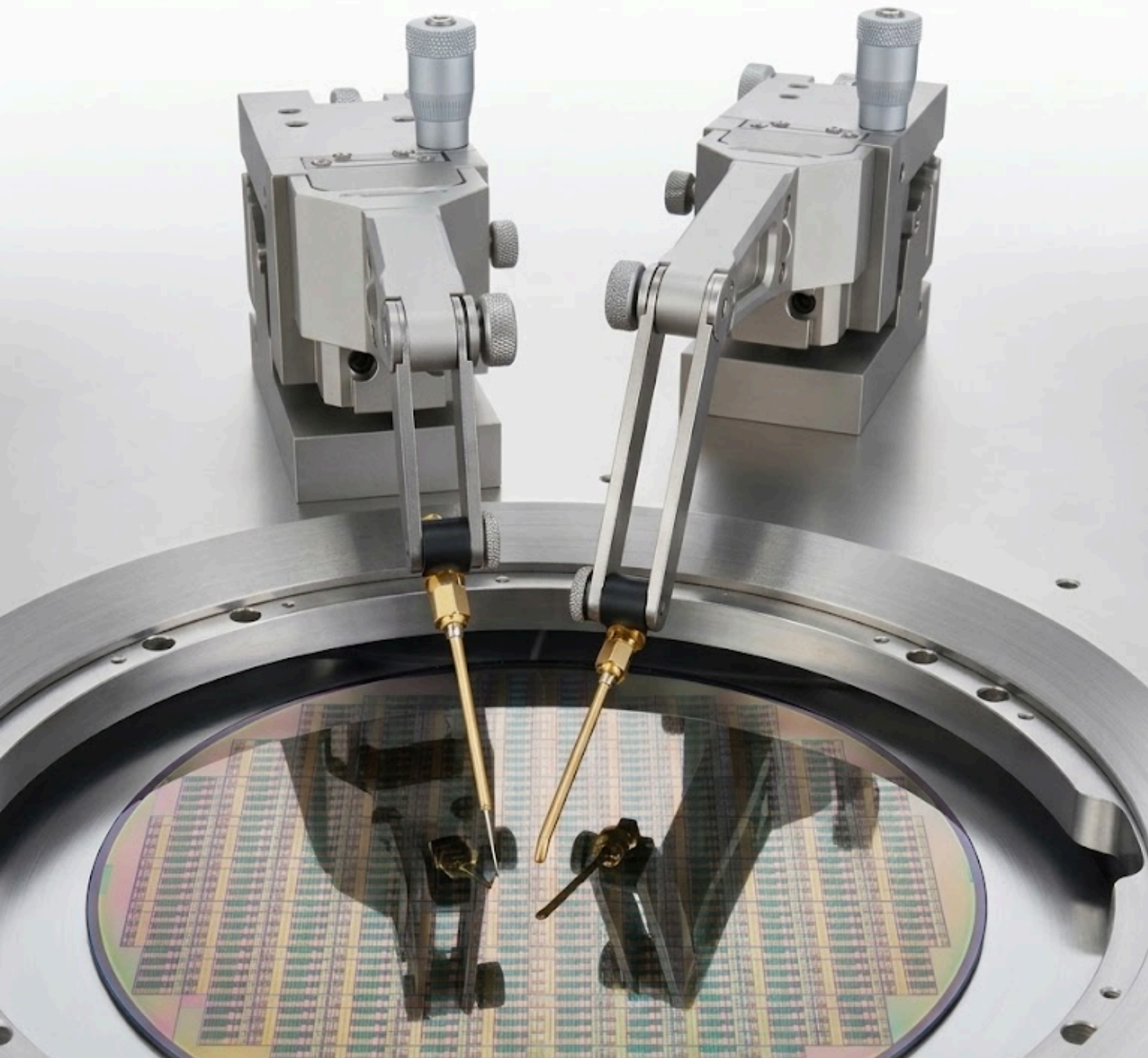


Sandy

Semiconductor Test Solutions

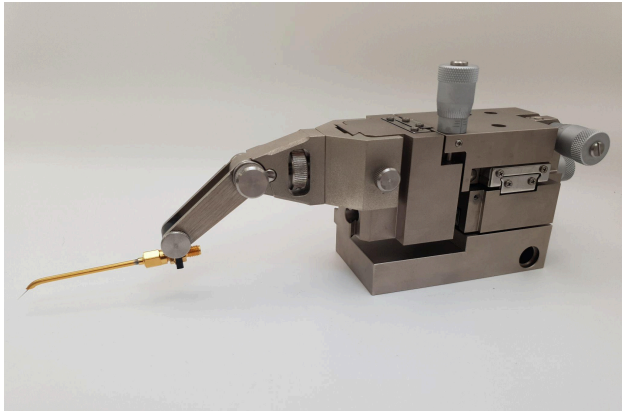
PROBER ACCESSORIES:

MICRO POSITIONERS



SP1

MICROPOSITIONER



DESIGN

The SP1 manual linear motion micropositioner for analytical probes delivers a highly versatile solution for a variety of applications.

Featuring a choice of either magnetic or vacuum hold down, the SP1 micropositioner provides a rigid probing platform with a quick-release facility for fast, easy repositioning of the manipulator unit.

A wide range of articulated front-ends and needle holder assemblies allows easy integration of the SP1 onto most standard systems. In addition, a small footprint and the option of rear adjustment ensures a maximum number of micropositioners can be placed on a prober.

PRECISE & ACCURATE POSITIONING

Available with a resolution of down to $0.28 \mu\text{m}/^\circ$, the SP1 offers unrivalled accuracy. This is why this micropositioner is ideal not only for semiconductor wafer testing but any application which requires micron, sub-micron or even nanometre positioning.

