1880 S Flatiron Ct Suite F
Boulder, CO 80301

Juniper

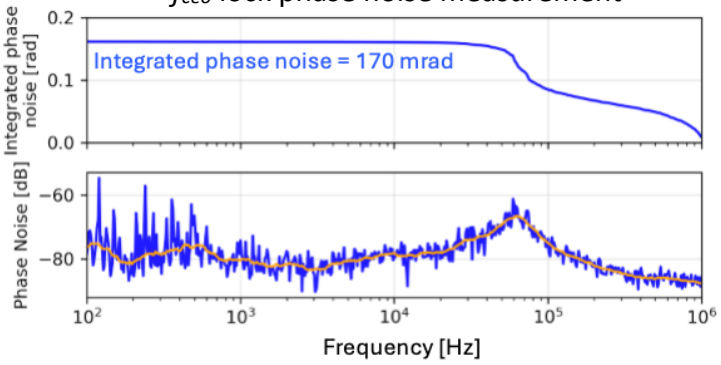
Compact, turnkey optical frequency comb



The Chi3 Optics Juniper is a turnkey frequency comb system based on a robust Er:fiber modelocked laser. It provides RF f_{ceo} and optical tap outputs, plus servo inputs to make full comb stabilization easy, while internal temperature stabilization and long-range rep-rate control make sure the locks hold. The Juniper is available with customized, fiber-coupled wavelength extensions in the range from 1–2 µm, or fiber-coupled delivery of a short pulse centered at 1560 nm. All housed in a compact footprint with intuitive touchscreen and computer serial control.

Specification	*Performance*
Dimensions (W x L x H)	8 cm x 18 cm x 14 cm
Center wavelength	1560 nm
Optical output 1	>150 mW comb output (LC/APC PM1550), optional compression to 65 fs (~50 nm BW) OR Supercontinuum in 1-2 µm range
Optical output 2	5 mW tap output (LC/APC PM1550)
Repetition rate	100 MHz nominal 10 MHz – 200 MHz available
SMA outputs	f_{ceo} beat, Pump current monitor
SMA inputs	Fast/slow PZT, pump current servo
f_{rep} tuning range	22 kHz on 100 MHz
f_{ceo} phase noise	< 300 mrad (100Hz-1MHz)
Control interface	Touchscreen, serial control

f_{ceo} lock phase noise measurement



Supercontinuum for 1348 nm (Sr^+ clock)

