



Product Specifications

LoRaWAN™ Animal & Asset Tracker

LT-20/ LT-20P Series

VER: 1.6



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Introduction

LT-20 (Animal Tag)

LT-20 is a solar LoRaWAN™ tracker designed for range animals use. The high performance solar panel can provide sufficient power for continuous LoRa® transmission. Its light-weight and tag style design allows you to easily pin on cattle's ear. Optional LT-20P bottom case and collar can be chosen for installing on cattle's back.

LT-20P (Asset and Animal Tracker)

LT-20P is a solar LoRaWAN™ tracker designed for asset and animal by collar tracking purpose. The high performance solar panel can provide sufficient power for continuous LoRa® transmission. Its light-weight and compact design allows you to easily install on surface. Ideal for placing on the roof of Animal by collar, Caravans, Trailers, Plant & Machinery, Tractors etc.

***Report interval depends on sunlight condition of region and season.**

Product Features

- Support LoRa® frequencies: US 915 MHz / AS 923 MHz / EU 868 MHz
- High performance solar panel
- Provide periodic battery status messages to server
- High sensitivity GPS/ GNSS
- Configurable setting by iOS APP via BLE
- Built-in 3-axis accelerometer for motion detection
- Low power alert
- IPX7 waterproof rating

| H/W Specifications | |
|-----------------------------|--|
| LoRa [®] Chipset | Semtech LoRa Chip |
| LoRa [®] Antenna | Internal LoRa [®] antenna |
| LoRa [®] Frequency | LT-20H/ LT-20PH US 915 MHz/ AS 923 MHz LT-20E/ LT-20PE EU 868 MHz |
| MCU | NORDIC Series |
| BLE | NORDIC for slave mode |
| BLE antenna | Internal antenna |
| Internal Flash | 192 Kbytes |
| External Flash | 2 MByte (for debug log) |
| GPS | MTK for GPS and GLONASS |
| GPS Antenna Type | Patch antenna (size: 25x25x2 mm) |
| Button | Function button x 1 (Power/ Setting/ Reset in one button) |
| Sensor | 3-Axis accelerometer |
| LED Indicator | GPS, BLE, Charging LED |
| Operation Voltage | DC 3.3 ~ 4.3V USB 4.5 ~ 5.5V |
| Transmission Distance | LoRa [®] : 1 ~10 KM @ 980 bps BLE (Open sides): 35 M |
| Receiving Sensitivity | -128dBm @ 980bps (Typical) |
| Battery | Re-chargeable Li-polymer battery 500mAh |
| Operating Temperature | Operation: -20 ~ 60 °C Storage: -20 ~ 80 °C |
| Humidity | 5 ~ 95% (Non-condensing) |
| Dimension | LT-20: 80*55*15.7 mm LT-20P: 80*19.17*79.10 mm |
| Weight | 80 ± 2g both |
| Accessories | Charging Cradle (Optional) Metal Holder (Optional for LT-20P only) |
| Certification | CE, FCC, IC, TELEC(LT-20P) |
| Waterproof | IPX7 |

GPS Parameters

| GPS Parameters General | |
|--------------------------|--|
| Chipset: | High Performance |
| Frequency: | L1, 1575.42 MHz |
| Sensitivity: | -146 dBm (Tracking) -158 dBm (Autonomous acquisition) |
| Channels: | 66 channels, each is capable to receive any supported signal |
| Support SBAS: | WASS, EGNOS, MSAS, RTCM, GLONASS, QZSS |
| Update rate: | 1Hz |
| Default datum: | WGS-84 |
| Reacquisition: | <1 sec., average |
| Hot start: | < 1 sec., average |
| Warm start: | 33 sec., average |
| | < 15 sec (with AGPS) |
| Cold start: | 33 Sec., average (typical) without AGPS |
| | < 15 sec (with AGPS) |
| Maximum Altitude: | < 18,000 meters |
| Maximum Velocity: | < 500 meters/ second |
| Acceleration: | <4g |

Product CMF:

LT-20:

Dimension 80*55*15.7mm



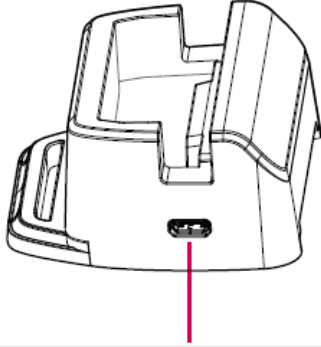
LT-20P:

Dimension: 80*19.17*79.10MM



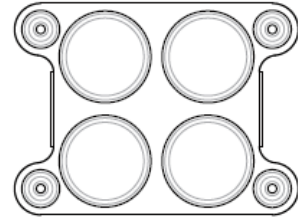
Accessories (Option):

Charging Cradle

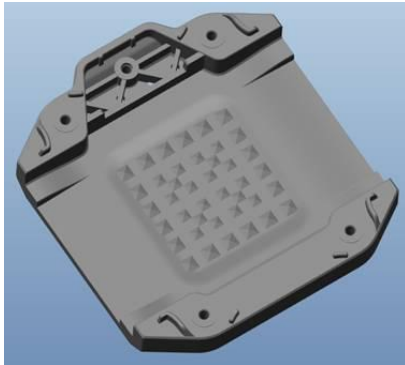


Micro USB Connection for Charging only

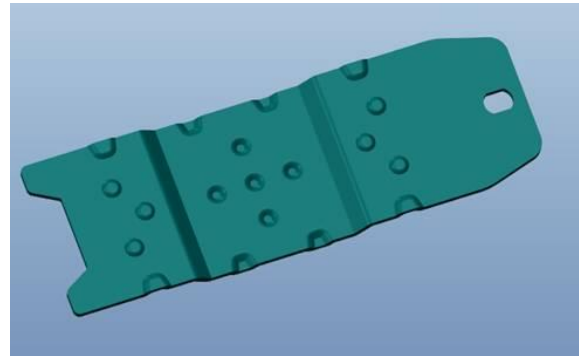
Metal Holder (LT-20P Only)



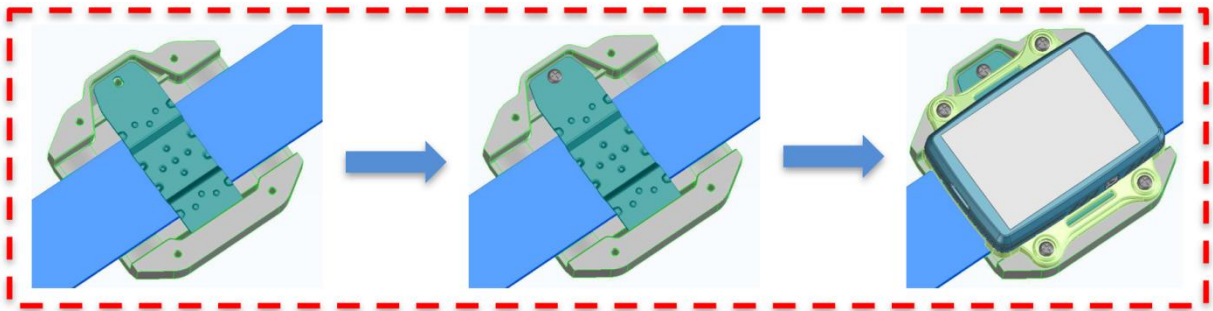
**LT-20P Only
Plastic Holder of Collar**



**LT-20P Only
Metal Bracket of Collar**



Assembly methods

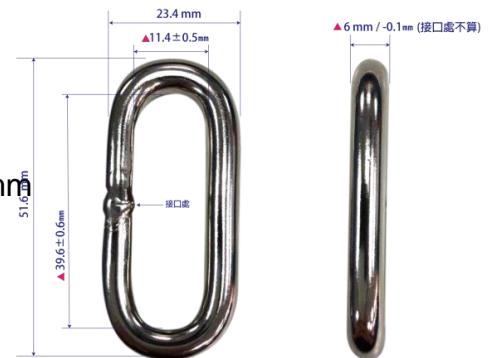


LT-20P Only
Collar Set:

Part No. : N3PL23NT20P000
 Name : Double oval ring belt (Black)
 Material: Polyester with Water repellency.
 Dimension: W38mm*L1300mm*t3mm



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 Part No. : N3PL23NT20P020
 Name : Oval Ring.
 Material: Steel.
 Dimension: φ6 mm *WO 51.6 mm *Wi 23.4 mm *H 11.4 mm
 Name : Webbing casing ring (Black)



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 Part No. : N3PL23NT20P010
 Material: Polyester with Water repellency.
 Dimension: 46.60(Length)*20.00(Width)*2.30(Thickness)mm



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DESCRIPTION: BLACK VINYL COVERED LEAD WEIGHTS

Part No. : N3PL27NT20P000
 Material: Lead+PVC
 Weight: 500g (±2-3%)
 Dimension: 67 X 83 X 20 mm



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 Installation video introduction:

<https://drive.google.com/file/d/19UmkDD7n9LHI-wQVCYxq5sLHGJw8Osbl/view?usp=sharing>

