Technical data

SINGLE POLARIZATION

ANTENNA 18 GHz 03M

HIGH PERFORMANCE

Type: HAE1803SPB220, HAE1803SUB220

Short description

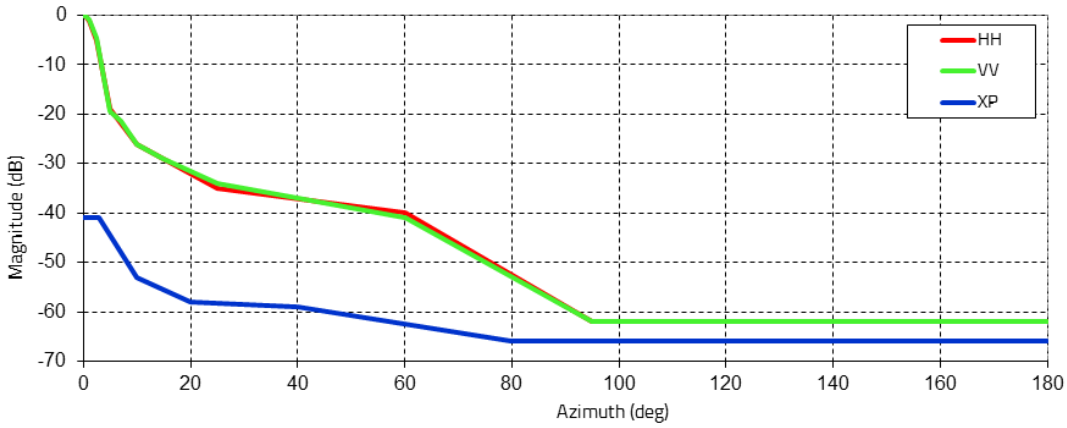
This new generation HAE-antenna with ETSI Class 3 radiation performance gives great efficiency and improved return loss in combination with reduced weight. The antenna can be mounted separately using LEAX Arkivator Telecom antenna mount. It can also be supplied in customized design, for example being adapted for direct mount on radio links. LEAX Arkivator Telecom antennas are all RoHs compliant.

Electrical data

Frequency range	17.7 – 19.7 GHz
Gain, low-band	33.7 dBi
Gain, mid-band	34.7 dBi
Gain, high-band	34.5 dBi
Half power beam width	3.2 deg
Cross-polar discrimination	30 dB
Front-to-back ratio	62 dB
VSWR/Return Loss	1.30:1 / 17.7 dB
ETSI compliance	Class 3
FCC compliance	Cat B2
Polarization	Vertical/Horizontal
Output flanges	PBR220/UBR220
Associated NSMA file	906-HAE1803-B.adf

Radiation pattern envelope (RPE)

angle (°)	H-pol (dB)	angle (°)	V-pol (dB)	angle (°)	X-pol (dB)
0	0	0	0	0	-41
0,5	-0,2	0,5	0	3	-41
1	-1,1	1	-0,9	10	-53
2,5	-5	2,5	-4,5	20	-58
5	-19	5	-19,5	40	-59
10	-26	7	-21,5	80	-66
25	-35	10	-26	180	-66
60	-40	15	-29		
95	-62	25	-34		
180	-62	60	-41		
		95	-62		
		180	-62		



Mechanical data

Size	0.3 m
Depth	176 mm
Weight including mounting kit	4.2 kg
Shipping weight	5.5 kg
Shipping dimensions	390 mm x 390 mm x 270 mm
Packaging type	Standard Cardboard box
Quantity on one pallet	24 antennas/EUR pallet
Radome	Solid UV Stabilized PC Conical
Antenna colour	NCS S2502 R Grey
Temperature, operational	-45 to +55 °C
Relative humidity	15 to 100%
Wind load, operational	55 m/s (200 km/h)
Wind load, survival	70 m/s (250 km/h)
Mounting pipe diameter	50-120 mm
Panning performance, in azimuth	±15°
Panning performance, in elevation	±15°
Ice load (713 kg/m^3)	25 mm

Loading to mounting pole @Survival Wind Speed:

Fa: Max Axial Force	410 N
Fs: Max Side Force (without radio equipment)	56 N
M: Max Torque (at pole ø76 mm)	103 Nm

Drawing 10 - 38 GHz Single Polarized Antenna