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[54] OPTICAL COMMUNICATION LINK FOR MEDICAL IMAGING GANTRY HAVING CONTINUOUS LINE OF SIGHT COMMUNICATIONS BETWEEN TRANSMITTERS AND RECEIVERS

[75] Inventors: Shmuel Kedmi; Joseph Bodenheimer, both of Jerusalem; Yoav Kanfi, Herzelia, all of Israel

[73] Assignee: Elscint Ltd., Haifa, Ireland

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[58] Field of Search 250/551; 378/15, 19, 378/4, 196

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Primary Examiner—David C. Nelms

Assistant Examiner—Que T. Le

Attorney, Agent, or Firm—Sandler Greenblum & Bernstein

[57] ABSTRACT

A system that enables the communication of data and control signals between the rotor and the stator of a gantry using light transmitters and light receivers. The transmitters are attached to the gantry in such a manner that the light beams are transmitted in a direction that traverses the radial direction of the rotor of the gantry and also traverses a line parallel to the axis of rotation of the rotor. Further, the light beam from the transmitter to the receiver is shaped to minimize the dynamic range of the light flux variation. The light beams from transmitter to receiver are substantially direct line of sight beams and are not reflected through any light channels or carried in any optical transmitting means such as fibre glass.

19 Claims, 3 Drawing Sheets

