

Motion Controller

VL-MC Series-600

High-end industrial automation multi-axis collaborative control flagship equipment

- 6-axis 2 MHz synchronization
- $\pm 0.5 \mu\text{m}$ interpolation, 50 nm closed loop
- 32 channels of I/O, thousands of segments buffer for plug-and-play operation



One Platform Many Possibilities

Contact Us sales@venuslabtech.com

Get a Quote



Get Expert Advice
+658099 5547 (WhatsApp)



Visit Us
www.venuslabtech.com

Overview

"6-Axis Nano-Command Core" – VL-MC Series-600

The VL-MC Series-600 squeezes six 2 MHz pulse channels, 4 ms hardware interpolation and 50 nm closed-loop feedback into one 200 × 130 mm card. Space-linear and any-two-axis circular moves are completed in a single cycle with $\pm 0.5 \mu\text{m}$ path error; electronic cam/gear synchronization suits flying-cut and on-the-fly inspection. Six 3-phase encoder ports (4× quadrature), 32 programmable I/Os and analog speed output let lasers, vision and force sensors plug-and-play. Store 1,000 G-code blocks for stand-alone operation, or fire a six-axis arc from Windows with two lines of DLL code. From wafer metrology to laser micro-machining and robot 7th-axis, the Series-600 delivers nano-level accuracy and industrial throughput in one USB plug-and-play package.

Features of the VL-MC Series-600

- 6-axis 2 MHz pulse, RS232/offline dual control
- 4 ms interpolation: spatial straight line + 1/2-axis arc, electronic cam/gear
- 32-channel optically isolated I/O, 6 encoder closed loops, analog speed setting
- G-code programming, 6 joysticks optional, limit protection

Service & Support

We are dedicated to delivering exceptional optoelectronic solutions to every client. From precision manufacturing and secure delivery to full-lifecycle technical support, we are here to ensure a seamless and reliable experience at every step.

1. Warranty Policy

Quality First, Worry-Free Operation

Warranty Period: We offer a **two-year** warranty service for all of our core optoelectronic products, effective from the date of shipment.

Coverage: We provide free repair or replacement services for malfunctions caused by material defects or workmanship errors under normal operating conditions.

Rapid Response: Upon receiving a warranty claim, we guarantee to initiate the assessment process within **24 hours** to minimize your equipment downtime.

2. Technical Support

Expert Team, Full-Process Guidance

Technical Consultation: Our team of senior optical engineers provides **24/7 online support** to assist with installation, commissioning, optical path alignment, and parameter optimization.

Scheduled Maintenance: We offer full-lifecycle maintenance recommendations, including firmware upgrades, optical component cleaning guidelines, and precision calibration services.

Training Services: We provide customized remote or on-site operational and safety training to ensure your team can operate the equipment efficiently and safely.

3. Logistics & Delivery

Precision Packaging, Global Reach

Professional Packaging: Given the fragile nature of optical instruments, we utilize industrial-grade shockproof, anti-static, and moisture-proof vacuum packaging to ensure zero damage during transit.

Logistics Partners: We partner with top-tier global logistics providers (**DHL / FedEx / UPS / SF Express**) to offer reliable shipping with real-time tracking.

Shipping Insurance: All shipments are fully insured to eliminate logistics risks.

4. Compliance & Certification


Strict Standards, Total Compliance

Quality Certification: Our manufacturing process is **ISO 9001 certified**, and our products comply with international standards such as **CE** and **RoHS**.

Export Compliance: "Committed to environmental responsibility, all our products comply with **RoHS 2.0** and **REACH** standards, ensuring safety and global compliance."

Explore Series

Model	Interpolation Cycle	Dimensions
VLMC600	4 ms (hardware real-time)	200 × 130 × 56 mm

 Get in touch with our team to explore configurations, request a quote, or learn more about customized solutions tailored to your needs.

Let us help you move science forward—faster and smarter.

[Get a Quote](#)



Get Expert Advice
+658099 5547 (WhatsApp)



Visit Us
www.venuslabtech.com