

800 MHz of approximately 3.5 dB per 100 feet is used. The coax used should be a nominal RG-8 type with a flame retardant rating except when installed in space where moving air (heating and/or cooling) exists. In which case the coax must be "plenum" rated. For long runs that exceed 150 feet, the use of low loss 1/2" coax is desirable. Of primary concern is the isolation between the outside antenna and the inside antennas.

Important note: A high degree of isolation must be afforded in order to prevent any re-generative feedback in the system. Feedback of this nature causes the amplifier to emit a continuous signal of maximum amplitude and could, in some cases, interfere with normal operation of the cell site. This isolation should be in the order of 70 dB and is usually obtained by mounting the outside antenna away from the edges of the roof. The use of window mounts or other non-rooftop mountings should be avoided.

SAFETY PRECAUTIONS



For INDOOR use, an Omni-Directional Antenna with a maximum gain of 3dBi is authorized for use with this unit.

Inside antennas must be positioned to observe minimum separation of 20 cm. (~ 8 in.) from all users and bystanders. For the protection of personnel working in the vicinity of inside (downlink) antennas, the following guidelines for minimum distances between the human body and the antenna must be observed.

The installation of an INDOOR antenna must be such that, under normal conditions, all personnel cannot come within 20 cm. (~ 8.0 in.) from any inside antenna. Exceeding this minimum separation will ensure that the employee or bystander does not receive RF-exposure beyond the Maximum Permissible Exposure according to FCC RF exposure requirements i.e. limits for: General Population/Uncontrolled Exposure.



For OUTDOOR use, a Directional Antenna up to a maximum gain of 11dBd is authorized for use with this unit.

The Outside antenna must be positioned to observe minimum separation of 120 cm. (~ 4 ft.) from all users and bystanders. For the protection of personnel working in the vicinity of outside (uplink) antennas, the following guidelines for minimum distances between the human body and the antenna must be observed.

The installation of an OUTDOOR antenna must be such that, under normal conditions, all personnel cannot come within 120 cm. (~ 4 ft.) from the outside antenna. In all installations, the antenna should never be mounted such that the main beam is directed toward an area where workers or bystanders may be present. Exceeding this minimum separation will ensure that the worker or bystander does not receive RF-exposure beyond the Maximum Permissible Exposure according to FCC RF exposure requirements: I.e. limits for General Population/Uncontrolled Exposure.

Physical Installation

The coaxial cable discussed above should be pulled from the rooftop location to the space designated for the amplifier installation. Additional coax should be pulled from the amplifier to where power splitters are located and thus to the position designated for the Omni-directional antennas. Usually this is accomplished by using existing cableways and running the cable above suspended ceilings. In many cases the Omni-directional antennas can be located above the suspended ceilings however, when this is not possible, alternatives such as ceiling or wall mounted antennas may be used.

When mounting the amplifier, take care to avoid areas of high heat or extreme cold. In general, do not place the unit on or near the top of high ceilings, by heaters or in cold storage areas.