2x19 elements crossed yagi antenna

430 to 440 MHz

Part Nr. 220938

Electrical data

Radiation at 432 MHz

Effective electrical length ..... : 4.02 λ
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 Ω
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°

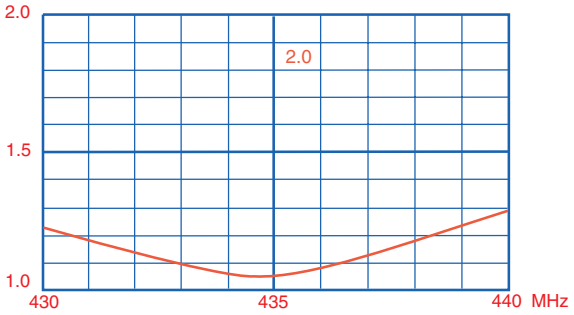
Array of 2 or 4 antennas

(optimized stacking distance. from center to center of elements. for minimal side lobe radiation)
- E plane - Electrical distance ..... : 1.80 λ
  - Pratical distance ..... : 1.25 m
- H plane - Electrical distance ..... : 1.80 λ
  - Pratical distance ..... : 1.25 m

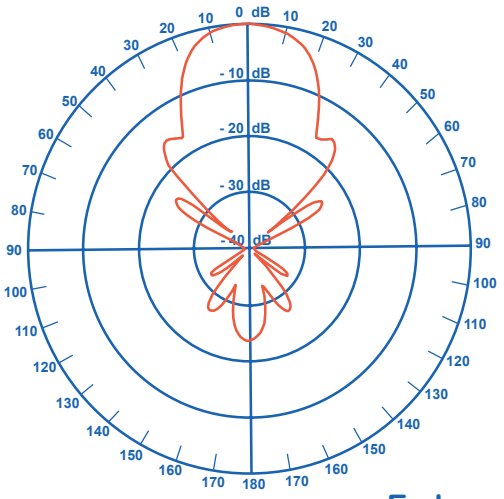
Mechanical data

Connector ..... : N
Overall length ..... : 3.25 m
Mass ..... : 2.2 kg
Effective wind load ..... : 0.09 m²
Approximate wind load (25 m/s - 55 mph) ..... : 3.5 daN
Approximate wind load (45 m/s - 100 mph) ..... : 11.3 daN

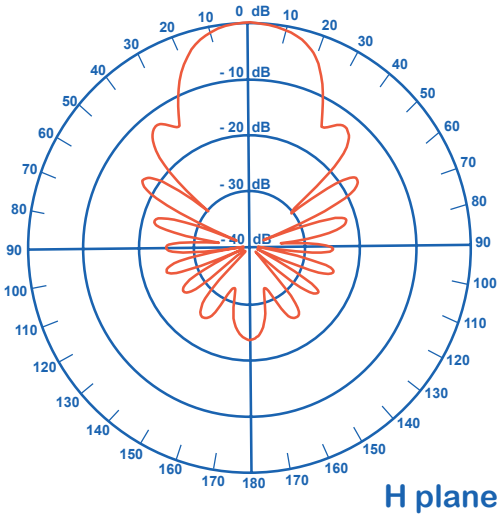
SWR curve



Radiation patterns



E plane



H plane