# Signatone Probe Tips Holders

Signatone offers a variety of Probe Tip Holders for use with its various micropositioners.

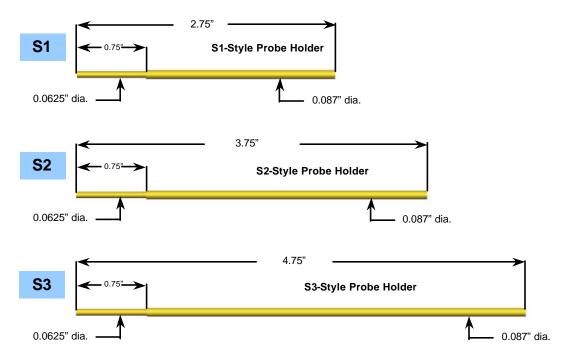
This Page is a part # listing for the standard Probe holders

Shank Type	Tip hold type	Shape	Opt. Isolation	Description
U		N/A		4.75" Universal-cut/bend to size
S1				2.25" long brass shank
S2				3.75" long brass shank
S2 S3				4.75" long brass shank
33				
	S			Screw lock-tip at 45° angle
	Р			Spring clamp-tip at 45° angle
	E			Friction socket-tip horizontal
	Ν			Friction socket-tip at 45° angle
		1		Straight
		2		"Z" bend near mount end
		3		"Z" bend near tip end
		4		"L" bend (2" drop)
			СВ	Delrin isolation w/BNC termination
			ТВ	Teflon isolation w/BNC termination
			GB	Ceramic isolation w/BNC termination
			KA	Kelvin dual w/single BNC termination
			KB	Kelvin dual w/double BNC termination

Detailed descriptions of Probe tip Holders to follow:

# Signatone "S"- Series Probe Tip Holder

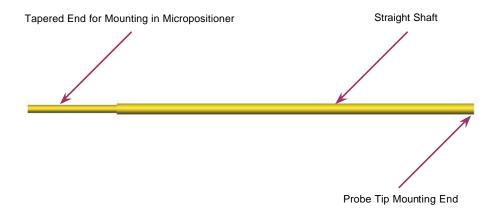
The Signatone "S" Series probe tip holders include three optional lengths. The lengths are identified by the model #s (S1, S2,& S3) Shortest to longest respectively.



All three versions (S1, S2,& S3) includes 0.075" taper for mounting into all styles & vintage of Signatone micropositioners (Available with Delrin, Teflon, & Ceramic-Coax Shielding)

#### Signatone "-1" Shape-Bend Probe Holder Option

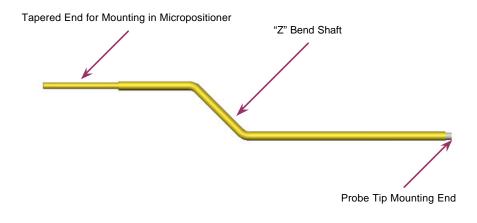
The Signatone "S" Series probe tip holders there are options for length, type of probe mount, and shape of probe arm. ( $\[S] 1 - 0 - 1 - 0 0$ ) The **-1** option (when referring to the shape) indicates that it is straight and doesn't include any bends or angles.



This straight configuration may be adjusted (bent) to desired shape as required (Available with Delrin, Teflon, & Ceramic-Coax Shielding) Typical Use: General-purpose probing- recommended use with Pivot head style micropositioner.

#### Signatone "-2" Shape-Bend Probe Holder Option

The Signatone "S" Series probe tip holders there are options for length, type of probe mount, and shape of probe arm. ( $\[S]$  - $\[O]$  - $\[O]$  - $\[O]$ ) The -2 option (when referring to the shape) indicates that it has a "Z" bend close to micropositioner mount.

