

Radio (low frequency) vs. Wi-Fi (high frequency)

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To identify the best wireless temperature monitoring system technology on the market it is critical to understand frequency. There are two main methods of transferring data wirelessly, using high and low-frequency radio waves. In this blog, discuss the benefits of radio vs wifi technology.

The differences between frequencies

Ultimately low-frequency radio waves display low signal attenuation, making them suitable for long-distance communications, whereas high-frequency radio waves tend to display high signal attenuation and is suitable for short-distance communications. Both are affected by obstacles such as walls and other matching radio frequencies, therefore you have a better chance of reaching the distances you need using low-frequency radio technology. It's also worth mentioning that WiFi units can be vulnerable to connection issues. When the connection is lost from the WiFi router, then the transmitter battery power will be drained trying to re-establish a connection to the router.

Benefits for an Independent Radio vs WiFi Technology

Independent Radio

- Radio frequencies can be unique so not to interfere with other wireless equipment.
- Using a separate radio frequency does not interfere with existing Wi-Fi bandwidth.
- The use of a unique radio frequency for a system reduces the need for IT involvement.
- Independent low-frequency radio technology often means that the use of additional equipment such as repeaters is kept to a minimum.
- Radio does not require an existing wireless system.
- Usually, these independent wireless systems will not be affected by power failures.

Wi-Fi

- Wifi is usually a cheap option.
- WiFi is ideal for those that have short-range requirements.

Always ask for a signal strength test

Typical wireless systems using independent radio technology have wireless radio ranges of around 100 meters; whereas Hanwell wireless technology using [Hanwell Pro](#) or [Hanwell IceSpy](#) line of sight can reach up to 3,500 meters.

We recommend that you always ask for a long-range signal strength test before you purchase your wireless system, we can guarantee ours to be unrivalled.