- 1) Fix without locking the flat end of the gamma-match by using the supplied nut and washer.
- 2) Insert the opposite side ( Ø8 ) of gamma match in the tuning element and fix it at L1 by means of the enclosed hardware.
- 3) Check that the last part of your gamma match (Ø8mm) is correctly positioned at **L2** and fix it with hardware.
- **4)** Lock the nut on the flat end of the gamma match and mount the PVC cap.

| Hardware parts list  |                               |  |  |  |  |
|----------------------|-------------------------------|--|--|--|--|
| Q.ty                 | Description                   |  |  |  |  |
| 2                    | M6x6 Hexagon socket set screw |  |  |  |  |
| 1                    | 3mm Hexagonal Key             |  |  |  |  |
| 1                    | Ø 8 mm PVC cap                |  |  |  |  |
| 2                    | M6 Flat washer                |  |  |  |  |
| 1                    | M6 Grower washer              |  |  |  |  |
| 1                    | M6 Hexagonal nut              |  |  |  |  |
| 1                    | Tuning element                |  |  |  |  |
| Re-order code: SA090 |                               |  |  |  |  |

# 3mm hex.key Tuning element Hex.socket set screw Ø 8 mm PVC cap Ø 8 mm end size

## SD/SY Mounting bracket Q.ty 1 2 4 4 4 8 8 8 Materia Weigth

| SD/SY bracket parts list |                      |  |  |  |  |  |
|--------------------------|----------------------|--|--|--|--|--|
| Q.ty                     | Description          |  |  |  |  |  |
| 1                        | SD/SY Steel bracket  |  |  |  |  |  |
| 2                        | M8x200 U-bolt        |  |  |  |  |  |
| 4                        | M8 Hexagonal nut     |  |  |  |  |  |
| 4                        | M8 Grower washer     |  |  |  |  |  |
| 4                        | M8 Flat wascher      |  |  |  |  |  |
| 4                        | M6x125 U-bolt        |  |  |  |  |  |
| 8                        | M6 Hexagonal nut     |  |  |  |  |  |
| 8                        | M6 Grower washer     |  |  |  |  |  |
| 8                        | M6 Flat wascher      |  |  |  |  |  |
| Material                 | s: Zinc Plated Steel |  |  |  |  |  |
| Weigth:                  | 865 gr               |  |  |  |  |  |
| Re-order code: SA088     |                      |  |  |  |  |  |

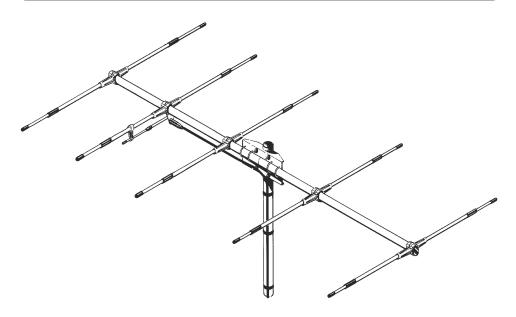
## SIRIO antenne

HI-QUALITY ANTENNAS MADE IN ITALY

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## SY 50-5

50 ..... 54 MHz Tunable 5 Elements Yagi Antenna



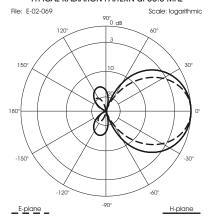
## **Electrical Data**

| Туре                  | 0.66 λ 5 Elements Yagi Antenna |  |  |  |  |
|-----------------------|--------------------------------|--|--|--|--|
| Frequency Range       | 50 54 MHz tunable (see table)  |  |  |  |  |
| Impedance             | 50 Ω                           |  |  |  |  |
| Radiation (H-plane)   | beamwidth @ -3 dB = 72°        |  |  |  |  |
| Radiation (E-plane)   | beamwidth @ -3 dB = 54°        |  |  |  |  |
| Polarization          | Linear Horizontal              |  |  |  |  |
| Front to Back ratio   | 25 dB typical                  |  |  |  |  |
| Gain                  | 8.4 dBd - 10.5 dBi             |  |  |  |  |
| Bandwidth @ SWR ≤ 1.5 | ≥ 1.4 MHz @ 50.5 MHz           |  |  |  |  |
| SWR @ res. freq.      | ≤ 1.2                          |  |  |  |  |
| Max Power             | 600 Watts (CW) @ 30°C          |  |  |  |  |
| Connector             | UHF-female                     |  |  |  |  |

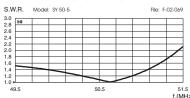
## **Mechanical Data**

| Materials              | Aluminium, EPDM rubber, Zamak,     |  |  |  |  |
|------------------------|------------------------------------|--|--|--|--|
|                        | Zinc plated steel, Chromed brass   |  |  |  |  |
| Wind Load / Resistance | 188 N @ 150 Km/h / 120 Km/h        |  |  |  |  |
| Wind surface           | 0.15 m <sup>2</sup>                |  |  |  |  |
| Dimensions (approx.)   | 3038 x 4030 x 100 mm               |  |  |  |  |
| Boom Length/Diameter   | 4030 mm / Ø 33 mm                  |  |  |  |  |
| Max. element length    | 3038 mm                            |  |  |  |  |
| Element diameter       | Ø 12-16 mm                         |  |  |  |  |
| Turning radius         | 2700 mm                            |  |  |  |  |
| Weight (approx.)       | 6100 gr                            |  |  |  |  |
| Mounting mast          | Ø 35-50 mm side mast with "U" bolt |  |  |  |  |

TYPICAL RADIATION PATTERN at 50.5 MHz







| TUNING TABLE   |      |      |      |      |      |      |         |  |  |  |
|--|------|------|------|------|------|------|---------|--|--|--|
| Freq.  | Α    | В    | С    | D    | Е    | L1   | L2*     |  |  |  |
| (MHz)  | (mm)    |  |  |  |
| 50-51 (not cutted)   | 468  | 347  | 287  | 224  | 214  | 358  | 207 ± 3 |  |  |  |
| 51-52  | 430  | 319  | 261  | 199  | 189  | 338  | 205 ± 3 |  |  |  |
| 52-53  | 396  | 281  | 225  | 163  | 153  | 353  | 212 ± 3 |  |  |  |
| 53-54  | 360  | 255  | 200  | 140  | 130  | 339  | 213 ± 3 |  |  |  |
| * For the best tuning, please adjust only the gamma match L2 with an SWR-Meter, about indicated range. |      |      |      |      |      |      |         |  |  |  |

### Mounting needed tools:

- n. 1 tape rules (meter)
- n. 1 hacksaw
- n. 1 screwdriver cross point
- n. 1 10mm open key
- n. 1 13mm open key

**REMARK**: use a good coax cable like RG-8 or RG-213 as short as possible to get the best performance and we recommend to mount your antenna as far as possible from metall roofs, walls, power lines and other antennas.