SSTS's SP1 micrometer drives and recirculating linear slides, provide precise linear motion in all three axes. This allows for ease of positioning onto the finest geometries.

KEY FEATURES

- ✓ Smooth precision positioning
- ✓ Versatile for a wide variety of application
- ✓ Micrometer driven
- ✓ Easy and quick repositioning with magnetic or vacuum hold down
- ✓ Configurable with high voltage/high current probing accessories

LOW CURRENT

A wide choice of probes and probe holders complements the SP1 micropositioner for most low current applications to less than 10 fA. They are available in different styles including coax with integrated mounting shank, single and dual (series resistor), and Kelvin dual SSMC connections. Optional interface cables complete your probing configuration.

HIGH CURRENT/HIGH VOLTAGE

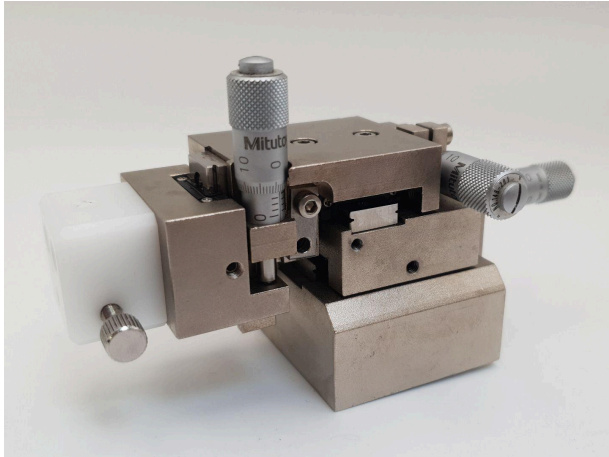
Our specialist HV and HC probes are designed to carry out power device characterization at wafer level. They are capable of testing with voltage up to 10 kV and current up to 100 A under pulsed current.

