

## Extending Existing Infrastructure

### Highlights

- Compatible with AC or DC DataComm shelves.
- Puts empty DataComm slots into service with the latest network access products from GDC.
- Accepts a wide variety of GDC's Telco-tough SpectraComm products.
- All compatible GDC product cards are hot-swappable into an installed Blade Adapter.
- Customers can retain their DataComm cabling scheme or employ SpectraComm cabling.
- Cost-effective, simplified sparing for more flexible inventories.
- Seamless transition to newest SpectraComm and Innovx platforms.

### Overview

GDC customers with thousands of legacy DataComm shelves installed in their networks can utilize empty slots for GDC's newest products without having to invest in additional shelves. The new DataComm Blade Adapter plugs into any two adjacent DataComm slots effortlessly without tools. Shelf backplanes are made fully compatible with card edge connectors which can be cabled up using either existing DataComm cable schemes or SpectraComm cables and adapters.

### Scalable and Flexible Connectivity

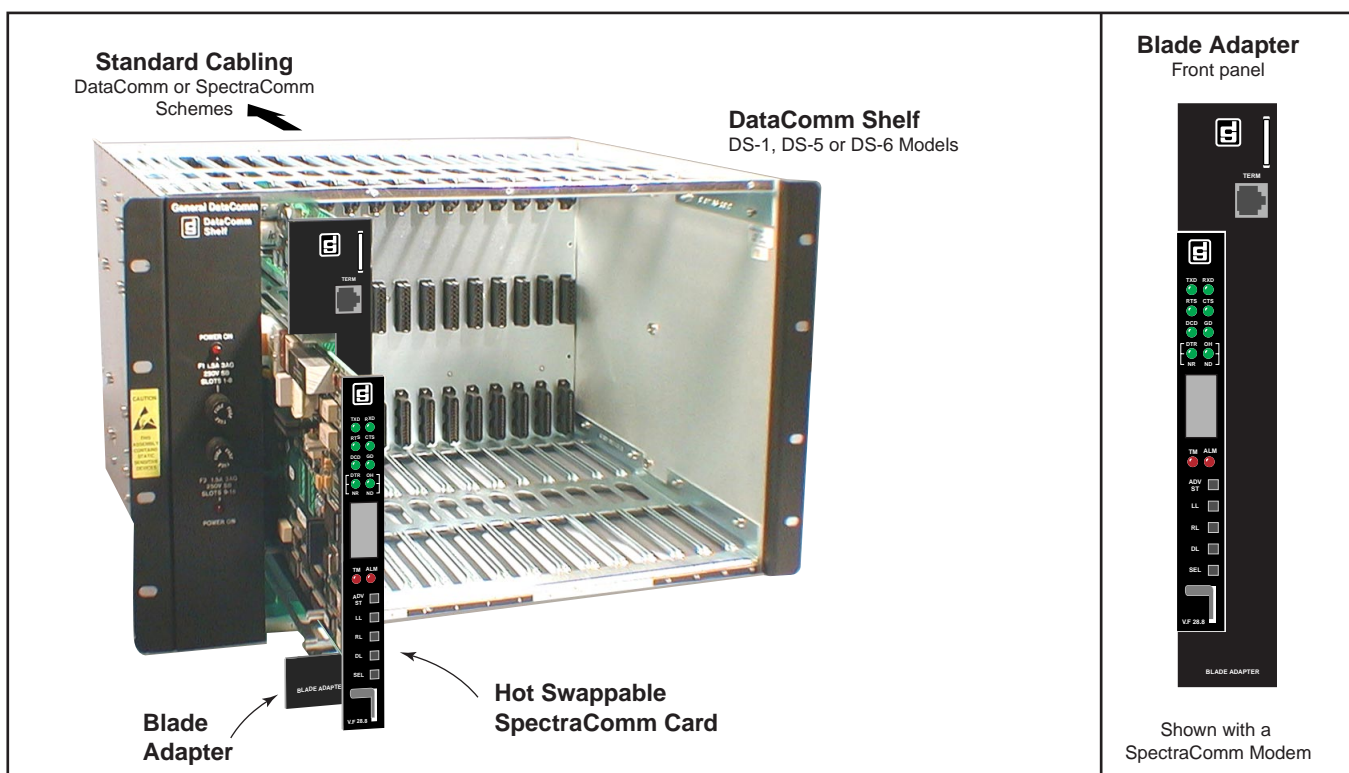
The DataComm Adapter is compatible with line-by-line single blade devices in GDC's flagship SpectraComm Carrier family of products. SpectraComm products are 7-inch by 9.5-inch (178 mm by 241 mm) printed circuit cards that conform to GDC's SpectraComm format.

