

## 4-port PoE PSE Manager



PD64004A is a four-port, mixed-signal, high-voltage Power over Ethernet PSE Manager. The IC allows the detection of IEEE 802.3af-2003 powered devices, ensuring safe power feeding and removal over Ethernet ports. With full digital control via a serial communication interface and a minimum of external components, the IC integrates in multi-port and highly populated Ethernet switches.

The PD64004A has three possible working configurations: an Automatic stand-alone mode, for basic PoE functions, the PoE+ Mode supporting legacy devices and autonomous operation with the PD33000G MCU and an Enhanced mode, for extended functions and added flexibility with the PD63000G and PD83000G MCU's.

Features   Benefits	Enhanced mode, for extended functions and added flexibility with the PD63000G and PD83000G MCU's.	
<ul> <li>Compliant with IEEE 802.3af and pre-standard PD's</li> <li>4-ports standalone PoE control</li> <li>Power classification with bypass option</li> <li>AC disconnect</li> <li>DC disconnect with DC modulation</li> <li>Supports RFC3621</li> <li>Packwards compatible with all PD64008-based message based user interface</li> <li>7-bit I<sup>2</sup>C address selectability</li> <li>Opto-coupler compatible communication lines</li> <li>Up to 88 ports operating autonomously</li> <li>Best-in-industry integration</li> <li>Single operating voltage source (44 to 57V)</li> <li>80V SmartMOS8 technology</li> <li>Agover by ackage, ROHS compliant</li> <li>Per-IC soft start mechanism</li> <li>System Enhancement</li> <li>Per-IC soft start mechanism</li> <li>System-wide inrush protection</li> <li>Internal voltages and under-voltage protection/lock-out</li> <li>Dynamic Power Management</li> <li>Emergency Power Management (Enhanced Mode)</li> <li>Power classification with bypass option</li> <li>Highest integration on the market, enabling power supple state occupation</li> <li>Highest integration on the market, enabling power supple with all PD64008-based message based user interface</li> <li>Backwards compatible with all PD64008-based message based user interface</li> <li>Up to 1528 ports on a switch</li> <li>Can be used with PD64012G</li> <li>Minimum per port external components</li> <li>No need for external DC/DC converter</li> <li>Power, high-voltage analog and high-density digital logic functions</li> <li>Fit for industrial applications</li> <li>Power management based on power allocation and priority map, on class value or on both, provides full flexibility and optimal power supply usage</li> <li>Prioritization of ports in case of power reduction</li> <li>Used for power supply failure conditions</li> </ul>	Features	Benefits
PD's  4-ports standalone PoE control Power classification with bypass option AC disconnect DC disconnect with DC modulation Supports RFC3621  Architecture P'C or UART host interface Pote caddress selectability Opto-coupler compatible communication lines Up to 88 ports operating autonomously  Best-in-industry integration Single operating voltage source (44 to 57V) 80V SmartMOS8 technology Pdr-40°C to +85°C operating ambient temperature OFN-48-PS package, ROHS compliant  System Enhancement Per-IC soft start mechanism Internal voltages monitoring and auto reset mechanism (Power-On_Reset) Over-voltage and under-voltage protection/lock-out Dynamic Power Management Emergency Power Management Emergency Power Management Emergency Power Management (Enhanced Mode)  Cisco's inline power Highest integration on the market, enabling theighestate occupation Reliable and simple AC implementation  Beliable and simple AC implementation  Beliable and simple AC implementation  Supports low power devices  Enables integration on the market, enabling thelevast real-estate occupation  Beliable and simple AC implementation  Supports low power devices  Enables integration on the market, enabling the lowest real-estate occupation  Beliable and simple AC implementation  Supports low power devices  Enables integration in Manage Switches  Backwards compatible with all PD64008-based message based user interface  Backwards compatible with all PD64008-based message based user interface  In bracketure  Backwards compatible with all PD64008-based message based user interface  Backwards compatible with all PD64008-based message based user interface  Backwards compatible with all PD64008-based message based user interface  Backwards compatible with all PD64008-based message based user interface  Backwards compatible with all PD64008-based message based user interface  Backwards compatible with all PD64008-based message based user interface  Backwards compatible with all PD64008-based message based user interface  Backwards compatible with all PD64	IEEE 802.3af-2003	
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<ul> <li>Support for 4-pairs High power architecture (Enhanced Mode)</li> <li>Maskeable Interrupt</li> <li>Programmable port matrix (Enhanced mode)</li> <li>LED streaming (Enhanced) or driving (PoE+)</li> <li>Temperature sense/monitoring</li> <li>Capable of powering of up to 31W over 4-pairs</li> <li>Logical to physical port map</li> <li>User can receive interrupts on status or have automatic/direct LED driving</li> <li>Enables system monitoring</li> <li>Per port thermal protection, including PCB</li> </ul>	<ul> <li>Per-IC soft start mechanism</li> <li>System-wide inrush protection</li> <li>Internal voltages monitoring and auto reset mechanism (Power-On_Reset)</li> <li>Over-voltage and under-voltage protection/lockout</li> <li>Dynamic Power Management</li> <li>Emergency Power Management (Enhanced Mode)</li> <li>Support for 4-pairs High power architecture (Enhanced Mode)</li> <li>Maskeable Interrupt</li> <li>Programmable port matrix (Enhanced mode)</li> <li>LED streaming (Enhanced) or driving (PoE+)</li> </ul>	noises  Power management based on power allocation and priority map, on class value or on both, provides full flexibility and optimal power supply usage Prioritization of ports in case of power reduction Used for power supply failure conditions Capable of powering of up to 31W over 4-pairs Logical to physical port map User can receive interrupts on status or have automatic/direct LED driving Enables system monitoring

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