SPECIFICATIONS

	SP1 - 100 TPI	SP1 - 200 TPI
Base footprint	45 x 93.5 mm	
Height	107 mm	103.5 mm
Mass	1 kg (without front ends)	
Travel	X = 10 mm, Y = 10 mm, Z = 10 mm	
Resolution	$0.69 \mu\text{m}/^\circ$	$0.28 \mu\text{m}/^\circ$
Hold down	Vacuum or Magnetic	
Micrometer head drive	0.25 mm/rev	0.1 mm/rev

SP2

MICROPOSITIONER



DESIGN

SP2 micrometer drives and re-circulating linear slides, provide precise linear motion in all three axes with a resolution of $1.4 \mu\text{m}/^\circ$.

This allows for easy positioning onto the finest geometries. Featuring a choice of either magnetic or vacuum hold down, the SP2 micropositioner provides a rigid probing platform with a quick release facility for fast, easy repositioning of the manipulator unit.

APPLICATIONS

SP2 manual linear motion manipulators are designed for use with SSTs probers. They deliver a highly versatile solution for applications such as direct current (DC), radio frequency (RF) and low level testing.

The SP2's small footprint makes it ideal for applications requiring a large number of manipulators or where platen area is at a premium.

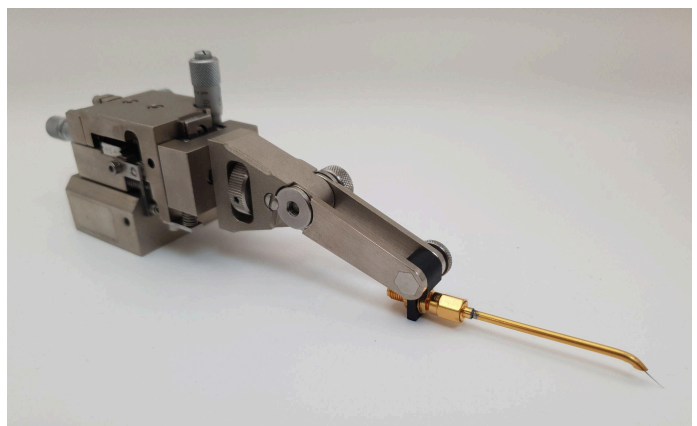
A wide range of front ends assemblies and needle holders are available for the SP2 manipulators, allowing easy integration with most standard systems.

KEY FEATURES

- ✓ Smooth precision positioning
- ✓ Versatile for a wide variety of application
- ✓ Micrometer driven
- ✓ Small footprint allows for the placement of many units on a single platform
- ✓ Easy and quick repositioning with magnetic or vacuum hold down

SPECIFICATIONS

	SP2 - 50 TPI
Base footprint	38 x 79.5 mm
Height	62 mm
Mass	0.4 kg (without front ends)
Travel	X = 10 mm, Y = 10 mm, Z = 10 mm
Resolution	$1.4 \mu\text{m}/^\circ$
Hold down	Vacuum or Magnetic
Micrometer head drive	0.5 mm/rev

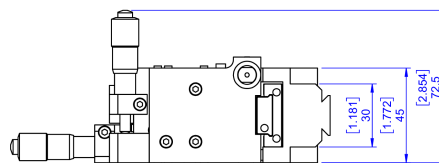
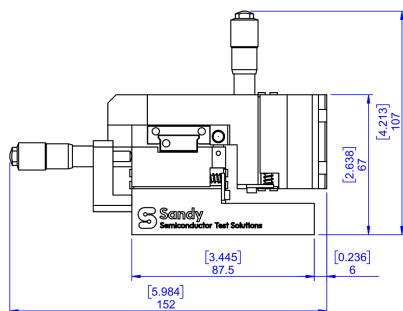


