

## General Description

The PDR4213B is a rugged, handheld PON Power Meter designed for simultaneous optical power measurement at all three critical passive optical network wavelengths: 1310 nm (upstream), 1490 nm (downstream data), and 1550 nm (downstream video). Its large backlit LCD displays live power readings for all three channels in a single view, enabling fast, one-step verification of FTTH, GPON, and EPON links without reconnecting test leads. The PDR4213B combines a wide measurement range of -50 to +26 dBm with an accuracy of +/-0.25 dB, making it suitable for both installation acceptance and ongoing network maintenance. A compact, ergonomic orange housing with rubberised grip, long battery life, and a USB data port ensure reliable, productive field operation.



## Key Features

- Simultaneous three-wavelength display: 1310 nm, 1490 nm, and 1550 nm on a single screen
- Wide power measurement range of -50 dBm to +26 dBm covers all PON signal levels
- High accuracy of +/-0.25 dB for reliable installation and maintenance testing
- Large backlit LCD for clear readings in bright sunlight or low-light conditions
- Dedicated SC/APC and SC/UPC optical ports for direct connection to PON splitters
- USB port for data logging, PC connectivity, and firmware upgrades
- SAVE function stores measurements for later review and reporting
- Long battery life with auto power-off for extended field use
- Compact, ergonomic design with rubberised grip for one-hand operation
- Compatible with GPON (ITU-T G.984), EPON (IEEE 802.3ah), and XG-PON networks

## Technical Specifications

| Parameter         | Specification                               |
|-------------------|---------------------------------------------|
| Wavelengths       | 1310 nm   1490 nm   1550 nm                 |
| Measurement Mode  | Simultaneous 3-channel power measurement    |
| Power Range       | -50 dBm to +26 dBm                          |
| Resolution        | 0.01 dB   0.001 mW                          |
| Accuracy          | +/- 0.25 dB (at reference wavelength, 23 C) |
| Display Units     | dBm   dBr   mW (user selectable)            |
| Detector Type     | InGaAs photodiode                           |
| Optical Connector | SC/APC (SC/UPC adapter included)            |

## PDR VIDEOTRONICS (INDIA) PRIVATE LIMITED

### ADDRESS

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| Parameter             | Specification                                             |
|-----------------------|-----------------------------------------------------------|
| Connector Interface   | SC adapter port with 2.5 mm ferrule                       |
| Data Storage          | Up to 99 measurement records (SAVE function)              |
| Data Interface        | USB 2.0 (data transfer and firmware upgrade)              |
| Battery               | 3 x AA alkaline batteries                                 |
| Battery Life          | >= 40 hours continuous operation                          |
| Auto Power-Off        | Configurable: 5 / 10 / 15 min or disabled                 |
| Operating Temperature | -10 C to +50 C                                            |
| Storage Temperature   | -20 C to +60 C                                            |
| Humidity              | 0 to 95% RH (non-condensing)                              |
| Dimensions (LxWxH)    | 175 mm x 75 mm x 38 mm                                    |
| Weight                | approx. 280 g (including batteries)                       |
| Standards Compliance  | GPON ITU-T G.984   EPON IEEE 802.3ah   XG-PON ITU-T G.987 |

\* Accuracy specification applies at 23 C after 5-minute warm-up. Power range and accuracy may vary slightly at extreme temperatures.

## Applications

- FTTH / FTTB installation acceptance testing and power budget verification
- GPON and EPON network commissioning, maintenance, and fault localisation
- Simultaneous upstream (1310 nm) and downstream (1490 / 1550 nm) signal verification
- PON splitter loss measurement and passive component characterisation
- Data centre and enterprise fiber optic link power level monitoring
- Field technician quality-assurance testing during network rollout and upgrades

## Ordering Information

### Standard Package Contents

| Item                     | Quantity |
|--------------------------|----------|
| PON Power Meter PDR4213B | 1        |
| SC/UPC Adapter           | 1        |
| SC/APC Dust Cap          | 2        |
| USB Data Cable           | 1        |
| AA Alkaline Batteries    | 3        |
| Carrying Pouch           | 1        |
| User Manual              | 1        |

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