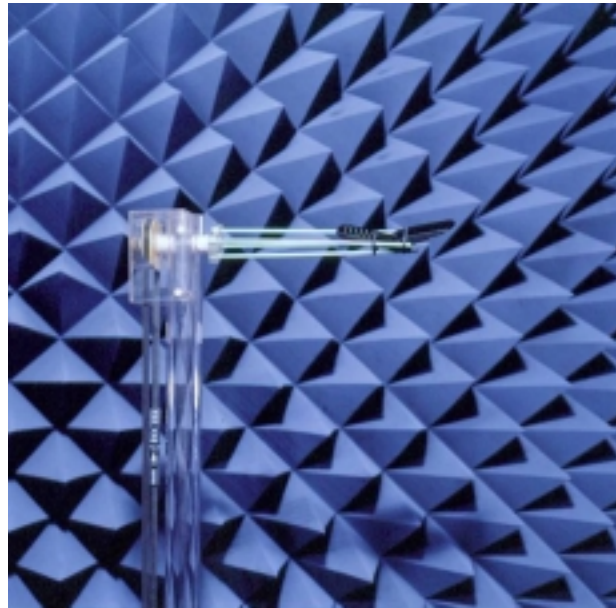


Features:

- **360° Independent Rotation in Both Theta and Phi Axes**
- **Angular Positioner Accuracy Better Than \pm -0.25°**
- **Variable Speed Axis Rotation**
- **Testing with/without SAM Phantom Head**
- **Positioning Controller (Optional)**
 - IEEE-488-2 (GPIB) Compatible
 - Fiber Optic Control Lines
- **EMQuestTM EMQ-100 Integrated Automated Test and Measurement Software (Optional)**



ETS-Lindgren Model 2010 Light Duty MAPS

ETS-Lindgren's MAPS (Multiple Axis Positioning Systems) 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.

Features of MAPS

Positioning

MAPS offers infinite position control of test objects. Objects can be rotated independently, in either/both theta and Phi axes, in a continuous 360° clockwise/counterclockwise direction, at variable speeds, manually or under program control using the optional Positioning Controller.

Low RF Coupling

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

lines from motor to the optional Positioning Controller are fiber optic. The MAPS unit is designed for structural integrity with low mass, low RF reflective dielectric materials.

Choosing Your Configuration

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, an interchangeable mast unit (152 cm/60 in or 183 cm/72 in standard heights; please specify on ordering), and EUT mounting brackets. Heavy-Duty mast units can only be used with Heavy Duty MAPS*.)

* European turntable can support all mast configurations

Models 2010, 2015 and 2020

Standard Configuration

- MAPS Assembly
- Fiber Optic Cable Assembly
- Manual
- Two-Year Warranty

Options

• Model 2090 Positioning Controller

Our Positioning Controller allows the user to synchronize the simultaneous, yet independent, movement of two MAPS axes, either manually, or under program control via a GPIB (IEEE-488.2) I/O port. The Controller offers a number of features including speed control, non-volatile firmware, flash upgradeable memory, and fiber optic I/O with motor bases.

• SAM Phantom Head

A CTIA compliant SAM Phantom is available as an option for our Medium Duty MAPS systems.

SAM's inner and outer shapes correspond to IEEE/CENELEC specified dimensions. SAM can be filled with glycol-containing tissue-simulant (not included).

• SAM Phantom Head Center Rotation Mount Kit

For Medium Duty MAPS.

• SAM Phantom Head Ear Rotation Mount Kit

For Medium Duty MAPS.

• Mounting for Laptop Test Object

This option allows a laptop computer or similar device to be counted for testing. Available for Medium and Heavy Duty masts only.

• Custom Mast Heights

Custom mast heights can be ordered to meet your specific requirements. Available for all mast types.

• Bulkhead Feedthrough

This option consists of a waveguide cutoff for the Positioner Controller fiber optic control line.

• Signal Line/Power Line Filters

Selections of filters with a range of electrical characteristics are available.

• Additional Fiber Optic Cable

Additional lengths of fiber optic cable are available.

• Turnkey Packages

MAPS are available as part of a complete turnkey package including software, instrumentation, and RF test chambers (tapered and rectangular).

• Light-Duty Mast

For Medium and Heavy Duty MAPS.

• Medium-Duty Mast

For Heavy Duty MAPS.

• Free Space Mount Kit

For Light and Medium Duty MAPS.

• CTIA Ripple/Calibration Cable Kit

For Light and Medium Duty MAPS.

• CTIA Ripple/Calibration Antenna Mount Kit

For Light and Medium Duty MAPS.

MAPS Selection Guide

MODEL	MAST HEIGHT ¹ (SPECIFY)	INCLUDED MAST	TEST OBJECT LOAD RATING	OPTIONAL MAST	SAM SUPPORT HEAD ONLY	SAM SUPPORT HEAD AND TORSO
2010	152.4 cm or 182.8 cm 60.0 in or 72.0 in.	Light Duty (LD)	.45 kg 1.0 lb	Additional LD, MD	No	No
2015	152.4 cm or 182.8 cm 60.0 in or 72.0 in.	Medium Duty (MD)	11.3 kg 25.0 lb	Additional MD, LD	Yes	No
2020	152.4 cm or 182.8 cm 60.0 in or 72.0 in.	Heavy Duty (HD)	34.0 kg 75.0 lb	Additional HD, LD, MD	No	Yes

¹ Mast height is measured from the chamber floor to the center of the axel rotation.

Electrical Specifications

MODEL	VOLTAGE	PHASE
2010	208-230 VAC 50/60 Hz	Single
2015	208-230 VAC 50/60 Hz	Single
2020	208-230 VAC 50/60 Hz	Single