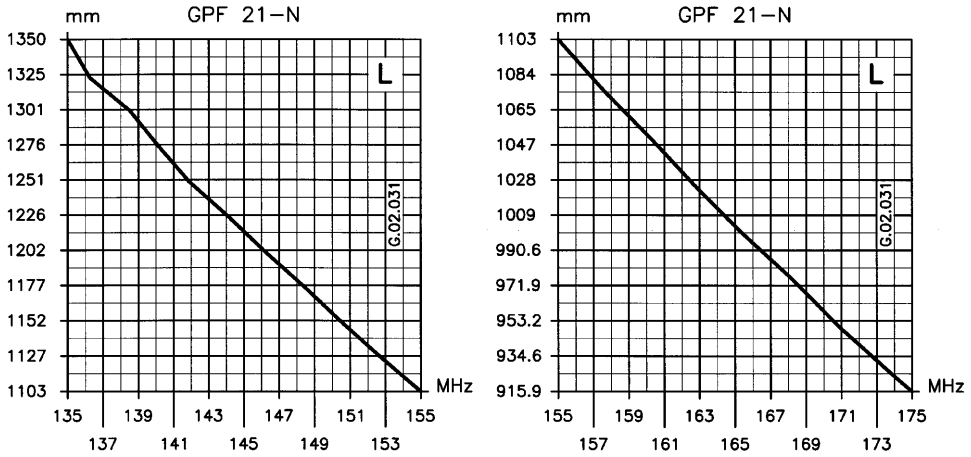
TYPICAL TUNING DIAGRAMS

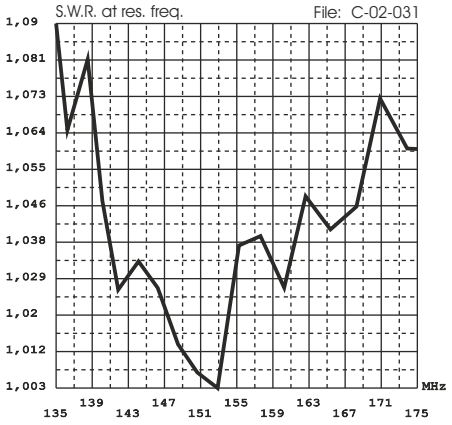


NOTE:

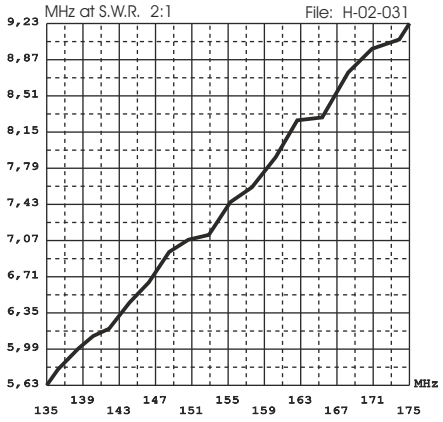
- Use the curves just as a guide. For fine-tuning please use an SWR-Meter.

MATCHING & BANDWIDTH DIAGRAMS

TYPICAL MATCHING DIAGRAM vs FREQUENCY



TYPICAL BANDWIDTH DIAGRAM vs FREQUENCY



SIRIO antenne HI-QUALITY ANTENNAS MADE IN ITALY

GPF 21 N

VHF Base Station Antenna 135...175 MHz

Installation Manual

DESCRIPTION

5/8 λ Ground Plane base station colinear antenna for land and marine service. It works on 135...175 MHz by using the cutting diagram enclosed. The matching coil is DC feeded for a perfect protection from the static discharges. GPF 21-N is made of fiberglass, non-corrosive aluminium, stainless steel and its die-cast strong base assures the maximum robustness and the best performance. Tuning is easy by following the attached directions

