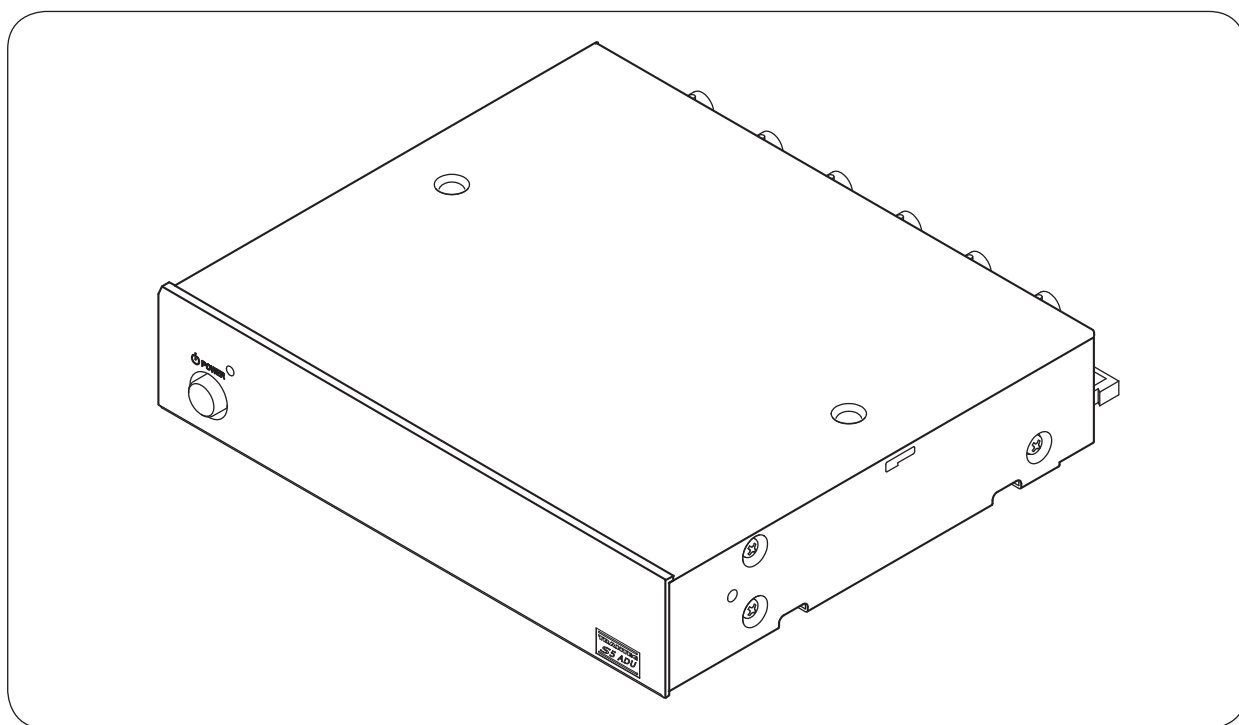


# TRANTEC ANTENNA DISTRIBUTOR

## INSTRUCTION MANUAL S5-ADU

Thank you for purchasing TRANTEC Antenna Distributor.  
Please carefully follow the instructions in this manual to ensure long, trouble-free use of your equipment.



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# 1. SAFETY PRECAUTIONS

- Before installation or use, be sure to carefully read all the instructions in this section for correct and safe operation.
- Be sure to follow all the precautionary instructions in this section, which contain important warnings and/or cautions regarding safety.
- After reading, keep this manual handy for future reference.

## Safety Symbol and Message Conventions

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety hazards.

### **WARNING**

Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.

#### When Installing the Unit

- Do not expose the unit to rain or an environment where it may be splashed by water or other liquids, as doing so may result in fire or electric shock.
- Use the unit only with the voltage specified on the unit. Using a voltage higher than that which is specified may result in fire or electric shock.
- Do not cut, kink, otherwise damage nor modify the power supply cord. In addition, avoid using the power cord in close proximity to heaters, and never place heavy objects -- including the unit itself -- on the power cord, as doing so may result in fire or electric shock.
- Avoid installing or mounting the unit in unstable locations, such as on a rickety table or a slanted surface. Doing so may result in the unit falling down and causing personal injury and/or property damage.
- To prevent lightning strikes, install the unit at least five meters away from a lightning rod, and yet within the protective range (angle of 45°) of the lightning conductor. Lightning strikes may cause a fire, electric shock or personal injury.
- Since the unit is designed for indoor use, do not install it outdoors. If installed outdoors, the aging of parts causes the unit to fall off, resulting in personal injury. Also, when it gets wet with rain, there is a danger of electric shock.

