

The aim of this letter is to include and clarify all the necessary documentation to support the tests that shall certify that our Radio Control systems comply with the Federal Communications Commission rule CFR Title 47 part 15, for operating Radio Frequency Devices with an intentional or unintentional radiator without an individual license in the 902-928 MHz band.

Our equipments use a RF link based on the Frequency Hopping modulation technique, where the hopping channel carrier frequencies are separated by 25KHz. According to this, the sets to be certified comply with the following mentioned statements of the 15.247 subpart:

- Point 15.247 (a)(1). Reproducing the text of the standard, "Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25KHz or the 20dB bandwidth of the hopping channel".
- In the same point 15.247(a)(1), the standard describes the following: "The system shall hop to channel frequencies that are selected at the system hopping rate from a 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 that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals". Our systems strictly comply with what the above-mentioned text describes. The pseudo random sequence and the RF characteristics are described in more detail in chapter 3.
- Point 15.247(a)(1)(i). The standard states: "For frequency hopping systems operating in the 902-928MHz band: if the 20dB bandwidth of the hopping channel is less than 250KHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0,4 seconds within a 20 second period". Our systems are narrowband systems based on a 25KHz channel spacing. And the pseudo random sequence assures that they use more than 50 frequency carriers following the limitations of time indicated in the standard. In chapter 3 there is a more detailed explanation of that.
- Point 15.247(b)(2). According to this point, the intentional radiators of our 902-928 MHz Frequency Hopping systems using more than 50 hopping channels conduct a maximum peak output power of less than 1 watt.
- Point 15.247(b)(4). The sets subjected to test do not use directional antennas and their gain is not greater than 6dBi.
- The sets comply with point 15.247(d).
- The sets comply with point 15.247(g).
- Point 15.247(h). As the standard suggest, any of our Intelligent Frequency Hopping systems recognizes other users within the spectrum band, so it individually and independently chooses and adapts its hopsets to avoid hopping on occupied channels. We could refer to those systems as Adaptive Frequency Hopping Systems. Moreover, this intelligence has been implemented by a bidirectional RF link. That means that in any end of the link there is a transceiver.

Furthermore, our systems are not coordinated in any other way to avoid the simultaneous occupancy of individual hopping frequencies by multiple transmitters.