UHF IN-LINE PASSIVE RF FILTER
THIS RADIO EQUIPMENT IS INTENDED FOR USE IN MUSICAL PROFESSIONAL ENTERTAINMENT AND SIMILAR APPLICATIONS.
NOTE: THIS RADIO APPARATUS MAY BE CAPABLE OF OPERATING ON SOME FREQUENCIES NOT AUTHORIZED IN YOUR REGION. PLEASE CONTACT YOUR NATIONAL AUTHORITY TO OBTAIN INFORMATION ON AUTHORIZED FREQUENCIES FOR WIRELESS MICROPHONE PRODUCTS IN YOUR REGION.
GENERAL DESCRIPTION

The Shure UAPF-X1 is an in-line passive RF filter to attenuate frequencies outside the X1 band and intended to be used with any Shure X1 band wireless product that has removable antennas, including SLX, ULX, and UHFR.

FEATURES

- Filters out extraneous RF signals.
- Mountable on supplied desk-/wall-mount or on a microphone stand
- Extremely durable under the heaviest use
- Shure quality, ruggedness, and reliability

APPLICATION

Optimally, the unit should be located prior to any amplification of an RF signal. Positioning should be tested and adjusted for each individual setup.

Antennas should be spaced far enough to obtain the widest possible RF field and to minimize RF signal drop out. In a diversity system, Shure recommends that antennas be positioned at 45°.

The following table shows three typical connectivity arrangements for the UAPF-X1:

<table>
<thead>
<tr>
<th>Antenna</th>
<th>Passive Filter</th>
<th>In line Amplifier</th>
<th>Antenna Distribution Unit</th>
<th>Receiver</th>
</tr>
</thead>
<tbody>
<tr>
<td>UA820X (or PA805SWB, UA86OSWB, PA805X)</td>
<td>UAPF-X1</td>
<td></td>
<td></td>
<td>UR4D-X1 (or UA4S-X1)</td>
</tr>
<tr>
<td>UA820X (or PA805SWB, UA86OSWB, PA805X)</td>
<td>UAPF-X1</td>
<td></td>
<td>UA845-SWB</td>
<td>UR4D-X1 (or UA4S-X1)</td>
</tr>
<tr>
<td>UA820X (or PA805SWB, UA86OSWB, PA805X)</td>
<td>UAPF-X1</td>
<td>UA830X</td>
<td>UA845-SWB</td>
<td>UR4D-X1 (or UA4S-X1)</td>
</tr>
</tbody>
</table>

Figure 1. Diversity System
INSTALLATION

IMPORTANT: DO NOT USE INFORMATION:

This device must not be used with antennas or other devices that have a DC short circuit at their feed point without using an external (BNC) DC Block. A suitable BNC DC Block is the JFW Industries Model 50DB-002.

INSTALLATION INSTRUCTIONS

1. Thread the Shure Model UAPF-X1 unit on the supplied stand or on a 5/8 in.-27 thread microphone stand (Figure 2) and connect the antenna wand to either antenna port (filter functions in both directions).

![Figure 2. Attaching Base and Antenna](image)

2. Using 50 W low-loss coaxial cable (purchased separately, Shure UA825 or UA850 or UA8100 recommended), connect to the opposite port to the Shure Model UR4 or ULX, SLX wireless receiver or UA845SWB, or UA844SWB Antenna Distribution System (Figure 3).

![Figure 3: Connecting Receiver](image)
MAINTAINING CABLE INTEGRITY

To maintain Shure cables in top condition in permanent installations:
1. Avoid sharp bends or kinks in the cables.
2. Do not deform cables with makeshift clamps, such as bending a nail over the cable.
3. Do not use cables in permanent outdoor installations.
4. Do not expose cables to extreme moisture.

SPECIFICATIONS

RF frequency range ................................................................. 3dB bandwidth = 36Mhz
................................................................. 20dB bandwidth = 49Mhz
Stop-Band Attenuation: ............................................. Minimum 30dB, Typical 32-36dB
Insertion Loss ................................................................. Typical 3.25dB
Case ................................................................. Aluminum die-casting, black painted
VSWR in pass-band (input, output): ........................................ Typical 2.0dB
Swivel Adapter ................................................................. Positive action, break-resistant adjustable from 0 degrees to 90 degrees, with standard 5/8 in. –27 thread
Net Weight ................................................................. Without mounting stand. 28kg (9.8 oz)
................................................................. With mounting stand. 42 kg (14.8 oz)
Power Consumption (12 Vdc) ........................................... Passively passes power (12Vdc) 0.6 to 0.72 W for use with UA870X active antenna.
Connectors ................................................................. Female, BNC-type
Dimensions (without accessories) .................................... 66.7 mm high x 31.75 mm wide x 112 mm deep (2.625 x 1.250 x 4.40 inches), 108 mm (4.25 in.) high w/mounting stand

REPLACEMENT PARTS

Mounting Base ........................................................................... A13HDB

For additional service or parts information, please contact Shure’s Service department at 1-800-516-2525. Outside the United States, please contact your authorized Shure Service Center.