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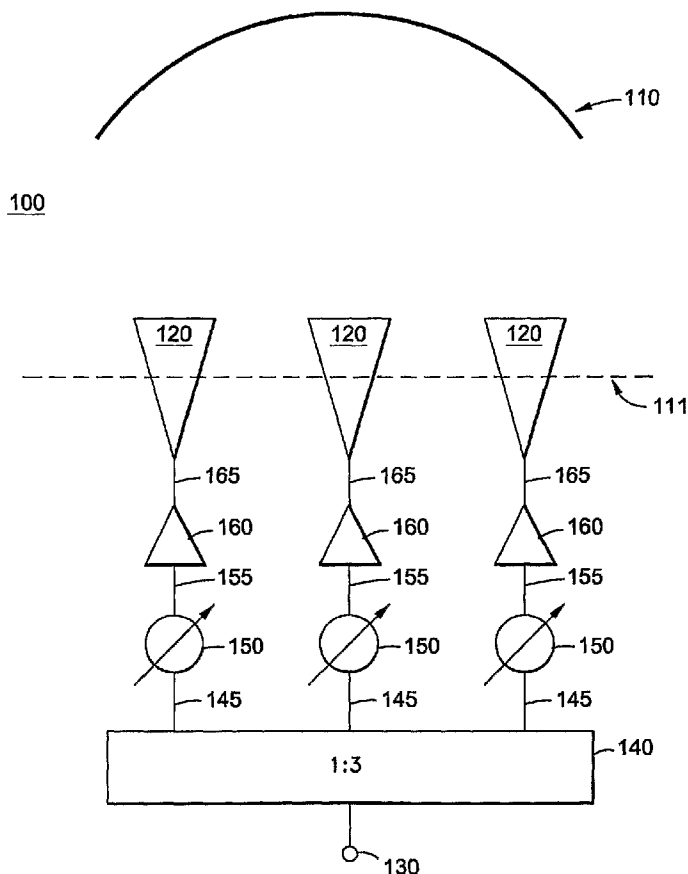
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(54) Title: RECONFIGURABLE PAYLOAD USING NON-FOCUSED REFLECTOR ANTENNA FOR HIEO AND GEO SATELLITES



(57) Abstract: An antenna system for generating and configuring at least one defocused beam is provided. The antenna system includes a reflector having a focal plane and a non-parabolic curvature for forming the at least one defocused beam, and a plurality of feed antennas that illuminate the reflector. Each feed antenna is disposed in the focal plane of the reflector. The antenna system further includes at least one incoming signal dividing network that divides at least one incoming signal into a plurality of sub-signals, each corresponding to one of the feed antenna; a plurality of variable phase shifters, each receiving one of the sub-signals from the incoming signal dividing network and phase shifting the sub-signal to generate a corresponding phase-shifted sub-signal, and a plurality of fixed-amplitude amplifiers, at least one corresponding to each of the feed antennas. The at least one amplifier for each feed antenna amplifies the corresponding phase-shifted sub-signal to generate an amplified phase-shifted sub-signal which is provided to the corresponding feed antenna.

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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2005/0140558 A1 (JUNG et al) 30 June 2005 (30.06.2005, whole document)	1,4,5,7,11,14,15,17
Y	US 6,456,252 B1 (GOYETTE) 24 September 2002 (24.09.2002), whole document	6,8-10,16,18-20
Y	US 5,936,592 A (RAMANUJAM et al) 10 August 1999 (10.08.1999), whole document	3,13
Y	US 5,422,595 A (LOTT) 06 June 1995 (06.06.1995), whole document	2,12

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