



NEW PRODUCT ANNOUNCEMENT

CRUCIS™ High Band VHF Panel Antenna

CRUCIS™ High Band (Band III) VHF Panel Antenna

Features

Each bay element input is normally 50 ohms over the entire Band III (174 to 230 MHz) and capable of handling up to 10 kW of input power.

For protection from lightning, all CRUCIS™ elements provide a DC path to tower ground.

High power and trouble-free performance is provided by the CRUCIS element support stem. The stem is a pressurized housing for the element baluns and crossed radiating arm internal feeds.

Crossed radiating arms are manufactured of tubular brass and attached to a large melamine insulator in a pressurized dry gas environment.

Screens can be constructed in half panels for ease of installation and removal.

On most designs, screens continuously surround the support structure, electrically isolating the structure from the antenna.

Screens and cavities are constructed mostly of stainless steel rod for low weight, low wind load, and maximum strength.

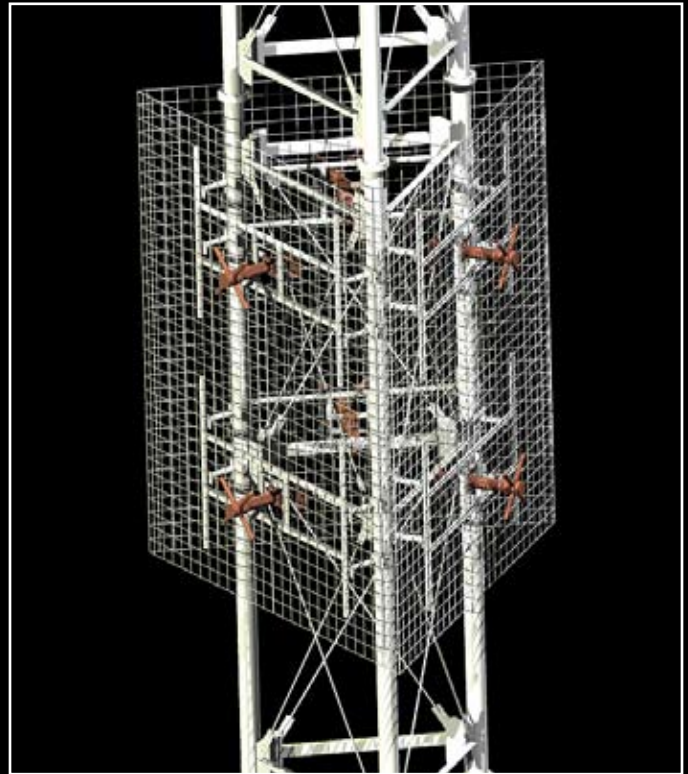
Benefits

A rugged mounting bracket which has a wide latitude of adjustment to assist in overcoming possible interface problems is provided to secure the antenna to the supporting structure.

All non-stainless steel parts are hot-dipped galvanized to permanently protect all points of welding and construction against corrosion.

The CRUCIS element and feed system combination assures excellent axial ratio characteristics over the entire high band VHF frequency range.

The broadband operating performance of the CRUCIS element is virtually unaffected by environmental changes due to its unique design and construction.



The CRUCIS™ High Band VHF panel antenna is available in a wide array of configurations for omnidirectional and directional applications. The individual antenna elements are constructed of brass and copper with stainless steel reflectors and brackets. They are also pressurized to their feed point to improve reliability and increase useful life. CRUCIS VHF panel antenna system can be built for single or multiple channel operation. The CRUCIS VHF panel antenna can be cost effectively configured for LPTV, Class A, and television translator applications as well as Band III digital services such DMB, DAB, and DVB.

The antenna system is designed with all elements at DC ground and the screens, transmission lines, and power dividers will be all firmly bonded to the support structure. This eliminates any potential for the static build up and helps protect the system from damage from lightning. ERI will develop the azimuth pattern, at full scale, in our anechoic chamber to optimize the horizontal plane pattern during the design phase. The gain requirements are achieved by stacking layers of the arrangement vertically on the support structure. The number of layers and the vertical spacing between layers are the predominate factors in determining the vertical power gain. Options such as tilting the main vertical beam and /or null fill are incorporated in the antenna array through a suitable arrangement of the feed system. Parameters can vary greatly for custom vertical pattern shaping, and details for any given configuration are part of the preliminary specifications developed for each request.