

## SIRIO

## H-QUALITY ANTENNAS MADE IN ITALY

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## SD68

VHF 68-78 MHz Base Station Dipole Antenna

## DESCRIPTION

Dipole antenna for VHF 68-78 MHz with gamma match feed system. Elements and boom of generous section are completely made of Elements and boom of generous section are completely made of position for the best performance in vertical polarization. position for the fired to the boom by a strong die-cast
The elements are fixed to the boom by a strong die-cast metal support um strength
All connections are waterproof and it is supplied whit UHF female connector.
All metal parts and hardware are weather resistant
To improve the antenna gain please install it in stacked or bayed array.

## TECHNICAL DATA

## Electrical Data

| Type | Dipole |
| :--- | :--- |
| Frequency range | $68-78 \mathrm{MHz}$ |
| Impedance | $50 \Omega$ Unbalanced |
| Polarization | Linear Vertical or Horizontal |
| Radiation (H-plane) | beamwidth @ $-3 \mathrm{~dB}=240^{\circ}$ @ 73 MHz * |
| Radiation (E-plane) | beamwidth @ $-3 \mathrm{~dB}=80^{\circ}$ @ $73 \mathrm{MHz}{ }^{*}$ |
| Max Gain | $4^{*} \mathrm{dBi}$ |
| Front to Back ratio | $\geq 4^{\star} \mathrm{dB}$ |
| SWR in bandwidth | $\leq 1.5$ |
| Max Power | 350 Watts (CW) @ $30^{\circ} \mathrm{C}$ |
| Feed system | Gamma Match |
| Connector | UHF-female with rubber protection cap |
| vvald data ony for vericial poairizaion. |  |


| Mechanical Data | Aluminum, EPDM rubber, Zamak, Zinc plated <br> Steel, Chromed Brass |
| :--- | :--- |
| Materials | $113 \mathrm{~N} \mathrm{at} 150 \mathrm{Km} / \mathrm{h} / 160 \mathrm{Km} / \mathrm{h}$ |
| Wind load / resistance | $0.087 \mathrm{~m}^{2}$ |
| Wind surface | $33 \mathrm{~mm} / 16 \mathrm{~mm}$ |
| Boom/elements diameter | $1065 \times 1915 \mathrm{~mm}$ |
| Dimensions (approx.) | 2020 gr |
| Weigth (approx.) | $1065^{*} \mathrm{~mm}$ |
| Turning radius | $-40^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$ |
| Operating temperature | $\varnothing 35-52 \mathrm{~mm}$ |
| Mounting Mast |  |

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TYPICAL GAIN DIAGRAM vs FREQUENCY




## MOUNTING INSTRUCTIONS

## Gamma-match Mounting

) Fix without locking the flat end of the gamma-match by using the supplied nut and washer according to pic. $\mathbf{3}$ 2) Insert the tuning element on the dipole ube and move it toward the boom nsert the opposite side ( $\varnothing 8$ ) of gamma match in the tuning element and fix it at 384 mm by means of the enclosed hardware (see pic. 4). Mount the PVC caps $\varnothing 16 \mathrm{~mm}$ on the elements.
3) Check that the last part of your gamma match ( $\varnothing 8 \mathrm{~mm}$ ) is correctly positioned at 34 mm according to $\mathbf{L}$ (pic. 4) and fix it with hardware.
4) Lock the nut on the flat end of the gamma match and mount the PVC cap see pic. 4



Cable connection


