

Two-dimensional Dot Matrix Barcode Encoding and Reading Methods

Abstract

Disclosed are two-dimensional dot matrix barcode encoding and reading methods. A two-dimensional dot matrix barcode is composed of $M \times N$ virtual code point storage blocks. The method comprises: forming a plurality of coordinate calibration blocks, a plurality of data storage blocks and a direction indication block by filling code points into the virtual code point storage blocks, wherein the plurality of coordinate calibration blocks are filled with only one code point located in the center of the virtual code point storage block; the direction indication block is filled with at least two code points, only one code point being located in the center of the virtual code point storage block; the plurality of coordinate calibration blocks and the direction indication block are separated from each other and distributed among the plurality of data storage blocks; and code points filled in the plurality of data storage blocks are used to store data information, where $M \geq 4$, $N \geq 4$, and M and N are both even numbers. The present invention has the advantages of having a large encoding capacity and small interference to human vision, and being simple and reliable to identify.

Figure 9