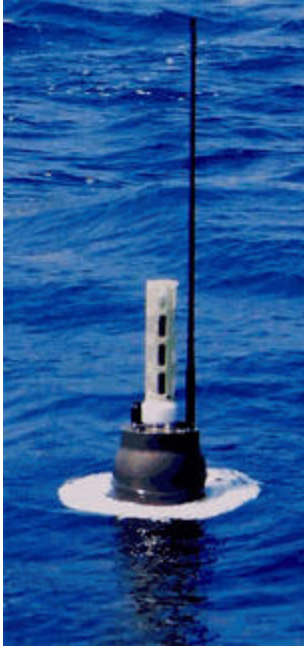


Array for Real-Time Geostrophic Oceanography (ARGOS) Antenna



The Array for Real-time Geostrophic Oceanography (ARGOS) antenna is intended for use with oceanographic instruments that transmit data through the ARGOS satellite system. The antenna is fully waterproof and is capable of withstanding submersion in seawater to 2,000 meter depths for extended periods of time.

The ARGOS antenna is a coaxial dipole construction and does not require the presence of a ground plane for proper operation. The dipole is plotted within a tubular fiberglass support that is itself potted into an aluminum high-pressure fitting. The exterior of the antenna is covered with shrink tubing.

ARGOS Components and Features

1. The base seal is a standard SAE 1/2-20 oringed high-pressure fitting.
2. The antenna has a miniature SMA connector that easily passes through the antenna seal port (1/2-20 SAE).
3. Each antenna is tested at radio frequency to determine how well it matches a 50 ohm source transmitting at the ARGOS frequency of 401.650 MHz. Typical SWR.
4. Smith Chart representation of the impedance seen at the dipole junction of a typical antenna over a 100 MHz frequency range.

Specifications

Electrical

Frequency	401.650 MHz
Maximum SWR	2.0
Maximum Power	25 Watts

Mechanical

Seal	1/2-20 SAE
Seal Material	Anodized aluminum
Maximum Depth	2,000 meters
Antenna length	700 mm
Feed line length	560 mm
Weight in air	125 grams

SMA Connector



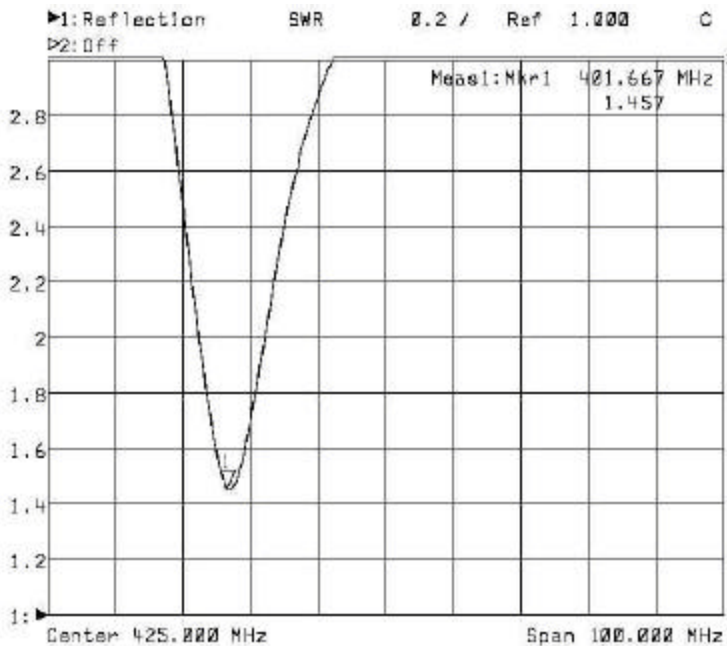
The antenna has a miniature SMA connector that easily passes through the antenna seal port (1/2-20 SAE).

Base Seal



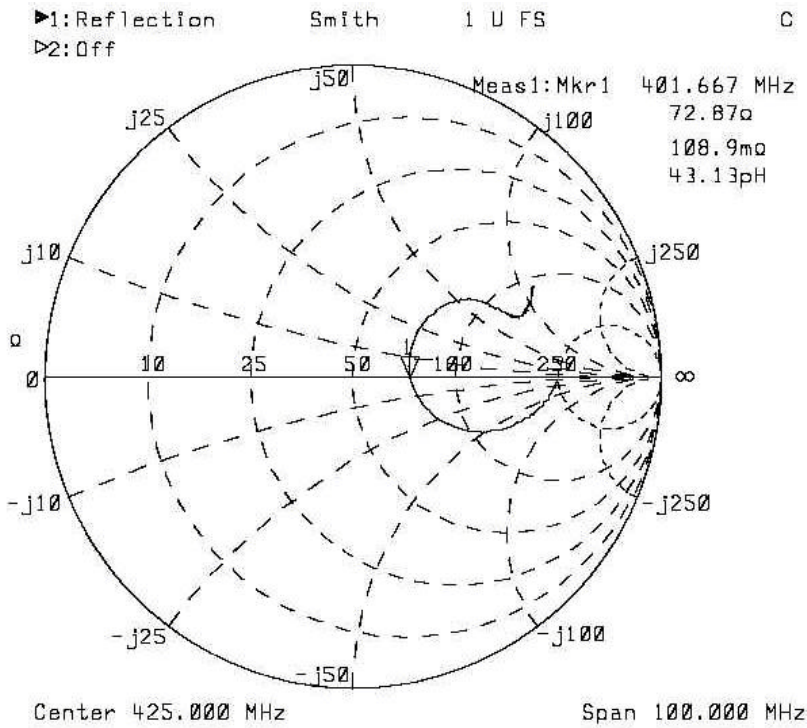
The ARGOS antenna base seal is a standard SAE 1/2-20 oringed high-pressure fitting. The material exposed to seawater is anodized aluminum. The entry point of the coaxial feed line (white cable) is not pressure proof and must remain dry and at atmospheric pressure.

SWR Graph



Each antenna is tested at radio frequency to determine how well it matches a 50 ohm source transmitting at the ARGOS frequency of 401.650 MHz. The graph above shows typical SWR.

Smith Chart Representation



This graph shows a Smith Chart representation of the impedance seen at the dipole junction of a typical antenna over a 100 MHz frequency range.



Precision Measurement Engineering, Inc.

2792 Loker Ave. West, Suite 105

Carlsbad, CA 92010

Phone: (760) 579-0300

Fax: (760) 579-0301

Toll Free: (888) 841-7464

www.pme.com

mhead@pme.com