

AIR-RM21A Antenna System Technical Specification

1. Omni-directional Specifications

The omni-directional antennas are deployed when the antenna housing is oriented vertically with respect to the AP1200 housing as shown in Figure 1. These omni-directional antennas have a peak gain of 5 dBi (nominal) and an E-Plane beamwidth of about 40 degrees.



Figure 1.
AP1200 with Kodiak Antennas in Omni-directional Mode

Kodiak Omni-directional Antenna, E- and H-Planes
Frequency = 5150 MHz, Peak Gain = 5.4 dBi

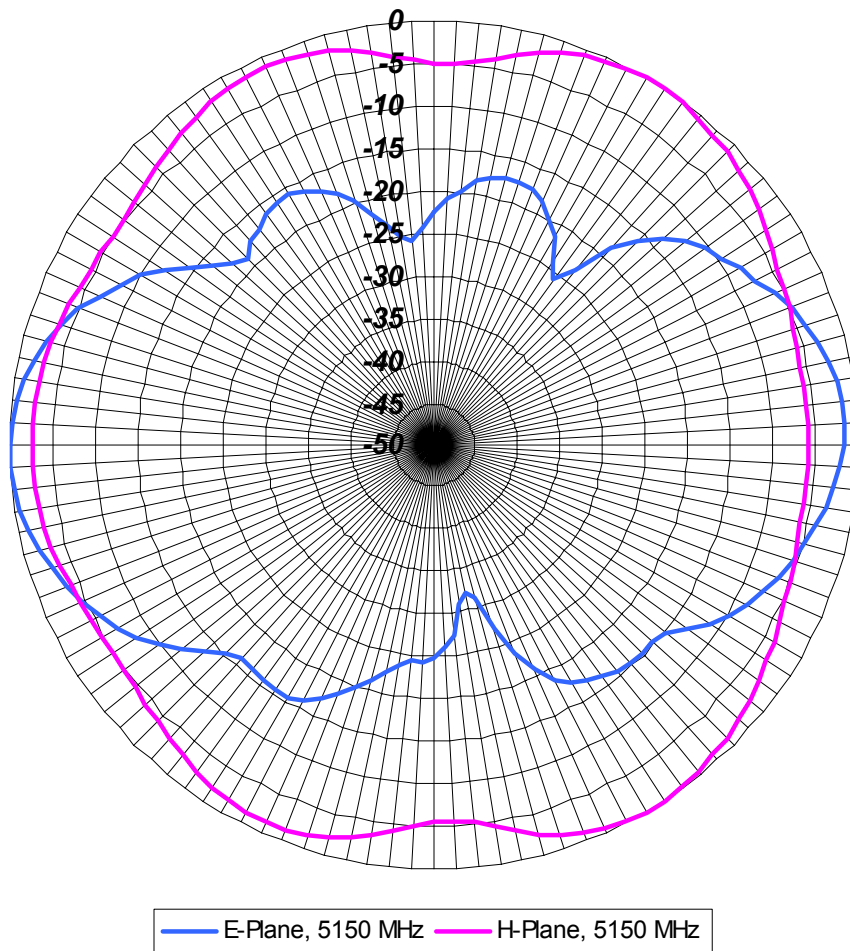


Figure 2.
Kodiak Omni-directional Patterns, $f = 5150$ MHz

Kodiak Omni-directional Antenna, E- and H-Planes
Frequency = 5300 MHz, Peak Gain = 4.7 dBi

