



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 its 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	200 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) 0.6°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



33 Estmil Road, Diep River, 7800,
Cape Town, South Africa
Phone: +2721 715 1120
email: info@intermet.co
www.intermet.co

