

Serial No. 289776

-5-

Art Unit 235

Nichols discloses the digitizing and the compressing (col 9 lines 1-22) of claim 12.

Nichols inherently includes the video cassette because Nichols discloses a VTR which includes a video cassette.

Nichols in fig 1 discloses the first means receiving the signal from the cassette of claim 13.

Nichols in fig 4 discloses the first means(100 106 and 112), the second means(fig 1 24) and the third means(fig 1 16) of claim 14.

Nichols discloses the compressed digital data(col 9 lines 1-25) of claim 15.

Nichols in fig 4 discloses the audio video recorder(col 2 lines 28-33) the audio video control unit(96, 118, 122, and 168) the memory (100, 106 112, and 170), the first means(98, 120,124, and 168), the second means(fig 1 24) and the third means(fig 1 16)of claim 25.

Nichols in fig 4 discloses the video control unit which digitizes and modifies(96,118,122,168) of claim 26.

Nichols in fig 1 discloses the video cassette recorder being a single deck(22) of claim 27.

Nichols discloses the audio control unit which digitizes and compresses(col 9 lines 1-20) of claim 28.

Nichols inherently includes the fourth means of claim 29 because fig 1 discloses the edited signal indirectly sent to the

Serial No. 289776

-6-

Art Unit 235

control unit. Nichols inherently includes the expanded signal because the picture signal is modified to include time information. Nichols in fig 1 discloses the fifth means because the editor is connected to the VTR.

Nichols in fig 1 discloses the audio video recorder(22), and the audio video control unit(14)of claim 30. Nichols in fig 4 discloses the A/D converter(96 118, 122 and 168), the D/A converter(142,144, 146 and 176), the compressor/decompressor(col 9 lines 1-20) the controller(14),the central processor(fig 1 12) the random access memory(col 14 lines 20-25), the transmitting means(fig 1 22), the modifier of the controller, and RAM (fig 1 24), the memory(100,106,112, and 170) the memory transmitter means(fig 1 24)an the receiver transmitting means(fig 1 24) and the digital control unit(fig1 24) of claim 30.

Nichols in fig 4 discloses the digital form controller of claim 31 because the signals are converted to digital form.

Nichols in fig.1 discloses the medium transmitting means(24) of claim 32.

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which

Serial No. 289776

-7-

Art Unit 235

the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 3, 16, and 17 are rejected under 35 U.S.C. § 103 as being unpatentable over Baldwin in view of Lem.

Baldwin does not disclose the coupled telephone means of claim 3. Lem discloses the coupled telephone means (col 2 lines 45-50) of claim 2. It would have been obvious to one of ordinary skill in the art to modify Baldwin with the coupled telephone means as taught by Lem because a telephone line provide remote transmission capability.

Baldwin inherently includes the first means and the second means of claim 16 because the digital signal must have originally been an analog signal. Baldwin does not disclose the third means of claim 16. Lem discloses the third means (col 2 lines 45-50) of claim 16. It would have been obvious to one of ordinary skill in the art to modify Baldwin with the third means as taught by Lem because a telephone line provide remote transmission capability.

Baldwin discloses the compressed digital data (col 9 lines 1-20) of claim 17.

Claim 2 is rejected under 35 U.S.C. § 103 as being unpatentable over Baldwin in view of Ohira.

Serial No. 289776

-8-

Art Unit 235

Baldwin does not disclose the optical fiber of claim 2.
Ohira discloses the optical fiber (col 3 lines 30-35) of claim 2.
It would have been obvious to one of ordinary skill in the art
to modify Baldwin with the optical fiber as taught by Ohira
because optical fiber is a well known method of coupling devices
(e g telephone systems).

Scott and Hoshimi further shows the state of the art.

Any inquiry concerning this communication should be directed
to W. Daniel Swayze at telephone number (703) 557-8002.

W Daniel Swayze

Steven L. Stephan

STEVEN L. STEPHAN
PRIMARY EXAMINER
ART UNIT 235

TO SEPARATE, HOLD TOP AND BOTTOM EDGES, SNAP-APART AND DISCARD CARBON

17

FORM PTO-892 (REV. 3-78)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE			SERIAL NO. 28 9776	GROUPART UNIT 235	ATTACHMENT TO PAPER NUMBER 3				
NOTICE OF REFERENCES CITED					APPLICANT(S) LANL						
U.S. PATENT DOCUMENTS											
*	DOCUMENT NO.				DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE		
A	4	5	6	3710	1-7-86	BAUDWIN	360	9.1			
B	4	5	1	1934	4-16-85	OHIRA	360	55			
C	4	4	4	6490	5-184	HOSHIMI	360	13			
D	4	7	5	0034	6-7-88	LEM	358	335	1-2-87		
E	4	6	9	8664	10-6-87	NICHOLAS	360	14.1	3-4-85		
F	4	6	2	5080	11-25-86	SCOTT	360	33.1			
G											
H											
I											
J											
K											
FOREIGN PATENT DOCUMENTS											
*	DOCUMENT NO.				DATE	COUNTRY	NAME	CLASS	SUB-CLASS	PERTINENT SHTS. PP. DWG. SPEC.	
L											
M											
N											
O											
P											
Q											
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)											
R											
S											
T											
U											
EXAMINER APB					DATE 9-28-89						
* A copy of this reference is not being furnished with this office action. (See Manual of Patent Examining Procedure, section 707.05 (a).)											



