

## Product Overview

### NCP145: LDO Regulator with Bias Rail and Very Low Dropout, 500 mA

For complete documentation, see the data sheet.

NCP145 is a 500 mA LDO equipped with NMOS pass transistor and a separate bias supply voltage (VBIAS). The device provides very stable, accurate output voltage with low noise suitable for space constrained, noise sensitive applications. In order to optimize performance for battery operated portable applications, the NCP145 features low IQ consumption. The XDFN4 1.2 mm x 1.2 mm package is optimized for use in space constrained applications.

#### Features

- Ultra-Low Dropout of Typ. 140mV
- Fixed Output Voltage options from 1.0V to 1.8V
- 140 mV typical dropout at the full 500 mA load.
- Guaranteed Output Current from 0mA to 500mA
- 0.5% Typical Output Voltage Accuracy
- Output Current in Excess of 500mA
- Output Active Discharge option available

#### Applications

- Portable and Battery Powered Equipment

#### Benefits

- Allows to save power and operates with very low Vin-Vout voltage.
- Excellent choice for low voltage Vcore applications
- minimizes the power loss across the regulator
- Very good choice for high current applications
- Perfect fit for POL applications

#### End Products

- Smartphones
- Tablets
- Cameras
- DVRs
- Camcorders

### Part Electrical Specifications

Product	Compliance	Status	Output	Polarity	V <sub>O</sub> (V)	I <sub>O</sub> Typ (A)	V <sub>I</sub> Min (V)	V <sub>I</sub> Max (V)	V <sub>DO</sub> Typ (V)	I <sub>q</sub> Typ (mA)	PSRR (dB)	Noise (μV <sub>rms</sub> )	Enable	Power Good	Package Type
NCP145AMX100TCG	Pb-free Halide free	Active	Single	Positive	1	0.5	1	5.5	0.14	0.08	80	40	Yes	No	XDFN-4
NCP145AMX105TCG	Pb-free Halide free	NEW	Single	Positive	1.05	0.5	1.05	5.5	0.14	0.08	80	40	Yes	No	XDFN-4
NCP145AMX120TCG	Pb-free Halide free	Active	Single	Positive	1.2	0.5	1.2	5.5	0.14	0.08	80	40	Yes	No	XDFN-4

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