

MEDICAL WIRELESS SOLUTIONS

Chip Antennas - Available for BLE, Wi-Fi, LTE, NFC, and ISM — engineered for close proximity to the human body

Baluns & RF Matching Networks - Pre-matched to popular medical wireless chipsets to simplify layout and minimize component count

Band Pass Filters, High Pass Filters, & Low Pass Filters - Ensure coexistence with other radios and meet FDA/EMC regulations

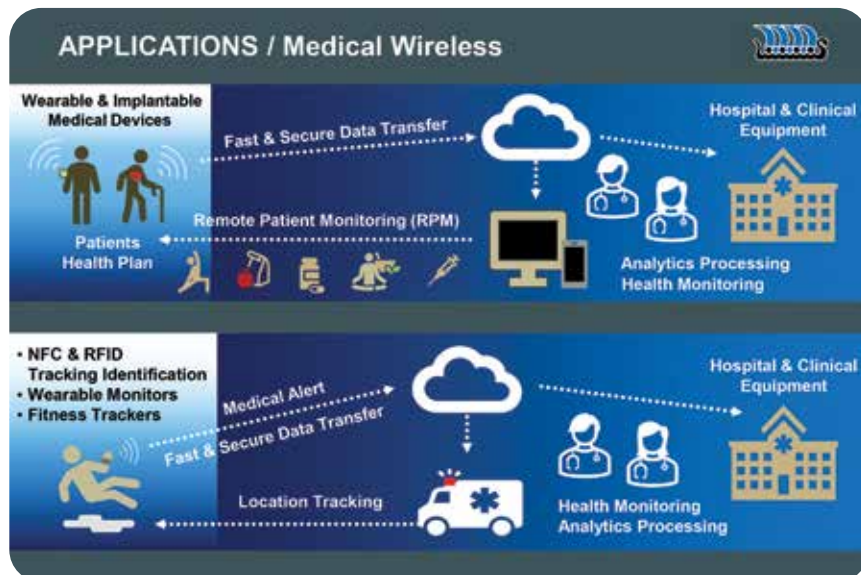
High-Q Capacitors & RF Inductors - Thermally stable and reliable for implantables and space-constrained designs

Build Smarter Medical Devices with Reliable RF Components!

Designing the next-generation of medical wireless wearables, implantables, and/or monitoring equipment is a complex task that requires RF components that deliver consistent, reliable performance. JOHANSON offers compact, reliable solutions that are built with medical applications in mind that work to help:

- Extend battery life in power-sensitive medical devices
- Maintain solid wireless performance — even near the human body
- Fit into tight spaces with easy-to-integrate miniaturized component footprints
- Support critical wireless protocols such as BLE, Wi-Fi, Sub-GHz IoT, UHF RFID, and LTE/5G

JOHANSON supports today's leading medical wireless protocols, so you can focus on building devices that perform well and deliver peace of mind.



Supported Medical Wireless Technologies

JOHANSON components are compatible with the most widely utilized wireless protocols in connected healthcare, such as:

- **Bluetooth® Low Energy (BLE)**
Power-efficient connectivity for medical wearables
- **Wi-Fi® Fast and Secure**
Data transfer within and to hospitals and clinics
- **ISM/Sub-GHz Long-Range and Low-Power**
Long-range, low-power communication for custom links
- **NFC/RFID Short-Range**
Pairing, tracking, and secure ID
- **Cellular (LTE/5G) Real-time**
Connectivity for telehealth & RPM



Wearable



Implantable



Tracking & ID



Miniaturized Components – Maximize board space without compromising performance
Regulatory-Ready Solutions – Help meet FCC, FDA, and regional medical requirements
RF Engineering Support – From design to deployment
Reliable Supply Chain – Proven partner for Class I-III medical device manufacturers

Applications & Solutions:

Medical Wireless Applications	Device Types	Key Protocols	Design Priorities
Wearable Monitors & Fitness Trackers	<ul style="list-style-type: none"> ECG Monitors Glucose Trackers 	BLE Wi-Fi LTE/5G	<ul style="list-style-type: none"> Robust wireless connectivity Platform integration
	Johanson Solutions:	Chip Antennas Baluns & Matched Baluns Simplify Bluetooth Integration Band Pass & Low Pass Filters Improve signal coexistence, meet regulations	
Implantable & In-Body Medical Devices	<ul style="list-style-type: none"> Pacemakers & Neurostimulators 	BLE Medical ISM (Sub-GHz)	<ul style="list-style-type: none"> Biocompatibility, Reliability Power Efficiency
	Johanson Solutions:	RF Capacitors & RF Inductors for ultra-compact implants High-Frequency Ceramic Parts for tight tolerance & reliable in-body RF behavior	
Remote Patient Monitoring (RPM) & Telemedicine	<ul style="list-style-type: none"> ECG Monitors Glucose Trackers 	BLE Wi-Fi LTE/5G	<ul style="list-style-type: none"> Robust wireless connectivity Platform integration
	Johanson Solutions:	Multi Band Ceramic Chip Antennas - 2.4GHz, 5GHz, LTE Bands Low Pass Filters Minimizes harmonic interference Balun Transformers Optimize power efficiency	
Hospital & Clinical Equipment	<ul style="list-style-type: none"> Bedside monitors Surgical tools Imaging systems 	Wi-Fi Proprietary 2.4/5 GHz systems	<ul style="list-style-type: none"> Reliable performance High EMI resistance
	Johanson Solutions:	Broadband Chip Antennas For multi Wi-Fi channels EMI Filters Hospital EMC Compliance High-Q Capacitors For signal & power integrity	
NFC and RFID: Tracking & Identification	<ul style="list-style-type: none"> Patient wristbands Surgical tool tracking Wireless device pairing 	NFC RFID	<ul style="list-style-type: none"> Strong near-body performance Reliable short-range connectivity
	Johanson Solutions:	RF Capacitors & RF Inductors for ultra-compact implants High-Frequency Ceramic Parts for tight tolerance & reliable in-body RF behavior	

Solve Your Design Challenges: Contact JOHANSON's Application Engineer Team Today for support with

PERFORMANCE | COMPLIANCE | INTEGRATION REQUIREMENTS

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