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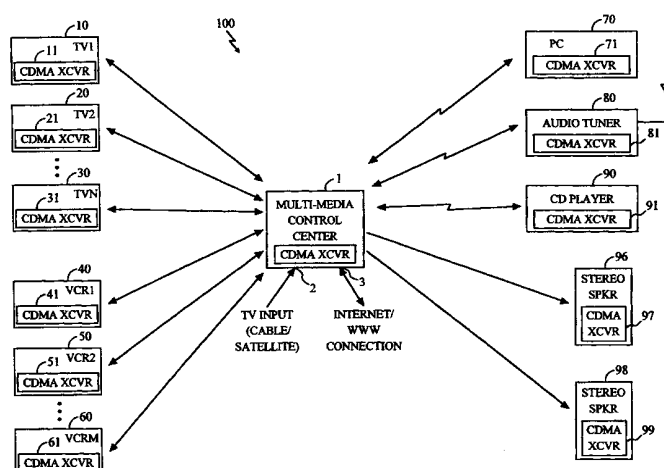
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(54) Title: **SYSTEM AND METHOD FOR CONNECTING HOME ENTERTAINMENT AND COMPUTER DEVICES USING A LOCAL CDMA-BASED NETWORK**



(57) Abstract: A system and method for interconnecting a plurality of home entertainment devices using a local CDMA-based network, wherein the plurality of home entertainment devices include a first television and a first video cassette recorder (VCR). A first CDMA receiver is coupled to the first television, and a first CDMA transceiver is coupled to the first VCR. A control center includes an input port that receives a television signal from a cable or satellite source, and the control center is coupled to the first television set and the first VCR by the local CDMA-based network. The control center includes a CDMA receiver that receives signals transmitted with the first CDMA transceiver from the first VCR to the control center. The control center also includes a CDMA transmitter that transmits video signals to the first CDMA receiver coupled to the first television, and video signals to the first CDMA transceiver coupled to the first VCR. Further devices including further televisions, VCRs, a personal computer, an audio tuner, a compact disc player and audio speakers may also be coupled to the control center by the local CDMA-based network.

SYSTEM AND METHOD FOR CONNECTING HOME ENTERTAINMENT AND COMPUTER DEVICES USING A LOCAL CDMA-BASED NETWORK

5 BACKGROUND OF THE INVENTION

I. Field of the Invention

10 The present invention relates generally to the wireless transmission of audio, video and data signals. More particularly, the present invention relates to a local wireless network that uses code division multiple access (CDMA) modulation to connect various home entertainment devices to a central local control center, and to transmit audio, video and data signals between the control center and the various home entertainment devices.

15 II. Description of the Related Art

At present, many households have a variety of home entertainment devices in their homes including multiple televisions, video cassette recorders (VCRs), personal computers, and stereo equipment such as audio tuners, compact disc recorders and stereo speakers. Each of these devices is typically connected to one or more of the other devices or to external signal sources by physical cables. For example, cable connections are typically required to connect each television to an external cable or satellite television feed, each VCR must be connected to a television by one or more cables, cables are required for delivering audio signals from an audio tuner or compact disk player to stereo speakers, and cables are typically required to connect a personal computer to an internet source in the home such as a telephone jack.

25 The use of such cables is often unsightly and inconvenient, and it would be desirable if connections to home entertainment devices described above could be made without resort to the physical cabling described above.

30

SUMMARY OF THE INVENTION

The present invention is directed to a system and method for
5 interconnecting a plurality of home entertainment devices using a local CDMA-
based network, wherein the plurality of home entertainment devices include,
for example, a first television and a first video cassette recorder (VCR). A first
CDMA receiver is coupled to the first television, and a first CDMA transceiver
is coupled to the first VCR. A control center includes an input port that receives
10 a television signal from a cable or satellite source, and the control center is
coupled to the first television set and the first VCR by the local CDMA-based
network. The control center includes a CDMA receiver that receives signals
transmitted with the first CDMA transceiver from the first VCR to the control
center. The control center also includes a CDMA transmitter that transmits
15 video signals to the first CDMA receiver coupled to the first television, and
video signals to the first CDMA transceiver coupled to the first VCR. Further
devices including further televisions, VCRs, a personal computer, an audio
tuner, a compact disc player and audio speakers may also be coupled to the
control center by the local CDMA-based network.

20 In one embodiment, the system also includes a second CDMA receiver
coupled to a second television, a third CDMA receiver coupled to a third
television, a second CDMA transceiver coupled to a second VCR, and a third
CDMA transceiver coupled to a third VCR. In this embodiment, the CDMA
transmitter in the control center transmits video signals to the second CDMA
25 receiver coupled to the second television set, to the third CDMA receiver
coupled to the third television set, to the second CDMA transceiver coupled to
the second VCR, and to the third CDMA transceiver coupled to the third VCR.
In addition, the CDMA receiver in the control center receives signals
transmitted with the second CDMA transceiver from the second VCR, and
30 signals transmitted with the third CDMA transceiver from the third VCR.

In the preferred embodiment, a separate CDMA channel (i.e., a different
PN spreading code and/or offset) is used for transmitting signals from each

device to the control center, and a separate CDMA channel is used for transmitting signals to each device from the control center. All the CDMA channels used for transmissions to and from the control center preferably correspond to spread spectrum signals broadcast on a common frequency band.

5 Thus, for example, the CDMA transmitter in the control center transmits the video signals from the control center to the first television on a first CDMA channel, video signals are transmitted from the control center to the second television on a second CDMA channel, video signals are transmitted from the control center to the third television on a third CDMA channel, video signals
10 are transmitted from the control center to the first VCR on a fourth CDMA channel, video signals are transmitted from the control center to the second VCR on a fifth CDMA channel, and video signals are transmitted from the control center to the third VCR on a sixth CDMA channel. Additionally, the first VCR transmits the video signals to the control center on a seventh CDMA
15 channel, the second VCR transmits the video signals to the control center on an eighth CDMA channel, and the third VCR transmits the video signals to the control center on a ninth CDMA channel.

In accordance with a particularly preferred embodiment, a fourth CDMA transceiver is coupled to the first television, a fifth CDMA transceiver is
20 coupled to the second television, and a sixth CDMA transceiver is coupled to the third television. The fourth CDMA transceiver transmits first control signals from the first television to the CDMA receiver in the control center on a tenth CDMA channel, the fifth CDMA transceiver transmits second control signals from the second television to the CDMA receiver in the control center
25 on an eleventh CDMA channel, and the sixth CDMA transceiver transmits third control signals from the third television to the CDMA receiver in the control center on a twelfth CDMA channel. The first control signals represent a television channel selection made by a user of the first television, the second control signals represent a television channel selection made by a user of the
30 second television, and the third control signals represent a television channel selection made by a user of the third television. Each channel selection may be

made initially and sent to its respective television through the use of a remote control associated with the particular television.

