

Very Short Range Air Defense Radar

AD26



BATS' Very Short Range Air Defense (VSHORAD) Radar is the fifth generation of 3D Tactical Air Defense Radars.

The AD26 VSHORAD radar is a lightweight transportable, X-band, solid-state electronically scanned Pulse-Doppler radar.

This cost-effective radar delivers early warning and target data for supporting surface-to-air missile weapon systems or jammers.

The radar employs multi-beam elevation coverage by applying Digital Beam Forming (DBF) and 360° azimuth coverage by antenna rotation.

The radar detects a wide variety of low RCS targets such as low flying fighter aircraft, low velocity ultra-lights and UAV/drones. The radar provides accurate target measurements of velocity, range, azimuth and elevation angles.

The AD26 VSHORAD can be deployed as a local Air Defense system providing early warning and target track.

Features

- Compact rotating antenna
- Fast and easy deployment
- Wide elevation coverage
- Elevation multi-beam by Digital Phased Array Technology
- Automatic detection of airborne targets
- Track While Scan of more than 100 targets
- 3D radar with azimuth coverage of 360°
- Operated locally or by remote Command and Control system
- Stand-alone operation or integrated with additional Air-defense radars
- Integrated with IFF (option)
- Ethernet LAN Communication (by wire or wireless)
- High reliability - full solid-state design
- Extensive ECCM capabilities
- Digital technologies :
 - Digital Beam Forming (DBF)
 - Digital Pulse Compression
 - Digital Receivers
- Embedded GPS
- Extensive BIT
- Low power consumption

Applications

- Search radar to support surface-to-air weapon systems or jammers
- Local Air Defense radar system
- Gap filler to complement main Air Defense radar system
- Border air space protection
- Sensitive site air space protection
- Drone guard

Installation

- Fix on tower
- Transportable on tripod
- On a vehicle or on a shelter

Specifications

- | | |
|--|-----------------|
| • Instrumental detection range | : 25 km |
| • Detection range (Fighter Aircraft) | : 15 km |
| • Detection range | : |
| RCS = 0,01 m ² (micro-drone) | : > 3 km |
| RCS = 0,05 m ² (mini-drone) | : > 4,7 km |
| RCS = 0,5 m ² (small aerial target) | : > 8,4 km |
| • Detected target velocity | : 2-300m/sec |
| • Update rate | : 2 sec (30RPM) |
| • Elevation coverage | : 60° |
| • Azimuth coverage | : 360° |
| | |
| • No. of tracked targets | : 100 by TWS |
| • Frequency | : X-band |
| • Weight (antenna+pedestal) | : +/- 90 kg |
| • Dimensions: | |
| - Antenna: 200(W) x 1110(H) x 750(D) mm | |
| - Pedestal: 364(W) x 223(H) x 220(D) mm | |
| • Power consumption | : 400W/28 VDC |
| • Operation temperature | : -30°C - +55°C |