

# Near Field Probe Set EM5030 EM5030LF EM5030E



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#### 1.Summary

**EM5030/EM5030LF** series probe set contains 7 probes specially designed for testing magnetic field. These probes are used to locating the interference source in EMI pre-compliance debugging and can effectively shield the interference from electric field. EM5030's frequency range is between 30MHz~3GHz, and it has 4 types of probe head shapes.EM5030LF's frequency range is 9kHz~50MHz, with 3 types of probe head shapes.

**EM5030E** series probe set contains two probes specially designed for testing electric field, with frequency range from 30MHz to 3GHz. They are mainly used for locating the electric field interference source, and the rest of the probe body is shielding design.

The probe is directly connected to the spectrum analyzer or oscilloscope with  $50\Omega$  BNC cable. When the radiation or the conduction disturbance of the product surpass the standard, users can use the near field probe to search for the certain component or circuit generating the interference of certain frequency by measuring the coupling channel between the module and the signal shifting speed, RF voltage of the evaluating system. When the interference signal is relatively weak, users can improve the system sensitivity with the EM5020A(20dB gain) or EM5020B(30dB gain) pre-amplifier.

#### 2. Specification

Module	Description	Characteristics				
EM5030-1	<ul> <li>H probe for detecting H field 10 cm around</li> <li>Frequency range:30MHz to 3GHz</li> <li>Resolution :25mm</li> </ul>	<b>P</b> <b>P</b> <b>P</b> <b>P</b> <b>P</b> <b>P</b> <b>P</b> <b>P</b> <b>P</b> <b>P</b>				
EM5030-2	<ul> <li>H probe for detecting H field 3 cm around</li> <li>Frequency range:30MHz to 3GHz</li> <li>Resolution :10mm</li> </ul>	<b>(f)</b> -20 -40 -60 30 1500 3000 <b>Frequency(MHz)</b>				
н ЕМ5030-3	<ul> <li>H probe mainly used to detect the emission leakage of a wire.</li> <li>Frequency range:30MHz to 2GHz</li> <li>Resolution : 5mm</li> </ul>	<b>(P)</b> -20 -20 -40 -40 -60 30 1500 2000 Frequency(MHz)				
EM5030-4	<ul> <li>H probe can be used to detect the vertical H field.</li> <li>Frequency range:30MHz to 3GHz</li> <li>Resolution : 2mm</li> </ul>	<b>(P)</b> -20 -20 -40 -60 30 1500 3000 Frequency(MHz)				



产品说明书 Product User Manual

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<b>H</b>	• H probe can be used to check	
	the H field within 10cm range	<b>(g)</b>
	<ul> <li>Mainly used for LW conduct</li> </ul>	eg 20
	debug testing	-40
	♦ Frequency Range 1MHz to	-60
	50MHz .	1 50
EM5030LF-5	Resolution rate: around 25mm	Frequency(MHz)
	• H probe can be used to check	<b>9</b> 0
Ĥ	the H field within 3cm range	<b>(gain (dB)</b>
	<ul> <li>Mainly used for low frequency</li> </ul>	
	debug testing	-40
	◆ Frequency Range: 1MHz to	-60
Н	50MHz	1 50
EM5030LF-6	Resolution rate: around 10mm	Frequency(MHz)
	♦ H probe can be used to check	â <u> </u>
	the H field within 10cm range	<b>9</b> -30
	<ul> <li>Mainly used for LW conduct</li> </ul>	Gain(dB)
	debug testing	
	◆ Frequency Range: 9kHz to	-70
EM5030LF-7	1.5MHz	0.009 1.5
	Resolution rate: around 25mm	Frequency(MHz)
	• E probe used to test the	
	surface electric field. Covering	€ <sup>0</sup>
	zone 2*5cm。Used for bus	<b>B</b> -20
	structure or large component	-40
	zone	
	♦ Frequency Range: 30MHz to	-60 30 1500
	1.5GHz	
EM5030E-8		Frequency(MHz)
	• E probe used for the testing of	
	electric field generated on the	<b>(g)</b> -20
	surface single cable surface.	
	◆ Frequency range: 30MHz to	-40
	3GHz	-60 30 1500 3000
EM5030E-9		Frequency(MHz)

### 3. Application

- Tracking the EMI radio interference sources
- Tracking the EMI conduct interference sources
- H field detection

#### **Application Diagram:**



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#### 4. Products Description



Output Cable: 1m

Adapter: SMA female to N male

#### 5. Packing List

	EM5030	EM5030LF	EM5030E		EM5030	EM5030LF	EM5030E
H probe EM5030-1	1			H probe EM5030E-8			1
H probe EM5030-2	1			H probe EM5030E-9			1
H probe EM5030-3	1			CK-317(SMB-SMA connecting cable)	1	1	1
H probe EM5030-4	1			CK-22(SMA (female) to N (male))	1	1	1
H probe EM5030LF-5		1		Instruction Manual	1	1	1
H probe EM5030LF-6		1		Warranty Card	1	1	1
H probe EM5030LF-7		1		Test Report	1	1	1

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