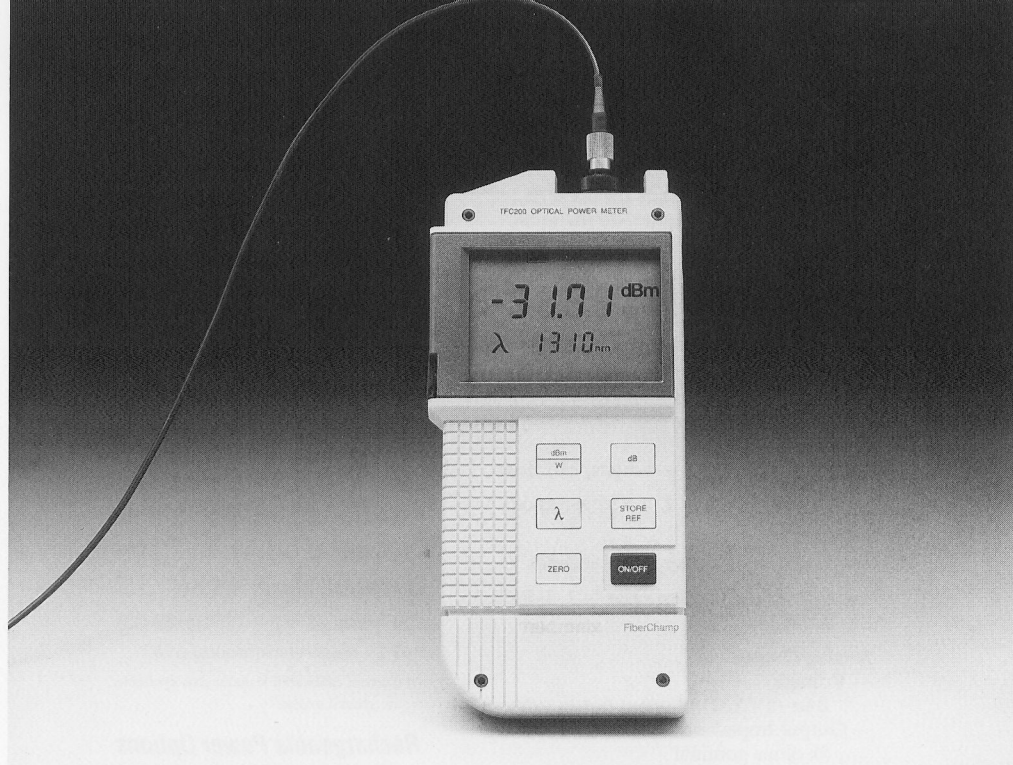


# TFC200 FiberChamp™

## Handheld Optical Power Meter

Weighing less than one pound (.45kg), the Tektronix TFC200 FiberChamp™ Optical Power Meter provides accurate optical power and loss measurements in a single rugged handheld unit.



### THE FiberChamp FEATURES:

- The highest accuracy of any handheld optical power meter
- Easy-to-use, intuitive user interface
- Large, backlit LCD display is easy-to-read in direct sunlight or total darkness
- Multiple calibrated wavelengths: 780, 820, 850, 1060, 1300, 1310 and 1550
- Selectable dB threshold audio indicator
- Readouts in dBm, Watts and dB
- Non-volatile storage of reference power level for each wavelength
- Averaging
- Analog output port
- Battery or AC/DC operation
- Wide selection of connector adapters
- Interfaces to multimode and singlemode fiber

### SAMPLE APPLICATIONS

**Absolute Power Measurements:** Can be made in either a logarithmic scale (dBm) or linear scale (Watts) on either single or multimode fiber. These measurements are unaffected by ambient light.

**Link Loss:** The loss in a fiber optic link can easily be measured by comparing the power at the transmitter/source against the power at the receiver. The transmitter absolute power measurement can be stored in the FiberChamp as the reference. Measurement of the power at the receiver end of the link is automatically compared to the reference and the power loss of the link displayed in dB's.

**Threshold Testing:** Using the selectable dB threshold setting, the FiberChamp allows quick and easy GO/NO GO testing of multiple links. When the required power level is sensed by the TFC200, a tone will sound indicating that the link is within the allowable loss range and is passing the required optical power level.

**Monitoring Power Levels Over Time:** FiberChamp's Analog Output provides a linear signal for input to an external recorder to record optical power levels over time to determine stability and drift.

