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(54) **TRAVELING WAVE SWITCH HAVING FET-INTEGRATED CPW LINE STRUCTURE**

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(58) **Field of Classification Search** 333/262, 333/103, 104; 200/181; 327/308
See application file for complete search history.

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(57) **ABSTRACT**

A traveling-wave switch includes a FET-integrated Coplanar Waveguide (CPW) line structure. The FET-integrated CPW line structure incorporates a transistor, a signal line, and the ground, that can be used to eliminate the limitations imposed by the parasitic inductance of the prior art on the operation frequency of the switch. The signal line is connected directly to the drain of the transistor, eliminating the parasitic inductance caused by the connection wire between the signal line and the transistor. The source of the transistor is coupled directly to the ground of the coplanar waveguide line, thus eliminating the parasitic inductance between the transistor and ground, and raising the operation frequency of the switch.

8 Claims, 11 Drawing Sheets