

Physical Description

Antennas & Mounts

Directional Flat Panel Antennas

Gabriel offers a complete line of Directional Flat Panel Antennas for terrestrial microwave applications. The antennas are available in three sizes 0.5-ft., 1-ft. and 2-ft. sizes. Currently these models are available in 2.4 GHz, 5 GHz and 10 GHz bands. These antennas are ideal for concealment into many architectural environments. A complete offering of these antennas can be found in the Special Application products section of this catalog.

Parabolic Grid Antennas

Gabriel's parabolic grid reflectors are constructed with corrosion-resistant aluminum tubular elements and formed to a parabolic contour. Each element is welded to an outer tubular rim and to the backstructure. All grid elements are equipped with drain holes. The Gabriel Grid Series antennas are designed and manufactured to the same strict standards as our extremely popular solid parabolic models. This parabolic grid reflector construction produces a rugged, light antenna with lower wind loading.

"SE" Series Solid / Standard Antennas

These solid reflectors are formed of aluminum alloy, which is spun to strict tolerances. The reflector has an integral beam rim for added reflector integrity. A closed rim is utilized on some High Performance and Severe Environment models. This configuration offers a simplified durable mount and parabolic reflector construction to produce a lighter weight model without sacrificing electrical or mechanical performance.

Deep Dish Antennas

The Deep Dish parabolic reflector was designed by Gabriel back in the 1973 for the purpose of meeting U.S.F.C.C. Standard / Category "A" requirements. The Deep-Dish reflector is Standard parabolic reflector, which mimics a High Performance antenna by utilizing a deeper dish to improve the antennas front-to-back ratio. This design makes the antenna a preferred option when tower loading and frequency congestion is a consideration.

High & Ultra High Performance Antennas

Gabriel offers an extensive line of High Performance and Ultra High Performance antenna models. These antenna models utilize the Standard reflector with the addition of a short shroud for a High Performance antenna and a long shroud for the Ultra High Performance models. These antennas are available in 1 ft. (0.3 m) to 15 ft. (4.6 m) diameters. (some exceptions may apply) The smaller diameter High Performance antennas, 1 ft. and 1.5 (0.3 - 0.5 m) sizes have shrouds that are integrated with the reflector and are available in a Low Profile model configuration. Depending on the antenna model requirement these models also utilize RF absorber within the shroud.

Quick Align Mount

This new mount is extremely easy to install and align. The installer only requires two hand tools. A standard screwdriver and wrench. The alignment of the antenna is achieved by inserting the screwdriver into specially designed slots on the mount to align the azimuth and elevation of the antenna. Once the antenna has been oriented it is locked into position with the wrench. Quick-Align Mounts are available SSP2 and SSD2 models and some Directional



"SE" Series Antenna

Flat Panel Antenna models. Quick-Align Mounts mount to a 2.375 in. (60 mm) O.D. mast pipe. An optional 1.9 in. (48 mm) to 4.5 in. (114 mm) Mast Clamp Kit is available on request for the Quick-Align Mount.

Vertex Mount Antennas

In Gabriel's popular 1 ft. (0.3 m) - 2 ft. (0.6 m) small diameter line, the antennas are available with mounts integrated into the vertex assembly. This mount allows for quick mounting to smaller diameter mast pipes ranging in size from 2.375 inch (60 mm) to 4.5 inch (114 mm) O.D. This mount features independent azimuth and elevation adjustments with an elevation range of +50° to -50°. Fine azimuth adjustments are made in +/-10°. The centerline for these antennas may be offset right or left.

SE Series Antennas Mounts

The "SE" Series mount comes in three configurations. The configuration for 2-ft. (0.6 m) and 2.5-ft. (.8 m) models constructed of steel tube and an aluminum weldment. 4-ft. (1.2 m) and 6-ft. (1.8 m) models use an all steel mount. Both of these configurations allow for centerline right or left offset, without inverting the mount and have large elevation adjustment ranges often required for smaller antennas. The mount for the 8 ft. (2.4 m) - 12 ft. (3.7 m) models are steel truss weldment mounts. The truss configuration obtains a centerline right or left by inverting the mount. Elevation adjustments for this type are +/-7.5°.

Both mounts attach to a customer supplied tower mast 4 inch IPS, 4.5 inch (114 mm) OD; optional 2.375 inch - 4 inch IPS is available for the 2 ft. (0.6 m) and 4 ft. (1.2 m) antennas by two clamp assemblies.

Fine azimuth adjustments are made with supplied azimuth adjustment clamps or adjustable strut assemblies. Optional fixed struts for high wind loads or other special applications are available on page 121.

Split Reflectors (X2)

Gabriel provides split antenna reflectors to facilitate export shipments. Split reflectors are available for most models in antenna sizes from 8 ft. (2.4 m) diameter to 15 ft. (4.6 m) diameter. Contact your Gabriel Sales Engineer for details.