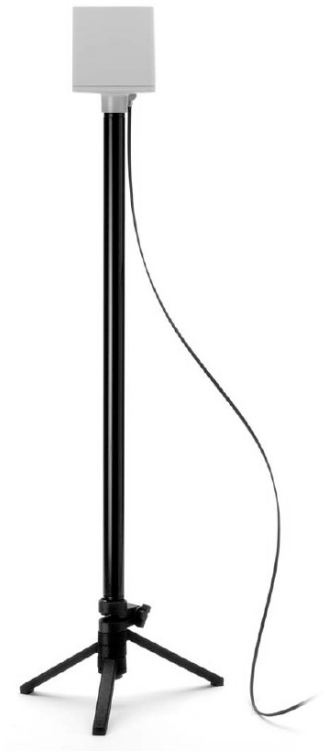


EHP-200A
Electric and Magnetic Field Analyzer

- **New solution for Isotropic Measurements in the 9 kHz – 30 MHz Range**
- **Electric Fields from 0.02 to 1000 V/m**
- **Magnetic Fields from 0.6 mA/m to 300 A/m**
- **Built-in Frequency Spectrum Analysis**
- **Built-in Rechargeable Battery**
- **Optical Fiber Connection to PC**

The E-H fields analyzer model EHP-200A has been designed for accurate isotropic measurements of both electric and magnetic fields in the 9 kHz - 30 MHz frequency range, with no or minimum perturbation of the fields that are being measured.

The field sensors and the electronic measuring circuitry are contained in a rugged housing, only 3.6 x 3.6 x 4.3 inches in size. Separate 3-axis and total values (peak and average) are measured with exceptional flatness and linearity of ±0.3 dB. Results are expressed in V/m, A/m, µT, mW/cm^2, W/m^2.

The EHP-200A features built-in spectrum analysis with minimum selectable bandwidth of 1 kHz for detailed measurements of the E and H field intensity vs. frequency, and a dynamic range of 80 dB. The built-in rechargeable Li-Ion battery provides up to 12 hours of operating time.

The EHP-200A is controlled by a PC through the optical fiber link, and measurements are displayed in real time. An auxiliary input is available for measuring the frequency spectrum of external applied signals.

Applications

BROADCASTING SURVEILLANCE

The EHP-200A is particularly useful in measuring the actual fields generated by long, medium and short wave broadcast transmitters, to ensure safety around the sites of large antennas, to control the transmitted power in the actual radiation direction, to test the functionality of the transmitting antennas and to identify the borders between near and far field regions.

WAVE IMPEDANCE

As a unique feature, the PC program calculates the field wave impedance by dividing the total value of the E-field by that of the H-field. This method is particularly suitable for evaluating the non-linear, scattered near-field region of large broadcast antenna systems.

FIELDS GENERATED BY METAL DETECTORS AND RFID'S

Fields generated by a number of devices using RF to detect the presence of metals, to identify objects, anti-theft systems etc. can now be accurately and easily measured.

EHP-TS Control Software

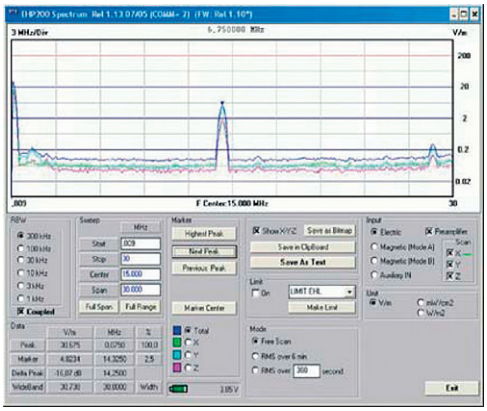
FOR WINDOWS™ OPERATING SYSTEMS

All measuring functions are user-programmable: Resolution Bandwidth Filter, center frequency and frequency span, preamplifier, measuring units, etc.

The Marker function is used to measure the frequency and amplitude. It features Highest, Next and Previous Peak functions, while the Marker Center function sets the display center frequency at the current marker frequency value.

The Marker also features the Delta Peak function for relative measurements. The Wide Band field value is calculated with reference to the measured frequency span.

