



EW-D ASA

Antenna Splitter

Instruction manual

SENNHEISER



EW-D ASA antenna splitter

Frequency ranges

- **EW-D ASA (Q-R-S):** 470 – 694 MHz
- **EW-D ASA CN/ANZ (Q-R-S):** 470 – 694 MHz
- **EW-D ASA (T-U-V-W):** 694 – 1075 MHz
- **EW-D ASA (X-Y):** 1350 – 1805 MHz

EW-D ASA antenna splitter

2 x 1:4 or 1 x 1:8, active

Gain

- in A – out A: 0 ± 1 dB
- in A – out A1 ... A4: 0 ± 1 dB
- in B – out B1 ... B4: 0 ± 1 dB

IIP3

> 25 dBm

Impedance

50 Ω

Reflection loss

10 dB (all RF outputs)

Operating voltage

DC +12 V from NT 12-35 CS power supply unit

Current consumption

210 mA

Total current consumption

max. 3 A (with 4 EW-D EM and connected EW-D AB)

Supply for antenna boosters at ANT RF in A and ANT RF in B

- DC 12 V
- 320 mA

Supply for receivers at A1 to A4

- DC 12 V
- Typically 350 mA, max. 500 mA

Relative humidity

5 – 95%

Operating temperature range

-10 °C – +55 °C (14 °F – 131 °F)

Storage temperature range

-20 °C – +70 °C (-4 °F – 158 °F)

