

## SD210-HL - PIM Certified 1 dipole antenna, 1.5/2.0 dBd gain, low PIM, HD, 118-225 MHz

- Industry-leading -150 dBc PIM rating, covers 118-225 MHz in 3 band splits
- 1.5 dBd gain at elliptical (bi-directional) pattern (1/2 wave) and offset pattern (1/4 wave)
- Heavy duty: 255 mph/346 kph rated wind velocity

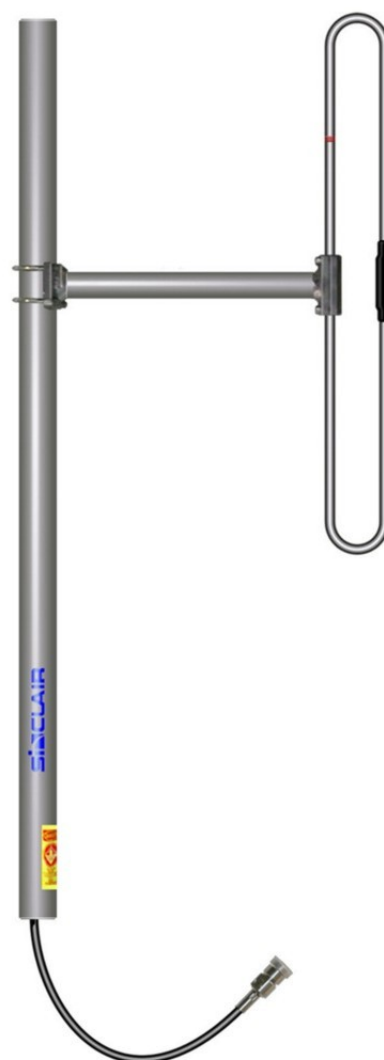
The SD210-HL series of antennas is unique in its high efficiency and exceptionally wide bandwidth, covering the frequency ranges of 118-137 or 138-174 MHz at a VSWR of 1.5:1 or better. Because of its bandwidth, the SD210-HL series is perfectly suited for multicoupled systems.

The SD210-HL is also high-performance low PIM antenna which use industry-leading designs that offers excellent bandwidth and high reliability, and is of heavy duty construction, able to withstand wind speeds of greater than 150 mph with no ice.

### Application Notes

- SD210-HF2P4LDF specifications are shown at the series level

Model	Description	Pattern
<a href="#">SD210-HF1P2LDF</a>	1.5 dBd gain, 7/16 DIN (female) connector, 118-138 MHz	Bi-directional
<a href="#">SD210-HF1P4LDF</a>	2.0 dBd gain, offset, 7/16 DIN (female), 118-138 MHz	Offset
<a href="#">SD210-HF2P2LDF</a>	1.5 dBd gain, elliptical, 7/16 DIN (female) connector, 138-174 MHz	Bi-directional
<a href="#">SD210-HF2P4LDF</a>	2.0 dBd gain, offset, 7/16 DIN (female) connector, 138-174 MHz	Offset
<a href="#">SD210-HF3P2LDF</a>	1.5 dBd gain, elliptical, 7/16 DIN (female) connector, 190-225 MHz	Bi-directional
<a href="#">SD210-HF3P2LDF(D00B)</a>	1.5 dBd gain, elliptical, 7/16 DIN (female) connector, 190-225 MHz	Bi-directional
<a href="#">SD210-HF3P4LDF</a>	2.0 dBd gain, offset, 7/16 DIN (female) connector, 190-225 MHz	Offset
<a href="#">SD210-HF3P4LDF(D00B)</a>	2.0 dBd gain, offset, 7/16 DIN (female) connector, 190-225 MHz	Offset



**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)

Standard SD210-L model shown.

Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	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
E-mail	<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		SD210-HL - PIM Certified		Dated: 05-02-10

SD210-HF1P2LDF

SD210-HF1P4LDF

SD210-HF2P2LDF

SD210-HF2P4LDF

**Electrical Specifications**

Frequency Range, MHz	118 to 138	118 to 138	138 to 174	138 to 174
Gain (nominal), dBd (dBi)	1.5 (3.6)	2 (4.1)	1.5 (3.6)	2 (4.1)
Input VSWR (max)	1.5:1	1.5:1	1.5:1	1.5:1
Polarization	vertical	vertical	vertical	vertical
Impedance, $\Omega$				
Pattern	Bi-directional	Offset	Bi-directional	Offset
Horizontal beamwidth, degrees		210		180
Vertical beamwidth, degrees	68	68	68	68
Average Power Input (max), W	200	300	200	300
Passive intermod. (2x20W, 3rd ord.), dBc	-150	-150	-150	-150
Lightning protection	DC ground	DC ground	DC ground	DC ground

**Mechanical Specifications**

Connector	7/16 DIN (female)	7/16 DIN (female)	7/16 DIN (female)	7/16 DIN (female)
Length/ Height, in (mm)	60 (1524)	60 (1524)	60 (1524)	60 (1524)
Width, in (mm)	42.1 (1069)	24.1 (612)	42.1 (1069)	24.1 (612)
Depth, in (mm)	3 (76)	3.5 (89)	3 (76)	3.5 (89)
Base pipe diameter, in (mm)	1.9 (48)	1.9 (48)	1.9 (48)	1.9 (48)
Base pipe mounting length, in (mm)				
Weight, lbs (kg)	13.3 (6)	13.3 (6)	13.3 (6)	13.3 (6)
Weight iced, lbs (kg)	56.1 (25.5)	49 (22.2)	56.1 (25.5)	49 (22.2)
Actual Shipping weight, lbs (kg)	20 (9.1)	20 (9.1)	31 (14.1)	20 (9.1)
Shipping dimensions, in (mm)	63x4x42 (1600x102x1067)	63x4x42 (1600x102x1067)	63x4x42 (1600x102x1067)	63x4x42 (1600x102x1067)
Mounting hardware	Clamps not supplied	Clamps not supplied	Clamps not supplied	Clamps not supplied

Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	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
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com
Product Specification Sheet		SD210-HL - PIM Certified		Dated: 05-02-10

SD210-HF3P2LDF

SD210-HF3P2LDF(D00B)

SD210-HF3P4LDF

SD210-HF3P4LDF(D00B)

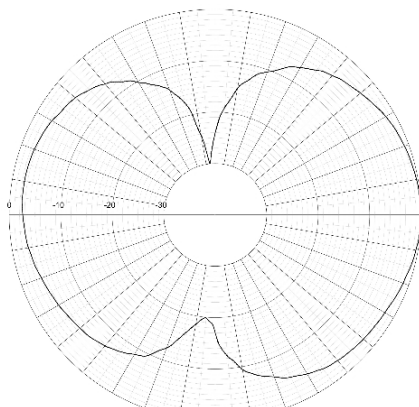
**Electrical Specifications**

Frequency Range, MHz	190 to 225	190 to 225	190 to 225	190 to 225
Gain (nominal), dBd (dBi)	1.5 (3.6)	1.5 (3.6)	2 (4.1)	2 (4.1)
Input VSWR (max)	1.5:1	1.5:1	1.5:1	1.5:1
Polarization	vertical	vertical	vertical	vertical
Impedance, $\Omega$		50		50
Pattern	Bi-directional	Bi-directional	Offset	Offset
Horizontal beamwidth, degrees			210	180
Vertical beamwidth, degrees	68	68	68	68
Average Power Input (max), W	200	300	300	300
Passive intermod. (2x20W, 3rd ord.), dBc	-150	-150	-150	-150
Lightning protection	DC ground	DC ground	DC ground	DC ground

