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(54) Title: COMMUNICATION ARRANGEMENT AND METHOD OF OPERATING A DIGITALLY CONTROLLABLE SCATTERER

(57) Abstract: A communication arrangement and method for the operation thereof are disclosed. The communication arrangement includes a digitally controllable scatterer (DCS). The DCS includes a plurality of scattering elements. At least a part of the plurality of scattering elements is adapted such that a reflection phase shift thereof is electronically controllable. The plurality of scattering elements includes a subset of active elements configured to transmit and/or receive electromagnetic radiation. The subset of active elements comprises at least one scattering element of the plurality of scattering elements and less than all scattering elements of the plurality of scattering elements. The communication arrangement further includes circuitry configured to control a transmission or reception of electromagnetic radiation by the active transmission elements so that each of the active transmission elements transmits or receives a beacon signal.