IFF MARK XIIA
ISZ-50 MEDIUM-RANGE INTERROGATOR

The ISZ-50 is a medium-range IFF Mark XIIA interrogator designed for use with military radar systems. It IDZ-50 operates in military IFF Modes 1, 2, 3/A, 5, and supports ATC interrogation formats 3/A, C, and S, expanding its operational scope. Its modular and robust construction, along with an advanced built-in test (BIT) system, ensures reliable performance. Standardized connectivity is provided via the ASTERIX protocol with integrated Ethernet support, facilitating seamless integration into modern radar networks and communication systems. The ISZ-50 employs monopulse detection for improved azimuth estimation accuracy. Additionally, the system offers superior noise immunity, ensuring reliable operation in challenging environments.

MAIN FEATURES:

Supports Modes 1, 2, 3/A, C, S, and Mode 5 (up to Level 2)	Compliant with STANAG 4193 Edition 3
Supports both KIV-77 and SIT2010 cryptocomputers (DoD AIMS 04-900 Option B)	Enables passive IFF detection (Mode 5 Level 2 and ADS-B)
Employs monopulse processing for enhanced azimuth estimation accuracy	Provides extensive fault detection through advanced built-in test (BIT) procedures
Offers enhanced immunity to noise and jamming for reliable operation in challenging environments	Utilizes the standard ASTERIX protocol for broad interoperability with primary radar and weapon systems
Features built-in support for Ethernet and RS-422	Capable of sourcing time from radar systems, GPS, and cryptocomputers
Increased output power, enhanced sensitivity, and advanced processing capabilities ensure extended-range performance	

SPECIFICATION

General	
Type	Medium-range IFF Mark XIIA interrogator
Identification capability	Mode 1, 2, 3/A, C, S (up to Level 2) and 5 (up to Level 2) per STANAG 4193 Edition 3
Performance	
Output power	> 56.5 dBm
Minimum Decoding Level	< –76 dBm
Instrumented range	240 km
Bearing range (with included antennas)	1000 objects/scan, 100 in-beam targets
Connectivity	
Interfaces	Ethernet, RS-422, Option B crypto (DoD AIMS 04-900A)
Control protocol	EUROCONTROL ASTERIX-compatible

SPECIFICATION

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	< 30min
Physical characteristics	
Power supply	27 V DC (21÷30 V DC), max 100 W
Dimensions	379×225×133 mm (W×H×D)
Weight	13 kg
Cooling	Natural, convection