GABBIANO
SURVEILLANCE RADAR FAMILY

The Gabbiano Family is a cost effective X-Band radar solution for surveillance at sea, on land and along coastlines in all-weather conditions.

Gabbiano provides both long and short range surveillance capability for civilian and military forces incorporating:

› Homeland Security - including drug trafficking, smuggling, illegal immigration and terrorism
› EEZ protection (e.g. Illegal fishing)
› Environmental surveillance (oil and hazardous material spills, wild life protection)
› Maritime Patrolling and Search and Rescue operations
› Combat Search and Rescue Missions
› Support to covert operations of Special Forces by day or night

Gabbiano Radar Family's high level of modularity and flexibility allows for operation on-board Unmanned Aerial Vehicles as well as both fixed and rotary wing manned platforms.

The two basic Gabbiano configurations (T20 and T200 Power) are available with nose-mounted or belly-mounted antenna, providing respectively a ±90° and 360º surveillance. Moreover, antennas of several sizes/characteristics, tailored to the specific application, are available.

KEY FEATURES

› Low weight, low power consumption
› LPI capability
› TWS: > 200 targets
› ECCM capabilities (frequency agility, jammer avoidance etc.)
› Digital / programmable waveform generator
› Short blind zone
› High resolution modes
› Maritime surveillance, up to 220NM
› High reliability
› Standard and flexible interfaces
› Dual channel digital receiver

Gabbiano - the perfect solution for any platform UAV and small manned aircrafts are typically the most challenging platforms for payloads due to weight and space constraints. Gabbiano Radar Family offers a competitive solution: the T20 configuration.

With its low power consumption from a single power supply source, lightweight along with standard and flexible interfaces and LPI characteristics, Gabbiano T20 is the right solution for those platforms with demanding constraints. Stand-alone radar control via dedicated Control Panel. Integration of IFF antennas is an available option.

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GABBIANO FOR GROUND SURVEILLANCE

The Gabbiano Radar provides all the features for Homeland Security missions, primarily aimed at border protection, or in Combat Search and Rescue missions.

High resolution modes (Spot Synthetic Aperture Radar and Strip Synthetic Aperture Radar) grant a sub-meter resolution over wide swath areas. GMTI mode allows detection of moving targets on ground. Unique patents and owned proprietary techniques have been developed for High Resolution Radar Imaging.

GABBIANO FOR SEA SURVEILLANCE

Gabbiano is ideal for Search and Rescue and maritime surveillance missions. In addition to the standard air-to-surface search modes with TWS, this radar provides the high resolution (ISAR) mode which enables the user to classify the intercepted targets. To complete the Search and Rescue features, SMTI and SART mode are also available.
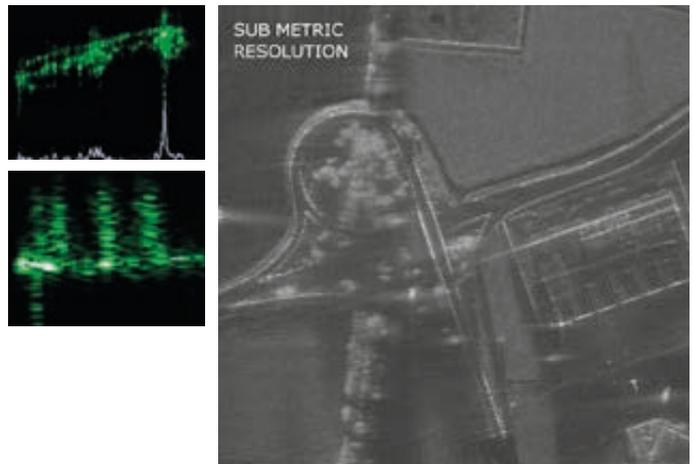
GABBIANO FOR AIR SURVEILLANCE

Air to Air mode allows detection of moving targets on air.

GABBIANO FOR NAVIGATION AID

Navigation aid to the crew is provided through the following mode: ground mapping, terrain avoidance, weather (compliant with civil certification standard) and beacon (SART, SST-181X and DO-172 standards supported).

GROWTH CAPABILITY

Based on MRP (Modular Radar Processor) technology, the Gabbiano Radar Processor can be easily upgraded. Since the radar modes are performed by means of high level software, any new feature or customisation requires only software updates with no need for hardware retrofit. A dual channel digital receiver allows advanced and innovative radar modes to be introduced.

SUB METRIC RESOLUTION

TECHNICAL CHARACTERISTICS

› Dimensions (approx.): Antenna 360° (belly) - Several sizes available from 29" to 70", Antenna ±90° (nose) - Several size available from 12" to 25", REP NG - 390 x 310 x 200mm
› Weight: From 28kg up to 62kg, depending on the Antenna and TX
› Cooling: Air cooled
› Frequency: X band
› Interfaces: Ethernet plus Mil Std 1553B, ARINC 429, ARINC 419, RS422, RS232 and USB

T20 (POWER)

› Dimensions (approx): TX-FE 340 x 257 x 130mm
› MTBF: 1600 hours
› Input power: 450W single power source 28Vdc
› Fully coherent transmitter: Solid state power amplifier
› Average transmitted power: >20W

T200 (POWER)

› Dimensions (approx): TX 280 x 315 x 338mm, RX-FE 342 x 256 x 133mm
› MTBF: 900 hours
› Input power: 305 W (+28 Vdc) & 1200VA (115V400 Hz)
› Fully coherent transmitter: TWT
› Average transmitted power: 200W with Peak Power Management

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