HP3 Series

Fiber Inspection and Test System with Compact Video Display

HP3-**-P4 Fiber Inspect and Test System with
Integrated Power Meter and
Patch Cord Microscope

Key Features

- **Inspects both sides of fiber interconnect, and accurately tests and measures optical power with one device**

- **Integrated functions and features eliminate switching between multiple devices**

- **Input for FBP series probe microscope and a dedicated patch cord microscope (PCM) let users quickly and easily inspect both sides fiber interconnects**

- **Integrated PCM eliminates need for changing inspection tips, prevents misrouting, and protects patch cords**

- **Compact TFT LCD to view clear, crisp, detailed images of fiber end faces with optimal resolution**

- **Auto-shutoff after 5 minutes of inactivity or permanent ON capability**

- **Integrated power meter (OLP-6/OLP-8) for all single-mode and multimode applications, such as LAN, telecom, CATV, and DWDM testing**

- **Modulation frequency detection lets users identify individual fibers at specific tones**

- **Three-year calibration period**

- **Automatic wavelength detection (with JDSU optical light source)**

Applications

- Inspect fiber end faces and accurately test and measure optical power with one device

- Easily inspect both the bulkhead (with probe) and patch cord (with PCM) sides of fiber interconnects

- Measure optical power and attenuation (with JDSU optical light source)

- Measure optical power with multiple pre-calibrated wavelengths:

  – 850, 980, 1300, 1310, 1490, 1550, and 1625 nm

- Dedicated for all single-mode and multimode applications, such as LAN, telecom, CATV, and DWDM testing

- Use with JDSU light source to detect modulation frequency and identify individual fibers

HP3 Series Fiber Inspect and Test System

The JDSU HP3-60-P4 and HP3-80-P4 (with integrated patch cord microscope) inspection and test systems combine fiber inspection and optical power measurement into a single seamless handheld device. The result is a significant increase in workflow efficiency and a decrease in total inspection and test time.

The HP3-**-P4 system, derived from the popular HD3 series, provides high-quality image resolution in a compact, portable design. The integrated power meter offers quick, easy, and convenient field measurement of optical power and attenuation. Easy push-button operation makes the device simple and straightforward, while the inspect-test process establishes optimal workflow practices.

Inspect the Patch Cord with Integrated PCM and the Bulkhead with Probe

FMAE Adapter/Patch Cord Inspection Input

Protective Rubber Cap

UPP Input for 2.5 mm and 1.25 mm Connectors

4-Pin FBP Probe Microscope Input

Power Meter: 4-Digit Display for Wavelengths and Types of Modulation

PCM Focus Control

2.0-inch TFT LCD

Power Meter Controls: Easy 3-Button Operation for Power, Wavelength, and dB/dBm

Video Display Controls: For Brightness Adjustment and Power (ON/OFF)

I / II Switch
(Toggles between patch cord [PCM - I] and bulkhead [probe - II] fiber views)

Battery Compartment
(Back panel - holds 6 x AA alkaline batteries)

Battery Charging Indicator

Low Battery Warning Indicator

Benefits of the Integrated PCM

- Lets users quickly and easily inspect both sides of the fiber interconnect

- Reduces inspection time by more than 50 percent

- Inspects bulkhead with probe microscope and patch cord with PCM

- Eliminates changing inspection tips on the probe to inspect patch cord side

- Prevents misplaced and mishandled inspection tips

- Prevents misrouting by inspecting one interconnect at a time

- Protects *male* (patch cord) ends from contamination by *parking* it in the patch cord module

- A complete selection of FMAE adapters for every application and connector

Integrated Patch Cord Microscope (PCM)

The HP3-**-P4 features an integrated patch cord microscope, adding further value with improved workflow efficiency. Enabling the user to quickly and easily inspect both the *female* (bulkhead) and *male* (patch cord) sides of a fiber interconnect and measure optical power levels makes the HP3-**-P4 the ultimate system for fiber technicians.

JDSU offers a wide selection of precision FMAE adapters optimized for easy and accurate inspection of various connector types and applications. To inspect the patch cord, simply insert the connector into the FMAE adapter and focus the image on the display.

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HP3-60/80
(without patch cord microscope)

Comparison (Display Types)

JDSU Fiber Display Types (with Probe Microscope)				
	HD3	HD3-P	HP3-**	HP3-**-P4
• Inspect patch cords (w/Probe microscope)	●	●	●	●
• Inspect bulkheads (w/Probe microscope)	●	●	●	●
• Inspect *both sides* quickly and easily (w/Probe+PCM)		●		●
• Test/measure optical power and attenuation			●	●

Integrated Power Meter

Basic and Reliable

The power meter is used for simple optical power testing, or with a light source for insertion loss measurements at various wavelengths.

