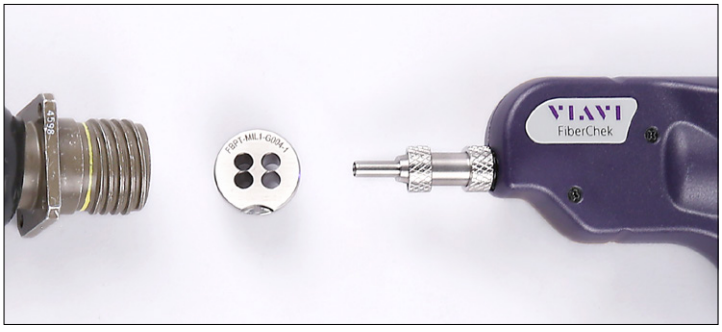
VIAVI Solutions

Application Note

Fiber Inspection Guides for MIL-PRF-28876 Connectors

MIL-PRF-28876 fiber optic connectors are environmentally hardened for harsh environments such as shipboard use cases. The VIAVI MIL-PRF-28876 inspection guides are used with P5000i USB probe microscopes and FiberChek all-in-one handheld probe microscopes for visual and automated assessment of fiber optic termini end faces. It is essential to inspect before connecting fiber optic connectors to ensure that the end face is sufficiently defect-free to be put into service.

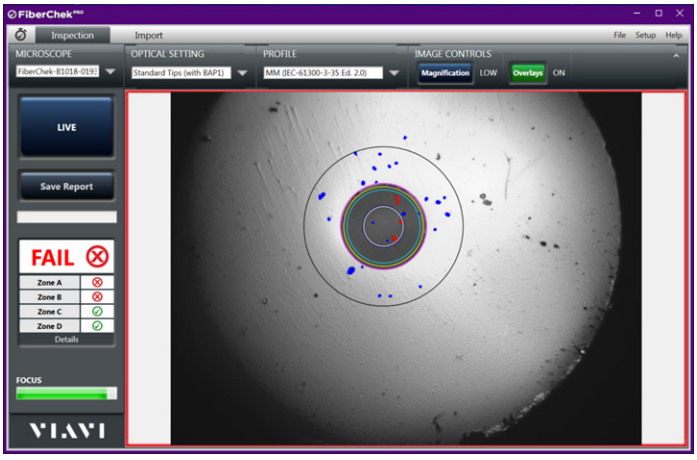
Inspection of a MIL-PRF-28876 connector requires two guides (one for the plug side of the connector and one for the receptacle side), a barrel assembly, and an inspection probe microscope. The guide holes align with the fiber optic termini within the connector body and ensure that the barrel assembly is correctly positioned for inspection without damaging the termini.



The new MIL-PRF-28876 plug and receptacle inspection guides are listed below. All these guides use a FBPP-BAP1-G barrel assembly compatible with P5000i and FiberChek probe microscopes.

Catalog Number	Description	Barrel Assembly	Image
FBPT-MIL1-G001-1	MIL-PRF-28876 Guide, Size 13, Plug-Pins, 4 Contacts	FBPP-BAP1-G	
FBPT-MIL1-G004-1	MIL-PRF-28876 Guide, Size 13, Receptacle-Sockets, 4 Contacts	FBPP-BAP1-G	
FBPT-MIL1-G002-1	MIL-PRF-28876 Guide, Size 13, Plug-Sockets, 4 Contacts	FBPP-BAP1-G	
FBPT-MIL1-G003-1	MIL-PRF-28876 Guide, Size 13, Receptacle-Pins, 4 Contacts	FBPP-BAP1-G	
FBPT-MIL1-G005-1	MIL-PRF-28876 Guide, Size 15, Plug-Pins, 8 Contacts	FBPP-BAP1-G	
FBPT-MIL1-G008-1	MIL-PRF-28876 Guide, Size 15, Receptacle-Sockets, 8 Contacts	FBPP-BAP1-G	

The optical chain created by the barrel assembly and microscope yields sharp end face images. Defects and scratches can be identified via visual inspection or automated analysis. Large defects can be readily seen by the human eye, while automated analysis enables detection of small defects that the human eye might miss. Automated analysis includes comparing the size and quantity of defects and scratches per zone against failure criteria to obtain a pass or fail grade for the fiber under test.



For more information about the new MIL-PRF-28876 inspection guides, contact VIAVI Solutions at viavisolutions.com/contact

View the Selection Guide for a complete list of Fiber Inspection Tips and Guides for Military & Aerospace applications.

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