General DataComm
The Best Connections in the Business

SpectraComm SHELVES

NEBS Certified SC 5000 Shelves for High Density Applications

SpectraComm 5000 Shelf

SpectraComm 5000 shelves are the high density rackmount solution for service provider and enterprise environments, deploying up to 16 SpectraComm or UAS blades in each 4RU (7" high) NEBS and EMI-compliant shelf. Blades plug into network interface, DTE and management bus connectors at the shelf backplane to support DSX-1, V.35, EIA-530, V.24, EIA/TIA-232, BNC, and HSSI interfaces for a total connectivity solution, with integral network management built in. This "SpectraCommonality" ensures that service interfaces, transmission product types and speeds, and business equipment connections meet your networking requirements.

SC 5000 shelves are AC- or DC-powered, with dedicated slots for one or two plug-in power supply modules. One supply supports a fully populated shelf of up to 16 blades. For critical, "always on" applications, a second supply provides load sharing and redundant power.

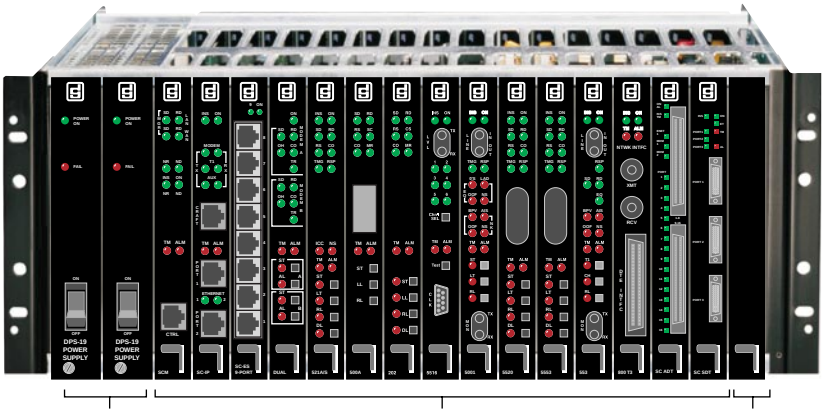
Reliable & Versatile

The SC 5000 high density shelf is certified complaint to the Bellcore NEBS Level III standard in North America. The modular backplane consists of a network interface for analog or digital service connectivity (Zone 1), a bus interface for power distribution and transport of diagnostic and control signals (Zone 2), and a DTE interface for V.24/EIA/TIA-232-E or V.35 connectivity to terminal devices (Zone 3). Twelve models of the SC 5000 shelf provide a complete offering of backplane configurations and power solutions.

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.
- NEBS Certified for use in interior Telco environments (GR-63-CORE, Level III, GR-1089-CORE)
- Accommodates up to 16 front-loading plug-in blades, with two dedicated slots for power supply modules.
- Accepts any single or multi-slot device from GDC's SpectraComm or UAS blades.
- Blades can be installed or extracted without powering down the shelf (hot-swappable).
- Plug-in AC power supply modules available are 100/117 VAC (47-63 Hz) or 220/240 VAC (47-63 Hz).
- Plug-in DC power supply modules available are: -48 and -60 VDC (station battery designed to meet Conducted Emissions requirements in Bellcore 1089).
- Can be configured as a dual shelf (up to 32 blades).
- Removable backplane panels provide modular or mass term connectors for network and terminal equipment.
- Supports optional SpectraComm Manager (SCM), the shelf's SNMP proxy agent.
- Supports optional Alarm Card.

Figure 1: SPECTRA-COMMONALITY:
SC 5000 Shelf & Application Blades



NOTE: The SC 5000 shelf shown with SpectraComm blades installed.
GDC's SC and UAS network access blades are fully supported.

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SC 5000 Physical Specifications

Blade Capacity:
16 slots accept up to 16 single or multi-width SpectraComm or UAS network access blades.

Dimensions:
Height: 7 inches (178 mm)
Width: 19 inches (483 mm)
Depth: 12 inches (305 mm)

Weight:
18 lb (8.2 kg) empty shelf
19.3 lb (8.8 kg) with one GPS-11 Power Supply
20.6 lb (9.3 kg) with two GPS-11 Power Supplies

Shipping weight: (add 1 lb 5 oz.)

Environmental Specifications

Non-Operating

Temperature -40 deg. to 185 deg. F (-40 deg. to 85 deg. C)
Altitude: 0 ft. to 40,000 ft. (0 m to 12,191 m)

Operating

32 deg. to 122 deg. F (0 deg. to 50 deg. C)
Relative Humidity: 5% - 95% non-condensing
Altitude: 0 ft. to 10,000 ft. (0 m to 3,047 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 (Zone 1)

Modular shelves (Models 1, 2, 3, and 10):
Two 8-slot dual RJ45 connector panels (32 modular jacks, two per slot)

Mass Termination shelves (Models 4, 5, 6, 11)
16-slot 50-pin/wirewrap connector panel (6 Amphenol connectors)

Mass Termination shelves (Models 7, 8, 9, 12)
16-slot 50-pin/Universal connector panel (4 Amphenol connectors)

Internal Bus (Zone 2)

50-pin power bus (signal, ground, management and power distribution to and from plug-in blades)

Business Equipment (DTE) (Zone 3)

Sixteen DB25 female EIA/TIA-232-E/V.24 connectors; optional V.35 connectors (one per slot)

SC 5000 Power Specifications

Power (AC or DC), voltage, frequency, and fusing determined by the SC 5000 shelf model and the installed power supply modules.

Power Consumption

7.6 Watts (one GPS-11/GPS-11E Module)
10.0 Watts (two GPS-11/GPS-11E Modules)

Heat Dissipation

25.94 BTU/Hr (one GPS-11/GPS-11E module)
34.13 BTU/Hr (two GPS-11/GPS-11E modules)

Power Supply Modules

Module Capacity (GPS-11, GPS-11E, DPS-19):
Two slots accept one or two of each model power supply module; two modules provide redundant DC power, up to four modules for dual shelf.

Dimensions (GPS-11, GPS-11E, DPS-19:
Height: 178mm (7 in.)
Width: 32 mm (1.25 in.)
Depth: 247 mm (9.75 in.)
Weight: 0.68 kg (1.5 lbs)

GPS-11 AC (North America) Module

Input Power:
90 to 129 VAC (100 to 120 nom.), 50/60 Hz

Output Power:
+5V 16A max, +12V 1.67A, -12V 1.67A

Total Power: 96W max.
Load Number: 16.0 max.

Input Connection: 3-prong IEC Type

GPS-11E AC (International) Module

Input power:
175 to 264 VAC, (220 to 240 nom.) 50/60 Hz

Output Power:
+5V 16A, +12V 1.67A, -12V 1.67A

Total Power: 96W max.
Load Number: 16.0 max.

Input Connection: 3-prong IEC Type

DPS-19 DC Power Module

Input Power: 42 to -70 VDC, (-48 VDC nom.), -42 to -56 VDC, 3A DC max. input current

Output Power:
+5V 16A, +12V 3.33A, -12V 3.33A

Total Power: 96W max.
Load Number is 16.0 max

Input Connection:
Screws (14 AWG wire) or spring-loaded terminal block (12 AWG wire, max.)

Redundant Power Solutions

Models 10, 11, and 12 include redundant power. A second power supply module can be added to any model of the SC 5000 shelf to achieve power redundancy.

Optional DC Entry Module supports redundant power entry feeds to the DPS-19 power supplies.

Shown: DPS-19 Front Panel

USDA RUS Accepted

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