CLAIMS

1. A communication node (1) suitable for receiving and/or transmitting radio communications according to at least one first communication protocol (VHF) and one second communication protocol (UHF) different from the first protocol, including:

a first digital processing stage (14) suitable for performing operations specific to the first protocol on a digital signal and a second digital processing stage (15) suitable for performing operations specific to the second protocol on a digital signal, said digital processing stages being suitable for operating in parallel,

a first receiving stage (11) suitable for operating according to the first communication protocol,

a second receiving stage (12) suitable for operating according to the second communication protocol,

the first, second, respectively, receiving stage comprising a radio frequency receiver (19, 16) suitable for receiving a radiofrequency signal, a demodulator (20, 17) suitable for demodulating the radiofrequency signal received and an analog/digital converter (21, 18) for converting the demodulated analog signal into a digital signal provided to the first, second digital processing stage, respectively,

a transmission stage (11) suitable for operating according to the first communication protocol and according to the second communication protocol, comprising a digital/analog converter (22) for converting a digital signal provided by the first digital processing stage or the second digital processing stage into an analog signal, a modulator (23) suitable for modulating said analog signal, an amplifier (24) and a radiofrequency transmitter (25) suitable for transmitting a radio frequency signal corresponding to the modulated analog signal,

said node being characterized in that it further includes a control module (13) suitable for detecting the occurrence of an event, for selecting as a function of a rule and of said detected event, the first communication protocol or the second communication protocol, and for commanding the transmission stage to operate selectively according to the selected protocol and to no longer operate according to the non-selected protocol.

2. The communication node (1) according to claim 1, wherein the control module (13) is further suitable, following the selection of said protocol, for commanding the digital stage, among the first digital processing stage (14) and the second digital processing

stage (15), suitable for operating according to the non-selected communication protocol, to stop providing the digital signal to the transmission stage (11).

3. The communication node (1) according to claim 1 or 2, suitable for ordering the transmission by the transmission stage (11) according to the non-selected communication protocol, before said transmission stage operates selectively according to the selected protocol, of a notification to stop transmission according to said non-selected communication protocol.

4. The communication node (1) according to one of the preceding claims, wherein the event detected by the control module (13) comprises indicating a datum to be transmitted by the node, a synchronization request by one of the first and second digital processing stages and/or the absence of digital signal provided by one of the first and second digital processing stages.

5. The communication node (1) according to one of the preceding claims, wherein the rule relates to at least one receiving node and/or one transmitting node, a priority order assigned to the communication data received by the node, and/or a synchronization constraint specific to the first and/or second digital processing stage.

6. The communication node (1) according to one of the preceding claims, wherein the first (11), second (12) receiving stage, respectively, is suitable for operating alternately according to the first communication protocol and the second communication protocol, and wherein, when the control module (13) commands the transmission stage (11) to operate selectively according to the selected protocol and to no longer operate according to the non-selected protocol, said control module:

- further commands the first receiving stage to operate selectively according to the selected protocol and to no longer operate according to the non-selected protocol,
- further commands the second receiving stage to operate selectively according to the non-selected protocol and to no longer operate according to the selected protocol,
- switches the first and second receiving stages to provide data intended for the first and second digital stages.

7. The communication node (1) according to any one of the preceding claims, wherein the first (14) and second (15) digital processing stages each include at least one processor specific to them.

8. A processing method in a communication node (1) suitable for receiving and/or transmitting radio communications according to at least one first communication protocol (VHF) and one second communication protocol (UHF) different from the first protocol, selectively, the node comprising

a first digital processing stage (14) suitable for performing operations specific to the first protocol on a digital signal and a second digital processing stage (15) suitable for performing operations specific to the second protocol on a digital signal, said digital processing stages being suitable for working in parallel,