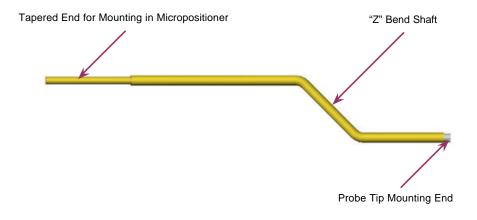


This "Z" configuration is used to drop the tip down to the bottom of the platen surface, just above the wafer-sample (Available with Delrin, Teflon, & Ceramic-Coax Shielding)

Typical Use: General-purpose wafer probing- recommended use with Pivot head style micropositioner.

#### Signatone "-3" Shape-Bend Probe Holder Option

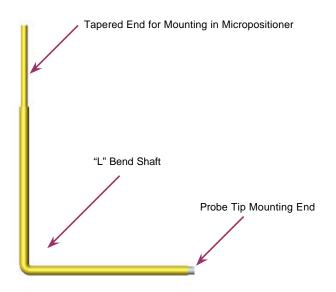
The Signatone "S" Series probe tip holders there are options for length, type of probe mount, and shape of probe arm. ( $\[S]$  - $\[O]$ - $\[S]$ - $\[O]$ ) The -3 option (when referring to the shape) indicates that it has a "Z" bend close to probe tip mount.



This "Z" configuration is used w/ a probe card to drop the tip down over the probe card adapter, just above the wafer-sample (Available with Delrin, Teflon, & Ceramic-Coax Shielding) Typical Use: General-purpose wafer probing w/ probe cardsrecommended use with Pivot head style micropositioner.

#### Signatone "- 4" Shape-Bend Probe Holder Option

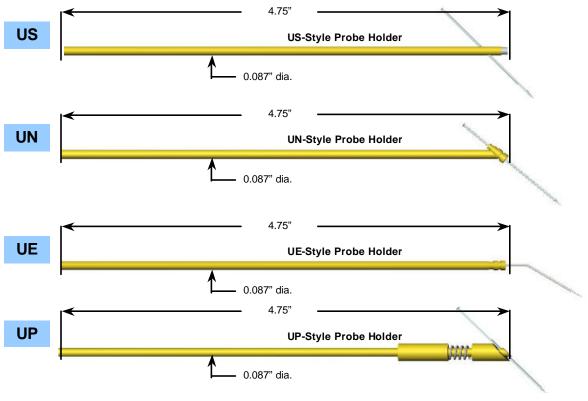
The Signatone "S" Series probe tip holders there are options for length, type of probe mount, and shape of probe arm. ( $\[S]$  - $\[O]$  - $\[A]$ - $\[O]$ ) The - 4 option (when referring to the shape) indicates that it has an "L" bend 2-3" from positioner mount.



This "L" configuration is used when platen–positioner is well above the wafer-sample (Available with Delrin, Teflon,& Ceramic-Coax Shielding) Typical Use: Special-purpose wafer probing when probe mount is well above the wafer chuck- recommended use with Pivot head style micropositioner.

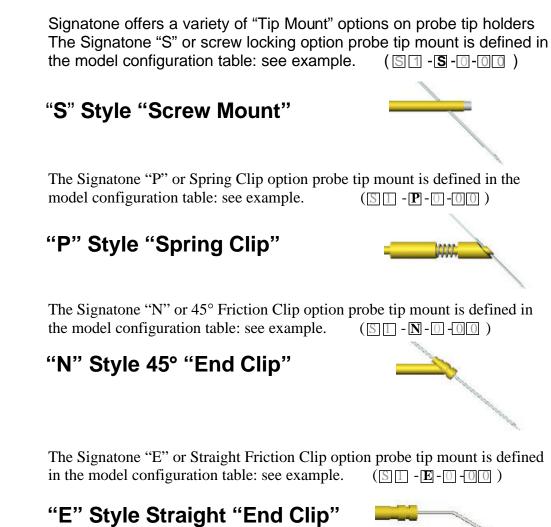
# Signatone "U"- Series Probe Tip Holder

The Signatone "U" Series probe tip holder comes in one universal length of 4.75". This holder is made to be bent or cut to length by the customer. The "U" style holder is available in all the Signatone "Tip-Mount" Options



