

JAHH Family of Octo Port Antennas with Internal SBT for LTE deployments

North America Communication

CommScope is proud to announce an update to its popular JAHH family of octo port antennas which are perfectly suited to support LTE networks using AWS, PCS, 700MHz and 850MHz because with just two of these antennas side by side each of these services is supported with 4 ports for full 4x4 MIMO or 4 branch RX for all four bands.

The **JAHH** family has a best-of-class sector-power-ratio (SPR) resulting in **less sector overlap** and **improved signal to noise ratio (SNR)**, both of which are key to high data throughput in LTE networks. Using advanced diplexing technology allows a very narrow form factor of this antenna.

These antennas have three internal RETs. One RET for 700MHz, one RET for 850MHz and one RET for both high bands. This ensures that all 4 HB ports are always tilted to the same setting which is a crucial requirement for MIMO and beamforming performance.

To take advantage of the internal SBT found in most LTE radios, these JAHH antennas also have an internal SBT. As a result, AISG signals injected by the radio onto the RF path can be received and routed directly to the RET actuators from within the antenna. That means no external SBT or external RET cables are needed, **saving both time and money**. In cases where the radio does not have an internal SBT, these antennas also feature AISG (RS-485) ports for use with RET cables, thereby providing **maximum flexibility** from design through installation.

Benefits of using internal SBTs:

- **Eliminates** need for external SBTs & RET cables
- **Simplifies** cabling on the tower
- **Improves** visual appearance
- **Reduces** installation time on site
- **Minimizes** installation errors



These antennas have also been designed with **Self-Optimizing Networks (SON)** in mind. With SON it is beneficial to have the low band and the high band RET path separated. Thus these antennas have two internal SBTs and two RET input/daisy-chain ports - one for the low band, one for the high band.

The JAHH octo port antennas are also ideal for use with **4 branch receive diversity** or for **MIMO** modes which require 4 ports per band. For both of these applications it is crucial that the beam of all four high band ports be set to the same tilt level. Therefore these antennas have one RET controlling both high band phase shifters so that it is **impossible to have misaligned tilts** on the high band. The best way to use 4 x 700MHz ports and 4 x 850MHz ports is by installing two of these antennas side by side.

Product Highlights

- **Industry Leading Performance:** Impressive sector power ratio (SPR) to reduce cell overlap, minimize the noise in the network and ensure high data throughput rates.
- **Multiband:** 698-896MHz and 2x1695-2360MHz. Supports 700MHz, 850MHz, and on the high band all AWS, PCS and WCS frequencies (including AWS-3 and AWS-4).
- **Two internal SBTs:** One low band (LB). One high band (HB). Eliminate the need for external SBTs and RET cables.
- **Three internal RETs:** One 700MHz RET, one 850MHz RET, one HB RET. Maximize MIMO or 4 branch receive diversity performance by ensuring all four high band ports use the same tilt.
- **-153dBc PIM:** Superior, long term PIM performance which is crucial for noise suppression in the RF path and for high data throughput rates.

Ordering Information:

Please see details below for the released and upcoming models.

Model Number	Beam width	Length	Frequency	RET Option
JAHH-65C-R3B HB Tilt = 2-12 deg	65°	8ft	698-896 MHz 2x 1695–2360 MHz	3 int. RETs (1x700MHz, 1x850MHz, 1xHB) 2 internal SBTs (1x LB, 1x HB) 2 sets of AISG IN/OUT ports (1x LB, 1x HB)
JAHH-65C-R3B-V2 HB Tilt = 0-10 deg	65°	8ft	698-896 MHz 2x 1695–2360 MHz	3 int. RETs (1x700MHz, 1x850MHz, 1xHB) 2 internal SBTs (1x LB, 1x HB) 2 sets of AISG IN/OUT ports (1x LB, 1x HB)
JAHH-65B-R3B	65°	6ft	698-896 MHz 2x 1695–2360 MHz	3 int. RETs (1x700MHz, 1x850MHz, 1xHB) 2 internal SBTs (1x LB, 1x HB) 2 sets of AISG IN/OUT ports (1x LB, 1x HB)
JAHH-65A-R3B Q2 2017	65°	4ft	698-896 MHz 2x 1695–2360 MHz	3 int. RETs (1x700MHz, 1x850MHz, 1xHB) 2 internal SBTs (1x LB, 1x HB) 2 sets of AISG IN/OUT ports (1x LB, 1x HB)

Please contact your local CommScope Sales Representative for more information.