



## Maca 2 Plug and Play Long Range Wireless Radio Link

Maca 2 is a plug-and-play long-range wireless radio link unit that will deliver air-to-land data transmission at ranges of up to 80km. This RF link system builds on the popular and capable Qualcomm SoC with an expanded transmission range, a broader available frequency range of 2152-2852MHz, and a 39dBm 2x2 MIMO 2x2TX radio. These features deliver very high transmission power and high receiver sensitivity of up to -98dBm. Maca 2's plug-and-play firmware makes it easy to integrate into your project and enables narrow channels as small as 1.5MHz. All of these features come in a small and robust housing and an affordable price per unit.

### Key Features

- **Based on Qualcomm SoC.**
- **Plug-and-Play Solution**  
Ready to use and fully developed for drones and robotic applications.
- **Up to 80+ km Free-space range** (theoretical).
- **Interference Mitigation**  
Ability to adjust or disable RX sensitivity to minimise interference or jamming.
- **Powerful radio:**
  - Wide frequency range 2152-2852MHz;
  - 30dBm+ from 2.3 to 2.7GHz;
  - High power 2x2 MIMO 2x2 TX (39 dBm);
  - RX sensitivity up to -98dBm.
- **Narrow channels**  
1.5-19.5 (.5MHz increments) /20/40MHz.
- **Compact Design**  
71x45x20mm with enclosure.
- **Versatile Interfaces**  
2 x Ethernet, USB 2.0, UART, GPIO.
- **Flexible Power Supply**  
14-33V supports 4S-7S battery packs.
- **Competitive Pricing**  
Cost-effective without compromising performance, offering excellent value compared to similar solutions.
- **Industrial Temperature Range**  
from -40°C to 85°C.

# Block diagram

