typically, the OU received signal is missing or faulty.

Instructions

N/A

Cancelling

N/A

8.8 186 Configuration error

Severity

Minor

Fault reason

SB: Identifications

Description

Fault code: 186

Alarm explanation: One or more of the following identifications missing:

1. FE type string
2. FE product code string
3. FE product version string
4. FE serial number string
5. FE user's manual product code string
6. FE user's manual product version string

Instructions

Contact the manufacturer.

Cancelling

N/A

8.9 185 Connection or settings have changed

Severity

Warning

Fault reason

SB1: Flexbus (3-4)

SB 2: FM setup

SB 3: Identifications

Description

Fault code: 185

Alarm explanation 1: The G.826 settings have changed.

Alarm explanation 2: The management settings have changed.

Alarm explanation 3: The Identifications have changed.

Instructions

N/A

Cancelling

The warning resets automatically.

8.10 162 Database full

Severity

Warning

Fault reason

SB: Event history

Description

Fault code: 162

Alarm explanation: Overflow in event history

Instructions

The alarm history is flushed by NMS alarm polling.

When SNMP or the (new) Nokia Q1 alarm polling is used, the alarm poller flushes the used port's alarm history. The FIU 19 (E) software flushes the LMP port's alarm history to avoid Database full when the history is read through the LMP port.

When the (old) Q1 alarm polling is used, the network master never flushes the alarm history. When FIU 19 (E) receives an alarm polling (Get Fault Condition) command, it flushes the alarm history for all ports (usually one or more Q1Ps and one LMP).

If the Old Q1 Support mode (use the old style fault handler setting) is enabled, the FIU 19 (E) software regularly flushes the alarm histories of all ports.

Cancelling

The warning resets automatically.

8.11 99 Error rate > 1 E-3

Severity

Critical

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 99

Alarm explanation: The received signal BER is over the alarm threshold. Possible reasons:

1. The signal from the radio path is attenuated.
2. There is a hardware fault in the Flexbus cable or interface.

Instructions

N/A

Cancelling

Cancelled when BER is under the alarm threshold.

8.12 100_101_102 Error rate > 1 E-4, Error rate > 1 E-5, Error rate > 1 E-6

Severity

Major

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 100, 101, 102

Alarm explanation: The received signal BER is over the alarm threshold. Possible reasons:

1. The signal from the radio path is attenuated.
2. There is a hardware fault in the Flexbus cable or interface.

Instructions

N/A

Cancelling

Cancelled when BER is under the alarm threshold.

8.13 103 Error rate > 1 E–7

Severity

Minor

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 103

Alarm explanation: The received signal BER is over the alarm threshold. Possible reasons:

1. The signal from the radio path is attenuated.
2. There is a hardware fault in the Flexbus cable or interface.

Instructions

N/A

Cancelling

Cancelled when BER is under the alarm threshold.

8.14 179 Far-end alarm

Severity

Major

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 179

Alarm explanation: The traffic is broken in one direction. Possible reasons:

1. Either the far-end IU is not receiving data transmitted by the near-end IU, but the near-end IU is receiving data transmitted the far-end IU, or vice versa.
2. The far-end is not transmitting useful data because the loop to the equipment is active.

Instructions

N/A

Cancelling

N/A

8.15 142 Fault in installation of equipment

Severity

Critical

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 142

Alarm explanation: Flexbus has not been set in use, but an OU (or IU) is connected to it.

Instructions

When Flexbus and radio are commissioned, set *In use* to *ON*.

Cancelling

Cancelled when *In use* is set *ON*.

8.16 0 Fault in power supply

Severity

Critical

Fault reason

SB 1: Flexbus (3-4)

SB 2: Power supply

Description

Fault code: 0

Alarm explanation 1: There is a power supply fault in the Flexbus OU. Possible reasons:

1. Failure in power supply
2. Short circuit in the Flexbus cable

Alarm explanation 2: The power supply voltage is below or above the limit. Check the measurements.

Instructions

N/A

Cancelling

N/A

8.17 141 Forced control on

Severity

Critical

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 141

Alarm explanation: The OU power supply is forced on or off with the control menu, while the setting value may be different.

Instructions

N/A

Cancelling

Cancelled when forced control removed.

8.18 22 Loop to equipment

Severity

Major

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 22

Alarm explanation: The Flexbus equipment loop is active (the TX signal is looped back to the RX direction).

