Small and Efficient X-Band Solid State Radar

The SCANTER 2000 radar series offers detection of small targets in all weather conditions. The SCANTER 2000 is an X-band, 2D, fully coherent pulse compression radar, based on Solid State transmitter technology with digital software-defined functionality.

It is especially suited for Vessel Traffic Services (VTS), river, and inner port surveillance. The outdoor transceiver unit is very small, weighs only 26 kg, and can be placed up-mast close to the antenna to minimize installation requirements and costs as well as waveguide loss between antenna and transceiver to achieve a highly efficient solution.

The SCANTER 2000 series provides a fully integrated solution with automated processing and low lifetime cost.

IALA Standard Recommendations
The SCANTER 2000 meets the requirements for professional VTS applications, where quality and durability is significant. With a Terma 18’ compact antenna, it meets the IALA Standard recommendations up to 36 nmi. The transceiver also works with smaller antennas meeting requirements, typically for ports and VTS gap-filling.

Operational Capabilities

Automated Processing
The SCANTER 2000 radar series includes all RF-signals and processing in one unit. Target tracking (Terma ET2 tracker) is offered as an embedded option. The SCANTER 2000 radar is available as single or redundant configuration.

Communication Interface
Communication interface to the transceiver is established via a standard IP network, which provides network radar video, plots, tracks, control, etc. Service information is also obtained via the IP network.

The SCANTER 2000 radar series is well-suited as sensor in systems for medium-range surface surveillance.

Product Characteristics

Terma’s SCANTER 2000 series is part of a larger family of Terma radar products, which have all benefitted from the introduction of fully digital signal processing and Solid State technology.

The SCANTER 2000 meets the requirements for professional VTS applications, where quality and durability are significant.

The SCANTER 2000 radar series is compatible with Terma’s standard antenna program and interface protocols.

Configuration of the transceiver is obtained by pre-defined profiles, including all parameters needed to set up the radar. Profiles are optimized for different applications, varying weather conditions, or specific operational demands.

Small Size
The outdoor transceiver unit weighs only 26 kg and can be placed up-mast close to the antenna with no requirement for an equipment room.
Ease of Integration
The SCANTER 2000 series relies on standard IP network to ensure effortless integration with existing and third-party systems using standard Terma protocols.

Support & Service
Terma offers easy replacement of spare parts.

Based on the SCANTER Radar Technology
Terma has more than 60 years of experience in developing and manufacturing radars, and more than 3,000 radar systems are installed worldwide. Terma provides radar sensors to Vessel Traffic Services (VTS), Coastal Surveillance Radar (CS), and Surface Movement Radar (SMR) segments. More than 85% of all major airports around the world and 65% of all coastal shores rely on Terma’s sensor technology.

Key Figures

<table>
<thead>
<tr>
<th>Weight</th>
<th>26 kg</th>
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</thead>
<tbody>
<tr>
<td>h x w x d</td>
<td>466 mm x 422 mm x 422 mm</td>
</tr>
<tr>
<td>Type</td>
<td>Solid State power amplifier</td>
</tr>
<tr>
<td>Frequency</td>
<td>9.3-9.5GHz</td>
</tr>
<tr>
<td>Sector Transmission</td>
<td>Blanking/reduced tx-power</td>
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<tr>
<td>Sampling</td>
<td>12 bit @ 200 MHz</td>
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<tr>
<td>Dynamic range</td>
<td>&gt; 100 dB (incl. processing)</td>
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<tr>
<td>Noise figure</td>
<td>2.5 dB typical</td>
</tr>
<tr>
<td>Emitter</td>
<td>&gt;80W peak (equivalent to 25 kW magnetron)</td>
</tr>
<tr>
<td>Min. detection range</td>
<td>30 m</td>
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Key Benefits
- Based on Terma’s high-quality and state-of-the-art radar technology
- Weight only 26 kg
- Easy integration – standard IP network
- Low installation life-time cost
Operating in the aerospace, defense, and security sector, Terma supports customers and partners all over the world. With more than 1,600 committed employees globally, we develop and manufacture mission-critical products and solutions that meet rigorous customer requirements.

At Terma, we believe in the premise that creating customer value is not just about strong engineering and manufacturing skills. It is also about being able to apply these skills in the context of our customers’ specific needs. Only through close collaboration and dialog can we deliver a level of partnership and integration unmatched in the industry.

Our business activities, products, and systems include: command and control systems; radar systems; self-protection systems for ships and aircraft; space technology; and advanced aerostructures for the aircraft industry.

Terma has decades of hands-on know-how in supporting and maintaining mission-critical systems in some of the world’s most hostile areas. Terma Support & Services offers through-life support of all our products to maximize operational availability, enhance platform lifetime, and ensure the best possible cost of ownership.

Headquartered in Aarhus, Denmark, Terma has subsidiaries and operations across Europe, in the Middle East, in Asia Pacific as well as a wholly-owned U.S. subsidiary, Terma Inc., with offices in Washington D.C., Georgia and Texas.