

Model 18C and Model 19C Active probe (DC - 350MHz)

High impedance probes, **MODEL 18C** and **MODEL 19C**, combine the most advanced MOS and bipolar technologies with special, low capacitance packaging techniques to achieve truly remarkable electronic measurement capabilities. While being manufactured each instrument is individually optimized for the best possible performance. The extremely low input capacitance, high input impedance, and almost negligible input leakage current permits the direct probing of even the most sensitive MOS dynamic nodes. At the same time, the full dc capability of this probe coupled with the high speed capability permits the full characterization of circuits.






The 10 micron tungsten probe wire is tapered to an extremely fine point to allow probing of the finest lines. The fine probe wire flexes when in contact with the circuit, so that damage to the circuit and probe point is minimized. Also the flexing tends to keep the probe point in contact with the circuit even in the presence of probe table vibrations. Model 18C and Model 19C probe tips are also available with a 20 and 50 micron tungsten probe wire sharpened to less than 1 and 3 microns respectively.

The circuitry located in the Model 18C and Model 19C body is very rugged; however, the unprotected MOS input in each probe tip is subject to destruction by electrostatic discharge. Should the probe tip become damaged, it can easily be removed and replaced.

Specifications	Model 18C	Model 19C
Input Capacitance*	0.02pF	0.02pF
Input Leakage	10 femtoamps	10 femtoamps
Rise/Fall Time	1.2ns	1.2ns
Frequency Response	dc to 350 MHz	dc to 350 MHz
Operating Range	0 to + 10V range (<i>model 18C-HV: 15V</i>)	-7 to + 3V
Linearity	0.2% 5V range / 2.0% 10V range	0.2% ± 3V range / 2.0% -7 to +3V range
Gain Accuracy	±5%	±5%
Signal Attenuation	High input impedance oscilloscope 10 to 1 (50 ohm input) 20 to 1	High input impedance oscilloscope 10 to 1 (50ohm input) 20 to 1
Note	Requires the use of a Power Supply powering 2 probes	

*For 3ns or longer rise and fall signals. Speed limitations of the capacitance canceling circuitry results in approximately 0.06pF input capacitance for 1ns or shorter rise or fall inputs.

Model 18C and Model 19C Replacement Tips

Part Number	Tungsten Wire Shaft Diameter	Point Diameter	
18C-1-5	5 micron	<0.1 micron	
18C-1-10	10 micron	<0.1 micron	
18C-1-20	20 micron	<1.0 micron	
18C-1-50	50 micron	<3.0 micron	
18C-2-5	5 micron	<0.1 micron	
18C-2-10	10 micron	<0.1 micron	
18C-2-20	20 micron	<1.0 micron	
18C-2-50	50 micron	<3.0 micron	
18C-4-5	5 micron	<0.1 micron	
18C-4-10	10 micron	<0.1 micron	
18C-4-20	20 micron	<1.0 micron	
18C-4-50	50 micron	<3.0 micron	