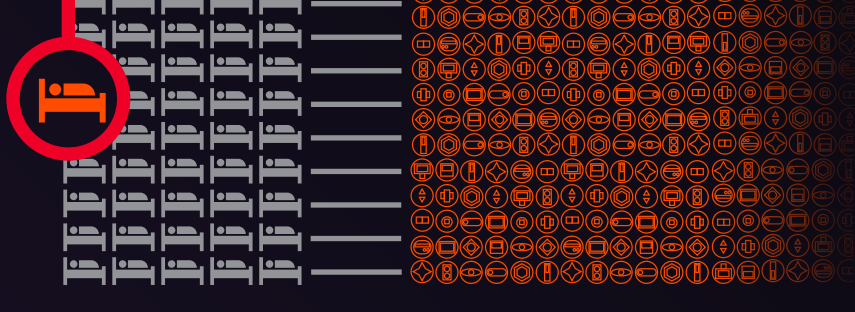


# IS YOUR CONNECTED HEALTHCARE

**PRODUCT HEALTHY?**



**15 x 5,000 = 75,000**

Connected devices per hospital bed<sup>1</sup>

Beds in a large hospital<sup>2</sup>

Number of connected devices in a hospital

IoT devices in healthcare facilities are **on the rise**

## Lots of medical devices compete with noise generators in the **2.4 GHz** band

### Devices causing **noise at 2.4 GHz**

- Microwave ovens
- Wireless surveillance cameras
- Bluetooth Devices
- Nurse Call Systems
- Dense WiFi access points

**-80dBm** | ..... **30M** ..... | **↓50%**

RF power levels above -80 dBm cause interference to WiFi networks.<sup>3</sup>

Significant negative impact can occur from as far away as 30 m.<sup>3</sup>

WiFi network performance can be degraded by 50%.<sup>3</sup>

## Unreliable wireless devices impact care

False alarms



Mode changes



Malfunctions



## Minimize medical **IoT** wireless interference

### Simulate your design

Keysight EMPro software simulate radiated emissions of electronic circuits and components

### Validate your prototype

Keysight EMI measurement application and an X-Series signal analyzer will validate radiated and conducted emissions levels

### Meet EMC regulations

Keysight MXE EMI Receiver ensures medical IoT devices meet emission standards

### Test for coexistence

Keysight Real-Time Spectrum Analyzers test the ability of IoT medical devices to operate in the intended RF environment

### Measure site interference

FieldFox RF and Microwave Analyzer lets healthcare facility personnel detect, locate, and fix interference problems

## Reliable Medical IoT Devices Make Connected Healthcare Healthy

[READ THE WHITEPAPER >](#)

<sup>1</sup> Healthcare Industry May Not Be Prepared For Internet Of Things

<sup>2</sup> Top 10 U.S. non-profit hospitals based on the number of beds as of 2017

<sup>3</sup> Ambient Interference Effects in Wi-Fi Networks