

Title (en)  
SMART PLUG SOCKET DEVICE

Title (de)  
INTELLIGENTE STECKDOSENVORRICHTUNG

Title (fr)  
DISPOSITIF DE PRISE DE COURANT INTELLIGENTE

Publication  
**EP 3255738 B1 20190522 (EN)**

Application  
**EP 16205650 A 20161221**

Priority  
KR 20160072547 A 20160610

Abstract (en)  
[origin: EP3255738A1] Disclosed is a smart plug socket device comprising a lower housing (110) that has a pair of through-holes (155) on a bottom surface thereof, an AC/DC conversion board unit (120) comprising a pair of plug pins (122) that pass through the pair of through-holes (155) of the lower housing (110), a transformer (123) that receives AC power through the pair of plug pins (122) and converts the AC power to DC power, a power connector for delivery of the DC power, and a pair of power lines (125) that receive the AC power through the pair of plug pins (122), a relay board unit (130) that is stacked on the AC/DC conversion board unit (120) comprising a relay module (132) that receives the AC power through the pair of power lines (125) and supply or interrupt the AC power to or from a pair of connection terminals (135) in response to a control command from a controller module (152), a power connector that is electrically and mechanically connected to the power connector of the AC/DC conversion board unit (120), a power/signal connector for delivering the DC power and exchanging signals with a controller module (152), and the pair of connection terminals (135) into which plug pins (122) of an electronic device are inserted, a controller board unit (150) that is stacked on the relay board unit (130) comprising a controller board (150, 151) that has through-holes (155), through which the pair of connection terminals (135) pass, the controller module (152) that is coupled to the controller board (150, 151) and control an operation of the smart plug socket device and wirelessly communicate with an external device, and a power/signal connector that is coupled to the controller board (150, 151) and is electrically and mechanically connected with the power/signal connector of the relay board unit (130), and an upper housing (160) that is coupled to the lower housing (110) to define a space between the upper housing (160) and the lower housing (110) and has a pair of insertion holes (155), through which the plug pins (122) of the electronic device are inserted, on a bottom surface thereof.

IPC 8 full level  
**H01R 13/66** (2006.01); **H01R 31/06** (2006.01); **H01R 13/453** (2006.01); **H01R 13/70** (2006.01); **H01R 24/68** (2011.01)

CPC (source: EP KR)  
**H01R 13/04** (2013.01 - KR); **H01R 13/10** (2013.01 - KR); **H01R 13/6658** (2013.01 - EP); **H01R 13/6675** (2013.01 - EP); **H01R 31/06** (2013.01 - KR); **H01R 31/065** (2013.01 - EP); **H01R 43/0207** (2013.01 - KR); **H01R 13/4532** (2013.01 - EP); **H01R 13/70** (2013.01 - EP); **H01R 24/68** (2013.01 - EP)

Cited by  
US11982688B2; TWI751654B

Designated contracting state (EPC)  
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