

The antenna AD-18/E-HP is a wideband dipole mobile antenna intended for use in the frequency range from 225 to 512 MHz, mainly intended for use in heavy duty mobile applications.

The antenna is composed from two main parts: the radiator and the antenna base. The radiator is made of 43 mm diameter fibreglass whip with special radiating elements firmly placed inside. The antenna base has built-in biconical spring enables resistivity against mechanical impacts. Electrically the antenna is designed as center-fed thus the electrical characteristics are independent from the ground or mounting place.

The antenna base has an option of additional built-in GPS active antenna. Stainless steel spring absorbs the shocks and the vibrations, in addition protects the antenna against impacts. The radiating element is made of composite materials enable outstanding strength and roughness even in hardest conditions of use.

The antenna base has four mounting holes equally spaced on a 4.5" (114.3 mm) circle which complies with NATO standard. Different base plate dimensions are available on request.

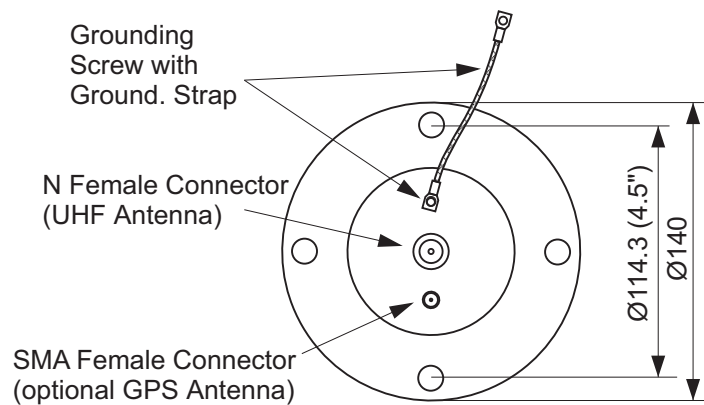
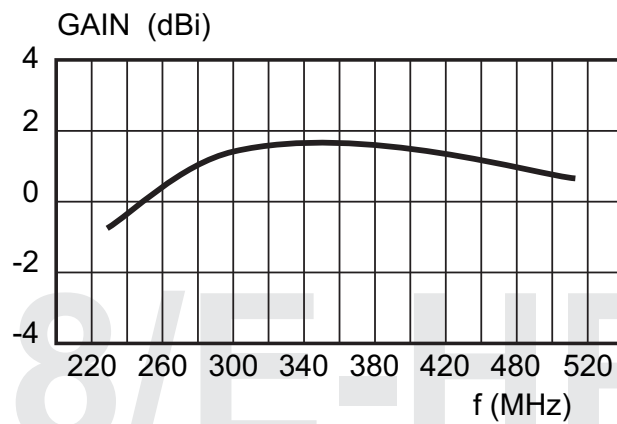
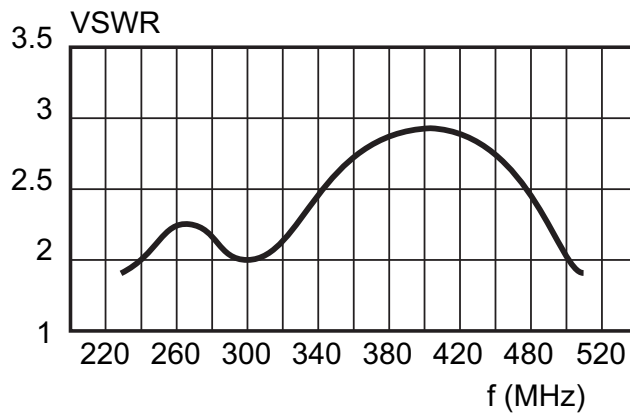
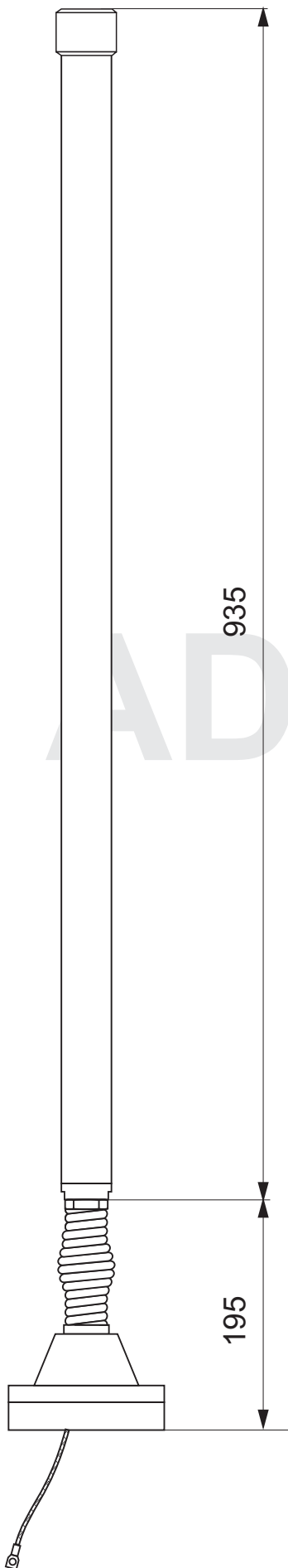
The antenna radiator is painted with military green (RAL-6014) two-component UV resistant paint.



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|---|---|
| <b>ELECTRICAL SPECIFICATIONS - UHF:</b> |   |
| Frequency range                         | 225 - 512 MHz   |
| Impedance                               | 50 ohms   |
| VSWR                                    | < 3   |
| Gain                                    | -1 .. +2 dBi  |
| Polarization                            | vert.   |
| Maximum power                           | 200 W CW  |
| Connector                               | N female (BNC female optional)  |
| <b>ELECTRICAL SPECIFICATIONS - GPS:</b> |   |
| Frequency range                         | L1 1575.42 +/- 10 MHz   |
| Impedance                               | 50 ohms   |
| VSWR                                    | < 2   |
| Polarization                            | RHC   |
| LNA Gain / Voltage / Current            | 18 dB (+/- 2 dB) / 5 V / 19 mA<br>16 dB (+/- 2 dB) / 3.5 V / 13 mA<br>10 dB (+/- 2 dB) / 2 V / 7 mA |
| Noise fig.                              | <1.5 dB   |
| Connector                               | SMA female  |
| <b>MECHANICAL SPECIFICATIONS:</b>       |   |
| Design                                  | Center-fed whip (UHF); patch antenna with LNA (GPS)   |
| Height                                  | 1130 mm   |
| Weight                                  | 3.7 kg  |
| Max. high voltage rating                | 16 kV   |
| Temperature range - in use              | -50 ... +55 °C  |
| Temperature range - in stock            | -55 ... +75 °C  |
| Wind rating                             | 45 m/s (160 km/h)   |
| Color                                   | RAL-6014  |

**VERSIONS:**

- AD-18/E-HP-N: UHF antenna (N female connector)
- AD-18/E-HP-G-N: combined UHF (N female) and GPS L1 (SMA female) antenna
- AD-18/E-HP-BNC: UHF antenna (BNC female connector)
- AD-18/E-HP-G-BNC: combined UHF (BNC female) and GPS L1 (SMA female) antenna



ANTENNA BASE -  
BOTTOM VIEW

**AUTHORIZED USA  
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