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(54) Title: ANTENNA COUPLER FOR A PORTABLE RADIOTELEPHONE**(57) Abstract**

A novel and improved antenna coupler (100) useful in an adapter for a portable radiotelephone (200). In a first embodiment, a plurality of curved bands (204a-204c) of metal are positioned on a ground plane (102), with at least one of the plurality of curved bands of metal (204a-204c) being electrically isolated from the ground plane (102) so as to couple RF signals to and from the antenna (204) of a portable telephone (200). At least one ground pin (206a, 206b, 206c) is also mounted on the ground plane (102). When a portable radiotelephone (200) is interfaced with the antenna coupler (100), the at least one ground pin (206a, 206b, 206c) makes electrical contact with assembly screws (202a, 202b) or an external ground pad (208) of a battery charging port on the portable radiotelephone (200). In a second embodiment, a coupling pin (404) makes direct contact with a component of the RF chain of the portable radiotelephone (200). In a third embodiment, a helical coupler (504) surrounds the antenna (204) of the portable radiotelephone (200).

