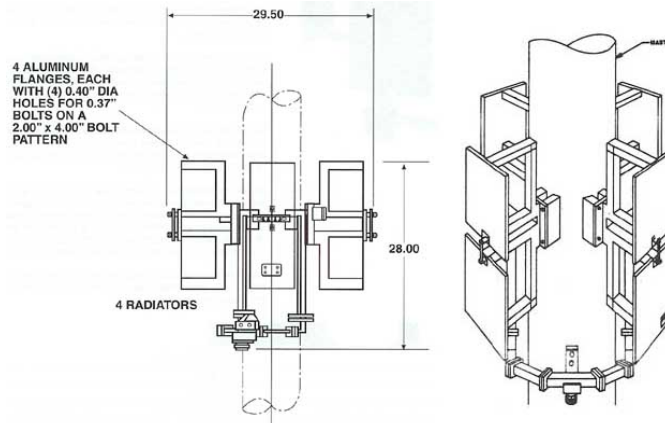


## AS-1735/SRC UHF Antenna



- **Broadband**
- **High power**
- **Low VSWR**
- **Light Weight**
- **Shipboard applications**
- **Receiving or transmitting mode**

The AS-1735/SRC, UHF Antenna is a rugged, vertically polarized, broadband antenna covering the frequency range of 225 MHz to 400 MHz. This light weight antenna has an all aluminum outer structure which can be mounted around an existing mast ranging from 4 inches to 12 inches in diameter. As an option, the AS-1735/SRC can also be made to mount onto masts of up to 15 inches in diameter.

### Physical Dimensions

<b>Height:</b>	<b>27 inches</b>
<b>Width:</b>	<b>29 - 1/2 inches</b>
<b>Depth:</b>	<b>29 - 1/2 inches</b>
<b>Weight:</b>	<b>31 lbs (less adaptors)</b>
<b>Mounting Positions:</b>	<b>vertical masts of 4 to 12 inch diameters</b>
<b>Operating Temperature:</b>	<b>-32 C to +65 C</b>

### Electrical Characteristics

<b>Frequency Range:</b>	<b>225 to 400 MHz</b>
<b>Input Impedance:</b>	<b>50 ohms</b>
<b>VSWR:</b>	<b>&gt; 1.8:1 over freq range</b>
<b>Gain:</b>	<b>± 2 dBi over an isotropic source</b>
<b>Polarization:</b>	<b>Vertical</b>
<b>RF Power Rating:</b>	<b>1 kilowatt</b>
<b>Power Requirement:</b>	<b>None</b>
<b>Feed Type:</b>	<b>Unbalanced, coaxial cable</b>
<b>Input Connector:</b>	<b>Type LC, UG-352/U</b>

The AS-1735/SRC antenna can be used in either the transmit mode or the receive mode without any adjustments. It can handle a peak envelope power (PEP) of 2 KW and exhibits a nominal input impedance of 50 ohms and a VSWR of less than 1.8:1 over the entire frequency range of 225 MHz to 400 MHz.

The four radiating elements are fed in-phase from a single input and provide omnidirectional radiation in the azimuth plane.

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### Environmental Characteristics

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<b>Vibration:</b>	<b>MIL-STD-167-1, Type 1</b>
<b>Temperature:</b>	
- Operating	- 76°F to 140°F (-50°C to 65°C)
- Storage	- 140°F to 158°F (-95°C to 70°C)
<b>Finish:</b>	<b>Epoxy polyamide paint, colour haze grey</b>
<b>Shock:</b>	<b>MIL-S-910-C, Grade A</b>

The antenna is designed for use under the severe environmental conditions encountered in a shipboard environment.

The antenna has been designed to meet the vibration requirements of MIL-STD-167, TYPE I and II, the shock requirements of MIL-S-901 and the environmental requirements of MIL-E-16400H.

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**Description:** The AS-1735/SRC antenna consists of four broadband radiating elements mounted equidistant from the central mast and equally spaced from each other. The individual antennas are fed in-phase to furnish omnidirectional coverage over the frequency bandwidth of the antenna. The aluminum frameworks supporting the radiating elements contain integral coaxial matching transformers and feedlines. This framework also serves to ground the radiators to the mast, to provide a balun feed system and to form isolation traps, which limit current flow in the mast. First combining two elements of a pair and combining the two pairs into a single input accomplish effective interconnection of each radiating element to provide proper impedance match to the transmission line. The antenna and mounting hardware are manufactured of aluminum.

**Installation:** The antenna is secured to the support mast by mounting flanges and adaptors. Adaptors are supplied to accommodate mast diameters to 12 inches. A special yoke is required for mast diameters to 15 inches.

**Considerations:** The antenna should be mounted as high as possible on the mast to provide maximum unobstructed coverage within the physical constraints of the ship. Care should be exercised to eliminate fouling of the antenna by flag halyards and ships rigging. Caution signs should be provided to indicate antenna is not to be used as a support by personnel working on the mast.

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