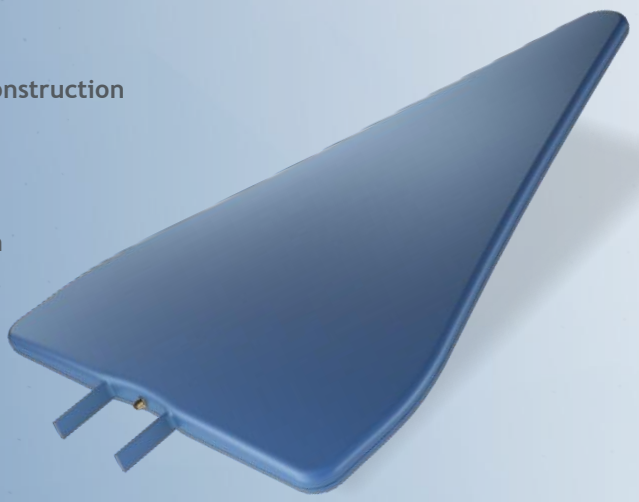
SpectrumMax Antenna Series

State-of-the-Art

Wideband High Gain Directional Antennas

- Durable and Rugged Construction
- 0.4-12 GHz+ Operation
- Suitable for EW, GPR



- Environmental Protection
- Low Side Lobe Levels
- Upto 10 W Power Handling

The SpectrumMax antenna lineup features advanced wideband and high gain directional antennas, including Log-Periodic Dipole Arrays (LPDA), Vivaldi antennas, Yagi-Uda antennas etc. These antennas offer high gain levels up to 16 dBi and operate seamlessly across frequencies from 400 MHz to over 12 GHz, ideal for telecommunications, radar systems, and satellite communication. With precise directional characteristics and low sidelobe levels, SpectrumMax antennas ensure optimal beam focusing and minimal interference, crucial for high-resolution radar imaging and secure military communications. Built to withstand harsh environments, SpectrumMax antennas are designed for reliability in mission-critical applications across aerospace, scientific research, and telecommunications sectors.

Applications

- Electronic Warfare: Employed in EW systems for SIGINT and ECM
- Radar Systems: Precise detection and tracking in EW Radars, GPR, Weather Radar etc
- Wideband Direction Finding: Locate the source of radio transmission
- Radio Communications: Long-range communication links supporting high data rates
- Test & Measurement: EMC, Antenna Characterization, Spectrum Analysis
- Signals and Communications Intelligence: SIGINT, COMINT, ELINT

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Electrical Specifications

Parameter	SML046	SML16	SMV16	SMV0912+
Frequency Range	400 MHz – 6 GHz	1 GHz – 6 GHz	1 GHz – 6 GHz	900 MHz – 12 GHz+
VSWR	2:1 (typ)	2:1 (typ)	2:1 (typ)	2:1 (typ)
Impedance	50 Ω	50 Ω	50 Ω	50 Ω
Gain	-3 dBi – 10 dBi	5 dBi – 6 dBi	7 dBi – 12 dBi	5 – 8 dBi
Directionality	Directional	Directional	Directional	Directional
Polarization	Linear	Linear	Linear	Linear
3dB Beamwidth (Azimuth)	40° – 80°	55° – 70°	25° – 60°	50° – 85°
3dB Beamwidth (Elevation)	50° – 190°	90° – 130°	25° – 100°	50° – 120°
Power Handling	10W CW	10W CW	10W CW	10W CW

Mechanical Specifications

Parameter	SML046	SML16	SMV16	SMV0912+
Connector	SMA Female	SMA Female	SMA Female	SMA Female
Dimensions (LxW)	35 cm x 35 cm	15 cm x 15 cm	35 cm x 16 cm	23 cm x 16.5 cm
Height	40 mm	40 mm	60 mm	40 mm
Weight	<800 grams	<300 grams	<500 grams	<450 grams
Operating Temp	-30°C – 65°C	-30°C – 65°C	-30°C – 65°C	-30°C – 65°C
Construction	PCB & Engineering Plastics	PCB & Engineering Plastics	PCB & Engineering Plastics	PCB & Engineering Plastics