United States Patent [19]

Mustafa et al.

[11] Patent Number:

4,789,895

[45] Date of Patent:

Dec. 6, 1988

[54] SYSTEM FOR SYNCHRONIZING DIGITAL BIT STREAM FOR TELECOMMUNICATION SYSTEM

[75] Inventors: Mehmet Mustafa, Waltham; Ernest

P. Tweedy, Lexington; James C. Stoddard, Wayland; Walter J. Beriont, Natick, all of Mass.

[73] Assignee: GTE Government Systems

Corporation, Waltham, Mass.

[21] Appl. No.: 44,387

[22] Filed: Apr. 30, 1987

[56] References Cited U.S. PATENT DOCUMENTS

3,743,767	7/1973	Bitzer et al	358/93
3,746,780	7/1973	Stetten et al	358/85
3,891,792	6/1975	Kimura	
4,104,681	8/1978	Saylor et al	
4,129,748	12/1978	Saylor	
4,500,751	2/1985	Darland et al	
4,578,535	3/1986	Simmons .	
4,600,943	7/1986	Tanabe	358/147
4,613,827		Takamori et al	,
4,616,263	10/1986	Eichelberger .	
4,712,131	12/1987	Tanabe	358/147

OTHER PUBLICATIONS

NHK (Japan Broadcasting Corporation) "Present Status of Still-Picture Television"; May 1978.

Berg "Dialoog TV; Kabelexperiment Zuid-Limburg I²-Elektrotechniek/Elektronica"-No. 4-1986, pp. 35-39.

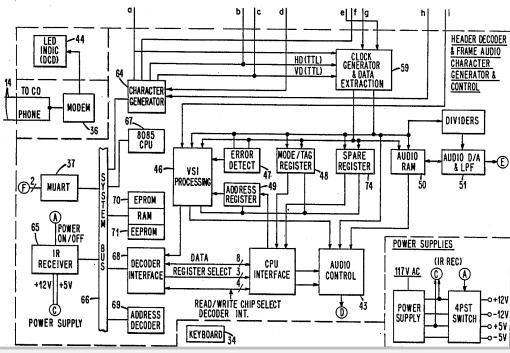
Kimura, A., "Telescan Simultaneous Information Display System" Telecommunication Journal, vol. 42, pp. 33-45, 1975.

Primary Examiner—James J. Groody Assistant Examiner—David E. Harvey Attorney, Agent, or Firm—J. Stephen Yeo

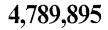
57] ABSTRACT

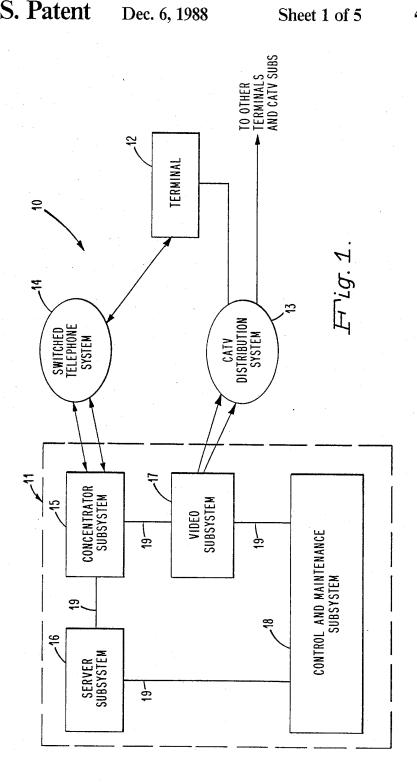
A telecommunication system for synchronizing a'digital bit stream sent from a central facility to a terminal on lines of television frames. Each active line starts with a horizontal sync pulse and a color burst. A first data clock at the central facility provides first data clock pulses synchronized with said color burst. A circuit at the central facility provides a flag bit one clock pulse wide delayed by a first constant number of clock pulses from the start of the line's horizontal sync pulse. A second data clock at the terminal provides second data clock pulses synchronized with said color burst. A circuit at said terminal provides a time window delayed by a second constant number of clock pulses from the start of the line's horizontal sync pulse so as to bracket said flag bit. A plurality of second data clock pulses occur during said time window. Circuits at the terminal determine which of said plurality of second data clock pulses coincide in time with said flag bit, thereby synchronizing said data stream with said second data clock.

