

1.06 μm Ultrafast Optical Clock

UOC-Yb Series

ULTRAFAST OPTICAL CLOCKS at 1.06 μm

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. They are tunable in pulse repetition rate, pulsewidth, and wavelength. They are ideal for Quantum Technology and for Synchrotron applications.

The Quick-Change Pulsewidth feature is standard on all UOC models, enabling the user to change the operating pulsewidth..

Available options are internal RF synthesizer that generates RF frequencies from 500 MHz to 20 GHz and integrated PM-EDFA that generates >200 mW of output power.



Specifications

Yb-UOC

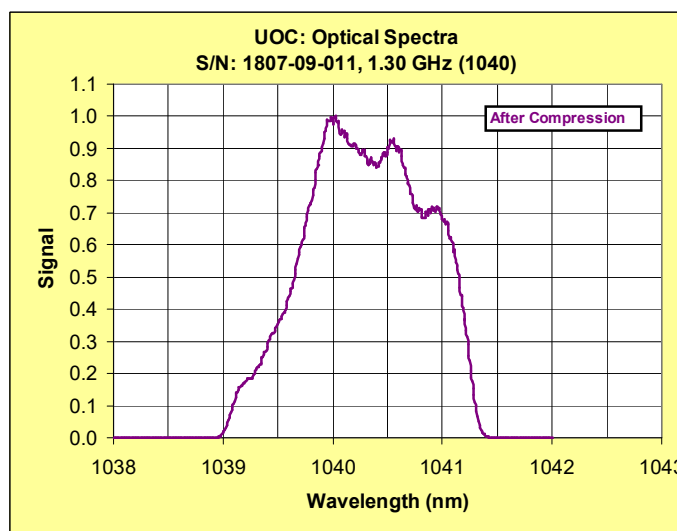
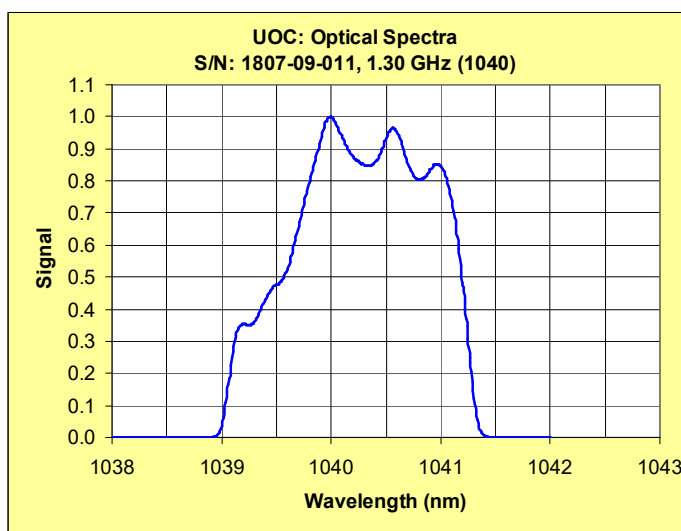