(Available with Delrin, Teflon, & Ceramic-Coax Shielding)

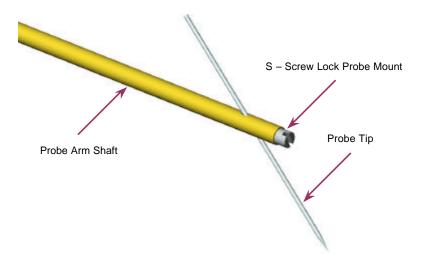
# Signatone "Tip Mount" Probe Holder Option





#### Signatone "Screw-Lock"- Style Probe Tip Holder

The Signatone "S" or Screw-Lock style probe tip holder. This screw locking style probe mount allows the tip to mount at a 45° angle from the probe arm. The tip may be easily replaced and set to desired depth.

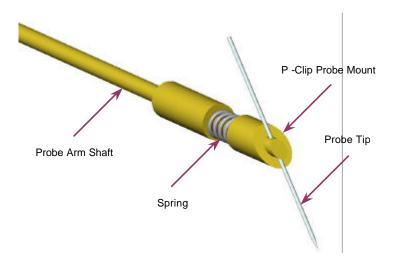


The "S"-style probe holder accepts all the Signatone manufactured probe needles.

(Available with Delrin, Teflon, & Ceramic-Coax Shielding) Typical Use: General purpose – Low profile

# Signatone "Spring"- Style Probe Tip Holder

The Signatone "P" or spring style probe tip holder. This spring loaded style probe mount allows the tip to mount at a 45° angle from the probe arm. The tip may be easily replaced and set to desired depth.

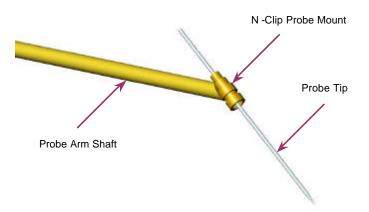


The "P"-style probe holder accepts all the Signatone manufactured probe needles.

(Available with Delrin, Teflon & Ceramic-Coax Shielding) Typical Use: General purpose – quick & easy loading

# Signatone "N"- Style Probe Tip Holder

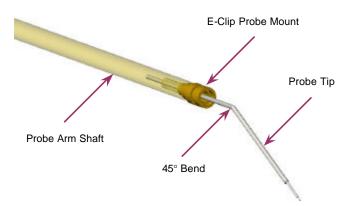
The Signatone "N"- style probe tip holder. This dual clip, friction fit style probe mount allows the tip to mount at a 45° angle from the probe arm. The tip may be easily replaced and set to desired depth.



The "N"-style probe holder accepts probe needles with 0.015 – 0.020 diameter wire. (Available with Delrin & Teflon-Coax Shielding) Typical Use: In conjunction with probe cards & package devices.

# Signatone "E"- Style Probe Tip Holder

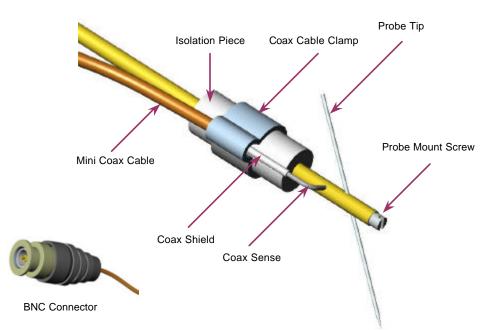
The Signatone low profile "E"- style probe tip holder. This dual clip, friction fit style probe mount allows the tip to come out horizontally with the probe arm. The tip may then be bent to the desired probing angle.



The "E"-style probe holder accepts probe needles with 0.015 – 0.020 diameter wire. (Available with Delrin & Teflon-Coax Shielding) Typical Use: Areas with small working distance & package devices

# Signatone Coax Shielded Probe Tip Holder

The standard Signatone Shielded probe tip holder includes a 24"  $50\Omega$  mini coax cable w/ BNC termination, Delrin, Teflon, or Ceramic isolation piece, Cable clamp–strain relief and Probe tip mounting mechanism including N-clip, E-Clip, Spring-Clip, & Screw-Lock.