#### When the Unit is in Use

- Should the following irregularity be found during use, immediately switch off the power, disconnect the power supply plug from the AC outlet and contact your nearest TOA dealer. Make no further attempt to operate the unit in this condition as this may cause fire or electric shock.
  - If you detect smoke or a strange smell coming from the unit.
  - If water or any metallic object gets into the unit
  - If the unit falls, or the unit case breaks
  - If the power supply cord is damaged (exposure of the core, disconnection, etc.)
  - If it is malfunctioning (no tone sounds.)
- To prevent a fire or electric shock, never open nor remove the unit case as there are high voltage components inside the unit. Refer all servicing to qualified service personnel.
- Do not place cups, bowls, or other containers of liquid or metallic objects on top of the unit. If they accidentally spill into the unit, this may cause a fire or electric shock.
- Do not touch the plugs or antenna cables during thunder and lightning, as this may result in electric shock.
- To prevent the electromagnetic wave from badly influencing medical equipment, make sure to switch off the unit's power when placing it in close proximity to the medical equipment.

### **CAUTION**

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.

#### When Installing the Unit

- Never plug in nor remove the power supply plug with wet hands, as doing so may cause electric shock.
- When unplugging the power supply cord, be sure to grasp the power supply plug; never pull on the cord itself. Operating the unit with a damaged power supply cord may cause a fire or electric shock.
- When moving the unit, be sure to remove its power supply cord from the wall outlet. Moving the unit with the power cord connected to the outlet may cause damage to the power cord, resulting in fire or electric shock. When removing the power cord, be sure to hold its plug to pull.
- The socket outlet shall be installed near the equipment and shall be easily accessible.

- Avoid installing the unit in humid or dusty locations, in locations exposed to the direct sunlight, near the heaters, or in locations generating sooty smoke or steam as doing otherwise may result in fire or electric shock.
- Avoid touching the unit's sharp metal edge to prevent injury.
- To avoid electric shocks, be sure to switch off the unit's power when connecting antennas.
- Be sure to follow the instructions below when rack-mounting the unit. Failure to do so may cause a fire or personal injury.
  - Install the equipment rack on a stable, hard floor. Fix it with anchor bolts or take other arrangements to prevent it from falling down.
  - When connecting the unit's power cord to an AC outlet, use the AC outlet with current capacity allowable to the unit.

### **When the Unit is in Use**

- Do not place heavy objects on the unit as this may cause it to fall or break which may result in personal injury and/or property damage. In addition, the object itself may fall off and cause injury and/or damage.
- Use the dedicated AC adapter for the unit. Note that the use of other adapter may cause a fire.
- If dust accumulates on the power supply plug or in the wall AC outlet, a fire may result. Clean it periodically. In addition, insert the plug in the wall outlet securely.
- Switch off the power, and unplug the power supply plug from the AC outlet for safety purposes when cleaning or leaving the unit unused for 10 days or more. Doing otherwise may cause a fire or electric shock.

### **FCC Compliance**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Any modifications made to this device that are not approved by TOA Corporation may void the authority granted the user by the FCC to operate this equipment.

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

## 2. GENERAL DESCRIPTION

The TRANTEC Wireless Antenna Distributor S5-ADU is designed to be used in conjunction with a UHF band system for sound reinforcement applications.

