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Semiconductor devices - Measurement and evaluation methods of kinetic energy harvesting devices under practical vibration environment - Part 3: Human foot impact motion

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IEC Secretariat
3, rue de Varembé
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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Semiconductor devices - Measurement and evaluation methods of kinetic energy harvesting devices under practical vibration environment - Part 3: Human foot impact motion

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Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

– reconfirmed,

– withdrawn, or

– revised.

1 Scope

This part of IEC 63150 specifies terms and definitions, and test methods of impact-driven energy harvesting devices of which electric energy is generated by impact force of human walking or running motion under practical human motion. This document is applicable to impact-driven energy harvesting devices embedded in wearables, especially, shoe-mounted energy harvesters, whose main element of the power generation is the impact energy. This measuring method is independent of power generation principles (such as piezoelectric, electrostatic, triboelectric, electromagnetic, etc.). According to typical human motion, power generation performance is measured in the condition of large-amplitude and low-frequency external mechanical excitation.

2 Normative references

There are no normative references in this document.