



We design and build products that matter.

RF & Wireless Engineering

Impact ES develops wireless and RF-enabled products for medical, consumer, industrial, and research applications. Our engineers support wireless system development from communication architecture and antenna design through RF layout, tuning, verification, and regulatory testing support.

Whether integrating a Bluetooth® wearable, developing an RFID-enabled system, implementing wireless charging, or optimizing a multi-radio product, we help customers bring connected devices to market with confidence.

RF System Design

- Communication architecture development
- Wireless technology selection
- RF component selection
- Link budget evaluation
- Multi-radio coexistence support
- Custom protocol implementation

RF PCB Design & Integration

- Controlled impedance routing
- RF stackup development
- High-frequency PCB layout
- Transmission line design
- RF signal integrity optimization
- Layout experience supporting designs operating up to 18 GHz

RF Optimization & Regulatory Test Support

- Antenna characterization and tuning
- Network analyzer measurements
- Spectrum analysis
- Pre-compliance troubleshooting
- Regulatory test support (FCC, ETSI, LTE)
- On-site engineering support during compliance testing



Wireless Technologies

- Bluetooth® Low Energy (BLE)
- Wi-Fi
- NFC
- RFID
- Zigbee (802.15.4)
- ANT+
- LTE / Cellular
- LoRa
- Qi Wireless Charging

Antenna Development & Optimization

- PCB trace antenna design
- Custom RFID antenna development
- Custom NFC antenna development
- Chip antenna integration
- Antenna matching network design
- In-system antenna tuning
- Wearable antenna optimization



About Us

We are a multi-site contract manufacturer and engineering partner. We combine design engineering expertise with full manufacturing capabilities, enabling customers to streamline development and production under one roof.

Industries



Aerospace



Medical & Life Science



Autonomous & Robotics



Space



Military & Defense



Commercial & Industrial

Why Impact ES?

Wireless Expertise Integrated Across the Entire Product

Successful wireless products require more than a functioning radio. Our RF engineers work alongside electronics, firmware, mechanical, test, and manufacturing teams to optimize overall system performance, accelerate troubleshooting, and reduce development risk.

From antenna tuning and RF layout through regulatory support and production readiness, Impact ES helps customers confidently bring connected products to market.

Certifications



Contact Us

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Locations

- Clearwater, Florida
- Cranston, Rhode Island
- Grants Pass, Oregon
- Vancouver, Washington
- Ventura, California

