rf/microwave instrumentation

Model FL7060
Electric Field Probe
2MHz–60GHz
2–1000 V/m
User-Selectable X, Y, Z Axes

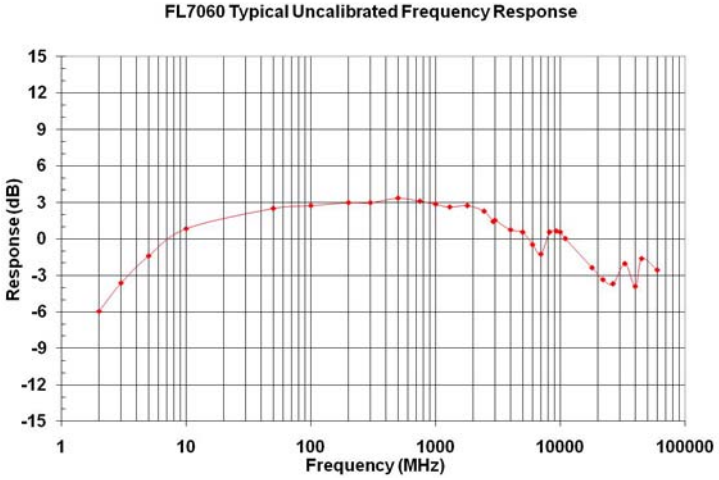
The FL7060 is a smart, fast, extremely accurate electric field probe that contains an internal microprocessor to provide linearization, temperature compensation, control, and communication functions. Noise reduction and temperature compensation allow accurate measurements down to 2 V/m without zero adjustment. Microprocessor based linearization technology provides a 54 dB dynamic range. When rotated about its critical angle mount, the probe provides typical isotropic response of ±1.5 dB to 60 GHz.

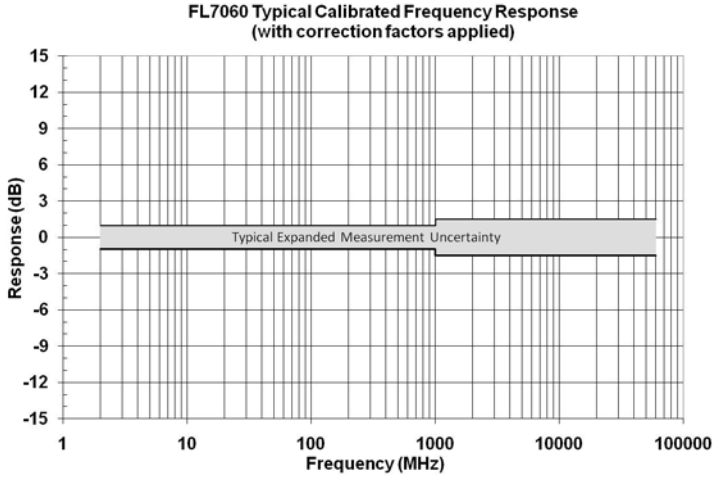
The FL7060 is laser powered to allow for continuous operation without recharging or battery replacement.

Correction factors are provided with the probe. These factors can be loaded into the Model FM7004 Field Monitor (sold separately) to automatically correct the probe readings at user-specified frequencies. When correction factors are applied, the true accuracy of the probe can be realized.

The FL7060 communicates through glass fiber optic cables, up to 100 meters long, to the FI7000 interface. X, Y, Z, and isotropic readings can be returned through an FI7000 in 20 msec.

NOTES: This probe requires an FI7000 for power and communication.
FM7004 is recommended for local monitoring and control.





SPECIFICATIONS, FL7060

Amplitude Accuracy (field aligned with sensor axes)	
Without correction factors applied	±1.0 dB @ 10 MHz
With correction factors applied	Typical expanded measurement uncertainty (95% confidence interval) 0.95 dB, 2 MHz–1 GHz 1.5 dB, 1 GHz–60 GHz
Response Time/ Sampling Rate (through FI7000)	20 msec/up to 50 samples per second, USB and GPIB only
Isotropic Deviation (measured at the critical angle)	±0.5 dB @ 10 MHz ±1.5 dB, 2 MHz–60 GHz (typical)
Operating Range	2–1000 V/m
Linearity, 2 to 1000 V/m	±0.5 dB
Temperature Stability..	+0.5 dB over operating temperature range
Damage Level	1200 V/m CW
Ranges	Single continuous range
Data returned from probe	X, Y, Z axes, and composite
Power Requirements	Laser powered from FI7000 interface
Dimensions	Approx. 278 x 65 x 65 mm
Probe Head Diameter	65mm
Weight	150g approx.
Operating Temperature Range	10°C to 40°C (50°F to 104°F) @ 5% to 95% RH non-condensing
Fiber Optic Connectors	Two E2000 compact duplex connectors at 1 meter, includes fiber optic verification loop.
Calibration Data	Accredited Calibration Report supplied with probe