



## GPS Radiosonde Sounding System

The GPS radiosonde measures the vertical profile of temperature, humidity pressure, wind and other metrological variables and transmits the data to a ground-based receiving and processing station. It can be used to predict the weather accurately and improves the research of boundary layer. Changfeng GPS radiosonde was ranked 1<sup>st</sup> over Asia and 4<sup>th</sup> over world in the 8<sup>th</sup> WMO inter comparison of high quality radiosonde systems.

### Technical Data

<i>MODEL</i>	<i>CF-06-A, Balloon- borne type</i>
<b>• Temperature sensor</b>	
<i>Type</i>	<i>Bead thermistor</i>
<i>Measurement range</i>	<i>+60°C ~-90°C</i>
<i>Resolution</i>	<i>0.1°C</i>
<i>Uncertainty</i>	<i>0.5°C</i>
<i>Response time</i>	<i>0.8s</i>
<b>• Humidity sensor</b>	
<i>Type</i>	<i>Thin-file capacitor</i>
<i>Measurement rang</i>	<i>0-100%RH</i>
<i>Resolution</i>	<i>1%PH</i>
<i>Uncertainty</i>	<i>5%PH</i>
<i>Response time</i>	<i>1.5s</i>
<i>Pressure &amp; geopotential height</i>	<i>Derived from GPS heights</i>
<i>Measurement range</i>	<i>1080hpa to 3hpa</i>
<i>Resolution</i>	<i>0.1 hpa</i>
<i>Uncertainty in sounding</i>	<i>1080hpa to 100hpa: 1.0hpa 100hpa to 3hpa: 0.5hpa</i>
<b>• Wind detection(derived from GPS signals)</b>	
<i>Positional accuracy</i>	<i>10 meter</i>
<i>Measurement range of wind speed</i>	<i>0~150 m/s</i>
<i>Wind speed accuracy</i>	<i>0.15 m/s</i>
<i>Wind speed resolution</i>	<i>0.1 m/s</i>
<i>Measurement range of wind direction</i>	<i>0~360°</i>
<i>Wind direction accuracy</i>	<i>2°</i>
<i>Wind direction resolution</i>	<i>0.1°</i>
<b>• Transmitter</b>	
<i>Frequency range</i>	<i>400~ 406 MHz</i>
<i>Frequency stability</i>	<i>&lt;10 KHz</i>
<i>Output power</i>	<i>&lt;100 mw</i>
<i>Modulation mode</i>	<i>FSK</i>
<i>Transmission range</i>	<i>&gt;200 km</i>

<i>Measurement cycle</i>	<i>1 Hz</i>
<i>Data transfer rate</i>	<i>1200bit/s</i>
<i>Emission bandwidth</i>	<i>25 KHz</i>
	<b>• <i>Dimensions &amp; weight</i></b>
<i>Dimensions</i>	<i>230*110*70(mm*mm*mm)</i>
<i>Weight with dry-cell batteries</i>	<i>240±20g</i>
<i>Dry-cell batteries</i>	<i>6v nominal , operating time over 140min</i>

SSFC