

ISR OMNI Directional Slant Linear Biconical Antenna



Features & Benefits

- Receives V, H, RHC, LHC Polarized Signals
- Broadband Response
- Maximum Signal Centered on Horizon
- MIL-E-16400 Design • Radome Enclosed

Smith's Interconnect P/N: 865714-100

VSWR

0.03 to 1.0 GHz	6.5:1 max
1.0 to 18 GHz	3.0:1 max

GAIN

0.5 GHz	-4 dBi Average
1.0 GHz	0 dBi Average
1.5 GHz	1 dBi Average
2.0 GHz	-2 dBi Average
4.0 GHz	-2 dBi Average
8.0 GHz	-1 dBi Average
18.0 GHz	-2 dBi Average
Elevation Coverage (-3dB)	± 15° above horizon
Elevation Coverage (-10dB)	± 45° above horizon

Omni Deviation

0.5 – 18 GHz	±3 dB max
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The Smiths Interconnect Inc. family of broadband, omni-directional biconical antennas are all slant linear polarized and therefore responsive to vertical, horizontal, as well as right and left hand circularly polarized signals. Polarizing grids within the antenna transform the vertical polarization of the antenna feed point to a 45 degree slant linear polarization at the radome aperture of the antenna.

Bicone antennas are ideally suited for nautical applications, since the broad elevation plane beamwidth is centered about the horizon, which minimizes the chance for loss

of signal due to a vessel's typical roll and pitch maneuvering. These antennas are radome enclosed, foam filled and hermetically sealed, which further enhances their usefulness aboard ship as well as in other vehicular applications. Airborne versions are also available for use in DF applications.

M ultiband bicone antennas can be stacked on top of one another. By wrapping the feed cable or cables of the upper antennas through the opposite sense of slant linear polarization of the lower antennas, individual output ports are provided with negligible aperture blockage.

Electrical Performance Specifications

Type Number	Frequency	VSWR		Vertical Plane Beamwidth Nominal	Average Power (Watts)	Connector
		Max	Avg			
201093-1	1.0 - 4.0 GHz	3.0:1	2.0:1	100 ° to 35°	50	N
20 1093-2	4.0- 18.0 GHz	3.0:1	2.0:1	50 ° to 18°	10	SMA
201093-3	1.0- 18.0 GHz	3.0:1	2.0:1	100 ° to 35° 50° to 18°	25	N & SMA
20 1093-11	0.5- 18.0 GHz	3.0:1	2.0:1	100 ° to 35° 60° to 18° 50° to 30°	10	N
201464	2.0- 18.0 GHz	3.0:1	1.8:1	80° to 40°	10	N
201125	12.0- 40.0 GHz	3.0:1	2.0:1	60 ° to 18°	10	SSMA (OSSM)

Common Electrical Performance Data:

- Polarization: Slant Linear
- Deviation from Omni: ± 3 dB
- Radome Enclosed: Yes