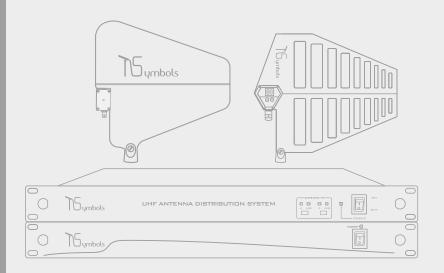


Antenna Systems

- TS-1000 4-Channel Antenna Divider
- TS-2000 5-Channel Antenna Divider
- AD 1002 / AD 1102 Wideband Log Antenna with Booster



[Operating Instructions]

Antenna Systems

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

TS-2000 Specifications:

	514 O
Main Frame Size	EIA-Standard 19" 1 U
Frequency Range	UHF 4701000 MHz
Output Gain	1 dB \pm 1 dB
IIP3	+14dBm
Noise Figure	<2 dB
Impedance	50Ω
Connector	BNC
Antenna Power Supply	12V / 150mA DC
Output Power Supply	Each Channel: 12V / 1000 mA DC
Power Supply	110-240V AC 50/60 Hz
Dimensions (mm)	483 (W) x 45 (H) x 213 (D)
Weight	2.3 KG

5, Specifications

TS-1000 4-Channel Antenna Divider

Main Frame Size	EIA-Standard 19" 1 U
Frequency Range	UHF 4701000 MHz
Output Gain	1 dB \pm 1 dB
IIP3	+14dBm
Noise Figure	<2 dB
Impedance	50Ω
Connector	BNC
Antenna Power Supply	12V / 150mA DC
Output Power Supply	Each Channel: 12V / 1000 mA DC
Power Supply	110-240V AC 50/60 Hz
Dimensions (mm)	483 (W) x 45 (H) x 213 (D)
Weight	2.25KG

AD 1002 / AD 1102 Active directional antenna with integrated booster amplifier

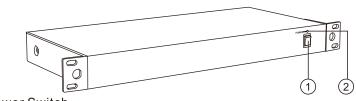
Frequency Range	UHF 470960MHz
Antenna Gain	7.5 dBi
VSWR	< 2 : 1
3 dB Beam-width	Vertical: 90°, Horizontal: 120°
Impedance	50Ω
Connector TNC	BNC
Dimensions (mm)	AD 1002: 270 (W) x 269 (H) x 2.6 (D) / AD 1102: 325 (W) x 280 (H) x 2.1 (D)
Weight	AD 1002: 359g / AD 1102: 468g

1, TS-1000 Controls and Functions

TS-1000 4-Channel Antenna Divider Features:

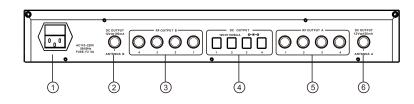
- ① Ultra-wide band 470-1000 MHz.
- ② Compatible with up to 4 UHF true diversity receivers to one set of antenna.
- ③ Adopts the latest wide dynamic range and low noise component.
- ④ Advanced circuit design featuring very low inter-modulation distortion and eliminates the spurious interference.
- ⑤ BNC antenna connecters.
- 6 Allows daisy-chain antenna dividers for more receivers.

Figure 1: Front Panel



- 1 Power Switch.
- 2 Power indicator.

Figure 2: Rear Panel



- ① Power Output Jack: AC-110V—240V 50Hz/60Hz
- ② Antenna Input Jack B: with 12V power supply.
- ③ Signal Output Jack B.
- ④ DC power supply Output Jack, directly connect with wireless receiver (DC 12V/1000mA).
- (5) Signal Output Jack A.
- Antenna Input Jack A: with 12V power supply.

2, TS-2000 Controls and Functions

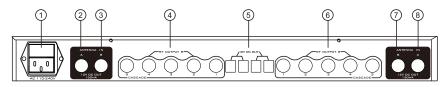
TS-2000 5-Channel Antenna Distributor

- ①Ultra-wide band 470-1000 MHZ.
- ②Built-in two antenna splitters.
- 3 Compatible with up to 5 UHF true diversity receivers to one set of antenna.
- (4) Adopts the latest wide dynamic range and low noise component.
- ⑤Advanced circuit design featuring very low inter-modulation distortion and eliminates the spurious interference.
- 6 Allow up to 4 log antennas.
- 7BNC antenna connecters.
- ®Allows daisy-chain antenna dividers for more receivers.