### REPRESENTATIVE USERS

FiberChamp has a wide range of applications for measuring optical power in fiber optics including fiber installation, maintenance, restoration and research and development. Typical users include those involved with telephony, CATV, local area networks and fiber optic research and design.

## PRODUCT SPECIFICATIONS

### ELECTRICAL/OPTICAL

These specifications apply for use with all singlemode and multimode fibers up to 200um, 0.3NA core with all connector options.

**Spectral Range** — 750nm to 1700nm

**Calibrated Wavelength** — 780, 820, 850, 1060, 1300, 1310, 1550 nm

**Dynamic Range** — +10dBm to -70dBm

**Accuracy** —  $\pm 3\%$  ( $\pm 0.1\text{dB}$ )<sup>1</sup>

**Readout Resolution** — 4 digits, 0.01 dBm

**Display** — Backlit LCD — 6.98 X 5.08cm (2.78 X 2.00 in)

**Power-up Stabilization** — < 5 seconds<sup>2</sup>

**Tone Threshold Setting (dB)** — 1, 3, 6, 10, 15, 20, 25, 30, 35, OFF.

#### Analog Output

- Voltage  
0 to +1V FSD of linear power range
- Output Impedance  
5k ohms nominal

### ENVIRONMENTAL CHARACTERISTICS

#### Temperature

- Operating -10°C to +45°C
- Storage -30°C to +75°C

#### Humidity

- -5 to 95% Relative Humidity, non-condensing

#### Altitude

- Operating 4,500 meters (15,000 ft)
- Storage 15,000 meters (50,000 ft)

### POWER REQUIREMENTS

#### Internal

- 9V Alkaline (non-rechargeable) or 7.2V, 6 cell NiCad (rechargeable)

#### Battery Life

- Alkaline 28 hrs, NiCad 8 hrs

#### External

- 12-20VDC (AC/DC converter @ 100 ma, minimum)

### PHYSICAL CHARACTERISTICS

#### Dimensions

- 20.1 X 9.5 X 3.3cm 7.91 X 3.74 X 1.3in)

#### Weight

- 0.45kg (15.95 ounces)

**Note 1** — At -20dBm at 20°C at calibrated wavelengths.

**Note 2** — At ambient temperature.

## ORDERING INFORMATION

**TFC200 FiberChamp** Optical Power Meter.  
With each TFC200 order select one connector option listed below under Connector Adapter Options.

### Connector Adapter Options

(Standard configuration includes one connector adapter option of choice at no charge. Additional connector adapters may be ordered by part number.)

- ☐ Option 20 Biconic — (131-5078-00)
- ☐ Option 21 FC — (131-4728-00)
- ☐ Option 22 D4 — (131-5080-00)
- ☐ Option 24 ST\* — (131-5073-00)
- ☐ Option 25 DIN 47256 — (131-5181-00)
- ☐ Option 27 SMA 905/906 — (131-5072-00)
- ☐ Option 28 SC — (131-5182-00)

\* ST is a registered trademark of AT&T

\*\* Custom calibrated wavelengths available on special orders.

### Rechargeable Power Options

(Standard configuration is non-rechargeable. Select one of the following if recharging capability is desired.)

- ☐ Option 0C USA/Canadian 110 Volts
- ☐ Option 1C European 220 Volts
- ☐ Option 2C UK 240 Volts

### Standard Accessories

- Operator Manual (070-7913-00)
- User Guide (063-0809-00)
- Carrying Case (016-1078-00)
- Alkaline Battery (146-0094-00)

### Optional Accessories

AC/DC Power Adapters (Provides AC operation only for standard non-rechargeable unit. Not required for instruments ordered with Rechargeable Power Option.)

- USA/Canadian 110 Volts (119-2731-00)
- European 220 Volts (119-2712-00)
- UK 240 Volts (119-2713-00)

#### For further information, contact:

**Tektronix Test and Measurement**  
P.O. Box 1197  
Redmond, Oregon 97756  
(800) 833-9200 (U.S. and Canada)  
(503) 923-0333 (Worldwide)  
FAX (503) 923-4434

#### U.S.A., Asia, Australia, Central & South America, Japan

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Beaverton, Oregon 97077-0001  
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(503) 627-7111

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#### United Kingdom

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