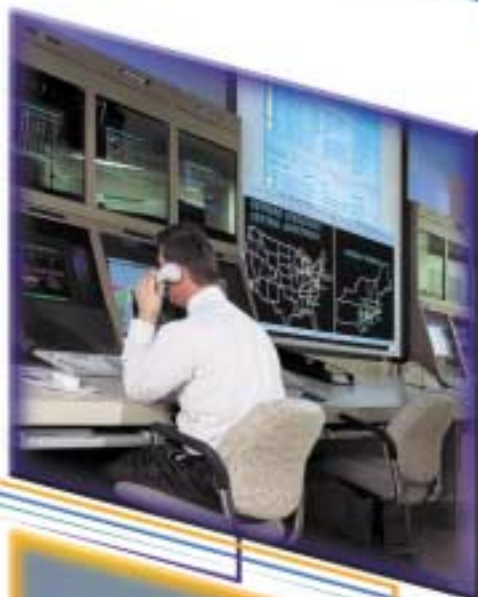


Connections



Network Access Products Buyer's Guide



General DataComm

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GDC Delivers Carrier-Class Network Access Solutions

- **Integrated Access Devices to Consolidate Bandwidth Requirements**
- **Modems/CSUs/DSUs for High Speed Remote Access**
- **Frame Relay Probes for Service Level Verification**
- **Dial-in Security options including RADIUS for remote access and management**

General DataComm (GDC) is a leader in the design, development and manufacture of reliable and standards-compliant broadband access equipment for service provider, government and enterprise networks. As a global provider of wide area networking solutions and services, GDC builds, improves and supports the infrastructure that delivers high quality, secure and efficient voice, video and data services. GDC products meet worldwide regulatory and industry standards and are approved for sale in 62 countries.

NEBS Compliant universal access platforms maximize network bandwidth using technologies such as DSL, frame relay, T3, T1/E1 with high speed modems and network management in a distributed, standards-based architecture. Our products are known in the industry as “Telco Tough.” The Level 3 NEBS-compliance of our products is a key advantage, not only for GDC’s Incumbent Local Exchange Carrier customers, but also for the growing number of other entrants into the access provider market. Our comprehensive line of network products are specifically designed for any carrier central office, meeting and exceeding collocation requirements for reliability, availability and serviceability. Products that are NEBS certified are top performers in enterprise network environments as well.



Scalable, modular architecture can be deployed in any network topology to fit a wide variety of broadband, wideband and narrowband applications. The flexible design expands from just one compact enclosure at a remote site to high-density rack mounted shelves for large central site installations consolidating traffic from hundreds of remote locations.

Standards-based, distributed Network Management Architecture enables Network Operators to monitor and manage any IP-addressable network element and legacy devices with serial ports via dial-up, Internet or LAN-attached connections using protocols like Telnet, PPP and Ethernet. Supports a large number of network elements, making it particularly effective in environment with many unattended remote sites. Dial-in Security is ensured with RADIUS and GDC’s multi-level “Steadfast Security®” options.

Experience the GDC Difference

Networking Specialists building Telco Tough products
to keep your mission critical networks running.

How to Contact GDC:

Visit our web site at www.gdc.com or call us at:

United States: 1-800-523-1737 • Canada: 1-613-234-4005 • Mexico/South America: 1-203-574-1118

SpectraComm Integrated Access Products

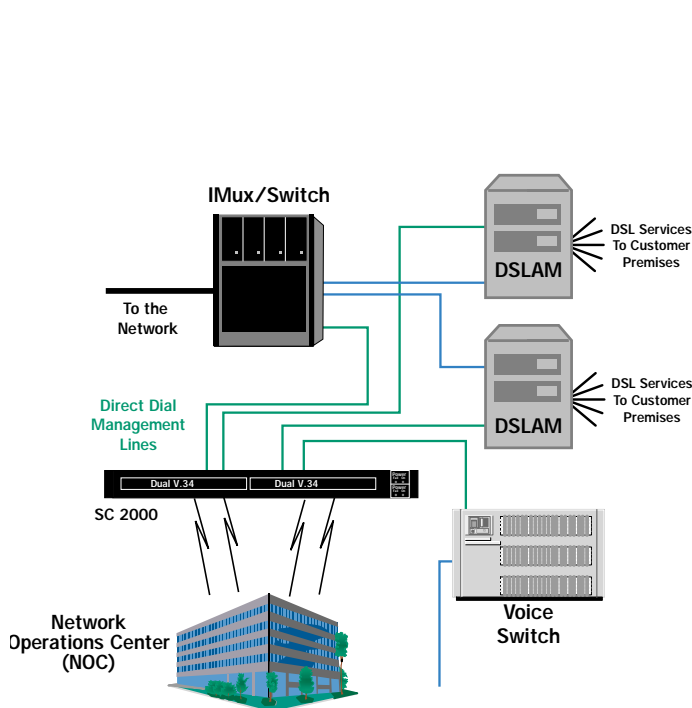
- Certified Level Three NEBS-Compliant
- Uses less space and less power than competitor's products
- Supports a wide variety of applications in one compact shelf

The GDC SpectraComm family of Modems and CSU/DSUs support a wide range of applications. These include T3 broadband services, T1/FT1 wideband services, 2.4 kbps-64 kbps DDS/GDS narrowband services, and up to 33.6 kbps switched or private line analog services. The flexible, modular design of the SpectraComm platform accommodates network growth, expanding from a compact two-slot enclosure to a high-density 32-slot dual shelf system.

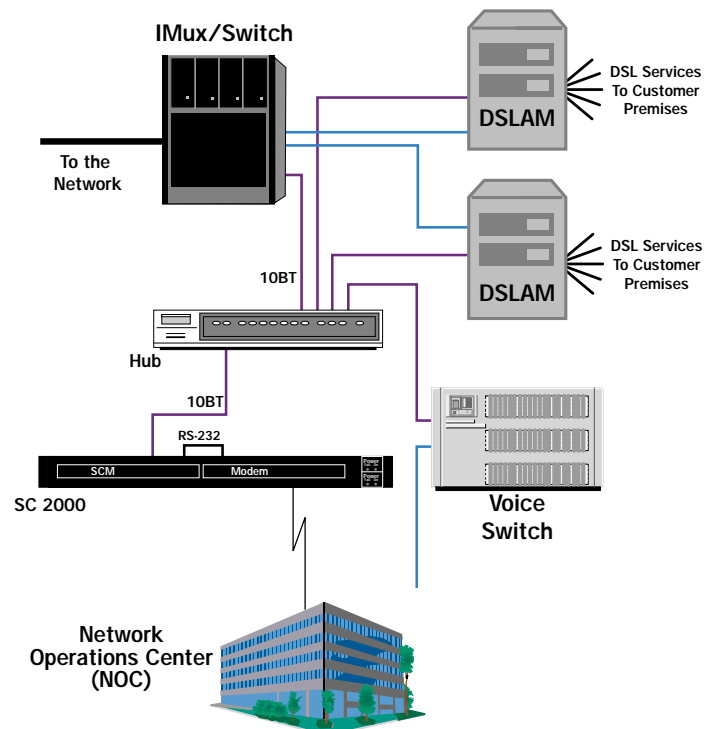
SpectraComm supports many applications including secure out-of-band network management, SS7 Signal Transport, regional site networking, consolidation of digital traffic, dial back-up, remote access, high density modem pools, and cascaded PBX, video and router traffic.

SNMP-based network management can be provided by GDC's TEAM® application suite. TEAM applications support large numbers of network elements making it particularly effective in environments with many unattended remote sites.

GDC's standards-based, distributed Network Management architecture enables Network Operators to monitor and manage any IP-addressable network elements and legacy devices with serial ports via dial-up, Internet or LAN-attached connections using protocols like SNMP, Telnet, PPP, and Ethernet and RADIUS for dial-in security. For more information on TEAM please refer to the Network Management section of this catalog.



**Out-of-Band Management:
One Serial Port Per Device**



**Out-of-Band Management:
One Port Reaches All Devices**

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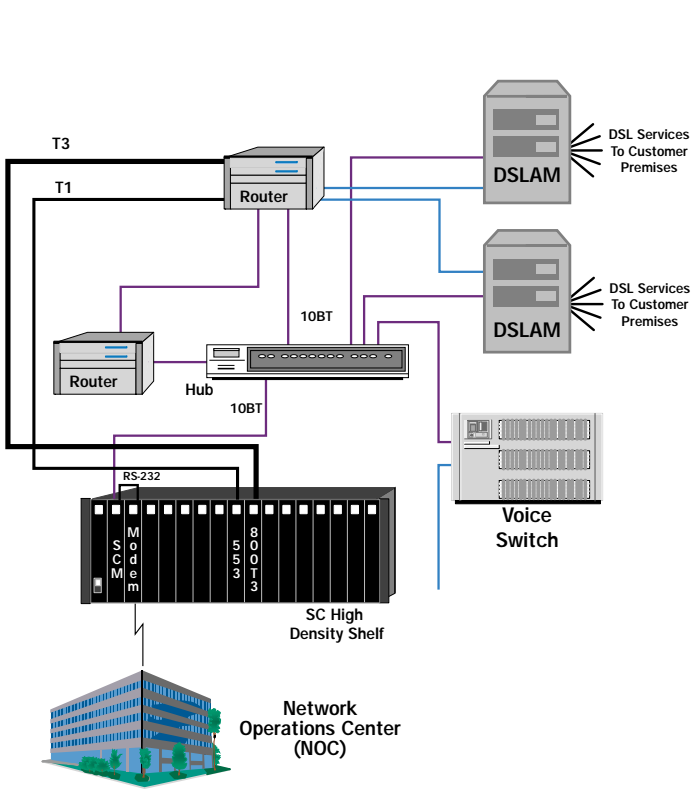
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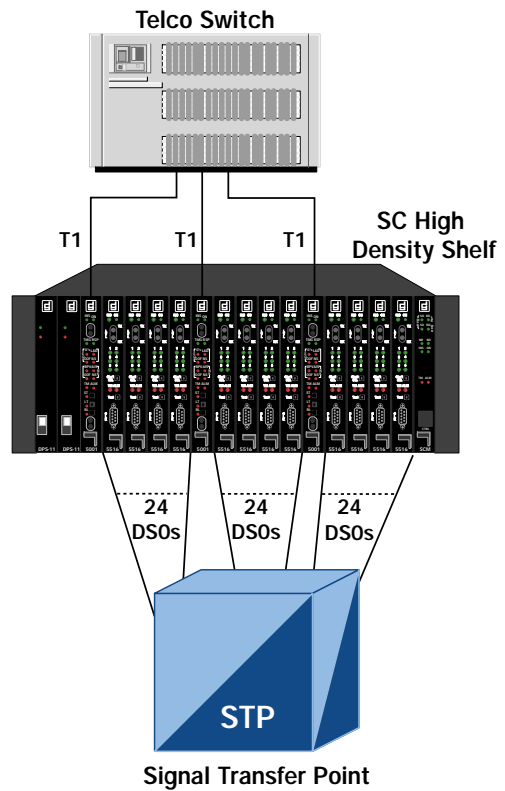
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SpectraComm Integrated Access Products