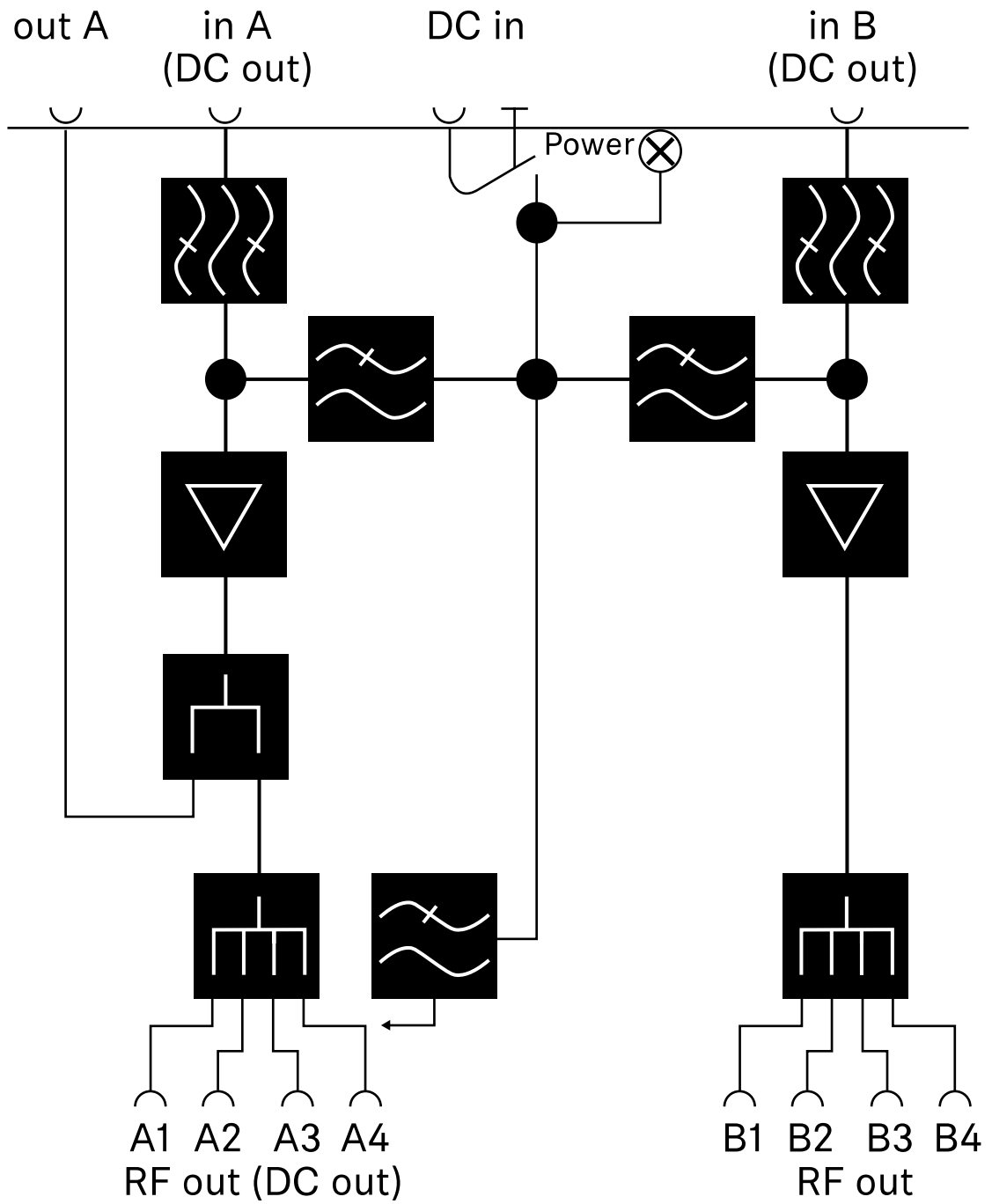
Dimensions

Approx. 212 x 168 x 43 mm

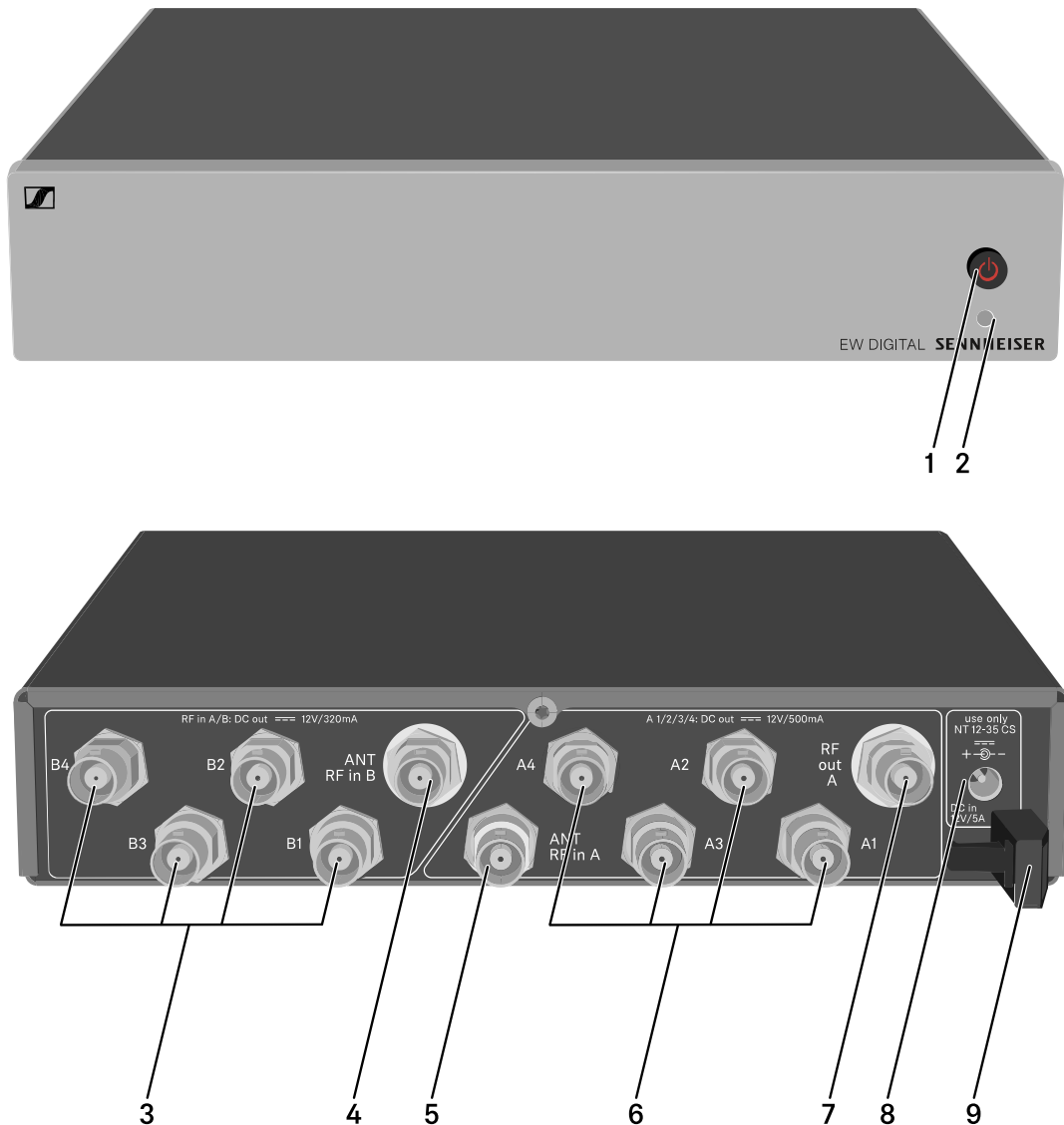
Weight

Approx. 1100 g

Block diagram



Product overview



1 STANDBY button

- See [„Switching the EW-D ASA on and off“](#)

2 LED: Operation indicator

- See [„Switching the EW-D ASA on and off“](#)

3 4 BNC sockets B1 to B4

- RF outputs of diversity branch B for connection to the receiver
- See [„Connecting receivers to the EW-D ASA“](#)

4 ANT RF IN B BNC socket

- Antenna input of diversity branch B
- See [„Connecting antennas“](#)

5 ANT RF IN A BNC socket

- Antenna input of diversity branch A
- See [„Connecting antennas“](#)

6 4 BNC sockets A1 to A4

- RF outputs of diversity branch A for connection to the receiver
- Every one of these RF outputs can also provide voltage to a receiver.
- See [„Connecting receivers to the EW-D ASA“](#)

7 RF OUT A BNC socket

- RF output only for connecting an additional ASA 214 to build an 8-channel diversity system
- See [„Configuring multi-channel systems“](#)

8 DC in socket

- To connect the NT 12-35 CS power supply unit
- See [„Connecting/disconnecting the EW-D ASA to/from the power supply system“](#)

9 Strain relief for the connection cable of the power supply unit

- See [„Connecting/disconnecting the EW-D ASA to/from the power supply system“](#)

