

R&S® ADDx COMPACT SINGLE-CHANNEL DF ANTENNAS

Product overview



Product Brochure
Version 03.00

ROHDE & SCHWARZ

Make ideas real



AT A GLANCE

R&S®ADDx compact single-channel DF antennas are decisive for the performance of the Rohde & Schwarz direction finders. The technology is based on more than 50 years of experience in the development of DF antennas and, despite their compact size, they offer superior sensitivity and accuracy from 20 MHz to 6 GHz.

R&S®ADD107/R&S®ADD207/R&S®ADD207P VHF/UHF/SHF DF antennas are optimized for radiolocation from a moving vehicle, for example in interference hunting missions. Using the optional R&S®ADD17XZ3 vehicle adapter with magnet mount allows the R&S®ADD107/R&S®ADD207/R&S®ADD207P to turn a commercial vehicle into an accurate mobile direction finder within minutes.

The R&S®ADD307 VHF/UHF DF antenna is optimized for portable radiolocation in the frequency range from 20 MHz to 690 MHz. Its collapsible design enables a large diameter and its wide aperture and long antenna elements increase its sensitivity and accuracy.

The R&S®ADD317 VHF/UHF DF antenna is optimized for fixed monitoring stations and installations on ships and covers the frequency range from 20 MHz to 690 MHz. It offers the same high sensitivity and accuracy as the R&S®ADD307 and features integrated lightning protection.

All Rohde & Schwarz compact DF antennas have integrated GPS and an electronic compass for quick and automatic georeferencing.

KEY FACTS

- ▶ Wide frequency range from 20 MHz to 6 GHz
- ▶ Superior system DF accuracy
- ▶ Compact and lightweight for portable, mobile and stationary applications
- ▶ Integrated GPS and electronic compass
- ▶ Installation on vehicle roof with magnet mount (optional for R&S®ADD107/R&S®ADD207/R&S®ADD207P)

TYPICAL APPLICATIONS

Radiolocation of continuous emitters

Sources of continuous radio interference as well as unlicensed broadcasting can be located easily by direction finding from a moving vehicle.

The R&S®ADD107/R&S®ADD207/R&S®ADD207P compact VHF/UHF/SHF DF antennas with the R&S®ADD17XZ3 vehicle adapter with magnet mount turn a commercial vehicle into a mobile direction finder within a couple of minutes. Thanks to its large magnetic surface and ability to adapt to slightly curved vehicle roofs, the adapter has been approved for speeds of up to 130 km/h.

For temporary deployment, the R&S®ADD107/R&S®ADD207/R&S®ADD207P can be installed on an R&S®ADD17XZ6 wooden tripod and on an R&S®DDF1555X01 lightweight tripod with adapter.

The R&S®DDF1555X06 transport case and R&S®DDF1555XCH carrying harness can be used to transport all the equipment required for a temporarily deployed DF station.



R&S®ADD107/R&S®ADD207/R&S®ADD207P temporarily installed on a vehicle roof

Radiolocation of sporadic emissions

Sources of sporadic radio interference as well as short emissions from private mobile radio (PMR) can be located using two or more transportable monitoring stations temporarily deployed at elevated sites such as roof tops.

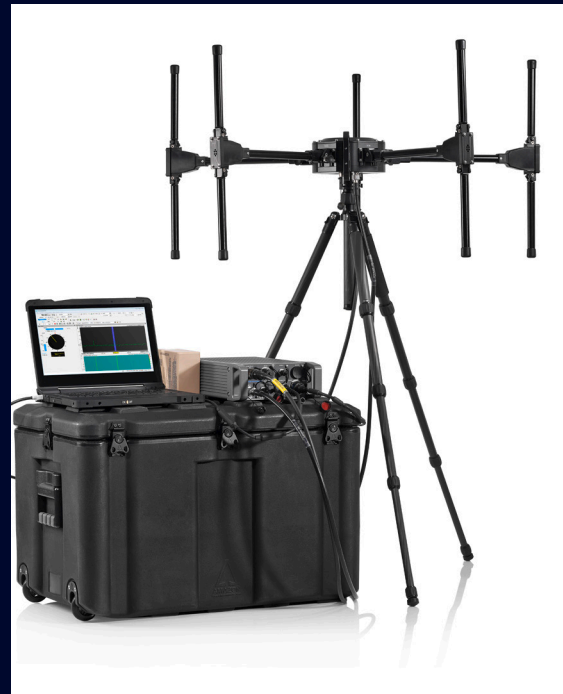
The R&S®ADD307 collapsible DF antenna mounted on the R&S®DDF1555X01 lightweight tripod covers the frequency range from 20 MHz to 690 MHz with superior sensitivity and DF accuracy.