Figure 3: Front Panel



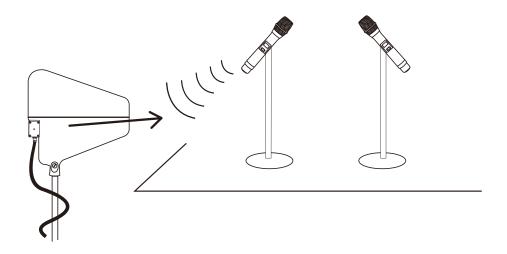
- 1) Power Switch.
- ② Power indicator.
- 3 Antenna B alternative switch, one or two log antennas can be connected
- 4 Antenna B indicator
- ⑤ Antenna A alternative switch, one or two log antennas can be connected
- (6) Antenna A indicator



- 1) Power Output Jack: AC-110V—240V 50Hz/60Hz
- ②Antenna B Input Jack A: with 12V power supply.
- ③Antenna B Input Jack B: with 12V power supply.
- 4 Signal Output Jack B.

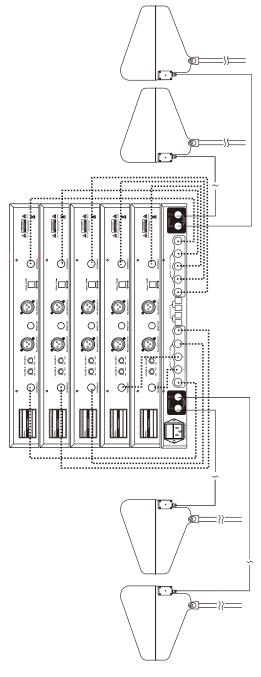
System Setup

- ① Log antenna and wireless receiver should be in the same frequency band.
- 2 Log antenna should be at least 3M away from the wireless receiver.
- For better operation the antenna should be at least 3M away from a
- 4 Keep antennas away from noise sources such as computer, digital equipment, motors, automobiles and neon lights, as well as away from large metal objects.



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TS-2000 Connection

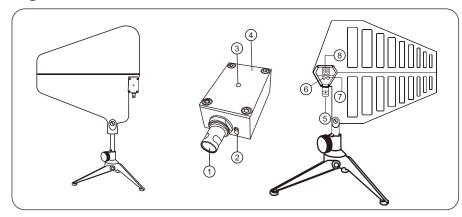


- ⑤DC power supply Output Jack, directly connect with wireless receiver (DC 12V/1000mA).
- 6 Signal Output Jack A.
- ②Antenna A Input Jack B: with 12V power supply.

3, AD 1002 / AD 1102 Active directional antenna with integrated booster amplifier

- A bi-functional log antenna design for UHF receiving and transmitting applications.
- ② With -9 ~ 16dBi gain is suitable for various application required specific directionality (AD 1102).
- ③ Ultra-wide band 400--960 MHz, which is compatible with US and EU new telecom regulations.
- 4 High gain design which is ideal for any installation required specific directions.
- S Adjustable gain to enhance signal stability and increase reception range.
- ⑥ Ultra-low intermodulation distortion and low noise component.

Figure 3:



- ①Antenna Input & Output Jack
- ②Gain Switch for Output Signal.
- ${\bf @Power\ Indicator.}$
- 4 Booster.

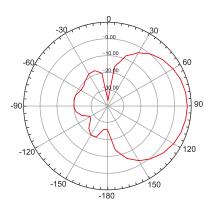
- **⑤**Antenna Input & Output BNC Jack
- **©Gain UP arrow buttons**
- **7Gain DOWN arrow buttons**
- **®Gain data LED display**

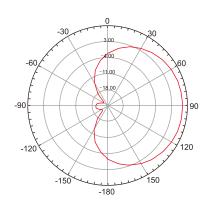
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Antenna Pattern

Vertical

Horizontal





4, System Connections and Setup

System Connections

- ① If using with antenna booster, firstly, connected well with log antenna, then using 50 ohm low loss coaxial cable to connect with the wireless receiver or antenna divider (only with the ones who get power supply for antenna). If the cable is shorter, should reduce the gain, or longer cable, has to set high gain. Please be noted that good signal is affected not only by the cable quality, but also by the cable length.
- ② If not using antenna booster, can directly using the 50 ohm low loss coaxial cable to connect the log antenna with wireless receiver or antenna divider.
- 3 Log antenna has to be faced to the covering area.
- 4 Log antenna only can be used as transmitting signal.



