

25 MHz 700 V differential oscilloscope probe 10:1/100:1



The TA041 is an active differential probe suitable for high common-mode voltage measurement applications up to ± 700 V (DC + peak AC). It can be used with signal speeds of up to 25 MHz.

This differential probe extends the functionality of standard single-ended input oscilloscopes to allow a safe and accurate method of making high-voltage differential measurements. Applications include making safe measurements in power circuit applications and acquisition of low-speed balanced differential signals found in serial communications buses.

The TA041 is an active probe and therefore requires power to function. Four AA batteries are included as standard. Not included as standard but available as optional extras, the PS008 power supply and TA059 Probus power adapter are also available to purchase.

Specifications

TA041 differential oscilloscope probe specifications	
Bandwidth	DC to 25 MHz (–3 dB)
Attenuation ranges	10:1 / 100:1
DC accuracy	$\pm 2\%$
Rise time	Rise time
Input impedance	$4\text{ M}\Omega \parallel 5.5\text{ pF}$ each side to ground
Input voltage	
Differential voltage range (10:1)	± 70 V (DC + peak AC) or 70 V RMS
Differential voltage range (100:1)	± 700 V (DC + peak AC) or 700 V RMS
Common mode voltage range	± 700 V (DC + peak AC) or 700 V RMS (10:1 and 100:1)
Absolute maximum voltage (differential or common-mode)	± 1400 V (DC + peak AC) or 1000 V RMS CAT III (10:1 and 100:1)
Output	
Swing	± 7 V into $2\text{ k}\Omega$ load
Offset (typical)	$< \pm 5$ mV
Noise (typical)	0.7 mV RMS
Source impedance (typical)	$1\text{ }\Omega$ @ 1 kHz, $8\text{ }\Omega$ @ 1 MHz
CMRR (typical)	86 dB @ 50 Hz; 66 dB @ 20 kHz
Ambient operating temperature	-10 to $+40$ °C
Ambient storage temperature	-30 to $+70$ °C
Ambient operating humidity	25 to 85% RH
Power requirements	4 AA cells or 6 V DC 60 mA mains adaptor or regulated 9 V DC 40 mA mains adaptor
Length of input leads	45 cm
Length of BNC lead	95 cm
Weight	400 g (inc. probes and PVC jacket)
Dimensions	170 mm x 63 mm x 21 mm

Accessories for the 25 MHz 700 V differential oscilloscope probe 10:1/100:1

Product	
	9 V AC power adaptor PS008
	Probus power adaptor for active differential probes TA059