



MOTOROLA

Cellular Infrastructure Group - Fort Worth R & D Center

Received
April 26, 1993

April 19, 1992

Mr. Frank Wright
Federal Communication Commission
Frequency Liaison Branch
Room 7322
Washington, DC 20554

Re: Quarterly Progress Report
KM2XKC Experimental License
File # 3130-EX-PL-92

Dear Mr. Wright,

Testing in the frequency range of 1850-2200 MHz has occurred using 2 experimental common air interfaces.

The first experimental system being *tested is a TDMA system employing time division duplex (TDD) from 1895-1907 MHz. During this reporting period Motorola characterized and developed error mitigation techniques for TDMA-TDD systems confronted with bursty noise conditions. This included simulated interfaces to ISDN switches. Voice and data in-building testing occurred with transmitted power levels at or below 80 milliwatts ERP during the 625 microsecond traffic channel bursts which occur every 5 milliseconds.

The second experimental system being tested is a TDMA system employing frequency division duplex (FDD) from 1850-1990 MHz with 50 MHz transmit / receive offsets. During this period we tested the propagation characteristics of an outdoor base station mounted at a 18 feet height with a variety of gain antennae. Typical line-of-sight results exceeded 1400 feet with 3 dBi diversity antennae. Voice and data testing occurred with transmitted power levels at or below 200 milliwatts ERP during the 200 microsecond traffic channel bursts which occur every 2 milliseconds.

Currently we are in the process of installing a cabled 2 cell DS-CDMA test system in our Ft. Worth labs based on the TIA 45.5 IS-98 standards being developed. Initially it will be used for the purpose of defining minimum base station performance specifications required for commercial cellular products.

All frequencies actively used are monitored to ensure that no interference will occur to other stations in this geographical area.

Please contact us if you require any additional information.

Regards,

A handwritten signature in dark ink, appearing to read 'Ralph Kamin', with a long horizontal flourish extending to the right.

Ralph Kamin
Motorola Resource Manager
Ft. Worth Research & Development Center