Log.Periodic Antenna Array

S22015/02c

30 – 220 MHz

The S22015/02c is an array of two log.-periodic antennas, especially designed for EMC susceptibility testing applications.
Several design features optimise the achieved field strength: It is capable of handling up to 10 kW input power. The short construction minimizes the distance from the phase center to the device under test especially at low frequencies.
The mechanical antenna design takes account of the harder environmental conditions of outdoor use. Mast and antenna are designed for maximum wind speeds up to 110 km/h and a wide temperature range.
Elevation and polarization can be easily changed by a hydraulic system with manual oil pump. Tires and attachment possibility at the towing pin of a vehicle allows moving of the antenna.

Technical Data

Electrical	Frequency range	30 – 220 MHz
	Gain in free space	typ. 9 dBi
	Half power beam width	E-plane: typ. 60°
		H-plane: typ. 40°
	Polarization	linear
	Nominal input impedance	50 Ω
	VSWR	2.5 : 1 (max.)
	RF input power	10 kW (CW)
Mechanical	RF connector	EIA 1 5/8"
	Dimensions	see drawings
	Polarization	vertical and horizontal, movement with manual hydraulic oil pump
	Dimensions	7906 x 5237 x 5295 mm (H x W x L)
	Weight inclusive mast	approx. 2.2 tons
Environmental	Designed for outdoor use	
	Maximum wind speed	110 km/h
	Temperature range	-30 to +50 °C

FS Antennentechnik GmbH•Morsestr. 6•D-85716 Unterschleißheim•Tel.089-374 486-0•Fax 089-374 486-55•www.fsant.de

Mechanical Data

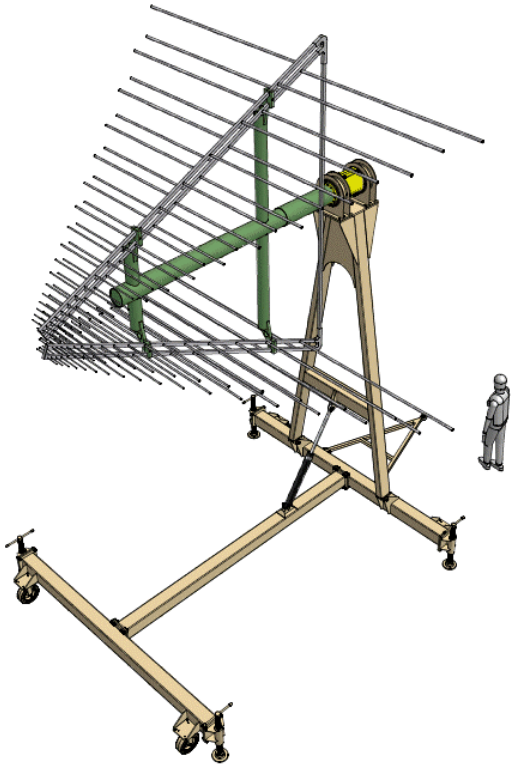

Figure 1: Technical drawing of S22015/02c

Figure 2: S22015/02c

FS Antennentechnik GmbH•Morsestr. 6•D-85716 Unterschleißheim•Tel.089-374 486-0•Fax 089-374 486-55•www.fsant.de

