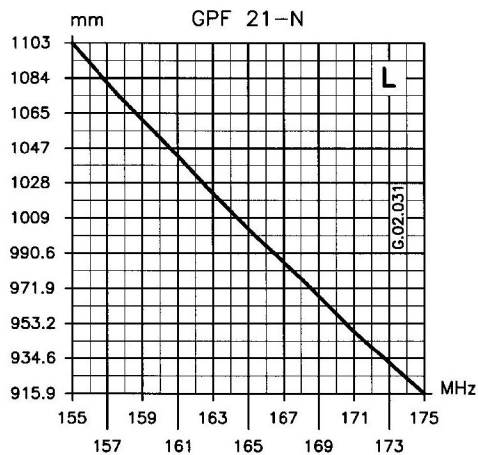
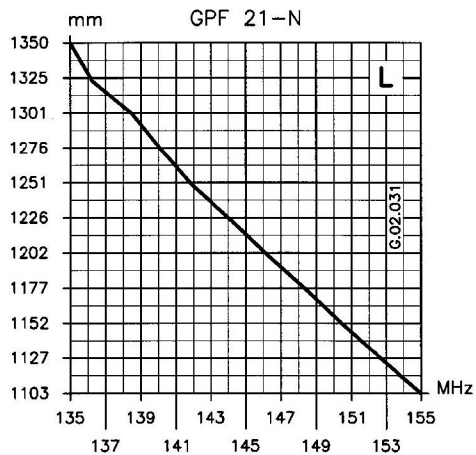


**TYPICAL TUNING DIAGRAMS**

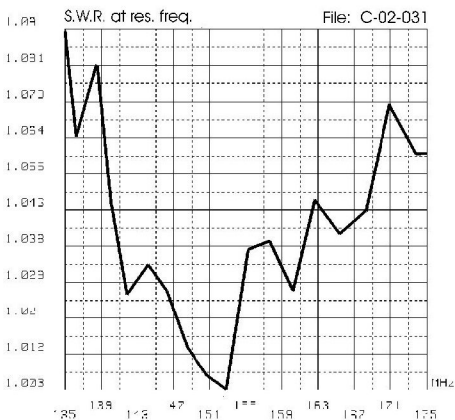


**NOTE:**

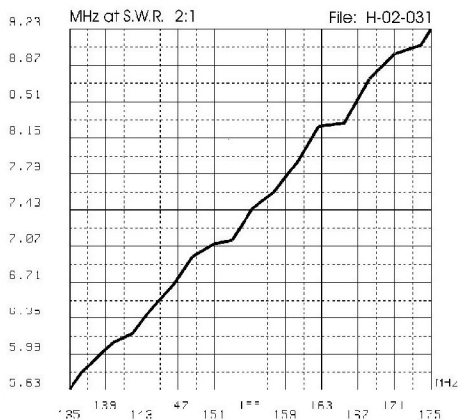
- Use the curves just as a guide. For fine-tuning please use an SWR-Meter.

**MATCHING & BANDWIDTH DIAGRAMS**

TYPICAL MATCHING DIAGRAM vs FREQUENCY



TYPICAL BANDWIDTH DIAGRAM vs FREQUENCY



**GPF 21 N**

VHF Base Station Antenna 135...175 MHz



**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 fed 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**

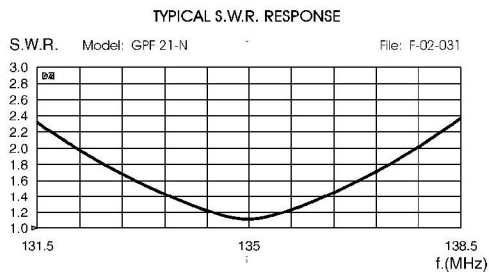
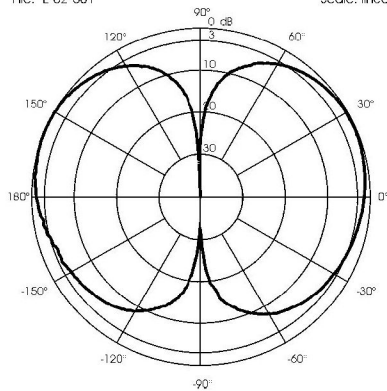
**Electrical Data**

- Type : 5/8 λ Ground Plane
- Frequency Range : 135...175 MHz tunable by cutting
- Impedance : 50 Ω
- Radiation (H-plane) : 360° Omnidirectional
- Radiation (E-plane) : Beamwidth at -3 dB = 80°
- 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 at 150 Km/h / 200 Km/h
- Wind Surface : 0.05 m<sup>2</sup>
- Height (approx.) : 1730 mm
- Weight (approx.) : 1200 gr
- Radial Length (approx) : 495 mm
- Mounting Mast : ∅ 35-54 mm

TYPICAL RADIATION PATTERN in E-plane at 145 MHz  
 File: E-02-031 Scale: linear



**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, assemble the top cap.
- 8)** Lock the bottom screw.
- 9)** Finally assemble the radials and the side mounting bracket.