

IB 512

LEASED-LINE BACKUP
VIA ISDN



**512 Kb/s LEASED-LINE
BACKUP**

etic
TELECOMMUNICATIONS

CHARACTERISTICS
Backup for 48 kb/s to 2 Mb/s leased lines
No modifications to existing installation
Continuous monitoring of the leased line while maintaining full bandwidth
Automatic, remote-controlled or manual switching to ISDN
Time window
10 chainable backup call numbers
64 to 512 kb/s on ISDN
Automatic return when leased line restored
Remote management via ISDN
WINDOWS-based central unit
Data interfaces V11 or V10 or G703
APPLICATIONS
Backup for 48 kb/s to 2 Mb/s leased lines

The IB512 provides 512 kb/s backup capacity via ISDN for 48 kb/s to 2 Mb/s digital leased lines.

No modification of the existing installation is required. The IB512 is simply inserted between the data terminal (router, computer, X25 or voice/data multiplexer) and the leased-line modem.

The IB512 continuously monitors the leased line and establishes an ISDN connection in the event of line failure.

As soon as the leased line is restored, the IB512 switches back to the primary data path.

SECURITY

Continuous monitoring of the leased line

The IB512 continuously monitors the quality of the leased line. The monitored quality parameters cover a wide range of needs, including:

Analysis of V110 frames, V38 scrambling of send data and unscrambling of receive data, monitoring of the clock and the control signals (V11 or V10) of the leased-line modem, not to mention G703 processing.

Measurement results are used to check for an effective failure criterion which provokes switching to ISDN.

Automatic switching to ISDN following failure of the leased line

When the IB512 detects a failure on the leased line, the ISDN connections can be established automatically, subject to authorisation by the time window.

Switching to ISDN can also be remote controlled by the central unit via ISDN when it receives an alarm message, or using a front-panel keypad or a VT100 terminal.

During communication via ISDN, the IB512 continuously monitors the leased line and switches back when the line has been restored.

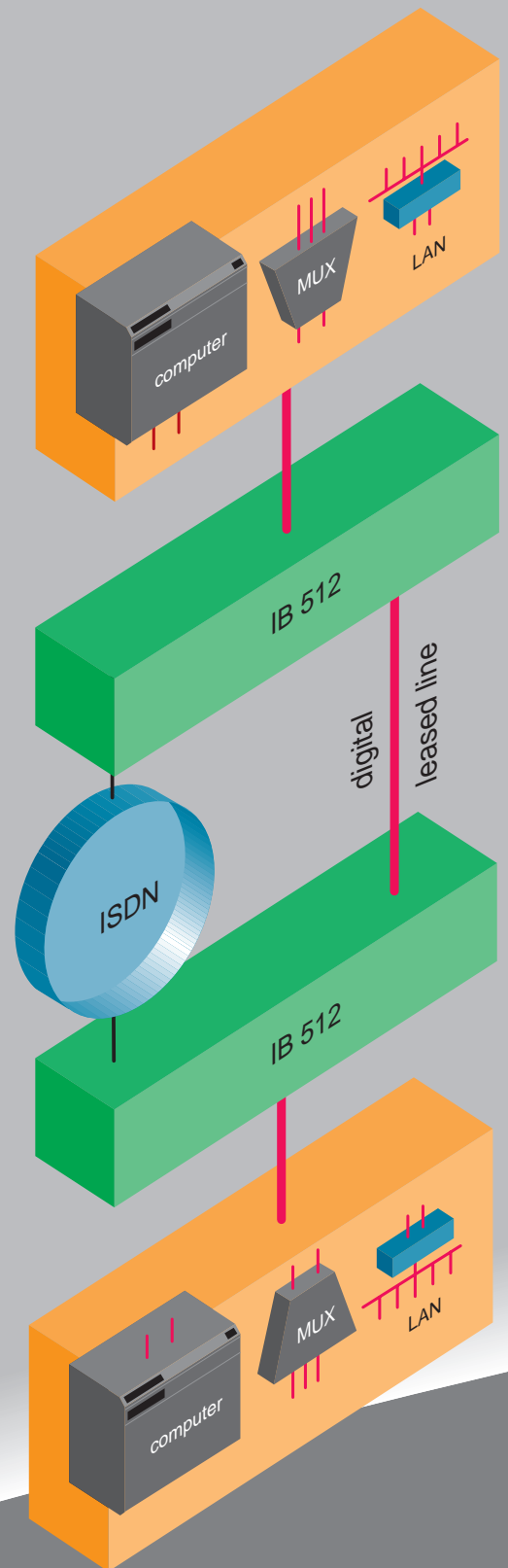
Integration in the network

The IB512 offers all the features required for integration in a supervised telecommunications network and can be entirely remote controlled via ISDN, notably for transmission of fault alarms, switching, event logs, configuration and loopbacks.

