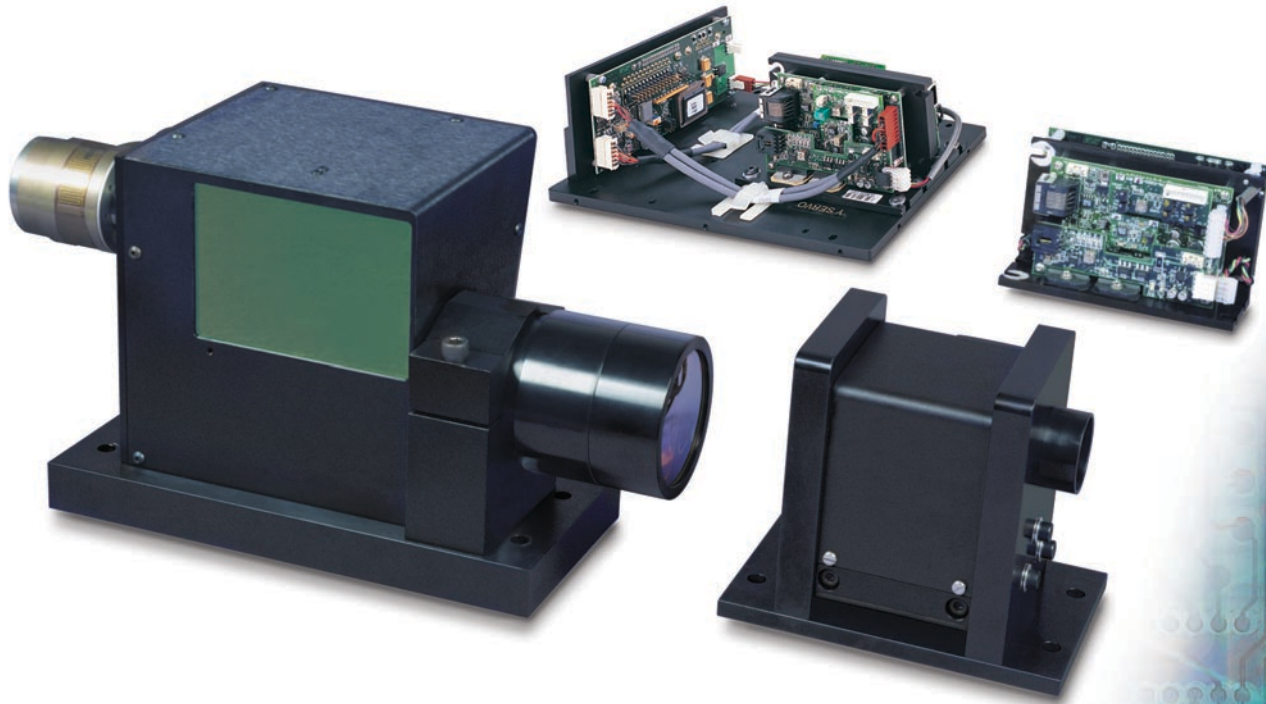


HPLK Series

Flexible 3-Axis Laser Scanning Systems



- Advanced, high-speed design
- Superior accuracy and stability
- Dynamic z-axis controls focal point for applications in:
 - rapid prototyping
 - converting
 - large-field laser processing
 - precision cutting of flex circuits, adhesive labels packaging, or as a flexible prototyping tool for any die-cut part



Leading edge performance for large field size and large aperture applications

HPLK 3-Axis Subsystems provide system designers with a cost effective solution for large field scanning requirements or applications that requires a large scan aperture to achieve a small focused spot size. As field size or scan aperture increases, the size and cost of a flat-field lens rises exponentially. Through the use of a unique high-speed dynamic focus module, HPLK subsystems eliminate the need for this expensive optic.

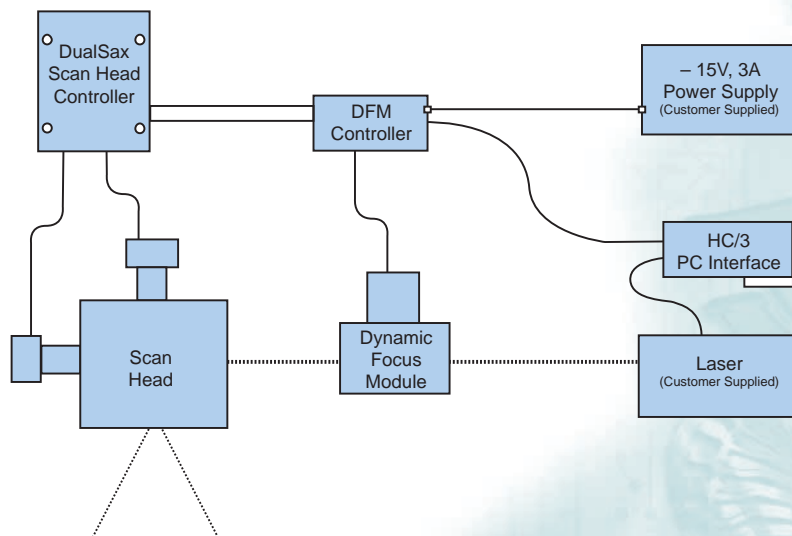
By placing the focusing lenses before the scan head, the size of the optical elements become independent of field size. This flexible design allows HPLK systems to be readily configured for a wide range of field sizes with a single, economical lens set. To maintain high accuracy over large field sizes, HPLK systems combine advanced thermally regulated moving-magnet scanners with the precision MiniSAX servo controller. HPLK subsystems are available with GSI Group's WinMCL Plus or PCMARK MT control software.

HPLK Specifications:

Laser Type

	CO ₂ HPLK1350 (-9, -17)	CO ₂ HPLK1330 (-9, -17)	YAG HPLK2330	TYH/HeCd HPLK4320	DYH/Ar ⁺ HPLK5320
Wavelength	IR 10,600 nm	IR 10,600 nm	IR 1,064 nm	UV 325-355 nm	488-532 nm
Scan Head Aperture (mm)	50	30	30	20	20
Field Size Range ¹ (mm x mm)	100 to 2,000	100 to 2,000	30 to 3,000	100 to 2,500	190 to 3,000
Input Beam Diameter (mm)	9, 17	9, 17	6	1.3 – 3.3	2.4
Max. Power ² , cw (W)	200, 500+	100,200,500+	150	80	80
Gain Drift (ppm/ °C, typ.)	25	25	25	25	25
Offset Drift (µmR/ °C, typ.)	3	3	3	3	3
Example Field Size ³ (mm x mm)	400	400	400	400	400
Spot Size Diameter ⁴ (µm)	210	350	40	16	30
Repeatability ⁵ (µm)	12	12	12	12	12

1. For Field Size requirements beyond this range contact your GSI Group Sales Representative 2. Maximum power rating is field size dependent on HPLK13xx-9 and -17 systems. Consult factory for more information. 3. Shown to provide examples of achievable spot size and repeatability. Consult factory for specifications at other field sizes. 4. Theoretical value based on input beam quality M2 < 1.5 5. Assumes stable environment. Value represents 2-bit resolution in a 16-bit system.



Specifications are subject to change. Please consult GSI Group for complete details.

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