



# Precision approach radar - RP-5GI

Precision Approach Radar RP-5GI is designed to provide an approach path for precise alignment and descent guidance to the aircraft on final approach to a specific runway, through the interpretation and verbal instructions of a ground-based controller via ground to air radio.

## OVERVIEW

The system provides very high degree of resolution in terms of range, azimuth and elevation. Target information is displayed on the screen with independent azimuth and elevation windows. The display provides an accurate information regarding aircraft's range, azimuth, and glide slope together with auxiliary information such as deviations from descend path, radial speed of target and safety alerts.

## MAIN FEATURES

- ICAO compliant
- Derived weather processing
- Fully digital signal and data processing
- Adaptive MTI filtering
- Operation in time-frequency diversity mode
- Graphical control and monitoring system
- Low operation and maintenance demands
- Robust and well proven antenna system
- Modular design suitable for customization
- Designed for unattended round-the-clock operation
- PAR with excellent price/performance ratio



## KEY TECHNICAL PARAMETERS

|                                  |  |
|----------------------------------|--|
| <i>Coverage</i>                  |  |
| Range                            | 0 to 20 NM   |
| Elevation pattern                | -1° to +9°   |
| Azimuth pattern                  | -15° to +15°   |
| <i>Accuracy (RMS)</i>            |  |
| In range                         | 30 m +3% of the distance from the touchdown point  |
| In azimuth                       | 0.6% of the distance of the aircraft from the antenna +10% of aircraft deviation from the course line, or 9 m (whichever of them is greater)                 |
| In elevation                     | 0.4 % of the distance of the aircraft from the antenna +10% of aircraft linear deviation from the selected glide path, or 6 m (whichever of them is greater) |
| <i>Resolution</i>                |  |
| In range                         | 120 m  |
| In azimuth                       | 0 to 1.2°  |
| In elevation                     | 0 to 0.6°  |
| <i>Detection probability</i>     | > 90 % (@ RCS = 2 m <sup>2</sup> ; PFA = 10 <sup>-6</sup> )  |
| <i>Data update rate</i>          | < 1 sec  |
| <i>Maximum number of targets</i> | 100  |
| <i>Frequency range</i>           | 9150 – 9450 MHz  |
| <i>Antenna</i>                   |  |
| Type                             | 2 x reflectors, mechanical scanning  |
| Beam width (az/el)               | 0.65°/0.45°  |
| Gain (az/el)                     | 40 dBi/38 dBi  |
| Polarisation                     | linear/circular  |