

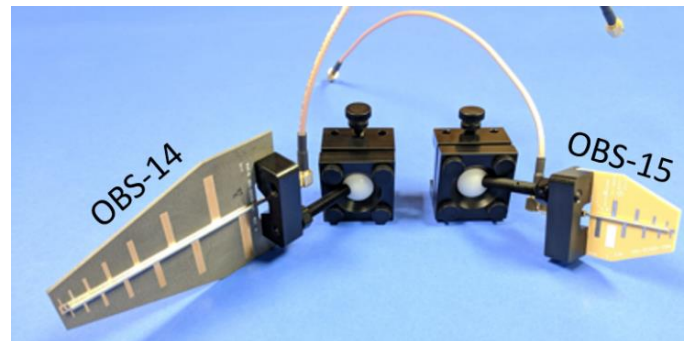


octoBox OBS-14 and OBS-15 High Gain Antenna Array Datasheet

4-element MIMO antenna array brings 10 dB of extra link budget

The octoBox® OBS-14 and OBS-15 high gain antenna arrays consist of 4 log-periodic high gain (HG) antenna elements that increase the link budget by about 10 dB vs. dipole antennas for each OTA (over-the-air) connection in the octoBox personal testbed; 20 dB for a link of two OTA-coupled devices, one in each octoBox.

OBS-14 antennas are optimized for 2-7.5 GHz frequency range. The smaller OBS-15 antennas are optimized for the 5-10 GHz band.

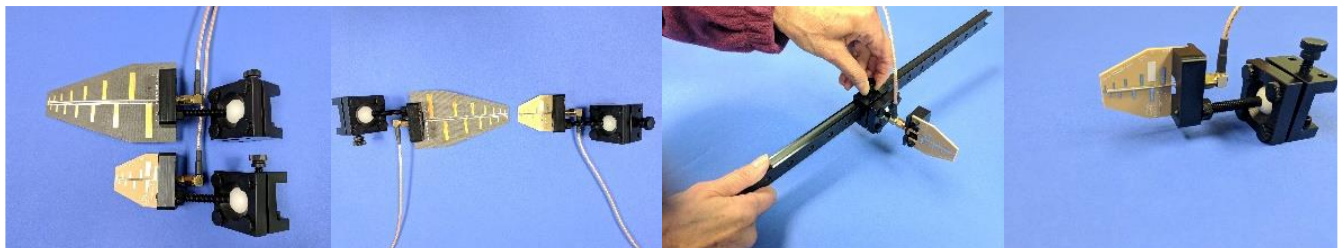
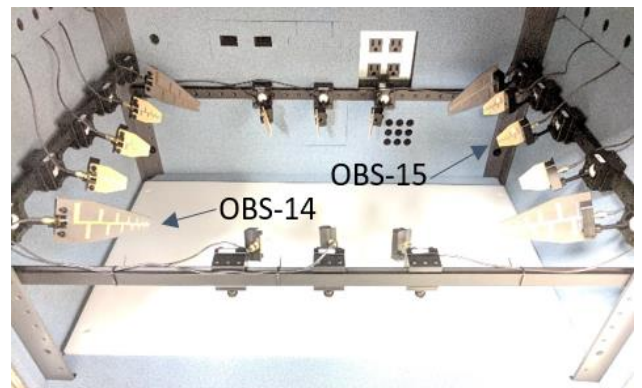


APPLICATIONS

- ✦ Wi-Fi 6e and legacy Wi-Fi, Bluetooth and cellular (LTE, LTE-Advanced, including LAA and MulteFire)
- ✦ Throughput vs. range measurements

