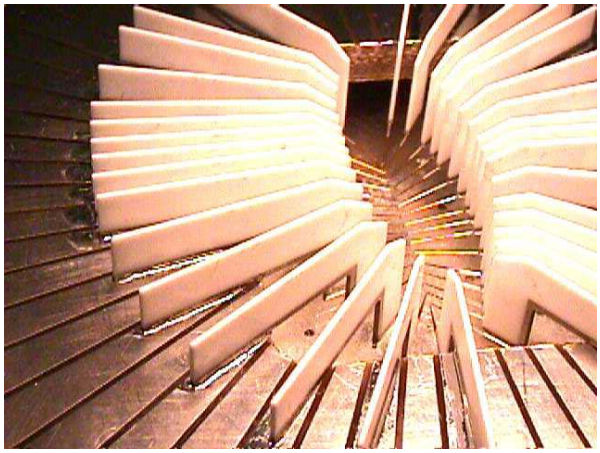
Ceramic Blade Probes

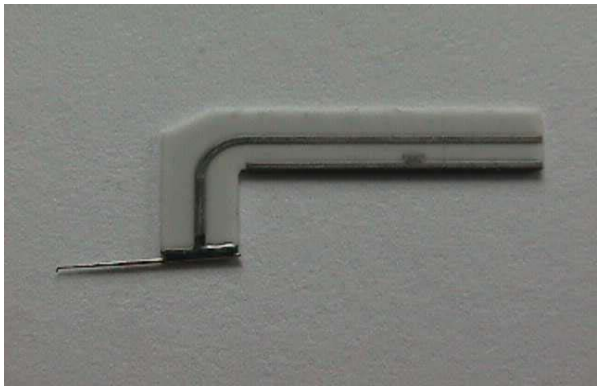
CERAMIC BLADE PROBES

Ceramic blade solutions are used where high-frequency interfaces are required or where electrical isolation of the probe from the device under test is desirable. These blades provide superior mechanical and electrical properties and can achieve excellent results in high noise, low current, and high temperature probing applications. Accuprobe has a number of ceramic blade probe styles available off-the-shelf that can be mounted on a wide range of probe cards. Customers can also select from an extensive set of needle types and geometries to meet specific device testing requirements.

CERAMIC STYLES AND GEOMETRIES

The standard style of ceramic blade is offered as the C1 to C3 styles, with either 144, 244, or 317 mils working depths. Most of these blades have the unique capability of being adjustable from 400 to 600 mils in the shank length if the medium (M) version is ordered. The short (S) version has a set 400 mils shank length. The blades are .015" thick and the default working depth is achieved with a 200 mil needle extension and an 8 mil tip length. Other needle extensions and tip lengths are available with a commensurate adjustment in working depth. Standard ceramic blades are used where a controlled impedance environment is not required. Their low leakage and low noise characteristics ensure that these probes excel in ultra low current probing applications.





CZ Stripline Ceramic Blade

CZ SERIES 50 OHM STRIPLINE PROBES

Accuprobe offers 50 ohm controlled impedance ceramic blade probes for critical measurement applications. These probes are of stripline construction with a completely metalized back for signal shielding. Model CZ1 has a working depth of 144 mils, CZ2 has a 244 mil working depth. As with the C ceramic blade type, CZ types are supplied in either medium or short variants for 600, 400 or adjustable 600/400 mils shank length.

These probes enable the signal path from the device under test to be directly connected to a transmission line such as a coaxial cable. High frequency applications up to 2Ghz can be supported with the CZ controlled impedance probes. The probes can be supplied with a length of micro coaxial cable attached in the signal path for termination at the test instrument.

Probing the World
of Microelectronics

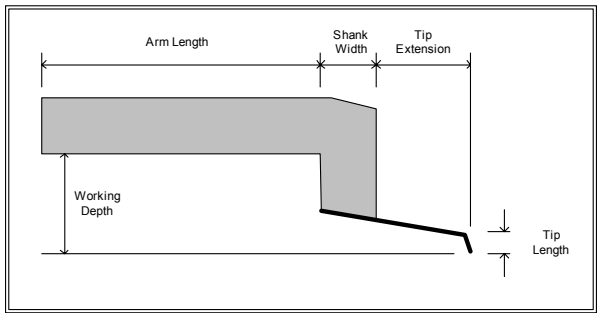
Ceramic Blade Probes

HIGH TEMPERATURE PROBING

The properties of ceramic blades make them ideal for probing at temperatures up to 200ºC. High temperature solders are used for both probe and blade attachment to ensure stable and repeatable operation up to those temperatures

Model	Style	Working Depth	Blade Thickness	Arm Length	Shank Width	Needle Extension	Tip Length
C1S	Standard	144	15	400	150	200	8
C1M	Standard	144	15	600	150	200	8
C2S	Standard	244	15	400	150	200	8
C2M	Standard	244	15	600	150	200	8
C3M	Standard	317	15	500	75	200	7
CZ1S	Stripline	144	15	400	150	200	8
CZ1M	Stripline	144	15	600	150	200	8
CZ2S	Stripline	244	15	400	150	200	8
CZ2M	Stripline	244	15	600	150	200	8

Note: All dimensions in mils



BLADE SELECTION AND ORDERING

Select your ceramic blade style from the table below. A typical model number is CZ2MW3AF meaning:

CZ2 Ceramic stripline, 244 mil working depth
M Medium 600 mil arm length
W Tungsten 10 mil needle
3A 1.5 mil tip diameter, 8 mil tip drop
F Flat tip shape

Blade Selection Table

	Type	Profile	Body Length				Needle Material	Diameter		Tip Diameter "A"		Tip Drop "B"		Tip Shape	
B	Metal blade	A	S	M	L	A	Tungsten	.006" (.152mm)	1*	.0005" (.0127mm)	A	.008" (.2032mm)	F	Flat
		B	S	M	L	W	Tungsten	.010" (.254mm)	2	.001" (.0254mm)	B	.015" (.381mm)	R	Radius
		C	S	M	L	WR	Tungsten Rh	.010" (.254mm)	3	.0015" (.0381mm)	C	.030" (.762mm)		
		D			L	D	BeCu	.010" (.254mm)	4	.002" (.0508mm)	D	.060" (1.524mm)		
		E			L	HD	Hard BeCu	.010" (.254mm)	5	.0025" (.0635mm)				
		F			L	P	Palladium	.010" (.254mm)	6	.0035" (.0889mm)	**Note: Other tip drops are available up to 220 mils (5.6 mm)**			
		G	S	M	L	E	Tungsten	.012" (.3048mm)	7	.005" (.127mm)				
		H	S			ER	Tungsten Rh	.012" (.3048mm)	8	.010" (.254mm)				
C	Ceramic blade	Ceramic types only				C	BeCu	.012" (.3048mm)	9	.012" (.3048mm)				
		1	S	M		HC	Hard BeCu	.012" (.3048mm)	10	.015" (.381mm)				
		2	S	M		T	Tungsten	.015" (.381mm)						
		3		M		TR	Tungsten Rh	.015" (.381mm)						
		Z1	S	M		B	BeCu	.015" (.381mm)						
		Z2	S	M		HB	Hard BeCu	.015" (.381mm)						

Notes:

1 **BeCu not available in .0005" tip.**
2 **Not all combinations of tip material, Tip Drop "B", and tip diameter "A", are possible.**

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