

## Real-time tracking of bird migration



**Smart tracking device for birds**



**MC8332 CDMA Module**

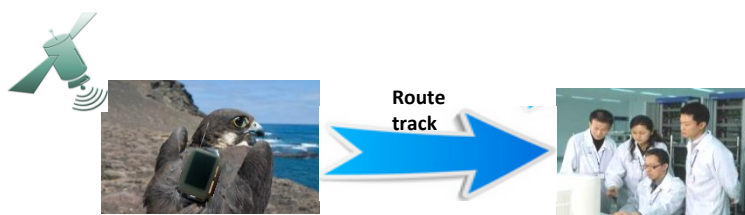
Each winter, migratory birds migrating quarterly along the latitude will fly to the low latitude tropical zone to spend the winter; and in Spring, they start to fly northward to get back to their breeding place. To learn and master the characteristics of bird migration and birds' life more effectively, ornithologists need to track the migratory birds through wireless positioning tracking technology.

In this spring, another group of migratory birds carrying with a GPS tracker fly northward. The GPS tracker is built in with ZTE WeLink MC8332 CDMA module MC8332.

The main components of a bird tracker include a wireless communication module, a GPS positioning module, a solar panel, a battery, etc. A 200mAh battery can be used continuously for 30 days; it can be charged through the solar panel when the battery is low. According to the procedure settings, the GPS tracker will intermittently send the location information to the background via the CDMA network. The CDMA network is superior to the GSM network because it covers larger areas, better signal continuity and soft handover.

Due to long-term use in the CDMA network, the tracker solution has raised higher requirements on the sensitivity and power consumption of the communication module. The wild migration process of birds has also put up very severe requirements on the temperature, humidity and reliability of the communication module. Meanwhile, there are also strict requirements on the size/weight of the communication module.

The key point to verify whether or not the above design is effective is to conduct long-time, wide-range and high-intensity test to the tracker. Through one-year test, the GPS tracker is highly recognized by the receiving unit, as it is better than any other existing counterpart at various specifications and reliability.



**Descriptions of Module Selection**

- MC8332, with high performance-price ratio and with a sound reputation in the domestic CDMA products.

**Advantages**

- Super-compact design, adapt to different species of birds;
- Two modes optional: scheduled transmission or real-time transmission of location information;
- Super-long work/standby time to enhance endurance;
- High-precision GPS dual mode positioning;
- RF optimization and reliability design, adapt to various regional environments