In accordance with a further aspect, the network of the present invention also preferably includes a seventh CDMA transceiver coupled to a personal computer. In this embodiment, the control center further includes an input port that receives an internet signal from a remote source and transmits an internet signal to the remote source. The CDMA receiver in the control center receives internet signals transmitted with the seventh CDMA transceiver from the personal computer to the control center on a further CDMA channel, and the CDMA transmitter in the control center transmits internet signals to the seventh CDMA transceiver coupled to the personal computer on a still further CDMA channel.

The network of the present invention also optionally includes a CDMA transmitter coupled to an audio tuner, a CDMA transmitter coupled to a compact disc player, a CDMA receiver coupled to a first audio speaker, and a CDMA receiver coupled to a second audio speaker. In this embodiment, the control center is coupled to the audio tuner, the compact disc player, the first speaker and the second speaker by the local CDMA-based network, and the control center receives audio signals transmitted from the audio tuner and the compact disc player on further different CDMA channels. Additionally, the control center transmits audio signals to the first and second speakers on further different CDMA channels.

BRIEF DESCRIPTION OF THE DRAWINGS

The features, objects and advantages of the present invention will become more apparent from the detailed description set forth below when taken in conjunction with the drawings in which like reference characters identify corresponding elements and wherein:

FIG. 1 is a block diagram of a local CDMA-based network that connects a plurality of home entertainment devices, in accordance with a preferred embodiment of the present invention.

FIG. 1A is a block diagram of a local CDMA-based network that connects a plurality of home entertainment devices, in accordance with an alternative embodiment of the present invention.

FIG. 1B is a block diagram of a local CDMA-based network that connects
5 a plurality of home entertainment devices, in accordance with a further alternative embodiment of the present invention.

FIG. 1C is a block diagram of a local CDMA-based network that connects a plurality of home entertainment devices, in accordance with a still further alternative embodiment of the present invention.

10 FIG. 2 is a diagram showing the components of a control center used for routing signals between home entertainment devices in a local CDMA-based network, in accordance with a preferred embodiment of the present invention.

FIG. 2A is a diagram showing the components of a control center used for routing signals between home entertainment devices in a local CDMA-
15 based network, in accordance with an alternative preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

20 Referring now to FIG. 1, there is shown a block diagram of a local CDMA-based network 100 that connects a plurality of home entertainment devices, in accordance with a preferred embodiment of the present invention. The home entertainment devices in the network include, for example,
25 televisions 10, 20 and 30; video cassette recorders (VCRs) 40, 50 and 60; a personal computer 70; an audio tuner 80; a compact disc player 90; and audio speakers 96 and 98. It will be understood by those skilled in the art that network 100 need not include all the devices shown in FIG. 1, and that the network may optionally include devices in addition to those shown such as, for
30 example, DVD players. As explained more fully below, local CDMA-based network 100 provides for the coupling of the home entertainment devices described above to each other and to external signal sources, without the use of unsightly physical cables.

In addition to the home entertainment devices described above, network 100 includes a multi-media control center 1 having an input port 2 that receives a television signal from a cable or satellite source. Multi-media control center 1 also preferably includes a further input port 3 that transmits internet signals to and from control center 1. During using of the internet by personal computer 70, port 3 is coupled preferably coupled to an internet service provider via a telephone or cable modem (not shown). As discussed more fully below, each home entertainment device in the network is coupled to multi-media control center 1 by one or more CDMA channels. In the preferred embodiment, a separate CDMA channel (i.e., a different PN spreading code and/or offset) is used for transmitting signals from each home entertainment device in the network to control center 1, and a separate CDMA channel is used for transmitting signals to each device from the control center 1. All the CDMA channels used for transmissions to and from the control center preferably correspond to spread spectrum signals broadcast on a common frequency band. Alternatively, all the CDMA channels used for transmissions to the control center preferably correspond to spread spectrum signals broadcast on a first frequency band, and all the CDMA channels used for transmissions from the control center preferably correspond to spread spectrum signals broadcast on a second (different) frequency band.

A CDMA transceiver 11 is coupled to television 10 (TV1). Among other functions, CDMA transceiver 11 transmits channel selection control signals from television 10 (TV1) to control center 1 on a particular CDMA channel, and CDMA transceiver 11 receives video signals transmitted to television 10 (TV1) from control center 1 on a further CDMA channel. CDMA transceivers are known in the art. Components for a suitable CDMA transceiver that may be used for implementing the transceivers used in network 100 are shown in U.S. Patent No. 5,101,501 entitled "Method and Apparatus for Providing A Soft Handoff In Communications In A CDMA Cellular Telephone System", which is assigned to the assignee of the present invention and incorporated herein by reference. A further CDMA transceiver 21 is coupled to television 20 (TV2), and a further CDMA transceiver 31 is coupled to television 30 (TVn). CDMA

transceiver 21 transmits channel selection control signals transmitted from television 20 (TV2) to control center 1 on a particular CDMA channel, and CDMA transceiver 21 receives video signals transmitted to television 20 (TV2) from control center 1 on a further CDMA channel. Similarly, CDMA transceiver 31 transmits channel selection control signals transmitted from television 30 (TVn) to control center 1 on a particular CDMA channel, and CDMA transceiver 31 receives video signals transmitted to television 30 (TVn) from control center 1 on a still further CDMA channel. Each of the channel selection control signals sent by televisions 10, 20, 30 corresponds to a channel that a user of a given television desires to view. As shown in FIG. 1A, channel selection control signals may be generated at a given television in response to actuation by a user of a remote control associated with the given television.

A CDMA transceiver 41 is coupled to VCR 40 (VCR1). Among other functions, CDMA transceiver 41 receives video signals transmitted to VCR 40 (VCR1) from control center 1 on a particular CDMA channel, and CDMA transceiver 41 transmits video signals from VCR 40 (VCR1) to control center 1 on a further CDMA channel. A further CDMA transceiver 51 is coupled to VCR 50 (VCR2). CDMA transceiver 51 receives video signals transmitted to VCR 50 (VCR2) from control center 1 on a particular CDMA channel, and CDMA transceiver 51 transmits video signals from VCR 50 (VCR2) to control center 1 on a further CDMA channel. A still further CDMA transceiver 61 is coupled to VCR 60 (VCRn). CDMA transceiver 61 receives video signals transmitted to VCR 60 (VCRn) from control center 1 on a particular CDMA channel, and CDMA transceiver 61 transmits video signals from VCR 60 (VCRn) to control center 1 on a further CDMA channel. CDMA transceiver 41 also optionally transmits channel selection control signals from VCR 40 to control center 1 on a particular CDMA channel, CDMA transceiver 51 transmits channel selection control signals from VCR 50 to control center 1 on a further CDMA channel, and CDMA transceiver 61 transmits channel selection control signals from VCR 60 to control center 1 on a still further CDMA channel. Each of the channel selection control signals sent by VCRs 40, 50, 60 corresponds to a channel that a user of a given VCR desires to record. As shown in FIG. 1A, channel selection

control signals may be generated at a given VCR in response to actuation by a user of a remote control associated with the given VCR.

