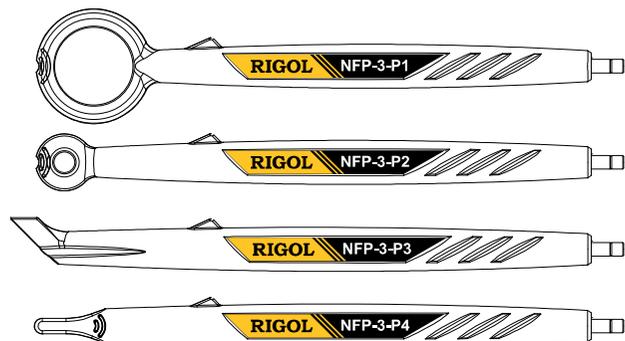




NFP-3 Near Field Probe

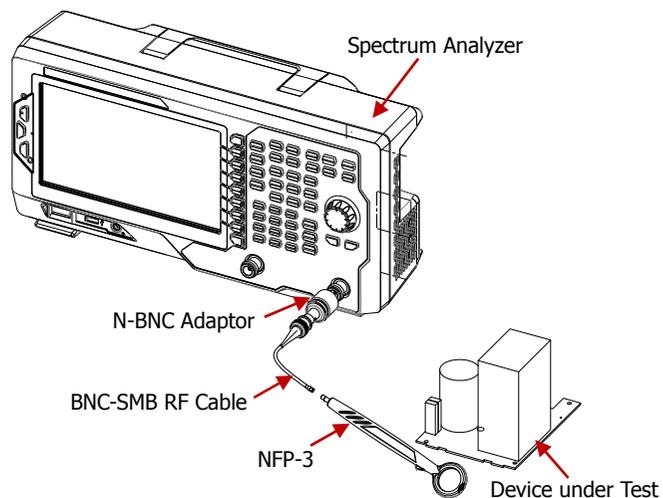
Product Overview

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

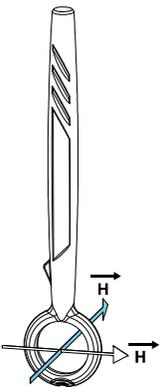
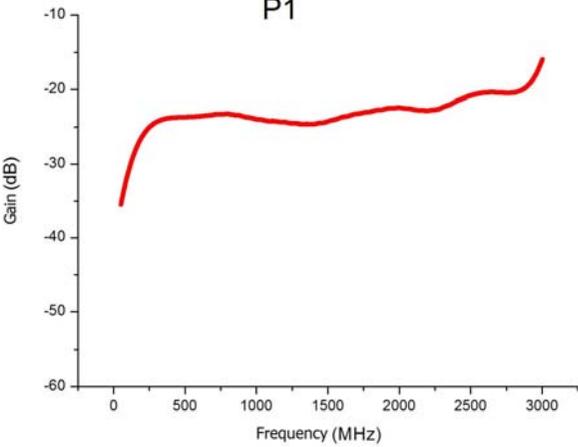
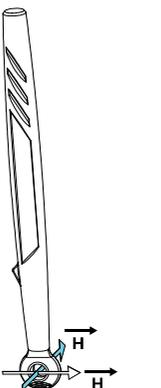
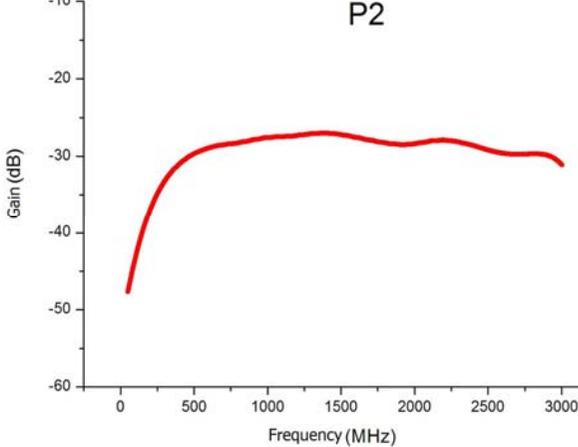
- Locate the EMI radiation interference source.
- Determine the frequency and relative strength of the spectral component of the interference source.

