[0004] There is a need for a connector module that can provide better containment of EMI than prior art devices.

[0005] Embodiments of the present invention seek to solve this problem by providing a connector module according to claim 1.

[0006] According to an aspect of the present invention, a connector module comprises a housing extending along a longitudinal axis between a mating end and a cable end. The housing is defined by a first shell and a second shell that mate at a seam and define an interior chamber therebetween. The first shell and the second shell each include a cable exit segment, the cable exit segments together defining a cable exit region of the housing that includes the cable end. The cable exit segments of the first and second shells each include multiple cable positioning features extending from an inner surface of the respective cable exit segment. Each cable positioning feature includes two posts and a slot defined therebetween. Each slot is defined by inner walls of the two posts and a curved base that extends between the inner walls of the two posts. The cable positioning features of the cable exit segment of the first shell are interleaved along the longitudinal axis with the cable positioning features of the cable exit segment of the second shell, the cable positioning features of the first shell being offset from the cable positioning features of the second shell along the longitudinal axis such that each cable positioning feature of the first shell is axially spaced relative to each cable positioning feature of the second shell. The slots of the cable positioning features of the first and second shells are configured to receive a cable between the two posts of each corresponding cable positioning feature, the cable within the slots engaging the inner walls of the posts and the curved bases of the cable positioning features of both the first and second shells, the cable extending from the cable end of the housing.

[0007] The invention will now be described by way of example with reference to the accompanying drawings wherein:

[0008] Figure 1 is a side cross-sectional view of an electrical system in accordance with an embodiment.

[0009] Figure 2 is an exploded perspective view of a connector module of the electrical system according to an exemplary embodiment.

[0010] Figure 3 is a close-up exploded perspective view of a cable exit region of a housing of the connector module according to an exemplary embodiment.

[0011] Figure 4 is an end view of an embodiment of the connector module prior to assembly.

[0012] Figure 5 is an end view of an embodiment of the connector module after assembly.

WHAT IS CLAIMED IS:

1. A connector module comprising a housing extending along a longitudinal axis between a mating end and a cable end, the housing defined by a first shell and a second shell that mate at a seam and define an interior chamber therebetween, the first shell and the second shell each including a cable exit segment, the cable exit segments together defining a cable exit region of the housing that includes the cable end,

the cable exit segments of the first and second shells each including multiple cable positioning features extending from an inner surface of the respective cable exit segment, each cable positioning feature including two posts and a slot defined therebetween, the slot is defined by inner walls of the two posts and a curved base that extends between the inner walls of the two posts,

wherein the cable positioning features of the cable exit segment of the first shell are interleaved along the longitudinal axis with the cable positioning features of the cable exit segment of the second shell, the cable positioning features of the first shell being offset from the cable positioning features of the second shell along the longitudinal axis such that each cable positioning feature of the first shell is axially spaced relative to each cable positioning feature of the second shell, and

wherein the slots of the cable positioning features of the first and second shells are configured to receive a cable between the two posts of each corresponding cable positioning feature, the cable within the slots engaging the inner walls of the posts and the curved bases of the cable positioning features of both the first and second shells, the cable extending from the cable end of the housing.

2. The connector module of claim 1, wherein the seam between the first and second shells at the cable exit region of the housing is formed by side walls of the cable exit segment of the first shell engaging corresponding side walls of the cable exit segment of the second shell, each post of a corresponding cable positioning feature disposed between the slot and one of the side walls of the respective cable exit segment such that the post blocks the cable from extending into the seam between the side walls as the first and second shells are mated.

3. The connector module of claim 1, wherein the first and second shells together define a cable channel extending along the longitudinal axis, the curved bases of the

cable positioning features of each of the first and second shells defining at least portions of a perimeter of the cable channel.

4. The connector module of claim 3, further comprising the cable, wherein a segment of the cable received in the slots of the cable positioning features includes at least one inner conductor, at least one insulation layer surrounding the at least one inner conductor, and a shield layer surrounding the at least one insulation layer, wherein the cable channel defined by the cable positioning features of the first and second shells has a diameter at least one of equal to or smaller than a diameter of the segment of the cable such that the cable positioning features directly engage the shield layer of the cable and the cable is sealed within the cable channel.

5. The connector module of claim 4, wherein the shield layer is a foil layer and the cable further includes a braid surrounding the foil layer, the cable positioning features directly engaging the foil layer, the braid positioned along an exterior of the cable exit region of the housing and coupled thereto to mechanically and electrically connect the cable to the housing.

6. The connector module of claim 1, wherein the cable positioning features are formed integral with the cable exit segment of the respective first and second shells.

7. The connector module of claim 1, wherein distal ends of the posts of at least one of the cable positioning features are tapered such that a width of the corresponding slot at the distal ends is greater than a width of the slot proximate to the inner surface of the respective cable exit segment from which the cable positioning feature extends.