

# NT1+2a/b 2B1Q

## ISDN Network Termination

### Simple

Plug&Play installation

### Field-proven

High quality and dependability

### Multifunctional

ISDN services on analogue ports available



## The Product

### Network Terminating Unit with two analogue ports for the ISDN basic rate access

The NT1+2a/b is a network terminating unit with built-in terminal adapter for ISDN basic connections. The system realises the transition from the public ISDN network subscriber line to the private S-bus.

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+2a/b 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.

### Advantages of the albis-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

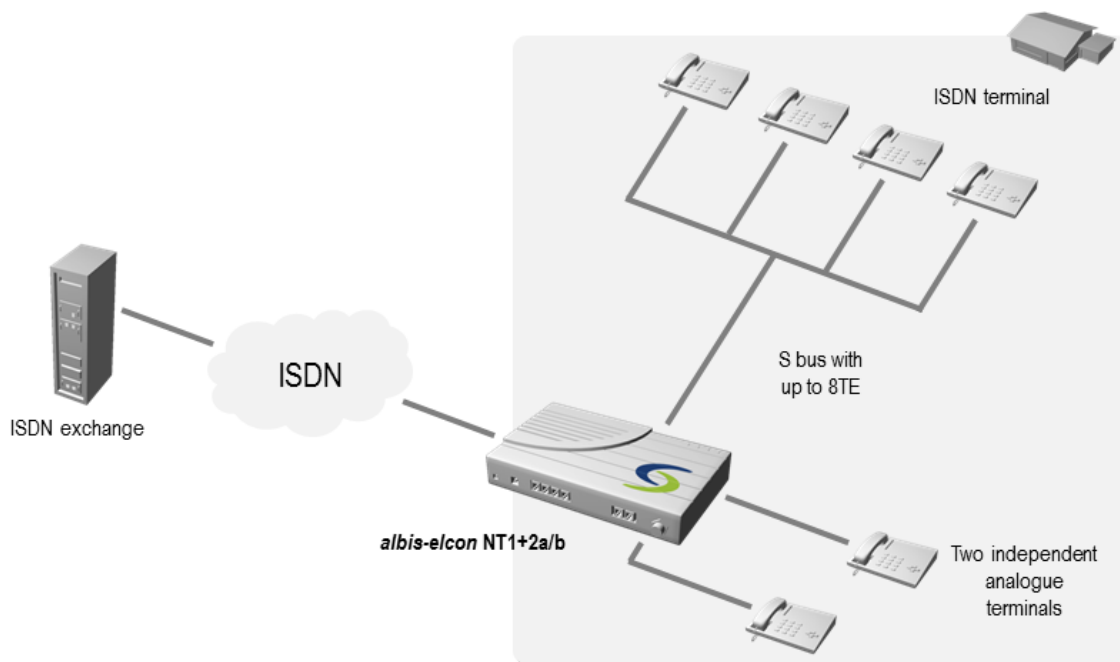
#### Benefits for the subscriber:

- Continued use of existing analogue terminals possible
- Use of ISDN service features on analogue terminals

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## ISDN Network Termination

### 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

- TP (Terminal Portability): terminals can be unplugged from and plugged into the bus
- 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

#### Configuration options

The system can be optionally configured as:

- NT1+2a/b: S/T and both a/b-ports are available
- NT1 Standard-NT: i.e. only S/T-interface is available
- NT+2a/b: only the a/b-ports are available

#### Further functions

The emergency power supply can be provided either for one of the three interfaces S/T, a/b1 and a/b2, or dynamically for a/b1 or a/b2 (optional).

The S/T-interface can be configured as a passive bus or as point-to-point connection.

To each a/b-port 1 - 3 multiple subscriber numbers (MSN) can be assigned, having up to 20 digits per MSN.

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#### Further functions

Each a/b-port can be configured for one of the three terminal types: voice, G3-fax or multiport (e.g. modem).

Devices can be configured via the a/b-ports using DTMF-signalling or with help of the service software.

#### Service software

Service software for the remote or local configuration of the NT1+2a/b 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+2a/b 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
- Range: approx. 250 m

#### Power supply

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

#### Physical parameters

##### Casing dimensions

- 195 × 150 × 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

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#### Purchase Order Information

Product designation	Order number
NT1+2a/b 2B1Q	6033