These Shielding options may be included with most of the standard Signatone probe holders.

(High temp Ceramic option not available for N-Clip & E-Clip mount) Typical Use: CV measurements at various temperatures

# Signatone Probe Tips

Signatone offers a variety of Probe Tips for use with its various Probe holders.

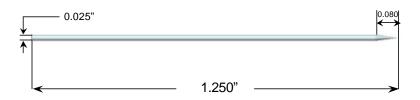
This Page is a part # listing for the standard Probe Tips

Probe Tip Model	Description			
SE-T	Tungsten, 5 um tip, 25mil shank			
SE-TZ	Tungsten, 5 um tip, 25mil shank, "Z" shape			
SE-TL	Tungsten, 5 um tip, 25mil shank, 2" long			
SE-TB	Tungsten, 25 um tip, 25mil shank			
SE-20T	Tungsten, 3.5 um tip, 20mil shank			
SE-20TZ	Tungsten, 3.5 um tip, 20mil shank, "Z" shape			
SE-20TL	Tungsten, 3.5 um tip, 20mil shank, 2" long			
SE-20TB	Tungsten, 20 um tip, 20mil shank			
SE-10T	Tungsten, 1 um tip, 10mil shank			
SE-10TZ	Tungsten, 1 um tip, 10mil shank, "Z" shape			
SE-TD	Tungsten, 3.5 um tip, 20mil copper shank, 2" long			
SE-S	Steel, 12 um tip, 25mil shank			
SE-SC	Steel ultrasonic cutter tip, 12 um tip, 0.5" long			
SE-TC	Tungsten Carbide,12 um tip, 25mil shank			
SE-TG	Gold plated Tungsten,10um tip, 20 mil shank			
SE-O	Osmium, 12um tip, 25mil shank			
SE-P	Palladium, 12um tip, 25mil shank			
SE-SM	Tungsten catwhisker, 1 um tip, 20mil shank, 2" long			
SE-SMS	Tungsten catwhisker, 0.2 um tip, 20mil shank, 2" long			
SM-35	Tungsten, 0.7 um tip, 20mil shank, 2" long			
SM-10	Tungsten, 0.2 um tip, 20mil shank, 2" long			
SE-BC	Beryllium Copper, 12um tip, 25mil shank			
SE-BCB	Beryllium Copper, 125um tip, 25mil shank			

Detailed descriptions of Probe Tips to follow:

# Signatone Model SE-T Probe Tip

The SE-T is a general-purpose probe tip made with a 1.25" long, 25mil diameter tungsten wire that has been chemically etched down to a  $5\mu$  (micron) tip diameter. The shank is strong enough to be bent into a variety of shapes and the tip is quite durable

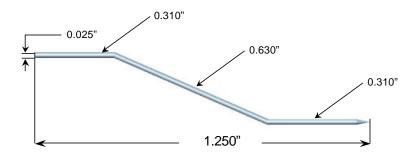


The SE-T may be used with the "S" & "P" Signatone probe tip holders. Typical Use: Probing pads and geometries  $10\mu$ >



# Signatone Model SE-TZ Probe Tip

The SE-TZ is a general-purpose "**Z**" **Bent** probe tip made with a 1.25" long, 25mil diameter tungsten wire that has been chemically etched down to a  $5\mu$  (micron) tip diameter. The shank is Bent into a "Z" shape for low profile probing w/ 45° probe holder mount.

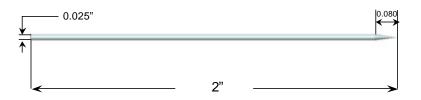


The SE-T may be used with the "S" & "P" Signatone probe tip holders. Typical Use: Probing pads and geometries  $10\mu$ >



# Signatone Model SE-TL2 Probe Tip

The SE-TL2 is a special-purpose probe tip made with a 2" long, 25mil diameter tungsten wire that has been chemically etched down to a  $5\mu$  (micron) tip diameter. The shank is strong enough to be bent into a variety of shapes and the tip is quite durable



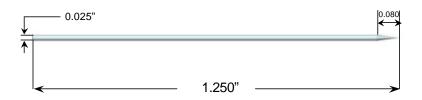
The SE-TL2 may be used with the "S" & "P" Signatone probe tip holders.