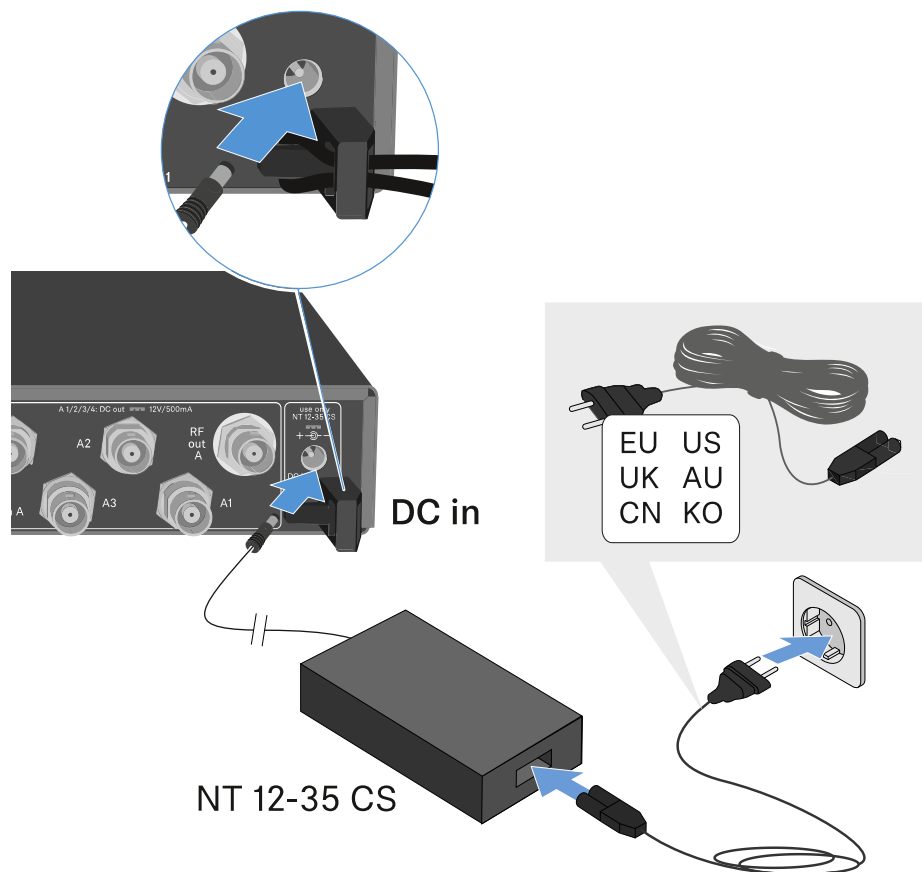
Connecting/disconnecting the EW-D ASA to/from the power supply system

To supply power to the EW-D ASA, the connected receivers and any antenna amplifiers used, you will need the NT 12-35 CS power supply unit.

Use only the supplied NT 12-35 CS power supply unit. It is designed for your antenna splitter and ensures safe operation.

To connect the EW-D ASA antenna splitter to the power supply system:

- ▷ Plug the hollow jack plug of the power supply unit into the **DC in** socket of the antenna splitter.
- ▷ Pass the cable of the power supply unit through the strain relief.
- ▷ Connect one end of the power cord to the power supply unit and the other end to the wall socket.



To completely disconnect the EW-D ASA antenna splitter from the power supply system:

