

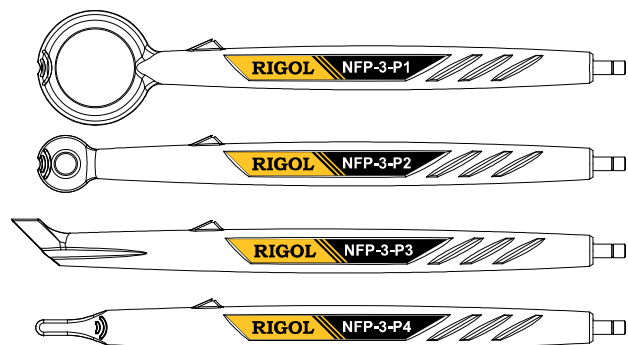


NFP-3 近场探头

产品简介

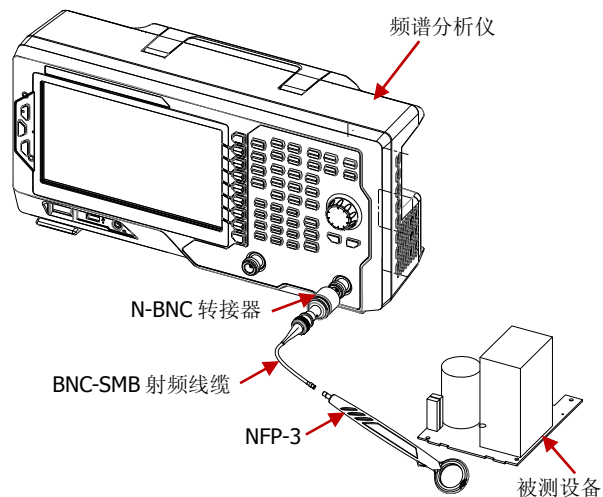
NFP-3 用于配合 RIGOL DSA 系列频谱分析仪进行电子产品的 EMI 测试，可用来检测元器件表面的磁场强度、磁场耦合通道以及电子模块附近的磁场环境，从而快速定位干扰源。

NFP-3 包含四个型号 NFP-3-P1、NFP-3-P2、NFP-3-P3 和 NFP-3-P4。



测量连接

NFP-3 与频谱分析仪的连接方式如下图所示。



- 与频谱分析仪连接
使用 BNC-SMB 射频线缆分别连接 NFP-3 的 SMB(阳)头和 N-BNC 转接器的 BNC(阴)头，再将 N-BNC 转接器的 N(阳)头连接至频谱分析仪的射频输入端。
- 与被测设备连接
NFP-3 与被测设备近距离非接触式测量。测量时，请注意近场探头的摆放方向。

