



Vertical Receiving Antenna MODEL VRA

TECHNICAL BULLETIN 204-4511

- 15 KHz-300 KHz
- 100 KHz-30 MHz
- 2 MHz-32 MHz
- Lightning Protection
- Rugged Weatherproof Case
- Adapt to any Coax Cable
- Universal Mounting



The VRA Vertical Receiving Antenna is used in all practical operating systems both on shipboard and on shore for fixed or transportable applications. Separate models of the VRA are available with either aluminum or fiberglass whips depending on the environment operating conditions.

The matching unit associated with the antenna mast is housed in a cast aluminum container installed on a mounting plate with the associated antenna base. This arrangement affords optimum protection from the environment while maintaining the entire system as a compact assembly.

The frequency response of the matching unit is flat within ± 1.5 db over the operating range and, as test results show, the compensating networks significantly improve the over-all electrical characteristics of the antenna. It should be noted that impedance match over wide frequency ranges must of necessity be a compromise. In the VRA series, the optimum match is provided near the center of the band with less efficiency noted at the high and low ends. Typical response curves and test circuits are available on request.

The VRA-11 and VRA-12 antennas are heavy duty 35-foot fiberglass models constructed in two sections and designed to withstand 100 mph winds. The masts are free-standing (no guy wires) and contain equally spaced copper wires to simulate a vertical cylinder. Extra epoxy is coated on the antenna surface for better protection against corrosion and for added strength.

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TECHNICAL SPECIFICATIONS

Frequency Range

Refer to CHART "A" below.

Equipment Case

All weather cast alluminum alloy.

Connector Assemblies

UG-58A/U receptacle with mating RF connector. P/N AX-259-2

Additional assemblies as indicated on CHART "B".

Mounting

Kit provided for pole or bulkhead mounting.

Antenna base is screw fitted into a metal base mounted on a porcelain insulator. The entire assembly can be further mounted on a rigid steel plate on special order (See photo).

Safety

Receiver and personnel are protected from lightning by an adjustable internal spark gap.

CHART "A"

MODELS AVAILABLE

Model	Frequency	Height	Antenna Material	Transformer
VRA-5	200-800 KHz	18'	Aluminum	TR-042
VRA-6	2-32 MHz	18'	Aluminum	044
VRA-7	3-15 MHz	35'	Aluminum	160
VRA-8	200-800 KHz	16'	Fiberglass	042
VRA-9	2-32 MHz	16'	Fiberglass	044
VRA-10	3-15 MHz	32'	Fiberglass	160
VRA-11	100KHz-30MHz	35'	Fiberglass	080
VRA-12	15-300 KHz	35'	Fiberglass	081

All Units Match into 70 ohms Nominal Impedance.

CHART "B"

OUTPUT TERMINALS

/BN	AX-283-1	Type BN Connector
/BNC	AX-284-1	Type BNC Connector
/C	AX-286-1	Type C Connector
/HN	AX-285-1	Type HN Connector
/LC5	AX-287-1	Type LC Connector, 50 ohm
/LC7	AX-287-5	Type LC Connector, 70 ohm
/N	AX-259-1	Type N Connector
/QDL	AX-273-1	Type QDL Connector
/QDS	AX-289-1	Type QDS Connector
/UHF	AX-281-1	Type UHF Connector
/UHFT	AX-282-1	Type UHF Twin Connector
/UHFL	AX-256-1	Type UHF(L) Connector
/ES5	ES-ST5875	7/8" styroflex end seal, 50 ohm
/ES7	ES-ST7875	7/8" styroflex end seal, 70 ohm
/RG85	AX-274-1	Flange for RG-85/U Coaxial Cable

Specifications Are Subject to Change Without Notice

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