

United States Patent [19]

[11] **Patent Number:** 4,694,490

Harvey et al.

[45] **Date of Patent:** Sep. 15, 1987

- [54] **SIGNAL PROCESSING APPARATUS AND METHODS**
- [76] **Inventors:** John C. Harvey, 333 E. 57th St., New York, N.Y. 10022; James W. Cuddihy, 523 E. 14th St., New York, N.Y. 10009
- [21] **Appl. No.:** 317,510
- [22] **Filed:** Nov. 3, 1981
- [51] **Int. Cl.⁴** H04K 9/00; H04N 7/08
- [52] **U.S. Cl.** 380/20; 380/9; 380/10; 380/54; 358/142; 358/143
- [58] **Field of Search** 455/4, 26, 30, 32-34, 455/37, 70; 358/147, 142, 146, 143, 183, 86, 122; 364/521

Attorney, Agent, or Firm—Darby & Darby

[57] **ABSTRACT**

Apparatus and methods for automatically controlling programming transmissions and presentations on television and radio equipment and monitoring the programming transmitted and presented. ("Programming" here means everything transmitted over television or radio intended for communication of entertainment or to instruct or inform.) The Apparatus can handle programming transmitted either over-the-air (hereinafter, "broadcast") or over hard-wire (hereinafter, "cablecast"). The apparatus receive transmissions from as many as one hundred or more channels that are sequentially scanned by one or more scanners/switches that transfer the transmissions to one or more receiver/decoders that identify signals in the programming and separate the signals from the programming transmissions. The signals may then be transferred through one or more decrypters. The separated and possibly wholly or partially decrypted signals are then transferred through one or more processors and buffers to external equipment and/or data recorders. The data recorders are adapted to output data to remote sites on predetermined instructions. In all these functions, the apparatus are governed by one or more controllers. The methods co-ordinate and instruct equipment in the transmission and presentation of radio and television programming, especially in multi-media and multi-channel presentations, and in certain other functions.

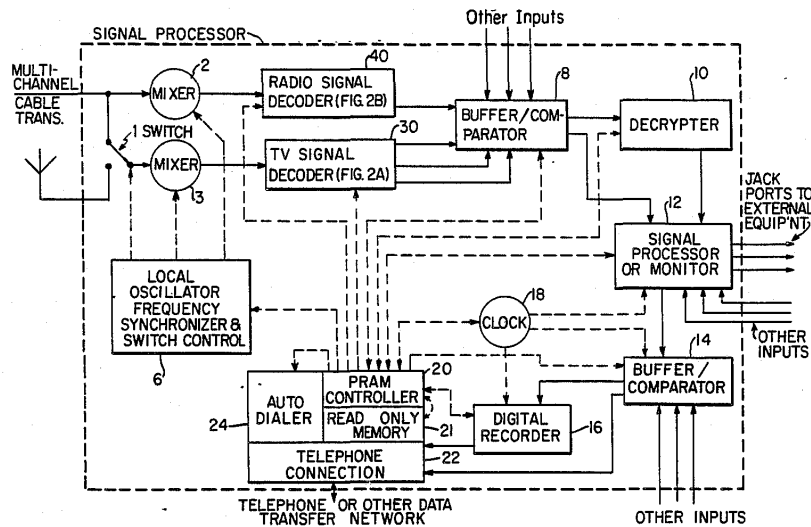
[56] **References Cited**

U.S. PATENT DOCUMENTS

3,668,307	6/1972	Face et al.	358/114
3,684,823	8/1972	McVoy	455/70
3,833,757	9/1974	Kirk, Jr. et al.	455/4
3,845,391	10/1974	Crosby	455/26
3,891,792	6/1975	Kimura	358/142
3,987,398	10/1976	Fung	455/4
4,138,726	2/1979	Girault et al.	364/521
4,218,698	8/1980	Bart et al.	358/183
4,264,925	4/1981	Freeman et al.	358/143
4,310,854	1/1982	Baer	358/143
4,337,480	1/1982	Bourassin et al.	358/183
4,347,532	8/1982	Korver	358/183
4,381,522	4/1983	Lambert	455/4

