

# Automatic DF Antenna 1 vs. Rohde & Schwarz ADD107

## Profile Comparison

### Narda Automatic DF Antenna 1

- ✓ **Situation awareness of the RF spectrum while DF** A central monopole is used as a reference element for DF and as an omnidirectional monitoring antenna. This allows a Spectrum View while direction finding.
- ✓ **High and reliable localization quality even in urban areas with reflection** Due to the large antenna aperture of 380 mm and the nine dipole elements, the automatic DF antenna has a high DF accuracy. Together with the heatmap localization algorithm, the localization results are very reliable, even in urban areas with lots of reflections.
- ✓ **Fast and easy setup** No additional laptop necessary. Simply connect the automatic DF antenna to the SignalShark and start bearing.
- ✓ **SWaP:** Size (H x Ø) 219 mm x 480 mm (8.62" x 18.9"), Weight 5.6 kg (12.3 lbs), powered by SignalShark.



### Rohde & Schwarz ADD107

- ✗ No Elevation.
- ✗ Additional Laptop and expensive PC software "R&S@MobileLocator" required to automatic localization of transmitters from a moving DF vehicle
- ✓ Size (H x Ø) ~ 270 mm x 333 mm (10.63" x 13")  
Weight ~ 6 kg (13.23 lbs), powered by basic unit.



### Key Specification Comparison

	Narda Automatic DF Antenna 1		Rohde & Schwarz ADD107	
<b>Frequency range</b>		200 MHz to 2.7GHz		20 MHz to 1.3 GHz
<b>Integrated electronic compass</b>	✓	Yes	✓	Yes
<b>Integrated GPS with antenna</b>	✓	Yes	✓	Yes
<b>Elevation</b>	✓	Yes	✗	No
<b>Antenna elements</b>		9-element circular array + 1 reference element		20 MHz to 173 MHz: 2-element ferrite loop 173 MHz to 1.3 GHz: 8-element circular array
<b>Antenna aperture</b>	✓	380 mm	✗	approx. 224 mm (f > 173 MHz)
<b>Omnidirectional antenna element</b>	✓	Separate element	✗	Sum of 8 elements
<b>Polarization</b>		Vertical		Vertical
<b>DF method</b>		correlative interferometer		20 MHz to 173 MHz: Watson-Watt 173 MHz to 1.3 GHz: correlative interferometer
<b>DF speed (cycle time)</b>	✓	down to 1.2 ms		?
<b>DF accuracy</b>	✓	1° RMS (typ.)	✗	20 MHz to 1.3 GHz: 3° RMS (typ.) 300 MHz to 1.3 GHz: 1° RMS (typ.)
<b>Price % of \$ automatic DF Antenna only:</b>	✓	100%		123%
<b>Price % of \$ complete automatic DF System:</b>	✓	100%		163%

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