CTC SHDU03b SHDSL NTU series is a telecommunication product designed as a Network Terminating Unit for carriers and SME users, which offers three model choices with G.703 E1 or ITU-T V.35 and X.21 data interface. The SHDSL E1 NTU supports two different connectors for G.703 E1 applications that link to TDM services, either by balanced 120 ohm RJ45 jack (USOC RJ48C) or unbalanced 75 ohm dual BNCs, with bit rates from 64kbps to 2.048Mbps. The SHDSL V.35, X.21 NTU supports a serial interface via DB25F connector along with DB25M to MB34F(V.35), DB25M to DB15F(X.21) cable adapters. The SHDSL NTU can be configured and managed by a local LCD menu and push-buttons or by a menu driven VT100 compatible Asynchronous Terminal Interface either locally or remotely via EOC (Embedded Operations Channel). The G.SHDSL bis NTU provides the capability to extend transmissions over a copper loop such as ordinary, single pair, telephone twisted cable.

Features
- Standard G.SHDSL (ITU G.991.2) supports improved reach/speed and greater interoperability
- Fast and cost-effective provisioning of traditional frame relay (FR or T-HDLC) or TDM leased line services
- Use existing copper loop infrastructures
- Operate in back to back connection
- Efficient single wire pair usage
- Up to 5.696Mbps symmetric service bit rate

Specifications

Specifications

- **WAN Interface**
  - Line Rate: SHDSL per G.991.2
  - Coding: trellis coded pulse amplitude modulation(TCPAM-16)
  - Support: Annex A(ANSI) and Annex B(ETSI)
  - Payload rates: 192kbps to 5.696Mbps (N x 64kbps, N=1 to 36)
  - Connection: RJ-45 jack
  - Impedance: 135 ohms

- **G.703 Interface (E1)**
  - Connection: RJ-48C for balanced 120Ω E1 cable and BNC for unbalanced 75Ω E1 cable
  - Line Rate : 2048KHz +/- 50ppm
  - Line coding: HDB3/AMI
  - Framing :PCM30/PCM30C/PCM31/PCM31C and Unframed
  - Data Rate : 64Kbps to 2.048Mbps (N x 64Kbps, N=1 to 32)
  - Operation : Full E1 and Fractional E1

- **Data Interface (V.35, X.21)**
  - Connection: DB-25(F)
  - Payload rates: 64~5.696Mbps (N=1 to 36)
  - Support: V.35, X.21

- **DSL Timing**
  - Internal
  - From E1 Recovery (as E1)

- **Performance Monitoring**
  - E1, SES, UIAS, LOWS for SHDSL
  - E1, SES, UIAS for E1
  - Alarms and Errors for SHDSL or interface

- **Management**
  - Configuration with keypads and LCD display
  - Console port (RJ45, RS232C)
  - Support firmware upgradeable
  - SNMP management via Ethernet port(Optional)

- **Loopback Tests (for E1 only)**
  - Local Digital Loopback
  - Remote Line Loopback
  - Remote Payload Loopback
  - Far-end Line Loopback
  - Far-end Payload Loopback
  - V.54 Loopback(for V.35 interface only)
  - Build-in 2047 bit (2^{11} – 1) BER Tester

- **Regulatory**
  - ISO 9001 Quality Management
  - CE Approval & EN60950 Certificate

- **Physical / Electrical**
  - Dimensions: 195 x 48 x 168 mm (D x W x H)
  - AC Input: 90~240VAC with 50~60Hz
  - DC Input: -36V~ -72V
  - Power Consumption: 10W Max
  - Operation temperature: 0 to 50°C
  - Humidity: Up to 95% (non-condensing)
  - External screw for frame grounding

Application

Ordering Information

<table>
<thead>
<tr>
<th>Model Name</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>SHDU03b-E1-AD</td>
<td>E1 NTU, AC+DC Power (2-wire 5.7Mbps)</td>
</tr>
<tr>
<td>SHDU03b-V35-AD</td>
<td>V.35 TDM NTU, AC+DC Power w/V35 Cable (2-wire 5.7Mbps)</td>
</tr>
<tr>
<td>SHDU03b-X21-AD</td>
<td>X.21 TDM NTU, AC+DC Power w/X.21 Cable (2-wire 5.7Mbps)</td>
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</tbody>
</table>

Example: SHDU03b – E1 – AD

Specifications & design are subject to change without prior notice. Please visit CTC Union website for more details.

www.ctcu.com / sales@ctcu.com

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