RECEIVED
MAR 27 1990
GROUP 230

90-216-235
#4

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

ART UNIT 235

Examiner W. Daniel Swayze

Richard A. Lang
CASE 1352L (204)
SERIAL NO. 07/289,776
FILED December 27, 1988
SUBJECT VIDEO RECORDER/TRANSMITTER

"Express Mail" mailing label number B91130846
Date of Deposit March 12, 1990

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

William E. Heit

(Typed or printed name of person mailing paper or fee)

(Signature of person mailing paper or fee)

THE COMMISSIONER OF PATENTS AND TRADEMARKS
WASHINGTON, D.C. 20231

SIR:

PETITION FOR EXTENSION OF TIME UNDER 37 C.F.R. 1.136

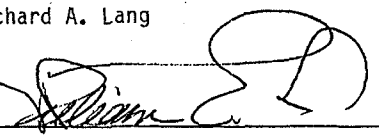
It is respectfully requested that an extension of time of two months be granted in accordance with the provisions of 37 C.F.R. 1.136 to take the action required in the application identified in caption, as reflected by the papers submitted herewith.

A check in the amount of \$90.00 (small entity) is enclosed herewith in payment of the processing fee associated with this petition.

Respectfully submitted,

Richard A. Lang

By


William E. Heit
Patent Attorney #26,465

March 12, 1990
(303) 667-6741
Loveland, Colorado

'50 03/23/90 07289776

1 216

90.00 CK

#5

RECEIVED

MAR 27 1990

GROUP 230

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ART UNIT 235



Examiner W. Daniel Swayze

"Express Mail" mailing label number B91130846

Date of Deposit March 12, 1990

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

William E. Hein

(Type or printed name of person mailing paper or fee)

(Signature of person mailing paper or fee)

Richard A. Lang
CASE 1352L (204)
SERIAL NO. 07/289,776
FILED December 27, 1988
SUBJECT VIDEO RECORDER/TRANSMITTER

THE COMMISSIONER OF PATENTS AND TRADEMARKS
WASHINGTON, D.C. 20231

SIR:

LETTER TO THE OFFICIAL DRAFTSMAN

Subject to the approval of the Examiner, please amend Figure 2 of the drawings in the above-identified patent application to correct an error in spelling and a reference numeral designation, as indicated in red on the attached copy of that drawing figure.

