

# INTEGRATED ANTENNA DATASHEET

## 1. Features

RAD-2577 has two antennas integrated into housing of the product. One of the antennas (RAD-2577-1) is used for product specific sub 1GHz data link and other one (RAD-2577-2) for Bluetooth Low Energy (BLE) link.

Integrated antenna is product specific and this specification is valid only when antenna is installed in the product. Both antennas use impedance matching circuitry on the host device circuit board.



Figure 1 Photograph of the antenna installed in the product

## 2. General Data

Part Number	RAD-2577-1	RAD-2577-2
Frequency	867MHz-928MHz	2400MHz-2487MHz
Operating temperature	-30°C to +80°C	
Nominal Impedance	50Ω with impedance matching circuit	

Connection type	Spring-Loaded-Connector
Max Power handling	1W

### 3. RF Characteristics

Antenna	RAD-2577-1	RAD-2577-2
Frequency Range	867MHz-928MHz	2400MHz-2487MHz
Max Peak Gain in free space	-9dBi	-2.5dBi
Return loss	6 dB typical	6 dB typical

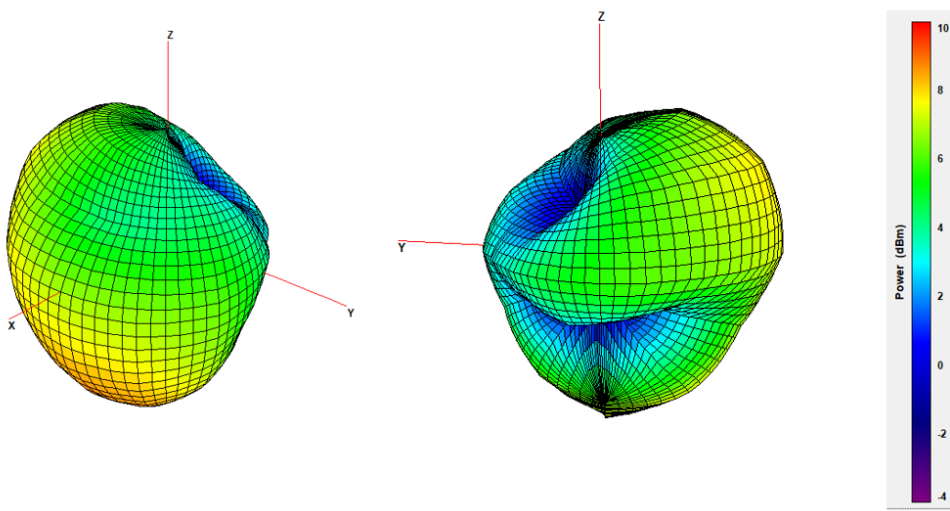


Figure 2. RAD 2577-1 Antenna radiation pattern at 915MHz. Measurement has been conducted using the transmitter of the product with power set to 18.2dBm

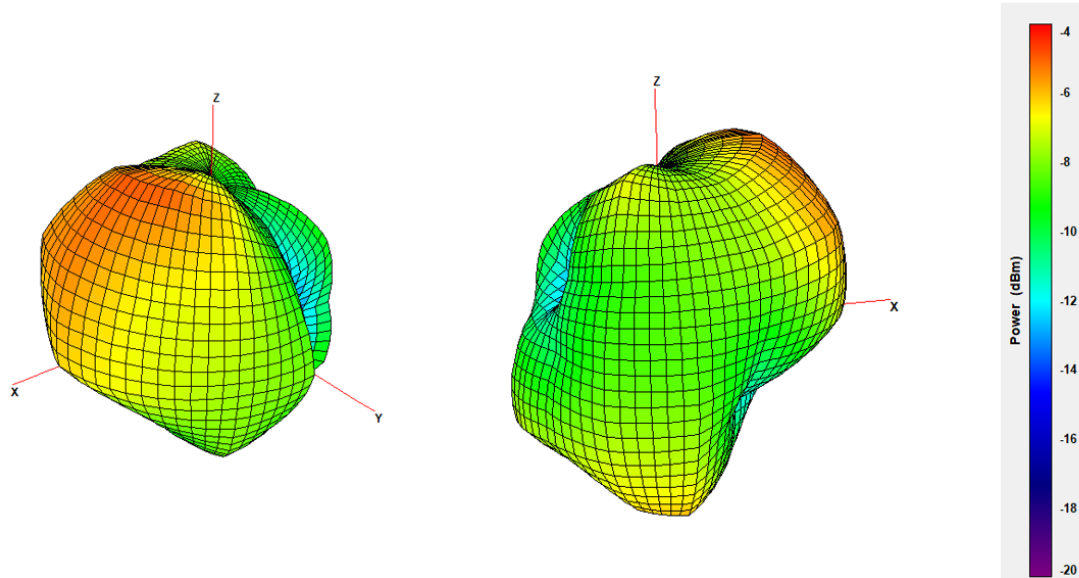


Figure 3. RAD.2577-2 Antenna radiation pattern at 2440MHz. Measurement has been conducted using the transmitter of the product with power set to -2.1dBm

