
New Product Announcement 751321B ADSL TELEPHONE CARD

Positron is proud to announce the introduction of our ADSL Telephone card, **model 751321B CLEI: NPPMNH0AAA**. This new card will provide electrical isolation for an ADSL G-LITE circuit (which is used for high speed internet access), which is subject to Ground Potential Rise (GPR) or Lightning strike.

The plug in ADSL Telephone card provides high voltage isolation between an incoming ADSL (Asymmetric Digital Subscriber line,G-Lite) line and the network termination (NT) equipment at the customer's location. The card will have one pair coming in (ADSL pair) from the CO and two pairs going out to the customer's equipment. One pair will carry the telephone signals and the second pair will carry the data signal feeding the high-speed modem.

The features include the following.

- Isolate and Protect one ADSL G-LITE line from GPR and lightning
- Provides up to 50kV RMS and 70kV peak voltage protection
- The 751321B must be used with the new generation 3,5 and 8 card shelves.
- The card operates from either a -24 V or -48 V dc supply (provided by the shelf's power supply or from a source external to the shelf).
- Once installed, it is part of the network, any terminal equipment at the site is not affected.
- This card features a high frequency filter, the filter will remove the low frequency component, mainly DC, ringing and dial pulse from the signal to be sent to the station side.
- The ADSL card is designed to separate the data portion of the signal from the POTS portion and treat them separately by using a splitter.
- The splitter, POTS and data portions will all be bi-directional to allow transmission of signal in both directions to be unaffected.

For electrical specifications refer to Table 1, for diagram refer to figure 1, for physical specification refer to table 2



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ADSL TELEPHONE CARD

Table 1 Electrical Specification (measured at 77°F or 25°C)

| Parameter | Specifications |
|-----------------------|------------------------|
| <i>ISOLATION DATA</i> | |
| Isolation Resistance | 100 000 ? O |
| Metallic Surge | 3 kV MAX |
| Insulation voltage | 50 kV rms (70 k V pk) |

POTS PORTION (600 O impedance)

| | |
|---|--|
| INPUT VOLTAGE REQUIREMENT | -24 V or -48 V dc |
| ON-HOOK | |
| Ringing generator voltage | ≥ 84 V rms with 5 ringers (type 500) at 20 Hz |
| CO side input ringing detection | 50 V to 105 V rms, 17 to 50 Hz |
| Terminal resistance (CO side) | > 5 M? at ± 100 V dc |
| OFF-HOOK (40 mA dc) | |
| Insertion loss (300 Hz to 4 kHz) | -3 dB to 3 dB max |
| Minimum loop current (CO) | 20 mA dc |
| Maximum loop current (CO) | Current limiting at 60 mA dc |
| Minimum loop current (station) | Will detect off-hook down to 20 mA dc |
| Maximum loop current (station) | Current limiting at 60 mA dc |
| Maximum loop resistance (station, 20 mA dc) | 850 O maximum at -24 V, 1875O maximum at -48 V (including telephone) |

DATA PORTION (100 O impedance)

| | |
|----------------------------------|-----------------|
| Input power requirement | None |
| Power dissipation | None |
| Insertion Loss @ 100 kHz | < 1.5 dB |
| Bandwidth (-3 dB ref to 100 kHz) | 20 kHz to 5 MHz |

