



#### SC499-HWBLDF(DXXI-NUFP)

Aurora<sup>™</sup> omni, 9 dBd, HD, low PIM, null fill, PIP, inverted, 746-960 MHz

- Patent-pending Aurora<sup>™</sup> balanced design delivers exceptional 214 MHz bandwidth
- · Industry-leading -150dBc PIM rating for low noise characteristics, ideal for trunking sys.
- · Heavy-duty construction with outstanding 200 mph wind rating for harsh environments
- 500W power handling; optimized null fill for close-in coverage enhancement; PIP rated

# Recommend SMK-335-A3 or SMK-335-A7 for Offset Side Mount. Available from Sinclair separately.

The Aurora™ SC family is Sinclair's next generation of collinear antennas. The patent-pending antenna utilizes cutting-edge, field-proven balanced design to deliver an unparalleled combination of higher gain, wider bandwidth, highly consistent RF pattern, higher wind rating and lighter weight, all in a small form factor. Designed according to IEC62305 Part 1-4, VDE0855-300, and fulfilling the requirements of lightning protection class II, these antennas are fully DC-grounded and protected with a lightning spike through the top of the radome. Unbeatable, heavy-duty construction along with the enhanced wind rating, means these antennas can last for years in the most challenging environments. The new Aurora SC series is ideal for public safety applications as it offers reliability, durability, and easy installation in a lightweight and compact package.

When ordering, please refer to the chart below for the model number. Different configurations are subject to various list prices. Please contact your Sinclair Sales Representative or Customer Service Representative for more information.

| Model Number            | Downtilt |
|-------------------------|----------|
| SC499-HWBLDF(D00I-NUFP) | 0°       |
| SC499-HWBLDF(D01I-NUFP) | 1°       |
| SC499-HWBLDF(D02I-NUFP) | 2°       |
| SC499-HWBLDF(D03I-NUFP) | 3°       |
| SC499-HWBLDF(D04I-NUFP) | 4°       |
| SC499-HWBLDF(D05I-NUFP) | 5°       |
| SC499-HWBLDF(D06I-NUFP) | 6°       |
| SC499-HWBLDF(D07I-NUFP) | 7°       |
| SC499-HWBLDF(D08I-NUFP) | 8°       |
| SC499-HWBLDF(D09I-NUFP) | 9°       |
| SC499-HWBLDF(D10I-NUFP) | 10°      |

#### **Application Notes**

Recommend SMK-345-A7 kit for offset side mounting. Available from Sinclair separately.
 Complies with EIA/TIA-329 standard.

Clamp not supplied. Antenna may not appear exactly as shown in image

| Region                                    | <b>United States</b>  | Europe, Middle East, and Africa | Canada, Caribbean, and Latin America                     | Asia-Pacific                       |
|---|-----------------------|---------------------------------|--|------------------------------------|
| Telephone                                 | 1 800 263 3275        | +1 905 727 0165 ext 232         | Canada: 1 905 726 7676<br>International: +1 905 726 7676 | +1 905 727 0165 ext 287            |
| E-mail                                    | salesusa@sinctech.com | salesemea@sinctech.com          | salescan@sinctech.com                                    | salesasia@sinctech.com             |
| Product Specification Sheet<br>EPR 018943 |                       | SC499-HWBLDF(DXXI-NUFP)         | Issue: 1   | Dated: 15-08-23<br>Dated: 15-08-23 |



### A Norsat Company in Norsat

## **Antennas** 700-1000 MHz Antennas SC499-HL PIM Certified Series

| Electrical Specifications           |           |                             |    |
|-------------------------------------|-----------|-----------------------------|----|
| Frequency Range                     | MHz       | 746 to 960                  |    |
| Bandwidth                           | MHz       | 214                         |    |
| Connector                           |           | 7/16 DIN-Female             |    |
| Gain (nominal)                      | dBd (dBi) | 9 (11.1)                    |    |
| Input VSWR (max)                    |           | 1.5:1                       |    |
| Polarization                        |           | vertical                    |    |
| Impedance                           | Ω         | 50                          |    |
| Pattern                             |           | Omni-directional            |    |
| Vertical beamwidth (typ)            | degrees   | 5.2                         |    |
| Average Input Power (max)           | W         | 500                         |    |
| Passive intermod. (2x20W, 3rd ord.) | dBc       | -150                        |    |
| PIP(KW, max)                        |           | 25                          | *1 |
| Null fill                           | %         | 25                          |    |
| Grounding                           |           | All metal parts DC-grounded |    |
| Grounding                           |           | All metal parts DC-grounded | _  |

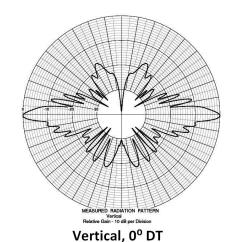
Notes

\*2 : Qty 2

**Ordering Information** When ordering, please refer to the model list on the previous page for specific model numbers and downtilt configurations.

\*1 : Quantified by Motorola 12 channel combining system

| Mechanical Specifications                      |          |                            |    |
|--|----------|----------------------------|----|
| Width  | in (mm)  | 5 (127)                    |    |
| Depth  | in (mm)  | 5 (127)                    |    |
| Length/ Height                                 | in (mm)  | 140.5 (3569)               |    |
| Base pipe diameter                             | in (mm)  | 5 (127)                    |    |
| Base pipe mounting length                      | in (mm)  | 20 (508)                   |    |
| Radiating element material                     |          | copper                     |    |
| Radome material                                |          | fiberglass (UV protected)  |    |
| Weight   | lbs (kg) | 51 (23.15)                 |    |
| Weight iced (1/2" ice)                         | lbs (kg) | 88 (39.95)                 |    |
| Mounting Hardware (Optional)                   |          | Clamp006C                  | *2 |
| Mounting configurations                        |          | Inverted                   |    |
| Kit for Offset Side Mount (straight tower leg) |          | SMK-345-A7                 |    |
| Estimated Shipping Weight                      | lbs (kg) | 85 (38.59)                 |    |
| Shipping dimensions                            | in (mm)  | 155x6.5x6.5 (3937x165x165) |    |
|  |          |                            |    |



| Environmental Specifications              |             |                          |
|---|-------------|--------------------------|
| Temperature range                         | °F (°C)     | -40 to +140 (-40 to +60) |
| Wind Loading Area (Flat Plate Equivalent) | ft² (m²)    | 3 (0.28)                 |
| Wind Loading Area (1/2" ice)              | ft² (m²)    | 3.7 (0.34)               |
| Rated wind velocity (no ice)              | mph (km/h)  | 200 (322)                |
| Rated wind velocity (1/2" radial ice)     | mph (km/h)  | 170 (274)                |
| Lateral Thrust (100 mph No Ice)           | lbs (N)     | 118 (524.9)              |
| Bending moment (100 mph No Ice)           | ft-lbs (Nm) | 486 (656.1)              |
| Tip deflection (100 mph No Ice)           | degrees     | 0.3                      |

Region **United States** Europe, Middle East, and Africa Canada, Caribbean, and Latin America Asia-Pacific +1 905 727 0165 ext 287 1 800 263 3275 +1 905 727 0165 ext 232 Canada: 1 905 726 7676 Telephone International: +1 905 726 7676 E-mail salesusa@sinctech.com salescan@sinctech.com salesemea@sinctech.com salesasia@sinctech.com

Product Specification Sheet EPR 018943

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