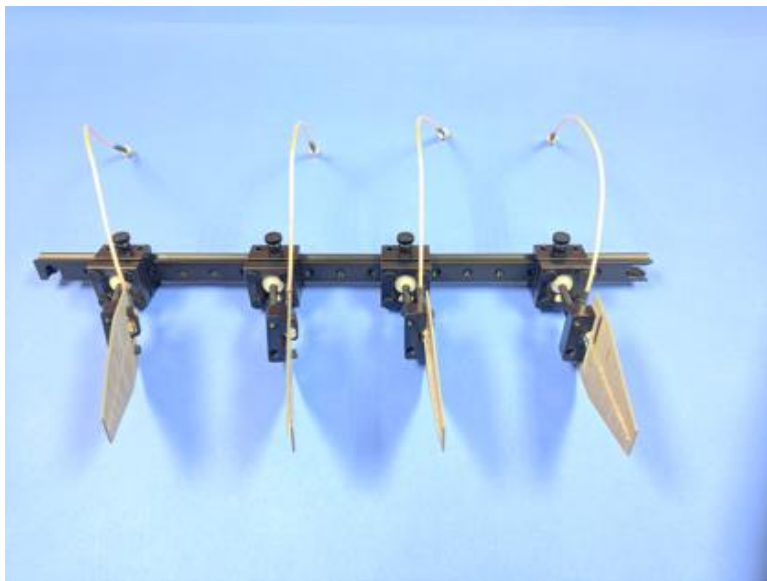
BENEFITS

- ✦ Broadband log-periodic antenna elements, optimized for 2-7.5 GHz and 5-10 GHz frequency bands
- ✦ Plastic brackets, thumbscrews and ball joint for minimizing unwanted reflections
- ✦ Precise control of polarization and pointing with the plastic ball joint at the base of each antenna element

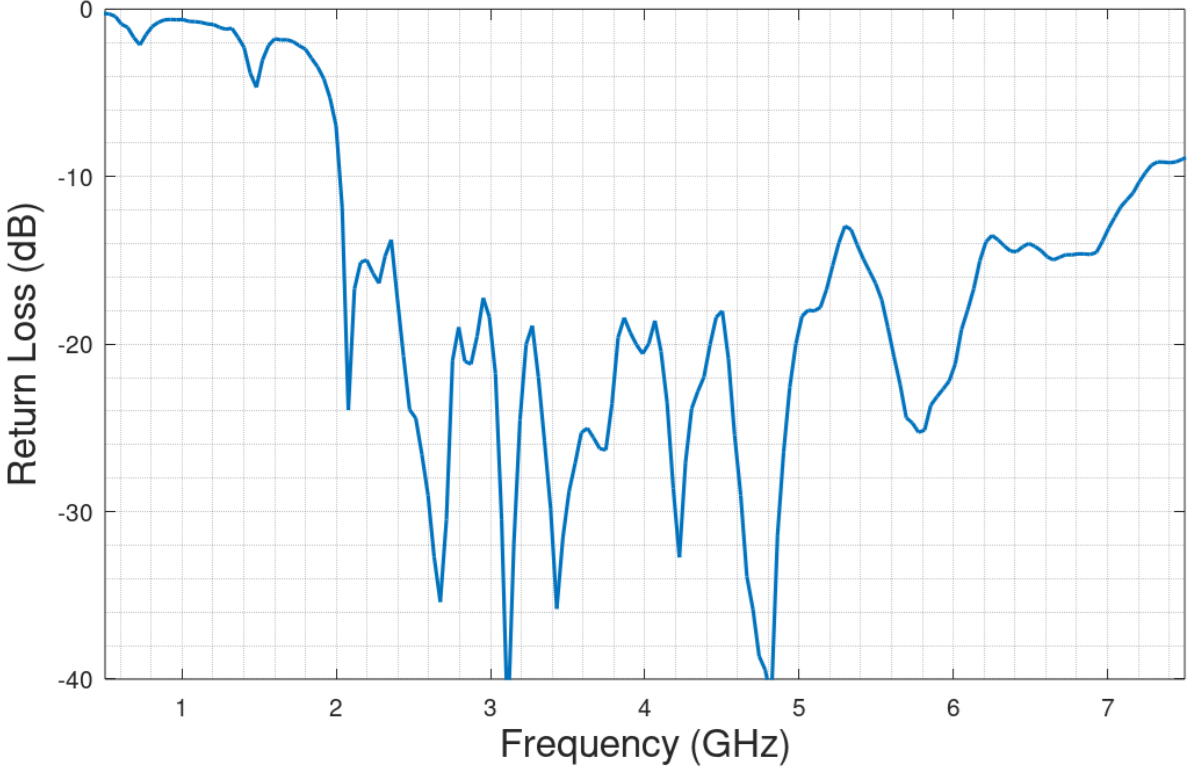


A ball joint on each antenna element allows precise pointing and polarization setting.