Instructions

Instructions: Deactivate the Flexbus equipment loop manually via the node manager.

Cancelling

Cancelled when loop is removed.

8.19 21 Loop to interface

Severity

Major

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 21

Alarm explanation: The Flexbus interface loop is active (the RX signal is looped back to the TX direction).

Instructions

Deactivate the Flexbus interface loop manually via the node manager.

Cancelling

Cancelled when loop is removed.

8.20 81 Loss of frame alignment

Severity

Critical

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 81

Alarm explanation:

1. The Flexbus received signal is faulty or errored.
2. There is a fault in the Flexbus cable interface.

Instructions

N/A

Cancelling

N/A

8.21 48 Loss of incoming signal

Severity

Critical

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 48

Alarm explanation:

1. The Flexbus RX clock is missing.
2. The Flexbus RX clock oscillator is faulty.

Instructions

N/A

Cancelling

N/A

8.22 263 Statistics reset

Severity

Warning

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 263

Alarm explanation: The G.826 error counters (current measurement) are reset.

Instructions

N/A

Cancelling

The warning resets automatically.

8.23 23 Test mode active

Severity

Major

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 23

Alarm explanation: The Flexbus LED state is forced.

Instructions

Remove the forced control manually via the node manager.

Cancelling

Cancelled when the forced control is removed.

8.24 262 Unavailability

Severity

Critical

Fault reason

SB: Flexbus (3-4)

Description

Fault code: 262

Alarm explanation: The amount of errored blocks has been more than 30% for at least 10 consecutive seconds.

Instructions

N/A

Cancelling

Cancelled when the amount of errored blocks has been less than 30% for 10 consecutive seconds.

9 Functional entity: NE/FE0

9.1 258 15 min G826 BBE threshold crossed

Severity

Minor

Fault reason

SB: Protected hop

Description

Fault code: 258

Alarm explanation: The 15 min G826 BBE threshold has been crossed.

Instructions

N/A

Cancelling

The alarm is cancelled when the signal has been good enough for 15 minutes (BBE less than the reset threshold).

9.2 256 15 min G826 ES threshold crossed

Severity

Minor

Fault reason

SB: Protected hop

Description

Fault code: 256

Alarm explanation: The 15 min G.826 ES threshold has been crossed.

Instructions

N/A

Cancelling

The alarm is cancelled when the signal has been good enough (= ES under the reset threshold) for a 15-minute period.

9.3 257 15 min G826 SES threshold crossed

Severity

Major

Fault reason

SB: Protected hop

Description

Fault code: 257

Alarm description: The 15 min G.826 SES threshold has been crossed.

Instructions

N/A

Cancelling

The alarm is cancelled when the signal has been good enough (= SES under the reset threshold) for a 15-minute period.

9.4 261 24 h G826 BBE threshold crossed

Severity

Warning

Fault reason

SB: Protected hop

Description

Fault code: 261

Alarm explanation: The 24 h G.826 BBE threshold has been crossed.

Instructions

N/A

Cancelling

The warning resets automatically.

9.5 259 24 h G826 ES threshold crossed

Severity

Warning

Fault reason

SB: Protected hop

Description

Fault code: 259

Alarm explanation: The 24 h G.826 ES threshold has been crossed.

Instructions

N/A

Cancelling

The warning resets automatically.

9.6 260 24 h G826 SES threshold crossed

Severity

Warning

Fault reason

SB: Protected hop

Description

Fault code: 260

Alarm explanation: The 24 h G.826 SES threshold has been crossed.

Instructions

N/A

Cancelling

The warning resets automatically.

9.7 186 Configuration error

Severity

Minor

Fault reason

SB: ppp0, ppp1, ppp2

Description

Fault code: 186

Alarm explanation: Conflict in ppp configuration.

Instructions

Instructions: Remove and reconfigure AUX and PPP cross connections with Hopper Manager as described in *Configuring AUX and PPP cross-connections*.

Cancelling

Cancelling: The alarm is deactivated after the AUX and PPP cross-connections are corrected.

9.8 185 Connection or settings have changed

Severity

Warning

Fault reason

SB 1: FM setup

SB 2: HW setup

SB 3: Identifications

SB 4: Protected hop

Description

Fault code: 185

Consequence 1, 3 and 4: N/A

Consequence 2: Sets or clears the *Subrack is missing units* or *Subrack has excessive units* alarms

Alarm explanation 1: The fault management settings have changed.