典型应用

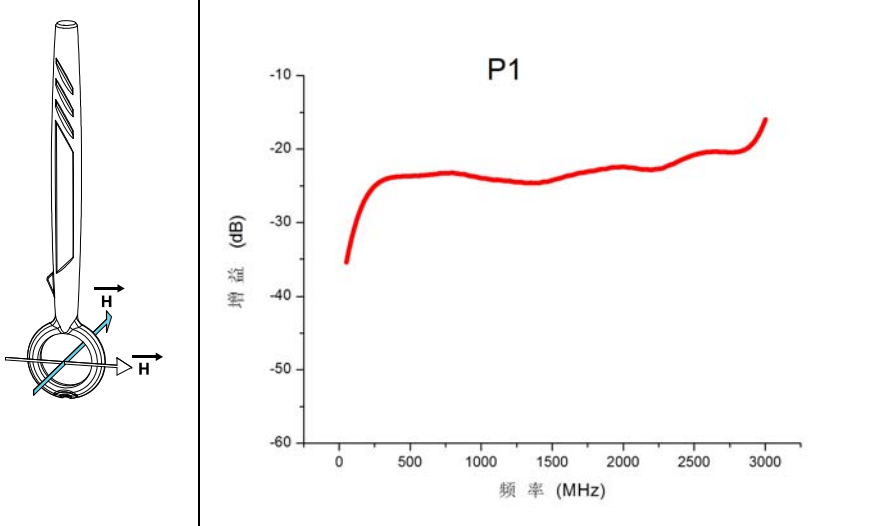
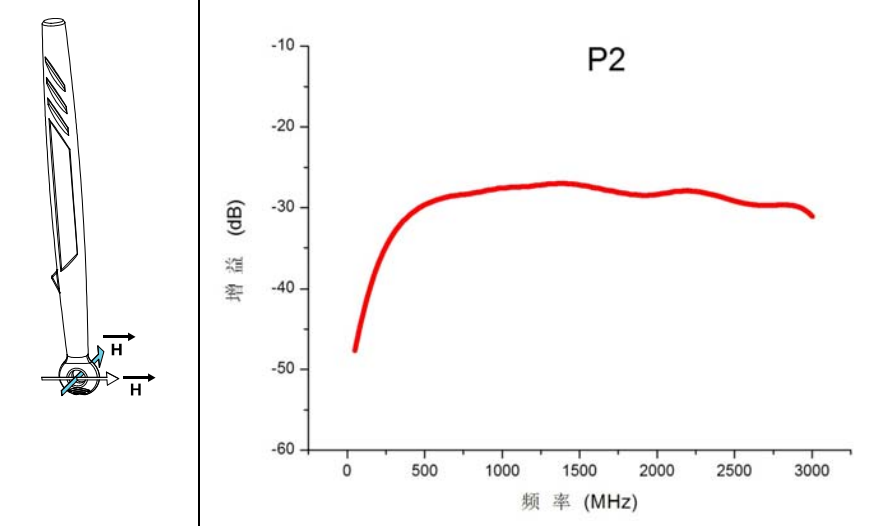
- EMI 辐射干扰源定位。
- 确定干扰源频谱分量的频率及相对强度。

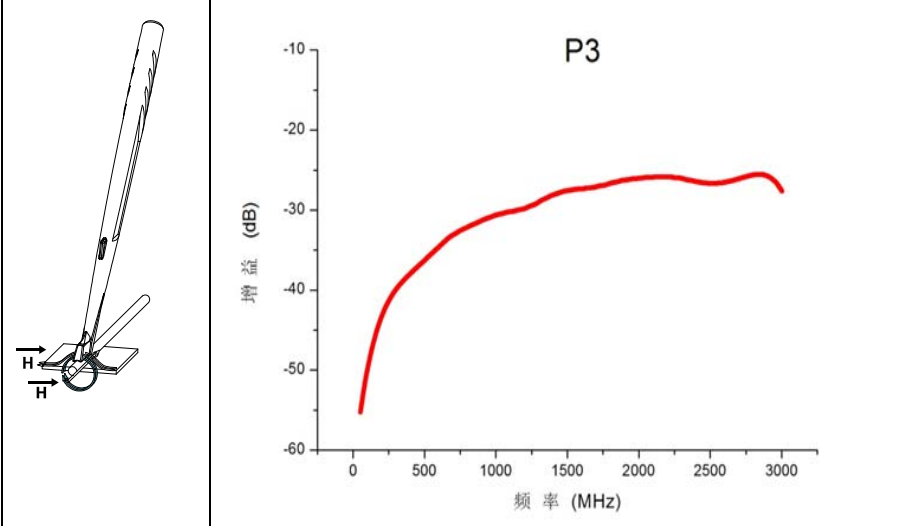
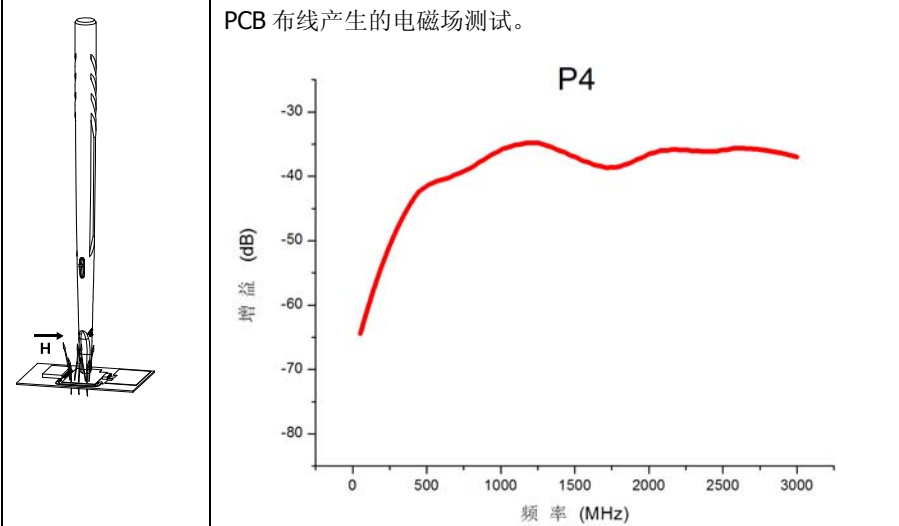
性能指标

