

NEBS Certified SC 2000 Shelves for Low Density Applications

SpectraComm 2000 Shelf

The SpectraComm 2000 is a NEBS and EMI-compliant shelf that offers maximum port density in a compact 1RU (1.75" high) footprint - ideal for central offices, remote offices, and cell sites. One or two single-width SpectraComm or UAS blades can plug into the SC 2000 shelf, with integrated TIA/EIA-232F, V.35, or EIA-530 interfaces, network line, and craft connectivity provided for each capable device.

Reliable and Versatile

The SpectraComm 2000 is a low density, rack-mountable shelf designed for the space limitations of remote cabinets or Central Offices. When deployed with a SpectraComm IP router and a SpectraComm 9-port Ethernet switch, the SC 2000 shelf is certified as environmentally hardened for use in huts, CEVs, and other extreme environments.

The shelf is equipped with single or independent dual power supplies which employ +24 VDC or -48 VDC power from cell sites and central or remote offices. With dual power, the "hot-swappable" power supplies provide load sharing and redundant power and can be replaced without interrupting service or powering down the shelf.

An optional external AC "all range" Power Adapter supports 100 to 240 VAC power sources.

Features & Benefits

- Formed sheet metal housing complies with EIA 310-D standards for racks, panels, and associated equipment.

- Can be installed in standard 19-, 23-, and 26-inch racks and cabinets.
- Rack or wall mountable using provided brackets
- NEBS Certified for use in interior Telco environments (GR-63-CORE, Level III, GR-1089-CORE) and in hardened environments
- Accommodates one or two single-slot plug-in blades for wide band and narrow band applications.
- Blades can be installed or extracted without powering down the shelf (hot-swappable).
- Uses one or two low power consuming DC power supply modules (two modules provide redundant power).
- Supports optional AC "All Range" Power Adapter for employing 100 to 240 VAC power sources.
- Minimal downtime for field upgrades and repairs
- Rear panel connectors provide a signal and chassis ground connection point and alarm relay outputs.
- For each slot, the rear panel provides a DB25 connector for DTE (business) equipment, and modular connectors for network interfaces. Two modular craft ports support capable devices.
- Accepts any single-slot blade from GDC's SpectraComm and UAS families of network access products.

Figure 1: SPECTRA-COMMONALITY:

SC 2000 Shelf & Application Blades



NOTE: The SC 2000 shelf shown with SpectraComm blades installed.
GDC's SC and UAS single width network access blades are fully supported.

SC 2000 Physical Specifications

Blade Capacity:
Two slots accept up to two single-width SpectraComm or UAS network access blades.

Dimensions:
Height: 1.72 in. (43.7 mm)
Width: 19 in. (482 mm)
Depth 10.60 in. (269.2 mm)

Weight: 10 lbs. (4.5 kg.) with two blades and two power modules

Shipping weight: (add 1 lb 5 oz.)

Environmental Specifications

Non-Operating

Temperature -40 deg. to 158 deg. F (-40 deg. to 70 deg. C)
Altitude: -197 ft. to +10,000 ft. (-67 m to +3048 m)

Operating

41 deg. to 104 deg. F (5 deg. to 40 deg. C)
Relative Humidity: 5% - 95% non-condensing
Altitude: -197 ft. to +10,000 ft. (-67 m to +3048 m)
Derate by 1 deg. C/1000 ft. above sea level.

Compliance & Compatibility

Safety: UL Approved
EMI: FCC Part 15 Approved
Telco: FCC Part 68
NEBS Level III Certified
Fire Resistant Materials: UL94V0
Quality Assurance: ISO 9001: 2000 Certified

Physical Interfaces

Network Interface

Two RJ45 modular connectors (two per slot)

Internal Bus

Used for management communications when SCM blade is installed.

Business Equipment (DTE)

Two DB25 female EIA/TIA-232-E/V.24 connectors (one per slot)

Craft (Term) Port

Two RJ45 8-pin modular connectors (one per slot for capable blades)

SC 2000 Power Specifications

DPS-18 DC Power Supply Modules



DPS-18 Front Panel

Module Capacity:

Accepts one or two DPS-18 Power Modules per shelf; two modules provide redundant DC power.

DPS-18 Dimensions:

Height: 178mm (7 in.)
Width: 32 mm (1.25 in.)
Depth: 228 mm (9 in.)
Weight: 0.58 kg (1.3 lbs)

Input Power: +24, -48 VDC, or -60 nominal battery inputs

Output Power: +5VDC 2A, +12VDC 0.22A, -12VDC 0.22A

Fusing: Each power supply module has a 1.5-amp fuse.

Power Consumption: 18 Watts

Input Connection: Screws (14 AWG wire) or spring-loaded terminal block (12 to 16 AWG wire)

AC Power Adapter

Adapter Capacity:

Accepts one or two AC Adapters per shelf.

One AC Adapter provides non-redundant DC power to the shelf; two AC Adapters provide redundant or fully redundant DC power.

Input Power: 100 to 240 VAC, 50/60 Hz at 1A

Output Power: 24VDC, 1.7A

Input Connection: 3-prong IEC Type

Station Battery

Uses -48 VDC power from Telco source. Not for use with AC Adapters.

Input Connection: Screws (16 to 20 AWG wire)

Redundant Power Solutions

A second power supply module can be added to the SC 2000 shelf at any time to achieve power redundancy.

Optional DC Entry Module supports redundant power entry feeds to the DPS-18 power supplies.