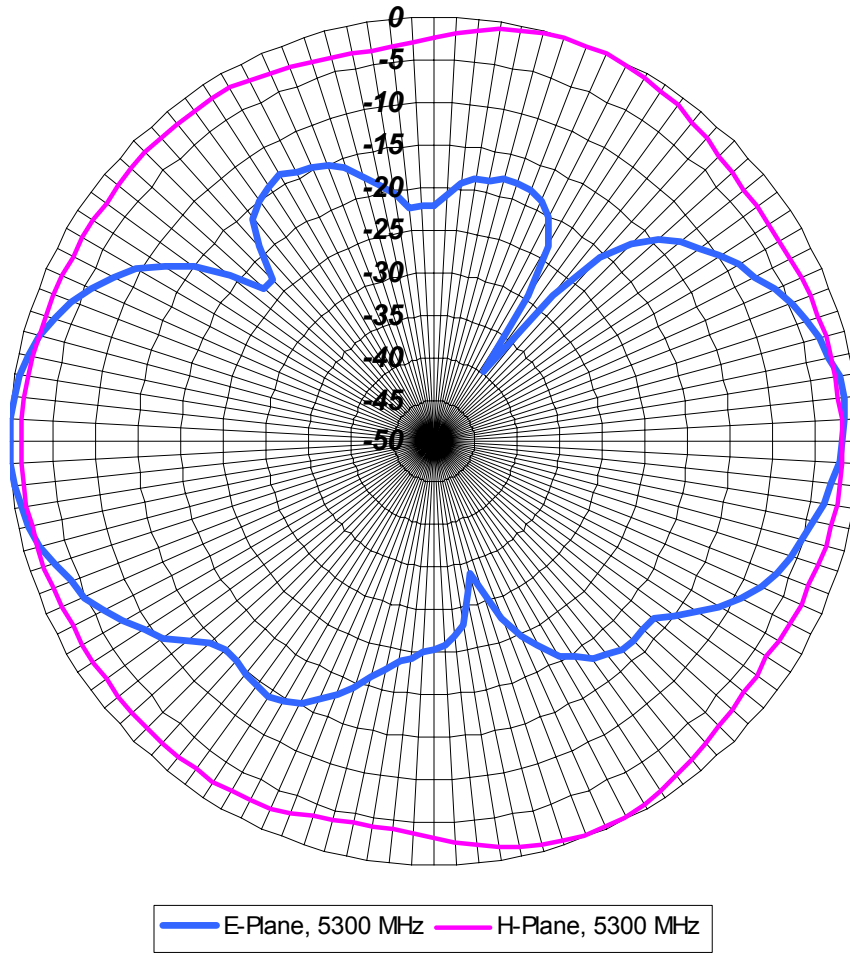


Figure 3.
Kodiak Omni-directional Patterns, $f = 5300$ MHz

Kodiak Omni-directional Antenna, E- and H-Planes

Frequency = 5500 MHz, Peak Gain = 5.0 dBi

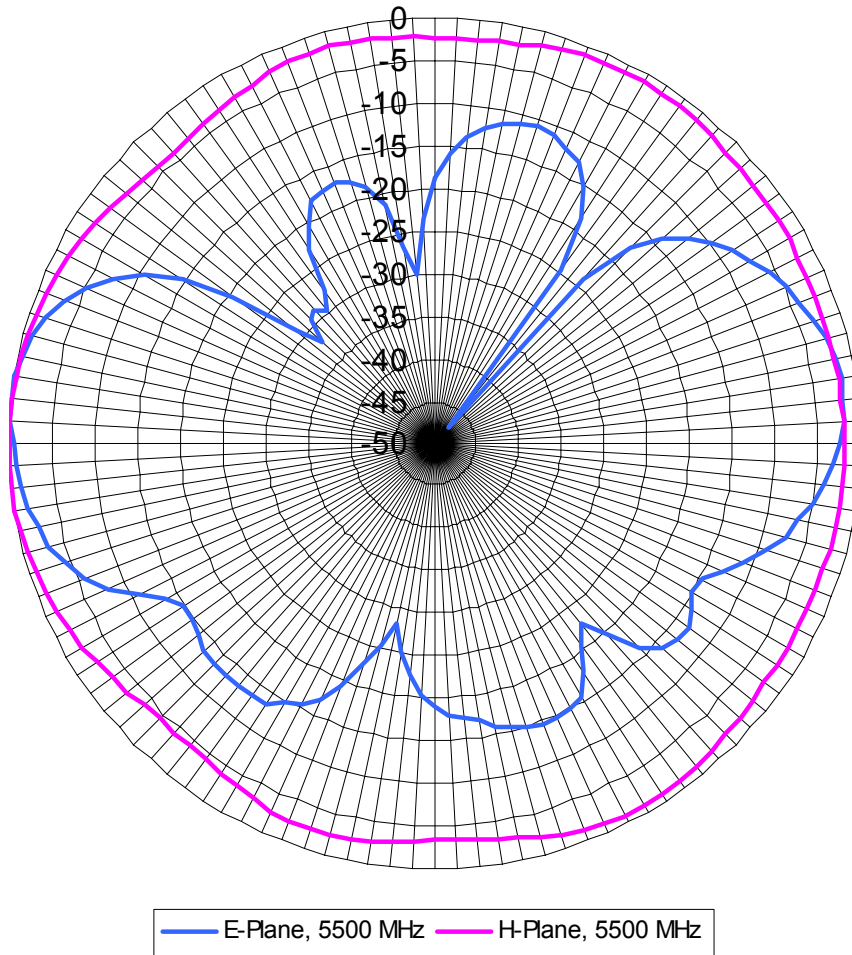


Figure 4.
Kodiak Omni-directional Patterns, $f = 5500$ MHz

Kodiak Omni-directional Antenna, E- and H-Planes
Frequency = 5750 MHz, Peak Gain = 5.4 dBi

