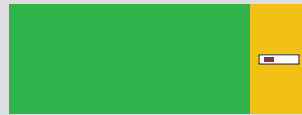


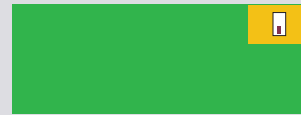
## Antenna Chip Selection

# Mounting Guidelines, GNSS, Selection Info, & Optimization Process

## Antenna Mounting Guidelines



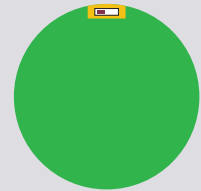
PCB End Mounting



PCB Corner Mounting



PCB Center-Edge Mounting



PCB Circular Mounting

### Legend

|                                                                                   |              |                                                                                   |               |
|-----------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------------|---------------|
|  | Antenna Chip |  | Mounting Area |
|  | PC Board     |                                                                                   |               |

## Selection Guide Information:

**Note:** Refer to the website for latest version of selection guide

Antenna Chip Selection Guide is a useful tool early in the design process when a decision on which Johanson antenna chip/s will be selected.

First, the designer must choose what type of layout is desired based on the product shape and remove allowable antenna chip placement.

The mounting plays a critical role in antenna chip selection.

It is important that the designer understands that the "**Antenna Optimization Process**" is composed of the following:

All four of these features work together to determine the final system performance. As such, changes to the **no-ground area** or **chip locations** relative to the edge of the circuit board can result in substandard performance.

Once the layout type has been selected, then determine the application type and associated **operational frequency**.

In some cases, the selection guide will provide two antenna chip options. We have identified features that should lead the designer to a specific selection.

## Antenna Optimization Process



**Note:** Refer to the website for latest version of selection guide

**RESOURCE** ► <https://www.johansontechnology.com/chip-antenna-selection>

# Application Legend & Bluetooth / Wi-Fi / Zigbee Applications

## Antenna Selection Guide Tool



An easy to use, step-by-step tool to help you get the correct antenna chip part number, for your project design.

