

ATW-49CB

ACTIVE ANTENNA COMBINER KIT



The Audio-Technica ATW-49CB Active Antenna Combiner Kit includes two dual-input, one-output Active Antenna Combiners designed for use with Audio-Technica 4000 and 5000 Series UHF wireless receivers and ATW-A49 LPDA antennas.* Each Active Antenna Combiner is a broadband device (frequency range from 440 to 900 MHz) that combines two incoming RF signals into one outgoing RF signal. One set of Active Antenna Combiners enables two sets of antennas to feed one wireless receiver or distribution system. To compensate for RF signal loss associated with combining signals, the Active Antenna Combiner provides unity gain. (Note that without the use of an antenna preamplifier, long antenna-cable length may deteriorate signal.)

Each kit includes: two Active Antenna Combiners and two 45mm BNC-to-BNC RG 58 coaxial antenna cables.

NOTE: The ATW-49CB Antenna Combiner requires +12V DC power from any Audio-Technica 4000 or 5000 Series receiver or +5 to +14V DC from any wireless receiver or antenna distribution system that offers antenna power. A light on each Active Antenna Combiner indicates that power has been correctly applied.

* The ATW-49CB Active Antenna Combiner Kit is also suitable for use with other receivers that are in its specified band, use BNC antenna connectors, and provide antenna terminal voltage; it may also be used with a variety of other antennas from Audio-Technica and other manufacturers.

HOW TO INSTALL THE ATW-49CB ACTIVE ANTENNA COMBINERS

1. Connect one BNC-to-BNC RG 58 coaxial antenna cable (two supplied) to the OUT connector on one Active Antenna Combiner (two supplied). Connect the other end of this cable to the ANTENNA A input on either a receiver or distribution amplifier, as shown in Figure 1.
2. Repeat step 1 for the ANTENNA B input, using the second Active Antenna Combiner.
3. Use coaxial antenna cables (not included) to connect the IN connectors on each Active Antenna Combiner to a UHF antenna, as shown in Figure 1.
4. **NOTE: ATW-A49 antennas do not require power. If you are using ATW-A49 antennas, skip Step 4.** If you have an antenna system that requires power (such as an antenna preamp or booster) you must open the ATW-49CB Active Antenna Combiner assembly and activate a switch on the circuit board. (This enables the combiner to pass power through to the antenna.) Current consumption of the preamp or booster should not exceed 100mA.

The unit is shipped with the switch in the "off" position. To flip the switch to the "on" position, first **be certain the combiner is not attached to any power source**. Next, use a Phillips screwdriver to remove the two screws on the Active Antenna Combiner's access panel; remove the access panel; use a tweezers to flip the switch into the "on" position. Finally, replace the access panel and securely tighten the two screws. (See Figure 2.)

SPECIFICATIONS

DESCRIPTION	2-input Active Combiner
BANDWIDTH	440 MHz to 900 MHz
VSWR	< 1.7:1 (within specified bandwidth)
GAIN	0 dB typical (within specified bandwidth)
IMPEDANCE	50 ohms, typical (within specified bandwidth)
TERMINATION TYPE	3-BNC Female
WEIGHT	51 g
DIMENSIONS	61.0 mm W x 47.0 mm L x 23.0 mm H
DC INPUT	5-14V DC
CURRENT	30 mA @ 12V DC
FINISH ON ENCLOSURE	Chemical film per MIL C 5541
MATERIAL	6063T52 extruded aluminum (sides) 5052-H32 aluminum (top and bottom)
PASS-THROUGH CURRENT	100 mA (maximum to both inputs combined)

