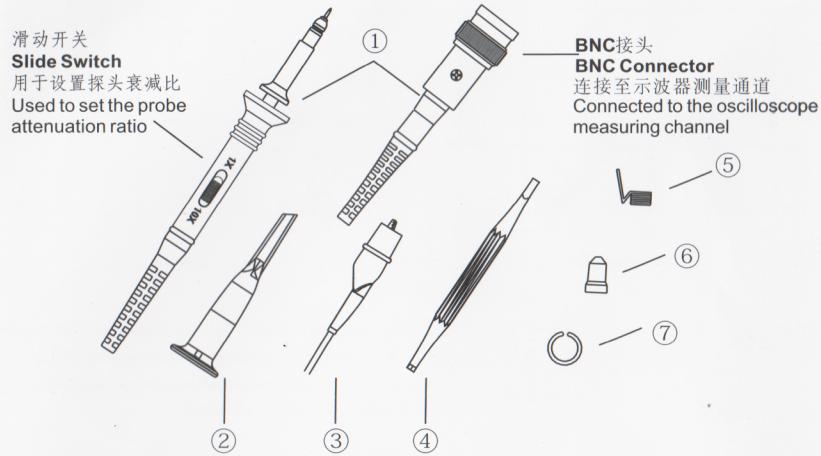


## 附件说明 Accessories and Features

探头配有附件，使测试更为方便。请在使用前尽量熟悉下列说明，以便更好地使用。  
 Provided with several accessories designed to make probing and measurement simpler.  
 Please review the following instructions carefully in order to use the product properly.



探头零件清单 Accessory Kit

编号 NO.	名称 Name	描述 Description	数量 Quantity	
			两条装 Dual Probes Kit	单条装 one Probe Kit
①	探头 Probe	--	2	1
②	探头钩 Hook Tip	可伸缩的挂钩。Indicates a retractable hook tip.	2	1
③	接地鳄鱼夹 Ground Alligator Clip	用于将探极可靠接地，便于安全操作和读取正确的信号。Ensures the safe grounding of the Probe for safe operation and correct signal reading	2	1
④	补偿调节棒 Adjustment Tool	用于调节探头补偿。Adjusts the probe compensation.	1	1
⑤	P2150, P2200 接地弹簧 Ground Spring	套在探头前端，用于接地，可改善高频响应。Attaches itself to the probe head for grounding to improve high frequency response	2	1
⑥	绝缘保护帽 Insulation Cap	遮盖探头前端金属裸漏部分，可防止漏电以及确保使用者安全。Covers the exposed metal part of the probe head to avoid electricity leakage and protect the users.	2	2
⑦	标识环 Marker Rings	将色环(黄、粉、蓝、绿)套置于线上，可方便区分不同通道所用的探头。Attaches itself (yellow, pink, blue or green) to the probe cable to identify probes used in different channels.	8	8

## 用户手册 User's Guide



### 1X&10X Oscilloscope Probe

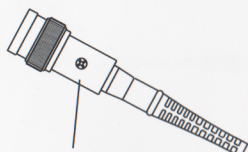
scanned by tinkersblog.net

## 调节探头补偿 To Adjust the Probe Compensation

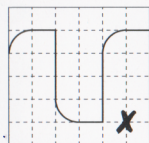
### 频率补偿 Frequency Compensation

使用探头进行测试前，首先检查探头的频率补偿，将其调至与所使用的示波器匹配。一般示波器的前面板上都有一个校准信号输出端，将探头连接至此信号输出端（探头衰减设为10X），令示波器显示测试方波信号。将补偿调节棒插入探头尾端的补偿调节孔并顺时针/逆时针转动调节棒直至示波器显示正确补偿的方波（方波上方平整）。

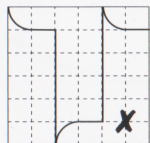
Before taking any measurement using a probe, first check the frequency compensation of the probe and adjust it to match the oscilloscope used. Generally, the oscilloscope provides a calibration signal output terminal at the front panel. Connect the probe (set the probe attenuation to 10X) to the signal output terminal to display a square waveform on the oscilloscope. Insert the adjustment tool into the compensation adjustment hole at the probe bottom and rotate it clockwise/counterclockwise until the properly compensated square waveform is displayed (flat-top square waveform).