Accurate Measurement and Simple Operation

Three-button operation and a bright, clear display make the power meter very easy to use. When combined with a JDSU light source, the possibility of measurement errors is eliminated because the power meter automatically detects the wavelength being transmitted. As a result, dual wavelength measurements at 850 and 1300 nm or 1310 and 1550 nm can be made quickly and easily using the saved reference levels.

Automatic Identification of Individual Fibers

The power meter can be used with a JDSU light source to detect the modulation frequency of the light coupled into the fiber, for identification purposes.

Universal Push-Pull Interface

Interchangeable UPP adapters let you connect and test any fiber connector.

Efficient Inspection and Test Workflow

1
INSPECT PATCH CORD (I)

2
ACTIVATE PROBE (II)

3
INSPECT BULKHEAD

4
CONNECT

5
TEST

HP3-**-P4 Power Meter

Display range:

» **HP3-60-P4**	−65 to +10 dBm
» **HP3-80-P4**	−50 to +23 dBm

Max. permitted input level

» **HP3-60-P4**	+10 dBm
» **HP3-80-P4**	+23 dBm

Standard wavelength settings	850, 980, 1300, 1310, 1490, 1550, 1625 nm
Intrinsic uncertainty[1]	±0.20 dB (±5%)
Linearity[1] (-50 to +5 dBm)	±0.06 dB
Wavelength range	780 to 1650 nm
Wavelength and modulation	270 Hz, 330 Hz, 1 kHz, 2 kHz

» **HP3-60-P4**

1300, 1310, 1490, 1550, 1625 nm	−50 to +10 dBm
850, 980 nm	−45 to +10 dBm

» **HP3-80-P4**

1300, 1310, 1490, 1550, 1625 nm	−35 to +23 dBm
850, 980 nm	−30 to +23 dBm

Run time	~180 hours (continuous on)
Auto-shutoff time	5 minutes
Optical interface	UPP 2.5 mm adapter *(DIN, ST, FC, SC, E2000)*
	UPP 1.25 mm adapter *(LC, MU)* - *sold separately*
Display	LCD, 4-digit
Result display in	dBm, dB
Resolution	0.01 dB

[1] *Under the following reference conditions: −20 dBm (CW), 1300 nm ±1 nm, 23℃ ±3K, 45 to 75% relative humidity, 9 to 50 μm fiber*

HP3-**-P4 Specifications

Dimensions	162 x 114 x 42 mm (6.4 x 4.5 x 1.7 in)
Weight	352 g (12.4 oz) with six AA alkaline batteries
Video display	50.8 mm (2.0-in) TFT LCD
Connector	4-pin Hirose™ input for FBP probes
Power source	AC power adapter (100−240 VAC/12V DC); 6 AA batteries or rechargeable battery pack
Power mode	ON (continuous on); OFF
Run time	~5.5 hours (continuous on)
Auto-shutoff time	Auto-shutoff after 5 minutes of inactivity
Horizontal field-of-view (FOV)	550 μm @ 200X 350 μm @ 400X
Warranty	1 yr

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Ordering Information

FIT-HP3-60-P4	Handheld display with integrated power meter and 400X patch cord microscope (PCM)
FIT-HP3-80-P4	Handheld display with integrated high-power optical power meter and 400X PCM
FIT-S105	**Inspection and Test Kit:** Dual-mag (200/400X) FBP probe microscope and tips, HP3-60-P4 inspect and test system with 400X PCM, carrying case
FIT-S115	**Inspection and Test Kit:** Dual-mag (200/400X) FBP probe microscope and tips, HP3-80-P4 inspect and test system with 400X PCM, carrying case
FIT-S105-C	**Inspection, Cleaning and Test Kit:** Dual-mag (200/400X) FBP probe microscope and tips, HP3-60-P4 inspect and test system with 400X PCM, cleaning tools, carrying case
FIT-S115-C	**Inspection, Cleaning and Test Kit:** Dual-mag (200/400X) FBP probe microscope and tips, HP3-80-P4 inspect and test system with 400X PCM, cleaning tools, carrying case
FIT-S105-PRO	**Fiber Essentials Tool Kit:** Dual-mag (200/400X) FBP probe microscope and tips, HP3-60-P4 inspect and test system with 400X PCM, FFL-050 visual fault locator, cleaning tools, hands-free utility boot, carrying case
FIT-S115-PRO	**Fiber Essentials Tool Kit:** Dual-mag (200/400X) FBP probe microscope and tips, HP3-80-P4 inspect and test system with 400X PCM, FFL-050 visual fault locator, cleaning tools, hands-free utility boot, carrying case
FITP-RBP1	Rechargeable battery pack, for HP3

Test & Measurement Regional Sales