

CTDI Products

Features

- Effective, efficient, economical
- 3/1/0 digital cross connect at the network edge
- Integrated DSO-level grooming
- Network management simplicity and metallic test access
- Carrier-class reliability
- International digital cross-connect capability
- Supports multiple DS3 and GR-303 Interface Groups
- Concentrates voice traffic using GR-303
- Domestic/International signaling conversion (E1 to/from DS3)

ARCADACS 100

Compact Digital Access Cross Connect System

Service providers in today's telecommunications market are acutely aware of the high price of inefficient transport. By optimizing bandwidth where traffic begins – in the access network – the ARCADACS 100 helps enhance efficiency to better improve the bottom line.

The ARCADACS 100 is a small footprint DACS that is ideally suited for grooming access networks. Its effectiveness, efficiency, and economy make the ARCADACS 100 a vital addition to today's TDM-based networks.

Traditionally, each subscriber required a point-to-point connection across the network. The introduction of digital cross connects subsequently allowed service providers to switch traffic from trunk to trunk. These cross connects were typically 3/1 or 1/0 devices. With the introduction of the ARCADACS 100, providers can now choose switching granularity from DS3-based down to DS0-based all in one effective, efficient, and economical platform. E1 digital cross connect is also supported for international TDM applications.

In many existing telecommunications infrastructures, cost concerns mandate that DACS capabilities be located towards the central part of the network. But bandwidth at the edge is now readily available in today's changing communications network. With the ARCADACS 100, traditional cross-connect functionality can now be cost-effectively deployed in a distributed manner.

As an extension to a voice switch, ARCADACS 100 uses standard GR-303 signaling to concentrate voice traffic. It can dynamically assign up to 4,096 individual calls or DS0s to a local exchange digital switch on a call-by-call basis. Not only does this capability allow you to leverage existing GR-303 signaling, but it also allows you to transparently offer full lifeline and CLASS services to your subscribers.

The ARCADACS 100 allows carriers to efficiently leverage existing infrastructure and personnel by providing a reliable, standards-based edge DACS for grooming voice and data traffic before it hits the transport network. Deploying the ARCADACS 100 at the network edge ensures better facility utilization by permitting network providers to transport only valid traffic-bearing circuits. The ARCADACS 100 grooms DS3s, DS1s, and DS0s to allow for more efficient use of backhaul SONET transport, multiplexers, 3/1/0 DACS ports, and switch ports for partially filled (fractional) T1 applications. It also grooms voice and data traffic for integrated T1 applications that combine voice and data on a single T1.

By reducing both backhaul transport costs and port requirements on costly high-end switches, the ARCADACS 100 provides an economical method for taking advantage of existing infrastructures with greater subscriber capacities.

The ARCADACS 100 is completely NEBS level 3 compliant, meeting all of the requirements for installation in a central office, remote node, or subscriber site. Redundancy is built into all aspects of the ARCADACS 100's hardware and software with no single point of failure. Additionally, metallic test capabilities provide carriers the opportunity to diagnose line problems without disrupting service. Combined with remote software configuration and centralized management tools, the ARCADACS 100 plays an essential part in optimizing the burgeoning expanse of today's TDM networks.



CTDI Products

ARCADACS 100 Technical Specifications

Description

- ARCADACS 100 - 3/1/0 Narrow Band Digital Cross Connect System

TDM Specifications

- 100 T1 capacity (DSX/CSU)
- 72 E1 capacity
- 12 DS3 Interfaces
- Nortel and Lucent GR-303 Certification
- Multiple GR-303 Interface Groups
- 3/1/0 Cross-Connect (2400 X 2400 DSO non-blocking)
- M13 Capability
- AMI/ B8ZS Line Coding
- D4, ESF, SLC-96 (TR08) Frame Formatting (User Configurable)

Configuration and Management

- VT-100 Local Management via RS232
- Telnet Support via Ethernet
- Software Download Capability via TFTP
- GUI based CMT (Configuration Management Tool)
- SNMP traps supported for all system alarms

Chassis

- Dimensions: 22 3/4" X 17 1/2" X 10" (HWD)
- Shipping Weight: 20.7 lbs
- Total Slots: 34 (17 Upper and 17 Lower)
- Rack Mountable (19" or 23" width)

Clock Interfaces

- Primary and Secondary System Clock Sources
- Internal Stratum 3
- BITS A, BITS B (1.544 Mb/s)
- External Line (T1, E1, DS3)

Environmental Operating Requirements

- Operating Temperature Range: 32 °F to 122 °F (0 °C to +50 °C)
- Operating Relative Humidity: 5% to 85% non-condensing

Power

- Feed: Dual DC Power
- DC: 36.5 Volts minimum to 56.5 Volts maximum
- Separate A/B Power Feeds for DC Protection
- Power Dissipation: 288 Watts (Fan cooled)

Safety Standards Compliance

North America

- GR-63-Core Physical Protection
- GR-1089-Core EMC and Safety
- FCC Part 15-Class A, FCC Part 68, DOC CSO3 Regulatory
- UL 1950 3rd Edition
- CSA C22.2 No. 950-M95

International

- EN 55022A Radiated and Conducted emissions, EN 60950 Safety, EN 50082 Immunity
- IEC 61000-4-x Electrical Discharge, Radiated Electrical Field, Electrical Fast Transient/Burst, Surge, Conducted Disturbance
- EN 55024 Telecom Port Surge
- ETS 300 019-2-x Storage Environment, Transportation Environment, Operational Use
- ISTA Transportation and Handling
- CTR 13 E1 Structured
- NTR 4

Warranty and Support

- One (1) year warranty