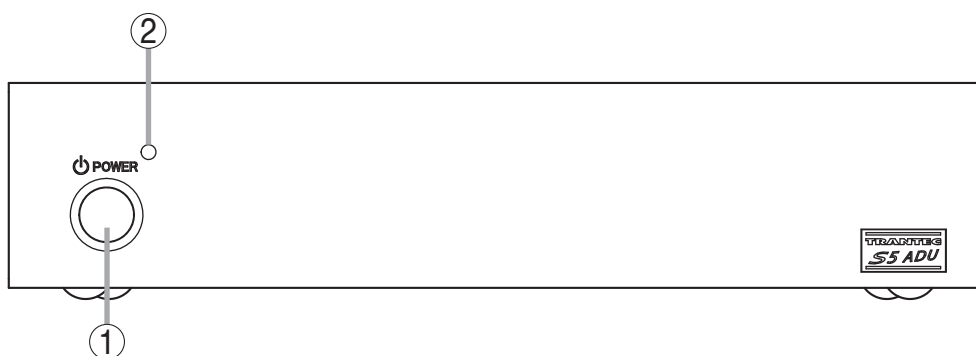
It comes with 2 channels, in which a single antenna signal is distributed to 5 outputs.

## 3. HANDLING PRECAUTIONS

- When installing, keep the unit, receiving antennas, and antenna cables as far away as possible from fluorescent lamps, digital equipment, personal computers, and other equipment which generate RF frequency noise.
- Do not install the receiving antennas in close proximity to metal objects, such as iron frames and lockers. Keep the antennas at least 30 cm (11.81") away from the wall surface.
- Pairs of antennas should be at least 3 m (9.84 ft) away from each other to obtain the optimum diversity effect, although this distance differs depending on the construction and size of the room where they are installed.
- When cleaning the case, use a dry cloth. Never use benzine, thinner or other volatile liquids.

## 4. NOMENCLATURE AND FUNCTIONS

[Front]



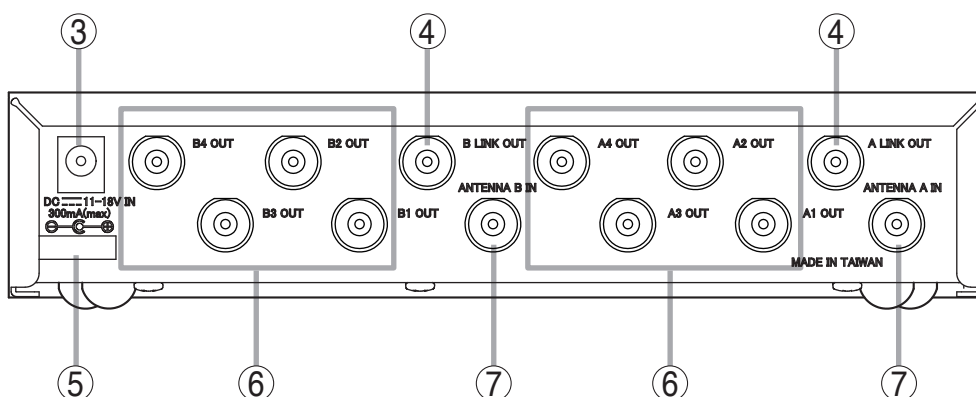
### 1. Power switch

Press this switch to switch on the power. Press this switch again to switch off the power.

### 2. Power lamp

Lights when the power is switched on.

[Rear]



### 3. DC power input

Connect the power cable of AC adapter\* to this jack.

### 4. Antenna link output A, B

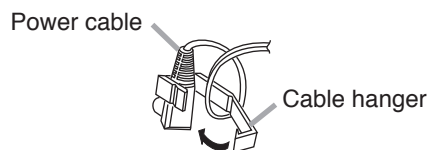
50  $\Omega$ , BNC. Connect the additional S5-ADU antenna input.

\* "A" version : Supplied

"W" version : Consult your TOA dealer.

## 5. Cable hanger

Hook the power cable onto this part.



