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(54) Computer bus connector

(57) A computer bus connector includes a connector body, a securing plate, a plurality of signal terminals (pins), a signal wire unit and an upper cover. The computer bus connector including the above components is different from the process of making the conventional piercing type bus connector in the application of tin solder. Signal terminals and signal wires are inserted and pressed into the securing plate, and the terminals and lead wires are integrally coupled by soldering so that signal is more stable during transmission, impedance is reduced, and transmission efficiency is enhanced.

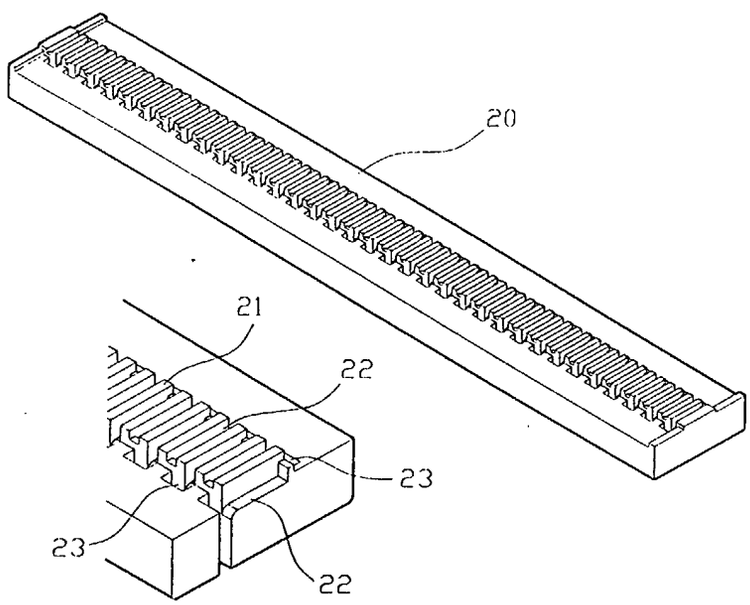

FIG. 1

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Description

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0001] The following descriptions are of exemplary embodiments only, and are not intended to limit the scope, applicability or configuration of the invention in any way. Rather, the following description provides a convenient illustration for implementing exemplary embodiments of the invention. Various changes to the described embodiments may be made in the function and arrangement of the elements described without departing from the scope of the invention as set forth in the appended claims.

[0002] Referring to Figures 1 to 7, the preferred embodiment of a computer bus connector according the present invention includes a connector body 10, a securing plate 20, a plurality of signal terminals (pins), a signal wire unit 40 and an upper cover 50.

[0003] The connector body 10 (formed from insulating material) is provided with a depression 11 of a suitable depth for insertable connection with the securing plate 20. The depression 11 is provided with two arrays of equidistantly spaced insert holes 12 for insertion of signal terminals 30. Upper edges of two side plates of the body are provided with a plurality of curved recesses 13 for laying of signal wires 40 at the upper side and for laying of lead wires in two directions.

[0004] The securing plate 20 (insulating material) is integrally formed to correspond to the form of the depression 11 provided in the connector body 10 so that it can coupled tightly with the body. The securing plate has an array of fastening ends 21 arranged thereon, and is symmetrically provided with holes for receiving signal terminals 30 (pins) and grooves 22 for laying of signal wires 40 on both sides. Corner portions are configured to be inverted corners so that the bent pins on both sides can be firmly inserted into through holes 23 in the securing plate and insert holes 12 in connector body 10.