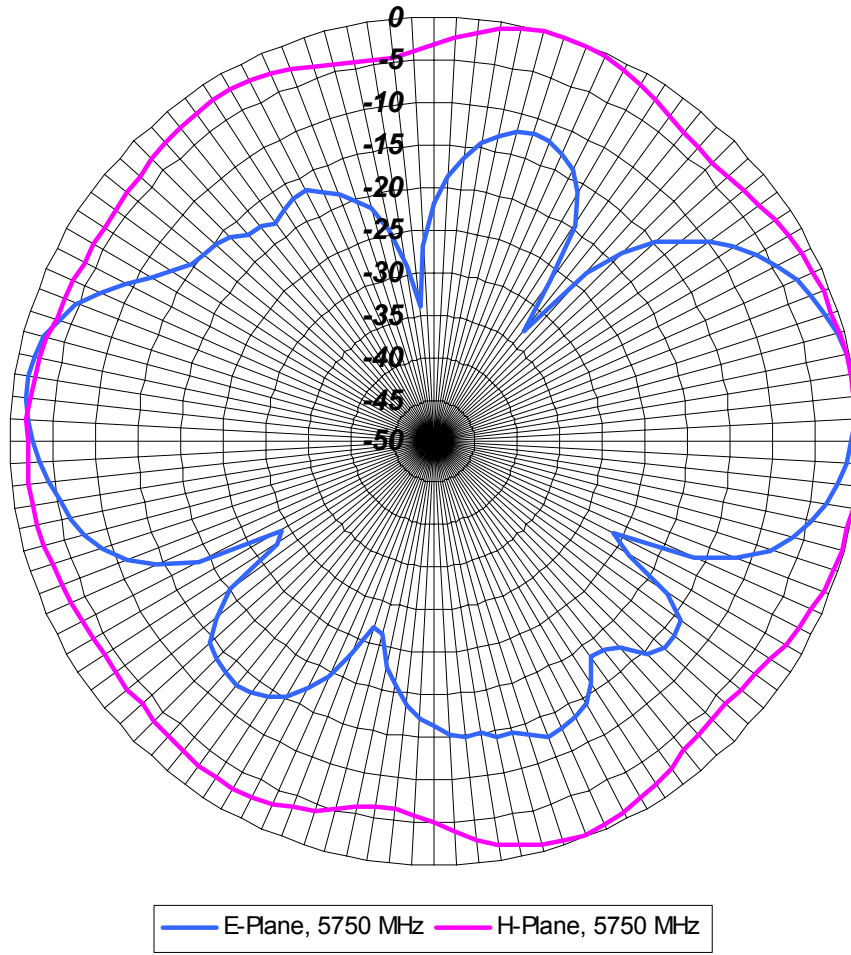


Figure 5.
Kodiak Omni-directional Patterns, $f = 5750$ MHz

Kodiak Omni-directional Antenna, E- and H-Planes

Frequency = 5850 MHz, Peak Gain = 5.4 dBi

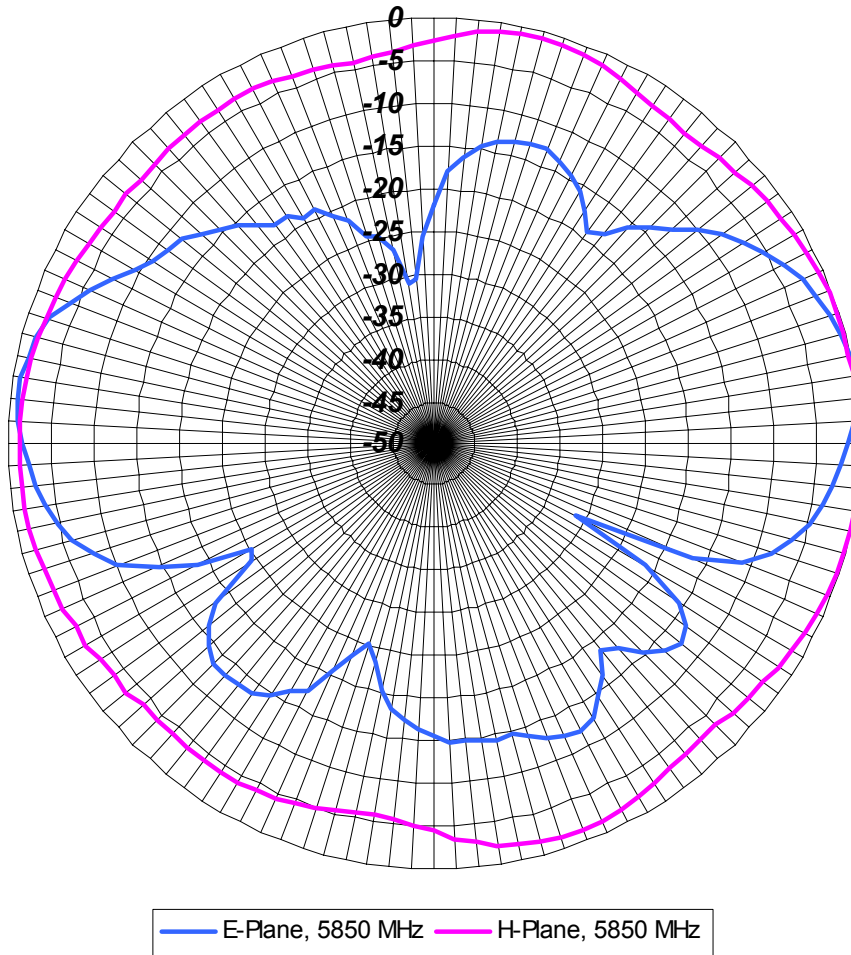


Figure 6.
Kodiak Omni-directional Patterns, $f = 5850$ MHz

3. Directional Antenna Specification.

A directional pattern is achieved by using the die-cast aluminum AP1200 housing as a reflector for the omni-directional antennas. The antenna housing is laid flat against the housing as shown in Figure 7 below. This produces a high H-plane beamwidth of about 100-degrees with a high peak gain of above 9 dBi with a gain at boresight of about 7 dBi.



Figure 7.
AP1200 with Kodiak Antennas in Directional Mode

Kodiak Directional Antenna, E- and H-Planes
Frequency = 5150 MHz, Peak Gain = 8.5 dBi, Boresight = 7 dBi

