

SC34A-SF1(YYY)(DXX-ZZZ) Aurora™ collinear omni, 10 dBd gain, low PIM, PIP, 400-420 MHz

- Patent-pending Aurora™ design for outstanding performance
- 20 MHz fully operational bandwidth with highly consistent RF performance
- -150dBc PIM rating for low noise characteristics, ideal for wideband or trunking systems
- Rugged design and UV protected radome for harsh environment

The Aurora™ SC family is Sinclair's next-generation of public safety collinear antennas. The patent-pending design utilizes cutting-edge yet field-proven technology to deliver an unparalleled combination of highly stable RF pattern, higher gain, and wider bandwidth.

Specifically, the SC34A series collinear omni-directional antenna offers 10 dBd gain in 20 MHz (typ) band splits covering the 380-512 MHz UHF frequency range. This antenna is designed for a high degree of operational reliability in extreme wind, ice, and corrosive conditions. Its relatively low mass and small wind-loading profile make it easy to install. The antenna is fully DC grounded on all elements for the ultimate lightning protection and dissipation of static noise. Severe weather conditions have been fully considered in the overall design. For example, it has a rugged UV-resistant fiberglass radome for harsh environments, a carefully designed internal supporting structure, certified long-life components, an extra-long base pipe for high wind rating, etc.

When ordering, please refer to the chart below for the model number. Downtilt configurations are subject to various list prices. Other connectors and pigtail terminated types are also available, please contact your Sinclair Sales Representative or Customer Service Representative for more information.

Model Number	Connector	Downtilt	PIM (dBc)	PIP (kW)
SC34A-SF1LDF(D00)	7/16 DIN(F)	0°	<-150	-
SC34A-SF1LDF(D03)	7/16 DIN(F)	3°	<-150	-
SC34A-SF1LDF(D06)	7/16 DIN(F)	6°	<-150	-
SC34A-SF1LDF(D00-PIP)	7/16 DIN(F)	0°	<-150	25
SC34A-SF1LDF(D03-PIP)	7/16 DIN(F)	3°	<-150	25
SC34A-SF1LDF(D06-PIP)	7/16 DIN(F)	6°	<-150	25
SC34A-SF1SNF(D00)	N(F)	0°	-	-
SC34A-SF1SNF(D03)	N(F)	3°	-	-
SC34A-SF1SNF(D06)	N(F)	6°	-	-



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### Electrical Specifications

Frequency Range	MHz	400 to 420	
Bandwidth	MHz	20	
Connector		Various options avail.	*1
Gain (nominal)	dBd (dBi)	10 (12.1)	*2
Input VSWR (max)		1.5:1	
Polarization		vertical	
Impedance	Ω	50	
Pattern		Omni-directional	
Vertical beamwidth (typ)	degrees	7.5	*3
Average Input Power (max)	W	500	
Number of ports		1	
Lightning protection		DC ground	

### Notes

- \*1 : See previous page for details.
- \*2 : ±1 dB
- \*3 : ±1 degree
- \*4 : ± 1"
- \*5 : Qty 2
- \*6 : Optional, not included.

### Mechanical Specifications

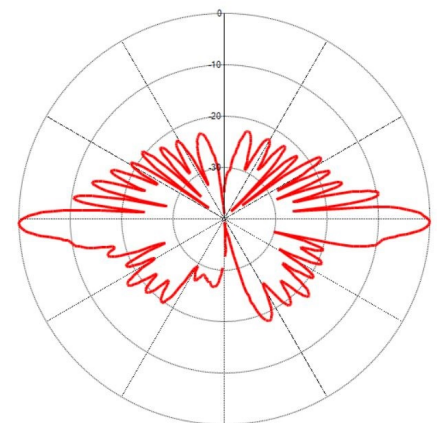
Width	in (mm)	2.88 (73)	
Depth	in (mm)	2.88 (73)	
Length/ Height	in (mm)	255 (6477)	*4
Base pipe diameter	in (mm)	2.88 (73)	
Base pipe mounting length	in (mm)	18 (457)	
Radome material		fiberglass (UV protected)	
Weight	lbs (kg)	42.5 (19.3)	
Weight iced (1/2" ice)	lbs (kg)	76 (34.5)	
Mounting Hardware (Optional)		Clamp005, or Clamp005X	*5
Kit for Offset Side Mount (straight tower leg)		SMK-225-A3-T5 or SMK-225-A7-T5	*6
Actual shipping weight	lbs (kg)	75 (34.05)	
Shipping dimensions	in (mm)	266x4.5x4.5 (6756x114x114)	

### Ordering Information

Clamps must be purchased separately.

### Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft <sup>2</sup> (m <sup>2</sup> )	2.9 (0.27)
Wind Loading Area (1/2" ice)	ft <sup>2</sup> (m <sup>2</sup> )	4 (0.37)
Survival wind velocity (no ice)	mph (km/h)	182 (293)
Survival wind velocity (1/2" radial ice)	mph (km/h)	147 (237)
Rated wind velocity (no ice)	mph (km/h)	130 (209)
Rated wind velocity (1/2" radial ice)	mph (km/h)	105 (169)
Lateral Thrust (100 mph No Ice)	lbs (N)	110 (489.3)
Bending moment (100 mph No Ice)	ft-lbs (Nm)	983 (1327.1)
Tip deflection (100 mph No Ice)	degrees	7.7



Vertical, 0° downtilt

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