RF Interference Fact Sheet

Water Communication Modules

About Radio Frequency

Wireless Radio Frequency (RF) plays a critical role in the communications systems that we all depend on every day, such as police and fire radio systems and pagers, radio and television broadcasts and cellular telephones. Many of the conveniences we've grown accustomed to in our homes and workplaces, such as cordless phones and wireless internet (WiFi), also depend on radio frequency communications. Water communication modules, which are attached to water meter, communicate the same way, eliminating the need for meter readers to access a customer's home or property.

Itron's water communication modules operate in the Industrial, Scientific and Medical (ISM) band at frequencies from 902 to 928 MHz. This range is unlicensed, so a number of RF devices operate at these frequencies including cordless phones, baby monitors, wireless headsets, home security systems and some medical devices.

Federal Regulations

The Federal Communications Commission (FCC) requires all wireless communications devices sold in the United States to meet minimum guidelines for safe human exposure to radio frequency energy. In addition, federal health and safety agencies including the EPA, FDA, National Institute for Occupational Safety and Health (NIOSH) and the Occupational Safety and Health Administration (OSHA) consistently monitor and regulate RF safety.

Itron's products are stringently evaluated for RF safety and meet all Federal Communication Commission (FCC), Industry Canada (IC), and Institute of Electrical and Electronic Engineers (IEEE) standards.

RF Interference

Itron's transmitting devices operate in compliance with 47 CFR Part 15 regulations, which require coexistence with other Part 15 certified devices. Within the 902-928 MHz frequency band, operation is limited to frequency hopping, direct sequence spread spectrum and digital modulation intentional radiators. This rule facilitates multiple devices operating in the same location. This includes devices such as security systems, cordless phones and pacemakers. Water communication modules' transmit signals are of very short duration, which further decreases the potential to interfere with other devices.

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