

# Rhombic Antennas

HF rhombic/sloping vee wire dipole antenna, 2 x 105 m, 2-30 MHz

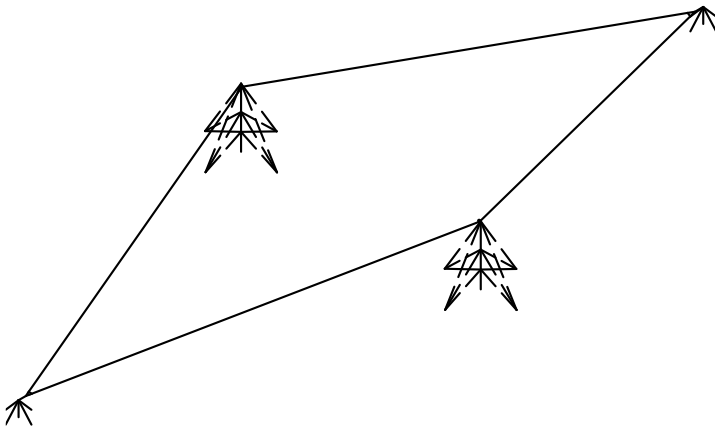
**Tactical Antennas: Tactical and Base Station**



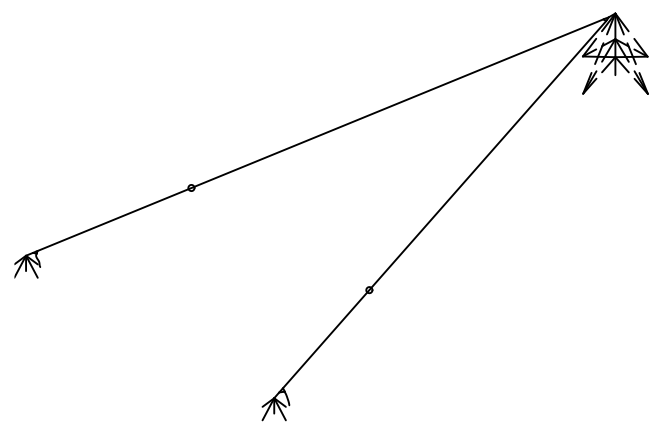
## Description

Directional tactical wire antenna, designed for long-range point-to-point communications. This antenna can also be installed in Sloping Vee.