SP1/SP2 DIMENSIONS

SP1 - 100 TPI

Magnetic Type SA066-001-0007

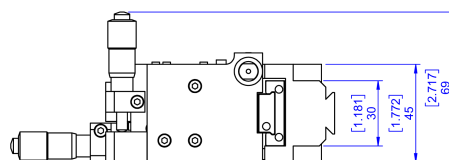
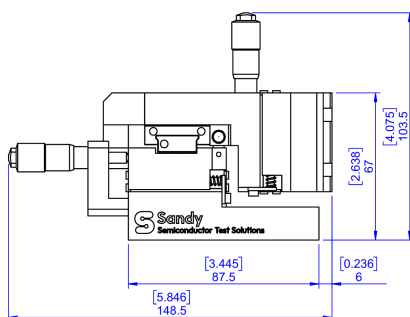
Vacuum Type SA066-001-0008



SP1 - 200 TPI

Magnetic Type SA066-001-0009

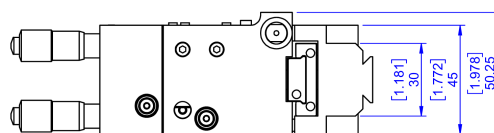
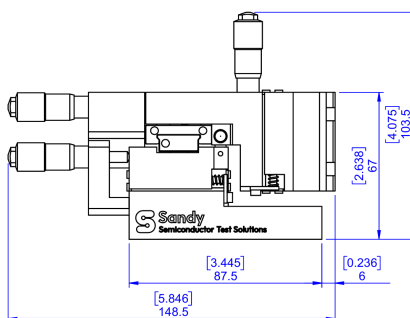
Vacuum Type SA066-001-0010



SP1 - 200 TPI - REAR ADJUST

Magnetic Type SA066-001-0011

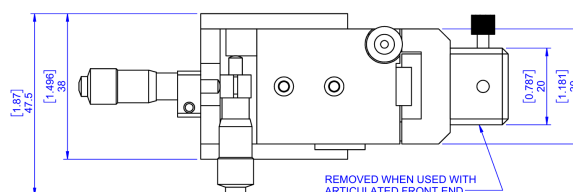
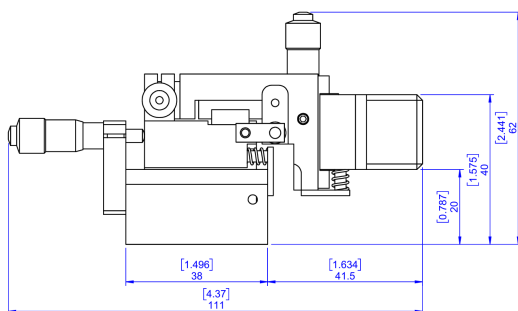
Vacuum Type SA066-001-0012



SP2 - 50 TPI

Magnetic Type SA066-001-0013

Vacuum Type SA066-001-0014

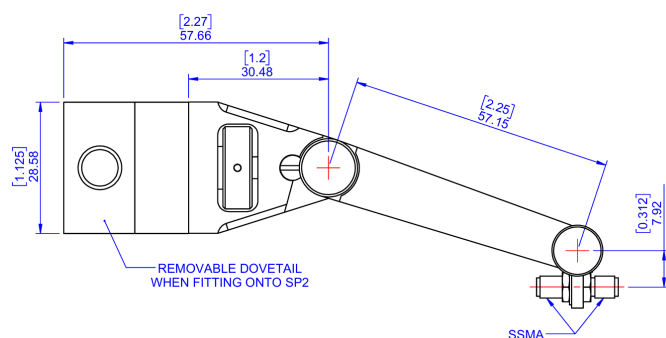


Drawings not to scale. Measurements shown in mm and [inches].

