



ANSI/EIA-550-1989
APPROVED: April 19, 1989

EIA STANDARD

75 Ohm Type FD Connector Interfaces, Rating, and Characteristics

EIA-550

EIA-550

MAY 1989

ELECTRONIC INDUSTRIES ASSOCIATION
ENGINEERING DEPARTMENT



Documents
Document Sharing Hub

NOTICE

EIA Engineering Standards and Publications are designed to serve the public interest through eliminating misunderstandings between manufacturers and purchasers, facilitating interchangeability and improvement of products, and assisting the purchaser in selecting and obtaining with minimum delay the proper product for his particular need. Existence of such Standards and Publications shall not in any respect preclude any member or non-member of EIA from manufacturing or selling products not conforming to such Standards and Publications, nor shall the existence of such Standards and Publications preclude their voluntary use by those other than EIA members, whether the standard is to be used either domestically or internationally.

Recommended Standards and Publications are adopted by EIA without regard to whether or not their adoption may involve patents on articles, materials, or processes. By such action, EIA does not assume any liability to any patent owner, nor does it assume any obligation whatever to parties adopting the Recommended Standard or Publication.

This EIA Standard is considered to have International Standardization implication, but the International Electrotechnical Commission activity has not progressed to the point where a valid comparison between the EIA Standard and the IEC document can be made.

This Standard does not purport to address all safety problems associated with its use or all applicable regulatory requirements. It is the responsibility of the user of this Standard to establish appropriate safety and health practices and to determine the applicability of regulatory limitations before its use.

Published by

Copyright 1989

ELECTRONIC INDUSTRIES ASSOCIATION
Engineering Department
1722 Eye Street
Washington, D.C. 20006

PRICE: \$10.00

All Rights Reserved
Printed in U.S.A.



Documents
Document Sharing Hub

**75 Ohm TYPE FD CONNECTOR INTERFACES,
RATING, AND CHARACTERISTICS**

(From EIA Standards Proposal No. 2089 formulated under the cognizance of the EIA P-5.3 Subcommittee on R.F. Connectors.)

1.0 GENERAL

- 1.1 Type FD plugs when mated with Type FD jacks must meet the ratings and characteristics. Type FD jacks, once mated with non-Type FD connectors (e.g., Type F connectors), may not meet the ratings and characteristics for type FD connectors.
- 1.2 All electrical, mechanical and environmental ratings and characteristics shall apply to the particular Type FD connector when used with any cable claimed to be compatible by the connector manufacturer.

2.0 RATINGS AND CHARACTERISTICS**2.1 Electrical**

<u>Nominal Impedance</u>	75 ohms
<u>Frequency Range</u>	dc to 1.5 GHz
<u>VSWR</u> (mated cabled* plugs and jacks)	≤ 1.05 2 to 30 MHz
	≤ 1.07 30 to 600 MHz
	≤ 1.50 .6 to 1.5 GHz

Insertion Loss (mated cabled* plugs and jacks) $\leq .1$ dB 2 MHz to 1.5 GHz

Transfer Impedance
(Shielding Effectiveness) $\leq .001$ ohm dc to 30 MHz
(mated cabled* plugs and jacks)

Center Conductor DC
Resistance (mated pair: between the terminating center conductors) $\leq .010$ ohm measured with 1 volt dc source

Outer Conductor DC
Resistance (mated cabled* plug and jack) $\leq .001$ ohm measured with 1 volt dc source

***Footnote:** For type FD connectors that do not terminate to cable (e.g., a printed circuit board jack), the equivalent termination is implied.