



A

AC-input power supplies

installing [2-32, 2-47](#)

specifications (table) [A-2, A-11, A-15](#)

See also external power supplies

alarm cable strain relief brackets

installing [2-12](#)

placement (figure) [2-13](#)

alarm cards

placement [1-4](#)

alarms

clearing [1-23](#)

description [1-21](#)

processor cards [1-21](#)

ASE interfaces

not supported (note) [1-20](#)

auxiliary ports

cabling [3-6](#)

connecting [3-6](#)

B

backplane

description [1-4](#)

power connectors [1-4](#)

bands

channels (table) [A-3](#)

frequencies (table) [A-3](#)

wavelengths (table) [A-3](#)

brackets. See alarm cable strain relief brackets; cable management guides; L brackets; power supply cable strain relief brackets

budgets. See optical power budgets

C

cable management guides

installing [2-5, 2-7](#)

placement [2-5, 2-7](#)

cabling

auxiliary ports [3-6](#)

console ports [3-6](#)

mux/demux modules [3-8](#)

NME ports [3-7](#)

preparing [3-2](#)

transponder modules [3-9](#)

channels

bands [A-3](#)

wavelength mapping (table) [A-3](#)

chassis

- description [1-2](#)
- maintenance worksheets [B-1](#)
- rack mounting [2-4](#)
- slot assignments [1-2](#)
- specifications (table) [A-2, A-11, A-15](#)

cleaning

- fiber optic connectors [3-4](#)
- guidelines [3-2, 3-4](#)
- shelf [3-2](#)

components

- description [1-4 to 1-24](#)

See also alarm cards; filler modules; line card motherboards; mux/demux modules; processor cards; transponder modules

connecting

- ASE interfaces (note) [3-6](#)
- auxiliary ports [3-6](#)
- console ports [3-6](#)
- mux/demux modules [3-8](#)
- NME [3-7](#)
- transponder modules [3-9](#)

connections

- cleaning [3-4](#)

connectors. See fiber optic connectors

console ports

- cabling [3-6](#)
- connecting [3-6](#)

conventions

- document [xiii](#)

D

damage

- fiber optic connectors (note) [2-2](#)
- prevention [2-2](#)

DC-input power supplies

- installing [2-37, 2-42](#)
- specifications (table) [A-2, A-11, A-15](#)

dimensions

- chassis [A-2](#)

documentation

- conventions [xiii](#)
- related [xiv](#)

E

earthing. See grounding

external power supplies

- installing [2-32, 2-47](#)

F

fan assemblies

- alarm reports [2-28](#)
- description [1-3](#)
- hot swapping [1-3, 2-28](#)
- LEDs [2-29](#)
- placement [1-3](#)
- replacing [2-28](#)

 fiber optic connectors

- cleaning [3-3](#)
- description [3-3](#)

filler modules

- description [1-24](#)
- slot assignments [1-24](#)

Flash PC Cards

- LEDs [1-23](#)
- slot assignments [1-22](#)
- supported [1-22](#)

frequencies

- bands [A-3](#)
- mapping (table) [A-3](#)

 G

grounding

- guidelines [2-9](#)
- required tools [2-9](#)
- shelf [2-9](#)

 H

hot swapping

- fan assemblies [1-3](#)
- line card motherboards [1-5, 2-14](#)
- mux/demux modules [2-17](#)
- mux/demux motherboards [2-14](#)
- processor cards [2-14](#)

transponder modules [2-17](#)

humidity

specifications (table) [A-2](#)

 installing

- AC-input power supplies [2-32, 2-47](#)
- alarm cable strain relief brackets [2-12](#)
- cable management guides [2-5, 2-7](#)
- DC-input power supplies [2-37, 2-42](#)
- external power shelves [2-30, 2-41](#)
- external power supplies [2-30, 2-41](#)
- line card motherboards [2-14, 2-15, 2-17](#)
- mux/demux modules [2-18, 2-20](#)
- mux/demux motherboards [2-14](#)
- power supply cable strain relief brackets [2-12](#)
- processor cards [2-14](#)
- shelves [2-7](#)
- transceivers [2-21](#)
- transponder modules [2-18, 2-20](#)
- Type 2 extended range transponder modules [2-21](#)

