

PRE-STANDARD

Fibre optic connector interfaces –

**Part 20:
Type LC connector family**

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IEC PAS 61754-20:2001

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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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FIBRE OPTIC CONNECTOR INTERFACES –

Part 20: Type LC connector family

FOREWORD

A PAS is a technical specification not fulfilling the requirements for a standard, but made available to the public and established in an organization operating under given procedures.

IEC-PAS 61754-20 has been processed by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

The text of this PAS is based on the following document:

This PAS was approved for publication by the P-members of the committee concerned as indicated in the following document:

Draft PAS	Report on voting
86B/1453/PAS	86B/1503/RVD

Following publication of this PAS, the technical committee or subcommittee concerned will investigate the possibility of transforming the PAS into an International Standard.

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FIBRE OPTIC CONNECTOR INTERFACES –

Part 20: Type LC connector family

1 Scope

This document defines the standard interface dimensions for the type LC family of connectors.

2 Description

The parent connector for type LC connector family is a single position plug connector set of plug/adaptor configuration which is characterized by a 1.25 mm nominal diameter ferrule. The connector includes a single coupling latch and a ferrule spring loaded in the direction of the optical axis. The plug has a single male key, which may be used to orient and limit the relative position between the connector and the component to which it is mated. The optical alignment mechanism of the connectors is a rigid bore sleeve or a resilient sleeve.

3 Interfaces

The subsequent pages define the standard interfaces for the type LC connector family. The standard interfaces contained in this document are listed in the following:

- IEC 61754-20-1: Simplex Plug Connector Interface – PC
- IEC 61754-20-2: Simplex Adaptor Connector Interface
- IEC 61754-20-3: Simplex Active Device Receptacle Interface
- IEC 61754-20-4: Duplex Plug Connector Interface – PC
- IEC 61754-20-5: Duplex Adaptor Connector Interface
- IEC 61754-20-6: Duplex Active Device Receptacle Interface
- IEC 61754-20-7: Simplex Plug Connector Interface – APC 8°
- IEC 61754-20-8: Duplex Plug Connector Interface – APC 8°

The plug of IEC 61754-20-1 and IEC 61754-20-4 has a ferrule with a spherically polished endface, and realizes physical contact (PC). The plug of IEC 61754-20-7 and IEC 61754-20-8 has a ferrule with a spherically polished angled endface which may take any of the APC forms shown in Detail A and realizes a physical contact.

The following plugs, adaptors, and receptacles are intermateable

Plugs (polishing condition)	Adaptors/Active Device Receptacles Interfaces			
	61754-20-2	61754-20-3	61754-20-5	61754-20-6
Interface 61754-20-1	mate	mate	mate	mate
Interface 61754-20-4	not mate	not mate	mate	mate
Interface 61754-20-7	mate	not mate	mate	not mate
Interface 61754-20-8	not mate	not mate	mate	not mate

Plugs (polishing condition)	Plug (polishing condition)			
	61754-20-1	61754-20-4	61754-20-7	61754-20-8
Interface 61754-20-1	mate	mate	not mate	not mate
Interface 61754-20-4	mate	mate	not mate	not mate
Interface 61754-20-7	not mate	not mate	mate	mate
Interface 61754-20-8	not mate	not mate	mate	mate

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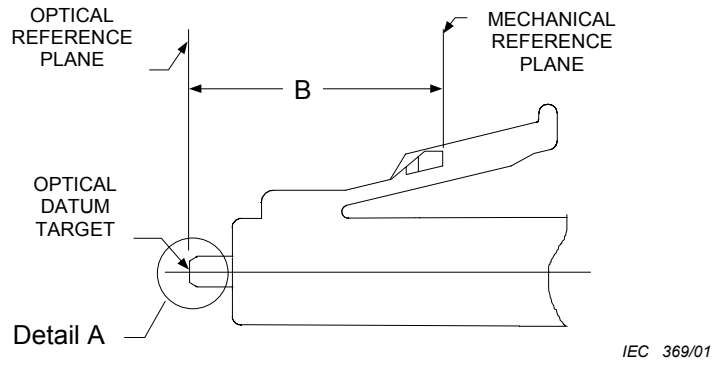