If required, the frequency range can be extended up to 6 GHz with the R&S®ADD207 compact UHF/SHF DF antenna.

All the equipment for a monitoring station with a single DF antenna fits into the R&S®DDF1555X06 transport case, which also protects the equipment.

Radiolocation of voice communications

Some applications such as shipborne radiolocation require compact yet powerful DF antennas. The small form factor of the R&S®ADD317 VHF/UHF DF antenna allows it to be installed on lightweight masts and it also comes with integrated lightning protection. The R&S®ADD317 is a vital part of the R&S®DF-ATC-S1 and R&S®DF-ATC-S2 air traffic control radio direction finding systems.



R&S®ADD307 mounted on the R&S®DDF1555X01 lightweight tripod with the R&S®DDF1555 compact direction finder, R&S®DDF1555X06 transport case and laptop

PRODUCT OVERVIEW



R&S®ADD107 with the R&S®ADD17XZ3 vehicle adapter and R&S®ADD17XZ5 cable set

R&S® ADD107

- ▶ Mobile and portable DF antenna for the frequency range from 20 MHz to 1.3 GHz
- ▶ Above 173 MHz:
 - Compact correlative interferometer DF antenna
 - Multi-element DF antenna with eight antenna elements
- ▶ Below 173 MHz:
 - Powerful Watson-Watt DF method
- ▶ Integrated electronic compass
- ▶ Integrated GPS module with GPS antenna
- ▶ R&S®ADD17XZ3 vehicle adapter with magnetic mount for fast antenna installation on a vehicle roof (option)
- ▶ R&S®ADD17XZ6 wooden tripod or R&S®DDF1555X01 lightweight tripod (option)



R&S®ADD207 with the R&S®ADD17XZ3 vehicle adapter and R&S®ADD17XZ5 cable set

R&S® ADD207

- ▶ Mobile and portable DF antenna for the frequency range from 600 MHz to 6 GHz
- ▶ Compact correlative interferometer DF antenna
- ▶ Two multi-element DF antennas mounted one above the other, each containing eight elements
- ▶ Integrated electronic compass
- ▶ Integrated GPS module with GPS antenna
- ▶ R&S®ADD17XZ3 vehicle adapter with magnetic mount for fast antenna installation on a vehicle roof (option)
- ▶ R&S®ADD17XZ6 wooden tripod or R&S®DDF1555X01 lightweight tripod (option)

R&S® ADD207P

- ▶ Mobile and portable DF antenna for the frequency range from 600 MHz to 6 GHz
- ▶ Entirely passive signal path from 600 MHz to 2.9 GHz
- ▶ Preamplifier supplied with the antenna
- ▶ All other features same as R&S®ADD207, see above



R&S®ADD307

R&S® ADD307

- ▶ Portable DF antenna for the frequency range from 20 MHz to 690 MHz
- ▶ Superior sensitivity and accuracy in the VHF range
- ▶ Accurate correlative interferometer DF antenna, optimized for size and weight
- ▶ Collapsible, lightweight design
- ▶ Integrated GPS and electronic compass
- ▶ R&S®DDF1555X01 lightweight tripod (option)



R&S®ADD317 installed on a mast at an airport

R&S® ADD317

- ▶ Compact DF antenna for fixed and shipborne monitoring stations in the frequency range from 20 MHz to 690 MHz
- ▶ Superior sensitivity and accuracy in the VHF range
- ▶ Accurate correlative interferometer DF antenna, optimized for size and weight
- ▶ Integrated GPS and electronic compass
- ▶ Integrated lightning protection that has no impact on DF accuracy

