What is Claimed:

1. A leadframe assembly comprising:

a leadframe housing that supports a plurality of electrical contacts, each of the plurality of electrical contacts defining opposed broadside surfaces and opposed edges connected between the opposed broadsides along a length that is less than a width of the broadside surfaces, wherein the opposed edges of a pair of adjacent electrical contacts of the plurality of electrical contacts face each other; and

a rib extending along at least one of the broadside surfaces of one of the plurality of electrical contacts, the rib having a dielectric constant greater than air.

2. The leadframe assembly as recited in claim 1, wherein each of the electrical contacts comprises a rib that extends along at least one of the opposed broadside surfaces.

3. The leadframe assembly as recited in claim 1, wherein the rib does not extend beyond the opposed edges of the one of the plurality of electrical contacts.

4. The leadframe assembly as recited in claim 1, wherein two adjacent ones of the plurality of electrical contacts define an edge coupled differential signal pair.

5. The leadframe assembly as recited in claim 4, wherein the rib extends along a physically shorter one of the two adjacent ones of the plurality of electrical contacts.

6. An electrical connector comprising:

a connector housing that supports a plurality of electrical contacts that each define a mating end and an opposed mounting end, the electrical contacts spaced along a column direction and a row direction that extends substantially perpendicular to the column direction, such that electrical contacts adjacent each other along a row direction define a space therebetween; and

at least one rib disposed in the space and extending substantially parallel to the adjacent electrical contacts, such that the at least one rib and air are disposed in the space, wherein the at least one rib is made from a material having a dielectric constant greater than air.

7. The electrical connector as recited in claim 6, wherein the plurality of electrical contacts each define opposed broadside surfaces and opposed edges connected between the opposed broadside surfaces along a length shorter than the broadside surfaces, and the edges of the electrical contacts face each other along the column direction.

8. The electrical connector as recited in claim 7, wherein one of the adjacent electrical contacts defines a central axis that extends substantially parallel to the opposed edges at a location substantially midway between the opposed edges, and the at least one rib is substantially centered on the central axis.

9. The electrical connector as recited in claim 7, wherein one of the adjacent electrical contacts defines a central axis that extends substantially parallel to the opposed edges at a location substantially midway between the opposed edges, and the at least one rib is offset with respect to the central axis.

10. A method of tuning an electrical characteristic of an electrical connector that includes a connector housing supporting an array of electrical contacts with a space defined between a pair of adjacent electrical contacts in the array of electrical contacts, the method comprising the steps of

placing a rib in the space, the rib defining an electrical contact greater than air, such that the rib and air are disposed in the space, the rib made from a material having a dielectric constant, such that the space defines a dielectric constant greater than air;

selecting a volume of the rib disposed in the space so as to correspondingly adjust the dielectric constant in the space.

11. A method to provide a plurality of electrical connectors having different electrical characteristics, the method comprising the steps of:

fabricating a first electrical connector including a first housing that supports a first plurality of electrical contacts, wherein the first electrical connector defines a first mating interface and an opposed first mounting interface;

fabricating a second electrical connector including a second housing that supports a second plurality of electrical contacts, wherein the second electrical connector defines a second mating interface that is equal to the first mating interface and an opposed second mounting interface that is equal to the first mounting interface,

wherein the second electrical connector includes a dielectric rib that extends along a broadside surface of at least the one of the second plurality of electrical contacts, such that the second electrical connector includes at least one of an impedance and a skew different than the first electrical connector.

12. The method as recited in claim 11, wherein the step of fabricating a second electrical connector further comprises the step of limiting a width of the dielectric rib so that the dielectric rib does not extend beyond at least one of two opposed edges of the one electrical contact.

13. The method as recited in claim 11, wherein the step of fabricating a second electrical connector further comprises the step of adding dielectric ribs to two opposed broadside surfaces of the one electrical contact carried by the electrical connector.

14. A method of fabricating a select electrical connector so as to define an electrical characteristic with respect to a pre-existing electrical connector, comprising the steps of adding a dielectric rib to at least one broadside surface of one electrical contact so as to decrease at least one of a differential impedance and a skew of the select electrical connector with respect to the pre-existing electrical connector.

15. Two similar electrical connectors comprising a first one of the two similar electrical connectors that comprises a first skew and a second one of the two similar electrical connectors that comprises a second skew that is less than the first skew, wherein both of the two similar electrical connectors have identical mating footprints, identical mating interfaces, and identical column pitch, but the second one of the two similar electrical connectors has a skew-correction rib that extends fifty percent or more along a broadside surface of the shorter electrical contact.

