US005500678A

United States Patent [19]

Puri

[11] **Patent Number: 5,500,678**

[45] **Date of Patent: Mar. 19, 1996**

[54] **OPTIMIZED SCANNING OF TRANSFORM COEFFICIENTS IN VIDEO CODING**

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[21] Appl. No.: **215,532**

[22] Filed: **Mar. 18, 1994**

[51] **Int. Cl.**[6] **H04N 7/50**

[52] **U.S. Cl.** **348/408**; 348/405

[58] **Field of Search** 348/408, 405, 348/419; H04N 7/133, 7/50

[56] **References Cited**

U.S. PATENT DOCUMENTS

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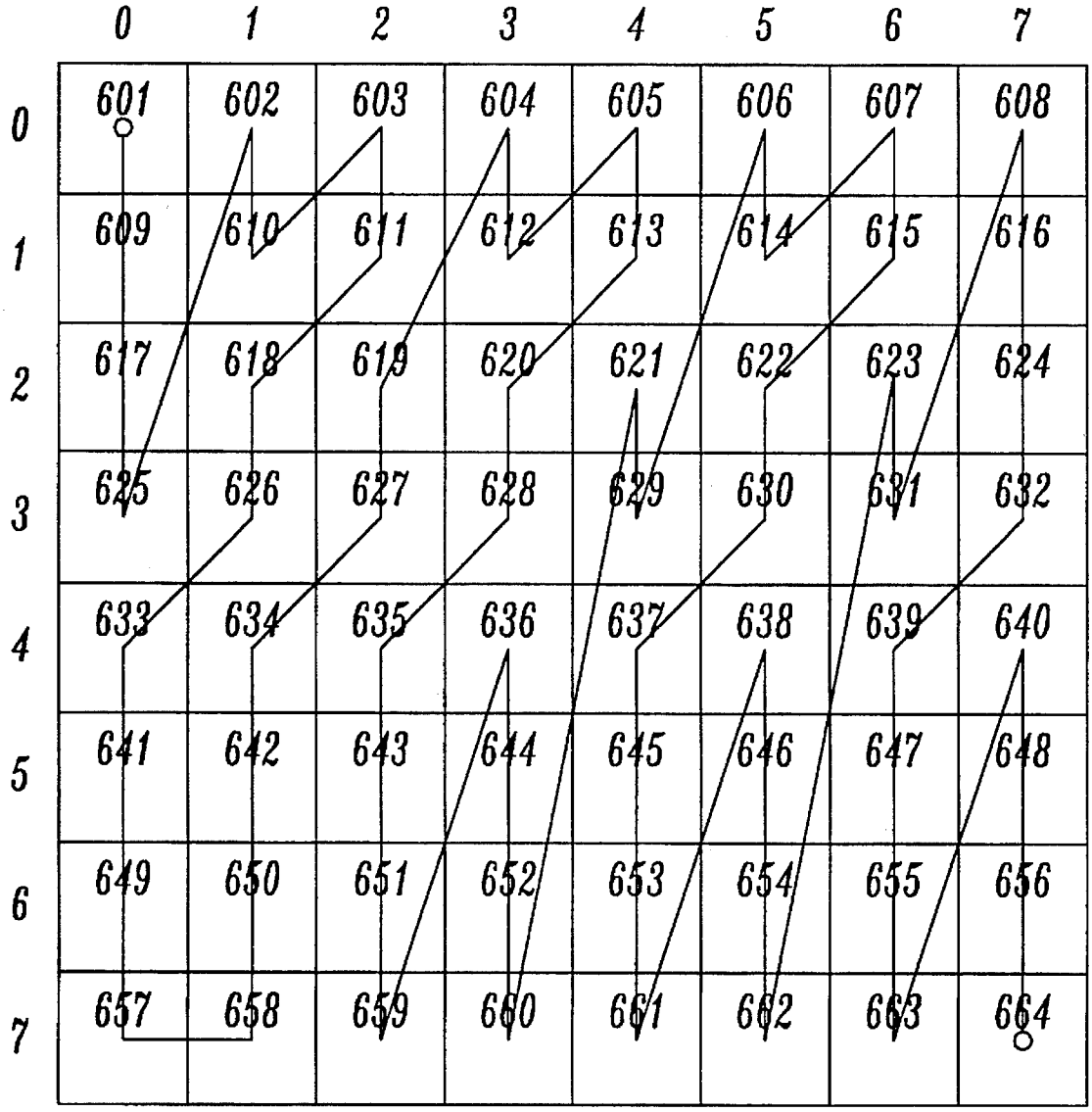
[57] **ABSTRACT**

An improved scanning apparatus and method which allows for increased coding efficiency over conventional zigzag scans is disclosed. The invention advantageously allows for total compatibility with the MPEG-1 standard, and accomodates video sequences which may be composed of both the progressive and interlaced format frames.

19 Claims, 7 Drawing Sheets