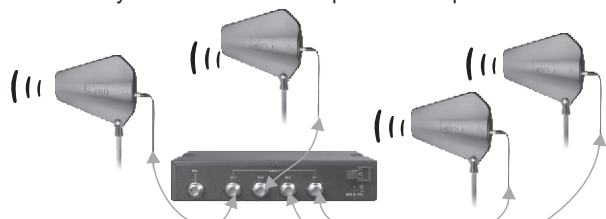


# UHF Wideband Power Splitter

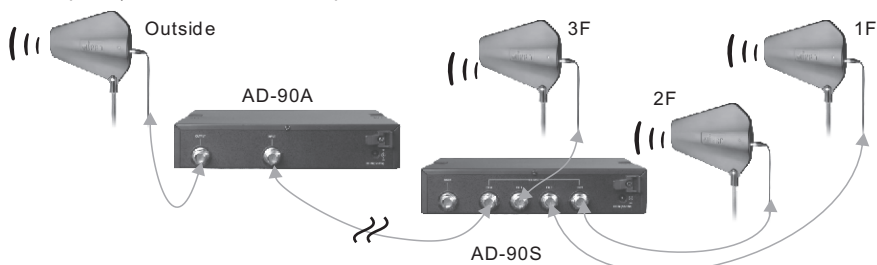
## Instruction Manual

coaxial cable to an output on the AD-90S for each MIPRO AT-90T wideband extension antenna to be used (1 ~ 4 units). Please make sure to use above-average quality coaxial cable and keep the cable length to a minimum to minimize line losses. The AT-90T antennas can be mounted on a MS-10 (wall-mount antenna bracket) or on a standard microphone stand and set to the desired angles to obtain the best coverage. The antennas should be installed in a position that is higher than the audience and away from obstacles for optimum reception.



(Illustration 2)

For applications requiring longer antenna cable runs, the MIPRO AD-90A (UHF Wideband Power Amplifier) can be used to compensate for the line loss and achieve the best



(Illustration 3)

### 3. Turning on the System:

When the power is on, the power indicator will light up. If the input signal strength is over +3dBm, the LED indicator will also illuminate.

### NOTE:

- (1) The AD-90S works in the frequency range of 470 MHz ~ 960 MHz. Any MI-808T transmitter that is within this range can work with the AD-90S. However, please make sure the antenna used with the AD-90S is the same bandwidth as the one in the MI-808T to avoid adversely affecting the system's performance. The MIPRO AT-90T wideband transmitting antenna is designed to handle this entire frequency range and is thus the best solution to avoid a possible mistake in matching the frequency bands of the antenna and transmitter above. \* Combining the AD-90S with the AT-90T would give the ideal performance characteristics when it comes to the system application.
- (2) When using coaxial cable, please make sure a premium quality 50Ω coaxial cable is used (e.g.: RG-58 cable or better) and the cable length should be no more than 10 meters for best performance.

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Design and specifications are subject to change without prior notice

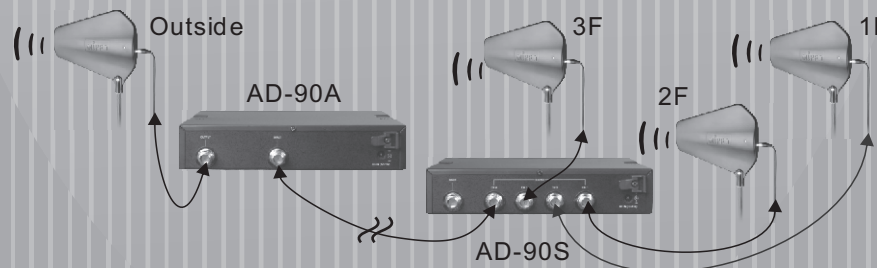


AS110531

# MIPRO AD-90S

## UHF Wideband Power Splitter

### Instruction Manual



# UHF Wideband Power Splitter

## Instruction Manual

Thank you for choosing MIPRO's AD-90S UHF Wideband Power Splitter. Before using the splitter, please peruse this manual to have a better understanding of its operation in order to achieve the best possible performance.