What is claimed:

1. A leadframe assembly comprising:

a leadframe housing that supports a plurality of electrical contacts, each of the plurality of electrical contacts defining opposed broadside surfaces and opposed edges connected between the opposed broadside surfaces, each of the opposed edges each extending along a length between the opposed broadside surfaces, and each of the opposed broadside surfaces extending along a width between the opposed edges, such that the width is greater than the length, wherein one of the opposed edges of a first one of a pair of adjacent electrical contacts of the plurality of electrical contacts faces one of the opposed edges of a second one of the pair of adjacent electrical contacts;

a first rib extending along and abutting a first one of the opposed broadside surfaces of a select one of the first and second ones of the pair of adjacent electrical contacts; and

a second rib, detached from the first rib, the second rib extending along and abutting a second one of the opposed broadside surfaces of the select one of the first and second ones of the pair of adjacent electrical contacts,

wherein each of the first and second ribs has a dielectric constant greater than air.

2. The leadframe assembly as recited in claim 1, wherein each of the plurality of electrical contacts comprises a rib that extends along each one of the opposed broadside surfaces.

3. The leadframe assembly as recited in claim 1, wherein each of the first rib and the second rib does not extend beyond the opposed edges of the one of the plurality of electrical contacts.

4. The leadframe assembly as recited in claim 1, wherein the first and second ones of the pair of adjacent electrical contacts define an edge coupled differential signal pair.

5. The leadframe assembly as recited in claim 4, wherein the select one of the first and second ones of the pair of adjacent electrical contacts is physically shorter than the other one of the first and second ones of the pair of adjacent electrical contacts.

6. An electrical connector comprising:

a connector housing;

a plurality of electrical contacts supported by the connector housing, each of the plurality of electrical contacts defining a mating end and an opposed mounting end, the electrical contacts

each define opposed broadside surfaces and opposed edges connected between the opposed broadside surfaces, each of the opposed edges extending along a length between the opposed broadside surfaces, and each of the opposed broadside surfaces extending along a width between the opposed edges, such that the width is greater than the length;

a first rib extending along and abutting a first broadside surface of a select one of the electrical contacts; and

a second rib, detached from the first rib, the second rib extending along and abutting a second one of the opposed broadside surfaces of the select one of the electrical contacts,

wherein each of the first and second ribs has a dielectric constant greater than air.

7. The electrical connector as recited in claim 6, wherein one of the opposed edges of the select one of the electrical contacts faces one of the opposed edges of an adjacent one of the electrical contacts along a column direction.

8. The electrical connector as recited in claim 6, wherein the select one of the electrical contacts defines a central axis that extends substantially parallel to the opposed edges at a location substantially midway between the opposed edges, and the at least one rib is substantially centered on the central axis.

9. The electrical connector as recited in claim 6, wherein the select one of the electrical contacts defines a central axis that extends substantially parallel to the opposed edges at a location substantially midway between the opposed edges, and the at least one rib is offset with respect to the central axis.

10. A method of tuning an electrical characteristic of an electrical connector that includes a connector housing supporting an array of electrical contacts with a space defined between first and second adjacent electrical signal contacts that define a differential signal pair in the array of electrical contacts, each of the electrical contacts defining opposed broadside surfaces and opposed edges connected between the opposed broadside surfaces, each of the opposed edges extending along a length between the opposed broadside surfaces, and each of the opposed broadside surfaces extending along a width between the opposed edges, such that the width is greater than the length, the method comprising the steps of:

selecting a volume of a rib to be disposed in the space adjacent a shorter one of the first and second adjacent electrical signal contacts;

placing a rib in the space such that the rib does not extend beyond the opposed edges of the shorter one of the first and second adjacent electrical contacts, such that the rib and air are disposed in the space, the rib made from a material having a dielectric constant greater than air so that the space, including the air and the rib, defines a dielectric constant greater than air.

11. A method to provide a plurality of electrical connectors having different electrical characteristics, the method comprising the steps of:

fabricating a first electrical connector including a first housing and a first plurality of electrical contacts supported by the first housing, the first plurality of electrical contacts including a first edge coupled differential signal pair, wherein the first electrical connector defines a first mating interface and an opposed first mounting interface; and

fabricating a second electrical connector including a second housing and a second plurality of electrical contacts supported by the second housing, the second plurality of electrical contacts including a second edge coupled differential signal pair, wherein the second electrical connector defines a second mating interface that is identical to the first mating interface and an opposed second mounting interface that is identical to the first mounting interface,

wherein the step of fabricating the first electrical connector comprises the step of placing a dielectric rib along a broadside surface of one electrical contact of the first edge coupled differential signal pair of the first electrical connector and not on the other electrical contact of the first edge coupled differential signal pair of the first electrical connector, the dielectric rib having a dielectric constant greater than air such that the dielectric rib causes the first edge coupled differential signal pair to have a skew that is less than the second edge coupled differential signal pair, and

wherein the step of fabricating the first electrical connector further comprises the step of limiting a width of the dielectric rib so that the dielectric rib does not extend beyond either of two opposed edges of the one electrical contact.

12. The method as recited in claim 11, wherein the broadside surface of the one contact of the first edge coupled differential signal pair is a first of a pair of opposed broadside surfaces, and the two opposed edges are connected between the opposed broadside surfaces, each of the opposed edges each extending along a length between the opposed broadside surfaces, and each of the opposed broadside surfaces extending along a width between the opposed edges, such that the width is greater than the length.

