

<b>Product Model</b>	<b>3095</b>		
<b>Product Name</b>	<b>mDSL Digital Access Cross Connect</b>		
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### Who is the customer for this product?

The recent DSL market shake-up has forced service providers to re-evaluate the approach they take to delivering high bandwidth dedicated services. They can no longer make the huge investment in the “mega” DSLAM that will take them years before they use the capacity they have paid for and even longer until the investment is paid off. Now there is a flexible, easy-to-use, proven solution that will allow service providers to earn return on their investment quickly and grow with their actual need. The mDSL DACS from Patton offers a tightly integrated multiplexer that reduces operating and deployment costs and integrates into their existing T1/E1 TDM network. There are four categories of customers who are the primary target for this product:

- 1) PTTs who want to offer service in secondary metropolitan areas where a full-blown DSLAM is neither cost-effective nor practical
- 2) Tier-II/Tier-III ISP's wishing to expand their service offering through facilities based services
- 3) Enterprise/Campus users deploying the 3095 as a point of concentration for fan-out of multiple TDM circuits.
- 4) System integrators in remote areas who understand the use of DSL as a low cost method to deliver data services to customers within a complex.



The Model 3095 mDSL Digital Cross Connect is a high-speed symmetrical data concentrator. Connecting sixteen mDSL ports each providing n x 64 kbps up to 2.3 Mbps DTE rates, the Model 3095 mDSL DACS grooms nx64 data onto T1/E1's or Sync Serial ports with an “any-to-any” configuration. With Mezzanine Egress Card options for WAN egress, the 3095 allows for 4, 8, or 16 T1/E1 interfaces.

Offering an end-to-end solution, the model 3095 is compatible with all of Patton's current line of proven 1095, 1095RC and 1088 mDSL modems. The transparent nature of DSL allows the 3095 to be used to provide a variety of data services such as ATM, Frame Relay, Leased Line LAN Extension, X.25, or Internet Access.

For applications requiring iDSL rates of 64/128/144 kbps are all that are needed, the model 3092 iDSL DACS is recommended. It operates with the Patton's models 1092A, 1092ARC, and 1082 modems.

Key Features	Benefit	Advantage
<i>Up to 16 mDSL ports in a single chassis</i>	<b>Each mDSL port requires only 2 wires (single pair) for reach and range up to 7.7 Km using CAP line coding and providing data rates of nx64 to 2.3 Mbps.</b>	<b>The end-User has a full-duplex symmetric data channel for data transfer. With complete TDM mapping of any time slot to any other time slot, the user is not limited to only mDSL to WAN time slot mapping.</b>
<i>Flexible Mezzanine Egress Card Modularity for WAN egress</i>	<b>Choose the egress option that fits the application. With Mezzanine Egress Card modularity, the design is flexible and easily accommodates a variety of user needs. 4, 8, or 16 T1/E1 ports can be.</b>	<b>The modularity provided by the Mezzanine Egress Card connection allows the user to select the device to best fit his specific needs, whether it is concentration or cross-connecting multiple T1/E1 lines to mDSL connections or serial interfaces. The Mezzanine Egress Card modularity also allows easy design modifications for specific customer needs without the need for complete motherboard redesign.</b>
<i>Programmable Cross-connect capability</i>	<b>User programmable Time Slot Interchanger (TSI) allows any time slot from any access port to be mapped to any time slot on any other access port.</b>	<b>Any combination of mDSL to mDSL, mDSL to WAN, or WAN to WAN is possible giving the user the <u>complete</u> flexibility in time slot mapping</b>
<i>Proven CPE already deployed</i>	<b>The 3095 mDSL Access Multiplexer is completely compatible with all of the existing Patton mDSL modems. This includes the 1095/1088 series</b>	<b>Combined with the proven CPE equipment delivered by Patton, this gives the Customer the complete end-to-end solution.</b>
<i>1 U-high Chassis</i>	<b>Compact design provides a high-density option at a low price.</b>	<b>Providing up to 16 mDSL ports in a 1 U-high chassis provides the highest density available in a standalone unit.</b>
<i>Built in field replaceable FAN tray and filter</i>	<b>No need to shut down the system or uninstall for fan maintenance</b>	<b>Guarantee uptime with functional maintenance.</b>
<i>Redundant load-sharing Universal AC/DC Power supplies</i>	<b>Inside the 3095 are dual-redundant, load-sharing universal AC/DC power supplies. In the event of a power supply failure, the on-line supply automatically supplies the full load. Combined with dual power input feeds the 3095 protects against source power disruptions.</b>	<b>With the standard dual redundant power systems, not only is the customer protected from hardware failures, but now he is protected against power delivery failures as well.</b>
<i>Front mounted LED's</i>	<b>Front mounted LED's provide a quick look at the status of the 3095 at an instant. LED's provide feedback on Power, mDSL port status, and Trunk status.</b>	<b>Front mounted LED's provide the user quick and easy instantaneous feedback on the critical features of operation.</b>

