

GaN Probe

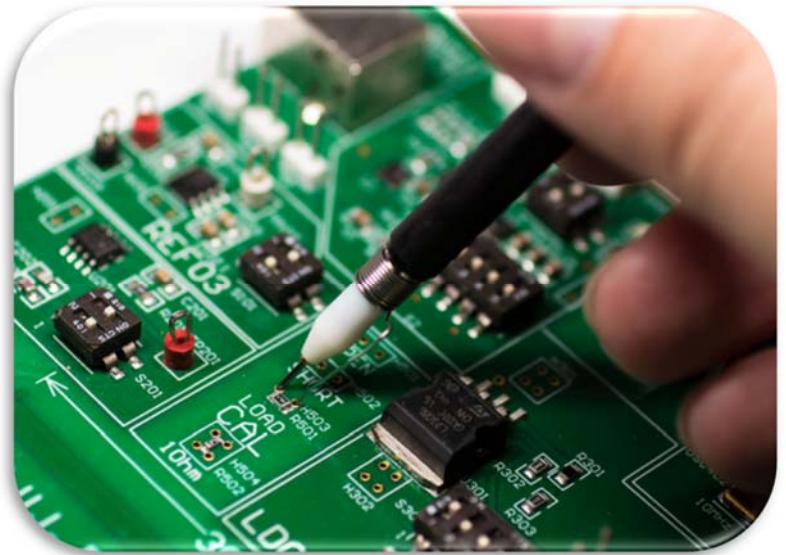
High Speed - High Voltage – High Impedance Probe

GaN and SiC Testing

Transients

Ripple

Switching

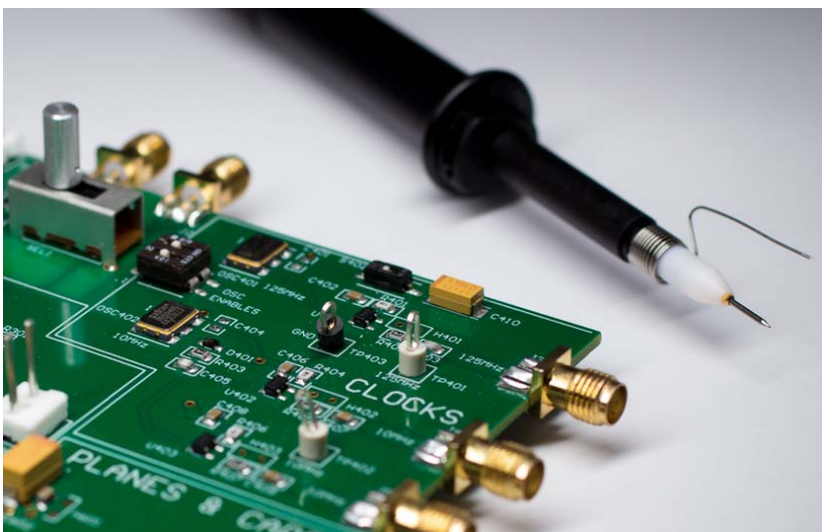


P2000A Probe

GaN Probe

The Picotest GaN Probe extends the measuring range of your oscilloscope to high voltages safely and easily. This probe is suitable to view the fastest GaN s edges for timing and switching losses of high voltage power switches, as well as EMC testing or glitch detection.

Anyone designing with high speed, high voltage switches, including GaN, eGaN, or SiC, can use this probe.¹



The P2000A is a 700MHz standard sized 100:1 passive probe designed for measuring the voltages associated with high speed GaN and SiC circuits. The probe is compatible with all 1Mohm instruments.

The probe is rated with 1000V CAT II maximum input voltage and complies with the latest safety standards. The DC fine adjustment enables trimming for preferred voltage ranges. The probe is made of a high quality ceramic hybrid for extra long-life and toughness. Pure coaxial design and laser trimmed resistors are used to achieve accurate impulse measurements. The tip is equipped with spring loading and needle sharp tips to support precise and safe measurements minimizing the risk of slipping. Besides the spring contact tip there is also a solid tip which can be easily interchanged. Basic probe accessories and replacement tips are provided.