Typical Use: Designed for low profile & hard to reach places



# Signatone Model SE-TB Probe Tip

The SE-TB is a general-purpose **b**lunt probe tip made with a 1.25" long, 25mil diameter tungsten wire that has been chemically etched down to a  $25\mu$  (micron) tip diameter. The shank is strong enough to be bent into a variety of shapes and the tip is very durable

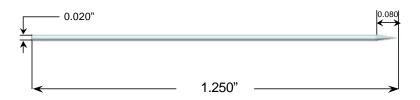


The SE-TB may be use is any of the Signatone probe tip holders. Typical Use: Probing large pads and geometries  $25\mu$ >



# Signatone Model SE-20T Probe Tip

The SE-20T is a general-purpose probe tip made with a 1.25" long, 20mil diameter tungsten wire that has been chemically etched down to a  $3.5\mu$  (micron) tip diameter. The shank is strong enough to be bent into a variety of shapes and the tip is quite durable

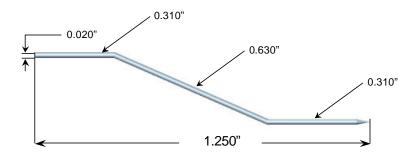


The SE-20T may be use is any of the Signatone probe tip holders. Typical Use: Probing pads and geometries  $5\mu$ >



# Signatone Model SE-20TZ Probe Tip

The SE-20TZ is a general-purpose "**Z**" **Bent** probe tip made with a 1.25" long, 20mil diameter tungsten wire that has been chemically etched down to a  $3\mu$  (micron) tip diameter. The shank is Bent into a "Z" shape for low profile probing w/ 45° probe holder mount.

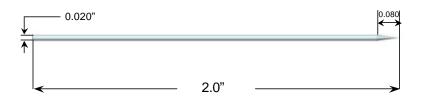


The SE-20TZ may be use is any of the Signatone probe tip holders. Typical Use: Probing pads and geometries  $5\mu$ >



# Signatone Model SE-20TL Probe Tip

The SE-20TL is a general-purpose probe tip made with a 2" long, 20mil diameter tungsten wire that has been chemically etched down to a  $3.5\mu$  (micron) tip diameter. The shank is strong enough to be bent into a variety of shapes and the tip is quite durable

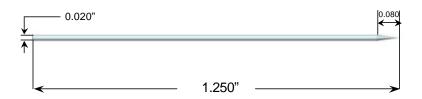


The SE-20TL may be use is any of the Signatone probe tip holders. Typical Use: Probing pads and geometries  $5\mu$ >



# Signatone Model SE-20TB Probe Tip

The SE-20TB is a general-purpose **b**lunt probe tip made with a 1.25" long, 20mil diameter tungsten wire that has been chemically etched down to a  $25\mu$  (micron) tip diameter. The shank is strong enough to be bent into a variety of shapes and the tip is very durable

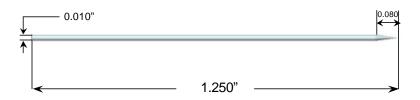


The SE-20TB may be use is any of the Signatone probe tip holders. Typical Use: Probing large pads and geometries  $25\mu$ >



# Signatone Model SE-10T Probe Tip

The SE-10T is a general-purpose probe tip made with a 1.25" long, 10mil diameter tungsten wire that has been chemically etched down to a  $1\mu$  (micron) tip diameter. The shank may be bent into a variety of shapes. The tip is sharp for small geometry probing.

