The ATM Forum
Technical Committee

Physical Layer High Density Glass Optical Fiber Connector Annex

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The ATM Forum GOF Physical Layer Connector Annex

1 INTRODUCTION

This document is an annex to the Glass Optical Fiber (GOF) Physical Layer descriptions contained in various ATM Forum specifications. The purpose is to provide high density connectors for ATM network implementations.

1.1 Scope

This annex provides a central repository for all high density GOF connectors that comply with the required mechanical and optical performance criteria for ATM network applications. Intermateability specification references and illustrations of each connector type are included. References are provided to applicable TIA, IEC and other specifications and procedures.

2 GOF CONNECTOR PERFORMANCE REQUIREMENTS

In this document, each connector shall be defined only by its ISO/IEC interface standard or a national standards equivalent. Each connector section shall include a plug-to-receptacle and a plug-to-socket/adapter line drawing.

(R) GOF connectors specified in Section 3 of this document shall comply with all of the performance requirements of ISO/IEC 11801 and ANSI/TIA/EIA-568 commercial cabling standards.

(R) Network polarity (transmit and receive) shall be managed in accordance with ISO/IEC 11801 and ANSI/TIA/EIA-568 commercial cabling standards.

3 HIGH DENSITY GOF CONNECTOR INTERFACES

3.1 Fiber Jack Interface

The Fiber Jack optical fiber connector interface is mechanically defined by the ANSI/TIA/EIA 604-6 Fiber Optic Connector Intermateability Specification, Type "Fiber Jack" (FOCIS-6). Figure 3.1.a depicts a Fiber Jack plug and receptacle, as might be implemented on active network equipment. Figure 3.1.b depicts a Fiber Jack plug and socket implemented for passive network requirements.

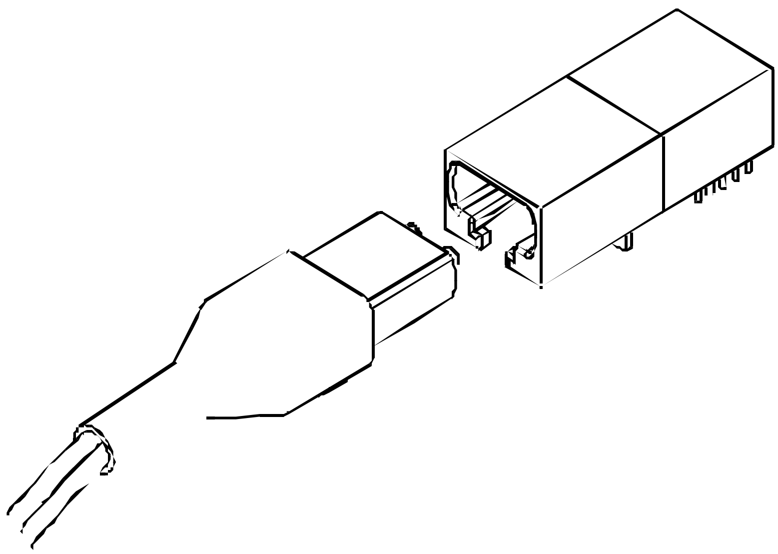

Figure 3.1.a - Fiber Jack Plug and Receptacle

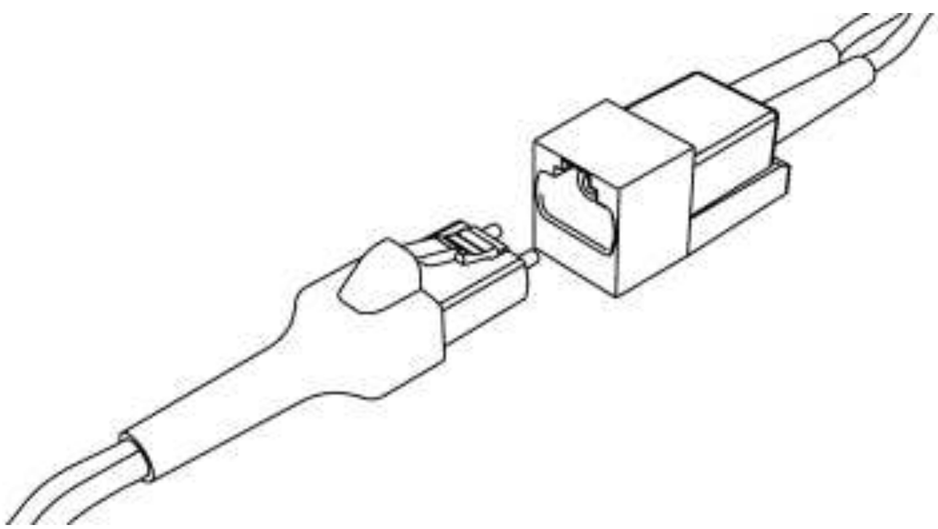

Figure 3.1.b - Fiber Jack Plug and Socket

3.2 SG Interface

The SG optical fiber connector interface is mechanically defined by the ANSI/TIA/EIA 604-7 Fiber Optic Connector Intermateability Specification, Type "SG" (FOCIS-7). Figure 3.2.a depicts an SG plug and receptacle, as might be implemented on active network equipment. Figure 3.2.b depicts an SG plug and socket implemented for passive network requirements.