## 6. Antenna distribution output A, B

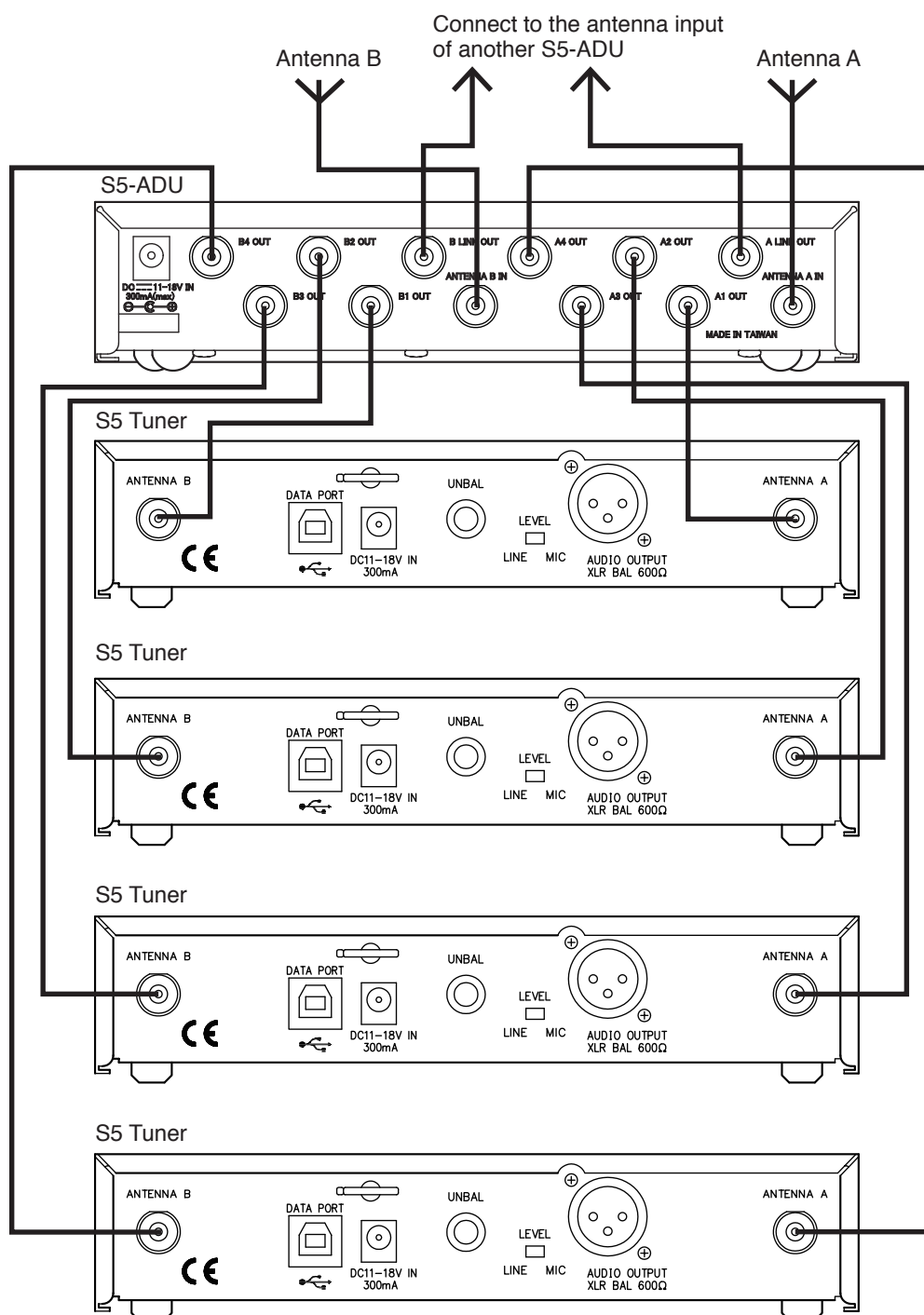
50  $\Omega$ , BNC.

## 7. Antenna input A, B

50  $\Omega$ , BNC. Delivers 9 V DC/25 mA for supplying power to an external antenna.

## 5. CONNECTION

- Up to 4 tuners can be connected to the antenna distribution outputs of S5-ADU using 1 or 2 receiving antennas.
- One S5-ADU or one tuner can be connected to the antenna link outputs of the S5-ADU.
- The length of the antenna cables between the S5-ADU and the dependent equipment (ex. tuner or S5-ADU) must not exceed 1 m (3.28 ft).
- Antennas and boosters are for indoor use only.



