



# iMet-2

## 403MHz GPS Radiosonde

### System Overview

Operating Principle	GPS wind finding
Nominal frequency	403 MHz
Battery	Alkaline
Operating time	> 3 hours
Weight	200 g
Data Rate	1 Hz
Case	Expanded Polystyrene

### GPS Receiver

Type	C/A code, 12 channel
Tracking	Continuous
Update rate	1 Hz
Acquisition time	< 50 seconds (cold start)
Position accuracy	10 m
Wind velocity accuracy	1.0 m/s

### Key Features

Simple to Use:

- Dry cell batteries
- Switch selectable frequencies
- No pre-flight temp & humidity recalibration required
- Compact and light weight

*The iMet-2 radiosonde is a performance-tested, high accuracy radiosonde. Launched in 2009, it has been flown globally from the Arctic to the Equator and even on research vessels. Since it's launch, the iMet-2 has been revised several times taking full advantage of sensor and calibration improvements.*

### Transmitter

Tuning range	400.15 to 406 MHz
Output power	300 mW
Transmission	4800 baud, FSK
Bandwidth	12 kHz
Stability	Better than 1 kHz

### Meteorological Sensors

#### Pressure

Type	GPS derived
Range	1080 to 3 hPa
Accuracy	< 1 hPa (1080 to 100 hPa) < 0.3 hPa (100 to 3 hPa)
Resolution	0.1 hPa

#### Wind

Wind speed range	0 to 120 m/s
Wind speed resolution	0.1 m/s
Wind speed accuracy	0.15 m/s
Wind direction range	0 to 360°
Wind direction resolution	1°
Wind direction accuracy	2°

#### Temperature

Type	Bead thermistor
Range	-90 to +60°C
Resolution	0.01°C
Accuracy	0.3°C (1080 to 100 hPa) 0.4°C (100 to 3 hPa)
Response time	< 0.7 s (in 6 m/s moving air)
Stability	< 0.1°C/year

#### Humidity

Type	Capacitive thin film polymer
Range	0 to 100 %RH
Resolution	1 %
Accuracy	5 %
Response time	0.37 s at 20°C 0.87 s at 0°C 3.2 s at -20°C 20 s at -40°C

*Specifications subject to change without notice  
\* Subject to balloon dimensions and atmospheric conditions*



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