

# EP-600 series

USB/RS232 Electric Field Probes

EP-600 series: 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 100 hours of use before recharging
- High performance, high reliability Li-Mn battery
- PC direct connection via optical fiber to RS232/USB adapters
- Extremely lightweight: only 22 g!

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

Exceptionally compact spherical symmetrical configuration, lightweight and miniaturized electronics and excellent RF characteristics make the EP-600 series of RF electric field probes the ideal solution for all EMC/EMI testing (chambers and TEM/GTEM cells), biology and materials research, and all other applications requiring fast and accurate measurements with negligible or minimum interference by the probe. 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	100 hours @ 0,4 S/s, 28 Hz 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 no. - 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, user's manual, standard calibration certificate.

### Optional accessories:

**SB-10** Switching Control Box  
**FO-EP600/10** Fiber optic cable (10 m)  
**FO-EP600/20** Fiber optic cable (20 m)  
**FO-EP600/40** Fiber optic cable (40 m)  
**TT-01** telescopic extension  
**Accredited certificate**  
**TR-02A set**  
 Includes: TR02 plastic column tripod, joint, soft carrying case  
 For full list please refer to the user's manual

### Main specifications (see the user manual for complete information)

	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	Frequency correction OFF	Frequency correction OFF	Frequency correction OFF	Frequency correction OFF
	1 to 150 MHz: 0,8 dB	0,1 to 150 MHz: 0,4 dB	0,1 to 150 MHz: 0,4 dB	3 to 8200 MHz: 1,4 dB	10 to 18000 MHz: 1,8 dB
	0,5 to 6000 MHz: 1,6 dB	0,05 to 6000 MHz: 1,6 dB	0,05 to 6000 MHz: 1,6 dB	1 to 12000 MHz: 2,4 dB	3 to 23000 MHz: 3,2 dB
	0,3 to 7500 MHz: 3,2 dB	0,03 to 7500 MHz: 3,2 dB	0,03 to 7500 MHz: 3,2 dB	0,6 to 18000 MHz: 3,8 dB	
Dynamic Range	Frequency correction ON, typical	Frequency correction ON, typical	Frequency correction ON, typical	Frequency correction ON, typical	Frequency correction ON, typical
	0,3 to 7500 MHz: 0,4 dB	0,05 to 7500 MHz: 0,4 dB	0,05 to 7500 MHz: 0,4 dB	0,3 to 18000 MHz: 0,4 dB	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	53 mm	53 mm	53 mm	45 mm
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
- BL-01: Biconical Log Periodic Antenna 30 MHz to 6 GHz
- DR-01: Double-ridged horn Antenna 6 to 18 GHz
- LP-02: Log Periodic Antenna 200 MHz to 3 GHz
- LP-03: Log Periodic Antenna 800 MHz to 6 GHz
- LP-04: Log Periodic Antenna 200 MHz to 6 GHz
- Antenna Set AS-02 (BC01+LP02+TR01)
- Antenna Set AS-03 (BC01+LP02+LP03+TR01)
- Antenna Set AS-04 (BC01+LP04+TR01)
- Antenna Set AS-05 (BC01+LP04+DR01+TR01)
- Antenna Set AS-06 (BC01+LP-02+LP03+DR01+TR01)
- Antenna Set AS-07 (BL01+TR01)
- Antenna Set AS-08 (BL01+DR01+TR01)
- RA-01 / RA-01-HV / RA-01-MIL Rod Antenna System

### Probes

- OR03: Optical Programmable Repeater with probes



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