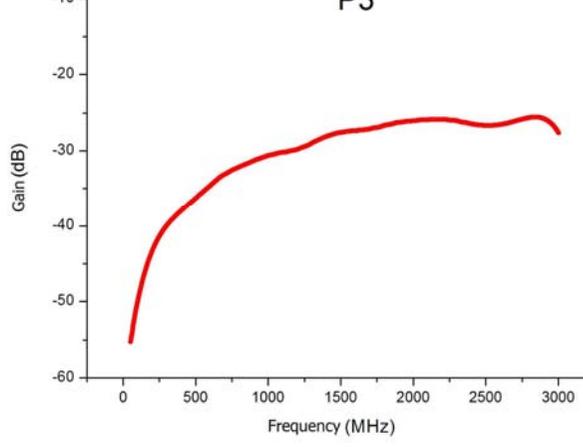
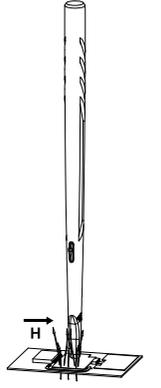
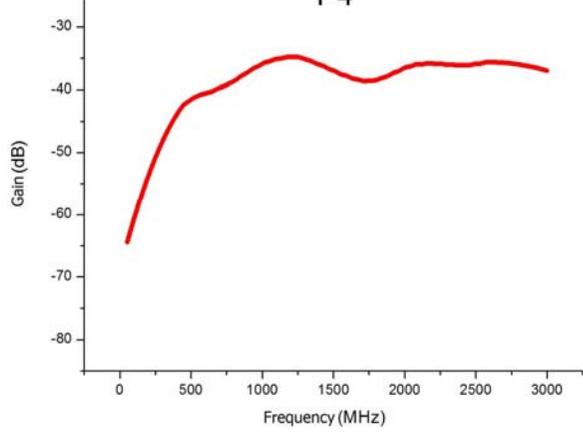
Performance Specifications

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="309 204 999 276">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="320 331 898 786"> <p data-bbox="577 331 622 355">P1</p>  <table border="1"> <caption>Approximate data for Graph P1</caption> <thead> <tr> <th>Frequency (MHz)</th> <th>Gain (dB)</th> </tr> </thead> <tbody> <tr><td>0</td><td>-35</td></tr> <tr><td>500</td><td>-25</td></tr> <tr><td>1000</td><td>-25</td></tr> <tr><td>1500</td><td>-25</td></tr> <tr><td>2000</td><td>-24</td></tr> <tr><td>2500</td><td>-23</td></tr> <tr><td>3000</td><td>-22</td></tr> </tbody> </table> </div>	Frequency (MHz)	Gain (dB)	0	-35	500	-25	1000	-25	1500	-25	2000	-24	2500	-23	3000	-22
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500	-25																
1000	-25																
1500	-25																
2000	-24																
2500	-23																
3000	-22																
<p data-bbox="103 810 203 834">NFP-3-P2</p> 	<p data-bbox="309 810 999 882">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="320 938 898 1393"> <p data-bbox="667 938 712 962">P2</p>  <table border="1"> <caption>Approximate data for Graph P2</caption> <thead> <tr> <th>Frequency (MHz)</th> <th>Gain (dB)</th> </tr> </thead> <tbody> <tr><td>0</td><td>-48</td></tr> <tr><td>500</td><td>-30</td></tr> <tr><td>1000</td><td>-28</td></tr> <tr><td>1500</td><td>-28</td></tr> <tr><td>2000</td><td>-29</td></tr> <tr><td>2500</td><td>-30</td></tr> <tr><td>3000</td><td>-31</td></tr> </tbody> </table> </div>	Frequency (MHz)	Gain (dB)	0	-48	500	-30	1000	-28	1500	-28	2000	-29	2500	-30	3000	-31
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500	-30																
1000	-28																
1500	-28																
2000	-29																
2500	-30																
3000	-31																

Model	Description																		
<p data-bbox="1218 204 1319 228">NFP-3-P3</p> 	<p data-bbox="1424 204 2114 292">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 331 2018 786"> <p data-bbox="1771 331 1816 355">P3</p>  <table border="1"> <caption>Approximate data for Graph P3</caption> <thead> <tr> <th>Frequency (MHz)</th> <th>Gain (dB)</th> </tr> </thead> <tbody> <tr><td>0</td><td>-55</td></tr> <tr><td>500</td><td>-35</td></tr> <tr><td>1000</td><td>-32</td></tr> <tr><td>1500</td><td>-30</td></tr> <tr><td>2000</td><td>-28</td></tr> <tr><td>2500</td><td>-27</td></tr> <tr><td>3000</td><td>-28</td></tr> </tbody> </table> </div>	Frequency (MHz)	Gain (dB)	0	-55	500	-35	1000	-32	1500	-30	2000	-28	2500	-27	3000	-28		
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<p data-bbox="1218 810 1319 834">NFP-3-P4</p> 	<p data-bbox="1424 810 2114 930">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 970 2018 1425"> <p data-bbox="1749 970 1794 994">P4</p>  <table border="1"> <caption>Approximate data for Graph P4</caption> <thead> <tr> <th>Frequency (MHz)</th> <th>Gain (dB)</th> </tr> </thead> <tbody> <tr><td>0</td><td>-65</td></tr> <tr><td>500</td><td>-45</td></tr> <tr><td>1000</td><td>-38</td></tr> <tr><td>1200</td><td>-35</td></tr> <tr><td>1500</td><td>-38</td></tr> <tr><td>2000</td><td>-36</td></tr> <tr><td>2500</td><td>-36</td></tr> <tr><td>3000</td><td>-37</td></tr> </tbody> </table> </div>	Frequency (MHz)	Gain (dB)	0	-65	500	-45	1000	-38	1200	-35	1500	-38	2000	-36	2500	-36	3000	-37
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