

LIDAR CHIP AND LIDAR

ABSTRACT

5 The present application relates to a LiDAR chip and a LiDAR. The LiDAR chip comprises an optical splitter, a beam splitter, a receiver and a transmitter, the transmitter being a focal plane switch array transmitter; the transmitter comprises an optical switch array and a grating coupler array, the grating coupler array being connected to the optical splitter by means of the optical switch array, and the optical splitter being connected to the receiver; the grating coupler array is
10 connected to the receiver by means of the beam splitter, the beam splitter being connected to the optical splitter. The LiDAR chip receives a laser signal, and outputs measurement light to the focal plane switch array transmitter by means of the optical splitter while outputting local oscillation light to the receiver by means of the optical splitter; by means of a corresponding optical switch, the optical switch array introduces into a corresponding grating coupler in the grating coupler
15 array the measurement light which is then emitted by means of said grating coupler; a reflection echo received by a grating coupler is subjected to polarization splitting by means of the beam splitter and is then transmitted to the receiver; the grating couplers are dual-polarization grating couplers.

20 FIG. 1