Referring again to FIG. 1, network 100 also optionally includes a personal computer 70. A CDMA transceiver 71 is coupled to the personal
5 computer. CDMA transceiver 71 receives internet signals transmitted to personal computer 70 from control center 1 on a particular CDMA channel, and CDMA transceiver 71 transmits internet signals from personal computer 70 to control center 1 on a further CDMA channel.

Referring still to FIG. 1, an audio tuner 80 is also optionally included in
10 network 100. A CDMA transceiver 81 is coupled to the audio tuner 80. CDMA transceiver 81 transmits audio signals from audio tuner 80 to control center 1 on a further CDMA channel. The audio channel tuned using audio tuner 80 may be selected by a user with a remote control that transmits signals directly to audio tuner 80 (as shown in FIG. 1A), or with a remote a control (such as that
15 shown in FIGS. 1B, 1C) that first transmits a channel selection signal from the remote control to control center 1. In this latter embodiment, transceiver 81 also functions to receive channel selection signals (that represent a channel selected by a user via remote control) from control center 1 on a further CDMA channel.

A compact disk player 90 is also optionally included in network 100. A
20 CDMA transceiver 91 is coupled to the compact disk player 90. CDMA transceiver 91 transmits audio signals from compact disk player 90 to control center 1 on a further CDMA channel. The compact disk number and/or track played by player 90 may be selected by a user with a remote control that transmits control signals directly to compact disk player 90 (as shown in FIG.
25 1A), or with a remote a control (such as that shown in FIGS. 1B, 1C) that transmits a disk number and/or track selection signal directly from the remote control to control center 1. In this latter embodiment, transceiver 91 also functions to receive the disk number and/or track selection signals (that represent a disk number and/or track selected by a user via remote control)
30 from control center 1 on a further CDMA channel.

Finally, network 100 also optionally includes audio speakers 96 and 98, which are respectively coupled to CDMA receivers 97 and 99. Each CDMA

receiver 97, 99 receives audio signals from control center 1 on a further separate CDMA channel, and the received audio signals are provided to speakers 96, 98. The audio signals received by receivers 96, 98 correspond, for example, to audio signals that were first generated at tuner 80 or compact disk player 90, transmitted therefrom to control center 1 on a CDMA channel, and then routed
5 on a further CDMA channel from control center 1 back to speakers 96, 98.

Referring now to FIG. 2, there is shown a diagram illustrating the components of control center 1 used for routing signals to and among the home entertainment devices in local CDMA-based network 100, in accordance with a preferred embodiment of the present invention. Control center 100 includes an
10 input port 2 that receives a television signal from a cable or satellite source, and a further input port 3 that transmits internet signals to and from control center 1. The control center includes a CDMA receiver 4 that receives: (i) the channel selection signals described above from televisions 10, 20 and 30, (ii) the video and/or channel selection signals described above from VCRs 40, 50 and 60, (iii)
15 the internet signals described above from personal computer 70, (iv) and the audio signals described above from audio tuner 80 and compact disk player 90. CDMA receiver 4 then provides each of these received signals to controller/switcher 6. The internet signals received on receiver 4 are provided
20 via switcher/controller 6 to port 3 and internet signals from port 3 are also provided to switcher/controller 6 for transmission via CDMA transmitter 5 to personal computer 70. Switcher/controller 6 includes software for routing signals input to the switcher (from receiver 4 or tuners 7a, 7b, 7c) to either transmitter 5 or tuners 7a, 7b, 7c.

25 Control center 1 also preferably includes a plurality of television tuners 7a, 7b, 7c, each of which is associated with one of the televisions or VCRs in the network. Each of the tuners 7a, 7b, 7c is also coupled to port 2 and receives the television signal from the cable or satellite feed described above. In the preferred embodiment, the channel selection signal received from each
30 television or VCR described above is provided to its respective tuner, which, in response to the channel selection signal, adjusts its tuning circuitry to the television channel corresponding to the channel selection signal. A television

signal representative of the tuned channel from each tuner 7a, 7b, 7c is then provided back to switcher/controller 6.

Switcher/controller 6 outputs to CDMA transmitter 5 (i) television signals from tuners 7a, 7b, 7c which are then transmitted by transmitter 5 to
5 televisions 10, 20, 30 and VCRs 40, 50, 60 using the CDMA signals described above, (ii) television signals generated from VCRs 40, 50, 60 (during, for example, playback of a tape) which are then transmitted by transmitter 5 to televisions 10, 20, 30 using the CDMA signals described above, (iii) internet
10 signals from port 3 which are then transmitted by transmitter 5 to personal computer 70 using the CDMA signals described above, and (iv) audio signals from audio tuner 80 and/or compact disk player 90 which are then transmitted by transmitter 5 to speakers 96, 98 using the CDMA signals described above.

Referring now to FIG. 2A, there is a diagram showing the components of a control center 1a used for routing signals between home entertainment
15 devices in a local CDMA-based network, in accordance with an alternative preferred embodiment of the present invention. In contrast to control center 1, in the embodiment shown in FIG. 2A the tuning of television stations occurs at televisions 10, 20, 30, and VCRs 40, 50, 60, rather than in television tuners
20 disposed within the control center. In this embodiment, no channel selection signals are transmitted from the televisions 10, 20, 30 and VCRs 40, 50, 60 to control center 1, and the television signals sent from control center 1 to television 10, 20, 30 and VCR 40, 50, 60 each correspond to the entire spectrum of stations received in port 2.

Referring now to FIGS. 1B and 1C, there are shown block diagrams of
25 local CDMA-based networks 100b, 100c that connect a plurality of home entertainment devices, in accordance with further alternative embodiments of the present invention. In network 100b, the channel selection control signals associated with televisions 10, 20, 30, VCRs 40, 50, 60 and audio tuner 80 are each transmitted from a separate remote control associated with each of the
30 devices to control center 1, and the disk selection/track selection signals associated with compact disk player 90 are transmitted by a remote control associated with compact disk player 90 to control center 1. In network 100c, the

channel selection control signals associated with televisions 10, 20, 30, VCRs 40, 50, 60 and audio tuner 80 and the disk selection/track selection signals associated with compact disk player 90 are each transmitted from a single universal remote control that communicates with all of the devices to control center 1.

The previous description of the preferred embodiments is provided to enable any person skilled in the art to make or use the present invention. Various modifications to the embodiments described above will be readily apparent to those skilled in the art, and the generic principles defined herein may be applied to other embodiments without the use of inventive faculty. Thus, the present invention is not intended to be limited to the methods and apparatuses shown herein but is to be accorded the widest scope consistent with the claims set forth below.