**Rhombic Antenna**  
Reference F3435-76350

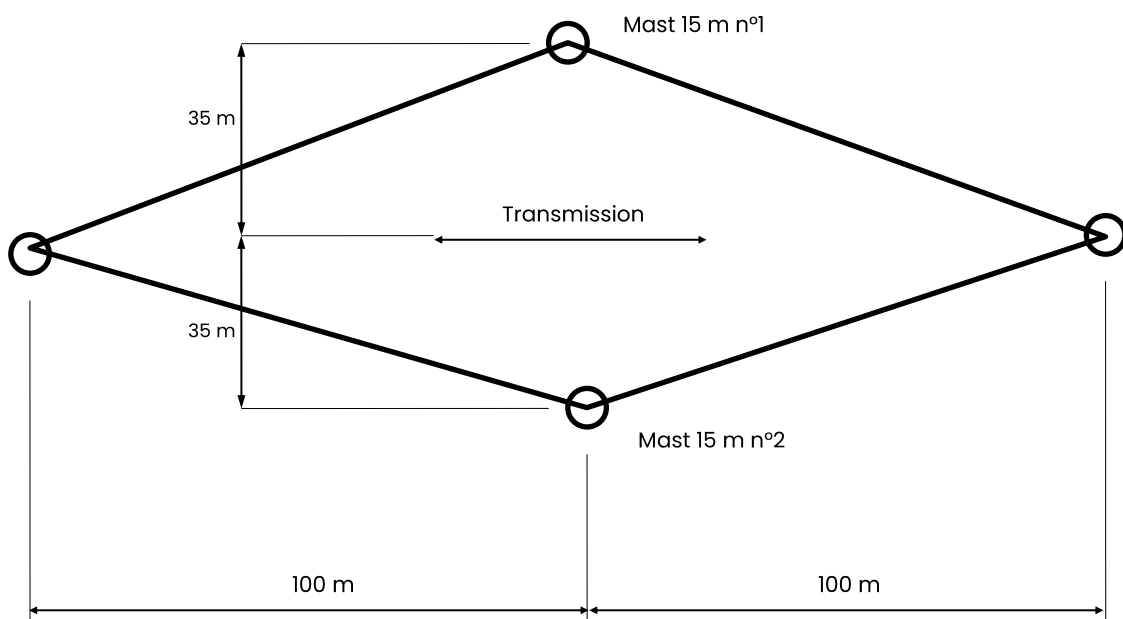


**Sloping Vee Antenna**  
Reference F3435-63508



## Dimensions

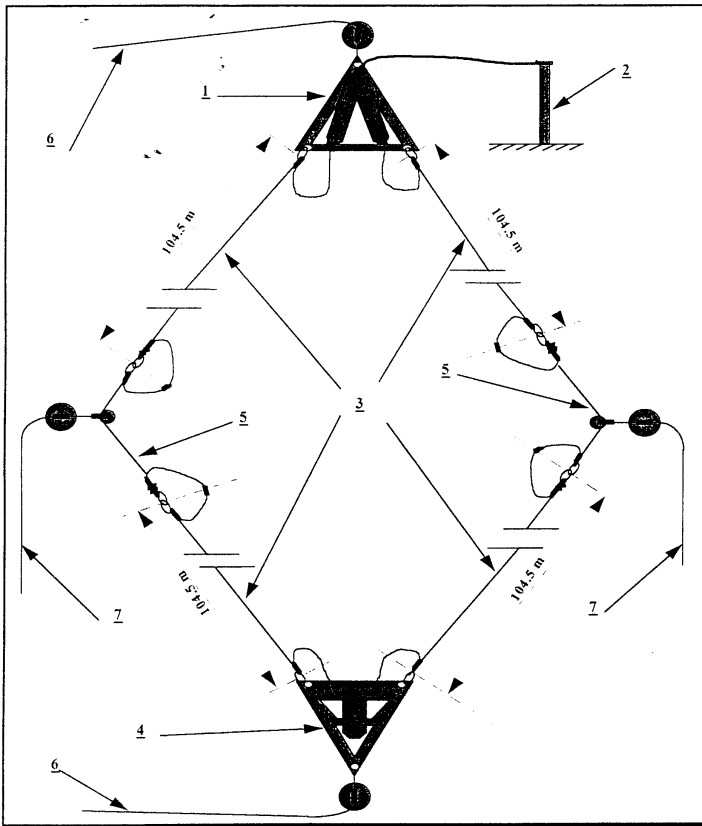
The antenna in rhombic configuration is installed on a surface of the following directions: 220 m in the direction of the transmission, and 100 m in the perpendicular direction. In Sloping Vee configuration, the installation area is 180 m by 100 m.



## Manufacturing

The antenna is made of 4 sleeve masts (2 masts of 15 m and 2 masts of 4 m) supporting a rhombic wire antenna fed by a wideband transformer and loaded by a terminal resistance.

Sleeve mast sections are manufactured with Fibreglass Reinforced Plastic composite material. This dielectric material does not disturb the antenna radiations.