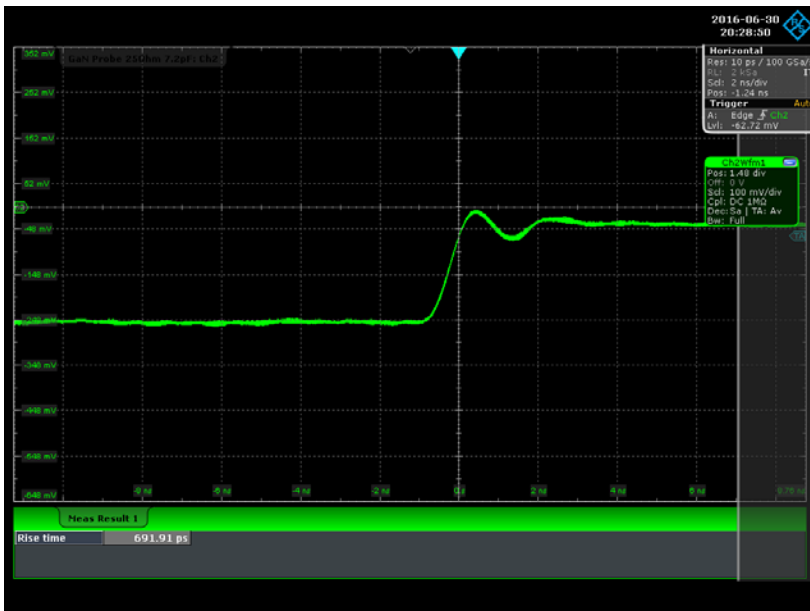
¹ https://www.picotest.com/products_GaN_Probe.html

FEATURES:

- Probe for All SiC and GaN circuitry
- Bandwidth 700MHz+ suitable for GaN and SiC
- Passive, generic BNC works with all 1MOhm instruments
- Rise Time 500p
- Input Voltage 1KV RMS Voltage
- Attenuation 100:1
- Input Impedance 50MOhm, 7pF
- Eliminates need to solder test cables; reduces the risk of damaging fine copper pads
- Rugged, comfortable, ergonomic design; small form factor gets into tight places
- Slim body with extended tips provides good visibility of the target; gets into tight places

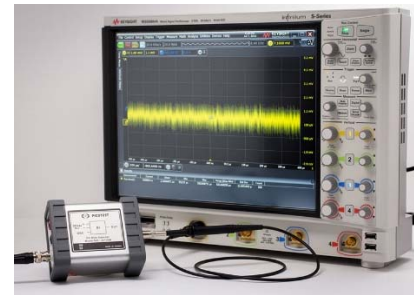


KEY PROBE CHARACTERISTICS and SPECIFICATIONS



Screen shot This P2000A GaN Probe measurement shows the rise time of a 50 Ohm 350ps edge as seen on a 4GHz scope. Much of this rise time is due to the 7pF tip capacitance and 50 Ohm source.

P2000A GaN Probe	
Characteristic	Rating
System Bandwidth	700 MHz (-3 dB)
Attenuation Ratio	100:1 ± 2 % at DC Connected to oscilloscope with an input impedance of 1 MΩ ± 1 %.
Voltage Coefficient	0.0005 %/V (typical)
Probe Rise Time	500 psec (10 % - 90 %) (typical)
Maximum Rated Input Voltage	As defined in IEC 61010-031
Measurement category I:	1000 V RMS 4000 V transient overvoltage
Measurement category II:	1000 V RMS CAT II
Input Resistance (System)	50 MΩ ± 1 %
Input Capacitance (System)	7 pF (typical)
Compensation Range	10 pF - 50 pF (typical)
Input Coupling of the Measuring Instrument	1 MΩ AC / DC
Weight (probe)	82g
Cable Length	1m
Probe Tip Diameter	5mm
Temperature Range	operating 0° C to +50° C non-operating -40° C to +71° C
Maximum Relative Humidity	operating 80% relative humidity for temperatures up to +31° C, decreasing linearly to 40% at +50° C



The P2000A is supported by the J2130A Bias Injector for DC offset measurement



J2180A 0.1Hz-100MHz Ultra Low Noise Preamp converts the 1MΩ probe impedance to 50 ohms

For more information on Picotest products, applications, or services, please contact Picotest.

This information is subject to change without notice.

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