Appendix A - Technical Specifications

Specifications apply to both OMNIScanner and OMNIRemote unless otherwise noted.

Physical Characteristics

OMNIScanner
- Dimensions: 8.75” x 4.50” x 2.12” (22.25 cm x 11.4 cm x 5.4 cm)
- Weight: 2.20 lbs (1 kg)

OMNIRemote
- Dimensions: 8.75” x 4.50” x 2.12” (22.25 cm x 11.4 cm x 5.4 cm)
- Weight: 1.96 lbs (0.89 kg)

OMNIFiber
- Dimensions: 3.54” x 3.88” x 1.55” (9 cm x 9.85 cm x 3.94 cm)
- Weight: 0.24 lbs (0.11 kg)

User Interface

OMNIScanner
- 62 x 62 mm Graphic LCD with backlight
- Backlit keypad with tactile feedback, numeric input, dedicated functions, four soft functions, and cursor pad
- Context sensitive help and operating instructions
- Tone generating audio for warning or other user feedback
- Date stamp of all tests

OMNIRemote LED Displays
- Pass Indicator (GREEN) for test results
- Status Indicator (GREEN) for OMNIRemote status, various blink rates
- Fail Indicator (RED) for test results
- Circuit Guard (ORANGE) for high voltage input protection warning
- Charge (RED) for OMNIRemote low battery status
- Charge (GREEN) while OMNIRemote battery is charging

OMNIFiber MM LED Displays
- 850 nm Indicator (GREEN) for transmitting at 850 nm
- 1300 nm Indicator (GREEN) for transmitting at 1300 nm
· 850 nm Indicator (ORANGE) for switching fibers
· 1300 nm Indicator (ORANGE) for switching fibers

OMNiFiber SM LED Displays
· 1310 nm Indicator (GREEN) for transmitting at 1310 nm
· 1550 nm Indicator (GREEN) for transmitting at 1550 nm
· 1310 nm Indicator (ORANGE) for switching fibers
· 1550 nm Indicator (ORANGE) for switching fibers

Power
· Removable, rechargeable battery pack
· 9.6 Volts @ 1900 mA-Hr NiMH (OMNiSCANNER2)
· Built-in fast charger using AC adapter
· Charging Time: 3½ hours for fully discharged batteries.
· Battery life: 10+ hours operation (typical)
· AC: 15 VDC - 1 amp AC adapter for continuous operation or charging

Environmental
· Operating Temperature: 0°C to 50°C (32°F to 122°F)
· Storage Temperature: -10°C to 55°C (14°F to 131°F)
· Operating Humidity: (non-condensing): 5% to 90%
· Storage Humidity: 5% to 95%
· Regulatory Compliance: CE Class A

Measurement Port (Test Interface)
· Ultra low Crosstalk test interface that supports testing of all four pairs
· 160 pin test interface connector which exceeds 10,000 mating cycles
· Variety of test cables and adapter modules support testing of 110 block and shielded modular jack and plug interfaces

Serial Port
· Connector: DB-9
· Baud Rate: 300 to 57,600 baud
· Parity: None
· Length: 8 Bits
· Handshaking: None, RTS/CTS, and XON/XOFF

Universal Serial Bus
· Type Self Powered Device
· Link 12 MB/s Full Speed Bulk Transfer with two 128 byte FIFOs and Automatic Retry
· Connector Type ‘B’ Receptacle
· Recommended Cable  Full Speed Shielded Twisted Pair with A-B Plugs  (USB V1.1 Complaint)

**MultiMediaCard Interface**

· Link  4.6 MB/s SPI Mode with 16 bit CRC
· Format  512 byte sector size, 32Bit FAT File System
· Socket  Non-Locking Seven Contact with Ejector
· Recommended Media Sandisk SDMB-xx or Infineon
  MultiMediaCard-F00xx (xx denotes memory size in Megabytes)

**Memory**

· Control: Flash Memory allows electronic upgrading of both OMNIScanner and OMNIRemote programs.
· Test Storage: Up to 1000 complete Autotest results can be stored in permanent flash memory. They are not subject to loss due to power or battery failures.

**OMNIScanner Autotest Functions**

· Full suite of tests to determine if cable meets generic cabling or network type requirements,
  · Extended performance range Cabling (CAT 6 and CAT 7)
  · TIA standard Autotests
  · ISO/IEC standard Autotests
  · Vendor specific Autotests
  · IEEE standard Autotests
  · ATM standard Autotests
  · FDDI standard Autotests
  · AS/NZ standard Autotests
  · ANSI standard Autotests

**OMNIScanner Test Functions**

· Wire Map
· NEXT (Near End Crosstalk)
· Return Loss
· Attenuation
· ELFEXT (Equal Level FEXT)
· ACR (Attenuation to Crosstalk Ratio)
· Bandwidth
· Length/Delay
· Resistance
· Power Sum NEXT, ACR and ELFEXT

· **Coax Tests:** Length, Delay, Impedance, Resistance