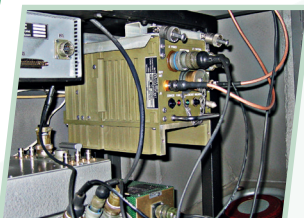


IFF TARGET IDENTIFICATION SYSTEM



Wojskowe Zakłady Uzbrojenia S.A. obtained US DoD AIMS Certification of interoperability with the identification system NATO MARK XII on the platform level for the upgraded SA-6, KUB-1S91M2-P1 (Certificate nr CL 0621405RC) system as well as the upgraded SA-8, OSA-P system (Certificate No CL 0621405RC) integrated with Wojskowe Zakłady Uzbrojenia S.A. – manufactured IFF system (SIC-11 / 12) configured with KIV-16 Mod4.

The certificate confirms that Wojskowe Zakłady Uzbrojenia S.A. carried out the complete implementation of the latest cryptographic technologies intended for the combat operations and presently in use within NATO on post-soviet missile systems. This way, the systems gained full reliability in terms of joint operations within anti-aircraft defense systems of the Alliance.

The target identification 'friend or foe' system – Mark XII Mode 4, NSM, UPGRADE Mode 5 and Mode S is the latest generation system integrating passive optoelectronic sensors working in the bands from visible to thermal as the means for observation, detection, recognition and identification of the air target with the active IFF recognition system in the NATO standard Mark XII Mode 4 with an active cryptocomputer and potential growth to the NATO standard Mark XIIA Mode 5 and Mode S.

- » full compatibility with NATO STANAG 4193 standard and civilian standard ICAO Annex 10,
- » the work in 1, 2, 3/A and 4 Modes (or national safe mode),
- » possibility of extending to MARK XIIA and Mode 5 and Mode S,
- » integration with ground, naval and air platforms,
- » domestic Certificate for the right of usage within Polish Armed Forces,
- » US DoD AIMS Certificate.

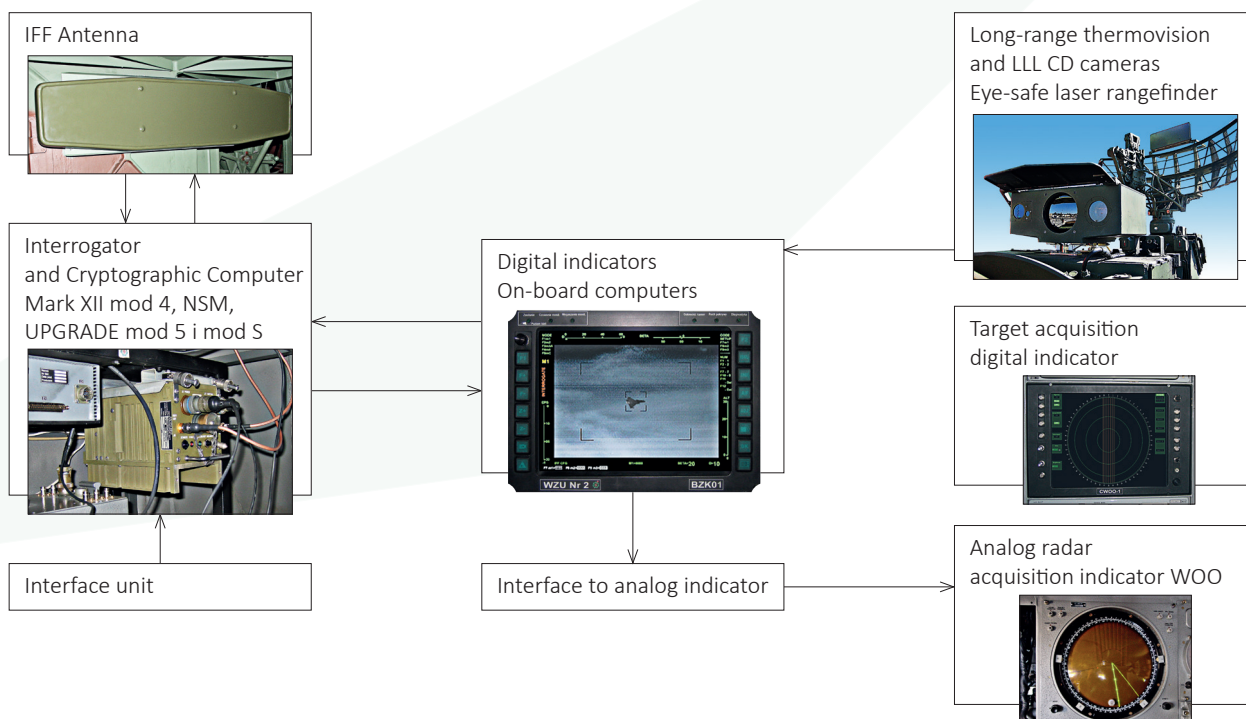
SYSTEM CAPABILITIES

- » passive detection – identification – thermo-video recognition, no detection of own position,
- » active 'friend or foe' identification MARK XII Mode 4, NSM,
- » potential growth to Mark XIIA Mode 5 and Mode S,
- » control over the airspace,
- » eye-safe laser range finding,
- » data on the target range and azimuth,
- » proper identification of 'friend' aircraft,
- » reduced potential of fratricide,
- » facilitating the commander's decision-making process.

SYSTEM COMPONENTS

- » AN/TPX-56 Interrogator and Crypto Computer KIV-16.
- » Interface Block.
- » IFF Antenna.
- » Integrated Digital Indicator.
- » Interface to analog or digital indicator.
- » Analog PPI Indicator.
- » Digital PPI Indicator.

IFF TARGET IDENTIFICATION SYSTEM



PURPOSE

The Target 'friend or foe' Identification System provides for initiating the question and decoding the reply in the following modes: Mode 1, Mode 2, Mode 3/A, Mode C, Mode 4 and NSM with further growth to operate in Mark XIIA Mode 5

and Mode S. At the same time, it identifies the target as 'friend' or 'foe' and informs the operator of its range and azimuth. The system operates in accordance with the principle of the secondary radar at pre-defined fixed carrier frequencies for the interrogation (1030 MHz) and for the reply (1090 MHz).

The reply 'friend' is displayed on the Plan Position Indicator. The other parameters (e.g., data from the radar station identifying target parameters and antenna position of the guiding station) are displayed on the screen of the integrated indicator.

APPLICATION

- » NEVA (SA-3).
- » KRUG (SA-4).
- » WEGA (SA-5).
- » KUB (SA-6).
- » OSA (SA-8).

SYSTEM OPTIONS

In consideration of the nature of the equipment and the users, Wojskowe Zakłady Uzbrojenia S.A. have developed IFF systems in several options differing in the complexity of solutions and construction platforms.

SYSTEM CONFIGURATION

The IFF System Mark XII Mode 4, NSM, UPGRADE Mode 5 and Mode S has an open architecture therefore, it can be configured in any way and adjusted to any platform.

AWARDS

In 2003 the Chapter of the 7th Edition of the 'Polish Product for the Future' Competition nominated 'Target Passive

Recognition and Active Identification 'Friend or Foe' System – UPGRADE MODE 5 and MODE S' produced Wojskowe Zakłady Uzbrojenia S.A. for the Award in the category 'Product for the Future'. The Competition is organised under the auspices of the Chairman of the Council of Ministers of the Republic of Poland.