CLAIMS

1. An interposer for a conducted electrical weapon comprising:

a body comprising a first end opposite a second end, wherein the first end defines an opening;

a plurality of cartridge compartments, wherein each cartridge compartment of the plurality of cartridge compartments is configured to receive an end of a cartridge, wherein each cartridge compartment of the plurality of cartridge compartments comprises a first interposer insert and a second interposer insert, and wherein the first interposer insert is different from the second interposer insert;

a plurality of signal pins, wherein each signal pin of the plurality of signal pins is positioned within a cartridge compartment of the plurality of cartridge compartments; and

a plurality of ground pins, wherein each ground pin of the plurality of ground pins is positioned within the cartridge compartment of the plurality of cartridge compartments.

2. The interposer of claim 1, wherein each cartridge compartment of the plurality of cartridge compartments comprises a same first interposer insert and a different second interposer insert.

3. The interposer of claim 1, wherein the first interposer insert surrounds and defines the second interposer insert.

4. The interposer of claim 1, wherein the second interposer insert is sized and shaped similar to the end of the cartridge.

5. The interposer of claim 1, wherein the body and the first interposer insert comprise a monolithic structure.

6. The interposer of claim 1, wherein the first end of the body comprises a magazine seal configured to couple to a magazine containing the cartridge.

7. The interposer of claim 1, wherein each signal pin of the plurality of signal pins and each ground pin of the plurality of ground pins are electrically isolated from the second interposer insert.

8. The interposer of claim 1, wherein each signal pin of the plurality of signal pins is located at a center point within the cartridge compartment of the plurality of cartridge compartments.

9. The interposer of claim 8 wherein each ground pin of the plurality of ground pins is located radially outward from each signal pin of the plurality of signal pins within the cartridge compartment of the plurality of cartridge compartments.

10. A conducted electrical weapon ("CEW") comprising:

a handle defining a bay;

an interposer coupled to an inner surface of the bay, wherein the interposer comprises:

a body comprising a first end opposite a second end, wherein the first end defines an opening; and

a plurality of cartridge compartments, wherein each cartridge compartment of the plurality of cartridge compartments is configured to receive an end of a cartridge, wherein each cartridge compartment of the plurality of cartridge compartments comprises a first interposer insert and a second interposer insert, and wherein the first interposer insert is different from the second interposer insert; and

a magazine removably insertable within the bay, wherein in response to the magazine being inserted into the bay the magazine is configured to couple to the interposer.

11. The CEW of claim 10, wherein the interposer further comprises a signal pin and a ground pin positioned within each cartridge compartment of the plurality of cartridge compartments.

12. The CEW of claim 10, wherein the magazine is configured to house the cartridge, and wherein in response to the magazine being inserted into the bay the end of the cartridge is received by a cartridge compartment of the plurality of cartridge compartments.

13. The CEW of claim 12, further comprising a signal generator disposed within the handle, wherein the interposer is electrically coupled to the signal generator, and wherein the interposer is configured to provide an electrical signal from the signal generator to the cartridge.

14. The CEW of claim 10, wherein in response to the magazine being removed from the bay the interposer remains coupled to the inner surface of the bay.

15. An interposer for a conducted electrical weapon comprising:

a body;

a cartridge compartment defining an inner surface of the body configured to receive an end of a cartridge;

a first interposer insert defining a first portion of the cartridge compartment; and

a second interposer insert defining a second portion of the cartridge compartment, wherein the first portion is different from the second portion, and wherein the first interposer insert surrounds the second interposer insert.

16. The interposer of claim 15, wherein the first interposer insert comprises a first material and the second interposer insert comprises a second material, and wherein the first material is different from the second material.

17. The interposer of claim 16, wherein the first material comprises a non-conductive material, and wherein the second material comprise a metallic material.

18. The interposer of claim 15, further comprising a signal pin and a ground pin positioned within the cartridge compartment.

19. The interposer of claim 15, wherein the second interposer insert comprises a broken circle, and wherein the first interposer insert defines an outer surface and an inner surface of the broken circle.

20. The interposer of claim 19, further comprising a signal pin extending from the first interposer insert at a first location inward the broken circle, and a ground pin extending from the first interposer insert at a second location at least partially outward the broken circle.