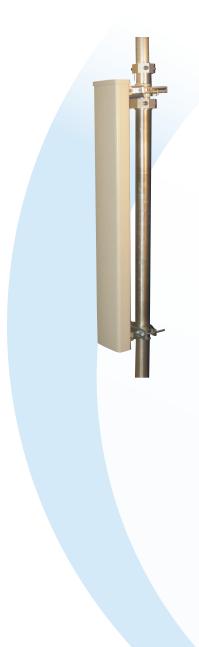


Broadband Wireless Antenna SKS230090-16N-001

Innovative **Technology** for a **Connected** World



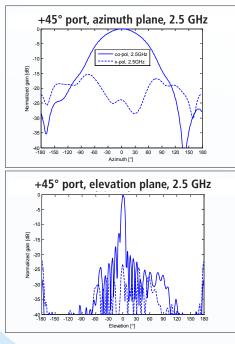
2.5 GHz HIGH-PERFORMANCE 90° BEAMWIDTH DUAL 45° SLANT SECTOR

The Laird Technologies SKS230090-16N-001wideband, dual slant sector antenna, covers frequencies from 2.3 to 2.7 GHz. Significantly reduced upper side lobes and null fill below the horizon are achieved thanks to our highly skilled engineering staff and the utilization of our proprietary Artificial Intelligence RF Optimizing development tool. Laird Technologies' suite of high-performance sector antennas features proprietary design elements and low-loss feed network, resulting in extremely high levels of system performance and ruggedness while maintaining very slim profiles with low wind and ice loading.

FEATURES **V**ROHS

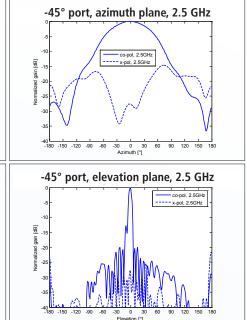
- Suppression of the first two upper side lobes
- 1st null fill below the horizon
- Low-loss feed stripline feed network and efficient dipole radiators provide high efficiency and gain
- Excellent matching of the radiating elements and feed network allows for superior pattern control in elevation
- Optimized for maximum ratio combining
- Two Type N-f connectors at the bottom for easy installation

ANTENNA PATTERNS



MARKETS

- High multi-path environment
- Large carrier class deployment
- WiMAX service provider
- Ideal base station antenna for high density wireless network coverage in mobile and fixed applications



global solutions: local support...

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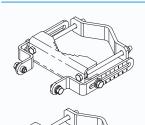


