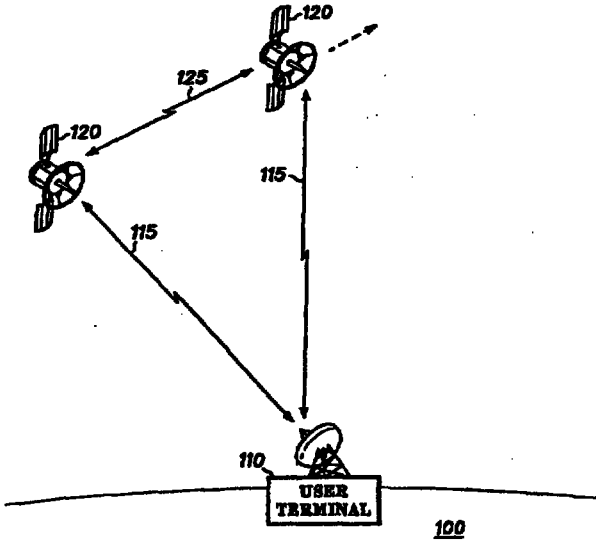




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(54) Title: ELECTRICALLY-CONTROLLABLE BACK-FED ANTENNA 		
(57) Abstract A user terminal (110) which comprises an electrically-controllable back-fed antenna (300, Fig.3) is used for the formation of single and multiple beams. The electrically-controllable back-fed antenna comprises an RF power distribution/combination network (310), electrically-controllable phase-shifting elements (320), a control network (440, Fig.4) and radiating/receiving elements (360). The control network is coupled to the electrically-controllable phase-shifting elements and is used for controlling the dielectric constant of dielectric material contained within the electrically-controllable phase-shifting elements. In a preferred embodiment, phase-shifting elements comprise waveguide sections containing at least one dielectric material, and the dielectric material includes a ferroelectric material, preferably comprising Barium Strontium Titanate (BST).		