Product Overview

NCP1096: Power Over Ethernet(PoE) – Powered Device Interface Controller with integrated hot swap FET, IEEE 802.3bt

For complete documentation, see the data sheet.

Part of ON Semiconductor's family of IEEE.3bt, IEEE 802.3af, and/or IEEE 802.3at compliant solutions Power over Ethernet Powered Devices (PoE-PD), the NCP1096 supports the development of high power applications including connected lighting and USB Type C. The NCP1096 incorporates all necessary functions within a PoE system such as detection, classification and current limiting during the inrush phase.
Using an internal hot-swap FET, the NCP1096 provides an output power of up to 90 Watts. For improved energy efficiency, the NCP1096 offers Autoclass support which optimizes power allocation based on the PD type and classification.

Features

- IEEE 802.3bt, IEEE 802.3af, IEEE 802.3at compliant - Allows for up to 90 W of power - Guaranteed interoperability between PoE devices
- Part of ON Semiconductor's family of low-power solutions for PoE-PD
- 5-Event Physical Layer Classification
- Smart power budgeting using Autoclass support which allows the PSE to assign power to each PD efficiently
- Active bridge and hot-swap FET disable when Auxililary supply connected, increases power efficiency where auxiliary supply powers a PD
- Also available with external hot-swap FET for operation >71 W (NCP1095)

Applications

- Power over Ethernet Powered Devices (PoE-PD)
- Internet of Things (IoT)
- IEEE 802.3bt
- IEEE 802.3af
- IEEE 802.3at

End Products

- Digital Signage
- Satellite Data Networks
- Connected Lighting
- Video and VOIP Telephones
- Security Cameras

Part Electrical Specifications

Product	Pricing ($/Unit)	Compliance	Status	Topology	Phases	Control Mode	V_{CC} Min (V)	V_{CC} Max (V)	f_{SW} Typ (kHz)	Package Type
NCP1096PAG		Pb-free Halide free	Active				34.2	57		TSSOP-16 EP
NCP1096PAR2G		Pb-free Halide free	Active				34.2	57		TSSOP-16 EP

For more information please contact your local sales support at www.onsemi.com.

Created on: 8/8/2020