频率	
频率范围	30 MHz 至 3 GHz

端口类型	
端口形式	SMB(阳)型
转接器	N(阳)-BNC(阴)型
射频线缆	BNC(阳)-SMB(阴)型, 1000 mm
端口及转接器阻抗	50 Ω

一般技术规格	
尺寸	260 mm \times 190 mm \times 30 mm (带外包装)
重量	0.425 kg (带外包装)
工作温度	0 $^{\circ}$ C 至 50 $^{\circ}$ C
存储温度	-20 $^{\circ}$ C 至 70 $^{\circ}$ C

型号	说明
NFP-3-P1	<p>磁场近场探头,可探测范围 10 cm 以内。用于定位检测泄漏的磁场。</p> 
NFP-3-P2	<p>磁场近场探头,可探测范围 3 cm 以内。用于精确检测泄漏的磁场。</p> 

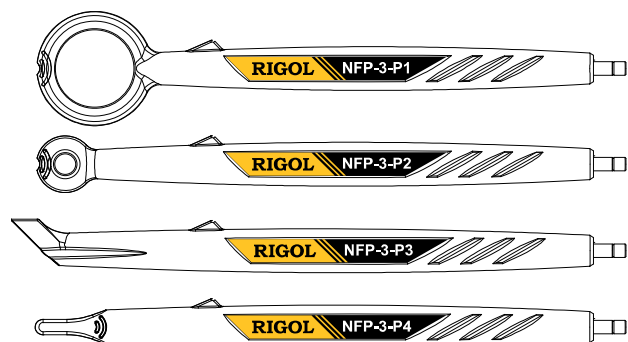
型号	说明
NFP-3-P3	<p>磁场近场探头,分辨率约 5 mm。用于电缆电磁泄漏的测试。</p> 
NFP-3-P4	<p>磁场近场探头,分辨率约 2 mm。可检测垂直方向上的磁场;用于 PCB 布线产生的电磁场测试。</p> 



NFP-3 Near Field Probe

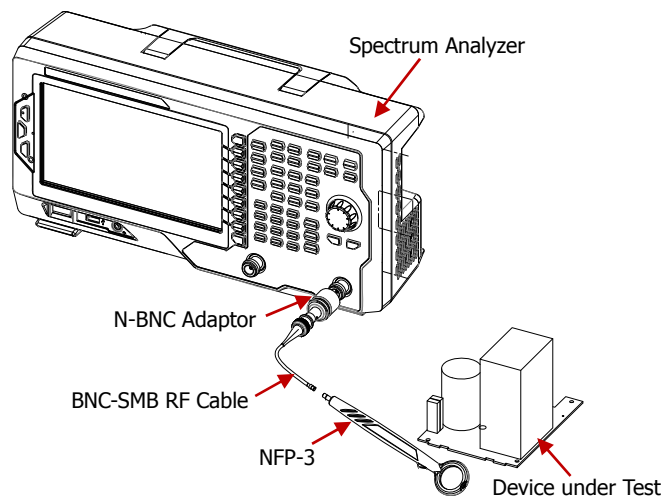
Product Overview

NFP-3 is used with **RIGOL** DSA series spectrum analyzer for the EMI tests of electronic products. It can be used to test the magnetic field strength and magnetic field coupling channels on the surface of the electronic components as well as the magnetic field environment near the electronic module so as to quickly locate the interference source. NFP-3 includes four models (NFP-3-P1, NFP-3-P2, NFP-3-P3 and NFP-3-P4).



