



## **GUIDELINES ON THE IMPLEMENTATION OF WIRELESS LOCAL AREA NETWORKS (WLANs) ON NON PROTECTED BASIS**

### **1. INTRODUCTION**

Wireless technologies are today being utilized as a cost effective means to deliver communication services to end-users. An example is the Wireless Fidelity (Wi-Fi), which has emerged as a popular standard for WLAN solutions.

In an effort to facilitate the utilization of WLANs in Kenya , the Commission issues these guidelines for operation of WLANs on non protected shared basis.

### **2. TYPE OF AUTHORISATION**

Under this authorisation, all WLANs shall operate in the same spectrum segment on a shared basis and are subject to the same conditions. These guidelines specify the frequencies that may be used, equipment standards/features, technical and operational parameters. This authorisation is a general class license and does not have to be applied for individually, and attracts no frequency fees.

The WLANs shall operate on non-protected shared basis. The WLANs shall not cause interference to other radio communication services and shall accept interference from other radio communication services including Industrial, Scientific, and Medical (ISM) equipment.

### **3. APPLICATIONS OF WLANS**

The authorised e.i.r.p powers are expected to self-limit the coverage of WLANs, and where necessary, will be reviewed by the Commission, to ensure that WLANs operate as expected. WLANs shall be used within premises or campuses and can be broadly categorised as follows:

- Private networks where the supply of services to the public is not involved such as in company LANs, educational institutions and residential premises.
- Networks where the service is provided to the public within a limited geographical location, such as in airports, train stations, bus stations, hotels, shopping centers, residential premises, libraries and parks.

### **4. WLAN STANDARDS**

In order to maintain standards, the Commission shall type approve the equipment to be utilized for WLANs systems against minimum technical characteristics including but not limited to; operating frequency, frequency range, type of modulation and RF power. The users and vendors shall be required to ensure that the equipment intended for the Kenyan market complies with these guidelines.

### **5. FREQUENCY BANDS AND POWER**

Frequency Band (MHz)	Maximum Equivalent Isotropically Radiated Power (EIRP)	Power spectral density
2400-2483.5	100mW	10mW/MHz
5150-5250	200mW	10mW/MHz
5470-5570	1W	50mW/MHz
5725-5775	200mW	10mW/MHz

## **6. EQUIPMENT FEATURES**

Time Division Multiplex (TDD) is the mandatory duplex method. As a minimum, the WLANs shall be required to employ Transmit Power Control (TPC) and Dynamic Frequency Selection (DFS) so as to ensure that the systems transmission is spread as evenly as possible over the available frequency range, and only at the necessary power.

## **7. INTERFERENCE MANAGEMENT**

The WLANs shall not cause interferences to other radio communications services. Upon notification by the Commission, the WLANs shall cease all transmissions until the interference is eliminated. WLAN users shall however comply with the set standards and shall take reasonable measures to ensure that no interference is caused to other users within or outside the ISM band.

The WLANs shall not be accorded any protection from interferences by other radio communications services and the Commission shall not investigate complaints of interferences. It is however recommended that best practice implementation be adhered to, in order to retain value in the quality of service of the WLAN services. The Commission may from time to time carry out tests to ensure that best practice implementation is adhered to.

## **8. BREACH OF GUIDELINES**

WLAN users and vendors are strictly required to comply with these guidelines. Any violation of these guidelines shall result in the Commission taking the necessary regulatory measures.

## **9. OTHER CONDITIONS**

These guidelines are subject to review by the Commission from time to time.