Figure 1 – Plug Connector Interface Reference Planes

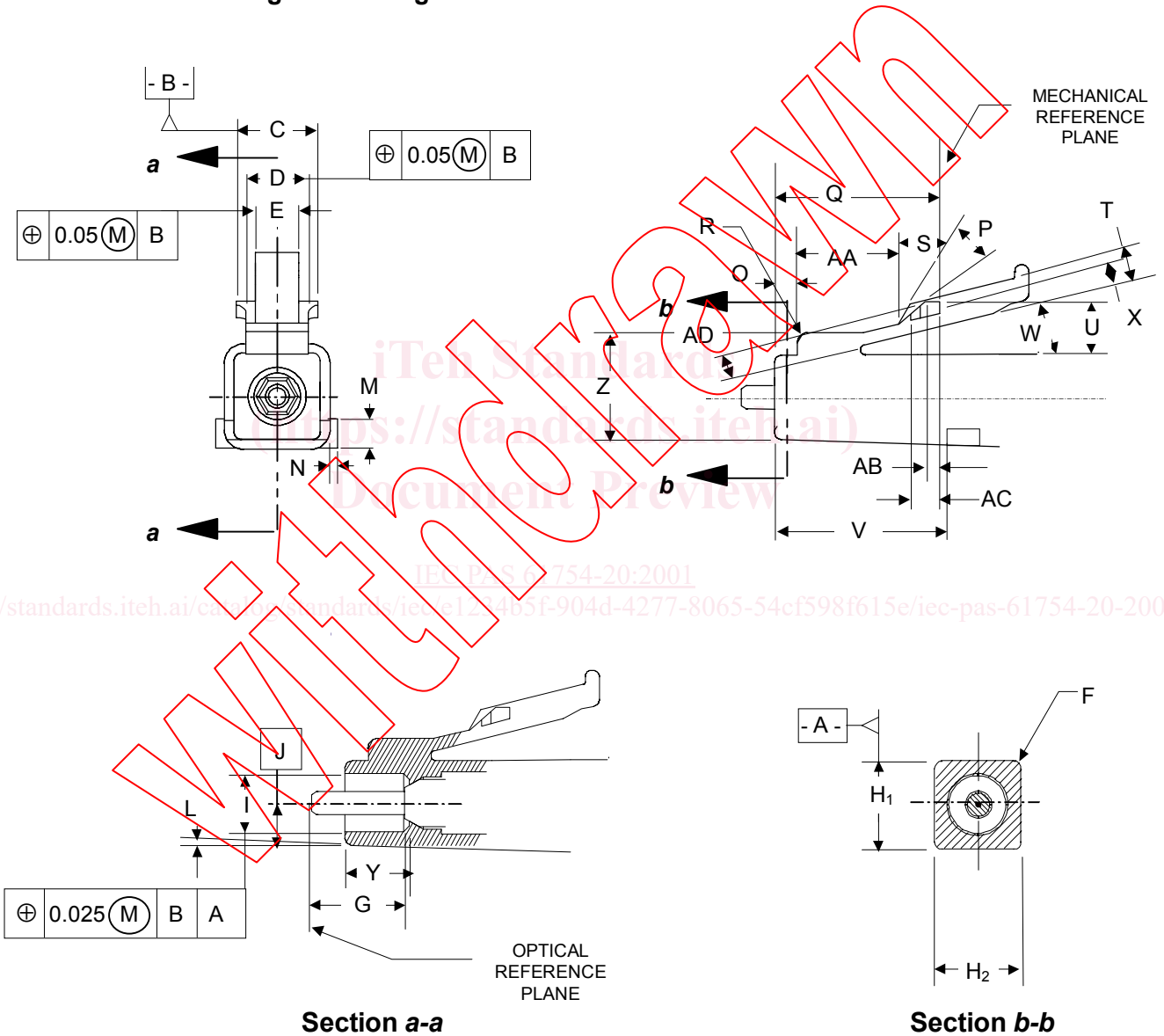
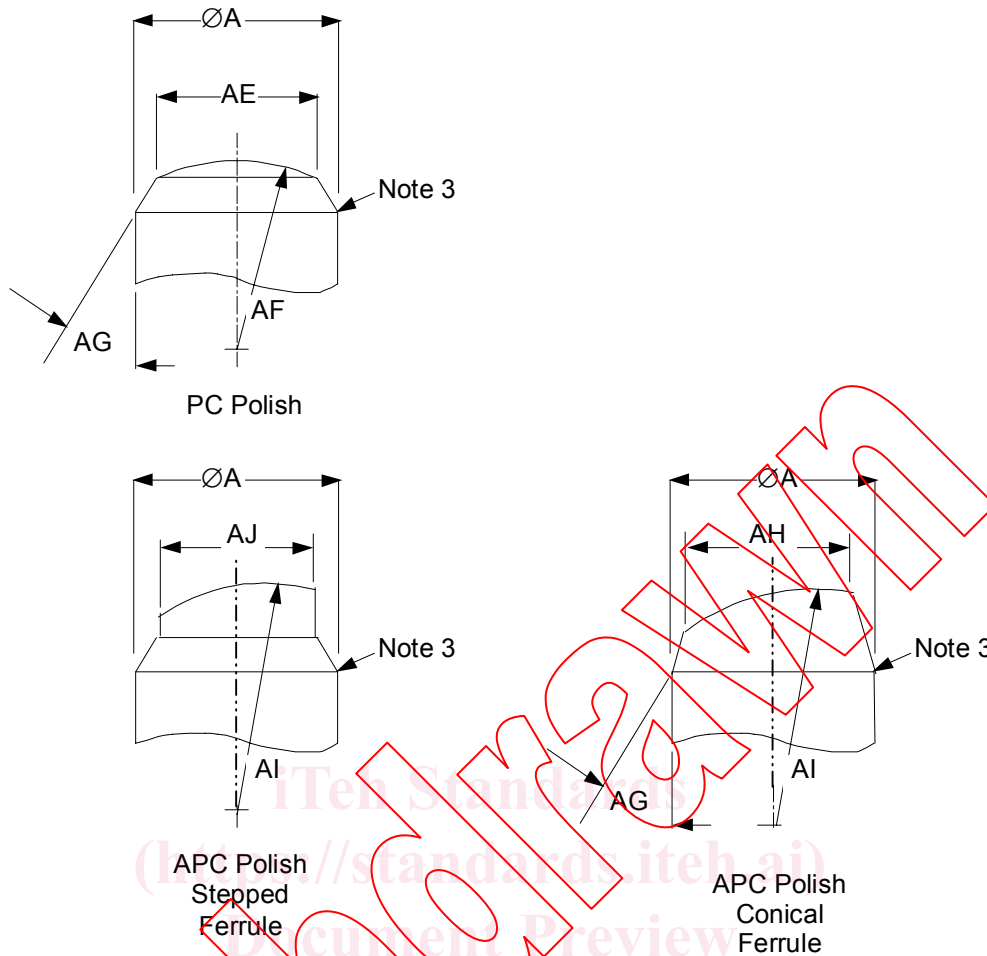


