

Avionics

IRIS® 2000 AUTOMATIC TEST EQUIPMENT SYSTEM



IRIS® 2000 systems in operation with major airlines around the world have proven to be highly reliable, even when used in standard shop environments for more than one shift.

The Aeroflex IRIS® 2000 is a modular general purpose Automatic Test Equipment (ATE) system capable of testing a wide variety of avionics Line Replaceable Units (LRU). The IRIS® 2000 is the only ATE that combines the testing of RF, analog and digital LRU's in one ATE system.

The basic configuration of this station consists of two or three equipment towers containing measurement and stimulus resources. Two wing cabinets provide additional work surface area, storage space for cables and accessories, and additional room for measurement and stimulus resources. The system layout gives easy and convenient access to all equipment during use as well as for maintenance. In addition, space is available for specific LRU hardware and other future expansions.

The ATE design incorporates current state-of-the-art commercial off-the-shelf resources as well as Aeroflex designed equipment and software. This promotes industry standard compatibility and simple equipment maintenance. The avionics LRU to be tested is connected to a Test Unit Adapter (TUA), which in turn connects to the front of the IRIS® 2000 ATE at the Programmable Interface Unit. The modular design makes it very easy to expand the system with additional measurement and stimulus resources required to test future avionics and/or adapt the IRIS® 2000 system to test avionics installed in new aircraft.

The test software development process is in accordance with ARINC 625-1 specifications.

THOR™ Test Executive

THOR™, the Aeroflex test software development and operating environment, is a powerful Windows NT™ and LabWindows® CVI based graphical user interface (GUI) developed to add features for ease of use by programmers and operators alike. Its point and click feature allows for ease of LRU testing, intuitive test control usage, and datalogging for identification and tracking of rogue units.

GENERAL SPECIFICATIONS

The basic IRIS® 2000 ATE system includes

Pentium® class PC

PIU Switching system

AC/DC Power supplies

Signal generators

Data Interface Devices

Measurement Devices

Spares Kit

Installation

Training

Documentation

Available Expansions

Digital Expansion

ADF Expansion

HF Expansion

Low Range Altimeter Expansion

Mode-S Expansion

TCAS Expansion

Air Data Expansion

GPS Expansion

THOR troubleshooting and debugging features

Test Sequence Editor

Alternate Test Sequence

Test Pre-conditions

Full/Partial Tests

Loop On Tests

Pause On Test Failure

Report to screen

Report To File

Debug

Every Test Program Set (TPS) includes

Test Program

Test Unit Adapter

Test Unit Adapter Self-test (if required)

Documentation

Test Program Sets

IRIS® 2000 capability list available upon request

ATE SPECIFICATIONS AND ENVIRONMENT

SHOP POWER REQUIREMENTS

AC Input Single Phase

115V +10% or 220V +10%

AC Frequency

50 Hz to 60 Hz

Power Consumption

Varies per configuration, 1.8 KVA typical

Ground

Isolated ground must be provided

LINE CURRENT REQUIREMENTS (BASE SYSTEM)

20 Amps maximum for 115V

10 Amps maximum for 220V

ENVIRONMENTAL REQUIREMENTS

Ambient Temperature

59° - 71° F, 15° - 25° C

Ambient Humidity

20% - 80% non-condensing

SHOP AREA REQUIREMENT FOR 2-BAY IRIS® 2000

Length

197 inches, 480 cm

Width

144 inches, 360 cm

Height

96 inches, 210 cm

Weight

2400 lbs, 1100 kg (fully configured)

ROOM CONFIGURATION

- The ATE room or shop area must have at least two conveniently located power outlets.
- Shelving for storage of the ATE test unit adapters, accessories and manuals is desirable.
- Sufficient floor space to allow the operator to move comfortably around the entire system is required.
- Standard room lighting and ventilation is sufficient for normal operations.

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A passion for performance.



Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.