Hardware Reference

The INP1010/INP1011/INP1012/INP1013/INP1014/INP1015 Talaria TWO modules are complete solutions with integrated wireless connectivity plus microcontroller for edge-of-network IoT designs.

Talaria TWO modules have either a printed PCB antenna (INP1010/INP1014), a U.FL antenna connector (INP1011/INP1015), an RF pin connector (INP1012), or a ceramic antenna (INP1013). The modules will include Wi-Fi Alliance, Bluetooth SIG, FCC, IC (Canada), CE, and TELEC\*.

Each module has an associated EVB-A evaluation board (INP3010/INP3011/INP3012/INP3013/INP3014/INP3015 respectively), designed as an evaluation platform for the INP101x modules.

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| **Module** | **Antenna** | **Dimensions (mm)** |
| INP2045 | QFN42 SoC | 5x6 |
| INP1010 | Integrated PCB antenna module | 21.6x19.1 |
| INP1011 | u.Fl external antenna module | 21.6x19.1 |
| INP1012 | RF Pin external antenna mini module | 15x12.8 |
| INP1013 | Integrated ceramic antenna mini module | 20x12.8 |
| INP1014 | Integrated PCB antenna mini module | 20x12.8 |
| INP1015 | u.Fl external antenna mini module | 17x12.8 |

Table 1: Talaria TWO modules overview

For more details on the Talaria TWO modules and SoCs, refer: Talaria TWO Module and SoC Datasheet.

Design guidelines can be broadly categorized into the following sections:

1. Power supply
2. Reset
3. Peripheral interfacing
4. Production programming
5. RF/Antenna section

Power supply, Reset & Peripheral interfacing remain same for all variations of the Talaria TWO module family.

INP3000 programmer board provides a programming interface for the Talaria TWO modules. It can be used with scripts provides in the Talaria TWO SDK package.