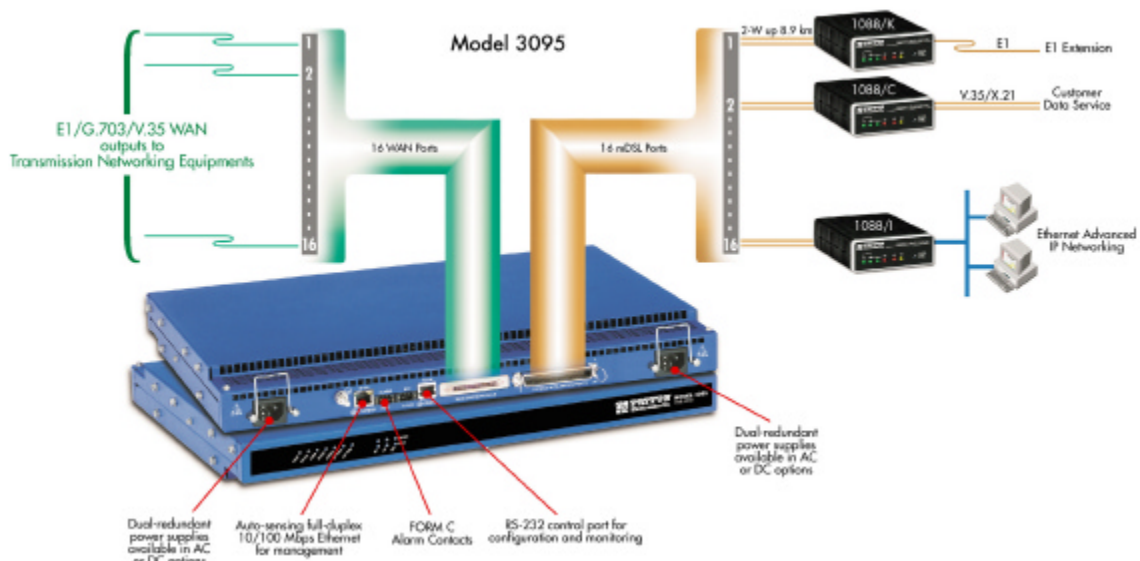
Key Features	Benefit	Advantage
SNMP/HTTP Management	Flexible management option allows the system operator to configure the 3095 <u>and</u> its remote CPE units, manage each mDSL access port, and perform initial test loops. The network management system is built into the 3095 and uses identical web pages as the 1000MC.	Easy to use & familiar management software allows the user to manage the 3095 and its remote units from <u>anywhere</u> in the world via the Internet or by using the serial port with VT-100 emulation. The reuse of web pages from previous products means that current customers have no new software to learn or train.
Complete Alarm Facilities	Alarms monitor mDSL ports, Mezzanine Egress Card operation, power supplies, and Temperature	Provides the user with immediate feedback on major or minor failures with SNMP Traps, Visual indication, Dry-Contact and HTTP/SYSLOG Messages.

## Applications

With network expansion occurring along a number of paths, there is a rising need for new concentration points to take full advantage of the available bandwidth. The 3095 provides a unique concentration point for distributing data services in a transparent manner to fill this need.

