

ABSTRACT

LOW PROFILE SURFACE MOUNTABLE ELECTRICAL CONNECTOR ASSEMBLY

5 A low profile electrical connector assembly (10)
includes plug and receptacle connectors (12, 14) having
mating housings (16, 26) each mounting a plurality of
terminals (40, 42) each of which include contact portions
(44, 58) for interengagement with the contact portions of
the terminals of the other connector. The terminals
further include mounting portions (46, 50) for surface
10 connection to circuit traces (48, 52) on respective printed
circuit boards (24, 34). The receptacle terminals (42) are
generally U-shaped and are defined by a first leg (54)
joined to the mounting portion (50) of the terminal and a
free spring contact leg (56) having a contact portion (58)
15 engageable with the contact portion (44) of one of the
terminals of the other connector. The contact portion (58)
is preloaded on a shoulder (64) of the receptacle housing.
The first leg (54) of the terminal (42) includes a proximal
end (54a) fixed to the housing and a distal end (54b)
20 movably supported along its edges by tabs (55) to permit a
portion of the first leg between the proximal end and the
distal end to be flexibly movable into a slot (62) in the
housing during mating of the connectors. The secondary
support of the terminal at its distal end by the tabs (55)
25 distributes stresses along the first leg (54) to improve
deflection characteristics of the receptacle terminal.