Alarm explanation 2: New unit(s) have been added, removed, or replaced in the system.

Alarm explanation 3: The identifications have changed.

Alarm explanation 4: The G.826 settings have changed.

Instructions

Instructions 1, 3 and 4: N/A

Instructions 2: Refresh Hopper Manager's equipment view.

Cancelling

Cancelling 1 - 4: The warning resets automatically.

9.9 162 Database full

Severity

Warning

Fault reason

SB: Event history

Description

Fault code: 162

Alarm explanation: Overflow in event history

Instructions

The alarm history is flushed by NMS alarm polling.

When SNMP or the (new) Nokia Q1 alarm polling is used, the alarm poller flushes the used port's alarm history. The FIU 19 (E) software flushes the LMP port's alarm history to avoid Database full when the history is read through the LMP port.

When the (old) Q1 alarm polling is used, the network master never flushes the alarm history. When FIU 19 (E) receives an alarm polling (Get Fault Condition) command, it flushes the alarm history for all ports (usually one or more Q1Ps and one LMP).

If the Old Q1 Support mode (use the old style fault handler setting) is enabled, the FIU 19 (E) software regularly flushes the alarm histories of all ports.

Cancelling

The warning resets automatically.

9.10 168 Equipment door open

Severity

Minor

Fault reason

SB: HW setup

Description

Fault code: 168

Alarm explanation: Notification to NMS: Nokia Hopper Manager is connected to this unit.

Instructions

This feature may be needed in some customer specific applications. By default, the feature is not active.

Note

To activate the feature when connected to FIU 19 (E) by Hopper Manager, check *Enable node manager connection notification* in Manager Options → Communication.

Cancelling

1. Uncheck 'Enable node manager connection notification' in Manager Options → Communication. The alarm is cancelled after 2 minutes.
2. The alarm is cancelled 2 minutes after Hopper Manager is disconnected from the node.

9.11 148 Equipment reset

Severity

Warning

Fault reason

SB: HW setup

Description

Fault code: 148

Alarm explanation: The unit is starting up after power-on or reset.

Instructions

N/A

Cancelling

The warning resets automatically.

9.12 99 Error rate > 1 E-3

Severity

Critical

Fault reason

SB: Protected hop

Description

Fault code: 99

Alarm explanation: The received signal BER is over the alarm threshold. Possible reasons:

1. The signal from the radio path is attenuated.
2. There is a hardware fault in the Flexbus cable or interface.

Instructions

N/A

Cancelling

Cancelled when BER is under the alarm threshold.

9.13 100_101_102 Error rate > 1 E-4, Error rate > 1 E-5, Error rate > 1 E-6

Severity

Major

Fault reason

SB: Protected hop

Description

Fault code: 100, 101, 102

Alarm explanation: The received signal BER is over the alarm threshold. Possible reasons:

1. The signal from the radio path is attenuated.
2. There is a hardware fault in the Flexbus cable or interface.

Instructions

N/A

Cancelling

Cancelled when BER is under the alarm threshold.

9.14 103 Error rate > 1 E–7

Severity

Minor

Fault reason

SB: Protected hop

Description

Fault code: 103

Alarm explanation: The received signal BER is over the alarm threshold. Possible reasons:

1. The signal from the radio path is attenuated.
2. There is a hardware fault in the Flexbus cable or interface.

Instructions

N/A

Cancelling

Cancelled when BER is under the alarm threshold.

9.15 143 Fault in change-over function

Severity

Critical

Fault reason

SB: Operation mode

Description

Fault code: 143

Alarm explanation:

1. The OU configuration is incompatible with the protection mode (for example, the TX frequency is not the same in both radios in the HSB mode).

2. The OU software is incompatible with the used operation mode.

3. The IU protection modes are different.

4. The IU configurations are different. This fault is active after the startup or after the setting change until the settings are copied to the passive IU.