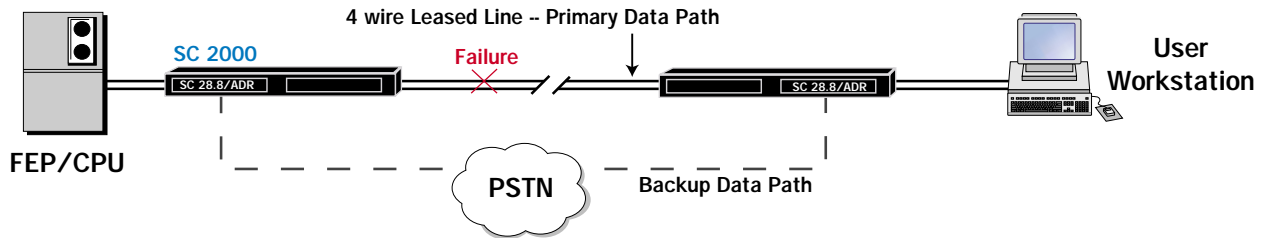


T1/T3 Backhaul Option

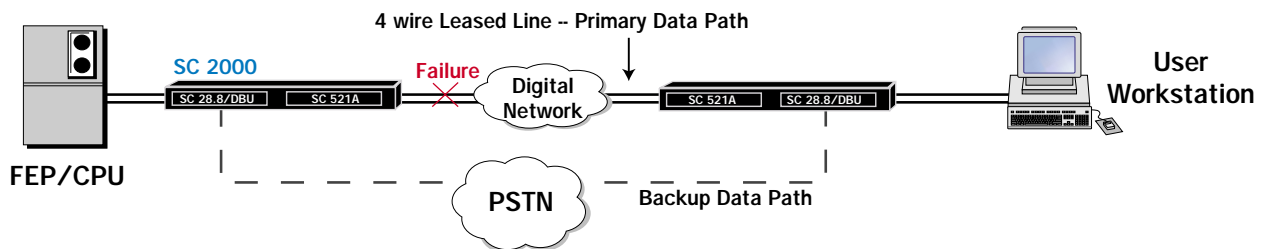


SS7 Signal Transport

Analog Dial Backup



Digital Dial Backup



Dial Backup

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SpectraComm Integrated Access Products

SpectraComm Multiservice Access Platform Integrated Access

Product/ Function	SpectraComm Manager (SCM) Telnet/SNMP Agent	SC 5001 T1 LTU, Intelligent D4/ESF CSU and DS0 Concentrator	SC 5520 DSE All Rate DDS DSU Emulator	SC 5553 DSE T1/FT1 CSU/DSU Emulator	SC 5034 DSE Digital Dual/ISDN/V.34 Modem Emulator
Remote Standalone Unit	N/A	N/A	SC 521A, All Rate®, DT 500A	DT T1, DT 554A/S, SC 553	V.34 Analog Modems ISDN TA
Service Data Rates	N/A	N x 56/64 kbps to 1.536 Mbps Where N= 1 to 24 DSOs	Synchronous 2.4, 4.8, 9.6, 19.2, 56 and 64 kbps Asynchronous 600 bps, 1.2, 1.8, 2.4, 4.8, 9.6 and 19.2 kbps	Synchronous N x 56/64 kbps Where N=1 to 24 DSOs Maximum Aggregate payload of 1.536 Mbps	Symmetric Asymmetric
Compatibility	LAN TCP/IP Ethernet	ANSI T1.403 AT&T 54016	ANSI T1.410 AT&T 62310	ANSI T1.403 AT&T 54016	Integrated T1/PRI Access
Operating Mode	N/A	T1/FT1; DS1 or DSX-1 Drop and Insert	GDS/DDS full duplex point-to-point/multi- point (point-to-point only @64 kbps) Conventional and DDS with secondary channel	T1 or Fractional T1	Switched Network and 2w/4w Private Line
User Interface	10Base2 or 10BaseT	DSX-1	V.35 or TIA/EIA-232 Optional TIA/EIA-530/422	V.35 or TIA/EIA- 530/422	TIA/EIA-232
Special Features	<ul style="list-style-type: none"> Controls up to 31 collocated network elements Provides a modem port for dial back up 	<ul style="list-style-type: none"> Useable bandwidth up to the full 1.536 Mbps T1 payload 	<ul style="list-style-type: none"> Incorporates full OCU-DP function Supports Optional Data Rate Adaption 		<ul style="list-style-type: none"> Supports both analog and digital calls Effective throughput of up to 128 kbps Dynamically adjusts operating rates to compensate for network impairments Supports MNP10 error correction Supports Caller ID when used with SC PRI card Steadfast Security®
Part Numbers	058P150-002	076P001-001	076P020-002	076P019-001	076P025-001

* Available as standalone with RA 1000 Enclosure

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SpectraComm Integrated Access Products

SpectraComm Multiservice Access Platform Integrated Access				
Product/ Function	SpectraComm PRI ISDN Call Control	SpectraComm Alarm Card	SpectraComm 5506	SpectraComm 5516
Remote Standalone Unit	N/A	N/A		
Service Data Rates	Automatic	N/A	56/64 kbps	56/64 kbps
Compatibility	ISDN PRI	N/A	AT&T Pub 62310	Bellcore TA-NPL-000458
Operating Mode	Channel 24 ISDN Signaling	N/A	Point-to-Point	Point-to-Point
User Interface			OCU-DP Intra-office	DS0-DP Intra-office
Special Features	<ul style="list-style-type: none"> Supports D-channel signaling for two T1/PRI lines connected to individual LTUs 	<ul style="list-style-type: none"> Provides contacts to activate local and remote alarm systems, indication of alarm in a system and separate cutoff controls for local and remote systems 	<ul style="list-style-type: none"> Six line Intra-office OCU-DP per board 	<ul style="list-style-type: none"> Six DS0-DP lines per card
Part Numbers	076P017-001	010M072-001	076P036-001	076P038-001

* Available as standalone with RA 1000 Enclosure

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SpectraComm Integrated Access Products

SpectraComm Multiservice Access Platform

Line-by-Line Solutions: T3DSU, T1 DSU, DDS DSUs

Product/ Function	SC 800 T3 T3 DSU	SC 553 T1 Line-by-Line DSU	SC 521A Line-by-Line All Rate DDS/GDS DSU	SC 521A with S Option	SC 500A Universal Rate Clear Channel DSU
Remote Standalone Unit	SC 800 T3*	SC 553*, DT T1, DT 554A/S	SC 521A, All Rate*, DT 500A	SC 521A, All Rate*, DT 500A	DT 500A, DT DDS All Rate*, SC 500A
Service Data Rates	44.2 Mbps T3	Nx56/64 kbps to 1.536 Mbps Where N = 1 to 24 DSOs	Synchronous 2.4, 4.8, 9.6, 19.2, 56 and 64 kbps Asynchronous 600 bps, 1.2, 1.8, 2.4, 4.8, 9.6 and 19.2 kbps	56/64 kbps 1200 to 19,200 bps subrates	Synchronous 2.4, 4.8, 9.6, 19.2, 56 and 64 kbps Asynchronous 600 bps, 1.2, 1.8, 2.4, 4.8, 9.6 and 19.2 kbps
Compatibility	ANSI T1.404 B8ZS	T1/FT1 (AMI or B8ZS)	ANSI T1.410 AT&T 62310	AT&T Pub 62310	ANSI T1.410 AT&T 62310
Operating Mode	DS3/T3	One ITU-T V.35 or TIA/EIA-530; optional Drop and Insert (DSX-1)	GDS/DDS full duplex point-to-point/multi- point (point-to-point only @64 kbps) Conventional and DDS with secondary channel	Point-to-Point	Conventional DDS: Full duplex, point-to-point/multi- point 64 kbps DDS: Full duplex, point-to-point only
User Interface	HSSI 50 Pin TIA/EIA-612/613	V.35 TIA/EIA-530/422 Optional	V.35, TIA/EIA-232 or Optional TIA/EIA-530	TIA/EIA 232 or V.35	V.35, TIA/EIA-232 or Optional TIA/EIA-530
Special Features	<ul style="list-style-type: none"> Flash Memory Supports a single HSSI DTE port 		<ul style="list-style-type: none"> Supports Optional Data Rate Adaption 	<ul style="list-style-type: none"> SC 521 with Sealing Current Option 	<ul style="list-style-type: none"> Auto line and data rate select Automatic anti-lock up for clear channel opera- tion
Part Numbers	<u>Rackmount:</u> 076P015-001 <u>Standalone:</u> 076A015-005	<u>Rackmount:</u> V.35 interface 076P016-001 DSX-1 cascade A/D interface 076M016-001 TIA/EIA-530/422 Interface 076M016-010 DSX-1 & TIA/EIA- 530/422 Interfaces 076M016-011 <u>Standalone:</u> V.35 interface 076A016-005 DSX-1 cascade A/D interface 076A016-105 TIA/EIA-530/422 Interface 076M016-010 076A016-115 DSX-1 & TIA/EIA- 530/422 Interfaces 076M016-011 076A016-125	<u>Rackmount:</u> DRA 076M018-013 TIA/EIA-232, V.35 076P018-011 TIA/EIA-530 076M018-011 <u>Standalone:</u> DRA 076A018-135 TIA/EIA-232, V.35 076A018-015 TIA/EIA-530 076A018-125	076P028-001	<u>Rackmount:</u> Standard 048P050-011 W/user equipment data rate matching 048M054-011 W/TIA/EIA-530/422 048A054-125 <u>Standalone:</u> Standard 048A050-115 W/user equipment data rate matching 048A054-115 W/TIA/EIA-530/422 048A054-125

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SpectraComm Integrated Access Products

SpectraComm Multiservice Access Platform

Modems

Product/ Function	SC V.F 28.8/33.6 Single modem	SC Dual V.34 Dual Modem	SC V.34 DBU	SC V.34 4 Port	SC 202 Single Modem
Remote Standalone Unit	DT V.F 28.8/33.6, SC V.F 28.8/33.6	DT V.F 28.8/33.6, SC V.F 28.8/33.6 Dual V.34	DT V.F 28.8/33.6, SC V.F 28.8/33.6 Dual V.34	DT V.F 28.8/33.6, SC V.F 28.8/33.6 Dual V.34	DeskTop 202 SC 202
Service Data Rates	2400 bps to 33.6 kbps (Sync) with fall back speeds V.32bis, V.32, V.22bis, V.22, V.21, Bell 212A/103 Factory option avail- able for Point of Sale Handshake	V.34 — Up to 33.6 kbps with fall back speeds V.32 bis, V.32, V.22,bis, V.22, V.21, Bell 212A/103 Factory option avail- able for Point of Sale Handshake	Async to 128 kbps Sync to 64 kbps	Fixed DTE port speed 2400 kbps to 128 kbps	Bell 202
Compatibility	Synchronous Asynchronous	Synchronous Asynchronous	V.34	V.34	Asynchronous
Operating Mode	Switched network or 2-/4-wire private line; with optional auto dial restoral (ADR in V.34, V.32bis and V.32 only)	Switched network or 2-wire private line	Point-to-Point	Secure Point-to-Point	2/4-wire Private line Point-to-point or Multipoint
User Interface	TIA/EIA-232 or Optional V.35 or TIA/EIA-530	TIA/EIA-232	TIA/EIA-232 Only	TIA/EIA-561 Only	TIA/EIA-232
Special Features	<ul style="list-style-type: none"> Up to 128 kbps throughput RADIUS Security Steadfast Security® Flash Memory 	<ul style="list-style-type: none"> Up to 128 kbps throughput RADIUS Security Steadfast Security® Flash Memory 	<ul style="list-style-type: none"> Dial Back up for data sets with TIA/EIA 232 interfaces 	<ul style="list-style-type: none"> Password switched between output port 1-4 	<ul style="list-style-type: none"> Optional SNMP Management Up to 1800 bps Asynchronous Simple optional selection without complicated programming
Part Numbers	<u>Rackmount:</u> Standard 060P012-001 With Private Line ADR 060M012-001 <u>Standalone</u> Standard 060A012-015 With Private Line ADR 060A012-005	<u>Rackmount:</u> 060P027-001+Option Code <u>Standalone:</u> 060A027-105 + Option Code	<u>Rackmount:</u> 060M012-411 <u>Standalone:</u> 060A012-415	<u>Rackmount:</u> 060M012-511 <u>Standalone:</u> 060A012-515	<u>Rackmount:</u> 053P006-001 <u>Standalone:</u> 053A006-005