FRONT ENDS & PROBE HOLDERS

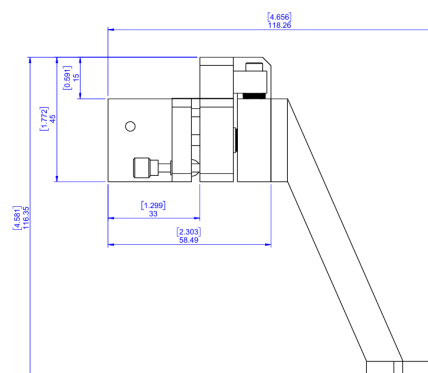
SHORT NOSE, ARTICULATED LONG ARM

SA039-001-0034



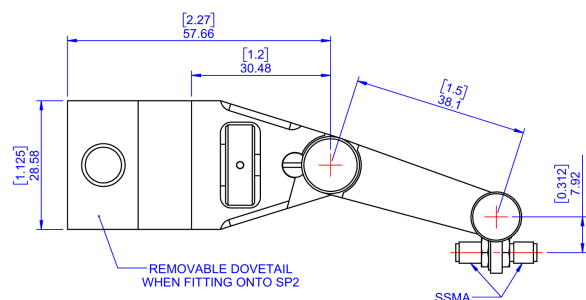
MICROWAVE ADJUSTABLE ARM

SA045-001-0006



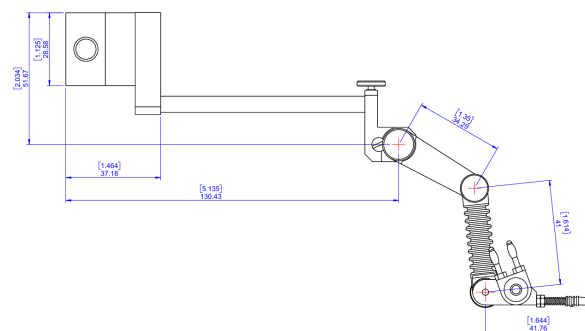
SHORT NOSE, ARTICULATED SHORT ARM

SA039-001-0035



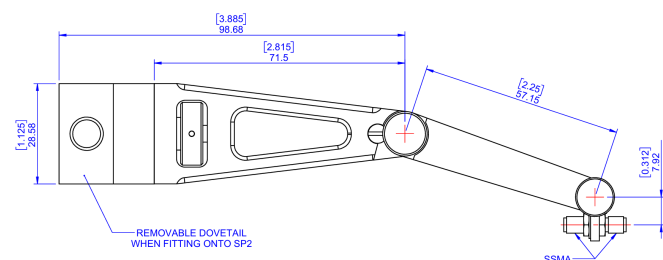
HC/HV PROBE HOLDER

SA045-001-0007



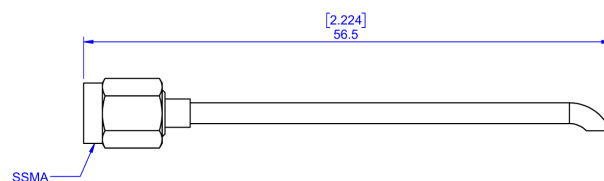
LONG NOSE, ARTICULATED LONG ARM

SA039-001-0036



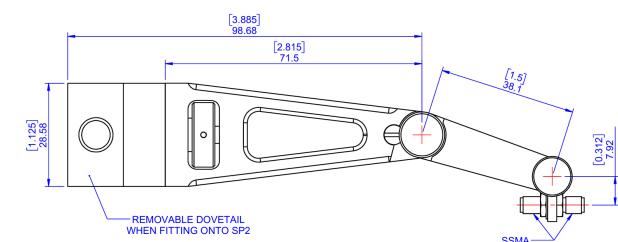
COAX NEEDLE HOLDER

SA045-001-0008 (FOR Ø0.010" NEEDLES)



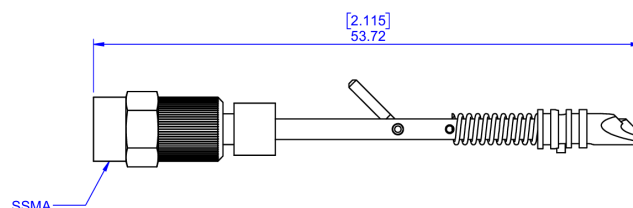
LONG NOSE, ARTICULATED SHORT ARM

SA039-001-0037



SPRING CLAMP NEEDLE HOLDER

SA045-001-0009 (FOR Ø0.020" NEEDLES)



Drawings not to scale. Measurements shown in mm and [inches].

