WHAT IS CLAIMED IS:

[CLAIM 1]

A data signal transmission connector configured to electrically connect a first electronic component having a first electrode and a second electronic component having a second electrode, the data signal transmission connector comprising;

a base frame fixed to the first electronic component, and comprising a first base frame having a floor part and a tension coupling piece extending upward from an outer surface of the floor part, and a second base frame having a structure which is mirror-symmetrical with respect to that of the first base frame, the first base frame and the second base frame being disposed to face each other and to be spaced apart from each other by a gap;

an anisotropic electro-conductive sheet disposed on the floor parts of the base frame and configured to fill the gap, the anisotropic electro-conductive sheet comprising a plurality of electro-conductive parts including a plurality of electro-conductive particles contained in an elastic insulating material and an insulating part supporting a portion between the electro-conductive parts; and

a cover frame connectable to the tension coupling piece and capable of pressurizing the second electronic component placed on the anisotropic electro-conductive sheet towards the anisotropic electro-conductive sheet such that a lower end portion of the electro-conductive part is brought into close contact with the first electrode and the second electrode is brought into close contact with an upper end portion of the electro-conductive part;

wherein the second electronic component has a plurality of high-speed signal lines, and at least some of the plurality of high-speed signal lines are disposed to pass above the gap.

[CLAIM 2]

The data signal transmission connector of claim 1, wherein the floor part is formed to have a "⊏" shape having an opening formed therein.

[CLAIM 3]

The data signal transmission connector of claim 2, wherein the electro-conductive part of the anisotropic electro-conductive sheet is formed at a portion corresponding to a rectangular region formed by the openings and the gap.

[CLAIM 4]

The data signal transmission connector of claim 3, wherein the anisotropic electro-conductive sheet is not disposed on a portion corresponding to the gap outside the rectangular region.

[CLAIM 5]

The data signal transmission connector of claim 1, wherein each of the first and second base frames further comprises a position-aligning piece formed on a rear side of the floor part and extending upward.

[CLAIM 6]

The data signal transmission connector of claim 5, wherein the anisotropic electro-conductive sheet and the second electronic component are position-aligned by the tension coupling piece and the position-aligning piece.

[CLAIM 7]

The data signal transmission connector of claim 5, wherein an intermediate frame is formed within the gap between the position-aligning pieces, and the intermediate frame comprises an intermediate floor part on which the anisotropic electro-conductive sheet is disposed and an intermediate position-aligning piece disposed parallel to the position-aligning piece.

[CLAIM 8]

The data signal transmission connector of claim 1, wherein a first fixing part is formed on an upper portion of the tension coupling piece, and the first fixing part is bent inwardly to have an inner lower inclined surface and an inner upper inclined surface, and wherein the cover frame has a first coupling part formed on each of both end portions thereof and having an inclined surface corresponding to the inner lower inclined surface.

[CLAIM 9]

The data signal transmission connector of claim 1, wherein the tension coupling piece is bent outward to form a second fixing part thereon having an outer lower inclined surface and an outer upper inclined surface, and wherein the cover frame has second coupling parts formed at both end portions thereof and extending downward, and the second coupling part has a coupling opening formed therein to be coupled with the second fixing part.

[CLAIM 10]

The data signal transmission connector of claim 1, wherein the tension coupling piece is bent outward to form a second fixing part thereon having an outer lower inclined surface and an outer upper inclined surface, and wherein the cover frame has third coupling parts formed at both

end portions thereof, and the third coupling part is bent inward for wrapping an outer surface of the second fixing part.