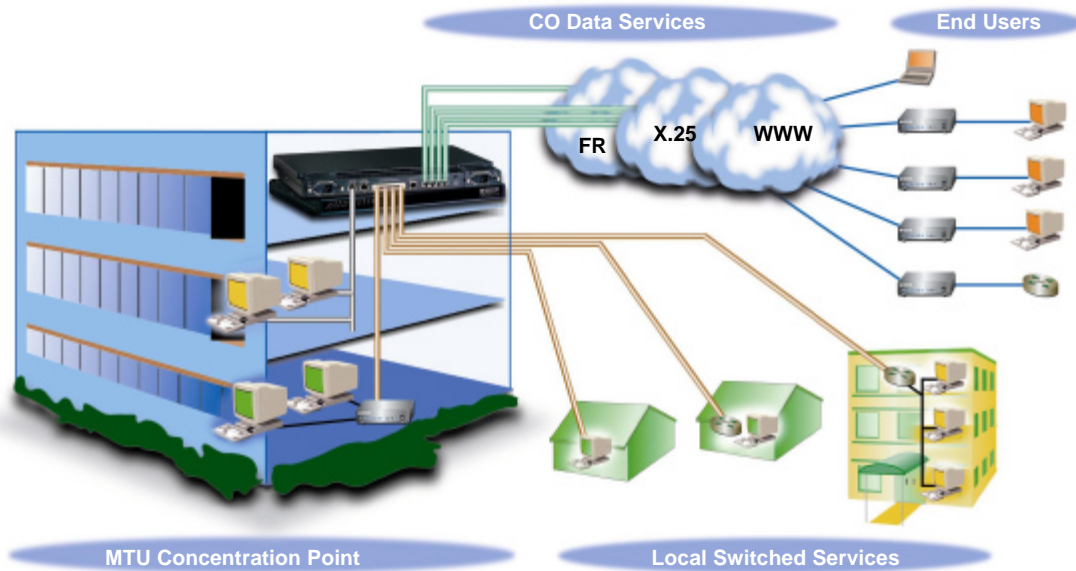
### Application 1: Leased Line Data Services

The Model 3095 provides a convenient, low-cost, low-profile solution to offer dedicated data services via high-speed mDSL technology. The transparent nature of DSL allows the 3095 to be used to provide a variety of data services such as ATM, Frame Relay, Leased Line LAN Extension, X.25, or Internet Access at data rates up to 2.3 Mbps.



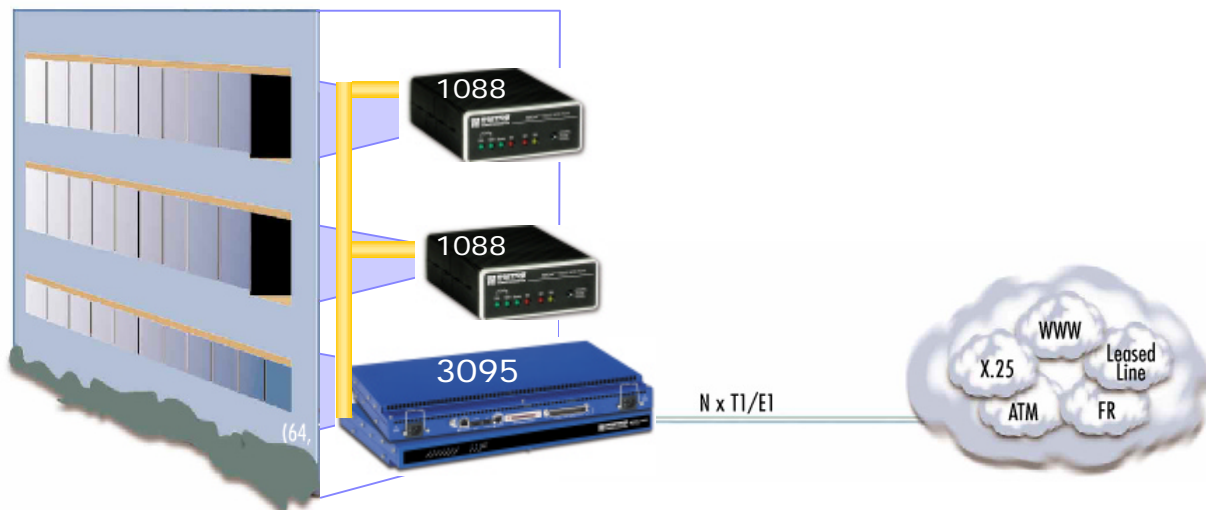
## Application 2: Efficient Data Service Provisioning

The cross connect and grooming functions of the 3095 allow some DSOs to be passed efficiently to the CO for further delivery to other points in the network while other DSOs can be locally switched for maximum efficiency.



