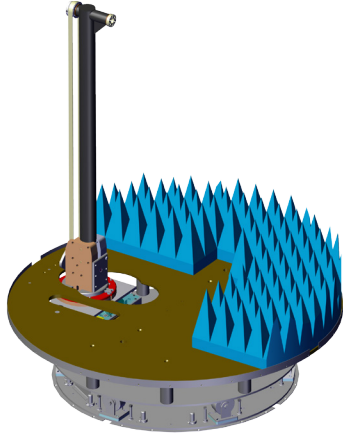


TEST EQUIPMENT MULTIPLE AXIS POSITIONING SYSTEMS



ETS-Lindgren Model 2115CR

MODELS 2110CR, 2115CR AND 2120CR

- **360° Independent Rotation in Both Theta and Phi Axes, Continuous Rotation in Phi Axis**
- **Angular Positioner Accuracy Better than $\pm .025^\circ$**
- **Variable Speed Axis Rotation**
- **Convenience Outlet and Coaxial Rotary Joint Installed at Turntable Center**
- **Suitable for RSE Testing**
- **Testing With/Without SAM Phantom Head (Optional)**
- **Positioning Controller (Optional):**
 - IEEE-488-2 (GPIB) Compatible
 - Fiber Optic Control Lines
- **EMQuest™ EMQ-100 Integrated Automated Test and Measurement Software (Optional)**

ETS-Lindgren's Multiple Axis Positioning Systems (MAPS) are designed to provide smooth rotation of a test object in both theta and phi axes. Typically, these units are used in systems that measure spherical antenna patterns and total effective radiated power of a wireless device. MAPS units are currently in operation at several CATL labs. Options for MAPS include the SAM Phantom (head or head and shoulders) and our Positioning Controller with GPIB. Three models, Light, Medium and Heavy Duty, are constructed with low reflective dielectric materials to minimize RF obstruction or distortion.

MAPS offer infinite position control of test objects. Objects can be rotated independently, in either/both theta and phi axes. Objects in the phi axis can be rotated in a continuous 360° clockwise/ counterclockwise direction, at variable

Standard

- MAPS Assembly
- Fiber Optic Cable Assembly
- Bulkhead Feedthrough
- Manual
- Two-year Warranty

speeds, under program control using the optional positioning controller. Objects in the theta axis can be rotated 360° with an optional positioning controller.

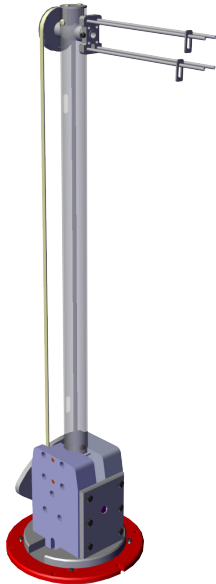
MAPS units have been carefully designed from the frame up to minimize EMI noise, and offer minimal physical obstruction to RF fields. Motor units enclosed in RF shielded enclosures and designed to be placed below the absorber. Signal Test lines from motor to the optional positioning controller is fiber optic. The MAPS unit is designed for structural integrity with low mass, low RF reflective dielectric materials.

Three models provide support for Light .45 kg (1 lb), Medium 11.3 kg (25 lb) or Heavy Duty 34.0 kg (75 lb) test objects. All MAPS units consist of a motor unit mounted below a rotating base, and an interchangeable mast unit.

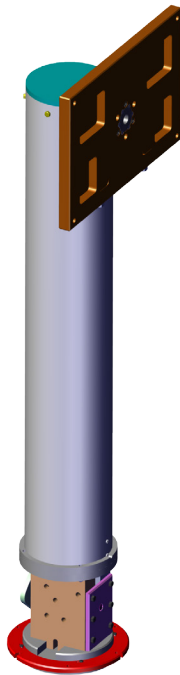
Options

- EMCenter™ with EMControl™ Positioning Controller
- Model 2090 Positioning Controller
- SAM Phantom Head
- Sam Phantom Head Center Rotation Mount Kit
- Mount for Laptop Test Object
- Custom Mast Heights
- Signal Line/Power Line Filters
- Additional Fiber Optic Cable
- Turnkey Systems
- Additional Masts
- Free Space Mount Kit
- CTIA Ripple/Calibration Cable Kit
- CTIA Ripple/Calibration Antenna Mount Kit
- Customizable Mounting Plate on Heavy-duty Mast

TEST EQUIPMENT MULTIPLE AXIS POSITIONING SYSTEMS



ETS-Lindgren Model 2110CR (Mast Only Shown)



ETS-Lindgren Model 2110CR (Mast Only Shown)

Technical Specifications

Electrical (All Models)

Power	208/230 VAC, <10 A
Phase	50/60 Hz
Phase	Single

Physical (Mast Heights, All Models)

-6000 Mast Height ¹	1.5 m
	60.0 in
-7200 Mast Height ¹	1.8 m
	72.0 in
-8400 Mast Height ¹	2.1 m
	84.0 in
Customized Mast Heights	Optional, Call ETS-Lindgren for Details

Physical (2110CR)

Included Mast	Light Duty (LD)
Test Object Load Rating	.45 kg
	1.0 lb
Optional Masts	MD and HD
SAM Support Head Only	No
SAM Support Head and Torso	No

Physical (2115CR)

Included Mast	Medium Duty (MD)
Test Object Load Rating	11.3 kg
	25.0 lb
Optional Masts	LD and HD
SAM Support Head Only	Yes
SAM Support Head and Torso	No

Physical (2120CR)

Included Mast	Heavy Duty (HD)
Test Object Load Rating	34.0 kg
	75.0 lb
Optional Masts	LD and MD
SAM Support Head Only	No
SAM Support Head and Torso	Yes

¹ Mast heights are measured from the chamber floor to the center of the axel rotation.