ORDERING INFORMATION

Description	Type	Order No.
Compact VHF/UHF DF antenna	R&S®ADD107	4090.7005.0x ¹⁾
Compact UHF/SHF DF antenna	R&S®ADD207	4096.0002.0x ¹⁾
Passive compact UHF/SHF DF antenna	R&S®ADD207P	4096.0002.1x ¹⁾
Collapsible VHF/UHF DF antenna	R&S®ADD307	4098.2002.07
Compact VHF/UHF DF antenna	R&S®ADD317	4113.5002.0x ¹⁾
Accessories		
Cable adapter for R&S®PR200/R&S®EM200 for using existing cable sets from R&S®PR100/R&S®DDF007	R&S®CS-ZADX07	4500.5060.00
Antenna cable set for tripod use with R&S®PR200/R&S®EM200, length: 5 m	R&S®CS-ZAD5T	4500.5077.00
Antenna cable set for vehicle roof use with R&S®PR200/R&S®EM200, length: 5 m	R&S®CS-ZAD5M	4500.5090.00
Antenna cable set for vehicle roof use with R&S®DDF205/R&S®DDF255/R&S®DDF260, without converter	R&S®ADD17XZ4	4090.8730.02
Antenna cable set for vehicle roof use with R&S®PR100/R&S®DDF007, with converter	R&S®ADD17XZ5	4090.8660.02
Antenna cable set for tripod use with R&S®PR100/R&S®DDF007, with converter	R&S®ADD17XZ9	4098.3615.05
Antenna cable set for R&S®DDF205/R&S®DDF255/R&S®DDF260, 0.3 MHz to 1.3 GHz	R&S®DDF1C-1	4077.6009.xx (length: 5/10/20/40/50/60 m)
Antenna cable set for R&S®DDF205/R&S®DDF255/R&S®DDF260, 0.3 MHz to 3 GHz	R&S®DDF1C-5	4077.7005.xx (length: 5/10/20/40/50 m)
Antenna cable set for R&S®DDF205/R&S®DDF255/R&S®DDF260, 0.3 MHz to 8.2 GHz	R&S®DDF1C-7	4077.8001.xx (length: 5/10/20/30 m)
Mast adapter for R&S®ADD107/R&S®ADD207	R&S®ADD17XZ2	4079.5000.02
Vehicle adapter with magnet mount for R&S®ADD107/R&S®ADD207	R&S®ADD17XZ3	4090.8801.02
Wooden tripod with adapter	R&S®ADD17XZ6	4090.8860.02
Lightweight tripod with adapter	R&S®DDF1555X01	4500.4506.02
Transport case with space for one compact DF antenna, R&S®DDF007/R&S®PR200 or R&S®DDF1555, cabling, battery and laptop	R&S®DDF1555X06	4500.4570.02
Carrying harness with space for one compact DF antenna, R&S®DDF007/R&S®PR200 or R&S®DDF1555, cabling, battery and laptop	R&S®DDF1555XCH	4500.4612.02
Carrying holster for R&S®ADD107/R&S®ADD207	R&S®DDF1555X08	4500.4593.02

¹⁾ Available in different colors.

Service that adds value

- ▶ Worldwide
- ▶ Local and personalized
- ▶ Customized and flexible
- ▶ Uncompromising quality
- ▶ Long-term dependability

Rohde & Schwarz

The Rohde & Schwarz electronics group offers innovative solutions in the following business fields: test and measurement, broadcast and media, secure communications, cybersecurity, monitoring and network testing. Founded more than 80 years ago, the independent company which is headquartered in Munich, Germany, has an extensive sales and service network with locations in more than 70 countries.

www.rohde-schwarz.com

Sustainable product design

- ▶ Environmental compatibility and eco-footprint
- ▶ Energy efficiency and low emissions
- ▶ Longevity and optimized total cost of ownership

Certified Quality Management
ISO 9001

Certified Environmental Management
ISO 14001

Rohde & Schwarz training

www.training.rohde-schwarz.com

Rohde & Schwarz customer support

www.rohde-schwarz.com/support