Respectfully submitted,

Richard A. Lang

By

William E. Hein
Patent Attorney #26,465

March 12, 1990
(303) 667-6741
Loveland, Colorado

*Approved
6-14-90
[Signature]*

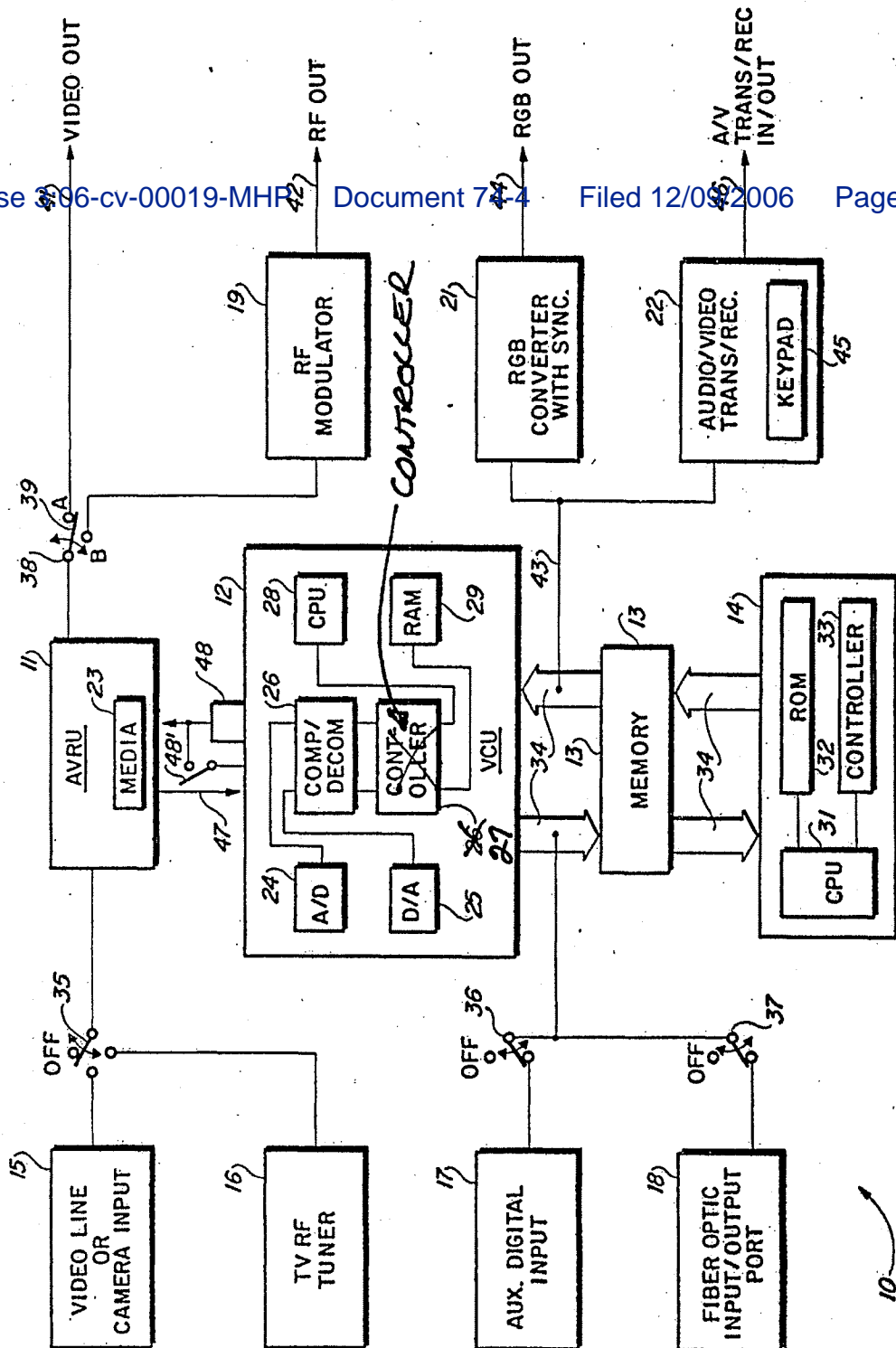


FIG. 2

#6



RECEIVED

MAR 27 1990

GROUP 230

IN THE

UNITED STATES PATENT AND TRADEMARK OFFICE

ART UNIT 235

Examiner W. Daniel Swayze

Richard A. Lang
CASE 1352L (204)
SERIAL NO. 07/289,776
FILED December 27, 1988
SUBJECT VIDEO RECORDER/TRANSMITTER

"Express Mail" mailing label number 891130846

Date of Deposit March 12, 1990

Hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

William E. Hein

(Typed or printed name of person mailing paper or fee)

(Signature of person mailing paper or fee)

THE COMMISSIONER OF PATENTS AND TRADEMARKS
WASHINGTON, D.C. 20231

SIR:

INFORMATION DISCLOSURE STATEMENT

Pursuant to the provisions of 37 CFR 1.56, 1.97, and 1.98, applicant submits herewith copies of four prior art U.S. patent references that have recently come to his attention, together with a Form PT0-1449 on which those references are cited. A concise explanation of the relevance of each of the four references follows:

U.S. Patent No. 4,179,709 to Workman teaches an apparatus and method for bandwidth compression of video information utilizing image fields and subfields and a system of coefficients indicative of subfield luminance and subfield spatial content.

U.S. Patent No. 4,774,574 to Daly et al. teaches an apparatus and method for transmitting a digital image over a limited bandwidth communications channel in which a block transformation technique involving transform coefficients is employed.

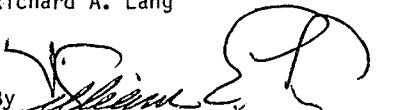
U.S. Patent No. 4,516,156 to Fabris et al. teaches a quasi-automated

video teleconferencing system in which conference participants who are unskilled in the operation of video equipment can control the various functions of a number of TV cameras during the course of a teleconference session.

U.S. Patent No. 4,851,931 to Parker et al. teaches an apparatus and method for rapidly creating a custom tape of musical pieces selected from a music library.

Respectfully submitted,

Richard A. Lang

By 

William E. Hein
Patent Attorney #26,465

March 12, 1990
(303) 667-6741
Loveland, Colorado

Sheet 1 of 1 ⁶

LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION DISCLOSED BY APPLICANT (Use several sheets if necessary)		ATTY. DOCKET NO. 204 (1352L)		SERIAL NO. 07/289,776										
		APPLICANT Richard A. Lang												
		FILING DATE December 27, 1988		GROUP 235										
U.S. PATENT DOCUMENTS														
*EXAMINER INITIAL		DOCUMENT NUMBER				DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE				
										YES	NO			
<i>JS</i>	AA	4	1	7	9	7	0	9	12/79	Workman	358	133		
<i>JS</i>	AB	4	7	7	4	5	7	4	9/88	Daly et al.	358	133	<u>6/87</u>	
<i>JS</i>	AC	4	5	1	6	1	5	6	5/85	Fabris et al.	358	85		
<i>JS</i>	AD	4	8	5	1	9	3	1	7/89	Parker et al.	360	115	<u>2/87</u>	
	AE													
	AF													
	AG													
	AH													
	AI													
	AJ													
	AK													
FOREIGN PATENT DOCUMENTS														
		DOCUMENT NUMBER				DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION				
										YES	NO			
	AL													
	AM													
	AN													
	AO													
	AP													
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)														
	AR													
	AS													
	AT													
EXAMINER						DATE CONSIDERED								
ROBERT L. RICHARDSON PRIMARY EXAMINER ART UNIT 235						(- 14-90)								
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.														



RECEIVED

MAR 27 1990

GROUP 230

IN THE

UNITED STATES PATENT AND TRADEMARK OFFICE

ART UNIT 235

Examiner W. Daniel Swayze

200-203-235
7/a
D.P.
7/16/90

"Express Mail" mailing label number B91130846
Date of Deposit March 12, 1990

Richard A. Lang
CASE 1352L (204)
SERIAL NO. 07/289,776
FILED December 27, 1988
SUBJECT VIDEO RECORDER/TRANSMITTER

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.
William E. Hein
(Typed or printed name of person mailing paper or fee)
[Signature]
(Signature of person mailing paper or fee)

THE COMMISSIONER OF PATENTS AND TRADEMARKS
WASHINGTON, D.C. 20231

4/16/90
aq

SIR:

Amendment "A"

In response to the Office Action mailed October 11, 1990, please amend the above-identified patent application as indicated by the following:

In the drawings

Please amend Figure 2 as indicated in red on the enclosed photocopy of that drawing figure to correct a typographical error in the spelling of the word "controller" on one of the blocks and to correct an error in the reference numeral designation of that block.

