

Avionics

I-1402 Mode 4 Accessory Unit

AEROFLEX
A passion for performance.



The I-1402 provides a friendly test solution for Mk10A and Mk12 IFF transponders and interrogators

- NATO codified
- Easy to operate
- IEEE-488 GPIB via ATC-1400A
- KIT/KIR crypto simulation
- External KIT/KIR crypto interface
- 4096 code & altitude encoder
- Two-year limited warranty

Aeroflex is a leader in the design, manufacture and marketing of Avionics test systems. The I-1402 Mode 4 accessory unit is designed to interface with the ATC-1400A Transponder/DME Test Set. The I-1402 provides additional pulse code modulation for testing ATC, Mode 4 transponders extending the ATC-1400A test capability to include Modes 1, 2, 3/A, C, & 4. The I-1402 also provides the ATC-1400A with Interrogator test capability for Modes 1, 2, A, C, & Mode 4.

Operation

The I-1402 can provide a fixed simulation of a KIT/KIR TSEC-1A/1C cryptographic computer, utilizing the NATO assigned A, B & O Mode 4 test codes. The I-1402 provides the necessary signals to the unit under test to simulate operation in an installed environment, allowing maintenance procedures to be performed without using security classified hardware or encryption keys. The I-1402 may also be interfaced with KIT/KIR TSEC-1A/1C cryptographic computers for live system performance testing.

Interconnect

The I-1402 may be hard mounted to the ATC-1400A using supplied hardware. Electrical interface to the ATC-1400A is via the Aeroflex and AUX buses using two 25 way interconnect cables. A coaxial cable is provided for RF vernier control. Line power is switched through the I-1402 for synchronized power up of both test sets.

Additional Features

- Mode 4 A, B, O and random codes
- Vernier level, controls the ATC-1400A RF level in 0.1 dB steps
- ON-OFF control reply, disparity, P2, P3, P4, and P5 pulse
- Position control of reply, disparity, P2, P3, and P4 pulses
- Rear panel BNC interconnects for control and signal monitoring
- Normal, ident and emergency replies

SPECIFICATION

GENERAL

Calibration Interval

1 year

AC Supply

100 to 120 VAC, 220 to 240 VAC, 50 Hz to 60 Hz, $\leq +10\%$ of the nominal voltage 43 W maximum (163 W maximum with ATC-1400A)

AC Output

Line output, fused at 3 A and switched

Environmental Temperature

5° to 40°C

Relative Humidity

$\leq 80\%$ for temperatures up to 31°C, decreasing linearly to 50% at 40°C

Altitude

≤ 4000 m (13,124 ft)

Electromagnetic Compatibility

Complies with the limits in the following standards:

EN 55011 Class B

EN50082-1

Safety

Complies with EN 61010-1:1993 for class 1 portable equipment and is for use in a pollution degree 2 environment. The instrument is designed to operate from an installation category 1 or 2 supply.

Dimensions

425 mm wide, 467 mm deep, 89 mm high

16.8 in. wide, 18.4 in. deep, 3.5 in. high

Weight

7.94 kg (17.5 lbs.)

VERSIONS AND ACCESSORIES

When ordering please quote the full ordering number information.

Ordering Numbers

Versions

1402-110 I-1402 Mode 4 Transponder/Interrogator, 110 VAC operation

1402-220 I-1402 Mode 4 Transponder/Interrogator, 220 VAC operation

Accessories (Supplied)

Line Cord

AUX Bus Interface Cable

Aeroflex Bus Interface Cable

Operation Manual

1 x RF Coaxial Interface Cable

Line Cord from ATC-1400A to I-1402

All Aeroflex Avionics products delivered with Factory Certificate Of Calibration

EXPORT CONTROL:

This product is controlled for export under the International Traffic in Arms Regulations (ITAR). A license from the U.S. Department of State is required prior to the export of this product from the United States.

EXPORT WARNING:

Aeroflex's military products are controlled for export under the International Traffic in Arms Regulations (ITAR) and may not be sold or proposed or offered for sale to certain countries including: Belarus, Burma, China, Cuba, Haiti, Iran, Liberia, Libya, North Korea, Somalia, Syria, Sudan, and Vietnam. See ITAR 126.1 for complete information.

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