a first (11), second (12) receiving stage, respectively, suitable for operating according to the first, second communication protocol, respectively, and each comprising a radio frequency receiver (19, 16) suitable for receiving a radiofrequency signal, a demodulator (20, 17) suitable for demodulating the received radiofrequency signal and an analog/digital converter (21, 18) for converting the demodulated analog signal into a digital signal provided to the first, second digital processing stage, respectively,

a transmission stage (11) suitable for operating according to the first communication protocol and according to the second communication protocol, comprising a digital/analog converter (22) to convert a digital signal provided by the first digital processing stage (14) or the second digital processing stage (15) into an analog signal, a modulator (23) suitable for modulating said analog signal, an amplifier (24) and a radiofrequency transmitter (25) suitable for transmitting a radio frequency signal corresponding to the modulated analog signal,

the method being characterized in that it comprises the following steps carried out by the node:

- the occurrence of an event is detected, and the first communication protocol or the second communication protocol is selected as a function of a rule and of said detected event; and
- the transmission stage is commanded to operate selectively according to the selected protocol and no longer operate according to the non-selected protocol.

9. The processing method according to claim 8, wherein the detected event comprises the indication of a datum to be transmitted by the node, a synchronization request by one of the first and second digital processing stages and/or the absence of digital signal provided by one of the first and second digital processing stages.

10. The processing method according to claim 8 or 9, wherein the rule relates to at least one receiving node and/or one transmitting node, a priority order assigned to the communication data received by the node, and/or a synchronization constraint specific to the first and/or second digital processing stage.

CLAIMS

1. A communication node (1) suitable for receiving and/or transmitting radio communications according to at least one first communication protocol (VHF) and one second communication protocol (UHF) different from the first protocol, including:

a first digital processing stage (14) suitable for performing operations specific to the first protocol on a digital signal and a second digital processing stage (15) suitable for performing operations specific to the second protocol on a digital signal, said digital processing stages being suitable for operating in parallel,

a first receiving stage (11) suitable for operating according to the first communication protocol,

a second receiving stage (12) suitable for operating according to the second communication protocol,

the first, second, respectively, receiving stage comprising a radio frequency receiver (19, 16) suitable for receiving a radiofrequency signal, a demodulator (20, 17) suitable for demodulating the radiofrequency signal received and an analog/digital converter (21, 18) for converting the demodulated analog signal into a digital signal provided to the first, second digital processing stage, respectively,

a transmission stage (11) suitable for operating according to the first communication protocol and according to the second communication protocol, comprising a digital/analog converter (22) for converting a digital signal provided by the first digital processing stage or the second digital processing stage into an analog signal, a modulator (23) suitable for modulating an analog signal provided as input to the modulator, a power amplifier (24) suitable for amplifying an analog signal provided as input to the power amplifier, and a radiofrequency transmitter (25) suitable for transmitting a radio frequency signal corresponding to the analog signal modulated by said modulator and amplified by said power amplifier,

said node being characterized in that it further includes a control module (13) suitable for detecting the occurrence of an event, for selecting as a function of a rule and of said detected event, the first communication protocol or the second communication protocol, and for commanding at least said modulator, power amplifier and radiofrequency transmitter of the transmission stage to operate selectively according to the selected protocol and to no longer operate according to the non-selected protocol and wherein switching between one selected of the first and second communication protocols to another selected of the first and second communication protocols is a digital switching.

2. The communication node (1) according to claim 1, wherein the control module (13) is further suitable, following the selection of said protocol, for commanding the digital stage, among the first digital processing stage (14) and the second digital processing stage (15), suitable for operating according to the non-selected communication protocol, to stop providing the digital signal to the transmission stage (11).

3. The communication node (1) according to claim 1 or 2, suitable for ordering the transmission by the transmission stage (11) according to the non-selected communication protocol, before said transmission stage operates selectively according to the selected protocol, of a notification to stop transmission according to said non-selected communication protocol.

4. The communication node (1) according to one of the preceding claims, wherein the event detected by the control module (13) comprises indicating a datum to be transmitted by the node, a synchronization request by one of the first and second digital processing stages and/or the absence of digital signal provided by one of the first and second digital processing stages.

