

## USB Sleep and Charge Switch for Single USB Port with Automatic Switching

### Features

- Enables USB device to draw current from Vbus when USB enumeration is not available
- Protects USB path from direct shortage to Vbus
- Provides full ESD support on exposed I/O pins 2 and 3 per IEC61000-4-2 specification up to level 4(+/-4kV contact)
- Provides multiple modes of charging to ensure all of the following spec's can be met:
  - USB 1.1 charger spec and YD/T-1591 charger spec
  - Certain modes available can also support devices using non-standard approach to charging, such as Apple products.
- Automatically switch between modes by detecting correctly plugged in device
- 5V power supply
- Ability to enable/disable external power switch when charging is not required (with proper timing requirements)
- Low power consumption to support Energy Star Compliance
- Integrated ESD protection on pins #2 and #3 up to +/-4kV contact per IEC61000-4-2 standard
- Packaging (Pb-free & Green):
  - 10-pin TDFN, ZE

### Description

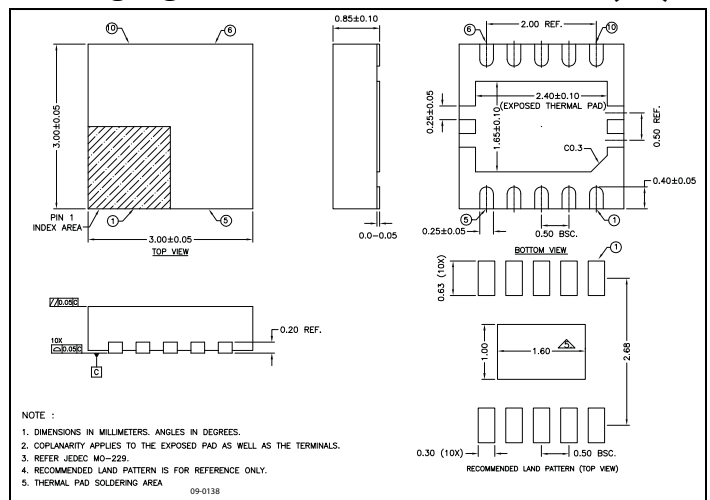
Notebook PCs are used around the world to charge battery-powered handheld devices such as cell phones and MP3/MP4 players. Hand-held devices require communication with the notebook PC before they start to draw current. This ensures that the hand-held device will obtain sufficient current when it wants to charge. The issue is that the notebook PC does not have a way to provide this acknowledge signal to the handheld device when the notebook is in "Sleep" mode.

Pericom's PI5USB14550-A solves this issue by setting the D+/D- pins in the notebook PC to the required signal levels during "sleep" mode. When the handheld device sees these required signal levels, it will then start to draw the current required to charge itself.

Cell phones within today's market use different communication schemes, therefore the switch will need to configure itself in different modes. PI5USB14550-A can alternate between modes automatically, once device type is correctly detected.

All signal pins are protected with Pericom's ESD protection circuits supporting ESD damage as high as +/-4kV contact per IEC61000-4-2 specification.

### Packaging Mechanical: 10-Pin TDFN (ZE)



- For latest package info, please check:  
<http://www.pericom.com/products/packaging/mechanicals.php>

### Ordering Information

| Ordering Code    | Package Code | Package Type                 |
|------------------|--------------|------------------------------|
| PI5USB14550-AZEE | ZE           | Pb-free & Green, 10-pin TDFN |

- Thermal characteristics can be found on the company web site at [www.pericom.com/packaging/](http://www.pericom.com/packaging/)
- E = Pb-free and Green
- Adding an X suffix = Tape/Reel