

## UOC-R Series

# ULTRAFAST OPTICAL CLOCKS with Regenerative Mode-locking

PriTel's UOC-R Series of Ultrafast Optical Clocks are easy-to-use mode-locked fiber lasers that do not require an external RF synthesizer. In this series, regenerative mode-locking is used to provide the internal RF reference.

The UOC-R Series is available with other pre-selected fixed repetition rates.

The UOC-R has an RF output at the frequency of the laser that can be used for triggering and other synchronizations.



## Specifications

<b>UOC-R</b>	
Pulse repetition rate	9.95 GHz $\pm$ 0.010 GHz, fixed (other rates on custom basis)
Wavelength	1550 $\pm$ 1 nm
Average output power	$\geq$ 10 mW
Sideband suppression	> 80 dB
Pulsewidth	2.5 ps
Spectral width	1.0 nm
<b>Optical</b>	
Gain medium	Er-doped silica fiber
Pump source	Diode laser
Connectors	FC/APC (other connectors available on request)
<b>Environmental</b>	
Operating temperature	+15 to 30°C
Storage temperature	-20 to 50°C
<b>Electrical/ Mechanical</b>	
Operating Voltage	85-264 VAC at 47-63 Hz
Power consumption	< 250 W
Dimensions (2U)	9 cm x 48 cm x 38 cm
Weight	20 kg

The UOC-R Series provides three secondary optical outputs for monitoring system performance by a photodiode, optical spectrum analyzer, or power meter.

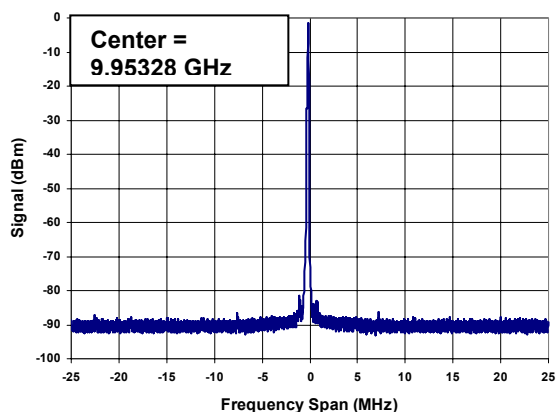


## PriTel, Inc.

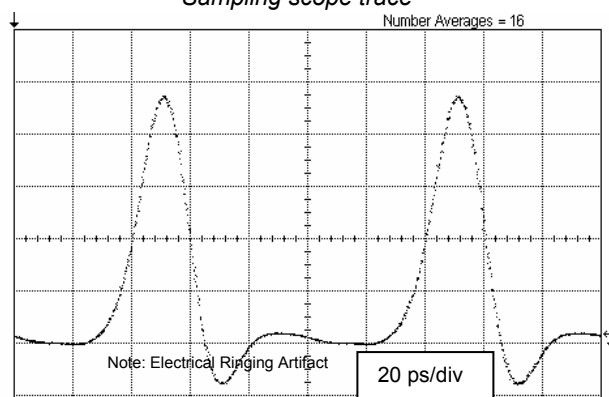
P.O. Box 4025, Naperville, IL 60567-4025, USA  
Ph: 630-983-2200, Fx: 630-983-2260 (USA)  
E-mail: [PriTel@PriTel.BIZ](mailto:PriTel@PriTel.BIZ), Internet: [www.PriTel.BIZ](http://www.PriTel.BIZ)

## Typical Performance of PriTel's UOC-R Ultrafast Optical Clock

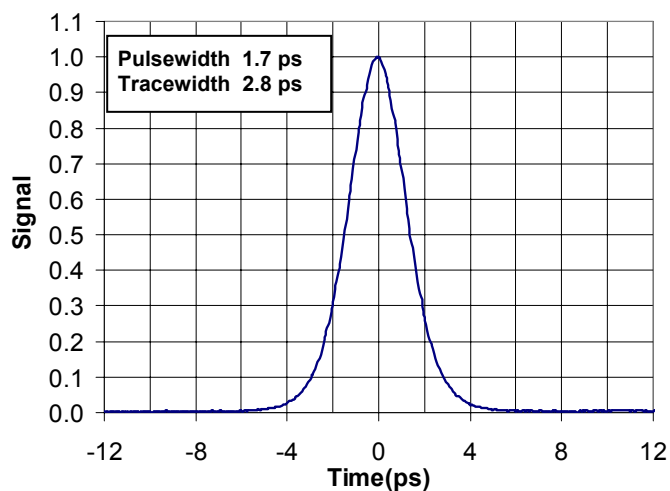
*RF Spectrum*



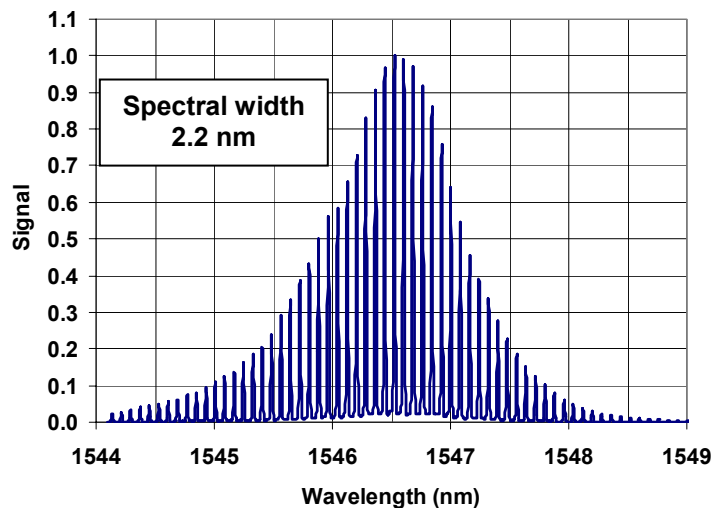
*Sampling scope trace*



*Autocorrelation*



*Optical spectrum*



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Ph: 630-983-2200, Fx: 630-983-2260 (USA)  
E-mail: [PriTel@PriTel.BIZ](mailto:PriTel@PriTel.BIZ), Internet: [www.PriTel.BIZ](http://www.PriTel.BIZ)