What is claimed is:

CLAIMS

1. A system for interconnecting a plurality of home entertainment devices using a local CDMA-based network, wherein the plurality of home entertainment devices include a first television and a first video cassette recorder (VCR), comprising:
- a first CDMA receiver coupled to the first television;
 - a first CDMA transceiver coupled to the first VCR;
 - a control center includes an input port that receives a television signal from a cable or satellite source, wherein the control center is coupled to the first television set and the first VCR by the local CDMA-based network;
 - wherein the control center includes a CDMA receiver that receives signals transmitted with the first CDMA transceiver from the first VCR to the control center; and
 - wherein the control center includes a CDMA transmitter that transmits video signals to the first CDMA receiver coupled to the first television, and video signals to the first CDMA transceiver coupled to the first VCR.
2. The system of claim 1, further comprising:
- a second CDMA receiver coupled to a second television;
 - wherein the control center is coupled to the second television by the local CDMA-based network, and the CDMA transmitter in the control center transmits video signals to the second CDMA receiver coupled to the second television set.
3. The system of claim 2, further comprising:
- a third CDMA receiver coupled to a third television;
 - wherein the control center is coupled to the third television by the local CDMA-based network, and the CDMA transmitter in the control center transmits video signals to the third CDMA receiver coupled to the third television set.

4. The system of claim 3, further comprising:
2 a second CDMA transceiver coupled to a second VCR;
wherein the control center is coupled to the second VCR by the local
4 CDMA-based network, the CDMA receiver in the control center receives signals
transmitted with the second CDMA transceiver from the second VCR to the
6 control center, and the CDMA transmitter in the control center transmits video
signals to the second CDMA transceiver coupled to the second VCR.

5. The system of claim 4, further comprising:
2 a third CDMA transceiver coupled to a third VCR;
wherein the control center is coupled to the third VCR by the local
4 CDMA-based network, the CDMA receiver in the control center receives signals
transmitted with the third CDMA transceiver from the third VCR to the control
6 center, and the CDMA transmitter in the control center transmits video signals
to the third CDMA transceiver coupled to the third VCR.

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6. The system of claim 5, wherein the CDMA transmitter in the
2 control center transmits the video signals from the control center to the first
CDMA receiver coupled to the first television on a first CDMA channel, the
4 CDMA transmitter in the control center transmits the video signals from the
control center to the second CDMA receiver coupled to the second television on
6 a second CDMA channel, and the CDMA transmitter in the control center
transmits the video signals from the control center to the third CDMA receiver
8 coupled to the third television on a third CDMA channel.

7. The system of claim 6, wherein the CDMA transmitter in the
2 control center transmits the video signals from the control center to the first
CDMA transceiver coupled to the first VCR on a fourth CDMA channel, the
4 CDMA transmitter in the control center transmits the video signals from the
control center to the second CDMA transceiver coupled to the second VCR on a
6 fifth CDMA channel, and the CDMA transmitter in the control center transmits

the video signals from the control center to the third CDMA transceiver
8 coupled to the third VCR on a sixth CDMA channel.

8. The system of claim 7, wherein the first CDMA transceiver
2 coupled to the first VCR transmits the video signals to the CDMA receiver in
the control center on a seventh CDMA channel, the second CDMA transceiver
4 coupled to the second VCR transmits the video signals to the CDMA receiver in
the control center on an eighth CDMA channel, and the third CDMA
6 transceiver coupled to the third VCR transmits the video signals to the CDMA
receiver in the control center on a ninth CDMA channel.

9. The system of claim 8, further comprising:
2 a fourth CDMA transceiver coupled to the first television, wherein said
fourth CDMA transceiver includes the first CDMA receiver coupled to the first
4 television;
a fifth CDMA transceiver coupled to the second television, wherein said
6 fifth CDMA transceiver includes the second CDMA receiver coupled to the
second television; and
8 a sixth CDMA transceiver coupled to the third television, wherein said
sixth CDMA transceiver includes the third CDMA receiver coupled to the third
10 television.

10. The system of claim 9, wherein the fourth CDMA transceiver
2 coupled to the first television transmits first control signals to the CDMA
receiver in the control center on a tenth CDMA channel, the fifth CDMA
4 transceiver coupled to the second television transmits second control signals to
the CDMA receiver in the control center on an eleventh CDMA channel, and
6 the sixth CDMA transceiver coupled to the third television transmits third
control signals to the CDMA receiver in the control center on a twelfth CDMA
8 channel.

11. The system of claim 10, wherein the first control signals represent
2 a television channel selection made by a user of the first television, the second
control signals represent a television channel selection made by a user of the
4 second television, and the third control signals represent a television channel
selection made by a user of the third television.

12. The system of claim 11, wherein the control center further
2 includes:

a first tuner, responsive to the first control signals, that receives
4 the television signal from the cable or satellite source and selects therefrom a
single television station;

6 a second tuner, responsive to the second control signals, that
receives the television signal from the cable or satellite source and selects
8 therefrom a single television station;

a third tuner, responsive to the third control signals, that receives
10 the television signal from the cable or satellite source and selects therefrom a
single television station;

12 wherein, in response to the first control signals, the CDMA
transmitter in the control center transmits video signals representative of the
14 television station selected by the first tuner to the fourth CDMA transceiver
coupled to the first television set on the first CDMA channel;

16 wherein, in response to the second control signals, the CDMA
transmitter in the control center transmits video signals representative of the
18 television station selected by the second tuner to the fifth CDMA transceiver
coupled to the second television set on the second CDMA channel; and

20 wherein, in response to the third control signals, the CDMA
transmitter in the control center transmits video signals representative of the
22 television station selected by the third tuner to the sixth CDMA transceiver
coupled to the third television set on the third CDMA channel.

13. The system of claim 12, wherein the first CDMA transceiver
2 coupled to the first VCR transmits fourth control signals to the CDMA receiver

in the control center on a thirteenth CDMA channel, the second CDMA
4 transceiver coupled to the second VCR transmits fifth control signals to the
CDMA receiver in the control center on a fourteenth CDMA channel, and the
6 third CDMA transceiver coupled to the third VCR transmits sixth control
signals to the CDMA receiver in the control center on a fifteenth CDMA
8 channel.

14. The system of claim 13, wherein the fourth control signals
2 represent a television channel recording selection made by a user of the first
VCR, the fifth control signals represent a television channel recording selection
4 made by a user of the second VCR, and the sixth control signals represent a
television channel recording selection made by a user of the third VCR.

