

**Federal Telecommunications Recommendation 1070-1997**

2 September 1997

**DETAIL SPECIFICATION FOR 62.5Fm CORE DIAMETER/125-Fm CLADDING  
DIAMETER CLASS 1a MULTIMODE, GRADED INDEX OPTICAL  
WAVEGUIDE FIBERS**

Federal Telecommunications Recommendations (FTR) are issued by the Technology and Standards Division, National Communications System (NCS), after approval by the Federal Telecommunication Standards Committee and the Deputy Manager, NCS, pursuant to Executive Order 12472<sup>1</sup>, NCS Directive 4-1<sup>2</sup>, and Public Law 104-113<sup>3</sup>.

- 1. Name of Recommendation.** Detail Specification for 62.5-Fm Core Diameter/125-Fm Cladding Diameter Class 1a Multimode, Graded Index Optical Waveguide Fibers.
- 2. Category.** Computer-Related Telecommunications Standard.
- 3. Explanation.** This recommendation defines the optical, geometrical, environmental, and mechanical specifications for glass multimode optical waveguide fibers. This recommendation is based on ANSI/EIA/TIA-492AAAA-1989 (FIPS PUB 159).
- 4. Approving Authority.** Deputy Manager, National Communications System.
- 5. Maintenance Agency.** Technology and Standards Division, National Communications System.
- 6. Related Documents.**
  - a. ANSI/EIA/TIA-458-B-90, Standard Optical Fiber Material Classes and Preferred Sizes.
  - b. ANSI/TIA/EIA-472 Series, Specifications for Fiber Optic Cables.
  - c. ANSI/TIA/EIA-455 Series, Fiber Optic Test Procedures.You may obtain copies of the related documents from:

Global Engineering Documents  
7730 Carondelet Avenue  
St. Louis, MO 63105  
(800) 854-7179; FAX (314) 726-6418

**7. Objectives.** The purpose of this FTR is to facilitate interoperability among telecommunications 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 by specifying standard characteristics for multimode optical fiber waveguides for use in electro-optical communication systems applications.

**8. Applicability.** ANSI/EIA/TIA-492AAAA-1989 is recommended for use by all departments and agencies of the Federal Government in the planning, design, and procurement, including lease and purchase, of all new communications systems that utilize multimode optical fiber.

**9. Specifications.** This recommendation adopts ANSI/EIA/TIA-492AAAA-1989.

**10. Where to Obtain Copies.** Additional copies of this document can be obtained from the National Communications System, Technology and Standards Division (N6), 701 South Court House Road, Arlington, VA 22204-2198. When requesting copies, refer to Federal Telecommunications Recommendation 1070-1997, Detail Specification for 62.5Fm Core Diameter/125-Fm Cladding Diameter Class 1a Multimode, Graded Index Optical Waveguide Fibers.

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1. Executive Order 12472, Assignment of National Security and Emergency Preparedness Telecommunications Functions, April 3, 1984

2. NCS Directive 4-1, Federal Telecommunication Standards Program, February 21, 1991

3. Public Law 104-113, The National Technology Transfer and Advancement Act of 1995, February 27, 1996