Primary Examiner—Salvatore Cangialosi

13 Claims, 22 Drawing Figures



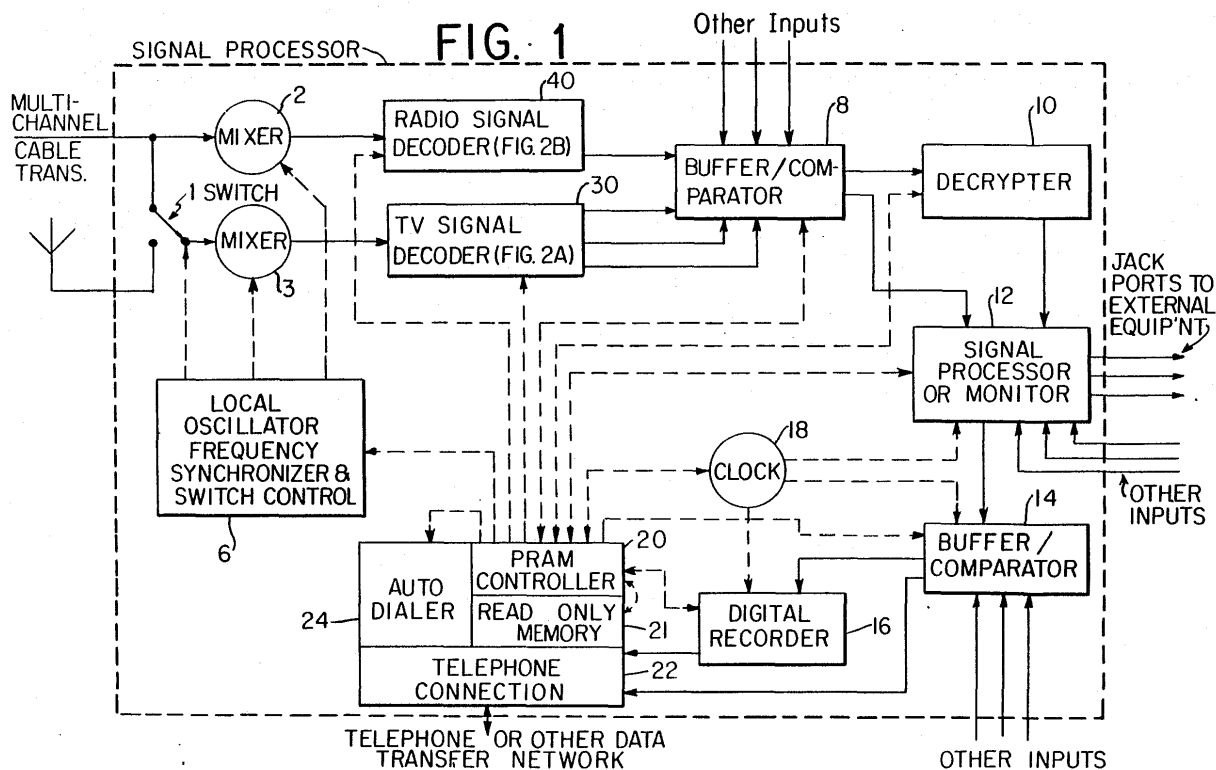