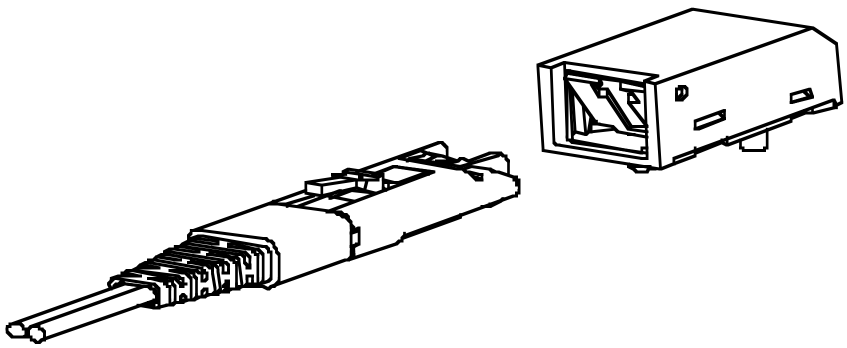

Figure 3.2.a - SG Interface Configuration

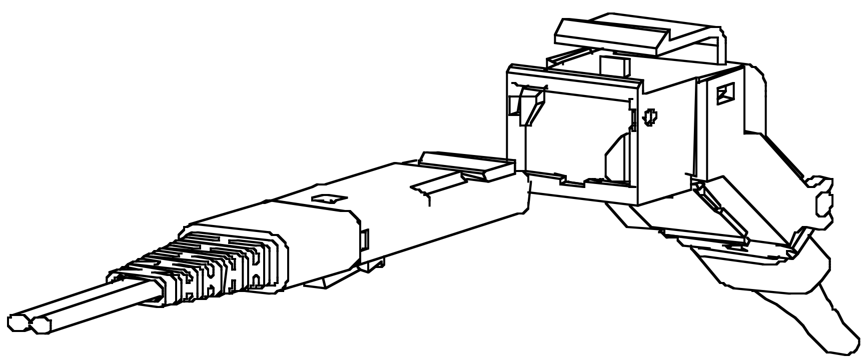

Figure 3.2.b - SG Plug and Socket Configuration

3.3 LC Interface

The LC optical fiber connector interface is mechanically defined by the ANSI/TIA/EIA 604-10 Fiber Optic Connector Intermateability Specification, Type "LC" (FOCIS-10). Figure 3.3.a depicts an LC plug and receptacle, as might be implemented on active network equipment. Figure 3.3.b depicts an LC plug and socket implemented for passive network requirements.

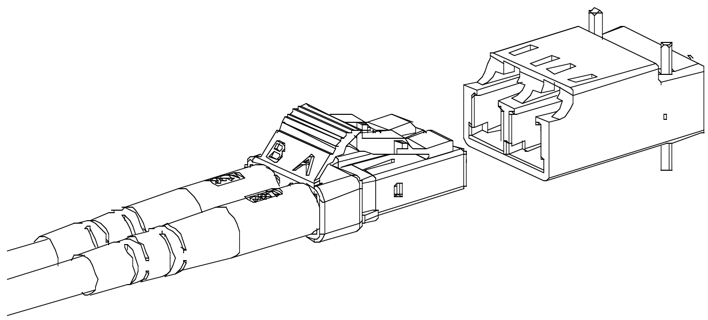

Figure 3.3.a - LC Interface Configuration

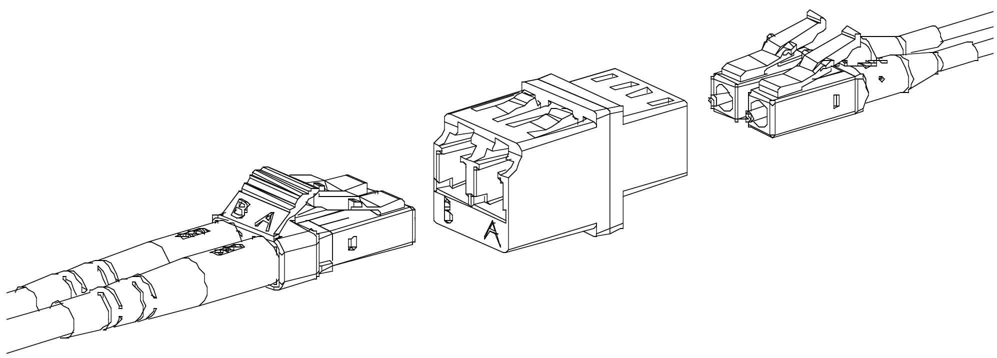

Figure 3.3.b - LC Plug and Socket Configuration

3.4 MT-RJ Interface

The MT-RJ optical fiber connector interface is mechanically defined by the ANSI/TIA/EIA 604-12 Fiber Optic Connector Intermateability Specification, Type "MT-RJ" (FOCIS-12). Figure 3.4.a depicts an MT-RJ plug and receptacle, as might be implemented on active network equipment. Figure 3.4.b depicts an MT-RJ plug and socket implemented for passive network requirements.

