

**SG301**

Ground plane omni antenna, 0 dBd gain, 395-512 MHz

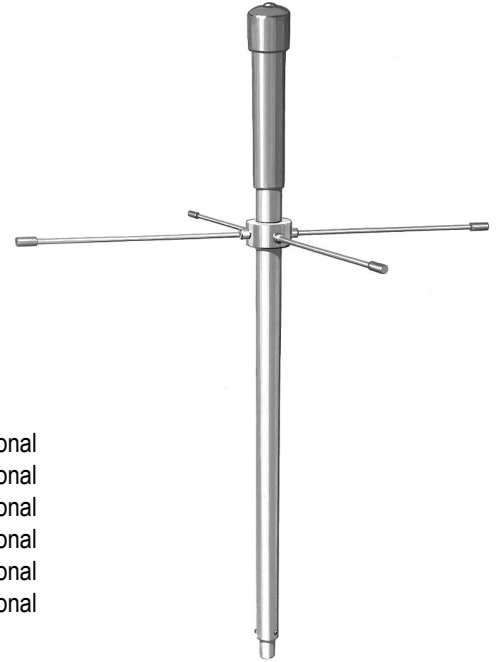
- Covers a 20 MHz bandwidth without adjustment
- Versatile antenna
- Rugged construction and light weight

The SG301 is a versatile antenna ideal for use where broadband, unity gain, omni-directional coverage is needed. It covers a 20 MHz bandwidth without adjustment.

Rugged construction, light weight and ease of installation make it an ideal choice for RCC leased or rented system use.

**Application Notes**

- For use in broadband applications such as transportation, agriculture, forestry and mining. Unity gain with omnidirectional coverage provides increased flexibility.



Model	Description	Pattern
<a href="#">SG301-SF1SNM</a>	0 dBd gain, N (male) connector, 406-420 MHz	Omni-directional
<a href="#">SG301-SF2SNM</a>	0 dBd gain, N (male) connector, 450-470 MHz	Omni-directional
<a href="#">SG301-SF3SNF</a>	0 dBd gain, N (female) connector, 430-450 MHz	Omni-directional
<a href="#">SG301-SF4SNM</a>	0 dBd gain, N (male) connector, 470-490 MHz	Omni-directional
<a href="#">SG301-SF5SNM</a>	0 dBd gain, N (male) connector, 490-512 MHz	Omni-directional
<a href="#">SG301-SF6SNF</a>	0 dBd gain, N (female) connector, 395-410 MHz	Omni-directional

www.sinctech.com



**Australian Representatives**  
**ROJONE, PTY LTD.**

Tel: 02 9829 1555  
E: [sales@rojone.com.au](mailto:sales@rojone.com.au)  
[www.rojone.com.au](http://www.rojone.com.au)

Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
<b>Telephone</b>	USA: 1 800 263 3275	International: +44 (0) 1223 42 03 03	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
<b>E-mail</b>	<a href="mailto:salesusa@sinctech.com">salesusa@sinctech.com</a>	<a href="mailto:salesuk@sinctech.com">salesuk@sinctech.com</a>	<a href="mailto:salesla@sinctech.com">salesla@sinctech.com</a>	<a href="mailto:salescan@sinctech.com">salescan@sinctech.com</a>
Product Specification Sheet		SG301		Dated: 05-02-10

SG301-SF1SNM

SG301-SF2SNM

SG301-SF3SNF

SG301-SF4SNM

**Electrical Specifications**

Frequency Range, MHz	406 to 420	450 to 470	430 to 450	470 to 490
Gain (nominal), dBd (dBi)	unity (2.1)	unity (2.1)	unity (2.1)	unity (2.1)
Input VSWR (max)	1.5:1	1.5:1	1.5:1	1.5:1
Polarization	vertical	vertical	vertical	vertical
Pattern	Omni-directional	Omni-directional	Omni-directional	Omni-directional
Vertical beamwidth, degrees	87	87	87	87
Average Power Input (max), W	100	100	100	100
Lightning protection	DC ground	DC ground	DC ground	DC ground
Bandwidth, MHz	14	20	20	20

**Mechanical Specifications**

Connector	N (male)	N (male)	N (female)	N (male)
Length/ Height, in (mm)	23 (584)	23 (584)	23 (584)	23 (584)
Width, in (mm)	16 (406)	16 (406)	16 (406)	16 (406)
Depth, in (mm)	16 (406)	16 (406)	16 (406)	16 (406)
Base pipe diameter, in (mm)	0.8 (19)	0.8 (19)	0.8 (19)	0.8 (19)
Base pipe mounting length, in (mm)	8 (203)	8 (203)	8 (203)	8 (203)
Weight, lbs (kg)	2 (0.9)	2 (0.9)	2 (0.9)	2 (0.9)
Actual Shipping weight, lbs (kg)	5 (2.3)	5 (2.3)	5 (2.3)	5 (2.3)
Shipping dimensions, in (mm)	26x4x6 (660x102x152)	26x4x6 (660x102x152)	26x4x6 (660x102x152)	26x4x6 (660x102x152)
Mounting hardware	#135 clamp	#135 clamp	#135 clamp	#135 clamp

**Environmental Specifications**

Temperature range, °F (°C)	-22 to +140 (-30 to +60)	-22 to +140 (-30 to +60)	-22 to +140 (-30 to +60)	-22 to +140 (-30 to +60)
Wind Loading Area (Flat Plate Equivalent), ft <sup>2</sup> (m <sup>2</sup> )	0.09 (0.01)	0.09 (0.01)	0.09 (0.01)	0.09 (0.01)
Wind Loading Area (ice), ft <sup>2</sup> (m <sup>2</sup> )	0.33 (0.03)	0.33 (0.03)	0.33 (0.03)	0.33 (0.03)
Lateral thrust (100mph), lbs (N)	3.4 (15.3)	3.4 (15.3)	3.4 (15.3)	3.4 (15.3)
Bending moment, ft-lbs (Nm)	0.5 (0.7)	0.5 (0.7)	0.5 (0.7)	0.5 (0.7)

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<b>E-mail</b>	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

SG301-SF5SNM

SG301-SF6SNF

**Electrical Specifications**

Frequency Range, MHz	490 to 512	395 to 410
Gain (nominal), dBd (dBi)	unity (2.1)	unity (2.1)
Input VSWR (max)	1.5:1	1.5:1
Polarization	vertical	vertical
Pattern	Omni-directional	Omni-directional
Vertical beamwidth, degrees	87	87
Average Power Input (max), W	100	100
Lightning protection	DC ground	DC ground
Bandwidth, MHz	22	15

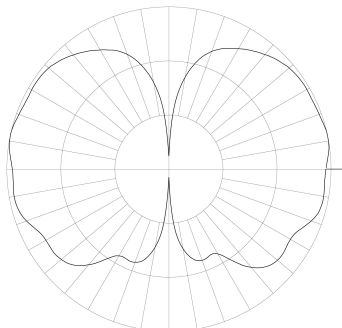
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SINCLAIR TECHNOLOGIES



MEASURED RADIATION PATTERN  
VERTICAL POLARIZATION

Elevation  
Relative Gain - 10 dB per Division

**SG301-SF1SNM**

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