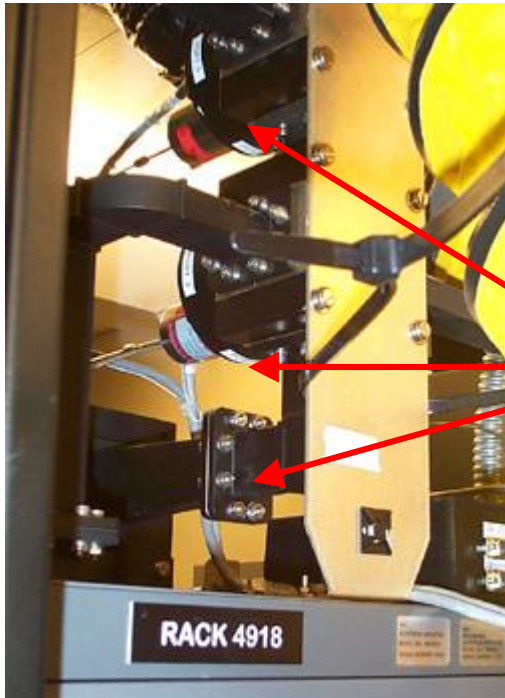


Sample No. 1. Transmitter Room



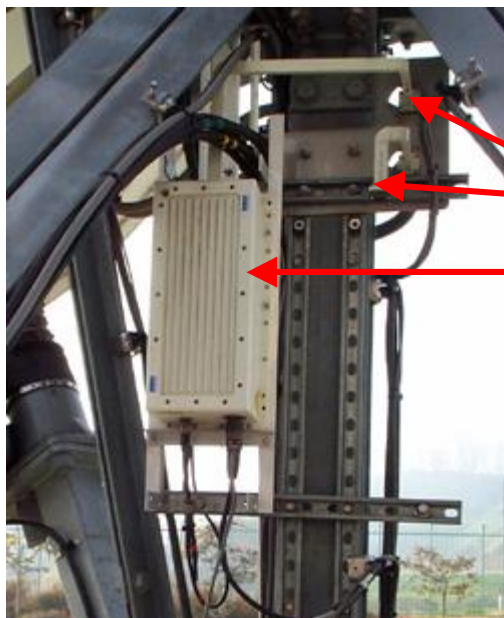
Since the RF energy for this system is generated inside the transmitter room, it is important to consider the possibility of a transmission line leak. Waveguide and waveguide switches are located above the HPA racks.

Waveguide switches and multiple flanges are located above the two Klystron HPAs.

Since the RF energy for this system is generated inside the transmitter room, it is important to consider the possibility of a transmission line leak. Waveguide and waveguide switches are located above the HPA racks.

Sample No. 2. Satellite Antenna HPA

Measurements: Measurements were made with the system transmitting at full power. Measurements were made around the HPA and next to every waveguide connection on the back of the dish. It is impossible to reach the edge of the dish from the ground even with the one's arm extended with the sensor of the probe held at about 8½ feet above the ground. No measurable fields were found anywhere around the dish, the HPA, or the waveguide flanges. Since all of the RF energy is generated at the dish, there are no RF safety issues to consider in the transmitter room.



The 80 Watt HPA that supplies the Ku-Band Satellite Uplink Antenna is mounted about 8 feet above the ground on the back of the dish antenna. All RF is generated at the dish.

Waveguide flange

HPA

All waveguide flanges are at least seven feet above the ground. Even if a flange were to leak, they do not represent an RF safety concern to the average employee. Maintenance personnel with ladder access could approach the HPA and the waveguide and thus must use caution in this area.