In the specification

Page 1, line 1, cancel the present title and substitute therefor the new title AUDIO/VIDEO TRANSCEIVER APPARATUS INCLUDING COMPRESSION MEANS;

Page 7, line 19, after "processing" insert --unit--;

Page 7, line 27, delete "framemay" and substitute --frame may--;

050 03/23/90 07289776

1 203 288.00 CK
1

N
R
K

Page 7, line 28, delete "signals" and substitute --signal--;
Page 15, line 30, delete "IC" and substitute --IC's--;
Page 16, line 7, delete "smaller" and substitute --narrower--;
Page 16, line 9, delete "smaller" and substitute --slower--;
Page 16, line 23, delete "in media" and substitute --on media--;
Page 18, line 5, delete "super imposed" and substitute --superimposed--

; and

Page 19, line 2, delete "in media" and substitute --on media--;

In the claims

Cancel claims 1-32 presently on file, and add new claims 33-112, as set forth below:

33. An audio/video transceiver apparatus comprising:
input means for receiving audio/video source information;
compression means, coupled to said input means, for compressing said audio/video source information into a time compressed representation thereof having an associated time period that is shorter than a time period associated with a real time representation of said audio/video source information;
random access storage means, coupled to said compression means, for storing the time compressed representation of said audio/video source information; and
output means, coupled to said random access storage means, for receiving the time compressed audio/video source information stored in said random access storage means for transmission away from said audio/video transceiver apparatus.

A

34. An audio/video transceiver apparatus as in claim 33 further comprising editing means, coupled to said random access storage means, for editing the time compressed representation of said audio/video source information stored in said random access storage means and for restoring the edited time compressed representation of said audio/video source information

2-2

in said random access storage means; and wherein said output means is operative for receiving the edited time compressed representation of said audio/video source information stored in said random access storage means for transmission away from said audio/video transceiver apparatus.

³ ~~35~~. An audio/video transceiver apparatus as in claim ~~34~~ further comprising monitor means for enabling the user to selectively identify the time compressed representation of said audio/video source information stored in said random access storage means during editing.

⁴ ~~36~~. An audio/video transceiver apparatus as in claim ~~35~~ wherein said output means comprises a fiber optic output port for coupling said audio/video transceiver apparatus to a fiber optic transmission line.

⁵ ~~37~~. An audio/video transceiver apparatus as in claim ~~36~~ wherein said output means comprises a modem for coupling said audio/video transceiver apparatus to a telephone transmission line.

⁶ ~~38~~. An audio/video transceiver apparatus as in claim ~~37~~ wherein said random access storage means comprises an optical disc.

⁷ ~~39~~. An audio/video transceiver apparatus as in claim ~~38~~ wherein said random access storage means comprises a semiconductor memory.

⁸ ~~40~~. An audio/video transceiver apparatus as in claim ~~39~~ wherein:
(i) said audio/video source information comprises analog audio/video source information;

(ii) said audio/video transceiver apparatus further comprises analog to digital converter means for converting said analog audio/video source information to corresponding digital audio/video source information;

(iii) said compression means is operative for compressing said corresponding digital audio/video source information into a digital time compressed representation thereof having an associated time period that is shorter than a time period associated with a real time representation of said digital audio/video source information; and

(iv) said random access storage means is operative for storing said digital

24/3

time compressed representation of said corresponding digital audio/video source information.

⁹11. An audio/video transceiver apparatus as in claim ~~33~~¹ wherein:
said audio/video source information comprises digital audio/video source information;

said compression means is operative for compressing said digital audio/video source information into a digital time compressed representation thereof having an associated time period that is shorter than a time period associated with a real time representation of said digital audio/video source information; and

said random access storage means is operative for storing said digital time compressed representation of said digital audio/video source information.

¹⁰12. An audio/video transceiver apparatus as in claim ~~40~~⁸ wherein said input means is coupled to an external television camera and said analog audio/video source information comprises information received from said external television camera.

¹¹13. An audio/video transceiver apparatus as in claim ~~40~~⁸ wherein said input means is coupled to an external analog video tape recorder and said analog audio/video source information comprises information received from said external analog video tape recorder.

¹²14. An audio/video transceiver apparatus as in claim ~~40~~⁸ wherein said input means is coupled to an external television RF tuner and said analog audio/video source information comprises information received from said external television RF tuner.

¹³15. An audio/video transceiver apparatus as in claim ~~40~~⁸ wherein said input means comprises television RF tuner means coupled to an external television antenna and said analog audio/video source information comprises information transmitted by a remotely located television transmitter.

¹⁴16. An audio/video transceiver apparatus as in claim ~~40~~⁸ wherein said input means comprises television RF tuner means coupled to an external cable

A²

25 4

television system and said analog audio/video source information comprises information received from said external cable television system.

¹⁵~~147~~. An audio/video transceiver apparatus as in claim ~~41~~⁴⁹ wherein said input means is coupled to an external computer and said digital audio/video source information comprises computer-generated audio/video information.

¹⁶~~148~~. An audio/video transceiver apparatus as in claim ~~41~~⁴⁹ wherein said input means comprises a fiber optic input port coupled to a fiber optic transmission line and said digital audio/video source information comprises information received over said fiber optic transmission line.

