

ESF T1 Channel Service Unit (CSU)

- ✓ *Supports D4/ESF T1 Framing and B8ZS/AMI Line Coding standards*
- ✓ *Multiple power source options, including -48 VDC redundancy*
- ✓ *Front Panel Display for configuration and operation flexibility*
- ✓ *Integrated V.22bis modem enables remote access for configuration changes, statistics retrieval, diagnostics, and testing*
- ✓ *Telnet, SNMP, SLIP, and PPP management*
- ✓ *Configurable BER alarm threshold and automatic dial-out capability for alarm messages to printer or SNMP manager*
- ✓ *Multiple Loopback capabilities, test pattern generators and external contact closure for DTE loopback support*



Zhone's sophisticated ACCULINK 3150 and 3151 Extended Superframe Format (ESF) T1 Channel Service Units (CSUs) are full-featured CSUs which act as an interface between a D4 or ESF T1 digital network and the customer's equipment. The model 3150 is a standalone CSU, while the 3151 unit is a carrier-mounted CSU that is designed to fit into the COMSPHERE 3000 Series Carrier.

Compact and flexible, the ACCULINK 315x CSUs combine a wide range of innovative features that allow you to evolve and manage your digital network efficiently and effectively. For example, the ACCULINK 315x CSUs design supports diversity in your T1 network by accepting T1 framing standards such as D4 or ESF, as well as line coding standards B8ZS or AMI for protection of your installed equipment base.

With the ACCULINK 315x ESF T1 CSUs, you gain maximum capability and flexibility in your T1 network. High performance is achieved through the units unparalleled versatility. The ability to download software provides up-to-the-minute access to the newest upgrades and technology, eliminating on-site re-engineering and protecting your network investment.

Ease-of-use and installation are enhanced by the many configuration options available on the ACCULINK 315x CSUs. Fault diagnosis is simplified with an embedded SNMP agent and standard MIB support. Increased network operator productivity is achieved through remote diagnostics, which can be performed through an integrated dial-up modem, to help determine trouble sources before dispatching maintenance personnel.

Three sets of Bantam test jacks are located on the front of the CSU to increase facility access and testing abilities. This innovative feature is accompanied by comprehensive in-service testing capabilities.

The compact ACCULINK 3150 standalone unit can be wall mounted, stacked snugly in an equipment cabinet or placed on a desktop. Complete interoperability with all existing Zhone network devices ensures network continuity and efficient operation. The ACCULINK 315x ESF T1 CSU continues the award-winning tradition of excellence in all Zhone products.

Key Benefits of the 315x CSUs include:

- Software configuration simplifies operations and eliminates complicated hardware strapping
- Flash memory software download capabilities ensures investment protection
- Quick and trouble-free installation with set of two factory default option settings
- Integrated modem supports remote configuration, statistics retrieval, diagnostics, and testing
- Automatic dial-out reporting of CSU alarms aids in remote diagnostics
- Minimizes "false alarm" dispatch maintenance
- Integral SNMP agent allows management from any SNMP manager
- Security features ensure network integrity

Technical Specifications

Dimensions

- **STANDALONE UNIT (HWD):**
 - 2.1 in. x 7.6 in. x 12.1 in.
 - 5.4 cm x 19.4 cm x 30.8 cm
- **CARRIER CARD (HWD):**
 - 7.1 in. x 0.9 in. x 13.4 in.
 - 18.1 cm x 2.3 cm x 34.0 cm
- **3000 SERIES CARRIER (HWD):**
 - 10.5 in. x 19.0 in. x 14.0 in.
 - 26.7 cm x 48.3 cm x 35.6 cm

Weight

- **Standalone:**
 - 2.4 lb. (1.1 Kg)
- **Carrier Card:**
 - 1.5 lb (0.68 Kg)
- **3000 Series Carrier (16 DSUs+SDU+fan):**
 - 70 lbs. (31.8 Kg)

