CEA Standard

Wireless Power Glossary of Terms

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(Formulated under the cognizance of the CEA's **R6.3 Wireless Power Subcommittee**.)

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FOREWORD

This document was developed by the Consumer Electronics Association (CEA) R6.3, Wireless Power Subcommittee.

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Wireless Power Glossary of Terms

1 Scope

This document specifies terms and definitions for wireless power.

2 Terms & Definitions

Term	Definition
Alignment Aid	A method of positioning a receiver relative to a transmitter that provides the user with feedback to properly align the active area of the receiver to the active area of the transmitter.
Authentication	The process of validating that a proper receiver has been placed within proximity before power is transmitted. Without a proper validation, power should not be transmitted.
Battery Management System (BMS)	A system of circuits (may be integrated with a battery into a “battery pack”) to monitor key operational parameters of a battery during charging and discharging, e.g. voltages, currents, internal temperature of the battery, ambient temperature. The monitoring circuits may provide inputs to protection devices which would generate alarms or disconnect the battery from the load or charger should any of the parameters become out of limits.
Charging Region	The area from where power is made available to receivers. (e.g., a charging pad is one example of a charging region)
Communication Protocol	A formal description of digital message formats and the rules a receiver and a transmitter follow for exchanging those messages for wireless power transfer. This may include signaling, compliance verification and error detection/correction capabilities and may also be implemented in hardware, software or both.
Conductive Wireless Power Systems	These systems allow wire-free power delivery. A wireless power system that provides a conductive surface to which receivers are connected through direct electrical contacts.
Coupling Coefficient (k)	K = M / SQRT(L1 × L2) • Where M is the Mutual Inductance, and • L1 and L2 are the inductance of first and second coil, respectively
Device Detection	The process by which a transmitter identifies that a receiver is within proximity of the transmitter.
Electromagnetic	The properties of interdependent, time-varying electric and magnetic fields.
Electromagnetic Induction (aka Magnetic Induction)	The production of a current within, and transfer of, voltage across a conductor moving through a magnetic field or, alternatively, a magnetic field moving through a conductor without wires or metal contacts.