

PRP-25M, PRP-25S ELINT System of Recognition of On-Board RF Emitters

The PRP-25M and PRP-25S stations make an ELINT System of recognition of on-board emitters which is dedicated to Air Forces Electronic Warfare detachments for automated detection, identification, direction finding, monitoring and tracking of sources of every type of RF emissions (0.5÷18.0 GHz) installed on airborne, ground or maritime platforms and for location the platforms.



Advantages:

- fully passive system
- hidden signal recognition and location of an air target
- immunity against anti-radar combat means
- high mobility
- no thermal footprint

The PRP-25M and PRP-25S stations can operate in the stand-alone mode or in system. In the stand-alone mode the stations provide:

- automatic detection, direction finding and monitoring of the emission sources within the operational frequency range,
- searching and interception of the signals,
- parameter measurement and signal analysis,
- visualization and transmission of the reconnaissance data,
- storage of the reconnaissance data,
- co-operation with an Air Force automated electronic recognition command and control system.

In the system mode the PRP-25M performs the Master function for 2÷3 Slave PRP-25S stations, i.e. the Master station manages the Slaves operation, gathers and processes the data recorded by the Slave stations to work out recognition solution. The PRP-25S Slave stations detect and process the reconnaissance data, related then to the Master PRP-25M station. The set of Master and Slaves provides:

- location and tracking of the emission sources by TDoA (Time Difference of Arrival) method,
- location and tracking of the emission sources by triangulation method,
- completing the RAP with reconnaissance data,
- co-operation with an Air Force automated electronic recognition command and control system.

The both location techniques, when applied jointly, provide continuous tracking of the air vehicles regardless of type of emission.

Characteristics	PRP-25M	PRP-25S
Operation frequency range	0,5 to 18 GHz	
Immediate reception frequency		
- wideband channel	500 MHz	
- narrowband channel	40 MHz	40, 10, 5, 1 MHz
Demodulation types	AM Lin, AM Log, FM	
Direction finding accuracy		
– for 0,5-3,0 GHz range	RMS < 2°	
– for 3,0-18 GHz range	RMS < 1°	
Angle of intercept and reception of		
signals	360°	
Crew	2	1