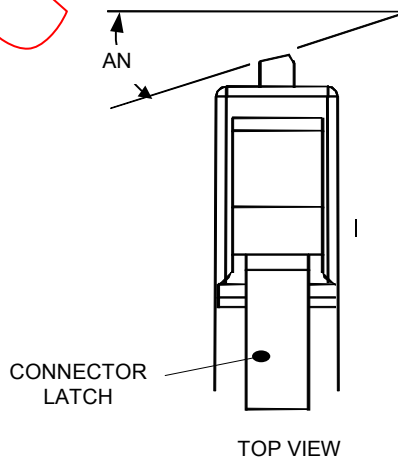
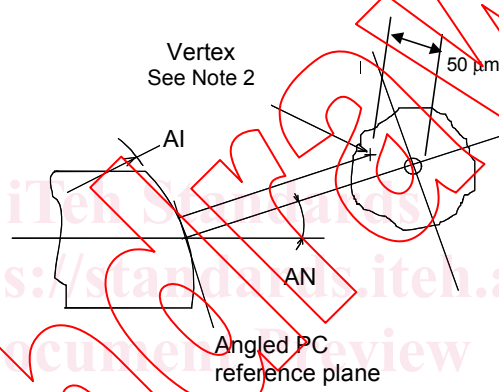
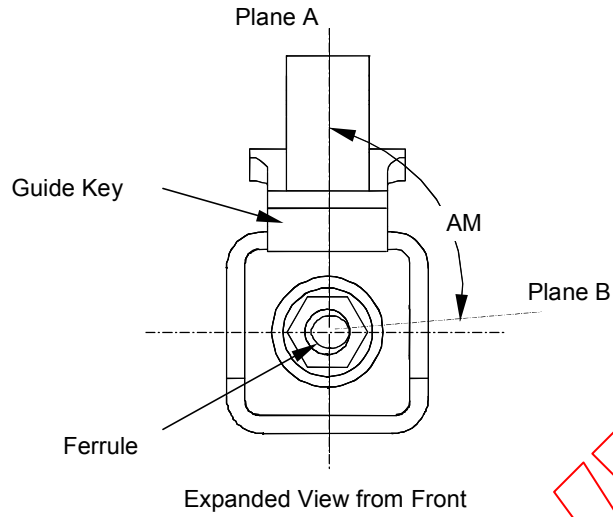
Figure 2 – Plug Connector Interface



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Detail A – Plug Connector Interface – Expanded View
Drawings Not-to-Scale

The plug of IEC 61754-20-1 and IEC 61754-20-4 has a ferrule with a spherically polished endface, and realizes physical contact (PC). The plug of IEC 61754-20-7 and IEC 61754-20-8 has a ferrule with a spherically polished angled endface which may take any of the APC forms shown in Detail A and realizes a physical contact.



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Figure 3 – APC Plug Connector Interface