

## Sniffer4D V2

## Ultrasonic Wind Speed &amp; Direction Sensing Module

Real-time Aerial Meteorology Monitoring

 Temperature
  Humidity

 Atmospheric Pressure
  Wind Speed
  Wind Direction

## Typical Applications

With the most lightweight and all-in-one meteorological sensor, our Sniffer4D V2 Ultrasonic Wind Speed & Direction Sensing Module can be easily installed on DJI M300 RTK/M210 RTK and monitor the meteorological parameters (temperature, humidity, atmospheric pressure, wind speed and wind direction) in real-time. Integrated with Sniffer4D V2, the system can precisely acquire the meteorological information by calculating the back-and-forth time difference of the ultrasonic waves in 3D dimension.

Our Ultrasonic Wind Speed & Direction Sensing Module allows the Sniffer4D system to simultaneously monitor the target gases and the meteorological parameters in applications like Ambient Air Monitoring, Meteorological Monitoring, HAZMAT Response, providing intuitive & insightful information for decision-makers.



Pollution Diffusion Research



Forest Fire Rescue



Wind Energy Evaluation

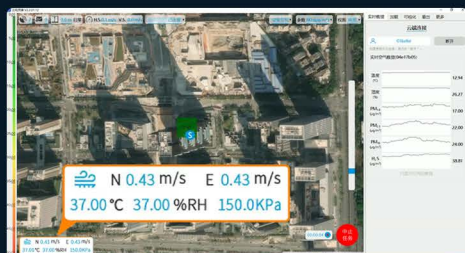


Environment &amp; Climate Change Research

## Real-time Data Transmission

Sniffer4D V2 supports transmitting real-time data from our Ultrasonic Wind Speed & Direction Sensing Module. After being processed by our proprietary algorithms, the meteorological parameters will be shown in DJI Pilot App & Sniffer4D Mapper.

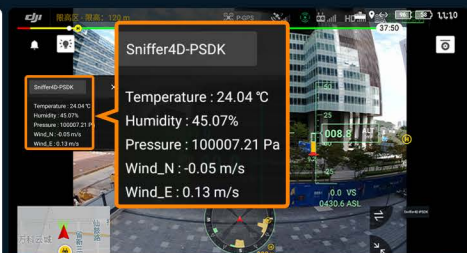
In this case, the system is rather user-friendly since our data provides real-time reference and does not require post-processing work. Meanwhile, all the data will be automatically stored in Sniffer4D V2's onboard SD card for after-mission analysis.



Displaying the meteorological parameters on Sniffer4D Mapper.

Time	Latitude	Longitude	Altitude	Temperature	Humidity	Pressure	Wind Speed	Wind Direction
2021-08-27 12:32:00	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:01	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:02	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:03	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:04	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:05	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:06	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:07	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:08	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:09	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:10	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:11	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:12	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:13	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:14	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:15	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:16	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:17	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:18	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:19	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:20	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:21	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:22	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:23	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:24	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:25	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:26	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:27	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:28	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:29	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:30	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:31	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:32	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:33	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:34	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:35	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:36	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:37	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:38	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:39	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:40	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:41	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:42	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:43	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:44	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:45	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:46	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
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2021-08-27 12:32:50	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:51	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:52	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
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2021-08-27 12:32:56	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:57	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:58	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:32:59	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0
2021-08-27 12:33:00	22.8244	114.302723	22.850893	26.274591	44.901962	100065.6889	0	0

Exporting mission files as a CSV datasheet.



Displaying the meteorological parameters on DJI Pilot.



## Built-in Motion Compensation Algorithms

Sniffer4D V2 Ultrasonic Wind Speed & Direction Sensing Module supports 3-axis wind speed measurement. Its built-in algorithms for translational motion compensation, attitude compensation, and rotational motion compensation allow real-time wind speed & direction outputting for the northeast, achieving accurate meteorological measurements while the drone is in motion.



## Seamless Integration with DJI M300 RTK/M210RTK

Sniffer4D V2 Ultrasonic Wind Speed & Direction Sensing Module itself is lightweight with no moving parts, the system has no limitation on start-up wind speed and does not require any adjustments. Besides, it supports seamless Integration with DJI M300 RTK/M210 RTK, Plug & Play using an XT30 cable or a Type-C cable, greatly reducing the preparation time before flights.



## Technical Parameters

Measurement Method	Ultrasonic Wave		Range	0-360°	Humidity Measurement	Range	0~100%RH
Connection	Connecting USB Type-C cable to "Ext.Istm." port of Sniffer4D V2		Accuracy	±1.0°	Humidity Measurement	Resolution	0.1%
Power Supply	9-36V DC input through XT30 port		Precision	1.0°		Accuracy	±3%
Wind Speed Measurement	Accuracy	±0.1m/s (0-10m/s) ±1% (11-30m/s) ±2% (31-50m/s)	Range	-40~85°C	Atmospheric Pressure Measurement	Range	33~110kPa
	Range	0-50m/s	Resolution	0.1°C		Resolution	0.1kPa
	Resolution	0.1m/s	Accuracy	±2.0°C		Accuracy	±1.0kPa

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