

# ATW-B80C & ATW-B80D

wireless microphones & system accessories

## In-line Antenna RF Boosters



### Features

- Compact lightweight in-line design
- Selectable +3 and +10 dB gain
- Power status LED indicator
- Band-specific (ATW-B80C—541-566 MHz, ATW-B80D—655-681 Hz) operation
- Bus power via coaxial cable
- Includes bracket with  $\frac{5}{8}$ "-27 mount for portable use

### Description

The ATW-B80C and ATW-B80D consist of a pair of UHF band-specific powered in-line antenna boosters, designed to increase the RF signal strength to compensate for antenna cable loss. When paired with the appropriate UHF antennas they are especially suited for applications where there are long RF cable runs between the antennas and receiver locations. Each RF booster set is tuned for a particular UHF frequency band.

ATW-B80C: 541-566 MHz (TV Channels 25-30)

ATW-B80D: 655-681 MHz (TV Channels 44-49)

Engineered for temporary or permanent installations, the boosters are designed to work with the half-wave antennas supplied with AEW series receivers and the ATW-A49 LPDA antenna. Each booster contains an integral RF amplifier powered by 12V DC provided on the antenna cable by the associated wireless receiver or antenna distribution system. Power is required for their operation and a power active indicator illuminates when power is applied. Band-specific filters on the boosters minimize the amplification of unwanted RF signals. A recessed gain setting switch permits selection of +10 or +3 dB operation, to compensate for cable losses or other operating conditions. Intended for indoor use, both models include brackets with standard  $\frac{5}{8}$ "-27 threads for use with conventional microphone stands. The brackets enable the antenna to be attached to the same stand, if desired. Inputs and outputs are via standard BNC-type connectors. Constructed of metal to minimize the pickup of RF interference, the boosters are finished in a non-reflective black.

### Architect's and Engineer's Specifications

The in-line RF booster set shall consist of two UHF band-specific RF boosters and appropriate mounting hardware for permanent or portable applications. Each RF booster shall be bandpass filtered for operation in a specific UHF frequency band as determined by the associated wireless systems and an internal RF amplifier designed to drive long cable runs between the antenna and receiver. Amplifier gain shall be selectable at +3 dB, +10 dB via side-mounted recessed switch. It shall be possible to cascade up to three in-line antenna boosters for extremely long RF cable runs. The antenna shall operate on 12V DC power supplied via the

RF cable from an associated wireless receiver or antenna distribution system. Each antenna shall draw no more than 20 mA of current; an indicator light shall be provided on the antenna to show power is present. DC power shall pass through the device to feed other powered RF devices attached to the booster. RF input and output connections shall be via standard BNC-type connectors. The boosters shall include mounting brackets with standard  $\frac{5}{8}$ "-27 threaded mounts for attachment to conventional microphone stands. It shall be possible to attach an antenna to the same microphone stand as the booster without the need for additional mounting brackets and it shall be possible to remove the mounting bracket if it is not needed. Each in-line antenna booster shall be constructed of metal and finished in a non-reflective black.

The Audio-Technica ATW-B80C for systems operating in the 541–567 MHz band [ATW-B80D for systems operating in the 655–681 MHz band is specified.

### Specifications

RF frequencies range	ATW-B80C 541-566 MHz; ATW-B80D 655-681 MHz
Signal gain	3 dB position: 3 dB typical 10 dB position: 10 dB typical
Input/Output connector	BNC-R
VSWR	Input: 3 or less Output: 3 or less
NF (noise figures) at 10 dB gains setup	6 dB typical
Power supply voltage	12V (Bus powered)
Operating temperature range	-20 to 60° C
Dimensions	25 mm (0.98") x 25 mm (0.98") x 100 mm (3.93")
Weight	87 g (3.06 oz) (excluding holder)
Case	Black anodized aluminum
Mounting screw size	Antenna mounting screw: $\frac{1}{4}$ " Microphone stand screw: $\frac{1}{4}$ "
Accessories included	Microphone stand holder x 2

In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

Specifications are subject to change without notice.



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