Purpose:

To describe the Fiberdyne Labs mode-conditioning patch assembly.

Device Description:

Fiberdyne Labs manufactures the mode-conditioning patch cord, using high-quality, single-mode/multimode fiber and connectors. These cable assemblies are primarily used in Gigabit Ethernet (1000Base-LX) applications. The primary usage prevents DMD (Differential Mode Delay). IEEE Std 802.3 specifies the use and format for mode-conditioning patch cords.

Fiberdyne uses state-of-the-art equipment in every manufacturing phase, ensuring every assembly meets our ISO 9001 quality standards. Each assembly passes a battery of tests, including interferometer testing, verifying compliance with applicable standards.

Cable & Connector Specifications:

Description	*Units*	*Value*
Fiber Type	µm	Single-mode (9/125) Multimode (50 or 62.5/125)
Insertion Loss (transmit)	dB	< 0.8
Insertion Loss (receive)	dB	< 0.5 (0.35 typical)
Return Loss	dB	> 50 (55 typical)
Radius of Curvature	mm	7 to 25
Apex Offset	µm	< 50
Fiber Height	nm	< 100
Repeatability	Cycles	> 500
Operating Temperature	ºC	-40 to +75
Humidity Range (non-condensing)	%	5 to 95
Standards Compliance		IEEE Std 802.3

Cable Jacket Colors:

Yellow (on SMF, or “transmit,” section)
Orange (on MMF sections)

Connector Types:

SC, ST, MT-RJ, LC