2 Claims, 5 Drawing Sheets

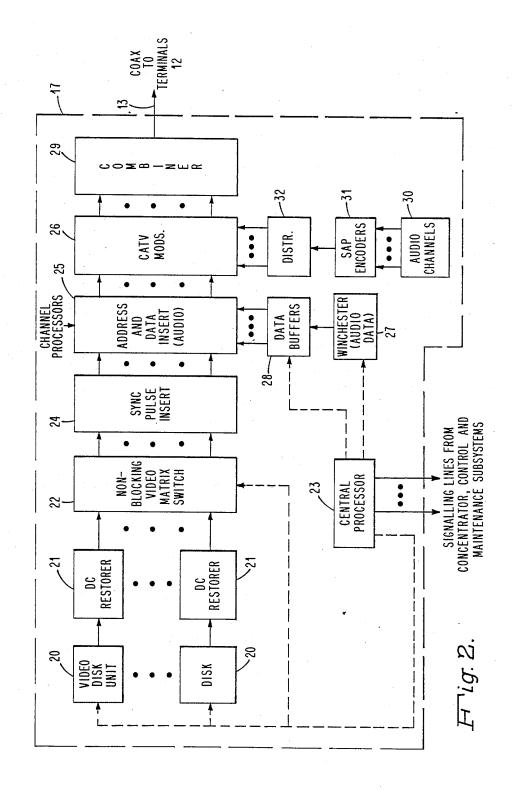


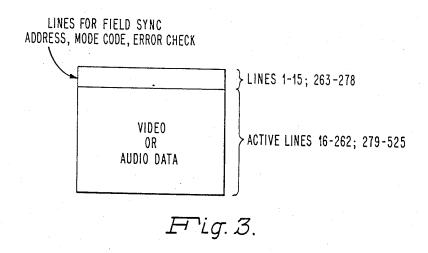


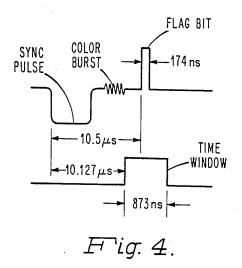


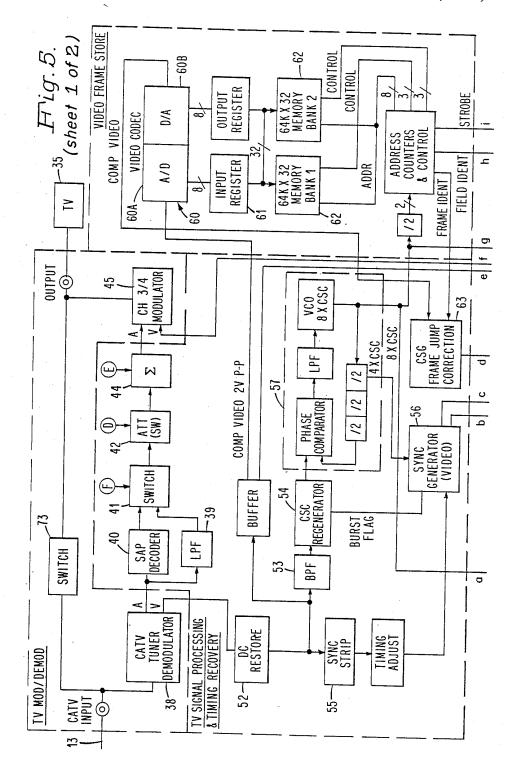


Dec. 6, 1988









DOCKET A L A R M

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.