¹⁷~~149~~. An audio/video transceiver apparatus comprising:
f input means for receiving audio/video source information as a time compressed representation thereof, said time compressed representation of said audio/video source information being received over an associated burst time period that is shorter than a real time period associated with said audio/video source information;

A

f random access storage means, coupled to said input means, for storing the time compressed representation of said audio/video source information received by said input means; and

f output means, coupled to said random access storage means, for receiving the time compressed representation of said audio/video source information stored in said random access storage means for transmission away from said audio/video transceiver apparatus.

¹⁸~~150~~. An audio/video transceiver apparatus as in claim ~~49~~¹⁷¹ wherein:
f said input means comprises a fiber optic input port;
f said input means is coupled, via a fiber optic transmission line, to a video library, said video library storing a multiplicity of items of audio/video source information in said time compressed representation for selective retrieval, in said associated burst time period over said fiber optic transmission line, by the user.

¹⁹~~151~~. An audio/video transceiver apparatus as in claim ~~49~~¹⁷¹ in combination

with a video library, coupled via a communication link with said audio/video transceiver apparatus, said video library storing a multiplicity of items of audio/video source information in said time compressed representation for selective retrieval, in said associated burst time period over said communication link.

²⁰~~52~~. An audio/video transceiver apparatus as in claim ~~33~~¹ further comprising:

¹¹ decompression means, coupled to said random access storage means, for selectively decompressing said time compressed representation of said audio/video source information stored in said random access storage means; and

¹¹ editing means, coupled to said random access storage means and decompression means, for editing said selectively decompressed time compressed representation of said audio/video source information, and for storing said edited selectively decompressed time compressed representation of said audio/video source information in said random access storage means.

Handwritten mark resembling the letter 'A'.

²¹~~53~~. An audio/video transceiver apparatus as in claim ~~33~~¹ further comprising:

¹¹ decompression means, coupled to said random access storage means, for selectively decompressing said time compressed representation of said audio/video source information stored in said random access storage means; and

¹¹ editing means, coupled to said random access storage means and decompression means, for editing said selectively decompressed time compressed representation of said audio/video source information;

¹¹ wherein said compression means is operative for recompressing the edited selectively decompressed time compressed representation of said audio/video source information; and

¹¹ wherein said random access storage means is operative for storing the recompressed selectively decompressed time compressed representation of said audio/video source information.

²²~~54~~. An audio/video transceiver apparatus as in claim ~~33~~¹ further

Handwritten number '27' with a small '6' to its right.

comprising:

(i) decompression means, coupled to said random access storage means, for selectively decompressing the time compressed representation of said audio/video source information stored in said random access storage means; and

(ii) monitor means for enabling the user to view the selectively decompressed time compressed representation of said audio/video source information.

²³~~55~~. An audio/video transceiver apparatus as in claim ~~40~~⁸ further

comprising:

(i) decompression means, coupled to said random access storage means, for selectively decompressing the digital time compressed representation of said corresponding digital audio/video source information stored in said random access storage means; and

A²

(ii) editing means, coupled to said random access storage means and decompression means, for editing the decompressed digital time compressed representation of said corresponding digital audio/video source information and for then storing the edited decompressed digital time compressed representation of said corresponding digital audio/video source information in said random access storage means.

²⁴~~56~~. An audio/video transceiver apparatus as in claim ~~55~~²³ further

comprising monitor means for enabling the user to selectively view the decompressed digital time compressed representation of said corresponding digital audio/video source information during editing.

²⁵~~57~~. An audio/video transceiver apparatus as in claim ~~40~~⁸ further

comprising:

(i) decompression means, coupled to said random access storage means, for selectively decompressing the digital time compressed representation of said corresponding digital audio/video source information stored in said random access storage means; and

(ii) monitor means, coupled to said decompression means, for enabling the

28⁷

user to selectively view the decompressed digital time compressed representation of said corresponding digital audio/video source information.

~~26~~⁹ 58. An audio/video transceiver apparatus as in claim ~~41~~⁹ further comprising:

~~11~~ decompression means, coupled to said random access storage means, for selectively decompressing the digital time compressed representation of said digital audio/video source information stored in said random access memory means; and

~~11~~ editing means, coupled to said random access storage means and decompression means, for editing the decompressed digital time compressed representation of said digital audio/video source information;

AR

~~11~~ said random access storage means thereafter being operative for storing the edited decompressed digital time compressed representation of said digital audio/video source information in said random access storage means.

~~27~~²⁶ 59. An audio/video transceiver apparatus as in claim ~~58~~²⁶ further comprising monitor means for enabling the user to selectively view the decompressed digital time compressed representation of said digital audio/video source information during editing.

~~28~~⁹ 60. An audio/video transceiver apparatus as in claim ~~41~~⁹ further comprising:

~~11~~ decompression means, coupled to said random access storage means, for selectively decompressing the digital time compressed representation of said digital audio/video source information stored in said random access memory means; and

~~11~~ monitor means, coupled to said decompression means, for enabling the user to selectively view the decompressed digital time compressed representation of said digital audio/video source information.

~~29~~⁸ 61. An audio/video transceiver apparatus as in claim ~~40~~⁸ further comprising a video tape recorder for providing said analog audio/video source information.

*29*⁸

³⁰
~~62.~~ An audio/video information transfer network comprising:
 a plurality of audio/video transceivers, coupled via one or more communications links, each of said audio/video transceivers comprising:
 input means for receiving audio/video source information;
 compression means, coupled to said input means, for compressing said audio/video source information into a time compressed representation thereof having an associated burst time period that is shorter than a time period associated with a real time representation of said audio/video source information;
 random access storage means, coupled to said compression means, for storing the time compressed representation of said audio/video source information; and
 output means, coupled to said random access storage means and to one of said one or more communications links, for receiving the time compressed format representation of said audio/video source information stored in said random access storage means for transmission in said burst time period to another one of said plurality of audio/video transceivers.