Measurement Connections

The connection mode of NFP-3 and spectrum analyzer is as shown in the figure below.



— Connect the spectrum analyzer

Connect the SMB (M) terminal of NFP-3 and the BNC (F) terminal of the N-BNC adaptor respectively via the BNC-SMB RF cable; connect the N (M) terminal of the N-BNC adaptor to the RF input terminal of the spectrum analyzer.

— Connect the device under test

NFP-3 is used to perform short-distance noncontact measurement on the device under test. Pay attention to the direction of the probe during measuring.

Typical Applications

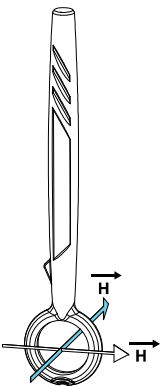
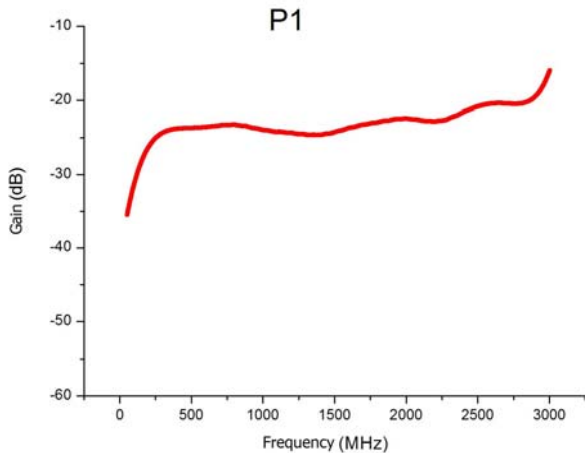
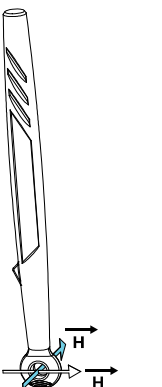
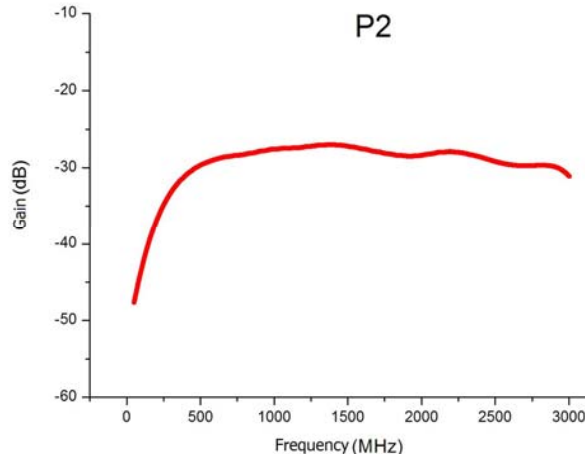
- Locate the EMI radiation interference source.
- Determine the frequency and relative strength of the spectral component of the interference source.

