

ABSTRACT OF THE DISCLOSURE

**TITLE OF INVENTION: ELECTROMAGNETIC RADIATION
MEASURING APPARATUS**

An EM radiation measuring apparatus comprises: an antenna element matrix (20) on a substrate including 1st to Lth arrays (4) which are successively arranged in X direction, each of the 1st to Lth arrays including antenna elements arranged in Y direction and having an output terminal (7), each antenna element receiving an EM radiation from a target and generating a detection signal; a signal selector (5, 3, 2, 7) responsive to X and Y selection signals for selectively supplying the detection signal from one of antenna elements to one of the output terminals (7); 1st to Nth signal outputting ckts, each having inputs, at least an output, and at least a signal selection ckt selectively coupling the inputs to the output terminals of which the number is less than the number of the inputs, the Nth outputting circuit supplying an output detection signal, the inputs of the 1st signal outputting ckts being connected to the output terminals respectively, wherein each of the 2nd to Nth outputting ckts has a transmission line(s) substantially extending in the X direction to connect one of the input terminals thereof to at least the signal selection ckt thereof. The signal selector comprises diodes or transistors respectively connected to the antenna elements. The transistor amplifies the detection signal.

Figure 1.

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