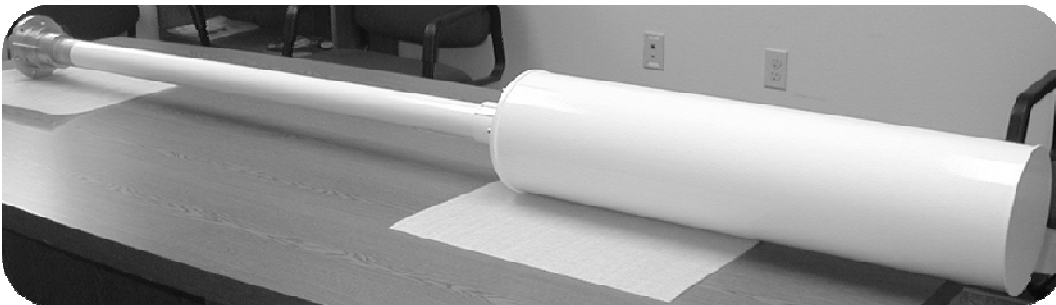


**Model FPVCL-043-N Antenna Feed
UHF Reduced Blockage Vertex Mounted
LHCP Feed for a 3.8m Reflector**

The photo below depicts a self-supporting UHF LHCP vertex mounted feed. The feed was designed for a 3.8m diameter reflector. The central blockage associated with this feed is substantially less than that of a conventional UHF prime focus feed. The feed mounts to the vertex region of the reflector and does not require struts or guy wires. The reduced blockage achieved by this unique feed design provides increased antenna gain and improved side lobe level performance. The integral monopod support provides a focal adjustment of $\pm 3''$ along the focal axis of the reflector to accommodate insitu feed focusing. Operating frequency is 401-476 MHz. Input on this feed is a type N female located at the base of the monopod support. Axial ratio is less than 1.0 dB. VSWR is 1.4:1. This feed is weather sealed and designed to survive 125 mph winds, 1.0" radial ice, -40°F to +140°F temperatures and corrosive atmosphere as encountered in coastal regions and/or heavily industrialized areas.

As part of the design effort for this feed system mWAVE furnished a separate sealed enclosure with fully integrated diplexer, LNA, DC power supply, and interconnecting low-loss cable assemblies. mWAVE also furnished measured test data for the feed and each of the various RF components housed within the enclosure. The model number of the complete system including the, feed, enclosure, and all RF components is FPVCL-043-N-CEC.

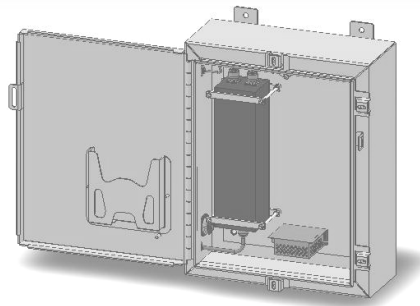
UHF Reduced Blockage Vertex Mounted LHCP Feed



