



IFF MARK XIIA System Devices

ISZ-50 Medium-range Interrogator

The ISZ-50 is a medium-range IFF Mark XIIA interrogator intended for use with medium- and short-range radar systems. The device's digital circuitry and advanced processing algorithms provide superior accuracy, performance and noise immunity.

The ISZ-50 supports identification in Modes 1, 2, 3/A, C and S as well as Modes 4 and 5 (with an appropriate crypto computer installed). Sophisticated built-in test (BIT) procedures and modular design ensure efficient fault detection and repair, and software updates provide future growth capability. The ISZ-50 is packaged in a compact enclosure suitable for installation in a broad range of stationary and mobile platforms.



Features

- supports IFF Mode 5 (up to Level 2), SSR Mode S (up to Level 2), Modes 1, 2, 3/A, C and 4
- compliant with STANAG 4193 Edition 2++ with upgrade path to Edition 3
- compliant with ICAO Annex 10
- state-of-the-art digital circuitry and advanced processing algorithms for superior accuracy, performance and noise immunity
- monopulse processing for accurate position evaluation
- supports KIV-77/SIT2010 and compatible crypto computers for Mode 5 cryptographic security
- extensive fault detection capability through advanced built-in test (BIT) procedures
- modular design for quick repairs and easy hardware upgrades
- future growth capability through firmware updates
- standard ASTERIX protocol for broad interoperability with primary radar and C4ISR systems

Specification

General

Type	Medium-range IFF Mark XIIA interrogator
Identification capability	Mode 1, 2, 3/A, C, S (up to Level 2), 4 and 5 (up to Level 2) per STANAG 4193 Edition 2++

Performance

Output power	> 56.5 dBm
Minimum Decoding Level	< -76 dBm
Instrumented range	240 km
Capacity	1000 objects/scan; 100 in-beam targets

Connectivity

Interfaces	Ethernet, RS-422, Option B crypto (DoD AIMS 09-400A) Mode 4 crypto (KIR-1C/ KIN-2)
Control protocol	EUROCONTROL ASTERIX-compatible

Environmental

Operating temperature	From -40 to +55°C
Humidity	<98% RH
Shock resistance	Up to 15 g
EMC compatibility	Complies with MIL-STD-461F

Reliability

MTBF	≥ 7300 h
MTTR	< 30 min

Physical characteristics

Power supply	28 V DC, max 100W
Dimensions	379×225×133 mm (W×H×D)
Weight	13 kg
Cooling	Natural, convection

