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WIRELESS TRANSMISSION DEVISION
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Andrew Leimer
FCC Application Processing Branch
Federal Communications Commission

RE: Response to FCC Requests
Correspondence Reference Numbers: 29295
FCC IDs: JF6-8705U-155
Form 731 Confirmation Number: EA345054

Dear Mr. Leimer:

The following are Alcatel's responses to the questions presented in your recent e-mail, dated July 29, 2005:

Question 1: What antennas are to be used and marketed with this device? Give the manufacturer's name, model number, antenna type, mainbeam gain, and supply a photo of each antenna.

The proposed JF6-8705U-155 radio will use the same antennas as five lower capacity radios that were granted equipment authorization in November of 2002. These radios are the JF6-8505U-2, JF6-8505U-4, JF6-8505U-8, JF6-8505U-16, and JF6-8605U-45. The Grant Notes for the JF6-8505U-4 states:

Output is peak conducted. This grant is valid only when the radio is used and marketed with 2ft – 10ft parabolic antennas or 1ft and 2ft flat panels as indicated in the Certification filing. The device must be professionally installed. The antenna(s) used for this transmitter must be fixed-mounted on outdoor permanent structures and must not be co-located or operating in conjunction with any other antenna or transmitter. The separation distance for the 1 ft flat panel must be at least 5 feet from all persons. Users and installers must be provided with antenna installation and transmitter operating conditions for satisfying RF exposure compliance.

The proposed JF6-8705U-155 will use 2 foot to 10 foot diameter parabolic or 1 foot and 2 foot flat panel antennas. Figures 1 and 2 list typical parabolic and flat panel antennas from Andrew Corporation and Radio Frequency Systems, which is a division of Alcatel. Figures 3 and 4 show photos of the antennas. Parabolic and flat panel antennas from other manufacturers typically have antenna gains within a few tenths of a dB, as compared to the antennas listed in the attached tables.

There are a large variety of parabolic and flat panel antennas available for different applications. Standard performance dishes may be purchased with a spherical or conical radome cover to reduce wind loading and protect the antenna from snow and icing conditions. High performance and ultra-high performance parabolic antennas have a shroud and integrated flat radome on the front of the dish to improve the antenna discrimination characteristics. Some antennas cover a wide frequency range, including the FCC Part 101 bands from 5.925-6.425 GHz and 6.525-6.875 GHz. Using these antennas, it is possible to convert the radio from unlicensed Part 15 to licensed Part 101 operation without an antenna change. The change to licensed operation requires frequency coordination in the licensed band under Part 101 rules.

The radios are sold without an antenna. The operator selects the antenna type, model, and size from commercial antenna manufacturers, as permitted by the equipment authorization. Antennas must be professionally installed.

Question 2: How does this device meet the unique antenna requirements to Section 15.203?

Section 15.203 states:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. ... Further, this requirement does not apply to intentional radiators that must be professionally installed, ...

The JF6-8705U-155 radio will be used exclusively for fixed point-to-point communications. Antennas will be mounted outdoors, usually on a tower. The antennas have narrow beamwidths and require a professional installer for alignment. Since the JF6-8705U-155 radio must be professionally installed, the unique antenna requirements of Section 15.203 do not apply.

3) The Test report indicates that there is a power amplifier option. Was this device tested with this option?

Yes, the product was tested with the optional power amplifier; the maximum power amplifier provides the maximum output power (1Watt) at the antenna port.

Please let me know if there is any other information we need to provide to expedite the technical review process.

Yours truly,

Troy Taylor

Product Line Manager
Wireless Transmission Division