## Legend

■ Application Type

1. Bluetooth / Wi-Fi / Zigbee
2. Wi-Fi / UNII 1-3
3. GNSS
4. Sub-GHz ISM
5. Dual-Band
6. Ultra Wide-Band

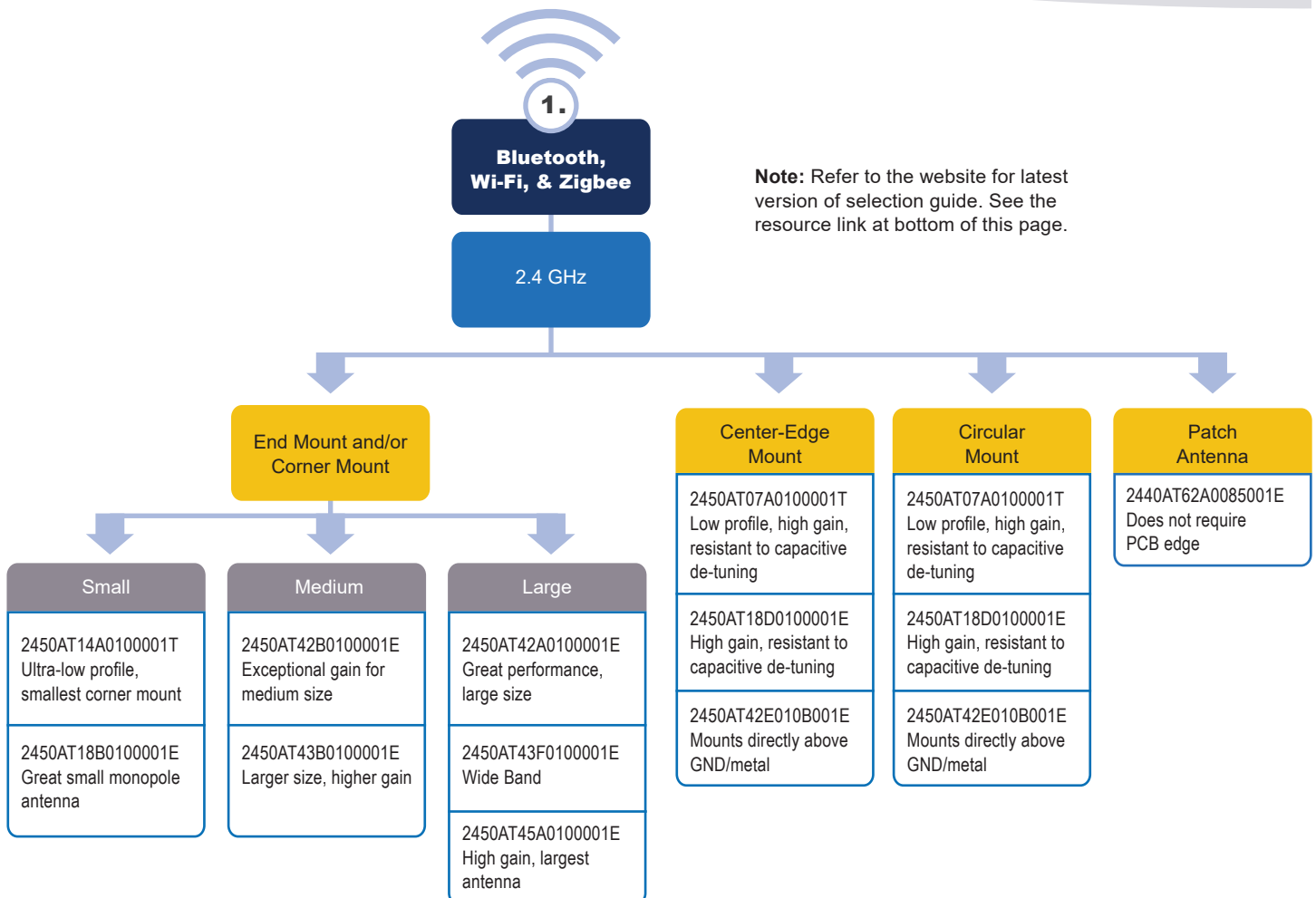
■ Frequency

■ Mounting Location

■ Physical Size  
Small / Medium / Large

□ Part Number  
Description

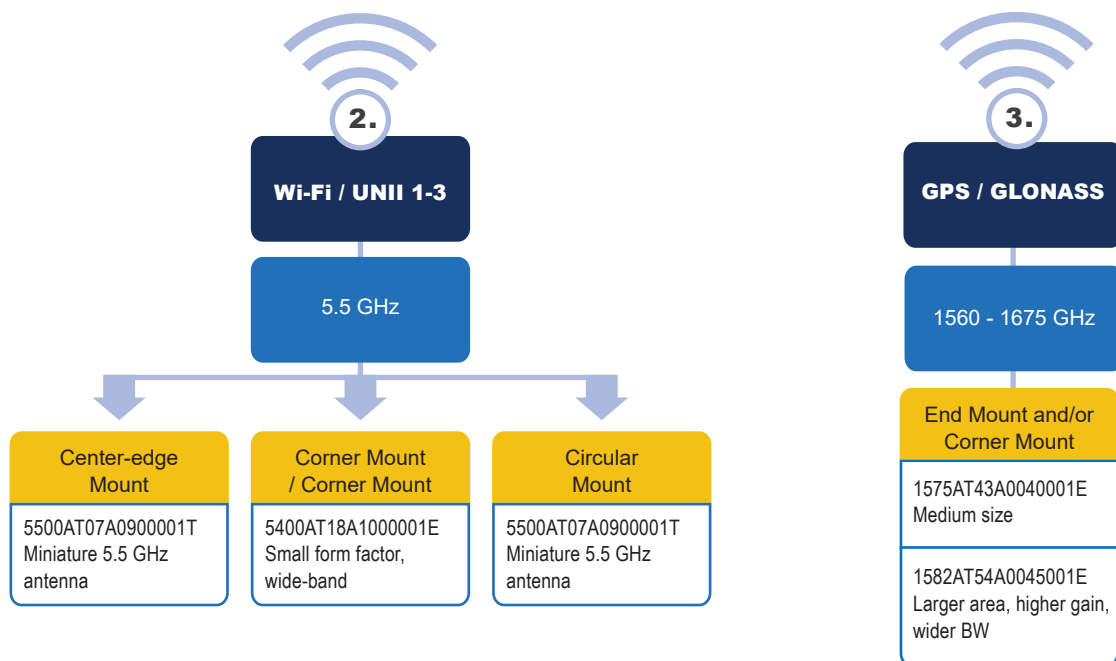
**Note:** Refer to the website for latest version of selection guide. See the resource link at bottom of this page.