15. The system of claim 14, wherein:
2 the first tuner is further responsive to the fourth control signals;
the second tuner is further responsive to the fifth control signals;
4 the third tuner is further responsive to the sixth control signals;
and

6 wherein, in response to the fourth control signals, the CDMA
transmitter in the control center transmits video signals representative of the
8 television station selected by the first tuner to the first CDMA transceiver
coupled to the first VCR on the fourth CDMA channel;

10 wherein, in response to the fifth control signals, the CDMA
transmitter in the control center transmits video signals representative of the
12 television station selected by the second tuner to the second CDMA transceiver
coupled to the second VCR on the fifth CDMA channel; and

14 wherein, in response to the sixth control signals, the CDMA
transmitter in the control center transmits video signals representative of the
16 television station selected by the third tuner to the third CDMA transceiver
coupled to the third VCR on the sixth CDMA channel.

16. The system of claim 15, further comprising:

2 a seventh CDMA transceiver coupled to a personal computer;
wherein the control center further includes an input port that receives an
4 internet signal from a remote source and transmits an internet signal to the
remote source;
6 wherein the control center is coupled to the personal computer by the
local CDMA-based network; and
8 wherein the CDMA receiver in the control center receives internet
signals transmitted with the seventh CDMA transceiver from the personal
10 computer to the control center on a sixteenth CDMA channel, and the CDMA
transmitter in the control center transmits internet signals to the seventh CDMA
12 transceiver coupled to the personal computer on a seventeenth CDMA channel.

17. The system of claim 16, further comprising:
2 a CDMA transmitter coupled to an audio tuner;
a CDMA transmitter coupled to a compact disc player;
4 a CDMA receiver coupled to a first audio speaker; and
a CDMA receiver coupled to a second audio speaker;
6 wherein the control center is coupled to the audio tuner, the compact
disc player, the first speaker and the second speaker by the local CDMA-based
8 network;
wherein the CDMA receiver in the control center receives audio signals
10 transmitted from the audio tuner to the control center on a eighteenth CDMA
channel, the CDMA receiver in the control center receives audio signals
12 transmitted from the compact disc player to the control center on a nineteenth
CDMA channel; and
14 wherein the CDMA transmitter in the control center transmits audio
signals to the first speaker on a twentieth CDMA channel, and the CDMA
16 transmitter in the control center transmits audio signals to the second speaker
on a twenty-first CDMA channel.

18. A method for interconnecting a plurality of home entertainment
2 devices using a local CDMA-based network, wherein the plurality of home

entertainment devices include a first television and a first video cassette
4 recorder (VCR), comprising the steps of:

- providing a first CDMA receiver coupled to the first television;
- 6 providing a first CDMA transceiver coupled to the first VCR;
- providing a control center includes an input port that receives a
8 television signal from a cable or satellite source, wherein the control center is
coupled to the first television set and the first VCR by the local CDMA-based
10 network;
- receiving, with a CDMA receiver at the control center, signals
12 transmitted with the first CDMA transceiver from the first VCR to the control
center;
- 14 transmitting, with a CDMA transmitter at the control center, video
signals to the first CDMA receiver coupled to the first television; and
- 16 transmitting, with the CDMA transmitter at the control center, video
signals to the first CDMA transceiver coupled to the first VCR.

19. A system for interconnecting a plurality of home entertainment
2 devices using a local CDMA-based network, wherein the plurality of home
entertainment devices include a first television and a first video cassette
4 recorder (VCR):

- first CDMA receiver means coupled to the first television;
- 6 first CDMA transceiver means coupled to the first VCR;
- a control center that includes an input port that receives a television
8 signal from a cable or satellite source, wherein the control center is coupled to
the first television set and the first VCR by the local CDMA-based network;
- 10 means for receiving at the control center signals transmitted with the
first CDMA transceiver means from the first VCR to the control center;
- 12 means for transmitting from the control center video signals to the first
CDMA receiver coupled to the first television; and
- 14 means for transmitting from the control center video signals to the first
CDMA transceiver coupled to the first VCR.

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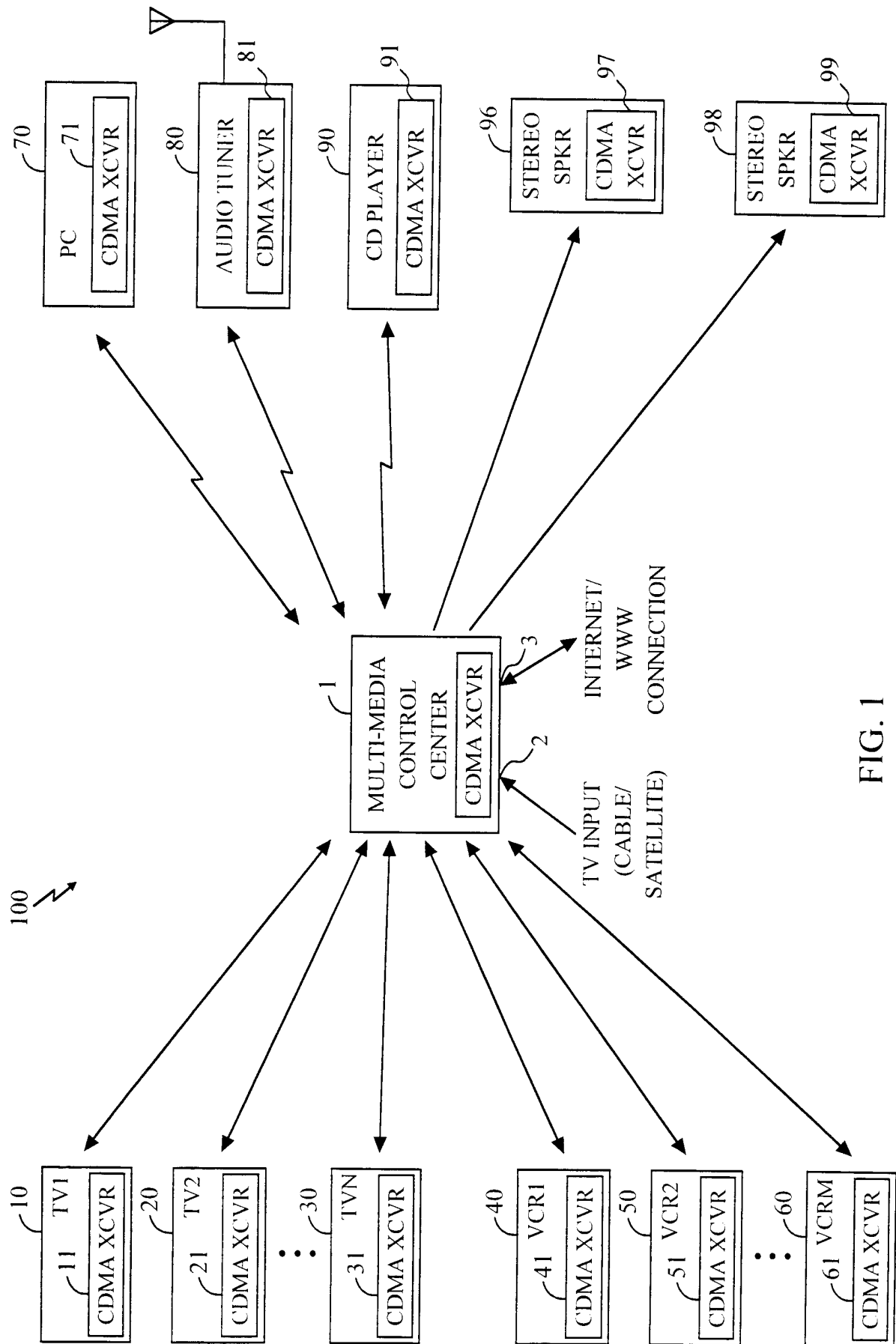


