# APPENDIX H

## : OPERATIONAL DESCRIPTION

# 1. Operational Description

CMAX Module is wireless terminal device that supports wireless network of IEEE 802.11 b/g. The IEEE802.11b and IEEE802.11g respectively support 11Mbps and 54Mbps transmission rate in the 2.4 GHz frequency range. There are two types of wireless LAN networks – infrastructure and ad-hoc.

IEEE802.11 specification divides this band into 14 channels (USA version: 11 channel) every 5MHz. If user installs more than one wireless LAN networks in the same area, the channels should be apart more than 4 channels to avoid interferences. Maximum distance from the outdoor wireless is approximately 100 m.

# 2. RF Performance

## 2.1 Frequency Range
- 2.412~2.485 GHz (USA version: 2.412~2.462 GHz)

## 2.2 Modulation Schemes
- CCK and OFDM with BPSK, QPSK, 16 QAM, 64 QAM

## 2.3 Transmit Power (Conducted)
- 802.11b: 18 dBm
- 802.11g: 15 dBm

## 2.4 Receive sensitivity(802.11g)
- Receive sensitivity (6Mbps): -89 dBm
- Receive sensitivity (54Mbps): -72 dBm

## 2.5 Antenna Gain
- 2dBi +/- 0.5 dBi (internal chip antenna)

## 2.6 Tx EVM
- Min 25dB (54 Mbps)

## 2.7 Tx Center Frequency Accuracy)
- 20ppm

## 2.8 Tx Symbol Clock Frequency Tolerance

- 20ppm

## 2.9 Tx Spectrum Mask

- -21dBr @fc +/- 11 MHz
- -29dBr @fc +/- 20 MHz
- -41dBr @fc +/- 30 MHz

## 2.10      Tx Spectral Flatness

- 2dB/-4dB