[0005] The preferred production process for the computer bus connector of the invention will be described hereinafter. Referring further to Figures 3 to 7, the securing plate 20 is pressed into the depression 11 in the connector body 10 (during coupling of the securing plate 20 and the body 10, the function of the securing plate is to secure signal terminals 30 so that short circuit will not occur between signal terminals, and the wire core can be disposed in the grooves 22 during soldering of signal wires 40 to facilitate production), and the signal terminals (pins) are inserted into the insert holes in the connector body, with the pins pressed into the grooves 22 in the securing plate. The signal wires 40 are soldered to the pins to couple therewith as a whole (outer coverings of wire heads at the front end of the bus is stripped and the wire cores are neatly arranged in the grooves in the securing plate, and the wire cores are soldered to the signal terminals integrally to achieve a plane contact so that the signals are more stable during transmission and the impedance can be lowered to enhance transmission efficiency). Finally, the upper cover 50 is put in place (the upper cover 50 is to protect junction between signal wires 30 and signal terminals 40 and to prevent exposure of the wire core so as not to result in short circuit).

[0006] It will be understood that each of the elements described above, or two or more together may also find a useful application in other types of methods differing from the type described above.

[0007] While certain novel features of this invention have been shown and described and are pointed out in the annexed claim, it is not intended to be limited to the details above, since it will be understood that various omissions, modifications, substitutions and changes in the forms and details of the device illustrated and in its operation can be made by those skilled in the art without departing in any way from the spirit of the present invention.

Claims

1. A computer bus connector, comprising a connector body, a securing plate, a plurality of signal terminals (pins), a signal wire unit and an upper cover, wherein said securing plate has fastening ends arranged thereon, and is provided with corresponding through holes and grooves for insertable connection with said connector body such that said signal terminals are pressed into said grooves so as to be soldered to wire core ends of said signal wires, said upper cover being disposed on an upper edge thereof to thereby provide stable signal transmission.