**Mechanical Specifications**

Connector	7/16 DIN (female)	7/16 DIN (female)	7/16 DIN (female)	7/16 DIN (female)
Length/ Height, in (mm)	60 (1524)	60 (1524)	60 (1524)	60 (1524)
Width, in (mm)	42.1 (1069)	31.5 (800)	24.1 (612)	18 (457)
Depth, in (mm)	3 (76)	3.5 (89)	3.5 (89)	3.5 (89)
Base pipe diameter, in (mm)	1.9 (48)	1.9 (48)	1.9 (48)	1.9 (48)
Base pipe mounting length, in (mm)		24 (610)		24 (610)
Weight, lbs (kg)	13.3 (6)	10.8 (4.9)	13.3 (6)	9.5 (4.3)
Weight iced, lbs (kg)	56.1 (25.5)	27 (12.3)	49 (22.2)	24.5 (11.1)
Actual Shipping weight, lbs (kg)	20 (9.1)	28 (12.7)	20 (9.1)	21 (9.5)
Shipping dimensions, in (mm)	63x4x42 (1600x102x1067)	60x36x6 (1524x914x152)	63x4x42 (1600x102x1067)	63x26.4x6 (1600x671x152)
Mounting hardware	Clamps not supplied	clamps not supplied	Clamps not supplied	clamps not supplied

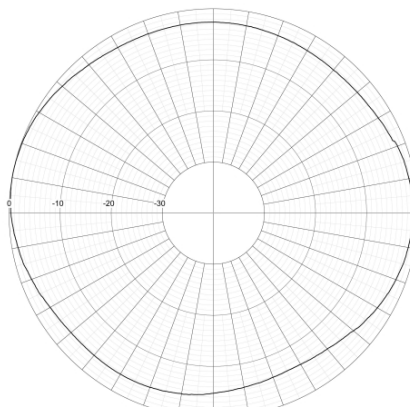
SINCLAIR TECHNOLOGIES



MEASURED RADIATION PATTERN  
Vertical  
Relative Gain - 10 dB per Division

SD210-HF1P2LDF

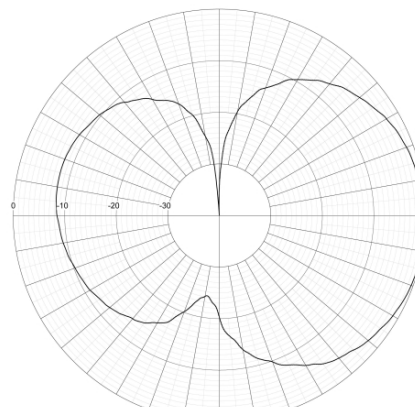
SINCLAIR TECHNOLOGIES



MEASURED RADIATION PATTERN  
Horizontal  
Relative Gain - 10 dB per Division

SD210-HF1P2LDF

SINCLAIR TECHNOLOGIES

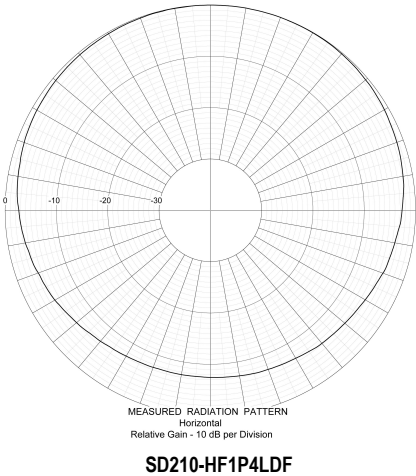


MEASURED RADIATION PATTERN  
Vertical  
Relative Gain - 10 dB per Division

SD210-HF1P4LDF

Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	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
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com
Product Specification Sheet		SD210-HL - PIM Certified		Dated: 05-02-10

SINCLAIR TECHNOLOGIES



www.sinctech.com

Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	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
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com
Product Specification Sheet		SD210-HL - PIM Certified		Dated: 05-02-10