

Product Information

Active Receiving Combination Antenna HD 1 A + STA 10 A/D/0.01-30

This active antenna solution combines a horizontally and vertically polarized receiving antenna into one antenna system.

The main advantage of this active antenna solution is its extremely large bandwidth and dynamic range. The antenna is ideal for applications requiring reception over a large frequency range. The antenna is mostly applied where horizontally polarized waves are to be received in the frequency range 1.5 - 30 MHz. The vertical monopole covers the frequency range from 0.01 - 30 MHz.

The small dimensions and associated low weight make this antenna ideal for both stationary - where space is at a premium - and transportable applications.

The antenna amplifiers are installed in a watertight and seawater resistant housing. The antenna rods are made of glass fiber reinforced plastic fitted with stainless steel screw connections.

The dipole and the vertical monopole are fed separately.

The cable connectors are fitted to the bottom side of the antenna head's bottom flange. It is protected against the environment by a trumpet shaped mounting support (the funnel) which is mounted to the bottom flange of the antenna head.

The opposite end of the funnel fits the size of 2" supporting pipes.

Due to the robust construction and the use of weatherproof materials, our active antennas can also be used under extreme environmental conditions.

The operating voltage for the antenna is 39 Vdc. The AAN power supply series or an aas.tech Antenna Distribution System is used to feed the operating voltage to the active element via the coaxial cable.



Technical Data

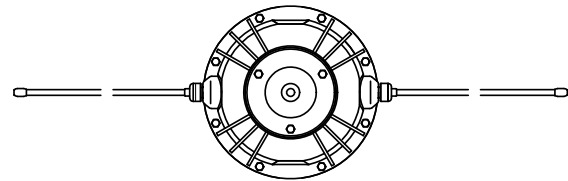
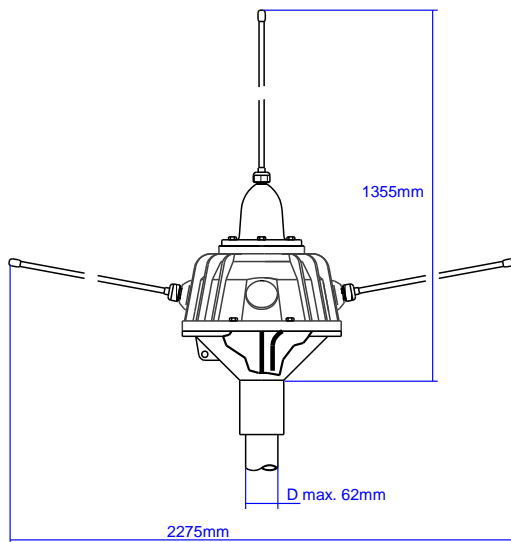
Parameter	Data
Application	active combination antenna
Characteristic	one horizontally polarized dipole antenna and one vertically polarized monopole antenna
Dimension and Weight	refer to page 3
Color	similar RAL 7035
Bending moment at mounting flange	1 daNm (wind speed 150 km/h)
Shock test	50 g / 10ms
Vibration test	4 – 12,5 Hz amplitude = 1,6 mm 12,5 - 90 Hz acceleration 10 m/s ²
Ambient temperature	-40°C ... +70°C
Storage temperature	-55°C ... +80°C
Relative humidity	100%
RF connector	2 N sockets
Power supply	39 Vdc power feeding through coaxial cable
MTBF	> 32.000 h (Tu = 40°C)
MTTR (replacement of subassemblies)	1,0 h (replacing of subunits)
Frequency range dipole antenna	1,5 - 30 MHz
Technical data and spare parts for dipole antenna HD 1 A	refer to doc. PIG 010202
Frequency range monopole antenna	0,01 - 30 MHz
Technical data and spare parts for monopole antenna STA 10 A/D/0.01-30	refer to doc. PIG 010103

Design and specification are subject to change without prior notice, errors excepted.
 Data given without tolerance are typical values.

