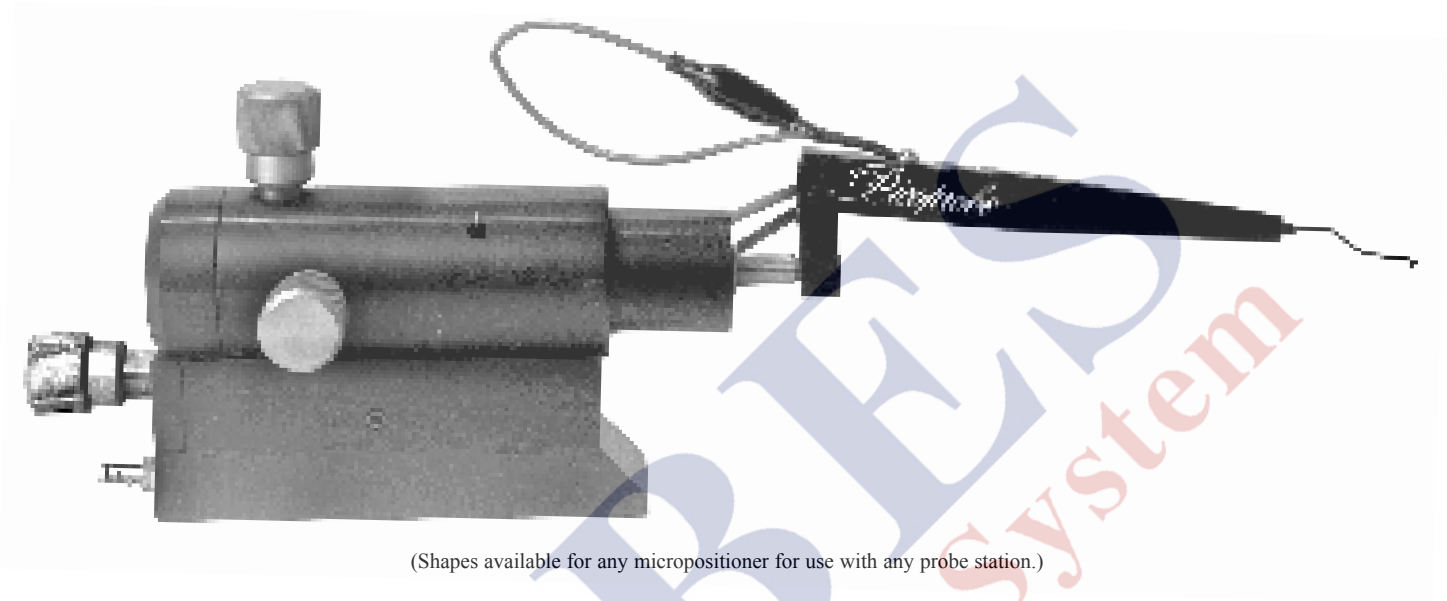
Picoprobe®

BY GGB INDUSTRIES INC.



(Shapes available for any micropositioner for use with any probe station.)

Picoprobe®Model 12C is a high speed, high input impedance active probe for measuring the internal node voltage of integrated circuits. The input is 1 megohm shunted by 0.1 pf and the rise/fall times are 0.8ns. This instrument has full dc capability and can be used with any oscilloscope. The **Model 12C** was specially designed so that when used in conjunction with a high input impedance oscilloscope signal attenuation is 10:1 and with a 50 Ohm input signal attenuation is 20:1.

Rugged, dependable, and high speed the **Model 12C** presents a very modest load to the integrated circuit. It can be used to troubleshoot high speed bipolar, NMOS and CMOS circuits-even some short holding time dynamic nodes. Each amplifier is individually optimized during manufacture for peak performance and reliability. The **Model 12C** will withstand large input overvoltages. The only known failure mode is the accidental breaking or crushing of the probe tip which can be easily replaced. A large selection of probe tips are available to accommodate a variety of probing needs.

SPECIFICATIONS:

Input Capacitance	0.1pf
Input Resistance	1.0 megohm
Rise/Fall Time	0.8ns
Bandwidth	dc to 500 MHz
Linearity	0.5%
Voltage Range	-10 to +20V*
Gain Accuracy	±3%
Signal Attenuation	(High input impedance oscilloscope) 10 to1 (50 ohm input) 20 to 1

* Special order Model 12C Picoprobes® are available for -15V.

Picoprobe® Model 12C REPLACEMENT TIPS

Part Number	Tungsten Wire Shaft Diameter	Point Diameter	Probe Tip Housing Shape
12C-1-10	10 micron	< 0.2 micron	
12C-1-22	22 micron	< 1.0 micron	
12C-1-35	35 micron	< 2.0 micron	
12C-1-60	60 micron	< 3.0 micron	
12C-1-125	125 micron	< 5.0 micron	
12C-2-10	10 micron	< 0.2 micron	
12C-2-22	22 micron	< 1.0 micron	
12C-2-35	35 micron	< 2.0 micron	
12C-2-60	60 micron	< 3.0 micron	
12C-2-125	125 micron	< 5.0 micron	
12C-4-10	10 micron	< 0.2 micron	
12C-4-22	22 micron	< 1.0 micron	
12C-4-35	35 micron	< 2.0 micron	
12C-4-60	60 micron	< 3.0 micron	
12C-4-125	125 micron	< 5.0 micron	

Model 12C tips slide easily in and out of the Model 12C probe body. They consist of a housing, a precision resistor/capacitor combination, and a 22 micron tungsten probing wire that is tapered to a fine point of less than one micron. The 22 micron tungsten wire allows ample flexing so the probe point and the circuit tend to remain in contact even in the presence of probe table vibrations. In addition, flexing reduces the damage to the circuit and to the probe point. In most cases if a probe wire becomes bent accidentally, it can be mechanically straightened with no adverse effects on performance. Probe points that have become soiled or dulled can be cleaned and resharpened by shipping the tips back to GGB Industries, Inc.

In addition to the 22 micron tungsten wire with a one micron point, Model 12C tips are available with 10, 35, 60 and 125 micron wires which are sharpened as indicated in the accompanying table.

When ordering a Model 12C Picoprobe,® simply state the make and model number of your probe station and micropositioner. A Picoprobe® with the proper shape will be supplied. For custom stations, please contact our business office for special instructions.

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