

# ND SATCOM

## Course Details: 9340

<b>Title</b>	<b>9340 - SKYWAN 5G Network Design &amp; Engineering</b>
<b>Level</b>	Basic / Specialist
<b>Objectives</b>	The participant will have general knowledge about: <ul style="list-style-type: none"><li>• Designing &amp; engineering SKYWAN satellite networks,</li><li>• Usage of the SKYWAN TDMA calculation tool.</li></ul>
<b>Contents</b>	<p>Brief description of SKYWAN solution:</p> <ul style="list-style-type: none"><li>• SKYWAN features,</li><li>• SKYWAN MF-TDMA technology.</li></ul> <p>General carrier design:</p> <ul style="list-style-type: none"><li>• Traffic calculation (Networking features overview; calculation tool &amp; procedure),</li><li>• Carrier design (Essential satellite link layer features: Master/ Slave concept, channel coding &amp; modulation, topologies, data transport; TDMA parameter optimization tool &amp; procedure).</li></ul> <p>Outdoor unit design (incl. satellite selection):</p> <ul style="list-style-type: none"><li>• Essential satellite link features,</li><li>• Choice of satellite / transponder,</li><li>• Outdoor unit design process,</li></ul> <p>Detailed indoor unit design:</p> <ul style="list-style-type: none"><li>• Networking features</li><li>• (IP features: IP router, static routing, dynamic routing (OSPF), differentiated services, VRF;</li><li>• Detailed SKYWAN IDU data (Indoor unit structure; technical specifications IDU 5G Series).</li></ul> <p>Design finalization &amp; cost optimization:</p> <ul style="list-style-type: none"><li>• Optimization of network design,</li><li>• Operational costs versus hardware costs.</li></ul>
<b>Target Group</b>	SKYWAN 5G - Network Designer
<b>Duration</b>	3 days
<b>Prerequisites</b>	The following prerequisites are mandatory for the participant: <ul style="list-style-type: none"><li>• Good knowledge in 'satellite communication fundamentals (VSAT)',</li><li>• General good English language skills.</li></ul>
<b>Environment</b>	PC or notebook with SKYWAN 5G TDMA calculation tool.
<b>Methods</b>	Lecture, demonstrations & exercises, hands-on tool training.