Scope of Supply

Pos.	Description
1	Active Combination Antenna HD 1 A + STA 10 A/D/0.01-30
2	Accessory Set ZS 11
3	Accessory Set ZS 15
4	USB stick with product documentation in pdf format

Dimensions and Weight



12,6 kg

Accessories

Type Designation	Part No.	Description
ZS 11	0028.3711.00	Accessory set consisting of - 1 ea. N male plug Part No. ST.0015 - 1 ea. Rubber sleeve for N plug black Part No. A.0047
ZS 15	0028.3715.00	Accessory set consisting of - 1 ea. N male plug Part No. ST.0015 - 1 ea. Rubber sleeve for N plug black Part No. A.0047 - 1 ea. Flat Gasket 7 Part No. 0002.2101.04 NSN 5330-12-320-9989

Order Information

Type Designation	Part No. NSN	Description
HD 1 A + STA 10 A/D/0.01-30	0005.6631.00 ---	Active Antenna System

Options

Option	Part No. NSN	Description
RAL Color Code	depends on RAL color code	Painting in RAL color according to customer specification

Other or customer specific options are available on request.

Spare Parts

Designation	Details	
Spare Parts for HD 1 A	refer to doc. PIG 010202	
STA 10 A/D/0.01-30	refer to doc. PIG 010103	

Associated Products

For integration into the application environment associated products are available.

Type Designation	Part No. NSN	Description
AAN 120	2061.0120.00	19-inch 1 HU Remote Power Supply Unit Frequency range 0.01 – 100 MHz The AAN 120 provides 2 remote power feeding ports and 2 receiver ports, typically used with 2 active monopole antennas STA or 2 active dipole antennas HD 1 A or 1 active dipole antenna HD 2 A. 1 active combination antenna HD 1 A + STA ... Doc. PIG 010620
	2061.0130.00	19-inch 1 HU Remote Power Supply Unit Frequency range 0.01 – 100 MHz The AAN 130 provides 3 remote power feeding ports and 3 receiver ports, typically used with 3 active monopole antennas STA or 2 active dipole antennas HD 1 A or 1 active dipole antenna HD 2 A or 1 active combination antenna HD 2 A + STA ... AAN 130 replaces AAN 30/B (0008.7427.00) Concerning 19-inch rack installation the AAN 130 requires 1 HU rack space instead of 3 HU required by AAN 30/B. Doc. PIG 010620
	2061.0140.00	19-inch 1 HU Remote Power Supply Unit Frequency range 0.01 – 100 MHz The AAN 140 provides 4 remote power feeding ports and 4 receiver ports, typically used with 4 active monopole antennas STA or 2 active dipole antennas HD 1 A or 1 active dipole antenna HD 2 A or 1 active combination antenna HD 2 A + STA ... Doc. PIG 010620
TR 10/E1	0007.3411.00	2" supporting pipe 1 m high, aluminum, RAL 7035 Doc. PIG 010502
RF Coaxial Cable	2078.xxxx.00 ---	Assembled ready-made coaxial cable according to customer specification. Type of connectors and type of cable to be specified by customer.

Compatible Distribution Systems

The following distribution systems match ideally to be fed from this combination antenna.

Type Designation	Part No.	Description
AVA Series	depends on AVA configuration	<p>Antenna Distributor AVA series for the non-blocking switching and distribution of active and passive antenna signals for up to 20 receiver outputs.</p> <p>Frequency range 0.01 – 30 MHz</p> <p>A separate remote power supply is not needed. The aas.tech active antennas can be directly fed from an AVA series distributor.</p> <p>Doc. PIG 020156</p>
AVB Series	depends on AVB configuration	<p>Antenna Distributor AVB series for the non-blocking switching and distribution of active and passive antenna signals for up to 20 receiver outputs.</p> <p>Frequency range 1.5 – 30 MHz</p> <p>A separate remote power supply is not needed. The aas.tech active antennas can be directly fed from an AVB series distributor.</p> <p>Doc. PIG 020160</p>
AVS 2G Series	depends on AVS 2G configuration	<p>Antenna Distribution System AVS 2G series for the non-blocking switching and distribution of active and passive antenna signals for more than 20 receiver outputs</p> <p>Frequency range A: 0.01 – 30 MHz Frequency range B: 1.5 – 30 MHz</p> <p>Depending on the number of connected active antennas a separate remote power supply is needed.</p> <p>Doc. PIG 020601</p>