GUIDELINES ON USAGE OF 2.4GHz BAND

In order to eliminate interference, an operator is required to operate under the following guidelines:-

1. Any equipment or device employed within 2400-2483.5MHz band only.

2. Any equipment or device employed shall operate solely as a terrestrial wireless system.

3. Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 KHz or the 20dB bandwidth of the hopping channel, whichever is greater. The system shall hop to channel frequencies that are selected at the system hopping rate from pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals. Frequency hopping systems operating in the 2400-2483.5MHz band shall use at least 75 hopping frequencies. The maximum 20dB bandwidth of the hopping channel is 1MHz. The average time of occupancy on any frequency shall not be greater than 0.4 seconds within 30 second period.

4. For direct sequence systems, the minimum 6dB bandwidth shall be at least 500 KHz.

5. The maximum peak output power of the transmitter shall not exceed 1Watt. If transmitting antennas of directional; gain greater than 6dBi are used, the power shall be reduced by the amount in 6dB that the directional gain of the antenna exceeds 6dBi.

6. For direct sequence systems, the transmitted power density averaged over any 1 second interval shall not be greater than 8dBm in any 3 KHz bandwidth within these bands.

7. Hybrid systems that employ a combination of both direct sequence and frequency hopping modulation techniques shall achieve a processing gain of at least 17dB from the combined techniques. The frequency hopping operation of the hybrid system, with the direct sequence operation turned off, shall have an average time of occupancy on any frequency not frequencies employed multiplied by 0.4, the direct sequence operation of the hybrid system, requirements of paragraph (6) above.