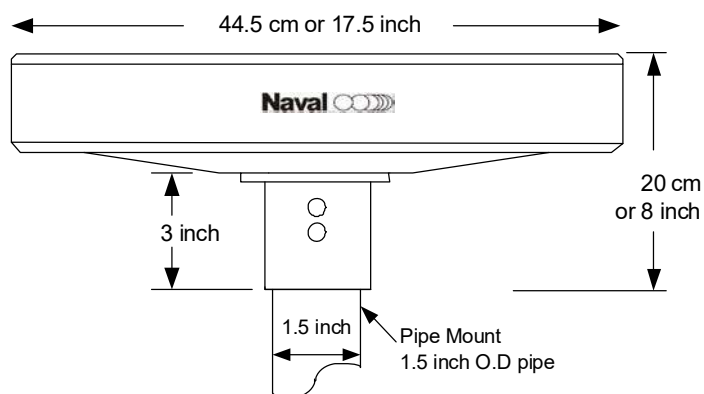


# PR-414 AM-SW-FM/DAB+ and TV Marine Antenna

The PR414 is an omnidirectional, active, wideband terrestrial AM-SW-FM/DAB+ and TV receiving antenna (0.1-860 MHz) for marine use, specially designed for commercial craft equipped with one or two Radio and TV sets as on Coasters in limited international trade, Fishing Boats, Tugs, Pilot Service Craft and Rescue Cruisers, where extra performance in a robust package is appreciated.

PR414 is a low profile product, based on 3 independent low noise amplifiers integrated directly to the omnidirectional multi-element antenna. The antenna's exterior is made of UV protected thick ABS plastic, which requires no maintenance. All inner parts are embedded in solid polyurethane foam for protection from heavy vibration, moisture and sub zero temperatures. Mounting hardware is made of Marine Grade Almag Aluminum alloy. The integral low noise 3 band 6 transistor amplifier increases the sensitivity of the system as well as compensating for cable losses in the antenna. Separating the amplifiers benefits intermod rejection and allows for more gain with less noise. The PR414 features high performance 5 GHz bipolar microwave transistors, which are protected against static charge.

## Specifications: PR-414 Antenna



- Frequency range: 0.1-860 MHz
- Average AM HF SW gain: 0.1~26.5 MHz, 12-15 dB (Ka=0.12)
- Average Band 1/FM gain: : 40~110 MHz, 25dB
- Average VHF/DAB+ gain: 170~240 MHz, 25dB
- Average UHF gain: 470~890 MHz, tilt 20-25 dB (amp)
- VHF Noise figure: 3.0 dB
- UHF Noise figure: 2.5 dB
- Max output level: 106 dBuV min (2 signals 60 dBIM)
- Third order intermod: >20 dB IP3
- Filters: Band pass 100 kHz-30 MHz., 40-110 MHz. 174-230 MHz., 470-860 MHz.
- Broadband rejection filter: 140-165 MHz.
- Polarization: horizontal
- Antenna pattern: omni-directional
- Supply voltage to antenna: 15VDC nominal
- Current consumption: approx, 120 mA (with LED) approx, 80-90 mA (w/o LED)
- Operating temperature: -40 to +55 C.
- Radome material: UV protected ABS
- Flange material: Stainless, Almag or Powder Coated Almag
- Element material: Almag Marine Alloy Flange 3" high and mount on a 1.5" od pipe
- Element type: copper foil
- Element type: Two looped dipoles with Z match pcb
- Antenna dimension: 17.5 inch x 8 inch
- Shipping weight: 9-14 lbs (depend on cable lengths)
- Shipping container dim: 19 x 19 x 9 inches

The PR414 utilizes a "dual broadband dipole element configuration" with each element covering a 360 degree view of the surroundings and a much improved omnidirectional antenna pattern when compared with other antennas.

The PR414 antenna is delivered with 4ft (around 1.2 meters) or 50ft (15.24 meters), or 80ft (24.38 meters) of 75 Ohm RG6U low loss coaxial cable and custom lengths can be arranged. The antenna includes a coax seal F connector splice kit. Our special taps and splitters are needed for AM and SW operation and reverse path is not available in this case.

**PR-414 antenna RG6 cable lengths available in 4ft, 50ft or 80ft**

# Naval Electronics, Inc