

Title (en)
THREE-PORT POLARIZATION AND FREQUENCY-DUPLEXING DEVICE

Publication
EP 0235565 B1 19901128 (FR)

Application
EP 87101095 A 19870127

Priority
FR 8601160 A 19860128

Abstract (en)
[origin: US4837531A] A three-access polarization and frequency duplexing device has in series a common circular waveguide for passing two polarizations of a wave within a low-frequency band and one polarizations of a wave within a high-frequency band, a first access waveguide which opens into the common waveguide and a transition, a secondary rectangular waveguide. The narrow sides of the secondary waveguide are parallel to one polarization of the low-frequency band and the broad sides are parallel to the polarization of the high-frequency band. A second access waveguide is connected to the secondary waveguide at right angles and coupled by a resonant slot. A short-circuit plate performs a short-circuiting function for the high-frequency portion of the wave of the high-frequency band aligned with the second access waveguide. The free end of the secondary waveguide being forms a third access waveguide. The first access waveguide has a filter for selecting a polarization of the wave from the low-frequency band. The second access waveguide is at right angles to the broad side of the secondary guide.

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