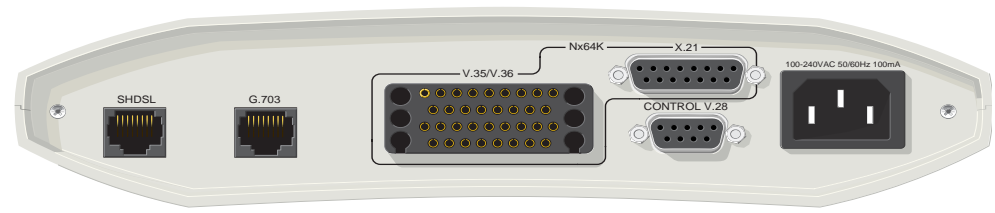


6540 Front Panel



6540 Rear Panel

## DESCRIPTION

The ADTRAN® 6540 SHDSL 2w4w NTU (P/N 1230001L1) functions as an interface between the SHDSL network and the Data Terminal Equipment for applications such as LAN-to-LAN bridging, Frame Relay circuit, and PABX termination. The NTU operates in two different system configurations:

- ◆ as a remote unit to the ADTRAN Total Access® 3000 multiservice platform
- ◆ in pairs in a point-to-point limited distance campus configuration, with one NTU configured to “LT” mode

## FEATURES

The 6540 SHDSL 2w4w NTU is housed in a stand-alone plastic case having the features listed below:

- ◆ four recessed pushbuttons, on the front panel, described in the table below
- ◆ eight LED indicators, on the front panel, described in the table below
- ◆ SHDSL, G.703 and/or Nx64K ports, local management port, and local power AC connection on the rear panel

## Pushbutton Functionality

Pushbutton	Description
PORT SELECT	Pressing the SELECT button will sequentially select active ports in the following order: Nx64k port, G.703 port, SHDSL port, and then cycle back to “No Port.”
LOCAL LOOP/ERR INJ	If a port is selected, and a BERT (Bit Error Rate Test) is not in progress, then pressing the button will initiate/terminate a local loop on the selected port. If a BERT is in progress, then pressing the button injects a single bit error.
REMOTE LOOP	If the SHDSL port is selected, then pressing the button either places or removes a remote loop on the port by sending a EOC request message to the LTU (or NTU in campus mode). If the Nx64K port or G.703 port (with only one service defined) is selected, then pressing the button will place or remove a remote loop on the selected port's single data service by sending respective inband loop up or loop down patterns to the far end (in the associated data service timeslots).
BERT	If a port is selected, and there are no local loops, then pressing the button starts or stop a BERT on the selected port.

## COMPLIANCE

EN 300 386-2; IEC 60950/EN 60950/AS NZS60950; S016; S043.2; ITU K.21 Enhanced; Telstra 1555

## LED Indicator Functionality

LED	Off	Green	Yellow	Red
SHDSL	Unit is powered off	Port is trained; no active alarms	Port is trained with minor active alarm <sup>1</sup>	Port is attempting/is trained with major alarm <sup>2</sup>
G.703	Port is not active	Port is active with no active alarm	Port is active with a minor alarm <sup>3</sup>	Port is active with a major alarm <sup>4</sup>
Nx64K	Port is not active.	Port is active with no active alarm	N/A	Port is active with an active alarm condition <sup>5</sup> .
RTS/C	Nx64K port is not active or when active, V.35/V.36 'Request To Send' or X.21 'Control' line from the DTE is OFF.	V.35/V.36 'Request To Send' or X.21 'Control' line from the DTE is ON.	N/A	N/A
RLSD/I	Nx64K port is inactive or when active, V.35/V.36 'Receive Line Signal Detector' and X.21 'Indication' control line from the NTU (DCE) is OFF.	V.35/V.36 'Receive Line Signal Detector' or X.21 'Indication' control line from the NTU (DCE) is ON.	N/A	N/A
LLOOP	No Local Loop is active.	N/A	A Local Loopback is active on the selected port.	A Local Loop is active on one or more ports or services (when no port is selected).
RLOOP	No Remote Loop is active.	N/A	A Remote Loopback is active on the selected port (when determined via established EOC)	A Remote Loop is active on one or more ports or services (when no port is selected).
BERT	BERT is not active.	A BERT is active, and the test pattern detector is synchronized with no received bit errors.	A BERT is active, and one or more test pattern bit errors have been received.	BERT is active, but the test pattern detector is not synchronized.

