

MATERIAL SPECIFICATIONS FOR TERMINAL SERVER

Ensure that the Terminal Servers conform to the following specifications:

A. Standards and Certifications

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|-------------------------------|---|
| 1. IEEE 802.3 | 10Base-T |
| 2. IEEE 802.3u | 100Base-TX |
| 3. EIA/TIA-232E; EIA/TIA-574 | |
| 4. Product Safety: | Underwriters Laboratories (UL) Standard 60950 |
| 5. Electromagnetic Emissions: | FCC Part 15, subpart B, Class A |
| 6. Surge protection: | IEC 61000-4-5 |

B. Functional Requirements

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|---|--------------------------|
| 1. 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. | |
| 2. Supports Broadcast Storm Filtering. | |
| 3. Protocols: | TCP, IP, UDP, DHCP, HTTP |
| 4. Speed: | 230.4 Kbps |
| 5. Port Buffer: | 512 kb |
| 6. Data Bits: | 5-8 |
| 7. Stop Bits: | 1, 2 |
| 8. Parity: | Odd, Even, None |

C. Management

1. Direct console port access via RS-232
2. HTTPS Web Browser

D. Interface and Connectors

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| 1. Serial Connector: | Software selectable RS-232/RS-422/RS-485 with DB-9 Female Connector for Type A and B; RJ50 for Type C. |
| 2. Ethernet Network: | Auto-detecting 10/100 Base-TX, RJ 45 Connector. |

E. Indicators

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

F. Mechanical Specifications

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| 1. Maximum dimension: | 17.25" (L) X 10.8" (W) X 1.75" (H) |
| 2. Maximum weight: | 8 lbs |

G. Environmental Specifications

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|---------------------------|--|
| 1. Operating Temperature: | -13°F to +158°F |
| 2. Storage Temperature: | -13°F to +167°F |
| 3. Operating Humidity: | 5% to 95% relative humidity non-condensing |

H. Electrical Power

1. 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.

I. Software

1. Provide Software License(s) with the unit.

J. Identification

1. 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.

K. Standard Configuration

Type	Minimum Number of Required Ports	
	10Base-T/100Base-TX*	RS-232/RS-422/RS-485**
Type A	1	1
Type B	1	2

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Type C	1	4
Type D	1	8

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

** Maximum distance for RS-232 connections 50' & RS-422/RS-485 connections 3600'

L. List of Equipment

1. Documentation
2. External power supply (if required)
3. All required custom connections
4. Mounting brackets/shelf, mounting plates (if required)