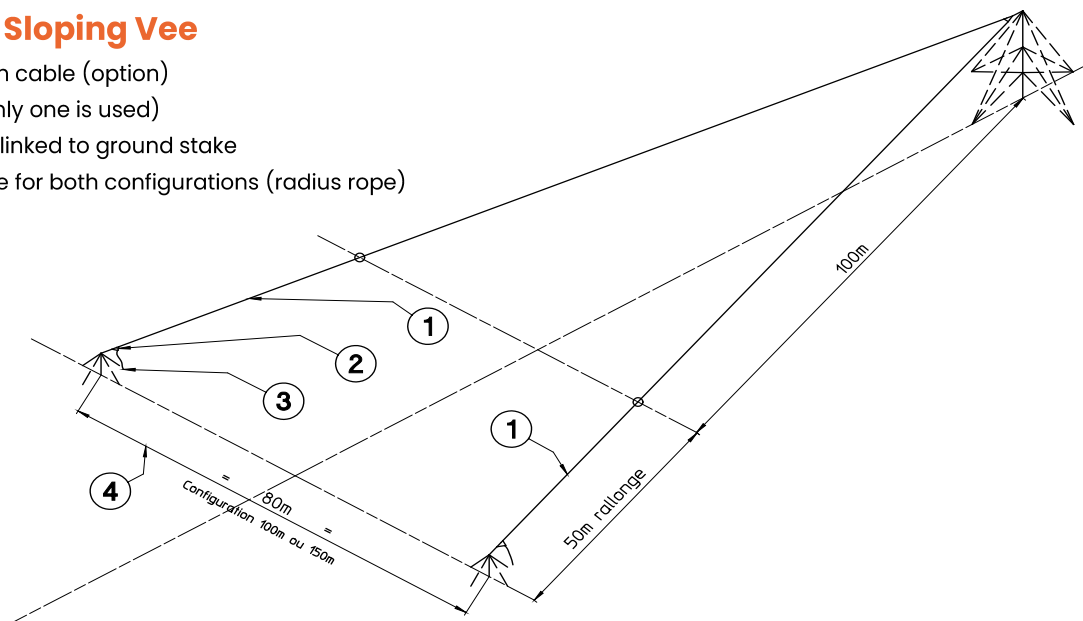


## Mounting in Rhombic Shape

1. Resistances
2. Ground stake
3. Antenna wire (105 m length)
4. Transformer
5. Intermediate cable, 4 m length
6. Longitudinal tightening guy cable
7. Lateral tightening guy cable

## Mounting in Sloping Vee

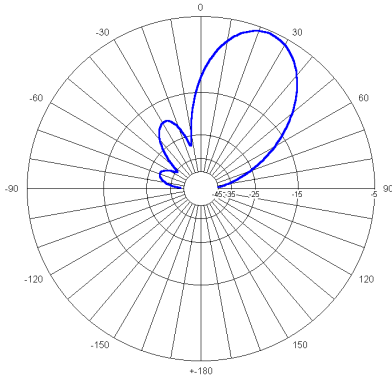
1. 50 m extension cable (option)
2. Resistance (only one is used)
3. Ground cable linked to ground stake
4. Same Distance for both configurations (radius rope)



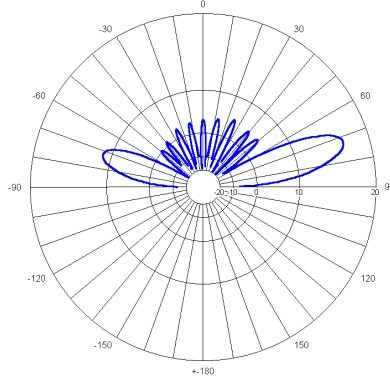
## Electrical Specifications

<b>Frequency Range</b>	2 to 30 MHz
<b>VSWR</b>	< 2 at transformer entry < 1.5 to 2 MHz
<b>Radiating Diagrams, V Plan</b>	See graphs below
<b>Permissible Power</b>	1 kW

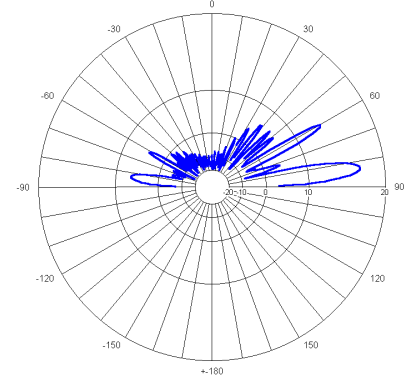
### Rhombic Antenna



2 MHz

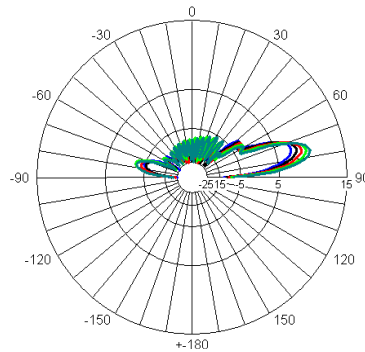


14 MHz



30 MHz

### Sloping Vee Antenna



11-13 MHz (with extensions)