## 6. OPERATION

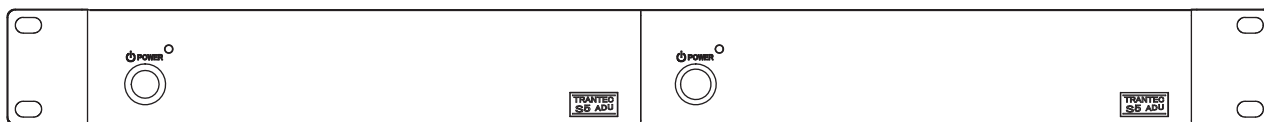
**Step 1.** Turn on the power of both the S5-ADU and connected tuners (the power lamp lights)

**Step 2.** Set the wireless microphone switch to the ON position.

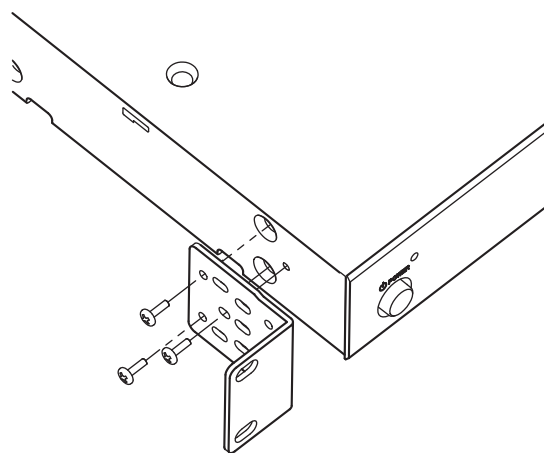
## 7. RACK MOUNTING

The rack mounting kit is available as an accessory for S5 systems.

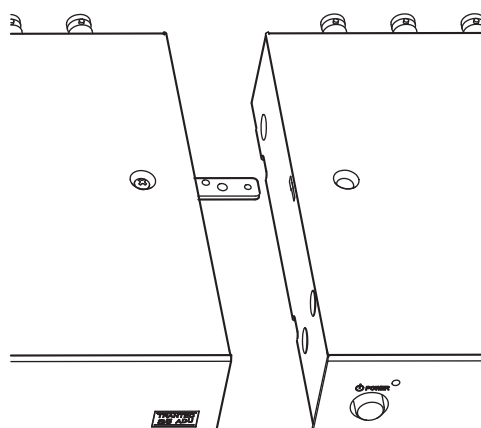
### 7.1. When mounting two S5-ADU units in a 19" Rack



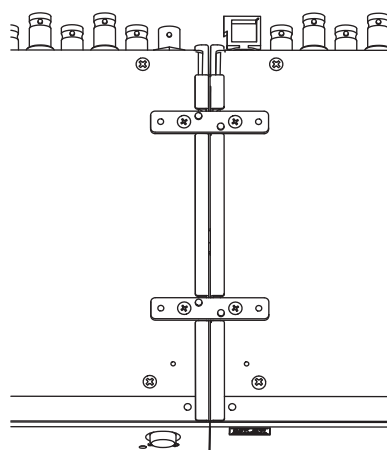
**Step 1.** Remove 3 case holding screws (M3 x 6) from opposite sides of each unit's case. Then, mount the rack mounting brackets there using the screws as shown at right.



**Step 2.** Remove plastic plugs from top of the units, insert the joint bar into the case side slots, and fix it with screws (M3 x 6, black).