FIG. 1

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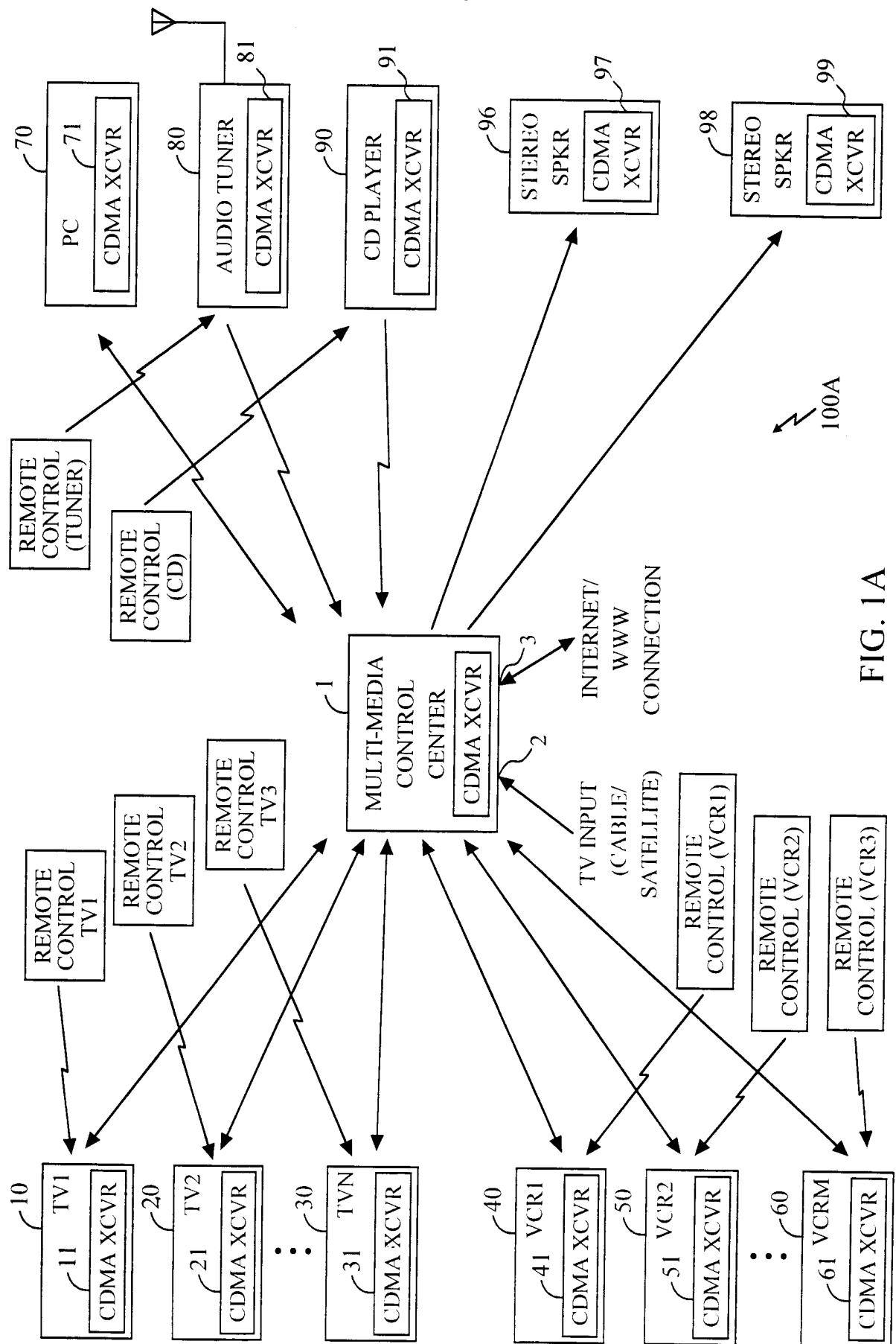


FIG. 1A

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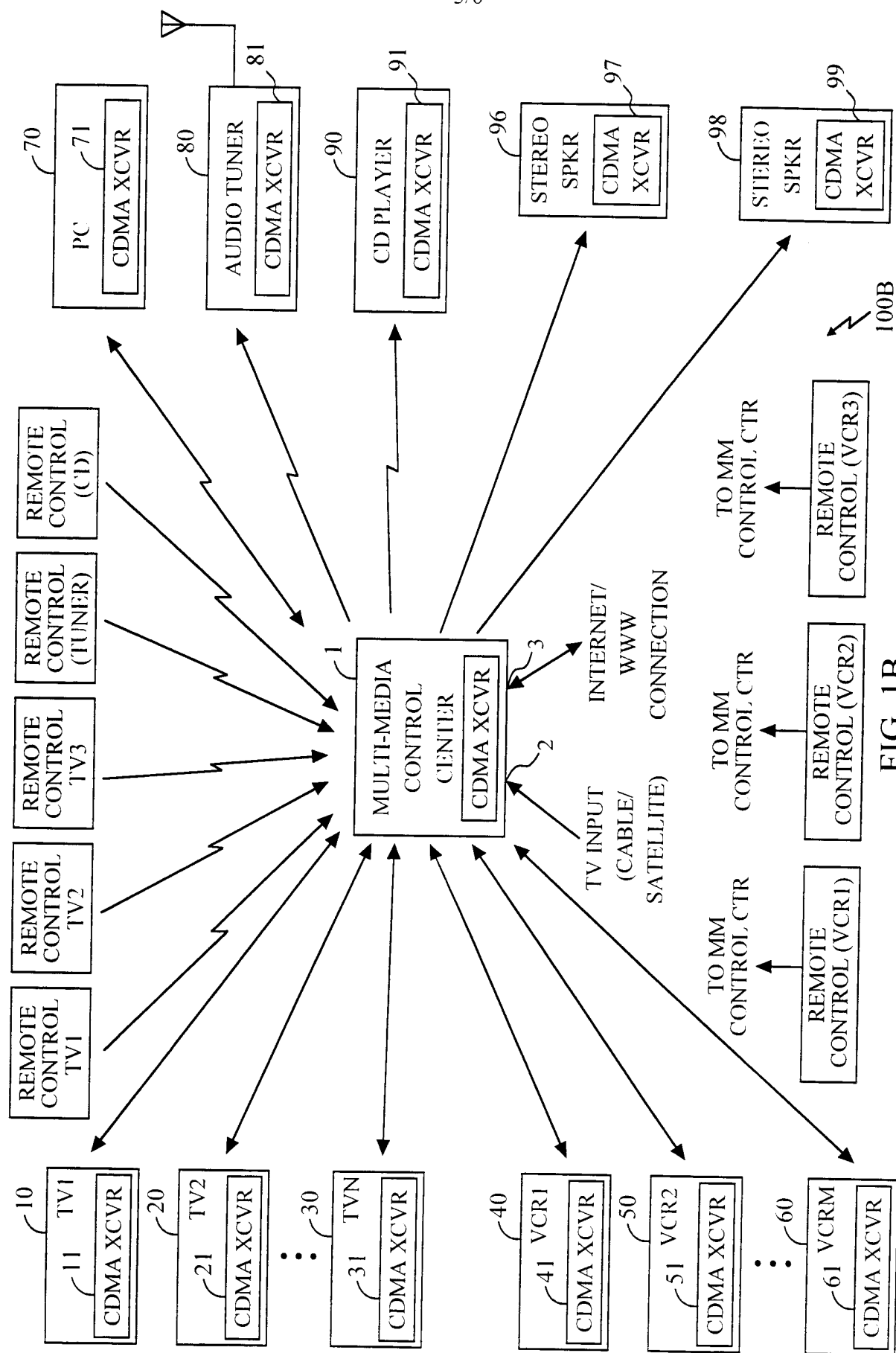