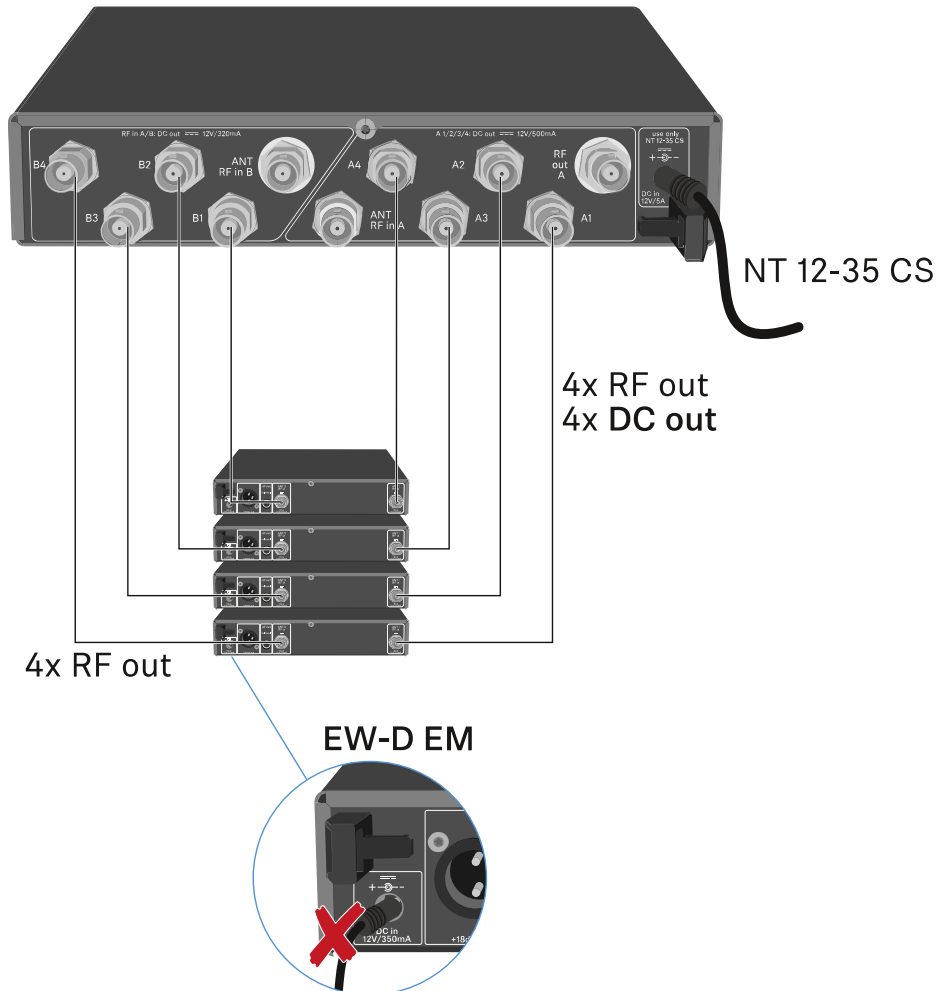
- ▷ Unplug the power cable from the wall socket.
- ▷ Unplug the hollow jack plug of the power supply unit from the **DC in** socket of the antenna splitter.

Connecting receivers to the EW-D ASA

You can connect and operate up to four EW-D EM rack receivers with the EW-D ASA.

To connect the receivers to the EW-D ASA antenna splitter:

- ▷ Connect one of the receiver's antenna inputs to one of the BNC sockets **A1** to **A4** using one of the supplied BNC cables. The receivers do not require a separate power supply. They are powered via the BNC sockets **A1** to **A4**.
- ▷ Connect the receiver's other antenna input to one of the BNC sockets **B1** to **B4** using one of the supplied BNC cables.