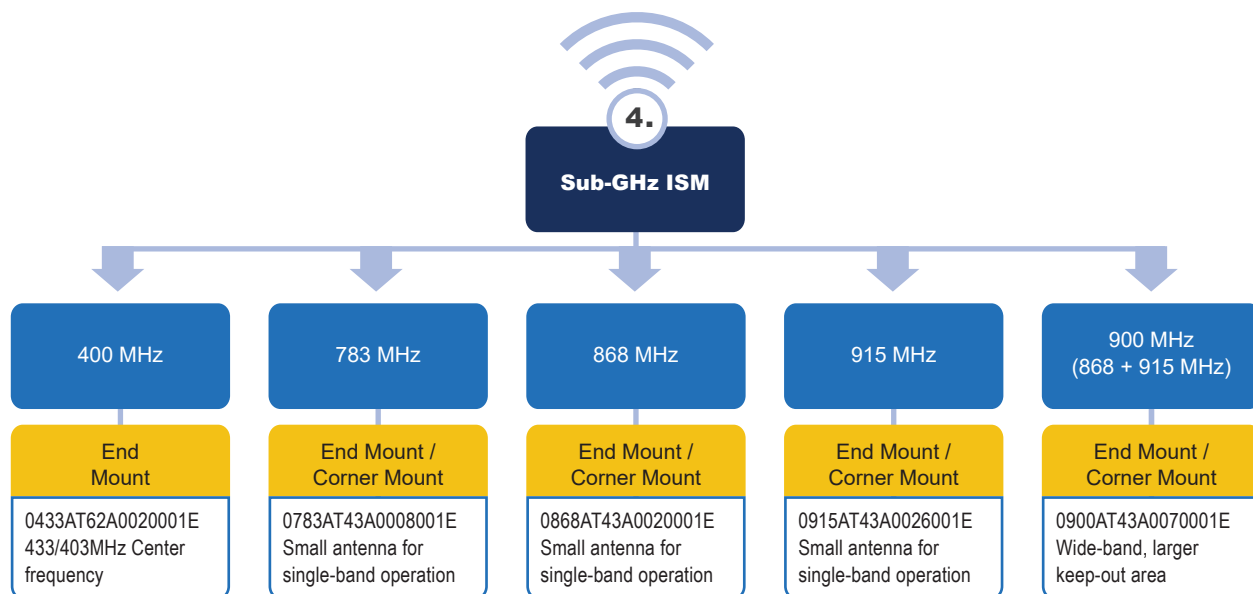
**Note:** Refer to the website for latest version of selection guide