 L

L brackets

installing [2-4](#)

LEDs

- fan assemblies [2-29](#)
- Flash PC Cards [1-23](#)
- line card motherboards [1-5](#)
- mux/demux motherboards [1-16](#)
- NME ports [1-23](#)
- processor cards [1-18](#)
- transponder modules [1-12](#)
- line card motherboards
 - hot swapping [1-5](#)
 - installing [2-15, 2-17](#)
 - LEDs [1-5](#)
 - maintenance worksheets [B-2](#)
 - removing [2-15](#)
- hot pluggable [1-15](#)
- maintenance worksheets [B-3](#)
- supported [1-15](#)
- mux/demux motherboards
 - description [1-15](#)
 - hot swapping [2-14](#)
 - installing [2-14](#)
 - LEDs [1-16](#)
 - maintenance worksheets [B-3](#)
 - removing [2-15](#)
 - slot assignments [1-15](#)
 - supported [1-15](#)

M

- maintaining
 - fiber optic connectors [3-3](#)
 - network records [B-1](#)
- MM transponder modules
 - description [1-7](#)
- modules. See mux/demux modules ;
transponder modules
- mounting. See rack-mounting
- multimode transponder modules. See MM
transponder modules
- mux/demux modules
 - cabling [3-8](#)
 - connecting [3-8](#)
 - description [1-15](#)

N

- network management Ethernet ports. See NME
- network records
 - maintaining [2-3, B-4](#)
- NME
 - cabling [3-7](#)
 - connecting [3-7](#)
 - port description [1-23](#)
 - port LEDs [1-23](#)
 - ports supported [1-23](#)
- NMI
 - clearing [1-23](#)
 - description [1-23](#)
- non-maskable interrupt. See NMI

O

OIR. See hot swapping
online insertion and removal. See hot swapping

P

power supplies
description 1-4
See also AC-input power supplies; DC-input power supplies; external power supplies
power supply cable strain relief brackets
installing 2-12
placement (figure) 2-13
processor cards
alarms 1-21
description 1-17
hot swapping 2-14
installing 2-15
LEDs 1-18
maintenance worksheets B-3
NMI 1-23
redundancy 1-17
removing 2-15
slot assignments 1-17

R

rack-mounting

equipment 2-4
tools 2-4

racks
installing L brackets 2-4

records
maintaining B-1
network B-1

removing
fan assemblies 2-29
line card motherboards 2-15
mux/demux modules 2-28
mux/demux motherboards 2-15
processor cards 2-15
transponder modules 2-28

replacing
fan assemblies 2-28

S

SFP optics
removing 2-22, 2-24
specifications (table) A-11, A-15
supported 1-8

shelf
cleaning guidelines 3-2
figure 1-2
installing 2-7
rack mounting 2-4
unpacking 2-2

single-mode transponders. See SM transponders

slot assignments

chassis [1-2](#)

mux/demux motherboards [1-15](#)

processor cards [1-17](#)

transponder motherboards [1-5](#)

SM transponder modules

description [1-7](#)

specifications

AC-input power supplies [A-2, A-11, A-15](#)

chassis [A-2, A-11, A-15](#)

DC-input power supplies [A-2, A-11, A-15](#)

mux/demux modules [A-5, A-8](#)

mux/demux motherboard [A-5, A-8](#)

system

alarms [1-21](#)

components [1-4](#)

description [1-1](#)

mounting [2-3](#)

T

temperature

specifications [A-2](#)

terminal blocks

connecting DC-input power [2-38](#)

figure [2-39](#)

transponder modules

cabling [3-9](#)

connecting [3-9](#)

description [1-5, 1-6](#)

hot pluggable [1-5](#)

installing [2-18, 2-20](#)

LEDs [1-12](#)

maintenance worksheets [B-2](#)

removing [2-28](#)

slot assignments [1-5](#)

Type 2 extended range transponder modules

description [1-7](#)

installing [2-21](#)

LEDs [1-13](#)

removing transceivers [2-21](#)

U

unpacking

shelves [2-2](#)

W

wavelengths

bands [A-3](#)

worksheets

maintaining [B-1](#)

Y

y-cables

connecting [2-51](#)
description [1-14](#)

