



M2K2-DC (Dual Core)

The use of MODEM's M2K2 GPSonde is already widespread in the operational SYNOP upper-air network of major and smaller National Met. Services.

M2K2 GPSonde successfully participated to the latest WMO inter-comparison of High-Quality Radiosondes, Mauritius February 2005.

Designation of High-Quality Radiosonde is fully applicable to MODEM's M2K2 GPSonde

Main Features

DUAL CORE MICROPROCESSORS ALLOWING NEW FUNCTIONALITIES

SPECIAL METALLIZATION PROCESS OF THE SENSOR BOOM AGAINST NIGHTTIME INFRARED RADIATION

EXTERNAL ON/OFF POWER SWITCH

CODE CORRELATED DIFFERENTIAL GPS

PRESSURE CALCULATED FROM GPS ALTITUDE PIONEERED BY MODEM, THIS METHOD IS NOW CONSIDERED AS THE MOST ACCURATE AND RELIABLE SOLUTION

SENSORS CALIBRATION STORED ON EEPROM

GROUND CHECK FACILITY WITH BUILT-IN GPS REPEATER FOR INDOOR INITIALIZATION

400 TO 406 MHZ DIGITAL SYNTHESISER NARROW BANDWIDTH EN302054 STANDARD COMPLIANCE

200 KHZ STEP FREQUENCY SETTING

DIGITAL TRANSMISSION IN 1 SEC CYCLE

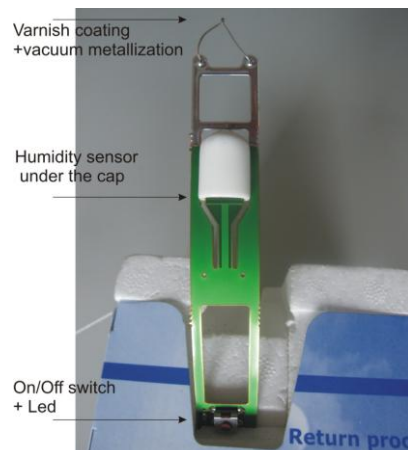
**LOW ENERGY CONSUMPTION
4 DRY CELL BATTERY POWER SUPPLY**

BATTERIES LIFE > 3 HOURS AND MORE THAN 3-YEAR SHELF LIFE

THREE ADDITIONNAL CHANNELS FOR SUPPLEMENTARY SENSORS SUCH AS OZONESONDE

ENVIRONMENTAL PROTECTION PROGRAM

NEW GENERATION DEREELER WITH FIELD PROVEN EFFICENCY



SUMMARY OF TECHNICAL SPECIFICATIONS

GPSonde M2K2-DC RADIOSONDE:

GENERAL

Dimensions : 92 x 107 x 160 mm
Weight : 210 g (including batteries)

TEMPERATURE

Sensor type : Thermistor
Measurement range : +60° to -90°
Resolution : 0.1°C
Absolute accuracy : +/- 0.5°C
Response time : <2s
Measurement rate : 1 sec
Calibration adjustment : Calibration prior launch
Factory calibration : Stored in EPROM

PRESSURE

Range : 1100 to 3 hPa
Accuracy : ±1 hPa at Surface; ±0.1 hPa at 60 hPa
Resolution : 0.1 hPa

WIND MEASUREMENT

General : DGPS with C/A code altitude
Altitude Range : Unlimited with authorisation
Position accuracy : 10 m
Horizontal Wind accuracy : 0.15 m/s
Wind direction accuracy : 2 °
Position resolution : 0.01 m
Horizontal wind resolution : 0.01 m/s
Wind direction resolution : 0.1 °
Measurement rate : 1 Hz

BATTERIES

Technology : 1.5V Alkaline
Autonomy : >3 h
Package : 4-battery pack

HUMIDITY

Sensor type : Capacitor
Measurement range : 0% to 100%
Resolution : 1%
Absolute accuracy : +/-5%
Response time : <2s
Measurement rate : 1 sec
Calibration adjustment : Calibration prior launch
Factory calibration : Stored in EPROM

TRANSMITTER

Frequency range : 400 to 406 MHz
Frequency step : 200 KHz
Frequency setting : Programming interface
Maximum drift : +/- 2 KHz
Output Power : 200 mW
Modulation type : Digital PSK 4800 bauds

CALIBRATION

Factory calibration : Stored on EPROM
Ground Check : Prior launch

SR2K2 GROUND STATION

GENERAL

Dimensions : Half 19'' unit - Width: 235 mm – Depth: 310 mm – Height: 132 mm
Weight : 3.5 kg
Consumption : 15 W
Output : 2 serial links (connection to PC)
Programming interface : Front panel connector with cable
GPS : 14-channel receiver
Workstation : SR2K2 can be operated from a laptop or desktop computer

TELEMETRY

Built-in receiver : 400 – 406 MHz digital Synthesiser
Tracking range : 250 Km
Modulation : PSK

