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Eberl

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(54) **MOBILE COMMUNICATION DEVICE AND METHOD**

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See application file for complete search history.

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(56) **References Cited**

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U.S. PATENT DOCUMENTS

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6,236,363 B1 5/2001 Robbins et al.
2008/0280566 A1 11/2008 Yen et al.
2016/0373196 A1* 12/2016 Stott H04B 17/336

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OTHER PUBLICATIONS

(21) Appl. No.: **15/581,746**

Fontaine et al., "A Multipath Channel Emulator Integrated with a QAM Modulator," 26th IEEE Canadian Conference of Electrical and Computer Engineering (CCECE), Jul. 25, 2013, 4 pp.
Extended Search Report from counterpart European Application No. 17203744, dated Jun. 7, 2018, 8 pp.

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* cited by examiner

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(57) **ABSTRACT**

(52) **U.S. Cl.**

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A mobile communication device comprises a communication interface for wireless communication of the mobile communication device with wireless devices over a wireless communication channel, and a channel simulation unit for simulating modified channel properties of the wireless communication channel.

(58) **Field of Classification Search**

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24 Claims, 5 Drawing Sheets