With the Blade Adapter, existing DataComm shelves can now support these devices which offer an expanded range of applications that include; DDS, FT1, T1, T3, DSL, IP/Ethernet along with modems.

### Expanded Application Support

The DataComm Blade Adapter provides GDC customers with new networking options that move beyond the legacy DataComm products designed for the DataComm series shelves. Compatible SpectraComm products are direct replacements with all the features of the older DataComm series.

In addition, customers can install GDC's new line of IP Routers, Ethernet switches and asynchronous and synchronous serial data-to-Ethernet adapters. Future releases of line-by-line single blade products will be supported in both SpectraComm and DataComm shelves alike. As customers use up their open slots they can transition over to the newer SpectraComm platform and not be concerned with compatibility or sparing.



## A Case Study

### Case Study

A network administrator of a large DataComm network needs to put more DDS circuits into service to provision their growing customer base. However, the module of interest, the DataComm 500F/AXR DSU (P/N 048P062-001) is a mature technology that has been replaced by a SpectraComm device.

In this situation, the manager can use a SpectraComm 500A DSU and Blade Adapter unit in the DC shelf to achieve the following solutions and benefits:

- The SpectraComm 500A and Blade Adapter unit can be installed in any two adjacent empty slots of an existing DataComm DS-1, DS-5 or DS-6 rackmount chassis.
- For new standalone applications, the SC 500A can be deployed without the Blade Adapter in SpectraComm enclosures, with seamless compatibility and sparing.
- The SC 500A DSU and Blade Adapter can employ the existing DataComm cabling in a slot wired for DDS termination with the addition of a DTE cable adapter.
- Alternately, the SpectraComm cabling scheme can be used with the addition of a VF cable adapter.
- SpectraComm 500A DSUs are fully interoperable with the legacy DataComm DSUs.
- Like the legacy DataComm DSUs, the SpectraComm 500A supports the same plug-in option cards (Data Rate Adapter card or EIA-530 interface card).
- New DDS circuits can be rapidly deployed to satisfy customer demand.

**Note:** This case study illustrates a typical scenario for most legacy devices and their SpectraComm replacements.

### Technical Considerations

The SpectraComm card and Blade Adapter unit occupies two adjacent slots in the DS-1, DS-2 or DS-6 shelf. As shown in the figure below, the DTE and VF interface cables are attached at the rear of the DC shelf using the connectors of the left-hand slot (looking from the rear). With the SC cabling scheme, a VF cable adapter is required; with the DC cabling scheme, a DTE cable adapter is required.

The Blade Adapter does not interfere with any option cards or adapters used in the DSU's application, such as option switches, jumpers or option plug-in cards. Configure DSU options as usual to suit your network application, as described in that product's installation manual.

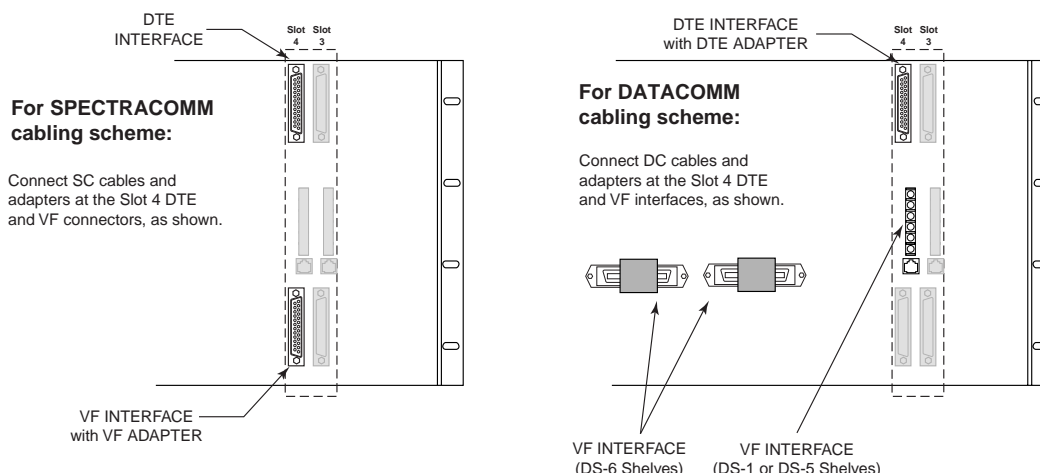
The Blade Adapter itself has two option jumpers:

