

**Consolidate multi-box solutions into highly compact 2 RU, enclosure**

**Industry-leading density and versatility – up to 36 DS1/E1 capacity**

**Remotely manage with connectivity to all cell site equipment**

### **A Consolidated Platform for Delivering Advanced Wireless Voice and Data Services**

The Axxius® 800 Cell Site Access Gateway solves today's problems of multiple boxes, scalability, space, power, and environmental constraints associated with delivering voice and data services in wireless service networks. It converges the functions of multiple different products into one scalable, integrated and managed platform that grooms and delivers services at dramatically lower costs. The Axxius 800 defines a new level of functionality, cost-effectiveness and performance for access needs at cell sites, hub locations and switching centers.

### **Converged Functionality**

Equipped with the Quad DS1/E1 Controller, the Axxius 800 operates as a service delivery platform and as a small cross-connect access multiplexer. The OctalFLEX service card, which employs the latest developments in Force10 Network's Abis optimization, can be used to aggregate and optimize GSM, UMTS and IP cell site backhaul over a truly dynamic T1/E1 network.

### **Comprehensive Performance and Enhanced Connectivity**

The Axxius 800 Base Platform includes 1+1 Power Supply slots, 1+1 Controller Card slots, a Control Panel Interface Card, eight universal Service Card slots, and one Low-Speed Interface Protection Card slot, offering redundancy, high interface density and versatility. The Quad DS1/E1 Controller manages the Axxius 800 Service Cards, providing the physical, electrical, and logical connections to deliver a complete, integrated, single-unit solution. The platform can support up to eight hot-swappable Service Cards, providing a scalable mix of interfaces.

### **Hardened Design and Full Redundancy**

The Axxius 800's enclosure, commons, and selected Service Cards are front loading, temperature-hardened, and designed to withstand the extreme conditions found in service provider equipment locations. Dual-feed rear power connectors support Power Supply redundancy, and inputs for clocking and alarm connections are easily accessible. In addition, front RJ-48C DS1/E1 ports provide easy and reliable connection points. The Axxius chassis is a carrier-quality platform with full redundancy to protect critical networks.

### **Easy Accessibility**

The Axxius 800 control panel provides front access to all the physical interfaces of the controller card. It provides four RJ-48C DS1/E1 connections when using the Quad DS1/E1 Controller. The control panel also provides the RS-232 and 10/100Base-TX Ethernet management connections for system configuration and control. Status indicators are provided for critical, major, minor, and ACO alarm relay status, and an Alarm Cut Off (ACO) Switch is also provided to silence external audible alarms. The Axxius 800's versatility and scalability in a two-rack unit design offers the highest density and the most flexibility to meet today's and tomorrow's complex network challenges.

### **Key Features**

- Designed to enable a highly efficient and cost-effective access network
- Ideal for next-generation transport solutions for GSM BSS and UMTS overlay network over existing infrastructures
- Advanced bandwidth and traffic management capabilities
- Traffic aggregation and optimization for backhaul cellular networks with the OctalFLEX™ card
- Saves space while improving flexibility of service
- Maximum availability with extended operating temperature range, redundant power, redundant Controllers and T1 / E1 protection options



# Specifications: Axxius 800 Cell Site Access Gateway



## Chassis

### Axxius 800

Dimensions: 3.5 in (2 RU)(H) x 17.25 in (W) x 12.54 in (D)  
8.9 cm (2 RU)(H) 43.8 cm (W) 31.75 cm (D)

Weight: 30 lb (13.61 kg) fully loaded

Rack mount: 19- or 23-inch

## Platform Features

2 slots for system Controllers for 1+1 redundancy

All cards are hot-swappable

2 slots for Power Supplies for 1+1 redundancy

Integrated non-blocking 1/0 digital cross-connect

TDM transport, add/drop, drop-and-insert

Front and rear interface access

(see individual Service Cards for details)

10 user-defined alarm inputs

## Power

DC Power: -48 VDC or +24 VDC, 120 W rated input

Dual-feed power inputs located on rear panel

## Environmental

Operating temperature: -40 to 149 °F (-40 to 65 °C)

Storage temperature range: -40 to 158 °F (-40 to 70 °C)

Cooling method is by free air convection (rack mounting requires  
1/2 RU minimum above and below each unit)

Maximum operating altitude: 10,000 ft (3,048 m)

Minimum operating altitude: 197 ft (60 m) below sea level

Maximum non-operating altitude: 40,000 ft (12,192 m)

Relative humidity (non-condensing) range: 0% to 95%

## Capacities

2 Power Supplies

2 Quad DS1/E1 Controller Cards, or 2 Dual DS3 Controller Cards

2 Broadband Interface Cards (future release)

1 Control Panel Interface Card

8 Universal Service Cards

1 Low-Speed Interface Protection Card (not supported in 3.1.1)

Up to 36 T1 / E1 ports

1536 DS0 non-blocking 3/1/0 cross-connect

## Redundancy

1+1 Controllers (automatic switchover) for provisioning redundancy

1+1 Power Supplies

## Control Panel Interfaces

4 RJ-48C jacks for Quad DS1/E1 Controller

4 SMB connectors (2 TX, 2 RX) for Dual DS3 Controller

1 10/100Base-TX Ethernet RJ-45 jack

1 RS-232 DB9 female jack

1 ACO switch

Status indicators for critical, major, minor, and ACO

## Rear Chassis Interfaces

16 wire wrap pins per slot (4 DS1/E1s)

2 two-pin modular plug for dual DC power feeds

2 three-wire wrap pins for BITS clock input  
(primary and secondary)

2 six-pin modular receptacle for alarm relay outputs

3 audible alarm outputs – critical, major, minor

3 visible alarm outputs – critical, major, minor

2 ten-pin modular receptacle for user defined alarm inputs

2 stud (3/16 inch) for grounding

## Service Cards Supported

Hardened Quad-Port Terminal Server Router (TSR) Service Card

Hardened Quad-Port Terminal Server Router (TSR) with TBOS  
Service Card

Hardened Quad DS1/E1 Service Card

OctalFlex for GSM Optimization

Hardened V.35 with T.54 test capabilities

Low Speed Protection

## Management

Craft Interface – front access from RS-232 (DB9) or  
10/100Base-TX Ethernet ports

SNMP

Dedicated management DS0 for remote management access

## Regulatory Approvals

USA

UL60950, FCC Part 15 Class A, FCC Part 68  
Designed to meet NEBS Level-3 for type 2 and  
4 equipment (not certified)

Canada

CSA C22.2 No. 60950-00, ICES-003 Class A, CS-03

CE



**Force10 Networks, Inc.**

350 Holger Way

San Jose, CA 95134 USA

[www.force10networks.com](http://www.force10networks.com)

408-571-3500 PHONE

408-571-3550 FACSIMILE

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