With over 60 years of experience in radar design, development and production, leading in the airborne radar market, we deliver truly state-of-the-art radar systems.

With over 450 units sold and more than 100,000 operational flight hours, the GRIFO Radar family, a fourth-generation X-band coherent pulse-Doppler multimode-multirole fire-control radar, provides advanced performance to new and upgraded aircraft.

Thanks to its modular architecture based on a configurable number of compact Line Replaceable Units, GRIFO can be easily integrated in modern avionic suites and fully interfaced via HOTAS command, for a cost-effective solution.

The GRIFO-346 is the latest version of the GRIFO Radar Family, featuring a wider set of advanced and up to date capabilities proposed for the Leonardo M-346 LCA.

KEY FEATURES

› Multimode, multirole X-band
› Multiple channels fully coherently pulse Doppler processed
› Open architecture
› Air cooled, high efficiency TWT transmitter
› Advanced processor
› Broad suite of field proven air-to-air, air-to-surface and navigation modes, high resolution SAR and ISAR
› Full set of ECCM provisions
› Tracking accuracy supporting missiles release and guidance
› Monopulse flat plate slotted array antenna
› Growth capability to extend the existing features, including sensor fusion with IRST

OPERATIONAL BENEFITS

› Comprehensive suite of operational modes supporting A/A and A/S missions
› Long range detection and tracking in all scenarios: lookup and look-down, any altitude, any aspect
› High Resolution imaging: sub-metric SAR and ISAR
› Wide scan sector
› Multiple target tracking
› HOTAS and HMD designation
› Modern, effective, flexible, and operationally proven
› ECCM provisions
**DESIGN BENEFITS**

› Fully coherent, high efficiency TWT-based, air-cooled transmitter
› Multiple channel receiver
› High rate DSP, wideband waveform generator
› Four waveforms (LPRF, MPRF, MPRF look-up, HPRF), all including range and velocity de-stagger for optimal target detection in any clutter condition
› Embedded scan converter and symbol generator
› Modular software architecture for radar modes update and customisation

**INTEGRATION WITH WEAPON SYSTEM**

› Multiple target tracking supporting accurate weapon aiming
› Compatibility with modern IR missiles (e.g. AIM-9L M-X, Python 4)
› Support of CCIP and CCRP through precise air-to-surface ranging

**TECHNICAL CHARACTERISTICS**

**GENERAL**

› Weight: < 100kg
› Cooling: air cooled
› Dissipation: < 1.5 kW
› Average Transmitted Power: Class of 200W
› Frequency: X-band
› Scan Coverage: ± 60° both in Azimuth and Elevation

**KEY PARAMETERS**

› Track while scan: 10 targets tracked, 8 displayed
› SAR resolution: < 1m
› Track formation range: > 50 NM
› Look-up detection range: > 60 NM

**MODES**

**AIR-TO-AIR**

› Single target track
› Dual target track
› Track while scan
› Range while search (normal)
› Radar while search (adaptive)
› Velocity search
› Spot
› Situation awareness mode
› Raid assessment

**AIR COMBAT**

› Slewable scan
› Vertical
› HUD
› Boresight
› Wide
› Narrow

**AIR-TO-SURFACE**

› Real beam ground map
› Doppler beam sharpening
› Synthetic Aperture Radar (SAR)
› Moving target indicator on SAR
› Air-to-ground ranging
› Inverse Synthetic Aperture Radar (ISAR)
› Ground moving target indicator
› Track while scan air-to-surface
› Sea surface search 1
› Sea surface search 2
› Fixed target track
› Ground moving target track
› Sea single target track
› Sea moving target track

**NAVIGATION SUPPORT**

› Beacon interrogation
› Weather
› Terrain avoidance

**ECCM CAPABILITIES**

› Low antenna sidelobes
› Guard channel fully processed
› Monopulse antenna
› Low peak power; pulse compression
› Random and adaptive frequency agility
› DOJ
› HOJ
› AOJ
› Provisions against:
› Range gate/ velocity gate stealers
› Noise jammers
› CW jammers

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