



Type VL2-30

Compact HF NVIS vehicle semi-loop antenna system

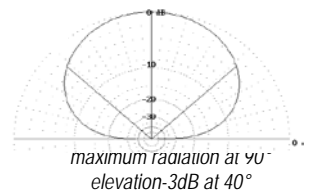


The VL2-30 is designed to provide high performance continuous close in omnidirectional communications with no skip zone.

The system requires only low RF transmit power to achieve continuous communications in the 0-1200 km range. By using high angle radiation and just the 3-17 MHz frequency band, it operates as a NVIS (near vertical incidence skywave) antenna to provide reliable low noise communications. This mode is particularly useful communicating over hills or mountain ranges, where, for security reasons, long range radiation methods are undesirable.

The system uses either the vehicle's metal roof (minimum of 2000mm (79 in long) or the optional 2000 x 330 x 6 mm (79 x13 x ¼ in) lightweight aluminium base plate either mounted directly onto the vehicle or using the optional fully adjustable strap end cross bars, plus either your transceiver's antenna tuning unit (ATU), suitably housed, or the optional ATU from Moonraker. The ATU may be mounted remotely from the antenna, but close by. Ideally it should be mounted on the base plate. Tuning over the band is automatic via the ATU with ALE possible, dependent upon the ATU itself. High performance is assured, even in environments subject to noise interference due to the inherent filter qualities of the design, which combines automatic frequency tuning, a narrow bandwidth and excellent NVIS propagation of the signal. An optional EMP/Overvoltage system is available for the antenna feed point.

For ease of transport the stainless steel antenna radiator breaks down into two short sections, each with end support insulated devices. When installed and not in use it may be laid flat on the vehicle roof via the unique lift and lay down joints. Shock absorbing springs are used to assist survival when objects strike the radiator. Exterior metal surfaces are finished with a high durability epoxy based coating, highly resistant to chemical attack, abrasion and the effects of ozone and ultra-violet radiation.



SPECIFICATIONS

Colour	Standard is Bronze Olive. Option other colours to order.
Frequency Range, Overall NVIS Band	2-30 MHz 3-17 MHz
Radiation Pattern	Hemispherical
VSWR	<2:1, typically 1.6:1 2-30 MHz with suitable ATU
Power Capability	150W CW, 300W PEP, dependent upon ATU capability
EMP/Overvoltage System (option)	45kV 1.2/50 micro second (rise/fall times) voltage pulse, 5kA 8/20 microsecond current pulse.
Antenna Dimensions	1000mm (39.3 in) height to top of radiator at centre; 1880mm (74 in) centre spacing between base insulators; 85mm (3.35 in) diameter base insulators
Base Plate (optional)	2000 x 330 x 6mm (79 x 13 x ¼ in)
ATU (option)	Tuning time initial <2 seconds, recurrent <10 milli seconds; Power capability 150W PEP, 50W CW, 12V DC (24V option) at 900 mA
Weight	Antenna only: 2.2kg (4.8 lbs) Specifications subject to change – Issued 01/09/13

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