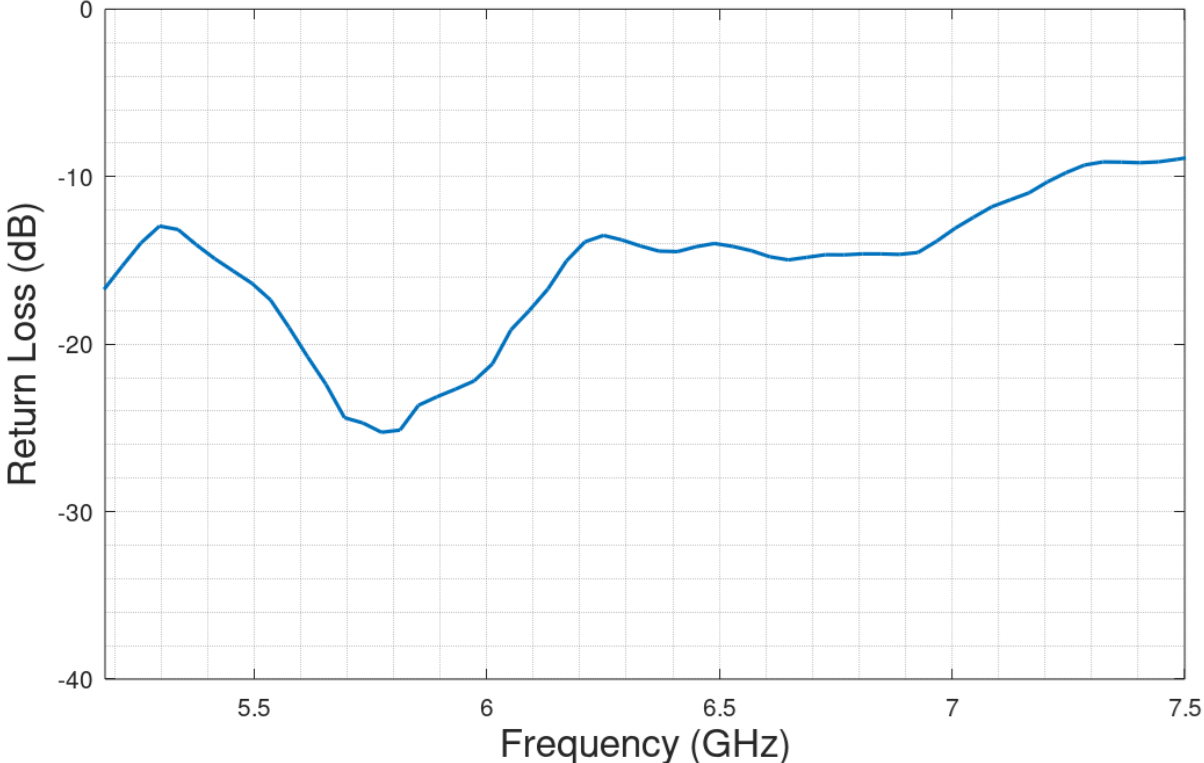
The antenna elements are mounted onto plastic rails and easily adjusted using plastic thumb screws to distribute around the walls and ceiling of the octoBox for optimum MIMO diversity or MU-MIMO gains.



