

CLAIMS

What is claimed is:

- 1 1. An electronic arrangement comprising:
2 a collar electrically coupled to a base;
3 a pin electrically coupled to the collar, the pin including a first end outside
4 the base and a second end inside the base; and
5 a component to enable the pin to move in a direction between the first and
6 second ends.
- 1 2. The electronic arrangement of claim 1, wherein the base includes a via, and
2 the collar includes at least a portion inside the via.
- 1 3. The electronic arrangement of claim 1, wherein the component includes a
2 spring having a first end and a second end, the first end of the spring contacting the
3 second end of the pin, and the second end of the spring coupling to a fixture.
- 1 4. The electronic arrangement of claim 1, wherein the component includes a
2 spring, and the spring is not electrically coupled to the pin.
- 1 5. The electronic arrangement of claim 1, wherein the component includes a
2 spring, and the spring surrounds at least portion of the pin between the first and
3 second ends of the pin.
- 1 6. The electronic arrangement of claim 1, further comprising:
2 an additional collar electrically coupled to the base;
3 an additional pin electrically coupled to the additional collar, the additional
4 pin including a first end outside the base and a second end inside the base; and

5 an additional component to enable the additional pin to move in a direction
6 between the first and second ends of the additional pin.

1 7. The electronic arrangement of claim 1, wherein the base includes a printed
2 circuit board.

1 8. The electronic arrangement of claim 1, wherein the base includes an
2 interface arranged to be coupled to an analyzer in a test.

1 9. The electronic arrangement of claim 8, wherein the pin is arranged to be
2 coupled to an electronic assembly in the test.

1 10. An electronic arrangement comprising:
2 a collar having at least a portion located inside an opening in a base;
3 a pin electrically coupled to the collar, the pin including a first end outside
4 the base and a second end inside the base; and
5 a spring arranged to enable the pin to move in a direction between the first
6 and second ends if a force is applied to at least one of the first and second ends,
7 wherein the spring is indirectly coupled to the collar.

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2 11. The electronic arrangement of claim 10, wherein the collar includes a
3 portion having a cylindrical shape, the opening of the base includes a via, and at
4 least part of the portion having the cylindrical shape conforms to a sidewall of the
5 via.

1 12. The electronic arrangement of claim 10, wherein the collar includes an
2 additional portion located outside the opening of the base and having a dimension
3 greater than a diameter of the opening of the base.

1 13. The electronic arrangement of claim 10, wherein the spring includes a crank-
2 shaped spring having a first end contacting the second end of the pin, and a second
3 end coupled to a fixture.

1 14. The electronic arrangement of claim 10, wherein the spring includes a coil
2 spring.

1 15. The electronic arrangement of claim 10, wherein the spring includes a planar
2 spring.

1 16. The electronic arrangement of claim 10, wherein the spring is coupled to the
2 second end of the pin through a rod located between the second end of the pin and
3 the spring.

1 17. The electronic arrangement of claim 10, wherein the spring is not electrically
2 coupled to the pin.

1 18. An electronic arrangement comprising:
2 a collar coupled to a base;
3 a pin electrically coupled to the collar; and
4 a volute spring surrounding a portion of the pin.

1 19. The electronic arrangement of claim 18, wherein the base includes a via, and
2 the collar includes a portion inside the via.

1 20. The electronic arrangement of claim 18, wherein the collar surrounds at least
2 a portion of the volute spring.

1 21. The electronic arrangement of claim 18, wherein at least a portion of the
2 volute spring is between a portion of the collar and the portion of the pin.

1 22. The electronic arrangement of claim 18, wherein the volute spring is
2 arranged to enable the pin to move in a direction between a first end and a second
3 end of the pin.

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CLAIMS

What is claimed is:

1. An electronic arrangement comprising:
 - a collar electrically coupled to a base;
 - a pin electrically coupled to the collar, the pin including a first end outside the base and a second end inside the base; and
 - a component to enable the pin to move in a direction between the first and second ends, wherein an opening of the base includes a via, and the collar includes at least a portion inside the via, and
 - wherein the collar includes an additional portion located outside the opening of the base and having a dimension greater than a diameter of the opening of the base.
2. The electronic arrangement of claim 1, wherein the component includes a spring having a first end and a second end, the first end of the spring contacting the second end of the pin, and the second end of the spring coupling to a fixture.
3. The electronic arrangement of claim 1, wherein the component includes a spring, and the spring is not electrically coupled to the pin.
4. The electronic arrangement of claim 1, wherein the component includes a spring, and the spring surrounds at least a portion of the pin between the first and second ends of the pin.
5. The electronic arrangement of claim 1, further comprising:
 - an additional collar electrically coupled to the base;
 - an additional pin electrically coupled to the additional collar, the additional pin including a first end outside the base and a second end inside the base; and
 - an additional component to enable the additional pin to move in a direction between the first and second ends of the additional pin.
6. The electronic arrangement of claim 1, wherein the base includes a printed circuit board.
7. The electronic arrangement of claim 1, wherein the base includes an interface arranged to be coupled to an analyzer in a test.

8. The electronic arrangement of claim 7, wherein the pin is arranged to be coupled to an electronic assembly in the test.
9. An electronic arrangement comprising:
 - a collar having at least a portion located inside an opening in a base;
 - a pin electrically coupled to the collar, the pin including a first end outside the base and a second end inside the base; and
 - a spring arranged to enable the pin to move in a direction between the first and second ends if a force is applied to at least one of the first and second ends,
 - wherein the spring is indirectly coupled to the collar,
 - wherein the collar includes a portion having a cylindrical shape, the opening of the base includes a via, and at least a part of the portion having the cylindrical shape conforms to a sidewall of the via, and
 - wherein the collar includes an additional portion located outside the opening of the base and having a dimension greater than a diameter of the opening of the base.
10. The electronic arrangement of claim 9, wherein the spring includes a crank-shaped spring having a first end contacting the second end of the pin, and a second end coupled to a fixture.
11. The electronic arrangement of claim 9, wherein the spring includes a coil spring.
12. The electronic arrangement of claim 9, wherein the spring includes a planar spring.
13. The electronic arrangement of claim 9, wherein the spring is coupled to the second end of the pin through a rod located between the second end of the pin and the spring.
14. The electronic arrangement of claim 9, wherein the spring is not electrically coupled to the pin.
15. An electronic arrangement comprising:
 - a collar coupled to a base;
 - a pin electrically coupled to the collar; and
 - a volute spring surrounding a portion of the pin,

wherein an opening of the base includes a via, and the collar includes a portion inside the via, and

wherein the collar includes an additional portion located outside the opening of the base and having a dimension greater than a diameter of the opening of the base.

16. The electronic arrangement of claim 15, wherein the collar surrounds at least a portion of the volute spring.

17. The electronic arrangement of claim 15, wherein at least a portion of the volute spring is between a portion of the collar and the portion of the pin.

18. The electronic arrangement of claim 15, wherein the volute spring is arranged to enable the pin to move in a direction between a first end and a second end of the pin.