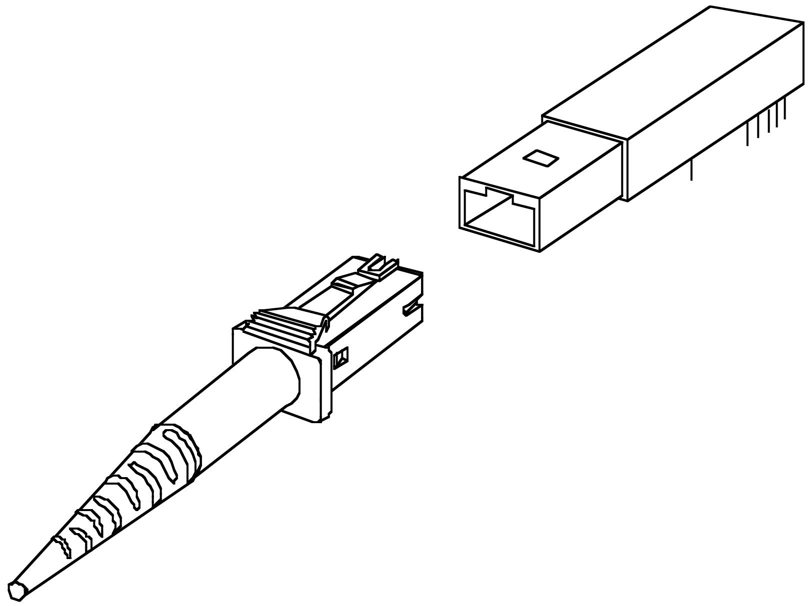

Figure 3.4.a – MT-RJ Interface Configuration

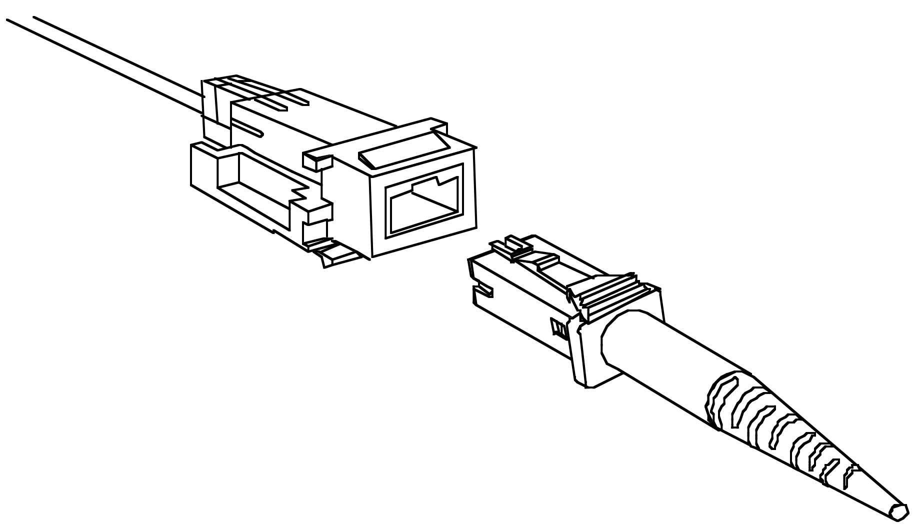

Figure 3.4.b – MT-RJ Plug and Socket Configuration

4. REFERENCES

ISO/IEC 11801: 1995 (E), Information Technology – Generic Cabling for Customer Premises

ANSI/TIA/EIA-568-A-1995, Commercial Building Telecommunications Cabling Standard

TIA/EIA 604-6, FOCIS-6 Fiber Optic Connector Intermateability Standard, Type Fiber Jack

TIA SP-3968, FOCIS-7 Fiber Optic Connector Intermateability Standard, Type SG (to be published as TIA/EIA 604-7)

TIA PN-4133, FOCIS-10 Fiber Optic Connector Intermateability Standard, Type LC (if approved to be published as TIA/EIA 604-10)

TIA PN-4172, FOCIS-12 Fiber Optic Connector Intermateability Standard, Type MT-RJ (if approved to be published as TIA/EIA 604-12)