

SY307

Yagi directional antenna, 10 dBd gain, black anodized, 340-512 MHz

- Rugged 7-element design optimized for 10 dBd gain in compact size
- 3/8 inch aluminum reflector/director elements with 360 degree welds to aluminum boom
- Anodized for extended life and superior performance in heavy ice or corrosive environments
- Low PIM -150 dBc available

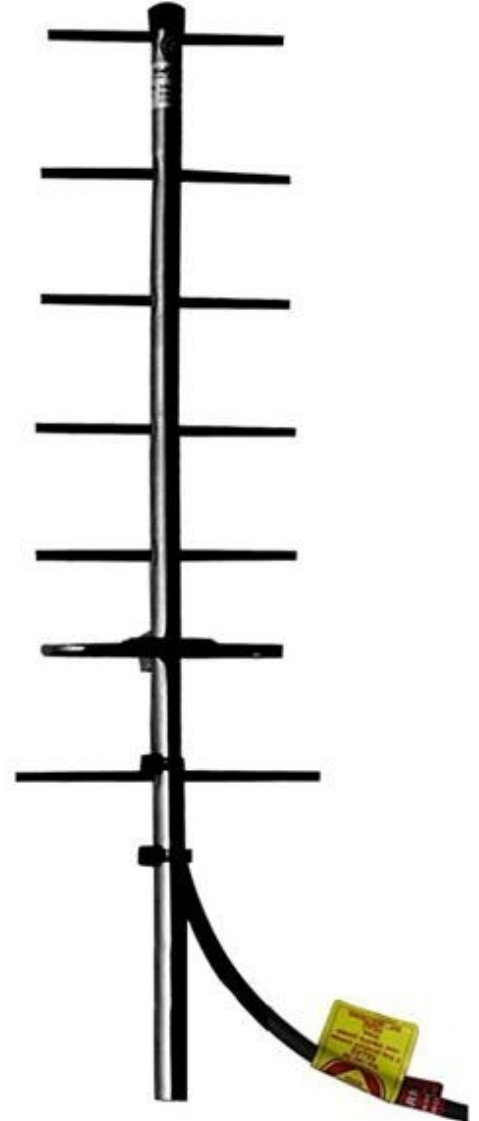
The SY307 is a rugged 7-element yagi antenna optimized for 10 dBd gain.

Reflector and director elements are 3/8 inch diameter aluminum rods welded with 360 degree welds to a heavy-gage boom and anodized for extended life and low-PIM performance in heavy ice or corrosive environments.

Application Notes

- Stacking of yagis provides increased gain. Stacking kits are available for 2 and 4 antenna configurations

Model	Description	Pattern
SY307-SF1SNM	10 dBd gain, N (male) connector, 403-430 MHz	Directional
SY307-SF2SNM	10 dBd gain, N (male) connector, 430-450 MHz	Directional
SY307-SF3SNM	10 dBd gain, N (male) connector, 450-470 MHz	Directional
SY307-SF4SNM	10 dBd gain, N (male) connector, 470-490 MHz	Directional
SY307-SF5SNM	10 dBd gain, N (male) connector, 490-512 MHz	Directional
SY307-SF6SNM	10 dBd gain, N (male) connector, 340-360 MHz	Directional
SY307-SF7SNM	10 dBd gain, N (male) connector, 360-380 MHz	Directional
SY307-SF8SNM	10 dBd gain, N (male) connector, 380-400 MHz	Directional
SY307-SF9SNM	10 dBd gain, N (male) connector, 440-460 MHz	Directional



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@sincltech.com	salesuk@sincltech.com	salesla@sincltech.com	salescan@sincltech.com
Product Specification Sheet		SY307		Dated: 05-02-10

[SY307-SF1SNM](#)

[SY307-SF2SNM](#)

[SY307-SF3SNM](#)

[SY307-SF4SNM](#)

Electrical Specifications

Frequency Range, MHz	403 to 430	430 to 450	450 to 470	470 to 490
Gain (nominal), dBd (dBi)	10 (12.1)	10 (12.1)	10 (12.1)	10 (12.1)
Input VSWR (max)	1.5:1	1.5:1	1.5:1	1.5:1
Polarization	vertical or horizontal	vertical or horizontal	vertical or horizontal	vertical or horizontal
Pattern	Directional	Directional	Directional	Directional
Horizontal beamwidth, degrees	55	55	55	55
Vertical beamwidth, degrees	41	41	41	41
Average Power Input (max), W	250	250	250	250
Lightning protection	DC ground	DC ground	DC ground	DC ground
Bandwidth, MHz	27	20	20	20
Front-to-back ratio (typ), dB	20	20	20	20

