iMet-1-ABxn Radiosonde

403 MHz GPS with Pressure Sensor

Features

Advanced Sensor Technology:
- **Thin Polymer Humidity**
- **Bead Thermistor Temperature**
- **Solid State Pressure**
- **12 Channel C/A Code GPS**

Simple to Use:
- **Dry cell batteries**
- **Switchable power on / off**
- **No pre-flight temp & humidity recalibration required**
- **Switch controlled frequency**
- **Compact and light weight**

Compatible with:
- **iMet-3150 Portable**
- **iMet-3050 / 3050A Portable**
- **iMet-3200A Synoptic**
- **iMet-3100M Military**

System Overview

Operating Principle	GPS Wind Finding
Nominal Frequencies	403 MHz
Range	> 250 km *
Altitude	> 30 km *
Battery	Alkaline Dry Cell
Operating Time	> 2 Hours
Weight	260 Grams
Sampling Rate	1 Hz
Case	Expanded Polystyrene

Transmitter

Tuning Range	400.15 – 406 MHz
Output Power	300 mW
Transmission	1200 baud, FM
Bandwidth	6 kHz (narrow band)
Stability	Crystal Controlled
Encoding Scheme	Bell-202 Standard

GPS Receiver

Type	C/A code, 12 Channel
Tracking	Continuous
Update Rate	1 Hz
Acquisition Time	50 sec (cold start)
Position Accuracy	10 m
Wind Velocity Accuracy	1.0 m/s
Altitude Accuracy	15m

Meteorological Sensors

Pressure

Type	Piezoresistive
Range	2 to 1070 hPa
Accuracy	0.5 hPa
Resolution	< 0.01 hPa
Response Time	< 1.0 Sec

Temperature

Type	Bead Thermistor
Range	- 95 to + 50 Deg
Accuracy	0.2 Deg C
Resolution	< 0.01 Deg
Response Time	2.0 Sec
	@ 1000 hPa

Humidity

Type	Capacitive
Range	0 to 100% RH
Accuracy	5% RH
Resolution	< 0.1% RH
Response Time	2 Sec @ 25 Deg C
	60 Sec @ - 35 Deg

Specifications subject to change without notice
** Subject to ground station type, balloon size and atmospheric conditions*

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