13. The method as recited in claim 11, wherein the step of fabricating a first electrical connector further comprises the step of adding dielectric ribs to two opposed broadside surfaces of the one electrical contact carried by the first electrical connector.

14. Two similar electrical connectors comprising:

a first one of the two similar electrical connectors that comprises a first skew and a second one of the two similar electrical connectors that comprises a second skew that is less than the first skew,

wherein both of the two similar electrical connectors have 1) identical mating footprints, 2) identical mating interfaces, 3) identical longer and shorter electrical contacts, each of the shorter and longer electrical contacts defining respective opposed broadside surfaces and respective opposed edges connected between the opposed broadside surfaces, each of the opposed edges each extending along a length between the opposed broadside surfaces, and each of the opposed broadside surfaces extending along a width between the opposed edges, such that the width is greater than the length, and 4) identical column pitch, but the second one of the two similar electrical connectors 1) has at least one skew-correction rib that extends fifty percent or more along a respective one of the opposed broadside surfaces of the shorter electrical contact between a mating end of the shorter electrical contact and the mounting end of the shorter electrical contact, and 2) is devoid of any one or more skew-correction ribs that extend along either of the broadside surfaces of the longer electrical contact, such that the at least one skew-correction rib extending along the respective one of the opposed broadside surfaces of the shorter electrical contact of the second one of the two similar electrical connectors causes electrical signals to travel more slowly through the shorter electrical contact of the second one of the two similar electrical connectors with respect to the shorter electrical contact of the first one of the two similar electrical connectors.

15. The leadframe assembly as recited in claim 1, further comprising third and fourth ribs that extend along each of the opposed broadside surfaces, respectively, of the other of the first and second ones of the pair of adjacent electrical contacts, each of the third and fourth ribs having a dielectric constant greater than air.

16. The leadframe assembly as recited in claim 1, wherein the first and second ones of the pair of adjacent electrical contacts are signal contacts.

17. The leadframe assembly as recited in claim 1, wherein the select one of the pair of adjacent electrical contacts defines a mating end and a mounting end, and a length that extends between the mating end and the mounting end, and the first and second ribs extend along a majority of the length.

18. The leadframe assembly as recited in claim 17, wherein the mating end and mounting end are oriented substantially perpendicular with respect to each other.

19. The electrical connector as recited in claim 7, further comprising a third rib that extends along one of the opposed broadsides of the adjacent one of the electrical contacts, the third rib having a dielectric constant greater than air.

20. The electrical connector as recited in claim 7, wherein the select one and the adjacent one of the electrical contacts are signal contacts.

21. The electrical connector as recited in claim 20, wherein select one and the adjacent one of the electrical contacts define an edge coupled differential signal pair.

22. The method as recited in claim 10, further comprising selecting a volume of the rib disposed in the space so as to correspondingly reduce a differential impedance of the electrical connector.

23. The method as recited in claim 11, wherein the dielectric rib causes the first electrical connector to have an impedance different than the second electrical connector.

24. The method as recited in claim 11, further comprising the step of selecting a volume of the dielectric rib so as to adjust an amount of the skew.

25. The electrical connector as recited in claim 6, wherein the select one of the electrical contacts defines a mating end and a mounting end, and a length that extends between the mating end and the mounting end, and the first and second ribs extend along a majority of the length.

26. The leadframe assembly as recited in claim 6, wherein each of the first rib and the second rib does not extend beyond the opposed edges of the one of the plurality of electrical contacts.

27. The method as recited in claim 10, wherein the first and second adjacent electrical signal contacts defines a mating end and a mounting end, and a length that extends between the mating end and the mounting end, and the rib extends along a majority of the length.

28. The method as recited in claim 10, wherein each of the electrical contacts defines opposed broadside surfaces and opposed edges connected between the opposed broadside surfaces, each of the opposed edges each extending along a length between the opposed broadside surfaces, and each of the opposed broadside surfaces extending along a width between the opposed edges, such that the width is greater than the length, and wherein the rib does not extend beyond the opposed edges of the electrical contacts.

29. The method as recited in claim 11, wherein the first plurality of electrical contacts defines a mating end and a mounting end, and a length that extends between the mating end and the mounting end, and the dielectric rib extends along a majority of the length.

30. The two similar electrical connectors as recited in claim 14, wherein the at least one skew-correction rib does not extend beyond the opposed edges of the shorter electrical contact.

31. The two similar electrical connectors as recited in claim 14, wherein the at least one skew-correction rib comprises a first skew-correction rib that extends fifty percent or more along one of the opposed broadside surfaces, and a second skew-correction rib that extends fifty percent or more along the other of the opposed broadside surfaces.

32. The two similar electrical connectors as recited in claim 31, wherein neither the first skew-correction rib nor the second skew-correction rib extends beyond the opposed edges of the shorter electrical contact.

33. The two similar electrical connectors as recited in claim 31, wherein each of the first and second skew-correction ribs has a dielectric constant greater than air.

34. The two similar electrical connectors as recited in claim 14, wherein the at least one skew-correction rib has a dielectric constant greater than air.