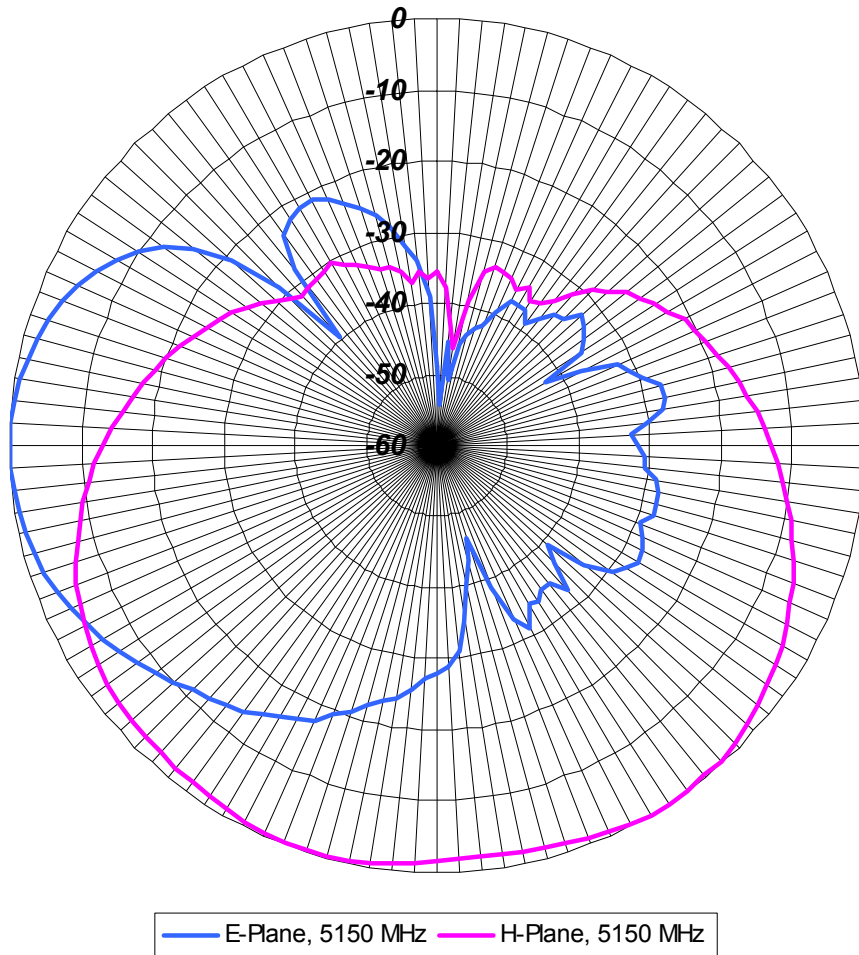


Figure 8.
Kodiak Directional Antenna Patterns, 5150 MHz

Kodiak Directional Antenna, E- and H-Planes
Frequency = 5300 MHz, Peak Gain = 8.5 dBi, Boresight = 7 dBi

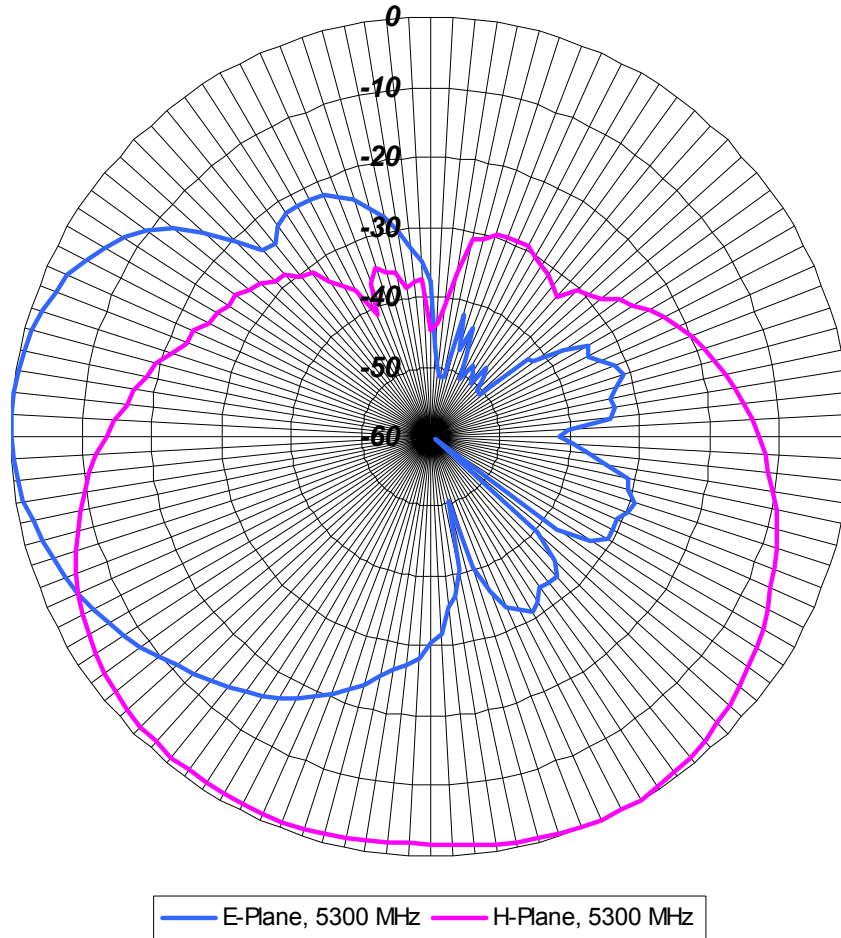


Figure 9.
Kodiak Directional Antenna Patterns, 5300 MHz

Kodiak Directional Antenna, E- and H-Planes
Frequency = 5500 MHz, Peak Gain = 8.3 dBi, Boresight = 8.3 dBi