FIG. 1B

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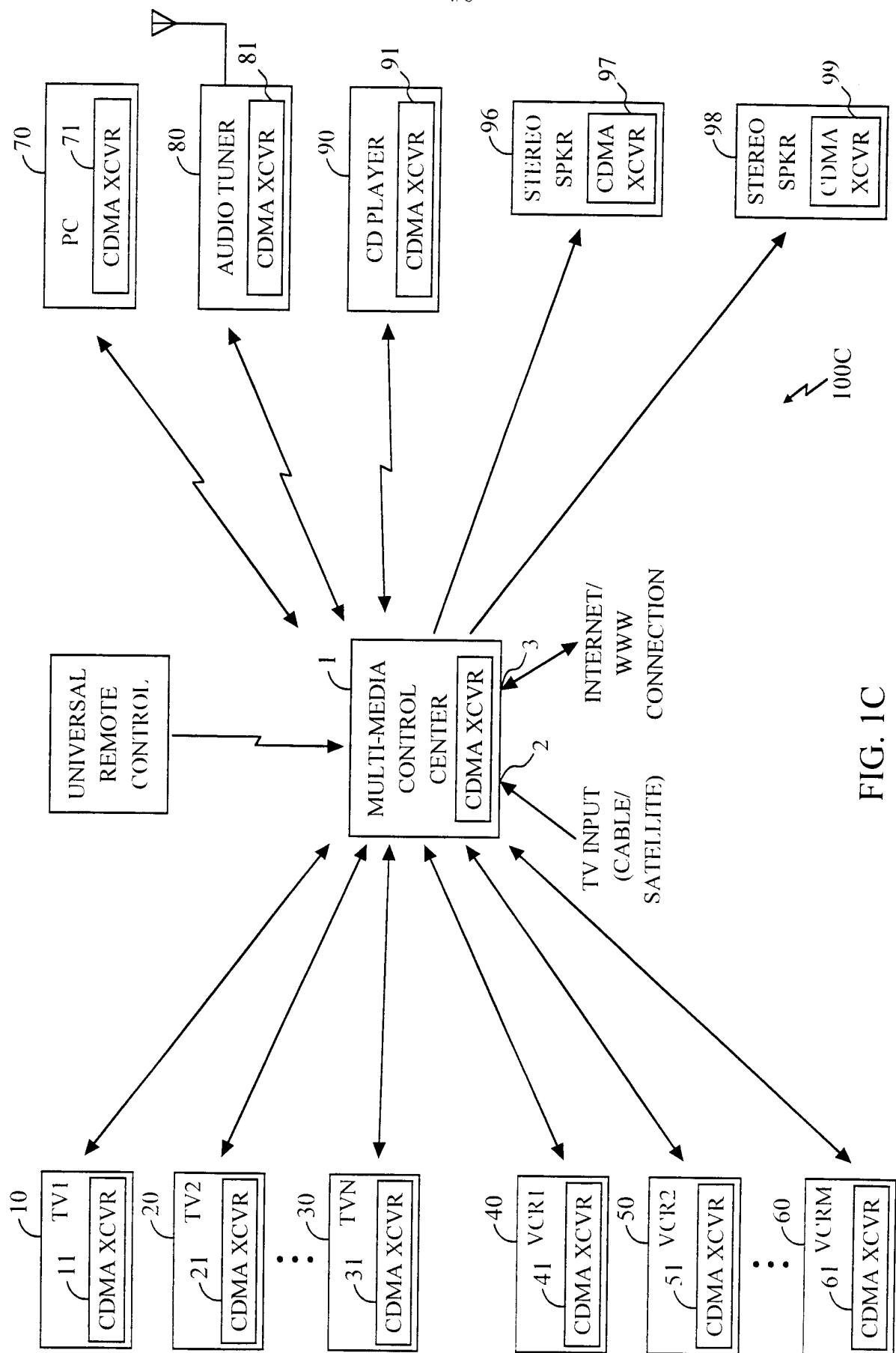
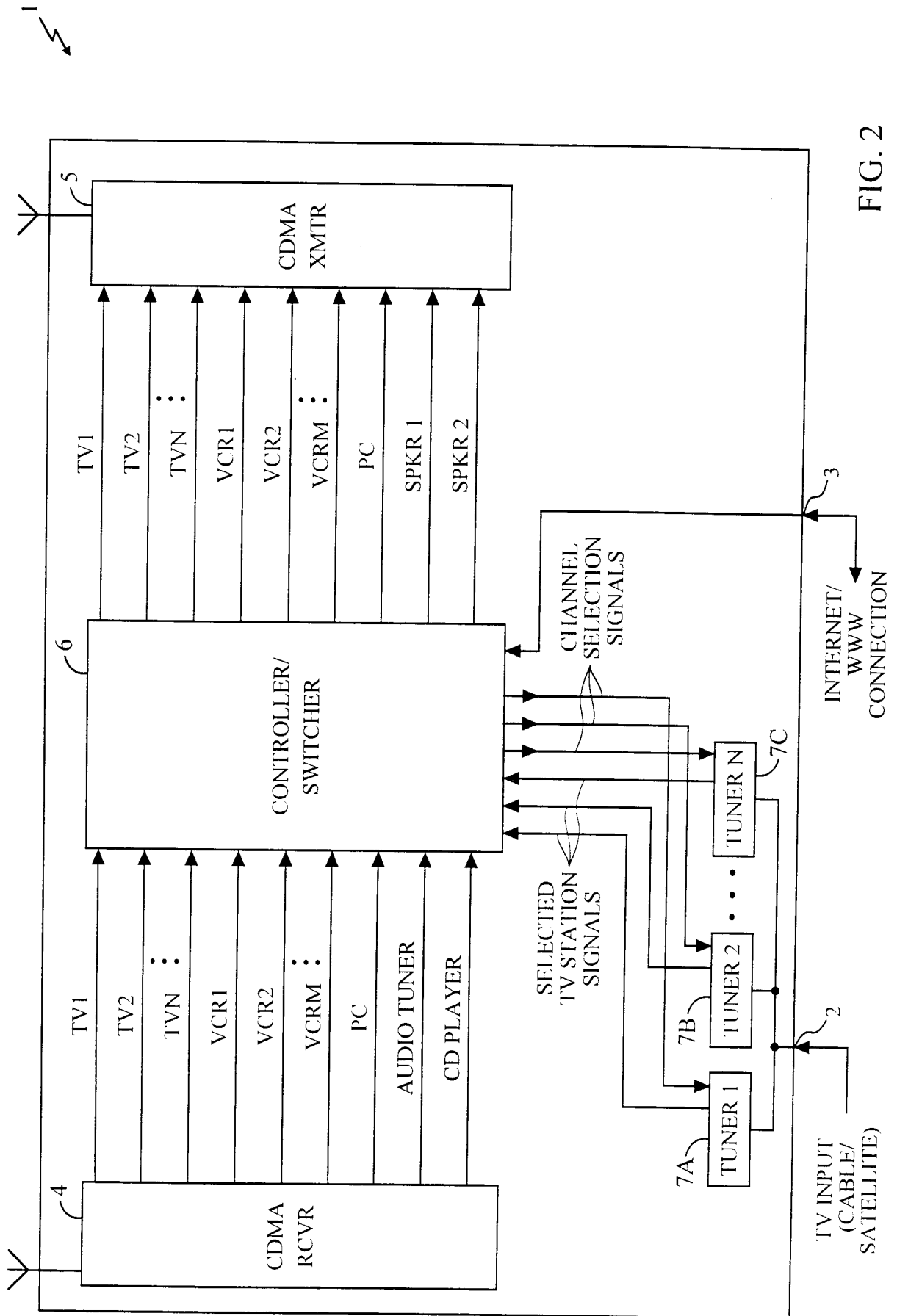


