

Directional Antenna Information

The experimental transmitter is an InterDigital MHUv3 incorporating an integrated 8×8 (64-element) phased-array antenna.

The antenna supports electronic beam steering. The configured steering range is approximately -45° to $+45^\circ$ in azimuth relative to antenna boresight and -35° to $+35^\circ$ in elevation relative to boresight. The antenna includes 63 programmable beam directions, with the center beam corresponding to boresight.

During the proposed experiment, the antenna will be operated indoors at the Bethesda North Marriott Hotel & Conference Center. The antenna will be oriented toward the experimental receiver/RIS setup within the designated demonstration area and will not intentionally be directed outside the building.

Because the antenna is electronically steerable, the horizontal and vertical orientations are not fixed during operation.

The manufacturer's available user documentation does not specify the half-power beamwidth of the individual electronically steered beams of this prototype unit.