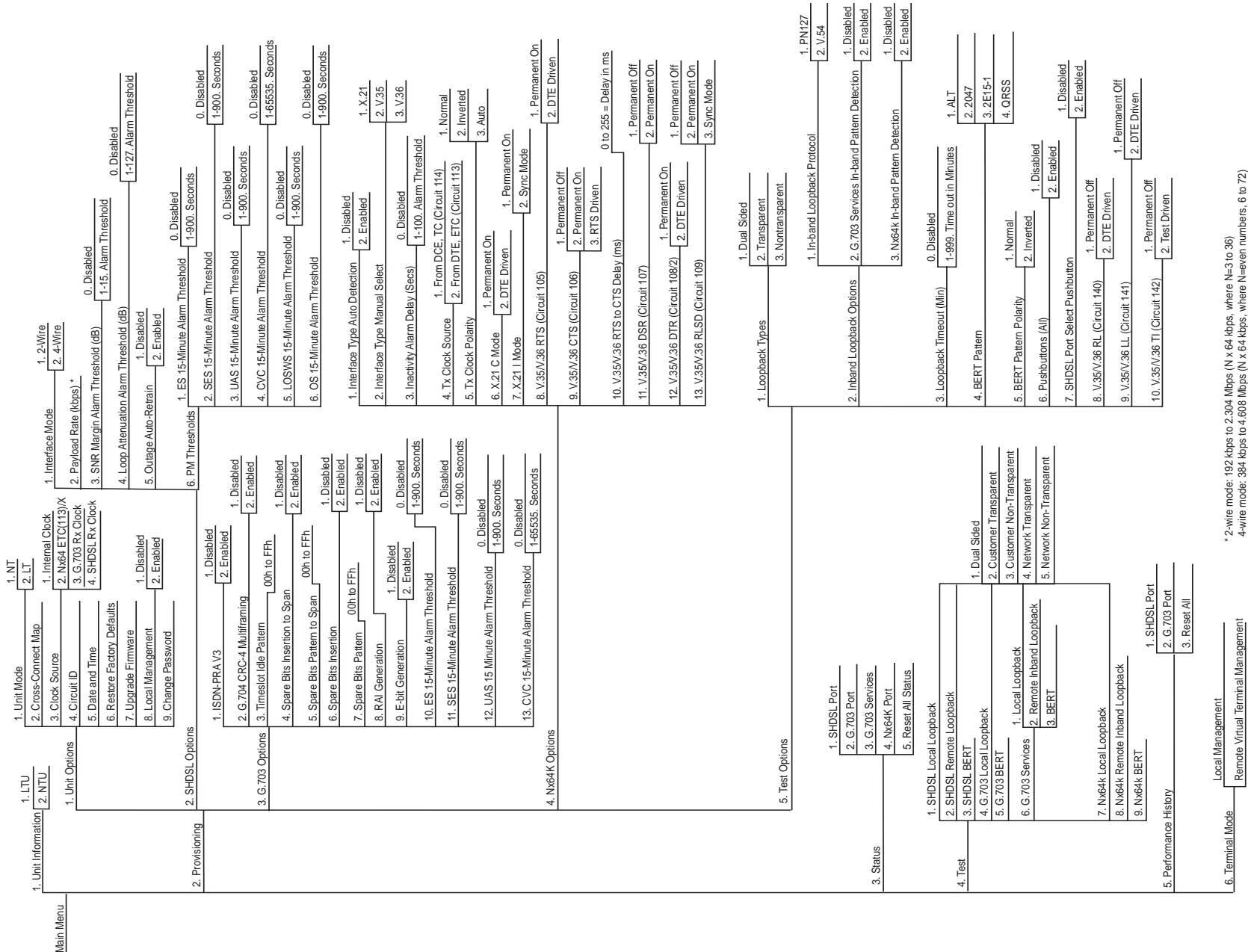
<sup>1</sup> Minor SHDSL port alarms are CRC errors, Loop Attenuation Threshold Alarm, SNR Margin Threshold Alarm, Segment Anomaly, and any ES, SES, UAS, CVC, and LOSWS 15-Minute Threshold Alarm.

<sup>2</sup> Major SHDSL port alarms are LOS, LOSW, or Segment Defect.

<sup>3</sup> Minor G.703 port alarms are Rx RAI, Frame Slip, CRC-4 errors, LBER, and any ES, SES, UAS, and CVC 15-Minute Threshold Alarm.

<sup>4</sup> Major G.703 port alarms are LOS, LOF, LOMF, Rx AIS, or HBER.

<sup>5</sup> Nx64K port alarms are Clock Slip, Loss of External Clock, FIFO Underflow/Overflow, and Inactivity Alarm.



**Warranty:** ADTRAN will replace or repair this product within the warranty period if it does not meet its published specifications or fails while in service. Warranty information can be found at [www.adtran.com/warranty](http://www.adtran.com/warranty). U.S. and Canada customer Faxback: 877-457-5007, Document 414.

\* 2-wire mode: 192 kbps to 2,304 Mbps (N x 64 kbps, where N=3 to 36)  
 4-wire mode: 384 kbps to 4,608 Mbps (N x 64 kbps, where N=even numbers, 6 to 72)