



VEHICLE-MOUNTED WEATHER STATION

Product Overview

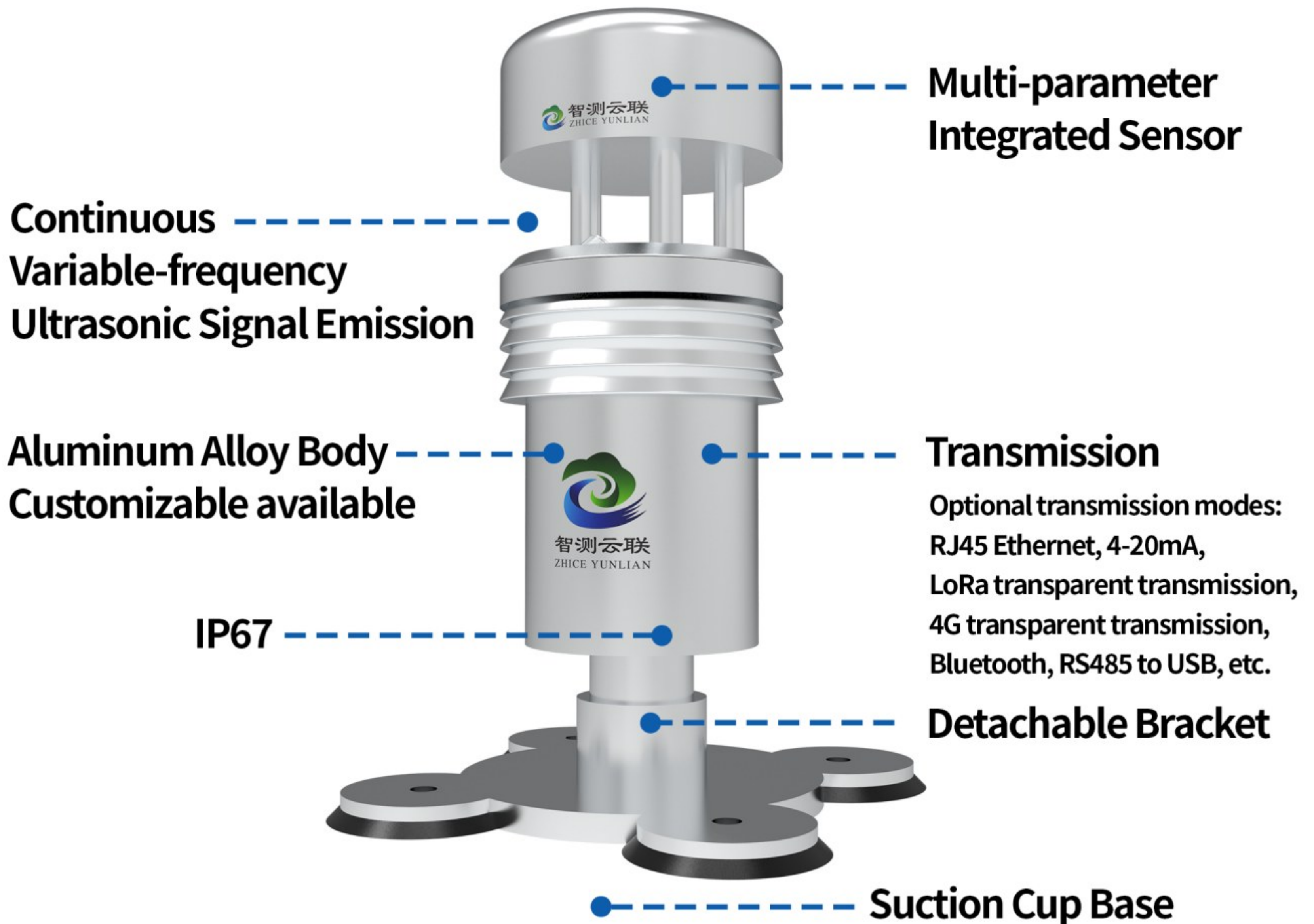
- The Zhiteyunlian Vehicle Weather Station is designed with the core concept of "vehicle-specific adaptation + precise monitoring", specifically tailored for mobile carriers such as vehicles. It perfectly meets the dynamic meteorological observation needs during vehicle movement.
- The equipment is equipped with an integrated high-precision monitoring unit, covering basic meteorological indicators such as temperature, humidity, wind direction, and wind speed.
- It supports remote monitoring and data storage on the cloud-based meteorological platform.
- The device adopts vehicle-grade protection design, reaching the IP67 level of waterproof and dustproof standards, and can adapt to vibrations and temperature differences in complex road conditions. It is a practical tool for mobile meteorological observation that combines vehicle adaptability and professional monitoring capabilities.

Application Scenarios

1. Campus meteorological science popularization and student practical teaching
2. Agricultural Production & Farmland Management
3. Forest Fire Prevention & Ecological Protection
4. Transportation Meteorology & Special Industry Scenarios
5. Urban Municipal & Smart City



Structure



Transmission

Mode	Wired / Wireless	Internet	LAN	Offline Adaptability
RJ45	Wired	Optional (customized)	Yes	Yes (intranet only)
4-20mA	Wired	No	No	Fully compatible
LoRa	Wireless	No	Yes (self-organized network)	Fully compatible
4G	Wireless	Yes	No	Not supported



Parameter

Item	Measuring Range	Resolution	Accuracy
Wind Speed	0~60m/s	0.01m/s	±(0.1m/s+0.01V)
Wind Direction	0~360°	1°	±2°
Ambient Temperature	-40~80℃	0.01℃	±0.3℃
Ambient Humidity	0~100%RH	0.01%RH	±3%RH (20%~80%)
Atmospheric Pressure	300~1100hPa	0.1hPa	±0.25%FS
Optical Rainfall	0~4mm/min	0.01mm	≤±4%
PM2.5	0~1000µg/m³	1µg/m³	±10% (<500µg/m³)
PM10	0~1000µg/m³	1µg/m³	±10% (<500µg/m³)
Carbon Monoxide (CO)	0~1000ppm	1ppm	±2ppm
Nitrogen Dioxide (NO ₂)	0~20ppm	0.1ppm	±1ppm
Sulfur Dioxide (SO ₂)	0~20ppm	0.1ppm	±1ppm
Ozone (O ₃)	0~20ppm	0.1ppm	±1ppm



Specifications

Item	Specification Details
Collector Power Interface	GX-12-4P plug, input voltage 8-16V, RS45, output JSON data format
Sensor MODBUS & RS485 Interface	GX-12-4P plug, output power supply 12V/1A
Solar Power Supply	Matched lead-acid battery; optional 30W20AH / 50W40AH / 100W100AH charge
Data Upload Interval	Adjustable from 1 minute to 1000 minutes
7-inch Android Touch Screen	Screen resolution: 1024*600 RGB LCD

