

**ABSTRACT OF THE DISCLOSURE**

A system that incorporates the subject disclosure may include, for example, a circuit for receiving a request to initiate a multiple-input and multiple-output (MIMO) communication session, and configuring a first antenna module and a second antenna module of a communication device to enable the MIMO communication session. The MIMO communication session can combine at least a portion of spectrum between a plurality of bands shared by the first antenna module and the second antenna module. Other embodiments are disclosed.