



## SBH-3DA

**Andrew® SmartBeam® Antenna System, 1710–2180 MHz, remote electrical tilt, remote azimuth direction and remote beamwidth control**

- SmartBeam® antenna system with 3° of freedom
- Remote boresight adjustment,  $\pm 30^\circ$
- Remote beamwidth adjustment, 35–105°
- Significantly reduces operational expense by remote control of tilt, horizontal beam direction, and beam width (tilt, pan, and fan)
- Delays the need to add radios or sites by providing superior capacity efficiency of existing radios through dynamic load balancing
- Fully compatible with Andrew Teletilt® remote control system
- Fully supports PCS 1900, GSM 1800, UMTS 2100, and AWS spectrum
- The antenna has a wind survival of 160 MPH when attached to a mounting pipe of 3.5 in (90 mm) or larger and all mounting hardware is properly torqued per the installation instructions provided.

## Electrical Specifications

	35° Fan	40° Fan	45° Fan	50° Fan	55° Fan	60° Fan	65° Fan	70° Fan	80° Fan	90° Fan	105° Fan
Frequency Band, MHz	1710–2180	1710–2180	1710–2180	1710–2180	1710–2180	1710–2180	1710–2180	1710–2180	1710–2180	1710–2180	1710–2180
Gain, dBi	19.2	18.6	18.3	17.8	17.3	16.9	16.4	15.9	15.5	15.1	14.0
Beamwidth, Horizontal, degrees	35	40	45	50	55	60	65	70	80	90	105
Beamwidth, Vertical, degrees	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
Beam Tilt, degrees	2–10	2–10	2–10	2–10	2–10	2–10	2–10	2–10	2–10	2–10	2–10
USLS, typical, dB	16	16	16	16	16	16	16	16	16	16	16
Front-to-Back Ratio at 180°, dB	35	34	35	33	32	31	30	30	29	29	28
Isolation, dB	30	30	30	30	30	30	30	30	30	30	28
VSWR   Return Loss, dB	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0
PIM, 3rd Order, 2 x 20 W, dBc	-145	-145	-145	-145	-145	-145	-145	-145	-145	-145	-145
Input Power per Port, maximum, watts	350	350	350	350	350	350	350	350	350	350	350
Polarization	$\pm 45^\circ$	$\pm 45^\circ$	$\pm 45^\circ$	$\pm 45^\circ$	$\pm 45^\circ$	$\pm 45^\circ$	$\pm 45^\circ$	$\pm 45^\circ$	$\pm 45^\circ$	$\pm 45^\circ$	$\pm 45^\circ$
Impedance	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm

## General Specifications

Antenna Brand	Andrew®
Antenna Type	SmartBeam®
Band	Single band
Brand	DualPol®   SmartBeam®   Teletilt®
Operating Frequency Band	1710 – 2180 MHz
Performance Note	Outdoor usage

## Mechanical Specifications

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Color	Light gray
Lightning Protection	dc Ground
Radiator Material	Low loss circuit board
Radome Material	Fiberglass, UV resistant
RF Connector Interface	7-16 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, total	2
Wind Loading, maximum	280.0 N @ 150 km/h 62.9 lbf @ 150 km/h
Wind Speed, maximum	257 km/h   160 mph

## Dimensions

Length	1616.2 mm   63.6 in
Outer Diameter	267.0 mm   10.5 in
Net Weight	20.8 kg   45.9 lb

## Remote Electrical Tilt (RET) Information

Input Voltage	10–30 Vdc
Power Consumption, idle state, maximum	3.0 W
Power Consumption, normal conditions, maximum	12.0 W
Protocol	Andrew vendor specific
RET Interface	8-pin DIN Female   8-pin DIN Male
RET Interface, quantity	1 female   1 male
RET System	Teletilt®

## Packed Dimensions

Depth	374.0 mm   14.7 in
Length	1762.0 mm   69.4 in
Width	376.0 mm   14.8 in
Shipping Weight	30.3 kg   66.8 lb

## Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant by Exemption
China RoHS SJ/T 11364-2006	Above Maximum Concentration Value (MCV)
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system



## Included Products

600899F — Fixed Tilt Pipe Mounting Kit for 2.95 - 4.5 in (75 - 115 mm) OD round members. Kit contains top and bottom mount brackets.

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## \* Footnotes

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Performance Note	Severe environmental conditions may degrade optimum performance
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600899F

**Fixed Tilt Pipe Mounting Kit for 2.95 - 4.5 in (75 - 115 mm) OD round members. Kit contains top and bottom mount brackets.**

**This product will be discontinued on: May 31, 2016**

**Replaced By**

600899A-2	Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.
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## General Specifications

Antenna Brand	Andrew®
Mount Type	Pipe mounts
Application	Outdoor
Includes	Brackets   Hardware
Package Quantity	1

## Mechanical Specifications

Color	Silver
Material Type	Galvanized steel

## Dimensions

Compatible Diameter, maximum	114.3 mm   4.5 in
Compatible Diameter, minimum	76.2 mm   3.0 in
Net Weight	2.4 kg   5.3 lb

## Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant
China RoHS SJ/T 11364-2006	Below Maximum Concentration Value (MCV)
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system