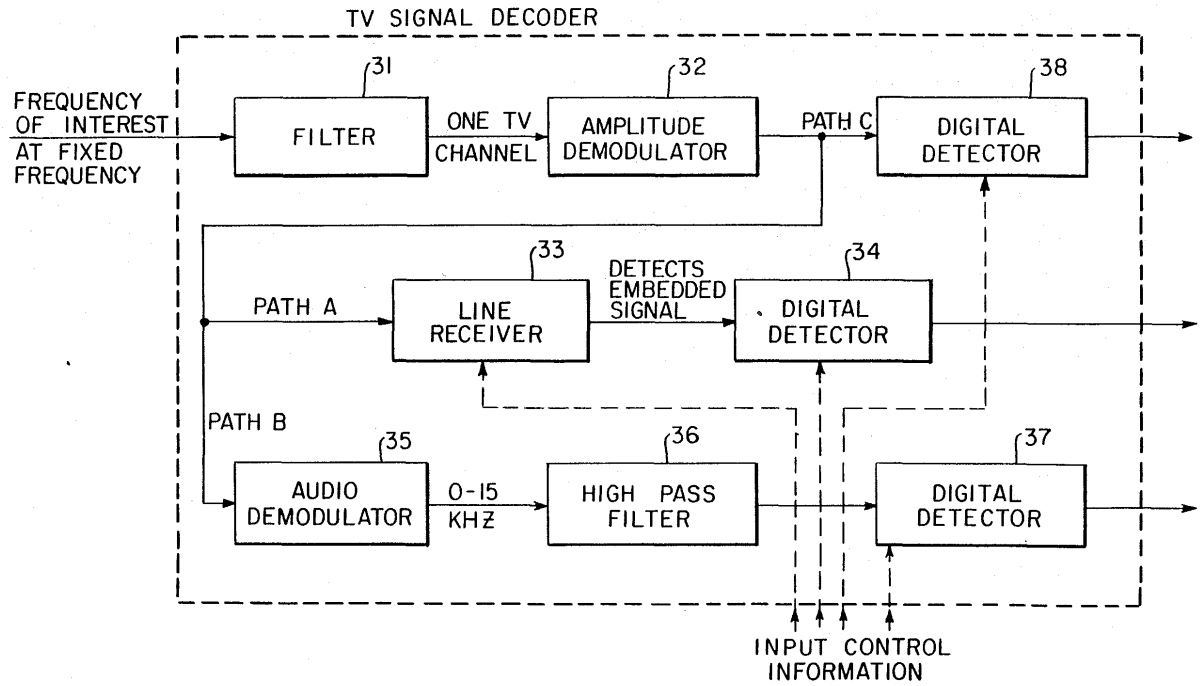
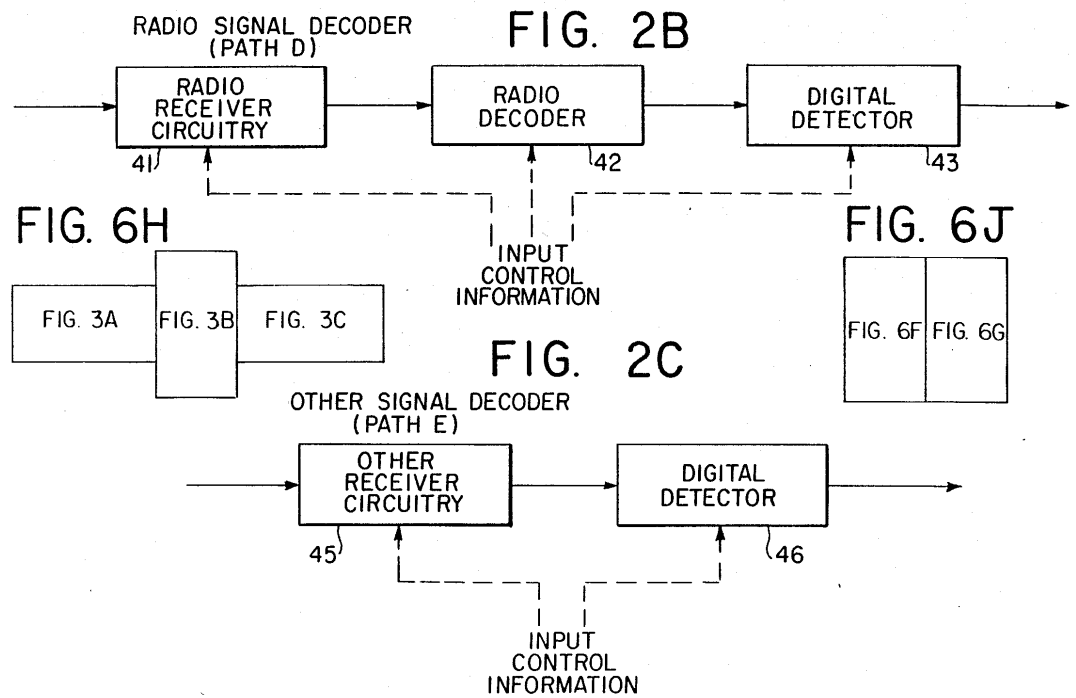