FIG. 1C



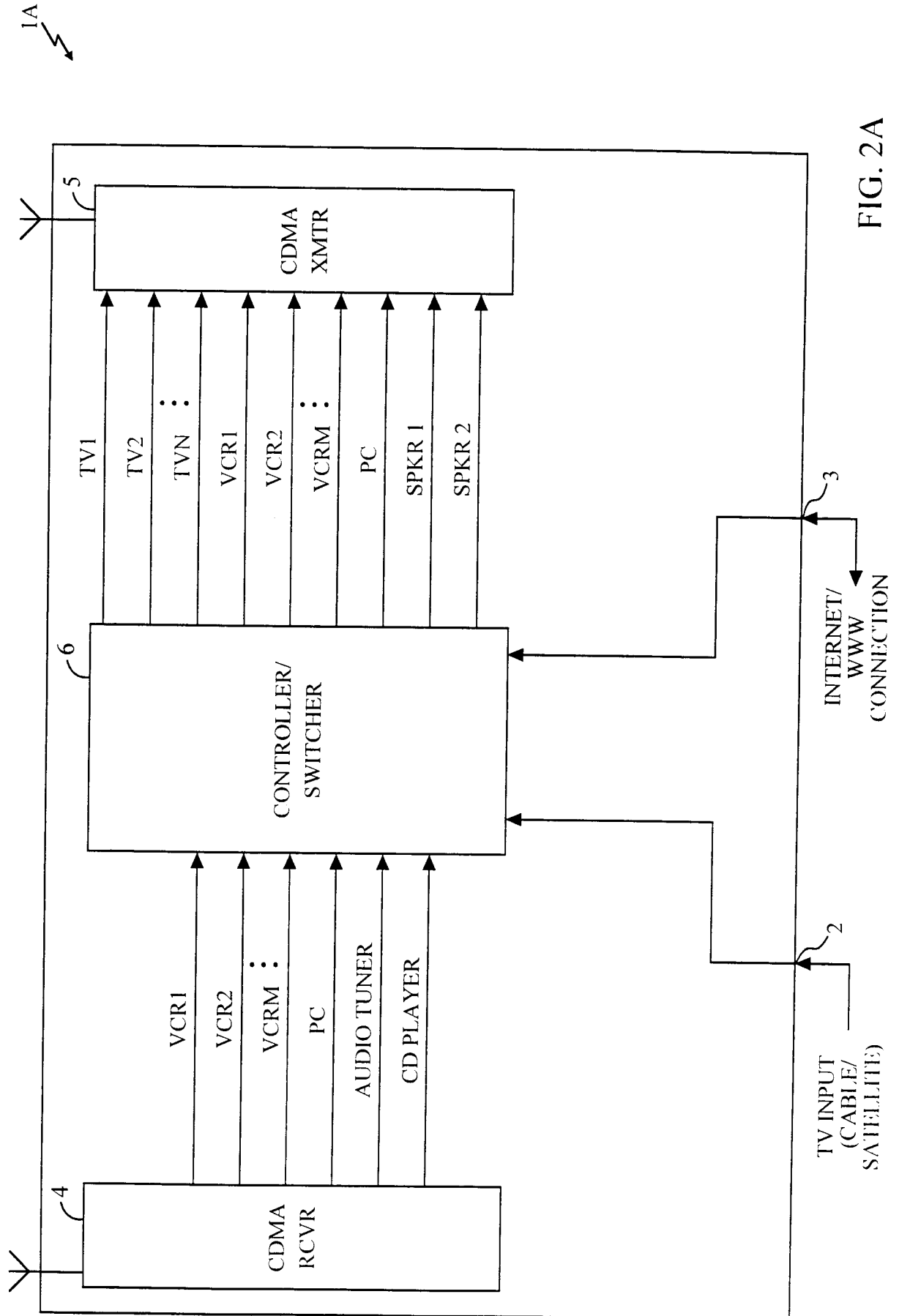


FIG. 2A