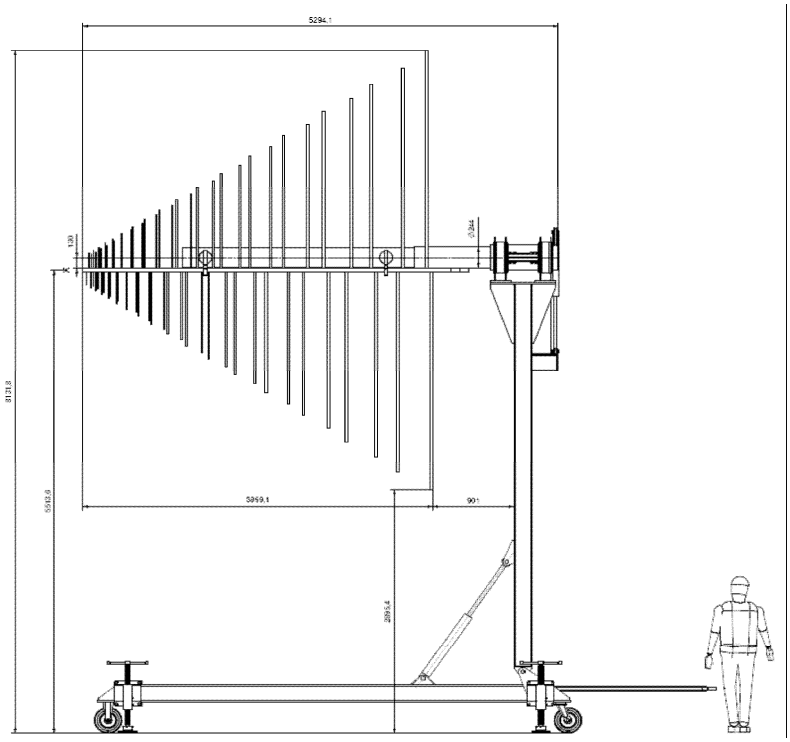

Figure 3: Side view of the antenna with main dimensions

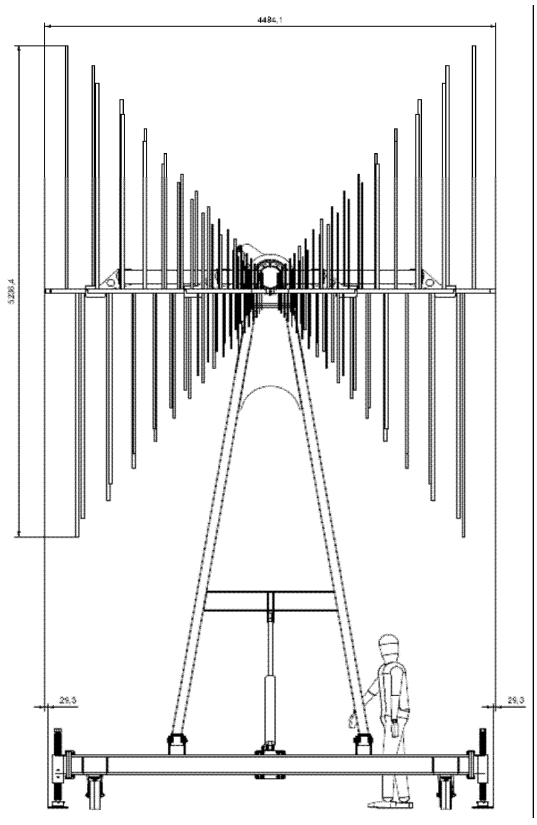

Figure 4: Front view of the antenna with main dimensions

FS Antennentechnik GmbH•Morsestr. 6•D-85716 Unterschleißheim•Tel.089-374 486-0•Fax 089-374 486-55•www.fsant.de

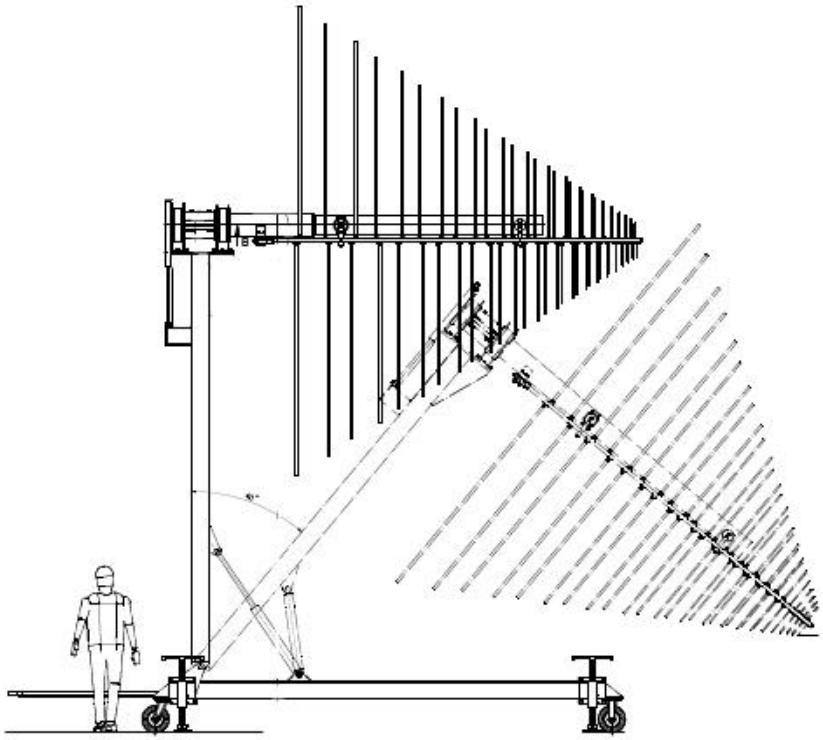

Figure 5: Maximum tilt of the antenna system

Figure 6: S22015/02c log. periodic array antenna

FS Antennentechnik GmbH•Morsestr. 6•D-85716 Unterschleißheim•Tel.089-374 486-0•Fax 089-374 486-55•www.fsant.de

