Main features

Technical performance
- Wide bandwidth
- Linear polarization
- Low loss and high efficiency
- Low return loss / VSWR

Design
- Low profile
- Aluminium structure
- Lightweight and handles for easy handling
- High stiffness

Surface treatment
- Hard anodic oxidation coating on the mounting flange
- For indoor use

Repeatability
- Robust mechanical design
- Optimized low mechanical deformation due to the dead load
- Reliable cables and coaxial connectors

Delivered documents
- Measured return loss data

Product configuration

Equipment
- Antenna
- Mounting flange

Related services
- Calibration and maintenance
- Outdoor installation customization
### Electrical characteristics

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>WLPA40</td>
<td>Low Profile Antenna</td>
<td>40 – 400</td>
<td>Single Linear</td>
<td>8</td>
<td>2 to 9</td>
<td>&lt; 2.3</td>
<td>&lt; -8</td>
<td>&gt; 30</td>
<td>50</td>
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</table>

#### Electrical performance

<table>
<thead>
<tr>
<th>Frequencies (MHz)</th>
<th>Return loss vs frequency</th>
<th>Boresight directivity vs frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Measurement</td>
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</tbody>
</table>

Measured S11 performances for 3 different roll positions of WLPA40 reference antenna: the mechanical stability over a roll scan is proven by the high correlation between plots.

### Far-Field radiated performance results – normalized patterns – Simulation & Measurements

<table>
<thead>
<tr>
<th>Elevation (°)</th>
<th>Normalized amplitude (dBi)</th>
<th>WLPA40 radiation pattern @ 60 MHz</th>
<th>WLPA40 radiation pattern @ 110 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Measurement</td>
<td>Simulation</td>
</tr>
</tbody>
</table>

Radiated performances were measured in the single probe Near-Field system installed in the CATR of CNES, Toulouse by using the WPD50 probe (see MVG datasheet: VHF wideband dual polarized probe).
### Mechanical characteristics

<table>
<thead>
<tr>
<th>Part number</th>
<th>Dimensions (L x H x W) [mm]</th>
<th>Weight (approx.) [kg]</th>
<th>RF Connector</th>
<th>Material</th>
<th>Color</th>
<th>Interface</th>
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</thead>
<tbody>
<tr>
<td>WLPA40</td>
<td>3000 x 1947 x 30</td>
<td>50</td>
<td>SMA Female (N-type optional)</td>
<td>Aluminium</td>
<td>Custom</td>
<td>Custom</td>
</tr>
</tbody>
</table>

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**REFERENCES**