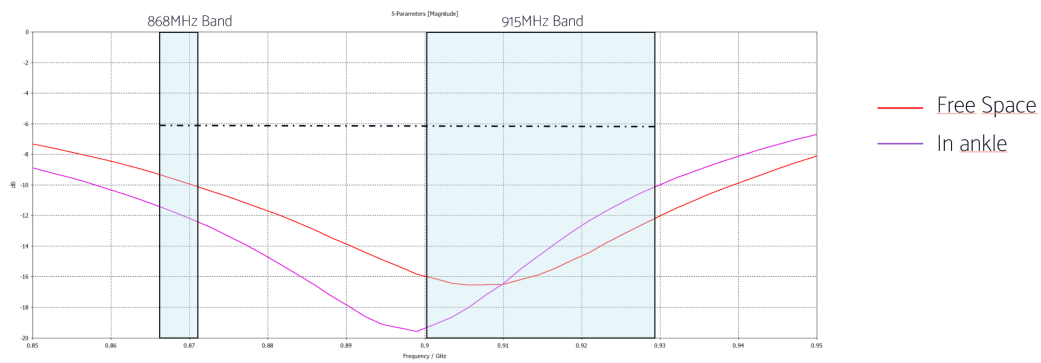


Figure 4 RAD-2577-1 Antenna S11 measured in both free space condition and in realistic situation where product is attached to human ankle.

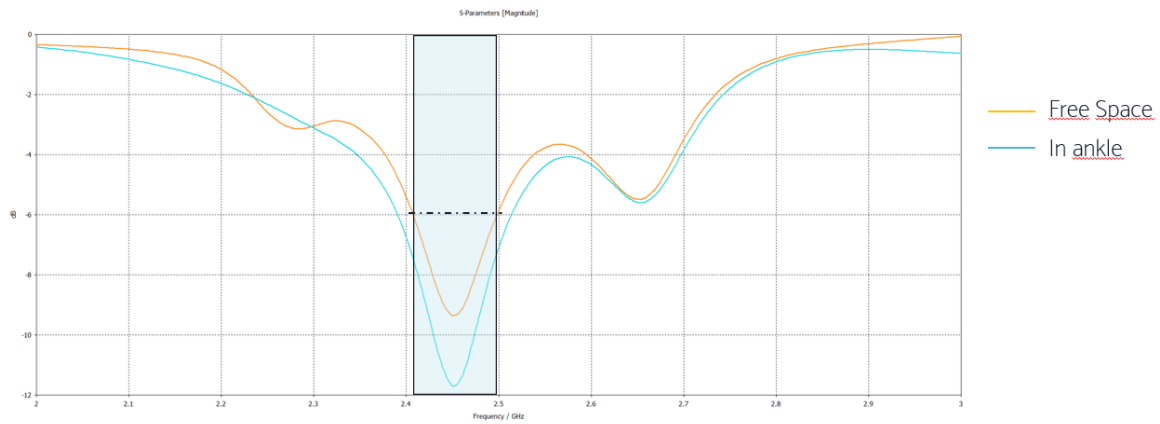
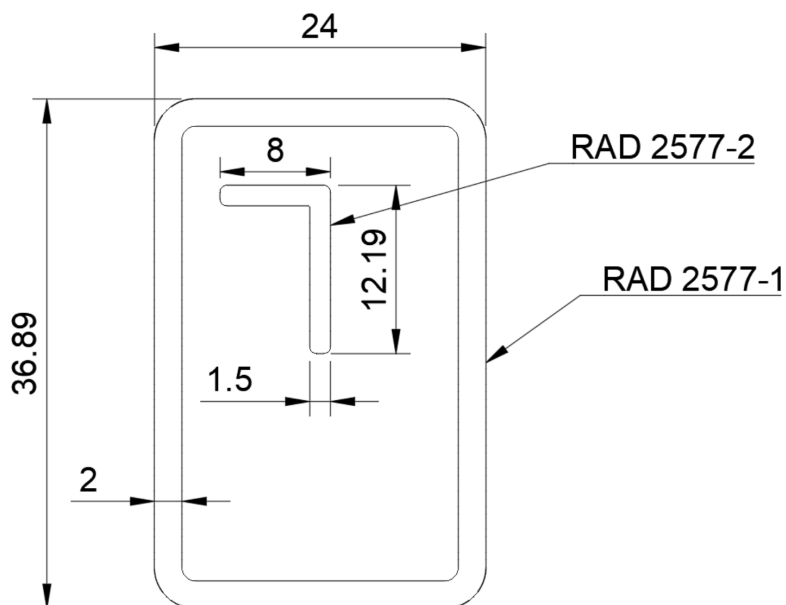


Figure 5. RAD-2577-2 Antenna S11 measured in both free space condition and in realistic situation where product is attached to human ankle.

## 4. Mechanical dimensions



## 5. Conformity

Antenna is in compliance with the essential requirements and other relevant provisions of Directive 2011/65/EU (RoHS)