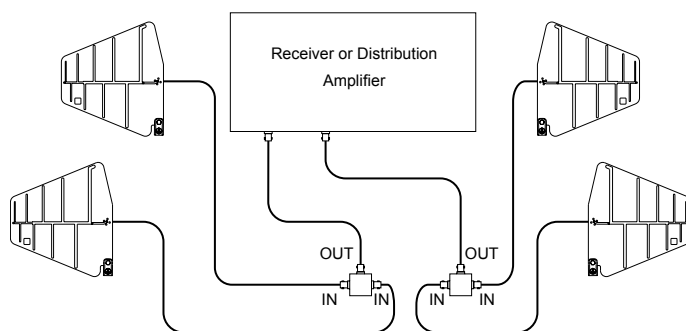


Figure 1

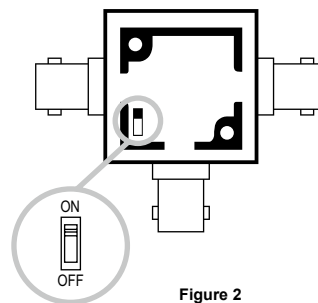


Figure 2

ATW-49CB

有源天线汇合器套件



ATW-49CB是一套两路天线输入、一路输出的有源天线汇合器，可配合鐵三角4000及5000系列无线话筒及ATW-A49偶极子天线使用*。每个汇合器为宽频率元件（频率范围由440至900MHz），可把两个射频输入信号汇合为一个射频输出信号，而一套汇合器可配套一台接收机或一台天线分配器使用。天线汇合器内置有源放大器，以补偿在汇合处理时的信号损失。（汇合器并没有天线前置放大器，过长的天线连接线会导致信号减弱）

套件内包括：两个有源天线汇合器，两条45mm长BNC-BNC接头RG58同轴天线连接线。

注：ATW-49CB天线汇合器需要鐵三角4000及5000系列无线接收机提供的+12V直流或其他无线接收机及天线分配器的+5至+12V直流幻象供电。汇合器上设有显示灯，以显示是否正确供电。

* ATW-49CB天线汇合器可配套于其他在频率范围内，以BNC接头及设有供电输出的接收机使用；另外，亦可配套于鐵三角或其他型号的天线使用。

安装ATW-49CB天线汇合器

1. 使用一条BNC-BNC接头连接线，连接天线汇合器输出端到接收机或分配器的A组天线输入。
2. 使重复第1步骤，用另一条连接线，连接另一个天线汇合器输出端到B组天线输入。
3. 使用天线的同轴连接线，连接每个天线汇合器输入端到各个天线。（图1）
4. 注：ATW-A49天线不需使用幻象供电，如使用ATW-A49天线，可跳过此说明。如使用的天线系统需要供电（内置前置放大器或增益器），需开启汇合器电路板内的导通电流开关，使幻象供电电流通过汇合器传到天线上，而所提供的总电流不应超过100mA。

汇合器的导通电流开关，预设为关闭"OFF"位置，需使用十字螺丝刀把底盖打开，再以小型一字螺丝刀把开关推至开启"ON"位置，然后再装回底盖。（图2）

（设定前请先中断供电连接）

技术指标

工作情况	2路有源输入汇合器
频宽	440 MHz - 900 MHz
电压驻波比	< 1.7 :1 (于指定频宽)
增益	0dB 典型 (于指定频宽)
阻抗	50 欧姆, 典型 (于指定频宽)
端子	3个BNC母头
重量	51 克
外形尺寸	61.0 mm - 宽 x 47.0 mm - 长 x 23.0 mm - 高
供电输入	5-14V 直流
消耗电流	30mA 于 12V 直流
封装涂层	MIL C 5541 化工薄膜
物料	6063T52 压铸铝合金 (边框) 5052-H32 铝合金 (底及顶)
导通电流	100mA (两输入端最大值)

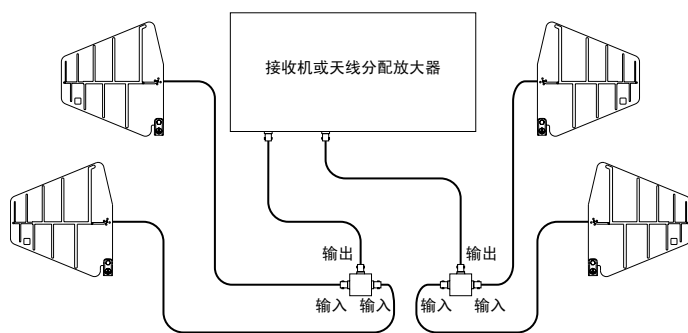


图1

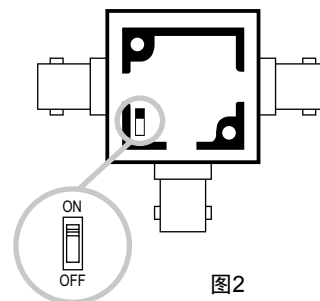


图2



audio-technica 鐵三角

Machida · Tokyo · Japan