

9706273-1  
1 PDS



PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

|                                                                                                                                                            |  |                                                                                                                                   |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| (51) International Patent Classification <sup>6</sup> :<br><b>H01R 23/00</b>                                                                               |  | A1                                                                                                                                | (11) International Publication Number: <b>WO 96/37017</b> |
| (21) International Application Number: <b>PCT/US96/04628</b>                                                                                               |  | (81) Designated States: CA, CN, JP, KR, SG, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). |                                                           |
| (22) International Filing Date: <b>4 April 1996 (04.04.96)</b>                                                                                             |  | (43) International Publication Date: <b>21 November 1996 (21.11.96)</b>                                                           |                                                           |
| (30) Priority Data:<br>① 08/444,501 ✓ 19 May 1995 (19.05.95) ✓ US ✓                                                                                        |  | Published<br>With international search report. ✓                                                                                  |                                                           |
| (71) Applicant: THE WHITAKER CORPORATION [US/US];<br>Suite 450, 4550 New Linden Hill Road, Wilmington, DE 19808 (US).                                      |  |                                                                                                                                   |                                                           |
| (72) Inventors: FOSTER, George, H.; 600 Wellington Road, Winston-Salem, NC 27106 (US); METZGER, Donald, Lynn; 7832 Dewey Drive, Harrisburg, PA 17112 (US). |  |                                                                                                                                   |                                                           |
| (74) Agents: KAPALKA, Robert, J. et al.; The Whitaker Corporation, Suite 450, 4550 New Linden Hill Road, Wilmington, DE 19808 (US).                        |  |                                                                                                                                   |                                                           |

IPD

1 appl<sup>r</sup>

2 Invs

1st Inv, name & address  
different from PF &

(54) Title: AN ELECTRICAL CONNECTOR AND AN ASSOCIATED METHOD FOR COMPENSATING FOR CROSSTALK BETWEEN A PLURALITY OF CONDUCTORS

(57) Abstract

An electrical connector which provides compensation for crosstalk includes a number of conductors positioned at least partially within an internal cavity defined by a housing. The elongate conductors are generally substantially parallel and laterally spaced and include a resilient contact portion at a first end and an insulation displacement contact portion at a second end. The elongate conductors include a pair of conductors, at least a portion of which are positioned in an overlapping, vertically spaced relationship. The portions of the pair of conductors which overlap are generally wider than the substantially parallel, laterally spaced portions of the conductors so as to thereby define respective compensating segments. The length of the compensating segments as well as the width of the portion of the compensating segments which overlap can be selected to establish capacitive coupling between the compensating segments so as to thereby compensate for crosstalk between the conductors. The elongate conductors can also include first and second conductors which extend in a substantially parallel, laterally spaced relationship from the respective first and to a predetermined crossover location. At the crossover location, the first and second conductors laterally cross without establishing electrical contact therebetween.