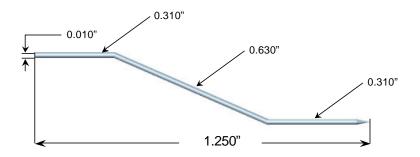


The SE-10T may be use is any of the Signatone probe tip holders. Typical Use: Probing pads and geometries  $1\mu$ >



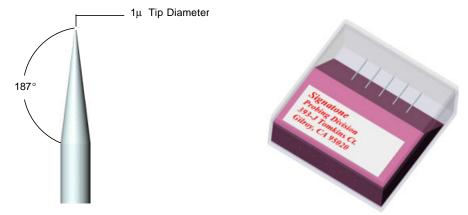
# Signatone Model SE-10TZ Probe Tip

The SE-10TZ is a general-purpose "**Z**" **Bent** probe tip made with a 1.25" long, 10mil diameter tungsten wire that has been chemically etched down to a 1 $\mu$  (micron) tip diameter. The shank is Bent into a "Z" shape for low profile probing w/ 45° probe holder mount.



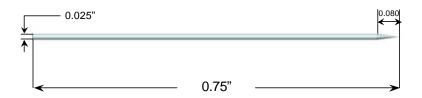
The SE-10TZ may be used with the "S" & "P" Signatone probe tip holders.

Typical Use: Probing metal lines 1µ>



### Signatone Model SE-S Probe Tip

The SE-S is a general-purpose probe tip made with a 0.75" long, 25mil diameter steel wire that has been mechanically ground down to a  $12.5\mu$  (micron) tip diameter. The shank is hard and cannot be bent.

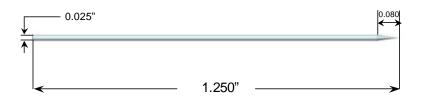


The SE-S may be used with the "S" & "P" Signatone probe tip holders. Typical Use: Probing hard surfaces or scratching through passivation.



# Signatone Model SE-TC Probe Tip

The SE-TC is a general-purpose probe tip made with a 1.25" long, 25mil diameter Tungsten-Carbide wire that has been mechanically ground down to a 12.5 $\mu$  (micron) tip diameter. The shank is hard and brittle & cannot be bent.



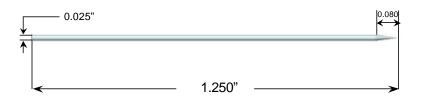
The SE-TC may be used with the "S" & "P" Signatone probe tip holders.

Typical Use: Probing hard surfaces & continuous probing



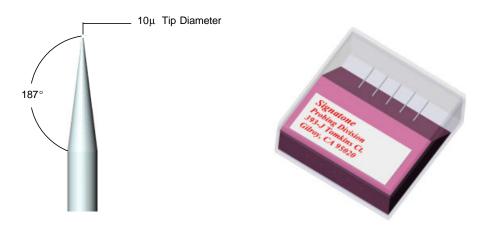
# Signatone Model SE-TG Probe Tip

The SE-TG is a special purpose probe tip made with a 1.25" long, 25mil diameter gold plated tungsten wire that has been chemically etched down to a  $10\mu$  (micron) tip diameter. The shank may be bent into a variety of shapes and the gold tip allows for good contact.



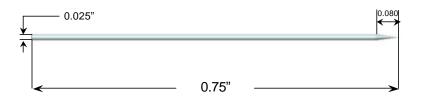
The SE-TG may be used with the "S" & "P" Signatone probe tip holders.

Typical Use: Probing soft materials



# Signatone Model SE-O Probe Tip

The SE-O is a Custom-purpose probe tip made with a 0.75" long, 25mil diameter Steel wire with a fused on Osmium tip that has been mechanically ground down to a  $12.5\mu$  (micron) diameter. While the shank is hard and cannot be bent, the tip is soft and makes good contact with other soft metals

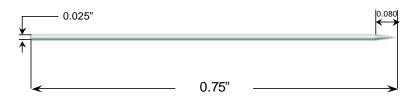


The SE-O may be used with the "S" & "P" Signatone probe tip holders. Typical Use: Probing Soft surfaces for good contact



### Signatone Model SE-P Probe Tip

The SE-P is a Custom-purpose probe tip made with a 0.75" long, 25mil diameter Palladium wire (Paliney 7) that has been mechanically ground down to a  $12.5\mu$  (micron) diameter. This tip is designed for applications where contact resistance problems are encountered.