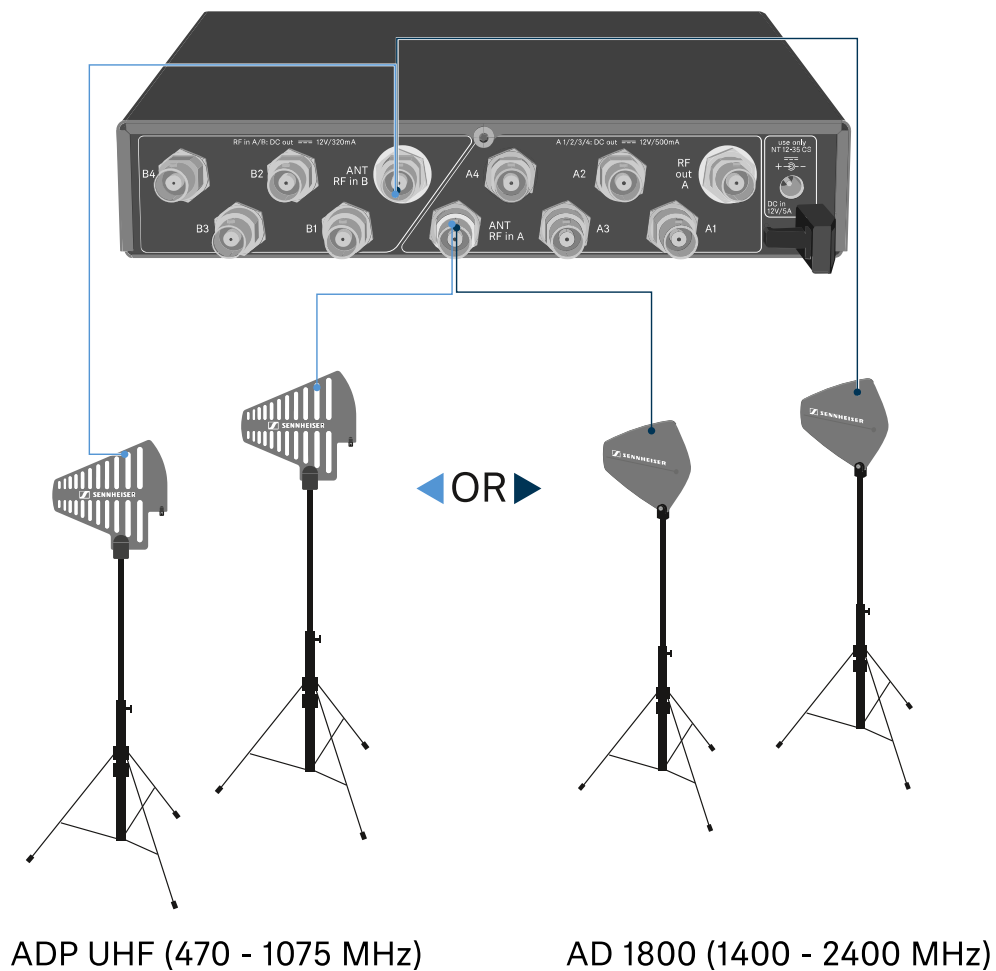
Connecting antennas



To ensure optimal reception even in the case of poor reception conditions, we recommend using remote antennas.

Connecting remote antennas ▼

- ▷ Mount two antennas or a combination of an antenna and an antenna amplifier to the BNC sockets **ANT RF IN A** and **ANT RF IN B**.
- ▷ Refer to the instructions under „[Information on antenna amplifiers and cable lengths](#)“.



Connecting rod antennas ▼

- ▷ Mount the antennas to the BNC sockets **ANT RF IN A** and **ANT RF IN B**.
- ▷ Align the antennas in a V-shape in order to ensure the best possible reception.

Information on antenna amplifiers and cable lengths

The following table shows which cable lengths require the use of the **EW-D AB** antenna amplifier as well as the maximum recommended cable lengths.

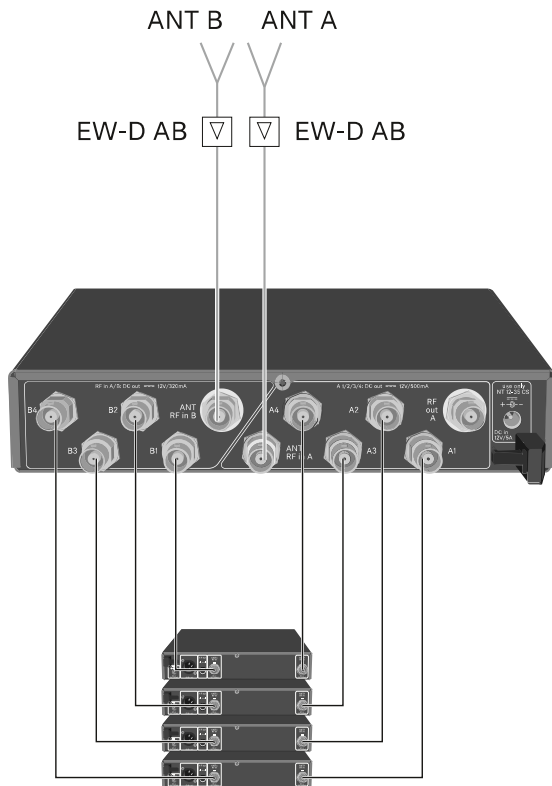
Frequency range around	Number of EW-D AB	Max. cable length	
		RG 58	GZL 5000
500 MHz	0	8 m	16 m
	1	36 m	72 m
	2	64 m	128 m
700 MHz	0	7 m	14 m
	1	30 m	60 m
	2	53 m	106 m
900 MHz	0	6 m	12 m
	1	26 m	52 m
	2	46 m	92 m
1800 MHz	0	4 m	8 m
	1	16 m	36 m
	2	28 m	64 m