AD

³¹
~~63.~~ An audio/video information transfer network as in claim ~~62~~³⁰ wherein said input means of one of said plurality of audio/video transceivers comprises a fiber optic input port, said output means of another one of said plurality of audio/video transceivers comprises a fiber optic output port, and one of said one or more communications links comprises a fiber optic transmission line coupled between said fiber optic input port and said fiber optic output port.

³²
~~64.~~ An audio/video information transfer network as in claim ~~62~~³⁰ wherein said output means of one of said plurality of audio/video transceivers comprises a modem and one of said one or more communications links comprises a telephone transmission line.

³⁵
~~65.~~ An audio/video information transfer network as in claim ~~62~~³⁰ wherein said random access storage means comprises an optical disc memory.

30 9

³⁴~~36~~. An audio/video information transfer network as in claim ³⁰~~32~~ wherein said random access storage means comprises a semiconductor memory.

³⁵~~37~~. An audio/video information transfer network as in claim ³⁰~~32~~ wherein said random access storage means of one of said plurality of audio/video transceivers stores a library comprising a multiplicity of items of audio/video source information in said time compressed representation for selective transmission in said associated burst time period to another one of said audio/video transceivers.

³⁶~~38~~. An audio/video information transfer network as in claim ³⁰~~32~~ wherein at least one of said audio/video transceivers further comprises recording means, including a removable recording medium, coupled to said random access storage means, for storing the time compressed representation of said audio/video source information stored in said random access storage means onto said removable recording medium.

A²

³⁷~~39~~. An audio/video information transfer network as in claim ³⁰~~32~~ wherein at least one of said audio/video transceivers further comprises:

(i) decompression means, coupled to said random access storage means, for decompressing the time compressed representation of said audio/video source information stored in said random access storage means; and

(ii) recording means, including a removable recording medium, coupled to said decompression means, for storing the decompressed time compressed format representation of said audio/video source information onto said removable recording medium.

³⁸~~40~~. An audio/video information transfer network as in claim ³⁶~~38~~ wherein said recording means comprises a video tape recorder and said removable recording medium comprises magnetic tape.

³⁹~~41~~. An audio/video information transfer network as in claim ³⁷~~39~~ wherein said recording means comprises a video tape recorder and said removable recording medium comprises magnetic tape.

⁴⁰~~42~~. An audio/video information transfer network as in claim ³⁸~~40~~ wherein

said recording means comprises a write once read many (WORM) optical disc drive and said removable recording medium comprises one or more WORM discs.

⁴¹ 73. An audio/video information transfer network as in claim ³⁷ 69 wherein said recording means comprises a write once read many (WORM) optical disc drive and said removable recording medium comprises one or more WORM discs.

⁴² 74. An audio/video information transfer network as in claim ³⁶ 68 wherein said recording means comprises an erasable optical disc drive and said hard copy storage medium comprises one or more erasable optical discs.

⁴³ 75. An audio/video information transfer network as in claim ³⁷ 69 wherein said recording means comprises an erasable optical disc drive and said hard copy storage medium comprises one or more erasable optical discs.

⁴⁴ 76. An audio/video transceiver apparatus as in claim ¹ 33 further comprising recording means, including a removable recording medium, coupled to said random access storage means, for storing the time compressed representation of said audio/video source information stored in said random access storage means onto said removable recording medium.

⁴⁵ 77. An audio/video transceiver apparatus as in claim ² 34 further comprising recording means, including a removable recording medium, coupled to said random access storage means, for storing the edited time compressed representation of said audio/video source information stored in said random access storage means onto said removable recording medium.

⁴⁶ 78. An audio/video transceiver apparatus as in claim ⁴⁵ 37 further comprising monitor means for enabling the user to selectively view the time compressed representation of said audio/video source information stored on said removable recording medium.

⁴⁷ 79. An audio/video transceiver apparatus as in claim ¹⁷ 39 further comprising recording means, including a removable recording medium, coupled to said random access storage means, for storing the time compressed representation of said audio/video source information stored in said random access storage means onto said removable recording medium.

A 2

~~48~~ ² 80. An audio/video transceiver apparatus as in claim ~~52~~ further comprising recording means, including a removable recording medium, coupled to said random access storage means, for storing the edited decompressed time compressed representation of said audio/video source information stored in said random access storage means.

~~49~~ ¹ 81. An audio/video transceiver apparatus as in claim ~~33~~ further comprising:
¹ i) decompression means, coupled to said random access storage means, for selectively decompressing the time compressed representation of said audio/video source information stored in said random access storage means; and
¹ ii) recording means, including a removable recording medium, coupled to said decompression means, for storing the selectively decompressed time compressed representation of said audio/video source information stored in said random access storage means.

PP

~~50~~ ²² 82. An audio/video transceiver apparatus as in claim ~~54~~ further comprising:
¹ i) recording means, including a removable recording medium, coupled to said decompression means, for storing the selectively decompressed time compressed representation of said audio/video source information on said hard copy storage medium; and
¹ ii) wherein said monitor means is operative for enabling the user to view the selectively decompressed time compressed representation of said audio/video source information stored on said removable recording medium.