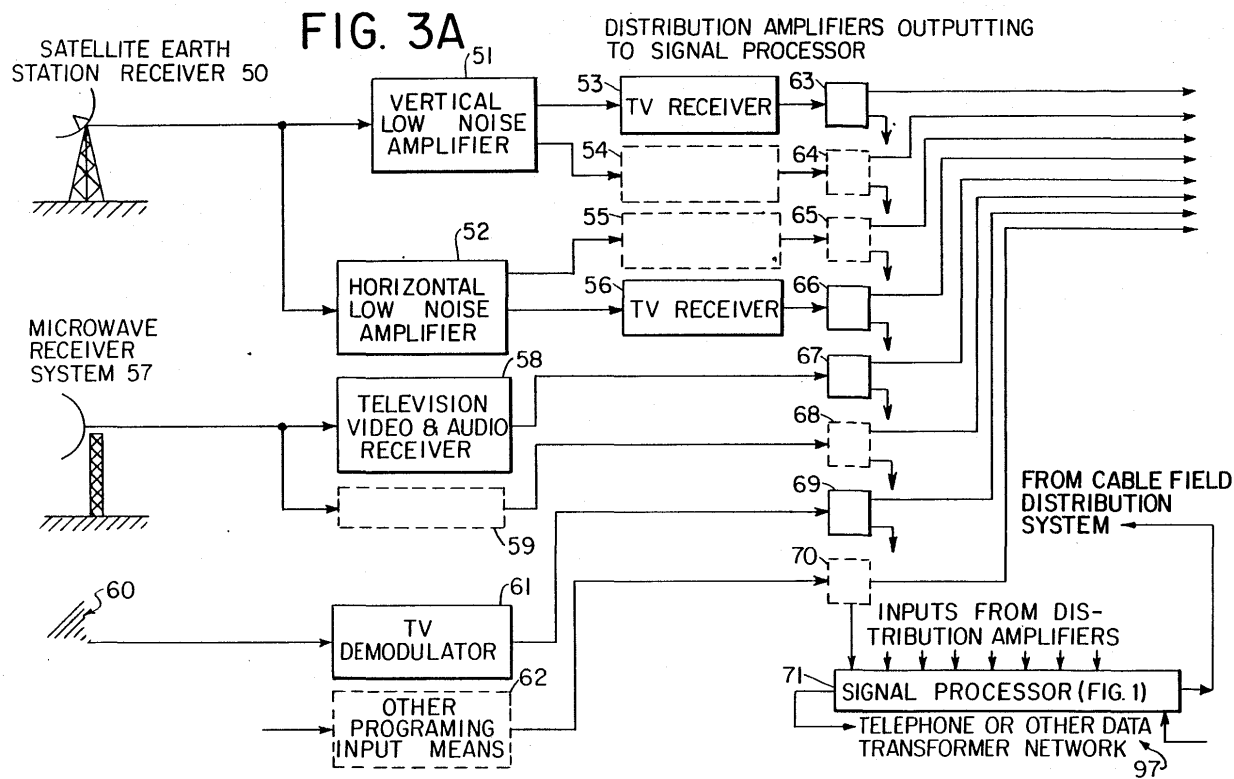


FIG. 2A







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.