

# 23 elements Yagi antenna

## 1240 to 1260 MHz

## Part Nr. 20624



### Electrical data

#### Radiation at 1255 MHz

Effective electrical length .....	: 7.61 $\lambda$
Isotropic gain .....	: 18.5 dBi
Aperture angle @ -3 dB	
- E-plane .....	: 2 x 9.6°
- H-plane .....	: 2 x 9.9°
First side lobe set	
- E-plane .....	: - 10.0 dB @ 25°
- H-plane .....	: - 8.7 dB @ 25°
Rear protection .....	: - 19.5 dB
Average stray radiation	
- E-plane .....	: - 36 dB
- H-plane .....	: - 28 dB

### Bandwidth

Gain @ -1 dB .....	: 1205 to 1271 MHz
Nominal impedance .....	: 50 $\Omega$
Impedance match bandwidth @ SWR <1.3/1.....	: 1250 to 1260 MHz
Acceptable RF power (continuous duty) .....	: 300 W

### Array of 2 or 4 antennas

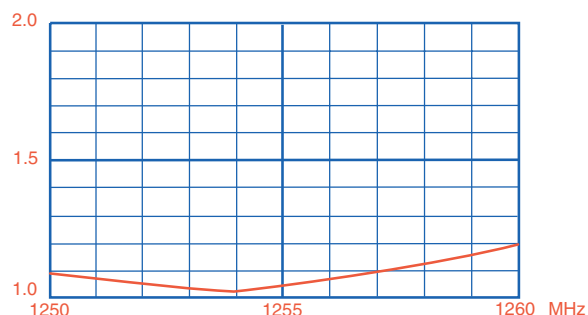
(optimized stacking distance. from center to center of elements. for minimal side lobe radiation)

- E plane - Electrical distance .....	: 2.95 $\lambda$
- Pratical distance .....	: 0.70 m
- H plane - Electrical distance .....	: 2.95 $\lambda$
- Pratical distance .....	: 0.70 m

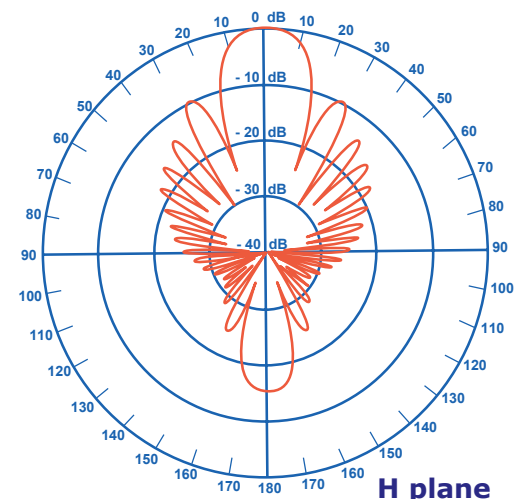
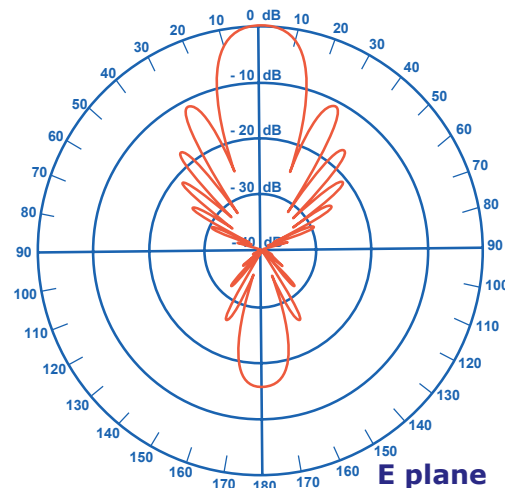
### Mechanical data

Connector .....	: N
Overall length .....	: 1.85 m
Mass .....	: 1.4 kg
Effective wind load	
- Horizontal polarization .....	: 0.06 m <sup>2</sup>
- Vertical polarization .....	: 0.05 m <sup>2</sup>
Approximate wind load (25 m/s - 55 mph)	
- Horizontal polarization .....	: 2.5 daN
- Vertical polarization .....	: 2.1 daN
Approximate wind load (45 m/s - 100 mph)	
- Horizontal polarization .....	: 8.0 daN
- Vertical polarization .....	: 6.7 daN

### SWR curve



### Radiation patterns



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