~~51~~ ⁹ 83. An audio/video transceiver apparatus as in claim ~~41~~ further comprising CD-ROM means for providing said digital audio/video source information.

~~52~~ ⁹ 84. An audio/video transceiver apparatus as in claim ~~41~~ further comprising erasable optical disc means for providing said digital audio/video source information.

~~53~~ ¹⁷ 85. An audio/video transceiver apparatus as in claim ~~49~~ wherein:

33¹²

h said input means comprises television RF tuner means; and
L said audio/video source information comprises a time compressed representation thereof transmitted by a remotely located television transmitter.

⁵⁴/~~86~~. An audio/video transceiver apparatus as in claim ~~33~~¹ further comprising external video tape recorder means, coupled to said output means, for storing the time compressed representation of said audio/video source information stored in said random access storage means onto magnetic tape.

⁵⁵/~~87~~. An audio/video transceiver apparatus as in claim ~~34~~² further comprising external video tape recorder means, coupled to said output means, for storing the edited time compressed representation of said audio/video source information stored in said random access storage means onto magnetic tape.

A²

⁵⁶/~~88~~. An audio/video transceiver apparatus as in claim ~~40~~¹⁷ further comprising external video tape recorder means, coupled to said output means, for storing the time compressed representation of said audio/video source information stored in said random access storage means onto magnetic tape.

⁵⁷/~~89~~. An audio/video transceiver apparatus as in claim 52 further comprising external video tape recorder means, coupled to said output means, for storing the edited decompressed time compressed representation of said audio/video source information stored in said random access storage means onto magnetic tape.

⁵⁸/~~90~~. An audio/video transceiver apparatus as in claim ~~33~~¹ further comprising:

(i) decompression means, coupled to said random access storage means, for selectively decompressing the time compressed representation of said audio/video source information stored in said random access storage means; and

(ii) external video tape recorder means, coupled to said output means, for storing the selectively decompressed time compressed representation of said audio/video source information stored in said random access storage means.

34¹³

⁵⁹
~~91.~~ An audio/video transceiver apparatus as in claim ~~54~~²² further comprising external video tapé recorder means, coupled to said output means, for storing the selectively decompressed time compressed representation of said audio/video source information onto magnetic tape.

⁶⁰
~~92.~~ An audio/video transceiver apparatus comprising:

A
input means for receiving analog and/or digital audio/video source information;

A
analog to digital converter means for converting analog audio/video source information received at said input means to corresponding digital audio/video source information;

A
digital to analog converter means for converting digital audio/video source information received at said input means to corresponding analog audio/video source information;

A
compressor/decompressor means for compressing digital audio/video source information received at said input means or said corresponding digital audio/video source information received from said analog to digital converter means into a time compressed representation of said digital or corresponding digital audio/video source information, said time compressed representation having an associated time period that is shorter than a time period associated with a real time representation of said digital or corresponding digital audio/video source information, said compressor/decompressor means being further operative for decompressing said time compressed representation into a decompressed real time representation of said digital or corresponding digital audio/video source information;

A
central processing unit means for controlling operation of of said compressor/decompressor means;

A
random access storage means for storing said time compressed representation of said digital or corresponding digital audio/video source information and for storing said decompressed real time representation of said digital or corresponding digital audio/video source information;

(1) controller means for enabling communication between said compressor/decompressor means, said central processing unit means, and said random access memory means; and

(1) output means for receiving said time compressed representation of said digital or corresponding digital audio/video source information stored in said random access storage means for transmission away from said audio/video transceiver apparatus.

⁶¹~~93~~. An audio/video transceiver apparatus as in claim ~~92~~⁶⁰ further comprising time base generator means for supplying timing information for association with said time compressed representation of said digital or corresponding digital audio/video source information.

⁶²~~94~~. An audio/video transceiver apparatus as in claim ~~92~~⁶⁰ further comprising audio/video recording means, including a recording medium, for recording said analog or corresponding analog audio/video source information onto said recording medium.

A²

⁶³~~95~~. An audio/video transceiver apparatus as in claim ~~92~~⁶⁰ further comprising audio/video recording means, including a recording medium, for recording said digital or corresponding digital audio/video source information onto said recording medium.

⁶⁴~~96~~. An audio/video transceiver apparatus as in claim ~~94~~⁶² wherein said recording medium comprises magnetic tape.

⁶⁵~~97~~. An audio/video transceiver apparatus as in claim ~~95~~⁶³ wherein said recording medium comprises magnetic tape.

⁶⁶~~98~~. An audio/video transceiver apparatus as in claim ~~95~~⁶³ wherein said recording medium comprises a CD-ROM.

⁶⁷~~99~~. An audio/video transceiver apparatus as in claim ~~95~~⁶³ wherein said recording medium comprises a WORM optical disc.

⁶⁸~~100~~. An audio/video transceiver apparatus as in claim ~~95~~⁶³ wherein said recording medium comprises an erasable optical disc.

⁶⁹~~101~~. An audio/video transceiver apparatus as in claim ~~92~~⁶⁰ further

comprising audio/video recording and playback means coupled to said input means for providing said analog and/or digital audio/video source information.

⁷⁰~~102~~. An audio/video transceiver apparatus as in claim ⁶⁰~~92~~ further comprising high speed bus means coupled to said input means, and wherein said input means comprises auxiliary digital input means for receiving said digital audio/video source information.

⁷¹~~103~~. An audio/video transceiver apparatus as in claim ⁷⁰~~102~~ wherein said high speed bus means comprises an optical bus.

