1.06 µm Ultrafast Optical Clock

UOC-1M Series
ULTRAFAST OPTICAL CLOCKS at 1.06 µm

In response to customer requests, PriTel announces the 1.06 µm UOC. This high-performance unit provides short pulses for telecom research and low jitter pulses for a variety of research applications.

PriTel’s UOC Series of Ultrafast Optical Clocks are easy-to-use actively-mode-locked fiber lasers that provide high pulse-repetition frequencies and high average output powers for 1.06 µm time-division-multiplexed communications R&D.

An internal microcomputer monitors the optical pulses and maintains mode-locking. After initial setup, the UOC requires no supervision.

Specifications

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Optical

Gain medium          | Yb-doped silica fiber |
Pump source          | Diode laser |
Connectors            | FC/PC (other connectors available on request) |

Environmental

Operating temperature | +15 to 30°C |
Storage temperature   | -20 to 50°C |

Electrical/ Mechanical

Operating Voltage     | 85-264 VAC at 47-63 Hz |
Power consumption     | <250 W |
Dimensions (4U)       | 48 cm x 38 cm x 18 cm |
Weight                | 20 kg |

The UOC Series provides two or three secondary optical outputs for monitoring system performance by a photodiode, optical spectrum analyzer, or power meter. Normal operation of the UOC Series requires an external RF synthesizer or clock, supplied by the customer.
Typical Performance of PriTel’s UOC -1M at 1300 MHz

UOC: Wavelength Tuning
S/N: 1807-09-011, 1.30000 GHz, 3 (DC) nm filter

UOC: Autocorrelation Traces
S/N: 1807-09-011, 1.30 GHz (1040 nm)

UOC: Optical Spectra
S/N: 1807-09-011, 1.30 GHz (1040)

UOC: Output RF Spectrum
SN: 1807-09-011, 1.30000 GHz

-100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

Frequency Span (MHz)

-50 -40 -30 -20 -10 0 10 20 30 40 50

Time(ps)

Signal

Wavelength (nm)

Signal

Wavelength (nm)

Center = 1.30000 GHz
Span = 100 MHz
RBW = 100 kHz
VBW = 100 kHz

Information contained herein is deemed to be reliable and accurate. PriTel, Inc. assumes no responsibility and shall have no liability relating to its use. PriTel, Inc. reserves the right to change product specifications at any time without notice.

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