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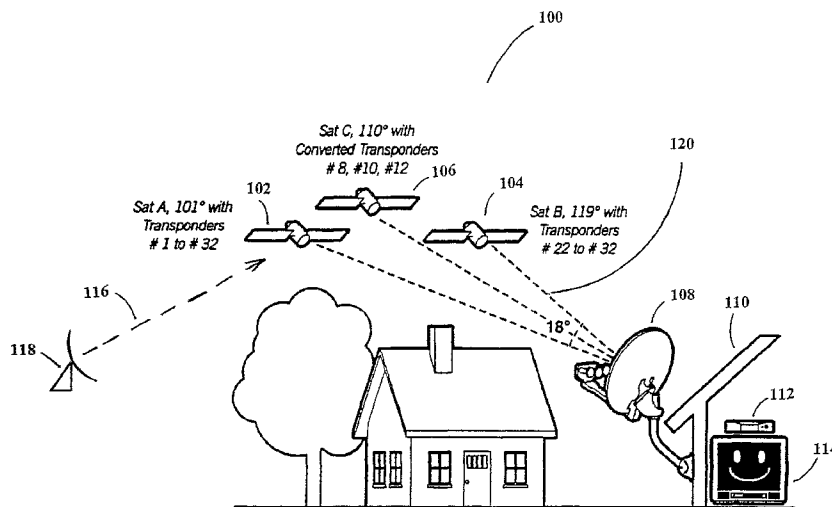
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(54) Title: POWER BALANCING SIGNAL COMBINER



(57) Abstract: Multiple systems for delivering satellite signals are described. An embodiment in accordance with the present invention comprises a receive antenna, including at least one low noise block amplifier (LNB), and a module, coupled to and proximate the receive antenna, the module comprising a multiswitch, coupled to the LNB, for directing the satellite signals received by the LNB to a plurality of outputs of the multiswitch, a plurality of tuners, respectively coupled to the outputs of the multiswitch, for tuning to a plurality of specific portions of the satellite signals in a respective fashion, the specific portions of the satellite signals selected based on commands received from a plurality of receivers, and an interface for delivering the specific portions of the satellite signals to the plurality of receivers, wherein the specific portions of the satellite signals are combined into a single combined signal and delivered to the plurality of receivers on a single output of the interface.

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AMENDED CLAIMS

received by the International Bureau on 15 November 2007 (15.11.07).

1. A system for delivering satellite signals, comprising:
a receive antenna, including at least one low noise block amplifier (LNB); and
a module, coupled to and proximate the receive antenna, the module comprising:
a multiswitch, coupled to the LNB, for directing the satellite signals received by the LNB to a plurality of outputs of the multiswitch;
a plurality of tuners, respectively coupled to the outputs of the multiswitch, for tuning to a plurality of specific portions of the satellite signals in a respective fashion, the specific portions of the satellite signals selected based on commands received from a plurality of receivers;
an interface for delivering the specific portions of the satellite signals to the plurality of receivers, wherein the specific portions of the satellite signals are combined into a single combined signal and delivered to the plurality of receivers on a single output of the interface,
a second output of the multiswitch, wherein the second output is a legacy output that commands the multiswitch via a cable other than the single output of the interface; and
a network tuner, coupled between the multiswitch and the interface, wherein the network tuner is solely controlled by a service provider.
2. The system of claim 1, further comprising a controller, coupled to the interface, for controlling signal flow between the interface and the plurality of receivers
3. The system of claim 2, wherein the controller monitors signal strengths of the specific portions of the satellite signals.
4. The system of claim 3, further comprising an automatic gain controller, coupled between the multiswitch and the interface, for controlling the signal strengths of the specific portions of the satellite signals.

5. The system of claim 6, wherein the module refuses commands from a receiver that requires a signals strength of the specific portion of the satellite signals associated with that receiver that is larger than a predetermined amount.

6. The system of claim 5, wherein the module refuses commands from a receiver that has an identification (ID) number that is not recognized by the module.

7. The system of claim 7, wherein the module further comprises an automatic level controller, coupled between the multiswitch and the LNB, for controlling a level of the satellite signal entering the multiswitch.

8. A system for selectively delivering satellite video signals received from a plurality of satellites to at least one receiver, comprising:

a multiswitch, for selectively directing the satellite video signals based on which satellite of the plurality of satellites broadcast the satellite video signal to an output of the multiswitch;

at least one tuner, coupled to the output of the multiswitch, for tuning to a specific portion of the satellite video signal, the specific portion of the satellite signal selected based on a command received from the receiver;

at least one demodulator, coupled to the at least one tuner in a respective fashion, for demodulating the specific portion of the signal into a plurality of demodulated signals;

an interface for delivering the plurality of demodulated signals to the receiver, wherein the plurality of demodulated signals are combined into a single combined signal and delivered to the receiver on a single output of the interface,

a second output of the multiswitch, wherein the second output is a legacy output that commands the multiswitch via a cable other than the single output of the interface; and

a network tuner, coupled between the multiswitch and the interface, wherein the network tuner is solely controlled by a service provider.

9. The system of claim 8, further comprising an automatic gain controller, coupled between the multiswitch and the interface, for controlling the signal strength of the specific demodulated signals.

10. The system of claim 9, further comprising a controller, coupled to the interface, for controlling signal flow between the interface and the receiver.

11. The system of claim 10, wherein a specific demodulated signal is selected based on the command received from the receiver.

12. The system of claim 11, wherein the single combined signal further comprises an output of the network tuner.

13. The system of claim 12, wherein the receiver receives the entire combined signal and tunes to the individual signals based on the new address associated with the individual signal.

14. A system for selectively delivering satellite video signals received from a plurality of satellites to at least one Integrated Receiver Decoder (IRD), comprising:

a multiswitch, for selectively directing the satellite video signals based on which satellite of the plurality of satellites broadcast the satellite video signal to an output of the multiswitch;

at least one tuner, coupled to the output of the multiswitch, for tuning to a specific portion of the satellite video signal, the specific portion of the satellite signal selected based on a command received from the IRD;

an interface for delivering the plurality of demodulated signals to the IRD, wherein the plurality of demodulated signals are combined into a single combined signal and delivered to the IRD on a single output of the interface,

a second output of the multiswitch, wherein the second output is a legacy output that commands the multiswitch via a cable other than the single output of the interface; and

a network tuner, coupled between the multiswitch and the interface, wherein the network tuner is solely controlled by a service provider.

15. The system of claim 14, wherein the interface is a network interface.

16. The system of claim 15, wherein an output of the interface is a combined signal, and the IRD selects a portion of the satellite signal based on the private channel number.