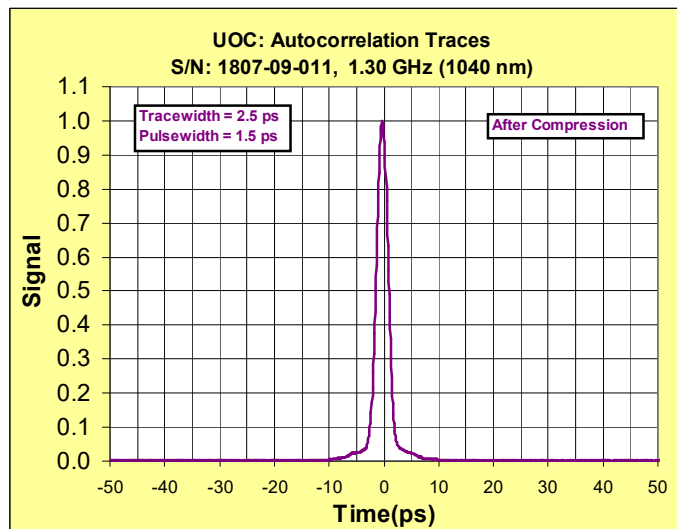
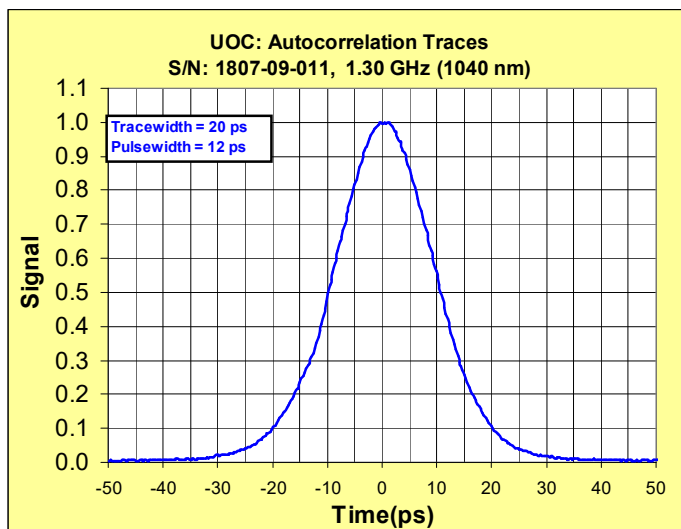
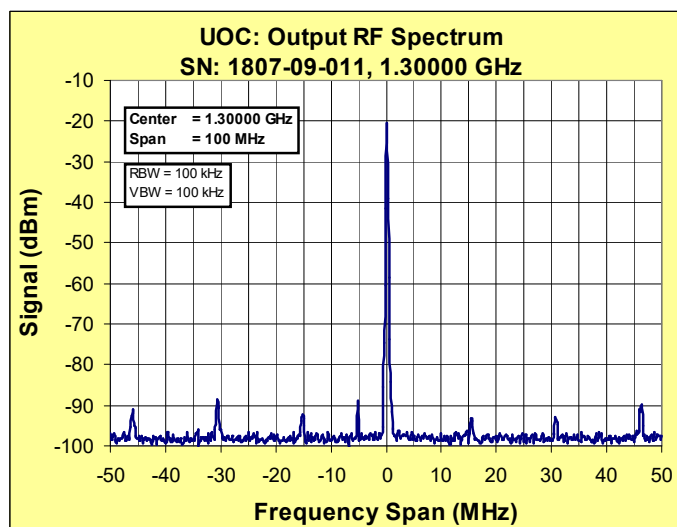
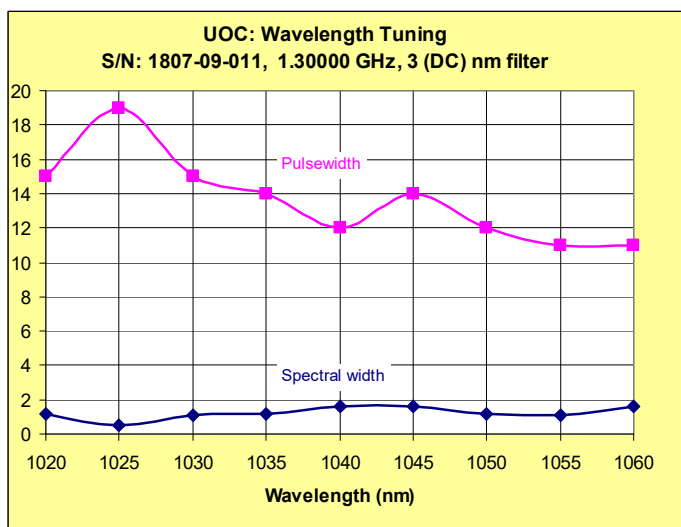
Wavelength	1.040 μm to 1.080 μm , tunable
Pulsewidth	2 ps to 25 ps
Optical bandwidth	0.4 nm @ 8 ps
Pulse repetition freq.	0.5GHz, 1.0GHz, 1.3GHz, 2.5GHz, 5-14GHz, 5-20GHz
Average output power	Varies with repetition rate 20 mW @ 10 GHz
Sideband suppression	>65 dB
Optical	
Gain medium	Yb-doped silica fiber
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.



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Typical Performance of PriTel's UOC -1M at 1300 MHz



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