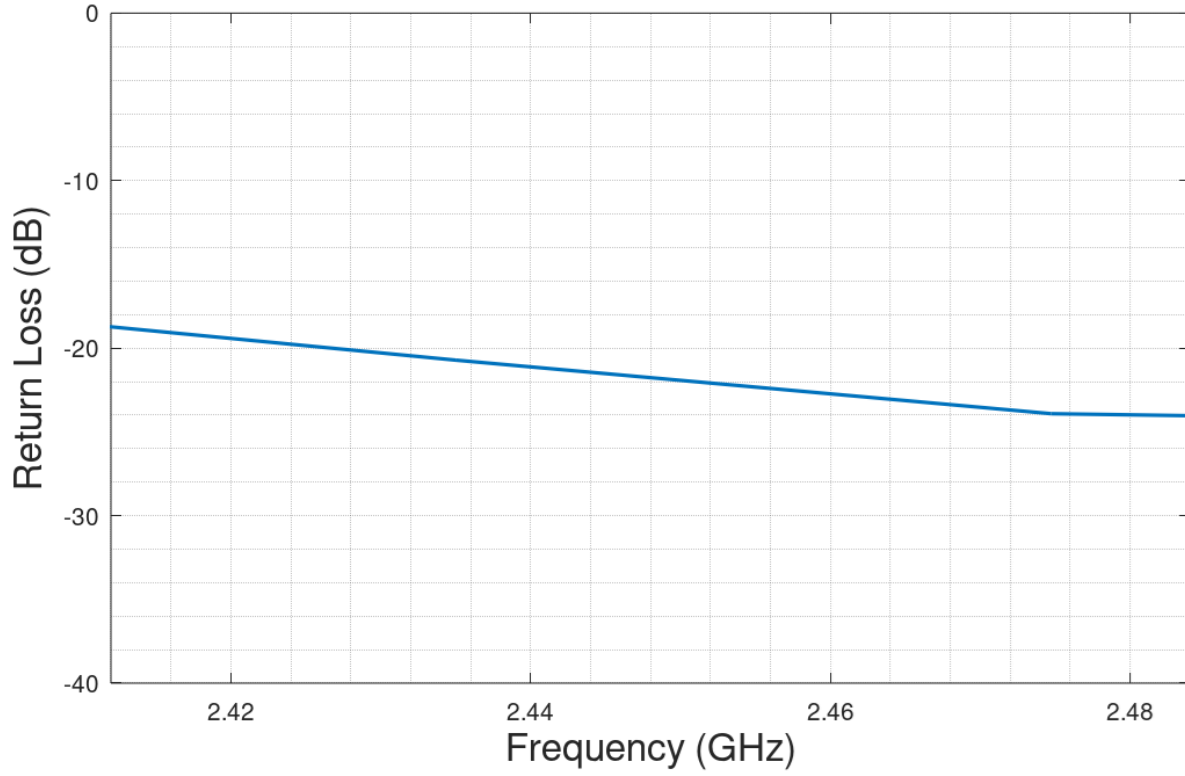
Typical Return loss for OBS-14 full bandwidth



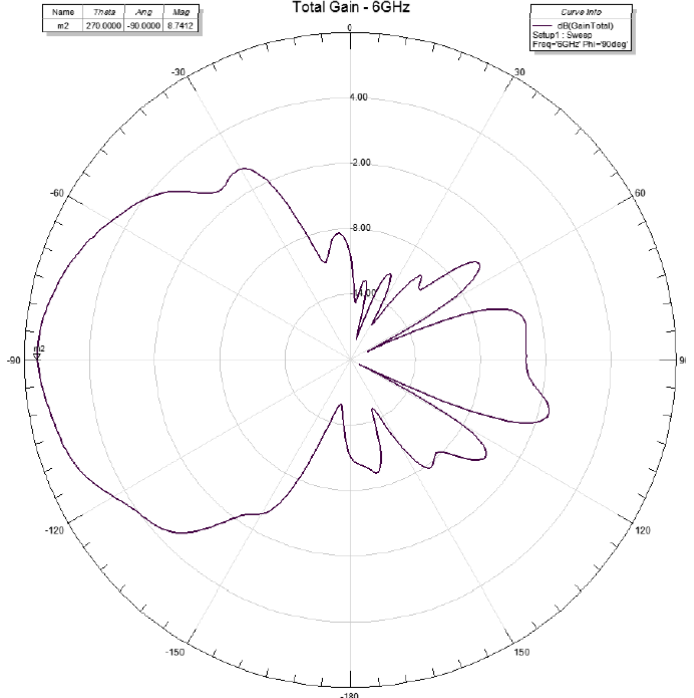
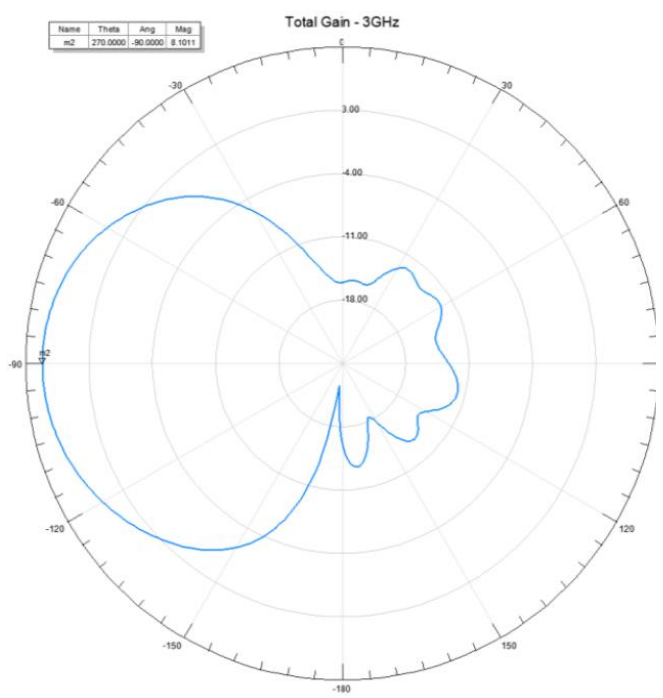
Typical Return loss for OBS-14 5 & 6 GHz bands



