

SM1800-600-C01-E6D



6DOF MOTION PLATFORM

SANLAB combines deep know-how in robotics and simulation with a strong customer focus to deliver industry-leading motion platforms. From flight simulation to industrial training and beyond, SANLAB motion systems deliver exceptional responsiveness, precision, and reliability.

SM1800-600-C01-E6D, engineered specifically for high-performance simulation and testing applications. Its modular architecture enables easy adaptation to a wide range of customer-specific requirements.

APPLICATIONS

- Remote control weapon systems testing
- Camera tracking systems testing
- Electro-optical systems testing
- Radar testing
- Rotator testing
- Antenna testing
- Turret systems testing
- Vehicle simulator
- Stabilization testing
- Driving simulator
- Flight simulator
- Mockup simulator



ADVANTAGES

- Advanced motion cueing and control algorithms deliver high-performance and realistic motion feedback
- Digital control loops ensure stable and reliable operation over time, with no drift or performance loss
- Simplified troubleshooting through simulation software featuring an intuitive graphical user interface (GUI) and deterministic error codes
- High-bandwidth frequency response
- Safety architecture encompassing both mechanical and software-level protections
- Integrated built-in test functionality
- Critical failure mode detection and protection mechanisms
- IPC based real time controller
- Real-time system performance monitoring
- Easy integration with host systems
- Cost-effective design and operation
- Customizable structure
- User-friendly software designed for easy installation, operation, and maintenance
- Real time simulation

DIMENSIONS

| | |
|-----------------------------|--------------------------|
| Overall Dimensions (L-W-H) | 3.01 m - 2.85 m - 1.70 m |
| Net Weight (product only) | 1.500 kg |
| Shipping Dimensions (L-W-H) | 5.90 m - 2.35 m - 2.39 m |
| Packaging Type | 20 ft container |

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SPECIFICATIONS

| | |
|--------------------------------------|-----------------------------|
| Gross Moving Load up to | 1.800 kg |
| Actuator Stroke | 600 mm |
| Center of Gravity Above Top Platform | 1.00 m (Max) |
| Settled Height (lowest position) | 1.28 m |
| Neutral Height (center position) | 1.70 m |
| Moment of Inertia About X-Y-Z axis | 2.000 kg.m ² |
| Power Supply | 380VAC ±10%, 3ph , 50/60Hz |
| Operating Temperature Range | 0°C to +40°C |
| Motor Type | Servo Motor |
| Ball Screw Type | Precision Ground Ball Screw |
| Control Interface | Ethernet, CAN, Serial Port |

PERFORMANCE SPECIFICATIONS

| | Velocity | Acceleration | Excursion Single Axis | Excursion Multi Axis |
|-------|------------|------------------------|--------------------------|-------------------------|
| Surge | ± 0.81 m/s | ± 7 m/s ² | -0.42 m - 0.53 m | -0.58 m - 0.57 m |
| Sway | ± 0.81 m/s | ± 7 m/s ² | -0.43 m - 0.43 m | -0.62 m - 0.62 m |
| Heave | ± 0.64 m/s | ± 9 m/s ² | -0.40 m - 0.35 m | -0.40 m - 0.35 m |
| Roll | ± 37 °/s | ± 260 °/s ² | -20.60 ° - 20.60 ° | -26.41 ° - 26.41 ° |
| Pitch | ± 35 °/s | ± 260 °/s ² | -20.20 ° - 21.10 ° | -29.70 ° - 26.01 ° |
| Yaw | ± 45 °/s | ± 400 °/s ² | -24.00 ° - 24.00 ° | -26.56 ° - 26.56 ° |

OPTIONS

- Outdoor use
- 3D connection controller
- Light curtain safety system

SERVICE & SUPPORT

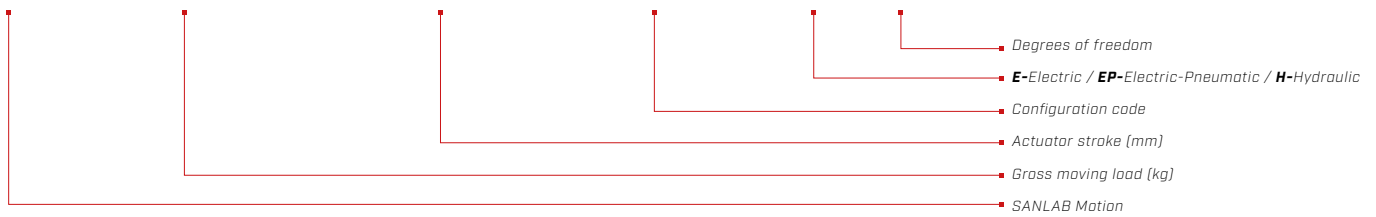
Committed to customer satisfaction, we deliver tailored support solutions designed to meet your specific operational requirements.

CUSTOMIZATION

Motion platforms are designed with flexibility in mind and can be tailored to meet unique project requirements. Modular mechanical and electronic design makes it easy to customize key features like payload, number of motion axes (DOF), stroke length, and mounting dimensions.

For tailored solutions or to explore customization options, please get in touch with us.

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HARDWARE

- Hardware real-time control
- UDP based PC communication
- IMU integrated measurement system
- Passive and active limitations

SOFTWARE

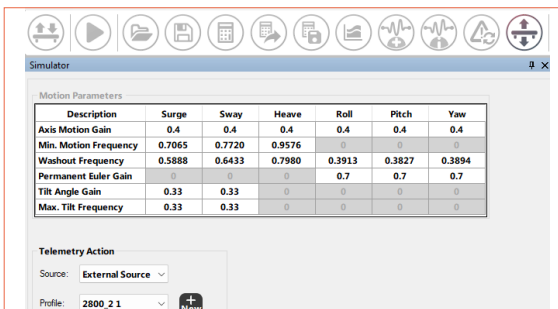
- Signal processing
- Signal generation
- Field data signal replication
- Real time signal visualization
- Signal recording and processing

SOFTWARE DETAILS

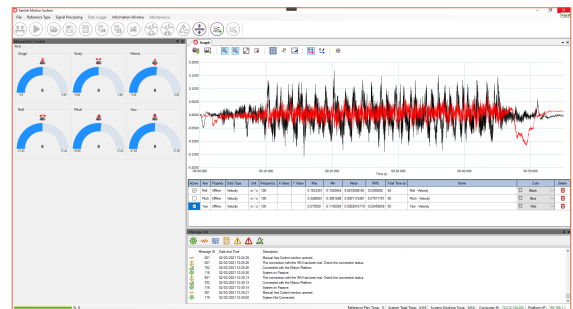
The software offers versatile tools for creating, replicating, recording, and replaying motion signals.

Signal Generator allows safe, multi-axis signal creation with automatic scaling. Signal Replicator enables accurate playback of real-world sensor data. Data Logger captures system data for analysis, visualization, or future reuse. Play From File ensures reliable test execution using predefined reference signals.

Together, these features support consistent, flexible, and repeatable motion testing and simulation workflows.



Simulation System Software



Test System Software



Optical System Test Application



Turret Test Application



Flight Simulation Application