

## USB Power Switch with Pericom's Power Nap™ Technology

### Features

- Enables USB device to draw current from Vbus when USB enumeration is not available
- 70mΩ MOSFET
- Thermal and Short-Circuit Protection
- Continuous current support up to 2A
- Operating Range: 5V ±10%
- 0.6-ms Typical Rise Time
- Undervoltage Lockout
- De-glitched Fault Report( $\overline{OC}$ )
- No  $\overline{OC}$  Glitch During Power Up
- Integrated ESD protection
  - +/- 8kV contact on pins 6, 7, and 18 per IEC61000-4-2 spec
  - 8kV HBM on all pins per JESD22 spec
- 3μA Maximum Standby Supply Current
- Reverse Current Blocking
- 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.
- Low power consumption to support Energy Star Compliance
- Packaging (Pb-free & Green):
  - 20-Contact TQFN, ZH

### Description

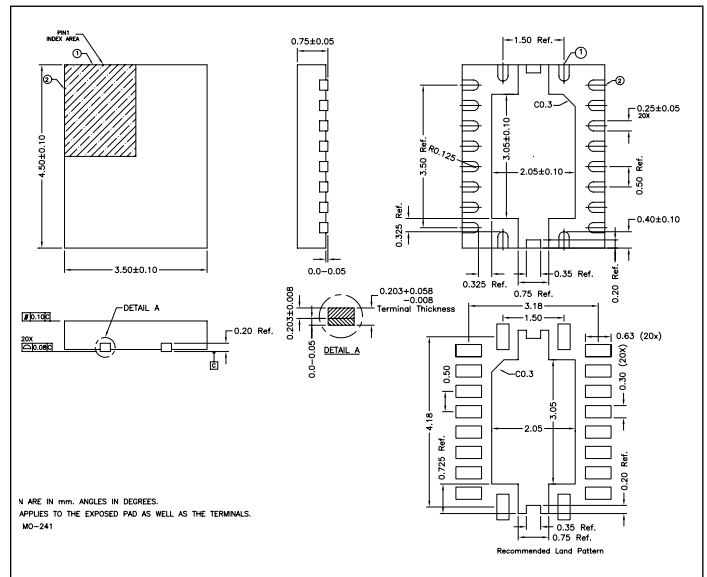
Notebook PCs are used around the world to charge battery-powered handheld devices such as cell phones and MP3/MP4 players. Hand-held devices require communication with the notebook PC before they start to draw current. This ensures that the handheld device will obtain sufficient current when it wants 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 PI5USB2058 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, so the switch will need to configure itself in different modes. PI5USB2058 can alternate between modes automatically, once device type is correctly detected.

D+, D- and Vbus pins are protected with Pericom's ESD protection circuits supporting ESD damage as high as +/-8kV contact per IEC61000-4-2 specification.

### Package Mechanical:20-Contact,TQFN(ZH)



### Ordering Information

Ordering Code	Package Code	Package Type
PI5USB2058ZHE	ZH	Pb-free & Green, 20-contact TQFN

- 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