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Haslinger et al.(10) **Pub. No.: US 2023/0231613 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **LOCALIZATION SYSTEM AND OPERATING METHOD**(52) **U.S. Cl.**CPC **H04B 7/0691** (2013.01); **H04B 7/0632** (2013.01)(71) Applicant: **NXP B.V.**, Eindhoven (NL)

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ABSTRACT(72) Inventors: **Dorian Haslinger**, Nestelbach bei Graz (AT); **Wolfgang Eber**, Graz (AT); **David Veit**, Graz (AT); **Filippo Casamassima**, Thal (AT)

In accordance with a first aspect of the present disclosure, a localization system is provided, comprising: a plurality of ultra-wideband (UWB) communication nodes; a plurality of antennas, each one of said antennas being included in one of said UWB communication nodes; an antenna selection unit configured to select a subset of said antennas for use in ranging operations that output a position estimate of an external device; wherein the antenna selection unit is configured to select said subset in dependence on at least one previous ranging operation. In accordance with a second aspect of the present disclosure, a corresponding method of operating a localization system is conceived. In accordance with a third aspect of the present disclosure, a computer program is provided, comprising computer-executable instructions that, when executed by a localization system, cause said localization system to carry out a method of the kind set forth.

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