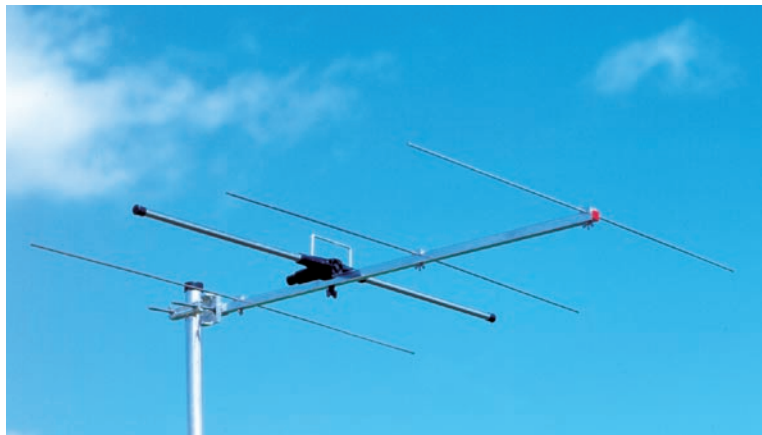


# 4 elements Yagi antenna

## 144 to 146 MHz

## Part Nr. 220804



### Electrical data

#### Radiation at 144.5 MHz

Effective electrical length .....	: 0.375 $\lambda$
Isotropic gain .....	: 9.1 dBi
Aperture angle @ -3 dB	
- E-plane .....	: 2 x 29.3°
- H-plane .....	: 2 x 43.2°
First side lobe set	
- E-plane .....	: None
- H-plane .....	: None
Rear protection .....	: - 16 dB
Average stray radiation	
- E-plane .....	: - 31 dB
- H-plane .....	: - 21 dB

### Bandwidth

Gain @ -1 dB .....	: 142 to 149 MHz
Nominal impedance .....	: 50 $\Omega$
Impedance match bandwidth @ SWR <1.3/1.....	: 143 to 147 MHz
Acceptable RF power (continous duty) .....	: 1000 W

### Array of 2 or 4 antennas

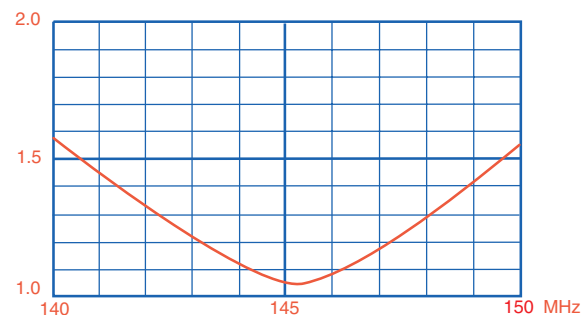
(optimized stacking distance. from center to center of elements. for minimal side lobe radiation)

- E plane - Electrical distance .....	: 0.85 $\lambda$
- Pratical distance .....	: 1.76 m
- H plane - Electrical distance .....	: 0.85 $\lambda$
- Pratical distance .....	: 1.76 m

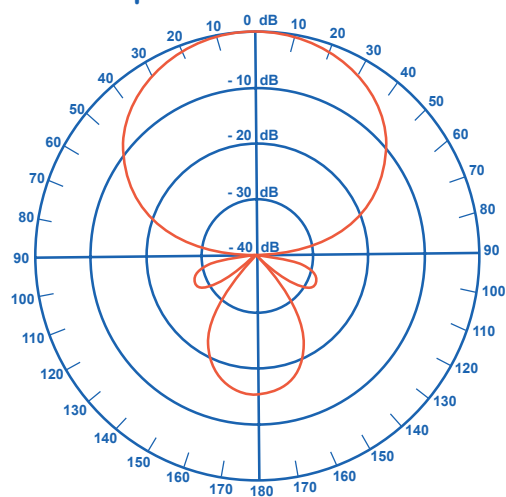
### Mechanical data

Connector .....	: N
Overall length .....	: 0.93 m
Mass .....	: 1 kg
Effective wind load	
- Horizontal polarization .....	: 0.02 m <sup>2</sup>
- Vertical polarization .....	: 0.05 m <sup>2</sup>
Approximate wind load (25 m/s - 55 mph)	
- Horizontal polarization .....	: 0.8 daN
- Vertical polarization .....	: 2.4 daN
Approximate wind load (45 m/s - 100 mph)	
- Horizontal polarization .....	: 2 daN
- Vertical polarization .....	: 6.5 daN

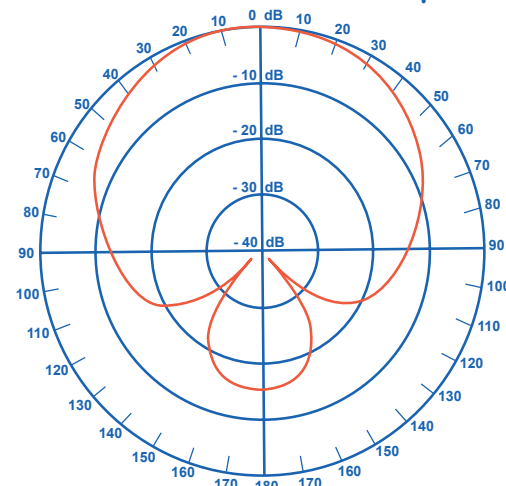
### SWR curve



### Radiation patterns



E plane



H plane

