

# NT1+MULTI 2B1Q – ISDN NETWORK TERMINATION ELCONNECT®

**SIMPLE**

Plug&Play installation

**FIELD-PROVEN**

High quality and dependability

**MULTIFUNCTIONAL**

S/T, POTS, USB, V.24



## THE PRODUCT

### Network Terminating Unit with two analogue ports and a data interface for the ISDN basic rate access

The NT1+Multi is a network terminating unit with built-in terminal adapter and additional data interfaces for ISDN basic connections. The system realises the transition from the public ISDN network subscriber line to the private S-bus.

Thanks to the integrated data interfaces ISDN cards are no longer needed in order to connect a PC. The PC can now be connected directly to the V.24 (RS232) or USB ports. As an optional extra, the NT1+Multi is supplied with a comprehensive software suite for Internet, e-mail and PC fax communication.

The digital interface allows the operation of ISDN systems, telephones and PC cards. All services offered by the network operator are thus available to the subscriber. Up to eight ISDN terminals can be connected directly to the ISDN S-bus. In addition, the terminal adapter also provides the interfaces for conventional analogue terminals, such as telephones, fax machines or answerphones.

For ISDN signaling, the NT1+Multi provides two 64 kbps bearer channels and a 16 kbps data channel (a signaling channel which can also serve for data transmission). Two simultaneous external calls are possible, as is channel bundling, the use of both bearer channels for internet access.

### Variants of the NT1+Multi

- With a V.24 interface and a USB port
- With a USB port

### Advantages of the ELCON system

Benefits for the network operator:

- Use of latest IC technologies to enable increased functionality
- Cost-efficient multi-purpose equipment
- Reduced logistics costs due to compact design and lower weight
- High customer acceptance thanks to the „Two-in-one-device“ concept
- Additional subscriber services

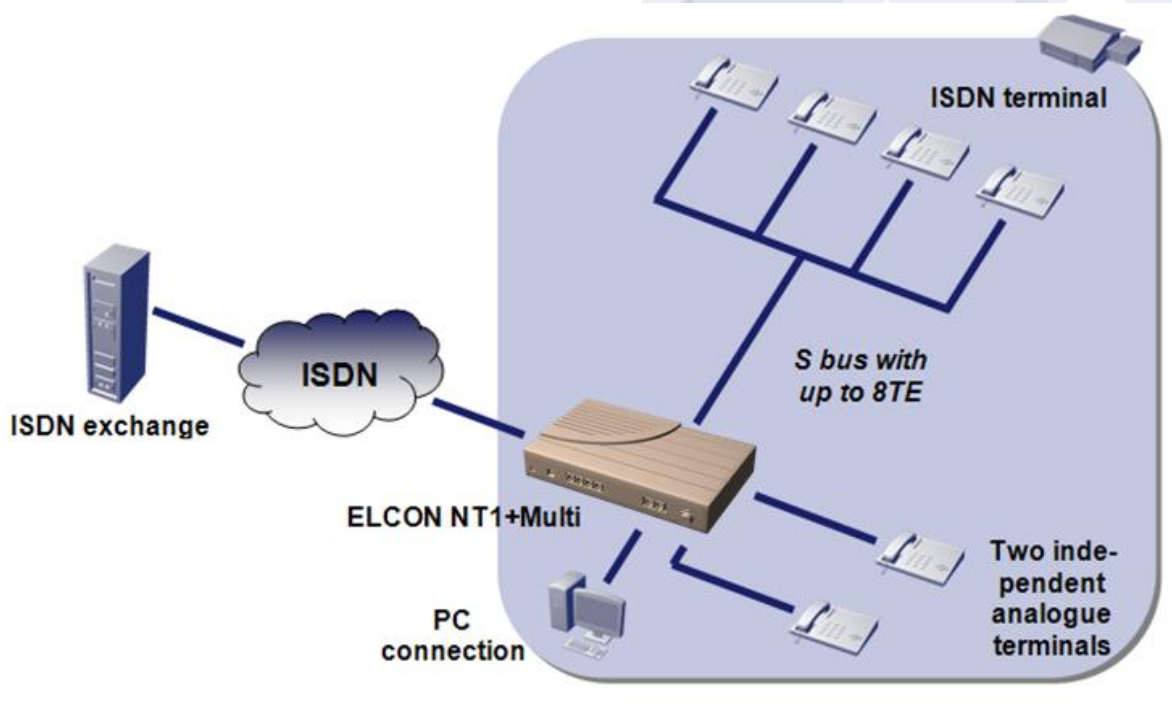
Benefits for the subscriber:

