

## 7 User's Manual



---

CIRRONET™

# ZMN2430 Series Radio Module

ZMN2430

**Manual**

**Preliminary**

**Cirronet, Inc.**

## **Important Regulatory Information**

**Cirronet Zigbee High Power - FCC ID: HSW-Z2430**  
**IC: 4492A-Z2430**

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS. (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

### **FCC User Information**

“NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.”

Warning: Changes or modifications to this device not expressly approved by Cirronet Inc. could void the user's authority to operate the equipment.

### **RF Exposure**

In accordance with FCC requirements of human exposure to radiofrequency fields, the radiating element shall be installed such that a minimum separation distance of 20cm shall be maintained from the user and/or general population.

### **Industry Canada**

This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Cet appareillage numérique de la classe B répond à toutes les exigences de l'interférence canadienne causant des règlements d'équipement. L'opération est sujette aux deux conditions suivantes: (1) ce dispositif peut ne pas causer l'interférence nocive, et (2) ce dispositif doit accepter n'importe quelle interférence reçue, y compris l'interférence qui peut causer l'opération peu désirée.

## ZMN2430 Frequency Selection

The ZMN2430 is not frequency agile during run-time, but it can select an unoccupied portion of the spectrum at startup.

The ZMN-2400 series uses a set of channels as defined by the IEEE 802.15.4 / ZigBee standards which span a range from 2405 to 2480 MHz with 5 MHz spacing between channels:

Center Frequency (MHz) Designator	Nominal Occupied BW	ZigBee Channel
2405	11	2402.5-2407.5
2410	12	2407.5-2412.5
2415	13	2412.5-2417.5
2420	14	2417.5-2422.5
2425 (default)	15	2422.5-2427.5
2430	16	2427.5-2432.5
2435	17	2432.5-2437.5
2440	18	2437.5-2442.5
2445	19	2442.5-2447.5
2450	20	2447.5-2452.5
2455	21	2452.5-2457.5
2460	22	2457.5-2462.5
2465	23	2462.5-2467.5
2470	24	2467.5-2472.5
2475	25	2472.5-2477.5
2480	NOT USED	2477.5-2482.5
	26	

The *channel mask* is the name used to describe the list of frequency channels that a ZMN-2400 can use. The default channel mask for client radios allows them to operate on any frequency from 2405 to 2475 (channel 2480 is reserved for manufacturing test purposes and therefore not included).