

RT05-06/L

LOW PROBABILITY OF INTERCEPT FULLY SOLID STATE RADAR TRANSCEIVER



The **GEM elettronica RT05-06/L** radar transceiver series consist of downmast, compact and lightweight equipments designed for several applications. Each equipment of the series identifies emissions and/or interfaces in accordance with customer requirements. Due to its versatile and stand alone architecture it connects to practically any modern X-band antenna system, just as it interfaces with nearly any radar data processor and display system, using digital interface links for reception and transmission of data and commands.

Processor implements an intermediate-frequency sampling and digital pulse compression, with optional anti-clutter filtering capability.

In the unlikely event that failure occurs, troubleshooting and repair is made simple and rapid thanks to built-in-test equipment (BITE) embedded in the RT05-06/L. The BITE consists of a fault detection program, which runs continuously and informs the operator of abnormalities as soon as they happen.

The transmitter provides sector blanking. At least ten (10) sectors may be blanked, meaning that the transceiver does not transmit in those azimuth sectors.

General performance

Range resolution	15 m with short pulse
Complied standards of the equipment	IEC 60945, IEC 60936, IEC 61162, IEC 60872, MIL-STD-2036, MIL-STD-167-1, MIL-STD-461C
Power requirements	115/220 Vac, single phase, 400 W consumption
Estimated MTBF	> 23000 hours.

Transmitter

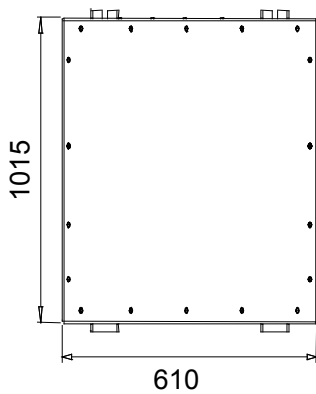
Type	Fully solid state, coherent
Peak and average power (nominal values)	100 W basic peak power, 10 W average
Operating frequencies and bandwidth	9.3 ÷ 9.5 GHz, 40 MHz
Output waveform	Non linear Chirp FM
Pulse widths for every mode of operation	0.05 to 93 µsec
Pulse compression ratio	Up to 930:1 (mode dependent)
PRFs for every mode of operation	from 350 Hz to 2500 Hz
PRF stagger and jitter typical values	8% of the selected PRF
Sector blanking	At least 10 sectors selectable, sector bearing: 0-359°, sector width 10-360°, resolution 1°
Overall transmitter loss	1 dB max.

Receiver

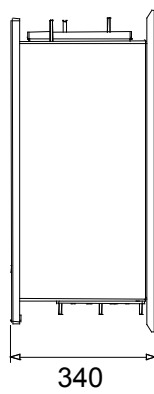
Receiver type	Fully coherent
Dynamic range	≥ 124 dB including pulse compression gain
Noise figure	< 6 dB

Interface

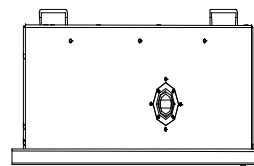
2x1000Base-T Ethernet, 1 Pretrigger output signal. Other interfaces available on request.



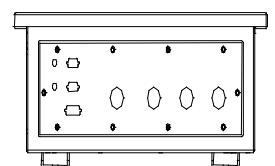
front view



side view



top view



bottom view

Estimated Weight: 50 Kg.

SURVEILLANCE & SECURITY

GUIDANCE, NAVIGATION & POSITIONING

MILITARY & DEFENCE

MARINE ELECTRONICS

This brochure should not be considered a contractual offer to sell. The specifications given herein may be changed by the manufacturer, GEM elettronica S.r.l., without notice.