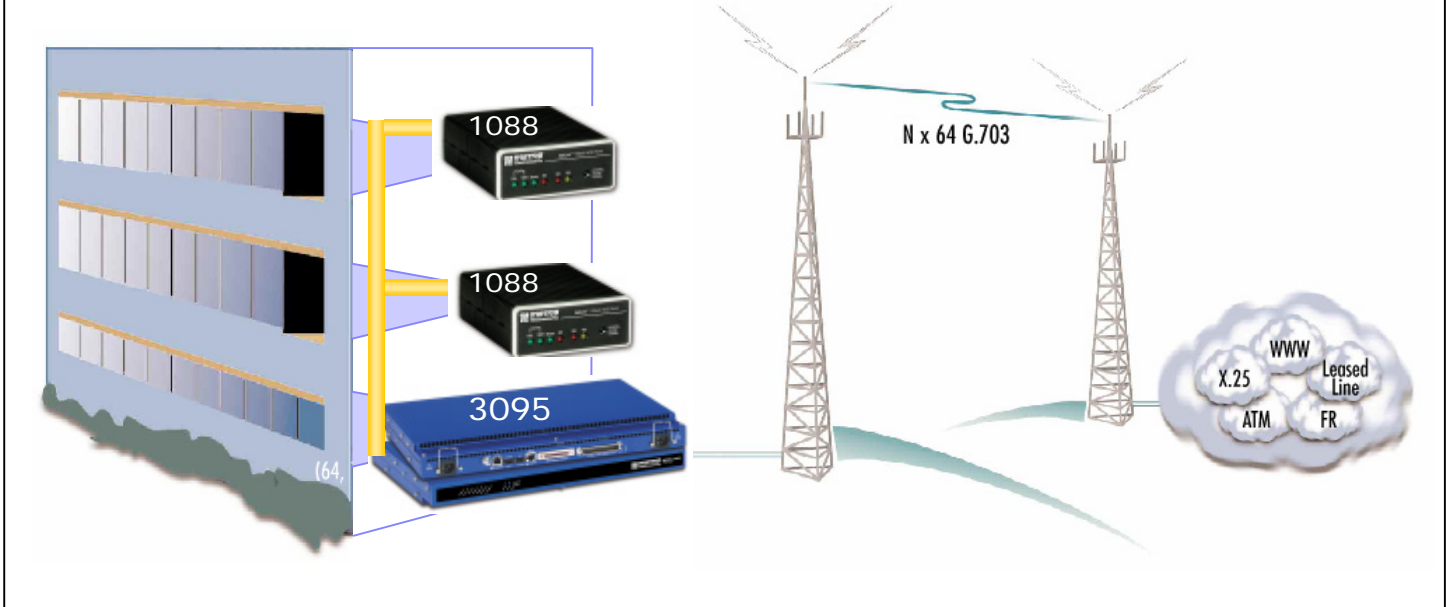
## Application 3: Data Services MTU/MDU Application

The Model 3095 transparently passes data for any TDM based service. Providers can offer: X.25, Internet Access, Frame Relay, Leased-Line, ATM Access, Legacy Protocols (SDLC/QLLC, etc.), G.703 based PBX Extension, and LAN Extension



**Application 4: Wireless Concentration Point**

With the new technologies that are now available to deliver network services (such as wireless local loop, satellite, etc.) new network concentration points are needed to make efficient use of the bandwidth they deliver. Patton's 3095 can be used in these applications to concentrate DSOs efficiently onto a single wireless uplink.



