



US005469212A

# United States Patent [19]

[11] Patent Number: **5,469,212**

Lee

[45] Date of Patent: **Nov. 21, 1995**

## [54] APPARATUS FOR COMPRESSION-ENCODING AND DECODING VIDEO SIGNALS

## [57] ABSTRACT

[75] Inventor: **Choon Lee**, Seoul, Rep. of Korea

An apparatus for compression-encoding and decoding digital video signals, capable of additionally transmitting a differential signal indicative of a difference between an original video signal and an encoded video signal obtained by encoding the original video signal by an existing video compression system, so as to efficiently cope with a varied bandwidth of a recording medium or a channel. The apparatus comprises an encoding device for encoding an original digital video in a sampling manner, encoding a differential signal indicative of a difference between each of the original video signals and a signal obtained by expanding each corresponding one of the encoded original video signals, together with edge information, adding the encoded composite differential signal to the encoded original video signal, and outputting the resulting signal. The apparatus also comprises a decoding device for decoding each of the encoded original video signals, reading video signals, indicative of video portions including no differential signal, from video signals resulting from the decoding of the encoded original video signals, based on the edge information, adding each of the differential signals to each corresponding one of the read video signals, and outputting recovered video signals.

[73] Assignee: **Goldstar Co., Ltd.**, Seoul, Rep. of Korea

[21] Appl. No.: **43,370**

[22] Filed: **Apr. 6, 1993**

### [30] Foreign Application Priority Data

Apr. 11, 1992 [KR] Rep. of Korea ..... 6061/1992

[51] Int. Cl.<sup>6</sup> ..... **H04N 7/48**

[52] U.S. Cl. .... **348/392; 348/409; 348/412; 348/424**

[58] Field of Search ..... 348/392, 409, 348/412, 415, 419, 424; H04N 7/137

### [56] References Cited

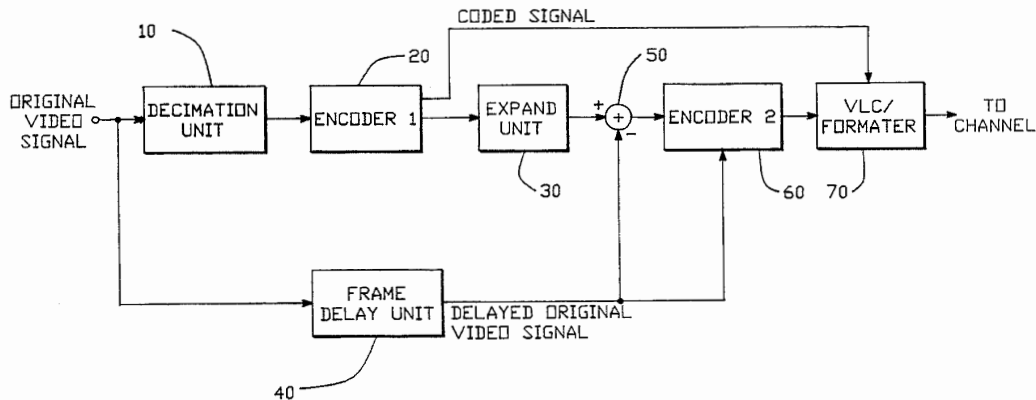
#### U.S. PATENT DOCUMENTS

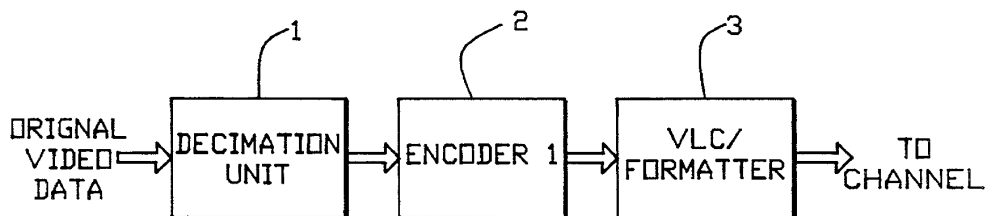
4,884,136 11/1989 Ninomiya ..... 348/392