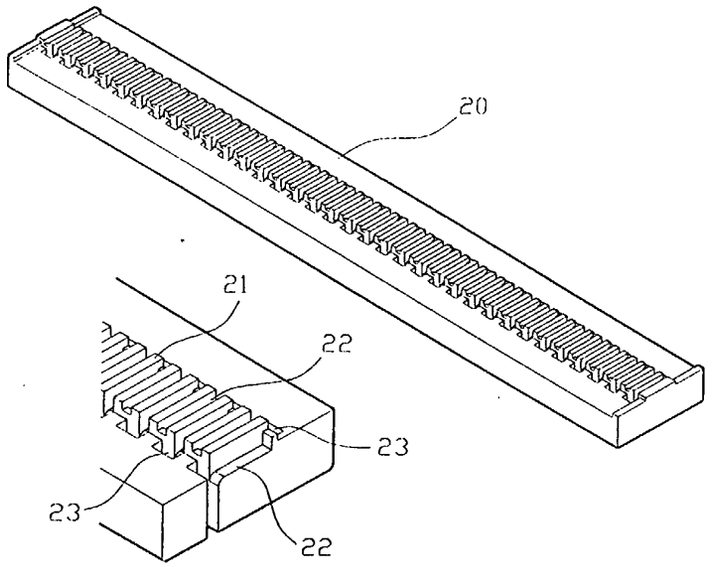

FIG. 1

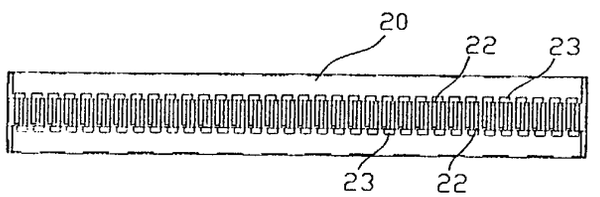

FIG. 2A

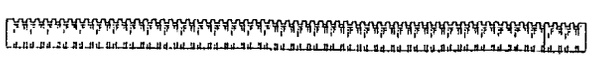

FIG. 2B

FIG. 2C

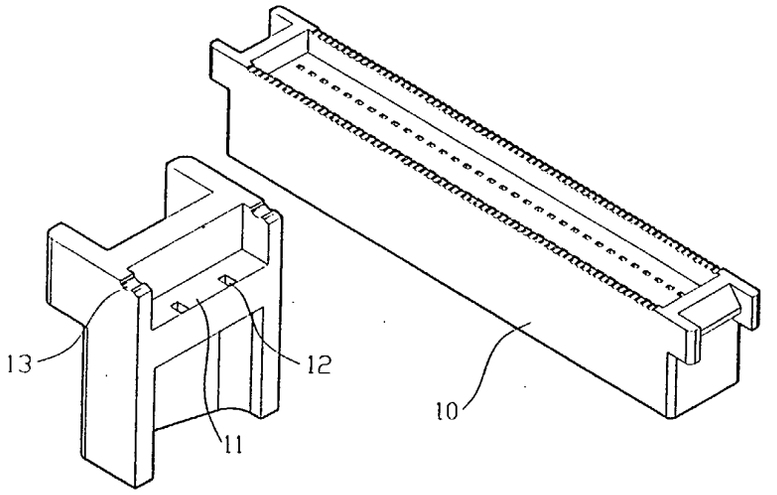

FIG. 3

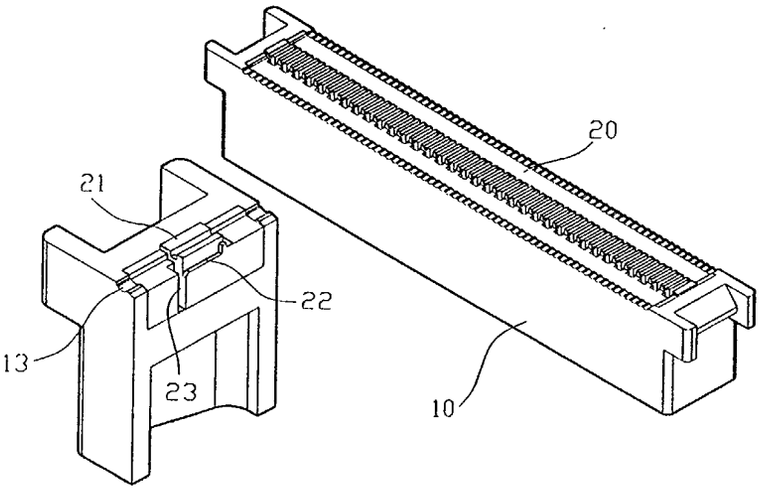

FIG. 4

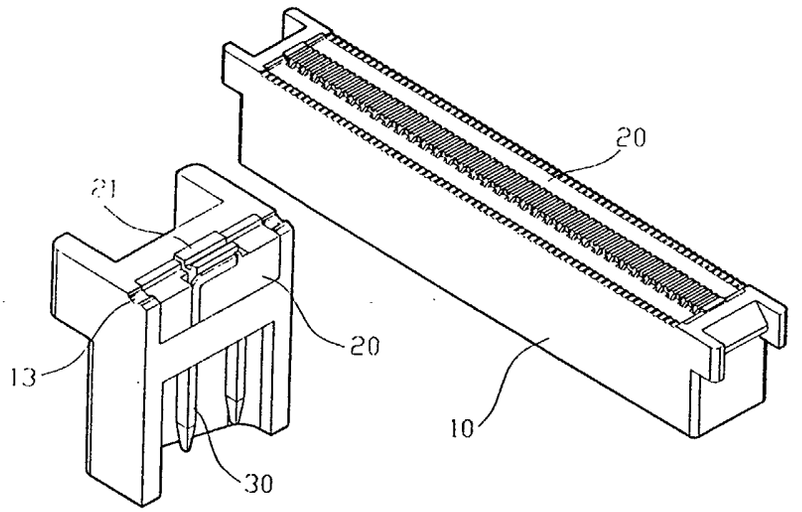

FIG. 5

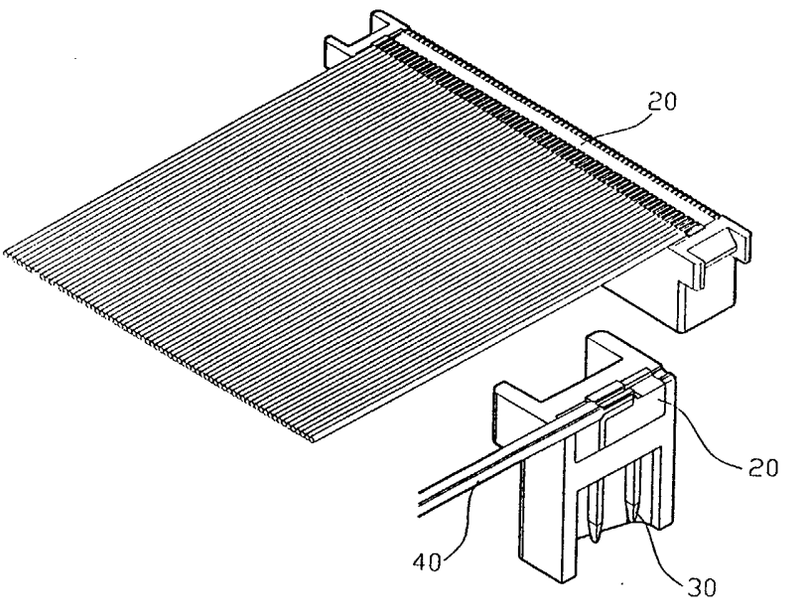

FIG. 6

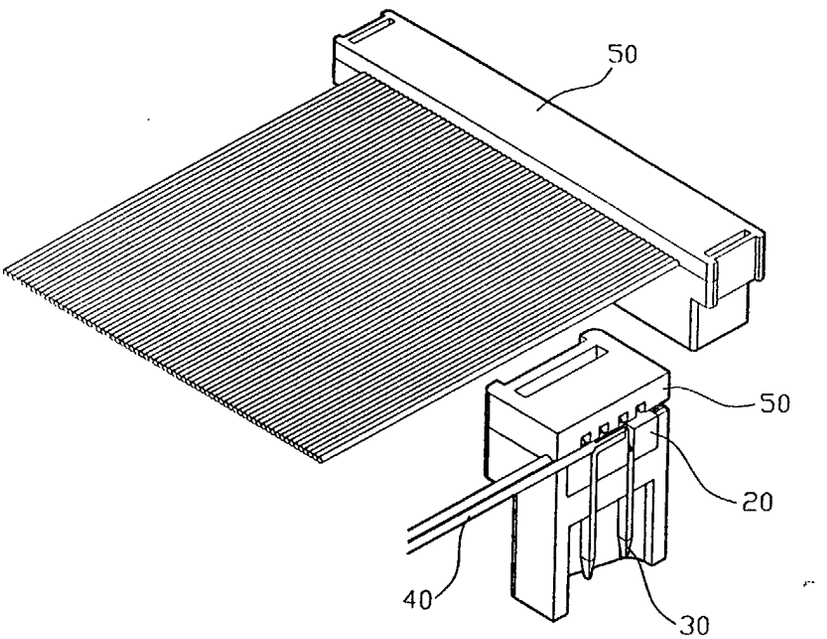

FIG. 7

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EUROPEAN SEARCH REPORT

Application Number
EP 02 02 0295

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 4 596 428 A (TENGLER JOHN N) 24 June 1986 (1986-06-24) * column 6, line 56 - column 7, line 22; figures 2,3 *	1	H01R9/07
X	US 4 681 382 A (LOCKARD JOSEPH L) 21 July 1987 (1987-07-21) * column 5, line 47 - column 6, line 29; figures 2,3,5,6 *	1	
A	US 5 501 612 A (GREEN ERIC T) 26 March 1996 (1996-03-26) * column 3, line 28 - column 4, line 19; figures 2-7 *	1	
A	US 5 971 793 A (MCALLISTER JOHN A C ET AL) 26 October 1999 (1999-10-26) * abstract; figures 2-4 *	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			H01R

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	19 December 2002	Criqui, J-J

CATEGORY OF CITED DOCUMENTS

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EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 02 02 0295

This annex lists the patent family membersrelating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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19-12-2002

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82