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Access Multiplexer

Metroplex® 6000 Access Multiplexer

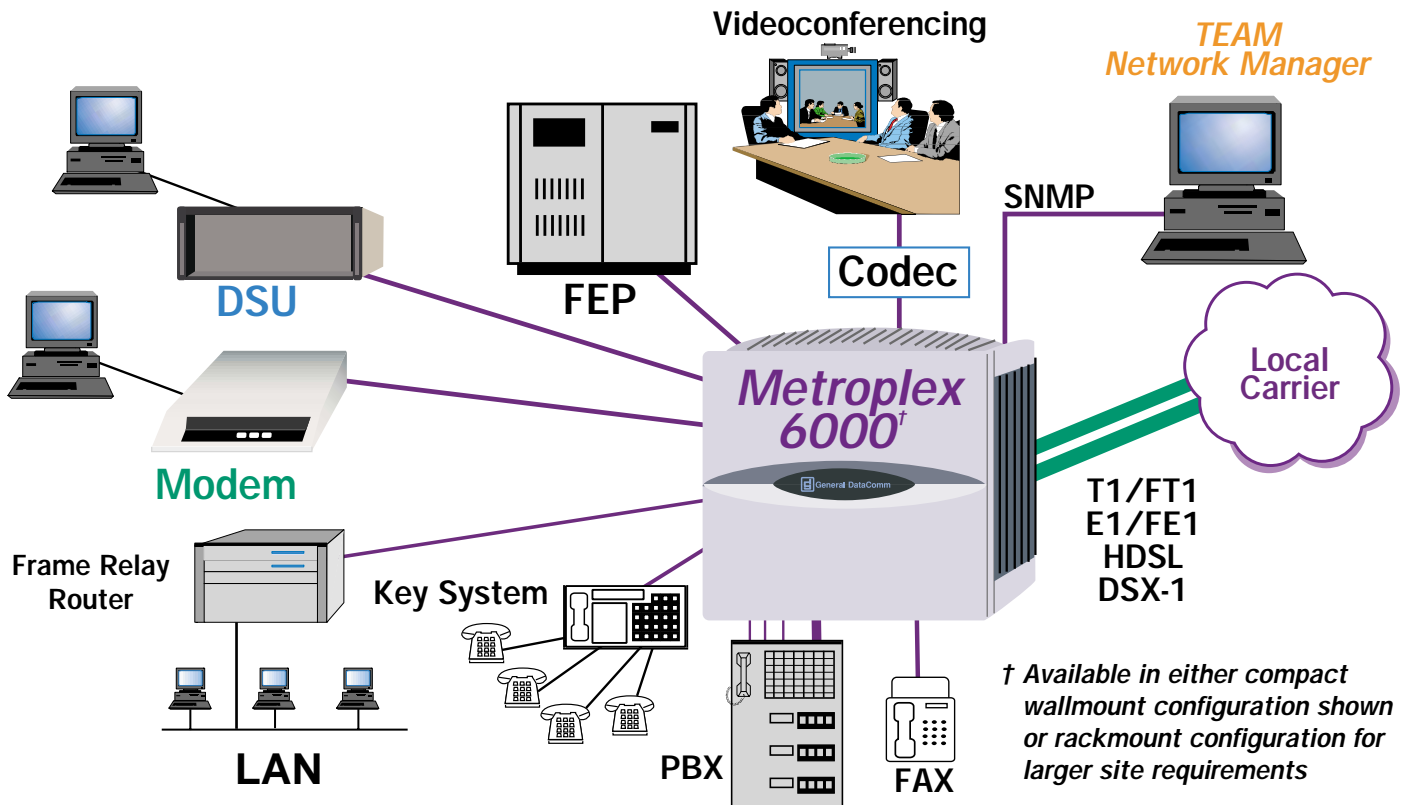
GDC's Metroplex® 6000 is an intelligent access multiplexer designed for highly cost-effective termination of both T1 and HDSL. It provides high channel density access to wide-band services. Data and voice traffic can be integrated and valuable T1 bandwidth can be shared by combining data with PBX applications via a true "drop and insert" capability.



Metroplex supports a variety of voice and data channel interfaces. It can be managed via local craft port, Telnet or GDC's SNMP-based TEAM® application suite. (For more information on TEAM please refer to the Network Management section of this catalog.)

Some applications for the versatile Metroplex 6000 are:

- Single-ended public network access multiplexing at the branch office level for corporate environments
- Service provider termination of voice and data using T1 at the shared tenant facility or customer premises.
- Point to point T1 multiplexing over private facilities with the added benefit of consolidated voice and data.



Integrated Access to Public or Private Networks on the Customer Premises

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Access Multiplexer

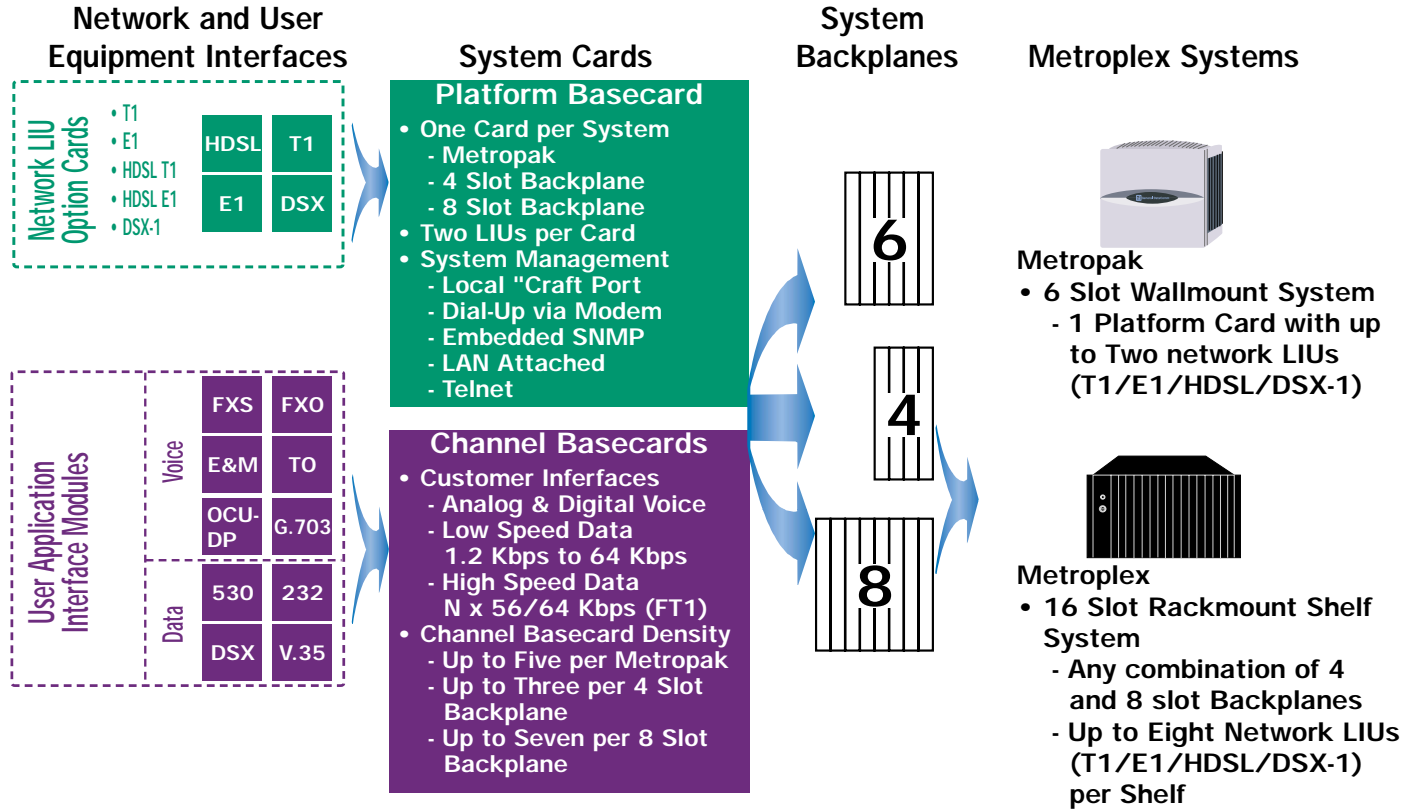
Metroplex® Access Multiplexer			
Application	Base Card	Interface Capacity	Interface Type
Integrated Network Access	Platform Basecard	Up to 2	Up to two T1 CSU LIUs for interfaces at 1.544 Mbps; Up to two E1 LIUs for interfaces at 2.048 Mbps or HDSL LIUs
Voice and Wireline Channel	Flexi-voiceplus FXS Octet	Up to 6 Up to 8	FXS*, FXO*, 4-wire E&M; 4-wire OCU-DP, G.703 or TO (via dual Interface cards) FXS only; no interference cards required
Data Channel	Flexi-data Frac-data	Up to 4 Up to 2	9.6, 56, 64 kbps; V.35, TIA/EIA-530, TIA/EIA-232-E T1/E1 Nx56/64 kbps "super-rate" channels from 56 kbps to 1.536 Mbps; DSX-1 or E1 cascade interface
SNMP Management	Platform Basecard		PPP/SNMP and Telnet Management with SNMP agent LAN card for 10BaseT

*FXS, FXO for T1 public voice

SYSTEM COMPONENTS

Enclosure — Metropak or Universal System Shelf		Voice Basecards and Option Cards	
Description	Part Number	Description	Part Number
Metropak Wall-mount w/Power	010B208-001	MP 6360 Flexi-voiceplus Basecard	086P040-001
Wallmount Enclosure Rackmount Kit	010K390-001	MP 6380 FXS Octet Basecard	086P041-001
USS-1-D 120 VAC (North American)	010B080-001	MP 6360 Dual FXS/OB Interface Card	086P050-001
USS-1-E 220 VAC (International)	010B080-002	MP 6360 Dual FXO/TB Interface Card	086P051-001
USS-1-J 100 VAC (International)	010B080-003	MP 6360 Dual 4-wire E&M Interface Card	086P052-001
USS-1-U 240 VAC (International)	010B080-004	MP 6360 Dual 4-wire TO Interface Card	086P053-011
USS-2-DC/NR -48 VDC (Telco, Non-redundant)	010M080-001	MP 6360 Dual OCU/DP Interface Card	086P054-001
USS-2-DC/R -48 VDC (Telco, Redundant)	010M080-002	MP 6360 Dual G.703 Interface Module	086P055-001
Metroplex MP-4/BP (4-slot backplane for USS)	010B223-001	Data Basecards	
Metroplex MP-8/BP (8 slot backplane for USS)	010M083-001	Description	Part Number
Cable Tray Assembly for 19 or 23-inch Racks	010B224-001	MP 6441 Flexi-data Basecard DDS and Subrate DDS	086P072-001
Platform Basecard		MP 6520 Frac-data Basecard (N x 56/64 kbps)	086P075-001
Description	Part Number	MP 6521 Universal Fractional T1/E1 Basecard	086P078-001
MP 6001 Platform Basecard with T1 CSU (accepts 1 additional T1 CSU or DSX-1 LIU)	086P020-001	Single 422/V.11 Interface Module	086P080-001
MP 6001 Platform Basecard only (no built-in network interfaces)	086P020-002	Single V.35 Interface Module	086P082-001
MP 6001 SNMP Platform Basecard with T1 CSU (accepts 1 additional T1 CSU or DSX-1 LIU)	086P020-003	Single TIA/EIA-232 Interface Module, Sync/Async	086P082-002
MP 6001 SNMP Platform Basecard only (no built-in network interfaces)	086P020-004	DSX-1 Interface for MP 6520 or MP 6521 Basecards	086P085-001
MP 6201 T1 CSU Line Interface Unit	086P021-001	Fractional E1 Interface Module	086P086-001
MP 6201 DSX-1 Line Interface Unit	086P022-001	Bundle of 12 TIA/EIA-232 Interface Module	086K081-001
MP 6201 E1 Line Interface Unit	086P023-001	Spares and Options	
MP 6201 E1 HDSL Line Interface Unit	086P024-001	Description	Part Number
MP 6201 T1 HDSL Line Interface Unit	086P024-002	Blank Filler Panel	010C023-003
Ethernet LAN Interface Module	086P026-001	Redundant AC Power Supply for Metropak	010K393-001

