Dual-TWT
The most compact space amplification solution from Thales to date

- A very compact and lightweight space Travelling Wave Tube in line with the demands of the SDS market
- A robust design with innovative dual-housing
- Combining good RF performance and efficiency with compact size and low weight
- Standardised and cost-optimised for efficient volume production
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Experience in space and product context
Thales is capitalising on its entire amplification heritage to develop a new generation of space TWT technology, the Dual-TWT.
Having delivered over 21,000 space Travelling Wave Tubes to date, Thales is in a strong position to innovate and extend its product space amplification portfolio.
The Dual-TWT offers very compact sizing and high levels of RF performance, in line with the requirements for active antenna amplification systems of a SDS platform.

Product Advantages
- Excellent thermal behaviour, adapted for SDS missions
- Available in Ku-band and in Ka-band
- Conduction cooling
- 2 TWTs on a single base plate
- High degree of compactness
- Low weight

Production Facilities
Manufacturing of the Dual-TWT leverages Thales’ state-of-the-art production facilities, Vélizy, Thonon and Ulm. The Ulm facility in Germany houses high-tech equipment and test facilities for the manufacturing of space-bound products.
At Thonon, over 270 people combine years of industry experience across many different disciplines, from high-precision machinery to product engineering.
Finally, the Vélizy site outside of Paris is recognised internationally for TWT development and production.

Operating performances

<table>
<thead>
<tr>
<th>FREQUENCY</th>
<th>Ku</th>
<th>Ka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bandwidth</td>
<td>2.05 GHz</td>
<td>2.9 GHz</td>
</tr>
<tr>
<td>Power</td>
<td>70/80 W</td>
<td>60/70 W</td>
</tr>
<tr>
<td>Width</td>
<td>&lt; 64 mm</td>
<td>&lt; 64 mm</td>
</tr>
<tr>
<td>Height</td>
<td>&lt; 31 mm</td>
<td>&lt; 31 mm</td>
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<tr>
<td>Length</td>
<td>&lt; 270 mm</td>
<td>&lt; 270 mm</td>
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<tr>
<td>Mass</td>
<td>&lt; 900 g</td>
<td>&lt; 900 g</td>
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