

4. Technical Specifications

For a listing of the card's electrical specifications, refer to Table 1. For a listing of the card's physical specifications, refer to Table 2.

Table 1 Electrical Specifications (measured at 77°F or 25°C, 50% R.H.)

| Parameter | Specifications | | |
|-----------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|
| | 7501-16A | 7501-16B | 7501-16C |
| ISOLATION DATA | | | |
| Isolation resistance | 100 000 M Ω | 100 000 M Ω | 100 000 M Ω |
| Metallic surge | 3 kV max | 3 kV max | 3 kV max |
| Insulation voltage | 30 kVrms (42 kV peak) | 30 kVrms (42 kV peak) | 30 kVrms (42 kV peak) |
| SUPPLY VOLTAGE | Floating: 105 to 150 V dc | Grounded: -21 to -27 V dc | Grounded: -42 to -56 V dc |
| SUPPLY CURRENT | 55 mA maximum | 350 mA maximum | 125 mA maximum |
| POWER DISSIPATION INSIDE SHELF | 6.2 W maximum | 8.5 W maximum | 6 W maximum |
| MAXIMUM VOLTAGE TIP TO RING | ± 150 V dc | ± 150 V dc | ± 150 V dc |
| MAXIMUM LOOP CURRENT | ± 100 mA continuous | ± 100 mA continuous | ± 100 mA continuous |
| MAXIMUM LOOP POWER | 5W | 5W | 5W |
| RESPONSE TIME (subscriber to line, or line to subscriber) | <1 ms | <1 ms | <1 ms |
| SERIES RESISTANCE | Series resistance of 25 Ω is added to the telephone loop. | Series resistance of 25 Ω is added to the telephone loop. | Series resistance of 25 Ω is added to the telephone loop. |

| Parameter | Specifications | | |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| IMPEDANCE REFLECTION | Impedances on either side appear on the opposite side multiplied by 90% to 110% within the pass band. | Impedances on either side appear on the opposite side multiplied by 90% to 110% within the pass band. | Impedances on either side appear on the opposite side multiplied by 90% to 110% within the pass band. |
| ON-HOOK DATA | | | |
| Terminal resistance | $\geq 200 \text{ K}\Omega$ at $\pm 100 \text{ V dc}$ | $\geq 200 \text{ K}\Omega$ at $\pm 100 \text{ V dc}$ | $\geq 200 \text{ K}\Omega$ at $\pm 100 \text{ V dc}$ |
| OFF-HOOK DATA (40 mA dc) | | | |
| Longitudinal balance (CO Side) | >80 dB @ 60 Hz; >56 dB @ 4 kHz | >80 dB @ 60 Hz; >56 dB @ 4 kHz | >80 dB @ 60 Hz; >56 dB @ 4 kHz |
| Crosstalk with adjacent card | Better than -77dB from 300 to 3400 Hz measured at +10 dBm | Better than -77dB from 300 to 3400 Hz measured at +10 dBm | Better than -77dB from 300 to 3400 Hz measured at +10 dBm |
| Dial pulse distortion | <1% measured at 14 mA threshold (output duty cycle with respect to input duty cycle) | <1% measured at 14 mA threshold (output duty cycle with respect to input duty cycle) | <1% measured at 14 mA threshold (output duty cycle with respect to input duty cycle) |
| NOISE | | | |
| Impulse noise (both sides) | Less than 1 count in 30 minutes above 48 dBrc | Less than 1 count in 30 minutes above 48 dBrc | Less than 1 count in 30 minutes above 48 dBrc |
| Phase jitter (4-300 Hz) | <0.5° | <0.5° | <0.5° |
| Message circuit noise (quiet termination) | <30 dBrc | <30 dBrc | <30 dBrc |
| S/N ratio (C message filter) | 50 dB at 0 dBm | 50 dB at 0 dBm | 50 dB at 0 dBm |
| SIGNAL | | | |
| Bandwidth (-3 dB) | 200 to 4 kHz | 200 to 4 kHz | 200 to 4 kHz |

Table 2 Physical Specifications Model 7501-16A, B and C

| Parameter | Specifications |
|-----------------------------|-------------------------------|
| Operating temperature range | +32°F to +122°F (0°C to 50°C) |
| Relative humidity | 95% (non-condensing) |
| Height | 12" (30.48 cm) |
| Width | 2" (5.08 cm) |
| Depth | 7-7/16" (18.89 cm) |
| Weight | 3.488 lbs (1.582 kg) |