

# 1. Introduction of WIRELESS detector

The application of WIRELESS equipment is broadly than ever, and the resulting security risks are increasing rapidly. However, the professional WIRELESS detection equipment is expensive and heavy, which requires professional operation and is inconvenient for personal use. According to the requirement, we design the DOX (D03、D06) WIRELESS detector for portable application. The hardware architecture of the detector is a spectrometer. Based on the platform, we further design the intuitive interface and simplify application mode.



DOX (D03、D06) WIRELESS detector, built-in 21700 lithium battery ,is small and lightweight, through the micro USB interface 5V charger can be charged, detector with full charged can be used for about 7~8 hours. The operation frequency range is 10MHz~2700MHz and 30MHz~6GHz, and the statistics of the histogram of signal power in different frequency bands is displayed on the LCD. By configuring the frequency band parameters (the

number of frequency bands can be configured as 1-9 segments, and the number of columns in each frequency band can be arbitrarily configured). At the same time, the waterfall diagram of the corresponding frequency bands are displayed by combining the historical spectrum data. the purple histogram overlaid indicates the standard deviation of the historical signal of this frequency, the center frequency, intensity and difference value of the first three signal bands are displayed on the top , futhurmore the conclusion area of this detector is displayed on the the top(eg. Signal Alarm,GPS interference or the proximity of drones or others). In addition, the device can also set alarm threshold in dBm unit. Over the threshold buzzer alarm (the more over the threshold, the faster the buzzer sound ), or vibration alarm (the more the threshold, the faster the vibration), or vibration and buzzer at the same time,it can also be muted.