

# 21 elements Yagi antenna

432 to 434 MHz

Part Nr. 20921



## Electrical data

### Radiation at 432 MHz

Effective electrical length .....	: 6.57 $\lambda$
Isotropic gain .....	: 18.1 dBi
Aperture angle @ -3 dB	
- E-plane .....	: 2 x 11.8°
- H-plane .....	: 2 x 12.2°

### First side lobe set

- E-plane .....	: - 14.5 dB @ 29°
- H-plane .....	: - 12.9 dB @ 29°

### Rear protection .....

Average stray radiation	
- E-plane .....	: - 38 dB
- H-plane .....	: - 29 dB

## Bandwidth

Gain @ -1 dB .....	: 416 to 440 MHz
Nominal impedance .....	: 50 $\Omega$
Impedance match bandwidth @ SWR <1.3/1.....	: 431.0 to 439.0 MHz
Acceptable RF power (continuous duty) .....	: 1000 W

## Array of 2 or 4 antennas

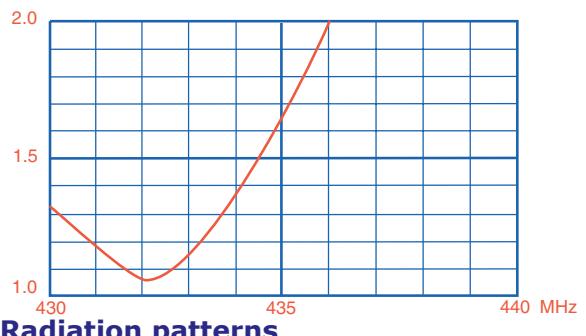
(optimized stacking distance. from center to center of elements. for minimal side lobe radiation)

- E plane - Electrical distance .....	: 2.33 $\lambda$
- Practical distance .....	: 1.62 m
- H plane - Electrical distance .....	: 2.33 $\lambda$
- Practical distance .....	: 1.62 m

## Mechanical data

Connector .....	: N
Overall length .....	: 4.60 m
Mass .....	: 3.1 kg
Effective wind load	
- Horizontal polarization .....	: 0.16 $m^2$
- Vertical polarization .....	: 0.13 $m^2$
Approximate wind load (25 m/s - 55 mph)	
- Horizontal polarization .....	: 6.5 daN
- Vertical polarization .....	: 5.3 daN
Approximate wind load (45 m/s - 100 mph)	
- Horizontal polarization .....	: 21.1 daN
- Vertical polarization .....	: 17.1 daN

## SWR curve



## Radiation patterns