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SPECIFICATIONS

Frequency range2.3-2.7 GHzGain @ 2.5 GHz16.5 dBiMaximum VSWR1.5:13 dB beamwidth- Azimuth90°3 dB beamwidth- Elevation5.5°-6.5°Elevation null fill1st null > -20 dBUpper sidelobe level reduction (1st and 2nd)< -16 dBPolarization+45° and -45°Cross-polarization level in zero azimuth< -20 dBCross-polarization ratio within ±60° azimuth> 10 dBPort-to-port isolation> 25 dBFront-to-back ratio (co-polar)> 25 dBMaximum input power20 W average, 480 W peakInput impedance50 ohmMechanical size1140 mm x 165 mm x 75 mmAntenna weight3.9 kg (8.5 lbs); 6.3 kg (13.0 lbs) with bracketWind survival ratingOperational 100 mph / Survival 136 mphAntenna connectionType N female at the bottomRadomeLight grey UV resistant plasticMount styleMast mountMountig hardwareTilt mount kit 1.5 in to 4.5 in dia.Temperature-40°C to +65°C	PARAMETER	SPECIFICATIONS
Gain @ 2.5 GHz16.5 dBiMaximum VSWR1.5:13 dB beamwidth- Azimuth90°3 dB beamwidth- Elevation $5.5^{\circ}-6.5^{\circ}$ Elevation null fill1st null > -20 dBUpper sidelobe level reduction (1st and 2nd)< -16 dB	Antenna part number	SKS230090-16N-001
Maximum VSWR1.5:13 dB beamwidth- Azimuth90°3 dB beamwidth- Elevation5.5° 6.5°Elevation null fill1st null > -20 dBUpper sidelobe level reduction (1st and 2nd)< -16 dB	Frequency range	2.3-2.7 GHz
3 dB beamwidth- Azimuth90°3 dB beamwidth- Elevation5.5°-6.5°Elevation null fill1st null > -20 dBUpper sidelobe level reduction (1st and 2nd)<-16 dB	Gain @ 2.5 GHz	16.5 dBi
3 dB beamwidth- Elevation5.5°-6.5°Elevation null fill1st null > -20 dBUpper sidelobe level reduction (1st and 2nd)< -16 dB	Maximum VSWR	1.5:1
Elevation null fill1st null > -20 dBUpper sidelobe level reduction (1st and 2nd)< -16 dB	3 dB beamwidth- Azimuth	90°
Upper sidelobe level reduction (1st and 2nd)< -16 dBPolarization+45° and -45°Cross-polarization level in zero azimuth< - 20 dB	3 dB beamwidth- Elevation	5.5°-6.5°
Polarization+45° and -45°Cross-polarization level in zero azimuth< - 20 dB	Elevation null fill	1st null > -20 dB
Cross-polarization level in zero azimuth< - 20 dBCross-polarization ratio within ±60° azimuth> 10 dBPort-to-port isolation> 25 dBFront-to-back ratio (co-polar)> 25 dBMaximum input power20 W average, 480 W peakInput impedance50 ohmMechanical size1140 mm x 165 mm x 75 mmAntenna weight3.9 kg (8.5 lbs); 6.3 kg (13.0 lbs) with bracketWind survival ratingOperational 100 mph / Survival 136 mphAntenna connectionType N female at the bottomRadomeLight grey UV resistant plasticMount styleMast mountMounting hardwareTilt mount kit 1.5 in to 4.5 in dia.Temperature-40°C to +65°C	Upper sidelobe level reduction (1st and 2nd)	< -16 dB
Cross-polarization ratio within ±60° azimuth> 10 dBPort-to-port isolation> 25 dBFront-to-back ratio (co-polar)> 25 dBMaximum input power20 W average, 480 W peakInput impedance50 ohmMechanical size1140 mm x 165 mm x 75 mmAntenna weight3.9 kg (8.5 lbs); 6.3 kg (13.0 lbs) with bracketWind survival ratingOperational 100 mph / Survival 136 mphAntenna connectionType N female at the bottomRadomeLight grey UV resistant plasticMount styleMast mountMounting hardwareTilt mount kit 1.5 in to 4.5 in dia.Temperature-40°C to +65°C	Polarization	+45° and -45°
Port-to-port isolation> 25 dBFront-to-back ratio (co-polar)> 25 dBMaximum input power20 W average, 480 W peakInput impedance50 ohmMechanical size1140 mm x 165 mm x 75 mmAntenna weight3.9 kg (8.5 lbs); 6.3 kg (13.0 lbs) with bracketWind survival ratingOperational 100 mph / Survival 136 mphAntenna connectionType N female at the bottomRadomeLight grey UV resistant plasticMount styleMast mountMounting hardwareTilt mount kit 1.5 in to 4.5 in dia.Temperature-40°C to +65°C	Cross-polarization level in zero azimuth	< - 20 dB
Front-to-back ratio (co-polar)> 25 dBMaximum input power20 W average, 480 W peakInput impedance50 ohmMechanical size1140 mm x 165 mm x 75 mmAntenna weight3.9 kg (8.5 lbs); 6.3 kg (13.0 lbs) with bracketWind survival ratingOperational 100 mph / Survival 136 mphAntenna connectionType N female at the bottomRadomeLight grey UV resistant plasticMount styleMast mountMounting hardwareTilt mount kit 1.5 in to 4.5 in dia.Temperature-40°C to +65°C	Cross-polarization ratio within $\pm 60^\circ$ azimuth	> 10 dB
Maximum input power20 W average, 480 W peakInput impedance50 ohmMechanical size1140 mm x 165 mm x 75 mmAntenna weight3.9 kg (8.5 lbs); 6.3 kg (13.0 lbs) with bracketWind survival ratingOperational 100 mph / Survival 136 mphAntenna connectionType N female at the bottomRadomeLight grey UV resistant plasticMount styleMast mountMounting hardwareTilt mount kit 1.5 in to 4.5 in dia.Temperature-40°C to +65°C	Port-to-port isolation	> 25 dB
Input impedance50 ohmMechanical size1140 mm x 165 mm x 75 mmAntenna weight3.9 kg (8.5 lbs); 6.3 kg (13.0 lbs) with bracketWind survival ratingOperational 100 mph / Survival 136 mphAntenna connectionType N female at the bottomRadomeLight grey UV resistant plasticMount styleMast mountMounting hardwareTilt mount kit 1.5 in to 4.5 in dia.Temperature-40°C to +65°C	Front-to-back ratio (co-polar)	> 25 dB
Mechanical size 1140 mm x 165 mm x 75 mm Antenna weight 3.9 kg (8.5 lbs); 6.3 kg (13.0 lbs) with bracket Wind survival rating Operational 100 mph / Survival 136 mph Antenna connection Type N female at the bottom Radome Light grey UV resistant plastic Mount style Mast mount Mounting hardware Tilt mount kit 1.5 in to 4.5 in dia. Temperature -40°C to +65°C	Maximum input power	20 W average, 480 W peak
Antenna weight3.9 kg (8.5 lbs); 6.3 kg (13.0 lbs) with bracketWind survival ratingOperational 100 mph / Survival 136 mphAntenna connectionType N female at the bottomRadomeLight grey UV resistant plasticMount styleMast mountMounting hardwareTilt mount kit 1.5 in to 4.5 in dia.Temperature-40°C to +65°C	Input impedance	50 ohm
Wind survival rating Operational 100 mph / Survival 136 mph Antenna connection Type N female at the bottom Radome Light grey UV resistant plastic Mount style Mast mount Mounting hardware Tilt mount kit 1.5 in to 4.5 in dia. Temperature -40°C to +65°C	Mechanical size	1140 mm x 165 mm x 75 mm
Antenna connection Type N female at the bottom Radome Light grey UV resistant plastic Mount style Mast mount Mounting hardware Tilt mount kit 1.5 in to 4.5 in dia. Temperature -40°C to +65°C	Antenna weight	3.9 kg (8.5 lbs); 6.3 kg (13.0 lbs) with bracket
Radome Light grey UV resistant plastic Mount style Mast mount Mounting hardware Tilt mount kit 1.5 in to 4.5 in dia. Temperature -40°C to +65°C	Wind survival rating	Operational 100 mph / Survival 136 mph
Mount style Mast mount Mounting hardware Tilt mount kit 1.5 in to 4.5 in dia. Temperature -40°C to +65°C	Antenna connection	Type N female at the bottom
Mounting hardware Tilt mount kit 1.5 in to 4.5 in dia. Temperature -40°C to +65°C	Radome	Light grey UV resistant plastic
Temperature -40°C to +65°C	Mount style	Mast mount
	Mounting hardware	Tilt mount kit 1.5 in to 4.5 in dia.
Lightning protection DC-grounded	Temperature	-40°C to +65°C
	Lightning protection	DC-grounded



Mounting Kit: JBXRK-01-TM5

ANT-DS-SKS230090-16N-001 0511

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