To immediately evaluate the measured levels, Limit Lines can be created and displayed on the graphical window. The measured data can be saved as either text or bitmap, and the limits can also be saved and recalled.



Blue Line: total Field / Green Line: X-axis
Cyan Line: Y-axis / Magenta Line: Z-axis

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EHP-200A Field Analyzer

Specifications

EHP-200A E AND H FIELD ANALYZER				
RF SPECIFICATIONS	**Electric Field**	**Magnetic Field Mode A**	**Magnetic Field Mode B**	**Auxilllary Input**
Frequency Range	9 kHz to 30 MHz	9 kHz to 30 MHz	300 kHz to 30 MHz	9 kHz to 30 MHz
Measurement Range @ 10 KHz RBW	0.1 to 1000 V/m	0.03 to 300 A/m	3.0 mA/m to 30 A/m	-80 to 0 dBm
@ Preamp ON	0.02 to 200 V/m	6.0 mA/m to 60 A//m	0.6 mA/m to 6 A/m	-94 to -14 dBm
Dynamic Range	>80 dB			
Sensitivity @ 10 kHz RBW	0.1 V/m	30 mA/m	3 mA/m	-80 dBm
@ Preamp ON	0.02 V/m	1 mA/m	0.1 mA/m	0.01 dB
Resolution	0.01 V/m	1 mA/m	0.1 mA/m	0.01 dB
Flatness	±0.5 dB (20 V/m, from 0.1 to 27 MHz)	±0.8 dB (166 A/m, from 0.15 to 30 MHz)	±0.8 dB (53 mA/m, 0.3 to 27 MHz)	±0.4 dB (-20 dBm)
Anisotropy	±0.8 dB at 1 MHz			
Linearity	0.5 dB @ 1 MHz from Full Scale to -60 dB Full Scale			
Typical Accuracy at 1 MHz	±0.8 dB @ 20 V/m	±0.8 dB @ 53 mA/m	±0.8 dB @ 53 mA/m	±0.3 dB@-10 dBm
Maximum Frequency Span	6 kHz to 30 MHz			
Resolution Bandwidths Available	1 kHz, 3 kHz, 10 kHz, 30 kHz, 100 kHz, 300 kHz			
Rejection to E-field	—	> 20 dB		—
Rejection to H-field	> 20 dB	—	—	—
Calibration Errors	Stored in internal EEPROM			
Temperature Error	0.02 dB/°C			
GENERAL SPECIFICATIONS				
Preamplifier	Selectable ON/OFF, 14 dB gain			
Reading Units	V/m, A/m, mT, mW/cm^2, W/m^2			
Optical Link	Maximum length of 80 m			
Internal Battery	3.7 V, 5.5 Ah, Li-ion, rechargeable			
Battery Operation Time	up to 12 hours (recharging time approximately 8 hours)			
External Supply	10 – 15 VDC, 500 mA			
Firmware Update	Via Optical Fiber			
Operating Temperature	-10°C to +50°C			
Storage Temperature	-20°C to +70°C			
Dimensions and Weight	3.6 x 3.6 x 4.3 inches (92 x 92 x 109 mm), 1.27 lb (580 g)			

Ordering Information

EHP-200A

Includes: 10 meter Fiber Optic Cable (FO-8053/10), Fiber Optic Converter (FO to USB), Soft Carrying Bag (8053-SC), Battery Charger (8053-BC), 50 cm Plastic Pole and Tripod, PC Software, Operating Manual, Calibration Certificate

Ordering Number **EHP-200A**

Optional Accessories (Ordering Numbers in Parenthesis)

FO-20 USB Cable, fiber optic 20m (650.000.178)
FO-40 USB Cable, fiber optic 40m (650.000.182)
FO-8053/80 Cable, fiber optic 80m (650.000.128)
8053-OC Optical to RS232 Converter (650.000.062)
8053-OC-PS Power Supply (650.000.179)
TR-02A Wooden Tripod 1-2m with soft carrying bag (655.000.005)
TT-01 Telescopic Mast (120-420 cm) with carrying bag (650.000.005)
Soft Carrying Case (650.000.035)
Rigid Case (650.000.059)
Car Adapter (650.000.058)