Access Multiplexer



Flexible Modular System Architecture

Space Saver Systems		
Model Name	Description	Part Number
Metroplex S/S 24FXS	T1 Integrated Access Multiplexer/Channel Bank with 24 FXS Voice ports. Includes cables and manuals. Can be up-graded to support two T1s supporting up to 48 DS0s of mixed voice and data.	086A001-001
Metroplex S/S SNMP 24FXS	SNMP managed T1 Integrated Access Multiplexer/Channel Bank with 24 FXS voice ports. Includes cables and manuals. Can be up-graded to support two T1s supporting up to 48 DS0s of mixed voice and data	086A001-002
Metroplex S/S V.35 16FXS	T1 Integrated Access Multiplexer/Channel Bank with 16 FXS voice ports and one high-speed T1/FT1 V.35 serial data port. Includes cables and manuals. Can be upgraded to support two T1s supporting up to 48 DS0s of mixed voice and data.	086A001-003
Metroplex S/S SNMP V.35 16FXS	SNMP managed T1 Integrated Access Multiplexer/Channel Bank with 16 FXS voice ports and one high-speed T1/FT1 V.35 Serial Data port. Includes cables and manuals. Can be up-graded to support two T1s supporting up to 48 DS0s of mixed voice and data.	086A001-004
Metroplex S/S 6FXO	T1 Integrated Access Multiplexer/Channel Bank with 6 FXO voice ports. Includes cables and manuals. Can be upgraded to support two T1s supporting up to 48 DS0s of mixed voice and data	086A001-005
Metroplex S/S SNMP 6FXO	SNMP managed T1 Integrated Access Multiplexer/Channel Bank with 6 FXO voice ports. Includes cables and manuals. Can be up-graded to support two T1s supporting up to 48 DS0s of mixed voice and data.	086A001-006
Metroplex S/S SNMP Dual V.35	High-Speed Data Starter System. SNMP managed, T1 Integrated Access Multiplexer/Channel Bank High-Speed Data Starter System. Includes one T1 network interface and two high-speed T1/FT1 V.35 serial data ports, cables, and manuals. Can be up-graded to support two T1s supporting up to 48 DS0s of mixed voice and data.	086A001-007

Step 1- Select the Type of Transport Service

Step 2- Select the Maximum Line Speed required to support your application

Step 3- Product Choices

T3	Data Rate	Product Name	Format	Sync	Craft Port	SNMP	LAN Intrf.	HSSI	TIA/EIA 530	DSX-1	Flash	DRA	FR	Probe	
	44.2 Mbps T3	SC 800 T3 supports a single HSSI DTE port, SNMP managed	S/R	■	■	■			■						
T1 & FT1	Data Rate	Product Name	Format	Sync	Console Port	SNMP	LAN Intrf.	ITU-V.35	TIA/EIA 530	DSX-1	Flash		FR	Probe	
	56K - 1.544 Mbps	DeskTop T1 Low Cost, Single Port	S	■	■										
	56K - 1.544 Mbps	DeskTop 554A Single Port	S	■	■				0						
	56K - 1.544 Mbps	DeskTop 554S Low Cost SNMP, Single Port	S	■	■	■	I/P		0						
	56K - 1.536 Mbps	innovx 553	S	■	■							■		■ ■	
	DDS 56/64 to 1.536 Mbps	innovx IDSU (MSP)	S	■	■							■		■ ■	
	56K - 1.544 Mbps	SpectraComm 553	S/R	■	■	■	P/E via SCM		0	0		■			
	Data Rate (Kbps)	Multi-point	Product Name	Format	Sync	Async	SNMP	LAN Intrf.	ITU-V.35	TIA/EIA 530	RS-232	Flash	DRA	FR	Probe
	56	■	DeskTop 56 Low Cost DSU	S	■										
56/64	■	DeskTop 56/64	S	■											
1.2-64	■	DeskTop 500A And All Rate DSU	S	■	■				0	■		0			
56/64		innovx IDSU (MSP)	S	■	■							■		■ ■	
1.2-64	■	SpectraComm 521A	S/R	■	■	■	P/E via SCM		0	■	■	0			

■ = Standard 0 = Optional S = Standalone R = Rackmount I = SLIP P = PPP E = Ethernet
 FR = Frame Relay DRA = Data Rate Adaptation NOTE: Telnet is a standard feature on SNMP managed units

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CSU/DSUs					
Product Name	Description	Shelf Type	Cables Included	General Specifications	Part Number
T3					
SC 800T3	T3 DSU	S/A or R/M	Network Cable, Craft Access, Power and Adapter	44.2 Mbps T3; ANSI T1.404 B8ZS; HSSI 50 Pin TIA/EIA-612/613 Interface. Flash Memory.	Rackmount: 076P015-001
T1 & FT1					
DeskTop T1	Low Cost T1/Fractional T1 Single Port CSU/DSU	S/A Only	Network Cable RJ45 to RJ45 for Standalone Only	D4, AT&T 54016 & ANSI T1-403 ESF Framing, AMI or B8ZS Line Codes Supports all Nx56/64K rates, V.35 DTE interface included. Also available in 50 unit packages	Single Unit: 048A102-005 50 Pak: 048A102-500
DeskTop 554A	T1/Fractional T1 Single Port CSU/DSU	S/A Only	Network Cable RJ45 to RJ45 for Standalone Only	D4, AT&T 54016 & ANSI T1.403 ESF Framing, AMI or B8ZS Line Codes. Supports All Nx56/64K rates, V.35 DTE interface included. Optional TIA/EIA-530 DTE interface available.	048A102-001
DeskTop 554S	Low Cost SNMP Single Port T1/Fractional T1 CSU/DSU	S/A Only	Network Cable RJ45 to RJ45 for Standalone Only	D4, AT&T 54016 & ANSI T1.403 ESF Framing, AMI or B8ZS Line Codes. SNMP Management Telnet, Slip, PPP. Flash supports 2 sets of Firmware ensuring smooth upgrades. Supports All Nx56/64K rates.	048A102-003
innovx 553	Frame Relay Probe with Integral T1/FT1 CSU/DSU	S/A Only	Power and LAN Cables	Supports up to 127 PVCs. DS1 or DSX-1 Network Interface. V.35, TIA/EIA-449, TIA/EIA-530, TIA/EIA-530A, V.28 (TIA/EIA-232), X.21 DTE Interfaces. Embedded web server and GUI. Extended Dynamic Range. Triple FLASH. LMI Spoofing.	innovx 553: 058A169-001 innovx 553Plus: 058A169-002
innovx IDSU	Multiple Service Platform with Integral 56/64 kbps DSU Upgradeable to T1/FT1 via Software	S/A Only	Power and LAN Cables	Supports up to 8 PVCs for 56/64 kbps. Upgradeable to 127 in T1/FT1 operation. Conventional DDS; DDS/SC Network Interface. V.35, TIA/EIA-449, TIA/EIA-530, TIA/EIA-530A, V.28 (TIA/EIA-232), X.21 DTE Interfaces. Embedded web server and GUI. Extended Dynamic Range. Triple FLASH. LMI Spoofing.	Basic: 058A170-001 Upgrade to FT1 <384K: 058U670-D01A Upgrade <384K to Full T1: 058U671-D01A Upgrade 56/64K DDS to Full T1: 058U672-D01A
SC 553	T1 Line-by-Line DSU	R/M and S/A	Network Cable, Craft Access, Power and Adapter	N x 56/64 kbps to 1.536 Mbits where N = 1 to 24 DS0s. T1/FT1 (AMI or B8ZS). One ITU-T V.35 or TIA/EIA-530 Interface. Optional Drop and Insert (DSX-1).	<u>V.35:</u> Rackmount – 076P016-001 Standalone – 076A016-005 <u>DSX-1 cascade A/D:</u> Rackmount – 076M016-001 Standalone – 076A016-105 <u>TIA/EIA-530/422:</u> Rackmount – 076M016-010 Standalone – 076A016-115 <u>DSX-1 & TIA/EIA-530/422:</u> Rackmount – 076M016-011 Standalone – 076A016-125

Notes: SCM = SpectraComm Manager, SC = SpectraComm, DC = DataComm, S/A = Standalone, R/M = Rackmount, P/L = Private Line
* See Page 14 for International Configuration Codes

To contact GDC, visit our web site at www.gdc.com/connections or call 1-800-523-1737

CSU/DSUs

CSU/DSUs					
Product Name	Description	Shelf Type	Cables Included	General Specifications	Part Number
DDS					
DeskTop 56	Low Cost 56K DSU	S/A Only	Network Cable RJ45 to RJ45 for Standalone Only	DDS, Generic DDS, 56K meets Bell Pub 62310 and ANSI T1.410 standards. Features Extended Dynamic Range for lines with low signal levels. Also available in 50 unit packages.	Single Unit: 048A101-005 50 Pak 048A101-500
DeskTop 56/64	56/64K DSU	S/A Only	Network Cable RJ45 to RJ45 for Standalone Only	DDS, Generic DDS, 56K or 64K Clear Channel meets Bell Pub 62310 and ANSI T1.410 standards. Features Extended Dynamic Range for lines with low signal levels.	048A101-001
DeskTop 500A	All Rate® DDS DSU	S/A Only	Network Cable RJ45 to RJ45 for Standalone Only	DDS, Generic DDS, meets Bell Pub 62310 and ANSI T1.410 standards. Supports 1.2K-19.2K Async (ITU V.14) and 2.4K-64K Sync. Optional DRA available.	RS232/V.35: 048A061-001 DRA + RS232/V.35: 048A061-011 RS232: 048A061-002 DRA + RS232: 048A061-012
All Rate DSU	All Rate® DDS DSU	S/A Only	Network Cable RJ45 to RJ45 for Standalone Only	DDS, Generic DDS, meets Bell Pub 62310 and ANSI T1.410 standards. Supports 1.2K-19.2K Async (ITU V.14) and 2.4K-64K Sync. Optional DRA available.	048A061-A02
SC 521A	Line-by-Line All Rate DDS/GDS DSU	S/A or R/M	Network Cable, Craft Access, Power and Adapter	ANSI T1.410; AT&T 62310. GDS/DDS Full Duplex point-to-point/multipoint (point-to-point only @ 64 kbps). Conventional and Secondary Channel. V.35, TIA/EIA-232 or Optional TIA/EIA-530 interface. Optional Data Rate Adaption.	<u>DRA:</u> Rackmount – 076M018-013 Standalone – 076A018-135 <u>TIA/EIA-232, V.35:</u> Rackmount – 076P018-011 Standalone – 076A018-015 <u>TIA/EIA-530:</u> Rackmount – 076M018-011 Standalone – 076A018-125





