

Oscilloscope Probe Kit

Model. HP-9060

CE



Voltage Derating Curve

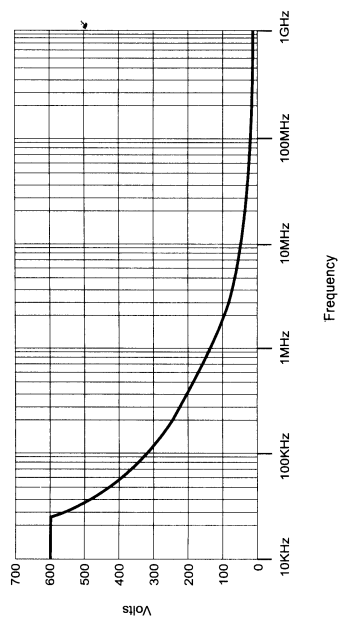


Fig. 1

Made in Taiwan
Version: HF-E0801B



Introduction

The HP-9060 is a passive high impedance oscilloscope probe designed and calibrated for use with instruments having an input impedance of 1M Ω shunted by 20pF. However, it may be compensated for use with instruments having an input capacitance of 10 to 30pF.

The probe incorporates a three position slide switch in the head which selects attenuation of x1, x10 or a ground reference position.

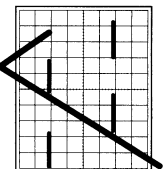
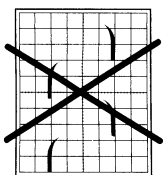
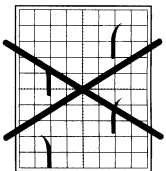
Safety Instructions

Review the following safety precautions to avoid injury and prevent damage to this product or any products connected to it.

- To avoid potential hazards, use this product only as specified.
- The common terminal is at ground potential. Do not connect the common terminal to elevated voltages.
- Do not operate in an explosive atmosphere.
- Keep product surfaces clean and dry.
- If your probe requires cleaning, disconnect it from the instrument and clean it with mild detergent and water. Make sure the probe is completely dry before reconnecting it to the instrument.

Compensation Adjustment

The following adjustment is required whenever the probe is transferred from one oscilloscope or input channel to another. Connect the probe to the oscilloscope and select x10 position on the probe switch. Apply a 1KHz square wave to the probe tip, or connect to the cal socket on the oscilloscope to display a few cycles of the waveform and adjust the trimmer located in the BNC box for a flat topped square wave.



Specifications

Position X10	
Attenuation Ratio	10:1
Bandwidth	DC to 60MHz
Rise Time	5.8nS
Input Resistance	10M Ω when used with oscilloscopes which have 1M Ω input.
Input Capacitance	Approx. 18pF
Compensation Range	10 to 30pF
Max. Input Voltage	600V CAT I, 300V CAT II (DC + peak AC) derating with frequency (see Fig. 1)
Position REF	
Probe tip opened, oscilloscope input grounded.	
Position X1	
Attenuation Ratio	1:1
Bandwidth	DC to 60MHz
Rise Time	58nS
Input Resistance	1M Ω (oscilloscope input resistance)
Input Capacitance	91pF plus oscilloscope probe
Max. Input Voltage	300V CAT I, 150V CAT II (DC + peak AC) derating with frequency
Operating Temperature	0°C to 50°C
Humidity	85% RH or less (at 35°C)
Safety	Meets EN61010-031 CAT II
Cable Length	1.2 Meter

Accessories

Description	Part No.
Channel Identifier Clip	PA-105
Sprung Hook	PA-106
Ground Lead	PA-107
Insulating Tip	PA-108
IC Tip	PF-902
Adjusting Tool	PF-903

WARRANTY

Tektronix warrants that this product will be free from defects in materials and workmanship for a period of three (3) months from the date of shipment. If any such product proves defective during this warranty period, Tektronix, at its option, either will repair the defective product without charge for parts and labor, or will provide a replacement in exchange for the defective product.

