OCP 5002
2 GHz Optical Converter/ Power Meter 1100 to 1650 nm, DC to 2 GHz

OCP 5502
2 GHz Optical Converter/ Power Meter 1100 to 1650 nm, DC to 2 GHz

- *2 GHz Bandwidth*
- *Extinction Ratio Measurements*
- *Low DC Drift*
- *TEKPROBE™ Interface*
- *LED and Laser Characterization*

NEW OIG 501
Optical Impulse Generator 850 nm, 35 ps Laser Impulse

OIG 502
Optical Impulse Generator 1300 nm, 35 ps Laser Impulse

- *Calibration for High Speed Photodiodes*
- *Impulse Source for High Resolution Optical Time Domain Reflection*
- *Fiber Bandwidth/Dispersion*

ORDERING INFORMATION

OCP 5002 2 GHz Optical Converter/Power Meter **$8,950**
Includes: Instruction manual (070-7817-00).

OCP 5502 2 GHz Optical Converter/Power Meter **$9,950**
Includes: Instruction manual (070-7817-00).

OIG 501 Optical Impulse Generator *1
Includes: Instruction manual (070-7818-01).

OIG 502 Optical Impulse Generator **$9750**
Includes: Instruction manual (070-7818-01).

OPTIONAL ACCESSORIES

Fiber Optic Cables – (Refer to page 289 for complete list)

TEKPROBE™ Interface Cable (Order 012-1372-00) **$300**

*1 *Contact your local sales office.*

GPIB IEEE-488 *

**The OCP 5002 and OCP 5502 comply with IEEE Standard 488.2-1987 and Tektronix Standard Codes and Formats*

OCP 5002/OCP 5502

The OCP 5002 is an optical to electrical converter with an integral average reading optical power meter. It is a plug-in compatible GPIB controllable unit for the Tektronix TM 5000 Series power supplies. The OCP 5502 is a functionally equivalent instrument packaged as a stand-alone monolithic unit with integral power supplies. The OCP 5002 and the OCP 5502 operate over the 1100 nm to 1650 nm spectral range. These units meet or exceed their specified performance over the dc to 2 GHz frequency range.

The power meter can display power in watts, dB and dBm. The dB reference setting can be from a signal on the power meter or can be set manually.

1 V/mW conversion gain is very useful for measuring optical inputs from LED and laser sources. The user will be able to measure fiber-based optical signals up to 2 GHz from either type of source.

TYPICAL APPLICATIONS

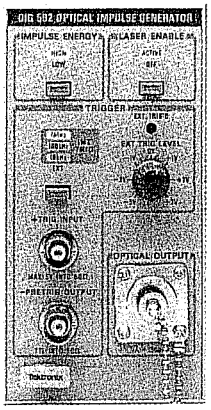
Optical digital communication tests such as SONET and FDDI will be made easier with the TEKPROBE™ Interface and the 2 GHz bandwidth. The 2 GHz bandwidth coupled with the Tektronix CSA 803 and CSA 404, will give the user a fast response, high resolution communications measurement capability.

LED characterization, Laser characterization and other component measurements will be made simpler and more repeatable by using OCP 5000 Series instruments.

CHARACTERISTICS

O/E Converter	OCP 5002/OCP 5502
Wavelength Response	1100 –1650 nm
Bandwidth	dc – 2 GHz
Risetime	260 ps
Conversion Gain	1 V/mW ±8% at 1300 nm
Calibrated Offset Max Input	0 – 1 mW ±1% 2 mW offset at 1 mW
Optical Power	1 mW no offset
Noise Equivalent Power	≤1 µW
Power Meter	
Dynamic Range	±7 dBm to –80 dBm
Accuracy*1	≤5% at 1300 nm

*1 *With FC/PC Connectors*



OIG 501/OIG 502

The OIG 501/OIG 502 Optical Impulse Generators are laser impulse sources that operate at 850 and 1300 nm respectively. The user may select either internal or external triggering. The trigger level can be adjusted from ±3 V. These units are compatible with either the Tektronix TM 500 or TM 5000 power supplies.

The internal triggering repetition rates are 10 kHz, 100 kHz or 1 MHz. These options are selectable with front panel switches. The output is stabilized in order to provide repeatable output signal levels.

The OIG 501/OIG 502 have two user selectable output pulse modes: high impulse energy or low impulse energy. In the high energy mode, the units provide an optical impulse >30 mW (OIG 502), ≥15 mW (OIG 502) with impulse widths ≤300 ps (FWHM). In the low energy mode, the units produce an optical impulse ≥15 mW (OIG 501), ≥5 mW (OIG 502) with pulse widths ≤35 ps (FWHM). The OIG 501/OIG 502 have a 60 ns pre-trigger for easy viewing of the impulses on a variety of oscilloscopes.

TYPICAL APPLICATIONS

The OIG 501/OIG 502 are very useful in many applications. These include photodiode rise time testing, high resolution optical time domain reflectometry, and dispersion and bandwidth testing of optical fiber. The extremely fast pulse and the stabilized output provide performance in these areas never before achieved.

With pulses of ≤35 ps width, the user will be able to directly measure the performance of photodiodes whose impulse response characteristics have previously been available only indirectly by a deconvolution computation. The narrow pulse widths achieved will allow millimeter level resolution on OTDR measurements. This permits measurements of reflections in optical systems that were not obtainable before the OIG 501/OIG 502.

The stabilized output insures repeatable measurements for all the applications mentioned above. The tests were complicated and time consuming to insure stable levels on the test signals. Now, with the OIG 501/OIG 502, the stability is specified.

CHARACTERISTICS

	OIG 501	OIG 502
Wavelength	850 nm*2	1300 nm*2
Impulse Width		
Low Energy –	≤35 ps	≤35 ps
High Energy –	≤300 ps	≤300 ps
Max Output Optical Power		
Low Energy –	≥10 mW	≥5 mW
High Energy –	≥25 mW	≥15 mW

*2 *± 20 nm*

To order, call your local Tektronix Sales Office, or call Tek's National Marketing Center. Toll free: 1-800-426-2200, Ext. 99.