



# IFF MARK XIIA System Devices

## IDZ-50 Long-range Interrogator

The IDZ-50 is a long-range interrogator dedicated for use with large-area surveillance and LRAD systems. The most powerful member of PIT-RADWAR's new family of Mark XIIA IFF systems, the IDZ-50 utilizes state-of-the-art digital circuits and signal processing algorithms for superior accuracy and performance.

The interrogator 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. High output power and processing capacity make the IDZ-50 a perfect IFF device to complement long-range primary radar systems.



### 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	Long-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	> 61.5 dBm
Minimum Decoding Level	< -82 dBm
Instrumented range	470 km
Capacity	4000 objects/scan; 150 in-beam targets

### Connectivity

Interfaces	Ethernet, RS-422, Option B crypto (DoD AIMS 04-900A), 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 10 g
EMC compatibility	Complies with MIL-STD-461F

### Reliability

MTBF	≥ 6500 h
MTTR	< 30 min

### Physical characteristics

Power supply	230 V AC or 28 V DC, max 200 W
Dimensions	402×481×266 mm (W×H×D)
Weight	32 kg
Cooling	Active