Notes: SCM = SpectraComm Manager, SC = SpectraComm, DC = DataComm, S/A = Standalone, R/M = Rackmount, P/L = Private Line
* See Page 22 for International Configuration Codes

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Step 1- Select the Type of Transport Service

Step 2- Select the Maximum Line Speed required to support your application

Step 3- Product Choices

Data Rate (Kbps)	Product Name	Format	Auto Dial	Async	Sync	Compression & Error Correction	SNMP	Security	Fax	Flash Memory	Test Switches	Front Panel Display	NEBS Compliance
Private Line & Switched Network	33.6 DeskTop VF28.8 / 33.6 ADR	S	■	■	■	■		■	■	■	■	LCD	
	33.6 SpectraComm Dual V.34	R/S	■	■	■	■	0	■	■	■	■	LED	
	33.6 SpectraComm VF28.8 / 33.6 ADR	R/S	■	■	■	■	0	■	■	■	■	LCD	
	33.6 DataComm VF28.8 / 33.6 ADR	R/S	■	■	■	■		■	■	■	■	LCD	
	33.6 SpectraComm 5034	R	■	■	■	■	0	■	■	■	■	LED	
Private Line	1.8 SpectraComm 202	R/S		■			0				■	LED	P
	1.8 DeskTop 202	S		■							■	LED	
Switched Network	33.6 DeskTop VF28.8 / 33.6	S	■	■	■	■		■	■	■	■	LCD	
	33.6 SpectraComm VF28.8 / 33.6	R/S	■	■	■	■	0	■	■	■	■	LCD	

S = Standalone ■ = Standard LED = Lights P = Lab Certification Pending
 R = Rackmount 0 = Optional LCD = Alphanumeric Display

To contact GDC, visit our web site at www.gdc.com/connections or call 1-800-523-1737

Modems

Modems					At A Glance	
Product Name	Description	Shelf Type	Shelf Capacity	Cables Included	General Specifications	Part Number
Private Line and Switched Network						
DeskTop VF 28.8/33.6 ADR	Full Featured 33.6 V.34 Private Line Data/Fax Modem with Dial Restoral	S/A Only	N/A	Network Cable Rj45 to Rj45	DeskTop unit has all the same features and options as the SC VF 28.8/33.6 ADR and includes a 2 line LCD display plus a 12 button keypad for simplified option selections.	060A010-011+ Opt. Code
SC Dual V.34	Full Featured Dual port 33.6 V.34 Data/Fax Modem	S/A or R/M (Housed in SC Shelf)	16 units (32 modem ports)	Network Cables provided for S/A; Cables must be purchased separately for R/M	Dual port Dial & 2 wire P/L Modem V.34, V.32bis,V.22bis,V.22, V.21, 212A, 103 Fax Group 3 Class 1, Async/Sync Data Comp (128K data throughput)/Error Correction V.42/MNP 4/5 & 10 (Cellular), Flash memory, SNMP Management, Security.	Standalone: 060A027-105 Rackmount: 060P027-002
SC VF 28.8/33.6 ADR	Full Featured 33.6 V.34 Private Line Data/Fax Modem with Dial Restoral	S/A or R/M (Housed in SC Shelf)	16 units	Network Cables provided for S/A; Cables must be purchased separately for R/M	2/4 wire P/L with Dial Restoral V.34, V.32bis, V.22bis, V.22, V.21, 212A, 103 Fax Group 3 Class 1, Async/Sync Data Comp (128K data throughput)/Error Correction V.42/MNP 4/5, Optional V.35/TIA/EIA-530/422 Interfaces, Flash memory, SNMP Management, Security.	Standalone: 060A012-005 + Option Code Rackmount: 060P012-001+ Option Code
DC VF 28.8/33.6 ADR	Full Featured 33.6 V.34 Private Line Data/Fax Modem with Dial Restoral	S/A or R/M (Housed in DC Shelf)	16 units	Network Cables provided for S/A; Cables must be purchased separately for R/M	2/4 wire P/L with Dial Restoral V.34, V.32bis, V.22bis, V.22, V.21, 212A, 103 Fax Group 3 Class 1, Async/Sync Data Comp (128K data throughput)/Error Correction V.42/MNP 4/5, Optional V.35/TIA/EIA-530/422 Interfaces, Flash memory, Security.	Standalone 060A014-001+ Option Code Rackmount 060P014-001+ Option Code
SC 5034	Full Featured Dual port 33.6 V.34 Data/Fax Modem	Available as R/M only Housed in SC Shelf	12 units (24 modem ports per SC 5001 LTU)	All Cables must be purchased separately	Dual port Dial & 2/4 wire P/L Modem V.34, V.32bis,V.22bis,V.22, V.21, 212A, 103 Fax Group 3 Class 1, Async/Sync Data Comp (128K data throughput)/Error Correction V.42/MNP 4/5 & 10 (Cellular), Flash memory, SNMP Management, Security, SC 5001 LTU Required.	076P025-001
Private Line						
SC 202	Bell-202 Compatible 1800 bps Private Line Modem	S/A or R/M (Housed in SC Shelf)	16 units	Network Cables provided for S/A; Cables must be purchased separately for R/M	2/4 wire P/L Modem, Asynchronous, Bell 202T Compatible, TIA/EIA-232-D, SNMP Management	Standalone: 053A006-005 Rackmount: 053P006-001
DeskTop 202	Bell-202 Compatible 1800 bps Private Line Modem	S/A Only	N/A	Network Cable Rj45 to Rj45	2/4 wire P/L Modem, Asynchronous, Bell 202T Compatible, TIA/EIA-232-D, SNMP Management	053A004-001
Switched Network						
DeskTopVF 28.8/33.6	Full Featured 33.6 V.34 Data/Fax Modem	S/A Only	N/A	Network Cable Rj45 to Rj45	DeskTop unit has all the same features and options as the SpectraComm VF 28.8 / 33.6 except MNP 10. It includes a 2 line LCD display plus a 12 button keypad for simplified option selections.	060A010-011+ Option Code
SC VF 28.8/33.6	Full Featured 33.6 V.34 Data/Fax Modem	S/A or R/M (Housed in SC Shelf)	16 units	Network Cables provided for S/A; Cables must be purchased separately for R/M	Dial modem V.34, V.32bis,V.22bis,V.22, V.21, 212A,103 Fax Group 3 Class 1, Async/Sync Data Comp (128K data throughput)/Error Correction V.42/MNP 4/5 & 10 (Cellular), Optional V.35/TIA/EIA-530/422 Interfaces, Flash memory, SNMP Management, Security.	Standalone: 060A012-015 + Option Code Rackmount: 060P012-001+ Option Code

Notes: SCM = SpectraComm Manager, SC = SpectraComm, DC = DataComm, S/A = Standalone, R/M = Rackmount, P/L = Private Line
* See Page 22 for International Configuration Codes

Secure Dial-Up Access

As new modems are added to a computer or communications server on a corporate network, that network becomes more vulnerable to security breaches. Network Managers need to protect the network from unauthorized users and destructive hackers. GDC provides both standards-based and proprietary security solutions.

RADIUS Security for Legacy Applications To answer many of the Internet's security needs, a new standard of authentication was required. Remote Authentication Dial In User Service (RADIUS) brought a client-server architecture to ISPs, enabling efficient, secure authentication of dial-in users. RADIUS manages a database of users, provides authentication so that the dial-in user is allowed access, and delivers configuration information detailing the type of service to deliver to the user — such as SLIP, PPP, telnet, etc.

Just as RADIUS answered the needs of ISPs for security, network managers can use dial-in serial connections for remote management, providing contact with every device in the network. This provides the perfect way to authenticate users of legacy equipment and applications.

GDC's SpectraComm Manager (SCM), Dual V.34 and single SpectraComm V.34 modems' management support RADIUS Security. The V.34 modems prompt the user for name and password and forward this information to the

RADIUS server. The RADIUS server authenticates the user and returns a message to the modem to grant or deny access. Optionally, the RADIUS server may challenge the remote user and request additional information before granting access.

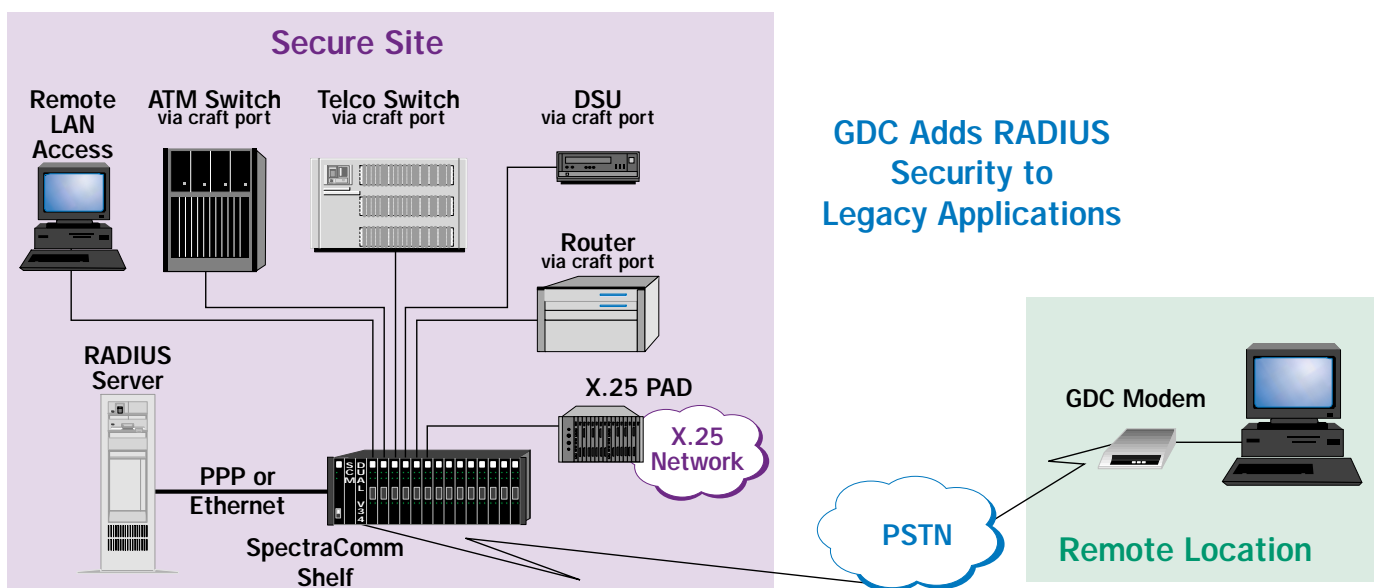
Steadfast Security®

GDC modems offer "hacker" protection through our patented SteadFast Security®. This exclusive system delivers two levels of first line security:

1. Handshake Security — In this mode, only another modem with GDC's patented Handshake Security can connect to your PC or server equipment, providing hardware verification as the first line road block to "hackers." Also excellent for use with remote control software packages and remote LAN access applications.
2. On-line Security — In this mode, any brand modem that calls your modem will be prompted with a message to "Enter Password."

With on-line security, you can assign up to 10 passwords for:

- A. PassThrough Security — When the password is accepted, the caller is connected.
- B. CallBack Security — The modem verifies the password, and calls back a previously stored number.
- C. Roving CallBack Security — The caller enters the password and a phone number to "callback."



