

## NTU-1 (Network Termination Unit-1)

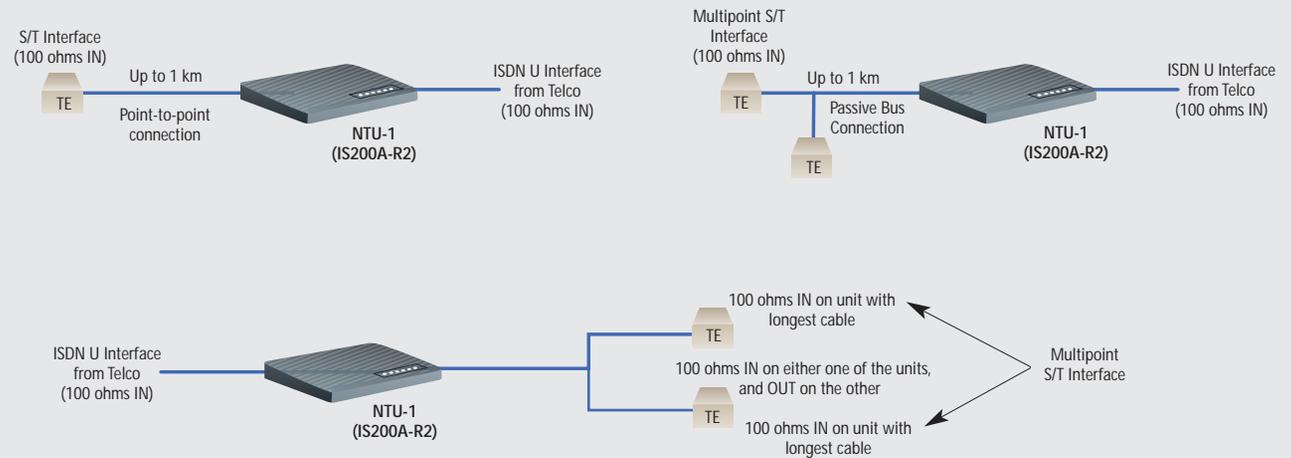


**Your affordable link to the ISDN network.**

## FEATURES

- Point-to-point or point-to-multipoint configuration.
- Up to 18,000 feet (5500 meters) operating distance.
- Easy configuration—everything you need is on the rear panel.
- Uses standard RJ-45 jacks on all interfaces.
- Operates automatically.
- For wallmount or desktop use.
- Power supply is included.

## The NTU-1 in typical applications.



## OVERVIEW

ISDN service requires an NT1 to connect the terminal adapter to the ISDN line. If your terminal adapter doesn't have a built-in NT1, the NTU-1 is your affordable choice.

The NTU-1 converts the 2-wire echo-canceled 2B1Q code from the central office to a Customer Premise 4-wire alternate space inversion code. It supports both point-to-point and point-to-multipoint configuration. All options and connections are accessible on the rear panel, and the NTU-1 comes with surge protection. Also, all interfaces have standard RJ-45 jacks.

### Power Information:

#### Wallmount Transformer—

The NTU-1 is normally powered from the wallmount transformer. The transformer and the NTU-1 power-supply circuitry provide 5 watts for up to two terminal devices connected to the S/T interface. Connect the transformer's barrel connector to the Power jack on the rear panel. Plug the transformer into a standard 120-VAC wall socket.

#### Signal Power—

The NTU-1 routes local and remote power to the signal leads of the S or T interface. For phantom powering applications, S/T interface connector pins 4 and 5 (Transmit) are the negative power leads, and pins 3 and 6 (Receive) are the positive power leads.

#### Remote Power—

The NTU-1 can receive backup power over the U interface connector. The input must be a minimum of 48 VDC and 5 watts. Both local and backup power is routed to the S/T interface connectors to power the associated terminal equipment. Pins 7 and 8 on the U interface provide remote power to both S/T jacks and the NTU-1.

## Technically Speaking

Light-emitting diodes (LEDs) display the status of certain operating functions and will indicate if malfunctions are occurring.

Keep these guidelines in mind when observing the NTU-1's LEDs:

- If a disruption occurs between the U interface and the ISDN switch, the ACT LED flickers.
- If a disruption occurs between the S or T interface and the TE, the ACT LED blinks once per second.
- If a disconnect occurs on both interfaces, the ACT LED goes out.

The NTU-1's six LEDs are:

**LP (Local Power)**—ON indicates the wallmount transformer is plugged in, and 120 VAC is present.

**RB (Remote Power)**—ON indicates the remote power source is connected and functional.

**RPR (Remote Power Reversed)**—ON indicates the remote power source is connected, but polarity is reversed. This must be corrected by site facilities.

**LB (Loopback)**—ON indicates that the telephone company's ISDN switch has sent a 2B+D loopback command to the NTU-1.

**SC (Sealing Current)**—ON indicates a presence of metallic termination test voltage from the ISDN switch.

**ACT (Activity)**—ON indicates that a link-up between the TE and ISDN Central Office via the NTU-1 has been achieved, and transmission can take place.



## TECH SPECS

**Line Type** — Basic Rate ISDN (2B1Q)

**Switch Compatibility** — AT&T®, Northern Telecom®, Siemens®, GTE®

**Maximum Operating Distance** —

U interface: 18,000 feet (5500 meters);

S/T interface: 3280 feet (1000 meters)

**Operation** — Full or half-duplex

**Operating Mode** — Point-to-point or multipoint

**Indicators** — (6) LEDs: Local Power (LP), Remote Power (RB), Remote Power

Reversed (RPR), Loopback (LB), Sealing Current (SC), Activity (ACT)

**Connectors** — (3) RJ-45 (2 for the S/T interface, 1 for the U interface)

**Diagnostics** — None

**Temperature** — Operating: 32 to 122°F (0 to 50°C);

Storage: -40 to +176°F (-40 to +80°C)

**Humidity Tolerance** — 10 to 95%, noncondensing

**Power** — 120 VAC, 60 Hz, 5 watts maximum, external supply

**Size** — 1.4"H x 6.3"W x 3.8"D (3.6 x 16 x 9.7 cm)

**Weight** — 0.6 lb. (0.3 kg)

Item	Code
NTU-1 (Network Termination Unit-1)	IS200A-R2

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