

# EP-600 series

## USB/RS232 Electric Field Probes

EP-600 series features EP-600, EP-601, EP-602, EP-603, EP-604



### Main Features

- 5 kHz to 26.5 GHz frequency range
- Up to 66 dB dynamic, single range
- Symmetrical dipole configuration
- Excellent isotropy (down to 0,2 dB typical)
- Up to 40 meters communication by Fiber Optic Cable
- Up to 80 hours of operation before recharging
- High performance, high reliability Li-Mn battery
- PC direct connection via Optical to RS232/USB adapters
- Extremely lightweight: 22 g only!

### The all-in-one that sets the standard for miniature optically coupled broadband E-field isotropic probes

Exceptionally small-sized spherical symmetrical configuration, lightweight and miniaturized electronics combined with excellent RF characteristics make the EP-600 series RF Electric Field Probes the ideal solution for all EMC/EMI applications (chambers and TEM/GTEM cells), biology and materials research and wherever fast and accurate measurements with negligible or minimum interference of the probe to the field under measure are essential. Accredited calibration on request.

# EP-600, EP-601, EP-602, EP-603, EP-604

## USB/RS232 Electric Field Probes

### COMMON SPECIFICATIONS

Resolution	0,01 V/m
Sensors	Six monopoles
Measurement mode	X-Y-Z axis simultaneous sampling
Sampling rate	22 to 0,03 Samples/s depending on filter settings
Digital filtering	Low-pass 2,3 to 28 Hz; 80 dB notch 50/60 Hz
Internal battery	3V, 5 mA/h, Li-Mn rechargeable
Operation time	80 hours @ 0,4 S/s, 28 Hz filter 60 hours @ 5 S/s, 28Hz filter
Recharging time	48 hours for full operation time Partial charging allowed, e.g.: 8 hrs rech. = 12 hrs operation @ 5 S/s 1 hr rech. = 5 hrs operation @ 0,4 S/s
Internal data memory	Serial nr. - Calibration factors & date Firmware version
Communication	Bidirectional fiber optic link
Fiber optic connector	HFBR-0500
Fiber optic length	10 m, standard 20/40 m options
Fiber optic to PC	Fiber optic to RS232 converter RS232 to USB converter
PC software	Displays field, temperature, battery Sampling, filters, averaging, frequency setting Manual data logging as text file
Operating temperature	-10 °C + 50 °C
Temperature reading resolution	0,1 °C
Battery voltage reading resolution	10 mV
Probe holder tip	1/4 20 UNC female



### Ordering Information:

EP-600 Field probe 100 kHz to 9,25 GHz 0,14 to 140 V/m  
 EP-601 Field probe 10 kHz to 9,25 GHz 0,5 to 500 V/m  
 EP-602 Field probe 5 kHz to 9,25 GHz 1,5 to 1500 V/m  
 EP-603 Field probe 300 kHz to 18 GHz 0,17 to 170 V/m  
 EP-604 Field probe 300 kHz to 26,5 GHz 0,4 to 800 V/m  
 Includes: 10 m fiber optic cable, Optical/RS232 adapter  
 + RS232/USB adapter, PC Utility WIN-EP600, Charging  
 fixture, A/C charger, tripod mounting tip, Standard  
 calibration certificate.

### Optional accessories:

SB-10 Switching Control Box  
 Fiber optic cable FO-EP600/10 (length: 10m)  
 Fiber optic cable FO-EP600/20 (length: 20m)  
 Fiber optic cable FO-EP600/40 (length: 40m)  
 TR-02A tripod  
 TT-01 Telescopic extension  
 Accredited Certificate  
 For full list please refer to the User Manual.

## Main specifications (for full information please refer to the User Manual)

	EP-600	EP-601	EP-602	EP-603	EP-604
Frequency Range	100 kHz to 9,25 GHz	10 kHz to 9,25 GHz	5 kHz to 9,25 GHz	300 kHz to 18 GHz	300 kHz to 26.5 GHz
Flatness	Frequency correction OFF 1 to 150 MHz: 0,8 dB 0,5 to 6000 MHz: 1,6 dB 0,3 to 7500 MHz: 3,2 dB Frequency correction ON, typ. 0,3 to 7500 MHz: 0,4 dB	Frequency correction OFF 0,1 to 150 MHz: 0,4 dB 0,05 to 6000 MHz: 1,6 dB 0,03 to 7500 MHz: 3,2 dB Frequency correction ON, typ. 0,05 to 7500 MHz: 0,4 dB	Frequency correction OFF 0,1 to 150 MHz: 0,4 dB 0,05 to 6000 MHz: 1,6 dB 0,03 to 7500 MHz: 3,2 dB Frequency correction ON, typ. 0,05 to 7500 MHz: 0,4 dB	Frequency correction OFF 3 to 8200 MHz: 1,4 dB 1 to 12000 MHz: 2,4 dB 0,6 to 18000 MHz: 3,8 dB Frequency correction ON, typ. 0,3 to 18000 MHz: 0,4 dB	Frequency correction OFF 10 to 18000 MHz: 1,8 dB 3 to 23000 MHz: 3,2 dB Frequency correction ON, typ. 0,3 to 26500 MHz: 0,4 dB
Dynamic Range	0,14 to 140 V/m 60 dB single range	0,5 to 500 V/m 60 dB single range	1,5 to 1500 V/m 60 dB single range	0,17 to 170 V/m 60 dB single range	0,4 to 800 V/m 66 dB single range
Overload	300 V/m	1000 V/m	3000 V/m	350 V/m	1600 V/m
Dimensions (overall)	53mm	53mm	53mm	53mm	45mm
Weight (incl. 1 m fiber optic pigtail)	23 g.	23 g.	23 g.	23 g.	22 g.

## Related Products

### Generators/Amplifiers

- 3010: EMI Signal Generator 9 kHz to 1 GHz
- 3030: EMI Signal Generator 9 kHz to 3 GHz
- 6000N: Power Amplifier 9 kHz to 230 MHz / 10W
- 6630: USB RF Power Sensor 9 kHz to 3 GHz

### Antennas

- BC-01: Biconical Antenna 30 to 200 MHz
- LP-02: Log Periodic Antenna 200 MHz to 3 GHz
- LP-03: Log Periodic Antenna 800 MHz to 6 GHz
- Antenna Set AS-02 / AS-03
- RA01 / RA01-HV / RA01-MIL Rod Antenna System

### Probes

- OR03 Optical Programmable Repeater and its probes