

# Pro-XL 144/50L 17 elements yagi antenna

## 144 to 148 MHz



## Part Nr. 220317

### Electrical data

#### Radiation at 144.3 MHz

Effective electrical length .....	: 5.01 $\lambda$
Isotropic gain .....	: 17.0 dBi
Aperture angle @ -3 dB	
- E-plane .....	: 2 x 14.0°
- H-plane .....	: 2 x 14.9°
First side lobe set	
- E-plane .....	: - 18 dB @ 36°
- H-plane .....	: - 14 dB @ 37°
Rear protection .....	: - 29 dB
Average stray radiation	
- E-plane .....	: - 35 dB
- H-plane .....	: - 27 dB

### Bandwidth

Gain @ -1 dB .....	: 141 to 149 MHz
Nominal impedance .....	: 50 $\Omega$
Impedance match bandwidth @ SWR <1.3/1.....	: 143 to 146 MHz
Maximum RF power (peak, SSB/CW) .....	: 1000 W

### Array of 2 or 4 antennas

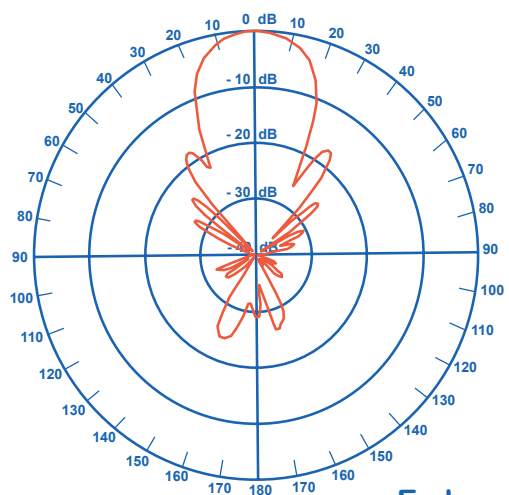
(optimized stacking distance. from center to center of elements. for minimal side lobe radiation)

- E plane - Electrical distance .....	: 2.15 $\lambda$
- Pratical distance .....	: 4.47 m
- H plane - Electrical distance .....	: 2.15 $\lambda$
- Pratical distance .....	: 4.47 m

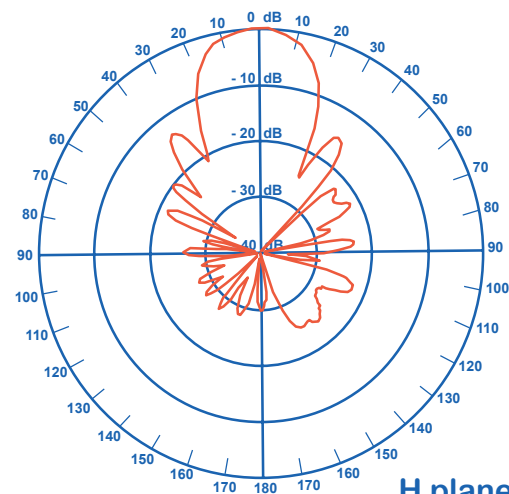
### Mechanical data

Connector .....	: N
Overall length .....	: 10.45 m
Mass .....	: 18.5 kg
Effective wind load	
- Horizontal polarization .....	: 0.73 m <sup>2</sup>
Approximate wind load (25 m/s - 55 mph)	
- Horizontal polarization .....	: 27.8 daN
Approximate wind load (45 m/s - 100 mph)	
- Horizontal polarization .....	: 89.7 daN

### Radiation patterns



E plane



H plane