

# VHF INTEGRATED SHARK MOBILE ANTENNA - GPS / WI-FI / GPRS

AP22101



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# VHF INTEGRATED SHARK MOBILE ANTENNA - GPS / WI-FI / GPRS

The **AP22101** is a multi-function antenna operating in the VHF, GPS, Wi-Fi and GPRS bands. The shark style, with multiple functions in a single antenna, has a discreet design suited to public safety, industry and transport applications, offering sturdiness and efficiency.

Its single-hole mounting makes installation easier and reduces vehicle damage, installation time, cost and visual impact, while protecting the vehicle's resale value. It has an efficient sealing system that keeps moisture from impairing its operation. Its flexible, articulated rod allows the antenna to be installed on the front or rear of vehicle roofs, adjusting the tilt angle for best performance relative to the roof ground plane.

## INSTALLATION

### PIERCING CLAWS

(Patented)

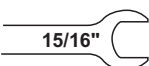
The exclusive piercing-claw system makes installation easier on vehicles with sheet metal up to 1,5mm that have thermal, acoustic or structural roof lining, with no need for scraping to obtain the grounding required for proper operation.



PAT : MU 9001207-0

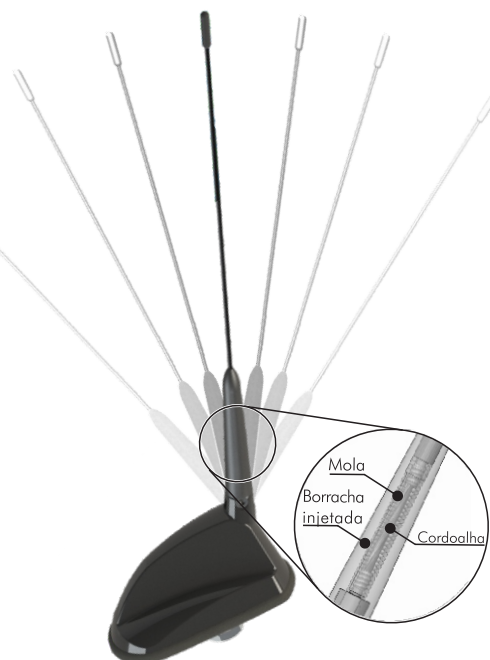
**PIERCING CLAWS**

### KEY FOR MOUNTING



### DRILLING OF THE ROOF

11/16" 18mm



## IMPORTANT

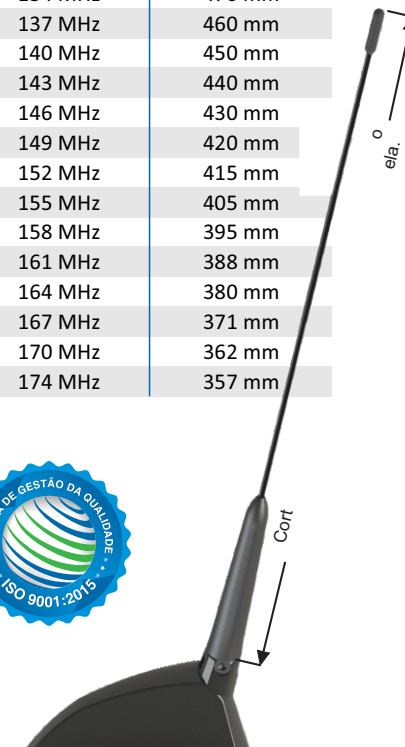
During installation, remove burrs from drilling the roof to avoid damaging the cables. Then apply a coat of phosphating primer to the freshly drilled hole to prevent rust.

Cable and termination are assembled according to project requirements.

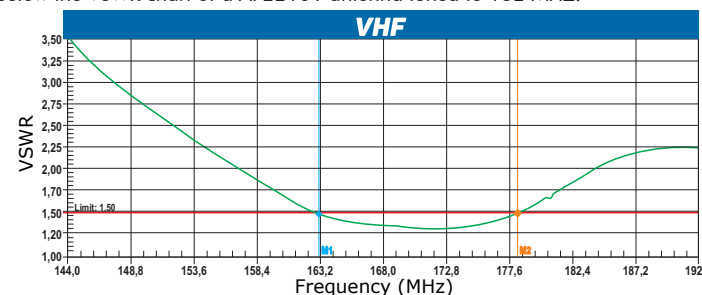


| SPECIFICATIONS |                                           |
|----------------|-------------------------------------------|
| VHF            |                                           |
| FREQUENCY      | 134 - 174 MHz                             |
| MAXIMUM POWER  | 100 W                                     |
| IMPEDANCE      | 50 $\Omega$                               |
| VSWR           | $\leq 1,5:1$                              |
| GAIN           | 2,15 dBi                                  |
| HEIGHT         | 545 mm                                    |
| WEIGHT         | 700 g                                     |
| GPS            |                                           |
| FREQUENCY      | 1575,42 $\pm 3$ MHz                       |
| POLARIZATION   | Circular RHCP                             |
| VOLTAGE        | 2,2 - 5V                                  |
| VSWR           | 1,5:1                                     |
| LNA GAIN       | 28 DB                                     |
| CURRENT        | 5 - 15 mA                                 |
| IMPEDANCE      | 50 $\Omega$                               |
| WI-FI          |                                           |
| FREQUENCY      | 2,3 - 2,5 and 4,9 - 6 GHz                 |
| GAIN           | 4dBi (2,3 - 2,5GHz and 6dBi)(4,9 - 6 GHz) |
| IMPEDANCE      | 50 $\Omega$                               |
| VSWR           | 1,5:1                                     |
| MAXIMUM POWER  | 25 W (Maximum)                            |
| GPRS           |                                           |
| FREQUENCY      | 800 - 2300 MHz                            |
| POLARIZATION   | Vertical                                  |
| GAIN           | 5 - 3 dBi                                 |
| IMPEDANCE      | 50 $\Omega$                               |

| CUTTING TABLE   |               |
|-----------------|---------------|
| FREQUENCY (MHZ) | LENGTH L (MM) |
| 134 MHz         | 470 mm        |
| 137 MHz         | 460 mm        |
| 140 MHz         | 450 mm        |
| 143 MHz         | 440 mm        |
| 146 MHz         | 430 mm        |
| 149 MHz         | 420 mm        |
| 152 MHz         | 415 mm        |
| 155 MHz         | 405 mm        |
| 158 MHz         | 395 mm        |
| 161 MHz         | 388 mm        |
| 164 MHz         | 380 mm        |
| 167 MHz         | 371 mm        |
| 170 MHz         | 362 mm        |
| 174 MHz         | 357 mm        |



**EXAMPLE:** See below the VSWR chart of a AP22101 antenna tuned to 162 MHz.



<sup>1</sup>Steelbras Antenas reserves the right to make technical changes to the data in its datasheets without prior notice.

<sup>2</sup>This antenna does not require ANATEL Certification and Approval, under Act No. 7280, of 26 September 2020.

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