

Product Overview

NCP51510: $\pm 3A$ Sink/Source DDR Termination Regulator

For complete documentation, see the data sheet.



NCP51510 is a source/sink Double Data Rate (DDR) termination regulator specifically designed for low input voltage and low-noise systems where space is a key consideration. The NCP51510 maintains a fast transient response and only requires a minimum VTT load capacitance of 10 μ F for output stability. The NCP51510 supports remote sensing and all power requirements for DDR VTT bus termination. The NCP51510 can also be used in low-power chipsets and graphics processor cores that require dynamically adjustable output voltages. The NCP51510 is available in the thermally-efficient DFN10 Exposed Pad Package, and is rated both Green and Pb-Free.

Features

- Supports Loads Up to 3 A (Typ), Output is Overcurrent Protected
- DDRI, DDRII, DDRIII Source / Sink Currents
- Integrated MOSFETs with Thermal Shutdown Protection
- PGOOD Output Pin to Monitor Status of VTT Output Regulation
- SS Input Pin for Suspend Shutdown mode
- VRI Input Reference for Flexible Voltage Tracking
- VTTs Input for Remote Sensing (Kelvin Connection)
- Built-in Soft Start, Under Voltage Lockout

Applications

- DDR Memory Termination
- Desktop PCs, Notebooks, and Workstations
- Servers and Networking equipment
- Telecom/Datacom, GSM Base Station
- Graphics Processor Core Supplies

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	DDR Memory Type	I _{OUT} V _{TT} Max (A)	I _Q Typ (μ A)	V _{CC} Bias Min (V)	V _{CC} Bias Max (V)	Remote Sense	Power Good	Package Type
NCP51510MNTAG	0.4667	Pb-free Halide free non AEC-Q and PPAP	Active	DDR DDR2 DDR3 DDR3L DDR4	3	700	2.7	3.6	Yes	Yes	DFN-10
NCV51510MNTAG	0.7773	AEC Qualified PPAP Capable Pb-free Halide free	Active	DDR DDR2 DDR3 DDR3L DDR4	3	700	2.7	3.6	Yes	Yes	DFN-10
NCV51510MWTAG	0.7773	AEC Qualified PPAP Capable Pb-free Halide free	Active	DDR	3	700	2.7	3.6	Yes	Yes	DFN-10

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

Created on: 1/23/2021