Improvements to the IB512 software can also be down-loaded via ISDN.

Access security

The IB512 protects access to the company network by checking the calling-party number and comparing it to the list of numbers in its directory. All calls from an unlisted number can be rejected, thus making company network intrusion virtually impossible.



COST SAVINGS

Installation requires no modifications

The IB512 is inserted between the leased-line DCE and the data terminal. No modifications to the installation are required. Backup is operational without doubling up the leased lines or multiplying network connections. The result is a major reduction in operating costs when compared to other solutions. What is more, no replacement of existing equipment is required.

Flexible backup data rates

The IB512 can be connected to a leased line with a data rate of up to 2Mb/s, however, the backup data rate via ISDN may be adjusted to needs from 64 kb/s to 512 kb/s. When the switch to ISDN has been made, the IB512 provides the data terminal with the clock at the required data rate.

Time window

To avoid untimely switching to ISDN and unnecessary operating costs, a time-window function inhibits switching at certain times and periods, for example nighttime and weekends.

C H A R A C T E R I S T I C S

LEASED LINE and DTE

DTE interface	1 V11 or V10 port Data rate 48 kb/s or 56 kb/s or 64 kb/s up to 2 Mb/s or, as an option, one 2 Mb/s G703 port
Leased line interface	1 64 kb/s to 2 Mb/s V11 / V10 port (V110 adaptation) or, as an option, one 2 Mb/s G703 port

ISDN

ISDN interfaces	4 BRI/S0 RJ45 interfaces ETSI EURO-ISDN / France Télécom VN2 / VN3 / VN4 / VN6 / Deutsche Telekom 1TR6 / British Telecom ISDN2 / Belgium V1 / Swedish Televerket / AT&T E5SS / Northern Telecom DMS100 / US national ISDN 1 and ISDN 2 / Australian Telecom 1 / NTT / Kokusai / Hong-Kong
Data rate	64 to 512 kb/s
Synchronization of B channels	BONDING modes 0, 1, 2, 3, 3b IB512 compensates for differences of up to 1 second in transmission time between B channels
Loopbacks	Loopbacks 3C, 2B, A, remote loopback

BACKUP FUNCTION

Switching control	Automatic depending on criteria listed below or manual (VT100 or front panel) or remote controlled via ISDN
Time window	Annual schedule determining times and periods when switching to ISDN is enabled
Access security	Check on number of calling party (90 numbers in directory)
ISDN line verification	Periodic test of the ISDN lines
Chaining of calls	10 chainable backup call numbers

BACKUP FUNCTION (cont'd)

Switching criteria	V110: Loss of frame alignment V11/V10: Loss of clock and control signals and/or V38 error level threshold (scrambling/unscrambling of data) G703: Loss of signal and/or frame alignment, exception of an alarm, frame slip and error level
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OPERATION

Front panel (keypad and lights)
or VT100 or ASCII commands

REMOTE CONTROL

Via ISDN:
Transmission of fault alarms
and event logs to central unit
Remote control of switching
Periodic control call via ISDN
Remote loading of firmware

OTHER CHARACTERISTICS

Dimensions	442 X 42 x 220 mm (W x H x D)
Enclosure	Desktop or 19" rack mount
Power supply	110 V +-10%, 220 V +-10% 47/63 Hz 30W
Operating temperature	+10 °C to +50 °C
Electrical protection	EN 41003 / EN 60950
Electromagnetic compatibility	EN 55022 / EN 50082-1 / IEC 801

REFERENCES	DTE INTERFACE	
ISDN DATA RATE	V11 and V10	G703
512 kb/s	IB 512-40	IB 512-41
384 kb/s	IB 512-30	IB 512-31
256 kb/s	IB 512-20	IB 512-21
128 kb/s	IB 512-10	IB 512-11

DISTRIBUTOR

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