## CLAIMS

1. A wound monitoring and/or therapy apparatus comprising:

a wound dressing comprising a substantially stretchable substrate including a wound facing side and a non-wound facing side opposite the wound facing side, the wound facing side of the substrate configured to be positioned in contact with a wound,

the wound facing side of the substrate supporting a plurality of electronic components and a plurality of electronic connections that connect at least some of the plurality of the electronic components,

a conformal coating covering at least the plurality of electronic components and the plurality of electronic connections, the conformal coating configured to prevent fluid from coming into contact with the plurality of electronic components and the plurality of electronic connections, and

the wound facing side of the substrate supporting the plurality of electronic components and the plurality of electronic connections comprising a first region of substantially non-stretchable material that encloses at least one electronic component from the plurality of electronic components.

2. The apparatus of any of the preceding claims, wherein the wound facing side of the substrate supporting the plurality of electronic components and the plurality of electronic connections comprises a second region of substantially non-stretchable material that supports at least one of the at least one electronic component or at least one electronic connection from the plurality of electronic connections.

3. The apparatus of claim 1, wherein the substrate is formed from thermoplastic polyurethane and the conformal coating is formed from urethane.

4. The apparatus of any of the preceding claims, wherein the substrate includes a plurality of perforations configured to allow fluid to pass through the substrate when negative pressure is applied to the wound.

5. The apparatus of claim 4, wherein the plurality of perforations are further configured to allow substantially unidirectional flow of fluid through the substrate to prevent fluid removed from the wound from flowing back toward the wound.

6. The apparatus of any of the preceding claims, wherein the wound facing side of the substrate comprises a region of adhesive material configured to position the at least one electronic component in the wound.

7. The apparatus of any of the preceding claims, wherein the at least one electronic component comprises one or more of a sensor, a light emitter, a processor, or a communications controller.

8. The apparatus of any of the preceding claims, wherein plurality of electronic connections comprise a plurality of electrical traces.

9. The apparatus of any of the preceding claims, further comprising a negative pressure source configured to be fluidically connected to the wound dressing.

10. The apparatus of any of the preceding claims, wherein the wound dressing further comprises an absorbent layer positioned over the non-wound facing side of the substrate and a backing layer positioned over the absorbent layer.

11. The apparatus of claim 10, wherein the substrate is sealed to the backing layer.

12. The apparatus of claim 10, further comprising a port on the backing layer, the port configured to fluidically connect the wound dressing to a negative pressure source.

13. The apparatus of claim 6, wherein the adhesive material is thermally curable.

14. The apparatus of any of the preceding claims, wherein the conformal coating encapsulates the substrate.

15. The apparatus of any of the preceding claims, wherein the first region of substantially non-stretchable material forms a shape substantially without gaps or overlapping portions.