Modular Fiber Optic Test Platform Purchase Description

1. Product Description: This is a complete, modular fiber optic test system designed for the comprehensive installation, certification, and troubleshooting of advanced fiber optic networks. The system consists of a field-portable, 4-slot mainframe platform and two interchangeable optical test modules: one quad-wavelength Optical Time Domain Reflectometer (OTDR) module and one Chromatic/Polarization Mode Dispersion (CD/PMD) analyzer module.
2. Key Features:
    - Mainframe Platform:
        - The core of the system is a battery-powered mainframe capable of housing at least four separate test modules simultaneously.
        - For security compliance, the mainframe must not contain any built-in or integrated Wi-Fi, Bluetooth, or other radio-frequency (RF) transmitting hardware.
        - The platform must include at least 128 GB of internal flash memory for storing test configurations and results.
    - OTDR Test Module:
        - The system includes a quad-wavelength OTDR module capable of testing at 850/1300 nm (multimode) and 1310/1550 nm (single-mode).
        - This module shall feature iOLM an advanced, intelligent link mapping capability. This feature must automatically interpret the entire fiber link and present the results as a simplified, icon-based schematic view. It must automatically identify and locate all components (e.g., splices, connectors, splitters) and provide a clear pass/fail diagnosis for each event, eliminating the need for an operator to perform manual trace interpretation.
    - Dispersion Analyzer Module:
        - The system includes a specialized module capable of measuring both Chromatic Dispersion (CD) and Polarization Mode Dispersion (PMD) from a single unit.

        - The testing methodology for dispersion analysis shall utilize a one-ended loopback configuration.
    - Shared Module Features:
        - All included optical test modules must feature a modular port interface that allows the operator to change physical connector adapters (e.g., from SC to LC) in the field without requiring any tools.
3. Additional Details:
    - Accessories: The system must be delivered with all necessary accessories for operation, including a fiber optic loopback mirror with a UPC polish connector for dispersion testing.
    - Transit and Storage: The mainframe and all associated modules must be delivered together in a single, durable, hard-sided transit case to ensure protection during transport and storage.

This complete test platform is designed to provide field technicians with all the tools necessary to fully certify and troubleshoot modern fiber optic networks, from basic link characterization to high-speed network qualification.

Salient Characteristics – Modular Fiber Optic Test Platform

- The system must be comprised of a modular mainframe and two (2) separate optical test modules as specified below.
- The mainframe must be battery-powered and provide a minimum of four (4) slots for test modules.
- The mainframe must have a minimum of 128 GB of internal flash memory.
- The mainframe must not contain any integrated Wi-Fi, Bluetooth, or other RF-transmitting hardware.
- The system must include one (1) quad-wavelength OTDR module capable of testing at 850/1300 nm and 1310/1550 nm.
- The OTDR module must feature an intelligent link mapping capability that automatically interprets the fiber link and presents it as a simplified, icon-based schematic view with a pass/fail diagnosis for each detected event (e.g., splices, connectors).

- The system must include one (1) optical test module capable of measuring both Chromatic Dispersion (CD) and Polarization Mode Dispersion (PMD).
- All optical test ports on all included modules must feature a modular interface allowing for tool-free swapping of connector adapters.
- The system must be delivered with a fiber optic loopback mirror with a UPC polish connector.
- The complete system, including the mainframe and all modules, must be delivered in a single, hard-sided transit case.