SPECIFICATIONS

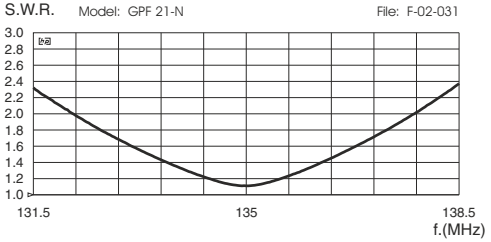
Electrical Data

Type	: 5/8 λ Ground Plane
Frequency Range	: 135...175 MHz tunable by cutting
Impedance	: 50 Ω
Radiation (H-plane)	: 360° Omnidirectional - HCM code = 000ND00
Radiation (E-plane)	: Beamwidth @ -3 dB = 80° - HCM code = 040ND00
Radiation angle deg.	: 28°
Polarization	: Linear Vertical
Gain	: 1.5 dBd - 3.65 dBi
Bandwidth @ SWR ≤ 2	: see diagram
SWR @ res. freq.	: see diagram
Max Power	: 200 Watts
Grounding Protection	: All metal parts are DC-grounded, inner conductor shows a DC short
Connector	: "N"-Female, Gold Plated central pin

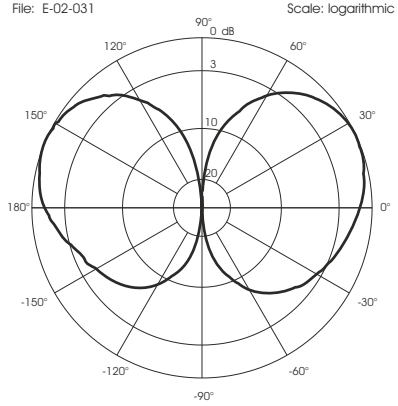
Mechanical Data

Materials	: Fiberglass, Aluminium, Brass
Wind Load / Resistance	: 55 N @ 150 Km/h / 200 Km/h; 125 mi/h
Wind Surface	: 0.05 m^2; 0.53 ft^2
Height (approx.)	: 1730 mm, 5.7 ft
Weight (approx.)	: 1200 gr, 3.8 lb
Radial Length (approx)	: 495 mm, 1.6 ft
Mounting Mast	: ∅ 35-60 mm, ∅ 1.4-2.4 in

TYPICAL S.W.R. RESPONSE



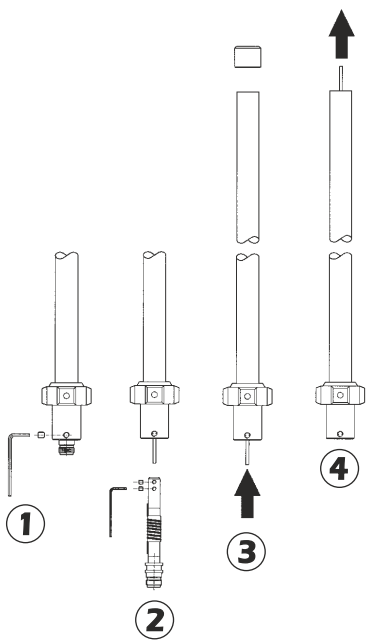
TYPICAL RADIATION PATTERN in E-plane at 145 MHz



SIRIO antenne

HI-QUALITY ANTENNAS MADE IN ITALY

MOUNTING AND TUNING INSTRUCTIONS



Bottom view
N-female connector

ATTENTION!!
Cut the whips on the bottom sides only

1) Unlock the hexagonal socket bottom screw using the enclosed key.
2) Remove the internal coil.
3) Remove the top cap and push the internal whip to the top
4) Pull the internal whip and re_ move it.
5) Choose the working frequency and cut the whip according to the suitable "Typical tuning diagram".
NOTE: Use the curves just as a guide. For fine-tuning please use an SWR-Meter.
6) Insert the whip from the bottom
7) Mount and lock the coil, assem_ ble the top cap.
8) Lock the bottom screw.
9) Finally assemble the radials and the side mounting bracket.