

BIDIRECTIONAL VARIABLE GAIN AMPLIFIERS FOR RADIO FREQUENCY COMMUNICATION SYSTEMS

ABSTRACT OF THE DISCLOSURE

Bidirectional variable gain amplifiers (VGAs) for radio frequency (RF) communication systems are provided. In certain embodiments, a bidirectional VGA includes a first amplifier having an input coupled to a transmit/receive port, a second amplifier having an output coupled to a transmit port, a third amplifier having an input coupled to a receive port, a fourth amplifier having an output coupled to the transmit/receive port and to the input of the first amplifier, and a switch circuit that connects an output of the first amplifier to an input of the second amplifier in a transmit mode, and that connects an output of the third amplifier to an input of the fourth amplifier in a receive mode.

[FIG. 4]