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Alcatel-Lucent
Wireless Transmission
3400 Plano Parkway
Plano, Texas 75075

To Whom It May Concern:

9500 MPT Radios are installed in locations not co-located with the radiating antenna, therefore testing of all antenna configurations is not required during certification testing. However a representative antenna of each antenna type will be used for certification testing.

The above statement is in regard to the FCC rule requiring test results using all sizes of all the types of antennas intended for use by the 9500MPT radio.

The 9500MPT radio family is a family of radios intended for point-to-point communications in the microwave frequency range. The unlicensed version of the radio is part of a larger family that includes operation under Part 101 rules. Installation, turn-up and use are identical to the Part 101 applications in that they are always professionally installed, and each link is designed using the appropriate antenna gain and type. The legal configurations of the antenna are controlled through instruction in the user manual. The owner of the link and the professional installer are responsible for respecting those rules.

The 9500MPT is designed for indoor use only. The added antenna is always mounted out doors remote from the equipment and nearly always at least 100 feet separate the two components. In almost all cases the antenna is mounted on a tower and the radio is mounted either in a building or inside a cabinet or hut. As such, the emissions from the antenna are controlled by the conducted emissions either through coax or waveguide and are limited to the intended emission through the use of an RF filter specific to the channels of operation.

The unintended emissions that do exist are similar in character to other electronics in that some level of energy is emitted by the box. Since the 9500MPT and the antenna are so remote from each other and isolated by the indoor nature of the electronics there is no interaction of the unintended emissions coming from the equipment and the antenna, therefore the antenna gain is not materiel in changing the nature of any emissions other than the intended emissions.

The largest antenna we expect to use for this application is a 10 foot parabolic dish. This antenna is too large to test within an anechoic chamber. The only way to test is in an outside open field. In addition there is no standard method of mounting. In general it is mounted on a tower but it can be mounted on a freestanding tripod. Theoretically if the antenna did have an affect on the unintended emissions it would be small in comparison to the tower or other metallic structures. On previous exercises identical to this application and radio structure we repeatedly showed that the antenna had no affect on the unintended emissions. Changing size had no affect on the measured results. In fact, replacing the antenna with a 50 ohm termination had no affect proving there is no interactive action with the antenna.

Therefore, we contend that only a representative antenna needs to be used for testing. In addition, there is precedence in this approach from previous certifications of similar products.

The following certifications were granted for products identical in application to this radio and were tested with a representative antenna type:

FCC ID's:

JF6-8505u-2
JF6-8505u-4
JF6-8505u-8
JF6-8505u-16
JF6-8505u-45

JF6-8792-4
JF6-8702-4
JF6-8702-8
JF6-8702-16

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