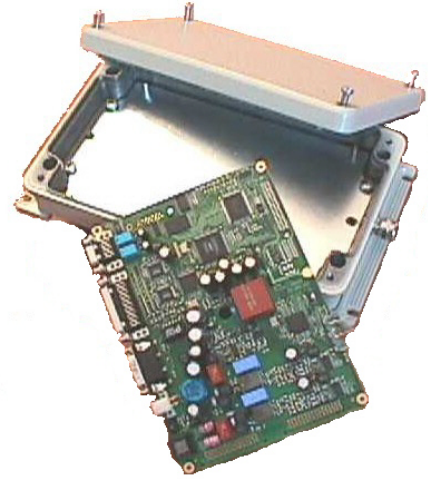


# ADRE Repeater

## Main Features

- Line Repeater for AccessDSL SHDSL Modems
- Locally or Remotely Powered
- Fully Manageable via DSL link
- Protected IP-67 Housing
- External Alarms Management
- Extended Temperature Range
- High Quality, High Performance
- OEM Adaptation Option



## SHDSL repeater for longer reach and add-drop functionality

G.SHDSL (TC-PAM16) line coding utilized in AccessDSL New Generation modems provides superior reach and noise immunity comparing to other DSL technologies. Nevertheless, for numerous applications the required distance (referred to the speed) is longer than the one achievable in simple point-to-point (LTU-NTU) configurations. Typical examples of such applications are:

- DSL links alongside Railways, Pipelines, Power lines, Waterways...
- DSL transport to remote concentrators in rural areas
- GSM base station connections along motorways, railroads, boat lines...
- Military applications...

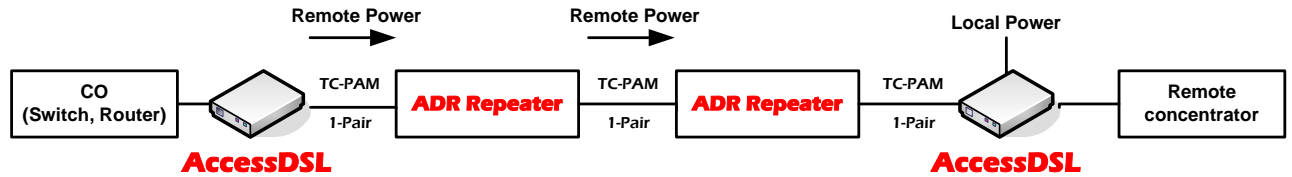
To cover such applications and to help operators building their networks the most cost-effective way, we designed a AccessDSL SHDSL Add-Drop repeater. Each repeater fully regenerates the signal and thus doubles the transmission distance. Even with many (above 10) repeaters in a link the head-end interfaces fully correspond to the standards (G.703 or N\*64(V.36, V.36, X.21) without having usual for back-to-back repeater solutions "jitter and wander" problems. Repeaters can be locally or remotely powered. Remote power can be supplied by LTU AccessDSL cards or by separate optional Power Supply unit (RPSU-300).

Being more than just a repeater, AccessDSL unit has add-drop capabilities. In each repeater location customer may add and drop Time Slots (using standard Fractional E1 interface) into transmitted over DSL data stream. This eliminates a need in additional multiplexers and DSL modems for "linear network topologies" saving a lot of investments. As an option we can provide asynchronous and N\*64 interfaces (i.e. RS-232 or RS-485), which convert the repeater into data acquisition device often needed for industrial automations purposes and technological communications along pipelines, railways, motorways, waterways etc. With optional external alarm management function, operator can collect alarm information from external sensors like lock control, floatation, fire etc.

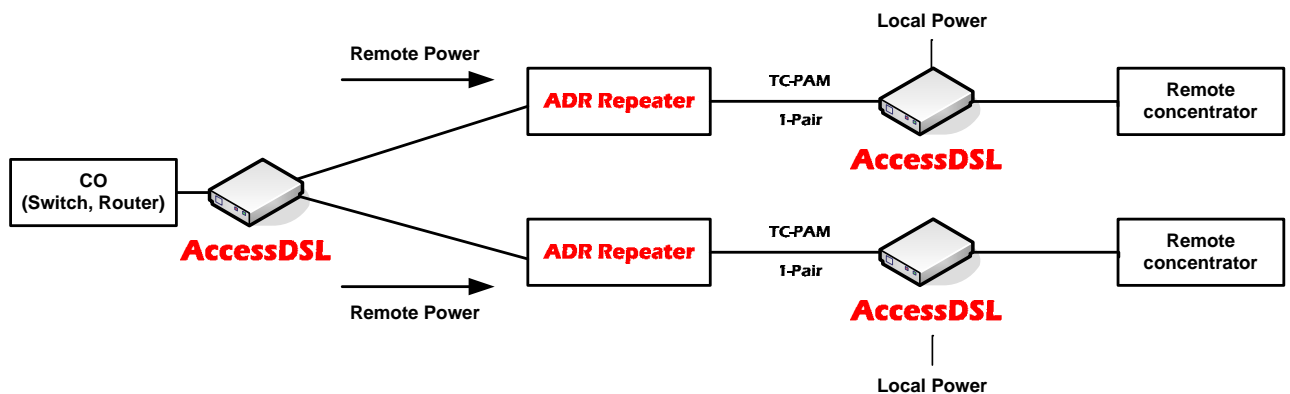
DSL link containing one or several AccessDSL repeaters is fully manageable from LTU and/or NTU side. AccessDSL repeaters are delivered in protected IP-67 housing to meet harsh environmental conditions or (optional) in standard in-door plastic housing.

For OEM projects repeater can be adapted to customer's specific housing, line coding (G.SHDSL based) and management.

Remotely powered repeater and NTU to double the distance:



Two remotely powered repeaters to triple the distance



## SPECIFICATIONS

Supported modems	AccessDSL G.SHDSL (G.703 and/or N*64, Multiservice, IAD)
Line code	TC-PAM (Option – CAP8...CAP128)
Management	From LTU or NTU over DSL line
Dimensions (IP-67 housing, with brackets)	295*170*70mm
Remote Power, high voltage option	200V, 60mA, (two repeaters or one repeater and NTU)
Remote Power, low voltage option	100V, 60mA (one repeater or NTU)
Local Power	36...72VDC or 220VAC via power adapter
Power consumption	Below 3.2W
Add/Drop interfaces	G.703/704 (FE1), N*64 (Optional), RS-232/485 (Optional)
External alarm interface	3 pairs of contacts (to connect three external sensors)

## ORDERING CODES

SA-PAM-ADRE1-IP(ST)

- Add-Drop Repeater, 1\*xDSL (PAM/CAP), REMO, 1\*E1 120 Ohm, 1\*EIA-232/EIA-485, locally or remotely powered, IP-67 housing, external alarm management

SA-PAM-ADRE1-PL\*

- Add-Drop Repeater, 1\*xDSL (PAM/CAP), REMO, 1\*E1 120 Ohm, 1\*EIA-232/EIA-485, locally or remotely powered, standard AccessDSL plastic housing, external alarm management

\*Version in a standard AccessDSL plastic housing and OEM housing versions are available for high-quantity orders only.  
All versions and features marked as "optional" are customer's specific versions and might be available for high quantity orders only.