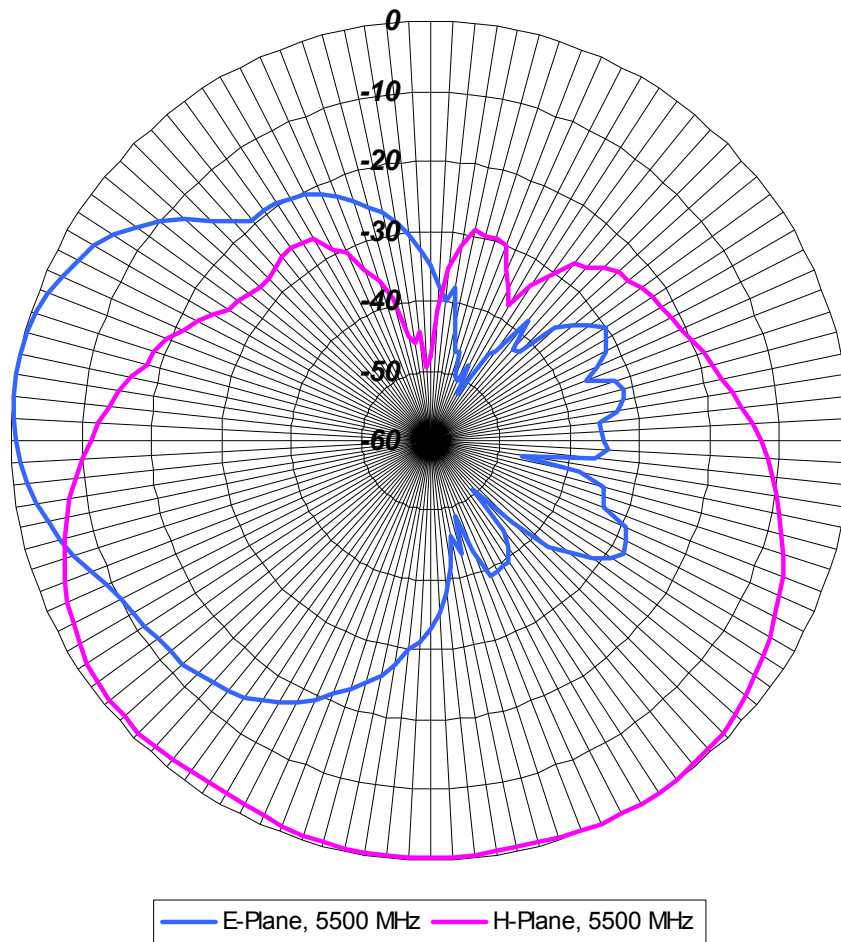


Figure 10.
Kodiak Directional Antenna, 5500 MHz

Kodiak Directional Antenna, E- and H-Planes
Frequency = 5750 MHz, Peak Gain = 9.8 dBi, Boresight = 7 dBi

