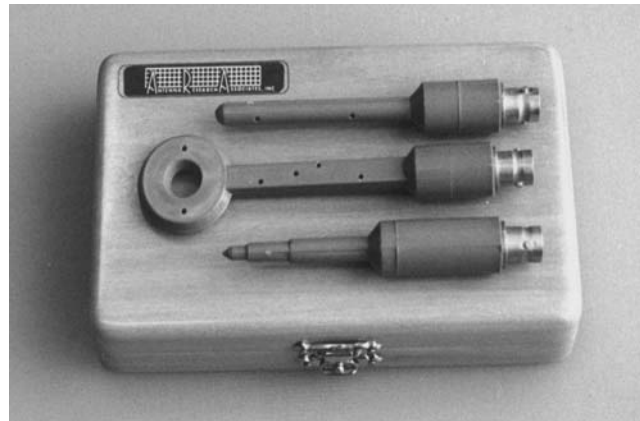


Our **HFP series** probes and probe sets are ideal for detecting and troubleshooting E and H-field emission from electronic circuit boards, cases, traces, ICs, ribbons, and cables. These probes offer excellent performance and ease of use. The design allows easy access to tight and hard to reach places including corners. An extension handle minimizes the effect of hand position and cable layout for accurate and repeatable results. These probes are ideal for early detection of any emission problems, prior to expensive compliance testing and certification.

The **HFP-7410** probe set includes a tip probe, **HFP-7401**, a broadband stub probe, **HFP-7402**, and an H-field probe, **HFP-7403**. The three-probe set is supplied with a custom storage case.

The **HFP-7401** tip probe is a precision E-field probe, which can isolate the emission source to a trace or a pin. The unique design allows emission pick-up over lines as narrow as 3 mils and thus, easy discrimination between traces on a PCB. The noise trace is found by just moving the tip probe across the traces. The measurement reading will increase as the fine tip approaches the "source." The measured reading changes typically, by about 3 to 4 dB micro volts as the probe tip is moved from the "source" to the "victim" trace. The tip probe is helpful in circuit analysis by following the noisy trace to the cause of emissions such as a broken transmission line or impedance mismatch.

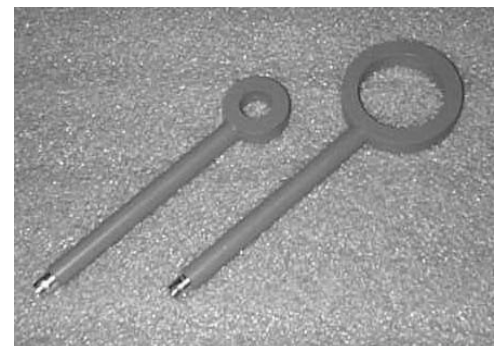


**HFP - 7410 PROBE SET**

The **HFP-7402** stub probe is a broadband probe, which offers quick and efficient diagnosis of an emission source. It is designed to operate over a broad frequency range and locate the general area of emissions.

The **HFP-7403** H-field probe is designed to isolate sources of magnetic noise. The electrically small design and shielded loop construction minimizes the effect of electric fields on measurements. By moving the probe along the seams of the chassis of the equipment, it is easy to diagnose any leakage problems. The small size of the H-field probe is ideal for identifying noise sources such as large current switching circuits or transformers.

The **HFP-7420** probe set consists of three H-field probes, an E-field stub probe and an extension handle. The largest loop probe, **HFP-7405** is extremely sensitive for isolating magnetic field emissions. The smaller H-field probes in the set are the **HFP-7404** and **HFP-7403**. The broadband E-field probe included in the set is the **HFP-7402**. It is a broadband probe for quick and efficient diagnosis of an emission source.



**HFP-7404 & HFP-7405**

## SPECIFICATIONS

Dielectric breakdown: 1 kV

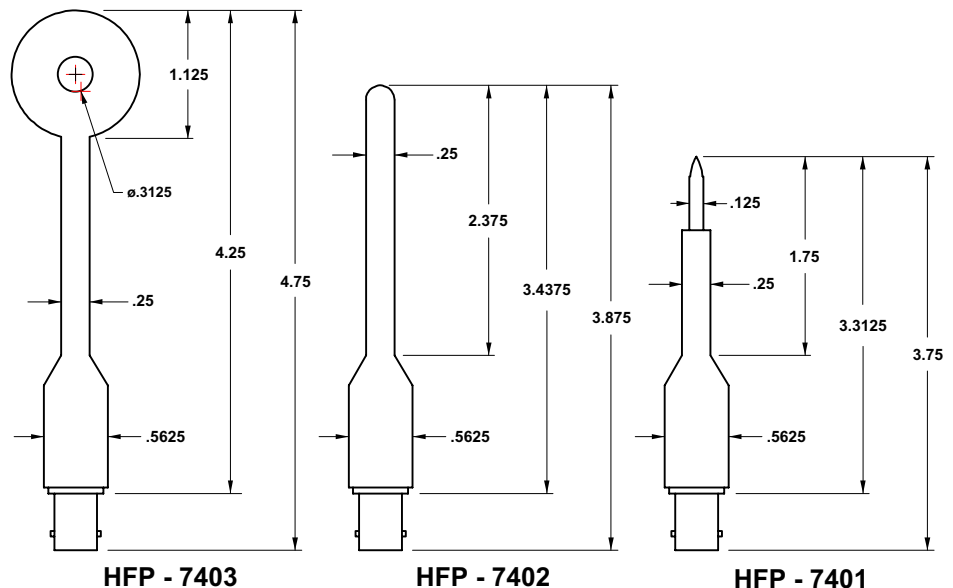
Temperature Range: 0 to 40°C  
 Connector: BNC

### HFP-7410 Probe Set:

- a) HFP-7401, Tip Probe  
30 - 600 MHz
- b) HFP-7402, Broadband Stub  
Probe, 20 - 1000 MHz
- c) HFP-7403, H-Field Loop Probe,  
0.3 - 100 MHz

### HFP-7420 Probe Set:

- a) HFP-7402, Broadband Stub  
Probe
- b) HFP-7403, Loop Probe
- c) HFP-7404, H-Field Loop Probe
- d) HFP-7405, H-Field Loop Probe



	TYPE	SIZE/SHAPE	PROBE RESONANCE FREQUENCY	UNWANTED FIELD REJECTION E/H OR H/E
<b>7401</b>	E-Field	Tip	5 GHz	30 dB
<b>7402</b>	E-Field	Stub	3 GHz min.	30 dB
<b>7403</b>	H-Field	Loop (.8 cm)	2.5 GHz	12 dB
<b>7404</b>	H-Field	Loop (3 cm)	1.5 GHz	30 dB
<b>7405</b>	H-Field	Loop (6 cm)	760 MHz	40 dB

## OPTIONS

- a) 20 cm Extension handle
- b) Pre Amplifier, PA-3100, to improve sensitivity and reduce the effective noise level of your test equipment.

### PA-3100 SPECIFICATIONS

<b>FREQUENCY:</b>	300 kHz - 1 GHz	<b>1dB COMPRESSION:</b>	15 dBm
<b>GAIN:</b>	34 dB typical	<b>SIZE:</b>	3" x 5" x 7"
<b>VSWR:</b>	2 : 1	<b>CONNECTORS:</b>	BNC
<b>FLATNESS:</b>	± 2 dB		
<b>NF:</b>	6 dB typical		