

(12) United States Design Patent (10) Patent No.: US D461,769 S Kuroda et al. (45) Date of Patent: ** Aug. 20, 2002

(54) CONNECTOR FOR PRINTED CIRCUIT BOARDS

- (75) Inventors: Keiji Kuroda, Amagasaki; Daichi Miyamoto, Izumiotsu, both of (JP)
- (73) Assignee: J.S.T. Mfg., Ltd., Osaka (JP)
- (**) Term: 14 Years

Primary Examiner—Joel Sincavage (74) Attorney, Agent, or Firm—Antonelli, Terry, Stout & Kraus, LLP

(57) CLAIM

The ornamental design for a connector for printed circuit boards, as shown and described.

DESCRIPTION

(21) Appl. No.: **29/141,460**

(22) Filed: May 8, 2001

(30) Foreign Application Priority Data

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,767,361	Α	≉	8/1988	Hoshino et al 439/596
5,055,058	Α	≉	10/1991	Nagasaka et al 439/188
6,086,419	Α	≉	7/2000	Marpoe, Jr 439/595
6,164,995	Α	≉	12/2000	Peloza 439/188
6,193,533	B 1	≉	2/2001	De Win et al 439/188
6,261,131	B 1	≉	7/2001	Kuroda et al 439/732
6,280,206	B 1	≉	8/2001	Kuroda et al 439/83
D452,477	S	≉	12/2001	Hiramoto et al D13/133

FIG. 1 is a top plan view;
FIG. 2 is a front elevation;
FIG. 3 is a bottom plan view;
FIG. 4 is a rear elevation;
FIG. 5 is a left-side elevation;
FIG. 6 is a right-side elevation;
FIG. 7 is a rear perspective view of the connector; and,
FIG. 8 is a perspective view of contacts fixed therein.
The claimed design is directed to the appearance of the connector in its assembled state as shown in FIGS. 1–7. The contacts are shown separately in FIG. 8 for the purpose of clarifying design aspects of the assembled connector that are not be apparent from the other views.

The present design is characterized in that, in addition to parallel grooves formed in side faces, the connector has two contacts fixed therein wherein one of the contacts has a longer body and a shorter arm as compared with the other contact, and in that bent ends of the arms are remote from each other and exposed in different sides, viz: one on the front face and one on the rear face.

* cited by examiner



U.S. Patent Aug. 20, 2002 Sheet 1 of 3 US D461,769 S





Fig. 3







.

U.S. Patent Aug. 20, 2002 Sheet 2 of 3 US D461,769 S

Fig. 5



Fig. 6

٠





U.S. Patent Aug. 20, 2002 Sheet 3 of 3 US D461,769 S



