

CLAIMS

- 1 - A method (50) of authenticating data packets transmitted by terminals (10) and received by a receiver system (20) comprising at least one station, each data packet incorporating an identification code of a terminal (10) having transmitted said data packet, each terminal (10) successively
 5 transmitting data packets in a plurality of different frequency bands according to a predefined frequency hop sequence specific to said terminal, characterized in that it comprises, for each data packet received by said receiver system (20):
- (51) the measurement, by said station, of the frequency band in
 10 which the considered data packet has been received,
 - (52) extracting the identification code contained in said considered data packet,
 - calculating a frequency hop, based on said measured frequency band of the considered packet and on a frequency band measured
 15 by the receiver system for a previous received data packet incorporating said extracted identification code,
 - (55) determining, according to the defined frequency hop sequence associated with said identification code extracted from the considered data packet, a theoretical frequency hop applied from
 20 said previous received data packet,
 - (56) calculating a frequency hop ~~difference~~ deviation according to said theoretical frequency hop and said calculated frequency hop,
- and in that the authentication method (50) further comprises a step (58) of determining whether the data packets successively received with a same
 25 identification code have been transmitted by the terminal (10) associated with said identification code according to at least one frequency hop deviation calculated for one of said data packets.
- 2 - The method (50) of claim 1, characterized in that the frequency band of a
 30 data packet is measured a plurality of times during said considered data packet, the frequency hop deviation being calculated by considering the final measured frequency band of the considered data packet and the final

16 - A telecommunications system comprising:

- 5 - terminals, each terminal being capable of successively transmitting data packets in a plurality of different frequency bands according to a predefined frequency hop sequence specific to said terminal, each data packet incorporating an identification code of the terminal (10) having transmitted said data packet,
- stations cooperating with a backbone to carry out the authentication method of any of claims 1 to 13,
 - 10 ○ each station being capable of measuring frequency bands of the data packets that it receives, and
 - 15 ○ the ~~server backbone~~ being capable of collecting all the data packets received by each station and the frequency bands measured by each station, and being capable of carrying out at least the remaining operations of the authentication method.