STATE OF NEW JERSEY
BUREAU OF ITS ENGINEERING
DEPARTMENT OF TRANSPORTATION
TRENTON, NEW JERSEY 08625

MATERIAL SPECIFICATIONS FOR TERMINAL SERVER

Ensure that the Terminal Servers conform to the following specifications:

1-1   Standards and Certifications

- IEEE 802.3 10 BaseT
- IEEE 802.3u 100 Base TX
- IEEE802.3u 100 Base FX
- EIA/TIA -232E; EIA/TIA-574
- Product Safety: Underwriters Laboratories (UL) Standard 1950 or 60950
- Electromagnetic Emissions: FCC Part 15, subpart B, Class A
- IEC 61000-4-5 Surge protection

1-2   Functional Requirements

- The Terminal Server is to be an IP addressable device that converts the serial RS-232/RS-422/RS-485 communication protocols to 10/100 Base T/TX Ethernet protocol.
- Supports Broadcast Storm Filtering.
- TCP, IP, UDP, Telnet, DHCP, HTTP, SNMP, TFTP.
- Memory: SDRAM-8Mbytes, Flash-4 Mbytes
- Speed: 230.4 Kbps
- Data Bits: 5-8
- Stop Bits: 1, 2
- Parity: Odd, Even, None

1-3   Management

- Direct console port access via RS-232
- HTML Web Browser, Telnet

1-4   Interface and Connectors

- Serial Connector: Software selectable RS-232/RS-422/RS-485 with DB9 Female Connector.
- Ethernet Network: Auto-detecting 10/100 Base-TX, RJ 45 Connector.

1-5   Indicators

- LED Indicator showing Power Status.
- LED Indicators showing status and activity of each port.

1-6   Mechanical Specifications

- Maximum dimension: 17.25″ (L) X 10.8″ (W) X 1.75″ (H)
- Maximum weight: 8 lbs

1-7   Environmental Specifications

- Operating Temperature: -29°F to +165°F
- Storage Temperature: -40°F to +185°F
- Operating Humidity: 5% to 95% relative humidity non-condensing

1-8   Electrical Power

Equip the power supply with a minimum of a six (6) foot power cord terminating in a standard three (3) prong line plug. Maximum power requirement is not to exceed 20 watts for each unit.

1-9   Software

Provide Software License(s) with the unit.

1-10   Identification

Identify Terminal Server with a metal plate containing the serial number with bar code identification. Provide phenolic nameplate with switch designation shown on Contract Documents. Provide manuals and training documentation, and electronic version of custom configurations on compact disc media.

1-11   Standard Configuration

Type	Minimum Number of Required Ports	
	10 Base-T/100 Base –TX*	RS-232/RS-422/RS-485**
Type A	1	2
Type B	1	4
Type C	1	8
Type D	1	16

*Maximum distance for Ethernet UTP: 300' (Cat5e)
** Maximum distance for serial connections 3600'

1-12   List of Equipment

- Documentation
- External power supply (if required)
- All required custom connections
- Mounting brackets/shelf, mounting plates (if required)