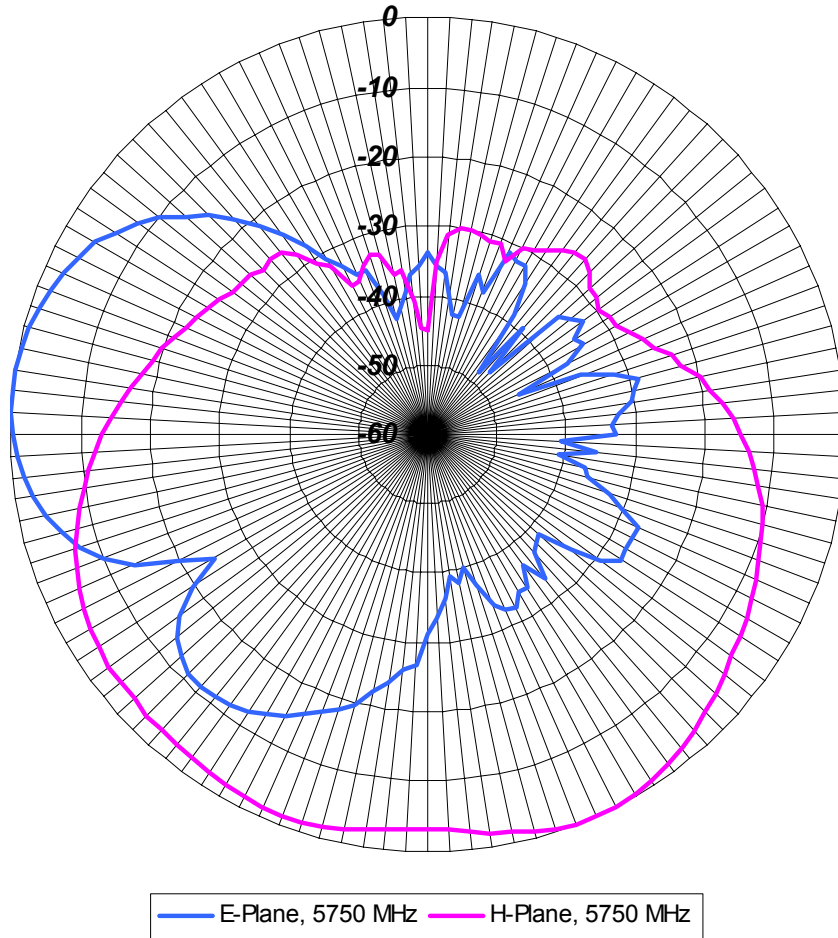


Figure 11.
Kodiak Directional Antenna Patterns, 5750 MHz

Kodiak Directional Antenna, E- and H-Planes
Frequency = 5850 MHz, Peak Gain = 9.6 dBi, Boresight = 7.1 dBi

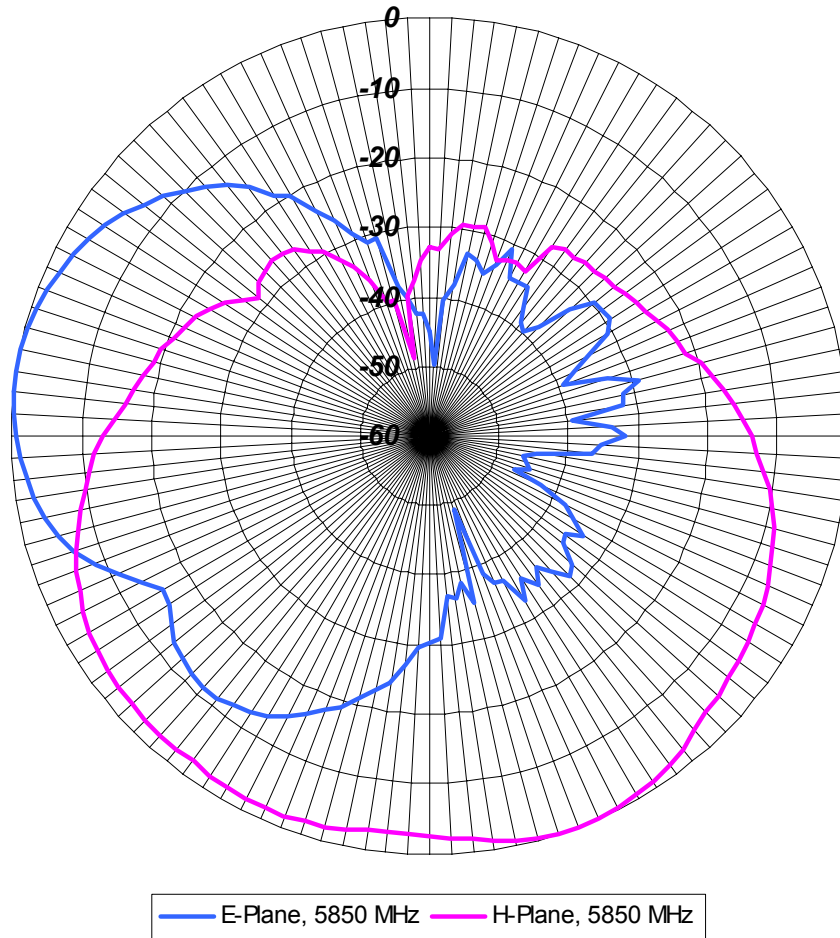


Figure 12.
Kodiak Directional Antenna Patterns, 5850 MHz