5. The communication node (1) according to one of the preceding claims, wherein the rule relates to at least one receiving node and/or one transmitting node, a priority order assigned to the communication data received by the node, and/or a synchronization constraint specific to the first and/or second digital processing stage.

6. The communication node (1) according to one of the preceding claims, wherein the first (11), second (12) receiving stage, respectively, is suitable for operating alternately according to the first communication protocol and the second communication protocol, and wherein, when the control module (13) commands the transmission stage (11) to operate selectively according to the selected protocol and to no longer operate according to the non-selected protocol, said control module:

- further commands the first receiving stage to operate selectively according to the selected protocol and to no longer operate according to the non-selected protocol,
- further commands the second receiving stage to operate selectively according to the non-selected protocol and to no longer operate according to the selected protocol,

- switches the first and second receiving stages to provide data intended for the first and second digital stages.

7. The communication node (1) according to any one of the preceding claims, wherein the first (14) and second (15) digital processing stages each include at least one processor specific to them.

8. The communication node (1) according to any one of the preceding claims, wherein the same power amplifier (24) is used for amplifying the analog signal provided as input to the power amplifier to the first communication protocol when selected and according to the second communication protocol when selected.

9. A processing method in a communication node (1) suitable for receiving and/or transmitting radio communications according to at least one first communication protocol (VHF) and one second communication protocol (UHF) different from the first protocol, selectively, the node comprising

a first digital processing stage (14) suitable for performing operations specific to the first protocol on a digital signal and a second digital processing stage (15) suitable for performing operations specific to the second protocol on a digital signal, said digital processing stages being suitable for working in parallel,

a first (11), second (12) receiving stage, respectively, suitable for operating according to the first, second communication protocol, respectively, and each comprising a radio frequency receiver (19, 16) suitable for receiving a radiofrequency signal, a demodulator (20, 17) suitable for demodulating the received radiofrequency signal and an analog/digital converter (21, 18) for converting the demodulated analog signal into a digital signal provided to the first, second digital processing stage, respectively,

a transmission stage (11) suitable for operating according to the first communication protocol and according to the second communication protocol, comprising a digital/analog converter (22) for converting a digital signal provided by the first digital processing stage or the second digital processing stage into an analog signal, a modulator (23) suitable for modulating an analog signal provided as input to the modulator, a power amplifier (24) suitable for amplifying an analog signal provided as input to the power amplifier, and a radiofrequency transmitter (25) suitable for transmitting a radio frequency signal corresponding to the analog signal modulated by said modulator and amplified by said power amplifier,

said node further including a control module (13) suitable for detecting the occurrence of an event, for selecting as a function of a rule and of said detected event, the first communication protocol or the second communication protocol, and for commanding at least said modulator, power amplifier and radiofrequency transmitter of the transmission stage to operate selectively according to the selected protocol and to no longer operate according to the non-selected protocol and wherein switching between one selected of the first and second communication protocols to another selected of the first and second communication protocols is a digital switching;

the method being characterized in that it comprises the following steps carried out by the node:

- the occurrence of an event is detected, and the first communication protocol or the second communication protocol is selected as a function of a rule and of said detected event; and
- the transmission stage is commanded to operate selectively according to the selected protocol and no longer operate according to the non-selected protocol.

10. The processing method according to claim 9, wherein the detected event comprises the indication of a datum to be transmitted by the node, a synchronization request by one of the first and second digital processing stages and/or the absence of digital signal provided by one of the first and second digital processing stages.

11. The processing method according to claim 9 or 10, wherein the rule relates to at least one receiving node and/or one transmitting node, a priority order assigned to the communication data received by the node, and/or a synchronization constraint specific to the first and/or second digital processing stage.

12. The processing method according to any one of claims 9-11, wherein the same power amplifier (24) is used for amplifying the analog signal provided as input to the power amplifier to the first communication protocol when selected and according to the second communication protocol when selected.