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(54) **A METHOD OF JOINING A NODE DEVICE INTO A WIRELESS NETWORK AND A NODE DEVICE**

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(57) **ABSTRACT**

A method of joining a node device into a wireless network, the network created by a coordinator device and comprising a plurality of node devices divided into a number of groups. The method performed by one of the node devices and comprises the steps of: receiving a beacon message from the coordinator device at a first time instant; obtaining a group label for the node device based on the number of groups; determining a joining interval for determining a joining time instant for the node device; and transmitting a joining request to the coordinator device, at a joining time instant determined based on a starting reference time instant plus a joining period. The transmission step is repeated until an association response is received from the coordinator device, and a joining period for determining a joining time instant of a subsequent one of two consecutive transmissions is reduced comparing to a joining period for determining the joining time instant of the previous one of the two consecutive transmissions.

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