Primary Examiner—Howard W. Britton

Attorney, Agent, or Firm—Fliesler, Dubb, Meyer & Lovejoy

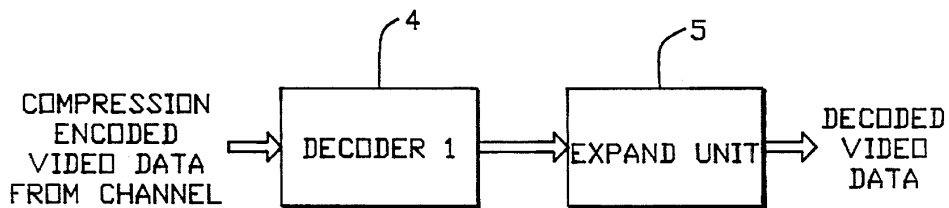
**9 Claims, 6 Drawing Sheets**





PRIOR ART

FIG. - 1



PRIOR ART

FIG. - 2

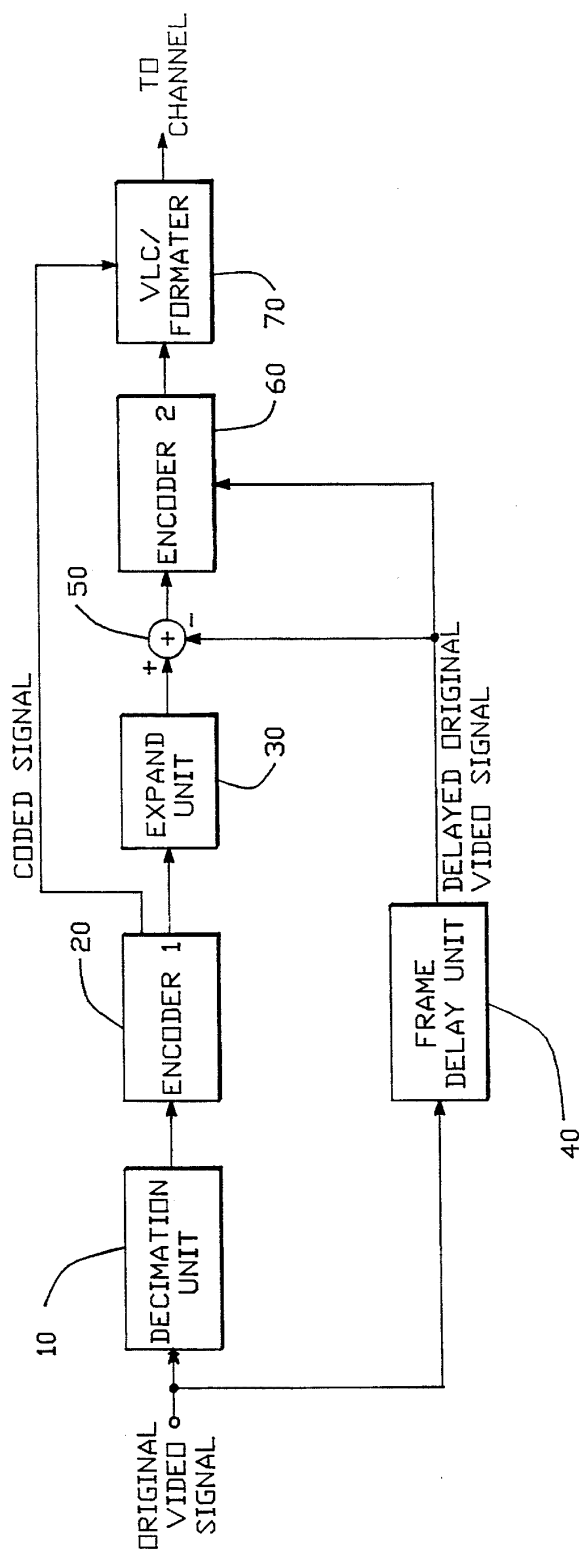


FIG.—3

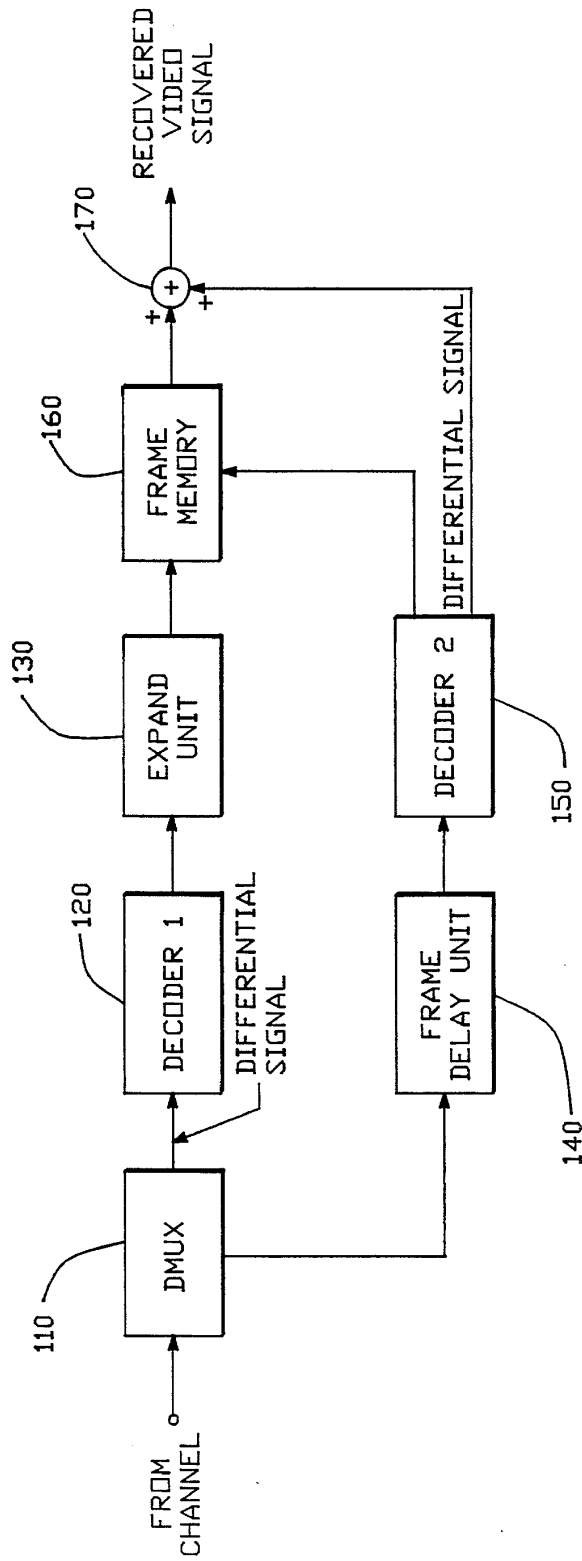


FIG. -4

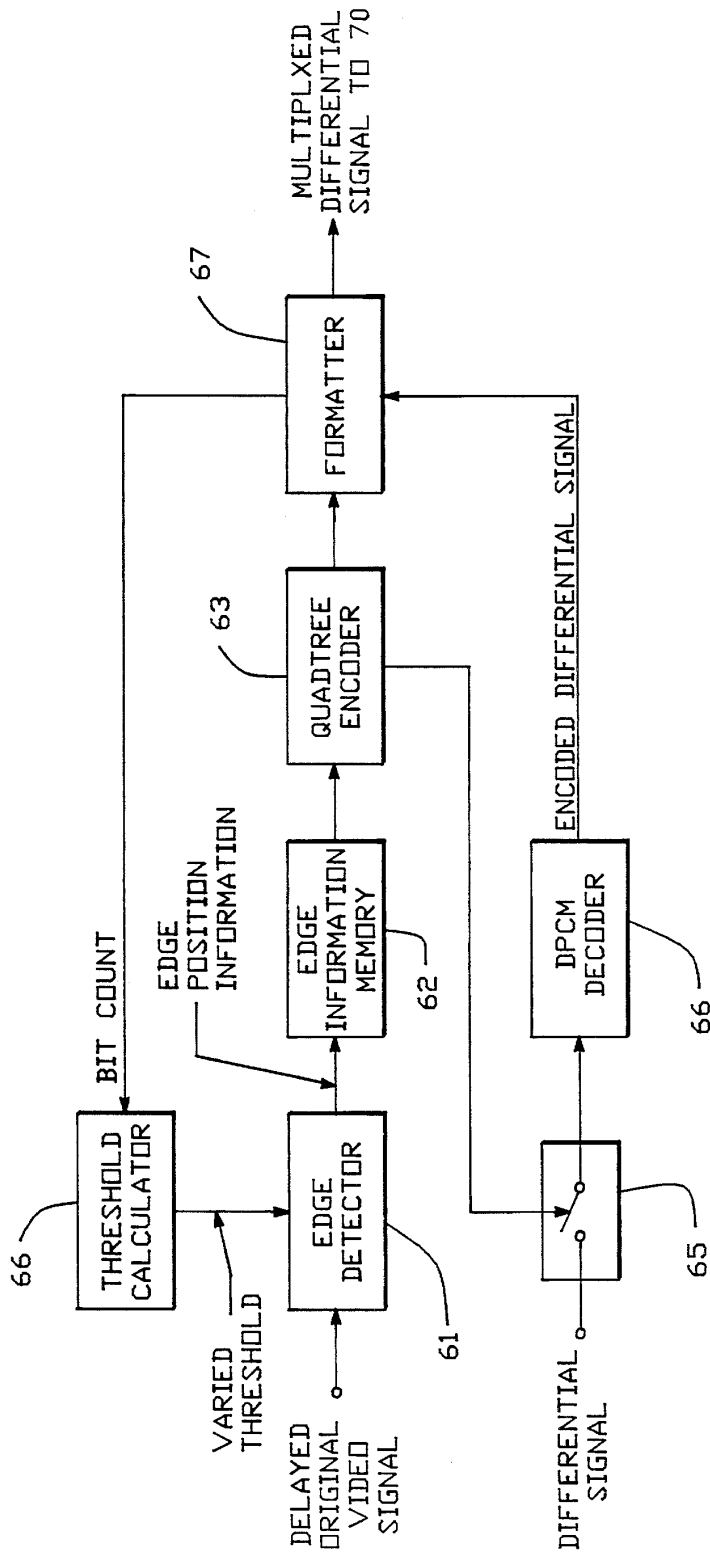


FIG.—5

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.