

# RFID and RF Circuits/Components

## About this Research Topic

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Radiofrequency identification (RFID) and Wireless identification are modern technologies with a wide range of applications. Some popular utilizations include indoor and outdoor tracking, sensing, operation of tags attached objects, human bodies, etc. Wireless identification of people and physical objects has enabled them to become smartly connected. This had led to scientific breakthroughs in various fields of human endeavours including healthcare, health monitoring, disaster monitoring, logistics, social networking, smart environments, security services, etc.

Though many applications rely on passive chipped tags, chip-less tags have been recently gaining popularity. RFIDs rely heavily on radiofrequency (RF) circuits and components for successful operation. RF falls within electromagnetic waves with frequencies ranging from 300 MHz to 300 GHz, which are sometimes classified as microwaves. This frequency span matches the free space wavelengths of 1 m to 1 mm, in that order. Electromagnetic waves with frequencies varying from 30 GHz to 300 GHz are classified as millimetre-waves due to their wavelengths that fall directly above 1 mm and directly below 10 mm. The RF band falls somewhere beneath the microwave range, though the border in the middle of RF and microwave bands is subjective and adjusts based on the technology established for the development of the band.

The main topics of interest of this Research Topic include but are not limited to the following: Smart Connectivity, Wireless Identification, Localization Systems, Indoor and Outdoor Sensing Systems, RFID Data Fusion, Smart Healthcare, Neural Networks and Intelligent Systems, Wireless Sensors, Nonlinear RFID, RF and Microwave Circuits and Devices, Applications of Compressive Sensing Theory. Authors are invited to submit their latest related research findings for publication. Both regular articles and review papers are welcomed.

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