Instructions

1. Restore the configuration backup of the OU or correct the settings.

2. Download the new software to the OU.

3. Follow the commissioning procedure.

4. Restore the configuration backup of the IU or correct the settings. Wait 60 seconds after each setting change.

Cancelling

N/A

9.16 128 Fault in equipment

Severity

Major

Fault reason

SB: Protection lost

Description

Fault code: 128

Alarm explanation: The protection is lost due to faulty unit(s) and the redundant signal path is in use. The reason is one of the following:

1. OU transmitter error
2. OU receiver error
3. IU TX oscillator error
4. IU hardware register error
5. Spare IU missing or not operational
6. 16x2M plug-in unit missing
7. 16x2M EXU missing

8. IU cannot lock to the Flexbus signal
9. Ethernet plug-in unit fault
10. EPIU installation fault

Instructions

Instructions:

1. Check other faults of the faulty unit to find the actual reason and replace the faulty unit.
2. Check other faults of the faulty unit to find the actual reason and replace the faulty unit.
3. Check other faults of the faulty unit to find the actual reason and replace the faulty unit.
4. Check other faults of the faulty unit to find the actual reason and replace the faulty unit.
5. Check other faults of the faulty unit to find the actual reason and replace the faulty unit.
6. Check other faults of the faulty unit to find the actual reason and replace the faulty unit.
7. Check other faults of the faulty unit to find the actual reason and replace the faulty unit.
8. Check other faults of the faulty unit to find the actual reason and replace the faulty unit.
9. Check other faults of the faulty unit to find the actual reason and replace the faulty unit.
10. Use Hopper Manager Install-command to install both EPIUs.

Cancelling

The alarm is cancelled when the fault is corrected.

9.17 142 Fault in installation of equipment

Severity

Critical

Fault reason

SB 1: Operation mode

SB 2: HW setup

Description

Fault code: 142

Alarm explanation 1: The settings do not match the HW configuration:

1. The plug-in unit is in an illegal slot.
2. The plug-in units mismatch (for example, 4 x 2M and 16 x 2M at the same time).
3. AUX Fast cross-connection conflict - max 2 Flexbuses in SYNC mode.

Alarm explanation 2: The unit is replaced with another type of unit.

Instructions

Instructions 1: If the unit is upgraded to 16 x 2M, remove all 4 x 2 plug-in cards first. When using AUX Fast channels in synchronous mode, only two AUX Fast Flexbus interfaces can be used simultaneously, including AUX Fast PPP-link connections. Remove AUX Fast cross-connections or change AUX interface settings.

Instructions 2:

1. Give the *Uninstall* and then the *Install* command with the Hopper Manager to replace the unit.
2. Install the correct unit back to the system.

Cancelling

Cancelling 1: Remove the conflicting plug-in card.

Note

Some plug-in cards in illegal slots require resetting the unit after the plug-in card has been removed.

Cancelling 2: The alarm is cancelled when the unit is back in the system or when the *Install all* command is given.

9.18 141 Forced control on

Severity

Critical

Fault reason

SB: Operation mode

Description

Fault code: 141

Alarm explanation:

1. Automatic fading margin measurement on.

2. Forced controls on OU TX.

3. Forced controls on OU RX.

4. Forced controls on IU.

Instructions

Set the forced control to normal state or wait until the control timeout has expired.

Cancelling

The alarm is cancelled after the automatic fading margin measurement has finished or the forced controls have been removed.

9.19 263 Statistics reset

Severity

Warning

Fault reason

SB: Protected hop

Description

Fault code: 263

Alarm explanation: The G.826 error counters (current measurement) have been reset.

Instructions

N/A

Cancelling

The warning resets automatically.

9.20 140 Subrack has excessive units

Severity

Major

Fault reason

SB: HW setup

Description

Fault code: 140

Alarm explanation: New unit(s) have been added to the system, but have not been installed to the configuration.

Instructions

After plugging in the new units, use the *Install* or *Install all* command in the Hopper Manager.

Cancelling

The alarm is cancelled in 30 seconds after the *Install* command.

9.21 139 Subrack is missing units

Severity

Critical

Fault reason

SB: HW setup

Description

Fault code: 139

Consequence: Possibly some signal quality alarms.

Alarm explanation: The unit has been removed or is missing from the system.

Instructions

The Hopper Manager troubleshooting gives information about which unit is missing. Possible causes are: faulty unit, faulty cable, or power off.

Cancelling

The alarm is cancelled when the unit is back in the system or when the *Install all* command is given.

9.22 262 Unavailability

Severity

Critical

Fault reason

SB: Protected hop

Description

Fault code: 262

Alarm explanation: The amount of errored blocks has been more than 30% for at least 10 consecutive seconds.

Instructions

N/A

Cancelling

Cancelled when the amount of errored blocks has been less than 30% for 10 consecutive seconds.