



## DROPSONDE

The MODEM DropSonde is a new measurement device recently developed. This instrument based on the well-known MODEM M10 GPSonde is used for atmosphere profiling, from plane level until the ground.

Our DropSonde provides, while descending, real time quality data of Temperature, Humidity, Wind detection (both speed and direction) and Pressure. The special design of the DropSonde and its parachute ensures optimal performances on descent.

### Features

Designed for Airplane use and characteristics

DropSonde design adapted to all types of launchers

Robust with field proven efficiency

Special designed parachute allowing high performances on descent

Light weight

Multiple Sondes tracking

Frequency setting through infrared communication link

External on/off power switch

Authorization of launch directly indicated on the sonde

Dedicated software for reception, processing analyse and storage of DropSonde data



# TECHNICAL SPECIFICATIONS

## DROPSONDE

### GENERAL

Dimensions : 359 mm in length  
: 68 mm in diameter  
Weight : 230 g (including batteries)

### TEMPERATURE

Sensor type : Thermistor  
Measurement range : -100°C to +60°C  
Resolution : 0.01°C  
Absolute accuracy : 0.3°C  
Repeatability : 0.1°C  
Reproducibility : 0.2°C  
Response time : <1s (1000hPa, 20°C)  
Measurement rate : 1 Hz

### HUMIDITY

Sensor type : Capacitor  
Measurement range : 0% to 100%  
Resolution : 0.1%  
Absolute accuracy : 3%  
Repeatability : 2%  
Reproducibility : 2%  
Response time : <2s (1000hPa, 20°C)  
Measurement rate : 1 Hz

### PRESSURE

Calculated from GPS altitude  
Range : 1100 to 3 hPa  
Accuracy : 0.5 hPa at 500 hPa  
Reproducibility : 0.2hPa at 100hPa  
Resolution : 0.1 hPa

### BATTERIES

Technology : 9V alkaline  
Autonomy : 2 h  
Package : 1-battery

### WIND MEASUREMENT

General : Differential corrections  
Altitude Range : Unlimited  
Position accuracy : 10 m  
Horizontal Wind accuracy : 0.15 m/s  
Wind direction accuracy : 1 °  
Position resolution : 0.01 m  
Horizontal wind resolution : 0.01 m/s  
Wind direction resolution : 0.1°  
Measurement rate : 1 Hz

### TRANSMITTER

Compliant with European standard ETSI EN 302054  
Frequency range : 400 to 406 MHz  
Frequency step : 200 KHz  
Frequency setting : By infrared link  
Maximum drift : 1 KHz  
Output Power : 200 mW  
Modulation type : PSK 4800 bauds  
Telemetry range with recommended antenna : >350 km

### CALIBRATION

Factory calibration : Stored on Flash memory