Mechanical Specifications

Connector	N (male)	N (male)	N (male)	N (male)
Length/ Height, in (mm)	44 (1118)	44 (1118)	44 (1118)	44 (1118)
Width, in (mm)	14.3 (363)	14.3 (363)	14.3 (363)	14.3 (363)
Depth, in (mm)	3 (76)	3 (76)	3 (76)	3 (76)
Weight, lbs (kg)	3.5 (1.6)	5 (2.3)	5 (2.3)	5 (2.3)
Finish	anodize black	anodize black	anodize black	anodize black
Actual Shipping weight, lbs (kg)	8 (3.6)	8 (3.6)	8 (3.6)	8 (3.6)
Shipping dimensions, in (mm)	47x6x18 (1194x152x457)	47x6x18 (1194x152x457)	47x6x18 (1194x152x457)	47x6x18 (1194x152x457)
Mounting hardware	#115 clamp (included)	#115 clamp (included)	#115 clamp (included)	#115 clamp (included)

Environmental Specifications

Temperature range, °F (°C)	-40 to +140 (-40 to +60)	-40 to +140 (-40 to +60)	-40 to +140 (-40 to +60)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent), ft² (m²)	0.44 (0.04)	0.4 (0.04)	0.4 (0.04)	0.4 (0.04)

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SY307-SF5SNM

SY307-SF6SNM

SY307-SF7SNM

SY307-SF8SNM

Electrical Specifications

Frequency Range, MHz	490 to 512	340 to 360	360 to 380	380 to 400
Gain (nominal), dBd (dBi)	10 (12.1)	10 (12.1)	10 (12.1)	10 (12.1)
Input VSWR (max)	1.5:1	1.5:1	1.5:1	1.5:1
Polarization	vertical or horizontal	vertical or horizontal	vertical or horizontal	vertical or horizontal
Pattern	Directional	Directional	Directional	Directional
Horizontal beamwidth, degrees	55	45	45	45
Vertical beamwidth, degrees	41	40	40	40
Average Power Input (max), W	250	250	250	250
Lightning protection	DC ground	DC ground	DC ground	DC ground
Bandwidth, MHz	22	20	20	20
Front-to-back ratio (typ), dB	20	20	20	20

Mechanical Specifications

Connector	N (male)	N (male)	N (male)	N (male)
Length/ Height, in (mm)	44 (1118)	50.6 (1285)	50.6 (1285)	50.6 (1285)
Width, in (mm)	14.3 (363)	17.2 (437)	17.2 (437)	17.2 (437)
Depth, in (mm)	3 (76)	3 (76)	3 (76)	3 (76)
Weight, lbs (kg)	5 (2.3)	3.5 (1.6)	3.5 (1.6)	3.5 (1.6)
Finish	anodize black	anodize black	anodize black	anodize black
Actual Shipping weight, lbs (kg)	8 (3.6)	8 (3.6)	8 (3.6)	8 (3.6)
Shipping dimensions, in (mm)	47x6x18 (1194x152x457)	47x6x18 (1194x152x457)	47x6x18 (1194x152x457)	47x6x18 (1194x152x457)
Mounting hardware	#115 clamp (included)	#115 clamp (included)	#115 clamp (included)	#115 clamp (included)

Environmental Specifications

Temperature range, °F (°C)	-40 to +140 (-40 to +60)	-40 to +140 (-40 to +60)	-40 to +140 (-40 to +60)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent), ft² (m²)	0.4 (0.04)	0.4 (0.04)	0.4 (0.04)	0.4 (0.04)

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SY307-SF9SNM

Electrical Specifications

Frequency Range, MHz	440 to 460
Gain (nominal), dBd (dBi)	10 (12.1)
Input VSWR (max)	1.5:1
Polarization	vertical or horizontal
Pattern	Directional
Horizontal beamwidth, degrees	55
Vertical beamwidth, degrees	41
Average Power Input (max), W	250
Lightning protection	DC ground
Bandwidth, MHz	20
Front-to-back ratio (typ), dB	20

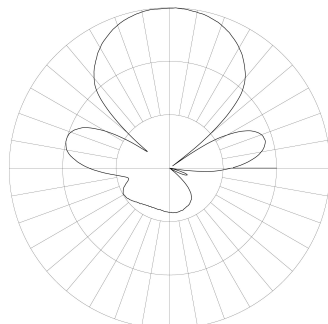
Mechanical Specifications

Connector	N (male)
Length/ Height, in (mm)	44 (1118)
Width, in (mm)	14.3 (363)
Depth, in (mm)	3 (76)
Weight, lbs (kg)	5 (2.3)
Finish	anodize black
Actual Shipping weight, lbs (kg)	8 (3.6)
Shipping dimensions, in (mm)	47x6x18 (1194x152x457)
Mounting hardware	#115 clamp (included)

Environmental Specifications

Temperature range, °F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent), ft ² (m ²)	0.4 (0.04)

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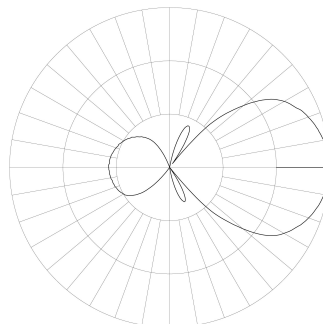


MEASURED RADIATION PATTERN
VERTICAL POLARIZATION

Azimuth
Relative Gain - 10 dB per Division

SY307-SF1SNM

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MEASURED RADIATION PATTERN
VERTICAL POLARIZATION

Elevation
Relative Gain - 10 dB per Division

SY307-SF1SNM

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