Frequency variants of the EW-D AB: [„EW-D AB antenna booster“](#)

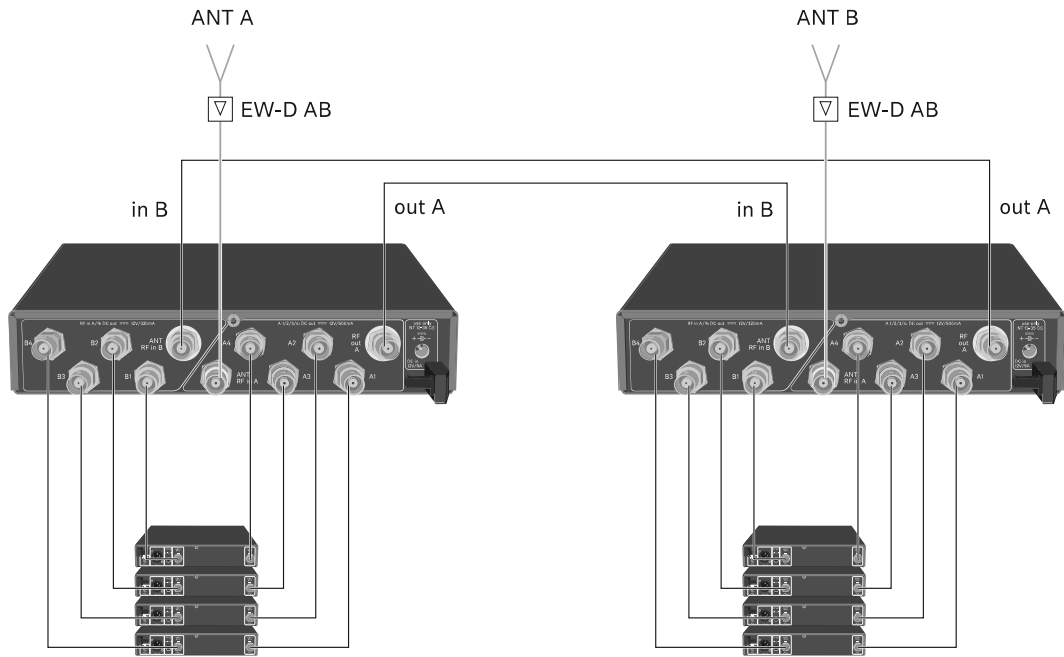
Configuring multi-channel systems

The following options for connecting multi-channel systems are possible:

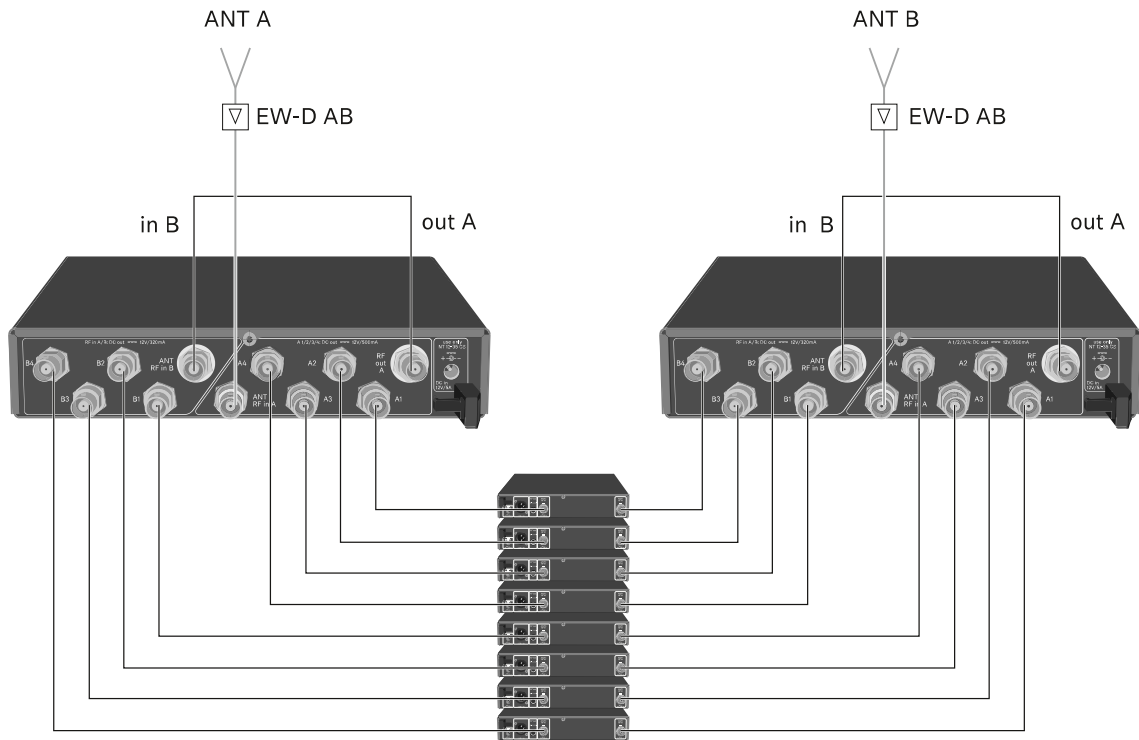
Option 1: Two antennas supply a 4-channel system ▾



Option 2: Two 4-channel systems are interconnected ▼



Option 3: Two antennas supply a 8-channel system ▼



Installing the EW-D ASA in a rack

CAUTION

Rack mounting poses risks

When installing the device in a closed 19" rack or multi-rack assembly, please consider that, during operation, the ambient temperature, the mechanical load and the electrical potentials will be different from those of devices which are not mounted into a rack.

- ▷ Make sure that the ambient temperature within the rack does not exceed the permissible temperature limit stated in the specifications. See [„SPECIFICATIONS“](#).
 - ▷ Ensure sufficient ventilation; if necessary, provide additional ventilation.
 - ▷ Make sure that the mechanical load of the rack is even.
 - ▷ When connecting to the power supply system, observe the information indicated on the type plate. Avoid overloading the circuits. If necessary, provide overcurrent protection.
 - ▷ When mounting in a rack, please note that intrinsically harmless leakage currents of the individual power supply units may accumulate, thereby exceeding the permissible limit value. As a remedy, ground the rack via an additional ground connection.
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To mount the antenna splitter in a rack, you will need the GA 3 rack mount kit (optional accessory).

Rack mounting is carried out in the same way as for the EW-D EM receiver: [„Installing receivers in a rack“](#).

Switching the EW-D ASA on and off

To switch on the antenna splitter:

- ▷ Short-press the **STANDBY** button.
The antenna splitter switches on and the power LED turns green.
The RF signals of the connected antennas are distributed to all connected receivers.



To switch the antenna splitter to **standby mode**:

- ▷ Press the **STANDBY** button for approx. 2 seconds.
The LED turns off. The connected antenna amplifiers are switched off. Connected receivers are switched off if they draw their supply voltage from the BNC sockets A1 to A4 (see [„Connecting receivers to the EW-D ASA“](#)).

To **fully switch off** the antenna splitter:

- ▷ Disconnect the antenna splitter from the power supply system by unplugging the power supply unit from the wall socket.
The LED turns off.