Remote wireless communication
Directional antenna automatic tracking platform and Servo control system

With the development of UAV Technology, the requirement of high bandwidth microwave data link is also improved, it has been unable to meet the requirements of long-distance communications by improving ground or airborne transmitter power or increase receiver sensitivity, but we found the way that improve the receiving and transmitting gain of ground control antenna is effective, and it won’t increase the weight and size of airborne communication equipment.

Directional communication antenna is widely used in the measurement and control of medium and long-range UAV, because it has high gain in beam angle range. Antenna by directional radiation and receiving signal to make the energy in the useful range, reduced energy dissipation, improve the transmission gain. But, It is precisely because of the characteristics of directional transmitting and receiving signals, it is decided that the antenna must be equipped with a guidance tracking system, then it can be used in application of dynamic tracking communication for UAV.

By using GPS mode and brushless servo motor control, achieve the one dimensional servo control of directional antenna, like spiral directional antenna, Yagi antenna, grid directional antenna and so on. It is more stable than single channel monopulse tracking system, digital stronger and low cost.

Main function & Technical index
- Manual tracking and GPS data tracking function
- Adjust the rotation speed function
- Collecting azimuth/pitch angle function
- Self weight and bearing: 3kg/5kg(portability)
- Antenna pedestal structure: position-pitch type
- Rotation range: Position: 360°  Pitch: 10~10°
- Rotation accuracy: 0.1°  Dynamic pointing precision of rotation: 0.1°
- Rotary speed of rotation: 0.1°/s~ 20°/s  Rotation acceleration: 10°/s²
- Power: 12VDC/5A
- Temperature: -25℃ ~+55℃

Portable remote automatic tracking platform
Vehicle mounted ultra long distance automatic tracking platform

Load high gain directional antenna  Super high gain antenna