



AMD-SIMO Dual Element Antenna

Technical Specifications:

Antenna Element A:

Impedance Bandwidth - 470 – 663 MHz

Average Gain – 1.5 dBi

Average Front to Back Ratio - .3 dB

Average Front to Side Ratio – 3.1 dB

Average Half Power Beamwidth - 136 Degrees

Characteristic Impedance - 50 Ohms

Polarization – Slant + 45 Degrees



Antenna Element B:

Impedance Bandwidth - 470 – 663 MHz

Average Gain – 1.7 dBi

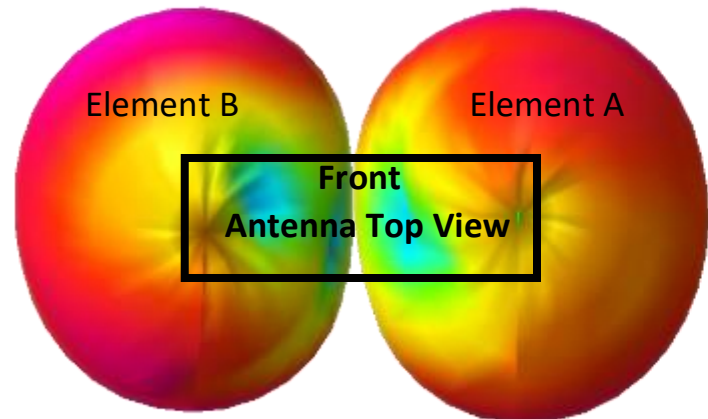
Average Front to Back Ratio – 1.9 dB

Average Front to Side Ratio – 5.7 dB

Average Half Power Beamwidth - 127 Degrees

Characteristic Impedance - 50 Ohms

Polarization – Slant - 45 Degrees



Physical Dimensions:

L – 6.85" (174 mm)

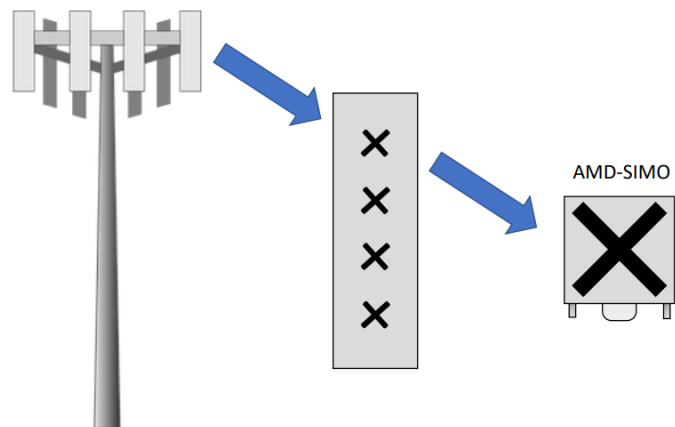
W – 7.28" (185 mm)

H – 1.77" (45 mm)

Approximate Weight – 13.22 oz (375 g)

What is the AMD-SIMO?

The AMD-SIMO is an experiment in creating an easy diversity antenna solution for touring applications where tight space and quick deployment is desired. SIMO stands for Single Input Multiple Output and is part of Sventenna's "Additive Manufactured Dipole" research. The main principle behind this antenna is slant polarization of two wide band cross polarized dipoles. In this application, slant polarization takes the two orthogonal cross polarized dipoles and offsets them by 45 degrees. Rather than two orthogonal dipoles, one with straight vertical polarization and the other with straight horizontal polarization, the two dipoles offset by 45 degrees are always somewhere in between vertical and horizontal polarization. This makes it easier for either dipole to pickup a signal of unknown polarization. For example, a wireless microphone that is changing orientation frequently. To put some merit behind this. Slant/cross polarized dipoles have been used in an array configuration in cell site base station antennas for decades. The AMD-SIMO uses



technology to adapt this type of antenna configuration to the frequency ranges wireless microphones use to offer improved polarization diversity in a small and simple package. The AMD-SIMO has gone through months of laboratory and field testing and has proven itself as a simple, quick and compact solution to diversity antenna deployment without sacrificing performance.

