

FED-STD-1020A  
 January 1, 1980  
 SUPERSEDING  
 FED STD 1020  
 September 24, 1975

FEDERAL STANDARD  
 TELECOMMUNICATIONS; ELECTRICAL CHARACTERISTICS  
 OF BALANCED VOLTAGE DIGITAL INTERFACE CIRCUITS

This standard is issued by the General Services Administration pursuant to the Federal Property and Administrative Services Act of 1949, as amended. Its application to both data processing systems and telecommunication systems is mandatory on all Federal agencies to the extent specifies herein.

1. **SCOPE.** This standard specifies the electrical characteristics of balanced voltage digital interface circuits normally implemented in integrated circuit technology that are to be employed for the interchange of serial binary data, timing, and control signals between voice or data telecommunication equipment where information is being conveyed at the DC baseband level at data signaling rates up to 10 megabits/s. The functional and mechanical (connector) characteristics of the interface between data terminal equipment and data circuit-terminating equipment employing interface circuits compliant with this standard are described in other Federal Standards (e. g., Federal Standard 1031). In those applications where a connector is not required for interfacing equipment employing interface circuits compliant with this standard, the functional and mechanical characteristics of the interface shall be defined in the applicable procurement specification.

1.1 **Purpose.** The purpose of this standard is to facilitate interoperability between telecommunication facilities and systems of the Federal Government and compatibility of these facilities and systems at the computer-communications interface with data processing equipment (systems) of the Federal Government.

1.2 **Application.** This standard shall be used by all Federal departments and agencies in the design and procurement of telecommunication equipment employing balanced voltage digital interface circuits. It is to be used with other application Federal standards or design specifications describing functional, mechanical, and procedural characteristics as necessary to achieve compatible interfaces.

2. **APPLICABLE DOCUMENTS.** The following document forms part of this standard to the extent specified herein:

**Electronic Industries Association (EIA) Standard RS-422-A, Electrical Characteristics of Balanced Voltage Digital Interface Circuits, dated December 1978.**

(Write to Electronic Industries Association, 2001 Eye Street, N. W., Washington, DC 20006 for copies of RS-422 A.)

3. **REQUIREMENT.** The electrical characteristics of balanced voltage digital interface circuits shall conform to EIA Standard RS-422A. However, Federal departments and agencies who have and will continue to have in their inventory substantial quantities of equipment using interface circuits compliant with MIL-STD-188C or MIL-STD-188-100 shall use MIL-STD-188-114 in lieu of this standard. (Interface circuits described in MIL-STD-188-114 are a compatible subset of those prescribed in this standard.)

4. **CHANGES.** When a Federal agency considers that this standard does not provide for its essential needs, a statement citing inadequacies shall be sent in duplicate to the General Services Administration, Federal Supply Service, Value Engineering Division (FREVE), Washington, DC 20406, in accordance with provisions of Federal Property Management Regulations 41 CFR SS 101-29.3. The General Services Administration will determine the appropriate action to be taken and will notify the agency.

5. **CONFLICT WITH REFERENCED DOCUMENTS.** Where the requirements stated in this standard conflict with any requirements in a referenced document, the requirements of this standard shall apply. The nature of the conflict between this standard and a referenced document shall be submitted in duplicate to the General Services Administration, Federal Supply Service, Value Engineering Division (FREVE), Washington, DC 20406.

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6. COMPATIBLE NATIONAL/INTERNATIONAL STANDARD(S):

CCITT Recommendation VII/X.26

PREPARING ACTIVITY

Office of the Manager  
National Communications System (NCS-TS)  
Washington, DC 20305

Records of coordination with affected Federal agencies are maintained by the preparing activity.

This document is available from the General Services Administration (GSA), acting as an agent for the Superintendent of Documents. A copy for bidding and contracting purposes is available from GSA Business Service Centers. Copies are for sale at the GSA Specification & Consumer Information Distribution Branch (Washington Navy Yard), Bldg. 197, Washington, DC 20407.

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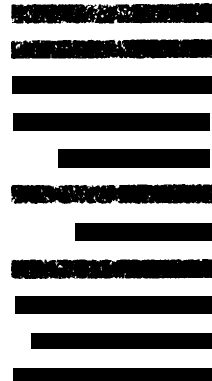
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