**Ordering information**

CatalogNo	Description
3095/8MU4E/XXX	mDSL DACS: 8 mDSL ports, 4 T1/E1 WAN ports, Cobalt Blue Case (standard)
3095/8MU8E/XXX	mDSL DACS: 8 mDSL ports, 8 T1/E1 WAN ports, Cobalt Blue Case (standard)
3095/8MU16E/XXX	mDSL DACS: 8 mDSL ports, 16 T1/E1 WAN ports, Cobalt Blue Case (standard)
3095/16MU4E/XXX	mDSL DACS: 16 mDSL ports, 4 T1/E1 WAN ports, Cobalt Blue Case (standard)
3095/16MU8E/XXX	mDSL DACS: 16 mDSL ports, 8 T1/E1 WAN ports, Cobalt Blue Case (standard)
3095/16MU16E/XXX	mDSL DACS: 16 mDSL ports, 16 T1/E1 WAN ports, Cobalt Blue Case (standard)

xxx = Power supply Option (RUI = Redundant AC Supplies, R48 = Redundant DC supplies, U48 = One AC and One DC supply)

**Included parts:**

The DACS comes with the following items:

- The Model 3095 Digital Cross-Connect (DACS)
- An RJ-45-to-RJ-45 cable for use with the console and Ethernet ports
- A DB9-RJ45 (EIA-561) adapter for connecting a PC's serial port to the DACS console port
- Rack mounting kit with rack ears and mounting hardware
- CD-ROM containing:
  - Model Getting Started Guide
  - Administrator's Reference Guide

## Optional parts

Item	Catalog Number
50-pin RJ21X connector to Stub for use in Punchdown Blocks	10-50TELCO-20
50-pin RJ21X to 24 Fanout & Pig Tail RJ45	10-50TELCO/24RJ45-6
50-pin RJ21X to 16 Fanout & Pig Tail RJ45	10-50TELCO/16RJ45-6
50-pin RJ21X to 8 Fanout & Pig Tail RJ45	10-50TELCO/8RJ45-6
68 Pin SCSI to Blunt Stub for use in Punchdown Blocks	10-68SCSI-6
68 Pin SCSI to 64 Pin TELCO Connector	10-68SCSI/64TELCO-6
68 Pin SCSI to 16 Fanout & Pig Tail RJ45	10-68SCSI/16RJ45-6
68 Pin SCSI to 8 Fanout & Pig Tail RJ45	10-68SCSI/8RJ45-6

Note: Country specific power cords are ordered separately.

## Replacement parts

See "Included parts" and "Optional parts" sections above.

## Shipping/Export Information

ECCN export number: 8517.50.1000

Country of origin: United States of America, NAFTA

Total weight boxed: 14.5 lbs. (6.6 kg)

Individual unit: 10.04 lbs. (4.6 kg)

## MTBF/Repair Information

MTBF: 13843 Hrs. Calculation based on MIL-HDBK-217F, Notice 2 - "Parts Count Reliability Prediction"

Main Board: 26063 Hrs.

Daughter Board: 33546 Hrs.

PMC card: 246293 Hrs.

Mean time to repair: < 2 weeks

Warranty: 1-year parts and labor.

Out of warranty repair rate: contact Tech Support for details.

## Physical Specifications

Dimensions: 1.75 H x 19.0 W x 12.6 D inches (4.44 H x 48.25 W x 32.00 D cm)

Color: Metal Powder coat available in Cobalt Blue (standard), Black Ice, Ultra Red, or Cool White

**Case material:** Standard Metal Casing

## Environmental

**Operating Temp:** 32 to 104°F (0 to 40°C)

**Storage Temp:** -13 to 185°F (-25 to +85°C)

**Relative Humidity:** 5 to 90% RH, non-condensing

**Altitude:** 0–15000 feet (3,048 meters)

**Ventilation requirements:** None. Units do not require external cooling fans.

## Approvals

### Safety

Patton Internal Safety and UL/CSA testing per: UL1950 (MET), Canadian cMET

ESD EN61000-4-2

### Emissions

EMC Directive 89/336/EEC

Low Voltage Directive 73/23/EEC (EN60950)

FCC Part 15 Sub Part B, Class A

### Telecommunications

FCC Part 68

CE Mark

Canadian CS-03

CTR12

CTR13

## Power Supplies

**AC:** Universal input, 100-240VAC, 50-60Hz

**DC:** 48VDC (40 to 72 VDC)