

RADIO FREQUENCY COUPLER APPARATUS SUITABLE FOR USE IN A MULTI-BAND WIRELESS COMMUNICATION DEVICE

Abstract of the Disclosure

A radio frequency (RF) coupler apparatus (312) suited for use in a multi-band wireless communication device (200), has a termination device (316) and couplers (314 and 315). Each of the couplers (314 and 315) has through-path coupling elements (318 and 320) and coupled-path coupling elements (319 and 321). Through-path coupling elements (318 and 320) pass a RF signal that is to be transmitted respective frequency bands (TX BAND 1, TX BAND 2) within which the device (200) operates. Coupled-path coupling elements (319 and 321) couple the RF signals passed by respective through-path coupling elements (318 and 320). The coupled-path coupling elements (319 and 321) and the termination device (316) are coupled in series, thereby permitting compatibility with a RF power detector (313) that uses a single detection diode (322).

FIG. 3 accompanies this abstract.