Electrical Data

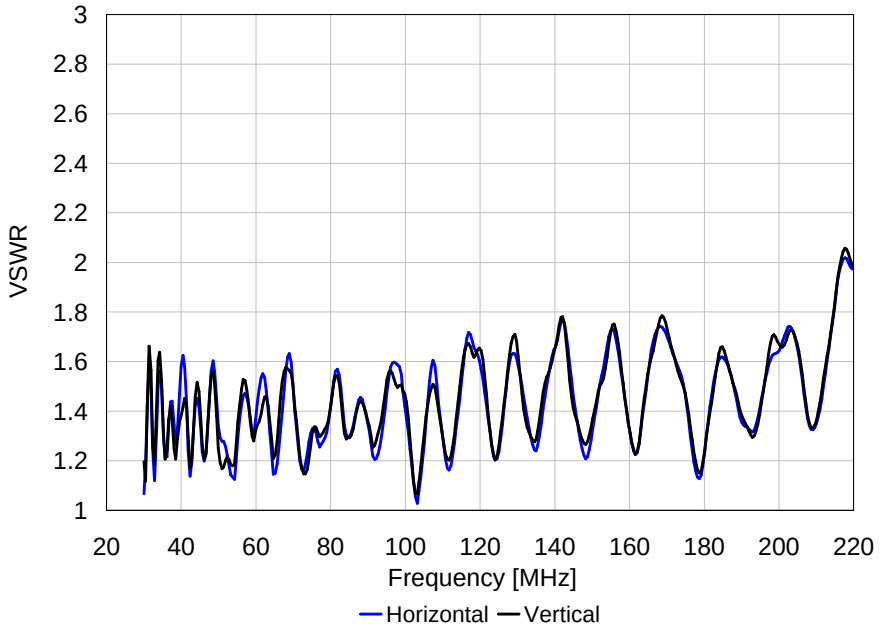

Figure 7: Measured VSWR

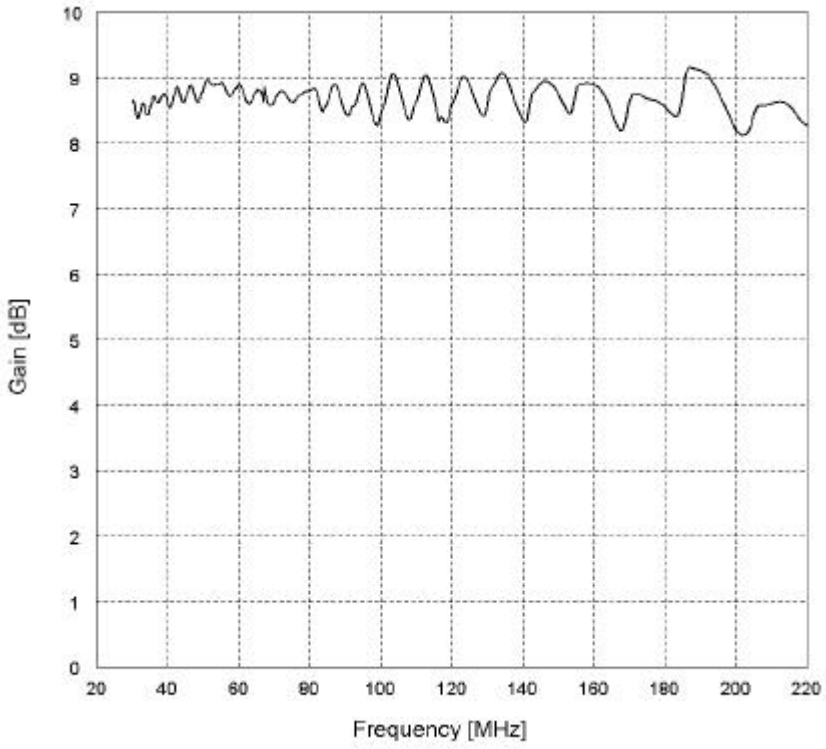

Figure 8: Simulated gain in free space

FS Antennentechnik GmbH•Morsestr. 6•D-85716 Unterschleißheim•Tel.089-374 486-0•Fax 089-374 486-55•www.fsant.de