

Features

- Three input channels
- 1mm indium-gallium-arsenide (InGaAs) photodetectors
- 850nm, 980nm, 1300nm, 1480nm, 1550nm, and 1625nm N.I.S.T. traceable calibration wavelengths
- +3 to -80dBm measurement range
- Logarithmic dB/dBm and linear Watt (mW, μ W, nW) units
- ± 0.25 dB absolute accuracy at calibration conditions*
- 0.001 dB/nW measurement resolution; 0.01dBm resolution
- Optical power meters can be operated independently via the GPIB/IEEE-488 compliant RIFOCS 700R system controller
- Space efficient—up to 11 optical power meter modules and one system controller can be installed in a 19-inch rack
- Snap-On Connector (SOC) interfaces adapt to all industry standard fiber optic connectors and other less common types
- **Finder** button—quickly addresses selected

* N.I.S.T. traceable calibration wavelengths only.



Key Specifications

| | |
|--------------------------|---|
| Detector type | 1mm InGaAs |
| Calibration wavelengths | 850, 980, 1300, 1480, 1550, and 1625nm |
| Calibration traceability | U.S. N.I.S.T. |
| Power range | +3 to -80dBm |
| Absolute accuracy | ± 0.25 dB |
| Resolution | 0.001dB/nW, 0.01dBm |
| Stability | < ± 0.05 dB within operating temp. range |

Applications

Optical Power Measurements

The triple channel 773R optical power meter is based on proven 1mm indium-gallium-arsenide (InGaAs) photodetectors specially manufactured for RIFOCS Corp. Offering a measurement resolution of 0.001 for logarithmic dB and linear nanowatt (nW) units, the 773R optical power meter can capture the slightest attenuation changes, making it ideal for dense wave-division multiplexing (DWDM) component qualification and other demanding fiber optic measurements.

The 773R optical power meter can measure power levels between +3 and -80dBm, well within the dynamic range of typical fiber optic systems.

Manual operation of the 773R optical power meter, via the 700R controller module, is simple and intuitive. Measurement data, calibrated wavelengths, and other information is easily read on the large, backlit LCD display of the latter unit. Operators can quickly select calibrated wavelengths and measurement modes using the six ergonomically designed, multi-function buttons on the controller. A **Finder** button on each 770R Series optical power meter, and other 700 Series instruments, makes module selection easy and convenient.

A GPIB/IEEE-488 interface incorporated in the 700R controller module enables the 773R optical power meter to be operated from a remote terminal using basic commands. Operation of the 773R optical power meter can also be automated using **fiberWORKS™** application software by RIFOCS Corp.

Efficient design and engineering are the hallmarks that have made RIFOCS an industry leader in the field of fiber optic instrumentation. The compact design of the 773R optical power meter, and others in the series, permits up to 11 of the units to be installed in a standard 19-inch rack with a 700R controller module.

Ordering Information

Three Snap-On Connector (SOC) adapters are included with the 773R optical power meter. Please specify the desired connector adapter types when ordering using the SOC Adapter Table, below. Additional SOC adapters may also be ordered separately.

| Part No. | Description |
|----------|----------------------------|
| 773R | Optical power meter module |

SOC Adapter Table

| Part No. | Description |
|----------|--|
| 1001 | Blank |
| 1010 | DIN 47256 |
| 1020 | NTT/FC-PC |
| 1030 | AT&T/ST-PC |
| 1038 | MIL-T-29504 optical termini |
| 1040 | HMS-10 (2.5mm) |
| 1047 | Mini-BNC |
| 1050 | Diamond HMS-0 (3.5mm) |
| 1057 | Stratos 430/Holtek 38000 |
| 1062 | NTT/SC-PC |
| 1081 | Radiall VFO |
| 1086 | Diamond HMS-10A (SMA-2.5) |
| 1087 | SMA-905/906 |
| 10E0 | Radiall EC |
| 10E2 | Diamond E-2000 |
| 10TB | Simplex TOSLINK/Spectran J-pin |
| 10TD | TR/TX set, duplex TOSLINK/Spectran J-pin |
| 10TR | Duplex TOSLINK TX |
| 10TX | Duplex TOSLINK TR |
| 10ZP | H-P Versalink/Spectran V/Z-pin |

Specifications¹

Subject to change without notice

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|--|--|
| Number of channels | Three (3) |
| Detector type | 1mm indium-gallium-arsenide (InGaAs) |
| Primary calibration wavelengths | 850nm, 980nm, 1300nm, 1480nm, 1550nm, 1625nm |
| Power range | +3 to -80dBm |
| Linearity: | |
| ±0.5dB | > -70dBm |
| ±0.05dB | -30dBm to -70dBm |
| ±0.5dB | +3dBm to -80dBm |
| Absolute accuracy | ±0.25dB at calibration conditions for all N.I.S.T. traceable wavelengths |
| Stability | < ±0.02dB from 10°C to 35°C, < ±0.05dB within operating temperature range |
| Resolution | 0.001 dB/nW, 0.01dBm |
| Settling time, auto-range from dark to maximum power | 0.5 seconds |
| Readings per second (remote model) | 10 per second, typical |
| Measurement modes | Relative logarithmic dB, absolute logarithmic dBm, absolute linear Watt (mW, µW, nW) |
| Optical connector interface | Snap-On Connector (SOC) interface |
| Environmental: | |
| Operating temp. | 0°C to +50°C |
| Storage temp. | -15°C to +70°C |
| Humidity | 0 to 95% RH, non-condensing |
| Weight | 400g (14 oz.) |
| Dimensions | 12.9 x 3 x 26.2 cm (5 x 1.17 x 10.22 in), one slot in RIFOCS 700 Series rack |

¹ Within specified ambient environment of +20°C to +25°C.