<https://www.johansontechnology.com/chip-antenna-selection>

## Wi-Fi/UNII 1-3, GNSS, & Sub-GHz ISM



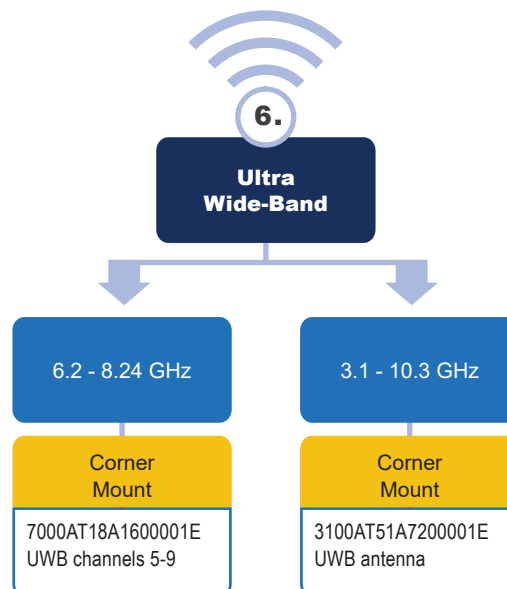
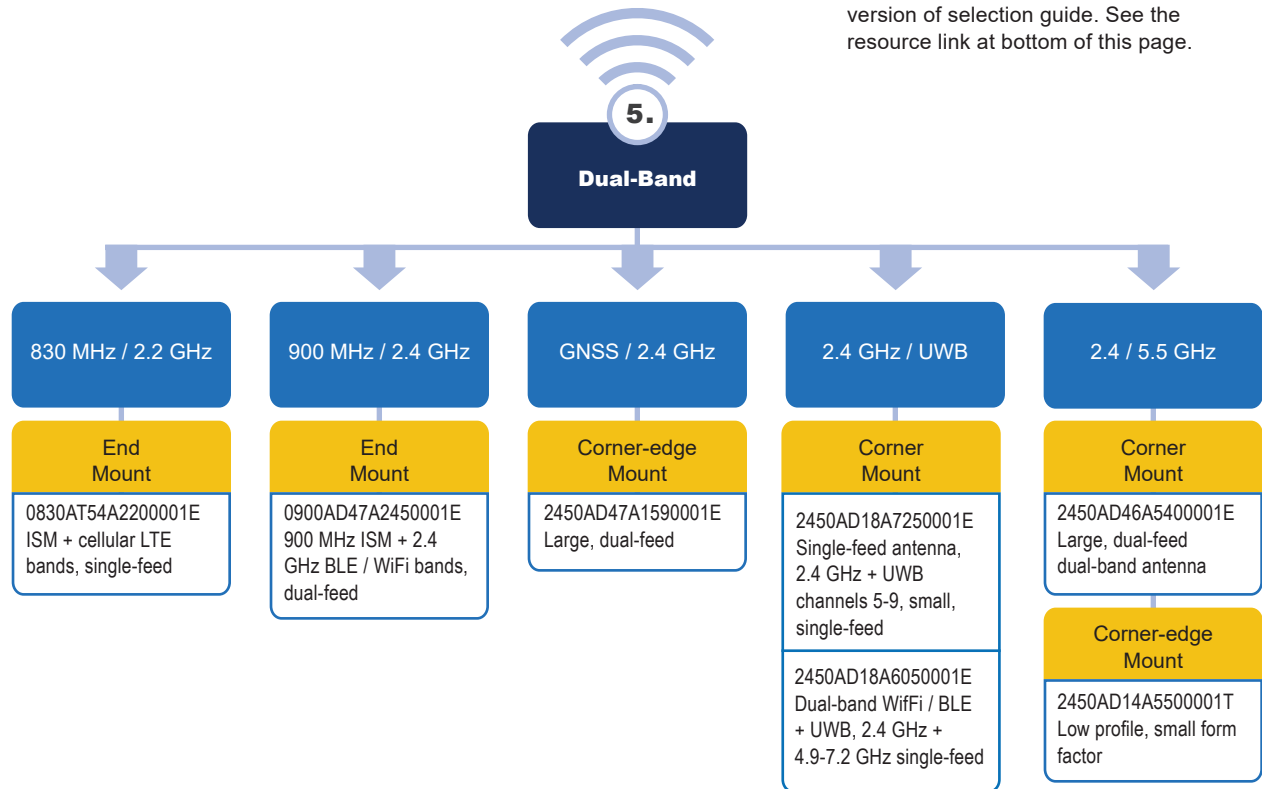
**Note:** Refer to the website for latest version of selection guide. See the resource link at bottom of this page.



**Note:** Refer to the website for latest version of selection guide

# Dual-Band, & GNSS, Ultra Wide-Band Selections Applications

**Note:** Refer to the website for latest version of selection guide. See the resource link at bottom of this page.



**Note:** Refer to the website for latest version of selection guide

<https://www.johansontechnology.com/chip-antenna-selection>