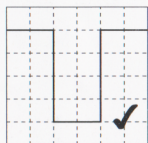
补偿调节孔  
Compensation Adjustment Hole



欠补偿  
Undercompensated



过补偿  
Overcompensated

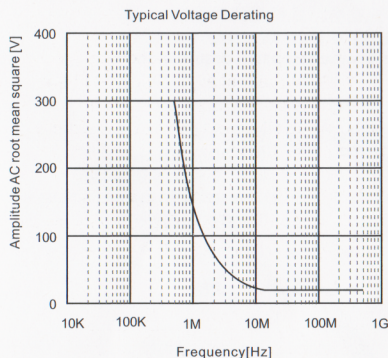


正确补偿  
Properly Compensated

### 探头指标 Probe Specifications

电气规格 Electrical Specifications						
宽带 Bandwidth	20MHz	40MHz	60MHz	100MHz	150MHz	200MHz
上升时间 Rise Time	17.5ns	8.75ns	5.8ns	3.5ns	2.3ns	1.75ns
输入电容 Input Capacitance	1X: 70 pF~ 120 pF					
	10X: 14 pF~ 18 pF		10X: 13 pF~ 17 pF			
补偿范围 Compensation Range	15pF ~45 pF			10 pF ~35 pF		
	1MΩ/10MΩ ±2%					
输入电阻 Input Resistance	1MΩ/10MΩ ±2%					
衰减比 Attenuation Ratio	10:1 or 1:1 Switchable					
最大额定输入电压 Max. Rated Input Voltage	1X :150V <sub>RMS</sub> CAT II			10X :300V <sub>RMS</sub> CAT II		
	机械特性 Mechanical Characteristics					
重量(仅探头) Weight(Probe only)	About 55 g					
探头尺寸 Cable Length	110±2cm					
探头顶端直径 Probe Tip Diameter	4.8mm					
环境指标 Environmental Specifications						
温度 Temperature	Operating : 0°C to +50°C					
	Nonoperating : -20°C to +70°C					
海拔高度 Altitude	Operating : 2,000 m					
	Nonoperating : 15,000 m					
最大相对湿度 Max. Relative Humidity	80% relative humidity for temperature up to +31°C, decreasing linearly to 40% relative humidity at +50°C					

### 电压降额 Voltage Derating



CAT II IEC 测量类别 II 是指在直接连接到低压设备的电路上进行测量。例如，对家用电器、便携式工具和类似的设备进行测量。

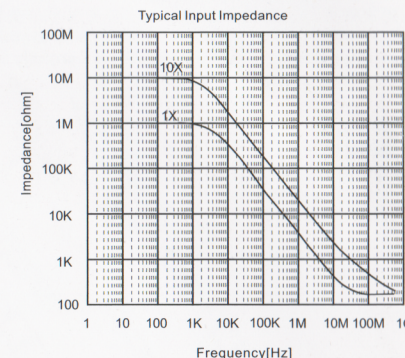
通过双重绝缘或者加强绝缘对设备进行安全保护。

使用前请仔细阅读用户手册以避免人身伤害和设备及其所连接设备的损害。为避免危险，请按说明正确使用。

探头与附件(辅助测试)组合的测量等级是它们组合的较低者。

请按照说明书正确使用探头；否则，探头提供的保护将会降低或消失。

### 输入阻抗 Input Impedance



IEC measurement category II is for measurements performed on circuits directly connected to low voltage installations. Examples are measurements on household appliances, portable tools and similar equipment.

Equipment fully protected by DOUBLE INSULATION or REINFORCED INSULATION.

Review this user manual carefully to avoid any personal injury or damage to this product and any product connected to it. To avoid potential hazards, use this product only as specified.

The measurement category of a combination of a PROBE ASSEMBLY and an accessory (an auxiliary to the measurement) is the lower of the measurement categories of The PROBE ASSEMBLY and of the accessory.

Follow the instructions to use the PROBE ASSEMBLY properly. The improper use of the PROBE ASSEMBLY will impair or ruin its self-owned protection function.