

NASA ER-2 / UND Citation Airborne Electric Field Meter

Description: Rotating vane, shutter-type field modulator, electric field mill. Unit is microprocessor-based with on-board dual 16-bit digitizers. Operates from single 28VDC supply. Command/data interface is asynchronous serial, with electric field and instrument engineering data encoded into packets transmitted once per second in response to data system commands.

Specifications:

Electric field detection (flush-mounted on flat plate):

Overall dynamic range:	+/- 2 v/m to 1.1 Mv/m
Sensitive Channel:	+/- 2 v/m to 62 kv/m
Insensitive Channel:	+/- 33.6 v/m to 1.1 Mv/m
Accuracy:	+/- 2.5%
Measurement bandwidth:	10 Hz, -3dB
Sampling rate:	50 Samples/sec

Weight: 8.5 lbs / 3.9 kg

Power: +28VDC +/-5% @ 250mA (heater off) 7W
500mA (heater on) 14W

Operating environment:

Temperature:	-55 to +50 °C
Altitude:	Sea level to 65,000 ft
Humidity:	to 100%, condensing