

NOA - MiniMill Fieldmeter Specs

Baud Rate

Pre Radiosonde	115200	
On Radiosonde	9600	8 data bits, no parity, one stop bit (8N1)

RPMs:

~ 40 Hz	2400 (average)
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Sampling Rate

Pre Radiosonde	9500 Samples Per Second
On Radiosonde	1 Sample Per Second

Modes:

- | | |
|------------------------------|---|
| 1) w/ Accelerometer | MPU6050 - Triple Axis Gyroscope & Accelerometer IMU |
| 2) No rotational information | |

Motor:

FlyCat 2204/260kV Brushless Motor

Speed controller:

XXD HW30A 30A Brushless Motor ESC

PCB type:

PCB1	multilayered
PCB/Electrode	PTH, 70X70mm, FR4 1mm, 35µm Electrode Deck with copper plating

Microcontroller type

Arduino Nano CH340

Operating environment

(implemented configuration)

Temperature	up to - 40°C
Altitude	msl to ~ 13km
Humidity	to 100%

Dynamic range

single sensitive channel

Noise

Zero field error	~ 2mV
Field uncertainty	± 3V/m

Sensitivity

1 ADC cnt, ± 2.3mV per V/m

Resolution

0 - 1024 ADC cnts, ± 2.4kV

Accuracy

1 ADC cnt

Bandwidth (dB)

through UART
Radiosonde defined bandwidth

Physical

Mass	250 gr
Power	9V batteries (DC in)
Cosumption	< 160mA

Electrode Deck

Radius	45mm
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Shutter

Radius	5.83cm
Thickness	1mm
Distance from the Electrode	4mm

Cube Dimensions:

Height	79mm
Length	76mm
Width	76mm