

HIRO

515 nm, 343 nm, 258 nm



ORPHEUS

190 nm – 16 μm



TOPAS

189 nm – 20 μm



Tunable wavelength source

Pump laser source

PHAROS

190 – 290 fs

up to 1 MHz

1030 nm



CARBIDE

190 – 290 fs

up to 1 MHz

1030 nm



Probe beam delay configuration

DLC1	DLC2	DLC3
2 ns	4 ns	8 ns

Physik Instrumente VT-80
Linear lead screw, 20 mm/s speed

Delay range	Delay resolution
2 ns	2.1 fs
4 ns	4.2 fs
8 ns	8.3 fs

Delay line

Single-channel
InGaAs NIR/mid-IR detector

1.2 – 2.6 μm DS3

Multi-channel
InGaAs NIR/mid-IR detector

0.9 – 1.7 μm DM3
0.9 – 2.6 μm DM2

Multi-channel
Si NMOS UV/VIS/NIR detector

0.2 – 1.1 μm DM1

Detectors

Integrated spectrometer
VIS/NIR, fixed range

SP4

External spectrometers

Andor Kymera 328i SP5
Andor Shamrock 163i SP2
Andor Kymera 193i SP1

Spectrometer

Polarization control

Manual sample holding unit

SH1

Sample mover
Sample positioning and motion during measurement, XYZ version available

SH2

Sample translation

Intensity control

Manual neutral density filters

NDF1

Motorized neutral density filters

NDF2

Remote light intensity adjustment and intensity-dependent measurements

Extensions

MM1

HARPIA | MM

Microscopy module



Pump-probe microspectroscopy in transmission and reflection modes

	Resolution
Spatial	5 μm
Temporal	500 fs

TB1

HARPIA | TB

Third beam delivery module

Delay range	Delay resolution
2 ns	2.1 fs
4 ns	4.2 fs



Multi-dimensional spectroscopic measurements: pump-dump-probe, pump-repump-probe or prepump-pump-probe, femtosecond stimulated Raman scattering, etc.

TF1

TF2

HARPIA | TF

Femtosecond fluorescence upconversion & TCSPC module

Option	Resolution
TF1 Standard	< 180 ps
TF2 High-speed	< 50 ps



Additional options

AD1 Measurement in reflection mode

AD2 Glan-Taylor polarizer
Polarization state verification



AD3 Reference photodiode
Measurement of probe signal level for elimination of long-term signal fluctuations

AD4 Crystal rotator

Movement of low-damage-threshold probe supercontinuum crystal, e.g., CaF₂.



AD5 Beam profiler

AD6 Motorized pump mirror

AD7 External beam stabilization

AD8 Internal beam position tracking

AD9 Cryostat mounting



AD10 Sample stirrer

AD11 Flash photolysis extension

PR3 Internal motorized SH generator

* Custom options available, contact sales@lightcon.com for details.