ATM Center, office 318, 131, Tsarigradsko shousse Blvd,1784 Sofia, BULGARIA
Tel/Fax: +359 2 965 8535; e-mail: office@promax-systems.eu
Website: http://promaxsystems.eu

3D radar PXG - 04 - 450 S

Multi-Channel, Multi-Channel 3D Radar with Phased Array Antenna

Purpose:

For the automatic detection of high-maneuverable aerial targets with a small effective reflective surface in a high altitude and velocity range, under intense radio interferences conditions with high accuracy characteristics.

Innovation in technical solutions:

(1) Antenna diagram type

Complex multi-beam diagram of signals with different 16 carrier frequencies and amplitudes, altered by a special algorithm in different operating modes.

Practically, the radar is hardly vulnerable to targeting interferences by the opponent.

(2) Modes of operation of the transceiver

- Emitting coded signals on multiple frequencies;
- Compression of complex encoded signal;
- Phase-coherent processing of moving objects against the Earth's surface.

ATM Center, office 318, 131, Tsarigradsko shousse Blvd,1784 Sofia, BULGARIA
Tel/Fax: +359 2 965 8535; e-mail: office@promax-systems.eu
Website: http://promaxsystems.eu

Technical parameters

- Working range – S band;
- Composite strobe signal with receiving compression;
- Pulse power - 51.2 kW;
- Diagram – adaptive;
- Scan Rate (updating the information) - 5/10 seconds;
- Power consumption < 70 kW;
- Power supply e – 3 x 380V/ 50Hz;
- System diagnostics and management and remote control;
- Azimuth detection – 360°;
- Antenna elevation - from +15° to -10°
- Distance detection of an object with Effective Reflective Surface (ERS) 1 m^2 – 300 km
- Distance detection of an object with ERS 4 m^2 – 422 km
- Distance detection of an object with ERS 10 m^2 – 531 km
- Detection height - up to 25 km (without antenna inclination)
- Automatic "plot" and "track" process (processing).

Fight against interference:

- The probing signal is coded at several frequencies;
- Changing the frequency that is "stuck" without losing any information;
- Using filters for uncorrelated impulse interference;
- Filters for passive dipole, band and others interferences;

Radar data processing system in multitasking mode

Basic functions:

- Automatically detect bookmarks from radar targets - Plot;
- Automatically identify the target type:
- Automatically determine coordinates of radar targets;
- Automatic detection of radar target track - Track;
- Automatic escort of radar targets;
- Automatic identification of radar targets from primary and secondary radar - IFF;
- Automatic transmission of information to external systems and automated collection and processing systems for radar data information;
- Automatic backup of radar target data;
- Displaying primary and secondary radar data information on a digital display.