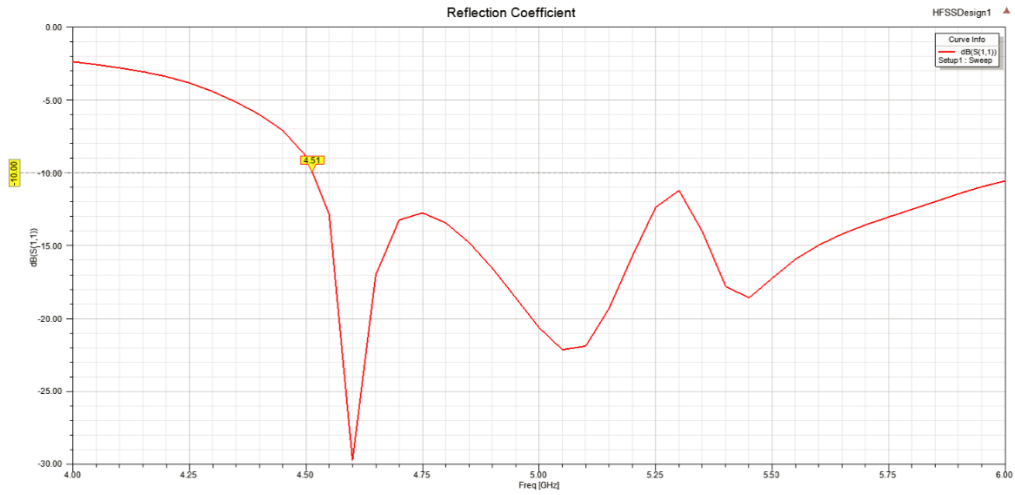
Typical Return loss for OBS-14 2.4 GHz ISM Band



