

VERSIA 2-AXIS SCAN HEAD

HIGH-SPEED HYBRID 2 AXIS SCAN HEAD FOR MAXIMUM THROUGHPUT AND SEAMLESS INTEGRATION

VERSIA 10+ is Novanta's advanced 10 mm 2-axis scan head, engineered to increase throughput, maintain exceptional precision, and simplify integration in demanding laser processing applications. By combining lightweight, proprietary optics with an advanced digital control architecture that enables real-time feedback and monitoring, VERSIA 10+ delivers higher processing speeds, improved accuracy, and consistent performance across a broad range of industrial laser applications.

Designed for high-speed performance and seamless system integration, VERSIA 10+ leverages Novanta's proprietary, in-house designed and manufactured lightweight optical technology to significantly enhance dynamic performance. This makes it ideal for demanding applications such as micromachining and advanced raster bitmapping. At the same time, its versatile design supports a wide range of additional applications, including small-field laser additive manufacturing, engraving, marking, and coding.

ENGINEERED FOR THROUGHPUT, PRECISION, AND FLEXIBILITY

Versia 10+ enables higher productivity in applications such as high-speed marking, micromachining, and additive manufacturing.

- Increase throughput with high-speed raster performance to reduced cycle times
- Maintain precision with real-time position feedback and low drift performance
- Optimize processes quickly by using multi-tune capabilities for your specific application
- Adapt to evolving needs with hybrid digital/analog architecture

This combination allows manufacturers to improve output without compromising quality or requiring major system redesigns.



Low Drift Performance | Proprietary Optics | Easy Upgrades

KEY PERFORMANCE ADVANTAGES

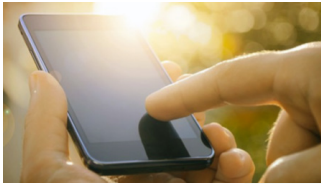
Lightweight, in-house designed optics for faster dynamic response
Hybrid digital/analog control for stability and performance
Real-time position monitoring for improved process consistency
Sky-writing capability to reduce motion-induced cycle delays
Multiple tuning profiles for application-specific optimization

DESIGNED FOR FAST, FLEXIBLE INTEGRATION

Versia 10+ is built for seamless integration into both new and existing laser systems, reducing engineering effort and accelerating time to market.

- Compact footprint minimizes system size and simplifies mechanical design
- Native support for XY2-100 enables easy compatibility
- NVL-100 provided higher command resolution and bidirectional communication
- Pre-validated with Novanta laser and control solutions

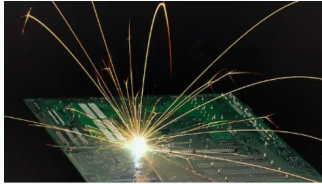
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Micromachining:
 Precision processing for fine features and high-value components.



Laser Hairpin Stripping:
 Clean, repeatable laser stripping for high-volume e-mobility production.



Semiconductor Laser Processing:
 High-precision material modification for advanced semiconductor applications.



Engraving, Marking & Coding:
 High-speed marking with consistent quality and minimal cycle time.

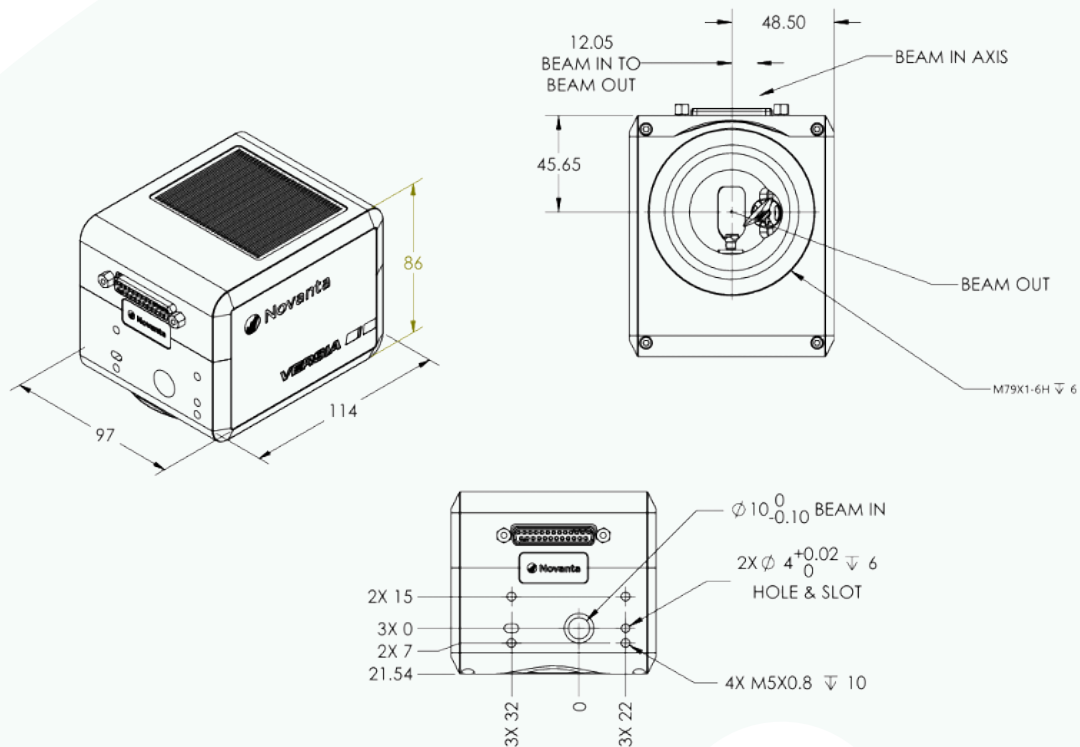
Specifications	10 mm
Mirror Aperture Size	10 mm
Scan Angle	±21°
Repeatability	<2 μrad
Long Term Offset Drift3	<100 μrad
Long Term Scale Drift3	<140 ppm
Temperature Offset Drift	<20 μrad/°C
Temperature Scale Drift	<25 ppm/°C
Wavelength Options2 Max Power	Fiber: 1020 - 1090 nm 200 W Green: 513 - 534 nm check with factory Blue: 425 - 465 check with factory UV: 355 nm check with factory
Command Resolution	16-bit for XY2-100 20-bit for NVL-100
Communication Interface	XY2-100 NVL-100
IP Rating	IP54
Power Requirements	48V, 5A RMS
Operating Temperature	15 °C - 40 °C
Weight (approximate)	1.26 kg
Dimension (L x W x H)	114 mm x 97 mm x 86 mm

Tune Specifications	
Tune type	High speed raster
Step Response Time 1% of Full Scale1	< 320 μs
Tracking Error	< 155 μs

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COMPACT FORM FACTOR FOR EASY INTEGRATION

10 mm scan head dimensions:



All angles are in optical degrees, unless otherwise noted. Dimensions are in millimeters. All specifications are subject to change without notice.

WHY CHOOSE NOVANTA?

- Proven performance in high-volume industrial applications
- Seamless integration enabled Novanta ecosystem with ScanPack, SyncMaster, real-time feedback, and 20-bit resolution (NVL-100)
- Global engineering support for OEMs and integrators
- Designed for reliability, scalability, and long-term operation

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