

9 elements Yagi antenna

144 to 146 MHz

Part Nr. 220809



Electrical data

Radiation at 144.5 MHz

Effective electrical length	: 1.65 λ
Isotropic gain	: 13.1 dBi
Aperture angle @ -3 dB	
- E-plane	: 2 x 20.2°
- H-plane	: 2 x 23°
First side lobe set	
- E-plane	: - 20.5 dB @ 54°
- H-plane	: - 13.6 dB @ 58°
Rear protection	: - 19.8 dB
Average stray radiation	
- E-plane	: - 35 dB
- H-plane	: - 24 dB

Bandwidth

Gain @ -1 dB	: 140 to 148 MHz
Nominal impedance	: 50 Ω
Impedance match bandwidth @ SWR <1.3/1.....	: 143.4 to 146.2 MHz
Acceptable RF power (continuous duty)	: 1000 W

Array of 2 or 4 antennas

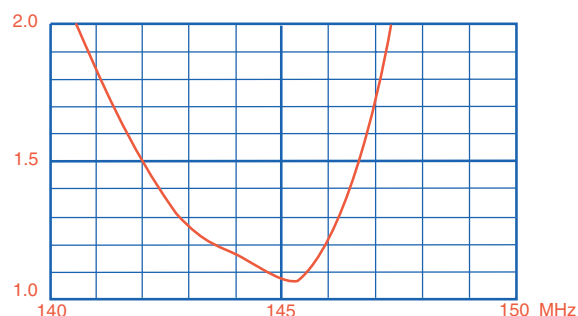
(optimized stacking distance. from center to center of elements. for minimal side lobe radiation)

- E plane - Electrical distance	: 1.33 λ
- Pratical distance	: 2.77 m
- H plane - Electrical distance	: 1.33 λ
- Pratical distance	: 2.77 m

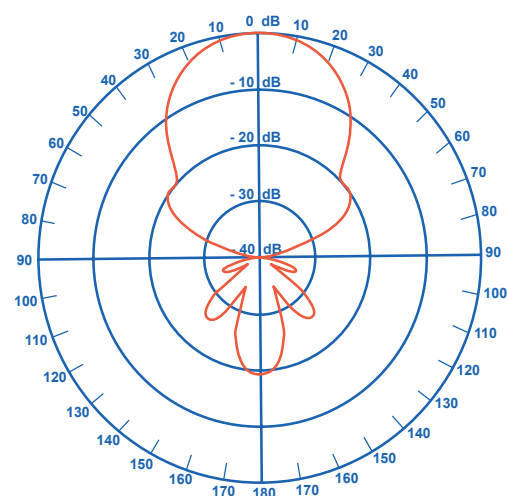
Mechanical data

Connector	: N
Overall length	: 3.47 m
Mass	: 3.0 kg
Effective wind load	
- Horizontal polarization	: 0.10 m ²
- Vertical polarization	: 0.15 m ²
Approximate wind load (25 m/s - 55 mph)	
- Horizontal polarization	: 4.1 daN
- Vertical polarization	: 6.1 daN
Approximate wind load (45 m/s - 100 mph)	
- Horizontal polarization	: 13.2 daN
- Vertical polarization	: 19.7 daN

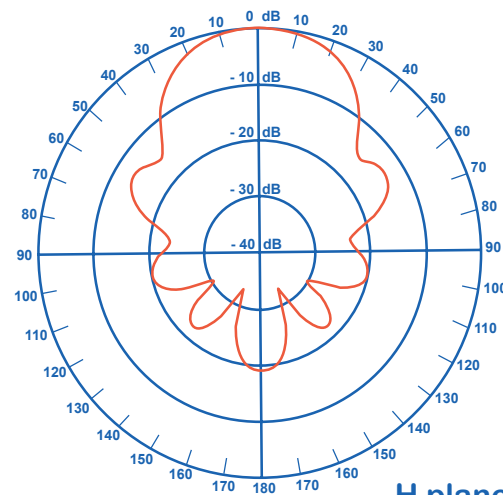
SWR curve



Radiation patterns



E plane



H plane