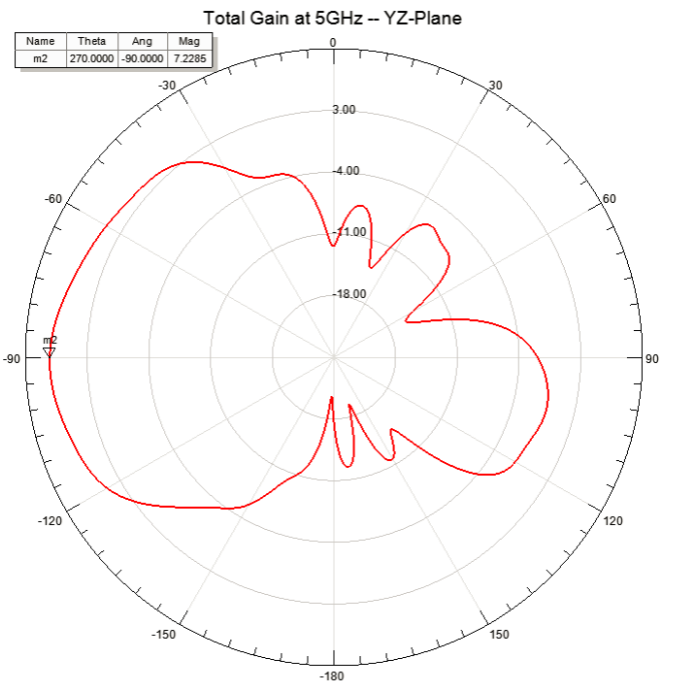
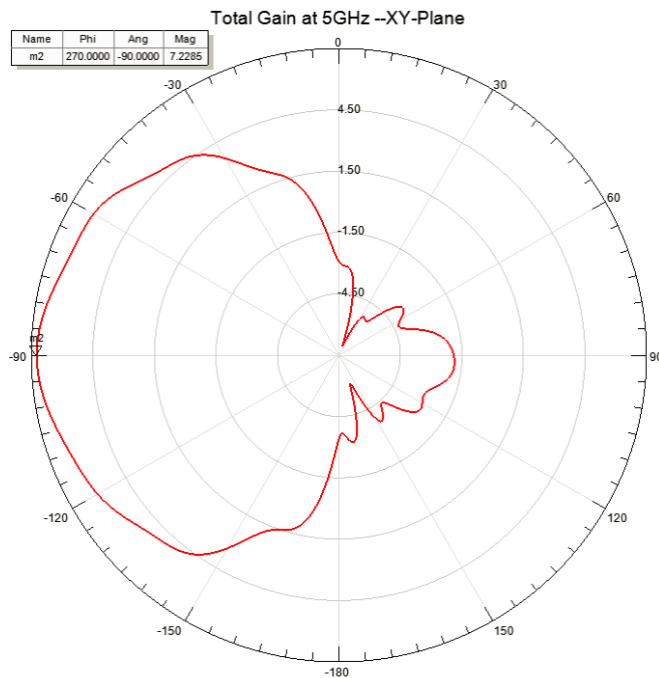
OBS-14 RADIATION PATTERN



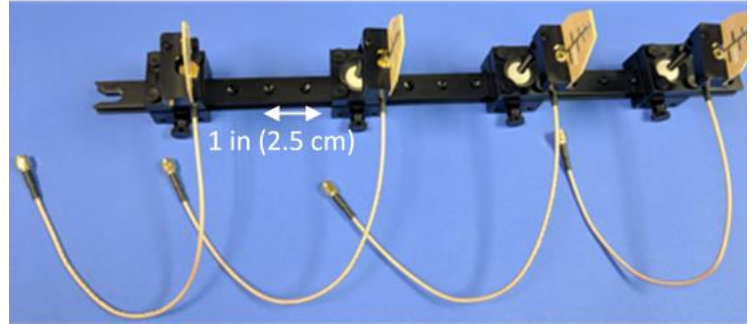
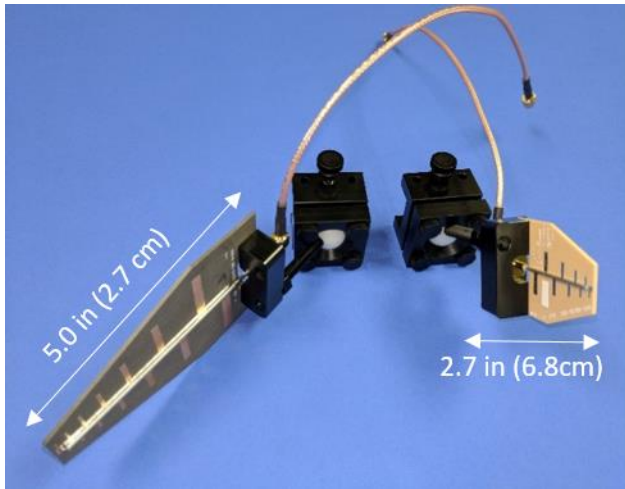
OBS-15 RETURN LOSS (S11)



OBS-15 RADIATION PATTERN



OBS-14 and OBS -15 DIMENSIONS



The OBS 14 measurements are 5.0 inches long by 0.8 inches wide and the OBS-15 is 2.7 inches long by 0.8 inches wide. Indicator dimples on the antenna rail (right) are spaced at 1" intervals to aid in proper positioning of antenna elements.

CONTACT

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