- Direct connection of a PC to access the Internet
- Continued use of existing analogue terminals possible
- Use of ISDN service features on analogue terminals
- High-speed bandwidth of 128 kbps at a range of eight kilometers



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## APPLICATION



## TECHNICAL DATA

### ISDN features on the analogue ports (Selection of features, partly optional)

- CLIP (Calling Line Identification Presentation): the calling subscriber's telephone number is transmitted to the called subscriber's terminal
  - CLIR (Calling Line Identification Restriction): transmission of one's own number on outgoing calls is suppressed
  - CF (Call Forwarding): calls can be forwarded unconditionally, on busy, or when there is no reply
  - CW (Call Waiting): a waiting call is signaled during a current phone conversation
  - CH (Call Hold): calls can be put on hold
  - AOC (Advice Of Charge): the cost of the call is indicated on the phone's display
  - MCID (Malicious Call Identification): enables tracing of bothersome callers
  - Basic functions for setting up and clearing down calls (call setup)
  - Configuration and operation of the system are supported by the service software
  - Remote programming and/or configuration as well as remote firmware update
  - Reset to the default state (factory settings on delivery)
  - Clearback Time Delay
  - Pre-installation/"Plug & phone" function (on request)
  - Call bumping, i.e. one voice channel can be cleared on request so that the analogue ports can be used for a 128-kbps Internet connection
  - Data transmission via the V.24 (RS232) or USB ports using PPP or MLPPP; other data protocols are optional
  - TP (Terminal Portability): terminals can be unplugged from and plugged into the bus
  - OCB (Outgoing Call Barring Subscribers Controlled): outgoing calls to specific tariff zones can be barred
  - CCBS (Completion of Calls to Busy Subscriber): automatic callback on busy
  - 3PTY (Three Party Conference)
  - ECT (Explicit Call Transfer): connection of the two external subscribers in a three-party conference, or of the caller on hold with the current caller
  - BOD (Bandwidth on Demand): the bandwidth can be varied (a B-channel is automatically activated when an active Internet connection requires increased bandwidth)
- Additional ISDN services can be provided on the a/b ports on request.

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## ELCONNECT®

### TECHNICAL DATA

#### Service software

Service software for the remote or local configuration of the NT1+Multi is available as an option. This enables you to offer your customers top-quality service and reduce your maintenance costs. The following functions can be realised remotely or locally:

- Device status inquiry and failure search
- Configuration of many internal settings
- Checking of various device interfaces as well as the device and software version
- Software download
- Loading and saving of a new NT1+Multi configuration

#### U interface

- acc. to ETSI TS 102 080 guideline
- Echo cancellation for direction separation on a twin-wire subscriber line
- Line code 2B1Q
- Operating range (if no noise signals occur):
  - 4.8 km using Ø 0.4 mm cable
  - 9.0 km using Ø 0.6 mm cable

#### S/T interface

- acc. to ETS 300 012 guideline
- Operating range:
  - max. 220 m (short passive bus)
  - max. 1100 m (point-to-point connection)

#### a/b interface

- country-specific electrical and mechanical parameters in accordance with ITU-T Q.552, ITU-T G.712, ITU-T Q.9
- Range: approx. 250 m

#### V.24 port

- Maximum data rate: 230 kbd
- Installation: Plug & play for Win95/98/NT/2000/XP

#### USB port

- USB 1.1. standard, high performance

#### Power supply

- Nominal voltage: 230 V AC, 50 Hz;  
Optional: 110 V AC, 60 Hz
- Power consumption: 20 VA

#### Physical parameters

##### Casing dimensions

- 195 × 155 × 43 mm<sup>3</sup> (W × H × D)

##### Ambient temperatures

- Transport/Storage: -25°C ... +55°C
- Operation: 0°C ... +55°C

#### EMC & Safety

- EMC: DIN EN 55022, ETSI EN 300 386, ETSI TS 201 468
- Safety: DIN EN 60950

**Note:** All rights reserved. Subject to modifications due to technical progress. Errors and printing mistakes may occur.

#### PURCHASE ORDER INFORMATION

Product designation	Order number
NT1+Multi 2B1Q (V.24 + USB)	6028
NT1+Multi 2B1Q (USB)	6183