COMPATIBILITY LIST

All parts are sold individually. To build a complete system, select one part from each section. Custom options and additional components are also available, contact our team to configure the ideal solution for your application.

① MICRO POSITIONERS

PART NO.	DESCRIPTION
SA066-001-0007	SP1-M MICRO POSITIONER 100TPI
SA066-001-0008	SP1-V MICRO POSITIONER 100TPI
SA066-001-0009	SP1-M MICRO POSITIONER 200TPI
SA066-001-0010	SP1-V MICRO POSITIONER 200TPI
SA066-001-0011	SP1-M MICRO POSITIONER 200TPI - REAR ADJUST
SA066-001-0012	SP1-V MICRO POSITIONER 200TPI - REAR ADJUST
SA066-001-0013	SP2-M MICRO POSITIONER 50TPI
SA066-001-0014	SP2-V MICRO POSITIONER 50TPI

② FRONT ENDS

PART NO.	DESCRIPTION	Compatible with			
		SP1-M	SP1-V	SP2-M	SP2-V
SA039-001-0034	SHORT NOSE, ARTICULATED LONG ARM	✓	✓	✓	-
SA039-001-0035	SHORT NOSE, ARTICULATED SHORT ARM	✓	✓	✓	-
SA039-001-0036	LONG NOSE, ARTICULATED LONG ARM	✓	✓	✓	-
SA039-001-0037	LONG NOSE, ARTICULATED SHORT ARM	✓	✓	✓	-

③ PROBE HOLDERS

PART NO.	DESCRIPTION	Compatible with			
		SP1-M	SP1-V	SP2-M	SP2-V
SA045-001-0006 ⁽¹⁾	MICROWAVE ADJUSTABLE ARM	✓	✓	-	-
SA045-001-0007 ⁽¹⁾	HC/HV PROBE HOLDER	✓	✓	-	-
SA045-001-0008	COAX NEEDLE HOLDER (FOR Ø0.010" NEEDLES)	✓	✓	✓	✓
SA045-001-0009	SPRING CLAMP NEEDLE HOLDER (FOR Ø0.020" NEEDLES)	✓	✓	✓	✓

(1) Front end not required when selecting these parts

④ CABLES

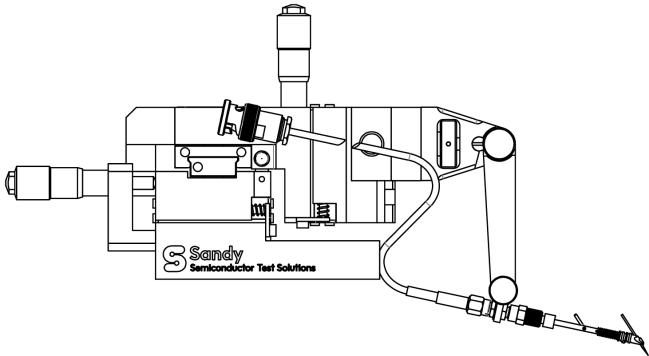
PART NO.	DESCRIPTION	Compatible with			
		SP1-M	SP1-V	SP2-M	SP2-V
S4000-09016	Cable: SSMA to BNC	✓	✓	✓	✓
S2388-928	Cable: TRIAX to BNC	✓	✓	✓	✓
S5-000-6401	Wire form front end includes DC cable S1-040-0076 (tip plug to eyelet) - 60 cm	-	-	✓	✓
S5-000-3711	Wire form front end includes DC cable S1-040-0060 (tip plug to SP10 pin) - 60 cm	-	-	✓	✓