The accessories supplied with the AD-90S are as follows:

- (1) Signal Cable RG-58AU, 40cm(TNC) ( 1 )
- (2) 12V / 1A Switching Power Supply ( 1 )
- (3) User Manual ( 1 )

### Main Functions of the AD-90S:

MIPRO AD-90S is a professional 4-Channel UHF Wideband Power Splitter. It has a working frequency from 470 MHz to 960 MHz and a maximum output level of up to +26dBm(0.4W). It primarily operates with MIPRO's MI-808T Stereo Transmitter or MT-90 Wireless Interlinking Transmitter to divide the signal into 4 parts with no harm to the signal itself. It is ideally suited to applications in large spaces as well as in situations requiring multi-angle and long distance wireless signal transmission. If the AD-90S is teamed with MIPRO's AD-90A UHF Wideband Power Amplifier, it can achieve much longer distance wireless transmission and even greater multi-angle coverage. The AD-90S / AD-90A combination can transmit signals to multiple angles over a distance of 2 to 3 kilometers, making it particularly suitable for use in rugged outdoor topography or in indoor multi-floor applications, etc., meanwhile greatly reducing the possibility of dead points in the wireless transmission.

### Specification:

- (1) Operating Frequency: 470MHz~960MHz.
- (2) Gains: 0~2dB.
- (3) Transmission Signal: Maximum of 4 sets of signals transmitting simultaneously.
- (4) Signal Indicator: Equipped with a signal indication light. It lights up when the input signal is over +3dBm.
- (5) Maximum Output Level: +26dBm (0.4W).

### Key Features:

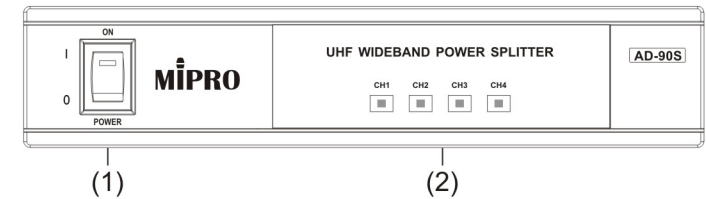
- (1) Wideband Amplification: Utilizes an amplification design for splitting signals in the UHF 470~960MHz bandwidth.
- (2) SLinear Amplification Characteristics: Utilizes low distortion, high linear amplification technique that allows FM or AM signals and other signals to be minimized.
- (3) High Efficiency and High Power Splitting Outputs : Utilizes high power circuitry design with a maximum output power of + 26 dBm ( 0.4W). Since the gain of amplifier is greater than 0dB gain, signal integrity in each channel will not be affected.

# UHF Wideband Power Splitter

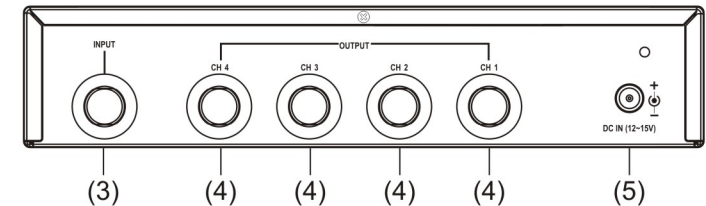
## Instruction Manual

### 1. Glossary:

#### Front Panel



#### Rear Panel

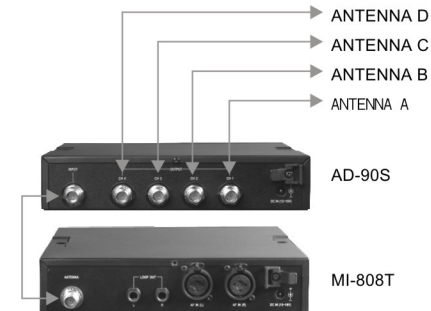


- (1) Power Switch: When the power switch is turned on, the indicator light will illuminate.
- (2) Signal Input Indicator Panel: When the external signal from the transmitter is over +3dBm, the indicator panel will illuminate.
- (3) Signal Input Connector: Connects to the output of the transmitter (e.g. MI-808T).
- (4) Signal Output Connectors: 4 Signal outputs to supply 4 external antennas (e.g. AT-90T).
- (5) DC Power Input Socket: Input 12-15 VDC, positive center.

### 2. Operation Instructions:

#### 1. Installing the Input Signal

Connect the MI-808T's output to the AD-90S's input via a coaxial cable having a TNC connector on both ends. Please note the length of the coaxial cable should be kept to a minimum.



(Illustration 1)

#### 2. Installing Extension Antennas:

The AD-90S allows 4 sets of transmission signals to function simultaneously, therefore, the AD-90S can work perfectly with up to 4 AT-90T (UHF Unidirectional Antennas) targeted at different directions to accomplish a multi-angle application of wireless transmission. Simply connect a