GDC Adds RADIUS Security to Legacy Applications

The only analog V.34 NEBS-compliant modems with RADIUS Authentication for Secure Dial-In Access. Enables the addition of RADIUS security to legacy applications such as PBXs, X.25 PADs, craft ports, and FEPs for ASCII Asynchronous standards-based remote management.

International Modem Configuration Codes

Country	SC V.F 28.8 / 33.6	SC Dual V.34	DT V.F 28.8 / 33.6 (See Note 1)	Volts	Country Code
ARGENTINA	060M012B001	060P027-002	060A010B002	230	54
AUSTRALIA	060M012D001		060A012D004	240	61
AUSTRIA	060M012N001		060A010N002	230	43
BAHRAIN	060M012A001	060P027-002	060A010A002	230	973
BELGIUM	060M012H001		060A010H002	230	32
BOLIVIA	060M012B001	060P027-002	060A010B002	230	591
BRAZIL	060M012B001	060P027-002	060A010B001	115	55
CANADA	060M012-001	060P027-002	060A010-001	115	1
CHILE	060M012B001	060P027-002	060A010B002	230	56
CHINA	060M012A001		060A010A002	230	86
COLOMBIA	060M012B001	060P027-002	060A010B001	115	57
COSTA RICA	060M012B001	060P027-002	060A010B001	115	506
CYPRUS	060M012C001		060A010C004	230	357
CZECH REPUBLIC	060M012N001		060A010N002	230	42
DENMARK	060M012H001		060A010H002	230	45
ECUADOR	060M012A001	060P027-002	060A010A001	115	593
EL SALVADOR	060M012B001	060P027-002	060A010B001	115	503
EGYPT	060M012A001	060P027-002	060A010A002	230	20
FINLAND	060M012C001		060A010C002	230	358
FRANCE	060M012R001		060A010R002	230	33
GERMANY	060M012L001		060A010L002	230	49
GREECE	060M012A001		060A010A002	230	30
GUATEMALA	060M012B001	060P027-002	060A010B001	115	502
HONG KONG	060M012A001		060A010A002	230	852
HUNGARY	060M012N001		060A010N002	230	36
INDIA	060M012A001		060A010A002	230	91
INDONESIA	060M012B001		060A010B002	230	62
IRELAND	060M012U001		060A010U004	240	353
ISRAEL	060M012A001		060A010A002	230	972
ITALY	060M012J001		060A010J002	230	39
JAPAN	060M012K001		060A010K003	100	81
KUWAIT	060M012A001	060P027-002	060A010A004	230	965
LEBANON	060M012A001	060P027-002	060A010A002	230	961
LUXEMBOURG	060M012H001		060A010H002	230	352
MALAYSIA	060M012A001		060A010A004	230	60
MEXICO	060M012B001	060P027-002	060A010B001	115	52
NETHERLANDS	060M012C001		060A010C002	230	31
NEW ZEALAND	060M012G001		060A010G004	240	64
NORWAY	060M012E001		060A010E002	230	47
OMAN	060M012A001	060P027-002	060A010A004	230	968
PANAMA	060M012B001	060P027-002	060A010B001	115	507
PERU	060M012B001	060P027-002	060A010B002	230	51
PERU	060M012B001	060P027-002	060A010B002	115	51
PHILIPPINES	060M012A001		060A010A001	115	63

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International Modem Configuration Codes

Country	SC V.F 28.8 / 33.6	SC Dual V.34	DT V.F 28.8 / 33.6 (See Note 1)	Volts	Country Code
POLAND	060M012N001		060A010N002	230	48
PORTUGAL	060M012H001		060A010H002	230	351
PUERTO RICO	060M012B001	060P027-002	060A010B001	115	999
ROMANIA	060M012N001		060A010N002	230	48
RUSSIA	060M012B001	060P027-002	060A010B002	115-230	7
SAUDI ARABIA	060M012A001	060P027-002	060A010A001	115	966
SAUDI ARABIA	060M012A001	060P027-002	060A010A002	230	966
SINGAPORE	060M012H001		060A010H004	230	65
SLOVAKIA	060M012N001		060A010N002	230	428
SLOVENIA	060M012L001		060A010L002	230	386
SOUTH AFRICA	060M012A001		060A010A002	230	27
SOUTH KOREA	060M012A001	060P027-002	060A010A002	115-230	82
SPAIN	060M012M001		060A010M002	230	34
SWEDEN	060M012F001		060A010F002	230	46
SWITZERLAND	060M012P001		060A010P002	230	41
TAIWAN	060M012B001		060A010B001	115	886
THAILAND	060M012B001	060P027-002	060A010B002	230	66
TRINIDAD	060M012B001	060P027-002	060A010B001	115-230	888
TURKEY	060M012A001		060A010A002	230	90
USA	060M012-001	060P027-002	060A010-001	115	1
URUGUAY	060M012B001	060P027-002	060A010B002	230	598
U.A.E.	060M012A001	060P027-002	060A010A001	115	971
U.A.E.	060M012A001	060P027-002	060A010A002	230	971
U.K.	060M012U001		060A010U004	240	44
VENEZUELA	060M012B001	060P027-002	060A010B001	115	58

Bold letters indicates the product is approved for sale in switched network or private line. International Approvals are subject to change. Refer to the GDC web site for the most current information.

Note 1: International DeskTop V.F 28.8 / 33.6 modems do not come with a power cable. Power cables must be ordered as a separate line item.

Network Management



TEAM® Total Enterprise Access Management

GDC's standards-based, distributed Network Management architecture enables Network Operators to monitor and manage any IP-addressable network elements and legacy devices with serial ports via dial-up, Internet or LAN-attached connections using protocols like SNMP, Telnet, PPP, and Ethernet.

TEAM applications support large numbers of network elements making it particularly effective in environments with many unattended remote sites. TEAM's distributed architecture allows either centralized control from a single point or management via multiple controllers located throughout the network.

TEAM delivers high visibility with a custom designed GUI. This unique "GDC View" of the network provides intuitive integration with remote devices and immediate access to all management functions without a complex hierarchy of menus. The TEAM GUI provides a user-friendly alternative to the complicated MIB browser utilities found on most SNMP software packages. All SNMP commands are completely transparent to the user.

TEAM is a collection of applications fully integrated into HP OpenView. It can run on powerful, multitasking UNIX workstations using HP-UX and Solaris operating systems. Capabilities include fault, configuration, performance and accounting management. With TEAM network administrators can detect system malfunctions early - before they affect service to users. They can also monitor current network usage with statistics on performance and utilization.

TEAM network management application packages are available for the full range of GDC's analog and digital SNMP-managed access products, including the SpectraComm family of CSUs/DSUs and modems, the Metroplex® 6000 multiplexer and UAS products. It is offered both as a standalone application package and as a complete systems solution including hardware/software manager platform and a fully integrated applications package.

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NAME	PLATFORM	PRODUCTS SUPPORTED	PART NUMBER
Sun Solaris 2.7/2.8 or HPUX 11.x with HPOV 6.1			
TEAM 540 V2.1.0	SNMP 540 IFP, SNMP 540EN		058U604-C01A
TEAM 553 V2.1.0	SNMP 553SD-1, D3, SNMP 553-SC		058U605-C01A
TEAM 551/552 V1.2.0	DMA200, DC 551		058U607-C01A
TEAM 5001 V2.0.0	SC 5001		058U610-C01A
TEAM 5553 V1.2.0	SC 5553		058U611-C01A
TEAM 521A	SC 521A		058U646-C01A
TEAM 800T3	SC 800 T3		058U645-C01
TEAM 521 V3.0.1	SC 521		058U636-C01B
TEAM 2011 V1.0.0	DATX SC 2011		058U619-C01A
TEAM 5520 V1.1.0	SC 5520, NMS 520, NMS 510		058U620-C01A
TEAM V.34/Dual V3.0.0	Dual V.34, V.34 Modem		058U639-C01A
TEAM 7600 V.4.0.0	UAS 7626 and 7616.		058U616-C01
TEAM CORE V4.0.0	All Network Elements		058U648-C01
TEAM 600 V3.0.0	All 600 Series and GT 128		058U633-C01A
TEAM 7700 V4.0.0	UAS 7722 and 7723 MR		058U631-C01
TEAM SC 553 V3.0.3	SC 553		058U637-C01D
TEAM 6000 V3.0.0	Metroplex 6000		058U638-C01A
TEAM 5034 V3.0.1	SC 5034, V34		058U640-C01B
TEAM 7624 V3.0.0	UAS 7624		058U641-C01A
TEAM 202 V3.0.0	SpectraComm 202		058U644-C01A
TEAM 700 V4.0.0	All 700 Series and GT 2020,1020, 2030 and 1030		058U630-C01
TEAM 7000 V4.0.0	UAS 7001, 7002, 7022		058U649-C01

TEAM products are revised as technology and product developments demand. Contact your GDC Representative for information about the latest products available.

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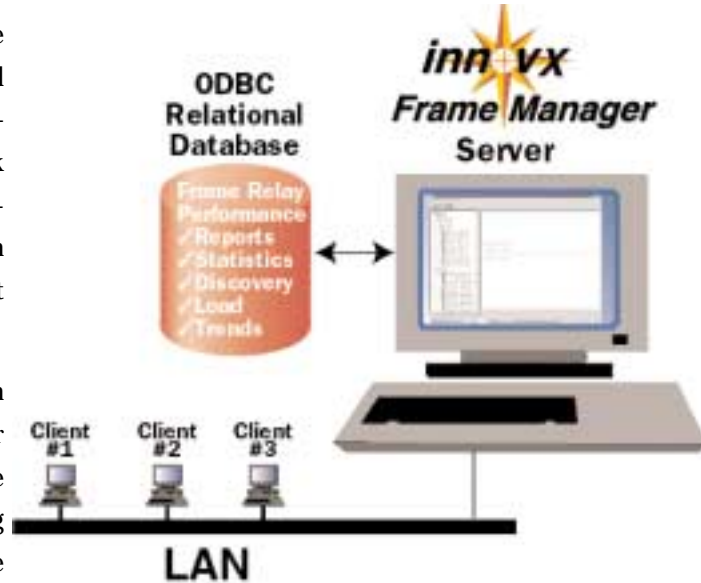
Network Management

Innovx Frame Manager

GDC innovx® users have the option of using the Innovx Frame Manager, GDC's Windows NT-based enterprise network management software application, for long-range insight into frame relay network performance and resources. Residing on a management PC, Frame Manager pulls data from each remote innovx for up to 2,500 PVCs, processes it and stores it in a relational database.

Frame Manager uses the statistics collected by each innovx to generate detailed graphical reports either on-demand or in an automated fashion. These reports contain powerful information demonstrating network performance, errors, and quality of service in a variety of line, bar and other graph formats. Network managers can use these reports to:

- Verify that frame relay SLAs are being met
- Audit network performance and establish normal performance ranges
- Assess efficiency of bandwidth usage
- Spot network trouble spots before they threaten performance and QoS
- Plan for and cost-justify network upgrades.



