

ISDN S0 Loopback Device



The **Loopback Device** provides a simple, low cost method of automatically answering and looping the B channel(s) of an ISDN call to assess line presence and end-to-end quality.

- **Troubleshooting**

The ISDN **Loopback** behaves as one terminal on the S bus and provides a low cost method of assessing ISDN line operation.

- **Commissioning**

Create fixed ISDN loopback test numbers to aid installations.

- **Line Quality Verification**

Use in conjunction with a test telephone to carry out a Bit Error Rate Test over the **entire** line distance.

- **Evaluate the Use of ISDN for your Application**

Call the ISDN **Loopback** from a video conferencing terminal and see your own image received back from the far end for a clear indication of expected quality.

- **Test through the NT1 at the remote site**

The **Loopback** Device is plugged in on the S bus like any other ISDN terminal to enable a complete test from the local terminal, through both NT1's to the remote terminal.



The **Loopback** Device is a self contained miniature basic rate ISDN terminal. It simply plugs into a spare socket on your NT1 equipment, allowing you to call it at any time from any location to verify the availability and end-to-end quality of the line under test. Two RJ45 sockets are provided so that another ISDN terminal can be connected to the same NT1. A loop will be placed between Tx and Rx in either or both B channels. The **Loopback** Device is a sure way to detect line faults avoiding costly down time and call out charges. Looping back the test pattern sent from a hand held test telephone also provides a simple but effective line quality measurement.

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Ease of Use

The ISDN **Loopback** may be connected to any suitable PC via the standard serial port which allows simple setup via a Windows configuration program in order to satisfy a wide range of user applications. First a trigger is selected based on calls made to the device, then an action is selected. Examples of triggers and actions are shown below:-

Trigger Options

- 1 Any Call
- 2 Call Type (speech, data, 3.1KHz)
- 3 Subaddress (20 alphanumeric characters)
- 4 MSN* (up to 20 digits)
- 5 CLI* (up to 20 digits)

*MSN = Multiple Subscriber Number

*CLI = Calling Line Identification

Actions

- 1 Loop Immediately
- 2 Loop after Delay (enter delay 0 - 999 seconds)

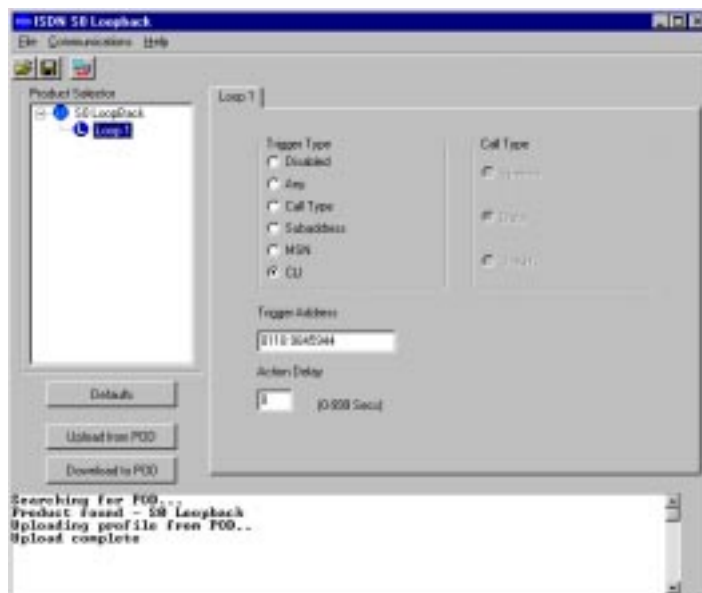
This level of power and flexibility in such a simple to operate unit makes the **Loopback** Device an invaluable tool for any technician. All selections are saved in non-volatile memory within the device and it is very easy to return to the 'any call, no delay' default configuration.

LED Indicators

LED indicators on the ISDN **Loopback** clearly show the presence of line or external power, synchronisation with the ISDN network, together with the loop function and B channel(s) in use.

Power & Activation

The ISDN **Loopback** may be powered from the ISDN line or if line power is not available from an optional power adapter.



Loopback Device configuration program.

Summary

ISDN uses a sophisticated digital message based protocol which can present challenges and potential problems. Whether you are an end user, installer or provider of ISDN services, the ISDN **Loopback** offers a low cost, quality route to effective testing and peace of mind.

Specification

ISDN S0 Interface

Connection: RJ45 socket x 2
Physical Layer: I.430 'S' Bus TE Mode
Layer 2: Q.921 Euro ISDN
Layer 3: Q.931 Euro ISDN
TE1: Single TE1 used (automatic)

Serial Port Connection

RJ11 using supplied RJ11 to 9 pin D type cable

Loopback Unit

Dimensions: 64mm x 180mm x 24mm
Weight: 140g



Power

Line powered from 'S' bus or optional external power adapter

Specifications subject to change without prior notice.
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