Power

- **Local power:**
 - 115 VAC (104-132 VAC, 57-63 Hz, 0.09A typical)
- **Power Options:**
 - +24 VDC (+20 to +32 VDC, 0.16A typical)
 - -48 VDC (-38 to -60 VDC, 0.08A typical)
 - -48 VDC redundant
- **Watts:**
 - 6.9 w (AC power)
 - 4.0 w (DC power)
- **Heat Dissipation:**
 - 23.6 BTUs (AC power)
 - 13.6 BTUs (DC Power)

Interfaces

- **DTE INTERFACE:**
 - Physical interface: DB15F
 - Framing & Coding: D4/ESF & AMI/B8ZS
 - Line equalization: 0 to 655-ft (196.50 m)
 - Send AIS: Selectable
- **NETWORK INTERFACE:**
 - Physical interface: RJ48
 - Framing & Coding: D4/ESF & AMI/B8ZS
 - Line Buildout: 0.0, -7.5, -15, -22.5 dB
 - ANSI ESF: Selectable
 - Keep alive: AIS, Framed all-1's, network looped
 - Yellow alarm: Selectable
- **MODEM INTERFACE:**
 - Physical: RJ11C (USA), CA11A (Canada)
 - Modulation & Rate: V.22bis; 2400 bps

Standards Support

- AT&T TR 54016, 62411
- ANSI T1.403-1989
- Integral dial modem: V.22bis

Management

- **LOCAL & REMOTE ACCESS:**
 - Front Panel LCD and/or Emulation
 - VT-100 / Telnet Access
 - Integral Modem & Alarm Message Capability
 - SNMP Management Support
- **LOOPBACKS:**
 - LLB (Line loopback)
 - PLB (Payload loopback)
 - DLB (DTE loopback)
 - RLB (Repeater loopback),
 - REM LLB (Remote line loopback)
- **TEST PATTERNS:** 1 in 8, QRSS
- **LED INDICATORS:**
 - SYSTEM (3): OK, FAIL, TEST
 - NETWORK (4): SIG, OOF, ALRM, EER
 - DTE (5): SIG, OOF, ALRM, PDV, BPV

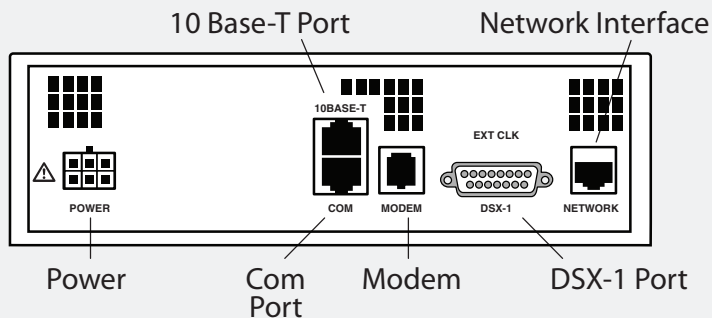
Regulatory Compliance

- FCC: Part 68, Part 15 Class A
- UL: UL1950
- CSA: CSA-22.2 N#950-M89, 108.8-M1983

Operating Requirements

- Temperature: 32° to 122° F (0° to 50° C)
- Storage: -4°F to 158°F (-20°C to 70°C)
- Humidity: 95% (noncondensing)

BACK - 3150 CSU



Ordering Information

3000-B1-201	Comsphere 3000 Carrier with 115 VAC
3000-F1-001	Comsphere 3000 Carrier Shared Diagnostic Control Panel (with ribbon cable)
3000-F1-002	Comsphere 3000 Carrier Shared Diagnostic Unit (SDU)
3000-F1-007	Comsphere 3000 Carrier Fan Module (115 VAC)
3000-F1-008	Comsphere 3000 Carrier Filler Panel
3000-F1-021	Comsphere 3000 Carrier Rear Connector Plate
3150-A4-210	Acculink 3150 ESF T1 CSU (Standalone Unit)
3151-B4-010	Acculink 3151 ESF T1 CSU (Nest Card for 3000 Chassis)

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