Vulnerability description

The Sengled Dimmer Switch device contains a denial-of-service vulnerability, which allows an attacker to send malicious Zigbee messages to the device and cause crashes.

Affected product information

Name	Model	Firmware Version	Notes
Sengled Dimmer Switch	E1E-G7F	v0.0.9	Best Buy Link

CVE-ID

CVE-2023-29779

Vulnerability type

Denial of Service

• Triggering vulnerabilities

The vulnerabilities are related to a command, Set_short_poll_interval, which can set the interval of the short poll, as shown in the table below. This command accepts one argument with the type uint16, which specifics the interval value.

Command	Normal message example -> exploit	Observations
Set_short_poll_int erval	0x01030009 -> 0x01030000	The device kept reporting state until the battery was drained

After the exploit message (i.e., 0x01030000) was sent, the device kept reporting its states with no interval and failed to respond to any normal messages. More importantly, in our experiments, the device drained its battery finally as a result of constantly reporting its status.

Attack vectors

By sending an exploit Zigbee message to the device

• Discoverer

Xiaoyue Ma, Ph.D. student, George Mason University (<u>xma9@gmu.edu</u>) Lannan(Lisa) Luo, Ph.D., Assistant Professor, George Mason University (<u>lluo4@gmu.edu</u>)

Qiang Zeng, Ph.D., Associate Professor, George Mason University (zeng@qmu.edu)