CONTACT US FOR A FULL LIST OF STANDARD AND BESPOKE PARTS

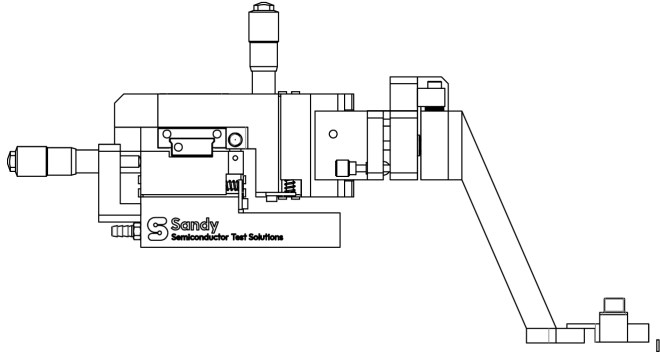
ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

EXAMPLE CONFIGURATIONS

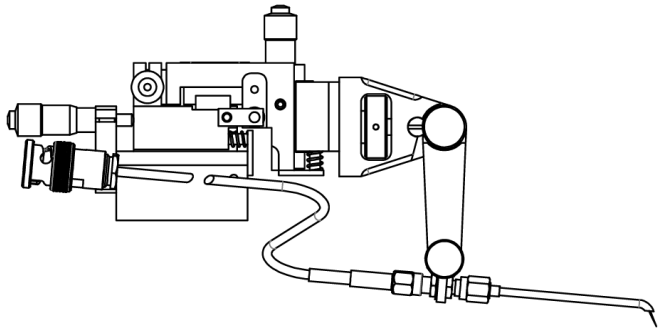
EXAMPLE 1		
①	SA066-001-0007	SP1-M MICRO POSITIONER 100TPI
②	SA039-001-0034	SHORT NOSE, ARTICULATED LONG ARM
③	SA045-001-0009	SPRING CLAMP NEEDLE HOLDER
④	S4000-09016	Cable: SSMA to BNC



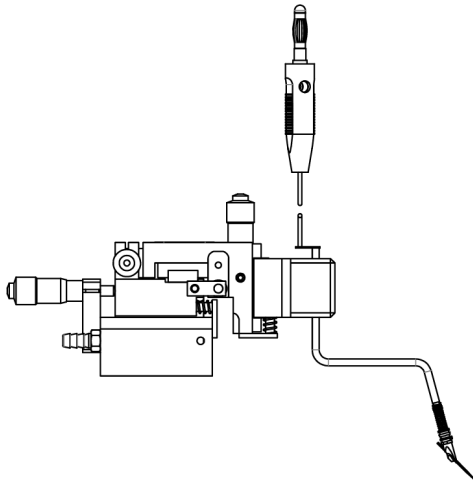
EXAMPLE 2		
①	SA066-001-0010	SP1-V MICRO POSITIONER 200TPI
②	-	-
③	SA045-001-0006	MICROWAVE ADJUSTABLE ARM
④	-	-



EXAMPLE 3		
①	SA066-001-0013	SP2-M MICRO POSITIONER 50TPI
②	SA039-001-0035	SHORT NOSE, ARTICULATED SHORT ARM
③	SA045-001-0008	COAX NEEDLE HOLDER
④	S4000-09016	Cable: SSMA to BNC



EXAMPLE 4		
①	SA066-001-0014	SP2-V MICRO POSITIONER 50TPI
②	-	-
③	-	-
④	S5-000-6401	Wire form front end includes DC cable S1-040-0076 (tip plug to eyelet) - 60 cm



ABOUT SANDY SEMICONDUCTOR TEST SOLUTIONS

Based in Sandy, UK, Sandy Semiconductor Test Solutions designs and manufactures high-precision wafer probe stations, cantilever probe cards, and custom test hardware. Combining decades of technical expertise with local manufacturing, our specialist engineering team builds durable, sub-micron precision tools tailored to your exact semiconductor testing requirements. Whether you need standard equipment or a fully customized solution designed from scratch, get in touch with our team today to discuss your project.

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