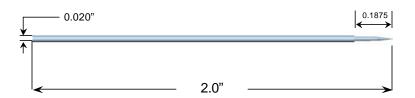


The SE-P may be used with the "S" & "P" Signatone probe tip holders. Typical Use: Low leakage measurements or contact resistance problems



# Signatone Model SE-SM Probe Tip

The SE-SM is a special-purpose probe tip made with a 2.0" long, 20mil diameter tungsten wire that has 0.25" long 1mil wire attached at the end that is chemically etched down to a  $1.0\mu$  (micron) tip diameter. The shank is strong enough to be bent into a variety of shapes and the tip is quite flexible



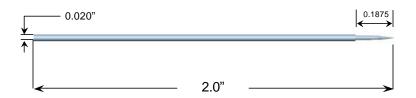
The SE-SM may be use is any of the Signatone probe tip holders. Typical Use: Probing micron geometries on fragile structures



# Signatone Model SE-SMS Probe Tip

The SE-SMS is a special-purpose probe tip made with a 2.0" long, 20mil diameter tungsten wire that has a 0.25" long 1mil wire attached at the end and is chemically etched down to a  $0.2\mu$  (micron) tip diameter.

The shank is strong enough to be bent into a variety of shapes and the tip is quite flexible

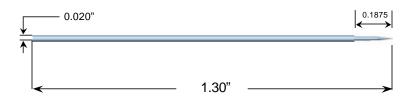


The SE-SMS may be use is any of the Signatone probe tip holders. Typical Use: Probing sub-micron geometries on fragile structures



# Signatone Model SM-35 Probe Tip

The SM-35 is a general-purpose probe tip made with a 1.30" long, 20mil diameter tungsten wire that has been chemically etched down to a  $0.7\mu$  (micron) tip diameter. The shank is strong enough to be bent into a variety of shapes and the tip is quite durable

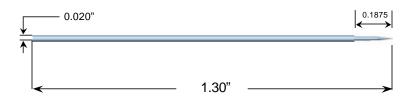


The SM-35 may be use is any of the Signatone probe tip holders. Typical Use: Probing sub-micron geometries



# Signatone Model SM-10 Probe Tip

The SM-10 is a general-purpose probe tip made with a 1.30" long, 20mil diameter tungsten wire that has been chemically etched down to a  $0.2\mu$  (micron) tip diameter. The shank is strong enough to be bent into a variety of shapes and the tip is quite durable

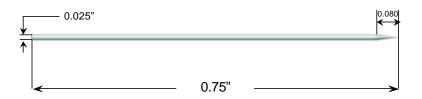


The SM-35 may be use is any of the Signatone probe tip holders. Typical Use: Probing sub-micron geometries



# Signatone Model SE-BC Probe Tip

The SE-BC is a Custom-purpose probe tip made with a 0.75" long, 25mil diameter solid Beryllium Copper wire that has been mechanically ground down to a 12.5 $\mu$  (micron) diameter. This tip is designed for high current.



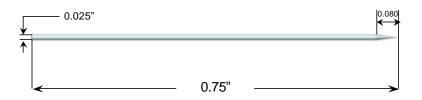
The SE-BC may be used with the "S" & "P" Signatone probe tip holders.

Typical Use: High current probing applications.



### Signatone Model SE-BCB Probe Tip

The SE-BCB is a Custom-purpose probe tip made with a 0.75" long, 25mil diameter solid Beryllium Copper wire that has been mechanically ground down to a  $125\mu$  (micron) 5mil diameter. This "Blunt" tip is designed for high current.



The SE-BCB may be used with the "S" & "P" Signatone probe tip holders.

Typical Use: High current probing applications.