- The X1 option jumper is used to connect signal ground to frame ground.
- The X2 option jumper selects switched network (SN) or private line (PL) connections to the DataComm back-plane when the DataComm cabling scheme is in use. (X2 is only in effect with a DataComm cabling scheme.)

### Summary

The DataComm Blade Adapter easily transitions a customer's existing DataComm slot inventory to today's SpectraComm technologies. In large established networks, thousands of DataComm shelves can be added to the revenue stream when populated with GDC's rich offering of SpectraComm CSU/DSUs, modems, Ethernet switches, IP routers, multiplexers, and transport cards via the Blade Adapter. (See the Compatible Devices table in this document for a complete list of supported product cards.)

**Example: BLADE ADAPTER with SC 500A  
shown in DataComm slots 3/4 (rear view)**



*For more information on adding a specific SpectraComm device to your DataComm shelf environment, refer to the GDC Blade Adapter Installation & Operation Manual (GDC P/N 010R115-000) or contact your GDC representative.*

# Blade Adapter

## Compatible Devices

Type	GDC P/N	Device	SpectraComm Card P/N	Documentation
DataComm	010M180-001	Blade Adapter Only		010R115-000
SpectraComm Devices	010M180-002	Blade Adapter with SC 202 Modem	053P006-001	073R150-000
	010M180-003	Blade Adapter with SC V.F28.8 (Dial Only)	060P012-001	060R112-000
	010M180-004	Blade Adapter with SC V.F28.8 4-Port Modem	060M012-511	060R112-000
	010M180-005	Blade Adapter with SC Dual Modem	060P027-002	060R122-000
	010M180-006	Blade Adapter with SC 521A DSU	076P028-001	076R152-000
	010M180-007	Blade Adapter with SC 553 T1 DSU	076P016-001	076R155-000
	010M180-008	Blade Adapter with SC 800 T3 DSU	076P015-001	076R160-000
	010M180-009	Blade Adapter with SC-IP T1 Router	076P032-001	076R200-000
	010M180-010	Blade Adapter with SC-IP E1 Router	076P032-002	076R201-000
	010M180-011	Blade Adapter with SC-ES 9-Port Ethernet Switch	076P033-002	076R204-000
	010M180-012	Blade Adapter with SC-ADT16-port Async Transport	076P046-001	076R172-000
	010M180-013	Blade Adapter with SC-SDT Sync Transport	076P048-001	076R174-000
	010M180-014	Blade Adapter with SC 500A DSU	048P050-011	048R302-000
	010M180-015	Blade Adapter with SC V.F ADR	060M012-001	060R112-000
	010M180-016	Blade Adapter with SC-IP DSL Router (4-wire)	076P034-001	076R202-000
	010M180-017	Blade Adapter with SC-IP DSL Router (2-wire)	076P034-002	076R202-000
	010M180-018	Blade Adapter with SC-MR1 Mini Router	076P032-021	076R206-000
	010M180-019	Blade Adapter with SC-ADT 8-port Async Transport	076P046-003	076R172-000
010M180-111	Blade Adapter with SC-IP DSL.bis Router (4-wire)	076P034-011	076R203-000	

**NOTE:** The table above lists only the standard model of each compatible SpectraComm product card. The Blade Adapter also supports other single-slot models of these devices that provide additional features, such as interface plug-in boards, integral modems, etc. Refer to the appropriate product manual for feature details and for the associated SC card part number.