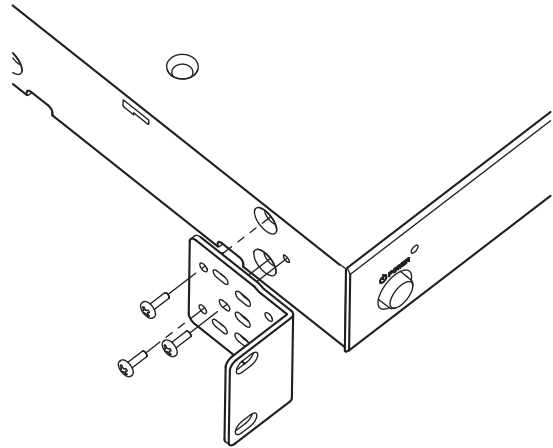


**Step 3.** Fix 2 units together using the remaining 2 joint bars and CSK screws (M3 x 6) on their bottom side.



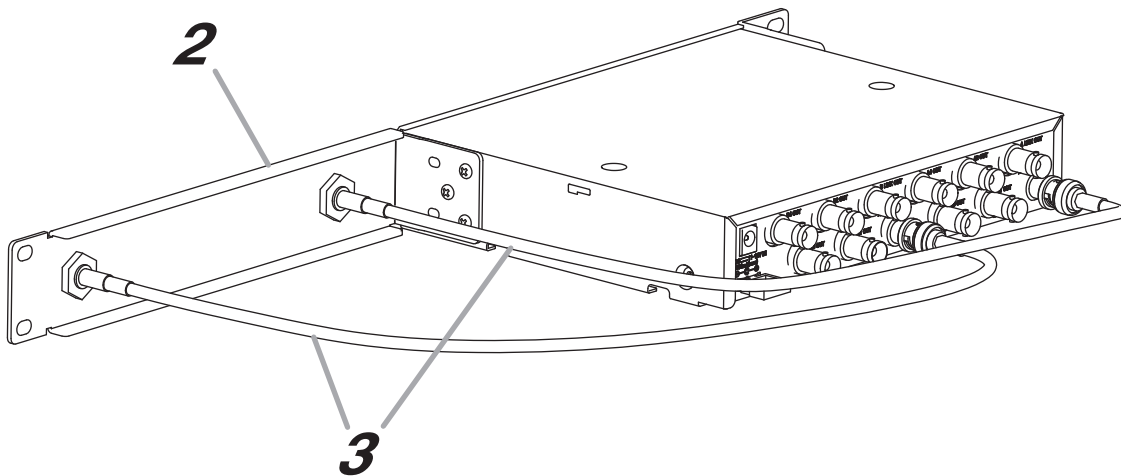
## 7.2. When mounting one S5-ADU unit with front mount antenna inputs in a 19" Rack

**Step 1.** Remove 3 case holding screws (M3 x 6) from the left hand side (viewed from front) of the unit's case, then mount the rack mounting bracket using the screws as shown at right.



**Step 2.** Remove 3 case holding screws (M3 x 6) from the right hand side of the unit's case (viewed from front), and mount the long mounting bracket (having 2 antenna inputs) using the screws.

**Step 3.** Fit extension cables into the front panel of long mounting bracket as shown below, then tighten the BNC connectors with nuts. Put plastic blank plug(s) in unused antenna input connector(s).



## 8. SPECIFICATIONS

Power Source	AC mains, 50/60 Hz (supplied from the included AC adapter)
Current Consumption	300 mA (12 V DC)
Frequency Range	UHF*1
Distribution Channel	2 channels
Antenna Input	1 input, 50 Ω, BNC (phantom powering of 9 V DC/25 mA for antenna)
Antenna Output	4 outputs and 1 link output, 50 Ω, BNC
Indicator	Power lamp
Operating Temperature	−10 to +50°C
Finish	Front panel: Aluminum, silver, anodized Case: Steel plate, dark gray, painting
Dimensions	210 (w) x 46.4 (h) x 201.2 (d) mm (8.27" x 1.83" x 7.92")
Weight	1.3 kg (2.87 lb)

**Note:** The design and specifications are subject to change without notice for improvement.

### • Accessories

AC adapter\*2 ..... 1  
BNC cable (for connection) 50 cm (1.64 ft) ... 10

\*1

Band	Frequency Range
G	606 – 638 MHz, UHF
B	722 – 752 MHz, UHF

\*2

Version	AC Adapter
A	240 V AC, 50 Hz
W	Not supplied

Any modification to the unit, unless expressly approved by TOA Electronics, Inc. could void the user's authority to operate the equipment.

### DECLARATION OF CONFORMITY

TOA Electronics, Inc.  
1350 Bayshore Highway, Suite 270 Burlingame,  
California 94010, USA  
TEL 650-452-1200

declare under our sole responsibility that the product  
ANTENNA DISTRIBUTOR S5-ADU

complies with Part 15 of FCC Rules.

Operation is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### Traceability Information for Europe (EMC directive 2004/108/EC)

Manufacturer:  
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Authorized representative:  
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