INNOVX FAMILY – PART NUMBERS		
Model Name	Description	Part Number
Innovx Frame Manager	Software Application Sold Separately	058U650-C01A
	Software Application Sold concurrently with 25 or more innovx units	058U651-C01A

To contact GDC, visit our web site at www.gdc.com/connections or call 1-800-523-1737

Shelves, Cabinets, Enclosures and Cables

Shelves, Cabinets and Enclosures

Product Name	Products Supported	General Specifications	Part Number
EP-6 Cabinet	Accommodates TIA/EIA-Standard 483 mm (19 in) panel widths and 40 TIA/EIA-standard vertical panel heights		<p><u>P-6B</u>: Basic Model (76" H x 23" W x 24" D) 010B222-001</p> <p><u>EP-6D</u>: 117 VAC, with 300 CFM blower, three fans, a 10-position plug mold and a 20 amp circuit breaker 010B214-001</p> <p><u>EP-6E</u>: 230 VAC, with 300 CFM blower, three fans, a 10-position plug mold (with IEC 320 connectors) and a 10 amp circuit breaker 010B216-001</p> <p><u>EP-6/DC</u>: -48 VDC, with 300 CFM blower, three fans, two power distribution panels, each with a 35 amp circuit breaker 010B215-001</p>
EP-1B	Accommodates a single, TIA/EIA-standard 483 mm (19 in) panel		Basic Model (12.5" H x 19.25" W x 20" D) 010C006-001
SpectraComm/ Universal Access Shelf	Accommodates up to 16 SpectraComm or Universal Access System transmission and network support products	<ul style="list-style-type: none"> NEBS Level III Compliant Front loading, plug-in units simplify installation and maintenance Dual power supplies for load sharing and redundancy NOTE: All models come equipped with 16 slot TIA/EIA-232-E or optional V.35 connectors for terminal interface. Models 1 through 6 are equipped with one power supply module, with optional second power supply available for redundant configurations. Models 10 and eleven come equipped with two DC power supplies. 	<p><u>Model 1</u>: 100/120 VAC; Dual RJ-45 Modular Jacks 010M054-001</p> <p><u>Model 2</u>: -48 VDC; Dual RJ-45 Modular Jacks 010M055-001</p> <p><u>Model 3</u>: 220/240 VAC; Dual RJ-45 Modular Jacks 010M056-001</p> <p><u>Model 6</u>: 220/240 VAC; 50-pin Amphenol Connectors 010M059-001</p> <p><u>Model 7</u>: 100/120 VAC; 50-pin Amphenol Connectors 010M073-001</p> <p><u>Model 9</u>: -48 VDC 50-pin Amphenol Connectors 010M075-001</p> <p><u>Model 10</u>: -48 VDC Dual RJ-45 Modular Jacks 010M070-001</p> <p><u>Model 12</u>: -48 VDC 50-pin Amphenol Connectors 010M076-001</p>
SpectraComm Multipack Enclosure	Accommodates up to 10 SpectraComm or Universal Access System transmission and network support products	<ul style="list-style-type: none"> Advanced packaging techniques and uniquely modular subassemblies for easy servicing in the field 	<p><u>Model 1</u>: 100/120 VAC input power; 10 TIA/EIA-232-E DTE connections 010B163-001</p> <p><u>Model 2</u>: 100/120 VAC input power; 10 V.35 DTE connections 010B164-001</p> <p><u>Model 3</u>: 220/240 VAC input power; 10 TIA/EIA-TIA-232-E DTE connections 010B163-002</p> <p><u>Model 4</u>: 220/240 VAC input power; 10 V.35 DTE connections 010B164-002</p>
SpectraComm 2000 Shelf	Accommodates up to 2 SpectraComm or Universal Access System transmission and network support products	<ul style="list-style-type: none"> NEBS Level III Compliant Dual power supplies for load sharing and redundancy 	<p>-48 VDC Non Redundant 010B226-001</p> <p>-48 VDC Redundant 010B226-002</p>
Universal System Shelf	Accommodates up to 16 Metroplex or non-managed and NMS access products	<ul style="list-style-type: none"> Full array of backplanes with specific interfaces to meet individual application needs 	<p><u>USS-1-D</u>: 120 VAC, 50/60 Hz 010B080-001</p> <p><u>USS-1-J</u>: 100 VAC 010B080-003</p> <p><u>USS-2-DC</u>: -48 VDC Redundant 010M080-002</p> <p><u>USS-2-DC</u>: -48 VDC Non-Redundant 010M080-001</p>
DataComm 24/48 VDC Standalone Enclosure	One standard DataComm product	<ul style="list-style-type: none"> Over-voltage and under current protection 	<p><u>DE-1/DC*</u>: -24/48 VDC Modem Enclosure S-010B003-003</p> <p><u>DE-17/DC*</u>: -24/48 VDC DataComm CSU/DSU Enclosure S-010B017-002</p> <p>NOTE: Must also order cover, which is supplied at no charge:</p> <p>Single width: 0100500-003</p> <p>Double width: 0100500-004</p>
Remote Access 1000 (RA 1000)	One SpectraComm card for standalone applications	<ul style="list-style-type: none"> 100 - 250 VAC 50/60 Hz Term Port 	<p><u>Enclosure for SpectraComm Standalone Units Only</u>: 010B236-005</p>

Shelves, Cabinets, Enclosures and Cables

Power Supplies			At A Glance	
Product Name	Products Supported	Voltage	General Specifications	Part Number
GPS-11/GPS-11E	SpectraComm/ Universal Access High Density Shelf	90 to 265 VAC input Voltage 110/120 VAC Power Supply	<ul style="list-style-type: none"> Two GPS-11 modules mounted in the same shelf provide load sharing or a back-up source of power if one of the modules fails GPS-11 E for international use 	GPS11: 035P034-001 GPS11E: 035P034-002
GPS-13/GPS-13E	10 Slot Multipack Enclosure	90 to 265 VAC input voltage 110/120 VAC Power Supply	<ul style="list-style-type: none"> GPS-13 E for international use 	GPS13: 035P010-001 GPS13E: 035P010-002
DPS-7A	DS-5 and Dual DATX Shelves		<ul style="list-style-type: none"> Two DPS-7A modules can be used in the same shelf, enabling load sharing or redundancy 	041P023-002
DPS-9	DS-6 and USS-2-DC Shelves			041P033-001
DPS-11	SpectraComm/ Universal Access High Density Shelf	-48 VAC	<ul style="list-style-type: none"> Two DPS-11 modules mounted in the same shelf provide load sharing or a back-up source of power if one of the modules fails 	041P050-001
DPS-18	SpectraComm 2000	+28, -48 or -60 VDC		041P070-001



EP-6 Cabinets



SpectraComm/UAS Shelf



SpectraComm 2000

Shelves, Cabinets, Enclosures and Cables

Cables SpectraComm		
Product	Description	Part Number
SpectraComm Manager	Y Cable DB25 M/F/F Dual Data 8P Mod to 8P Mod Shielded T1/E1 Lim, Shielded 10Base2 Cable 5-Meter 10Base2 Cable 15 Meter 10Base2 Cable 30 Meter 10Base T LAN Adapter 10BaseT Hub Cables 10 BaseT Crossover Cable PPP Link to DCE Adapter PPP Link to DCE Cable PPP Link to PC Cable PPP Link to PC Adapter	028H619-X06 027H251-0XX S-125H003-001 S-125H004-001 S-125H005-001 029H209-001 S-078H010-0XX S-078H011-025 029H210-001 830-128-807 830-128-807 029H211-001
SC 5001	RJ48C Plug to Plug, RJ48C plug to 15-pin male, RJ48C plug to 15-pin female Front pnl access test jack patch cable, male to male, Front pnl access test jack patch cable, Bantam to WECO,	022H024-XXX 022H022-XXX 022H020-XXX 830-005-XXX 830-021S001
SC 5520	DB25M to DB-D5M, Bus.Eq., Adapter, DB-25-pin Male/34 Pos to V.35 Female Shielded 1 V.35M to V.35M, V.35 Bus.Eq. TIA/EIA-530/422 25 pin male to TIA/EIA/422/449 37-pin female adapter assy, TIA/EIA-232-E Male to Male, Straight Through, TIA/EIA-232-E Male to Female, Straight Through, shielded,	028H502-XXX 209-036-025 027H516-XXX 028H501-001 028H502-XXX 028H506-XXX
SC 5553	DB25M to DB-D5M, Bus.Eq., Adapter, DB-25-pin Male/34 Pos to V.35 Female Shielded 1 V.35M to V.35M, V.35 Bus.Eq. TIA/EIA-530/422 25 pin male to TIA/EIA/422/449 37-pin female adapter assy, TIA/EIA-232-E Male to Male, Straight Through, TIA/EIA-232-E Male to Female, Straight Through, shielded,	028H502-XXX 209-036-025 027H516-XXX 028H501-001 028H502-XXX 028H506-XXX
SC 5034	Dual "Y" Cable (Required for SC Shelves with mass termination connectors) Dual "Y" Cable for SC Shelves with RJ45 connectors Male-Female DB25 - Optional	028H619-X06 010P165-001 028H511-XXX
SC 553	Network Interface Cables RJ48C Plug to Plug, Cls 3 RJ48C plug to 15-pin male, RJ48C plug to 15-pin female DTE Interface Cables, V.35 or TIA/EIA-530 V.35 34-pin male to male straight through, V.35 34-pin male to male crossover, Adapter, DB-25-pin Male/34 Pos to V.35 Female Shielded 1 TIA/EIA422/449 37-pin male to 25-pin male, TIA/EIA-530 25-pin male to TIA/EIA-422/449 37-pin female, TIA/EIA-530 25-pin female to 25-pin male, TIA/EIA-530 25-pin male to male DCE-DCE crossover cable, TIA/EIA-530 25-pin male to male -to TIA/EIA-422/449 mux aggregate, TIA/EIA-422/449 37-pin male to male, use with 027H501-001 TIA/EIA-530 25-pin male to male Cascade RJ48C to 25-pin male DSU cascade port to a mux/DTE	022H024-XXX 022H022-XXX 022H020-XXX 027H570-XXX 027H571-XXX 209-036-025 023H603-XXX 027H501-001 027H511-001 027H527-XXX 027H531-XXX 027H603-XXX 028H502-XXX 027H218-XXX
SC 521	DTE Interface Cables TIA/EIA-530 25-pin male to male, Adapter, DB-25-pin Male/34 Pos to V.35 Female Shielded V.35M to V.35M TIA/EIA-530 25-pin male to TIA/EIA-422/449 37-pin female TIA/EIA-232-E male to male, straight through TIA/EIA-232-E male to female, straight through shielded	028H502-XXX 209-036-025 027H516-XXX 027H501-001 028H502-XXX 028H506-XXX
SC 500A	DTE Interface DB 25M to DB25M, Adapter, DB-25-pin Male/34 Pos to V.35 Female Shielded V.35M to V.35M.	028H502-XXX 209-036-025 027H516-XXX

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Shelves, Cabinets, Enclosures and Cables