In order to obtain service under this warranty, Customer must notify Tektronix of the defect before the expiration of the warranty period and make suitable arrangements for the performance of service. Customer shall be responsible for packaging and shipping the defective product to the service center designated by Tektronix, with shipping charges prepaid. Tektronix shall pay for the return of the product to Customer if the shipment is to a location within the country in which the Tektronix service center is located. Customer shall be responsible for paying all shipping charges, duties, taxes, and any other charges for products returned to any other locations.

This warranty shall not apply to any defect, failure or damage caused by improper use or improper or inadequate maintenance and care. Tektronix shall not be obligated to furnish service under this warranty a) to repair damage resulting from attempts by personnel other than Tektronix representatives to install, repair or service the product; b) to repair damage resulting from improper use or connection to incompatible equipment; or c) to service a product that has been modified or integrated with other products when the effect of such modification or integration increases the time or difficulty of servicing the product.

THIS WARRANTY IS GIVEN BY TEKTRONIX WITH RESPECT TO THIS PRODUCT IN LIEU OF ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED. TEKTRONIX AND ITS VENDORS DISCLAIM ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TEKTRONIX' RESPONSIBILITY TO REPAIR OR REPLACE DEFECTIVE PRODUCTS IS THE SOLE AND EXCLUSIVE REMEDY PROVIDED TO THE CUSTOMER FOR BREACH OF THIS WARRANTY. TEKTRONIX AND ITS VENDORS WILL NOT BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IRRESPECTIVE OF WHETHER TEKTRONIX OR THE VENDOR HAS ADVANCE NOTICE OF THE POSSIBILITY OF SUCH DAMAGES.

YT5100, YT5060 100MHz, 60MHz 1X/10X Passive Probes

Specifications

PROBE MODEL	
X10 Position	YT5100
Bandwidth	DC - 100 MHz
Attenuation Ratio	10 : 1
Compensation Range	20pF - 45pF
Input Capacitance	16.6pF
Input Resistance	10MΩ
Maximum Input Voltage	500 V (dc + peak ac) to 1MHz. Derate to 25V above 10MHz

X 1 Position

Bandwidth	DC - 5 MHz
Attenuation Ratio	1 : 1
Compensation Range	All Scopes w/1MΩ Input
Input Capacitance	110pF
Input Resistance	1MΩ
Maximum Input Voltage	250 V (dc + peak ac) to 1MHz. Derate to 25V above 10MHz

Nominal Traits

YT5100 / YT5060

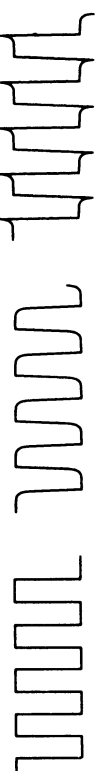
100MHz, 60MHz Passive Voltage Probes

Description

The 100 MHz YT5100 and 60 MHz YT5060 probes can select 1X or 10X attenuation using the switch located on the probe head. Both probes feature 1.5 meter cables. A hooktip, ground lead, and adjustment tool are included. These probes are compatible with any general purpose oscilloscope with an input capacitance between 20pF and 45pF.

Probe Compensation

Connect the probe to the oscilloscope input and switch the probe to the X 10 position. Connect the probe tip to a square wave signal with an approximate 1KHz repetition rate. Display the signal with 5 divisions of amplitude and several pulses on the oscilloscope screen. Adjust the capacitor at the BNC end of the probe to obtain the flattest response.



OVER COMPENSATED
(OVERSHOOT)

UNDER COMPENSATED
(ROLLOFF)

CORRECT
(FLAT)

NOTE

This probe does not contain any user replaceable parts.

WARNING

DO NOT dismantle the probe while it is connected to any voltage source. DO NOT use in an explosive atmosphere. DO NOT immerse in liquids. Clean the probe using a damp cloth.

Tektronix