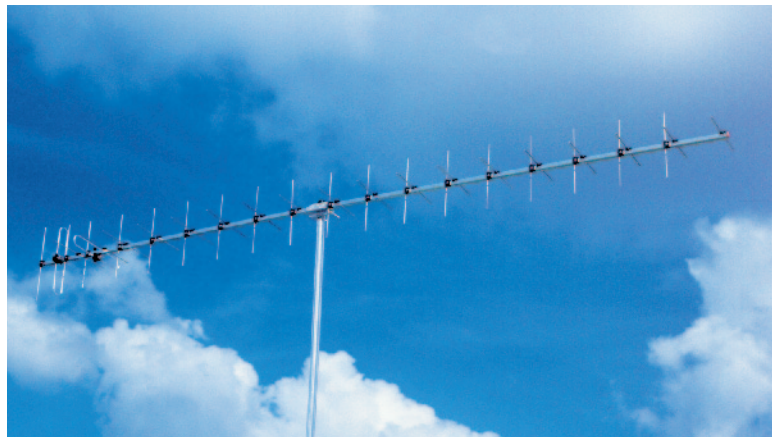


# 2x19 elements crossed yagi antenna

## 430 to 440 MHz

## Part Nr. 20438



### Electrical data

#### Radiation at 432 MHz

Effective electrical length .....	: 4.02 $\lambda$
Isotropic gain .....	: 16.0 dBi
Aperture angle @ -3 dB	
- E-plane .....	: 2 x 14.8°
- H-plane .....	: 2 x 14.7°
First side lobe set	
- E-plane .....	: - 16.0 dB @ 38°
- H-plane .....	: - 12.9 dB @ 38°
Rear protection .....	: - 23.6 dB
Average stray radiation	
- E-plane .....	: - 36 dB
- H-plane .....	: - 28 dB

### Bandwidth

Gain @ -1 dB .....	: 416 to 442 MHz
Nominal impedance .....	: 50 $\Omega$
Impedance match bandwidth @ SWR <1.3/1.....	: 431 to 439 MHz
Acceptable RF power (continous duty) .....	: 1000 W
Required phase delay between frontmost and rearmost driven element .....	: 14°

### Array of 2 or 4 antennas

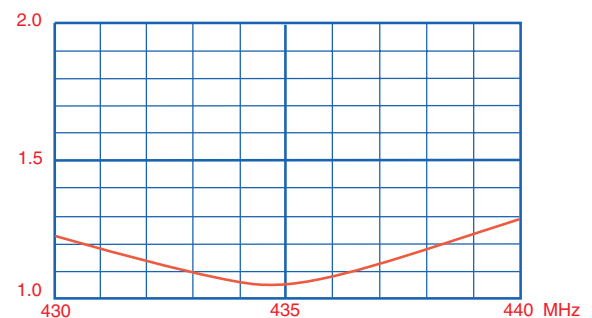
(optimized stacking distance. from center to center of elements. for minimal side lobe radiation)

- E plane - Electrical distance .....	: 1.80 $\lambda$
- Pratical distance .....	: 1.25 m
- H plane - Electrical distance .....	: 1.80 $\lambda$
- Pratical distance .....	: 1.25 m

### Mechanical data

Connector .....	: lugs
Overall length .....	: 3.25 m
Mass .....	: 2.2 kg
Effective wind load .....	: 0.09 m <sup>2</sup>
Approximate wind load (25 m/s - 55 mph) .....	: 3.5 daN
Approximate wind load (45 m/s - 100 mph) .....	: 11.3 daN

### SWR curve



### Radiation patterns