**Feed Being Assembled
In a 3.8m Reflector**



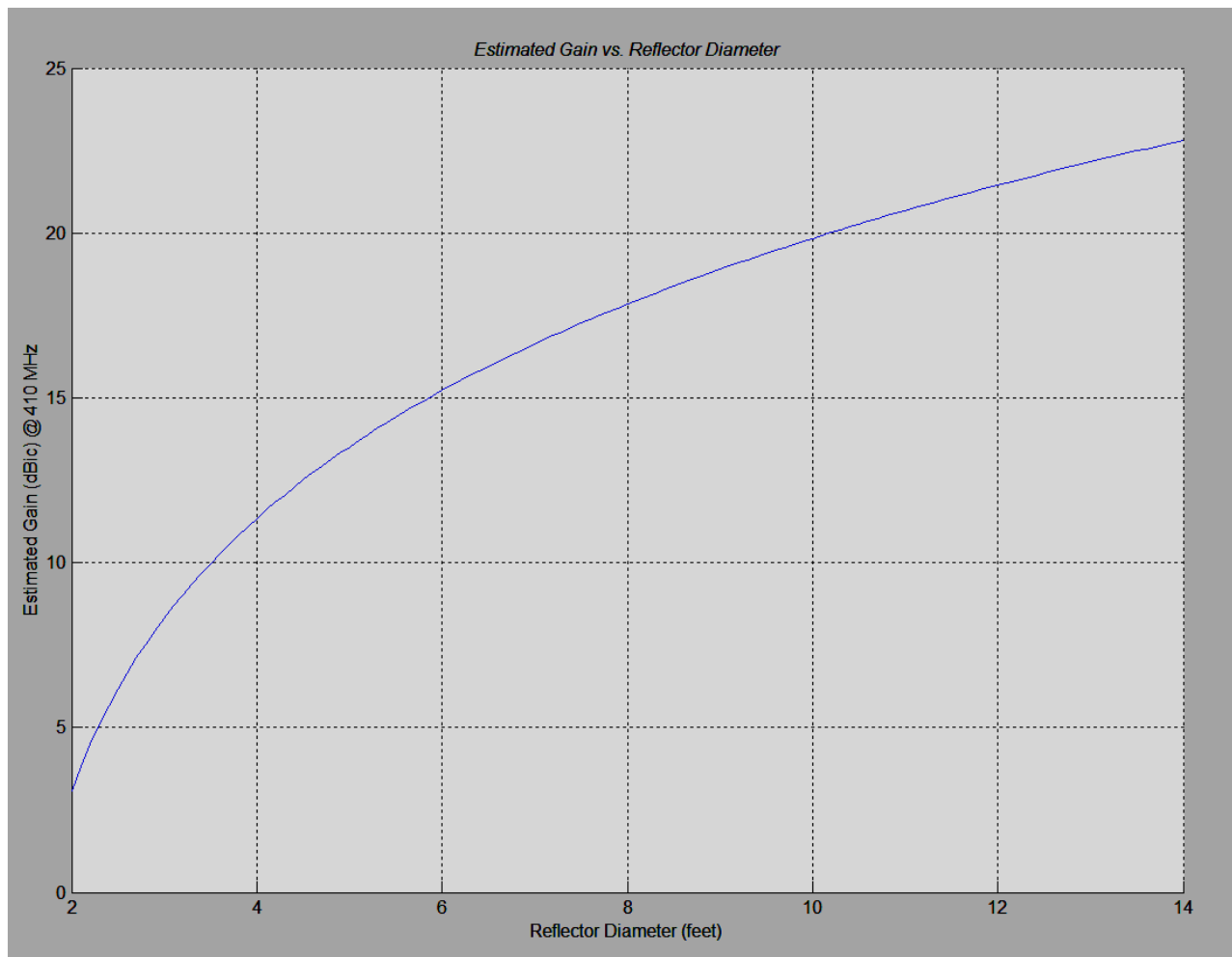
Sealed enclosure with diplexer, LNA and power supply.



Pg. 1 of 2 UHF LHCP Vertex Mounted Feed P09050 rev4/22/11CJM

SPECIAL NOTE: This style feed can support high power handling requirements making it an excellent candidate for high gain FTS applications. Combining our vertex mounted feed with an appropriately sized reflector yields a high gain FTS antenna at a fraction of the cost of conventional dual and quad helix antennas. Moreover, our vertex mounted feed is weather sealed whereas conventional dual and quad helix antennas are often exposed to the open environment resulting in mechanical and RF degradation. The graph below shows the Estimated Gain vs. Reflector Diameter when combining our vertex mounted feed with a paraboloidal reflector.

UHF Reflector Antenna Gain Estimates using mWAVE Vertex Mounted Feed



Please contact mWAVE Industries, LLC with your antenna requirements to see how we can be of service.

Pg. 2 of 2 UHF LHCP Vertex Mounted Feed P09050 rev4/22/11CJM