Cables

SpectraComm Continued

SC Dual V.34	Dual "Y" Cable (Required for SC Shelves with mass termination connectors)	028H619-X06
	Dual "Y" Cable (Required for SC Shelves with RJ45 connectors) Male-Female DB25 - Optional	010P165-001 028H511-XXX
SC V.F 28.8 / 33.6	Y Cable DB25 M/F/F Dual Data	028H619-X06
SC 202	DTE Cable RS232 S/T DB25 M/M	028H502-XXX
	Private line cable 8 pin modular S/T	830-028-8XX
	Private line cable 8 pin modular to #6 spade lug	024H122-XXX
CSU/DSUs		
Desk Top T1,	Plug to RJ Plug Network Cable	022H024-010
Desk Top 554A	T1/E1 8 Pin Modular to DB15 Slide Lock Mod 8 to Mod Non Keyed	022H022-010 22H024-010
SNMP 553SD	RJ Plug to RJ Plug (included with DSU) RJ Socket to RJ Socket, Straight Through Extension for Network Interface Cable V.35M to V.35M V.35M to V.35M Xover DB25M to DB25M RJ Plug to RJ Plug straight through Network interface cable RJ Plug to DB-25M GDC Mux to DSC Cable Front Panel Jack Options Patch Cable Male-to-Male Patch Cable Male to Male Bantam to Weco Bantam to Weco 310 Adapter Plug Network Management Options Modem Interface Adapter, DB-2∞ to RJ-45 VT-100 Terminal FP Jack Cable, 9-pin Female, VT-100 Terminal FP Jack Cable 25-pin Female, Cable for PPP/SLIP Interface Adapter to Router, Terminal Server or GDC Adapter for modem connection cable RJ to RJ straight through PPP to DCE Adapter PPP to DTE Adapter Dual PPP/SLIP Aux. Port Adapter, DB-25 to 2X RJ45 Adapter Cisco AUX Adapter Cable Assy 553S Token Ring STP Modem Interface Adapter DB-25 to RJ-45 Adapter Cable	022H024-010 209-038-002 027H516-XXX 027H521-XXX 028H502-XXX 022H024-XXX 027H218-XXX 830-005-XXX 830-021S001 209-026S001 029H210-001 024H130-006 024H139-006 830-028-XXX 209-036-010 209-036-011 209-036-012 209-036-014 027H262-X04 029H210-001
Desk Top 56, 56/64, 500A, DDS All Rate®	RJ-48 to RJ-48, keyed, straight through Network Interface Cable DB-25M to DB25M Bus. Equipment Cable V.35M to V.35M V.35 Bus. Equipment Cable	830-028-807 028H502-XXX 027H516-XXX
SNMP 540 IFP	Plug-to plug VF cable TIA/EIA-530/422 25-pin to TIA/EIA-422/449 37-pin Converter Cable, DTE "PPP" Aux Port Cable, DB-25 Male to female, DCE "PPP" Aux Port Cable, DB-25 Female to Female	830-028-8XX 027H501-001 028H348-0XX 028H349-0XX
SNMP 540 EN	Console Port Cable for PC with DB-25 Connector, Console Port Cable for PC with 9-pin Connector. Ethernet Cable, 10Base T, twisted pair, Ethernet Cable AUI (customer supplies Plug-to-Plug VF Cable,	029H210-001 029H211-001 027H251-0XX 830-028-8XX
NMS 510 Series 510, 510/DBU, 510/IFP/DBU, 510 56FW510/IFP/DBU 510 56FW, 510 IFP/56FW	4-Wire VF Cable, Berg to Plug NIC Cable Berg to Plug Daisy Chain Cable from Adapter 058P039-001 to 058P059-0001 Plug to Plug Daisy Chain Cable from/to 058P059-001 Adapter Mod-to-Mod DBU-89 Cable (DBU units only)	023H101-020 024H127-014 024H128-014 830-028-807 830-027-414
NMS 510/IFP/ISDN	Plug-to-Plug VF Cable,	830-028-8XX
NMS 520 Series /IFP; IFP/DRA,LPDA-2, IFP/LPDA-2, 56FW,IFP/56FW, /DBU, /IFP/DBU, /IFP/ISDN	Plug-to-Plug VF Cable, Berg to Plug NIC Cable Berg to Plug Daisy Chain Cable from Adapter 058P039-001 to 058P059-0001 Plug to Plug Daisy Chain Cable from/to 058P059-001 Adapter TIA/EIA-530/422 25-pin to TIA/EIA422/449 37 pin Converter	830-028-8XX 024H127-014 024H128-014 830-028-807 027H501-001

Shelves, Cabinets, Enclosures and Cables

Cables

CSU/DSU, Continued

Other NMS Options	Loopback Plug TIA/EIA-530/422 to TIA/EIA-422/449 Converter Cable Daisy Chain Cable, 6 inch TIA/EIA-232-DV/V.35 Cable Assy, 2.25 inch Auxiliary Channel TIA/EIA-232D Cable VF Line MSDU M/F 5 feet VF Line MSDU M/F, 25 feet VF Cable Assy Modem/Wrap VF Cable Assy (MSDU-1 Aggregate to Multiport Aggregate Modem to Wrap Cable Assy RS232C 2 feet Multiport Control Cable, 3 ft. Daisy Chain Cable, Rmt-Mast Daisy Chain Cable Mast-Mast	029H905-001 027H501-001 358H056-006 209-036-008 028H414-001 338C001-A03 338C001-A04 024H113-XXX 358H039-XXX 830-040-001 028H511-XXX 028H502-002 024H345-005 058H001-XXX 058H002-XXX
Innovx® Family	8 pin modular to 8 pin modular, un-keyed, straight through for network connection Included with innovx product 8 pin modular to 8 pin modular S/T DB-25M to RJ45 Terminal Adapter DB-9F to RJ45 PC Adapter 10 Base-T/Modem Adapter 10Base-T S/T 10Base-T X/O DB25M to 8 pin modular, CON/PPP Port to DTE for PPP Link DB25M to 8 pin modular, CON/PPP Port to DCE for PPP Link DB25F to 8 pin modular, CON/PPP port to DTE for PPP Link 8 pin modular to 8 pin modular S/T used for DDS, T1 or 10Base-T network 8 pin modular to 8 pin modular X/O for T1 crossover 8 pin modular to DB15F used for T1 V.35 Adapter, DB25F to V.35M V.35 S/T V.35M to V.35 M TIA/EIA-442/TIA/EIA-449 Adapter, DB25F to DB37F TIA/EIA-442/TIA/EIA-449 Adapter, DB37M to DB37M TIA/EIA-530 S/T DB25M to DB25M TIA/EIA-530 X/O DB25M to DB25M	S-078H010-010 830-128-807 029H210-001 029H211-001 209-036-016 S-078H010-010 S-078H011-010 209-036-021 209-036-022 209-036-023 S-078H010-XXX 027H266-XXX 022H020-XXX 203-036-025 027H516-XXX 027H501-001 027H603-XXX 027H525-XXX 027H527-XXX
Modems		
DTE Cables — All Modems Standard V.35 Option 530 Option	Male-Female DB25 DB25M/34 pos. to V.35F, Shielded 1 Adapter DB25 Male-Female for 530 Interface	028H511-XXX 209-036-025 027H525-XXX
SpectraComm Dual V.34, SpectraComm 5034, SpectraComm 5090	Dual "Y" Cable for SC Shelves with mass termination connectors Dual "Y" Cable for SC Shelves with RJ45 connectors	028H619-X06 010P165-001
DataComm Modems, Private Line	VF, 4-WIRE, 20 FT WITH LUGS Private line cable and switched network cable programmable 8 pin mod S/T Private line cable 8 pin mod to #6 spade lug	023H102-020 830-028-8XX 024H122-XXX
SpectraComm Modems	DTE cable RS232 S/T DB25 M/M Private line cable and switched network cable programmable 8 pin mod S/T Private line cable 8 pin mod to #6 spade lug Switched network cable permissive Switched network cable 8 pin mod to #6 spade lug	028H502-XXX 830-028-8XX 024H122-XXX 830-027-4XX 830-029-8XX
Shelves		
High Density Shelves	AC Inter-Shelf Power Distr. Cable DC Inter Shelf Power Distr. Cable System Bus Inter-Shelf Distr. Cable,One Each System Bus Inter-Shelf Distr. Cable to use with Air Baffle, One Each TIA/EIA-232/V.35 Adapter Cable 50 Position Amphenol, M/M, 10 feet 50 Position Amphenol, M/M 25 feet	024H610-002 024H610-001 029H510-001, 029H509-001 029H510-002,029H509-002 209-036-025 830-002S011 830-002S008
SpectraComm 2000	External AC 100-240V power supply	010K403-001

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Shelves, Cabinets, Enclosures and Cables

Cables

Access Multiplexer

The design of the Metropak 6000 is such that the integral power supply can function with various input voltages. The power cable that is ordered determines what voltage the Metropak Enclosure operates. All the power cables listed below are IEC 320 rated. You must select the correct country part number at the time of the order.

	North American Europe Italy Japan Australia Taiwan United Kingdom Switzerland	830-024-003 830-061-002 830-002-008 830-002-009 830-002-010 830-002-011 830-060-102 830-061-003
Metroplex® 6000	Console Port 8-Position Modular to 8-Position Modular Terminal Adapter Port 8-Position Modular to DB25 Male Terminal Adapter Port 8-Position Modular to DB9 Female Network Port to 8-Pos Mod to 8-Pos Mod Twisted Pair Shld. Double Bantam Test Cord 48 Inches Single Bantam Test Cord 60 Inches Single Bantam Test Cord 24 Inches	830-128-807 029H210-001 029H211-001 022H024-XXX 830-005-102 830-005-002 830-005-001
Metroplex 6000	8-Position Modular to DB25 Male 8-Position Modular to DB15 Male Redundancy Adapter, Two 8-Position Modular Plugs to One 8-Position Modular Jack, Shielded 50-Pin Amp Male to 50-Pin Amp Male, Shielded 10 Feet 50-Pin Amp Male to 50-Pin Amp Male, Shielded 25 Feet 50-Pin Amp Male to 50-Pin Amp Male, Shielded 50 Feet 50-Pin Amp Male to 50-Pin Amp Female, Shielded 5 Feet 50-Pin Amp Male to 50-Pin Amp Female, Shielded 5 Feet Alt A to DB25F TIA/EIA-232/530 Alt A to V.35 Male Adapter Alt A to DB15 Male (X.21) Adapter Alt A to DB25 Male (TIA/EIA 232, TIA/EIA-530)	027H218-XXX 022H022-XXX 029H408-X06 830-002S011 830-002S008 830-002S012 830-002S007 830-002S016 027H442-005 027H579-005 027H900-XXX 028H502-XXX

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Literature Links

NEBS Applications

SpectraComm Integrated Access Products

- SpectraComm Family Data Sheet
- Cellular Service Access Package Data Sheet
- Out-of- Band Remote Management Briefing
- RADIUS Security Brief
- Dial Backup for Mission Critical Network Connections
- SS7 Interswitch Transport Application Brief
- SS7 STP Network Access
- Cellular Service Access Package Application Brief

Access Multiplexer

- Metroplex 6000 T1 Data Sheet
- Metroplex 6000 E1 Data Sheet
- Metroplex 6000 Product Brief
- Metroplex 6000 Application Brief

CSU/DSUs

- SC 800 T3
(SpectraComm Family Data Sheet)
- DeskTop T1 Data Sheet
- DeskTop 554A Data Sheet
- DeskTop 554S Data Sheet
- innovx 553 Data Sheet
- innovx MSP Data Sheet

CSU/DSUs (Continued)

- SpectraComm 553
(SpectraComm Family Data Sheet)
- DeskTop 56 Data Sheet
- DeskTop 56/64 Data Sheet
- DeskTop 500A Data Sheet
- All Rate DSU Data Sheet
- SpectraComm 521A
(SpectraComm Family Data Sheet)
- SpectraComm 521A Product Brief

Modems

- DeskTop V.F 28.8 / 33.6 Data Sheet
- SpectraComm V.F 28.8 / 33.6
(SpectraComm Family Data Sheet)
- DataComm V.F 28.8 / 33.6 Data Sheet
- SpectraComm 5034
(SpectraComm Family Data Sheet)
- SpectraComm 202
(SpectraComm Family Data Sheet)
- DeskTop 202 Data Sheet
- DeskTop V.F 28.8 / 33.6 Data Sheet
- SpectraComm V.F 28.8 / 33.6
(SpectraComm Family Data Sheet)

Network Management

- TEAM Data Sheet

Shelves Cabinets and Enclosures

- Data Sheet

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