

TECH OFFER

Stand-alone Voice Recognition Smart Wall Switch



KEY INFORMATION

TECHNOLOGY CATEGORY:

Electronics - Power Management

Green Building - Lightings

Infocomm - Artificial Intelligence

Infocomm - Speech/Audio Analysis & Speech Recognition

TECHNOLOGY READINESS LEVEL (TRL): **TRL9**

COUNTRY: **SOUTH KOREA**

ID NUMBER: **TO174923**

OVERVIEW

The smart wall switch's core technology is centered around the conversion of initial voice-based signals into electrical signals. Through an innovative design, it efficiently generates DC power utilizing solely an AI voice recognition sensor and an existing AC power line. Remarkably, this cutting-edge switch is entirely independent, requiring no additional electrical work, batteries, or Internet connection for its seamless operation.

TECHNOLOGY FEATURES & SPECIFICATIONS

Unlike IoT that require an Internet connection, this standalone voice recognition switches implemented the function of artificial intelligence voice recognition without any network. With this function, this switch can be used as a 1:1 direct replacement of a

standard power on/ off switch, without additional electrical work or Internet connection. It is a stand-alone voice recognition switch made by receiving DC power from a single switch wire on the wall, combining it with an ultra-low power voice recognition sensor.

The switch is also designed to be controlled by any standard infra-red remote controller, or by pressing the front panel button.

This product is designed to be implemented in any languages in the world.

POTENTIAL APPLICATIONS

The purpose of this product development is to make it easy and convenient for anyone to use a voice recognition switch, and it is designed as a product that can promote safety, especially for users with mobility difficulty.

It supports disabled Individuals and elderly person in:

- **Independent Living:** With voice recognition on/off switches integrated into home automation or assistive technology, disabled individuals can control various devices and perform tasks independently using voice commands.
- **Reduced Physical Strain:** Voice recognition eliminates the need for physically operating devices, making it easier for individuals with mobility challenges to interact with technology and appliances.

UNIQUE VALUE PROPOSITION

- A world's first standalone voice recognition switch combines ultra-low power voice recognition sensors with its own power circuit, operates independently without Internet connectivity.
- It is designed to control the switch in 3 ways: Voice command within 5 meters, by pressing the front button and using a standard Infra-red remote controller.
- 1:1 direct replacement of a standard power on/ off switch
- No additional power line is needed
- Designed with overvoltage/ overcurrent protection circuits.
- This product is equipped with a distress rescue function and is also used by the Ministry of Health and Welfare of Korea as a safety system for the disabled and the socially disadvantaged.