

# Raman DUPLA™

## ELODIZ DUPLA™ Raman

The ELODIZ DUPLA™ is the second compact multi-laser system from our line of Raman devices. The product provides long-term operational stability which makes DUPLA™ the ideal partner for general material characterisation and reaction monitoring processes.

Often, the use of a single laser line might not be sufficient and multiple readings are necessary (e.g., teaching laboratories, quality assurance services or quality control support laboratories, scale-up process). Our multichannel device, which does not require any user manipulation during operation, offers versatility where productivity and multipoint data access is critical. Two independent fibre probes which can be connected to this device provide a choice of either simultaneous or independent operation.

Why work with complicated modular DIY setups or waste resources on multiple units? ELODIZ multi-laser lines (NEEGALA™ & DUPLA™) allow expansion of operations while reducing the need for complicated or cumbersome devices.

Along with the stand alone laboratory bench device (white) we also offer a rack version (black) which can be mounted in a cabinet for industrial application.

DUPLA™ system requires 2 independent fibre probes for operation.

NOTE: NEEGALA™ probe is not compatible with DUPLA™ system.



[Information request](#)

## DUPLA Specifications\*

Laser Wavelength	532 & 532 nm	785 & 785 nm
Spectral Range	200 .. 4400 cm <sup>-1</sup>	200 .. 3000 cm <sup>-1</sup>
Spectral Raman Resolution	7 cm <sup>-1</sup> @ 2520 cm <sup>-1</sup>	5 cm <sup>-1</sup> @ 968 cm <sup>-1</sup>
Max Laser Power	Class 3B, 80 mW	Class 3B, 300 mW
Adjustable laser	In 10% steps	In 1% steps
Operation	2 individual probes (one per channel); standard 2m long fibre-optic probe (other models and lengths available on demand)	2 individual probes (one per channel); standard 2m long fibre-optic probe (other models and lengths available on demand)
Slit	10um	10um
Unit Calibration	Permanent factory calibration, under EUROPEAN CHARISMA protocols for standardisation	Permanent factory calibration, under EUROPEAN CHARISMA protocols for standardisation
Size (WxDxL) (mm)	310x310x160 (portable version) 430x430x180 (rack version)	310x310x160 (portable version) 430x430x180 (rack version)
Weight (Kg)	7	7
NA Fibre	0.22	0.22
Detector Type	Si based CCD detector	Si based CCD detector
Software Control	SOMPAS by ELODIZ, under Windows 10/Windows 11, Linux (Ubuntu 20.04 LTS)	SOMPAS by ELODIZ, under Windows 10/Windows 11, Linux (Ubuntu 20.04 LTS)
PC Connection	Ethernet/on demand touchscreen interface	Ethernet/on demand touchscreen interface

\*subject to change without notice

## Supported Industries

- Art conservation & Archaeology studies
- Bioscience and Medical Diagnosis
- Surface enhancement Raman spectroscopy
- Polymers and Chemical Processes
- Online Reaction monitoring
- Semiconductor & Solar Industry
- Geology, Gemology and Mineralogy
- Pharmaceutical Industry
- Environmental Science
- Police and Forensic Analysis
- Teaching laboratories and Physics
- Quality Control and Quality Assurance
- General Research

## Key Applications

- Direct Raman analysis of samples with selected laser lines
- Reaction monitoring / PAT analysis using immersion safe fiber-optic probe shaft accessory
- Attachment to other accessories for process analysis
- Studying changes or distribution of composition across a sample, and/or with time e.g. stability of pharmaceutical preparations, sample homogeneity in pharmaceuticals and additives and crystallinity in polymers