## Mechanical Specifications

<b>Weight</b>	< 340 kg
<b>Number of Bags*</b>	9
<b>Total Volume*</b>	< 2 m <sup>3</sup>
<b>Maximum Weight of a Bag*</b>	< 44 kg
<b>Maximum Length of a Bag*</b>	1.5 m
<b>Installation Time</b>	
<ul style="list-style-type: none"> <li>● In Rhombic Configuration</li> <li>● In Sloping Vee Configuration</li> </ul>	3 hours at 3 persons 2 hours at 2 persons
<b>Colour</b>	Army green

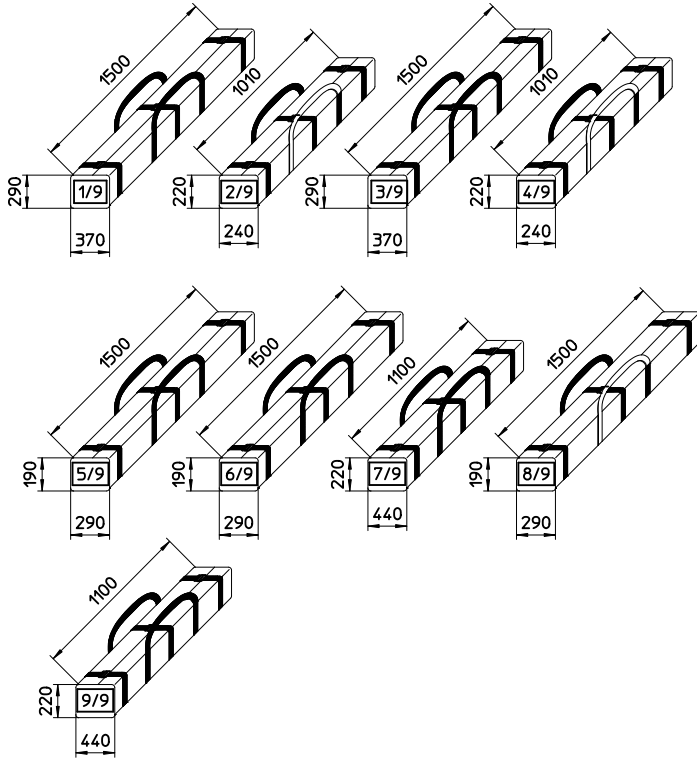
\* See details in packaging §.

## Environmental Specifications (according to GAM-EG-13 and MIL-STD-810)

<b>Temperature Range</b>	
• <b>Storage</b>	-40°C to +70°C
• <b>Operation</b>	-40°C to +70°C
<b>Wind Resistance</b>	120 km/h on ground type 5 (MIL-STD-619-B)

## Packaging

The Rhombic antenna, with Sloping Vee kit, is made of 9 transport bags as described below:



Weight details:

- Bag n°1 38 kg
  - Bag n°2 41 kg
  - Bag n°3 38 kg
  - Bag n°4 41 kg
  - Bag n°5 42 kg
  - Bag n°6 42 kg
  - Bag n°7 33 kg
  - Bag n°8 35 kg
  - Bag n°9 18 kg
- 387 kg

## Installation

Masts are assembled on the ground and tilted to vertical by using a deployment kit (see picture below). The antenna is then lifted to the top of the mast like a flag.



Tilting of a 15 m mast

September 2018

All specifications are subject to change without notice  
The information contained herein is for reference only and does not constitute a warranty of performance

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