

MULTIPLE COUPLER PLACEMENTS IN ADVANCED TRANSMIT ARCHITECTURES

ABSTRACT

A front-end module including a power amplifier, first and second couplers, an antenna switch, and a switch sub-assembly. The power amplifier has an input to receive a radio frequency signal and an output to provide an amplified radio frequency signal. The first coupler has an input port coupled to the output of the power amplifier, an output port coupled to an input of the antenna switch, a coupled port, and an isolated port. The second coupler has an input port coupled to an output of the antenna switch, an output port coupled to an antenna port, a coupled port, and an isolated port. The switch sub assembly connects one of the coupled port and the isolated port of the second coupler to an output of the switch assembly and the other one of the coupled port and the isolated port of the second coupler to a first termination impedance.

[No Suitable Figure]