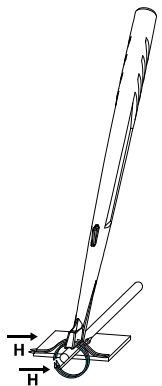
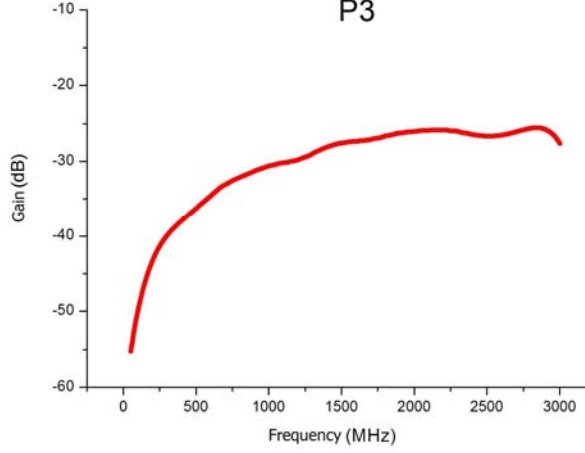
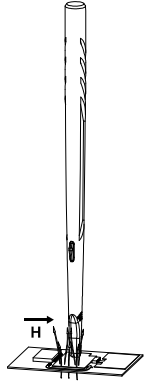
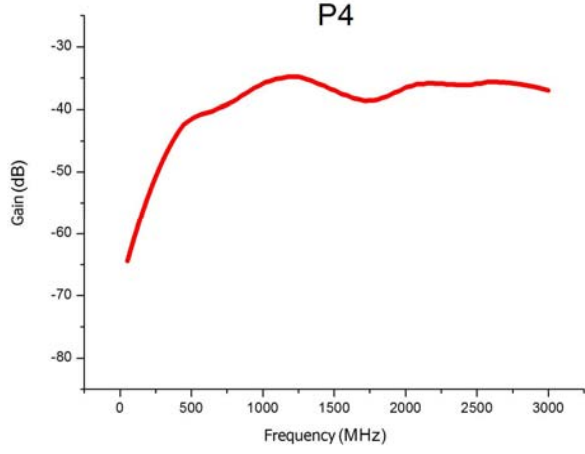
Performance Specifications

Frequency	
Frequency Range	30 MHz to 3 GHz

Terminal Type	
Terminal Type	SMB (M)
Adaptor	N (M)-BNC (F)
RF Cable	BNC (M)-SMB (F), 1000 mm
Terminal and Adaptor Impedance	50 Ω

General Specifications	
Dimensions	260 mm \times 190 mm \times 30 mm (with package)
Weight	0.425 kg (with package)
Operating Temperature	0 $^{\circ}$ C to 50 $^{\circ}$ C
Storage Temperature	-20 $^{\circ}$ C to 70 $^{\circ}$ C

Model	Description
<p data-bbox="103 204 203 228">NFP-3-P1</p> 	<p data-bbox="309 204 999 272">Near field probe for magnetic field measurements. The test range is within 10 cm. It is used to locate the leakage field.</p> <div data-bbox="315 328 898 783">  <p data-bbox="577 331 618 355">P1</p> <p data-bbox="315 496 344 564">Gain (dB)</p> <p data-bbox="577 759 703 780">Frequency (MHz)</p> </div>
<p data-bbox="103 810 203 834">NFP-3-P2</p> 	<p data-bbox="309 810 999 879">Near field probe for magnetic field measurements. The test range is within 3 cm. It is used to accurately test the leakage field.</p> <div data-bbox="315 935 898 1390">  <p data-bbox="667 938 707 962">P2</p> <p data-bbox="315 1086 344 1155">Gain (dB)</p> <p data-bbox="577 1366 703 1386">Frequency (MHz)</p> </div>

Model	Description
<p data-bbox="1218 204 1319 228">NFP-3-P3</p> 	<p data-bbox="1424 204 2114 288">Near field probe for magnetic field measurements. The resolution is about 5 mm. It is used to test the electromagnetic leakage of the cables.</p> <div data-bbox="1435 328 2018 783">  <p data-bbox="1765 331 1805 355">P3</p> <p data-bbox="1435 496 1464 564">Gain (dB)</p> <p data-bbox="1697 759 1823 780">Frequency (MHz)</p> </div>
<p data-bbox="1218 810 1319 834">NFP-3-P4</p> 	<p data-bbox="1424 810 2114 927">Near field probe for magnetic field measurements. The resolution is about 2 mm. It can test the magnetic field in the vertical direction and the electromagnetic field generated by the PCB wiring.</p> <div data-bbox="1435 967 2018 1422">  <p data-bbox="1742 970 1783 994">P4</p> <p data-bbox="1435 1118 1464 1187">Gain (dB)</p> <p data-bbox="1697 1398 1823 1418">Frequency (MHz)</p> </div>