⁷²~~104~~. An audio/video transceiver apparatus as in claim ⁶⁰~~92~~ further comprising high speed bus means coupled to said input means, and wherein said input means comprises fiber optic input means for receiving said digital audio/video source information.

⁷³~~105~~. An audio/video transceiver apparatus as in claim ⁶⁰~~92~~ further comprising high speed bus means, and wherein said analog to digital converter means, digital to analog converter means, compressor/decompressor means, central processing unit means, and controller means are coupled to said random access storage means via said high speed bus means.

A²

⁷⁴~~106~~. An audio/video transceiver apparatus as in claim ⁶⁰~~92~~ further comprising:

(i) digital control unit means, said digital control unit means comprising:
additional central processing unit means;
read-only memory means coupled to said additional central processing unit means for storing microinstructions defining a plurality of selected editing functions; and

(ii) additional controller means for enabling communication between said additional central processing unit means and said read-only memory means;
(iii) said additional central processing unit means being operative for selectively executing the microinstructions stored in said read-only memory means to perform one or more of said plurality of selected editing functions.

⁷⁵~~107~~. An audio/video transceiver apparatus as in claim ⁷⁴~~106~~ wherein said

digital control unit means is coupled to said random access storage means.

⁷⁶~~108~~. An audio/video transceiver apparatus as in claim ~~105~~⁷³ further comprising RGB converter means for converting information stored in said random access storage means to an RGB format, and wherein said output means comprises RGB output means for receiving RGB format information from said RGB converter means.

⁷⁷~~109~~. An audio/video transceiver apparatus as in claim ~~105~~⁷³ wherein said output means comprises audio/video transmitter/receiver means coupled to said high speed bus for receiving said time compressed representation of said digital or corresponding digital audio/video source information stored in said random access storage means for transmission away from said audio/video transceiver apparatus.

Handwritten mark

⁷⁸~~110~~. An audio/video transceiver apparatus as in claim ~~109~~⁷⁷ wherein said audio/video transmitter/receiver means comprises a modem for coupling to a telephone transmission line.

⁷⁹~~111~~. An audio/video transceiver apparatus as in claim ~~109~~⁷⁷ wherein said audio/video transmitter/receiver means comprises a fiber optic transceiver for coupling to a fiber optic transmission line.

⁸⁰~~112~~. An audio/video transceiver apparatus as in claim ~~105~~⁷³ further comprising editing means, coupled to said random access storage means, for editing said time compressed representation of said audio/video source information and for then storing the edited time compressed representation of said audio/video source information in said random access storage means.

Handwritten word: end

Handwritten number: 38¹⁷

REMARKS

Submitted herewith is a document executed by the sole inventor in the above-identified patent application revoking all previous powers of attorney and appointing the undersigned attorney as his new attorney in this application.

Also submitted herewith is a Letter to the Official Draftsman and a copy of Figure 2 of the drawings as originally filed, requesting the correction of two minor typographical errors in that drawing figure. The Examiner's approval of these corrections is respectfully requested.

Also submitted herewith is an Information Disclosure Statement under Rule 56, a completed Form PTO-1449, and copies of four prior art references that have recently come to applicant's attention.

Also submitted herewith, at the Examiner's request, are copies of the references cited at page 7, lines 3-11 of the specification.

The title of the application has been objected to as not being descriptive. Accordingly, applicant has amended the title to make it clearly descriptive of the claimed subject matter.

Claims 1-32 have been canceled in favor of new claims 33-112, presented herewith. New claims 33-112 are believed to present the previously claimed subject matter in better form, with more specificity, particularity, and clarity than original claims 1-32. In addition, they are believed to provide the scope of claims coverage to which applicant believes he is entitled.

Claims 33-48, 52-61, 76-78, 80-84, 86, 87, 89-91, and 112 are directed to an audio/video transceiver having the ability to receive audio/video source information from a variety of signal sources, compress the received audio/video source information into a time compressed representation thereof, store the time compressed representation of the audio/video source information in a random access storage, and then transmit the time compressed representation of the audio/video source information that is stored in the random access storage to any of various types of destination devices via any of a number of transmission mediums.

Claims 49-51, 79, 85, and 88 are similarly directed to an audio/video transceiver having the ability to receive time compressed audio/video source information over a burst time period that is shorter than the real time period associated with that audio/video source information, store the time compressed audio/video source information in a random access storage, and then transmit the time compressed audio/video source information stored in the random access storage.

Claims 62-75 are similarly directed to a network comprising two or more audio/video transceivers coupled via a communications link, each transceiver being capable of receiving audio/video source information, compressing the received audio/video source information into a time compressed representation thereof, storing the time compressed representation of the audio/video source information in a random access storage, and then transmitting the time compressed representation of the audio/video source information stored in the random access storage, over a burst time period that is shorter than the real time period associated with the audio/video source information, to another one of the audio/video transceivers coupled within the network.

Claims 92-111 are similarly directed to an audio/video transceiver for receiving analog and/or digital audio/video source information and having an analog to digital converter for converting analog audio/video source information to a corresponding digital format, a digital to analog converter for converting digital audio/video source information to a corresponding analog format, a compressor/decompressor for compressing digital audio/video information received by the transceiver or processed by the analog to digital converter into a time compressed representation thereof and for also decompressing the time compressed representation thereof into a decompressed real time representation thereof, and a random access storage for storing the time compressed representation of audio/video information and the decompressed real time representation of audio/video information.

In summary, these important features of applicant's claimed invention