9 elements Yagi antenna

430 to 440 MHz

Part Nr. 220909

Electrical data

Radiation at 432 MHz

Effective electrical length ..... : 1.59 λ
Isotropic gain ..... : 13.1 dBi
Aperture angle @ -3 dB
- E-plane ..... : 2 x 20.6°
- H-plane ..... : 2 x 23.7°

First side lobe set
- E-plane ..... : - 22.2 dB @ 57°
- H-plane ..... : - 14.7 dB @ 64°

Rear protection ..... : - 16.8 dB
Average stray radiation
- E-plane ..... : - 34 dB
- H-plane ..... : - 22 dB

Bandwidth

Gain @ -1 dB ..... : 409 to 440 MHz
Nominal impedance ..... : 50 Ω
Impedance match bandwidth @ SWR <1.3/1..... : 431.0 to 438.5 MHz
Acceptable RF power (continous duty) ..... : 1000 W

Array of 2 or 4 antennas

(optimized stacking distance. from center to center of elements. for minimal side lobe radiation)

- E plane - Electrical distance ..... : 1.33 λ
- Pratical distance ..... : 0.92 m
- H plane - Electrical distance ..... : 1.33 λ
- Pratical distance ..... : 0.92 m

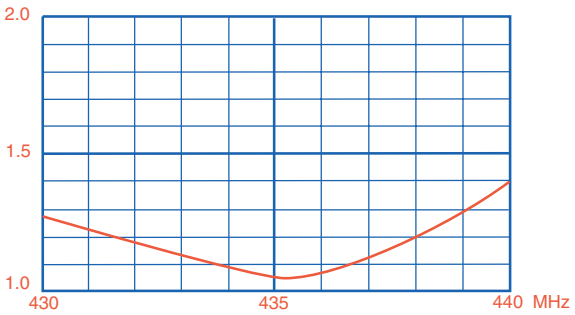
Mechanical data

Connector ..... : N
Overall length ..... : 1.24 m
Mass ..... : 1.2 kg
Effective wind load
- Horizontal polarization ..... : 0.03 m²
- Vertical polarization ..... : 0.04 m²

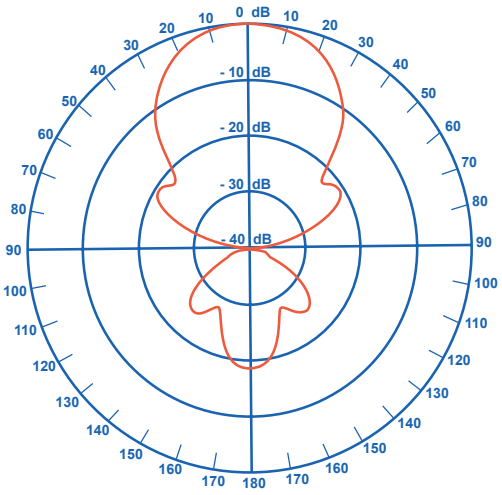
Approximate wind load (25 m/s - 55 mph)
- Horizontal polarization ..... : 1.0 daN
- Vertical polarization ..... : 1.6 daN

Approximate wind load (45 m/s - 100 mph)
- Horizontal polarization ..... : 3.3 daN
- Vertical polarization ..... : 5.3 daN

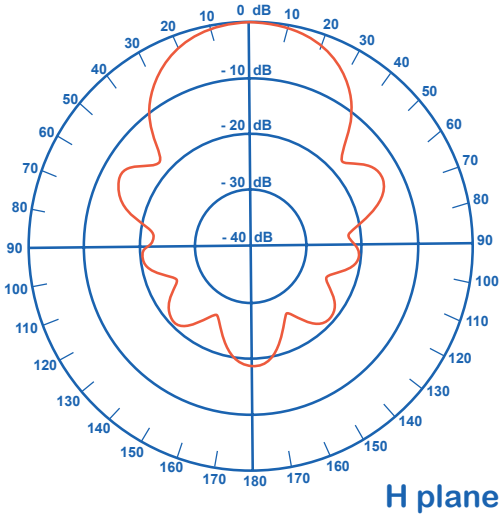
SWR curve



Radiation patterns



E plane



H plane