

Title (en)
Temperature compensated hairspring-balance oscillator

Title (de)
Unruh-Spiralfeder-Oszillator mit Temperaturkompensation

Title (fr)
Oscillateur balancier-spiral compensé en température

Publication
EP 1605182 A1 20051214 (FR)

Application
EP 04405355 A 20040608

Priority
EP 04405355 A 20040608

Abstract (en)
The oscillator has a balance and a hairspring that is made of quartz substrate whose cut is determined in order to compensate thermal drifts of the hairspring, where the thickness of spring coils is modulated. The modulation of the thickness is linearly varied from the center of the hairspring to a balance-spring stud. The cut of the substrate is a cut with single or double rotation.

Abstract (fr)
L'invention concerne les oscillateurs mécaniques pour montre qui comportent un ensemble, formé d'un spiral et d'un balancier, compensé en température. Le spiral est réalisé dans un substrat de quartz dont la coupe est choisie de manière à compenser thermiquement les dérives du spiral lui-même ainsi que celles du balancier qui lui est associé. La coupe du substrat peut être une coupe à simple ou double rotation. L'invention s'applique dans le domaine horloger. <IMAGE>

IPC 1-7
F16F 1/10; **G04B 17/06**

IPC 8 full level
F16F 1/10 (2006.01); **G04B 17/06** (2006.01)

CPC (source: EP US)
G04B 17/066 (2013.01 - EP US)

Citation (search report)

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