CLAIMS

1. A method for generating a set of symbols, called automatic gain control (AGC) symbols, for use in an automatic control of an amplitude of a signal to be transmitted, said signal comprising said set of AGC symbols and at least one first information symbol modulated with a linear modulation, said method comprising the following steps:

selecting, at a processor, at least one modulated information symbol adjacent to said AGC symbols in said signal, and

determining, at the processor, a value of each AGC symbol of said set as follows:

an amplitude of an AGC symbol is equal to a linear function of an amplitude of at least said modulated information symbol,

a phase of the AGC symbol is equal to a phase of said modulated information symbol,

wherein said linear function includes coefficients that are configured in such a way as to obtain an amplitude level of the signal that is substantially constant over a portion of the signal corresponding to said AGC symbols filtered by a shaping filter.

2. The method for generating AGC symbols according to claim 1, in which the coefficients of said linear function are determined as a function of the shaping filter and of a desired amplitude level over said portion of the signal.

3. The method for generating AGC symbols according to claim 1, in which a number of modulated information symbols adjacent to said AGC symbols in said signal are recovered and an amplitude of an AGC symbol is equal to a sum between:

a linear function of an amplitude of the at least one first modulated information symbol adjacent to said AGC symbols in said signal, and

another sum of linear functions of respective amplitudes of modulated information symbols, other than the at least one first modulated information

symbol, projected in a direction formed by a phase of said first modulated information symbol.

4. The method for generating AGC symbols according to claim 1, in which said signal is formatted as a plurality of frames, said AGC symbols being positioned at a start or at an end of a frame.

5. The method for generating a signal to be transmitted, the method comprising:

formatting a signal, at a processor, as a plurality of frames each comprising at least one sequence of automatic gain control (AGC) symbols and a sequence of information symbols modulated by a linear modulation, said AGC symbols and said information symbols being filtered by a shaping filter, said processor configured to obtain the at least one sequence of AGC symbols by:

selecting, at the processor, at least one modulated information symbol adjacent to said AGC symbols in said signal, and

determining, at the processor, each AGC symbol of said sequence as follows:

an amplitude of an AGC symbol is equal to a linear function of an amplitude of at least said modulated information symbol,

a phase of the AGC symbol is equal to a phase of said modulated information symbol,

wherein said linear function includes coefficients that are configured in such a way as to obtain an amplitude level of the signal that is substantially constant over a portion of the signal corresponding to said AGC symbols filtered by a shaping filter.

6. The method according to claim 5, wherein the processor is configured to transmit said signal using a transmitting equipment based upon said selecting and said determining.

7. A transmitter comprising a processor and a memory, said processor configured to:

generate a signal to be transmitted, said signal being formatted as a plurality of frames each including at least one sequence of automatic gain control (AGC) symbols and a sequence of information symbols modulated by a linear modulation, said AGC symbols and said information symbols being filtered by a shaping filter, said at least one sequence of AGC symbols being obtained by the processor by:

selecting at least one modulated information symbol adjacent to said AGC symbols in said signal, and

determining each AGC symbol of said sequence as follows:

an amplitude of an AGC symbol is equal to a linear function of an amplitude of at least said modulated information symbol,

a phase of the AGC symbol is equal to a phase of said modulated information symbol,

wherein said linear function includes coefficients that are configured in such a way as to obtain an amplitude level of the signal that is substantially constant over a portion of the signal corresponding to said AGC symbols filtered by a shaping filter.